ENVIRONMENTAL MONITORING REPORT
Report, Tables, and Figures

Summer 2007 through Spring 2008

NW Natural
Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

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HAI Project No. 2708

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1.0 INTRODUCTION

At the request of NW Natural, Hahn and Associates, Inc. (HAI) has prepared this Environmental Monitoring Report summarizing the results of routine monitoring activities that have occurred at the NW Natural, Gasco facility, located at 7900 St. Helens Road in Portland, Oregon and by NW Natural at the adjacent Siltronic Corporation property located at 7200 NW Front Avenue (Figures 1 and 2) during summer of 2007 through the spring of 2008. In addition to summarizing routine monitoring activities, this report also summarizes Segment 2 shoreline monitoring well installation activities that occurred at the Gasco property during this timeframe. Specific on-going environmental monitoring and well installation activities that occurred during summer 2007 to spring 2008 time-frame include:

- installation of monitoring wells MW-1-55, MW-2-104, MW-21-12, MW-21-75, MW-21-115, and MW-21-166;
- groundwater quality and elevation data collection;
- dense non-aqueous phase liquid (DNAPL) recovery system performance monitoring.
- DNAPL measurement in monitoring wells

2.0 SEGMENT 2 MONITORING WELL INSTALLATION

NW Natural retained Hahn and Associates, Inc. (HAI) to conduct Segment 2 shoreline monitoring well installation activities at the Gasco property. The well installation activities were conducted for additional upland groundwater characterization for the purposes of source control evaluation near the Gasco shoreline in Segment 2. The Segment 2 shoreline area corresponds to that portion of the shoreline north (downstream) of the MW-3 monitoring well cluster (Figure 2).

All well installation work was conducted in accordance with the Anchor Environmental, LLC (Anchor) *Segment 2 Shoreline Monitoring Wells Plan,*

Gasco Site, Portland, Oregon[1] approved by DEQ on June 25, 2007. The purpose of the additional monitoring well installations was to expand the vertical and lateral coverage of the groundwater monitoring network in the shallow and deep alluvial water bearing zone (WBZ) along the downstream end of the shoreline (the portion of shoreline designated as Shoreline Segment 2 with regard to source control evaluation and implementation).

2.1 Field Activities

The well installation activities used rotosonic drilling techniques to provide continuous soil cores for sample collection, DNAPL field screening, and monitoring well installation. Drilling activities commenced at the site on June 25, 2007 and ended July 10, 2007. The borings and monitoring wells were installed by Boart Longyear of Tualatin, Oregon with a rotosonic (SR-118) drill rig under the supervision of an HAI or Anchor geologist. Installation followed the procedures and protocols presented in the Anchor work plan, *"Segment 2 Shoreline Monitoring Well Plan, Gasco Site, Portland, Oregon",* unless otherwise noted.

An Oregon-bonded and licensed monitoring well constructor performed all boring installation work. The boring installations were completed in accordance with the Oregon Groundwater Law (Oregon Revised Statute (ORS) Chapter 537) and the Rules for Construction and Maintenance of Monitoring Wells and Other Holes in Oregon (Oregon Administrative Rules (OAR) Chapter 690, Division 240).

2.1.1 Monitoring Well Installation

In total, seven monitoring wells within three clustered locations (MW-1, MW-2, and MW-21) were installed at the site ranging from depths of 14 to 168 feet below ground surface (bgs). Specifically, monitoring wells MW-1-55 and MW-1-82 were installed at the northern portion of the Segment 2 shoreline adjacent to the existing MW-1-22 well location; monitoring well MW-2-104 was installed in the middle section of the Segment 2 shoreline adjacent to the existing MW-2-32 and MW-2-61 well locations; and an entirely new well cluster (MW-21) comprised of wells MW-21-12, MW-21-75,

[1] Anchor Environmental, LLC, (2007). *"Proposal for Segment 2 Shoreline Monitoring Wells, Gasco Site, Portland, Oregon"* June 22, 2007.

MW-21-115, and MW-21-166 was installed in the FAMM basin near the southern portion of the Segment 2 shoreline (Figure 2).

All seven wells were constructed with a 2-foot stainless steel sump at the base of the well. A rubber "DNAPL funnel" was attached immediately above the sump within the borehole annulus to promote DNAPL incorporation into the sump, should DNAPL, if present, enter the sandpack and migrate vertically. Above the sump and DNAPL funnel on each well is a stainless steel wire wrap screen with a 0.02-inch slot size and a 10-20 silica sand pack extending 2 to 3 feet above the top of the screen. A 2 to 3 foot thick bentonite plug is immediately above the sand pack, above which are a cement-bentonite grout and schedule 80 PVC blank casing extending to the ground surface. All wells, with exception of MW-21-12 were constructed with a 10-foot section of screen. Due to the shallow nature of well MW-12-12, this well was constructed with a 5-foot section of screen to allow sufficient room for annular seal placement.

A Table summarizing well construction details for all monitoring wells at the site, including the new Segment 2 shoreline wells, is included in Appendix A, as are boring and well development logs for the seven new monitoring wells.

2.1.2 Soil Core Screening and Sampling

During installation activities, soil core was field screened for the presence of dense non-aqueous phase liquid (DNAPL), and other field screening evidence of contamination. Soil core screening consisted of various methods of field identification tests including an ultraviolet box, sudan dye shaker kits, sudan dye lens spray, NAPL dye liner strip, as well as visual, olfactory, and sheen tests. Results of the field screening are summarized on Table 1. As indicated on Table 1 and included on boring logs (Appendix A), the field screening identified the following indications of contamination at the following well locations:

MW-1-82: No direct visual or field screening evidence of tar or oil was identified. An odor (lampblack-like) was noted within the surficial fill from 8 to 26 feet bgs.

MW-2-104: No direct visual identification of tar or oil was identified, ultraviolet light suggested possible patchy zones of NAPL between 5 and 13 feet bgs within the fill. A sheen (by sheen test) was noted in the fill to 30 feet

bgs. A white crystalline solid with a strong naphthalene odor and zone of prussian blue discoloration was present between 6.5 to 7 feet bgs in the fill (sampled).

MW-21-12 through -166: Oily sheen and blebs with a gasoline-type odor were noted in the surficial fill from 8 to 12 feet bgs at MW-21-12 and MW-21-75, with a sheen noted at MW-21-12 between 4 and 12 feet bgs.

Because significant data already exist in the area, soil sample collection activities for the purpose of chemical testing were not included as part of the Segment 2 well installation work plan. However, because field screening indicated the presence of a zone containing a strong naphthalene odor with a white powdery substance and prussian blue staining present from 6.5 to 7 feet bgs at the MW-2-104 soil boring, a sample of this soil was collected for characterization purposes. The sample was collected by hand by the Anchor geologist into new glass sample jars and was analyzed for total metals (by EPA 6010B/7471A/6020), VOCS (by EPA 8260), SVOCs (8270C), and total cyanide (by EPA 9012A). Results of this testing indicated a total cyanide concentration of 479 ppm and a naphthalene concentration of 20,000 ppm. Other contaminants, typical of the previous site characterization results, were also identified. The laboratory report and associated validation summary are included within Appendix B.

Soil samples for laboratory grain size analyses were collected at various depth intervals from the MW-1-82, MW-2-104, and the MW-21-166 well locations. Samples were collected at discrete intervals of approximately 6 inches of soil core per sample container, by using a stainless steel spoon and 8 oz glass jars. Upon sample collection, the samples were shipped to Columbia Analytical Services (CAS) in Kelso, WA, for particle size determination by ASTM D-721/422. Results of the grain size analyses are summarized within Appendix C, along with the laboratory report and chain-of-custody documentation for these analyses.

2.1.3 Monitoring Well Development

Activities related to the development of the sand pack and surrounding formation of all new monitoring wells commenced on July 6, 2007 and were completed on July 17, 2007. Groundwater was brought to the surface using a Waterra Hydrolift inertia pump with a stainless steel check valve at the end of the tubing. The Waterra Hydrolift, when pumped at a rapid rate, promotes

surging from the pumping action, which removes suspended solids in the water column associated with monitoring well installation. Criteria recorded during development activities were conductivity, temperature, pH, oxygen reduction potential (ORP), dissolved oxygen (DO), and turbidity. Well development continued until relatively clear water was produced, criteria indicated stable conditions, and at least ten well casing volumes were removed. Development field logs are included within Appendix A.

2.1.4 Monitoring Well Survey

Chase, Jones and Associates, Inc., an Oregon registered professional land surveyor, based in Portland, Oregon, conducted monitoring well surveying activities on August 8, 2007. Survey measurements include northing, easting, ground surface elevation, and top of casing elevation (from the north side of the casing). All elevations were measured relative the City of Portland datum, while northing and easting measurements were measured using the State Plane Coordinate System (NAD 83). Measurements are provided on the monitoring well construction logs included as Appendix A.

2.2 Investigation-Derived Waste Management

Soils derived from the monitoring well installation were placed into two 10-yard drop boxes for characterization and disposal. Disposal characterization was completed and a request for concurrence with planned disposal was transmitted to the DEQ in correspondence dated January 22, 2008 (Rob Ede to Dana Bayuk). DEQ concurrence was received in correspondence dated February 29, 2008 (Dana Bayuk to Jeff Payson), and the soils were transported to the Waste Management, Inc. Subtitle D permitted landfill in Hillsboro, Oregon in April 2008.

Decontamination water and monitoring well development water were treated through the on-site granulated activated carbon system (GAC) and discharged under permit to City of Portland sanitary sewer.

2.3 NAPL Evaluation

Physical evaluation for the presence or absence of light non-aqueous phase liquid (LNAPL) and DNAPL was conducted at all Segment 2 monitoring wells upon installation and during subsequent development and groundwater

monitoring events. The evaluation consisted of using a Waterra HS-1 Hydrocarbon Interface Sensor probe to identify and measure the presence of LNAPL and/or DNAPL within the well – either at the water surface, mixed into the water column, or present at the base of the well within the sump. No LNAPL or DNAPL have to date been identified within any of the Segment 2 monitoring wells.

3.0 GROUNDWATER MONITORING ACTIVITIES

3.1 Water Level Monitoring

Static water levels were collected from monitoring wells at the site on June 21, 2007, September 6, 2007, and April 17, 2008. All monitoring well measurements were collected with an electric water level indicator (conductive probe). A summary of all well elevations collected to date is included in Table 2.

Contoured groundwater elevation maps, depicting the Surficial Fill Water Bearing Zone (WBZ), as well as the intermediate and deep intervals of the Alluvial WBZ for the summer 2007, fall 2007, and spring 2008 monitoring events, are provided as Figures 3 through 14. Additionally, groundwater elevation hydrographs for all wells at the Gasco site are provided in Appendix D.

3.1.1 Surficial Fill Water Bearing Zone

As depicted in Figures 3, 7, and 11, the interpreted groundwater flow direction within the Surficial Fill WBZ was found to be to the north/northeast towards the Willamette River, with the following overall calculated hydraulic gradients (measured between MW-10-25 and MW-3-26):

- June 21, 2007: 0.018
- September 6, 2007: 0.021
- April 17, 2008: 0.017

3.1.2 Alluvial Water Bearing Zone

As depicted in Figures 4, 8, and 12, overall groundwater flow direction within the upper Alluvial WBZ (based on wells screened shallower than 80 feet bgs) was north-northeast towards the Willamette River, with a flattening of the gradient within 300 feet of the riverbank. The following hydraulic gradients (toward the river) were calculated for the central portion of the site (measured between MW-15-66 and MW-8-56):

- June 21, 2007: 0.021
- September 6, 2007: 0.021
- April 17, 2008: 0.024

The following hydraulic gradients were calculated along the shoreline for the portion of the site located within 300 feet of the river in June 2007 and April 2008 (measured between MW-8-56 and MW-4-57):

- June 21, 2007: 0.00076 (toward the river)
- April 17, 2008: 0.00164 (toward the river)
- September 6, 2007: 0.00136 (away from the river)

The preceding very low gradients toward or away from the river within the alluvial WBZ at the near shore portion of the site are typical of historical gradients.

As depicted in Figures 5, 9, and 13, overall groundwater flow direction within the intermediate depth Alluvial WBZ (based on wells screened between 80 to 125 feet bgs) was found to be to the northeast towards the Willamette River, with the following average calculated hydraulic gradients (as measured between wells MW-14-110 and MW-4-101):

- June 21, 2007: 0.0098
- September 6, 2007: 0.0084
- April 17, 2008: 0.01

3.1.3 Vertical Gradients

Groundwater elevation data collected on June 21, 2007 indicates a downward hydraulic potential between the Surficial Fill WBZ and the underlying Alluvial WBZ across the site, with the downward vertical gradient (potential) ranging from a low of 0.0073 (wells MW-5-32 to MW-5-100) to a high of 0.4115 (MW-8-29 to MW-8-56). Additionally, a slight upward hydraulic gradient of -0.0008 was present between the intermediate Alluvial WBZ (wells screened 80 to 125 feet bgs) well MW-5-100 and the lower Alluvial WBZ (wells screened lower than 125 feet bgs) well MW-5-175. Further, a slight upward hydraulic gradient of -0.0007 was present between the intermediate Alluvial WBZ (wells screened 80 to 125 feet bgs) well MW-19-125 and the lower Alluvial WBZ (wells screened lower than 125 feet bgs) well MW-19-180.

Groundwater elevation data collected on September 6, 2007 indicates a downward hydraulic potential between the Surficial Fill WBZ and the underlying Alluvial WBZ across the site, with the downward vertical gradient (potential) ranging from a low of 0.0054 (wells MW-5-32 to MW-5-100) to a high of 0.4759 (MW-8-29 to MW-8-56). Additionally, slight upward hydraulic gradients were present between the upper (wells screened to 80 feet bgs) and intermediate Alluvial WBZ (wells screened 80 to 125 feet bgs) and intermediate and lower Alluvial WBZ (wells screened lower than 125 feet bgs) as calculated:

<u>Upper and Intermediate Alluvial WBZ</u>

- MW-1-55 and MW-1-82: -0.0063
- MW-4-57 and MW-4-101: -0.0037
- MW-16-65 and MW-16-125: -0.0027
- MW-21-75 and MW-21-115: -0.0025

<u>Intermediate and Lower Alluvial WBZ</u>

- MW-5-100 and MW-5-175: -0.0019
- MW-19-125 and MW-180: -0.0025

- MW-21-115 and MW-21-165: -0.0028

Groundwater elevation data collected on April 17, 2008 indicates a downward hydraulic potential between the Surficial Fill WBZ and the underlying Alluvial WBZ across the site, with the downward vertical gradient (potential) ranging from a low of 0.0050 (wells MW-4-35 to MW-4-57) to a high of 0.4067 (MW-8-29 to MW-8-56). Additionally, upward hydraulic gradients were present between the upper Alluvial WBZ (wells screened to 80 feet bgs), the upper and intermediate Alluvial WBZ (wells screened 80 to 125 feet bgs), and the intermediate to lower Alluvial WBZ (wells screened lower than 125 feet bgs) at the following well locations:

<u>Upper Alluvial WBZ</u>

- MW-15-50 and MW-15-66: -0.0781

<u>Upper and Intermediate Alluvial WBZ:</u>

- MW-1-55 and MW-1-82: -0.0063
- MW-2-61 and MW-2-104: -0.002
- MW-21-75 and MW-21-115: -0.0013

<u>Intermediate and Lower Alluvial WBZ</u>

- MW-5-100 and MW-5-175: -0.0011
- MW-19-125 and MW-19-180: -0.0007
- MW-21-115 and MW-21-165: -0.002

In summary, the preceding groundwater elevation data and gradient calculations indicate that groundwater flow direction, as well as horizontal and vertical gradients measured during the summer and fall 2007 through spring 2008 monitoring events, were similar to previous flow directions and gradients measured at the site (Tables 2 and 3).

3.2 Groundwater Sample Collection

The summer 2007 groundwater monitoring event at Gasco and in select wells at the adjacent Siltronic Corporation (Siltronic) property was initiated on June 22, 2007 and was completed on July 31, 2007. Thirty-two wells were sampled during the summer 2007 monitoring event. The spring 2008 groundwater monitoring event initiated on May 12, 2008 and was completed on June 4, 2008. Forty wells were sampled during the spring 2008 groundwater monitoring event. All groundwater sampling activities were completed in accordance with the DEQ-approved Groundwater Monitoring Program dated June 1, 2007.

For WS-series wells sampled at Siltronic, Maul Foster and Alongi (MFA) conducted the purging (low flow protocols) using stabilization criteria as specified within the Siltronic Corporation site sampling plan.

For selected RP-series wells sampled at Siltronic, AMEC Earth and Environment conducted the purging (low flow protocols) using stabilization criteria as specified within the Rhone-Poulenc/Aventis site sampling plan.

Low-flow purging at the Gasco property was conducted for the collection of a majority of samples as per procedures described within a September 2003 Standard Operating Procedure document, approved by the DEQ in correspondence dated September 17, 2003 for implementation at the Gasco site. In instances where greater than acceptable drawdown occurred during purging (based on low-flow protocols), then standard purge volumes and stabilization protocols were followed (e.g. 3 to 5 well volume purging). Standard purging was conducted at monitoring wells with DNAPL at the base of the well, which include MW-10-25, MW-11-32, MW-16-45, MW-18-30, and PW-01 in an effort to avoid DNAPL incorporation into sample containers and to prevent damage from DNAPL contact to the in-line water quality meter used for low flow protocols.

Low-flow purging procedures are designed to minimize turbidity and suspended solids in samples allowing for collection of representative samples. During the summer 2007 and spring 2008 sampling events the Waterra Hydrolift inertia pump was used for monitoring well purging and groundwater sample collection according to the approved *Groundwater Monitoring Program* letter to the DEQ, dated June 1, 2007. The pump operates with dedicated polyethylene tubing and a stainless steel check

valve positioned within the screened interval of the monitoring well. By implementing the Waterra pumping system with dedicated tubing and check valve, cross contamination is eliminated with regard to an improper decontamination.

Stabilization parameter measurements were collected during low flow purging and sampling with use of a flow-through cell and an in-line multi-probe meter, at approximate 3 to 5 minute intervals. Water levels within each well were also measured during the purging process to monitor drawdown. Purging continued until all parameters achieved the minimum stability criteria for three consecutive measurements, which was achieved at all well locations. Parameter measurements recorded during purging were: time, purge volume, water level, temperature, specific conductivity, dissolved oxygen (DO), pH, oxygen reduction potential (ORP), and turbidity. Stabilization criteria are established as readings within 10% for DO, ORP, and turbidity; within 3% for conductivity; within 0.1 pH units; and within 10 millivolts for ORP. At those locations where drawdown prevented appropriate low-flow sampling, purging continued until between 3 and 5 casing volumes of water were removed and parameters were stable. In cases where wells were purged to dryness, samples were collected as soon as sufficient recharge occurred.

Field data sheets that document sampling activities at each monitoring well during summer 2007 and spring 2008 (well purging and groundwater quality indicator measurements) monitoring events are included in Appendices E and F, respectively. However, MFA field sampling data sheets were not readily available for insertion into this report for the summer 2007 sampling event.

3.3 Investigative Derived Waste – Groundwater Monitoring

All purge water on the Siltronic property during the summer 2007 and spring 2008 events was managed by MFA.

The Gasco purge water generated from the summer 2007 sampling event was placed into a 625-gallon AST then processed through the on site granular activated carbon system (GAC) and discharged under permit to City of Portland sanitary sewer. During the spring 2008 Gasco sampling event, purge water was managed in the same fashion, with the exception of groundwater monitoring wells located within the spent trichloroethene (TCE)

contaminated media management area (CMMA). Purge water generated from wells located within the spent TCE CMMA was placed into the on site spent TCE CMMA water management area consisting of a 625-gallon AST with secondary containment, pending characterization and completion of a waste determination. Purge water from wells managed in this manner include the MW-5 well cluster, the MW-19 well cluster, and well MW-20-120. Characterization results and a request for concurrence for disposal of water from within the spent TCE CMMA as a non hazardous waste have been included in a letter dated to DEQ dated December 3, 2008 (Rob Ede to Dana Bayuk).

3.4 Chemical Analyses of Groundwater Samples

All groundwater samples collected as part of the summer 2007 monitoring event were shipped to Test America Laboratories in Portland, Oregon while all samples collected during the spring 2008 groundwater monitoring event were shipped to Columbia Analytical Services, Inc. (CAS) in Kelso, Washington. All samples were analyzed in accordance with specifications provided in the approved groundwater monitoring plan.

Historical analytical results from the Siltronic and Gasco site monitoring well networks, including validated results of the summer 2007 and spring 2008 monitoring events, are summarized for the Siltronic property in Tables 4a through 4f and for the Gasco property as Tables 5a through 5f. The laboratory reports and chain-of-custody documentation for the spring 2007 and summer 2008 sampling events are included (CD format) in Appendices G and H, respectively.

Laboratory results underwent an independent review and validation by Environmental Standards, Inc. (ESI) of Valley Forge, Pennsylvania. Data were examined to determine usability of the analytical results and compliance relative to the general requirements specified in the published analytical methods. Validation was also completed in accordance with guidance from the U.S. EPA Contracts Laboratory Program National Functional Guidelines for Organic Data Review (EPA-540-R-99-008) and Inorganic Data Review (EPA-540-R-94-013). Validation Reports are included on the same CDs containing the laboratory analytical reports (Appendices G and H).

Qualifier codes as assigned during the validation, have been placed on the data summary tables (Tables 4a through 4f and Tables 5a through 5f) to enable the user to assess the qualitative and quantitative reliability of any result.

Graphs showing benzene and total polynuclear aromatic hydrocarbon (PAH) concentrations in groundwater through time at all well locations sampled are included in Appendices I and J, respectively.

A notable increase in total PAHs were identified in monitoring wells MW-13-30 and MW-16-125 during the 2008 sampling. The increase in PAHs at the MW-13-30 (surficial fill) and MW-16-125 (alluvial) well locations is attributable to DNAPL presence in the sump of each these monitoring wells that was not identified as present in previous sampling events. DNAPL entrance into a well with a subsequent spike or erratic trend in PAH concentrations is typical due to the occasional inclusion of a DNAPL bleb into the sample. In the case of well MW-16-125, it appears probable that a well seal breach may have resulted in known shallow DNAPL at this area to enter the well bore and migrate vertically into the well sump. This well is scheduled for abandonment and replacement as soon as ongoing bentonite grout compatibility testing is completed and approved by the DEQ and Water Resources Department (WRD). In the case of surficial fill WBZ well MW-13-30, DNAPL was previously known to exist in the surficial fill in the area of this well, but not within the well. Conversion of this well from groundwater monitoring well to dedicated DNAPL extraction well similar to nearby well MW-6-32 is presently being planned.

All other results were generally consistent with previously identified results or trends.

4.0 FREE PRODUCT RECOVERY SYSTEM

As described in a January 2001 DNAPL Recovery System Report, DNAPL recovery via a pneumatic pump system was initiated at well MW-6-32 in August 2000. From August 10, 2000 through May 9, 2001, the DNAPL recovery system was set to cycle on every 8 hours for 5 minutes of pumping, at an approximate pumping rate of between 0.05 and 0.1 gallon per minute (head dependent). Due to several problems with clogs within the product line, a screen was placed over the pump intake on April 27, 2001. This

screen is meant to prevent large particulates or clumps of more viscous DNAPL from entering the pump and tubing, thereby preventing the future occurrence of clogging. At the time of screen placement, approximately 7 feet of DNAPL were measured within the base of the well, consistent with historical DNAPL thicknesses (Figure 15). Subsequent pump removal and repairs have been conducted in February and December 2005, at which time DNAPL thicknesses of approximately 2 feet (February) and 13 feet (December) were measured. Variations in product thickness may be attributable to the timing of the measurement relative to the most recent pumping cycle.

A large decrease in recovery rate was noted subsequent to the April 27, 2001 screen installation, with the new recovery rate measured at approximately 0.025 gallons per minute (gpm). Based on the preceding, in May 2001 the pumping cycle duration was re-set for 10 minutes, with recovery of product found to occur throughout the entire cycle duration. Due to the slow pumping rate, and due to the observed DNAPL recovery for the duration of each cycle, on May 9, 2001 the number of cycles per day was increased from 3 (every 8 hours) to 6 (every 4 hours). In October 2003, the number of cycles a day was further increased to 12 (every 2 hours) in an effort to increase an observed decline in recovery rates. However, due to a significant increase in gas usage with no corresponding increase in DNAPL recovery, the number of cycles per day was dropped back to 6 in May 2005.

The recovery system currently receives weekly inspections to ensure it remains charged with nitrogen and is otherwise operational. DNAPL recovery volume is determined during each routine check of the recovery system by physically measuring the depth of liquid in the product storage tank with the use of a calibrated (in gallons) gauging staff. As of July 7, 2008, approximately 1,077 gallons of liquid, primarily composed of DNAPL (estimated at between 60% and 90%, based on previous observations), have been recovered. Table 6 provides a summary of pump settings and volume of DNAPL recovered through time, while a chart depicting cumulative product recovery from the well is included as Figure 16.

Conversion of nearby monitoring well MW-13-30, which currently contains between approximately 6 feet of DNAPL (see Section 5.0), from groundwater monitoring to dedicated DNAPL extraction is presently occurring. It is planned that DNAPL from MW-13-30 will be extracted using a similar pump

and controller as established at MW-6-32, and will be plumbed to the same above ground storage tank for containment pending collection and recycling.

5.0 FREE PRODUCT MEASURMENT IN EXISTING WELLS

In addition to the above-described DNAPL recovery activities, an evaluation to ascertain the presence or absence of light or dense free phase liquid product within all wells at the Gasco site was completed during the summer and fall 2007, and the spring 2008 groundwater monitoring events. The evaluation for light non-aqueous phase liquid (LNAPL) and for DNAPL was conducted by lowering a Waterra HS-1 Hydrocarbon Interface Sensor probe to the base of each well. The probe emits a steady signal upon encountering petroleum hydrocarbon product. Results of the above-described monitoring for the June 21, 2007 event indicated the presence of DNAPL in well MW-10-25 (1.9 feet), MW-11-32 (1.2 feet), MW-13-31 (6.0 feet), MW-16-45 (7.10 feet), MW-18-30 (2.7 feet), and PW-01 (8.7 feet). No Product (DNAPL or LNAPL) has been identified within other wells at the Gasco site during the June 2007 event.

The September 6, 2007 event indicated the presence of DNAPL in well MW-10-25 (2.2 feet), MW-11-32 (1.25 feet), MW-13-31 (5.25 feet), MW-16-45 (6.2 feet), and PW-01 (8.1 feet). No Product (DNAPL or LNAPL) has been identified within other wells at the Gasco site during the September 2007 event.

The April 17, 2008 event indicated the presence of DNAPL in well MW-10-25 (1.85 feet), MW-11-32 (1.3 feet), MW-13-31 (6.5 feet), MW-16-45 (6.0 feet), MW-18-30 (1.3 feet), and PW-01 (9.3 feet). Additionally, DNAPL was identified at the base of shoreline monitoring well MW-16-125 and MW-13-61R, however no measurable amount was recorded at each of the respective well locations (oil blebs on the interface probe). The presence of DNAPL at these locations is attributed to a likely borehole sealant breach. Abandonment of these wells will occur as soon as approval of the bentonite-organoclay grout mixture (already tested and found effective and compatable with site DNAPL) is approved by DEQ and the WRD.

6.0 CURRENT MONITORING SCHEDULE

Routine environmental monitoring activities will continue during the third and fourth quarter of 2008 in accordance with the DEQ approved groundwater monitoring plan dated August 29, 2008. As part of this plan, new wells are to be sampled on a quarterly basis until four consecutive quarters of data are available. New Segment 2 wells will meet the preceding criteria after completion of the first quarter 2009 sampling event, while NWN-series wells installed at the Siltronic property (first sampled third quarter 2008) will meet the preceding criteria after the second quarter 2009 sampling event.

In addition to the collection of ongoing routine data, the currently approved monitoring plan is designed to provide for the collection of four quarters of groundwater data at all new monitoring wells in order to provide a baseline data set for these locations prior to incorporation into the routine groundwater monitoring program. Subsequent to the first quarter 2009 monitoring event, all Segment 2 monitoring wells will have a complete baseline data set comprising of a minimum of 4 consecutive quarters of data. NWN-series wells installed at the Siltronic property as part of NW Natural's RI activities on that property in June 2008 (first sampled third quarter 2008) will have a complete baseline data set comprising of a minimum of 4 consecutive quarters of data.

7.0 LIMITATIONS AND SIGNATURES

The information presented in this report was collected, analyzed, and interpreted following the standards of care, skill, and diligence ordinarily provided by a professional in the performance of similar services as of the time the services were performed. This report and the conclusions and/or recommendations contained in it are based solely upon research and/or observations, and physical sampling and analytical activities, if any, that were conducted at the Client's request.

The information presented in this report is based only upon activities witnessed by HAI or its contractors, and/or upon information provided to HAI by the Client and/or its contractors. The analytical data presented in this report, if any, document only the concentrations of the target analytes in the particular sample, and not the property as a whole.

Unless otherwise specified in writing, this report has been prepared solely for the use by the Client and for use only in connection with the evaluation of the subject property. Any other use by the Client or any use by any other person shall be at the user's sole risk, and HAI shall have neither liability nor responsibility with respect to such use.

Hahn and Associates, Inc.

Prepared by:	Reviewed by:
-FOR-	
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Date 2/19/2009

REGISTERED PROFESSIONAL
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GEOLOGIST

8.0 GLOSSARY OF ABBREVIATIONS

BTEX	benzene, toluene, ethylbenzene, xylene
bgs	below ground surface
CAS	Columbia Analytical Services, Inc
CMMA	contaminated media management area
DEQ	Oregon Department of Environmental Quality
DNAPL	dense non-aqueous phase liquid
DO	dissolved oxygen
EPA	U.S. Environmental Protection Agency
GAC	granular activated carbon
gpm	gallons per minute
HAI	Hahn and Associates, Inc.
LNAPL	light non-aqueous phase liquid
MFA	Maul Foster and Alongi
MGP	manufactured gas plant
OAR	Oregon Administrative Rule
ORP	oxygen reduction potential
ORS	Oregon Revised Statute
PAHs	polynuclear aromatic hydrocarbons
QA/QC	quality assurance / quality control
RI/FS	Remedial Investigation / Feasibility Study
SVOC	semivolatile organic hydrocarbons
TCE	trichloroethene
WBZ	water-bearing zone
µg/l	micrograms per liter

TABLES

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
Upland Borings														
GS-00	8-Nov-06	Roto-Sonic	85	0 - 1	no	no	no	no	no	no	negative	-	negative	-
				1 - 10	no	no	no	no	no	no	negative	-	negative	-
				10 - 16	**mild**	no	no	no	no	no	negative	-	negative	-
				16 - 19.5	**mild**	no	no	no	no	no	negative	negative	negative	negative
				19.5 - 23	no	no	no	no	no	no	negative	-	negative	-
				23 - 28	**strong**	**yes**	no	no	no	no	negative	negative	negative	negative
				28 - 31.5	no	no	no	no	no	no	negative	-	negative	-
				31.5 - 34.5	no	no	no	no	no	no	negative	-	negative	-
				34.5 - 38	no	no	no	no	no	no	negative	-	negative	-
				38 - 39	**mild**	no	no	no	no	no	negative	-	negative	-
				39 - 41.5	**mild**	no	no	no	no	no	negative	-	negative	-
				41.5 - 45	**mild**	no	no	no	no	no	negative	-	negative	-
				45 - 48	**mild**	no	no	no	no	no	negative	-	negative	-
				48 - 57	**mild**	no	no	no	no	no	negative	negative	negative	negative
				57 - 58	**mild**	no	no	no	no	no	negative	-	negative	-
				58 - 61.5	no	no	no	no	no	no	negative	-	negative	-
				61.5 - 64	no	no	no	no	no	no	negative	-	negative	-
				64 - 67	no	no	no	no	no	no	negative	-	negative	-
				67 - 68	no	no	no	no	no	no	negative	-	negative	-
				68 - 73	no	no	no	no	no	no	negative	-	negative	-
				73 - 76.5	no	no	no	no	no	no	negative	-	negative	-
				76.5 - 80	no	no	no	no	no	no	negative	-	negative	-
				80 - 82.5	no	no	no	no	no	no	negative	-	negative	-
				82.5 - 85	no	no	no	no	no	no	negative	-	negative	-
MW-18	26-Feb-07	Roto-Sonic	230	0 - 3	**mild**	**yes**	no	no	**yes**	no	**Positive**	**Positive**	-	negative
				3 - 6	**strong**	**yes**	**Oily tarry cobble&silt**	no	**yes**	no	**Positive**	**Positive**	-	negative
				6 - 8	**strong**	**yes**	**as above**	no	**yes**	no	**Positive**	-	-	negative
				8 - 10	**strong**	**yes**	**as above**	no	**yes**	no	**Positive**	-	-	negative
				10 - 11	**strong**	**yes**	**as above**	no	**yes**	no	**Positive**	**Positive**	-	negative
				11 - 13	**strong**	**yes**	**as above**	no	**yes**	no	**Positive**	-	-	negative
				13 - 14	**strong**	**yes**	**as above**	no	**yes**	no	**Positive**	**Positive**	-	negative
				14 - 15	**strong**	**yes**	**as above**	no	**yes**	no	**Positive**	**Positive**	-	negative
				15 - 17	**strong**	**yes**	**as above**	no	**yes**	no	**Positive**	**Positive**	-	negative
				17 - 19	**strong**	**yes**	**as above**	no	**yes**	no	**Positive**	**Positive**	-	negative
				19 - 21	**strong**	**yes**	**as above**	no	**yes**	no	**Positive**	**Positive**	-	negative
				21 - 23	**strong**	**yes**	**as above**	no	no	no	**Positive**	-	-	negative
				23 - 24	**strong**	**yes**	**as above**	no	no	no	**Positive**	-	-	negative
				24 - 26.5	**strong**	**yes**	**as above**	no	no	no	**Positive**	**Positive**	-	negative
				26.5 - 28	**strong**	**yes**	**as above**	no	no	no	**Positive**	-	-	negative
				28 - 30	**strong**	**yes**	**as above**	no	no	no	**Positive**	-	-	negative
				30 - 32	**strong**	**yes**	**as above**	no	no	no	**Positive**	-	-	negative
				32 - 34	**strong**	**yes**	**as above to 33'**	**yes, below 33'**	no	no	**Positive**	**Positive**	-	negative
				34 - 36	**strong**	**yes**	no	**yes**	no	no	**Positive**	-	-	negative
				36 - 38	**strong**	**yes**	no	**yes**	no	no	**Positive**	**Positive**	-	negative
				38 - 40	**strong**	**yes**	no	**yes**	no	no	**Positive**	**Positive**	-	negative
				40 - 42.5	**strong**	**yes**	no	**yes**	no	no	**Positive**	-	-	negative
				42.5 - 45.5	**strong**	**yes**	no	**yes, above 44'**	no	no	**Positive**	**Positive**	-	negative
				45.5 - 47	**strong**	**yes**	**Blebs**	no	no	no	**Positive**	-	-	negative
				47 - 50	**strong**	**yes**	**Blebs**	no	no	no	**Positive**	**Positive**	-	negative
				50 - 53	**strong**	**yes**	no	no	no	no	**Positive**	**Positive**	-	negative
				53 - 56	**mild**	**yes**	no	no	no	no	**Positive**	-	-	negative
				56 - 61.5	**mild**	**yes**	no	no	no	no	negative	negative	-	negative
				61.5 - 68	**mild**	**yes**	no	no	no	no	negative	negative	-	negative
				68 - 75	**mild[3]**	no	no	no	no	no	negative	negative	-	negative
				75 - 76.5	**mild[3]**	no	no	no	no	no	negative	-	-	negative
				76.5 - 80	no	no	no	no	no	no	negative	negative	-	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
MW-18 continued	26-Feb-07	Roto-Sonic	230	80 - 83	**mild**	**yes**	no	no	no	no	negative	negative	-	negative
				83 - 86	no	no	no	no	no	no	negative	-	-	negative
				86 - 89	no	no	no	no	no	no	negative	-	-	negative
				89 - 91	no	no	no	no	no	no	negative	-	-	negative
				91 - 93	no	no	no	no	no	no	negative	negative	-	negative
				93 - 96	no	no	no	no	no	no	negative	-	-	negative
				96 - 98	no	no	no	no	no	no	negative	negative	-	negative
				98 - 100.5	no	no	no	no	no	no	negative	-	-	negative
				100.5 - 103.5	no	no	no	no	no	no	negative	-	-	negative
				103.5 - 106	no	no	no	no	no	no	negative	negative	-	negative
				106 - 108.5	no	no	no	no	no	no	negative	-	-	negative
				108.5 - 111	no	no	no	no	no	no	negative	-	-	negative
				111 - 113.5	no	no	no	no	no	no	negative	-	-	negative
				113.5 - 116	no	no	no	no	no	no	negative	negative	-	negative
				116 - 120	no	no	no	no	no	no	negative	-	-	negative
				120 - 123	no	no	no	no	no	no	negative	-	-	negative
				123 - 126	no	no	no	no	no	no	negative	-	-	negative
				126 - 129	no	no	no	no	no	no	negative	negative	-	negative
				129 - 132	no	no	no	no	no	no	negative	-	-	negative
				132 - 134	no	no	no	no	no	no	negative	-	-	negative
				134 - 137	no	no	no	no	no	no	negative	-	-	negative
				137 - 140	no	no	no	no	no	no	negative	negative	-	negative
				140 - 144	no	no	no	no	no	no	negative	-	-	negative
				144 - 147	no	no	no	no	no	no	negative	-	-	negative
				147 - 150	no	no	no	no	no	no	negative	negative	-	negative
				150 - 153	no	no	no	no	no	no	negative	-	-	negative
				153 - 156	no	no	no	no	no	no	negative	-	-	negative
				156 - 158	no	no	no	no	no	no	negative	-	-	negative
				158 - 161	no	no	no	no	no	no	negative	negative	-	negative
				161 - 164	no	no	no	no	no	no	negative	-	-	negative
				164 - 167	no	no	no	no	no	no	negative	-	-	negative
				167 - 170	no	no	no	no	no	no	negative	negative	-	negative
				170 - 173	no	no	no	no	no	no	negative	-	-	negative
				173 - 176	no	no	no	no	no	no	negative	-	-	negative
				176 - 177	no	no	no	no	no	no	negative	-	-	negative
				177 - 179	no	no	no	no	no	no	negative	-	-	negative
				179 - 181	no	no	no	no	no	no	negative	negative	-	negative
				181 - 184	no	no	no	no	no	no	negative	-	-	negative
				184 - 187	no	no	no	no	no	no	negative	-	-	negative
				187 - 190	no	no	no	no	no	no	negative	-	-	negative
				190 - 193	no	no	no	no	no	no	negative	-	-	negative
				193 - 196	no	no	no	no	no	no	negative	negative	-	negative
				196 - 198	no	no	no	no	no	no	negative	-	-	negative
				198 - 201	no	no	no	no	no	no	negative	negative	-	negative
				201 - 204	no	no	no	no	no	no	negative	negative	-	negative
				204 - 207	no	no	no	no	no	no	negative	-	-	negative
				207 - 210	no	no	no	no	no	no	negative	negative	-	negative
				210 - 213	no	no	no	no	no	no	negative	negative	-	negative
				213 - 216	no	no	no	no	no	no	negative	-	-	negative
				216 - 219	no	no	no	no	no	no	negative	negative	-	negative
				219 - 222	no	no	no	no	no	no	negative	negative	-	negative
				222 - 225	no	no	no	no	no	no	negative	negative	-	negative
				225 - 228	no	no	no	no	no	no	negative	-	-	negative
				228 - 230	no	no	no	no	no	no	negative	negative	-	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
MW-19	4-Mar-07	Roto-Sonic	228	0 - 2	no	no	no	no	no	no	negative	negative	-	negative
				2 - 5	no	no	no	no	no	no	negative	-	-	negative
				5 - 7	no	no	no	no	no	no	negative	-	-	negative
				7 - 10	no	no	no	no	no	no	negative	negative	-	negative
				10 - 12	**mild**	**yes**	no	no	**yes**	no	**Positive**	**Positive**	-	negative
				12 - 15	**mild**	**yes**	**yes**	no	**yes**	no	**Positive**	negative	-	negative
				15 - 17	**mild**	**yes**	**yes@15.5'**	no	**yes @ 15.5'**	no	**Positive**	-	-	negative
				17 - 20	**strong**	**yes**	**yes-oily tar and soil mix**	no	**yes**	no	**Positive**	negative	-	negative
				20 - 22	**strong**	**yes**	no	no	**yes**	**yes**	**Positive**	**Positive**	-	negative
				22 - 25	no	no	no	no	no	no	negative	-	-	negative
				25 - 27	no	no	no	no	no	no	negative	-	-	negative
				27 - 29	no	no	no	no	no	no	negative	-	-	negative
				29 - 31.5	no	no	no	no	no	no	negative	negative	-	negative
				31.5 - 34	no	no	no	no	no	no	negative	-	-	negative
				34 - 37	no	no	no	no	no	no	negative	-	-	negative
				37 - 39	no	no	no	no	no	no	negative	-	-	negative
				39 - 41.5	no	no	no	no	no	no	negative	negative	-	negative
				41.5 - 44	no	no	no	no	no	no	negative	-	-	negative
				44 - 47	no	no	no	no	no	no	negative	-	-	negative
				47 - 50	no	no	no	no	no	no	negative	negative	-	negative
				50 - 53	no	no	no	no	no	no	negative	-	-	negative
				53 - 56	no	no	no	no	no	no	negative	-	-	negative
				56 - 59	no	no	no	no	no	no	negative	-	-	negative
				59 - 61	no	no	no	no	no	no	negative	-	-	negative
				61 - 63	no	no	no	no	no	no	negative	-	-	negative
				63 - 65	no	no	no	no	no	no	negative	negative	-	negative
				65 - 68	no	no	no	no	no	no	negative	-	-	negative
				68 - 70	no	no	no	no	no	no	negative	negative	-	negative
				70 - 73	no	no	no	no	no	no	negative	-	-	negative
				73 - 75	no	no	no	no	no	no	negative	-	-	negative
				75 - 76	no	no	no	no	no	no	negative	-	-	negative
				76 - 78	no	no	no	no	no	no	negative	-	-	negative
				78 - 81	no	no	no	no	no	no	negative	negative	-	negative
				81 - 84	no	no	no	no	no	no	negative	-	-	negative
				84 - 87	no	no	no	no	no	no	negative	-	-	negative
				87 - 90	no	no	no	no	no	no	negative	negative	-	negative
				90 - 92	no	no	no	no	no	no	negative	-	-	negative
				92 - 95	no	no	no	no	no	no	negative	-	-	negative
				95 - 97	no	no	no	no	no	no	negative	-	-	negative
				97 - 100	no	no	no	no	no	no	negative	negative	-	negative
				100 - 103	no	no	no	no	no	no	negative	-	-	negative
				103 - 105	no	no	no	no	no	no	negative	-	-	negative
				105 - 107	no	no	no	no	no	no	negative	-	-	negative
				107 - 110	no	no	no	no	no	no	negative	negative	-	negative
				110 - 113	no	no	no	no	no	no	negative	-	-	negative
				113 - 115	no	no	no	no	no	no	negative	-	-	negative
				115 - 118	no	no	no	no	no	no	negative	negative	-	negative
				118 - 120	no	no	no	no	no	no	negative	-	-	negative
				120 - 122	no	no	no	no	no	no	negative	-	-	negative
				122 - 125	no	no	no	no	no	no	negative	-	-	negative
				125 - 127	no	no	no	no	no	no	negative	-	-	negative
				127 - 130	no	no	no	no	no	no	negative	negative	-	negative
				130 - 133	no	no	no	no	no	no	negative	-	-	negative
				133 - 135	no	no	no	no	no	no	negative	-	-	negative
				135 - 138	no	no	no	no	no	no	negative	-	-	negative
				138 - 140	no	no	no	no	no	no	negative	negative	-	negative
				140 - 143	no	no	no	no	no	no	negative	-	-	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
MW-19 continued	4-Mar-07	Roto-Sonic	228	143 - 145	no	no	no	no	no	no	negative	-	-	negative
				145 - 148	no	no	no	no	no	no	negative	-	-	negative
				148 - 150.5	no	no	no	no	no	no	negative	-	-	negative
				150.5 - 153	no	no	no	no	no	no	negative	negative	-	negative
				153 - 155	no	no	no	no	no	no	negative	-	-	negative
				155 - 158	no	no	no	no	no	no	negative	-	-	negative
				158 - 160	no	no	no	no	no	no	negative	-	-	negative
				160 - 165	no	no	no	no	no	no	negative	negative	-	negative
				165 - 167	no	no	no	no	no	no	negative	-	-	negative
				167 - 170	no	no	no	no	no	no	negative	-	-	negative
				170 - 173	no	no	no	no	no	no	negative	-	-	negative
				173 - 175	no	no	no	no	no	no	negative	-	-	negative
				175 - 179	no	no	no	no	no	no	negative	-	-	negative
				179 - 183	no	no	no	no	no	no	negative	negative	-	negative
				183 - 186	no	no	no	no	no	no	negative	-	-	negative
				186 - 189	no	no	no	no	no	no	negative	-	-	negative
				189 - 192	no	no	no	no	no	no	negative	-	-	negative
				192 - 195	no	no	no	no	no	no	negative	negative	-	negative
				195 - 197	no	no	no	no	no	no	negative	-	-	negative
				197 - 200	no	no	no	no	no	no	negative	-	-	negative
				200 - 203	no	no	no	no	no	no	negative	-	-	negative
				203 - 206	no	no	no	no	no	no	negative	-	-	negative
				206 - 209	no	no	no	no	no	no	negative	-	-	negative
				209 - 212	no	no	no	no	no	no	negative	negative	-	negative
				212 - 215	no	no	no	no	no	no	negative	-	-	negative
				215 - 217	no	no	no	no	no	no	negative	-	-	negative
				217 - 219	no	no	no	no	no	no	negative	-	-	negative
				219 - 220	no	no	no	no	no	no	negative	-	-	negative
				220 - 222	no	no	no	no	no	no	negative	-	-	negative
				222 - 228	no	no	no	no	no	no	negative	negative	-	negative
MW-20	9-Mar-07	Roto-Sonic	211	0 - 2.5	no	no	no	no	no	no	negative	-	-	negative
				2.5 - 4	no	no	no	no	no	no	negative	-	-	negative
				4 - 6	no	no	no	no	no	no	negative	-	-	negative
				6 - 7	no	no	no	no	no	no	negative	-	-	negative
				7 - 9.5	no	no	no	no	no	no	negative	-	-	negative
				9.5 - 12.5	no	no	no	no	no	no	negative	-	-	negative
				12.5 - 15	no	no	no	no	no	no	negative	-	-	negative
				15 - 17	**yes**	**yes**	no	no	**carbon pitch**	no	**Positive**	**Positive**	-	negative
				17 - 20	no	no	no	no	no	no	negative	**Positive**	-	negative
				20 - 30	no	no	no	no	no	no	negative	-	-	negative
				30 - 35	no	no	no	no	no	no	negative	negative	-	negative
				35 - 36	no	no	no	no	no	no	negative	-	-	negative
				36 - 39	no	no	no	no	no	no	negative	-	-	negative
				39 - 41	no	no	no	no	no	no	negative	negative	-	negative
				41 - 44	no	no	no	no	no	no	negative	-	-	negative
				44 - 46	no	no	no	no	no	no	negative	-	-	negative
				46 - 48	no	no	no	no	no	no	negative	-	-	negative
				48 - 51	no	no	no	no	no	no	negative	-	-	negative
				51 - 54	no	no	no	no	no	no	negative	-	-	negative
				54 - 56	no	no	no	no	no	no	negative	-	-	negative
				56 - 57	no	no	no	no	no	no	negative	-	-	negative
				57 - 60	no	no	no	no	no	no	negative	negative	-	negative
				60 - 63	no	no	no	no	no	no	negative	-	-	negative
				63 - 66	no	no	no	no	no	no	negative	-	-	negative
				66 - 69	no	no	no	no	no	no	negative	-	-	negative
				69 - 71	**yes below 70'**	**yes below 70'**	**yes patchy below 70'**	no	no	no	**Positive**	**Positive**	-	negative
				71 - 73	**yes**	**yes**	**yes, patchy**	no	no	no	**Positive**	**Positive**	-	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
MW-20 continued	12-Mar-07	Roto-Sonic	211	73 - 76	**yes**	**yes**	**yes, patchy**	no	no	no	**Positive**	-	-	negative
				76 - 78	**yes**	**yes**	**yes, patchy**	no	no	no	**Positive**	-	-	negative
				78 - 81	**Yes to 79'**	**Yes to 79'**	**yes, patchy to 79'**	no	no	no	**Positive 79'**	**Positive**	-	negative
				81 - 83	no	no	no	no	no	no	negative	-	-	negative
				83 - 85	no	no	no	no	no	no	negative	-	-	negative
				85 - 87	no	no	no	no	no	no	negative	-	-	negative
				87 - 90	no	no	no	no	no	no	negative	-	-	negative
				90 - 93	no	no	no	no	no	no	negative	negative	-	negative
				93 - 96	no	no	no	no	no	no	negative	-	-	negative
				96 - 99	no	no	no	no	no	no	negative	-	-	negative
				99 - 102	no	no	no	no	no	no	negative		-	negative
				102 - 105	no	no	no	no	no	no	negative	-	-	negative
				105 - 108	no	no	no	no	no	no	negative	-	-	negative
				108 - 111	no	no	no	no	no	no	negative	negative	-	negative
				111 - 114	no	no	no	no	no	no	negative	-	-	negative
				114 - 117	no	no	no	no	no	no	negative	-	-	negative
				117 - 118	no	no	no	no	no	no	negative	-	-	negative
				118 - 120	no	no	no	no	no	no	negative	-	-	negative
				120 - 123	no	no	no	no	no	no	negative	negative	-	negative
				123 - 125	no	no	no	no	no	no	negative	-	-	negative
				125 - 128	no	no	no	no	no	no	negative	-	-	negative
				128 - 131	no	no	no	no	no	no	negative	-	-	negative
				131 - 134	no	no	no	no	no	no	negative	-	-	negative
				134 - 137	no	no	no	no	no	no	negative	-	-	negative
				137 - 139	no	no	no	no	no	no	negative	-	-	negative
				139 - 142	no	no	no	no	no	no	negative	negative	-	negative
				142 - 145	no	no	no	no	no	no	negative	-	-	negative
				145 - 148	no	no	no	no	no	no	negative	-	-	negative
				148 - 152	no	no	no	no	no	no	negative	negative	-	negative
				152 - 156	no	no	no	no	no	no	negative	-	-	negative
				156 - 159	no	no	no	no	no	no	negative	-	-	negative
				159 - 162	no	no	no	no	no	no	negative	-	-	negative
				162 - 165	no	no	no	no	no	no	negative	-	-	negative
				165 - 167	no	no	no	no	no	no	negative	-	-	negative
				167 - 169	no	no	no	no	no	no	negative	-	-	negative
				169 - 172	no	no	no	no	no	no	negative	negative	-	negative
				172 - 175	no	no	no	no	no	no	negative	-	-	negative
				175 - 179	no	no	no	no	no	no	negative	-	-	negative
				179 - 183	no	no	no	no	no	no	negative	-	-	negative
				183 - 186	no	no	no	no	no	no	negative	-	-	negative
				186 - 189	no	no	no	no	no	no	negative	-	-	negative
				189 - 191	no	no	no	no	no	no	negative	-	-	negative
				191 - 194	no	no	no	no	no	no	negative	-	-	negative
				194 - 196	no	no	no	no	no	no	negative	-	-	negative
				196 - 198	no	no	no	no	no	no	negative	-	-	negative
				198 - 200	no	no	no	no	no	no	negative	negative	-	negative
				200 - 203	no	no	no	no	no	no	negative	-	-	negative
				203 - 205	no	no	no	no	no	no	negative	-	-	negative
				205 - 208	no	no	no	no	no	no	negative	-	-	negative
				208 - 211	no	no	no	no	no	no	negative	negative	-	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
Segment 2 Wells														
MW-1-82	10-Jul-07	Roto-Sonic	84	0 - 2	no	no	no	no	no	no	negative	-	-	-
				2 - 5	no	no	no	no	no	no	negative	-	-	-
				5 - 8	no	no	no	no	no	no	negative	-	-	-
				8 - 11	**yes**	no	no	no	no	no	negative	-	-	-
				11 - 14	**yes**	no	no	no	no	no	negative	-	-	-
				14 - 17	**yes**	no	no	no	no	no	negative	-	-	-
				17 - 20	**yes**	no	no	no	no	no	negative	-	-	-
				20 - 23	**yes**	no	no	no	no	no	negative	-	-	-
				23 - 26	**yes**	no	no	no	no	no	negative	-	-	-
				26 - 29	no	no	no	no	no	no	negative	-	-	-
				29 - 32	no	no	no	no	no	no	negative	-	-	-
				32 - 35	no	no	no	no	no	no	negative	-	-	-
				35 - 38	no	no	no	no	no	no	negative	-	-	-
				38 - 41	no	no	no	no	no	no	negative	-	-	-
				41 - 51	no	no	no	no	no	no	negative	-	-	-
				51 - 61	no	no	no	no	no	no	negative	-	-	-
				61 - 71	no	no	no	no	no	no	negative	-	-	-
				71 - 83.5	no	no	no	no	no	no	negative	-	-	-
MW-2-104	25-Jun-07	Roto-Sonic	116.5	0 - 3	no	**yes**	no	no	no	no	negative	-	-	-
				3 - 5	**yes**	no	no	no	no	no	negative	-	-	-
				5 - 7	**yes**	**yes**	no	no	no	no	**Positive-patchy**	-	-	-
				7 - 9	**yes**	**yes**	no	no	no	no	**Positive-patchy**	-	-	-
				9 - 11	**yes**	**yes**	no	no	no	no	**Positive-patchy**	-	-	-
				11 - 13	**yes**	**yes**	no	no	no	no	**positive**	-	-	-
				13 - 15	no	**yes**	no	no	no	no	negative	-	-	-
				15 - 17	no	**yes**	no	no	no	no	negative	-	-	-
				17 - 19	no	**yes**	no	no	no	no	negative	-	-	-
				19 - 21	no	**yes**	no	no	no	no	negative	-	-	-
				21 - 23	no	**yes**	no	no	no	no	negative	-	-	-
				23 - 25	no	**yes**	no	no	no	no	negative	-	-	-
				25 - 27	no	**yes**	no	no	no	no	negative	-	-	-
				27 - 30	no	**yes**	no	no	no	no	negative	-	-	-
				30 - 33	no	no	no	no	no	no	negative	-	-	-
				33 - 35	no	no	no	no	no	no	negative	-	-	-
				35 - 45	no	no	no	no	no	no	negative	-	-	-
				45 - 55	no	no	no	no	no	no	negative	-	-	-
				55 - 65	no	no	no	no	no	no	negative	-	-	-
				65 - 75	no	no	no	no	no	no	negative	-	-	-
				75 - 85	no	no	no	no	no	no	negative	-	-	-
				85 - 95	no	no	no	no	no	no	negative	-	-	-
				95 - 116.5	no	no	no	no	no	no	negative	-	-	-
MW-21-12 MW-21-75 MW-21-115 MW-21-166	10-Nov-07	Roto-Sonic	193	0 - 2	no	no	no	no	no	no	negative	-	-	-
				2 - 4	no	no	no	no	no	no	negative	-	-	-
				4 - 6	**strong**	**yes (MW-21-12)**	no	no	no	no	negative	-	-	-
				6 - 8	**strong**	**yes (MW-21-12)**	no	no	no	no	negative	-	-	-
				8 - 12	**strong**	**yes (MW-21-12)**	**yes-oily blebs (MW-21-12/MW-21-75)**	no	no	no	**Positive**	-	-	-
				12 - 14	**mild**	no	no	no	no	no	negative	-	-	-
				14 - 16	**mild**	no	no	no	no	no	negative	-	-	-
				16 - 18	**mild**	no	no	no	no	no	negative	-	-	-
				18 - 20	no	no	no	no	no	no	negative	-	-	-
				20 - 22	no	no	no	no	no	no	negative	-	-	-
				22 - 24	no	no	no	no	no	no	negative	-	-	-
				24 - 26	no	no	no	no	no	no	negative	-	-	-
				28 - 31	no	no	no	no	no	no	negative	-	-	-
				31 - 38	no	no	no	no	no	no	negative	-	-	-
				38 - 48	no	no	no	no	no	no	negative	-	-	-
				48 - 58	no	no	no	no	no	no	negative	-	-	-
				58 - 68	no	no	no	no	no	no	negative	-	-	-
				68 - 88	no	no	no	no	no	no	negative	-	-	-
				88 - 98	no	no	no	no	no	no	negative	-	-	-
				98 - 108	no	no	no	no	no	no	negative	-	-	-
				108 - 118	no	no	no	no	no	no	negative	-	-	-
				118 - 126	no	no	no	no	no	no	negative	-	-	-
				126 - 138	no	no	no	no	no	no	negative	-	-	-
				138 - 158	no	no	no	no	no	no	negative	-	-	-
				158 - 168	no	no	no	no	no	no	negative	-	-	-
				168 - 178	no	no	no	no	no	no	negative	-	-	-
				178 - 188	no	no	no	no	no	no	negative	-	-	-
				188 - 193	no	no	no	no	no	no	negative	-	-	-

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
In-Water Borings														
GS-01	3-Jan-07	Roto-Sonic	80	0.0 - 2.0	**mild**	**yes**	no	no	no	no	negative	negative	negative	negative
				2.0 - 4.0	**mild**	**yes**	no	no	no	no	negative	negative	negative	negative
				4.0 - 10.0	**mild**	no	no	no	no	no	negative	negative	negative	negative
				10.0 - 14.5	**mild**	**yes**	no	no	no	no	negative	negative	negative	negative
				18.5 - 23.0	**strong**	no	no	no	no	no	negative	negative	negative	negative
				23.0 - 28.5	**mild**	no	no	no	no	no	negative	-	negative	negative
				28.5 - 30.5	**mild**	no	no	no	no	no	negative	negative	negative	negative
				30.5 - 33.0	**mild**	no	no	no	no	no	negative	negative	negative	negative
				33.0 - 35.0	**mild**	no	no	no	no	no	negative	-	negative	negative
				35.0 - 37.5	no	no	no	no	no	no	negative	-	negative	negative
				37.5 - 40.0	**mild**	no	no	no	no	no	negative	-	negative	negative
				40.0 - 42.5	no	no	no	no	no	no	negative	-	negative	negative
				42.5 - 45.5	no	no	no	no	no	no	negative	-	negative	negative
				45.5 - 48.0	no	no	no	no	no	no	negative	-	negative	negative
				48.0 - 50.0	no	no	no	no	no	no	negative	-	negative	negative
				50.0 - 52.0	no	no	no	no	no	no	negative	-	negative	negative
				52.0 - 54.5	no	no	no	no	no	no	negative	-	negative	negative
				54.5 - 57.0	no	no	no	no	no	no	negative	negative	negative	negative
				57.0 - 59.0	no	no	no	no	no	no	negative	-	negative	negative
				59.0 - 61.5	no	no	no	no	no	no	negative	-	negative	negative
				61.5 - 63.5	no	no	no	no	no	no	negative	-	negative	negative
				63.5 - 66.0	no	no	no	no	no	no	negative	-	negative	negative
				66.0 - 68.5	no	no	no	no	no	no	negative	-	negative	negative
				68.5 - 70.5	no	no	no	no	no	no	negative	negative	negative	negative
				70.5 - 73.0	no	no	no	no	no	no	negative	-	negative	negative
				73.0 - 76.5	no	no	no	no	no	no	negative	-	negative	negative
				76.5 - 77.5	no	no	no	no	no	no	negative	-	negative	negative
				77.5 - 78.0	no	no	no	no	no	no	negative	-	negative	negative
				78.0 - 79.5	no	no	no	no	no	no	negative	negative	negative	negative
				79.5 - 80.0	no	no	no	no	no	no	negative	-	negative	negative
GS-02	4-Jan-07	Roto-Sonic	90	0.0 - 4.0	**strong (to 1')**	no	no	no	no	no	negative	negative	negative	negative
				4.0 - 8.0	no	no	no	no	no	no	negative	-	negative	negative
				8.0 - 11.5	no	no	no	no	no	no	negative	-	negative	negative
				11.5 - 15.5	no	no	no	no	no	no	negative	-	negative	negative
				15.5 - 19.0	no	no	no	no	no	no	negative	-	negative	negative
				19.0 - 23.0	no	no	no	no	no	no	negative	negative	negative	negative
				23.0 - 24.0	no	no	no	no	no	no	negative	-	negative	negative
				24.0 - 26.0	no	no	no	no	no	no	negative	-	negative	negative
				26.0 - 27.0	no	no	no	no	no	no	negative	-	negative	negative
				27.0 - 29.5	no	no	no	no	no	no	negative	-	negative	negative
				29.5 - 32.0	no	no	no	no	no	no	negative	-	negative	negative
				32.0 - 34.5	no	no	no	no	no	no	negative	-	negative	negative
				34.5 - 36.0	no	no	no	no	no	no	negative	-	negative	negative
				36.0 - 38.0	no	no	no	no	no	no	negative	negative	negative	negative
				38.0 - 42.0	no	no	no	no	no	no	negative	-	negative	negative
				42.0 - 44.0	no	no	no	no	no	no	negative	-	negative	negative
				44.0 - 46.0	no	no	no	no	no	no	negative	-	negative	negative
				46.0 - 48.0	no	no	no	no	no	no	negative	-	negative	negative
				48.0 - 52.5	no	no	no	no	no	no	negative	-	negative	negative
				52.5 - 56.5	no	no	no	no	no	no	negative	-	negative	negative
				56.5 - 60.0	no	no	no	no	no	no	negative	-	negative	negative
				60.0 - 63.0	no	no	no	no	no	no	negative	-	negative	negative
				63.0 - 66.0	no	no	no	no	no	no	negative	-	negative	negative
				66.0 - 69.5	no	no	no	no	no	no	negative	-	negative	negative
				69.5 - 73.0	no	no	no	no	no	no	negative	-	negative	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
GS-02 continued	4-Jan-07	Roto-Sonic	90	73.0 - 75.5	no	no	no	no	no	no	negative	-	negative	negative
				75.5 - 78.0	no	no	no	no	no	no	negative	-	negative	negative
				78.0 - 80.5	no	no	no	no	no	no	negative	-	negative	negative
				80.5 - 83.0	no	no	no	no	no	no	negative	-	negative	negative
				83.0 - 86.0	no	no	no	no	no	no	negative	-	negative	negative
				86.0 - 90.0	no	no	no	no	no	no	negative	-	negative	negative
GS-03	3-Jan-07	Roto-Sonic	123.5	0.0 - 2.5	**strong**	**yes**	no	no	no	no	**Positive**	negative	negative	negative
				2.5 - 6.0	**strong**	**yes**	no	no	no	no	**Positive**	negative	negative	negative
				6.0 - 10.0	**mild**	no	no	no	no	no	negative	negative	negative	negative
				10.0 - 13.5	**mild**	no	no	no	no	no	negative	negative	negative	negative
				13.5 - 17.0	**mild**	no	no	no	no	no	negative	negative	negative	negative
				17.0 - 19.0	**mild**	no	no	no	no	no	negative	negative	negative	negative
				19.0 - 22.0	**mild**	no	no	no	no	no	negative	negative	negative	negative
				22.0 - 23.0	**mild**	no	no	no	no	no	negative	-	negative	negative
				23.0 - 26.0	**mild**	no	no	no	no	no	negative	-	negative	negative
				26.0 - 29.0	**mild**	no	no	no	no	no	negative	-	negative	negative
				29.0 - 32.0	**mild**	no	no	no	no	no	negative	-	negative	negative
				32.0 - 35.5	**mild**	no	no	no	no	no	negative	-	negative	negative
				35.5 - 39.0	no	no	no	no	no	no	negative	negative	negative	negative
				39.0 - 43.0	no	no	no	no	no	no	negative	-	negative	negative
				43.0 - 48.0	no	no	no	no	no	no	negative	-	negative	negative
				48.0 - 50.0	no	no	no	no	no	no	negative	-	negative	negative
				50.0 - 52.0	no	no	no	no	no	no	negative	-	negative	negative
				52.0 - 54.5	no	no	no	no	no	no	negative	-	negative	negative
				54.5 - 56.5	no	no	no	no	no	no	negative	-	negative	negative
				56.5 - 60.0	no	no	no	no	no	no	negative	-	negative	negative
				60.0 - 63.5	no	no	no	no	no	no	negative	-	negative	negative
				63.5 - 68.0	no	no	no	no	no	no	negative	-	negative	negative
				68.0 - 70.0	no	no	no	no	no	no	negative	-	negative	negative
				70.0 - 73.0	no	no	no	no	no	no	negative	-	negative	negative
				73.0 - 75.0	no	no	no	no	no	no	negative	-	negative	negative
				75.0 - 78.0	no	no	no	no	no	no	negative	-	negative	negative
				78.0 - 81.0	no	no	no	no	no	no	negative	-	negative	negative
				81.0 - 83.0	no	no	no	no	no	no	negative	negative	negative	negative
				83.0 - 84.5	no	no	no	no	no	no	negative	-	negative	negative
				84.5 - 87.0	no	no	no	no	no	no	negative	-	negative	negative
				87.0 - 89.0	no	no	no	no	no	no	negative	-	negative	negative
				89.0 - 92.0	no	no	no	no	no	no	negative	-	negative	negative
				92.0 - 94.0	no	no	no	no	no	no	negative	-	negative	negative
				94.0 - 98.0	no	no	no	no	no	no	negative	-	negative	negative
				98.0 - 100.5	no	no	no	no	no	no	negative	-	negative	negative
				100.5 - 103.5	no	no	no	no	no	no	negative	-	negative	negative
				103.5 - 106.5	no	no	no	no	no	no	negative	negative	negative	negative
				106.5 - 109.5	no	no	no	no	no	no	negative	-	negative	negative
				109.5 - 112.0	no	no	no	no	no	no	negative	-	negative	negative
				112.0 - 115.0	no	no	no	no	no	no	negative	-	negative	negative
				115.0 - 118.0	no	no	no	no	no	no	negative	-	negative	negative
				118.0 - 120.5	no	no	no	no	no	no	negative	negative	negative	negative
				120.5 - 123.5	no	no	no	no	no	no	negative	negative	negative	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
GS-04	18-Dec-06	Roto-Sonic	148	0.0 - 3.0	no	no	no	no	no	no	negative	negative	negative	negative
				3.0 - 9.0	no	no	no	no	no	no	negative	-	negative	negative
				9.0 - 15.0	no	no	no	no	no	no	-	-	negative	negative
				15.0 - 21.0	no	no	no	no	no	no	negative	negative	negative	negative
				21.0 - 27.0	no	no	no	no	no	no	negative	-	negative	negative
				27.0 - 30.0	no	no	no	no	no	no	-	-	negative	negative
				30.0 - 35.0	no	no	no	no	no	no	negative	-	negative	negative
				35.0 - 41.5	no	no	no	no	no	no	negative	-	negative	negative
				41.5 - 45.0	no	no	no	no	no	no	negative	-	negative	negative
				45.0 - 48.0	-	-	-	-	-	-	-	-	-	-
				48.0 - 50.0	no	no	no	no	no	no	negative	-	negative	negative
				50.0 - 54.5	no	no	no	no	no	no	negative	-	negative	negative
				54.5 - 59.0	no	no	no	no	no	no	negative	-	negative	negative
				59.0 - 63.5	no	no	no	no	no	no	negative	-	negative	negative
				63.5 - 68.5	no	no	no	no	no	no	negative	-	negative	negative
				68.5 - 73.0	no	no	no	no	no	no	negative	-	negative	negative
				73.0 - 75.0	no	no	no	no	no	no	-	-	negative	negative
				75.0 - 78.0	no	no	no	no	no	no	negative	-	negative	negative
				78.0 - 81.0	no	no	no	no	no	no	negative	-	negative	negative
				81.0 - 83.5	no	no	no	no	no	no	negative	-	negative	negative
				83.5 - 86.0	no	no	no	no	no	no	negative	-	negative	negative
				86.0 - 88.0	no	no	no	no	no	no	negative	-	negative	negative
				88.0 - 91.0	no	no	no	no	no	no	negative	-	negative	negative
				91.0 - 93.0	no	no	no	no	no	no	negative	-	negative	negative
				93.0 - 98.0	no	no	no	no	no	no	negative	-	negative	negative
				98.0 - 103.5	**sweet odor[3]**	no	no	no	no	no	negative	-	negative	negative
				103.5 - 106.5	**sweet odor[3]**	no	no	no	no	no	negative	-	negative	negative
				106.5 - 109.0	**sweet odor[3]**	no	no	no	no	no	negative	-	negative	negative
				109.0 - 111.5	**sweet odor[3]**	no	no	no	no	no	negative	-	negative	negative
				111.5 - 117.5	no	no	no	no	no	no	negative	-	negative	negative
				117.5 - 120.0	no	no	no	no	no	no	negative	-	negative	negative
				120.0 - 123.0	no	no	no	no	no	no	negative	-	negative	negative
				123.0 - 126.5	no	no	no	no	no	no	negative	-	negative	negative
				126.5 - 130.0	no	no	no	no	no	no	negative	-	negative	negative
				130.0 - 133.5	no	no	no	no	no	no	negative	-	negative	negative
				133.5 - 137.0	no	no	no	no	no	no	negative	-	negative	negative
				137.0 - 139.0	no	no	no	no	no	no	negative	-	negative	negative
				139.0 - 142.5	no	no	no	no	no	no	negative	-	negative	negative
				142.5 - 145.0	no	no	no	no	no	no	negative	-	negative	negative
				145.0 - 148.0	no	no	no	no	no	no	negative	-	negative	negative
GS-05	3-Nov-06	Roto-Sonic	200	0.0 - 5.0	**strong**	**yes**	no	no	no	no	negative	negative	negative	negative
				5 - 13	**strong**	**yes**	no	no	no	no	negative	-	negative	negative
				13 - 17	**mild**	no	no	no	no	no	negative	-	negative	-
				17 - 21	no	no	no	no	no	no	negative	-	negative	-
				21 - 23	**mild**	no	no	no	no	no	negative	-	negative	-
				23 - 25	no	no	no	no	no	no	negative	-	negative	-
				25 - 28	**mild**	no	no	no	no	no	negative	-	negative	-
				28 - 28.5	no	no	no	no	no	no	negative	-	negative	-
				28.5 - 33.5	no	no	no	no	no	no	negative	-	negative	-
				33.5 - 38	no	no	no	no	no	no	negative	-	negative	-
				38 - 39	no	no	no	no	no	no	negative	-	negative	-
				39 - 42	no	no	no	no	no	no	negative	-	negative	-
				42 - 45	no	no	no	no	no	no	negative	-	negative	-
				45 - 48	no	no	no	no	no	no	negative	-	negative	-
				48 - 52	**mild[3]**	no	no	no	no	no	negative	negative	negative	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
GS-05 continued	3-Nov-06	Roto-Sonic	200	52 - 55	**mild[3]**	no	no	no	no	no	negative	-	negative	
				55 - 59	**mild[3]**	no	no	no	no	no	negative	-	negative	
				59 - 64	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				64 - 68	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				68 - 73	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				73 - 78	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				78 - 79	**moderate**	no	no	no	no	no	negative	negative	negative	negative
				79 - 82	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				82 - 85	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				85 - 88	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				88 - 89	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				89 - 92	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				92 - 95	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				95 - 98	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				98 - 108	-	no	no	no	no	no	negative	-	negative	-
				108 - 111	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				111 - 113	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				113 - 116	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				116 - 119.5	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				119.5 - 123	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				123 - 125	**strong[3]**	no	no	no	no	no	negative	negative	negative	negative
				125 - 128	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				128 - 131	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				131 - 134.5	**moderate[3]**	no	no	no	no	no	negative	negative	negative	-
				134.5 - 138	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				138 - 139.5	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				139.5 - 142.5	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				142.5 - 145.5	**moderate[3]**	no	no	no	no	no	negative	-	negative	-
				145.5 - 148	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				148 - 150	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				150 - 153	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				153 - 156.5	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				156.5 - 160	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				160 - 163	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				163 - 173	**mild[3]**	no	no	no	no	no	negative	-	negative	-
				173 - 180	**mild[3]**	no	no	no	no	no	negative	negative	negative	-
				180 - 184	**mild[3]**	no	no	no	no	no	negative	-	negative	negative
				184 - 187	no	no	no	no	no	no	negative	-	negative	-
				187 - 190	no	no	no	no	no	no	negative	-	negative	-
				190 - 193.5	no	no	no	no	no	no	negative	-	negative	-
				193.5 - 196.5	no	no	no	no	no	no	negative	-	negative	-
				196.5 - 200	no	no	no	no	no	no	negative	-	negative	-
GS-06	30-Jan-07	Roto-Sonic	148	0.0 - 0.5	no	no	no	no	no	no	negative	-	negative	negative
				0.5 - 4.0	no	no	no	no	no	no	negative	-	negative	negative
				4.0 - 7.0	no	no	no	no	no	no	negative	negative	negative	negative
				7.0 - 20	**mild**	no	no	no	no	no	negative	-	negative	negative
				20 - 23	no	no	no	no	no	no	negative	-	negative	negative
				23 - 27	no	no	no	no	no	no	negative	-	negative	negative
				27 - 33	no	no	no	no	no	no	negative	negative	negative	negative
				33 - 38.5	no	no	no	no	no	no	negative	-	negative	negative
				38.5 - 43	no	no	no	no	no	no	negative	-	negative	negative
				43 - 48	no	no	no	no	no	no	negative	-	negative	negative
				48 - 52	no	no	no	no	no	no	negative	-	negative	negative
				52 - 56.5	no	no	no	no	no	no	negative	-	negative	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
GS-06 continued	30-Jan-07	Roto-Sonic	148	56.5 - 60.5	**sweet(mild)[3]**	no	no	no	no	no	negative	negative	negative	negative
				60.5 - 65	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				65 - 69	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				69 - 73	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				73 - 76	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				76 - 80	**sweet(mild)[3]**	no	no	no	no	no	negative	negative	negative	negative
				80 - 83	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				83 - 86.5	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				86.5 - 89.5	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				89.5 - 92.5	**sweet(mild)[3]**	no	no	no	no	no	negative	negative	negative	negative
				92.5 - 95	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				95 - 98	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				98 - 101.5	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				101.5 - 106	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				106 - 110	**sweet(mild)[3]**	no	no	no	no	no	negative	-	negative	negative
				110 - 115	no	no	no	no	no	no	negative	-	negative	negative
				115 - 119	no	no	no	no	no	no	negative	-	negative	negative
				119 - 123	no	no	no	no	no	no	negative	negative	negative	negative
				123 - 127	no	no	no	no	no	no	negative	-	negative	negative
				127 - 130.5	no	no	no	no	no	no	negative	-	negative	negative
				130.5 - 133.5	no	no	no	no	no	no	negative	-	negative	negative
				133.5 - 137	no	no	no	no	no	no	negative	-	negative	negative
				137 - 139	no	no	no	no	no	no	negative	-	negative	negative
				139 - 142.5	no	no	no	no	no	no	negative	-	negative	negative
				142.5 - 145	no	no	no	no	no	no	negative	-	negative	negative
				145 - 148	no	no	no	no	no	no	negative	negative	negative	negative
GS-07	1-Nov-06	Roto-Sonic	193	0 - 3	**mild**	no	no	no	no	no	negative	-	negative	-
				3 - 10	**strong**	**yes**	no	no	no	no	negative	**Positive**	negative	negative
				10 - 15	**strong**	**yes**	no	no	no	no	negative	negative	negative	negative
				15 - 23	**mild**	no	no	no	no	no	negative	negative	negative	-
				23 - 28	**mild**	**yes**	no	no	no	no	negative	-	negative	negative
				28 - 30	no	no	no	no	no	no	negative	negative	negative	-
				30 - 34	no	no	no	no	no	no	negative	negative	negative	-
				34 - 38	**mild**	no	no	no	no	no	negative	negative	negative	-
				38 - 41	**mild**	no	no	no	no	no	negative	-	negative	-
				41 - 44	**mild**	no	no	no	no	no	negative	negative	negative	-
				44 - 48	**mild**	no	no	no	no	no	negative	negative	negative	-
				48 - 53	**mild**	no	no	no	no	no	negative	-	negative	-
				53 - 56	**mild**	no	no	no	no	no	negative	-	negative	-
				56 - 60	**mild**	no	no	no	no	no	negative	negative	negative	-
				60 - 63	**mild**	no	no	no	no	no	negative	-	negative	-
				63 - 64	**mild**	no	no	no	no	no	negative	-	negative	-
				64 - 67	**mild**	no	no	no	no	no	negative	-	negative	-
				67 - 70	**mild**	no	no	no	no	no	negative	negative	negative	-
				70 - 73	**mild**	no	no	no	no	no	negative	-	negative	-
				73 - 78	**mild**	no	no	no	no	no	negative	-	negative	-
				78 - 80	**mild**	no	no	no	no	no	negative	-	negative	-
				80 - 84	**mild**	no	no	no	no	no	negative	-	negative	-
				84 - 88	**mild**	no	no	no	no	no	negative	-	negative	-
				88 - 89	**mild**	no	no	no	no	no	negative	-	negative	negative
				89 - 92	no	no	no	no	no	no	negative	-	negative	-
				92 - 95	no	no	no	no	no	no	negative	-	negative	-
				95 - 98	no	no	no	no	no	no	negative	-	negative	-
				98 - 103	no	no	no	no	no	no	negative	-	negative	-

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
GS-07 continued	1-Nov-06	Roto-Sonic	193	103 - 106	no	no	no	no	no	no	negative	-	negative	-
				106 - 109	no	no	no	no	no	no	negative	-	negative	-
				109 - 113	no	no	no	no	no	no	negative	-	negative	-
				113 - 117	no	no	no	no	no	no	negative	-	negative	-
				117 - 120	no	no	no	no	no	no	negative	-	negative	-
				120 - 123	no	no	no	no	no	no	negative	-	negative	-
				123 - 128	no	no	no	no	no	no	negative	-	negative	-
				128 - 132.5	no	no	no	no	no	no	negative	-	negative	-
				132.5 - 138	no	no	no	no	no	no	negative	-	negative	-
				138 - 142	no	no	no	no	no	no	negative	-	negative	-
				142 - 145	no	no	no	no	no	no	negative	negative	negative	-
				145 - 148	no	no	no	no	no	no	negative	-	negative	-
				148 - 153	no	no	no	no	no	no	**Positive[1]**	negative	negative	negative
				153 - 156.5	no	no	no	no	no	no	negative	-	negative	-
				156.5 - 160	no	no	no	no	no	no	negative	-	negative	-
				160 - 163	no	no	no	no	no	no	negative	-	negative	-
				163 - 164	no	no	no	no	no	no	negative	-	negative	-
				164 - 167	no	no	no	no	no	no	negative	-	negative	-
				167 - 170	no	no	no	no	no	no	negative	-	negative	-
				170 - 173	no	no	no	no	no	no	negative	-	negative	-
				173 - 174.5	no	no	no	no	no	no	negative	-	negative	-
				174.5 - 177	no	no	no	no	no	no	negative	-	negative	-
				177 - 180	no	no	no	no	no	no	negative	-	negative	-
				180 - 183	no	no	no	no	no	no	negative	-	negative	-
				183 - 185	no	no	no	no	no	no	negative	negative	negative	-
				185 - 186.5	no	no	no	no	no	no	negative	-	negative	-
				186.5 - 188.5	no	no	no	no	no	no	negative	-	negative	-
				188.5 - 191.5	no	no	no	no	no	no	negative	-	negative	-
				191.5 - 193	no	no	no	no	no	no	negative	-	negative	-
GS-08	6-Nov-06	Roto-Sonic	148	0 - 4	**strong**	**yes**	no	no	no	no	negative	negative	negative	negative
				4 - 9	**strong**	**yes**	no	no	no	**Yes (5.5'-6.0')**	**Positive**	**Positive**	**Positive**	negative
				9 - 14	**strong**	no	no	no	no	no	negative	negative	negative	-
				14 - 19	**mild**	no	no	no	no	no	negative	negative	negative	negative
				19 - 23	**mild**	no	no	no	no	no	negative	-	negative	-
				23 - 30	**mild**	no	no	no	no	no	negative	-	negative	-
				30 - 33	**mild**	no	no	no	no	no	negative	-	negative	-
				33 - 38	**mild**	no	no	no	no	no	negative	-	negative	-
				38 - 43	**mild**	no	no	no	no	no	negative	-	negative	-
				43 - 45	**mild**	no	no	no	no	no	negative	-	negative	-
				45 - 48	**mild**	no	no	no	no	no	negative	-	negative	-
				48 - 53	**mild**	no	no	no	no	no	negative	-	negative	-
				53 - 63	**mild**	no	no	no	no	no	negative	negative	negative	negative
				63 - 65	**mild**	no	no	no	no	no	negative	-	negative	-
				65 - 67	**mild**	no	no	no	no	no	negative	-	negative	-
				67 - 70	**mild**	no	no	no	no	no	negative	-	negative	-
				70 - 73	**mild**	no	no	no	no	no	negative	-	negative	-
				73 - 79	**mild**	no	no	no	no	no	negative	-	negative	-
				79 - 84	**mild**	no	no	no	no	no	negative	-	negative	-
				84 - 88	**mild**	no	no	no	no	no	negative	-	negative	-
				88 - 90	**mild**	no	no	no	no	no	negative	-	negative	-
				90 - 92	**mild**	no	no	no	no	no	negative	-	negative	-
				92 - 95	**mild**	no	no	no	no	no	negative	-	negative	-
				95 - 98	**mild**	no	no	no	no	no	negative	-	negative	-
				98 - 106	**mild**	no	no	no	no	no	negative	-	negative	-
				106 - 113	**mild**	no	no	no	no	no	negative	-	negative	-

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
GS-08 continued	6-Nov-06	Roto-Sonic	148	113 - 115	**mild**	no	no	no	no	no	negative	-	negative	-
				115 - 118	**mild**	no	no	no	no	no	negative	-	negative	-
				118 - 120	**mild**	no	no	no	no	no	negative	-	negative	-
				120 - 123	**mild**	no	no	no	no	no	negative	-	negative	-
				123 - 125	**mild**	no	no	no	no	no	negative	-	negative	-
				125 - 128	**mild**	no	no	no	no	no	negative	-	negative	-
				128 - 129	**mild**	no	no	no	no	no	negative	negative	negative	negative
				129 - 132	no	no	no	no	no	no	negative	-	negative	-
				132 - 135	no	no	no	no	no	no	negative	-	negative	-
				135 - 138	no	no	no	no	no	no	negative	-	negative	-
				138 - 141	no	no	no	no	no	no	negative	-	negative	-
				141 - 145	no	no	no	no	no	no	negative	-	negative	-
				145 - 148	no	no	no	no	no	no	negative	-	negative	-
GS-09	11-Oct-06	Roto-Sonic	187	0 - 2.5	**mild**	**yes**	no	no	no	no	**Positive**	-	negative	negative
				2.5 - 9	**mild**	**yes**	no	no	no	no	**Positive**	-	negative	negative
				9 - 11	**mild**	**yes**	no	no	no	no	**Positive**	negative	negative	negative
				11 - 14	**mild**	no	no	no	no	no	**Positive**	-	negative	negative
				14 - 16.5	**mild**	no	no	no	no	no	**Positive**	-	negative	negative
				16.5 - 23	**mild**	no	no	no	no	no	**Positive**	negative	negative	negative
				23 - 24.5	**mild**	no	no	no	no	no	negative	negative	negative	negative
				24.5 - 28	**mild**	no	no	no	no	no	negative	-	negative	negative
				28 - 30	**mild**	no	no	no	no	no	negative	-	negative	negative
				30 - 33	**mild**	no	no	no	no	no	negative	-	negative	negative
				33 - 35	**mild**	no	no	no	no	no	**Positive**	negative	negative	negative
				35 - 38	**mild**	no	no	no	no	no	negative	negative	negative	-
				38 - 43	**mild**	no	no	no	no	no	negative	negative	negative	-
				43 - 45	**mild**	no	no	no	no	no	negative	-	negative	-
				45 - 48	**mild**	no	no	no	no	no	negative	-	negative	-
				48 - 50	**mild**	no	no	no	no	no	negative	negative	negative	-
				50 - 53	**mild**	no	no	no	no	no	negative	-	negative	-
				53 - 55.5	**mild**	no	no	no	no	no	negative	-	negative	-
				55.5 - 58	**mild**	no	no	no	no	no	negative	-	negative	-
				58 - 59	**mild**	no	no	no	no	no	negative	-	negative	-
				59 - 62	**mild**	no	no	no	no	no	negative	-	negative	-
				62 - 65	**strong**	no	no	no	no	no	negative	-	negative	negative
				65 - 68	**strong**	no	no	no	no	no	negative	negative	negative	negative
				68 - 70.5	**strong**	no	no	no	no	no	negative	-	negative	negative
				70.5 - 73	**strong**	no	no	no	no	no	negative	-	negative	-
				73 - 76	**strong**	no	no	no	no	no	negative	negative	negative	-
				76 - 79	**strong**	no	no	no	no	no	negative	-	negative	-
				79 - 81	**strong**	no	no	no	no	no	negative	-	negative	-
				81 - 83	**mild**	no	no	no	no	no	negative	-	negative	-
				83 - 85	**mild**	no	no	no	no	no	negative	negative	negative	-
				85 - 87.5	**mild**	no	no	no	no	no	negative	-	negative	-
				87.5 - 90.5	**mild**	no	no	no	no	no	negative	-	negative	-
				90.5 - 93	**mild**	no	no	no	no	no	negative	-	negative	-
				93 - 95.5	**mild**	no	no	no	no	no	negative	negative	negative	-
				95.5 - 98	**mild**	no	no	no	no	no	negative	-	negative	-
				98 - 100	**mild**	no	no	no	no	no	negative	-	negative	-
				100 - 103	**mild**	no	no	no	no	no	negative	-	negative	-
				103 - 105.5	**mild**	no	no	no	no	no	negative	negative	negative	-
				105.5 - 108	none	no	no	no	no	no	negative	-	negative	-
				108 - 109	none	no	no	no	no	no	negative	-	negative	-

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
GS-09 continued	11-Oct-06	Roto-Sonic	187	109 - 111	none	no	no	no	no	no	negative	negative	negative	-
				111 - 113	none	no	no	no	no	no	negative	-	negative	-
				113 - 116.5	none	no	no	no	no	no	negative	-	negative	-
				116.5 - 120	none	no	no	no	no	no	negative	-	negative	-
				120 - 123	none	no	no	no	no	no	negative	-	negative	-
				123 - 125.5	none	no	no	no	no	no	negative	negative	negative	-
				125.5 - 129.5	none	no	no	no	no	no	negative	-	negative	-
				129.5 - 133	none	no	no	no	no	no	negative	-	negative	-
				133 - 136	none	no	no	no	no	no	negative	-	negative	-
				136 - 139.5	none	no	no	no	no	no	negative	negative	negative	-
				139.5 - 143	none	no	no	no	no	no	negative	-	negative	-
				143 - 145	none	no	no	no	no	no	negative	-	negative	-
				145 - 153	none	no	no	no	no	no	negative	negative	negative	-
				153 - 154	none	no	no	no	no	no	negative	-	negative	-
				154 - 158	none	no	no	no	no	no	negative	-	negative	-
				158 - 161	none	no	no	no	no	no	negative	-	negative	-
				161 - 164	none	no	no	no	no	no	negative	negative	negative	-
				164 - 167	none	no	no	no	no	no	negative	-	negative	-
				167 - 170	none	no	no	no	no	no	negative	-	negative	-
				170 - 173	none	no	no	no	no	no	negative	-	negative	-
				173 - 175	none	no	no	no	no	no	negative	-	negative	-
				175 - 178	none	no	no	no	no	no	negative	negative	negative	-
				178 - 181	none	no	no	no	no	no	negative	-	negative	-
				181 - 184	none	no	no	no	no	no	negative	-	negative	-
				184 - 187	none	no	no	no	no	no	negative	negative	negative	-
GS-10	1-Feb-07	Roto-Sonic	148	0.0 - 2.0	no	no	no	no	no	no	negative	-	negative	negative
				2.0 - 5.0	**mild**	**yes**	**Yes-Blebs**	no	no	no	**Positive-Patchy**	**Positive**	negative	negative
				5.0 - 8.0	**moderate**	**yes**	**Yes-Blebs**	no	no	no	**Positive-Patchy**	-	negative	negative
				8.0 - 11	**moderate**	**yes**	**Yes-Blebs**	no	no	no	**Positive-Patchy**	**Positive**	negative	negative
				11 - 14	**moderate**	**yes**	**Yes-Blebs**	no	no	no	**Positive-Patchy**	-	negative	negative
				14 - 17	**moderate**	**yes**	**Yes-Blebs**	no	no	no	**Positive-Patchy**	**Positive**	negative	negative
				17 - 21	no	no	no	no	no	no	negative	-	negative	negative
				21 - 23	no	no	no	no	no	no	negative	-	negative	negative
				23 - 24	no	no	no	no	no	no	negative	-	negative	negative
				24 - 30	no	no	no	no	no	no	negative	-	negative	negative
				30 - 33	no	no	no	no	no	no	negative	-	negative	negative
				33 - 36	no	no	no	no	no	no	negative	-	negative	negative
				36 - 39	no	no	no	no	no	no	negative	-	negative	negative
				39 - 42	no	no	no	no	no	no	negative	-	negative	negative
				42 - 45	no	no	no	no	no	no	negative	-	negative	negative
				45 - 48	no	no	no	no	no	no	negative	-	negative	negative
				48 - 51.5	no	no	no	no	no	no	negative	-	negative	negative
				51.5 - 55	no	no	no	no	no	no	negative	negative	negative	negative
				55 - 60	no	no	no	no	no	no	negative	-	negative	negative
				60 - 65	no	no	no	no	no	no	negative	-	negative	negative
				65 - 72	no	no	no	no	no	no	negative	negative	negative	negative
				72 - 78	no	no	no	no	no	no	negative	-	negative	negative
				78 - 81	no	no	no	no	no	no	negative	-	negative	negative
				81 - 84	no	no	no	no	no	no	negative	-	negative	negative
				84 - 87	no	no	no	no	no	no	negative	-	negative	negative
				87 - 90	no	no	no	no	no	no	negative	-	negative	negative
				90 - 93	no	no	no	no	no	no	negative	negative	negative	negative
				93 - 96	no	no	no	no	no	no	negative	-	negative	negative
				96 - 98	no	no	no	no	no	no	negative	-	negative	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
GS-10 continued	1-Feb-07	Roto-Sonic	148	98 - 105	no	no	no	no	no	no	negative	-	negative	negative
				105 - 109	no	no	no	no	no	no	negative	-	negative	negative
				109 - 113	no	no	no	no	no	no	negative	-	negative	negative
				113 - 116	no	no	no	no	no	no	negative	negative	negative	negative
				116 - 119	no	no	no	no	no	no	negative	-	negative	negative
				119 - 123	no	no	no	no	no	no	negative	-	negative	negative
				123 - 126	no	no	no	no	no	no	negative	negative	negative	negative
				126 - 129	no	no	no	no	no	no	negative	-	negative	negative
				129 - 132	no	no	no	no	no	no	negative	-	negative	negative
				132 - 135	no	no	no	no	no	no	negative	-	negative	negative
				135 - 138	no	no	no	no	no	no	negative	negative	negative	negative
				138 - 141	no	no	no	no	no	no	negative	-	negative	negative
				141 - 145	no	no	no	no	no	no	negative	-	negative	negative
				145 - 148	no	no	no	no	no	no	negative	negative	negative	negative
GS-11	31-Jan-07	Roto-Sonic	173.5	0 - 4	no	no	no	no	no	no	negative	-	negative	negative
				4 - 9	mild	no	no	no	no	no	negative	negative	negative	negative
				9 - 14	no	no	no	no	no	no	negative	-	negative	negative
				14 - 18	no	no	no	no	no	no	negative	-	negative	negative
				18 - 23	no	no	no	no	no	no	negative	-	negative	negative
				24 - 27	no	no	no	no	no	no	negative	-	negative	negative
				27 - 30	no	no	no	no	no	no	negative	negative	negative	negative
				30 - 32	no	no	no	no	no	no	negative	-	negative	negative
				32 - 34	no	no	no	no	no	no	negative	-	negative	negative
				34 - 37	no	no	no	no	no	no	negative	-	negative	negative
				37 - 40	no	no	no	no	no	no	negative	-	negative	negative
				40 - 43	no	no	no	no	no	no	negative	-	negative	negative
				43 - 45	no	no	no	no	no	no	negative	negative	negative	negative
				45 - 48	no	no	no	no	no	no	negative	-	negative	negative
				48 - 51	no	no	no	no	no	no	negative	-	negative	negative
				51 - 54	no	no	no	no	no	no	negative	negative	negative	negative
				54 - 58	no	no	no	no	no	no	negative	-	negative	negative
				58 - 61	no	no	no	no	no	no	negative	-	negative	negative
				61 - 64	no	no	no	no	no	no	negative	-	negative	negative
				64 - 67	no	no	no	no	no	no	negative	-	negative	negative
				67 - 70	no	no	no	no	no	no	negative	-	negative	negative
				70 - 73	no	no	no	no	no	no	negative	-	negative	negative
				73 - 76	no	no	no	no	no	no	negative	-	negative	negative
				76 - 79.5	no	no	no	no	no	no	negative	-	negative	negative
				79.5 - 83	no	no	no	no	no	no	negative	-	negative	negative
				83 - 86	no	no	no	no	no	no	negative	-	negative	negative
				86 - 89	no	no	no	no	no	no	negative	negative	negative	negative
				89 - 91.5	no	no	no	no	no	no	negative	-	negative	negative
				91.5 - 95	no	no	no	no	no	no	negative	negative	negative	negative
				95 - 98	no	no	no	no	no	no	negative	-	negative	negative
				98 - 100	no	no	no	no	no	no	negative	-	negative	negative
				100 - 102.5	no	no	no	no	no	no	negative	-	negative	negative
				102.5 - 106	no	no	no	no	no	no	negative	-	negative	negative
				106 - 109	no	no	no	no	no	no	negative	-	negative	negative
				109 - 112.5	no	no	no	no	no	no	negative	-	negative	negative
				112.5 - 115	no	no	no	no	no	no	negative	-	negative	negative
				115 - 118.5	no	no	no	no	no	no	negative	-	negative	negative
				118.5 - 121.5	no	no	no	no	no	no	negative	-	negative	negative
				121.5 - 123	no	no	no	no	no	no	negative	-	negative	negative
				123 - 126.5	no	no	no	no	no	no	negative	-	negative	negative
				126.5 - 130	no	no	no	no	no	no	negative	-	negative	negative
				130 - 133.5	no	no	no	no	no	no	negative	-	negative	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
GS-11 continued	31-Jan-07	Roto-Sonic	173.5	133.5 - 137	no	no	no	no	no	no	negative	negative	negative	negative
				137 - 140	no	no	no	no		no	negative	-	negative	negative
				140 - 143.5	no	no	no	no	no	no	negative	-	negative	negative
				143.5 - 148	no	no	no	no	no	no	negative	-	negative	negative
				148 - 150.5	no	no	no	no	no	no	negative	-	negative	negative
				150.5 - 153.5	no	no	no	no	no	no	negative	-	negative	negative
				153.5 - 156.5	no	no	no	no	no	no	negative	negative	negative	negative
				156.5 - 160	no	no	no	no	no	no	negative	-	negative	negative
				160 - 163	no	no	no	no	no	no	negative	-	negative	negative
				163 - 165.5	no	no	no	no	no	no	negative	-	negative	negative
				165.5 - 169	no	no	no	no	no	no	negative	negative	negative	negative
				169 - 173	no	no	no	no	no	no	negative	-	negative	negative
				173 - 173.5	no	no	no	no	no	no	negative	-	negative	negative
GS-12	24-Jan-07	Roto-Sonic	148	0.0 - 3.0	no	no	no	no	no	no	negative	-	negative	negative
				3.0 - 7.0	no	no	no	no	no	no	negative	negative	negative	negative
				7.0 - 10	no	no	no	no	no	no	negative	-	negative	negative
				10 - 14	no	no	no	no	no	no	negative	-	negative	negative
				14 - 18	no	no	no	no	no	no	negative	-	negative	negative
				18 - 21	no	no	no	no	no	no	negative	-	negative	negative
				21 - 36	-	-	-	-	-	-	-	-	-	-
				36 - 38.5	no	no	no	no	no	no	negative	-	negative	negative
				38.5 - 41	no	no	no	no	no	no	negative	negative	negative	negative
				41 - 44.5	no	no	no	no	no	no	negative	-	negative	negative
				44.5 - 48	no	no	no	no	no	no	negative	-	negative	negative
				48 - 51	no	no	no	no	no	no	negative	-	negative	negative
				51 - 54	no	no	no	no	no	no	negative	-	negative	negative
				54 - 57.5	no	no	no	no	no	no	negative	-	negative	negative
				57.5 - 60.5	no	no	no	no	no	no	negative	-	negative	negative
				60.5 - 64	no	no	no	no	no	no	negative	negative	negative	negative
				64 - 67	no	no	no	no	no	no	negative	-	negative	negative
				67 - 70	no	no	no	no	no	no	negative	-	negative	negative
				70 - 73	no	no	no	no	no	no	negative	-	negative	negative
				73 - 76	no	no	no	no	no	no	negative	-	negative	negative
				76 - 78.5	no	no	no	no	no	no	negative	-	negative	negative
				78.5 - 83	no	no	no	no	no	no	negative	-	negative	negative
				83 - 86.5	no	no	no	no	no	no	negative	-	negative	negative
				86.5 - 90.5	no	no	no	no	no	no	negative	-	negative	negative
				90.5 - 94	no	no	no	no	no	no	negative	-	negative	negative
				94 - 98	no	no	no	no	no	no	negative	-	negative	negative
				98 - 103	no	no	no	no	no	no	negative	-	negative	negative
				103 - 106.5	no	no	no	no	no	no	negative	-	negative	negative
				106.5 - 110	no	no	no	no	no	no	negative	-	negative	negative
				110 - 112.5	no	no	no	no	no	no	negative	-	negative	negative
				112.5 - 114.5	no	no	no	no	no	no	negative	-	negative	negative
				114.5 - 117.5	no	no	no	no	no	no	negative	-	negative	negative
				117.5 - 120.5	no	no	no	no	no	no	negative	-	negative	negative
				120.5 - 123	no	no	no	no	no	no	negative	-	negative	negative
				123 - 127	no	no	no	no	no	no	negative	-	negative	negative
				127 - 130	no	no	no	no	no	no	negative	negative	negative	negative
				130 - 133	no	no	no	no	no	no	negative	-	negative	negative
				133 - 136	no	no	no	no	no	no	negative	-	negative	negative
				136 - 139	no	no	no	no	no	no	negative	-	negative	negative
				139 - 141.5	no	no	no	no	no	no	negative	-	negative	negative
				141.5 - 145	no	no	no	no	no	no	negative	-	negative	negative
				145 - 148	no	no	no	no	no	no	negative	negative	negative	negative

Table 1 - Tar and Dense Non-Aqueous Phase Liquid (DNAPL) Field Screening Summary

Groundwater Source Control Evaluation Boring Installation

Boring Number	HAI Screening Start Date	Installation Method	Total Boring Depth (feet bgs) or (feet bml)	Bagged Core Interval (feet bgs) or (feet bml)	HAI Post-Boring Installation Screening Results									
					Visual and Olfactory Methods						DNAPL Screening Methods			
					Odor[2]	Sheen	Visual Oil Blebs or Patchy Oil	Visual Oil Saturation	Visual Patchy Soil-Mixed Tar	Visual Tar	Ultraviolet Light Box	Sudan Dye Shake Kit	Sudan Dye Lens Spray	NAPL Dye Liner Strip
GS-B5	27-Nov-07	Piston (0-10) Geoprobe (10-15)	15.0	0 - 2	**strong**	no	no	no	no	no	**positive**	-	-	-
				2 - 4	**moderate**	no	no	no	no	no	**positive**	-	-	-
				4 - 6	**moderate**	no	no	no	no	no	**positive**	-	-	-
				6 - 8	**mild**	no	no	no	no	no	**positive**	-	-	-
				8 - 10	**mild**	no	no	no	no	no	**positive**	-	-	-
GS-B7	30-Aug-07	Piston (0-10) Geoprobe (10-15)	15.0	0 - 2	no	no	no	no	no	no	negative	-	-	-
				2 - 4	**mild**	**yes**	no	no	no	no	**positive-patchy**	-	-	-
				4 - 6	**mild**	**yes**	no	no	no	no	**positive**	-	-	-
				6 - 8	**strong**	**yes**	no	no	no	no	**positive**	-	-	-
GS-C2	27-Nov-07	Piston (0-10) Geoprobe (10-15)	15.0	0 - 2	**strong**	**yes**	no	no	no	no	**positive**	-	-	-
				2 - 4	**moderate**	**yes**	no	no	no	no	**positive**	-	-	-
				4 - 6	**mild**	**yes**	no	no	no	no	**positive**	-	-	-
				6 - 8	**mild**	**yes**	no	no	no	no	negative	-	-	-
				8 - 10	no	no	no	no	no	no	negative	-	-	-
GS-D2	27-Nov-07	Piston/Geoprobe	15.0	8 - 10	no	on	no	no	no	no	negative	-	-	-
GS-C5	27-Nov-07	Piston (0-10) Geoprobe (10-15)	15.0	0 - 2	no	no	no	no	no	no	negative	-	-	-
				2 - 4	no	no	no	no	no	no	negative	-	-	-
				4 - 6	no	no	no	no	no	no	negative	-	-	-
				6 - 8	no	no	no	no	no	no	negative	-	-	-
				8 - 10	no	no	no	no	no	no	negative	-	-	-
GS-D4	27-Nov-07	Piston (0-10) Geoprobe (10-15)	15.0	0 - 2	no	no	no	no	no	no	negative	-	-	-
				2 - 4	no	no	no	no	no	no	negative	-	-	-
				4 - 6	no	no	no	no	no	no	negative	-	-	-
				6 - 8	no	no	no	no	no	no	negative	-	-	-
				8 - 10	no	no	no	no	no	no	negative	-	-	-
GS-B2	27-Nov-07	Piston (0-10) Geoprobe (10-15)	15.0	0 - 2	**strong**	**yes**	no	no	no	no	**positive**	-	-	-
				2 - 4	**mild**	**yes**	no	no	no	no	**positive**	-	-	-
				4 - 6	**strong**	**yes**	no	no	no	no	**positive**	-	-	-
				6 - 8	**mild**	no	no	no	no	no	**positive**	-	-	-
				8 - 10	**mild**	no	no	no	no	no	**positive**	-	-	-

Notes:
1 = Positive ultraviolet indicator is corresponding to greenish "environmentally-friendly" drilling lube observed at this depth.
2 = Petroleum odor unless described otherwise.
3 = Described as "gym bag" (mildew/sweaty) odor.

TABLE 2 - Summary of Water Level Measurements MW-1-22 Through MW-11-32

Elevation of Top of Casing

Date of Elevation Survey	Elevation of Top of Casing (feet msl)*																					
	MW-1-22	MW-1-55	MW-1-82	MW-2-32	MW-2-61	MW-2-104	MW-3-26	MW-3-56	MW-4-35	MW-4-57	MW-4-101	MW-5-32	MW-5-100	MW-5-175	MW-6-32	MW-6-61	MW-8-29	MW-8-56	MW-9-29	MW-10-25	MW-10-61	MW-11-32
7-Dec-95	34.75	-	-	34.46	34.41	-	34.11	34.07	34.54	34.53	34.36	27.83	27.31	27.19	35.51	34.50	39.09	39.13	37.65	39.22	39.33	38.39
20-Feb-01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-Aug-04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-Aug-05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22-May-07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8-Aug-07	-	35.75	36.08	-	-	34.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Measured Water Level

Date Measured	Measured Water Level (feet btc)																					
	MW-1-22	MW-1-55	MW-1-82	MW-2-32	MW-2-61	MW-2-104	MW-3-26	MW-3-56	MW-4-35	MW-4-57	MW-4-101	MW-5-32	MW-5-100	MW-5-175	MW-6-32	MW-6-61	MW-8-29	MW-8-56	MW-9-29	MW-10-25	MW-10-61	MW-11-32
5-Dec-95	14.15	-	-	15.23	-	-	15.58	15.79	16.12	16.39	-	9.46	-	-	16.71	15.77	19.75	20.61	6.20	14.98	13.42	12.69
5-Jan-96	14.47	-	-	20.04	-	-	19.47	21.85	22.47	22.38	-	15.57	-	-	14.84	21.58	19.01	26.74	7.33	15.20	16.32	12.19
12-Feb-96	7.74	-	-	8.61	-	-	8.52	8.63	9.09	9.10	-	2.41	-	-	9.55	8.97	16.99	13.56	3.32	11.11	8.92	8.95
18-Mar-96	12.44	-	-	18.03	-	-	17.87	19.66	20.24	20.21	-	13.37	-	-	12.10	19.39	15.22	24.54	6.13	11.95	14.47	9.42
16-Apr-96	13.65	-	-	18.83	-	-	18.13	19.47	20.26	20.07	-	13.36	-	-	13.42	19.51	15.58	24.44	6.93	12.63	15.07	10.12
10-May-96	13.75	-	-	19.47	-	-	18.98	22.01	22.58	22.60	-	15.78	-	-	13.30	21.55	15.77	26.93	6.94	12.98	15.90	10.40
17-Jun-96	13.88	-	-	17.40	-	-	17.40	18.21	18.61	18.73	-	11.96	-	-	13.40	18.13	16.00	23.15	5.03	13.51	13.96	10.90
16-Jul-96	15.51	-	-	20.71	-	-	20.07	24.41	24.30	24.93	-	17.91	-	-	14.60	23.55	17.26	29.05	6.65	15.90	17.21	11.93
21-Aug-96	16.51	-	-	21.80	-	-	22.24	26.99	26.77	27.51	-	20.46	-	-	16.17	26.27	19.18	31.93	8.47	16.58	19.43	13.40
17-Sep-96	17.06	-	-	22.06	-	-	20.61	28.02	27.15	28.53	-	21.27	-	-	16.94	26.81	20.13	32.63	7.52	16.80	19.30	14.02
30-Sep-96	17.17	-	-	22.24	-	-	23.32	27.04	27.46	27.61	-	20.68	-	-	17.08	27.01	20.19	32.45	8.70	16.89	19.84	14.26
15-Nov-96	16.38	-	-	22.02	-	-	20.76	26.48	26.85	27.00	-	19.84	-	-	17.00	25.71	20.63	31.37	6.61	16.42	18.38	14.20
24-Feb-97	12.41	-	-	18.71	-	-	18.61	20.48	20.82	21.02	-	14.17	-	-	12.83	19.79	18.43	25.33	4.35	14.85	14.33	11.18
10-Jun-97	12.89	-	-	14.23	-	-	13.80	14.20	14.70	14.56	-	7.97	-	-	13.81	14.61	18.56	19.25	4.84	16.01	12.20	12.50
26-Aug-97	15.38	-	-	21.70	-	-	22.61	26.10	26.56	25.84	-	19.63	-	-	18.53	25.58	20.31	31.13	11.71	17.10	20.16	14.30
25-Nov-97	14.42	-	-	21.50	-	-	19.25	24.64	25.14	24.80	-	18.23	-	-	16.29	24.33	20.85	29.85	7.85	16.36	17.89	13.88
19-Dec-97	-	-	-	-	-	-	-	22.75	-	23.28	-	-	-	-	-	22.62	-	27.90	-	-	16.90	-
16-Feb-98	12.60	-	-	20.13	-	-	18.65	23.55	23.25	24.10	-	17.09	-	-	14.29	-	20.05	28.50	5.33	15.60	15.89	12.02
1-Jun-98	14.49	-	-	16.97	-	-	16.61	16.51	16.90	17.00	-	10.33	-	-	15.75	-	20.05	21.63	7.25	14.63	14.36	12.85
25-Aug-98	17.62	-	-	22.74	-	-	23.68	27.79	27.32	28.36	-	21.14	-	-	17.73	-	20.89	32.46	12.67	14.32	21.19	14.29
16-Nov-98	18.42	-	-	24.59	28.36	-	22.20	27.57	27.32	28.10	28.29	20.99	21.19	21.05	18.23	-	21.19	32.13	12.10	14.30	20.81	14.45
15-Feb-99	11.97	-	-	19.02	23.94	-	18.27	23.20	23.94	23.71	23.75	16.75	16.72	16.54	12.35	-	17.66	27.97	5.11	12.41	15.34	10.03
11-May-99	14.32	-	-	20.19	22.99	-	18.76	22.44	22.92	22.99	22.94	16.06	15.87	15.68	13.41	-	16.56	27.31	8.50	15.82	16.94	10.82
20-Aug-99	17.37	-	-	22.16	26.95	-	21.92	26.31	25.98	26.81	26.87	19.73	19.80	19.62	19.80	-	19.65	31.04	12.04	15.00	20.46	14.25
25-Oct-99	18.48	-	-	24.73	28.77	-	24.40	28.05	28.02	28.49	28.44	21.56	21.36	21.11	19.00	-	20.83	32.78	13.86	16.40	22.15	15.60
27-Mar-00	12.88	-	-	20.09	26.94	-	19.24	26.27	25.69	26.80	26.91	19.36	19.83	19.64	14.05	-	19.43	31.08	6.25	17.70	17.32	12.90
15-Jun-00	16.26	-	-	21.18	24.08	-	20.01	23.56	24.42	24.14	24.10	17.40	17.07	16.86	16.05	-	19.53	28.42	10.15	14.74	18.55	13.36
4-Oct-00	18.15	-	-	23.24	28.92	-	22.12	28.42	28.02	28.95	28.92	21.93	21.88	21.69	-	-	20.31	33.46	13.67	14.09	22.31	14.15
20-Dec-00	17.98	-	-	22.73	27.13	-	19.50	26.89	26.13	27.27	26.76	20.33	19.63	19.31	-	-	19.24	32.12	12.22	13.02	20.20	13.09
27-Mar-01	16.91	-	-	21.94	28.05	-	20.86	27.35	27.01	27.91	28.10	20.66	21.05	20.88	-	-	19.19	32.07	11.91	13.74	20.85	13.63
28-Jun-01	18.02	-	-	23.49	28.58	-	24.14	28.11	27.51	28.52	28.25	21.59	21.23	20.97	-	-	21.14	33.04	13.31	17.27	22.92	15.25
8-Oct-01	19.24	-	-	26.16	29.85	-	25.45	29.10	29.05	29.68	28.72	22.67	22.60	22.45	-	-	21.99	34.11	15.50	18.28	23.89	17.10
12-Dec-01	16.73	-	-	22.68	26.54	-	20.49	25.81	24.12	26.33	26.46	19.01	19.41	19.21	-	-	21.58	30.43	9.71	16.50	19.00	16.00
2-Apr-02	14.98	-	-	20.47	25.78	-	20.61	25.33	26.38	25.84	25.59	18.71	18.56	18.34	-	-	20.24	30.61	7.99	16.77	18.46	13.16
10-Jul-02	17.18	-	-	21.78	25.31	-	21.42	24.69	25.12	25.22	25.13	18.28	18.10	17.92	-	-	20.43	29.73	11.61	16.20	19.92	14.00
29-Sep-02	18.44	-	-	24.95	29.44	-	24.73	28.65	28.25	29.27	29.44	22.14	22.41	22.23	-	-	21.41	33.35	14.27	-	22.83	-
17-Dec-02	19.34	-	-	24.41	24.61	-	20.25	25.05	23.61	25.42	25.06	18.92	18.02	17.99	-	-	21.79	31.16	12.93	16.20	20.80	17.30
17-Mar-03	14.90	-	-	20.71	24.92	-	19.79	24.35	24.38	24.91	24.91	17.82	17.87	17.67	-	-	20.69	29.51	6.87	16.40	17.05	13.50
2-Jun-03	15.17	-	-	20.02	21.63	-	20.25	21.19	21.82	21.75	21.50	15.04	14.50	14.29	-	-	20.15	26.30	9.45	16.60	17.39	13.60
29-Sep-03	18.45	-	-	25.09	28.56	-	24.63	27.36	28.24	27.86	27.49	21.03	20.55	20.35	-	-	21.43	32.82	14.66	16.10	22.78	16.60
29-Dec-03	16.52	-	-	23.03	25.72	-	19.41	24.96	22.64	25.46	25.43	18.32	18.39	18.21	-	-	21.08	30.12	8.38	16.50	18.35	14.90
29-Mar-04	15.33	-	-	21.25	27.30	-	20.45	26.83	26.38	27.34	27.25	19.95	20.19	19.99	-	-	20.28	31.91	9.10	-	19.21	-
11-Aug-04	18.27	-	-	24.45	28.81	-	24.61	29.13	28.30	29.52	29.48	22.36	22.24	21.95	-	-	21.34	33.84	13.90	16.50	19.50	15.60
20-Dec-04	18.21	-	-	24.40	25.95	-	22.20	25.80	25.69	26.31	26.12	19.10	19.03	18.80	-	-	21.56	31.11	9.55	17.23	19.26	15.52
28-Mar-05	16.96	-	-	23.17	24.86	-	19.85	24.72	23.94	25.19	25.00	18.39	17.97	17.17	-	-	21.40	29.75	8.02	17.15	18.45	15.45
20-Jun-05	16.68	-	-	21.90	27.59	-	22.27	26.85	26.56	27.33	27.40	20.25	20.39	20.20	-	-	20.90	31.41	9.42	16.92	19.21	14.50
16-Sep-05	18.17	-	-	25.34	30.78	-	24.85	29.81	28.94	30.51	30.85	23.12	23.74	23.58	-	-	21.56	34.22	13.04	17.63	22.31	16.02
7-Dec-05	16.31	-	-	22.31	27.12	-	20.61	26.63	26.06	27.20	27.24	19.67	20.08	19.88	-	-	20.90	31.53	8.44	16.07	18.76	14.33
27-Mar-06	15.00	-	-	20.92	27.01	-	19.82	26.74	26.25	26.25	25.70	19.68	19.74	19.46	-	-	19.30	31.53	7.49	15.05	18.00	11.40
19-Jun-06	16.60	-	-	20.25	22.62	-	19.26	22.06	22.10	22.62	22.51	15.71	15.48	15.33	-	-	19.58	26.87	9.82	9.80	17.38	-
11-Oct-06	18.61	-	-	25.50	28.50	-	24.61	27.89	28.33	28.35	28.10	21.40	21.03	20.80	-	-	20.93	33.00	14.39	16.80	22.61	15.05
21-Mar-07	15.37	-	-	22.90	20.54	-	19.49	22.44	23.63	22.95	22.71	16.15	15.74	15.47	-	-	19.70	27.51	6.64	14.11	16.45	11.35
7-May-07	16.05	-	-	21.09	24.05	-	20.30	23.55	24.03	24.17	24.06	17.17	17.00	16.82	-	-	19.70	28.45	8.16	15.48	17.35	21.10
21-Jun-07	17.00	-	-	22.04	27.02	-	21.78	26.45	26.06	26.84	26.79	19.72	19.69	19.51	-	-	20.10	31.25	10.33	16.11	19.41	13.31
6-Sep-07	18.30	30.40	30.56	25.52	28.39	29.26	24.61	28.54	28.43	28.98	28.65	22.70	22.54	22.28	-	-	21.03	33.92	13.01	17.08	22.09	15.03
17-Apr-08	15.54	28.26	28.55	21.24	26.89	27.30	20.10	26.30	26.61	26.71	26.76	19.30	19.65	19.45	-	-	19.88	30.90	8.05	15.31	18.14	11.86
9-Sep-08	18.02	31.75	32.04	25.51	30.36	30.85	24.40	29.71	28.56	30.10	30.02	22.90	23.05	22.81	-	-	19.95	34.65	13.22	16.94	21.60	14.79

Note: bbm = below bench mark msl = mean sea level
btc = below top of casing
* = City of Portland Datum
**Willamette River, Portland Harbor Stage, obtained from National Weather Service and adjusted to feet msl - City of Portland datum: December 1995 to December 1997. Post December 1997 River Stage data measured directly from surveyed bench mark located on north end of FAMM Dock.
[1] Well casing raised in January 2000. Pre-2000 top of casing elevations are: MW-15-50 (35.15 feet); MW-15-66 (35.36 feet)
[2] Willamette River, Portland Harbor Stage, obtained from National Weather Service and adjusted to feet msl - City of Portland datum: December 1995 to December 1997. Post December 1997 River Stage data measured directly from surveyed bench mark located on north end of FAMM Dock.
[3] Willamette River, Portland Harbor Stage, measured directly from surveyed benchmark on north east end of the Dolphin Dock adjacent to MW-4 well cluster

TABLE 2 - Summary of Water Level Measurements MW-12-36 Through PW-01

Elevation of Top of Casing

Date of Elevation Survey	Elevation of Top of Casing (feet msl)																						River Benchmark (feet msl) [2]	River Benchmark (feet msl) [3]
	MW-12-36	MW-13-30	MW-13-61	MW-13-60R	MW-14-110	MW-15-50	MW-15-66	MW-16-45	MW-16-65	MW-16-125	MW-17-79	MW-18-30	MW-18-180	MW-19-22	MW-19-125	MW-19-180	MW-20-120	MW-21-12	MW-21-75	MW-21-115	MW-21-165	PW-01-80		
7-Dec-95	38.69	-	-	-	37.41	35.97[1]	36.06[1]	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32.12	31.30
20-Feb-01	-	34.86	34.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-Aug-04	-	-	-	-	-	-	-	33.12	33.11	32.89	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-Aug-05	-	-	-	-	-	-	-	-	-	-	34.83	-	-	-	-	-	-	-	-	-	-	31.80	-	-
22-May-07	-	-	-	-	-	-	-	-	-	-	-	34.28	33.92	29.82	29.42	29.81	27.84	-	-	-	-	-	-	-
8-Aug-07	-	-	-	35.38	-	-	-	-	-	-	-	-	-	-	-	-	-	23.29	23.13	23.47	23.19	-	-	-

Measured Water Level

Date Measured	Measured Water Level (feet btc)																						River Level (feet bbm)	River Level (feet bbm)
	MW-12-36	MW-13-30	MW-13-61	MW-13-60R	MW-14-110	MW-15-50	MW-15-66	MW-16-45	MW-16-65	MW-16-125	MW-17-79	MW-18-30	MW-18-180	MW-19-22	MW-19-125	MW-19-180	MW-20-120	MW-21-12	MW-21-75	MW-21-115	MW-21-165	PW-01-80		
5-Dec-95	9.37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5-Jan-96	10.82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12-Feb-96	5.27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-96	9.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16-Apr-96	9.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-May-96	10.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17-Jun-96	9.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16-Jul-96	12.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21-Aug-96	14.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17-Sep-96	14.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30-Sep-96	14.97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15-Nov-96	13.85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24-Feb-97	9.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10-Jun-97	8.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26-Aug-97	14.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25-Nov-97	11.79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19-Dec-97	-	-	23.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16-Feb-98	9.72	14.73	23.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.91	-
1-Jun-98	9.83	15.69	17.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.57	-
25-Aug-98	14.97	17.56	28.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.72	-
16-Nov-98	14.92	17.78	28.11	-	24.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.32	-
15-Feb-99	9.51	13.04	23.62	-	20.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.94	-
11-May-99	11.11	14.03	22.91	-	20.62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.21	-
20-Aug-99	14.40	17.18	26.81	-	23.93	15.05	15.37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.80	-
25-Oct-99	16.51	18.52	28.63	-	25.68	16.92	17.28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.49	-
27-Mar-00	11.65	14.45	26.71	-	23.11	14.05	14.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.30	-
15-Jun-00	13.11	15.82	24.10	-	22.02	14.14	14.96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.70	-
4-Oct-00	16.85	17.32	28.98	-	26.31	17.81	18.66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.00	-
20-Dec-00	15.17	16.70	27.70	-	26.05	16.25	17.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.00	-
27-Mar-01	14.96	16.81	27.86	-	25.24	16.40	17.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.70	-
28-Jun-01	16.06	18.06	28.72	-	25.88	17.32	18.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27.01	-
8-Oct-01	18.45	19.41	29.78	-	27.51	19.41	20.19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28.15	-
12-Dec-01	13.67	17.89	26.34	-	23.66	15.05	15.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.44	-
2-Apr-02	12.48	15.35	25.85	-	23.59	14.56	15.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.60	-
10-Jul-02	13.98	17.09	25.31	-	23.29	15.91	15.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.16	-
29-Sep-02	17.42	18.63	29.15	-	26.55	18.34	19.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27.52	-
17-Dec-02	16.05	19.02	25.75	-	24.11	16.20	16.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.30	-
17-Mar-03	17.47	15.92	24.92	-	22.22	13.50	14.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22.79	-
2-Jun-03	12.22	15.71	21.80	-	20.47	13.08	13.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.45	-
29-Sep-03	17.62	18.58	27.86	-	26.18	18.22	18.97	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.45	-
29-Dec-03	12.60	17.72	25.56	-	23.34	14.41	15.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.81	-
29-Mar-04	12.76	15.93	27.45	-	24.41	14.82	15.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.51	-
11-Aug-04	16.72	18.40	29.80	-	26.94	17.64	18.70	27.45	28.00	27.55	-	-	-	-	-	-	-	-	-	-	-	-	26.45	-
20-Dec-04	14.31	18.42	26.45	-	24.21	15.57	16.76	24.80	24.93	24.81	-	-	-	-	-	-	-	-	-	-	-	-	25.09	-
28-Mar-05	13.48	17.92	25.21	-	23.29	14.84	15.60	23.65	23.86	23.84	-	-	-	-	-	-	-	-	-	-	-	-	23.33	-
20-Jun-05	13.68	17.79	27.41	-	24.19	15.26	16.51	24.72	25.98	26.03	-	-	-	-	-	-	-	-	-	-	-	-	25.48	-
16-Sep-05	17.00	18.47	30.25	-	26.94	18.12	19.03	27.42	28.89	29.43	30.25	-	-	-	-	-	-	-	-	-	-	-	28.90	-
7-Dec-05	13.68	17.44	27.08	-	24.34	15.15	16.10	25.89	25.22	25.79	27.36	-	-	-	-	-	-	-	-	-	-	24.38	24.49	-
27-Mar-06	11.60	15.40	26.32	-	23.65	13.74	14.76	24.89	25.25	24.59	26.96	-	-	-	-	-	-	-	-	-	-	24.38	-	22.65
19-Jun-06	11.75	16.45	22.72	-	20.58	12.95	13.05	21.11	21.26	21.20	22.85	-	-	-	-	-	-	-	-	-	-	19.81	-	19.52
11-Oct-06	17.28	19.60	-	-	26.30	17.91	18.85	26.70	26.95	26.83	28.59	-	-	-	-	-	-	-	-	-	-	25.59	25.92	below gauge
21-Mar-07	10.34	15.57	-	-	21.12	12.87	13.46	21.82	20.46	21.50	23.44	23.31	22.20	18.34	17.71	18.50	16.10	-	-	-	-	20.39	-	20.18
7-May-07	11.93	16.15	-	-	19.31	13.11	14.14	22.36	22.65	22.67	24.31	23.10	23.50	18.95	19.05	19.38	17.41	-	-	-	-	21.36	-	21.15
21-Jun-07	13.55	-	-	27.35	23.96	14.87	15.87	24.57	25.45	25.47	27.05	25.09	26.32	20.68	21.79	22.14	20.11	-	-	-	-	24.23	-	23.75
6-Sep-07	16.34	18.46	-	29.72	26.66	17.40	18.42	27.36	27.62	27.24	29.19	27.45	28.20	22.37	24.41	24.66	22.85	12.47	17.32	17.56	17.14	26.14	26.85	below gauge
17-Apr-08	12.05	15.85	-	27.02	23.64	14.92	13.80	24.60	25.36	25.51	27.00	25.84	26.31	19.81	21.70	22.05	20.08	9.90	15.51	15.80	15.42	24.00	-	24.51
9-Sep-08	15.85	-	-	30.45	26.57	17.05	18.19	27.52	29.35	28.52	30.97	30.70	29.50	22.02	25.06	25.35	23.45	12.20	18.95	19.25	18.82	27.18	28.60	below gauge

Note: bbm = below bench mark msl = mean sea level
btc = below top of casing
* = City of Portland Datum
**Willamette River, Portland Harbor Stage, obtained from National Weather Service and adjusted to feet msl - City of Portland datum: December 1995 to December 1997. Post December 1997 River Stage data measured directly from surveyed bench mark located on north end of FAMM Dock.
[1] Well casing raised in January 2000. Pre-2000 top of casing elevations are: MW-15-50 (35.15 feet); MW-15-66 (35.36 feet)
[2] Willamette River, Portland Harbor Stage, obtained from National Weather Service and adjusted to feet msl - City of Portland datum: December 1995 to December 1997. Post December 1997 River Stage data measured directly from surveyed bench mark located on north end of FAMM Dock.
[3] Willamette River, Portland Harbor Stage, measured directly from surveyed benchmark on north east end of the Dolphin Dock adjacent to MW-4 well cluster

TABLE 2 - Summary of Groundwater Elevations MW-1-22 Through MW-11-32

Date Measured	Groundwater Elevation (feet msl)*																					
	MW-1-22	MW-1-55	MW-1-82	MW-2-32	MW-2-61	MW-2-104	MW-3-26	MW-3-56	MW-4-35	MW-4-57	MW-4-101	MW-5-32	MW-5-100	MW-5-175	MW-6-32	MW-6-61	MW-8-29	MW-8-56	MW-9-29	MW-10-25	MW-10-61	MW-11-32
5-Dec-95	20.60	-	-	19.23	-	-	18.53	18.28	18.42	18.14	-	18.37	-	-	18.80	18.73	19.34	18.52	31.45	24.24	25.91	25.70
5-Jan-96	20.28	-	-	14.42	-	-	14.64	12.22	12.07	12.15	-	12.26	-	-	20.67	12.92	20.08	12.39	30.32	24.02	23.01	26.20
12-Feb-96	27.01	-	-	25.85	-	-	25.59	25.44	25.45	25.43	-	25.42	-	-	25.96	25.53	22.10	25.57	34.33	28.11	30.41	29.44
18-Mar-96	22.31	-	-	16.43	-	-	16.24	14.41	14.30	14.32	-	14.46	-	-	23.41	15.11	23.87	14.59	31.52	27.27	24.86	28.97
16-Apr-96	21.10	-	-	15.63	-	-	15.98	14.60	14.28	14.46	-	14.47	-	-	22.09	14.99	23.51	14.69	30.72	26.59	24.26	28.27
10-May-96	21.00	-	-	14.99	-	-	15.13	12.06	11.96	11.93	-	12.05	-	-	22.21	12.95	23.32	12.20	30.71	26.24	23.43	27.99
17-Jun-96	20.87	-	-	17.06	-	-	16.71	15.86	15.93	15.80	-	15.87	-	-	22.11	16.37	23.09	15.98	32.62	25.71	25.37	27.49
16-Jul-96	19.24	-	-	13.75	-	-	14.04	9.66	10.24	9.60	-	9.92	-	-	20.91	10.95	21.83	10.08	31.00	23.32	22.12	26.46
21-Aug-96	18.24	-	-	12.66	-	-	11.87	7.08	7.77	7.02	-	7.37	-	-	19.34	8.23	19.91	7.20	29.18	22.64	19.90	24.99
17-Sep-96	17.69	-	-	12.40	-	-	13.50	6.05	7.39	6.00	-	6.56	-	-	18.57	7.69	18.96	6.50	30.13	22.42	20.03	24.37
30-Sep-96	17.58	-	-	12.22	-	-	10.79	7.03	7.08	6.92	-	7.15	-	-	18.43	7.49	18.90	6.68	28.95	22.33	19.49	24.13
15-Nov-96	18.37	-	-	12.44	-	-	13.35	7.59	7.69	7.53	-	7.99	-	-	18.51	8.79	18.46	7.76	31.04	22.80	20.95	24.19
24-Feb-97	22.34	-	-	15.75	-	-	15.50	13.59	13.72	13.51	-	13.66	-	-	22.68	14.71	20.66	13.80	33.30	24.37	25.00	27.21
10-Jun-97	21.86	-	-	20.23	-	-	20.31	19.87	19.84	19.97	-	19.86	-	-	21.70	19.89	20.53	19.88	32.81	23.21	27.13	25.89
26-Aug-97	19.37	-	-	12.76	-	-	11.50	7.97	7.98	8.69	-	8.20	-	-	16.98	8.92	18.78	8.00	25.94	22.12	19.17	24.09
25-Nov-97	20.33	-	-	12.96	-	-	14.86	9.43	9.40	9.73	-	9.60	-	-	19.22	10.17	18.24	9.28	29.80	22.86	21.44	24.51
19-Dec-97	-	-	-	-	-	-	-	11.32	-	11.25	-	-	-	-	-	11.88	-	11.23	-	-	22.43	-
16-Feb-98	22.15	-	-	14.33	-	-	15.46	10.52	11.29	10.43	-	10.74	-	-	21.22	-	19.04	10.63	32.32	23.62	23.44	26.37
1-Jun-98	20.26	-	-	17.49	-	-	17.50	17.56	17.64	17.53	-	17.50	-	-	19.76	-	19.04	17.50	30.40	24.59	24.97	25.54
25-Aug-98	17.13	-	-	11.72	-	-	10.43	6.28	7.22	6.17	-	6.69	-	-	17.78	-	18.20	6.67	24.98	24.90	18.14	24.10
16-Nov-98	16.33	-	-	9.87	6.05	-	11.91	6.50	7.22	6.43	6.07	6.84	6.12	6.14	17.28	-	17.90	7.00	25.55	24.92	18.52	23.94
15-Feb-99	22.78	-	-	15.44	10.47	-	15.84	10.87	10.60	10.82	10.61	11.08	10.59	10.65	23.16	-	21.43	11.16	32.54	26.81	23.99	28.36
11-May-99	20.43	-	-	14.27	11.42	-	15.35	11.63	11.62	11.54	11.42	11.77	11.44	11.51	22.10	-	22.53	11.82	29.15	23.40	22.39	27.57
20-Aug-99	17.38	-	-	12.30	7.46	-	12.19	7.76	8.56	7.72	7.49	8.10	7.51	7.57	15.71	-	19.44	8.09	25.61	24.22	18.87	24.14
25-Oct-99	16.27	-	-	9.73	5.64	-	9.71	6.02	6.52	6.04	5.92	6.27	5.95	6.08	16.51	-	18.26	6.35	23.79	22.82	17.18	22.79
27-Mar-00	21.87	-	-	14.37	7.47	-	14.87	7.80	8.85	7.73	7.45	8.47	7.48	7.55	21.46	-	19.66	8.05	31.40	21.52	22.01	25.49
15-Jun-00	18.49	-	-	13.28	10.33	-	14.10	10.51	10.12	10.39	10.26	10.43	10.24	10.33	19.46	-	19.56	10.71	27.50	24.48	20.78	25.03
4-Oct-00	16.60	-	-	11.22	5.49	-	11.99	5.65	6.52	5.58	5.44	5.90	5.43	5.50	-	-	18.78	5.67	23.98	25.13	17.02	24.24
20-Dec-00	16.77	-	-	11.73	7.28	-	14.61	7.18	8.41	7.26	7.60	7.50	7.68	7.88	-	-	19.85	7.01	25.43	26.20	19.13	25.30
27-Mar-01	17.84	-	-	12.52	6.36	-	13.25	6.72	7.53	6.62	6.26	7.17	6.26	6.31	-	-	19.90	7.06	25.74	25.48	18.48	24.76
28-Jun-01	16.73	-	-	10.97	5.83	-	9.97	5.96	7.03	6.01	6.11	6.24	6.08	6.22	-	-	17.95	6.09	24.34	21.95	16.41	23.14
8-Oct-01	15.51	-	-	8.30	4.56	-	8.66	4.97	5.49	4.85	5.64	5.16	4.71	4.74	-	-	17.10	5.02	22.15	20.94	15.44	21.29
12-Dec-01	18.02	-	-	11.78	7.87	-	13.62	8.26	10.42	8.20	7.90	8.82	7.90	7.98	-	-	17.51	8.70	27.94	22.72	20.33	22.39
2-Apr-02	19.77	-	-	13.99	8.63	-	13.50	8.74	8.16	8.69	8.77	9.12	8.75	8.85	-	-	18.85	8.52	29.66	22.45	20.87	25.23
10-Jul-02	17.57	-	-	12.68	9.10	-	12.69	9.38	9.42	9.31	9.23	9.55	9.21	9.27	-	-	18.66	9.40	26.04	23.02	19.41	24.39
23-Sep-02	16.31	-	-	9.51	4.97	-	9.38	5.42	6.29	5.26	4.92	5.69	4.90	4.96	-	-	17.68	5.78	23.38	-	16.50	-
17-Dec-02	15.41	-	-	10.05	9.80	-	13.86	9.02	10.93	9.11	9.30	8.91	9.29	9.20	-	-	17.30	7.97	24.72	23.02	18.53	21.09
17-Mar-03	19.85	-	-	13.75	9.49	-	14.32	9.72	10.16	9.62	9.45	10.01	9.44	9.52	-	-	18.40	9.62	30.78	22.82	22.28	24.89
2-Jun-03	19.58	-	-	14.44	12.78	-	13.86	12.88	12.72	12.78	12.86	12.79	12.81	12.90	-	-	18.94	12.83	28.20	22.62	21.94	24.79
29-Sep-03	16.30	-	-	9.37	5.85	-	9.48	6.71	6.30	6.67	6.87	6.80	6.76	6.84	-	-	17.66	6.31	22.99	23.12	16.55	21.79
29-Dec-03	18.23	-	-	11.43	8.69	-	14.70	9.11	11.90	9.07	8.93	9.51	8.92	8.98	-	-	18.01	9.01	29.27	22.72	20.98	23.49
29-Mar-04	19.42	-	-	13.21	7.11	-	13.66	7.24	8.16	7.19	7.11	7.88	7.12	7.20	-	-	18.81	7.22	28.55	-	20.12	-
11-Aug-04	16.48	-	-	10.01	5.60	-	9.50	4.94	6.24	5.01	4.88	5.47	5.07	5.24	-	-	17.75	5.29	23.75	22.72	19.83	22.79
20-Dec-04	16.54	-	-	10.06	8.46	-	11.91	8.27	8.85	8.22	8.24	8.73	8.28	8.39	-	-	17.53	8.02	28.10	21.99	20.07	22.87
28-Mar-05	17.79	-	-	11.29	9.55	-	14.26	9.35	10.60	9.34	9.36	9.44	9.34	10.02	-	-	17.69	9.38	29.63	22.07	20.88	22.94
20-Jun-05	18.07	-	-	12.56	6.82	-	11.84	7.22	7.98	7.20	6.96	7.58	6.92	6.99	-	-	18.19	7.72	28.23	22.30	20.12	23.89
16-Sep-05	16.58	-	-	9.12	3.63	-	9.26	4.26	5.60	4.02	3.51	4.71	3.57	3.61	-	-	17.53	4.91	24.61	21.59	17.02	22.37
7-Dec-05	18.44	-	-	12.15	7.29	-	13.50	7.44	8.48	7.33	7.12	8.16	7.23	7.31	-	-	18.19	7.60	29.21	23.15	20.57	24.06
27-Mar-06	19.75	-	-	13.54	7.40	-	14.29	7.33	8.29	8.28	8.66	8.15	7.57	7.73	-	-	19.79	7.60	30.16	24.17	21.33	26.99
19-Jun-06	18.15	-	-	14.21	11.79	-	14.85	12.01	12.44	11.91	11.85	12.12	11.83	11.86	-	-	19.51	12.26	27.83	29.42	21.95	-
11-Oct-06	16.14	-	-	8.96	5.91	-	9.50	6.18	6.21	6.18	6.26	6.43	6.28	6.39	-	-	18.16	6.13	23.26	22.42	16.72	23.34
21-Mar-07	19.38	-	-	11.56	13.87	-	14.62	11.63	10.91	11.58	11.65	11.68	11.57	11.72	-	-	19.39	11.62	31.01	25.11	22.88	27.04
7-May-07	18.70	-	-	13.37	10.36	-	13.81	10.52	10.51	10.36	10.30	10.66	10.31	10.37	-	-	19.39	10.68	29.49	23.74	21.98	17.29
21-Jun-07	17.75	-	-	12.42	7.39	-	12.33	7.62	8.48	7.69	7.57	8.11	7.62	7.68	-	-	18.99	7.88	27.32	23.11	19.92	25.08
6-Sep-07	16.45	5.35	5.52	8.94	6.02	5.66	9.50	5.53	6.11	5.55	5.71	5.13	4.77	4.91	-	-	18.06	5.21	24.64	22.14	17.24	23.36
17-Apr-08	19.21	7.49	7.53	13.22	7.52	7.62	14.01	7.77	7.93	7.82	7.60	8.53	7.66	7.74	-	-	19.21	8.23	29.60	23.91	21.19	26.53
9-Sep-08	16.73	4.00	4.04	8.95	4.05	4.07	9.71	4.36	5.98	4.43	4.34	4.93	4.26	4.38	-	-	19.14	4.48	24.43	22.28	17.73	23.60

Note: bbm = below bench mark msl = mean sea level
btc = below top of casing
* = City of Portland Datum
[2] Willamette River, Portland Harbor Stage, obtained from National Weather Service and adjusted to feet msl - City of Portland datum: December 1995 to December 1997. Post December 1997 River Stage data measured directly from surveyed bench mark located on north end of FAMM Dock.
[3] Willamette River, Portland Harbor Stage, measured directly from surveyed benchmark on north east end of the Dolphin Dock adjacent to MW-4 well cluster

TABLE 2 - Summary of Groundwater Elevations MW-12-36 Through PW-01

Date Measured	MW-12-36	MW-13-30	MW-13-61	MW-13-61R	MW-14-110	MW-15-50	MW-15-66	MW-16-45	MW-16-65	MW-16-125	MW-17-79	MW-18-30	MW-18-180	MW-19-22	MW-19-125	MW-19-180	MW-20-120	MW-21-12	MW-21-75	MW-21-115	MW-21-165	PW-01	River Stage (feet msl) [2]	River Stage (feet msl) [3]
5-Dec-95	29.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.90	-
5-Jan-96	27.87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.43	-
12-Feb-96	33.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.43	-
18-Mar-96	29.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.41	-
16-Apr-96	29.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.53	-
10-May-96	28.45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.63	-
17-Jun-96	28.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.73	-
16-Jul-96	26.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21-Aug-96	24.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.63	-
17-Sep-96	23.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.80	-
30-Sep-96	23.72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.40	-
15-Nov-96	24.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.20	-
24-Feb-97	28.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.60	-
10-Jun-97	30.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.83	-
26-Aug-97	24.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.90	-
25-Nov-97	26.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.72	-
19-Dec-97	-	-	11.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16-Feb-98	28.97	20.13	10.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.21	-
1-Jun-98	28.86	19.17	17.67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17.55	-
25-Aug-98	23.72	17.30	6.56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.40	-
16-Nov-98	23.77	17.08	6.67	-	12.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.80	-
15-Feb-99	29.18	21.82	11.16	-	17.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.18	-
11-May-99	27.58	20.83	11.87	-	16.79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.91	-
20-Aug-99	24.29	17.68	7.97	-	13.48	20.10	19.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.32	-
25-Oct-99	22.18	16.34	6.15	-	11.73	18.23	18.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.63	-
27-Mar-00	27.04	20.41	8.07	-	14.30	21.92	21.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.82	-
15-Jun-00	25.58	19.04	10.68	-	15.39	21.83	21.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.42	-
4-Oct-00	21.84	17.54	5.80	-	11.10	18.16	17.40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.12	-
20-Dec-00	23.52	18.16	7.08	-	11.36	19.72	18.98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.12	-
27-Mar-01	23.73	18.05	6.92	-	12.17	19.57	18.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.42	-
28-Jun-01	22.63	16.80	6.06	-	11.53	18.65	17.95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.11	-
8-Oct-01	20.24	15.45	5.00	-	9.90	16.56	15.87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.97	-
12-Dec-01	25.02	16.97	8.44	-	13.75	20.92	20.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.68	-
2-Apr-02	26.21	19.51	8.93	-	13.82	21.41	20.64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.52	-
10-Jul-02	24.71	17.77	9.47	-	14.12	20.06	20.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.96	-
23-Sep-02	21.27	16.23	5.63	-	10.86	17.63	16.95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.60	-
17-Dec-02	22.64	15.84	9.03	-	13.30	19.77	19.20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.82	-
17-Mar-03	21.22	18.94	9.86	-	15.19	22.47	21.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.33	-
2-Jun-03	26.47	19.15	12.98	-	16.94	22.89	22.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.67	-
29-Sep-03	21.07	16.28	6.92	-	11.23	17.75	17.09	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.67	-
29-Dec-03	26.09	17.14	9.22	-	14.07	21.56	20.83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.31	-
29-Mar-04	25.93	18.93	7.33	-	13.00	21.15	20.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.61	-
11-Aug-04	21.97	16.46	4.98	-	10.47	18.33	17.36	5.67	5.11	5.34	-	-	-	-	-	-	-	-	-	-	-	-	5.67	-
20-Dec-04	24.38	16.44	8.33	-	13.20	20.40	19.30	8.32	8.18	8.08	-	-	-	-	-	-	-	-	-	-	-	-	7.03	-
28-Mar-05	25.21	16.94	9.57	-	14.12	21.13	20.46	9.47	9.25	9.05	-	-	-	-	-	-	-	-	-	-	-	-	8.79	-
20-Jun-05	25.01	17.07	7.37	-	13.22	20.71	19.55	8.40	7.13	6.86	-	-	-	-	-	-	-	-	-	-	-	-	6.64	-
16-Sep-05	21.69	16.39	4.53	-	10.47	17.85	17.03	5.70	4.22	3.46	4.58	-	-	-	-	-	-	-	-	-	-	-	3.22	-
7-Dec-05	25.01	17.42	7.70	-	13.07	20.82	19.96	7.23	7.89	7.10	7.47	-	-	-	-	-	-	-	-	-	-	7.42	7.63	-
27-Mar-06	27.09	19.46	8.46	-	13.76	22.23	21.30	8.23	7.86	8.30	7.87	-	-	-	-	-	-	-	-	-	-	7.42	-	8.65
19-Jun-06	26.94	18.41	12.06	-	16.83	23.02	23.01	12.01	11.85	11.69	11.98	-	-	-	-	-	-	-	-	-	-	11.99	-	11.78
11-Oct-06	21.41	15.26	-	-	11.11	18.06	17.21	6.42	6.16	6.06	6.24	-	-	-	-	-	-	-	-	-	-	6.21	6.20	below gauge
21-Mar-07	28.35	19.29	-	-	16.29	23.10	22.60	11.30	12.65	11.39	11.39	10.97	11.72	11.48	11.71	11.31	11.74	-	-	-	-	11.41	-	11.12
7-May-07	26.76	18.71	-	-	18.10	22.86	21.92	10.76	10.46	10.22	10.52	11.18	10.42	10.87	10.37	10.43	10.43	-	-	-	-	10.44	-	10.15
21-Jun-07	25.14	-	-	8.03	13.45	21.10	20.19	8.55	7.66	7.42	7.78	9.19	7.60	9.14	7.63	7.67	7.73	-	-	-	-	7.57	-	7.55
6-Sep-07	22.35	16.40	-	5.66	10.75	18.57	17.64	5.76	5.49	5.65	5.64	6.83	5.72	7.45	5.01	5.15	4.99	10.82	5.81	5.91	6.05	5.66	5.27	below gauge
17-Apr-08	26.64	19.01	-	8.36	13.77	21.05	22.26	8.52	7.75	7.38	7.83	8.44	7.61	10.01	7.72	7.76	7.76	13.39	7.62	7.67	7.77	7.80	-	6.79
9-Sep-08	22.84	-	-	4.93	10.84	18.92	17.87	5.60	3.76	4.37	3.86	DRY	4.42	7.80	4.36	4.46	4.39	11.09	4.18	4.22	4.37	4.62	3.52	below gauge

Note: bbm = below bench mark msl = mean sea level
btc = below top of casing
* = City of Portland Datum
[2] Willamette River, Portland Harbor Stage, obtained from National Weather Service and adjusted to feet msl - City of Portland datum: December 1995 to December 1997. Post December 1997 River Stage data measured directly from surveyed bench mark located on north end of FAMM Dock.
[3] Willamette River, Portland Harbor Stage, measured directly from surveyed benchmark on north east end of the Dolphin Dock adjacent to MW-4 well cluster

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Date	Location	Water-Bearing Zone	Water Level Elevation (feet MSL)	Base of Screen Elevation (feet MSL)	Vertical Gradient	Direction
Well Cluster MW-1						
6-Sep-07	MW-1-22	Fill	16.45	10	0.3364	Down
	MW-1-55	Alluvial	5.35	-23		
	River		5.27			
	MW-1-55	Alluvial	5.35	-23	-0.0063	Up
	MW-1-82	Alluvial	5.52	-50		
17-Apr-08	MW-1-22	Fill	19.21	10	0.3552	Down
	MW-1-55	Alluvial	7.49	-23		
	River		6.79			
	MW-1-55	Alluvial	7.49	-23	-0.0015	Up
	MW-1-82	Alluvial	7.53	-50		
9-Sep-08	MW-1-22	Fill	16.73	10	0.3858	Down
	MW-1-55	Alluvial	4	-23		
	River		3.52			
	MW-1-55	Alluvial	4	-23	-0.0015	Up
	MW-1-82	Alluvial	4.04	-50		
Well Cluster MW-2						
17-Mar-03	MW-2-32	Fill	13.75	4.3	0.1439	Down
	MW-2-61	Alluvial	9.49	-25.3		
	River		9.33			
2-Jun-03	MW-2-32	Fill	14.44	4.3	0.0561	Down
	MW-2-61	Alluvial	12.78	-25.3		
	River		12.67			
29-Sep-03	MW-2-32	Fill	9.37	4.3	0.1189	Down
	MW-2-61	Alluvial	5.85	-25.3		
	River		5.67			
29-Dec-03	MW-2-32	Fill	11.43	4.3	0.0926	Down
	MW-2-61	Alluvial	8.69	-25.3		
	River		8.31			
29-Mar-04	MW-2-32	Fill	13.21	4.3	0.2061	Down
	MW-2-61	Alluvial	7.11	-25.3		
	River		7.61			
11-Aug-04	MW-2-32	Fill	10.01	4.3	0.1490	Down
	MW-2-61	Alluvial	5.60	-25.3		
	River		5.67			
20-Dec-04	MW-2-32	Fill	10.06	4.3	0.0541	Down
	MW-2-61	Alluvial	8.46	-25.3		
	River		7.03			
28-Mar-05	MW-2-32	Fill	11.29	4.3	0.0588	Down
	MW-2-61	Alluvial	9.55	-25.3		
	River		8.79			

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Date	Location	Water-Bearing Zone	Water Level Elevation (feet MSL)	Base of Screen Elevation (feet MSL)	Vertical Gradient	Direction
Well Cluster MW-2 (continued)						
20-Jun-05	MW-2-32	Fill	12.56	4.3	0.194	Down
	MW-2-61	Alluvial	6.82	-25.3		
	River		6.64			
16-Sep-05	MW-2-32	Fill	9.12	4.3	0.185	Down
	MW-2-61	Alluvial	3.63	-25.3		
	River		3.22			
7-Dec-05	MW-2-32	Fill	12.15	4.3	0.164	Down
	MW-2-61	Alluvial	7.29	-25.3		
	River		7.63			
27-Mar-06	MW-2-32	Fill	13.54	4.3	0.207	Down
	MW-2-61	Alluvial	7.40	-25.3		
	River		8.52			
19-Jun-06	MW-2-32	Fill	14.21	4.3	0.082	Down
	MW-2-61	Alluvial	11.79	-25.3		
	River		11.72			
11-Oct-06	MW-2-32	Fill	8.96	4.3	0.103	Down
	MW-2-61	Alluvial	5.91	-25.3		
	River		6.20			
6-Sep-07	MW-2-32	Fill	8.94	4.3	0.099	Down
	MW-2-61	Alluvial	6.02	-25.3		
	River		5.27			
	MW-2-61	Alluvial	6.02	-25.3	0.008	Down
	MW-2-104	Alluvial	5.66	-69.1		
17-Apr-08	MW-2-32	Fill	13.22	4.3	0.193	Down
	MW-2-61	Alluvial	7.52	-25.3		
	River		6.79			
	MW-2-61	Alluvial	7.52	-25.3	-0.002	Up
	MW-2-104	Alluvial	7.62	-69.1		
9-Sep-08	MW-2-32	Fill	8.95	4.3	0.166	Down
	MW-2-61	Alluvial	4.05	-25.3		
	River		3.52			
	MW-2-61	Alluvial	4.05	-25.3	-0.00046	Up
	MW-2-104	Alluvial	4.07	-69.1		
Well Cluster MW-3						
12-Feb-96	MW-3-26	Fill	25.59	6.2	0.0050	Down
	MW-3-56	Alluvial	25.44	-23.8		
	River		26.43			
17-Mar-03	MW-3-26	Fill	14.32	6.2	0.1533	Down
	MW-3-56	Alluvial	9.72	-23.8		
	River		9.33			

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Well Cluster MW-3 (continued)						
Date	**Location**	**Water-Bearing Zone**	**Water Level Elevation (feet MSL)**	**Base of Screen Elevation (feet MSL)**	**Vertical Gradient**	**Direction**
2-Jun-03	MW-3-26	Fill	13.86	6.2	0.0327	Down
	MW-3-56	Alluvial	12.88	-23.8		
	River		12.67			
29-Sep-03	MW-3-26	Fill	9.48	6.2	0.0923	Down
	MW-3-56	Alluvial	6.71	-23.8		
	River		5.67			
29-Dec-03	MW-3-26	Fill	14.70	6.2	0.1863	Down
	MW-3-56	Alluvial	9.11	-23.8		
	River		8.31			
29-Mar-04	MW-3-26	Fill	13.66	6.2	0.2140	Down
	MW-3-56	Alluvial	7.24	-23.8		
	River		7.61			
11-Aug-04	MW-3-26	Fill	9.50	6.2	0.1520	Down
	MW-3-56	Alluvial	4.94	-23.8		
	River		5.67			
20-Dec-04	MW-3-26	Fill	11.91	6.2	0.1213	Down
	MW-3-56	Alluvial	8.27	-23.8		
	River		8.79			
28-Mar-05	MW-3-26	Fill	14.26	6.2	0.1637	Down
	MW-3-56	Alluvial	9.35	-23.8		
	River		8.79			
20-Jun-05	MW-3-26	Fill	11.84	6.2	0.1540	Down
	MW-3-56	Alluvial	7.22	-23.8		
	River		6.64			
16-Sep-05	MW-3-26	Fill	9.26	6.2	0.1667	Down
	MW-3-56	Alluvial	4.26	-23.8		
	River		3.22			
7-Dec-05	MW-3-26	Fill	13.50	6.2	0.2020	Down
	MW-3-56	Alluvial	7.44	-23.8		
	River		7.63			
27-Mar-06	MW-3-26	Fill	14.29	6.2	0.2320	Down
	MW-3-56	Alluvial	7.33	-23.8		
	River		8.52			
19-Jun-06	MW-3-26	Fill	14.85	6.2	0.0947	Down
	MW-3-56	Alluvial	12.01	-23.8		
	River		11.72			
11-Oct-06	MW-3-26	Fill	9.50	6.2	0.1107	Down
	MW-3-56	Alluvial	6.18	-23.8		
	River		6.20			
21-Mar-07	MW-3-26	Fill	14.62	6.2	0.0997	Down
	MW-3-56	Alluvial	11.63	-23.8		
	River		11.12			

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Date	Location	Water-Bearing Zone	Water Level Elevation (feet MSL)	Base of Screen Elevation (feet MSL)	Vertical Gradient	Direction
Well Cluster MW-3 (continued)						
7-May-07	MW-3-26	Fill	13.81	6.2	0.1097	Down
	MW-3-56	Alluvial	10.52	-23.8		
	River		10.15			
21-Jun-07	MW-3-26	Fill	12.33	6.2	0.1570	Down
	MW-3-56	Alluvial	7.62	-23.8		
	River		7.55			
6-Sep-07	MW-3-26	Fill	9.5	6.2	0.1323	Down
	MW-3-56	Alluvial	5.53	-23.8		
	River		5.27			
17-Apr-08	MW-3-26	Fill	14.01	6.2	0.2080	Down
	MW-3-56	Alluvial	7.77	-23.8		
	River		6.79			
9-Sep-08	MW-3-26	Fill	9.71	6.2	0.1783	Down
	MW-3-56	Alluvial	4.36	-23.8		
	River		3.52			
Well Cluster MW-4						
12-Feb-96	MW-4-35	Fill	25.45	-2.3	0.0009	Down
	MW-4-57	Alluvial	25.43	-24.3		
	River		26.43			
17-Mar-03	MW-4-35	Fill	10.16	-2.3	0.0245	Down
	MW-4-57	Alluvial	9.62	-24.3		
	River		9.33			
	MW-4-57	Alluvial	9.62	-24.3	0.0039	Down
	MW-4-101	Alluvial	9.45	-67.7		
2-Jun-03	MW-4-35	Fill	12.72	-2.3	-0.0027	Up
	MW-4-57	Alluvial	12.78	-24.3		
	River		12.67			
	MW-4-57	Alluvial	12.78	-24.3	-0.0018	Up
	MW-4-101	Alluvial	12.86	-67.7		
29-Sep-03	MW-4-35	Fill	6.30	-2.3	-0.0168	Up
	MW-4-57	Alluvial	6.67	-24.3		
	River		5.67			
	MW-4-57	Alluvial	6.67	-24.3	-0.0046	Up
	MW-4-101	Alluvial	6.87	-67.7		
29-Dec-03	MW-4-35	Fill	11.90	-2.3	0.1286	Down
	MW-4-57	Alluvial	9.07	-24.3		
	River		8.31			
	MW-4-57	Alluvial	9.07	-24.3	0.0032	Down
	MW-4-101	Alluvial	8.93	-67.7		

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Well Cluster MW-4 (continued)						
Date	**Location**	**Water-Bearing Zone**	**Water Level Elevation (feet MSL)**	**Base of Screen Elevation (feet MSL)**	**Vertical Gradient**	**Direction**
29-Mar-04	MW-4-35	Fill	8.16	-2.3	0.0441	Down
	MW-4-57	Alluvial	7.19	-24.3		
	River		7.61			
	MW-4-57	Alluvial	7.19	-24.3	0.0018	Down
	MW-4-101	Alluvial	7.11	-67.7		
11-Aug-04	MW-4-35	Fill	6.24	-2.3	0.0559	Down
	MW-4-57	Alluvial	5.01	-24.3		
	River		5.67			
	MW-4-57	Alluvial	5.01	-24.3	0.0030	Down
	MW-4-101	Alluvial	4.88	-67.7		
20-Dec-04	MW-4-35	Fill	8.85	-2.3	0.0286	Down
	MW-4-57	Alluvial	8.22	-24.3		
	River		7.03			
	MW-4-57	Alluvial	8.22	-24.3	-0.0005	Up
	MW-4-101	Alluvial	8.24	-67.7		
28-Mar-05	MW-4-35	Fill	10.60	-2.3	0.0573	Down
	MW-4-57	Alluvial	9.34	-24.3		
	River		8.79			
	MW-4-57	Alluvial	9.34	-24.3	-0.0005	Up
	MW-4-101	Alluvial	9.36	-67.7		
20-Jun-05	MW-4-35	Fill	7.98	-2.3	0.0355	Down
	MW-4-57	Alluvial	7.20	-24.3		
	River		6.64			
	MW-4-57	Alluvial	7.20	-24.3	0.0055	Down
	MW-4-101	Alluvial	6.96	-67.7		
16-Sep-05	MW-4-35	Fill	5.60	-2.3	0.0718	Down
	MW-4-57	Alluvial	4.02	-24.3		
	River		3.22			
	MW-4-57	Alluvial	4.02	-24.3	0.0118	Down
	MW-4-101	Alluvial	3.51	-67.7		
7-Dec-05	MW-4-35	Fill	8.48	-2.3	0.0523	Down
	MW-4-57	Alluvial	7.33	-24.3		
	River		7.63			
	MW-4-57	Alluvial	7.33	-24.3	0.0048	Down
	MW-4-101	Alluvial	7.12	-67.7		
27-Mar-06	MW-4-35	Fill	8.29	-2.3	0.0005	Down
	MW-4-57	Alluvial	8.28	-24.3		
	River		8.52			
	MW-4-57	Alluvial	8.28	-24.3	-0.0088	Up
	MW-4-101	Alluvial	8.66	-67.7		

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Well Cluster MW-4 (continued)						
Date	**Location**	**Water-Bearing Zone**	**Water Level Elevation (feet MSL)**	**Base of Screen Elevation (feet MSL)**	**Vertical Gradient**	**Direction**
19-Jun-06	MW-4-35	Fill	12.44	-2.3	0.0241	Down
	MW-4-57	Alluvial	11.91	-24.3		
	River		11.72			
	MW-4-57	Alluvial	11.91	-24.3	0.0014	Down
	MW-4-101	Alluvial	11.85	-67.7		
11-Oct-06	MW-4-35	Fill	6.21	-2.3	0.0014	Down
	MW-4-57	Alluvial	6.18	-24.3		
	River		6.20			
	MW-4-57	Alluvial	6.18	-24.3	-0.0018	Up
	MW-4-101	Alluvial	6.26	-67.7		
21-Mar-07	MW-4-35	Fill	10.91	-2.3	-0.0305	Up
	MW-4-57	Alluvial	11.58	-24.3		
	River		11.12			
	MW-4-57	Alluvial	11.58	-24.3	-0.0016	Up
	MW-4-101	Alluvial	11.65	-67.7		
7-May-07	MW-4-35	Fill	10.51	-2.3	0.0068	Down
	MW-4-57	Alluvial	10.36	-24.3		
	River		10.15			
	MW-4-57	Alluvial	10.36	-24.3	0.0014	Down
	MW-4-101	Alluvial	10.30	-67.7		
21-Jun-07	MW-4-35	Fill	8.48	-2.3	0.0359	Down
	MW-4-57	Alluvial	7.69	-24.3		
	River		7.55			
	MW-4-57	Alluvial	7.69	-24.3	0.0028	Down
	MW-4-101	Alluvial	7.57	-67.7		
6-Sep-07	MW-4-35	Fill	6.11	-2.3	0.0255	Down
	MW-4-57	Alluvial	5.55	-24.3		
	River		5.27			
	MW-4-57	Alluvial	5.55	-24.3	-0.0037	Up
	MW-4-101	Alluvial	5.71	-67.7		
17-Apr-08	MW-4-35	Fill	7.93	-2.3	0.0050	Down
	MW-4-57	Alluvial	7.82	-24.3		
	River		6.79			
	MW-4-57	Alluvial	7.82	-24.3	0.0051	Down
	MW-4-101	Alluvial	7.60	-67.7		
9-Sep-08	MW-4-35	Fill	5.98	-2.3	0.0705	Down
	MW-4-57	Alluvial	4.43	-24.3		
	River		3.52			
	MW-4-57	Alluvial	4.43	-24.3	0.0021	Down
	MW-4-101	Alluvial	4.34	-67.7		

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Well Cluster MW-5						
Date	**Location**	**Water-Bearing Zone**	**Water Level Elevation (feet MSL)**	**Base of Screen Elevation (feet MSL)**	**Vertical Gradient**	**Direction**
17-Mar-03	MW-5-32	Fill/Alluvial	10.01	-5.9	0.0085	Down
	MW-5-100	Alluvial	9.44	-72.6		
	River		9.33			
	MW-5-100	Alluvial	9.44	-72.6	-0.0011	Up
	MW-5-175	Alluvial	9.52	-147.8		
2-Jun-03	MW-5-32	Fill/Alluvial	12.79	-5.9	-0.0003	Up
	MW-5-100	Alluvial	12.81	-72.6		
	River		12.67			
	MW-5-100	Alluvial	12.81	-72.6	-0.0012	Up
	MW-5-175	Alluvial	12.90	-147.8		
29-Sep-03	MW-5-32	Fill/Alluvial	6.80	-5.9	0.0006	Down
	MW-5-100	Alluvial	6.76	-72.6		
	River		5.67			
	MW-5-100	Alluvial	6.76	-72.6	-0.0011	Up
	MW-5-175	Alluvial	6.84	-147.8		
29-Dec-03	MW-5-32	Fill/Alluvial	9.51	-5.9	0.0088	Down
	MW-5-100	Alluvial	8.92	-72.6		
	River		8.31			
	MW-5-100	Alluvial	8.92	-72.6	-0.0008	Up
	MW-5-175	Alluvial	8.98	-147.8		
29-Mar-04	MW-5-32	Fill/Alluvial	7.88	-5.9	0.0114	Down
	MW-5-100	Alluvial	7.12	-72.6		
	River		7.61			
	MW-5-100	Alluvial	7.12	-72.6	-0.0011	Up
	MW-5-175	Alluvial	7.20	-147.8		
11-Aug-04	MW-5-32	Fill/Alluvial	5.47	-5.9	0.0060	Down
	MW-5-100	Alluvial	5.07	-72.6		
	River		5.67			
	MW-5-100	Alluvial	5.07	-72.6	-0.0023	Up
	MW-5-175	Alluvial	5.24	-147.8		
20-Dec-04	MW-5-32	Fill/Alluvial	8.73	-5.9	0.0067	Down
	MW-5-100	Alluvial	8.28	-72.6		
	River		7.03			
	MW-5-100	Alluvial	8.28	-72.6	-0.0015	Up
	MW-5-175	Alluvial	8.39	-147.8		
28-Mar-05	MW-5-32	Fill/Alluvial	9.44	-5.9	0.0015	Down
	MW-5-100	Alluvial	9.34	-72.6		
	River		8.79			
	MW-5-100	Alluvial	9.34	-72.6	-0.0090	Up
	MW-5-175	Alluvial	10.02	-147.8		

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Well Cluster MW-5 (continued)

Date	Location	Water-Bearing Zone	Water Level Elevation (feet MSL)	Base of Screen Elevation (feet MSL)	Vertical Gradient	Direction
20-Jun-05	MW-5-32	Fill/Alluvial	7.58	-5.9	0.0099	Down
	MW-5-100	Alluvial	6.92	-72.6		
	River		6.64			
	MW-5-100	Alluvial	6.92	-72.6	-0.0009	Up
	MW-5-175	Alluvial	6.99	-147.8		
16-Sep-05	MW-5-32	Fill/Alluvial	4.71	-5.9	0.0171	Down
	MW-5-100	Alluvial	3.57	-72.6		
	River		3.22			
	MW-5-100	Alluvial	3.57	-72.6	-0.0005	Up
	MW-5-175	Alluvial	3.61	-147.8		
7-Dec-05	MW-5-32	Fill/Alluvial	8.16	-5.9	0.0139	Down
	MW-5-100	Alluvial	7.23	-72.6		
	River		7.63			
	MW-5-100	Alluvial	7.23	-72.6	-0.0011	Up
	MW-5-175	Alluvial	7.31	-147.8		
27-Mar-06	MW-5-32	Fill/Alluvial	8.15	-5.9	0.0087	Down
	MW-5-100	Alluvial	7.57	-72.6		
	River		8.52			
	MW-5-100	Alluvial	7.57	-72.6	-0.0021	Up
	MW-5-175	Alluvial	7.73	-147.8		
19-Jun-06	MW-5-32	Fill/Alluvial	12.12	-5.9	0.0043	Down
	MW-5-100	Alluvial	11.83	-72.6		
	River		11.72			
	MW-5-100	Alluvial	11.83	-72.6	-0.0004	Up
	MW-5-175	Alluvial	11.86	-147.8		
11-Oct-06	MW-5-32	Fill/Alluvial	6.43	-5.9	0.0022	Down
	MW-5-100	Alluvial	6.28	-72.6		
	River		6.20			
	MW-5-100	Alluvial	6.28	-72.6	-0.0015	Up
	MW-5-175	Alluvial	6.39	-147.8		
21-Mar-07	MW-5-32	Fill/Alluvial	11.68	-5.9	0.0016	Down
	MW-5-100	Alluvial	11.57	-72.6		
	River		11.12			
	MW-5-100	Alluvial	11.57	-72.6	-0.0020	Up
	MW-5-175	Alluvial	11.72	-147.8		
7-May-07	MW-5-32	Fill/Alluvial	10.66	-5.9	0.0052	Down
	MW-5-100	Alluvial	10.31	-72.6		
	River		10.15			
	MW-5-100	Alluvial	10.31	-72.6	-0.0008	Up
	MW-5-175	Alluvial	10.37	-147.8		

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Date	Location	Water-Bearing Zone	Water Level Elevation (feet MSL)	Base of Screen Elevation (feet MSL)	Vertical Gradient	Direction
Well Cluster MW-5 (continued)						
21-Jun-07	MW-5-32	Fill/Alluvial	8.11	-5.9	0.0073	Down
	MW-5-100	Alluvial	7.62	-72.6		
	River		7.55			
	MW-5-100	Alluvial	7.62	-72.6	-0.0008	Up
	MW-5-175	Alluvial	7.68	-147.8		
6-Sep-07	MW-5-32	Fill/Alluvial	5.13	-5.9	0.0054	Down
	MW-5-100	Alluvial	4.77	-72.6		
	River		5.27			
	MW-5-100	Alluvial	4.77	-72.6	-0.0019	Up
	MW-5-175	Alluvial	4.91	-147.8		
17-Apr-08	MW-5-32	Fill/Alluvial	8.53	-5.9	0.0130	Down
	MW-5-100	Alluvial	7.66	-72.6		
	River		6.79			
	MW-5-100	Alluvial	7.66	-72.6	-0.0011	Up
	MW-5-175	Alluvial	7.74	-147.8		
9-Sep-08	MW-5-32	Fill/Alluvial	4.93	-5.9	0.0100	Down
	MW-5-100	Alluvial	4.26	-72.6		
	River		3.52			
	MW-5-100	Alluvial	4.26	-72.6	-0.0016	Up
	MW-5-175	Alluvial	4.38	-147.8		
Well Cluster MW-8						
12-Feb-96	MW-8-29	Fill	22.10	8.5	-0.1285	Up
	MW-8-56	Alluvial	25.57	-18.5		
	River		26.43			
17-Mar-03	MW-8-29	Fill	18.40	8.5	0.3252	Down
	MW-8-56	Alluvial	9.62	-18.5		
	River		9.33			
2-Jun-03	MW-8-29	Fill	18.94	8.5	0.2263	Down
	MW-8-56	Alluvial	12.83	-18.5		
	River		12.67			
29-Sep-03	MW-8-29	Fill	17.66	8.5	0.4204	Down
	MW-8-56	Alluvial	6.31	-18.5		
	River		5.67			
29-Dec-03	MW-8-29	Fill	18.01	8.5	0.3333	Down
	MW-8-56	Alluvial	9.01	-18.5		
	River		8.31			
29-Mar-04	MW-8-29	Fill	18.81	8.5	0.4293	Down
	MW-8-56	Alluvial	7.22	-18.5		
	River		7.61			

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Well Cluster MW-8 (continued)						
Date	**Location**	**Water-Bearing Zone**	**Water Level Elevation (feet MSL)**	**Base of Screen Elevation (feet MSL)**	**Vertical Gradient**	**Direction**
11-Aug-04	MW-8-29	Fill	17.75	8.5	0.4615	Down
	MW-8-56	Alluvial	5.29	-18.5		
	River		5.67			
20-Dec-04	MW-8-29	Fill	17.53	8.5	0.3522	Down
	MW-8-56	Alluvial	8.02	-18.5		
	River		7.03			
28-Mar-05	MW-8-29	Fill	17.69	8.5	0.3078	Down
	MW-8-56	Alluvial	9.38	-18.5		
	River		8.79			
20-Jun-05	MW-8-29	Fill	18.19	8.5	0.3878	Down
	MW-8-56	Alluvial	7.72	-18.5		
	River		6.64			
16-Sep-05	MW-8-29	Fill	17.53	8.5	0.4674	Down
	MW-8-56	Alluvial	4.91	-18.5		
	River		3.22			
7-Dec-05	MW-8-29	Fill	18.19	8.5	0.3922	Down
	MW-8-56	Alluvial	7.60	-18.5		
	River		7.63			
27-Mar-06	MW-8-29	Fill	19.79	8.5	0.4515	Down
	MW-8-56	Alluvial	7.60	-18.5		
	River		8.52			
19-Jun-06	MW-8-29	Fill	19.51	8.5	0.2685	Down
	MW-8-56	Alluvial	12.26	-18.5		
	River		11.72			
11-Oct-06	MW-8-29	Fill	18.16	8.5	0.4456	Down
	MW-8-56	Alluvial	6.13	-18.5		
	River		6.20			
21-Mar-07	MW-8-29	Fill	19.39	8.5	0.2878	Down
	MW-8-56	Alluvial	11.62	-18.5		
	River		11.12			
7-May-07	MW-8-29	Fill	19.39	8.5	0.3226	Down
	MW-8-56	Alluvial	10.68	-18.5		
	River		10.15			
21-Jun-07	MW-8-29	Fill	18.99	8.5	0.4115	Down
	MW-8-56	Alluvial	7.88	-18.5		
	River		7.55			
6-Sep-07	MW-8-29	Fill	18.06	8.5	0.4759	Down
	MW-8-56	Alluvial	5.21	-18.5		
	River		5.27			

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Date	Location	Water-Bearing Zone	Water Level Elevation (feet MSL)	Base of Screen Elevation (feet MSL)	Vertical Gradient	Direction
Well Cluster MW-8 (continued)						
17-Apr-08	MW-8-29	Fill	19.21	8.5	0.4067	Down
	MW-8-56	Alluvial	8.23	-18.5		
	River		6.79			
9-Sep-08	MW-8-29	Fill	19.14	8.5	0.5430	Down
	MW-8-56	Alluvial	4.48	-18.5		
	River		3.52			
Well Cluster MW-10						
12-Feb-96	MW-10-25	Fill	28.11	12.5	-0.0639	Up
	MW-10-61	Alluvial	30.41	-23.5		
	River		26.43			
17-Mar-03	MW-10-25	Fill	22.82	12.5	0.0150	Down
	MW-10-61	Alluvial	22.28	-23.5		
	River		9.03			
2-Jun-03	MW-10-25	Fill	22.62	12.5	0.0189	Down
	MW-10-61	Alluvial	21.94	-23.5		
	River		12.67			
29-Sep-03	MW-10-25	Fill	23.12	12.5	0.1825	Down
	MW-10-61	Alluvial	16.55	-23.5		
	River		5.67			
29-Dec-03	MW-10-25	Fill	22.72	12.5	0.0483	Down
	MW-10-61	Alluvial	20.98	-23.5		
	River		8.31			
29-Mar-04	MW-10-25	Fill	-	12.5	-	-
	MW-10-61	Alluvial	20.12	-23.5		
	River		7.61			
11-Aug-04	MW-10-25	Fill	22.72	12.5	0.0803	Down
	MW-10-61	Alluvial	19.83	-23.5		
	River		5.67			
20-Dec-04	MW-10-25	Fill	21.99	12.5	0.0533	Down
	MW-10-61	Alluvial	20.07	-23.5		
	River		7.03			
28-Mar-05	MW-10-25	Fill	22.07	12.5	0.0331	Down
	MW-10-61	Alluvial	20.88	-23.5		
	River		8.79			
20-Jun-05	MW-10-25	Fill	22.30	12.5	0.0606	Down
	MW-10-61	Alluvial	20.12	-23.5		
	River		6.64			
16-Sep-05	MW-10-25	Fill	21.59	12.5	0.1269	Down
	MW-10-61	Alluvial	17.02	-23.5		
	River		3.22			

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Date	Location	Water-Bearing Zone	Water Level Elevation (feet MSL)	Base of Screen Elevation (feet MSL)	Vertical Gradient	Direction
Well Cluster MW-10 (continued)						
7-Dec-05	MW-10-25	Fill	23.15	12.5	0.0717	Down
	MW-10-61	Alluvial	20.57	-23.5		
	River		7.63			
27-Mar-06	MW-10-25	Fill	24.17	12.5	0.0789	Down
	MW-10-61	Alluvial	21.33	-23.5		
	River		8.52			
19-Jun-06	MW-10-25	Fill	29.42	12.5	0.2075	Down
	MW-10-61	Alluvial	21.95	-23.5		
	River		11.72			
11-Oct-06	MW-10-25	Fill	22.42	12.5	0.1583	Down
	MW-10-61	Alluvial	16.72	-23.5		
	River		6.20			
21-Mar-07	MW-10-25	Fill	25.11	12.5	0.0619	Down
	MW-10-61	Alluvial	22.88	-23.5		
	River		11.12			
7-May-07	MW-10-25	Fill	23.74	12.5	0.0489	Down
	MW-10-61	Alluvial	21.98	-23.5		
	River		10.15			
21-Jun-07	MW-10-25	Fill	23.11	12.5	0.0886	Down
	MW-10-61	Alluvial	19.92	-23.5		
	River		7.55			
6-Sep-07	MW-10-25	Fill	22.14	12.5	0.1361	Down
	MW-10-61	Alluvial	17.24	-23.5		
	River		5.27			
17-Apr-08	MW-10-25	Fill	23.91	12.5	0.0756	Down
	MW-10-61	Alluvial	21.19	-23.5		
	River		6.79			
9-Sep-08	MW-10-25	Fill	22.28	12.5	0.1264	Down
	MW-10-61	Alluvial	17.73	-23.5		
	River		3.52			
Well Cluster MW-13						
17-Mar-03	MW-13-30	Fill	18.94	6.2	0.2929	Down
	MW-13-61	Alluvial	9.86	-24.8		
	River		9.33			
2-Jun-03	MW-13-30	Fill	19.15	6.2	0.1990	Down
	MW-13-61	Alluvial	12.98	-24.8		
	River		12.67			
29-Sep-03	MW-13-30	Fill	16.28	6.2	0.3019	Down
	MW-13-61	Alluvial	6.92	-24.8		
	River		5.67			

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Well Cluster MW-13 (continued)						
Date	**Location**	**Water-Bearing Zone**	**Water Level Elevation (feet MSL)**	**Base of Screen Elevation (feet MSL)**	**Vertical Gradient**	**Direction**
29-Dec-03	MW-13-30	Fill	17.14	6.2	0.2555	Down
	MW-13-61	Alluvial	9.22	-24.8		
	River		8.31			
29-Mar-04	MW-13-30	Fill	18.93	6.2	0.3742	Down
	MW-13-61	Alluvial	7.33	-24.8		
	River		7.61			
11-Aug-04	MW-13-30	Fill	16.46	6.2	0.3703	Down
	MW-13-61	Alluvial	4.98	-24.8		
	River		5.67			
20-Dec-04	MW-13-30	Fill	16.44	6.2	0.2616	Down
	MW-13-61	Alluvial	8.33	-24.8		
	River		7.03			
28-Mar-05	MW-13-30	Fill	16.94	6.2	0.2377	Down
	MW-13-61	Alluvial	9.57	-24.8		
	River		8.79			
20-Jun-05	MW-13-30	Fill	17.07	6.2	0.3129	Down
	MW-13-61	Alluvial	7.37	-24.8		
	River		6.64			
16-Sep-05	MW-13-30	Fill	16.39	6.2	0.3826	Down
	MW-13-61	Alluvial	4.53	-24.8		
	River		3.22			
7-Dec-05	MW-13-30	Fill	17.42	6.2	0.3135	Down
	MW-13-61	Alluvial	7.70	-24.8		
	River		7.63			
27-Mar-06	MW-13-30	Fill	19.46	6.2	0.3548	Down
	MW-13-61	Alluvial	8.46	-24.8		
	River		8.65			
19-Jun-06	MW-13-30	Fill	18.41	6.2	0.2048	Down
	MW-13-61	Alluvial	12.06	-24.8		
	River		11.78			
[1] 21-Jun-07	MW-13-30	Fill	-	6.2	-	-
	MW-13-61R	Alluvial	8.03	-24.8		
	River		7.55			
6-Sep-07	MW-13-30	Fill	16.40	6.2	0.3465	Down
	MW-13-61R	Alluvial	5.66	-24.8		
	River		5.27			
17-Apr-08	MW-13-30	Fill	19.01	6.2	0.3435	Down
	MW-13-61R	Alluvial	8.36	-24.8		
	River		6.79			

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Date	Location	Water-Bearing Zone	Water Level Elevation (feet MSL)	Base of Screen Elevation (feet MSL)	Vertical Gradient	Direction
Well Cluster MW-13 (continued)						
9-Sep-08	MW-13-30	Fill	-	6.2	-	-
	MW-13-61R	Alluvial	4.93	-24.8		
	River		3.52			
Well Cluster MW-15						
17-Mar-03	MW-15-50	Alluvial	22.47	-13.7	0.0465	Down
	MW-15-66	Alluvial	21.75	-29.2		
	River		9.33			
2-Jun-03	MW-15-50	Alluvial	22.89	-13.7	0.0355	Down
	MW-15-66	Alluvial	22.34	-29.2		
	River		12.67			
29-Sep-03	MW-15-50	Alluvial	17.75	-13.7	0.0426	Down
	MW-15-66	Alluvial	17.09	-29.2		
	River		5.67			
29-Dec-03	MW-15-50	Alluvial	21.56	-13.7	0.0471	Down
	MW-15-66	Alluvial	20.83	-29.2		
	River		8.31			
29-Mar-04	MW-15-50	Alluvial	21.15	-13.7	0.0542	Down
	MW-15-66	Alluvial	20.31	-29.2		
	River		7.61			
11-Aug-04	MW-15-50	Alluvial	18.33	-13.7	0.0626	Down
	MW-15-66	Alluvial	17.36	-29.2		
	River		5.67			
20-Dec-04	MW-15-50	Alluvial	20.40	-13.7	0.0710	Down
	MW-15-66	Alluvial	19.30	-29.2		
	River		7.03			
28-Mar-05	MW-15-50	Alluvial	21.13	-13.7	0.0432	Down
	MW-15-66	Alluvial	20.46	-29.2		
	River		8.79			
20-Jun-05	MW-15-50	Alluvial	20.71	-13.7	0.0748	Down
	MW-15-66	Alluvial	19.55	-29.2		
	River		6.64			
16-Sep-05	MW-15-50	Alluvial	17.85	-13.7	0.0529	Down
	MW-15-66	Alluvial	17.03	-29.2		
	River		3.22			
7-Dec-05	MW-15-50	Alluvial	20.82	-13.7	0.0555	Down
	MW-15-66	Alluvial	19.96	-29.2		
	River		7.63			

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Date	Location	Water-Bearing Zone	Water Level Elevation (feet MSL)	Base of Screen Elevation (feet MSL)	Vertical Gradient	Direction
Well Cluster MW-15 (continued)						
27-Mar-06	MW-15-50	Alluvial	22.23	-13.7	0.0600	Down
	MW-15-66	Alluvial	21.30	-29.2		
	River		8.52			
19-Jun-06	MW-15-50	Alluvial	23.02	-13.7	0.0006	Down
	MW-15-66	Alluvial	23.01	-29.2		
	River		11.72			
11-Oct-06	MW-15-50	Alluvial	18.06	-13.7	0.0548	Down
	MW-15-66	Alluvial	17.21	-29.2		
	River		6.20			
21-Mar-07	MW-15-50	Alluvial	23.10	-13.7	0.0323	Down
	MW-15-66	Alluvial	22.60	-29.2		
	River		11.12			
7-May-07	MW-15-50	Alluvial	22.86	-13.7	0.0606	Down
	MW-15-66	Alluvial	21.92	-29.2		
	River		10.15			
21-Jun-07	MW-15-50	Alluvial	21.10	-13.7	0.0587	Down
	MW-15-66	Alluvial	20.19	-29.2		
	River		7.55			
6-Sep-07	MW-15-50	Alluvial	18.57	-13.7	0.0600	Down
	MW-15-66	Alluvial	17.64	-29.2		
	River		5.27			
17-Apr-08	MW-15-50	Alluvial	21.05	-13.7	-0.0781	Up
	MW-15-66	Alluvial	22.26	-29.2		
	River		6.79			
9-Sep-08	MW-15-50	Alluvial	18.92	-13.7	0.0677	Down
	MW-15-66	Alluvial	17.87	-29.2		
	River		3.52			
Well Cluster MW-16						
11-Aug-04	MW-16-45	Alluvial	5.44	-14.2	0.0163	Down
	MW-16-65	Alluvial	5.11	-34.4		
	River		5.67			
	MW-16-65	Alluvial	5.11	-34.4	-0.0077	Up
	MW-16-125	Alluvial	5.57	-94.5		
20-Dec-04	MW-16-45	Alluvial	8.32	-14.2	0.0069	Down
	MW-16-65	Alluvial	8.18	-34.4		
	River		7.03			
	MW-16-65	Alluvial	8.18	-34.4	0.0017	Down
	MW-16-125	Alluvial	8.08	-94.5		

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Well Cluster MW-16 (continued)						
Date	**Location**	**Water-Bearing Zone**	**Water Level Elevation (feet MSL)**	**Base of Screen Elevation (feet MSL)**	**Vertical Gradient**	**Direction**
28-Mar-05	MW-16-45	Alluvial	9.47	-14.2	0.0109	Down
	MW-16-65	Alluvial	9.25	-34.4		
	River		8.79			
	MW-16-65	Alluvial	9.25	-34.4	0.0033	Down
	MW-16-125	Alluvial	9.05	-94.5		
20-Jun-05	MW-16-45	Alluvial	8.40	-14.2	0.0629	Down
	MW-16-65	Alluvial	7.13	-34.4		
	River		6.64			
	MW-16-65	Alluvial	7.13	-34.4	0.0045	Down
	MW-16-125	Alluvial	6.86	-94.5		
16-Sep-05	MW-16-45	Alluvial	5.70	-14.2	0.0733	Down
	MW-16-65	Alluvial	4.22	-34.4		
	River		3.22			
	MW-16-65	Alluvial	4.22	-34.4	0.0126	Down
	MW-16-125	Alluvial	3.46	-94.5		
7-Dec-05	MW-16-45	Alluvial	7.23	-14.2	-0.0327	Up
	MW-16-65	Alluvial	7.89	-34.4		
	River		7.63			
	MW-16-65	Alluvial	7.89	-34.4	0.0131	Down
	MW-16-125	Alluvial	7.10	-94.5		
27-Mar-06	MW-16-45	Alluvial	8.23	-14.2	0.0183	Down
	MW-16-65	Alluvial	7.86	-34.4		
	River		8.52			
	MW-16-65	Alluvial	7.86	-34.4	-0.0073	Up
	MW-16-125	Alluvial	8.30	-94.5		
19-Jun-06	MW-16-45	Alluvial	12.01	-14.2	0.0079	Down
	MW-16-65	Alluvial	11.85	-34.4		
	River		11.72			
	MW-16-65	Alluvial	11.85	-34.4	0.0027	Down
	MW-16-125	Alluvial	11.69	-94.5		
11-Oct-06	MW-16-45	Alluvial	6.42	-14.2	0.0129	Down
	MW-16-65	Alluvial	6.16	-34.4		
	River		6.20	6.2		
	MW-16-65	Alluvial	6.16	-34.4	0.0017	Down
	MW-16-125	Alluvial	6.06	-94.5		
21-Mar-07	MW-16-45	Alluvial	11.30	-14.2	-0.0668	Up
	MW-16-65	Alluvial	12.65	-34.4		
	River		11.12	6.2		
	MW-16-65	Alluvial	12.65	-34.4	0.0210	Down
	MW-16-125	Alluvial	11.39	-94.5		

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Date	Location	Water-Bearing Zone	Water Level Elevation (feet MSL)	Base of Screen Elevation (feet MSL)	Vertical Gradient	Direction
Well Cluster MW-16 (continued)						
7-May-07	MW-16-45	Alluvial	10.76	-14.2	0.0149	Down
	MW-16-65	Alluvial	10.46	-34.4		
	River		10.15	6.2		
	MW-16-65	Alluvial	10.46	-34.4	0.0040	Down
	MW-16-125	Alluvial	10.22	-94.5		
21-Jun-07	MW-16-45	Alluvial	8.55	-14.2	0.0441	Down
	MW-16-65	Alluvial	7.66	-34.4		
	River		7.55	6.2		
	MW-16-65	Alluvial	7.66	-34.4	0.0040	Down
	MW-16-125	Alluvial	7.42	-94.5		
6-Sep-07	MW-16-45	Alluvial	5.76	-14.2	0.0134	Down
	MW-16-65	Alluvial	5.49	-34.4		
	River		5.27	6.2		
	MW-16-65	Alluvial	5.49	-34.4	-0.0027	Up
	MW-16-125	Alluvial	5.65	-94.5		
17-Apr-08	MW-16-45	Alluvial	8.52	-14.2	0.0381	Down
	MW-16-65	Alluvial	7.75	-34.4		
	River		6.79	6.2		
	MW-16-65	Alluvial	7.75	-34.4	0.0062	Down
	MW-16-125	Alluvial	7.38	-94.5		
9-Sep-08	MW-16-45	Alluvial	5.60	-14.2	0.0911	Down
	MW-16-65	Alluvial	3.76	-34.4		
	River		3.52	6.2		
	MW-16-65	Alluvial	3.76	-34.4	-0.0101	Up
	MW-16-125	Alluvial	4.37	-94.5		
Well Cluster MW-18						
21-Mar-07	MW-18-30	Fill	10.97	1.66	-0.0050	Up
	MW-18-180	Alluvial	11.72	-148.3		
	River		11.12			
7-May-07	MW-18-30	Fill	11.18	1.66	0.0051	Down
	MW-18-180	Alluvial	10.42	-148.3		
	River		10.15			
21-Jun-07	MW-18-30	Fill	9.91	1.66	0.0154	Down
	MW-18-180	Alluvial	7.60	-148.3		
	River		7.55			
6-Sep-07	MW-18-30	Fill	6.83	1.66	0.0074	Down
	MW-18-180	Alluvial	5.72	-148.3		
	River		5.27			
17-Apr-08	MW-18-30	Fill	8.44	1.66	0.0055	Down
	MW-18-180	Alluvial	7.61	-148.3		
	River		6.79			

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Date	Location	Water-Bearing Zone	Water Level Elevation (feet MSL)	Base of Screen Elevation (feet MSL)	Vertical Gradient	Direction
Well Cluster MW-18 (continued)						
9-Sep-08	MW-18-30	Fill	DRY	1.66	-	-
	MW-18-180	Alluvial	4.42	-148.3		
	River		3.52			
Well Cluster MW-19						
21-Mar-07	MW-19-22	Fill	11.48	5.4	-0.0022	Up
	MW-19-125	Alluvial	11.71	-97.8		
	River		11.12			
	MW-19-125	Alluvial	11.71	-97.8	0.0073	Down
	MW-19-180	Alluvial	11.31	-152.72		
7-May-07	MW-19-22	Fill	10.87	5.4	0.0048	Down
	MW-19-125	Alluvial	10.37	-97.8		
	River		10.15			
	MW-19-125	Alluvial	10.37	-97.8	-0.0011	Up
	MW-19-180	Alluvial	10.43	-152.72		
21-Jun-07	MW-19-22	Fill	9.14	5.4	0.0146	Down
	MW-19-125	Alluvial	7.63	-97.8		
	River		7.55			
	MW-19-125	Alluvial	7.63	-97.8	-0.0007	Up
	MW-19-180	Alluvial	7.67	-152.72		
6-Sep-07	MW-19-22	Fill	7.45	5.4	0.0236	Down
	MW-19-125	Alluvial	5.01	-97.8		
	River		5.27			
	MW-19-125	Alluvial	5.01	-97.8	-0.0025	Up
	MW-19-180	Alluvial	5.15	-152.72		
17-Apr-08	MW-19-22	Fill	10.01	5.4	0.0222	Down
	MW-19-125	Alluvial	7.72	-97.8		
	River		6.79			
	MW-19-125	Alluvial	7.72	-97.8	-0.0007	Up
	MW-19-180	Alluvial	7.76	-152.72		
9-Sep-08	MW-19-22	Fill	7.80	5.4	0.0333	Down
	MW-19-125	Alluvial	4.36	-97.8		
	River		3.52			
	MW-19-125	Alluvial	4.36	-97.8	-0.0018	Up
	MW-19-180	Alluvial	4.46	-152.72		

Note: MSL = mean sea level, City of Portland datum

TABLE 3 - Groundwater Vertical Gradient Calculations: Well Clusters

Well Cluster MW-21						
Date	**Location**	**Water-Bearing Zone**	**Water Level Elevation (feet MSL)**	**Base of Screen Elevation (feet MSL)**	**Vertical Gradient**	**Direction**
6-Sep-07	MW-21-12	Fill	10.82	8.5	0.0795	Down
	MW-21-75	Alluvial	5.81	-54.5		
	River		5.27			
	MW-21-75	Alluvial	5.81	-54.5	-0.0025	Up
	MW-21-115	Alluvial	5.91	-94.5		
	MW-21-115	Alluvial	5.91	-94.5	-0.0028	Up
	MW-21-165	Alluvial	6.05	-144.5		
17-Apr-08	MW-21-12	Fill	13.39	8.5	0.0916	Down
	MW-21-75	Alluvial	7.62	-54.5		
	River		6.79			
	MW-21-75	Alluvial	7.62	-54.5	-0.0013	Up
	MW-21-115	Alluvial	7.67	-94.5		
	MW-21-115	Alluvial	7.67	-94.5	-0.0020	Up
	MW-21-165	Alluvial	7.77	-144.5		
9-Sep-08	MW-21-12	Fill	11.09	8.5	0.1097	Down
	MW-21-75	Alluvial	4.18	-54.5		
	River		3.52			
	MW-21-75	Alluvial	4.18	-54.5	-0.0010	Up
	MW-21-115	Alluvial	4.22	-94.5		
	MW-21-115	Alluvial	4.22	-94.5	-0.0030	Up
	MW-21-165	Alluvial	4.37	-144.5		

Note: MSL = mean sea level, City of Portland datum
1 = Suspected error in field water level measurement
2 = Suspected error in field water level measurement, use purge/sampling initial water level for gradients

4a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide

Well Number	Sample Collected by	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results								
					EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
					Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]													
Fish Consumption													
		EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
		Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
		DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water													
		MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
		Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]													
		EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
WS-1	CH2M HILL		Aug-85	7-22	1,100.	U	410.	1,200.	0.18	-		151.	1,012.
WS-2	CH2M HILL		Aug-85	7.5-22	100.	U	U	32.	0.058	-		2,710.	10,630.
WS-3S	CH2M HILL		Aug-85	12-27	390.	U	U	U	0.13	-		ND	712.
	URS		6-Apr-00		U								
			13-Oct-00		U								
			25-Jun-01		0.3								
	AMEC		16-Apr-02		4.								
WS-3I	G&M		Oct-90	55-60	U	U	U	U	0.107	-		ND	904.
	URS		6-Apr-00		U								
			13-Oct-00		U								
			25-Jun-01		U								
	AMEC		16-Apr-02		0.14								
			13-Apr-04		U	U	U	U					
W-03-81	URS		6-Apr-00	75-80	U								
			13-Oct-00		U								
			25-Jun-01		0.17								
	AMEC		16-Apr-02		U								
			13-Apr-04		U	U	U	U					
WS-4	CH2M HILL		Aug-85	6.5-21.5	U	U	U	15.	0.93	-		ND	795.
WS-5	CH2M HILL		Aug-85	5-20					0.13	-		ND	186.
WS-6	CH2M HILL		Aug-85	9-24	1,200.		350.	430.	0.04	-		ND	2,433.
			6-Apr-00		40.4								
			13-Oct-00		614.								
WS-7	CH2M HILL		Aug-85	10-25	U	U	U	U	0.033	-		37.	90.
	URS		Oct-90		U	U	U	U	0.031	-		ND	13.
			6-Apr-00		U								
			13-Oct-00		U								
WS-8-33	HAI	5237-011009-107	9-Oct-01	23-33	107.	10. U	27.9	20. U	0.02 U,J	0.02 U,J		1.72	728.14
		5237-011213-105	13-Dec-01		68.	5. U	29.6	23.2	0.854	0.02 U		1.03	524.18
		5237-020403-105	3-Apr-02		89.1	2.07	19.5	20.48	0.416	0.064 J		0.73	274.61
		5237-020403-106	3-Apr-02		87.4	2.14	18.	18.5	0.615	0.183 J		0.76	262.17
		5237-020710-104	10-Jul-02		65.9	1.24	31.6	53.1	0.724	0.08 U		1.44	340.28
		5237-020710-105	10-Jul-02		68.1	1.29	30.4	49.8	0.726	0.08 U		2.1	354.13
	HAI	5237-080521-WS8-33-105	21-May-08		76.	1.4	12.	30.	0.6	0.02	6.	5.39	387.4

4a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide

Well Number	Sample Collected by	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results								
					EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
					Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]													
Fish Consumption													
		EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
		Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
		DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water													
		MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
		Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]													
		EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
WS-8-59	HAI	5237-011008-104	8-Oct-01	49-59	14.7	1. U	1. U	2. U	0.468	0.02 U,J		0.54	98.22
		5237-011008-105 (duplicate)	8-Oct-01		21.4	2.02	1. U	2. U	0.456	0.02 U,J		0.44	95.83
		5237-011212-103	12-Dec-01		26.8	1.27	1. U	2.66	0.725 J	0.263		1.07	65.14
		5237-011212-104 (duplicate)	12-Dec-01		27.	1.32	1. U	2.57	0.066 J	0.02 U,J		0.52	62.97
		5237-020403-104	3-Apr-02		13.	1. U	1. U	1.11	1.42	0.4 U		0.4	26.78
		5237-0207103	10-Jul-02		20.8	1.17	1. U	2.29	0.459	0.04 U		0.4	18.88
	HAI	5237-070716-WS-8-59-108	16-Jul-07		7.08	0.53	0.06 U	0.26 U	0.538	0.181	0.0061	0.69132	2.90432
	HAI	5237-080521-WS8-56-106	21-May-08		13.	0.8	0.04 U	0.96	0.45	0.11	4.	4.67	9.95
WS-9-34	HAI	5237-011008-102	8-Oct-01	24-34	1. U	1. U	1. U	2. U	0.14	0.02 U,J		ND	3.59
		5237-011212-101	12-Dec-01		1. U	1. U	1. U	2. U	0.074	0.02 U		0.75	32.31
		5237-020402-101	2-Apr-02		1. U	1. U	1. U	2. U	0.11	0.04 U		ND	26.33
		5237-020710-101	10-Jul-02		1. U	1. U	1. U	2. U	0.074 J	0.04 U,J		ND	17.81
WS-10-27	MFA	WS-10-27	27-Oct-03	11-26	8,060.	150.	716.	1,472.				-	-
		WS-10-27	29-Jan-04		5,040.	76.3	518.	265.7	1.18	-		-	-
		WS-10-27	29-Apr-04		7,640.	337.	570.	548.	1.46	-		59.72	4,514.76
		WS-10-27	16-Nov-04		7,170.	376.	617.	984.				670.4	12,719.7
WS-11-125	MFA	WS-11-125	28-Oct-03	109-124	252.	56.1	87.6	92.9		-		-	-
			30-Jan-04		328.	68.5	124.	125.3				-	-
			29-Apr-04		379.	84.2	155.	207.7	0.427			680.3	8,137.9
			16-Nov-04		536.	120.	182.	256.	0.574	-		48.78	3,012.37
	HAI	5237-080515-WS11-125-102	15-May-08		560.	190.	490.	620.	0.61	0.1	6. J	12.76	11,537.86
WS-11-161	MFA	WS-11-161	27-Oct-03	145-160	0.56	0.2 U	0.2 U	0.4 U				-	-
			29-Jan-04		0.2 U	0.2 U	0.2 U	0.4 U				-	-
			27-Apr-04		U	U	U	U	U	-		0.5045	2.8069
			16-Nov-04		0.2 U	0.2 U	0.2 U	0.4 U	0.01 U	-		ND	2.0558
	HAI	5237-070712-WS11-161	12-Jul-07		8.53	3.02	3.91	4.36	0.005 U	0.005 U	0.003 UR	0.06749	50.09
	HAI	5237-080515-WS11-161-103	15-May-08		25.	8.6	12.	13.7	0.01 J	0.002 U	4. J	ND	110.82
WS-12-125	MFA	WS-12-125	28-Oct-03	109-124	8.53	0.2 U	0.2 U	1.1				-	-
			30-Jan-04		2.91	0.2 U	0.2 U	0.4 U				-	-
			26-Apr-04		9.56	U	U	1.35	0.422	-		ND	2.535
			17-Nov-04		4.01	0.2 U	0.2 U	0.4 U	0.5	-		ND	1.0063
	HAI	5237-070712-WS12-125	12-Jul-07		6.44	0.11 U	0.06 U	0.26 U	0.452	0.258	0.0078 J	0.0051	0.8151
	HAI	5237-080521-WS12-126-104	21-May-08		6.6	0.1 J	0.05 J	0.07	0.53	0.04	7.	0.007	0.366
WS-12-161	MFA	WS-12-161	27-Oct-03	145-160	0.55	0.2 U	0.2 U	0.4 U				-	-
			29-Jan-04		0.2 U	0.2 U	0.2 U	0.4 U				-	-
			26-Apr-04		U	U	U	U	0.0115	-		ND	0.7919
			17-Nov-04		446.	0.2 U	79.7	87.1	0.01 U	-		ND	1.25
	HAI	5237-070712-WS12-161	12-Jul-07		0.09 U	0.11 U	0.06 U	0.26 U	0.006 J	0.0054 J	0.003 UR	0.02338	0.02338
	HAI	5237-080521-WS12-161-107	21-May-08		0.07 J	0.05 U	0.04 U	0.08 U	0.008	0.002 U	5.	ND	0.0484

4a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide

Well Number	Sample Collected by	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results								
					EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
					Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]													
Fish Consumption													
		EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
		Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
		DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water													
		MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
		Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]													
		EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
WS-13-69	MFA	WS-13-69	29-Oct-03	52.6-67.6	129.	46.9	60.1	87.3				-	-
			30-Jan-04		680.	58.6	153.	196.7				-	-
			28-Apr-04		587.	57.5	123.	124.4	0.446	-		0.23	673.08
			18-Nov-04		764.	57.3	732.	159.4	0.483	-		ND	813.46
WS-13-105	MFA	WS-13-105	29-Oct-03	89-104	2.14	1.34	6.14 U	5.09 U				-	-
		WS-13-105-DUP	29-Oct-03		1.09	0.2 U	1.29	2.2				-	-
			30-Jan-04		11.7	1.18	3.32	2.09				-	-
		WS-13-105-DUP	30-Jan-04		3.23	1.79	4.14	3.6				-	-
			28-Apr-04		U	U	U	U	0.0164	-		0.2404	33.99
		WS-13-105-DUP	28-Apr-04		U	U	U	U	U	-		ND	17.3
			18-Nov-04		0.2 U	0.2 U	0.2 U	0.4 U	0.01 U	-		ND	0.494
		WS-13-105-DUP	18-Nov-04		0.2 U	0.2 U	0.2 U	0.4 U	0.01 U	-		ND	0.237
WS-14-125	MFA	WS-14-125	16-Nov-04	109-124	3,630.	410.	514.	675.	0.254	-		39.04	5,100.81
	HAI	5237-070712-WS14-125	12-Jul-07		5,430.	202.	505.	631.	0.273	0.266	0.00563 J	7.1	7,889.52
	HAI	5237-080515-WS14-125-100	15-May-08		6,400.	160.	640.	820.	0.33	0.002 U	8. J	1.94	8,117.58
WS-14-161	MFA	WS-14-161	16-Nov-04	145-160	0.43	0.2 U	0.2 U	0.4 U	0.01 U	-		ND	0.7078
	HAI	5237-070712-WS14-161	12-Jul-07		0.09 U	0.11 U	0.68	0.26 U	0.005 U	0.005 U	0.003 UR	ND	15.88
	HAI	5237-080515-WS14-161-101	15-May-08		0.44 J	0.94	7.6	10.	0.002 U	0.002 U	3. J	0.0047	143.74
WS-15-85	MFA	WS-15-85	18-Nov-04	70-85	3,650.	268.	285.	297.	0.0233	-		1.0708	2,382.29
WS-15-140	MFA	WS-15-140	18-Nov-04	125-140	7.99	0.32	0.79	0.4 U	0.135	-		0.0517	18.182
WS-16-125	MFA	WS-16-125	17-Nov-04	109-124	0.2 U	0.2 U	0.2 U	0.4 U	0.01 U	-		ND	155.64
WS-16-161	MFA	WS-16-161	17-Nov-04	145-160	2.4	0.75	0.77	1.32	0.01 U	-		ND	9.2733
WS-17-52	MFA	WS-17-52	16-Nov-04	41-51	105.	0.2 U	90.1	102.4	0.149	-		0.5003	322.05
WS-17-94	MFA	WS-17-94	17-Nov-04	78-93	7.67	4.39	8.94	10.89	0.01 U	-		ND	114.09
WS-21-112	HAI	5237-070712-WS21-112	12-Jul-07	96 - 111	930.	9.1	45.2	39.3	0.0755	0.005 U	0.0113 J	0.00673	5.81673
	HAI	5237-080521-WS21-112-108	21-May-08		510.	6.2	35.	30.1	0.84	0.16	5.	ND	10.98
RP-01-31	URS		17-Apr-00	25-30	0.16							-	-
			Fall-00		U							-	-
			26-Jun-01		U							-	-
	AMEC		5-Apr-02		U							-	-
			15-Apr-04		U	U	U	U				-	-
RP-01-51	URS		17-Apr-00	45-50	1.12							-	-
			Fall-00		0.16							-	-
			26-Jun-01		0.18							-	-
	AMEC		8-Apr-02		0.5							-	-
			15-Apr-04		0.64	U	U	U				-	-
		(duplicate)	15-Apr-04		0.6	U	U	U				-	-

4a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide

Well Number	Sample Collected by	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results								
					EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
					Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]													
Fish Consumption													
		EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
		Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
		DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water													
		MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
		Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]													
		EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
RP-01-65	URS		17-Apr-00	59-64	27.4							-	-
			Fall-00		13.7							-	-
			26-Jun-01		41.4							-	-
	AMEC		5-Apr-02		4.75							-	-
			15-Apr-04		7.7	U	U	U				-	-
RP-03-26	URS		7-Apr-00	20-25	U							-	-
RP-03-30R	URS		Fall-00	23-28	U							-	-
			27-Jun-01		U							-	-
	AMEC		10-Apr-02		U							-	-
			19-Apr-04		U		5.1	8.9				0.602	2,365.24
RP-03-52R	URS		Fall-00	46-51	U							-	-
			27-Jun-01		U							-	-
	AMEC		10-Apr-02		U							-	-
			19-Apr-04									ND	0.3897
		(duplicate)	19-Apr-04		U	U	U	U				ND	0.3976
RP-06-31	URS		14-Apr-00	24.5-29.5	0.45							-	-
			Fall-00		0.18							-	-
			27-Jun-01		U							-	-
	AMEC		10-Apr-02		U							-	-
RP-06-87	URS		14-Apr-00	81-86	3.1							-	-
			Fall-00		1.85							-	-
			27-Jun-01		1.85							-	-
	AMEC		10-Apr-02		1.65							-	-
			15-Apr-04		1.5	U	U	U				-	-
RP-07-30	AMEC		3-May-02	25-30	U							-	-
	HAI	5237-070828-RP-7-30-106	28-Aug-07		0.09 U	0.11 U	0.06 U	0.26 U	0.0094 0	0.0094 0	0.003 U	0.01774	12.52
RP-07-55	AMEC		3-May-02	50-55	U							ND	ND
	HAI	5237-070827-RP-7-55-104	27-Aug-07		0.09 U	0.11 U	0.06 U	0.26 U	0.005 UJ	0.005 U	0.003 J	ND	ND
RP-07-84	AMEC		3-May-02	79-84	U							-	-
			13-Apr-04		1.9	U	U	U				ND	ND
	HAI	5237-070828-RP-7-84-107	28-Aug-07		1.39	0.11 U	0.06 U	0.26 U	0.005 U	0.005 U	0.003 U	ND	ND
	HAI	5237-070828-RP-7-84-108 (DUP)	28-Aug-07		1.31	0.11 U	0.06 U	0.26 U	0.005 U	0.005 U	0.003 U	ND	ND
RP-07-119	AMEC		Spring-02	114-119	U							-	-
			13-Apr-04		U	U	U	U				ND	ND
RP-11-30	HAI	5237-070827-RP-11-30-101	27-Aug-07	15 - 30	0.09 U	0.75	0.06 U	0.26 U	0.0262 J	0.0217	0.003 UR	0.1125	6.5145
RP-11-160	HAI	5237-070827-RP-11-160-102	27-Aug-07	150 - 160	0.09 U	0.11 U	0.06 U	0.26 U	0.005 UJ	0.005 U	0.003 UR	ND	ND
RP-11-216	HAI	5237-070827-RP-11-216-103	27-Aug-07	211 - 216	0.47	0.11 U	0.06 U	0.26 U	0.005 UJ	0.005 U	0.003 UR	ND	ND
RP-24-30	HAI	5237-070829-RP-24-30-109	29-Aug-07	25 - 30	0.09 U	0.11 U	0.06 U	0.26 U	0.0269	0.0174	0.003 U	ND	ND
RP-24-60	HAI	5237-070828-RP-24-60-110	28-Aug-07	55 - 60	0.09 U	0.11 U	0.06 U	0.26 U	0.0582	0.0431	0.003 U	ND	1.584

4a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide

Well Number	Sample Collected by	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results								
					EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
					Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]													
Fish Consumption													
		EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
		Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
		DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water													
		MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
		Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]													
		EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
RP-24-73	HAI	5237-070829-RP-24-73-113	29-Aug-07	68 - 73	0.09 U	0.11 U	0.06 U	0.26 U	0.0596	0.0592	0.003 U	ND	ND
RP-24-85	HAI	5237-070828-RP-24-85-111	28-Aug-07	80 - 85	1.86	0.11 U	0.06 U	0.26 U	0.0293	0.0201	0.003 U	ND	ND

4a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide

Well Number	Sample Collected by	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results								
					EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
					Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]													
Fish Consumption													
		EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
		Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
		DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water													
		MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
		Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]													
		EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
		Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
Quality Control Samples (HAI)													
Trip Blanks	HAI	5237-011008-101	8-Oct-01		1. U	1. U	1. U	2. U				-	-
		5237-011212-100	12-Dec-01		1. U	1. U	1. U	2. U				-	-
		5237-011213-106	13-Dec-01		1. U	1. U	1. U	2. U				-	-
		5237-011009-106	9-Oct-01		1. U	1. U	1. U	2. U				-	-
		5237-020402-100	2-Apr-02		1. U	1. U	1. U	2. U				-	-
		5237-020403-103	3-Apr-02		1. U	1. U	1. U	2. U				-	-
		5237-020710-100	10-Jul-02		1. U	1. U	1. U	2. U				-	-
		5237-070712-MW-7	12-Jul-07		0.09 U	0.11 U	0.06 U	0.26 U				-	-
Water EB	HAI	5237-011008-103	8-Oct-01		1. U	1. U	1. U	2. U	0.02 U	0.02 U		ND	ND
		5237-011212-102	12-Dec-01		1. U	1. U	1. U	2. U	0.02 U	0.02 U		ND	ND
		5237-020402-102	2-Apr-02		1. U	1. U	1. U	2. U	0.04 U	-		ND	ND
		5237-020710-102	10-Jul-02		1. U	1. U	1. U	2. U	0.04 U	0.04 U		ND	ND

Note:

'-' = not analyzed
# = Reference Level not established
A = this analysis was performed on a VOA sample containing headspace
AWQC = Ambient Water Quality Criteria
BTEX = benzene, toluene, ethylbenzene, and xylenes
DEQ = Oregon Department of Environmental Quality
EPA = U.S. Environmental Protection Agency
J = Estimated Concentration

MCL = Maximum Contaminant Level
mg/l = milligrams per liter
ND = not detected above detection limit indicated
NRWQC = National Recommended Water Quality Criteria
PRG = Potential Remediation Goal
PAHs = polynuclear aromatic hydrocarbons
ppb = parts per billion
ppm = parts per million

SCV = Secondary Chronic Value
ug/l = micrograms per liter
U = Non-detect above method reporting limit
U* = Compound considered non-detect because it was also detected in associated blank at similar concentration levels.
UJ = Compound not detected, but the reporting limit is probably higher due to a low bias identified during the quality assurrance review.
UR = Unusable Reportling Limit, compound may or may not be present in this sample.

Note: Reference Level is lowest of EPA AWQC for aquatic life protection, AWQC for human consumption of organisms only, or DEQ SLV for aquatic receptors
1 = Sample number prefix: 2708-
2 = Tier II values were taken from Suter II, G.W. and Tasco, C.L., 1996. Toxilogical Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision. ORNL publication ES/ER/TM-96/R2
3 = Screening Level Values are from *Portland Harbor Joint Source Control Strategy*, Final, December 2005
4 = Due to mislabeling in the field or due to laboratory misidentification, the laboratory report transposed results for MW4-35 and MW-4-57 in August 1997. Tables attribute data to the correct well.
5 = Sample Numbers (980603-) MW4-57-18 & MW8-56-21 were analyzed for Amenable Cyanide outside of recommended holding time.
6 = PAH results for sample 960620-MW8-56-01 should be considered qualitative due to an apparent error concerning sample identity.
7 = Monitoring well purged & sampled with low-flow protocol as per EPA/540/S-95/504 (April 1996)
8 = EPA, under CERCLA authority, has identified the Safe Drinking Water Acts MCLs and AWQCs (federal and state once approved) as potential ARARs under CERCLA. The final determination will be made in the EPA Portland Harbor Record of Decision (ROD). Decisions to implement source control, prior to The EPA Portland Harbor ROD, due to an exceedance of an SLV in upland stormwater will be evaluated and prioritized on a case by case basis.

Table 4b - Summary of Analytical Results for Groundwater Samples: Monitoring Wells
Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8270 SIM or 8270C

Well Number	Collected by	Sample Number	Sample Date	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
					Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3 cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [1,2]																						
Fish Consumption																						
	EPA 2004 NRWQC (organism only)				990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate				99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)				990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																						
	MCL [3]				0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs				370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [1,2]																						
	EPA 2004 NRWQC (chronic)				#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)				#	520 [5]	#	#	#	#	#	#	#	#	#	#	#	620 [5]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [4]				#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
WS-1	CH2M HILL		Aug-85	7-22	270.	88.	39.	31.	40.	24.	25.	U	36.	U	73.	95.	20.	U	190.	81.	151.	1,012.
WS-2	CH2M HILL		Aug-85	7.5-22	940.	200.	630.	480.	760.	400.	370.	120.	650.	U	1,380.	440.	300.	1,900.	630.	1,430.	2,710.	10,630.
WS-3S	CH2M HILL		Aug-85	12-27	86.	U	U	U	U	U	U	U	U	U	U	13.	U	600.	13.	U	ND	712.
WS-3I	G&M		Oct-90	55-60	93.	2.	2.	U	U	U	U	U	U	U	5.	22.	U	770.	6.	4.	ND	904.
WS-4	CH2M HILL		Aug-85	6.5-21.5	350.	U	U	U	U	U	U	U	U	U	U	53.	U	350.	28.	14.	ND	795.
WS-5	CH2M HILL		Aug-85	5-20	54.	31.	U	U	U	U	U	U	U	U	U	12.	U	58.	21.	10.	ND	186.
WS-6	CH2M HILL		Aug-85	9-24	200.	32.	U	U	U	U	U	U	U	U	U	35.	U	2,100.	56.	10.	ND	2,433.
WS-7	CH2M HILL		Aug-85	10-25	19.	U	U	12.	10.	U	U	U	15.		23.	U	U	U	U	11.	37.	90.
			Oct-90		2.	U	U	U	U	U	U	U	U	U	3.	3.	U	5.	U	U	ND	13.
WS-8-33	HAI	011009-107	9-Oct-01	23-33	98.7	1.17	8.42	0.55	0.27	0.19	0.15	0.1 U	0.6	0.1 U	7.83	32.5	0.11	485.	85.	7.65	1.72	728.14
		011213-105	13-Dec-01		105. J	2.35	11.9	0.25	0.27	0.1	0.1 U	0.1 U	0.3	0.1 U	7.35	31.9 J	0.11	287. J	70.5 J	7.15	1.03	524.18
		020403-105	3-Apr-02		91.6	1.01	6.43	0.31	0.1 U	0.1 U	0.1 U	0.1 U	0.42	0.1 U	7.18	18.4	0.1 U	110.	34.1	5.16	0.73	274.61
		020403-106D	3-Apr-02		84.	1.39	7.14	0.32	0.1 U	0.1 U	0.1 U	0.1 U	0.44	0.1 U	8.2	19.5	0.1 U	101.	33.8	6.38	0.76	262.17
		020710-104	10-Jul-02		129.	1.65	8.42	0.53	0.15	0.11	0.11	0.12	0.53	0.1 U	7.7	34.4	0.1 U	77.4	72.	8.16	1.44	340.28
		020710-105D	10-Jul-02		132.	1.48	8.63	0.68	0.26	0.19	0.2	0.17	0.67	0.1 U	8.15	36.2	0.13	77.6	80.4	7.37	2.1	354.13
		5237-080521-WS8-33-105	21-May-08		140.	2.	8.4	1.2	0.91	0.91	0.61	0.28	1.4	0.099	10.	29.	0.59	130. J	50. J	12.	5.389	387.399
WS-8-59	HAI	011008-104	8-Oct-01	49-59	18.5	0.38	4.2	0.25	0.1 U	0.1 U	0.1 U	0.1 U	0.29	0.1 U	5.8	7.9	0.1 U	22.7	31.8	6.4	0.54	98.22
		011008-105D	8-Oct-01		18.9	0.39	4.1	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.24	0.1 U	5.5	7.9	0.1 U	22.5	29.8	6.3	0.44	95.83
		011212-103	12-Dec-01		12.9	0.24	2.97	0.32	0.14	0.1	0.1	0.1	0.41	0.1 U	4.72	4.77	0.1 U	10.5	22.8	5.07	1.07	65.14
		011212-104D	12-Dec-01		12.6	0.23	2.94	0.23	0.1 U	0.1 U	0.1 U	0.1 U	0.29	0.1 U	4.46	5.13	0.1 U	10.8	21.8	4.49	0.52	62.97
		020403-104	3-Apr-02		5.03	0.1 U	1.91	0.16	0.1 U	0.1 U	0.1 U	0.1 U	0.24	0.1 U	3.5	2.34	0.1 U	1.13	9.9	2.57	0.4	26.78
		020710-103	10-Jul-02		4.53	0.1 U	1.31	0.17	0.1 U	0.1 U	0.1 U	0.1 U	0.23	0.1 U	3.15	1.92	0.1 U	0.63	3.45	3.49	0.4	18.88
		5237-070716-WS-8-59-108	16-Jul-07		0.254 J	0.0971 U	0.0971 U	0.147	0.121	0.0863	0.0971 U	0.101	0.206	0.00542	0.634	0.133	0.0246	0.0971 U	0.122	1.07 J	0.69132	2.90432
		5237-080521-WS8-56-106	21-May-08		0.4	0.28	0.22	0.74	0.92	0.94	0.7	0.3	1.	0.11	1.1	0.18	0.66	0.37 J	0.43 J	1.6	4.67	9.95
WS-9-34	HAI	011008-102	8-Oct-01	24-34	2.07	0.15	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.36	0.18	0.1 U	0.45	0.1 U	0.38	ND	3.59
		011212-101	12-Dec-01		17.8	0.33	0.33	0.11	0.15	0.1	0.17	0.1	0.17	0.1 U	1.91	6.43	0.12	0.4	2.45	1.74	0.75	32.31
		020402-101	2-Apr-02		17.5	0.19	0.44	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1.59	1.8	0.1 U	0.1 U	4.81	0.1 U	ND	26.33
		020710-101	10-Jul-02		11.1	0.17	0.22	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.91 J	2.09 J	0.1 U	0.13	2.06 J	1.13	ND	17.81
WS-10-27	MFA	WS-10-27	29-Apr-04	11-26	189.	14.6	27.2	11.8	11.9	10.3	8.64	3.41	14.4	1.57	45.	54.1	6.34	3,990.	83.1	43.4	59.72	4,514.76
		WS-10-27	16-Nov-04		542.	41.8	221.	137.	148.	131.	92.5	38.4	130.	15.1	438.	263.	70.9	8,960.	1,070.	421.	670.4	12,719.7
WS-11-125	MFA	WS-11-125	29-Apr-04	109-124	436.	81.5	257.	147.	144.	126.	53.1	29.9	174.	11.7	407.	304.	47.7	4,000.	1,510.	409.	680.3	8,137.9
		WS-11-125	16-Nov-04		53.	22.1	20.1	10.	9.62	9.27	7.19	2.92	10.7	1.14	35.	24.9	5.13	2,680.	80.5	40.8	48.78	3,012.37
		5237-080515-WS11-125-102	15-May-08		250.	5.5	21.	2.5	2.3	2.2	1.6	0.88	3.1	0.28 J	16.	74.	1.5	11,000.	140.	17.	12.76	11,537.86
WS-11-161	MFA	WS-11-161	27-Apr-04	145-160	0.253	0.0707	0.0707	0.0808	0.131	0.111	0.111	U	0.111	U	0.232	0.131	0.0707	0.707	0.424	0.303	0.5045	2.8069
		WS-11-161	16-Nov-04		0.049	0.049 U	0.0784	0.049 U	0.049 U	0.049 U	0.049 U	0.049 U	0.049 U	0.049 U	0.049 U	0.049 U	0.049 U	1.85	0.0784	0.049 U	ND	2.0558
	HAI	5237-070712-WS11-161	12-Jul-07		0.125 J	0.0952 U	0.0952 U	0.00745	0.00698	0.0171	0.0952 U	0.012	0.0162	0.00476 U	0.0952 U	0.0952 U	0.00776	49.9	0.0952 U	0.0952 U	0.06749	50.09249
		5237-080515-WS11-161-103	15-May-08		0.45	0.15	0.01 J	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.013 J	0.091	0.0026 U	110.	0.1	0.01 J	ND	110.824
WS-12-125	MFA	WS-12-125	27-Apr-04	109-124	0.929	U	0.13	U	U	U	U		U	U	0.4	U	0.519	0.557	U	ND	2.535
			17-Nov-04		0.166	0.0488 U	0.0488 U	0.0488 U	0.0488 U	0.0488 U	0.0488 U	0.0488 U	0.0488 U	0.0488 U	0.0488 U	0.0684	0.0488 U	0.684	0.0879	0.0488 U	ND	1.0063
	HAI	5237-070712-WS12-125	12-Jul-07		0.266 J	0.0952 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.0051	0.00476 U	0.0952 U	0.0952 U	0.00476 U	0.544	0.0952 U	0.0952 U	0.0051	0.8151
		5237-080521-WS12-126-104	21-May-08		0.19	0.0087 J	0.034	0.0026 U	0.0043 U	0.0023 U	0.0034 J	0.0025 U	0.0034 U	0.0031 J	0.024	0.068	0.0039 J	0.088 U*	0.0089 J	0.022	0.007	0.366

Table 4b - Summary of Analytical Results for Groundwater Samples: Monitoring Wells
Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8270 SIM or 8270C

Well Number	Collected by	Sample Number	Sample Date	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
					Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3 cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [1,2]																						
Fish Consumption																						
	EPA 2004 NRWQC (organism only)				990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate				99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)				990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																						
	MCL [3]				0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs				370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [1,2]																						
	EPA 2004 NRWQC (chronic)				#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)				#	520 [5]	#	#	#	#	#	#	#	#	#	#	#	620 [5]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [4]				#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
WS-12-161	MFA	WS-12-161	27-Apr-04	145-160	0.0926	U	U	U	U	U	U	U	U	U	0.072	0.072	U	0.154	0.319	0.0823	ND	0.7919
			17-Nov-04		0.0493 U	0.0493 U	0.0493 U	0.0493 U	0.0493 U	0.0493 U	0.0493 U	0.0493 U	0.0493 U	0.0493 U	0.0493 U	0.0493 U	0.0493 U	1.25	0.0493 U	0.0493 U	ND	1.25
	HAI	5237-070712-WS12-161	12-Jul-07		0.0952 U	0.0952 U	0.0952 U	0.00476 U	0.0107	0.00497	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.0952 U	0.00771	0.0952 U	0.0952 U	0.0952 U	0.02338	0.02338
		5237-080521-WS12-161-107	21-May-08		0.012 J	0.0034 U	0.0038 J	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0059 J	0.0056 J	0.0026 U	0.021 U*	0.016 J	0.0051 J	ND	0.0484
WS-13-69	MFA	WS-13-69	28-Apr-04	52.6-67.6	8.99	4.54	10.6	0.06	0.05	0.05	U	U	0.07	U	0.8	5.38	U	632.	9.8	0.74	0.23	673.08
		WS-13-69	18-Nov-04		5.79	2.48	1.02	0.0506 U	0.0506 U	0.0506 U	0.0506 U	0.0506 U	0.0506 U	0.0506 U	0.466	3.04	0.0506 U	793.	7.33	0.334	ND	813.46
WS-13-105	MFA	WS-13-105	28-Apr-04	89-104	2.23	0.271	0.15	0.0601	0.0601	0.0501	0.0601	U	0.0701	U	0.251	0.671	U	28.9	0.962	0.251	0.2404	33.9865
		WS-13-105-D	28-Apr-04		1.53	0.18	0.08	U	U	U	U	U	U	U	0.13	0.47	U	14.1	0.68	0.13	ND	17.3
		WS-13-105	18-Nov-04		0.0474 U	0.0474 U	0.0474 U	0.0474 U	0.0474 U	0.0474 U	0.0474 U	0.0474 U	0.0474 U	0.0474 U	0.0474 U	0.0474 U	0.0474 U	0.38	0.114	0.0474 U	ND	0.494
		WS-13-105-D	18-Nov-04		0.0475 U	0.0475 U	0.0475 U	0.0475 U	0.0475 U	0.0475 U	0.0475 U	0.0475 U	0.0475 U	0.0475 U	0.0475 U	0.0475 U	0.0475 U	0.114	0.123	0.0475 U	ND	0.237
WS-14-125	MFA	WS-14-125	16-Nov-04	109-124	130.	3.2	22.1	8.06	7.89	7.96	5.17	2.27	8.46	0.594	30.	38.1	3.81	4,710.	90.1	33.1	39.044	5,100.814
	HAI	5237-070712-WS14-125	12-Jul-07		143. J	2.22	11.4	1.4	1.38	0.84	1.9 U	0.837	1.77	0.155	10.9	41.	0.718	7,580.	83.7	10.2 J	7.1	7,889.52
		5237-080515-WS14-125-100	15-May-08		150.	1.9	14.	0.66	0.25	0.25	0.14	0.067	0.56	0.023	6.5	46.	0.13	7,800.	88.	9.1	1.94	8,117.58
WS-14-161	MFA	WS-14-161	16-Nov-04	145-160	0.0478 U	0.0478 U	0.0478 U	0.0478 U	0.0478 U	0.0478 U	0.0478 U	0.0478 U	0.0478 U	0.0478 U	0.0478 U	0.0478 U	0.0478 U	0.66	0.0478	0.0478 U	ND	0.7078
	HAI	5237-070712-WS14-161	12-Jul-07		0.178 J	0.0952 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.0952 U	0.00476 U	15.7	0.0952 U	0.0952 U	ND	15.878
		5237-080515-WS14-161-101	15-May-08		2.	0.045	0.12	0.0047 J	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.064	0.54	0.0026 U	140.	0.9	0.069	0.0047	143.7427
WS-15-85	MFA	WS-15-85	18-Nov-04	70-85	39.3	1.79	3.05	0.224	0.224	0.204	0.146	0.0778	0.224	0.0486 U	2.94	11.	0.117	2,300.	19.9	3.09	1.0708	2,382.2868
WS-15-140	MFA	WS-15-140	18-Nov-04	125-140	1.05	0.0517 U	0.062	0.0517 U	0.0517 U	0.0517 U	0.0517 U	0.0517	0.0517 U	0.0517 U	0.0723	0.176	0.0517 U	15.7	1.07	0.0517 U	0.0517	18.182
WS-16-125	MFA	WS-16-125	17-Nov-04	109-124	1.33	0.0672	0.0768	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.048 U	0.0864	0.365	0.048 U	153.	0.643	0.0672	ND	155.6356
WS-16-161	MFA	WS-16-161	17-Nov-04	145-160	0.186	0.049 U	0.049 U	0.049 U	0.049 U	0.049 U	0.049 U	0.049 U	0.049 U	0.049 U	0.127	0.0784	0.049 U	8.49	0.294	0.0979	ND	9.2733
WS-17-52	MFA	WS-17-52	16-Nov-04	41-51	27.	0.712	4.39	0.135	0.0866	0.0866	0.0674	0.0481 U	0.144	0.0481 U	4.35	12.2	0.0481	241.	27.6	4.23	0.5003	322.0497
WS-17-94	MFA	WS-17-94	17-Nov-04	78-93	5.5	0.119	0.258	0.0497 U	0.0497 U	0.0497 U	0.0497 U	0.0497 U	0.0497 U	0.0497 U	0.209	1.79	0.0497 U	102.	4.06	0.149	ND	114.085
WS-21-112	HAI	5237-070712-WS21-112	12-Jul-07	96 - 111	3.36 J	0.0952 U	0.381 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.00673	0.00476 U	0.381 U	0.0952 U	0.00476 U	2.45	0.381 U	0.0952 U	0.00673	5.81673
		5237-080521-WS21-112-108	21-May-08		7.4	0.18	0.11	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0082 J	0.047	0.0026 U	3.2 J	0.031 J	0.0078 J	ND	10.984
RP-03-30R	AMEC		19-Apr-04	23-28	483.	U	7.04	0.602	U	U	U	U	U	U	18.2	204.	U	1,440.	198.	14.4	0.602	2,365.242
RP-03-52R	AMEC		19-Apr-04	46-51	0.0796	U	U	U	U	U	U	U	U	U	U	0.0891	U	0.117	0.104	U	ND	0.3897
(duplicate)			19-Apr-04		0.079	U	U	U	U	U	U	U	U	U	U	0.0936	U	0.118	0.107	U	ND	0.3976
RP-07-30	AMEC		13-Apr-04	25-30	7.78	0.0964	0.144	U	U	U	U	U	U	U	1.19	2.32	U	U	2.88	0.933	ND	15.3434
	HAI	5237-070828-RP-7-30-106	28-Aug-07		7.24 J	0.19 U	0.0952 U	0.00809	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.00965	0.00476 U	0.66 J	3.04 J	0.00476 U	0.0952 U	1.07 J	0.494 J	0.01774	12.52174
RP-07-55	AMEC		3-May-02	50-55	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ND	ND
	HAI	5237-070827-RP-7-55-104	27-Aug-07		0.0952 U	0.0952 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.0952 U	0.00476 U	0.0952 U	0.0952 U	0.0952 U	ND	ND
RP-07-84	AMEC		13-Apr-04	79-84	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ND	ND
		5237-070828-RP-7-84-107	28-Aug-07		0.0966 U	0.0966 U	0.0966 U	0.00483 U	0.00483 U	0.00483 U	0.0966 U	0.00483 U	0.00483 U	0.00483 U	0.0966 U	0.0966 U	0.00483 U	0.0966 U	0.0966 U	0.0966 U	ND	ND
		5237-070828-RP-7-84-108 (DUP)	28-Aug-07		0.0962 UJ	0.0962 UJ	0.0962 UJ	0.00834 J	0.00962 UJ	0.0166 J	0.0962 UJ	0.00816 J	-	0.00481 UJ	0.0962 UJ	0.0962 UJ	0.0093 J	0.962 UJ	0.0962 UJ	0.0962 UJ	ND	ND
RP-07-119	AMEC		13-Apr-04	114-119	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	ND	ND
RP-11-30	HAI	5237-070827-RP-11-30-101	27-Aug-07	15 - 30	4.47 J	0.0952 U	0.0952 U	0.0225	0.0169	0.0177	0.0952 U	0.0124	0.0318	0.00476 U	0.373 J	0.595 J	0.0112	0.106	0.532 J	0.326 J	0.1125	6.5145
RP-11-160	HAI	5237-070827-RP-11-160-102	27-Aug-07	150 - 160	0.0957 U	0.0957 U	0.0957 U	0.00478 U	0.00478 U	0.00478 U	0.0957 U	0.00478 U	0.00478 U	0.00478 U	0.0957 U	0.0957 U	0.00478 U	0.0957 U	0.0957 U	0.0957 U	ND	ND
RP-11-216	HAI	5237-070827-RP-11-216-103	27-Aug-07	211 - 216	0.0952 U	0.0952 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.0952 U	0.00476 U	0.0952 U	0.0952 U	0.0952 U	ND	ND

Table 4b - Summary of Analytical Results for Groundwater Samples: Monitoring Wells
Polynuclear Aromatic Hydrocarbons (PAHs) by EPA Method 8270 SIM or 8270C

Well Number	Collected by	Sample Number	Sample Date	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
					Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3 cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [1,2]																						
Fish Consumption																						
	EPA 2004 NRWQC (organism only)				990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate				99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)				990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																						
	MCL [3]				0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs				370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [1,2]																						
	EPA 2004 NRWQC (chronic)				#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)				#	520 [5]	#	#	#	#	#	#	#	#	#	#	#	620 [5]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [4]				#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
RP-24-30	HAI	5237-070829-RP-24-30-109	29-Aug-07	25 - 30	0.233 J	0.1 U	0.1 U	0.00853	0.0121	0.0097	0.1 U	0.00896 J	0.00981	0.005 U	0.1 U	0.1 U	0.0131	0.1 U	0.113 J	0.1 U	ND	ND
RP-24-60	HAI	5237-070828-RP-24-60-110	28-Aug-07	55 - 60	0.143 J	0.0952 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.512 J	0.394	0.00476 U	0.0952 U	0.239 J	0.296 J	ND	1.584
RP-24-73	HAI	5237-070829-RP-24-73-113	29-Aug-07	68 - 73	0.0952 U	0.0952 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.0952 U	0.00476 U	0.0952 U	0.0952 U	0.0952 U	ND	ND
RP-24-85	HAI	5237-070828-RP-24-85-111	28-Aug-07	80 - 85	0.0952 U	0.0952 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.0952 U	0.00476 U	0.0952 U	0.0952 U	0.0952 U	ND	ND
Quality Control Samples (HAI)																						
Water EB	HAI	5237-011008-103	8-Oct-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND	ND
		5237-011212-102	12-Dec-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND	ND
		5237-020402-102	2-Apr-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND	ND
		5237-020710-102	10-Jul-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND	ND

Note:
# = Reference L MCL = Maximum Contaminant Level
AWQC = Ambier ND = not detected above detection limit indicated
DEQ = Oregon D NRWQC = National Recommended Water Quality Criteria
EPA = U.S. Envi PAHs = polynuclear aromatic hydrocarbons
J = Estimated Concentration
ppb = parts per billion
PRG = Preliminary Remediation Goal
SCV = Secondary Chronic Value
ug/l = micrograms per liter
U = Non-detect above method reporting limit

1 = Screening Level Values are from *Portland Harbor Joint Service Control Strategy, Final*, December 2005
2 = EPA, under CERCLA authority, has identified the Safe Drinking Water Acts MCLs and AWQCs (federal and state once approved) as potential ARARs under CERCLA. The final determination will be made in the EPA Portland Harbor Record of Decision (ROD). Decisions to implement source control, prior to The EPA Portland Harbor ROD, due to an exceedance of an SLV in upland stormwater will be evaluated and prioritized on a case by case basis.
3 = MCL is based on benzo(a)pyrene
4 = Tier II SCV values were taken from Suter II, G.W. and Tasco, C.L., 1996. *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota*: 1996 Revision. ORNL publication ES/ER/TM-96/R2
5 = Values were taken from Table 33c (OAR 340-41), which are Water Quality Guidance Values, not criteria, that can be used in application of Oregon's Narrative Toxics Criteria to waters of the state in order to protect aquatic life

Table 4c - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7, and/or 7000 Series
1985 to Present

Well Number	Collected by	Sample Number	Sample Date	Screen Interval (feet bgs)	Antimony	Dissolved Antimony	Arsenic	Dissolved Arsenic	Total Barium	Dissolved Barium	Total Cadmium [5]	Dissolved Cadmium	Total Chromium	Dissolved Chromium	Total Cobalt	Dissolved Cobalt	Total Copper [5]	Dissolved Copper	Total Iron	Dissolved Iron	Total lead [5]	Dissolved Lead	Total Magnesium	Dissolved Magnesium	Total Manganese	Dissolved Manganese	Mercury	Total Nickel [5]	Dissolved Nickel	Total Selenium	Dissolved Selenium	Total Silver [5]	Dissolved Silver	Total Titanium	Dissolved Titanium	Total Vanadium	Dissolved Vanadium	Total Zinc [5]	Dissolved Zinc
HUMAN HEALTH SCREENING LEVEL VALUES [1,2]																																							
Fish Consumption																																							
		EPA 2004 NRWQC (organism only)			0.64	#	0.0001	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	0.1	#	0.0000146	4.6	#	4.2	#	#	#	#	#	#	#	26.	#
		Portland Harbor specific fish consumption rate			0.064	#	0.00001	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	0.01	#	3.	0.46	#	0.42	#	#	#	#	#	#	#	2.6	#
		DEQ 2004 AWQC (organism only)			0.64	#	0.0001	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	0.1	#	0.00146	4.6	#	4.2	#	#	#	#	#	#	#	26.	#
Drinking Water																																							
		MCL			0.006	#	0.01	#	#	#	0.005	#	0.1	#	#	#	1.3	#	#	#	0.015	#	#	#	0.05 [7]	#	0.002	#	#	0.05	#	0.1 [7]	#	#	#	#	#	5 [7]	#
		Tap Water PRGs			0.015	#	0.00005	#	#	#	0.018	#	#	#	#	#	1.5	#	#	#	#	#	#	#	0.88	#	0.011	0.73	#	0.18	#	0.18	#	#	#	#	#	11.	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [1,2]																																							
		EPA 2004 NRWQC (chronic)			#	#	0.15	#	#	#	0.0001	0.000094	#	#	#	#	0.0027	#	#	#	0.0005	#	#	#	#	#	#	0.016	#	0.005 [8]	#	#	#	#	#	#	#	0.036	#
		DEQ 2004 AWQC (chronic)			1.6 [3]	#	#	#	#	#	0.00038 [6]	#	#	#	#	#	0.0036 [6]	#	#	#	0.00054 [6]	#	#	#	#	#	0.000012	0.049 [4]	#	0.035	#	0.00012 [9]	#	#	#	#	#	0.033	#
		Oak Ridge National Laboratory (Tier II SCV) [10]			0.03	#	0.0031 [4]	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	0.12	#	0.0013	#	#	#	#	0.00036	#	#	#	#	#	#	#
WS-1	CH2M HILL		Aug-85	7-22			0.005				0.003		0.01				0.002				0.052							0.01										0.026	
WS-2	CH2M HILL		Aug-85	7.5-22			0.005 U				0.002		0.008				0.007				0.04							0.007										0.016	
WS-3S	CH2M HILL		Aug-85	12-27			0.005				0.001		0.005				0.001				0.025							0.005										0.017	
WS-3I	G&M		Oct-90	55-60			U				U		U				U				U							U										U	U
	AMEC		13-Apr-04				0.00181	0.00146									0.00221		10.5		0.00043		55.		5.5			0.00452	0.00456									0.00653	0.00738
W-03-81	URS		6-Apr-00	75-80																																			
	AMEC		13-Apr-04				0.00337	0.00305									0.00156		46.3				25.1		2.47			0.00476	0.00413							0.00188		0.00633	0.0035
WS-4	CH2M HILL		Aug-85	6.5-21.5			0.005 U				0.003		0.009				0.002				0.049							0.011										0.05	
WS-5	CH2M HILL		Aug-85	5-20			0.005 U				0.002		0.006				0.02				0.028							0.006										0.011	
WS-6	CH2M HILL		Aug-85	9-24			0.01				0.002		0.006				0.001				0.03							0.006										0.011	
WS-7	CH2M HILL		Aug-85	10-25			0.005 U				0.001 U		0.004				0.004				0.02							0.003										0.047	
			Oct-90				0.005 U				0.001 U			U				U				U							U										0.026	
WS-8-33	HAI	011009-107	9-Oct-01	23-33	0.003 U		0.0063		0.184		0.001 U		0.0069		0.0041		0.0264		117.		0.0082		27.2		5.07			0.0039		0.005 U		0.0019 U		0.766		0.0397		0.0496	
		011213-105	13-Dec-01		0.005 U		0.0162		0.142		0.002 U		0.005		0.005		0.005		76.6		0.005 U		30.		5.57			0.005 U		0.0063		0.005 U		0.0762		0.0059		0.0147	
		020403-105	3-Apr-02		0.005 U	0.005 U	0.018	0.0148	0.115	0.104	0.005 U	0.002 U	0.005 U	0.005	0.005 U	0.005 U	0.005 U	0.015 U	90.9	81.5	0.005 U	0.01 U	21.8	19.9	4.88	4.51		0.005 U	0.005 U	0.005 U	0.0084	0.005 U	0.005 U	0.022 J	0.01 U	0.005 U	0.005 U	0.0243	0.015 U
		020403-106D	3-Apr-02		0.005 U		0.0174		0.114		0.002 U		0.005 U		0.005 U		0.005 U		89.6		0.005 U		21.5		4.85			0.005 U		0.005 U		0.005 U		0.013 J		0.005 U		0.005 U	
		020710-104	10-Jul-02		0.005 U	0.005 U	0.0152	0.0198	0.117	0.114	0.002 U	0.0222 U	0.005 U	0.00556	0.005 U	0.00556 U	0.005 U	0.00556 U	80.6	80.7	0.005 U	0.00556 U	24.1	24.3	4.89	5.02		0.005 U	0.00556 U	0.005 U	0.00556 U	0.005 U	0.00556 U	0.0286	0.0111 U	0.0053	0.00556 U	0.0053 U	0.00556 U
		020710-105D	10-Jul-02		0.005 U		0.0173		0.116		0.002 U		0.005 U		0.005 U		0.005 U		80.3		0.005 U		24.2		4.89	4.89		0.005 U		0.005 U		0.005 U		0.0171		0.005 U		0.005 U	
	HAI	5237-080521-WS8-33-105	21-May-08		0.00004 J	-	0.0151	-	0.109	-	0.000179	-	0.0011	-	-	-	0.00068	-	86.1	-	0.00104	-	27.	-	4.61	-	0.00005 U	0.00312	-	0.0004 U*	-	0.000018 U*	-	-	-	0.00415	-	0.00343 J	-
WS-8-59	HAI	011008-104	8-Oct-01	49-59	0.003 U		0.005 U		0.153		0.001 U		0.005 U		0.001 U		0.0055		49.6		0.005 U		0.1 U		2.85			0.003 U		0.005 U		0.0019 U		0.564		0.0233		0.0307	
		011008-105D	8-Oct-01		0.003 U		0.005 U		0.142		0.001 U		0.005 U		0.001 U		0.0037		47.		0.005 U		0.1 U		2.84			0.003 U		0.005 U		0.0019 U		0.448		0.0173		0.0236	
		011212-103	12-Dec-01		0.005 U		0.005 U		0.123		0.002 U		0.005 U		0.005 U		0.005 U		48.1		0.005 U		54.7		1.83			0.0056 U		0.005 U		0.005 U		0.169		0.0084		0.0104	
		011212-104D	12-Dec-01		0.005 U		0.005 U		0.119		0.002 U		0.005 U		0.005 U		0.005 U		47.2		0.005 U		54.2		1.83			0.0055 U		0.005 U		0.005 U		0.132		0.0066		0.0094	
		020403-104	3-Apr-02		0.005 U		0.005 U		0.0931		0.002 U		0.005 U		0.005 U		0.005 U		46.8		0.005 U		39.9		3.33			0.005 U		0.005 U		0.005 U		0.0694		0.005 U		0.0086	
		020710-103	10-Jul-02		0.005 U		0.005 U		0.1		0.002 U		0.005 U		0.005 U		0.005 U		45.7		0.005 U		46.4		2.19			0.005 U		0.005 U		0.005 U		0.108		0.0063		0.0055 U	
	HAI	5237-070716-WS-8-59-108	16-Jul-07		0.0008 U	-	0.00627	-	0.172	-	0.00038 U	-	0.0199	-	-	-	0.0277	-	72.2	-	0.00654	-	43.5	-	2.82	-	0.0002 U	0.02 U	-	0.005 U	-	0.00012 U	-	-	-	0.0668	-	0.0526 J	-
	HAI	5237-080521-WS8-56-106	21-May-08		0.00004 J	-	0.00309	-	0.177	-	0.000213 J	-	0.0113	-	-	-	0.0257	-	68.8	-	0.00627	-	61.9	-	2.	-	0.00005 U	0.0179	-	0.0006 U*	-	0.000048 U*	-	-	-	0.0403	-	0.0402 J	-
WS-9-34	HAI	011008-102	8-Oct-01	24-34	0.003 U		0.005 U		0.246		0.001 U		0.005 U		0.0281		0.0074		33.9		0.005 U		53.3		4.31			0.003 U		0.005 U		0.0019 U		0.0055		0.001 U		0.0055	
		011212-101	12-Dec-01		0.0067	0.0108	0.0607	0.005 U	0.923	0.0348	0.002 U	0.002 U	0.0207	0.005	0.0437	0.0112	0.0431	0.005 U	188.	88.	0.197	0.005 U	60.2	15.6	7.1	2.24		0.0369	0.006	0.005 U	0.005 U	0.005 U	0.005 U	0.217	0.001 U	0.0548	0.005 U	0.376	0.0155
		020402-101	2-Apr-02		0.005 U	0.0086	0.038	0.007	0.607	0.0467	0.002 U	0.002 U	0.0187	0.005	0.0273	0.0132	0.0391	0.015 U	150.	37.7	0.0948	0.01 U	45.5	22.7	4.35	2.59		0.0229	0.0087	0.005 U	0.0054	0.005 U	0.005 U	0.254	0.01 U	0.0482	0.005 U	0.197	0.015 U
		020710-101	10-Jul-02		0.005 U	0.00556 U	0.0311	0.00556 U	0.553	0.081	0.002 U	0.00222 U	0.0326	0.00556	0.0404	0.0231	0.0359	0.00556 U	146.	64.3	0.131	0.00556 U	57.1	36.4	6.66	4.73		0.0365	0.00644	0.005 U	0.00556 U	0.005 U	0.00556 U	0.27	0.0111 U	0.043	0.00556 U	0.224	0.0153
WS-10-27	MFA	WS-10-27	29-Apr-04	11-26									0.0133		U				48.5				23.4		3.2			U						0.02		0.0152		U	
		WS-10-27	16-Nov-04		0.02 U								0.0165		0.0073		0.01 U		63.2				39.1		7.93			0.005 U						0.264		0.0216		0.0405	
WS-11-125	MFA	WS-11-125	29-Apr-04	109-124									0.0115		U				36.7				46.8		1.88			U						0.0069		U		U	
		WS-11-125	16-Nov-04		0.02 U								0.0156		0.005 U		0.01 U		36.7				50.4		1.81			0.005 U						0.005		0.01 U		0.01 U	
	HAI	5237-080515-WS11-125-102	15-May-08		0.00003 J	-	0.00951	-	0.155	-	0.000008 U	-	0.0003	-	-	-	0.00037	-	35.6	-	####### J	-	95.5	-	0.878 J	-	0.00005 U	0.00379	-	0.0011	-	0.000018 J	-	-	-	0.00037	-	0.00112	-
WS-11-161	MFA	WS-11-161	27-Apr-04	145-160									0.015		U				22.7				20.2		1.85			U						U		U		0.0125	
		WS-11-161	16-Nov-04		0.02 U								0.0189		0.005 U		0.01 U		25.5				24.3		2.34			0.005 U						0.005 U		0.01 U		0.01 U	
	HAI	5237-070712-WS11-161	12-Jul-07		0.0008 U	-	0.0065	-	0.0766	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	28.4	-	0.00054 U	-	21.	-	1.93	-	0.0002 U	0.002 U	-	0.005 U	-	0.00012 U	-	-	-	0.004 U	-	0.033 U	-
	HAI	5237-080515-WS11-161-103	15-May-08		0.00002 U	-	0.00735	-	0.0868	-	0.000008 U	-	0.00033	-	-	-	0.00019	-	34.8	-	####### U	-	28.3	-	2.8 J	-	0.00005 U	0.00096	-	0.0002 J	-	0.000003 U	-	-	-	0.0002	-	0.00081	-
WS-12-125	MFA	WS-12-125	26-Apr-04	109-124									0.0102		U				44.3				31.		1.76			U						0.0086		U		U	
		WS-11-125	17-Nov-04		0.02 U								0.0177		0.005 U		0.01 U		43.7				37.1		1.88			0.005 U						0.005 U		0.01 U		0.01 U	
	HAI	5237-070712-WS12-125	12-Jul-07		0.0008 U	-	0.00171	-	0.0953	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	44.1	-	0.00054 U	-	35.5	-	2.17	-	0.0002 U	0.002 U	-	0.005 U	-	0.00012 U	-	-	-	0.004 U	-	0.033 U	-
	HAI	5237-080521-WS12-126-104	21-May-08		0.00002 U	-	0.0021	-	0.0878	-	0.000008 U	-	0.00034 J	-	-	-	0.00013	-	45.3	-	####### J	-	37.2	-	2.45	-	0.00005 U	0.00174	-	0.0017	-	0.000003 U	-	-	-	0.00024	-	0.00068 J	-
WS-12-161	MFA	WS-12-161	26-Apr-04	145-160									0.0126		U				16.5				20.2		1.27			U						U		U		0.0271	
		WS-12-161	17-Nov-04		0.02 U								0.0253		0.005 U		0.01 U		26.7				28.5		2.04			0.005 U						0.0292		0.01 U		0.0102	
	HAI	5237-070712-WS12-161	12-Jul-07		0.0008 U	-	0.0019	-	0.0606	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	18.2	-	0.00054 U	-	22.	-	1.69	-	0.0002 U	0.002 U	-	0.005 U	-	0.00012 U	-	-	-	0.004 U	-	0.033 U	-
	HAI	5237-080521-WS12-161-107	21-May-08		0.00002 U	-	0.00207	-	0.0569	-	0.000008 U	-	0.00017 J	-	-	-	0.0001	-	18.7	-	####### J	-	25.1	-	2.	-	0.00005 U	0.00055	-	0.0003 U*	-	0.000004 U*	-	-	-	0.00007	-	0.00063 J	-

Table 4c - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7, and/or 7000 Series
1985 to Present

Well Number	Collected by	Sample Number	Sample Date	Screen Interval (feet bgs)	Antimony	Dissolved Antimony	Arsenic	Dissolved Arsenic	Total Barium	Dissolved Barium	Total Cadmium [5]	Dissolved Cadmium	Total Chromium	Dissolved Chromium	Total Cobalt	Dissolved Cobalt	Total Copper [5]	Dissolved Copper	Total Iron	Dissolved Iron	Total lead [5]	Dissolved Lead	Total Magnesium	Dissolved Magnesium	Total Manganese	Dissolved Manganese	Mercury	Total Nickel [5]	Dissolved Nickel	Total Selenium	Dissolved Selenium	Total Silver [5]	Dissolved Silver	Total Titanium	Dissolved Titanium	Total Vanadium	Dissolved Vanadium	Total Zinc [5]	Dissolved Zinc
HUMAN HEALTH SCREENING LEVEL VALUES [1,2]																																							
Fish Consumption																																							
		EPA 2004 NRWQC (organism only)			0.64	#	0.0001	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	0.1	#	0.0000146	4.6	#	4.2	#	#	#	#	#	#	#	26.	#
		Portland Harbor specific fish consumption rate			0.064	#	0.00001	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	0.01	#	3.	0.46	#	0.42	#	#	#	#	#	#	#	2.6	#
		DEQ 2004 AWQC (organism only)			0.64	#	0.0001	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	0.1	#	0.00146	4.6	#	4.2	#	#	#	#	#	#	#	26.	#
Drinking Water																																							
		MCL			0.006	#	0.01	#	#	#	0.005	#	0.1	#	#	#	1.3	#	#	#	0.015	#	#	#	0.05 [7]	#	0.002	#	#	0.05	#	0.1 [7]	#	#	#	#	#	5 [7]	#
		Tap Water PRGs			0.015	#	0.00005	#	#	#	0.018	#	#	#	#	#	1.5	#	#	#	#	#	#	#	0.88	#	0.011	0.73	#	0.18	#	0.18	#	#	#	#	#	11.	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [1,2]																																							
		EPA 2004 NRWQC (chronic)			#	#	0.15	#	#	#	0.0001	0.000094	#	#	#	#	0.0027	#	#	#	0.0005	#	#	#	#	#	#	0.016	#	0.005 [8]	#	#	#	#	#	#	#	0.036	#
		DEQ 2004 AWQC (chronic)			1.6 [3]	#	#	#	#	#	0.00038 [6]	#	#	#	#	#	0.0036 [6]	#	#	#	0.00054 [6]	#	#	#	#	#	0.000012	0.049 [6]	#	0.035	#	0.00012 [9]	#	#	#	#	#	0.033	#
		Oak Ridge National Laboratory (Tier II SCV) [10]			0.03	#	0.0031 [4]	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	0.12	#	0.0013	#	#	#	#	0.00036	#	#	#	#	#	#	#
WS-13-69	MFA	WS-13-69	28-Apr-04	52.6-67.6									0.0114		0.009				74.1				40.1		6.93			0.0131							U		U		0.0117	
		WS-13-69	18-Nov-04		0.02 U								0.0265		0.007		0.01 U		88.3				49.3		9.1			0.005 U						0.005		0.01 U		0.0117	
WS-13-105	MFA	WS-13-105	28-Apr-04	89-104									0.0153		U				26.6				19.6		1.94			U						U		U		0.0246	
		WS-13-105-DUP	28-Apr-04										0.0147		U				27.1				19.8		1.95			U						U		U		0.0282	
		WS-13-105	18-Nov-04		0.02 U								0.0359		0.005 U		0.01 U		50.1				26.4		2.57			0.005 U						0.0855		0.01 U		0.01 U	
		WS-13-105-DUP	18-Nov-04		0.02 U								0.0221		0.005 U		0.01 U		52.4				27.5		2.61			0.005 U						0.0786		0.01 U		0.01 U	
WS-14-125	MFA	WS-14-125	16-Nov-04	109-124	0.02 U								0.0153		0.005 U		0.01 U		23.6				23.		1.46			0.005 U						0.0113		0.01 U		0.0151	
	HAI	5237-070712-WS14-125	12-Jul-07		0.0008 U	-	0.0119	-	0.0469	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	18.2	-	0.00054 U	-	22.2	-	1.28	-	0.0002 U	0.002 U	-	0.005 U	-	0.00012 U	-	-	-	0.004 U	-	0.033 U	-
	HAI	5237-080515-WS14-125-100	15-May-08		0.00002 U	-	0.012	-	0.048	-	0.000008 U	-	0.00027	-	-	-	0.00014	-	17.1	-	####### U	-	24.1	-	1.34 J	-	0.00005 U	0.0009	-	0.0005 J	-	0.000005 J	-	-	-	0.00024	-	0.00095	-
WS-14-161	MFA	WS-14-161	16-Nov-04	145-160	0.02 U								0.0122		0.0072		0.01 U		29.1				28.6		1.96			0.005 U						0.005 U		0.01 U		0.0378	
	HAI	5237-070712-WS14-161	12-Jul-07		0.0008 U	-	0.0113	-	0.0395	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	30.4	-	0.00054 U	-	27.2	-	1.89	-	0.0002 U	0.00247	-	0.005 U	-	0.00012 U	-	-	-	0.004 U	-	0.033 U	-
	HAI	5237-080515-WS14-161-101	15-May-08		0.00002 U	-	0.0118	-	0.0395	-	0.000008 U	-	0.00016 J	-	-	-	0.0001	-	28.9	-	####### U	-	28.3	-	2.18 J	-	0.00005 U	0.00218	-	0.0004 J	-	0.000015 J	-	-	-	0.00022	-	0.00135	-
WS-15-85	MFA	WS-15-85	18-Nov-04	70-85	0.0212								0.0449		0.0116		0.0106		39.6				32.4		7.82			0.005 U						0.25		0.0193		0.0275	
WS-15-140	MFA	WS-15-140	18-Nov-04	125-140	0.02 U								0.0704		0.005 U		0.01 U		12.				32.1		1.16			0.005 U						0.005 U		0.01 U		0.0216	
WS-16-125	MFA	WS-16-125	17-Nov-04	109-124	0.02 U								0.0135		0.005 U		0.01 U		48.8				32.1		4.48			0.005 U						0.005 U		0.01 U		0.0291	
WS-16-161	MFA	WS-16-161	17-Nov-04	145-160	0.02 U								0.005 U		0.0066		0.01 U		30.3				29.2		2.56			0.005 U						0.0572		0.0108		0.162	
WS-17-52	MFA	WS-17-52	16-Nov-04	41-51	0.02 U								0.0627		0.0225		0.0174		48.7				31.4		4.78			0.245						0.329		0.0202		0.0489	
WS-17-94	MFA	WS-17-94	17-Nov-04	78-93	0.02 U								0.0163		0.005 U		0.01 U		31.9				24.6		3.44			0.005 U						0.0216		0.0101		0.0171	
WS-21-112	HAI	5237-070712-WS21-112	12-Jul-07	96 - 111	0.0008 U	-	0.00177	-	0.0734	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	31.8	-	0.00054 U	-	32.5	-	0.844	-	0.0002 U	0.002 U	-	0.005 U	-	0.00012 U	-	-	-	0.004 U	-	0.033 U	-
	HAI	5237-080521-WS21-112-108	21-May-08		0.00002 U	-	0.00087	-	0.0765	-	0.000008 U	-	0.00048	-	-	-	0.00013	-	30.1	-	####### J	-	44.2	-	1.01	-	0.00005 U	0.00085	-	0.0007 U*	-	0.000004 U*	-	-	-	0.00036	-	0.00039 U*	-
RP-06-87	URS		14-Apr-00	81-86			0.0143	0.0102				0.00024	0.00091				0.00586	0.00143	6.5			0.00011	177.		####			0.0241	0.0144							0.0038	0.00306	0.0134	0.00344
RP-7-30	HAI	5237-070828-RP-7-30-106	28-Aug-07	25 - 30	0.001 U	-	0.0108	-	0.0792	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	53.8	-	0.00054 U	-	37.3 J	-	6.28	-	0.0002 U	0.002 U	-	0.005 U	-	0.00012 U	-	-	-	0.005 U	-	0.033 U	-
RP-7-55	HAI	5237-070827-RP-7-55-104	27-Aug-07	50 - 55	0.001 U	-	0.00983	-	0.102	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	6.66	-	0.00054 U	-	48.4	-	5.66	-	0.0002 U	0.00439	-	0.005 U	-	0.00012 U	-	-	-	0.005 U	-	0.033 U	-
RP-07-84	AMEC		13-Apr-04	79-84			0.00483	0.00408					0.00296				0.00749		3.73		0.00066		127.		0.556			0.0186	0.0165							0.00854		0.0144	0.00803
	HAI	5237-070828-RP-7-84-107	28-Aug-07		0.001 U	-	0.00175	-	0.132 J	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	0.779	-	0.00054 U	-	111.	-	0.27 J	-	0.0002 U	0.00845	-	0.00625	-	0.00012 U	-	-	-	0.005 U	-	0.033 U	-
	HAI	5237-070828-RP-7-84-108 (DUP)	28-Aug-07		0.001 U	-	0.00161	-	0.136 J	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	0.786	-	0.00054 U	-	118.	-	0.269 J	-	0.0002 U	0.00829	-	0.00562	-	0.00012 U	-	-	-	0.005 U	-	0.033 U	-
RP-07-119	AMEC		13-Apr-04	114-119													0.00181		0.485				57.5		0.255			0.00781	0.00792							0.00323	0.00277	0.0101	0.00999
RP-11-30	HAI	5237-070827-RP-11-30-101	27-Aug-07	15 - 30	0.001 U	-	0.00723	-	0.0596	-	0.00038 U	-	0.00238	-	-	-	0.0027 U	-	50.1	-	0.00202	-	26.	-	3.62	-	0.0002 U	0.0024	-	0.005 U	-	0.00012 U	-	-	-	0.00575	-	0.0689	-
RP-11-160	HAI	5237-070827-RP-11-160-102	27-Aug-07	150 - 160	0.001 U	-	0.00524	-	0.0279	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	18.6	-	0.00054 U	-	40.	-	3.16	-	0.0002 U	0.002 U	-	0.005 U	-	0.00012 U	-	-	-	0.005 U	-	0.165	-
RP-11-216	HAI	5237-070827-RP-11-216-103	27-Aug-07	211 - 216	0.001 U	-	0.0002 U*	-	0.0812	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	3.76	-	0.00054 U	-	53.4	-	2.75	-	0.0002 U	0.00321	-	0.005 U	-	0.00012 U	-	-	-	0.005 U	-	0.033 U	-
RP-24-30	HAI	5237-070829-RP-24-30-109	29-Aug-07	25 - 30	0.001 U	-	0.00466	-	0.184	-	0.00038 U	-	0.00129	-	-	-	0.0027 U	-	78.8	-	0.00452	-	47.	-	6.49	-	0.0002 U	0.002 U	-	0.005 U	-	0.00012 U	-	-	-	0.005 U	-	0.033 U	-
RP-24-60	HAI	5237-070828-RP-24-60-110	28-Aug-07	55 - 60	0.001 U	-	0.00822	-	0.137	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	18.6	-	0.00054 U	-	32.9	-	5.82 J	-	0.0002 U	0.00214	-	0.005 U	-	0.00012 U	-	-	-	0.005 U	-	0.033 U	-
RP-24-73	HAI	5237-070829-RP-24-73-113	29-Aug-07	68 - 73	0.001 U	-	0.00184	-	0.0906	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	3.39	-	0.00054 U	-	32.3	-	5.41	-	0.0002 U	0.00798	-	0.005 U	-	0.00012 U	-	-	-	0.005 U	-	0.033 U	-
RP-24-85	HAI	5237-070828-RP-24-85-111	28-Aug-07	80 - 85	0.001 U	-	0.00137	-	0.229	-	0.00038 U	-	0.001 U	-	-	-	0.0027 U	-	0.626	-	0.00054 U	-	128.	-	1.73	-	0.0002 U	0.00608	-	0.005 U	-	0.00012 U	-	-	-	0.005 U	-	0.033 U	-
Quality Control Samples (HAI)																																							
Water EB	HAI	011212-102	12-Dec-01		0.003 U		0.005 U		0.005 U		0.002 U		0.005 U		0.005 U		0.005 U		0.0222		0.005 U		0.05		0.005 U			0.005 U		0.005 U		0.005 U		0.01 U		0.005 U		0.01 U	
		011008-103	8-Oct-01		0.003 U		0.005 U		0.005 U		0.001 U		0.005 U		0.001 U		0.001 U		0.0417		0.005 U		0.0775		0.005 U			0.003 U		0.005 U		0.0019 U		0.001 U		0.005 U		0.005 U	
		020402-102	2-Apr-02		0.005 U		0.005 U		0.005 U		0.002 U		0.005 U		0.005 U		0.0052		0.142		0.005 U		0.05 U		0.0059			0.005 U		0.005 U		0.005 U		0.01 U		0.005 U		0.0359	
		020710-102	10-Jul-02		0.005 U		0.005 U		0.005 U		0.002 U		0.005 U		0.005 U		0.005 U		0.01 U		0.005 U		0.05 U		0.005 U			0.005 U		0.005 U		0.005 U		0.01 U		0.005 U		0.0079	

EPA = U.S. Environmental Protection Agency
# = Reference Level not established
AWQC = Ambient Water Quality Criteria
bgs = below ground surface
DEQ = Oregon Department of Environmental Quality
EB = equipment blank
J = Estimated Concentration
MCL = Maximum Contaminant Level
mg/l = milligrams/liter
ND = not detected above detection limit indicated
NRWQC = National Recommended Water Quality Criteria
ppb = parts per billion
ppm = parts per million
PRG = Potential Remediation Goal
SCV = Secondary Chronic Value
U = not detected above method reporting limit indicated
U* = Compound considered non-detect because it was also detected in associated blank at similar concentration levels.
ug/l = micrograms per liter

1 = Screening Level Values for Soil/Stormwater Sediment, Stormwater and Surface water, *Portland Harbor Joint Source Control Strategy*, DEQ, December 2005.
2 = EPA, under CERCLA authority, has identified the Safe Drinking Water Acts MCLs and AWQCs (federal and state once approved) as potential ARARs under CERCLA. The final determination will be made in the EPA Portland Harbor Record of Decision (ROD). Decisions to implement source control, prior to The EPA Portland Harbor ROD, due to an exceedance of an SLV in upland stormwater will be evaluated and prioritized on a case by case basis.
3 = Values were taken from Table 33c (OAR 340-41), which are Water Quality Guidance Values, not criteria, that can be used in application of Oregon's Narrative Toxics Criteria to waters of the state in order to protect aquatic life
4 = Value for Arsenic V.
5 = This is a hardness dependent metal. All values were calculated based on 25 mg/l of CaCO3.
6 = These values were taken from OAR 340-41 Table 20 because they will remain the enforceable values for these particular analytes.
7 = National Secondary Drinking Water Standards.
8 = This metal is listed as the total recoverable metal in the water column.
9 = Cyanide value is based on a free cyanide value per DEQ OAR 340-41 Table 33, and EPA values are based on total Cyanide.
10 = Tier II SCV values were taken from Suter II, G.W. and Tasco, C.L., 1996. Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision. ORNL publication ES/ER/TM-96/R2.

Table 4d - Summary of Historical Analytical Results for Groundwater Samples: Monitoring Wells
Detected Volatile Organic Compounds (VOCs) by EPA Method 8260 or 8021

					Analytical Results – ug/L (ppb)																						
Well Number	Collected By	Sample Number	Sample Date	Screen Interval (feet bgs)	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Xylenes (total)	Chlorobenzene	Naphthalene	Styrene	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Trichloroethene	Tetrachloroethene (PCE)	Trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Other VOCs
HUMAN HEALTH SCREENING LEVEL VALUES [4,5]																											
Fish Consumption																											
	EPA 2004 NRWQC (organism only)				51.	15,000.	2,100.	#	#	#	1,600.	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
	Portland Harbor specific fish consumption rate				5.1	1,500.	210.	#	#	#	160.	#	#	#	#	#	#	#	130.	96.	19.	3.	0.33	1,000.	#	0.24	#
	DEQ 2004 AWQC (organism only)				51.	15,000.	2,100.	#	#	#	1,600.	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
Drinking Water																											
	MCL				5.	1,000.	700.	#	#	10,000.	100.	0.2 [3]	100	#	#	#	#	#	600.	#	75.	5.	5.	100.	#	2.	#
	Tap Water PRGs				0.35	720.	1,300.	#	1,400.	200.	91.	6.2	1,600	660.	#	#	#	#	49.	14.	2.8	0.028	0.1	0.12	#	0.015	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [4,5]																											
	EPA 2004 NRWQC (chronic)				#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic) [6]				#	840.	#	#	#	#	50.	620.	#	#	#	#	#	#	763.	763.	763.	21,900.	840.	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]				130.	9.8	7.3	1.8	13.	#	64.	12.	#	#	#	#	#	#	14.	71.	15.	47.	98.	590.	590.	#	#
WS-1	CH2M HILL		Aug-85	7-22	1,100.	U	410.			1,200.		U															U
WS-2	CH2M HILL		Aug-85	7.5-22	100.	U	U			32.		1,900.															U
WS-3S	CH2M HILL		Aug-85	12-27	390.	U	U			U		600.															U
	URS		6-Apr-00		U																						U
			13-Oct-00		U																						U
			25-Jun-01		0.3																						U
	AMEC		16-Apr-02		4.																						U
WS-3I	G&M		Oct-90	55-60	U	U	U			U		770.															U
	URS		6-Apr-00		U																						U
			13-Oct-00		U																						U
			25-Jun-01		U																						U
	AMEC		16-Apr-02		0.14																						U
			13-Apr-04		U	U	U			U	3.3	U		U	U		U	U	0.8		0.3	U		U	U	U	U
W-03-81	URS		6-Apr-00	75-80	U																						U
			13-Oct-00		U																						U
			25-Jun-01		0.17																						U
	AMEC		16-Apr-02		U																						U
			13-Apr-04		U	U	U			U		U		U	U		U	U	0.09			U		U	U	U	U
WS-4	CH2M HILL		Aug-85	6.5-21.5	U	U	U			15.		350.															U
WS-5	CH2M HILL		Aug-85	5-20	U	U	U			U		58.															U
WS-6	CH2M HILL		Aug-85	9-24	1,200.		350.			430.		2,100.															U
	URS		6-Apr-00		40.4																						U
			13-Oct-00		614.																						U
WS-7	CH2M HILL		Aug-85	10-25	U	U	U			U		U															U
	URS		Oct-90		U	U	U			U		5.															U
			6-Apr-00		U																						U
			13-Oct-00		U																						U
WS-8-33	HAI	5237-011009-107	9-Oct-01	23-33	107.	10. U	27.9			20. U		841.		1. U	1. U		18.8	1. U				10. U		10. U	10. U	12. U	U
		5237-011213-105	13-Dec-01		68.	5. U	29.6			23.2		455.		1. U	1. U		23.1	1. U				5. U		5. U	5. U	6. U	U
		5237-020403-105	3-Apr-02		89.1	2.07	19.5			20.48		327.		2.38	1. U		9.56	2.49				1. U		1. U	1. U	1.2 U	U
		5237-020403-106	3-Apr-02		87.4	2.14	18.			18.5		216.		2.12	1. U		7.78	2.16				1. U		1. U	1. U	1.2 U	U
		5237-020710-104	10-Jul-02		65.9	1.24	31.6			53.1		135.		4.46	1.19		31.2	8.28				1. U		1. U	1. U	1.2 U	4-IPT=1.33
		5237-020710-105	10-Jul-02		68.1	1.29	30.4			49.8		145.		4.26	1.27		30.8	8.39				1. U		1. U	1. U	1.2 U	4-IPT=1.47
		5237-080521-WS8-33-105	21-May-08		76.	1.4	12.	17.	13.	30.	0.23 J	210.	0.039 U	5.2	1.6 J	-	17.	4.2	0.52	0.041 U	0.23 J	0.07 J	0.077 U	0.14 J	0.52	1.	Chloroethane = 0.19 n-Butylbenzene = 1. p-Isopropyltoluene = 0.8 sec-Butylbenzene = 0.44 tert-Butylbenzene = 0.08
WS-8-59	HAI	5237-011008-104	8-Oct-01	49-59	14.7	1. U	1. U			2. U		38.9		1. U	1. U		1. U	1. U				1. U		1. U	251.	92.4	U
		5237-011008-105 (duplicate)	8-Oct-01		21.4	2.02	1. U			2. U		49.9		1. U	1. U		1. U	1. U				1. U		1. U	345.	129.	U
		5237-011212-103	12-Dec-01		26.8	1.27	1. U			2.66		13.9		1. U	1. U		1. U	1. U				3.53		2.2	409.	332.	U
		5237-011212-104 (duplicate)	12-Dec-01		27.	1.32	1. U			2.57		12.4		1. U	1. U		1. U	1. U				3.39		2.15	398.	306.	U
		5237-020403-104	3-Apr-02		13.	1. U	1. U			1.11		2. U		1. U	1. U		1. U	1. U				1. U		1. U	99.6	136.	U
		5237-0207103	10-Jul-02		20.8	1.17	1. U			2.29		2. U		1. U	1. U		1. U	1. U				1.19		1. U	117.	160.	U
	HAI	5237-070716-WS-8-59-108	16-Jul-07		7.08	0.53	0.06 U	0.21 U	0.07 U	0.26 U	0.05 U	0.0971	0.04 U	0.07 U	-	-	-	-	-	-	-	0.08 U	0.11 U	0.1 U	21.2	15.	U
		5237-080521-WS8-56-106	21-May-08		13.	0.8	0.042 U	0.13 J	0.83	0.96	0.045 U	0.1 U	0.039 U	0.86 J	0.037 U	-	0.037 U	0.042 U	0.06 J	0.041 U	0.054 U	0.52	0.077 U	0.08 J	25.	18.	1,1-Dichloroethane = 0.08 Chloroethane = 0.39 sec-Butylbenzene = 0.04
WS-9-34	HAI	5237-011008-102	8-Oct-01	24-34	1. U	1. U	1. U			2. U		5. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U
		5237-011212-101	12-Dec-01		1. U	1. U	1. U			2. U		2.04		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U
		5237-020402-101	2-Apr-02		1. U	1. U	1. U			2. U		2. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U
		5237-020710-101	10-Jul-02		1. U	1. U	1. U			2. U		2. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U

Table 4d - Summary of Historical Analytical Results for Groundwater Samples: Monitoring Wells
Detected Volatile Organic Compounds (VOCs) by EPA Method 8260 or 8021

Well Number	Collected By	Sample Number	Sample Date	Screen Interval (feet bgs)	Analytical Results – ug/L (ppb)																						
					Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Xylenes (total)	Chlorobenzene	Naphthalene	Styrene	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Trichloroethene	Tetrachloroethene (PCE)	Trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Other VOCs
HUMAN HEALTH SCREENING LEVEL VALUES [4,5]																											
Fish Consumption																											
		EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	1,600.	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
		Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	160.	#	#	#	#	#	#	#	130.	96.	19.	3.	0.33	1,000.	#	0.24	#
		DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	1,600.	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
Drinking Water																											
		MCL			5.	1,000.	700.	#	#	10,000.	100.	0.2 [3]	100	#	#	#	#	#	600.	#	75.	5.	5.	100.	#	2.	#
		Tap Water PRGs			0.35	720.	1,300.	#	1,400.	200.	91.	6.2	1,600	660.	#	#	#	#	49.	14.	2.8	0.028	0.1	0.12	#	0.015	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [4,5]																											
		EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
		DEQ 2004 AWQC (chronic) [6]			#	840.	#	#	#	#	50.	620.	#	#	#	#	#	#	763.	763.	763.	21,900.	840.	#	#	#	#
		Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	1.8	13.	#	64.	12.	#	#	#	#	#	#	14.	71.	15.	47.	98.	590.	590.	#	#
WS-10-27	MFA	WS-10-27	27-Oct-03	11-26	8,060.	150.	716.			1,472.		13,600.		33.3	11.1		136.	47.5				1. U		1. U	1. U	1. U	U
		WS-10-27	29-Jan-04		5,040.	76.3	518.			265.7		8,350.		1. U	1. U		20.7	26.8				1.75		1. U	1. U	1. U	U
		WS-10-27	29-Apr-04		7,640.	337.	570.			548.		7,110.	5.38		7.74		117.	36.				7.15		U	16.3	1.83	IPB = 15.8 p-Cymene=2.68
		WS-10-27	16-Nov-04		7,170.	376.	617.			984.		8,670.	7.	23.3	7.8		101.	42.6				0.2 U		0.3 U	0.2 U	0.2 U	p-IPT=4.3 n-Butylbenzene=1.22 tert-Butylbenzene=0.94 Carbon disulfide=0.22
WS-11-125	MFA	WS-11-125	28-Oct-03	109-124	252.	56.1	87.6			92.9		1,660.		1. U	1. U		12.6	3.67				2,020.		17.5	5,340.	961.	U
		WS-11-125	30-Jan-04		328.	68.5	124.			125.3		2,340.		4.61	2.17		45.2	15.6				1,100.		35.	3,740.	936.	U
		WS-11-125	29-Apr-04		379.	84.2	155.			207.7		6,520.			2.4		78.5	25.				1,120.		48.9	7,020.	1,010.	IPB=5.58 p-Cymene=1.82
		WS-11-125	16-Nov-04		536.	120.	182.			256.		1,770.	1.76	5.06	0.56		34.8	9.72				484.		88.2	10,500.	1,150.	p-IPT=1.
		5237-080515-WS11-125-102	15-May-08		560.	190.	490.	380.	240.	620.	0.14 J	21,000.	0.039 U	16.	5.5	-	160.	46.	0.044 U	0.041 U	0.054 U	0.32 J	0.077 U	0.3 J	20.	6.7	Acetone = 25. Carbon disulfide = 0.2 Chloroethane = 0.56 p-Isopropyltoluene = 3.8 sec-Butylbenzene = 0.25
WS-11-161	MFA	WS-11-161	27-Oct-03	145-160	0.56	0.2 U	0.2 U			0.4 U		0.2 U		0.2 U	0.2 U		0.2 U	0.2 U				1.6 U		0.2 U	1.	0.2 U	U
		WS-11-161	29-Jan-04		0.2 U	0.2 U	0.2 U			0.4 U		0.2 U		0.2 U	0.2 U		0.2 U	0.2 U				0.2 U		0.2 U	0.2 U	0.2 U	U
		WS-11-161	27-Apr-04		U	U	U			U		1.24			U		U	U				0.64		U	0.78	U	U
		WS-11-161	16-Nov-04		0.2 U	0.2 U	0.2 U			0.4 U		1. U		0.3 U	0.3 U		1. U	0.3 U				0.2 U		0.3 U	0.2 U	0.2 U	U
	HAI	5237-070712-WS11-161	12-Jul-07		8.53	3.02	3.91	2.67	1.69	4.36	0.05 U	49.9	0.04 U	0.07 U	-	-	-	-			-	0.08 U	0.11 U	0.1 U	6.18	0.1 U	U
		5237-080515-WS11-161-103	15-May-08		25.	8.6	12.	8.	5.7	13.7	0.045 U	190.	0.039 U	0.19 J	0.05 J	-	1.4 J	0.44 J	0.07 J	0.041 U	0.06 J	0.11 J	0.077 U	0.048 U	0.42 J	0.1 J	U
WS-12-125	MFA	WS-12-125	28-Oct-03	109-124	8.53	0.2 U	0.2 U			1.1		11.4 U		0.52	0.2 U		0.2 U	0.2 U				4.89 U		0.2 U	28.	63.5	U
		WS-12-125	30-Jan-04		2.91	0.2 U	0.2 U			0.4 U		5.27		0.2 U	0.2 U		0.2 U	0.2 U				1.86		0.2 U	14.7	39.6	U
		WS-12-125	26-Apr-04		9.56	U	U			1.35		7.83			U		U	U				1.35		U	11.5	12.7	IPB=0.45
		WS-12-125	17-Nov-04		4.01	0.2 U	0.2 U			0.4 U		1. U		0.3 U	0.3 U		1. U	0.3 U				0.2 U		0.3 U	0.2 U	4.58	U
	HAI	5237-070712-WS12-125	12-Jul-07		6.44	0.11	0.06 U	0.21 U	0.07 U	0.26 U	0.05 U	0.544	0.04 U	0.07 U	-	-	-	-			-	6.5	0.11 U	0.1 U	1.82	3.58	U
		5237-080521-WS12-126-104	21-May-08		6.6	0.1 J	0.05 J	0.078 U	0.07 J	0.07	0.045 U	0.14 U*	0.039 U	0.16 J	0.037 U	-	0.037 U	0.042 U	0.1 J	0.041 U	0.054 U	2.9	0.077 U	0.048 U	2.4	5.6	Chloromethane = 0.06
WS-12-161	MFA	WS-12-161	27-Oct-03	145-160	0.55	0.2 U	0.2 U			0.4 U		0.46 U		0.2 U	0.2 U		0.2 U	0.2 U				3.74 U		0.2 U	0.9	0.3 U	U
		WS-12-161	29-Jan-04		0.2 U	0.2 U	0.2 U			0.4 U		0.2 U		0.2 U	0.2 U		0.2 U	0.2 U				1.54		0.2 U	0.8	0.33	U
		WS-12-161	26-Apr-04		U	U	U			U	1.	0.29			U		U	U				U		U	1.31	U	Acetone=2360.
		WS-12-161	17-Nov-04		446.	0.2 U	79.7			87.1		202.		1.28	0.3 U		2.03	0.51				0.2 U		0.3 U	0.2 U	0.2 U	Methyl chloride=0.34
	HAI	5237-070712-WS12-161	12-Jul-07		0.09 U	0.11	0.06 U	0.21 U	0.07 U	0.26 U	2.82	0.095	0.04 U	0.07 U	-	-	-	-			-	0.08 U	0.11 U	0.1 U	0.09 U	0.1 U	Methyltert-Butylether = 8.84
		5237-080521-WS12-161-107	21-May-08		0.07 J	0.048 U	0.042 U	0.078 U	0.037 U	0.078 U	3.4	0.1 U	0.039 U	0.031 U	0.037 U	-	0.037 U	0.042 U	3.3	0.041 U	0.06 J	0.08 J	0.077 U	0.05 J	0.34 J	0.07 U	1,2-Dichloroethane = 0.17
WS-13-69	MFA	WS-13-69	29-Oct-03	52.6-67.6	129.	46.9	60.1			87.3		343.		1.31	1. U		8.07	2.13				55,200.		89.8	7,040.	5.28	U
		WS-13-69	30-Jan-04		680.	58.6	153.			196.7		833.		2.73	1. U		16.6	3.76				116,000.		109.	17,300.	24.1	U
		WS-13-69	28-Apr-04		587.	57.5	123.			124.4		527.			U		18.4	4.32				117,000.	3.26	68.4	14,200.	12.4	1,1,2-TCA=13.7 IPB=2.98
		WS-13-69	18-Nov-04		764.	57.3	732.			159.4		648.	1.13	2.3	0.3 U		11.6	2.18				198,000.	1.08	89.9	20,900.	20.7	1,1,2-TCA=13. Methyl chloride=0.41
WS-13-105	MFA	WS-13-105	29-Oct-03	89-104	2.14	1.34	6.14 U			5.09 U		226.		0.46	0.2 U		2.78	0.5				10,600.		3.67	360.	0.52 U	U
		WS-13-105-Dup	29-Oct-03		1.09	0.2 U	1.29			2.2		25.8		0.2	2. U		2. U	2. U				1,390.		1.51	61.9	0.2 U	U
		WS-13-105	30-Jan-04		11.7	1.18	3.32			2.09		78.7		1. U	1. U		1. U	1. U				949.		43.6	1,360.	1.62	U
		WS-13-105-Dup	30-Jan-04		3.23	1.79	4.14			3.6		114.		1. U	1. U		1. U	1. U				641.		88.	1,520.	2.	U
		WS-13-105	28-Apr-04		U	U	U			U		48.8		0.3 U	U		U	U				340.		7.86	868.	44.5	U
		WS-13-105-Dup	28-Apr-04		U	U	U			U		41.			U		U	U				260.		5.45	1,150.	36.9	U
		WS-13-105	18-Nov-04		0.2 U	0.2 U	0.2 U			0.4 U		1. U		0.3 U	0.3 U		1. U	0.3 U				7.72		0.3 U	12.4	5.79	Methyl chloride=0.4
		WS-13-105-Dup	18-Nov-04		0.2 U	0.2 U	0.2 U			0.4 U		1. U		0.3 U	0.3 U		1. U	0.3 U				25.9		0.3 U	14.3	5.58	Methyl chloride=0.45

Table 4d - Summary of Historical Analytical Results for Groundwater Samples: Monitoring Wells
Detected Volatile Organic Compounds (VOCs) by EPA Method 8260 or 8021

Well Number	Collected By	Sample Number	Sample Date	Screen Interval (feet bgs)	Analytical Results – ug/L (ppb)																						
					Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Xylenes (total)	Chlorobenzene	Naphthalene	Styrene	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Trichloroethene	Tetrachloroethene (PCE)	Trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Other VOCs
HUMAN HEALTH SCREENING LEVEL VALUES [4,5]																											
Fish Consumption																											
	EPA 2004 NRWQC (organism only)				51.	15,000.	2,100.	#	#	#	1,600.	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
	Portland Harbor specific fish consumption rate				5.1	1,500.	210.	#	#	#	160.	#	#	#	#	#	#	#	130.	96.	19.	3.	0.33	1,000.	#	0.24	#
	DEQ 2004 AWQC (organism only)				51.	15,000.	2,100.	#	#	#	1,600.	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
Drinking Water																											
	MCL				5.	1,000.	700.	#	#	10,000.	100.	0.2 [3]	100	#	#	#	#	#	600.	#	75.	5.	5.	100.	#	2.	#
	Tap Water PRGs				0.35	720.	1,300.	#	1,400.	200.	91.	6.2	1,600	660.	#	#	#	#	49.	14.	2.8	0.028	0.1	0.12	#	0.015	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [4,5]																											
	EPA 2004 NRWQC (chronic)				#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic) [6]				#	840.	#	#	#	#	50.	620.	#	#	#	#	#	#	763.	763.	763.	21,900.	840.	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]				130.	9.8	7.3	1.8	13.	#	64.	12.	#	#	#	#	#	#	14.	71.	15.	47.	98.	590.	590.	#	#
WS-14-125	MFA	WS-14-125	16-Nov-04	109-124	3,630.	410.	514.			675.		9,170.		19.6	2.43		86.2	25.1				0.2 U		0.3 U	8.54	4.09	p-IPT=2.18 n-Butylbenzene=0.97 Chloroform=0.97
	HAI	5237-070712-WS14-125	12-Jul-07		5,430.	202.	505.	419.	212.	631.	5. U	7,580.	4. U	7. U	-	-	-	-			-	8. U	11. U	10. U	48.	10. U	U
		5237-080515-WS14-125-100	15-May-08		6,400.	160.	640.	540.	280.	820.	0.18 J	11,000.	0.039 U	21.	5.	-	120.	37.	0.044 U	0.041 U	0.054 U	0.83	0.077 U	1.1	76.	12.	1,1-Dichloroethene = 0.12 Methylene chloride = 0.3 p-Isopropyltoluene = 3.2 sec-Butylbenzene = 0.25
WS-14-161	MFA	WS-14-161	16-Nov-04	145-160	0.43	0.2 U	0.2 U			0.4 U		3.92		0.3 U	0.3 U		1. U	0.3 U				0.2 U		0.3 U	0.2 U	0.2 U	Carbon disulfide=0.26 Methyl chloride=0.32
	HAI	5237-070712-WS14-161	12-Jul-07		0.09 U	0.11	0.68	0.21 U	0.07 U	0.26 U	0.05 U	15.7	0.04 U	0.07 U	-	-	-	-			-	0.08 U	0.11 U	0.1 U	0.09 U	0.1 U	U
		5237-080515-WS14-161-101	15-May-08		0.44 J	0.94	7.6	6.5	3.5	10.	0.045 U	240.	0.039 U	0.38 J	0.12 J	-	2. J	0.61 J	0.044 U	0.041 U	0.054 U	0.25 J	0.077 U	0.048 U	0.045 U	0.071 U	n-Butylbenzene = 0.06 p-Isopropyltoluene = 0.06
WS-15-85	MFA	WS-15-85	18-Nov-04	70-85	3,650.	268.	285.			297.		3,470.		8.7	1.03		44.4	11.7				186.		23.6	2,640.	4.42	p-IPT=1.26 Chloroform=0.45 Methyl chloride=0.33
WS-15-140	MFA	WS-15-140	18-Nov-04	125-140	7.99	0.32	0.79			0.4 U	4.42	23.9		0.3 U	0.3 U		1. U	0.3 U	1.61			2.62		0.3 U	7.12	0.2 U	Methyl chloride=0.37 MTBE=2.3
WS-16-125	MFA	WS-16-125	17-Nov-04	109-124	0.2 U	0.2 U	0.2 U			0.4 U	2.21	275.		0.3 U	0.3 U		1. U	0.3 U				0.2 U		0.3 U	0.2 U	0.2 U	2-Butanone=15.4 Acetone=512 n-Butylbenzene=0.4 MTBE=5.06
WS-16-161	MFA	WS-16-161	17-Nov-04	145-160	2.4	0.75	0.77			1.32		13.9		0.3 U	0.3 U		1. U	0.3 U				0.2 U		0.3 U	0.2 U	0.2 U	U
WS-17-52	MFA	WS-17-52	16-Nov-04	41-51	105.	0.2 U	90.1			102.4		1,780.		3.66	0.31		28.5	7.68				0.2 U		0.3 U	0.2 U	0.2 U	p-IPT=1.29 n-Butylbenzene=0.71 Carbon disulfide=0.26
WS-17-94	MFA	WS-17-94	17-Nov-04	78-93	7.67	4.39	8.94			10.89		164.		0.98	0.3 U		1.05	0.3 U				0.81		0.3 U	0.2 U	0.2 U	Carbon disulfide=0.2 Chloroform=0.3
WS-21-112	HAI	5237-070712-WS21-112	12-Jul-07	96 - 111	930.	9.1	45.2	2.1 U	30.6	39.3	0.5 U	2.45	0.4 U	0.7 U	-	-	-	-			-	0.8 U	1.1 U	9.9	610.	284.	U
		5237-080521-WS21-112-108	21-May-08		510.	6.2	35.	7.1	23.	30.1	0.23 U	4.7 J	0.2 U	2. J	0.5 J	-	3.5 J	0.6 J	0.22 U	0.21 U	0.27 U	310.	0.39 U	4.8	1,500.	640.	1,1-Dichloroethene = 8.
RP-01-31	URS		17-Apr-00	25-30	0.16																						U
			Fall-00		U																						U
			26-Jun-01		U																						U
	AMEC		5-Apr-02		U																						U
			15-Apr-04		U	U	U			U		U		U	U		U	U				U		U	U	U	U
RP-01-51	URS		17-Apr-00	45-50	1.12																						U
			Fall-00		0.16																						U
			26-Jun-01		0.18																						U
	AMEC		8-Apr-02		0.5																						U
			15-Apr-04		0.64	U	U			U	37.	U		U	U		U	U	270.	8.1	76.8	4.52		0.48	4.64	10.1	U
(duplicate)			15-Apr-04		0.6	U	U			U	35.	U		U	U		U	U	270.	8.1	76.8	4.56		0.52	4.62	9.98	U
RP-01-65	URS		17-Apr-00	59-64	27.4																						U
			Fall-00		13.7																						U
			26-Jun-01		41.4																						U
	AMEC		5-Apr-02		4.75																						U
			15-Apr-04		7.7	U	U			U	84.	U		U	U		U	U	678.	20.3	186.	11.8		1.1	9.95	19.7	U
RP-03-26	URS		7-Apr-00	20-25	U																						U
RP-03-30R	URS		Fall-00	23-28	U																						U
			27-Jun-01		U																						U
	AMEC		10-Apr-02		U																						U
			19-Apr-04		U		5.1			8.9	7.2	1,720.		2.5	U		18.9	7.8				U		U	U	U	U
RP-03-52R	URS		Fall-00	46-51	U																						U
			27-Jun-01		U																						U
	AMEC		10-Apr-02		U																						U
			19-Apr-04		U	U	U			U		U		U	U		U	U				U		U	U	U	U

Table 4d - Summary of Historical Analytical Results for Groundwater Samples: Monitoring Wells
Detected Volatile Organic Compounds (VOCs) by EPA Method 8260 or 8021

Well Number	Collected By	Sample Number	Sample Date	Screen Interval (feet bgs)	Benzene	Toluene	Ethylbenzene	m,p-Xylene	o-Xylene	Xylenes (total)	Chlorobenzene	Naphthalene	Styrene	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Trichloroethene	Tetrachloroethene (PCE)	Trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Other VOCs
					Analytical Results – ug/L (ppb)																						
HUMAN HEALTH SCREENING LEVEL VALUES [4,5]																											
Fish Consumption																											
	EPA 2004 NRWQC (organism only)				51.	15,000.	2,100.	#	#	#	1,600.	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
	Portland Harbor specific fish consumption rate				5.1	1,500.	210.	#	#	#	160.	#	#	#	#	#	#	#	130.	96.	19.	3.	0.33	1,000.	#	0.24	#
	DEQ 2004 AWQC (organism only)				51.	15,000.	2,100.	#	#	#	1,600.	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
Drinking Water																											
	MCL				5.	1,000.	700.	#	#	10,000.	100.	0.2 [3]	100	#	#	#	#	#	600.	#	75.	5.	5.	100.	#	2.	#
	Tap Water PRGs				0.35	720.	1,300.	#	1,400.	200.	91.	6.2	1,600	660.	#	#	#	#	49.	14.	2.8	0.028	0.1	0.12	#	0.015	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [4,5]																											
	EPA 2004 NRWQC (chronic)				#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic) [6]				#	840.	#	#	#	#	50.	620.	#	#	#	#	#	#	763.	763.	763.	21,900.	840.	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]				130.	9.8	7.3	1.8	13.	#	64.	12.	#	#	#	#	#	#	14.	71.	15.	47.	98.	590.	590.	#	#
RP-06-31	URS		14-Apr-00	24.5-29.5	0.45																						U
			Fall-00		0.18																						U
			27-Jun-01			U																					U
	AMEC		10-Apr-02			U																					U
RP-06-87	URS		14-Apr-00	81-86	3.1																						U
			Fall-00		1.85																						U
			27-Jun-01		1.85																						U
	AMEC		10-Apr-02		1.65																						U
			15-Apr-04		1.5	U	U			U	103.	U			U	U	U	U	583.	13.5	146.	18.6		1.15	10.9	19.8	U
RP-07-30	AMEC		3-May-02	25-30		U																					U
	HAI	5237-070828-RP-7-30-106	28-Aug-07		0.09	U 0.11	0.06 U	0.21 U	0.07 U	0.26 U	0.05 U	0.095	0.04 U	0.07 U	-	-	-	-			-	0.08 U	0.11 U	0.1 U	0.09 U	0.1 U	U
RP-07-55	AMEC		3-May-02	50-55		U																					U
	HAI	5237-070827-RP-7-55-104	27-Aug-07		0.09	U 0.11	0.06 U	0.21 U	0.07 U	0.26 U	0.05 U	0.095	0.04 U	0.07 U	-	-	-	-			-	0.08 U	0.11 U	0.1 U	0.09 U	0.1 U	U
RP-07-84	AMEC		3-May-02	79-84		U																					U
			13-Apr-04		1.9	U	U			U	107.	U			U	U	U	U	704.	19.6	190.	5.5		1.35	26.6	16.3	U
	HAI	5237-070828-RP-7-84-107	28-Aug-07		1.39	0.11	0.06 U	0.21 U	0.07 U	0.26 U	140.	0.097	0.04 U	0.07 U	-	-	-	-			-	15.4	0.11 U	1.18	18.4	12.9	1,1-Dichloroethylene = 2.4 Methyltert-Butylether = 1.57
	HAI	5237-070828-RP-7-84-108 (DUP)	28-Aug-07		1.31	0.11	0.06 U	0.21 U	0.07 U	0.26 U	136.	-	0.04 U	0.07 U	-	-	-	-			-	14.8	0.11 U	1.25	18.1	12.3	1,1-Dichloroethylene = 2.33 Methyltert-Butylether = 1.56
RP-07-119	AMEC		Spring-02	114-119		U																					U
			13-Apr-04			U	U			U	4.1	U			U	U	U	U	54.9	3.56	16.8	5.88			U 6.02	U	Chloroform=0.44
RP-11-30	HAI	5237-070827-RP-11-30-101	27-Aug-07	15 - 30	0.09	U 0.75	0.06 U	0.21 U	0.07 U	0.26 U	0.05 U	0.106	0.04 U	0.07 U	-	-	-	-			-	0.08 U	0.11 U	0.1 U	0.09 U	0.1 U	U
RP-11-160	HAI	5237-070827-RP-11-160-102	27-Aug-07	150 - 160	0.09	U 0.11	0.06 U	0.21 U	0.07 U	0.26 U	0.05 U	0.096	0.04 U	0.07 U	-	-	-	-			-	0.08 U	0.11 U	0.1 U	0.09 U	0.1 U	U
RP-11-216	HAI	5237-070827-RP-11-216-103	27-Aug-07	211 - 216	0.47	0.11	0.06 U	0.21 U	0.07 U	0.26 U	23.2	0.095	0.04 U	0.07 U	-	-	-	-			-	2.98	0.11 U	0.1 U	6.28	2.34	1,1-Dichloroethylene = 0.63 Chloroform = 0.53 Methyltert-Butylether = 3.94
RP-24-30	HAI	5237-070829-RP-24-30-109	29-Aug-07	25 - 30	0.09	U 0.11	0.06 U	0.21 U	0.07 U	0.26 U	0.05 U	0.1	0.04 U	0.07 U	-	-	-	-			-	0.08 U	0.11 U	0.1 U	0.09 U	0.1 U	U
RP-24-60	HAI	5237-070828-RP-24-60-110	28-Aug-07	55 - 60	0.09	U 0.11	0.06 U	0.21 U	0.07 U	0.26 U	0.05 U	0.095	0.04 U	0.07 U	-	-	-	-			-	0.08 U	0.11 U	0.1 U	0.09 U	0.1 U	U
RP-24-73	HAI	5237-070829-RP-24-73-113	29-Aug-07	68 - 73	0.09	U 0.11	0.06 U	0.21 U	0.07 U	0.26 U	0.62	0.095	0.04 U	0.07 U	-	-	-	-			-	0.08 U	0.11 U	0.1 U	0.09 U		U
RP-24-85	HAI	5237-070828-RP-24-85-111	28-Aug-07	80 - 85	1.86	0.11	0.06 U	0.21 U	0.07 U	0.26 U	59.3	0.095	0.04 U	0.07 U	-	-	-	-			-	14.	0.11 U	0.66	7.76	10.2	1,1-Dichloroethylene = 1.68 Chloroform = 1.08
Quality Control Samples (HAI)																											
Trip Blanks	HAI	5237-011008-101	8-Oct-01		1. U	1. U	1. U			2. U		5. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U
		5237-011212-100	12-Dec-01		1. U	1. U	1. U			2. U		2. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U
		5237-011213-106	13-Dec-01		1. U	1. U	1. U			2. U		2. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U
		5237-011009-106	9-Oct-01		1. U	1. U	1. U			2. U		2. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U
		5237-020402-100	2-Apr-02		1. U	1. U	1. U			2. U		2. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U
		5237-020403-103	3-Apr-02		1. U	1. U	1. U			2. U		2. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U
		5237-020710-100	10-Jul-02		1. U	1. U	1. U			2. U		2. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U
		5237-070712-MW-7	12-Jul-07		0.09 U	0.11 U	0.06 U	0.21 U	0.07 U	0.26 U	0.05 U	-	0.04 U	0.07 U	-	-	-	-			-	0.08 U	0.11 U	0.1 U	0.09 U	0.1 U	U
Equipment Blanks	HAI	5237-011008-103	8-Oct-01		1. U	1. U	1. U			2. U		5. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	Acetone = 149.0
		5237-011212-102	12-Dec-01		1. U	1. U	1. U			2. U		2. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	Acetone = 54.7
		5237-020402-102	2-Apr-02		1. U	1. U	1. U			2. U		2. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U
		5237-020710-102	10-Jul-02		1. U	1. U	1. U			2. U		2. U		1. U	1. U		1. U	1. U				1. U		1. U	1. U	1.2 U	U

Note:
" - " = Parameter not analyzed
# = Reference Level not established
AWQC = Ambient Water Quality Criteria
bgs = below ground surface
DEQ = Oregon Department of Environmental Quality
EPA = U.S. Environmental Protection Agency

J = Estimated Concentration
MCL = Maximum Contaminant Level
NRWQC = National Recommended Water Quality Criteria
ppb = parts per billion
PRG = Preliminary Remediation Goal
SCV = Secondary Chronic Value

ug/L = micrograms per liter
U = Non-detect above method detection limit
U* = Compound considered non-detect because it was also detected in associated blank at similar concentration levels.
UJ = Compound not detected, but the reporting limit is probably higher due to a low bias identified during the quality assurrance review.
UR = Unusable Reportling Limit, compound may or may not be present in this sample.

Note: Reference Level is lowest of EPA AWQC for aquatic life protection, AWQC for human consumption of organisms only, or DEQ SLV for aquatic receptors
1 = Sample number prefix: 5237-
2 = Tier II SCV values were taken from Suter II, G.W. and Tasco, C.L., 1996. Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision. ORNL publication ES/ER/TM-96/R2
3 = MCL is based on benzo(a)pyrene
4 = Screening Level Values are from *Portland Harbor Joint Source Control Strateay*, Final, December 2005
5 = EPA, under CERCLA authority, has identified the Safe Drinking Water Acts MCLs and AWQCs (federal and state once approved as potential ARARs under CERCLA. The final determination will be made in the EPA Portland Harbor Record of Decision (ROD). Decisions to implement source control, prior to The EPA Portland Harbor ROD, due to an exceedance of an SLV in upland stormwater will be evaluated and prioritized on a case by case basis.
6 = Values were taken from Table 33c (OAR 340-41), which are Water Quality Guidance Vales, not criteria, that can be used in the application of Oregon's Narrative Toxics Criteria to waters of the state in order to protect aquatic life.

Table 4e - Summary of Analytical Results for Groundwater Samples: Monitoring Wells
Detected SVOCs by EPA Method 8270C

Well Number	Collected By	Sample Number	Sample Date	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)					
					Carbazole	Dibenzofuran	1-Methylnapthalene	2-Methylnapthalene	PAHs	Other SVOCs
HUMAN HEALTH SCREENING LEVEL VALUES [1,2]										
Fish Consumption										
	EPA 2004 NRWQC (organism only)				#	#	#	#	#	
	Portland Harbor specific fish consumption rate				#	#	#	#	#	
	DEQ 2004 AWQC (organism only)				#	#	#	#	#	
Drinking Water										
	MCL				#	#	#	0.2 [4]	#	
	Tap Water PRGs				3.4	12.	#	#	#	
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [1,2]										
	EPA 2004 NRWQC (chronic)				#	#	#	#	#	
	DEQ 2004 AWQC (chronic)				#	#	#	#	#	
	Oak Ridge National Laboratory (Tier II SCV) [3]				#	#	#	2.1	#	
WS-1	CH2M HILL		Aug-85	7-22		77.	-		See PAH Table	
WS-2	CH2M HILL		Aug-85	7.5-22		75.	-	260.	See PAH Table	
WS-3S	CH2M HILL		Aug-85	12-27		U	-	67.	See PAH Table	
WS-3I	G&M		Oct-90	55-60		4.	-		See PAH Table	
WS-4	CH2M HILL		Aug-85	6.5-21.5		U	-	19.	See PAH Table	
WS-5	CH2M HILL		Aug-85	5-20		U	-	12.	See PAH Table	
WS-6	CH2M HILL		Aug-85	9-24		24.	-	41.	See PAH Table	
WS-7	CH2M HILL		Aug-85	10-25		U	-	U	See PAH Table	
			Oct-90			3.	-	U	See PAH Table	
WS-8-33	HAI	011009-107	9-Oct-01	23-33	14.7	4.26	-	59.2	See PAH Table	
		011213-105	13-Dec-01		45.2	3.97	-	65.8	See PAH Table	
		020403-105	3-Apr-02		11.5	2.12	-	5.48	See PAH Table	
		020710-104	10-Jul-02		18.3	3.05	-	41.9	See PAH Table	
		5237-080521-WS8-33-105	21-May-08		38.	4.1	96.	27.	See PAH Table	
WS-8-59	HAI	011008-104	8-Oct-01	49-59	4. U	2. U	-	6.74	See PAH Table	
		011008-105D	8-Oct-01		4. U	2. U	-	7.17	See PAH Table	
		011212-103	12-Dec-01		4. U	2. U	-	2. U	See PAH Table	
		011212-104D	12-Dec-01		4. U	2. U	-	2. U	See PAH Table	
		020403-104	3-Apr-02		8. U	4. U	-	4. U	See PAH Table	
		020710-103	10-Jul-02		4. U	2. U	-	2. U	See PAH Table	
		5237-070716-WS-8-59-108	16-Jul-07		0.0971 U	0.0971 U	-	0.0971 U	See PAH Table	
		5237-080521-WS8-56-106	21-May-08		0.029	0.011 J	0.12	0.072	See PAH Table	
WS-9-34	HAI	011008-102	8-Oct-01	24-34	4. U	2. U	-	2. U	See PAH Table	
		011212-101	12-Dec-01		4. U	2. U	-	2. U	See PAH Table	
		020402-101	2-Apr-02		8. U	4. U	-	4. U	See PAH Table	
		020710-101	10-Jul-02		4. U	2. U	-	2. U	See PAH Table	
WS-10-27	MFA	WS-10-27	29-Apr-04	11-26	245.	12.6	-	70.5	See PAH Table	
		WS-10-27	16-Nov-04		338.	25.2	-	510.	See PAH Table	
WS-11-125	MFA	WS-11-125	29-Apr-04	109-124	153.	46.9	-	70.5	See PAH Table	
		WS-11-125	16-Nov-04		136.	1. U	-	122.	See PAH Table	
	HAI	5237-080515-WS11-125-102	15-May-08		290.	18.	520.	810.	See PAH Table	

Table 4e - Summary of Analytical Results for Groundwater Samples: Monitoring Wells
Detected SVOCs by EPA Method 8270C

Well Number	Collected By	Sample Number	Sample Date	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)										
					Carbazole		Dibenzofuran		1-Methylnapthalene		2-Methylnapthalene		PAHs		Other SVOCs
HUMAN HEALTH SCREENING LEVEL VALUES [1,2]															
Fish Consumption															
	EPA 2004 NRWQC (organism only)				#		#		#		#		#		
	Portland Harbor specific fish consumption rate				#		#		#		#		#		
	DEQ 2004 AWQC (organism only)				#		#		#		#		#		
Drinking Water															
	MCL				#		#		#		0.2 [4]		#		
	Tap Water PRGs				3.4		12.		#		#		#		
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [1,2]															
	EPA 2004 NRWQC (chronic)				#		#		#		#		#		
	DEQ 2004 AWQC (chronic)				#		#		#		#		#		
	Oak Ridge National Laboratory (Tier II SCV) [3]				#		#		#		2.1		#		
WS-11-161	MFA	WS-11-161	27-Apr-04	145-160		U		U	-			U	See PAH Table		
		WS-11-161	16-Nov-04		0.987	U	0.987	U	-		0.987	U	See PAH Table		
	HAI	5237-070712-WS11-161	12-Jul-07		0.348		0.0952	U	-		4.76	U	See PAH Table		
		5237-080515-WS11-161-103	15-May-08		1.9		0.023		1.6		2.2		See PAH Table		
WS-12-125	MFA	WS-12-125	17-Nov-04		1.01	U	1.01	U	-		1.01	U	See PAH Table		
	HAI	5237-070712-WS12-125	12-Jul-07		0.0952	U	0.0952	U	-		0.0952	U	See PAH Table		
		5237-080521-WS12-126-104	21-May-08		0.0045	U	0.01	J	0.0093	J	0.0032	U*	See PAH Table		
WS-12-161	MFA	WS-12-161	17-Nov-04		0.952	U	0.952	U	-		0.952	U	See PAH Table		
	HAI	5237-070712-WS12-161	12-Jul-07		0.0952	U	0.0952	U	-		0.0952	U	See PAH Table		
		5237-080521-WS12-161-107	21-May-08		0.0093	J	0.0046	U	0.0075	J	0.0064	U*	See PAH Table		
WS-13-69	MFA	WS-13-69	28-Apr-04	52.6-67.6	7.86			U	-		23.		See PAH Table		
		WS-13-69	18-Nov-04		6.28		0.959	U	-				See PAH Table		
WS-13-105	MFA	WS-13-105	28-Apr-04	89-104	1.			U	-		5.25		See PAH Table		
		WS-13-105-DUP	28-Apr-04		1.55			U	-		4.63		See PAH Table		
		WS-13-105	18-Nov-04		1.05	U	1.05	U	-		1.05	U	See PAH Table		
		WS-13-105-DUP	18-Nov-04		1.02	U	1.02	U	-				See PAH Table		
WS-14-125	MFA	WS-14-125	16-Nov-04	109-124	217.		8.33		-				See PAH Table		
	HAI	5237-070712-WS14-125	12-Jul-07		166.		6.99		-		2,380.	U	See PAH Table		
		5237-080515-WS14-125-100	15-May-08		190.		8.5		270.		430.		See PAH Table		
WS-14-161	MFA	WS-14-161	16-Nov-04	145-160	0.95	U	0.95	U	-				See PAH Table		
	HAI	5237-070712-WS14-161	12-Jul-07		0.295		0.0952	U	-		0.511		See PAH Table		
		5237-080515-WS14-161-101	15-May-08		3.4		0.14		4.4		6.7		See PAH Table		
WS-15-85	MFA	WS-15-85	18-Nov-04	70-85	128.		2.46		-		-		See PAH Table		
WS-15-140	MFA	WS-15-140	18-Nov-04	125-140	0.951	U	0.951	U	-		-		See PAH Table		
WS-16-125	MFA	WS-16-125	17-Nov-04	109-124	0.976	U	0.976	U	-		-		See PAH Table		
WS-16-161	MFA	WS-16-161	17-Nov-04	145-160	0.967	U	0.967	U	-		-		See PAH Table		
WS-17-52	MFA	WS-17-52	16-Nov-04	41-51	16.2		1.03	U	-		-		See PAH Table		
WS-17-94	MFA	WS-17-94	17-Nov-04	78-93	2.89		0.973	U	-		-		See PAH Table		
WS-21-112	HAI	5237-070712-WS21-112	12-Jul-07	96 - 111	0.382		0.0952	U	-		0.69		See PAH Table		
		5237-080521-WS21-112-108	21-May-08		0.38		0.019	J	20.		1.		See PAH Table		
RP-7-30	HAI	5237-070828-RP-7-30-106	28-Aug-07	25 - 30	0.0952	U	0.0952	U	-		0.0952	U	See PAH Table		
RP-7-55	HAI	5237-070827-RP-7-55-104	27-Aug-07	50 - 55	0.0952	U	0.0952	U	-		0.0952	U	See PAH Table		
RP-7-84	HAI	5237-070828-RP-7-84-107	28-Aug-07	79 - 84	0.0966	U	0.0966	U	-		0.0966	U	See PAH Table		
		5237-070828-RP-7-84-108 (DUP)	28-Aug-07		0.0962	UJ	0.0962	UJ	-		0.0962	UJ	See PAH Table		

Table 4e - Summary of Analytical Results for Groundwater Samples: Monitoring Wells
Detected SVOCs by EPA Method 8270C

Well Number	Collected By	Sample Number	Sample Date	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)										
					Carbazole		Dibenzofuran		1-Methylnapthalene	2-Methylnapthalene		PAHs	Other SVOCs
HUMAN HEALTH SCREENING LEVEL VALUES [1,2]													
Fish Consumption													
	EPA 2004 NRWQC (organism only)				#		#		#	#		#	
	Portland Harbor specific fish consumption rate				#		#		#	#		#	
	DEQ 2004 AWQC (organism only)				#		#		#	#		#	
Drinking Water													
	MCL				#		#		#	0.2 [4]		#	
	Tap Water PRGs				3.4		12.		#	#		#	
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [1,2]													
	EPA 2004 NRWQC (chronic)				#		#		#	#		#	
	DEQ 2004 AWQC (chronic)				#		#		#	#		#	
	Oak Ridge National Laboratory (Tier II SCV) [3]				#		#		#	2.1		#	
RP-11-30	HAI	5237-070827-RP-11-30-101	27-Aug-07	15 - 30	0.0952	U	0.0952	U	-	0.0952	U	See PAH Table	
RP-11-160	HAI	5237-070827-RP-11-160-102	27-Aug-07	150 - 160	0.0957	U	0.0957	U	-	0.0957	U	See PAH Table	
RP-11-216	HAI	5237-070827-RP-11-216-103	27-Aug-07	211 - 216	0.0952	U	0.0952	U	-	0.0952	U	See PAH Table	
RP-24-30	HAI	5237-070829-RP-24-30-109	29-Aug-07	25 - 30	0.1	U	0.1	U	-	0.1	U	See PAH Table	
RP-24-60	HAI	5237-070828-RP-24-60-110	28-Aug-07	55 - 60	0.0952	U	0.0952	U	-	0.0952	U	See PAH Table	
RP-24-73	HAI	5237-070829-RP-24-73-113	29-Aug-07	68 - 73	0.0952	U	0.0952	U	-	0.0952	U	See PAH Table	
RP-24-85	HAI	5237-070828-RP-24-85-111	28-Aug-07	80 - 85	0.0952	U	0.0952	U	-	0.0952	U	See PAH Table	
Quality Control Samples (HAI)													
Equipment	HAI	5237-011008-103	8-Oct-01		4.	U	2.	U	-	2.	U	See PAH Table	
Blank		5237-011212-102	12-Dec-01		4.	U	2.	U	-	2.	U	See PAH Table	

Note:

= Reference Level not established
" - " Analyte not tested
AWQC = Ambient Water Quality Criteria
bgs = below ground surface
DEQ = Oregon Department of Environmental Quality
EPA = U.S. Environmental Protection Agency
MCL = Maximum Contaminant Level
ND = Not detected above detection limit indicated
NRWQC = National Recommended Water Quality Criteria
ppb = parts per billion
PRG = Potential Remediation Goal
SCV = secondary Chronic Value
U = not detected above method reporting limit indicated
ug/l = micrograms per liter

1= Screening Level Values are from *Portland Harbor Joint Source Control Strategy*, Final, December 2005
2 = EPA, under CERCLA authority, has identified the Safe Drinking Water Acts MCLs and AWQCs (federal and state once approved) as potential ARARs under CERCLA. The final determination will be made in the EPA Portland Harbor Record of Decision (ROD). Decisions to implement source control, prior to The EPA Portland Harbor ROD, due to an exceedance of an SLV in upland stormwater will be evaluated and prioritized on a case by case basis.
3 = Tier II SCV values were taken from Suter II, G.W. and Tasco, C.L., 1996. Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision. ORNL publication ES/ER/TM-96/R2
4 = MCL is based on benzo(a)pyrene
5 = These values were taken form OAR 340-41 Table 20 because they will remain the enforceable values for these particular analytes.
6 = Freshwater aquatic life values for pentachlorophenol are expressed as a function of pH, and are calculated as follows: Chronic = exp(1.005(ph)-5.134). The value displayed in the table corresponds to a pH of 7.8.
7 = Freshwater aquatic life values for pentachlorophenol are expressed as a function of pH, and are calculated as follows: Chronic = exp(1.005(ph)-5.29). The value displayed in the table corresponds to a pH of 7.8.

Table 4f - Indicator and Natural Attenuation Parameters Results for Groundwater Samples, 2007

Well Number	Collected by	HAI Sample Number	Sample Date	EPA Method 310.1/SM 2320 B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method 350.1	EPA Method 300.0			Field Measurement						
				Total Alkalinity	Bicarbonate Alkalinity	Carbonate Alkalinity	Hydroxide Alkalinity	Ammonia as Nitrogen	Chloride	Nitrate-Nitrogen	Sulfate	Ferrous Iron	Dissolved Oxygen	Oxygen Reduction Potential	pH	Specific Conductivity	Turbidity	Temperature
			Units ==>	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	pH Units	uS/cm	NTU's	^{0}C
WS-8-33	HAI	5237-080521-WS8-33-105	21-May-08	388	388	1 U	-	-	7.3	0.008 U	0.012 U	-	0.58	-85.6	6.33	888	21.4	17.05
WS-8-59	HAI	5237-070716-WS-8-59-108	16-Jul-07	394	394	25 U	25 U	-	14.5	0.1 U	1 U	-		-124.8	6.98	1589	210	21.09
		5237-080521-WS8-56-106	21-May-08	480	419	60	-	-	11.4	0.008 U	0.4	-	0.66	-68.9	6.51	947	487	17.25
WS-11-125	HAI	5237-080515-WS11-125-102	15-May-08	762	762	1 U	-	-	57.4	0.008 U	0.117 J	-	0.12	-157.5	7.07	824	9.84	18
WS-11-161	HAI	5237-070712-WS11-161	12-Jul-07	242	242	25 U	25 U	-	32.1	0.1 U	1 U	-						
		5237-080515-WS11-161-103	15-May-08	332	332	1 U	-	-	33.5	0.008 U	0.072 J	-	0.09	-126.3	6.8	450	0.46	17.81
WS-12-125	HAI	5237-070712-WS12-125	12-Jul-07	410	410	25 U	25 U	-	16.1	0.1 U	18.5	-						
		5237-080521-WS12-126-104	21-May-08	362	362	1 U	-	-	13.2	0.008 U	19.7	-	0.51	-49.9	6.24	647	1.05	17.04
WS-12-161	HAI	5237-070712-WS12-161	12-Jul-07	223	223	25 U	25 U	-	47.9	0.1 U	1 U	-						
		5237-080521-WS12-161-107	21-May-08	248	248	1 U	-	-	48.2	0.008 U	0.6	-	0.15	-63.1	6.6	507	0.71	17.5
WS-14-125	HAI	5237-070712-WS14-125	12-Jul-07	266	266	25 U	25 U	-	11.7	0.1 U	1 U	-						
		5237-080515-WS14-125-100	15-May-08	294	294	1 U	-	-	10.7	0.008 U	0.073 J	-	0.2	-65	6.73	382	0.3	16.2
WS-14-161	HAI	5237-070712-WS14-161	12-Jul-07	241	241	25 U	25 U	-	48.1	0.1 U	1 U	-						
		5237-080515-WS14-161-101	15-May-08	251	251	1 U	-	-	50.5	0.008 U	0.06 J	-	0.24	-82.8	6.72	404	0.23	17.1
WS-21-112	HAI	5237-070712-WS21-112	12-Jul-07	392	392	25 U	25 U	-	37.1	0.1 U	1 U	-						
		5237-080521-WS21-112-108	21-May-08	384	384	1 U	-	-	31.7	0.008 U	5.3	-	0.17	-40.9	6.3	646	2.6	17.44
RP-7-30	HAI	5237-070828-RP-7-30-106	28-Aug-07	311	311	25 U	25 U	-	7.81	0.1 U	1 U	2.8	0.44	-95.1	6.39	725	11.3	15.19
RP-7-55	HAI	5237-070827-RP-7-55-104	27-Aug-07	515	515	5 U	5 U	-	9.45	0.1 U	16.1	2.5	0.41	-55.5	6.61	922	33.8	16.37
RP-7-84	HAI	5237-070828-RP-7-84-107	28-Aug-07	263	263	5 U	5 U	-	984	0.1 U	84.2	1.2	0.19	18.4	6.44	3113	1.21	13.96
	HAI	5237-070828-RP-7-84-108	28-Aug-07	262	262	5 U	5 U	-	991	0.1 U	84.3	-	-	-	-	-	-	-
RP-11-30	HAI	5237-070827-RP-11-30-101	27-Aug-07	166	166	25 U	25 U	-	2.63	0.1 U	1 U	4.5	0.36	-102	6.31	404	9.21	15.02
RP-11-160	HAI	5237-070827-RP-11-160-102	27-Aug-07	252	252	25 U	25 U	-	10.6	0.1 U	1 U	3.1	0.17	-126.6	6.69	495	4.41	14.94
RP-11-216	HAI	5237-070827-RP-11-216-103	27-Aug-07	222	222	5 U	5 U	-	404	0.1 U	26.7	3.8	0.14	-93	6.69	1629	1.63	14.59
	HAI	5237-070829-RP-24-30-109	1-Aug-07	-	-	-	-	-	-	-	-	-	0.47	-133.6	6.55	1375	-	18.48
RP-24-60	HAI	5237-070828-RP-24-60-110	28-Aug-07	506	506	25 U	25 U	-	11.6	0.1 U	8.1	3.7	0.31	-75.9	6.6	872	5.23	16.25
RP-24-73	HAI	5237-070829-RP-24-73-113	29-Aug-07	433	433	5 U	5 U	-	34.8 U*	0.1 U	34.2	3.5	0.43	-25.5	6.34	1004	2.14	13.84
RP-24-85	HAI	5237-070828-RP-24-85-111	28-Aug-07	296	296	5 U	5 U	-	1560	0.1 U	71.1	1.6	0.16	-5.8	6.5	3139	1.42	14.2

"-" = Measurement not taken or or analyzed

Note:

^{0}C = Degrees Celcius
EPA = Environmental Protection Agency
J - Estimated Concentration
uS/cm = microsiemens per centimeter
mg/l = milligrans per liter

mV = millivolts
NTU = nephelometric units
ORP = Oxidation Reduciton Potential
ppm = parts per million
ug/l = micrograms per liter

U = Non-detect above method reporting limits
U* = Compound considered non-detect because it was also detected in associated blank at similar concentration levels.

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-01-22	951207-MW1-22-01	7-Dec-95	11 - 21	13.	2.	1.8	3.2	1.08	-	-	93.4	465.3
	960319-MW1-22-01	19-Mar-96	(fill WBZ)	3.5	3.5	2.3	23.	0.86	-	-	4.71	140.45
	960618-MW1-22-01	18-Jun-96		2.4	9.5	3.2	15.	1.91	-	-	2.2	112.
	961001-MW1-22-01	1-Oct-96		8.5	9.	7.7	72.	5.7	-	-	6.2	720.17
	970225-MW1-22-01	25-Feb-97		3.2	1.7	0.5 U	8.5	1.24	-	-	0.91	67.
	970225-MW1-22-02	25-Feb-97		1.5	1.6	0.7	11.	-	-	-	2.2	64.
	970827-MW1-22-01	27-Aug-97		7.5	8.2	6.9	62.	11.	-	-	20.	988.2
	970827-MW1-22-02	27-Aug-97		6.7	7.4	6.2	55.	10.	-	-	28.1	737.5
	980217-MW1-22-01	17-Feb-98		0.5 U	0.5 U	0.5 U	1.6	0.34	0.01 U	-	4.45	23.23
	980602-MW1-32-11	2-Jun-98		0.5 U	0.5 U	0.5 U	1.5 U	0.46	0.045	-	93.	209.
	980826-MW1-22-10	26-Aug-98		7.1	8.2	6.8	60.	6.7	0.6	-	517.	1,137.5
	981118-MW1-22-15	18-Nov-98		10. U	10. U	10. U	30. U	3.4	-	-	3.4	569.
	990216-MW1-22-012	16-Feb-99		0.5 U	0.5 U	0.5 U	1.5 U	0.22	0.02 U	-	3.53	11.27
	990513-MW1-22-11	13-May-99		0.643	0.704	0.5 U	2.04	-	-	-	3.17	17.33
	990824-MW1-22-15	24-Aug-99		7.12	8.42	5.89	50.4	6.5	0.02 U	-	68.19	816.91
	991028-MW1-22-16	28-Oct-99		7.64	10.6	7.24	40.8	6.7	0.02 U	-	8.69	424.98
	000330-MW1-22-116	30-Mar-00		0.859	1.43	0.616	7.02	1.7	0.02 U	-	0.42	62.35
	010329-MW1-22-115	29-Mar-01		0.5 U	0.5 U	0.5 U	1.5 U	0.192	0.186	-	13.36	51.06
	040825-MW1-22-019 [7]	25-Aug-04		4.66	5.87	6.59	46.3	4.31	1.89	-	0.26	589.51
	050401-014	1-Apr-05		0.987	0.5 U	0.5 U	1. U	-	0.0844	-	0.95	11.47
	050928-MW1-22-120	28-Sep-05		5.29	6.67	8.01	52.3	17.8	1.54	-	0.33	471.09
	060403-MW-1-22-117	3-Apr-06		2.79	4.63	5.68	37.5	4.13	0.165	0.185	ND	243.59
	061030-MW-1-22-123	30-Oct-06		3.9	5.2	6.6	7.4 J	8.7	0.5	0.113	1.26	733.15
	2708-070720-MW-1-22-131	20-Jul-07		2.88	4.6	6.	7.42	5.66	0.5 U	0.482	1.2207	488.0307
	2708-080512-MW1-22-105	12-May-08		1.8	2.9	3.9	4.4	2.92	0.22	0.135	0.7276	121.9726
MW-01-55	2708-070719-MW-1-55-127	19-Jul-07	45 - 55	0.5 U	0.5 U	0.5 U	1. U	0.398	0.005 U	0.0104	ND	ND
	2708-080512-MW1-55-104	12-May-08		0.045 U	0.048 U	0.042 U	0.078 U	0.9	0.21	0.008 J	0.003	0.0627
MW-01-82	2708-070719-MW-1-82-126	19-Jul-07	72 - 82	0.5 U	0.5 U	0.5 U	1. U	0.0095	0.0053	0.003 U	ND	0.142
	2708-080512-MW1-82-103	12-May-08		0.11 J	0.1 J	0.042 U	0.078 U	0.003 J	0.002 U	0.002 J	0.0104	0.0606
MW-02-32	951206-MW2-32-01	6-Dec-95	21.5 - 31.5	6.	0.5 U	4.2	2.4	0.353	-	-	ND	51.55
	960318-MW2-32-01	18-Mar-96	(fill WBZ)	0.5 U	0.5 U	0.5 U	0.5 U	0.26	-	-	ND	4.54
	960618-MW2-32-01	18-Jun-96		0.5 U	0.5 U	0.5 U	0.5 U	0.44	-	-	ND	2.6
	961001-MW2-32-01	1-Oct-96		0.5 U	0.5 U	0.5 U	0.5 U	0.22	-	-	ND	10.53
	970225-MW2-32-01	25-Feb-97		0.5 U	0.5 U	0.5 U	0.5 U	0.16	-	-	ND	1.6
	970827-MW2-32-01	27-Aug-97		0.5 U	0.5 U	0.5 U	1.5 U	0.28	-	-	0.2	18.04
	980217-MW2-32-01	17-Feb-98		0.5 U	0.5 U	0.5 U	1.5 U	0.16	0.01 U	-	ND	5.02
	980601-MW2-32-05	1-Jun-98		0.5 U	0.5 U	0.5 U	1.5 U	0.26	0.01 U	-	ND	3.2

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)								EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)						EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene		Toluene		Ethylbenzene		Xylenes		Total Cyanide		Amenable Cyanide		Free Cyanide		Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]																			
Fish Consumption																			
	EPA 2004 NRWQC (organism only)			51.		15,000.		2,100.		#		#		#		0.14		#	#
	Portland Harbor specific fish consumption rate			5.1		1,500.		210.		#		#		#		0.014		#	#
	DEQ 2004 AWQC (organism only)			51.		15,000.		2,100.		#		#		#		0.14		#	#
Drinking Water																			
	MCL			5.		1,000.		700.		10,000.		#		#		0.2		#	#
	Tap Water PRGs			0.35		720.		1,300.		#		#		#		0.73		#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]																			
	EPA 2004 NRWQC (chronic)			#		#		#		#		#		#		0.0052		#	#
	DEQ 2004 AWQC (chronic)			#		#		#		#		#		#		0.0052		#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.		9.8		7.3		13.		#		#		#		#	#
MW-02-32	980825-MW2-32-04	25-Aug-98	21.5 - 31.5	0.5	U	0.5	U	0.5	U	1.5	U	0.28		0.09		-		1.21	7.1
	981117-MW2-32-10	17-Nov-98	(fill WBZ)	0.5	U	0.5	U	0.5	U	1.5	U	0.08		0.02		-		ND	ND
	990216-MW2-32-008	16-Feb-99		0.5	U	0.5	U	0.5	U	1.5	U	0.12		0.03		-		ND	18.45
	990513-MW2-32-10	13-May-99		0.5	U	0.5	U	0.5	U	1.5	U	0.11		-		-		ND	9.02
	990824-MW2-32-10	24-Aug-99		0.5	U	0.5	U	0.5	U	1.5	U	0.16		0.02	U	-		0.11	6.29
	991027-MW2-32-12	27-Oct-99		0.5	U	0.5	U	0.5	U	1.5	U	0.13		0.02	U	-		ND	ND
	000329-MW2-32-112	29-Mar-00		0.5	U	0.5	U	0.5	U	1.5	U	0.08		0.02	U	-		ND	2.23
	010328-MW2-32-111	28-Mar-01		0.5	U	0.5	U	0.5	U	1.5	U	0.039		0.02	U	-		ND	ND
	040816-MW2-32-009 [7]	16-Aug-04		0.5	U	0.5	U	0.5	U	1.	U	0.0835		0.0285		-		ND	ND
	050331-009	31-Mar-05		3.2		0.5	U	0.711		1.	U	-		0.3		-		ND	2.99
	050927-MW-2-32-118	27-Sep-05		0.5	U	0.5	U	0.5	U	1.	U	0.082		0.01	U	-		ND	0.2128
	060328-MW-2-32-102	28-Mar-06		0.5	U	0.5	U	0.5	U	1.	U	0.198		0.043		0.0089		ND	0.748
	061016-MW-2-32-107	16-Oct-06		0.14	U	1.1		0.13	U	0.22	U	0.2		0.002	U	0.005	U	ND	0.2622
	2708-070712-MW-2-32-120	12-Jul-07		0.5	UJ	0.5	UJ	0.5	UJ	1.	UJ	0.181	J	0.158	J	0.0074	J	0.15172	11.34372
	2708-080512-MW2-32-101	12-May-08		0.045	U	0.14	J	0.042	U	0.078	U	0.05		0.05		0.007	J	0.0285	2.0838
MW-02-61	981116-MW2-61-04	16-Nov-98	50 - 60	0.5	U	0.5	U	0.5	U	1.5	U	1.3		1.3		-		ND	0.33
	990216-MW2-61-006	16-Feb-99	(alluvial WBZ)	0.5	U	0.5	U	0.5	U	1.5	U	1.6		0.04	U	-		ND	0.37
	990512-MW2-61-05	12-May-99		0.5	U	0.5	U	0.5	U	1.5	U	1.1		0.02	U	-		ND	0.54
	990823-MW2-61-07	23-Aug-99		0.5	U	0.5	U	0.5	U	1.5	U	1.4		0.2		-		ND	ND
	991026-MW2-61-04	26-Oct-99		0.5	U	0.5	U	0.5	U	1.5	U	1.3		0.34		-		ND	ND
	000328-MW2-61-104	28-Mar-00		0.5	U	0.5	U	0.5	U	1.5	U	1.2		0.58		-		ND	ND
	001004-MW2-61-04	4-Oct-00		0.5	U	0.5	U	0.5	U	1.5	U	-		0.43		-		ND	ND
	010328-MW2-61-104	28-Mar-01		0.5	U	0.5	U	0.5	U	1.5	U	0.251		0.02	U	-		ND	ND
	011009-MW2-61-104	9-Oct-01		0.5	U	0.5	U	0.5	U	1.5	U	0.83		-		-		ND	ND
	020403-MW2-61-103	3-Apr-02		0.5	U	0.5	U	0.5	U	1.5	U	2.38		0.4	U	-		ND	ND
	020924-MW2-61-103	24-Sep-02		0.5	U	0.5	U	0.5	U	1.5	U	0.97		-		-		ND	ND
	030318-MW2-61-104	18-Mar-03		0.5	U	0.5	U	0.5	U	1.5	U	1.3		0.04	U	-		ND	ND
	030930-MW2-61-103 [7]	30-Sep-03		0.5	U	0.5	U	0.5	U	1.5	U	-		0.02	U	-		ND	ND
	040813-MW2-61-002 [7]	13-Aug-04		0.5	U	0.5	U	0.5	U	1.	U	0.819		0.085		-		ND	ND
	050926-MW-2-61-111	26-Sep-05		0.5	U	0.5	U	0.5	U	1.	U	0.803		0.017		-		ND	0.0424
	060329-MW-2-61-104	29-Mar-06		0.5	U	0.5	U	0.5	U	1.	U	0.884		0.0714		0.0157		ND	0.0937
	061011-MW-2-61-101	11-Oct-06		0.14	U	0.72		0.13	U	0.22	U	1.1		0.09		0.005	U	ND	0.0887
	2708-070719-MW-2-61-128	19-Jul-07		0.5	U	0.5	U	0.5	U	1.	U	0.779		0.172		0.0043		ND	ND
	2708-080512-MW2-61-100	12-May-08		0.045	U	0.09	J	0.042	U	0.078		0.92		0.11		0.027		0.0172	0.0706
MW-02-104	2708-070712-MW-2-104-119	12-Jul-07	94 - 104	0.5	UJ	0.54		0.5	UJ	1.	UJ	0.173	J	0.163	J	0.0039	J	ND	0.248
	2708-080512-MW2-104-102	12-May-08		0.045	U	0.14	J	0.042	U	0.11		0.44		0.18		0.02		ND	0.1356

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-03-26	951206-MW3-26-01	6-Dec-95	15 - 25	30.	0.98	0.65	1.4	-	-	-	21.04	85.24
	960318-MW3-26-02	18-Mar-96	(fill WBZ)	1,300.	5.	2.2	5.6	0.27	-	-	1.71	42.39
	960618-MW3-26-01	18-Jun-96		2,300.	22.	10. U	27.	0.25	-	-	2.6	48.
	961001-MW3-26-01	1-Oct-96		0.55	0.95	0.5 U	2.4	0.34	-	-	182.	334.
	970225-MW3-26-01	25-Feb-97		130.	0.5 U	0.5 U	0.5 U	0.28	-	-	4.9	11.9
	970827-MW3-26-01	27-Aug-97		0.5 U	0.5 U	0.5 U	1.5 U	2.3	-	-	27.6	53.2
	980217-MW3-26-01	17-Feb-98		2.	0.5 U	0.5 U	1.5 U	0.5	0.01 U	-	7.07	13.45
	980602-MW3-26-09	2-Jun-98		0.5 U	0.5 U	0.5 U	1.5 U	0.76	0.01 U	-	100.	204.
	980826-MW3-26-08	26-Aug-98		0.5 U	0.5 U	0.5 U	1.5 U	1.3	0.72	-	409.	982.
	981117-MW3-26-12	17-Nov-98		0.5 U	0.5 U	0.5 U	1.5 U	2.1	0.1	-	32.2	59.
	990216-MW3-26-010	16-Feb-99		89.9	0.5 U	0.5 U	1.5 U	0.33	0.02 U	-	0.97	3.56
	990514-MW3-26-23	14-May-99		587.	1.11	0.5 U	1.5 U	0.3	-	-	4.42	13.21
	990824-MW3-26-12	24-Aug-99		0.5 U	0.5 U	0.5 U	1.5 U	0.57	0.02 U	-	1.67	25.12
	991027-MW3-26-14	27-Oct-99		0.5 U	0.5 U	0.5 U	1.5 U	0.79	0.02 U	-	7.23	12.56
	000330-MW3-26-113	30-Mar-00		0.5 U	0.5 U	0.5 U	1.5 U	0.36	0.21	-	2.44	6.32
	001005-MW3-26-11	5-Oct-00		0.5 U	0.5 U	0.5 U	1.5 U	-	0.04	-	2.96	6.15
	010328-MW3-26-113	28-Mar-01		0.5 U	0.5 U	0.5 U	1.5 U	0.221	0.209	-	5.42	11.9
	048023-MW3-26-010 [7]	23-Aug-04		0.5 U	0.5 U	0.5 U	1. U	0.184	0.184	-	ND	0.2121
	050330-004	30-Mar-05		0.5 U	0.5 U	0.5 U	1. U	-	0.384	-	0.54	1.21
	050922-MW-3-26-105	22-Sep-05		0.5 U	0.5 U	0.5 U	1. U	0.502	0.295	-	3.412	8.0986
	060330-MW-3-26-110	30-Mar-06		0.5 U	0.5 U	0.5 U	1. U	0.3	0.0756	0.0157	0.1554	1.4435
	061017-MW-3-26-110	17-Oct-06		0.5 U	0.5 U	0.5 U	0.5 U	4.2	0.53	0.005 U	0.3799	1.3539
	2708-070629-MW-3-26-119	29-Jun-07		14.3 J	0.5 UJ	0.5 UJ	1.45 J	0.0423 J	0.0246 J	0.003 UJ	15.709	102.579
	2708-080512-MW3-26-107	12-May-08		0.045 U	0.1 J	0.042 U	0.078 U	0.38	0.21	0.004 J	1.496	4.066
MW-03-56	951206-MW3-56-01	6-Dec-95	45 - 55	1,200.	24.	34.	90.	-	-	-	2.69	1,384.75
	960319-MW3-56-01	19-Mar-96	(alluvial WBZ)	730.	16.	27.	66.	0.19	-	-	2.34	1,926.62
	960620-MW3-56-01	20-Jun-96		730.	7.1	26.	73.	0.08	-	-	1.6	1,491.
	961002-MW3-56-01	2-Oct-96		450.	5. U	11.	27.	0.094	-	-	0.54	938.
	970226-MW3-56-01	26-Feb-97		750.	5. U	5. U	6. U	0.13	-	-	0.62	618.
	970828-MW3-56-01	28-Aug-97		340.	0.9	2.5	11.	0.11	-	-	0.82	195.52
	980218-MW3-56-01	18-Feb-98		520.	0.89	2.9	15.	0.16	0.01 U	-	0.58	129.58
	980218-MW3-56-02	18-Feb-98		520.	1.1	4.	19.	-	-	-	0.46	155.56
	980602-MW3-56-14	2-Jun-98		580.	25.	10. U	30. U	0.15	0.01 U	-	25.	316.
	980602-MW3-56-15	2-Jun-98		630.	10. U	10. U	30. U	-	-	-	24.	306.
	980826-MW3-56-12	26-Aug-98		430.	0.96	2.8	13.	0.15	0.04	-	30.3	101.58
	981118-MW3-56-16	18-Nov-98		630.	0.5 U	0.5 U	1.5 U	0.13	0.01 U	-	0.97	119.

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-03-56	981118-MW3-56-17	18-Nov-98	45 - 55	610.	0.5 U	0.5 U	1.5 U	-	-	-	0.77	121.
	990217-MW3-56-015	17-Feb-99	(alluvial WBZ)	760.	0.5 U	5. U	15. U	0.076	0.02 U	-	12.53	163.45
	990514-MW3-56-24	14-May-99		90.2	0.5 U	0.5 U	2.32	0.11	-	-	2.65	157.21
	990824-MW3-56-16	24-Aug-99		610.	5.03	5. U	20.8	0.12	0.022	-	0.6	99.66
	991028-MW3-56-17	28-Oct-99		390.	63.4	60.4	192.	0.1	0.02 U	-	0.59	98.98
	000330-MW3-56-117	30-Mar-00		167.	0.5 U	0.993	7.36	0.07	0.02 U	-	3.84	166.08
	001005-MW3-56-13	5-Oct-00		53.2	0.5 U	0.5 U	2.09	-	0.02 U	-	12.63	136.
	010329-MW3-56-116	29-Mar-01		157.	50. U	115.	913.	0.055	0.047	-	10.35	107.75
	020404-MW3-56-111	4-Apr-02		340.	0.5 U	0.5 U	7.8	0.146	0.046	-	2.62	98.13
	030319-MW3-56-112	19-Mar-03		430.	0.5 U	5. U	15. U	0.1	0.04 U	-	1.52	94.38
	040823-MW3-56-011 [7]	23-Aug-04		10.6	1. U	1. U	2. U	0.0324	0.0324	-	ND	55.61
	050330-003	30-Mar-05		0.958	0.5 U	0.5 U	2.06	-	0.0198	-	0.6	52.21
	050922-MW-3-56-106	22-Sep-05		17.2	0.5 U	0.5 U	3.	0.0418	0.0175	-	0.63	52.21
	060330-MW-3-56-111	30-Mar-06		0.514	0.5 U	0.5 U	2.94	0.0402	0.0274	0.0013 U	1.23	94.84
	061024-MW-3-56-116	24-Oct-06		2.6	0.3 J	0.18 J	1.77 J	0.05	0.002	0.005 U	8.81	85.21
	2708-070626-MW-3-56-108			5.83	0.5 U	0.5 U	1.01	0.0339	0.0169	0.006 UJ	21.195	193.875
	2708-080512-MW3-56-106	12-May-08		0.91	0.35 J	0.14 J	2.13	0.05	0.002 U	0.003 J	22.84	119.33
MW-04-35	951206-MW4-35-01	6-Dec-95	24 - 34	0.54	0.5 U	0.5 U	0.5 U	0.079	-	-	0.69	54.49
	960318-MW4-35-01	18-Mar-96	(fill WBZ)	17.	0.96	0.5 U	1.3	0.35	-	-	3.18	84.4
	960318-MW4-35-02	18-Mar-96		18.	0.82	0.5 U	2.1	-	-	-	2.41	79.1
	960618-MW4-35-01	18-Jun-96		5.9	0.5 U	0.5 U	0.61	0.46	-	-	2.5	61.
	961001-MW4-35-01	1-Oct-96		5.9	0.5 U	0.5 U	1.4	0.75	-	-	1.7	42.33
	970225-MW4-35-01	25-Feb-97		14.	0.5 U	0.5 U	0.5 U	0.39	-	-	0.41	46.
	980827-MW4-57-01 [4]	27-Aug-97		8.8	0.5 U	0.5 U	1.7	0.8	-	-	0.53	36.26
	980217-MW4-35-01	17-Feb-98		15.	0.5 U	0.5 U	1.5 U	0.36	0.01 U	-	0.25	31.85
	980601-MW4-35-06	1-Jun-98		0.5 U	0.5 U	0.5 U	1.5 U	0.29	0.017	-	0.48	44.
	980826-MW4-35-06	26-Aug-98		10.	0.5 U	0.5 U	1.5 U	0.63	0.03	-	19.26	60.85
	980826-MW4-35-07	26-Aug-98		10.	0.5 U	0.5 U	1.5 U	0.81	0.17	-	20.23	64.65
	981117-MW4-35-11	17-Nov-98		17.	0.5 U	0.99	1.5 U	0.83	0.53	-	5.3	51.
	990216-MW4-35-009	16-Feb-99		31.	0.5 U	0.5 U	1.5 U	0.22	0.02 U	-	0.4	23.41
	990514-MW4-35-21	14-May-99		16.	0.5 U	0.5 U	1.5 U	0.26	-	-	0.32	24.83
	990824-MW4-35-11	24-Aug-99		5. U	0.5 U	0.5 U	1.5 U	0.86	0.1	-	1.101	33.261
	991027-MW4-35-13	27-Oct-99		13.9	1.16	0.5 U	2.45	0.98	0.02 U	-	5.75	97.39
	000330-MW4-35-114	30-Mar-00		5.39	0.5 U	0.5 U	1.5 U	0.61	0.04	-	0.42	45.26
	001005-MW4-35-10	5-Oct-00		10.4	0.5 U	0.5 U	1.5 U	-	0.02 U	-	21.72	162.5
	010328-MW4-35-112	28-Mar-01		-	0.0055	-	-	-	0.005 U	-	ND	ND>0.005
	040823-MW4-35-012 [4]	23-Aug-04		1.61	0.5 U	0.5 U	1.65	0.178	0.098	-	ND	65.33
	050331-005	31-Mar-05		0.5 U	0.5 U	0.5 U	1. U	-	0.0499	-	0.21	11.86

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-04-35	050928-MW4-35-123	28-Sep-05	24 - 34	1.9	0.5 U	0.5 U	1.81	0.247	0.01 U	-	0.301	37.94
	060331-MW-4-35-113	31-Mar-06	(fill WBZ)	0.5 U	0.5 U	0.5 U	1. U	0.14	0.0389	0.0029	0.297	31.7625
	061018-MW-4-35-113	18-Oct-06		3.	0.48 J	0.13 U	2.11	0.17	0.002 U	0.005 U	1.7	42.33
	2708-070726-MW-4-35-137	26-Jul-07		0.5 U	0.5 U	0.5 U	1. U	0.28	0.262	0.0043 J	0.4281	20.4801
	2708-080513-MW4-35-112	13-May-08		0.12 J	0.43 J	0.042 U	0.45	0.16	0.01	0.003 U	1.686	57.916
	2708-080513-MW4-35-113 (DUP)	13-May-08		0.12 J	0.27 J	0.06 J	0.47	0.15	0.01	0.003 U	1.432	52.262
MW-04-57	951205-MW4-57-01	5-Dec-95	46 - 56	9,600.	72.	590.	290.	1.18	-	-	1.73	1,328.27
	960321-MW4-57-01	21-Mar-96	(alluvial WBZ)	11,000.	50. U	520.	270.	0.03	-	-	2.29	1,097.76
	960620-MW4-57-01	20-Jun-96		10,000.	200. U	480.	200. U	0.88	-	-	1.4	646.
	961002-MW4-57-01	2-Oct-96		14,000.	100. U	580.	400.	1.	-	-	0.64	1,707.
	970226-MW4-57-01	26-Feb-97		16,000.	34.	630.	130.	1.52	-	-	0.52	1,688.
	970828-MW4-57-01 [4]	28-Aug-97		12,000.	50. U	360.	150. U	2.	-	-	0.44	1,691.74
	980218-MW4-57-01	18-Feb-98		15,600.	35.	530.	240.	2.	0.05 U	-	0.28	2,357.88
	980603-MW4-57-18	3-Jun-98		10,100.	58.	540.	170.	1.9	0.008 [6]	-	0.77	2,299.
	980826-MW4-57-13	26-Aug-98		13,800.	37.	560.	280.	1.4	0.1	-	22.34	2,471.34
	981119-MW4-57-20	19-Nov-98		11,100.	25. U	470.	110.	1.8	0.5	-	0.34	1,968.
	990217-MW4-57-016	17-Feb-99		14,400.	10.6	639.	220.	1.4	0.02 U	-	0.32	1,575.28
	990514-MW4-57-22	14-May-99		15,900.	50. U	750.	150. U	1.8	-	-	0.39	1,684.32
	990825-MW4-57-17	25-Aug-99		17,500.	54.8	493.	150. U	1.7	0.02 U	-	0.4	2,305.4
	991028-MW4-57-21	28-Oct-99		6,900.	12.	461.	144.	0.65	0.02 U	-	ND	1,692.
	000403-MW4-57-121	3-Apr-00		19,300.	8.64	452.	137.	0.74	0.17	-	0.47	2,765.74
	001006-MW4-57-19	6-Oct-00		15,000.	100. U	574.	300. U	-	0.02 U	-	0.38	2,498.
	010329-MW4-57-120	29-Mar-01		18,800.	50. U	730.	150. U	0.696	0.08 U	-	0.43	3,063.35
	020405-MW4-57-117	5-Apr-02		18,800.	500. U	805.	1,000. U	3.43	0.4 U	-	0.21	2,249.96
	030320-MW4-57-117	20-Mar-03		17,000.	100. U	770.	300. U	1.3	0.04 U	-	ND	2,233.4
	040824-MW4-57-016 [5]	24-Aug-04		15,000.	100. U	748.	122.	1.76	0.261	-	1.205	3,822.86
	050331-008	31-Mar-05		13,000.	12.8	645.	180.	-	0.175	-	0.45	2,908.12
	051003-MW-4-57-133	3-Oct-05		622.	5. U	231.	65.1	2.7	0.55	-	ND	271.63
	060331-MW-4-57-114	31-Mar-06		4,660.	25. U	500.	114.	2.24	0.044	0.0374	0.536	550.756
	060331-MW-4-57-115 (Dup)	31-Mar-06		4,680.	25. U	509.	98.6	2.12	0.016	0.0353	-	-
	061030-MW-4-57-122	30-Oct-06		7,100.	11. J	450.	154.	2.6	0.13	0.0282	0.72	806.12
	2708-070622-MW-4-57-101	22-Jun-07		0.5 U	0.5 U	0.5 U	1. U	-	0.005 U	-	0.6619	33.6919
	2708-070723-MW-4-57-135	23-Jul-07		3,870. J	25. UJ	249. J	82. U*	2.89 J	0.5 UJ	0.003 UJ	-	-
	2708-080513-MW4-57-111	13-May-08		5,400.	13.	520.	160.	3.01	0.19	0.003 J	4.94	930.81
MW-04-101	981117-MW4-101-09	17-Nov-98	89.5 -99.5	32.	0.5 U	3.3	2.1	0.62	0.2	-	ND	20.
	990216-MW4-101-007	16-Feb-99	(alluvial WBZ)	18.9	0.5 U	1.9	1.5 U	0.64	0.03	-	ND	8.3
	990514-MW4-101-19	14-May-99		95.	0.5 U	10.4	2.05	0.47	0.12	-	ND	68.31

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-04-101	990514-MW4-101-20	14-May-99	89.5 -99.5	99.4	0.5 U	13.	1.5 U	0.48	-	-	ND	62.5
	990824-MW4-101-09	24-Aug-99	(alluvial WBZ)	53.1	3.	4.76	7.5 U	0.56	0.03	-	ND	190.64
	991027-MW4-101-11	27-Oct-99		7.25	0.5 U	4.17	1.5 U	0.36	0.02 U	-	ND	166.65
	000329-MW4-101-111	29-Mar-00		3.96	0.5 U	1.33	1.5 U	0.52	0.11	-	ND	21.57
	001005-MW4-101-09	5-Oct-00		0.5 U	0.5 U	0.5 U	1.5 U	-	0.08	-	ND	1.36
	010328-MW4-101-110	28-Mar-01		0.5 U	0.5 U	0.5 U	1.5 U	0.203	0.02 U	-	ND	1.14
	011009-MW4-101-103	9-Oct-01		0.5 U	0.5 U	0.5 U	1.5 U	0.66	-	-	ND	1.18
	020404-MW4-101-110	4-Apr-02		5.17	0.5 U	0.5 U	1.5 U	0.432	0.04 U	-	ND	5.97
	020924-MW4-101-102	24-Sep-02		43.	0.5 U	0.5 U	1.5 U	0.49	-	-	ND	12.63
	030318-MW4-101-109	18-Mar-03		120. [A]	2.5 [A] U	2.5 [A] U	7.5 [A] U	0.51	0.04 U	-	ND	15.63
	030930-MW4-101-105 [7]	30-Sep-03		360.	2.5 U	2.5 U	7.5 U	-	0.28	-	ND	14.59
	040816-MW4-101-007 [7]	16-Aug-04		513.	2.5 U	3.14	5. U	0.005 U	0.005 U	-	ND	26.74
	050330-002	30-Mar-05		366.	1.23	1.1	4.33	-	0.131	-	ND	16.68
	050928-MW4-101-122	28-Sep-05		216.	1.22	1. U	5.09	0.587	0.022	-	ND	7.31
	060329-MW-4-101-106	29-Mar-06		301.	5. U	5. U	10. U	0.636	0.0604	0.0134	ND	10.5918
	061018-MW-4-101-112	18-Oct-06		170.	2.	63.	6.3	0.8	0.002 U	0.008 J	0.0092	6.3155
	2708-070625-MW-4-101-106	25-Jun-07		39.5	1.14	0.5 U	3.52	0.671 J	0.083	0.0035	0.03383	1.42483
	2708-080513-MW4-101-114	13-May-08		11.	1.2	0.4 J	5.61	0.87	0.08	0.006 J	0.0031	3.2401
MW-05-32	951205-MW5-32-01	5-Dec-95	21 - 31	0.5 U	0.5 U	0.5 U	0.5 U	0.101	-	-	7.59	207.69
	960319-MW5-32-01	19-Mar-96	(fill / alluvial WBZ)	0.5 U	0.5 U	0.5 U	0.5 U	0.11	-	-	29.81	268.91
	960319-MW5-32-01 (dissolved)	19-Mar-96		-		-	-	-	-	-	ND	45.
	960620-MW5-32-01	20-Jun-96		0.5 U	0.5 U	0.5 U	0.5 U	0.05	-	-	14.	83.
	961001-MW5-32-01	1-Oct-96		0.5 U	0.5 U	0.5 U	0.5 U	0.14	-	-	277.	773.
	970225-MW5-32-01	25-Feb-97		0.5 U	0.5 U	0.5 U	0.5 U	0.11	-	-	1.	9.7
	970827-MW5-32-01	27-Aug-97		0.5 U	0.5 U	0.5 U	1.5 U	0.14	-	-	10.4	24.3
	980217-MW5-32-01	17-Feb-98		0.5 U	0.5 U	0.5 U	1.5 U	0.17	0.01 U	-	3.23	7.57
	980602-MW5-32-10	2-Jun-98		0.5 U	0.5 U	0.5 U	1.5 U	0.18	0.038	-	36.	95.
	980826-MW5-32-09	26-Aug-98		0.5 U	0.5 U	0.5 U	1.5 U	0.23	0.01	-	273.7	540.4
	981118-MW5-32-13	18-Nov-98		0.5 U	0.5 U	0.5 U	1.5 U	0.25	0.05	-	1.4	4.7
	990216-MW5-32-011	16-Feb-99		0.5 U	0.5 U	0.5 U	1.5 U	0.13	0.02 U	-	2.57	6.89
	990514-MW5-32-17	14-May-99		0.5 U	0.5 U	0.5 U	1.5 U	0.15	-	-	0.8	2.4
	990824-MW5-32-13	24-Aug-99		0.749	0.742	0.68	1.74	0.18	0.028	-	8.82	21.15
	991027-MW5-32-15	27-Oct-99		0.5 U	0.5 U	0.5 U	1.5 U	0.19	0.02 U	-	6.68	16.16
	000330-MW5-32-115	30-Mar-00		0.5 U	0.5 U	0.5 U	1.5 U	0.02 U	0.02 U	-	4.45	8.97
	001005-MW5-32-12	5-Oct-00		0.5 U	0.5 U	0.5 U	1.5 U	-	0.04	-	1.66	3.
	010329-MW5-32-114	29-Mar-01		0.5 U	0.5 U	0.5 U	1.5 U	0.178	0.17	-	10.12	19.65
	040816-MW5-32-008 [7]	16-Aug-04		0.5 U	0.5 U	0.5 U	1. U	0.521	0.175	-	ND	0.27

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)								EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)						EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene		Toluene		Ethylbenzene		Xylenes		Total Cyanide		Amenable Cyanide		Free Cyanide		Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]																			
Fish Consumption																			
	EPA 2004 NRWQC (organism only)			51.		15,000.		2,100.		#		#		#		0.14		#	#
	Portland Harbor specific fish consumption rate			5.1		1,500.		210.		#		0.14		#		0.014		#	#
	DEQ 2004 AWQC (organism only)			51.		15,000.		2,100.		#		#		#		0.14		#	#
Drinking Water																			
	MCL			5.		1,000.		700.		10,000.		#		#		0.2		#	#
	Tap Water PRGs			0.35		720.		1,300.		#		#		#		0.73		#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]																			
	EPA 2004 NRWQC (chronic)			#		#		#		#		#		#		0.0052		#	#
	DEQ 2004 AWQC (chronic)			#		#		#		#		#		#		0.0052		#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.		9.8		7.3		13.		#		#		#		#	#
MW-05-32	050401-011	1-Apr-05	21 - 31	0.5	U	0.5	U	0.5	U	1.	U	-		0.0281		-		1.59	4.17
	050937-MW-5-32-117	27-Sep-05	(fill / alluvial WBZ)	0.5	U	0.5	U	0.5	U	1.	U	0.09		0.01	U	-		11.113	26.855
	060329-MW-5-32-107	29-Mar-06		0.5	U	0.5	U	0.5	U	1.	U	0.106		0.101		0.0031		5.234	11.795
	061018-MW-5-32-114	18-Oct-06		0.14	U	0.11	U	0.13	U	0.22	U	0.09		0.01		0.005	J	1.196	5.337
	2708-070625-MW-5-32-104	25-Jun-07		0.5	U	0.5	U	0.5	U	1.	U	-		0.0907		-		6.239	17.209
	2708-070730-MW-5-32-142	30-Jul-07		-		-		-		-		0.106		0.0941		0.003	U	-	-
	2708-080514-MW5-32-118	14-May-08		0.045	U	0.08	J	0.042	U	0.078	U	0.11		0.03		0.006	J	5.57	11.5909
MW-05-100	981118-MW5-100-14	18-Nov-98	88 - 98	5,000.		0.5	U	330.		320.		0.66		0.01	U	-		ND	7,127.
	990217-MW5-100-018	17-Feb-99	(alluvial WBZ)	6,650.		25.	U	244.		242.		0.66		0.06		-		ND	5,032.73
	990514-MW5-100-18	14-May-99		11,400.		6.75		613.		611.		0.44		0.02	U	-		ND	7,482.13
	990825-MW5-100-18	25-Aug-99		11,800.		250.	U	534.		750.		0.84		0.02	U	-		ND	13,330.3
	991028-MW5-100-19	28-Oct-99		10,300.		50.	U	644.		552.		0.69		0.02	U	-		ND	7,471.79
	000330-MW5-100-119	30-Mar-00		9,550.		25.	U	575.		525.		0.56		0.02	U	-		0.1	9,825.06
	001006-MW5-100-15	6-Oct-00		9,180.		50.	U	513.		472.		-		0.08		-		ND	10,104.
	001006-MW5-100-16	6-Oct-00		9,020.		100.	U	468.		412.		-		0.09		-		ND	9,218.
	010329-MW5-100-118	29-Mar-01		9,560.		100.	U	436.		300.	U	0.142		0.135		-		ND	9,619.8
	020405-MW5-100-114	5-Apr-02		8,750.		500.	U	500.	U	1,000.	U	1.8		0.4	U	-		1.1	82,319.6
	020405-MW5-100-115	5-Apr-02		8,950.		500.	U	500.	U	1,000.	U	1.54		0.08	U	-		0.25	4,321.28
	030319-MW5-100-114	19-Mar-03		6,600.		25 [A]	U	400. [A]		250. [A]		0.56		0.04	U	-		ND	5,614.
	040824-MW5-100-015 [7]	24-Aug-04		11,500.		100.	U	683.		253.		0.816		0.298		-		ND	11,921.9
	050401-012	1-Apr-05		19,800.		11.5		542.		290.		-		0.109		-		ND	ND
	050921-MW-5-100-102	21-Sep-05		12,300.		50.	U	690.		393.		0.869		0.248		-		0.0369	6,549.2297
	060404-MW-5-100-121	4-Apr-06		11,300.		50.	U	538.		345.		0.814		0.106		0.0283		ND	8,408.6
	061027-MW-5-100-120	27-Oct-06		11,000.		18.	J	560.		298.		1.06		0.17		0.005	J	ND	7,117.
	2708-070625-MW-5-100-103	25-Jun-07		10,100.		40.	U	532.		294.		-		0.056		-		ND	7,320.
	2708-070730-MW-5-100-141	30-Jul-07		-		-		-		-		0.747		0.287		0.0074	J	-	-
	2708-080514-MW5-100-119	14-May-08		12,000.		26.	J	690.		299.		0.99		0.11		0.041		0.0323	7,816.7353
MW-05-175	981116-MW5-175-07	16-Nov-98	163 - 173	0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	0.01	U	-		ND	ND
	990215-MW5-175-003	15-Feb-99	(alluvial WBZ)	0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	0.02	U	-		ND	ND
	990512-MW5-175-07	12-May-99		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	0.02	U	-		ND	ND
	990823-MW5-175-03	23-Aug-99		0.5	U	1.16		0.5	U	1.5	U	0.02	U	0.02	U	-		ND	0.2
	991026-MW5-175-06	26-Oct-99		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	0.02	U	-		ND	ND
	000329-MW5-175-106	29-Mar-00		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	0.02	U	-		ND	ND
	001004-MW5-175-05	4-Oct-00		0.5	U	0.5	U	0.5	U	1.5	U	-		0.02	U	-		ND	ND
	010328-MW5-175-105	28-Mar-01		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	0.02	U	-		ND	ND
	011009-MW5-175-102	9-Oct-01		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	-		-		ND	ND
	020404-MW5-175-105	4-Apr-02		1.	U	1.	U	1.	U	2.	U	0.04	U	0.04	U	-		ND	ND
	020924-MW5-175-101	24-Sep-02		0.5	U	0.5	U	0.5	U	1.5	U	-		-		-		ND	ND

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-05-175	030318-MW5-175-105	18-Mar-03	163 - 173	0.5 U	0.5 U	0.5 U	1.5 U	0.04 U	0.04 U	-	ND	ND
	030929-MW5-175-101	29-Sep-03	(alluvial WBZ)	0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	ND	ND
	040824-MW5-175-013	24-Aug-04		0.5 U	0.5 U	0.5 U	1. U	0.0069	0.0069	-	ND	0.0883
	050921-MW5-175-101	21-Sep-05		0.5 U	0.5 U	0.5 U	1. U	0.0156	0.0052	-	ND	0.0894
	060329-MW-5-175-105	29-Mar-06		0.5 U	0.5 U	0.5 U	1. U	0.018	0.0054	0.0013 U	ND	0.0796
	061016-MW-5-175-05	16-Oct-06		0.14 U	1.1	0.13 U	0.22 U	0.04	0.002 U	0.005 U	ND	0.047
	2708-070625-MW-5-175-105	25-Jun-07		0.5 U	0.86	0.5 U	1. U	0.0145 J	0.0064	0.0022 J	0.03018	0.14418
	2708-080514-MW5-175-116	14-May-08		0.05 J	0.1 J	0.042 U	0.078 U	0.02	0.002 U	0.005 J	0.0185	0.1241
MW-06-32	951207-MW6-32-01	7-Dec-95	21 - 31	3,000.	150.	960.	740.	0.091	-	-	7,470.	199,570.
	960319-MW6-32-01	19-Mar-96	(fill WBZ)	640.	22.	400.	270.	0.21	-	-	6.56	2,346.46
	960319-MW6-32-01 (dissolved)	19-Mar-96		-	-	-	-	-	-	-	ND	1,940.
	960617-MW6-32-01	17-Jun-96		410.	40.	280.	410.	0.23	-	-	16.	1,878.
	960930-MW6-32-01	30-Sep-96		1,100.	34.	470.	320.	0.02	-	-	203.5	4,757.7
	970225-MW6-32-01	25-Feb-97		1,100.	22.	370.	80.	0.22	-	-	ND	1,308.
	970826-MW6-32-01	26-Aug-97		1,200.	27.	420.	280.	0.15	-	-	15.	2,069.65
	980216-MW6-32-01	16-Feb-98		1,700.	250. U	650.	750. U	0.18	0.01 U	-	161.9	3,554.2
	980601-MW6-32-04	1-Jun-98		1,200.	32.	300.	190.	0.1	0.01 U	-	20.	2,245.
MW-06-61	951206-MW6-61-01	6-Dec-95	50 - 60	6.7	0.71	8.9	5.8	0.228	-	-	8.17	744.89
	960319-MW6-61-01	19-Mar-96	(alluvial WBZ)	11.	0.68	9.2	5.3	0.28	-	-	3.29	196.96
	960620-MW6-61-01	20-Jun-96		8.4	0.5 U	6.	3.3	0.27	-	-	4.3	139.
	961001-MW6-61-01	1-Oct-96		20.	0.93	16.	8.	0.3	-	-	3.8	152.9
	970225-MW6-61-01	25-Feb-97		82.	6.1	79.	41.	0.35	-	-	ND	365.
	970828-MW6-61-01	28-Aug-97		130.	11.	180.	120.	0.41	-	-	4.88	1,451.5
MW-08-29	951207-MW8-29-01	7-Dec-95	18 - 28	2,100.	510.	200.	320.	3.11	-	-	315.	7,688.
	960321-MW8-29-01	21-Mar-96	(fill WBZ)	1,700.	380.	170.	400.	2.4	-	-	143.7	7,879.7
	960620-MW8-29-01	20-Jun-96		-	-	-	-	-	-	-	5.4	2,087.
	960620-MW8-29-02	20-Jun-96		1,300.	310.	170.	380.	-	-	-	13.	2,166.
	961002-MW8-29-01	2-Oct-96		770.	210.	130.	270.	0.524	-	-	25.9	6,086.4
	970226-MW8-29-01	26-Feb-97		860.	200.	150.	250.	1.46	-	-	10.	6,204.
	970828-MW8-29-01	28-Aug-97		390.	130.	110.	190.	3.4	-	-	171.7	11,712.7
	980218-MW8-29-01	18-Feb-98		620.	220.	170.	250.	2.6	0.01 U	-	22.19	11,760.19
	980603-MW8-29-19	3-Jun-98		700.	320.	250.	310.	4.9	0.022 [6]	-	196.	12,407.
	981119-MW8-29-22	19-Nov-98		260.	80.	93.	130.	2.5	-	-	11.1	5,377.
	990513-MW8-29-14	13-May-99		209.	64.7	58.6	92.5	2.6	-	-	10.73	6,444.82
	991029-MW8-29-23	29-Oct-99		168.	50.3	51.4	70.8	60.	2.	-	ND	3,302.
	000403-MW8-29-123	3-Apr-00		181.	49.5	46.2	75. U	0.61	0.03	-	7.42	7,158.23
	010330-MW8-29-123	30-Mar-01		104.	17.4	19.	33.5	0.92	0.042	-	49.12	2,291.24
	040825-MW8-29-022 [4]	25-Aug-04		85.9	13.4	14.3	29.1	2.69	0.138	-	38.52	3,072.45

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-08-29	05-0929-MW-29-27	29-Sep-05	18 - 28	724.	207.	137.	177.	5.92	0.01 U	-	28.64	5,592.86
	061031-MW-8-29-124	31-Oct-06	(fill WBZ)	93.	17.	16.	26.	3.8	0.28	0.005 U	8.7	2,265.4
	2708-080603-MW8-29-100	3-Jun-08		88.	26.	38.	53.	3.44	0.48	0.015	21.22	2,623.82
MW-08-56	951207-MW8-56-01	7-Dec-95	45 - 55	13,000.	1,700.	850.	1,300.	0.582	-	-	156.	21,200.
	960321-MW8-56-01	21-Mar-96	(alluvial WBZ)	17,000.	820.	730.	1,600.	0.54	-	-	361.1	15,501.1
	960620-MW8-56-01 [6]	20-Jun-96		17,000.	650.	740.	1,100.	0.31	-	-	35.	1,769.
	961002-MW8-56-01	2-Oct-96		20,000.	690.	900.	1,800.	-	-	-	114.	11,742.
	970226-MW8-56-01	26-Feb-97		19,000.	630.	820.	1,100.	0.7	-	-	ND	13,692.
	970828-MW8-56-01	28-Aug-97		17,000.	350.	510.	810.	0.66	-	-	20.	18,141.
	980218-MW8-56-01	18-Feb-98		20,200.	410.	740.	1,100.	0.74	0.01 U	-	11.18	12,944.88
	980603-MW8-56-21	3-Jun-98		17,900.	470.	940.	1,300.	0.77	0.018 [6]	-	68.	17,720.
	981119-MW8-56-23	19-Nov-98		18,200.	350.	730.	890.	0.36	-	-	ND	11,024.
	990513-MW8-56-15	13-May-99		20,600.	254.	663.	763.	0.57	-	-	ND	11,960.
	991029-MW8-56-24	29-Oct-99		9,890.	352.	990.	1,100.	2.1	0.08 U	-	4.23	12,537.17
	000403-MW8-56-124	3-Apr-00		17,800.	228.	828.	830.	0.58	0.02 U	-	31.1	14,016.8
MW-08-56	010330-MW8-56-122	30-Mar-01	45 - 55	21,600.	125. U	820.	458.	0.272	0.02 U	-	40.42	14,953.54
	020405-MW8-56-118	5-Apr-02	(alluvial WBZ)	26,400.	1. U	1,000.	2. U	1.13	0.08 U	-	1.94	7,143.
	030320-MW8-56-120	20-Mar-03		20,000.	260 [A]	940. [A]	930. [A]	0.51	0.04 U	-	4.2	7,712.2
	040825-MW8-56-021 [5]	25-Aug-04		20,300.	248.	795.	831.	0.474	0.153	-	ND	10,832.7
	05-0929-MW-8-56-128	29-Sep-05		15,300.	232.	706.	791.	0.538	0.017	-	26.97	8,759.88
	061031-MW-8-56-125	31-Oct-06		22,000.	270.	670.	640.	0.3	0.002 U	0.005 U	22.1	10,483.7
	061031-MW-8-56-126 (DUP)	31-Oct-06		21,000.	270.	710.	670.	0.6	0.002 U	0.005 U	20.9	20,492.8
	2708-080603-MW8-56-101	3-Jun-08		17,000.	240.	870.	980.	0.63	0.03	0.003 J	126.	12,165.
MW-09-29	951205-MW9-29-01	5-Dec-95	18 - 28	0.5 U	0.5 U	0.5 U	0.5 U	-	-	-	ND	1.29
	960318-MW9-29-01	18-Mar-96	(fill WBZ)	0.5 U	0.5 U	0.5 U	0.5 U	0.01 U	-	-	ND	1.6
	960618-MW9-29-01	18-Jun-96		0.5 U	0.5 U	0.5 U	0.5 U	0.01 U	-	-	ND	0.15
	961001-MW9-29-01	1-Oct-96		0.5 U	0.5 U	0.5 U	0.5 U	0.018	-	-	ND	0.4
	970225-MW9-29-01	25-Feb-97		0.5 U	0.5 U	0.5 U	0.5 U	0.01	-	-	ND	ND
	970827-MW9-29-01	27-Aug-97		0.5 U	0.5 U	0.5 U	1.5 U	0.02 U	-	-	ND	ND
	980217-MW9-29-01	17-Feb-98		0.5 U	0.5 U	0.5 U	1.5 U	0.02 U	-	-	ND	ND
	980602-MW9-29-07	2-Jun-98		0.5 U	0.5 U	0.5 U	1.5 U	0.02 U	-	-	ND	ND
	981116-MW9-29-02	16-Nov-98		0.5 U	0.5 U	0.5 U	1.5 U	0.03	-	-	ND	ND
	990511-MW9-29-03	11-May-99		0.5 U	0.5 U	0.5 U	1.5 U	0.02 U	-	-	ND	ND
	991026-MW9-29-02	26-Oct-99		0.5 U	0.5 U	0.5 U	1.5 U	0.02 U	0.02 U	-	ND	ND
	000328-MW9-29-102	28-Mar-00		0.5 U	0.5 U	0.5 U	1.5 U	0.02 U	0.02 U	-	ND	ND
	010327-MW9-29-102	27-Mar-01		0.5 U	0.5 U	0.5 U	1.5 U	0.026	0.02 U	-	ND	ND
	020403-MW9-29-101	3-Apr-02		0.5 U	0.5 U	0.5 U	1.5 U	0.04 U	0.04 U	-	ND	ND
	030318-MW9-29-103	18-Mar-03		0.5 U	0.5 U	0.5 U	1.5 U	0.042	0.04 U	-	ND	ND

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)								EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)						EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene		Toluene		Ethylbenzene		Xylenes		Total Cyanide		Amenable Cyanide		Free Cyanide		Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]																			
Fish Consumption																			
	EPA 2004 NRWQC (organism only)			51.		15,000.		2,100.		#		#		#		0.14		#	#
	Portland Harbor specific fish consumption rate			5.1		1,500.		210.		#		#		#		0.014		#	#
	DEQ 2004 AWQC (organism only)			51.		15,000.		2,100.		#		#		#		0.14		#	#
Drinking Water																			
	MCL			5.		1,000.		700.		10,000.		#		#		0.2		#	#
	Tap Water PRGs			0.35		720.		1,300.		#		#		#		0.73		#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]																			
	EPA 2004 NRWQC (chronic)			#		#		#		#		#		#		0.0052		#	#
	DEQ 2004 AWQC (chronic)			#		#		#		#		#		#		0.0052		#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.		9.8		7.3		13.		#		#		#		#	#
MW-09-29	040812-MW9-29-001 [7]	12-Aug-04	18 - 28	0.5	U	0.5	U	0.5	U	1.	U	0.01		0.01		-		ND	ND
	05096-MW-9-29-109	26-Sep-05	(fill WBZ)	0.5	U	0.5	U	0.5	U	1.	U	0.017		0.01	U	-		ND	0.1193
	061013-MW-9-103	13-Oct-06		0.14	U	0.27	J	0.13	U	0.22	U	0.04		0.04		0.005	U	0.1747	0.4097
	2708-080604-MW9-29-109	4-Jun-08		0.045	U	0.24	J	0.18	J	0.57		0.01		0.005	J	0.004	J	0.1146	0.4818
	2708-080604-MW9-29-110 (DUP)	4-Jun-08		0.045	U	0.21	J	0.16	J	0.49		0.01		0.01	J	0.004	J	0.1022	0.4914
MW-10-25	951207-MW10-25-01	7-Dec-95	14 - 24	120,000.		42,000.		2,000.		9,200.		-		-		-		18.	13,316.5
	960320-MW10-25-01	20-Mar-96	(fill WBZ)	32,000.		38,000.		3,100.		13,000.		0.07		-		-		5.9	9,126.31
	960617-MW10-25-01	17-Jun-96		28,000.		32,000.		2,500.		8,600.		0.01	U	-		-		6.8	10,266.
	960930-MW10-25-01	30-Sep-96		17,000.		5,000.		200.	U	4,500.		0.204		-		-		78.6	10,529.5
	970225-MW10-25-01	25-Feb-97		180,000.		54,000.		1,300.		6,800.		0.01		-		-		74.	9,841.
	970827-MW10-25-01	27-Aug-97		168,000.		54,000.		850.		6,000.		-		-		-		19.6	7,047.1
	980216-MW10-25-01	16-Feb-98		186,000.		51,100.		880.		6,500.		0.02	U	-		-		58.1	9,165.2
	980601-MW10-25-02	1-Jun-98		93,800.		30,900.		670.		3,900.		0.21		-		-		35.1	12,162.
	061213-MW-10-25-131	13-Dec-06		120,000.		32,000.		770.		4,100.		0.07		0.002	U	0.006	J	212.	14,463.
	2708-080604-MW10-25-108	4-Jun-08		180,000.		53,000.		970.		5,100.		0.04		0.002	UJ	0.005	J	7.84	9,435.84
MW-10-61	951206-MW10-61-01	6-Dec-95	50 - 60	75.		130.		26.		110.		-		-		-		0.72	829.72
	960321-MW10-61-01	21-Mar-96	(alluvial WBZ)	4.1		1.6		2.9		8.5		0.01	U	-		-		2.55	102.43
	960620-MW10-61-01	20-Jun-96		0.9		0.5	U	1.1		1.7		0.01	U	-		-		2.	46.
	961002-MW10-61-01	2-Oct-96		0.56		0.5	U	0.69		1.1		0.01	U	-		-		1.5	25.15
	970226-MW10-61-01	26-Feb-97		0.5	U	0.5	U	0.5	U	0.5	U	0.01	U	-		-		1.	18.
	970828-MW10-61-01	28-Aug-97		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	-		-		0.39	7.76
	980218-MW10-61-01	18-Feb-98		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	-		-		0.4	3.8
	980603-MW10-61-16	3-Jun-98		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	-		-		1.6	6.2
	981117-MW10-61-08	17-Nov-98		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	-		-		3.1	6.
	990512-MW10-61-06	12-May-99		0.5	U	0.692		0.5	U	1.5	U	0.02	U	-		-		0.57	1.3
	991026-MW10-61-05	26-Oct-99		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	0.02	U	-		0.24	1.36
	000329-MW10-61-105	29-Mar-00		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	0.02	U	-		0.24	1.09
	011010-MW10-61-109	10-Oct-01		0.5	U	0.5	U	0.5	U	1.5	U	0.02	U	-		-		ND	0.61
	020404-MW10-61-109	4-Apr-02		1.	U	1.	U	1.	U	2.	U	0.04	U	0.04	U	-		0.11	0.84
	020924-MW10-61-104	24-Sep-02		0.5	U	0.5	U	0.5	U	1.5	U	0.04	U	-		-		0.25	1.38
	030319-MW10-61-111	19-Mar-03		0.5	U	0.5	U	0.5	U	1.5	U	0.04	U	0.04	U	-		ND	0.95
	031003-MW10-61-108 [7]	3-Oct-03		0.5	U	0.5	U	0.5	U	1.5	U	-		0.02	U	-		ND	ND
	040813-MW10-61-005 [7]	13-Aug-04		0.5	U	0.5	U	0.5	U	1.	U	0.0614		0.0321		-		0.1	0.53
	050928-MW10-61-121	28-Sep-05		0.5	U	0.5	U	0.5	U	1.	U	0.01	U	0.01	U	-		1.43	2.57
	061017-MW-10-61-108	17-Oct-06		0.5	U	0.24	J	0.5	U	0.5	U	0.002	J	0.002	U	0.005	U	1.255	2.433
	2708-080604-MW10-61-105	4-Jun-08		0.045	U	0.048	U	0.042	U	0.078	U	0.003		0.002	UJ	0.003	J	0.3251	0.7281

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-11-32	951207-MW11-32-01	7-Dec-95	21 - 31	25,000.	5,400.	480.	2,800.	-	-	-	20.	22,365.2
	960320-MW11-32-01	20-Mar-96	(fill WBZ)	24,000.	4,300.	970.	2,400.	0.24	-	-	6.33	14,676.08
	960617-MW11-32-01	17-Jun-96		2,800.	2,000.	1,000.	1,940.	0.19	-	-	14.	11,608.
	960930-MW11-32-01	30-Sep-96		17,000.	3,300.	900.	1,760.	0.249	-	-	131.9	17,603.9
	960930-MW11-32-02	30-Sep-96		-	-	-	-	-	-	-	189.	18,894.
	970225-MW11-32-01	25-Feb-97		21,000.	4,100.	750.	1,800.	0.22	-	-	11.	11,536.
	970826-MW11-32-01	26-Aug-97		15,000.	4,400.	1,100.	2,500.	0.17	-	-	20.5	17,075.8
	980216-MW11-32-01	16-Feb-98		12,600.	3,800.	930.	2,100.	0.2	0.01 U	-	15.9	9,769.2
	980601-MW11-32-03	1-Jun-98		16,800.	4,000.	810.	1,800.	0.21	0.01 U	-	112.	32,376.
	061212-MW-11-32-130	12-Dec-06		24,000.	5,500.	1,200.	2,660.	0.25	0.01 U	0.005 U	67.	19,026.
	2708-080604-MW11-32-111	4-Jun-08		16,000.	3,200.	990.	2,090.	0.13	0.002 UJ	0.005	77.4	16,029.4
MW-12-36	951207-MW12-36-01	7-Dec-95	25 - 35	95.	410.	170.	590.	-	-	-	3.65	3,377.55
	960321-MW12-36-01	21-Mar-96	(fill/alluvial WBZ)	170.	180.	110.	550.	0.01 U	-	-	0.38	2,010.03
	960620-MW12-36-01	20-Jun-96		250.	250.	120.	440.	0.01 U	-	-	0.8	1,621.
	961002-MW12-36-01	2-Oct-96			390.	130.	510.	0.01 U	-	-	0.8	1,375.
	970226-MW12-36-01	26-Feb-97		260.	310.	120.	470.	0.01 U	-	-	0.94	1,033.
	970828-MW12-36-01	28-Aug-97		230.	430.	110.	430.	0.02 U	-	-	0.67	839.77
	980218-MW12-36-01	18-Feb-98		140.	370.	82.	280.	0.02 U	-	-	0.69	708.
	980603-MW12-36-17	3-Jun-98		150.	350.	74.	340.	0.02 U	-	-	ND	697.
	981119-MW12-36-18	19-Nov-98		140.	370.	99.	360.	0.02 U	-	-	0.8	487.
	990513-MW12-36-12	13-May-99		226.	621.	171.	554.	1.1	-	-	0.53	491.4
	991028-MW12-36-18	28-Oct-99		309.	802.	293.	797.	0.02 U	0.02 U	-	0.6	545.93
	000330-MW12-36-118	30-Mar-00		326.	675.	296.	700.	0.02 U	0.02 U	-	1.74	648.98
	010329-MW12-36-117	29-Mar-01		99.3	380.	168.	307.	0.02 U	0.02 U	-	0.69	415.04
	020404-MW12-36-112	4-Apr-02		146.	351.	235.	501.	0.04 U	0.04 U	-	0.5	375.88
	030319-MW12-36-113	19-Mar-03		200.	400.	290.	680.	0.04 U	0.04 U	-	0.31	369.18
	040825-MW12-36-017 [7]	25-Aug-04		235.	584.	488.	991.	0.005 U	0.005 U	-	ND	696.31
	050927-MW-12-36-116	27-Sep-05		118.	219.	305.	605.	0.01 U	0.01 U	-	0.2529	371.9952
	061024-MW-12-36-115	24-Oct-06		290.	790.	800.	1,420.	0.004 J	0.002 J	0.005 U	0.1223	591.2071
	2708-080604-MW12-36-106	4-Jun-08		79.	200.	140.	350.	0.004	0.002 UJ	0.004 J	0.4662	226.8522
MW-13-30	980217-MW13-30-01	17-Feb-98	19 - 29	6,900.	50. U	370.	150. U	0.28	0.01 U	-	ND	426.1
	980602-MW13-30-12	2-Jun-98	(fill WBZ)	5,200.	13.	380.	120.	0.28	0.01 U	-	ND	1,181.
	980826-MW13-30-11	26-Aug-98		13,900.	20.	550.	220.	0.42	0.42	-	ND	742.3
	981119-MW13-30-19	19-Nov-98		550.	4.3	110.	53.	0.28	0.02	-	ND	399.
	990217-MW13-30-014	17-Feb-99		2,360.	11.1	407.	229.	0.095	0.02 U	-	ND	770.59
	990513-MW13-30-13	13-May-99		896.	8.9	261.	175.	0.12	-	-	ND	1,035.62
	991028-MW13-30-20	28-Oct-99		650.	10. U	147.	56.5	0.02	0.02 U	-	ND	822.
	000403-MW13-30-120	3-Apr-00		5,550.	5.67	175.	77.4	0.14	0.02 U	-	ND	720.84

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-13-30	001005-MW13-30-18	5-Oct-00	19 - 29	577.	50. U	344.	302.	-	0.02 U	-	ND	410.
	010329-MW13-30-119	29-Mar-01	(fill WBZ)	290.	10. U	122.	30. U	0.046	0.037	-	ND	522.96
	020405-MW13-30-116	5-Apr-02		79.9	309.	227.	295.	0.04 U	0.04 U	-	ND	451.65
	030319-MW13-30-115	19-Mar-03		1,400.	9.2	330.	110.	0.1	0.04 U	-	ND	1,008.4
	040825-MW13-30-018 [7]	25-Aug-04		1,150.	8.25	120.	75.6	0.1	0.0552	-	ND	354.41
	051003-MW-13-30-132	3-Oct-05		1,940.	25. U	121.	62.2	0.0889	0.0703	-	ND	354.41
	060404-MW-13-30-122	4-Apr-06		2,370.	10.9	237.	130.	0.112	0.0751	0.0013 U	ND	931.34
	061027-MW-13-30-121	27-Oct-06		350.	3.3	86.	55.	0.13	0.02	0.005 U	ND	477.2
	2708-080604-MW13-30-112	4-Jun-08		4,500.	55. J	1,600.	770.	0.1	0.002 UJ	0.004	22,020.	2,715,520.
MW-13-61	980218-MW13-61-01	18-Feb-98	50 - 60	0.5 U	0.5 U	0.5 U	1.5 U	0.14	0.01 U	-	ND	ND
	980602-MW13-61-13	2-Jun-98	(alluvial WBZ)	0.5 U	0.5 U	0.5 U	1.5 U	0.13	0.01 U	-	ND	ND
	980825-MW13-61-03	25-Aug-98		2.1	0.5 U	0.5 U	1.5 U	0.15	0.09	-	ND	ND
	981116-MW13-61-03	16-Nov-98		1.4	0.5 U	0.5 U	1.5 U	0.15	0.15	-	ND	0.2
	990512-MW13-61-04	12-May-99		0.5 U	0.5 U	0.5 U	1.5 U	0.069	-	-	ND	0.26
	991026-MW13-61-03	26-Oct-99		1.39	0.5 U	0.5 U	1.5 U	0.11	0.02 U	-	ND	0.62
	000328-MW13-61-104	28-Mar-00		0.5 U	0.5 U	0.5 U	1.5 U	0.087	0.04	-	ND	ND
	001004-MW13-61-03	4-Oct-00		0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	ND	0.68
	010327-MW13-61-103	27-Mar-01		0.5 U	0.5 U	0.5 U	1.5 U	0.088	0.02 U	-	ND	ND
	011009-MW13-61-106	9-Oct-01		0.5 U	0.5 U	0.5 U	1.5 U	0.19	-	-	ND	0.28
	020403-MW13-61-102	3-Apr-02		0.5 U	0.5 U	0.5 U	1.5 U	0.206	0.04 U	-	ND	ND
	020924-MW13-61-106	24-Sep-02		0.5 U	0.5 U	0.5 U	1.5 U	-	-	-	ND	ND
	030317-MW13-61-101	17-Mar-03		0.5 U	0.5 U	0.5 U	1.5 U	0.13	0.04 U	-	ND	ND
	031003-MW13-61-109 [7]	3-Oct-03		0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	ND	ND
	040813-MW13-61-003 [7]	13-Aug-04		2.19	0.5 U	0.5 U	1. U	0.125	0.0423	-	ND	0.28
	050927-MW-13-61-114	27-Sep-05		161.	0.571	9.	9.68	0.089	0.01 U	-	1.263	14.927
	060404-MW-13-61-123	4-Apr-06		41.5	0.5 U	5.46	3.07	0.106	0.0399	0.0013 U	3.435	23.445
MW-14-110	981116-MW14-110-06	16-Nov-98	98 - 108	3.2	0.5 U	0.5 U	1.5 U	0.05	-	-	ND	ND
	990216-MW14-110-005	16-Feb-99	(alluvial WBZ)	12.7	0.5 U	0.604	1.5 U	0.04	0.02 U	-	ND	0.11
	990512-MW14-110-09	12-May-99		22.1	0.5 U	1.88	2.4	0.029	0.029	-	ND	0.28
	990823-MW14-110-06	23-Aug-99		45.6	0.752	1.85	2.09	0.045	0.02 U	-	ND	0.41
	991027-MW14-110-09	27-Oct-99		28.6	0.814	1.45	1.5 U	0.035	0.02 U	-	ND	0.26
	991027-MW14-110-10	27-Oct-99		29.7	0.569	1.52	1.5 U	0.028	0.02 U	-	ND	0.27
	000329-MW14-110-109	29-Mar-00		7.84	0.5 U	0.733	1.5 U	0.03	0.02 U	-	ND	0.42
	000329-MW14-110-110	29-Mar-00		8.9	0.502	0.825	1.5 U	0.034	0.02 U	-	ND	0.42
	000615-MW14-110-102	15-Jun-00		4.85	0.5 U	0.5 U	1.5 U	-	0.02 U	-	ND	0.2
	001005-MW14-110-06	5-Oct-00		0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	ND	ND

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-14-110	001220-MW14-110-102	20-Dec-00	98 - 108	0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	ND	0.14
	010328-MW14-110-108	28-Mar-01	(alluvial WBZ)	0.5 U	0.5 U	0.5 U	1.5 U	0.02 U	0.02 U	-	ND	0.23
	010628-MW14-110-102	28-Jun-01		0.5 U	0.5 U	0.5 U	1.5 U	-	0.025	-	ND	0.18
	011009-MW14-110-105	9-Oct-01		0.5 U	0.5 U	0.5 U	1.5 U	0.05	-	-	ND	ND
	011213-MW14-110-101	13-Dec-01		0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	ND	ND
	020404-MW14-110-108	4-Apr-02		1. U	1. U	1. U	2. U	0.04 U	0.04 U	-	ND	0.1
	020711MW14-110-101	11-Jul-02		0.5 U	0.5 U	0.5 U	1.5 U	0.04 U	0.04 U	-	ND	ND
	020924-MW14-110-105	24-Sep-02		0.5 U	0.5 U	0.5 U	1.5 U	-	-	-	ND	0.1
	021217-MW14-110-102	17-Dec-02		0.5 U	0.5 U	0.5 U	1.5 U	-	0.04 U	-	ND	ND
	030318-MW14-110-108	18-Mar-03		0.5 U	0.5 U	0.5 U	1.5 U	0.04 U	0.04 U	-	ND	ND
	030602-MW14-110-101	2-Jun-03		0.5 U	0.5 U	0.5 U	1.5 U	-	0.04 U	-	ND	ND
	031003-MW14-110-110 [7]	3-Oct-03		0.5 U	0.6	0.5 U	1.5 U	-	0.02 U	-	ND	ND
	030112-MW-14-110-101 [7]	12-Jan-04		0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	ND	ND
	040824-MW14-110-014 [7]	24-Aug-04		0.5 U	0.5 U	0.5 U	1. U	0.0154	0.0154	-	ND	0.0828
	050922-MW-14-110-104	22-Sep-05		0.5 U	0.5 U	0.5 U	1. U	0.0208	0.005 U	-	ND	0.2
	061013-MW-14-110-104	13-Oct-06		0.14 U	0.5	0.14 J	0.79 J	-	0.04	0.005 U	0.158	0.5584
	2708-080603-MW14-110-104	3-Jun-08		0.045 U	0.048 U	0.042 U	0.078 U	0.02	0.002 U	0.003 J	0.1749	0.4602
MW-15-50	990728-MW15-50-04	28-Jul-99	40 - 50	95,100.	863.	223.	2,420.	0.02 U	0.02 U	-	ND	18,460.
	991029-MW15-50-25	29-Oct-99	(silt unit/alluvial WBZ)	8,910.	134.	59.2	500.	0.15	0.02 U	-	ND	762.
	000403-MW15-50-125	3-Apr-00		44,800.	620.	222.	2,300.	0.065	0.02 U	-	3.31	5,610.74
	000615-MW15-50-105	15-Jun-00		1,490.	14.3	6.62	42.	-	0.02 U	-	267.65	475.
	000615-MW15-50-106	15-Jun-00		1,270.	10.	5.16	28.4	-	0.02 U	-	253.67	451.
	001005-MW15-50-14	5-Oct-00		2,700.	5.65	3.83	15.2	-	0.02 U	-	74.38	128.96
	001221-MW15-50-105	21-Dec-00		40,200.	356.	176.	1,620.	-	0.028	-	158.93	9,661.17
	001221-MW15-50-106	21-Dec-00		46,200.	125. U	125. U	1,070.	-	0.062	-	199.16	8,730.64
	010330-MW15-50-124	30-Mar-01		47,600.	270.	133.	1,250.	0.151	0.089	-	87.5	7,233.48
	010628-MW15-50-105	28-Jun-01		2,580.	25. U	25. U	75. U	-	0.089	-	2.61	189.
	010628-MW15-50-106	28-Jun-01		3,420.	25. U	25. U	75. U	-	0.105	-	8.33	231.
	011010-MW15-50-111	10-Oct-01		44,000.	110.	208.	960.	0.11	-	-	14.52	3,839.07
	011010-MW15-50-112	10-Oct-01		44,700.	109.	210.	970.	0.07	-	-	48.2	59,423.3
	011214-MW15-50-104	14-Dec-01		64,000.	5. U	500. U	1,500. U	-	0.02 U	-	0.98	4,666.89
	011214-MW15-50-105	14-Dec-01		63,000.	5. U	500. U	1,500. U	-	0.02 U	-	1.27	6,034.96
	020405-MW15-50-119	5-Apr-02		57,000.	1. U	1. U	2. U	0.102	0.04 U	-	9.76	4,353.97
	020711-MW15-50-104	11-Jul-02		53,500.	250. U	250. U	750. U	0.04 U	0.04 U	-	15.5	3,796.
	020711-MW15-50-105	11-Jul-02		58,000.	250. U	250. U	750. U	0.04 U	0.04 U	-	24.8	5,788.
	020925-MW15-50-110	25-Sep-02		49,000.	320.	230.	1,300.	0.072	-	-	65.3	8,044.4
	020925-MW15-50-111	25-Sep-02		50,000.	340.	250.	1,400.	0.076	-	-	17.2	7,971.3

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-15-50	021218-MW15-50-107	18-Dec-02	40 - 50	48,000.	450.	260.	1,600.	-	0.04 U	-	42.	7,494.
	030321-MW15-50-122	21-Mar-03	(silt unit/alluvial WBZ)	49,000.	310.	250. U	750. U	0.07	0.04 U	-	ND	5,042.
	030603-MW15-50-105	3-Jun-03		47,000.	300.	260.	1,300.	-	0.15	-	ND	3,405.
	031006-MW15-50-113 [7]	6-Oct-03		37,000.	260.	200.	1,000.	-	0.02	-	ND	4,804.3
	030113-MW-15-50-105 [7]	13-Jan-04		44,000.	270.	220.	1,000.	-	0.02 U	-	ND	4,765.
	030113-MW-15-50-106 [7]	13-Jan-04		44,000.	270.	220.	990.	-	0.02 U	-	ND	3,650.
	040825-MW15-50-020 [7]	25-Aug-04		40,500.	250. U	288.	764.	0.46	0.418	-	ND	6,359.5
	050929-MW-15-50-126	29-Sep-05		20,700.	156.	164.	519.	0.488	0.39	-	46.23	2,300.08
	061031-MW-15-50-127	31-Oct-06		33,000.	200.	180.	430.	0.52	0.41	0.005 U	89.6	3,883.
	2708-080603-MW15-50-103	3-Jun-08		42,000.	200.	290.	570.	0.11	0.02	0.003 U	54.6	6,878.3
MW-15-66	990728-MW15-66-03	28-Jul-99	60.5 - 66.5	3.61	0.5 U	0.5 U	1.5 U	0.02 U	0.02 U	-	0.83	2.5
	990823-MW15-66-04	23-Aug-99	(alluvial WBZ)	0.72	0.5 U	0.5 U	1.5 U	-	-	-	-	-
	991026-MW15-66-07	26-Oct-99		0.5 U	0.5 U	0.5 U	1.5 U	0.02 U	0.02 U	-	ND	ND
	000329-MW15-66-108	29-Mar-00		0.5 U	0.5 U	0.5 U	1.5 U	0.02 U	0.02 U	-	3.91	6.93
	000615-MW15-66-104	15-Jun-00		0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	12.17	22.1
	001005-MW15-66-08	5-Oct-00		0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	1.36	2.34
	001221-MW15-66-104	21-Dec-00		0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	0.8	1.34
	010328-MW15-66-107	28-Mar-01		0.5 U	0.5 U	0.5 U	1.5 U	0.02 U	0.02 U	-	0.61	1.1
	010628-MW15-66-104	28-Jun-01		1.65	0.5 U	0.5 U	1.5 U	-	0.02 U	-	ND	0.28
	011010-MW15-66-110	10-Oct-01		0.5 U	0.5 U	0.5 U	1.51 U	0.02 U	-	-	ND	ND
	011213-MW15-66-103	13-Dec-01		0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	ND	ND
	020404-MW15-66-107	4-Apr-02		1. U	1. U	1. U	2. U	0.04 U	0.04 U	-	ND	0.12
	020711-MW15-66-103	11-Jul-02		0.5 U	0.5 U	0.5 U	1.5 U	0.04 U	0.04 U	-	ND	ND
	020925-MW15-66-109	25-Sep-02		0.5 U	0.5 U	0.5 U	1.5 U	0.04 U	-	-	ND	ND
	021218-MW15-66-105	18-Dec-02		0.5 U	0.5 U	0.5 U	1.5 U	-	0.04 U	-	ND	ND
	021218-MW15-66-106	18-Dec-02		0.5 U	0.5 U	0.5 U	1.5 U	-	0.04 U	-	ND	ND
	030318-MW15-66-107	18-Mar-03		0.5 U	0.5 U	0.5 U	1.5 U	0.04 U	0.08 U	-	ND	0.1
	030603-MW15-66-104	3-Jun-03		31.	0.5 U	0.5 U	1.5 U	-	0.04 U	-	4.	7.41
	031006-MW15-66-112 [7]	6-Oct-03		0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	ND	ND
	030113-MW-15-66-104 [7]	13-Jan-04		0.5 U	0.5 U	0.5 U	1.5 U	-	0.02 U	-	1.33	2.
	040813-MW15-66-006 [7]	13-Aug-04		0.5 U	0.5 U	0.5 U	1. U	0.005 U	0.005 U	-	ND	ND
	050929-MW-15-66-125	29-Sep-05		0.5 U	0.5 U	0.5 U	1.36	0.01 U	0.01 U	-	0.2032	0.4482
	061017-MW-15-66-109	17-Oct-06		0.5 U	0.5 U	0.5 U	0.5 U	0.002 U	-	0.005 U	50.	83.41
	2708-080603-MW15-66-102	3-Jun-08		0.045 U	0.048 U	0.042 U	0.078 U	0.002 U	0.002 U	0.003 U	0.781	1.3539

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-16-45	040826-MW16-45-028 [7]	26-Aug-04	30 - 45	2,880.	959.	460.	867.	0.138	0.0725	-	10.77	7,946.17
	041222-MW16-45-103 [7]	22-Dec-04	(alluvial WBZ)	2,680.	1,020.	619.	1,100.	-	0.154	-	16.08	8,492.
	050401-013	1-Apr-05		2,970.	1,200.	552.	990.	-	0.0663	-	8.51	132.31
	0506-22-05	21-Jun-05		3,190.	1,810.	817.	1,450.	-	0.1	-	44.95	10,997.45
	051003-MW-16-45-136	3-Oct-05		3,710.	1,670.	559.	1,050.	0.131	0.0528	-	236.8	9,774.9
	060403-MW-16-45-118	3-Apr-06		4,210.	1,820.	736.	1,420.	0.117	0.0188	0.0013 U	3,028.5	53,847.5
	061212-MW-16-45-129	12-Dec-06		5,000.	2,200.	770.	1,740.	0.14	0.01 U	0.005 U	21.3	11,429.3
	2708-070731-MW-16-45-148	31-Jul-07		4,230.	1,540.	615.	1,140.	0.412	0.276	0.003 U	11,940.	145,371.
	2708-080521-MW16-45-128	21-May-08		4,800.	1,400.	530.	960.	0.51	0.002 U	0.005	256.5	6,538.5
	040826-MW16-65-026 [7]	26-Aug-04		1,370.	388.	236.	552.	0.402	0.186	-	0.541	3,838.12
	040826-MW16-65-027 [7]	26-Aug-04		1,250.	339.	223.	486.	-	-	-	0.756	4,098.68
	041222-MW16-65-102 [7]	22-Dec-04		1,290.	54.9	366.	618.	-	0.201	-	ND	ND
	050331-006	31-Mar-05		1,240.	7.72	338.	294.	-	0.175	-	ND	5,070.23
	0506-21-04	21-Jun-05		917.	8.39	282.	256.	-	0.219	-	ND	5,928.06
	051003-MW-16-65-134	3-Oct-05		991.	25. U	216.	182.	0.25	0.0854	-	ND	3,060.92
	060403-MW-16-65-119	3-Apr-06		1,090.	8.19	262.	201.	0.301	0.127	0.0149	1.212	3,321.77
	061023-MW-16-65-114	23-Oct-06		930.	4.8 J	170.	110.	0.31	0.002 U	0.005 U	0.3531	2,623.4741
	2708-070628-MW-16-65-115	28-Jun-07		698.	2.75 U*	95.7	59.	0.18 J	0.18 J	0.003 UJ	3.319	903.849
	2708-080513-MW16-65-109	13-May-08		690.	9.8 J	130.	122.	0.42	0.1	0.009 J	2.685	2,710.295
MW-16-125	040826-MW16-125-025 [7]	26-Aug-04	115-125	1. U	1. U	1. U	2. U	0.0943	0.0747	-	ND	36.88
	041221-MW16-125-100 [7]	21-Dec-04	(alluvial WBZ)	0.513	0.5 U	0.5 U	1. U	-	0.0598	-	ND	10.22
	050330-001	30-Mar-05		0.5 U	0.5 U	0.5 U	1. U	-	0.0554	-	ND	12.14
	0506-21-03	21-Jun-05		0.5 U	0.5 U	0.5 U	1. U	-	0.0455	-	ND	4.67
	050930-MW-16-125-130	30-Sep-05		2.95	0.53	0.5 U	1. U	0.0775	0.0702	-	0.0463	5.0563
	060330-MW-16-125-109	30-Mar-06		0.5 U	0.5 U	0.64	1. U	0.0777	0.0272	0.0016	0.0755	7.5005
	061016-MW-16-125-106	16-Oct-06		0.26 J	0.94	0.18 J	1.38 J	0.13	0.01	0.005 U	0.059	2.737
	2708-070628-MW-16-125-116	28-Jun-07		0.5 U	0.5 U	0.5 U	1. U	0.114 J	0.108 J	0.003 UJ	0.04765	0.82765
	2708-080515-MW16-125-127	15-May-08		160.	55.	60.	98.	0.16	0.002 U	0.006 J	25.96	1,502.26
MW-17-79	050926-MW-17-79-110	26-Sep-05	38.5 - 78.5	2.82	1. U	8.8	1.72	0.814	0.045	-	ND	49.531
	061026-MW-17-79-119	26-Oct-06	(alluvial WBZ)	1.5	0.48 J	5.7	2.03	1.	0.15	0.005 U	0.23	6.916
	2708-070627-MW-17-79-112	27-Jun-07		1.34	0.4 U	4.39	2. U	0.831	0.433	0.0178	0.1139	2.0109
	2708-080514-MW17-79-120	14-May-08		1.4	0.44 J	1.6	1.32	0.81	0.02	0.008 J	0.1976	7.4686
MW-18-30	2708-070731-MW-18-30-146	31-Jul-07	19 - 29	10,100.	1,470.	537.	1,360.	1.65	0.895	0.003	-	-
	2708-080514-MW18-30-121	14-May-08		8,600.	1,300.	420.	1,350.	2.22	0.002 U	0.006 J	326,100.	3,613,100.
MW-18-180	2708-070628-MW-18-180-117	28-Jun-07	170 - 180	0.5 U	0.5 U	0.5 U	1. U	0.0242 J	0.0201 J	0.003 UJ	ND	0.575
	2708-080513-MW18-180-108	13-May-08		0.045 U	0.12 J	0.042 U	0.078 U	0.03	0.02	0.003 J	0.0032	0.1692

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)				EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes	Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]												
Fish Consumption												
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#	#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#	#	#	0.14	#	#
Drinking Water												
	MCL			5.	1,000.	700.	10,000.	#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#	#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]												
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#	#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.	#	#	#	#	#
MW-19-22	2708-070730-MW-19-22-143	30-Jul-07	12 - 22	6.58	1.65	3.02	7.28	0.121	0.0777	0.003 U	5,473.	17,922.
	2708-080513-MW19-22-110	13-May-08		1.	0.4 J	1.7	5.	0.12	0.01	0.004 J	1,896.	5,221.
MW-19-125	2708-070627-MW-19-125-110	27-Jun-07	115 - 125	16.7	11.3	0.4 U	2.99	0.0755	0.0622	0.0087	0.0126	3.1226
	2708-080514-MW19-125-117	14-May-08		13.	1.5	0.32 J	4.8	0.23	0.01	0.007 J	0.011	49.207
MW-19-180	2708-070627-MW-19-180-111	27-Jun-07	170 - 180	0.5 U	0.5 U	0.5 U	1. U	0.0172	0.0076	0.003 U	ND	0.0954
	2708-080513-MW19-180-115	13-May-08		0.17 J	0.07 J	0.042 U	0.078 U	0.02	0.01	0.003 J	0.0035	0.1479
MW-20-120	2708-070628-MW-20-120-114	28-Jun-07	110 - 120	75.	0.78 U*	1.76	28.7	0.118	0.0548	0.003 UJ	ND	40.749
	2708-080515-MW20-120-126	15-May-08		120.	0.51	1.2	18.3	0.16	0.02	0.007 J	0.0276	120.4986
MW-21-12	2708-070719-MW-21-12-129	19-Jul-07	7 - 12	0.5 U	0.5 U	0.5 U	1.13	0.0537	0.0211	0.0048	0.0921	12.7821
	2708-080514-MW21-12-122	14-May-08		0.2 J	0.24 J	0.16 J	1.73	0.05	0.002 U	0.01 J	1.626	22.256
MW-21-75	2708-070718-MW-21-75-124	18-Jul-07	65 - 75	0.5 UJ	0.5 UJ	0.5 UJ	1. UJ	0.0648 J	0.0537 J	0.0043 J	ND	0.135
	2708-080514-MW21-75-123	14-May-08		0.045 U	0.048 U	0.042 U	0.08	0.12	0.02	0.009 J	0.0076	0.182
MW-21-115	2708-070718-MW-21-115-123	18-Jul-07	105 - 115	0.5 UJ	0.5 UJ	0.5 UJ	1. UJ	0.0123 J	0.0088 J	0.003 UJ	ND	0.0989
	2708-080515-MW21-115-125	15-May-08		0.045 U	0.08 J	0.042 U	0.12	0.01	0.002 U	0.003 J	ND	0.0649
MW-21-165	2708-070718-MW-21-165-122	18-Jul-07	156 - 166	0.5 UJ	0.5 UJ	0.5 UJ	1. UJ	0.005 UJ	0.005 UJ	0.003 UJ	ND	0.0971
	2708-080514-MW21-166-124	14-May-07		0.14 J	0.23 J	0.06 J	0.25	0.002 U	0.002 U	0.003 U	ND	0.1277
PW-01	061012-PW-01-102	12-Oct-06	40 - 80	7,300.	100.	520.	350.	1.5	0.002 U	0.005 U	2.795	4,269.505
	2708-070731-PW-01-80-147	31-Jul-07		7,060.	59.5	457.	238.	1.31	0.75	0.0329	173.3	6,129.2
	2708-080604-PW01-80-107	4-Jun-08		3,700.	27.	170.	71.	1.45	0.002 UJ	0.019	11.72	3,239.62
Temporary Well Point Samples 1995 (surficial fill WBZ)												
B-01	950921-BW1-01	21-Sep-95	20 - 23	6.9	2.5	3.1	56.	7.8	-	-	0.09	175.71
B-05	950929-BW05-01	29-Sep-95	25 - 28	0.5 U	0.97	0.5 U	1.4	0.02 U	-	-	ND	34.78
B-08	950918-BW8-01	18-Sep-95	20.5 - 23.5	0.5 U	0.85	0.5 U	0.86	-	-	-	-	-
B-19	950920-BW19-01	20-Sep-95	10 - 13	-	-	-	-	-	-	-	-	-
B-19	950920-BW19-02	20-Sep-95	25 - 28	100,000.	39,000.	1,600.	11,000.	-	-	-	0.7	6,610.2
B-21	951003-BW21-01	3-Oct-95	15.5 - 19.5	0.5 U	1.2	1.9	3.3	-	-	-	2.93	726.25
B-31	950925-BW31-01	25-Sep-95	26 - 29	3.	1.6	10.	13.	0.02 U	-	-	13.28	694.58
HydroPunch Samples 1998 (alluvial WBZ)												
MW-04-101	981014-BW4-01	14-Oct-98	86 - 86.5	12.	0.5 U	0.5 U	1.5 U	-	-	-	-	-
	981015-BW4-02	15-Oct-98	110.5 - 111	1.5	0.5 U	0.5 U	1.9	-	-	-	-	-
MW-05-175	981020-BW5-03	20-Oct-98	52.5 - 53	2,100.	3.7	39.	440.	-	-	-	-	-
	981020-BW5-04	20-Oct-98	52.5 - 53	2,000.	5. U	37.	470.	-	-	-	-	-
	981020-BW5-05	20-Oct-98	72.5 - 73	8.5	0.5 U	1.1	6.2	-	-	-	-	-
	981020-BW5-06	20-Oct-98	94.5 - 95	2,000.	3.2	150.	270.	-	-	-	-	-
	981021-BW5-07	21-Oct-98	122 - 122.5	5.3	0.5 U	0.5 U	1.5 U	-	-	-	-	-
	981021-BW5-08	21-Oct-98	152 - 152.5	18.	0.5 U	1.8	1.5 U	-	-	-	-	-

Table 5a - Summary of Historical Analytical Results for Groundwater Samples : BTEX, Total PAHs, and Cyanide
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results: EPA Method 8020/8021B/8260 or 8260B ug/l (ppb)						EPA Method 9012A, 9010A, D4282-95M or 335.4 mg/l (ppm)			EPA Method 8270 SIM or 8270C ug/l (ppb)	
				Benzene	Toluene	Ethylbenzene	Xylenes			Total Cyanide	Amenable Cyanide	Free Cyanide	Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [3,8]														
Fish Consumption														
	EPA 2004 NRWQC (organism only)			51.	15,000.	2,100.	#			#	#	0.14	#	#
	Portland Harbor specific fish consumption rate			5.1	1,500.	210.	#			#	#	0.014	#	#
	DEQ 2004 AWQC (organism only)			51.	15,000.	2,100.	#			#	#	0.14	#	#
Drinking Water														
	MCL			5.	1,000.	700.	10,000.			#	#	0.2	#	#
	Tap Water PRGs			0.35	720.	1,300.	#			#	#	0.73	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [3,8]														
	EPA 2004 NRWQC (chronic)			#	#	#	#			#	#	0.0052	#	#
	DEQ 2004 AWQC (chronic)			#	#	#	#			#	#	0.0052	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	9.8	7.3	13.			#	#	#	#	#
Temporary Well Point Samples 2004														
B-56	040602-101	2-Jun-04	18 - 22	8.	5.	U	0.5	U	10.	U	0.08	0.0343	-	45.52	317.6
	040603-102	3-Jun-04	40 - 44	1.	U	1.	U	1.	U	2.	U	0.517	0.105	-	0.1369	4.9419
	040603-103	3-Jun-04	60 - 64	3.62		1.	U	70.		18.64		0.406	0.0842	-	ND	63.903
	040603-104	3-Jun-04	80 - 84	5.	U	5.	U	0.5	U	10.6		0.506	0.107	-	0.16	358.961
	040603-105	3-Jun-04	80 - 84	3.1		2.	U	2.02		6.96		-	-	-	ND	405.53
	040604-106	4-Jun-04	100 - 104	1.	U	1.	U	1.	U	2.	U	0.533	0.156	-	0.0895	0.939
	040614-115	14-Jun-04	136 - 140	1.	U	1.	U	1.	U	2.	U	0.006	0.005	U	-	0.521	9.56
	040614-116	14-Jun-04	174 - 178	1.	U	1.	U	1.	U	2.	U	0.0557	0.0319	-	ND	1.17
B-59	040611-108	11-Jun-04	46-50	5,570.		50.	U	317.		85.5		-	-	-	-	-
	040611-109	11-Jun-04	76-80	230.		12.4		25.8		26.		-	-	-	-	-
	040611-110	11-Jun-04	96-100	113.		6.16		9.78		11.28		-	-	-	-	-
	040611-112	11-Jun-04	116-120	166.		2.16		3.02		7.05		-	-	-	-	-
	040611-113	11-Jun-04	144-148	19.3		1.43		2.58		3.58		-	-	-	-	-
	040614-114	14-Jun-04	171-175	2.29		1.	U	1.	U	2.	U	-	-	-	-	-

Note:
'-' = not analyzed
# = Reference Level not established
A = this analysis was performed on a VOA sample containing headspace
AWQC = Ambient Water Quality Criteria
BTEX = benzene, toluene, ethylbenzene, and xylenes
DEQ = Oregon Department of Environmental Quality
EPA = U.S. Environmental Protection Agency
J = Estimated Concentration
MCL = Maximum Contaminant Level
mg/l = milligrams per liter
ND = not detected above detection limit indicated
NRWQC = National Recommended Water Quality Criteria
PRG = Potential Remediation Goal
PAHs = polynuclear aromatic hydrocarbons
ppb = parts per billion
ppm = parts per million
SCV = Secondary Chronic Value
U = Non-detect above reporting detection limit
U* = Compound considered non-detect because it was also detected in associated blank at similar concentration levels.
UJ = Compound not detected, but the reporting limit is probably higher due to a low bias identified during the quality assurrance review.
ug/l = micrograms per liter

Note: Reference Level is lowest of EPA AWQC for aquatic life protection, AWQC for human consumption of organisms only, or DEQ SLV for aquatic receptors
1 = Sample number prefix: 2708-
2 = Tier II values were taken from Suter II, G.W. and Tasco, C.L., 1996. Toxilogical Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision. ORNL publication ES/ER/TM-96/R2
3 = Screening Level Values are from *Portland Harbor Joint Source Control Strategy*, Final, December 2005
4 = Due to mislabeling in the field or due to laboratory misidentification, the laboratory report transposed results for MW4-35 and MW-4-57 in August 1997. Tables attribute data to the correct well.
5 = Sample Numbers (980603-) MW4-57-18 & MW8-56-21 were analyzed for Amenable Cyanide outside of recommended holding time.
6 = PAH results for sample 960620-MW8-56-01 should be considered qualitative due to an apparent error concerning sample identity.
7 = Monitoring well purged & sampled with low-flow protocol as per EPA/540/S-95/504 (April 1996)
8 = EPA, under CERCLA authority, has identified the Safe Drinking Water Acts MCLs and AWQCs (federal and state once approved) as potential ARARs under CERCLA. The final determination will be made in the EPA Portland Harbor Record of Decision (ROD). Decisions to implement source control, prior to The EPA Portland Harbor ROD, due to an exceedance of an SLV in upland stormwater will be evaluated and prioritized on a case by case basis.

Table 5b - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270-SIM or 8270C
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date/Time	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [8,9]																					
Fish Consumption																					
	EPA 2004 NRWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate			99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																					
	MCL [3]			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs			370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,9]																					
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	520 [4]	#	#	#	#	#	#	#	#	#	#	#	620 [4]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
MW-01-22	951207-MW1-22-01	7-Dec-95	11 - 21	11.	2.6	52.	24.	12.	13.	9.3	4.8	32.	1.3	74.	16.	6.3	39.	100.	68.	93.4	465.3
	960319-MW1-22-01	19-Mar-96	(fill WBZ)	9.6	0.33	4.1	1.2	0.64	0.7	0.41	0.28	1.6	0.1 U	4.4	7.3	0.29	90.	15.	4.6	4.71	140.45
	960618-MW1-22-01	18-Jun-96		7.6	0.26	3.3	0.59	0.34	0.33	0.21	0.14	0.68	0.1 U	2.5	6.2	0.15	75.	12.	2.9	2.23	112.2
	961001-MW1-22-01	1-Oct-96		55.	0.98	15.	1.7	1.3	1.4	0.99	1. U	1.8	1. U	7.	59.	1. U	440.	130.	6.	6.2	720.17
	970225-MW1-22-01	25-Feb-97		3.7	0.1 U	1.6	0.36	0.12	0.13	0.1 U	0.1 U	0.3	0.1 U	1.8	3.1	0.1 U	47.	6.5	1.9	0.91	66.51
	970225-MW1-22-02	25-Feb-97		3.2	0.1 U	1.6	0.72	0.31	0.34	0.13	0.12	0.64	0.1 U	2.1	2.9	0.1	44.	5.5	2.5	2.23	64.16
	970827-MW1-22-01	27-Aug-97		70.	1.6	16.	3.8	3.9	4.	2.6	1.4	4.8	1. U	12.	75.	2.1	550.	230.	11.	20.	988.2
	970827-MW1-22-02	27-Aug-97		66.	0.1 U	19.	5.2	5.6	5.4	3.8	2.	6.7	1. U	14.	73.	3.2	350.	170.	12.	28.1	735.9
	980217-MW1-22-01	17-Feb-98		1.2	0.1 U	1.5	1.1	0.76	0.8	0.58	0.26	0.98	0.1	2.7	1.4	0.48	4.7	3.5	3.2	4.48	23.26
	980602-MW1-32-11	2-Jun-98		3.3	0.89	14.	15.	18.	21.	13.	6.7	21.	1.8	25.	4.9	9.6	3.3	23.	29.	93.1	209.49
	980826-MW1-22-10	26-Aug-98		75.	2.9	51.	24.	32.	37.	22.	12.	37.	3.6	55.	78.	16.	390.	240.	62.	161.6	1,137.5
	981118-MW1-22-15	18-Nov-98		58.	0.1 U	9.1	0.61	0.72	0.7	0.41	0.29	0.78	0.1 U	3.6	51.	0.32	340.	100.	3.2	3.42	568.73
	990216-MW1-22-012	16-Feb-99		0.33	0.1 U	1.21	0.72	0.76	0.85	0.52	0.1 U	0.88	0.1 U	1.91	0.49	0.32	0.11	0.89	2.28	3.53	11.27
	990513-MW1-22-11	13-May-99		2.31	0.1 U	1.67	0.66	0.55	0.65	0.45	0.25	0.75	0.1 U	2.12	3.26	0.31	0.64	1.37	2.34	3.17	17.33
	990824-MW1-22-15	24-Aug-99		62.3	1.42	16.2	10.6	12.1	9.2	11.3	7.97	17.3	2.08	24.6	64.1	8.94	340.	204.	24.8	68.19	816.91
	991028-MW1-22-16	28-Oct-99		48.5	0.56	6.58	1.48	1.58	1.19	1.21	1.02	2.27	0.2	6.51	51.5	0.95	186.	109.	6.43	8.69	424.98
	000330-MW1-22-116	30-Mar-00		4.52	0.1 U	2.22	0.21	0.1 U	0.1 U	0.1 U	0.1 U	0.21	0.1 U	2.84	4.63	0.1 U	42.4	3.03	2.29	0.42	62.35
	010329-MW1-22-115	29-Mar-01		2.32	0.18	4.14	2.31	2.22	1.95	2.	1.42	3.03	0.66	6.73	3.35	1.77	3.97	6.78	8.23	13.36	51.06
	040825-MW1-22-019[7]	25-Aug-04		50.	0.5 U	7.	0.13 J	0.1 U	0.1 U	0.5 U	0.1 U	0.131 J	0.2 U	2.61	46.9	0.1 U	403.	77.4	2.34	0.261	589.511
	050401-014[7]	1-Apr-05		1.79	0.0529	3.02	0.24	0.119	0.0902 J	0.05 U	0.0868 U	0.326	0.1 U	2.62	2.61	0.05 U	2.44 B	2.34 B	2.53	0.7752	18.1781
	050928-MW1-22-120	28-Sep-05		46.9	515. U	4.56	0.258 U	0.258 U	0.258 U	0.258 U	0.258 U	0.327	0.258 U	2.95	37.1	0.258 U	302.	74.4	2.85	0.327	471.087
	060403-MW-1-22-117	3-Apr-06		17.7	0.485 U	2.65	0.485 U	0.485 U	0.485 U	0.485 U	0.485 U	0.485 U	0.485 U	1.37	15.6	0.485 U	172.	33.	1.27	ND U	243.59
	061030-MW-1-22-123	30-Oct-06		68.	0.011 U	11.	0.31	0.23	0.19 J	0.09 J	0.08 J	0.34	0.031 U	5.9	61.	0.11 J	450.	130.	5.9	1.26	733.15
	2708-070720-MW-1-22-131	20-Jul-07		49.4 J	4.83 U	7.64	0.332	0.157	0.124	0.483 U	0.102	0.349	0.0557	7.54	43.5	0.101	282.	90.7	6.03 J	1.2207	488.0307
	2708-080512-MW1-22-105	12-May-08		11.	0.099	1.7	0.16	0.11	0.14	0.046	0.073	0.19	0.0076 J	1.9	9.4	0.047	78.	17.	2.1	0.7276	121.9726
MW-01-55	2708-070719-MW-1-55-127	19-Jul-07	45 - 55	0.386 U	0.0966 U	0.0966 U	0.00483 U	0.00483 U	0.00483 U	0.0966 U	0.00483 U	0.00483 U	0.00483 U	0.0966 U	0.0966 U	0.00483 U	0.0966 U	0.0966 U	0.0966 U	ND U	ND U
	2708-080512-MW1-55-104	12-May-08		0.0044 U	0.0034 U	0.0073 J	0.003 J	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.045	0.0074 J	0.0035 U	0.003	0.0627
MW-01-82	2708-070719-MW-1-82-126	19-Jul-07	72 - 82	0.0962 U	0.0962 U	0.0962 U	0.00481 U	0.00481 U	0.00481 U	0.0962 U	0.00481 U	0.00481 U	0.00481 U	0.0962 U	0.0962 U	0.00481 U	0.142	0.0962 U	0.0962 U	ND U	0.142
	2708-080512-MW1-82-103	12-May-08		0.0044 U	0.0034 U	0.0036 U	0.0031 J	0.0043 U	0.0023 U	0.0034 J	0.0025 U	0.0034 U	0.0031 J	0.0044 U	0.0038 U	0.0042 J	0.041	0.0058 J	0.0035 U	0.0104	0.0606
MW-02-32	951206-MW2-32-01	6-Dec-95	21.5 - 31.5	4.	0.29	0.28	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.48	0.32	0.1 U	45.	0.51	0.67	ND U	51.55
	960318-MW2-32-01	18-Mar-96	(fill WBZ)	4.	0.16	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.28	ND U	4.54
	960618-MW2-32-01	18-Jun-96		1.5	0.23	0.15	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.22	0.1 U	0.09	0.1 U	0.41	ND U	2.6
	961001-MW2-32-01	1-Oct-96		8.4	0.14	0.16	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.12	0.23	0.1 U	0.22	0.23	0.93	ND U	10.43
	970225-MW2-32-01	25-Feb-97		1.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.15	0.1 U	0.1 U	0.1 U	0.37	ND U	1.62
	970827-MW2-32-01	27-Aug-97		16.	0.17	0.19	0.1 U	0.1	0.1 U	0.14	0.1 U	0.1 U	0.1 U	0.1 U	0.21	0.1 U	0.17	0.1 U	0.96	0.1	17.94
	980217-MW2-32-01	17-Feb-98		4.2	0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.19	0.1 U	0.1 U	0.1 U	0.52	ND U	5.02
	980601-MW2-32-05	1-Jun-98		2.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.19	0.1 U	0.1 U	0.1 U	0.82	ND U	3.21
	980825-MW2-32-04	25-Aug-98		4.	0.11	0.1 U	0.17	0.35	0.37	0.47	0.1 U	0.2	0.1 U	0.26	0.12	0.3	0.1 U	0.11	0.64	1.39	7.1
	981117-MW2-32-10	17-Nov-98		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	990216-MW2-32-008	16-Feb-99		17.9	0.45	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	18.35
	990513-MW2-32-10	13-May-99		8.08	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.26	0.1	0.1 U	0.1 U	0.58	0.1	9.12
	990824-MW2-32-10	24-Aug-99		5.08	0.1 U	0.12	0.1 U	0.1 U	0.1 U	0.18	0.1 U	0.1 U	0.1 U	0.1 U	0.15	0.11	0.1 U	0.11	0.54	0.11	6.29
	991027-MW2-32-12	27-Oct-99		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	000329-MW2-32-112	29-Mar-00		1.55	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.26	0.1 U	0.1 U	0.1 U	0.42	ND U	2.23
	010328-MW2-32-111	28-Mar-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	040816-MW2-32-009[7]	16-Aug-04		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	050331-009[7]	31-Mar-05		0.103	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.05 U	0.5 U	0.1 U	0.05 U	0.05 U	0.05 U	2.89	0.0858 J	0.0545 J	ND U	3.1333
	050927-MW-2-32-118	27-Sep-05		0.0147	0.0521	0.0361	0.00926 U	0.00962 U	0.00962 U	0.00962 U	0.00962 U	0.00962 U	0.00962 U	0.0135	0.00962 U	0.00962 U	0.0785	0.0179	0.00952 U	ND U	0.2128
	060328-MW-2-32-102	28-Mar-06		0.0226	0.0538	0.0967	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.0617	0.0357	0.00943	0.0555	0.252	0.17	0.00943	0.75743
	061016-MW-2-32-107	16-Oct-06		0.056	0.065	0.046	0.0039 U	0.0043 U	0.0046 U	0.0041 U	0.0051 U	0.0053 U	0.0036 U	0.014 J	0.0036 U	0.0033 U	0.057	0.0062 J	0.018 J	ND U	0.2622
	2708-070712-MW-2-32-120	12-Jul-07		10.4 J	0.261 J	0.141 J	0.0199 J	0.0296 J	0.0226 J	0.0962 UJ	0.0235 J	0.0239 J	0.00622 J	0.0962 UJ	0.192 U	0.026 J	0.289 J	0.0962 UJ	0.101 J	0.15172	11.34372
	2708-080512-MW2-32-101	12-May-08		1.5	0.095	0.079	0.0063 J	0.0046 J	0.0063 J	0.0073 J	0.0025 U	0.005 J	0.0025 U	0.02	0.032	0.0063 J	0.045	0.037	0.24	0.0285	2.0838
MW-02-61	981116-MW2-61-04	16-Nov-98	50 - 60	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.33	0.1 U	0.1 U	ND U	0.33
	990216-MW2-61-006	16-Feb-99	(alluvial WBZ)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.37	0.1 U	0.1 U	ND U	0.37
	990512-MW2-61-05	12-May-99		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.54	0.1 U	0.1 U	ND U	0.54
	990823-MW2-61-07	23-Aug-99		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	991026-MW2-61-04	26-Oct-99		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	000328-MW2-61-104	28-Mar-00		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	001004-MW2-61-04	4-Oct-00		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	010328-MW2-61-104	28-Mar-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	011009-MW2-61-104	9-Oct-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	020403-MW2-61-103	3-Apr-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	020924-MW2-61-103	24-Sep-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	030318-MW2-61-104	18-Mar-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	030930-MW2-61-103 [7]	30-Sep-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	040813-MW2-61-002[7]	13-Aug-04		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U

Table 5b - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270-SIM or 8270C
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date/Time	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [8,9]																					
Fish Consumption																					
	EPA 2004 NRWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate			99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																					
	MCL [3]			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs			370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,9]																					
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	520 [4]	#	#	#	#	#	#	#	#	#	#	#	620 [4]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
MW-02-61	050926-MW-2-61-111	26-Sep-05		0.0283 U	0.00943 U	0.0124	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.0111	0.00943 U	0.00943 U	0.0189	0.00943 U	0.0189 U	ND U	0.0424
	060329-MW-2-61-104	29-Mar-06		0.0476 U	0.00952 U	0.0144 J	0.00952 U	0.00952 U	0.00952 U	0.0145 U	0.00952 U	0.00952 U	0.00952 U	0.0133 J	0.00952 U	0.00952 U	0.0437	0.0097 U	0.0223	ND U	0.0937
	061011-MW-2-61-101	11-Oct-06		0.0031 U	0.0023 U	0.0075 J	0.0039 U	0.0043 U	0.0046 U	0.0042 J	0.0051 U	0.0053 U	0.0036 U	0.0083 J	0.0036 U	0.0033 U	0.054	0.0072 J	0.0075 J	ND U	0.0887
	2708-070719-MW-2-61-128	19-Jul-07		0.098 U	0.098 U	0.098 U	0.0049 U	0.0049 U	0.0049 U	0.098 U	0.0049 U	0.0049 U	0.0049 U	0.098 U	0.098 U	0.0049 U	0.098 U	0.098 U	0.098 UJ	ND U	ND U
	2708-080512-MW2-61-100	12-May-08		0.0044 U	0.0034 U	0.015 J	0.0042 J	0.0043 U	0.0046 J	0.0054 J	0.0025 U	0.0035 J	0.0025 U	0.006 J	0.0038 U	0.0049 J	0.021	0.005 U	0.006 J	0.0172	0.0706
MW-2-104	2708-070712-MW-2-104-119	12-Jul-07	94 - 104	0.0962 UJ	0.0962 UJ	0.0962 UJ	0.00481 UJ	0.00481 UJ	0.00481 UJ	0.0962 UJ	0.00481 UJ	0.00481 UJ	0.00481 UJ	0.0962 UJ	0.0962 UJ	0.00481 UJ	0.248 J	0.0962 UJ	0.0962 UJ	ND U	0.248
	2708-080512-MW2-104-102	12-May-08	(alluvial WBZ)	0.0051 J	0.0034 U	0.0091 J	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0047 J	0.0026 U	0.11	0.0067 J	0.0035 U	ND U	0.1356
MW-03-26	951206-MW3-26-01	6-Dec-95	15 - 25	1.5	2.7	2.3	2.8	4.1	4.7	3.9	1.5	4.6	0.54	8.5	1.2	2.8	30.	4.7	9.4	21.04	85.24
	960318-MW3-26-02	18-Mar-96	(fill WBZ)	2.5	1.4	1.1	0.29	0.39	0.35	0.34	0.14	0.3	0.1 U	1.1	0.58	0.24	32.	0.36	1.3	1.71	42.39
	960618-MW3-26-01	18-Jun-96		5.5	2.6	1.5	0.49	0.56	0.47	0.42	0.17	0.55	0.1 U	1.3	1.3	0.31	30.	0.79	1.9	2.55	47.86
	961001-MW3-26-01	1-Oct-96		0.1 U	9.5	0.1 U	29.	47.	41.	34.	12.	30.	0.1 U	36.	0.1 U	23.	10.	8.6	54.	182.	334.1
	970225-MW3-26-01	25-Feb-97		0.79	0.32	0.1	0.78	1.3	1.1	1.1	0.36	0.59	0.1 U	1.2	0.18	0.81	0.97	0.39	1.9	4.94	11.89
	970827-MW3-26-01	27-Aug-97		1.3	1.7	1.1	4.1	7.7	5.7	5.6	2.	3.9	1. U	6.7	1. U	4.2	1. U	1.4	7.8	27.6	53.2
	980217-MW3-26-01	17-Feb-98		0.18	0.5	0.24	0.68	1.8	1.5	2.4	0.39	0.44	0.35	1.	0.1	1.9	0.39	0.27	1.3	7.06	13.44
	980602-MW3-26-09	2-Jun-98		0.3	1.6	1.5	13.	26.	24.	25.	5.7	11.	3.1	27.	0.47	17.	1.8	3.8	43.	99.8	204.27
	980826-MW3-26-08	26-Aug-98		10. U	19.	10. U	62.	160.	130.	120.	46.	76.	16.	90.	10. U	86.	26.	21.	130.	576.	982.
	981117-MW3-26-12	17-Nov-98		1. U	1.7	1. U	3.9	9.2	7.1	7.5	2.1	3.7	0.93	6.6	1. U	5.3	1.8	0.9	8.1	32.23	58.83
	990216-MW3-26-010	16-Feb-99		0.1 U	0.1 U	0.11	0.24	0.22	0.22	0.17	0.1 U	0.29	0.1 U	1.1	0.1 U	0.1 U	0.1 U	0.1 U	1.21	0.97	3.56
	990514-MW3-26-23	14-May-99		1.57	0.4	0.3	0.46	1.14	1.04	1.36	0.26	0.42	0.15	1.04	0.93	0.95	1.25	0.5	1.44	4.42	13.21
	990824-MW3-26-12	24-Aug-99		0.71	0.21	0.21	0.12	0.38	0.2	0.46	0.17	0.17	0.3	0.59	0.48	0.33	0.1 U	0.1 U	0.36	1.67	4.69
	991027-MW3-26-14	27-Oct-99		0.1 U	0.3	0.18	0.77	1.9	1.14	1.57	0.94	1.08	0.23	1.14	0.33	1.17	0.19	0.17	1.45	7.23	12.56
	000330-MW3-26-113	30-Mar-00		0.59	0.27	0.22	0.27	0.63	0.37	0.76	0.32	0.3	0.1 U	0.72	0.36	0.55	0.1 U	0.19	0.77	2.44	6.32
	001005-MW3-26-11	5-Oct-00		0.13	0.29	0.24	0.22	0.89	0.69	0.71	0.24	0.26	0.11	0.65	0.16	0.55	0.2	0.11	0.7	2.96	6.15
	010328-MW3-26-113	28-Mar-01		0.1	0.44	0.1 U	0.78	1.72	1.25	2.08	0.74	0.93	0.1 U	1.35	0.19	0.1 U	0.15	0.4	1.77	5.42	11.9
	040823-MW3-26-010[7]	23-Aug-04		0.005 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U	0.0632 J	0.05 U	0.1 U	0.05 U	0.0681 J	0.0808 J	ND U	0.2121
	050330-004[7]	30-Mar-05		0.05 U	0.0584 J	0.109	0.0925 J	0.17	0.137	0.165	0.0892 J	0.119	0.1 U	0.162	0.05 U	0.11	0.05 U	0.05 U	0.237	0.7177	1.4491
	050922-MW-3-26-105	22-Sep-05		0.0736	0.266	0.291	0.403	0.843	0.472	0.955	0.425	0.565	0.116	0.663	0.0495 U	0.588	0.578	0.23	1.63	3.412	8.0986
	060330-MW-3-26-110	30-Mar-06		0.107	0.104	0.39	0.0201	0.0399	0.0198 J	0.0523	0.0187 J	0.0254	0.01 U	0.082	0.0751	0.0315	0.289	0.0612	0.166	0.1554	1.482
	061017-MW-3-26-110	17-Oct-06		0.15	0.082	0.11	0.058	0.082	0.057	0.044	0.051	0.086	0.0049 J	0.15	0.035	0.041	0.051	0.022	0.33	0.3799	1.3539
	2708-070629-MW-3-26-119	29-Jun-07		21.6 J	4.9 UJ	4.9 UJ	2.85 J	3.13 J	1.92 J	4.9 UJ	2.09 J	3.67 J	0.349 J	14.4 J	9.67 J	1.7 J	2.25 UJ	16.8 J	24.4 J	15.709	102.579
	2708-080512-MW3-26-107	12-May-08		0.19	0.16	0.3	0.13	0.23	0.33	0.54	0.12	0.16	0.066	0.34	0.22	0.46	0.25	0.12	0.45	1.496	4.066
MW-03-56	951206-MW3-56-01	6-Dec-95	45 - 55	51.	46.	8.1	0.73	0.41	0.33	0.36	0.14	0.85	0.1 U	7.8	19.	0.23	1,200.	42.	7.8	2.69	1,384.75
	960319-MW3-56-01	19-Mar-96	(alluvial WBZ)	56.	70.	5.6	0.59	0.38	0.33	0.28	0.13	0.73	0.1 U	6.1	25.	0.18	1,700.	53.	8.3	2.34	1,926.62
	960620-MW3-56-01	20-Jun-96		47.	56.	6.4	0.45	0.26	0.22	0.21	0.1 U	0.51	0.1 U	5.8	27.	0.15	1,300.	39.	8.1	1.59	1,491.1
	961002-MW3-56-01	2-Oct-96		42.	62.	6.	0.27	0.1 U	0.1 U	0.1 U	0.1 U	0.27	0.1 U	6.7	27.	0.1 U	730.	58.	5.6	0.54	937.84
	970226-MW3-56-01	26-Feb-97		42.	51.	0.1 U	0.33	0.1 U	0.1 U	0.1 U	0.1 U	0.29	0.1 U	3.2	21.	0.1 U	440.	53.	7.5	0.62	618.32
	970828-MW3-56-01	28-Aug-97		21.	15.	7.3	0.28	0.13	0.13	0.1 U	0.1 U	0.28	0.1 U	7.	15.	0.1 U	85.	39.	5.4	0.82	195.52
	980218-MW3-56-01	18-Feb-98		25.	14.	3.7	0.28	0.1 U	0.1	0.1 U	0.1 U	0.2	0.1 U	4.8	13.	0.1 U	22.	41.	5.5	0.58	129.58
	980218-MW3-56-02	18-Feb-98		33.	17.	3.9	0.26	0.1 U	0.1 U	0.1 U	0.1 U	0.2	0.1 U	4.9	17.	0.1 U	26.	48.	5.3	0.46	155.56
	980602-MW3-56-14	2-Jun-98		57.	19.	12.	5.3	5.1	4.9	4.3	1.7	4.6	1. U	20.	28.	2.9	37.	86.	28.	24.5	315.8
	980602-MW3-56-15	2-Jun-98		54.	18.	12.	5.1	5.3	4.7	4.3	1.9	4.5	1. U	19.	28.	2.8	32.	86.	28.	24.3	305.6
	980826-MW3-56-12	26-Aug-98		37.	8.5	0.1 U	0.72	0.66	0.61	0.44	0.22	0.82	0.1 U	4.1	18.	0.31	16.	6.	8.2	3.34	101.58
	981118-MW3-56-16	18-Nov-98		35.	5.9	4.7	0.33	0.16	0.16	0.1 U	0.1 U	0.32	0.1 U	5.5	12.	0.1 U	9.3	40.	5.6	0.97	118.97
	981118-MW3-56-17	18-Nov-98		35.	6.2	4.5	0.29	0.1	0.11	0.1 U	0.1 U	0.27	0.1 U	5.4	12.	0.1 U	12.	40.	5.6	0.77	121.47
	990217-MW3-56-015	17-Feb-99		37.4	5.54	6.08	2.52	2.9	2.95	2.3	0.1 U	2.32	0.36	13.3	12.2	1.48	12.1	48.3	13.7	12.53	163.45
	990514-MW3-56-24	14-May-99		50.2	4.02	8.8	0.66	0.51	0.46	0.37	0.16	0.59	0.59	6.05	17.2	0.27	16.	44.8	6.53	3.24	157.21
	990824-MW3-56-16	24-Aug-99		33.	2.63	3.76	0.26	1. U	1. U	1. U	1. U	0.34	1. U	5.17	9.99	1. U	6.04	33.	5.47	0.6	99.66
	991028-MW3-56-17	28-Oct-99		35.4	2.49	4.59	0.27	0.1 U	0.1 U	0.1 U	0.1 U	0.32	0.1 U	5.32	11.4	0.1 U	4.35	29.5	5.34	0.59	98.98
	000330-MW3-56-117	30-Mar-00		36.4	2.93	7.16	0.87	0.73	0.43	0.58	0.38	1.	0.1 U	8.92	17.3	0.43	37.2	43.5	8.25	3.84	166.08
	001005-MW3-56-13	5-Oct-00		36.5	1.65	7.83	2.2	2.76	2.3	1.89	0.86	2.71	0.3	12.4	15.5	1.5	1.58	29.1	16.5	12.63	135.58
	010329-MW3-56-116	29-Mar-01		30.5	0.95	5.95	1.93	1.88	1.27	2.03	0.96	2.12	0.47	9.32	10.9	1.72	3.37	24.6	9.78	10.35	107.75
	020404-MW3-56-111	4-Apr-02		37.9	0.41	5.32	0.53	0.47	0.26	0.46	0.2	0.75	0.1 U	7.53	13.5	0.41	2.08	22.7	5.61	2.62	98.13
	030319-MW3-56-112[7]	19-Mar-03		38.	0.4	5.8	0.46	0.23	0.2	0.16	0.1 U	0.52	0.1 U	8.	12.	0.11	2.3	18.	8.2	1.52	94.38
	040823-MW3-56-011[7]	23-Aug-04		25.8	0.5 U	2.29	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1. U	6.76	10.2	0.5 U	0.554 J	3.94	6.62	ND U	56.164
	050330-003[7]	30-Mar-05		31.4	0.25 U	2.3	0.289	0.0597 J	0.5 U	0.05 U	0.5 U	0.312	0.1 U	6.08	10.7	0.5 U	1.16	7.63	6.29	0.6607	66.2207
	050922-MW-3-56-106	22-Sep-05		23.1	0.243 U	2.16	0.275	0.243 U	0.243 U	0.243 U	0.243 U	0.357	0.243 U	4.5	7.45	0.243 U	0.92	8.23	5.22	0.632	52.212
	060330-MW-3-56-111	30-Mar-06		43.1	0.388 U	2.88	0.442	0.218	0.159 U	0.193 J	0.115 J	0.57	0.0971 U	7.86	11.4	0.121 J	1.08	18.	9.29	1.466	95.269
	061024-MW-3-56-116	24-Oct-06		27.	1.5	3.	1.6	1.6	1.6	1.5	0.55	2.1	0.16 J	9.1	9.9	1.2	1.4	11.	12.	8.81	85.21
	2708-070626-MW-3-56-108	26-Jun-07		42.5 J	4.85 U	8.78	3.96	4.22	2.74	4.85 U	2.41	5.14	0.445	28.1	22.3	2.28	4.85 U	31.6	39.4 J	21.195	193.875
	2708-080512-MW3-56-106	12-May-08		19.	0.79	2.2	3.6	2.9	5.1	4.4	1.6	5.	0.54	20.	7.1	4.1	2.	14.	27.	22.84	119.33

Table 5b - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270-SIM or 8270C
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date/Time	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [8,9]																					
Fish Consumption																					
	EPA 2004 NRWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate			99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																					
	MCL [3]			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs			370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,9]																					
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	520 [4]	#	#	#	#	#	#	#	#	#	#	#	620 [4]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
MW-04-35	951206-MW4-35-01	6-Dec-95	24 - 34	13.	3.	2.5	0.34	0.1 U	0.1 U	0.1 U	0.1 U	0.35	0.1 U	9.7	6.1	0.1 U	2.	8.1	9.4	0.69	54.49
	960318-MW4-35-01	18-Mar-96	(fill WBZ)	35.	2.7	2.7	0.74	0.54	0.5	0.42	0.18	0.94	0.1 U	8.4	11.	0.28	3.2	7.9	9.9	3.18	84.4
	960318-MW4-35-02	18-Mar-96		34.	2.8	2.8	0.62	0.4	0.36	0.29	0.14	0.7	0.1 U	8.1	9.2	0.19	2.5	7.9	9.1	2.41	79.1
	960618-MW4-35-01	18-Jun-96		25.	3.5	2.	0.66	0.43	0.37	0.3	0.12	0.71	0.1 U	7.8	8.5	0.22	0.59	1.9	9.3	2.51	61.4
	961001-MW4-35-01	1-Oct-96		19.	2.	1.2	0.41	0.3	0.3	0.18	0.1	0.46	0.1 U	6.1	4.9	0.13	0.41	0.34	6.5	1.7	42.33
	970225-MW4-35-01	25-Feb-97		24.	2.6	0.78	0.22	0.1 U	0.1 U	0.1 U	0.1 U	0.19	0.1 U	5.	6.	0.1 U	1.2	0.36	5.3	0.41	45.65
	980827-MW4-57-01 [5]	27-Aug-97		16.	2.3	0.93	0.21	0.1 U	0.1	0.1 U	0.1 U	0.22	0.1 U	5.3	5.3	0.1 U	0.49	0.31	5.1	0.53	36.26
	980217-MW4-35-01	17-Feb-98		16.	2.1	0.47	0.15	0.1 U	0.1 U	0.1 U	0.1 U	0.1	0.1 U	4.1	3.9	0.1 U	1.1	0.13	3.8	0.25	31.85
	980601-MW4-35-06	1-Jun-98		20.	2.9	0.74	0.25	0.1 U	0.1 U	0.1 U	0.1 U	0.23	0.1 U	6.6	6.2	0.1 U	0.12	0.19	6.4	0.48	43.63
	980826-MW4-35-06	26-Aug-98		28.	2.6	1.6	0.58	0.64	0.63	0.43	0.21	0.64	0.1 U	7.2	8.	0.32	2.	0.6	7.4	3.02	60.85
	980826-MW4-35-07	26-Aug-98		29.	2.3	1.6	0.78	0.95	0.94	0.59	0.35	0.91	0.1 U	7.8	7.5	0.44	2.4	0.69	8.4	4.37	64.65
	981117-MW4-35-11	17-Nov-98		17.	1.9	1.3	0.91	1.2	1.1	0.97	0.33	0.96	0.13	6.1	5.8	0.69	0.84	5.1	6.5	5.32	50.83
	990216-MW4-35-009	16-Feb-99		9.33	1.12	0.69	0.21	0.1 U	0.1 U	0.1 U	0.1 U	0.19	0.1 U	3.57	2.65	0.1 U	1.87	0.1 U	3.78	0.4	23.41
	990514-MW4-35-21	14-May-99		11.6	1.25	0.5	0.18	0.1 U	0.1 U	0.1 U	0.1 U	0.14	0.1 U	3.74	2.77	0.1 U	0.43	0.1	4.12	0.32	24.83
	990824-MW4-35-11	24-Aug-99		14.9	2.28	0.81	0.24	0.19	0.12	0.16	0.121	0.31	0.1 U	4.47	3.91	0.12	0.86	0.18	4.59	1.101	33.261
	991027-MW4-35-13	27-Oct-99		36.1	1.96	2.89	1.17	1.11	0.74	0.87	0.63	1.34	0.12	11.8	12.2	0.64	5.79	8.43	11.6	5.75	97.39
	000330-MW4-35-114	30-Mar-00		19.7	2.54	1.15	0.21	0.1 U	0.1 U	0.1 U	0.1 U	0.21	0.1 U	6.03	6.29	0.1 U	2.46	1.33	5.34	0.42	45.26
	001005-MW4-35-10	5-Oct-00		54.4	2.38	3.56	3.42	4.99	4.25	3.27	1.56	4.6	0.54	17.5	17.8	2.36	17.2	6.67	18.	21.72	162.5
	010328-MW4-35-112	28-Mar-01		9.92	0.82	0.49	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.2	0.1 U	3.56	3.18	0.1 U	2.76	1.08	3.34	0.4	25.55
	040823-MW4-35-012[7]	23-Aug-04		32.8	1.39	1.02	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1. U	7.46	11.4	0.5 U	1.44	2.46	7.36	ND U	65.33
	050331-005[7]	31-Mar-05		5.24	0.33	0.185	0.106	0.05 U	0.1 U	0.05 U	0.1 U	0.104	0.1 U	2.29	1.41	0.05 U	0.0781 J	0.05 U	2.19	0.21	11.9331
	050928-MW-4-35-123	28-Sep-05		24.3	0.778	0.634	0.115	0.057	0.051 U	0.051 U	0.051 U	0.129	0.051 U	2.71	5.36	0.051 U	0.786	0.357	2.71	0.301	37.936
	060331-MW-4-35-113	31-Mar-06		21.8	0.0595	0.249	0.13	0.0822 J	0.0569 J	0.0639 U	0.0481 U	0.167	0.0481 U	2.9	3.33	0.0481 U	0.117	0.086 J	3.01	0.4361	31.9876
	061018-MW-4-35-113	18-Oct-06		34.	2.9	2.6	0.38	0.26	0.42	0.21	0.02 U	0.43	0.031 U	4.6	9.8	0.17 J	2.4	2.4	4.8	1.66	65.37
	2708-070726-MW-4-35-137	26-Jul-07		11.2 J	1.02	0.528	0.143	0.0426	0.0372	0.0971 U	0.0265	0.168	0.00485 U	1.95	2.21	0.0108	0.285	0.139	2.72 J	0.4281	20.4801
	2708-080513-MW4-35-112	13-May-08		38.	0.88	0.77	0.33	0.31	0.31	0.24	0.1	0.39	0.036	3.1	8.5	0.21	0.38	0.86	3.5	1.686	57.916
	2708-080513-MW4-35-113 (DUP)	13-May-08		34.	0.84	0.7	0.29	0.26	0.27	0.2	0.085	0.33	0.027	2.9	8.	0.17	0.33	0.66	3.2	1.432	52.262
MW-04-57	951205-MW4-57-01	5-Dec-95	46 - 56	49.	2.2	5.8	0.56	0.21	0.22	0.14	0.1 U	0.65	0.1 U	7.8	11.	0.09	1,200.	42.	8.6	1.73	1,328.27
	960321-MW4-57-01	21-Mar-96	(alluvial WBZ)	35.	1.9	4.9	0.59	0.35	0.34	0.27	0.12	0.71	0.1 U	6.9	9.2	0.18	1,000.	31.	6.3	2.29	1,097.76
	960620-MW4-57-01	20-Jun-96		39.	2.8	4.1	0.45	0.21	0.19	0.15	0.1 U	0.46	0.1 U	6.5	10.	0.11	540.	34.	8.5	1.42	646.47
	961002-MW4-57-01	2-Oct-96		48.	5.6	4.7	0.35	0.1 U	0.1 U	0.1 U	0.1 U	0.29	0.1 U	7.2	7.6	0.1 U	1,600.	27.	6.1	0.64	1,706.84
	970226-MW4-57-01	26-Feb-97		39.	3.3	3.4	0.3	0.1 U	0.1 U	0.1 U	0.1 U	0.22	0.1 U	6.2	6.	0.1 U	1,600.	24.	6.	0.52	1,688.42
	970828-MW4-35-01 [5]	28-Aug-97		49.	2.9	2.6	0.24	0.1 U	0.1 U	0.1 U	0.1 U	0.2	0.1 U	4.3	4.3	0.1 U	1,600.	24.	4.2	0.44	1,691.74
	980218-MW4-57-01	18-Feb-98		45.	2.	1.6	0.17	0.1 U	0.1 U	0.1 U	0.1 U	0.11	0.1 U	3.6	3.4	0.1 U	2,280.	19.	3.	0.28	2,357.88
	980603-MW4-57-18	3-Jun-98		51.	2.4	3.1	0.35	0.1 U	0.1 U	0.1 U	0.1 U	0.32	0.1 U	6.1	5.9	0.1 U	2,200.	23.	6.7	0.67	2,298.87
	980826-MW4-57-13	26-Aug-98		43.	2.2	1.7	0.22	0.1 U	0.1 U	0.1 U	0.1 U	0.22	0.1 U	3.5	3.7	0.1 U	2,400.	13.	3.7	0.44	2,471.24
	981119-MW4-57-20	19-Nov-98		42.	1.7	1.7	0.18	0.1 U	0.1 U	0.1 U	0.1 U	0.16	0.1 U	3.	3.3	0.1 U	1,900.	13.	2.9	0.34	1,967.94
	990217-MW4-57-016	17-Feb-99		26.2	1.15	1.4	0.18	0.1 U	0.1 U	0.1 U	0.1 U	0.14	0.1 U	2.57	2.36	0.1 U	1,530.	8.69	2.59	0.32	1,575.28
	990514-MW4-57-22	14-May-99		- U	1.32	1.89	0.22	0.1 U	0.1 U	0.1 U	0.1 U	0.17	0.1 U	3.44	3.13	0.1 U	1,660.	10.7	3.45	0.39	1,684.32
	990825-MW4-57-17	25-Aug-99		34.	1.11	1.48	0.19	1. U	0.1 U	0.1 U	1. U	0.21	1. U	3.17	2.7	1. U	2,250.	9.46	3.08	0.4	2,305.4
	991028-MW4-57-21	28-Oct-99		42.	20. U	20. U	20. U	20. U	0.1 U	0.1 U	20. U	20. U	20. U	20. U	20. U	20. U	1,650.	20. U	20. U	ND U	1,692.
	000403-MW4-57-121	3-Apr-00		38.8	1.42	2.34	0.24	0.1 U	0.1 U	0.1 U	0.1 U	0.23	0.1 U	3.95	3.21	0.1 U	2,700.	12.	3.55	0.47	2,765.74
	001006-MW4-57-19	6-Oct-00		32.	1.61	0.9	0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.18	0.1 U	1.88	2.2	0.1 U	2,450.	6.31	2.83	0.38	2,498.11
	010329-MW4-57-120	29-Mar-01		32.6	1.35	1.43	0.23	0.1 U	0.1 U	0.1 U	0.1 U	0.2	0.1 U	2.52	3.08	0.1 U	3,010.	9.47	2.47	0.43	3,063.35
	020405-MW4-57-117	5-Apr-02		20.	0.86	0.74	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.11	0.1 U	1.22	1.78	0.1 U	2,220.	4.14	1.01	0.21	2,249.96
	030320-MW4-57-117	20-Mar-03		28.	2. U	2. U	2. U	2. U	0.1 U	2. U	2. U	2. U	2. U	2. U	2. U	2. U	2,200.	5.4	2. U	ND U	2,233.4
	040824-MW4-57-016[7]	24-Aug-04		42.1	5. U	5. U	0.275	0.207	0.168 J	5. U	0.167 J	0.275	0.2 U	5. U	5. U	0.113 J	3,780.	5. U	5. U	1.205	3,823.305
	050331-008[7]	31-Mar-05		43.2	1.66	0.919 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1. U	1.94	3.08	0.5 U	2,850.	6.08	2.16	ND U	2,909.039
	051003-MW4-57-133	3-Oct-05		74.7	1.23	1.61	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2.06	4.06	0.5 U	178.	7.46	2.51	ND U	271.63
	060331-MW-4-57-114	31-Mar-06		136.	1.23	0.884 J	0.481 U	0.481 U	0.481 U	0.481 U	0.481 U	0.536 J	0.481 U	1.63	10.6	0.481 U	393.	5.37	2.39	0.536	551.64
	061030-MW-4-57-122	30-Oct-06		120.	3.9	3.6	0.26 J	0.2 J	0.096 U	0.082 U	0.096 U	0.26 J	0.16 U	1.9	14.	0.12 U	650.	9.8	2.2	0.72	806.12
	2708-070622-MW-4-57-101	22-Jun-07		20.2 J	0.971 U	0.971 U	0.24	0.151	0.113	0.971 U	0.0891	U	0.0485 U	3.75	5.39	0.0688	0.971 U	0.971 U	3.69 J	0.6619	33.6919
	2708-080513-MW4-57-111	13-May-08		140.	1.7	2.6	0.97	0.89	0.93	0.67	0.31	1.1	0.1	1.7	13.	0.64	750.	13.	3.2	4.94	930.81
MW-04-101	981117-MW4-101-09	17-Nov-98	89.5 - 99.5	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	20.	0.1 U	0.1 U	ND U	20.
	990216-MW4-101-007	16-Feb-99	(alluvial WBZ)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	8.3	0.1 U	0.1 U	ND U	8.3
	990514-MW4-101-19	14-May-99		0.21	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	68.1	0.1 U	0.1 U	ND U	68.31
	990514-MW4-101-20	14-May-99		0.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	62.3	0.1 U	0.1 U	ND U	62.5
	990824-MW4-101-09	24-Aug-99		0.64	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	190.	0.1 U	0.1 U	ND U	190.64
	991027-MW4-101-11	27-Oct-99		0.65	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	166.	0.1 U	0.1 U	ND U	166.65
	000329-MW4-101-111	29-Mar-00		0.97	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	20.6	0.1 U	0.1 U	ND U	21.57
	001005-MW4-101-09	5-Oct-00		0.72	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.64	0.1 U	0.1 U	ND U	1.36
	010328-MW4-101-110	28-Mar-01		0.56	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.58	0.1 U	0.1 U	ND U	1.14
	011009-MW4-101-103	9-Oct-01		0.47	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.71	0.1 U	0.1 U	ND U	1.18
	020404-MW4-101-110	4-Apr-02		0.1 U	0.51	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	5.46	0.1 U	0.1 U	ND U	5.97
	020924-MW4-101-102	24-Sep-02		0.63	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	12.	0.1 U	0.1 U	ND U	12.63
	030318-MW4-101-109	18-Mar-03		0.63	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	15.	0.1 U	0.1 U	0.1 U	0.1 U	ND U	15.63
	030930-MW4-101-105 [7]	30-Sep-03		0.59	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	14.	0.1 U	0.1 U	ND U	14.59
	040816-MW4-101-007[7]	16-Aug-04		0.541	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	26.2	0.1 U	0.1 U	ND U	26.741

Table 5b - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270-SIM or 8270C
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date/Time	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [8,9]																					
Fish Consumption																					
	EPA 2004 NRWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate			99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																					
	MCL [3]			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs			370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,9]																					
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	520 [4]	#	#	#	#	#	#	#	#	#	#	#	620 [4]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
MW-04-101	50330-002[7]	30-Mar-05		0.776	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U	15.9	0.05 U	0.05 U	ND U	16.676
	050928-MW4-101-122	28-Sep-05		0.539	0.0204 U	0.0204 U	0.0204 U	0.0204 U	0.0204 U	0.0204 U	0.0204 U	0.0204 U	0.0204 U	0.0204 U	0.0208 J	0.0204 U	6.77	0.0204 U	0.0408 U	ND U	7.3298
	060329-MW-4-101-106	29-Mar-06		0.943	0.066 U	0.0377 U	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.00943 U	0.0388	0.00943 U	9.61	0.0189 U	0.0189 U	ND U	10.5918
	061018-MW-4-101-112	18-Oct-06		0.67	0.034	0.0092 J	0.0039 U	0.0054 J	0.0046 U	0.0051 J	0.0051 U	0.0053 U	0.0036 U	0.034	0.027	0.0038 J	5.5	0.013 J	0.014 J	0.0092	6.3155
	2708-070625-MW-4-101-106	25-Jun-07		0.211 J	0.099 U	0.198 U	0.00495 U	0.00774	0.00581	0.099 U	0.00583	0.00834	0.00495 U	0.198 U	0.099 U	0.00611	1.18	0.198 U	0.099 U	0.03383	1.42483
	2708-080513-MW4-101-114	13-May-08		0.52	0.054	0.071	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.049	0.0031 J	2.5	0.016 J	0.027	0.0031	3.2401
MW-05-32	951205-MW5-32-01	5-Dec-95	21 - 31	12.	9.2	18.	1.8	1.1	1.	0.9	0.41	2.6	0.12	15.	28.	0.56	11.	88.	18.	7.59	207.69
	960319-MW5-32-01	19-Mar-96	(fill/alluvial WBZ)	4.2	2.1	20.	5.7	5.5	4.7	4.8	1.7	8.5	0.61	44.	10.	3.1	1.	100.	53.	29.81	268.91
	960319-MW5-32-01 (dissolved)	19-Mar-96		2.5	1.1	4.4	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.96	5.3	0.1 U	0.61	29.	1.1	ND U	44.97
	960620-MW5-32-01	20-Jun-96		2.	1.1	9.2	2.6	2.7	2.2	2.3	0.93	3.4	0.34	12.	2.1	1.5	0.42	20.	20.	13.67	82.79
	961001-MW5-32-01	1-Oct-96		10. U	10. U	47.	50.	63.	55.	56.	18.	51.	10. U	160.	10. U	40.	10. U	83.	150.	277.	773.
	970225-MW5-32-01	25-Feb-97		0.16	0.1 U	0.95	0.32	0.16	0.19	0.12	0.1 U	0.33	0.1 U	3.	0.23	0.1 U	0.16	0.29	3.8	1.	9.71
	970827-MW5-32-01	27-Aug-97		1. U	1. U	1. U	2.	2.4	1.9	1.8	1. U	2.7	1. U	5.8	1. U	1.4	1. U	1. U	6.3	10.4	24.3
	980217-MW-5-32-01	17-Feb-98		0.1 U	0.1	0.19	0.57	0.67	0.55	0.62	0.19	0.65	0.11	1.5	0.1 U	0.49	0.1 U	0.23	1.7	3.23	7.57
	980602-MW5-32-10	2-Jun-98		1.2	0.47	1.6	7.	7.6	7.	6.3	1.9	7.	0.91	20.	0.57	4.3	0.67	4.2	24.	35.71	94.72
	980826-MW5-32-09	26-Aug-98		1. U	4.5	8.5	42.	56.	53.	36.	17.	58.	5.8	91.	1.2	27.	3.4	17.	120.	258.8	540.4
	981118-MW5-32-13	18-Nov-98		0.1 U	0.1 U	0.1 U	0.27	0.27	0.26	0.21	0.1	0.37	0.1 U	1.4	0.1 U	0.15	0.1 U	0.1 U	1.7	1.42	4.73
	990216-MW5-32-011	16-Feb-99		0.1 U	0.1 U	0.18	0.51	0.57	0.51	0.41	0.1 U	0.61	0.14	1.66	0.1 U	0.23	0.1 U	0.17	1.9	2.57	6.89
	990514-MW5-32-17	14-May-99		0.1 U	0.1 U	0.1 U	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.11	0.59	0.1 U	0.1 U	0.1 U	0.95	0.1 U	0.63	0.8	2.38
	990824-MW5-32-13	24-Aug-99		0.1 U	0.19	0.33	1.43	1.69	0.93	1.79	0.93	2.08	0.47	4.03	0.1 U	1.29	0.12	0.51	5.36	8.82	21.15
	991027-MW5-32-15	27-Oct-99		0.1 U	0.12	0.2	1.19	1.33	0.79	1.07	0.73	1.68	0.16	3.2	0.1 U	0.8	0.1 U	0.32	4.57	6.68	16.16
	000330-MW5-32-115	30-Mar-00		0.1 U	0.12	0.18	0.72	0.93	0.58	0.83	0.49	1.	0.12	1.41	0.1 U	0.61	0.1 U	0.27	1.71	4.45	8.97
	001005-MW5-32-12	5-Oct-00		0.1 U	0.1 U	0.12	0.28	0.37	0.34	0.25	0.11	0.37	0.1 U	0.54	0.1 U	0.19	0.1 U	0.1 U	0.73	1.66	3.3
	010329-MW5-32-114	29-Mar-01		0.1 U	0.2	0.4	1.61	1.94	1.33	1.75	1.12	2.12	0.52	2.63	0.1 U	1.48	0.13	0.61	3.81	10.12	19.65
	040816-MW5-32-008[7]	16-Aug-04		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.269	ND U	0.269
	050401-011[7]	1-Apr-05		0.05 B	0.183	0.483	0.255	0.33	0.199	0.302	0.219	0.38	0.1 U	0.442	0.1 U	0.207	0.136 B	0.107 B	1.17	1.59	4.463
	050927-MW-5-32-117	27-Sep-05		0.1 U	0.31	0.587	2.06	2.1	1.31	1.82	1.35	2.86	0.263	4.05	0.103	1.17	0.999	0.863	7.01	11.113	26.855
	060329-MW-5-32-107	29-Mar-06		0.0962 U	0.212	0.4	0.919	1.08	0.677	1.03	0.598	1.31	0.142 J	1.58	0.0962 U	0.65	0.192 U	0.339	3.	5.376	11.937
	061018-MW-5-32-114	18-Oct-06		0.028 J	0.96	1.5	0.22	0.21	0.24	0.19 J	0.086 J	0.26	0.031 U	0.31	0.072 J	0.18 J	0.068 J	0.083 J	0.93	1.196	5.337
	2708-070625-MW-5-32-104	25-Jun-07		1.92 U	1.92 U	1.92 U	1.19	1.1	0.775	1.92 U	0.693	1.78	0.119	2.12	1.92 U	0.582	4.63	1.92 U	4.22 J	6.239	17.209
	2708-080514-MW5-32-118	14-May-08		0.0099 J	0.19	0.34	0.84	0.72	1.3	1.	0.44	1.2	0.13	1.4	0.061	0.94	0.24	0.28	2.5	5.57	11.5909
MW-05-100	981118-MW5-100-14	18-Nov-98	88 - 98	7.2	6.2	1.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1.1	2.7	0.1 U	7,100.	7.2	1.2	ND U	7,126.7
	990217-MW5-100-018	17-Feb-99	(alluvial WBZ)	6.34	3.52	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1.47	2.14	0.1 U	5,010.	7.87	1.39	ND U	5,032.73
	990514-MW5-100-18	14-May-99		12.3	1.6	1.3	0.1 U	1. U	0.1 U	1. U	0.1 U	1. U	1. U	16.3	1.73	1. U	7,440.	6.9	2.	ND U	7,482.13
	990825-MW5-100-18	25-Aug-99		18.	1.	1.	0.1 U	1. U	0.1 U	1. U	0.1 U	1. U	1. U	1.9	1.7	1. U	13,300.	6.7	1. U	ND U	13,330.3
	991028-MW5-100-19	28-Oct-99		12.9	0.4	0.67	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1.29	0.96	0.1 U	7,450.	4.28	1.29	ND U	7,471.79
	000330-MW5-100-119	30-Mar-00		15.7	0.32	0.77	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1.43	1.01	0.1 U	9,800.	4.42	1.31	0.1	9,825.06
	001006-MW5-100-15	6-Oct-00		0.1 U	0.31	0.27	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.64	0.68	0.1 U	10,100.	1.49	0.64	ND U	10,104.03
	001006-MW5-100-16	6-Oct-00		15.	0.26	0.25	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.52	0.58	0.1 U	9,200.	1.27	0.53	ND U	9,218.41
	010329-MW5-100-118	29-Mar-01		19.8	2. U	2. U	0.1 U	2. U	0.1 U	2. U	2. U	2. U	2. U	2. U	2. U	2. U	9,600.	2. U	2. U	ND U	9,619.8
	020405-MW5-100-114	5-Apr-02		17.5	1. U	1. U	0.1 U	1. U	0.1 U	1. U	1. U	1. U	1. U	1. U	1. U	1.1	82,300.	1. U	0.1 U	1.1	82,318.6
	020405-MW5-100-115	5-Apr-02		8.9	0.1 U	0.14	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.14	0.36	0.49	0.11	4,310.	0.81	0.33	0.25	4,321.28
	030319-MW5-100-114	19-Mar-03		14.	2. U	2. U	0.1 U	2. U	0.1 U	2. U	2. U	2. U	2. U	2. U	2. U	2. U	5,600.	2. U	2. U	ND U	5,614.
	040824-MW5-100-015[7]	24-Aug-04		21.9	2.5 U	2.5 U	0.1 U	0.1 U	0.1 U	2.5 U	0.1 U	0.1 U	0.2 U	2.5 U	2.5 U	0.1 U	11,900.	2.5 U	2.5 U	ND U	11,921.9
	050401-012[7]	1-Apr-05		21.3 B	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5. U	2.5 U	2.5 U	2.5 U	8,730. B	2.5 B	2.5 U	ND U	8,753.8
	050921-MW-5-100-102	21-Sep-05		18.5	0.962 U	0.0888	0.0178	0.00962 U	0.00962 U	0.00962 U	0.00962 U	0.0191	0.00962 U	0.126	0.962 U	0.00962 U	6,530.	0.314	0.164	0.0369	6,549.2297
	060404-MW-5-100-121	4-Apr-06		18.6	0.962 U	0.962 U	0.926 U	0.962 U	0.962 U	0.962 U	0.962 U	0.962 U	0.962 U	0.962 U	0.962 U	0.962 U	8,390.	0.962 U	1.92 U	ND U	8,408.6
	061027-MW-5-100-120	27-Oct-06		17. J	1.1 U	1.5 U	1.2 U	1.6 U	2. U	1.7 U	2. U	1.4 U	3.1 U	1.3 U	1.2 U	2.4 U	7,100.	1.1 U	1.5 U	ND U	7,117.
	2708-070625-MW-5-100-103	25-Jun-07		47.6 U	47.6 U	47.6 U	2.38 U	2.38 U	2.38 U	47.6 U	2.38 U	2.38 U	2.38 U	47.6 U	47.6 U	2.38 U	7,320.	47.6 U	47.6 U	ND U	7,320.
	2708-080514-MW5-100-119	14-May-08		16.	0.09 U	0.093 U	0.011 J	0.0047 J	0.0049 J	0.0029 U	0.003 J	0.0087 J	0.0025 U	0.046	0.51	0.0026 U	7,800.	0.083	0.064	0.0323	7,816.7353
MW-05-175	981116-MW5-175-07	16-Nov-98	163 - 173	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	990215-MW5-175-003	15-Feb-99	(alluvial WBZ)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	990512-MW5-175-07	12-May-99		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	990823-MW5-175-03	23-Aug-99		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2	0.1 U	0.1 U	ND U	0.2
	991026-MW5-175-06	26-Oct-99		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	000329-MW5-175-106	29-Mar-00		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	001004-MW5-175-05	4-Oct-00		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	010328-MW5-175-105	28-Mar-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	011009-MW5-175-102	9-Oct-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	020404-MW5-175-105	4-Apr-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	020924-MW5-175-101	24-Sep-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	030318-MW5-175-105	18-Mar-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	030929-MW5-175-101	29-Sep-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U

Table 5b - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270-SIM or 8270C
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date/Time	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [8,9]																					
Fish Consumption																					
	EPA 2004 NRWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate			99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																					
	MCL [3]			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs			370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,9]																					
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	520 [4]	#	#	#	#	#	#	#	#	#	#	#	620 [4]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
MW-05-175	040824-MW5-175-013	24-Aug-04		0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U	0.0883 J	0.05 U	0.05 U	ND U	0.0883
	050921-MW-5-175-101	21-Sep-05		0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0098 U	0.0894	0.0098 U	0.0196 U	ND U	0.0894
	060329-MW-5-175-105	29-Mar-06		0.00952 U	0.00952 U	0.00952 U	0.00952 U	0.00952 U	0.00952 U	0.00952 U	0.00952 U	0.00952 U	0.00952 U	0.00952 U	0.00952 U	0.00952 U	0.0796	0.00952 U	0.019 U	ND U	0.0796
	061016-MW-5-175-05	16-Oct-06		0.0031 U	0.0023 U	0.0039 U	0.0039 U	0.0043 U	0.0046 U	0.0041 U	0.0051 U	0.0053 U	0.0036 U	0.0047 U	0.0036 U	0.0033 U	0.047	0.0032 U	0.0047 U	ND U	0.047
	2708-070625-MW-5-175-105	25-Jun-07		0.1 U	0.1 U	0.1 U	0.005 U	0.0056	0.00756	0.1 U	0.0055	0.0052	0.005 U	0.1 U	0.1 U	0.00632	0.114	0.1 U	0.1 U	0.03018	0.14418
	2708-080514-MW5-175-116	14-May-08		0.0044 U	0.0034 U	0.0036 U	0.0049 J	0.0043 U	0.0048 J	0.0047 J	0.0025 U	0.004 J	0.0025 U	0.0077 J	0.0038 U	0.0048 J	0.076	0.0087 J	0.0085 J	0.0185	0.1241
MW-06-32	951207-MW6-32-01	7-Dec-95	21 - 31	23,000.	220.	14,000.	2,400.	690.	750.	280.	280.	3,100.	50.	22,000.	4,600.	200.	42,000.	61,000.	25,000.	7,470.	199,570.
	960319-MW6-32-01	19-Mar-96	(fill WBZ)	280.	2.6	24.	1.9	0.79	0.85	0.3	0.3	2.5	0.1 U	16.	61.	0.22	1,800.	140.	16.	6.56	2,346.46
	960319-MW6-32-01 (dissolved)	19-Mar-96		220.	2.	5.1	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1.3	42.	0.1 U	1,600.	68.	1.7	ND U	1,940.1
	960617-MW6-32-01	17-Jun-96		310.	2.4	29.	4.5	2.5	2.4	0.9	0.87	5.	0.23	27.	82.	0.74	1,200.	170.	40.	16.24	1,877.54
	960930-MW6-32-01	30-Sep-96		620.	7.8	190.	66.	29.	32.	6.4	12.	63.	1.5	320.	210.	0.1 U	1,900.	970.	330.	203.5	4,757.7
	970225-MW6-32-01	25-Feb-97		260.	2.7	13.	2. U	2. U	2. U	2. U	2. U	2. U	2. U	2. U	64.	2. U	830.	130.	8.5	ND U	1,308.2
	970826-MW6-32-01	26-Aug-97		350.	5. U	29.	4.4	2.2	2.2	0.65	0.82	4.8	0.5 U	33.	97.	0.58	1,300.	220.	25.	15.	2,069.65
	980216-MW6-32-01	16-Feb-98		560.	7.1	96.	48.	24.	27.	9.2	7.	47.	1.7	220.	170.	7.2	1,200.	840.	290.	161.9	3,554.2
	980601-MW6-32-04	1-Jun-98		410.	10. U	50.	6.2	2.6	3.	0.98	0.85	6.4	0.19	38.	100.	0.74	1,300.	280.	46.	19.98	2,244.96
MW-06-61	951206-MW6-61-01	6-Dec-95	50 - 60	160.	1.4	29.	2.7	0.73	0.77	0.32	0.34	3.4	0.1 U	24.	48.	0.23	250.	200.	24.	8.17	744.89
	960319-MW6-61-01	19-Mar-96	(alluvial WBZ)	29.	0.24	9.6	1.1	0.33	0.33	0.13	0.13	1.4	0.1 U	13.	9.7	0.1 U	66.	53.	13.	3.29	196.96
	960620-MW6-61-01	20-Jun-96		21.	0.3	6.1	1.4	0.5	0.48	0.21	0.25	1.5	0.1 U	9.9	7.5	0.14	44.	30.	16.	4.27	139.28
	961001-MW6-61-01	1-Oct-96		16.	1. U	4.8	2.	1. U	1. U	1. U	1. U	1.8	1. U	9.9	5.4	1. U	76.	25.	12.	3.8	152.9
	970225-MW6-61-01	25-Feb-97		32.	2. U	4.	2. U	2. U	2. U	2. U	2. U	2. U	2. U	3.5	7.7	2. U	290.	23.	4.9	ND U	365.1
	970828-MW6-61-01	28-Aug-97		210.	2.4	17.	1.5	0.62	0.66	0.22	0.23	1.7	0.1 U	17.	47.	0.17	1,000.	130.	23.	4.88	1,451.5
MW-08-29	951207-MW8-29-01	7-Dec-95	18 - 28	94.	200.	110.	65.	44.	34.	36.	16.	81.	50.	230.	83.	25.	6,000.	400.	220.	315.	7,688.
	960321-MW8-29-01	21-Mar-96	(fill WBZ)	140.	260.	56.	28.	31.	23.	23.	9.8	33.	2.9	98.	89.	16.	6,700.	270.	100.	143.7	7,879.7
	960620-MW8-29-01[7]	20-Jun-96		100.	310.	15.	1.2	1.1	0.88	0.88	0.3	1.2	0.12	15.	70.	0.61	1,400.	150.	21.	5.41	2,087.29
	960620-MW8-29-02	20-Jun-96		26.	49.	5.1	2.5	3.	2.4	2.3	0.82	2.7	0.3	9.4	14.	1.6	2,000.	32.	15.	13.32	2,166.12
	961002-MW8-29-01	2-Oct-96		120.	240.	29.	5.4	6.2	4.4	4.5	1.6	4.8	1. U	30.	71.	3.5	5,400.	140.	26.	25.9	6,086.4
	970226-MW8-29-01	26-Feb-97		120.	250.	17.	3.1	2.	2.1	1. U	1. U	2.7	1. U	22.	52.	1. U	5,600.	110.	23.	9.9	6,203.9
	970828-MW8-29-01	28-Aug-97		370.	230.	56.	32.	39.	29.	25.	11.	38.	4.7	150.	120.	18.	10,000.	380.	210.	171.7	11,712.7
	980218-MW8-29-01	18-Feb-98		340.	110.	13.	4.3	4.9	3.7	4.	1.2	4.1	0.69	24.	65.	3.3	11,000.	150.	32.	22.19	11,760.19
	980603-MW8-29-19	3-Jun-98		420.	130.	51.	37.	45.	37.	30.	13.	39.	3.8	140.	120.	21.	10,700.	440.	180.	195.8	12,406.8
	981119-MW8-29-22	19-Nov-98		190.	85.	15.	2.2	2.6	1.9	1.8	0.69	2.3	0.22	17.	47.	1.2	4,900.	91.	19.	11.11	5,376.91
	990513-MW8-29-14	13-May-99		311.	31.2	262.	2.57	2.13	1.98	1.39	0.64	2.21	0.19	21.	64.5	1.01	5,580.	133.	30.	10.73	6,444.82
	991029-MW8-29-23	29-Oct-99		210.	42.	28.	20. U	20. U	20. U	20. U	20. U	20. U	20. U	20.	54.	20. U	2,790.	138.	20.	ND U	3,302.
	000403-MW8-29-123	3-Apr-00		320.	6.46	20.1	1.78	1.47	0.93	0.75	0.79	1.66	0.14	18.3	68.7	0.65	6,550.	143.	23.5	7.42	7,158.23
	010330-MW8-29-123	30-Mar-01		173.	4.84	22.6	8.97	10.	6.4	6.48	5.16	10.9	1.93	31.2	47.	5.76	1,770.	151.	36.	49.12	2,291.24
	040825-MW8-29-022[7]	25-Aug-04		234.	2.82	16.1	7.49	8.19	4.95	6.01	4.24	9.56	1. U	27.8	56.6	4.09	2,520.	136.	34.6	38.52	3,072.45
	050929-MW8-29-127	29-Sep-05		331.	3.61	25.1	5.32	5.16	2.54	4.11	2.46	9.96	0.563	28.7	54.8	2.64	4,960.	117.	39.9	28.643	5,592.863
	061031-MW-8-29-124	31-Oct-06		160.	21.	21.	2. J	2.3 J	0.96 U	1.7 J	0.96 U	2.8 J	1.6 U	17.	38.	1.6 J	1,900.	79.	19.	8.7	2,265.4
	2708-080603-MW8-29-100	3-Jun-08		180.	5.6	15.	3.8	4.2	4.	3.	1.1	4.8	0.42	22.	53.	2.9	2,200.	93.	31.	21.22	2,623.82
MW-08-56	951207-MW8-56-01	7-Dec-95	45 - 55	130.	250.	53.	25.	17.	14.	15.	60.	30.	2. U	110.	86.	10.	20,000.	290.	110.	156.	21,200.
	960321-MW8-56-01	21-Mar-96	(alluvial WBZ)	220.	300.	110.	68.	74.	66.	60.	23.	83.	7.1	200.	130.	40.	13,300.	580.	240.	361.1	15,501.1
	960620-MW8-56-01 [6]	20-Jun-96		28.	66.	9.8	6.6	7.9	5.7	6.	2.2	7.3	0.81	21.	17.	4.3	1,500.	56.	30.	34.81	1,768.61
	961002-MW8-56-01	2-Oct-96		120.	230.	42.	26.	27.	24.	20.	10. U	22.	10. U	92.	74.	15.	10,700.	250.	100.	114.	11,742.
	970226-MW8-56-01	26-Feb-97		120.	240.	34.	20. U	20. U	20. U	20. U	20. U	20. U	20. U	34.	60.	20. U	13,000.	160.	44.	ND U	13,692.
	970828-MW8-56-01	28-Aug-97		160.	240.	16.	4.1	4.4	3.7	3.	1.4	4.1	1. U	24.	80.	2.3	17,400.	170.	28.	20.	18,141.
	980218-MW8-56-01	18-Feb-98		130.	220.	18.	2.6	2.4	2.	1.7	0.58	1.8	0.3	20.	67.	1.5	12,300.	150.	27.	11.18	12,944.88
	980603-MW8-56-21	3-Jun-98		190.	310.	31.	13.	15.	13.	11.	5.	13.	1.3	61.	100.	7.5	16,600.	280.	69.	67.8	17,719.8
	981119-MW8-56	19-Nov-98		130.	180.	15.	10. U	10. U	10. U	10. U	10. U	10. U	10. U	12.	64.	10. U	10,500.	110.	13.	ND U	11,024.
	990513-MW8-56-15	13-May-99		128.	168.	10.2	1. U	1. U	1. U	1. U	1. U	1. U	1. U	9.2	52.3	1. U	11,500.	88.2	9.9	ND U	11,965.8
	991029-MW8-56-24	29-Oct-99		148.	179.	19.1	0.97	0.81	0.52	0.56	0.45	1.04	- U	8.94	58.8	0.44	12,000.	110.	8.54	4.23	12,537.17
	000403-MW8-56-124	3-Apr-00		188.	207.	50.	12.2	11.1 U	11.	11.1 U	11.1 U	18.9	11.1 U	66.7	82.2	11.1 U	13,000.	294.	97.8	42.1	14,027.8
	010330-MW8-56-122	30-Mar-01		169.	165.	29.8	8.28	7.84	5.07	5.62	4.23	8.57	1.5	32.9	71.7	4.93	14,200.	202.	37.1	40.42	14,953.54
	020405-MW8-56-118	5-Apr-02		91.6	77.6	9.61	0.45	0.35	0.19	0.27	0.21	0.53	0.1 U	7.61	48.6	0.21	6,830.	69.6	6.17	1.94	7,143.
	030320-MW8-56-120	20-Mar-03		99.	61.	11.	2.2	2. U	2. U	2. U	2. U	2.	2. U	9.2	42.	2. U	7,400.	77.	8.8	4.2	7,712.2
	040825-MW8-56-021[7]	25-Aug-04		165.	57.2	11.7	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5. U	14.7	59.8	2.5 U	10,400.	108.	16.3	ND U	10,832.7
	050929-MW8-56-128	29-Sep-05		152.	44.4	15.3	4.81	5.74	3.23	4.91	3.58	6.37	1.03 U	25.9	49.3	3.24	8,290.	120.	31.1	26.97	8,759.88
	061031-MW-8-56-125	31-Oct-06		170.	56.	17.	4.1 J	3.8 J	4.3 J	3.6 J	1.6 J	5.3 J	1.6 U	23.	57.	3. J	10,000.	110.	25.	22.1	10,483.7
	061031-MW-8-56-126	31-Oct-06		180.	52.	18.	4. J	4. J	3.8 J	2.9 J	1.4 J	4.6 J	1.6 U	21.	56.	3.1 J	20,000.	120.	22.	20.9	20,492.8
	2708-080603-MW8-56-101	3-Jun-08		270.	38.	51.	21.	23.	24.	20.	9.3	27.	2.7	100.	100.	19.	11,000.	340.	120.	126.	12,165.

Table 5b - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270-SIM or 8270C
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date/Time	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [6,9]																					
Fish Consumption																					
	EPA 2004 NRWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate			99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																					
	MCL [3]			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs			370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [6,9]																					
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	520 [4]	#	#	#	#	#	#	#	#	#	#	#	620 [4]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
MW-09-29	951205-MW9-29-01	5-Dec-95	18 - 28	0.1 U	0.1 U	0.15	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.12	0.1 U	0.1 U	0.44	0.37	0.11	ND U	1.19
	960318-MW9-29-01	18-Mar-96	(fill WBZ)	0.11	0.1 U	0.18	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.29	0.15	0.1 U	0.1 U	0.6	0.27	ND U	1.6
	960618-MW9-29-01	18-Jun-96		0.1 U	0.1 U	0.15	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	0.15
	961001-MW9-29-01	1-Oct-96		0.1 U	0.1 U	0.12	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.28	0.1 U	0.1 U	ND U	0.4
	970225-MW9-29-01	25-Feb-97		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	970827-MW9-29-01	27-Aug-97		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	980217-MW9-29-01	17-Feb-98		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	980602-MW9-29-07	2-Jun-98		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	981116-MW9-29-02	16-Nov-98		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	990511-MW9-29-03	11-May-99		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	991026-MW9-29-02	26-Oct-99		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	000328-MW9-29-102	28-Mar-00		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	010327-MW9-29-102	27-Mar-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	020403-MW9-29-101	3-Apr-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	030318-MW9-29-103	18-Mar-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	040812-MW9-29-001[7]	12-Aug-04		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	050926-MW-9-29-109	26-Sep-05		0.01 U	0.01 U	0.0308	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.036	0.01 U	0.01 U	0.02 U	0.0179	0.0346	ND U	0.1193
	061013-MW-9-29-103	13-Oct-06		0.0031 U	0.01 J	0.023	0.024	0.029	0.032	0.038	0.023	0.03	0.0047 J	0.044	0.0036 U	0.032	0.046	0.021	0.053	0.1747	0.4097
	2708-080604-MW9-29-109	4-Jun-08		0.0044 U	0.02	0.052	0.013 J	0.015 J	0.024	0.048	0.01 J	0.013 J	0.0046 J	0.018 J	0.0072 J	0.035	0.18 J	0.016 J	0.026	0.1146	0.4818
	2708-080604-MW9-29-110 (DUP)	4-Jun-08		0.0045 J	0.021	0.056	0.012 J	0.013 J	0.021	0.048	0.0086 J	0.01 J	0.0046 J	0.016 J	0.0067 J	0.033	0.2 J	0.016 J	0.021	0.1022	0.4914
MW-10-25	951207-MW10-25-01	7-Dec-95	14 - 24	31.	88.	16.	4.	3.4	2.9	2.5	1.3	4.6	1. U	21.	33.	1.8	13,000.	85.	22.	18.	13,316.5
	960320-MW10-25-01	20-Mar-96	(fill WBZ)	70.	98.	11.	1.3	1.4	1.2	0.91	0.55	0.78	0.3 U	8.8	39.	0.67	8,800.	86.	6.7	5.9	9,126.31
	960617-MW10-25-01	17-Jun-96		75.	130.	14.	1.1	1.8	1.2	1.1	0.62	0.87	0.25	1.6	49.	0.95	9,900.	82.	6.6	6.79	10,266.09
	960930-MW10-25-01	30-Sep-96		140.	87.	39.	20.	15.	12.	9.9	3.9	19.	1.7	95.	90.	7.	9,600.	310.	80.	78.6	10,529.5
	970225-MW10-25-01	25-Feb-97		210.	81.	30.	21.	15.	13.	11.	3.4	16.	1. U	1. U	95.	5.9	9,000.	340.	1. U	74.3	9,841.3
	970827-MW10-25-01	27-Aug-97		72.	59.	11.	4.4	4.3	3.5	2.5	1.2	4.2	1. U	22.	41.	2.	6,700.	100.	20.	19.6	7,047.1
	980216-MW10-25-01	16-Feb-98		100.	87.	19.	14.	12.	11.	8.1	3.6	11.	1.1	59.	62.	5.4	8,500.	210.	62.	58.1	9,165.2
	980601-MW10-25-02	1-Jun-98		140.	150.	26.	8.2	7.	6.7	4.8	1.9	7.2	0.7	45.	82.	3.4	11,400.	230.	49.	35.1	12,161.9
	061213-MW-10-25-131	13-Dec-06		250.	140.	58. J	38. J	44. J	42. J	33. J	16. J	40. J	16. U	120.	100.	32. J	13,000.	380.	170.	212.	14,463.
	2708-080604-MW10-25-108	4-Jun-08		130.	73.	14.	1.6	1.4	1.4	1.	0.49	1.8	0.17 J	13.	71.	0.98	9,000. J	110. J	16.	7.84	9,435.84
MW-10-61	951206-MW10-61-01	6-Dec-95	50 - 60	39.	17.	12.	0.39	0.1 U	0.1 U	0.1 U	0.1 U	0.33	0.1 U	12.	28.	0.1 U	620.	90.	11.	0.72	829.72
	960321-MW10-61-01	21-Mar-96	(alluvial WBZ)	5.8	2.2	4.7	0.75	0.36	0.34	0.28	0.12	0.8	0.1 U	7.3	1.5	0.18	43.	28.	7.1	2.55	102.43
	960620-MW10-61-01	20-Jun-96		2.1	0.98	2.2	0.54	0.28	0.24	0.22	0.12	0.68	0.1 U	4.4	0.22	0.14	13.	15.	5.4	2.	45.52
	961002-MW10-61-01	2-Oct-96		0.88	0.54	1.5	0.48	0.25	0.23	0.17	0.1 U	0.42	0.1 U	4.1	0.16	0.12	4.6	8.5	3.2	1.5	25.15
	970226-MW10-61-01	26-Feb-97		0.73	0.45	1.	0.41	0.13	0.15	0.1 U	0.1 U	0.35	0.1 U	3.5	0.1	0.1 U	3.3	4.1	3.8	1.04	18.02
	970828-MW10-61-01	28-Aug-97		0.33	0.11	0.55	0.21	0.1 U	0.1 U	0.1 U	0.1 U	0.18	0.1 U	2.2	0.1 U	0.1 U	0.78	1.1	2.3	0.39	7.76
	980218-MW10-61-01	18-Feb-98		0.13	0.1 U	0.12	0.24	0.1 U	0.16	0.1 U	0.1 U	0.1 U	0.1 U	1.1	0.1 U	0.1 U	0.29	0.22	1.5	0.4	3.76
	980603-MW10-61-16	3-Jun-98		0.18	0.1 U	0.13	0.42	0.27	0.27	0.21	0.11	0.36	0.1 U	1.7	0.1 U	0.12	0.26	0.15	2.	1.55	6.18
	981117-MW10-61-08	17-Nov-98		0.1 U	0.15	0.1 U	0.56	0.78	0.61	0.58	0.2	0.57	0.1 U	0.86	0.1 U	0.34	0.1	0.1 U	1.1	3.06	5.85
	990512-MW10-61-06	12-May-99		0.1 U	0.1 U	0.1 U	0.18	0.11	0.1	0.1 U	0.1 U	0.18	0.1 U	0.73	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.57	1.3
	991026-MW10-61-05	26-Oct-99		0.1 U	0.1 U	0.1 U	0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.13	0.1 U	0.54	0.1 U	0.1 U	0.1 U	0.1 U	0.58	0.24	1.36
	000329-MW10-61-105	29-Mar-00		0.1 U	0.1 U	0.1 U	0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.13	0.1 U	0.48	0.1 U	0.1 U	0.1 U	0.1 U	0.37	0.24	1.09
	011010-MW10-61-109	10-Oct-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.28	0.1 U	0.1 U	0.1 U	0.1 U	0.33	ND U	0.61
	020404-MW10-61-109	4-Apr-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.11	0.1 U	0.43	0.1 U	0.1 U	0.1 U	0.1 U	0.3	0.11	0.84
	020924-MW10-61-104	24-Sep-02		0.1 U	0.1 U	0.1 U	0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.14	0.1 U	0.53	0.1 U	0.1 U	0.1 U	0.1 U	0.6	0.25	1.38
	030319-MW10-61-111	19-Mar-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.45	0.1 U	0.1 U	0.1 U	0.1 U	0.5	ND U	0.95
	031003-MW10-61-108[7]	3-Oct-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	040813-MW10-61-005[7]	13-Aug-04		0.1 U	0.1 U	0.1 U	0.1 U	0.104	0.1 U	0.111	0.1 U	0.1 U	0.2 U	0.135	0.1 U	0.1 U	0.1 U	0.1 U	0.177	0.104	0.527
	050928-MW10-61-121	28-Sep-05		0.0182	0.103	0.0517	0.184	0.358	0.228	0.362	0.162	0.22	0.049	0.168	0.0118	0.229	0.0803	0.0382	0.306	1.43	2.5692
	061017-MW-10-61-108	17-Oct-06		0.0088 U	0.16 J	0.17 J	0.15 J	0.28	0.26	0.29	0.1 J	0.18 J	0.045 J	0.078 J	0.012	0.24	0.18 J	0.078 J	0.21	1.255	2.433
	2708-080604-MW10-61-105	4-Jun-08		0.01 J	0.037	0.037	0.05	0.064	0.062	0.067	0.027	0.053	0.0091 J	0.031	0.015 J	0.06	0.065 J	0.011 J	0.13	0.3251	0.7281
MW-11-32	951207-MW11-32-01	7-Dec-95	21 - 31	340.	340.	32.	5.5	2.8	2.6	2.2	1.3	6.3	1. U	48.	190.	1.5	21,000.	360.	33.	20.	22,365.2
	960320-MW11-32-01	20-Mar-96	(fill WBZ)	200.	180.	20.	1.6	1.2	1.2	0.75	0.49	1.3	0.5 U	16.	90.	0.54	14,000.	150.	13.	6.33	14,676.08
	960617-MW11-32-01	17-Jun-96		160.	160.	19.	2.9	2.8	2.3	1.8	1.	2.8	0.31	19.	90.	1.4	11,000.	120.	25.	13.51	11,608.31
	960930-MW11-32-01	30-Sep-96		270.	220.	62.	31.	27.	22.	20.	9.9	27.	2.	150.	150.	13.	16,000.	430.	170.	131.9	17,603.9
	960930-MW11-32-02	30-Sep-96		270.	250.	74.	41.	40.	36.	31.	14.	33.	3.	200.	180.	22.	17,000.	510.	190.	189.	18,894.
	970225-MW11-32-01	25-Feb-97		150.	140.	1.4	4.2	1. U	3.2	1. U	1. U	3.3	1. U	1. U	68.	1. U	11,000.	140.	26.	10.7	11,536.1
	970826-MW11-32-01	26-Aug-97		260.	190.	21.	4.6	4.3	3.7	2.3	1.3	4.1	0.5	37.	120.	2.	16,200.	200.	25.	20.5	17,075.8
	980216-MW11-32-01	16-Feb-98		150.	120.	16.	4.1	3.2	3.1	2.3	1.	2.9	1. U	25.	65.	1.6	9,200.	140.	25.	15.9	9,759.2
	980601-MW11-32-03	1-Jun-98		510.	360.	56.	26.	24.	25.	18.	10. U	24.	10. U	130.	250.	13.	30,200.	580.	160.	112.	32,376.
	061212-MW-11-32-130	12-Dec-06		250.	210.	35. J	15. J	8. U	17. J	8.2 U	9.6 U	20. J	16. U	67. J	99. J	15. J	18,000.	220.	78. J	67.	19,026.
	2708-080604-MW11-32-111	4-Jun-08		240.	140.	36.	15.	14.	14.	12.	5.	17.	1.4	81.	99.	11.	15,000. J	250. J	94.	77.4	16,029.4

Table 5b - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270-SIM or 8270C
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date/Time	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [8,9]																					
Fish Consumption																					
	EPA 2004 NRWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate			99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																					
	MCL [3]			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs			370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,9]																					
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	520 [4]	#	#	#	#	#	#	#	#	#	#	#	620 [4]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
MW-12-36	951207-MW12-36-01	7-Dec-95	25 - 35	400.	7.8	21.	1.5	0.22	0.36	0.1	0.17	1.4	0.1 U	28.	170.	0.1 U	2,500.	230.	17.	3.65	3,377.55
	960321-MW12-36-01	21-Mar-96	(fill/alluvial WBZ)	250.	3.3	16.	0.38	0.1 U	0.1 U	0.1 U	0.1 U	0.35	0.1 U	18.	110.	0.1 U	1,400.	200.	12.	0.73	2,010.03
	960620-MW12-36-01	20-Jun-96		160.	2.4	11.	0.4	1.1 U	0.1 U	0.1 U	0.1 U	0.4	0.1 U	18.	81.	0.1 U	1,200.	130.	18.	0.8	1,621.2
	961002-MW12-36-01	2-Oct-96		140.	2.	10.	0.47	2.1 U	0.1 U	0.1 U	0.1 U	0.33	0.1 U	25.	59.	0.1 U	990.	130.	18.	0.8	1,374.8
	970226-MW12-36-01	26-Feb-97		100.	1.7	0.1 U	0.63	3.1 U	0.1 U	0.1 U	0.1 U	0.31	0.1 U	24.	40.	0.1 U	760.	88.	18.	0.94	1,032.64
	970828-MW12-36-01	28-Aug-97		79.	1.4	7.7	0.43	4.1 U	0.1 U	0.1 U	0.1 U	0.24	0.1 U	19.	33.	0.1 U	620.	61.	18.	0.67	839.77
	980218-MW12-36-01	18-Feb-98		71.	0.78	2.6	0.51	5.1 U	0.1 U	0.1 U	0.1 U	0.18	0.1 U	17.	25.	0.1 U	530.	52.	9.2	0.69	708.27
	980603-MW12-36-17	3-Jun-98		77.	1.1	5.9	1. U	1. U	1. U	1. U	0.1 U	1. U	1. U	22.	30.	1. U	480.	62.	19.	ND U	697.
	981119-MW12-36-18	19-Nov-98		52.	0.64	2.4	0.49	0.1 U	0.1 U	0.1 U	0.1 U	0.3	0.1 U	14.	21.	0.1 U	350.	38.	8.3	0.79	487.13
	990513-MW12-36-12	13-May-99		47.9	0.79	2.28	0.53	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	7.47	19.2	0.1 U	374.	31.3	7.93	0.53	491.4
	991028-MW12-36-18	28-Oct-99		60.	0.95	2.2	0.35	0.1 I	0.1 U	0.1 U	0.1 U	0.25	0.1 U	7.52	23.7	0.1 U	409.	35.9	6.06	0.7	546.03
	000330-MW12-36-118	30-Mar-00		63.8	1.21	3.9	0.59	0.21	0.14	0.18	0.16	0.51	0.1 U	9.51	25.5	0.13	490.	45.9	7.24	1.74	648.98
	010329-MW12-36-117	29-Mar-01		51.5	0.69	3.11	0.4	0.1 U	0.1 U	0.1 U	0.1 U	0.29	0.1 U	7.34	21.6	0.1 U	284.	39.4	6.71	0.69	415.04
	020404-MW12-36-112	4-Apr-02		37.5	0.46	1.98	0.28	0.1 U	0.1 U	0.1 U	0.1 U	0.22	0.1 U	5.14	16.6	0.1 U	287.	23.5	3.2	0.5	375.88
	030319-MW12-36-113	19-Mar-03		35.	0.47	2.1	0.31	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	5.9	16.	0.1 U	280.	24.	5.4	0.31	369.18
	040825-MW12-36-017[7]	25-Aug-04		62.	1. U	2.66	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1. U	6.34	29.6	0.5 U	554.	36.2	5.51	ND U	696.31
	050927-MW-12-36-116	27-Sep-05		37.4	0.212	1.13	0.111	0.0197	0.0167	0.0103	0.0176	0.0879	0.0102 U	2.9	15.3	0.0102 U	293.	19.1	2.69	0.2529	371.9952
	061024-MW-12-36-115	24-Oct-06		52.	0.28	2.2	0.01 J	0.01 J	0.0099 J	0.0048 J	0.0076 J	0.081	0.0036 U	6.1	27.	0.0038 J	470.	29.	4.5	0.1223	591.2071
	2708-080604-MW12-36-106	4-Jun-08		22.	0.17	1.4	0.19	0.037	0.05	0.016 J	0.02	0.15	0.0032 J	4.5	12.	0.016 J	170. J	12. J	4.3	0.4662	226.8522
MW-13-30	980217-MW13-30-01	17-Feb-98	19 - 29	190.	1.6	7.3	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	3.5	52.	0.1 U	69.	100.	2.7	ND U	426.1
	980602-MW13-30-12	2-Jun-98	(fill WBZ)	300.	1. U	16.	0.1 U	1. U	1. U	1. U	1. U	1. U	1. U	5.1	85.	1. U	610.	160.	4.8	ND U	1,180.9
	980826-MW13-30-11	26-Aug-98		160.	1.8	11.	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	3.7	45.	0.1 U	420.	98.	2.8	ND U	742.3
	981119-MW13-30-19	19-Nov-98		210.	1.4	16.	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.8	59.	0.1 U	7.6	100.	2.2	ND U	399.
	990217-MW13-30-014	17-Feb-99		144.	1.13	9.6	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.54	34.8	0.1 U	506.	70.6	1.92	ND U	770.59
	990513-MW13-30-13	13-May-99		163.	1.59	10.6	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.73	51.8	0.1 U	735.	68.4	2.5	ND U	1,035.62
	991028-MW13-30-20	28-Oct-99		130.	20. U	132.	0.1 U	0.1 U	20. U	20. U	20. U	20. U	20. U	20. U	42.	20. U	460.	56.	20. U	ND U	820.
	000403-MW13-30-120	3-Apr-00		297.	1.62	8.39	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	3.09	77.3	0.1 U	240.	90.5	2.94	ND U	720.84
	001005-MW13-30-18	5-Oct-00		142.	0.96	6.3	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.7	46.	0.1 U	146.	64.	2.34	ND U	410.3
	010329-MW13-30-119	29-Mar-01		147.	1.11	6.11	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.3	46.6	0.1 U	241.	77.3	1.54	ND U	522.96
	020405-MW13-30-116	5-Apr-02		149.	0.9	6.77	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	3.19	44.8	0.1 U	188.	57.1	1.89	ND U	451.65
	030319-MW13-30-115	19-Mar-03		160.	1.6	9.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	3.9	48.	0.1 U	700.	83.	2.7	ND U	1,008.4
	040825-MW13-30-018[7]	25-Aug-04		171.	1.5 U	6.46	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1. U	2.94	35.9	0.5 U	78.6	57.1	2.41	ND U	354.41
	051003-MW-13-13-132	3-Oct-05		204.	2. U	7.48	1. U	1. U	1. U	1. U	1. U	1. U	1. U	3.3	45.4	1. U	238.	67.3	2.99	ND U	568.47
	060404-MW-13-30-122	4-Apr-06		267.	2.97 U	8.89	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	0.99 U	4.66	55.9	0.99 U	493.	97.7	4.19	ND U	931.34
	061027-MW-13-30-121	27-Oct-06		110.	1.6	7.1	0.058 U	0.08 U	0.096 U	0.082 U	0.096 U	0.07 U	0.16 U	2.5	36.	0.12 U	260.	58.	2.	ND U	477.2
	2708-080604-MW13-30-112	4-Jun-08		310,000.	1,400.	170,000.	4,900.	3,700.	3,700.	2,100.	1,200.	6,300.	320.	270,000.	160,000.	1,900.	560,000. J	820,000. J	400,000.	22,020.	2,715,520.
MW-13-61	980218-MW13-61-01	18-Feb-98	50 - 60	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	980602-MW13-61-13	2-Jun-98	(alluvial WBZ)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	980825-MW13-61-03	25-Aug-98		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	981116-MW13-61-03	16-Nov-98		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2	0.1 U	0.1 U	ND U	0.2
	990512-MW13-61-04	12-May-99		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.26	0.1 U	0.1 U	ND U	0.26
	991026-MW13-61-03	26-Oct-99		0.1 U	0.14	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.48	0.1 U	0.1 U	ND U	0.62
	000328-MW13-61-104	28-Mar-00		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	001004-MW13-61-03	4-Oct-00		0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.57	0.1 U	0.1 U	ND U	0.68
	010327-MW13-61-103	27-Mar-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	011009-MW13-61-106	9-Oct-01		0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.17	0.1 U	0.1 U	ND U	0.28
	020403-MW13-61-102	3-Apr-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	020924-MW13-61-106	24-Sep-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	030317-MW13-61-101	17-Mar-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	031003-MW13-61-109[7]	3-Oct-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	040813-MW13-61-003[7]	13-Aug-04		0.115	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.168	0.1 U	0.1 U	ND U	0.283
	050937-MW-13-61-114	27-Sep-05		6.61	0.204 U	0.478	0.187	0.244	0.235	0.225	0.192	0.24	0.102 U	0.685	2.17	0.165	0.204 U	2.79	0.706	1.263	14.927
	060404-MW-13-61-123	4-Apr-06		2.7 J	0.178	0.985	0.774	0.565	0.347	0.453	0.365	1.1	0.099 U	3.53	0.98	0.284	0.198 U	7.54	4.34	3.435	24.141
MW-14-110	981116-MW14-110-06	16-Nov-98	98 - 108	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	990216-MW14-110-005	16-Feb-99	(alluvial WBZ)	0.11	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	0.11
	990512-MW14-110-09	12-May-99		0.14	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.14	0.1 U	0.1 U	ND U	0.28
	990823-MW14-110-06	23-Aug-99		0.29	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.12	0.1 U	0.1 U	ND U	0.41
	991027-MW14-110-09	27-Oct-99		0.26	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	0.26
	991027-MW14-110-09	27-Oct-99		0.26	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	0.26
	000329-MW14-110-109	29-Mar-00		0.42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	0.42
	000329-MW14-110-110	29-Mar-00		0.42	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	0.42
	000615-MW14-110-102	15-Jun-00		0.18	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	0.18
	001005-MW14-110-06	5-Oct-00		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	001220-MW14-110-102	20-Dec-00		0.14	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	0.14
	010328-MW14-110-108	28-Mar-01		0.23	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	0.23
	011009-MW14-110-105	9-Oct-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U

Table 5b - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270-SIM or 8270C
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date/Time	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [8,9]																					
Fish Consumption																					
	EPA 2004 NRWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate			99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																					
	MCL [3]			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs			370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,9]																					
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	520 [4]	#	#	#	#	#	#	#	#	#	#	#	620 [4]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
MW-14-110	011213-MW14-110-101	13-Dec-01	98 - 108	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	020404-MW14-110-108	4-Apr-02	(alluvial WBZ)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	020711-MW14-110-101	11-Jul-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	020924-MW14-110-105	24-Sep-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	021217-MW14-110-102	17-Dec-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	030318-MW14-110-108	18-Mar-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	030602-MW14-110-101	2-Jun-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	031003-MW14-110-110 [7]	3-Oct-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	030112-MW14-110-101[7]	12-Jan-04		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	040824-MW14-110-014[7]	24-Aug-04		0.0828 J	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.1 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	ND U	0.0828
	050922-MW-14-110-104	22-Sep-05		0.0658	0.0192 U	0.0192 U	0.00962 U	0.00962 U	0.00962 U	0.00962 U	0.00962 U	0.00962 U	0.00962 U	0.00962 U	0.00962 U	0.0962 U	0.135	0.00962 U	0.0192 U	ND U	0.2008
	061013-MW-14-110-104	13-Oct-06		0.0042 J	0.019 J	0.013 J	0.025	0.025	0.026	0.028	0.022	0.031	0.004 J	0.046	0.0072 J	0.025	0.2	0.028	0.055	0.158	0.5584
	2708-080603-MW14-110-104	3-Jun-08		0.027	0.026	0.035	0.025	0.03	0.041	0.025	0.02	0.026	0.0059 J	0.034	0.0083 J	0.027	0.079	0.018 J	0.033	0.1749	0.4602
MW-15-50	990728-MW15-50-04	28-Jul-99	40 - 50	50.	8,510.	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	83.	10. U	9,700.	117.	10. U	ND U	18,460.
	991029-MW15-50-25	29-Oct-99	(silt/alluvial WBZ)	20. U	20.	20. U	20. U	20. U	20. U	20. U	20. U	20. U	20. U	20. U	20. U	20. U	716.	26.	20. U	ND U	762.
	000403-MW15-50-125	3-Apr-00		22.	41.6	2.91	0.79	0.55	0.51	0.25	0.49	0.73	0.1 U	6.01	23.6	0.24	5,480.	25.9	5.16	3.31	5,610.74
	000615-MW15-50-105	15-Jun-00		2.91	0.59	4.11	43.6	57.1	45.5	41.8	38.5	40.5	8.95	69.7	1.66	33.5	1.23	25.	60.1	267.65	474.75
	000615-MW15-50-106	15-Jun-00		2.96	0.77	4.1	40.	53.5	44.1	40.2	36.3	38.3	8.87	65.2	1.71	32.6	1.23	23.8	57.3	253.67	450.94
	001005-MW15-50-14	5-Oct-00		1.51	0.96	1.47	10.7	16.4	19.7	8.14	6.97	9.88	2.52	15.5	1.06	8.21	2.8	6.44	16.7	74.38	128.96
	001221-MW15-50-105	21-Dec-00		43.5	66.1	6.14	26.1	32.2	39.6	24.	14.8	20.8	4.13	40.1	74.6	21.3	9,200.	10.9	36.9	158.93	9,661.17
	001221-MW15-50-106	21-Dec-00		52.4	70.6	6.58	33.1	40.8	48.7	30.3	18.1	26.5	4.96	50.3	78.	27.	8,180.	12.6	50.7	199.16	8,730.64
	010330-MW15-50-124	30-Mar-01		35.4	59.	9.58	11.2	13.4	11.8	15.1	18.9	12.4	5.4	22.7	45.7	14.4	6,860.	76.1	22.4	87.5	7,233.48
	011010-MW15-50-111	10-Oct-01		18.1	29.7	2.19	2.47	2.95	2.62	1.77	2.08	2.37	0.47	5.33	26.	1.56	3,700.	37.2	4.26	14.52	3,839.07
	011010-MW15-50-112	10-Oct-01		44.6	60.4	4.2	7.6	9.3	8.4	6.4	7.4	8.	1.8	12.7	53.9	5.7	59,100.	78.3	14.6	48.2	59,423.3
	011214-MW15-50-104	14-Dec-01		26.8	43.8	3.	0.35	0.1	0.1	0.1 U	0.1	0.33	0.1 U	3.29	34.3	0.1 U	4,510.	42.8	2.27	0.98	4,667.24
	011214-MW15-50-105	14-Dec-01		27.8	45.9	3.1	0.42	0.17	0.14	0.1 U	0.13	0.41	0.1 U	3.28	36.1	0.1 U	5,870.	45.6	2.33	1.27	6,035.38
	020405-MW15-50-119	5-Apr-02		20.	30.	3.29	1.57	1.76	1.33	1.5	1.39	1.81	0.61	5.75	26.	1.29	4,220.	34.	3.67	9.76	4,353.97
	020711-MW15-50-104	11-Jul-02		19.7	31.3	4.	2.5	2.9	2.6	2.1	2.7	3.1	1. U	7.9	26.6	1.7	3,640.	41.2	7.6	15.5	3,795.9
	020711-MW15-50-105	11-Jul-02		27.6	41.6	2. U	3.4	4.4	3.6	3.4	5.4	5.6	2. U	11.6	35.8	2.4	5,580.	52.6	10.6	24.8	5,788.
	020925-MW15-50-110	25-Sep-02		38.	55.	8.	10.	15.	11.	9.1	10.	12.	1. U	21.	47.	7.3	7,700.	82.	19.	65.3	8,044.4
	020925-MW15-50-111	25-Sep-02		40.	58.	6.3	3.3	3.2	2.6	1.8	3.	3.7	1. U	12.	50.	1.4	7,700.	76.	10.	17.2	7,971.3
	021218-MW15-50-107	18-Dec-02		50.	78.	5. U	5. U	22.	5. U	25.	5. U	5. U	5. U	36.	70.	20.	7,000.	160.	33.	42.	7,494.
	030321-MW15-50-122	21-Mar-03		24.	36.	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	10. U	32.	10. U	4,900.	50.	10. U	ND U	5,042.
	030603-MW15-50-105	3-Jun-03		18.	32.	1. U	1. U	1. U	1. U	1. U	1. U	1. U	1. U	1.9	22.	1. U	3,300.	29.	2.1	ND U	3,405.
	031006-MW15-50-113 [7]	6-Oct-03		17.	26.	1. U	1. U	1. U	1. U	1. U	0.1 U	1. U	1. U	1.9	22.	1. U	4,700.	36.	1.4	ND U	4,804.3
	030113-MW-15-50-105 [7]	13-Jan-04		50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	4,700.	65.	50. U	ND U	4,765.
	030113-MW-15-50-106 [7]	13-Jan-04		50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	50. U	3,600.	50.	50. U	ND U	3,650.
	040825-MW15-50-020[7]	25-Aug-04		35.3	50.9	4.23 J	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	5. U	4.44 J	51.9	2.5 U	6,130.	78.8	3.93 J	ND U	6,359.5
	050929-MW15-50-126	29-Sep-05		15.2	19.3	3.12	6.21	9.13	7.48	8.31	7.4	7.49	2.19	9.62	18.2	6.33	2,130.	40.1	10.	46.23	2,300.08
	061031-MW-15-50-127	31-Oct-06		21.	27.	5.4 J	13.	18.	21.	13.	7.5 J	14.	3.1 J	16.	31.	13.	3,600.	64.	16.	89.6	3,883.
	2708-080603-MW15-50-103	3-Jun-08		57.	59.	20.	8.	9.7	13.	7.7	4.9	9.3	1.6	35.	90.	8.1	6,300.	220.	35.	54.6	6,878.3
MW-15-66	990728-MW15-66-03	28-Jul-99	60.5 - 66	0.11	0.1 U	0.1 U	0.15	0.16	0.26	0.14	0.1 U	0.15	0.1 U	0.3	0.1 U	0.11	0.57	0.17	0.34	0.83	2.46
	991026-MW15-66-07	26-Oct-99	(alluvial WBZ)	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	000329-MW15-66-108	29-Mar-00		0.1 U	0.1 U	0.11	0.57	0.77	0.59	0.66	0.6	0.67	0.18	0.96	0.1 U	0.53	0.1 U	0.33	0.96	3.91	6.93
	000615-MW15-66-104	15-Jun-00		0.14	0.1 U	0.39	1.93	2.64	1.96	2.04	1.61	1.91	0.57	3.32	0.1 U	1.55	0.1 U	1.07	2.92	12.17	22.05
	001005-MW15-66-08	5-Oct-00		0.1 U	0.1 U	0.1 U	0.23	0.32	0.4	0.1 U	0.17	0.24	0.1 U	0.41	0.1 U	0.1 U	0.1 U	0.14	0.43	1.36	2.34
	001221-MW15-66-104	21-Dec-00		0.1 U	0.1 U	0.1 U	0.14	0.15	0.19	0.13	0.1	0.12	0.1 U	0.21	0.1 U	0.1 U	0.1 U	0.1 U	0.2	0.7	1.24
	010328-MW15-66-107	28-Mar-01		0.1 U	0.1 U	0.1 U	0.11	0.14	0.11	0.1 U	0.12	0.13	0.1 U	0.2	0.1 U	0.1 U	0.1 U	0.1	0.19	0.61	1.1
	011010-MW15-66-110	10-Oct-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	011213-MW15-66-103	13-Dec-01		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	020404-MW15-66-107	4-Apr-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.12	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	0.12
	020711-MW15-66-103	11-Jul-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	020925-MW15-66-109	25-Sep-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	021218-MW15-66-105	18-Dec-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	021218-MW15-66-106	18-Dec-02		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	030318-MW15-66-107	18-Mar-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1	ND U	0.1
	030603-MW15-66-104	3-Jun-03		0.1 U	0.1 U	0.1 U	0.6	0.85	0.64	0.77	0.77	0.69	0.1 U	1.2	0.1 U	0.45	0.1 U	0.34	1.1	4.	7.41
	031006-MW15-66-112 [7]	6-Oct-03		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	030113-MW15-66-104 [7]	13-Jan-04		0.1 U	0.1 U	0.1 U	0.36	0.13	0.4	0.16	0.13	0.15	0.1 U	0.18	0.1 U	0.16	0.1 U	0.1 U	0.15	1.33	1.82
	040813-MW15-66-006[7]	13-Aug-04		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	ND U
	050929-MW15-66-125	29-Sep-05		0.0103 U	0.0103 U	0.0103 U	0.0274	0.0417	0.0332	0.0383	0.037	0.0348	0.0103 U	0.0555	0.0103 U	0.0291	0.0732	0.018	0.06	0.2032	0.4482
	061017-MW-15-66-109	17-Oct-06		0.39	0.26	0.82	6.6	9.2	13.	7.8	3.5	8.	1.6	9.9	0.19 J	8.1	0.15 J	2.9	11.	50.	83.41
	2708-080603-MW15-66-102	3-Jun-08		0.0065 J	0.011 J	0.018 J	0.091	0.14	0.19	0.15	0.072	0.11	0.028	0.13	0.0094 J	0.15	0.054	0.034	0.16	0.781	1.3539

Table 5b - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270-SIM or 8270C
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date/Time	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [8,9]																					
Fish Consumption																					
	EPA 2004 NRWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate			99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																					
	MCL [3]			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs			370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,9]																					
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	520 [4]	#	#	#	#	#	#	#	#	#	#	#	620 [4]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
MW-16-45	040826-MW16-45-028[7]	26-Aug-04	30 - 45	137.	17.8 J	22.4	2.64	2.23 J	2.57	10. U	1.25 U	3.33	2.5 U	19.6 J	60.7	1.25 U	7,500.	154.	23.9	10.77	7,946.17
	041222-MW16-45-103[7]	22-Dec-04	(alluvial WBZ)	115.	14.5	16.4	3.6	3.01	1.8	2.03	1.87	4.35	2. U	16.1	43.1	1.45	8,140.	110.	18.9	16.08	8,492.11
	050401-013	1-Apr-05		106. B	10.5	11.6	1.83	1.18	1.29	0.887 J	0.5 U	1.98	1. U	10.3	42.7	0.612 J	6,060. B	93. B	11.3	6.892	6,353.179
	0506-22-MW-16-45-05	21-Jun-05		147.	50. U	30.	10.8	8.66	4.71	- U	5.52	11.4	4. U	38.6	76.7	3.86	10,400.	214.	46.2	44.95	10,997.45
	051003-MW-16-45-136	3-Oct-05		278.	32.6	120.	51.7	44.7	22.	32.5	28.6	61.9	5.8	177.	154.	22.1	7,820.	687.	237.	236.8	9,774.9
	060403-MW-16-45-118	3-Apr-06		2,150.	246.	1,370.	663.	559.	267.	413.	331.	870.	68.5	2,360.	1,450.	270.	29,400.	10,400.	3,030.	3,028.5	53,847.5
	061212-MW-16-45-129	12-Dec-06		140.	21. J	22. J	12. J	8. U	9.6 U	8.2 U	9.6 U	9.3 J	16. U	24. J	54. J	12. U	11,000. \	120. J	27. J	21.3	11,429.3
	2708-070731-MW-16-45-148	31-Jul-07		6,760. J	891.	4,450.	2,510.	2,250.	1,160.	1,560.	1,480.	3,090.	310.	7,170.	5,100.	1,140.	64,100.	30,500.	12,900. J	11,940.	145,371.
	2708-080521-MW16-45-128	21-May-08		200.	31.	120.	54.	47.	42.	31.	13.	64.	6.5	170.	120.	30.	4,800. J	590. J	220.	256.5	6,538.5
MW-16-65	040826-MW16-65-026[7]	26-Aug-04	55 - 65	91.	10. U	10.3	0.241	0.2 U	0.2 U	5. U	0.2 U	0.3	0.4 U	5.54 J	42.8	0.2 U	3,600.	81.1	6.84 J	0.541	3,838.121
	040826-MW16-65-027[7]	26-Aug-04	(alluvial WBZ)	85.6	10. U	10.3	0.343	0.25 U	0.25 U	5. U	0.25 U	0.413	0.5 U	5.62 J	39.5	0.25 U	3,870.	80.2	6.7 J	0.756	4,098.676
	041222-MW16-65-102[7]	22-Dec-04		0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 A	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	ND U	0.1
	050331-006	31-Mar-05		88.4	7.07	7.86	0.548 U	0.5 U	0.5 U	0.5 U	0.5 U	0.664 J	0.1 U	5.3	36.2	0.5 U	4,840.	67.2	5.88	0.664	5,058.574
	0506-21-MW-16-65-04	21-Jun-05		92.2	25. U	8.94	1. U	1. U	1. U	- U	1. U	1. U	1. U	6.24	41.9	1. U	5,700.	71.4	7.38	ND U	5,928.06
	051003-MW-16-65-134	3-Oct-05		68.7	6.18	5.65	2.06 U	2.06 U	2.06 U	2.06 U	2.06 U	2.06 U	2.06 U	3.09	27.7	2.06 U	2,900.	49.6	4.12 U	ND U	3,060.92
	060403-MW-16-65-119	3-Apr-06		57.8	4.5	4.07	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	21.3	2.36 U	3,190.	44.1	4.72 U	ND U	3,321.77
	061023-MW-16-65-114	23-Oct-06		52.	4.1	3.4	0.11	0.033	0.023	0.021	0.024	0.14	0.0051 J	2.2	23.	0.018 J	2,500.	36.	2.4	0.3531	2,623.4741
	2708-070628-MW-16-65-115	28-Jun-07		22.9 J	4.76 U	4.76 U	0.91	0.545	0.368	4.76 U	0.336	1.16	0.238 U	4.76 U	9.91	0.238 U	837.	25.5	5.22 J	3.319	903.849
	2708-080513-MW16-65-109	13-May-08		79.	4.1	6.9	0.64	0.43	0.4	0.31	0.12	0.74	0.055	5.1	31.	0.3	2,500.	75.	6.2	2.685	2,710.295
MW-16-125	040826-MW16-125-025[7]	26-Aug-04	115 - 125	1.74	0.5 U	0.676 J	0.1 U	0.1 U	0.1 U	0.5 U	0.1 U	0.1 U	0.2 U	0.621	1.14	0.1 U	26.5	5.39	0.816 J	ND U	36.883
	041221-MW16-125-100[7]	21-Dec-04	(alluvial WBZ)	0.655	0.1 U	0.31	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.613	0.476	0.1 U	4.88	2.62	0.662	ND U	10.216
	50330-001	30-Mar-05		0.74	0.1 U	0.287	0.05 U	0.05 U	0.05 U	0.5 U	0.05 U	0.05 U	0.1 U	0.517	0.527	0.05 U	5.41	2.64	0.529	ND U	10.65
	0506-21-MW-16-125-03	21-Jun-05		0.432	0.1 U	0.214	0.1 U	0.1 U	0.1 U	- U	0.1 U	0.1 U	0.2 U	0.421	0.361	0.1 U	0.828	1.9	0.514	ND U	4.67
	050930-MW-16-125-130	30-Sep-05		0.545	0.0306 U	0.272	0.0328	0.0102 U	0.00102 U	0.0102 U	0.0102 U	0.0163 U	0.0102 U	0.466	0.403	0.0102 U	0.577	2.21	0.537	0.0328	5.0428
	060330-MW-16-125-109	30-Mar-06		0.891	0.051	0.331	0.0322	0.0102 U	0.0102 U	0.0102 U	0.0102 U	0.0433	0.0102 U	0.569	0.519	0.0102 U	0.452	3.88	0.783	0.0755	7.5515
	061016-MW-16-125-106	16-Oct-06		0.71	0.037	0.24	0.026	0.0043 U	0.0046 U	0.0041 U	0.0051 U	0.033	0.0036 U	0.48	0.47	0.0033 U	0.13	0.061	0.55	0.059	2.737
	2708-070628-MW-16-125-116	28-Jun-07		0.133 J	0.0952 U	0.0952 U	0.0156	0.00612	0.00483	0.0952 U	0.00476 U	0.0211	0.00476 U	0.146	0.0952 U	0.00476 U	0.165	0.109	0.227 J	0.04765	0.82765
	2708-080515-MW16-125-127	15-May-08		28.	3.	12.	5.4	4.5	4.4	3.3	1.5	6.5	0.56	20.	15.	3.1	1,300.	70.	25.	25.96	1,502.26
MW-17-79	050926-MW-17-79-110	26-Sep-05	38.5 - 78.5	5.51	0.662	0.879	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1.23	1.88	0.1 U	32.4	5.48	1.49	ND U	49.531
	061026-MW-17-79-119	26-Oct-06	(alluvial WBZ)	1.1	0.14	0.25	0.043	0.044	0.028	0.036	0.027	0.059	0.0036 U	0.35	0.35	0.029	2.9	1.2	0.36	0.23	6.916
	2708-070627-MW-17-79-112	27-Jun-07		0.382 J	0.19 U	0.256	0.0195	0.0199	0.0138	0.19 U	0.0166	0.029	0.00952 U	0.19 U	0.19 U	0.0151	0.598	0.43	0.231 J	0.1139	2.0109
	2708-080514-MW17-79-120	14-May-08		1.6	0.19	0.54	0.039	0.03	0.034	0.031	0.015 J	0.044	0.0046 J	0.43	0.63	0.031	2.2	1.1	0.55	0.1976	7.4686
MW-18-30	2708-080514-MW18-30-121	14-May-08	19 - 29	130,000.	38,000.	99,000.	67,000.	61,000.	56,000.	42,000.	18,000.	78,000.	6,100.	230,000.	98,000.	40,000.	1,700,000.	650,000.	300,000.	326,100.	3,613,100.
MW-18-180	2708-070628-MW-18-180-117	28-Jun-07	170 - 180	0.0952 U	0.0952 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.0952 U	0.00476 U	0.575	0.0952 U	0.0952 U	ND U	0.575
	2708-080513-MW18-180-108	13-May-08		0.023	0.0058 J	0.005 J	0.0032 J	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0065 J	0.014 J	0.0026 U	0.082	0.025	0.0047 J	0.0032	0.1692
MW-19-22	2708-070730-MW-19-22-143	30-Jul-07	12 - 22	266. J	251.	944.	835.	1,180.	720.	969.	670.	1,240.	140.	2,610.	412.	688.	297.	2,690.	4,010. J	5,473.	17,922.
	2708-080513-MW19-22-110	13-May-08		53.	40.	190.	280.	360.	340.	290.	110.	500.	36.	900.	62.	270.	270.	320.	1,200.	1,896.	5,221.
MW-19-125	2708-070627-MW-19-125-110	27-Jun-07	115 - 125	0.0962 U	0.0962 U	0.0962 U	0.00528	0.00481 U	0.00481 U	0.0962 U	0.00481 U	0.00732	0.00481 U	0.0962 U	0.0962 U	0.00481 U	2.95	0.16	0.0962 U	0.0126	3.1226
	2708-080514-MW19-125-117	14-May-08		0.023	0.015 J	0.012 J	0.0059 J	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0051 J	0.0025 U	0.032	0.019 J	0.0026 U	49.	0.057	0.038	0.011	49.207
MW-19-180	2708-070627-MW-19-180-111	27-Jun-07	170 - 180	0.0952 U	0.0952 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.0952 U	0.00476 U	0.0954	0.0952 U	0.0952 U	ND U	0.0954
	2708-080513-MW19-180-115	13-May-08		0.0071 J	0.0035 J	0.0036 U	0.0035 J	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0065 J	0.0026 U	0.11	0.01 J	0.0073 J	0.0035	0.1479
MW-20-120	2708-070628-MW-20-120-114	28-Jun-07	110 - 120	0.35 J	0.0952 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.00476 U	0.00476 U	0.00476 U	0.0952 U	0.143	0.00476 U	39.9	0.356	0.0952 U	ND U	40.749
	2708-080515-MW20-120-126	15-May-08		0.11	0.017 J	0.029	0.0078 J	0.0045 J	0.0053 J	0.004 J	0.0025 U	0.0059 J	0.0025 U	0.034	0.052	0.0041 J	120.	0.18	0.045	0.0276	120.4986
MW-21-12	2708-070719-MW-21-12-129	19-Jul-07	7 - 12	5.47 J	0.966 U	2.42 U	0.0375	0.121 U	0.121 U	2.42 U	0.121 U	0.0546	0.121 U	2.42 U	7.22	0.121 U	2.9 U	2.42 U	0.483 UJ	0.0921	12.7821
	2708-080514-MW21-12-122	14-May-08		8.1	0.71 U	0.25	0.14	0.24	0.32	0.65	0.1	0.24	0.066	0.3	9.3	0.52	1.2	0.21	0.62	1.626	22.256
MW-21-75	2708-070718-MW-21-75-124	18-Jul-07	65 - 75	0.0966 UJ	0.0966 UJ	0.0966 UJ	0.00483 UJ	0.00483 UJ	0.00483 UJ	0.0966 UJ	0.00483 UJ	0.00483 UJ	0.00483 UJ	0.0966 UJ	0.0966 UJ	0.00483 UJ	0.135 J	0.0966 UJ	0.0966 UJ	ND U	0.135
	2708-080514-MW21-75-123	14-May-08		0.038	0.0056 J	0.014 J	0.0052 J	0.0043 U	0.0024 J	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0068 J	0.011 J	0.0026 U	0.081	0.0087 J	0.0093 J	0.0076	0.182
MW-21-115	2708-070718-MW-21-115-123	18-Jul-07	105 - 115	0.0976 UJ	0.0976 UJ	0.0976 UJ	0.00488 UJ	0.00488 UJ	0.00488 UJ	0.0976 UJ	0.00488 UJ	0.00488 UJ	0.00488 UJ	0.0976 UJ	0.0976 UJ	0.00488 UJ	0.0989 J	0.0976 UJ	0.0976 UJ	ND U	0.0989
	2708-080515-MW21-115-125	15-May-08		0.0044 U	0.0034 U	0.0043 J	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.053	0.0076 J	0.0035 U	ND U	0.0649
MW-21-165	2708-070718-MW-21-165-122	18-Jul-07	156 - 166	0.0971 UJ	0.0971 UJ	0.0971 UJ	0.00971 UJ	0.00485 UJ	0.00485 UJ	0.0971 UJ	0.00485 UJ	0.00485 UJ	0.00485 UJ	0.0971 UJ	0.0971 UJ	0.00485 UJ	0.0971 J	0.0971 UJ	0.0971 UJ	ND U	0.0971
	2708-080514-MW21-166-124	14-May-08		0.0044 U	0.0034 U	0.0036 U	0.0026 U	0.0043 U	0.0023 U	0.0029 U	0.0025 U	0.0034 U	0.0025 U	0.0044 U	0.0038 U	0.0026 U	0.12	0.0077 J	0.0035 U	ND U	0.1277
PW-01	061012-PW-01-102	12-Oct-06	40 - 80	59.	33.	4.5	0.54	0.53	0.33	0.41	0.31	0.67	0.045	5.	20.	0.37	4,100.	39.	5.8	2.795	4,269.505
	2708-070731-PW-01-80-147	7-Jul-31	(alluvial WBZ)	133. J	87.8	38.	30.	38.5	21.5	31.8	23.9	37.2	4.35 U*	99.8	67.5	22.2	5,060.	264.	174. J	173.3	6,129.2
	2708-080604-PW01-80-107	4-Jun-08		100.	59.	11.	2.1	2.2	2.2	1.9	0.76	2.4	0.26	14.	40.	1.8	2,900. J	85. J	17.	11.72	3,239.62

Table 5b - Summary of Historical Analytical Results for Groundwater Samples: PAHs by EPA Method 8270-SIM or 8270C
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date/Time	Screen Interval (feet bgs)	Analytical Results in ug/L (ppb)																	
				Acenaphthene	Acenaphthylene	Anthracene	Benzo (a) anthracene	Benzo (a) pyrene	Benzo (b) fluoranthene	Benzo (g,h,i) perylene	Benzo (k) fluoranthene	Chrysene	Dibenzo (a,h) anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	Total Carcinogenic PAHs	Total PAHs
HUMAN HEALTH SCREENING LEVEL VALUES [8,9]																					
Fish Consumption																					
	EPA 2004 NRWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
	Portland Harbor specific fish consumption rate			99.	#	4,000.	0.0018	0.0018	0.0018	#	0.0018	0.0018	0.0018	14.	530.	0.0018	#	#	400.	#	#
	DEQ 2004 AWQC (organism only)			990.	#	40,000.	0.018	0.018	0.018	#	0.018	0.018	0.018	140.	5,300.	0.018	#	#	4,000.	#	#
Drinking Water																					
	MCL [3]			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	#	#
	Tap Water PRGs			370.	#	1,800.	0.092	0.0092	0.092	#	0.92	9.2	0.0092	1,500.	240.	0.092	6.2	#	180.	#	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,9]																					
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	520 [4]	#	#	#	#	#	#	#	#	#	#	#	620 [4]	#	#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	#	0.73	0.027	0.014	#	#	#	#	#	#	3.9	#	12.	#	#	#	#
Temporary Well Point Samples 1995 (fill WBZ)																					Temporary Well
B-01	950921-BW1-01	21-Sep-95	20 - 23	7.4	0.22	1.5	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.09	0.1 U	1.3	4.5	0.1 U	140.	19.	1.7	0.09	175.71
B-05	950929-BW05-01	29-Sep-95	25 - 28	13.	0.14	1.2	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	1.4	9.8	0.1 U	0.94	6.9	1.4	ND U	34.78
B-19	950920-BW19-02	20-Sep-95	25 - 28	39.	7.7	3.1	0.26	0.1 U	0.16	0.1 U	0.1 U	0.28	0.1 U	5.1	20.	0.1 U	6,500.	29.	5.6	0.7	6,610.2
B-21	951003-BW21-01	3-Oct-95	15.5 - 19.5	110.	1.83	2.66	0.53	0.34	0.66	0.37	0.27	0.79	0.07	5.04	21.	0.27	560.	17.	5.42	2.93	726.25
B-31	950925-BW31-01	25-Sep-95	26 - 29	96.	2.7	15.	2.4	2.4	2.1	1.6	0.97	3.9	0.21	16.	29.	1.3	420.	76.	25.	13.28	694.58
Temporary Well Point Samples 2004																					
B-56	040602-101	2-Jun-04	18 - 22	54.1	4.08	14.1	7.99	9.45	7.03	6.89	6.04	10.2	4. U	44.2	23.3	4.81	21.	53.7	50.7	45.52	317.59
	040603-102	3-Jun-04	40 - 44	0.342	0.1 U	0.1 U	0.0239	0.0196	0.0234	0.1 U	0.0188	0.0345	0.01 U	0.168	0.132	0.0167	3.61	0.33	0.223	0.14	4.9419
	040603-103	3-Jun-04	60 - 64	0.103	0.1 U	0.1 U	0.01 U	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 U	0.1 U	0.1 U	0.0101 U	63.8	0.1 U	0.1 U	ND U	63.903
	040603-104	3-Jun-04	80 - 84	0.126	0.1 U	0.1 U	0.0315	0.0313	0.0236	0.1 U	0.0166	0.0416	0.01 U	0.165	0.15 U	0.0154	358.	0.28	0.23	0.16	358.961
	040603-105	3-Jun-04	80 - 84	0.15 U	0.15 U	0.1 U	0.03 U	0.03 U	0.03 U	0.1 U	0.03 U	0.03 U	0.03 U	0.132	0.15 U	0.03 U	405.	0.214	0.184	ND U	405.53
	040604-106	4-Jun-04	100 - 104	0.1 U	0.1 U	0.1 U	0.0167	0.017	0.0121	0.1 U	0.0113	0.0216	0.01 U	0.1 U	0.1 U	0.0108	0.85	0.1 U	0.1 U	0.09	0.9395
	040614-115	14-Jun-04	136 - 140	0.646	0.1 U	0.1 U	0.17	0.137	0.1 U	0.1 U	0.1 U	0.214	0.2 U	1.1	0.449	0.1 U	2.58	2.99	1.31	0.52	9.596
	040614-116	14-Jun-04	174 - 178	0.1 U	0.1 U	0.1 U	0.01 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	0.1 U	0.92	0.144	0.106	ND U	1.17

Note:

'-' = not analyzed
# = Reference Level not established
AWQC = Ambient Water Quality Criteria
DEQ = Oregon Department of Environmental Quality
EPA = U.S. Environmental Protection Agency

J = Estimated Concentration
MCL = Maximum Contaminant Level
ND = not detected above detection limit indicated
NRWQC = National Recommended Water Quality Criteria
PAHs = polynuclear aromatic hydrocarbons

ppb = parts per billion
PRG = Preliminary Remediation Goal
SCV = Secondary Chronic Value
ug/l = micrograms per liter
U = Non-detect above method reporting limit

U* = Compound considered non-detect because it was also detected in associated blank at similar concentration levels.
UJ = Compound not detected, but the reporting limit is probably higher due to a low bias identified during the quality assurrance review.

1 = Sample number prefix: 2708-
2 = Tier II SCV values were taken from Suter II, G.W. and Tasco, C.L., 1996. *Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota*: 1996 Revision. ORNL publication ES/ER/TM-96/R2
3 = MCL is based on benzo(a)pyrene
4 = Values were taken from Table 33c (OAR 340-41), which are Water Quality Guidance Values, not criteria, that can be used in application of Oregon's Narrative Toxics Criteria to waters of the state in order to protect aquatic life
5 = Due to mislabeling in the field or due to laboratory misidentification, the laboratory report transposed results for MW4-35 and MW-4-57 in August 1997. Tables attribute data to the correct well.
6 = Results for sample 960620-MW-8-56-01 should be considered qualitative due to an apparent error concerning sample identity with respect to PAH container
7 = Monitoring well purged & sampled with low-flow protocol as per EPA/540/S-95/504 (April 1996)
8 = Screenino Level Values are from *Portland Harbor Joint Service Control Strateov. Final*. December 2005
9 = EPA, under CERCLA authority, has identified the Safe Drinking Water Acts MCLs and AWQCs (federal and state once approved) as potential ARARs under CERCLA. The final determination will be made in the EPA Portland Harbor Record of Decision (ROD). Decisions to implement source control, prior to The EPA Portland Harbor ROD, due to an exceedance of an SLV in upland stormwater will be evaluated and prioritized on a case by case basis.

Table 5c - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - mg/l (ppm)																					
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium [4]	Calcium	Chromium	Copper [4]	Iron	Lead [4]	Magnesium	Manganese	Mercury	Nickel [4]	Potassium	Selenium	Silver [4]	Sodium	Thallium	Vanadium	Zinc [4]
HUMAN HEALTH SCREENING LEVEL VALUES [8,10]																									
Fish Consumption																									
	EPA 2004 NRWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.0000146	#	#	#	#	#	#	#	#
	Portland Harbor specific fish consumption rate			#	0.064	0.000014	#	#	#	#	#	#	#	#	#	0.01	3.	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.00146	4.6	#	4.2	#	#	#	#	26.
Drinking Water																									
	MCL			#	0.006	0.01	#	#	0.005	#	0.1	1.3	#	0.015	#	0.05 7	0.002	#	#	0.05	0.1 [9]	#	#	#	5.0 [9]
	Tap Water PRGs			37.	0.015	0.000045	#	#	0.018	#	#	1.5	#	#	#	0.88	0.011	0.73	#	0.18	0.18	#	#	#	11.
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,10]																									
	EPA 2004 NRWQC (chronic)			87.	#	0.15	#	#	#	#	#	#	#	#	#	#	#	#	#	0.005	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	1.6 3	#	#	#	0.00038 [7]	#	#	0.0036 [7]	#	0.00054 [7]	#	#	0.000012	0.049 [7]	#	0.035 [7]	0.00012 [7]	#	#	#	0.033
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	0.03	0.0031 [3]	#	#	#	#	#	#	#	#	#	0.12	0.0013	#	#	#	0.00036	#	#	#	#
MW-01-22	951207-MW1-22-01	7-Dec-95	11 - 21		-	-		-	-		-	-		0.041			-	-		-	-		-		-
	960319-MW1-22-01	19-Mar-96	(fill WBZ)		ND>0.005	0.005 U		0.002 U	0.002 U		0.01	0.005 U		0.007			0.0002 U	0.14		0.002 U	0.002 U		0.01 U		0.066
	960618-MW1-22-01	18-Jun-96			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.039		-	-		-		0.024
	961001-MW1-22-01	1-Oct-96			-	0.005 U		-	-		0.023	0.005 U		0.005 U			-	0.16		-	-		-		0.17
	970225-MW1-22-01	25-Feb-97			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.045		-	-		-		0.028
	970225-MW1-22-02	25-Feb-97			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.044		-	-		-		0.024
	970827-MW1-22-01	27-Aug-97			-	0.012		-	-		0.018	0.01		0.027			-	0.1		-	-		-		0.16
	970827-MW1-22-02	27-Aug-97			-	0.05 U		-	-		0.05 U	0.005 U		0.005 U			-	0.12		-	-		-		0.53
	980217-MW1-22-01	17-Feb-98			-	0.009		-	-		0.005 U	0.007		0.015			-	0.011		-	-		-		0.05
	980602-MW1-32-11	2-Jun-98			-	0.031		-	-		0.006	-		0.03			-	0.026		-	-		-		0.13
	980826-MW1-22-10	26-Aug-98			-	-		-	-		-	-		0.005 U			-	0.041		-	-		-		0.005 U
	981118-MW1-22-15	18-Nov-98			-	0.03		-	-		0.008	0.022		0.091			-	0.11		-	-		-		0.086
	990216-MW1-22-012	16-Feb-99			-	-		-	-		-	-		0.006			-	0.005 U		-	-		-		0.051
	990513-MW1-22-11	13-May-99			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.025
	990824-MW1-22-15	24-Aug-99			-	0.061		-	-		0.02	0.044		0.15			-	0.19		-	-		-		0.52
	991028-MW1-22-16	28-Oct-99			-	0.005 U		-	-		0.011	0.005 U		0.0081			-	0.046		-	-		-		0.063
	000330-MW1-22-116	30-Mar-00			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.0329		-	-		-		0.0341
	010329-MW1-22-115	29-Mar-01			-	0.0178		-	-		0.005 U	0.01 U		0.0101			-	0.0128		-	-		-		0.0503
	040825-MW1-22-019[6]	25-Aug-04				0.00302		-	-		0.0315	0.002 U		0.0182			-	0.168		-	-		-		0.23
	050401-014	1-Apr-05				0.00142		-	-		0.001 U	0.00118		0.001 U			-	0.0025		-	-		-		0.01 U
	060403-MW-1-22-117	3-Apr-06				0.00321		-	-		0.0129	0.002 U		0.0627			-	0.128		-	-		-		0.164
	061030-MW-1-22-123	30-Oct-06				0.00366		-	0.00004		0.026	0.00274		0.00539			0.00002 U	0.0858		0.0021 B	0.000015 B		-		0.651
	2708-070720-MW-1-22-131	20-Jul-07		36.4	0.0008 U	0.00538	0.0226	0.00123	0.00038 U	283.	0.0396	0.00531	43.8	0.0334	17.7	1.12	0.0002 U	0.0939	6.15	0.05 U	0.00012 U	25.3	0.0008 U	0.0633	0.148
	2708-080512-MW1-22-105	12-May-08		21.9	0.00012	0.00402	0.0632	0.00255	0.000227	162.	0.0439	0.00096	21.9	0.0572	23.6	1.11	0.00003 U	0.0561	5.71	0.0003 J	0.00002	22.3	0. U	0.0496	0.0757
	2708-070719-MW-1-55-127	19-Jul-07	45 - 55 (alluvial WBZ)	4.96	0.0008 U	0.00283	0.087	0.0008 U	0.00038 U	712.	0.0493	0.0109 J	465.	0.00221	407.	14.4	0.0002 U	0.0278	9.25	0.005 U	0.00012 U	109.	0.0008 U	0.0194	0.033 U
	2708-080512-MW1-55-104	12-May-08		0.504	0.00002 J	0.00189	0.0313	0.00004	0.000012 J	686.	0.0139	0.00306	467.	0.000388	417.	13.9	0.00003 U	0.00999	9.67	0.0009 J	0.000098	151.	0. J	0.00327	0.00272
	2708-070719-MW-1-82-126	19-Jul-07	72 - 82 (alluvial WBZ)	1.98	0.0008 U	0.00154	0.0412	0.0008 U	0.00038 U	31.9	0.0181	0.00422 J	5.53	0.000712	8.26	0.45	0.0002 U	0.0298	3.01	0.005 U	0.00012 U	9.2	0.0008 U	0.00707	0.033 U
	2708-080512-MW1-82-103	12-May-08		0.497	0.00002 J	0.00396	0.0239	0.00002	0.000013 J	24.6	0.00232	0.00123	8.06	0.00022	7.96	0.62	0.00003 U	0.00331	2.56	0.0002 UJ	0.000034	9.48	0. J	0.0023	0.00368
MW-02-32	951206-MW2-32-01	6-Dec-95	21.5 - 31.5		-	-		-	-		-	-		0.005 U			-	-		-	-		-		-
	960618-MW2-32-01	18-Jun-96	(fill WBZ)		-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.008		-	-		-		0.005 U
	961001-MW2-32-01	1-Oct-96			-	0.005 U		-	-		0.005 U	0.008		0.005 U			-	0.005		-	-		-		0.01
	970225-MW2-32-01	25-Feb-97			-	0.008		-	-		0.005 U	0.005 U		0.005 U			-	0.011		-	-		-		0.007
	970827-MW2-32-01	27-Aug-97			-	0.007		-	-		0.005 U	0.005 U		0.005 U			-	0.008		-	-		-		0.008
	980217-MW2-32-01	17-Feb-97			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	980601-MW2-32-05	1-Jun-98			-	0.005 U		-	-		0.005 U	-		-			-	0.006		-	-		-		-
	981117-MW2-32-10	17-Nov-98			-	0.005 U		-	-		0.005 U	-		-			-	0.005		-	-		-		-
	990513-MW2-32-10	13-May-99			-	0.005 U		-	-		0.005 U	-		-			-	0.005 U		-	-		-		-
	991027-MW2-32-12	27-Oct-99			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	000329-MW2-32-112	29-Mar-00			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.0053		-	-		-		0.0158
	010328-MW2-32-111	28-Mar-01			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.0147		-	-		-		0.005 U
	040816-MW2-32-009[6]	16-Aug-04			-	0.00108		-	-		0.001 U	0.002 U		0.001 U			-	0.00621		-	-		-		0.005 U
	050331-009	31-May-05				0.00247		-	-		0.001 U	0.00138		0.001 U			-	0.00838		-	-		-		0.01 U
	050927-MW-2-32-118	27-Sep-05				0.00486		-	-		0.00886	0.0218		0.001 U			-	0.0065		-	-		-		0.0577
	060328-MW-2-32-102	28-Mar-06				0.00207		-	-		0.001 U	0.002 U		0.01 U			-	0.00874		-	-		-		0.005 U
	061016-MW-2-32-107	16-Oct-06				0.00221		-	0.00005		0.00033	0.0028		0.000086			0.00002 U	0.0107		0.0002 U	0.000007 U		-		0.0368
	2708-070712-MW-2-32-120	12-Jul-07		0.0450	0.0008 U	0.00159	0.0131	0.008 U	0.00038 U	36.2	0.001 U	0.0027 U	1.67	0.00054 U	9.63	0.387	0.0002 U	0.0101	2.01	0.005 U	0.00012 U	9.15	0.0008 U	0.0058	0.033 U
	2708-080512-MW2-32-101	12-May-08		0.0082	0.0001	0.00165	0.0098	0. U	0.000056	28.	0.00024	0.0009	1.14	0.000074	7.86	0.535	0.00003 U	0.0132	1.61 J	0.0002 J	0.000022	8.82	0. J	0.00285	0.00204
MW-02-61	981116-MW2-61-04	16-Nov-98	50 - 60		-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	990216-MW2-61-006	16-Feb-99	(alluvial WBZ)		-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.03 U
	990512-MW2-61-05	12-May-99			-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	990823-MW2-61-07	23-Aug-99			-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.01 U
	991026-MW2-61-04	26-Oct-99			-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	000328-MW2-61-104	28-Mar-00			-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	001004-MW2-61-04	4-Oct-00			-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	010328-MW2-61-104	28-Mar-01			-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	011009-MW2-61-104	9-Oct-01			-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.01 U

Table 5c - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - mg/l (ppm)																					
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium [4]	Calcium	Chromium	Copper [4]	Iron	Lead [4]	Magnesium	Manganese	Mercury	Nickel [4]	Potassium	Selenium	Silver [4]	Sodium	Thallium	Vanadium	Zinc [4]
HUMAN HEALTH SCREENING LEVEL VALUES [8,10]																									
Fish Consumption																									
	EPA 2004 NRWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.0000146	#	#	#	#	#	#	#	#
	Portland Harbor specific fish consumption rate			#	0.064	0.000014	#	#	#	#	#	#	#	#	#	0.01	3.	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.00146	4.6	#	4.2	#	#	#	#	26.
Drinking Water																									
	MCL			#	0.006	0.01	#	#	0.005	#	0.1	1.3	#	0.015	#	0.05 7	0.002	#	#	0.05	0.1 [9]	#	#	#	5.0 [9]
	Tap Water PRGs			37.	0.015	0.000045	#	#	0.018	#	#	1.5	#	#	#	0.88	0.011	0.73	#	0.18	0.18	#	#	#	11.
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,10]																									
	EPA 2004 NRWQC (chronic)			87.	#	0.15	#	#	#	#	#	#	#	#	#	#	#	#	#	0.005	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	1.6 3	#	#	#	0.00038 [7]	#	#	0.0036 [7]	#	0.00054 [7]	#	#	0.000012	0.049 [7]	#	0.035 [7]	0.00012 [7]	#	#	#	0.033
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	0.03	0.0031 [3]	#	#	#	#	#	#	#	#	#	0.12	0.0013	#	#	#	0.00036	#	#	#	#
MW-02-61	020403-MW2-61-103	3-Apr-02			-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.0091
	020924-MW2-61-103	24-Sep-02			-	0.005 U		-	-		0.005 U	0.01 U		0.01 U			-	0.005 U		-	-		-		0.005 U
	030318-MW2-61-104	18-Mar-03			-	0.01 U		-	-		0.015 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.002 U
	030930-MW2-61-103 [6]	30-Sep-03	50 - 60		-	0.02 U		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	040813-MW2-61-002[6]	13-Aug-04	(alluvial WBZ)			0.00161		-	-		0.00169	0.002 U		0.001 U			-	0.0105		-	-		-		0.005 U
	050926-MW-2-61-111	26-Sep-05				0.00324		-	-		0.001 U	0.00311		0.001 U											
	060329-MW-2-61-104	29-Mar-06				0.00311		-	-		0.001 U	0.002 U		0.001 U			-	0.002 U		-	-		-		0.0059
	061011-MW-2-61-101	11-Oct-06				0.00295		-	0.000078		0.00045	0.00216		0.000235			0.00002 U	0.00101		0.0004 B	0.000005 B		-		0.0305
	2708-070719-MW-2-61-128	19-Jul-07		1.38	0.0008 U	0.00302	0.0683	0.0008 U	0.00038 U	64.9	0.0018	0.0036 J	28.5	0.000576	49.2	1.12	0.0002 U	0.002 U	2.74	0.005 U	0.00012 U	19.4	0.0008 U	0.00467	0.033 U
	2708-080512-MW2-61-100	12-May-08		0.173	0.00002 U	0.00276	0.0595	0.00001 J	0.000513	60.2	0.00041	0.00069	26.	0.000179	45.6	1.05	0.00003 U	0.00071	2.76	0.0005 J	0.000014 J	19.9	0. U	0.00104	0.00146
MW-02-104	2708-070712-MW-2-104-119	12-Jul-07	94 - 104	0.624 U*	0.0008 U	0.00312	0.0755	0.008 U	0.00038 U	76.3	0.0161	0.0027 U	10.5	0.00054 U	17.9	1.26	0.0002 U	0.0102	11.5	0.005 U	0.00012 U	15.4	0.0008 U	0.004 U	0.033 U
	2708-080512-MW2-104-102	12-May-08		0.0578	0.00002 J	0.00659	0.0658	0.00001 J	0.000019 J	64.2	0.00134	0.00053	49.1	0.000103	26.3	0. U	0.00143	4.2	0.0004 J	0. J	15.9	0. U	0.0005	0.00672	0.00146
MW-03-26	951206-MW3-26-01	6-Dec-95	15 - 25		-	-		-	-		-	-		0.007			-	-		-	-		-		-
	960318-MW3-26-02	18-Mar-96	(fill WBZ)		-	0.005 U		-	0.002 U		0.005 U	0.005 U		0.005 U			-	0.36		-	-		-		0.005
	960618-MW3-26-01	18-Jun-96			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.33		-	-		-		0.014
	961001-MW3-26-01	1-Oct-96			-	0.026		-	-		0.44	0.41		0.11			-	1.5		-	-		-		0.98
	970225-MW3-26-01	25-Feb-97			-	0.005 U		-	-		0.006	0.005 U		0.005 U			-	0.27		-	-		-		0.017
	970827-MW3-26-01	27-Aug-97			-	0.031		-	-		0.39	0.38		0.099			-	1.4		-	-		-		0.71
	980218-MW3-26-01	18-Feb-98			-	0.005 U		-	-		0.017	0.009		0.007			-	0.21		-	-		-		0.04
	980602-MW3-26-09	2-Jun-98			-	0.005 U		-	-		0.005 U	0.008		0.005			-	0.29		-	-		-		0.028
	980826-MW3-26-08	26-Aug-98			-	-		-	-		0.005 U	0.005 U		0.005 U			-	0.083		-	-		-		0.005
	981117-MW3-26-12	17-Nov-98			-	0.024		-	-		0.22	0.25		0.08			-	1.2		-	-		-		0.61
	990216-MW3-26-010	16-Feb-99			-	-		-	-		0.0078	0.041		0.005 U			-	0.15		-	-		-		0.063
	990514-MW3-26-23	14-May-99			-	0.005 U		-	-		0.005 U	0.005 U		0.0097			-	0.14		-	-		-		0.024
	990824-MW3-26-12	24-Aug-99			-	-		-	-		0.096	0.023		0.0054			-	0.21		-	-		-		0.064
	991027-MW3-26-14	27-Oct-99			-	0.02		-	-		1.	0.28		0.079			-	1.5		-	-		-		0.59
	000330-MW3-26-113	30-Mar-00			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.085		-	-		-		0.0713
	001005-MW3-26-11	5-Oct-00			-	0.005 U		-	-		0.0386	0.0296		0.0107			-	0.187		-	-		-		0.0696
	010328-MW3-26-113	28-Mar-01			-	0.0051		-	-		0.0149	0.0116		0.005 U			-	0.191		-	-		-		0.0304
	048023-MW3-26-010[6]	23-Aug-04				0.001 U		-	-		0.001 U	0.002 U		0.001 U			-	0.0983		-	-		-		0.00692
	050330-004	30-Mar-05				0.001 U		-	-		0.001 U	0.00185		0.001			-	0.19		-	-		-		0.01 U
	050922-MW-3-26-105	22-Sep-05				0.00369		-	-		0.005 U	0.00742		0.00388			-	0.131		-	-		-		0.029
	060330-MW-3-26-110	30-Mar-06				0.001 U		-	-		0.001 U	0.002 U		0.001 U			-	0.16		-	-		-		0.005 U
	061017-MW-3-26-110	17-Oct-06				0.0153		-	0.00154		0.0477	0.0805		0.0455			0.00073	1.05		0.0069 B	0.000083 B		-		0.372
	2708-070629-MW-3-26-119	29-Jun-07		31.5	0.0008 UJ	0.00695	0.238	0.004 U	0.00038 U	44.2	0.052	0.0692	48.5	0.0256	49.6	0.91	0.0002 U	0.0869	3.06	0.005 U	0.00012 J	21.2	0.0008 U	0.233 J	0.0973
	2708-080512-MW3-26-107	12-May-08		0.249	0.00008	0.00069	0.0421	0.00003	0.000038	49.8	0.00117	0.00063	6.25	0.000506	11.7	1.02	0.00003 U	0.133	2.28	0.0002 UJ	0.000007 J	11.3	0. J	0.248	0.00746
MW-03-56	951206-MW3-56-01	6-Dec-95	45 - 55		ND>0.005	0.005 U		0.002 U	0.002 U		0.005 U	0.005 U		0.005 U			0.0002 U	0.007		0.005 U	0.005 U		0.01 U		0.005
	960319-MW3-56-01	19-Mar-96	(alluvial WBZ)		-	0.005 U		-	0.002 U		0.005 U	0.005 U		0.005 U			-	0.013		-	-		-		0.005 U
	980602-MW3-56-14	2-Jun-98			-	0.005 U		-	-		0.007	-		-			-	0.017		-	-		-		-
	981118-MW3-56-16	18-Nov-98			-	0.005 U		-	-		0.005 U	-		-			-	0.005 U		-	-		-		-
	990514-MW3-56-24	14-May-99			-	0.005 U		-	-		0.0064	-		-			-	0.019		-	-		-		-
	990824-MW3-56-16	24-Aug-99			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.0087		-	-		-		0.01 U
	991028-MW3-56-17	28-Oct-99			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.0058		-	-		-		0.005 U
	000330-MW3-56-117	30-Mar-00			-	0.0084		-	-		0.0457	0.0276		0.0121			-	0.0865		-	-		-		0.0631
	001005-MW3-56-13	5-Oct-00			-	0.005 U		-	-		0.0064	0.005 U		0.005 U			-	0.0151		-	-		-		0.0129
	010329-MW3-56-116	29-Mar-01			-	0.0056		-	-		0.0053	0.01 U		0.005 U			-	0.013		-	-		-		0.0072
	020404-MW3-56-111	4-Apr-02			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.0096		-	-		-		0.0082
	030319-MW3-56-112	19-Mar-03			-	0.01 U		-	-		0.003 U	0.003 U		0.006 U			-	0.0053		-	-		-		0.02 U
	040823-MW3-56-011[6]	23-Aug-04				0.00345		-	-		0.00177	0.002 U		0.001 U			-	0.0042		-	-		-		0.005 U
	050330-003	30-Mar-05				0.00395		-	-		0.001 U	0.001 U		0.001 U			-	0.00226		-	-		-		0.01 U
	050922-MW-3-56-106	22-Sep-05				0.004		-	-		0.005 U	0.002 U		0.001 U			-	0.00386		-	-		-		0.025 U
	060330-MW-3-56-111	30-Mar-06				0.00342		-	-		0.001 U	0.002 U		0.001			-	0.002 U		-	-		-		0.005 U
	061024-MW-3-56-116	24-Oct-06				0.00344		-	0.00005		0.00151	0.00134		0.00036			0.00002 U	0.0044		0.0002 U	0.000014 B		-		0.0203
	2708-070626-MW-3-56-108	26-Jun-07		51.6 J	0.001 U	0.00923	0.368	0.005 U	0.000808	46.7	0.08	0.111	92.1	0.0443	53.8	1.09	0.0002 U	0.164	3.8	0.005 U	0.000208	25.3	0.001 U	0.401	0.182
	2708-080512-MW3-56-106	12-May-08		8.62	0.00004 J	0.00314	0.0809	0.00029	0.000102	38.1	0.00988	0.016	25.5	0.00547	38.9	0.557	0.00003 J	0.0209	2.47	0.0005 J	0.000037	22.2	0.	0.0569	0.023

Table 5c - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - mg/l (ppm)																					
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium [4]	Calcium	Chromium	Copper [4]	Iron	Lead [4]	Magnesium	Manganese	Mercury	Nickel [4]	Potassium	Selenium	Silver [4]	Sodium	Thallium	Vanadium	Zinc [4]
HUMAN HEALTH SCREENING LEVEL VALUES [8,10]																									
Fish Consumption																									
	EPA 2004 NRWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.0000146	#	#	#	#	#	#	#	#
	Portland Harbor specific fish consumption rate			#	0.064	0.000014	#	#	#	#	#	#	#	#	#	0.01	3.	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.00146	4.6	#	4.2	#	#	#	#	26.
Drinking Water																									
	MCL			#	0.006	0.01	#	#	0.005	#	0.1	1.3	#	0.015	#	0.05 7	0.002	#	#	0.05	0.1 [9]	#	#	#	5.0 [9]
	Tap Water PRGs			37.	0.015	0.000045	#	#	0.018	#	#	1.5	#	#	#	0.88	0.011	0.73	#	0.18	0.18	#	#	#	11.
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,10]																									
	EPA 2004 NRWQC (chronic)			87.	#	0.15	#	#	#	#	#	#	#	#	#	#	#	#	#	0.005	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	1.6 3	#	#	#	0.00038 [7]	#	#	0.0036 [7]	#	0.00054 [7]	#	#	0.000012	0.049 [7]	#	0.035 [7]	0.00012 [7]	#	#	#	0.033
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	0.03	0.0031 [3]	#	#	#	#	#	#	#	#	#	0.12	0.0013	#	#	#	0.00036	#	#	#	#
MW-04-35	951206-MW4-35-01	6-Dec-95	24 - 34		-	-		-	-		-	-		0.005 U			-	-		-	-		-		-
	960618-MW4-35-01	18-Jun-96	(fill WBZ)		-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	961001-MW4-35-01	1-Oct-96			-	0.007		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.008
	970225-MW4-35-01	25-Feb-97			-	0.006		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	980827-MW4-57-01 [5]	27-Aug-97			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	980217-MW4-35-01	17-Feb-98			-	0.005 U		-	-		0.007	0.005 U		0.005 U			-	0.005		-	-		-		0.005
	980601-MW4-35-06	1-Jun-98			-	0.005 U		-	-		0.005 U	-		-			-	0.005 U		-	-		-		-
	981117-MW4-35-11	17-Nov-98			-	0.005		-	-		0.005 U	-		-			-	0.005 U		-	-		-		-
	990514-MW4-35-21	14-May-99			-	0.005 U		-	-		0.005 U	-		-			-	0.005 U		-	-		-		-
	991027-MW4-35-13	27-Oct-99			-	0.0064		-	-		0.044	0.033		0.016			-	0.037		-	-		-		0.067
	000330-MW4-35-114	30-Mar-00			-	0.0063		-	-		U	U		U			-	ND		-	-		-		U
	001005-MW4-35-10	5-Oct-00			-	0.0134		-	-		0.111	0.123		0.0511			-	0.105		-	-		-		0.252
	010328-MW4-35-112	28-Mar-01			-	0.0055		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	040823-MW4-35-012[6]	23-Aug-04				0.00672		-	-		0.001 U	0.002 U		0.001 U			-	0.0073		-	-		-		0.005 U
	050331-005	31-Mar-05				0.00336		-	-		0.001 U	0.001 U		0.001 U			-	0.00154		-	-		-		0.01 U
	060331-MW-4-35-113	31-Mar-06				0.00312		-	-		0.001 U	0.002 U		0.001 U			-	0.005 U		-	-		-		0.005 U
	061018-MW-4-35-113	18-Oct-06				0.00605		-	0.00005		0.00133	0.00074		0.00029			0.00002 B	0.0011		0.0011	0.000007 U		-		0.927
	2708-070726-MW-4-35-137	26-Jul-07		0.0316	0.0008 U	0.00374 J	0.282 J	0.0008 U	0.00038 UJ	201.	0.00757 J	0.0027 U	17.3	0.00054 U	29.1	5.06	0.0002 U	0.00428	15.2	0.005 UJ	0.00012 UJ	38.2	0.0008 U	0.004 U	0.033 U
	2708-080513-MW4-35-112	13-May-08		0.156	0.00005	0.00329	0.126	0.00002	0.000013 J	137.	0.00113	0.00096	18.3	0.00173	22.7	4.63	0.00003 U	0.00191	7.04	0.0002 J	0.000005 J	26.4	0. U	0.00168	0.00163
	2708-080513-MW4-35-113	13-May-08		0.131	0.00005 J	0.00348	0.126	0.00002 J	0.000011 J	141.	0.00108	0.00084	18.5	0.0015	23.1	4.7	0.00003 U	0.00176	7.17	0.0004 J	0.000003 U	26.9	0. U	0.00152	0.00142
MW-04-57	951205-MW4-57-01	5-Dec-95	46 - 56		-	-		-	-		-	-		0.005 U			-	-		-	-		-		-
	960321-MW4-57-01	21-Mar-96	(alluvial WBZ)		-	0.005		-	0.002 U		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	960620-MW4-57-02	20-Jun-96			-	0.007		-	-		0.005 U	0.005 U		0.005 U			-	0.005		-	-		-		0.005 U
	961002-MW4-57-01	2-Oct-96			-	0.013		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	970226-MW4-57-01	26-Feb-97			-	0.01		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	970828-MW4-35-01 [5]	28-Aug-97			-	0.013		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	980218-MW4-57-01	18-Feb-98			-	0.011		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	980603-MW4-57-18	3-Jun-98			-	0.011		-	-		0.005 U	-		-			-	0.005 U		-	-		-		-
	981119-MW4-57-20	19-Nov-98			-	0.01		-	-		0.005 U	-		-			-	0.005 U		-	-		-		-
	990514-MW4-57-22	14-May-99			-	0.011		-	-		0.005 U	-		-			-	0.005 U		-	-		-		-
	990825-MW4-57-17	25-Aug-99			-	0.013		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.01 U
	991028-MW4-57-21	28-Oct-99				0.013		-	-		0.015	0.008		0.005 U			-	0.012		-	-		-		0.014
	000403-MW4-57-121	3-Apr-00			-	0.0157		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0259
	001006-MW4-57-19	6-Oct-00			-	0.0137		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	010329-MW4-57-120	29-Mar-01			-	0.0183		-	-		0.005 U	0.01 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	020405-MW4-57-117	5-Apr-02			-	0.0128		-	-		0.005 U	0.005 U		0.005 U			-	0.0079		-	-		-		0.005 U
	030320-MW4-57-117	20-Mar-03			-	0.016		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	040824-MW4-57-016[6]	24-Aug-04				0.0126		-	-		0.00108	0.002 U		0.001 U			-	0.00788		-	-		-		0.005 U
	050331-008	31-Mar-05				0.0129		-	-		0.001 U	0.001 U		0.001 U			-	0.00617		-	-		-		0.01 U
	051003-MW-4-57	3-Oct-05				0.011		-	-		0.002 U	0.002 U		0.001 U			-	0.0058		-	-		-		0.02 U
	060331-MW-4-57-114	30-Mar-06				0.0138		-	-		0.00214	0.00364		0.001 U			-	0.00892		-	-		-		0.005 U
	061030-MW-4-57-122	30-Oct-06				0.0144		-	0.00007		0.00456	0.00103		0.000168			0.00002 U	0.0084		0.0006 B	0.000007 U		-		0.0072
	2708-070622-MW-4-57-101	22-Jun-07		0.106	0.001 U	0.00376	0.169	0.001 U	0.00038 U	171.	0.00857	0.0027 U	20.2	0.00054 U	26.1	5.58	0.0002 U	0.00585	9.39	0.005 U	0.00012 U	37.7	0.001 U	0.005 U	0.033 U
	2708-080513-MW4-57-111	13-May-08		6.49	0.00005 J	0.0116	0.119	0.000201	0.000042	130.	0.00561	0.0115	41.6	0.00216	87.5	3.96	0.00003 U	0.0135	2.66	0.0009 J	0.000023	56.2	0.000028	0.0188	0.0116
MW-04-101	981117-MW4-101-09	17-Nov-98	89.5 - 99.5		-	0.007		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	990216-MW4-101-007	16-Feb-99	(alluvial WBZ)		-	0.0098		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.03 U
	990514-MW4-101-20	14-May-99			-	0.011		-	-		-	-		-			-	-		-	-		-		-
	990514-MW4-101-20	14-May-99			-	0.0082		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		U
	990824-MW4-101-09	24-Aug-99			-	0.01		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.01 U
	991027-MW4-101-11	27-Oct-99			-	0.01		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	000329-MW4-101-111	29-Mar-00			-	0.0108		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0069
	001005-MW4-101-09	5-Oct-00			-	0.0069		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	010328-MW4-101-110	28-Mar-01			-	0.0157		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	011009-MW4-101-103	9-Oct-01			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.01 U
	020404-MW4-101-110	4-Apr-02			-	0.0138		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0054
	020924-MW4-101-102	24-Sep-02			-	0.014		-	-		0.005 U	0.01 U		0.01 U			-	0.005 U		-	-		-		0.0077
	030318-MW4-101-109	18-Mar-03			-	0.017		-	-		0.015 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	030930-MW4-101-106 [6]	30-Sep-03			-	0.04		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U

Table 5c - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - mg/l (ppm)																					
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium [4]	Calcium	Chromium	Copper [4]	Iron	Lead [4]	Magnesium	Manganese	Mercury	Nickel [4]	Potassium	Selenium	Silver [4]	Sodium	Thallium	Vanadium	Zinc [4]
HUMAN HEALTH SCREENING LEVEL VALUES [8,10]																									
Fish Consumption																									
	EPA 2004 NRWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.0000146	#	#	#	#	#	#	#	#
	Portland Harbor specific fish consumption rate			#	0.064	0.000014	#	#	#	#	#	#	#	#	#	0.01	3.	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.00146	4.6	#	4.2	#	#	#	#	26.
Drinking Water																									
	MCL			#	0.006	0.01	#	#	0.005	#	0.1	1.3	#	0.015	#	0.05 7	0.002	#	#	0.05	0.1 [9]	#	#	#	5.0 [9]
	Tap Water PRGs			37.	0.015	0.000045	#	#	0.018	#	#	1.5	#	#	#	0.88	0.011	0.73	#	0.18	0.18	#	#	#	11.
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,10]																									
	EPA 2004 NRWQC (chronic)			87.	#	0.15	#	#	#	#	#	#	#	#	#	#	#	#	#	0.005	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	1.6 3	#	#	#	0.00038 [7]	#	#	0.0036 [7]	#	0.00054 [7]	#	#	0.000012	0.049 [7]	#	0.035 [7]	0.00012 [7]	#	#	#	0.033
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	0.03	0.0031 [3]	#	#	#	#	#	#	#	#	#	0.12	0.0013	#	#	#	0.00036	#	#	#	#
MW-04-101	040816-MW4-101-007[6]	16-Aug-04				0.0142		-	-		0.001 U	0.002 U		0.001 U			-	0.002 U		-	-		-		0.005 U
	050330-002	30-Mar-05				0.0138		-	-		0.001 U	0.00158		0.001 U			-	0.00147							0.01 U
	050928-MW4-101-122	28-Sep-05				0.0139		-	-		0.001 U	0.002 U		0.001 U			-	0.00334		-	-		-		0.005 U
	060329-MW-4-101-106	29-Mar-06				0.0134		-	-		0.001 U	0.002 U		0.001 U			-	0.002 U		-	-		-		0.005 U
	061018-MW-4-101-112	18-Oct-06				0.0113		-	0.00006		0.00043	0.0003		0.000044			0.00002 B	0.0006		0.0004	0.000007 U		-		0.0073
	2708-070625-MW-4-101-106	25-Jun-07		2.49	0.001 U	0.0111	0.105	0.001 U	0.00038 U	73.	0.00313	0.00638	42.	0.00119	28.4	3.87	0.0002 UJ	0.00326	4.11	0.005 U	0.00012 U	40.	0.001 U	0.0107	0.033 U
	2708-080513-MW4-101-114	13-May-08		0.418	0.00002 U	0.0113	0.0881	0.000036	0.000008 J	75.7	0.00078	0.00128	41.	0.000212	29.	3.83	0.00003 U	0.00118	4.64	0.0006 J	0.000028	38.6	0.000003 U	0.0021	0.00199
MW-05-32	951205-MW5-32-01	5-Dec-95	21 - 31		-	-		-	-		-	-		0.005 U			-	-		-	-		-		-
	960620-MW5-32-01	20-Jun-96	(fill/alluvial WBZ)		-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	961001-MW5-32-01	1-Oct-96			-	0.008		-	-		0.11	0.22		0.029			-	0.086		-	-		-		0.4
	970225-MW5-32-01	25-Feb-97			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.006
	970827-MW5-32-01	27-Aug-97			-	0.005 U		-	-		0.011	0.012		0.005 U			-	0.012		-	-		-		0.024
	980217-MW5-32-01	17-Feb-98			-	0.005 U		-	-		0.022	0.01		0.005 U			-	0.011		-	-		-		0.016
	980602-MW5-32-10	2-Jun-98			-	0.005 U		-	-		0.022	-		-			-	0.023		-	-		-		-
	981118-MW5-32-13	18-Nov-98			-	0.008		-	-		0.099	-		-			-	0.091		-	-		-		-
	990514-MW5-32-17	14-May-99			-	0.005 U		-	-		0.005 U	-		-			-	0.005 U		-	-		-		-
	991027-MW5-32-15	27-Oct-99			-	0.018		-	-		0.28	0.38		0.071			-	0.23		-	-		-		0.54
	000330-MW5-32-115	30-Mar-00			-	0.005 U		-	-		0.014	0.0177		0.005 U			-	0.0161		-	-		-		0.0407
	001005-MW5-32-12	5-Oct-00			-	0.005 U		-	-		0.0458	0.0533		0.0129			-	0.0409		-	-		-		0.0963
	010329-MW5-32-114	29-Mar-01			-	0.0083		-	-		0.061	0.0651		0.0163			-	0.0524		-	-		-		0.117
	040816-MW5-32-008[6]	16-Aug-04				0.001 U		-	-		0.001 U	0.002 U		0.001 U			-	0.00359		-	-		-		0.005 U
	050401-011	1-Apr-05				0.00103		-	-		0.001 U	0.00178		0.001 U			-	0.00356		-	-		-		0.01 U
	050927-MW-5-32-117	27-Sep-05				0.001 U		-	-		0.00411	0.0107		0.00172			-	0.00782		-	-		-		0.0131
	060329-MW-5-32-107	29-Mar-06				0.001 U		-	-		0.00143	0.002 U		0.001 U			-	0.00483		-	-		-		0.005 U
	061018-MW-5-32-114	18-Oct-06				0.00047 B		-	0.00003		0.00123	0.00084		0.000121			0.00002 B	0.0035		0.0003 B	0.000007 U		-		0.564
	2708-070625-MW-5-32-104	25-Jun-07		2.9	0.001 U	0.000688	0.0448	0.001 U	0.00038 U	47.2	0.00418	0.00951	5.91	0.00142	27.2	1.7	0.0002 UJ	0.00634	1. U	0.005 U	0.00012 U	17.9	0.001 U	0.0173	0.033 U
	2708-080514-MW5-32-118	14-May-08		4.84	0.00009 J	0.00115	0.0655	0.000129	0.000084	91.5	0.00543	0.011	7.93	0.00121	53.2	3.21	0.00005 U	0.00971	1.52 J	0.0004 U	0.000026 J	35.7	0.000027 J	0.0196	0.00861
MW-05-100	981118-MW5-100-14	18-Nov-98	88 - 98		-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.008		-	-		-		0.006
	990217-MW5-100-017	17-Feb-99	(alluvial WBZ)		-	0.0071		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.028
	990514-MW5-100-18	14-May-99			-	0.005 U		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.0091
	990825-MW5-100-18	25-Aug-99			-	0.0055		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.01 U
	991028-MW5-100-19	28-Oct-99			-	0.0052		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	000330-MW5-100-119	30-Mar-00			-	0.0069		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	001006-MW5-100-15	6-Oct-00			-	0.0057		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	001006-MW5-100-16	6-Oct-00			-	0.0058		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	010329-MW5-100-118	29-Mar-01			-	0.0095		-	-		0.005 U	0.01 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	020405-MW5-100-114	5-Apr-02			-	0.0073		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.0051
	020405-MW5-100-115	5-Apr-02			-	0.0073		-	-		0.005 U	0.002 U		0.005 U			-	0.005 U		-	-		-		0.0072
	030319-MW5-100-114	19-Mar-03			-	0.011		-	-		0.003 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	040824-MW5-100-015[6]	24-Aug-04				0.00865		-	-		0.001 U	0.002 U		0.001 U			-	0.002		-	-		-		0.005 U
	050401-012	1-Apr-05				0.00766		-	-		0.001 U	0.01 U		0.001 U			-	0.00121		-	-		-		0.01 U
	050921-MW-5-100-102	21-Sep-05				0.00944		-	-		0.005 U	0.002 U		0.001 U			-	0.00224		-	-		-		0.025 U
	060404-MW-5-100-121	4-Apr-06				0.00762		-	-		0.01 U	0.002 U		0.001 U			-	0.002 U		-	-		-		0.005 U
	061027-MW-5-100-120	27-Oct-06				0.0107		-	0.00011		0.0013	0.00059		0.000115			0.00002 U	0.0051		0.0005 B	0.000008 B		-		0.801
	2708-070625-MW-5-100-103	25-Jun-07		0.0663	0.001 U	0.007	0.0703	0.001 U	0.00038 U	72.2	0.001 U	0.0027 U	42.4	0.00054 U	55.6	1.71	0.0002 UJ	0.002 U	2.56	0.005 U	0.00012 U	15.8	0.001 U	0.005 U	0.033 U
	2708-080514-MW5-100-119	14-May-08		0.03	0.00002 U	0.00835	0.0703	0.000021	0.000008 U	72.8	0.00065	0.00035	42.3	0.000032	51.7	1.66	0.00005 U	0.00147	2.92	0.0036	0.000005 J	17.	0.000003 U	0.00031	0.00124
MW-05-175	981116-MW5-175-07	16-Nov-98	163 - 173		-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	990215-MW5-175-003	15-Feb-99	(alluvial WBZ)		-	0.0054		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.04 U
	990512-MW5-175-07	12-May-99			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	990823-MW5-175-03	23-Aug-99			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.01 U
	991026-MW5-175-06	26-Oct-99			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	000329-MW5-175-106	29-Mar-00			-	0.0057		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	001004-MW5-175-05	4-Oct-00			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	010328-MW5-175-105	28-Mar-01			-	0.0083		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	011009-MW5-175-102	9-Oct-01			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.01 U
	020404-MW5-175-105	4-Apr-02			-	0.0069		-	-		0.005 U	0.005 U		0.005 U			-	0.0157		-	-		-		0.0055
	020924-MW5-175-101	24-Sep-02			-	0.005 U		-	-		0.005 U	0.01 U		0.01 U			-	0.0061		-	-		-		0.015
	030318-MW5-175-105	18-Mar-03			-	0.01 U		-	-		0.015 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	030929-MW5-175-101	29-Sep-03			-	0.02 U		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U

Table 5c - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - mg/l (ppm)																						
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium [4]	Calcium	Chromium	Copper [4]	Iron	Lead [4]	Magnesium	Manganese	Mercury	Nickel [4]	Potassium	Selenium	Silver [4]	Sodium	Thallium	Vanadium	Zinc [4]
HUMAN HEALTH SCREENING LEVEL VALUES [8,10]																										
Fish Consumption																										
	EPA 2004 NRWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.0000146	#	#	#	#	#	#	#	#
	Portland Harbor specific fish consumption rate			#	0.064	0.000014	#	#	#	#	#	#	#	#	#	0.01	3.	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.00146	4.6	#	4.2	#	#	#	#	26.
Drinking Water																										
	MCL			#	0.006	0.01	#	#	0.005	#	0.1	1.3	#	0.015	#	0.05 7	0.002	#	#	0.05	0.1 [9]	#	#	#	5.0 [9]
	Tap Water PRGs			37.	0.015	0.000045	#	#	0.018	#	#	1.5	#	#	#	0.88	0.011	0.73	#	0.18	0.18	#	#	#	11.
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,10]																										
	EPA 2004 NRWQC (chronic)			87.	#	0.15	#	#	#	#	#	#	#	#	#	#	#	#	#	0.005	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	1.6 3	#	#	#	0.00038 [7]	#	#	0.0036 [7]	#	0.00054 [7]	#	#	0.000012	0.049 [7]	#	0.035 [7]	0.00012 [7]	#	#	#	0.033
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	0.03	0.0031 [3]	#	#	#	#	#	#	#	#	#	0.12	0.0013	#	#	#	0.00036	#	#	#	#
MW-05-175	040824-MW5-175-013	24-Aug-04	163 - 173			0.0062		-	-		0.00123	0.002 U		0.001 U			-	0.00307		-	-		-		0.005 U
	050921-MW-5-175-101	21-Sep-05	(alluvial WBZ)			0.00494		-	-		0.005 U	0.002 U		0.001 U			-	0.00374		-	-		-		0.025 U
	060329-MW-5-175-105	29-Mar-06				0.00439		-	-		0.001 U	0.002 U		0.001 U			-	0.00218		-	-		-		0.005 U
	061016-MW-5-175-05	16-Oct-06				0.00391		-	0.00002 U		0.00035	0.00005 B		0.000035			0.00002 B	0.002		0.0006 B	0.000007 U		-		0.0019
	2708-070625-MW-5-175-105	25-Jun-07		1.24	0.001 U	0.00434	0.0386	0.001 U	0.00038 U	46.3	0.00146	0.0027 U	27.4	0.000888	27.2	2.52	0.0002 UJ	0.00347	2.48	0.005 U	0.00012 U	13.9	0.001 U	0.005 U	0.033 U
	2708-080514-MW5-175-116	14-May-08		2.33	0.00002 U	0.00444	0.0365	0.000066	0.000012 J	46.2	0.00159	0.00375	27.6	0.000521	27.	2.54	0.00005 U	0.00312	2.91	0.0003 J	0.000004 J	15.1	0.000006 J	0.0047	0.00379
MW-06-32	951207-MW6-32-01	7-Dec-95	21 - 31		ND>0.005	0.015		0.002 U	0.002 U		0.005 U	0.005 U		0.005 U			0.0002 U	0.005 U		0.005 U	0.005 U		0.01 U		0.005 U
	960319-MW6-32-01	19-Mar-96	(fill WBZ)		-	0.011		-	0.002 U		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005
	960617-MW6-32-01	17-Jun-96			-	0.011		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	960930-MW6-32-01	30-Sep-96			-	0.007		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	970225-MW6-32-01	25-Feb-97			-	0.008		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	970826-MW6-32-01	26-Aug-97			-	0.007		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	980216-MW6-32-01	16-Feb-98			-	0.009		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005
MW-06-61	951206-MW6-61-01	6-Dec-95	50 - 60		-	-		-	-		-	-		0.005 U			-	-		-	-		-		-
	960319-MW6-61-01	19-Mar-96	(alluvial WBZ)		ND>0.005	0.005 U		-	0.005 U		0.005	0.005 U		0.005 U			-	0.005 U		-	-		-		0.015
	960620-MW6-61-01	20-Jun-96			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	961001-MW6-61-01	1-Oct-96			-	0.006		-	-		0.005 U	0.01		0.005 U			-	0.005 U		-	-		-		0.01
	970225-MW6-61-01	25-Feb-97			-	0.006		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	970828-MW6-61-01	28-Aug-97			-	0.007		-	-		0.014	0.018		0.005 U			-	0.012		-	-		-		0.2
MW-08-29	951207-MW8-29-01	7-Dec-95	18 - 28		ND>0.005	0.005 U		0.002 U	0.002 U		0.031	0.023		0.011			0.0002 U	0.075		0.005 U	0.005 U		0.01 U		0.3
	960321-MW8-29-01	21-Mar-96	(fill WBZ)		-	0.005 U		-	0.005 U		0.008	0.005		0.005 U			-	0.015		-	-		-		0.26
	960620-MW8-29-02	20-Jun-96			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.008		-	-		-		0.014
	961002-MW8-29-01	2-Oct-96			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.008		-	-		-		0.005 U
	970226-MW8-29-01	26-Feb-97			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.007		-	-		-		0.01
	970828-MW8-29-01	28-Aug-97			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.011		-	-		-		0.2
	980218-MW8-29-01	18-Feb-98			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.009		-	-		-		0.21
	040825-MW8-29-022[6]	25-Aug-04				0.00243		-	-		0.0066	0.002 U		0.001 U			-	0.0113		-	-		-		0.005 U
	050929-MW-8-29-127	29-Sep-05				0.00765		-	-		0.0118	0.00294		0.0024			-	0.278		-	-		-		0.0126
	061031-MW-8-29-124	31-Oct-06				0.003		-	0.00002 U		0.00158	0.00217		0.000323			0.00002 B	0.00965		0.0074	0.000118 B		-		0.324
	2708-080603-MW8-29-100	3-Jun-08		0.742	0.00004 J	0.00194	1.01	0.000063	0.000056	86.3	0.00237	0.00074	43.2	0.00119	40.6	8.12	0.00005 U	0.0102	3.09	0.0021 J	0.000014 J	135.	0.000008 J	0.00465	0.00491
MW-08-56	951207-MW8-56-01	7-Dec-95	45 - 55		ND>0.005	0.005 U		0.002 U	0.002 U		0.048	0.009		0.005 U			0.0002 U	0.035		0.005 U	0.005 U		0.01 U		0.27
	960321-MW8-56-01	21-Mar-96	(alluvial WBZ)		-	0.005 U		-	0.002 U		0.021	0.009		0.005 U			-	0.02		-	-		-		0.24
	960620-MW8-56-01	20-Jun-96			-	0.005 U		-	-		0.005 U	0.15		0.0005 U			-	0.017		-	-		-		0.1
	961002-MW8-56-01	2-Oct-96			-	0.005 U		-	-		0.02	0.027		0.005 U			-	0.071		-	-		-		0.023
	970226-MW8-56-01	26-Feb-97			-	0.005 U		-	-		0.07	0.026		0.005			-	0.052		-	-		-		0.05
	970828-MW8-56-01	28-Aug-97			-	0.006		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.007
	980218-MW8-56-01	18-Feb-98			-	0.006		-	-		0.027	0.017		0.005 U			-	0.02		-	-		-		0.22
	020405-MW8-56-118	5-Apr-02			-	0.0053		-	-		0.0382	0.224		0.005 U			-	0.0284		-	-		-		0.0362
	030320-MW8-56-120	20-Mar-03			-	0.012		-	-		0.001 U	0.0033 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	040825-MW8-56-021[6]	25-Aug-04				0.00766		-	-		0.0072	0.002 UJ		0.001 U			-	0.0076		-	-		-		0.00535
	050929-MW-8-56-128	29-Sep-05				0.00957		-	-		0.0126	0.00419		0.001 U			-	0.0121		-	-		-		0.00778
	061031-MW-8-56-125	31-Oct-06				0.0071		-	0.00004		0.00187	0.00183		0.000142			0.00002 U	0.00584		0.0022	0.000146 B		-		0.401
	061031-MW-8-56-126	31-Oct-06				0.0063		-	0.00005		0.00231	0.00223		0.000233			0.00002 U	0.00609		0.0022	0.00013 B		-		0.308
	2708-080603-MW8-56-101	3-Jun-08		6.77	0.00003 J	0.00925	0.133	0.000193	0.000101	83.8	0.00514	0.00686	35.3	0.00189	57.	4.62	0.00005 U	0.00662	3.88	0.0009 J	0.000015 J	79.	0.000021	0.0146	0.0162
MW-09-29	951205-MW9-29-01	5-Dec-95	18 - 28		-	-		-	-		-	-		0.022			-	-		-	-		-		-
	960318-MW9-29-01	18-Mar-96	(fill WBZ)		ND>0.005	0.005 U		0.002 U	0.002 U		0.005 U	0.005 U		0.005 U			0.0002 U	0.005 U		0.005 U	0.005 U		0.01 U		0.005 U
	960618-MW9-29-01	18-Jun-96			-	0.01		-	-		0.23	0.3		0.008			-	0.16		-	-		-		0.097
	961001-MW9-29-01	1-Oct-96			-	0.005 U		-	-		0.047	0.015		0.005 U			-	0.035		-	-		-		0.037
	970225-MW9-29-01	25-Feb-97			-	0.006		-	-		0.021	0.005		0.005 U			-	0.018		-	-		-		0.022
	970827-MW9-29-01	27-Aug-97			-	0.005 U		-	-		0.035	0.009		0.005 U			-	0.029		-	-		-		0.03
	980217-MW9-29-01	17-Feb-98			-	0.005		-	-		0.021	0.019		0.005 U			-	0.022		-	-		-		0.25
	980602-MW9-29-07	2-Jun-98			-	0.01		-	-		0.037	-		-			-	0.04		-	-		-		-
	981116-MW9-29-02	16-Nov-98			-	0.009		-	-		0.071	-		-			-	0.058		-	-		-		-
	990511-MW9-29-03	11-May-99			-	0.005 U		-	-		0.018	-		-			-	0.017		-	-		-		-
	991026-MW9-29-02	26-Oct-99			-	0.015		-	-		0.22	0.048		0.014			-	0.16		-	-		-		0.14
	000328-MW9-29-102	28-Mar-00			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	010327-MW9-29-102	27-Mar-01			-	0.012		-	-		0.225	0.0306		0.0089			-	0.158		-	-		-		0.0914
	020403-MW9-29-101	3-Apr-02			-	0.005 U		-	-		0.0063	0.005 U		0.005 U			-	0.0065		-	-		-		0.0198
	030318-MW9-29-103	18-Mar-03			-	0.01 U		-	-		0.0015 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U

Table 5c - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - mg/l (ppm)																					
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium [4]	Calcium	Chromium	Copper [4]	Iron	Lead [4]	Magnesium	Manganese	Mercury	Nickel [4]	Potassium	Selenium	Silver [4]	Sodium	Thallium	Vanadium	Zinc [4]
HUMAN HEALTH SCREENING LEVEL VALUES [8,10]																									
Fish Consumption																									
	EPA 2004 NRWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.0000146	#	#	#	#	#	#	#	#
	Portland Harbor specific fish consumption rate			#	0.064	0.000014	#	#	#	#	#	#	#	#	#	0.01	3.	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.00146	4.6	#	4.2	#	#	#	#	26.
Drinking Water																									
	MCL			#	0.006	0.01	#	#	0.005	#	0.1	1.3	#	0.015	#	0.05 7	0.002	#	#	0.05	0.1 [9]	#	#	#	5.0 [9]
	Tap Water PRGs			37.	0.015	0.000045	#	#	0.018	#	#	1.5	#	#	#	0.88	0.011	0.73	#	0.18	0.18	#	#	#	11.
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,10]																									
	EPA 2004 NRWQC (chronic)			87.	#	0.15	#	#	#	#	#	#	#	#	#	#	#	#	#	0.005	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	1.6 3	#	#	#	0.00038 [7]	#	#	0.0036 [7]	#	0.00054 [7]	#	#	0.000012	0.049 [7]	#	0.035 [7]	0.00012 [7]	#	#	#	0.033
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	0.03	0.0031 [3]	#	#	#	#	#	#	#	#	#	0.12	0.0013	#	#	#	0.00036	#	#	#	#
MW-09-29	040812-MW9-29-001[6]	12-Aug-04	18 - 28			0.002		-	-		0.0014	0.002 U		0.001 U			-	0.00272		-	-		-		0.005 U
	050926-MW-9-29-109	26-Sep-05	(fill WBZ)			0.00368		-	-		0.001 U	0.00224		0.001 U			-	0.00216		-	-		-		0.00515
	061013-MW-9-29-103	13-Oct-06				0.00306		-	0.00019		0.00118	0.00115 U		0.00089			0.00002 B	0.0016		0.0002 U	0.00001 B		-		0.0231
	2708-080604-MW9-29-109	4-Jun-08		128. J	0.00011	0.0075	1.25 J	0.00488	0.00216 J	80.7 J	0.0252 J	0.057	265.	0.0293 J	80.5 J	8.67 J	0.00021	0.0599	13.7	0.0011 J	0.000163 J	11.8	0.000167 J	0.0999 J	0.181
	2708-080604-MW9-29-110	4-Jun-08		99.9 J	0.00015	0.00858	1.01 J	0.00404	0.00387 J	55. J	0.0343 J	0.067	227.	0.0421 J	57.4 J	5.64 J	0.00016	0.0563	11.5	0.0017 J	0.000215 J	11.	0.000255 J	0.126 J	0.201
MW-10-25	951207-MW10-25-01	7-Dec-95	14 - 24		ND>0.005	0.034		0.002 U	0.005		0.11	0.005 U		0.005 U			0.0002 U	0.29		0.005 U	0.005 U		0.01 U		0.95
	960320-MW10-25-01	20-Mar-96	(fill WBZ)		-	0.035		-	0.005		0.089	0.005 U		0.01 U			-	0.28		-	-		-		0.86
	960617-MW10-25-01	17-Jun-96			-	0.028		-	-		0.043	0.005 U		0.005 U			-	0.2		-	-		-		0.48
	960930-MW10-25-01	30-Sep-96			-	0.041		-	-		0.13	0.005 U		0.02 U			-	0.43		-	-		-		1.3
	970225-MW10-25-01	25-Feb-97			-	0.058		-	-		0.17	0.005 U		0.005 U			-	0.41		-	-		-		1.3
	970827-MW10-25-01	27-Aug-97			-	0.045		-	-		0.36	0.005 U		0.05 U			-	0.83		-	-		-		3.
	980216-MW10-25-01	16-Feb-98			-	0.048		-	-		0.16	0.005 U		0.015 U			-	0.39		-	-		-		1.5
	980601-MW10-25-02	1-Jun-98			-	0.031		-	-		0.12	-		-			-	0.29		-	-		-		-
	061213-MW-10-25-131	13-Dec-06				0.0441		-	0.00243		0.0946	0.00465		0.000877			-	0.356		0.0054 B	0.000034		-		1.23
	2708-080604-MW10-25-108	4-Jun-08		388.	0.00002 U	0.0289	0.0226	0.00867	0.00176	193.	0.0608	0.00062 J	302.	0.00014 J	107.	12.8	0.00005 U	0.257	160.	0.0017 J	0.000011 U*	141.	0.00229	0.387	0.769
MW-10-61	951206-MW10-61-01	6-Dec-95	50 - 60		-	-		-	-		-	-		0.005 U			-	-		-	-		-		-
	960321-MW10-61-01	21-Mar-96	(alluvial WBZ)		-	0.005		-	0.002 U		0.027	0.009		0.005 U			-	0.022		-	-		-		0.025
	960620-MW10-61-01	20-Jun-96			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.007		-	-		-		0.008
	961002-MW10-61-01	2-Oct-96			-	0.006		-	-		0.016	0.005 U		0.005 U			-	0.011		-	-		-		0.012
	970226-MW10-61-01	26-Feb-97			-	0.005 U		-	-		0.018	0.005 U		0.005 U			-	0.015		-	-		-		0.015
	970828-MW10-61-01	28-Aug-97			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	980218-MW10-61-01	18-Feb-98			-	0.005 U		-	-		0.01	0.005 U		0.005 U			-	0.009		-	-		-		0.015
	980603-MW10-61-16	3-Jun-98			-	0.006		-	-		0.009	-		-			-	0.009		-	-		-		-
	981117-MW10-61-08	17-Nov-98			-	0.008		-	-		0.017	-		-			-	0.014		-	-		-		-
	990512-MW10-61-06	12-May-99			-	0.005 U		-	-		0.026	-		-			-	0.022		-	-		-		-
	991026-MW10-61-05	26-Oct-99			-	0.005 U		-	-		0.0084	0.005 U		0.005 U			-	0.0082		-	-		-		0.11
	000329-MW10-61-105	29-Mar-00			-	0.0068		-	-		0.0144	0.0148		0.005 U			-	0.0145		-	-		-		0.0474
	011010-MW10-61-109	10-Oct-01			-	0.005 U		-	-		0.0015 U	0.001 U		0.005 U			-	0.003 U		-	-		-		0.005 U
	020404-MW10-61-109	4-Apr-02			-	0.0063		-	-		0.0321	0.0091		0.005 U			-	0.0293		-	-		-		0.0339
	020924-MW10-61-104	24-Sep-02			-	0.005 U		-	-		0.0056	0.01 U		0.01 U			-	0.0064		-	-		-		0.014
	030319-MW10-61-111	19-Mar-03			-	0.01 U		-	-		0.0062	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	031003-MW10-61-108 [6]	3-Oct-03			-	0.03		-	-		0.003	0.003 U		0.014			-	0.005 U		-	-		-		0.02 U
	040813-MW10-61-005[6]	13-Aug-04				0.00227		-	-		0.00355	0.00414		0.001 U			-	0.013		-	-		-		0.0183
	050928-MW10-61-121	28-Sep-05				0.00664		-	-		0.00844	0.0166		0.00272			-	0.0108		-	-		-		0.0447
	061017-MW-10-61-108	17-Oct-06				0.00367		-	0.00057		0.0021	0.0178		0.00112			0.00002 B	0.0059		0.0003 B	0.000012 B		-		0.757
	2708-080604-MW10-61-105	4-Jun-08		0.969	0.00073	0.0041	0.0548	0.00005	0.000846	53.7	0.00507	0.00304	1.81	0.000662	36.9	2.5	0.00005 U	0.00499	3.73	0.0004 J	0.000014 U*	31.2	0. U*	0.0487	0.0196
MW-11-32	951207-MW11-32-01	7-Dec-95	21 - 31		ND>0.005	0.005 U		0.002 U	0.002 U		0.005 U	0.005 U		0.005 U			0.0002 U	0.005 U		0.005 U	0.0005 U		0.01 U		0.005 U
	960320-MW11-32-01	20-Mar-96	(fill WBZ)		-	0.005 U		-	0.002 U		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.008
	960930-MW11-32-01	30-Sep-96			-	0.005 U		-	0.005 U		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	960930-MW11-32-02	30-Sep-96			-	0.005 U		-	0.005 U		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	970225-MW11-32-01	25-Feb-97			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	970826-MW11-32-01	26-Aug-97			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	980216-MW11-32-01	16-Feb-98			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	061212-MW-11-32-130	12-Dec-06				0.002		-	0.00004		0.00126	0.00321		0.00131			-	0.0019		0.004 U	0.000017 B		-		0.0056
	2708-080604-MW11-32-111	4-Jun-08		0.117 J	0.00003	0.00192	0.0212	0.00002 U*	0.000018	22.	0.00081	0.00321	22.7	0.00103	6.48	1.3	0.00005 U	0.00148	2.75	0.0002 J	0.00001 U*	6.56	0. U	0.00362	0.00234
MW-12-36	951207-MW12-36-01	7-Dec-95	25 - 35		ND>0.005	0.005 U		0.002 U	0.002 U		0.005 U	0.006		0.005 U			0.0002 U	0.005 U		0.005 U	0.005 U		0.01 U		0.012
	991028-MW12-36-18	28-Oct-99	(fill / alluvial WBZ)		-	0.005 U		-	-		0.0084	0.005 U		0.005 U			-	0.0082		-	-		-		0.011
	040825-MW12-36-017[6]	25-Aug-04				0.00297		-	-		0.001 U	0.002 U		0.001 U			-	0.002 U		-	-		-		0.005 U
	050927-MW-12-36-116	27-Sep-05				0.00213		-	-		0.001 U	0.002 U		0.001 U			-	0.002 U		-	-		-		0.005 U
	061024-MW-12-36-115	24-Oct-06				0.00328		-	0.00009		0.0002 B	0.00034		0.00006			0.00002 U	0.0012		0.0002 U	0.000007 U		-		0.0346
	2708-080604-MW12-36-106	4-Jun-08		0.079 J	0.00006	0.00256	0.0347	0.00001 U*	0.000027	39.8	0.00023	0.0003 J	3.32	0.000102	22.6	2.43	0.00005 U	0.00141	1.69	0.0002 J	0.000005 U*	9.2	0. U	0.00219	0.00289
MW-13-30	980602-MW13-30-12	2-Jun-98	19 - 29		-	0.015		-	-		0.009	0.007		0.005 U			-	0.008		-	-		-		0.008
	980826-MW13-30-11	26-Aug-98	(fill WBZ)		-	0.015		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.014
	981119-MW13-30-19	19-Nov-98			-	0.008		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	990217-MW13-30-014	17-Feb-99			-	0.014		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.018
	990513-MW13-30-13	13-May-99			-	0.0091		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	991028-MW13-30-20	28-Oct-99			-	0.01		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	000403-MW13-30-120	3-Apr-00			-	0.0131		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	001005-MW13-30-18	5-Oct-00			-	0.0104		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U

Table 5c - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - mg/l (ppm)																					
				Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium [4]	Calcium	Chromium	Copper [4]	Iron	Lead [4]	Magnesium	Manganese	Mercury	Nickel [4]	Potassium	Selenium	Silver [4]	Sodium	Thallium	Vanadium	Zinc [4]
HUMAN HEALTH SCREENING LEVEL VALUES [8,10]																									
Fish Consumption																									
	EPA 2004 NRWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.0000146	#	#	#	#	#	#	#	#
	Portland Harbor specific fish consumption rate			#	0.064	0.000014	#	#	#	#	#	#	#	#	#	0.01	3.	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.00146	4.6	#	4.2	#	#	#	#	26.
Drinking Water																									
	MCL			#	0.006	0.01	#	#	0.005	#	0.1	1.3	#	0.015	#	0.05 7	0.002	#	#	0.05	0.1 [9]	#	#	#	5.0 [9]
	Tap Water PRGs			37.	0.015	0.000045	#	#	0.018	#	#	1.5	#	#	#	0.88	0.011	0.73	#	0.18	0.18	#	#	#	11.
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,10]																									
	EPA 2004 NRWQC (chronic)			87.	#	0.15	#	#	#	#	#	#	#	#	#	#	#	#	#	0.005	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	1.6 3	#	#	#	0.00038 [7]	#	#	0.0036 [7]	#	0.00054 [7]	#	#	0.000012	0.049 [7]	#	0.035 [7]	0.00012 [7]	#	#	#	0.033
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	0.03	0.0031 [3]	#	#	#	#	#	#	#	#	#	0.12	0.0013	#	#	#	0.00036	#	#	#	#
MW-13-30	010329-MW13-30-119	29-Mar-01			-	0.013		-	-		0.005 U	0.01 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	020405-MW13-30-116	5-Apr-02			-	0.0108		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0122
	030319-MW13-30-115	19-Mar-03			-	0.01 U		-	-		0.003 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	040825-MW13-30-018[6]	25-Aug-04				0.0144		-	-		0.001 U	0.002 U		0.001 U			-	0.002 U		-	-		-		0.005 U
	060404-MW-13-30-122	4-Apr-06				0.0137		-	-		0.001 U	0.002 U		0.001 U			-	0.002 U		-	-		-		0.005 U
	061027-MW-13-30-121	27-Oct-06				0.0138		-	0.00047		0.00093	0.00052		0.000102			0.00002 U	0.00459		0.0002 U	0.000007 U		-		0.264
	2708-080604-MW13-30-112	4-Jun-08		0.172	0.00004	0.0498	0.0547	0.00001 U*	0.000081	53.1	0.00073	0.0017	33.1	0.000382	22.3	1.46	0.00005 U	0.00545	3.16	0.0009 J	0.000014 U*	14.5	0. U	0.0158	0.00218
MW-13-61	980602-MW13-61-13	2-Jun-98	50 - 60		-	0.007		-	-		0.013	0.015		0.005 U			-	0.017		-	-		-		0.028
	980825-MW13-61-03	25-Aug-98	(alluvial WBZ)		-	0.008		-	-		0.036	0.027		0.005 U			-	0.03		-	-		-		0.042
	981116-MW13-61-03	16-Nov-98			-	0.006		-	-		0.018	0.02		0.005 U			-	0.019		-	-		-		0.044
	990512-MW13-61-04	12-May-99			-	0.0083		-	-		0.066	0.028		0.005 U			-	0.054		-	-		-		0.038
	991026-MW13-61-03	26-Oct-99			-	0.0069		-	-		0.01	0.0066		0.005 U			-	0.012		-	-		-		0.017
	000328-MW13-61-104	28-Mar-00			-	0.0086		-	-		0.0095	0.0074		0.005 U			-	0.0116		-	-		-		0.0144
	001004-MW13-61-03	4-Oct-00			-	0.009		-	-		0.017	0.0155		0.005 U			-	0.0192		-	-		-		0.0253
	010327-MW13-61-103	27-Mar-01			-	0.0096		-	-		0.0146	0.0147		0.005 U			-	0.0129		-	-		-		0.0166
	011009-MW13-61-106	9-Oct-01			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0117
	020403-MW13-61-102	3-Apr-02			-	0.0064		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0479
	020924-MW13-61-106	24-Sep-02			-	0.012		-	-		0.005 U	0.01 U		0.01 U			-	0.005 U		-	-		-		0.011
	030317-MW13-61-101	17-Mar-03			-	0.01 U		-	-		0.015 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	031003-MW13-61-109 [6]	3-Oct-03			-	0.02 U		-	-		0.0067	0.003 U		0.006 U			-	0.0063		-	-		-		0.02 U
	040813-MW13-61-003[6]	13-Aug-04				0.00772		-	-		0.0018	0.00237		0.001 U			-	0.0138		-	-		-		0.00613
	050927-MW-13-61-114	27-Sep-05				0.00993		-	-		0.00294	0.00749		0.00231			-	0.00594		-	-		-		0.029
	060404-MW-13-61-123	4-Apr-06				0.00843		-	-		0.00176	0.003		0.001 U			-	0.004		-	-		-		0.00506
MW-14-110	981116-MW14-110-06	16-Nov-98	98 - 108		-	0.012		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	990216-MW14-110-005	16-Feb-99	(alluvial WBZ)		-	0.013		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.03
	990512-MW14-110-09	12-May-99			-	0.012		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	990823-MW14-110-06	23-Aug-99			-	0.011		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.01 U
	991027-MW14-110-09	27-Oct-99			-	0.01		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	991027-MW14-110-10	27-Oct-99			-	0.01		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0054
	000329-MW14-110-109	29-Mar-00			-	0.0115		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0107
	000329-MW14-110-110	29-Mar-00			-	0.0123		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	000615-MW14-110-102	15-Jun-00			-	0.0136		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	001005-MW14-110-06	5-Oct-00			-	0.041		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	001220-MW14-110-102	20-Dec-00			-	0.013		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	010328-MW14-110-108	28-Mar-01			-	0.0127		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	011009-MW14-110-105	9-Oct-01			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.01 U
	011213-MW14-110-101	13-Dec-01			-	0.01 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0104
	020404-MW14-110-108	4-Apr-02			-	0.0103		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	020711-MW14-110-101	11-Jul-02			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	020924-MW14-110-105	24-Sep-02			-	0.005 U		-	-		0.005 U	0.01 U		0.01 U			-	0.005 U		-	-		-		0.005 U
	021217-MW14-110-102	17-Dec-02			-	0.011		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	030318-MW14-110-108	18-Mar-03			-	0.011		-	-		0.015 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	030602-MW14-110-101	2-Jun-03			-	0.038		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	031003-MW14-110-[5]	3-Oct-03			-	0.02 U		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	030112-MW14-110-101 [6]	12-Jan-04			-	0.044		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	040824-MW14-110-014[6]	24-Aug-04				0.0114		-	-		0.001 U	0.002 U		0.001 U			-	0.00279		-	-		-		0.005 U
	050922-MW-14-110-104	22-Sep-05				0.0134		-	-		0.005 U	0.002 U		0.001 U			-	0.0041		-	-		-		0.025 U
	061013-MW-14-110-104	13-Oct-06				0.012		-	0.00047		0.00058	0.0006		0.000319			0.00002 B	0.0028		0.0003 B	0.000007 U		-		0.0175
	2708-080603-MW14-110-104	3-Jun-08		1.21	0.00012	0.0121	0.0618	0.00006	0.00243	160.	0.002	0.00301	4.75	0.00132	104.	16.1	0.00005 J	0.00344	9.08	0.0005 J	0.000007 J	40.8	0. J	0.00422	0.00655
MW-15-50	991029-MW15-50-25	29-Oct-99	40 - 50		-	0.011		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0096
	000403-MW15-50-125	3-Apr-00	(alluvial WBZ)		-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0202
	000615-MW15-50-105	15-Jun-00			-	0.005 U		-	-		0.006	0.005 U		0.005 U			-	0.0064		-	-		-		0.0359
	000615-MW15-50-106	15-Jun-00			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0388
	001005-MW15-50-14	5-Oct-00			-	0.0054		-	-		0.0176	0.0081		0.005 U			-	0.0121		-	-		-		0.0393
	001221-MW15-50-105	21-Dec-00			-	0.0134		-	-		0.0585	0.0188		0.011			-	0.042		-	-		-		0.0272
	001221-MW15-50-106	21-Dec-00			-	0.0123		-	-		0.0193	0.0402		0.0125			-	0.0306		-	-		-		0.0334
	010330-MW15-50-124	30-Mar-01			-	0.0098		-	-		0.0058	0.005 U		0.005 U			-	0.0067		-	-		-		0.0107
	011010-MW15-50-111	10-Oct-01			-	0.005 U		-	-		0.0015 U	0.0063		0.005 U			-	0.003 U		-	-		-		0.0646
	011010-MW15-50-112	10-Oct-01			-	0.005 U		-	-		0.0015 U	0.004		0.005 U			-	0.003 U		-	-		-		0.0412

Table 5c - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium [4]	Calcium	Chromium	Copper [4]	Iron	Lead [4]	Magnesium	Manganese	Mercury	Nickel [4]	Potassium	Selenium	Silver [4]	Sodium	Thallium	Vanadium	Zinc [4]
				Analytical Results - mg/l (ppm)																					
HUMAN HEALTH SCREENING LEVEL VALUES [8,10]																									
Fish Consumption																									
	EPA 2004 NRWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.0000146	#	#	#	#	#	#	#	#
	Portland Harbor specific fish consumption rate			#	0.064	0.000014	#	#	#	#	#	#	#	#	#	0.01	3.	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.00146	4.6	#	4.2	#	#	#	#	26.
Drinking Water																									
	MCL			#	0.006	0.01	#	#	0.005	#	0.1	1.3	#	0.015	#	0.05 7	0.002	#	#	0.05	0.1 [9]	#	#	#	5.0 [9]
	Tap Water PRGs			37.	0.015	0.000045	#	#	0.018	#	#	1.5	#	#	#	0.88	0.011	0.73	#	0.18	0.18	#	#	#	11.
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,10]																									
	EPA 2004 NRWQC (chronic)			87.	#	0.15	#	#	#	#	#	#	#	#	#	#	#	#	#	0.005	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	1.6 3	#	#	#	0.00038 [7]	#	#	0.0036 [7]	#	0.00054 [7]	#	#	0.000012	0.049 [7]	#	0.035 [7]	0.00012 [7]	#	#	#	0.033
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	0.03	0.0031 [3]	#	#	#	#	#	#	#	#	#	0.12	0.0013	#	#	#	0.00036	#	#	#	#
MW-15-50	011214-MW15-50-104	14-Dec-01	40 - 50		-	0.01 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0089
	011214-MW15-50-105	14-Dec-01	(alluvial WBZ)		-	0.01 U		-	-		0.005 U	0.005 U		0.005 U			-	0.011		-	-		-		0.0084
	020405-MW15-50-119	5-Apr-02			-	0.0063		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0204
	020711-MW15-50-104	11-Jul-02			-	0.0118		-	-		0.0187	0.0183		0.0154			-	0.0228		-	-		-		0.0929
	020711-MW15-50-104	11-Jul-02			-	0.0103		-	-		0.0189	0.0219		0.0166			-	0.0232		-	-		-		0.0972
	020925-MW15-50-110	25-Sep-02			-	0.016		-	-		0.017	0.027		0.018			-	0.025		-	-		-		0.092
	020925-MW15-50-111	25-Sep-02			-	0.021		-	-		0.045	0.062		0.05			-	0.061		-	-		-		0.24
	021218-MW15-50-107	18-Dec-02			-	0.012		-	-		0.005 U	0.0078		0.0091			-	0.013		-	-		-		0.034
	030321-MW15-50-122	21-Mar-03			-	0.012		-	-		0.0056	0.011		0.0095			-	0.016		-	-		-		0.045
	030603-MW15-50-105	3-Jun-03			-	0.018		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	031006-MW15-50-113 [6]	6-Oct-03			-	0.04 U		-	-		0.002 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	030113-MW-15-50-105 [6]	13-Jan-04			-	0.02 U		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	030113-MW-15-50-106 [6]	13-Jan-04			-	0.02 U		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	040825-MW15-50-020[6]	25-Aug-04				0.0172		-	-		0.00141	0.00265		0.001 U			-	0.00529		-	-		-		0.005 U
	050929-MW15-50-126	29-Sep-05				0.0285		-	-		0.0156	0.00512		0.00229			-	0.0174		-	-		-		0.0123
	061031-MW-15-50-127	31-Oct-06				0.0225		-	0.00032		0.00226	0.00505		0.00186			0.00005 B	0.0126		0.0025	0.000096 B		-		0.0633
	2708-080603-MW15-50-103	3-Jun-08		81.6	0.00021	0.0295	0.757	0.00308	0.00496	218.	0.0262	0.0747	173.	0.0511	159.	28.4	0.00045	0.0461	15.2 J	0.0016 J	0.000281	41.1	0.0001	0.211	0.164
MW-15-66	991026-MW15-66-07	26-Oct-99	60.5 - 66.5		-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	000329-MW15-66-108	29-Mar-00	(alluvial WBZ)		-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	000615-MW15-66-104	15-Jun-00			-	0.0054		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0214
	001005-MW15-66-08	5-Oct-00			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	001221-MW15-66-104	21-Dec-00			-	0.0055		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	010328-MW15-66-107	28-Mar-01			-	0.0066		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	011010-MW15-66-110	10-Oct-01			-	0.005 U		-	-		0.0015 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0241
	011213-MW15-66-103	13-Dec-01			-	0.01 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0133
	020404-MW15-66-107	4-Apr-02			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	020711-MW15-66-103	11-Jul-02			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	020925-MW15-66-109	25-Sep-02			-	0.005 U		-	-		0.005 U	0.01 U		0.01 U			-	0.005 U		-	-		-		0.005 U
	021218-MW15-66-105	18-Dec-02			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.0057
	021218-MW15-66-106	18-Dec-02			-	0.005 U		-	-		0.005 U	0.005 U		0.005 U			-	0.005 U		-	-		-		0.005 U
	030318-MW15-66-107	18-Mar-03			-	0.01 U		-	-		0.015 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	030603-MW15-66-104	3-Jun-03			-	0.01 U		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	031006-MW15-66-112 [6]	6-Oct-03			-	0.04 U		-	-		0.002 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	040113-MW-15-66-104 [6]	13-Jan-04			-	0.02 U		-	-		0.001 U	0.003 U		0.006 U			-	0.005 U		-	-		-		0.02 U
	040813-MW15-66-006[6]	13-Aug-04				0.00477		-	-		0.0027	0.00295		0.001 U			-	0.00553		-	-		-		0.00895
	050929-MW15-66-125	29-Sep-05				0.0191		-	-		0.0242	0.0581		0.0228			-	0.0406		-	-		-		0.146
	061017-MW-15-66-109	17-Oct-06				0.00653		-	0.00051		0.00419	0.00959		0.0047			0.00004 B	0.0081		0.0006 B	0.000503		-		0.0658
	2708-080603-MW15-66-102	3-Jun-08		130.	0.00017	0.0143	1.29	0.00555	0.0018	78.4	0.0313	0.0804	279.	0.0508	83.7	6.62	0.00023	0.0551	18.1	0.0014 J	0.0083	12.	0.0001	0.135	0.212
MW-16-45	040826-MW16-45-028[6]	26-Aug-04	30 - 45			0.00917		-	-		0.0138	0.00473		0.00138			-	0.131		-	-		-		0.011
	041222-MW16-45-103[6]	22-Dec-04	(alluvial WBZ)			0.0825		-	-		0.0267	0.02		0.01 U			-	0.17		-	-		-		0.122
	050401-013	1-Apr-05				0.0097		-	-		0.00182	0.001 U		0.00113			-	0.00834		-	-		-		0.01 U
	0506-22-MW-16-45-05	22-Jun-05				0.0093		-	-		0.015	0.02		0.0099			-	0.023		-	-		-		0.04 U
	060403-MW-16-45-118	3-Apr-06				0.0109		-	-		0.0111	0.02 U		0.0133			-	0.02 U		-	-		-		0.05 U
	061212-MW-16-45-129	12-Dec-06				0.00838		-	0.00015		0.00267	0.00291		0.0022			-	0.0065		0.004	0.000032		-		0.0066
	2708-070731-MW-16-45-148	31-Jul-07		0.0615 J	0.00138 U*	0.00883 U*	0.0644	0.0008 U	0.00038 U	96.3	0.00954 J	0.0027 U	51.3	0.00054 U	69.1 J	2.65	0.0002 U	0.0107	1.54	0.005 UJ	0.00012 U	37.3	0.0008 U	0.004 UJ	0.033 U
	2708-080521-MW16-45-128	21-May-08		0.0246	0.00017	0.00822	0.0596	0.00003	0.000012	90.4	0.0013	0.00034	41.5	0.000404	60.	2.44	0.00005 U	0.00587	1.25 U*	0.0007 U*	0.000003 U	36.1	0. U	0.0017	0.00178 J
MW-16-65	040826-MW16-65-026[6]	26-Aug-04	55 - 65			0.00173		-	-		0.00137	0.00201		0.001 U			-	0.0197		-	-		-		0.00762
	040826-MW16-65-026[6]	26-Aug-04	(alluvial WBZ)			-		-	-		-	-		-			-	-		-	-		-		-
	041222-MW16-65-102[6]	22-Dec-04				0.0018		-	-		0.0101	0.002 U		0.001 U			-	0.0251		-	-		-		0.005 U
	050331-006	31-Mar-05				0.00276		-	-		0.00382	0.001 U		0.001 U			-	0.00545		-	-		-		0.01 U
	0506-21-MW-16-65-04	21-Jun-05				0.003		-	-		4. U	4. U		2. U			-	4. U		-	-		-		0.04 U
	060403-MW-16-65-119	3-Apr-06				0.00353		-	-		0.00112	0.001 U		0.001 U			-	0.002 U		-	-		-		0.005 U
	061023-MW-16-65-114	23-Oct-06				0.00311		-	0.00006		0.00133	0.00092		0.000136			0.00002 U	0.0024		0.0004 B	0.000007 B		-		0.127
	2708-070628-MW-16-65-115	28-Jun-07		0.463	0.001 U	0.00336	0.08	0.001 UJ	0.00038 U	39.7	0.00602	0.00298	24.6	0.0011	27.3	1.69	0.0002 U	0.00622	3.24	0.005 U	0.00012 U	40.8	0.001 U	0.005 U	0.033 U
	2708-080513-MW16-65-109	13-May-08		168.	0.13	3.69	69.3	0.031	0.044	50,300.	0.89	0.78	27,600.	0.25	30,700.	2,170.	0.03 U	2.09	3,910.	0.3 J	0.01 J	37,700.	0.003 U	1.26	1.49

Table 5c - Summary of Historical Analytical Results for Groundwater Samples: Priority Pollutant Metals by EPA Methods 6010, 200.7 and/or 7000 Series
December 1995 to Present, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium [4]	Calcium	Chromium	Copper [4]	Iron	Lead [4]	Magnesium	Manganese	Mercury	Nickel [4]	Potassium	Selenium	Silver [4]	Sodium	Thallium	Vanadium	Zinc [4]
				Analytical Results - mg/l (ppm)																					
HUMAN HEALTH SCREENING LEVEL VALUES [8,10]																									
Fish Consumption																									
	EPA 2004 NRWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.0000146	#	#	#	#	#	#	#	#
	Portland Harbor specific fish consumption rate			#	0.064	0.000014	#	#	#	#	#	#	#	#	#	0.01	3.	#	#	#	#	#	#	#	#
	DEQ 2004 AWQC (organism only)			#	0.64	0.00014	#	#	#	#	#	#	#	#	#	0.1	0.00146	4.6	#	4.2	#	#	#	#	26.
Drinking Water																									
	MCL			#	0.006	0.01	#	#	0.005	#	0.1	1.3	#	0.015	#	0.05 7	0.002	#	#	0.05	0.1 [9]	#	#	#	5.0 [9]
	Tap Water PRGs			37.	0.015	0.000045	#	#	0.018	#	#	1.5	#	#	#	0.88	0.011	0.73	#	0.18	0.18	#	#	#	11.
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [8,10]																									
	EPA 2004 NRWQC (chronic)			87.	#	0.15	#	#	#	#	#	#	#	#	#	#	#	#	#	0.005	#	#	#	#	#
	DEQ 2004 AWQC (chronic)			#	1.6 3	#	#	#	0.00038 [7]	#	#	0.0036 [7]	#	0.00054 [7]	#	#	0.000012	0.049 [7]	#	0.035 [7]	0.00012 [7]	#	#	#	0.033
	Oak Ridge National Laboratory (Tier II SCV) [2]			#	0.03	0.0031 [3]	#	#	#	#	#	#	#	#	#	0.12	0.0013	#	#	#	0.00036	#	#	#	#
MW-16-125	040826-MW16-125-025[6]	26-Aug-04	115 - 125			0.00461		-	-		0.00134	0.002 U		0.001 U			-	0.00542		-	-		-		0.005 U
	041221-MW16-125-100[6]	21-Dec-04	(alluvial WBZ)			0.00616		-	-		0.00195	0.00205		0.001 U			-	0.00683		-	-		-		0.005 U
	050330-001	30-Mar-05				0.00603		-	-		0.001 U	0.00108		0.001 U			-	0.00221		-	-		-		0.01 U
	0506-21-MW-16-125-03	21-Jun-05				0.0068		-	-		0.002	0.0027		1. U			-	2. U		-	-		-		0.02 U
	060330-MW-16-125-109	30-Mar-06				0.00509		-	-		0.001 U	0.002		0.001 U			-	0.00202		-	-		-		0.005 U
	061016-MW-16-125-106	16-Oct-06				0.00505		-	0.00006		0.00114	0.0215		0.000887 U			0.00002 U	0.0024		0.0003 B	0.000007 B		-		0.0089
	2708-070628-MW-16-125-116	28-Jun-07		1.65	0.001 U	0.00866	0.122	0.001 UJ	0.00038 U	58.7	0.00277	0.0035	27.9	0.00064	22.3	1.76	0.0002 U	0.0029	14.3	0.005 U	0.00012 U	35.4	0.001 U	0.00564	0.033 U
	2708-080515-MW16-125-127	15-May-08		0.612 J	0.00002 U	0.00874	0.117	0.00004	0.000008 J	65.4	0.0012	0.00162	29.	0.000269	24.6	1.79 J	0.00005 U	0.00192	14.7	0.0006 J	0.000031	31.3	0. J	0.00212	0.00281
MW-17-79	050926-MW-17-79-110	26-Sep-05	38.5 - 78.5			0.00234		-	-		0.001 U	0.00311		0.001 U			-	0.00257		-	-		-		0.005 U
	061026-MW-17-79	26-Oct-06	(alluvial WBZ)			0.00159		-	0.00006		0.00122	0.00059		0.000056			0.00003 B	0.00645		0.0003 B	0.000007 U		-		0.895
	2708-070627-MW-17-79-112	27-Jun-07		0.248	0.001 U	0.00106	0.0821	0.001 U	0.00038 U	88.6	0.0114	0.0027 U	23.4	0.00054 U	82.2	0.705	0.0002 U	0.00795	2.36	0.005 U	0.00012 U	30.5	0.001 U	0.005 U	0.033 U
	2708-080514-MW17-79-120	14-May-08		0.0864	0.00002 U	0.00173	0.0747	0.00001 J	0.000018 J	91.6	0.00105	0.00049	28.2	0.000074	72.7	1.08	0.00005 U	0.00242	2.8	0.0007 J	0.000003 U	31.	0. U	0.00069	0.00155
MW-18-30	2708-080514-MW18-30-121	14-May-08		106.	0.00095	0.00686	1.25	0.0027	0.00152	184.	0.0748	2.47	202.	0.339	143.	13.2	0.00092	1.72	8.47	0.0048 J	0.00142	88.5	0.0005	0.332	1.52
MW-18-180	2708-070628-MW-18-180-117	28-Jun-07	170 - 180	0.13	0.001 U	0.000848	0.0413	0.001 UJ	0.00038 U	38.5	0.001 U	0.0027 U	1.91	0.00054 U	19.6	0.288	0.0002 U	0.002 U	4.84	0.005 U	0.00012 U	22.3	0.001 U	0.005 U	0.033 U
	2708-080513-MW18-180-108	13-May-08		0.0898	0.00003 J	0.00068	0.0303	0.00001 J	0.000044	41.	0.00067	0.0004	4.27	0.000174	19.3	0.178	0.00003 U	0.00128	4.56	0.0004 J	0.000012 J	17.2	0. U	0.00028	0.00133
MW-19-22	2708-070730-MW-19-22-143	30-Jul-07	12 - 22	2.88 J	0.00181 U*	0.00171 U*	0.0657	0.0008 U	0.00038 U	71.3	0.00961 J	0.00988 J	8.97 J	0.00946	25.	0.47	0.0002 U	0.012	3.27	0.005 UJ	0.00012 U	13.5	0.0008 U	0.0159 J	0.0409
	2708-080513-MW19-22-110	13-May-08		4.81	0.00011	0.00045 J	0.0317	0.00016	0.000091	23.2	0.00403	0.00567	5.05	0.0161	7.82	0.12	0.00012 U	0.0106	1.49 J	0.0002 J	0.00003	6.02	0. J	0.0201	0.0365
MW-19-125	2708-070627-MW-19-125-110	27-Jun-07	115 - 125	0.505	0.001 U	0.00617	0.086	0.001 U	0.00038 U	63.	0.0039	0.0027 U	38.1	0.00054 U	21.7	2.72	0.0002 U	0.00478	3.72	0.005 U	0.00012 U	12.7	0.001 U	0.005 U	0.033 U
	2708-080514-MW19-125-117	14-May-08		0.0151	0.00002 U	0.00786	0.0656	0.00002 J	0.000008 U	61.	0.0008	0.00018	35.8	0.000016 J	22.2	2.49	0.00005 U	0.00406	3.85	0.0003 J	0.000003 U	11.2	0. U	0.00023	0.0008
MW-19-180	2708-070627-MW-19-180-111	27-Jun-07	170 - 180	0.22	0.001 U	0.00088	0.035	0.001 U	0.00038 U	49.5	0.00103	0.0027 U	10.6	0.00054 U	28.5	0.415	0.0002 U	0.002 U	4.75	0.005 U	0.00012 U	25.1	0.001 U	0.005 U	0.033 U
	2708-080513-MW19-180-115	13-May-08		0.376	0.00002 J	0.00099	0.0332	0.00004	0.000008 U	52.	0.00115	0.00129	13.1	0.000265	32.3	0.463	0.00003 U	0.00132	4.41	0.0002 U	0.000003 U	17.1	0. U	0.00123	0.00435
MW-20-120	2708-070628-MW-20-120-114	28-Jun-07	110 - 120	1.37	0.001 U	0.00535	0.0564	0.001 UJ	0.00038 U	57.8	0.00206	0.00394	9.34	0.000664	11.3	1.7	0.0002 U	0.00269	7.59	0.005 U	0.00012 U	19.7	0.001 U	0.00669	0.033 U
	2708-080515-MW20-120-126	15-May-08		7.49	0.00019	0.00599	0.103	0.00025	0.000068	72.2	0.00674	0.0181	23.6	0.00309	18.	2.97 J	0.00005 U	0.00645	6.82	0.0008 J	0.000067	18.6	0.	0.0227	0.0169
MW-21-12	2708-070719-MW-21-12-129	19-Jul-07	7 - 12	0.24	0.0008 U	0.000384 U*	0.0826	0.0008 U	0.00038 U	52.2	0.001 U	0.0027 UJ	26.2	0.00054 U	1.83	0.265	0.0002 U	0.00349	5.56	0.005 U	0.00012 U	23.1	0.0008 U	0.00639	0.033 U
	2708-080514-MW21-12-122	14-May-08		4.22	0.00011	0.00075	0.0822	0.00018	0.000074	34.	0.00289	0.0078	25.5	0.00749	11.7	1.87	0.00005 U	0.0137	4.75	0.0002 J	0.000029	18.1	0.	0.0514	0.0114
MW-21-75	2708-070718-MW-21-75-124	18-Jul-07	65 - 75	0.0419	0.0008 U	0.00641	0.0818	0.008 U	0.00038 U	79.5	0.0014	0.0027 U	12.4	0.00054 U	20.8	1.86	0.0002 U	0.00564	4.98	0.005 U	0.00012 U	15.6	0.0008 U	0.004 U	0.033 U
	2708-080514-MW21-75-123	14-May-08		0.0104	0.00002 U	0.011	0.113	0.00001 J	0.000008 U	85.2	0.00196	0.00042	44.4	0.000032	26.3	3.77	0.00005 U	0.00558	5.42	0.0007 J	0.000003 U	20.3	0. U	0.00054	0.00172
MW-21-115	2708-070718-MW-21-115-123	18-Jul-07	105 - 115	0.275	0.0008 U	0.00472	0.0158	0.0008 U	0.00038 U	58.3	0.001 U	0.0027 U	0.405	0.00054 U	7.22	0.0578	0.0002 U	0.00228	3.55	0.005 U	0.00012 U	12.4	0.0008 U	0.004 U	0.033 U
	2708-080515-MW21-115-125	15-May-08		0.0323 J	0.00003 J	0.00672	0.0324	0.00001 J	0.000008 U	42.	0.00031	0.00013	8.24	0.000018 J	15.6	1.7 J	0.00005 U	0.00149	3.62	0.0005 J	0.000036	13.9	0. U	0.00034	0.00238
MW-21-165	2708-070718-MW-21-165-122	18-Jul-07	156 - 166	0.617	0.0008 U	0.00176	0.0504	0.0008 U	0.00038 U	183.	0.00373	0.0027 U	0.685	0.00054 U	1.15	0.0499	0.0002 U	0.00538	15.6	0.005 U	0.00012 U	17.4	0.0008 U	0.0126	0.033 U
	2708-080514-MW21-166-124	14-May-08		0.281	0.00013	0.00298	0.0191	0. U	0.000008 U	44.3	0.0037	0.00063	0.783	0.000069	3.48	0.188	0.00005 U	0.00276	9.65	0.0004 J	0.000003 U	17.6	0. U	0.00798	0.00096
PW-01	061012-PW-01-102	12-Oct-06	40 - 80			0.00491		-	0.00003		0.00072	0.00007 B		0.000009 B			0.00002 B	0.0005		0.0006 B	0.000007 U		-		0.0016
	2708-070731-PW-01-80-147	31-Jul-07	(alluvial WBZ)	0.02 UJ	0.00109 U*	0.00356 U*	0.0779	0.0008 U	0.000744	91.2	0.001 UJ	0.0027 U	37.9	0.00054 U	62.8 J	3.58	0.0002 U	0.00222	3.43	0.005 UJ	0.00012 U	36.1	0.0008 U	0.004 UJ	0.0664
	2708-080604-PW01-80-107	4-Jun-08		0.03 UJ	0.00002 U	0.00174	0.0707	0.00001 U*	0.000339	75.	0.00058	0.00018 J	38.7	0.000008 U*	48.1	3.75	0.00005 U	0.00143	3.21	0.0012 J	0.000011 U*	32.1	0. U	0.00026	0.00432
Temporary Well Point Samples 2004																									
B-56	040602-101	2-Jun-04	18 - 22			0.00177		-	-		0.00803	0.00856		0.00446			-	0.0121		-	-		-		0.0288
	040603-102	3-Jun-04	40 - 44			0.00401		-	-		0.0595	0.0202		0.00232			-	0.0256		-	-		-		0.27
	040603-103	3-Jun-04	60 - 64			0.0143		-	-		0.046	0.0336		0.0046 U			-	0.117		-	-		-		0.224
	040603-104	3-Jun-04	80 - 84			0.0179		-	-		0.316	0.194		0.0256			-	0.145		-	-		-		0.702
	040604-106	4-Jun-04	100 - 104			0.00869		-	-		0.0375	0.0415		0.00457			-	0.0505		-	-		-		0.1
	040614-115	14-Jun-04	136 - 140			0.029		-	-		0.827	0.457		0.0306			-	0.291		-	-		-		6.51
	040614-116	14-Jun-04	174 - 178			0.00369		-	-		0.0351	0.0218		0.00204			-	0.0246		-	-		-		0.177

Note:
'-' = not analyzed
# = Reference Level not established
AWQC = Ambient Water Quality Criteria
DEQ = Oregon Department of Environmental Quality
EPA = U.S. Environmental Protection Agency
J = Estimated Concentration

MCL = Maximum Contaminant Level
mg/l = milligrams/liter
NRWQC = National Recommended Water Quality Criteria
ND = not detected above detection limit indicated
ppm = parts per million
PRG = Potential Remediation Goal

SCV = Secondary Chronic Value
U = Non-detect above method reporting limit
U* = Compound considered non-detect because it was also detected in associated blank at similar concentration levels.
UJ = Compound not detected, but the reporting limit is probably higher due to a low bias identified during the quality assurance review.

1 = Sample number prefix: 2708-
2 = Tier II SCV values were taken from Suter II, G.W. and Tasco, C.L., 1996. Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision. ORNL publication ES/ER/TM-96/R2
3 = value for Arsenic V
4 = This is a hardness dependent metal. All values were calculated based on 25 mg// of $CaCO_3$
5 = Due to mislabeling in the field or due to laboratory misidentification, the laboratory report transposed results for MW4-35 and MW-4-57 in August 1997. Tables attribute data to the correct well.
6 = Monitoring well purged & sampled with low-flow protocol as per EPA/540/S-95/504 (April 1996)
7 = These values were taken from OAR 340-41 Table 20 because they will remain the enforceable values for these particular analytes.
8 = Screening Level Values for Soil/Stormwater Sediment, Stormwater and Surface water, *Portland Harbor Joint Source Control Strategy*, DEQ, December 2005
9 = National Secondary Drinking Water Standards
10 = EPA, under CERCLA authority, has identified the Safe Drinking Water Acts MCLs and AWQCs (federal and state once approved) as potential ARARs under CERCLA. The final determination will be made in the EPA Portland Harbor Record of Decision (ROD). Decisions to implement source control, prior to The EPA Portland Harbor ROD, due to an exceedance of an SLV in upland stormwater will be evaluated and prioritized on a case by case basis.

Table 5d - Summary of Historical Analytical Results for Groundwater Samples -
Detected Volatiles by EPA Method 8260, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - ug/l (ppb)																					
				Benzene	Chlorobenzene	Toluene	Ethyl benzene	m,p-Xylene	o-Xylene	Xylene (total)	Naphthalene	Styrene	Isopropylbenzene	n-Propylbenzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Trichloroethene	Tetrachloroethene	Trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Others
HUMAN HEALTH SCREENING LEVEL VALUES [4,5]																									
Fish Consumption																									
	EPA 2004 NRWQC (organism only)			51.	1,600.	15,000.	2,100.	#	#	#	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
	Portland Harbor specific fish consumption rate			5.1	160.	1,500.	210.	#	#	#	#	#	#	#	#	#	#	130.	96.	19.	3.	0.33	1,000.	#	0.24	#
	DEQ 2004 AWQC (organism only)			51.	1,600.	15,000.	2,100.	#	#	#	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
Drinking Water																									
	MCL			5.	100.	1,000.	700.	#	#	10,000.	0.2 [3]	100.	#	#	#	#	#	600.	#	75.	5.	5.	100.	#	2	#
	Tap Water PRGs			0.4	91.	720.	1,300.	#	#	#	6.2	1,600.	#	#	#	#	#	49.	14.	2.8	0.028	0.1	0.12	#	0.015	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [4,5]																									
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#		#	#	#
	DEQ 2004 AWQC (chronic)			#	50.	840.	#	#	#	#	620.	#	#	#	#	#	#	763.	763.	763.	21,900.	840.		#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	64.	9.8	7.3	1.8	13.	#	12.	#	#	#	#	#	#	14.	71.	15.	47.	98.	590.	0.055	#	#
MW-1-22	061030-MW-1-22-123	30-Oct-06	11 - 21	3.9	-	5.2	6.6	5.3	2.1 J	7.4 J	320.	0.48 U	0.53 U	-	-	-	-	-	-	0.57 U	0.67 U	0.63 U	0.72 U	-	-	Acetone=38 J Carbon Disulfide = 900 Methylene Chloride = 2.2 J
	2708-070720-MW-1-22-131	20-Jul-07		2.88	-	4.6	6.	-	-	7.42	282.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080512-MW1-22-105	12-May-08		1.8	0.06 J	2.9	3.9	3.1	1.3	4.4	330.	0.039 U	0.19 J	0.05 J	-	0.97 J	0.36 J	0.044 U	0.041 U	0.054 U	0.09 J	0.11 J	0.048 U	0.045 U	0.071 U	Acetone = 17. Carbon Disulfide = 390. p-Isopropyltoluene = 0.21
MW-1-55	2708-070719-MW-1-55-127	19-Jul-07	45 - 55	0.5 U	-	0.5 U	0.5 U	-	-	1. U	0.0966 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080512-MW1-55-104	12-May-08		0.045 U	0.045 U	0.048 U	0.042 U	0.078 U	0.037 U	0.078 U	0.1 U	0.039 U	0.031 U	0.037 U	-	0.037 U	0.042 U	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	Carbon Disulfide = 0.2
MW-1-82	2708-070719-MW-1-82-126	19-Jul-07	72 - 82	0.5 U	-	0.5 U	0.5 U	-	-	1. U	0.142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080512-MW1-82-103	12-May-08		0.11 J	0.045 U	0.1 J	0.042 U	0.078 U	0.037 U	0.078 U	0.1 U	0.039 U	0.031 U	0.037 U	-	0.037 U	0.042 U	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	Carbon Disulfide = 0.05
MW-2-32	061016-MW-2-32-107	16-Oct-06	21.5 - 31.5	0.14 U	-	1.1	0.13 U	0.22 U	0.11 U	0.22 U	0.29 U	0.095 U	0.11 U	-	-	-	-	-	-	0.12 U	0.14 U	0.13 U	0.15 U			Acetone=13 J
	2708-070712-MW-2-32-120	12-Jul-07		0.5 UJ	-	0.5 UJ	0.5 UJ	-	-	1. UJ	0.289 J	-	-	-	-	-	-	-	-	-	-	-	-	-		
	2708-080512-MW2-32-101	12-May-08		0.045 U	0.045 U	0.14 J	0.042 U	0.078 U	0.037 U	0.078 U	0.1 U	0.039 U	0.07 J	0.037 U	-	0.037 U	0.042 U	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	
MW-2-61	061011-MW-2-61-101	11-Oct-06	50 - 60	0.14 U	-	0.72	0.13 U	0.22 U	0.11 U	0.22 U	0.29 U	0.095 U	0.11 U	-	-	-	-	-	-	0.12 U	0.14 U	0.13 U	0.15 U			
	2708-070719-MW-2-61-128	19-Jul-07		0.5 U	-	0.5 U	0.5 U	-	-	1. U	0.098 U	-	-	-	-	-	-	-	-	-	-	-	-	-		
	2708-080512-MW2-61-100	12-May-08		0.045 U	0.045 U	0.09 J	0.042 U	0.078 U	0.037 U	0.078 U	0.1 U	0.039 U	0.031 U	0.037 U	-	0.037 U	0.042 U	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	
MW-2-104	2708-070712-MW-2-104-119	12-Jul-07	94 - 104	0.5 UJ	-	0.54	0.5 UJ	-	-	1. UJ	0.248 J	-	-	-	-	-	-	-	-	-	-	-	-	-		
	2708-080512-MW2-104-102	12-May-08		0.045 U	0.045 U	0.14 J	0.042 U	0.11 J	0.037 U	0.11 J	0.1 U	0.039 U	0.031 U	0.037 U	-	0.05 J	0.042 U	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	Carbon disulfide = 0.05
MW-3-26	061017-MW-3-26-110	17-Oct-06	15 - 25	0.14 U	-	0.11 U	0.13 U	0.22 U	0.11 U	0.22 U	0.65 J	0.095 U	0.11 U	-	-	-	-	-	-	0.14 J	0.14 U	0.13 U	0.15 U	-	-	
	2708-070629-MW-3-26-119	29-Jun-07		14.3 J	-	0.5 UJ	0.5 UJ	-	-	1.45 J	2.25 UJ	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080512-MW3-26-107	12-May-08		0.045 U	0.045 U	0.1 J	0.042 U	0.078 U	0.037 U	0.078 U	0.1 J	0.039 U	0.031 U	0.037 U	-	0.037 U	0.042 U	0.044 U	0.041 U	0.06 J	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	
MW-3-56	040823-MW3-56-011	23-Aug-04	45 - 55	10.6	-	1. U	1. U	2. U	1. U	2. U	2. U	1. U	1. U	1. U	1. U	1. U	1. U	-	-		1. U	1. U	-	-	-	
	061024-MW-3-56-116	24-Oct-06		2.6	-	0.3 J	0.18 J	1.1	0.67	1.77	1.1 J	0.095 U	0.89 J	-	-	-	-	-	-	0.21 J	0.14 U	0.13 U	0.15 U	-	-	Acrylonitrile = 1.2 J 1,1,-DCA = 0.3 J
	2708-070626-MW-3-56-108	26-Jun-07		5.83	-	0.5 U	0.5 U	-	-	1.01	4.85 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080512-MW3-56-106	12-May-08		0.91	0.045 U	0.35 J	0.14 J	1.3	0.83	2.13	0.93 J	0.039 U	1.2 J	0.19 J	-	0.65 J	0.17 J	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	1,1-Dichloroethane = 0.22 Acetone = 2.8 n-Butylbenzene = 0.08 sec-Butylbenzene= 0.17
MW-4-35	061018-MW-4-35-113	18-Oct-06	24 - 34	3.	-	0.48 J	0.13 U	1.3	0.81	2.11	3.9	0.095 U	0.38 J	-	-	-	-	-	-	0.12 U	0.16 J	0.13 U	0.15 U	-	-	Acetone=30
	2708-070726-MW-4-35-137	26-Jul-07		0.5 U	-	0.5 U	0.5 U	-	-	1. U	0.285	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080513-MW4-35-112	13-May-08		0.12 J	-	0.43 J	0.042 U	0.31 J	0.14 J	0.45 J	0.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080513-MW4-35-113	13-May-08		0.12 J	-	0.27 J	0.06 J	0.3 J	0.17 J	0.2 J	0.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-4-57	960321-MW4-57-01	21-Mar-96	46 - 56	3,700.	-	35.	540.	80.	140.	220.	1,700.	10. U	10. U	10. U	22.	19.	13.	-	-	-	10. U	10. U	-	-	-	
	020405-MW4-57-117	5-Apr-02		18,800.	-	500. U	805.	-	-	1,000. U	-	-	-	-	-	-	-	-	-	-	500. U	-	-	-	-	
	040824-MW4-57-016	24-Aug-04		15,000.	-	100. U	748.	200. U	122.	122.	3,640.	100. U	100. U	100. U	100. U	100. U	100. U	-	-	-	100. U	100. U	-	-	-	
	061030-MW-4-57-122	30-Oct-06		7,100.	-	11. J	450.	24.	130.	154.	730.	2.4 U	10. J	-	-	-	-	-	-	2.9 U	3.4 U	3.2 U	3.6 U	-	-	Carbon Disulfide = 4 J Methylene Chloride = 9.3 J
	2708-070622-MW-4-57-101	22-Jun-07		0.5 U	-	0.5 U	0.5 U	-	-	1. U	0.971 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-070723-MW-4-57-135	23-Jul-07		3,870. J	-	25. UJ	249. J	-	-	82. U*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080513-MW4-57-111	13-May-08		5,400.	-	13.	520.	30.	130.	160.	750.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-4-101	061018-MW-4-101-112	18-Oct-06	89.5 - 99.5	170. U	-	2.	0.63	1.2	5.1	6.3	5.9	0.095 U	1.6 J	-	-	-	-	-	-	0.12 U	0.14 U	0.13 U	0.15 U	-	-	
	2708-070625-MW-4-101-106	25-Jun-07		39.5	-	1.14	0.5 U	-	-	3.52	1.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080513-MW4-101-114	13-May-08		11.	-	1.2	0.4 J	0.61	5.	5.61	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-5-32	951205-MW5-32-01	5-Dec-95	21 - 31	5. U	-	5. U	5. U	5. U	5. U	5. U	11.	5. U	5. U	5. U	5. U	5. U	5. U	-	-		5. U	5. U		-	-	
	061018-MW-5-32-114	18-Oct-06		0.14 U	-	0.11 U	0.13 U	0.22 U	0.11 U	0.22 U	0.29 U	0.095 U	0.11 U	-	-	-	-	-	-	0.12 J	0.14 U	0.13 U	0.15 U	-	-	
	2708-070625-MW-5-32-104	25-Jun-07		0.5 U	-	0.5 U	0.5 U	-	-	1. U	4.63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080514-MW5-32-118	14-May-08		0.045 U	0.045 U	0.08 J	0.042 U	0.078 U	0.037 U	0.078 U	0.1 U	0.039 U	0.031 U	0.037 U	-	0.037 U	0.042 U	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	
MW-5-100	020405-MW5-100-114	5-Apr-02	88 - 98	8,750.	-	500. U	500. U	-	-	1,000. U	-	-	-	-	-	-	-	-	-	-	500. U	-	-	-	-	
	020405-MW5-100-115	5-Apr-02		8,950.	-	500. U	500. U	-	-	1,000. U	-	-	-	-	-	-	-	-	-	-	500. U	-	-	-	-	
	040824-MW5-100-015	24-Aug-04		11,500.	-	100. U	683.	200. U	253.	253.	12,100.	100. U	100. U	100. U	100. U	100. U	100. U	-	-	-	100. U	100. U	-	-	-	
	061027-MW-5-100-120	27-Oct-06		11,000.	-	18. J	560.	58.	240.	298.	8,700.	9.5 U	19. J	-	-	-	-	-	-	12. U	14. U	13. U	20. J	-	-	
	2708-070625-MW-5-100-103	25-Jun-07		10,100.	-	40. U	532.	200. U	223.	294.	7,320.	40. U	100. U	-	-	-	-	-	-	-	40. U	40. U	40. U	162.	-	
	2708-080514-MW5-100-119	14-May-08		12,000.	4.5 U	26. J	690.	89.	210.	299.	21,000.	3.9 U	20. J	5. J	-	120. J	6. J	4.4 U	4.1 U	5.4 U	6.1 U	7.7 U	19. J	300.	11. J	

Table 5d - Summary of Historical Analytical Results for Groundwater Samples -
Detected Volatiles by EPA Method 8260, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - ug/l (ppb)																						
				Benzene	Chlorobenzene	Toluene	Ethyl benzene	m,p-Xylene	o-Xylene	Xylene (total)	Naphthalene	Styrene	Isopropylbenzene	n-Propylbenzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Trichloroethene	Tetrachloroethene	Trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Others
HUMAN HEALTH SCREENING LEVEL VALUES [4,5]																										
Fish Consumption																										
	EPA 2004 NRWQC (organism only)			51.	1,600.	15,000.	2,100.	#	#	#	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
	Portland Harbor specific fish consumption rate			5.1	160.	1,500.	210.	#	#	#	#	#	#	#	#	#	#	130.	96.	19.	3.	0.33	1,000.	#	0.24	#
	DEQ 2004 AWQC (organism only)			51.	1,600.	15,000.	2,100.	#	#	#	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
Drinking Water																										
	MCL			5.	100.	1,000.	700.	#	#	10,000.	0.2 [3]	100.	#	#	#	#	#	600.	#	75.	5.	5.	100.	#	2	#
	Tap Water PRGs			0.4	91.	720.	1,300.	#	#	#	6.2	1,600.	#	#	#	#	#	49.	14.	2.8	0.028	0.1	0.12	#	0.015	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [4,5]																										
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#		#	#	#
	DEQ 2004 AWQC (chronic)			#	50.	840.	#	#	#	#	620.	#	#	#	#	#	#	763.	763.	763.	21,900.	840.		#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	64.	9.8	7.3	1.8	13.	#	12.	#	#	#	#	#	#	14.	71.	15.	47.	98.	590.	0.055	#	#
MW-5-175	020404-MW5-175-105	4-Apr-02	163 - 173	1. U	-	1. U	1. U	-	-	2. U	-	-	-	-	-	-	-	-	-	-	1. U	-	-	-	-	
	061016-MW-5-175-05	16-Oct-06		0.14 U	-	1.1	0.13 U	0.22 U	0.11 U	0.22 U	0.61 J	0.095 U	0.11 U	-	-	-	-	-	-	0.12	0.14 U	0.13 U	0.15 U	-	-	
	2708-070625-MW-5-175-105	25-Jun-07		0.5 U	-	0.86	0.5 U	-	-	1. U	0.114	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080514-MW5-175-116	14-May-08		0.05 J	0.045 U	0.1 J	0.042 U	0.078 U	0.037 U	0.078 U	0.17 J	0.039 U	0.031 U	0.037 U	-	0.037 U	0.042 U	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	
MW-8-29	061031-MW-8-29-124	31-Oct-06	18 - 28	93.	-	17.	16.	14.	12.	26.	2,100.	0.95 U	1.1 U	-	-	-	-	-	-	1.2 U	1.4 U	1.3 U	1.5 U	-	-	
	2708-080603-MW8-29-100	3-Jun-08		88.	-	26.	38.	30.	23.	53.	2,200.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-8-56	951207-MW8-56-01	7-Dec-95	45 - 55	18,600.	-	1,400.	590.	600.	200.	800.	13,300.	100. U	100. U	100. U	100. U	110.	100. U	-	-	-	100. U	100. U	-	-	-	
	020405-MW8-56-118	5-Apr-02		26,400.	-	1. U	1,000.	-	-	2. U	-	-	-	-	-	-	-	-	-	-	1. U	-	-	-	-	
	061031-MW-8-56-125	31-Oct-06		22,000.	-	270.	670.	420.	220.	640.	10,000.	19. U	21. U	-	-	-	-	-	-	23. U	27. U	26. U	29. U	-	-	
	061031-MW-8-56-126	31-Oct-06		21,000.	-	270.	710.	440.	230.	670.	9,600.	19. U	21. U	-	-	-	-	-	-	23. U	27. U	26. U	29. U	-	-	
	2708-080603-MW8-56-101	3-Jun-08		17,000.	-	240.	870.	640.	340.	980.	11,000.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-9-29	061013-MW-9-103	13-Oct-06	18 - 28	0.14 U	-	0.27 J	0.13 U	0.22 U	0.11 U	0.22 U	0.29 U	0.095 U	0.11 U	-	-	-	-			0.12 U	0.14 U	0.13 U	0.15 U			
	2708-080604-MW9-29-109	4-Jun-08		0.045 U	0.045 U	0.24 J	0.18 J	0.41 J	0.16 J	0.57 J	0.35 U*	0.039 U	0.031 U	0.037 U	-	0.037 U	0.042 U	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	
	2708-080604-MW9-29-110 (DUP)	4-Jun-08		0.045 U	0.045 U	0.21 J	0.16 J	0.35 J	0.14 J	0.49 J	0.27 U*	0.039 U	0.031 U	0.037 U	-	0.037 U	0.042 U	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	
MW-10-25	061213-MW-10-25-131	13-Dec-06	14 - 24	120,000.	-	32,000.	770.	2,800.	1,300.	4,100.	11,000.	800.	20. J	-	-	-	-	-	-	12. U	14. U	13. U	15. U	-	-	Acrylonitrile = 100 J Acetone = 720 J Carbon Disulfide = 6,000 2-Butanone = 710
	2708-080604-MW10-25-108	4-Jun-08		180,000.	45. U	53,000.	970.	3,500.	1,600.	5,100.	11,000.	950.	31. U	37. U	-	240. J	70. J	44. U	41. U	54. U	61. U	77. U	48. U	45. U	71. U	Acetone = 2,600 Carbon Disulfide = 5,500
MW-10-61	020404-MW10-61-109	4-Apr-02	50 - 60	1. U	-	1. U	1. U	-	-	2. U	-	-	-	-	-	-	-	-	-	-	1. U	-	-	-	-	
	061017-MW-10-61-108	17-Oct-06		0.14 U	-	0.24 J	0.13 U	0.22 U	0.11 U	0.22 U	0.29 U	0.095 U	0.11 U	-	-	-	-	-	-	0.18 J	0.14 U	0.13 U	0.15 U	-	-	
	2708-080604-MW10-61-105	4-Jun-08		0.045 U	0.045 U	0.048 U	0.042 U	0.078 U	0.037 U	0.078 U	0.1 U	0.039 U	0.031 U	0.037 U	-	0.037 U	0.042 U	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	
MW-11-32	960320-MW11-32-01	20-Mar-96	21 - 31	16,700.	-	3,300.	620.	840.	400.	1,240.	8,600.	2. U	42.	18.	110.	250.	79.	-	-	-	2. U	2.2	-	-	-	sec-Butylbenzene = 9 p-Isopropyltoluene = 35
	960617-MW11-32-01	17-Jun-96		2,800.	-	2,000.	1,000.	1,300.	640.	1,940.	4,100.	5. U	70.	17.	100.	260.	82.	-	-	-	5. U	5. U	-	-	-	sec-Butylbenzene = 10
	960617-MW11-32-02	17-Jun-96		4,100.	-	2,600.	960.	1,200.	580.	1,780.	5,600.	10. U	59.	14.	86.	220.	70.	-	-	-	10. U	10. U	-	-	-	sec-Butylbenzene = 8.8
	960930-MW11-32-01	30-Sep-96		17,000.	-	3,300.	900.	1,200.	560.	1,760.	13,900.	1,200. U	1,200. U	1,200. U	1,200. U	1,200. U	.	-	-	-	1,200. U	1,200. U	-	-	-	
	061212-MW-11-32-130	12-Dec-06		24,000.	-	5,500.	1,200.	1,800.	860.	2,660.	18,000.	86. J	38. J	-	-	-	-	-	-	23. U	28. J	26. U	29. U	-	-	
	2708-080604-MW11-32-111	4-Jun-08		16,000.	9. U	3,200.	990.	1,400.	690.	2,090.	16,000.	64. J	36. J	18. J	-	230. J	68. J	8.8 U	8.2 U	11. U	13. U	16. U	9.6 U	9. U	15. U	
MW-12-36	951207-MW12-36-01	7-Dec-95	25 - 35	92.	-	510.	150.	460.	170.	630.	2,300.	100.	50. U	50. U	36.	88.	57.	-	-	-	5,010. U	50. U	-	-	-	
	960321-MW12-36-01	21-Mar-96		210.	-	220.	140.	310.	180.	490.	1,900.	130.	10. U	10. U	22.	51.	37.	-	-	-	10. U	10. U	-	-	-	
	960620-MW12-36-01	20-Jun-96		250.	-	250.	120.	280.	160.	440.	1,500.	140.	10. U	10. U	16.	42.	13.	-	-	-	10. U	10. U	-	-	-	
	961002-MW12-36-01	2-Oct-96		330.	-	390.	130.	330.	180.	510.	1,100.	170.	50. U	50. U	18.	42.	14.	-	-	-	50. U	50. U	-	-	-	
	970226-MW12-36-01	26-Feb-97		260.	-	310.	120.	290.	180.	470.	960.	150.	4.	3.	1. U	31.	11.	-	-	-	1. U	1. U	-	-	-	p-Isopropyltoluene = 1
	970828-MW12-36-01	28-Aug-97		230.	-	430.	110.	280.	150.	430.	820.	150.	4.2	2.8	12.	30.	8.5	-	-	-	1. U	1. U	-	-	-	p-Isopropyltoluene = 1.9
	980218-MW12-36-01	18-Feb-98		140.	-	370.	82.	180.	100.	280.	530.	94.	2.2	1.8		22.	6.2	-	-	-	1. U	1. U	-	-	-	p-Isopropyltoluene = 1.1
	061024-MW-12-36-115	24-Oct-06		290.	-	790.	800.	1,000.	420.	1,420.	960.	0.48 U	11.	-	-	-	-	-	-	0.57 U	0.95 J	0.63 U	0.72 U	-	-	Acrolein = 41 J Methylene Chloride = 8.4 J
	2708-080604-MW12-36-106	4-Jun-08		79.	0.045 U	200.	140.	250.	100.	350.	210.	15.	2.3	1.3 J	-	17.	4.	0.044 U	0.041 U	0.054 U	0.15 J	0.077 U	0.048 U	0.15 J	0.071 U	n-Butylbenzene = 0.28 J p-Isopropyltoluene = 0.46 J
MW-13-30	061027-MW-13-30-121	27-Oct-06	19 - 29	350.	-	3.3	86.	21.	34.	55.	260.	0.095 U	38.	-	-	-	-	-	-	0.12 U	0.14 U	0.13 U	0.15 U	-	-	Chloroethane = 0.35 J 1,1-DCA = 1
	2708-080604-MW13-30-112	4-Jun-08		4,500.	23. U	55. J	1,600.	370.	400.	770.	21,000.	20. U	120. J	30. J	-	410. J	130. J	22. U	21. U	27. U	31. U	39. U	24. U	23. U	36. U	p-Isopropyltoluene = 35 J
MW-14-110	020404-MW14-110-108	4-Apr-02	98 - 108	1. U	-	1. U	1. U	-	-	2. U	-	-	-	-	-	-	-	-	-	-	1. U	-	-	-	-	
	061013-MW-14-110-104	13-Oct-06		0.14 U	-	0.5	0.14 J	0.56	0.23 J	0.79 J	0.39 J	0.1 J	0.11 U	-	-	-	-	-	-	0.12 U	0.14 U	0.13 U	0.15 U	-	-	Acetone = 4.9 J
	2708-080603-MW14-110-104	3-Jun-08		0.045 U	-	0.048 U	0.042 U	0.078 U	0.037 U	0.078 U	0.079	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-15-50	020405-MW15-50-119	5-Apr-02	40 - 50	57,000.	-	1. U	1. U	-	-	2. U	-	-	-	-	-	-	-	-	-	-	1. U	-	-	-	-	
	061031-MW-15-50-127	31-Oct-06		33,000.	-	200.	180.	240.	190.	430.	4,100.	67.	11. U	-	-	-	-	-	-	12. U	14. U	13. U	15. U	-	-	
	2708-080603-MW15-50-103	3-Jun-08		42,000.	-	200.	290.	360.	210.	570.	6,300.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-15-66	020404-MW15-66-107	4-Apr-02	60.5 - 66.5	1. U	-	1. U	1. U	-	-	2. U	-	-	-	-	-	-	-	-	-	-	1. U	-	-	-	-	
	061017-MW-15-66-109	17-Oct-06		0.14 U	-	0.11 U	0.13 U	0.22 U	0.11 U	0.22 U	1.5 J	0.095 U	0.11 U	-	-	-	-	-	-	0.2 J	0.14 U	0.13 U	0.15 U	-	-	Methylene Chloride = 0.23 J
	2708-080603-MW15-66-102	3-Jun-08		0.045 U	-	0.048 U	0.042 U	0.078 U	0.037 U	0.078 U	0.054	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16-45	040826-MW16-45-028	26-Aug-04	30 - 45	2,880.	-	959.	460.	546.	321.	867.	7,590.	50. U	50. U	50. U	50. U	50. U	50. U	-	-	-	50. U	50. U	50. U	-	-	
	061212-MW-16-45-129	12-Dec-06		5,000.	-	2,200.	770.	970.	480.	1,450.	14,000.	9.5 U	33. J	-	-	-	-	-	-	12. U	14. U	13. U	15. U	-	-	
	2708-070731-MW-16-45-148	31-Jul-07		4,230.	-	1,540.	615.	-	-	1,140.	64,100.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080521-MW16-45-128	21-May-08		4,800.	-	1,400.	530.	620.	340.	960.	4,800. J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table 5d - Summary of Historical Analytical Results for Groundwater Samples - Detected Volatiles by EPA Method 8260, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - ug/l (ppb)																						
				Benzene	Chlorobenzene	Toluene	Ethyl benzene	m,p-Xylene	o-Xylene	Xylene (total)	Naphthalene	Styrene	Isopropylbenzene	n-Propylbenzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Trichloroethene	Tetrachloroethene	Trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Others
HUMAN HEALTH SCREENING LEVEL VALUES [4,5]																										
Fish Consumption																										
	EPA 2004 NRWQC (organism only)			51.	1,600.	15,000.	2,100.	#	#	#	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
	Portland Harbor specific fish consumption rate			5.1	160.	1,500.	210.	#	#	#	#	#	#	#	#	#	#	130.	96.	19.	3.	0.33	1,000.	#	0.24	#
	DEQ 2004 AWQC (organism only)			51.	1,600.	15,000.	2,100.	#	#	#	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
Drinking Water																										
	MCL			5.	100.	1,000.	700.	#	#	10,000.	0.2 [3]	100.	#	#	#	#	#	600.	#	75.	5.	5.	100.	#	2	#
	Tap Water PRGs			0.4	91.	720.	1,300.	#	#	#	6.2	1,600.	#	#	#	#	#	49.	14.	2.8	0.028	0.1	0.12	#	0.015	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [4,5]																										
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#		#	#	#
	DEQ 2004 AWQC (chronic)			#	50.	840.	#	#	#	#	620.	#	#	#	#	#	#	763.	763.	763.	21,900.	840.		#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	64.	9.8	7.3	1.8	13.	#	12.	#	#	#	#	#	#	14.	71.	15.	47.	98.	590.	0.055	#	#
MW-16-65	040826-MW16-65-026	26-Aug-04	55 - 65	1,370.	-	388.	236.	371.	181.	562.	4,890.	50. U	50. U	50. U	50. U	50. U	50. U	-	-	-	50. U	50. U	50. U	-	-	
	040826-MW16-65-027	26-Aug-04		1,250.	-	339.	223.	-	-	486.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	061023-MW-16-65-114	23-Oct-06		930.	-	4.8 J	170.	54.	56.	110.	3,600.	1.9 U	12. J	-	-	-	-	-	-	2.3 U	2.7 U	2.6 U	2.9 U	-	-	Acrolein = 35 J Acrylonitrile = 23 J Iodomethane = 9.6 J
	2708-070628-MW-16-65-115	28-Jun-07		698.	-	2.75 U*	95.7	-	-	59.	837.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080513-MW16-65-109	13-May-08		690.	-	9.8 J	130.	81.	41.	122.	2,500.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-16-125	040826-MW16-125-025	26-Aug-04	115 - 125	1. U	-	1. U	1. U	2. U	1. U	2. U	22.2	1. U	1. U	1. U	1. U	1. U	1. U	-	-	-	1. U	1. U	1. U	-	-	
	061016-MW-16-125-106	16-Oct-06		0.26 J	-	0.94	0.18 J	0.22 U	0.11 U	0.22 U	0.29 U	0.095 U	0.11 U	-	-	-	-	-	-	0.12 U	0.14 U	0.13 U	0.15 U	-	0.06 J	
	2708-070628-MW-16-125-116	28-Jun-07		0.5 U	-	0.5 U	0.5 U	-	-	1. U	0.165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080515-MW16-125-127	15-May-08		160.	-	55.	60.	61.	37.	98.	1,300.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-17-79	050926-MW-17-79-110	26-Sep-05	38.5 - 78.5	2.82	-	1. U	8.8	1.72	1.72	1.72	82.4	1. U	2. U	1. U	-	1.	1. U	-	-	-	1. U	1. U	1. U	-	-	
	061026-MW-17-79-119	26-Oct-06		1.5	-	0.48 J	5.7	0.93	1.1	2.03	5.2	0.095 U	0.27 J	-	-	-	-	-	-	0.14 J	0.14 U	0.13 U	0.15 U	-	-	
	2708-070627-MW-17-79-112	27-Jun-07		1.34	-	0.4 U	4.39	2. U	1.02	2. U	0.598	0.4 U	1. U	-	-	-	-	-	-	-	0.4 U	0.4 U	0.4 U	0.4 U	-	
	2708-080514-MW17-79-120	14-May-08		1.4	0.045 U	0.44 J	1.6	0.58	0.74	1.32	4.3	0.039 U	0.33 J	0.06 J	-	0.35 J	0.06 J	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	
MW-18-30	2708-070731-MW-18-30-146	31-Jul-07	19 - 29	10,100.	-	1,470.	537.	-	-	1,360.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080514-MW18-30-121	14-May-08		8,600.	-	1,300.	420.	880.	470.	1,350.	1,700,000.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-18-180	2708-070628-MW-18-180-117	28-Jun-07	170 - 180	0.5 U	-	0.5 U	0.5 U	-	-	1. U	0.575	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080513-MW18-180-108	13-May-08		0.045 U	-	0.12 J	0.042 U	0.078 U	0.037 U	0.078 U	0.082	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-19-22	2708-070730-MW-19-22-143	30-Jul-07	12 - 22	6.58	-	1.65	3.02	-	-	7.28	297.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080513-MW19-22-110	13-May-08		1.	0.045 U	0.4 J	1.7	2.2	2.8	5.	320.	0.039 U	0.75 J	0.22 J	-	2.6	0.96 J	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	Carbon disulfide = 0.09 n-Butylbenzene = 0.2 p-Isopropyltoluene = 0.21 sec-Butylbenzene = 0.24 tert-Butylbenzene = 0.07
MW-19-125	2708-070627-MW-19-125-110	27-Jun-07	115 - 125	16.7	-	11.3	0.4 U	2. U	2.24	2.99	2.95	0.4 U	1. U	-	-	-	-	-	-	-	0.4 U	0.4 U	0.4 U	0.4 U	-	
	2708-080514-MW19-125-117	14-May-08		13.	0.045 U	1.5	0.32 J	0.6	4.2	4.8	110.	0.039 U	1.6 J	0.09 J	-	0.54 J	0.042 U	0.044 U	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	
MW-19-180	2708-070627-MW-19-180-111	27-Jun-07	170 - 180	0.5 U	-	0.5 U	0.5 U	-	-	1. U	0.0954	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080513-MW19-180-115	13-May-08		0.17 J	0.11 J	0.07 J	0.042 U	0.078 U	0.037 U	0.078 U	0.22 J	0.039 U	0.031 U	0.037 U	-	0.037 U	0.042 U	0.09 J	0.041 U	0.054 U	0.061 U	0.077 U	0.048 U	0.12 J	0.071 U	
MW-20-120	2708-070628-MW-20-120-114	28-Jun-07	110 - 120	75.	-	0.78 U*	1.76	21.6	7.17	28.7	39.9	0.4 U	2.27	-	-	-	-	-	-	-	0.4 U	0.4 U	0.4 U	0.4 U	-	
	2708-080515-MW20-120-126	15-May-08		120.	0.05 J	0.51	1.2	12.	6.3	18.3	210.	0.039 U	2.1	0.18 J	-	1.6 J	0.13 J	0.06 J	0.041 U	0.08 J	0.061 U	0.077 U	0.048 U	0.045 U	0.071 U	Carbon disulfide = 0.06 p-Isopropyltoluene = 0.06
MW-21-12	2708-070719-MW-21-12-129	19-Jul-07	7 - 12	0.5 U	-	0.5 U	0.5 U	-	-	1.13	2.9 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080514-MW21-12-122	14-May-08		0.2 J	-	0.24 J	0.16 J	1.6	0.13 J	1.73 J	1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-21-75	2708-070718-MW-21-75-124	18-Jul-07	65 - 75	0.5 UJ	-	0.5 UJ	0.5 UJ	-	-	1. UJ	0.135 J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080514-MW21-75-123	14-May-08		0.045 U	-	0.048 U	0.042 U	0.08 J	0.037 U	0.08 J	0.081	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-21-115	2708-070718-MW-21-115-123	18-Jul-07	105 - 115	0.5 UJ	-	0.5 UJ	0.5 UJ	-	-	1. UJ	0.0989 J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080515-MW21-115-125	15-May-08		0.045 U	-	0.08 J	0.042 U	0.12 J	0.037 U	0.12 J	0.053	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-21-165	2708-070718-MW-21-165-122	18-Jul-07	156 - 166	0.5 UJ	-	0.5 UJ	0.5 UJ	-	-	1. UJ	0.0971 J	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080514-MW21-165-124	14-May-08		0.14 J	-	0.23 J	0.06 J	0.17 J	0.08 J	0.25 J	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
PW-01	061012-PW-01-102	12-Oct-06	40 - 80	7,300.	-	100.	520.	220.	130.	350.	6,000.	2.4 U	8.8 J	-	-	-	-	-	-	2.9 U	3.4 U	3.2 U	3.6 U	-	-	
	2708-070731-PW-01-80-147	31-Jul-07		7,060.	-	59.5	457.	-	-	238.	5,060.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2708-080604-PW01-80-107	4-Jun-08		3,700.	2.3 U	27.	170.	37.	34.	71.	3,200.	2. U	5. J	1.9 U	-	32. J	8.5 J	2.2 U	2.1 U	2.7 U	3.1 U	3.9 U	2.4 U	2.3 U	3.6 U	

Table 5d - Summary of Historical Analytical Results for Groundwater Samples - Detected Volatiles by EPA Method 8260, Gasco Property Wells

Well Number	HAI Sample Number[1]	Sample Date	Screen Interval (feet bgs)	Benzene	Chlorobenzene	Toluene	Ethyl benzene	m,p-Xylene	o-Xylene	Xylene (total)	Naphthalene	Styrene	Isopropylbenzene	n-Propylbenzene	1,2,3-Trimethylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	Trichloroethene	Tetrachloroethene	Trans-1,2-Dichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	Others
				Analytical Results - ug/l (ppb)																						
HUMAN HEALTH SCREENING LEVEL VALUES [4,5]																										
Fish Consumption																										
	EPA 2004 NRWQC (organism only)			51.	1,600.	15,000.	2,100.	#	#	#	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
	Portland Harbor specific fish consumption rate			5.1	160.	1,500.	210.	#	#	#	#	#	#	#	#	#	#	130.	96.	19.	3.	0.33	1,000.	#	0.24	#
	DEQ 2004 AWQC (organism only)			51.	1,600.	15,000.	2,100.	#	#	#	#	#	#	#	#	#	#	1,300.	960.	190.	30.	3.3	10,000.	#	2.4	#
Drinking Water																										
	MCL			5.	100.	1,000.	700.	#	#	10,000.	0.2 [3]	100.	#	#	#	#	#	600.	#	75.	5.	5.	100.	#	2	#
	Tap Water PRGs			0.4	91.	720.	1,300.	#	#	#	6.2	1,600.	#	#	#	#	#	49.	14.	2.8	0.028	0.1	0.12	#	0.015	#
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [4,5]																										
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#		#	#	#
	DEQ 2004 AWQC (chronic)			#	50.	840.	#	#	#	#	620.	#	#	#	#	#	#	763.	763.	763.	21,900.	840.		#	#	#
	Oak Ridge National Laboratory (Tier II SCV) [2]			130.	64.	9.8	7.3	1.8	13.	#	12.	#	#	#	#	#	#	14.	71.	15.	47.	98.	590.	0.055	#	#
Well Point Samples 2004																										
B-56	040602-101	2-Jun-04	18 - 22	8.		5. U	5. U	10. U	5. U	10. U	328.	5. U	10. U	5. U	-	5. U	5. U	-	-	-	5. U	5. U	5. U	-	-	
	040603-102	3-Jun-04	40 - 44	1. U		1. U	1. U	2. U	1. U	2. U	2.57	1. U	U U	1. U	-	1. U	1. U	-	-	-	1. U	1. U	1. U	-	-	
	040603-103	3-Jun-04	60 - 64	3.62		1. U	70.	10.5	8.14	18.64	140.	1. U	2. U	1. U	-	2.06	1. U	-	-	-	1. U	1. U	1. U	-	-	
	040603-104	3-Jun-04	80 - 84	5. U		5. U	5. U	10. U	10.6	10.6	441.	5. U	10. U	5. U	-	5. U	5. U	-	-	-	5. U	5. U	5. U	-	-	
	040603-105	3-Jun-04	80 - 84	3.1		2. U	2.02	6.96	4. U	6.96	273.	2. U	4. U	2. U	-	2. U	2. U	-	-	-	2. U	2. U	2. U	-	-	
	040604-106	4-Jun-04	100 - 104	1. U		1. U	1. U	2. U	1. U	2. U	2. U	1. U	2. U	1. U	-	1. U	1. U	-	-	-	1. U	1. U	1. U	-	-	
	040614-115	14-Jun-04	136 - 140	1. U		1. U	1. U	2. U	1. U	2. U	3.26	1. U	2. U	1. U	-	1. U	1. U	-	-	-	1. U	1. U	1. U	-	-	
	040614-116	14-Jun-04	174 - 178	1. U		1. U	1. U	2. U	1. U	2. U	4.2	1. U	2. U	1. U	-	1. U	1. U	-	-	-	1. U	1. U	1. U	-	-	
B-59	040611-108	11-Jun-04	46-50	5,570.		50. U	317.	50. U	85.5	85.5	4,460.	50. U	100. U	50. U	-	63.	50. U	-	-	-	50. U	50. U	50. U	-	-	
	040611-109	11-Jun-04	76-80	230.		12.4	25.8	13.8	12.2	26.	582.	10. U	10. U	5. U	-	6.65	5. U	-	-	-	5. U	5. U	5. U	-	-	
	040611-110	11-Jun-04	96-100	113.		6.16	9.78	6.04	5.24	11.28	272.	2. U	4. U	2. U	-	2.58	-	-	-	-	2. U	2. U	2. U	-	-	
	040611-112	11-Jun-04	116-120	166.		2.16	3.02	5.42	1.63	7.05	116.	1. U	2. U	1. U	-	1.51	-	-	-	-	1. U	1. U	1. U	-	-	
	040611-113	11-Jun-04	144-148	19.3		1.43	2.58	2.37	1.31	3.58	119.	1. U	2. U	1. U	-	1.17	-	-	-	-	1. U	1. U	1. U	-	-	
	040614-114	14-Jun-04	171-175	2.29		1. U	1. U	2. U	1. U	2. U	3.46	1. U	2. U	1. U	-	1.	-	-	-	-	1. U	1. U	1. U	-	-	

Note:
" - " = Parameter not analyzed
# = Reference Level not established
DEQ = Oregon Department of Environmental Quality
EPA = U.S. Environmental Protection Agency
J = Estimated Concentration
MCL = Maximum Contaminant Level
NRWQC = National Recommended Water Quality Criteria
ppb = parts per billion
PRG = Potential Remediation Goal
SCV = Secondary Chronic Value
ug/l = micrograms per liter
U = Non-detect above method reporting limit
U* = Compound considered non-detect because it was also detected in associated blank at similar concentration levels.
UJ = Compound not detected, but the reporting limit is probably higher due to a low bias identified during the quality assurrance review.
UR = Unusable Reportling Limit, compound may or may not be present in this sample.

Note: Reference Level is lowest of EPA AWQC for aquatic life protection, AWQC for human consumption of organisms only, or DEQ SLV for aquatic receptors
1 = Sample number prefix: 2708-
2 = Tier II SCV values were taken from Suter II, G.W. and Tasco, C.L., 1996. Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision. ORNL publication ES/ER/TM-96/R2
3 = MCL is based on benzo(a)pyrene
4 = Screening Level Values are from Portland Harbor Joint Source Control Strategy, Final, December 2005
5 = EPA, under CERCLA authority, has identified the Safe Drinking Water Acts MCLs and AWQCs (federal and state once approved as potential ARARs under CERCLA. The final determination will be made in the EPA Portland Harbor Record of Decision (ROD). Decisions to implement source control, prior to The EPA Portland Harbor ROD, due to an exceedance of an SLV in upland stormwater will be evaluated and prioritized on a case by case basis.
6 = Values were taken from Table 33c (OAR 340-41), which are Water Quality Guidance Vales, not criteria, that can be used in the application of Oregon's Narrative Toxics Criteria to waters of the state in order to protect aquatic life.

Table 5e - Summary of Historical Analytical Results for Groundwater Samples - Detected SVOCs by EPA Method 8270 or 8270C, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - ug/L (ppb)														
				Bis(2-ethylhexyl)phthalate	Carbazole	Dibenzofuran	Diethylphthalate	2,4-Dimethylphenol	Di-n-butyl-phthalate	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-cresol)	4-Methylphenol	4-Nitrophenol	Pentachlorophenol	Phenol	PAHs (See Table 3b)	Other Detects
HUMAN HEALTH SCREENING LEVEL VALUES [7,8]																		
Fish Consumption																		
	EPA 2004 NRWQC (organism only)			2.2	#	#	44,000.	850.	4,500.	#	#	#	#	#	3.	1,700,000.		
	Portland Harbor specific fish consumption rate			0.22	#	#	4,400.	85.	450.	#	#	#	#	#	0.3	170,000.		
	DEQ 2004 AWQC (organism only)			2.2	#	#	44,000.	850.	4,500.	#	#	#	#	#	3.	1,700,000.		
Drinking Water																		
	MCL			6.	#	#	#	#	#	#	0.2 [10]	#	#	#	1.	#		
	Tap Water PRGs			4.8	3.4	12.	29,000.	730.	3,600.	#	#	1,800.	180.	#	0.56	11,000.		
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [7,8]																		
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	15 [6]	#		
	DEQ 2004 AWQC (chronic) [2]			3 [3]	#	#	3 [2]	#	3 [2]	#	#	#	#	150.	13 [3,4]	2,560.		
	Oak Ridge National Laboratory (Tier II SCV) [9]			#	#	#	210.	#	#	#	2.1	13.	#	300.	#	#		
MW-1-22	061013-MW-1-22-123	13-Oct-06	11 - 21	0.27 U	120.	5.7	0.026 U	0.71 J	0.027 U		53. D	-	31. D	0.54 U	0.029 U	2.1		
	2708-070720-MW-1-22-131	20-Jul-07		-	94.	4.44	-	-	-		29.6	-	-	-	-	-		
	2708-080512-MW1-22-105	12-May-08		-	20.	1.1	-	-	-	6.7	8.7	-	-	-	-	-		
MW-1-55	2708-070719-MW-1-55-127	19-Jul-07	45 - 55	-	0.0966 U	0.0966 U	-	-	-		0.0966 U	-	-	-	-	-		
	2708-080512-MW1-55-104	12-May-08		-	0.0045 U	0.0046 U	-	-	-	0.0035 U	0.0089 J	-	-	-	-	-		
MW-1-82	2708-070719-MW-1-82-126	19-Jul-07	72 - 82	-	0.0962 U	0.0962 U	-	-	-		0.0962 U	-	-	-	-	-		
	2708-080512-MW1-82-103	12-May-08		-	0.0045 U	0.0046 U	-	-	-	0.0035 U	0.0042 J	-	-	-	-	-		
MW-2-32	061016-MW-2-32-107	16-Oct-06	21.5 - 31.5	0.27 U	0.013 U	0.014 U	0.026 U	0.32 U	0.027 U		0.012 U	-	0.051 U	0.54 U	0.029 U	0.099 J		
	2708-070712-MW-2-32-120	12-Jul-07		-	0.0962 UJ	0.202 J	-	-	-		0.0962 UJ	-	-	-	-	-		
	2708-080512-MW2-32-101	12-May-08		-	0.031	0.017 J	-	-	-	0.052	0.011 J	-	-	-	-	-		
MW-2-61	061011-MW-2-61-101	11-Oct-06	50 - 60	0.27 U	0.013 U	0.014 U	0.035 J	0.32 U	0.054 J		0.012 U	-	0.051 U	0.54 U	0.029 U	0.02 U		
	2708-070719-MW-2-61-128	19-Jul-07		-	0.098 U	0.098 U	-	-	-		0.098 U	-	-	-	-	-		
	2708-080512-MW2-61-100	12-May-08		-	0.0045 U	0.0046 U	-	-	-	0.0035 U	0.0027 J	-	-	-	-	-		
MW-2-104	2708-070712-MW-2-104-119	12-Jul-07	94 - 104	-	0.0962 UJ	0.0962 UJ	-	-	-		0.0962 UJ	-	-	-	-	-		
	2708-080512-MW2-104-102	12-May-08		-	0.0045 U	0.0046 U	-	-	-	0.011 J	0.026	-	-	-	-	-		
MW-3-26	061017-MW-3-26-110	17-Oct-06	15 - 25	0.27 U	0.013 U	0.014 U	0.026 U	0.32 U	0.059 J		0.012 U	-	0.051 U	0.54 U	0.029 U	0.02 U		1,4-DCB = 0.078 J
	2708-070629-MW-3-26-119	29-Jun-07		-	4.9 UJ	6.93 J	-	-	-		11.8 J	-	-	-	-	-		
	2708-080512-MW3-26-107	12-May-08		-	0.044	0.13	-	-	-	0.038	0.052	-	-	-	-	-		
MW-3-56	951206-MW3-56-01	6-Dec-95	45 - 55	-		-	-	5. U	-		-	5. U	5. U	5. U	5. U	5. U		
	040823-MW3-56-011	23-Aug-04		-	18.6	-	-	-	-		-	-	-	-	-	-		
	061024-MW-3-56-116	24-Oct-06		0.45 J	4.3	6.7	0.11 J	0.36 U	0.2 BJ		8.6	-	0.057 U	0.6 U	0.032 U	0.022 U		1,4-DCB = 0.17 J
	2708-070626-MW-3-56-108	26-Jun-07		-	6.46	4.85 U	-	-	-		23.3	-	-	-	-	-		
	2708-080512-MW3-56-106	12-May-08		-	4.3	4.8	-	-	-	25.	11.	-	-	-	-	-		
MW-4-35	960618-MW4-35-01	18-Jun-96	24 - 34	-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	5. U		
	961001-MW4-35-01	1-Oct-96		-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	5. U		
	970225-MW4-35-01	25-Feb-97		-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	5. U		
	980827-MW4-35-01	27-Aug-97		-	-	-	-	20. U	-		-	50. U	50. U	50. U	10. U	10. U		
	980217-MW4-35-01	17-Feb-98		-	-	-	-	20. U	-		-	5. U	5. U	5. U	10. U	10. U		
	061018-MW-4-35-113	18-Oct-06		0.71 J	0.32	0.63	0.0653 U	0.32 U	0.077 J		0.18 J	0.06 U	0.051 U	0.54 U	0.029 U	0.33 J		
	2708-070726-MW-4-35-137	26-Jul-07		-	0.0971 U	0.113	-	-	-		0.0971 U	-	-	-	-	-		
	2708-080513-MW4-35-112	13-May-08		-	0.0045 U	0.17	-	-	-	2.5	0.076	-	-	-	-	-		
	2708-080513-MW4-35-113 (DUP)	13-May-08		-	0.0045 U	0.15	-	-	-	2.1	0.066	-	-	-	-	-		

Table 5e - Summary of Historical Analytical Results for Groundwater Samples - Detected SVOCs by EPA Method 8270 or 8270C, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - ug/L (ppb)														
				Bis(2-ethylhexyl)phthalate	Carbazole	Dibenzofuran	Diethylphthalate	2,4-Dimethylphenol	Di-n-butyl-phthalate	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-cresol)	4-Methylphenol	4-Nitrophenol	Pentachlorophenol	Phenol	PAHs (See Table 3b)	Other Detects
HUMAN HEALTH SCREENING LEVEL VALUES [7,8]																		
Fish Consumption																		
	EPA 2004 NRWQC (organism only)			2.2	#	#	44,000.	850.	4,500.	#	#	#	#	#	3.	1,700,000.		
	Portland Harbor specific fish consumption rate			0.22	#	#	4,400.	85.	450.	#	#	#	#	#	0.3	170,000.		
	DEQ 2004 AWQC (organism only)			2.2	#	#	44,000.	850.	4,500.	#	#	#	#	#	3.	1,700,000.		
Drinking Water																		
	MCL			6.	#	#	#	#	#	#	0.2 [10]	#	#	#	1.	#		
	Tap Water PRGs			4.8	3.4	12.	29,000.	730.	3,600.	#	#	1,800.	180.	#	0.56	11,000.		
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [7,8]																		
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	15 [6]	#		
	DEQ 2004 AWQC (chronic) [2]			3 [3]	#	#	3 [2]	#	3 [2]	#	#	#	#	150.	13 [3,4]	2,560.		
	Oak Ridge National Laboratory (Tier II SCV) [9]			#	#	#	210.	#	#	#	2.1	13.	#	300.	#	#		
MW-4-57	960620-MW4-57-01	20-Jun-96	46 - 56	-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	2.8		
	961002-MW4-57-01	2-Oct-96		-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	9.		
	970226-MW4-57-01	26-Feb-97		-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	4.8		
	970828-MW4-57-01	28-Aug-97		-	-	-	-	5. U	-		-	5. U	5. U	5. U	10. U	4.6		
	980218-MW4-57-01	18-Feb-98		-	-	-	-	50. U	-		-	50. U	50. U	5. U	10. U	47.		
	040824-MW4-57-016	24-Aug-04		-	500. U	-	-	-	-		-	-	-	-	-	-		
	061030-MW-4-57-122	30-Oct-06		1.4 U	57.	3.5	0.13 U	1.6 U	0.14 U		41.	0.3 U	0.26 U	2.7 U	0.15 U	66.		
	2708-070622-MW-4-57-101	22-Jun-07		-	0.971 U	0.971 U	-	-	-		0.971 U	-	-	-	-	-		
	2708-080513-MW4-57-111	13-May-08		-	61.	3.1	-	-	-	200.	42.	-	-	-	-	-		
MW-4-101	061018-MW-4-101-112	18-Oct-06	89.5 - 99.5	0.27 U	0.013 U	0.014 U	0.026 U	0.5 J	0.027 U		0.65	0.06 U	0.3 J	0.54 U	0.029 U	9.1		
	2708-070625-MW-4-101-106	25-Jun-07		-	0.198 U	0.099 U	-	-	-		0.299	-	-	-	-	-		
	2708-080513-MW4-101-114	13-May-08		-	0.13	0.0046 U	-	-	-	1.9	0.72	-	-	-	-	-		
MW-5-32	061018-MW-5-32-114	18-Oct-06	21 - 31	0.27 U	0.013 U	0.0144 U	0.33 J	0.32 U	0.081 J		0.028 J	0.06 U	0.051 U	0.54 U	0.029 U	0.02 U		
	2708-070625-MW-5-32-104	25-Jun-07		-	1.92 U	1.92 U	-	-	-		1.92 U	-	-	-	-	-		
	2708-080514-MW5-32-118	14-May-08		-	0.031	0.011 J	-	-	-	0.018 J	0.059	-	-	-	-	-		
MW-5-100	040824-MW5-100-015	24-Aug-04	88 - 98	-	500. U	-	-	1,000. U	-		-	1,000. U	500. U	2,500. U	1,000. U	500. U		
	061027-MW-5-100-120	27-Oct-06		27. U	27.	1.4 U	2.6 U	34. J	2.7 U		110.	-	5.1 U	54. U	2.9 U	89.		
	2708-070625-MW-5-100-103	25-Jun-07		-	47.6 U	47.6 U	-	-	-		2,380. U	-	-	-	-	-		
	2708-080514-MW5-100-119	14-May-08		-	38.	0.095	-	-	-	88.	110.	-	-	-	-	-		
MW-5-175	061016-MW-5-175-05	16-Oct-06	163 - 173	0.27 U	0.013 U	0.0144 U	0.061 J	0.32 U	0.061 J		0.012 U	-	0.051 J	0.54 U	0.029 U	0.1 J		
	2708-070625-MW-5-175-105	25-Jun-07		-	0.1 U	0.1 U	-	-	-		0.1 U	-	-	-	-	-		
	2708-080514-MW5-175-116	14-May-08		-	0.0045 U	0.0046 U	-	-	-	0.015 J	0.023	-	-	-	-	-		
MW-6-32	951207-MW6-32-01	7-Dec-95	21 - 31	-	-	-	-	50. U	-		-	50. U	50. U	50. U	50. U	50. U		
MW-6-61	951206-MW6-61-01	6-Dec-95	50 - 60	-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	5. U		
MW-8-29	960321-MW8-29-01	21-Mar-96	18 - 28	-	-	-	-	69.	-		-	29.	15.	50. U	50. U	16.		
	960619-MW8-29-02	20-Jun-96		-	-	-	-	10.	-		-	5. U	5. U	5. U	5. U	5. U		
	961002-MW8-29-01	2-Oct-96		-	-	-	-	500. U	-		-	500. U	500. U	500. U	500. U	500. U		
	970226-MW8-29-01	26-Feb-97		-	-	-	-	82.	-		-	9.8	5. U	2.6	5. U	5.5		
	970828-MW8-29-01	28-Aug-97		-	-	-	-	23.	-		-	50. U	50. U	50. U	10. U	13.		
	980218-MW8-29-01	18-Feb-98		-	-	-	-	50. U	-		-	50. U	50. U	50. U	100. U	100. U		
	061031-MW-8-29-124	31-Oct-06		14. U	74.	9.8	1.3 U	16. J	1.4 U		91.	10. J	4.4 J	27. U	1.5 U	0.98 U		
	2708-080603-MW8-29-100	3-Jun-08		-	91.	11.	-	-	-	130.	130.	-	-	-	-	-		
MW-8-56	061031-MW-8-56-125	31-Oct-06	45 - 55	14. U	180.	15.	1.3 U	170.	1.4 U		560.	45.	20. J	27. U	1.5 U	190.		N-Nitrosodiphenylamine = 4.5 J Benzoic Acid = 430
	061031-MW-8-56-126	31-Oct-06		14. U	180.	15.	1.3 U	180.	1.4 U		550.	39.	19. J	27. U	1.5 U	130.		
	2708-080603-MW8-56-101	3-Jun-08		-	160.	24.	-	-	-	430.	700.	-	-	-	-	-		

Table 5e - Summary of Historical Analytical Results for Groundwater Samples - Detected SVOCs by EPA Method 8270 or 8270C, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - ug/L (ppb)														
				Bis(2-ethylhexyl)phthalate	Carbazole	Dibenzofuran	Diethylphthalate	2,4-Dimethylphenol	Di-n-butyl-phthalate	1-Methylnaphthalene	2-Methylnapthalene	2-Methylphenol (o-cresol)	4-Methylphenol	4-Nitrophenol	Pentachlorophenol	Phenol	PAHs (See Table 3b)	Other Detects
HUMAN HEALTH SCREENING LEVEL VALUES [7,8]																		
Fish Consumption																		
	EPA 2004 NRWQC (organism only)			2.2	#	#	44,000.	850.	4,500.	#	#	#	#	#	3.	1,700,000.		
	Portland Harbor specific fish consumption rate			0.22	#	#	4,400.	85.	450.	#	#	#	#	#	0.3	170,000.		
	DEQ 2004 AWQC (organism only)			2.2	#	#	44,000.	850.	4,500.	#	#	#	#	#	3.	1,700,000.		
Drinking Water																		
	MCL			6.	#	#	#	#	#	#	0.2 [10]	#	#	#	1.	#		
	Tap Water PRGs			4.8	3.4	12.	29,000.	730.	3,600.	#	#	1,800.	180.	#	0.56	11,000.		
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [7,8]																		
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	15 [6]	#		
	DEQ 2004 AWQC (chronic) [2]			3 [3]	#	#	3 [2]	#	3 [2]	#	#	#	#	150.	13 [3,4]	2,560.		
	Oak Ridge National Laboratory (Tier II SCV) [9]			#	#	#	210.	#	#	#	2.1	13.	#	300.	#	#		
MW-9-29	061013-MW-9-29-103	13-Oct-06	18 - 28	2.9	0.013 U	0.014 U	0.042 J	0.32 U	0.064 J		0.048 J	-	0.051 U	0.54 U	5.1	0.02 U		
	2708-080604-MW9-29-109	4-Jun-08		-	0.0045 U	0.0046 U	-	-	-	0.006 J	0.008 J	-	-	-	-	-		
	2708-080604-MW9-29-110 (DUP)	4-Jun-08		-	0.0045 U	0.0046 U	-	-	-	0.0079 J	0.0093 J	-	-	-	-	-		
MW-10-25	951207-MW10-25-01	7-Dec-95	14 - 24	-	-	-	-	490.	-		-	1,600.	930.	50. U	50. U	470.		
	960320-MW10-25-01	20-Mar-96		-	-	-	-	760.	-		-	1,300.	810.	20. U	20. U	630.		
	960617-MW10-25-01	17-Jun-96		-	-	-	-	440.	-		-	1,100.	670.	500. U	500. U	280.		
	960930-MW10-25-01	30-Sep-96		-	-	-	-	550.	-		-	2,800.	1,700.	50. U	50. U	1,000.		
	970224-MW10-25-01	25-Feb-97		-	-	-	-	5,000. U	-		-	5,000. U	5,000. U	5,000. U	5,000. U	5,000. U		
	970827-MW10-25-01	27-Aug-97		-	-	-	-	350.	-		-	730.	1,200.	20. U	50. U	680.		
	980216-MW10-25-01	16-Feb-98		-	-	-	-	250.	-		-	650.	930.	50. U	100. U	790.		
	061213-MW-10-25-131	13-Dec-06		140. U	110.	33. J	13. U	250. J	14. U		770.	1,300.	2,700. U	270. U	15. U	2,900.		
	2708-080604-MW10-25-108	4-Jun-08		-	94.	20.	-	-	-	370.	580.	-	-	-	-	-		
MW-10-61	951206-MW10-61-01	6-Dec-95	50 - 60	-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	5. U		
	960620-MW10-61-01	20-Jun-96		-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	5. U		
	960930-MW10-61-01	2-Oct-96		-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	5. U		
	970226-MW10-61-01	26-Feb-97		-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	8.4		
	970828-MW10-61-01	28-Aug-97		-	-	-	-	5. U	-		-	5. U	5. U	5. U	10. U	10. U		
	980218-MW10-61-01	18-Feb-98		-	-	-	-	5. U	-		-	5. U	5. U	5. U	10. U	10. U		
	061017-MW-10-61-108	17-Oct-06		0.3 J	0.013 U	0.014 U	0.16 J	0.32 U	0.12 J		0.055 J	-	0.051 U	0.54 U	0.029 U	0.02 U		
	2708-080604-MW10-61-105	4-Jun-08		-	0.0045 U	0.0046 U	-	-	-	0.011 J	0.013 J	-	-	-	-	-		
MW-11-32	951207-MW11-32-01	7-Dec-95	21 - 31	-	-	-	-	1,200.	-		-	1,200.	590.	50. U	50. U	120.		
	960320-MW11-32-01	20-Mar-96		-	-	-	-	820.	-		-	540.	230.	20. U	20. U	60.		
	960617-MW11-32-01	17-Jun-96		-	-	-	-	540.	-		-	420.	170.	500. U	500. U	500. U		
	960930-MW11-32-01	30-Sep-96		-	-	-	-	650.	-		-	960.	540.	100. U	100. U	71.		
	970224-MW11-32-01	25-Feb-97		-	-	-	-	500. U	-		-	240.	500. U	500. U	500. U	500. U		
	970826-MW11-32-01	26-Aug-97		-	-	-	-	600.	-		-	210.	120.	20. U	50. U	31.		
	980216-MW11-32-01	16-Feb-98		-	-	-	-	200.	-		-	130.	120.	50. U	100. U	100. U		
	061212-MW-11-32-130	12-Dec-06		140. U	160.	55. J	13. U	190. J	16. J		610.	270.	190. J	270. U	15. U	200. J		
	2708-080604-MW11-32-111	4-Jun-08		-	170.	77.	-	-	-	400.	570.	-	-	-	-	-		
MW-12-36	960321-MW12-36-01	21-Mar-96	25 - 35	-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	5. U		
	061024-MW-12-36-115	24-Oct-06		5.4 U	12.	25.	0.52 U	6.4 U	0.53 U		22.	1.2 U	1.1 U	11. U	0.57 U	0.4 U		
	2708-080604-MW12-36-106	4-Jun-08		-	8.6	15.	-	-	-	9.1	6.8	-	-	-	-	-		
MW-13-30	061027-MW-13-30-121	27-Oct-06	19 - 29	1.4 U	100.	8.	0.13 U	1.6 U	0.14 U		150.	0.3 U	0.26 U	2.7 U	0.15 U	5.9		
	2708-080604-MW13-30-112	4-Jun-08		-	3,900.	2,300.	-	-	-	280,000.	380,000.	-	-	-	-	-		
MW-14-110	061013-MW-14-110-104	13-Oct-06	98 - 108	0.58 J	0.013 U	0.014 U	0.063 J	0.35 J	0.096 J		0.053 J	0.06 U	0.051 U	0.54 U	0.029 U	0.02 U		
	2708-080603-MW-14-110-104	3-Jun-08		-	0.0045 U	0.01 J	-	-	-	0.013 J	0.011 J	-	-	-	-	-		

Table 5e - Summary of Historical Analytical Results for Groundwater Samples - Detected SVOCs by EPA Method 8270 or 8270C, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - ug/L (ppb)														
				Bis(2-ethylhexyl)phthalate	Carbazole	Dibenzofuran	Diethylphthalate	2,4-Dimethylphenol	Di-n-butyl-phthalate	1-Methylnaphthalene	2-Methylnapthalene	2-Methylphenol (o-cresol)	4-Methylphenol	4-Nitrophenol	Pentachlorophenol	Phenol	PAHs (See Table 3b)	Other Detects
HUMAN HEALTH SCREENING LEVEL VALUES [7,8]																		
Fish Consumption																		
	EPA 2004 NRWQC (organism only)			2.2	#	#	44,000.	850.	4,500.	#	#	#	#	#	3.	1,700,000.		
	Portland Harbor specific fish consumption rate			0.22	#	#	4,400.	85.	450.	#	#	#	#	#	0.3	170,000.		
	DEQ 2004 AWQC (organism only)			2.2	#	#	44,000.	850.	4,500.	#	#	#	#	#	3.	1,700,000.		
Drinking Water																		
	MCL			6.	#	#	#	#	#	#	0.2 [10]	#	#	#	1.	#		
	Tap Water PRGs			4.8	3.4	12.	29,000.	730.	3,600.	#	#	1,800.	180.	#	0.56	11,000.		
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [7,8]																		
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	15 [6]	#		
	DEQ 2004 AWQC (chronic) [2]			3 [3]	#	#	3 [2]	#	3 [2]	#	#	#	#	150.	13 [3,4]	2,560.		
	Oak Ridge National Laboratory (Tier II SCV) [9]			#	#	#	210.	#	#	#	2.1	13.	#	300.	#	#		
MW-15-50	061031-MW-15-50-127	31-Oct-06	40 - 50	14. U	24.	12.	1.3 U	28. J	1.4 U		42.	20.	37. U	27. U	1.5 U	84.		
	2708-080603-MW-15-50-103	3-Jun-08		-	47.	48.	-	-	-	620.	71.	-	-	-	-	-		
MW-15-66	061017-MW-15-66-109	17-Oct-06	60.5 - 66.5	1.3 J	0.53	0.08 J	0.056 J	0.32 U	0.068 J		0.054 J	0.06 U	0.051 U	0.54 U	0.029 U	0.02 U		
	2708-080603-MW-15-66-102	3-Jun-08		-	0.009 J	0.0046 U	-	-	-	0.0038 J	0.0064 J	-	-	-	-	-		
MW-16-45	040826-MW16-45-028	26-Aug-04	30 - 45	-	137.	-	-	100. U	-		-	100. U	100. U	100. U	200. U	100. U		
	061212-MW-16-45-129	12-Dec-06		140. U	150.	20. J	13. U	160. U	14. U		790.	59.	140. J	270. U	15. U	57. J		
	2708-070731-MW-16-45-148	31-Jul-07		-	1,410.	752.	-	-	-		19,600.	-	-	-	-	-		
	2708-080521-MW16-45-128	21-May-08		-	110.	23.	-	-	-	520.	800.	-	-	-	-	-		
MW-16-65	040826-MW16-65-026	26-Aug-04	55 - 65	-	100. U	-	-	100. U	-		-	100. U	100. U	100. U	200. U	100. U		
	061023-MW-16-65-114	23-Oct-06		2.7 U	38.	3.5	0.26 U	3.2 U	0.27 U		48.	0.6 U	0.51 U	5.4 U	0.29 U	3.4 J		
	2708-070628-MW-16-65-115	28-Jun-07		-	46.	4.76 U	-	-	-		27.5	-	-	-	-	-		
	2708-080513-MW16-65-109	13-May-08		-	52.	7.2	-	-	-	270. D	250. D	-	-	-	-	-		
MW-16-125	040826-MW16-125-025	26-Aug-04	115 - 125	-	5. U	-	-	5. U	-		-	5. U	5. U	5. U	5. U	5. U		
	061016-MW-16-125-106	16-Oct-06		0.27 U	0.013 J	0.063 J	0.026 U	0.49 J	0.033 J		0.012 U	0.06 U	0.051 U	0.38 J	0.029 U	1.3		
	2708-070628-MW-16-125-116	28-Jun-07		-	0.0952 U	0.0952 U	-	-	-		0.0952 U	-	-	-	-	-		
	2708-080515-MW16-125-127	15-May-08		-	19.	3.4	-	-	-	75.	120.	-	-	-	-	-		
MW-17-79	061026-MW-17-79-119	26-Oct-06	38.5 - 78.5	0.69 J	0.71	0.14 J	0.09 J	0.32 U	0.051 J		0.31	0.06 U	0.051 U	0.54 U	0.029 U	0.22 J		1,4-DCB = 0.0215 J
	2708-070627-MW-17-79-112	27-Jun-07		-	0.19 U	0.19 U	-	-	-		0.19 U	-	-	-	-	-		
	2708-080514-MW17-79-120	14-May-08		-	0.24	0.1	-	-	-	1.4	0.053	-	-	-	-	-		
MW-18-30	2708-080514-MW18-30-121	14-May-08		-	30,000.	27,000.	-	-	-	300,000.	530,000.	-	-	-	-	-		
MW-18-180	2708-070628-MW-18-180-117	28-Jun-07	170 - 180	-	0.0952 U	0.0952 U	-	-	-		0.0952 U	-	-	-	-	-		
	2708-080513-MW18-180-108	13-May-08		-	0.021	0.0046 U	-	-	-	0.018 J	0.013 J	-	-	-	-	-		
MW-19-22	2708-070730-MW-19-22-143	30-Jul-07	12 - 22	-	209.	476. U	-	-	-		79.7	-	-	-	-	-		
	2708-080513-MW19-22-110	13-May-08		-	37.	6.7	-	-	-	34.	22.	-	-	-	-	-		
MW-19-125	2708-070627-MW-19-125-110	27-Jun-07	115 - 125	-	0.0962 U	0.0962 U	-	-	-		0.0962 U	-	-	-	-	-		
	2708-080514-MW19-125-117	14-May-08		-	0.031	0.0046 U	-	-	-	0.19	0.12	-	-	-	-	-		
MW-19-180	2708-070627-MW-19-180-111	27-Jun-07	170 - 180	-	0.0952 U	0.0952 U	-	-	-		0.0952 U	-	-	-	-	-		
	2708-080513-MW19-180-115	13-May-08		-	0.0045 U	0.0046 U	-	-	-	0.013 J	0.019 J	-	-	-	-	-		
MW-20-120	2708-070628-MW-20-120-114	28-Jun-07	110 - 120	-	0.109	0.0952 U	-	-	-		4.76 U	-	-	-	-	-		
	2708-080515-MW20-120-126	15-May-08		-	0.063	0.0093 J	-	-	-	0.33	0.2	-	-	-	-	-		

Table 5e - Summary of Historical Analytical Results for Groundwater Samples - Detected SVOCs by EPA Method 8270 or 8270C, Gasco Property Wells

Well Number	HAI Sample Number [1]	Sample Date	Screen Interval (feet bgs)	Analytical Results - ug/L (ppb)														
				Bis(2-ethylhexyl)phthalate	Carbazole	Dibenzofuran	Diethylphthalate	2,4-Dimethylphenol	Di-n-butyl-phthalate	1-Methylnaphthalene	2-Methylnaphthalene	2-Methylphenol (o-cresol)	4-Methylphenol	4-Nitrophenol	Pentachlorophenol	Phenol	PAHs (See Table 3b)	Other Detects
HUMAN HEALTH SCREENING LEVEL VALUES [7,8]																		
Fish Consumption																		
	EPA 2004 NRWQC (organism only)			2.2	#	#	44,000.	850.	4,500.	#	#	#	#	#	3.	1,700,000.		
	Portland Harbor specific fish consumption rate			0.22	#	#	4,400.	85.	450.	#	#	#	#	#	0.3	170,000.		
	DEQ 2004 AWQC (organism only)			2.2	#	#	44,000.	850.	4,500.	#	#	#	#	#	3.	1,700,000.		
Drinking Water																		
	MCL			6.	#	#	#	#	#	#	0.2 [10]	#	#	#	1.	#		
	Tap Water PRGs			4.8	3.4	12.	29,000.	730.	3,600.	#	#	1,800.	180.	#	0.56	11,000.		
ECOLOGICAL RECEPTOR SCREENING LEVEL VALUES [7,8]																		
	EPA 2004 NRWQC (chronic)			#	#	#	#	#	#	#	#	#	#	#	15 [6]	#		
	DEQ 2004 AWQC (chronic) [2]			3 [3]	#	#	3 [2]	#	3 [2]	#	#	#	#	150.	13 [3,4]	2,560.		
	Oak Ridge National Laboratory (Tier II SCV) [9]			#	#	#	210.	#	#	#	2.1	13.	#	300.	#	#		
MW-21-12	2708-070719-MW-21-12-129	19-Jul-07	7 - 12	-	2.42 U	1.25	-	-	-		0.483 U	-	-	-	-	-		
	2708-080514-MW21-12-122	14-May-08		-	0.11 U	2.1	-	-	-	2.2	0.13	-	-	-	-	-		
MW-21-75	2708-070718-MW-21-75-124	18-Jul-07	65 - 75	-	0.0966 UJ	0.0966 UJ	-	-	-		0.0966 UJ	-	-	-	-	-		
	2708-080514-MW21-75-123	14-May-08		-	0.0056 J	0.0046 U	-	-	-	0.014 J	0.024	-	-	-	-	-		
MW-21-115	2708-070718-MW-21-115-123	18-Jul-07	105 - 115	-	0.0976 UJ	0.0976 UJ	-	-	-		0.0976 UJ	-	-	-	-	-		
	2708-080515-MW21-115-125	15-May-08		-	0.0045 U	0.0046 U	-	-	-	0.0071 J	0.014 J	-	-	-	-	-		
MW-21-165	2708-070718-MW-21-165-122	18-Jul-07	156 - 166	-	0.0971 UJ	0.0971 UJ	-	-	-		0.0971 UJ	-	-	-	-	-		
	2708-080514-MW21-166-124	14-May-08		-	0.0045 U	0.0046 U	-	-	-	0.014 J	0.023	-	-	-	-	-		
PW-01	061012-PW-01-102	12-Oct-06	40 - 80	27. U	22.	3.2 J	2.6 U	32. U	2.7 U		160.	6. U	5.1 U	54. U	2.9 U	80.		1,4-DCB = 0.11 J
	2708-070731-PW-01-80-147	31-Jul-07		-	37.	10.9	-	-	-		237.	-	-	-	-	-		
	2708-080604-PW01-80-107	4-Jun-08		-	8.2	8.3	-	-	-	160.	230.	-	-	-	-	-		
Well Point Samples 1995																		
B-19	950920-BW19-02	20-Sep-95	25 - 28	-	-	-	-	120.	-		-	27.	5. U	5. U	1.5	16.		
B-21	951003-BW21-01	3-Oct-95	15.5 - 19.5	-	-	-	-	5. U	-		-	5. U	5. U	5. U	5. U	5. U		
Well Point Samples 2004																		
B-56	040602-101	2-Jun-04	18 - 22	-	-	-	-	50. U	-		-	50.	25.	125. U	50. U	25. U		
	040603-102	3-Jun-04	40 - 44	-	-	-	-	10. U	-		-	10.	5.	25. U	10. U	5. U		
	040603-103	3-Jun-04	60 - 64	-	-	-	-	10. U	-		-	10.	5.	25. U	10. U	5. U		
	040603-104	3-Jun-04	80 - 84	-	-	-	-	10. U	-		-	10.	5.	25. U	10. U	5. U		
	040604-106	4-Jun-04	100 - 104	-	-	-	-	10. U	-		-	10.	5.	25. U	10. U	5. U		
	040614-115	14-Jun-04	136 - 140	-	-	-	-	10. U	-		-	10.	5.	25. U	10. U	5. U		
	040614-116	14-Jun-04	174 - 178	-	-	-	-	10. U	-		-	10.	5.	25. U	10. U	5. U		

Note:
# = Reference Levels not established
EPA = U.S. Environmental Protection Agency
B = The analyte was found in the associated method blank at a level that is significant relative to sample result
J = Estimated Concentration
MCL = Maximum Contaminant Level
NRWQC = National Recommended Water Quality Criteria
ND = Not detected above detection limit indicated
ppb = parts per billion
PRG = Potential Remediation Goal
SCV = secondary Chronic Value
U = Non-detect above method reporting limit
U* = Compound considered non-detect because it was also detected in associated blank at similar concentration levels.
UJ = Compound not detected, but the reporting limit is probably higher due to a low bias identified during the quality assurrance review.
ug/l = micrograms/liter
X = laboratory contaminant

1 = Sample number prefix: 2708-
2 = Values were taken from Table 33c (OAR 340-41), which are Water Quality Guidance Vales, not criteria, that can be used in the application of Oregon's Narrative Toxics Criteria to waters of the state in order to protect aquatic life.
3 = These values were taken form OAR 340-41 Table 20 because they will remain the enforceable values for these particular analytes.
4 = Freshwater aquatic life values for pentachlorophenol are expressed as a function of pH, and are calculated as follows: Chronic = exp(1.005(ph)-5.29). The value displayed in the table corresponds to a pH of 7.8.
5 = Due to mislabeling in the field or due to laboratory misidentification, the laboratory report transposed results for MW4-35 and MW-4-57 in August 1997. Tables attribute data to the correct well.
6 = Freshwater aquatic life values for pentachlorophenol are expressed as a function of pH, and are calculated as follows: Chronic = exp(1.005(ph)-5.134). The value displayed in the table corresponds to a pH of 7.8.
7 = Screening Level Values are from *Portland Harbor Joint Source Control Strategy*, Final, December 2005
8 = EPA, under CERCLA authority, has identified the Safe Drinking Water Acts MCLs and AWQCs (federal and state once approved as potential ARARs under CERCLA. The final determination will be made in the EPA Portland Harbor Record of Decision (ROD). Decisions to implement source control, prior to The EPA Portland Harbor ROD, due to an exceedance of an SLV in upland stormwater will be evaluated and prioritized on a case by case basis.
9 = Tier II SCV values were taken from Suter II, G.W. and Tasco, C.L., 1996. Toxicological Benchmarks for Screening Potential Contaminants of Concern for Effects on Aquatic Biota: 1996 Revision. ORNL publication ES/ER/TM-96/R2
10 = MCL is based on benzo(a)pyrene

Table 5f - Indicator and Natural Attenuation Parameters Results for Groundwater Samples, 2005 to Present

Well Number	HAI Sample Number [1]	Sample Date	EPA Method 310.1/SM 2320 B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method 350.1	EPA Method 300.0			Field Measurement						
			Total Alkalinity	Bicarbonate Alkalinity	Carbonate Alkalinity	Hydroxide Alkalinity	Ammonia as Nitrogen	Chloride	Nitrate-Nitrogen	Sulfate	Ferrous Iron	Dissolved Oxygen	Oxygen Reduction Potential	pH	Specific Conductivity	Turbidity	Temperature
		Units ==>	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	pH Units	uS/cm	NTU's	°C
MW-1-22	0401-MW-1-22-014	1-Apr-05	499.				-	-	0.1 U	176.	3.	0.8	-6.3	6.28	851.	1.73	11.57
	0928-MW1-22-120	28-Sep-05	-				-	-	-	-	-	13.05	37.1	3.08	2,902.	4.1	12.72
	060403-MW-1-22-117	3-Apr-06	5. U				-	2.	1.6	1,610.	3.4	0.07	148.1	2.78	1,354.	3.26	11.93
	061030-MW-1-22-123	30-Oct-06	0.8 U				6.4	2.6	0.008 U	1,190.	-	0.36	-32.3	4.19	1,766.	6.17	12.77
	070720-MW1-22-131	20-Jul-07	-	-	-	-	-	6.96	0.37	1,520.	-	2.69	0.4	3.22	3,719.	30.	13.14
	2708-080512-MW1-22-105	12-May-08	99.	99.	1. U	-	-	2.2	0.4	419.	-	2.14	-36.7	6.38	941.	36.2	12.32
MW-1-55	2708-070719-MW-1-55-127	19-Jul-07	0. J	0. J	0. UJ	0. UJ	-	0.	0. U	0.	-	1.33	-93.3	6.78	4,058.	180.	15.06
	2708-080512-MW1-55-104	12-May-08	280.	280.	1. U	-	-	6.2	0.008 U	3,860.	-	0.76	-55.6	6.18	5,225.	29.9	13.35
MW-1-82	2708-070719-MW-1-82-126	19-Jul-07	108. J	108. J	5. UJ	5. UJ	-	4.78	0.1 U	18.8	-	2.08	-131.8	7.77	384.	100.	15.05
	2708-080512-MW1-82-103	12-May-08	112.	112.	1. U	-	-	4.2	0.008 U	6.1	-	0.62	-116.3	7.	248.	18.7	13.55
MW-2-32	0331-MW-2-32-009	31-Mar-05	147.				-	-	2.62	67.8	0.	3.54	30.2	6.47	381.	4.31	19.71
	0927-MW-2-32-118	27-Sep-05	-				-	-	-	-	-	1.81	30.5	6.39	459.	4.5	22.19
	060328-MW-2-32-102	28-Mar-06	106.				-	3.8	0.1 U	4.32	0.	0.09	137.3	6.42	226.	7.21	21.36
	061016-MW2-32-107	16-Oct-06	147.				0.65	3.5	0.064 J	1.1	-	0.39	-82.7	6.17	225.	22.4	18.12
	2708-070712-MW-2-32-120	12-Jul-07	144. J	144. J	5. UJ	5. UJ	-	3.52 J	0.54 J	3.72 J	-	0.6	38.8	6.86	536.	40.	21.16
	2708-080512-MW2-32-101	12-May-08	117.	117.	1. U	-	-	5.3	0.021 J	0.7	-	0.238	84.6	6.45	233.	7.16	20.03
MW-2-61	0926-MW-2-61-111	26-Sep-05	-						-	-	-	3.17	29.8	6.99	1,208.	25.	18.97
	060329-MW-2-61-104	29-Mar-06	368.				-	4.32	0.1 U	33.4	4.8	0.14	-67.2	6.46	713.	22.9	17.67
	061011-MW-2-61-101	11-Oct-06	351.				1.55	4.5	2. U	39.4	-	0.27	-142.5	8.19	668.	10.75	20.32
	2708-070719-MW-2-61-128	19-Jul-07	322. J	322. J	5. UJ	5. UJ	-	27.5	0.1 U	29.4	-	1.45	-109.8	6.99	1,210.	55.	20.01
	2708-080512-MW2-61-100	12-May-08	381.	381.	1. U	-	-	4.5	0.056 J	26.4	-	0.273	-44.2	6.48	749.	6.45	19.04
MW-2-104	2708-070712-MW-2-104-119	12-Jul-07	241. J	241. J	25. UJ	25. UJ	-	6.18 J	0.1 UJ	39.8 J	-	0.27	-221.2	7.89	1,153.	70.	22.94
	2708-080512-MW2-104-102	12-May-08	342.	342.	1. U	-	-	5.4	0.008 U	0.5	-	0.01	-81.6	6.47	680.	4.48	17.81
MW-3-26	0330-MW-3-26-004	30-Mar-05	96.8				-	-	4.28	46.	0.8	1.47	41.7	5.83	262.	13.9	14.34
	0922-MW-3-26-105	22-Sep-05	-				-	-	-	-	-	7.55	26.4	6.92	760.	5.6	17.6
	060330-MW-3-26-110	30-Mar-06	188.				-	2.08	0.1 U	13.6	3.3	0.03	14.9	6.29	309.	4.62	13.76
	061017-MW-3-26-110	17-Oct-06	291.				0.45	2.9	0.008 U	8.8	-	0.56	-193.8	7.33	334.	8.64	15.55
	2708-070629-MW-3-26-119	29-Jun-07	298. J	298. J	25. UJ	25. UJ	-	3.77 J	0.1 UJ	1. UJ	-	1.74	-88.6	6.5	541.		15.51
	2708-080512-MW3-26-107	12-May-08	184.	184.	1. U	-	-	2.	0.008 U	13.7	-	0.241	52.4	6.29	353.	27.6	13.56

Table 5f - Indicator and Natural Attenuation Parameters Results for Groundwater Samples, 2005 to Present

Well Number	HAI Sample Number [1]	Sample Date	EPA Method 310.1/SM 2320 B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method 350.1	EPA Method 300.0			Field Measurement						
			Total Alkalinity	Bicarbonate Alkalinity	Carbonate Alkalinity	Hydroxide Alkalinity	Ammonia as Nitrogen	Chloride	Nitrate-Nitrogen	Sulfate	Ferrous Iron	Dissolved Oxygen	Oxygen Reduction Potential	pH	Specific Conductivity	Turbidity	Temperature
		Units ==>	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	pH Units	uS/cm	NTU's	°C
MW-3-56	0330-MW-3-56-003	30-Mar-05	307.						0.1 U	1. U	8.	0.72	10.2	6.6	441.	0.75	14.68
	0922-MW-3-56-106	22-Sep-05	-						-	-	-	5.46	25.6	7.22	844.	11.	15.35
	060330-MW-3-56-111	30-Mar-06	304.				-	3.47	0.1 U	1. U	2.7	0.15	-73.	6.7	464.	6.81	14.6
	061024-MW-3-56-116	24-Oct-06	302.				0.62	3.3	0.039 J	0.18 J	-	0.6	-174.8	7.03	340.	39.7	14.48
	2708-070626-MW-3-56-108	26-Jun-07	289.	289.	50. U	50. U	-	9.75	0.1 U	1. U	-	1.55	-101.5	6.71	536.	-	16.36
	2708-080512-MW3-56-106	12-May-08	294.	294.	1. U	-	-	3.	0.008 U	0.012 U	-	1.73	-65.6	6.74	563.	243.	15.44
MW-4-35	0331-MW-4-35-005	31-Mar-05	309.				-	-	0.1 U	19.5	6.	0.54	0.	6.51	519.	2.47	14.12
	0928-MW-4-35-123	28-Sep-05	-				-	-	-	-	-	2.1	36.1	7.34	2,190.	23.	14.66
	060331-MW-4-35-113	31-Mar-06	517.				-	30.8	0.1 U	1. U	5.	0.04	-95.9	6.84	806.	9.17	13.61
	061018-MW-4-35-113	18-Oct-06	700.				2.88	30.4	0.008 U	0.4	-	0.51	-130.6	6.13	695.	13.8	13.92
MW-4-35	070622-MW-4-35-101	22-Jun-07										1.08	-168.6	7.24	1,774.	8.95	16.12
	070723-MW-4-35-133	23-Jul-07										2.85	107.5	7.25	1,842.	17.	15.27
	2708-070726-MW-4-35-137	26-Jul-07	681.	681.	5. U	5. U	-	29.	0.1 U	1. U	-	2.84	-113.6	7.92	1,571.	12.	13.66
	2708-080513-MW4-35-112	13-May-08	497.	497.	1. U	-	-	14.	0.008 U	2.9	-	0.39	-105.3	6.87	961.	9.48	12.33
	2708-080513-MW4-35-113	13-May-08	487.	487.	1. U	-	-	14.2	0.008 U	3.1	-	--	-	-	-	-	-
MW-4-57	0331-MW-4-57-008	31-Mar-05	733.				-	-	0.1 U	1. U	-	0.89	10.5	6.53	1,073.	3.07	14.23
	1003-MW-4-57-133	3-Oct-05	-				-	-	-	-	-	0.26	-	6.69	1,165.	9.1	14.4
	060331-MW-4-57-114	31-Mar-06	723.				-	0.69	0.1 U	1. U	3.8	0.08	-66.8	6.5	932.	10.6	13.91
	061030-MW-4-57-122	30-Oct-06	708.				0.24	10.8	0.1	0.1 J	-	0.32	-110.5	6.63	821.	9.4	13.53
	2708-070622-MW-4-57-101	22-Jun-07	574.	574.	25. U	25. U	-	28.	- ##	1. U	-	-	-	-	-	-	-
	070723-MW-4-57-135	23-Jul-07	-	-	-	-	-	-	-	-	-	2.05	-84.6	7.14	1,880.	700.	15.24
	2708-080513-MW4-57-111	13-May-08	768.	768.	1. U	-	-	13.7	0.008 U	0.091 J	-	0.92	-66.7	6.59	1,405.	142.	12.82
MW-4-101	0330-MW-4-101-002	30-Mar-05	419.				-	-	0.1 U	1. U	7.2	0.57	-16.7	6.36	704.	12.7	13.69
	0928-MW-4-101-122	28-Sep-05	-				-	-	-	-	-	5.46	34.6	7.29	1,172.	3.	14.25
	060329-MW-4-101-106	29-Mar-06	415.				-	9.66	0.1 U	1. U	3.	0.	-105.8	6.61	676.	8.	13.48
	061018-MW-4-101-112	18-Oct-06	393.				5.6	10.	0.011 J	0.2	-	0.6	-158.5	6.11	466.	4.06	13.53
	2708-070625-MW-4-101-106	25-Jun-07	409.	409.	25. U	25. U	-	17.	0.1 U	1. U	-	0.71	-124.8	6.54	831.	47.5	15.36
	2708-080513-MW4-101-114	13-May-08	391.	391.	1. U	-	-	8.7	0.008 U	0.012 U	-	3.69	-119.4	6.65	840.	8.2	13.19

Table 5f - Indicator and Natural Attenuation Parameters Results for Groundwater Samples, 2005 to Present

Well Number	HAI Sample Number [1]	Sample Date	EPA Method 310.1/SM 2320 B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method 350.1	EPA Method 300.0			Field Measurement						
			Total Alkalinity	Bicarbonate Alkalinity	Carbonate Alkalinity	Hydroxide Alkalinity	Ammonia as Nitrogen	Chloride	Nitrate-Nitrogen	Sulfate	Ferrous Iron	Dissolved Oxygen	Oxygen Reduction Potential	pH	Specific Conductivity	Turbidity	Temperature
		Units ==>	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	pH Units	uS/cm	NTU's	°C
MW-5-32	0401-MW-5-32-011	1-Apr-05	311.				-	-	0.1 U	19.7	2.2	0.75	36.	5.96	480.	5.12	14.07
	0927-MW-5-32-117	27-Sep-05	-				-	-	-	-	-	1.86	36.9	7.28	745.	90.	14.06
	060329-MW-5-32-107	29-Mar-06	290.				-	2.13	0.01 U	24.3	1.2	0.	74.3	6.39	443.	32.4	13.4
	061018-MW-5-32-112	18-Oct-06	260.				0.08	2.1	0.008 U	20.5	-	0.59	-95.9	6.89	294.	10.4	13.82
	070625-MW5-32-104	22-Jun-07										2.61	-41.9	6.39	492.	31.7	14.82
	2708-070625-MW-5-32-104	25-Jun-07	231.	231.	5. U	5. U	-	7.73	0.1 U	18.	-	2.44	-11.7	7.07	687.	280.	16.43
	2708-080514-MW5-32-118	14-May-08	240.	240.	1. U	-	-	1.9	0.008 U	15.1	-	0.95	90.	6.46	464.	54.7	14.36
MW-5-100	0401-MW-5-100-012	1-Apr-05	407.				-	-	0.1 U	1. U	7.4	0.77	7.1	6.13	727.	1.12	13.84
	0921-MW-5-100-102	21-Sep-05	-				-	-	-	-	-	6.87	22.	5.61	1,294.	0.55	16.38
	060404-MW-5-100-121	4-Apr-06	411.				-	33.2	0.1 U	1. U	2.	0.31	-48.6	6.41	666.	6.76	14.08
	061027-MW-5-100-120	27-Oct-06	386.				1.77	35.1	2. U	0.06 U	-	0.9	-90.3	6.44	847.	10.47	14.51
	2708-070625-MW-5-100-103	25-Jun-07	403.	403.	25. U	25. U	-	42.1	0.1 U	1. U	-	1.04	-132.8	6.83	1,347.	7.29	14.53
	2708-080514-MW5-100-119	14-May-08	414.	414.	1. U	-	-	32.8	0.008 U	0.134 J	-	108.08	-84.2	6.46	900.	12.8	17.85
MW-5-175	0921-MW-5-175-101	21-Sep-05	-				-	-	-	-	-	-	17.8	6.03	874.	0.5	15.95
	060329-MW-5-175-105	29-Mar-06	231.				-	36.1	0.1 U	1. U	4.	0.12	-107.8	684.	470.	5.02	12.76
	061016-MW-5-175-105	16-Oct-06	229.				2.45	37.2	0.008 U	0.06 U	-	0.98	-158.3	6.96	343.	10.6	13.49
	070625-MW-5-175-105	25-Jun-07									-	1.12	-129.3	6.8	584.	73.4	16.95
	2708-070625-MW-5-175-105	25-Jun-07	213.	213.	25. U	25. U	-	37.9	0.1 U	1. U	-	1.12	-129.3	6.8	584.	73.7	16.95
	2708-080514-MW5-175-116	14-May-08	235.	235.	1. U	-	-	30.6	0.008 U	0.093 J	-	0.053	-85.9	6.77	568.	35.9	13.78
MW-8-29	0929-MW-8-29-127	29-Sep-05	-				-	-	-	-	-	4.77	34.4	7.89	1.918	16.	18.96
	061031-MW-8-29-124	31-Oct-06	696.				5.5	18.4	0.008 U	0.1 J	-	0.26	-174.5	6.33	918.	4.39	13.58
	2708-080603-MW8-29-100	3-Jun-08	703.	703.	1. U	-	-	21.9	0.008 U	0.3	-	0.07	-96.	6.74	112.	35.	14.2
MW-8-56	0929-MW-8-56-128	29-Sep-05	-				-	-	-	-	-	2.3	35.1	8.1	1,910.	50.	18.51
	061031-MW-8-56-126	31-Oct-06	609.				1.12	7.6	0.008 U	0.13 J	-	0.8	-115.	4.52	924.	9.8	14.54
	2708-080603-MW8-56-101	3-Jun-08	590.	590.	1. U	-	-	7.1	0.008 U	0.115 J	-	1.36	-93.7	6.68	1,037.	248.	14.32
MW-9-29	0926-MW-9-29-109	26-Sep-05	-				-	-	-	-	-	7.51	29.9	6.55	264.	28.	14.23
	061013-MW-9-103	13-Oct-06	86.				0.014 J	2.6	0.8	9.1	-	1.52	-78.5	8.99	145.	27.4	13.82
	2708-080604-MW9-29-109	4-Jun-08	70.	70.	1. U	-	-	2.8	0.8	10.	-	2.17	-49.7	6.79	164.	-	13.14
	2708-080604-MW9-29-110	4-Jun-08	76.	76.	1. U	-	-	2.6	0.9	10.1	-	-	-	-	-	-	-

Table 5f - Indicator and Natural Attenuation Parameters Results for Groundwater Samples, 2005 to Present

Well Number	HAI Sample Number [1]	Sample Date	EPA Method 310.1/SM 2320 B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method 350.1	EPA Method 300.0			Field Measurement						
			Total Alkalinity	Bicarbonate Alkalinity	Carbonate Alkalinity	Hydroxide Alkalinity	Ammonia as Nitrogen	Chloride	Nitrate-Nitrogen	Sulfate	Ferrous Iron	Dissolved Oxygen	Oxygen Reduction Potential	pH	Specific Conductivity	Turbidity	Temperature
		Units ==>	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	pH Units	uS/cm	NTU's	°C
MW-10-25	061212-MW-10-25-131	12-Dec-06	0.8 U				7.8	8. J	0.2 i	3,340.	-	-	-	5.66	5.66	-	17.8
	2708-080604-MW10-25-108	4-Jun-08	1. U	1. U	1. U	-	-	4.8	0.041 J	3,640.	-	-	-	3.71	2,964.	-	13.6
MW-10-61	0928-MW10-61-121	28-Sep-05	-				-	-	-	-	-	3.64	30.	6.18	932.	80.	14.31
	061017-MW-10-61-108	17-Oct-06	224.				0.13	5.1	0.008 U	140.	-	0.57	-196.5	8.03	413.	53.2	14.99
	2708-080604-MW10-61-105	4-Jun-08	199.	199.	1. U	-	-	4.4	0.008 U	145.	-	2.99	-109.	6.86	584.	28.	14.2
MW-11-32	061212-MW-11-32-120	12-Dec-06	159.				1.32	2.7 J	0.2	1.5	-	-	-	6.06	382.	-	13.8
	2708-080604-MW11-32-111	4-Jun-08	98.	98.	1. U	-	-	1.7	0.019	12.5	-	-	-	6.4	230.	-	12.5
MW-12-36	0927-MW-12-36-116	27-Sep-05	-				-	-	-	-	-	3.46	34.	7.29	538.	3.3	14.25
	061024-MW-12-36-115	24-Oct-06	198.				0.035 J	4.5	0.016 J	16.2	-	0.57	-173.8	7.87	259.	2.62	13.66
	2708-080604-MW12-36-106	4-Jun-08	188.	188.	1. U	-	-	4.4	0.2	18.5	-	0.13	-149.4	7.04	411.	17.4	13.15
MW-13-30	1003-MW-13-30-132	3-Oct-05	-				-	-	-	-	-	0.3	-	6.63	793.	8.	13.5
	060404-MW-13-30--122	4-Apr-06	391.				-	3.88	0.1 U	1. U	3.3	0.12	-65.2	6.45	618.	10.4	15.63
	061027-MW-13-30-121	27-Oct-06	262.				0.98	3.	0.027 J	3.9	-	0.89	-118.	6.55	567.	9.46	15.52
	2708-080604-MW13-30-112	4-Jun-08	256.	256.	1. U	-	-	2.9	0.2 U	1.32	-	-	-	6.71	445.	-	15.5
MW-13-61	0927-MW-13-61-114	27-Sep-05	-				-	-	-	-	-	3.06	36.	5.87	1,103.	83.	15.44
	060404-MW-13-61-123	4-Apr-06	376.				-	10.	0.1 U	1. U	2.	0.26	-27.4	6.38	605.	7.61	15.95
MW-14-110	0922-MW-14-110-104	22-Sep-05	-				-	-	-	-	-	3.53	22.1	6.51	2,283.	0.8	16.13
	061013-MW-14-110-104	13-Oct-06	342.				0.04 J	5.	0.008 U	565.	-	1.05	-114.9	9.02	832.	7.11	15.65
	2708-080603-MW14-110-104	3-Jun-08	346.	346.	1. U	-	-	5.5	0.008 U	551.	-	2.14	-78.	6.88	143.	36.	15.
MW-15-50	0929-MW-15-50-126	29-Sep-05	-				-	-	-	-	-	2.06	18.1	7.55	2,988.	90.	24.7
	061031-MW-15-50-127	31-Oct-06	717.				0.2	9.8	0.008 U	317.	-	0.63	-114.5	4.08	1,342.	58.1	21.65
	2708-080603-MW15-50-103	3-Jun-08	741.	741.	1. U	-	-	10.	0.008 U	342.	-	0.56	-150.6	6.73	1,806.	1,000.	21.8
MW-15-66	0929-MW-15-66-125	29-Sep-05	-				-	-	-	-	-	2.02	37.6	7.3	297.	370.	19.74
	061017-MW-15-66-109	17-Oct-06	75.				0.006 U	4.5	0.3	15.5	-	0.34	-193.4	6.18	198.	126.	25.57
	2708-080603-MW15-66-102	3-Jun-08	65.	65.	1. U	-	-	4.1	0.3	14.6	-	0.28	97.	6.47	190.	616.	24.3
MW-16-45	0401-MW-16-45-013	1-Apr-05	431.				-	-	0.1 U	1. U	7.	0.56	-0.1	6.41	838.	2.79	16.92
	0622-MW-16-45-5	22-Jun-05	-				-	-	-	-	-	4.48	29.5	6.47	707.	-	15.17
	1003-MW-16-45-136	3-Oct-05	-				-	-	-	-	-	4.21	-	6.91	595.	160.	13.1
	060403-MW-16-45-118	3-Apr-06	367.				-	4.61	0.1 U	1. U	1.4	-	-	6.81	724.	-	13.

Table 5f - Indicator and Natural Attenuation Parameters Results for Groundwater Samples, 2005 to Present

Well Number	HAI Sample Number [1]	Sample Date	EPA Method 310.1/SM 2320 B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method 350.1	EPA Method 300.0			Field Measurement						
			Total Alkalinity	Bicarbonate Alkalinity	Carbonate Alkalinity	Hydroxide Alkalinity	Ammonia as Nitrogen	Chloride	Nitrate-Nitrogen	Sulfate	Ferrous Iron	Dissolved Oxygen	Oxygen Reduction Potential	pH	Specific Conductivity	Turbidity	Temperature
		Units ==>	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	pH Units	uS/cm	NTU's	°C
MW-16-45	061212-MW-16-45-129	12-Dec-06	374.				0.08	5. J	0.2	1.5	-	-	-	7.14	1,162.	-	15.8
	2708-070731-MW-16-45-148	31-Jul-07	622.	622.	500. U	500. U	-	18.	0.1 U	1. U	-	-	-	6.52	779.	20.	21.7
	2708-080521-MW16-45-128	21-May-08	388.	388.	1. U	-	-	14.2	0.008 U	0.012 U	-	-	-	6.39	807.	-	14.4
MW-16-65	0331-Mw-16-65-006	31-Mar-05	350.				-	-	0.1 U	99.8	8.4	0.61	-5.5	6.55	898.	7.03	14.42
	0621-MW-16-65-04	21-Jun-05	-				-	-	-	-	-	0.21	22.7	5.83	736.	9.71	14.38
	1003-MW-16-65-135	3-Oct-05	-				-	-	-	-	-	0.4	-	6.86	702.	8.4	14.1
	060403-MW-16-45-119	3-Apr-06	357.				-	11.2	0.1 U	1.01	3.4	0.07	-93.7	6.66	612.	4.38	14.15
	061023-MW-16-65-114	23-Oct-06	340.				2.27	7.4	0.008 U	0.13 J	-	0.6	-162.2	7.74	396.	7.42	14.2
	2708-070628-MW-16-65-115	28-Jun-07	303.	303.	25. U	25. U	-	5.64	0.1 U	1. U	-	1.42	-100.	6.62	626.	74.8	15.44
	2708-080513-MW16-65-109	13-May-08	332.	332.	1. U	-	-	4.4	0.2	0.119 J	-	11.7	-59.8	6.56	655.	6.36	14.16
MW-16-125	0330-MW-16-125-001	30-Mar-05	399.				-	-	0.1 U	38.1	6.	0.82	-22.7	6.33	754.	3.16	14.19
	0621-MW-16-125-003	21-Jun-05	-				-	-	-	-	-	0.18	15.	6.22	729.	25.	14.58
	0930-MW-16-125-130	30-Sep-05	-				-	-	-	-	-	6.79	41.7	7.62	1,188.	2.5	16.22
	060330-MW-16-125-109	30-Mar-06	375.				-	8.84	0.1 U	6.57	2.8	0.32	-78.2	6.6	646.	4.14	13.37
	061016-MW-16-125-106	16-Oct-06	350.				18.5	9.5	0.008 U	3.1	-	0.47	-153.4	6.1	511.	3.41	14.97
	2708-070628-MW-16-125-116	28-Jun-07	322.	322.	25. U	25. U	-	8.94	0.1 U	7.46	-	1.73	-121.5	7.02	1,237.	400.	15.55
	2708-080515-MW16-125-127	15-May-08	396.	396.	1. U	-	-	6.8	0.008 U	1.6	-	-	-	6.46	663.	13.76	20.5
MW-17-79	0926-MW-17-79-110	26-Sep-05	-				-	-	-	-	-	3.15	30.5	7.19	1,596.	3.2	14.46
	061026-MW-17-79-119	26-Oct-06	625.				0.53	7.7	0.07	15.9	-	0.62	-133.3	5.59	772.	11.7	15.06
	2708-070627-MW-17-79-112	27-Jun-07	575.	575.	25. U	25. U	-	8.51	0.1 U	5.3	-	0.88	-120.2	6.98	1,805.	12.2	17.33
	2708-080514-MW17-79-120	14-May-08	567.	567.	1. U	-	-	6.8	0.008 U	0.3	-	0.91	-39.	6.49	1,050.	0.12	14.26
MW-18-30	070731-MW-18-30-146	31-Jul-07	-	-	-	-	-	-	-	-	-	-	-	7.41	1,158.	250.	21.2
	2708-080514-MW18-30-121	14-May-08	894.	894.	1. U	-	-	225.	0.008 U	36.8	-	-	-	6.54	1,795.	-	18.1
MW-18-180	2708-070628-MW-18-180-117	28-Jun-07	200.	200.	5. U	5. U	-	6.65	0.1 U	9.92	-	0.82	-102.5	7.36	383.	15.2	15.87
	2708-080513-MW18-180-108	13-May-08	206.	206.	1. U	-	-	6.1	0.01 J	13.9	-	0.167	-69.1	7.09	401.	2.29	14.46
MW-19-22	2708-070730-MW-19-22-143	30-Jul-07	500. U	500. U	500. U	500. U	-	2.6	0.1 U	1. U	-	1.08	-65.6	7.27	725.	330.	15.48
	2708-080513-MW19-22-110	13-May-08	186.	186.	1. U	-	-	1.8	0.041 J	0.7	-	1.7	-27.	6.32	364.	-	11.83
MW-19-125	2708-070627-MW-19-125-110	27-Jun-07	256.	256.	25. U	25. U	-	27.3	0.1 U	1. U	-	1.1	-109.5	6.59	618.	26.7	13.92
	2708-080514-MW19-125-117	14-May-08	266.	266.	1. U	-	-	30.	0.008 U	0.082 J	-	0.53	-102.9	6.68	644.	3.62	13.34

Table 5f - Indicator and Natural Attenuation Parameters Results for Groundwater Samples, 2005 to Present

Well Number	HAI Sample Number [1]	Sample Date	EPA Method 310.1/SM 2320 B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method SM 2320B	EPA Method 350.1	EPA Method 300.0			Field Measurement						
			Total Alkalinity	Bicarbonate Alkalinity	Carbonate Alkalinity	Hydroxide Alkalinity	Ammonia as Nitrogen	Chloride	Nitrate-Nitrogen	Sulfate	Ferrous Iron	Dissolved Oxygen	Oxygen Reduction Potential	pH	Specific Conductivity	Turbidity	Temperature
		Units ==>	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mV	pH Units	uS/cm	NTU's	°C
MW-19-180	2708-070627-MW-19-180-111	27-Jun-07	242.	242.	5. U	5. U	-	24.2	0.1 U	4.51	-	1.98	-126.5	7.36	885.	27.	14.55
	2708-080513-MW19-180-115	13-May-08	268.	268.	1. U	-	-	20.7	0.008 U	0.6	-	0.98	-55.1	6.9	589.	13.6	13.1
MW-20-120	2708-070628-MW-20-120-114	28-Jun-07	225.	225.	5. U	5. U	-	12.	0.1 U	7.23	-	0.21	-195.8	7.6	490.	54.	14.34
	2708-080515-MW20-120-126	15-May-08	282.	282.	1. U	-	-	10.5	0.008 U	7.1	-	0.1	-88.2	6.89	552.	159.1	15.57
MW-21-12	2708-070719-MW-21-12-129	19-Jul-07	246. J	246. J	5. UJ	5. UJ	-	8.62	0.1 U	1. U	-	1.5	-97.1	6.9	930.	23.	21.43
	2708-080514-MW21-12-122	14-May-08	168.	168.	1. U	-	-	4.2	0.008 U	0.186 J	-	0.22	-52.7	6.46	396.	152.	18.41
MW-21-75	2708-070718-MW-21-75-124	18-Jul-07	322. J	322. J	5. UJ	5. UJ	-	8.95 J	0.1 UJ	9.6 J	-	7.59	-164.3	7.59	1,096.	9.9	21.01
	2708-080514-MW21-75-123	14-May-08	387.	387.	1. U	-	-	8.6	0.012 J	0.2	-	0.16	-102.3	6.68	798.	10.22	18.75
MW-21-115	2708-070718-MW-21-115-123	18-Jul-07	201. J	158. J	42.8 J	5. UJ	-	5.69 J	0.1 UJ	9.9 J	-	1.12	-208.6	9.6	637.	13.	19.21
	2708-080515-MW21-115-125	15-May-08	198.	198.	1. U	-	-	5.2	0.008 U	7.2	-	0.64	-94.8	6.9	404.	1.04	18.28
MW-21-165	2708-070718-MW-21-165-122	18-Jul-07	373. J	5. UJ	41.6 J	331. J	-	4.27 J	0.1 UJ	77.4 J	-	1.26	-220.5	12.37	3,607.	34.	20.88
	2708-080514-MW21-166-124	14-May-08	126.	1. U	68.	-	-	4.1	0.008 U	49.	-	137.58	-83.5	10.53	355.	17.	21.79
PW-01	060720-PW-01-100	20-Jul-06	-				-	-	-	-	-	-	-	6.73	614.	-	15.
	061012-PW-01-102	12-Dec-06	492.				1.84	14.	0.008 U	2.2	-	2.	-94.6	6.92	614.	-	15.
	2708-070731-PW-01-80-147	31-Jul-07	559.	559.	50. U	50. U	-	15.4	0.1 U	3.83	-	2.22	-45.7	6.76	1,553.	12.	16.82
	2708-080604-PW01-80-107	4-Jun-08	442.	442.	1. U	-	-	9.8	0.008 U	0.3	-	-	-	6.38	743.	-	14.3

1 = HAI Sample Identification Number is 2708-

"-" = Measurement not taken or or analyzed

Note:
°C = Degrees Celcius
EPA = Environmental Protection Agency
J - Estimated Concentration
uS/cm = microsiemens per centimeter
mg/l = milligrans per liter
mV = millivolts
NTU = nephelometric units
ORP = Oxidation Reduciton Potential
ppm = parts per million
U = Non-detect above method reporting limits
UJ = Compound not detected, but the reporting limit is probably higher due to a low bias identified during the quality assurrance review.

Table 6
Summary of DNAPL Recovery Volume: Well MW-6-32

Date	Pumping Cycles Per Day	Pumping Duration per Cycle (minutes)	Measured Volume of Liquid within AST (gallons)	Measured Volume of Liquid Recovered (gallons)	Estimated Volume of DNAPL Recovered[1] (gallons)
08-Aug-00	6	10	6	6	5
15-Aug-00	3	5	20	20	16
22-Aug-00	3	5	30	30	24
19-Sep-00	3	5	50	50	40
22-Sep-00	3	5	55	55	44
03-Oct-00	3	5	55	55	44
19-Oct-00	3	5	70	70	56
16-Nov-00	3	5	100	100	80
28-Nov-00	3	5	110	110	88
20-Dec-00	3	5	130	130	104
18-Jan-01	3	5	160	160	128
09-Feb-01	3	5	165	165	132
20-Feb-01	3	5	165	165	132
30-Mar-01	3	5	165	165	132
12-Jun-01	3	5	175	175	140
28-Jun-01	6	10	180	180	162
12-Jul-01	6	10	187	187	168
22-Aug-01	6	10	193	193	174
28-Sep-01	6	10	220	220	198
14-Nov-01	6	10	230	230	207
17-Jan-02	6	10	275	275	248
25-Feb-02	6	10	348	348	313
15-Mar-02	6	10	370	370	333
12-Apr-02	6	10	372	372	333
20-May-02	6	10	375	375	333
12-Jul-02	6	10	411	411	370
23-Aug-02	6	10	425	425	383
13-Sep-02	6	10	425	425	383
01-Nov-02	6	10	438	438	394
16-Dec-02	6	10	445	445	401
28-Jan-03	6	10	467 [2]	467	420
05-Feb-03	6	10	6	473	426
11-Mar-03	6	10	8	475	428
04-Apr-03	6	10	11	478	430

Table 6
Summary of DNAPL Recovery Volume: Well MW-6-32

Date	Pumping Cycles Per Day	Pumping Duration per Cycle (minutes)	Measured Volume of Liquid within AST (gallons)	Measured Volume of Liquid Recovered (gallons)	Estimated Volume of DNAPL Recovered[1] (gallons)
12-May-03	6	10	19	486	437
09-Jul-03	6	10	28	495	446
06-Oct-03	12	10	37	504	454
23-Oct-03	12	10	44	511	460
24-Nov-03	12	10	49	516	464
29-Dec-03	12	10	57	524	472
12-Jan-04	12	10	60	527	474
25-Feb-04	12	10	75	542	488
30-Apr-04	12	10	87	554	499
03-Aug-04	12	10	95	562	505
20-Aug-04	12	10	95	562	506
29-Sep-04	12	10	95	562	506
03-Nov-04	12	10	95	562	506
01-Dec-04	12	10	101	568	511
30-Dec-04	12	10	101	568	511
02-Feb-05	12	10	101	568	511
09-Feb-05	12	10	107	574	517
10-May-05	12	10	107	574	517
16-Jun-05	6	10	113	580	522
16-Aug-05	6	10	115	582	524
29-Aug-05	6	3	120	587	528
07-Oct-05	6	3	120	587	528
18-Oct-05	6	3	120	587	528
01-Nov-05	6	10	120	587	528
07-Nov-05	6	10	120	587	528
08-Nov-05	6	10	120	587	528
15-Nov-05	6	10	131	598	538
16-Nov-05	6	10	130	598	538
09-Dec-05	6	10	130	598	538
09-Jan-06	6	10	140	608	547
13-Jan-06	6	10	140	608	547
16-Jan-06	6	10	140	608	547
06-Feb-06	6	10	160	628	565
10-Feb-06	6	10	170	638	574

Table 6
Summary of DNAPL Recovery Volume: Well MW-6-32

Date	Pumping Cycles Per Day	Pumping Duration per Cycle (minutes)	Measured Volume of Liquid within AST (gallons)	Measured Volume of Liquid Recovered (gallons)	Estimated Volume of DNAPL Recovered[1] (gallons)
22-Feb-06	6	10	180	648	583
28-Feb-06	6	10	198	666	599
08-Mar-06	6	10	200	668	601
17-Mar-06	6	10	240	708	637
23-Mar-06	6	10	250	718	646
28-Mar-06	6	10	252	720	648
04-Apr-06	6	10	270	738	664
12-Apr-06	6	10	290	758	682
19-Apr-06	6	10	315	783	705
26-Apr-06	6	10	341	809	728
01-May-06	6	10	341	809	728
03-May-06	6	10	345	813	732
19-May-06	6	10	358	826	743
26-May-06	6	10	360	828	745
02-Jun-06	6	10	370	838	754
09-Jun-06	6	10	372	840	756
19-Jun-06	6	10	384	852	767
23-Jun-06	6	10	388	856	770
28-Jun-06	6	10	398	866	779
18-Jul-06	6	10	398	866	779
09-Aug-06	6	10	404	872	785
21-Aug-06	6	10	415 [3]	883	795
31-Aug-06	6	10	20	903	807
08-Sep-06	6	10	29	912	812
18-Sep-06	6	10	34	917	815
22-Sep-06	6	10	42	925	820
27-Sep-06	6	10	51	934	825
10-Oct-06	6	10	60	943	831
20-Oct-06	6	10	62	945	832
30-Oct-06	6	10	70	953	837
01-Dec-06	6	10	73	956	839
05-Jan-07	6	10	80	963	843
24-Jan-07	6	10	80	963	843
07-Feb-07	6	10	85	968	846

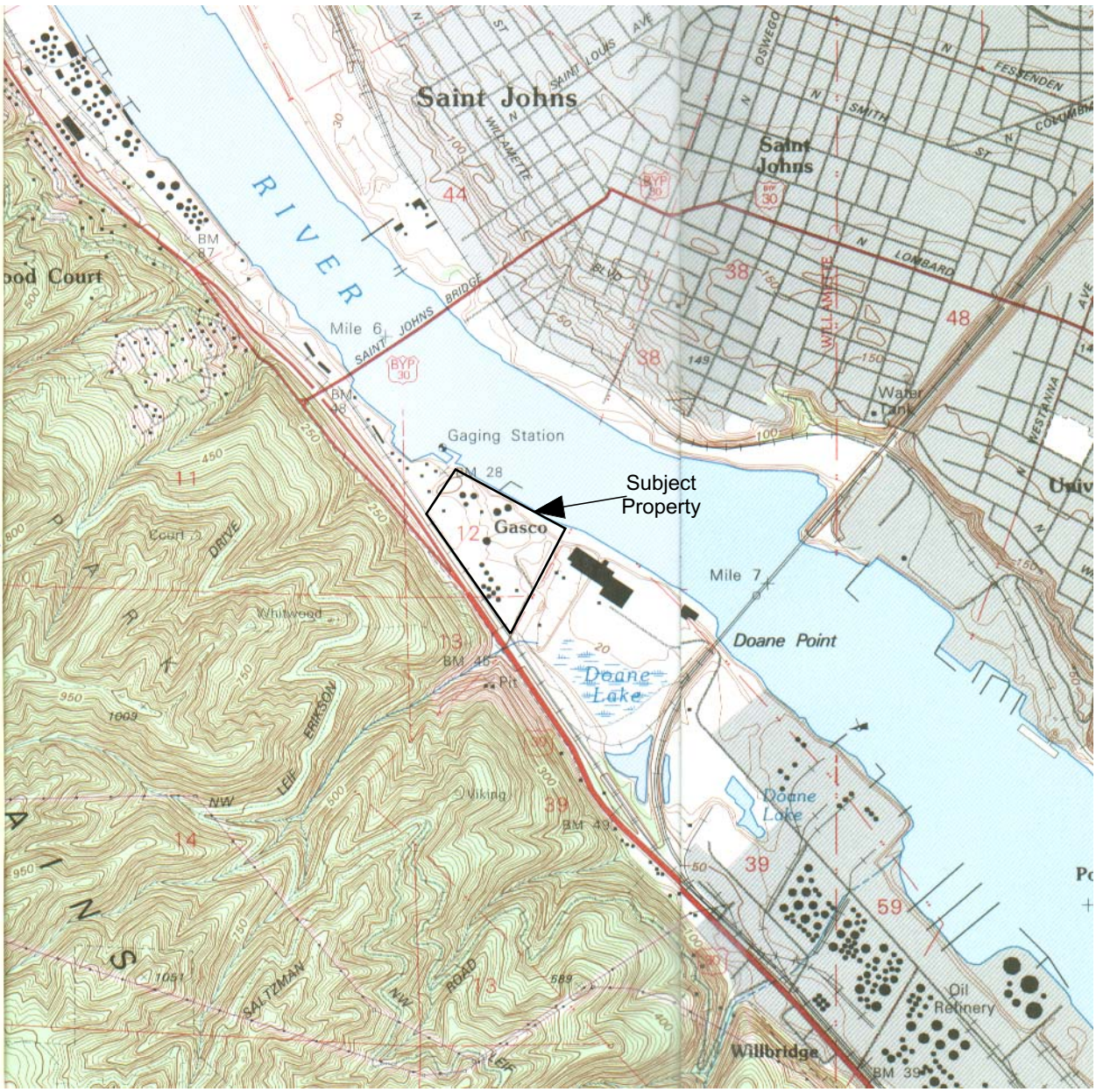
Table 6
Summary of DNAPL Recovery Volume: Well MW-6-32

Date	Pumping Cycles Per Day	Pumping Duration per Cycle (minutes)	Measured Volume of Liquid within AST (gallons)	Measured Volume of Liquid Recovered (gallons)	Estimated Volume of DNAPL Recovered[1] (gallons)
21-Feb-07	6	10	90	973	849
27-Feb-07	6	10	94	977	851
06-Mar-07	6	10	100	983	855
15-Mar-07	6	10	106	989	858
30-Mar-07	6	10	115	998	864
09-Apr-07	6	10	120	1,003	867
19-Apr-07	6	10	125	1,008	870
02-May-07	6	10	137	1,020	877
10-May-07	6	10	145	1,028	882
22-May-07	6	10	153	1,036	887
08-Jun-07	6	10	165	1,048	894
21-Jun-07	6	10	174	1,057	899
22-Aug-07	6	10	190	1,073	909
04-Oct-07	6	10	229	1,112	932
26-Oct-07	6	10	252	1,135	946
30-Nov-07	6	10	296	1,179	972
25-Jan-08	6	10	360	1,243	1,011
08-Feb-08	6	10	369	1,252	1,016
05-Mar-08	6	10	374	1,257	1,019
15-Mar-08	6	10	383	1,266	1,025
27-Mar-08	6	10	384	1,267	1,025
01-May-08	6	10	440	1,323	1,059
26-Jun-08	6	10	450 [3]	1,333	1,065
07-Jul-08	6	10	20	1,353	1,077

Notes: AST = above-ground storage tank
DNAPL = dense non-aqueous phase liquid

1 = DNAPL content is estimated to be 80% of the total liquid volume through June 12, 2001; and 90% subsequent to June 12, 200; and 60% DNAPL content post August 12, 2006 based on direct observations of recovered liquids during pumping.
2 = Contents of tank removed and transported off-site for re-refining by Spencer Environmental, Inc., Portland, Oregon
3 = Contents of tank removed and transported off-site for re-refining by Thermo Fluids, Inc., Portland, Oregon

FIGURES



Note: Base Map from Linnton (1990) and Portland (1990), Oregon, USGS 7.5-Minute Quadrangles

N

0 2,000 4,000

Approximate Scale in Feet
Contour Interval = 10 feet

FIGURE 1

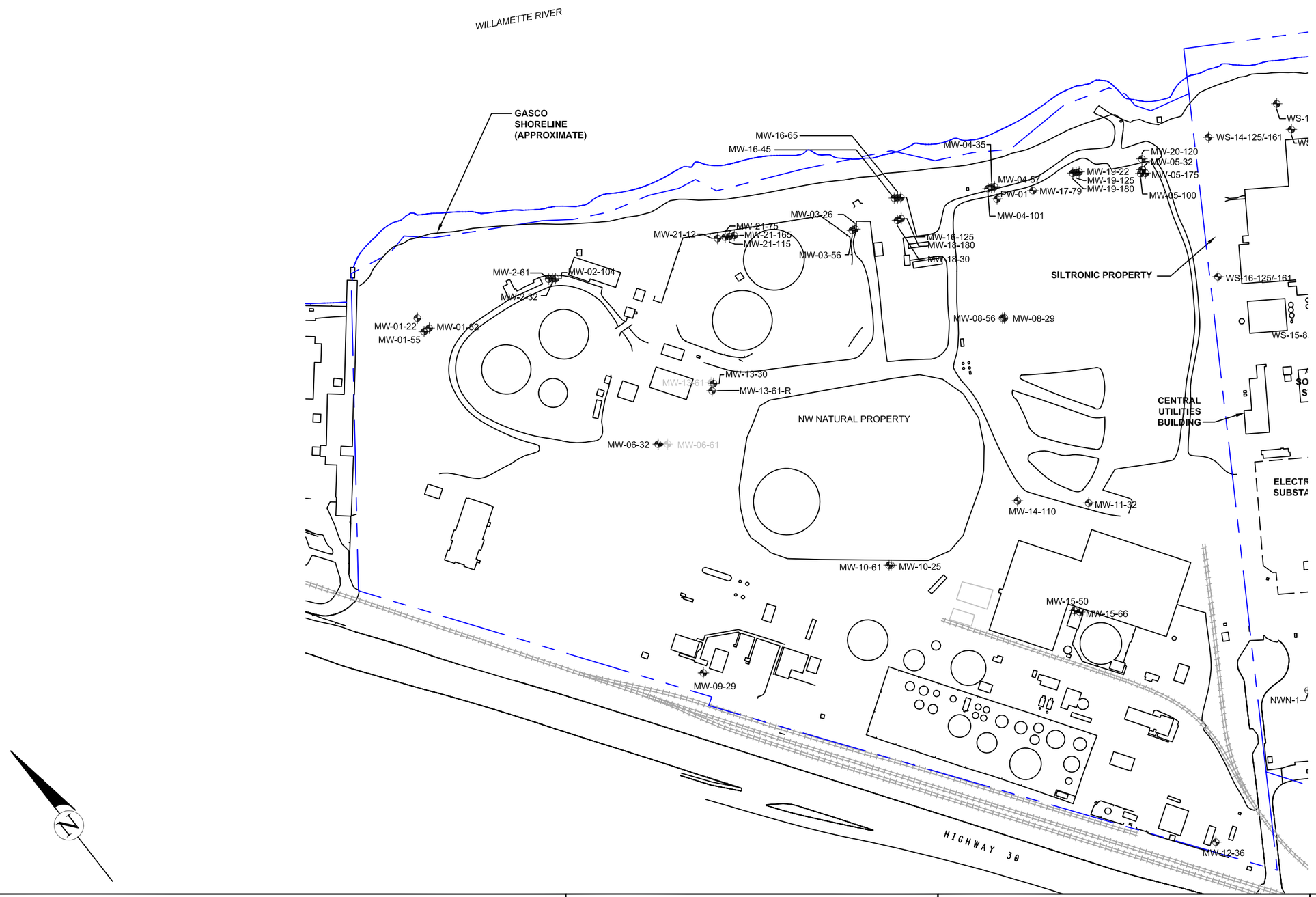
Location Map

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

HAHN AND ASSOCIATES, INC.

Project No. 2708 December 2004

File: 2708-01 Location Map



LEGEND

Monitoring Well

Property Line (Approximate)

HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS
434 NW 6th AVENUE, SUITE 203
PORTLAND, OREGON 97209
503-796-0717

Scale: 1 inch = 200 feet

200 0 200 400 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 2
Site Map - Monitoring Well Locations

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

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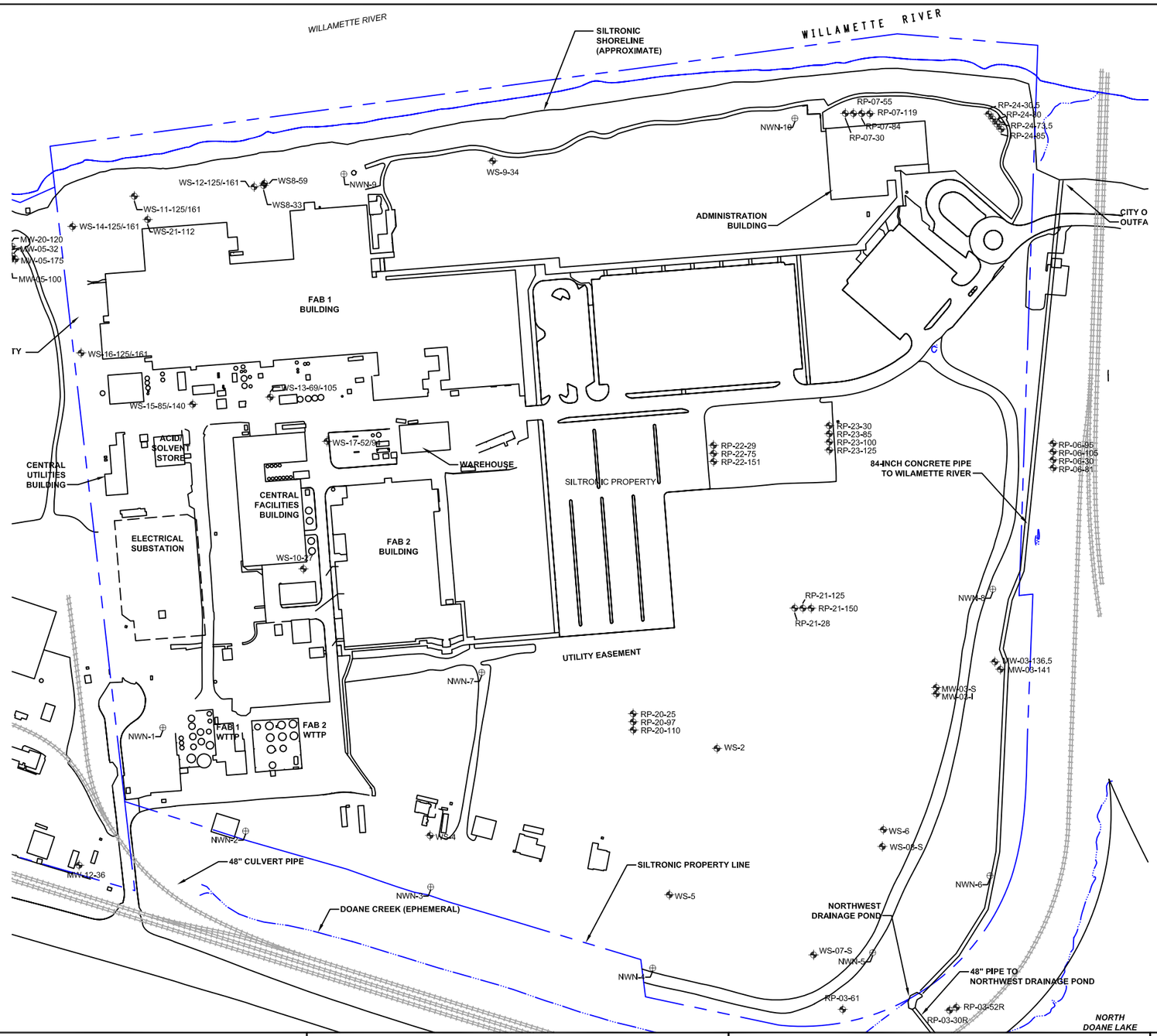

LEGEND

- Monitoring Well
- Property Line (Approximate)

HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS
434 NW 6th AVENUE, SUITE 203
PORTLAND, OREGON 97209
503-796-0717

Scale: 1 inch = 250 feet

250 0 250 500 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 2a
Site Map - Monitoring Well Locations

Siltronic Corporation Property
7200 NW Front Avenue
Portland, Oregon

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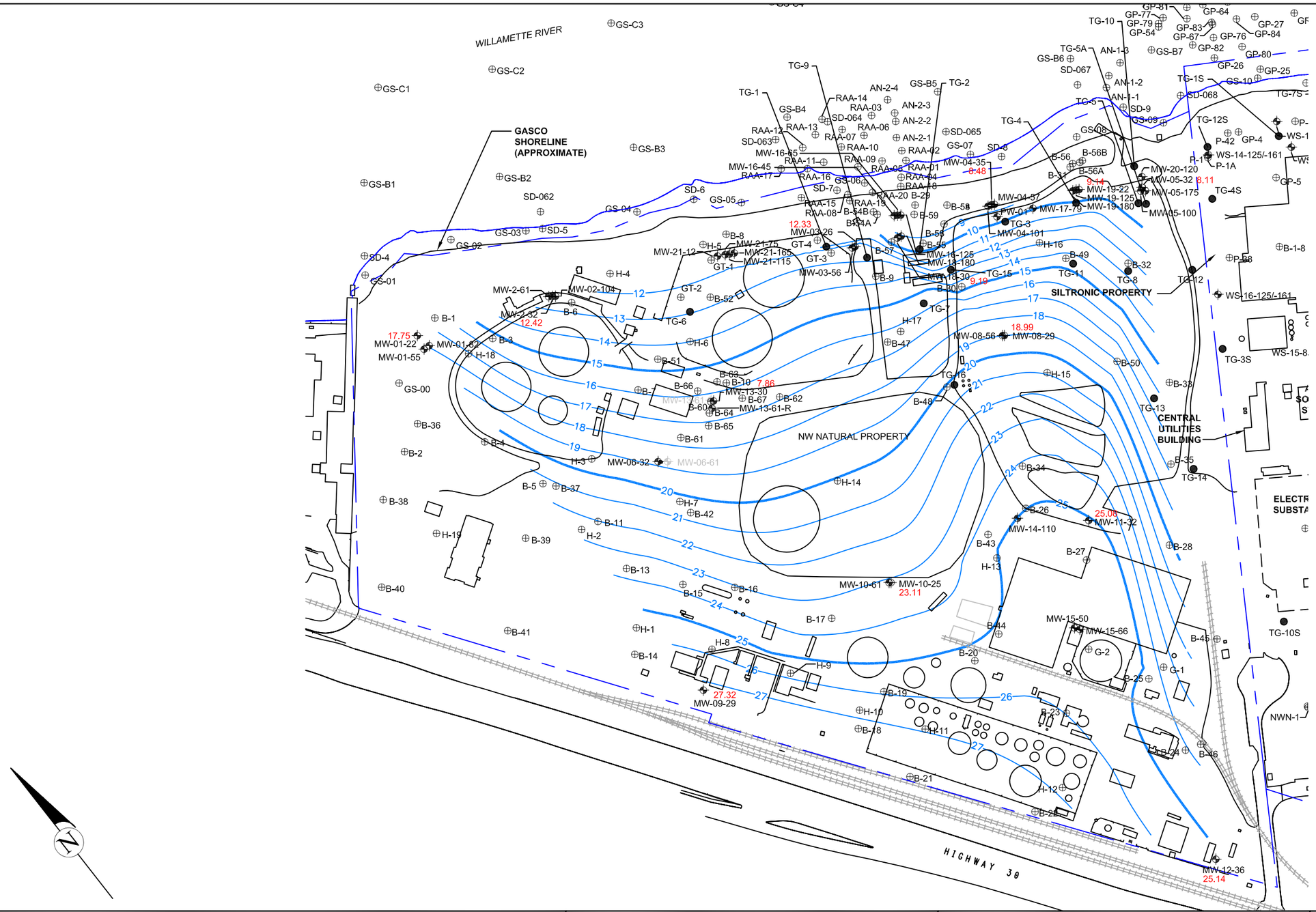

LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 23.79 Groundwater Elevation (feet MSL, City of Portland Datum)

HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS
434 NW 6th AVENUE, SUITE 203
PORTLAND, OREGON 97209
503-796-0717

Scale: 1 inch = 200 feet

200 0 200 400 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 3
GROUNDWATER ELEVATION MAP
Surficial Fill WBZ Wells
June 21, 2007

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

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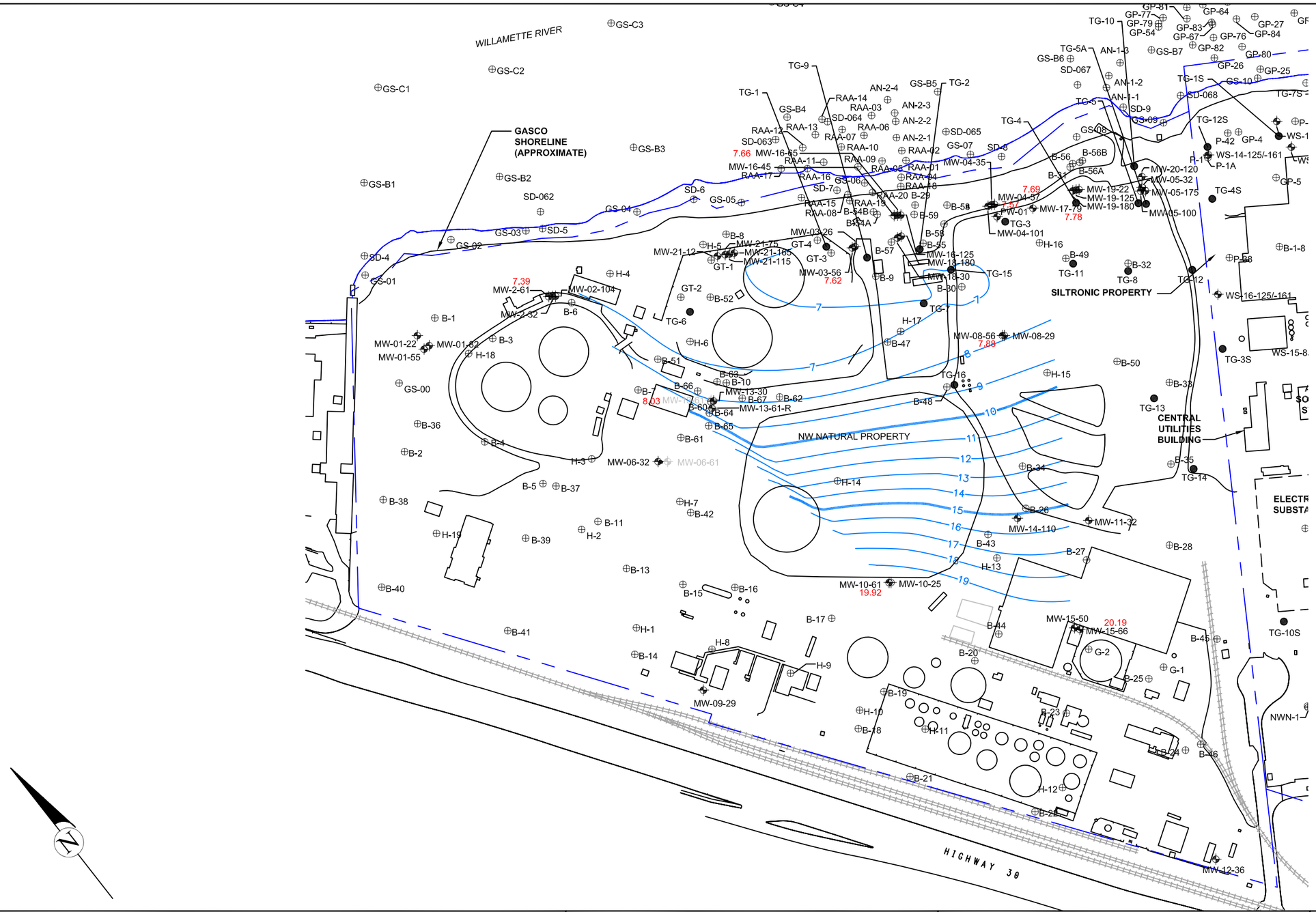

LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 23.79 Groundwater Elevation (feet MSL, City of Portland Datum)

HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS
434 NW 6th AVENUE, SUITE 203
PORTLAND, OREGON 97209
503-796-0717

Scale: 1 inch = 200 feet

200 0 200 400 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 4
GROUNDWATER ELEVATION MAP
Alluvial WBZ Wells - to 80' BGS (UPPER) - June 21, 2007

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

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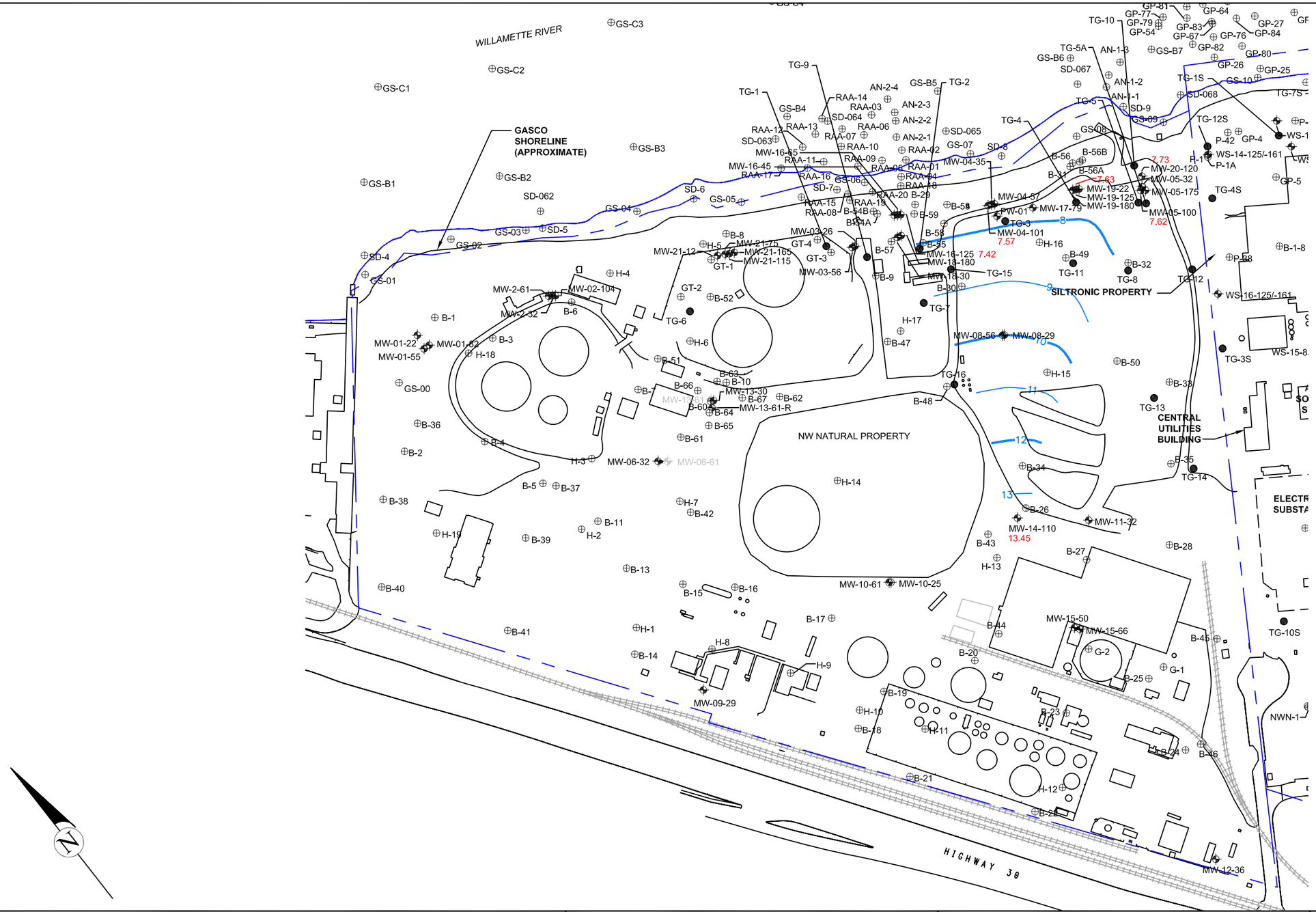


LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 23.79 Groundwater Elevation (feet MSL, City of Portland Datum)

HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS
434 NW 6th AVENUE, SUITE 203
PORTLAND, OREGON 97209
503-796-0717

Scale: 1 inch = 200 feet

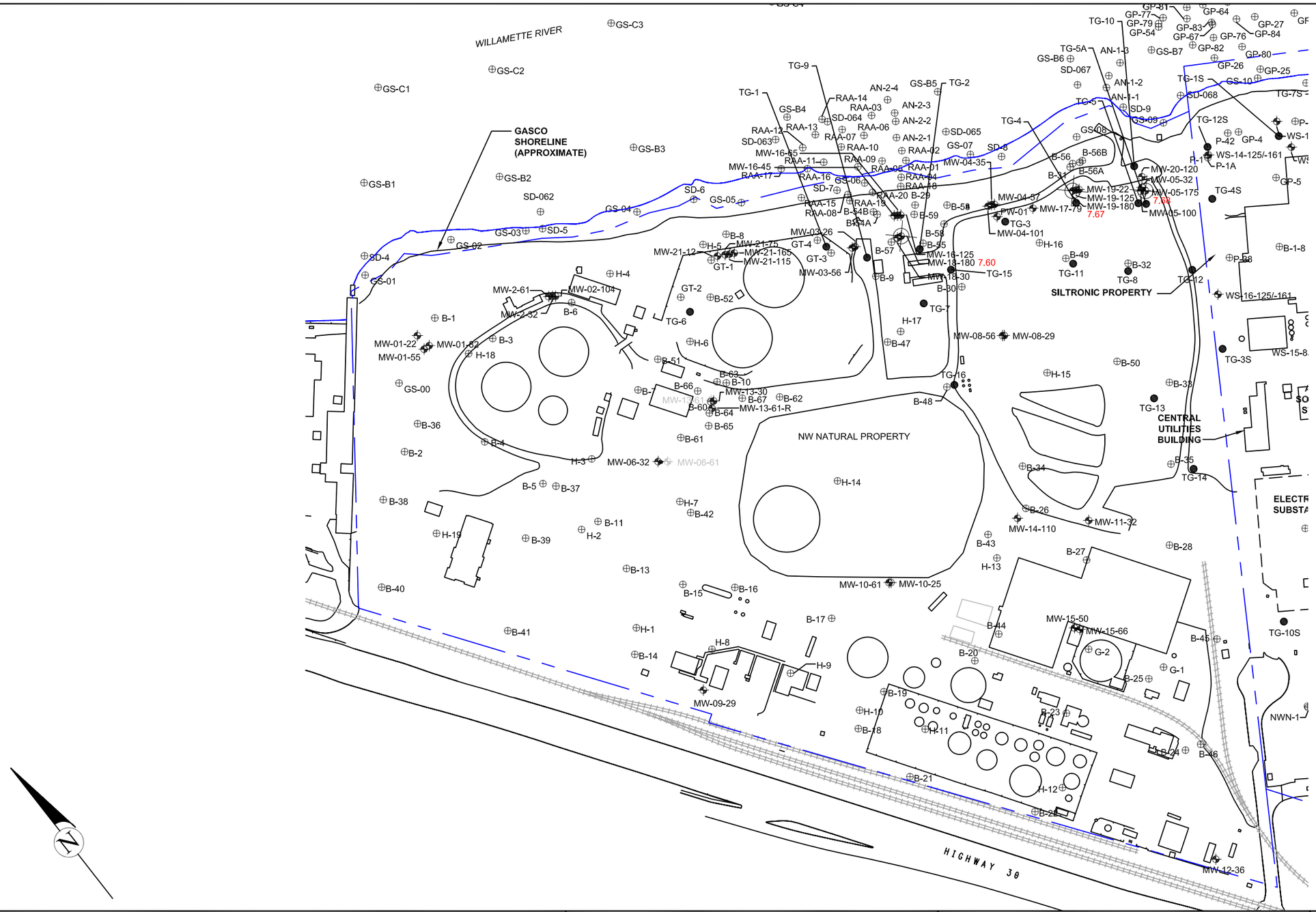
200 0 200 400 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 5
GROUNDWATER ELEVATION MAP
Alluvial WBZ Wells - 80 to 125' BGS (Intermediate) June 21,2007

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

X:\Hahn\Gasco Site 2008\07-June 21 Well Data\GWElev-Alluvial Intermediate.dwg 2/10/09



LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 6.05 Groundwater Elevation (feet MSL, City of Portland Datum)

HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS
434 NW 6th AVENUE, SUITE 203
PORTLAND, OREGON 97209
503-796-0717

Scale: 1 inch = 200 feet

200 0 200 400 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 6
GROUNDWATER ELEVATION MAP
Alluvial WBZ Wells Below 125' BGS (Lower) June 21,2007

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

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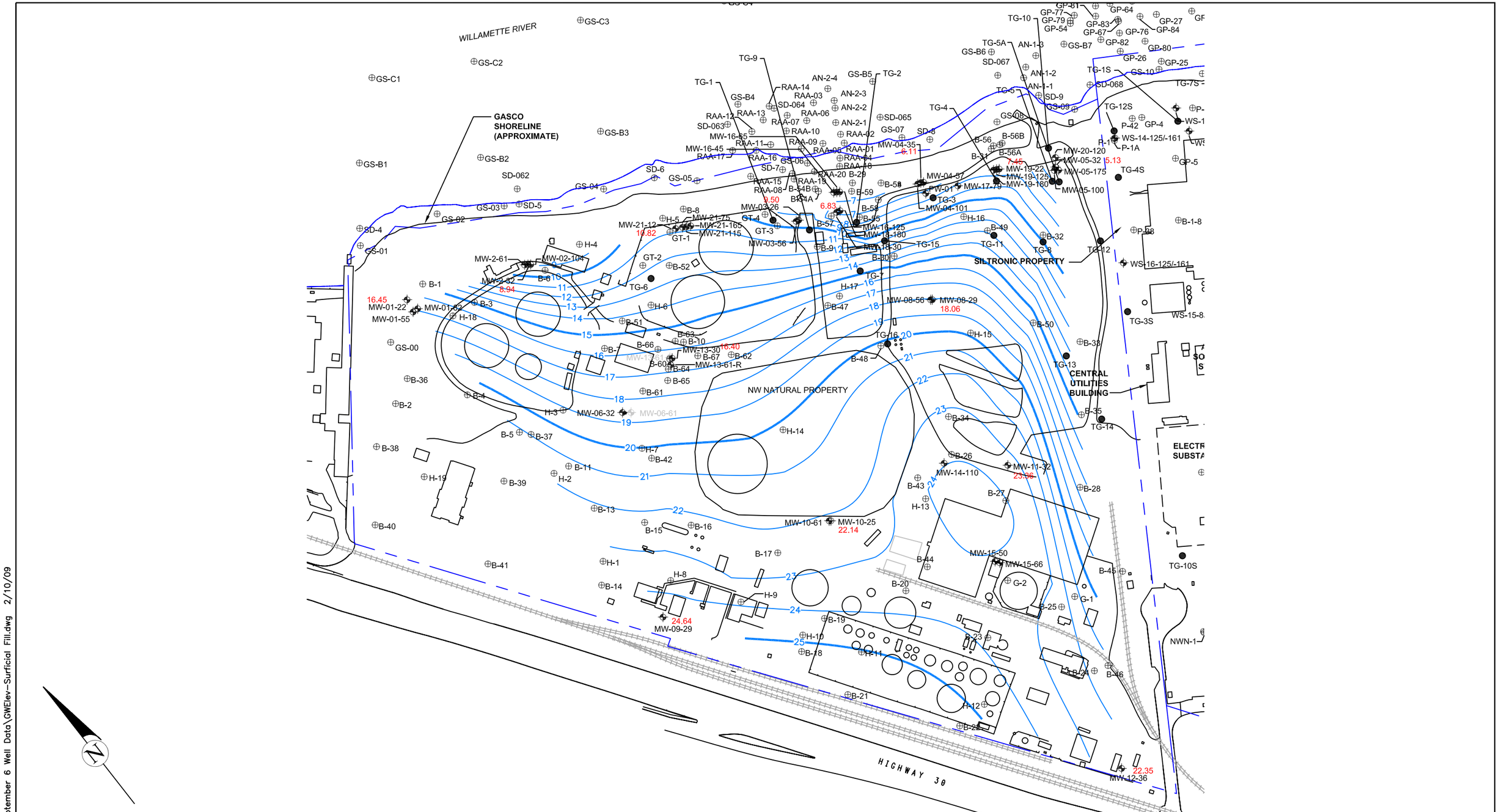


LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 23.79 Groundwater Elevation (feet MSL, City of Portland Datum)

HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS
434 NW 6th AVENUE, SUITE 203
PORTLAND, OREGON 97209
503-796-0717

Scale: 1 inch = 200 feet

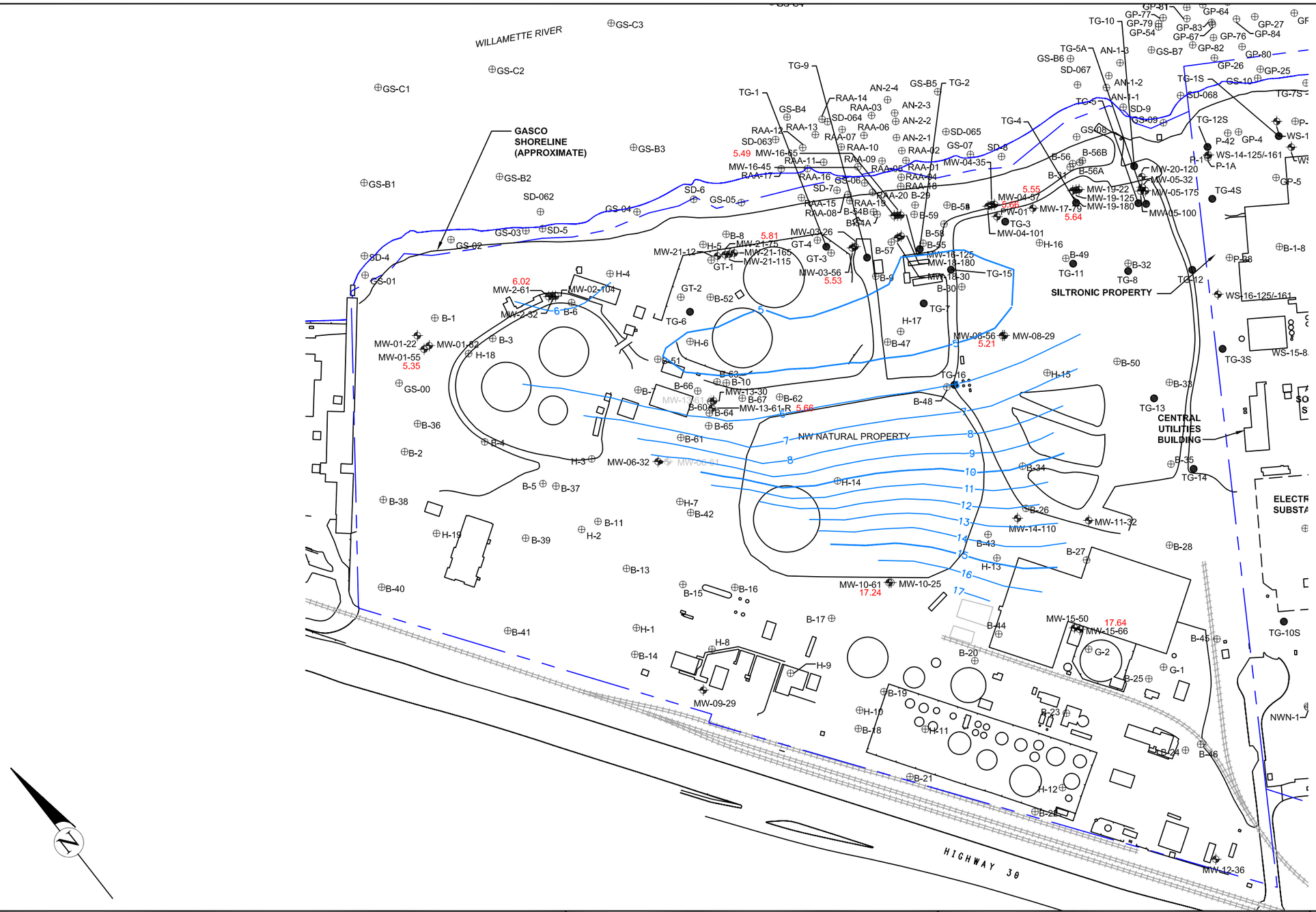
200 0 200 400 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 7
GROUNDWATER ELEVATION MAP
Surficial Fill WBZ Wells
September 6, 2007

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

X:\Hahn\Gasco Site 2008\07-September 6 Well Data\GWElev-Surficial Fill.dwg 2/10/09



LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 23.79 Groundwater Elevation (feet MSL, City of Portland Datum)

HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS
434 NW 6th AVENUE, SUITE 203
PORTLAND, OREGON 97209
503-796-0717

Scale: 1 inch = 200 feet

200 0 200 400 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 8
GROUNDWATER ELEVATION MAP
Alluvial WBZ Wells - to 80' BGS (UPPER) - September 6, 2007

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

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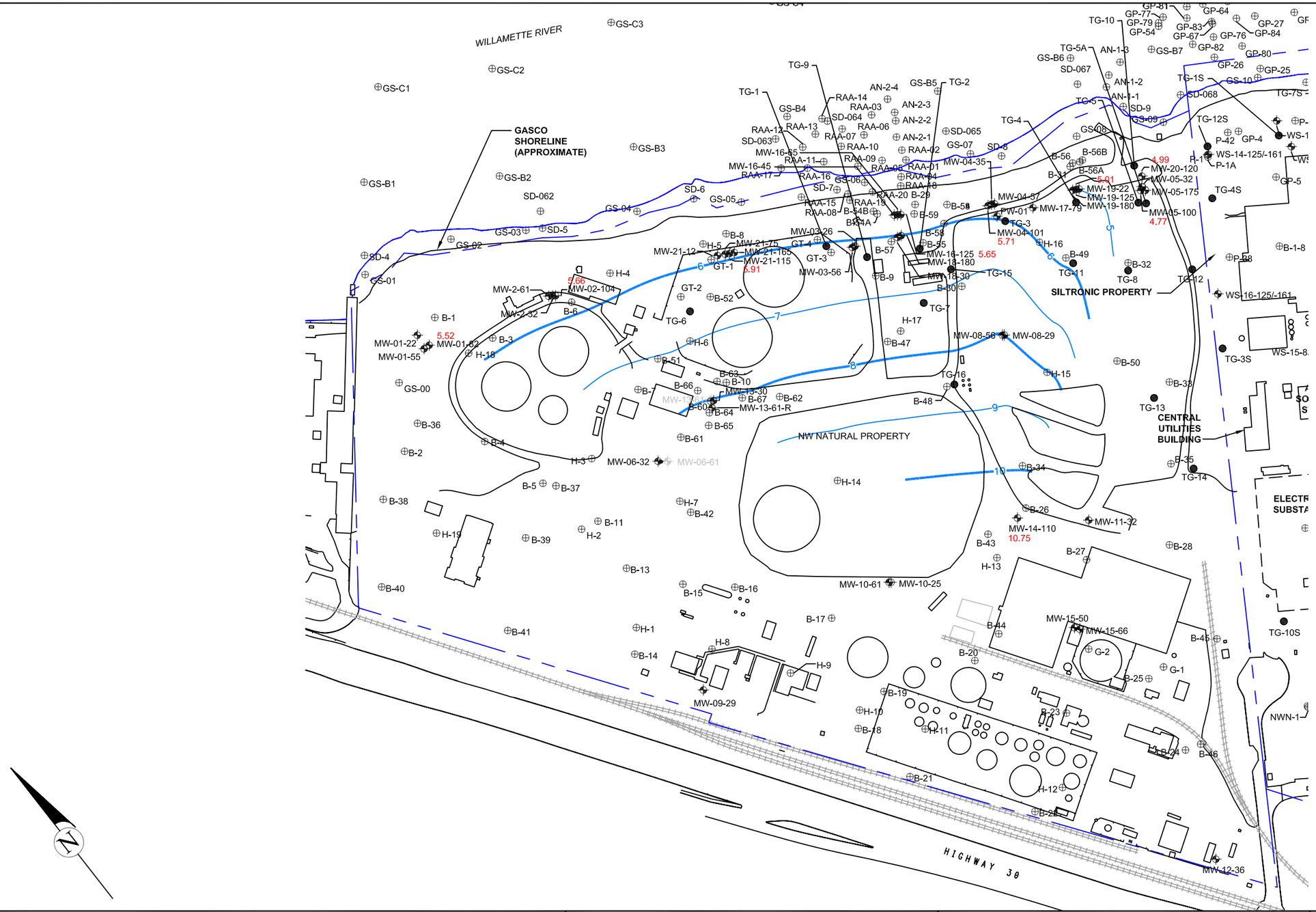


LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 23.79 Groundwater Elevation (feet MSL, City of Portland Datum)

HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS
434 NW 6th AVENUE, SUITE 203
PORTLAND, OREGON 97209
503-796-0717

Scale: 1 inch = 200 feet

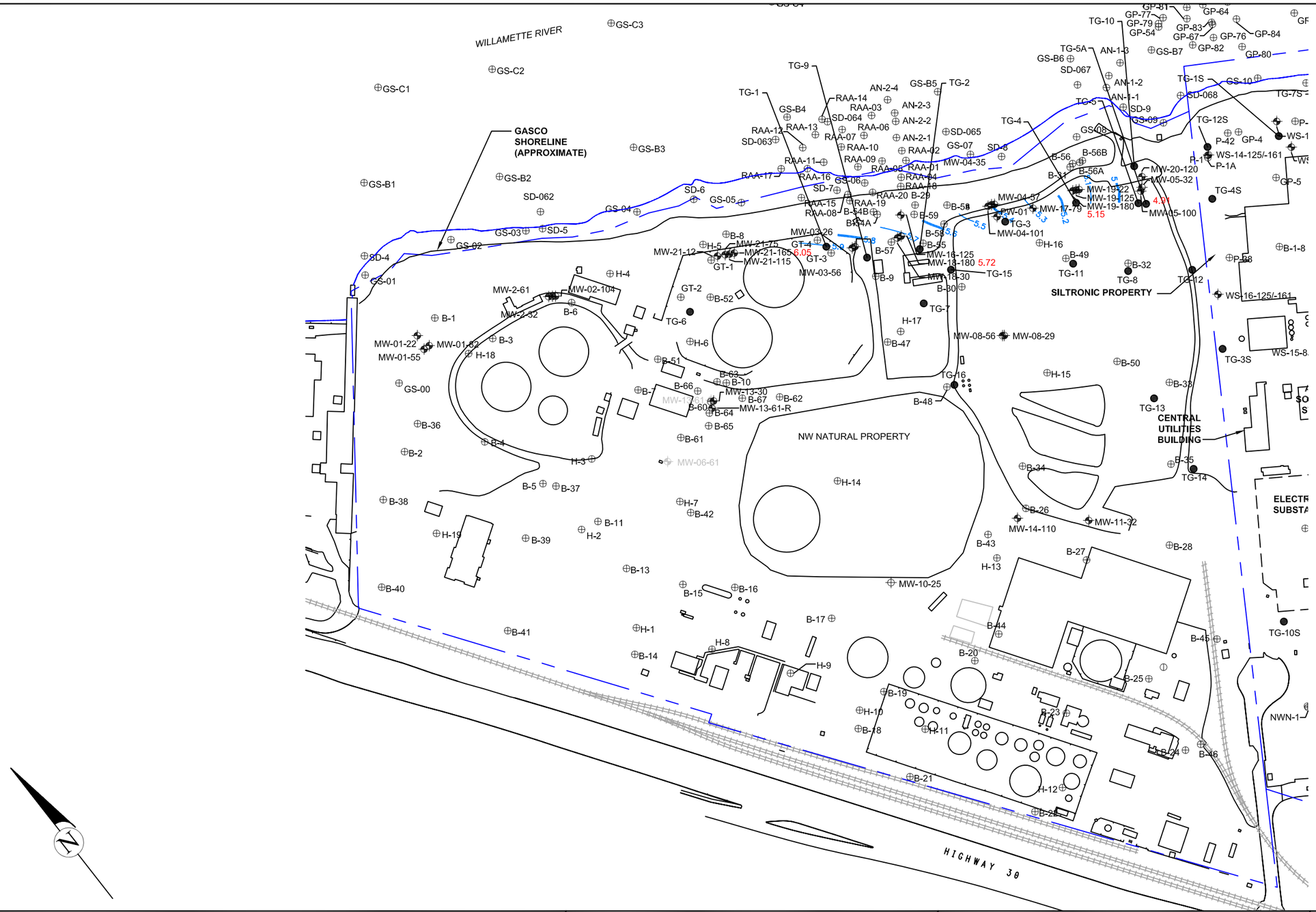
200 0 200 400 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 9
GROUNDWATER ELEVATION MAP
Alluvial WBZ Wells - 80 to 125' BGS (Intermediate) September 6,2007

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

X:\Hahn\Gasco Site 2008\07-September 6 Well Data\GWElev-Alluvial Intermediate.dwg 2/18/09



LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 6.05 Groundwater Elevation (feet MSL, City of Portland Datum)

HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS
434 NW 6th AVENUE, SUITE 203
PORTLAND, OREGON 97209
503-796-0717

Scale: 1 inch = 200 feet

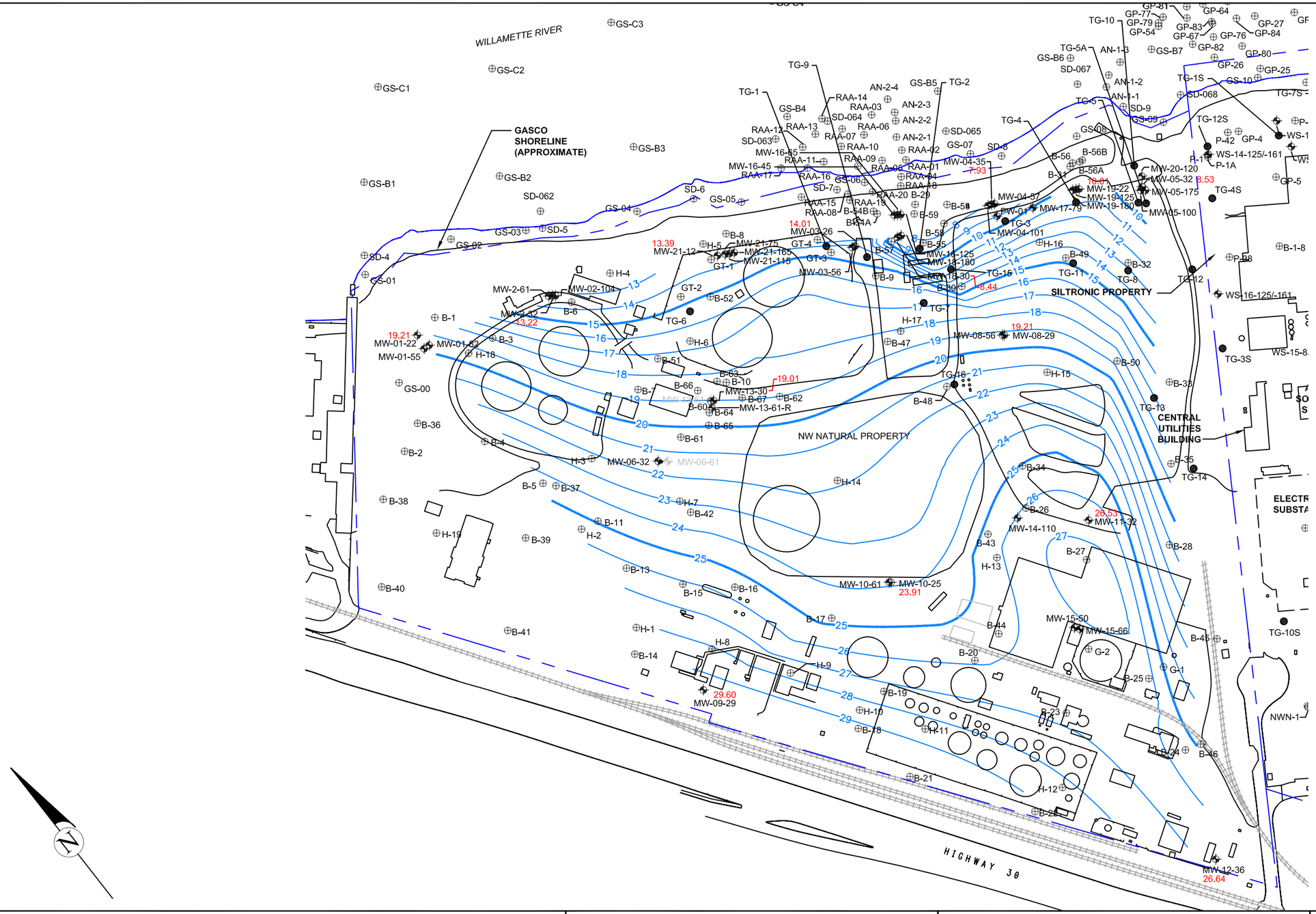
200 0 200 400 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 10
GROUNDWATER ELEVATION MAP
Alluvial WBZ Wells Below 125' BGS (Lower) September 6,2007

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

X:\Hahn\Gasco Site 2008\07-September 6 Well Data\GWElev-Alluvial Lower.dwg 2/10/09



LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 23.79 Groundwater Elevation (feet MSL, City of Portland Datum)

HAHN AND ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS
434 NW 6th AVENUE, SUITE 203
PORTLAND, OREGON 97209
503-796-0717

Scale: 1 inch = 200 feet

200 0 200 400 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 11
GROUNDWATER ELEVATION MAP
Surficial Fill WBZ Wells
April 17, 2008

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

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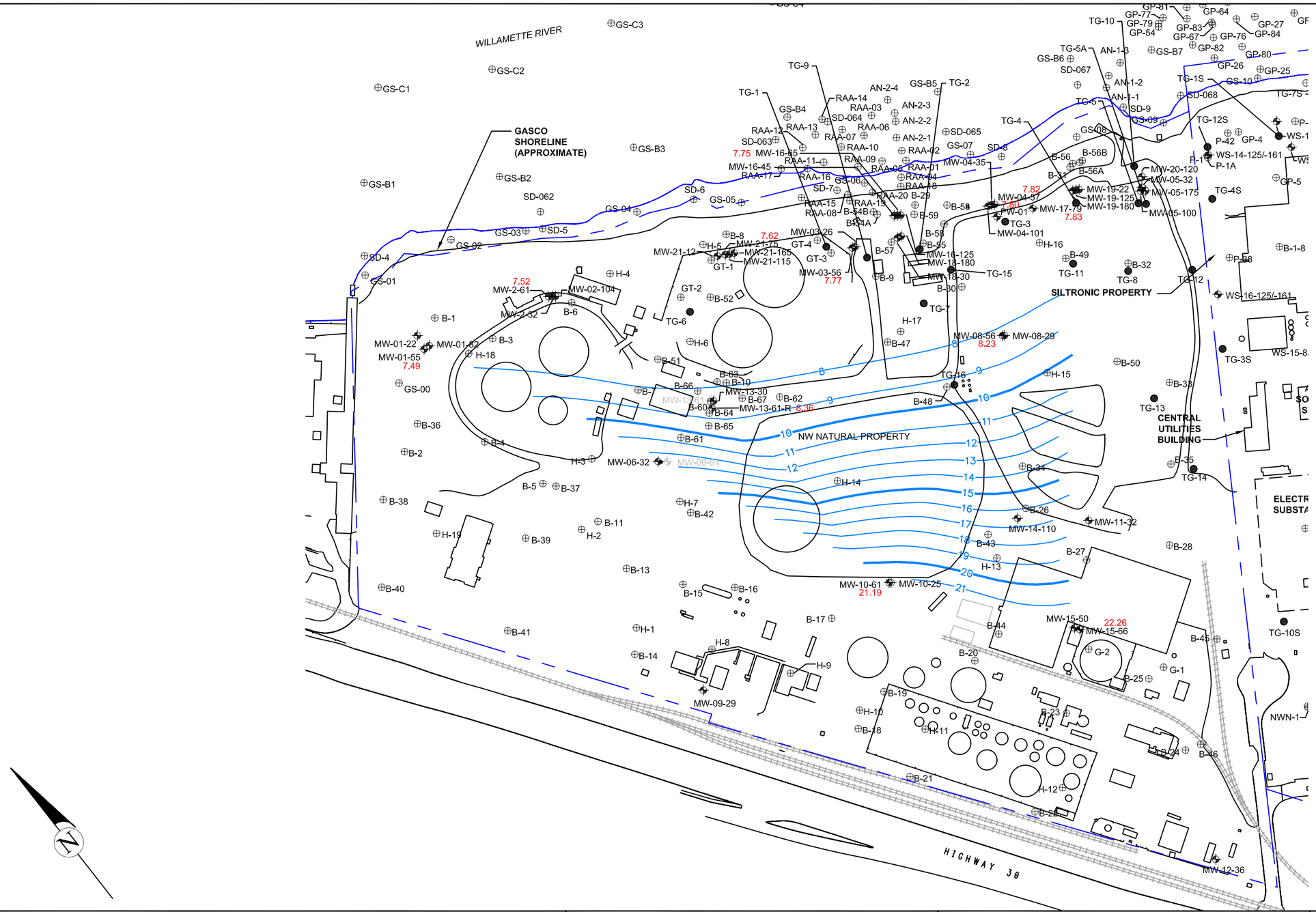

LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 23.79 Groundwater Elevation (feet MSL, City of Portland Datum)

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Scale: 1 inch = 200 feet

200 0 200 400 feet

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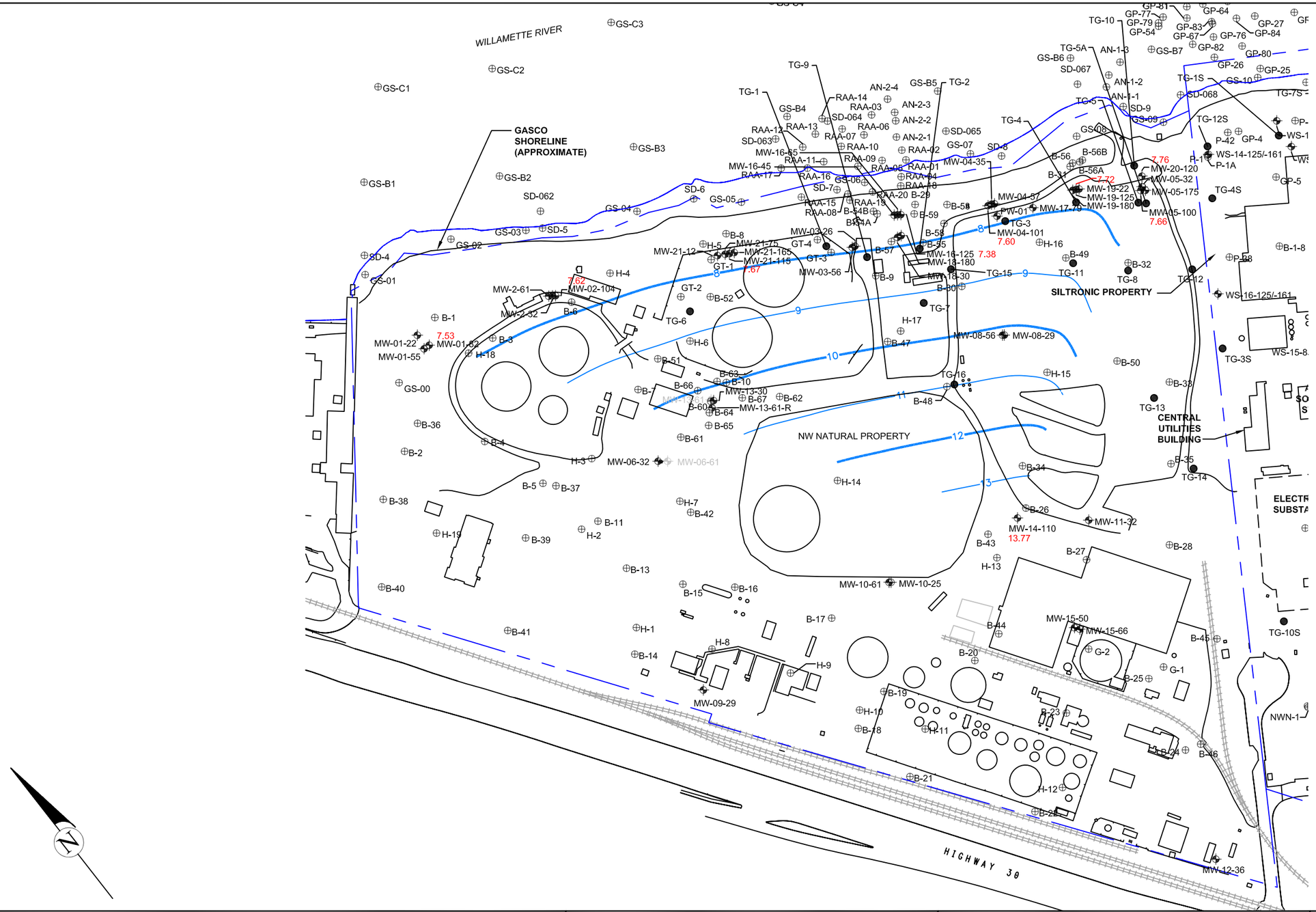
FIGURE 12
GROUNDWATER ELEVATION MAP
Alluvial WBZ Wells - to 80' BGS (UPPER) - April 17, 2008

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

X:\Hahn\Gasco Site 2008\08-April 17 Well Data\GWElev-Alluvial Upper.dwg 12/10/08



LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 23.79 Groundwater Elevation (feet MSL, City of Portland Datum)

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Scale: 1 inch = 200 feet

200 0 200 400 feet

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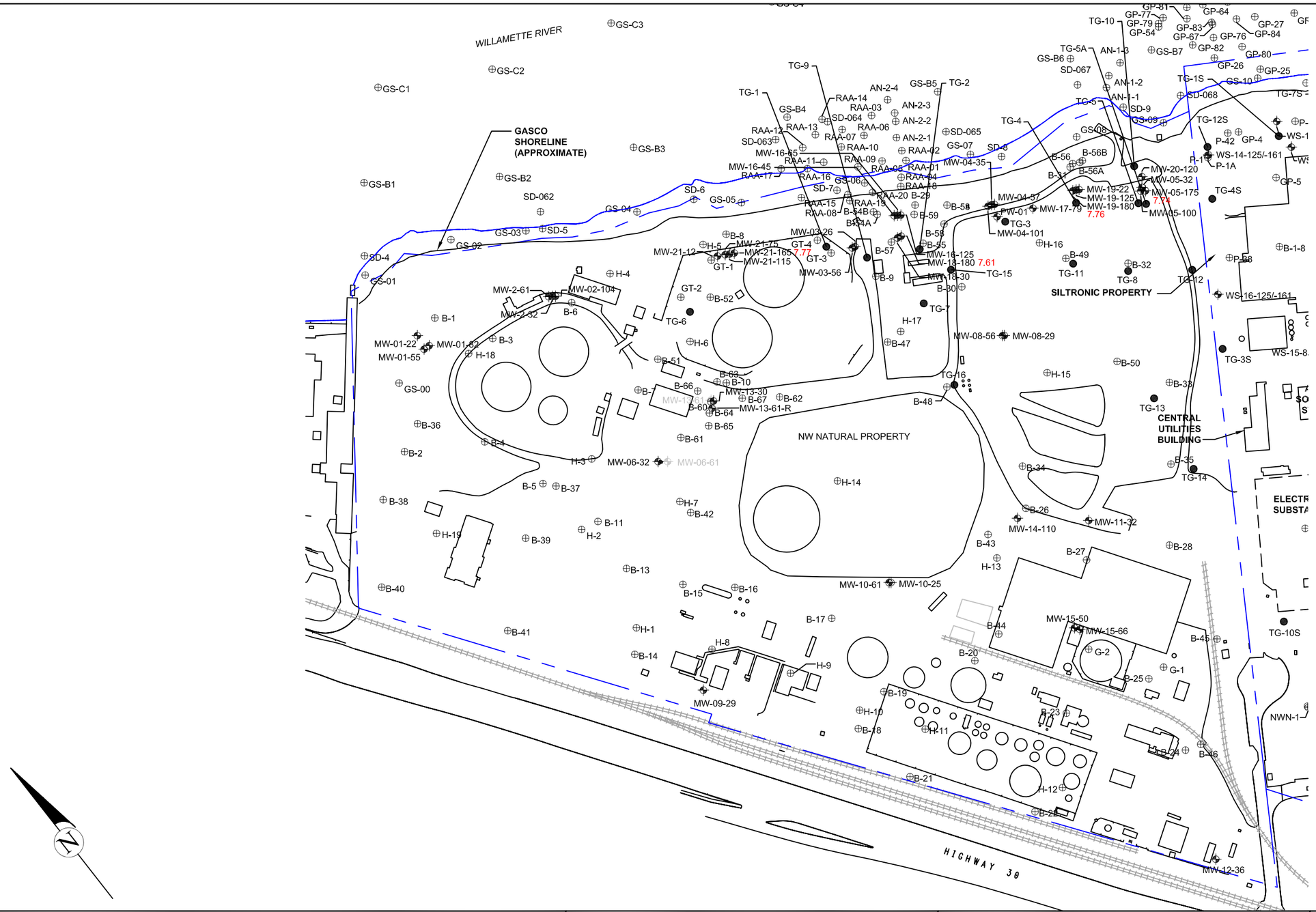
FIGURE 13
GROUNDWATER ELEVATION MAP
Alluvial WBZ Wells - 80 to 125' BGS (Intermediate) April 17,2008

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

X:\Hahn\Gasco Site 2008\08-April 17 Well Data\GWElev-Alluvial Intermediate.dwg 2/10/09



LEGEND

- Monitoring Well
- Soil Boring
- Property Line (Approximate)
- Isocontour Line - Groundwater Elevation
- 6.05 Groundwater Elevation (feet MSL, City of Portland Datum)

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Scale: 1 inch = 200 feet

200 0 200 400 feet

Project No. 2708-5237 REV. NOVEMBER 2008

FIGURE 14
GROUNDWATER ELEVATION MAP
Alluvial WBZ Wells Below 125' BGS (Lower) April 17,2008

NW Natural Gasco Facility
7900 NW St. Helens Road
Portland, Oregon

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FIGURE 15
Thickness of Dense Non-Aqueous Phase Liquid (DNAPL) in Groundwater Monitoring Wells

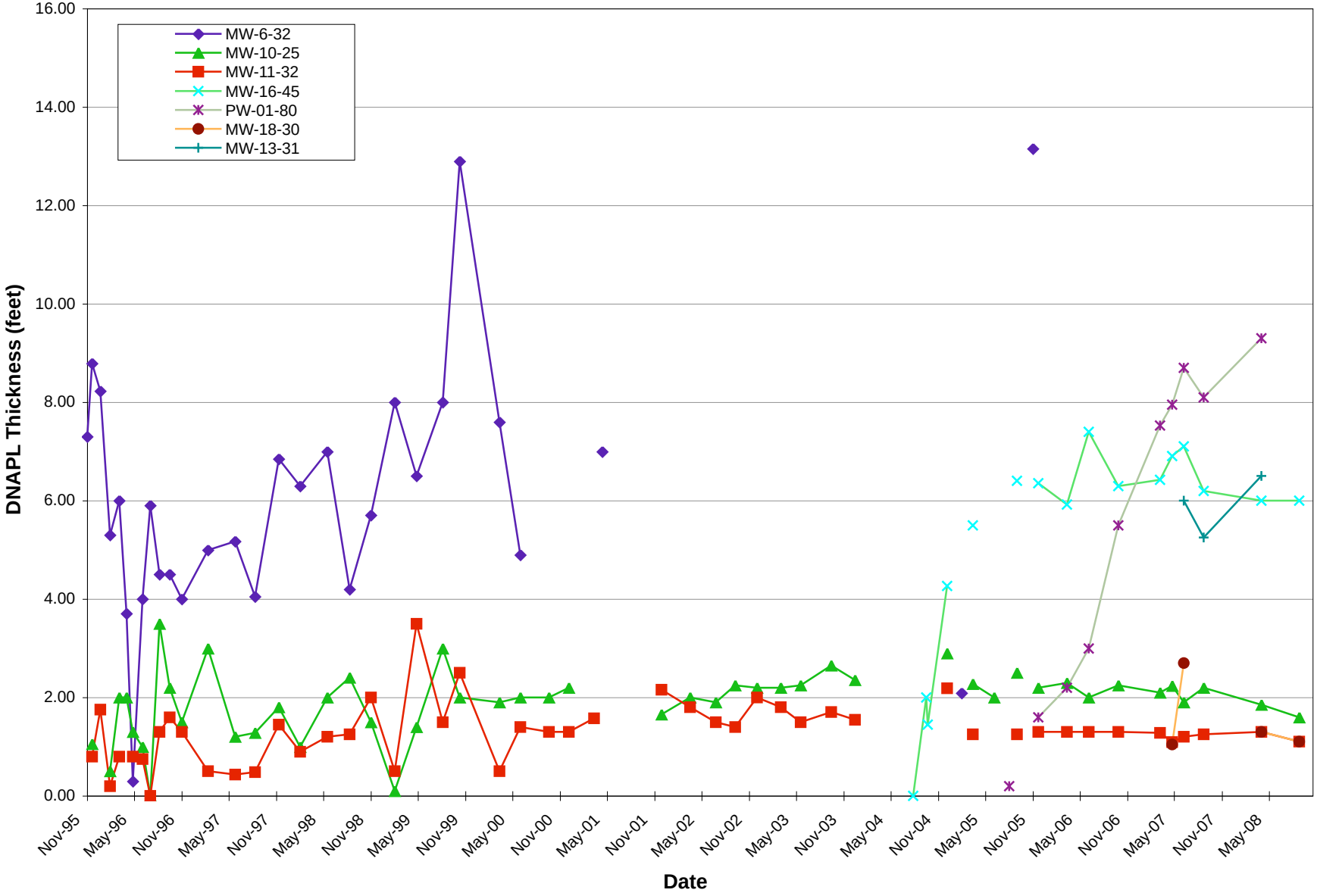
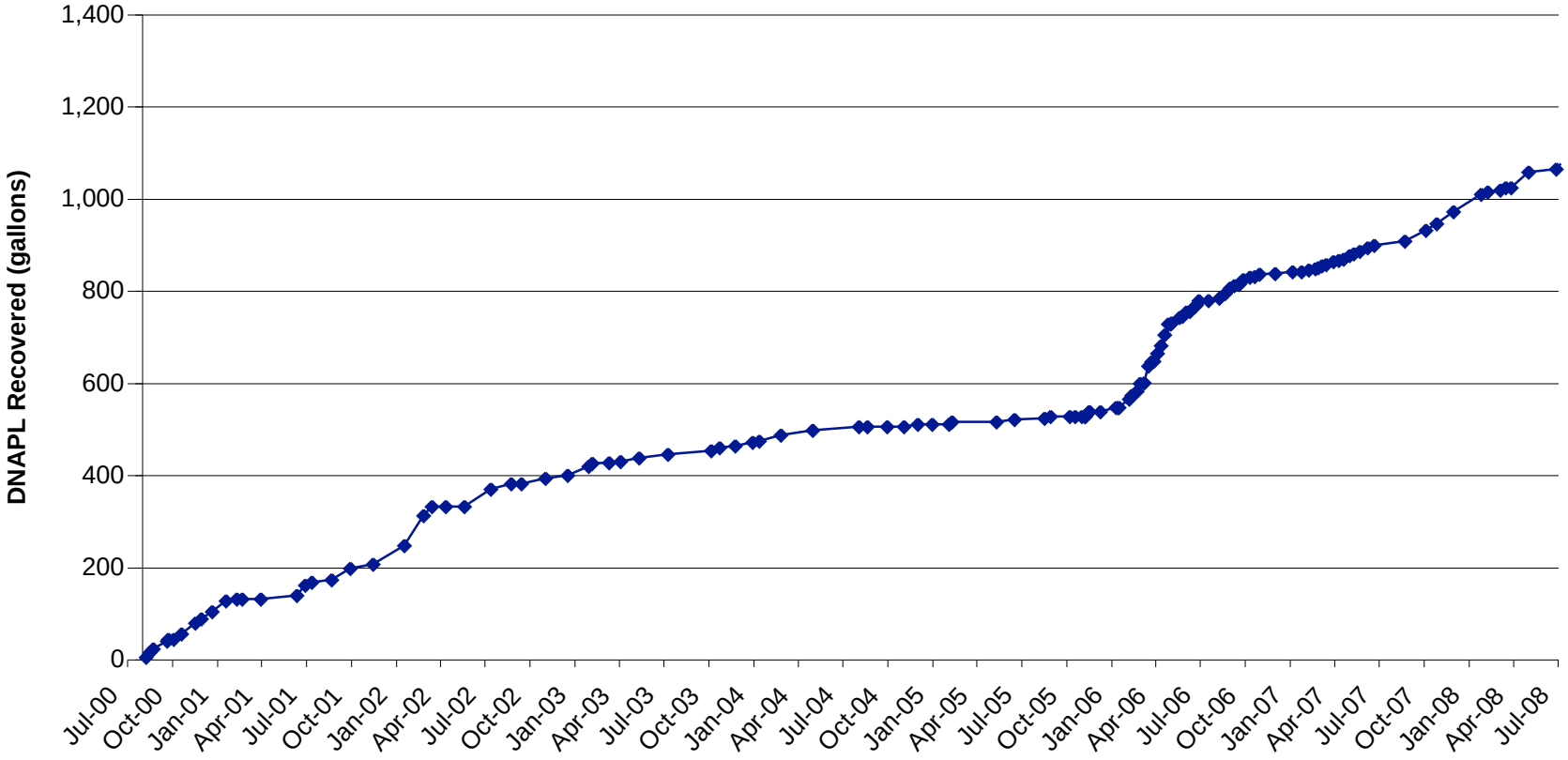


Figure 16
Cumulative DNAPL Recovery Volume Through Time: Well MW-6-32
NW Natural - Gasco Facility



Updated: 12/18/08 APR
File: Table 6 MW-6-DNAPL Recovery Chart_RBE_thru June 08.xls/ Discharge Chart

HAHN AND ASSOCIATES, INC.
Project # 2708