

REMEDIAL INVESTIGATION REPORT

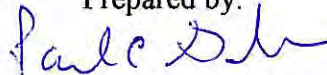
**CHS AUBURN SITE
AUBURN, WASHINGTON**

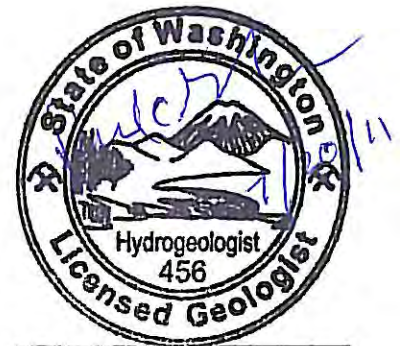
**Submitted by:
Farallon Consulting, L.L.C.
Cornwall Plaza Building
1201 Cornwall Avenue, Suite 105
Bellingham, Washington 98225
Farallon PN: 301-004**

**For:
CHS Inc.
763 Willoughby Lane
Stevensville, Montana 59870**

July 20, 2011

Prepared by:


Paul C. Grabau, L.G., L.H.G.
Principal Hydrogeologist



Paul C. Grabau

Reviewed by:

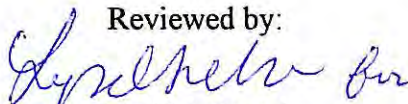

Gerald J. Portele
Principal



TABLE OF CONTENTS

EXECUTIVE SUMMARY	vii
1.0 INTRODUCTION	1-1
1.1 RI/FS OBJECTIVES.....	1-2
1.2 ORGANIZATION OF THE RI REPORT	1-2
2.0 SITE DESCRIPTION AND BACKGROUND.....	2-1
2.1 SITE DESCRIPTION	2-1
2.2 CHS AUBURN FACILITY OPERATIONAL HISTORY.....	2-2
2.3 ENVIRONMENTAL SETTING.....	2-3
2.3.1 Land Use.....	2-3
2.3.2 Demographics	2-3
2.3.3 Topography	2-3
2.3.4 Meteorology	2-3
2.3.5 Groundwater Use.....	2-3
2.4 HYDROGEOLOGY	2-4
2.4.1 Regional Geology.....	2-4
2.4.2 Site Geology.....	2-5
2.4.3 Regional Hydrology	2-5
2.4.4 Site Hydrology	2-5
3.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS AND ACTIVITIES	3-1
3.1 OVERVIEW OF PREVIOUS INVESTIGATIONS	3-1
3.1.1 GeoEngineers 1987	3-1
3.1.2 Summit 1994 and 1995.....	3-2
3.1.3 Groundwater Monitoring 1997-2005	3-4
3.1.4 Farallon 2006-Present.....	3-4
3.2 UST AND AST REMOVAL HISTORY AND FUEL SYSTEM SUMMARY.....	3-8
3.2.1 October 1997.....	3-8
3.2.2 May through October 1998.....	3-9
3.2.3 Other AST Closures	3-12
3.3 SUMMARY OF REMEDIATION ACTIVITIES.....	3-12
3.3.1 LNAPL Recovery and Groundwater Extraction.....	3-12
3.3.2 Soil Vapor Extraction and Air Sparging.....	3-13
3.3.3 Soil Excavation	3-15
3.3.4 Chemical Oxidation Pilot Study.....	3-16
3.3.5 Dissolved-Oxygen Enhancement Study.....	3-16
3.3.6 Natural Attenuation Study	3-18
4.0 SUMMARY OF CURRENT CONDITIONS	4-1
4.1 SOIL.....	4-1



4.2	GROUNDWATER	4-2
4.3	TERRESTRIAL ECOLOGICAL EVALUATION	4-5
5.0	CONCEPTUAL SITE MODEL.....	5-1
5.1	CONSTITUENTS OF CONCERN AND AFFECTED MEDIA	5-1
5.1.1	Soil.....	5-1
5.1.2	Groundwater.....	5-1
5.1.3	LNAPL	5-2
5.2	CONFIRMED AND SUSPECTED SOURCES.....	5-2
5.3	KNOWN OR POTENTIAL ROUTES OF MIGRATION.....	5-3
5.4	KNOWN OR SUSPECTED HUMAN OR ECOLOGICAL RECEPTORS.....	5-3
6.0	CONCLUSIONS.....	6-1
7.0	REFERENCES	7-1



FIGURES

- Figure 1 *Site Vicinity Map*
- Figure 2 *Site Plan*
- Figure 3 *UST and AST Locations at CHS Auburn Facility*
- Figure 4 *Parcel Map*
- Figure 5 *Groundwater Elevation Contour Map - March 18, 2009*
- Figure 6 *GRO and DRO Analytical Results for Soil Samples at CHS Auburn Facility 1994 – 1998*
- Figure 7 *March 1995 and March 2009 Groundwater Analytical Results for GRO*
- Figure 8 *March 1995 and March 2009 Groundwater Analytical Results for Benzene*
- Figure 9 *March 1997 and June 2008 Groundwater Analytical Results for DRO*
- Figure 10 *Site Plan showing DRO, GRO, and Benzene Results for Soil – August 2007 and February/March 2008*
- Figure 11 *Site Plan Showing Locations of Geologic Cross Sections*
- Figure 12 *Cross Section A–A'*
- Figure 13 *Cross Sections B–B', C–C', and D–D'*
- Figure 14 *Cross Sections E–E' and F–F'*
- Figure 15 *October 2008 Dissolved Oxygen Measurements in Groundwater*
- Figure 16 *October 2008 Groundwater Test Kit Results for Soluble Manganese*
- Figure 17 *October 2008 Groundwater Test Kit Results for Ferrous Iron*
- Figure 18 *October 2008 Groundwater Analytical Results for Sulfate*
- Figure 19 *October 2008 Groundwater Analytical Results for Nitrate*
- Figure 20 *GRO and DRO Analytical Results for Soil Samples at CHS Auburn Facility*



TABLES

- Table 1 *Summary of Groundwater Elevation Data*
- Table 2 *Summary of Laboratory Analytical Results for TPH, BTEX, MTBE, and Naphthalene in Soil – 1994-1998*
- Table 3 *Summary of Monitoring and Recovery Well Construction Information*
- Table 4 *Summary of Air Sparge and Soil Vapor Extraction Well Construction Information*
- Table 5 *Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater*
- Table 6 *Summary of Laboratory Analytical Results for VOCs in Groundwater*
- Table 7 *Summary of Laboratory Analytical Results for PCBs in Groundwater*
- Table 8 *Summary of Laboratory Analytical Results for TPH and BTEX in Soil – August 2007 and February/March 2008*
- Table 9 *Summary of Laboratory Analytical Results for DRO and ORO in Soil Leachate – August 2007*
- Table 10 *Summary of Laboratory Analytical Results for Metals in Soil*
- Table 11 *Summary of Laboratory Analytical Results for PAHs in Soil*
- Table 12 *Cumulative Product-Equivalent Gallons Treated by SVE System – 1994-1999*
- Table 13 *Summary of Groundwater Quality Data – June 2008 through April 2011*

APPENDICES

- Appendix A *Graphs of GRO, DRO, and Benzene Concentrations in Groundwater versus Groundwater Elevations*
- Appendix B *Graphs of Dissolved Oxygen Content in Groundwater versus Groundwater Elevations*



ACRONYMS AND ABBREVIATIONS

AS	air sparge
ASTs	aboveground storage tanks
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, and xylenes
Cenex	Cenex Supply and Marketing, Inc.
CHS	CHS Inc.
COC	constituents of concern
DRO	diesel-range organics
Ecology	Washington State Department of Ecology
EDB	1,2-dibromoethane
EDC	1,2-dichloroethane
EPA	U.S. Environmental Protection Agency
Farallon	Farallon Consulting, L.L.C.
feet ² /day	square feet per day
FS	feasibility study
GeoEngineers	GeoEngineers, Inc.
GRO	gasoline-range organics
Hart Crowser	Hart Crowser & Associates, Inc.
HCID	hydrocarbon identification
HVOCs	halogenated volatile organic compounds
LNAPL	light nonaqueous-phase liquid
mg/kg	milligrams per kilogram
µg/l	micrograms per liter
mg/l	milligrams per liter
MTBE	methyl tertiary-butyl ether
MTCA	Washington State Model Toxics Control Act Cleanup Regulation
ORO	oil-range organics
ORP	oxidation/reduction potential
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
RI	remedial investigation



RI/FS	remedial investigation/feasibility study
scfm	standard cubic feet per minute
SPLP	Synthetic Precipitation Leaching Procedure
Summit	Summit Envirosolutions, Inc.
SVE	soil vapor extraction
TCE	trichloroethene
TOC	total organic carbon
TPH	total petroleum hydrocarbons
USTs	underground storage tanks
VOCs	volatile organic compounds
WAC	Washington Administrative Code
WSIADA	Washington State Independent Auto Dealers Association



EXECUTIVE SUMMARY

Farallon Consulting, L.L.C. (Farallon) has prepared this Remedial Investigation (RI) Report on behalf of CHS Inc. (CHS) for the CHS Auburn facility at 238 8th Street Southeast in Auburn, Washington and contiguous areas where concentrations of petroleum hydrocarbons and related compounds in soil or groundwater exceed the applicable cleanup levels from releases at the CHS Auburn facility (herein referred to as the Site). Environmental investigations were conducted at and in the vicinity of the Site following the 1987 discovery of petroleum hydrocarbon impacts to soil and groundwater on the former City of Auburn fire station property located across Auburn Way South from the CHS Auburn facility. Remedial activities have been ongoing since 1994, with two combined groundwater remediation systems, designated the Perimeter and Central Systems, currently active at the Site. The constituents of concern (COCs) identified for the Site are total petroleum hydrocarbons (TPH) as diesel-range organics (DRO), as gasoline-range organics (GRO), and as oil-range organics (ORO); and benzene, toluene, ethylbenzene, and xylenes (BTEX).

Agreed Order No. 4033 entered into by CHS and the Washington State Department of Ecology (Ecology) with an effective date of June 12, 2007 requires that CHS conduct a remedial investigation/feasibility study (RI/FS) for the Site. A substantial amount of environmental data have been collected at the Site since remedial activities commenced in 1994, including over 17 years of groundwater monitoring data. Groundwater remediation activities have been ongoing for 17 years. Therefore, the focus of the RI was to assess current conditions pertaining to soil and groundwater quality to support the development of an FS with a goal of selecting a final remedy that can be implemented in a reasonable time frame that is compliant with the provisions of the Washington State Model Toxics Control Act Cleanup Regulation (MTCA). The RI has been completed, the remaining data gaps that had been identified for the Site have been addressed, and the data summarized herein will be used to identify, evaluate, and select remedial alternatives in the FS following the MTCA evaluation process.

Remedial actions conducted at the Site to date include:

- Installation and operation of an air sparge (AS) and soil vapor extraction (SVE) system to treat soil and groundwater at the perimeter of the CHS Auburn facility in 1994 (Perimeter System);
- Installation and operation of an AS/SVE system to treat soil and groundwater in the down-gradient portion of the Site in 1995 (Down-Gradient System);
- Installation and operation of an AS/SVE system to treat soil and groundwater in the central portion of the Site in 1996 (Central System);
- Closure of 14 underground storage tanks and 12 aboveground storage tanks in 1997 and 1998;
- Groundwater and light nonaqueous-phase liquid (LNAPL) extraction with initial off-site disposal and subsequently by on-site treatment and re-infiltration of groundwater from 1994 to 1996; and



- Excavation and disposal off the Site of over 8,100 tons of petroleum-contaminated soil from the bulk fuel storage area in 1998.

The SVE component of the Central and Perimeter Systems was shut down with Ecology approval in late 1999 due to the low concentrations of petroleum hydrocarbon vapors present. The SVE component of the Down-Gradient System was also shut down in the late 1990s and the AS component turned off in 2007. The AS component of the combined Perimeter/Central Systems continues to operate in the central area of the Site.

The primary source of petroleum hydrocarbon impacts to groundwater has been removed to the extent practicable with the excavation of soil from the former bulk fuel storage area of the CHS facility in 1998. The only areas of the Site where COCs have been detected in soil at depths less than 15 feet below ground surface (bgs) at concentrations above MTCA screening levels, and where the soils have not been subsequently excavated and disposed, are on the east and west perimeter of the 1998 excavation area at the former bulk fuel facility and in a single sample at a former small heating oil tank. Both of these locations are on the CHS facility property. Soil samples collected in 2007 indicate that residual petroleum hydrocarbon concentrations near the former bulk fuel facility have diminished since 1998. Site-wide soil sampling conducted in 2007 and 2008 confirmed that remaining soil with COC concentrations above MTCA screening levels in areas of the Site off of the CHS Auburn facility property is located at depths greater than 16 feet bgs within the petroleum hydrocarbon smear zone that has developed near the water table.

The dissolved phase plumes of COCs in groundwater are greatly diminished from their historical extent in the mid 1990s. Similarly, the remaining concentrations of COCs in groundwater are substantively lower than a decade ago and are within an order of magnitude of conservative MTCA Method A screening levels. There is no longer any LNAPL present on groundwater at the Site. The DRO, GRO, and benzene plumes in groundwater are commingled and generally located just to the northeast and southwest of Auburn Way South with the majority of the area of groundwater containing COCs above screening levels likely lying beneath this major thoroughfare. The dissolved phase COC plumes appear to be declining in concentrations and areal extent and are located 400 to 500 feet down-gradient of the suspected original source area at the bulk fuel storage facility formerly located on the CHS Auburn facility.

Both geochemical data collected for a natural attenuation assessment and empirical data collected at the Site suggest that COC degradation is occurring as a result of natural attenuation processes in the plume area where anaerobic conditions are prevalent. The operation of the combined Central/Perimeter AS Systems is oxygenating groundwater up-gradient of the dissolved phase COC plumes in groundwater. However, the oxygen introduced by operation of the system appears to be consumed rapidly in the areas immediately down-gradient of the sparge wells by natural degradation processes associated with the presence of the petroleum hydrocarbon smear zone at depths of 25 to 30 feet below the ground surface.

The Down-Gradient System was turned off in 2007. Twenty seven of the AS and SVE wells previously incorporated in the Down-Gradient System were decommissioned in July 2010 in



conjunction with City of Auburn street improvements to D Street Southeast south of State Route 18.

The RI has been completed, the remaining data gaps that had been identified for the Site have been addressed, and the data summarized herein will be used to identify, evaluate, and select remedial alternatives in the Feasibility Study following the MTCA evaluation process.



1.0 INTRODUCTION

Farallon Consulting, L.L.C. (Farallon) has prepared this Remedial Investigation (RI) Report on behalf of CHS Inc. (CHS) for the CHS Auburn facility at 238 8th Street Southeast in Auburn, Washington and contiguous areas where concentrations of petroleum hydrocarbons and related compounds in soil or groundwater exceed the applicable cleanup levels from releases at the CHS Auburn facility (herein referred to as the Site). The location of the Site is depicted on Figure 1. A Site Plan is provided on Figure 2. The locations of underground storage tanks (USTs) and aboveground storage tanks (ASTs) and other significant past or current features at the CHS Auburn facility are depicted on Figure 3. The boundaries of the Site have decreased over time due to significantly diminishing contaminant concentrations in groundwater. The current boundaries of the Site are depicted on Figures 2 and 4 and are based on the constituents of concern (COCs) detected at concentrations exceeding Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A cleanup levels in groundwater samples in the last several years of monitoring and historical soil sample analytical results. The COCs identified for the Site are total petroleum hydrocarbons (TPH) as diesel-range organics (DRO), as gasoline-range organics (GRO), and as oil-range organics (ORO); and benzene, toluene, ethylbenzene, and xylenes (BTEX).

The RI Report has been revised from a draft RI Report prepared by Farallon dated December 18, 2009 which was submitted to and reviewed by the Washington State Department of Ecology (Ecology). Farallon provided responses to Ecology comments (Ecology 2010) on the Draft RI Report in a Technical Memorandum dated February 15, 2011 (Farallon 2011) and incorporated those responses into the RI Report.

Cenex Supply and Marketing, Inc. (Cenex), a predecessor to CHS, entered into Agreed Order DE-94TC-N396 with the Ecology on November 7, 1994. Agreed Order DE-94TC-N396 was subsequently terminated and replaced with Agreed Order No. 4033 entered into by CHS and Ecology with an effective date of June 12, 2007. Agreed Order No. 4033 specifies that CHS conduct a remedial investigation/feasibility study (RI/FS) for the Site. The Site name is listed on Ecology's Confirmed and Suspected Contaminated Sites List database as *Cenex Valley Supply Coop*, under Site Identification No. 2487. For the purposes of this document, CHS refers to both Cenex and CHS Inc.

Environmental investigations have been conducted at and in the vicinity of the Site following the 1987 discovery of petroleum hydrocarbon impacts to soil and groundwater on the former City of Auburn fire station property located across Auburn Way South from the CHS Auburn facility. Remedial activities have been ongoing since 1994, with two combined groundwater remediation systems, designated the Perimeter and Central Systems, currently active at the Site. A third groundwater remediation system, designated the Down-Gradient System, was located down-gradient of the Site and was decommissioned in 2010 (Farallon 2010b). The locations of the remediation systems are shown on Figure 2. Additional information on the remediation systems is provided in Section 3.3.



1.1 RI/FS OBJECTIVES

The objectives of the RI/FS are to characterize the nature and extent of COCs in soil and groundwater and to collect sufficient information to evaluate technically feasible cleanup alternatives in accordance with MTCA, as established in Sections 360 through 390 of Chapter 173-340 of the Washington Administrative Code (WAC 173-340-360 through 173-340-390). A substantial amount of environmental data have been collected at the Site since remedial activities commenced in 1994, including over 17 years of groundwater monitoring data. Groundwater remediation activities have been ongoing for 17 years. Therefore, the focus of the RI was to assess current conditions including soil and groundwater quality in order to support the FS with a goal of selecting a MTCA-compliant final remedy that can be implemented in a reasonable time frame. The RI has been completed and the data summarized herein will be used to select potential remedial alternatives in the FS following the MTCA evaluation process.

1.2 ORGANIZATION OF THE RI REPORT

The RI Report is organized as follows:

- Section 2 provides a description of the Site and a summary of relevant background information;
- Section 3 reviews the history of environmental investigations and cleanup activities conducted at the Site;
- Section 4 presents a summary of RI findings and current Site conditions pertaining to soil and groundwater quality;
- Section 5 presents an updated conceptual site model;
- Section 6 presents Farallon's conclusions pertaining to the current conditions at the Site and the findings of the RI with respect to the information necessary to complete the FS for the Site; and
- Section 7 presents the references cited in this document.



2.0 SITE DESCRIPTION AND BACKGROUND

The following section presents a description of the Site and a discussion of the operational history of the CHS Auburn facility. An overview of the Site environmental setting also is provided.

2.1 SITE DESCRIPTION

The Site is located in Sections 18 and 19, Township 21 North, Range 5 East of the Willamette Meridian in King County, Washington. The Site extends from the CHS Auburn facility at the southwestern corner of the intersection of 8th Street Southeast and C Street Southeast in Auburn, to approximately 100 feet northeast of Auburn Way South, a distance of approximately 400 feet north-northeast of the CHS Auburn facility (Figure 2). Based on the findings of the 2007 through April 2011 RI activities, the approximate extent of petroleum hydrocarbons in soil and groundwater at concentrations exceeding MTCA Method A cleanup levels and potentially affected parcels are depicted on Figure 4. MTCA Method A cleanup levels for soil and groundwater are used for discussion, conservative screening, and comparison purposes throughout this RI Report. Final cleanup levels for the Site will be defined in the Cleanup Action Plan to be prepared following completion of the Feasibility Study (FS) for the Site.

The CHS Auburn facility consists of five King County tax parcels that are described as follows:

- Parcel No. 3141600670 – Includes the pump islands and USTs, depicted on Figure 4 as CHS Pump Islands;
- Parcel No. 1921059074 – The eastern portion of the main building and parking lot south of Parcel No. 3141600670, depicted on Figure 4 as CHS East Building;
- Parcel No. 1921059126 – The western portion of the main building, depicted on Figure 4 as CHS Central Building;
- Parcel No. 3141600720 – The small area to the west of the existing building, depicted on Figure 4 as CHS West Building; and
- Parcel No. 314160800 – The current truck parking area north of 8th Street Southeast, depicted on Figure 4 as CHS Across Street.

Contamination of soil or groundwater at levels exceeding MTCA Method A cleanup levels has not been documented on the parcels that comprise the western and central portions of the main building on the CHS Auburn facility (Figure 4).

Other parcels located within the Site, as defined by the delineated extent of groundwater or soil with concentrations of DRO, GRO, and/or BTEX above the MTCA Method A cleanup levels since August 2007, include portions of the following:

- Kong Thong Thai Restaurant – Parcel No. 3141600810 (referred to in previous investigations as the former Tortilla Grande property), depicted on Figure 4 as Thai Restaurant;



- Washington State Independent Auto Dealers Association (WSIADA) – Parcel No. 0835000035, depicted on Figure 4 as WSIADA;
- McDonalds Restaurant – Parcel No. 1821059197 (once part of the former Hillman property);
- Schuck's Firehouse Square – Parcel No. 1821059324 (referred to in previous investigations as the Hillman property), depicted on Figure 4 as Firehouse Square West; and
- Firehouse Square – Parcel No. 1821059166 (referred to in previous investigations as the Hillman property), depicted on Figure 4 as Firehouse Square East.

The Site is paved, with the exception of the area northeast of the Firehouse Square strip mall building adjacent to D Street Southeast, the planters located on the Firehouse Square and McDonalds properties, a strip between the parking lot and sidewalk at the Thai Restaurant property, and a landscaped median strip on Auburn Way South (Figure 2).

2.2 CHS AUBURN FACILITY OPERATIONAL HISTORY

The CHS Auburn facility currently operates as a retail store and warehouse with retail fuel sales, and includes the following five USTs that are used for product storage (Figure 3):

- U5 – A 12,000-gallon-capacity UST used for kerosene storage;
- U7 – A 10,000-gallon-capacity UST used for off-road diesel storage, and formerly used for unleaded gasoline storage (Summit EnviroSolutions, Inc. [Summit] 1997);
- U8 – A 10,000-gallon-capacity UST used for diesel storage;
- U9 – A 10,000-gallon-capacity UST used for premium unleaded gasoline storage; and
- U10 – A 10,000-gallon-capacity UST used for regular gasoline storage.

According to CHS personnel at the Site, the pump islands have been in the same general configuration since construction of the facility in the late 1960s or early 1970s. The subsurface piping for the fueling operations was upgraded to double-walled fiberglass in 1998. A single operational 1,150-gallon-capacity propane AST, designated on Figure 3 as A-6, currently is located at the CHS Auburn facility.

The CHS Auburn facility formerly operated as a retail and wholesale outlet for bulk petroleum products, pesticides, herbicides, fertilizer products, and other retail merchandise. Bulk fuel transfer and transportation operations also were previously conducted at the facility. In 1994, 15 USTs, 12 ASTs, and 3 multi-pump fueling stations reportedly were located at the CHS Auburn facility (Summit 1994). A discussion of tank removal activities, including descriptions of the USTs and ASTs, is provided in Section 3.2, UST and AST Removal History and Fuel System Summary. A former office and retail store located in the northeastern area of the CHS Auburn facility were demolished in 1998. The existing and former USTs and ASTs at the CHS Auburn facility are depicted on Figure 3.



King County Assessor records indicate that the CHS Auburn facility has been in continuous operation since at least 1928 (Summit 1994). The CHS Auburn facility was owned and operated as Valley Supply Cooperative until 1985, when it was acquired by Cenex. A more complete discussion of historical operations is provided in the *Facility Description and Site History* report (Summit 1994). A docent at the White River Valley Historical Society indicated that Valley Supply Cooperative had conducted bulk petroleum storage operations since at least the 1940s (Summit 1994). ASTs are visible on aerial photographs reviewed for the period from 1946 into the 1990s in the same location at the former bulk fuel storage area in the southeastern corner of the CHS Auburn facility. CHS personnel indicated that the pump islands have always been located in the same area along the northern portion of the CHS Auburn facility (Figure 3). A canopy in the area of the present canopy over the current pump islands is visible on a 1974 aerial photograph. No canopy is visible on a 1968 aerial photograph, suggesting that the pump islands may have been installed during the period between 1968 and 1974.

At some time during historical operations, Valley Supply Cooperative owned the area currently occupied by both the CHS Auburn facility and the Big O Tires facility located to the west (Figure 3).

2.3 ENVIRONMENTAL SETTING

2.3.1 Land Use

The Site is zoned C-3 Heavy Commercial, with the exception of the City of Auburn parcel, which is zoned P-1 Public Use. The area in the vicinity of the Site is used for a mixture of commercial office, retail, and residential activities.

2.3.2 Demographics

The Site is located near the commercial center of the city of Auburn. The 2000 U.S. Census reported a population of 40,314 for the city of Auburn (U.S. Department of Commerce 2000).

2.3.3 Topography

The Site topography is relatively flat and is locally graded to slope toward a series of storm drains. The elevation of the Site is approximately 90 feet above mean sea level.

2.3.4 Meteorology

The climate of the Puget Sound area is maritime, characterized by cool summers and mild winters influenced by ocean air. For the period from 1948 through 2005, the average annual minimum temperature for Kent, Washington, located approximately 5 miles north of the Site, is 42.4 degrees Fahrenheit, and the average annual maximum temperature is 61.5 degrees Fahrenheit (Western Regional Climate Center 2006). The average annual precipitation for Kent for the same period is 39.06 inches.

2.3.5 Groundwater Use

The City of Auburn uses seven water supply wells in the Green River Valley to provide potable water for area businesses and residents. Four of the water supply wells are considered primary



wells, and three are used only seasonally. The four primary water supply wells are completed at depths reportedly ranging from 290 to 375 feet below ground surface (bgs). The shallowest of the seven water supply wells is completed to a depth of 134 feet bgs (Farallon 2006a). Exact well locations are not provided by the City of Auburn for security reasons.

2.4 HYDROGEOLOGY

2.4.1 Regional Geology

The following discussion of regional geology was obtained from Summit (1995a). The White/Green River Valley consists of five major geologic units as described by Hart Crowser & Associates, Inc. (Hart Crowser) (Hart Crowser 1982, as referenced in Summit 1995a). From oldest to youngest, these units consist of Undifferentiated Glacial and Interglacial Deposits, Vashon Recessional Deltaic Deposits, Undifferentiated Alluvium, Osceola Mudflow, and White River Alluvium. The first of these units represents the original post-glacial valley surface. Although all of these units are briefly described below, only the uppermost unit, the White River Alluvium, is pertinent to the RI/FS.

The bottom sequence of deposits in the White/Green River Valley are known as the Undifferentiated Glacial and Interglacial Deposits. These units were deposited during and between glacial periods when continental ice sheets advanced and retreated across the area.

A water-filled embayment was created in the area of the White/Green River Valley as the last glacial period ended and the ice retreated (approximately 14,000 years before present). A large meltwater river emanating from the retreating glacier deposited deltaic sand and gravel where the river emptied into the embayment in an area underlying east Auburn. To the west and north of these deposits, fine sand and silt accumulated. These deposits are known as the Vashon Recessional Deltaic Deposits. Alluvial material was deposited over the deltaic deposits as a result of erosion of the upland glacial deposits by the Green River. Deltaic deposits consisting of sand and gravel were deposited at the mouth of the river on the pre-existing meltwater deltaic deposits. Fine sand and silt were deposited further out from the deltaic deposits.

Approximately 4,800 years before present, the Osceola Mudflow, originating from Mount Rainier, entered the White/Green River Valley. Most of the previous deposits in the area were overlain by fine grain sediments from the mudflow. The mudflow deposits consist of angular sand and gravel in a silt and clay matrix and range from 5 to 20 feet in thickness. Erosion and redeposition of the mudflow by the White River filled the valley to close to its current level.

The surficial unit in the White/Green River Valley consists of the White River Alluvium, which is present to depths of 250 to 300 feet bgs, and is the only unit that has been encountered during drilling investigations at the Site. The White River Alluvium was deposited as the White and Green Rivers meandered across the valley, eroding and redepositing valley sediments. The resulting fluvial deposits consist of a series of continuous and discontinuous sand- and gravel-filled channels. The White River channel, which was located along the current route of Auburn Way South, was filled in, and the White River was rerouted to the west to the Stuck River in 1906.



2.4.2 Site Geology

The Site is underlain by dark-gray medium- to coarse-grained sand with pebble- to cobble-sized gravel. Summit (1995a) described the material as alluvial sediments, and noted that very little fill material appeared to be present at the Site. An environmental investigation conducted at the Firehouse Square property reportedly encountered up to 20 feet of gravel fill material (GeoEngineers, Inc. [GeoEngineers] 1994).

2.4.3 Regional Hydrology

The following discussion of the regional hydrogeology was obtained from Summit (1995a). The hydrogeology beneath the Site consists of a series of aquifers and aquitards deposited from glacial, fluvial, alluvial, and catastrophic (mudflow) processes. Hart Crowser (1982 as referenced in Summit 1995a) identified three water-bearing zones in the region occupied by the Site, including a shallow zone at less than 100 feet bgs, an intermediate zone between 100 and 200 feet bgs, and a deep zone at greater than 200 feet bgs. The water-bearing zones contain fresh water, and the shallow and deep water-bearing zones have high transmissivities capable of sustaining high water yields.

The upper portion of the shallow water-bearing zone within the upper alluvial deposits of the White River Alluvium has been the focus of the investigations conducted at the Site. Regionally, this water-bearing zone ranges in thickness from 40 to 100 feet, is highly permeable, and occurs under unconfined conditions.

The shallow water-bearing zone is separated from the intermediate water-bearing zone by a fine-grained aquitard of the White River Alluvium that is up to 150 feet in thickness. The intermediate water-bearing zone lies in the channel deposits of the lower portion of the White River Alluvium, and consists of a series of discontinuous areas of thin saturated sediments.

The basal White River Alluvium forms an aquitard separating the intermediate water-bearing zone from the deep water-bearing zone. The deep water-bearing zone is composed of coarse-grained deltaic sediments of the Vashon deposit.

2.4.4 Site Hydrology

Groundwater typically has been encountered at the Site at depths of approximately 19 to 29 feet bgs. Historical groundwater elevations measured in Site monitoring wells are provided in Table 1. Groundwater elevations at the Site have shown seasonal fluctuations of greater than 8 feet since monitoring began in the mid-1990s. Groundwater flow direction at the Site is to the north-northeast, with a gradient of approximately 0.002 foot per foot. The direction of groundwater flow does not change appreciably between high and low water conditions. The groundwater flow direction using March 2008 groundwater elevation data is depicted on Figure 5.

Summit (1995a) conducted constant discharge and variable discharge aquifer pumping tests in 1994 using recovery well CRW-1 as a pumping well (Figure 2). Analysis of the aquifer pumping test data yielded transmissivity values ranging from 25,000 to 81,600 square feet per day (feet²/day), with an average value of 51,000 feet²/day and a mean value of 52,300 feet²/day. The specific yield analysis provided a range of 0.05 to 0.25, with an average value of 0.13 and a



mean value of 0.11. Using an assumed aquifer thickness of 65 feet, a range of hydraulic conductivity values from 427 to 1,255 feet per day was estimated by Summit (1995a). The average and mean hydraulic conductivity values were 786 and 805 feet per day, respectively. Using the average hydraulic conductivity value and an assumed effective porosity of 0.25, an average linear groundwater flow velocity of 4 feet per day was estimated by Summit (1995a). Grain-size sieve analyses of soil samples collected during the installation of recovery well CRW-1 resulted in estimated hydraulic conductivity values of 1,100 to 1,800 feet per day, which is consistent with the relatively high permeability of the upper water-bearing zone beneath the Site.



3.0 PREVIOUS ENVIRONMENTAL INVESTIGATIONS AND ACTIVITIES

This section provides a summary of the investigation and cleanup actions conducted at the Site, including a discussion of UST and AST closure activities. An overview of the existing fuel system operations at the CHS Auburn facility also is provided. Because surface soil conditions at the CHS Auburn facility were identified as a preliminary data gap in discussions between CHS, Ecology, and Farallon, particular detail on historical soil sampling activities is presented. Groundwater monitoring results for the Site have been documented in monthly and quarterly monitoring reports submitted to Ecology over the past 17 years and are briefly summarized herein.

3.1 OVERVIEW OF PREVIOUS INVESTIGATIONS

The following sections provide an overview of the environmental investigations conducted from 1987 through completion of the RI at the Site in May 2011.

3.1.1 GeoEngineers 1987

Petroleum hydrocarbon constituents were detected in groundwater samples collected in 1987 from monitoring wells installed at a former City of Auburn fire station located northeast of the CHS Auburn facility (GeoEngineers 1993). This property was later referred to as the Hillman property and then subdivided into the East and West Firehouse Square and McDonalds properties (Figure 4). Investigations were initiated following the removal of five USTs at the fire station/Hillman property by the City of Auburn in February 1987. Three USTs were reportedly removed from a tank basin located north of the fire station building that included two 1,000-gallon-capacity USTs used for storage of gasoline and a 2,000-gallon-capacity UST used for storage of diesel fuel. Two additional USTs removed from a second tank basin located south of the fire station building included a 300-gallon-capacity UST used for waste oil storage and a 500-gallon-capacity UST used for heating oil storage. The southern UST basin was located on the property currently occupied by the McDonalds restaurant. Soil contaminated with gasoline was encountered at the northern UST basin. Representatives of the Auburn Fire Department reportedly excavated approximately 800 cubic yards of gasoline-impacted soil to a depth of approximately 18 feet bgs on the fire station property (GeoEngineers 1993).

During construction of the Firehouse Square mall and McDonalds restaurant buildings in late 1987, many of the monitoring wells located on the former Hillman property reportedly were damaged or paved over (GeoEngineers 1993). The extent to which releases from the USTs formerly located on the Hillman property may have impacted groundwater quality has not been determined. Subsequent soil and groundwater investigations conducted in 1993 and 1994 at the former Hillman property and elsewhere in the area implicated the CHS Auburn facility as a potential contributing source of petroleum hydrocarbon contamination (GeoEngineers 1993 and 1994). The CHS Auburn facility is located in the up-gradient direction of groundwater flow from the former Hillman property (Figure 5). Ownership of several of the monitoring wells that were installed during the Hillman property investigations subsequently was transferred to the City of Auburn, including monitoring wells HMW-8, HMW-11, HMW-13, and HMW-14. The



locations of the existing HMW-series wells and the monitoring, recovery, and treatment system wells installed by CHS are depicted on Figure 2.

3.1.2 Summit 1994 and 1995

Three phases of investigation were conducted by Summit on behalf of CHS in 1994 (Summit 1995a). The first phase consisted of the installation of soil borings TB94-1 through TB94-6 on June 30 and July 1, 1994 on the CHS Auburn facility and the current Thai Restaurant property north of 8th Street Southeast (Figure 6). The rotasonic drilling methods used during the investigation allowed retrieval of continuous soil core samples. Soil samples from borings TB94-1 through TB94-4 were analyzed for the presence of GRO, DRO, and BTEX constituents. The analytical results are provided in Table 2. Soil borings TB94-1, TB94-5, and TB94-6 were completed as monitoring wells CMW-1, CMW-2, and CMW-3, respectively. Monitoring well construction details are provided in Table 3.

The highest concentrations of BTEX, GRO, and DRO were detected in the soil sample collected from boring TB94-1 at a depth of 18 to 20 feet bgs, with BTEX constituent concentrations that ranged from 15 milligrams per kilogram (mg/kg) for benzene to 490 mg/kg for xylenes. GRO and DRO concentrations in the soil sample were 6,300 and 1,400 mg/kg, respectively. Boring TB94-1 was located near the northwestern corner of the bulk fuel storage area at the CHS Auburn facility. Contaminant concentrations in the soil sample collected from boring TB94-1 at a depth of 23 to 24 feet bgs were up to two orders of magnitude lower than in the shallower sample.

BTEX concentrations in the soil sample collected from boring TB94-2 east of the former office building at the CHS Auburn facility at a depth of 23 to 24 feet bgs ranged from 9 mg/kg for benzene to 248 mg/kg for xylenes. GRO and DRO also were detected in the TB94-2 sample at concentrations of 4,000 and 5,600 mg/kg, respectively.

BTEX concentrations in the TB94-3 soil sample collected from a boring located in the center of the CHS Auburn facility at a depth of 18 to 20 feet bgs ranged from 0.57 mg/kg for benzene to 223 mg/kg for xylenes. GRO and DRO also were detected in the TB94-3 sample at concentrations of 2,700 and 600 mg/kg, respectively.

Benzene was not detected in the TB94-4 soil sample, which was collected from a boring up-gradient of the bulk fuel storage area on the CHS Auburn facility at a depth of 13 to 15 feet bgs, although the laboratory reporting limit exceeded the current MTCA Method A cleanup level for unrestricted land use. The detected concentrations of the other BTEX constituents did not exceed current MTCA Method A cleanup levels. GRO and DRO were detected in the TB94-4 soil sample at concentrations of 100 and 1,100 mg/kg, respectively.

A Phase II investigation was conducted at the Site by Summit between July 26 and October 16, 1994. This investigation included installation of monitoring wells CMW-4 through CMW-13, product recovery wells CRW-1 and CRW-2, and the air sparge (AS) and soil vapor extraction (SVE) wells for the perimeter remediation system located along the northeast periphery of the CHS Auburn facility (referred to as the Perimeter System in Summit 1995a and herein). Monitoring wells CMW-4 through CMW-13 were installed using air rotary drilling



methods. Soil samples were not collected for laboratory analysis during the Phase II investigation. The Perimeter System wells installed as part of the Phase II activities included AS-1, AS-11 through AS-16, SV-1 through SV-3, and SV-10 through SV-16. The AS and SVE wells were installed using hollow-stem auger drilling methods. Recovery wells CRW-1 and CRW-2 were installed using cable tool and air rotary drilling methods, respectively. Well construction details for the recovery wells and AS/SVE wells are provided in Tables 3 and 4, respectively. The locations of the Perimeter System AS and SVE wells and recovery wells are depicted on Figure 2.

Cenex entered into Agreed Order DE-94TC-N396 with Ecology in November 1994. Agreed Order DE-94TC-N396 was considered an emergency order and stipulated the operation of an SVE/AS treatment system and/or a groundwater extraction and treatment system at the Site until the “continued operation of the systems is no longer efficient or effective” to the satisfaction of Ecology. The Agreed Order also required installation and operation of a groundwater extraction and light nonaqueous-phase liquid (LNAPL) recovery well on the Hillman property (recovery well CRW-2) and established monitoring requirements.

Phase III activities were conducted at the Site by Summit from December 1994 through approximately February 1995 and included the installation of monitoring wells CMW-14 through CMW-24 and an SVE/AS remediation system, which was installed on the eastern edge of the Hillman property along D Street Southeast (referred to as the Down-Gradient System in Summit 1995a and herein). Monitoring wells CMW-14, CMW-16, and CMW-18 reportedly were installed as dual-completion wells, with screens set for both AS and SVE in single well casings, and were intended to be incorporated into the Down-Gradient System. The Down-Gradient System wells include AS wells DAS-1 through DAS-14 and SVE wells DSVE-1 through DSVE-16 (Figure 2).

Soil samples were collected from select borings (CMW-15 through CMW-18, CMW-20, and DAS-1) during the well installations using split-spoon sampling techniques and analyzed for the presence of GRO, DRO, and BTEX constituents. The results of the soil analyses are presented in Table 2. None of analytical results for the soil samples collected from these borings reported concentrations of GRO, DRO, or BTEX constituents exceeding the MTCA cleanup levels in effect at the time. However, the laboratory reporting limits for benzene in the soil samples exceeded the current MTCA Method A cleanup level for unrestricted land use.

Analytical results of groundwater samples collected from the Site monitoring wells detected concentrations of dissolved-phase GRO, DRO, and BTEX constituents in groundwater at and in the down-gradient direction of groundwater flow from the CHS Auburn facility. The dissolved-phase GRO, benzene, and DRO plumes where concentrations of these constituents exceed the current MTCA cleanup levels for groundwater depicted on Figures 7, 8, and 9 respectively, were developed by Farallon using the March 1995 and March 2009 groundwater analytical data for GRO and benzene and the March 1997 and June 2008 groundwater analytical data for DRO. The March 2009 data for GRO and benzene and June 2008 data for DRO were used to construct the figures because these sample events showed either the highest concentrations (GRO and benzene) or largest areal extent (DRO) of these contaminants in groundwater at the Site during



the quarterly monitoring events which were conducted over the last 3 years between June 2008 and April 2011.

Trichloroethene (TCE) was detected at concentrations slightly above the MTCA Method A cleanup level of 5 micrograms per liter ($\mu\text{g/l}$) in groundwater samples collected from monitoring wells on the Site and in the up-gradient and cross-gradient directions of groundwater flow from the Site during the Phase III sampling activities in 1995. The highest concentrations were detected in groundwater samples collected from monitoring wells located west and northwest of the CHS Auburn facility (HMW-12, HMW-14, and CMW-7), suggesting an off-site source for the TCE (Summit 1995a). Additional sampling for TCE and other halogenated volatile organic compounds (HVOCs) was conducted in 2006, as discussed below.

LNAPL was first observed at the Site on August 19, 1994 in monitoring wells CMW-1, CMW-2, and HMW-13 that coincided with a period of low groundwater elevations. Following installation of additional monitoring wells, LNAPL also was observed in wells CMW-10, CRW-1, and HMW-11. The thickest accumulations of LNAPL were measured at and down-gradient of the CHS Auburn facility in 1994, with thicknesses of approximately 1 to 1.5 feet in monitoring wells CMW-2, CMW-10, HMW-11, and recovery well CRW-1. Characterization of the LNAPL was conducted by Summit in 1994 using two separate laboratories specializing in forensic analyses. The analyses characterized the LNAPL in the wells as a mixture of gasoline and diesel, with significantly more gasoline-related constituents present than diesel-related constituents (Summit 1995a). The analyses also noted that the LNAPL present in monitoring well CMW-1 at the CHS Auburn facility contained relatively fresh gasoline. A comparison of the LNAPL sample from monitoring well CMW-1 with the LNAPL sample from monitoring well CMW-2, located north of 8th Street Southeast, revealed that the LNAPL samples did not match. These findings suggested that there were different sources of the LNAPL or different timing of the releases of LNAPL found at these two locations (Summit 1995a). LNAPL recovery operations are discussed in Section 3.3, Summary of Remediation Activities.

3.1.3 Groundwater Monitoring 1997-2005

Ongoing groundwater monitoring activities were conducted by Summit from 1997 until 1999, by Environmental Resources Management from 1999 until 2003, and by Farallon from 2003 to the present. Groundwater monitoring was conducted on a monthly basis throughout 1997 and generally on a quarterly basis thereafter. Historical groundwater monitoring results for TPH and BTEX constituents are presented in Table 5.

3.1.4 Farallon 2006-Present

In October 2006, Farallon (2006b) prepared an RI/FS Work Plan that was reviewed and approved by Ecology and identified key data gaps to be addressed prior to selection of a final cleanup action for the Site. The six primary data gaps identified were as follows:

- Characterization of the nature and extent of petroleum hydrocarbon contamination in the smear zone at the Site;
- Assessment of soil quality at the CHS Auburn facility;



- Assessment of groundwater quality at the down-gradient and cross-gradient perimeter of the CHS Auburn facility;
- Assessment of groundwater quality at the distal end of the DRO plume;
- Assessment of compliance with current MTCA regulations; and
- Assessment of potential terrestrial ecologic impacts resulting from the releases at the Site.

Interim groundwater monitoring activities were conducted in October and November 2006, with follow-up monitoring activities in April 2007 to address the data gaps pertaining to groundwater quality at the down-gradient and cross-gradient perimeter of the CHS Auburn facility, groundwater quality at the distal end of the DRO plume, and compliance with current MTCA regulations (Farallon 2007). A program of dissolved-oxygen enhancement testing was implemented at the Site from June through October 2006 to evaluate potential enhancements to the air sparging components of the Central groundwater treatment system which is described in more detail in Section 3.3.2. The dissolved-oxygen enhancement testing results are discussed in Section 3.3.5. To address the data gap pertaining to groundwater quality at the CHS Auburn facility perimeter, several AS and SVE wells located along the down-gradient and cross-gradient perimeter were sampled as part of a Site-wide groundwater monitoring event using low-flow groundwater sampling techniques. To address the data gap pertaining to groundwater quality at the distal end of the DRO plume, monitoring wells CMW-5 and CMW-8, which could not be located for several years, were located and sampled. In general, lower concentrations of petroleum hydrocarbons and BTEX in groundwater were found during the Site-wide monitoring activities. The lower results may be partially attributable to the low-flow sampling method used, which is a more representative and currently accepted industry standard sampling method. The previous groundwater monitoring had been conducted using bailers to collect the samples. Natural attenuation processes are also likely contributing to the reduction in COC concentrations in groundwater at the Site.

To assess compliance with current MTCA regulations, groundwater samples from select monitoring wells were analyzed for the presence of 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), methyl tertiary-butyl ether (MTBE), polychlorinated biphenyls (PCBs), and volatile organic compounds (VOCs) including HVOCs. None of the VOCs or PCB congeners analyzed for were detected at concentrations above their respective MTCA Method A groundwater cleanup levels. The VOC and PCB analytical results from the October 2006 and April 2007 monitoring events are presented in Tables 6 and 7, respectively.

Soil and groundwater field investigations were conducted in August 2007 to address the data gaps identified in the RI/FS Work Plan. The results of these field investigations are summarized in an *Interim Progress Report* for the Site (Farallon 2008c). The August 2007 field activities included the completion of 14 soil borings to depths below the water table to assess current soil conditions at the Site and the installation of groundwater monitoring well CMW-26, to assess groundwater quality in the cross-gradient direction of groundwater flow from the CHS Auburn facility.



Based on evaluation of the data collected during the 2007 investigation activities, several additional data gaps were identified to facilitate the completion the RI including (Farallon 2008a):

- Assessment of current conditions near and down-gradient of the former AST area on the CHS Auburn facility;
- Delineation of the distal end of the dissolved-phase plume of DRO in groundwater;
- Characterization of soil and groundwater quality conditions in areas along the southwestern side of Auburn Way South that had not been previously investigated; and
- Assessment of current Site-wide groundwater quality using low-flow sampling methods during the high groundwater conditions that occur in early spring.

To gather the data necessary to address these data gaps, additional field investigations were conducted in February and March 2008 which included the installation of nine soil borings and six groundwater monitoring wells, designated CMW-27 through CMW-32, and associated sampling of soil and groundwater (Farallon 2008c).

A total of 43 soil samples collected from the 2007 borings and 24 soil samples collected from the 2008 borings were analyzed for DRO, ORO, GRO, and BTEX. The soil analytical results for TPH and BTEX constituents for the August 2007 and February/March 2008 sampling events are provided in Table 8 along with the MTCA Method A cleanup levels, which are provided for reference. The GRO, DRO, and benzene results for soil samples and the boring locations are presented on Figure 10. The DRO and GRO results for soil are also depicted on the geologic cross sections provided on Figures 11 through 14. Four soil samples collected in 2008 were analyzed also for total organic carbon (TOC) content.

DRO was detected at concentrations above the MTCA Method A cleanup level of 2,000 mg/kg in 6 of the 43 soil samples analyzed during the 2007 investigation. DRO concentrations in these six soil samples ranged from 2,050 to 2,770 mg/kg. DRO was not detected at concentrations above the MTCA Method A cleanup level of 2,000 mg/kg in any of the soil samples collected during the 2008 investigation. ORO was not detected at concentrations above the MTCA Method A cleanup level of 2,000 mg/kg in any of the soil samples collected during either the 2007 or 2008 Site investigation activities.

GRO was detected at concentrations above the MTCA Method A cleanup level of 30 mg/kg in 19 of the 43 soil samples analyzed during the 2007 Site investigation. The highest concentration detected was 2,140 mg/kg in the soil sample collected from boring FB-13 at a depth of 22 feet bgs. GRO was detected at concentrations above the MTCA Method A cleanup level in 5 of the 24 soil samples analyzed during the 2008 Site investigation. These five soil samples were collected from borings FB-15 through FB-18, all of which were located along Auburn Way South. The highest concentration of GRO detected during the 2008 investigation was 600 mg/kg from the soil sample collected from boring FB-15 at 33 feet bgs.

Benzene was the only BTEX constituent detected in soil during the 2007 investigation activities at concentrations above the corresponding MTCA Method A cleanup level. Benzene was



detected above the MTCA Method a cleanup level of 0.03 mg/kg in soil samples from five borings that were collected at depths ranging from 20 to 29 feet bgs. Benzene, ethylbenzene, and xylenes were detected above their corresponding MTCA Method A cleanup levels during the 2008 investigation in several soil samples collected from borings along Auburn Way South at depths ranging from 24 to 33 feet bgs.

Analyses for TOC content were completed on four soil samples collected during the 2008 Site investigation. The results for the TOC analyses ranged from 0.000789 gram per gram to 0.00979 gram per gram. The geometric mean of the TOC content for the four samples is 0.0015 gram per gram. Three of the TOC results were very similar in concentrations and the fourth result was approximately an order of magnitude lower and is likely an outlier. Discounting the outlier value, the geometric mean of the TOC content for the samples from borings FB-15, FB-22, and FB-23, all of which had very similar TOC concentrations, is 0.008 gram per gram.

Soil samples collected from borings FB-9 at 25 feet bgs and FB-13 at 27 feet bgs, were analyzed for DRO and ORO following sample extraction using the Synthetic Precipitation Leaching Procedure (SPLP) in accordance with U.S. Environmental Protection Agency (EPA) Method 1312 to aid in assessing contaminant fate and transport mechanisms. The results of the DRO and ORO analyses for soil leachate are provided in Table 9. A discussion of the correlation between leachate analytical results from boring FB-9 relative to soil analytical results from the boring and groundwater analytical results for monitoring well CMW-26, which was installed in the boring, is provided in the summary of current conditions in Section 4.2.

DRO was detected at a concentration of 0.722 milligrams per liter (mg/l) in the leachate from the soil sample collected from boring FB-9 at 25 feet bgs and 1.13 mg/l in the leachate from the soil sample collected from boring FB-13 at 27 feet bgs. The DRO concentrations that were detected in the corresponding soil samples were 2,100 mg/kg for the boring FB-9 sample collected at 25 feet bgs and 916 mg/kg for the boring FB-13 sample collected at 27 feet bgs. ORO was not detected above the laboratory reporting limits in either of the leachate samples extracted from the soil samples collected from borings FB-9 and FB-27.

Farallon conducted four quarters of groundwater monitoring between June 2008 and March 2009 to more fully characterize current groundwater conditions at the Site and to support an assessment of conditions pertaining to natural attenuation processes (Farallon 2008d, 2008e, 2009a, 2009b). The results of the groundwater monitoring activities in 2008 and 2009 showed little seasonal variation in contaminant concentrations in groundwater, although groundwater elevations varied by nearly 4 feet between seasonal lows in late September and seasonal highs in March and June (Table 1). Graphs of GRO, DRO, and benzene versus groundwater elevations for select monitoring wells for the period from about late 2002 to April 2011 are provided in Appendix A.

The groundwater data collected over the last several years of monitoring at the Site have shown commingled dissolved-phase DRO, GRO, and benzene plumes in groundwater, where COC concentrations exceed MTCA Method A cleanup levels, in the area on both sides of, and immediately adjacent to Auburn Way South between 7th Street Southeast and 8th Street Southeast. The size of each of these plumes is greatly diminished from the extent identified in



the mid-1990s when groundwater contamination at the Site was first delineated. The GRO and benzene concentrations detected in groundwater samples in March 1995 and March 2009 and DRO concentrations in March 1997 and June 2008 are presented on Figures 7, 8, and 9, respectively. The highest concentrations of DRO, GRO, and benzene detected in groundwater samples collected over the last several years were less than an order of magnitude above their respective MTCA Method A cleanup levels. Total xylenes was the only other constituent detected above its MTCA Method A cleanup level, and was only detected in one sample on one occasion at a concentration above the Method A cleanup level. Data for evaluation of natural attenuation of petroleum hydrocarbons in groundwater were also collected for the four quarters of monitoring between June 2008 and March 2009. The results of the natural attenuation monitoring showed evidence of active anaerobic degradation processes occurring in spite of operation of the air sparging system at the Site, as discussed further in Section 3.3.6.

3.2 UST AND AST REMOVAL HISTORY AND FUEL SYSTEM SUMMARY

Summit (1997 and 1999a) documented that there were 27 petroleum storage tanks on the Cenex property consisting of 12 ASTs and 15 USTs, 3 multi-pump fueling islands with 10 retail pumps also on the Cenex property, and 3 additional USTs that were present on the south side of the adjacent Tires 4 Less facility (currently Big O Tires). The following sections summarize the UST and AST closures and related characterization activities conducted in 1997 and 1998. The UST and AST locations and other significant Site features are depicted on Figure 3.

3.2.1 October 1997

The three USTs that were located south of the current Big O Tires building were closed in-place on October 21, 1997 (Summit 1997). The USTs reportedly were located on the current Big O Tires property rather than at the CHS Auburn facility (Figure 3) but were decommissioned by CHS contractors. The USTs consisted of:

- One UST with an estimated capacity of 500 gallons used for heating oil storage;
- One 1,000-gallon-capacity UST used for solvent storage; and
- One 1,000-gallon-capacity UST used for waste oil storage.

The closure activities included exposing the tops of the tanks, rendering the tanks inert with carbon dioxide, and triple-rinsing. Holes were then cut in the bottom of each tank to allow for closure assessment soil sampling. Some soil visually noted to be impacted was excavated from above the fill port of the waste oil UST that extended to approximately 2 feet below the bottom of the overlying concrete slab. No evidence of holes was reported during inspections of these three USTs.

Three soil samples were collected along the longitudinal axis of each UST installation from depths of approximately 3 to 6 inches below the UST bottoms. The soil samples were analyzed for hydrocarbon identification (HCID); VOCs, including HVOCs; and arsenic, barium, cadmium, total chromium, lead, mercury, selenium, and silver. Because the analytical result for the soil sample collected from the east end of the heating oil UST detected concentrations of diesel-range petroleum hydrocarbons using HCID analysis, the sample was analyzed for DRO



using Ecology Method NWTPH-Dx. The concentrations of DRO exceeded the MTCA Method A cleanup level of 200 mg/kg that was in effect at that time. The analytical results for the petroleum hydrocarbon and BTEX analyses are presented in Table 2. The results for GRO and DRO for soil samples collected during the UST closures are presented on Figure 6. Toluene was detected in one soil sample collected from below the heating oil UST, and tetrachloroethene was detected in one soil sample collected from below the waste oil UST, although neither concentration exceeded the MTCA Method A cleanup levels in effect at the time. Although benzene was not detected in the soil samples, the laboratory reporting limits exceed the current MTCA Method A cleanup level for unrestricted land use. None of the metals were detected at concentrations exceeding current MTCA Method A or Method B cleanup levels for unrestricted land use. The results of the metal analyses for soil are presented in Table 10.

Following completion of the sampling activities, the USTs were filled in-place with a sand-concrete slurry. The closed-in-place USTs are still present at the Site, according to CHS personnel.

3.2.2 May through October 1998

In May, September, and October 1998, Summit closed 10 USTs, 5 ASTS, an oil-water separator, a sump, and an aboveground bulk fuel loading facility at the CHS Auburn facility as described below (Summit 1999a). Figure 3 depicts the locations of the tanks.

On May 6 and 7, 1998, five USTs were removed or closed in-place, including:

- N-1 – A 2,500-gallon-capacity UST formerly used for diesel storage that was not in use at time of closure;
- N-2 – A 2,500-gallon-capacity UST formerly used for diesel storage that was not in use at time of closure;
- N-3 – A 1,000-gallon-capacity UST formerly used for diesel storage that was not in use at time of closure;
- H-1 – A 240-gallon-capacity UST used for heating oil storage; and
- H-2 – A 300-gallon-capacity UST used for heating oil storage.

The Summit (1999a) report documenting the UST closure activities indicates that UST N-2 was closed in-place due to the presence of an overlying canopy footing, and that the four remaining USTs were removed. Due to apparent typographical errors in the Summit (1999a) report, the closed-in-place UST was alternately identified as N-2 and N-3. However, the soil data nomenclature supports the supposition that UST N-2 rather than UST N-3 was closed in-place.

Soil samples were collected through the bottom of UST N-2 as part of the closure in-place. Two sidewall samples and one bottom soil sample were collected from each of the four remaining UST locations following the tank removals. Visual signs of petroleum hydrocarbon impacts were observed at the UST N-3 location to a depth of approximately 6 feet bgs at the north end of the UST near the fill pipe. The visually impacted soil was excavated from this area and placed into drums for disposal pending review of the analytical data. The soil samples were analyzed



using Ecology Method NWTPH-HCID, with follow-up analyses for DRO conducted on those samples with positive HCID detections in the diesel range. The analytical results for a sidewall sample at 6 feet bgs from the UST N-3 excavation reported DRO at a concentration of 240 mg/kg, which exceeded the MTCA cleanup level of 200 mg/kg in effect at the time, but not the current MTCA Method A cleanup level of 2,000 mg/kg. The analytical result for the soil sample collected from the bottom of the excavation for UST H-1 reported DRO at a concentration of 2,460 mg/kg.

On May 21, 1998, Apollo Geophysics Corporation performed a geophysical survey at the CHS Auburn facility in an attempt to locate unknown USTs. The geophysical investigation included an electromagnetic survey followed by a ground-penetrating radar survey. The ground-penetrating radar survey identified an unknown UST east of the current Big O Tires facility as well as several known USTs on the CHS Auburn facility. On June 4, 1998, Summit (1999a) closed the unknown UST on the current Big O Tires property (labeled as UNK on Figure 3) and UST U-6, which was located near the CHS Auburn facility warehouse (Figure 3). The capacities and use of these two USTs were described as follows (Summit 1999a):

- Unknown – A 300-gallon-capacity UST apparently used for waste oil storage; and
- U-6 – A 3,000-gallon-capacity UST used for kerosene storage.

Summit personnel reportedly did not observe any visual indications of a release from the unknown UST. The Summit (1999a) report indicates that the unknown UST did not have a fill port or associated piping. Although no apparent holes were observed in UST U-6, a strong “kerosene” odor was noted in soil in the excavation. Over-excavation of soil was not conducted due to concerns pertaining to the structural integrity of the nearby warehouse building. Approximately 200 to 300 pounds of nitrogen-based fertilizer was added to the excavation to promote biodegradation of the residual petroleum hydrocarbons in soil. Three soil samples were collected from each of these two UST locations at the time of closure. The soil samples were analyzed using Ecology Method NWTPH-HCID, with follow-up analyses for DRO by Ecology Method NWTPH-Dx where positive detections were noted using the HCID analyses. Diesel- and oil-range petroleum hydrocarbon constituents were detected above laboratory reporting limits in only one soil sample collected from the excavation for the unknown UST and the concentrations were below current MTCA cleanup levels. The analytical results for soil samples from the UST U-6 excavation reported DRO concentrations ranging from 543 to 880 mg/kg.

In September and October 1998, Summit (1999a) oversaw the removal of three USTs and five ASTs in the bulk fuel storage area at the CHS Auburn facility (Figure 3). These tanks included:

- U-1 – A 4,500-gallon-capacity UST used for stove oil storage;
- U-2 – A 10,000-gallon-capacity UST used for diesel storage;
- U-3 – A 12,000-gallon-capacity UST used for diesel storage;
- U-4 – A 3,000-gallon-capacity UST used as an oil-water separator;
- A-1 – A 25,000-gallon-capacity AST used for diesel storage;
- A-2 – A 25,000-gallon-capacity AST used for regular unleaded gasoline storage;



- A-3 – A 14,000-gallon-capacity AST used for unleaded gasoline storage;
- A-4 – A 6,000-gallon-capacity AST used for premium unleaded gasoline storage; and
- A-5 – A 6,000-gallon-capacity AST used for stove oil storage.

UST U-1 appeared to be a railroad tank car of riveted seam construction that had five visible holes at the time of removal. UST U-2 had a hole through which water was observed entering the tank. No holes were observed in UST U-3. A soil sample collected from the location of the oil-water separator (UST U-4) at approximately 6 feet bgs exhibited a strong hydrocarbon odor (Summit 1999a).

The analytical results of the soil samples collected from the UST locations detected concentrations of DRO up to 9,440 mg/kg at UST U-1, up to 377 mg/kg at UST U-2, and up to 9,770 mg/kg at UST U-3. The analytical results of soil samples collected from the area of the oil-water separator (UST U-4) detected concentrations of GRO, DRO, and ORO at 574, 2,450, and 496 mg/kg, respectively. The soil sample collected from the oil-water separator area was analyzed also for BTEX constituents. Although no BTEX constituents were detected in the sample, the laboratory reporting limit for benzene exceeded the current MTCA Method A cleanup level for unrestricted land use of 0.03 mg/kg.

No holes were observed in the AST bottoms at the time of closure, and no soil samples were collected from the AST area. Secondary containment for ASTs A-1 through A-5 reportedly consisted of a 3- to 4-foot-high concrete containment wall with a gravel base. The bulk loading rack area was described as having a base consisting of a concrete pad that was broken in places, with a surrounding concrete berm. The piping leading to the loading rack arms was reportedly underlain by gravel (Summit 1994). The AST and bulk fuel loading areas were subsequently excavated to a depth of 30 feet bgs later during a source removal action conducted in October 1998.

During the September/October 1998 tank closure activities, a dry well in the AST containment area, the bulk fuel loading rack, and associated transfer piping were removed from the CHS Auburn facility. The dry well consisted of a 3- to 4-foot-diameter pipe, situated beneath a manhole cover that was 4 to 5 feet deep with an open bottom. Soil samples collected from the base of the dry well at approximately 6 and 8 feet bgs exhibited a strong hydrocarbon odor (Summit 1999a). Soil samples were collected from three different borings in the bulk fuel loading rack area from depths of 6, 14, and 20 feet bgs. The area was excavated later in October 1998.

The analytical results of the soil samples collected from the base of the dry well in 1998 detected concentrations of DRO ranging from 1,760 to 4,970 mg/kg (sample locations SUMP and SUMP 2; Figure 6). The analytical results could not be correlated to sample depth (either the 6 or 8 feet bgs intervals) from the information provided in the Summit (1999a) report. The analytical results of a third soil sample collected from the dry well detected GRO at 2,000 mg/kg. One of the dry well soil samples also was analyzed for BTEX constituents. Although no BTEX constituents were detected, the laboratory reporting limit for benzene exceeded the current



MTCA Method A cleanup level for unrestricted land use. The results of the TPH and BTEX analyses are presented in Table 2.

The analytical results for the soil samples collected from the bulk fuel loading rack area in 1998 detected concentrations of DRO ranging from 2,130 to 5,060 mg/kg. The analytical results could not be correlated to sample depths from the information provided in the Summit (1999a) report, nor could individual sampling locations be ascertained. Approximate sampling locations are depicted on Figure 6 as BLK-1 through BLK-3. GRO and ORO were detected at concentrations of 401 and 318 mg/kg, respectively, in soil sample BLK-3, which had the highest DRO concentration of the samples collected from the bulk fuel loading rack area. The soil samples collected from the bulk fuel loading rack area were also analyzed for BTEX constituents. Although no BTEX constituents were detected, the laboratory reporting limits for benzene exceeded the current MTCA Method A cleanup level for unrestricted land use.

In late October 1998, the areas of USTs U-1 through U-4, ASTs A-1 through A-5, ASTs A-9 through A-12, the bulk fuel loading rack, and the dry well were excavated to depths of up to 30 feet bgs, which is deeper than the sample intervals for the samples collected during the UST and AST closure activities. A discussion of the soil sampling results from the October 1998 excavation is provided in Section 3.3, Summary of Remediation Activities.

3.2.3 Other AST Closures

ASTs A-6 through A-12 were small ASTs located in the southern portion of the CHS Auburn facility (Figure 3). Closure of these ASTs was not documented in the Summit (1999a) report that discussed other AST closures at the Site. AST A-6 was a 1,150-gallon-capacity propane tank. ASTs A-7 and A-8 were depicted on a site plan provided in the 1997 UST assessment report as a 1,000-gallon-capacity solvent tank and a 1,000-gallon-capacity stove oil tank, respectively (Summit 1997). According to CHS personnel, these ASTs were removed from the Site in 1998. ASTs A-9 through A-12 were used as small (approximately 275-gallon-capacity) consumer waste oil collection tanks (Summit 1994). ASTs A-9 through A-12 were removed prior to the excavation activities conducted in October 1998 at the bulk fuel storage and loading area.

3.3 SUMMARY OF REMEDIATION ACTIVITIES

The following section provides an overview of the remediation activities conducted to date at the Site. Included is a discussion of the operation of the LNAPL recovery and groundwater extraction and treatment system and the three AS/SVE treatment systems, and the 1998 soil excavation activities at the former bulk fuel storage area. Also discussed in this section is the chemical oxidation pilot study and dissolved-oxygen enhancement study conducted at the Site in 2005 and 2006, respectively, and the assessment of natural attenuation parameters for groundwater conducted at the Site in 2008 and 2009.

3.3.1 LNAPL Recovery and Groundwater Extraction

LNAPL recovery was initiated at the Site in August 1994. Passive LNAPL collectors were installed in monitoring wells CMW-1, CMW-2, CMW-10, and HMW-11, and were rotated from



well to well depending on the amount of LNAPL present (Figure 2). A total of 885 gallons of LNAPL had been removed from the water table as of December 31, 1994 (Summit 1995a).

The recovery well CRW-1 groundwater extraction and treatment system began interim operation on December 28, 1994 using a submersible pump to extract both groundwater and LNAPL. Extracted groundwater was initially treated using one 8,000-pound and two 2,000-pound granular activated carbon units prior to discharge to the City of Auburn sanitary sewer system. A reinfiltration trench was installed at the CHS Auburn facility on December 10, 1994 for infiltration of treated water from the CRW-1 groundwater extraction and treatment system (Figure 3). The trench was 170 feet long and ranged from 4 to 8 feet in depth. The width of the trench ranged from 3 feet at the bottom to 5 to 6 feet at the top. A 160-foot-long 4-inch-diameter slotted pipe was installed in the trench which was backfilled with pea gravel.

Discharge of treated water to the reinfiltration trench commenced in January 1995. An air stripper system that included a primary and secondary air stripper was installed as part of the CRW-1 treatment system and served as the primary means of treating extracted groundwater prior to discharge to the reinfiltration trench beginning in March 1995. Activated carbon was used as a polishing treatment downstream of the air strippers to ensure compliance with water discharge requirements.

Preparations were made to plumb recovery well CRW-2 to the CRW-1 groundwater extraction and treatment system soon after installation of recovery well CRW-2. However, no LNAPL was observed in recovery well CRW-2, and no LNAPL was observed in the well or discharge water following an 8-hour pumping test conducted in March 1995 (Summit 1995b). Subsequently, no significant groundwater extraction was conducted from recovery well CRW-2.

The last LNAPL reportedly removed by the groundwater extraction system was in November 1995 (Summit 1996b). Further operation of the groundwater extraction system was thought to impede down-gradient biodegradation processes due to the capture zone created by the treatment system which limited oxygen distribution from the Central/Perimeter AS Systems. Operation of the groundwater extraction system ceased in August 1996 with Ecology approval.

3.3.2 Soil Vapor Extraction and Air Sparging

Three SVE/AS treatment systems were installed at the Site between 1994 and 1996. The first system constructed, designated as the Perimeter System, was installed along the north and east perimeters of the CHS Auburn facility (Figure 2). The second system constructed, designated as the Down-Gradient System, was installed along D Street Southeast near the distal end of the area of groundwater contamination that had been identified at the Site at that time. The third SVE/AS system constructed, designated as the Central System, was installed down-gradient of the CHS Auburn facility on the current Thai Restaurant property, located north of 8th Street Southeast across from the CHS Auburn facility.

The SVE component of the Perimeter System began operation in November 1994, followed by full-scale operation of the AS component of that system in March 1995. Extracted vapors were treated using a catalytic oxidizer unit. The Down-Gradient System began operation in March



1995. Vapors extracted from the Down-Gradient System were treated using granular activated carbon.

The Central System was installed in the first quarter of 1996 and consists of vapor extraction wells CSVE-1 and CSVE-4 through CSVE-8; air sparge wells CAS-1 through CAS-5, CAS-8, and CAS-11 through CAS-13; and combination vapor extraction/AS wells CSVE-6/CAS-9, CSVE-7/CAS-12, and CSVE-8/CAS-10 (Figure 2). Existing monitoring wells CMW-2 and CMW-10 and recovery well CRW-2 reportedly were plumbed for use as SVE wells. Part-time operation of the SVE component of the Central System began in April 1996, with continuous operation beginning in May 1996. Extracted vapors from the Central System were treated using the same catalytic oxidizer unit used for the Perimeter System.

In June 1996, operation of the AS component of the Down-Gradient System was modified to alternately pulse the SVE on half of the system for 30 minutes while allowing the other half of the system to recover. At that time, only an estimated 5.1 gasoline-equivalent gallons of GRO vapors had been recovered by the entire system, which consisted of 30 AS or SVE wells extending along a 500-foot-long alignment along D Street Southeast (Summit 1996a).

Full-time operation of the Central System in May 1996 made groundwater extraction operations from recovery well CRW-1 less critical, as the AS/SVE system removed dissolved-phase petroleum hydrocarbons from groundwater more efficiently (Summit 1996b). No LNAPL reportedly had been recovered from the recovery well CRW-1 groundwater extraction system since November 1995. Groundwater extraction from recovery well CRW-1 was terminated in August 1996. The July 1996 monthly report (Summit 1996b) indicated that a total of approximately 28 million gallons of groundwater had been pumped from recovery well CRW-1 during the period from late 1994 when groundwater extraction activities commenced, through July 1996. Of that total, approximately 23.2 million gallons of treated water was discharged to the reinfiltration trench, with the remainder presumably discharged to the sanitary sewer system prior to construction of the reinfiltration trench. A total of 1,754 gallons of LNAPL was recovered from CRW-1 with a cumulative total of 1,335 gasoline-equivalent gallons of dissolved-phase GRO recovered (Summit 1996b).

The SVE component of the Central and Perimeter Systems was shut down with Ecology approval in late 1999 due to the low concentrations of petroleum hydrocarbon vapors present. Summit (1999b) reported that through June 18, 1999, 13,490 product-equivalent gallons of petroleum hydrocarbons had been recovered from all of the systems, including 1,754 gallons of LNAPL from recovery well CRW-1, 1,335 equivalent-gallons of dissolved-phase constituents from the CRW-1 extracted groundwater, and product-equivalent totals of 9,582 gallons from the Perimeter System, 813 gallons from the Central System, and 5.9 gallons from the Down-Gradient System. The vast majority of the petroleum hydrocarbons recovered were in the vapor phase from the Perimeter System, with over 60,000 pounds of VOCs reportedly removed from subsurface soil (Summit 1999b). A summary of cumulative product-equivalent gallons treated by the SVE systems at the Site from 1994 to 1999 is presented in Table 12.

Beginning in early 2000, the Central, Perimeter, and Down-Gradient AS Systems began operating in a pulsed mode of 1 week on and 1 week off with Ecology approval. The operational



mode of the AS systems was subsequently amended to 2 weeks on and 2 weeks off until May of 2006, when the Central AS System began operating on a continuous basis and continues to operate in that mode to the present. Operation of the Down-Gradient System was terminated in October 2007. New air compressors were installed for the Central AS System in August 2009. The new compressors are capable of achieving higher sustained air flow rates than the previous compressor. Farallon is currently evaluating optimization of the Central AS System by obtaining periodic dissolved oxygen measurements from groundwater in select receptor wells down-gradient of select AS wells at various air flow rates.

Twenty seven of the AS and SVE wells comprising the Down-Gradient System were decommissioned in July 2010 in conjunction with improvements by the City of Auburn to D Street Southeast between 6th Street Southeast and 8th Street Southeast (Farallon 2010b). The decommissioned wells include AS wells DAS-1 through DAS-12, SVE wells DSVE-1 through DSVE-14 and dual completion AS/SVE well CMW-16 (Figure 2). Dual completion AS/SVE well CMW-14 was also scheduled for decommissioning but could not be located. AS wells DAS-13 and DAS-14 and SVE wells DSVE-15 and DSVE-16 located in the on- and off-ramp cloverleaf for State Route 18 also could not be located in several attempts using a metal detector. The AS and SVE wells were decommissioned because some of the wells and associated system piping were damaged during the installation of a new gas main and regrading activities by contractors for the City of Auburn. With the exception of anomalous results from one monitoring event in October 2009, none of the COCs for the Site had been detected in groundwater samples collected from monitoring wells immediately up-gradient or down-gradient of the Down-Gradient System for at least several years prior to the decommissioning activities.

3.3.3 Soil Excavation

In September and October 1998, the ASTs and USTs located in the bulk fuel storage area were removed from the CHS Auburn facility (see Section 3.2, UST and AST Removal History and Fuel System Summary). A dry well, an oil-water separator tank, and an overhead bulk fuel loading rack also were removed from this area at that time. Following removal of the tanks and structures, the primary bulk fuel storage and bulk fuel loading areas were excavated to depths of up to 30 feet bgs in October 1998. The limits of the excavation are depicted on Figure 6. During the removal, groundwater was encountered in the excavation at approximately 30 feet bgs. The excavation extended from near the east side of the present store and warehouse building to C Street Southeast. The groundwater treatment reinfiltration trench and piping installed at the Site in December 1994 were encountered and removed from the northern area of the excavation. The excavation was terminated due to structural concerns due to the proximity of the deep excavation to the CHS warehouse/store building and C Street Southeast. A total of 8,163 tons of petroleum-contaminated soil was removed from the excavation and disposed of at the TPS Technologies, Inc. thermal treatment facility in Tacoma, Washington.

The analytical results for soil samples collected from the base and sidewalls at the final limits of the 1998 cleanup action excavation reported the presence of GRO at concentrations up to 1,710 mg/kg and DRO at concentrations up to 9,710 mg/kg. Subsequent soil sampling in this area conducted in 2007 revealed lower concentrations of DRO as discussed in Sections 3.1.4 and 4.1. Concentrations of TPH as lube oil-range organics were detected in only 1 of the 11 excavation



soil samples collected in 1998 and at a concentration below the MTCA Method A cleanup level in effect at the time. Five of the 11 excavation soil samples were also analyzed for BTEX constituents; MTBE; polycyclic aromatic hydrocarbons (PAHs), including naphthalenes; and lead. The confirmation soil sample results for TPH, BTEX constituents, and MTBE are presented in Table 2, the lead results are presented in Table 10, and the results for the PAH analyses are presented in Table 11. The GRO and DRO analytical results are shown on Figure 6.

Concentrations of MTBE, lead, benzene, or toluene were not detected above the laboratory reporting limits in any of the soil samples analyzed. However, the laboratory reporting limits for benzene and MTBE in the soil samples exceed the current MTCA Method A cleanup levels for unrestricted land use for these compounds. The highest concentrations of ethylbenzene and xylenes were detected in a soil sample collected from the base of the excavation at 29 feet bgs, a depth that typically would be below the water table at the Site based on a review of historical groundwater elevations. None of the PAH constituents analyzed for were detected at concentrations exceeding current MTCA Method B cleanup levels for soil based on the ingestion pathway.

3.3.4 Chemical Oxidation Pilot Study

In July and August 2005, Farallon conducted an in-situ chemical oxidation pilot study to assess the impact that injection of chemical oxidants would have on petroleum hydrocarbon concentrations in groundwater at the Site. Sodium persulfate catalyzed with a chelated iron activator was used as the chemical oxidant. The pilot test did not demonstrate a significant reduction in petroleum hydrocarbon concentrations in groundwater samples collected from target wells monitored for the test (Farallon 2008b). The high groundwater velocity at the Site and relatively thin petroleum hydrocarbon smear zone likely prevented the required chemical reactions from reaching equilibrium conditions and thus limited the effectiveness of the chemical oxidant injection in reducing petroleum hydrocarbon concentrations.

3.3.5 Dissolved-Oxygen Enhancement Study

In May 2006, Farallon (2007) began a dissolved-oxygen enhancement program to focus air sparging on locations with DRO-impacted groundwater in close proximity to AS points. Dissolved-oxygen concentrations measured at the Site have been observed to be very low inside the DRO plume area (less than 0.5 mg/l), even with the AS system running, and relatively high (greater than 4 mg/l) outside the plume area. The first phase of the 2006 dissolved-oxygen enhancement testing entailed continuous operation of the AS component of the Central System from June 1 to July 18, 2006 and monitoring dissolved oxygen content in nearby SVE and monitoring wells. Sparge air flow rates were measured at approximately 1.0 standard cubic feet per minute (scfm) in the Central System AS wells. The second phase of the 2006 dissolved-oxygen enhancement testing consisted of isolating select AS wells in the Central System for injection of air at higher flow rates, typically 5 scfm. The results of the dissolved-oxygen enhancement testing indicated that increasing the operational mode of the Central AS System from pulsed to continuous operation with sparge air flows of approximately 1 scfm did not have an appreciable effect on dissolved-oxygen concentrations in groundwater in nearby wells. The testing also showed that increasing sparge air flows approximately five-fold in select wells had a very limited area of influence on dissolved-oxygen concentrations in groundwater.



A second dissolved-oxygen enhancement testing effort was initiated following the installation of two new air compressors in August 2009 by focusing air flow in several AS wells and monitoring dissolved oxygen levels in down-gradient receptor wells on a weekly to bi-weekly frequency. The results of the first phase of the 2009 testing were described in the October 2009 Groundwater Monitoring Report (Farallon 2010a). The purpose of the testing was to assess whether the higher air flows that could be generated by the new compressors to selected sparging wells would result in increased dissolved oxygen concentrations in nearby down-gradient or cross-gradient wells. The AS wells selected as sparging wells for the initial phase of testing were CAS-4, CAS-5, CAS-7, and CAS-8. The receptor wells monitored for dissolved oxygen content were CSVE-4, CMW-10, CMW-11, CAS-11, and CAS-13.

The results of the first phase of dissolved-oxygen enhancement testing that was conducted following installation of the new air compressors in 2009 indicate that increasing sparge air flows by approximately three- to four-fold in select wells produced a limited area of influence on dissolved-oxygen concentrations in groundwater for receptor wells screened across the water table in the upper portion of the aquifer where the highest concentrations of COCs typically occur.

A second phase of the dissolved-oxygen enhancement testing was initiated on November 11, 2009 by maximizing air flows in AS wells CAS-2, CAS-3, and CAS-4 on the down-gradient perimeter of the Thai restaurant property north of the CHS Auburn facility (Figure 2). Air flows were set at 4.3 cubic feet per minute (cfm) in AS wells CAS-2, CAS-3, and CAS-4. A maximum air flow rate of only 1 cfm could be established in AS well CAS-1. In June 2010, air flow was also established in AS wells CAS-12 and CAS-13 to assess the effect on dissolved oxygen concentrations in monitoring well CMW-10 which is down-gradient of these two AS wells. Air flows of 2.0 to 2.2 cfm were established in the AS wells which is the maximum flow rate that could be obtained using the current air compressor configuration. The receptor wells monitored for dissolved oxygen content during the second phase of the 2009-2010 dissolved-oxygen enhancement testing included monitoring wells CMW-10, CMW-12, CMW-13, and CMW-27. Monitoring wells CMW-2 and CMW-28 were later added as receptor wells for the test after elevated dissolved oxygen measurements were observed during the January 2010 Site-wide groundwater sampling event (Farallon 2010a). The Site monitoring wells that are sampled during the quarterly groundwater monitoring events are also monitored for dissolved oxygen content using an in-well probe prior to initiation of sample collection. The AS wells CAS-1 through CAS-4, CAS-12, and CAS-13 continue to be used for sparging groundwater at the Site at the present time (May 2011).

Dissolved oxygen levels in monitoring well CMW-2 have been significantly elevated as a result of focusing air flows into the down-gradient perimeter AS wells, most likely from CAS-2 which is located about 25 feet in the cross-gradient direction of groundwater flow. Elevated dissolved oxygen concentrations were measured during the January 2011 monitoring event in monitoring well CMW-13 which is northeast of Auburn Way South, 90 to 100 feet from the nearest operating AS well, and monitoring well CMW-27 which is about 90 feet down-gradient of CAS-2, the nearest AS well. The increased dissolved oxygen measured in monitoring wells CMW-13 and CMW-27 may be the result of the combined effects of the operating AS system and the high water levels measured at the Site during the January 2011 monitoring event which may be



transporting a higher than normal volume of oxygenated groundwater from the area up-gradient of the Site. However, during the April 2011 monitoring event the dissolved oxygen levels returned to the depleted concentrations typically observed at monitoring well CMW-27, while remaining elevated at near background levels in monitoring well CMW-13.

Monitoring well CMW-28 also showed a significant increase in dissolved oxygen levels at the higher air flows (4 cfm) when only four AS wells were on-line but appeared to return to the depleted pre-test oxygen levels at the lower air flow rate (2.2 cfm). Dissolved oxygen levels have fluctuated between high (9.91 mg/l) and low (below instrument detection limits) values in subsequent monitoring events. Monitoring well CMW-28 is not directly down-gradient of any of the AS test wells but is up-gradient of CAS-4 and cross-gradient of CAS-13. Re-establishing air flow in AS wells CAS-12 and CAS-13 did not appear to have an effect on dissolved oxygen levels in monitoring well CMW-10 other than slightly elevated levels (1.16 to 1.32 mg/l) in October 2009 and October 2010.

The dissolved oxygen measurements obtained over the last year of the enhancement testing demonstrate that increasing airflows in AS wells does raise dissolved oxygen content in groundwater in localized areas near the AS wells, particularly at air flow rates greater than 4 cfm, which were established in several AS wells in the first phase of testing. However, some of the increases appear to be temporal and perhaps seasonal in nature and do not appear to be sustained throughout the year. For instance, dissolved oxygen measurements of around 5 mg/l were obtained from monitoring well CMW-27 in January 2010 and January 2011 and measurements of around 1.5 mg/l were recorded in October 2009. However, dissolved oxygen levels at this location have been below 1 mg/l in all other monitoring events over the last 3 years. The results suggest that the current configuration and operation of the AS system is not capable of delivering sufficient dissolved oxygen on a continuous basis to promote aerobic degradation of petroleum hydrocarbons in groundwater over a wide area. This is likely the result of the relatively large mass of petroleum hydrocarbons within the extensive smear zone at about 25 to 30 feet bgs, the rapid depletion of oxygen delivered by the AS wells by petroleum hydrocarbon degrading bacteria, and the location of the AS wells up-gradient rather than within the current contaminant plumes in groundwater.

3.3.6 Natural Attenuation Study

Groundwater samples from selected monitoring wells were analyzed or tested for natural attenuation parameters as part of the Supplemental RI groundwater monitoring activities conducted from June 2008 to March 2009 at the Site. The parameters were selected in accordance with the Ecology (2005) *Guidance on Remediation of Petroleum-Contaminated Ground Water by Natural Attenuation* and included sulfate and nitrate by laboratory analytical methods, soluble manganese and ferrous iron using field test kits, and field measurements for pH, temperature, specific conductivity, dissolved oxygen, and oxidation/reduction potential (ORP). The results of the natural attenuation parameter monitoring are presented in the corresponding quarterly groundwater monitoring reports (Farallon 2008d, 2008e, 2009a, 2009b) and are summarized in Table 14.



With the exception of the June 2008 monitoring event, the Central/Perimeter air sparging groundwater treatment system was operating during the monitoring events as required by the Agreed Order. The treatment system was not operating for approximately 2 months prior to the June 2008 monitoring event due to mechanical problems with the air compressor for the system.

Comparison of the spatial distribution of the concentrations of geochemical indicators of biodegradation that were analyzed or measured during the 2008 and 2009 groundwater monitoring events relative to the concentrations of petroleum hydrocarbons detected in groundwater provide evidence that anaerobic degradation processes are actively occurring at the Site, even with the air sparging system operating. The observed trends supporting anaerobic degradation of contaminants in groundwater at the Site include:

- Depleted dissolved oxygen within the dissolved-phase petroleum hydrocarbon groundwater plume relative to up-gradient and cross-gradient areas;
- Elevated concentrations of the metabolic by-products soluble manganese and ferrous iron;
- Depleted concentrations of the electron acceptors sulfate and nitrate;
- Low to negative ORP values within the petroleum hydrocarbon groundwater plume area relative to the up-gradient and cross-gradient areas; and
- Generation of the metabolic by-product methane in groundwater within the petroleum hydrocarbon plume.

The dissolved oxygen, soluble manganese, and ferrous iron measurements in groundwater during the October 2008 monitoring event are presented on Figures 15 through 17. The analytical results for sulfate and nitrate for the October 2008 groundwater monitoring event are presented on Figures 18 and 19, respectively. Similar trends in the distribution and concentrations of these natural attenuation parameters were observed in all four monitoring events conducted between June 2008 and March 2009 with little to no seasonal variation noted (Farallon 2008d, 2008e, 2009a, 2009b).



4.0 SUMMARY OF CURRENT CONDITIONS

The following section summarizes the findings derived from the RI activities at the Site and the conclusions pertaining to soil and groundwater quality.

4.1 SOIL

The highest concentration of TPH detected in soil during the 2007 and 2008 investigations at the Site is in the DRO range (Farallon 2008c). The highest DRO concentration of 2,770 mg/kg was identified in a soil sample collected at 30 feet bgs from boring FB-1, northeast of Auburn Way South in the City of Auburn right-of-way (Figure 10). The highest concentration of GRO detected in soil samples collected during the RI and Supplemental RI sampling events was 2,140 mg/kg from a sample collected from a depth of 22 feet bgs from boring FB-13 at the CHS Auburn facility, west of the former AST area (Figure 10). During the RI and Supplemental RI sampling events, GRO was detected in soil samples above the MTCA Method A cleanup level more frequently than DRO (Table 8). The DRO, GRO, and benzene in soil at the Site are commingled.

There does not appear to be a significant current source of petroleum hydrocarbons in vadose zone soil above the range of water table elevation fluctuations at the Site. The only area of documented petroleum hydrocarbon contamination in near-surface soil at the Site was located in the vicinity of the former ASTs and was excavated in 1998. Following the removal of soil from the former AST area, the only remaining areas of the Site where GRO, DRO, and BTEX analytical results for soil samples collected from the vadose zone (i.e. above approximately 20 feet bgs) exceeded MTCA Method A cleanup levels are located along the western and eastern perimeters of the 1998 excavation, and near former heating oil tank H-1 near the northeastern corner of the CHS Auburn facility (Figure 6). The estimated extent of soil on the CHS Auburn facility property located above 15 feet bgs with COCs at concentrations exceeding MTCA Method A screening levels is shown on Figure 20. The upper end volume estimate of soil above 15 feet bgs with concentrations of COCs exceeding MTCA Method A screening levels on the CHS Auburn facility is approximately 1,500 cubic yards. This upper end estimate assumes that all of the soil from the ground surface to 15 feet bgs exceeds MTCA Method A screening levels in the areas demarcated on Figure 20. However, the actual volume of soil above 15 feet bgs exceeding MTCA Method A screening levels is likely much less than this as transport of petroleum hydrocarbons from the former bulk fuel storage area to the adjacent soils on the periphery of the fuel storage area likely occurred by lateral movement in the subsurface so that near surface soils are not likely impacted. Further, recent soil sampling in the area indicates that residual concentrations of petroleum hydrocarbons in these areas have diminished since the soil data were collected during the excavation activities in 1998. The Supplemental RI sampling conducted in 2008 included the installation and sampling of soil boring FB-21 in the backfill of the 1998 AST excavation area (Figure 10). The concentrations of TPH detected in soil samples collected below the fill material in boring FB-21 were relatively low compared to the 1998 soil data collected from the final limits of the excavation. These results indicate that residual concentrations of TPH near the limits of the 1998 excavation have attenuated substantially in the 10 years since the interim cleanup action. The most recent groundwater results indicate that residual concentrations



of TPH and BTEX in soil at the CHS Auburn facility are not leaching to groundwater in monitoring wells on the facility (i.e., CMW-29, CMW-30, and HMW-13) at concentrations at or above the laboratory reporting limits (Table 5) and so are not acting as an ongoing source for groundwater contamination.

4.2 GROUNDWATER

The area of the Site where dissolved-phase GRO and BTEX constituents have been detected in groundwater samples has been significantly reduced as a result of remediation activities and likely in part due to natural attenuation processes and implementation of the low flow groundwater sampling protocols to provide more representative analytical results. The historic (March 1995) and recent (March 2009) dissolved-phase GRO plumes, where concentrations in groundwater samples have exceeded the current MTCA Method A groundwater cleanup level of 0.8 mg/l, are presented on Figure 7. In 1995, the area of the Site where GRO was detected in groundwater samples at concentrations above 0.8 mg/l extended from the vicinity of former monitoring well CMW-1 on the CHS Auburn facility, to approximately the location of the current Firehouse Square strip mall building. The March 2009 groundwater sampling data showed that the analytical results from only monitoring wells CMW-10, CMW-12, and CMW-27 exceeded 0.8 mg/l for GRO. The most recent groundwater data indicate that the area of the Site where concentrations of GRO in groundwater exceed MTCA Method A cleanup levels likely extends beneath Auburn Way South. The highest concentration of GRO detected in groundwater samples collected in the last 5 years of monitoring through April 2011 was 8.4 mg/l in a sample collected from monitoring well MW-10 in October 2009.

The extent of detectable benzene concentrations in groundwater samples collected from the Site in the mid-1990s was considerably larger than the GRO plume at that time. The March 1995 results for GRO and benzene in groundwater are depicted on Figures 7 and 8, respectively. The March 1995 dissolved benzene plume in groundwater extended from monitoring well CMW-1 on the CHS Auburn facility to the north to at least State Route 18. The highest concentrations of benzene detected in the March 1995 monitoring event were from groundwater samples collected from monitoring wells located in the area extending from the CHS Auburn facility to the central portion of the Firehouse Square property and the western portion of the current McDonalds restaurant property (Figure 8). The groundwater sampling data collected over the last several years show greatly reduced concentrations of benzene in groundwater at the Site. The March 2009 groundwater sampling data showed that the analytical results from only monitoring wells CMW-12, CMW-27, and HMW-11 exceeded the MTCA Method A cleanup level of 5 µg/l for benzene. The benzene concentrations in groundwater samples collected from this area in March 2009 are two to three orders of magnitude lower than the concentrations detected in March 1995. Benzene concentrations detected in groundwater in March 1995 and March 2009 are presented on Figure 8. The highest concentration of benzene detected in groundwater samples collected in the last 3 years of monitoring events through April 2011 was 49 µg/l in a sample from monitoring well MW-27 collected in March 2009. However, benzene was not detected at or above the laboratory reporting limits in groundwater samples collected from monitoring well MW-27 during the January and April 2011 monitoring events.



Operation of the Central and Perimeter Systems has been effective in treating GRO and BTEX constituents in soil and groundwater at the Site. The cumulative product-equivalent gallons extracted and treated by the SVE components of the three treatment systems summarized in Table 12 demonstrate that the bulk of contaminants treated at the Site were from the Perimeter System and that most of the petroleum hydrocarbons were extracted in the first year of system operation, with diminishing returns recognized thereafter. The SVE component of the Down-Gradient System removed less than 6 product-equivalent gallons of petroleum hydrocarbons during its operation, compared to over 10,000 product-equivalent gallons for the SVE components of the combined Perimeter and Central Systems (Summit 1999b).

The overall lateral extent of the dissolved-phase DRO plume, where DRO concentrations in groundwater samples have exceeded the current MTCA Method A cleanup level, has also diminished in size since the mid-1990s. The diminished DRO levels are likely a result of remediation activities and in part due to natural attenuation processes and implementation of the low flow groundwater sampling protocols to provide more representative analytical results. The March 1997 and June 2008 DRO concentrations in groundwater samples collected at the Site are shown on Figure 9. Groundwater samples collected from only four monitoring wells sampled since 2008; CMW-10, CMW-27, CMW-28, and HMW-11, have contained concentrations of DRO above the 0.5 mg/l MTCA Method A cleanup level. The analytical results from monitoring well HMW-11, which is the only monitoring well of these four located northeast of Auburn Way South, only exceeded the 0.5 mg/l cleanup level sporadically over the last several years of monitoring through April 2011. Monitoring wells CMW-10, CMW-27, and CMW-28 are all located along the southeast side of Auburn Way South. DRO concentrations detected in groundwater samples collected over the last several years of monitoring have generally been below 5 mg/l. DRO has not been detected in groundwater samples collected from monitoring well MW-28 at concentrations above laboratory reporting limits since October 2009.

There does not appear to be a strong Site-wide correlation between COC concentrations in groundwater and groundwater elevations, in spite of the relatively large seasonal variation in groundwater levels. Graphs of GRO, DRO, and benzene versus groundwater elevations for select monitoring wells for the period from about late 2002 to April 2011 are provided in Appendix A. Some monitoring wells show correlations between groundwater elevations and COC concentrations for discrete periods of time but the correlations are not consistent when evaluated over longer time frames. For instance, the DRO concentrations detected in groundwater samples collected from monitoring wells CMW-13 and HMW-10 are higher during sampling events with higher groundwater elevations from 2003 to 2006 but the correlation is not evident in data for either monitoring well after 2006.

A comparison of groundwater quality data collected from monitoring well CMW-10 with data from monitoring well CMW-11 shows that the depth of TPH and BTEX contamination in groundwater is primarily near the top of the water table aquifer and that little vertical mixing is occurring. The two wells are located adjacent to each other, with CMW-10 screened across the water table with a screened interval of 19 to 34 feet bgs, and CMW-11 having a deeper screened interval of 44 to 49 feet bgs. Groundwater samples collected from monitoring well CMW-10 historically have shown some of the highest concentrations of TPH and BTEX, whereas these constituents have only occasionally been detected in groundwater samples collected from



monitoring well CMW-11 at concentrations above the laboratory reporting limits in the last decade of monitoring. The natural attenuation data collected in 2008 and 2009 also indicate that little vertical mixing is occurring in this area. The concentrations of the geochemical parameters measured in groundwater from monitoring well CMW-11 were similar to background values measured in monitoring wells CMW-4, CMW-7, and CMW-24 and were dissimilar to values measured in groundwater monitoring well CMW-10. Monitoring well CMW-10 has shown low to negative ORP values; depleted dissolved oxygen, sulfate, and nitrate concentrations; and elevated soluble manganese and ferrous iron concentrations.

There does not appear to be a direct correlation between DRO concentrations in soil samples collected from the smear zone and DRO concentrations in groundwater samples. The area of the highest concentrations of DRO in groundwater detected in the 2008 and 2009 groundwater monitoring events is located along the southwest side of Auburn Way South between 7th Street Southeast and 8th Street Southeast (Figure 9). However, the analytical results for soil samples collected from the smear zone from borings installed in this area during the 2008 Supplemental RI did not exceed the MTCA Method A cleanup level for DRO in soil (Figure 10).

Conversely, the SPLP leachate data for DRO suggest that the concentrations of DRO in soil at the Site are theoretically capable of leaching to groundwater at levels exceeding the MTCA Method A cleanup level of 500 µg/l and yet groundwater data do not necessarily support these predictions (Farallon 2008c). The analytical results for soil boring FB-9, installed immediately east of the CHS Auburn facility, showed some of the highest DRO levels in soil samples collected during the RI sampling. DRO was detected at concentrations of 2,100 and 2,360 mg/kg in soil samples collected from 25 and 29 feet bgs, respectively. Both of these sampling depths in boring FB-9 were below the water table. The concentration of DRO of 722 µg/l detected in a leachate sample extracted from soil collected at 25 feet bgs from boring FB-9 exceeded the MTCA Method A cleanup level for groundwater. However, the analytical results for groundwater samples collected from monitoring well CMW-26, which was installed in the FB-9 boring with a well screen interval extending from 16 to 36 feet bgs, have not detected DRO above the laboratory reporting limits in any monitoring event since the well was installed in 2007. Depths to water measured in monitoring well CMW-26 have ranged from about 17 to 24 feet bgs since installation. Comparison of the leachate results from the FB-9 soil sample at 25 feet bgs to the DRO groundwater analytical data from monitoring well CMW-26 demonstrate that SPLP extraction method does not accurately simulate actual Site conditions for COCs leaching from soil to groundwater. Thus, leachate testing does not appear to be a useful tool for determining DRO concentrations in Site soil that may be protective of the migration to groundwater pathway.

There is evidence that anaerobic degradation of petroleum hydrocarbons is occurring in the upper portions of the water table aquifer in the area of the Site with the highest concentrations of COCs in groundwater. The anaerobic degradation processes are occurring in spite of the operation of the combined Central/Perimeter AS Systems which are oxygenating groundwater in this area. The evidence of anaerobic degradation processes in the area of the dissolved DRO, GRO, and benzene plumes in groundwater include depleted concentrations of the electron acceptors dissolved oxygen, sulfate, and nitrate; increased concentrations of the metabolic by-products ferrous iron and soluble manganese; low ORP values; and the generation of the



metabolic by-product methane. The size of the dissolved contaminant plumes have been diminished considerably since the mid 1990s, but a quantitative assessment of the contribution of natural attenuation processes to the decrease in contaminant concentrations in groundwater is complicated by the operation of the AS systems at the Site.

To assess potential seasonal trends in dissolved oxygen content in groundwater, graphs of dissolved oxygen versus groundwater elevation over the period of the dissolved oxygen enhancement testing from June 2008 to April 2011 were prepared for select wells and are presented in Appendix B. Monitoring well CMW-28 shows a good correlation between dissolved oxygen content in groundwater and groundwater elevations with higher dissolved oxygen measured during periods of higher groundwater elevations. However, results for the other monitoring wells evaluated are less conclusive and most show only short-term or no correlation between dissolved oxygen content and groundwater elevation. Although some anomalous spikes in dissolved oxygen content in groundwater are apparent in the data set such as the January 2010 and January 2011 measurements from monitoring well CMW-27 and the January 2011 measurement from monitoring well CMW-13, there is no apparent Site-wide correlation between dissolved oxygen concentrations and groundwater levels. Evaluation of the dissolved oxygen and groundwater elevation data from monitoring wells in the central area of the Site is complicated by the operation of the AS system.

4.3 TERRESTRIAL ECOLOGICAL EVALUATION

The Site qualifies for an exclusion from a terrestrial ecological evaluation based on an analysis of ecological receptor exposure pathways in accordance with the provisions of WAC 173-340-7491. Soil contamination in excess of MTCA Method A cleanup levels at depths shallower than 15 feet bgs has been documented at the Site only at the CHS Auburn facility. Subsurface impacts in the down-gradient direction of groundwater flow from the CHS Auburn facility are related to groundwater migration, and as such are found at depths greater than 15 feet bgs. The area of soil contamination at depths shallower than 15 feet bgs at the Site is completely paved, and therefore is not considered to be accessible to plants or wildlife. In accordance with WAC 173-340-440, to qualify for this exclusion, an institutional control may be required.



5.0 CONCEPTUAL SITE MODEL

The following section presents the conceptual site model including a discussion of the COCs, affected media, confirmed and suspected sources of COCs, known or potential routes of migration, and known or suspected human or ecological receptors. The conceptual site model has been refined from an earlier version presented in the RI/FS Work Plan (Farallon 2006b) based on data gathered during the RI and Supplemental RI soil and groundwater sampling activities (Farallon 2008c, 2008d, 2008e, 2009a, 2009b).

5.1 CONSTITUENTS OF CONCERN AND AFFECTED MEDIA

The COCs at the Site are DRO, ORO, GRO, and BTEX constituents. The affected media at the Site are soil and groundwater. The DRO, ORO, GRO, and BTEX in groundwater are in the dissolved phase.

Analytes that are required for testing at petroleum release sites, as defined in Table 830-1 of WAC 173-340-900, have been previously analyzed for in various Site media and were not detected at concentrations above applicable MTCA cleanup levels. These analytes include lead, PAHs, EDB, EDC, MTBE, HVOCs, and PCBs.

5.1.1 Soil

The RI and Supplemental RI results indicate that soil with concentrations of COCs above MTCA Method A cleanup levels is generally limited to depths of about 25-30 feet within the smear zone that formed within the range of seasonal groundwater elevation fluctuations at the Site. (Farallon 2008c). Soil samples collected during the RI and Supplemental RI that contained DRO, GRO, or benzene at concentrations above MTCA Method A cleanup levels were from borings installed on the CHS Auburn facility, in C Street Southeast along the eastern perimeter of the CHS Auburn facility, on the Thai Restaurant property, and along the right-of-way southwest and northeast of Auburn Way South (Figure 10). As shown on Figures 12 through 14, the depths where COCs were detected in soil at concentrations above MTCA Method A screening levels is normally below the water table, with the exception of an area on the CHS Auburn facility near the limits of the 1998 excavation at the former bulk fuel storage area and an isolated area near former heating oil UST H-1 (Figure 20). It was not feasible to remove additional petroleum-contaminated soil during the 1998 excavation at the bulk fuel storage area without additional engineering controls due to the depth of the excavation at greater than 25 feet bgs and the proximity of the residual contamination to C Street Southeast, utilities, and the CHS offices and retail store structure. Further, soil samples collected in 2007 indicate that residual petroleum hydrocarbon concentrations near the former bulk fuel facility have diminished since 1998.

5.1.2 Groundwater

Groundwater monitoring results for the sampling events conducted from 2007 through April 2011 indicate that groundwater containing concentrations of COCs above MTCA Method A screening levels exists on the Thai Restaurant and WSIADA properties to the north; and several properties northeast of Auburn Way South, including the McDonalds restaurant, Schucks Auto



Supply, and Firehouse Square mall properties; and likely beneath Auburn Way South. The areas of the Site where DRO, GRO, and benzene have been detected in groundwater at concentrations above MTCA Method A cleanup levels have been similar in size for at least several years and are greatly diminished from their historical extents. The area of dissolved phase COCs in groundwater at concentrations above MTCA Method A screening levels is at least several hundred feet down-gradient of the likely historical source at the former bulk fuel storage area on the CHS Auburn facility.

5.1.3 LNAPL

The last measurable thickness of LNAPL at the Site was recorded in early October 1996 at 0.04 feet in monitoring well CMW-10. Although sheens have since been reported in water purged from monitoring well CMW-10, a measurable accumulation of LNAPL on groundwater at the Site has not been observed for over 12 years. The thickest accumulations of LNAPL at the Site were measured in 1994, at approximately 1 to 1.5 feet thick in monitoring wells CMW-2 and CMW-10 and recovery well CRW-1 on the current Thai Restaurant property, and at monitoring well HMW-11 on the McDonalds restaurant property. Thinner accumulations of LNAPL were measured in 1994 in monitoring wells CMW-1 and HMW-13, which are or were located on or immediately adjacent to the CHS Auburn facility. LNAPL recovery and groundwater extraction activities had effectively removed LNAPL from the water table at these wells by mid-1996.

Forensic laboratory analyses of LNAPL samples conducted in 1994 indicated that the LNAPL was a mixture of gasoline and diesel, but predominantly gasoline. Interpretation of the analytical results at that time suggested that either multiple sources existed or that multiple releases had occurred.

A total of 1,754 gallons of LNAPL reportedly was recovered from the recovery well CRW-1 groundwater extraction system. Although Farallon did not find documentation of LNAPL volumes recovered from other wells during review of available Site documents, the total volume of LNAPL recovered from other wells likely is insignificant compared to that recovered from recovery well CRW-1 due to the passive recovery methods used at the other wells.

5.2 CONFIRMED AND SUSPECTED SOURCES

No single primary source for the release of petroleum hydrocarbons to soil and groundwater has been identified for the Site. Two potential sources were described by Summit (1995a). In January 1984, prior to ownership of the CHS Auburn facility by CHS, a diesel spill occurred resulting from a tank overflow. The location of the tank was not identified in the documents reviewed by Farallon for the RI. Although the spill reportedly was cleaned up, the extent and subsurface impacts of the spill are unknown. On May 25, 1994, a leak from a below-grade pipe was discovered when fuel was observed leaking from a crack in the concrete pad between the bulk AST tanks and the overhead fueling rack. CHS personnel reported that when the pipe was exposed, it appeared to have a "pinhole-sized leak." After the pipe was replaced, approximately 45 cubic yards of soil reportedly was removed from the affected area by CHS personnel. Based on visual observations and the soil type (permeable sand and gravel), the depth of petroleum hydrocarbon impacts in soil appeared to exceed the depth of the excavation (Summit 1995a).



Based on the observation of near-surface contamination during excavation of the bulk fuel storage area in 1998, leaks from underground piping, USTs, the oil-water separator, and possibly ASTs in this area may have acted as primary sources of petroleum hydrocarbon contamination to soil or groundwater at the Site. The dry well located in the bulk fuel storage area also may have acted as a conduit for surface releases to impact subsurface soil and groundwater. Significant impacts to soil were observed in the bulk fuel storage area at depths extending to the water table. However, with the exception of the piping leak at the fueling rack, Farallon did not locate any references to or mention of direct observation of leaking ASTs or piping in the Site documents reviewed for the RI.

The current source of the petroleum hydrocarbon contamination to groundwater at the Site appears to be residual concentrations of TPH and BTEX that exist in the smear zone soil found at depths that correspond to the range of historical groundwater elevation fluctuations. The petroleum hydrocarbon smear zone appears to be about 5 to 10 feet in thickness. No significant concentrations of TPH or BTEX constituents were found in vadose zone soil during the Site-wide RI and Supplemental RI sampling activities in 2007 and 2008. With the exception of one soil sample collected from a depth of 16 feet bgs from boring FB-13 on the CHS Auburn facility, the field screening and analytical evidence of petroleum hydrocarbon impacts to soil observed in the 2007 and 2008 investigations were all from soil samples collected from the smear zone at depths within or below the range of groundwater elevation fluctuations at greater than 20 feet bgs at the Site. The excavation of over 8,000 tons of petroleum-contaminated soil from the former AST area in 1998 was effective in mitigating the primary source of contamination affecting groundwater at the CHS Auburn facility. With the exception of a single exceedance for DRO and ORO from monitoring well HMW-13, groundwater samples collected from monitoring wells installed on and cross-gradient of the CHS Auburn facility during the RI and Supplemental RI did not exceed MTCA Method A groundwater cleanup levels for GRO, DRO, ORO, or BTEX (Farallon 2008c, 2008d, 2008e, 2009a, 2009b). The recent and historical soil and groundwater data suggest that the current source of petroleum hydrocarbons leaching to groundwater is soil in the smear zone in the areas down-gradient of the CHS Auburn facility on the northern and northeastern periphery of the Thai Restaurant property and the adjacent WSIADA property to the north, possibly extending beneath Auburn Way South to the area of monitoring well CMW-12.

5.3 KNOWN OR POTENTIAL ROUTES OF MIGRATION

The known or potential routes for contaminant migration at the Site include leaching from soil to groundwater, and lateral and vertical transport in groundwater.

5.4 KNOWN OR SUSPECTED HUMAN OR ECOLOGICAL RECEPTORS

Shallow groundwater is not used as a drinking water resource and does not discharge to surface water in the vicinity of the Site. The current area of soil containing concentrations of COCs above screening levels is in the smear zone at depths typically greater than 20 feet bgs. As a result, exposure from direct contact with impacted soil is unlikely. Some petroleum hydrocarbon impacts to soil at depths above the smear zone may still exist around the perimeter of the October 1998 excavation at the bulk fuel loading and storage area, where logistical constraints and safety concerns regarding the presence of the retail store structure on the CHS Auburn



facility and the adjacent road limited the extent of contaminated soil removal. These limitations still exist as the road, C Street Southeast, and CHS building are still present. Potential exposure to ecological receptors likely is minimal due to the depth to impacts and the fact that the majority of the Site is paved.



6.0 CONCLUSIONS

The RI and Supplemental RI activities have addressed the data gaps identified for preparation of an FS for the Site with a goal of selecting a MTCA-compliant final remedy. The key conclusions from the RI with respect to selection of a final remedy are presented below.

The primary source of petroleum hydrocarbons impacts to groundwater has been removed to the extent practicable with the excavation of over 8,000 tons of soil from the former bulk fuel storage area of the CHS Auburn facility. Some residual soil contamination above MTCA screening levels was left in place on the CHS facility following completion of the 1998 excavation because of safety concerns regarding the proximity of the deep excavation to C Street Southeast and the CHS retail store building (Figure 20). However, groundwater data collected over the last several years have demonstrated that the residual concentrations of COCs on the CHS Auburn facility are protective of the migration to groundwater pathway. Only one groundwater sample collected from monitoring wells located on the CHS Auburn facility (CMW-29, CMW-30, and HMW-13) has exceeded MTCA Method A screening levels for any Site COCs since 2008. The single exceedance, for DRO and ORO from monitoring well HMW-13, appears to be anomalous when compared to other groundwater analytical results from this monitoring well over the last 4 years.

The only areas of the Site where COCs have been detected in soil at depths less than 15 feet bgs at concentrations above MTCA screening levels, and where the soils have not been subsequently excavated and disposed, are on the east and west perimeter of the 1998 excavation area at the former bulk fuel facility and in a single sample at a former small heating oil tank. Both of these locations are on the CHS facility property. Soil samples collected in 2007 indicate that residual petroleum hydrocarbon concentrations near the former bulk fuel facility have diminished since 1998. The 1998 soil sample result of 2,460 mg/kg for the sample collected from beneath the former small heating oil tank only slightly exceeded the current 2,000 mg/kg Method A cleanup level for unrestricted land use. Site-wide soil sampling conducted in 2007 and 2008 confirmed that remaining soil with COC concentrations above MTCA screening levels in areas of the Site off of the CHS Auburn facility property is located at depths greater than 16 feet bgs within the petroleum hydrocarbon smear zone that has developed near the water table.

The dissolved phase plumes of COCs in groundwater are greatly diminished from their historical extent in the mid 1990s. Similarly, the remaining concentrations of COCs in groundwater are much lower than a decade ago and are within an order of magnitude of the MTCA Method A cleanup levels that have been used as screening values in the development of the RI. The DRO, GRO, and benzene plumes in groundwater are commingled and generally located just to the northeast and southwest of Auburn Way South with a significant proportion of the impacted groundwater likely present beneath this major thoroughfare. There is no longer any LNAPL present at the Site, as the last measureable accumulation of LNAPL in a groundwater monitoring well was recorded in 1996. The reinfiltration of over 23 million gallons of treated groundwater in 1995 and 1996 into the 170-foot-long reinfiltration trench on the CHS Auburn facility likely flushed much of the LNAPL toward the recovery well, CRW-1, that was operating at that time. Over 1,700 gallons of LNAPL were recovered from recovery well CRW-1. The last LNAPL



reportedly removed by the groundwater extraction system was in November 1995 (Summit 1996b). Further operation of the groundwater extraction system was thought to impede down-gradient biodegradation processes due to the capture zone created by the treatment system which limited oxygen distribution from the Central/Perimeter AS Systems.

There is evidence that anaerobic degradation of petroleum hydrocarbons is occurring in the upper portions of the water table aquifer in the area of the Site with the highest concentrations of COCs in groundwater. Although the Central AS System is oxygenating groundwater immediately up-gradient of this area, the introduced oxygen appears to be consumed rapidly as part of the degradation processes. Although anaerobic degradation processes are typically slower than aerobic processes, empirical data at the Site, such as the diminished plume size and declining COC concentrations in groundwater in the presence of strongly anaerobic conditions suggests that natural attenuation processes are occurring.

The Down-Gradient System was decommissioned in 2010 to facilitate City of Auburn street and utility improvements. This system was installed in 1994/1995 as a back stop measure at the distal end of the dissolved phase COC plumes in groundwater yet never recovered any significant petroleum hydrocarbons vapors during operation. When the dissolved phase COC plumes in groundwater at the Site were at their maximum extent in the mid-1990s, the SVE component was only estimated to have removed approximately 5 product equivalent gallons of vapors from the subsurface in the area of the Down-Gradient System. With the exception of one monitoring event in October 2009, none of the COCs for the Site had been detected in groundwater samples collected from monitoring wells immediately up-gradient or down-gradient of the Down-Gradient System for at least several years prior to the decommissioning activities.

Groundwater samples collected from monitoring wells located in the vicinity of and immediately down-gradient of the Perimeter System no longer contain concentrations of COCs above MTCA screening levels and the system is no longer needed for treatment of groundwater. The Central treatment system is located in the furthest up-gradient portion of the Site where COCs have been detected above MTCA screening levels in the last several years. The Central and Perimeter air sparging systems have effectively reduced the size of the dissolved phase COC plumes to a greatly diminished area which appears to be generally down-gradient of the area of influence of the existing sparge wells. The reduced size of the dissolved phased COC plumes in groundwater, particularly the dissolved DRO plume, may also be influenced by the use of improved groundwater sampling methods (i.e. low flow sampling) beginning in 2006. The dissolved phase GRO, DRO, and benzene plumes have been relatively stable for at least several years and the low flow groundwater sampling methods currently used at the Site provide groundwater analytical results that accurately reflect current Site conditions.

The RI has been completed, the remaining data gaps that had been identified for the Site have been addressed, and the data summarized herein will be used to identify, evaluate, and select remedial alternatives in the FS following the MTCA evaluation process. The Site cleanup is essentially in the final polishing step of 17 years of on-going remedial actions. Therefore, the FS will focus on evaluating accepted and demonstrated remedial technologies for treating relatively low concentrations of GRO, DRO, and benzene in groundwater under conditions similar to those



at the Site. On-going groundwater monitoring activities and AS system operation and maintenance will be conducted during the completion of the FS.



7.0 REFERENCES

- Farallon Consulting, L.L.C. (Farallon). 2006a. Telephone Conversation Regarding City of Auburn Groundwater Resources between Paul Grabau, Farallon Principal Hydrogeologist and Chris Thorn, City of Auburn Water Quality Programs Coordinator. July 13.
- . 2006b. *Remedial Investigation and Feasibility Study Work Plan, CHS Auburn Site, Auburn, Washington*. Prepared for CHS Inc. October 26.
- . 2007. *Interim Groundwater Monitoring Report, CHS Auburn Site, Auburn, Washington*. Prepared for CHS Inc. May 21.
- . 2008a. *Supplemental Remedial Investigation Work Plan, CHS Auburn Site, Auburn, Washington*. Prepared for CHS Inc. January 29.
- . 2008b. *Chemical Oxidation Pilot Testing Results, CHS Auburn Site, Auburn, Washington*. Prepared for CHS Inc. April 29.
- . 2008c. *Interim Progress Report, CHS Auburn Site, Auburn, Washington*. Prepared for CHS Inc. September 18.
- . 2008d. *June 2008 Groundwater Monitoring Results, CHS Auburn Site, Auburn, Washington*. Prepared for CHS Inc. September 19.
- . 2008e. *October 2008 Groundwater Monitoring Results, CHS Auburn Site, Auburn, Washington*. Prepared for CHS Inc. November 24.
- . 2009a. *December 2008 Groundwater Monitoring Report, CHS Auburn Site, Auburn, Washington*. Prepared for CHS Inc. February 19.
- . 2009b. *March 2009 Groundwater Monitoring Report, CHS Auburn Site, Auburn, Washington*. Prepared for CHS Inc. May 7.
- . 2010a. *October 2009 Groundwater Monitoring Report, CHS Auburn Site, Auburn, Washington*. Prepared for CHS Inc. February 5.
- . 2010b. Technical Memorandum Regarding Down-Gradient Treatment System Well Decommissioning. From Paul Grabau, Principal Hydrogeologist. To Dr. Jerome Cruz, Washington State Department of Ecology. September 3.
- . 2011. Technical Memorandum Regarding Response to Ecology comments on Draft Remedial Investigation Report. From Paul Grabau, Principal Hydrogeologist. To Dr. Jerome Cruz, Washington State Department of Ecology. February 15.



- GeoEngineers, Inc. (GeoEngineers). 1993. *Report of Soil Gas Survey and Limited Groundwater Sampling - Firehouse Square - Auburn, Washington*. Prepared for Hillman Properties Northwest. December 15.
- . 1994. *Report of Geoenvironmental Services Supplemental Drilling and Groundwater Monitoring - Firehouse Square and Vicinity, Auburn, Washington*. Prepared for Hillman Properties Northwest. June 29.
- Hart Crowser & Associates, Inc. (Hart Crowser). 1982. *Ground Water Study, Auburn, Washington*. Prepared for Pool Engineering, Inc.
- Summit Envirosolutions, Inc. (Summit). 1994. *Facility Description and Site History, Cenex Supply and Marketing, Inc., 238 Eighth Street SE, Auburn, Washington*. Prepared for Cenex Supply and Marketing, Inc., St. Paul, Minnesota. November 6.
- . 1995a. *Summary of Environmental Activities, Investigation, and Remediation, June through December 1994 History, Cenex Supply and Marketing, Inc. Auburn Facility*. Prepared for Cenex Supply and Marketing, Inc., St. Paul, Minnesota. January 31.
- . 1995b. Technical Memorandum Regarding CRW-2 Pumping Test Results. From Gary Andres and Tim Slotta. To Norm Peck, Washington State Department of Ecology. March 15.
- . 1996a. *Site Monitoring Report June/Second Quarter 1996*. Prepared for Cenex Supply and Marketing, Inc., St. Paul, Minnesota. July 15.
- . 1996b. *Monthly Monitoring Report 22 - July 1996*. Prepared for Cenex Supply and Marketing, Inc., St. Paul, Minnesota. August 8.
- . 1997. *Underground Storage Tank Site Assessment*. Prepared for Cenex Supply and Marketing, Inc., St. Paul, Minnesota. December 15.
- . 1999a. *Underground Storage Tank Site Assessment*. Prepared for Cenex Supply and Marketing, Inc., St. Paul, Minnesota. January 18.
- . 1999b. *Quarterly Monitoring Report, June 1999 Second Quarter*. Prepared for Cenex Supply and Marketing, Inc., St. Paul, Minnesota. No Date.
- U.S. Department of Commerce. 2000. *United States Census 2000*. U.S. Department of Commerce. Washington, D.C.
- Washington State Department of Ecology (Ecology). 2005. *Guidance on Remediation of Petroleum-Contaminated Ground Water by Natural Attenuation*. Publication Number 05-09-091. July.
- . 2010. *Review Comments on Remedial Investigation Report CHS Auburn Site (December 17, 2009 Draft) by Farallon Consulting, L.L.C.* October 25.

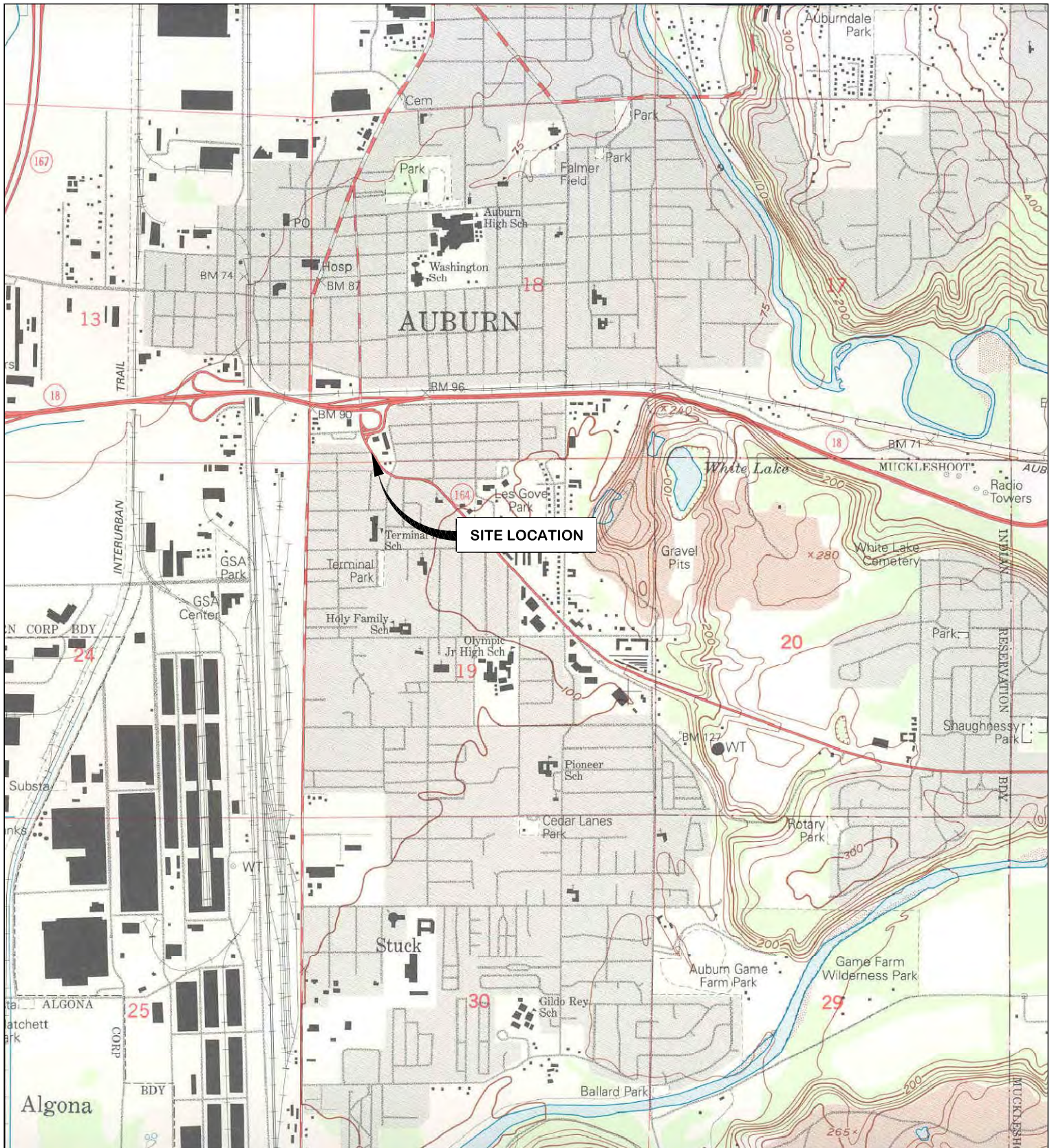


Western Regional Climate Center. *Kent, Washington (454169), Period of Record Monthly Climate Summary, 11/1/1948 to 12/31/2005 Monthly Climate Summary.* 2006. <<http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wa4169>>. (July 19, 2006.)

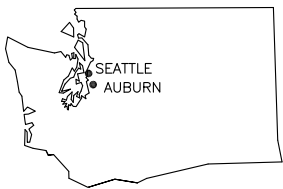
FIGURES

REMEDIAL INVESTIGATION REPORT CHS Auburn Site Auburn, Washington

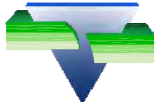
Farallon PN: 301-004



REFERENCE: 7.5 MINUTE USGS QUADRANGLE AUBURN, WASHINGTON. DATED 1949 AND PHOTOREVISED 1994



WASHINGTON



FARALLON CONSULTING
 975 5th Avenue Northwest
 Issaquah, WA 98027

FIGURE 1

SITE VICINITY MAP
 CHS AUBURN SITE
 AUBURN, WASHINGTON

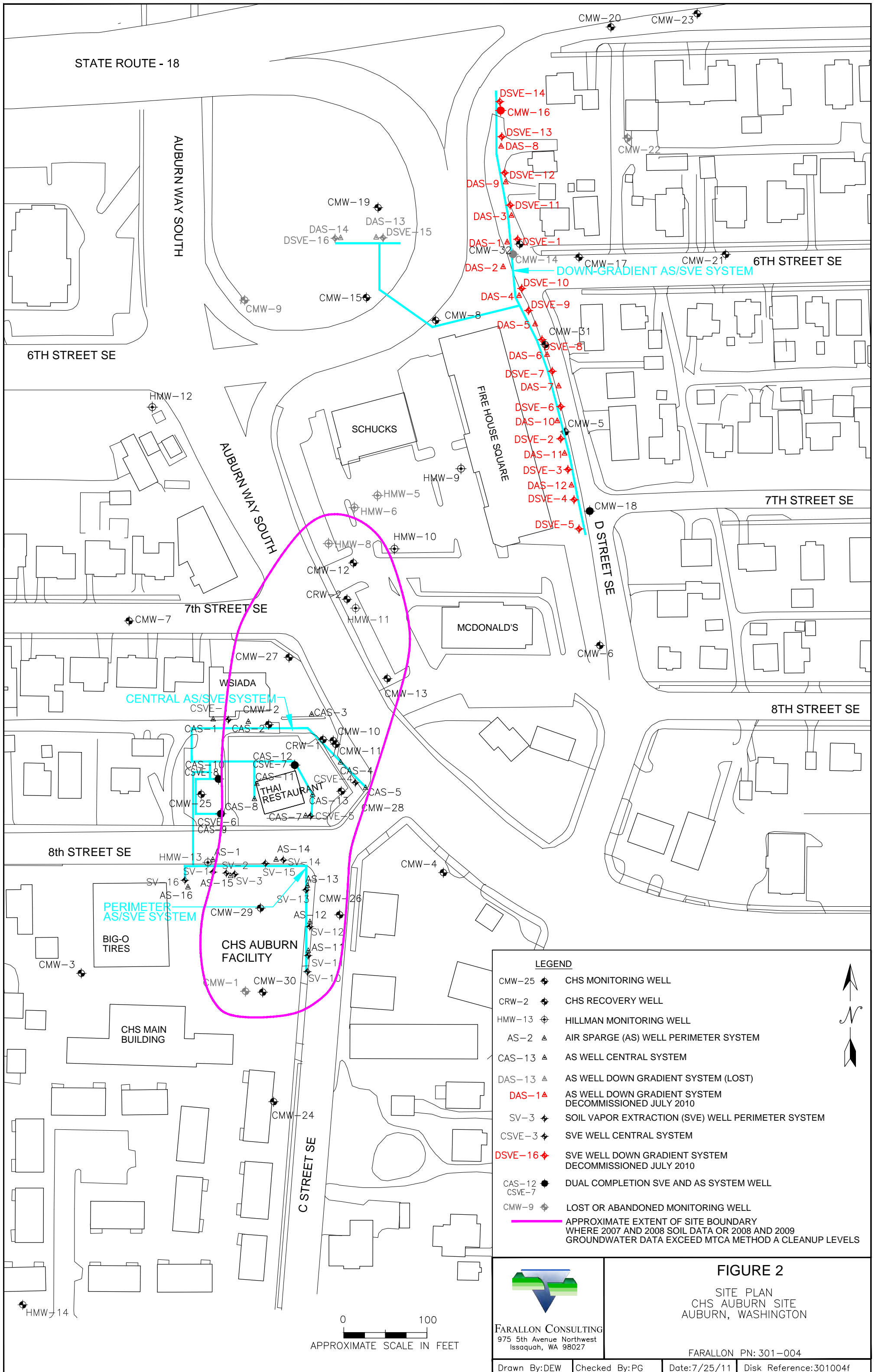
FARALLON PN: 301-004

Drawn By: DEW

Checked By: PG

Date: 7/18/08

Disk Reference: 301004b



STATE ROUTE - 18

AUBURN WAY SOUTH

6TH STREET SE

AUBURN WAY SOUTH

7th STREET SE

8th STREET SE

PERIMETER AS/SVE SYSTEM

CENTRAL AS/SVE SYSTEM

FIREHOUSE SQUARE

D STREET SE

7TH STREET SE

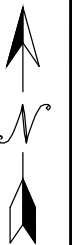
8TH STREET SE

C STREET SE

0 100
APPROXIMATE SCALE IN FEET

LEGEND

- CMW-25 ◉ CHS MONITORING WELL
- CRW-2 ◉ CHS RECOVERY WELL
- HMW-13 ◉ HILLMAN MONITORING WELL
- AS-2 ▲ AIR SPARGE (AS) WELL PERIMETER SYSTEM
- CAS-13 ▲ AS WELL CENTRAL SYSTEM
- DAS-13 ▲ AS WELL DOWN GRADIENT SYSTEM (LOST)
- DAS-1 ▲ AS WELL DOWN GRADIENT SYSTEM DECOMMISSIONED JULY 2010
- SV-3 ◈ SOIL VAPOR EXTRACTION (SVE) WELL PERIMETER SYSTEM
- CSVE-3 ◈ SVE WELL CENTRAL SYSTEM
- DSVE-16 ◈ SVE WELL DOWN GRADIENT SYSTEM DECOMMISSIONED JULY 2010
- CAS-12 ● CSVE-7 ● DUAL COMPLETION SVE AND AS SYSTEM WELL
- CMW-9 ◉ LOST OR ABANDONED MONITORING WELL
- APPROXIMATE EXTENT OF SITE BOUNDARY WHERE 2007 AND 2008 SOIL DATA OR 2008 AND 2009 GROUNDWATER DATA EXCEED MTCA METHOD A CLEANUP LEVELS



FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

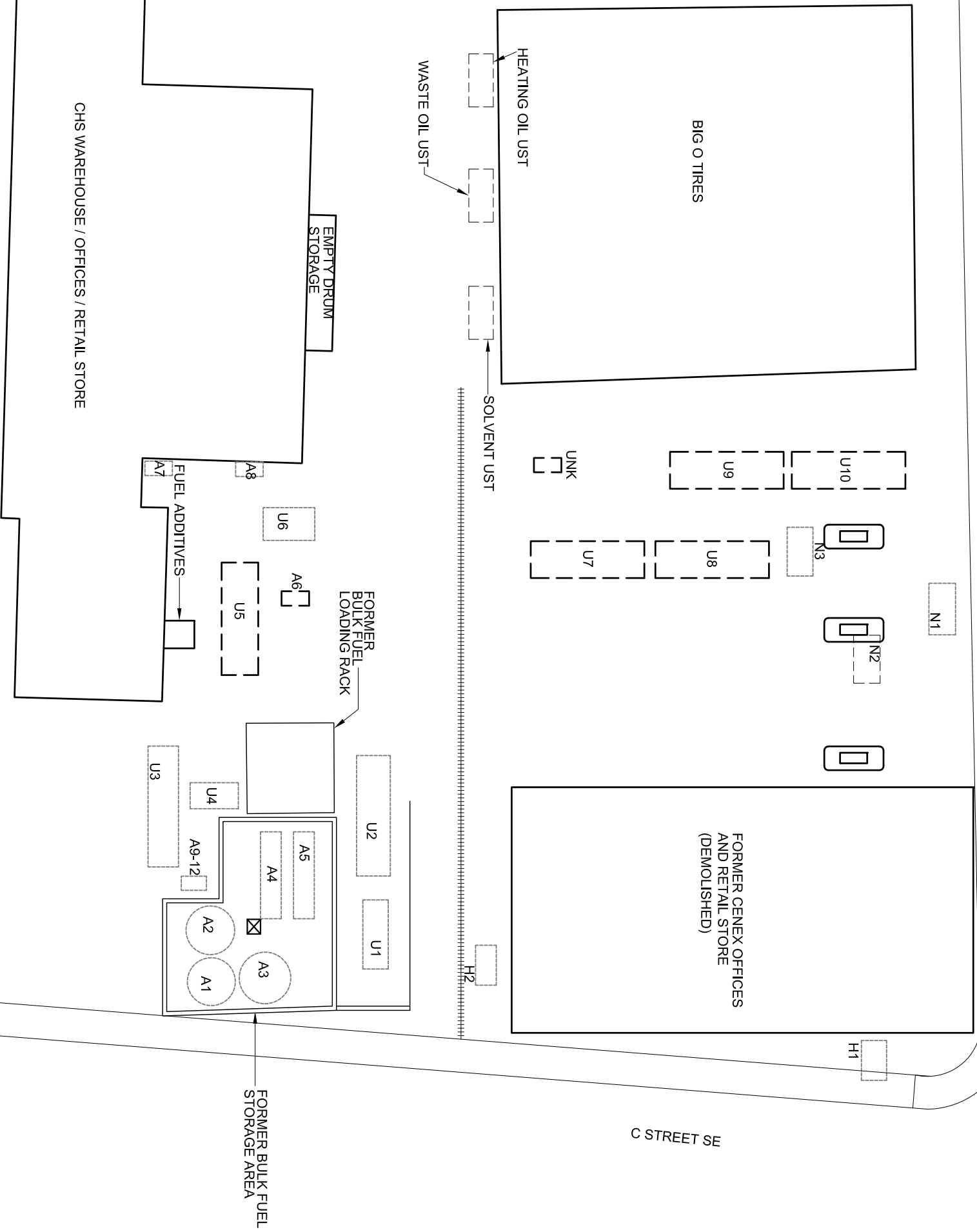
FIGURE 2

SITE PLAN
CHS AUBURN SITE
AUBURN, WASHINGTON

FARALLON PN: 301-004

Drawn By:DEW Checked By:PG Date:7/25/11 Disk Reference:301004f

8th STREET SE



LEGEND

- ***** REINFILTRATION TRENCH
- EXISTING UNDERGROUND STORAGE TANK (UST)
- - - REMOVED STORAGE TANK
- UST ABANDONED IN-PLACE
- ⊗ SUMP OR DRY WELL
- ☐ PUMP ISLAND

UNDERGROUND STORAGE TANKS (USTS)

- U1 4,500-GALLON STOVE OIL
- U2 10,000-GALLON DIESEL
- U3 12,000-GALLON DIESEL
- U4 3,000-GALLON OIL / WATER SEPARATOR
- U5 12,000-GALLON KEROSENE
- U6 3,000-GALLON KEROSENE
- U7 10,000-GALLON DIESEL (OFF ROAD)
- U8 10,000-GALLON DIESEL (ON ROAD)
- U9 10,000-GALLON PREMIUM UNLEADED
- U10 10,000-GALLON REGULAR GASOLINE
- UNK 300-GALLON UNKNOWN
- H1 240-GALLON HEATING OIL
- H2 300-GALLON HEATING OIL
- N TANKS NOT IN USE AT TIME OF CLOSURE: N1, N2 2,500-GALLON, AND N3 1,000-GALLON

ABOVEGROUND STORAGE TANKS (ASTS)

- A1 25,000-GALLON DIESEL
- A2 25,000-GALLON REGULAR GASOLINE
- A3 14,000-GALLON UNLEADED GASOLINE
- A4 6,000-GALLON PREMIUM UNLEADED
- A5 6,000-GALLON STOVE OIL
- A6 1,150-GALLON PROPANE
- A7 1,000-GALLON SOLVENT
- A8 1,000-GALLON STOVE OIL
- A9-12 >275-GALLON WASTE OIL TANKS

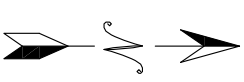
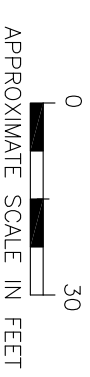



FIGURE 3



FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

UST AND AST LOCATIONS AT
CHS AUBURN FACILITY
CHS AUBURN SITE
AUBURN, WASHINGTON

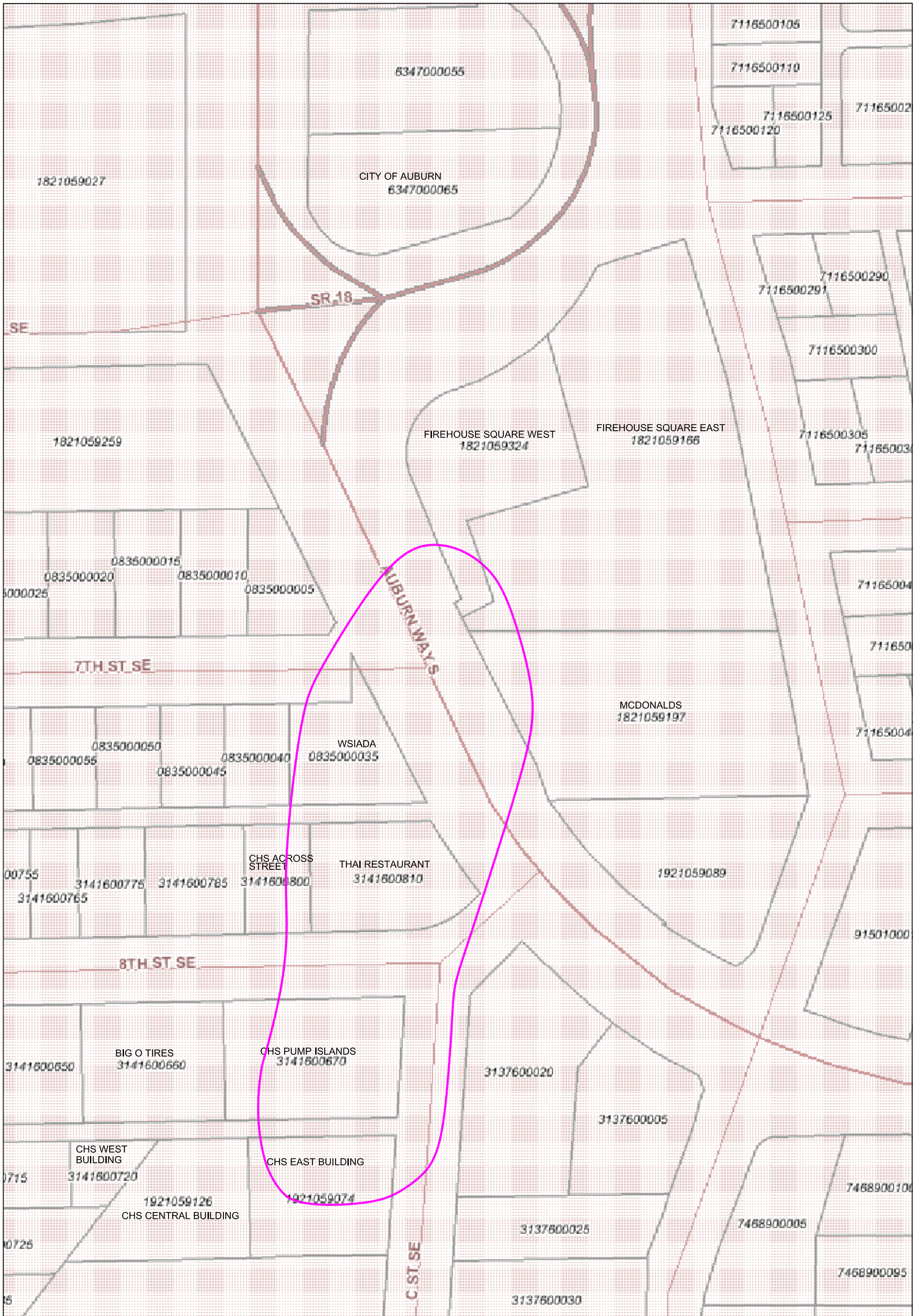
FARALLON PN: 301-004

Drawn By: DEW

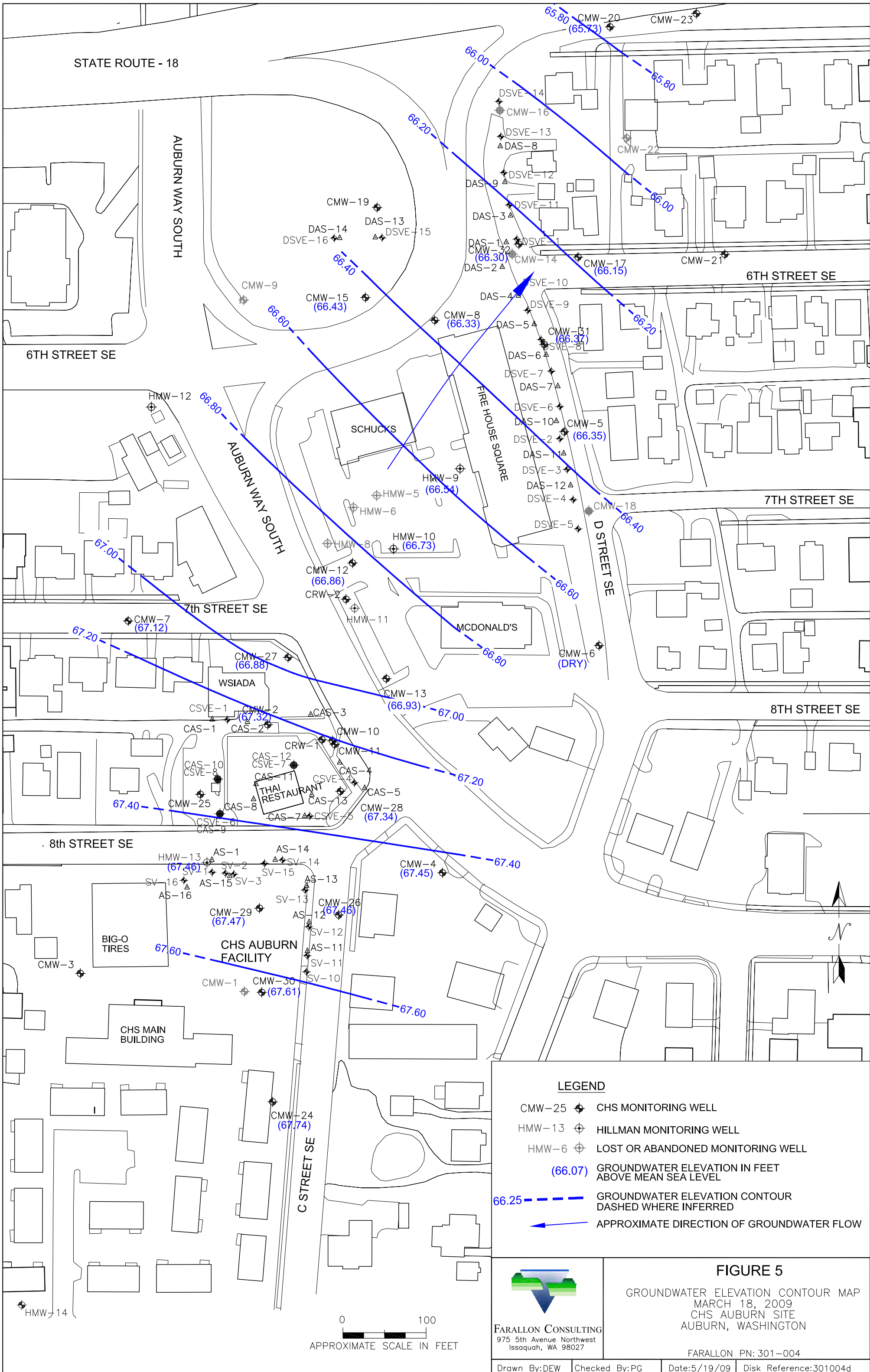
Checked By: PCG

Date: 5/10/09

Disk Reference: 301004b



	<p>0 80 APPROXIMATE SCALE IN FEET</p> <p>LEGEND</p> <p>— APPROXIMATE EXTENT OF SITE BOUNDARY WHERE 2007 AND 2008 SOIL DATA OR 2008 AND 2009 GROUNDWATER DATA EXCEED MTCA METHOD A CLEANUP LEVELS</p>	<p>FARALLON CONSULTING 975 5th Avenue Northwest Issaquah, WA 98027</p>	<p>FIGURE 4</p> <p>PARCEL MAP CHS AUBURN SITE AUBURN, WASHINGTON</p> <p>FARALLON PN: 301-004</p> <table border="1"> <tr> <td>Drawn By: DEW</td> <td>Checked By: PG</td> <td>Date: 5/14/09</td> <td>Disk Reference: 301004b</td> </tr> </table>	Drawn By: DEW	Checked By: PG	Date: 5/14/09	Disk Reference: 301004b
Drawn By: DEW	Checked By: PG	Date: 5/14/09	Disk Reference: 301004b				



LEGEND

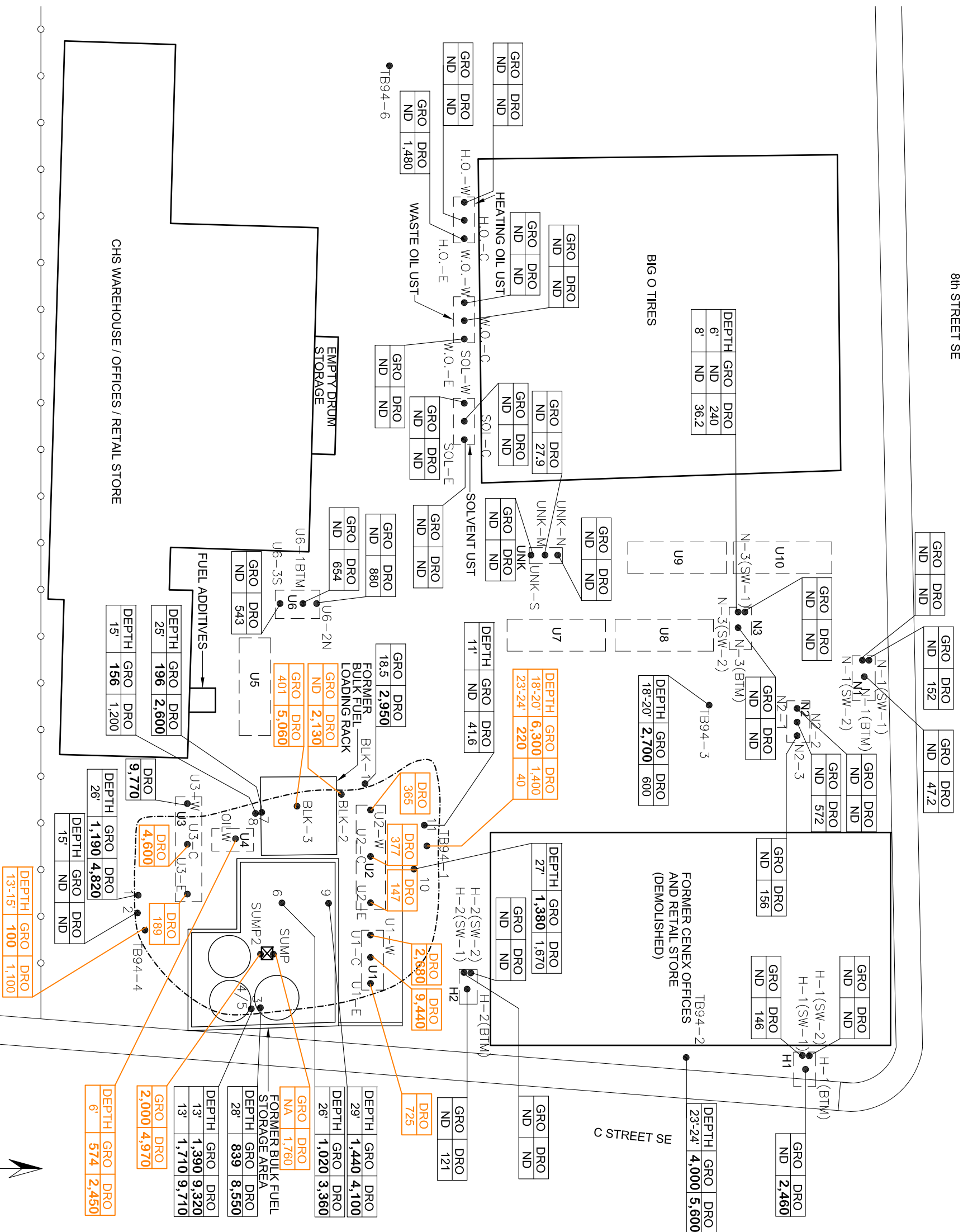
- CMW-25 ◈ CHS MONITORING WELL
- HMW-13 ◈ HILLMAN MONITORING WELL
- HMW-6 ◈ LOST OR ABANDONED MONITORING WELL
- (66.07) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 66.25 - - - GROUNDWATER ELEVATION CONTOUR DASHED WHERE INFERRED
- ← APPROXIMATE DIRECTION OF GROUNDWATER FLOW



FIGURE 5

GROUNDWATER ELEVATION CONTOUR MAP
MARCH 18, 2009
CHS AUBURN SITE
AUBURN, WASHINGTON

FARALLON PN: 301-004



LEGEND

- SOIL SAMPLE LOCATION
- UNDERGROUND STORAGE TANK
- 1998 EXCAVATION AREA
- FENCE

UNDERGROUND STORAGE TANKS

- U1 4,500-GALLON STOVE OIL
- U2 10,000-GALLON DIESEL
- U3 12,000-GALLON DIESEL
- U4 3,000-GALLON OIL / WATER SEPARATOR
- U5 12,000-GALLON KEROSENE
- U6 3,000-GALLON KEROSENE
- U7 10,000-GALLON DIESEL (OFF ROAD)
- U8 10,000-GALLON DIESEL (ON ROAD)
- U9 10,000-GALLON PREMIUM UNLEADED GASOLINE
- U10 10,000-GALLON REGULAR GASOLINE
- H1 240-GALLON HEATING OIL
- H2 300-GALLON HEATING OIL
- N TANKS NOT IN USE AT TIME OF CLOSURE: N1, N2 2,500-GALLON, AND N3 1,000-GALLON

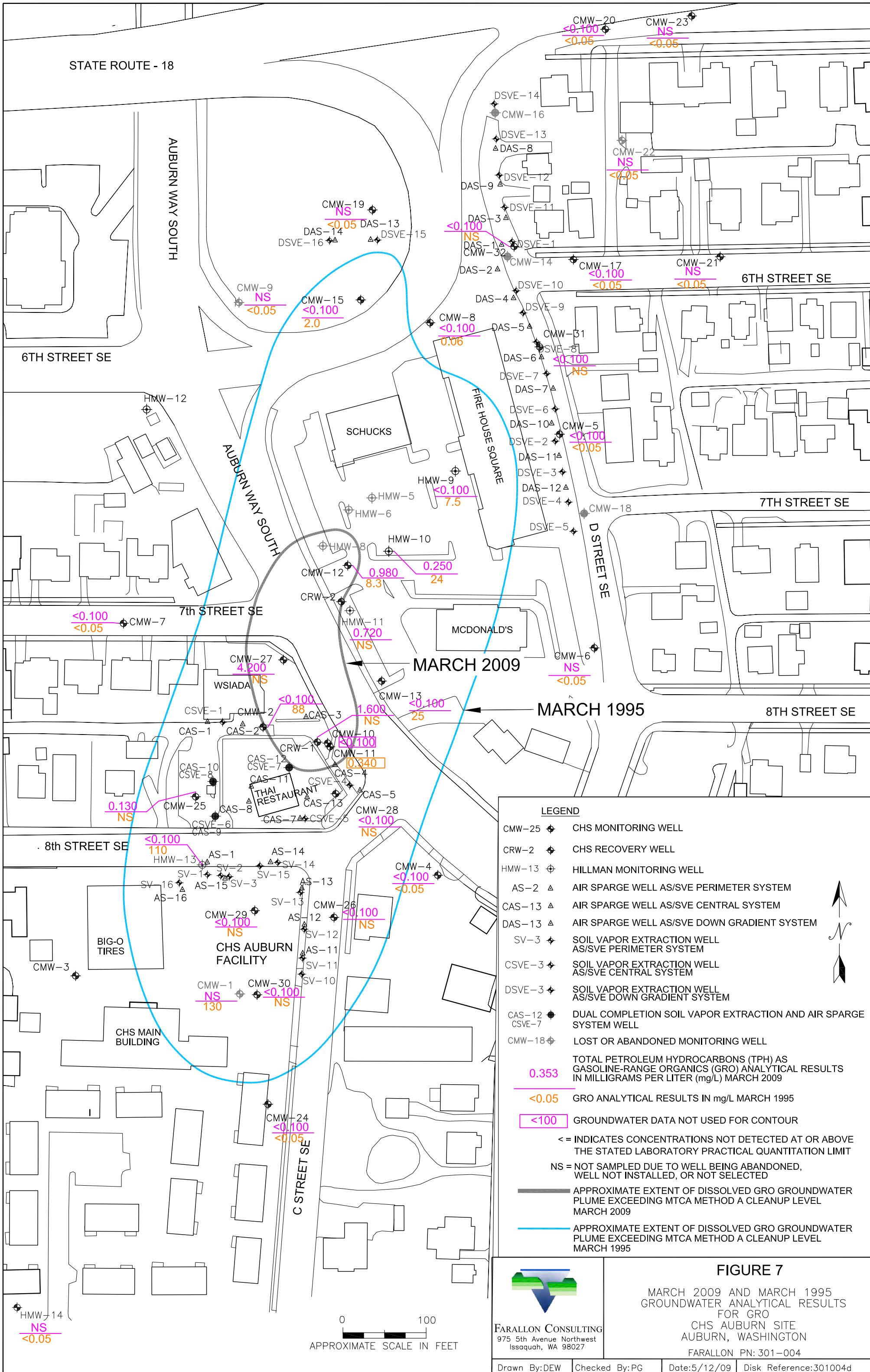
ALL RESULTS IN MILLIGRAMS PER KILOGRAM
DEPTH IN FEET BELOW GROUND SURFACE
GRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS GASOLINE-RANGE ORGANICS
DRO = TPH AS DIESEL-RANGE ORGANICS

BOLD = INDICATES CONCENTRATIONS EXCEED WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATION METHOD A CLEANUP LEVELS
ND = INDICATES CONCENTRATIONS NOT DETECTED AT OR ABOVE THE LABORATORY REPORTING LIMIT
ORANGE INDICATES SAMPLE LOCATION SUBSEQUENTLY EXCAVATED
NOTE: ALL LOCATIONS ARE APPROXIMATE



FIGURE 6

GRO AND DRO ANALYTICAL RESULTS FOR SOIL SAMPLES AT CHS AUBURN FACILITY
CHS AUBURN SITE
AUBURN, WASHINGTON
FARALLON PN: 301-004



LEGEND

- CMW-25 ◆ CHS MONITORING WELL
- CRW-2 ◆ CHS RECOVERY WELL
- HMW-13 ⊕ HILLMAN MONITORING WELL
- AS-2 ▲ AIR SPARGE WELL AS/SVE PERIMETER SYSTEM
- CAS-13 ▲ AIR SPARGE WELL AS/SVE CENTRAL SYSTEM
- DAS-13 ▲ AIR SPARGE WELL AS/SVE DOWN GRADIENT SYSTEM
- SV-3 ◆ SOIL VAPOR EXTRACTION WELL AS/SVE PERIMETER SYSTEM
- CSVE-3 ◆ SOIL VAPOR EXTRACTION WELL AS/SVE CENTRAL SYSTEM
- DSVE-3 ◆ SOIL VAPOR EXTRACTION WELL AS/SVE DOWN GRADIENT SYSTEM
- CAS-12 ◆ CSVE-7 ◆ DUAL COMPLETION SOIL VAPOR EXTRACTION AND AIR SPARGE SYSTEM WELL
- CMW-18 ◆ LOST OR ABANDONED MONITORING WELL

0.353 TOTAL PETROLEUM HYDROCARBONS (TPH) AS GASOLINE-RANGE ORGANICS (GRO) ANALYTICAL RESULTS IN MILLIGRAMS PER LITER (mg/L) MARCH 2009

<0.05 GRO ANALYTICAL RESULTS IN mg/L MARCH 1995

<100 GROUNDWATER DATA NOT USED FOR CONTOUR

<= INDICATES CONCENTRATIONS NOT DETECTED AT OR ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT

NS = NOT SAMPLED DUE TO WELL BEING ABANDONED, WELL NOT INSTALLED, OR NOT SELECTED

— APPROXIMATE EXTENT OF DISSOLVED GRO GROUNDWATER PLUME EXCEEDING MTCA METHOD A CLEANUP LEVEL MARCH 2009

— APPROXIMATE EXTENT OF DISSOLVED GRO GROUNDWATER PLUME EXCEEDING MTCA METHOD A CLEANUP LEVEL MARCH 1995

FIGURE 7
 MARCH 2009 AND MARCH 1995
 GROUNDWATER ANALYTICAL RESULTS
 FOR GRO
 CHS AUBURN SITE
 AUBURN, WASHINGTON
 FARALLON PN: 301-004

FARALLON CONSULTING
 975 5th Avenue Northwest
 Issaquah, WA 98027

Drawn By: DEW Checked By: PG Date: 5/12/09 Disk Reference: 301004d

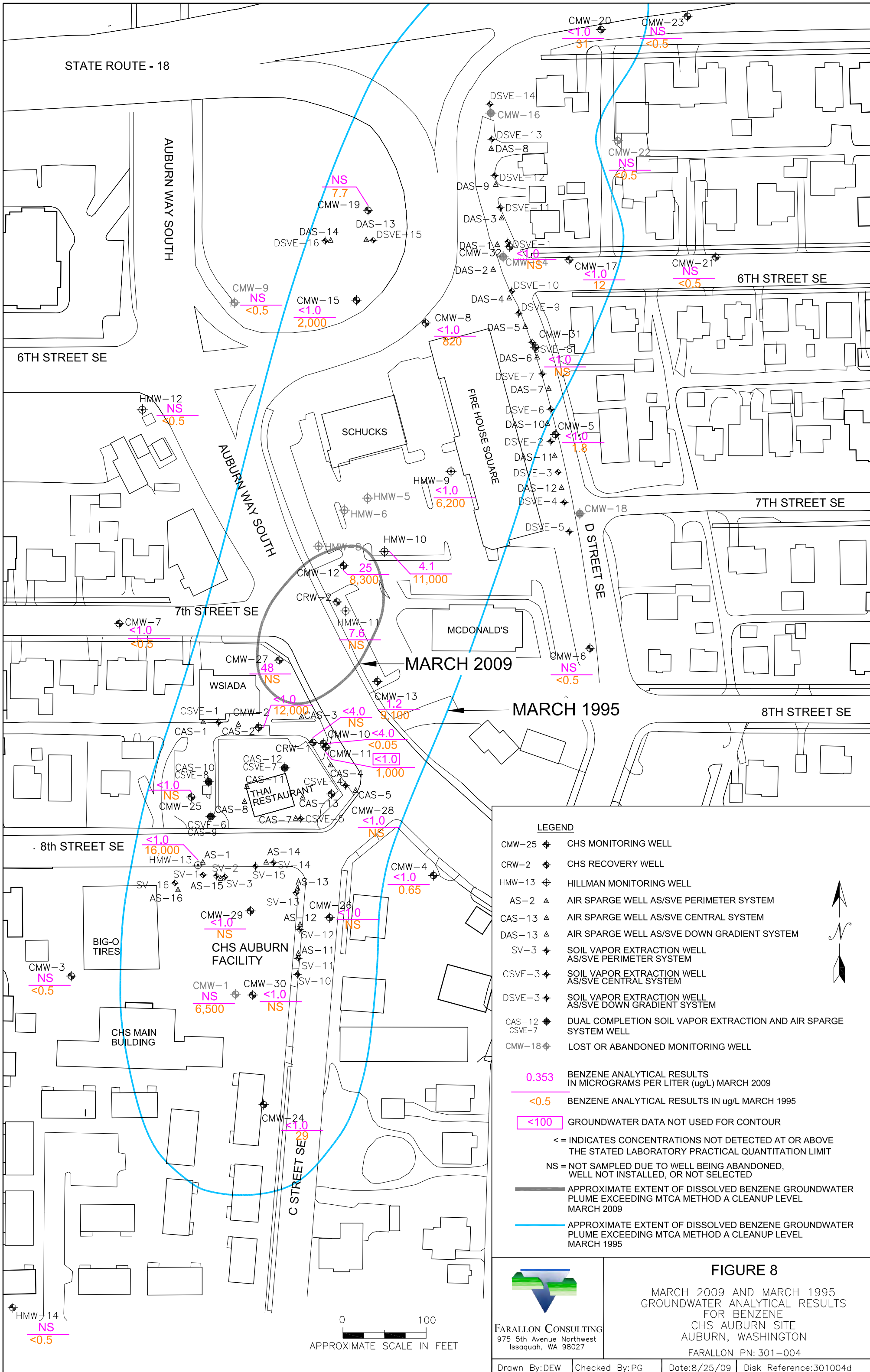


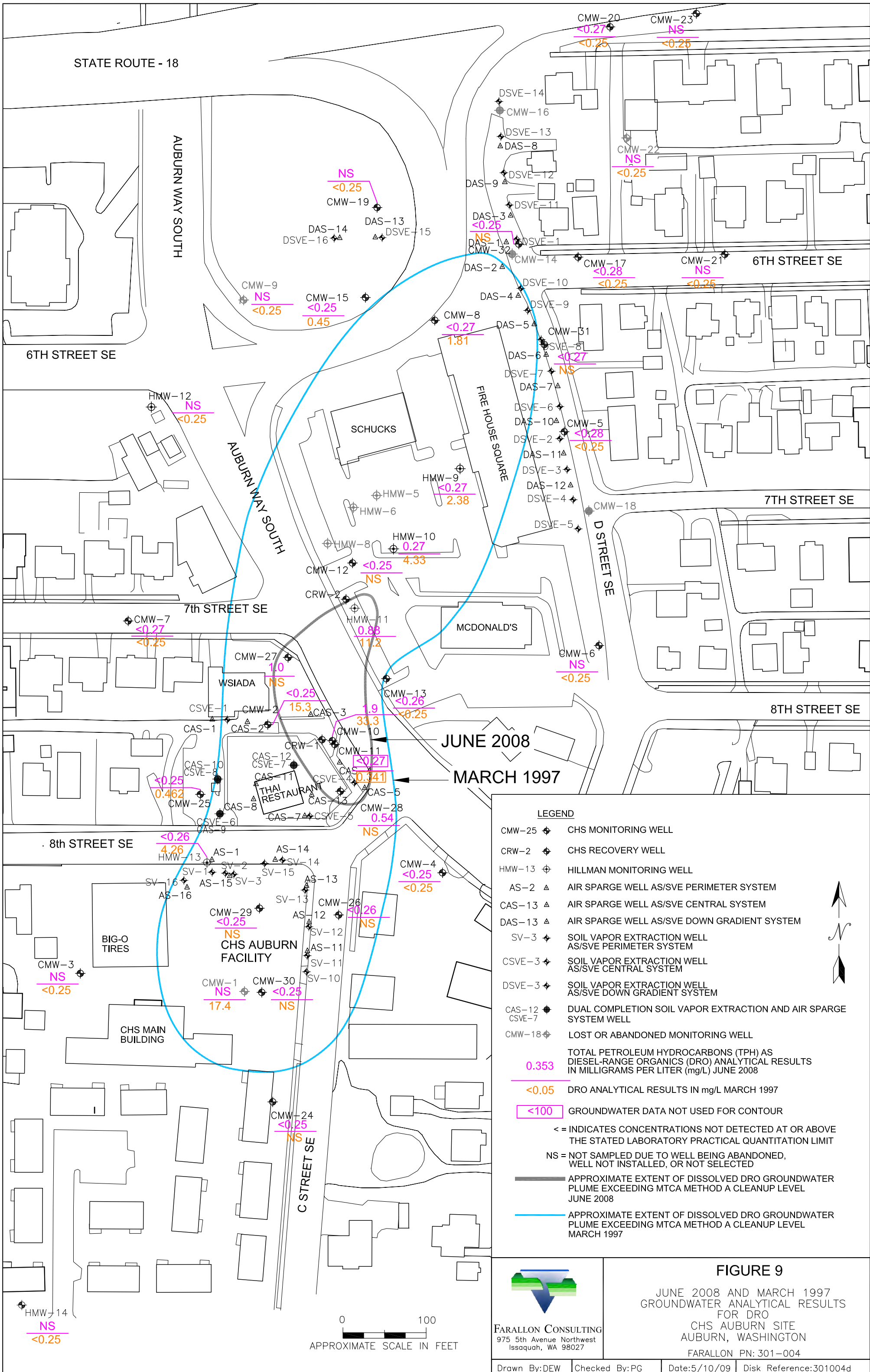
FIGURE 8

MARCH 2009 AND MARCH 1995
GROUNDWATER ANALYTICAL RESULTS
FOR BENZENE
CHS AUBURN SITE
AUBURN, WASHINGTON

FARALLON PN: 301-004

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027

Drawn By: DEW | Checked By: PG | Date: 8/25/09 | Disk Reference: 301004d



LEGEND

- CMW-25 ◆ CHS MONITORING WELL
- CRW-2 ◆ CHS RECOVERY WELL
- HMW-13 ◆ HILLMAN MONITORING WELL
- AS-2 ▲ AIR SPARGE WELL AS/SVE PERIMETER SYSTEM
- CAS-13 ▲ AIR SPARGE WELL AS/SVE CENTRAL SYSTEM
- DAS-13 ▲ AIR SPARGE WELL AS/SVE DOWN GRADIENT SYSTEM
- SV-3 ◆ SOIL VAPOR EXTRACTION WELL AS/SVE PERIMETER SYSTEM
- CSVE-3 ◆ SOIL VAPOR EXTRACTION WELL AS/SVE CENTRAL SYSTEM
- DSVE-3 ◆ SOIL VAPOR EXTRACTION WELL AS/SVE DOWN GRADIENT SYSTEM
- CAS-12 ◆ CSVE-7 ◆ DUAL COMPLETION SOIL VAPOR EXTRACTION AND AIR SPARGE SYSTEM WELL
- CMW-18 ◆ LOST OR ABANDONED MONITORING WELL

0.353 TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS (DRO) ANALYTICAL RESULTS IN MILLIGRAMS PER LITER (mg/L) JUNE 2008

<0.05 DRO ANALYTICAL RESULTS IN mg/L MARCH 1997

<100 GROUNDWATER DATA NOT USED FOR CONTOUR

< = INDICATES CONCENTRATIONS NOT DETECTED AT OR ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT

NS = NOT SAMPLED DUE TO WELL BEING ABANDONED, WELL NOT INSTALLED, OR NOT SELECTED

— APPROXIMATE EXTENT OF DISSOLVED DRO GROUNDWATER PLUME EXCEEDING MTCA METHOD A CLEANUP LEVEL JUNE 2008

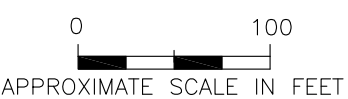
— APPROXIMATE EXTENT OF DISSOLVED DRO GROUNDWATER PLUME EXCEEDING MTCA METHOD A CLEANUP LEVEL MARCH 1997

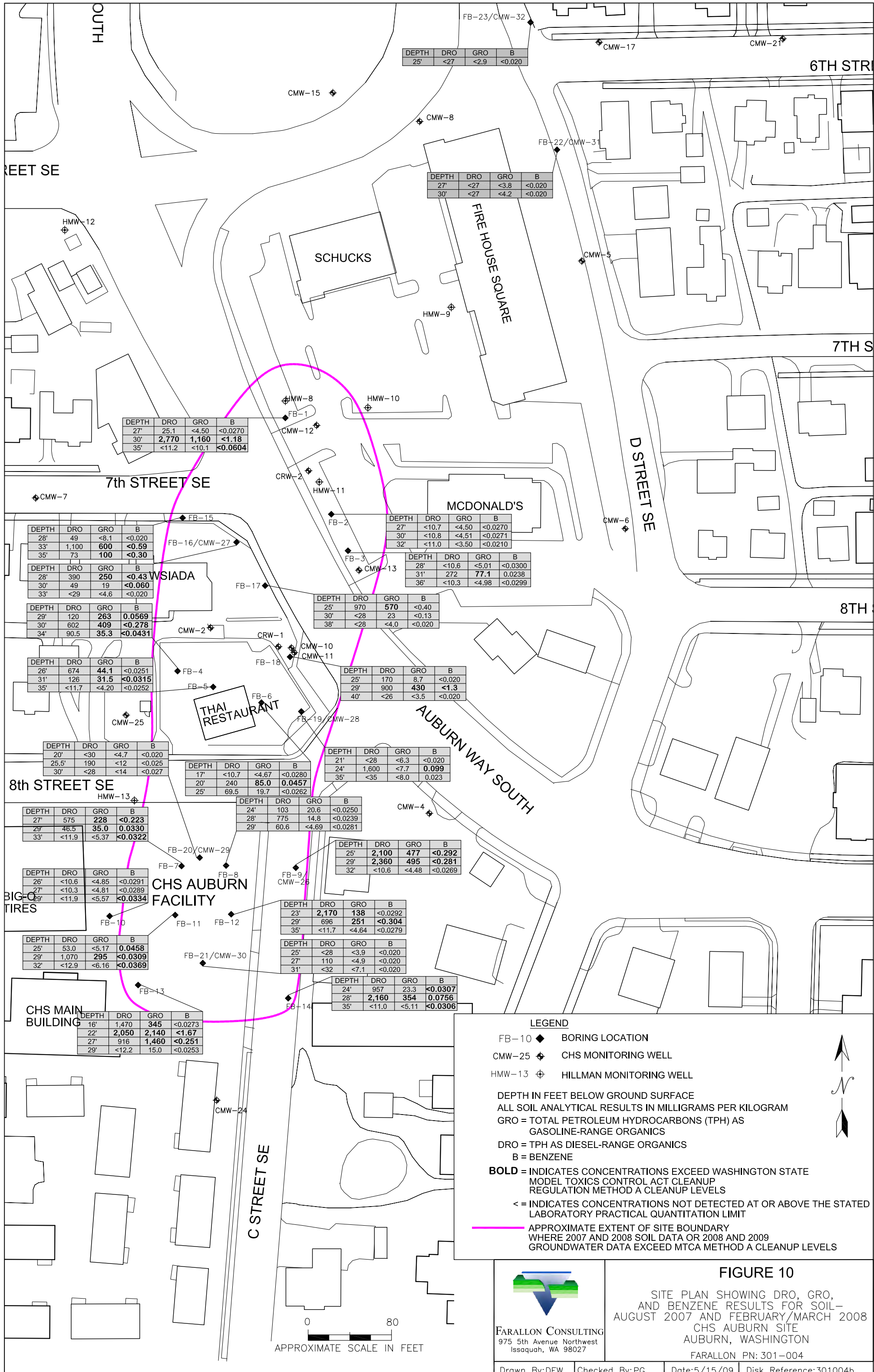
FIGURE 9

JUNE 2008 AND MARCH 1997
GROUNDWATER ANALYTICAL RESULTS
FOR DRO
CHS AUBURN SITE
AUBURN, WASHINGTON
FARALLON PN: 301-004

Farallon Consulting
975 5th Avenue Northwest
Issaquah, WA 98027

Drawn By: DEW | Checked By: PG | Date: 5/10/09 | Disk Reference: 301004d





DEPTH	DRO	GRO	B
25'	<27	<2.9	<0.020

DEPTH	DRO	GRO	B
27'	<27	<3.8	<0.020
30'	<27	<4.2	<0.020

DEPTH	DRO	GRO	B
27'	25.1	<4.50	<0.0270
30'	2,770	1,160	<1.18
35'	<11.2	<10.1	<0.0604

DEPTH	DRO	GRO	B
28'	49	<8.1	<0.020
33'	1,100	600	<0.59
35'	73	100	<0.30

DEPTH	DRO	GRO	B
28'	390	250	<0.43
30'	49	19	<0.060
33'	<29	<4.6	<0.020

DEPTH	DRO	GRO	B
29'	120	263	0.0569
30'	602	409	<0.278
34'	90.5	35.3	<0.0431

DEPTH	DRO	GRO	B
26'	674	44.1	<0.0251
31'	126	31.5	<0.0315
35'	<11.7	<4.20	<0.0252

DEPTH	DRO	GRO	B
20'	<30	<4.7	<0.020
25.5'	190	<12	<0.025
30'	<28	<14	<0.027

DEPTH	DRO	GRO	B
27'	575	228	<0.223
29'	46.5	35.0	0.0330
33'	<11.9	<5.37	<0.0322

DEPTH	DRO	GRO	B
26'	<10.6	<4.85	<0.0291
27'	<10.3	<4.81	<0.0289
29'	<11.9	<5.57	<0.0334

DEPTH	DRO	GRO	B
25'	53.0	<5.17	0.0458
29'	1,070	295	<0.0309
32'	<12.9	<6.16	<0.0369

DEPTH	DRO	GRO	B
16'	1,470	345	<0.0273
22'	2,050	2,140	<1.67
27'	916	1,460	<0.251
29'	<12.2	15.0	<0.0253

DEPTH	DRO	GRO	B
27'	<10.7	<4.50	<0.0270
30'	<10.8	<4.51	<0.0271
32'	<11.0	<3.50	<0.0210

DEPTH	DRO	GRO	B
28'	<10.6	<5.01	<0.0300
31'	272	77.1	0.0238
36'	<10.3	<4.98	<0.0299

DEPTH	DRO	GRO	B
25'	970	570	<0.40
30'	<28	23	<0.13
38'	<28	<4.0	<0.020

DEPTH	DRO	GRO	B
25'	170	8.7	<0.020
29'	900	430	<1.3
40'	<26	<3.5	<0.020

DEPTH	DRO	GRO	B
21'	<28	<6.3	<0.020
24'	1,600	<7.7	0.099
35'	<35	<8.0	0.023

DEPTH	DRO	GRO	B
17'	<10.7	<4.67	<0.0280
20'	240	85.0	0.0457
25'	69.5	19.7	<0.0262

DEPTH	DRO	GRO	B
24'	103	20.6	<0.0250
28'	775	14.8	<0.0239
29'	60.6	<4.69	<0.0281

DEPTH	DRO	GRO	B
25'	2,100	477	<0.292
29'	2,360	495	<0.281
32'	<10.6	<4.48	<0.0269

DEPTH	DRO	GRO	B
23'	2,170	138	<0.0292
29'	696	251	<0.304
35'	<11.7	<4.64	<0.0279

DEPTH	DRO	GRO	B
25'	<28	<3.9	<0.020
27'	110	<4.9	<0.020
31'	<32	<7.1	<0.020

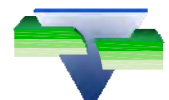
DEPTH	DRO	GRO	B
24'	957	23.3	<0.0307
28'	2,160	354	0.0756
35'	<11.0	<5.11	<0.0306

LEGEND

- FB-10 ◆ BORING LOCATION
- CMW-25 ⊕ CHS MONITORING WELL
- HMW-13 ⊕ HILLMAN MONITORING WELL

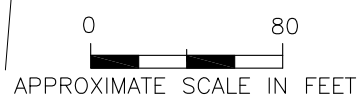
DEPTH IN FEET BELOW GROUND SURFACE
 ALL SOIL ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM
 GRO = TOTAL PETROLEUM HYDROCARBONS (TPH) AS GASOLINE-RANGE ORGANICS
 DRO = TPH AS DIESEL-RANGE ORGANICS
 B = BENZENE
BOLD = INDICATES CONCENTRATIONS EXCEED WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATION METHOD A CLEANUP LEVELS
 < = INDICATES CONCENTRATIONS NOT DETECTED AT OR ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT

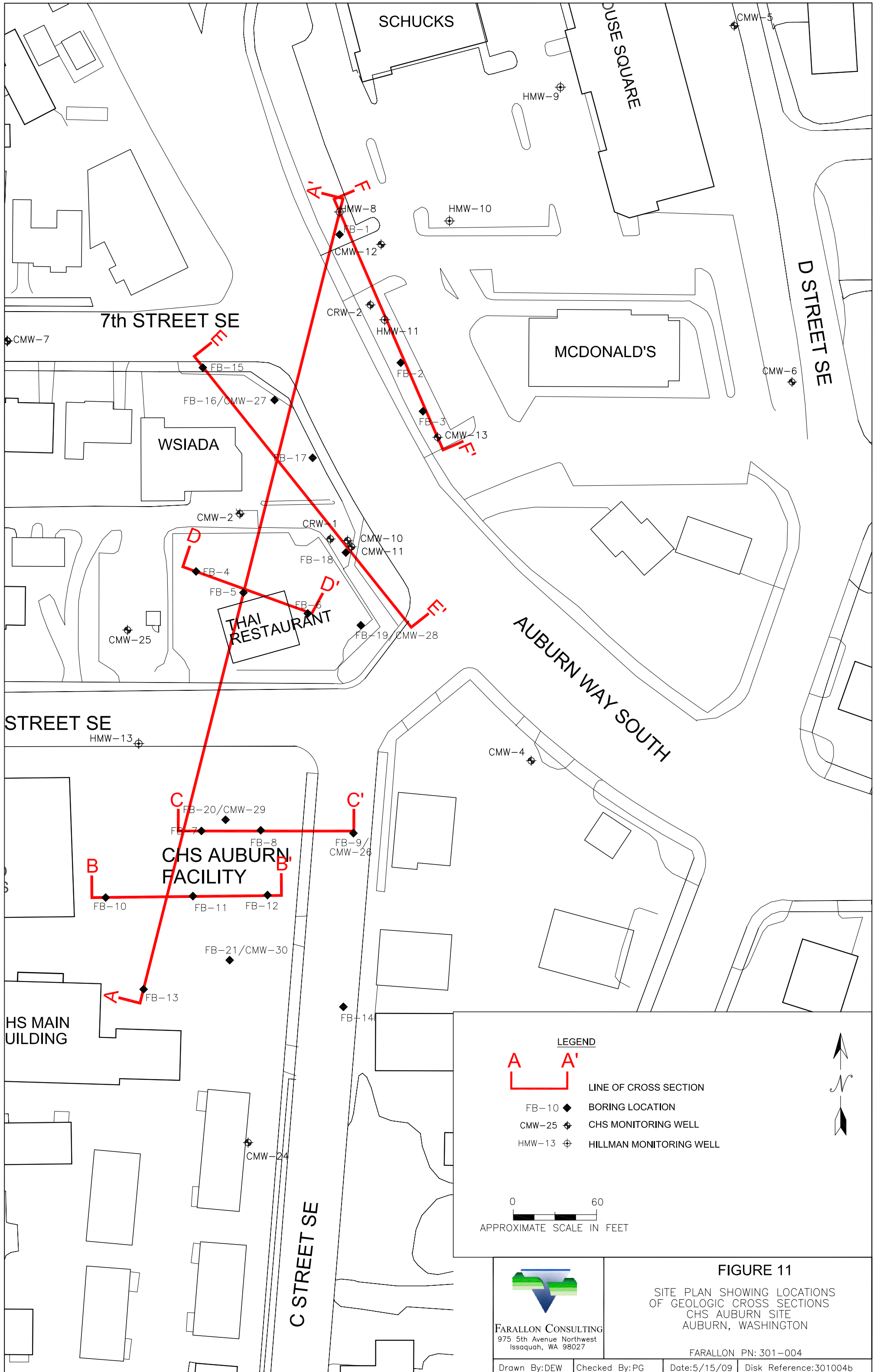
— APPROXIMATE EXTENT OF SITE BOUNDARY WHERE 2007 AND 2008 SOIL DATA OR 2008 AND 2009 GROUNDWATER DATA EXCEED MTCA METHOD A CLEANUP LEVELS



FARALLON CONSULTING
 975 5th Avenue Northwest
 Issaquah, WA 98027

FIGURE 10
 SITE PLAN SHOWING DRO, GRO, AND BENZENE RESULTS FOR SOIL—AUGUST 2007 AND FEBRUARY/MARCH 2008
 CHS AUBURN SITE
 AUBURN, WASHINGTON
 FARALLON PN: 301-004





LEGEND

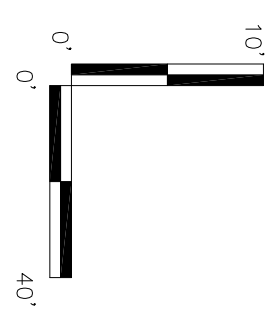
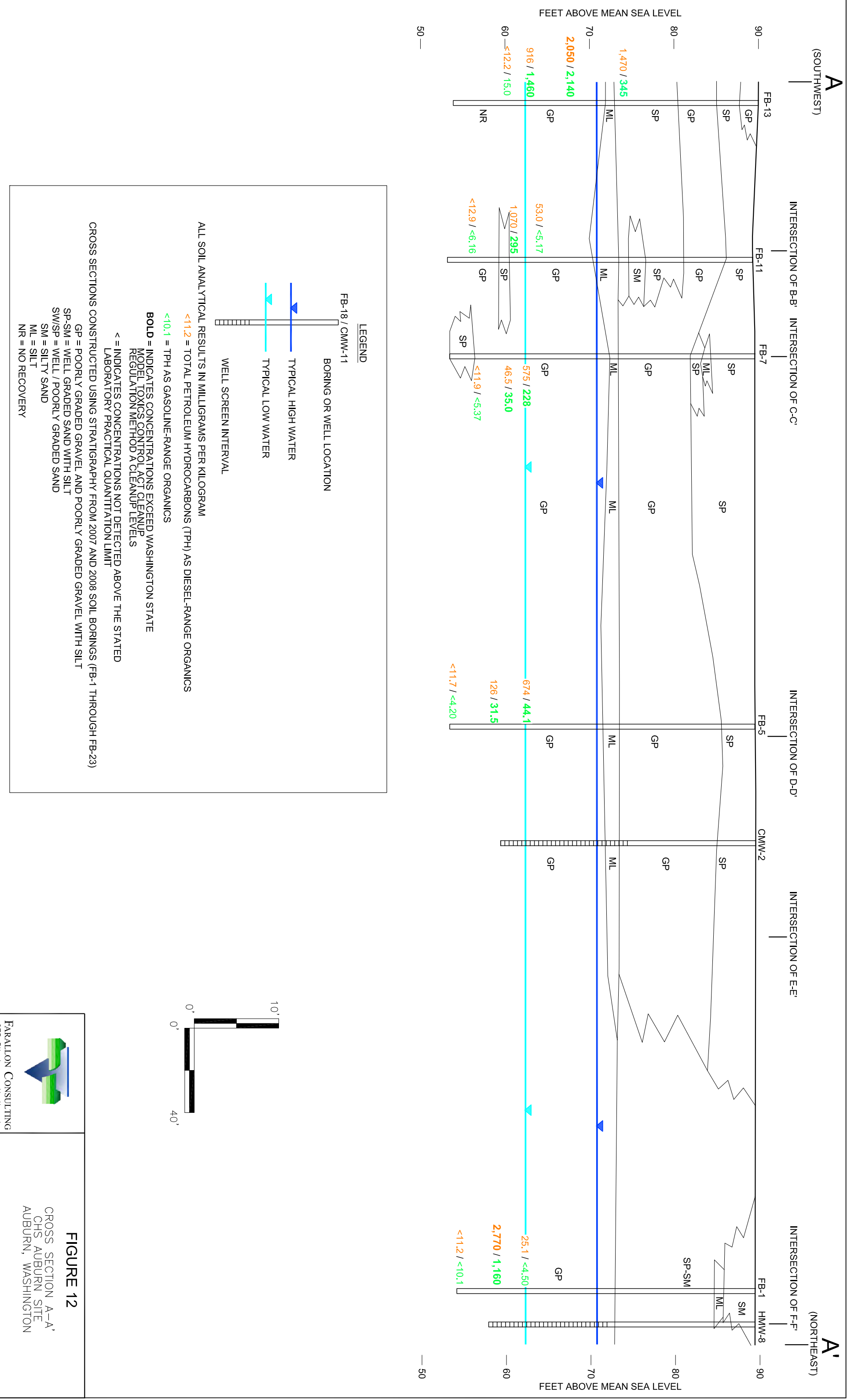
- A A' LINE OF CROSS SECTION
- FB-10 ◆ BORING LOCATION
- CMW-25 ◆ CHS MONITORING WELL
- HMW-13 ⊕ HILLMAN MONITORING WELL


0 60
APPROXIMATE SCALE IN FEET

FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FIGURE 11
SITE PLAN SHOWING LOCATIONS
OF GEOLOGIC CROSS SECTIONS
CHS AUBURN SITE
AUBURN, WASHINGTON

FARALLON PN: 301-004





FARALLON CONSULTING
 975 5th Avenue Northwest
 Issaquah, WA 98027

FIGURE 12

CROSS SECTION A-A'
 CHS AUBURN SITE
 AUBURN, WASHINGTON

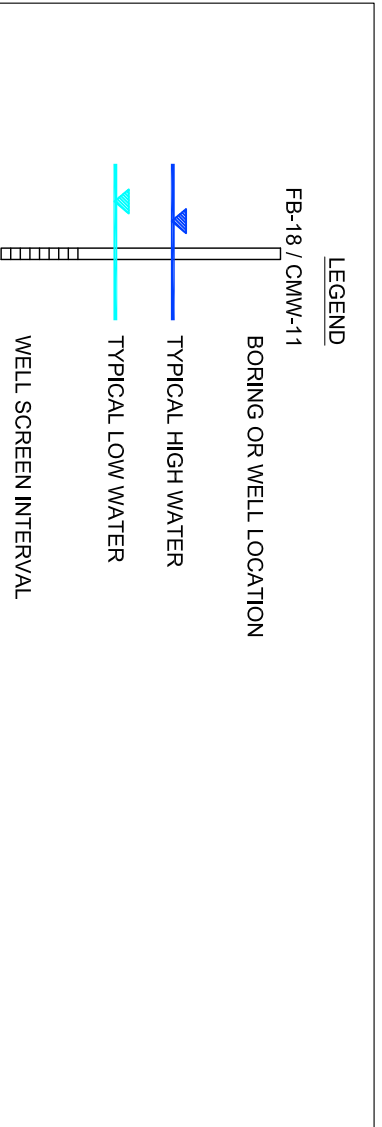
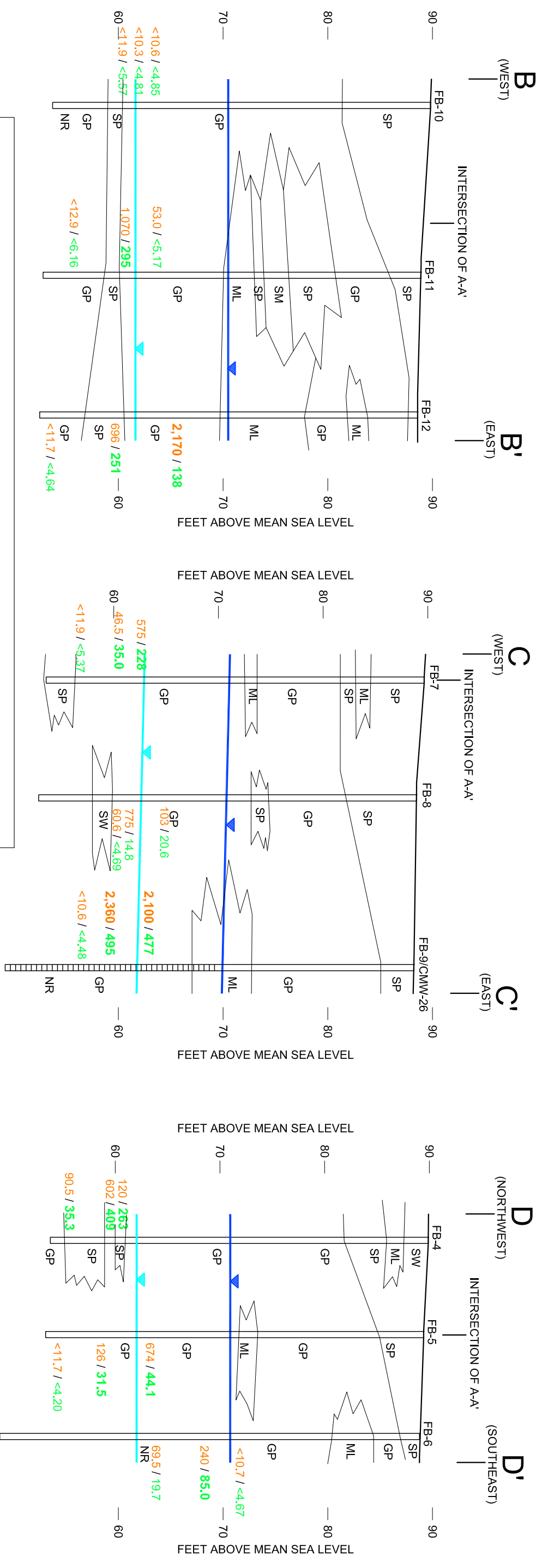
FARALLON PN: 301-004

Drawn By: DEW

Checked By: PG

Date: 5/15/09

Disk Reference: 301004CS



ALL SOIL ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM

<11.2 = TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS

<10.1 = TPH AS GASOLINE-RANGE ORGANICS

BOLD = INDICATES CONCENTRATIONS EXCEED WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATIONS METHOD A CLEANUP LEVELS

< = INDICATES CONCENTRATIONS NOT DETECTED ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT

CROSS SECTIONS CONSTRUCTED USING STRATIGRAPHY FROM 2007 AND 2008 SOIL BORINGS (FB-1 THROUGH FB-23)

GP = POORLY GRADED GRAVEL AND POORLY GRADED GRAVEL WITH SILT

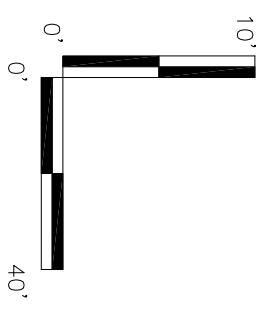
SP-SM = WELL GRADED SAND WITH SILT


SW/SP = WELL / POORLY GRADED SAND

SM = SILTY SAND

ML = SILT

NR = NO RECOVERY





FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FIGURE 13

CROSS SECTIONS B-B', C-C', AND D-D'
CHS AUBURN SITE
AUBURN, WASHINGTON

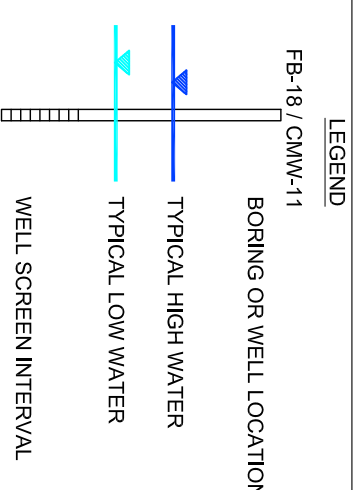
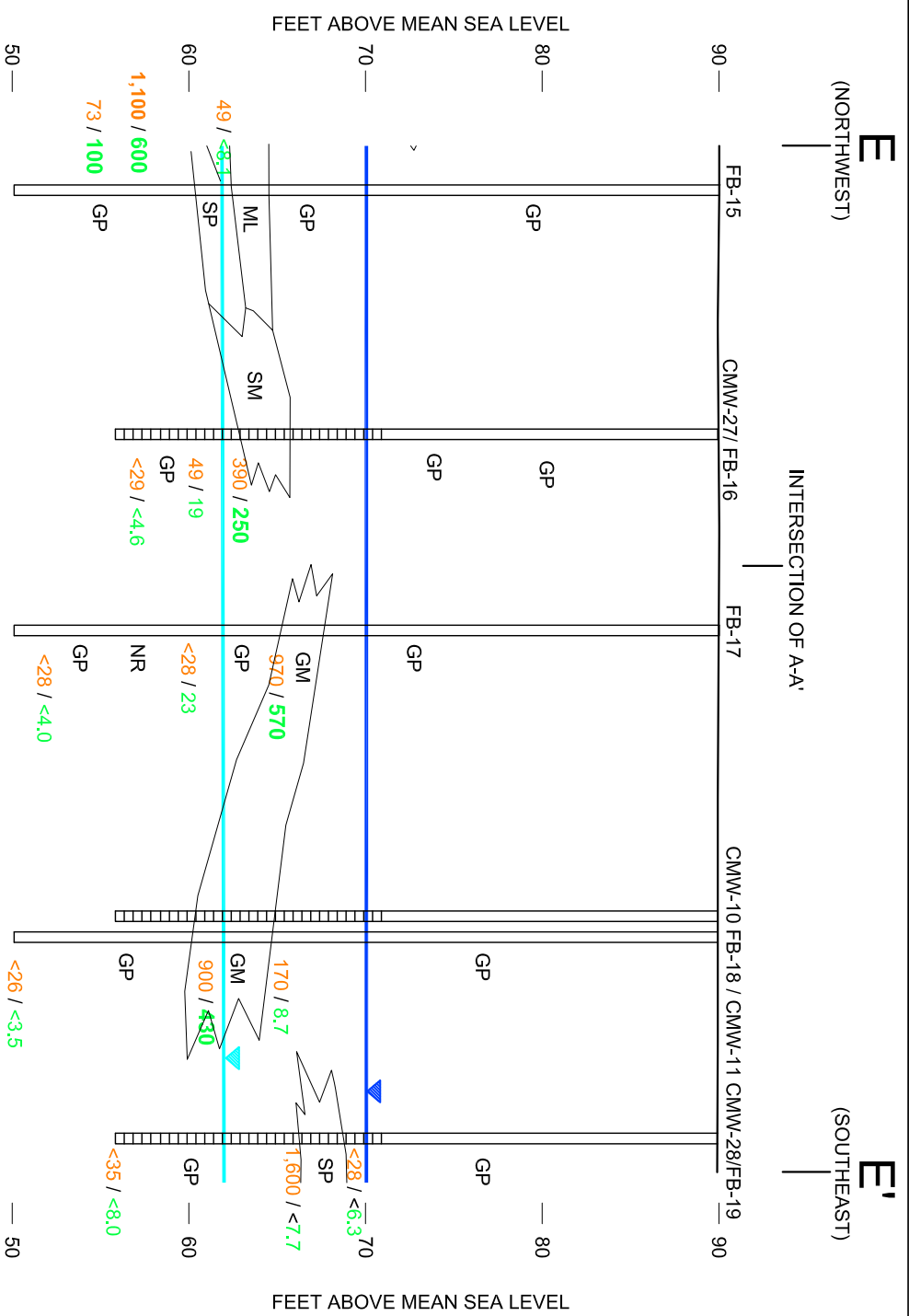
FARALLON PN: 301-004

Drawn By: DEW

Checked By: PG

Date: 5/15/09

Disk Reference: 301004CS



ALL SOIL ANALYTICAL RESULTS IN MILLIGRAMS PER KILOGRAM

<11.2 = TOTAL PETROLEUM HYDROCARBONS (TPH) AS DIESEL-RANGE ORGANICS

<10.1 = TPH AS GASOLINE-RANGE ORGANICS

BOLD = INDICATES CONCENTRATIONS EXCEED WASHINGTON STATE MODEL TOXICS CONTROL ACT CLEANUP REGULATORY METHOD A CLEANUP LEVELS

< = INDICATES CONCENTRATIONS NOT DETECTED ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT

CROSS SECTIONS CONSTRUCTED USING STRATIGRAPHY FROM 2007 AND 2008 SOIL BORINGS (FB-1 THROUGH FB-23)

GP = POORLY GRADED GRAVEL AND POORLY GRADED GRAVEL WITH SILT

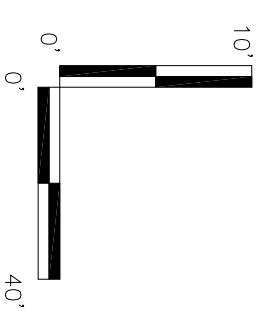
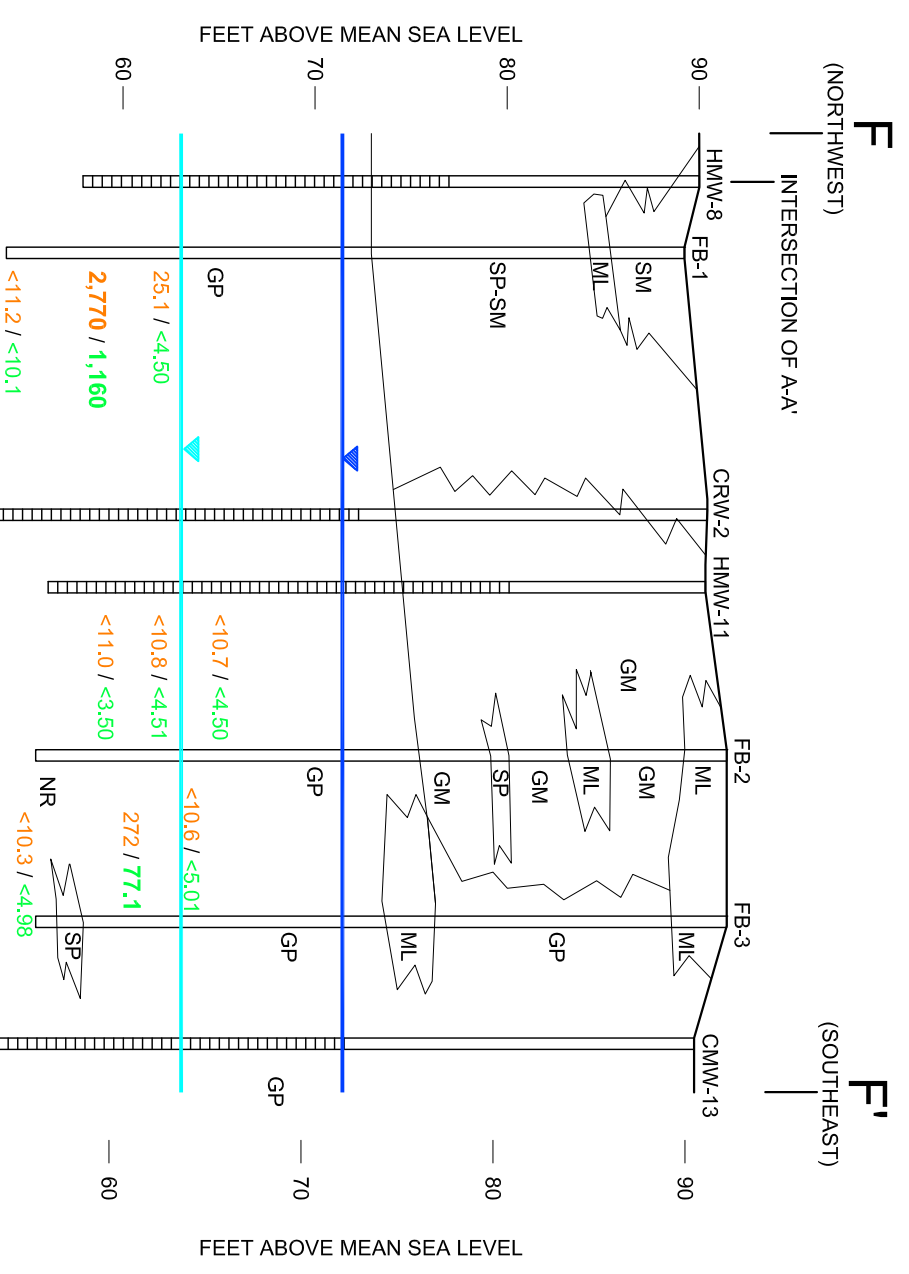
SP-SM = WELL GRADED SAND WITH SILT


SW/SP = WELL / POORLY GRADED SAND

SM = SILTY SAND

ML = SILT

NR = NO RECOVERY





FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FIGURE 14

CROSS SECTIONS E-E' AND F-F'
CHS AUBURN SITE
AUBURN, WASHINGTON

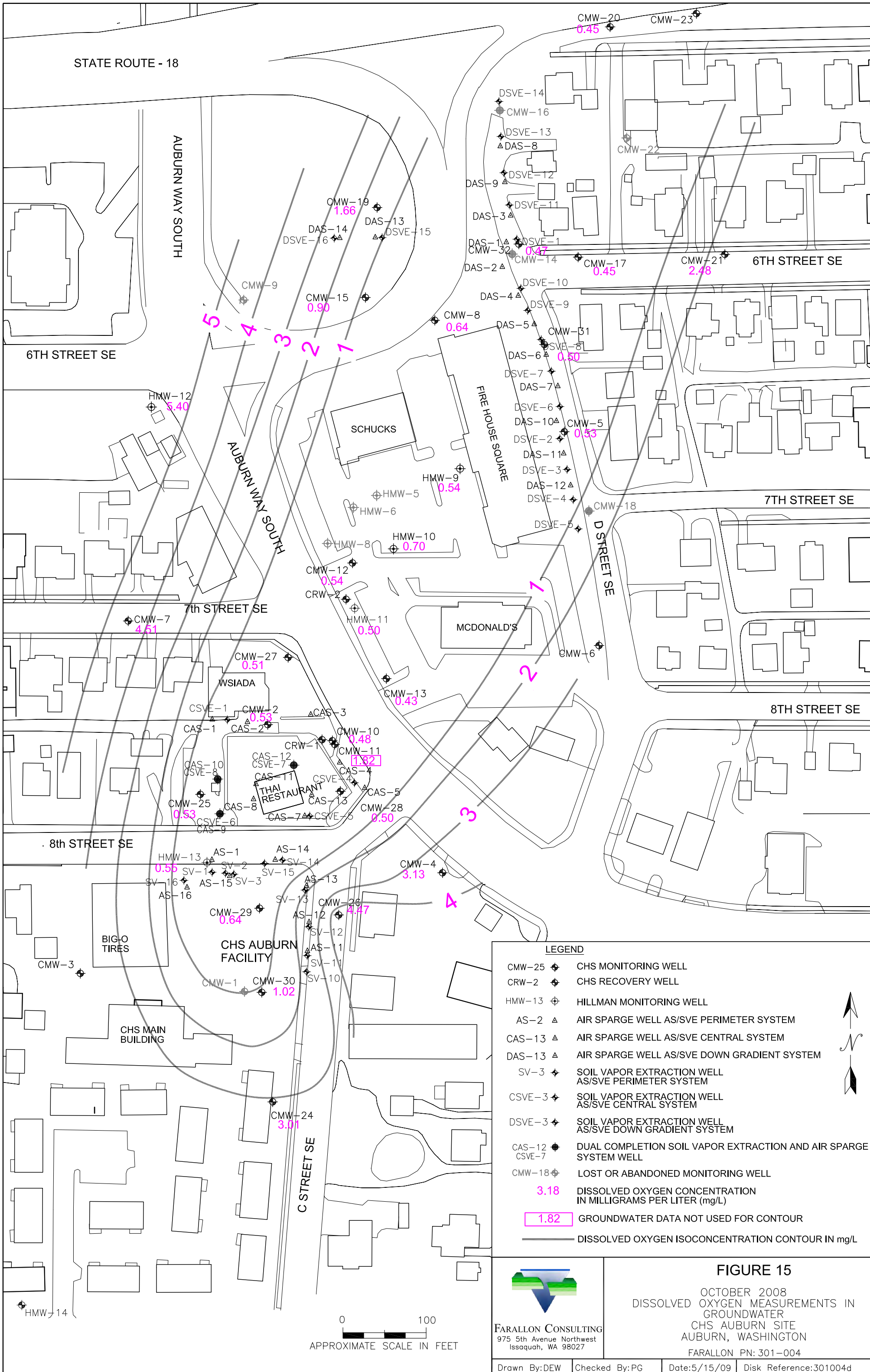
FARALLON PN: 301-004

Drawn By: DEW

Checked By: PG

Date: 5/15/09

Disk Reference: 301004CS

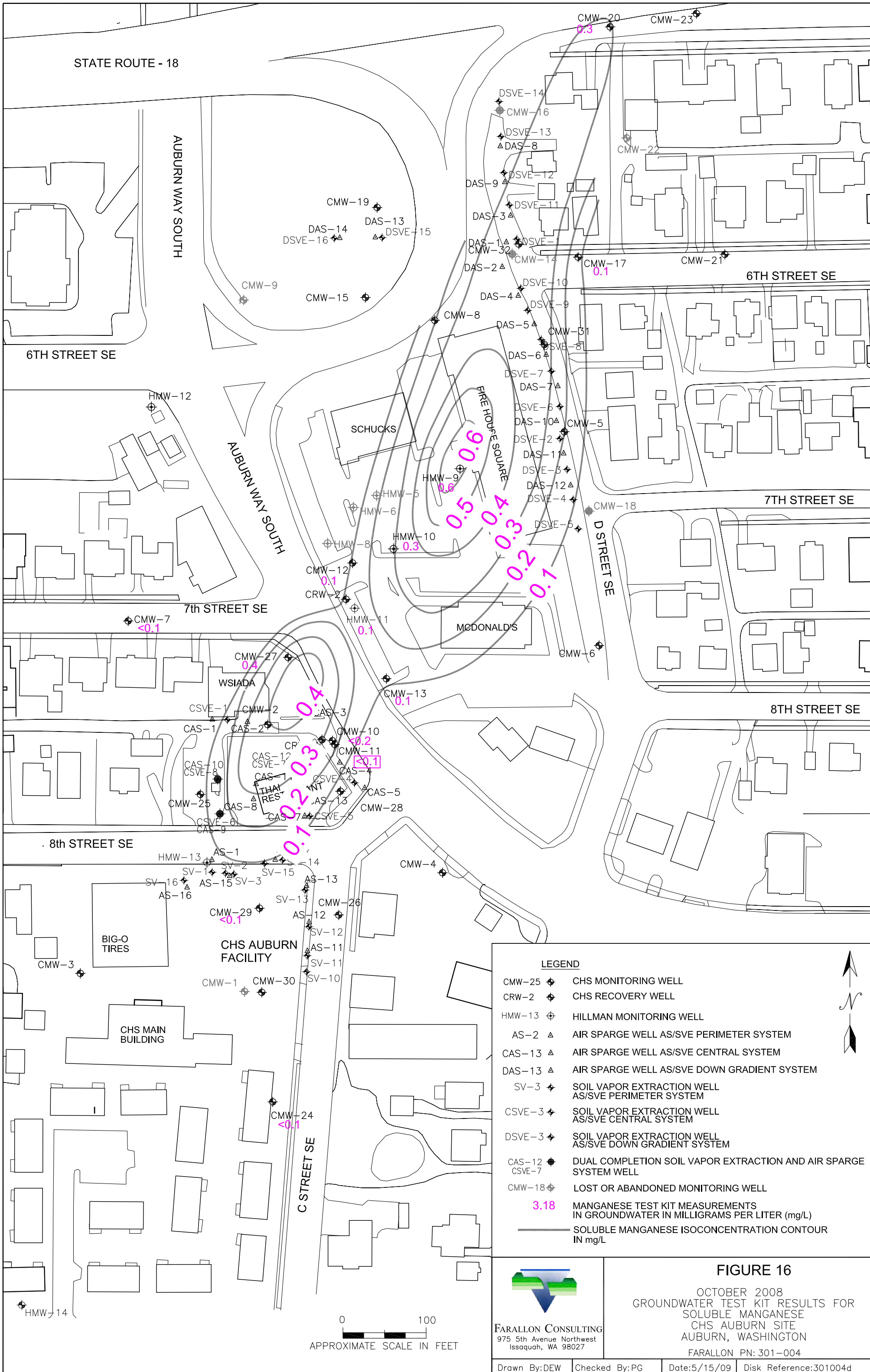


LEGEND

CMW-25	◆	CHS MONITORING WELL
CRW-2	◆	CHS RECOVERY WELL
HMW-13	◆	HILLMAN MONITORING WELL
AS-2	▲	AIR SPARGE WELL AS/SVE PERIMETER SYSTEM
CAS-13	▲	AIR SPARGE WELL AS/SVE CENTRAL SYSTEM
DAS-13	▲	AIR SPARGE WELL AS/SVE DOWN GRADIENT SYSTEM
SV-3	◆	SOIL VAPOR EXTRACTION WELL AS/SVE PERIMETER SYSTEM
CSVE-3	◆	SOIL VAPOR EXTRACTION WELL AS/SVE CENTRAL SYSTEM
DSVE-3	◆	SOIL VAPOR EXTRACTION WELL AS/SVE DOWN GRADIENT SYSTEM
CAS-12 CSVE-7	◆	DUAL COMPLETION SOIL VAPOR EXTRACTION AND AIR SPARGE SYSTEM WELL
CMW-18	◆	LOST OR ABANDONED MONITORING WELL
3.18		DISSOLVED OXYGEN CONCENTRATION IN MILLIGRAMS PER LITER (mg/L)
1.82		GROUNDWATER DATA NOT USED FOR CONTOUR
—		DISSOLVED OXYGEN ISOCONCENTRATION CONTOUR IN mg/L

FARALLON CONSULTING
 975 5th Avenue Northwest
 Issaquah, WA 98027

FIGURE 15
 OCTOBER 2008
 DISSOLVED OXYGEN MEASUREMENTS IN GROUNDWATER
 CHS AUBURN SITE
 AUBURN, WASHINGTON
 FARALLON PN: 301-004

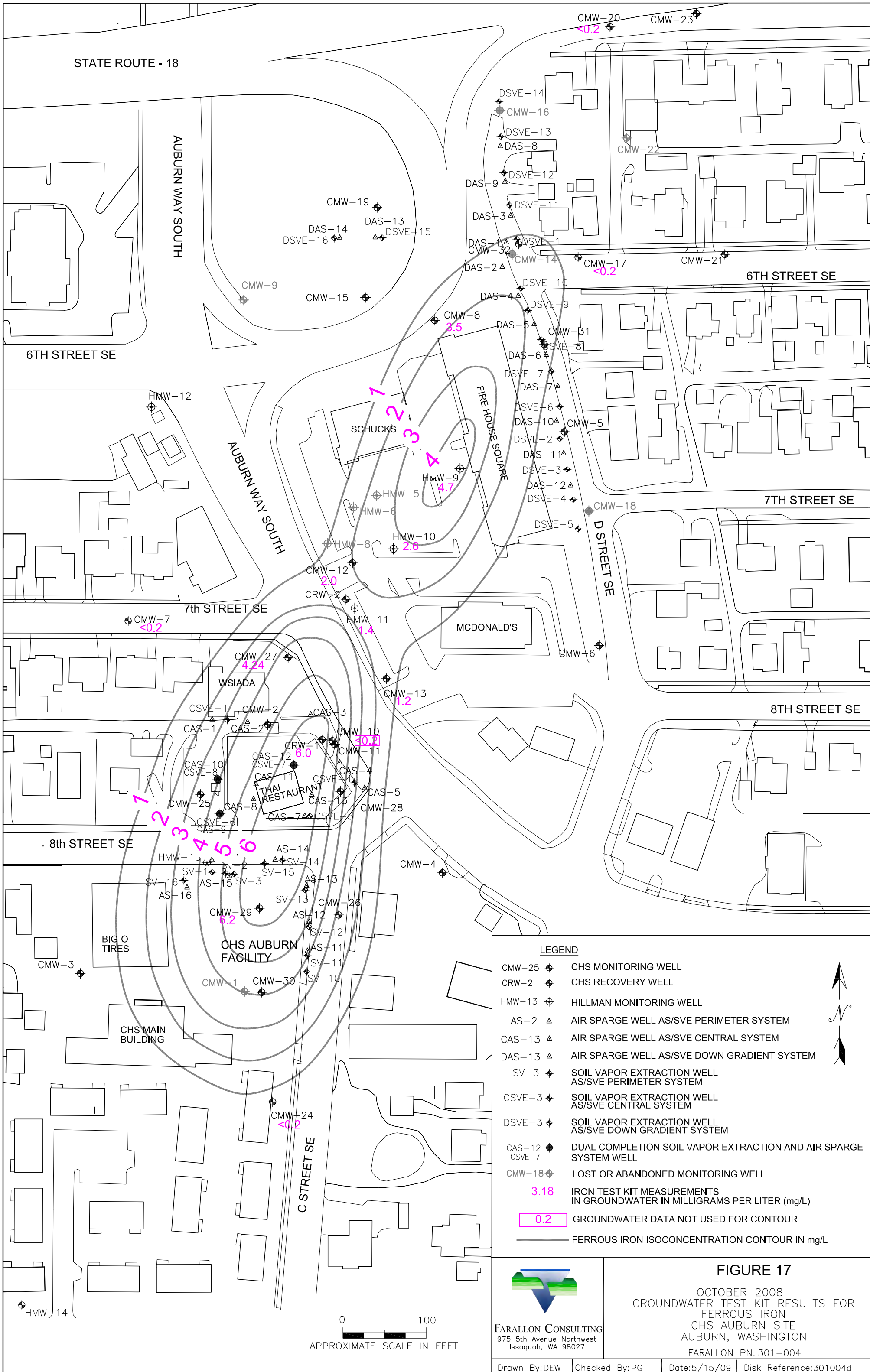


LEGEND	
CMW-25	CHS MONITORING WELL
CRW-2	CHS RECOVERY WELL
HMW-13	HILLMAN MONITORING WELL
AS-2	AIR SPARGE WELL AS/SVE PERIMETER SYSTEM
CAS-13	AIR SPARGE WELL AS/SVE CENTRAL SYSTEM
DAS-13	AIR SPARGE WELL AS/SVE DOWN GRADIENT SYSTEM
SV-3	SOIL VAPOR EXTRACTION WELL AS/SVE PERIMETER SYSTEM
CSVE-3	SOIL VAPOR EXTRACTION WELL AS/SVE CENTRAL SYSTEM
DSVE-3	SOIL VAPOR EXTRACTION WELL AS/SVE DOWN GRADIENT SYSTEM
CAS-12 CSVE-7	DUAL COMPLETION SOIL VAPOR EXTRACTION AND AIR SPARGE SYSTEM WELL
CMW-18	LOST OR ABANDONED MONITORING WELL
3.18	MANGANESE TEST KIT MEASUREMENTS IN GROUNDWATER IN MILLIGRAMS PER LITER (mg/L)
(Line)	SOLUBLE MANGANESE ISOCONCENTRATION CONTOUR IN mg/L


FARALLON CONSULTING
 975 5th Avenue Northwest
 Issaquah, WA 98027

FIGURE 16
 OCTOBER 2008
 GROUNDWATER TEST KIT RESULTS FOR
 SOLUBLE MANGANESE
 CHS AUBURN SITE
 AUBURN, WASHINGTON
 FARALLON PN: 301-004

0 100
 APPROXIMATE SCALE IN FEET



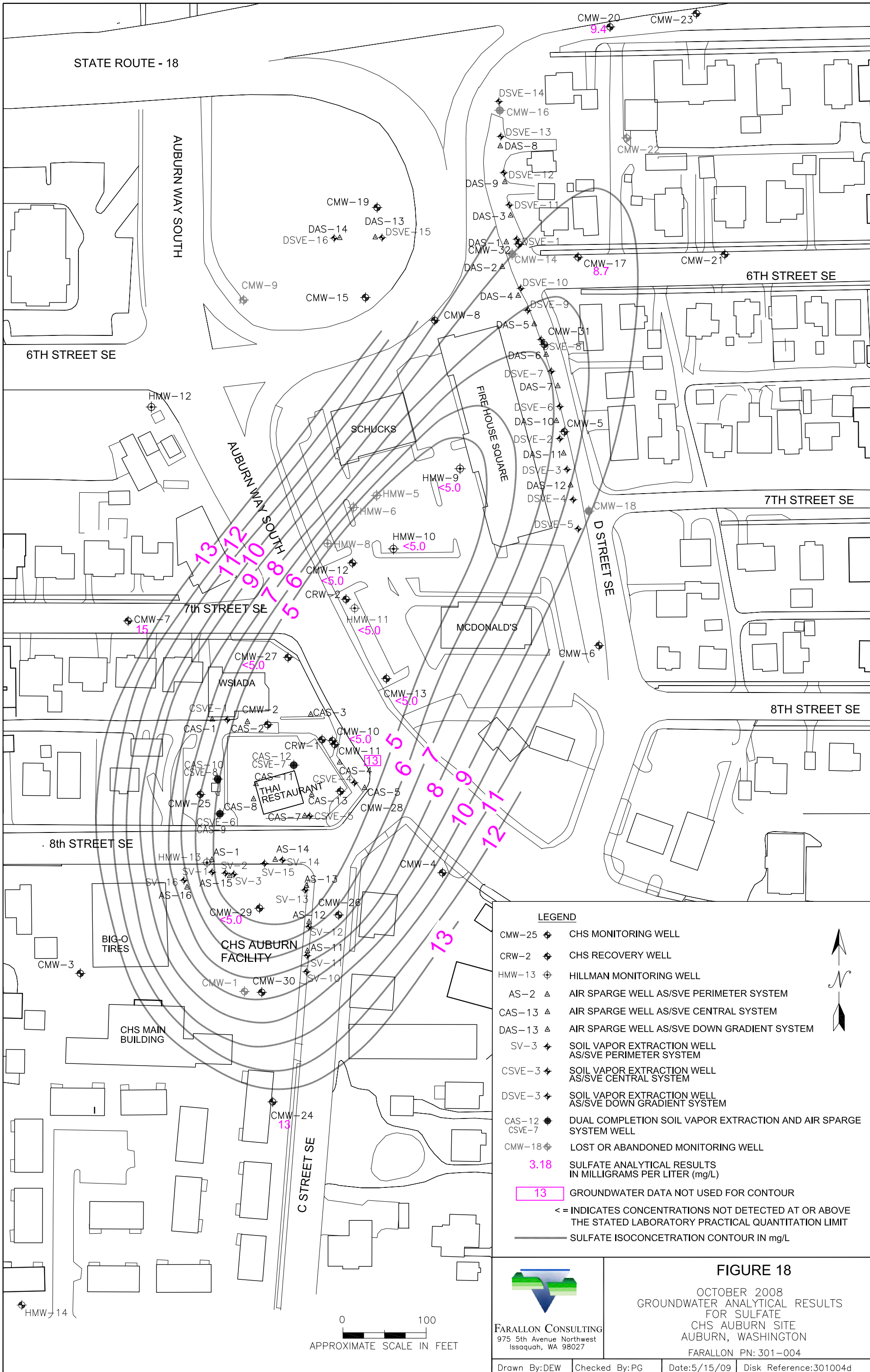
LEGEND

CMW-25	◆	CHS MONITORING WELL
CRW-2	◆	CHS RECOVERY WELL
HMW-13	⊕	HILLMAN MONITORING WELL
AS-2	▲	AIR SPARGE WELL AS/SVE PERIMETER SYSTEM
CAS-13	▲	AIR SPARGE WELL AS/SVE CENTRAL SYSTEM
DAS-13	▲	AIR SPARGE WELL AS/SVE DOWN GRADIENT SYSTEM
SV-3	◆	SOIL VAPOR EXTRACTION WELL AS/SVE PERIMETER SYSTEM
CSVE-3	◆	SOIL VAPOR EXTRACTION WELL AS/SVE CENTRAL SYSTEM
DSVE-3	◆	SOIL VAPOR EXTRACTION WELL AS/SVE DOWN GRADIENT SYSTEM
CAS-12 CSVE-7	◆	DUAL COMPLETION SOIL VAPOR EXTRACTION AND AIR SPARGE SYSTEM WELL
CMW-18	◆	LOST OR ABANDONED MONITORING WELL
3.18		IRON TEST KIT MEASUREMENTS IN GROUNDWATER IN MILLIGRAMS PER LITER (mg/L)
0.2		GROUNDWATER DATA NOT USED FOR CONTOUR
—		FERROUS IRON ISOCONCENTRATION CONTOUR IN mg/L

FARALLON CONSULTING
 975 5th Avenue Northwest
 Issaquah, WA 98027

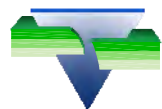
FIGURE 17
 OCTOBER 2008
 GROUNDWATER TEST KIT RESULTS FOR
 FERROUS IRON
 CHS AUBURN SITE
 AUBURN, WASHINGTON
 FARALLON PN: 301-004

0 100
 APPROXIMATE SCALE IN FEET



LEGEND

- CMW-25 ◈ CHS MONITORING WELL
- CRW-2 ◈ CHS RECOVERY WELL
- HMW-13 ◈ HILLMAN MONITORING WELL
- AS-2 ◈ AIR SPARGE WELL AS/SVE PERIMETER SYSTEM
- CAS-13 ◈ AIR SPARGE WELL AS/SVE CENTRAL SYSTEM
- DAS-13 ◈ AIR SPARGE WELL AS/SVE DOWN GRADIENT SYSTEM
- SV-3 ◈ SOIL VAPOR EXTRACTION WELL AS/SVE PERIMETER SYSTEM
- CSVE-3 ◈ SOIL VAPOR EXTRACTION WELL AS/SVE CENTRAL SYSTEM
- DSVE-3 ◈ SOIL VAPOR EXTRACTION WELL AS/SVE DOWN GRADIENT SYSTEM
- CAS-12 ●
CSVE-7 ● DUAL COMPLETION SOIL VAPOR EXTRACTION AND AIR SPARGE SYSTEM WELL
- CMW-18 ◈ LOST OR ABANDONED MONITORING WELL
- 3.18 SULFATE ANALYTICAL RESULTS IN MILLIGRAMS PER LITER (mg/L)
- 13 GROUNDWATER DATA NOT USED FOR CONTOUR
- < = INDICATES CONCENTRATIONS NOT DETECTED AT OR ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT
- SULFATE ISOCONCENTRATION CONTOUR IN mg/L

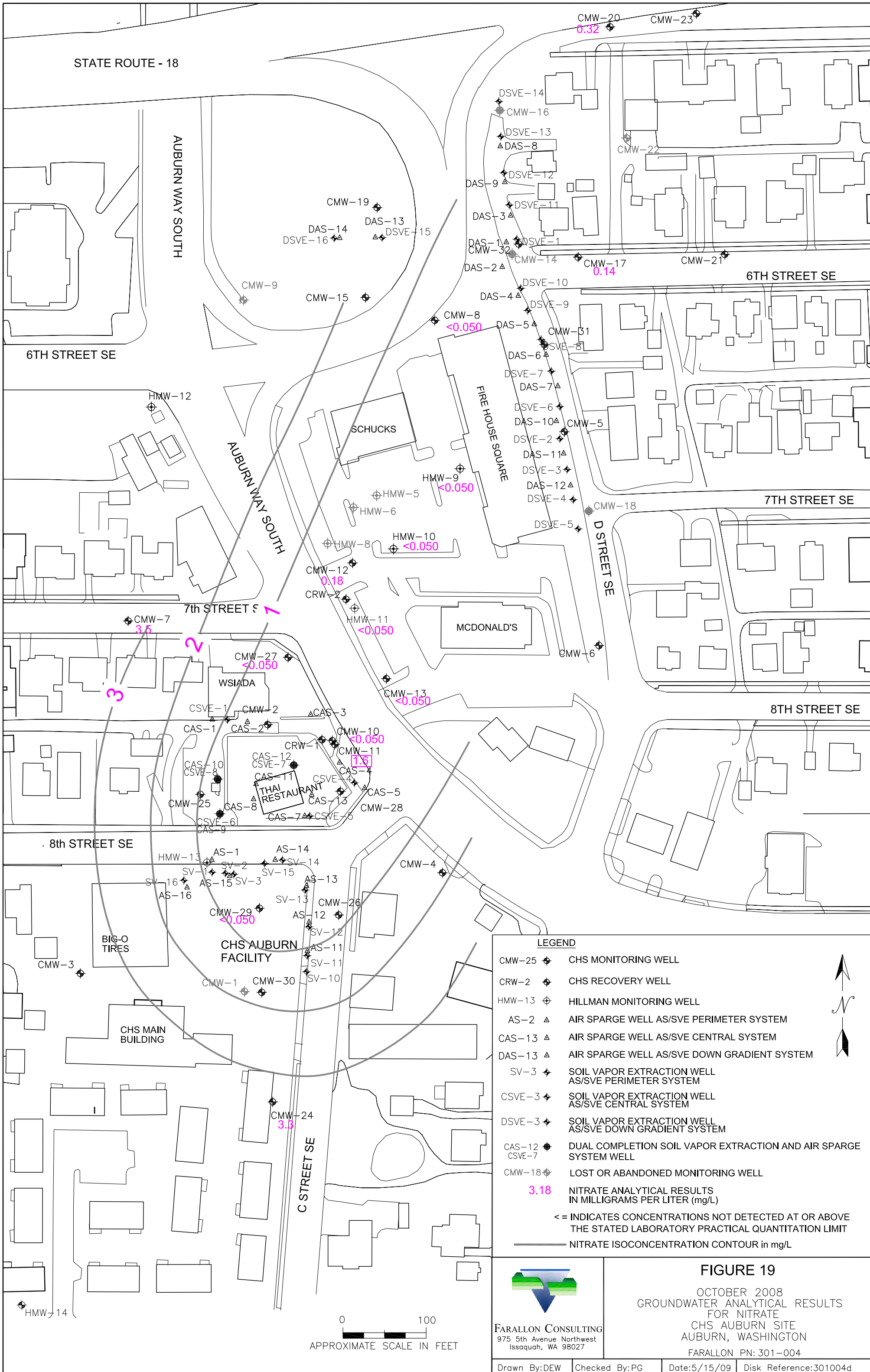


FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

FIGURE 18

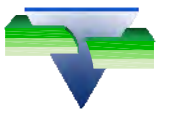
OCTOBER 2008
GROUNDWATER ANALYTICAL RESULTS
FOR SULFATE
CHS AUBURN SITE
AUBURN, WASHINGTON
FARALLON PN: 301-004

0 100
APPROXIMATE SCALE IN FEET



LEGEND

- CMW-25 ◆ CHS MONITORING WELL
- CRW-2 ◆ CHS RECOVERY WELL
- HMW-13 ⊕ HILLMAN MONITORING WELL
- AS-2 ▲ AIR SPARGE WELL AS/SVE PERIMETER SYSTEM
- CAS-13 ▲ AIR SPARGE WELL AS/SVE CENTRAL SYSTEM
- DAS-13 ▲ AIR SPARGE WELL AS/SVE DOWN GRADIENT SYSTEM
- SV-3 ◆ SOIL VAPOR EXTRACTION WELL AS/SVE PERIMETER SYSTEM
- CSVE-3 ◆ SOIL VAPOR EXTRACTION WELL AS/SVE CENTRAL SYSTEM
- DSVE-3 ◆ SOIL VAPOR EXTRACTION WELL AS/SVE DOWN GRADIENT SYSTEM
- CAS-12 ◆ CSVE-7 ◆ DUAL COMPLETION SOIL VAPOR EXTRACTION AND AIR SPARGE SYSTEM WELL
- CMW-18 ⊕ LOST OR ABANDONED MONITORING WELL
- 3.18 NITRATE ANALYTICAL RESULTS IN MILLIGRAMS PER LITER (mg/L)
- <= INDICATES CONCENTRATIONS NOT DETECTED AT OR ABOVE THE STATED LABORATORY PRACTICAL QUANTITATION LIMIT
- - - NITRATE ISOCONCENTRATION CONTOUR in mg/L



FARALLON CONSULTING
975 5th Avenue Northwest
Issaquah, WA 98027

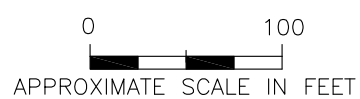
FIGURE 19
OCTOBER 2008
GROUNDWATER ANALYTICAL RESULTS
FOR NITRATE
CHS AUBURN SITE
AUBURN, WASHINGTON
FARALLON PN: 301-004

Drawn By:DEW

Checked By:PG

Date:5/15/09

Disk Reference:301004d



TABLES

REMEDIAL INVESTIGATION REPORT
CHS Auburn Site
Auburn, Washington

Farallon PN: 301-004

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-2	ERM	12/12/2002	NS	Well dry	NS
	ERM	6/25/2003	NS	24.82	NS
	Farallon	12/18/2003	NS	23.69	NS
	Farallon	3/23/2004	NS	21.19	NS
	Farallon	6/28/2004	NS	21.61	NS
	Farallon	9/21/2004	NS	25.61	NS
	Farallon	12/21/2004	NS	23.07	NS
	Farallon	3/30/2005	88.9 ³	23.04	65.86
	Farallon	7/6/2005	88.9	23.02	65.88
	Farallon	9/29/2005	88.9	26.03	62.87
	Farallon	12/27/2005	88.9	23.44	65.46
	Farallon	3/27/2006	88.9	19.88	69.02
	Farallon	10/17/2006	88.9	26.39	62.51
	Farallon	3/13/2008	88.9	27.31	61.59
	Farallon	6/16/2008	88.9	21.57	67.33
	Farallon	9/30/2008	88.9	25.43	63.47
	Farallon	12/29/2008	88.9	19.74	69.16
	Farallon	3/18/2009	88.9	21.58	67.32
	Farallon	10/27/2009	88.9	25.55	63.35
	Farallon	1/28/2010	88.9	20.20	68.70
	Farallon	4/19/2010	88.9	21.16	67.74
	Farallon	7/19/2010	88.9	21.57	67.33
Farallon	10/20/2010	88.9	24.03	64.87	
Farallon	1/24/2011	88.9	18.35	70.55	
Farallon	4/25/2011	88.9	17.80	71.10	
CMW-3	ERM	12/12/2002	89.72	Well dry	Well dry
	ERM	3/19/2003	89.72	22.08	67.64
	Farallon	3/23/2004	89.72	21.51	68.21
	Farallon	6/28/2004	89.72	23.73	65.99
	Farallon	9/21/2004	89.72	25.96	63.76
	Farallon	12/21/2004	89.72	23.46	66.26
	Farallon	3/30/2005	89.72	23.40	66.32
	Farallon	7/6/2005	89.72	23.32	66.40
	Farallon	9/29/2005	89.72	26.72	63.00

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-3	Farallon	12/27/2005	89.72	23.83	65.89
	Farallon	3/27/2006	89.72	20.71	69.01
	Farallon	10/17/2006	89.72	26.81	62.91
	Farallon	3/12/2008	89.72	21.70	68.02
CMW-4	ERM	12/12/2002	90.68	29.13	61.55
	ERM	3/17/2003	90.68	22.31	68.37
	Farallon	3/23/2004	90.68	23.15	67.53
	Farallon	7/6/2005	90.68	24.99	65.69
	Farallon	3/27/2006	90.68	21.56	69.12
	Farallon	10/17/2006	90.68	28.03	62.65
	Farallon	3/13/2008	90.68	23.04	67.64
	Farallon	6/16/2008	90.68	23.17	67.51
	Farallon	9/30/2008	90.68	27.19	63.49
	Farallon	12/29/2008	90.68	24.36	66.32
	Farallon	3/18/2009	90.68	23.23	67.45
	Farallon	10/27/2009	90.68	27.25	63.43
	Farallon	1/28/2010	90.68	21.81	68.87
	Farallon	4/19/2010	90.68	22.78	67.90
	Farallon	7/19/2010	90.68	23.21	67.47
	Farallon	10/20/2010	90.68	25.67	65.01
Farallon	1/24/2011	90.68	20.00	70.68	
Farallon	4/25/2011	90.68	19.45	71.23	
CMW-5	ERM	3/17/2003	89.44	23.24	66.20
	Farallon	3/23/2004	Well lost ⁴		
	Farallon	10/17/2006	89.44	27.81	61.63
	Farallon	3/13/2008	89.44	22.91	66.53
	Farallon	6/16/2008	89.44	23.03	66.41
	Farallon	9/30/2008	89.44	26.88	62.56
	Farallon	12/29/2008	89.44	24.17	65.27
	Farallon	3/18/2009	89.44	23.09	66.35
	Farallon	10/27/2009	89.44	26.93	62.51
	Farallon	1/28/2010	89.44	21.7	67.74
	Farallon	4/19/2010	89.44	22.64	66.8
	Farallon	7/19/2010	89.44	23.17	66.27

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-6	ERM	3/17/2003	90.66	24.30	66.36
	Farallon	3/23/2004	90.66	23.65	67.01
	Farallon	6/28/2004	90.66	25.90	64.76
	Farallon	9/21/2004	90.66	27.98	62.68
	Farallon	12/21/2004	90.66	25.45	65.21
	Farallon	3/30/2005	90.66	25.48	65.18
	Farallon	7/6/2005	90.66	25.48	65.18
	Farallon	9/29/2005	90.66	28.47	62.19
	Farallon	12/27/2005	90.66	25.85	64.81
	Farallon	3/27/2006	90.66	22.42	68.24
	Farallon	10/17/2006	90.66	28.82	61.84
	Farallon	6/16/2008	90.66	dry	dry
	Farallon	9/30/2008	90.66	dry	dry
	Farallon	12/29/2008	90.66	dry	dry
CMW-7	ERM	3/17/2003	87.73	20.90	66.83
	Farallon	3/23/2004	87.73	20.21	67.52
	Farallon	7/6/2005	87.73	22.02	65.71
	Farallon	3/27/2006	87.73	18.99	68.74
	Farallon	10/17/2006	87.73	25.37	62.36
	Farallon	3/13/2008	87.73	20.46	67.27
	Farallon	6/16/2008	87.73	20.54	67.19
	Farallon	9/30/2008	87.73	24.41	63.32
	Farallon	12/29/2008	87.73	21.75	65.98
	Farallon	3/18/2009	87.73	20.61	67.12
	Farallon	4/19/2010	87.73	20.20	67.53
	Farallon	1/24/2011	87.73	17.50	70.23
Farallon	4/25/2011	87.73	16.92	70.81	
CMW-8	ERM	3/19/2003	89.94	23.76	66.18
	Farallon	3/23/2004	Well paved over ⁴		
	Farallon	10/17/2006	89.94	28.33	61.61
	Farallon	3/13/2008	89.94	23.46	66.48
	Farallon	6/16/2008	89.94	23.58	66.36
	Farallon	9/30/2008	89.94	27.40	62.54
	Farallon	12/29/2008	89.94	24.70	65.24

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-8	Farallon	3/18/2009	89.94	23.61	66.33
	Farallon	10/27/2009	89.94	27.50	62.44
	Farallon	1/28/2010	89.94	22.25	67.69
	Farallon	4/19/2010	89.94	23.23	66.71
	Farallon	7/19/2010	89.94	23.69	66.25
	Farallon	10/20/2010	89.94	26.00	63.94
	Farallon	1/24/2011	89.94	20.32	69.62
	Farallon	4/25/2011	89.94	19.91	70.03
CMW-10	ERM	12/12/2002	NS	28.16	NS
	ERM	6/25/2003	NS	25.98	NS
	Farallon	9/30/2003	NS	28.69	NS
	Farallon	12/18/2003	NS	24.74	NS
	Farallon	3/23/2004	NS	22.30	NS
	Farallon	6/28/2004	NS	24.61	NS
	Farallon	9/21/2004	NS	26.66	NS
	Farallon	12/21/2004	NS	24.15	NS
	Farallon	3/30/2005	89.78 ³	24.16	65.62
	Farallon	7/6/2005	89.78	24.21	65.57
	Farallon	9/29/2005	89.78	27.21	62.57
	Farallon	12/27/2005	NS	23.88	NS
	Farallon	3/27/2006	NS	20.85	NS
	Farallon	10/17/2006	NS	27.89	NS
	Farallon	4/10/2007	NS	19.96	NS
	Farallon	3/13/2008	NS	21.87	NS
	Farallon	6/16/2008	NS	22.42	NS
	Farallon	9/30/2008	NS	25.91	NS
	Farallon	12/29/2008	NS	23.20	NS
	Farallon	3/18/2009	NS	22.06	NS
	Farallon	10/27/2009	NS	26.05	NS
	Farallon	1/28/2010	NS	20.69	NS
	Farallon	4/19/2010	NS	21.64	NS
	Farallon	7/19/2010	NS	22.06	NS
Farallon	10/20/2010	NS	24.50	NS	
Farallon	1/24/2011	NS	18.75	NS	
Farallon	4/25/2011	NS	18.25	NS	

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-11	ERM	3/19/2003	89.89	23.06	66.83
	Farallon	3/23/2004	89.89	22.42	67.47
	Farallon	7/6/2005	89.89	24.28	65.61
	Farallon	9/29/2005	89.89	27.24	62.65
	Farallon	12/27/2005	NS	24.22	NS
	Farallon	3/27/2006	NS	20.79	NS
	Farallon	10/17/2006	NS	28.16	NS
	Farallon	4/10/2007	NS	20.40	NS
	Farallon	3/13/2008	NS	22.23	NS
	Farallon	6/16/2008	NS	22.36	NS
	Farallon	9/30/2008	NS	26.24	NS
	Farallon	12/29/2008	NS	23.54	NS
	Farallon	3/18/2009	NS	22.41	NS
	Farallon	10/27/2009	NS	26.42	NS
	Farallon	1/28/2010	NS	21.02	NS
	Farallon	4/19/2010	NS	22.00	NS
	Farallon	7/19/2010	NS	22.43	NS
	Farallon	10/20/2010	NS	24.88	NS
	Farallon	1/24/2011	NS	19.20	NS
Farallon	4/25/2011	NS	18.66	NS	
CMW-12	ERM	3/20/2003	90.02	23.28	66.74
	Farallon	3/23/2004	90.02	22.79	67.23
	Farallon	7/6/2005	90.02	24.60	65.42
	Farallon	12/27/2005	90.02	24.98	65.04
	Farallon	3/27/2006	90.02	21.57	68.45
	Farallon	10/17/2006	90.02	27.94	62.08
	Farallon	3/13/2008	90.02	22.98	67.04
	Farallon	6/16/2008	90.02	23.11	66.91
	Farallon	9/30/2008	90.02	26.98	63.04
	Farallon	12/29/2008	90.02	24.28	65.74
	Farallon	3/18/2009	90.02	23.16	66.86
	Farallon	10/27/2009	90.02	27.13	62.89
	Farallon	1/28/2010	90.02	21.79	68.23
	Farallon	4/19/2010	90.02	22.75	67.27

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-12	Farallon	7/19/2010	90.02	23.21	66.81
	Farallon	10/20/2010	90.02	25.57	64.45
	Farallon	1/24/2011	90.02	19.94	70.08
	Farallon	4/25/2011	90.02	19.43	70.59
CMW-13	ERM	12/12/2002	89.67	28.21	61.46
	ERM	3/20/2003	89.67	22.80	66.87
	ERM	6/25/2003	89.67	26.00	63.67
	Farallon	9/30/2003	89.67	28.55	61.12
	Farallon	12/18/2003	89.67	24.77	64.90
	Farallon	3/23/2004	89.67	22.34	67.33
	Farallon	6/28/2004	89.67	24.58	65.09
	Farallon	9/21/2004	89.67	26.71	62.96
	Farallon	12/21/2004	89.67	24.18	65.49
	Farallon	3/30/2005	89.67	24.13	65.54
	Farallon	7/6/2005	89.67	24.16	65.51
	Farallon	9/29/2005	89.67	27.17	62.50
	Farallon	12/27/2005	89.67	24.60	65.07
	Farallon	3/27/2006	89.67	21.04	68.63
	Farallon	10/17/2006	89.67	27.53	62.14
	Farallon	3/13/2008	89.67	22.58	67.09
	Farallon	6/16/2008	89.67	22.69	66.98
	Farallon	9/30/2008	89.67	26.57	63.10
	Farallon	12/29/2008	89.67	23.85	65.82
	Farallon	3/18/2009	89.67	22.74	66.93
	Farallon	10/27/2009	89.67	26.71	62.96
	Farallon	1/28/2010	89.67	21.35	68.32
	Farallon	4/19/2010	89.67	22.27	67.40
	Farallon	7/19/2010	89.67	22.75	66.92
Farallon	10/20/2010	89.67	25.16	64.51	
Farallon	1/24/2011	89.67	19.50	70.17	
Farallon	4/25/2011	89.67	18.97	70.70	

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-15	ERM	12/12/2002	87.22	26.28	60.94
	ERM	3/20/2003	87.22	20.95	66.27
	ERM	6/24/2003	87.22	24.10	63.12
	Farallon	9/30/2003	87.22	26.52	60.70
	Farallon	12/17/2003	87.22	22.83	64.39
	Farallon	3/23/2004	87.22	20.45	66.77
	Farallon	6/28/2004	87.22	22.65	64.57
	Farallon	9/21/2004	87.22	24.73	62.49
	Farallon	12/21/2004	87.22	22.27	64.95
	Farallon	3/30/2005	87.22	22.25	64.97
	Farallon	7/6/2005	87.22	22.26	64.96
	Farallon	9/29/2005	87.22	25.16	62.06
	Farallon	12/27/2005	87.22	22.59	64.63
	Farallon	3/27/2006	87.22	19.21	68.01
	Farallon	10/17/2006	87.22	25.52	61.70
	Farallon	3/13/2008	87.22	20.64	66.58
	Farallon	6/16/2008	87.22	20.76	66.46
	Farallon	9/30/2008	87.22	24.58	62.64
	Farallon	12/29/2008	87.22	21.89	65.33
	Farallon	3/18/2009	87.22	20.79	66.43
	Farallon	10/27/2009	87.22	24.69	62.53
	Farallon	1/28/2010	87.22	19.45	67.77
Farallon	4/19/2010	87.22	20.36	66.86	
Farallon	7/19/2010	87.22	20.86	66.36	
Farallon	10/20/2010	87.22	23.17	64.05	
Farallon	1/24/2011	87.22	17.58	69.64	
Farallon	4/25/2011	87.22	17.12	70.10	
CMW-17	ERM	12/12/2002	88.16	27.45	60.71
	ERM	3/17/2003	88.16	22.28	65.88
	ERM	6/24/2003	88.16	26.36	61.80
	Farallon	9/30/2003	88.16	27.71	60.45
	Farallon	12/17/2003	88.16	23.96	64.20
	Farallon	3/23/2004	88.16	21.67	66.49
	Farallon	6/28/2004	88.16	23.89	64.27

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-17	Farallon	9/21/2004	88.16	25.93	62.23
	Farallon	12/21/2004	88.16	23.43	64.73
	Farallon	3/30/2005	88.16	23.47	64.69
	Farallon	7/6/2005	88.16	23.49	64.67
	Farallon	9/29/2005	88.16	26.39	61.77
	Farallon	12/27/2005	88.16	23.81	64.35
	Farallon	3/27/2006	88.16	20.43	67.73
	Farallon	10/17/2006	88.16	26.73	61.43
	Farallon	3/13/2008	88.16	21.83	66.33
	Farallon	6/16/2008	88.16	21.94	66.22
	Farallon	9/30/2008	88.16	25.79	62.37
	Farallon	12/29/2008	88.16	23.08	65.08
	Farallon	3/18/2009	88.16	22.01	66.15
	Farallon	1/28/2010	88.16	20.60	67.56
	Farallon	4/19/2010	88.16	21.58	66.58
	Farallon	7/19/2010	88.16	22.07	66.09
Farallon	4/25/2011	88.16	18.00	NS	
CMW-19	ERM	12/12/2002	88.26	27.39	60.87
	ERM	3/20/2003	88.26	22.08	66.18
	ERM	6/24/2003	88.26	25.29	62.97
	Farallon	12/17/2003	88.26	23.95	64.31
	Farallon	3/23/2004	88.26	21.61	66.65
	Farallon	6/28/2004	88.26	23.89	64.37
	Farallon	9/21/2004	88.26	25.89	62.37
	Farallon	12/21/2004	88.26	23.41	64.85
	Farallon	3/30/2005	88.26	23.40	64.86
	Farallon	7/6/2005	88.26	23.42	64.84
	Farallon	9/29/2005	88.26	26.31	61.95
	Farallon	12/27/2005	88.26	23.75	64.51
	Farallon	3/27/2006	88.26	20.36	67.90
	Farallon	10/17/2006	88.26	26.67	61.59
	Farallon	3/13/2008	88.26	21.81	66.45
Farallon	9/30/2008	88.26	25.73	62.53	

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-20	ERM	12/12/2002	85.90	25.53	60.37
	ERM	3/17/2003	85.90	20.45	65.45
	ERM	6/24/2003	85.90	26.30	59.60
	Farallon	9/30/2003	85.90	25.81	60.09
	Farallon	12/17/2003	85.90	22.07	63.83
	Farallon	3/23/2004	85.90	19.90	66.00
	Farallon	6/28/2004	85.90	22.08	63.82
	Farallon	9/21/2004	85.90	24.06	61.84
	Farallon	12/21/2004	85.90	21.58	64.32
	Farallon	3/30/2005	85.90	21.64	64.26
	Farallon	7/6/2005	85.90	21.67	64.23
	Farallon	9/29/2005	85.90	24.51	61.39
	Farallon	12/27/2005	85.90	21.96	63.94
	Farallon	3/27/2006	85.90	18.65	67.25
	Farallon	10/17/2006	85.90	24.85	61.05
	Farallon	3/13/2008	85.90	20.00	65.90
	Farallon	6/16/2008	85.90	21.11	64.79
	Farallon	9/30/2008	85.90	23.91	61.99
	Farallon	12/29/2008	85.90	21.23	64.67
	Farallon	3/18/2009	85.90	20.17	65.73
CMW-21	ERM	12/12/2002	87.48	27.00	60.48
	ERM	3/17/2003	87.48	21.80	65.68
	ERM	6/24/2003	87.48	24.98	62.50
	Farallon	3/23/2004	87.48	21.21	66.27
	Farallon	6/28/2004	87.48	23.41	64.07
	Farallon	9/21/2004	87.48	25.47	62.01
	Farallon	3/30/2005	87.48	23.02	64.46
	Farallon	7/6/2005	87.48	23.06	64.42
	Farallon	12/27/2005	87.48	23.32	64.16
	Farallon	3/27/2006	87.48	20.00	67.48
	Farallon	10/17/2006	87.48	26.26	61.22
	Farallon	3/13/2008	87.48	21.36	66.12
	Farallon	9/30/2008	87.48	25.33	62.15

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-23	ERM	12/12/2002	84.96	24.75	60.21
	ERM	3/19/2003	84.96	19.48	65.48
	ERM	6/24/2003	84.96	23.40	61.56
	Farallon	12/17/2003	84.96	21.19	63.77
	Farallon	3/23/2004	84.96	19.06	65.90
	Farallon	12/21/2004	84.96	20.75	64.21
	Farallon	3/30/2005	84.96	20.82	64.14
	Farallon	7/6/2005	84.96	20.87	64.09
	Farallon	12/27/2005	84.96	21.11	63.85
	Farallon	3/27/2006	84.96	17.84	67.12
	Farallon	10/17/2006	84.96	24.01	60.95
Farallon	3/13/2008	84.96	19.20	65.76	
CMW-24	ERM	3/17/2003	88.39	20.80	67.59
	Farallon	3/23/2004	88.39	21.15	67.24
	Farallon	6/28/2004	88.39	22.39	66.00
	Farallon	9/21/2004	88.39	24.60	63.79
	Farallon	12/21/2004	88.39	22.06	66.33
	Farallon	3/30/2005	88.39	22.02	66.37
	Farallon	7/6/2005	88.39	21.98	66.41
	Farallon	12/27/2005	88.39	22.44	65.95
	Farallon	3/27/2006	88.39	18.99	69.40
	Farallon	10/17/2006	88.39	25.46	62.93
	Farallon	3/12/2008	88.39	20.90	67.49
	Farallon	6/16/2008	88.39	20.60	67.79
	Farallon	9/30/2008	88.39	24.52	63.87
	Farallon	12/29/2008	88.39	21.81	66.58
	Farallon	3/18/2009	88.39	20.65	67.74
Farallon	1/24/2011	88.39	17.42	70.97	
Farallon	4/25/2011	88.39	16.86	71.53	
CMW-25	ERM	3/19/2003	NS	22.15	NS
	Farallon	3/23/2004	NS	21.57	NS
	Farallon	7/7/2005	NS	23.43	NS
	Farallon	9/29/2005	NS	26.45	NS
	Farallon	12/27/2005	NS	23.86	NS

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-25	Farallon	3/27/2006	NS	20.32	NS
	Farallon	10/17/2006	NS	26.82	NS
	Farallon	10/17/2006	NS	26.82	NS
	Farallon	4/10/2007	NS	19.99	NS
	Farallon	3/13/2008	NS	21.85	NS
	Farallon	6/16/2008	NS	22.02	NS
	Farallon	9/30/2008	NS	25.86	NS
	Farallon	12/29/2008	NS	23.18	NS
	Farallon	3/18/2009	NS	22.03	NS
	Farallon	10/27/2009	NS	26.03	NS
	Farallon	1/28/2010	NS	20.64	NS
	Farallon	4/19/2010	NS	21.59	NS
	Farallon	7/19/2010	NS	22.00	NS
	Farallon	10/20/2010	NS	24.45	NS
	Farallon	1/24/2011	NS	18.85	NS
Farallon	4/25/2011	NS	18.28	NS	
CMW-26	Farallon	8/17/2007	87.80	23.56	64.24
	Farallon	3/13/2008	87.80	20.18	67.62
	Farallon	6/16/2008	87.80	20.32	67.48
	Farallon	9/30/2008	87.80	24.22	63.58
	Farallon	12/29/2008	87.80	21.48	66.32
	Farallon	3/18/2009	87.80	20.34	67.46
	Farallon	10/27/2009	87.80	24.35	63.45
	Farallon	1/28/2010	87.80	18.95	68.85
	Farallon	4/19/2010	87.80	19.88	67.92
	Farallon	7/19/2010	87.80	20.35	67.45
	Farallon	10/20/2010	87.80	22.80	65.00
	Farallon	1/24/2011	87.80	17.15	70.65
CMW-27	Farallon	3/13/2008	89.10	21.87	67.23
	Farallon	6/16/2008	89.10	21.02	68.08
	Farallon	9/30/2008	89.10	25.89	63.21
	Farallon	12/29/2008	89.10	23.18	65.92
	Farallon	3/18/2009	89.10	22.22	66.88

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-27	Farallon	10/27/2009	89.10	26.09	63.01
	Farallon	1/28/2010	89.10	20.69	68.41
	Farallon	4/19/2010	89.10	21.61	67.49
	Farallon	7/19/2010	89.10	22.06	67.04
	Farallon	10/20/2010	89.10	24.45	64.65
	Farallon	1/24/2011	89.10	18.80	70.30
	Farallon	4/25/2011	89.10	18.30	70.80
CMW-28	Farallon	3/13/2008	89.48	21.73	67.75
	Farallon	6/16/2008	89.48	22.22	67.26
	Farallon	9/30/2008	89.48	26.15	63.33
	Farallon	12/29/2008	89.48	23.19	66.29
	Farallon	3/18/2009	89.48	22.14	67.34
	Farallon	10/27/2009	89.48	26.19	63.29
	Farallon	1/28/2010	89.48	20.86	68.62
	Farallon	4/19/2010	89.48	21.84	67.64
	Farallon	7/19/2010	89.48	22.26	67.22
	Farallon	10/20/2010	89.48	24.68	64.80
	Farallon	1/24/2011	89.48	19.00	70.48
Farallon	4/25/2011	89.48	18.40	71.08	
CMW-29	Farallon	3/12/2008	88.03	20.38	67.65
	Farallon	6/16/2008	88.03	20.51	67.52
	Farallon	9/30/2008	88.03	24.44	63.59
	Farallon	12/29/2008	88.03	21.71	66.32
	Farallon	3/18/2009	88.03	20.56	67.47
	Farallon	10/27/2009	88.03	24.56	63.47
	Farallon	1/28/2010	88.03	19.15	68.88
	Farallon	4/19/2010	88.03	20.12	67.91
	Farallon	7/19/2010	88.03	20.55	67.48
	Farallon	10/20/2010	88.03	23.02	65.01
	Farallon	1/24/2011	88.03	17.35	70.68
Farallon	4/25/2011	88.03	16.81	71.22	
CMW-30	Farallon	3/12/2008	87.58	19.78	67.80
	Farallon	6/16/2008	87.58	19.90	67.68
	Farallon	9/30/2008	87.58	23.82	63.76
	Farallon	12/29/2008	87.58	21.11	66.47
	Farallon	3/18/2009	87.58	20.97	66.61

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
CMW-30	Farallon	10/27/2009	87.58	24.01	63.57
	Farallon	1/28/2010	87.58	18.57	69.01
	Farallon	4/19/2010	87.58	19.51	68.07
	Farallon	7/19/2010	87.58	19.93	67.65
	Farallon	10/20/2010	87.58	22.40	65.18
	Farallon	1/24/2011	87.58	16.78	70.80
	Farallon	4/25/2011	87.58	16.19	71.39
CMW-31	Farallon	3/13/2008	89.02	22.50	66.52
	Farallon	6/16/2008	89.02	22.59	66.43
	Farallon	9/30/2008	89.02	26.45	62.57
	Farallon	12/29/2008	89.02	23.73	65.29
	Farallon	3/18/2009	89.02	22.65	66.37
	Farallon	10/27/2009	89.02	26.56	62.46
	Farallon	1/28/2010	89.02	21.24	67.78
	Farallon	4/19/2010	89.02	22.26	66.76
	Farallon	7/19/2010	89.02	22.67	66.35
	Farallon	10/20/2010	89.02	24.97	64.05
	Farallon	1/24/2011	89.02	19.27	69.75
Farallon	4/25/2011	89.02	18.86	70.16	
CMW-32	Farallon	3/13/2008	88.12	21.68	66.44
	Farallon	6/16/2008	88.12	21.75	66.37
	Farallon	9/30/2008	88.12	25.61	62.51
	Farallon	12/29/2008	88.12	22.90	65.22
	Farallon	3/18/2009	88.12	21.82	66.30
	Farallon	10/27/2009	88.12	25.72	62.40
	Farallon	1/28/2010	88.12	20.40	67.72
	Farallon	4/19/2010	88.12	21.39	66.73
	Farallon	7/19/2010	NS	21.88	NS
	Farallon	1/24/2011	NS	18.47	NS
Farallon	4/25/2011	NS	18.04	NS	
HMW-8	ERM	3/20/2003	89.12	22.46	66.66
	Farallon	3/23/2004	89.12	21.95	67.17
	Farallon	7/6/2005	89.12	23.75	65.37
	Farallon	3/27/2006	89.12	19.39	69.73
	Farallon	10/17/2006	89.12	26.04	63.08

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
HMW-9	ERM	12/12/2002	89.07	27.93	61.14
	ERM	3/19/2003	89.07	22.66	66.41
	Farallon	3/23/2004	89.07	22.15	66.92
	Farallon	7/6/2005	89.07	23.96	65.11
	Farallon	3/27/2006	89.07	20.92	68.15
	Farallon	10/17/2006	89.07	27.28	61.79
	Farallon	3/13/2008	89.07	22.38	66.69
	Farallon	6/16/2008	89.07	22.49	66.58
	Farallon	9/30/2008	89.07	26.34	62.73
	Farallon	12/29/2008	89.07	23.64	65.43
	Farallon	3/18/2009	89.07	22.53	66.54
	Farallon	10/27/2009	89.07	26.42	62.65
	Farallon	1/28/2010	89.07	21.15	67.92
	Farallon	4/19/2010	89.07	22.13	66.94
	Farallon	7/19/2010	89.07	22.59	66.48
	Farallon	10/20/2010	89.07	24.91	64.16
Farallon	1/24/2011	89.07	19.30	69.77	
Farallon	4/25/2001	89.07	18.43	70.64	
HMW-10	ERM	3/19/2003	89.18	22.62	66.56
	Farallon	9/30/2003	89.18	28.20	60.98
	Farallon	3/23/2004	89.18	22.09	67.09
	Farallon	6/28/2004	89.18	24.29	64.89
	Farallon	9/21/2004	89.18	26.40	62.78
	Farallon	12/21/2004	89.18	23.90	65.28
	Farallon	3/30/2005	89.18	23.88	65.30
	Farallon	7/6/2005	89.18	23.88	65.30
	Farallon	9/29/2005	89.18	26.85	62.33
	Farallon	12/27/2005	89.18	24.26	64.92
	Farallon	3/27/2006	89.18	20.85	68.33
	Farallon	10/17/2006	89.18	27.21	61.97
	Farallon	3/13/2008	89.18	22.31	66.87
	Farallon	6/16/2008	89.18	22.42	66.76
	Farallon	9/30/2008	89.18	26.24	62.94
Farallon	12/29/2008	89.18	23.57	65.61	

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
HMW-10	Farallon	3/18/2009	89.18	22.45	66.73
	Farallon	10/27/2009	89.18	26.40	62.78
	Farallon	1/28/2010	89.18	21.19	67.99
	Farallon	4/19/2010	89.18	21.99	67.19
	Farallon	7/19/2010	89.18	22.51	66.67
	Farallon	10/20/2010	89.18	24.85	64.33
	Farallon	1/24/2011	89.18	19.23	69.95
	Farallon	4/25/2011	89.18	18.73	70.45
HMW-11	ERM	3/20/2003	NS	22.19	NS
	Farallon	3/23/2004	NS	21.71	NS
	Farallon	7/6/2005	NS	23.53	NS
	Farallon	3/27/2006	NS	19.96	NS
	Farallon	10/17/2006	NS	25.35	NS
HMW-11	Farallon	3/13/2008	NS	20.44	NS
	Farallon	6/16/2008	NS	20.53	NS
	Farallon	9/30/2008	NS	24.38	NS
	Farallon	12/29/2008	NS	21.73	NS
	Farallon	3/18/2009	NS	20.58	NS
	Farallon	10/27/2009	NS	24.52	NS
	Farallon	1/28/2010	NS	19.20	NS
	Farallon	4/19/2010	NS	20.16	NS
	Farallon	7/19/2010	NS	20.64	NS
	Farallon	10/20/2010	NS	22.99	NS
	Farallon	1/24/2011	NS	17.33	NS
	Farallon	4/25/2011	NS	16.83	NS
HMW-12	ERM	3/17/2003	88.55	22.04	66.51
	Farallon	9/30/2003	88.55	27.52	61.03
	Farallon	3/23/2004	88.55	21.35	67.20
	Farallon	6/28/2004	88.55	23.52	65.03
	Farallon	9/21/2004	88.55	25.73	62.82
	Farallon	12/21/2004	88.55	23.23	65.32
	Farallon	3/30/2005	88.55	23.16	65.39
	Farallon	7/6/2005	88.55	23.14	65.41
	Farallon	9/29/2005	88.55	26.14	62.41

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
HMW-12	Farallon	12/27/2005	88.55	23.57	64.98
	Farallon	3/27/2006	88.55	20.09	68.46
	Farallon	10/17/2006	88.55	26.51	62.04
	Farallon	3/13/2008	88.55	21.57	66.98
	Farallon	9/30/2008	88.55	25.53	63.02
	Farallon	1/24/2011	88.55	18.55	70.00
	Farallon	4/25/2011	88.55	18.00	70.55
HMW-13	ERM	12/12/2002	88.32	26.47	61.85
	ERM	3/19/2003	88.32	21.01	67.31
	ERM	6/25/2003	88.32	24.74	63.58
	Farallon	9/30/2003	88.32	26.75	61.57
	Farallon	12/18/2003	88.32	23.02	65.30
	Farallon	3/23/2004	88.32	20.43	67.89
	Farallon	6/28/2004	88.32	22.64	65.68
	Farallon	9/21/2004	88.32	24.93	63.39
	Farallon	12/21/2004	88.32	22.35	65.97
	Farallon	3/30/2005	88.32	22.29	66.03
	Farallon	7/6/2005	88.32	22.25	66.07
	Farallon	9/26/2005	88.32	25.33	62.99
	Farallon	12/27/2005	88.32	22.73	65.59
	Farallon	3/27/2006	88.32	19.19	69.13
	Farallon	10/17/2006	88.32	25.70	62.62
	Farallon	4/10/2007	88.32	18.84	69.48
	Farallon	3/13/2008	88.32	20.66	67.66
	Farallon	6/16/2008	88.32	20.82	67.50
	Farallon	9/30/2008	88.32	24.72	63.60
	Farallon	12/29/2008	88.32	22.06	66.26
	Farallon	3/18/2009	88.32	20.86	67.46
	Farallon	10/27/2009	88.32	24.92	63.40
	Farallon	1/28/2010	88.32	19.50	68.82
	Farallon	4/19/2010	88.32	20.39	67.93
Farallon	7/19/2010	88.32	20.83	67.49	
Farallon	10/20/2010	88.32	23.36	64.96	
Farallon	1/24/2011	88.32	17.71	70.61	
Farallon	4/25/2011	88.32	17.25	71.07	

Table 1
Summary of Groundwater Elevation Data
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Measured By	Measurement Date	Elevation Top of Well Casing (feet)¹	Depth to Water (feet)²	Groundwater Elevation (feet)¹
HMW-14	Farallon	3/23/2004	91.15	22.30	68.85
	Farallon	7/6/2005	91.15	24.14	67.01
	Farallon	3/27/2006	91.15	21.11	70.04
	Farallon	10/17/2006	91.15	27.24	63.91
	Farallon	3/12/2008	91.15	22.19	68.96

NOTES:

¹Elevation in feet above mean sea level.

²In feet below top of well casing.

³Surveyed by Farallon on January 26, 2005.

⁴Monitoring well could not be located.

ERM = Environmental Resources Management

Farallon = Farallon Consulting, L.L.C.

NS = not surveyed

Table 2
Summary of Laboratory Analytical Results for TPH, BTEX, MTBE, and Naphthalene in Soil - 1994-1998
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample/Boring Location	Sample Identification	Sample Date	Depth (feet) ¹	Analytical Results (milligrams per kilogram)								
				DRO ²	ORO ²	GRO ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Xylenes ⁴	MTBE ⁴	Naphthalene ⁴
CMW-1	TB94-1	6/30/1994	18-20	1,400	NA	6,300	15	170	92	490	—	—
		6/30/1994	23-24	40	NA	220	0.11	1.2	1.5	10	—	—
East of old office	TB94-2	6/30/1994	23-24	5,600	NA	4,000	9.2	19	61	248	—	—
Center of site	TB94-3	7/1/1994	18-20	600	NA	2,700	0.57	15	42	223	—	—
Up-gradient of bulk area	TB94-4	7/1/1994	13-15	1,100	NA	100	<0.057	0.2	0.22	0.97	—	—
CMW-15	CMW-15	12/14/1994	15	NA	NA	11	<0.05	<0.05	<0.05	<0.10	—	—
		12/14/1994	25	NA	NA	<1	<0.05	<0.05	<0.05	<0.10	—	—
CMW-16	CMW-16	12/14/1994	15	NA	NA	<1	<0.05	<0.05	<0.05	<0.10	—	—
		12/14/1994	20	NA	NA	<1	<0.05	<0.05	<0.05	<0.10	—	—
		12/14/1994	25	NA	NA	2.5	<0.05	<0.05	<0.05	0.2	—	—
CMW-17	CMW-17	12/15/1994	16	NA	NA	<1	<0.05	<0.05	<0.05	<0.10	—	—
		12/15/1994	20	NA	NA	<1	<0.05	<0.05	<0.05	<0.10	—	—
		12/15/1994	25	NA	NA	<1	<0.05	<0.05	<0.05	<0.10	—	—
CMW-18	CMW-18	12/15/1994	15	NA	NA	<1	<0.05	<0.05	<0.05	<0.10	—	—
		12/15/1994	20	NA	NA	<1	<0.05	<0.05	<0.05	<0.10	—	—
CMW-20	CMW-20	12/16/1994	15	NA	NA	<1	<0.05	<0.05	<0.05	<0.10	—	—
		12/16/1994	25	NA	NA	<1	<0.05	<0.05	<0.05	<0.10	—	—
Trench	—	12/7/1994	—	<10	NA	2.4	<0.05	<0.05	<0.05	<0.10	—	—
DAS-1	DAS-1	12/13/1994	20	NA	NA	17	<0.05	<0.05	<0.05	<0.10	—	—
Tires 4 Less Waste Oil UST	1021971125 W.O.-East	10/21/1997	—	<50.0	<100	<20.0	<0.0500	<0.0500	<0.0500	<0.1000	—	<0.0500
	1021971120 W.O.-Center	10/21/1997	—	<50.0	<100	<20.0	<0.0500	<0.0500	<0.0500	<0.1000	—	<0.0500
	1021971115 W.O.-West	10/21/1997	—	<50.0	<100	<20.0	<0.0500	<0.0500	<0.0500	<0.1000	—	<0.0500
MTCA Method A Cleanup Levels for Soil⁵				2,000	2,000	30⁶	0.03	7	6	9	0.1	5

Table 2
Summary of Laboratory Analytical Results for TPH, BTEX, MTBE, and Naphthalene in Soil - 1994-1998
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample/Boring Location	Sample Identification	Sample Date	Depth (feet) ¹	Analytical Results (milligrams per kilogram)								
				DRO ²	ORO ²	GRO ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Xylenes ⁴	MTBE ⁴	Naphthalene ⁴
Tires 4 Less Solvent UST	1021971145 SOL.-East	10/21/1997	—	<50.0	<100	<20.0	<0.0500	<0.0500	<0.0500	<0.1000	—	<0.0500
	1021971140 SOL.-Center	10/21/1997	—	<50.0	<100	<20.0	<0.0500	<0.0500	<0.0500	<0.1000	—	<0.0500
	1021971135 SOL.-West	10/21/1997	—	<50.0	<100	<20.0	<0.0500	<0.0500	<0.0500	<0.1000	—	<0.0500
Tires 4 Less Heating Oil UST	1021971245 H.O.-East	10/21/1997	—	1,480	223	<20.0	<0.0500	<0.0500	<0.0500	<0.1000	—	<0.0500
	1021971240 H.O.-Center	10/21/1997	—	<50.0	<100	<20.0	<0.0500	0.126	<0.0500	<0.1000	—	<0.0500
	1021971235 H.O.-West	10/21/1997	—	<50.0	<100	<20.0	<0.0500	<0.0500	<0.0500	<0.1000	—	<0.0500
UST H-1	0506981150 H-1(BTM)	5/6/1998	—	2,460	<100	<20.0	—	—	—	—	—	—
	0506981155 H-1(SW-1)	5/6/1998	—	146	<100	<20.0	—	—	—	—	—	—
	0506981200 H-1(SW-2)	5/6/1998	—	<50.0	<100	<20.0	—	—	—	—	—	—
UST H-2	0506981210 H-2(BOT)	5/6/1998	—	121	<100	<20.0	—	—	—	—	—	—
	0506981212 H-2(SW-1)	5/6/1998	—	<50.0	<100	<20.0	—	—	—	—	—	—
	0506981215 H-2(SW-2)	5/6/1998	—	<50.0	<100	<20.0	—	—	—	—	—	—
UST N-1	0506981325 N-1(SW-1)	5/6/1998	—	152	<100	<20.0	—	—	—	—	—	—
	0506981445 N-1(BOT)	5/6/1998	—	47.2	<100	<20.0	—	—	—	—	—	—
	0506981455 N-1(SW-2)	5/6/1998	—	<50.0	<100	<20.0	—	—	—	—	—	—
UST N-2	050798 N2-1	5/7/1998	—	<50.0	<100	<20.0	—	—	—	—	—	—
	050798 N2-2	5/7/1998	—	572	<100	<20.0	—	—	—	—	—	—
	050798 N2-3	5/7/1998	—	156	<100	<20.0	—	—	—	—	—	—
MTCA Method A Cleanup Levels for Soil⁵				2,000	2,000	30⁶	0.03	7	6	9	0.1	5

Table 2
Summary of Laboratory Analytical Results for TPH, BTEX, MTBE, and Naphthalene in Soil - 1994-1998
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample/Boring Location	Sample Identification	Sample Date	Depth (feet) ¹	Analytical Results (milligrams per kilogram)								
				DRO ²	ORO ²	GRO ³	Benzene ⁴	Toluene ⁴	Ethyl-benzene ⁴	Xylenes ⁴	MTBE ⁴	Naphthalene ⁴
UST N-3	0506981315 N-3(BOT)	5/6/1998	—	<50.0	<100	<20.0	—	—	—	—	—	—
	0206981320 N-3(SW-1)	5/6/1998	—	<50.0	<100	<20.0	—	—	—	—	—	—
	0506981310 N-3(SW-2)(6')	5/6/1998	—	240	<100	<20.0	—	—	—	—	—	—
	0506981325 N-3(SW-2)(8')	5/6/1998	—	36.2	<100	<20.0	—	—	—	—	—	—
UST U-6	0604981020-U6-1BOT	6/4/1998	—	654	232	<20.0	—	—	—	—	—	—
	0604981027-U-6-2N	6/4/1998	—	880	160	<20.0	—	—	—	—	—	—
	0604981037-U-6-3S	6/4/1998	—	543	312	<20.0	—	—	—	—	—	—
Unknown UST east of Tires 4 Less	0604981044-UNK-S	6/4/1998	—	<50.0	<100	<20.0	—	—	—	—	—	—
	0604981041-UNK-N	6/4/1998	—	<50.0	<100	<20.0	—	—	—	—	—	—
	0604981047-UNK-M	6/4/1998	—	27.9	201	<20.0	—	—	—	—	—	—
UST U-1	092980807U1-E	9/28/1998	—	725	ND	—	—	—	—	—	—	—
	0928980810U1-C	9/28/1998	—	9,440	ND	—	—	—	—	—	—	—
	0928980815U1-W	9/28/1998	—	2,680	ND	—	—	—	—	—	—	—
UST U-2	0928981305U2-C	9/28/1998	—	377	97.0	—	—	—	—	—	—	—
	0928981310U2-E	9/28/1998	—	147	ND	—	—	—	—	—	—	—
	928981320U2-W	9/28/1998	—	365	225	—	—	—	—	—	—	—
UST U-3	0928981332U3-W	9/28/1998	—	9,770	328	—	—	—	—	—	—	—
	0928981337U3-C	9/28/1998	—	4,600	ND	—	—	—	—	—	—	—
	0928981345U3-E	9/28/1998	—	189	215	—	—	—	—	—	—	—
Dry Well Sump	0929980930SUMP	9/29/1998	—	1,760	ND	—	—	—	—	—	—	—
	0929980930SUMP	9/29/1998	—	2,170	ND	—	—	—	—	—	—	—
	101981315SUMP2	10/1/1998	8	4,970	<275	2,000	<0.200	<0.800	<1.20	<20.4	—	—
Oil/Water Separator/ UST U-4	101981215OILW	10/1/98	6	2,450	496	574	<0.0500	<0.0500	<0.0700	<0.600	—	—
MTCA Method A Cleanup Levels for Soil⁵				2,000	2,000	30⁶	0.03	7	6	9	0.1	5

Table 2
Summary of Laboratory Analytical Results for TPH, BTEX, MTBE, and Naphthalene in Soil - 1994-1998
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample/Boring Location	Sample Identification	Sample Date	Depth (feet) ¹	Analytical Results (milligrams per kilogram)								
				DRO ²	ORO ²	GRO ³	Benzene ⁴	Toluene ⁴	Ethylbenzene ⁴	Xylenes ⁴	MTBE ⁴	Naphthalene ⁴
Bulk Fueling Rack	101981225BLK1	10/1/1998	10	2,950	<275	18.5	<0.100	<0.100	<0.100	<0.200	—	—
	101981235BLK2	10/1/1998	14	2,130	<125	<20.0	<0.200	<0.200	<0.200	<0.400	—	—
	101981242BLK3	10/1/1998	20	5,060	318	401	<1.00	<1.00	<1.00	<2.00	—	—
Bulk Fuel Storage & Loading Area	102198 1315-1	10/21/1998	26	4,820	<275	1,190	<0.400	<0.400	<0.400	<1.200	<4.00	<0.400
	102198 1325-2	10/21/1998	15	<10.0	<25.0	<5.00	—	—	—	—	—	—
	102298 1456-3	10/22/1998	28	8,550	<275	839	<0.200	<0.200	<0.200	<0.600	<2.00	<0.200
	102298 1502-4	10/22/1998	13	9,320	<525	1,390	<0.100	<0.100	0.371	2.171	<1.00	0.185
	102298 1515-5 ⁷	10/22/1998	13	9,710	<275	1,710	—	—	—	—	—	—
	102298 1520-6	10/22/1998	26	3,360	<275	1,020	—	—	—	—	—	—
	102298 1620-7	10/22/1998	25	2,600	<275	196	—	—	—	—	—	—
	102298 1627-8	10/22/1998	15	1,200	43.3	156	<0.100	<0.100	<0.100	<0.300	<1.00	<0.100
	102398 1320-9	10/23/1998	29	4,100	<275	1,440	<0.100	<0.100	36.3	66.5	<1.00	4.56
	102398 1500-10	10/23/1998	27	1,670	<125	1,380	—	—	—	—	—	—
102398 1510-11	10/23/1998	11	41.6	<25.0	<10.0	—	—	—	—	—	—	
MTCA Method A Cleanup Levels for Soil⁵				2,000	2,000	30⁶	0.03	7	6	9	0.1	5

NOTES:

<denotes analyte not detected at or above the reporting limit listed.

— denotes sample not analyzed

ND = not detected, data summarized from data tables, no laboratory reporting limit stated.

Results in **Bold** denote sample results or reporting limits limit exceed Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A cleanup levels for soil.

¹Depth of sample collected in feet below ground surface.

²Analyzed by Method WTPH-D or Northwest Method NWTPH-HCID.

³Analyzed by Method WTPH-G or Northwest Method NWTPH-HCID.

⁴Analyzed by U.S. Environmental Protection Agency Method 8021B, 8021A, or Washington State Department of Ecology Interim TPH Policy Method using GC/MS.

⁵MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

⁶Cleanup level for gasoline with benzene present.

⁷Duplicate of sample 102298 1502-4

BTEX = benzene, toluene, ethylbenzene, and xylenes

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

GRO = TPH as gasoline-range organics

MTBE = methyl tertiary-butyl ether

ORO = TPH as oil-range organics

Table 3
Summary of Monitoring and Recovery Well Construction Information
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Well Type	Elevation TOC (feet msl) ¹	Date Completed	Total Depth (feet bgs) ²	Screen Interval (feet bgs)	Well Diameter (inches)	Well Casing Material	Notes
CMW-1	MW	89.20	6/30/1994	35	20-30	2	PVC	removed during excavation activities
CMW-2	MW	88.90	6/30/1994	30	15-30	2	PVC	
CMW-3	MW	89.72	7/1/1994	30	15-30	2	PVC	
CMW-4	MW	90.68	9/26/1994	34	19-34	2	PVC	
CMW-5	MW	89.44	9/26/1994	34	19-34	2	PVC	damaged during construction work July 2010
CMW-6	MW	90.66	9/27/1994	34	19-34	2	PVC	tree roots have damaged casing
CMW-7	MW	87.73	9/28/1994	34	19-34	2	PVC	
CMW-8	MW	89.94	10/2/1994	38	23-38	2	PVC	
CMW-9	MW	84.96	10/11/1994	34	19-34	2	PVC	could not locate
CMW-10	MW	89.78	10/16/1994	34	19-34	2	PVC	
CMW-11	MW	89.89	10/6/1994	56	44-49	2	PVC	
CMW-12	MW	90.02	10/16/1994	38	18-38	2	PVC	
CMW-13	MW	89.67	10/16/1994	39	18-38	2	PVC	
CMW-14	MW/AS/SVE	NS	12/13/1994	48	15-30	2	PVC	could not locate
CMW-15	MW	87.22	12/14/1994	40	15-40	2	PVC	
CMW-16	MW/AS/SVE	NS	12/15/1994	48	15-30	2	PVC	decommissioned July 2010
CMW-17	MW	88.16	12/15/1994	40	15-40	2	PVC	monument re-set August 2010, needs re-survey
CMW-18	MW/AS/SVE	NS	12/15/1994	48	15-30	2	PVC	
CMW-19	MW	88.26	12/16/1994	40	15-40	2	PVC	
CMW-20	MW	85.90	12/16/1994	40	15-40	2	PVC	
CMW-21	MW	87.48	12/28/1994	40	15-40	2	PVC	monument re-set August 2010, needs re-survey
CMW-23	MW	84.96	12/28/1994	40	15-40	2	PVC	
CMW-24	MW	88.39	12/30/1994	40	15-40	2	PVC	
CMW-25	MW	NS	1995 ³	—	—	—	—	
CMW-26	MW	87.80	8/9/2007	36	16-36	2	PVC	
CMW-27	MW	89.10	2/26/2008	35	19-34	2	PVC	

Table 3
Summary of Monitoring and Recovery Well Construction Information
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Well Type	Elevation TOC (feet msl) ¹	Date Completed	Total Depth (feet bgs) ²	Screen Interval (feet bgs)	Well Diameter (inches)	Well Casing Material	Notes
CMW-28	MW	89.48	2/28/2008	35	19-34	2	PVC	
CMW-29	MW	88.03	3/3/2008	35	19-34	2	PVC	
CMW-30	MW	87.58	2/29/2008	35	17-32	2	PVC	
CMW-31	MW	89.02	2/29/2008	35	20-35	2	PVC	
CMW-32	MW	88.12	2/27/2008	35	20-35	2	PVC	monument re-set August 2010, needs re-survey
CRW-1	RW	—	10/1/1994	58	8-58	12	PVC	
CRW-2	RW	—	11/21/1994	58	18-58	8	Wire-wrapped SS	
HMW-5	MW	—	7/30/1987	28.5	18-20	2	SS	abandoned by Hillman property owners
HMW-6	MW	—	7/30/1987	22.5	12.5-22.5	2	SS	abandoned by Hillman property owners
HMW-8	MW	89.12	2/19/1993	31.25	12.25-31.25	2	PVC	destroyed by overturned tree
HMW-9	MW	89.07	2/18/1993	34.5	22-32	2	PVC	
HMW-10	MW	89.18	3/31/1993	36.5	10-34	2	PVC	
HMW-11	MW	NS	3/31/1993	36.5	10-34	2	PVC	
HMW-12	MW	88.55	11/4/1993	35	10-35	2	PVC	
HMW-13	MW	88.32	6/5/1994	35.5	10-34	2	PVC	
HMW-14	MW	91.15	6/6/1994	36	10-34	2	PVC	

NOTES:

¹Elevation in feet above mean sea level.

²Depth in feet below ground surface (bgs).

³Exact date of construction unknown, prior to July 1995.

— = no data

AS = air sparge

MW = monitoring well

NS = not surveyed

PVC = polyvinyl chloride

RW = recovery well

SS = stainless steel

SVE = soil vapor extraction

TOC = top of well casing

Table 4
Summary of Air Sparge and Soil Vapor Extraction Well Construction Information
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Well Type	Date Completed	Total Depth (feet bgs) ¹	Screen Interval (feet bgs)	Well Diameter (inches)	Well Casing Material	Notes
Perimeter System							
AS-1	AS	7/26/1994	29	26-29	2	GS	
AS-11	AS	8/29/1994	28.5	25.5-28.5	2	PVC	Remote plumbed (wellhead not accessible)
AS-12	AS	8/30/1994	30	27-30	2	PVC	Remote plumbed (wellhead not accessible)
AS-13	AS	8/31/1994	29.5	26.5-29.5	2	PVC	Remote plumbed (wellhead not accessible)
AS-14	AS	9/1/1994	29	26-29	2	PVC	
AS-15	AS	8/31/1994	30	27-30	2	PVC	
AS-16	AS	9/1/1994	27	25-27	2	PVC	
SV-1	SVE	7/26/1994	27	17-27	2	PVC	
SV-2	SVE	7/26/1994	17	13-17	2	PVC	
SV-3	SVE	7/26/1994	15	10-15	2	PVC	
SV-10	SVE	8/29/1994	18	8-18	2	PVC	Remote plumbed (wellhead not accessible)
SV-11	SVE	8/29/1994	17.5	7.5-17.5	2	PVC	Remote plumbed (wellhead not accessible)
SV-12	SVE	8/29/1994	18	8-18	2	PVC	Remote plumbed (wellhead not accessible)
SV-13	SVE	8/30/1994	18	8-18	2	PVC	Remote plumbed (wellhead not accessible)
SV-14	SVE	8/31/1994	19	9-19	2	PVC	
SV-15	SVE	8/31/1994	17	7-17	2	PVC	
SV-16	SVE	9/1/1994	17	7-17	2	PVC	
Central System							
CAS-1	AS	3/1996 ²	50	48-50	—	—	
CAS-2	AS	3/1996 ²	50	47.5-50	—	—	
CAS-3	AS	3/1996 ²	50	47.5-50	—	—	
CAS-4	AS	3/1996 ²	50	47.5-50	—	—	
CAS-5	AS	3/1996 ²	50	47.5-50	—	—	
CAS-7	AS	3/1996 ²	50	47.5-50	—	—	
CAS-8	AS	3/1996 ²	50	47.5-50	—	—	

Table 4
Summary of Air Sparge and Soil Vapor Extraction Well Construction Information
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Well Type	Date Completed	Total Depth (feet bgs) ¹	Screen Interval (feet bgs)	Well Diameter (inches)	Well Casing Material	Notes
Central System (continued)							
CAS-11	AS	3/1996 ²	50	47.5-50	—	—	
CAS-13	AS	3/1996 ²	50	47.5-50	—	—	
CMW-2	SVE	6/30/1994	30	15-30	—	—	
CMW-10	SVE	10/16/1994	34	19-34	—	—	
CSVE-1	SVE	3/1996 ²	30	15-30	—	—	
CSVE-4	SVE	3/1996 ²	30	15-30	—	—	
CSVE-5	SVE	3/1996 ²	30	15-30	—	—	
CAS-9/CSVE-6	AS/SVE	3/1996 ²	47.5	45-47.5	—	—	
CAS-10/CSVE-8	AS/SVE	3/1996 ²	50	48-50	—	—	
CAS-12/CSVE-7	AS/SVE	3/1996 ²	50	47.5-50	—	—	
Down Gradient System							
CMW-14	AS/SVE	12/13/1994	48	15-30 45-47.5	2	PVC	could not locate July 2010
CMW-16	AS/SVE	12/15/1994	48	15-30 45-47.5	2	PVC	decommissioned July 2010
CMW-18	AS/SVE	12/15/1994	48	15-30 45-47.5	2	PVC	was used as AS well
DAS-1	AS	12/13/1994	40	20-40	2	PVC	decommissioned July 2010
DAS-2	AS	12/13/1994	35	15-35	2	PVC	decommissioned July 2010
DAS-3	AS	12/19/1994	48	45.5-48	2	PVC	decommissioned July 2010
DAS-4	AS	12/19/1994	48	45.5-48	2	PVC	decommissioned July 2010
DAS-5	AS	12/20/1994	48	45.5-48	2	PVC	decommissioned July 2010
DAS-6	AS	12/20/1994	48	45.5-48	2	PVC	decommissioned July 2010
DAS-7	AS	12/20/1994	48	45.5-48	2	PVC	decommissioned July 2010
DAS-8	AS	12/21/1994	48	45.5-48	2	PVC	decommissioned July 2010
DAS-9	AS	12/21/1994	48	45.5-48	2	PVC	decommissioned July 2010
DAS-10	AS	12/21/1994	48	45.5-48	2	PVC	decommissioned July 2010
DAS-11	AS	12/22/1994	48	45.5-48	2	PVC	decommissioned July 2010

Table 4
Summary of Air Sparge and Soil Vapor Extraction Well Construction Information
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Well Type	Date Completed	Total Depth (feet bgs) ¹	Screen Interval (feet bgs)	Well Diameter (inches)	Well Casing Material	Notes
Down Gradient System (continued)							
DAS-12	AS	12/22/1994	48	45.5-48	2	PVC	decommissioned July 2010
DAS-13	AS	3/1996 ²	—	—	—	—	could not locate July 2010
DAS-14	AS	3/1996 ²	—	—	—	—	could not locate July 2010
DSVE-1	SVE	12/14/1994	20	10-20	2	PVC	decommissioned July 2010
DSVE-2	SVE	12/22/1994	20	10-20	2	PVC	decommissioned July 2010
DSVE-3	SVE	12/22/1994	20	10-20	2	PVC	decommissioned July 2010
DSVE-4	SVE	12/22/1994	20	10-20	2	PVC	decommissioned July 2010
DSVE-5	SVE	12/23/1994	20	10-20	2	PVC	decommissioned July 2010
DSVE-6	SVE	12/23/1994	20	10-20	2	PVC	decommissioned July 2010
DSVE-7	SVE	12/29/1994	20	10-20	2	PVC	decommissioned July 2010
DSVE-8	SVE	12/29/1994	20	10-20	2	PVC	decommissioned July 2010
DSVE-9	SVE	12/29/1994	20	10-20	2	PVC	decommissioned July 2010
DSVE-10	SVE	12/29/1994	20	10-20	2	PVC	decommissioned July 2010
DSVE-11	SVE	3/1996 ²	—	—	—	PVC	decommissioned July 2010
DSVE-12	SVE	3/1996 ²	—	—	—	PVC	decommissioned July 2010
DSVE-13	SVE	3/1996 ²	—	—	—	PVC	decommissioned July 2010
DSVE-14	SVE	3/1996 ²	—	—	—	PVC	decommissioned July 2010
DSVE-15	SVE	3/1996 ²	—	—	—	—	could not locate July 2010
DSVE-16	SVE	3/1996 ²	—	—	—	—	could not locate July 2010

NOTES:

— denotes no data located by Farallon

¹Depth in feet below ground surface.

²Exact date of construction unknown, prior to April 1996.

AS = air sparge

GS = galvanized steel

PVC = polyvinyl chloride

SVE = soil vapor extraction

TOC = top of well casing

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-1	Summit	CMW-1	7/22/1994	5.3	—	420	24,000	41,000	5,900	30,900
	Summit	CMW-1	12/2/1994	2.5	—	20	980	1,600	410	1,800
	Summit	CMW-1	1/9/1995	—	—	47	7,400	8,600	920	5,100
	Summit	CMW-1	2/14/1995	—	—	250	14,000	14,000	750	3,800
	Summit	CMW-1	3/13/1995	9.9	2.4	130	6,500	17,000	1,500	13,000
	Summit	CMW-1	4/6/1995	—	—	110	28,000	16,000	1,700	12,000
	Summit	CMW-1	5/3/1995	—	—	190	4,600	37,000	4,200	24,000
	Summit	CMW-1	6/15/1995	5.9	0.89	61	10,000	13,000	1,200	6,600
	Summit	CMW-1	7/12/1995	—	—	83	11,000	20,000	970	9,900
	Summit	CMW-1	8/7/1995	—	—	53	64	4,100	260	9,600
	Summit	CMW-1	9/11/1995	7.2	—	37	260	2,800	270	3,900
	Summit	CMW-1	10/4/1995	—	—	23	47	1,600	71	3,600
	Summit	CMW-1	11/2/1995	—	—	18	<8	170	45	2,600
	Summit	CMW-1	12/18/1995	2.5	<0.75	26	<20	280	50	5,000
	Summit	CMW-1	1/9/1996	—	—	33	19	330	130	5,900
	Summit	CMW-1	2/15/1996	—	—	58	64	1,300	400	11,000
	Summit	CMW-1	3/7/1996	10	0.85	87	140	2,400	760	18,000
	Summit	CMW-1	4/10/1996	—	—	90	110	2,700	730	17,000
	Summit	CMW-1	5/8/1996	—	—	54.3	<100	1,730	550	13,400
	Summit	CMW-1	6/6/1996	1.03	—	14.8	6.11	93.8	66.7	2,350
	Summit	CMW-1	7/11/1996	—	—	9.71	2.78	36.1	37.3	1,440
Summit	CMW-1	8/7/1996	—	—	40.7	319	3,770	1,630	7,330	
Summit	CMW-1	9/13/1996	1.03	—	0.654	29.8	15.3	51.0	56.7	
Summit	CMW-1	10/11/1996	—	—	0.961	9.01	1.94	5.28	9.96	
Summit	CMW-1	10/31/1996	—	—	0.112	8.13	0.735	4.08	3.92	
Summit	CMW-1	12/5/1996	0.984	—	0.609	19.3	1.51	39.3	129	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-1	Summit	CMW-1	3/6/1997	17.4	1.98	42	31.9	318	349.0	6,100
	Summit	CMW-1	6/24/1997	7.14	1.41	69.9	74.1	623	298.0	9,540
	Summit	CMW-1	9/4/1997	0.733	<0.75	1.41	38.6	0.934	4.2	34
	Summit	CMW-1	12/3/1997	11.1	<0.75	22.3	<12.5	27.8	<12.5	2,930
	Summit	CMW-1	3/6/1998	8.27	0.836	2.31	58.4	33.4	55.8	1,160
	Summit	CMW-1	6/18/1998	3.99	0.836	4.29	<25.0	<10.0	<15.0	<25.0
CMW-2	Summit	CMW-2	7/22/1994	9.3	—	180	24,000	24,000	3,000	13,600
	Summit	CMW-2	2/14/1995	—	—	91	9,900	13,000	2,600	17,000
	Summit	CMW-2	3/13/1995	36	2.0	88	12,000	11,000	1,500	7,800
	Summit	CMW-2	4/6/1995	—	—	77	15,000	14,000	1,900	9,200
	Summit	CMW-2	5/3/1995	—	—	120	15,000	16,000	2,700	13,000
	Summit	CMW-2	1/9/1996	—	—	110	4,200	4,400	1,700	8,500
	Summit	CMW-2	2/15/1996	—	—	19	1,700	2,000	740	2,600
	Summit	CMW-2	3/7/1996	8.3	0.9	12	1,000	510	410	1,800
	Summit	CMW-2	4/10/1996	—	—	23	1,600	1,500	780	3,100
	Summit	CMW-2	5/7/1996	—	—	25.6	2,840	3,360	1,060	4,480
	Summit	CMW-2	6/6/1996	43.5	—	43.9	4,700	7,200	1,330	5,490
	Summit	CMW-2	7/11/1996	—	—	42.6	1,750	3,680	520	8,250
	Summit	CMW-2	8/7/1996	—	—	33.7	52.8	915	411	3,720
	Summit	CMW-2	9/13/1996	85.7	—	12.0	56.7	171	79.7	1,350
	Summit	CMW-2	10/11/1996	—	—	6.8	57.8	93.9	36.8	394
	Summit	CMW-2	10/31/1996	—	—	2.28	258	645	940	8,860
	Summit	CMW-2	12/5/1996	26.6	—	5.52	544	1,270	60.4	588
	Summit	CMW-2	1/8/1997	—	—	<0.05	2.1	0.79	<0.5	2.18
Summit	CMW-2	2/4/1997	—	—	0.412	1.62	28.9	6.9	64.1	
Summit	CMW-2	3/6/1997	15.3	2.0	<0.1	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-2	Summit	CMW-2	4/7/1997	—	—	<0.1	<0.5	<0.5	<0.5	<1
	Summit	CMW-2	5/8/1997	—	—	<50	<0.5	<0.5	<0.5	<1
	Summit	CMW-2	6/24/1997	6.62	1.23	0.437	437	189	7.59	77.5
	Summit	CMW-2	7/7/1997	—	—	1.83	333	88.3	14.3	150
	Summit	CMW-2	8/5/1997	—	—	77.4	1.66	1.36	1.09	6.26
	Summit	CMW-2	9/3/1997	6.36	0.91	0.354	0.92	8.52	4.45	33.9
	Summit	CMW-2	10/16/1997	—	—	0.188	0.815	8.52	2.54	16.4
	Summit	CMW-2	11/14/1997	—	—	0.089	<0.5	1.91	0.969	7.73
	Summit	CMW-2	12/3/1997	5.06	<0.75	3.97	<10	237	36.4	876
	Summit	CMW-2	1/29/1998	—	—	1.38	226	59.4	28.1	287
	Summit	CMW-2	3/6/1998	3.12	<0.75	0.654	80	17.2	9.26	96.8
	Summit	CMW-2	6/18/1998	<0.25	<0.75	<0.05	<0.5	<1	<1	<1
	Summit	CMW-2	9/23/1998	0.419	<0.75	<0.05	<0.5	<1	<1	<1
	Summit	CMW-2	12/4/1998	95.2	—	168	188	335	660	7,070
	Summit	CMW-2	3/25/1999	5.47	—	0.186	29.5	5.06	3.07	16.7
	Summit	CMW-2	6/15/1999	6.31	—	15.4	481	38.3	761	2,630
	ERM	CMW-2	12/31/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-2	4/17/2000	3.96	—	2.58	63.4	12.8	74.9	465
	ERM	CMW-2	6/13/2000	5.32	—	0.189	9.19	ND	3.34	12.4
	ERM	CMW-2	10/5/2000	ND	—	ND	ND	ND	1.25	3.05
	ERM	CMW-2	12/26/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-2	3/30/2001	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-2	6/29/2001	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
ERM	CMW-2	9/28/2001	No sample collected - well dry							
ERM	CMW-2	12/17/2001	14.0	ND	11.60	30.0	ND	149	959	
ERM	CMW-2	3/8/2002	11.5	—	0.296	2.2	ND	2.46	4.79	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-2	ERM	CMW-2	7/30/2002	17.5	—	1.44	33.3	1.67	30.6	78.5
	ERM	CMW-2	12/12/2002	No sample collected - well dry						
	ERM	CMW-2	3/20/2003	13.3	—	2.27	44.8	1.87	38.0	68.2
	ERM	CMW-2	6/25/2003	8.47	—	1.12	33.3	0.788	22.6	24.8
	Farallon	CMW-2	9/30/2003	No sample collected-well dry						
	Farallon	CMW-121803-03	12/18/2003	7.97	—	3.32	17	< 2.5	23.8	85
	Farallon	CMW2-032504	3/25/2004	20.3	—	0.932	0.595	<0.5	1.35	9.18
	Farallon	CMW2-062804-01	6/28/2004	11.6	—	1.25	5.57	0.827	16.1	78.3
	Farallon	CMW2-092104	9/21/2004	17.9	1.07	0.186	<0.5	<0.5	1.48	3.3
	Farallon	CMW2-122104	12/21/2004	14.6	0.869	0.261	1.33	<0.5	2.68	6.59
	Farallon	CMW2-033105	3/31/2005	7.86	<2	0.53	1.81	<0.5	3.35	8.58
	Farallon	CMW-2-070805	7/8/2005	6.51	<1.0	0.717	1.24	<0.5	4.44	8.34
	Farallon	CMW-2-093005	9/30/2005	6.89	<1.0	1.36	1.73	0.538	7.07	9.56
	Farallon	CMW-2-122805	12/8/2005	3.10	<1.0	0.554	<0.5	<0.5	2.02	1.7
	Farallon	CMW-2-032806	3/28/2006	13.1	<4.81	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW-2-102006	10/20/2006	3.87	<0.250	0.0572 JH	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW2-031308	3/13/2008	<0.26	0.60	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW2-061708	6/17/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW2-100108	10/1/2008	0.44	0.85	<0.400	<4.0	<4.0	<4.0	<8.0
	Farallon	CMW2-123008	12/30/2008	<0.29	<0.46	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW2-031909	3/19/2009	0.35	<0.43	<0.100	<1.0	<1.0	<1.0	1.6
	Farallon	CMW2-102809	10/28/2009	<0.25	<0.40	0.240	2.0	1.2	<1.0	2.0
	Farallon	CMW2-012610	1/26/2010	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW2-042010	4/20/2010	0.28	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW2-072010	7/20/2010	0.92	<0.67 ¹⁰	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-2-102110	10/21/2010	0.63	<0.44	<0.100	<1.0	<1.0	1.1	1.5
Farallon	CMW-2-012511	1/25/2011	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW2-042711	4/27/2011	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-3	Summit	CMW-3	7/22/1994	<0.25	—	<0.25	<1	<1	<1	<1
	Summit	CMW-3	9/20/1994	—	—	—	<1	<1	<1	<1
	Summit	CMW-3	12/2/1994	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	1/4/1995	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	2/10/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	3/7/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	6/13/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	9/7/1995	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	12/5/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	3/5/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	6/4/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	9/11/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	12/5/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	3/4/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	3/4/1998	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-3	3/22/1999	0.295	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-3	3/30/2001	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-3	3/8/2002	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-3	4/17/2000	0.475	—	ND	ND	ND	ND	ND
	ERM	CMW-3	12/12/2002	No sample collected - well dry						
ERM	CMW-3	3/19/2003	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1	
Farallon	CMW3-032504	3/25/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW3-062804-01	6/28/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW3-033105	3/31/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW-3-032806	3/28/2006	<0.245	<0.490	<0.050	<0.500	<0.500	<0.500	<1.00	
Farallon	CMW3-031208	3/12/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-4	Summit	CMW-4	10/5/1994	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-4	11/10/1994	—	—	<0.05	5.6	<0.5	<0.5	<1
	Summit	CMW-4	12/5/1994	0.42	—	<0.05	1	<0.5	<0.5	<1
	Summit	CMW-4	1/5/1995	—	—	<0.05	0.83	<0.5	<0.5	<1
	Summit	CMW-4	2/13/1995	—	—	<0.08	<0.5	<0.5	<0.5	<1
	Summit	CMW-4	3/7/1995	0.29	<0.75	<0.05	0.65	<0.5	<0.5	<1
	Summit	CMW-4	4/5/1995	—	—	0.073	580	<0.5	<0.5	2.7
	Summit	CMW-4	5/3/1995	—	—	0.068	990	<0.5	<0.5	1.3
	Summit	CMW-4	6/14/1995	0.40	<0.75	<0.050	770	<0.5	<0.5	1
	Summit	CMW-4	7/11/1995	—	—	<0.050	270	<0.5	<0.5	<1
	Summit	CMW-4	8/7/1995	—	—	0.051	460	1.2	<0.5	<1
	Summit	CMW-4	9/11/1995	1.8	—	1.3	1,400	2.6	20	190
	Summit	CMW-4	10/4/1995	—	—	0.440	360	<0.5	1.7	20
	Summit	CMW-4	11/2/1995	—	—	0.075	17	<0.5	<0.5	1.1
	Summit	CMW-4	12/18/1995	0.51	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-4	1/9/1996	—	—	<0.050	0.6	<0.5	<0.5	<1
	Summit	CMW-4	2/13/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-4	3/4/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-4	4/10/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-4	5/8/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-4	6/5/1996	0.268	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-4	7/9/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-4	8/7/1996	—	—	0.075	2.58	<0.5	<0.5	<1
	Summit	CMW-4	9/13/1996	0.511	—	<0.050	<0.5	<0.5	<0.5	<1
Summit	CMW-4	12/4/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-4	3/4/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-4	3/4/1998	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-4	Summit	CMW-4	12/4/1998	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-4	3/22/1999	0.306	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-4	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-4	3/30/2001	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-4	3/8/2002	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-4	12/12/2002	ND	—	—	—	—	—	—
	ERM	CMW-4	3/19/2003	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Farallon	CMW4-032504	3/25/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW4-033105	3/31/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-4-032806	3/28/2006	0.862	<0.476	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW-4-101906	10/19/2006	<0.250	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW4-031308	3/13/2008	<0.27	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW4-061608	6/16/2008	<0.25	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW4-100108	10/1/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW4-123008	12/30/2008	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW4-031909	3/19/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW4-102809	10/28/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW4-012610	1/26/2010	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW4-042010	4/20/2010	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-4-072010	7/20/2010	<0.31	<0.49	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW-4-102110	10/21/2010	<0.28	<0.45	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW-4-012511	1/25/2011	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW4-042611	4/26/2011	<0.28	<0.45	<0.100	<1.0	<1.0	<1.0	<2.0	
CMW-5	Summit	CMW-5	10/5/1994	0.48	—	0.18	3,600	0.52	8.6	<1
	Summit	CMW-5	11/9/1994	—	—	0.15	3,100	<0.5	4.2	<1
	Summit	CMW-5	12/7/1994	0.53	—	0.09	2,000	<0.5	1.5	<1
	Summit	CMW-5	1/11/1995	—	—	<0.05	720	<0.5	<0.5	<1
	Summit	CMW-5	2/14/1995	—	—	<0.08	39	<0.5	<0.5	<1
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-5	Summit	CMW-5	3/10/1995	0.30	0.89	<0.05	1.8	<0.5	<0.5	<1
	Summit	CMW-5	4/5/1995	—	—	<0.050	<0.5	<0.5	<0.5	1
	Summit	CMW-5	5/2/1995	—	—	<0.050	1.1	<0.5	<0.5	1
	Summit	CMW-5	6/13/1995	0.37	1.0	0.200	700	23	1.9	26
	Summit	CMW-5	7/12/1995	—	—	2.4	2,900	480	110	330
	Summit	CMW-5	8/7/1995	—	—	7.6	5,300	1,100	370	1,200
	Summit	CMW-5	8/25/1995	—	—	9.0	5,500	640	450	1,400
	Summit	CMW-5	9/8/1995	0.86	—	6.5	4,700	250	370	1,200
	Summit	CMW-5	10/3/1995	—	—	1.4	1,400	0.84	69	170
	Summit	CMW-5	11/2/1995	—	—	0.800	820	0.81	68	110
	Summit	CMW-5	12/5/1995	0.41	<0.8	0.800	810	<2.0	97	64
	Summit	CMW-5	1/9/1996	—	—	<0.050	37	<2.0	8.3	<1
	Summit	CMW-5	2/13/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-5	3/4/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-5	4/10/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-5	5/7/1996	—	—	<0.050	7.56	<0.5	<0.5	<1
	Summit	CMW-5	6/3/1996	0.327	—	<0.050	0.803	<0.5	<0.5	<1
	Summit	CMW-5	7/9/1996	—	—	<0.050	0.695	<0.5	<0.5	<1
	Summit	CMW-5	8/6/1996	—	—	0.093	76.7	<0.5	0.811	<1
	Summit	CMW-5	9/11/1996	0.619	—	0.288	310	0.544	4.20	3.57
	Summit	CMW-5	10/10/1996	—	—	0.433	327	<0.5	3.05	2.07
	Summit	CMW-5	10/30/1996	—	—	0.110	95.2	<0.5	<0.5	<1
	Summit	CMW-5	12/2/1996	0.493	—	0.089	34.9	<0.5	<0.5	<1
Summit	CMW-5	3/4/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-5	6/23/1997	0.3	<0.75	<0.050	<0.5	<0.5	<0.5	1.12	
Summit	CMW-5	9/3/1997	0.824	<0.75	0.0785	64.4	<0.5	<0.5	2.4	
Summit	CMW-5	12/2/1997	1.110	<0.75	<0.05	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-5	Summit	CMW-5	3/4/1998	<0.25	<0.75	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-5	3/24/1999	0.362	—	<0.05	<0.5	<0.5	<0.5	<1
	ERM	CMW-5	4/17/2000	0.551	—	0.557	ND	ND	ND	ND
	ERM	CMW-5	5/1/2001	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-5	3/6/2002	0.283	—	ND	ND	ND	ND	ND
	ERM	CMW-5	3/19/2003	0.323	—	<0.050	<0.5	<0.5	<0.5	<1
	Farallon	CMW-5-101806	10/18/2006	0.468	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW5-031308	3/13/2008	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW5-061608	6/16/2008	<0.28	<0.45	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW5-100208	10/2/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW5-123108	12/31/2008	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW5-032009	3/20/2009	<0.29	<0.46	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW5-102909	10/29/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW5-012710	1/27/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW5-042010	4/20/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW-5-072010	7/20/2010	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0	
CMW-6	Summit	CMW-6	10/5/1994	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	11/9/1994	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	12/7/1994	<0.25	—	<0.05	0.66	<0.5	<0.5	<1
	Summit	CMW-6	1/5/1995	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	2/14/1995	—	—	<0.08	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	3/10/1995	<0.25	<0.75	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	6/14/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	9/7/1995	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	12/15/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	3/4/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	6/5/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-6	Summit	CMW-6	9/11/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	12/3/1996	0.317	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	3/4/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	6/23/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	9/3/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	12/2/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	3/4/1998	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	9/23/1998	<0.25	<0.75	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-6	3/24/1999	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	ERM	CMW-6	12/31/1999	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	ERM	CMW-6	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-6	3/6/2002	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-6	3/17/2003	ND	—	ND	ND	ND	ND	ND
	Farallon	CMW6-032304	3/23/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
Farallon	CMW6-033005	3/30/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW-6-032706	3/27/2006	<0.238	<0.476	<0.050	<0.500	<0.500	<0.500	<1.00	
CMW-7	Summit	CMW-7	10/5/1994	0.31	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	11/10/1994	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	12/5/1994	0.4	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	1/10/1995	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	2/14/1995	—	—	<0.08	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	3/9/1995	0.50	<0.75	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	6/14/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	9/7/1995	0.55	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	12/15/1995	0.37	0.81	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	3/6/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	6/4/1996	0.402	—	<0.050	<0.5	<0.5	<0.5	<1
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-7	Summit	CMW-7	9/9/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	12/3/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	3/4/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	3/4/1998	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-7	3/23/1999	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	ERM	CMW-7	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-7	3/30/2001	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-7	3/7/2002	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-7	3/17/2003	ND	—	ND	ND	ND	ND	ND
	Farallon	CMW7-032504	3/25/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW7-033005	3/30/2005	<0.284	<0.568	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-7-032706	3/27/2006	<0.236	<0.472	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW-7-101906	10/19/2006	<0.250	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW7-031308	3/13/2008	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW7-061708	6/17/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW7-100108	10/1/2008	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW7-123008	12/30/2008	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW7-031909	3/19/2009	<0.28	<0.45	<0.100	<1.0	<1.0	<1.0	<2.0	
CMW-8	Summit	CMW-8	10/25/1994	—	—	<0.05	170	<0.5	<0.5	<1
	Summit	CMW-8	11/9/1994	—	—	<0.05	32	<0.5	<0.5	<1
	Summit	CMW-8	12/12/1994	<0.25	—	<0.05	22	<0.5	<0.5	<1
	Summit	CMW-8	1/10/1995	—	—	<0.05	85	<0.5	<0.5	<1
	Summit	CMW-8	2/14/1995	—	—	<0.08	460	<0.5	2.4	<1
	Summit	CMW-8	3/9/1995	<0.25	<0.75	0.06	820	1.4	4.0	2.0
	Summit	CMW-8	6/15/1995	<0.25	<0.75	<0.500	3,100	2.0	48	27
	Summit	CMW-8	9/7/1995	0.35	—	0.700	1,600	<8	68	24
Summit	CMW-8	12/18/1995	0.53	<0.75	0.530	1,000	0.52	32	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-8	Summit	CMW-8	3/6/1996	1	<0.75	3.700	2,000	8.9	310	350
	Summit	CMW-8	6/6/1996	1.19	—	<2.500	2,770	<25	226	154
	Summit	CMW-8	9/10/1996	0.757	—	0.620	1,080	<10	37.2	26.8
	Summit	CMW-8	12/4/1996	0.635	—	0.523	1,600	<2.5	6.86	11.4
	Summit	CMW-8	3/5/1997	1.81	<0.75	0.821	1,420	7.56	32.4	49.2
	Summit	CMW-8	3/5/1997	1.1	<0.75	0.887	1,430	7.08	29.9	45.2
	Summit	CMW-8	6/24/1997	1.55	<0.75	<1	1,100	<0.5	11.1	21.6
	Summit	CMW-8	6/24/1997	1.69	1.03	<1	1,090	<0.5	11.1	21.5
	Summit	CMW-8	9/4/1997	1.46	<0.75	0.563	885	<0.5	3.1	7.28
	Summit	CMW-8	12/3/1997	1.1	<0.75	0.336	868	0.63	1.27	<1
	Summit	CMW-8	12/3/1997	1.44	<0.75	<1	974	<10	<10	<20
	Summit	CMW-8	3/5/1998	0.906	<0.75	0.134	134	0.65	<0.5	<1
	Summit	CMW-8	3/5/1998	0.554	<0.75	0.141	121	0.78	0.567	<1
	Summit	CMW-8	3/24/1999	1.07	—	0.376	78.3	2.82	21.6	34
	ERM	CMW-8	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-8	3/30/2001	0.313	—	ND	1.12	ND	ND	ND
	ERM	CMW-8	3/7/2002	1.78	—	0.0685	0.818	ND	0.678	ND
	ERM	CMW-8	3/19/2003	1.17	—	0.717	1.55	<0.5	<0.5	<1
	Farallon	CMW-8-102006	10/20/2006	0.930	<0.606	<0.050	0.717	<0.500	<0.500	<1.00
	Farallon	CMW8-031308	3/13/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW8-061708	6/17/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW8-100208	10/2/2008	<0.28	<0.45	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW8-123008	12/30/2008	<0.28	<0.45	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW8-031909	3/19/2009	<0.27	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW8-102909	10/29/2009	<0.25	<0.40	<100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW8-012610	1/26/2010	<0.26	<0.42	<100	<1.0	<1.0	<1.0	2.6	
Farallon	CMW8-042010	4/20/2010	<0.26	<0.41	<100	<1.0	<1.0	<1.0	<2.0	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-8	Farallon	CMW8-072010	7/20/2010	<0.27	<0.44	<100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-8-102210	10/22/2010	<0.29	<0.47	<100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-8-012411	1/24/2011	<0.26	<0.42	<100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW8-042711	4/27/2011	<0.26	<0.42	<100	<1.0	<1.0	<1.0	<2.0
CMW-9	Summit	CMW-9	10/5/1994	0.69	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	11/9/1994	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	12/12/1994	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	1/10/1995	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	2/14/1995	—	—	<0.08	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	3/9/1995	0.35	<0.75	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	4/5/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	5/3/1995	—	—	<0.050	0.68	<0.5	<0.5	<1
	Summit	CMW-9	6/14/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	7/12/1995	—	—	<0.050	0.54	<0.5	<0.5	<1
	Summit	CMW-9	8/4/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	9/11/1995	0.50	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	10/4/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	11/2/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	12/15/1995	0.26	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	1/9/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	2/14/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	3/6/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	4/10/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	5/8/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
Summit	CMW-9	6/5/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-9	7/10/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-9	8/7/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-9	9/12/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-9	Summit	CMW-9	10/10/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	10/30/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	12/4/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	3/5/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	6/24/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	9/4/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	12/2/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	3/5/1998	0.258	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	9/23/1998	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-9	3/23/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-9	4/18/2000	1.48	—	0.546	77	ND	ND	2.65
CMW-10	Summit	CMW-10	12/5/1995	150	8.3	1,300	4,900	7,100	4,900	32,000
	Summit	CMW-10	6/6/1996	59.2	—	33.6	3,030	762	1,570	6,970
	Summit	CMW-10	9/12/1996	13.3	—	53.0	7,520	3,480	1,750	8,670
	Summit	CMW-10	10/11/1996	—	—	30.3	5,910	271	1,910	5,800
	Summit	CMW-10	10/31/1996	—	—	29.6	5,320	205	1,820	5,450
	Summit	CMW-10	12/5/1996	23.5	—	14.1	1,780	345	630	2,429
	Summit	CMW-10	1/8/1997	—	—	3.8	52	11.1	48.4	23.1
	Summit	CMW-10	2/4/1997	—	—	883	36	11.6	8.86	67.1
	Summit	CMW-10	3/6/1997	33.3	2.01	16.5	<200	<100	<100	<200
	Summit	CMW-10	4/7/1997	—	—	1.15	27.9	17.5	5	54.8
	Summit	CMW-10	5/8/1997	—	—	36	<100	<100	<100	<200
	Summit	CMW-10	6/24/1997	15.3	1.98	12.3	917	924	29.1	449
	Summit	CMW-10	7/7/1997	—	—	30	984	1,310	51.2	936
	Summit	CMW-10	8/5/1997	—	—	24.9	1,880	322	1,050	3,490
Summit	CMW-10	9/3/1997	61	<0.75	26	1,570	151	927	2,500	
Summit	CMW-10	10/16/1997	—	—	1,880	1,330	<0.5	3,670	15,100	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-10	Summit	CMW-10	11/14/1997	—	—	68.2	852	304	907	3,430
	Summit	CMW-10	12/3/1997	63.3	<3.75	0.11	<0.5	0.76	0.601	<1
	Summit	CMW-10	1/29/1998	—	—	39.6	242	<100	<100	280
	Summit	CMW-10	3/6/1998	50.1	<8.25	<25	428	107	26.6	218
	Summit	CMW-10	6/18/1998	94.1	<8.25	<76.4	810	213	701	2,450
	Summit	CMW-10	9/23/1998	110	<8.25	265	2,160	3,720	2,750	11,100
	Summit	CMW-10	12/4/1998	142	—	1,440	2,900	3,100	2,850	16,400
	Summit	CMW-10	3/25/1999	69.5	—	264	146	655	282	2,450
	Summit	CMW-10	6/15/1999	52.2	—	7.92	146	29.1	76	346
	ERM	CMW-10	10/7/1999	106	—	37.4	1,160	61.4	1,710	5,960
	ERM	CMW-10	12/31/1999	106	—	21.0	156	329	426	3,660
	ERM	CMW-10	4/17/2000	74.5	—	18.1	342	395	348	2,874
	ERM	CMW-10	6/13/2000	248	—	27.3	567	417	591	2,950
	ERM	CMW-10	10/5/2000	8.7	—	21	729	152	1,310	3,530
	ERM	CMW-10	1/16/2001	36.9	—	23.9	977	87.9	1,460	3,880
	ERM	CMW-10	3/30/2001	91.1	—	19.6	700	78.5	1,230	3,170
	ERM	CMW-10	6/29/2001	91.4	—	34.3	496	<50.0	1,410	2,870
	ERM	CMW-10	9/28/2001	118	ND	7.68	253	6.53	641	452
	ERM	CMW-10	12/17/2001	109	ND	16.3	505	19.6	1,410	4,530
	ERM	CMW-10	3/8/2002	422	—	6.42	29.1	29.9	109	1,000
	ERM	CMW-10	7/30/2002	205	—	25.8	587	57.0	1,230	5,940
	ERM	CMW-10	12/13/2002	169	—	12.4	90.5	9.71	658	1,670
	ERM	CMW-10	3/19/2003	447	—	22.9	226	37.9	860	4,680
ERM	CMW-10	6/25/2003	94.9	—	30.3	320	66.1	1,180	6,590	
Farallon	093003-CMW10	9/30/2003	0.332	—	<0.50	<0.5	<0.5	<0.5	<1	
Farallon	CMW-121803-02	12/18/2003	38.5	—	21.7	187	59.2	1,170	7,190	
Farallon	CMW10-032504	3/25/2004	112	—	12.8	45	28.4	480	3,760	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-10	Farallon	CMW10-062804-01	6/28/2004	385	—	26.1	49.4	59.9	1,050	7,330
	Farallon	CMW10-092104	9/21/2004	31.9	0.648	22.5	20.4	67.8	1,170	5,480
	Farallon	CMW10-122104	12/21/2004	36	<5.0	35.5	42.2	416	1,230	9,750
	Farallon	CMW10-033105	3/31/2005	49.9	<10.0	32.7	<25	543	993	8,070
	Farallon	CMW-10-070805	7/8/2005	281	<50	17.1	<25	176	295	3,240
	Farallon	CMW-10-093005	9/30/2005	43.2	<10	15.2	10.9	62.5	589	3,520
	Farallon	CMW-10-122805	12/28/2005	93.8	<10	10.1	11	17	291	1,950
	Farallon	CMW-10-032806	3/28/2006	1,070	<202	8.6	<5.00	25.6	75.0	1,540
	Farallon	CMW-10-042106	4/21/2006	161	<94.3¹⁰	—	—	—	—	—
	Farallon	CMW-10-102006	10/20/2006	697 JH	45.5 JH	4.29	3.18	10.4	77.0	527 JL
	Farallon	CMW10-031308	3/13/2008	1.9⁶	<0.43	0.930⁷	1.2	1.7	4.7	103
	Farallon	QAQC-2-031308 ⁸	3/13/2008	1.9⁶	<0.42	1.000⁷	1.2	1.8	4.9	107
	Farallon	CMW10-061708	6/17/2008	1.9	<0.41	1.300⁷	<4.0	<4.0	12	179
	Farallon	CMW10-061708 ⁸	6/17/2008	2.0	<0.40	1.300⁷	<4.0	<4.0	12	181
	Farallon	CMW10-100108	10/1/2008	0.74	<0.40	3.500	1.9	4.8	64	750
	Farallon	CMW10-123008	12/30/2008	1.1⁹	<0.40	6.100	4.1	5.3	140	1,290
	Farallon	CMW10-031909	3/19/2009	1.3⁹	<0.46	1.600⁷	<4.0	<4.0	13	204
	Farallon	CMW10-102809	10/28/2009	0.78⁹	<0.40	8.100	2.7	2.9	140	1,440
	Farallon	QAQC-102809 ⁸	10/28/2009	5.5⁹	0.76¹¹	8.400	2.8	3.1	150	1,570
	Farallon	CMW10-012610	1/26/2010	5.8	<0.65¹⁰	1.100⁷	<1.0	<1.0	3.5	76
	Farallon	QAQC-1-012610 ⁸	1/26/2010	5.6	<0.63¹⁰	1.200⁷	<1.0	<1.0	3.7	74
	Farallon	CMW10-042010	4/20/2010	2.7⁹	<0.41	0.560 ⁷	<1.0	<1.0	<1.0	19.3
	Farallon	QA/QC-1-042010 ⁸	4/20/2010	2.2⁹	<0.41	0.660 ⁷	<4.0	<4.0	<4.0	12
Farallon	CMW10-072010	7/20/2010	2.3	<0.57¹⁰	0.740 ⁷	<1.0	<1.0	1.2	67	
Farallon	CMW-10-102110	10/21/2010	2.6	<0.47	7.200	<4.0	<4.0	10	1,430	
Farallon	CMW-10-012511	1/25/2011	0.79	<0.42	<0.400	<4.0	<4.0	<4.0	<8.0	
Farallon	CMW-10-042611	4/26/2011	<0.29	<0.46	<0.100	<1.0	<1.0	<1.0	<2.0	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-11	Summit	CMW-11	10/26/1994	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-11	11/10/1994	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-11	12/7/1994	<0.25	—	<0.05	160	<0.5	<0.5	<1
	Summit	CMW-11	1/9/1995	—	—	<0.05	180	2.1	<0.5	<1
	Summit	CMW-11	2/14/1995	—	—	<0.08	3,600	870	81	370
	Summit	CMW-11	3/10/1995	0.63	0.86	0.340	1,000	26	1.7	69
	Summit	CMW-11	6/15/1995	0.75	0.86	41	5,200	9,300	2,200	8,900
	Summit	CMW-11	9/7/1995	1.1	—	1.8	760	62	59	300
	Summit	CMW-11	12/18/1995	0.60	< 0.75	<0.050	32	<0.5	<0.5	<1
	Summit	CMW-11	3/7/1996	0.45	< 0.75	3.000	110	3.3	200	420
	Summit	CMW-11	6/6/1996	<0.25	—	<0.050	0.941	<0.5	<0.5	<1
	Summit	CMW-11	9/13/1996	0.25	—	0.053	23.8	<0.5	1.97	<1
	Summit	CMW-11	12/5/1996	0.329	—	<0.050	2.87	<0.5	<0.5	<1
	Summit	CMW-11	3/5/1997	0.341	< 0.75	<0.050	10.2	<0.5	<0.5	<1
	Summit	CMW-11	6/24/1997	0.396	< 0.75	0.072	17.3	<0.5	2.6	1.66
	Summit	CMW-11	9/3/1997	0.331	< 0.75	<0.050	3.16	<0.5	<0.5	1.27
	Summit	CMW-11	12/3/1997	0.426	< 0.75	<0.050	0.603	<0.5	<0.5	1.9
	Summit	CMW-11	3/6/1998	0.439	< 0.75	<0.050	4.2	<0.5	<0.5	<1
	Summit	CMW-11	3/25/1999	0.621	—	0.971	14	3.66	32	106
	ERM	CMW-11	4/17/2000	0.253	—	ND	0.716	ND	ND	1.82
	ERM	CMW-11	3/30/2001	0.356	—	ND	0.967	ND	0.621	ND
	ERM	CMW-11	3/8/2002	3.36	—	ND	1.19	ND	ND	ND
	ERM	CMW-11	3/19/2003	0.898	—	<0.05	<0.5	<0.5	<0.5	<1
Farallon	CMW11-032504	3/25/2004	0.616	—	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW11-033105	3/31/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW-11-070805	7/8/2005	<0.5	<0.5	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW-11-093005	9/30/2005	0.681	<0.5	<0.05	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-11	Farallon	CMW-11-032806	3/28/2006	0.776	<0.476	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW-11-102006	10/20/2006	<0.250	<0.500	<0.250	<2.50	<2.50	<2.50	<5.00
	Farallon	CMW11-031308	3/13/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW11-061708	6/17/2008	<0.27	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW11-100108	10/1/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW11-123008	12/30/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW11-031909	3/19/2009	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW11-102809	10/28/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW11-012610	1/26/2010	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW11-042010	4/20/2010	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW11-072010	7/20/2010	<0.27	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-11-102110	10/21/2010	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW-11-012511	1/25/2011	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW11-042711	4/27/2011	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0	
CMW-12	Summit	CMW-12	11/8/1994	—	—	7.2	7,600	280	790	910
	Summit	CMW-12	12/6/1994	0.93	—	3	4,200	70	310	350
	Summit	CMW-12	1/5/1995	—	—	5.3	6,000	75	420	430
	Summit	CMW-12	2/14/1995	—	—	10	10,000	990	740	1,500
	Summit	CMW-12	3/10/1995	0.90	1.1	8.3	8,300	770	670	1,600
	Summit	CMW-12	4/6/1995	—	—	11	8,300	370	630	1,500
	Summit	CMW-12	5/3/1995	—	—	9.6	10,000	250	870	2,000
	Summit	CMW-12	6/15/1995	0.70	<0.75	23	13,000	1,100	1,600	4,600
	Summit	CMW-12	7/12/1995	—	—	12	9,400	140	980	2,500
	Summit	CMW-12	8/7/1995	—	—	6.1	7,200	43	710	1,000
	Summit	CMW-12	9/11/1995	0.96	—	4.5	4,400	11	470	570
	Summit	CMW-12	10/4/1995	—	—	9.3	5,900	<20	840	980
Summit	CMW-12	11/2/1995	—	—	5.3	4,000	<20	540	520	
Summit	CMW-12	12/5/1995	0.90	<0.75	5.2	4,600	17	580	510	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-12	Summit	CMW-12	1/9/1996	—	—	9.8	6,000	38	1,200	1,000
	Summit	CMW-12	2/15/1996	—	—	20	7,800	87	1,600	2,700
	Summit	CMW-12	3/6/1996	3.40	<0.75	27	8,900	130	1,600	3,200
	Summit	CMW-12	4/10/1996	—	—	14	4,900	46	1,200	1,800
	Summit	CMW-12	5/8/1996	—	—	9.52	6,320	30	1,080	1,480
	Summit	CMW-12	6/6/1996	1.62	—	6.57	4,380	25.8	642	743
	Summit	CMW-12	7/10/1996	—	—	6.27	4,770	31.5	604	738
	Summit	CMW-12	8/7/1996	—	—	9.09	4,620	64.4	789	984
	Summit	CMW-12	9/10/1996	1.56	—	9.15	6,790	20.9	816	880
	Summit	CMW-12	10/11/1996	—	—	4.79	3,890	8.63	473	447
	Summit	CMW-12	10/31/1996	—	—	4.55	3,500	10.5	461	381
	Summit	CMW-12	12/4/1996	1.73	—	3.37	3,680	11.0	436	320
	Summit	CMW-12	6/24/1997	2.31	<0.75	6.31	3,370	<0.5	542	544
	Summit	CMW-12	9/4/1997	2.03	<0.75	6.23	4,660	<11	354	310
	Summit	CMW-12	12/3/1997	1.44	<0.75	3.13	2,080	10.9	328	220
	Summit	CMW-12	3/5/1998	3.76	<0.75	7.25	2,960	36.2	608	609
	Summit	CMW-12	3/24/1999	4.8	—	10.4	2,600	79.2	826	2,260
	ERM	CMW-12	4/18/2000	2.8	—	ND	2,650	ND	243	499
	ERM	CMW-12	3/30/2001	0.41	—	ND	725	ND	47.4	23.3
	ERM	CMW-12	3/7/2002	10.2	—	4.28	660	7.05	307	455
ERM	CMW-12	3/20/2003	4.23	—	2.01	351	4.58	135	170	
Farallon	CMW12-032404	3/24/2004	7.07	—	3.56	441	9.44	168	538	
Farallon	CMW12-033105	3/31/2005	4.03	<0.5	2.3	253	3.34	67.4	60.4	
Farallon	CMW-12-032806	3/28/2006	8.31	<2.40	1.89	87.2	1.72	71.1	18.5	
Farallon	CMW-12-101806	10/18/2006	1.66	<0.500	2.23 JH	146	2.57 JH	87.7 JH	128 JH	
Farallon	CMW12-031308	3/13/2008	<0.25	<0.40	0.760	22	<1.0	17	15	
Farallon	CMW12-061708	6/17/2008	<0.25	<0.40	0.780	21	<4.0	15	11	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-12	Farallon	CMW12-100108	10/1/2008	<0.40	<0.41	0.800	18	<4.0	24	8.4
	Farallon	QA/QC-1-100108 ⁴	10/1/2008	<0.45	<0.41	0.820	17	<1.0	23	7.7
	Farallon	CMW12-123008	12/30/2008	<0.26	<0.42	0.890	19	<1.0	28	14
	Farallon	CMW12-031909	3/19/2009	<0.28	<0.44	0.980	25	<4.0	26	20
	Farallon	CMW12-102809	10/28/2009	1.3	<0.40	0.440	7.2	<1.0	1.4	<2.0
	Farallon	QAQC3-102809 ⁴	10/28/2009	1.4	0.41 ¹⁰	0.460	7.4	<1.0	1.4	<2.0
	Farallon	CMW12-012610	1/26/2010	<0.39 ¹⁰	<0.43	0.980	8.5	<1.0	12	4.3
	Farallon	CMW12-042010	4/20/2010	< 0.61 ¹⁰	<0.43	1.200	12	<4.0	17	14
	Farallon	CMW12-072110	7/21/2010	<0.44 ¹⁰	<0.45	1.300 ⁷	13	<1.0	25	16.2
	Farallon	Dup-CMW12-072110 ⁸	7/21/2010	<0.49 ¹⁰	<0.44	1.300 ⁷	13	<1.0	26	15
	Farallon	CMW-12-102110	10/21/2010	<0.36	<0.41	0.660	7.6	<1.0	4.6	2.6
	Farallon	dup-CMW-12-102110 ⁸	10/21/2010	<0.46	<0.43	0.610	7.1	<1.0	5.1	2.4
	Farallon	CMW-12-012511	1/25/2011	<0.48	<0.41	1.100	6.2	<4.0	<4.0	4.4
	Farallon	QA/QC-2-012511 ⁸	1/25/2011	<0.48	<0.41	1.100	6.4	<4.0	<4.0	4.2
Farallon	CMW12-042611	4/26/2011	< 0.62 ¹⁰	<0.41	1.500	9.7	<4.0	15	8.4	
Farallon	QA/QC-1-042611 ⁸	4/26/2011	< 0.63 ¹⁰	<0.41	1.500	9.1	<4.0	15	8.1	
CMW-13	Summit	CMW-13	11/8/1994	—	—	18	10,000	1,200	1,200	3,200
	Summit	CMW-13	12/6/1994	1.6	—	27	11,000	2,400	1,400	4,100
	Summit	CMW-13	1/9/1995	—	—	19	9,400	950	1,300	4,100
	Summit	CMW-13	2/14/1995	—	—	21	45	7.1	5.7	16
	Summit	CMW-13	3/10/1995	1.2	0.85	25	9,100	2,800	1,100	3,800
	Summit	CMW-13	6/15/1995	1.4	< 0.75	58	20,000	9,600	2,200	8,900
	Summit	CMW-13	9/8/1995	3.1	—	18	9,300	80	1,300	3,200
	Summit	CMW-13	12/18/1995	2.4	< 0.75	10	2,900	13	570	1,300
	Summit	CMW-13	2/15/1996	—	—	33	1,100	1,300	230	7,400
	Summit	CMW-13	3/6/1996	2.9	< 0.75	2.3	380	6.4	<0.5	270
	Summit	CMW-13	6/6/1996	2.27	—	15.9	3,930	347	833	2,560
	Summit	CMW-13	9/13/1996	2.07	—	15.5	3,880	38.2	986	2,550
Summit	CMW-13	10/11/1996	—	—	12.5	1,920	13.5	761	1,780	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-13	Summit	CMW-13	10/31/1996	—	—	12.1	1,130	<0.5	754	1,810
	Summit	CMW-13	12/4/1996	2.11	—	5.4	812	3.56	355	724
	Summit	CMW-13	1/8/1997	—	—	0.101	13.9	1.01	<0.5	14.7
	Summit	CMW-13	2/4/1997	—	—	<0.05	1.52	<0.5	<0.5	<1
	Summit	CMW-13	3/5/1997	<0.25	<0.75	<0.05	0.863	<0.5	<0.5	<1
	Summit	CMW-13	4/7/1997	—	—	1.6	6.81	16.7	9.57	64.8
	Summit	CMW-13	5/8/1997	—	—	0.515	129	<0.5	28.9	49.1
	Summit	CMW-13	6/24/1997	2.63	<0.75	3.63	529	15	178	316
	Summit	CMW-13	7/7/1997	—	—	6.13 JH	835 JH	21.1 JH	266 JH	514 JH
	Summit	CMW-13	8/4/1997	—	—	9.56	2,640	188	307	1,340
	Summit	CMW-13	9/4/1997	2.7	<0.75	7.39	1,990	15.4	295	563
	Summit	CMW-13	10/16/1997	—	—	2.56	332	2.68	92.7	121
	Summit	CMW-13	11/13/1997	—	—	0.625	100	0.565	19.1	10.8
	Summit	CMW-13	12/3/1997	1.8	<0.75	0.424	112	<2.5	21.3	11.4
	Summit	CMW-13	1/29/1998	—	—	1.57	71.1	1.46	63.9	133
	Summit	CMW-13	3/5/1998	5.42	<0.75	0.628	112	1.2	29	27.8
	Summit	CMW-13	6/17/1998	4.31	<0.75	8.33	1,020	<0.5	228	1,020
	Summit	CMW-13	9/29/1998	2.14	<0.75	3.15	353	8.73	66.3	98
	Summit	CMW-13	12/4/1998	1.91	—	3.72	353	37	147	388
	Summit	CMW-13	3/24/1999	3.22	—	0.142	14.1	<0.5	11.7	8.44
Summit	CMW-13	6/15/1999	4.53	—	8.38	840	<33.4	359	1,380	
ERM	CMW-13	10/7/1999	5.3	—	8.06	756	<25	395	1,010	
ERM	CMW-13	12/31/1999	2.3	—	1.26	203	3.47	210	90.5	
ERM	CMW-13	4/18/2000	2.66	—	5.23	721	14.7	569	928	
ERM	CMW-13	6/13/2000	1.45	—	4.22	385	6.91	363	611	
ERM	CMW-13	10/5/2000	2.11	—	3.69	225	ND	221	309	
ERM	CMW-13	12/26/2000	0.928	—	2.97	162	ND	79.8	113	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-13	ERM	CMW-13	3/30/2001	0.853	—	3.68	132	ND	67.2	174
	ERM	CMW-13	6/29/2001	1.75	—	2.49	88.8	1.71	45.8	71.3
	ERM	CMW-13	9/28/2001	1.44	ND	0.714	33.9	0.603	1.38	1.95
	ERM	CMW-13	12/17/2001	2.52	ND	1.29	49.2	1.05	30.4	26.4
	ERM	CMW-13	3/7/2002	2.52	ND	0.709	28.7	1.00	29.7	16.8
	ERM	CMW-13	7/30/2002	4.17	ND	3.56	156	2.43	176	223
	ERM	CMW-13	12/13/2002	1.95	ND	1.45	55.7	1.02	18.4	14.9
	ERM	CMW-13	3/20/2003	4.92	ND	1.40	25.0	1.12	28.5	13.1
	ERM	CMW-13	6/25/2003	6.33	ND	2.10	48.3	1.37	141	82.9
	Farallon	093003-CMW13	9/30/2003	2.41	—	0.84	23.1	0.60	20.4	8.58
	Farallon	CMW-121803-01	12/18/2003	2.07	—	0.776	32.9	1.51	46.7	11.6
	Farallon	CMW13-032404	3/24/2004	6.87	—	1.81	25.2	1.57	315	150
	Farallon	CMW13-062804-01	6/28/2004	4.28	—	6.03	17.9	<2.5	966	685
	Farallon	CMW13-092104	9/21/2004	2.47	<0.5	3.71	13.1	<2.5	359	450
	Farallon	CMW13-122104	12/21/2004	1.58	<0.5	1.56	12.9	1.16	43.1	111
	Farallon	CMW13-033105	3/31/2005	2.63	<0.5	1.69	8.24	1.62	137	151
	Farallon	CMW-13-070705	7/7/2005	2.67	<0.5	3.56	8.23	1.94	227	194
	Farallon	CMW-13-093005	9/30/2005	2.59	<0.5	4.95	7.9	<2.5	430	360
	Farallon	CMW-13-122705	12/27/2005	1.53	<0.5	1.000	5.95	0.877	31.3	18.3
	Farallon	CMW-13-032806	3/28/2006	3.81	<0.495	0.439	4.48	0.747	22.5	6.31
	Farallon	CMW-13-101806	10/18/2006	1.68	<0.500	1.49	3.91	0.844	109	37.5
	Farallon	CMW13-031308	3/13/2008	<0.26	<0.42	<0.100	1.1	<1.0	<1.0	<2.0
	Farallon	CMW13-061708	6/17/2008	<0.26	<0.41	<0.100	1.1	<1.0	<1.0	<2.0
Farallon	CMW13-100108	10/1/2008	<0.55	<0.43	1.000	<4.0	<4.0	21	11	
Farallon	CMW13-123008	12/30/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW13-031909	3/19/2009	<0.25	<0.40	<0.100	1.2	<1.0	<1.0	<2.0	
Farallon	CMW13-102909	10/29/2009	1.6	<0.40	0.860	2.2	<1.0	1.3	<1.0	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-13	Farallon		1/26/2009	<0.27	<0.43	0.110	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW13-012609	4/20/2010	<0.26	<0.41	0.120	<1.0	<1.0	2.7	<2.0
	Farallon	CMW-13-072010	7/20/2010	<0.28	<0.45	0.140	<1.0	<1.0	2.6	<2.0
	Farallon	CMW-13-102110	10/21/2010	<0.60	<0.43	0.840	2.2	<1.0	5.5	4.5
	Farallon	CMW-13-012511	1/25/2011	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW13-042711	4/27/2011	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
CMW-15	Summit	CMW-15	12/14/1994	—	—	0.14	120	14	0.86	13
	Summit	CMW-15	1/10/1995	—	—	0.72	760	37	46	110
	Summit	CMW-15	2/14/1995	—	—	1.4	1,400	<0.5	130	180
	Summit	CMW-15	3/9/1995	0.44	<0.75	2.0	2,000	27	170	290
	Summit	CMW-15	4/5/1995	—	—	2.9	2,300	13	220	320
	Summit	CMW-15	5/3/1995	—	—	2.0	2,600	2.7	210	220
	Summit	CMW-15	6/15/1995	<0.25	<0.75	1.4	1,100	1.3	140	82
	Summit	CMW-15	7/12/1995	—	—	1.3	940	19	120	64
	Summit	CMW-15	8/7/1995	—	—	1.6	1,000	<2	210	90
	Summit	CMW-15	8/25/1995	—	—	1.6	730	0.82	160	83
	Summit	CMW-15	9/11/1995	0.57	—	1.1	490	<2	130	52
	Summit	CMW-15	10/4/1995	—	—	1.0	450	<2	120	42
	Summit	CMW-15	11/2/1995	—	—	0.950	360	4.6	110	48
	Summit	CMW-15	12/18/1995	0.35	<0.75	0.430	80	1	48	3.7
	Summit	CMW-15	1/9/1996	—	—	0.300	73	0.66	35	3
	Summit	CMW-15	2/14/1996	—	—	0.620	310	<0.5	71	9.9
	Summit	CMW-15	3/6/1996	0.63	<0.75	1.100	410	2.5	100	31
	Summit	CMW-15	4/10/1996	—	—	0.380	13	0.75	26	1.2
Summit	CMW-15	5/8/1996	—	—	0.236	28	0.53	12.4	<1	
Summit	CMW-15	6/5/1996	0.756	—	0.514	211	0.802	56.5	2.19	
Summit	CMW-15	7/10/1996	—	—	0.226	23	<0.5	16.3	<1	
Summit	CMW-15	8/7/1996	—	—	0.268	8.77	<0.5	21.3	1.04	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-15	Summit	CMW-15	9/12/1996	0.414	—	0.298	90.9	<0.5	29.3	6.14
	Summit	CMW-15	10/10/1996	—	—	0.572	241	0.647	48.3	20.8
	Summit	CMW-15	10/30/1996	—	—	0.656	192	0.817	61.2	22.2
	Summit	CMW-15	12/4/1996	0.397	—	0.328	140	<0.5	23.4	2.40
	Summit	CMW-15	1/8/1997	—	—	0.0852	<8.64	<0.5	<0.5	<1
	Summit	CMW-15	1/8/1997	—	—	0.76	8.52	<0.5	<0.5	<1
	Summit	CMW-15	2/4/1997	—	—	131	71.3	<0.5	3.54	<1
	Summit	CMW-15	2/4/1997	—	—	87.3	51.7	<0.5	2.36	<1
	Summit	CMW-15	3/5/1997	0.455	<0.75	<0.05	1.9	<0.5	<0.5	<1
	Summit	CMW-15	4/7/1997	—	—	<0.05	1.82	<0.5	<0.5	<1
	Summit	CMW-15	4/7/1997	—	—	<0.05	1.82	<0.5	<0.5	<1
	Summit	CMW-15	5/8/1997	—	—	0.0768	3.34	<0.5	2.39	<1
	Summit	CMW-15	5/8/1997	—	—	0.0686	3.56	<0.5	2.51	<1
	Summit	CMW-15	6/24/1997	0.867	0.774	0.102	5.91	<0.5	2.58	<1
	Summit	CMW-15	7/7/1997	—	—	0.122	14.3	<0.5	3.85	<1
	Summit	CMW-15	7/7/1997	—	—	0.145	12.5	0.626	3.63	<1
	Summit	CMW-15	8/4/1997	—	—	0.16	1.85	<0.5	0.67	<1
	Summit	CMW-15	8/4/1997	—	—	0.168	1.74	<0.5	0.62	<1
	Summit	CMW-15	9/4/1997	—	—	0.132	1.96	<0.5	<0.5	<1
	Summit	CMW-15	10/16/1997	—	—	0.181	71.1	<0.5	1.85	<1
	Summit	CMW-15	10/16/1997	—	—	0.22	73.3	0.532	1.92	1.16
	Summit	CMW-15	11/13/1997	—	—	0.27	103	0.532	<0.5	<1
	Summit	CMW-15	11/13/1997	—	—	0.26	103	0.533	<0.5	<1
Summit	CMW-15	12/2/1997	0.704	<0.75	0.0991	21	<0.5	<0.5	<1	
Summit	CMW-15	1/29/1998	—	—	0.0878	9.19	<0.5	<0.5	<1	
Summit	CMW-15	3/5/1998	0.445	<0.75	0.0758	2.06	<0.5	<0.5	<1	
Summit	CMW-15	6/18/1998	0.417	<0.75	0.0595	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-15	Summit	CMW-15	9/23/1998	0.29	<0.75	0.059	<0.5	<0.5	<0.5	<1
	Summit	CMW-15	12/4/1998	0.251	—	0.0595	<0.5	<0.5	<0.5	<1
	Summit	CMW-15	3/23/1999	0.319	—	0.093	7.6	<0.5	8.85	<1
	Summit	CMW-15	6/14/1999	0.879	—	0.069	<0.5	<0.5	<0.5	<1
	ERM	CMW-15	10/8/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-15	12/31/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-15	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-15	6/13/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-15	10/5/2000	0.587	—	0.066	1.5	ND	ND	1.17
	ERM	CMW-15	12/26/2000	ND	—	0.081	0.57	ND	ND	ND
	ERM	CMW-15	3/30/2001	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-15	6/29/2001	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-15	9/28/2001	0.297	ND	ND	ND	ND	ND	ND
	ERM	CMW-15	12/17/2001	ND	ND	ND	ND	0.802	ND	ND
	ERM	CMW-15	3/6/2002	0.762	—	ND	0.581	ND	ND	ND
	ERM	CMW-15	7/30/2002	1.28	—	ND	ND	ND	ND	ND
	ERM	CMW-15	12/12/2002	0.603	—	0.0574	ND	ND	ND	ND
	ERM	CMW-15	3/20/2003	0.475	—	0.513	<0.5	<0.5	<0.5	<1
	ERM	CMW-15	6/24/2003	0.731	—	ND	ND	ND	ND	ND
	Farallon	093003-CMW15	9/30/2003	0.686	—	< 0.050	<0.5	<0.5	<0.5	<1
	Farallon	CMW-121703-03	12/17/2003	0.417	—	< 0.05	< 0.5	< 0.5	< 0.5	< 1
	Farallon	CMW15-032404	3/24/2004	0.847	—	<0.05	0.974	<0.5	0.92	1.71
	Farallon	CMW15-062804-01	6/28/2004	0.65	—	<0.05	<0.5	<0.5	<0.5	<1
Farallon	CMW15-092104	9/21/2004	0.775	<0.5	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW15-122104	12/21/2004	0.44	<0.5	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW15-033105	3/31/2005	0.508	<0.5	0.551	<0.5	<0.5	<0.5	<1	
Farallon	CMW-15-070705	7/7/2005	0.887	<0.5	0.0624	0.535	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-15	Farallon	CMW-15-093005	9/30/2005	0.568	<0.5	0.0567	<0.5	<0.5	<0.5	<1
	Farallon	CMW-15-122805	12/28/2005	0.266	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-15-032706	3/27/2006	0.525	<0.472	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW-15-101906	10/19/2006	<0.250	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW15-031308	3/13/2008	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW15-061708	6/17/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW15-100208	10/2/2008	<0.25	<0.40	<0.400	<4.0	<4.0	<4.0	<8.0
	Farallon	CMW15-123008	12/30/2008	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<1.0
	Farallon	CMW15-031909	3/19/2009	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<1.0
	Farallon	CMW15-102909	10/29/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<1.0
	Farallon	CMW15-012610	1/26/2010	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<1.0
	Farallon	CMW15-042010	4/20/2010	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<1.0
	Farallon	CMW15-072010	7/20/2010	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-15-102210	10/22/2010	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW-15-012511	1/25/2011	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW15-042711	4/27/2011	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0	
CMW-16	Summit	CMW-16	12/15/1994	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-16	1/11/1995	—	—	<0.05	2.8	<0.5	<0.5	<1
	Summit	CMW-16	2/13/1995	—	—	<0.08	79	<0.5	<0.5	<1
CMW-17	Summit	CMW-17	12/15/1994	—	—	0.095	1,500	<0.5	<0.5	<1
	Summit	CMW-17	1/12/1995	—	—	0.058	1,000	<0.5	<0.5	<1
	Summit	CMW-17	2/9/1995	—	—	<0.05	170	<0.5	<0.5	<1
	Summit	CMW-17	3/9/1995	<0.25	<0.75	<0.05	12	<0.5	<0.5	<1
	Summit	CMW-17	4/5/1995	—	—	<0.050	4.4	0.77	<0.5	<1
	Summit	CMW-17	5/2/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	6/13/1995	<0.25	<0.75	<0.050	340	1.4	1.1	6.8
	Summit	CMW-17	7/12/1995	—	—	0.500	1,200	8.8	20	38
Summit	CMW-17	8/7/1995	—	—	0.580	1,600	1.1	37	58	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-17	Summit	CMW-17	9/8/1995	0.27	—	0.290	680	<0.5	25	13
	Summit	CMW-17	10/3/1995	—	—	0.140	640	<0.5	7.6	1.7
	Summit	CMW-17	11/2/1995	—	—	0.180	130	<0.5	11	13
	Summit	CMW-17	12/15/1995	0.30	0.88	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	1/9/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	2/13/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	3/6/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	4/10/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	5/7/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	6/4/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	7/9/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	8/6/1996	—	—	<0.050	26.6	<0.5	<0.5	<1
	Summit	CMW-17	9/9/1996	0.277	—	<0.050	0.786	<0.5	<0.5	<1
	Summit	CMW-17	10/10/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	10/30/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	12/2/1996	0.275	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	1/8/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	2/4/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	3/4/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	4/7/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	5/8/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	6/23/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	7/7/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
Summit	CMW-17	8/4/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-17	9/3/1997	0.473	—	<0.050	58.8	<0.5	<0.5	<1	
Summit	CMW-17	10/16/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-17	11/13/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-17	Summit	CMW-17	12/2/1997	<0.25	1.06	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	1/29/1998	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	3/4/1998	<0.25	< 0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	6/18/1998	0.531	< 0.75	<0.050	1.73	<0.5	<0.5	<1
	Summit	CMW-17	9/23/1998	0.744	< 0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	12/4/1998	0.616	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	3/23/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-17	6/14/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-17	10/7/1999	<0.25	—	<0.050	3.74	<0.5	<0.5	<1
	ERM	CMW-17	12/31/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-17	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-17	6/13/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-17	10/5/2000	1.32	—	ND	ND	ND	ND	1.16
	ERM	CMW-17	12/26/2000	0.33	—	ND	ND	ND	ND	ND
	ERM	CMW-17	3/30/2001	0.349	—	ND	ND	ND	ND	ND
	ERM	CMW-17	6/29/2001	0.491	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-17	9/28/2001	0.798	ND	ND	ND	ND	ND	ND
	ERM	CMW-17	12/17/2001	0.325	ND	ND	ND	ND	ND	ND
	ERM	CMW-17	3/6/2002	ND	ND	ND	ND	ND	ND	ND
	ERM	CMW-17	7/29/2002	1.61	ND	ND	ND	ND	ND	ND
	ERM	CMW-17	12/12/2002	0.802	ND	ND	ND	ND	ND	ND
	ERM	CMW-17	6/24/2003	ND	—	ND	ND	ND	ND	ND
	Farallon	093003-CMW17	9/30/2003	1.19	—	< 0.05	<0.5	<0.5	<0.5	<1
Farallon	CMW-121703-02	12/17/2003	0.331	—	< 0.05	< 0.5	0.513	<0.5	< 1	
Farallon	CMW17-032304	3/23/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW17-062804-01	6/28/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW17-092104	9/21/2004	0.806	<0.5	<0.05	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-17	Farallon	CMW17-122104	12/21/2004	0.341	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW17-033005	3/30/2005	<0.291	<0.581	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-17-070705	7/7/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-17-092905	9/29/2005	0.373	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-17-122705	12/27/2005	0.366	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-17-032706	3/27/2006	—	—	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW-17-042106	4/21/2006	<0.245 ⁵	<0.490 ⁵	—	—	—	—	—
	Farallon	CMW-17-101806	10/18/2006	0.629	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW17-031308	3/13/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW17-061708	6/17/2008	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW17-100208	10/2/2008	<0.28	<0.45	<0.400	<4.0	<4.0	<4.0	<8.0
	Farallon	CMW17-123108	12/31/2008	<0.30	<0.48	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW17-032009	3/20/2009	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW17-012710	1/27/2010	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW17-042010	4/20/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW-17-072010	7/20/2010	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW17-042611	4/26/2011	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0	
CMW-18	Summit	CMW-18	12/16/1994	—	—	<0.05	3.4	<0.5	<0.5	<1
	Summit	CMW-18	1/11/1995	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-18	8/25/1995	—	—	<0.050	1.1	0.88	<0.5	3.3
CMW-19	Summit	CMW-19	12/19/1994	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	1/10/1995	—	—	<0.05	<0.5	0.54	<0.5	<1
	Summit	CMW-19	2/14/1995	—	—	<0.08	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	3/9/1995	<0.25	<0.75	<0.05	7.7	<0.5	<0.5	<1
	Summit	CMW-19	6/14/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	7/12/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	8/4/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
Summit	CMW-19	9/11/1995	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-19	Summit	CMW-19	10/4/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	11/2/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	12/15/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	1/9/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	2/14/1996	—	—	<0.050	0.55	<0.5	<0.5	<1
	Summit	CMW-19	3/6/1996	<0.25	<0.75	<0.050	0.52	<0.5	<0.5	<1
	Summit	CMW-19	4/10/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	5/8/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	6/5/1996	0.318	—	<0.050	4.88	<0.5	<0.5	<1
	Summit	CMW-19	7/10/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	8/7/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	9/12/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	12/4/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	3/5/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	3/5/1998	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-19	3/23/1999	<0.35	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-19	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-19	3/30/2001	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-19	3/6/2002	0.314	—	ND	ND	ND	ND	ND
	ERM	CMW-19	7/30/2002	ND	—	ND	ND	ND	ND	ND
ERM	CMW-19	12/12/2002	ND	—	ND	ND	ND	ND	ND	
ERM	CMW-19	3/20/2003	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1	
ERM	CMW-19	6/24/2003	ND	—	ND	ND	ND	ND	ND	
Farallon	CMW-121703-04	12/17/2003	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW19-032404	3/24/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW19-062804-01	6/28/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW19-122104	12/21/2004	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-19	Farallon	CMW19-033105	3/31/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-19-070705	7/7/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-19-122805	12/28/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-19-032706	3/27/2006	<0.240	<0.481	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW-19-101906	10/19/2006	<0.250	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW19-031308	3/13/2008	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW19-100208	10/2/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
CMW-20	Summit	CMW-20	12/19/1994	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-20	1/12/1995	—	—	<0.05	37	<0.5	<0.5	<1
	Summit	CMW-20	2/9/1995	—	—	<0.05	41	<0.5	<0.5	<1
	Summit	CMW-20	3/7/1995	0.26	<0.75	<0.05	31	<0.5	<0.5	<1
	Summit	CMW-20	6/13/1995	<0.25	<1.5	<0.050	21	<0.5	<0.5	<1
	Summit	CMW-20	9/6/1995	0.35	—	<0.050	1.2	<0.5	<0.5	<1
	Summit	CMW-20	12/15/1995	0.48	<0.75	<0.050	96	<0.5	<0.5	<1
	Summit	CMW-20	3/4/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-20	6/4/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-20	3/3/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-20	3/4/1998	0.299	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-20	3/23/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-20	10/7/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-20	12/31/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-20	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-20	6/13/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-20	10/5/2000	0.382	—	ND	ND	ND	ND	ND
ERM	CMW-20	12/26/2000	ND	—	ND	ND	ND	ND	ND	
ERM	CMW-20	3/30/2001	ND	—	ND	ND	ND	ND	ND	
ERM	CMW-20	6/20/2001	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-20	ERM	CMW-20	9/28/2001	ND	ND	ND	ND	ND	ND	ND
	ERM	CMW-20	12/17/2001	ND	ND	ND	ND	ND	ND	ND
	ERM	CMW-20	3/6/2002	0.571	—	ND	ND	ND	ND	ND
	ERM	CMW-20	7/29/2002	1.21	—	ND	ND	ND	ND	ND
	ERM	CMW-20	12/12/2002	0.518	—	ND	ND	ND	ND	ND
	ERM	CMW-20	6/24/2003	0.472	—	ND	ND	ND	ND	ND
	Farallon	093003-CMW20	9/30/2003	0.389	—	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-121703-01	12/17/2003	0.662	—	<0.05	<0.5	0.83	<0.5	<1
	Farallon	CMW20-032304	3/23/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW20-062804-01	6/28/2004	0.837	—	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW20-092104	9/21/2004	0.579	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW20-122104	12/21/2004	0.579	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW20-033005	3/30/2005	0.41	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-20-070705	7/7/2005	0.533	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-20-092905	9/29/2005	0.404	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-20-122705	12/27/2005	0.438	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-20-032706	3/27/2006	<0.248	<0.495	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW-20-101806	10/18/2006	<0.250	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW20-031308	3/13/2008	<0.25	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW20-061708	6/17/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW20-100208	10/2/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW20-123108	12/31/2008	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW20-032009	3/20/2009	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0	
CMW-21	Summit	CMW-21	12/30/1994	—	—	<0.05	3.2	0.87	<0.5	2.5
	Summit	CMW-21	1/10/1995	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	2/10/1995	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	3/7/1995	<0.25	<0.75	<0.05	<0.5	<0.5	<0.5	<1
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-21	Summit	CMW-21	6/13/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	9/7/1995	0.26	—	<0.050	76	<0.5	<0.5	<1
	Summit	CMW-21	12/15/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	3/4/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	6/4/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	9/11/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	12/2/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	3/4/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	6/23/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	9/3/1997	0.296	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	12/2/1997	0.263	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	3/4/1998	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-21	3/23/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-21	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-21	3/30/2001	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-21	3/6/2002	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-21	7/29/2002	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-21	12/12/2002	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-21	6/24/2003	ND	—	ND	ND	ND	ND	ND
	Farallon	CMW21-032304	3/23/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
Farallon	CMW21-062804-01	6/28/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW21-033005	3/30/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW-21-070705	7/7/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1	
Farallon	CMW-21-032706	3/27/2006	<0.236	<0.472	<0.050	<0.500	<0.500	<0.500	<1.00	
Farallon	CMW-21-101806	10/18/2006	<0.250	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00	
Farallon	CMW21-031308	3/13/2008	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW21-100208	10/2/2008	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-22	Summit	CMW-22	12/29/1994	—	—	<0.05	170	<0.5	<0.5	<1
	Summit	CMW-22	1/10/1995	—	—	<0.05	30	<0.5	<0.5	<1
	Summit	CMW-22	2/9/1995	—	—	<0.05	3.1	<0.5	<0.5	<1
	Summit	CMW-22	3/7/1995	<0.25	<0.75	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-22	6/13/1995	<0.25	<0.75	<0.050	50	<0.5	<0.5	1.2
	Summit	CMW-22	9/7/1995	0.37	—	0.130	820	<0.5	5.2	7.4
	Summit	CMW-22	12/15/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-22	3/4/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-22	6/4/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-22	9/11/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-22	12/2/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-22	3/3/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
Summit	CMW-22	3/4/1998	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1	
CMW-23	Summit	CMW-23	12/30/1994	—	—	<0.05	4.6	<0.5	<0.5	<1
	Summit	CMW-23	1/12/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	2/9/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	3/7/1995	0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	4/5/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	5/2/1995	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	6/13/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	7/12/1995	—	—	<0.050	5	<0.5	<0.5	<1
	Summit	CMW-23	8/7/1995	—	—	<0.050	220	<2	<2	<4
	Summit	CMW-23	9/6/1995	<0.25	—	<0.050	280	<0.5	<0.5	<1
	Summit	CMW-23	10/3/1995	—	—	<0.050	93	<0.5	<0.5	<1
	Summit	CMW-23	11/2/1995	—	—	<0.050	3.2	<0.5	<0.5	<1
Summit	CMW-23	12/5/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-23	1/9/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-23	Summit	CMW-23	2/13/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	3/4/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	4/10/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	5/7/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	6/4/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	7/9/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	8/6/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	9/11/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	10/10/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	10/30/1996	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	12/2/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	1/8/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	2/4/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	3/3/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	4/7/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	5/8/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	6/23/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	7/7/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	8/4/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	9/3/1997	0.318	<0.75	<0.050	<0.5	<0.5	<0.5	1.08
	Summit	CMW-23	10/16/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	11/13/1997	—	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	12/2/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
Summit	CMW-23	1/29/1998	—	—	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-23	3/4/1998	0.263	<0.75	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-23	6/18/1998	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1	
Summit	CMW-23	9/23/1998	0.314	<0.75	<0.050	<0.5	<0.5	<0.5	<1	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-23	Summit	CMW-23	12/4/1998	0.433	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-23	3/23/1999	0.261	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-23	6/14/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-23	7/29/2002	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-23	12/12/2002	0.678	—	ND	ND	ND	ND	ND
	ERM	CMW-23	3/19/2003	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-23	6/24/2003	ND	—	ND	ND	ND	ND	ND
	Farallon	CMW-121703-05	12/17/2003	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW23-032304	3/23/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW23-122104	12/21/2004	0.253	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW23-033005	3/30/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-23-070705	7/7/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-23-122805	12/28/2005	0.257	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-23-032706	3/27/2006	<0.240	<0.481	<0.050	<0.500	<0.500	<0.500	<1.00
Farallon	CMW-23-101806	10/18/2006	<0.250	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00	
Farallon	CMW23-031308	3/13/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0	
CMW-24	Summit	CMW-24	1/4/1995	—	—	0.088	6.8	<0.5	<0.5	<1
	Summit	CMW-24	1/4/1995	—	—	0.088	6.8	<0.5	<0.5	<1
	Summit	CMW-24	2/9/1995	—	—	0.098	2.6	<0.5	<0.5	<1
	Summit	CMW-24	3/7/1995	0.56	< 0.75	<0.05	29	3.1	<0.5	1.1
	Summit	CMW-24	6/14/1995	1.1	< 0.75	0.059	<0.5	<0.5	<0.5	<1
	Summit	CMW-24	9/7/1995	0.43	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-24	12/18/1995	0.57	< 0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-24	3/5/1996	< 0.25	< 0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-24	6/5/1996	0.302	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-24	9/11/1996	0.477	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-24	12/3/1996	0.436	—	<0.050	<0.5	<0.5	<0.5	<1
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-24	Summit	CMW-24	3/4/1998	0.288	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-24	3/22/1999	0.282	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-24	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-24	3/30/2001	ND	—	ND	ND	ND	ND	ND
	ERM	CMW-24	3/8/2002	0.308	—	ND	ND	ND	ND	ND
	ERM	CMW-24	3/17/2003	0.260	—	<0.050	<0.5	<0.5	<0.5	<1
	Farallon	CMW24-032404	3/24/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW24-033005	3/30/2005	<0.278	<0.556	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	CMW-24-032706	3/27/2006	<0.240	<0.481	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW-24-101906	10/19/2006	<0.250	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW24-031208	3/12/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW24-061708	6/17/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW24-100108	10/1/2008	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW24-123008	12/30/2008	<0.28	<0.45	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	CMW24-031909	3/19/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0	
CMW-25	Summit	CMW-25	11/16/1995	—	—	50	5,900	1,100	3,000	11,000
	Summit	CMW-25	6/5/1996	0.560	—	2.83	35.5	2.53	106	201
	Summit	CMW-25	9/11/1996	1.610	—	37.1	876	236	1,950	9,270
	Summit	CMW-25	12/5/1996	1.30	—	14.4	631	11.5	1,040	2,420
	Summit	CMW-25	3/6/1997	0.462	<0.75	<0.05	<0.5	<0.5	<0.5	<1
	Summit	CMW-25	6/23/1997	0.378	<0.75	<0.05	1.74	<0.5	<0.5	<1
	Summit	CMW-25	9/3/1997	1.52	<0.75	10.4	115	17.8	481	1,700
	Summit	CMW-25	3/6/1998	5.26	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	CMW-25	3/25/1999	0.401	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	CMW-25	4/17/2000	0.267	—	ND	ND	ND	ND	ND
	ERM	CMW-25	3/30/2001	1.01	—	9.84	ND	ND	440	1,020
ERM	CMW-25	3/8/2002	0.949	—	ND	ND	ND	ND	ND	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-25	ERM	CMW-25	12/12/2002	1.41	—	—	—	—	—	—
	ERM	CMW-25	3/19/2003	8.20	—	12.5	<0.5	<0.5	250	870
	Farallon	CMW25-032504	3/25/2004	0.39	—	<0.05	<0.5	<0.5	0.58	1.52
	Farallon	CMW25-033105	3/31/2005	2.45	<0.5	1.86	1.53	1.14	14.7	1.41
	Farallon	CMW25-093005	9/30/2005	0.917	<0.5	0.869	0.914	<0.5	4.47	<1
	Farallon	CMW-25-032806	3/28/2006	0.367	<0.472	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW-25-101906	10/19/2006	0.353	<0.571	0.305 JH	0.827 JH	<0.500	<0.500	<1.00
	Farallon	CMW25-041007	4/10/2007	<0.250	<0.500	—	—	—	—	—
	Farallon	CMW25-031308	3/13/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW25-061608	6/16/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW25-100108	10/1/2008	<0.25	<0.40	<0.400	<4.0	<4.0	<4.0	<8.0
	Farallon	CMW25-123008	12/30/2008	<0.33	<0.52	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW25-031909	3/19/2009	<0.25	<0.40	0.130	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW25-102809	10/28/2009	0.29	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW25-012610	1/26/2010	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW25-042010	4/20/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-25-072010	7/20/2010	<0.28	<0.45	0.120	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-25-102110	10/21/2010	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW-25-012511	1/25/2011	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	1.6	
Farallon	CMW-25-042611	4/26/2011	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0	
CMW-26	Farallon	CMW-26-081707	8/17/2007	<0.236	<0.472	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	CMW26-031308	3/13/2008	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW26-061608	6/16/2008	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW26-100108	10/1/2008	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW26-123008	12/30/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW26-031909	3/19/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW26-102809	10/28/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW26-012610	1/26/2010	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-26	Farallon	CMW26-042010	4/20/2010	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-26-072010	7/20/2010	<0.27	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-26-102110	10/21/2010	<0.29	<0.47	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-26-012511	1/25/2011	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-26-042611	4/26/2011	<0.28	<0.45	<0.100	<1.0	<1.0	<1.0	<2.0
CMW-27	Farallon	CMW27-031308	3/13/2008	1.2⁶	<0.39	2.600	40	<1.0	220	245.5
	Farallon	CMW27-061708	6/17/2008	1.0	<0.40	2.300	33	<4.0	110	211
	Farallon	CMW27-061708 ⁸	6/17/2008	1.1	<0.40	2.300	35	<4.0	110	200
	Farallon	CMW27-100108	10/1/2008	<0.75	<0.40	2.600	37	<4.0	100	273
	Farallon	QA/QC-2-100108 ⁸	10/1/2008	<0.65	<0.40	2.600	35	<1.0	99	271
	Farallon	CMW27-123008	12/30/2008	0.64⁹	<0.44	2.400	34	<4.0	64	243
	Farallon	QA/QC-2-123008 ⁸	12/30/2008	0.66⁹	<0.44	2.500	32	<1.0	74	273
	Farallon	CMW27-031909	3/19/2009	<0.27	<0.43	4.000	49	<10.0	170	41.5
	Farallon	QAQC1-031909	3/19/2009	<0.25	<0.40	4.200	48	<4.0	170	424
	Farallon	CMW27-102809	10/28/2009	2.3⁹	0.43 ¹⁰	3.700	32	1.6	180	354
	Farallon	QAQC2-1028094	10/28/2009	2.6⁹	0.50 ¹⁰	3.900	32	1.6	160	304
	Farallon	CMW27-012610	1/26/2010	0.93⁹	<0.41	4.500⁷	25	1.4	100	180
	Farallon	QAQC-2-012610 ⁴	1/26/2010	1.0⁹	<0.40	4.000⁷	24	1.4	100	179.7
	Farallon	CMW27-042010	4/20/2010	2.5⁹	<0.41	2.300	28	<4.0	84	88
	Farallon	QA/QC-2-042010	4/20/2010	3.0⁹	<0.41	2.400	26	<4.0	87	94
	Farallon	CMW27-072110	7/21/2010	3.8⁹	<0.61 ¹¹	2.800	36	<4.0	150	150
	Farallon	Dup-CMW27-072110 ⁸	7/21/2010	2.2⁹	<0.42	2.900	37	<4.0	150	150
	Farallon	CMW-27-102110	10/21/2010	1.5⁹	<0.43	1.400	23	<4.0	69	41
	Farallon	dup-CMW-27-102110 ⁸	10/21/2010	1.4⁹	<0.43	1.400	23	<4.0	70	42
	Farallon	CMW-27-012511	1/25/2011	2.9	<0.41	4.800	<4.0	<4.0	53	413
Farallon	CMW-27-042611	4/26/2011	1.1⁹	<0.41	2.100	<4.0	<4.0	20	122	
Farallon	QA/QC-2-042611 ⁴	4/26/2011	0.96⁹	<0.44	2.100	<4.0	<4.0	21	133	
CMW-28	Farallon	CMW28-031308	3/13/2008	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW28-061608	6/16/2008	0.54	<0.40	120 ⁷	<1.0	<1.0	3.0	12.1
	Farallon	CMW28-100108	10/1/2008	0.6⁹	<0.40	1.900	<4.0	<4.0	39	141
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-28	Farallon	CMW28-123008	12/30/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	QA/QC-1-123008 ⁸	12/30/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW28-031909	3/19/2009	0.28	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW28-102809	10/28/2009	3.2	0.59¹¹	<0.100	<1.0	<1.0	<1.0	1.7
	Farallon	CMW28-012610	1/26/2010	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW28-042010	4/20/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW28-072010	7/20/2010	<0.28	<0.45	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-28-102110	10/21/2010	<0.28	<0.45	<0.100	<1.0	<1.0	<1.0	<2.0
CMW-29	Farallon	CMW29-031208	3/12/2008	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW29-061708	6/17/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW29-100108	10/1/2008	0.31	<0.40	<0.400	<4.0	<4.0	<4.0	<8.0
	Farallon	CMW29-123008	12/30/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW29-031909	3/19/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW29-102809	10/28/2009	0.44	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW29-012710	1/27/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW29-042010	4/20/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-29-072010	7/20/2010	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-29-102110	10/21/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-29-012511	1/25/2011	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
CMW-30	Farallon	CMW30-031208	3/12/2008	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW30-061608	6/16/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW30-100108	10/1/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW30-123008	12/30/2008	<0.29	<0.46	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW30-031909	3/19/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW30-102809	10/28/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW30-012610	1/26/2010	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
CMW-30	Farallon	CMW30-042010	4/20/2010	<0.27	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-30-072010	7/20/2010	<0.27	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-30-102110	10/21/2010	<0.30	<0.47	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-30-012511	1/25/2011	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-30-042611	4/26/2011	<0.29	<0.46	<0.100	<1.0	<1.0	<1.0	<2.0
CMW-31	Farallon	CMW31-031308	3/13/2008	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW31-061608	6/16/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW31-100208	10/2/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW31-123108	12/31/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW31-032009	3/20/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW31-102909	10/29/2009	0.53	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW31-012710	1/27/2010	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW31-042010	4/20/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-31-072010	7/20/2010	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-31-102210	10/22/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-31-012511	1/25/2011	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
CMW-32	Farallon	CMW32-031308	3/13/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW32-061708	6/17/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW32-100208	10/2/2008	<0.25	<0.40	<0.400	<4.0	<4.0	<4.0	<8.0
	Farallon	CMW32-123108	12/31/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW32-032009	3/20/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW32-102909	10/29/2009	0.58	<0.4	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW32-012710	1/27/2010	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW32-042010	4/20/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-32-072010	7/20/2010	<0.29	<0.46	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-32-102210	10/22/2010	<0.28	<0.46	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	CMW-32-012511	1/25/2011	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	CMW32-042611	4/26/2011	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
HMW-5	Summit	HMW-5	12/9/1994	0.56	—	1.9	4,400	40	140	160
	Summit	HMW-5	1/6/1995	—	—	2.4	7,000	28	320	180
HMW-6	Summit	HMW-6	1/6/1995	—	—	<0.05	610	0.68	1.7	1.9
	Summit	HMW-6	2/13/1995	—	—	<0.08	1,800	1.2	3.6	4.5
HMW-8	Summit	HMW-8	11/7/1994	—	—	<0.05	17	<0.5	<0.5	<1
	Summit	HMW-8	12/9/1994	0.26	—	<0.05	73	1.6	0.55	4.2
	Summit	HMW-8	1/6/1995	—	—	12	5,100	3,500	850	3,700
	Summit	HMW-8	2/13/1995	—	—	23	3,500	2,300	540	2,700
	Summit	HMW-8	3/5/1997	5.4	<0.75	1.03	849	<5	59	71.8
	Summit	HMW-8	3/5/1998	1.53	<0.75	0.664	358	2.7	52.5	63.3
	Summit	HMW-8	3/24/1999	1.88	—	1.3	1,030	54.8	88.9	235
	ERM	HMW-8	4/18/2000	ND	—	ND	0.996	ND	1.75	2.84
	ERM	HMW-8	3/30/2001	0.352	—	ND	14.3	ND	ND	ND
	ERM	HMW-8	3/7/2002	1.42	—	0.378	81.7	ND	21.9	15.9
	ERM	HMW-8	3/20/2003	0.698	—	0.326	133	<0.5	14.0	6.21
	Farallon	HMW-8-032404	3/24/2004	1.06	—	0.708	172	<0.5	53.2	16.2
	Farallon	HMW-8-033105	3/31/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	HMW-8-032806	3/28/2006	2.73	0.590	0.155	51.1	<0.500	3.75	<1.00
Farallon	HMW-8-101806	10/18/2006	<0.250	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00	
HMW-9	Summit	HMW-9	10/6/1994	0.49	—	4.5	9,900	14	480	380
	Summit	HMW-9	11/7/1994	—	—	1.4	4,500	<20	190	94
	Summit	HMW-9	12/9/1994	<0.25	—	1.6	4,300	<20	120	85
	Summit	HMW-9	1/6/1995	—	—	0.75	6,200	5.2	43	6.3
	Summit	HMW-9	3/8/1995	1.1	1.0	7.5	6,200	670	230	410
	Summit	HMW-9	9/6/1995	0.90	—	9.7	9,900	23	610	1,300
	Summit	HMW-9	3/5/1996	1.50	<0.75	5.6	3,200	<20	220	870
	Summit	HMW-9	6/3/1996	1.97	—	5.38	2,640	<25	153	741
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
HMW-9	Summit	HMW-9	9/10/1996	1.22	—	4.70	5,310	12.8	51.8	559
	Summit	HMW-9	12/3/1996	1.08	—	<1.00	948	<10	<10	30.6
	Summit	HMW-9	3/6/1997	2.38	0.777	0.533	800	<5	<5	<10
	Summit	HMW-9	6/25/1997	2.28	<0.75	1.56	1,190	<5	<5	115
	Summit	HMW-9	9/5/1997	1.91	<0.75	1.34	2,170	2.6	4.3	35.3
	Summit	HMW-9	12/3/1997	0.979	<0.75	0.216	99.6	<0.5	<0.5	<1
	Summit	HMW-9	3/5/1998	2.55	<0.75	0.436	199	1.36	2.61	4.33
	Summit	HMW-9	3/24/1999	2.97	—	1.16	120	8.44	38.9	192
	ERM	HMW-9	4/18/2000	ND	—	0.546	77	ND	ND	2.65
	ERM	HMW-9	3/30/2001	0.514	—	0.316	8.9	ND	ND	ND
	ERM	HMW-9	3/7/2002	5.82	—	0.149	3.11	ND	ND	1.02
	ERM	HMW-9	12/13/2002	1.06	—	0.119	2.75	ND	ND	ND
	ERM	HMW-9	3/19/2003	3.10	—	0.138	3.05	<0.5	<0.5	<1
	Farallon	HMW9-032404	3/24/2004	3.09	—	0.12	2.04	<0.5	<0.5	<1
	Farallon	HMW9-033105	3/31/2005	1.43	0.622	0.081	2.05	<0.5	<0.5	<1
	Farallon	HMW-9-032806	3/28/2006	1.37	0.560	0.0585	<0.500	<0.500	<0.500	<1.00
	Farallon	HMW-9-101806	10/18/2006	0.722	<0.500	0.0883 JH	2.02 JH	<0.500	<0.500	<1.00
	Farallon	HMW9-031308	3/13/2008	<0.26	0.63	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW9-061708	6/17/2008	<0.27	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW9-100208	10/2/2008	<0.25	<0.40	<0.400	<4.0	<4.0	<4.0	<8.0
	Farallon	HMW9-123108	12/31/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW9-031909	3/19/2009	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW9-102909	10/29/2009	0.62	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW9-012610	1/26/2010	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW9-042010	4/20/2010	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW9-072010	7/20/2010	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	HMW-9-102210	10/22/2010	<0.28	<0.45	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	HMW-9-012511	1/25/2011	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	HMW9-042611	4/26/2011	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0	
MTCA Method A Cleanup Levels for Groundwater ⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
HMW-10	Summit	HMW-10	10/6/1994	0.38	—	3.6	8,100	16	600	260
	Summit	HMW-10	11/7/1994	—	—	1.6	4,100	<20	300	32
	Summit	HMW-10	12/9/1994	0.51	—	10	9,800	480	750	680
	Summit	HMW-10	1/6/1995	—	—	6.2	8,400	210	570	660
	Summit	HMW-10	3/8/1995	0.76	<0.75	24	11,000	3,800	900	2,600
	Summit	HMW-10	9/6/1995	0.91	—	5.9	7,000	<20	640	550
	Summit	HMW-10	12/3/1996	1.95	—	3.95	2,270	<25	217	422
	Summit	HMW-10	3/6/1997	4.33	<0.75	5.6	2,430	14.5	241	567
	Summit	HMW-10	3/5/1998	4.09	<0.75	4.55	889	10.4	52.9	359
	Summit	HMW-10	9/23/1998	2.03	<0.75	4.55	1,190	<10	10	20
	Summit	HMW-10	3/24/1999	7.3	—	8.35	743	40	246	2,020
	ERM	HMW-10	10/7/1999	4.75	—	<2.5	1,110	<25	<25	<40
	ERM	HMW-10	4/18/2000	2.33	—	2.15	547	ND	24.7	114
	ERM	HMW-10	10/5/2000	2.24	—	1.26	398	ND	5.17	13.3
	ERM	HMW-10	3/30/2001	0.628	—	0.986	247	ND	ND	ND
	ERM	HMW-10	9/28/2001	1.60	ND	0.786	156	ND	ND	ND
	ERM	HMW-10	3/7/2002	8.98	—	0.974	63.6	0.853	0.531	1.74
	ERM	HMW-10	3/19/2003	5.35	—	0.787	40.3	0.875	5.60	12.5
	Farallon	093003-HMW10	9/30/2003	3.09	—	0.584	71.3	0.52	<0.5	1.68
	Farallon	HMW10-032404	3/24/2004	5.16	—	0.655	34.9	1.33	2.41	25.6
	Farallon	HMW10-092104	9/21/2004	2.12	<0.5	0.451	15.6	0.518	<0.5	1.03
	Farallon	HMW10-033105	3/31/2005	2.86	<0.5	0.704	13.3	1.12	<0.5	3.7
	Farallon	HMW10-093005	9/30/2005	1.89	<0.5	0.662	9.85	0.614	<0.5	<1
Farallon	HMW-10-032806	3/28/2006	4.24	<0.980	0.676	6.90	<0.500	<0.500	2.07	
Farallon	HMW-10-101806	10/18/2006	1.02	<0.500	0.313	6.08	<0.500	<0.500	<1.00	
Farallon	HMW10-031308	3/13/2008	<0.25	<0.40	<0.400	<4.0	<4.0	<4.0	<8.0	
Farallon	QAQC-1-031308 ^s	3/13/2008	<0.26	<0.42	0.200	3.3	<1.0	<1.0	<2.0	
Farallon	HMW10-061708	6/17/2008	0.27	<0.41	<0.100	2.9	<1.0	<1.0	<2.0	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
HMW-10	Farallon	HMW10-100208	10/2/2008	<0.28	<0.44	0.240	3.1	<1.0	<1.0	<2.0
	Farallon	HMW10-123108	12/31/2008	<0.25	<0.40	<0.400	<4.0	<4.0	<4.0	<8.0
	Farallon	HMW10-031909	3/19/2009	<0.27	<0.43	0.250	4.1	<1.0	<1.0	<1.0
	Farallon	HMW10-102909	10/29/2009	1.1	<0.40	0.220	2.6	<1.0	<1.0	<2.0
	Farallon	HMW10-012610	1/26/2010	<0.25	<0.40	0.210	2.3	<1.0	<1.0	<2.0
	Farallon	HMW10-042010	4/20/2010	<0.26	<0.42	0.210	2.4	<1.0	<1.0	<2.0
	Farallon	HMW10-072010	7/20/2010	<0.28	<0.44	0.240	2.3	<1.0	<1.0	<2.0
	Farallon	HMW-10-102110	10/21/2010	<0.29	<0.47	0.180	1.9	<1.0	<1.0	<2.0
	Farallon	HMW-10-012511	1/25/2011	<0.26	<0.42	<0.400	<4.0	<4.0	<4.0	<8.0
Farallon	QA/QC-1-012511 ⁸	1/25/2011	<0.26	<0.41	<0.400	<4.0	<4.0	<4.0	<8.0	
Farallon	HMW10-042611	4/26/2011	<0.26	<0.41	0.180	1.6	<1.0	<1.0	<2.0	
HMW-11	Summit	HMW-11	12/12/1994	22	—	16	4,900	400	640	2,000
	Summit	HMW-11	1/9/1995	—	—	5.9	2,300	370	270	840
	Summit	HMW-11	3/5/1997	11.2	1.43	1.93	593	8.92	150	287
	Summit	HMW-11	3/5/1998	7.15	0.754	3.85	808	25.3	525	633
	Summit	HMW-11	3/25/1999	9.1	—	2.78	367	45.4	86.2	572
	ERM	HMW-11	4/18/2000	1.27	—	0.72	197	ND	68.4	121
	ERM	HMW-11	3/30/2001	4.16	—	3.18	1,010	ND	271	183
	ERM	HMW-11	3/8/2002	6.78	—	1.76	207	3.94	126	253
	ERM	HMW-11	3/20/2003	9.29	—	1.32	135	1.67	73.0	82.6
	Farallon	HMW11-032404	3/24/2004	7.68	—	1.13	50.1	0.976	127	130
	Farallon	HMW11-033105	3/31/2005	9.63	<2.0	2.16	71.4	<2.5	185	57
	Farallon	HMW-11-032806	3/28/2006	18.4	<2.40	0.102	2.55	<0.500	0.866	1.91
	Farallon	HMW-11-101806	10/18/2006	1.06	<0.500	0.751	20.2	0.933	52.5	23.2
	Farallon	HMW11-031308	3/13/2008	<0.26	<0.42	0.540	6.1	<1.0	11	4.8
	Farallon	HMW11-061708	6/17/2008	0.83	<0.44	0.940	9.0	<4.0	14	8.3
Farallon	HMW11-100108	10/1/2008	0.89⁹	<0.42	0.490	5.7	<1.0	1.9	1.4	
Farallon	HMW11-123108	12/31/2008	<0.25	<0.40	0.760	8.1	<4.0	9.2	4.4	
Farallon	HMW11-032009	3/20/2009	<0.25	<0.43	0.680	7.5	<4.0	8.2	5.2	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
HMW-11	Farallon	QAQC2-032009 ⁴	3/20/2009	<0.27	<0.43	0.720	7.6	1.5	8.4	5.4
	Farallon	HMW11-102809	10/28/2009	1.4	<0.40	0.450	3.6	<1.0	<1.0	<2.0
	Farallon	HMW11-012610	1/26/2010	<0.26 ⁸	<0.41	0.460	1.4	<1.0	2.8	1.5
	Farallon	HMW11-042010	4/20/2010	1.0	<0.43	1.200	3.4	1.1	5.7	3.3
	Farallon	HMW-11-072010	7/20/2010	<0.60¹¹	<0.46	1.400⁷	4.3	1.1	4.6	6.0
	Farallon	HMW-11-102110	10/21/2010	<0.50	<0.41	0.740	4.3	<1.0	1.2	2.2
	Farallon	HMW-11-012511	1/25/2011	0.30	<0.42	<0.400	<4.0	<4.0	<4.0	<8.0
Farallon	HMW11-042711	4/27/2011	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0	
HMW-12	Summit	HMW-12	10/6/1994	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	12/9/1994	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	1/6/1995	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	3/8/1995	<0.25	<0.75	<0.05	<0.5	1.2	<0.5	1.7
	Summit	HMW-12	6/14/1995	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	9/7/1995	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	12/15/1995	0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	3/6/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	6/4/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	3/6/1996	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	6/4/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	9/13/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	12/3/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	3/4/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	3/4/1998	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-12	3/23/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	HMW-12	10/8/1999	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	ERM	HMW-12	4/17/2000	ND	—	ND	ND	ND	ND	ND
ERM	HMW-12	10/5/2000	ND	—	ND	ND	ND	0.906	ND	
ERM	HMW-12	3/30/2001	ND	—	ND	ND	ND	ND	ND	
ERM	HMW-12	9/28/2001	ND	—	ND	ND	ND	ND	ND	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
HMW-12	ERM	HMW-12	3/7/2002	ND	—	ND	ND	ND	ND	ND
	ERM	HMW-12	3/17/2003	ND	—	ND	ND	ND	ND	ND
	Farallon	093003-HMW12	9/30/2003	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	HMW12-032404	3/24/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	HMW12-092104	9/21/2004	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	HMW12-033005	3/30/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	HMW12-093005	9/30/2005	<0.25	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	HMW-12-032806	3/28/2006	<0.236	<0.472	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	HMW-12-101906	10/19/2006	<0.250	<0.500	<0.050	<0.500	<0.500	<0.500	<1.00
HMW-13	Summit	HMW-13	1/6/1995	—	—	110	17,000	23,000	2,800	13,000
	Summit	HMW-13	3/8/1995	24	4.8	110	16,000	20,000	2,300	11,000
	Summit	HMW-13	4/3/1995	—	—	62	14,000	15,000	1,100	5,400
	Summit	HMW-13	5/1/1995	—	—	170	31,000	41,000	4,500	23,000
	Summit	HMW-13	6/5/1995	24	0.88	570	11,000	48,000	11,000	56,000
	Summit	HMW-13	7/11/1995	—	—	190	4,500	31,000	5,400	29,000
	Summit	HMW-13	8/3/1995	—	—	200	7,400	31,000	5,800	32,000
	Summit	HMW-13	9/6/1995	22	—	150	7,600	21,000	4,000	22,000
	Summit	HMW-13	10/2/1995	—	—	180	8,200	25,000	4,800	27,000
	Summit	HMW-13	11/3/1995	—	—	28	4,600	17,000	4,600	35,000
	Summit	HMW-13	12/8/1995	65	1.8	500	720	550	480	26,000
	Summit	HMW-13	1/6/1996	—	—	56	940	1,500	150	6,600
	Summit	HMW-13	2/15/1996	—	—	33	1,100	1,300	230	7,400
	Summit	HMW-13	3/7/1996	1.7	<0.75	15	150	280	68	2,700
	Summit	HMW-13	4/10/1996	—	—	45	420	2,000	250	6,900
Summit	HMW-13	5/7/1996	—	—	41.1	389	2,570	310	10,100	
Summit	HMW-13	6/6/1996	19.4	—	33.9	276	1,680	329	5,210	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
HMW-13	Summit	HMW-13	7/11/1996	—	—	111	483	5,110	538	15,800
	Summit	HMW-13	8/7/1996	—	—	93.1	220	4,160	894	14,600
	Summit	HMW-13	9/12/1996	14.5	—	62.3	147	1,270	896	11,500
	Summit	HMW-13	10/11/1996	—	—	69.3	1,190	1,010	1,050	13,200
	Summit	HMW-13	10/31/1996	—	—	63.1	916	1,880	910	11,300
	Summit	HMW-13	12/5/1996	23.0	—	44.0	94.2	446	460	5,630
	Summit	HMW-13	1/8/1997	—	—	6.7	23.3	50.2	35.4	479
	Summit	HMW-13	2/4/1997	—	—	210	1.62	<0.5	<0.5	3.04
	Summit	HMW-13	3/6/1997	4.26	<0.75	1.83	9.65	1.98	2.13	27.9
	Summit	HMW-13	4/7/1997	—	—	1.6	6.81	16.7	9.57	64.8
	Summit	HMW-13	5/8/1997	—	—	1.98	29.7	56.2	21	120
	Summit	HMW-13	6/24/1997	7.82	1.11	4.61	96.8	308	49.2	287
	Summit	HMW-13	7/7/1997	—	—	14.3	148	1,060	157	916
	Summit	HMW-13	8/5/1997	—	—	24.2	37.6	977	336	1,840
	Summit	HMW-13	9/4/1997	4.66	<0.75	32.4	42.7	336	831	5,740
	Summit	HMW-13	10/16/1997	—	—	28.5	34	149	580	3,290
	Summit	HMW-13	11/14/1997	—	—	27.5	<125	<125	156	718
	Summit	HMW-13	12/3/1997	23.2	<0.75	48.5	<25	<25	85.9	324
	Summit	HMW-13	1/29/1998	—	—	2.11	4.03	3.19	18.6	54.4
	Summit	HMW-13	3/6/1998	28.3	<3.75	2.31	8.93	9.43	16.7	40
	Summit	HMW-13	6/18/1998	0.356	<3.75	13.1	13.8	56.4	460	1,340
	Summit	HMW-13	9/23/1998	5.89	<3.75	7,750	87.4	362	290	843
	Summit	HMW-13	12/4/1998	5.89	<3.75	95,700	465	7,210	2,730	14,300
Summit	HMW-13	3/22/1999	6.66	—	1.41	<10	28.4	32.1	185	
Summit	HMW-13	6/15/1999	13.9	—	7.17	<11.2	224	244	1,240	
ERM	HMW-13	10/7/1999	25.2	—	7.71	11.3	44.3	234	943	
ERM	HMW-13	12/31/1999	<0.25	—	8.95	1.25	4.73	13.2	471	
ERM	HMW-13	4/18/2000	3.63	—	0.94	ND	3.89	34	242	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
HMW-13	ERM	HMW-13	6/13/2000	1.69	—	1.19	ND	ND	26.6	359
	ERM	HMW-13	10/5/2000	5.39	—	5.29	ND	48.9	119	1,060
	ERM	HMW-13	12/26/2000	0.928	—	9.94	ND	128	232	2,150
	ERM	HMW-13	3/30/2001	5.64	—	12.4	8.11	178	367	2,930
	ERM	HMW-13	6/29/2001	5.18	—	18.1	<10.0	103	527	4,790
	ERM	HMW-13	9/28/2001	8.31	ND	3.57	2.72	2.47	98.1	536
	ERM	HMW-13	12/17/2001	21.1	ND	11.6	ND	ND	55.0	1,100
	ERM	HMW-13	3/8/2002	16	—	0.281	0.539	ND	ND	2.27
	ERM	HMW-13	7/30/2002	48.4	—	1.35	2.64	1.57	5.3	16.8
	ERM	HMW-13	12/12/2002	13.1	—	5.77	2.55	2.81	36.2	391
	ERM	HMW-13	3/19/2003	20.6	—	0.419	<0.5	<0.5	<0.5	1.71
	ERM	HMW-13	6/25/2003	6.33	—	0.174	ND	ND	ND	ND
	Farallon	093003-HMW13	9/30/2003	3.48	—	0.379	0.995	1.58	2.9	18.10
	Farallon	CMW-121803-04	12/18/2003	10.7	—	1.53	6.96	1.44	6.54	111
	Farallon	HMW13-032504	3/25/2004	2.99	—	0.0982	1.1	<0.5	<0.5	<1
	Farallon	HWM13-062804-01	6/28/2004	10.3	—	0.0837	<0.5	<0.5	<0.5	2.54
	Farallon	HMW13-092104	9/21/2004	4.00	<0.5	1.37	1.13	1.22	6.98	103
	Farallon	HMW13-122104	12/21/2004	11.3	0.642	0.259	<0.5	<0.5	<0.5	3.46
	Farallon	HMW13-033105	3/31/2005	5.76	<1	0.136	<0.5	<0.5	<0.5	<1
	Farallon	HMW-13-070805	7/8/2005	1.76	<0.5	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	HMW-13-093005	9/30/2005	7.11	<0.5	0.374	0.838	0.558	1.24	6.06
	Farallon	HMW-13-122805	12/28/2005	13.7	<0.5	0.822	<0.5	<0.5	<0.5	1.20
	Farallon	HMW-13-032806	3/28/2006	2.01	<0.481	<0.050	<0.500	<0.500	<0.500	<1.00
	Farallon	HWM-13-101906	10/19/2006	1.09	<0.500	0.0623 JH	0.631 JH	<0.500	<0.500	1.92 JH
	Farallon	HMW13-031308	3/13/2008	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	HMW13-061608	6/16/2008	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	HMW13-100108	10/1/2008	<0.26	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0	
Farallon	HMW13-123008	12/30/2008	<0.27	<0.42	<0.100	<1.0	<1.0	<1.0	<2.0	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sampled by	Sample Identification	Sample Date	Analytical Results (milligrams per liter)			Analytical Results (micrograms per liter)			
				DRO ¹	ORO ¹	GRO ²	Benzene ³	Toluene ³	Ethylbenzene ³	Total Xylenes ³
HMW-13	Farallon	HMW13-031909	3/19/2009	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW13-102809	10/28/2009	5.7	0.86¹¹	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW13-012610	1/26/2010	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW13-042010	4/20/2010	<0.28	<0.44	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW-13-072010	7/20/2010	<0.29	<0.46	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW-13-102110	10/21/2010	<0.29	<0.46	<0.100	<1.0	<1.0	<1.0	<2.0
	Farallon	HMW-13-012511	1/25/2011	<0.27	<0.43	<0.100	<1.0	<1.0	<1.0	<2.0
Farallon	HMW-13-042611	4/26/2011	<0.26	<0.41	<0.100	<1.0	<1.0	<1.0	<2.0	
HMW-14	Summit	HMW-14	10/6/1994	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	HMW-14	12/12/1994	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	HMW-14	1/6/1995	—	—	<0.05	<0.5	<0.5	<0.5	<1
	Summit	HMW-14	3/8/1995	0.27	<0.75	<0.05	<0.5	<0.5	<0.5	<1
	Summit	HMW-14	9/6/1995	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-14	6/4/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-14	12/3/1996	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-14	3/4/1997	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-14	3/4/1998	<0.25	<0.75	<0.050	<0.5	<0.5	<0.5	<1
	Summit	HMW-14	3/22/1999	0.478	—	<0.05	<0.5	<0.5	<0.5	<1
	ERM	HMW-14	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	HMW-14	4/17/2000	ND	—	ND	ND	ND	ND	ND
	ERM	HMW-14	3/30/2001	ND	—	ND	ND	ND	ND	ND
	ERM	HMW-14	3/7/2002	ND	—	ND	ND	ND	ND	ND
	ERM	HMW-14	3/17/2003	<0.25	—	<0.050	<0.5	<0.5	<0.5	<1
	Farallon	HMW14-032404	3/24/2004	<0.25	—	<0.05	<0.5	<0.5	<0.5	<1
	Farallon	HMW14-033005	3/30/2005	<0.281	<0.562	<0.05	<0.5	<0.5	<0.5	<1
Farallon	HMW-14-032806	3/28/2006	<0.238	<0.476	<0.050	<0.500	<0.500	<0.500	<1.00	
Farallon	HMW14-031208	3/12/2008	<0.25	<0.40	<0.100	<1.0	<1.0	<1.0	<2.0	
MTCA Method A Cleanup Levels for Groundwater⁴				0.5	0.5	0.8/1.0	5	1,000	700	1,000

Table 5
Summary of Laboratory Analytical Results for TPH and BTEX in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

NOTES:

<denotes analyte not detected at or above the stated reporting limit listed.

— denotes sample not analyzed

ND denotes analyte not detected at or above the laboratory reporting limit which was not provided in summary table
Results in **BOLD** denote sample results or reporting limit exceeds applicable Washington State Model Toxics Control Act
Cleanup Regulation (MTCA) Method A Cleanup Levels for Groundwater.

¹Analyzed by Northwest Method NWTPH-Dx.

²Analyzed by Northwest Method NWTPH-Gx.

³Analyzed by U. S. Environmental Protection Agency Method 8021B.

⁴MTCA Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington
Administrative Code, as revised November 2007.

⁵Well was resampled due to laboratory quality control issues with the original samples collected during
the March 2006 sampling event.

⁶Hydrocarbons in the lube oil range are impacting the diesel range organics result.

⁷Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

⁸Quality assurance/quality control duplicate sample.

⁹Hydrocarbons in the gasoline range are impacting the diesel-range result

¹⁰The practical quantitation limit is elevated due to interferences in the sample.

¹¹Hydrocarbons in the diesel range are impacting the oil-range result.

BTEX = benzene, toluene, ethylbenzene, and xylenes

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

ERM = Environmental Resources Management

Farallon = Farallon Consulting, L.L.C.

GRO = TPH as gasoline-range organics

JH = Estimated value. Sample result biased high due to associated
quality control data exceeding laboratory-established control limits.

JL = Estimated value. Sample result biased low due to associated
quality control data below laboratory-established control limits.

ORO = TPH as oil-range organics

Summit = Summit Envirosolutions

TPH = total petroleum hydrocarbons

Table 6
Summary of Laboratory Analytical Results for VOCs in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Analytical Results (micrograms per liter)						MTCA Method A Cleanup Levels for Groundwater ¹	MTCA Method B Cleanup Levels for Groundwater ²
	CMW-25		HMW-13		CMW-10			
Sample Identification	CMW-25-101906	CMW25-041007	HMW-13-101906	HMW13-041007	CMW-10-102006			
Sample Date	10/19/2006	4/10/2007	10/19/2006	4/10/2007	10/20/2006			
Halogenated Volatile Organic Compounds³								
Bromochloromethane	<0.200	<0.200	<0.200	<0.200	—	NE	NE	
Bromodichloromethane	<0.200	<0.200	<0.200	<0.200	—	NE	0.706	
Bromoform	<0.200	<0.200	<0.200	<0.200	—	NE	5.538	
Bromomethane	<2.00	<2.00	<2.00	<2.00	—	NE	NE	
Carbon tetrachloride	<0.200	<0.200	<0.200	<0.200	—	NE	0.337	
Chlorobenzene	<0.200	<0.200	<0.200	<0.200	—	NE	160	
Chloroethane	<1.00	<1.00	<1.00	<1.00	—	NE	NE	
Chloroform	<0.200	<0.200	<0.200	<0.200	—	NE	7.172	
Chloromethane	<1.00	<1.00	<1.00	<1.00	—	NE	7.172	
Dibromochloromethane	<0.200	<0.200	<0.200	<0.200	—	NE	7.172	
1,2-Dichlorobenzene	<0.200	<0.200	<0.200	<0.200	—	NE	720	
1,3-Dichlorobenzene	<0.200	<0.200	<0.200	<0.200	—	NE	NE	
1,4-Dichlorobenzene	<0.200	<0.200	<0.200	<0.200	—	NE	1.823	
1,1-Dichloroethane	<0.200	<0.200	<0.200	<0.200	—	NE	800	
1,2-Dichloroethane	<0.200	<0.200	<0.200	<0.200	<1.00	5	0.481	
1,1-Dichloroethene	<0.200	<0.0500	<0.200	<0.0500	—	NE	0.073	
cis-1,2-Dichloroethene	0.490	<0.200	0.350	<0.200	—	NE	80	
trans-1,2-Dichloroethene	<0.200	<0.200	<0.200	<0.200	—	NE	160	
1,2-Dichloropropane	<0.200	<0.200	<0.200	<0.200	—	NE	0.643	
cis-1,3-Dichloropropene	<0.200	<0.200	<0.200	<0.200	—	NE	0.243	
trans-1,3-Dichloropropene	<0.200	<0.200	<0.200	<0.200	—	NE	0.243	
Methylene chloride	<5.00	<5.00	<5.00	<5.00	—	5	5.833	
1,1,2,2-Tetrachloroethane	<0.500	<0.200	<0.500	<0.200	—	NE	0.219	

Table 6
Summary of Laboratory Analytical Results for VOCs in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Analytical Results (micrograms per liter)						MTCA Method A Cleanup Levels for Groundwater ¹	MTCA Method B Cleanup Levels for Groundwater ²
	CMW-25		HMW-13		CMW-10			
Sample Identification	CMW-25-101906	CMW25-041007	HMW-13-101906	HMW13-041007	CMW-10-102006			
Sample Date	10/19/2006	4/10/2007	10/19/2006	4/10/2007	10/20/2006			
Halogenated Volatile Organic Compounds³								
Tetrachloroethene	<0.200	0.660	0.250	0.580	—	5	0.858	
1,1,1-Trichloroethane	<0.200	<0.200	<0.200	<0.200	—	200	7,200	
1,1,2-Trichloroethane	<0.200	<0.200	<0.200	<0.200	—	NE	0.768	
Trichloroethene	1.43	0.990	1.38	1.52	—	5	3.977	
Trichlorofluoromethane	<0.500	<0.500	<0.500	<0.500	—	NE	2,400	
Vinyl chloride	<0.200	<0.200	<0.200	<0.200	—	0.2	0.029	
Other Volatile Organic Compounds								
Methyl tertiary-butyl ether ³	—	—	—	—	<5.00	20	24	
1,2-Dibromoethane ⁴	—	—	—	—	<0.010	0.01	0.001	

NOTES:

<denotes analyte not detected at or above the stated reporting limit listed.

Results in **BOLD** denote sample result or reporting limit exceeds applicable Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method B Cleanup Levels for Groundwater.

¹MTCA Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

²MTCA Cleanup Levels and Risk Calculations under the MTCA, Version 3.1, Standard Method B Values for Groundwater, revised November 2007, <https://fortress.wa.gov.ecy/clarc/Reporting/ChemicalQuery.aspx>

³Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B.

⁴Analyzed by EPA Method 8011.

VOCs = volatile organic compounds

NE = not established

Table 7
Summary of Laboratory Analytical Results for PCBs in Groundwater
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Well Identification	Sample Identification	Sample Date	Analytical Results (micrograms per liter)									
			Aroclor 1016 ¹	Aroclor 1221 ¹	Aroclor 1232 ¹	Aroclor 1242 ¹	Aroclor 1248 ¹	Aroclor 1254 ¹	Aroclor 1260 ¹	Aroclor 1262 ¹	Aroclor 1268 ¹	
CMW-25	CMW-25-112206	11/22/2006	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
HMW-13	HMW-13-112206	11/22/2006	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
MTCA Method A Cleanup Level for Groundwater²			0.1 ³									

NOTES:

<denotes analyte not detected at or above the reporting limit listed.

PCBs = polychlorinated biphenyls

¹Analyzed by U.S. Environmental Protections Agency Method 8082.

²Washington State Model Toxics Control Act Cleanup Regulation Method A Cleanup Levels for Groundwater, Table 720-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

³Cleanup level for polychlorinated biphenyl mixtures.

Table 8
Summary of Laboratory Analytical Results for TPH and BTEX in Soil -
August 2007 and February/March 2008
CHS Auburn Site
Farallon PN: 301-004

Sample/Boring Location	Sample Identification	Sample Date	Depth (feet) ¹	Analytical Results (milligrams per kilogram)						
				DRO ²	ORO ²	GRO ³	Benzene ⁴	Toluene ⁴	Ethylbenzene ⁴	Xylenes ⁴
FB-1	FB1-27-080807	8/8/2007	27	25.1 ⁵	<26.6	<4.50	<0.0270	<0.0450	<0.0450	<0.0900
	FB1-30-080807	8/8/2007	30	2770 JH	<140	1,160⁶	<1.18	2.14	<1.96	5.94
	FB1-35-080807	8/8/2007	35	<11.2	<28.0	<10.1	<0.0604	<0.101	<0.101	<0.201
FB-2	FB2-27-080807	8/8/2007	27	<10.7	<26.7	<4.50	<0.0270	<0.0450	<0.0450	<0.0900
	FB2-30-080807	8/8/2007	30	<10.8	<26.9	<4.51	<0.0271	<0.0451	<0.0451	<0.0902
	FB2-32-080807	8/8/2007	32	<11.0	<27.6	<3.50	<0.0210	<0.0350	<0.0350	<0.0700
FB-3	FB3-28-080807	8/8/2007	28	<10.6	<26.6	<5.01	<0.0300	<0.0501	<0.0501	<0.100
	FB3-31-080807	8/8/2007	31	272 ⁵	<26.8	77.1⁶ JH	0.0238 JH	0.0502 JH	0.0937 JH	0.0772 JH
	FB3-36-080807	8/8/2007	36	<10.3	<25.7	<4.98	<0.0299	<0.0498	<0.0498	<0.0996
FB-4	FB4-29-080607	8/6/2007	29	120 ⁵	<26.0	263	0.0569	<0.0501	2.43	3.57
	FB4-30-080607	8/6/2007	30	602	<27.8	409⁶	<0.278	<0.464	1.82	1.90
	FB4-34-080607	8/6/2007	34	90.5 ⁵	<29.1	35.3	<0.0431	0.101	0.174	0.235
FB-5	FB5-26-080707	8/7/2007	26	674	<28.0	44.1⁶	<0.0251	<0.0418	<0.0418	<0.0836
	FB5-31-080707	8/7/2007	31	126 ⁵	<29.0	31.5⁶	<0.0315	<0.0525	0.0532	0.145
	FB5-35-080707	8/7/2007	35	<11.7	<29.4	<4.20	<0.0252	<0.0420	<0.0420	<0.0840
FB-6	FB6-17-080607	8/6/2007	17	<10.7	<26.6	<4.67	<0.0280	<0.0467	<0.0467	<0.0934
	FB6-20-080607	8/6/2007	20	240 ⁵	<27.6	85.0⁶ JH	0.0457 JH	<0.0349	0.224 JH	0.269 JH
	FB6-25-080607	8/6/2007	25	69.5 ⁵	<30.1	19.7 ⁶	<0.0262	<0.0437	0.0456	0.0911
FB-7	FB7-27-080607	8/6/2007	27	575 ⁷	32.0	228⁶	<0.223	0.544	0.379	<0.742
	FB7-29-080607	8/6/2007	29	46.5 ⁵	<26.7	35.0	0.0330	0.119	0.0547	<0.0783
	FB7-33-080607	8/6/2007	33	<11.9	<29.9	<5.37	<0.0322	<0.0537	<0.0537	<0.107
FB-8	FB8-24-080607	8/6/2007	24	103 ⁵	<26.6	20.6 ⁶	<0.0250	<0.0416	<0.0416	<0.0833
	FB8-28-080607	8/6/2007	28	775	<27.4	14.8 ⁶	<0.0239	<0.0399	<0.0399	<0.0798
	FB8-29-080607	8/6/2007	29	60.6 ⁵	<28.7	<4.69	<0.0281	<0.0469	<0.0469	<0.0937
FB-9	FB9-25-080907	8/9/2007	25	2,100 JH	<132	477⁶	<0.292	<0.487	<0.487	<0.974
	FB9-29-080907	8/9/2007	29	2,360 JH	<139	495⁶	<0.281	<0.468	<0.468	<0.936
	FB9-32-080907	8/9/2007	32	<10.6	<26.6	<4.48	<0.0269	<0.0448	<0.0448	<0.0896
MTCA Method A Cleanup Levels for Soil⁹				2,000	2,000	30	0.03	7	6	9

Table 8
Summary of Laboratory Analytical Results for TPH and BTEX in Soil -
August 2007 and February/March 2008
CHS Auburn Site
Farallon PN: 301-004

Sample/Boring Location	Sample Identification	Sample Date	Depth (feet) ¹	Analytical Results (milligrams per kilogram)						
				DRO ²	ORO ²	GRO ³	Benzene ⁴	Toluene ⁴	Ethylbenzene ⁴	Xylenes ⁴
FB-10	FB10-26-080707	8/7/2007	26	<10.6	<26.4	<4.85	<0.0291	<0.0485	<0.0485	<0.0970
	FB10-27-080707	8/7/2007	27	<10.3	<25.8	<4.81	<0.0289	<0.0481	<0.0481	<0.0962
	FB10-29-080707	8/7/2007	29	<11.9	<29.8	<5.57	<0.0334	<0.0557	<0.0557	<0.111
FB-11	FB11-25-080707	8/7/2007	25	53.0	<27.3	<5.17	0.0458	0.0622	<0.0517	<0.103
	FB11-29-080707	8/7/2007	29	1,070	<28.6	295⁶ JH	<0.0309	<0.0515	0.383	0.578
	FB11-32-080707	8/7/2007	32	<12.9	<32.3	<6.16	<0.0369	<0.0616	<0.0616	<0.123
FB-12	FB12-23-080707	8/7/2007	23	2,170⁵	<26.3	138⁶	<0.0292	<0.0487	<0.0487	<0.0975
	FB12-29-080707	8/7/2007	29	696	<30.9	251⁶	<0.304	<0.507	<0.507	<1.01
	FB12-35-080707	8/7/2007	35	<11.7	<29.3	<4.64	<0.0279	<0.0464	<0.0464	<0.0929
FB-13	FB13-16-080807	8/8/2007	16	1470 JH	<127	345⁶	<0.0273	<0.0455	<0.0455	<0.0911
	FB13-22-080807	8/8/2007	22	2,050 JH	<131	2,140⁶	<1.67	<2.78	<2.78	<5.56
	FB13-27-080807	8/8/2007	27	916 JH	<142	1,460	<0.251	<0.418	1.13	6.94
	FB13-29-080807	8/8/2007	29	<12.2	<30.5	15.0	<0.0253	<0.0421	<0.0421	<0.0843
FB-14	FB14-24-080907	8/9/2007	24	957 ⁵	35.1 ⁸	23.3 ⁶	<0.0307	<0.0511	<0.0511	<0.102
	FB14-28-080907	8/9/2007	28	2,160 JH	<28.0	354⁶ JH	0.0756 JH	0.177 JH	0.235 JH	1.59 JH
	FB14-35-080907	8/9/2007	35	<11.0	<27.6	<5.11	<0.0306	<0.0511	<0.0511	<0.102
FB-15	FB15-28-022608	2/26/2008	28	49	<54	<8.1	<0.020	<0.081	<0.081	<0.162
	FB15-33-022608	2/26/2008	33	1,100	<54	600⁶	<0.59	0.062	13	14
	FB15-35-022608	2/26/2008	35	73	<68	100⁶	<0.30	<0.060	2.5	2.8
FB-16	FB16-28-022608	2/26/2008	28	390	<57	250⁶	<0.43	<0.087	6.2	8.75
	FB16-30-022608	2/26/2008	30	49	<55	19 ⁶	<0.060	<0.060	0.18	0.11
	FB16-33-022608	2/26/2008	33	<29	<57	<4.6	<0.020	<0.046	<0.046	<0.092
FB-17	FB17-25-022708	2/27/2008	25	970	<54	570⁶	<0.40	<0.081	10	35.7
	FB17-30-022708	2/27/2008	30	<28	<56	23 ⁶	<0.13	<0.027	0.24	0.707
	FB17-38-022708	2/27/2008	38	<28	<56	<4.0	<0.020	<0.040	<0.040	<0.080
MTCA Method A Cleanup Levels for Soil⁹				2,000	2,000	30	0.03	7	6	9

Table 8
Summary of Laboratory Analytical Results for TPH and BTEX in Soil -
August 2007 and February/March 2008
CHS Auburn Site
Farallon PN: 301-004

Sample/Boring Location	Sample Identification	Sample Date	Depth (feet) ¹	Analytical Results (milligrams per kilogram)						
				DRO ²	ORO ²	GRO ³	Benzene ⁴	Toluene ⁴	Ethylbenzene ⁴	Xylenes ⁴
FB-18	FB18-25-022708	2/27/2008	25	170	<53	8.7 ⁶	<0.020	<0.046	<0.046	0.243
	FB18-29-022708	2/27/2008	29	900	<60	430⁶	<1.3	<0.26	<1.3	12.3
	FB18-40-022708	2/27/2008	40	<26	<52	<3.5	<0.020	<0.035	<0.035	<0.070
FB-19	FB19-21-022808	2/28/2008	21	<28	<56	<6.3	<0.020	<0.063	<0.063	<0.126
	FB19-24-022808	2/28/2008	24	1,600	<54	<7.7	0.099	0.44	0.16	0.91
	FB19-35-022808	2/28/2008	35	<35	<70	<8.0	0.023	<0.080	<0.080	<0.160
FB-20	FB20-20-022908	2/29/2008	20	<30	<60	<4.7	<0.020	<0.047	<0.047	<0.094
	FB20-25.5-030308	3/3/2008	25.5	190	<55	<12	<0.025	<0.12	<0.12	<0.24
	FB20-30-030308	3/3/2008	30	<28	<56	<14	<0.027	<0.14	<0.14	<0.28
FB-21	FB21-25-022908	2/29/2008	25	<28	80	<3.9	<0.020	<0.039	<0.039	<0.078
	FB21-27-022908	2/29/2008	27	110	400	<4.9	<0.020	<0.049	<0.049	<0.098
	FB21-31-022908	2/29/2008	31	<32	<63	<7.1	<0.020	<0.071	<0.071	<0.142
FB-22	FB22-27-022808	2/28/2008	27	<27	<53	<3.8	<0.020	<0.038	<0.038	<0.076
	FB22-30-022808	2/28/2008	30	<27	<54	<4.2	<0.020	<0.042	<0.042	<0.084
FB-23	FB23-25-022708	2/27/2008	25	<27	<53	<2.9	<0.020	<0.029	<0.029	<0.058
MTCA Method A Cleanup Levels for Soil⁹				2,000	2,000	30	0.03	7	6	9

NOTES:

<denotes analyte not detected at or above the reporting limit listed.

Results in **Bold** denote sample result exceeds Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A cleanup levels for soil.

¹ Depth of sample collected in feet below ground surface.

² Analyzed by Northwest Method NWTPH-Dx.

³ Analyzed by Northwest Method NWTPH-Gx.

⁴ Analyzed by U.S. Environmental Protection Agency Method 8021B.

⁵ Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel.

⁶ Detected hydrocarbons in the gasoline range appear to be due to overlap of diesel-range hydrocarbons.

⁷ Results in the diesel organics range are primarily due to overlap from a heavy oil-range product.

⁸ The heavy oil range organics present are due to hydrocarbons eluting primarily in the diesel range.

⁹ MTCA Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as amended November 2007.

BTEX = benzene, toluene, ethylbenzene, and xylenes

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

GRO = TPH as gasoline-range organics

JH = Estimated value. Sample result biased high due to associated quality control data exceeding laboratory-established control limits.

ORO = TPH as oil-range organics

Table 9
Summary of Laboratory Analytical Results for DRO and ORO
in Soil Leachate - August 2007
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample/Boring Location	Sample Identification	Sample Date	Depth (feet) ¹	Analytical Results ² (milligrams per liter)	
				DRO ³	ORO ³
FB-9	FB9-25-080907	8/9/2007	25	0.722	<0.472
FB-13	FB13-27-080807	8/8/2007	27	1.13	<0.485

NOTES:

<denotes analyte not detected at or above the reporting limit listed.

¹ Depth of sample collected in feet below ground surface.

² Samples analyzed following extraction using Synthetic Precipitation Leaching Procedure, U.S. Environmental Protection

³ Analyzed by Northwest Method NWTPH-Dx.

DRO = total petroleum hydrocarbons (TPH) as diesel-range organics

ORO = TPH as oil-range organics

Table 10
Summary of Laboratory Analytical Results for Metals in Soil
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample/Boring Location	Well/Sample Identification	Sample Date	Depth (feet) ¹	Analytical Results (milligrams per kilogram) ²							
				Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Mercury	Silver
Tires 4 Less Waste Oil UST	1021971125 W.O.-East	10/21/1997	—	<10.0	41.8	0.411	9.28	139	<0.125	0.104	12.2
	1021971120 W.O.-Center	10/22/1997	—	<10.0	31.0	<0.250	5.71	17.1	<7.50	<0.0500	<1.00
	1021971115 W.O.-West	10/23/1997	—	<10.0	21.8	<0.250	9.39	<10.0	<0.125	<0.0500	<1.00
Tires 4 Less Solvent UST	1021971145 SOL.-East	10/24/1997	—	<10.0	14.6	<0.250	6.84	<10.0	<0.125	<0.0500	16.2
	1021971140 SOL.-Center	10/25/1997	—	<10.0	19.3	<0.250	3.23	<10.0	<7.50	<0.0500	<1.00
	1021971135 SOL.-West	10/26/1997	—	<10.0	26.6	<0.250	9.08	<10.0	<0.125	0.0607	17.4
Tires 4 Less Heating Oil UST	1021971245 H.O.-East	10/27/1997	—	<10.0	20.4	<0.250	9.90	<10.0	<0.125	<0.0500	14.3
	1021971240 H.O.-Center	10/28/1997	—	<10.0	20.7	<0.250	6.49	<10.0	<7.50	<0.0500	<1.00
	1021971235 H.O.-West	10/29/1997	—	<10.0	29.7	0.384	7.99	<10.0	<0.125	<0.0500	16.7
Sump 1	0929980930SUMP	9/29/1998	—	2.34	25.9	0.580	9.83	10.7	ND	ND	ND
	0929980930SUMP	9/29/1998	—	1.49	23.3	ND	7.97	7.21	ND	ND	ND
Bulk Fuel Storage & Loading Area	102198 1315-1	10/21/1998	26	—	—	—	—	<25.0	—	—	—
	102198 1325-2	10/21/1998	15	—	—	—	—	<25.0	—	—	—
	102298 1456-3	10/22/1998	28	—	—	—	—	<25.0	—	—	—
	102298 1502-4	10/22/1998	13	—	—	—	—	<25.0	—	—	—
	102298 1515-5 ³	10/22/1998	13	—	—	—	—	<25.0	—	—	—
	102298 1520-6	10/22/1998	26	—	—	—	—	<25.0	—	—	—
	102298 1620-7	10/22/1998	25	—	—	—	—	<25.0	—	—	—
	102298 1627-8	10/22/1998	15	—	—	—	—	<25.0	—	—	—
	102398 1320-9	10/23/1998	29	—	—	—	—	<25.0	—	—	—
	102398 1500-10	10/23/1998	27	—	—	—	—	<25.0	—	—	—
102398 1510-11	10/23/1998	11	—	—	—	—	<25.0	—	—	—	
MTCA Cleanup Levels for Soil				20⁴	5,600⁵	2⁴	2000⁴	250⁴	400⁵	2⁴	400⁵

Table 10
Summary of Laboratory Analytical Results for Metals in Soil
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

NOTES:

<denotes analyte not detected at or above the reporting limit listed.

—denotes sample not analyzed

¹Depth of sample collected in feet below ground surface.

²Analyzed by U.S. Environmental Protection Agency Method 6000/7000 Series.

³Duplicate of sample 102298 1502-4

⁴Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method A Soil Cleanup Levels for Unrestricted Land Uses, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, as revised November 2007.

⁵MTCA Cleanup Levels and Risk Calculations Database Search, Method B, Soil Cleanup Levels for Direct Contact Pathway, revised November 2007. Where both carcinogen and non-carcinogen values listed the lower of the two values is presented.

ND = not detected, laboratory reporting limit not recorded

Table 11
Summary of Laboratory Analytical Results for PAHs in Soil
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample Location	Analytical Results ¹ (milligrams per kilogram)					MTCA Method B Cleanup Levels ³	
	Bulk Fuel Storage & Loading Area						
	Sample ID	102198 1315-1	102298 1456-3	102298 1502-4	102298 1627-8		102398 1320-9
	Sample Date	10/21/1998	10/22/1998	10/22/1998	10/22/1998		10/23/1998
Sample Depth (feet bgs) ²	26	28	13	15	29		
Acenaphthene	0.293	0.0243	0.673	<0.0200	0.198	4,800	
Acenaphthylene	<0.100	<0.0200	<0.250	<0.0200	<0.100	NE	
Anthracene	<0.125	<0.0400	<0.250	<0.0200	<0.100	24,000	
Benzo(a)anthracene	<0.0500	<0.0200	<0.250	<0.0200	<0.100	0.137	
Benzo(a)pyrene	<0.0500	<0.0200	<0.250	<0.0200	<0.100	0.137	
Benzo(b)fluoranthene	<0.0500	<0.0200	<0.250	<0.0200	<0.100	0.137	
Benzo(g,h,i)perylene	<0.0500	<0.0200	<0.250	<0.0200	<0.100	NE	
Benzo(k)fluoranthene	<0.0500	<0.0200	<0.250	<0.0200	<0.100	0.137	
Chrysene	<0.0500	0.0314	<0.250	<0.0200	<0.100	0.137	
Dibenz(a,h)anthracene	<0.0500	<0.0200	<0.250	<0.0200	<0.100	0.137	
Fluoranthene	0.134	0.0314	<0.250	<0.0200	<0.100	3,200	
Fluorene	1.35	0.0529	3.14	<0.0200	0.917	3,200	
Indeno(1,2,3-cd)pyrene	<0.0500	<0.0200	<0.250	<0.0200	<0.100	0.137	
2-Methylnaphthalene	0.124	0.200	9.52	<0.0200	6.65	NE	
Naphthalene	<0.0500	0.0472	<0.250	<0.0200	2.12	1,600	
Phenanthrene	2.21	<0.200	5.33	<0.0200	1.73	NE	
Pyrene	0.374	0.202	0.281	0.0252	0.154	2,400	

Table 11
Summary of Laboratory Analytical Results for PAHs in Soil
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

NOTES:

<denotes analyte not detected at or above the reporting limit listed.

Results in **BOLD** denote sample result or reporting limit exceeds applicable Washington State Model Toxics Control Act Cleanup Regulation (MTCA) Method B Cleanup Levels for Soil.

¹Analyzed by GC/MS-SIM.

²Feet below ground surface.

³MTCA Cleanup Levels and Risk Calculations Database Search, Method B, Soil Cleanup Levels for Direct Contact Pathway, revised November 2007. Where both carcinogen and non-carcinogen values listed, the lower of the two values is presented.

NE = not established

PAHs = polycyclic aromatic hydrocarbons

Table 12
Cumulative Product-Equivalent Gallons Treated by AS/SVE Systems
1994-1999
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Month/Year	Cumulative Product-Equivalent Gallons Treated		
	Perimeter AS/SVE system	Central AS/SVE System	Down-Gradient AS/SVE System
Dec-94	406	NS	NS
Jun-95	5,512	NS	3.0
Dec-95	9,379	NS	5.1
Jun-96	9,398	54.5	5.1
Dec-96	9,481	703.1	5.1
Jun-97	9,481	703.1	5.8
Dec-97	9,506	706.0	5.9
Mar-98	9,506	706.0	5.9
Jun-99	9,582	812.7	5.9

NOTES:

AS = air sparge

NS = not sampled, system not yet operational

SVE = soil vapor extraction

Table 13
Summary of Groundwater Quality Data - June 2008 through April 2011
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample Location	Date	Temperature ¹ (°C)	pH ¹	ORP ¹ (mV)	Dissolved Oxygen ² (mg/l)	Soluble Manganese ³ (mg/l)	Ferrous Iron ⁴ (mg/l)	Sulfate ⁵ (mg/l)	Nitrate ⁶ (mg/l)	Methane ⁷ (µg/l)
CMW-2	6/16/2008	13.72	6.02	54.5	0.16	-	-	-	-	-
	10/1/2008	16.36	6.26	44.7	0.53	-	-	-	-	-
	12/30/2008	10.81	7.12	97.1	11.29	-	-	-	-	-
	3/19/2009	12.37	6.18	39	0.71	-	-	-	-	-
	10/28/2009	13.62	6.43	-28.6	1.49	-	-	-	-	-
	1/26/2010	14.29	6.68	124.6	9.33	-	-	-	-	-
	4/20/2010	14.23	6.79	64.9	8.9	-	-	-	-	-
	7/20/2010	15.32	- ⁸	42.5	10.5	-	-	-	-	-
	10/21/2010	15.61	6.04	149.8	7.9	-	-	-	-	-
	1/25/2011	13.79	6.81	134.1	9.7	-	-	-	-	-
4/27/2011	12.50	5.89	309.2	5.2	-	-	-	-	-	
CMW-4	6/16/2008	15.34	6.08	138.3	4.43	-	-	-	-	-
	10/1/2008	17.96	6.04	209.6	3.13	-	-	-	-	-
	12/30/2008	11.47	6.35	124.9	4.74	<0.1	<0.2	12	3.6	-
	3/19/2009	12.72	6.18	203.8	3.95	<0.1	<0.2	14	4.6	-
	10/28/2009	12.03	6.26	351.0	5.40	-	-	-	-	-
	1/26/2010	12.89	6.12	365.1	4.30	-	-	-	-	-
	4/19/2010	14.15	6.36	284.4	4.8	-	-	-	-	-
	7/20/2010	15.20	5.98	111.3	4.1	-	-	-	-	-
	10/21/2010	14.47	5.61	210.1	3.05	-	-	-	-	-
	1/25/2011	12.59	6.23	170.9	5.1	-	-	-	-	-
4/26/2011	14.02	6.07	168.5	4.1	-	-	-	-	-	
CMW-5	6/16/2008	13.82	6.45	127.1	0.15	-	-	-	-	-
	10/2/2008	14.87	6.41	150.5	0.53	-	-	-	-	-
	12/31/2008	10.39	6.59	136.3	0.60	-	-	-	-	-
	3/20/2009	11.07	6.81	39	0.74	0.4	1.4	10	0.062	-
	10/29/2009	12.33	6.52	71.0	1.28	-	-	-	-	-
	1/27/2010	11.03	6.32	90.0	0.43	-	-	-	-	-
	4/20/2010	12.64	6.52	85.0	1.00	-	-	-	-	-
	7/20/2010	14.10	6.28	107.7	1.31	-	-	-	-	-
CMW-7	6/17/2008	13.45	6.35	50.9	5.08	<0.1	0.8	15	4.4	-
	10/1/2008	14.51	6.14	47.2	4.51	<0.1 ⁹	<0.2 ⁹	15	3.5	-
	12/30/2008	11.53	6.50	72.1	4.82	<0.1	<0.2	14	3.4	-

Table 13
Summary of Groundwater Quality Data - June 2008 through April 2011
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample Location	Date	Temperature ¹ (°C)	pH ¹	ORP ¹ (mV)	Dissolved Oxygen ² (mg/l)	Soluble Manganese ³ (mg/l)	Ferrous Iron ⁴ (mg/l)	Sulfate ⁵ (mg/l)	Nitrate ⁶ (mg/l)	Methane ⁷ (µg/l)
CMW-7	3/19/2009	10.72	6.39	161	5.19	<0.1	0.2	14	3.8	-
	1/24/2011	-	-	-	5.2	-	-	-	-	-
	4/25/2011	-	-	-	4.6	-	-	-	-	-
CMW-8	6/17/2008	15.90	6.51	9.5	0.17	0.4	3.5	5.3	<0.050	-
	10/2/2008	13.92	6.30	132.3	0.64	-	-	-	-	-
	12/30/2008	10.64	6.60	68.2	0.66	0.7	1.6	5.5	<0.050	-
	3/19/2009	10.39	6.51	30	0.72	0.3	1.6	5.3	<0.050	-
	10/29/2009	12.09	6.48	31.3	1.18	-	-	-	-	-
	1/26/2010	12.37	6.45	-4.8	0.12	-	-	-	-	-
	4/20/2010	13.68	6.49	24.6	1.06	-	-	-	-	-
	7/20/2010	16.18	- ⁸	25.4	0.98	-	-	-	-	-
	10/22/2010	12.97	6.02	122.9	1.90	-	-	-	-	-
1/24/2011	11.73	6.42	13.9	0.30	-	-	-	-	-	
4/27/2011	11.30	6.32	288.0	<0.1	-	-	-	-	-	
CMW-10	6/17/2008	15.86	6.13	-183.3	0.16	0.2	0.8	12	<0.050	980
	10/1/2008	16.98	6.26	27.1	0.48	0.2	6.0	<5.0	<0.050	-
	12/30/2008	12.55	6.24	-1.8	0.68	0.4	4.0	<5.0	<0.050	2,700
	3/19/2009	12.75	6.25	-41	0.64	0.2	3.0	<5.0	<0.050	830
	10/28/2009	14.15	6.32	-1.6	1.16	-	-	-	-	-
	1/26/2010	14.24	5.90	53.4	0.19	-	-	-	-	-
	4/20/2010	14.70	6.05	-12.3	0.61	-	-	-	-	-
	7/20/2010	17.97	- ⁸	-33.0	0.55	-	-	-	-	-
	10/21/2010	15.23	5.68	125.3	1.32	-	-	-	-	-
1/25/2011	14.44	5.74	155.3	0.35	-	-	-	-	-	
4/26/2011	13.13	- ¹¹	100.7	0.18	-	-	-	-	-	
CMW-11	6/17/2008	17.30	6.51	39.5	6.28	-	-	14	0.67	-
	10/1/2008	15.48	6.24	219.4	1.82	<0.1	<0.2	13	1.6	-
	12/30/2008	11.14	6.32	119.6	0.71	<0.1	<0.2	16	0.99	-
	3/19/2009	12.94	6.39	115	2.78	<0.1	0.2	-	-	-
	10/28/2009	13.29	6.26	276.1	2.71	-	-	-	-	-
	1/26/2010	12.50	6.34	319.7	0.06	-	-	-	-	-
	4/20/2010	13.59	6.24	217.2	4.5	-	-	-	-	-
7/20/2010	19.06	- ⁸	38.0	0.65	-	-	-	-	-	

Table 13
Summary of Groundwater Quality Data - June 2008 through April 2011
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample Location	Date	Temperature ¹ (°C)	pH ¹	ORP ¹ (mV)	Dissolved Oxygen ² (mg/l)	Soluble Manganese ³ (mg/l)	Ferrous Iron ⁴ (mg/l)	Sulfate ⁵ (mg/l)	Nitrate ⁶ (mg/l)	Methane ⁷ (µg/l)
CMW-11	10/21/2010	14.10	6.35	157.4	2.80	-	-	-	-	-
	1/25/2011	12.72	6.31	112.2	3.14	-	-	-	-	-
	4/27/2011	13.08	6.24	366.7	5.5	-	-	-	-	-
CMW-12	6/17/2008	14.76	6.37	-125.3	0.62	0.6	4.2	<5.0	0.16	-
	10/1/2008	15.77	6.23	-9.8	0.54	0.1	2.0	<5.0	0.18	-
	12/30/2008	12.22	6.53	54.9	1.29	0.4	2.2	<5.0	<0.050	-
	3/19/2009	12.55	6.42	-12	0.53	0.3	5.0	<5.0	0.20	-
	10/28/2009	13.05	6.42	-1.7	1.36	-	-	-	-	-
	1/26/2010	12.78	6.36	-89.9	1.10	-	-	-	-	-
	4/20/2010	14.51	6.46	66.9	0.42	-	-	-	-	-
	7/21/2010	15.16	6.09	9.1	0.14	-	-	-	-	-
	10/21/2010	13.63	6.40	105.6	0.12	-	-	-	-	-
1/25/2011	12.79	6.04	28.2	0.30	-	-	-	-	-	
4/26/2011	15.60	6.12	14.6	<0.1	-	-	-	-	-	
CMW-13	6/17/2008	14.03	6.23	82.2	0.17	0.3	4.2	7.4	0.093	-
	10/1/2008	14.44	6.19	91.8	0.43	0.1	1.2	<5.0	<0.050	-
	12/30/2008	13.05	5.79	141.0	1.07	0.2	0.6	15	0.45	-
	3/19/2009	12.81	5.98	50.4	0.68	0.5	4.2	5.6	0.10	-
	10/29/2009	12.80	6.45	-14.8	1.43	-	-	-	-	-
	1/26/2010	13.79	5.81	56.4	0.25	-	-	-	-	-
	4/20/2010	14.30	6.40	72.1	2.19	-	-	-	-	-
	7/20/2010	20.00	5.79	-18.9	0.22	-	-	-	-	-
	10/21/2010	14.32	6.43	111.3	0.63	-	-	-	-	-
1/25/2011	13.64	6.27	154.1	7.7	-	-	-	-	-	
4/27/2011	11.90	6.23	377.2	3.41	-	-	-	-	-	
CMW-15	6/17/2008	12.46	6.37	46.7	0.17	-	-	-	-	-
	10/2/2008	13.07	6.21	65.1	0.90	-	-	-	-	-
	12/30/2008	11.56	6.40	83.1	0.70	-	-	-	-	-
	3/19/2009	10.81	6.26	61	1.61	-	-	-	-	-
	10/29/2009	11.84	6.30	58.6	1.66	-	-	-	-	-
	1/26/2010	12.29	6.23	35.4	0.15	-	-	-	-	-
	4/20/2010	12.64	6.45	127.6	0.92	-	-	-	-	-
7/20/2010	14.46	— ⁸	33.1	0.75	-	-	-	-	-	

Table 13
Summary of Groundwater Quality Data - June 2008 through April 2011
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample Location	Date	Temperature ¹ (°C)	pH ¹	ORP ¹ (mV)	Dissolved Oxygen ² (mg/l)	Soluble Manganese ³ (mg/l)	Ferrous Iron ⁴ (mg/l)	Sulfate ⁵ (mg/l)	Nitrate ⁶ (mg/l)	Methane ⁷ (µg/l)
CMW-15	10/22/2010	13.35	5.59	167.5	0.65	-	-	-	-	-
	1/25/2011	12.27	5.68	387.6	0.35	-	-	-	-	-
	4/27/2011	10.96	6.19	336.0	0.11	-	-	-	-	-
CMW-17	6/17/2008	14.21	6.47	96.4	0.31	0.1	<0.2	12	1.4	-
	10/2/2008	15.49	6.32	76.8	0.45	0.1	<0.2	8.7	0.14	-
	12/31/2008	10.12	6.58	140.1	0.64	0.2	<0.2	9.9	0.41	-
	3/20/2009	12.31	6.36	203.1	1.21	0.1	<0.2	11	0.76	-
	1/27/2010	10.97	6.29	140.0	0.25	-	-	-	-	-
	4/20/2010	14.11	6.39	253.9	1.97	-	-	-	-	-
	7/20/2010	15.05	- ⁸	106.1	1.43	-	-	-	-	-
4/26/2011	12.62	5.78	356.1	0.45	-	-	-	-	-	
CMW-19	10/2/2008	13.40	5.95	229.0	1.66	-	-	-	-	-
CMW-20	6/17/2008	13.67	6.46	96.0	0.16	0.5	0.8	10	<0.050	-
	10/2/2008	14.53	6.39	200.9	0.45	0.3	<0.2	9.4	0.32	-
	12/31/2008	10.50	6.61	135.0	0.51	0.4	<0.2	8.8	<0.050	-
	3/20/2009	11.63	6.51	79.0	0.57	0.3	0.2	9.0	<0.050	-
CMW-21	10/2/2008	15.31	6.16	105.0	2.48	-	-	-	-	-
CMW-24	6/17/2008	13.67	6.27	90.1	4.45	<0.1	<0.2	13	3.6	-
	10/1/2008	13.66	6.04	149.9	3.01	<0.1	<0.2	13	3.3	-
	12/30/2008	9.85	6.40	110.0	4.46	<0.1	<0.2	12	3.0	-
	3/19/2009	10.51	6.31	221.0	6.04	<0.1	<0.2	12	3.6	-
	1/24/2011	-	-	-	5.8	-	-	-	-	-
	4/25/2011	-	-	-	5.1	-	-	-	-	-
CMW-25	6/16/2008	16.57	5.97	160.7	4.80	-	-	-	-	-
	10/1/2008	14.32	6.15	49.9	0.53	-	-	-	-	-
	12/30/2008	12.08	6.04	135.3	3.70	-	-	-	-	-
	3/19/2009	12.68	6.03	91.3	0.75	-	-	-	-	-
	10/28/2009	12.45	6.32	42.7	1.47	-	-	-	-	-
	1/26/2010	13.42	5.89	358.1	5.10	-	-	-	-	-
	4/20/2010	13.35	6.25	262.4	7.3	-	-	-	-	-
	7/20/2010	15.47	5.23	105.7	6.3	-	-	-	-	-
	10/21/2010	13.14	6.14	223.9	0.18	-	-	-	-	-
	1/25/2011	13.12	5.94	174.9	7.1	-	-	-	-	-
4/26/2011	11.94	5.88	184.2	4.5	-	-	-	-	-	

Table 13
Summary of Groundwater Quality Data - June 2008 through April 2011
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample Location	Date	Temperature ¹ (°C)	pH ¹	ORP ¹ (mV)	Dissolved Oxygen ² (mg/l)	Soluble Manganese ³ (mg/l)	Ferrous Iron ⁴ (mg/l)	Sulfate ⁵ (mg/l)	Nitrate ⁶ (mg/l)	Methane ⁷ (µg/l)
CMW-26	6/16/2008	15.32	6.29	111.7	3.79	-	-	-	-	-
	10/1/2008	14.09	6.14	84.7	4.47	-	-	-	-	-
	12/30/2008	11.84	6.30	203.4	3.71	-	-	-	-	-
	3/19/2009	11.88	6.32	170.1	4.75	-	-	-	-	-
	10/28/2009	12.16	6.31	344.2	4.08	-	-	-	-	-
	1/26/2010	12.46	6.16	352.9	3.90	-	-	-	-	-
	4/20/2010	13.14	6.49	272.0	4.3	-	-	-	-	-
	7/20/2010	14.40	6.03	92.8	4.1	-	-	-	-	-
	10/21/2010	12.30	6.37	186.8	4.0	-	-	-	-	-
	1/25/2011	11.97	6.30	169.9	5.6	-	-	-	-	-
4/26/2011	13.07	6.20	108.6	4.9	-	-	-	-	-	
CMW-27	6/17/2008	16.53	6.44	-12.4	0.17	0.6	3.6	<5.0	<0.050	-
	10/1/2008	15.53	6.26	10.3	0.51	0.4	4.2	<5.0	<0.050	-
	12/30/2008	13.08	6.59	70.2	0.64	0.5	2.6	<5.0	<0.050	-
	3/19/2009	12.39	6.46	-48	0.58	0.4	3.2	<5.0	<0.050	-
	10/28/2009	13.58	6.48	-29.1	1.45	-	-	-	-	-
	1/26/2010	13.8	6.39	-132.2	5.17	-	-	-	-	-
	4/20/2010	14.35	6.47	-34.6	0.53	-	-	-	-	-
	7/21/2010	15.16	— ⁸	-14.5	0.87	-	-	-	-	-
	10/21/2010	14.97	6.50	95.1	0.12	-	-	-	-	-
	1/25/2011	14.35	6.18	154.9	4.90	-	-	-	-	-
4/26/2011	13.40	— ¹¹	75.6	0.26	-	-	-	-	-	
CMW-28	6/16/2008	15.93	6.31	-19.7	0.16	-	-	-	-	-
	10/1/2008	18.34	5.98	46.2	0.50	-	-	-	-	-
	12/30/2008	6.96	6.16	44.0	0.81	-	-	-	-	-
	3/19/2009	9.11	6.15	167.5	3.40	-	-	-	-	-
	10/28/2009	14.97	5.59	179.3	1.36	-	-	-	-	-
	1/26/2010	8.89	5.86	176.7	8.33	-	-	-	-	-
	4/20/2010	11.37	5.96	307.3	6.4	-	-	-	-	-
	7/20/2010	16.44	— ⁸	36.8	0.36	-	-	-	-	-
	10/21/2010	17.04	5.77	194.1	0.00	-	-	-	-	-
	1/25/2011	7.05	5.74	165.3	9.91	-	-	-	-	-
4/26/2011	10.54	5.92	361.8	7.6	-	-	-	-	-	

Table 13
Summary of Groundwater Quality Data - June 2008 through April 2011
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample Location	Date	Temperature ¹ (°C)	pH ¹	ORP ¹ (mV)	Dissolved Oxygen ² (mg/l)	Soluble Manganese ³ (mg/l)	Ferrous Iron ⁴ (mg/l)	Sulfate ⁵ (mg/l)	Nitrate ⁶ (mg/l)	Methane ⁷ (µg/l)
CMW-29	6/17/2008	14.81	6.06	34.5	0.21	0.2	2.0	13	2.6	320
	10/1/2008	13.76	6.27	32.9	0.64	<0.1	6.2	<5.0	<0.050	-
	12/30/2008	11.63	6.22	15.8	1.04	0.2	4.0	8.1	0.33	190
	3/19/2009	11.73	6.04	98.1	1.24	<0.1	1.9	9.5	0.78	260
	10/28/2009	12.22	6.26	77.3	1.57	-	-	-	-	-
	1/27/2010	12.44	5.38	205.5	1.25	-	-	-	-	-
	4/20/2010	13.74	6.32	226.3	6.0	-	-	-	-	-
	7/20/2010	13.59	5.75	74.6	0.54	-	-	-	-	-
	10/21/2010	12.17	5.74	59.8	1.94	-	-	-	-	-
	1/25/2011	13.20	5.93	109.5	2.19	-	-	-	-	-
4/26/2011	12.13	5.93	135.7	1.15	-	-	-	-	-	
CMW-30	6/16/2008	14.41	6.16	109.5	0.37	-	-	-	-	-
	10/1/2008	15.03	6.06	74.5	1.02	-	-	-	-	-
	12/30/2008	11.39	6.31	120.0	1.14	-	-	-	-	-
	3/19/2009	11.65	6.27	191.0	1.14	-	-	-	-	-
	10/28/2009	11.99	6.18	344.2	1.96	-	-	-	-	-
	1/27/2010	12.35	5.99	313.2	1.21	-	-	-	-	-
	4/20/2010	13.35	6.36	299.9	0.14	-	-	-	-	-
	7/20/2010	13.92	5.58	140.7	0.06	-	-	-	-	-
	10/21/2010	13.10	5.70	196.6	0.08	-	-	-	-	-
	1/25/2011	12.89	6.17	130.0	1.01	-	-	-	-	-
4/26/2011	12.05	6.05	57.8	1.03	-	-	-	-	-	
CMW-31	6/16/2008	14.08	6.22	124.8	0.73	-	-	-	-	-
	10/2/2008	14.01	6.29	60.8	0.50	-	-	-	-	-
	12/31/2008	10.89	6.32	155.4	5.14	-	-	-	-	-
	3/20/2009	11.63	6.16	211.6	2.59	-	-	-	-	-
	10/29/2009	12.28	6.50	62.4	2.32	-	-	-	-	-
	1/27/2010	11.57	6.07	147.5	1.55	-	-	-	-	-
	4/20/2010	12.99	6.20	169.8	0.92	-	-	-	-	-
	7/20/2010	15.15	5.61	130.1	0.93	-	-	-	-	-
	10/22/2010	13.38	5.99	145.1	1.19	-	-	-	-	-
	1/25/2011	12.20	5.86	396.9	2.80	-	-	-	-	-
4/26/2011	13.13	5.97	402.8	0.73	-	-	-	-	-	

Table 13
Summary of Groundwater Quality Data - June 2008 through April 2011
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample Location	Date	Temperature ¹ (°C)	pH ¹	ORP ¹ (mV)	Dissolved Oxygen ² (mg/l)	Soluble Manganese ³ (mg/l)	Ferrous Iron ⁴ (mg/l)	Sulfate ⁵ (mg/l)	Nitrate ⁶ (mg/l)	Methane ⁷ (µg/l)
CMW-32	6/17/2008	13.94	6.28	60.3	0.19	-	-	-	-	-
	10/2/2008	14.02	6.42	56.6	0.47	-	-	-	-	-
	12/31/2008	11.61	6.24	118.6	0.46	-	-	-	-	-
	3/20/2009	12.19	6.24	207.7	7.75	-	-	-	-	-
	10/29/2009	12.33	6.37	34.1	2.02	-	-	-	-	-
	1/27/2010	11.8	6.01	156.1	1.76	-	-	-	-	-
	4/20/2010	13.71	6.28	224.1	0.48	-	-	-	-	-
	7/20/2010	15.67	6.02	115.2	1.17	-	-	-	-	-
	10/22/2010	14.37	5.75	159.8	- ¹⁰	-	-	-	-	-
	1/25/2011	12.10	5.75	372.1	2.69	-	-	-	-	-
4/26/2011	12.92	5.88	394.5	1.16	-	-	-	-	-	
HMW-9	6/17/2008	15.16	6.43	8.5	0.68	0.4	4.2	5.8	<0.050	760
	10/2/2008	14.13	6.36	45.2	0.54	0.6	4.7	<5.0	<0.050	-
	12/31/2008	11.98	6.40	3.7	0.71	0.5	4.6	6.8	<0.050	570
	3/19/2009	12.88	6.29	42	0.61	0.4	3.2	5.8	0.11	380
	10/29/2009	13.22	6.39	39.7	1.15	-	-	-	-	-
	1/26/2010	12.22	6.39	-41.6	0.09	-	-	-	-	-
	4/20/2010	14.61	6.48	73.9	0.86	-	-	-	-	-
	7/20/2010	15.18	- ⁸	22.7	1.01	-	-	-	-	-
	10/22/2010	13.61	6.28	101.7	0.45	-	-	-	-	-
	1/25/2011	13.11	6.10	144.0	3.70	-	-	-	-	-
4/26/2011	13.91	6.24	99.5	<0.1	-	-	-	-	-	
HMW-10	6/17/2008	15.06	6.45	-4.0	0.60	0.4	4.0	<5.0	<0.050	-
	10/2/2008	14.72	6.30	72.9	0.70	0.3	2.6	<5.0	<0.050	-
	12/31/2008	10.97	6.43	-14.2	0.83	0.4	5.0	<5.0	<0.050	-
	3/19/2009	12.98	6.45	-25	0.58	0.3	3.2	<5.0	<0.050	-
	10/29/2009	12.12	6.46	6.7	1.20	-	-	-	-	-
	1/26/2010	12.15	6.42	-80.4	0.09	-	-	-	-	-
	4/20/2010	14.38	6.41	68.6	0.62	-	-	-	-	-
	7/20/2010	14.70	- ⁸	-14.2	0.67	-	-	-	-	-
	10/21/2010	13.95	5.84	124.0	0.36	-	-	-	-	-
	1/25/2011	12.71	6.10	149.3	0.50	-	-	-	-	-
4/26/2011	14.49	6.15	114.5	<0.1	-	-	-	-	-	

Table 13
Summary of Groundwater Quality Data - June 2008 through April 2011
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

Sample Location	Date	Temperature ¹ (°C)	pH ¹	ORP ¹ (mV)	Dissolved Oxygen ² (mg/l)	Soluble Manganese ³ (mg/l)	Ferrous Iron ⁴ (mg/l)	Sulfate ⁵ (mg/l)	Nitrate ⁶ (mg/l)	Methane ⁷ (µg/l)
HMW-11	6/17/2008	14.44	6.38	13.2	0.15	0.3	3.6	<5.0	0.22	-
	10/1/2008	14.71	6.18	40.0	0.50	0.1	1.4	<5.0	<0.050	-
	12/31/2008	11.04	6.38	-17.1	1.20	0.4	5.0	<5.0	0.053	-
	3/20/2009	11.71	5.70	53	0.62	0.2	3.2	<5.0	<0.050	-
	10/28/2009	12.89	6.39	11.7	1.16	-	-	-	-	-
	1/26/2010	13.25	6.19	44.5	0.37	-	-	-	-	-
	4/20/2010	14.00	6.41	85.7	1.89	-	-	-	-	-
	7/20/2010	17.71	6.10	-19.1	0.98	-	-	-	-	-
	10/21/2010	14.01	5.79	128.2	0.43	-	-	-	-	-
	1/25/2011	13.08	5.77	197.9	1.10	-	-	-	-	-
4/27/2011	13.08	6.02	380.4	<0.1	-	-	-	-	-	
HMW-12	10/1/2008	13.66	6.11	127.5	5.40	-	-	-	-	-
	1/24/2011	-	-	-	4.2	-	-	-	-	-
	4/25/2011	-	-	-	3.87	-	-	-	-	-
HMW-13	6/16/2008	18.52	6.07	114.6	0.74	-	-	-	-	-
	10/1/2008	15.26	6.19	61.5	0.55	-	-	-	-	-
	12/30/2008	11.54	6.09	127.8	1.19	-	-	-	-	-
	3/19/2009	12.66	6.03	184.3	1.11	-	-	-	-	-
	10/28/2009	12.38	6.29	103.1	1.49	-	-	-	-	-
	1/26/2010	12.42	5.95	330.9	0.93	-	-	-	-	-
	4/20/2010	14.52	6.31	201.9	0.56	-	-	-	-	-
	7/20/2010	15.08	5.95	81.1	0.23	-	-	-	-	-
	10/21/2010	13.17	5.48	211.8	0.35	-	-	-	-	-
	1/25/2011	12.71	6.04	176.2	6.9	-	-	-	-	-
4/26/2011	12.42	5.95	188.6	0.59	-	-	-	-	-	

Table 13
Summary of Groundwater Quality Data - June 2008 through April 2011
CHS Auburn Site
Auburn, Washington
Farallon PN: 301-004

NOTES:

< denotes analyte not detected at or above the reporting limit listed.

- denotes sample not analyzed.

¹Temperature, pH, and ORP measured using YSI Model 600XL-B-O multi-parameter meter.

²Dissolved oxygen measured using YSI Model 550A downhole probe June 25, 2008 through January 2010. Subsequent dissolved oxygen measurements taken using InsiteIG Model 3100 dissolved oxygen analyzer

³Soluble manganese measured using HACH Manganese Test Kit Model MN-5.

⁴Ferrous iron measured using HACH Ferrous Iron Test Kit Model IR-18C.

⁵Sulfate analyzed using U.S. Environmental Protection Agency (EPA) Method 375.4.

⁶Nitrate analyzed using EPA Method 353.2.

⁷Methane analyzed using EPA Method 8015 Modified.

⁸Not measured due to malfunctioning pH meter.

⁹Soluble manganese and ferrous iron content measured on October 9, 2008.

¹⁰Well paved over on October 20,2010, uncovered October 22, 2010.

¹¹pH readings did not stabilize.

°C = degrees

ORP = oxidation-reduction potential

mg/l = milligrams per liter

mV = millivolts

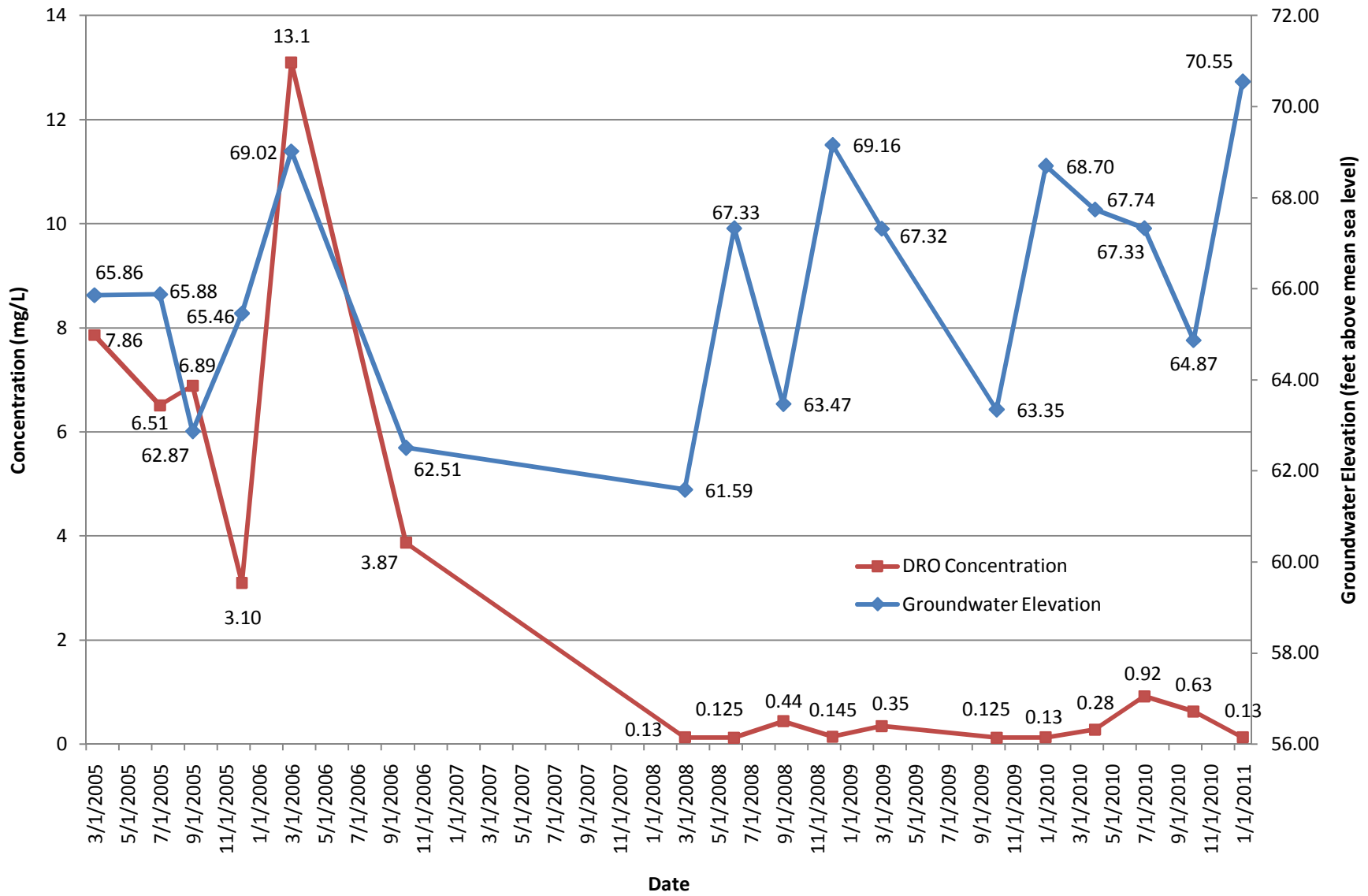
µg/l = micrograms per liter

APPENDIX A

REMEDIAL INVESTIGATION REPORT
CHS Auburn Site
Auburn, Washington

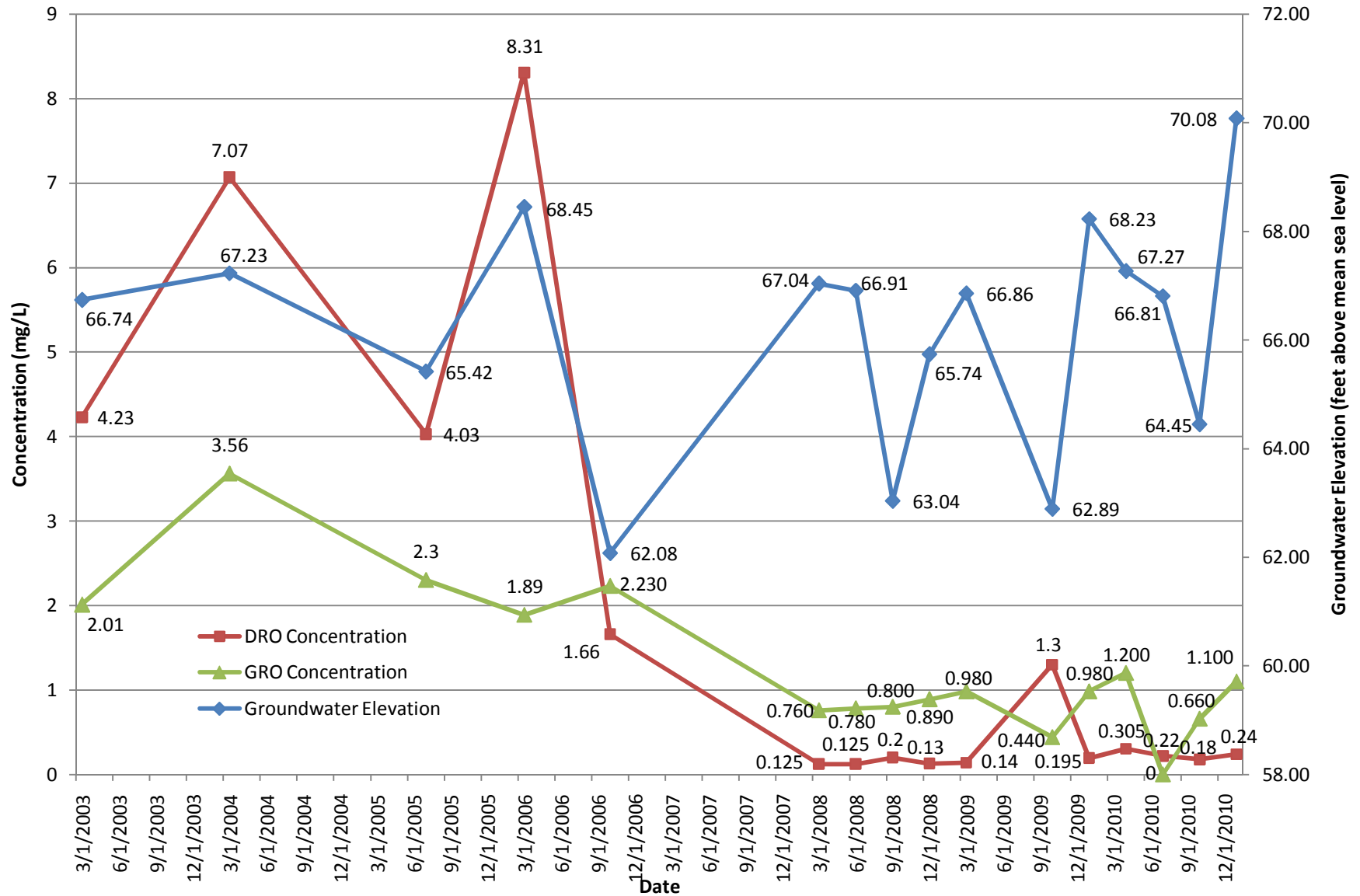
FARALLON PN: 301-004

CMW-2 DRO and Groundwater Elevation



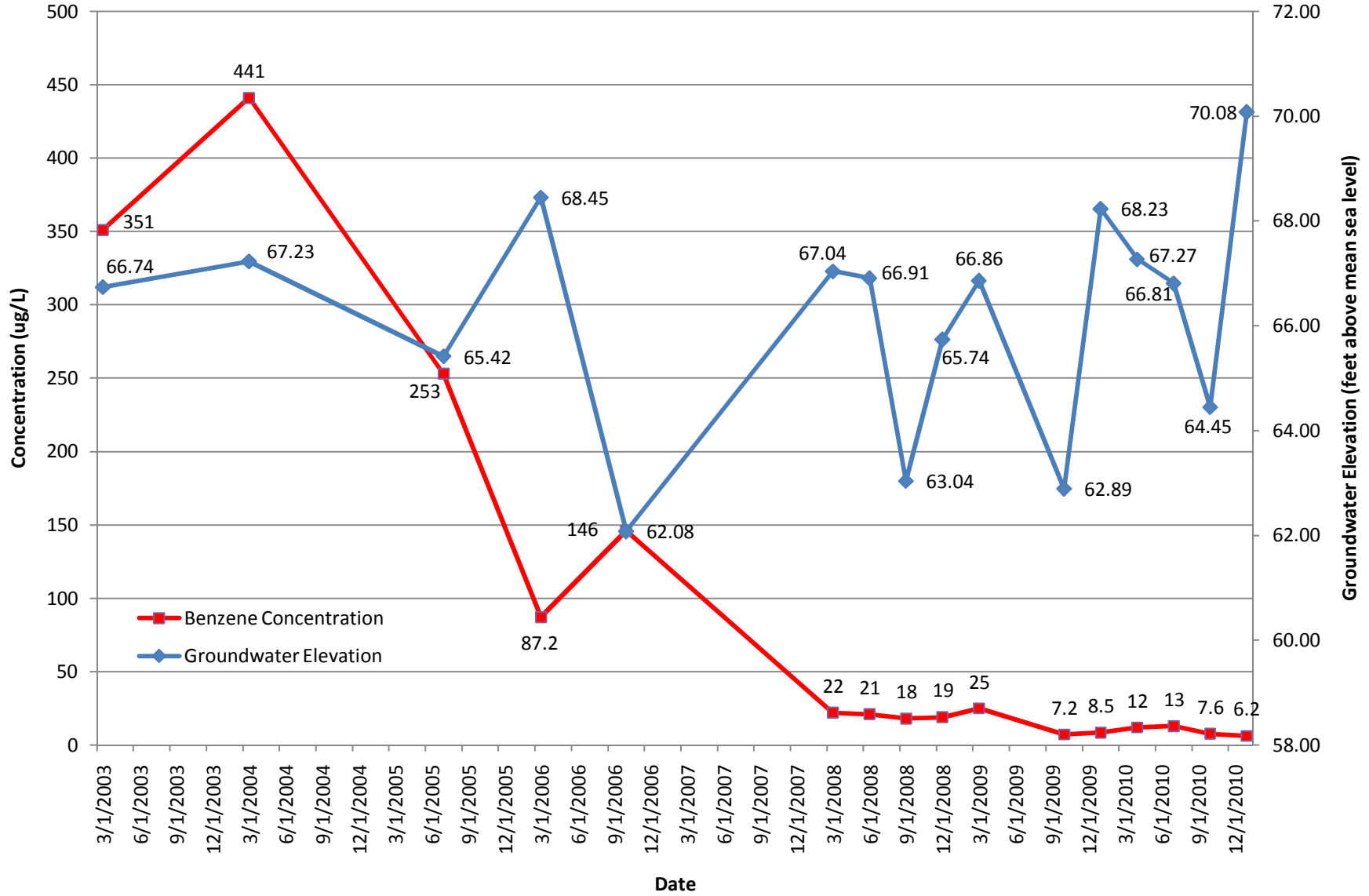
CMW-12

GRO, DRO, and Groundwater Elevations



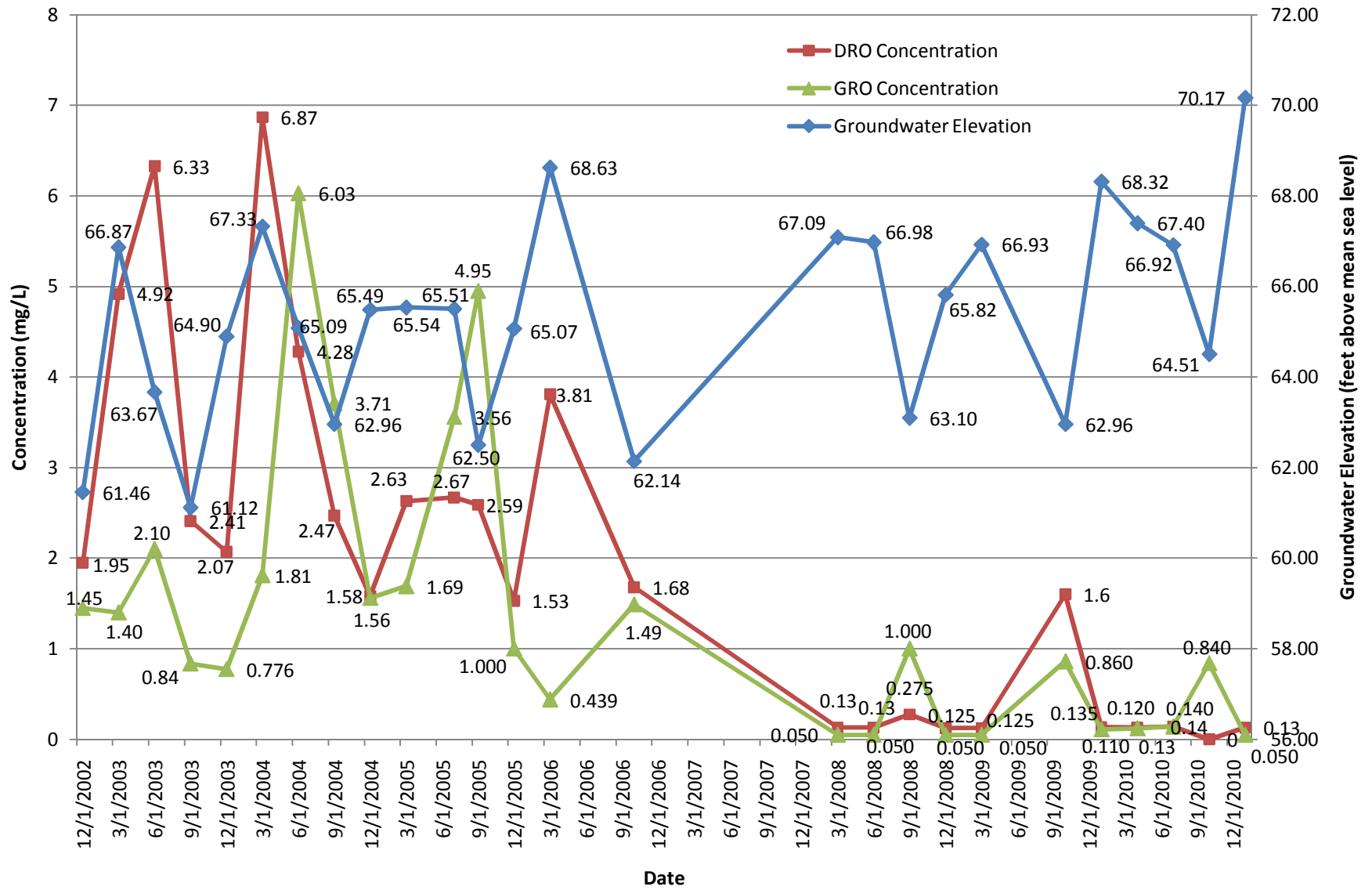
CMW-12

Benzene and Groundwater Elevation



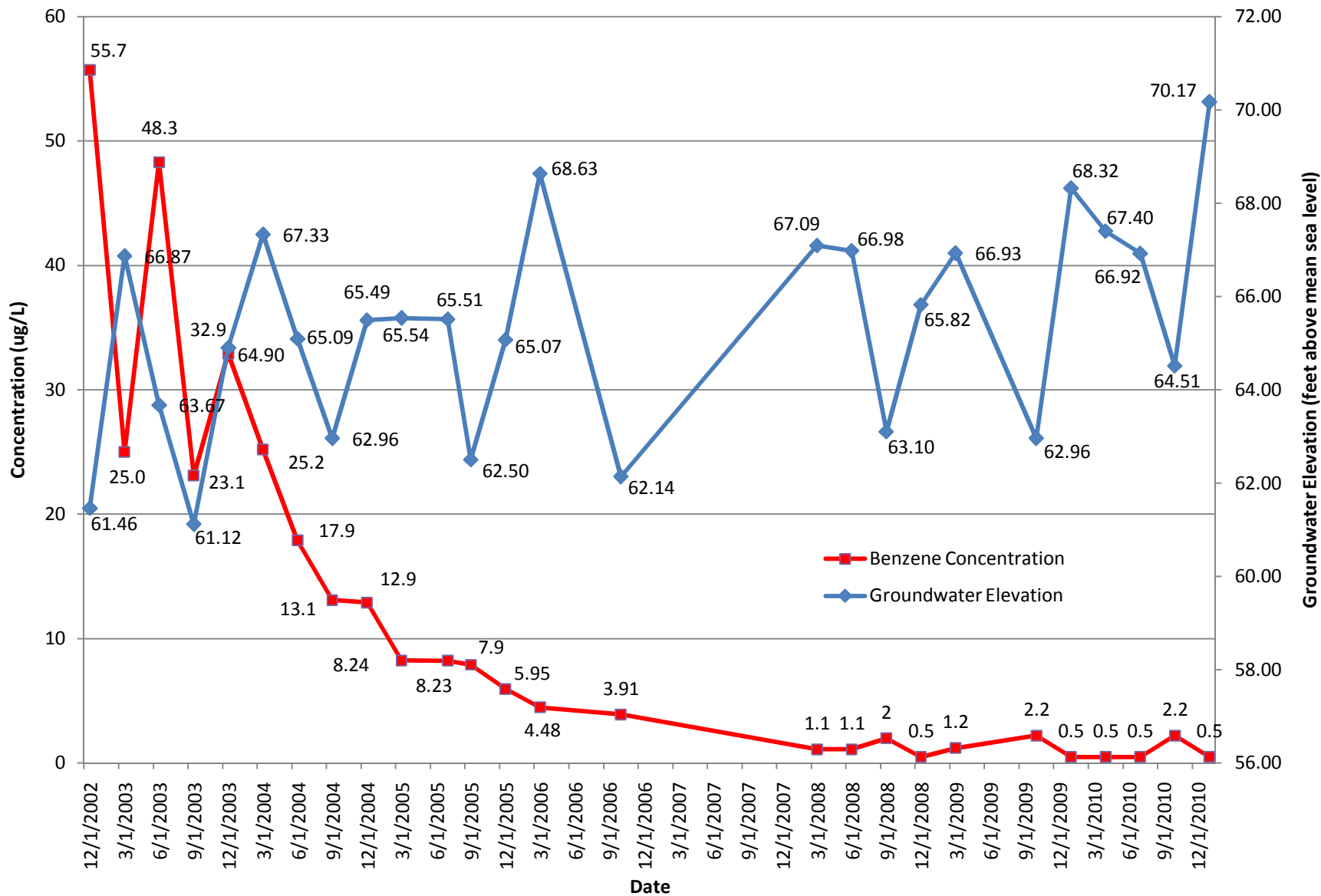
CMW-13

GRO, DRO, and Groundwater Elevation



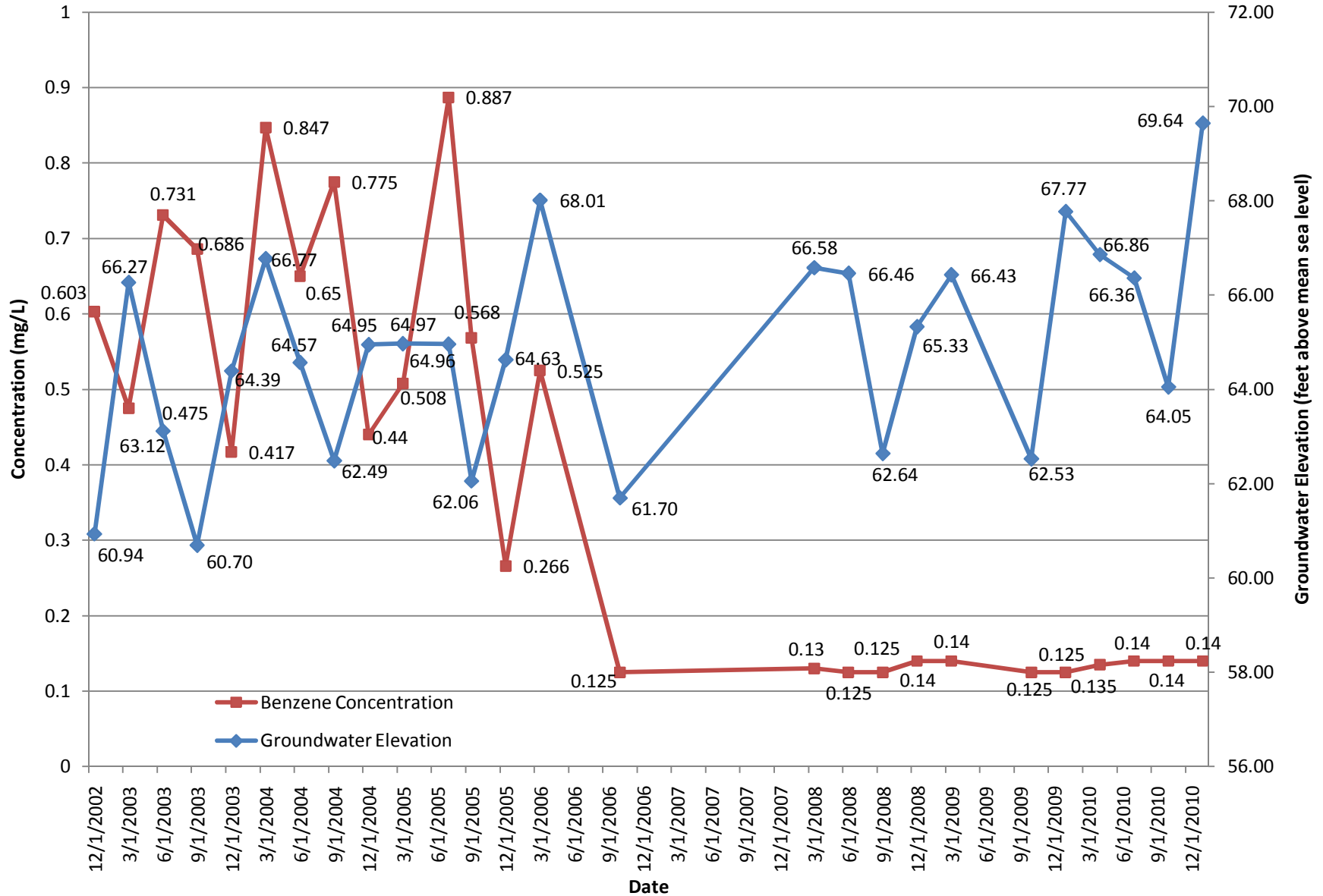
CMW-13

Benzene and Groundwater Elevation



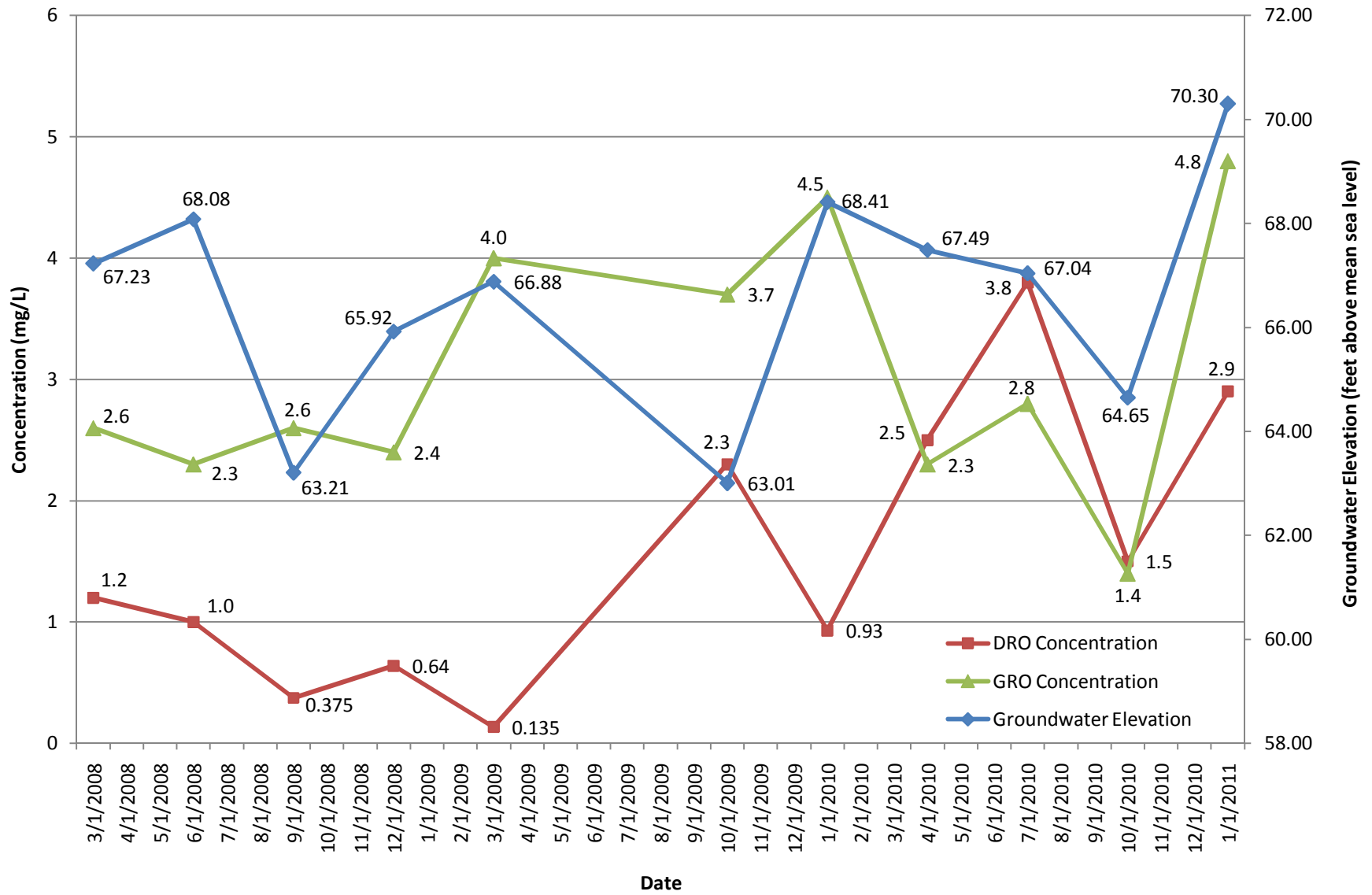
CMW-15

DRO and Groundwater Elevation



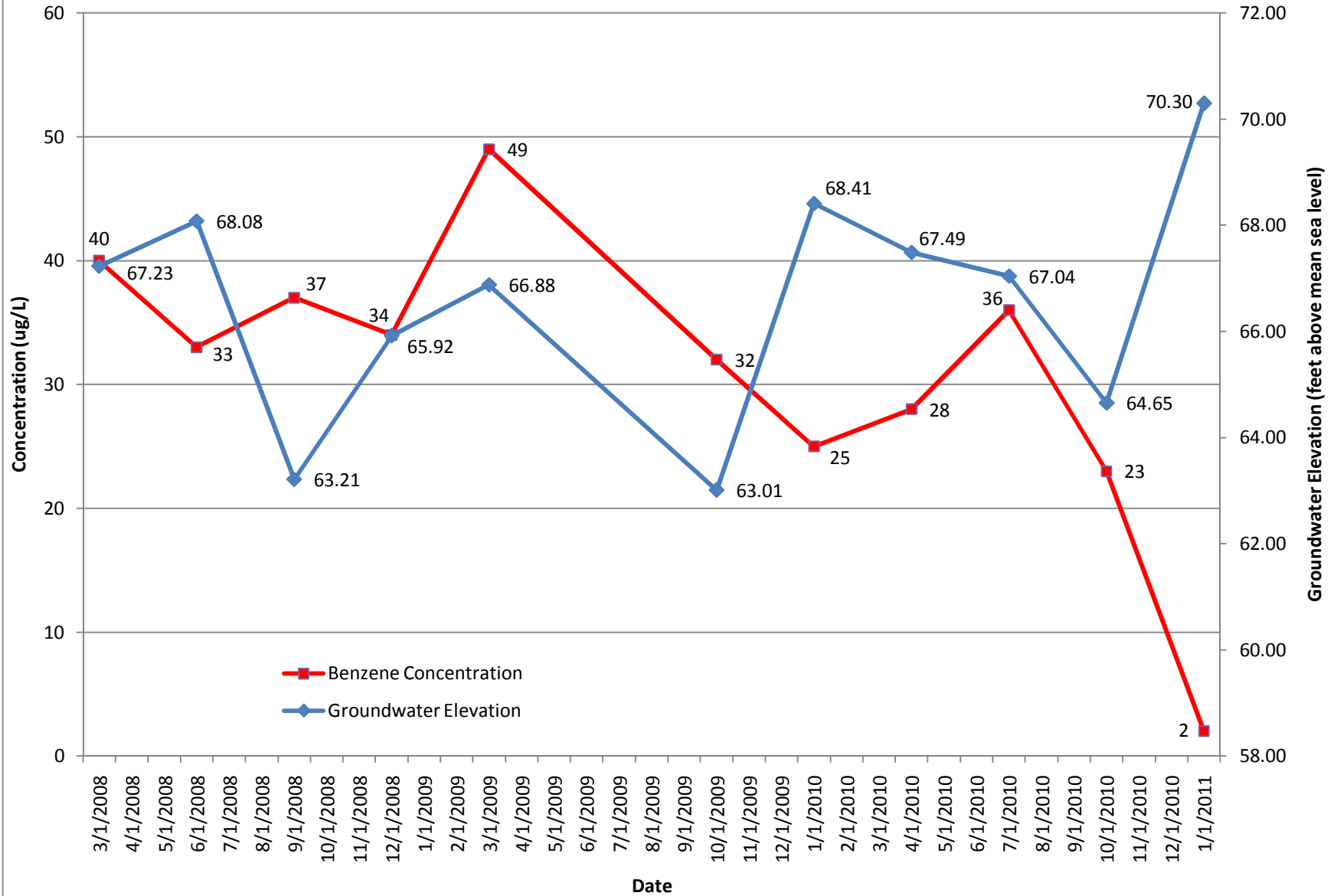
CMW-27

GRO, DRO, and Groundwater Elevations



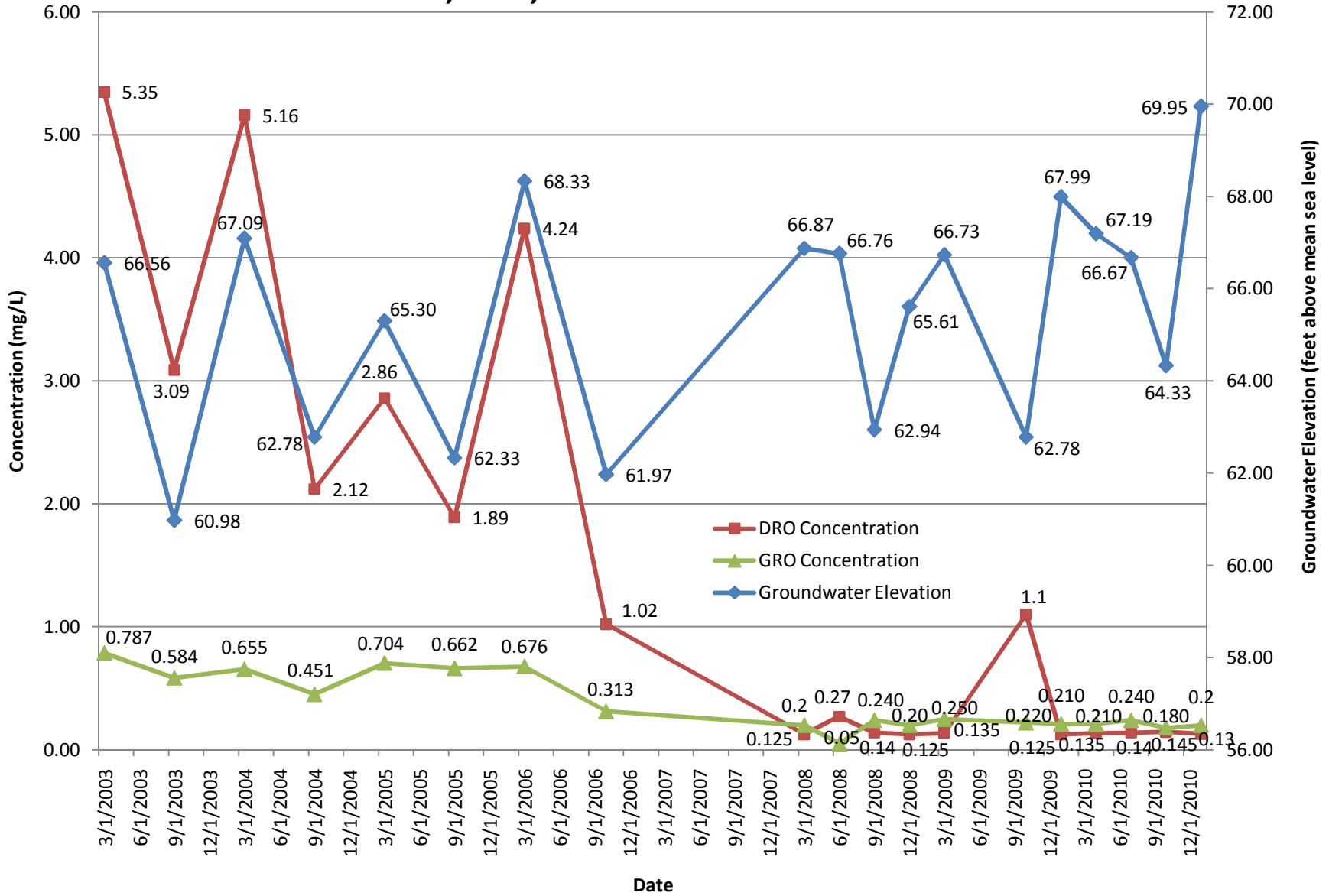
CMW-27

Benzene and Groundwater Elevation



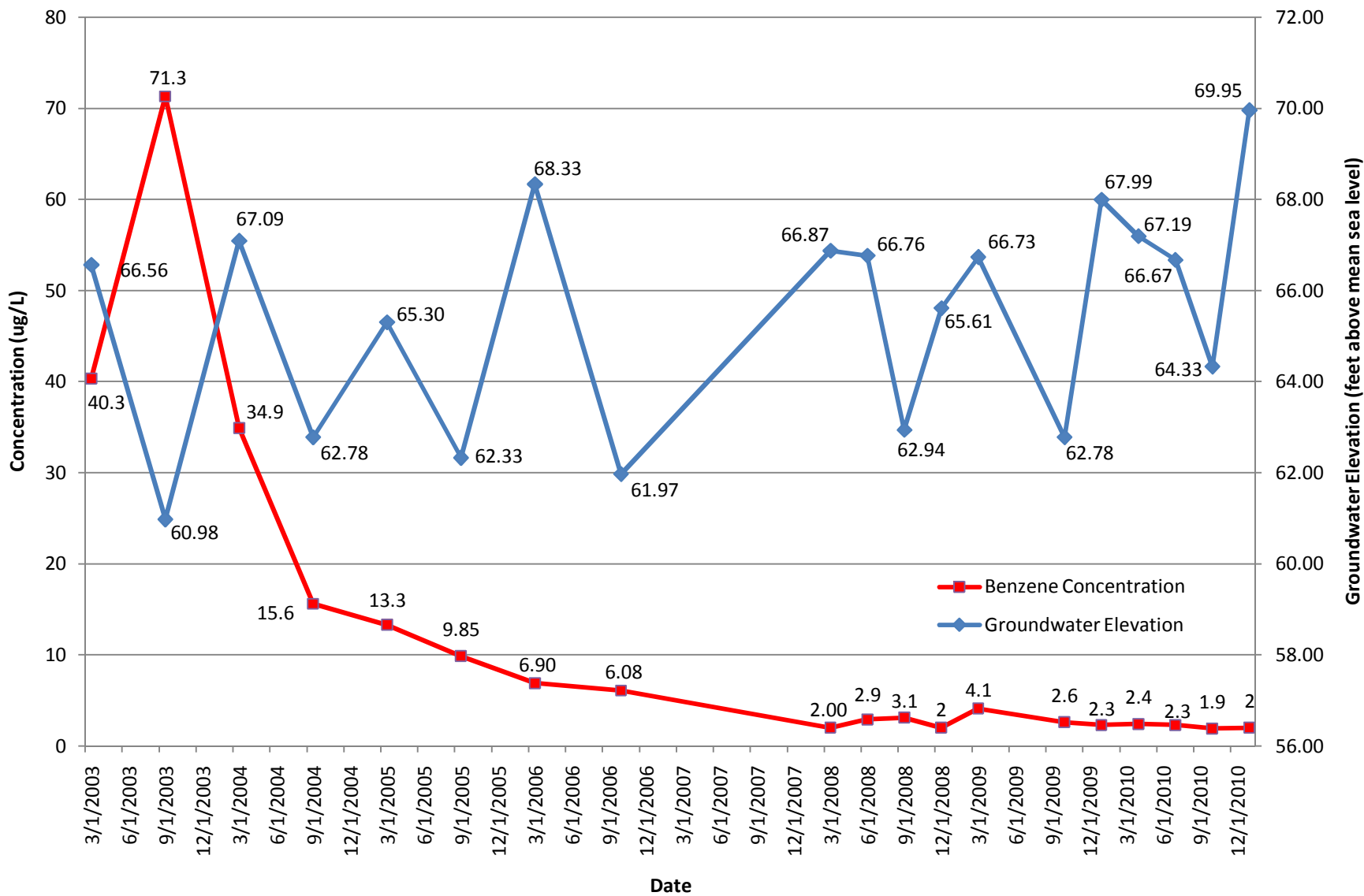
HMW-10

GRO, DRO, and Groundwater Elevation



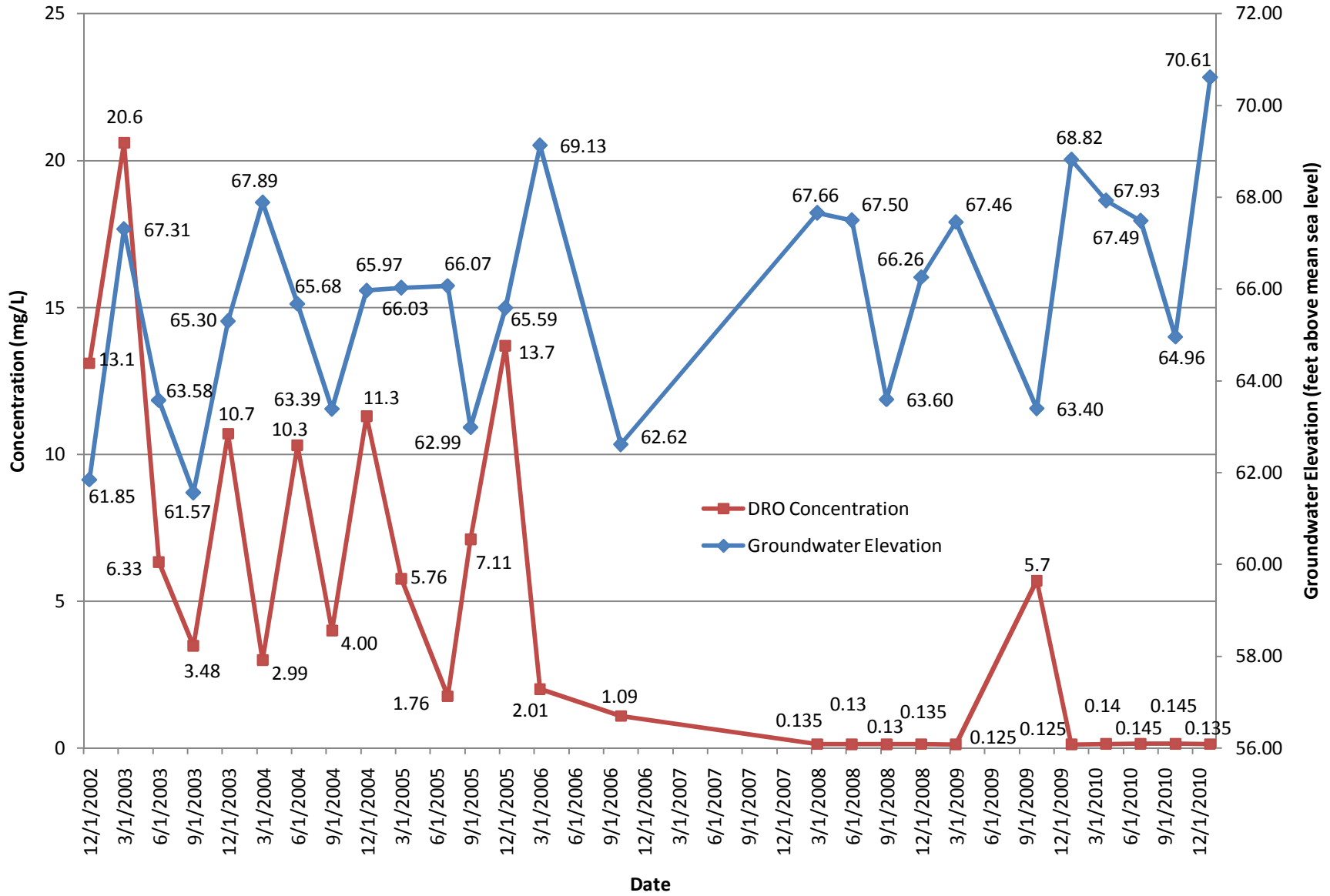
HMW-10

Benzene and Groundwater Elevation



HMW-13

DRO and Groundwater Elevations



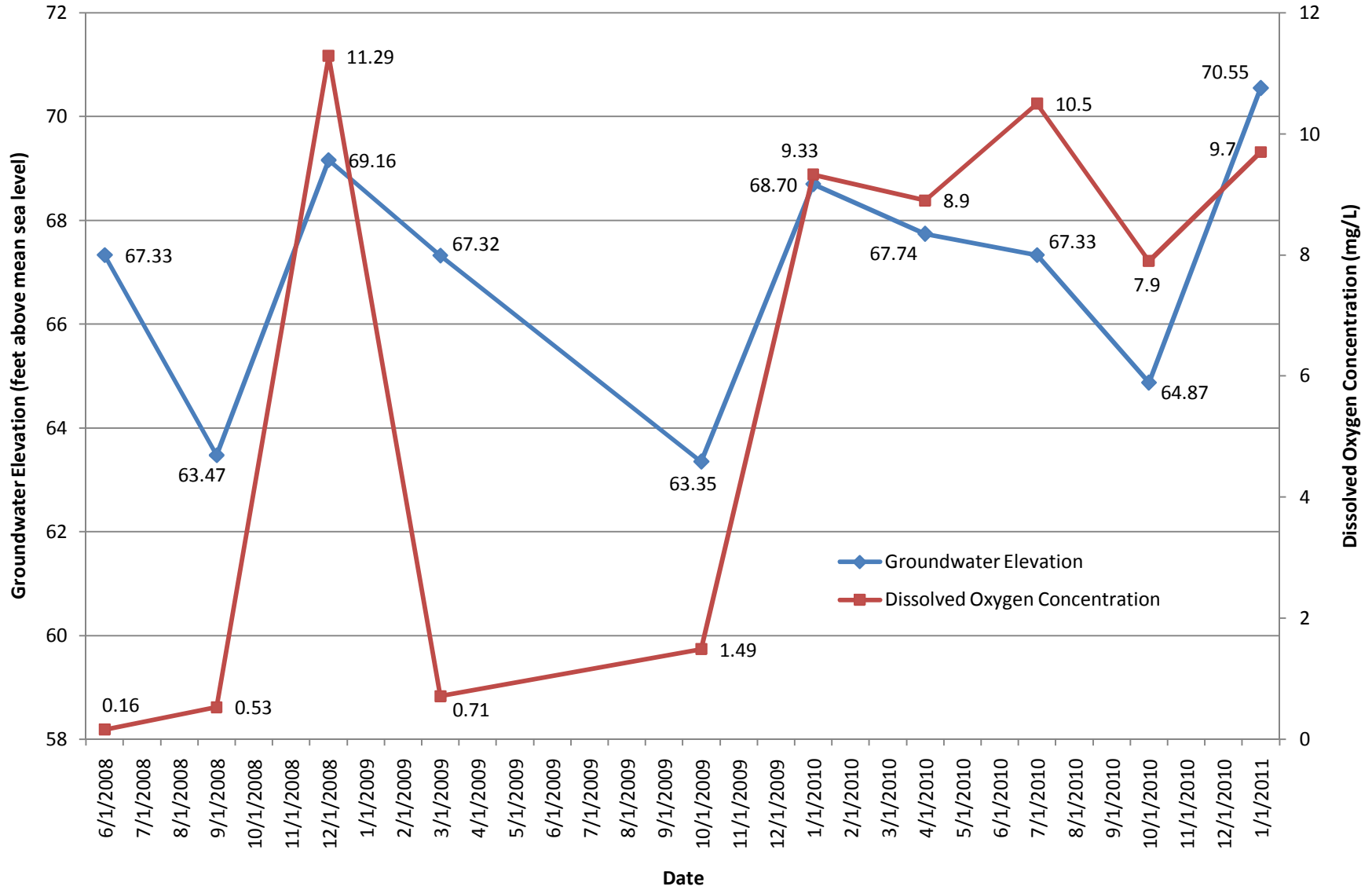
APPENDIX B

REMEDIAL INVESTIGATION REPORT
CHS Auburn Site
Auburn, Washington

FARALLON PN: 301-004

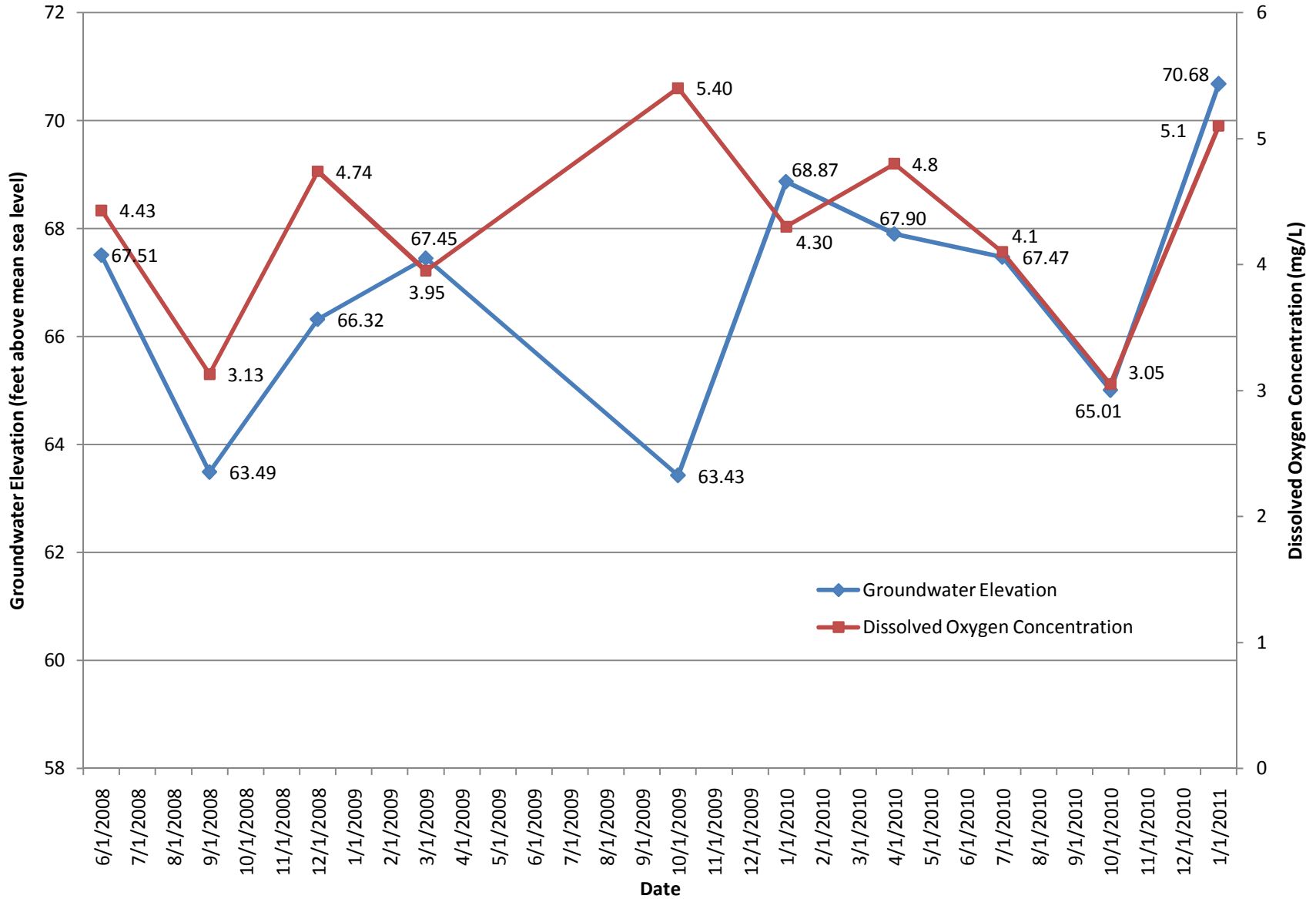
CMW-2

Groundwater Elevation and Dissolved Oxygen



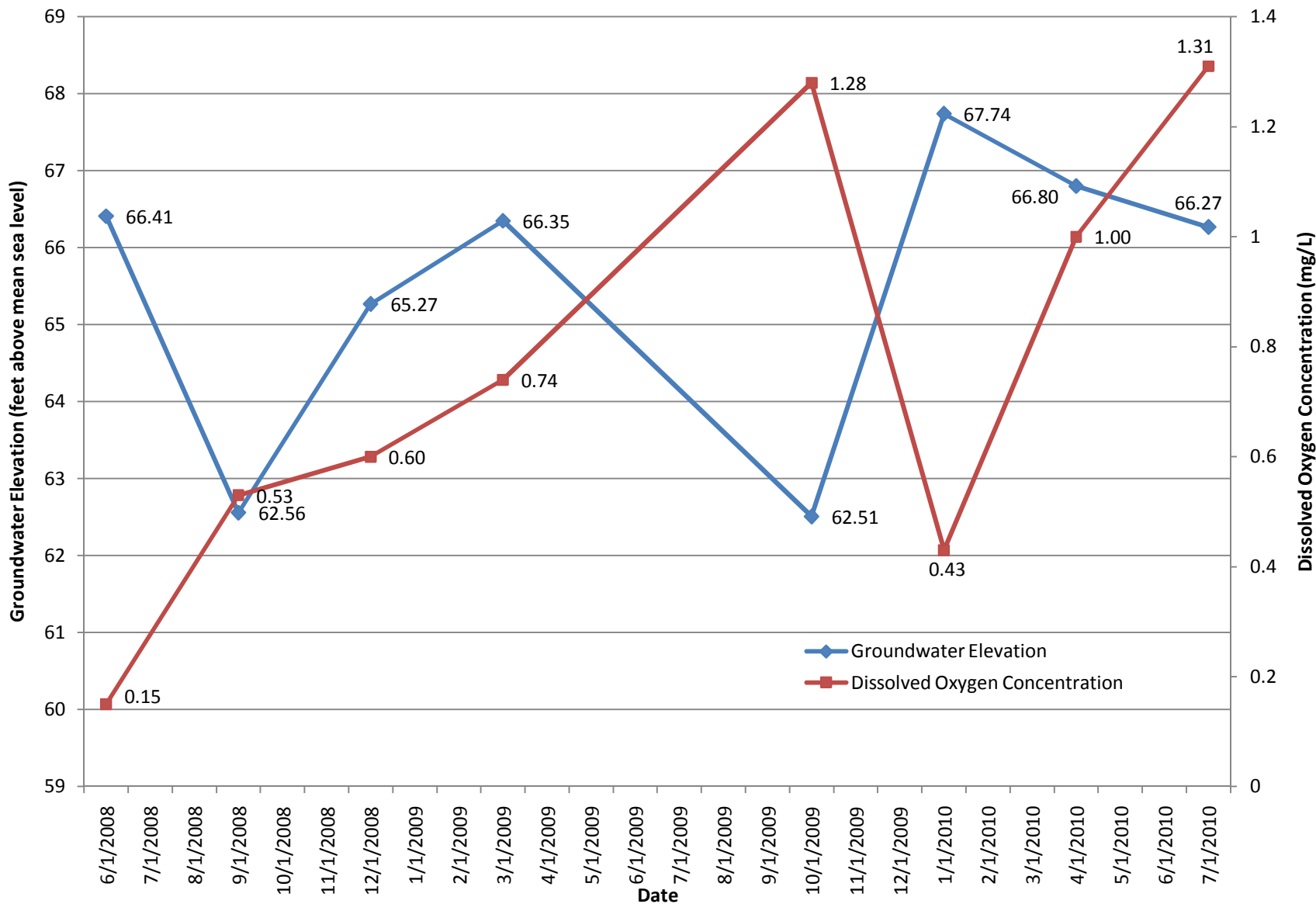
CMW-4

Groundwater Elevation and Dissolved Oxygen



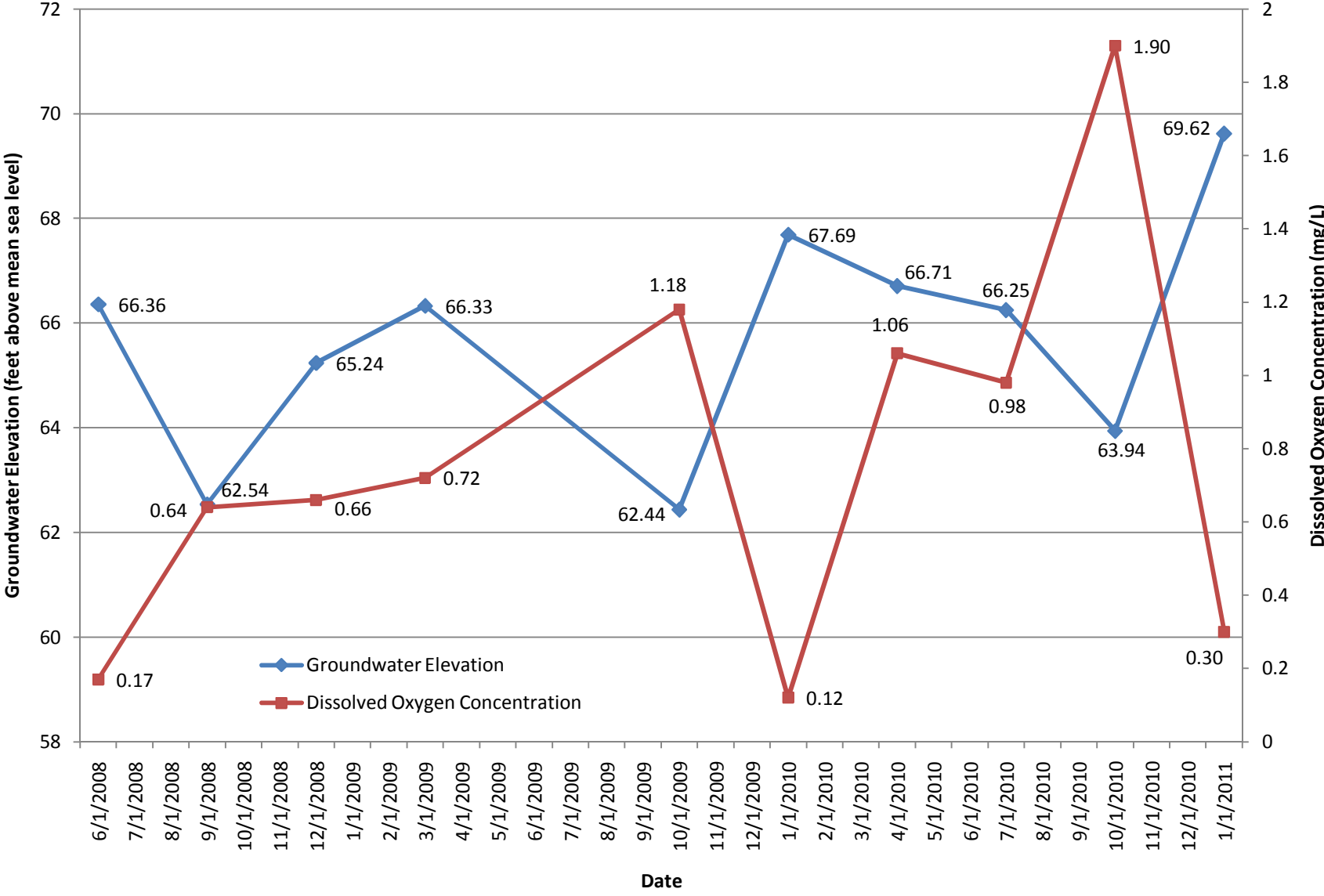
CMW-5

Groundwater Elevation and Dissolved Oxygen



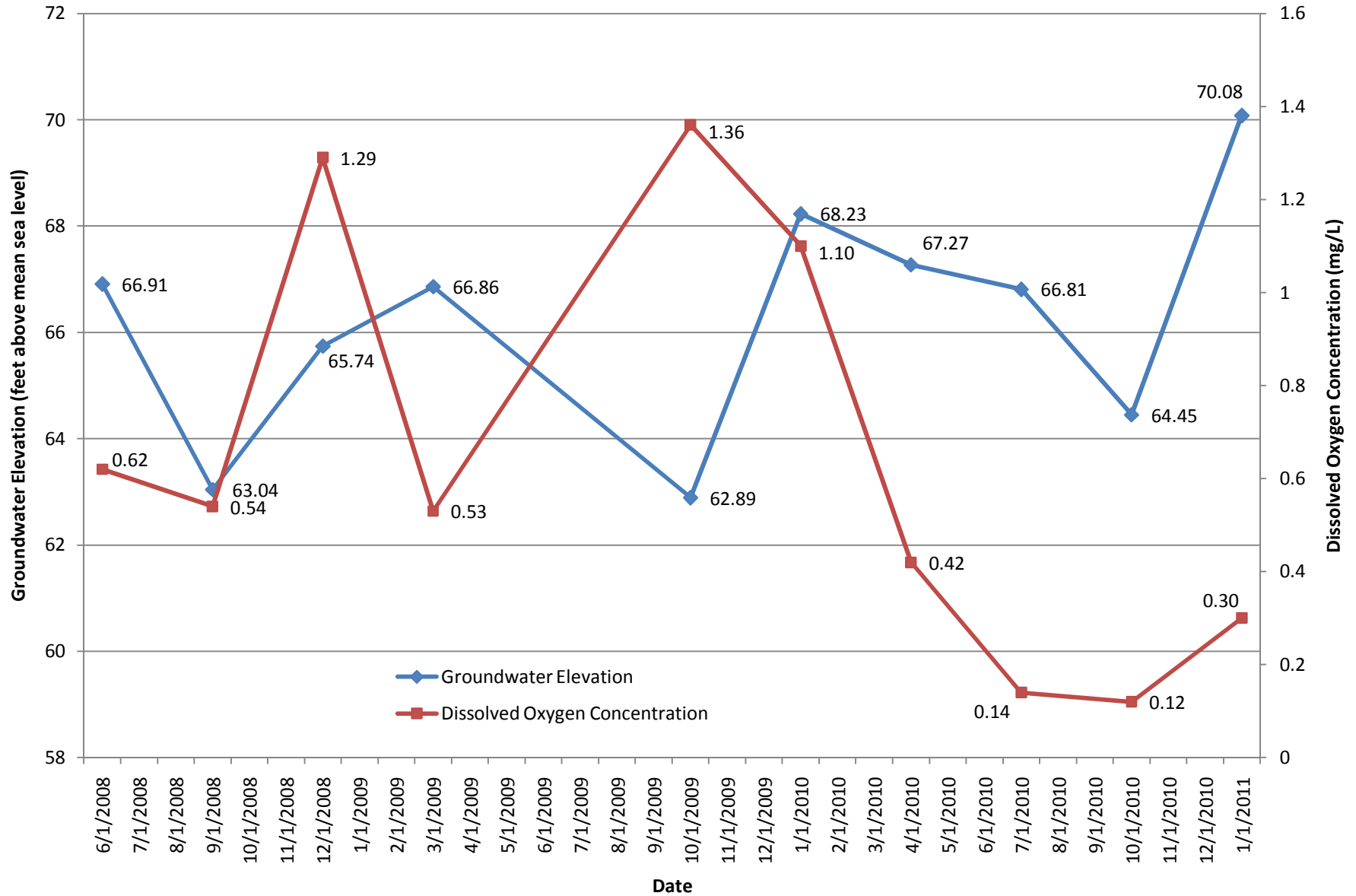
CMW-8

Groundwater Elevation and Dissolved Oxygen



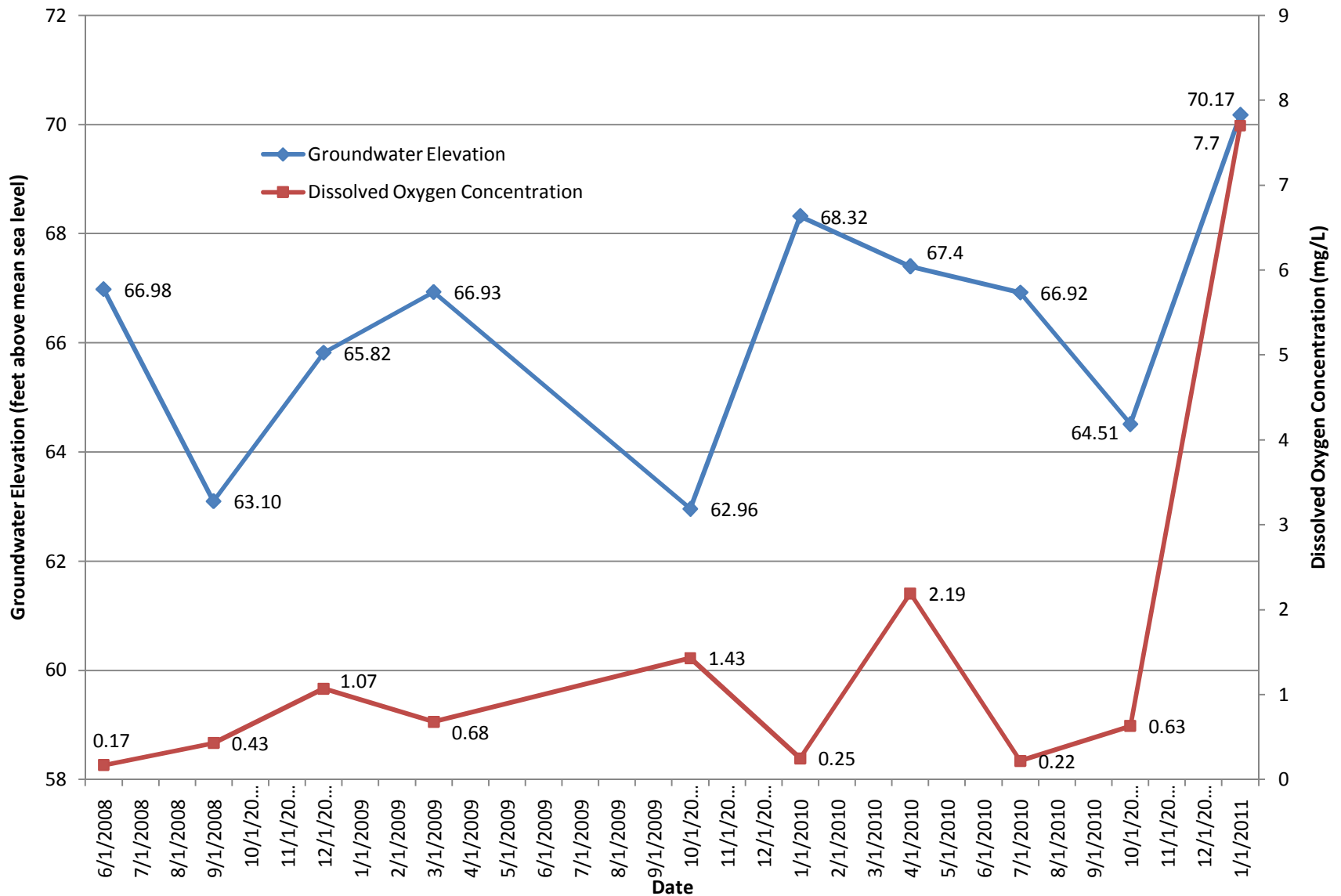
CMW-12

Groundwater Elevation and Dissolved Oxygen

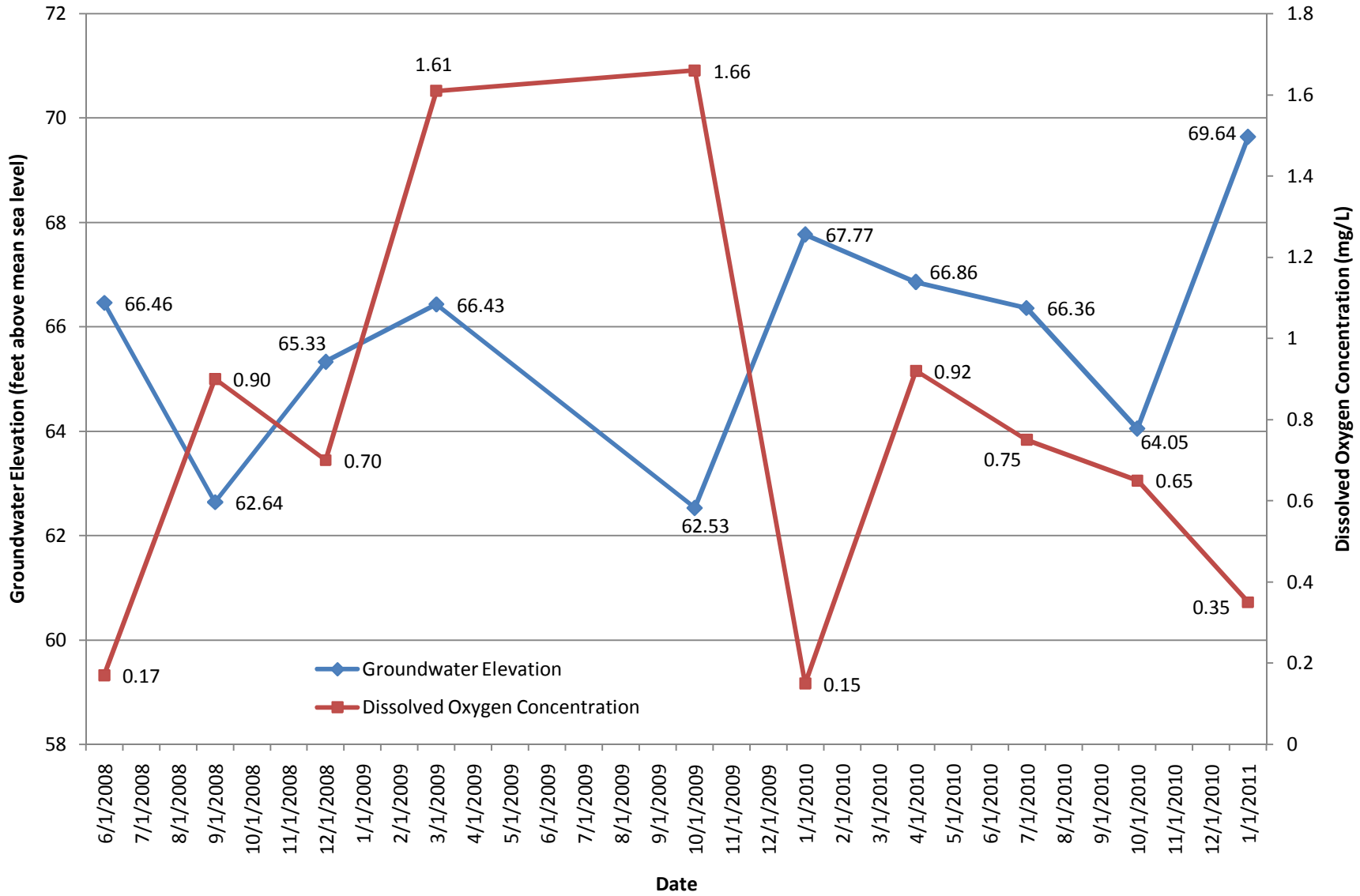


CMW-13

Groundwater Elevation and Dissolved Oxygen

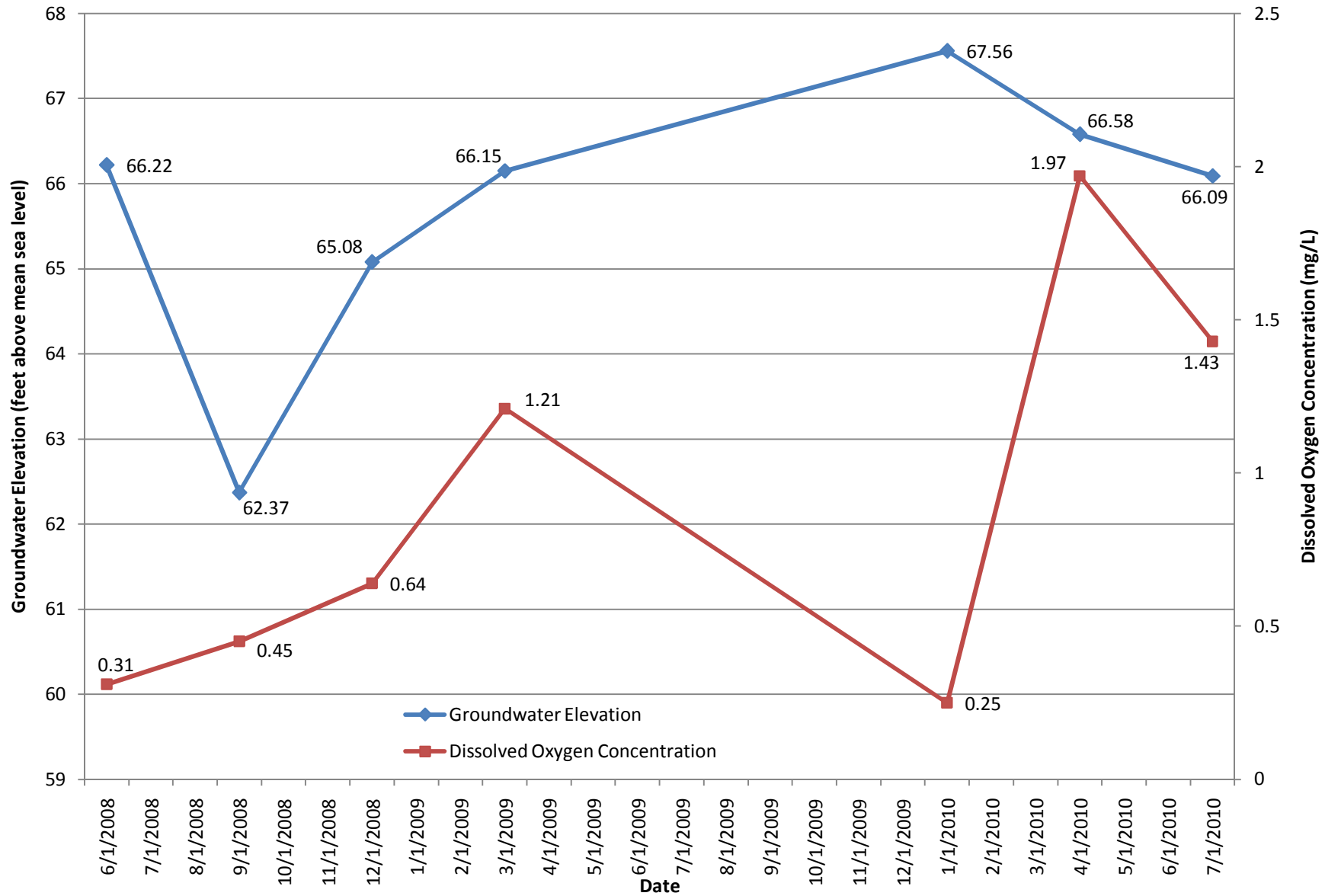


CMW-15 Groundwater Elevation and Dissolved Oxygen



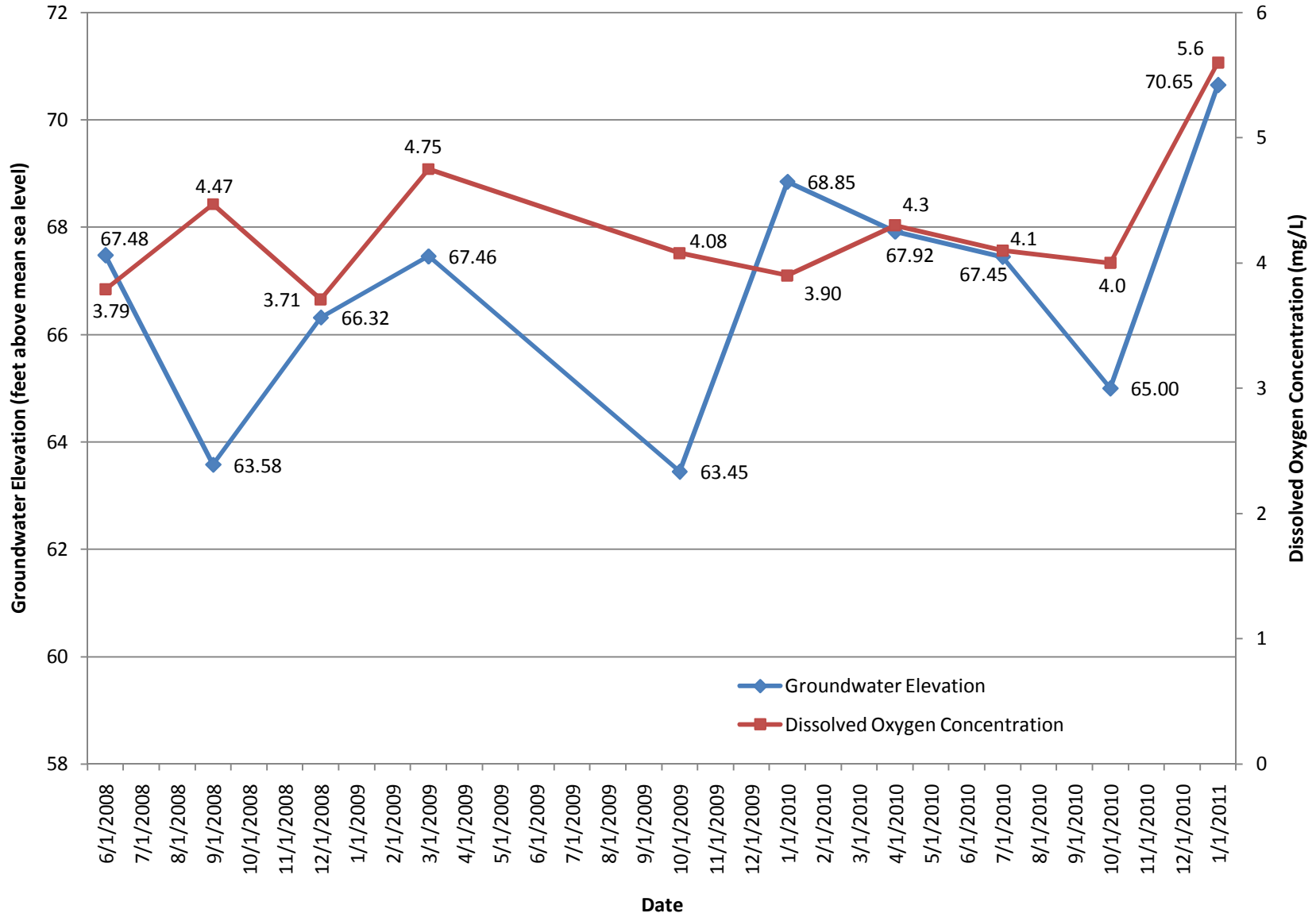
CMW-17

Groundwater Elevation and Dissolved Oxygen



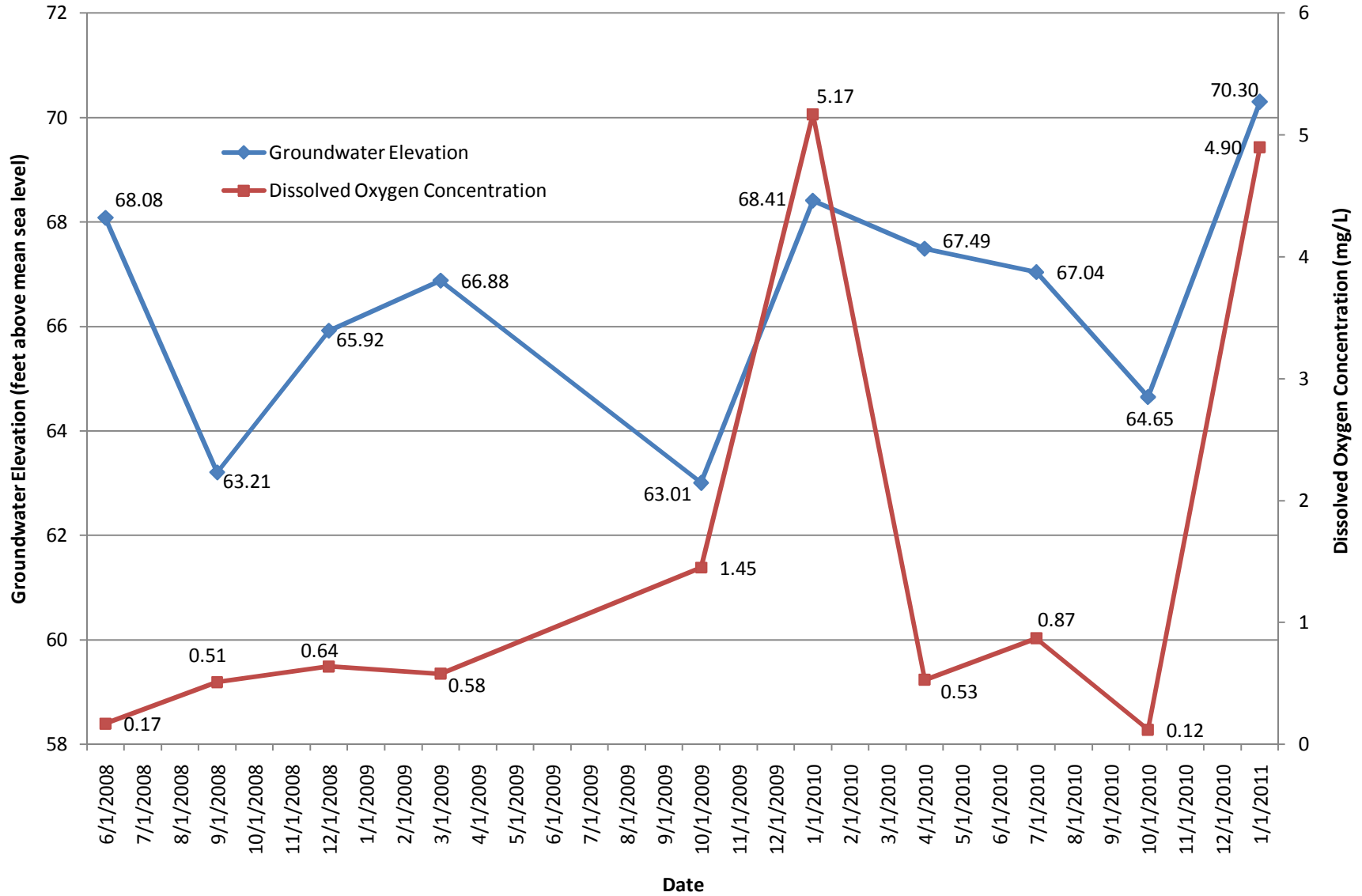
CMW-26

Groundwater Elevation and Dissolved Oxygen



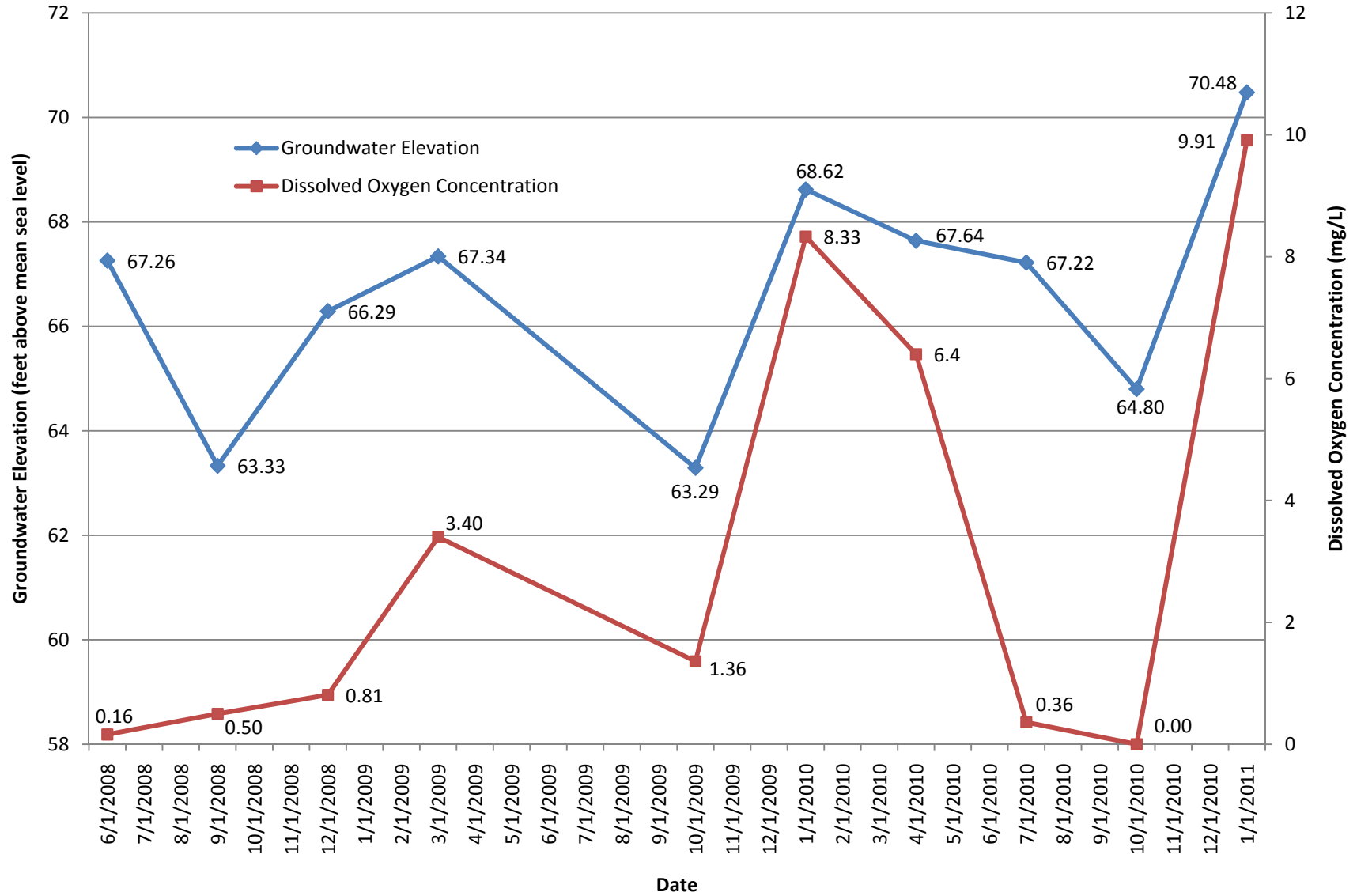
CMW-27

Groundwater Elevation and Dissolved Oxygen



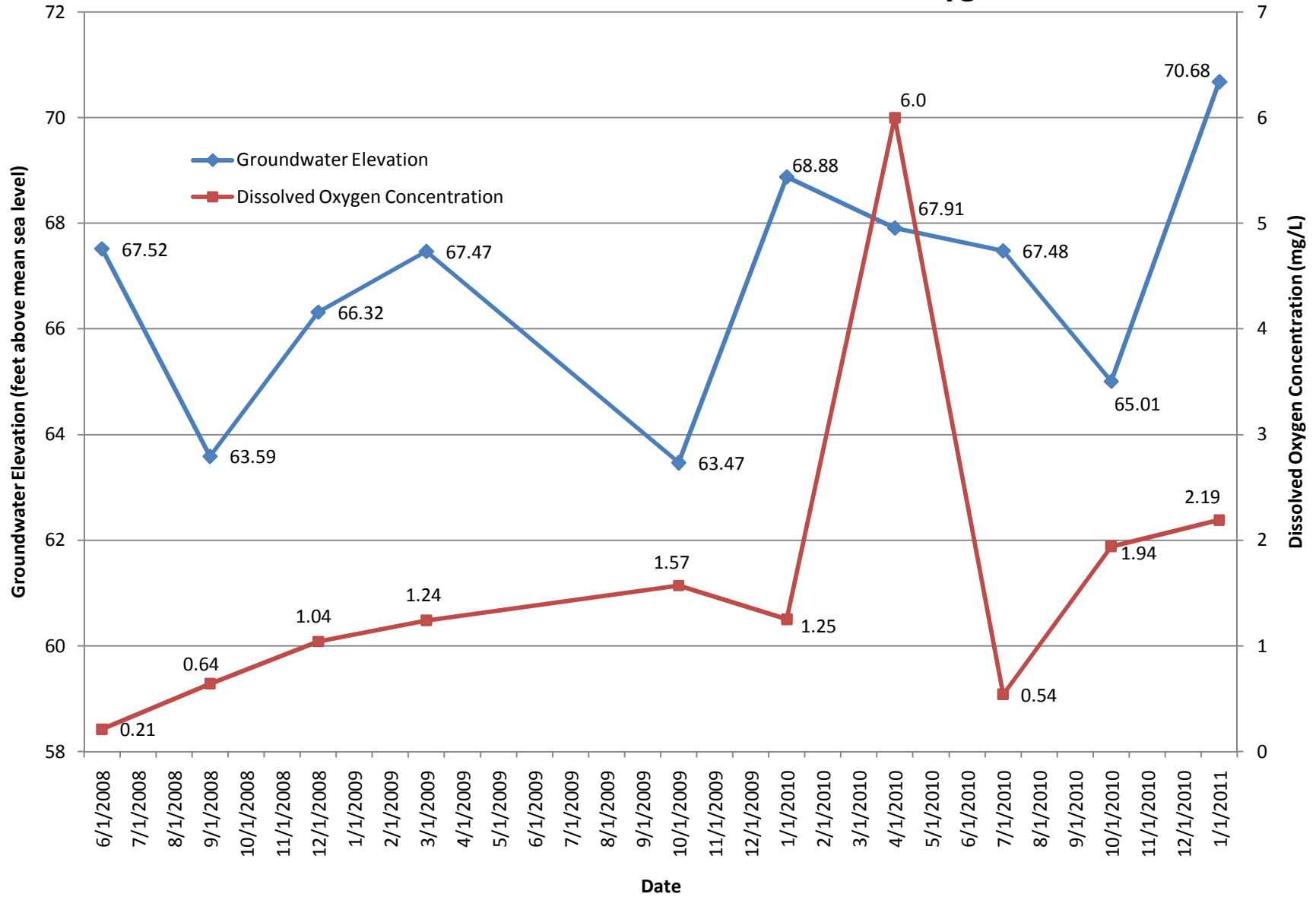
CMW-28

Groundwater Elevation and Dissolved Oxygen



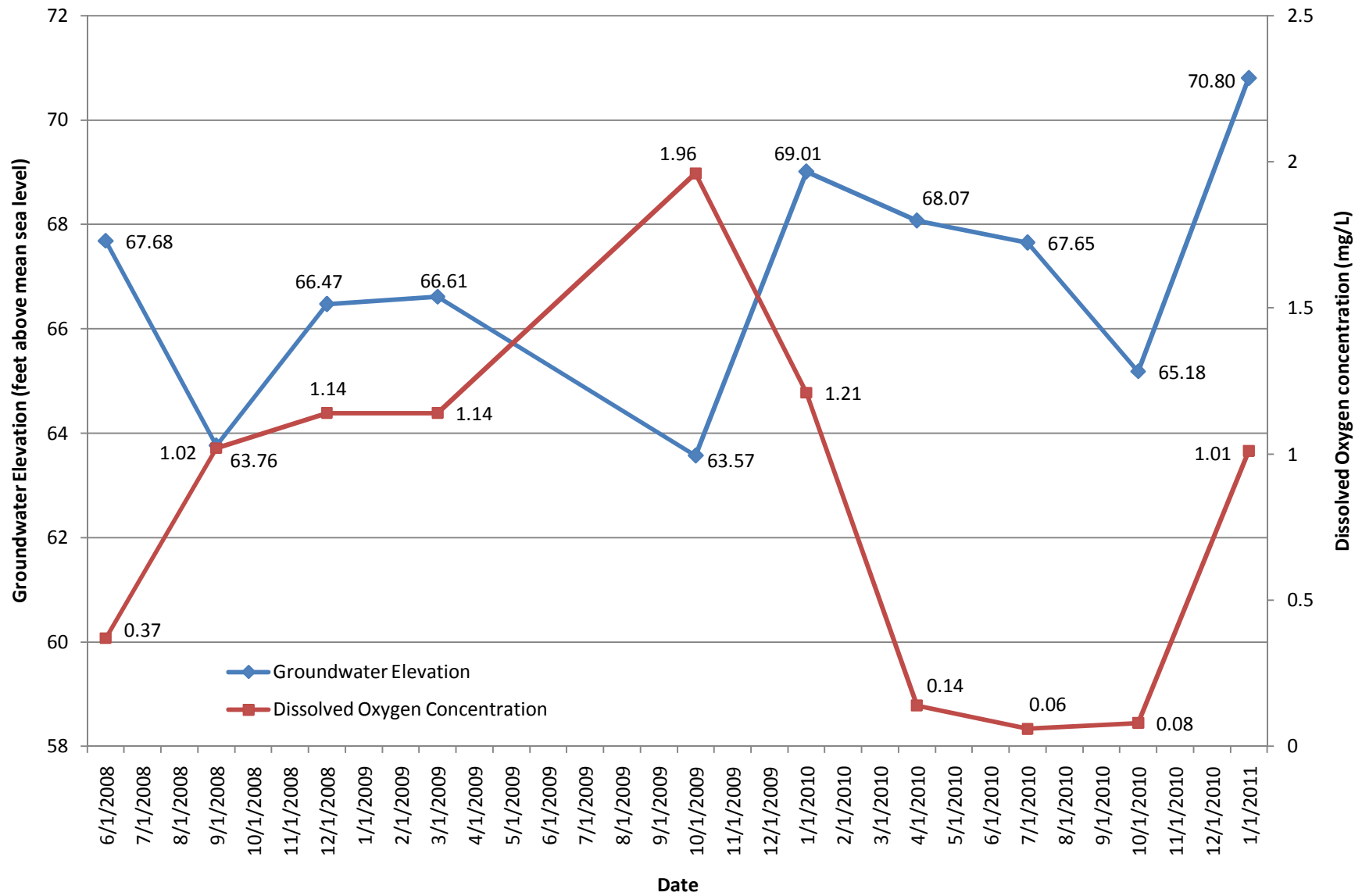
CMW-29

Groundwater Elevation and Dissolved Oxygen



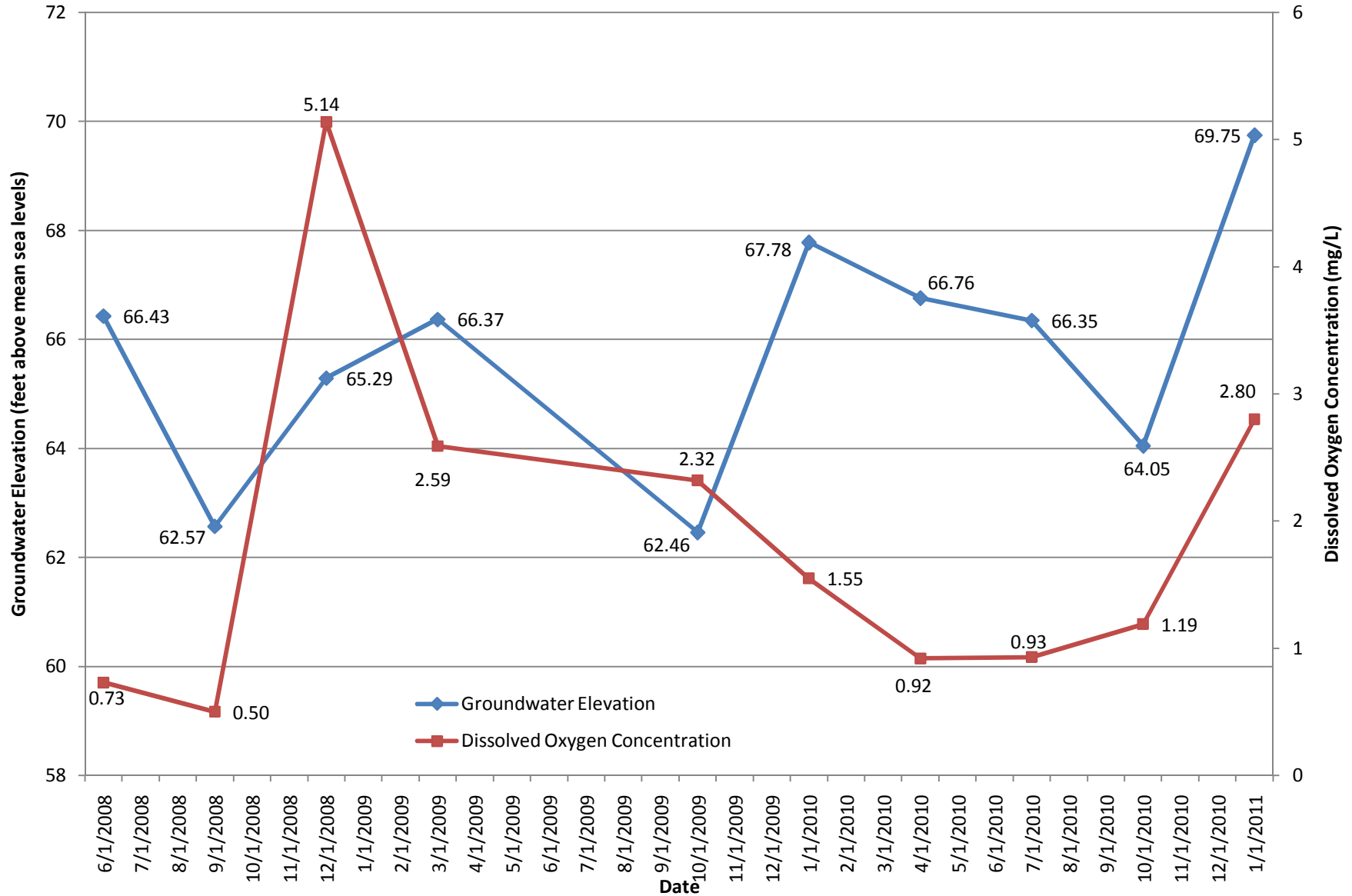
CMW-30

Groundwater Elevation and Dissolved Oxygen



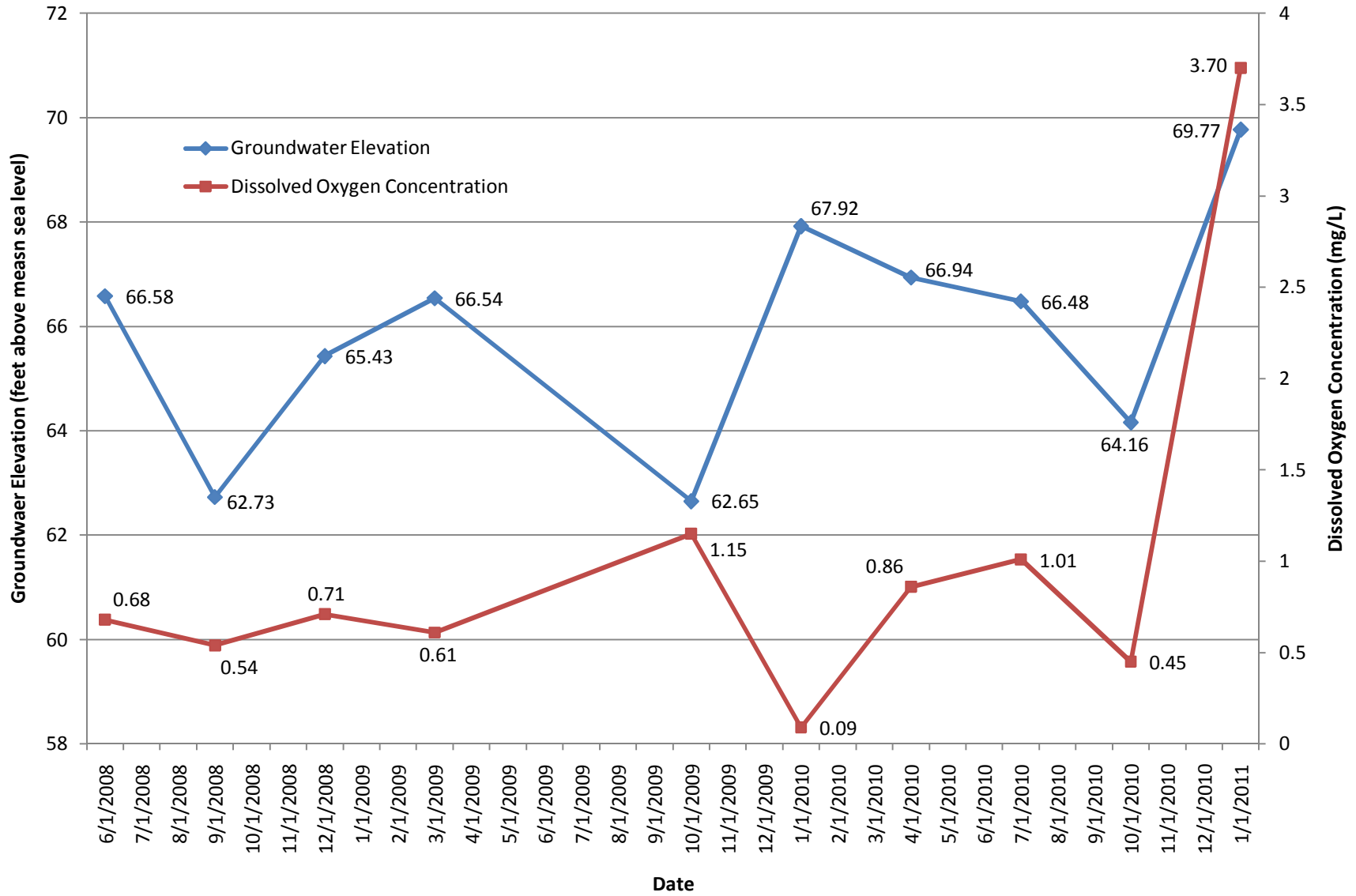
CMW-31

Groundwaer Elevation and Dissolved Oxygen



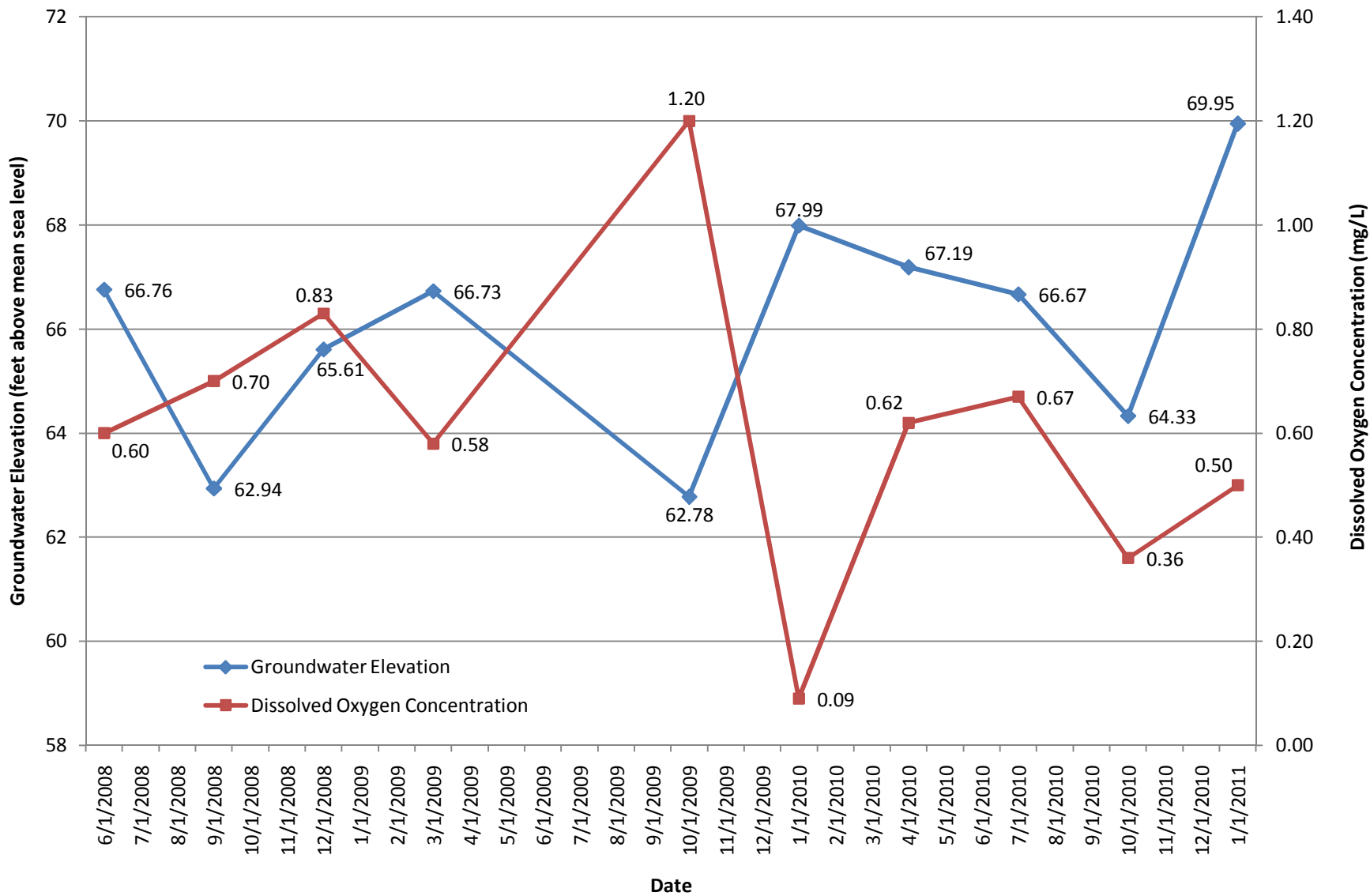
HMW-9

Groundwater Elevation and Dissolved Oxygen



HMW-10

Groundwater Elevation and Dissolved Oxygen



HMW-13

Groundwater Elevation and Dissolved Oxygen

