



Water Year 2017

Washington Walla Walla Basin Aquifer Recharge Report



September 2017

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Walla Walla Basin Watershed Council
2017

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Stiller Pond - WY2017

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EXECUTIVE SUMMARY

This report summarizes operations of an aquifer recharge (AR) site in the Washington portion of the Walla Walla Basin, the Stiller Pond Aquifer Recharge (Stiller Pond) site, during Water Year 2017 (October 1 2016 to September 30 2017). It also summarizes the three sites that did not operate during the WY2017 recharge season, Locher Road, Last Chance Road and WA Mud Creek. Data include recharge amounts, supporting groundwater level, groundwater quality, source water quality and soil quality data as determined by the Walla Walla Basin Aquifer Recharge Water Quality and Water Level Monitoring Quality Assurance Project Plan.

For Water Year 2017, water for the Stiller Pond site was sourced from Mill Creek at a private diversion located downstream of Wallula Road. The water was delivered down a pipeline to the Stiller Pond site. A total of 279 acre-feet were delivered to the Stiller Pond site. The total amount of water diverted aquifer recharge operations during WY2017 was ~279 acre-feet (~90.9 million gallons).

Water level and water quality data were collected in accordance to the approved monitoring plan (WWBWC, 2015). Down-gradient groundwater monitoring wells in the vicinity of the recharge sites responded to recharge activities, with groundwater elevations increasing and decreasing as recharge operations began and ended.

Groundwater and surface water quality data collected during aquifer recharge activities do not indicate any potential water quality concerns or that AR activities are degrading groundwater quality. Source water being delivered to the AR sites was of acceptable quality and likely resulted in some observed improvement in groundwater quality over the recharge season.

INTRODUCTION

The Walla Walla Basin Aquifer Recharge program has been in existence since 2004. The first pilot project, the Johnson site, was started in Oregon in the spring of 2004. The program expanded in 2006 with the addition of the Hall-Wentland site just south of the Oregon-Washington state line. The first site in Washington, Locher Road, started in 2007. For a more in-depth background to the aquifer recharge program and the Walla Walla basin's hydrology and geology, please see the Walla Walla Basin Aquifer Recharge Strategic Plan (www.wwbwc.org/projects/recharge.html).

HYDROLOGIC SETTING

The Walla Walla River (River) system is a bi-state watershed located in northeast Oregon and southeast Washington (Figure 1). The River's headwaters are located in the Blue Mountains, the crest of which defines the eastern extent of the watershed. The mainstem Walla Walla River and its primary tributaries, Mill Creek and the Touchet River, are the three primary surface channels of the system. They coalesce within the Walla Walla Valley from which the Walla Walla River then flows draining to the Columbia River (Figure 2). This report focuses on the portion of the River system that comprises the Walla Walla River mainstem and Mill Creek, especially where they flow onto and across the area referred to in the balance of this report as the Walla Walla Valley (Figure 4).

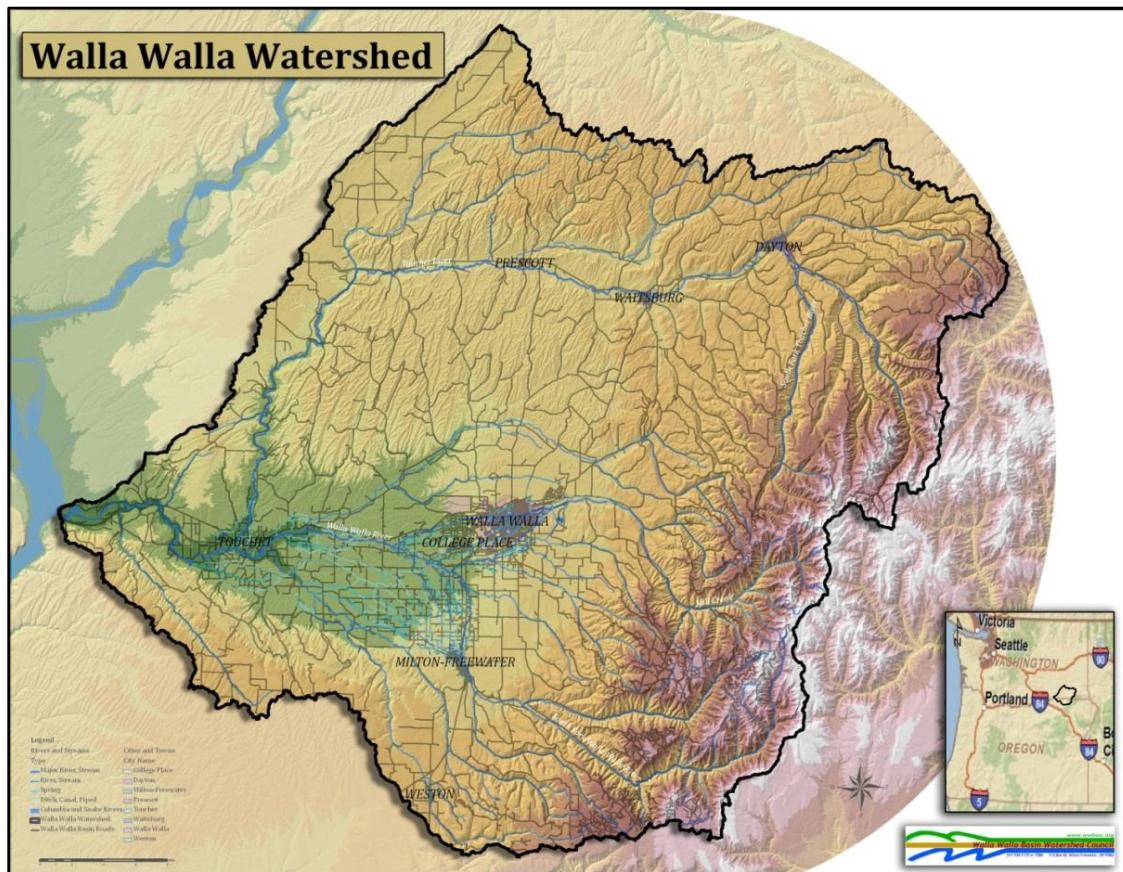


Figure 1 - The Walla Walla Watershed in Northeast Oregon and Southeast Washington.

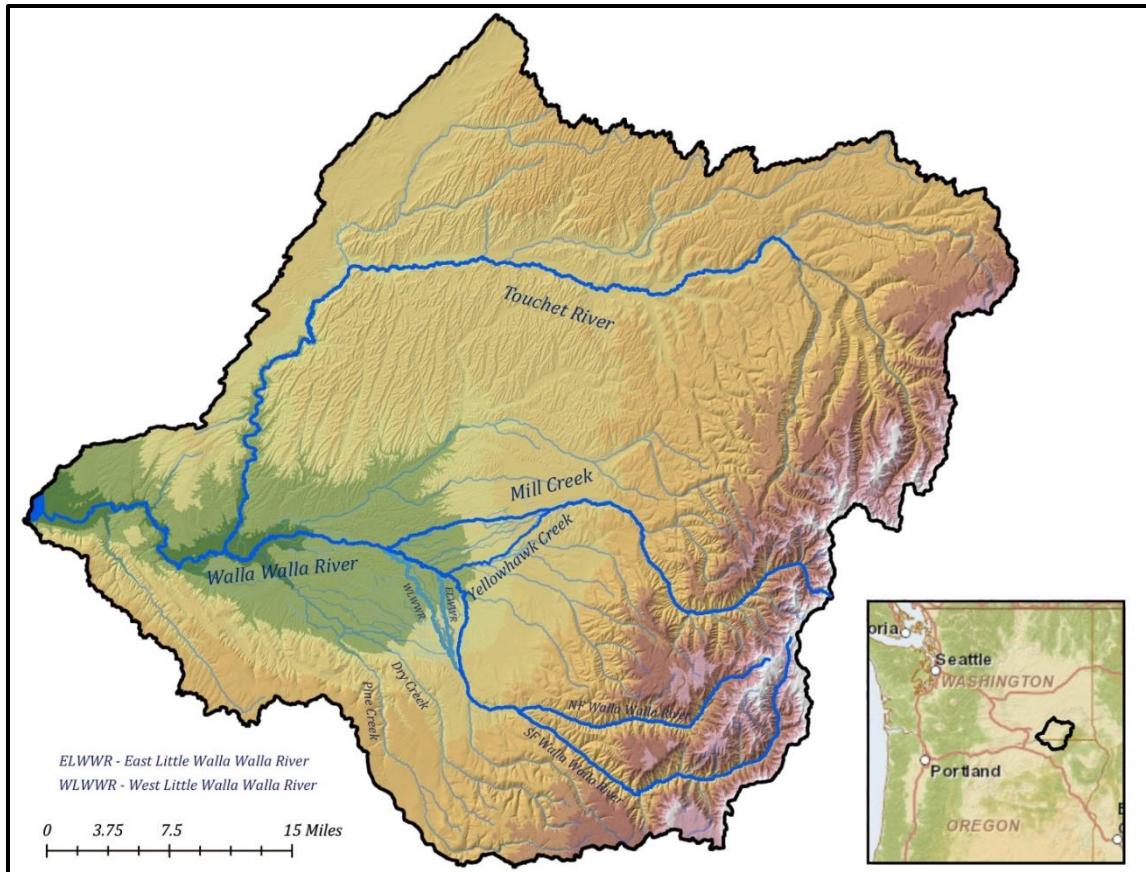


Figure 2 - The Walla Walla River and its major tributaries and distributaries.

Walla Walla Basin hydrology is largely defined by a distributary river system and an underlying alluvial aquifer system hosted by sediments overlying the Columbia River Basalt Group (CRBG). Surface waters entering the Walla Walla Valley effectively change regime from steep sided canyons in the headwaters portion of the watershed to a system of distributary and coalescing streams on the valley floor (Figure 4). With this, shallow groundwater systems see a regime change from localized, saturated valley deposits and confined basalt aquifers controlled by the geologic structure of the CRBG to the more widespread, thick alluvial aquifer system immediately underlying the valley floor. Depth to basalt beneath the base of the canyon floors in the highland areas upstream of the cities of Walla Walla and Milton-Freewater is typically less than 60 feet, with 30 feet more commonly observed. Beneath the valley floor the top of basalt is often hundreds of feet deep below overlying alluvial sediments.

Groundwater in the Walla Walla Basin occurs in two principal aquifer systems: (1) the unconfined to confined suprabasalt sediment (alluvial) aquifer system and (2) the underlying confined basalt aquifer system (Newcomb, 1965). The basalt aquifer system is regional in character, having limited hydraulic connection to the Walla Walla River, primarily in the canyons of the Blue Mountains. The alluvial aquifer system is the focus of the aquifer recharge program because of its high degree of hydraulic connection with streams on the valley floor.

The alluvial aquifer system, or alluvial aquifer, is found within a sequence of continental clastic sediments overlying the top of basalt (the Mio-Pliocene strata (upper coarse, fine and lower coarse units) and the Quaternary coarse unit). Beneath the Walla Walla Valley floor these sediments, and the alluvial aquifer system, is up to 800 feet thick. The majority of the productive portions of the alluvial aquifer system are hosted by the Mio-Pliocene coarse unit although, at least locally, it is hosted in the overlying Quaternary coarse unit as well. The alluvial aquifer is generally characterized as unconfined, but it does, at least locally, display evidence of confined conditions. Preferential groundwater flow within the gravel aquifer is inferred to largely reflect the distribution of coarse sedimentary strata. General groundwater flow direction can be inferred from the alluvial aquifer water table map (Figure 3).

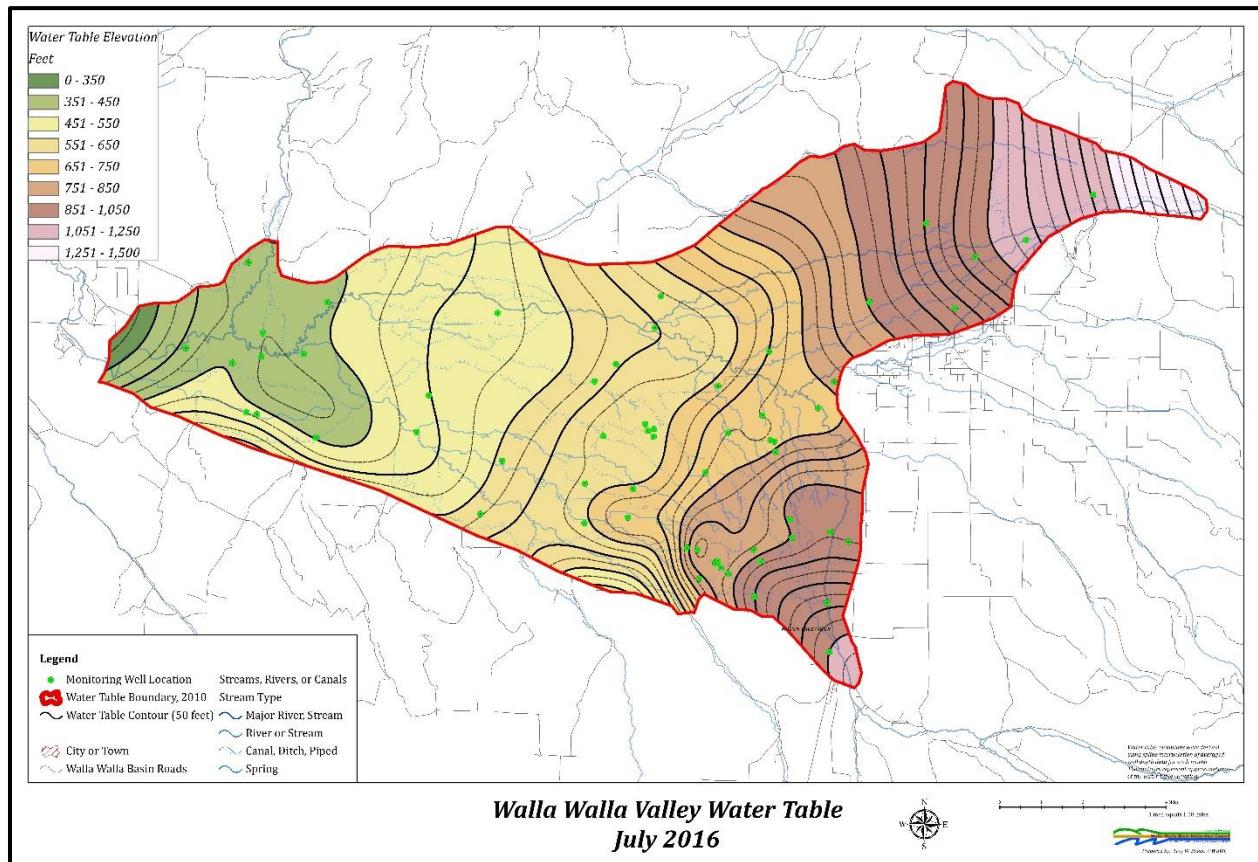


Figure 3 - Water table contours for the alluvial aquifer system.

The surficial hydrology of the Walla Walla Basin generally is defined by streams confined to steep-walled canyons in the foothills surrounding the valley, a distributary stream system as these streams exit the highlands and flow out onto the valley floor, and then, as the streams flow west, they coalesce into the main Walla Walla River channel. The distributary system formed as streams leaving the highlands entered the valley, went from higher to lower gradient and, as a consequence, deposited coarse sediment loads and formed a series of low angle, coalescing alluvial fans. Upon the alluvial fans, in and around the cities of Walla Walla and Milton-Freewater, these natural

distributary channels still exist in part or in whole to this day. These channels are known today as the East Little Walla Walla River, West Little Walla Walla River, Mud Creek, Yellowhawk Creek, Garrison Creek and others. Prior to the development of water resources in the valley, these distributary channels, with other (un-named) channels, served as high water channels that conveyed high amounts of energy and water across the alluvial fan and away from the mainstem Walla Walla River and Mill Creek. The channels run for several miles, accumulating spring flow, before returning back to the River farther down the valley (Figure 4).

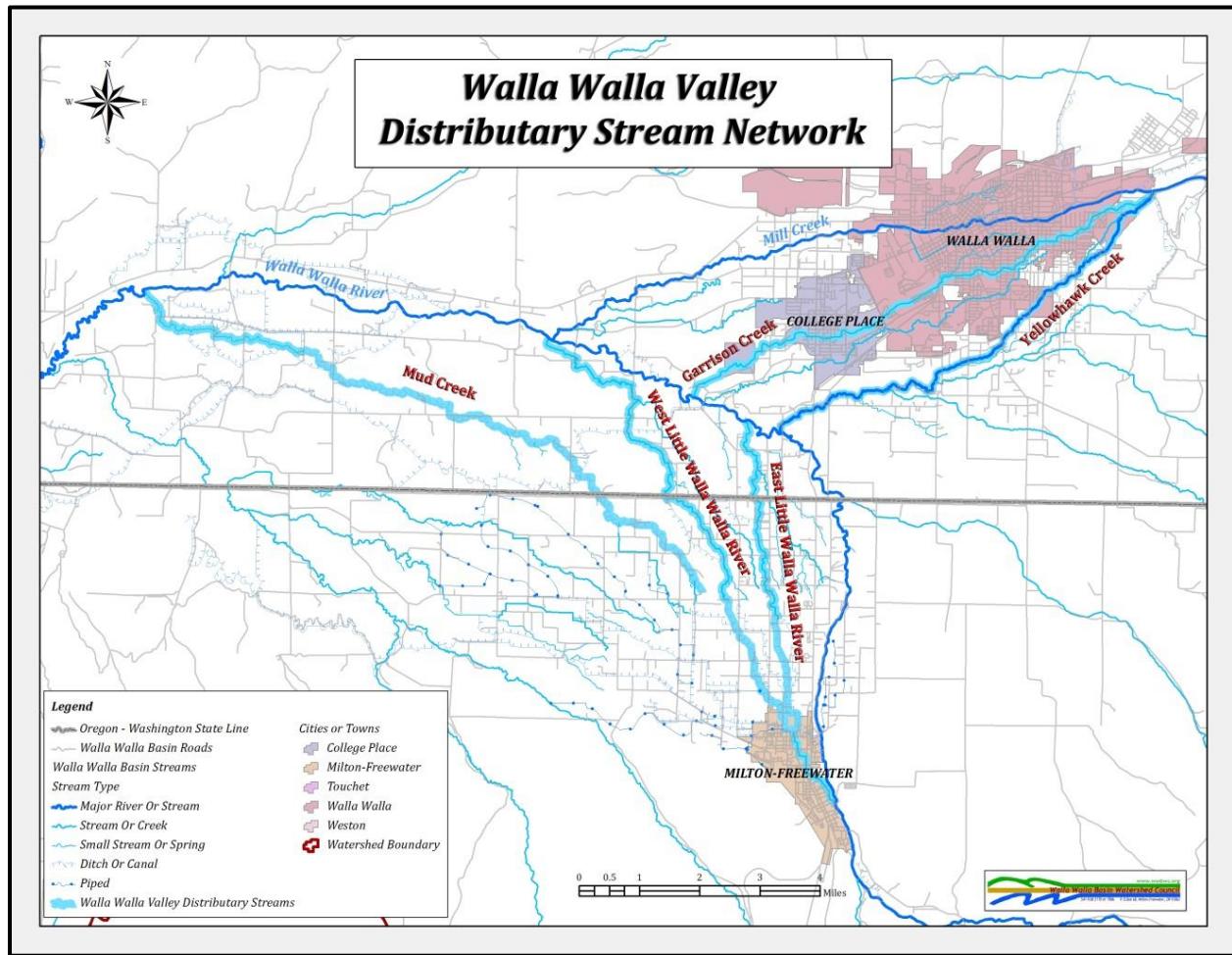


Figure 4 - Map of the distributary stream networks of the Walla Walla River and Mill Creek. Historically these stream networks conveyed winter and spring high flows across the valley's alluvial fans allowing for reduced flood pressure on the mainstem rivers, provided off-channel habitat and provided recharge to the alluvial aquifer system.

In recent decades the management and development of surface water resources has led to installation of flow control devices (irrigation head gates) at the head of the distributary channels. Over time, the management of the distributary network has become less natural. High flows during the winter and spring no longer have free access to the distributary network and the adjacent floodplains. This, along with the development of groundwater resources and the channelization of the valley's rivers and creeks, has created a declining alluvial aquifer condition.

Generally, the ‘spreading out’ of water across the alluvial fans via distributary channels and adjacent floodplains, coupled with the high hydraulic conductivity of the underlying coarse sediment, function as a primary groundwater recharge mechanism for the entire alluvial aquifer. This seasonally recharged aquifer system in-turn feeds the valley’s springs, spring creeks and larger streams. This cycling of surface water to groundwater recharge, followed by later discharge in springs and as stream base flow creates a delay in discharge of these waters from the valley. Depending on local conditions, this delay can range from days to months, and even years (Jiménez, 2012).

The declining alluvial aquifer, coupled with high connectivity between surface water and alluvial groundwater, has created stream reaches where high seepage loss occurs and significant volumes of surface water drain to the aquifer (Figure 5 & 6). In recent years, the listing of steelhead and bull trout as threatened under the Endangered Species Act and the reintroduction of spring chinook salmon within the watershed, has led to out-of-court agreements between irrigators and Federal fishery agencies. As a result of these agreements, local irrigators are leaving a portion of their legal water rights instream as bypass water year round. For example, per civil agreement, Gardena Farm Irrigation District #13 (GFID) irrigators leave 18/19 cfs instream (bypass) throughout the year. However, depending on the water-year and a number of other factors, it is not unusual to have a significant portion of the bypass water seep into the underlying aquifer.

Spring fed creeks across the valley, sourced by springs discharging from the alluvial aquifer, have seen declining discharge since the earliest hydrogeologic studies were conducted by Piper (acting on behalf of the US Supreme Court) in the 1930s, Newcomb in the 1960s and Barker and MacNish in the 1970s. Water level declines in the alluvial aquifer since the 1930s and 1940s (Figures 7 & 8) are consistent with the general decline of the related springs (Figure 9). These trends lead one to conclude that there has generally been decreasing groundwater-sourced baseflow over the past several decades contributing to the Walla Walla River and other surface bodies during critical low-flow periods. This loss of groundwater baseflow to streams affects not only the amount of flow in the river but also leads to increased surface water temperature as the cold groundwater derived baseflow is lost.

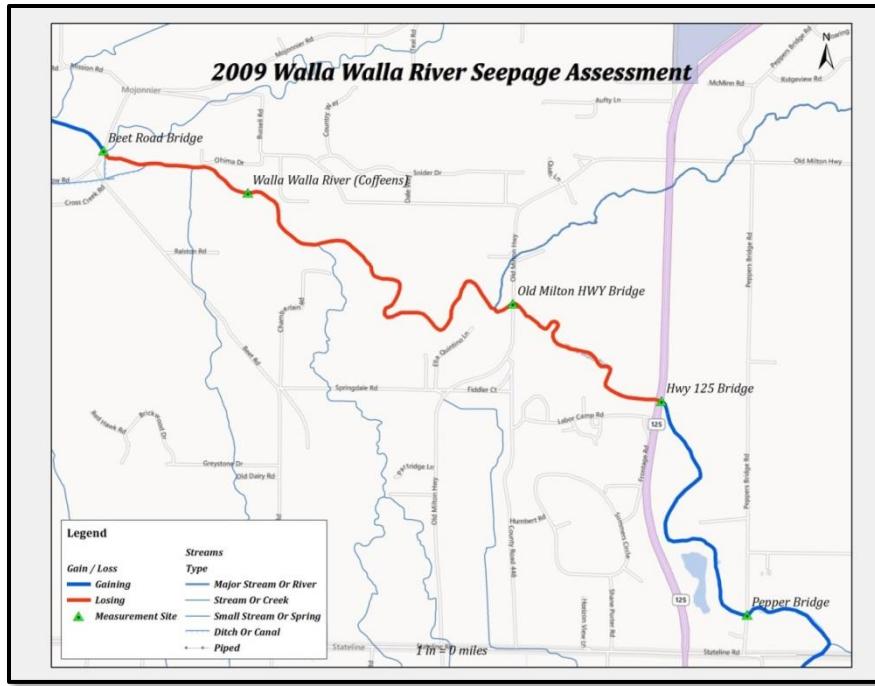


Figure 5 - Results from the water budget analysis of the Walla Walla River in August 2009. Color indicates a given reach as either gaining or losing. Gains indicate groundwater discharging to the river and losses indicate surface water seeping into the ground (see WWBWC, 2012 for details or www.wwbwc.org/monitoring/monitoring-reports.html).

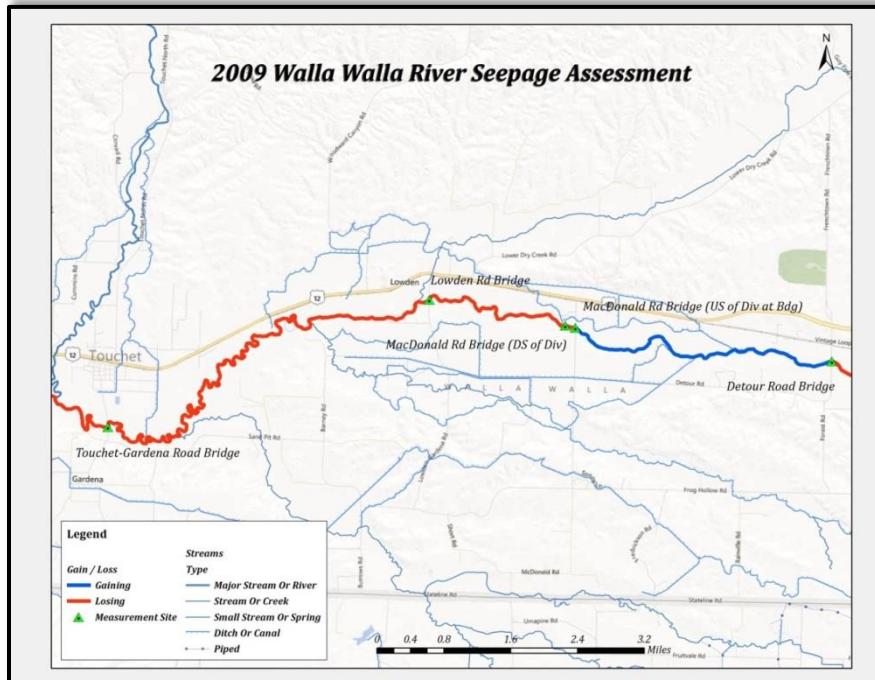


Figure 6 - Results from the water budget analysis of the Walla Walla River in August 2009. Color indicates a given reach as either gaining or losing. Gains indicate groundwater discharging to the river and losses indicate surface water seeping into the ground (see WWBWC, 2012 for details or www.wwbwc.org/monitoring/monitoring-reports.html).

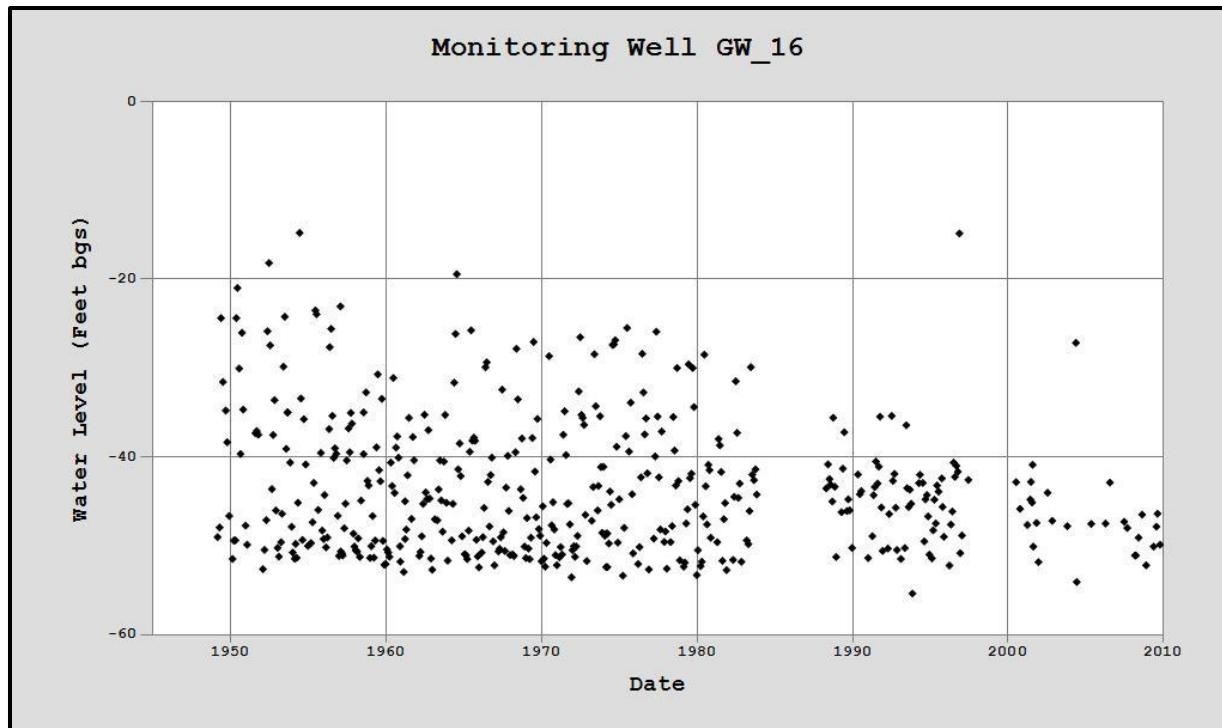


Figure 7 - Hydrograph for Monitoring Well GW_16 showing the long-term decline in the alluvial aquifer system in the Walla Walla Basin.

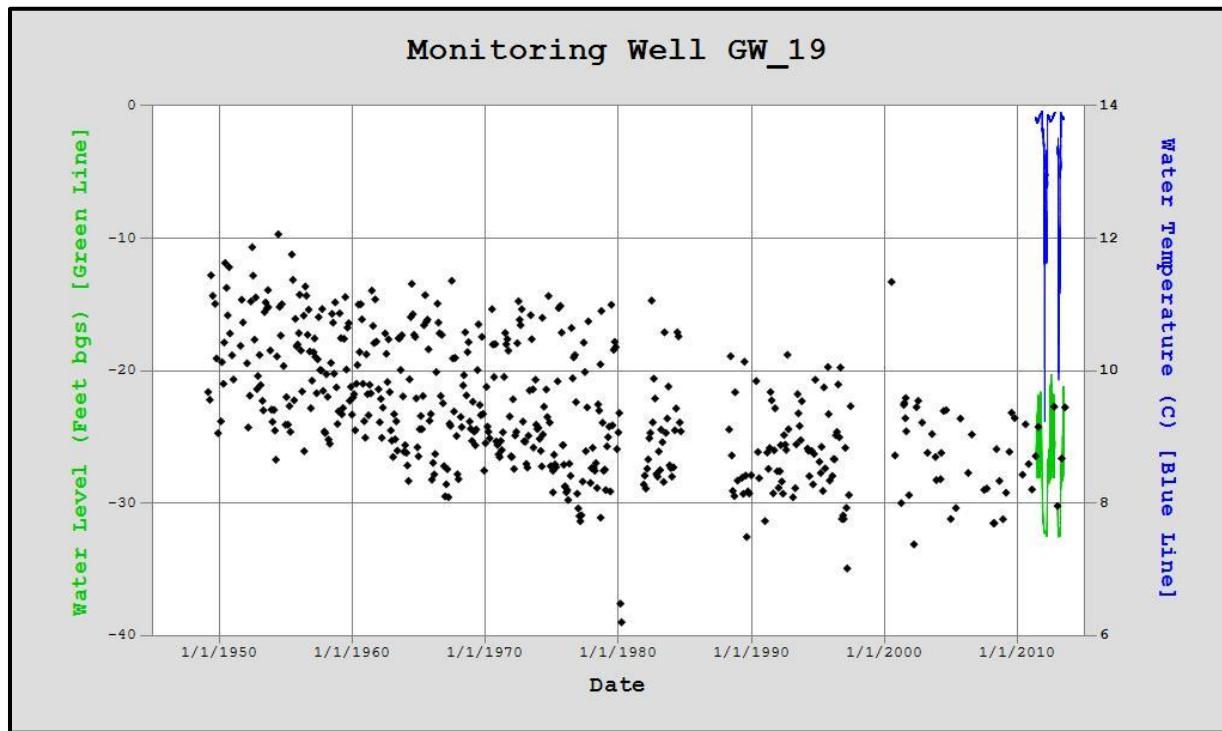


Figure 8- Hydrograph for Monitoring Well GW_19 showing the long-term decline in the alluvial aquifer system in the Walla Walla Basin.

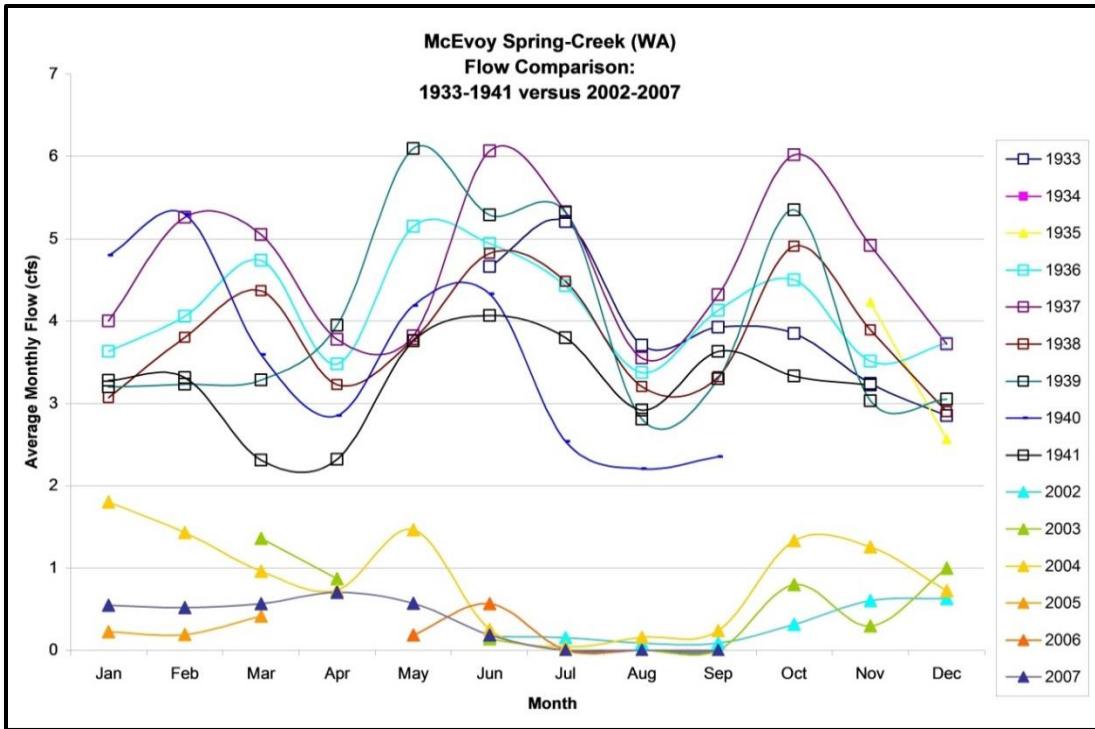


Figure 9 - Hydrograph for McEvoy Spring Creek located just north of the WA-OR state line. Hydrograph shows the decline in spring performance over the last 80 years.

AQUIFER RECHARGE SITES

LOCHER ROAD

The Locher Road site (Figure 10), located at the intersection of Stateline Road and Locher Road, is a former gravel quarry that has been operated by Gardena Farms Irrigation District #13 (GFID) as an aquifer recharge (AR) site since 2007. From 2006-2007 through the end of the 2010-2011 season, approximately 1/3 acre of the 4+ acre site was utilized for recharge. In late 2011, the site was reconstructed to allow infiltration over a 2.5 acre portion of the site (Figures 11-15). Inflow volume rates at the site increased from approximately 1.3 cfs to 3.5+ cfs. Total recharge volumes for the season are described below in the results section.

The Locher Road site has operated under successive one and two-year temporary use authorizations issued by Washington Department of Ecology (WADOE). In addition to the temporary use authorizations, in 2010 the Walla Walla Watershed Management Partnership (WWWMP), a locally led organization that co-manages Walla Walla Basin water resources with the State of Washington, passed a Local Water Plan (LWP) that allows GFID to utilize up to 5 cfs of its existing water right for AR (WWWMP, 2010). This authorization, like the temporary use authorization, is governed by the maintenance of minimum instream flows in the river (measured at the Detour Road gauging station), water quality testing, and hydrologic monitoring in local wells and surface water points. The LWP was modified and re-issued in the summer of 2017.

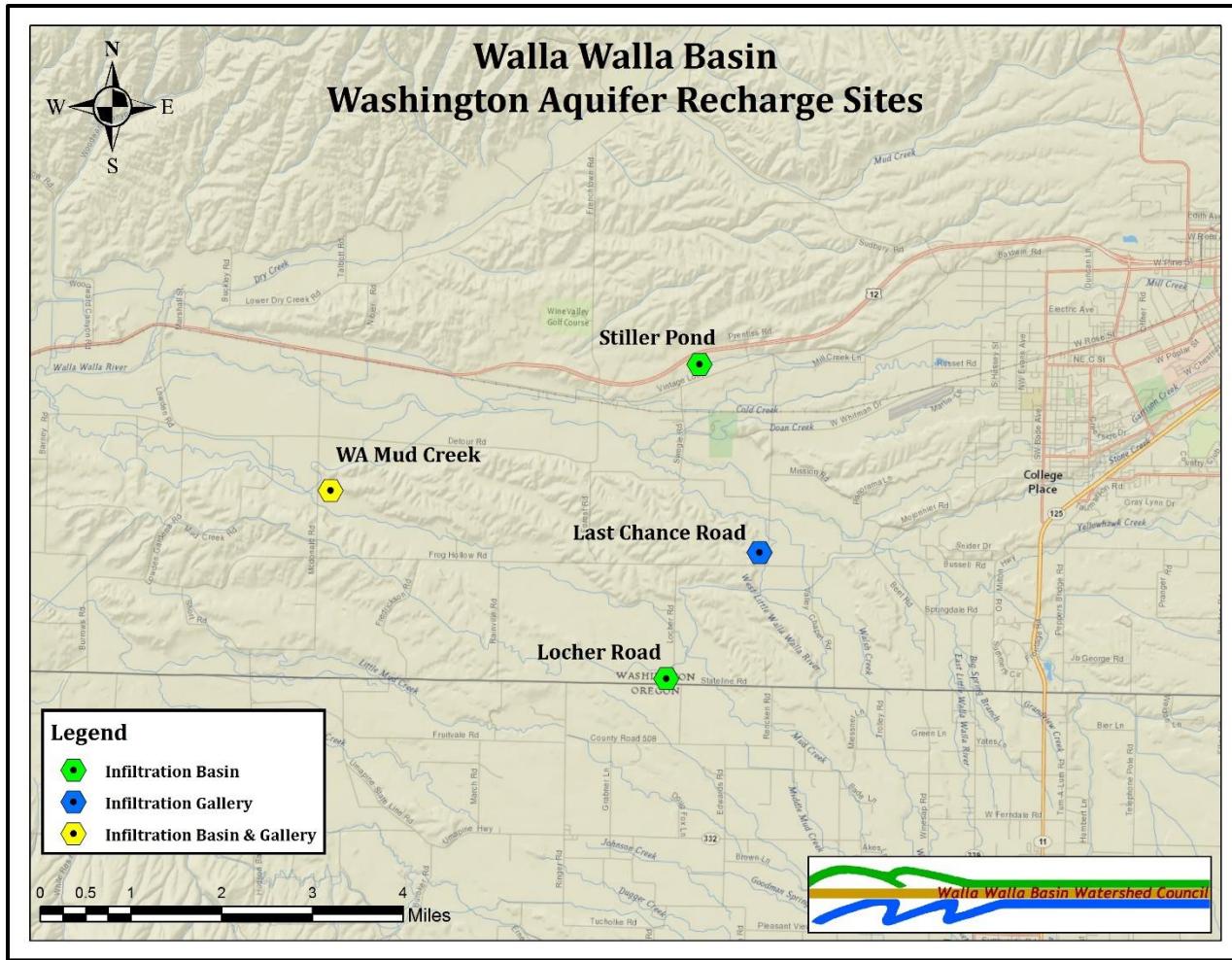


Figure 10 – Walla Walla Basin Washington Aquifer Recharge Sites.

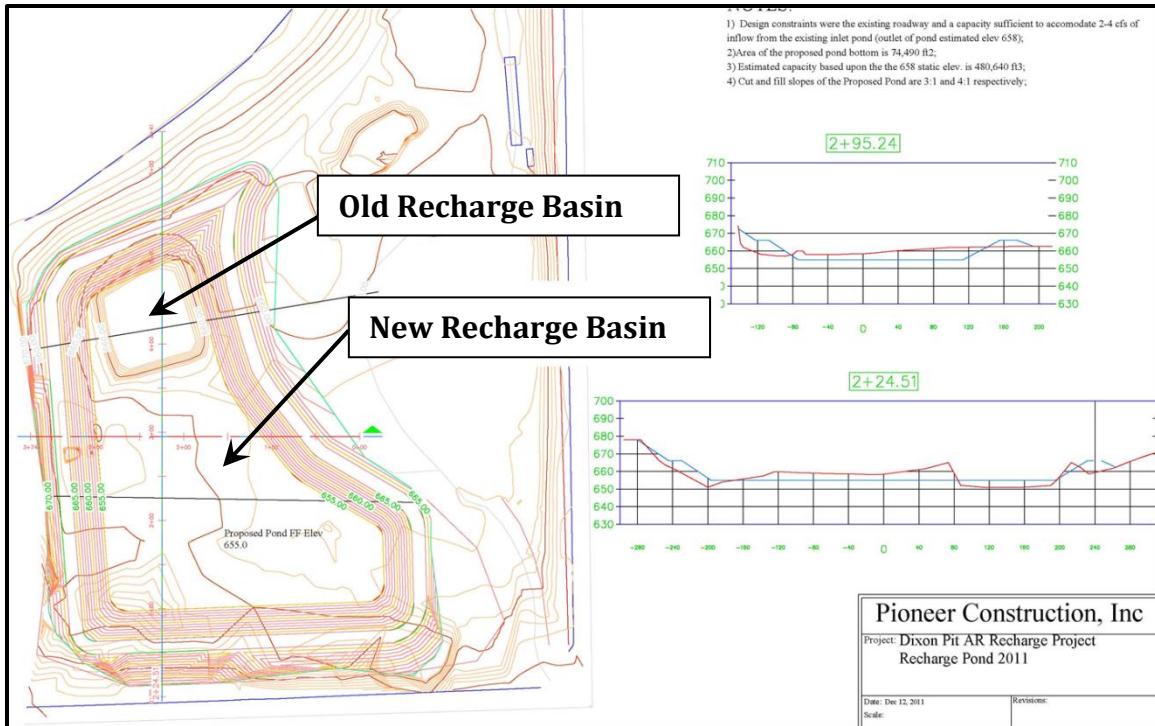


Figure 11 - Preliminary design for expansion of the Locher Road site's main recharge basin in late 2011.



Figure 12 - Photo during expansion of the Locher Road site's main recharge basin, December 2011.



Figure 13 - Photo of the completed expansion of the Locher Road site's main recharge basin, December 2011.



Figure 14 - Photo of the Locher Road aquifer recharge site during operations.



Figure 15 - Aerial photographs showing the Locher Road site before (A) and after (B) the expansion that occurred in December 2011. The diversion and settling pond were not changed. During the expansion work, the ditch from the diversion flume to the settling pond was reinforced with additional rock and the main recharge basin was expanded from approximately 1/3 of an acre to approximately 2.5 acres.

STILLER POND

In 2012 the WWBWC and the Walla Walla County Conservation District (WWCCD) partnered to develop the Stiller Pond AR site (Figure 10 & 16). This site is currently operated under a Local Water Plan with the Walla Walla Watershed Management Partnership (WWWMP) to recharge up to 32 acre-feet of the landowners existing water right via a dry pond located on the Schwenke property, within the lower Mill Creek drainage. Additional authorization for an Environmental Enhancement Project (EEP) was issued in early 2014. This additional authorization allows for diversion of up to 991 acre-feet of water from Mill Creek to the Stiller Pond for AR.

In its current configuration the Stiller Pond site can recharge approximately 1-2 cfs depending upon other demands from the diversion system. Like the Locher Road site, this authorization requires minimum instream flow to be met at two gages on Mill Creek and at the WADOE Walla Walla River gauging station at Detour Road and additional hydrologic monitoring and water quality analysis (GSI, 2012, WWBWC, 2013 and WWBWC, 2015).



Figure 16 - Stiller Pond Aquifer Recharge site during operations.

LAST CHANCE ROAD

The Last Chance Road site was constructed in June 2015 (Figure 10, 17 and 18). The site did not operate during the 2015, 2016 or 2017 recharge seasons, but is ready for future operations. The site includes two recharge features, an infiltration gallery and a new open ditch along the hillside. The project also installed a fish screen on a diversion from the West Little Walla Walla River. This site is currently permitted under a Local Water Plan with the Walla Walla Watershed Management Partnership (WWMP) to recharge up to 250 acre-feet per year from November 1-May 30.

Minimum instream flows (1 cfs) for the site will be measured at the WWBWC's gauge on the West Little Walla Walla River at Swegle Road (S-227). In its current configuration, the Last Chance Road site can recharge up to 1 cfs of water from the West Little Walla Walla River. If the site operates in the future, an Environmental Enhancement Project permit may be sought for the site (WWMP, 2014).



Figure 17 - Infiltration gallery area for the Last Chance Road Aquifer Recharge site.



Figure 18 - Irrigation ditch, fish screen and intake (back left) for the Last Chance Road Aquifer Recharge site.

WA MUD CREEK

The WA Mud Creek site was constructed in the fall of 2015, but has not operated yet (Figures 10 & 19). The site encompasses two recharge areas with water delivered via two separate irrigation ditches. The first recharge area can be supplied by the Gardena Farms Canal on the south side of the property. Water from this canal can feed into an infiltration gallery in a draw up-gradient of Mud Creek (Figure 19). The second recharge area can be supplied by the Lowden #2 ditch on the northern side of the property. Water from this ditch can feed into an infiltration field within an existing pasture. The pasture will be reconfigured to enhance infiltration as much as possible. This site is currently permitted under a Local Water Plan with the Walla Walla Watershed Management Partnership (WWWMP) to recharge up to 783.7 acre-feet per year from November 1-May 30. The designed recharge areas are estimated to recharge approximately 1.5-2 cfs between the two sites. If the site operates in the future, an Environmental Enhancement Project permit may be sought for the site (WWWMP, 2014a).



Figure 19 - Photo of the WA Mud Creek Aquifer Recharge site under construction. The photo shows the excavated trenches for the infiltration gallery on the south side of Mud Creek.

WATER YEAR 2017 RECHARGE SEASON RESULTS

LOCHER ROAD

OVERVIEW

During the WY2017 recharge season, the Locher Road site did not operate due to the expiration of the Local Water Plan that authorized water to be delivered. The LWP was updated and authorized in June 2017 allowing for future operations to occur.

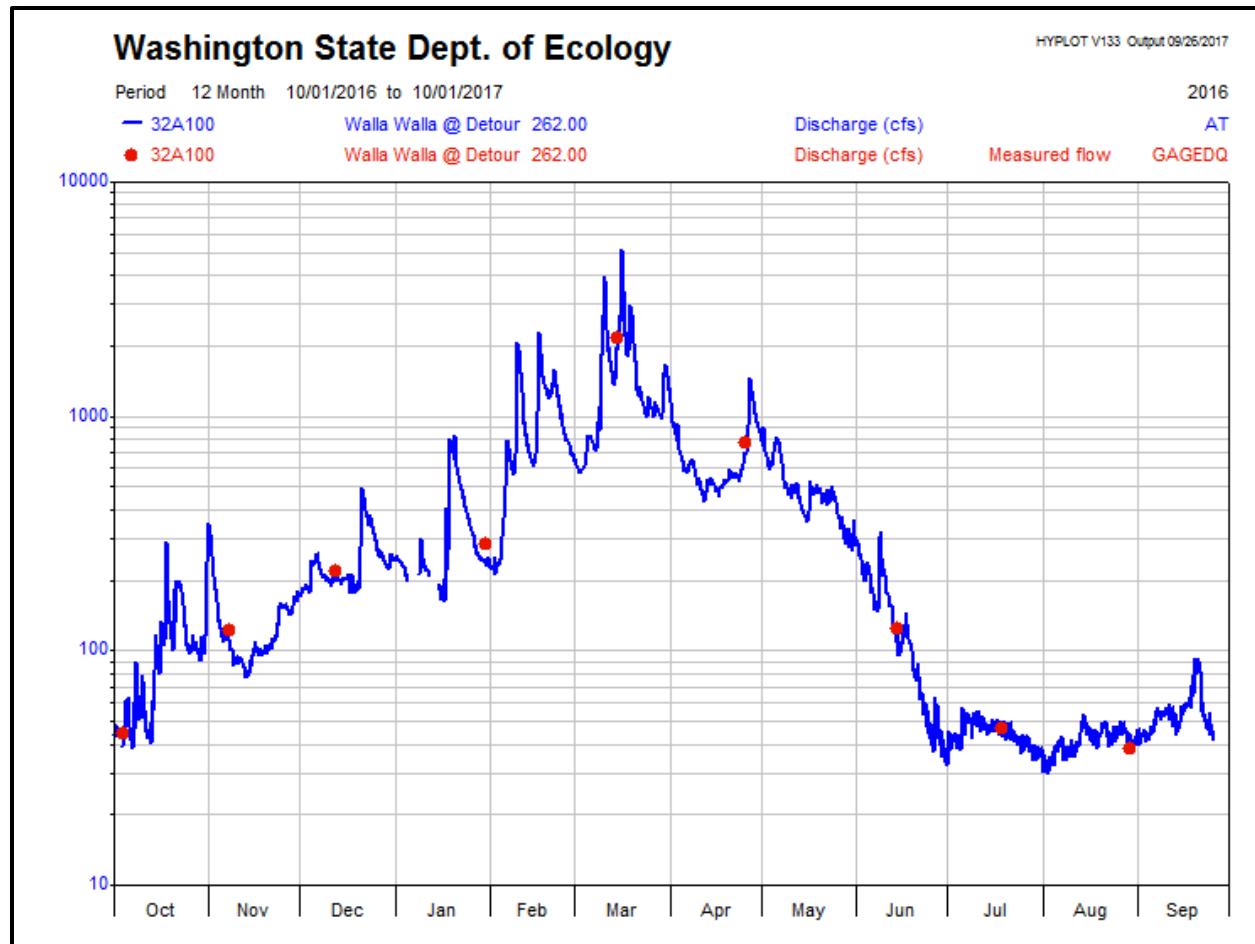


Figure 20 – Water Year 2017 hydrograph for Washington Department of Ecology's Walla Walla River at Detour Road (32A100) gage.

ALLUVIAL WELL RESPONSES

Groundwater monitoring (Figure 21 & 22) at the Locher Road site includes four “on-site” monitoring wells (GW_57, GW_70, GW_71 and GW_72), three down-gradient monitoring wells (GW_108, GW_110 and GW_122) and two down-gradient irrigation wells (GW_103 and GW_104). The four on-site wells surround the site with GW_70 in the up-gradient direction, GW_72 and GW_57 immediately down-gradient of the site and GW_71 farther down-gradient. Wells 70, 71 and 72 are shallow alluvial aquifer monitoring wells that were drilled in 2005 to monitor site operations and aquifer response while well 57 was drilled in 1972-73 to be fully open to the entire gravel sequence. The on-site monitoring wells all show a similar response to canal operations (Figures 23-26). Water levels rise in early October with the start of the Gardena Farms Canal for fall irrigation. The canal was turned off in early December. Starting in early December water levels show neutral to slightly increasing conditions until the canal turned on again in early February.

Groundwater levels increase slowing over the spring irrigation season. Water levels start to decline as canal operations are reduced and eventually shut down in early summer. Down-gradient wells typically show a similar response, but the response is either muted or delayed (Figures 27-29). One of the offsite, distal, monitoring wells, GW_108, also shows the influence of nearby groundwater pumping on alluvial aquifer water levels starting in late May and continuing until mid-August.

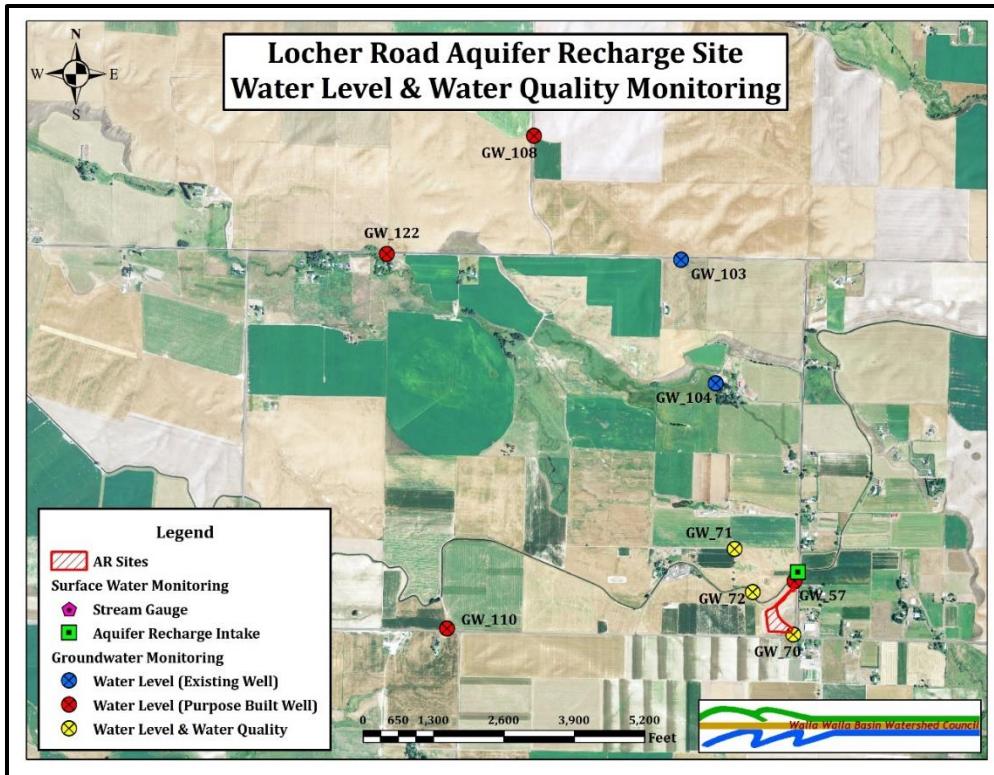


Figure 21 – Map showing groundwater monitoring sites for the Locher Road Aquifer Recharge Site.

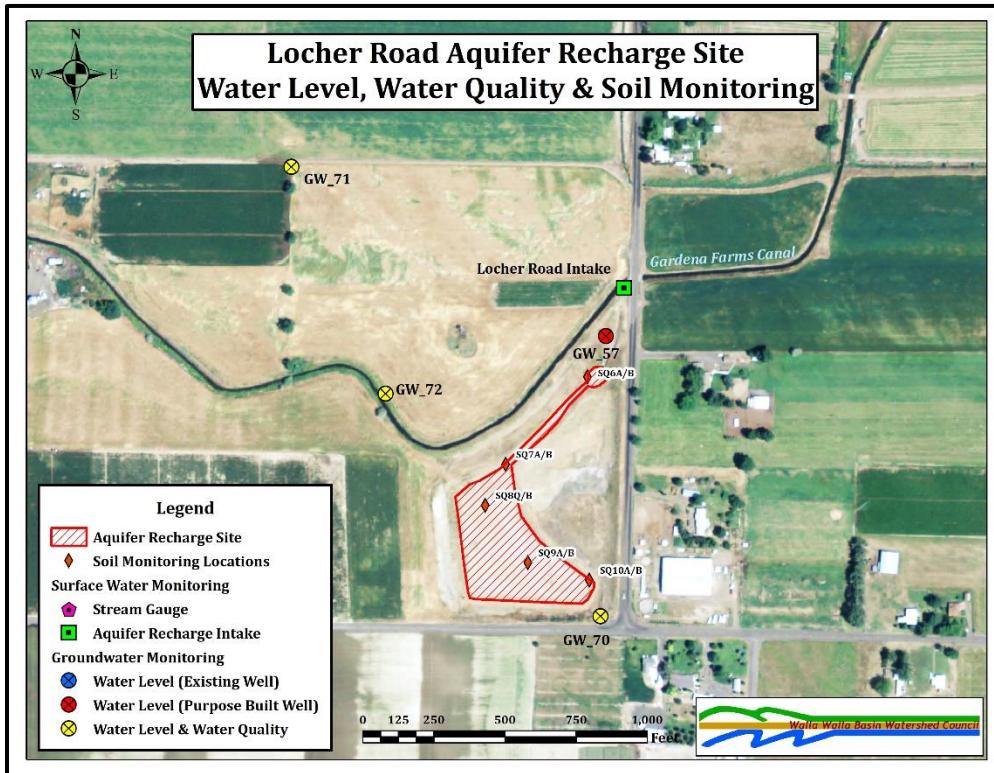


Figure 22 - Map showing groundwater, surface water and soil monitoring locations for the Locher Road site.

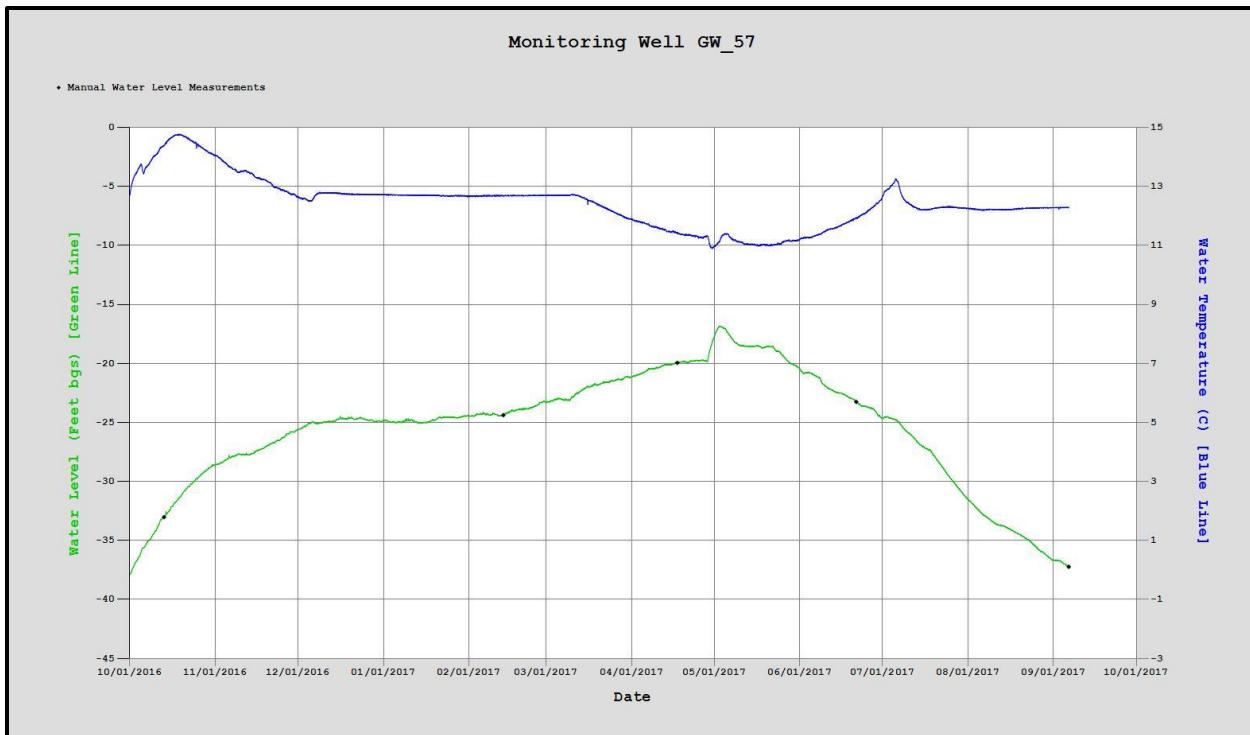


Figure 23 - Hydrograph for GW_57 during the WY 2017 recharge season.

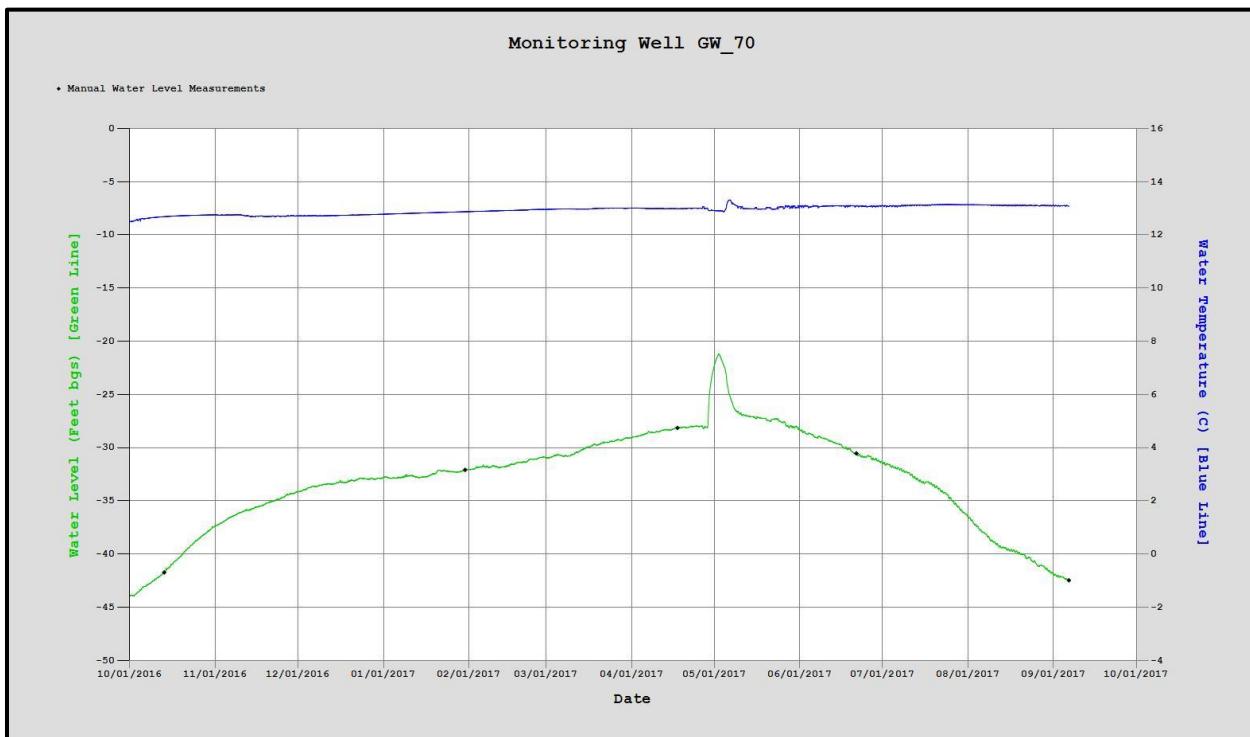


Figure 24 - Hydrograph for GW_70 during the WY 2017 recharge season.

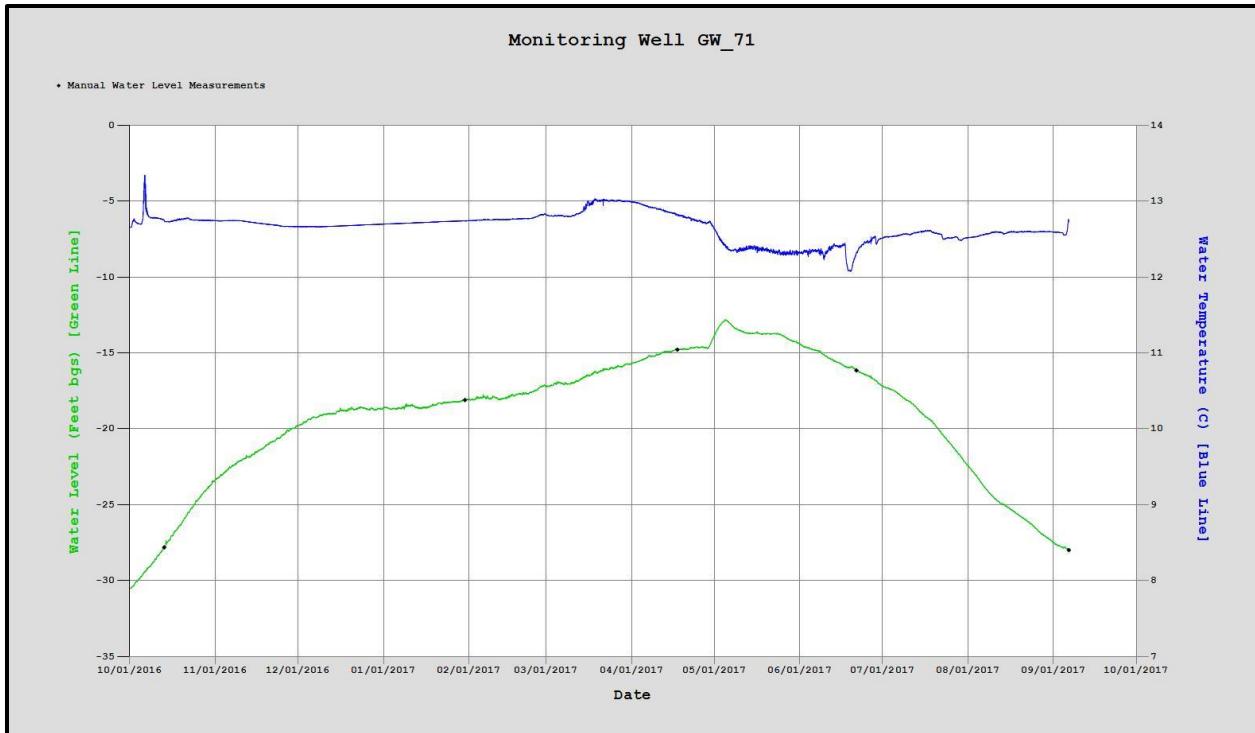


Figure 25 - Hydrograph for GW_71 during the WY 2017 recharge season. The pressure transducer failed sometime before early February, 2017.

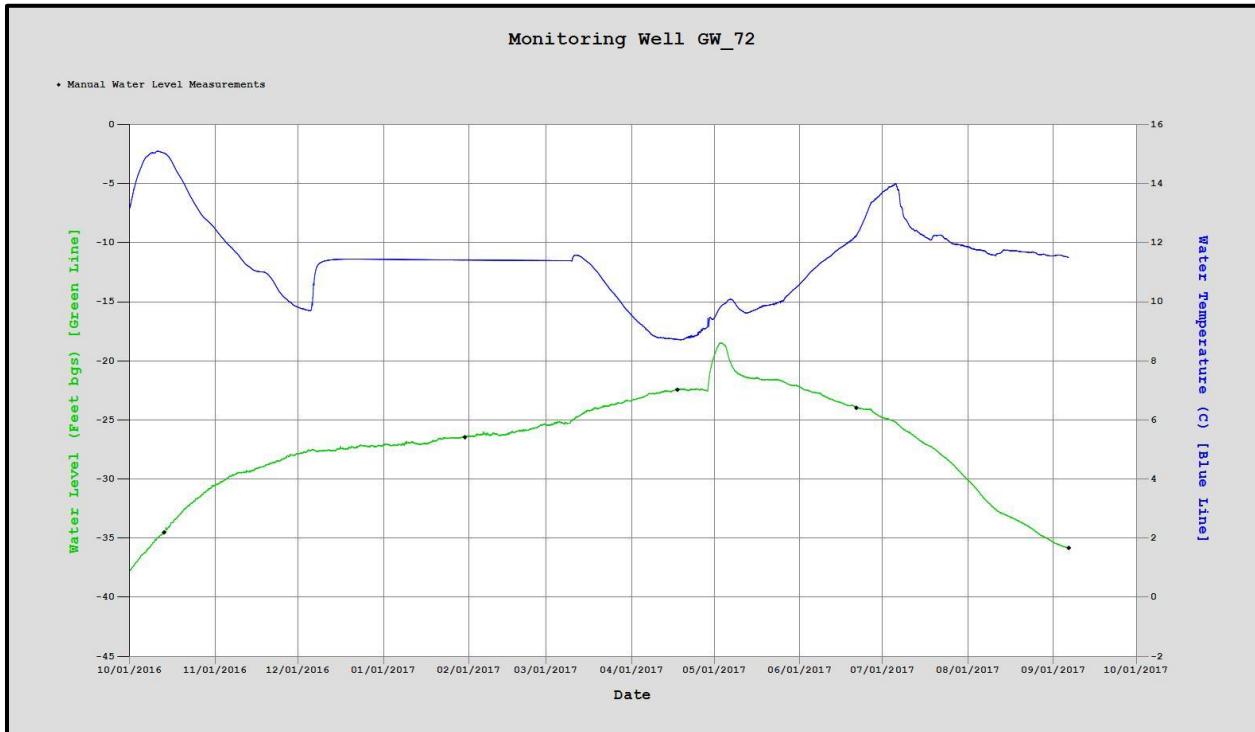


Figure 26 - Hydrograph for GW_72 during the WY 2017 recharge season.

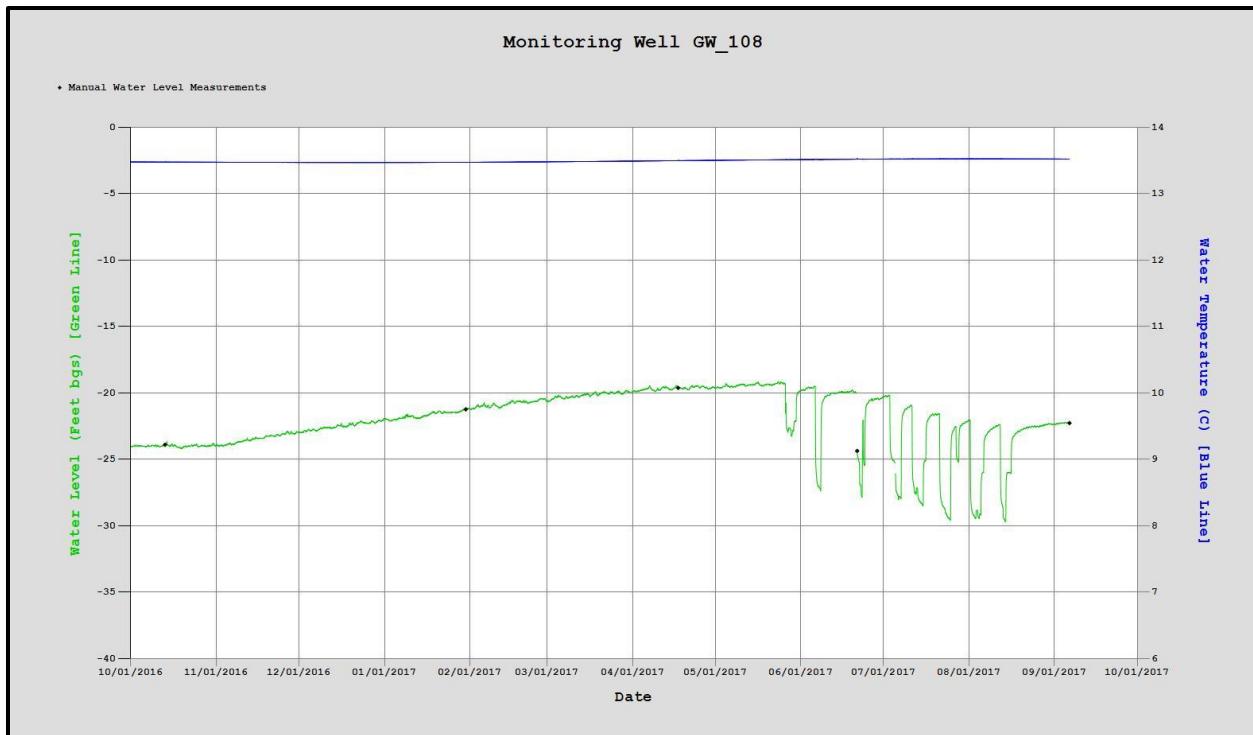


Figure 27 - Hydrograph for GW_108 during the WY 2017 recharge season. The pressure transducer failed sometime before mid-february.

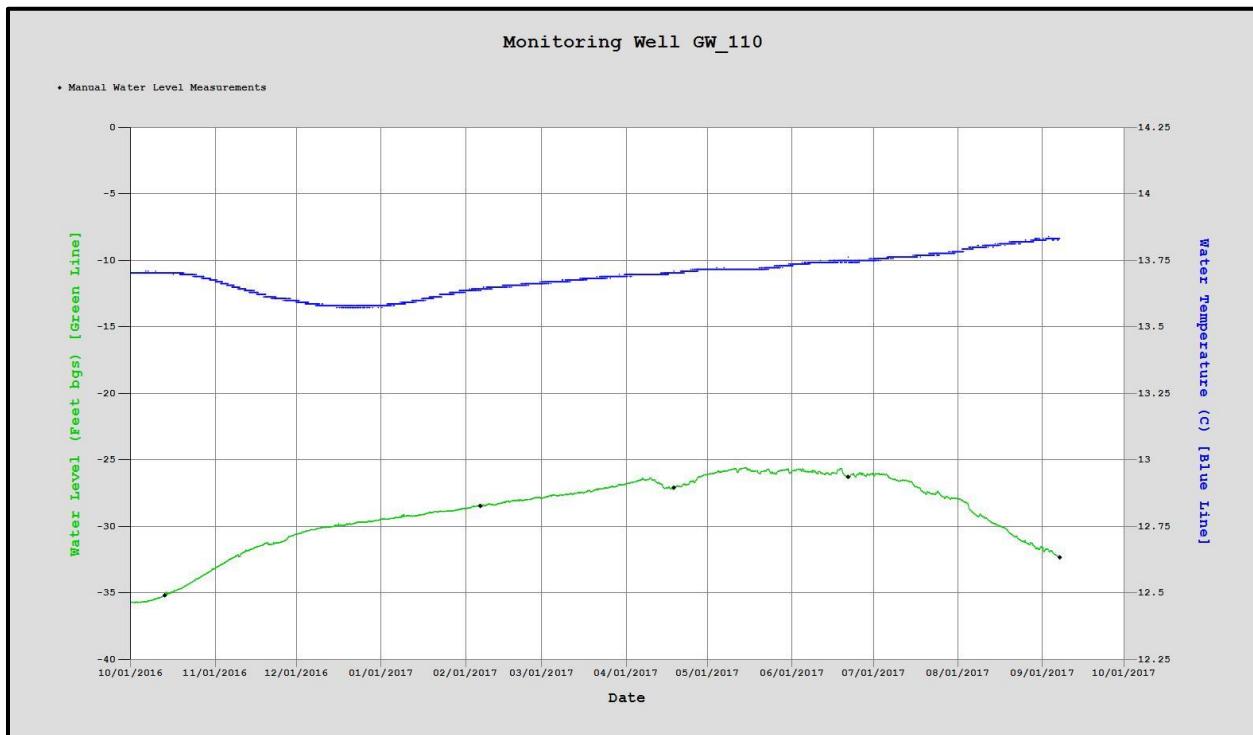


Figure 28 - Hydrograph for GW_110 during the WY 2017 recharge season.

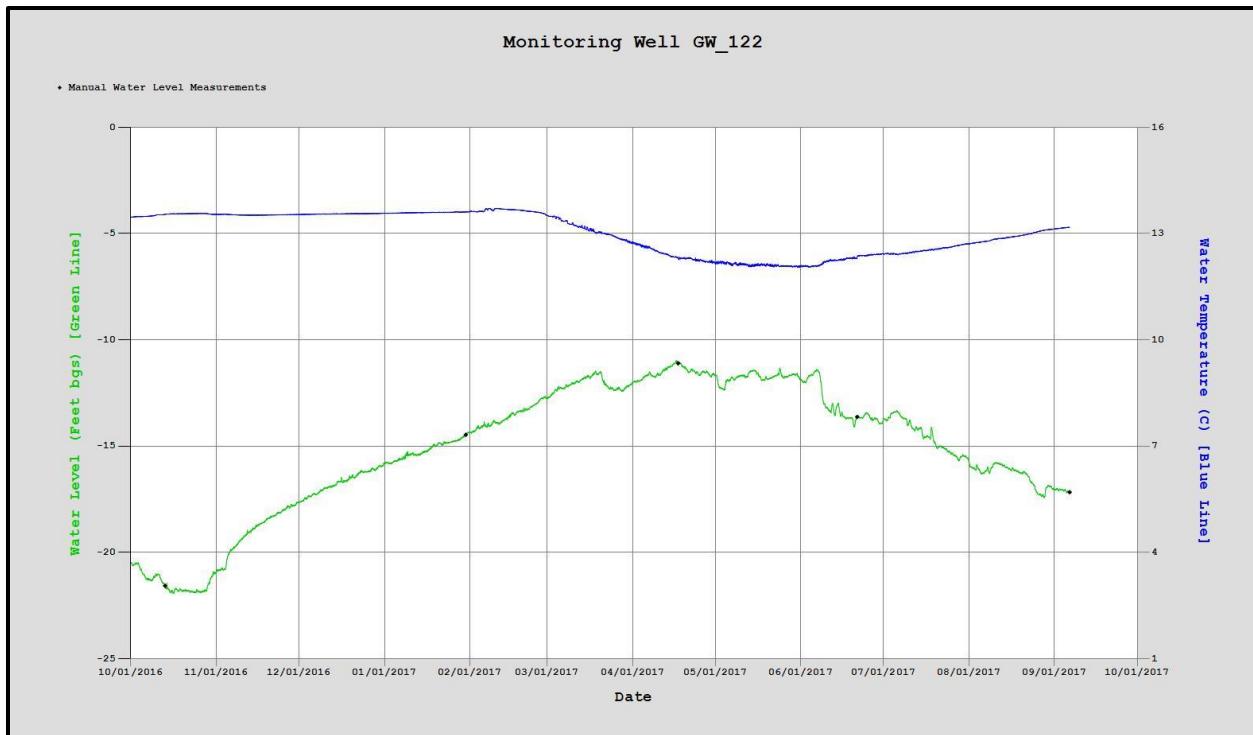


Figure 29 - Hydrograph for GW_122 during the WY 2017 recharge season.

WATER QUALITY

Because the Locher Road site did not operate, water quality samples were not collected during the WY2017 recharge season.

SOIL QUALITY

Because the Locher Road site did not operate, soil quality samples were not collected during the WY2017 recharge season.

STILLER POND

OVERVIEW

The WWCCD operated the Stiller Pond Aquifer Recharge site during the WY2017 recharge season. WWBWC staff collected groundwater and surface water monitoring data, including water and soil quality samples while WWCCD operated the site and collected inflow data. The Stiller Pond site operated under the WWWMP Local Water Plan LW-10-02 which allows 32 acre-feet to be recharged to the shallow alluvial aquifer and the EEP temporary authorization for up to 991 acre-feet. Minimum in-stream flows did prevent the site from operating during portions of the WY2017 season from early April until shutdown in May (Figures 30, 33-36). Mill Creek was monitored at two locations, above the site at Wallula Road (Figure 30) and below the site at Swegle Road (Figure 31). During the WY2017 recharge season 279 acre-feet of water was delivered to the site.

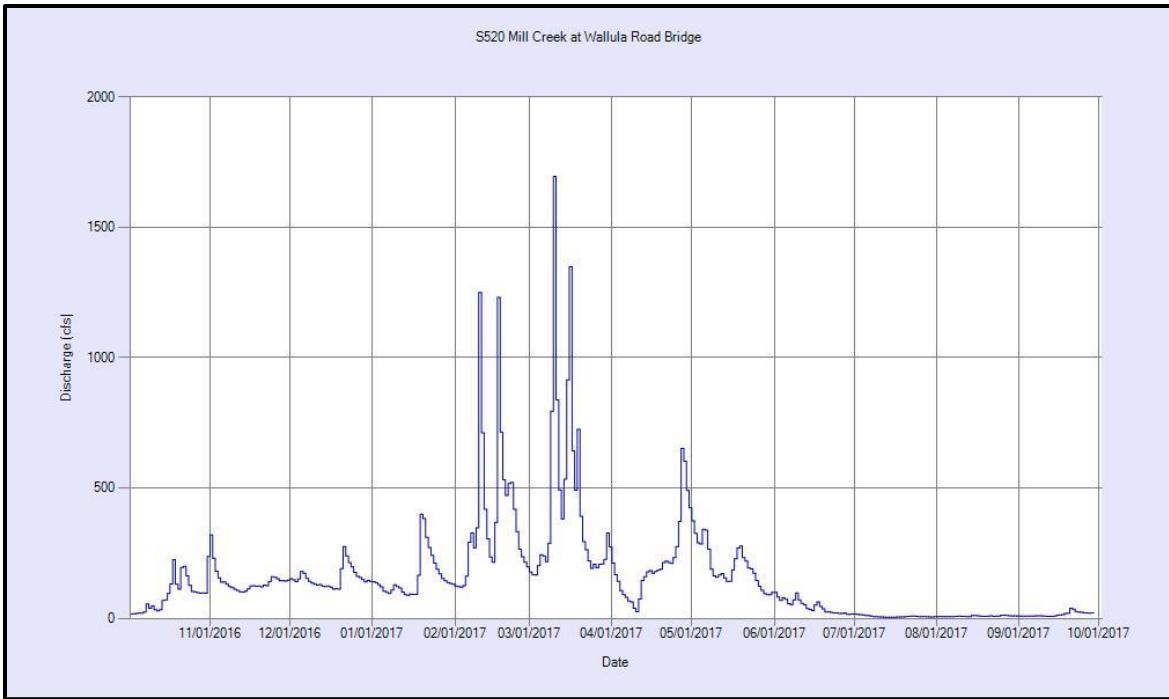


Figure 30 - 2017 hydrograph for WWBWC's Mill Creek at Wallula Road (S520) gage.

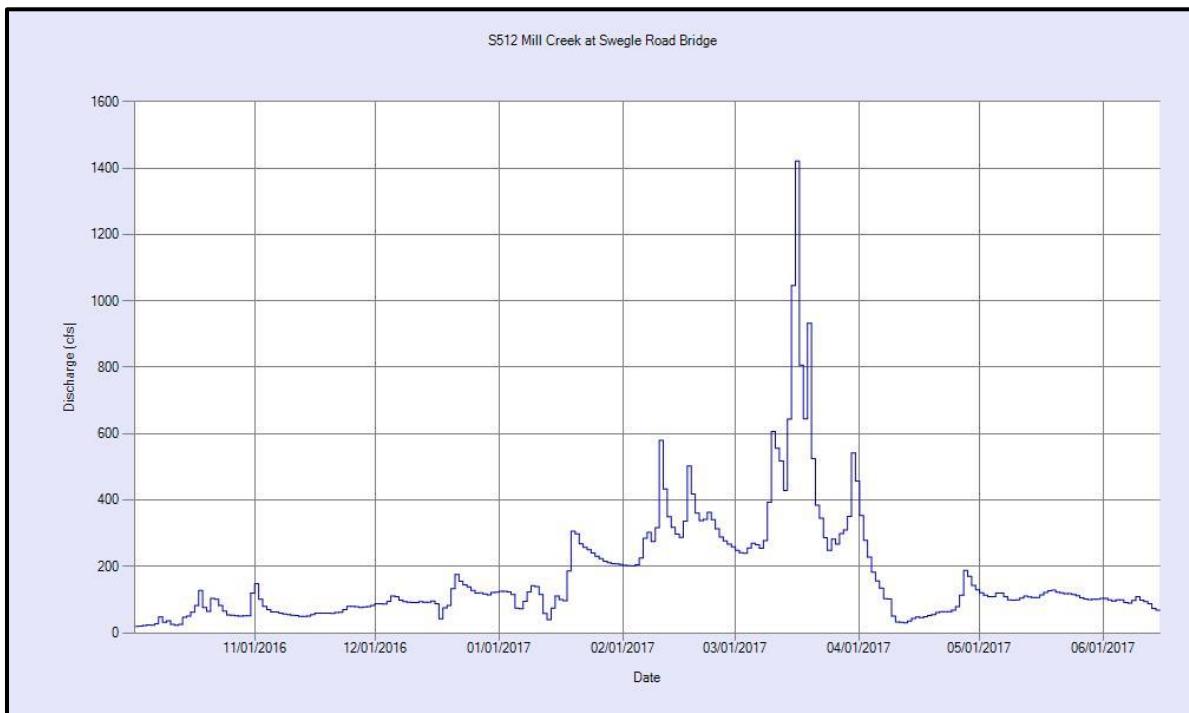


Figure 31 - 2017 hydrograph for WWBWC's Mill Creek at Swegle Road (S512) gage. Note, this site only operated from October 2016 to mid-June 2017. Channel changes and excessive gravel deposition at this gage location made rating curve development difficult during the 2017 water year.

ALLUVIAL WELL RESPONSES

Groundwater monitoring (Figure 32) at the Stiller Pond site includes four on-site monitoring wells (GW_136, GW_145, GW_146 and GW_147). The four on-site wells surround the site with GW_147 up-gradient, GW_136 immediately down-gradient of the site and GW_145 and GW_146 farther down-gradient. All of the on-site wells are purpose-built monitoring wells. All of the on-site wells show a similar response during and after recharge operations (Figures 33-36). Water levels start to rise coinciding with the start of recharge operations in mid-January. Water levels appear to peak in late March or early April coinciding with the interrupted recharge operations due to low instream flows. After recharge operations ended in mid-May water levels start a slow decline throughout the summer months. See summary section for additional details on Stiller Pond groundwater responses.

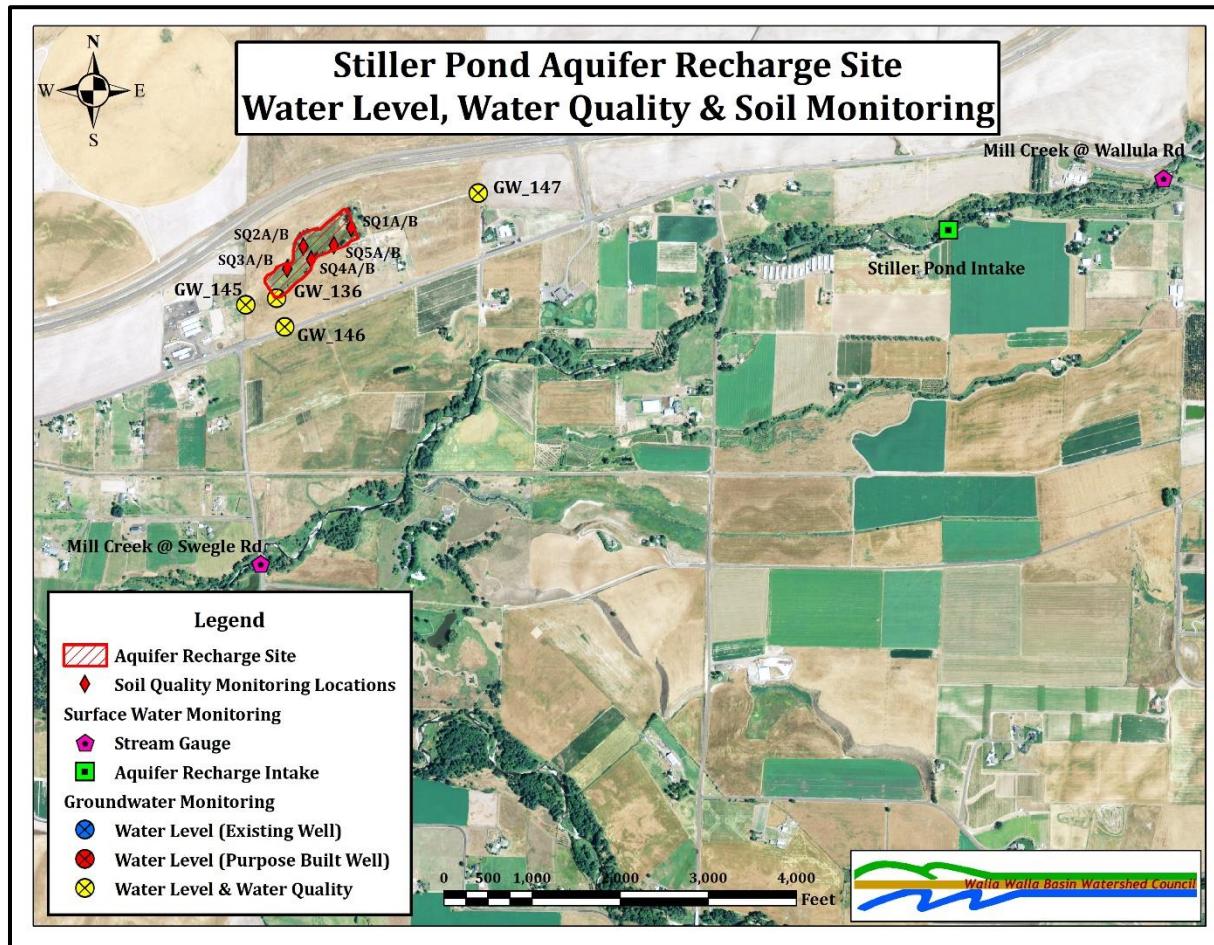


Figure 32 - Map showing groundwater, surface water and soil monitoring sites for the Stiller Pond Aquifer Recharge Site.

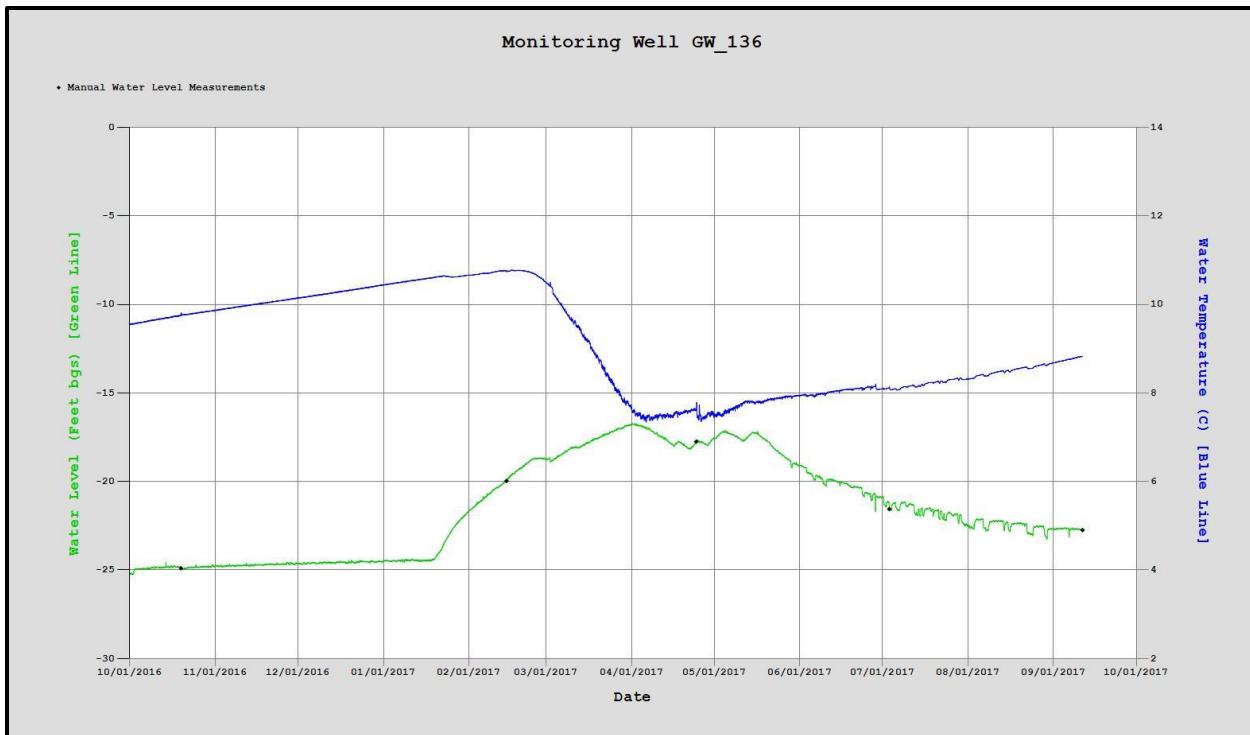


Figure 33 - Hydrograph for GW_136 during the WY 2017 recharge season.

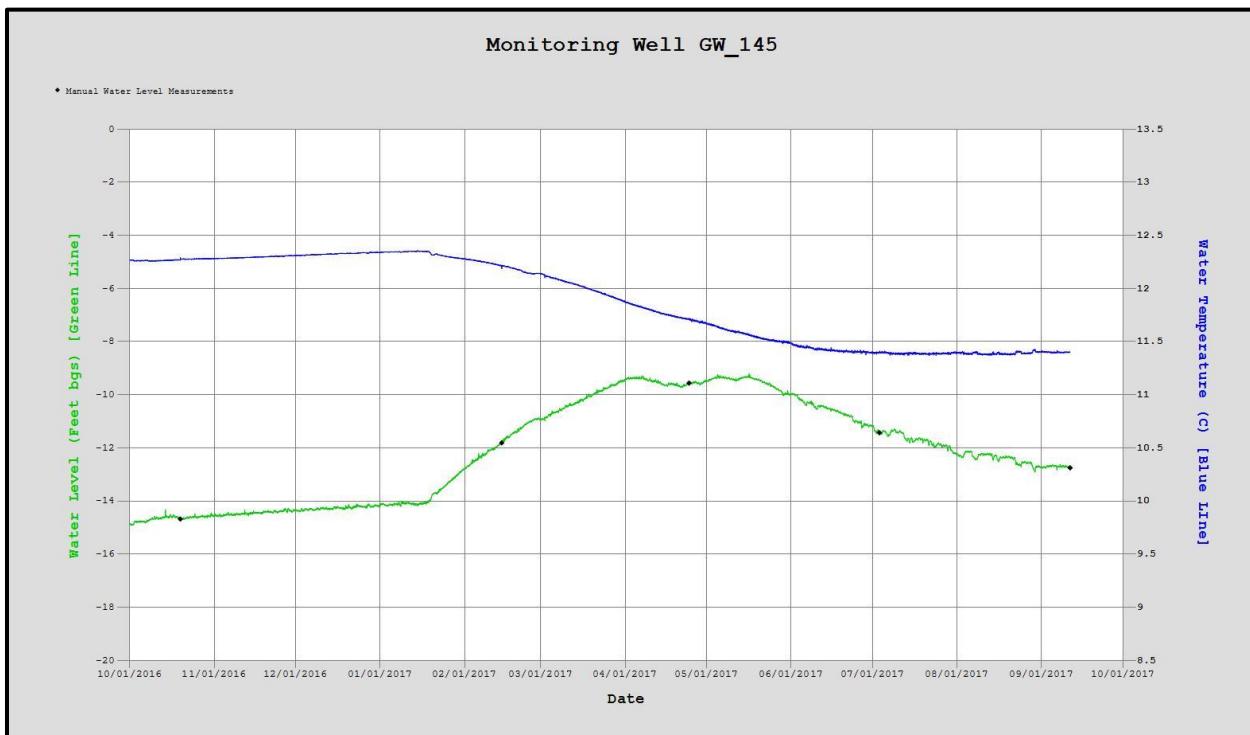


Figure 34 - Hydrograph for GW_145 during the WY 2017 recharge season.

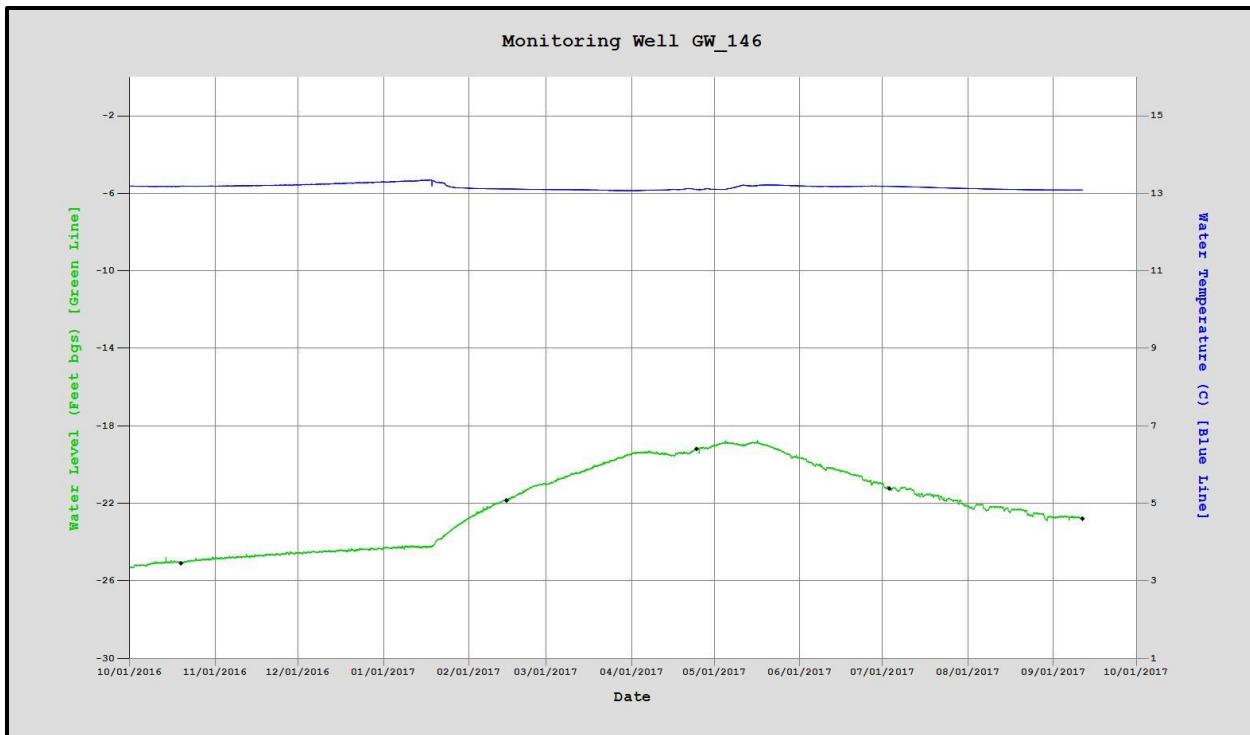


Figure 35 - Hydrograph for GW_146 during the WY 2017 recharge season.

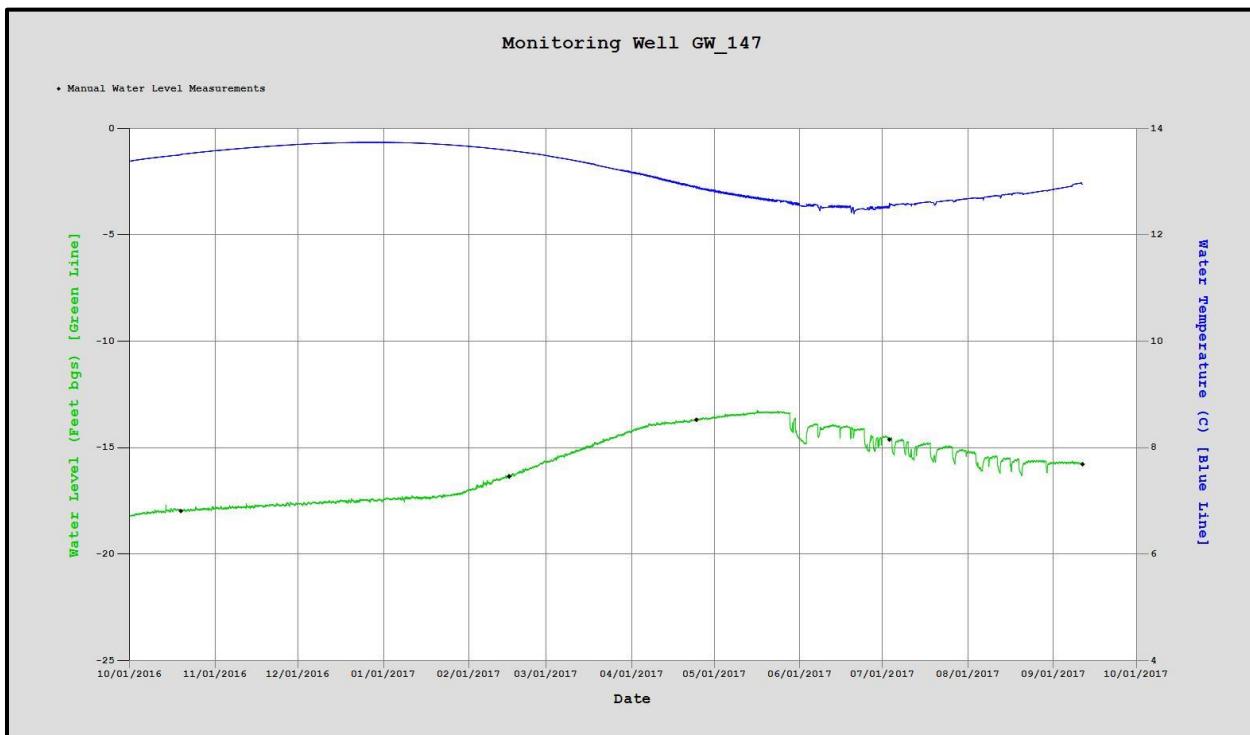


Figure 36 - Hydrograph for GW_147 during the WY 2017 recharge season.

WATER QUALITY

Full water quality data and laboratory QA records can be found in Appendix B.

SOURCE WATER

Sample Parameter	March 2 nd , 2017	April 25 th , 2017	June 28 th , 2017
Nitrate	1.45	0.5	2.13
Ortho-Phosphate (mg/L)	0.13	0.30	0.16
Total Dissolved Solids (mg/L)	99	83	155
Iron (mg/L)	0.22	0.16	0.12
Total Phosphorus (mg/L)	0.145	0.097	0.166
Polychlorinated Biphenyls (pg/L)	43.9	113	85.6

UP-GRADIENT WELL (GW_147)

Sample Parameter	March 2 nd , 2017	April 25 th , 2017	June 28 th , 2017
Nitrate	4.36	4.49	4.98
Ortho-Phosphate (mg/L)	0.19	0.50	0.17
Total Dissolved Solids (mg/L)	263	258	282
Iron (mg/L)	0.03	ND	0.05
Total Phosphorus (mg/L)	0.179	0.16	0.153
Polychlorinated Biphenyls (pg/L)	720	716	180

MID-GRADIENT WELL (GW_136)

Sample Parameter	March 2 nd , 2017	April 25 th , 2017	June 28 th , 2017
Nitrate	0.58	0.51	0.72
Ortho-Phosphate (mg/L)	0.24	0.43	0.21
Total Dissolved Solids (mg/L)	155	147	173
Iron (mg/L)	0.26	ND	0.05
Total Phosphorus (mg/L)	0.290	0.292	0.294
Polychlorinated Biphenyls (pg/L)	545	403	146

DOWN-GRADIENT WELL (GW_145)

Sample Parameter	March 2 nd , 2017	April 25 th , 2017	June 28 th , 2017
Nitrate	3.44	2.69	2.95
Ortho-Phosphate (mg/L)	0.15	0.45	0.14
Total Dissolved Solids (mg/L)	268	241	318
Iron (mg/L)	0.06	0.06	ND
Total Phosphorus (mg/L)	0.141	0.196	0.125
Polychlorinated Biphenyls (pg/L)	481	561	57.2

DOWN-GRADIENT WELL (GW_146)

Sample Parameter	March 2 nd , 2017	April 25 th , 2017	June 28 th , 2017
Nitrate	7.49	4.52	9.91
Ortho-Phosphate (mg/L)	0.12	0.44	0.11
Total Dissolved Solids (mg/L)	361	296	515
Iron (mg/L)	0.05	0.07	0.05
Total Phosphorus (mg/L)	0.101	0.109	0.096
Polychlorinated Biphenyls (pg/L)	586	581	169

SOIL QUALITY

Full soil quality data and laboratory QA records can be found in Appendix B.

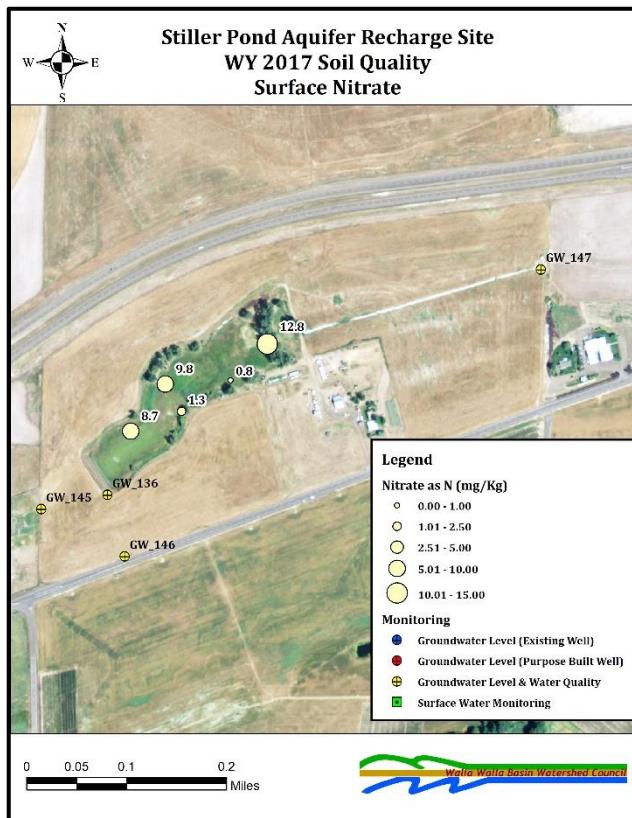


Figure 37 – Surface soil nitrate values at the Stiller Pond site during the WY2017 recharge season. See Figure 30 for soil quality monitoring names and locations.

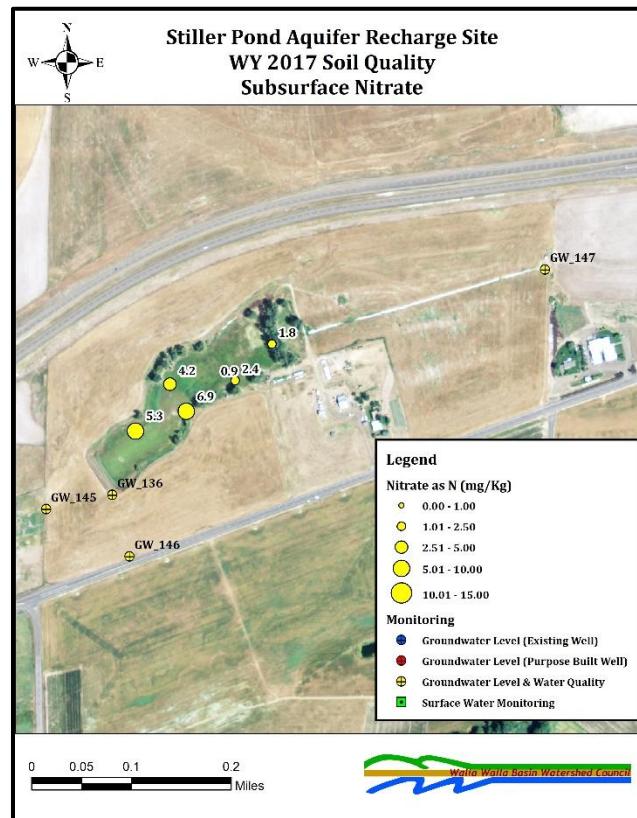


Figure 38 - Subsurface (~1' below ground surface) soil nitrate values at the Stiller Pond site during the WY2017 recharge season. See Figure 30 for soil quality monitoring names and locations. A duplicate was sampled at location SQ5B, therefore, two values are indicated on the map.

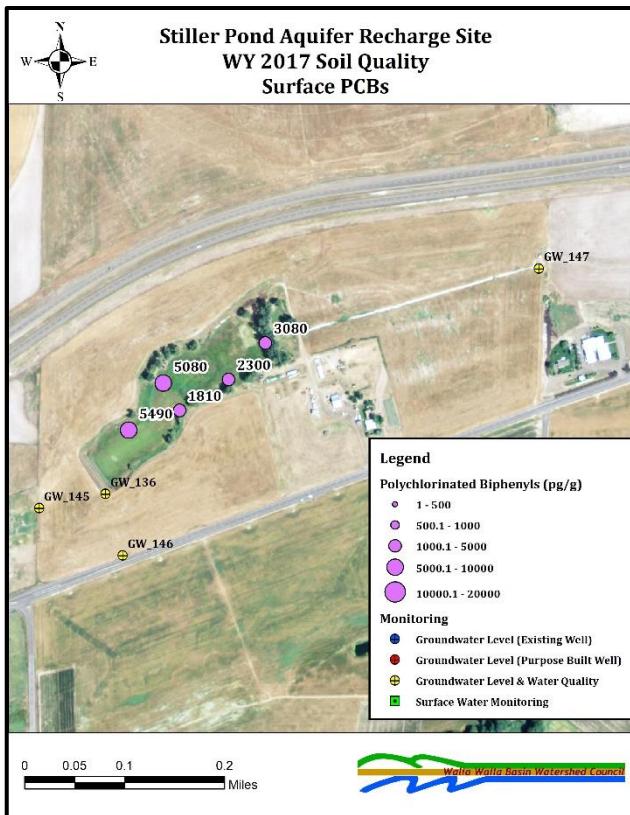


Figure 39 – Surface soil Polychlorinated Biphenyls (PCBs) values at the Stiller Pond site during the WY2017 recharge season. See Figure 30 for soil quality monitoring names and locations.

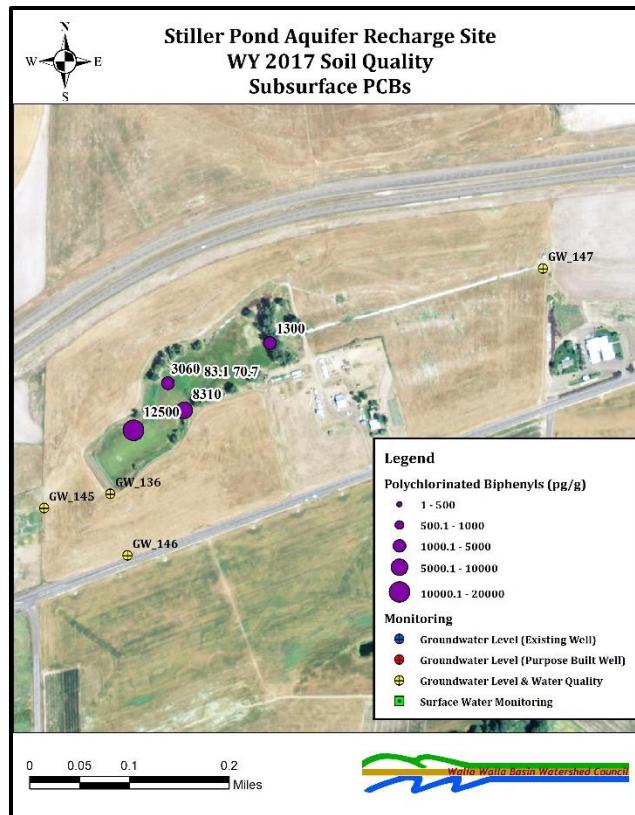


Figure 40 - Subsurface (~1' below ground surface) soil Polychlorinated Biphenyls (PCBs) values at the Stiller Pond site during the WY2017 recharge season. See Figure 30 for soil quality monitoring names and locations. A duplicate was sampled at location SQ5B, therefore, two values are indicated on the map (83.1 and 70.7).

SQ1A/B

Sample Parameter	A - June 29 th , 2017	B - June 29 th , 2017
Total Solids – Soil (%)	90.29	88.07
Nitrate – N (mg/Kg)	12.8	1.8
Ortho-Phosphate (mg/Kg)	2.54	2.62
Total Phosphorus (mg/Kg)	1,058	868
Polychlorinated Biphenyls (pg/g)	3,080	1,300

SQ2A/B

Sample Parameter	A - June 29 th , 2017	B - June 29 th , 2017
Total Solids – Soil (%)	77.06	79.58
Nitrate – N (mg/Kg)	9.8	4.2
Ortho-Phosphate (mg/Kg)	1.02	2.4
Total Phosphorus (mg/Kg)	643	604
Polychlorinated Biphenyls (pg/g)	5,080	3,060

SQ3A/B

Sample Parameter	A - June 29 th , 2017	B - June 29 th , 2017
Total Solids - Soil (%)	82.06	81.96
Nitrate - N (mg/Kg)	8.7	5.3
Ortho-Phosphate (mg/Kg)	1.17	2.35
Total Phosphorus (mg/Kg)	741	823
Polychlorinated Biphenyls (pg/g)	5,490	12,500

SQ4A/B

Sample Parameter	A - June 29 th , 2017	B - June 29 th , 2017
Total Solids - Soil (%)	40.01	72.80
Nitrate - N (mg/Kg)	1.3	6.9
Ortho-Phosphate (mg/Kg)	0.75	3.03
Total Phosphorus (mg/Kg)	757	747
Polychlorinated Biphenyls (pg/g)	1,810	8,310

SQ5A/B

Sample Parameter	A - June 29 th , 2017	B - June 29 th , 2017
Total Solids - Soil (%)	58.87	74.60 (70.07)
Nitrate - N (mg/Kg)	0.8	0.9 (2.4)
Ortho-Phosphate (mg/Kg)	2.57	4.90 (5.94)
Total Phosphorus (mg/Kg)	805	650 (652)
Polychlorinated Biphenyls (pg/g)	2,300	83.1 (70.7)

**Note - Values in parenthesis indicate duplicate sample value.*

EXTENT OF PONDED WATER MAP

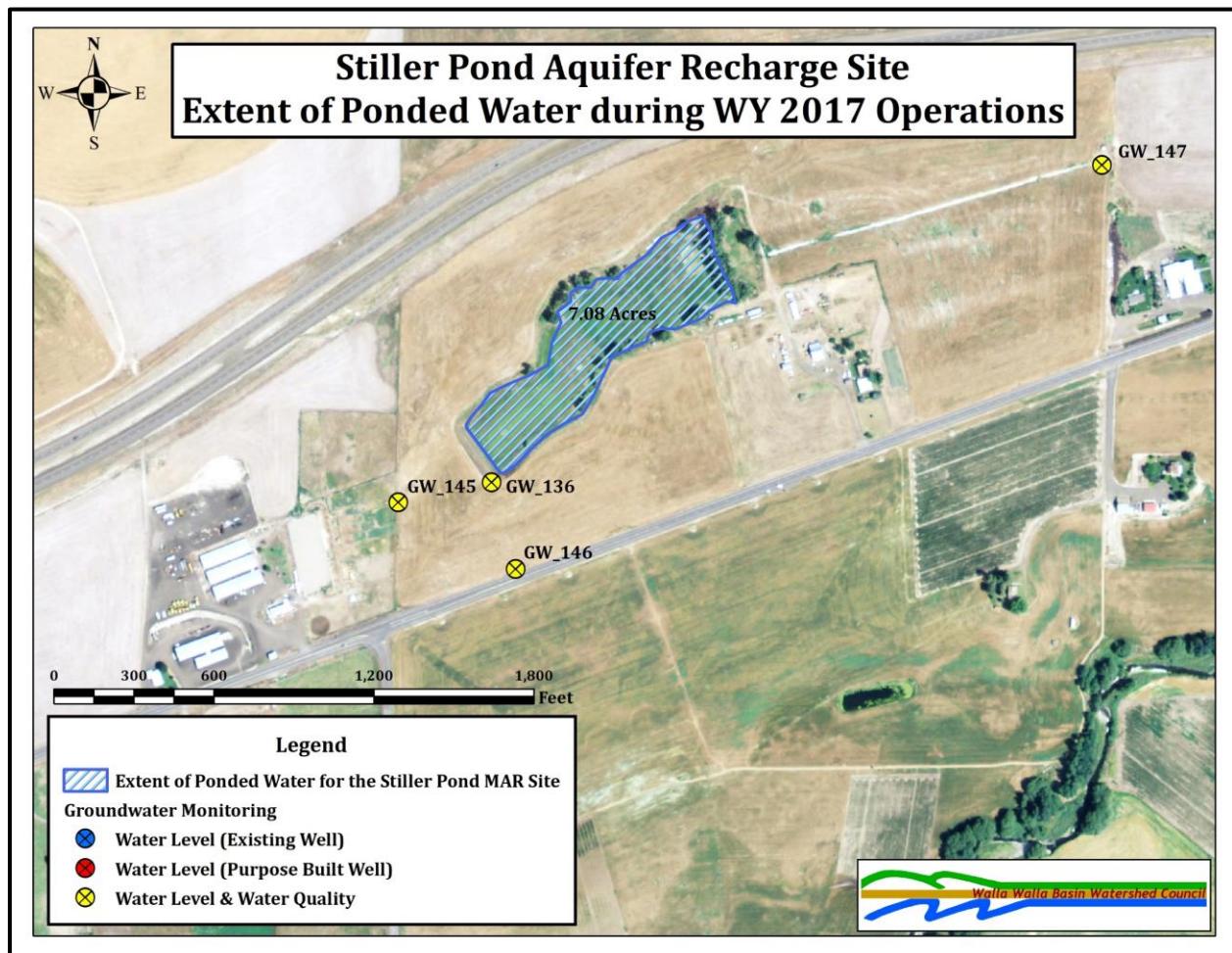


Figure 41 - Map of the Stiller Pond Aquifer Recharge site showing maximum extent of ponded water during operations.

LAST CHANCE ROAD

OVERVIEW

The Last Chance Road site did not operate during the WY2017 recharge season. West Little Walla Walla River flows were monitored at the WWBWC's S-227 gauge (Figure 43) and groundwater levels were monitored at the four monitoring wells. (Figure 42).

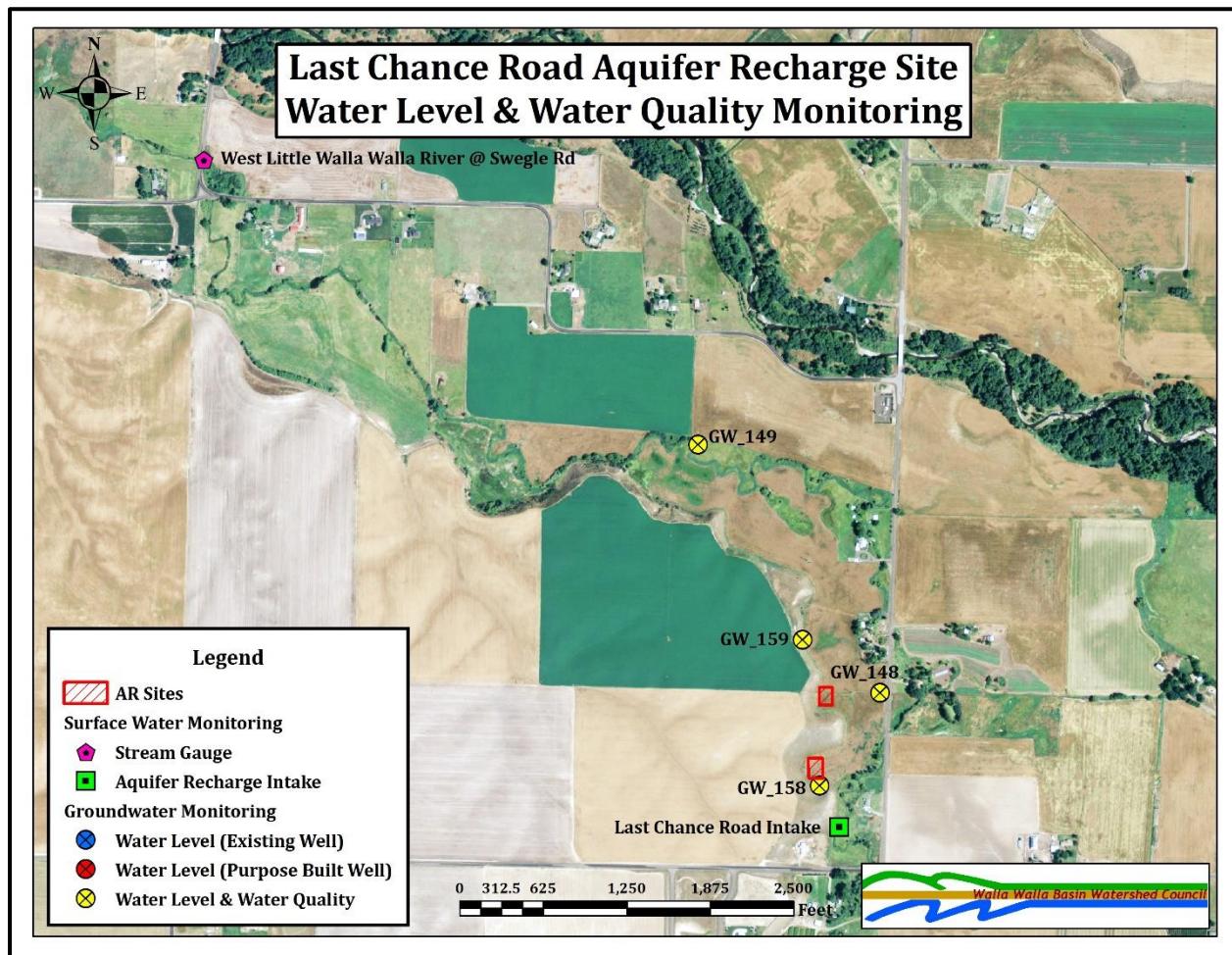


Figure 42 - Map showing groundwater monitoring sites for the Last Chance Road Aquifer Recharge Site.

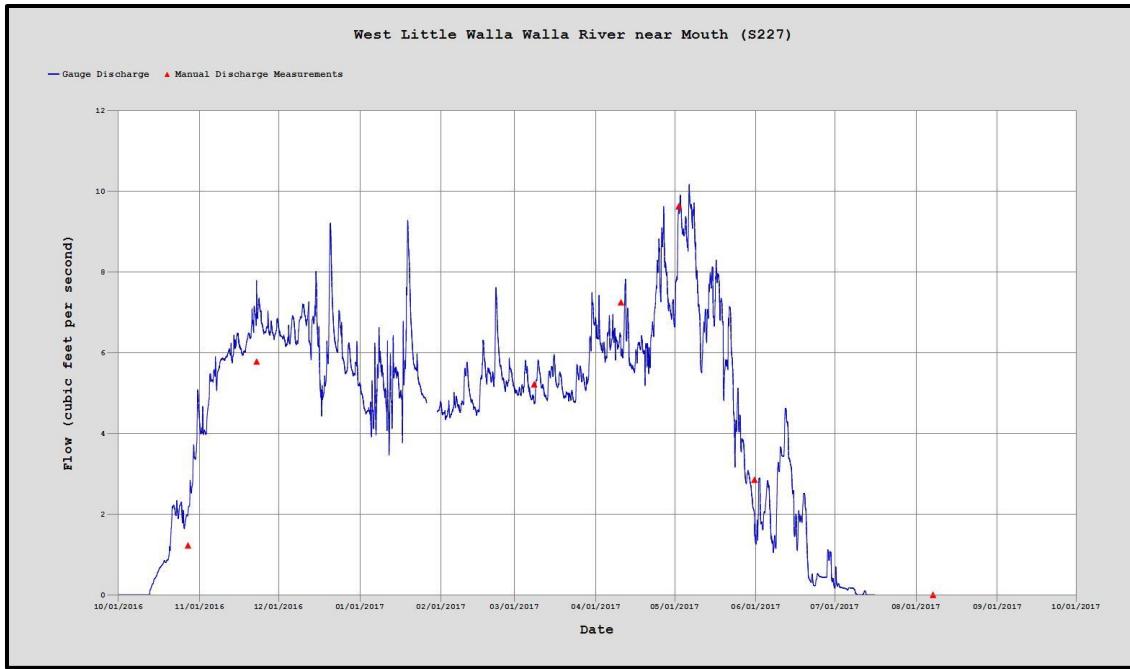


Figure 43 – Water Year 2017 hydrograph for WWBWC's West Little Walla Walla River at Swegle Road (S227) gage. Note: the WLWWR near Mouth S227 was dry from early July to the last measurement point for this site in mid-September.

WATER QUALITY

Because the Last Chance Road site did not operate, water quality samples were not collected during the WY2017 recharge season.

SOIL QUALITY

Because the Last Chance Road site did not operate, soil quality samples were not collected during the WY2017 recharge season.

WA MUD CREEK

OVERVIEW

The WA Mud Creek site did not operate during the WY2017 recharge season (Figure 44). Groundwater levels data were collected at the monitoring wells associated with the project.

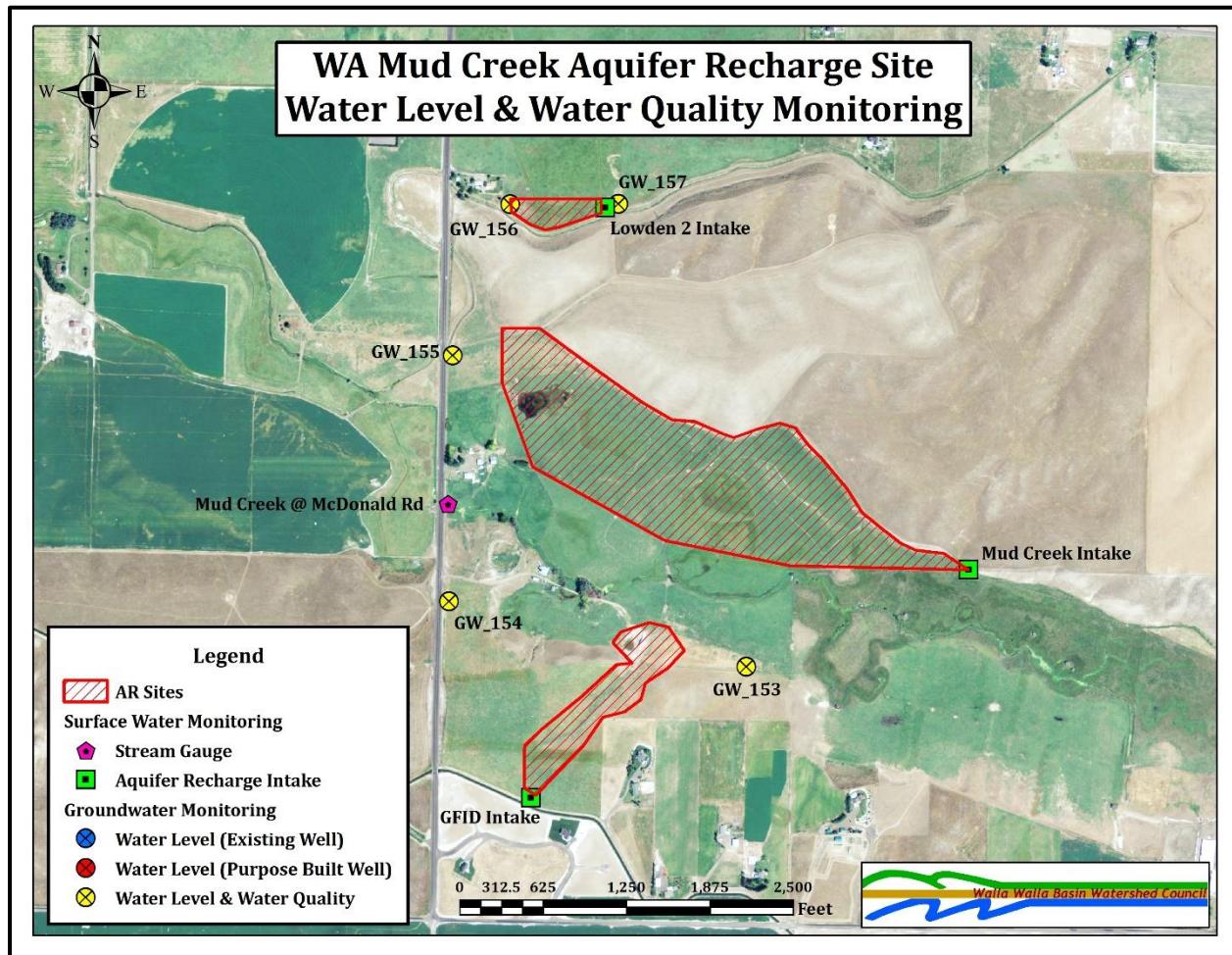


Figure 44 - Map showing groundwater monitoring sites for the WA Mud Creek Aquifer Recharge Site.

WATER QUALITY

Because the WA Mud Creek site did not operate, water quality samples were not collected during the WY2017 recharge season.

SOIL QUALITY

Because the WA Mud Creek site did not operate, soil quality samples were not collected during the WY2017 recharge season.

SUMMARY AND DISCUSSION

GROUNDWATER/SURFACE WATER INTERACTIONS AND TRENDS

The AR program summarized here simulates floodplain function and processes that have been lost due to water resource and urban development, channelization of the river and stream channels for flood control and other uses.

Over the course of the WY2017 recharge season, the aquifer recharge program in the Washington portion of the Walla Walla Basin delivered ~279 acre-feet (~90.9 million gallons) of winter/spring run-off water into the Stiller Pond Aquifer Recharge site. Water levels in the alluvial aquifer at the Stiller Pond site responded to AR activities. A positive trend appears to be present in the groundwater level improvements at the Stiller Pond site (Appendix A – hydrographs GW_136-147).

The Locher Road site did not operate this recharge season. Wells in the Locher Road area show improving groundwater levels from the start of the project in 2007 until approximately 2011-12. Water levels in the area start a yearly decline starting in the summer of 2012. These decreasing water levels coincide with the last phase of the Hyline piping project on the Oregon side of the border that was completed in 2012. Water levels in the area rose during past recharge operations, however the volume of water added to the alluvial aquifer does not appear to be sufficient to overcome the regional deficit (Appendix A). Recharge operations during 2013-2015 were limited in length and volume. WY2016 recharge operations delivered the largest volume of water to the Locher Road site since its construction in 2007. This larger volume of water may have contributed to groundwater level improvements in WY2016, with yearly lows recovering from the historic lows during the WY 2015 drought. However, the lack of recharge operations during WY2017 and the magnitude of the WY2016 recharge volumes should be monitored into the future to determine longer term fluctuations.

Trends and impacts due specifically to recharge operations at the Stiller Pond site cannot yet be inferred due to limited period of record and lack of additional data (tracer studies, etc). However, based upon the few years of data at the site, there appears to be positive trends in groundwater levels at all four monitoring wells (Figure 45). Groundwater elevations have increased approximately 2.5 feet since 2014 when aquifer recharge operations were increased with the temporary EEP. Groundwater improvements are indicated during both winter/spring aquifer recharge operations and summer/fall periods of limited instream flows and irrigation use. In addition, groundwater/surface water interaction in the down-gradient surface water systems have shown improvements that may correspond to groundwater level improvements (see Table 1 and WWBWC, 2017c). Additional years of operation and data collection will be needed to further evaluate the influence of the Stiller Pond site both on groundwater and surface conditions.

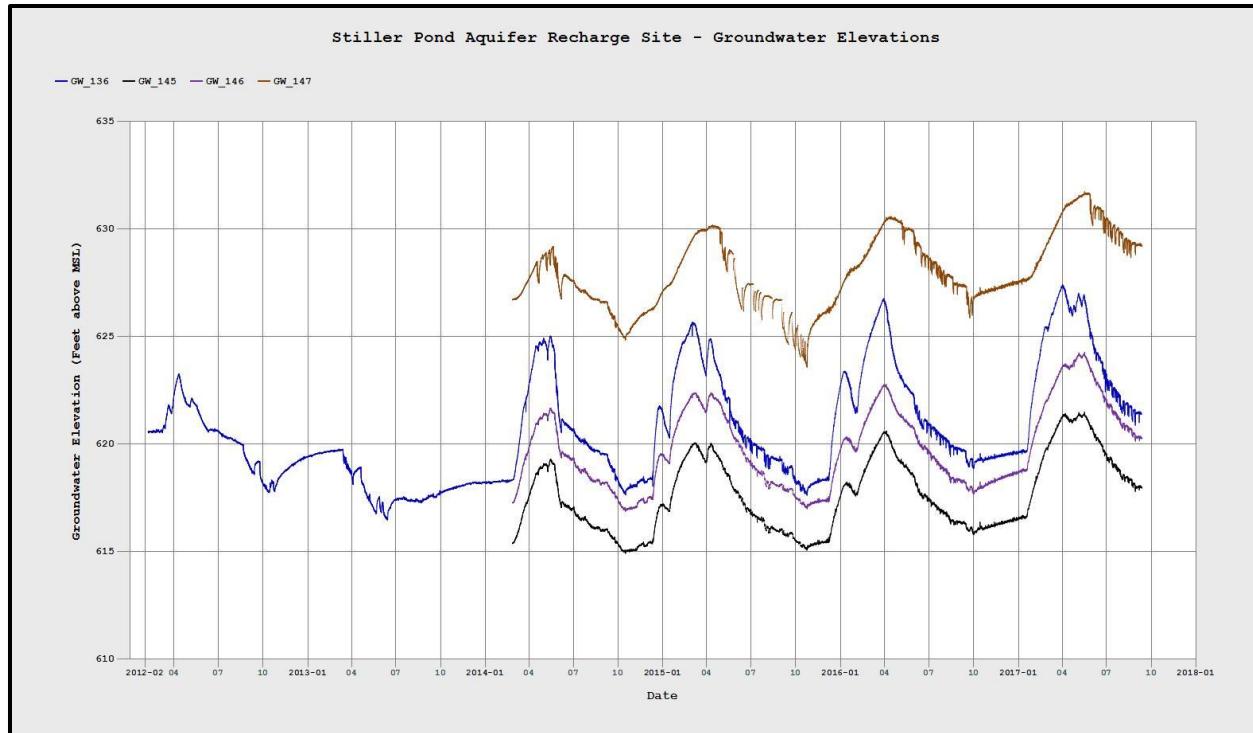


Figure 45 - Groundwater elevation hydrograph for monitoring wells at the Stiller Pond Aquifer Recharge site. Annual groundwater level improvements occurred from 2014 to 2017.

Table 1. Seasonal seepage rates for the Walla Walla River down-gradient from the Stiller Pond Aquifer Recharge site. Values indicate net loss (red) or net gain (green) for the reach above and below the Detour Road bridge (see Figure 46).

Water Year	Seepage Rate - Upstream of Detour Road		Seepage Rate - Downstream of Detour Road	
	Spring/Summer	Fall	Spring/Summer	Fall
2011	0.11	-2.29	3.03	-0.4
2012	-3.54	-4.03	-0.78	4.24
2013	-3.85	-4.68	-1.8	-5.87
2014	1.64	-2.43	7.6	-1.73
2015	0.9	-0.37	-4.78	-3.13
2016	-4.31	3.2	-6.77	1.46

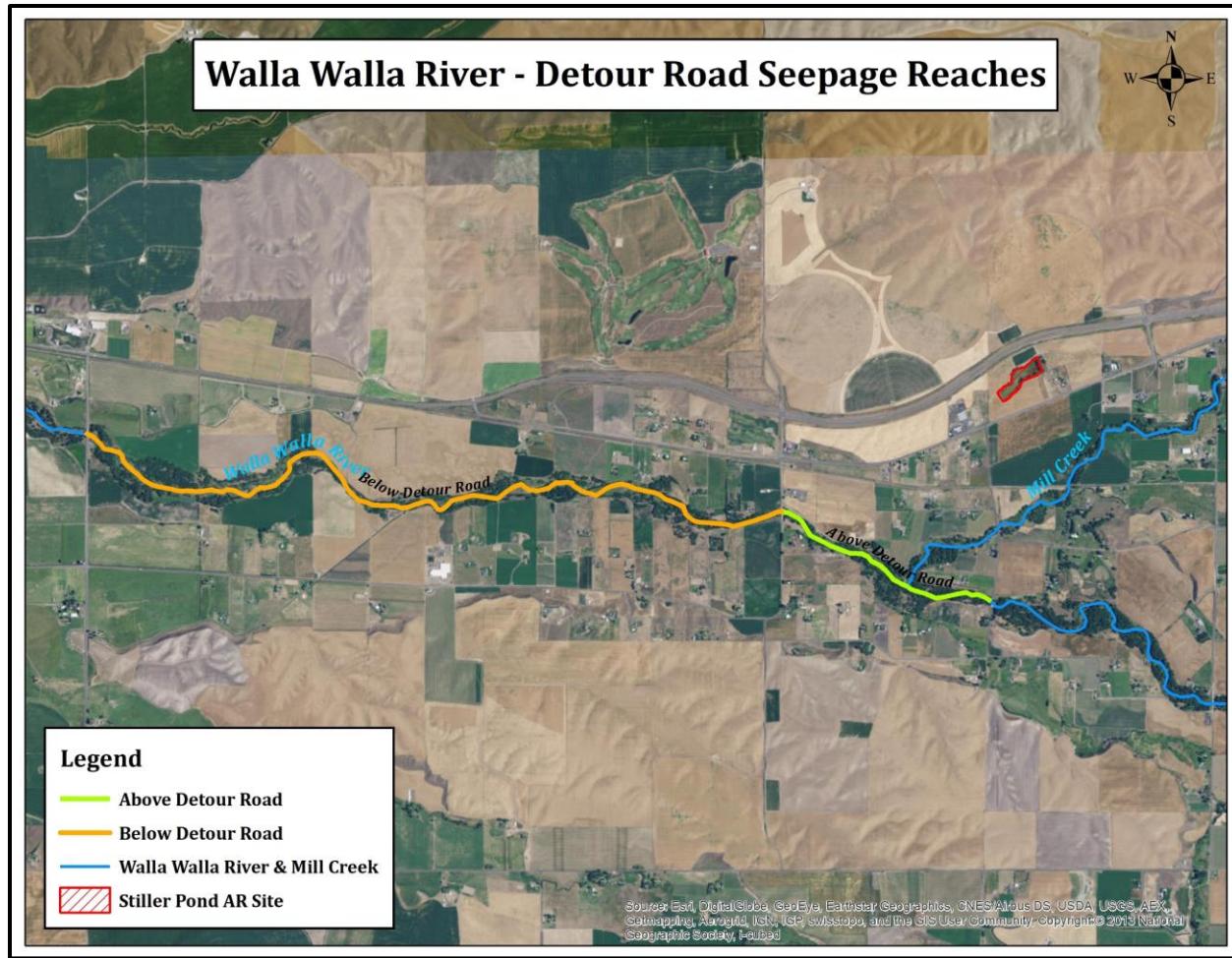


Figure 46 - Walla Walla River seepage reaches in the Detour Road area.

Groundwater levels and potential groundwater flow paths have changed over the last 8 years, based on water table maps (Figures 47 & 48). Water table maps were created from October 2009 data and July 2017 data. Changes in contours and potential flow paths may be due to multiple changes including the addition of new monitoring wells (~40 new wells added between 2009 and 2017), aquifer recharge operations, water management changes (e.g. ditch piping, water banking, local water plans, etc.) and yearly fluctuations in precipitation patterns. Three areas of note include: 1 – the southeast portion of the water table map near Milton-Freewater, OR, 2 – the area around the confluence of Mill Creek and the Walla Walla River and 3 – the lower portion of the Walla Walla Valley. The water table contours changes near Milton-Freewater may indicate a change in groundwater flow direction in a more north-northwest direction instead of just west-northwest. Water table contours in the Mill Creek-Walla Walla River confluence area may corroborate the changes in seepage rates (i.e. reduced loses/increase gains) in the area just below the confluence. And changes to the water table contours in the lower portion of the valley correspond with groundwater declines observed from 2011/2012 to present (WWBWC, 2017a).

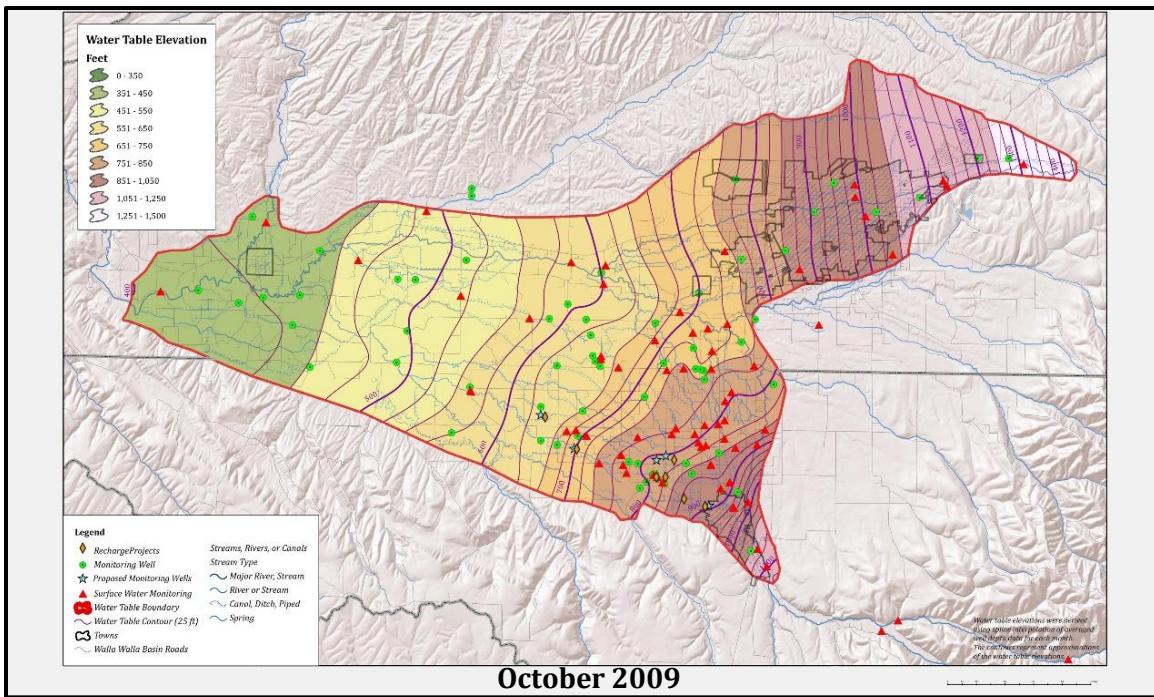


Figure 47 - Water table map for the alluvial aquifer system in the Walla Walla Valley, October 2009.

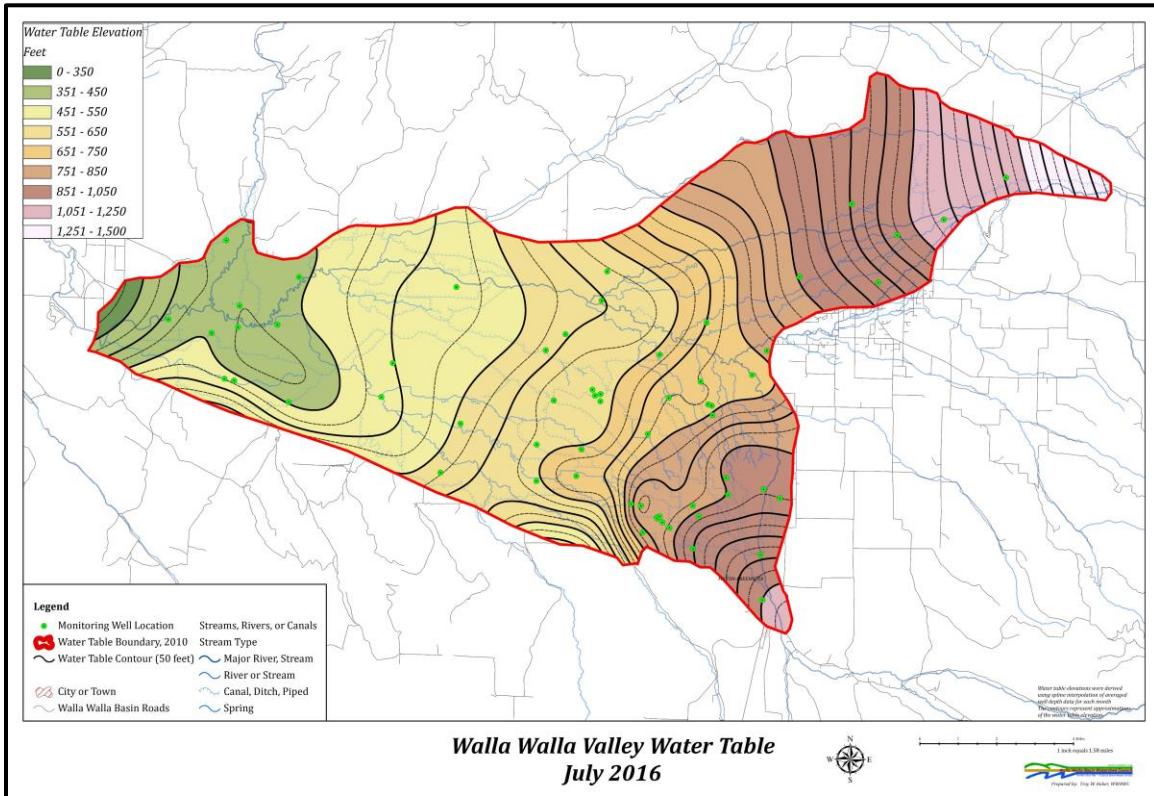


Figure 48 - Water table map for the alluvial aquifer system in the Walla Walla Valley, July 2016.

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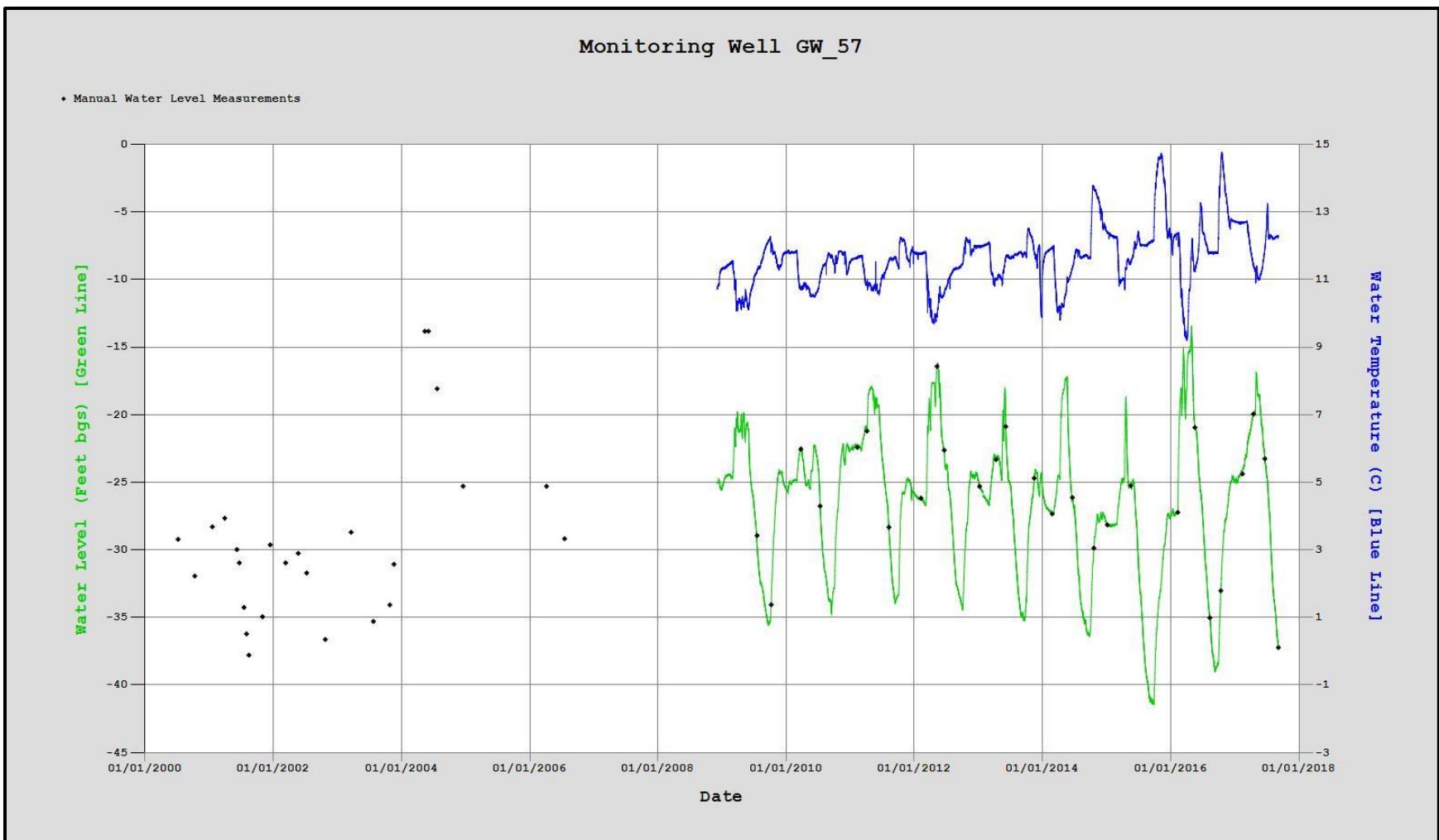
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www.wallawallawatershed.org

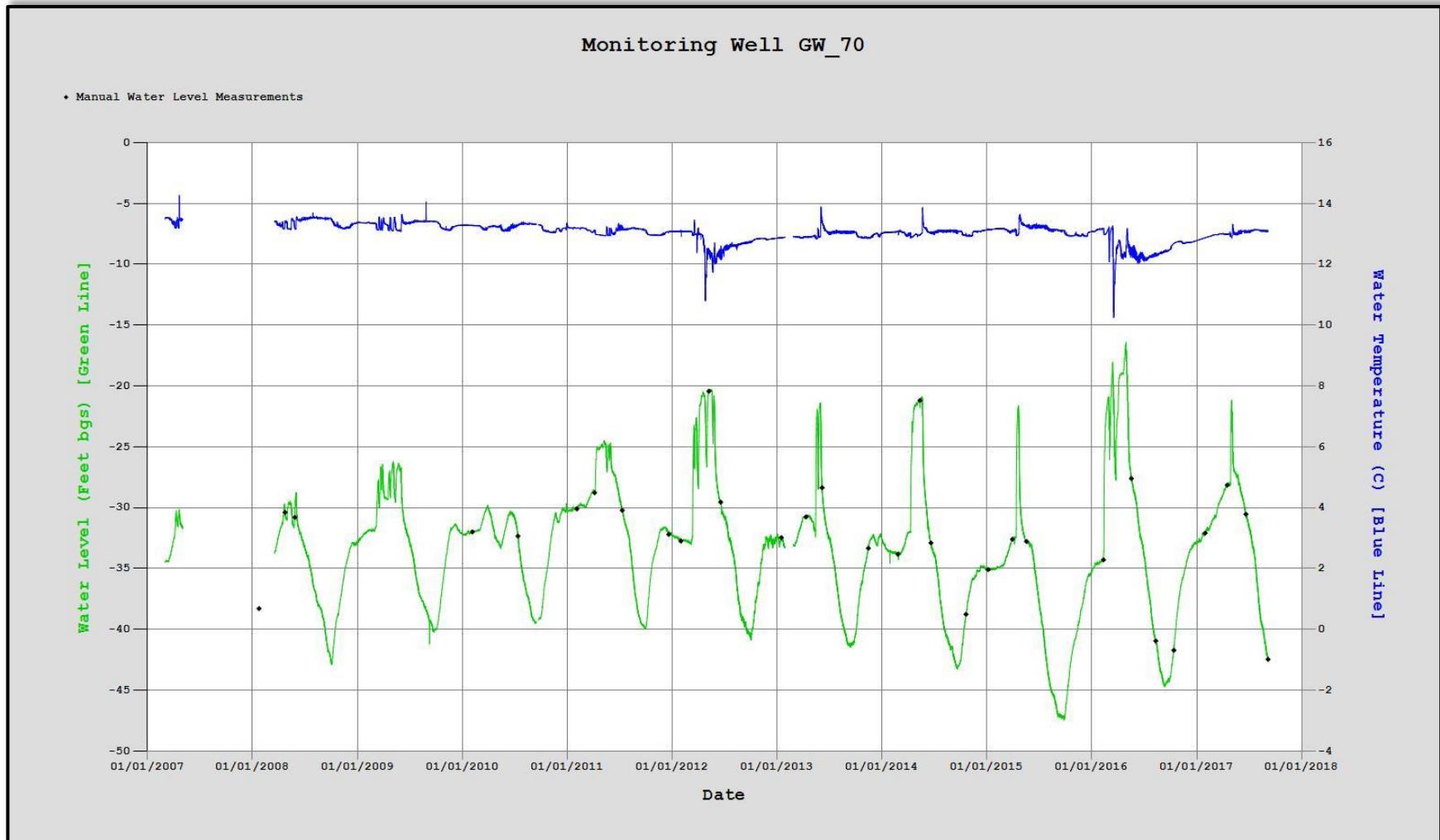
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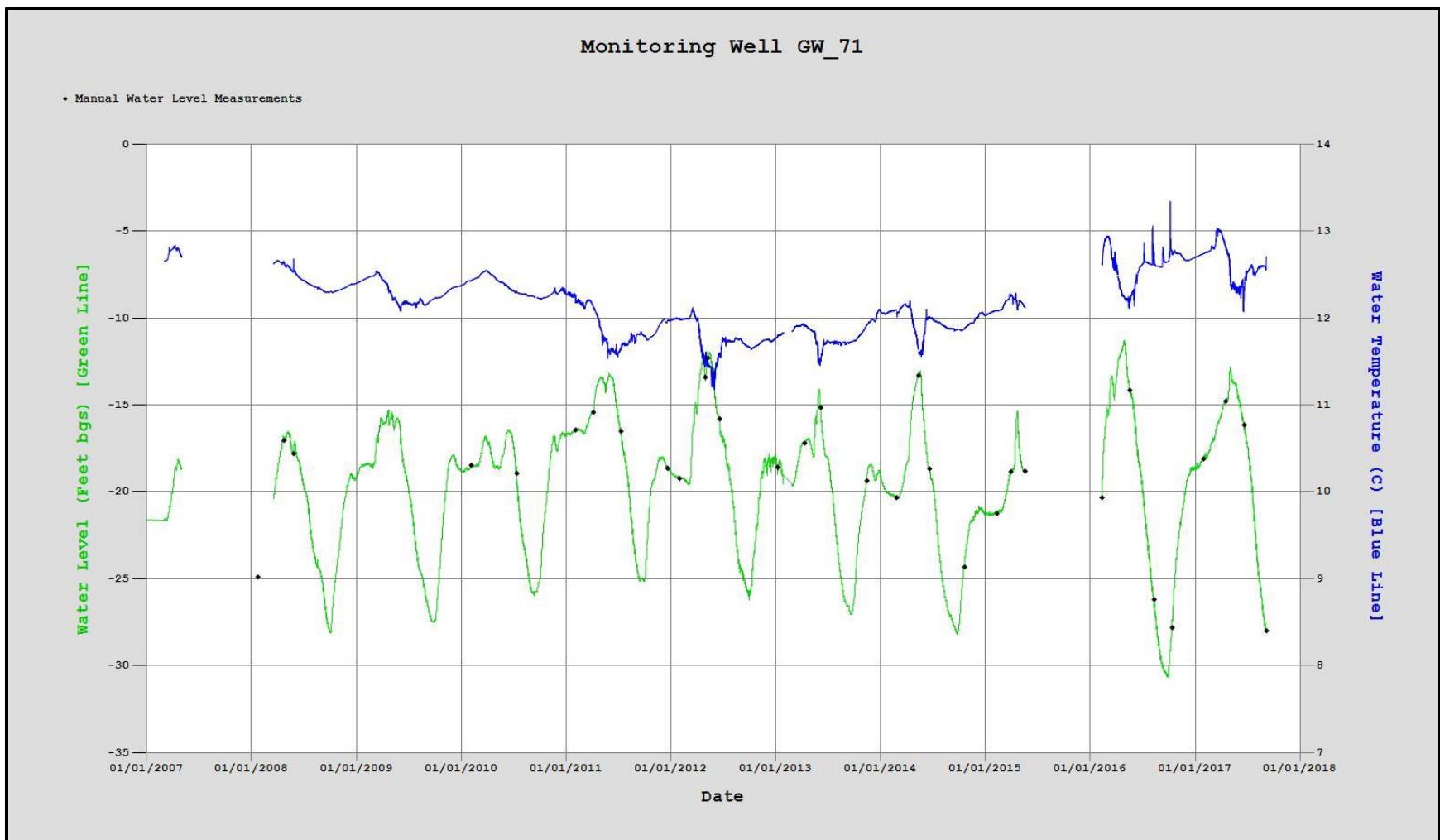
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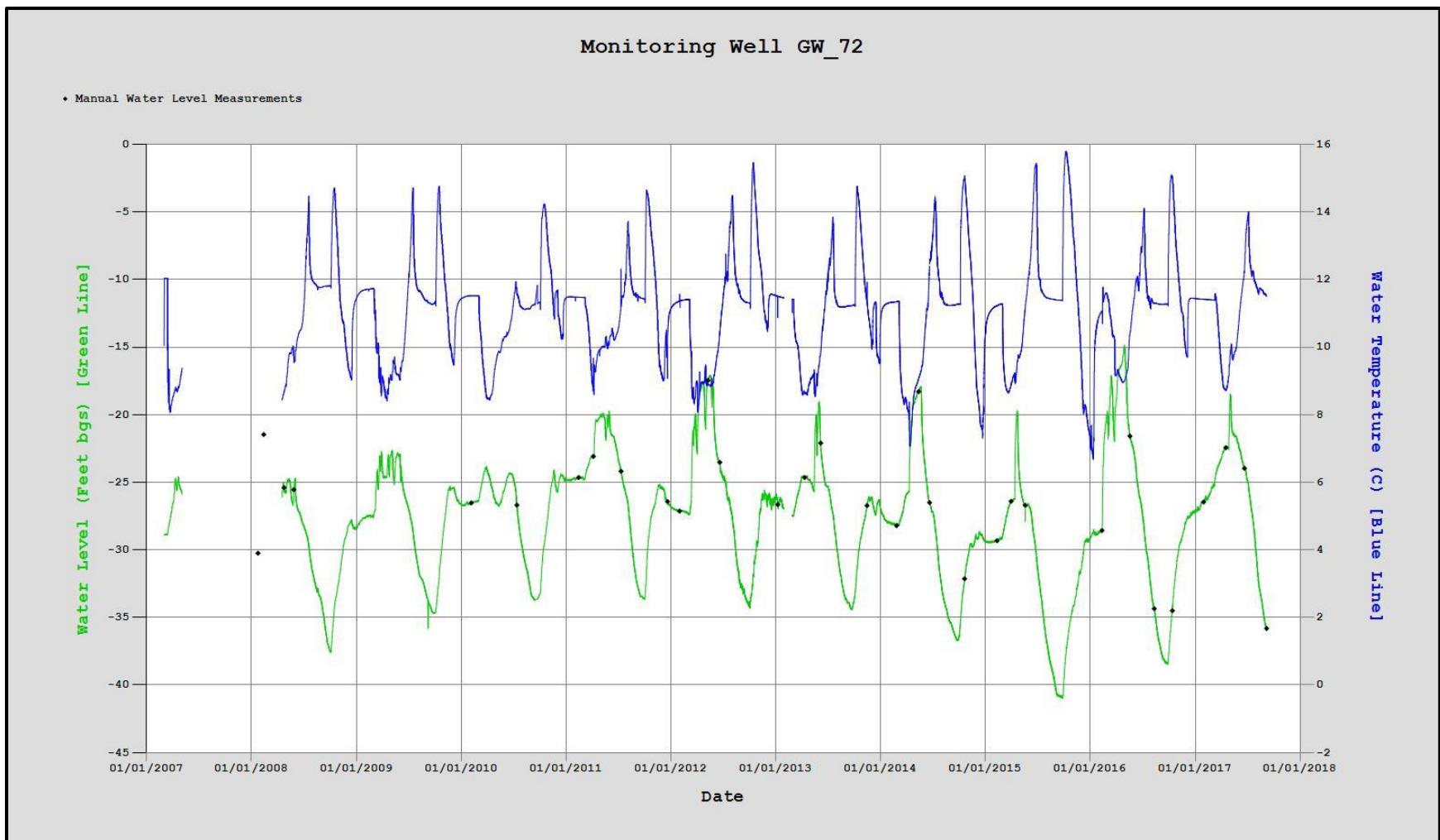
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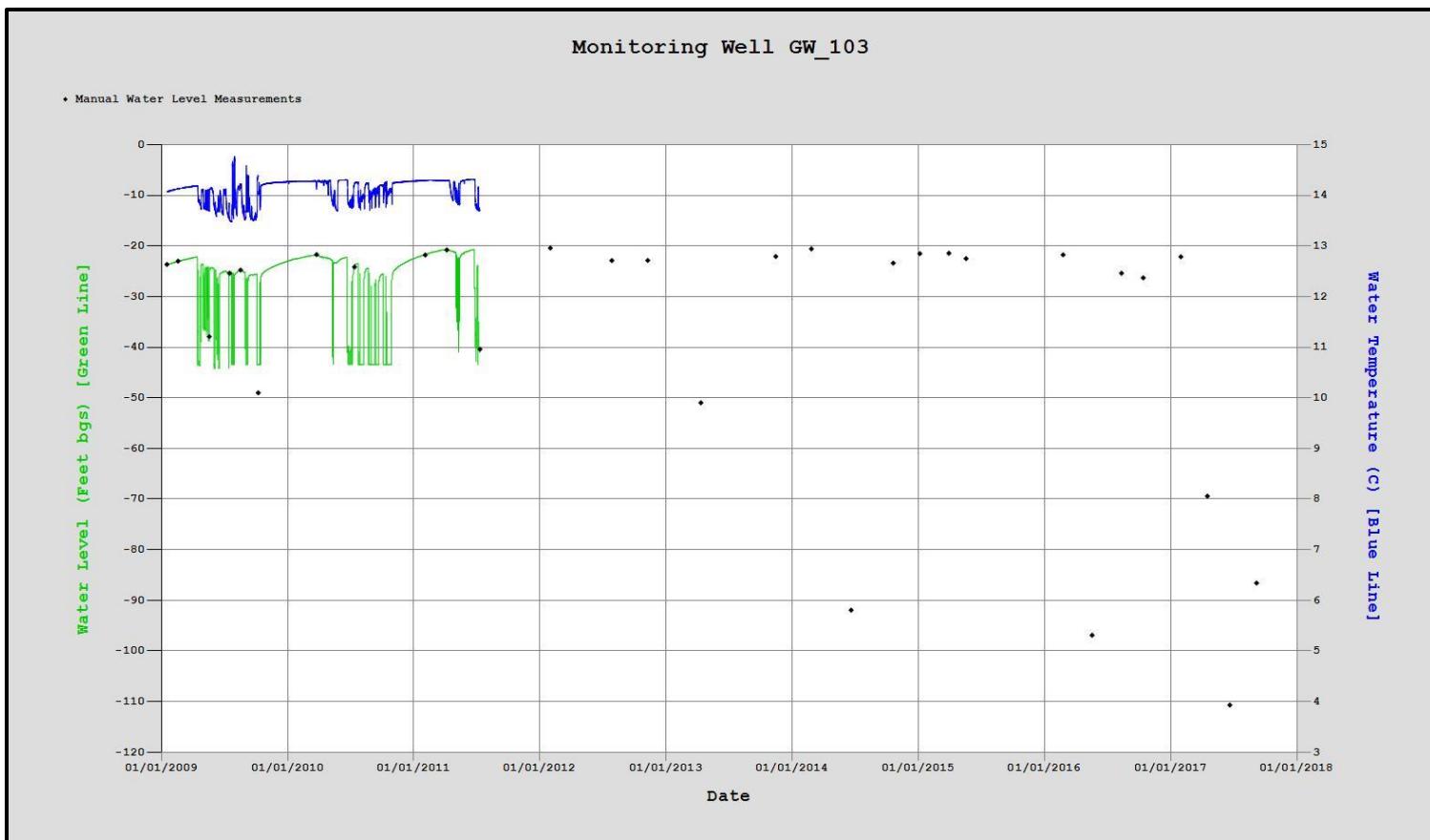
**APPENDIX A - MONITORING WELL HYDROGRAPHS, INCLUDING ALL AVAILABLE DATA, FOR THE LOCHER
ROAD AND STILLER POND AQUIFER RECHARGE SITES**

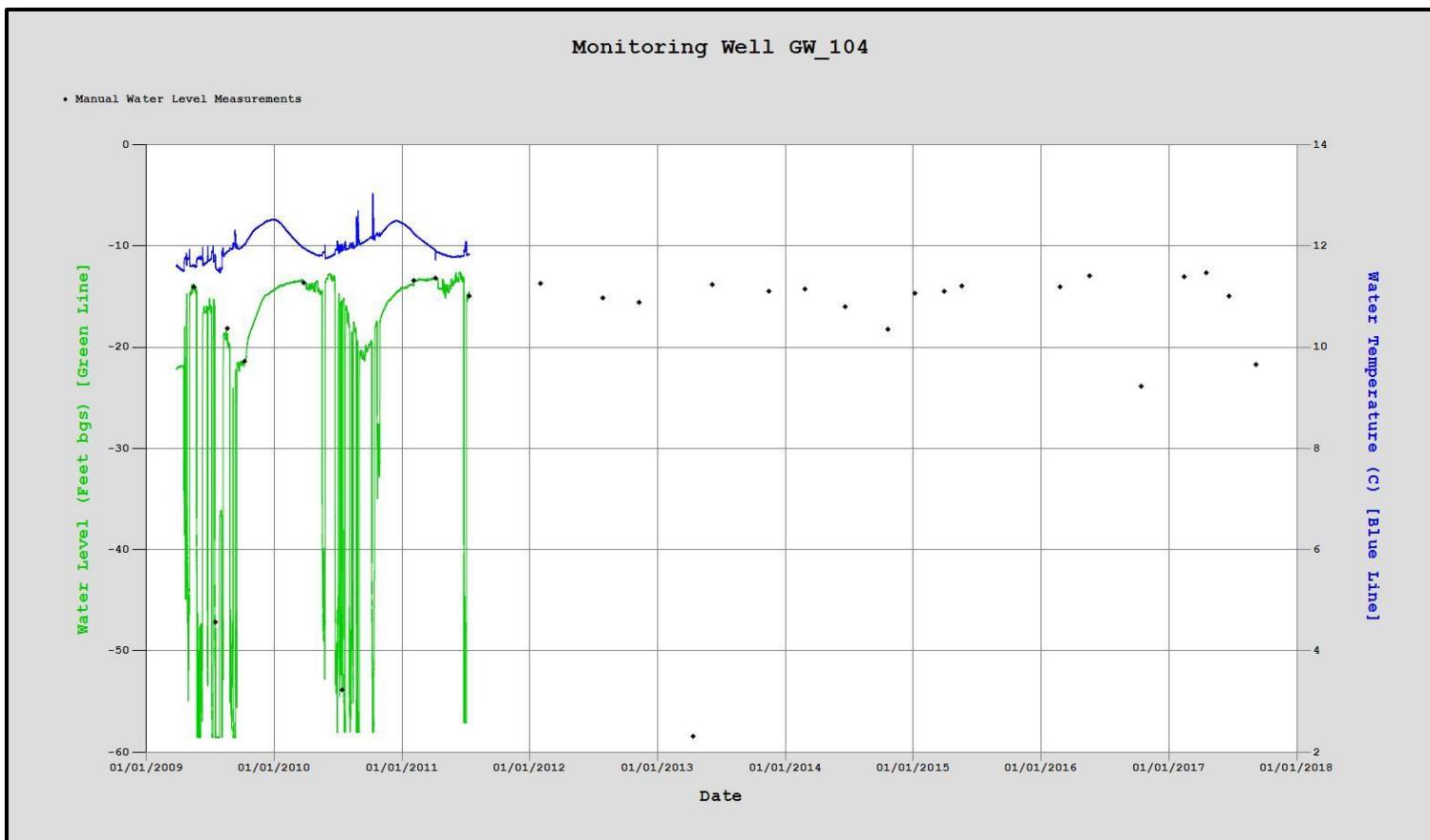


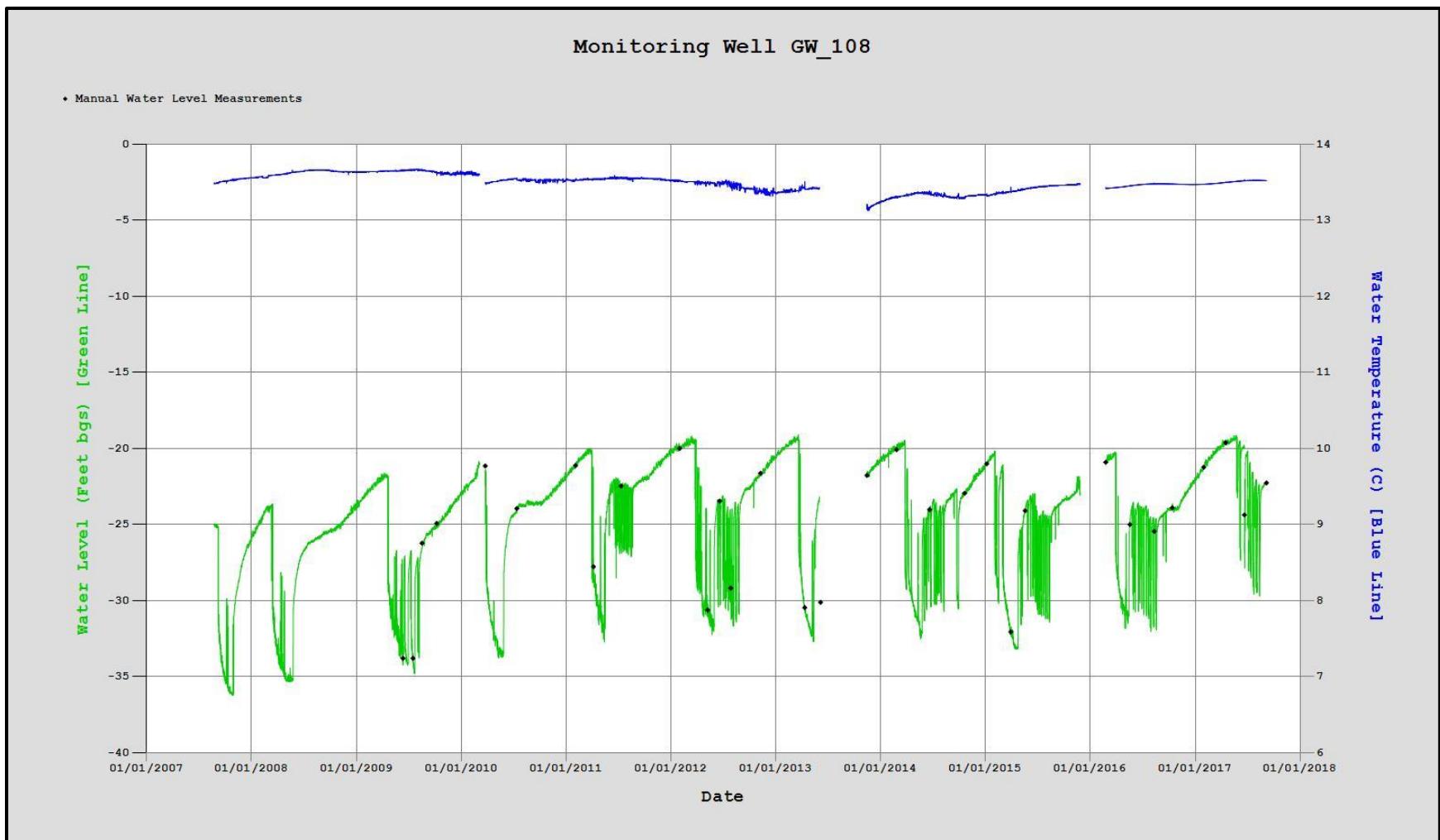


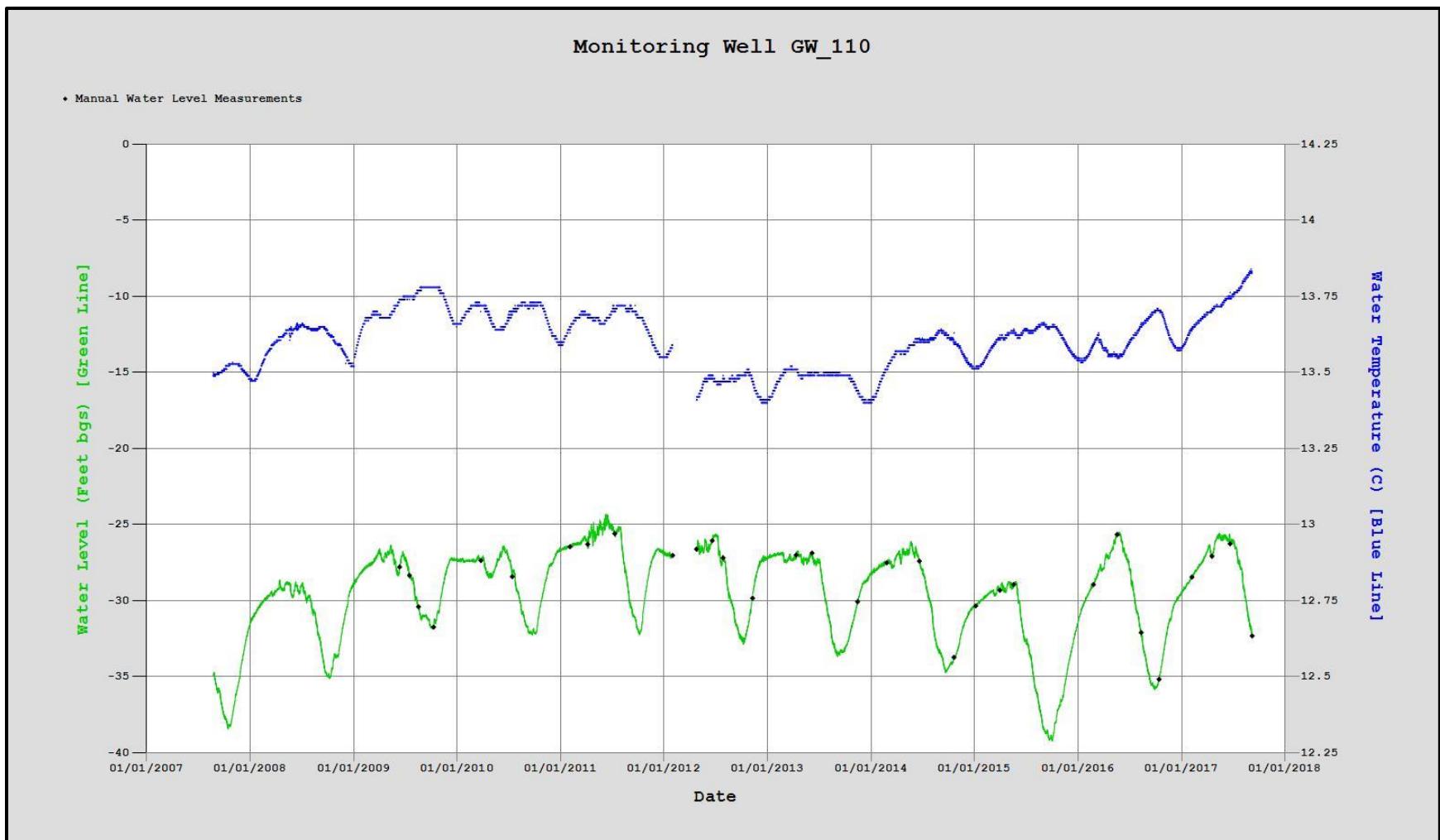


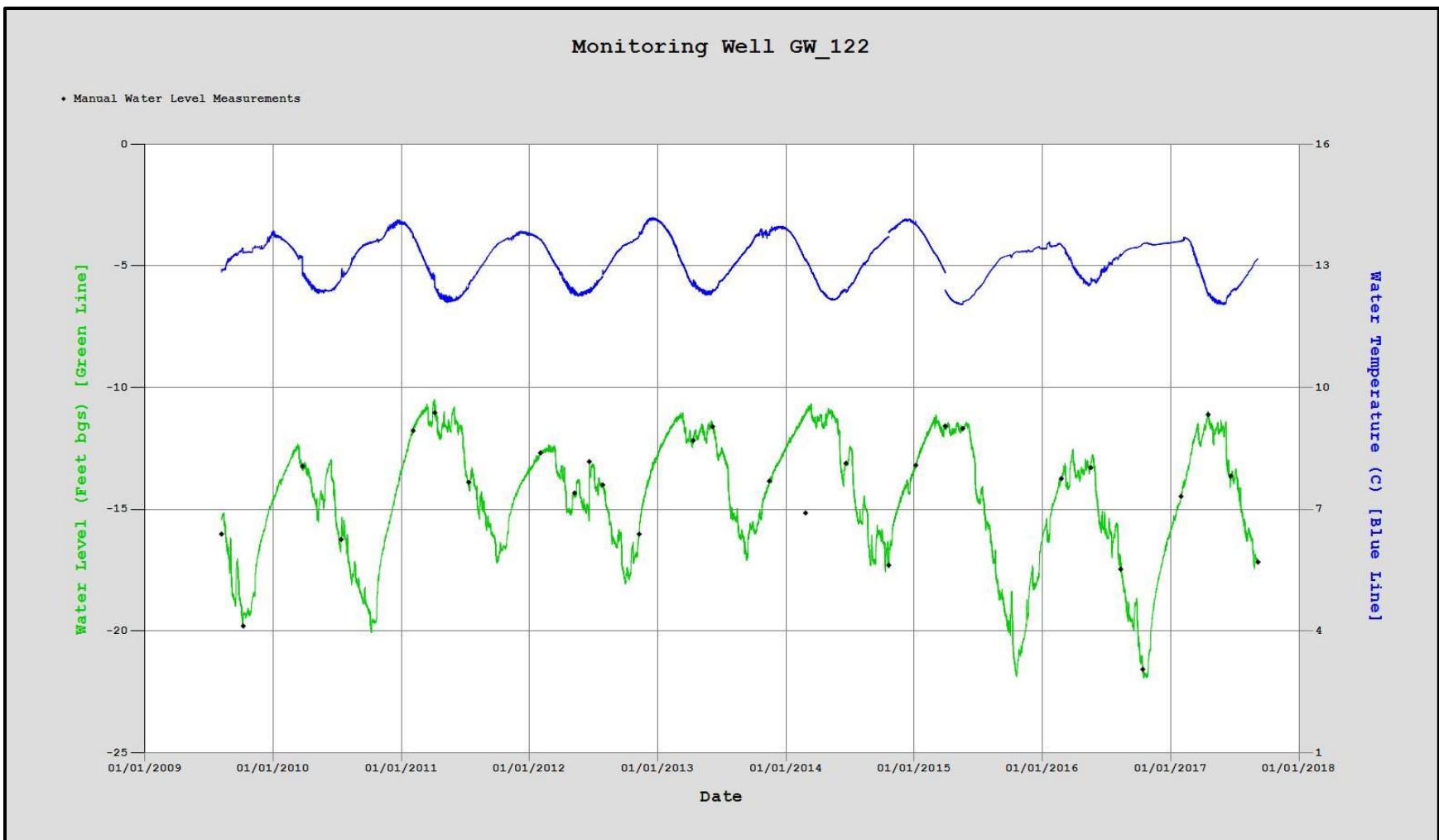


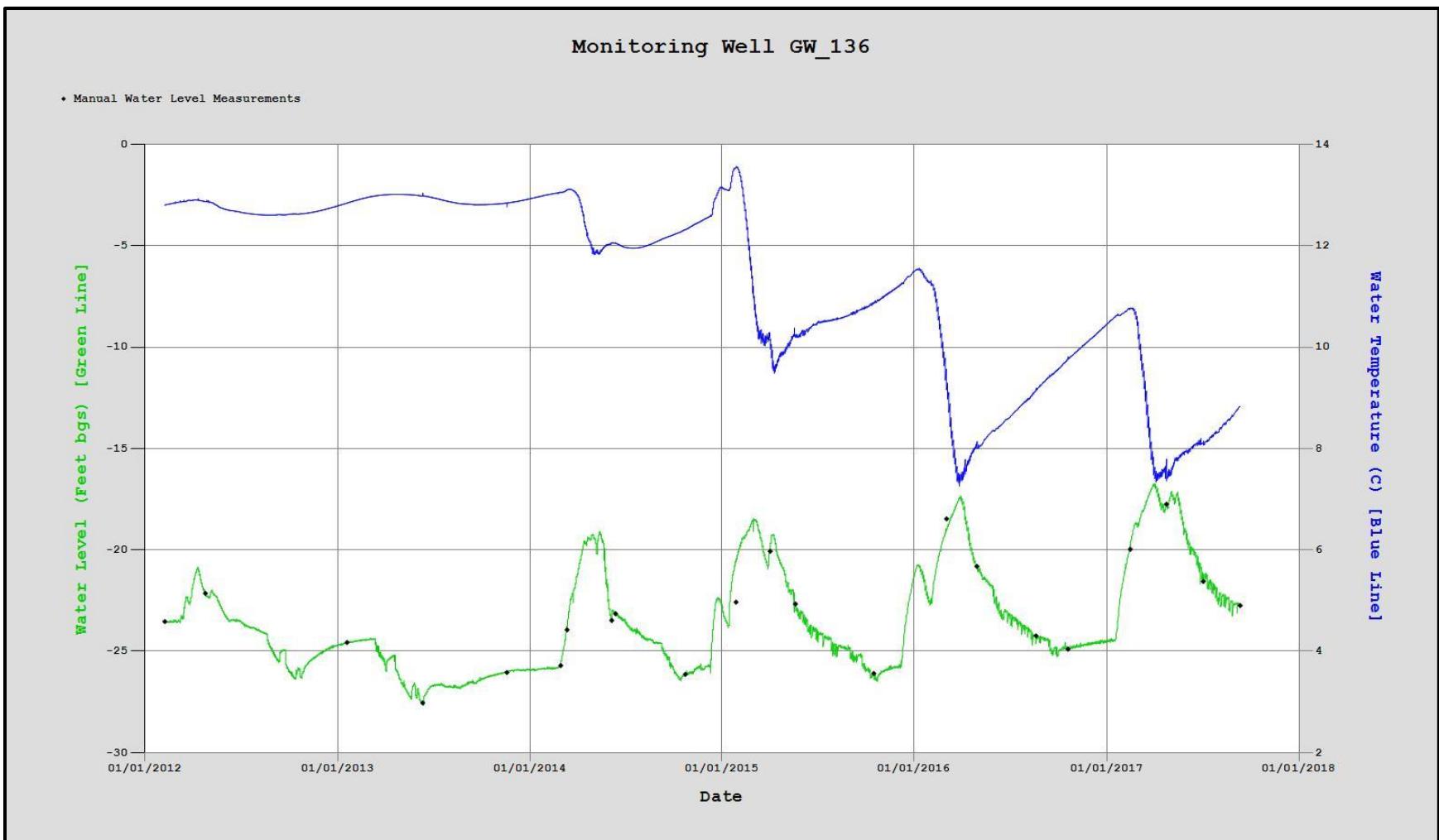


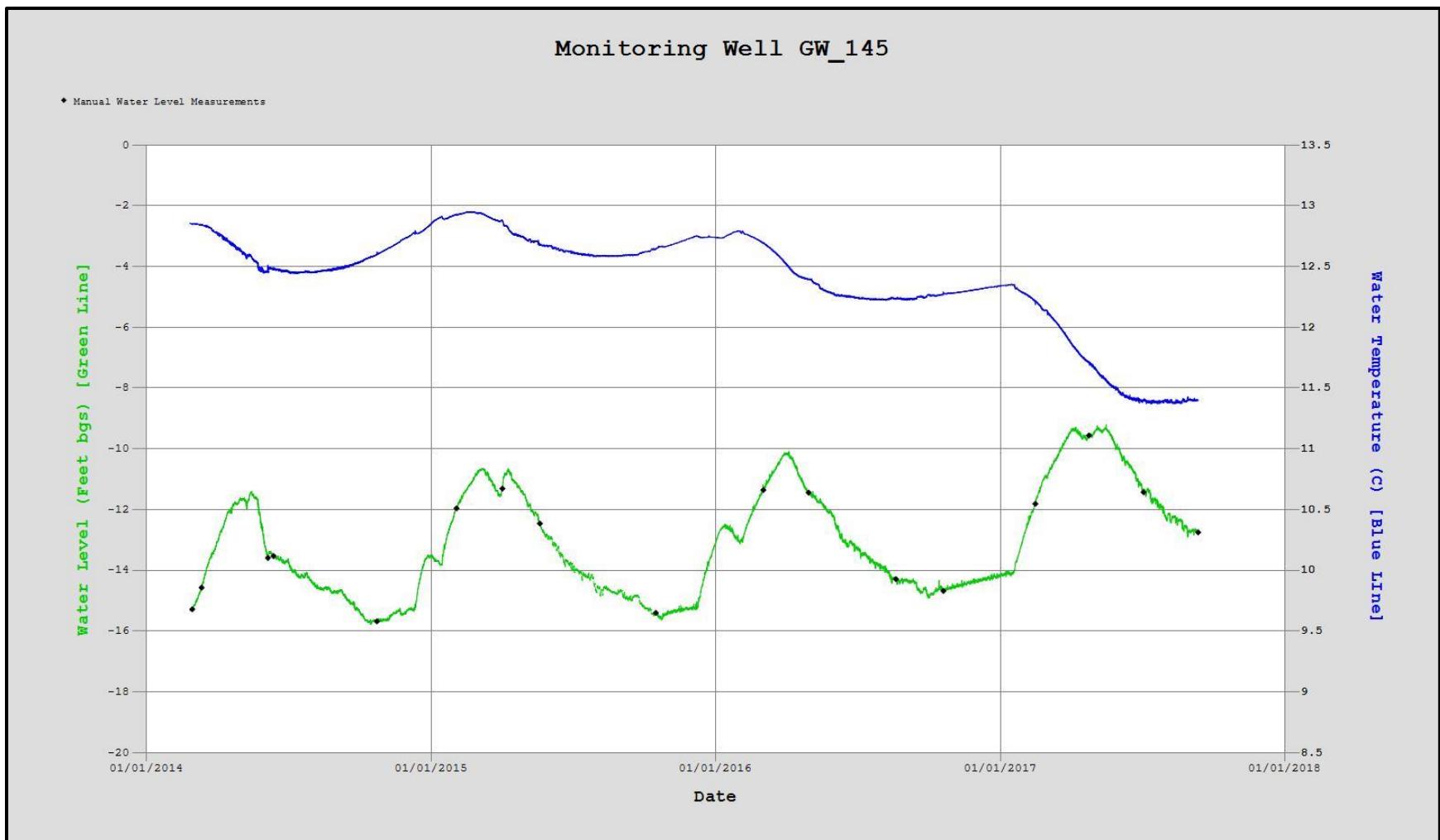


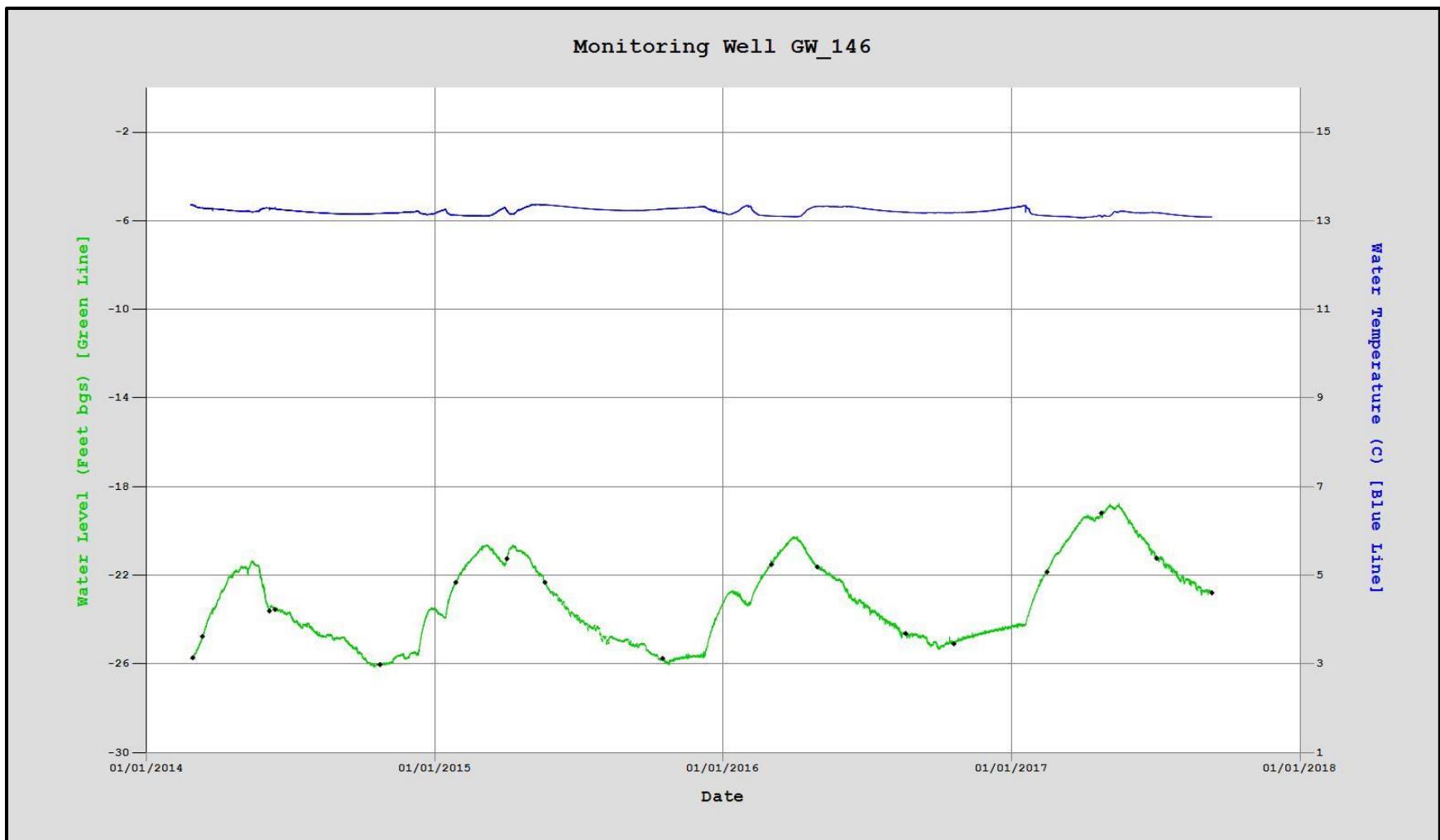


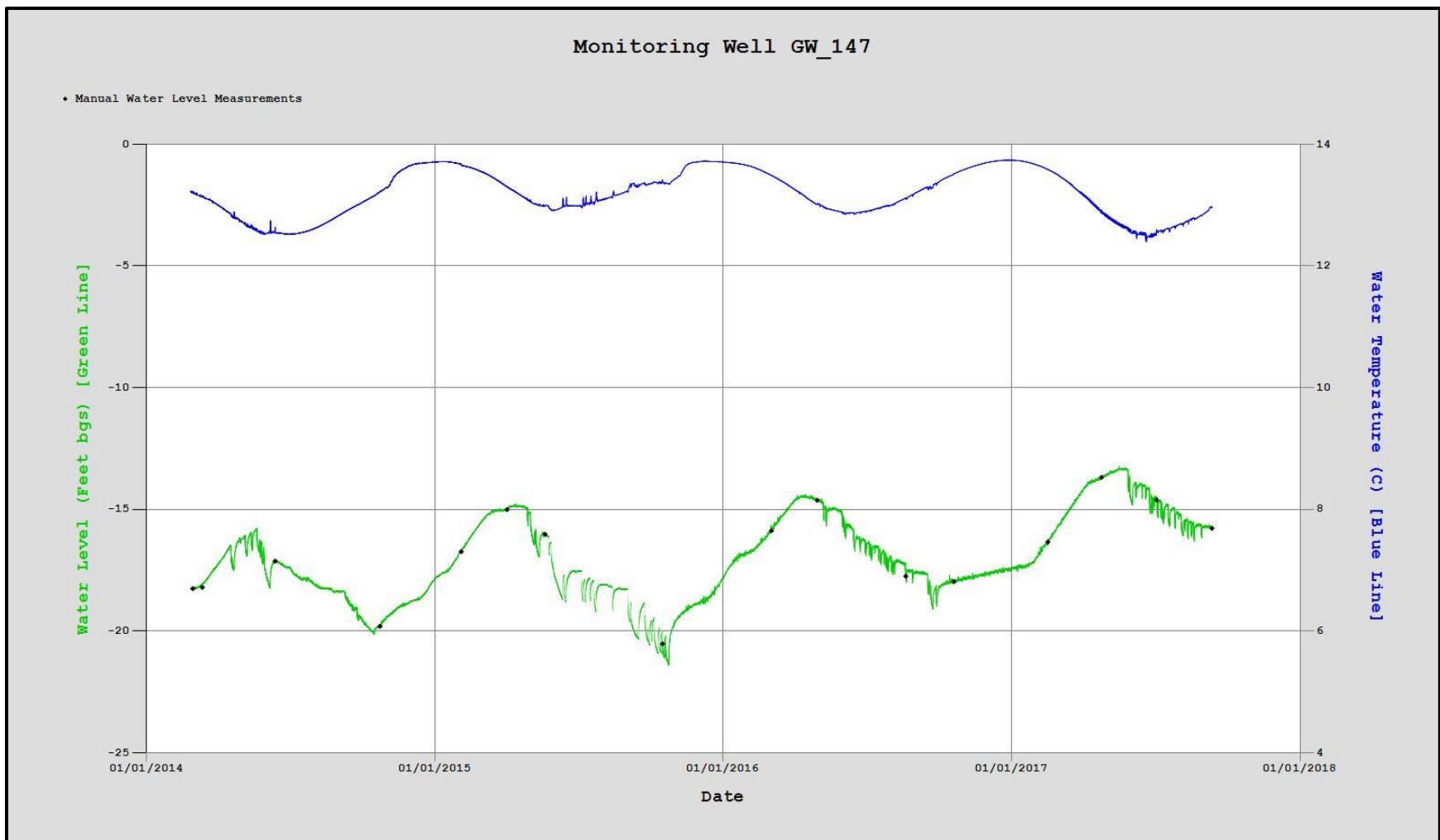


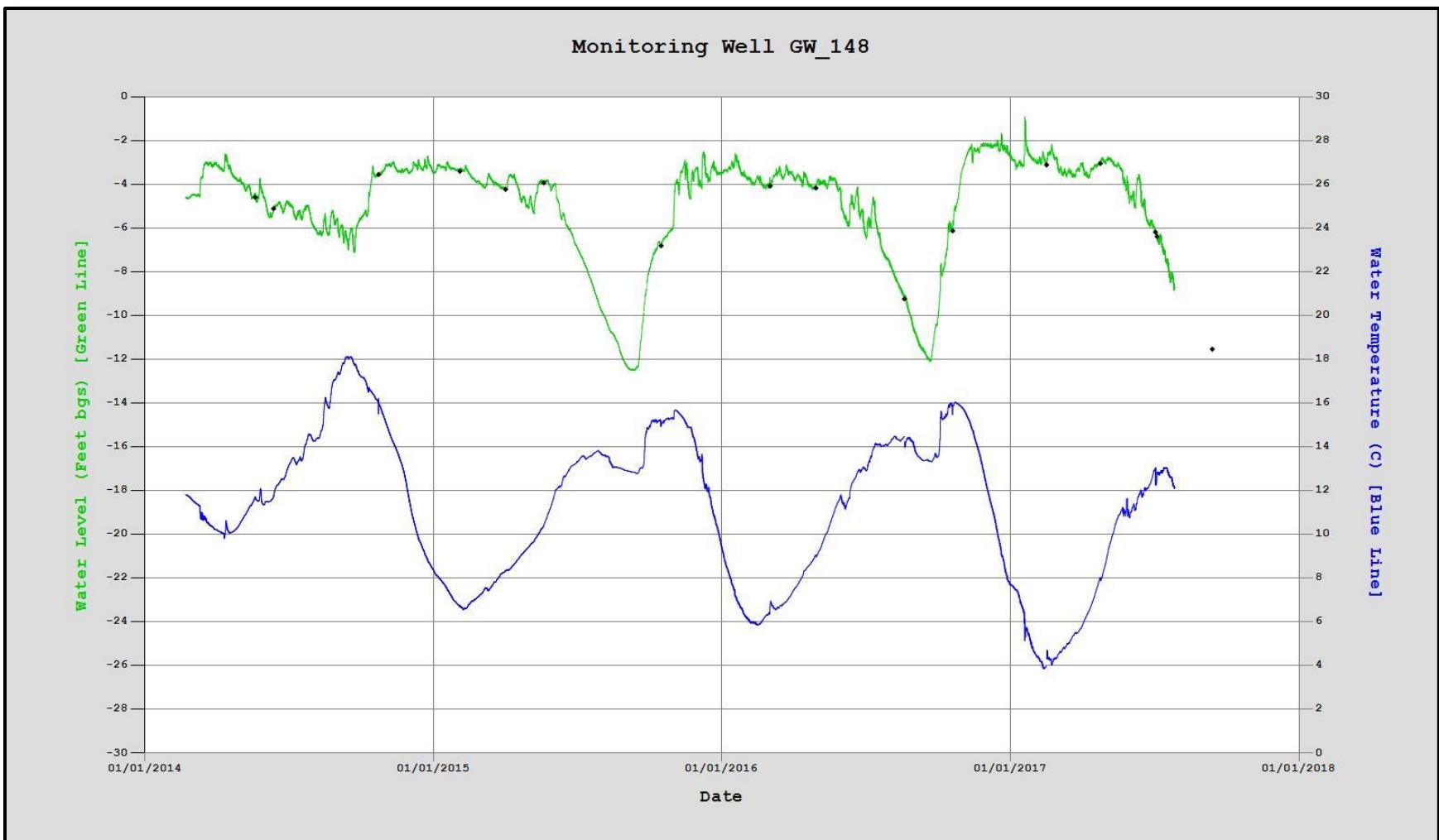


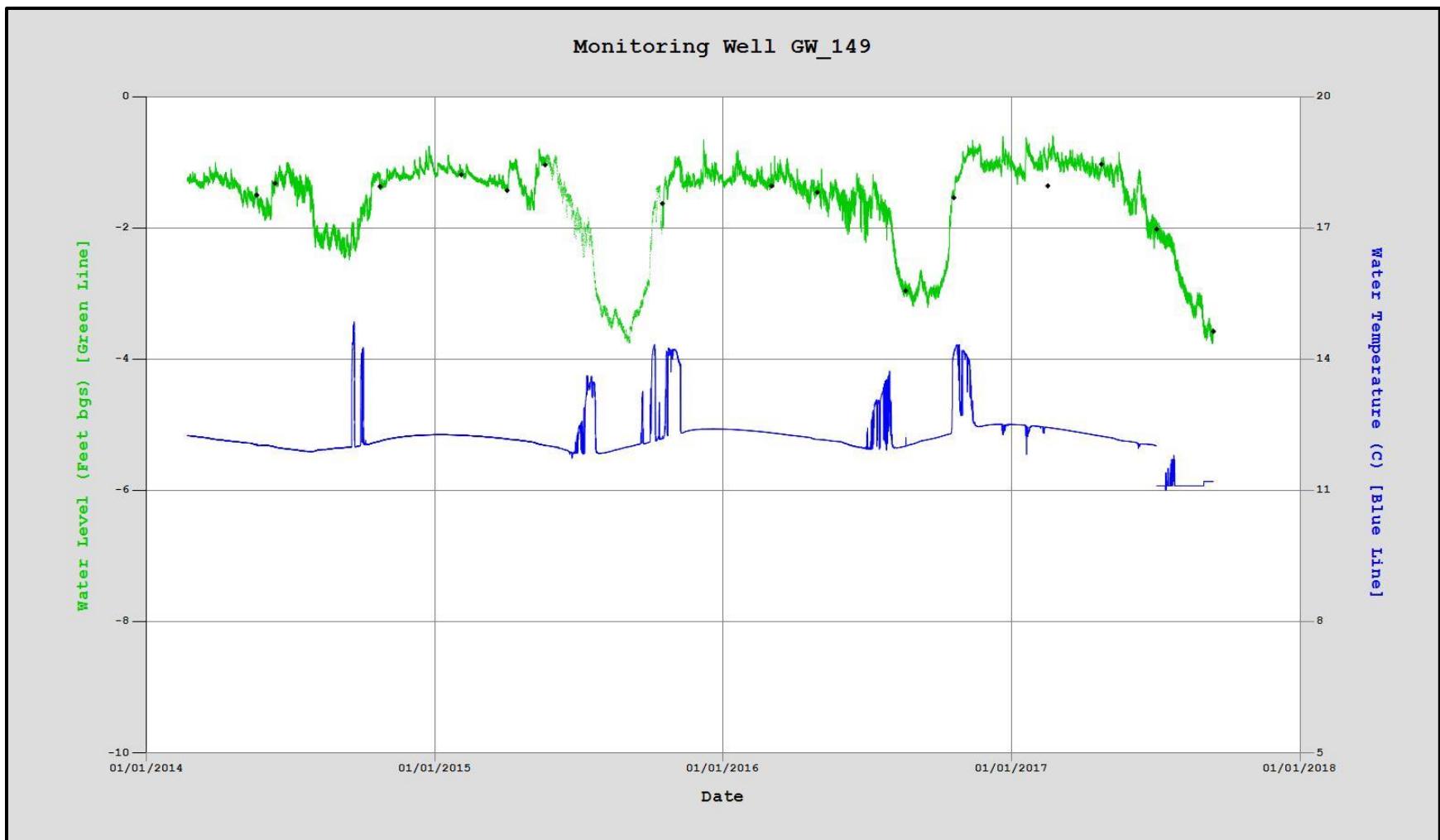


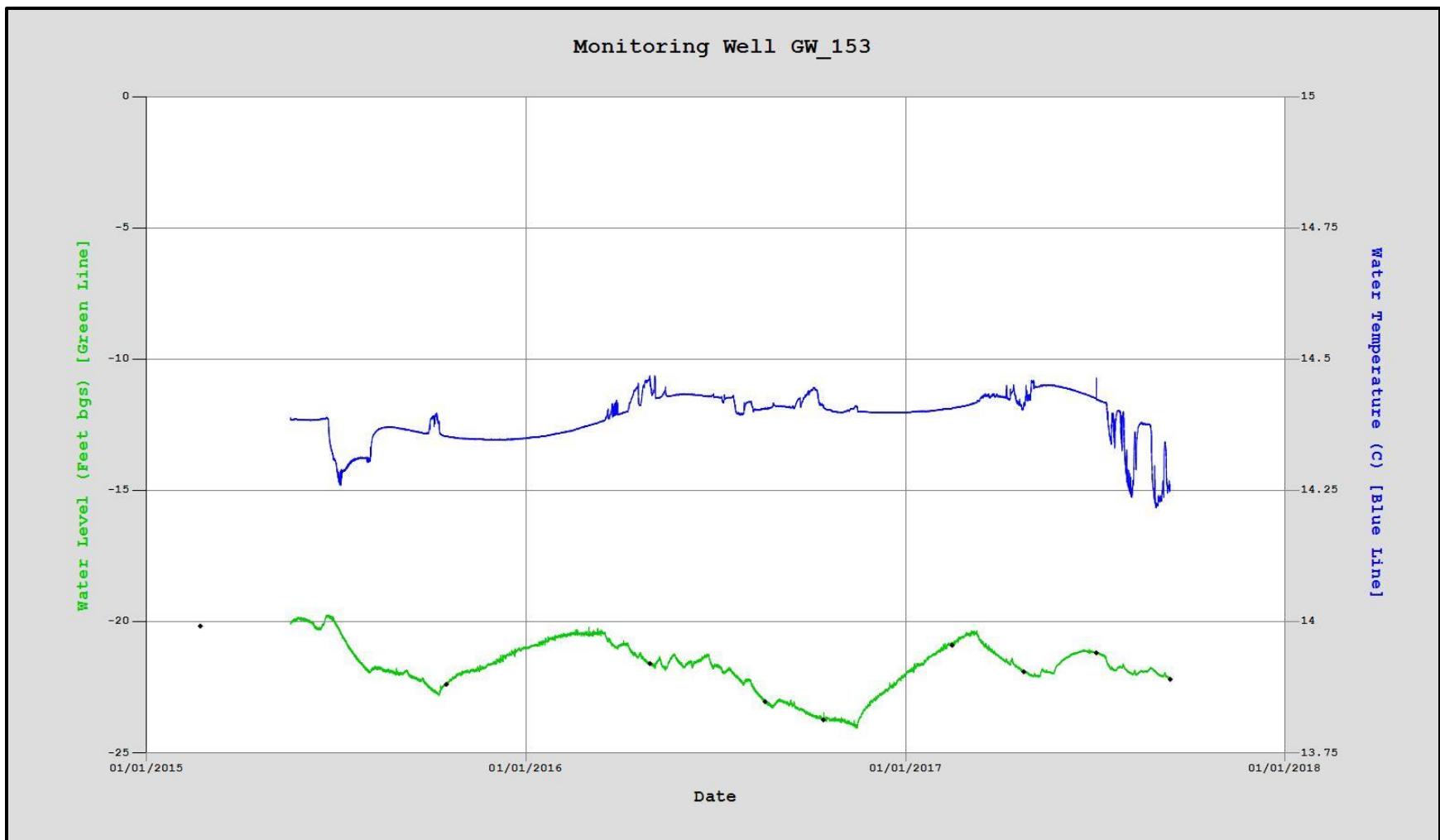


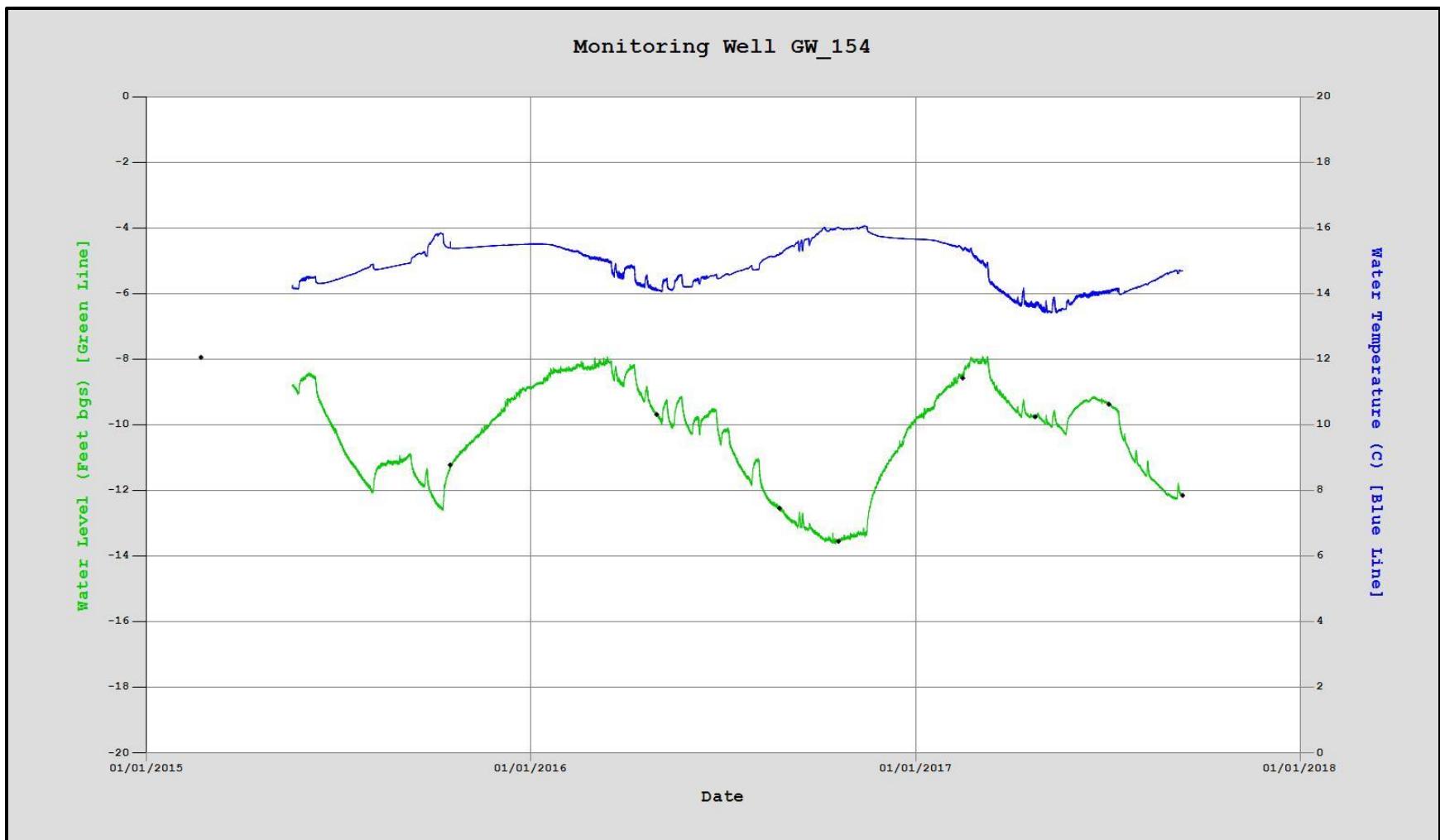


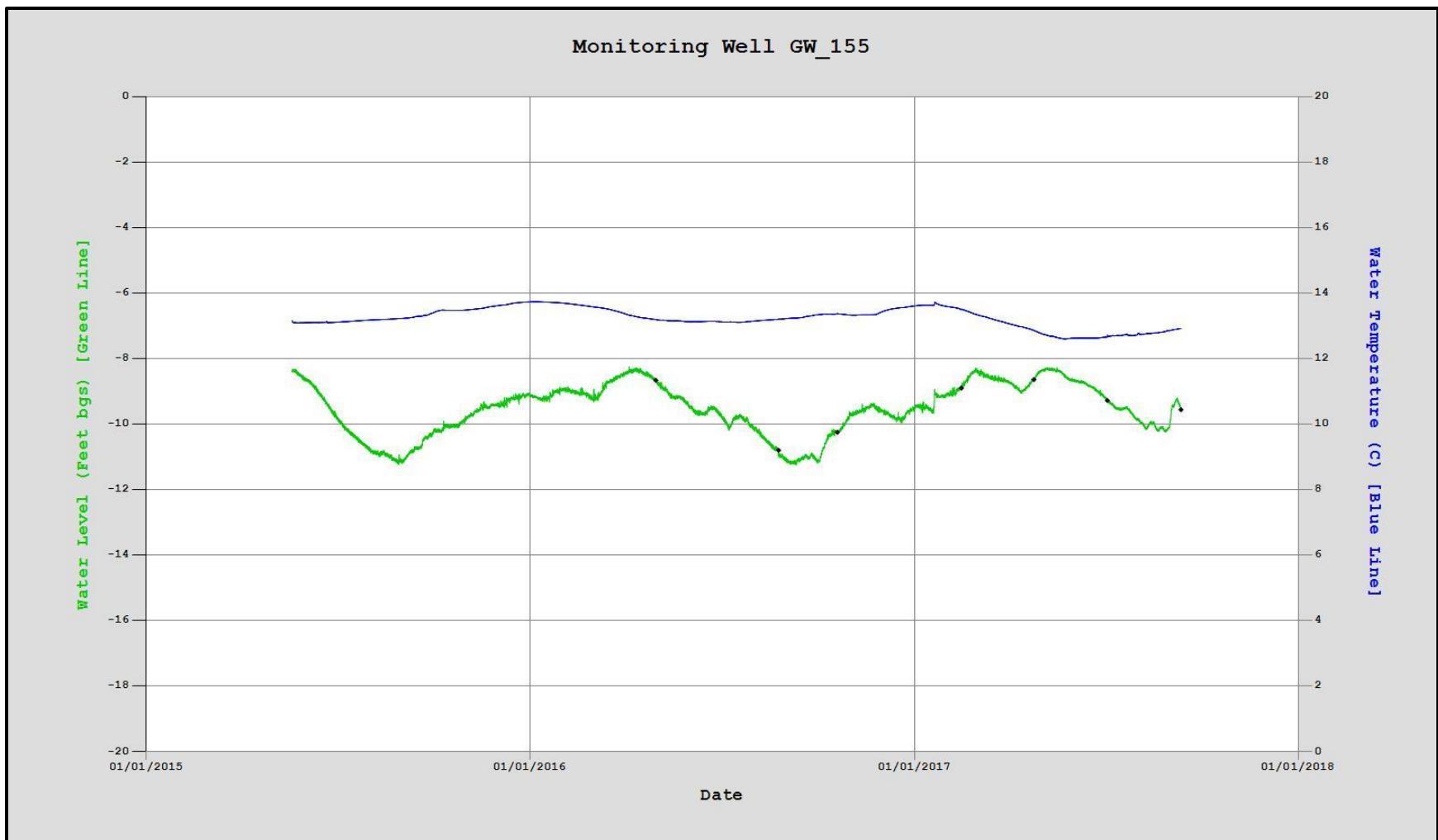


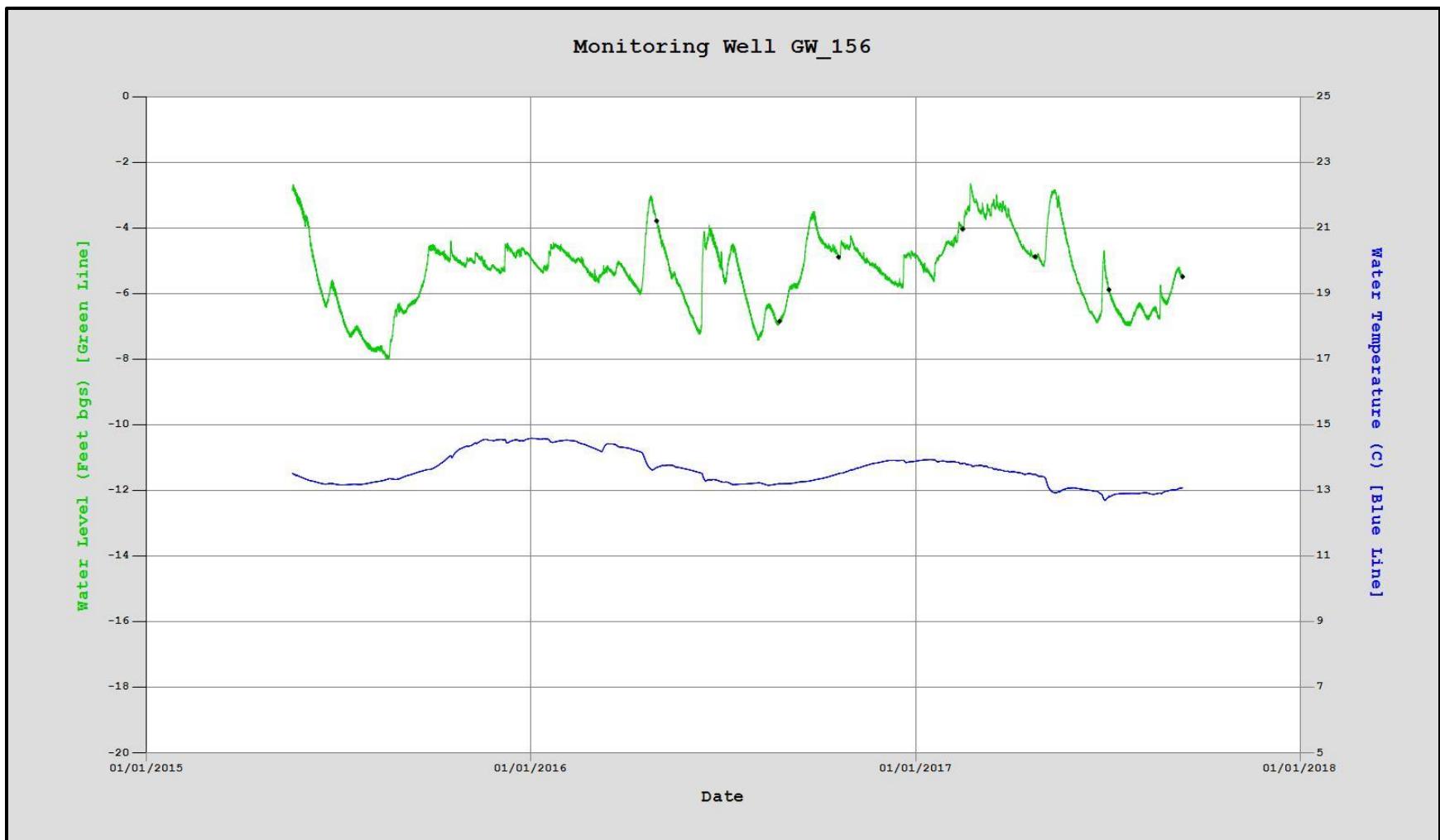


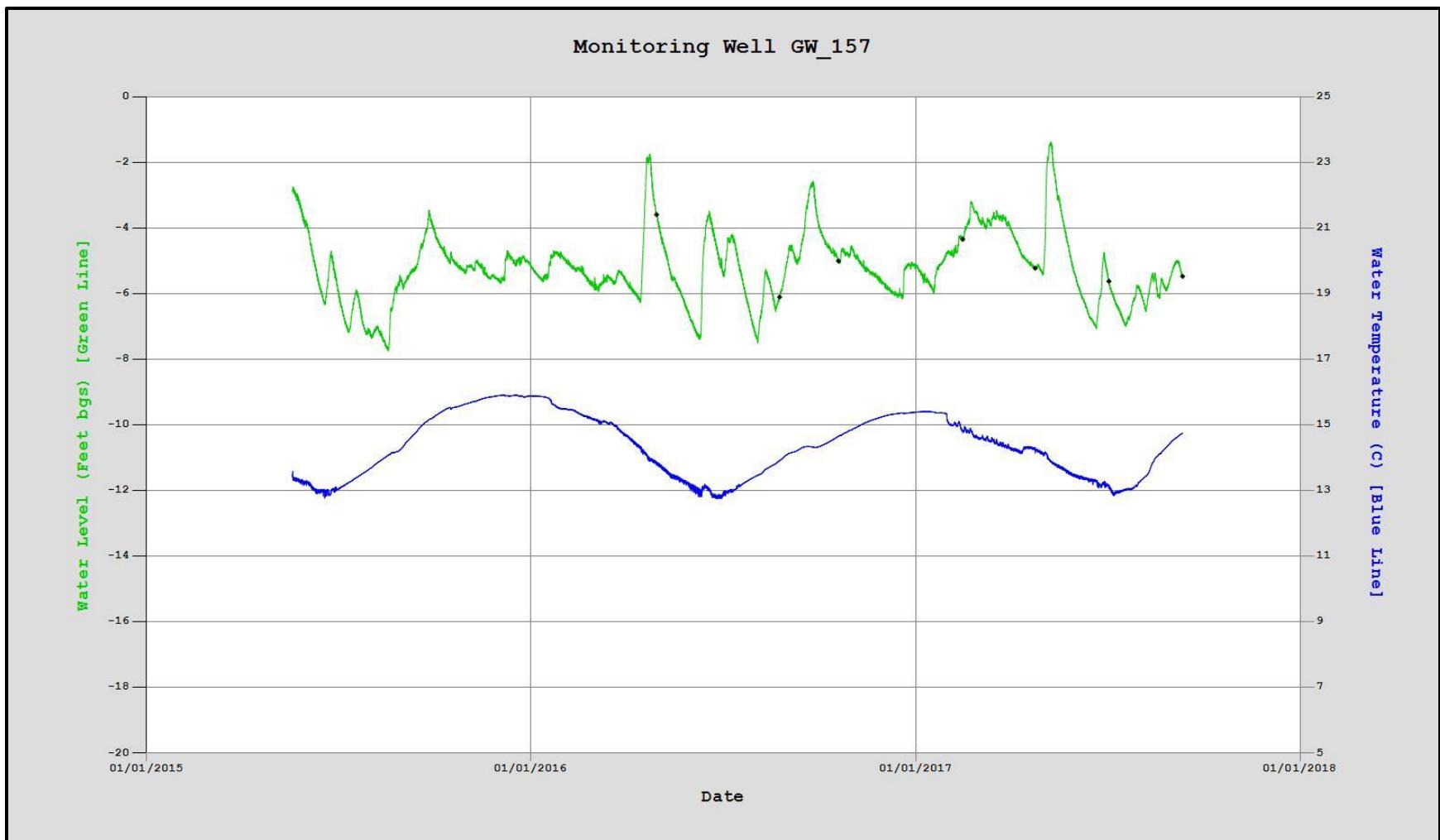


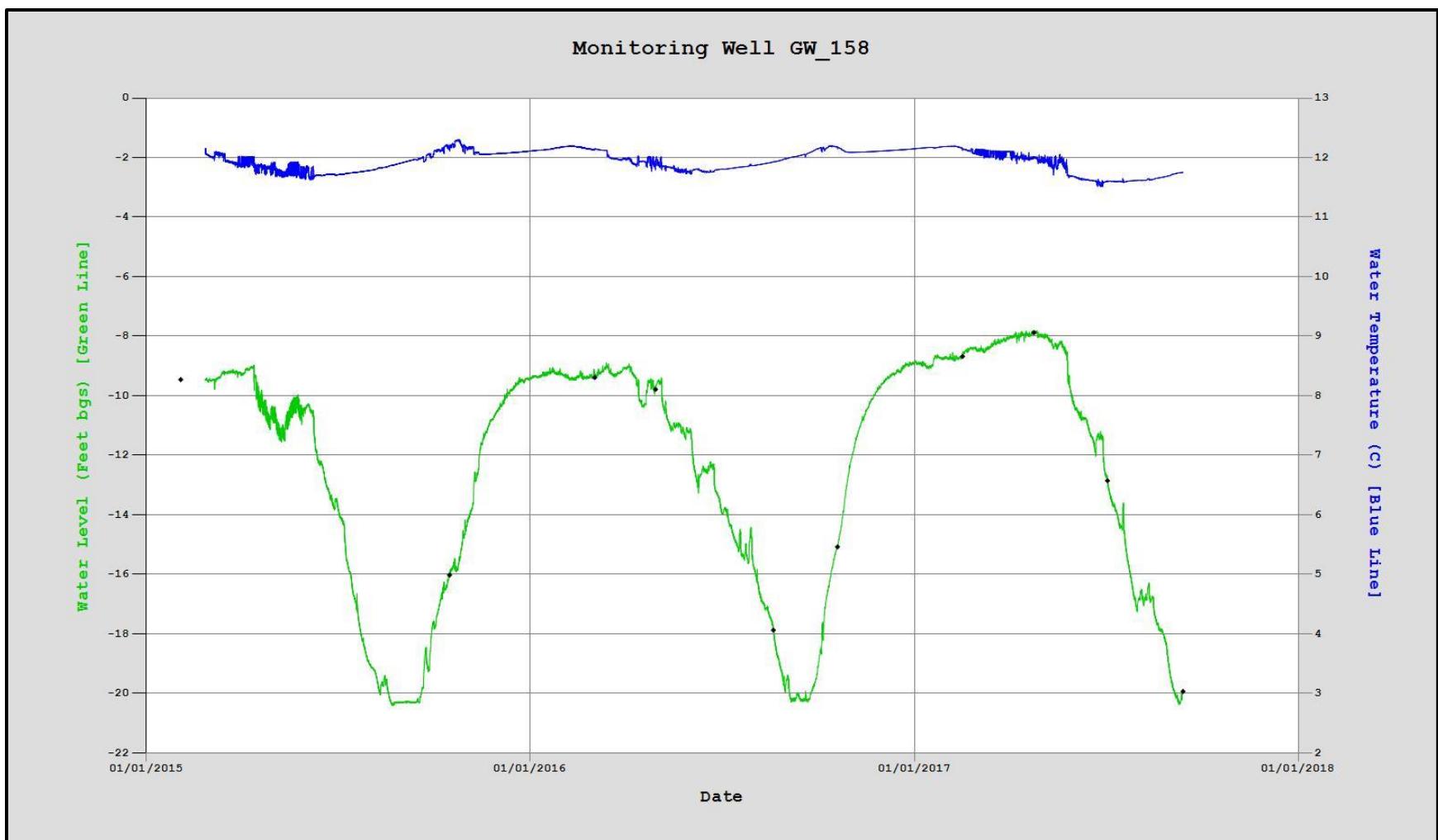


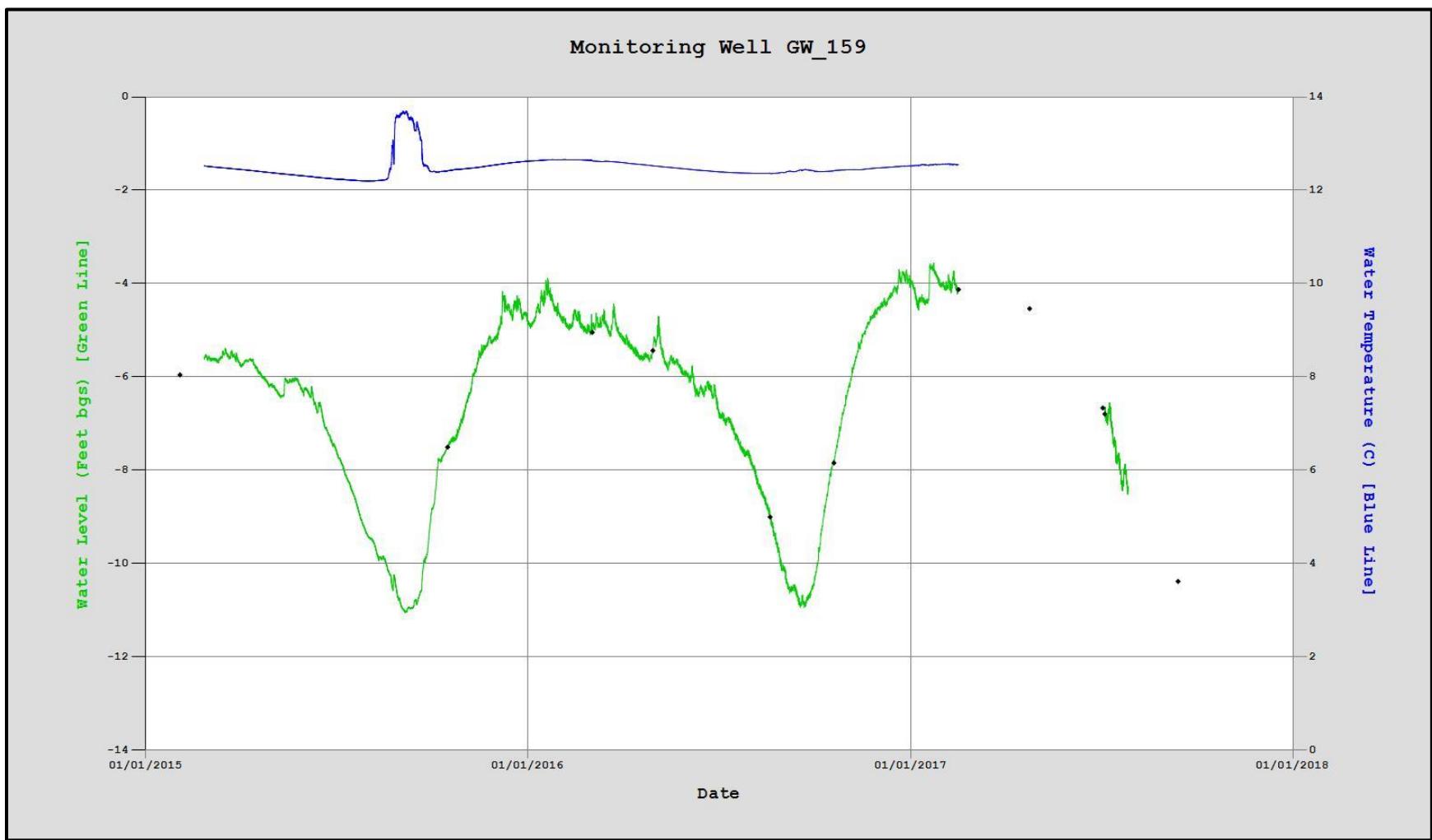












APPENDIX B - WATER & SOIL QUALITY RESULTS FOR WY2017

Download Water and Soil Quality Data (Lab reports and electronic data)

www.wwbwc.org/images/Projects/AR/Reports/WY2017_Data.zip



Burlington, WA	Corporate Laboratory (a)	1620 S Walnut St	Burlington, WA 98233	800.755.9295 • 360.757.1400
Bellingham, WA	Microbiology (b)	805 Orchard Dr Ste 4	Bellingham, WA 98225	360.715.1212
Portland, OR	Microbiology/Chemistry (c)	9150 SW Pioneer Ct Ste W	Wilsonville, OR 97070	503.682.7802
Corvallis, OR	Microbiology (d)	540 SW Third Street	Corvallis, OR 97333	541.753.4946

March 13, 2017

Page 1 of 1

Mr. Steve Patten
Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

RE: 17-04511 - Stiller Pond

Dear Mr. Steve Patten,

Your project: Stiller Pond, was received on Friday March 03, 2017.

All samples were analyzed within the accepted holding times and were appropriately preserved and analyzed according to approved analytical protocols, unless noted in the data or QC reports. The quality control data was within laboratory acceptance limits, unless specified in the data or QC reports.

If you have questions phone us at 800 755-9295.

Respectfully

A handwritten signature in blue ink that reads "Pat Miller".

Patrick Miller, MS
QA Officer

Enclosures: Data Report
QC Reports
Chain of Custody



Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017
Burlington, WA Corporate Laboratory (a)
1620 S Walnut St - Burlington, WA 98233 - 800.755.9295 • 360.757.1400
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Corvallis, OR Microbiology/Chemistry (d)
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Bend, OR Microbiology (e)
20332 Empire Blvd Ste 4 - Bend, OR 97701 - 541.639.8425

Page 1 of 2

Data Report

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Reference Number: **17-04511**
Project: Stiller Pond

Report Date: 3/13/17

Date Received: 3/3/17

Approved by: anp,bj,rmw

Authorized by:

Patrick Miller, MS
QA Officer

Sample Description: GW-136 Stiller Pond										Sample Date: 3/2/17 10:45 am		
Lab Number: 10598		Sample Comment:								Collected By: Steve Patten		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	155	10		mg/L	1.0	SM2540 C	a	3/3/17	LRS	TDS_170303	
14797-55-8	NITRATE-N	0.58	0.01	0.002	mg/L	1.0	SM4500-NO3 F	a	3/3/17	ANP	NO3NO2_170303	
14265-44-2	ORTHO-PHOSPHATE	0.24	0.005	0.002	mg/L	1.0	SM4500-P F	a	3/3/17	RMW	OPHOS_170303	
7439-89-6	IRON	0.26	0.050	0.0012	mg/L	1.0	200.7/3010A	a	3/7/17	ANP	200.7_170307b	
7723-14-0	TOTAL PHOSPHORUS	0.290	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	3/10/17	RMW	tphos_170310	

Sample Description: GW-145 Stiller Pond										Sample Date: 3/2/17 11:05 am		
Lab Number: 10599		Sample Comment:								Collected By: Steve Patten		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	268	10		mg/L	1.0	SM2540 C	a	3/3/17	LRS	TDS_170303	
14797-55-8	NITRATE-N	3.44	0.01	0.002	mg/L	1.0	SM4500-NO3 F	a	3/3/17	ANP	NO3NO2_170303	
14265-44-2	ORTHO-PHOSPHATE	0.15	0.005	0.002	mg/L	1.0	SM4500-P F	a	3/3/17	RMW	OPHOS_170303	
7439-89-6	IRON	0.06	0.050	0.0012	mg/L	1.0	200.7/3010A	a	3/7/17	ANP	200.7_170307b	
7723-14-0	TOTAL PHOSPHORUS	0.141	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	3/10/17	RMW	tphos_170310	

Sample Description: GW-146 Stiller Pond										Sample Date: 3/2/17 10:25 am		
Lab Number: 10600		Sample Comment:								Collected By: Steve Patten		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	361	10		mg/L	1.0	SM2540 C	a	3/3/17	LRS	TDS_170303	
14797-55-8	NITRATE-N	7.49	0.05	0.002	mg/L	5.0	SM4500-NO3 F	a	3/3/17	ANP	NO3NO2_170303	
14265-44-2	ORTHO-PHOSPHATE	0.12	0.005	0.002	mg/L	1.0	SM4500-P F	a	3/3/17	RMW	OPHOS_170303	
7439-89-6	IRON	0.05	0.050	0.0012	mg/L	1.0	200.7/3010A	a	3/7/17	ANP	200.7_170307b	
7723-14-0	TOTAL PHOSPHORUS	0.101	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	3/10/17	RMW	tphos_170310	

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.

PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

D.F. - Dilution Factor



Data Report

Sample Description: GW-147 Stiller Pond										Sample Date: 3/2/17 9:45 am			
Lab Number: 10601		Sample Comment:								Collected By: Steve Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	263	10		mg/L	1.0	SM2540 C	a	3/3/17	LRS	TDS_170303		
14797-55-8	NITRATE-N	4.36	0.01	0.002	mg/L	1.0	SM4500-NO3 F	a	3/3/17	ANP	NO3NO2_170303		
14265-44-2	ORTHO-PHOSPHATE	0.19	0.005	0.002	mg/L	1.0	SM4500-P F	a	3/3/17	RMW	OPHOS_170303		
7439-89-6	IRON	0.03 J	0.050	0.0012	mg/L	1.0	200.7/3010A	a	3/7/17	ANP	200.7_170307b		
7723-14-0	TOTAL PHOSPHORUS	0.179	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	3/10/17	RMW	tphos_170310		
Sample Description: Field Dup Stiller Pond										Sample Date: 3/2/17 9:45 am			
Lab Number: 10602		Sample Comment:								Collected By: Steve Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	262	10		mg/L	1.0	SM2540 C	a	3/3/17	LRS	TDS_170303		
14797-55-8	NITRATE-N	4.30	0.01	0.002	mg/L	1.0	SM4500-NO3 F	a	3/3/17	ANP	NO3NO2_170303		
14265-44-2	ORTHO-PHOSPHATE	0.19	0.005	0.002	mg/L	1.0	SM4500-P F	a	3/3/17	RMW	OPHOS_170303		
7439-89-6	IRON	0.04 J	0.050	0.0012	mg/L	1.0	200.7/3010A	a	3/7/17	ANP	200.7_170307b		
7723-14-0	TOTAL PHOSPHORUS	0.191	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	3/10/17	RMW	tphos_170310		
Sample Description: Trip Blank Stiller Pond										Sample Date: 3/2/17 9:45 am			
Lab Number: 10603		Sample Comment:								Collected By: Steve Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	ND	10		mg/L	1.0	SM2540 C	a	3/3/17	LRS	TDS_170303		
14797-55-8	NITRATE-N	ND	0.01	0.002	mg/L	1.0	SM4500-NO3 F	a	3/3/17	ANP	NO3NO2_170303		
14265-44-2	ORTHO-PHOSPHATE	0.003	0.005	0.002	mg/L	1.0	SM4500-P F	a	3/3/17	RMW	OPHOS_170303		
7439-89-6	IRON	ND	0.050	0.0012	mg/L	1.0	200.7/3010A	a	3/7/17	ANP	200.7_170307b		
7723-14-0	TOTAL PHOSPHORUS	ND	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	3/10/17	RMW	tphos_170310		
Sample Description: Source Stiller Pond										Sample Date: 3/2/17 10:05 am			
Lab Number: 10604		Sample Comment:								Collected By: Steve Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	99	10		mg/L	1.0	SM2540 C	a	3/3/17	LRS	TDS_170303		
14797-55-8	NITRATE-N	1.45	0.01	0.002	mg/L	1.0	SM4500-NO3 F	a	3/3/17	ANP	NO3NO2_170303		
14265-44-2	ORTHO-PHOSPHATE	0.13	0.005	0.002	mg/L	1.0	SM4500-P F	a	3/3/17	RMW	OPHOS_170303		
7439-89-6	IRON	0.22	0.050	0.0012	mg/L	1.0	200.7/3010A	a	3/7/17	ANP	200.7_170307b		
7723-14-0	TOTAL PHOSPHORUS	0.145	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	3/10/17	RMW	tphos_170310		

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.

PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

D.F. - Dilution Factor



**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Calibration Check

Reference Number: **17-04511**

Report Date: 03/13/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier Type	QC	Comment
		Result	Value	Units						
200.7_170307B	2 IRON	0.97	1	mg/L	200.7	97	90-110	CAL		
ophos_170303	0 ORTHO-PHOSPHATE	1.04	1.00	mg/L	SM4500-P F	104	85-115	CAL		
tphos_170310	0 TOTAL PHOSPHORUS	0.0966	0.100	mg/L	SM4500-P F	97	85-115	CAL		

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Fortified Blank

Reference Number: **17-04511**

Report Date: 03/13/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier Type	QC	Comment
		Result	Value	Units						
200.7_170307B	0 IRON	0.47	0.5	mg/L	200.7	94	85-115	LFB	QC	QC
NO3NO2_170303	0 NITRATE-N	1.98	2.00	mg/L	SM4500-NO3 F	99	90-110	LFB	QC	QC

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Laboratory Reagent Blank

Reference Number: **17-04511**

Report Date: 03/13/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
		Result	Value	Units						
200.7_170307B	0 IRON	ND		mg/L	200.7		0-0		LRB	
ophos_170303	0 ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0-0		LRB	
tphos_170310	0 TOTAL PHOSPHORUS	ND		mg/L	SM4500-P F		0-0		LRB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Method Blank

Reference Number: **17-04511**

Report Date: 03/13/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
		Result	Value	Units						
200.7_170307B	0 IRON	ND		mg/L	200.7		0-0		MB	
ophos_170303	0 ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0-0		MB	
TDS_170303	0 TOTAL DISSOLVED SOLIDS (TDS)	ND		mg/L	SM2540 C		0-3		MB	
tphos_170310	0 TOTAL PHOSPHORUS	ND		mg/L	SM4500-P F		0-0		MB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Quality Control Sample

Reference Number: **17-04511**

Report Date: 03/13/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier Type	QC	Comment
		Result	Value	Units						
200.7_170307B	0 IRON	1.94	2	mg/L	200.7	97	95-105	QCS	QC	QC
ophos_170303	0 ORTHO-PHOSPHATE	0.750	0.719	mg/L	SM4500-P F	104	90-110	QCS	QC	QC
TDS_170303	0 TOTAL DISSOLVED SOLIDS (TDS)	502	500	mg/L	SM2540 C	100	80-120	QCS	QC	QC
tphos_170310	0 TOTAL PHOSPHORUS	0.165	0.153	mg/L	SM4500-P F	108	90-110	QCS	QC	QC

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE DEPENDENT
QUALITY CONTROL REPORT**
Duplicate, Matrix Spike/Matrix Spike Duplicate and Confirmation Result Report

Batch	Sample	Analyte	Duplicate			QC					
			Result	Result	Units	%RPD	Limits	Qualifier	Type	Comments	
Duplicate											
NO3NO2_170303											
10598 NITRATE-N											
			0.58	0.60	mg/L		3.4	0-20	DUP		
OPHOS_170303											
10385 ORTHO-PHOSPHATE											
			0.24	0.24	mg/L		0.0	0-20	DUP		
TDS_170303											
9899 TOTAL DISSOLVED SOLIDS (TDS)											
			ND	ND	mg/L		NA	0-10	DUP		
10604 TOTAL DISSOLVED SOLIDS (TDS)											
			99	99	mg/L		0.0	0-10	DUP		
tphos_170310											
10385 TOTAL PHOSPHORUS											
			0.348	0.337	mg/L		3.2	0-20	DUP		
10604 TOTAL PHOSPHORUS											
			0.145	0.153	mg/L		5.4	0-20	DUP		
11153 TOTAL PHOSPHORUS											
			0.059	0.0676	mg/L		13.6	0-20	DUP		

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QC Dependent.rpt

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Batch	Sample	Analyte	Result	Duplicate										QC Qualifier	Type	Comments
				Spike Result	Spike Result	Spike Conc	Units	Percent Recovery		MS	MSD	Limits*	%RPD	Limits*		
Laboratory Fortified Matrix (MS)																
NO3NO2_170303	10598	NITRATE-N	0.58	1.29	1.19	0.50	mg/L	142	122	80-120	15.2	0-20	IM	LFM		
OPHOS_170303	10385	ORTHO-PHOSPHATE	0.24	1.15	1.19	1.00	mg/L	91	95	70-130	4.3	0-20		LFM		
	10603	ORTHO-PHOSPHATE	0.003	0.897	1.01	1.00	mg/L	89	101	70-130	11.9	0-20		LFM		
tphos_170310	10385	TOTAL PHOSPHORUS	0.348	0.375	0.349	0.050	mg/L	54	2	70-130	185.7	0-20	IS	LFM		
	10604	TOTAL PHOSPHORUS	0.145	0.197	0.207	0.050	mg/L	104	124	70-130	17.5	0-20		LFM		
	11153	TOTAL PHOSPHORUS	0.059	0.129	0.124	0.050	mg/L	140	130	70-130	7.4	0-20	IM	LFM		

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QC Dependent.rpt

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Qualifier Definitions

Reference Number: 17-04511
Report Date: 03/13/17

Qualifier	Definition
IM	Matrix induced bias assumed
IS	The ratio of the spike concentration to sample background was too low to meet performance criteria
J	Indicates an estimated concentration. This occurs when an analyte concentration is below the calibration curve but is above the method detection limit.

Note: Some qualifier definitions found on this page may pertain to results or QC data which are not printed with this report.

FORM: QualifierDefs

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Prep Method Definitions

Reference Number: 17-04511
Report Date: 03/13/17

Prep Method	Definition
3010A	Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP
SM4500-P B(E)	Total P Persulfate Digestion

Chain of Custody / Analysis Request (Please complete all applicable shaded sections)

Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017

17-04511
10598 - 10604

Report to:	Walla Walla Basin Watershed Cour
Ship Address:	810 S Main Street
City:	Milton-Freewr St: OR Zip: 97862
Attn:	Steven Patten
Phone:	541.938-2170 FAX:
Email:	steven.patten@wwbwc.org
Project	Stiller Pond

Bill to:	Walla Walla Basin Watershed Counci		
Address:	810 South Main Street		
City:	Milton-Freewr St: OR Zip: 97862		
Phone:	FAX:		
P.O.#:	Attn:		
<input type="checkbox"/> Visa	<input type="checkbox"/> M/C	<input type="checkbox"/> A/E	Expires /
Card#:			

Check Regulatory Program

Safe Drinking Water Act
 Clean Water Act
 RCRA / CERCLA
 Other

EDGE**ANALYTICAL****Main Lab (800-755-9295)**

1620 South Walnut St. Burlington, WA 98233

Microbiology (888-725-1212)

305 W. Orchard Dr. Suite 4 Bellingham, WA 98225

Wilsonville Lab (503-682-7802)

9150 SW Pioneer Ct. Suite W Wilsonville, OR 97070

Corvallis Lab (541-753-4946)540 SW 3rd St. Corvallis, OR 97333**Analyses Requested****Instructions**

1. Use one line per sample Location.
2. Be specific in analysis requests.
3. (NEW) List each metal individually (NEW)
4. Check off analyses to be performed for each sample Loaction.
5. Enter number of containers.

Turn Around Time Required Standard Half-time (50% surcharge) Quickest (100% surcharge) Phone Call Req. Emergency (Phone Call Req.)

Field ID	Location	Grab/ Comp.	Sample Matrix*	Date	Time	Fe	Fe (Field Dup)	Fe (Trip Blank)	TDS, NO3, o-PO4	TDS, NO3, o-PO4 (Field Dup)	TDS, NO3, o-PO4 (Trip Blank)	Total P	Total P (Field Dup)	Number of Containers	Special Instructions Conditions on Receipt
1	GW-136	STILLER POND	GRAB	GW	3-2-17 10:45	X				X			X		
2	GW-145		GRAB	GW	3-2-17 11:05	X				/			X		
3	GW-146		GRAB	GW	3-2-17 10:25	X				/			X		
4	GW-147		GRAB	GW	3-2-17 9:45	X				X			X		
5	FIELD DUP-147		GRAB	GW	3-2-17 9:45		X				X			X	
6	TRIP BLANK		GRAB	W	3-2-17 9:45			X			X				
7	SOURCE	↓	GRAB	SW	3-2-17 10:05	X				X			X		
8															
9															
10															

Sampled by: STEVEN PATTEN Phone: 541-938-2170 FAX: Email: steven.patten@wwbwc.org Total Containers

Sample Receipt Request (Must include FAX or Email)

* W - water

DW - drinking water

SW - surface water

WW - waste water

OL - oil

GW - Ground water

S - soil

Other _____

Yes No N/A

Relinquished by	Date	Time	Received by	Date	Time
STEVEN PATTEN <i>[Signature]</i>	3-2-17	12:00	WPS	3-2-17	12:00

Custody seals intact *UPS*Sample temp *10* C satisfactory

Samples received intact

Chain of custody & labels agree

Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017
Chain of Custody / Analysis Request (Please complete all applicable shaded sections)

Report to:	Walla Walla Basin Watershed Cour	Bill to:	Walla Walla Basin Watershed Counci	For Lab Use Only		
Ship Address:	810 S Main Street	Address:	810 South Main Street	Ref #		
City:	Milton-Freewe St: OR Zip: 97862	City:	Milton-Freewe St: OR Zip: 97862	<input type="checkbox"/> Check Regulatory Program		
Attn:	Steven Patten	Phone:	FAX:	<input type="checkbox"/> Safe Drinking Water Act		
Phone:	541.938-2170 FAX:	P.O.#:	Attn:	<input type="checkbox"/> Clean Water Act		
Email:	steven.patten@wwbwc.org	<input type="checkbox"/> Visa	<input type="checkbox"/> M/C	<input type="checkbox"/> A/E	Expires /	<input type="checkbox"/> RCRA / CERCLA
Project	Stiller Pond	Card#:	<input checked="" type="checkbox"/> Other			

EDGE
ANALYTICAL
Main Lab (800-755-9295)
1620 South Walnut St. Burlington, WA 98233

Microbiology (888-725-1212)
305 W. Orchard Dr. Suite 4 Bellingham, WA 98225
Wilsonville Lab (503-682-7802)
9150 SW Pioneer Ct. Suite W Wilsonville, OR 97070
Corvallis Lab (541-753-4946)
540 SW 3rd St. Corvallis, OR 97333



CO031696

Analyses Requested

Instructions

1. Use one line per sample Location.
2. Be specific in analysis requests.
3. (NEW) List each metal individually (NEW)
4. Check off analyses to be performed for each sample Loaction.
5. Enter number of containers.

Turn Around Time Required

 Standard Half-time (50% surcharge) Quickest (100% surcharge) Phone Call Req. Emergency (Phone Call Req.)

Field ID	Location	Grab/ Comp.	Sample Matrix*	Date	Time	Total P (Trip Blank)	TS, NO3, Total P	TS, NO3, Total P (Field Dup)	Number of Containers										Special Instructions Conditions on Receipt
									1	2	3	4	5	6	7	8	9	10	
1	GW-136	STILLER POND	GRAB	GW	3-21-17 10:45														
2	GW-145		GRAB	GW	3-21-17 11:05														
3	GW-146		GRAB	GW	3-21-17 10:25														
4	GW-147		GRAB	GW	3-21-17 9:45														
5	FIELD DUE-147		GRAB	GW	3-21-17 9:45														
6	TRIP BLANK		GRAB	W	3-21-17 9:45	X													
7	SOURCE		GRAB	SW	3-21-17 10:05														
8																			
9																			
10																			

Sampled by: STEVEN PATTEN

Phone: 541-938-2170

FAX:

Email: steven.patten@wwbwc.org

Total Containers _____

Sample Receipt Request (Must include FAX or Email)

* W - water

SW - surface water

WW - waste water

OL - oil

DW - drinking water

GW - Ground water

S - soil

Other _____

Yes No N/A

Custody seals intact WPSSample temp 10 C satisfactory Samples received intact Chain of custody & labels agree



Burlington, WA	Corporate Office	Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017
Bellingham, WA	Microbiology (b)	805 Orchard Dr Ste 4 Bellingham, WA 98225 360.715.1212
Portland, OR	Microbiology/Chemistry (c)	9150 SW Pioneer Ct Ste W Wilsonville, OR 97070 503.682.7802
Corvallis, OR	Microbiology (d)	540 SW Third Street Corvallis, OR 97333 541.753.4946

3/3/2017

Page 1 of 7

Sample Receipt

Mr. Steve Patten
Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

We received the following samples for project "**Stiller Pond**" on **3/3/2017** at **9:15:00AM**. The turnaround is **Standard**; this project is expected to be completed by **03/17/2017**. The temperature of the sample cooler was **1C**. Listed below are the samples, analytical methods and parameters to be tested. If you have any questions concerning this project please refer to reference number **17-04511**.

Lab Sample ID: 10598	Sample Desc: GW-136 - Stiller Pond	Date Sampled: 3/2/17 10:45 am
Sampled By: Steve Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

Prep Method: 3010A - Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: **10599**

Sample Desc: GW-145 - Stiller Pond

Date Sampled: 3/2/17 11:05 am

Sampled By: Steve Patten

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

Prep Method: 3010A - Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: 10600	Sample Desc: GW-146 - Stiller Pond	Date Sampled: 3/2/17 10:25 am
Sampled By: Steve Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

Prep Method: 3010A - Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: 10601	Sample Desc: GW-147 - Stiller Pond	Date Sampled: 3/2/17 9:45 am
Sampled By: Steve Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

Prep Method: 3010A - Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: 10602	Sample Desc: Field Dup - Stiller Pond	Date Sampled: 3/2/17 9:45 am
Sampled By: Steve Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

Prep Method: 3010A - Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: 10603

Sample Desc: Trip Blank - Stiller Pond

Date Sampled: 3/2/17 9:45 am

Sampled By: Steve Patten

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

Prep Method: 3010A - Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: 10604	Sample Desc: Source - Stiller Pond	Date Sampled: 3/2/17 10:05 am
Sampled By: Steve Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

Prep Method: 3010A - Acid Digestion of Aqueous Samples and Extracts for Total Metals for Analysis by FLAA or ICP

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS



03 March 2017

Vista Project ID: 1700290

Mr. Steven Patten
Walla Walla Basin Watershed Council
810 S. Main Street
Milton-Freewater, OR 97862
RE: Stiller Pond

Dear Mr. Patten,

The sample(s) listed in the sample inventory were received by Vista Analytical Laboratory on 03-Mar-17.

Please find attached:

- Terms and Conditions
- Sample Inventory Report
- Chain-of-Custody
- Sample Log-in Checklist
- Additional sample documentation (if applicable)

Analytical results are scheduled to be reported to you on 24-Mar-17.

If you have any questions regarding the status of the work associated with these samples, please contact me at mmaier@vista-analytical.com or (916) 673-1520.

Sincerely,
Martha Maier
Laboratory Director

TERMS AND CONDITIONS

ACCEPTANCE

These terms and conditions are incorporated into, and made a part of, every agreement for services between **Vista Analytical Laboratory, Inc.** ("Vista") and its client ("Client"). The Client accepts these terms and conditions by agreeing to purchase services from Vista or by sending samples to Vista.

PAYMENT

The Client shall pay in full within 30 days after the date that Vista invoices it for services rendered. No payment terms or conditions of purchase orders different from the terms of Vista will become part of any sales agreement, purchase order, or other document unless specifically approved in writing by Vista. Should suit be instituted to collect any debts of the undersigned, the client is responsible to pay all actual costs of collection and attorney's fees and interests on the past due amount at the highest rate legally available.

TURNAROUND TIME

Standard turnaround time is 21 days unless a shorter turnaround time is expressly agreed to by Vista. Turnaround time is defined as the number of calendar days between the first business day after Vista receives a sample or is authorized by the Client to perform an analysis on a sample, whichever occurs last, and the date that Vista transmits the final report for that sample to the Client. Rush orders, i.e., those that the Client requests to have analyzed in less than the standard turnaround time, will be subject to the additional charges set forth in the applicable quotation. Delays caused by acts of God, natural disasters, governmental actions, fires, floods and accidents, and other circumstances for which Vista is not responsible, shall not be counted in determining turnaround time.

SHIPPING

The Client is responsible for delivering its samples to Vista in good condition and the Client shall bear the risk of any loss of or damage to its samples during shipping. Vista reserves the right to refuse to accept delivery of, to refuse to analyze and/or to return any sample to the Client that is not delivered to Vista in good condition or that poses a health or safety risk. The Client shall pay the cost of returning such samples to it.

LIMITATION OF LIABILITY

Vista makes no representations, guarantees or warranties, express or implied, regarding the fitness of its reports for any particular use or purpose and Vista shall not be liable for consequential damages under any circumstance. The client's sole remedy is a refund of the amount that is paid Vista to analyze the sample in question. If Vista loses or damages a sample, after accepting it for analysis, Vista's liability shall not exceed the lesser of \$50 or the amount that the Client expended to obtain the sample.

INDEMNITY

The Client agrees to indemnify and defend Vista, and to hold Vista harmless, against any and all claims, actions, lawsuits, arbitration awards, judgements, damages, liabilities, expenses and costs, including attorneys' fees and court costs, arising out of, or related in any way to, the use to Vista's reports by the Client or by any third party who obtains Vista's reports from the Client.

Effective: 2/14/2007

Sample Inventory Report



Vista Sample ID	Client Sample ID	Sampled	Received	Components/ Containers
1700290-01	GW-136	02-Mar-17 10:45	03-Mar-17 10:19	Amber Glass NM Bottle, 1L
1700290-02	GW-145	02-Mar-17 11:05	03-Mar-17 10:19	Amber Glass NM Bottle, 1L
1700290-03	GW-146	02-Mar-17 10:25	03-Mar-17 10:19	Amber Glass NM Bottle, 1L
1700290-04	GW-147	MS/MSD 02-Mar-17 09:45	03-Mar-17 10:19	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L
1700290-05	Source	02-Mar-17 10:05	03-Mar-17 10:19	Amber Glass NM Bottle, 1L
1700290-06	Field Dup-147	02-Mar-17 09:45	03-Mar-17 10:19	Amber Glass NM Bottle, 1L
1700290-07	Field Blank	02-Mar-17 09:45	03-Mar-17 10:19	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L

Sample Analysis Report

Vista Sample ID	Client Sample ID	Requested Analysis	Status
1700290-01	GW-136	EPA Method 1668C	In Process
1700290-02	GW-145	EPA Method 1668C	In Process
1700290-03	GW-146	EPA Method 1668C	In Process
1700290-04	GW-147	EPA Method 1668C	In Process
1700290-05	Source	EPA Method 1668C	In Process
1700290-06	Field Dup-147	EPA Method 1668C	In Process
1700290-07	Field Blank	EPA Method 1668C	In Process



CHAIN OF CUSTODY

Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017

FOR LABORATORY USE ONLY

Storage
Secured

Laboratory Project ID: 1700290

Yes No

Storage ID WR-2 C6

Temp 0.5, °C

2.9 °C

Project I.D.: STILLER Ponds

P.O.#

Sampler: S. PATTEN / T. PATTEN
(Name)

TAT: (Check One):

21 Days

Rush (surcharge may apply):

14 days 7 days Specify: _____

Invoice to: Name CHIRES SHEETS Company WWBWL

Address 510 S. MAIN

City MILTON-FREewater

State OR

Zip 97862

Ph# 541-935-2170 Fax# 541-935-2170

Relinquished by: (Signature and Printed Name) STEVEN PATTEN

Date: 3-2-17

Time: 12:00

Received by: (Signature and Printed Name) UPS

Date: 3-2-17

Time: 12:00

Relinquished by: (Signature and Printed Name) UPS

Date: _____

Time: _____

Received by: (Signature and Printed Name) Sydney Roughton

Date: 3/3/17

Time: 10:31

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment:

Tracking No.:

Add Analysis(es) Requested

Container(s)

Quantity	Type	Matrix	EPA1613	EPA8290	EPA8280	EPA1668	EPA1614	CARB429
2378-TCDD	PCDD/PCDF							
2378-TCDF	PCDD/PCDF							
2378-TCDD/TCDF	PCDD/PCDF							
2378-TCDD/TCDF	PCDD/PCDF							
2378-TCDD	PCDD/PCDF							
2378-TCDD	PCDD/PCDF							
2378-TCDD	PCDD/PCDF							
TOTALS								
COPLANAR PCB's								
209 CONGENERS								
PBDE								
PAH								
WHO-29								

ATTN: _____

Sample ID	Date	Time	Location/Sample Description	2L A AG				
GW-136	3-2-17	10:45	STILLER Ponds				X	
GW-145	3-2-17	11:05	STILLER Ponds				X	
GW-146	3-2-17	10:25	STILLER Ponds				X	
GW-147	3-2-17	9:45	STILLER Ponds				X	
SAMPLE	3-2-17	10:05	STILLER Ponds				X	
STILLER DW - M7	3-2-17	9:45	STILLER Ponds				X	
STILLER BLANK	3-2-17	9:45	STILLER Ponds				X	
MATRIX SPKRE - 147	3-2-17	9:45	STILLER Ponds				X	
MATRIX SPKRE DW - M7	3-2-17	9:45	STILLER Ponds				X	

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:

Name: STEVEN PATTEN

Company: WWBWL

Address: 510 S. MAIN

City: MILTON-FREewater State: OR Zip: 97862

Phone: 541-935-2170 Fax: _____

Email: steven.patten@wwbwlc.org

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper,

SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum

AQ = Aqueous, O = Other

Container Types: A = 1 Liter Amber, G = Glass Jar

P = PUF, T = MM5 Train, O = Other

*Bottle Preservative Type: T = Thiosulfate,

O = Other

WHITE - ORIGINAL

YELLOW - ARCHIVE

PINK - COPY

Appendix B - Page 26



CHAIN OF CUSTODY

Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017

FOR LABORATORY USE ONLY

Storage
SecuredYes No Laboratory Project ID: 1700290
Storage ID WR-2 C6Temp 0.5 °CTAT: (Check One): 2.9 hStandard: 21 Days

Rush (surcharge may apply):

 14 days 7 days Specify: _____

Project I.D.: <u>STILLER POND</u>	P.O.#	Sampler: <u>STEVEN PATTEN / TRISTAN PATTEN</u> (Name)		
Invoice to: Name <u>CHRIS SHEETS</u>	Company <u>WWBWL</u>	Address <u>810 S. MAIN ST</u>	City <u>MILTON-FREELAND</u>	State <u>OR</u> Zip <u>97862</u>
Relinquished by: (Signature and Printed Name) <u>STEVEN PATTEN</u>	<u>G. S. P.</u>	Date: <u>3-2-17</u>	Time: <u>12:00</u>	Received by: (Signature and Printed Name) <u>LIPS</u>
Relinquished by: (Signature and Printed Name) <u>UPS</u>		Date: <u>3/3/17</u>	Time: <u>1028</u>	Received by: (Signature and Printed Name) <u>Jody Roughton Sydney Roughton</u>

See "Sample Log-in Checklist" for additional sample information

SHIP TO:	Method of Shipment: 1104 Windfield Way El Dorado Hills, CA 95762 (916) 673-1520 • Fax (916) 673-0106	Tracking No.:	Add Analysis(es) Requested												Container(s)			EPA1613	EPA8290	EPA8280	EPA1668	EPA1614	CARB429		
															Quantity	Type	Matrix	2378-TCDD	2378-TCDD/TCDF	PCDD/PCDF	2378-TCDD/TCDF	PCDD/PCDF	TOTALS	COPLANAR PCB's	209 CONGENERS
Sample ID	Date	Time	Location/Sample Description																						
GW-136	3-2-17	10:05	STILLER POND			2L	A	AQ										X							
GW-145	3-2-17	11:05	STILLER POND			2L	A	AQ										X							
GW-146	3-2-17	10:25	STILLER POND			2L	A	AQ										X							
GW-147	3-2-17	9:45	STILLER POND			2L	A	AQ										X							
SOURCE	3-2-17	10:05	STILLER POND			2L	A	AQ										X							
FIELD DWP-147	3-2-17	9:45	STILLER POND			2L	A	AQ										X							
FIELD RLANK	3-2-17	9:45	STILLER POND			2L	A	AQ										X							
MATRIX SPIKE-147	3-2-17	9:45	STILLER POND			2L	A	AQ										X							
MATRIX SPIKE DWP-147	3-2-17	9:45	STILLER POND			2L	A	AQ										X							

Special Instructions/Comments:

SEND
DOCUMENTATION
AND RESULTS TO:Name: STEVEN PATTEN
Company: WWBWL
Address: 810 S. MAIN
City: MILTON-FREELAND State: OR Zip: 97862
Phone: 541-938-2170 Fax: same
Email: steven.patten@wwbwlc.orgContainer Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MMS Train, O = Other*Bottle Preservative Type: T = Thiosulfate,
O = OtherMatrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper,
SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum
AQ = Aqueous, O = Other

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SAMPLE LOG-IN CHECKLIST

Vista Project #: 700290 TAT 21

Samples Arrival:	Date/Time <u>3/3/17</u> <u>1019</u>	Initials: <u>SR</u>	Location: <u>WR-2</u>			
Logged In:	Date/Time <u>3/3/17</u> <u>1307</u>	Initials: <u>BSB SR</u>	Location: <u>WR-2</u> Shelf/Rack: <u>Cle</u>			
Delivered By:	FedEx	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	<input checked="" type="checkbox"/> Ice		Blue Ice	Dry Ice	None	
Temp °C: <u>1.2</u> (uncorrected)	Time: <u>1024</u>			Thermometer ID: <u>DT-3</u>		
Temp °C: <u>0.5</u> (corrected)	Probe used: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

	YES	NO	NA		
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>				
Holding Time Acceptable?	<input checked="" type="checkbox"/>				
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>				
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>				
Shipping Documentation Present?	<input checked="" type="checkbox"/>				
Airbill Trk # <u>1Z62E3F70134213767</u>	<input checked="" type="checkbox"/>				
Sample Container Intact?	<input checked="" type="checkbox"/>				
Sample Custody Seals Intact?			<input checked="" type="checkbox"/>		
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>				
COC Anomaly/Sample Acceptance Form completed?		<input checked="" type="checkbox"/>			
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			<input checked="" type="checkbox"/>		
Preservation Documented:	<u>Na₂S₂O₃</u>	Trizma	Yes	No <input checked="" type="checkbox"/>	NA
Shipping Container	Vista	<input checked="" type="checkbox"/> Client	Retain	<input checked="" type="checkbox"/> Return	Dispose

Comments: Sample label ID:

Field Blank A/B Containers
 Field Dup -147
 GW -147
 Source
 GW -146
 GW -134 1 Liter each
 GW -145



SAMPLE LOG-IN CHECKLIST

Vista Project #: 1700290 TAT 21

Samples Arrival:	Date/Time <u>3/3/17 1019</u>	Initials: <u>SR</u>	Location: WR-2			
Logged In:	Date/Time <u>3/3/17 1307</u>	Initials: <u>SR URB</u>	Location: WR-2			
Delivered By:	FedEx	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice		None	
Temp °C: <u>3.6</u> (uncorrected)	Time: <u>1032</u>	Probe used: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Thermometer ID: DT-3			
Temp °C: <u>2.9</u> (corrected)						

	YES	NO	NA		
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>				
Holding Time Acceptable?	<input checked="" type="checkbox"/>				
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>				
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>				
Shipping Documentation Present?	<input checked="" type="checkbox"/>				
Airbill	Trk # <u>1Z 62E 3F7 01 0088 1831</u>	<input checked="" type="checkbox"/>			
Sample Container Intact?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Sample Custody Seals Intact?			<input checked="" type="checkbox"/>		
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>				
COC Anomaly/Sample Acceptance Form completed?		<input checked="" type="checkbox"/>			
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			<input checked="" type="checkbox"/>		
Preservation Documented:	Na ₂ S ₂ O ₃	Trizma	Yes	No <input checked="" type="checkbox"/>	
Shipping Container	Vista	Client	Retain	Return	Dispose

Comments: Sample Label ID:

GW-145 1 Liter each
GW-136
Matrix Spike - 147 A/B
Matrix Spike Dup 147



March 24, 2017

Vista Work Order No. 1700290

Mr. Steven Patten
Walla Walla Basin Watershed Council
810 S. Main Street
Milton-Freewater, OR 97862

Dear Mr. Patten,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on March 03, 2017. This sample set was analyzed on a standard turn-around time, under your Project Name 'Stiller Pond'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1700290

Case Narrative

Sample Condition on Receipt:

Seven aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

EPA Method 1668C

These samples were extracted and analyzed for 209 PCB congeners by EPA Method 1668C using a ZB-1 GC column.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limits in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

As requested, an MS/MSD was performed using sample "GW-147".

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Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1700290-01	GW-136		02-Mar-17 10:45	03-Mar-17 10:19	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700290-02	GW-145		02-Mar-17 11:05	03-Mar-17 10:19	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700290-03	GW-146		02-Mar-17 10:25	03-Mar-17 10:19	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700290-04	GW-147	MS/MSD	02-Mar-17 09:45	03-Mar-17 10:19	Amber Glass NM Bottle, 1L
		MS/MSD			Amber Glass NM Bottle, 1L
		MS/MSD			Amber Glass NM Bottle, 1L
		MS/MSD			Amber Glass NM Bottle, 1L
		MS/MSD			Amber Glass NM Bottle, 1L
		MS/MSD			Amber Glass NM Bottle, 1L
1700290-05	Source		02-Mar-17 10:05	03-Mar-17 10:19	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700290-06	Field Dup-147		02-Mar-17 09:45	03-Mar-17 10:19	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700290-07	Field Blank		02-Mar-17 09:45	03-Mar-17 10:19	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L

ANALYTICAL RESULTS

Sample ID: Method Blank					EPA Method 1668C				
Matrix:	Aqueous	QC Batch:	B7C0079	Lab Sample:	B7C0079-BLK1				
Sample Size:	1.00 L	Date Extracted:	15-Mar-2017 10:04	Date Analyzed:	17-Mar-17 16:22	Column:	ZB-1		
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	ND	2.67			PCB-44	ND	1.76		
PCB-2	ND	2.59			PCB-45	ND	1.71		
PCB-3	ND	2.51			PCB-46	ND	1.83		
PCB-4/10	ND	1.94			PCB-47	ND	0.785		
PCB-5/8	ND	1.52			PCB-48/75	ND	1.25		
PCB-6	ND	1.60			PCB-50	ND	1.42		
PCB-7/9	ND	1.19			PCB-51	ND	1.53		
PCB-11	3.83			J	PCB-52/69	ND	1.38		
PCB-12/13	ND	1.29			PCB-53	ND	1.55		
PCB-14	ND	1.12			PCB-54	ND	1.19		
PCB-15	ND	1.14			PCB-55	ND	1.08		
PCB-16/32	ND	0.840			PCB-56/60	ND	1.10		
PCB-17	ND	1.27			PCB-57	ND	1.14		
PCB-18	ND	1.37			PCB-58	ND	1.10		
PCB-19	ND	1.67			PCB-61/70	ND	1.12		
PCB-20/21/33	ND	0.565			PCB-62	ND	1.22		
PCB-22	ND	1.22			PCB-63	ND	1.06		
PCB-23	ND	1.47			PCB-65	ND	1.30		
PCB-24/27	ND	0.976			PCB-66/76	ND	1.11		
PCB-25	ND	1.37			PCB-67	ND	1.16		
PCB-26	ND	1.31			PCB-68	ND	1.09		
PCB-28	ND	0.555			PCB-73	ND	1.24		
PCB-29	ND	1.34			PCB-74	ND	1.09		
PCB-30	ND	1.10			PCB-77	ND	1.08		
PCB-31	ND	0.562			PCB-78	ND	1.19		
PCB-34	ND	1.31			PCB-79	ND	1.07		
PCB-35	ND	1.22			PCB-80	ND	0.959		
PCB-36	ND	1.20			PCB-81	ND	1.10		
PCB-37	ND	1.14			PCB-82	ND	3.33		
PCB-38	ND	1.24			PCB-83	ND	2.10		
PCB-39	ND	1.13			PCB-84/92	ND	2.73		
PCB-40	ND	1.92			PCB-85/116	ND	2.49		
PCB-41/64/71/72	ND	1.24			PCB-86	ND	3.49		
PCB-42/59	ND	1.31			PCB-87/117/125	ND	2.25		
PCB-43/49	ND	1.41			PCB-88/91	ND	2.75		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Sample ID: Method Blank					EPA Method 1668C					
Matrix:	Aqueous	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04	Lab Sample:	B7C0079-BLK1			
Sample Size:	1.00 L				Date Analyzed:	17-Mar-17 16:22	Column:	ZB-1		
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	
PCB-89	ND	2.86			PCB-136	ND	1.93			
PCB-90/101	ND	2.50			PCB-137	ND	1.15			
PCB-93	ND	2.84			PCB-138/163/164	ND	1.09			
PCB-94	ND	2.88			PCB-139/149	ND	2.52			
PCB-95/98/102	ND	2.59			PCB-140	ND	2.74			
PCB-96	ND	2.13			PCB-141	ND	1.18			
PCB-97	ND	2.72			PCB-144	ND	2.48			
PCB-99	ND	2.50			PCB-145	ND	2.00			
PCB-100	ND	2.38			PCB-146/165	ND	1.12			
PCB-103	ND	2.39			PCB-147	ND	2.84			
PCB-104	ND	1.88			PCB-148	ND	2.79			
PCB-105	ND	1.45			PCB-150	ND	1.99			
PCB-106/118	ND	2.06			PCB-151	ND	2.68			
PCB-107/109	ND	2.02			PCB-152	ND	1.92			
PCB-108/112	ND	2.49			PCB-153	ND	1.04			
PCB-110	ND	2.03			PCB-154	ND	2.52			
PCB-111/115	ND	1.93			PCB-155	ND	1.82			
PCB-113	ND	2.15			PCB-156	ND	0.914			
PCB-114	ND	1.46			PCB-157	ND	0.927			
PCB-119	ND	1.91			PCB-158/160	ND	1.01			
PCB-120	ND	1.87			PCB-159	ND	0.886			
PCB-121	ND	1.95			PCB-166	ND	0.949			
PCB-122	ND	1.65			PCB-167	ND	0.937			
PCB-123	ND	2.01			PCB-168	ND	0.865			
PCB-124	ND	2.09			PCB-169	ND	1.02			
PCB-126	ND	1.70			PCB-170	ND	0.775			
PCB-127	ND	1.63			PCB-171	ND	0.742			
PCB-128/162	ND	1.07			PCB-172	ND	0.810			
PCB-129	ND	1.47			PCB-173	ND	0.912			
PCB-130	ND	1.36			PCB-174	ND	0.830			
PCB-131	ND	1.35			PCB-175	ND	0.789			
PCB-132/161	ND	1.07			PCB-176	ND	0.570			
PCB-133/142	ND	1.39			PCB-177	ND	0.864			
PCB-134/143	ND	1.34			PCB-178	ND	0.739			
PCB-135	ND	2.78			PCB-179	ND	0.610			

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: Method Blank					EPA Method 1668C			
Matrix:	Aqueous	QC Batch:	B7C0079	Lab Sample:	B7C0079-BLK1			
Sample Size:	1.00 L	Date Extracted:	15-Mar-2017 10:04	Date Analyzed:	17-Mar-17 16:22	Column:	ZB-1	
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC
PCB-180	ND	0.758			Total octaCB	ND	0.356	
PCB-181	ND	0.768			Total nonaCB	ND	0.589	
PCB-182/187	ND	0.714			DecaCB	ND	0.535	
PCB-183	ND	0.645			Total PCB	3.83		
PCB-184	ND	0.616						
PCB-185	ND	0.787						
PCB-186	ND	0.568						
PCB-188	ND	0.555						
PCB-189	ND	0.591						
PCB-190	ND	0.574						
PCB-191	ND	0.595						
PCB-192	ND	0.621						
PCB-193	ND	0.600						
PCB-194	ND		0.356					
PCB-195	ND	0.649						
PCB-196/203	ND	1.92						
PCB-197	ND	1.38						
PCB-198	ND	2.07						
PCB-199	ND	2.09						
PCB-200	ND	1.50						
PCB-201	ND	1.44						
PCB-202	ND	1.55						
PCB-204	ND	1.53						
PCB-205	ND	0.441						
PCB-206	ND	0.589						
PCB-207	ND	0.363						
PCB-208	ND	0.361						
PCB-209	ND	0.535						
Total monoCB	ND	2.67						
Total diCB	3.83							
Total triCB	ND	1.67						
Total tetraCB	ND	1.92						
Total pentaCB	ND	3.49						
Total hexaCB	ND	2.84						
Total heptaCB	ND	0.912						

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

Sample ID: Method Blank					EPA Method 1668C		
Matrix:	Aqueous	QC Batch:	B7C0079	Lab Sample:	B7C0079-BLK1		
Sample Size:	1.00 L	Date Extracted:	15-Mar-2017 10:04	Date Analyzed:	17-Mar-17 16:22	Column:	ZB-1
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
IS 13C-PCB-1	29.9	5-145		13C-PCB-157	93.9	10-145	
13C-PCB-3	32.5	5-145		13C-PCB-159	95.4	10-145	
13C-PCB-4	51.1	5-145		13C-PCB-167	97.0	10-145	
13C-PCB-11	67.6	5-145		13C-PCB-169	92.3	10-145	
13C-PCB-9	55.1	5-145		13C-PCB-170	85.8	10-145	
13C-PCB-19	48.8	5-145		13C-PCB-180	87.8	10-145	
13C-PCB-28	73.7	5-145		13C-PCB-188	91.7	10-145	
13C-PCB-32	56.5	5-145		13C-PCB-189	82.3	10-145	
13C-PCB-37	76.6	5-145		13C-PCB-194	101	10-145	
13C-PCB-47	81.7	5-145		13C-PCB-202	64.2	10-145	
13C-PCB-52	82.9	5-145		13C-PCB-206	96.3	10-145	
13C-PCB-54	83.5	5-145		13C-PCB-208	102	10-145	
13C-PCB-70	88.8	5-145		13C-PCB-209	83.6	10-145	
13C-PCB-77	93.7	10-145		CRS 13C-PCB-79	93.0	10-145	
13C-PCB-80	87.5	10-145		13C-PCB-178	91.7	10-145	
13C-PCB-81	93.7	10-145					
13C-PCB-95	92.0	10-145					
13C-PCB-97	93.1	10-145					
13C-PCB-101	94.5	10-145					
13C-PCB-104	92.6	10-145					
13C-PCB-105	93.4	10-145					
13C-PCB-114	97.7	10-145					
13C-PCB-118	92.6	10-145					
13C-PCB-123	95.0	10-145					
13C-PCB-126	89.3	10-145					
13C-PCB-127	90.9	10-145					
13C-PCB-138	93.7	10-145					
13C-PCB-141	95.4	10-145					
13C-PCB-153	97.8	10-145					
13C-PCB-155	79.5	10-145					
13C-PCB-156	96.2	10-145					

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: OPR					EPA Method 1668C			
Matrix:	Aqueous <th>QC Batch:</th> <td>B7C0079</td> <th></th> <th>Lab Sample:</th> <td>B7C0079-BS1</td> <th></th>	QC Batch:	B7C0079		Lab Sample:	B7C0079-BS1		
Sample Size:	1.00 L	Date Extracted:	15-Mar-2017 10:04		Date Analyzed:	17-Mar-17 13:07	Column: ZB-1	
Analyte	Amt Found (pg/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL	
PCB-1	1350	1000	135	60 - 135	IS 13C-PCB-1	24.0	15 - 145	
PCB-3	1330	1000	133	60 - 135	IS 13C-PCB-3	26.3	15 - 145	
PCB-4/10	1950	2000	97.4	60 - 135	IS 13C-PCB-4	42.2	15 - 145	
PCB-15	918	1000	91.8	60 - 135	IS 13C-PCB-11	61.5	15 - 145	
PCB-19	1060	1000	106	60 - 135	IS 13C-PCB-9	47.8	15 - 145	
PCB-37	800	1000	80.0	60 - 135	IS 13C-PCB-19	36.8	15 - 145	
PCB-54	900	1000	90.0	60 - 135	IS 13C-PCB-28	53.9	15 - 145	
PCB-77	951	1000	95.1	60 - 135	IS 13C-PCB-32	47.7	15 - 145	
PCB-81	992	1000	99.2	60 - 135	IS 13C-PCB-37	66.4	15 - 145	
PCB-104	924	1000	92.4	60 - 135	IS 13C-PCB-47	81.9	15 - 145	
PCB-105	1020	1000	102	60 - 135	IS 13C-PCB-52	80.9	15 - 145	
PCB-106/118	1910	2000	95.3	60 - 135	IS 13C-PCB-54	71.1	15 - 145	
PCB-114	1060	1000	106	60 - 135	IS 13C-PCB-70	89.7	15 - 145	
PCB-123	948	1000	94.8	60 - 135	IS 13C-PCB-77	89.5	40 - 145	
PCB-126	994	1000	99.4	60 - 135	IS 13C-PCB-80	89.1	40 - 145	
PCB-155	921	1000	92.1	60 - 135	IS 13C-PCB-81	90.1	40 - 145	
PCB-156	935	1000	93.5	60 - 135	IS 13C-PCB-95	90.5	40 - 145	
PCB-157	944	1000	94.4	60 - 135	IS 13C-PCB-97	92.1	40 - 145	
PCB-167	910	1000	91.0	60 - 135	IS 13C-PCB-101	90.0	40 - 145	
PCB-169	944	1000	94.4	60 - 135	IS 13C-PCB-104	86.4	40 - 145	
PCB-188	910	1000	91.0	60 - 135	IS 13C-PCB-105	84.8	40 - 145	
PCB-189	956	1000	95.6	60 - 135	IS 13C-PCB-114	89.1	40 - 145	
PCB-202	979	1000	97.9	60 - 135	IS 13C-PCB-118	91.2	40 - 145	
PCB-205	865	1000	86.5	60 - 135	IS 13C-PCB-123	93.4	40 - 145	
PCB-206	944	1000	94.4	60 - 135	IS 13C-PCB-126	81.7	40 - 145	
PCB-208	924	1000	92.4	60 - 135	IS 13C-PCB-127	85.3	40 - 145	
PCB-209	968	1000	96.8	60 - 135	IS 13C-PCB-138	92.5	40 - 145	
					IS 13C-PCB-141	91.2	40 - 145	
					IS 13C-PCB-153	92.2	40 - 145	
					IS 13C-PCB-155	80.5	40 - 145	
					IS 13C-PCB-156	94.5	40 - 145	
					IS 13C-PCB-157	91.8	40 - 145	
					IS 13C-PCB-159	92.3	40 - 145	
					IS 13C-PCB-167	93.6	40 - 145	
					IS 13C-PCB-169	88.9	40 - 145	
					IS 13C-PCB-170	83.6	40 - 145	
					IS 13C-PCB-180	84.4	40 - 145	
					IS 13C-PCB-188	85.9	40 - 145	
					IS 13C-PCB-189	81.3	40 - 145	
					IS 13C-PCB-194	96.4	40 - 145	

Sample ID: OPR					EPA Method 1668C			
Matrix:	Aqueous <th>QC Batch:</th> <td>B7C0079<th>Lab Sample:</th><td>B7C0079-BS1<th data-cs="2" data-kind="parent"></th><th data-kind="ghost"></th></td></td>	QC Batch:	B7C0079 <th>Lab Sample:</th> <td>B7C0079-BS1<th data-cs="2" data-kind="parent"></th><th data-kind="ghost"></th></td>	Lab Sample:	B7C0079-BS1 <th data-cs="2" data-kind="parent"></th> <th data-kind="ghost"></th>			
Sample Size:	1.00 L	Date Extracted:	15-Mar-2017 10:04 <th>Date Analyzed:</th> <td>17-Mar-17 13:07</td> <th>Column:</th> <td>ZB-1</td>	Date Analyzed:	17-Mar-17 13:07	Column:	ZB-1	
Analyte	Amt Found (pg/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL	
					IS 13C-PCB-202	61.6	40 - 145	
					IS 13C-PCB-206	93.9	40 - 145	
					IS 13C-PCB-208	103	40 - 145	
					IS 13C-PCB-209	83.9	40 - 145	
					CRS 13C-PCB-79	87.3	40 - 145	
					CRS 13C-PCB-178	85.2	40 - 145	

LCL-UCL - Lower control limit - upper control limit

Sample ID: GW-136					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-01	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	0.990 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 10:45	Date Analyzed : 17-Mar-17 17:27 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	33.1				PCB-44	ND		6.54	
PCB-2	2.48			J	PCB-45	3.20			J
PCB-3	10.9				PCB-46	1.32			J
PCB-4/10	54.4				PCB-47	2.16			J
PCB-5/8	107				PCB-48/75	1.72			J
PCB-6	20.0				PCB-50	ND	1.20		
PCB-7/9	9.08			J	PCB-51	ND		0.591	
PCB-11	7.77			B	PCB-52/69	7.03			J
PCB-12/13	ND	2.81			PCB-53	1.95			J
PCB-14	ND	0.898			PCB-54	ND	1.00		
PCB-15	18.3				PCB-55	ND	0.822		
PCB-16/32	45.1				PCB-56/60	ND		1.47	
PCB-17	21.9				PCB-57	ND	0.781		
PCB-18	62.9				PCB-58	ND	0.755		
PCB-19	9.69				PCB-61/70	2.95			J
PCB-20/21/33	21.6				PCB-62	ND	0.994		
PCB-22	12.2				PCB-63	ND	0.729		
PCB-23	ND	1.22			PCB-65	ND	1.06		
PCB-24/27	5.54			J	PCB-66/76	1.87			J
PCB-25	3.16			J	PCB-67	ND	0.796		
PCB-26	6.27				PCB-68	ND		0.327	
PCB-28	24.7				PCB-73	ND	0.901		
PCB-29	ND	1.11			PCB-74	1.41			J
PCB-30	ND	0.818			PCB-77	ND	0.799		
PCB-31	24.3				PCB-78	ND	0.854		
PCB-34	ND	1.09			PCB-79	ND	0.816		
PCB-35	ND	0.866			PCB-80	ND	0.731		
PCB-36	ND	0.851			PCB-81	ND	0.789		
PCB-37	2.88			J	PCB-82	ND	2.22		
PCB-38	ND	0.879			PCB-83	ND	1.46		
PCB-39	ND	0.803			PCB-84/92	ND	1.87		
PCB-40	1.40			J	PCB-85/116	ND	1.72		
PCB-41/64/71/72	6.07			J	PCB-86	ND	2.42		
PCB-42/59	2.68			J	PCB-87/117/125	ND	1.56		
PCB-43/49	4.62			J	PCB-88/91	ND	1.87		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-136					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-01 <th>Date Received:</th> <td>03-Mar-2017 10:19</td> <td></td> <td></td>	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	0.990 L <th>QC Batch:</th> <td>B7C0079</td> <th>Date Extracted:</th> <td>15-Mar-2017 10:04</td> <td></td> <td></td>	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 10:45 <th data-cs="2" data-kind="parent">Date Analyzed :</th> <th data-kind="ghost"></th> <td>17-Mar-17 17:27</td> <th>Column:</th> <td>ZB-1</td> <th></th> <th></th> <th></th>	Date Analyzed :		17-Mar-17 17:27	Column:	ZB-1			
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	1.95			PCB-136	ND	1.24		
PCB-90/101	ND		1.13		PCB-137	ND	0.746		
PCB-93	ND	1.93			PCB-138/163/164	0.630			J
PCB-94	ND	1.95			PCB-139/149	ND	1.61		
PCB-95/98/102	1.47			J	PCB-140	ND	1.76		
PCB-96	ND	1.50			PCB-141	ND	0.765		
PCB-97	ND	1.88			PCB-144	ND	1.59		
PCB-99	ND	1.71			PCB-145	ND	1.28		
PCB-100	ND	1.68			PCB-146/165	ND	0.753		
PCB-103	ND	1.68			PCB-147	ND	1.82		
PCB-104	ND	1.32			PCB-148	ND	1.79		
PCB-105	ND	0.475			PCB-150	ND	1.28		
PCB-106/118	0.890			J	PCB-151	ND	1.72		
PCB-107/109	ND	1.35			PCB-152	ND	1.23		
PCB-108/112	ND	1.72			PCB-153	ND	0.702		
PCB-110	1.21			J	PCB-154	ND	1.62		
PCB-111/115	ND	1.34			PCB-155	ND	1.17		
PCB-113	ND	1.47			PCB-156	ND	0.577		
PCB-114	ND	1.01			PCB-157	ND	0.604		
PCB-119	ND	1.32			PCB-158/160	ND	0.630		
PCB-120	ND	1.29			PCB-159	ND	0.565		
PCB-121	ND	1.32			PCB-166	ND	0.606		
PCB-122	ND	1.14			PCB-167	ND	0.588		
PCB-123	ND	1.34			PCB-168	ND	0.583		
PCB-124	ND	1.39			PCB-169	ND	0.656		
PCB-126	ND	1.08			PCB-170	ND	0.623		
PCB-127	ND	1.03			PCB-171	ND	0.613		
PCB-128/162	ND	0.684			PCB-172	ND	0.669		
PCB-129	ND	0.919			PCB-173	ND	0.753		
PCB-130	ND	0.883			PCB-174	ND	0.686		
PCB-131	ND	0.909			PCB-175	ND	0.635		
PCB-132/161	ND	0.721			PCB-176	ND	0.458		
PCB-133/142	ND	0.937			PCB-177	ND	0.714		
PCB-134/143	ND	0.902			PCB-178	ND	0.595		
PCB-135	ND	1.78			PCB-179	ND	0.491		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: GW-136					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-01	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	0.990 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 10:45	Date Analyzed : 17-Mar-17 17:27 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.626			Total octaCB	ND		0.464	
PCB-181	ND	0.635			Total nonaCB	ND		0.506	
PCB-182/187	ND	0.575			DecaCB	ND		0.538	
PCB-183	ND	0.519			Total PCB	545			
PCB-184	ND	0.496							
PCB-185	ND	0.650							
PCB-186	ND	0.457							
PCB-188	ND	0.447							
PCB-189	ND	0.449							
PCB-190	ND	0.461							
PCB-191	ND	0.491							
PCB-192	ND	0.513							
PCB-193	ND	0.495							
PCB-194	ND		0.464						
PCB-195	ND	0.604							
PCB-196/203	ND	1.36							
PCB-197	ND	0.978							
PCB-198	ND	1.47							
PCB-199	ND	1.48							
PCB-200	ND	1.06							
PCB-201	ND	1.02							
PCB-202	ND	1.10							
PCB-204	ND	1.09							
PCB-205	ND	0.411							
PCB-206	ND	0.506							
PCB-207	ND	0.347							
PCB-208	ND	0.344							
PCB-209	ND	0.538							
Total monoCB	46.4								
Total diCB	216								
Total triCB	240								
Total tetraCB	38.4		47.3						
Total pentaCB	3.57		4.70						
Total hexaCB	0.630								
Total heptaCB	ND	0.753							

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-136**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Sample Size:	0.990 L	Lab Sample:	1700290-01	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04						
Date Collected:	02-Mar-2017 10:45	Date Analyzed :	17-Mar-17 17:27	Column:	ZB-1						
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
IS 13C-PCB-1	20.3	5 -145		13C-PCB-170	79.6	10 -145		13C-PCB-180	81.3	10 -145	
13C-PCB-3	23.2	5 -145		13C-PCB-188	84.1	10 -145		13C-PCB-189	77.3	10 -145	
13C-PCB-4	40.2	5 -145		13C-PCB-194	95.2	10 -145		13C-PCB-202	56.9	10 -145	
13C-PCB-11	60.8	5 -145		13C-PCB-206	90.8	10 -145		13C-PCB-208	95.8	10 -145	
13C-PCB-9	46.8	5 -145		13C-PCB-209	75.2	10 -145		CRS 13C-PCB-79	91.3	10 -145	
13C-PCB-19	40.6	5 -145		13C-PCB-178	86.7	10 -145					
13C-PCB-28	67.0	5 -145									
13C-PCB-32	51.2	5 -145									
13C-PCB-37	79.5	5 -145									
13C-PCB-47	74.0	5 -145									
13C-PCB-52	78.7	5 -145									
13C-PCB-54	70.7	5 -145									
13C-PCB-70	90.7	5 -145									
13C-PCB-77	93.0	10 -145									
13C-PCB-80	85.0	10 -145									
13C-PCB-81	90.0	10 -145									
13C-PCB-95	85.7	10 -145									
13C-PCB-97	88.4	10 -145									
13C-PCB-101	88.2	10 -145									
13C-PCB-104	82.8	10 -145									
13C-PCB-105	89.6	10 -145									
13C-PCB-114	92.7	10 -145									
13C-PCB-118	91.7	10 -145									
13C-PCB-123	91.9	10 -145									
13C-PCB-126	85.6	10 -145									
13C-PCB-127	86.7	10 -145									
13C-PCB-138	92.5	10 -145									
13C-PCB-141	93.9	10 -145									
13C-PCB-153	95.3	10 -145									
13C-PCB-155	74.5	10 -145									
13C-PCB-156	94.4	10 -145									
13C-PCB-157	91.6	10 -145									
13C-PCB-159	92.1	10 -145									
13C-PCB-167	94.1	10 -145									
13C-PCB-169	87.7	10 -145									

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: GW-145**EPA Method 1668C**

Client Data					Sample Data					Laboratory Data							
Name:	Walla Walla Basin Watershed Council				Matrix:	Aqueous				Lab Sample:	1700290-02				Date Received:	03-Mar-2017 10:19	
Project:	Stiller Pond				Sample Size:	0.991 L				QC Batch:	B7C0079				Date Extracted:	15-Mar-2017 10:04	
Date Collected:	02-Mar-2017 11:05				Date Analyzed : 17-Mar-17 18:32 Column: ZB-1												
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers			
PCB-1	28.8				PCB-44	5.43				PCB-45	2.02			J			
PCB-2	2.07			J	PCB-46	1.01				PCB-47	3.17			J			
PCB-3	9.92				PCB-48/75	1.45				PCB-49	ND	0.463		J			
PCB-4/10	50.7				PCB-50	ND				PCB-51	1.00			J			
PCB-5/8	92.7				PCB-52/69	5.24				PCB-53	1.85			J			
PCB-6	18.4				PCB-54	ND	0.387			PCB-55	ND	0.377					
PCB-7/9	8.66			J	PCB-56/60	ND				PCB-57	ND	0.377	1.14				
PCB-11	10.0			B	PCB-58	ND	0.365			PCB-59	ND						
PCB-12/13	ND		1.97		PCB-61/70	2.38				PCB-62	ND	0.409		J			
PCB-14	ND	0.494			PCB-63	ND	0.352			PCB-64	ND	0.437					
PCB-15	15.5				PCB-65	ND				PCB-66/76	1.59			J			
PCB-16/32	38.6				PCB-67	ND	0.385			PCB-68	0.579			J			
PCB-17	20.9				PCB-69	ND	0.389			PCB-70	ND						
PCB-18	60.8				PCB-71	0.903				PCB-72	ND	0.375		J			
PCB-19	8.03				PCB-73	ND	0.388			PCB-74	ND	0.374					
PCB-20/21/33	18.7				PCB-75	ND	0.335			PCB-76	ND	0.359					
PCB-22	8.90				PCB-77	ND				PCB-78	ND	1.49					
PCB-23	ND	0.631			PCB-79	ND	0.374			PCB-79	ND	0.955					
PCB-24/27	4.70			J	PCB-80	ND	0.335			PCB-80	ND	1.27					
PCB-25	2.38			J	PCB-81	ND	0.359			PCB-81	ND	1.27					
PCB-26	5.38				PCB-82	ND	1.13			PCB-82	ND	1.13					
PCB-28	17.7				PCB-83	ND	1.59			PCB-83	ND	1.59					
PCB-29	ND	0.574			PCB-84/92	ND	1.02			PCB-84/92	ND	1.27					
PCB-30	ND	0.496			PCB-85/116	ND	1.28			PCB-85/116	ND	1.28					
PCB-31	20.0				PCB-86	ND				PCB-86	ND	1.28					
PCB-34	ND	0.560			PCB-87/117/125	ND				PCB-87/117/125	ND						
PCB-35	ND	0.496			PCB-88/91	ND				PCB-88/91	ND						
PCB-36	ND	0.488															
PCB-37	1.43			J													
PCB-38	ND	0.504															
PCB-39	ND	0.461															
PCB-40	0.958			J													
PCB-41/64/71/72	3.87			J													
PCB-42/59	ND		1.48														
PCB-43/49	2.80			J													

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW-145					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-02	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	0.991 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 11:05	Date Analyzed : 17-Mar-17 18:32 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	1.33			PCB-136	ND	0.862		
PCB-90/101	ND		0.628		PCB-137	ND	0.600		
PCB-93	ND	1.32			PCB-138/163/164	ND		0.471	
PCB-94	ND	1.34			PCB-139/149	ND	0.847		
PCB-95/98/102	1.49			J	PCB-140	ND	1.22		
PCB-96	ND	0.949			PCB-141	ND	0.616		
PCB-97	ND	1.24			PCB-144	ND	1.10		
PCB-99	ND	1.17			PCB-145	ND	0.892		
PCB-100	ND	1.06			PCB-146/165	ND	0.556		
PCB-103	ND	1.07			PCB-147	ND	1.27		
PCB-104	ND	0.838			PCB-148	ND	1.25		
PCB-105	ND	0.740			PCB-150	ND	0.889		
PCB-106/118	ND	0.659			PCB-151	ND	1.19		
PCB-107/109	ND	0.908			PCB-152	ND	0.857		
PCB-108/112	ND	1.13			PCB-153	ND	0.518		
PCB-110	0.880			J	PCB-154	ND	1.12		
PCB-111/115	ND	0.877			PCB-155	ND	0.812		
PCB-113	ND	1.00			PCB-156	ND	0.456		
PCB-114	ND	0.760			PCB-157	ND	0.478		
PCB-119	ND	0.866			PCB-158/160	ND	0.464		
PCB-120	ND	0.848			PCB-159	ND	0.438		
PCB-121	ND	0.907			PCB-166	ND	0.470		
PCB-122	ND	0.859			PCB-167	ND	0.449		
PCB-123	ND	0.902			PCB-168	ND	0.431		
PCB-124	ND	0.935			PCB-169	ND	0.517		
PCB-126	ND	0.847			PCB-170	ND	0.477		
PCB-127	ND	0.823			PCB-171	ND	0.434		
PCB-128/162	ND	0.530			PCB-172	ND	0.473		
PCB-129	ND	0.677			PCB-173	ND	0.533		
PCB-130	ND	0.711			PCB-174	ND	0.485		
PCB-131	ND	0.672			PCB-175	ND	0.461		
PCB-132/161	ND	0.532			PCB-176	ND	0.333		
PCB-133/142	ND	0.692			PCB-177	ND	0.505		
PCB-134/143	ND	0.666			PCB-178	ND	0.432		
PCB-135	ND	1.24			PCB-179	ND	0.356		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-145					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-02	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	0.991 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 11:05	Date Analyzed : 17-Mar-17 18:32 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.443			Total octaCB	ND		0.456	
PCB-181	ND	0.449			Total nonaCB	ND	0.520		
PCB-182/187	ND	0.417			DecaCB	ND	0.378		
PCB-183	ND	0.377			Total PCB	481			
PCB-184	ND	0.360							
PCB-185	ND	0.460							
PCB-186	ND	0.332							
PCB-188	ND	0.324							
PCB-189	ND	0.357							
PCB-190	ND	0.353							
PCB-191	ND	0.348							
PCB-192	ND	0.363							
PCB-193	ND	0.351							
PCB-194	ND		0.456						
PCB-195	ND	0.479							
PCB-196/203	ND	1.19							
PCB-197	ND	0.853							
PCB-198	ND	1.28							
PCB-199	ND	1.29							
PCB-200	ND	0.928							
PCB-201	ND	0.893							
PCB-202	ND	0.956							
PCB-204	ND	0.946							
PCB-205	ND	0.326							
PCB-206	ND	0.520							
PCB-207	ND	0.306							
PCB-208	ND	0.304							
PCB-209	ND	0.378							
Total monoCB	40.8								
Total diCB	196		198						
Total triCB	207								
Total tetraCB	34.2		36.9						
Total pentaCB	2.37		2.99						
Total hexaCB	ND		0.471						
Total heptaCB	ND	0.533							

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-145**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-02	Date Received:	03-Mar-2017 10:19				
Project:	Stiller Pond	Sample Size:	0.991 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04				
Date Collected:	02-Mar-2017 11:05	Date Analyzed : 17-Mar-17 18:32 Column: ZB-1									
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	33.2	5 -145		13C-PCB-170	77.9	10 -145					
13C-PCB-3	35.2	5 -145		13C-PCB-180	80.4	10 -145					
13C-PCB-4	58.5	5 -145		13C-PCB-188	83.2	10 -145					
13C-PCB-11	75.2	5 -145		13C-PCB-189	71.4	10 -145					
13C-PCB-9	65.2	5 -145		13C-PCB-194	98.4	10 -145					
13C-PCB-19	49.6	5 -145		13C-PCB-202	51.7	10 -145					
13C-PCB-28	68.3	5 -145		13C-PCB-206	91.6	10 -145					
13C-PCB-32	53.2	5 -145		13C-PCB-208	105	10 -145					
13C-PCB-37	78.0	5 -145		13C-PCB-209	76.5	10 -145					
13C-PCB-47	83.0	5 -145		CRS 13C-PCB-79	90.4	10 -145					
13C-PCB-52	84.6	5 -145		13C-PCB-178	86.5	10 -145					
13C-PCB-54	86.0	5 -145									
13C-PCB-70	87.4	5 -145									
13C-PCB-77	88.0	10 -145									
13C-PCB-80	87.1	10 -145									
13C-PCB-81	89.7	10 -145									
13C-PCB-95	87.5	10 -145									
13C-PCB-97	89.0	10 -145									
13C-PCB-101	88.5	10 -145									
13C-PCB-104	89.2	10 -145									
13C-PCB-105	90.2	10 -145									
13C-PCB-114	95.6	10 -145									
13C-PCB-118	91.7	10 -145									
13C-PCB-123	93.9	10 -145									
13C-PCB-126	84.1	10 -145									
13C-PCB-127	85.4	10 -145									
13C-PCB-138	93.6	10 -145									
13C-PCB-141	93.9	10 -145									
13C-PCB-153	95.8	10 -145									
13C-PCB-155	70.0	10 -145									
13C-PCB-156	94.0	10 -145									
13C-PCB-157	90.8	10 -145									
13C-PCB-159	93.2	10 -145									
13C-PCB-167	92.5	10 -145									
13C-PCB-169	85.5	10 -145									

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: GW-146					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-03	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	1.04 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 10:25	Date Analyzed : 22-Mar-17 12:44 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	29.8				PCB-44	8.33			
PCB-2	1.89			J	PCB-45	2.89			J
PCB-3	9.23				PCB-46	1.34			J
PCB-4/10	59.1				PCB-47	ND		2.34	
PCB-5/8	104				PCB-48/75	2.18			J
PCB-6	20.3				PCB-50	ND	0.714		
PCB-7/9	9.08			J	PCB-51	0.687			J
PCB-11	8.97			B	PCB-52/69	7.45			J
PCB-12/13	ND	2.76			PCB-53	2.28			J
PCB-14	ND	0.498			PCB-54	ND	0.597		
PCB-15	19.4				PCB-55	ND	0.430		
PCB-16/32	48.3				PCB-56/60	2.19			J
PCB-17	25.3				PCB-57	ND	0.457		
PCB-18	72.5				PCB-58	ND	0.442		
PCB-19	9.43				PCB-61/70	3.10			J
PCB-20/21/33	25.8				PCB-62	ND	0.529		
PCB-22	13.6				PCB-63	ND	0.427		
PCB-23	ND	0.688			PCB-65	ND	0.564		
PCB-24/27	5.08			J	PCB-66/76	2.12			J
PCB-25	3.00			J	PCB-67	ND	0.467		
PCB-26	6.78				PCB-68	ND	0.471		
PCB-28	26.5				PCB-73	ND	0.512		
PCB-29	ND	0.520			PCB-74	1.50			J
PCB-30	ND	0.435			PCB-77	ND	0.418		
PCB-31	28.1				PCB-78	ND	0.461		
PCB-34	ND	0.610			PCB-79	ND	0.427		
PCB-35	ND	0.552			PCB-80	ND	0.382		
PCB-36	ND	0.542			PCB-81	ND	0.426		
PCB-37	3.39			J	PCB-82	ND	1.49		
PCB-38	ND	0.560			PCB-83	ND	0.976		
PCB-39	ND	0.512			PCB-84/92	ND		0.492	
PCB-40	1.60			J	PCB-85/116	ND	1.15		
PCB-41/64/71/72	6.59			J	PCB-86	ND	1.62		
PCB-42/59	2.90			J	PCB-87/117/125	ND	1.04		
PCB-43/49	4.81			J	PCB-88/91	ND	1.32		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-146					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-03	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	1.04 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 10:25	Date Analyzed : 22-Mar-17 12:44 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	1.35			PCB-136	ND	0.965		
PCB-90/101	0.979			J	PCB-137	ND	0.550		
PCB-93	ND	1.37			PCB-138/163/164	ND		0.554	
PCB-94	ND	1.38			PCB-139/149	ND	1.26		
PCB-95/98/102	1.55			J	PCB-140	ND	1.37		
PCB-96	ND	1.10			PCB-141	ND	0.565		
PCB-97	ND	1.26			PCB-144	ND	1.24		
PCB-99	0.733			J	PCB-145	ND	0.999		
PCB-100	ND	1.23			PCB-146/165	ND	0.542		
PCB-103	ND	1.23			PCB-147	ND	1.42		
PCB-104	ND	0.967			PCB-148	ND	1.39		
PCB-105	ND	0.781			PCB-150	ND	0.995		
PCB-106/118	0.846			J	PCB-151	ND	1.34		
PCB-107/109	ND	0.906			PCB-152	ND	0.960		
PCB-108/112	ND	1.15			PCB-153	ND	0.505		
PCB-110	1.45			J	PCB-154	ND	1.26		
PCB-111/115	ND	0.896			PCB-155	ND	0.909		
PCB-113	ND	1.02			PCB-156	ND	0.394		
PCB-114	ND	0.615			PCB-157	ND	0.414		
PCB-119	ND	0.886			PCB-158/160	ND	0.445		
PCB-120	ND	0.867			PCB-159	ND	0.409		
PCB-121	ND	0.938			PCB-166	ND	0.438		
PCB-122	ND	0.696			PCB-167	ND	0.416		
PCB-123	ND	0.900			PCB-168	ND	0.420		
PCB-124	ND	0.934			PCB-169	ND	0.425		
PCB-126	ND	0.653			PCB-170	ND	0.353		
PCB-127	ND	0.632			PCB-171	ND	0.352		
PCB-128/162	ND	0.495			PCB-172	ND	0.384		
PCB-129	ND	0.649			PCB-173	ND	0.433		
PCB-130	ND	0.652			PCB-174	ND	0.394		
PCB-131	ND	0.654			PCB-175	ND	0.411		
PCB-132/161	ND	0.518			PCB-176	ND	0.297		
PCB-133/142	ND	0.674			PCB-177	ND	0.410		
PCB-134/143	ND	0.649			PCB-178	ND	0.385		
PCB-135	ND	1.39			PCB-179	ND	0.318		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-146					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-03	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	1.04 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 10:25	Date Analyzed : 22-Mar-17 12:44 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.359			Total octaCB	ND		0.444	
PCB-181	ND	0.364			Total nonaCB	ND		0.211	
PCB-182/187	ND	0.372			DecaCB	0.869			
PCB-183	ND	0.336			Total PCB	586			
PCB-184	ND	0.321							
PCB-185	ND	0.374							
PCB-186	ND	0.296							
PCB-188	ND	0.289							
PCB-189	ND	0.236							
PCB-190	ND	0.262							
PCB-191	ND	0.282							
PCB-192	ND	0.294							
PCB-193	ND	0.285							
PCB-194	ND		0.444						
PCB-195	ND	0.303							
PCB-196/203	ND	0.978							
PCB-197	ND	0.704							
PCB-198	ND	1.06							
PCB-199	ND	1.07							
PCB-200	ND	0.766							
PCB-201	ND	0.737							
PCB-202	ND	0.789							
PCB-204	ND	0.781							
PCB-205	ND	0.206							
PCB-206	ND	0.210							
PCB-207	ND	0.170							
PCB-208	ND		0.211						
PCB-209	0.869			J					
Total monoCB	41.0								
Total diCB	221								
Total triCB	268								
Total tetraCB	50.0		52.3						
Total pentaCB	5.56		6.05						
Total hexaCB	ND		0.554						
Total heptaCB	ND		0.433						

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-146**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Sample Size:	1.04 L	Lab Sample:	1700290-03	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04						
Date Collected:	02-Mar-2017 10:25	Date Analyzed :	22-Mar-17 12:44	Column:	ZB-1						
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	37.1	5 -145		13C-PCB-170	92.1	10 -145					
13C-PCB-3	41.8	5 -145		13C-PCB-180	93.5	10 -145					
13C-PCB-4	57.6	5 -145		13C-PCB-188	84.0	10 -145					
13C-PCB-11	74.1	5 -145		13C-PCB-189	94.5	10 -145					
13C-PCB-9	62.7	5 -145		13C-PCB-194	112	10 -145					
13C-PCB-19	54.3	5 -145		13C-PCB-202	68.7	10 -145					
13C-PCB-28	72.4	5 -145		13C-PCB-206	123	10 -145					
13C-PCB-32	61.6	5 -145		13C-PCB-208	140	10 -145					
13C-PCB-37	80.6	5 -145		13C-PCB-209	119	10 -145					
13C-PCB-47	83.3	5 -145		CRS 13C-PCB-79	101	10 -145					
13C-PCB-52	83.4	5 -145		13C-PCB-178	86.4	10 -145					
13C-PCB-54	73.2	5 -145									
13C-PCB-70	94.6	5 -145									
13C-PCB-77	104	10 -145									
13C-PCB-80	95.6	10 -145									
13C-PCB-81	101	10 -145									
13C-PCB-95	89.1	10 -145									
13C-PCB-97	95.5	10 -145									
13C-PCB-101	92.2	10 -145									
13C-PCB-104	83.3	10 -145									
13C-PCB-105	99.5	10 -145									
13C-PCB-114	102	10 -145									
13C-PCB-118	101	10 -145									
13C-PCB-123	102	10 -145									
13C-PCB-126	93.2	10 -145									
13C-PCB-127	94.6	10 -145									
13C-PCB-138	99.2	10 -145									
13C-PCB-141	100	10 -145									
13C-PCB-153	101	10 -145									
13C-PCB-155	84.6	10 -145									
13C-PCB-156	107	10 -145									
13C-PCB-157	103	10 -145									
13C-PCB-159	102	10 -145									
13C-PCB-167	103	10 -145									
13C-PCB-169	103	10 -145									

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: GW-147**EPA Method 1668C**

Client Data					Sample Data					Laboratory Data							
Name:	Walla Walla Basin Watershed Council				Matrix:	Aqueous				Lab Sample:	1700290-04				Date Received:	03-Mar-2017 10:19	
Project:	Stiller Pond				Sample Size:	1.03 L				QC Batch:	B7C0079				Date Extracted:	15-Mar-2017 10:04	
Date Collected:	02-Mar-2017 9:45				Date Analyzed : 17-Mar-17 19:37 Column: ZB-1												
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers			
PCB-1	39.9				PCB-44	9.14				PCB-45	3.86			J			
PCB-2	2.41			J	PCB-46	1.44				PCB-47	2.29			J			
PCB-3	12.1				PCB-48/75	2.70				PCB-50	ND	0.910					
PCB-4/10	70.4				PCB-51	1.26				PCB-52/69	8.69			J			
PCB-5/8	128				PCB-53	ND				PCB-54	ND	0.761					
PCB-6	25.4				PCB-55	ND				PCB-56/60	1.80			J			
PCB-7/9	11.1				PCB-57	ND				PCB-58	ND	0.489					
PCB-11	12.7		B		PCB-61/70	3.63				PCB-62	ND	0.627					
PCB-12/13	ND	2.47			PCB-63	ND				PCB-65	ND	0.669					
PCB-14	ND	0.947			PCB-66/76	2.77				PCB-67	ND	0.516		J			
PCB-15	29.2				PCB-68	ND				PCB-73	ND	0.630					
PCB-16/32	62.2				PCB-74	1.54				PCB-77	ND	0.493		J			
PCB-17	30.9				PCB-78	ND				PCB-79	ND	0.534					
PCB-18	88.3				PCB-80	ND				PCB-81	ND	0.441					
PCB-19	12.8				PCB-82	ND				PCB-84/92	ND	0.494					
PCB-20/21/33	28.1				PCB-85/116	ND				PCB-83	ND	1.94					
PCB-22	16.3				PCB-86	ND				PCB-84/92	ND	1.26					
PCB-23	ND	0.921			PCB-87/117/125	ND				PCB-85/116	ND	1.67					
PCB-24/27	7.04		J		PCB-88/91	ND				PCB-86	ND	2.09					
PCB-25	3.18		J							PCB-87/117/125	ND	0.954					
PCB-26	7.57									PCB-88/91	ND	1.71					
PCB-28	30.5																
PCB-29	ND	0.838															
PCB-30	ND	1.16															
PCB-31	33.3																
PCB-34	ND	0.817															
PCB-35	ND	0.696															
PCB-36	ND	0.684															
PCB-37	4.53		J														
PCB-38	ND	0.706															
PCB-39	ND	0.646															
PCB-40	2.18			J													
PCB-41/64/71/72	7.74		J														
PCB-42/59	3.34		J														
PCB-43/49	5.95		J														

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW-147**EPA Method 1668C**

Client Data					Sample Data					Laboratory Data				
Name:	Walla Walla Basin Watershed Council				Matrix:	Aqueous		Lab Sample:	1700290-04		Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond				Sample Size:	1.03 L		QC Batch:	B7C0079		Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 9:45				Date Analyzed : 17-Mar-17 19:37 Column: ZB-1									
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	1.75			PCB-136	ND	0.900			PCB-137	ND	0.651		
PCB-90/101	1.16			J	PCB-138/163/164	ND				PCB-139/149	1.08			0.477 J
PCB-93	ND	1.77			PCB-140	ND	1.28			PCB-141	ND	0.668		
PCB-94	ND	1.79			PCB-144	ND	1.15			PCB-145	ND	0.931		
PCB-95/98/102	1.35			J	PCB-146/165	ND	0.645			PCB-147	ND	1.32		
PCB-96	ND	1.43			PCB-148	ND	1.30			PCB-150	ND	0.927		
PCB-97	ND	1.63			PCB-151	ND	1.24			PCB-152	ND	0.894		
PCB-99	ND	1.54			PCB-153	0.563				PCB-154	ND	1.17		J
PCB-100	ND	1.60			PCB-155	ND	0.848			PCB-156	ND	0.476		
PCB-103	ND	1.61			PCB-157	ND	0.477			PCB-158/160	ND	0.523		
PCB-104	ND	1.26			PCB-159	ND	0.476			PCB-166	ND	0.510		
PCB-105	ND	0.889			PCB-167	ND	0.502			PCB-168	ND	0.499		
PCB-106/118	ND		0.885		PCB-169	ND	0.511			PCB-170	ND	0.507		
PCB-107/109	ND	1.18			PCB-171	ND	0.488			PCB-172	ND	0.533		
PCB-108/112	ND	1.49			PCB-173	ND	0.600			PCB-174	ND	0.546		
PCB-110	1.26			J	PCB-175	ND	0.548			PCB-176	ND	0.396		
PCB-111/115	ND	1.16			PCB-177	ND	0.569			PCB-178	ND	0.514		
PCB-113	ND	1.32			PCB-179	ND	0.424							
PCB-114	ND	0.990												
PCB-119	ND	1.14												
PCB-120	ND	1.12												
PCB-121	ND	1.22												
PCB-122	ND	1.12												
PCB-123	ND	1.17												
PCB-124	ND	1.21												
PCB-126	ND	1.03												
PCB-127	ND	0.567												
PCB-128/162	ND	0.576												
PCB-129	ND	0.763												
PCB-130	ND	0.771												
PCB-131	ND	0.778												
PCB-132/161	ND	0.617												
PCB-133/142	ND	0.802												
PCB-134/143	ND	0.772												
PCB-135	ND	1.29												

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-147					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-04	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	1.03 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 9:45	Date Analyzed : 17-Mar-17 19:37 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.499			Total octaCB	ND	1.35		
PCB-181	ND	0.506			Total nonaCB	ND	0.499		
PCB-182/187	ND	0.497			DecaCB	ND	0.315		
PCB-183	ND	0.448			Total PCB	720			
PCB-184	ND	0.428							
PCB-185	ND	0.518							
PCB-186	ND	0.395							
PCB-188	ND	0.386							
PCB-189	ND	0.368							
PCB-190	ND	0.375							
PCB-191	ND	0.391							
PCB-192	ND	0.408							
PCB-193	ND	0.395							
PCB-194	ND	0.496							
PCB-195	ND	0.539							
PCB-196/203	ND	1.23							
PCB-197	ND	0.888							
PCB-198	ND	1.33							
PCB-199	ND	1.35							
PCB-200	ND	0.966							
PCB-201	ND	0.930							
PCB-202	ND	0.996							
PCB-204	ND	0.985							
PCB-205	ND	0.367							
PCB-206	ND	0.499							
PCB-207	ND	0.314							
PCB-208	ND	0.312							
PCB-209	ND	0.315							
Total monoCB	54.4								
Total diCB	277								
Total triCB	325								
Total tetraCB	58.3	60.7							
Total pentaCB	3.77	5.60							
Total hexaCB	1.65	2.12							
Total heptaCB	ND	0.600							

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-147**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-04	Date Received:	03-Mar-2017 10:19				
Project:	Stiller Pond	Sample Size:	1.03 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04				
Date Collected:	02-Mar-2017 9:45	Date Analyzed : 17-Mar-17 19:37 Column: ZB-1									
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	20.4	5 -145		13C-PCB-170	87.0	10 -145					
13C-PCB-3	22.8	5 -145		13C-PCB-180	90.3	10 -145					
13C-PCB-4	39.8	5 -145		13C-PCB-188	88.3	10 -145					
13C-PCB-11	56.3	5 -145		13C-PCB-189	85.6	10 -145					
13C-PCB-9	44.1	5 -145		13C-PCB-194	104	10 -145					
13C-PCB-19	34.0	5 -145		13C-PCB-202	62.7	10 -145					
13C-PCB-28	58.9	5 -145		13C-PCB-206	101	10 -145					
13C-PCB-32	43.1	5 -145		13C-PCB-208	111	10 -145					
13C-PCB-37	70.2	5 -145		13C-PCB-209	87.4	10 -145					
13C-PCB-47	75.0	5 -145		CRS 13C-PCB-79	94.0	10 -145					
13C-PCB-52	71.2	5 -145		13C-PCB-178	88.1	10 -145					
13C-PCB-54	61.8	5 -145									
13C-PCB-70	89.4	5 -145									
13C-PCB-77	93.3	10 -145									
13C-PCB-80	89.8	10 -145									
13C-PCB-81	91.2	10 -145									
13C-PCB-95	88.7	10 -145									
13C-PCB-97	94.1	10 -145									
13C-PCB-101	92.2	10 -145									
13C-PCB-104	82.2	10 -145									
13C-PCB-105	92.9	10 -145									
13C-PCB-114	91.9	10 -145									
13C-PCB-118	98.6	10 -145									
13C-PCB-123	98.3	10 -145									
13C-PCB-126	86.5	10 -145									
13C-PCB-127	86.9	10 -145									
13C-PCB-138	98.8	10 -145									
13C-PCB-141	98.8	10 -145									
13C-PCB-153	99.8	10 -145									
13C-PCB-155	76.3	10 -145									
13C-PCB-156	104	10 -145									
13C-PCB-157	101	10 -145									
13C-PCB-159	99.9	10 -145									
13C-PCB-167	99.8	10 -145									
13C-PCB-169	97.5	10 -145									

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: Matrix Spike								EPA Method 1668C				
Source Client ID:	GW-147	Source LabNumber:	1700290-04	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04	Lab Sample:	B7C0079-MS1/B7C0079-MSD1	Date Analyzed:	17-Mar-17 21:46 Column: ZB-1	
Analyte	Spike-MS (pg/L)	MS %R	MS Qualifiers	Spike-MSD (pg/L)	MSD %R	MSD RPD	MSD Qualifiers	Labeled Standard	MS %R	MS Qualifiers	MSD %R	MSD Qualifiers
PCB-1	1000	143		1000	137	4.29		IS 13C-PCB-1	14.0		28.3	
PCB-3	1000	145		1000	137	5.67		IS 13C-PCB-3	15.7		31.5	
PCB-4/10	2010	97.4		2010	97.3	0.103		IS 13C-PCB-4	29.4		51.6	
PCB-15	1000	95.6		1000	93.4	2.33		IS 13C-PCB-11	44.0		69.7	
PCB-19	1000	108		1000	109	0.922		IS 13C-PCB-9	33.6		58.9	
PCB-37	1000	76.4		1000	79.8	4.35		IS 13C-PCB-19	25.7		43.9	
PCB-54	1000	87.2		1000	88.2	1.14		IS 13C-PCB-28	43.4		76.7	
PCB-77	1000	94.7		1000	95.1	0.421		IS 13C-PCB-32	31.5		50.9	
PCB-81	1000	97.3		1000	99.1	1.83		IS 13C-PCB-37	59.5		84.1	
PCB-104	1000	95.8		1000	98.5	2.78		IS 13C-PCB-47	61.1		80.6	
PCB-105	1000	100		1000	104	3.92		IS 13C-PCB-52	58.8		80.7	
PCB-106/118	2010	99.1		2010	103	3.86		IS 13C-PCB-54	49.5		78.2	
PCB-114	1000	108		1000	109	0.922		IS 13C-PCB-70	68.7		87.3	
PCB-123	1000	100		1000	101	0.995		IS 13C-PCB-77	75.5		89.2	
PCB-126	1000	99.4		1000	102	2.58		IS 13C-PCB-80	71.4		87.7	
PCB-155	1000	100		1000	102	1.98		IS 13C-PCB-81	75.3		87.4	
PCB-156	1000	93.9		1000	96.7	2.94		IS 13C-PCB-95	71.8		85.4	
PCB-157	1000	94.8		1000	98.8	4.13		IS 13C-PCB-97	75.1		86.9	
PCB-167	1000	92.2		1000	94.7	2.68		IS 13C-PCB-101	73.1		86.5	
PCB-169	1000	95.3		1000	96.9	1.66		IS 13C-PCB-104	65.0		85.3	
PCB-188	1000	93.8		1000	96.6	2.94		IS 13C-PCB-105	76.5		85.8	
PCB-189	1000	99.2		1000	104	4.72		IS 13C-PCB-114	75.1		92.2	
PCB-202	1000	103		1000	108	4.74		IS 13C-PCB-118	76.4		86.5	
PCB-205	1000	85.3		1000	87.7	2.77		IS 13C-PCB-123	77.6		89.1	
PCB-206	1000	93.2		1000	93.5	0.321		IS 13C-PCB-126	70.1		80.3	
PCB-208	1000	94.2		1000	95.1	0.951		IS 13C-PCB-127	70.0		83.4	
PCB-209	1000	101		1000	102	0.985		IS 13C-PCB-138	81.0		94.8	
								IS 13C-PCB-141	80.8		95.1	
								IS 13C-PCB-153	82.3		97.7	
								IS 13C-PCB-155	55.1		65.2	
								IS 13C-PCB-156	82.8		94.5	
								IS 13C-PCB-157	80.4		91.2	
								IS 13C-PCB-159	82.7		96.2	
								IS 13C-PCB-167	82.3		94.4	
								IS 13C-PCB-169	78.0		89.7	
								IS 13C-PCB-170	68.9		72.5	
								IS 13C-PCB-180	71.9		77.1	
								IS 13C-PCB-188	73.0		85.8	

Sample ID: Matrix Spike											EPA Method 1668C			
Source Client ID: GW-147			QC Batch: B7C0079			Lab Sample: B7C0079-MS1/B7C0079-MSD1								
Source LabNumber: 1700290-04			Date Extracted: 15-Mar-2017 10:04			Date Analyzed: 17-Mar-17 21:46 Column: ZB-1								
Matrix: Aqueous			Sample Size: 0.995/0.995 L			17-Mar-17 22:51 Column: ZB-1								
Analyte	Spike-MS (pg/L)	MS %R	MS Qualifiers	Spike-MSD (pg/L)	MSD %R	MSD RPD	MSD Qualifiers	Labeled Standard			MS %R	MS Qualifiers	MSD %R	MSD Qualifiers
								IS	13C-PCB-189		66.9		73.0	
								IS	13C-PCB-194		84.6		95.0	
								IS	13C-PCB-202		45.2		42.8	
								IS	13C-PCB-206		86.1		93.7	
								IS	13C-PCB-208		93.1		98.7	
								IS	13C-PCB-209		73.3		81.2	
								CRS	13C-PCB-79		85.3		93.0	
								CRS	13C-PCB-178		81.7		87.3	

Sample ID: Source					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-05	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 10:05	Date Analyzed : 22-Mar-17 13:49 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	ND	1.23			PCB-44	1.67			J
PCB-2	ND	1.20			PCB-45	ND	0.531		
PCB-3	ND	1.16			PCB-46	ND	0.568		
PCB-4/10	ND	1.42			PCB-47	2.70			J
PCB-5/8	ND		1.48		PCB-48/75	ND	0.393		
PCB-6	ND	1.58			PCB-50	ND	0.528		
PCB-7/9	ND	0.757			PCB-51	ND		0.396	
PCB-11	5.04			B	PCB-52/69	2.01			J
PCB-12/13	ND	0.688			PCB-53	ND	0.480		
PCB-14	ND	0.596			PCB-54	ND	0.442		
PCB-15	ND	0.942			PCB-55	ND	0.330		
PCB-16/32	2.23			J	PCB-56/60	0.920			J
PCB-17	1.23			J	PCB-57	ND	0.334		
PCB-18	3.58			J	PCB-58	ND	0.323		
PCB-19	ND	0.760			PCB-61/70	1.72			J
PCB-20/21/33	ND		1.38		PCB-62	ND	0.383		
PCB-22	ND		0.725		PCB-63	ND	0.311		
PCB-23	ND	0.604			PCB-65	ND	0.408		
PCB-24/27	ND	0.894			PCB-66/76	ND		1.07	
PCB-25	ND	0.561			PCB-67	ND	0.340		
PCB-26	ND	0.618			PCB-68	0.410			J
PCB-28	2.09			J	PCB-73	ND	0.385		
PCB-29	ND	0.550			PCB-74	0.787			J
PCB-30	ND	0.499			PCB-77	ND	0.281		
PCB-31	1.93			J	PCB-78	ND	0.329		
PCB-34	ND	0.536			PCB-79	ND	0.327		
PCB-35	ND	0.449			PCB-80	ND	0.293		
PCB-36	ND	0.442			PCB-81	ND	0.304		
PCB-37	0.648			J	PCB-82	ND	1.20		
PCB-38	ND	0.456			PCB-83	ND	0.783		
PCB-39	ND	0.417			PCB-84/92	ND	1.05		
PCB-40	ND	0.602			PCB-85/116	ND	0.925		
PCB-41/64/71/72	1.13			J	PCB-86	ND	1.30		
PCB-42/59	0.535			J	PCB-87/117/125	ND	0.838		
PCB-43/49	0.941			J	PCB-88/91	ND	1.10		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

Appendix B - Page 59

Sample ID: Source					EPA Method 1668C					
Client Data		Sample Data		Laboratory Data						
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-05	Date Received:	03-Mar-2017 10:19			
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04			
Date Collected:	02-Mar-2017 10:05	Date Analyzed :		22-Mar-17 13:49	Column:	ZB-1				
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	
PCB-89	ND	1.10			PCB-136	ND	0.499			
PCB-90/101	2.69			J	PCB-137	ND	0.427			
PCB-93	ND	1.13			PCB-138/163/164	2.07			J	
PCB-94	ND	1.15			PCB-139/149	ND	1.10			
PCB-95/98/102	1.81			J	PCB-140	ND	1.07			
PCB-96	ND	0.926			PCB-141	ND	0.439			
PCB-97	ND	1.01			PCB-144	ND	0.970			
PCB-99	ND	0.896			PCB-145	ND	0.784			
PCB-100	ND	1.04			PCB-146/165	ND	0.405			
PCB-103	ND	1.04			PCB-147	ND	1.11			
PCB-104	ND	0.817			PCB-148	ND	1.09			
PCB-105	0.609			J	PCB-150	ND	0.781			
PCB-106/118	1.55			J	PCB-151	ND	0.767			
PCB-107/109	ND	0.728			PCB-152	ND	0.753			
PCB-108/112	ND	0.925			PCB-153	1.94			J	
PCB-110	2.45			J	PCB-154	ND	0.987			
PCB-111/115	ND	0.718			PCB-155	ND	0.714			
PCB-113	ND	0.828			PCB-156	ND	0.362			
PCB-114	ND	0.635			PCB-157	ND	0.312			
PCB-119	ND	0.710			PCB-158/160	ND	0.397			
PCB-120	ND	0.695			PCB-159	ND	0.311			
PCB-121	ND	0.779			PCB-166	ND	0.334			
PCB-122	ND	0.719			PCB-167	ND	0.310			
PCB-123	ND	0.723			PCB-168	ND	0.314			
PCB-124	ND	0.750			PCB-169	ND	0.317			
PCB-126	ND	0.709			PCB-170	ND	0.289			
PCB-127	ND	0.689			PCB-171	ND	0.370			
PCB-128/162	ND	0.444			PCB-172	ND	0.403			
PCB-129	ND	0.491			PCB-173	ND	0.454			
PCB-130	ND	0.507			PCB-174	ND	0.291			
PCB-131	ND	0.489			PCB-175	ND	0.441			
PCB-132/161	0.545			J	PCB-176	ND	0.318			
PCB-133/142	ND	0.504			PCB-177	ND	0.431			
PCB-134/143	ND	0.485			PCB-178	ND	0.413			
PCB-135	ND	1.09			PCB-179	ND	0.341			

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Appendix B - Page 60

Sample ID: Source					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-05	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 10:05	Date Analyzed : 22-Mar-17 13:49 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND		0.696		Total octaCB	0.661			
PCB-181	ND	0.269			Total nonaCB	ND		0.806	
PCB-182/187	ND		0.899		DecaCB	ND			1.06
PCB-183	ND	0.304			Total PCB	43.9			
PCB-184	ND	0.344							
PCB-185	ND	0.392							
PCB-186	ND	0.317							
PCB-188	ND	0.310							
PCB-189	ND	0.248							
PCB-190	ND	0.273							
PCB-191	ND	0.296							
PCB-192	ND	0.309							
PCB-193	ND	0.299							
PCB-194	0.661			J					
PCB-195	ND	0.440							
PCB-196/203	ND	0.674							
PCB-197	ND	0.533							
PCB-198	ND	0.800							
PCB-199	ND	0.734							
PCB-200	ND	0.580							
PCB-201	ND	0.558							
PCB-202	ND	0.598							
PCB-204	ND	0.591							
PCB-205	ND	0.299							
PCB-206	ND		0.583						
PCB-207	ND	0.233							
PCB-208	ND		0.223						
PCB-209	ND		1.06						
Total monoCB	ND	1.23							
Total diCB	5.04		6.52						
Total triCB	11.7		13.8						
Total tetraCB	12.8		14.3						
Total pentaCB	9.11								
Total hexaCB	4.55		5.65						
Total heptaCB	ND		1.60						

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Appendix B - Page 61

Sample ID: Source					EPA Method 1668C			
Client Data		Sample Data		Laboratory Data				
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-05	Date Received:	03-Mar-2017 10:19	
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04	
Date Collected:	02-Mar-2017 10:05			Date Analyzed :	22-Mar-17 13:49	Column:	ZB-1	
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers	
IS 13C-PCB-1	38.0	5 -145		13C-PCB-170	93.1	10 -145		
13C-PCB-3	43.0	5 -145		13C-PCB-180	92.9	10 -145		
13C-PCB-4	60.9	5 -145		13C-PCB-188	82.4	10 -145		
13C-PCB-11	79.6	5 -145		13C-PCB-189	94.6	10 -145		
13C-PCB-9	67.0	5 -145		13C-PCB-194	109	10 -145		
13C-PCB-19	55.5	5 -145		13C-PCB-202	63.3	10 -145		
13C-PCB-28	68.9	5 -145		13C-PCB-206	126	10 -145		
13C-PCB-32	65.4	5 -145		13C-PCB-208	133	10 -145		
13C-PCB-37	87.7	5 -145		13C-PCB-209	116	10 -145		
13C-PCB-47	84.2	5 -145		CRS 13C-PCB-79	94.6	10 -145		
13C-PCB-52	83.1	5 -145		13C-PCB-178	84.9	10 -145		
13C-PCB-54	74.1	5 -145						
13C-PCB-70	94.7	5 -145						
13C-PCB-77	99.6	10 -145						
13C-PCB-80	95.6	10 -145						
13C-PCB-81	103	10 -145						
13C-PCB-95	92.2	10 -145						
13C-PCB-97	100	10 -145						
13C-PCB-101	97.3	10 -145						
13C-PCB-104	86.2	10 -145						
13C-PCB-105	95.7	10 -145						
13C-PCB-114	100	10 -145						
13C-PCB-118	105	10 -145						
13C-PCB-123	106	10 -145						
13C-PCB-126	90.8	10 -145						
13C-PCB-127	91.2	10 -145						
13C-PCB-138	102	10 -145						
13C-PCB-141	101	10 -145						
13C-PCB-153	103	10 -145						
13C-PCB-155	86.9	10 -145						
13C-PCB-156	106	10 -145						
13C-PCB-157	103	10 -145						
13C-PCB-159	102	10 -145						
13C-PCB-167	104	10 -145						
13C-PCB-169	105	10 -145						

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: Field Dup-147					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-06	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	0.997 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 9:45	Date Analyzed : 17-Mar-17 20:41 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	42.2				PCB-44	8.48			
PCB-2	2.24			J	PCB-45	3.92			J
PCB-3	12.7				PCB-46	1.95			J
PCB-4/10	68.9				PCB-47	3.58			J
PCB-5/8	125				PCB-48/75	2.61			J
PCB-6	23.8				PCB-50	ND	0.909		
PCB-7/9	9.80			J	PCB-51	1.17			J
PCB-11	9.53			B	PCB-52/69	7.94			J
PCB-12/13	ND	3.16			PCB-53	3.21			J
PCB-14	ND	0.938			PCB-54	ND	0.761		
PCB-15	28.1				PCB-55	ND	0.591		
PCB-16/32	63.1				PCB-56/60	2.24			J
PCB-17	33.8				PCB-57	ND	0.628		
PCB-18	97.0				PCB-58	ND	0.607		
PCB-19	12.8				PCB-61/70	3.39			J
PCB-20/21/33	29.5				PCB-62	ND	0.679		
PCB-22	14.7				PCB-63	ND	0.586		
PCB-23	ND	1.15			PCB-65	ND	0.724		
PCB-24/27	7.03			J	PCB-66/76	2.62			J
PCB-25	3.11			J	PCB-67	ND	0.640		
PCB-26	8.41				PCB-68	ND		0.407	
PCB-28	32.3				PCB-73	ND	0.699		
PCB-29	ND	1.05			PCB-74	1.55			J
PCB-30	ND	0.826			PCB-77	ND	0.615		
PCB-31	34.2				PCB-78	ND	0.663		
PCB-34	ND	1.02			PCB-79	ND	0.586		
PCB-35	ND	0.888			PCB-80	ND	0.525		
PCB-36	ND	0.873			PCB-81	ND	0.612		
PCB-37	4.00			J	PCB-82	ND	2.07		
PCB-38	ND	0.901			PCB-83	ND	1.31		
PCB-39	ND	0.824			PCB-84/92	ND	1.75		
PCB-40	ND		1.17		PCB-85/116	ND	1.55		
PCB-41/64/71/72	6.96			J	PCB-86	ND	2.18		
PCB-42/59	3.24			J	PCB-87/117/125	ND	1.40		
PCB-43/49	5.64			J	PCB-88/91	ND	1.75		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: Field Dup-147						EPA Method 1668C			
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-06	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	0.997 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 9:45	Date Analyzed : 17-Mar-17 20:41 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	1.83			PCB-136	ND	1.18		
PCB-90/101	1.33			J	PCB-137	ND	0.692		
PCB-93	ND	1.80			PCB-138/163/164	ND	0.552		
PCB-94	ND	1.83			PCB-139/149	ND	1.53		
PCB-95/98/102	1.72			J	PCB-140	ND	1.67		
PCB-96	ND	1.43			PCB-141	ND	0.710		
PCB-97	ND	1.70			PCB-144	ND	1.51		
PCB-99	ND		0.807		PCB-145	ND	1.22		
PCB-100	ND	1.60			PCB-146/165	ND	0.659		
PCB-103	ND	1.61			PCB-147	ND	1.73		
PCB-104	ND	1.26			PCB-148	ND	1.70		
PCB-105	ND	0.954			PCB-150	ND	1.22		
PCB-106/118	ND		0.666		PCB-151	ND	1.63		
PCB-107/109	ND	1.26			PCB-152	ND	1.17		
PCB-108/112	ND	1.55			PCB-153	ND	0.615		
PCB-110	ND		1.22		PCB-154	ND	1.54		
PCB-111/115	ND	1.20			PCB-155	ND	1.11		
PCB-113	ND	1.38			PCB-156	ND	0.512		
PCB-114	ND	0.975			PCB-157	ND	0.534		
PCB-119	ND	1.19			PCB-158/160	ND	0.552		
PCB-120	ND	1.17			PCB-159	ND	0.499		
PCB-121	ND	1.24			PCB-166	ND	0.534		
PCB-122	ND	1.10			PCB-167	ND	0.514		
PCB-123	ND	1.25			PCB-168	ND	0.511		
PCB-124	ND	1.30			PCB-169	ND	0.582		
PCB-126	ND	1.03			PCB-170	ND	0.490		
PCB-127	ND	1.08			PCB-171	ND	0.472		
PCB-128/162	ND	0.604			PCB-172	ND	0.515		
PCB-129	ND	0.804			PCB-173	ND	0.580		
PCB-130	ND	0.820			PCB-174	ND	0.528		
PCB-131	ND	0.796			PCB-175	ND	0.484		
PCB-132/161	ND	0.631			PCB-176	ND	0.349		
PCB-133/142	ND	0.820			PCB-177	ND	0.550		
PCB-134/143	ND	0.790			PCB-178	ND	0.454		
PCB-135	ND	1.69			PCB-179	ND	0.374		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: Field Dup-147					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-06	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	0.997 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 9:45	Date Analyzed : 17-Mar-17 20:41 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.482			Total octaCB	ND		0.425	
PCB-181	ND	0.488			Total nonaCB	ND		0.542	
PCB-182/187	ND	0.438			DecaCB	ND		0.404	
PCB-183	ND	0.396			Total PCB	724			
PCB-184	ND	0.378							
PCB-185	ND	0.500							
PCB-186	ND	0.349							
PCB-188	ND	0.341							
PCB-189	ND	0.350							
PCB-190	ND	0.363							
PCB-191	ND	0.378							
PCB-192	ND	0.395							
PCB-193	ND	0.381							
PCB-194	ND		0.425						
PCB-195	ND	0.536							
PCB-196/203	ND	1.34							
PCB-197	ND	0.966							
PCB-198	ND	1.45							
PCB-199	ND	1.46							
PCB-200	ND	1.05							
PCB-201	ND	1.01							
PCB-202	ND	1.08							
PCB-204	ND	1.07							
PCB-205	ND	0.365							
PCB-206	ND	0.542							
PCB-207	ND	0.316							
PCB-208	ND	0.313							
PCB-209	ND	0.404							
Total monoCB	57.1								
Total diCB	265								
Total triCB	340								
Total tetraCB	58.5		60.1						
Total pentaCB	3.05		5.74						
Total hexaCB	ND		1.73						
Total heptaCB	ND		0.580						

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Appendix B - Page 65

Sample ID: Field Dup-147**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Sample Size:	0.997 L	Lab Sample:	1700290-06	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04						
Date Collected:	02-Mar-2017 9:45	Date Analyzed :	17-Mar-17 20:41	Column:	ZB-1						
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	24.3	5 -145		13C-PCB-170	77.7	10 -145					
13C-PCB-3	26.8	5 -145		13C-PCB-180	81.8	10 -145					
13C-PCB-4	45.7	5 -145		13C-PCB-188	83.4	10 -145					
13C-PCB-11	61.1	5 -145		13C-PCB-189	75.8	10 -145					
13C-PCB-9	51.8	5 -145		13C-PCB-194	93.6	10 -145					
13C-PCB-19	35.8	5 -145		13C-PCB-202	52.1	10 -145					
13C-PCB-28	60.3	5 -145		13C-PCB-206	93.8	10 -145					
13C-PCB-32	43.7	5 -145		13C-PCB-208	102	10 -145					
13C-PCB-37	69.5	5 -145		13C-PCB-209	79.0	10 -145					
13C-PCB-47	77.3	5 -145		CRS 13C-PCB-79	87.0	10 -145					
13C-PCB-52	72.6	5 -145		13C-PCB-178	86.0	10 -145					
13C-PCB-54	67.1	5 -145									
13C-PCB-70	79.9	5 -145									
13C-PCB-77	84.2	10 -145									
13C-PCB-80	84.4	10 -145									
13C-PCB-81	82.2	10 -145									
13C-PCB-95	87.3	10 -145									
13C-PCB-97	89.9	10 -145									
13C-PCB-101	86.7	10 -145									
13C-PCB-104	82.3	10 -145									
13C-PCB-105	82.0	10 -145									
13C-PCB-114	88.6	10 -145									
13C-PCB-118	90.8	10 -145									
13C-PCB-123	91.9	10 -145									
13C-PCB-126	80.5	10 -145									
13C-PCB-127	78.3	10 -145									
13C-PCB-138	92.2	10 -145									
13C-PCB-141	91.9	10 -145									
13C-PCB-153	94.6	10 -145									
13C-PCB-155	69.4	10 -145									
13C-PCB-156	95.1	10 -145									
13C-PCB-157	92.1	10 -145									
13C-PCB-159	92.5	10 -145									
13C-PCB-167	93.1	10 -145									
13C-PCB-169	89.4	10 -145									

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: Field Blank					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-07	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 9:45	Date Analyzed : 22-Mar-17 11:39 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	50.5				PCB-44	ND		3.33	
PCB-2	4.87			J	PCB-45	1.22			J
PCB-3	28.7				PCB-46	ND		0.432	
PCB-4/10	18.3				PCB-47	ND		1.88	
PCB-5/8	134				PCB-48/75	0.849			J
PCB-6	18.1				PCB-50	ND	0.744		
PCB-7/9	8.65			J	PCB-51	0.678			J
PCB-11	14.9			B	PCB-52/69	3.25			J
PCB-12/13	4.63			J	PCB-53	1.04			J
PCB-14	ND	0.699			PCB-54	ND	0.622		
PCB-15	43.1				PCB-55	ND	0.425		
PCB-16/32	14.6				PCB-56/60	1.29			J
PCB-17	7.41				PCB-57	ND	0.436		
PCB-18	16.9				PCB-58	ND	0.421		
PCB-19	1.39			J	PCB-61/70	1.98			J
PCB-20/21/33	18.7				PCB-62	ND	0.519		
PCB-22	11.9				PCB-63	ND	0.407		
PCB-23	ND	0.664			PCB-65	ND	0.554		
PCB-24/27	1.47			J	PCB-66/76	1.72			J
PCB-25	2.21			J	PCB-67	ND	0.445		
PCB-26	3.58			J	PCB-68	0.467			J
PCB-28	27.5				PCB-73	ND	0.508		
PCB-29	ND	0.605			PCB-74	0.973			J
PCB-30	ND	0.501			PCB-77	ND	0.394		
PCB-31	22.0				PCB-78	ND	0.457		
PCB-34	ND	0.589			PCB-79	ND	0.422		
PCB-35	ND	0.450			PCB-80	ND	0.378		
PCB-36	ND	0.443			PCB-81	ND	0.422		
PCB-37	3.07			J	PCB-82	ND	1.55		
PCB-38	ND	0.457			PCB-83	ND	0.982		
PCB-39	ND	0.418			PCB-84/92	ND		0.662	
PCB-40	ND	0.816			PCB-85/116	ND	1.16		
PCB-41/64/71/72	3.62			J	PCB-86	ND	1.63		
PCB-42/59	1.47			J	PCB-87/117/125	ND	1.05		
PCB-43/49	2.19			J	PCB-88/91	ND	1.40		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Appendix B - Page 67

Sample ID: Field Blank					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-07	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 9:45	Date Analyzed : 22-Mar-17 11:39 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	1.38			PCB-136	ND	0.845		
PCB-90/101	1.40			J	PCB-137	ND	0.582		
PCB-93	ND	1.45			PCB-138/163/164	ND		1.16	
PCB-94	ND	1.46			PCB-139/149	0.660			J
PCB-95/98/102	ND		1.38		PCB-140	ND	1.20		
PCB-96	ND	1.17			PCB-141	ND	0.597		
PCB-97	ND	1.27			PCB-144	ND	1.08		
PCB-99	1.01			J	PCB-145	ND	0.874		
PCB-100	ND	1.31			PCB-146/165	ND	0.564		
PCB-103	ND	1.32			PCB-147	ND	1.24		
PCB-104	ND	1.03			PCB-148	ND	1.22		
PCB-105	0.416			J	PCB-150	ND	0.871		
PCB-106/118	1.04			J	PCB-151	ND	1.17		
PCB-107/109	ND	0.941			PCB-152	ND	0.840		
PCB-108/112	ND	1.16			PCB-153	ND	0.442		
PCB-110	1.35			J	PCB-154	ND	1.10		
PCB-111/115	ND	0.901			PCB-155	ND	0.796		
PCB-113	ND	1.04			PCB-156	ND	0.436		
PCB-114	ND	0.758			PCB-157	ND	0.454		
PCB-119	ND	0.890			PCB-158/160	ND	0.470		
PCB-120	ND	0.872			PCB-159	ND	0.450		
PCB-121	ND	0.993			PCB-166	ND	0.482		
PCB-122	ND	0.858			PCB-167	ND	0.446		
PCB-123	ND	0.935			PCB-168	ND	0.437		
PCB-124	ND	0.970			PCB-169	ND	0.485		
PCB-126	ND	0.790			PCB-170	ND	0.497		
PCB-127	ND	0.806			PCB-171	ND	0.500		
PCB-128/162	ND	0.545			PCB-172	ND	0.546		
PCB-129	ND	0.685			PCB-173	ND	0.614		
PCB-130	ND	0.689			PCB-174	ND	0.559		
PCB-131	ND	0.681			PCB-175	ND	0.536		
PCB-132/161	ND	0.540			PCB-176	ND	0.387		
PCB-133/142	ND	0.702			PCB-177	ND	0.582		
PCB-134/143	ND	0.676			PCB-178	ND	0.503		
PCB-135	ND	1.21			PCB-179	ND	0.415		

DL - Sample specific estimated detection limit

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See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Appendix B - Page 68

Sample ID: Field Blank					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-07	Date Received:	03-Mar-2017 10:19		
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04		
Date Collected:	02-Mar-2017 9:45	Date Analyzed : 22-Mar-17 11:39 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.510			Total octaCB	ND		0.550	
PCB-181	ND	0.518			Total nonaCB	0.822			
PCB-182/187	ND	0.486			DecaCB	1.13			
PCB-183	ND	0.439			Total PCB	485			
PCB-184	ND	0.419							
PCB-185	ND	0.530							
PCB-186	ND	0.386							
PCB-188	ND	0.378							
PCB-189	ND	0.356							
PCB-190	ND	0.368							
PCB-191	ND	0.401							
PCB-192	ND	0.418							
PCB-193	ND	0.404							
PCB-194	ND		0.550						
PCB-195	ND	0.528							
PCB-196/203	ND	0.987							
PCB-197	ND	0.710							
PCB-198	ND	1.07							
PCB-199	ND	1.08							
PCB-200	ND	0.773							
PCB-201	ND	0.743							
PCB-202	ND	0.796							
PCB-204	ND	0.788							
PCB-205	ND	0.359							
PCB-206	0.554		J						
PCB-207	ND	0.249							
PCB-208	0.268		J						
PCB-209	1.13		J						
Total monoCB	84.1								
Total diCB	242								
Total triCB	131								
Total tetraCB	20.7		26.4						
Total pentaCB	5.22		7.26						
Total hexaCB	0.660		1.82						
Total heptaCB	ND	0.614							

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Appendix B - Page 69

Sample ID: Field Blank					EPA Method 1668C			
Client Data		Sample Data		Laboratory Data				
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700290-07	Date Received:	03-Mar-2017 10:19	
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7C0079	Date Extracted:	15-Mar-2017 10:04	
Date Collected:	02-Mar-2017 9:45			Date Analyzed :	22-Mar-17 11:39	Column:	ZB-1	
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers	
IS 13C-PCB-1	40.3	5 -145		13C-PCB-170	91.2	10 -145		
13C-PCB-3	45.3	5 -145		13C-PCB-180	91.8	10 -145		
13C-PCB-4	60.0	5 -145		13C-PCB-188	87.1	10 -145		
13C-PCB-11	79.4	5 -145		13C-PCB-189	90.7	10 -145		
13C-PCB-9	64.5	5 -145		13C-PCB-194	114	10 -145		
13C-PCB-19	57.4	5 -145		13C-PCB-202	72.3	10 -145		
13C-PCB-28	72.8	5 -145		13C-PCB-206	121	10 -145		
13C-PCB-32	66.1	5 -145		13C-PCB-208	137	10 -145		
13C-PCB-37	94.5	5 -145		13C-PCB-209	112	10 -145		
13C-PCB-47	84.8	5 -145		CRS 13C-PCB-79	95.1	10 -145		
13C-PCB-52	84.2	5 -145		13C-PCB-178	84.8	10 -145		
13C-PCB-54	70.1	5 -145						
13C-PCB-70	98.9	5 -145						
13C-PCB-77	105	10 -145						
13C-PCB-80	99.3	10 -145						
13C-PCB-81	100	10 -145						
13C-PCB-95	95.4	10 -145						
13C-PCB-97	103	10 -145						
13C-PCB-101	101	10 -145						
13C-PCB-104	87.9	10 -145						
13C-PCB-105	103	10 -145						
13C-PCB-114	107	10 -145						
13C-PCB-118	107	10 -145						
13C-PCB-123	107	10 -145						
13C-PCB-126	102	10 -145						
13C-PCB-127	100	10 -145						
13C-PCB-138	103	10 -145						
13C-PCB-141	103	10 -145						
13C-PCB-153	106	10 -145						
13C-PCB-155	90.2	10 -145						
13C-PCB-156	107	10 -145						
13C-PCB-157	103	10 -145						
13C-PCB-159	104	10 -145						
13C-PCB-167	104	10 -145						
13C-PCB-169	102	10 -145						

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The associated compound concentration exceeded the calibration range of the instrument.
H	Recovery and/or RPD was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Reporting Limit/LOQ.
M	Estimated Maximum Possible Concentration. (CA Region 2 projects only)
*	See Cover Letter
Conc.	Concentration
NA	Not applicable
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-004
Pennsylvania Department of Environmental Protection	012
South Carolina Department of Health	87002001
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	7923
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B

Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017

Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenz-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A



CHAIN OF CUSTODY

Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017

FOR LABORATORY USE ONLY

Storage
SecuredLaboratory Project ID: 1700290Yes No Storage ID WR-2 C6Temp 2.5, °C

TAT: (Check One):

2.9 °CStandard: 21 Days

Rush (surcharge may apply):

 14 days 7 days Specify: _____Project I.D.: STILLER Ponds

P.O.# _____

Sampler: S. PATTEN / T. PATTEN
(Name)Invoice to: Name CH2RS SHEETS Company WWBWLAddress 510 S. MAINCity MILTON-FREewaterState ORZip 97862Ph# 541-938-2170Fax# Relinquished by: (Signature and Printed Name) STEVEN PATTENDate: 3-2-17Time: 12:00Received by: (Signature and Printed Name) UPSDate: 3-2-17Time: 12:00Relinquished by: (Signature and Printed Name) UPS

Date: _____

Time: _____

Received by: (Signature and Printed Name) Sydney RoughtonDate: 3/3/17Time: 10:31

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment:

Tracking No.:

Add Analysis(es) Requested

Container(s)

Quantity	Type	Matrix	EPA1613	EPA8290	EPA8280	EPA1668	EPA1614	CARB429
2378-TCDD	PCDD/PCDF	2378-TCDD/TCDF	X					
2378-TCDD/PCDF	PCDD/PCDF	2378-TCDD/TCDF		X				
2378-TCDF	PCDD/PCDF	2378-TCDF			X			
2378-TCDD/TCDF	PCDD/PCDF	2378-TCDD/TCDF				X		
2378-TCDD/PCDF	PCDD/PCDF	2378-TCDD/PCDF					X	
TOTALS								
COPLANAR PCB's								
209 CONGENERS								
PBDE								
PAH								
WHO-29								

ATTN: _____

Sample ID	Date	Time	Location/Sample Description	2L A AG												
GW-136	3-2-17	10:45	STILLER Ponds												X	
GW-145	3-2-17	11:05	STILLER Ponds												X	
GW-146	3-2-17	11:25	STILLER Ponds											X		
GW-147	3-2-17	9:45	STILLER Ponds											X		
SAMPLE	3-2-17	10:05	STILLER Ponds											X		
STILLER DW - M7	3-2-17	9:45	STILLER Ponds											X		
STILLER BLANK	3-2-17	9:45	STILLER Ponds											X		
MATRIX SPIKE - 147	3-2-17	9:45	STILLER Ponds											X		
MATRIX SPIKE DW - M7	3-2-17	9:45	STILLER Ponds											X		

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:Name: STEVEN PATTENCompany: WWBWLAddress: 510 S. MAINCity: MILTON-FREewater State: OR Zip: 97862Phone: 541-938-2170 Fax: _____Email: steven.patten@wwbwlc.org

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper,

SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum

AQ = Aqueous, O = Other _____

Appendix B - Page 75

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other _____*Bottle Preservative Type: T = Thiosulfate,
O = Other _____

WHITE - ORIGINAL

YELLOW - ARCHIVE

PINK - COPY



CHAIN OF CUSTODY

Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017

FOR LABORATORY USE ONLY

Storage
Secured

Yes No

Laboratory Project ID: 1700290

Storage ID WR-2 C6

Temp 0.5 °C

2.9°C

Project I.D.: STIWER POND

P.O.#

Sampler: STEVEN PATTEN / TRISTAN PATTEN
(Name)

Invoice to: Name CHRIS SHEETS Company WWBWL

Relinquished by: (Signature and Printed Name) STEVEN PATTEN S.P.

Relinquished by: (Signature and Printed Name) UPS

Address 810 S. MAIN ST

City MILTON-FREELWATER

State OR

Zip 97862

Ph# 541-938-2170 Fax# 541-938-2170

Date: 3-2-17 Time: 12:00

Received by: (Signature and Printed Name) LIPS

Date: 3-2-17 Time: 12:00

Date: 3/3/17 Time: 1028

Received by: (Signature and Printed Name) Jody Roughton Sydney Roughton

Date: 3/3/17 Time: 1028

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment:

Tracking No.:

Add Analysis(es) Requested

Container(s)

Quantity

Type

Matrix

EPA1613

EPA8290

EPA8280

EPA1668

EPA1614

CARB429

2378-TCDD

PCDD/PCDF

2378-TCDD/TCDF

PCDD/PCDF

2378-TCDD/TCDF

PCDD/PCDF

2378-TCDD/TCDF

PCDD/PCDF

TOTALS

COPLANAR PCB's

209 CONGENERS

PCDD/PCDF

PAH

WHO-29

ATTN: _____

Sample ID	Date	Time	Location/Sample Description
GW-136	3-2-17	10:05	STIWER POND
GW-145	3-2-17	11:05	STIWER POND
GW-146	3-2-17	10:25	STIWER POND
GW-147	3-2-17	9:45	STIWER POND
SOURCE	3-2-17	10:05	STIWER POND
FIELD DWP-147	3-2-17	9:45	STIWER POND
FIELD RLANK	3-2-17	9:45	STIWER POND
MATRIX SPIKE-147	3-2-17	9:45	STIWER POND
MATRIX SPIKE DWP-147	3-2-17	9:45	STIWER POND

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:

Name: STEVEN PATTEN
Company: WWBWL
Address: 810 S. MAIN
City: MILTON-FREELWATER State: OR Zip: 97862
Phone: 541-938-2170 Fax: SAME

Email: steven.patten@wwbwlc.org
Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper,
SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum
AQ = Aqueous, O = Other

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MMS Train, O = Other _____

*Bottle Preservative Type: T = Thiosulfate,
O = Other _____

WHITE - ORIGINAL

YELLOW - ARCHIVE

PINK - COPY

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SAMPLE LOG-IN CHECKLIST

Vista Project #: 1700290 TAT 21

Samples Arrival:	Date/Time <u>3/3/17</u> <u>1019</u>	Initials: <u>SR</u>	Location: <u>WR-2</u>			
Logged In:	Date/Time <u>3/3/17</u> <u>1307</u>	Initials: <u>PSB SR</u>	Location: <u>WR-2</u> Shelf/Rack: <u>Cle</u>			
Delivered By:	FedEx	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	<input checked="" type="checkbox"/> Ice		Blue Ice	Dry Ice	None	
Temp °C: <u>1.2</u> (uncorrected)	Time: <u>1024</u>			Thermometer ID: <u>DT-3</u>		
Temp °C: <u>0.5</u> (corrected)	Probe used: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					

	YES	NO	NA		
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>				
Holding Time Acceptable?	<input checked="" type="checkbox"/>				
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>				
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>				
Shipping Documentation Present?	<input checked="" type="checkbox"/>				
Airbill Trk # <u>1Z62E3F70134213767</u>	<input checked="" type="checkbox"/>				
Sample Container Intact?	<input checked="" type="checkbox"/>				
Sample Custody Seals Intact?		<input checked="" type="checkbox"/>			
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>				
COC Anomaly/Sample Acceptance Form completed?		<input checked="" type="checkbox"/>			
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			<input checked="" type="checkbox"/>		
Preservation Documented:	<u>Na₂S₂O₃</u>	Trizma	Yes	No <input checked="" type="checkbox"/>	NA
Shipping Container	Vista	<input checked="" type="checkbox"/> Client	Retain	<input checked="" type="checkbox"/> Return	Dispose

Comments: Sample label ID:

Field Blank A/B Containers
 Field Dup -147
 GW -147
 Source
 GW-146
 GW - 134 1 Liter each
 GW-145



SAMPLE LOG-IN CHECKLIST

Vista Project #: 1700290 TAT 21

Samples Arrival:	Date/Time <u>3/3/17 1019</u>	Initials: <u>SR</u>	Location: WR-2			
Logged In:	Date/Time <u>3/3/17 1307</u>	Initials: <u>SR URB</u>	Location: WR-2			
Delivered By:	FedEx	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice		None	
Temp °C: <u>3.6</u> (uncorrected)	Time: <u>1032</u>	Probe used: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Thermometer ID: DT-3		
Temp °C: <u>2.9</u> (corrected)						

	YES	NO	NA		
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>				
Holding Time Acceptable?	<input checked="" type="checkbox"/>				
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>				
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>				
Shipping Documentation Present?	<input checked="" type="checkbox"/>				
Airbill Trk # <u>1Z 62E 3F7 01 0088 1831</u>	<input checked="" type="checkbox"/>				
Sample Container Intact?	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Sample Custody Seals Intact?			<input checked="" type="checkbox"/>		
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>				
COC Anomaly/Sample Acceptance Form completed?		<input checked="" type="checkbox"/>			
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			<input checked="" type="checkbox"/>		
Preservation Documented:	Na ₂ S ₂ O ₃	Trizma	Yes	No <input checked="" type="checkbox"/>	NA
Shipping Container	Vista	Client	Retain	Return	Dispose

Comments: Sample Label ID:

GW-145 1 Liter each
GW-136 ↓
Matrix Spike - 147 A/B
Matrix Spike Dup 147 ↓



Burlington, WA	Corporate Laboratory (a)	1620 S Walnut St	Burlington, WA 98233	800.755.9295 • 360.757.1400
Bellingham, WA	Microbiology (b)	805 Orchard Dr Ste 4	Bellingham, WA 98225	360.715.1212
Portland, OR	Microbiology/Chemistry (c)	9150 SW Pioneer Ct Ste W	Wilsonville, OR 97070	503.682.7802
Corvallis, OR	Microbiology (d)	540 SW Third Street	Corvallis, OR 97333	541.753.4946

May 9, 2017

Page 1 of 1

Mr. Steve Patten
Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

RE: 17-09337 - Stiller Pond 2nd Event 2017

Dear Mr. Steve Patten,

Your project: Stiller Pond 2nd Event 2017, was received on Wednesday April 26, 2017.

All samples were analyzed within the accepted holding times and were appropriately preserved and analyzed according to approved analytical protocols, unless noted in the data or QC reports. The quality control data was within laboratory acceptance limits, unless specified in the data or QC reports.

If you have questions phone us at 800 755-9295.

Respectfully

A handwritten signature in blue ink that reads "Pat Miller".

Patrick Miller, MS
QA Officer

Enclosures: Data Report
QC Reports
Chain of Custody



Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017
Burlington, WA Corporate Laboratory (a)
1620 S Walnut St - Burlington, WA 98233 - 800.755.9295 • 360.757.1400
Bellingham, WA Microbiology (b)
805 Orchard Dr Ste 4 - Bellingham, WA 98225 - 360.715.1212
Portland, OR Microbiology/Chemistry (c)
9150 SW Pioneer Ct Ste W - Wilsonville, OR 97070 - 503.682.7802
Corvallis, OR Microbiology/Chemistry (d)
540 SW Third Street - Corvallis, OR 97333 - 541.753.4946
Bend, OR Microbiology (e)
20332 Empire Blvd Ste 4 - Bend, OR 97701 - 541.639.8425

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Data Report

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Reference Number: **17-09337**
Project: Stiller Pond 2nd Event 2017

Report Date: 5/9/17

Date Received: 4/26/17

Approved by: anp,bj,rmw

Authorized by:

Patrick Miller, MS
QA Officer

Sample Description: Intake Stiller Pond										Sample Date: 4/25/17 10:40 am		
Lab Number: 22048		Sample Comment:								Collected By: S Patten		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
7439-89-6	IRON	0.16	0.050	0.0012	mg/L	1.0	200.7	a	5/2/17	ANP	200.7_170502C	
14797-55-8	NITRATE-N	0.5	0.100	0.0236	mg/L	1.0	300.0	a	4/27/17	BJ	I170426A	
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	83	10		mg/L	1.0	SM2540 C	a	4/27/17	LRS	TDS_170427	
14265-44-2	ORTHO-PHOSPHATE	0.30	0.005	0.002	mg/L	1.0	SM4500-P F	a	4/26/17	ANP	OPHOS_170426	
7723-14-0	TOTAL PHOSPHORUS	0.097	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	5/3/17	RMW	tphos_170503	

Sample Description: GW-136 Stiller Pond										Sample Date: 4/25/17 11:40 am		
Lab Number: 22049		Sample Comment:								Collected By: S Patten		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
7439-89-6	IRON	ND	0.050	0.0012	mg/L	1.0	200.7	a	5/2/17	ANP	200.7_170502C	
14797-55-8	NITRATE-N	0.51	0.100	0.0236	mg/L	1.0	300.0	a	4/27/17	BJ	I170426A	
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	147	10		mg/L	1.0	SM2540 C	a	4/27/17	LRS	TDS_170427	
14265-44-2	ORTHO-PHOSPHATE	0.43	0.005	0.002	mg/L	1.0	SM4500-P F	a	4/26/17	ANP	OPHOS_170426	
7723-14-0	TOTAL PHOSPHORUS	0.292	0.020	0.0052	mg/L	2.0	SM4500-P F/SM4500-P B(5)	a	5/3/17	RMW	tphos_170503	

Sample Description: GW-145 Stiller Pond										Sample Date: 4/25/17 12:00 pm		
Lab Number: 22050		Sample Comment:								Collected By: S Patten		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
7439-89-6	IRON	0.06	0.050	0.0012	mg/L	1.0	200.7	a	5/2/17	ANP	200.7_170502C	
14797-55-8	NITRATE-N	2.69	0.100	0.0236	mg/L	1.0	300.0	a	4/27/17	BJ	I170426A	
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	241	10		mg/L	1.0	SM2540 C	a	4/27/17	LRS	TDS_170427	
14265-44-2	ORTHO-PHOSPHATE	0.45	0.005	0.002	mg/L	1.0	SM4500-P F	a	4/26/17	ANP	OPHOS_170426	
7723-14-0	TOTAL PHOSPHORUS	0.196	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	5/3/17	RMW	tphos_170503	

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.

PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

D.F. - Dilution Factor



Data Report

Sample Description: GW-146 Stiller Pond										Sample Date: 4/25/17 11:15 am			
Lab Number: 22051		Sample Comment:								Collected By: S Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
7439-89-6	IRON	0.07	0.050	0.0012	mg/L	1.0	200.7	a	5/2/17	ANP	200.7_170502C		
14797-55-8	NITRATE-N	4.52	0.100	0.0236	mg/L	1.0	300.0	a	4/27/17	BJ	I170426A		
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	296	10		mg/L	1.0	SM2540 C	a	4/27/17	LRS	TDS_170427		
14265-44-2	ORTHO-PHOSPHATE	0.44	0.005	0.002	mg/L	1.0	SM4500-P F	a	4/26/17	ANP	OPHOS_170426		
7723-14-0	TOTAL PHOSPHORUS	0.109	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	5/3/17	RMW	tphos_170503		
Sample Description: GW-147 Stiller Pond										Sample Date: 4/25/17 10:25 am			
Lab Number: 22052		Sample Comment:								Collected By: S Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
7439-89-6	IRON	ND	0.050	0.0012	mg/L	1.0	200.7	a	5/2/17	ANP	200.7_170502C		
14797-55-8	NITRATE-N	4.49	0.100	0.0236	mg/L	1.0	300.0	a	4/27/17	BJ	I170426A		
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	258	10		mg/L	1.0	SM2540 C	a	4/27/17	LRS	TDS_170427		
14265-44-2	ORTHO-PHOSPHATE	0.50	0.005	0.002	mg/L	1.0	SM4500-P F	a	4/26/17	ANP	OPHOS_170426		
7723-14-0	TOTAL PHOSPHORUS	0.160	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	5/3/17	RMW	tphos_170503		
Sample Description: GW-146 Dup Stiller Pond										Sample Date: 4/25/17 11:15 am			
Lab Number: 22053		Sample Comment:								Collected By: S Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
7439-89-6	IRON	ND	0.050	0.0012	mg/L	1.0	200.7	a	5/2/17	ANP	200.7_170502C		
14797-55-8	NITRATE-N	4.5	0.100	0.0236	mg/L	1.0	300.0	a	4/27/17	BJ	I170426A		
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	297	10		mg/L	1.0	SM2540 C	a	4/27/17	LRS	TDS_170427		
14265-44-2	ORTHO-PHOSPHATE	0.43	0.005	0.002	mg/L	1.0	SM4500-P F	a	4/26/17	ANP	OPHOS_170426		
7723-14-0	TOTAL PHOSPHORUS	0.112	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	5/3/17	RMW	tphos_170503		
Sample Description: Trip Blank Lab										Sample Date: 4/18/17 8:30 am			
Lab Number: 22054		Sample Comment:								Collected By: S Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
7439-89-6	IRON	ND	0.050	0.0012	mg/L	1.0	200.7	a	5/2/17	ANP	200.7_170502C		
14797-55-8	NITRATE-N	ND	0.100	0.0236	mg/L	1.0	300.0	a	4/27/17	BJ	I170426A		
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	ND H1	10		mg/L	1.0	SM2540 C	a	4/27/17	LRS	TDS_170427		
14265-44-2	ORTHO-PHOSPHATE	ND	0.005	0.002	mg/L	1.0	SM4500-P F	a	4/26/17	ANP	OPHOS_170426		
7723-14-0	TOTAL PHOSPHORUS	ND	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	5/5/17	RMW	TPHOS_170505		

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.

PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

D.F. - Dilution Factor



**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Calibration Check

Reference Number: **17-09337**

Report Date: 05/09/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier Type	QC	Comment
		Result	Value	Units						
200.7_170502C	2 IRON	1.02	1	mg/L	200.7	102	90-110	CAL	CAL	
I170426A	0 NITRATE-N	0.99	1	mg/L	300.0	99	90-110	CAL	CAL	
OPHOS_170426	0 ORTHO-PHOSPHATE	1.07	1.00	mg/L	SM4500-P F	107	85-115	CAL	CAL	
tphos_170503	0 TOTAL PHOSPHORUS	0.102	0.100	mg/L	SM4500-P F	102	85-115	CAL	CAL	
tphos_170505	0 TOTAL PHOSPHORUS	0.098	0.100	mg/L	SM4500-P F	98	85-115	CAL	CAL	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Laboratory Fortified Blank

Reference Number: **17-09337**

Report Date: 05/09/17

Batch	Analyte	True			Method	Recovery	% Limits*	QC Qualifier Type	QC	Comment
		Result	Value	Units						
200.7_170502C	0 IRON	0.55	0.5	mg/L	200.7	110	85-115	LFB		

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Laboratory Reagent Blank

Reference Number: **17-09337**

Report Date: 05/09/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
		Result	Value	Units						
200.7_170502C	0 IRON	ND		mg/L	200.7		0-0		LRB	
I170426A	0 NITRATE-N	ND		mg/L	300.0		0-0		LRB	
OPHOS_170426	0 ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0-0		LRB	
tphos_170503	0 TOTAL PHOSPHORUS	ND		mg/L	SM4500-P F		0-0		LRB	
tphos_170505	0 TOTAL PHOSPHORUS	ND		mg/L	SM4500-P F		0-0		LRB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Method Blank

Reference Number: **17-09337**

Report Date: 05/09/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
		Result	Value	Units						
200.7_170502C	0 IRON	ND		mg/L	200.7		0-0		MB	
OPHOS_170426	0 ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0-0		MB	
TDS_170427	0 TOTAL DISSOLVED SOLIDS (TDS)	ND		mg/L	SM2540 C		0-3		MB	
tphos_170503	0 TOTAL PHOSPHORUS	ND		mg/L	SM4500-P F		0-0		MB	
tphos_170505	0 TOTAL PHOSPHORUS	ND		mg/L	SM4500-P F		0-0		MB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Quality Control Sample

Reference Number: **17-09337**

Report Date: 05/09/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier Type	QC	Comment
		Result	Value	Units						
200.7_170502C	0 IRON	1.98	2	mg/L	200.7	99	95-105	QCS	QC	QC
I170426A	0 NITRATE-N	6.03	6	mg/L	300.0	101	90-110	QCS	QC	QC
OPHOS_170426	0 ORTHO-PHOSPHATE	0.49	0.49	mg/L	SM4500-P F	100	90-110	QCS	QC	QC
TDS_170427	0 TOTAL DISSOLVED SOLIDS (TDS)	504	500	mg/L	SM2540 C	101	80-120	QCS	QC	QC
tphos_170503	0 TOTAL PHOSPHORUS	0.0852	0.0832	mg/L	SM4500-P F	102	90-110	QCS	QC	QC
tphos_170505	0 TOTAL PHOSPHORUS	0.080	0.0832	mg/L	SM4500-P F	96	90-110	QCS	QC	QC

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE DEPENDENT
QUALITY CONTROL REPORT**
Duplicate, Matrix Spike/Matrix Spike Duplicate and Confirmation Result Report

Batch	Sample	Analyte	Duplicate			QC					
			Result	Result	Units	%RPD	Limits	Qualifier	Type	Comments	
Duplicate											
200.7_170502C											
	22017	IRON	ND	ND	mg/L	NA	0-20		DUP		
	22178	IRON	0.38	0.38	mg/L	0.0	0-20		DUP		
	22195	IRON	0.05	0.04	mg/L	22.2	0-20	INH	DUP		
I170426A											
	21739	NITRATE-N	2.62	2.62	mg/L	0.0	0-20		DUP		
	21874	NITRATE-N	0.12	0.14	mg/L	15.4	0-20		DUP		
	22022	NITRATE-N	0.41	0.41	mg/L	0.0	0-20		DUP		
OPHOS_170426											
	22048	ORTHO-PHOSPHATE	0.30	0.30	mg/L	0.0	0-20		DUP		
TDS_170427											
	21874	TOTAL DISSOLVED SOLIDS (TDS)	123	122	mg/L	0.8	0-10		DUP		
	22017	TOTAL DISSOLVED SOLIDS (TDS)	135	133	mg/L	1.5	0-10		DUP		
tphos_170503											
	21486	TOTAL PHOSPHORUS	0.013	0.013	mg/L	0.0	0-20		DUP		
	21495	TOTAL PHOSPHORUS	0.125	0.130	mg/L	3.9	0-20		DUP		
	22510	TOTAL PHOSPHORUS	0.557	0.558	mg/L	0.2	0-20		DUP		
TPHOS_170505											
	22054	TOTAL PHOSPHORUS	ND	ND	mg/L	NA	0-20		DUP		
	22770	TOTAL PHOSPHORUS	0.053	0.053	mg/L	0.0	0-20		DUP		
	22971	TOTAL PHOSPHORUS	0.065	0.063	mg/L	3.1	0-20		DUP		

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QC Dependent.rpt

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Batch	Sample	Analyte	Result	Duplicate										QC Qualifier	Type	Comments
				Spike Result	Spike Result	Spike Conc	Units	Percent Recovery		MS	MSD	Limits*	%RPD	Limits*		
Laboratory Fortified Matrix (MS)																
200.7_170502C																
	22017	IRON	ND	0.51	0.54	0.50	mg/L	102	108	70-130	5.7	0-20			LFM	
	22178	IRON	0.38	0.82	0.91	0.50	mg/L	88	106	70-130	18.6	0-20			LFM	
	22195	IRON	0.05	0.58	0.58	0.50	mg/L	106	106	70-130	0.0	0-20			LFM	
I170426A																
	21739	NITRATE-N	2.62	3.56		1	mg/L	94	NA	90-110	NA	0-20			LFM	
	21874	NITRATE-N	0.12	1.12		1	mg/L	100	NA	90-110	NA	0-20			LFM	
	22022	NITRATE-N	0.41	1.37		1	mg/L	96	NA	90-110	NA	0-20			LFM	
OPHOS_170426																
	22048	ORTHO-PHOSPHATE	0.30	1.21	1.20	1.00	mg/L	91	90	70-130	1.1	0-20			LFM	
tphos_170503																
	21486	TOTAL PHOSPHORUS	0.013	0.015	0.014	0.003	mg/L	67	33	70-130	66.7	0-20	IS		LFM	
	21495	TOTAL PHOSPHORUS	0.125	0.128	0.130	0.003	mg/L	100	167	70-130	50.0	0-20			LFM	
	22510	TOTAL PHOSPHORUS	0.557	0.553	0.568	0.003	mg/L	-133	367	70-130	428.6	0-20	IS		LFM	
TPHOS_170505																
	22054	TOTAL PHOSPHORUS	ND	0.046	0.047	0.050	mg/L	92	94	70-130	2.2	0-20			LFM	
	22770	TOTAL PHOSPHORUS	0.053	0.105	0.106	0.050	mg/L	104	106	70-130	1.9	0-20			LFM	
	22971	TOTAL PHOSPHORUS	0.065	0.115	0.114	0.050	mg/L	100	98	70-130	2.0	0-20			LFM	

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QC Dependent.rpt

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Chain of Custody / Analysis Request

(Please complete all applicable shaded sections)

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32116

Report to:	Walla Walla Basin Watershed Council	Bill to:	Walla Walla Basin Watershed Council	For Lab Use Only
Ship Address:	810 S Main Street	Address:	810 South Main Street	Ref #
City:	Milton-Freewater St:	City:	Milton-Freewater St:	<u>Check Regulatory Program</u>
Attn:	OR Zip: 97862	Attn:	OR Zip: 97862	Main Lab (800-755-9295) Microbiology (888-725-1212)
Phone:	541.938-2170 FAX:	Phone:	FAX:	Safe Drinking Water Act Clean Water Act
Email:	steven.patten@wwbwrc.org	P.O.#:	Attn:	RCRA / CERCLA
Project	Stiller Pond 2nd Event 2017	Card#:		Other

Instructions

- Use one line per sample Location.
- Be specific in analysis requests.
- NEW** List each metal individually (NEW)
- Check off analyses to be performed for each sample Loaction.
- Enter number of containers.

Turn Around Time Required

<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Half-time (50% surcharge)	<input type="checkbox"/> Quickest (100% surcharge) Phone Call Req.	<input type="checkbox"/> Emergency (Phone Call Req.)
--	--	--	--

Analyses Requested

Field ID	Location	Grab/ Comp.	Sample Matrix *	Date	Time	Fe	Fe (Field Dup)		Fe (Trip Blank)		TDS, NO3, o-PO4		TDS, NO3, o-PO4 (Field Dup)		Total P		Total P (Field Dup)		Number of Containers	Special Instructions	Conditions on Receipt
							Fe	Fe (Field Dup)	Fe (Trip Blank)	TDS, NO3, o-PO4	TDS, NO3, o-PO4 (Field Dup)	Total P	Total P (Field Dup)								
1	INSTACRE	STEWART POND	GAS	5/25/17	10:40	X				X					X						
2	BLW-136		GAS	BLW	4/25/17 11:40	X															
3	BLW-145		GAS	BLW	4/25/17 12:00	X															
4	BLW-146		GAS	BLW	4/25/17 11:15	X															
5	BLW-147		GAS	BLW	4/25/17 10:25	X															
6	BLW-146 DR		GAS	BLW	4/25/17 11:15	X															
7	BLW BLANK	LABS	BLW	4/25/17 11:15	8:30																
8																					
9																					
10																					

Sampled by: S. PATTEN Phone: 541-938-2170 FAX: SAME Email: steven.patten@wwbwrc.org

Sample Receipt Request (Must include FAX or Email) * W - water SW - surface water WW - waste water OL - oil
 DW - drinking water GW - Ground water S - soil Other _____

Relinquished by	Date	Time	Received by	Date	Time	Custody seals intact	Yes	No	N/A
<u>S. PATTEN</u>	4/25/17	1:30	WPS	4/25/17	1:30				

Sample temp C satisfactory
Samples received intact
Chain of custody & labels agree

edge
ANALYTICAL
Main Lab (800-755-9295)
1620 South Walnut St. Burlington, WA 98233
Microbiology (888-725-1212)
805 W. Orchard Dr. Suite 4 Bellingham, WA 98225
Wilsonville Lab (503-682-7802)
9150 SW Pioneer Ct. Suite W Wilsonville, OR 97070
Corvallis Lab (541-753-4946)
540 SW 3rd St. Corvallis, OR 97333

Chain of Custody / Analysis Request

(Please complete all applicable shaded sections)

Report to:	Walla Walla Basin Watershed Council	For Lab Use Only
Ship Address:	810 S Main Street	Ref #
City:	Milton-Freewater St: OR Zip: 97862	Check Regulatory Program
Attn:	Steven Patten	<input type="checkbox"/> Safe Drinking Water Act
Phone:	541.938-2170 FAX:	<input type="checkbox"/> Clean Water Act
Email:	steven.patten@wwbwc.org	<input type="checkbox"/> RCRA / CERCLA
Project	Stiller Pond 2nd Event 2017	<input type="checkbox"/> Other
	Card#:	

Instructions

- Use one line per sample Location.
- Be specific in analysis requests.
- (NEW) List each metal individually (NEW)
- Check off analyses to be performed for each sample Location.
- Enter number of containers.

Analyses Requested

Turn Around Time Required					
<input checked="" type="checkbox"/> Standard					
<input type="checkbox"/> Half-time (50% surcharge)					
<input type="checkbox"/> Quickest (100% surcharge) Phone Call Req.					
<input type="checkbox"/> Emergency (Phone Call Req.)					

Total P (Trip Blank)



Field ID	Location	Grab/ Comp. Matrix*	Sample Date	Time	Number of Containers	Special Instructions		
						Conditions on Receipt	Total Containers	Other
1	INSTANCE	SURFACE RENE	GRAB	5/25/17 10:40				
2	GW-136	GRAB	GW	4/25/17 11:40				
3	GW-145	GRAB	GW	4/25/17 12:00				
4	GW-146	GRAB	GW	4/25/17 11:15				
5	GW-147	GRAB	GW	4/25/17 10:26				
6	GW-146 DW	GRAB	GW	4/25/17 11:15				
7	TREP LANS	W	4/18/17 8:30	X				
8								
9								
10								

Custody seals intact			Yes	No	N/A
Sample temp	C	satisfactory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples received	intact		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chain of custody & labels agree			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017

Sampled by: S. PATTENPhone: 541-938-2170 FAX: 541-938-2170Email: steven.patten@wwbwc.orgSample Receipt Request (Must include FAX or Email)

* W - water

DW - drinking water

SW - surface water

GW - Ground water

WW - waste water

S - soil

OR - oil

Other _____

Yes No N/A

Relinquished by

Date 4/25/17Time 1:30

Received by

UPSDate 4/25/17Time 1:30

Custody seals intact

Sample temp C satisfactory

Samples received intact

Chain of custody & labels agree

Chain of Custody / Analysis Request

(Please complete all applicable shaded sections)

Page 4 of 4

Report to:	Walla Walla Basin Watershed Council	For Lab Use Only
Ship Address:	810 S Main Street	Ref #
City:	Milton-Freewater St: OR Zip: 97862	<input type="checkbox"/> Check Regulatory Program
Attn:	Steven Patten	<input type="checkbox"/> Safe Drinking Water Act
Phone:	541.938-2170 FAX:	<input type="checkbox"/> Clean Water Act
Email:	steven.patten@wwbcc.org	<input type="checkbox"/> RCRA / CERCLA
Project	Stiller Pond 2nd Event 2017	<input type="checkbox"/> Other
Bill to:	Walla Walla Basin Watershed Council	
Address:	810 South Main Street	
City:	Milton-Freewater St: OR Zip: 97862	
Phone:		
P.O.#:		
Attn:		
Card#:		

- Instructions
 1. Use one line per sample Location.
 2. Be specific in analysis requests.
 3. (NEW) List each metal Individually (NEW)
 4. Check off analyses to be performed for each sample location.
 5. Enter number of containers.

Turn Around Time Required						
<input checked="" type="checkbox"/> Standard						
<input type="checkbox"/> Half-time (50% surcharge)						
<input type="checkbox"/> Quickest (100% surcharge) Phone Call Req.						
<input type="checkbox"/> Emergency (Phone Call Req.)						

- Total P (Trip Blank)
- Number of Containers
- Special Instructions Conditions on Receipt



CO032116

edge
ANALYTICAL
Main Lab (800-755-9295)
Microbiology (888-725-1212)
 1620 South Walnut St, Burlington, WA 98233
 805 W. Orchard Dr. Suite 4 Bellington, WA 98225
Wilsonville Lab (503-682-7802)
 9150 SW Pioneer Ct, Suite W Wilsonville, OR 97070
Corvallis Lab (541-753-4946)
 540 SW 3rd St, Corvallis, OR 97333

Appendix B - Page 92

Field ID	Location	Grab/ Comp.	Sample Matrix *	Date	Time	
1	Intake	STILLER POND	SW	4/15/17	10:40	<input type="checkbox"/>
2	GW-130	GW	GW	4/15/17	11:40	<input type="checkbox"/>
3	GW-145	GW	GW	4/15/17	12:00	<input type="checkbox"/>
4	GW-146	GW	GW	4/15/17	11:15	<input type="checkbox"/>
5	GW-147	GW	GW	4/15/17	10:25	<input type="checkbox"/>
6	GW-148 DWP	GW	GW	4/15/17	11:15	<input type="checkbox"/>
7	TREP BURK	LAR3	GW	4/18/17	8:30	<input checked="" type="checkbox"/>
8						<input type="checkbox"/>
9						<input type="checkbox"/>
10						<input type="checkbox"/>
Email: steven.patten@wwbcc.org						
Sampled by: S. Patten Phone: 541-938-2170 FAX: SAME						
* W - water SW - surface water WW - waste water OL - oil						
DW - drinking water GW - Ground water S - soil Other _____						
Relinquished by	Date	Time	Received by	Date	Time	Custody seals intact
<i>S. Patten</i>	4/25/17	1:30	WPS	4/25/17	1:30	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

Sample Receipt Request (Must include FAX or Email)

* W - water SW - surface water WW - waste water OL - oil

DW - drinking water GW - Ground water S - soil Other _____

Custody seals intact

Sample temp _____ C satisfactory

Samples received intact

Chain of custody & labels agree



Burlington, WA	Corporate Office	Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017
Bellingham, WA	Microbiology (b)	805 Orchard Dr Ste 4 Bellingham, WA 98225 360.715.1212
Portland, OR	Microbiology/Chemistry (c)	9150 SW Pioneer Ct Ste W Wilsonville, OR 97070 503.682.7802
Corvallis, OR	Microbiology (d)	540 SW Third Street Corvallis, OR 97333 541.753.4946

4/26/2017

Sample Receipt

Page 1 of 7

Mr. Steve Patten
Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

We received the following samples for project "**Stiller Pond 2nd Event 2017**" on **4/26/2017** at **9:00:00AM**. The turnaround is **Standard**; this project is expected to be completed by **05/10/2017**. The temperature of the sample cooler was **2C**. Listed below are the samples, analytical methods and parameters to be tested. If you have any questions concerning this project please refer to reference number **17-09337**.

Lab Sample ID: 22048	Sample Desc: Intake - Stiller Pond	Date Sampled: 4/25/17 10:40 am
Sampled By: S Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: 22049	Sample Desc: GW-136 - Stiller Pond	Date Sampled: 4/25/17 11:40 am
Sampled By: S Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: **22050**

Sample Desc: GW-145 - Stiller Pond

Date Sampled: 4/25/17 12:00 pm

Sampled By: S Patten

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: **22051**

Sample Desc: GW-146 - Stiller Pond

Date Sampled: 4/25/17 11:15 am

Sampled By: S Patten

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: **22052**

Sample Desc: GW-147 - Stiller Pond

Date Sampled: 4/25/17 10:25 am

Sampled By: S Patten

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: **22053**

Sample Desc: GW-146 Dup - Stiller Pond

Date Sampled: 4/25/17 11:15 am

Sampled By: S Patten

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: **22054**

Sample Desc: Trip Blank - Lab

Date Sampled: 4/25/17 8:30 am

Sampled By: S Patten

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS



27 April 2017

Vista Project ID: 1700536

Mr. Steven Patten
Walla Walla Basin Watershed Council
810 S. Main Street
Milton-Freewater, OR 97862
RE: Stiller Pond

Dear Mr. Patten,

The sample(s) listed in the sample inventory were received by Vista Analytical Laboratory on 26-Apr-17.

Please find attached:

- Terms and Conditions
- Sample Inventory Report
- Chain-of-Custody
- Sample Log-in Checklist
- Additional sample documentation (if applicable)

Analytical results are scheduled to be reported to you on 17-May-17.

If you have any questions regarding the status of the work associated with these samples, please contact me at mmaier@vista-analytical.com or (916) 673-1520.

Sincerely,
Martha Maier
Laboratory Director

TERMS AND CONDITIONS

ACCEPTANCE

These terms and conditions are incorporated into, and made a part of, every agreement for services between **Vista Analytical Laboratory, Inc.** ("Vista") and its client ("Client"). The Client accepts these terms and conditions by agreeing to purchase services from Vista or by sending samples to Vista.

PAYMENT

The Client shall pay in full within 30 days after the date that Vista invoices it for services rendered. No payment terms or conditions of purchase orders different from the terms of Vista will become part of any sales agreement, purchase order, or other document unless specifically approved in writing by Vista. Should suit be instituted to collect any debts of the undersigned, the client is responsible to pay all actual costs of collection and attorney's fees and interests on the past due amount at the highest rate legally available.

TURNAROUND TIME

Standard turnaround time is 21 days unless a shorter turnaround time is expressly agreed to by Vista. Turnaround time is defined as the number of calendar days between the first business day after Vista receives a sample or is authorized by the Client to perform an analysis on a sample, whichever occurs last, and the date that Vista transmits the final report for that sample to the Client. Rush orders, i.e., those that the Client requests to have analyzed in less than the standard turnaround time, will be subject to the additional charges set forth in the applicable quotation. Delays caused by acts of God, natural disasters, governmental actions, fires, floods and accidents, and other circumstances for which Vista is not responsible, shall not be counted in determining turnaround time.

SHIPPING

The Client is responsible for delivering its samples to Vista in good condition and the Client shall bear the risk of any loss of or damage to its samples during shipping. Vista reserves the right to refuse to accept delivery of, to refuse to analyze and/or to return any sample to the Client that is not delivered to Vista in good condition or that poses a health or safety risk. The Client shall pay the cost of returning such samples to it.

LIMITATION OF LIABILITY

Vista makes no representations, guarantees or warranties, express or implied, regarding the fitness of its reports for any particular use or purpose and Vista shall not be liable for consequential damages under any circumstance. The client's sole remedy is a refund of the amount that is paid Vista to analyze the sample in question. If Vista loses or damages a sample, after accepting it for analysis, Vista's liability shall not exceed the lesser of \$50 or the amount that the Client expended to obtain the sample.

INDEMNITY

The Client agrees to indemnify and defend Vista, and to hold Vista harmless, against any and all claims, actions, lawsuits, arbitration awards, judgements, damages, liabilities, expenses and costs, including attorneys' fees and court costs, arising out of, or related in any way to, the use to Vista's reports by the Client or by any third party who obtains Vista's reports from the Client.

Effective: 2/14/2007

Sample Inventory Report



Vista Sample ID	Client Sample ID	Sampled	Received	Components/ Containers
1700536-01	Intake	25-Apr-17 10:40	26-Apr-17 09:52	Amber Glass NM Bottle, 1L
1700536-02	GW-136	25-Apr-17 11:40	26-Apr-17 09:52	Amber Glass NM Bottle, 1L
1700536-03	GW-145	25-Apr-17 12:00	26-Apr-17 09:52	Amber Glass NM Bottle, 1L
1700536-04	GW-146	25-Apr-17 11:15	26-Apr-17 09:52	Amber Glass NM Bottle, 1L
1700536-05	GW-147	25-Apr-17 10:25	26-Apr-17 09:52	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L

Sample Analysis Report

Vista Sample ID	Client Sample ID	Requested Analysis	Status
1700536-01	Intake	EPA Method 1668C	In Process
1700536-02	GW-136	EPA Method 1668C	In Process
1700536-03	GW-145	EPA Method 1668C	In Process
1700536-04	GW-146	EPA Method 1668C	In Process
1700536-05	GW-147	EPA Method 1668C	In Process



CHAIN OF CUSTODY

FOR LABORATORY USE ONLY

Laboratory Project ID:

Storage ID:

Storage Secured
Yes No

Temp 5.7 °C

Project I.D.: STILLER PONDS P.O.# _____ Sampler: S. PATTEN
(Name)

TAT: (Check One):

Standard: 21 Days

Rush (surcharge may apply):

 14 days 7 days Specify: _____

Invoice to: Name <u>CHRIS STEETS</u>	Company <u>WWBWL</u>	Address <u>510 S. MAIN</u>	City <u>MILTON-FREELAND</u>	State <u>OK</u>	Zip <u>97862</u>	Ph# <u>541-938-2120</u>	Fax#
Relinquished by: (Signature and Printed Name) <u>S. PATTEN</u>	Date: <u>4-25-17</u>	Time: <u>13:30</u>	Received by: (Signature and Printed Name) <u>UPS</u>	Date: <u>4-25-17</u>	Time: <u>13:30</u>		
Relinquished by: (Signature and Printed Name) <u>UPS</u>	Date: <u></u>	Time: <u></u>	Received by: (Signature and Printed Name) <u>MARISA SPARKS</u>	Date: <u>4/26/17</u>	Time: <u>09:54</u>		

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

Method of Shipment:

Tracking No.:

ATTN: _____

Sample ID	Date	Time	Location/Sample Description	Add Analysis(es) Requested											
				Container(s)			Quantity	Type	Matrix	EPA1613	EPA8290	EPA8280	EPA1668	EPA1614	CARB429
IN111	4/25/17	10:40	STILLER PONDS	2L	A	AG					X				
GW-136	4/25/17	11:40	STILLER PONDS	2L	A	AG					X				
GW-145	4/25/17	12:00	STILLER PONDS	2L	A	AG					X				
GW-146	4/25/17	11:15	STILLER PONDS	2L	A	AG					X				
GW-147	4/25/17	10:25	STILLER PONDS	2L	A	AG					X				

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:Name: STEVEN PATTENCompany: WWBWLAddress: 510 S. MAINCity: MILTON-FREELAND State: OK Zip: 97862Phone: 541-938-2120 Fax: 541-938-2120Email: steven.patten@wwbwlc.org

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper,

SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum

AQ = Aqueous, O = Other _____ Appendix B - Page 104

Container Types: A = 1 Liter Amber, G = Glass Jar

P = PUF, T = MM5 Train, O = Other _____

*Bottle Preservative Type: T = Thiosulfate,

O = Other _____



SAMPLE LOG-IN CHECKLIST

Vista Project #: 1700534 TAT Std

Samples Arrival:	Date/Time <u>4/26/17 0952</u>		Initials: <u>MNS</u>	Location: <u>WR-2</u> Shelf/Rack: <u>11/2</u>		
Logged In:	Date/Time <u>04/26/17 1456</u>		Initials: <u>AB</u>	Location: <u>WR-2</u> Shelf/Rack: <u>A2</u>		
Delivered By:	FedEx	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice		None	
Temp °C: <u>5.4</u> (uncorrected)	Time: <u>0953</u>			Thermometer ID: IR-1		
Temp °C: <u>5.7</u> (corrected)	Probe used: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					

		YES	NO	NA
Adequate Sample Volume Received?	<u>A/B</u>	✓		
Holding Time Acceptable?		✓		
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?		✓		
Shipping Documentation Present?		✓		
Airbill	Trk # <u>TZ 626 3F7 01 0290 6239</u>	✓		
Sample Container Intact?		✓		
Sample Custody Seals Intact?			✓	
Chain of Custody / Sample Documentation Present?		✓		
COC Anomaly/Sample Acceptance Form completed?			✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				
Preservation Documented:	Na ₂ S ₂ O ₃	Trizma	Yes	No <input checked="" type="checkbox"/> NA
Shipping Container	Vista	Client	Retain	Return
Dispose				

Comments:



May 15, 2017

Vista Work Order No. 1700536

Mr. Steven Patten
Walla Walla Basin Watershed Council
810 S. Main Street
Milton-Freewater, OR 97862

Dear Mr. Patten,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on April 26, 2017. This sample set was analyzed on a standard turn-around time, under your Project Name 'Stiller Pond'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

A handwritten signature in black ink that reads "Karen Lopez for Martha Maier".

Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1700536

Case Narrative

Sample Condition on Receipt:

Five aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

EPA Method 1668C

These samples were extracted and analyzed for 209 PCB congeners by EPA Method 1668C using a ZB-1 GC column.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. PCB-11 was detected at 5.36 pg/L in the Method Blank. No other analytes were detected above the sample quantitation limits in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1700536-01	Intake	25-Apr-17 10:40	26-Apr-17 09:52	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700536-02	GW-136	25-Apr-17 11:40	26-Apr-17 09:52	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700536-03	GW-145	25-Apr-17 12:00	26-Apr-17 09:52	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700536-04	GW-146	25-Apr-17 11:15	26-Apr-17 09:52	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700536-05	GW-147	25-Apr-17 10:25	26-Apr-17 09:52	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L

ANALYTICAL RESULTS

Sample ID: Method Blank					EPA Method 1668C					
Matrix:	Aqueous	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30	Lab Sample:	B7D0145-BLK1			
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	
PCB-1	ND	0.728			PCB-44	ND	0.951			
PCB-2	ND	1.03			PCB-45	ND	0.932			
PCB-3	ND	1.01			PCB-46	ND	0.994			
PCB-4/10	ND	1.31			PCB-47	2.70			J	
PCB-5/8	ND	1.43			PCB-48/75	ND	0.658			
PCB-6	ND	0.707			PCB-50	ND	0.928			
PCB-7/9	ND	0.971			PCB-51	ND	0.799			
PCB-11	5.36				PCB-52/69	ND	1.01			
PCB-12/13	ND	0.851			PCB-53	ND	0.842			
PCB-14	ND	0.752			PCB-54	ND	0.742			
PCB-15	ND	0.845			PCB-55	ND	0.576			
PCB-16/32	ND	0.944			PCB-56/60	ND	0.627			
PCB-17	ND	0.528			PCB-57	ND	0.627			
PCB-18	ND		0.932		PCB-58	ND	0.602			
PCB-19	ND	0.672			PCB-61/70	ND	0.874			
PCB-20/21/33	ND	1.05			PCB-62	ND	0.659			
PCB-22	ND	0.890			PCB-63	ND	0.590			
PCB-23	ND	0.886			PCB-65	ND	0.697			
PCB-24/27	ND	0.397			PCB-66/76	ND	0.837			
PCB-25	ND	0.950			PCB-67	ND	0.636			
PCB-26	ND	0.859			PCB-68	ND	0.784			
PCB-28	ND	0.996			PCB-73	ND	0.665			
PCB-29	ND	0.852			PCB-74	ND	0.587			
PCB-30	ND	0.406			PCB-77	ND	0.667			
PCB-31	ND	0.931			PCB-78	ND	0.630			
PCB-34	ND	0.847			PCB-79	ND	0.587			
PCB-35	ND	1.05			PCB-80	ND	0.529			
PCB-36	ND	1.00			PCB-81	ND	0.589			
PCB-37	ND	0.908			PCB-82	ND	2.16			
PCB-38	ND	1.04			PCB-83	ND	1.29			
PCB-39	ND	0.932			PCB-84/92	ND	1.71			
PCB-40	ND	1.00			PCB-85/116	ND	1.59			
PCB-41/64/71/72	ND	0.926			PCB-86	ND	2.20			
PCB-42/59	ND	0.688			PCB-87/117/125	ND	1.38			
PCB-43/49	ND	1.17			PCB-88/91	ND	1.66			

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: Method Blank					EPA Method 1668C					
Matrix:	Aqueous	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30	Lab Sample:	B7D0145-BLK1			
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	
PCB-89	ND	1.80			PCB-137	ND	0.955			
PCB-90/101	ND	0.884			PCB-138/163/164	ND	0.595			
PCB-93	ND	1.86			PCB-139/149	ND	1.67			
PCB-94	ND	1.75			PCB-140	ND	1.84			
PCB-95/98/102	ND	1.56			PCB-141	ND	0.973			
PCB-96	ND	1.34			PCB-142	ND	1.13			
PCB-97	ND	1.69			PCB-144	ND	1.66			
PCB-99	ND	1.50			PCB-145	ND	1.37			
PCB-100	ND	1.47			PCB-146/165	ND	0.876			
PCB-103	ND	1.46			PCB-147	ND	1.89			
PCB-104	ND	1.18			PCB-148	ND	1.81			
PCB-105	ND	1.02			PCB-150	ND	1.34			
PCB-106/118	ND	1.24			PCB-151	ND	1.79			
PCB-107/109	ND	1.24			PCB-152	ND	1.31			
PCB-108/112	ND	1.54			PCB-153	ND	0.852			
PCB-110	ND	1.34			PCB-154	ND	1.64			
PCB-111/115	ND	1.18			PCB-155	ND	1.25			
PCB-113	ND	1.34			PCB-156	ND	0.764			
PCB-114	ND	1.02			PCB-157	ND	0.787			
PCB-119	ND	1.17			PCB-158/160	ND	0.788			
PCB-120	ND	1.09			PCB-159	ND	0.735			
PCB-121	ND	1.16			PCB-166	ND	0.801			
PCB-122	ND	1.13			PCB-167	ND	0.783			
PCB-123	ND	1.24			PCB-168	ND	0.707			
PCB-124	ND	1.23			PCB-169	ND	0.886			
PCB-126	ND	1.24			PCB-170	ND	0.735			
PCB-127	ND	1.14			PCB-171	ND	0.698			
PCB-128/162	ND	0.909			PCB-172	ND	0.728			
PCB-129	ND	1.18			PCB-173	ND	0.860			
PCB-130	ND	1.18			PCB-174	ND	0.756			
PCB-131/133	ND	1.09			PCB-175	ND	0.676			
PCB-132/161	ND	0.878			PCB-176	ND	0.498			
PCB-134/143	ND	1.08			PCB-177	ND	0.812			
PCB-135	ND	1.85			PCB-178	ND	0.688			
PCB-136	ND	1.28			PCB-179	ND	0.540			

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: Method Blank					EPA Method 1668C				
Matrix:	Aqueous	QC Batch:	B7D0145	Lab Sample:	B7D0145-BLK1	Date Analyzed:	28-Apr-17 19:14 Column: ZB-1		
Sample Size:	1.00 L	Date Extracted:	28-Apr-2017 7:30						
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.708			Total octaCB	ND	1.44		
PCB-181	ND	0.717			Total nonaCB	ND	0.599		
PCB-182/187	ND	0.625			DecaCB	ND	0.511		
PCB-183	ND	0.581			Total PCB	8.05			
PCB-184	ND	0.539							
PCB-185	ND	0.724							
PCB-186	ND	0.496							
PCB-188	ND	0.495							
PCB-189	ND	0.491							
PCB-190	ND	0.529							
PCB-191	ND	0.528							
PCB-192	ND	0.562							
PCB-193	ND	0.542							
PCB-194	ND	0.444							
PCB-195	ND	0.563							
PCB-196/203	ND	1.26							
PCB-197	ND	0.908							
PCB-198	ND	1.32							
PCB-199	ND	1.44							
PCB-200	ND	0.975							
PCB-201	ND	0.959							
PCB-202	ND	1.04							
PCB-204	ND	1.02							
PCB-205	ND	0.397							
PCB-206	ND	0.599							
PCB-207	ND	0.387							
PCB-208	ND	0.395							
PCB-209	ND	0.511							
Total monoCB	ND	1.03							
Total diCB	5.36								
Total triCB	ND	0.932							
Total tetraCB	2.70								
Total pentaCB	ND	2.20							
Total hexaCB	ND	1.89							
Total heptaCB	ND	0.860							

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: Method Blank				EPA Method 1668C			
Matrix:	Aqueous	QC Batch:	B7D0145	Lab Sample:	B7D0145-BLK1	Date Analyzed:	28-Apr-17 19:14 Column: ZB-1
Sample Size:	1.00 L	Date Extracted:	28-Apr-2017 7:30				
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
IS 13C-PCB-1	51.2	5-145		13C-PCB-157	92.8	10-145	
13C-PCB-3	55.3	5-145		13C-PCB-159	96.4	10-145	
13C-PCB-4	54.5	5-145		13C-PCB-167	95.7	10-145	
13C-PCB-11	71.4	5-145		13C-PCB-169	92.7	10-145	
13C-PCB-9	59.5	5-145		13C-PCB-170	92.6	10-145	
13C-PCB-19	84.6	5-145		13C-PCB-180	92.8	10-145	
13C-PCB-28	94.8	5-145		13C-PCB-188	99.6	10-145	
13C-PCB-32	94.1	5-145		13C-PCB-189	89.8	10-145	
13C-PCB-37	96.9	5-145		13C-PCB-194	94.5	10-145	
13C-PCB-47	90.6	5-145		13C-PCB-202	116	10-145	
13C-PCB-52	89.5	5-145		13C-PCB-206	76.8	10-145	
13C-PCB-54	75.0	5-145		13C-PCB-208	72.8	10-145	
13C-PCB-70	92.6	5-145		13C-PCB-209	78.8	10-145	
13C-PCB-77	90.9	10-145		CRS 13C-PCB-79	96.8	10-145	
13C-PCB-80	92.5	10-145		13C-PCB-178	98.7	10-145	
13C-PCB-81	91.6	10-145					
13C-PCB-95	95.8	10-145					
13C-PCB-97	96.8	10-145					
13C-PCB-101	97.3	10-145					
13C-PCB-104	92.7	10-145					
13C-PCB-105	117	10-145					
13C-PCB-114	117	10-145					
13C-PCB-118	93.4	10-145					
13C-PCB-123	94.4	10-145					
13C-PCB-126	116	10-145					
13C-PCB-127	117	10-145					
13C-PCB-138	95.3	10-145					
13C-PCB-141	96.8	10-145					
13C-PCB-153	97.7	10-145					
13C-PCB-155	104	10-145					
13C-PCB-156	91.5	10-145					

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: OPR					EPA Method 1668C			
Matrix:	Aqueous <th>QC Batch:</th> <td>B7D0145</td> <th></th> <th>Lab Sample:</th> <td>B7D0145-BS1</td> <th></th>	QC Batch:	B7D0145		Lab Sample:	B7D0145-BS1		
Sample Size:	1.00 L	Date Extracted:	28-Apr-2017 7:30		Date Analyzed:	28-Apr-17 17:05	Column: ZB-1	
Analyte	Amt Found (pg/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL	
PCB-1	816	1000	81.6	60 - 135	IS 13C-PCB-1	36.4	15 - 145	
PCB-3	828	1000	82.8	60 - 135	IS 13C-PCB-3	41.8	15 - 145	
PCB-4/10	2020	2000	101	60 - 135	IS 13C-PCB-4	42.3	15 - 145	
PCB-15	1060	1000	106	60 - 135	IS 13C-PCB-11	63.5	15 - 145	
PCB-19	727	1000	72.7	60 - 135	IS 13C-PCB-9	49.3	15 - 145	
PCB-37	1200	1000	120	60 - 135	IS 13C-PCB-19	73.3	15 - 145	
PCB-54	876	1000	87.6	60 - 135	IS 13C-PCB-28	69.0	15 - 145	
PCB-77	877	1000	87.7	60 - 135	IS 13C-PCB-32	84.8	15 - 145	
PCB-81	891	1000	89.1	60 - 135	IS 13C-PCB-37	85.0	15 - 145	
PCB-104	813	1000	81.3	60 - 135	IS 13C-PCB-47	86.5	15 - 145	
PCB-105	1080	1000	108	60 - 135	IS 13C-PCB-52	84.6	15 - 145	
PCB-106/118	1680	2000	84.0	60 - 135	IS 13C-PCB-54	67.6	15 - 145	
PCB-114	1110	1000	111	60 - 135	IS 13C-PCB-70	91.4	15 - 145	
PCB-123	833	1000	83.3	60 - 135	IS 13C-PCB-77	98.4	40 - 145	
PCB-126	1090	1000	109	60 - 135	IS 13C-PCB-80	91.6	40 - 145	
PCB-155	902	1000	90.2	60 - 135	IS 13C-PCB-81	96.4	40 - 145	
PCB-156	965	1000	96.5	60 - 135	IS 13C-PCB-95	93.3	40 - 145	
PCB-157	947	1000	94.7	60 - 135	IS 13C-PCB-97	98.5	40 - 145	
PCB-167	954	1000	95.4	60 - 135	IS 13C-PCB-101	97.2	40 - 145	
PCB-169	979	1000	97.9	60 - 135	IS 13C-PCB-104	86.6	40 - 145	
PCB-188	873	1000	87.3	60 - 135	IS 13C-PCB-105	126	40 - 145	
PCB-189	918	1000	91.8	60 - 135	IS 13C-PCB-114	125	40 - 145	
PCB-202	832	1000	83.2	60 - 135	IS 13C-PCB-118	97.6	40 - 145	
PCB-205	1120	1000	112	60 - 135	IS 13C-PCB-123	96.7	40 - 145	
PCB-206	1010	1000	101	60 - 135	IS 13C-PCB-126	128	40 - 145	
PCB-208	994	1000	99.4	60 - 135	IS 13C-PCB-127	128	40 - 145	
PCB-209	889	1000	88.9	60 - 135	IS 13C-PCB-138	102	40 - 145	
					IS 13C-PCB-141	102	40 - 145	
					IS 13C-PCB-153	102	40 - 145	
					IS 13C-PCB-155	98.4	40 - 145	
					IS 13C-PCB-156	99.9	40 - 145	
					IS 13C-PCB-157	99.7	40 - 145	
					IS 13C-PCB-159	102	40 - 145	
					IS 13C-PCB-167	101	40 - 145	
					IS 13C-PCB-169	97.3	40 - 145	
					IS 13C-PCB-170	99.0	40 - 145	
					IS 13C-PCB-180	101	40 - 145	
					IS 13C-PCB-188	103	40 - 145	
					IS 13C-PCB-189	97.9	40 - 145	
					IS 13C-PCB-194	101	40 - 145	

Sample ID: OPR					EPA Method 1668C			
Matrix:	Aqueous <th>QC Batch:</th> <td>B7D0145<th>Lab Sample:</th><td>B7D0145-BS1<th data-cs="2" data-kind="parent"></th><th data-kind="ghost"></th></td></td>	QC Batch:	B7D0145 <th>Lab Sample:</th> <td>B7D0145-BS1<th data-cs="2" data-kind="parent"></th><th data-kind="ghost"></th></td>	Lab Sample:	B7D0145-BS1 <th data-cs="2" data-kind="parent"></th> <th data-kind="ghost"></th>			
Sample Size:	1.00 L	Date Extracted:	28-Apr-2017 7:30	Date Analyzed:	28-Apr-17 17:05	Column:	ZB-1	
Analyte	Amt Found (pg/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL	
					IS 13C-PCB-202	120	40 - 145	
					IS 13C-PCB-206	80.2	40 - 145	
					IS 13C-PCB-208	76.5	40 - 145	
					IS 13C-PCB-209	78.4	40 - 145	
					CRS 13C-PCB-79	89.6	40 - 145	
					CRS 13C-PCB-178	96.5	40 - 145	

LCL-UCL - Lower control limit - upper control limit

Sample ID: Intake**EPA Method 1668C**

Client Data					Sample Data					Laboratory Data				
Name:	Walla Walla Basin Watershed Council				Matrix:	Aqueous		Lab Sample:	1700536-01		Date Received:	26-Apr-2017 9:52		
Project:	Stiller Pond				Sample Size:	0.994 L		QC Batch:	B7D0145		Date Extracted:	28-Apr-2017 7:30		
Date Collected:	25-Apr-2017 10:40				Date Analyzed : 28-Apr-17 20:19 Column: ZB-1									
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	ND	0.553			PCB-44	3.20			J	PCB-45	0.585			J
PCB-2	ND		0.664		PCB-46	ND	0.672			PCB-47	9.72		B	
PCB-3	ND		1.02		PCB-48/75	0.873			J	PCB-50	ND	0.603		
PCB-4/10	ND	2.73			PCB-51	2.90			J	PCB-52/69	3.73			J
PCB-5/8	3.83			J	PCB-53	0.705			J	PCB-54	ND	0.482		
PCB-6	ND	1.24			PCB-55	ND	0.384			PCB-56/60	1.94			J
PCB-7/9	ND	1.02			PCB-57	ND	0.427			PCB-58	ND	0.409		
PCB-11	12.9			B	PCB-61/70	3.06			J	PCB-62	ND	0.439		
PCB-12/13	ND	0.920			PCB-63	ND	0.401			PCB-65	ND	0.464		
PCB-14	ND	0.813			PCB-66/76	2.06			J	PCB-67	ND	0.433		
PCB-15	1.53			J	PCB-68	1.33			J	PCB-73	ND	0.450		
PCB-16/32	3.16			J	PCB-74	1.14			J	PCB-77	ND	0.417		
PCB-17	1.78			J	PCB-78	ND	0.417			PCB-79	ND	0.391		
PCB-18	4.93			J	PCB-80	ND	0.353			PCB-81	ND	0.390		
PCB-19	ND	0.508			PCB-82	ND	1.22			PCB-82	ND	0.707	1.01	
PCB-20/21/33	3.95			J	PCB-83	ND				PCB-84/92	ND			
PCB-22	2.80			J	PCB-85/116	ND	0.871			PCB-85/116	ND	0.871		
PCB-23	ND	0.509			PCB-86	ND	1.21			PCB-86	ND	1.21		
PCB-24/27	ND	0.396			PCB-87/117/125	1.26				PCB-87/117/125	1.26			J
PCB-25	ND	0.472			PCB-88/91	ND	0.935			PCB-88/91	ND	0.935		
PCB-26	1.19			J										
PCB-28	6.06													
PCB-29	ND	0.490												
PCB-30	ND	0.352												
PCB-31	4.05			J										
PCB-34	ND	0.487												
PCB-35	ND	0.626												
PCB-36	ND	0.595												
PCB-37	1.47			J										
PCB-38	ND	0.618												
PCB-39	ND	0.554												
PCB-40	0.785			J										
PCB-41/64/71/72	2.88			J										
PCB-42/59	1.18			J										
PCB-43/49	1.87			J										

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Appendix B - Page 117

Sample ID: Intake					EPA Method 1668C					
Client Data		Sample Data		Laboratory Data						
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-01	Date Received:	26-Apr-2017 9:52			
Project:	Stiller Pond	Sample Size:	0.994 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30			
Date Collected:	25-Apr-2017 10:40			Date Analyzed : 28-Apr-17 20:19 Column: ZB-1						
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	
PCB-89	ND	1.00			PCB-137	ND	0.548			
PCB-90/101	2.80			J	PCB-138/163/164	3.39			J	
PCB-93	ND	1.05			PCB-139/149	ND		1.44		
PCB-94	ND	0.986			PCB-140	ND	1.02			
PCB-95/98/102	1.98			J	PCB-141	0.626			J	
PCB-96	ND	0.748			PCB-142	ND	0.662			
PCB-97	ND	0.925			PCB-144	ND	0.923			
PCB-99	1.44			J	PCB-145	ND	0.759			
PCB-100	ND	0.819			PCB-146/165	ND	0.515			
PCB-103	ND	0.814			PCB-147	ND	1.05			
PCB-104	ND	0.658			PCB-148	ND	1.00			
PCB-105	1.13			J	PCB-150	ND	0.742			
PCB-106/118	1.89			J	PCB-151	ND	0.992			
PCB-107/109	ND	0.701			PCB-152	ND	0.730			
PCB-108/112	ND	0.844			PCB-153	2.99			J	
PCB-110	3.20			J	PCB-154	ND	0.911			
PCB-111/115	ND	0.647			PCB-155	ND	0.693			
PCB-113	ND	0.743			PCB-156	0.398			J	
PCB-114	ND	0.597			PCB-157	ND	0.431			
PCB-119	ND	0.642			PCB-158/160	ND	0.430			
PCB-120	ND	0.595			PCB-159	ND	0.405			
PCB-121	ND	0.652			PCB-166	ND	0.441			
PCB-122	ND	0.658			PCB-167	ND	0.443			
PCB-123	ND	0.703			PCB-168	ND	0.416			
PCB-124	ND	0.698			PCB-169	ND	0.502			
PCB-126	ND	0.703			PCB-170	ND	0.462			
PCB-127	ND	0.704			PCB-171	ND	0.437			
PCB-128/162	0.681			J	PCB-172	ND	0.456			
PCB-129	ND	0.643			PCB-173	ND	0.538			
PCB-130	ND	0.679			PCB-174	0.742			J	
PCB-131/133	ND	0.642			PCB-175	ND	0.437			
PCB-132/161	0.980			J	PCB-176	ND	0.322			
PCB-134/143	ND	0.637			PCB-177	0.637			J	
PCB-135	ND	1.03			PCB-178	ND	0.445			
PCB-136	ND	0.710			PCB-179	0.454			J	

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Appendix B - Page 118

Sample ID: Intake					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-01	Date Received:	26-Apr-2017 9:52		
Project:	Stiller Pond	Sample Size:	0.994 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30		
Date Collected:	25-Apr-2017 10:40	Date Analyzed : 28-Apr-17 20:19 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	1.56			J	Total octaCB	0.563		1.97	
PCB-181	ND	0.449			Total nonaCB	ND		0.263	
PCB-182/187	0.834			J	DecaCB	ND		0.496	
PCB-183	ND	0.376			Total PCB	113			
PCB-184	ND	0.348							
PCB-185	ND	0.453							
PCB-186	ND	0.321							
PCB-188	ND	0.320							
PCB-189	ND	0.306							
PCB-190	ND	0.332							
PCB-191	ND	0.330							
PCB-192	ND	0.352							
PCB-193	ND	0.339							
PCB-194	ND		0.899						
PCB-195	ND	0.857							
PCB-196/203	ND		0.505						
PCB-197	ND	0.529							
PCB-198	ND	0.771							
PCB-199	0.563			J					
PCB-200	ND	0.568							
PCB-201	ND	0.559							
PCB-202	ND	0.606							
PCB-204	ND	0.594							
PCB-205	ND	0.239							
PCB-206	ND	0.357							
PCB-207	ND	0.223							
PCB-208	ND		0.263						
PCB-209	ND		0.496						
Total monoCB	ND		1.68						
Total diCB	18.3								
Total triCB	29.4		30.4						
Total tetraCB	38.0								
Total pentaCB	13.7		14.7						
Total hexaCB	9.07		10.5						
Total heptaCB	4.22								

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

Appendix B - Page 119

Sample ID: Intake**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Labeled Standard		%R	LCL-UCL	Qualifiers		Labeled Standard		%R	LCL-UCL	Qualifiers	
IS	13C-PCB-1	56.8	5 -145			13C-PCB-170		90.2	10 -145		
	13C-PCB-3	60.7	5 -145			13C-PCB-180		94.8	10 -145		
	13C-PCB-4	59.6	5 -145			13C-PCB-188		94.3	10 -145		
	13C-PCB-11	73.7	5 -145			13C-PCB-189		89.4	10 -145		
	13C-PCB-9	63.2	5 -145			13C-PCB-194		95.1	10 -145		
	13C-PCB-19	87.1	5 -145			13C-PCB-202		115	10 -145		
	13C-PCB-28	93.6	5 -145			13C-PCB-206		73.3	10 -145		
	13C-PCB-32	94.9	5 -145			13C-PCB-208		72.1	10 -145		
	13C-PCB-37	90.9	5 -145			13C-PCB-209		72.4	10 -145		
	13C-PCB-47	90.5	5 -145			CRS	13C-PCB-79	93.9	10 -145		
	13C-PCB-52	88.6	5 -145				13C-PCB-178	96.0	10 -145		
	13C-PCB-54	77.6	5 -145								
	13C-PCB-70	90.5	5 -145								
	13C-PCB-77	93.5	10 -145								
	13C-PCB-80	90.7	10 -145								
	13C-PCB-81	92.7	10 -145								
	13C-PCB-95	93.1	10 -145								
	13C-PCB-97	94.1	10 -145								
	13C-PCB-101	94.9	10 -145								
	13C-PCB-104	90.8	10 -145								
	13C-PCB-105	117	10 -145								
	13C-PCB-114	119	10 -145								
	13C-PCB-118	91.5	10 -145								
	13C-PCB-123	91.8	10 -145								
	13C-PCB-126	118	10 -145								
	13C-PCB-127	117	10 -145								
	13C-PCB-138	96.5	10 -145								
	13C-PCB-141	95.1	10 -145								
	13C-PCB-153	93.9	10 -145								
	13C-PCB-155	104	10 -145								
	13C-PCB-156	93.3	10 -145								
	13C-PCB-157	92.9	10 -145								
	13C-PCB-159	95.9	10 -145								
	13C-PCB-167	94.5	10 -145								
	13C-PCB-169	90.9	10 -145								

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: GW-136					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-02	Date Received:	26-Apr-2017 9:52		
Project:	Stiller Pond	Sample Size:	1.01 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30		
Date Collected:	25-Apr-2017 11:40	Date Analyzed : 28-Apr-17 21:24 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	12.3				PCB-44	4.38			J
PCB-2	0.902			J	PCB-45	1.72			J
PCB-3	4.63			J	PCB-46	0.961			J
PCB-4/10	39.0				PCB-47	3.32			J, B
PCB-5/8	94.0				PCB-48/75	1.04			J
PCB-6	17.3				PCB-50	ND	0.667		
PCB-7/9	8.42			J	PCB-51	ND		0.676	
PCB-11	11.1			B	PCB-52/69	3.91			J
PCB-12/13	ND	2.41			PCB-53	1.39			J
PCB-14	ND	0.574			PCB-54	ND	0.533		
PCB-15	13.8				PCB-55	ND	0.406		
PCB-16/32	23.2				PCB-56/60	1.15			J
PCB-17	12.8				PCB-57	ND	0.426		
PCB-18	36.5				PCB-58	ND	0.409		
PCB-19	4.68			J	PCB-61/70	2.00			J
PCB-20/21/33	23.3				PCB-62	ND	0.477		
PCB-22	11.0				PCB-63	ND	0.401		
PCB-23	ND	0.667			PCB-65	ND	0.505		
PCB-24/27	2.89			J	PCB-66/76	1.69			J
PCB-25	2.33			J	PCB-67	ND	0.432		
PCB-26	4.52			J	PCB-68	ND	0.405		
PCB-28	22.3				PCB-73	ND	0.472		
PCB-29	ND	0.642			PCB-74	ND		0.755	
PCB-30	ND	0.381			PCB-77	ND	0.422		
PCB-31	22.1				PCB-78	ND	0.427		
PCB-34	ND	0.638			PCB-79	ND	0.413		
PCB-35	ND	0.800			PCB-80	ND	0.373		
PCB-36	ND	0.761			PCB-81	ND	0.400		
PCB-37	2.28			J	PCB-82	ND	1.27		
PCB-38	ND	0.791			PCB-83	ND	0.741		
PCB-39	ND	0.708			PCB-84/92	ND	0.944		
PCB-40	ND	0.725			PCB-85/116	ND	0.913		
PCB-41/64/71/72	3.34			J	PCB-86	ND	1.26		
PCB-42/59	1.60			J	PCB-87/117/125	ND	0.703		
PCB-43/49	3.20			J	PCB-88/91	ND	0.997		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW-136					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-02	Date Received:	26-Apr-2017 9:52		
Project:	Stiller Pond	Sample Size:	1.01 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30		
Date Collected:	25-Apr-2017 11:40	Date Analyzed : 28-Apr-17 21:24 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	1.13			PCB-137	ND	0.542		
PCB-90/101	1.04			J	PCB-138/163/164	0.794			J
PCB-93	ND	1.12			PCB-139/149	ND	0.538		
PCB-94	ND	1.05			PCB-140	ND	0.889		
PCB-95/98/102	0.929			J	PCB-141	ND	0.552		
PCB-96	ND	0.842			PCB-142	ND	0.630		
PCB-97	ND	0.970			PCB-144	ND	0.803		
PCB-99	ND	0.827			PCB-145	ND	0.660		
PCB-100	ND	0.922			PCB-146/165	ND	0.490		
PCB-103	ND	0.915			PCB-147	ND	0.913		
PCB-104	ND	0.740			PCB-148	ND	0.873		
PCB-105	ND	0.638			PCB-150	ND	0.646		
PCB-106/118	ND	0.627			PCB-151	ND	0.863		
PCB-107/109	ND	0.729			PCB-152	ND	0.635		
PCB-108/112	ND	0.885			PCB-153	ND		0.696	
PCB-110	0.976			J	PCB-154	ND	0.793		
PCB-111/115	ND	0.678			PCB-155	ND	0.603		
PCB-113	ND	0.838			PCB-156	ND	0.419		
PCB-114	ND	0.656			PCB-157	ND	0.428		
PCB-119	ND	0.674			PCB-158/160	ND	0.417		
PCB-120	ND	0.624			PCB-159	ND	0.401		
PCB-121	ND	0.695			PCB-166	ND	0.437		
PCB-122	ND	0.723			PCB-167	ND	0.433		
PCB-123	ND	0.731			PCB-168	ND	0.395		
PCB-124	ND	0.726			PCB-169	ND	0.498		
PCB-126	ND	0.768			PCB-170	ND	0.444		
PCB-127	ND	0.727			PCB-171	ND	0.444		
PCB-128/162	ND	0.496			PCB-172	ND	0.463		
PCB-129	ND	0.624			PCB-173	ND	0.547		
PCB-130	ND	0.671			PCB-174	ND	0.481		
PCB-131/133	ND	0.610			PCB-175	ND	0.408		
PCB-132/161	ND	0.491			PCB-176	ND	0.300		
PCB-134/143	ND	0.606			PCB-177	ND	0.516		
PCB-135	ND	0.895			PCB-178	ND	0.415		
PCB-136	ND	0.618			PCB-179	ND	0.326		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Appendix B - Page 122

Sample ID: GW-136					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-02	Date Received:	26-Apr-2017 9:52		
Project:	Stiller Pond	Sample Size:	1.01 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30		
Date Collected:	25-Apr-2017 11:40	Date Analyzed : 28-Apr-17 21:24 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.450			Total octaCB	0.525			
PCB-181	ND	0.456			Total nonaCB	ND	0.486		
PCB-182/187	ND	0.377			DecaCB	ND	0.271		
PCB-183	ND	0.350			Total PCB	403			
PCB-184	ND	0.325							
PCB-185	ND	0.460							
PCB-186	ND	0.299							
PCB-188	ND	0.298							
PCB-189	ND	0.297							
PCB-190	ND	0.319							
PCB-191	ND	0.336							
PCB-192	ND	0.358							
PCB-193	ND	0.344							
PCB-194	0.525			J					
PCB-195	ND	0.724							
PCB-196/203	ND	0.792							
PCB-197	ND	0.570							
PCB-198	ND	0.831							
PCB-199	ND	0.903							
PCB-200	ND	0.612							
PCB-201	ND	0.602							
PCB-202	ND	0.653							
PCB-204	ND	0.640							
PCB-205	ND	0.510							
PCB-206	ND	0.486							
PCB-207	ND	0.305							
PCB-208	ND	0.311							
PCB-209	ND	0.271							
Total monoCB	17.8								
Total diCB	184								
Total triCB	168								
Total tetraCB	29.7		31.1						
Total pentaCB	2.94								
Total hexaCB	0.794		1.49						
Total heptaCB	ND	0.547							

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-136				EPA Method 1668C			
Client Data		Sample Data		Laboratory Data			
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-02	Date Received:	26-Apr-2017 9:52
Project:	Stiller Pond	Sample Size:	1.01 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30
Date Collected:	25-Apr-2017 11:40	Date Analyzed : 28-Apr-17 21:24 Column: ZB-1					
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
IS 13C-PCB-1	48.0	5 -145		13C-PCB-170	91.3	10 -145	
13C-PCB-3	50.5	5 -145		13C-PCB-180	92.5	10 -145	
13C-PCB-4	50.8	5 -145		13C-PCB-188	97.8	10 -145	
13C-PCB-11	66.5	5 -145		13C-PCB-189	89.5	10 -145	
13C-PCB-9	55.7	5 -145		13C-PCB-194	96.1	10 -145	
13C-PCB-19	78.5	5 -145		13C-PCB-202	113	10 -145	
13C-PCB-28	91.5	5 -145		13C-PCB-206	76.1	10 -145	
13C-PCB-32	86.6	5 -145		13C-PCB-208	73.3	10 -145	
13C-PCB-37	90.7	5 -145		13C-PCB-209	74.1	10 -145	
13C-PCB-47	83.5	5 -145		CRS 13C-PCB-79	92.3	10 -145	
13C-PCB-52	84.0	5 -145		13C-PCB-178	95.1	10 -145	
13C-PCB-54	71.0	5 -145					
13C-PCB-70	89.5	5 -145					
13C-PCB-77	94.0	10 -145					
13C-PCB-80	89.3	10 -145					
13C-PCB-81	91.4	10 -145					
13C-PCB-95	90.7	10 -145					
13C-PCB-97	92.3	10 -145					
13C-PCB-101	91.0	10 -145					
13C-PCB-104	85.6	10 -145					
13C-PCB-105	116	10 -145					
13C-PCB-114	117	10 -145					
13C-PCB-118	93.7	10 -145					
13C-PCB-123	92.5	10 -145					
13C-PCB-126	115	10 -145					
13C-PCB-127	117	10 -145					
13C-PCB-138	96.1	10 -145					
13C-PCB-141	95.9	10 -145					
13C-PCB-153	97.2	10 -145					
13C-PCB-155	98.6	10 -145					
13C-PCB-156	92.7	10 -145					
13C-PCB-157	93.4	10 -145					
13C-PCB-159	93.8	10 -145					
13C-PCB-167	94.4	10 -145					
13C-PCB-169	90.6	10 -145					

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: GW-145**EPA Method 1668C**

Client Data					Sample Data					Laboratory Data							
Name:	Walla Walla Basin Watershed Council				Matrix:	Aqueous				Lab Sample:	1700536-03				Date Received:	26-Apr-2017 9:52	
Project:	Stiller Pond				Sample Size:	1.02 L				QC Batch:	B7D0145				Date Extracted:	28-Apr-2017 7:30	
Date Collected:	25-Apr-2017 12:00				Date Analyzed : 28-Apr-17 22:29 Column: ZB-1												
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers			
PCB-1	19.0				PCB-44	6.38				PCB-45	2.67			J			
PCB-2	1.29			J	PCB-46	1.09				PCB-47	4.75			J, B			
PCB-3	6.52				PCB-48/75	1.57				PCB-50	ND	0.867		J			
PCB-4/10	58.5				PCB-51	1.38				PCB-52/69	6.19			J			
PCB-5/8	125				PCB-53	ND				PCB-54	ND	0.693					
PCB-6	23.9				PCB-55	ND				PCB-56/60	1.64			J			
PCB-7/9	11.0				PCB-57	ND				PCB-58	ND	0.537					
PCB-11	15.3		B		PCB-61/70	2.36				PCB-62	ND	0.599					
PCB-12/13	ND	3.29			PCB-63	ND				PCB-65	ND	0.634					
PCB-14	ND	0.929			PCB-66/76	2.10				PCB-67	ND	0.567					
PCB-15	18.1				PCB-68	0.801				PCB-73	ND	0.645					
PCB-16/32	33.0				PCB-74	1.07				PCB-77	ND	0.547					
PCB-17	17.1				PCB-78	ND				PCB-79	ND	0.522					
PCB-18	49.5				PCB-80	ND				PCB-80	ND	0.470					
PCB-19	7.01				PCB-81	ND				PCB-81	ND	0.512					
PCB-20/21/33	33.1				PCB-82	ND				PCB-82	ND	1.77					
PCB-22	15.6				PCB-83	ND				PCB-83	ND	0.943					
PCB-23	ND	0.858			PCB-84/92	ND				PCB-84/92	ND	1.35					
PCB-24/27	3.72		J		PCB-85/116	ND				PCB-85/116	ND	1.41					
PCB-25	3.59		J		PCB-86	ND				PCB-86	ND	1.61					
PCB-26	7.03				PCB-87/117/125	ND				PCB-87/117/125	ND	1.01					
PCB-28	32.4				PCB-88/91	ND				PCB-88/91	ND	1.35					
PCB-29	ND	0.826															
PCB-30	ND	0.484															
PCB-31	35.1																
PCB-34	ND	0.821															
PCB-35	ND	1.04															
PCB-36	ND	0.993															
PCB-37	3.48		J														
PCB-38	ND	1.03															
PCB-39	ND	0.925															
PCB-40	ND	0.916															
PCB-41/64/71/72	5.38		J														
PCB-42/59	ND	1.93															
PCB-43/49	3.98		J														

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW-145					EPA Method 1668C				
Client Data			Sample Data		Laboratory Data				
Name:	Walla Walla Basin Watershed Council		Matrix:	Aqueous	Lab Sample:	1700536-03	Date Received:	26-Apr-2017 9:52	
Project:	Stiller Pond		QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30			
Date Collected:	25-Apr-2017 12:00		Date Analyzed : 28-Apr-17 22:29 Column: ZB-1						
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	1.43			PCB-137	ND	0.724		
PCB-90/101	ND	1.45			PCB-138/163/164	ND		0.735	
PCB-93	ND	1.51			PCB-139/149	0.857			J
PCB-94	ND	1.42			PCB-140	ND	1.24		
PCB-95/98/102	ND	1.54			PCB-141	ND	0.738		
PCB-96	ND	1.10			PCB-142	ND	0.854		
PCB-97	ND	1.23			PCB-144	ND	1.12		
PCB-99	ND	1.18			PCB-145	ND	0.920		
PCB-100	ND	1.20			PCB-146/165	ND	0.664		
PCB-103	ND	1.19			PCB-147	ND	1.27		
PCB-104	ND	0.965			PCB-148	ND	1.22		
PCB-105	ND	0.453			PCB-150	ND	0.900		
PCB-106/118	ND	0.964			PCB-151	ND	1.20		
PCB-107/109	ND	1.01			PCB-152	ND	0.885		
PCB-108/112	ND	1.13			PCB-153	ND	0.658		
PCB-110	ND	0.976			PCB-154	ND	1.10		
PCB-111/115	ND	0.863			PCB-155	ND	0.840		
PCB-113	ND	1.06			PCB-156	ND	0.567		
PCB-114	ND	0.880			PCB-157	ND	0.590		
PCB-119	ND	0.857			PCB-158/160	ND	0.571		
PCB-120	ND	0.794			PCB-159	ND	0.558		
PCB-121	ND	0.940			PCB-166	ND	0.608		
PCB-122	ND	0.970			PCB-167	ND	0.591		
PCB-123	ND	1.01			PCB-168	ND	0.535		
PCB-124	ND	1.01			PCB-169	ND	0.697		
PCB-126	ND	1.06			PCB-170	ND	0.599		
PCB-127	ND	0.984			PCB-171	ND	0.591		
PCB-128/162	ND	0.689			PCB-172	ND	0.616		
PCB-129	ND	0.854			PCB-173	ND	0.728		
PCB-130	ND	0.897			PCB-174	ND	0.640		
PCB-131/133	ND	0.827			PCB-175	ND	0.541		
PCB-132/161	ND	0.665			PCB-176	ND	0.399		
PCB-134/143	ND	0.820			PCB-177	ND	0.687		
PCB-135	ND	1.25			PCB-178	ND	0.551		
PCB-136	ND	0.861			PCB-179	ND	0.432		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-145					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-03	Date Received:	26-Apr-2017 9:52		
Project:	Stiller Pond	Sample Size:	1.02 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30		
Date Collected:	25-Apr-2017 12:00	Date Analyzed : 28-Apr-17 22:29 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.599			Total octaCB	ND		0.637	
PCB-181	ND	0.607			Total nonaCB	ND		0.547	
PCB-182/187	ND	0.501			DecaCB	ND		0.464	
PCB-183	ND	0.465			Total PCB	561			
PCB-184	ND	0.431							
PCB-185	ND	0.612							
PCB-186	ND	0.397							
PCB-188	ND	0.396							
PCB-189	ND	0.405							
PCB-190	ND	0.431							
PCB-191	ND	0.447							
PCB-192	ND	0.476							
PCB-193	ND	0.458							
PCB-194	ND		0.637						
PCB-195	ND	0.613							
PCB-196/203	ND	0.909							
PCB-197	ND	0.654							
PCB-198	ND	0.954							
PCB-199	ND	1.04							
PCB-200	ND	0.703							
PCB-201	ND	0.691							
PCB-202	ND	0.749							
PCB-204	ND	0.735							
PCB-205	ND	0.432							
PCB-206	ND	0.547							
PCB-207	ND	0.339							
PCB-208	ND	0.346							
PCB-209	ND	0.464							
Total monoCB	26.8								
Total diCB	252								
Total triCB	241								
Total tetraCB	41.4		45.7						
Total pentaCB	ND	1.77							
Total hexaCB	0.857		1.59						
Total heptaCB	ND	0.728							

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-145**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Sample Size:	1.02 L	Lab Sample:	1700536-03	Date Received:	26-Apr-2017 9:52		
Project:	Stiller Pond	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30						
Date Collected:	25-Apr-2017 12:00	Date Analyzed :	28-Apr-17 22:29	Column:	ZB-1						
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	49.9	5 -145		13C-PCB-170	90.9	10 -145					
13C-PCB-3	51.5	5 -145		13C-PCB-180	89.6	10 -145					
13C-PCB-4	52.5	5 -145		13C-PCB-188	96.0	10 -145					
13C-PCB-11	65.2	5 -145		13C-PCB-189	88.1	10 -145					
13C-PCB-9	55.7	5 -145		13C-PCB-194	90.7	10 -145					
13C-PCB-19	76.3	5 -145		13C-PCB-202	108	10 -145					
13C-PCB-28	68.6	5 -145		13C-PCB-206	70.6	10 -145					
13C-PCB-32	83.5	5 -145		13C-PCB-208	70.4	10 -145					
13C-PCB-37	77.1	5 -145		13C-PCB-209	69.2	10 -145					
13C-PCB-47	83.4	5 -145		CRS 13C-PCB-79	92.6	10 -145					
13C-PCB-52	79.8	5 -145		13C-PCB-178	95.9	10 -145					
13C-PCB-54	68.3	5 -145									
13C-PCB-70	86.1	5 -145									
13C-PCB-77	88.4	10 -145									
13C-PCB-80	86.1	10 -145									
13C-PCB-81	88.2	10 -145									
13C-PCB-95	86.4	10 -145									
13C-PCB-97	91.0	10 -145									
13C-PCB-101	90.5	10 -145									
13C-PCB-104	82.9	10 -145									
13C-PCB-105	113	10 -145									
13C-PCB-114	116	10 -145									
13C-PCB-118	87.6	10 -145									
13C-PCB-123	87.8	10 -145									
13C-PCB-126	115	10 -145									
13C-PCB-127	114	10 -145									
13C-PCB-138	93.4	10 -145									
13C-PCB-141	92.1	10 -145									
13C-PCB-153	93.4	10 -145									
13C-PCB-155	98.0	10 -145									
13C-PCB-156	90.5	10 -145									
13C-PCB-157	91.0	10 -145									
13C-PCB-159	92.1	10 -145									
13C-PCB-167	92.0	10 -145									
13C-PCB-169	86.6	10 -145									

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: GW-146					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-04 <th>Date Received:</th> <td>26-Apr-2017 9:52</td> <td></td> <td></td>	Date Received:	26-Apr-2017 9:52		
Project:	Stiller Pond	Sample Size:	1.02 L <th>QC Batch:</th> <td>B7D0145</td> <th>Date Extracted:</th> <td>28-Apr-2017 7:30</td> <td></td> <td></td>	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30		
Date Collected:	25-Apr-2017 11:15	Date Analyzed :		28-Apr-17 23:33	Column:	ZB-1			
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	20.1				PCB-44	6.02			
PCB-2	ND		1.13		PCB-45	2.65			J
PCB-3	6.72				PCB-46	1.21			J
PCB-4/10	60.1				PCB-47	7.10			B
PCB-5/8	127				PCB-48/75	1.65			J
PCB-6	22.4				PCB-50	ND	0.839		
PCB-7/9	10.1				PCB-51	2.11			J
PCB-11	13.8			B	PCB-52/69	5.93			J
PCB-12/13	ND	3.11			PCB-53	2.04			J
PCB-14	ND	0.972			PCB-54	ND	0.671		
PCB-15	20.7				PCB-55	ND	0.507		
PCB-16/32	33.5				PCB-56/60	1.90			J
PCB-17	18.3				PCB-57	ND	0.566		
PCB-18	51.7				PCB-58	ND	0.543		
PCB-19	7.40				PCB-61/70	2.82			J
PCB-20/21/33	32.0				PCB-62	ND	0.605		
PCB-22	16.3				PCB-63	ND	0.532		
PCB-23	ND	0.840			PCB-65	ND	0.640		
PCB-24/27	3.93			J	PCB-66/76	2.13			J
PCB-25	3.77			J	PCB-67	ND	0.574		
PCB-26	6.50				PCB-68	1.01			J
PCB-28	35.7				PCB-73	ND	0.592		
PCB-29	ND	0.809			PCB-74	1.41			J
PCB-30	ND	0.495			PCB-77	ND	0.603		
PCB-31	31.8				PCB-78	ND	0.572		
PCB-34	ND	0.804			PCB-79	ND	0.516		
PCB-35	ND	1.04			PCB-80	ND	0.465		
PCB-36	ND	0.986			PCB-81	ND	0.535		
PCB-37	4.36			J	PCB-82	ND	1.53		
PCB-38	ND	1.02			PCB-83	ND	0.866		
PCB-39	ND	0.918			PCB-84/92	ND	1.14		
PCB-40	1.50			J	PCB-85/116	ND	1.07		
PCB-41/64/71/72	5.11			J	PCB-86	ND	1.48		
PCB-42/59	2.65			J	PCB-87/117/125	ND	0.929		
PCB-43/49	4.73			J	PCB-88/91	ND	1.12		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW-146**EPA Method 1668C**

Client Data					Sample Data					Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Sample Size:	1.02 L	Lab Sample:	1700536-04	Date Received:	26-Apr-2017 9:52	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30	Date Analyzed :	28-Apr-17 23:33 Column: ZB-1
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	
PCB-89	ND	1.21			PCB-137	ND	0.624			PCB-138/163/164	ND	0.828			
PCB-90/101	1.58			J	PCB-139/149	ND	0.759			PCB-140	ND	1.26			
PCB-93	ND	1.26			PCB-141	ND	0.636			PCB-142	ND	0.765			
PCB-94	ND	1.18			PCB-144	ND	1.14			PCB-145	ND	0.934			
PCB-95/98/102	ND		1.13		PCB-146/165	ND	0.595			PCB-147	ND	1.29			
PCB-96	ND	0.907			PCB-148	ND	1.23			PCB-150	ND	0.914			
PCB-97	ND	1.13			PCB-151	ND	1.22			PCB-152	ND	0.899			
PCB-99	ND	1.00			PCB-153	0.793			J	PCB-154	ND	1.12			
PCB-100	ND	0.993			PCB-155	ND	0.854			PCB-156	ND	0.509			
PCB-103	ND	0.986			PCB-157	ND	0.518			PCB-158/160	ND	0.514			
PCB-104	ND	0.798			PCB-159	ND	0.482			PCB-166	ND	0.525			
PCB-105	ND	0.443			PCB-167	ND	0.520			PCB-168	ND	0.480			
PCB-106/118	ND	0.881			PCB-169	ND	0.584			PCB-170	ND	0.472			
PCB-107/109	ND	0.874			PCB-171	ND	0.459			PCB-172	ND	0.479			
PCB-108/112	ND	1.03			PCB-173	ND	0.566			PCB-174	ND	0.497			
PCB-110	ND	0.880			PCB-175	ND	0.457			PCB-176	ND	0.336			
PCB-111/115	ND	0.792			PCB-177	ND	0.534			PCB-178	ND	0.465			
PCB-113	ND	0.896			PCB-179	ND	0.365								
PCB-114	ND	0.936													
PCB-119	ND	0.787													
PCB-120	ND	0.729													
PCB-121	ND	0.782													
PCB-122	ND	1.03													
PCB-123	ND	0.876													
PCB-124	ND	0.870													
PCB-126	ND	1.14													
PCB-127	ND	1.09													
PCB-128/162	ND	0.595													
PCB-129	ND	0.769													
PCB-130	ND	0.773													
PCB-131/133	ND	0.741													
PCB-132/161	ND	0.596													
PCB-134/143	ND	0.735													
PCB-135	ND	1.27													
PCB-136	ND	0.875													

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW-146					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-04	Date Received:	26-Apr-2017 9:52		
Project:	Stiller Pond	Sample Size:	1.02 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30		
Date Collected:	25-Apr-2017 11:15	Date Analyzed : 28-Apr-17 23:33 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.466			Total octaCB	0.569			
PCB-181	ND	0.472			Total nonaCB	ND	0.619		
PCB-182/187	ND	0.422			DecaCB	ND	0.382		
PCB-183	ND	0.392			Total PCB	581			
PCB-184	ND	0.364							
PCB-185	ND	0.476							
PCB-186	ND	0.335							
PCB-188	ND	0.334							
PCB-189	ND	0.330							
PCB-190	ND	0.339							
PCB-191	ND	0.347							
PCB-192	ND	0.370							
PCB-193	ND	0.356							
PCB-194	0.569			J					
PCB-195	ND	0.664							
PCB-196/203	ND	0.851							
PCB-197	ND	0.612							
PCB-198	ND	0.893							
PCB-199	ND	0.970							
PCB-200	ND	0.658							
PCB-201	ND	0.647							
PCB-202	ND	0.701							
PCB-204	ND	0.688							
PCB-205	ND	0.468							
PCB-206	ND	0.619							
PCB-207	ND	0.361							
PCB-208	ND	0.368							
PCB-209	ND	0.382							
Total monoCB	26.8		28.0						
Total diCB	255								
Total triCB	245								
Total tetraCB	52.0								
Total pentaCB	1.58		2.71						
Total hexaCB	0.793		1.62						
Total heptaCB	ND	0.566							

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-146**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-04	Date Received:	26-Apr-2017 9:52				
Project:	Stiller Pond	Sample Size:	1.02 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30				
Date Collected:	25-Apr-2017 11:15	Date Analyzed : 28-Apr-17 23:33 Column: ZB-1									
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	64.0	5 -145		13C-PCB-170	94.3	10 -145					
13C-PCB-3	64.9	5 -145		13C-PCB-180	94.5	10 -145					
13C-PCB-4	62.5	5 -145		13C-PCB-188	96.0	10 -145					
13C-PCB-11	70.0	5 -145		13C-PCB-189	91.5	10 -145					
13C-PCB-9	63.3	5 -145		13C-PCB-194	94.7	10 -145					
13C-PCB-19	85.9	5 -145		13C-PCB-202	114	10 -145					
13C-PCB-28	82.3	5 -145		13C-PCB-206	73.2	10 -145					
13C-PCB-32	88.1	5 -145		13C-PCB-208	73.0	10 -145					
13C-PCB-37	83.2	5 -145		13C-PCB-209	71.9	10 -145					
13C-PCB-47	86.7	5 -145		CRS 13C-PCB-79	95.0	10 -145					
13C-PCB-52	85.7	5 -145		13C-PCB-178	100	10 -145					
13C-PCB-54	74.6	5 -145									
13C-PCB-70	89.6	5 -145									
13C-PCB-77	91.0	10 -145									
13C-PCB-80	90.3	10 -145									
13C-PCB-81	90.3	10 -145									
13C-PCB-95	90.8	10 -145									
13C-PCB-97	92.9	10 -145									
13C-PCB-101	92.6	10 -145									
13C-PCB-104	89.4	10 -145									
13C-PCB-105	115	10 -145									
13C-PCB-114	115	10 -145									
13C-PCB-118	86.3	10 -145									
13C-PCB-123	85.6	10 -145									
13C-PCB-126	114	10 -145									
13C-PCB-127	116	10 -145									
13C-PCB-138	94.5	10 -145									
13C-PCB-141	94.2	10 -145									
13C-PCB-153	94.1	10 -145									
13C-PCB-155	99.4	10 -145									
13C-PCB-156	92.2	10 -145									
13C-PCB-157	93.7	10 -145									
13C-PCB-159	93.6	10 -145									
13C-PCB-167	94.2	10 -145									
13C-PCB-169	91.5	10 -145									

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: GW-147**EPA Method 1668C**

Client Data					Sample Data					Laboratory Data							
Name:	Walla Walla Basin Watershed Council				Matrix:	Aqueous				Lab Sample:	1700536-05				Date Received:	26-Apr-2017 9:52	
Project:	Stiller Pond				Sample Size:	1.03 L				QC Batch:	B7D0145				Date Extracted:	28-Apr-2017 7:30	
Date Collected:	25-Apr-2017 10:25				Date Analyzed : 29-Apr-17 00:38 Column: ZB-1												
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers			
PCB-1	24.7				PCB-44	8.89				PCB-45	3.35			J			
PCB-2	1.27			J	PCB-46	1.69				PCB-47	7.09			B			
PCB-3	7.88				PCB-48/75	2.28				PCB-50	ND	0.610		J			
PCB-4/10	72.4				PCB-51	1.91				PCB-52/69	7.95			J			
PCB-5/8	143				PCB-53	2.81				PCB-54	ND	0.488					
PCB-6	27.0				PCB-55	ND		0.338		PCB-56/60	2.42			J			
PCB-7/9	14.2				PCB-57	ND		0.380		PCB-58	ND	0.364					
PCB-11	14.7			B	PCB-59	3.13				PCB-61/70	ND			J			
PCB-12/13	ND	3.75			PCB-62	ND		0.420		PCB-63	ND	0.357					
PCB-14	ND	1.28			PCB-64	ND		0.444		PCB-65	ND	2.44					
PCB-15	26.9				PCB-66/76	ND				PCB-67	ND	0.385					
PCB-16/32	42.4				PCB-68	ND				PCB-69	1.11			J			
PCB-17	22.0				PCB-70	ND		0.408		PCB-71	ND	1.54					
PCB-18	63.5				PCB-72	ND				PCB-73	ND	0.373					
PCB-19	8.63				PCB-74	ND				PCB-75	ND	0.344					
PCB-20/21/33	42.7				PCB-76	ND				PCB-77	ND	0.310					
PCB-22	21.5				PCB-78	ND				PCB-79	ND	0.384					
PCB-23	ND	0.687			PCB-80	ND				PCB-81	ND	0.359					
PCB-24/27	4.87			J	PCB-82	ND				PCB-83	ND	1.17					
PCB-25	4.77			J	PCB-84/92	ND				PCB-85/116	ND	0.699	0.521				
PCB-26	8.84				PCB-86	ND				PCB-87/117/125	ND	0.861					
PCB-28	44.1				PCB-88/91	ND				PCB-88/91	ND	1.19					
PCB-29	ND	0.661															
PCB-30	ND	0.392															
PCB-31	43.5																
PCB-34	ND	0.657															
PCB-35	ND	0.781															
PCB-36	ND	0.743															
PCB-37	5.45																
PCB-38	ND	0.771															
PCB-39	ND	0.691															
PCB-40	2.09			J													
PCB-41/64/71/72	7.34			J													
PCB-42/59	3.27			J													
PCB-43/49	5.81			J													

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW-147					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-05	Date Received:	26-Apr-2017 9:52		
Project:	Stiller Pond	Sample Size:	1.03 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30		
Date Collected:	25-Apr-2017 10:25	Date Analyzed : 29-Apr-17 00:38 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	0.988			PCB-137	ND	0.503		
PCB-90/101	1.42			J	PCB-138/163/164	0.646			J
PCB-93	ND	1.01			PCB-139/149	ND	0.563		
PCB-94	ND	0.950			PCB-140	ND	0.872		
PCB-95/98/102	1.66			J	PCB-141	ND	0.512		
PCB-96	ND	0.723			PCB-142	ND	0.611		
PCB-97	ND	0.915			PCB-144	ND	0.788		
PCB-99	ND	0.819			PCB-145	ND	0.648		
PCB-100	ND	0.792			PCB-146/165	ND	0.475		
PCB-103	ND	0.786			PCB-147	ND	0.896		
PCB-104	ND	0.636			PCB-148	ND	0.856		
PCB-105	ND	0.410			PCB-150	ND	0.634		
PCB-106/118	0.732			J	PCB-151	ND	0.847		
PCB-107/109	ND	0.672			PCB-152	ND	0.623		
PCB-108/112	ND	0.835			PCB-153	ND	0.462		
PCB-110	1.38			J	PCB-154	ND	0.778		
PCB-111/115	ND	0.640			PCB-155	ND	0.592		
PCB-113	ND	0.733			PCB-156	ND	0.408		
PCB-114	ND	0.627			PCB-157	ND	0.418		
PCB-119	ND	0.636			PCB-158/160	ND	0.401		
PCB-120	ND	0.588			PCB-159	ND	0.376		
PCB-121	ND	0.629			PCB-166	ND	0.409		
PCB-122	ND	0.691			PCB-167	ND	0.414		
PCB-123	ND	0.674			PCB-168	ND	0.383		
PCB-124	ND	0.669			PCB-169	ND	0.480		
PCB-126	ND	0.710			PCB-170	ND	0.404		
PCB-127	ND	0.699			PCB-171	ND	0.380		
PCB-128/162	ND	0.464			PCB-172	ND	0.396		
PCB-129	ND	0.600			PCB-173	ND	0.468		
PCB-130	ND	0.623			PCB-174	ND	0.411		
PCB-131/133	ND	0.591			PCB-175	ND	0.355		
PCB-132/161	ND	0.476			PCB-176	ND	0.261		
PCB-134/143	ND	0.587			PCB-177	ND	0.441		
PCB-135	ND	0.878			PCB-178	ND	0.361		
PCB-136	ND	0.607			PCB-179	ND	0.283		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Appendix B - Page 134

Sample ID: GW-147					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-05	Date Received:	26-Apr-2017 9:52		
Project:	Stiller Pond	Sample Size:	1.03 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30		
Date Collected:	25-Apr-2017 10:25	Date Analyzed : 29-Apr-17 00:38 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.347			Total octaCB	0.532			
PCB-181	ND	0.390			Total nonaCB	ND	0.396		
PCB-182/187	ND	0.328			DecaCB	ND	0.280		
PCB-183	ND	0.305			Total PCB	716			
PCB-184	ND	0.283							
PCB-185	ND	0.393							
PCB-186	ND	0.260							
PCB-188	ND	0.259							
PCB-189	ND	0.283							
PCB-190	ND	0.290							
PCB-191	ND	0.287							
PCB-192	ND	0.306							
PCB-193	ND	0.294							
PCB-194	0.532			J					
PCB-195	ND	0.424							
PCB-196/203	ND	0.764							
PCB-197	ND	0.550							
PCB-198	ND	0.801							
PCB-199	ND	0.871							
PCB-200	ND	0.591							
PCB-201	ND	0.581							
PCB-202	ND	0.630							
PCB-204	ND	0.617							
PCB-205	ND	0.299							
PCB-206	ND	0.396							
PCB-207	ND	0.254							
PCB-208	ND	0.259							
PCB-209	ND	0.280							
Total monoCB	33.9								
Total diCB	299								
Total triCB	312								
Total tetraCB	65.1								
Total pentaCB	5.19	5.71							
Total hexaCB	0.646								
Total heptaCB	ND	0.468							

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW-147**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700536-05	Date Received:	26-Apr-2017 9:52				
Project:	Stiller Pond	Sample Size:	1.03 L	QC Batch:	B7D0145	Date Extracted:	28-Apr-2017 7:30				
Date Collected:	25-Apr-2017 10:25	Date Analyzed : 29-Apr-17 00:38 Column: ZB-1									
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	52.2	5 -145		13C-PCB-170	86.0	10 -145					
13C-PCB-3	52.8	5 -145		13C-PCB-180	88.3	10 -145					
13C-PCB-4	51.3	5 -145		13C-PCB-188	95.5	10 -145					
13C-PCB-11	62.8	5 -145		13C-PCB-189	84.3	10 -145					
13C-PCB-9	53.9	5 -145		13C-PCB-194	95.4	10 -145					
13C-PCB-19	70.9	5 -145		13C-PCB-202	104	10 -145					
13C-PCB-28	73.2	5 -145		13C-PCB-206	71.3	10 -145					
13C-PCB-32	78.1	5 -145		13C-PCB-208	72.2	10 -145					
13C-PCB-37	81.6	5 -145		13C-PCB-209	67.8	10 -145					
13C-PCB-47	88.4	5 -145		CRS 13C-PCB-79	92.4	10 -145					
13C-PCB-52	85.9	5 -145		13C-PCB-178	102	10 -145					
13C-PCB-54	70.9	5 -145									
13C-PCB-70	91.3	5 -145									
13C-PCB-77	90.7	10 -145									
13C-PCB-80	91.0	10 -145									
13C-PCB-81	89.9	10 -145									
13C-PCB-95	92.9	10 -145									
13C-PCB-97	91.1	10 -145									
13C-PCB-101	91.6	10 -145									
13C-PCB-104	93.5	10 -145									
13C-PCB-105	121	10 -145									
13C-PCB-114	120	10 -145									
13C-PCB-118	93.8	10 -145									
13C-PCB-123	92.7	10 -145									
13C-PCB-126	119	10 -145									
13C-PCB-127	122	10 -145									
13C-PCB-138	96.3	10 -145									
13C-PCB-141	95.3	10 -145									
13C-PCB-153	95.9	10 -145									
13C-PCB-155	92.7	10 -145									
13C-PCB-156	92.2	10 -145									
13C-PCB-157	93.8	10 -145									
13C-PCB-159	96.5	10 -145									
13C-PCB-167	95.4	10 -145									
13C-PCB-169	87.3	10 -145									

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The associated compound concentration exceeded the calibration range of the instrument.
H	Recovery and/or RPD was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Reporting Limit/LOQ.
M	Estimated Maximum Possible Concentration. (CA Region 2 projects only)
*	See Cover Letter
Conc.	Concentration
NA	Not applicable
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
Arkansas Department of Environmental Quality	17-015-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-18
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2016026
Minnesota Department of Health	1175673
Nevada Division of Environmental Protection	CA004132017-1
New Hampshire Environmental Accreditation Program	207716
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	013
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	8621
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B

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Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenz-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A



SAMPLE LOG-IN CHECKLIST

Vista Project #: 1700534 TAT Std

Samples Arrival:	Date/Time <u>4/26/17 0952</u>		Initials: <u>MNS</u>	Location: <u>WR-2</u> Shelf/Rack: <u>11/2</u>		
Logged In:	Date/Time <u>04/26/17 1456</u>		Initials: <u>AB</u>	Location: <u>WR-2</u> Shelf/Rack: <u>A2</u>		
Delivered By:	FedEx	UPS	On Trac	DHL	Hand Delivered	Other
Preservation:	Ice	Blue Ice	Dry Ice		None	
Temp °C: <u>5.4</u> (uncorrected)	Time: <u>0953</u>			Thermometer ID: IR-1		
Temp °C: <u>5.7</u> (corrected)	Probe used: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					

		YES	NO	NA
Adequate Sample Volume Received?	<u>A/B</u>	✓		
Holding Time Acceptable?		✓		
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?		✓		
Shipping Documentation Present?		✓		
Airbill	Trk # <u>TZ 626 3F7 01 0290 6239</u>	✓		
Sample Container Intact?		✓		
Sample Custody Seals Intact?			✓	
Chain of Custody / Sample Documentation Present?		✓		
COC Anomaly/Sample Acceptance Form completed?			✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?				
Preservation Documented:	Na ₂ S ₂ O ₃	Trizma	Yes	No <input checked="" type="checkbox"/> NA
Shipping Container	Vista	Client	Retain	Return
Dispose				

Comments:



Burlington, WA	Corporate Laboratory (a)	1620 S Walnut St	Burlington, WA 98233	800.755.9295 • 360.757.1400
Bellingham, WA	Microbiology (b)	805 Orchard Dr Ste 4	Bellingham, WA 98225	360.715.1212
Portland, OR	Microbiology/Chemistry (c)	9150 SW Pioneer Ct Ste W	Wilsonville, OR 97070	503.682.7802
Corvallis, OR	Microbiology (d)	540 SW Third Street	Corvallis, OR 97333	541.753.4946

July 12, 2017

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Mr. Steve Patten
Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

RE: 17-15327 - Stiller Pond 3rd Event 2017

Dear Mr. Steve Patten,

Your project: Stiller Pond 3rd Event 2017, was received on Thursday June 29, 2017.

All samples were analyzed within the accepted holding times and were appropriately preserved and analyzed according to approved analytical protocols, unless noted in the data or QC reports. The quality control data was within laboratory acceptance limits, unless specified in the data or QC reports.

If you have questions phone us at 800 755-9295.

Respectfully

A handwritten signature in blue ink that reads "Pat Miller".

Patrick Miller, MS
QA Officer

Enclosures: Data Report
QC Reports
Chain of Custody



Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017
Burlington, WA Corporate Laboratory (a)
1620 S Walnut St - Burlington, WA 98233 - 800.755.9295 • 360.757.1400
Bellingham, WA Microbiology (b)
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Portland, OR Microbiology/Chemistry (c)
9150 SW Pioneer Ct Ste W - Wilsonville, OR 97070 - 503.682.7802
Corvallis, OR Microbiology/Chemistry (d)
540 SW Third Street - Corvallis, OR 97333 - 541.753.4946
Bend, OR Microbiology (e)
20332 Empire Blvd Ste 4 - Bend, OR 97701 - 541.639.8425

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Data Report

Client Name: Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

Reference Number: **17-15327**
Project: Stiller Pond 3rd Event 2017

Report Date: 7/12/17

Date Received: 6/29/17

Approved by: anp,bj,lrs

Authorized by:

Patrick Miller, MS
QA Officer

Sample Description: GW-136 Stiller Pond										Sample Date: 6/28/17 11:10 am		
Lab Number: 35228		Sample Comment:								Collected By: Steve Patten		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
7439-89-6	IRON	0.05	0.050	0.0012	mg/L	1.0	200.7	a	7/5/17	ANP	200.7_170705A	
14797-55-8	NITRATE-N	0.72	0.100	0.0236	mg/L	1.0	300.0	a	6/30/17	BJ	I170629A	
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	173	10		mg/L	1.0	SM2540 C	a	7/3/17	HKL	TDS_170703	
14265-44-2	ORTHO-PHOSPHATE	0.21	0.01	0.002	mg/L	1.0	SM4500-P F	a	6/30/17	LRS	OPHOS_170630	
7723-14-0	TOTAL PHOSPHORUS	0.294	0.020	0.0026	mg/L	2.0	SM4500-P F/SM4500-P B(5)	a	7/6/17	LRS	TPHOS_170706	

Sample Description: GW-145 Stiller Pond										Sample Date: 6/28/17 11:30 am		
Lab Number: 35229		Sample Comment:								Collected By: Steve Patten		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
7439-89-6	IRON	ND	0.050	0.0012	mg/L	1.0	200.7	a	7/5/17	ANP	200.7_170705A	
14797-55-8	NITRATE-N	2.95	0.100	0.0236	mg/L	1.0	300.0	a	6/30/17	BJ	I170629A	
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	318	10		mg/L	1.0	SM2540 C	a	7/3/17	HKL	TDS_170703	
14265-44-2	ORTHO-PHOSPHATE	0.14	0.01	0.002	mg/L	1.0	SM4500-P F	a	6/30/17	LRS	OPHOS_170630	
7723-14-0	TOTAL PHOSPHORUS	0.125	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	7/6/17	LRS	TPHOS_170706	

Sample Description: GW-146 Stiller Pond										Sample Date: 6/28/17 10:40 am		
Lab Number: 35230		Sample Comment:								Collected By: Steve Patten		
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment
7439-89-6	IRON	0.05	0.050	0.0012	mg/L	1.0	200.7	a	7/5/17	ANP	200.7_170705A	
14797-55-8	NITRATE-N	9.91	0.100	0.0236	mg/L	1.0	300.0	a	6/30/17	BJ	I170629A	
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	515	10		mg/L	1.0	SM2540 C	a	7/3/17	HKL	TDS_170703	
14265-44-2	ORTHO-PHOSPHATE	0.11	0.01	0.002	mg/L	1.0	SM4500-P F	a	6/30/17	LRS	OPHOS_170630	
7723-14-0	TOTAL PHOSPHORUS	0.096	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	7/6/17	LRS	TPHOS_170706	

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.

PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

D.F. - Dilution Factor



Data Report

Sample Description: GW-147 Stiller Pond										Sample Date: 6/28/17 10:10 am			
Lab Number: 35231		Sample Comment:								Collected By: Steve Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
7439-89-6	IRON	0.05	0.050	0.0012	mg/L	1.0	200.7	a	7/5/17	ANP	200.7_170705A		
14797-55-8	NITRATE-N	4.98	0.100	0.0236	mg/L	1.0	300.0	a	6/30/17	BJ	I170629A		
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	282	10		mg/L	1.0	SM2540 C	a	7/3/17	HKL	TDS_170703		
14265-44-2	ORTHO-PHOSPHATE	0.17	0.01	0.002	mg/L	1.0	SM4500-P F	a	6/30/17	LRS	OPHOS_170630		
7723-14-0	TOTAL PHOSPHORUS	0.153	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	7/6/17	LRS	TPHOS_170706		
Sample Description: Intake Stiller Pond										Sample Date: 6/28/17 11:50 am			
Lab Number: 35232		Sample Comment:								Collected By: Steve Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
7439-89-6	IRON	0.12	0.050	0.0012	mg/L	1.0	200.7	a	7/5/17	ANP	200.7_170705A		
14797-55-8	NITRATE-N	2.13	0.100	0.0236	mg/L	1.0	300.0	a	6/30/17	BJ	I170629A		
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	155	10		mg/L	1.0	SM2540 C	a	7/3/17	HKL	TDS_170703		
14265-44-2	ORTHO-PHOSPHATE	0.16	0.01	0.002	mg/L	1.0	SM4500-P F	a	6/30/17	LRS	OPHOS_170630		
7723-14-0	TOTAL PHOSPHORUS	0.166	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	7/6/17	LRS	TPHOS_170706		
Sample Description: GW-147 DUP Stiller Pond										Sample Date: 6/28/17 10:15 am			
Lab Number: 35233		Sample Comment:								Collected By: Steve Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
7439-89-6	IRON	ND	0.050	0.0012	mg/L	1.0	200.7	a	7/5/17	ANP	200.7_170705A		
14797-55-8	NITRATE-N	4.96	0.100	0.0236	mg/L	1.0	300.0	a	6/30/17	BJ	I170629A		
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	274	10		mg/L	1.0	SM2540 C	a	7/3/17	HKL	TDS_170703		
14265-44-2	ORTHO-PHOSPHATE	0.17	0.01	0.002	mg/L	1.0	SM4500-P F	a	6/30/17	LRS	OPHOS_170630		
7723-14-0	TOTAL PHOSPHORUS	0.153	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	7/6/17	LRS	TPHOS_170706		
Sample Description: Trip Blank Lab										Sample Date: 4/18/17 8:30 am			
Lab Number: 35234		Sample Comment:								Collected By: Steve Patten			
CAS ID#	Parameter	Result	PQL	MDL	Units	DF	Method	Lab	Analyzed	Analyst	Batch	Comment	
7439-89-6	IRON	ND	0.050	0.0012	mg/L	1.0	200.7	a	7/5/17	ANP	200.7_170705A		
14797-55-8	NITRATE-N	ND	0.100	0.0236	mg/L	1.0	300.0	a	6/30/17	BJ	I170629A		
E-10173	TOTAL DISSOLVED SOLIDS (TDS)	ND	10		mg/L	1.0	SM2540 C	a	7/3/17	HKL	TDS_170703		
14265-44-2	ORTHO-PHOSPHATE	ND	0.01	0.002	mg/L	1.0	SM4500-P F	a	6/30/17	LRS	OPHOS_170630		
7723-14-0	TOTAL PHOSPHORUS	ND	0.010	0.0026	mg/L	1.0	SM4500-P F/SM4500-P B(5)	a	7/6/17	LRS	TPHOS_170706		

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.

PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

D.F. - Dilution Factor



SAMPLE INDEPENDENT QUALITY CONTROL REPORT

Calibration Check

Reference Number: **17-15327**

Report Date: 07/12/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier Type	QC	Comment
		Result	Value	Units						
200.7_170705A	2 IRON	1.02	1	mg/L	200.7	102	90-110	CAL		
I170629A	0 NITRATE-N	1.03	1	mg/L	300.0	103	90-110	CAL		
ophos_170630	0 ORTHO-PHOSPHATE	1.06	1.00	mg/L	SM4500-P F	106	85-115	CAL		
tphos_170706	0 TOTAL PHOSPHORUS	0.098	0.100	mg/L	SM4500-P F	98	85-115	CAL		

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Laboratory Fortified Blank

Reference Number: **17-15327**

Report Date: 07/12/17

Batch	Analyte	True			Method	Recovery	% Limits*	QC Qualifier Type	QC	Comment
		Result	Value	Units						
200.7_170705A	0 IRON	0.52	0.5	mg/L	200.7	104	85-115	LFB		

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Laboratory Reagent Blank

Reference Number: **17-15327**

Report Date: 07/12/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
		Result	Value	Units						
200.7_170705A	0 IRON	ND		mg/L	200.7		0-0		LRB	
I170629A	0 NITRATE-N	ND		mg/L	300.0		0-0		LRB	
ophos_170630	0 ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0-0		LRB	
tphos_170706	0 TOTAL PHOSPHORUS	ND		mg/L	SM4500-P F		0-0		LRB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Method Blank

Reference Number: **17-15327**

Report Date: 07/12/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier	QC Type	Comment
		Result	Value	Units						
200.7_170705A	0 IRON	ND		mg/L	200.7		0-0		MB	
ophos_170630	0 ORTHO-PHOSPHATE	ND		mg/L	SM4500-P F		0-0		MB	
TDS_170703	0 TOTAL DISSOLVED SOLIDS (TDS)	ND		mg/L	SM2540 C		0-3		MB	
tphos_170706	0 TOTAL PHOSPHORUS	ND		mg/L	SM4500-P F		0-0		MB	

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE INDEPENDENT
QUALITY CONTROL REPORT**

Quality Control Sample

Reference Number: **17-15327**

Report Date: 07/12/17

Batch	Analyte	True			Method	% Recovery	Limits*	QC Qualifier Type	QC	Comment
		Result	Value	Units						
200.7_170705A	0 IRON	2.09	2	mg/L	200.7	105	95-105	QCS	QC	QC
I170629A	0 NITRATE-N	5.9	6	mg/L	300.0	98	90-110	QCS	QC	QC
ophos_170630	0 ORTHO-PHOSPHATE	0.91	0.98	mg/L	SM4500-P F	93	90-110	QCS	QC	QC
TDS_170703	0 TOTAL DISSOLVED SOLIDS (TDS)	500	500	mg/L	SM2540 C	100	80-120	QCS	QC	QC
tphos_170706	0 TOTAL PHOSPHORUS	0.080	0.083	mg/L	SM4500-P F	96	90-110	QCS	QC	QC

*Notation:

% Recovery = (Result of Analysis)/(True Value) * 100

NA = Indicates % Recovery could not be calculated.

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

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**SAMPLE DEPENDENT
QUALITY CONTROL REPORT**
Duplicate, Matrix Spike/Matrix Spike Duplicate and Confirmation Result Report

Batch	Sample	Analyte	Duplicate			QC					
			Result	Result	Units	%RPD	Limits	Qualifier	Type	Comments	
Duplicate											
200.7_170705A											
	35036	IRON	0.07	0.07	mg/L	0.0	0-20		DUP		
	35059	IRON	0.30	0.42	mg/L	33.3	0-20	INH	DUP		
	35064	IRON	ND	ND	mg/L	NA	0-20		DUP		
I170629A											
	35120	NITRATE-N	ND	ND	mg/L	NA	0-20		DUP		
	35138	NITRATE-N	ND	ND	mg/L	NA	0-20		DUP		
	35237	NITRATE-N	ND	ND	mg/L	NA	0-20		DUP		
	35244	NITRATE-N	ND	ND	mg/L	NA	0-20		DUP		
OPHOS_170630											
	35228	ORTHO-PHOSPHATE	0.21	0.21	mg/L	0.0	0-20		DUP		
	35320	ORTHO-PHOSPHATE	ND	ND	mg/L	NA	0-20		DUP		
TDS_170703											
	35036	TOTAL DISSOLVED SOLIDS (TDS)	225	225	mg/L	0.0	0-5		DUP		
	35235	TOTAL DISSOLVED SOLIDS (TDS)	180	182	mg/L	1.1	0-5		DUP		
TPHOS_170706											
	34009	TOTAL PHOSPHORUS	ND	ND	mg/L	NA	0-20		DUP		
	34019	TOTAL PHOSPHORUS	0.011	0.011	mg/L	0.0	0-20		DUP		
	35175	TOTAL PHOSPHORUS	ND	ND	mg/L	NA	0-20		DUP		

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QC Dependent.rpt

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Batch	Sample	Analyte	Result	Duplicate										QC Qualifier	Type	Comments
				Spike Result	Spike Result	Spike Conc	Units	Percent Recovery		MS	MSD	Limits*	%RPD	Limits*		
Laboratory Fortified Matrix (MS)																
200.7_170705A																
	35036	IRON	0.07	0.57	0.55	0.5	mg/L	100	96	70-130	4.1	0-20			LFM	
	35059	IRON	0.30	1.17	1.32	0.50	mg/L	174	204	70-130	15.9	0-20	IM		LFM	
	35064	IRON	ND	0.49	0.48	0.50	mg/L	98	96	70-130	2.1	0-20			LFM	
I170629A																
	35120	NITRATE-N	ND	1.06		1.00	mg/L	106		90-110	NA	0-20			LFM	
	35138	NITRATE-N	ND	1.05		1.00	mg/L	105		90-110	NA	0-20			LFM	
	35237	NITRATE-N	ND	1.09		1.00	mg/L	109		90-110	NA	0-20			LFM	
	35244	NITRATE-N	ND	1.09		1.00	mg/L	109		90-110	NA	0-20			LFM	
OPHOS_170630																
	35228	ORTHO-PHOSPHATE	0.21	1.09	1.11	1.00	mg/L	88	90	70-130	2.2	0-20			LFM	
	35320	ORTHO-PHOSPHATE	ND	0.93	0.95	1.00	mg/L	93	95	70-130	2.1	0-20			LFM	
TPHOS_170706																
	34009	TOTAL PHOSPHORUS	ND	0.054	0.053	0.050	mg/L	108	106	70-130	1.9	0-20			LFM	
	34019	TOTAL PHOSPHORUS	0.011	0.061	0.059	0.050	mg/L	100	96	70-130	4.1	0-20			LFM	
	35175	TOTAL PHOSPHORUS	ND	0.050	0.052	0.050	mg/L	100	104	70-130	3.9	0-20			LFM	

%RPD = Relative Percent Difference

NA = Indicates %RPD could not be calculated

Matrix Spike (MS)/Matrix Spike Duplicate (MSD) analyses are used to determine the accuracy (MS) and precision (MSD) of a analytical method in a given sample matrix. Therefore, the usefulness of this report is limited to samples of similar matrices analyzed in the same analytical batch.

Only Duplicate sample with detections are listed in this report

Limits are intended for water matrices only. These criteria are for guidance only when reported with soils/solids.

FORM: QC Dependent.rpt

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Qualifier Definitions

Reference Number: 17-15327
Report Date: 07/12/17

Qualifier	Definition
IM	Matrix induced bias assumed
INH	The sample was non-homogeneous

Note: Some qualifier definitions found on this page may pertain to results or QC data which are not printed with this report.

FORM: QualifierDefs

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Chain of Custody / Analysis Request

(Please complete all applicable shaded sections)



Report to:	Walla Walla Basin Watershed Cour	Bill to:	Walla Walla Basin Watershed Counci
Ship Address:	810 S Main Street	Address:	810 South Main Street
City:	Milton-Freewe St:	OR Zip:	97862
Attn:	Steven Patten	Phone:	541.938-2170 FAX:
Email:	steven.patten@wwbwbc.org	P.O.#:	
Project	Stiller Pond 3rd Event 2017	Card#:	

Turn Around Time Required	
<input checked="" type="checkbox"/> Standard	<input type="checkbox"/> Half-time (50% surcharge)
<input type="checkbox"/> Quickest (100% surcharge) Phone Call Req.	<input type="checkbox"/> Emergency (Phone Call Req.)

Analyses Requested	
<input type="checkbox"/> Fe (Field Dup)	<input type="checkbox"/> Fe (Trip Blank)
TDS, NO3, o-PO4	
TDS, NO3, o-PO4 (Field Dup)	
TDS, NO3, o-PO4 (Trip Blank)	
Total P	
Total P (Field Dup)	
Number of Containers	
Special Instructions Conditions on Receipt	

ANALYTICAL	
Main Lab (800-755-9295) 1620 South Walnut St, Burlington, WA 98233 Microbiology (888-725-1212) 305 W. Orchard Dr. Suite 4, Bellington, WA 98225	edge
Clean Water Act	
RCRA / CERCLA	
Other	
Wilsonville Lab (503-682-7802) Corvallis Lab (541-753-4946) 9150 SW Pioneer Ct, Suite W, Wilsonville, OR 97033 540 SW 3rd St, Corvallis, OR 97333	

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- Instructions**
1. Use one line per sample Location.
 2. Be specific in analysis requests.
 3. **List each metal individually (NEW)**
 4. Check off analyses to be performed for each sample Loaction.
 5. Enter number of containers.

Field ID	Location	Grab/ Comp.	Sample Matrix *	Date	Time	Fee
1	GW-13C	STILLER POND	GW	6-28-17	11:00	<input checked="" type="checkbox"/>
2	GW-145		GW		11:30	<input checked="" type="checkbox"/>
3	GW-146		GW		10:40	<input checked="" type="checkbox"/>
4	GW-147		GW		10:10	<input checked="" type="checkbox"/>
5	TERRACE		SW		11:50	<input checked="" type="checkbox"/>
6	GW-147 NW		GW	6-28-17	10:15	<input checked="" type="checkbox"/>
7	REEP BLANK	LABS				<input type="checkbox"/>
8						<input type="checkbox"/>
9						<input type="checkbox"/>
10						<input type="checkbox"/>

Sampled by: STEVEN PATTEN Phone: 541-938-2170 FAX: SAME

Sample Receipt Request (Must include FAX or Email)

* W - water

DW - drinking water

SW - surface water

GW - Ground water

WW - waste water

S - soil

OL - oil

Other

Email: steven.patten@wwbwbc.org

Total Containers

Relinquished by

Date

Time

Received by

Date

Time

Custody seals intact

Sample temp

°C satisfactory

Samples received intact

Chain of custody & labels agree

<u>STILLER POND</u>	6-28-17 11:30	UPS	6-28-17 12:30
<u>STILLER POND</u>	6-29-17	940	

Chain of Custody / Analysis Request

(Please complete all applicable shaded sections)

Page 2 of 2
32117

Report to:	Walla Walla Basin Watershed Council	Bill to:	Walla Walla Basin Watershed Council	For Lab Use Only
Ship Address:	810 S Main Street	Address:	810 South Main Street	Ref #
City:	Milton-Freewater St:	OR Zip:	97862	Check Regulatory Program
Attn:	Steven Patten			<input type="checkbox"/> Safe Drinking Water Act
Phone:	541.938-2170 FAX:			<input type="checkbox"/> Clean Water Act
Email:	steven.patten@wwbcc.org			<input type="checkbox"/> RCRA / CERCLA
Project	Stiller Pond 3rd Event 2017			<input type="checkbox"/> Other
Card#:				

Instructions

- Use one line per sample Location.
- Be specific in analysis requests.
- (NEW)** List each metal individually (NEW)
- Check off analyses to be performed for each sample Location.
- Enter number of containers.

Field ID	Location	Turn Around Time Required		Total P (Trip Blank)	Number of Containers	Special Instructions Conditions on Receipt
		Standard	Half-time (50% surcharge) Quickest (100% surcharge) Phone Call Req.			
1 GW-136	Stiller Pond	GW	6/28/17 11:00			
2 GW-145		GW	11:30			
3 GW-146		GW	10:40			
4 GW-147		GW	10:10			
5 TRECE		SW	11:50			
6 GW-147 OUR		GW	10:15	X		
7 TRECE BLANK						
8						
9						
10						

Sampled by: STEVEN PATTEN Phone: 541-938-2170 FAX: SAME Email: steven.patten@wwbcc.org

Sample Receipt Request (Must include FAX or Email)

* W - water	SW - surface water	WW - waste water	OL - oil
DW - drinking water	GW - Ground water	S - soil	Other _____

Total Containers

Relinquished by SP Date 6/28/17 Time 12:30 Received by SP Date 6/28/17 Time 12:30

Custody seals intact Yes No N/A
 Sample temp 72 °C satisfactory
 Samples received intact
 Chain of custody & labels agree





Burlington, WA	Corporate Office	Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017
Bellingham, WA	Microbiology (b)	805 Orchard Dr Ste 4 Bellingham, WA 98225 360.715.1212
Portland, OR	Microbiology/Chemistry (c)	9150 SW Pioneer Ct Ste W Wilsonville, OR 97070 503.682.7802
Corvallis, OR	Microbiology (d)	540 SW Third Street Corvallis, OR 97333 541.753.4946

6/29/2017

Sample Receipt

Page 1 of 7

Mr. Steve Patten
Walla Walla Basin Watershed Council
810 South Main Street
Milton-Freewater, OR 97862

We received the following samples for project "**Stiller Pond 3rd Event 2017**" on **6/29/2017 at 10:40:00AM**. The turnaround is **Standard**; this project is expected to be completed by **07/13/2017**. The temperature of the sample cooler was **2.1C**. Listed below are the samples, analytical methods and parameters to be tested. If you have any questions concerning this project please refer to reference number **17-15327**.

Lab Sample ID: 35228	Sample Desc: GW-136 - Stiller Pond	Date Sampled: 6/28/17 11:10 am
Sampled By: Steve Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: 35229	Sample Desc: GW-145 - Stiller Pond	Date Sampled: 6/28/17 11:30 am
Sampled By: Steve Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: 35230	Sample Desc: GW-146 - Stiller Pond	Date Sampled: 6/28/17 10:40 am
Sampled By: Steve Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: **35231**

Sample Desc: GW-147 - Stiller Pond

Date Sampled: 6/28/17 10:10 am

Sampled By: Steve Patten

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: 35232	Sample Desc: Intake - Stiller Pond	Date Sampled: 6/28/17 11:50 am
Sampled By: Steve Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: 35233	Sample Desc: GW-147 DUP - Stiller Pond	Date Sampled: 6/28/17 10:15 am
Sampled By: Steve Patten		

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS

Lab Sample ID: 35234

Sample Desc: Trip Blank - Lab

Date Sampled: 4/18/17 8:30 am

Sampled By: Steve Patten

Trace Metals in Water and Wastes by Inductively Coupled Plasma Atomic Emission (ICP-AE) - (200.7)

IRON

Determination Of Inorganic Anions in Drinking Water By Ion Chromatography - (300.0)

NITRATE-N

TDS - (SM2540 C)

TOTAL DISSOLVED SOLIDS (TDS)

Orthophosphate in Water by FIA (Automated Ascorbic Acid Reduction) - (SM4500-P F)

ORTHO-PHOSPHATE

Prep Method: SM4500-P B(5) - Total P Persulfate Digestion

TOTAL PHOSPHORUS



29 June 2017

Vista Project ID: 1700798

Mr. Steven Patten
Walla Walla Basin Watershed Council
810 S. Main Street
Milton-Freewater, OR 97862
RE: Stiller Pond

Dear Mr. Patten,

The sample(s) listed in the sample inventory were received by Vista Analytical Laboratory on 29-Jun-17.

Please find attached:

- Terms and Conditions
- Sample Inventory Report
- Chain-of-Custody
- Sample Log-in Checklist
- Additional sample documentation (if applicable)

Analytical results are scheduled to be reported to you on 21-Jul-17.

If you have any questions regarding the status of the work associated with these samples, please contact me at mmaier@vista-analytical.com or (916) 673-1520.

Sincerely,
Martha Maier
Laboratory Director

TERMS AND CONDITIONS

ACCEPTANCE

These terms and conditions are incorporated into, and made a part of, every agreement for services between **Vista Analytical Laboratory, Inc.** ("Vista") and its client ("Client"). The Client accepts these terms and conditions by agreeing to purchase services from Vista or by sending samples to Vista.

PAYMENT

The Client shall pay in full within 30 days after the date that Vista invoices it for services rendered. No payment terms or conditions of purchase orders different from the terms of Vista will become part of any sales agreement, purchase order, or other document unless specifically approved in writing by Vista. Should suit be instituted to collect any debts of the undersigned, the client is responsible to pay all actual costs of collection and attorney's fees and interests on the past due amount at the highest rate legally available.

TURNAROUND TIME

Standard turnaround time is 21 days unless a shorter turnaround time is expressly agreed to by Vista. Turnaround time is defined as the number of calendar days between the first business day after Vista receives a sample or is authorized by the Client to perform an analysis on a sample, whichever occurs last, and the date that Vista transmits the final report for that sample to the Client. Rush orders, i.e., those that the Client requests to have analyzed in less than the standard turnaround time, will be subject to the additional charges set forth in the applicable quotation. Delays caused by acts of God, natural disasters, governmental actions, fires, floods and accidents, and other circumstances for which Vista is not responsible, shall not be counted in determining turnaround time.

SHIPPING

The Client is responsible for delivering its samples to Vista in good condition and the Client shall bear the risk of any loss of or damage to its samples during shipping. Vista reserves the right to refuse to accept delivery of, to refuse to analyze and/or to return any sample to the Client that is not delivered to Vista in good condition or that poses a health or safety risk. The Client shall pay the cost of returning such samples to it.

LIMITATION OF LIABILITY

Vista makes no representations, guarantees or warranties, express or implied, regarding the fitness of its reports for any particular use or purpose and Vista shall not be liable for consequential damages under any circumstance. The client's sole remedy is a refund of the amount that is paid Vista to analyze the sample in question. If Vista loses or damages a sample, after accepting it for analysis, Vista's liability shall not exceed the lesser of \$50 or the amount that the Client expended to obtain the sample.

INDEMNITY

The Client agrees to indemnify and defend Vista, and to hold Vista harmless, against any and all claims, actions, lawsuits, arbitration awards, judgements, damages, liabilities, expenses and costs, including attorneys' fees and court costs, arising out of, or related in any way to, the use to Vista's reports by the Client or by any third party who obtains Vista's reports from the Client.

Effective: 2/14/2007

Sample Inventory Report



Vista Sample ID	Client Sample ID	Sampled	Received	Components/ Containers
1700798-01	GW_136	28-Jun-17 11:10	29-Jun-17 09:59	Amber Glass NM Bottle, 1L
1700798-02	GW_145	28-Jun-17 11:30	29-Jun-17 09:59	Amber Glass NM Bottle, 1L
1700798-03	GW_146	28-Jun-17 10:40	29-Jun-17 09:59	Amber Glass NM Bottle, 1L
1700798-04	GW_147	28-Jun-17 10:10	29-Jun-17 09:59	Amber Glass NM Bottle, 1L
1700798-05	INTAKE	28-Jun-17 11:50	29-Jun-17 09:59	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L

Sample Analysis Report

Vista Sample ID	Client Sample ID	Requested Analysis	Status
1700798-01	GW_136	EPA Method 1668C	In Process
1700798-02	GW_145	EPA Method 1668C	In Process
1700798-03	GW_146	EPA Method 1668C	In Process
1700798-04	GW_147	EPA Method 1668C	In Process
1700798-05	INTAKE	EPA Method 1668C	In Process



CHAIN OF CUSTODY

Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017

FOR LABORATORY USE ONLY

Storage
SecuredYes No Storage ID WL-2 Temp 1.3 °CProject I.D.: STILLER POND

P.O.#

Sampler: STEVEN PATTEN
(Name)

TAT: (Check One):

Standard: 21 Days

Rush (surcharge may apply):

 14 days 7 days Specify: _____Invoice to: Name CHRIS SIEBERT Company WWSBLRelinquished by: (Signature and Printed Name) S. PATTENAddress 810 S. MAIN, MILLION-FREEWATER City OR State 97862 Zip 97862Date: 6-28-17 Time: 12:30 Received by: (Signature and Printed Name) UPSRelinquished by: (Signature and Printed Name) UPSDate: 6-29-17 Time: 12:30 Received by: (Signature and Printed Name) Marissa SparksPh# 541-938-2170 Fax# 541-938-2170Date: 6-28-17 Time: 12:30Date: 6/29/17 Time: 1005

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106Method of Shipment:
UPS

Tracking No.: _____

Add Analysis(es) Requested

Container(s)

Quantity

Type

Matrix

EPA1613

EPA8290

EPA8280

EPA1668

EPA1614

CARB429

2378-TCDD

PCDD/TCDF

PCDD/RCDF

2378-TCDF

PCDD/PCDF

2378-TCDF

PCDD/PCDF

2378-TCDF

PCDD/PCDF

TOTALS

COPLANAR PCB's

209 CONGENEKS

PBDE

PAH

WHO-29

ATTN: _____

Sample ID	Date	Time	Location/Sample Description
GW-136	6-28-17	11:10	STILLER POND
GW-145		11:30	
GW-146		10:40	
GW-147		10:10	
INTAKE	↓	11:50	↓

Special Instructions/Comments: _____

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other _____*Bottle Preservative Type: T = Thiosulfate,
O = Other _____SEND
DOCUMENTATION
AND RESULTS TO:Name: STEVEN PATTEN
Company: WWSBL
Address: 810 S. MAIN
City: MILLION-FREEWATER State: OR Zip: 97862
Phone: 541-938-2170 Fax: _____
Email: steven.patten@wwsbl.org
Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper,
SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum
AQ = Aqueous, O = Other _____ Appendix B - Page 167

WHITE - ORIGINAL

YELLOW - ARCHIVE

PINK - COPY

Sample Log-in Checklist

Vista Work Order #:

1700798

TAT

2nd

Samples Arrival:	Date/Time 6/29/17 0959		Initials: JMS		Location: WR-2 Shelf/Rack: N/A		
Logged In:	Date/Time 06/29/17 1510		Initials: JMSB		Location: WR-2 Shelf/Rack: A 3		
Delivered By:	FedEx	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	Ice		Blue Ice		Dry Ice		None
Temp °C:	1.7	(uncorrected)	Time:	1002	Thermometer ID: IR-2		
Temp °C:	1.3	(corrected)	Probe used:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

	YES	NO	NA			
Adequate Sample Volume Received?	✓					
Holding Time Acceptable?	✓					
Shipping Container(s) Intact?	✓					
Shipping Custody Seals Intact?	✓					
Shipping Documentation Present?	✓					
Airbill	Trk # 1Z 62E 3F7 01 0800 0830	✓				
Sample Container Intact?	✓					
Sample Custody Seals Intact?		✓				
Chain of Custody / Sample Documentation Present?	✓					
COC Anomaly/Sample Acceptance Form completed?	✓	✓				
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓			
Preservation Documented:	Na ₂ S ₂ O ₃	Trizma	None	Yes	No	NA
Shipping Container	Vista	Client	Retain	Return	Dispose	

Comments:



July 25, 2017

Vista Work Order No. 1700798

Mr. Steven Patten
Walla Walla Basin Watershed Council
810 S. Main Street
Milton-Freewater, OR 97862

Dear Mr. Patten,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on June 29, 2017. This sample set was analyzed on a standard turn-around time, under your Project Name 'Stiller Pond'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1700798**Case Narrative****Sample Condition on Receipt:**

Five aqueous samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:**EPA Method 1668C**

These samples were extracted and analyzed for 209 PCB congeners by EPA Method 1668C using a ZB-1 GC column.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limits in the Method Blank. The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are listed in the table below.

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
1700798-01	GW_136	EPA Method 1668C	13C-PCB-208	H	146
1700798-02	GW_145	EPA Method 1668C	13C-PCB-208	H	153
1700798-04	GW_147	EPA Method 1668C	13C-PCB-206	H	147
1700798-04	GW_147	EPA Method 1668C	13C-PCB-208	H	155
1700798-04	GW_147	EPA Method 1668C	13C-PCB-209	H	199
1700798-05	INTAKE	EPA Method 1668C	13C-PCB-209	H	179

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1700798-01	GW_136	28-Jun-17 11:10	29-Jun-17 09:59	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700798-02	GW_145	28-Jun-17 11:30	29-Jun-17 09:59	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700798-03	GW_146	28-Jun-17 10:40	29-Jun-17 09:59	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700798-04	GW_147	28-Jun-17 10:10	29-Jun-17 09:59	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L
1700798-05	INTAKE	28-Jun-17 11:50	29-Jun-17 09:59	Amber Glass NM Bottle, 1L Amber Glass NM Bottle, 1L

ANALYTICAL RESULTS

Sample ID: Method Blank					EPA Method 1668C				
Matrix:	Aqueous	QC Batch:	B7F0131	Lab Sample:	B7F0131-BLK1	Date Extracted:	30-Jun-2017 7:22	Date Analyzed:	06-Jul-17 18:04 Column: ZB-1
Sample Size:	1.00 L								
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	ND	0.593			PCB-44	0.601			J
PCB-2	ND	0.582			PCB-45	ND	0.566		
PCB-3	ND	0.574			PCB-46	ND	0.602		
PCB-4/10	ND	1.15			PCB-47	1.68			J
PCB-5/8	ND	0.870			PCB-48/75	ND	0.406		
PCB-6	ND	0.912			PCB-50	ND	0.622		
PCB-7/9	ND	0.898			PCB-51	ND	0.485		
PCB-11	7.60				PCB-52/69	1.03			J
PCB-12/13	ND	0.776			PCB-53	ND	0.511		
PCB-14	ND	0.686			PCB-54	ND	0.496		
PCB-15	ND	0.685			PCB-55	ND	0.345		
PCB-16/32	ND	0.406			PCB-56/60	ND	0.376		
PCB-17	ND	0.454			PCB-57	ND	0.393		
PCB-18	ND	0.495			PCB-58	ND	0.377		
PCB-19	ND	0.569			PCB-61/70	0.624			J
PCB-20/21/33	1.07			J	PCB-62	ND	0.407		
PCB-22	ND	0.399			PCB-63	ND	0.369		
PCB-23	ND	0.397			PCB-65	ND	0.430		
PCB-24/27	ND	0.341			PCB-66/76	ND	0.374		
PCB-25	ND	0.426			PCB-67	ND	0.398		
PCB-26	ND	0.385			PCB-68	ND	0.346		
PCB-28	1.46			J	PCB-73	ND	0.404		
PCB-29	ND	0.382			PCB-74	ND	0.368		
PCB-30	ND	0.343			PCB-77	ND	0.327		
PCB-31	1.15			J	PCB-78	ND	0.347		
PCB-34	ND	0.381			PCB-79	ND	0.351		
PCB-35	ND	0.444			PCB-80	ND	0.317		
PCB-36	ND	0.423			PCB-81	ND	0.325		
PCB-37	ND	0.385			PCB-82	ND	0.814		
PCB-38	ND	0.439			PCB-83	ND	0.509		
PCB-39	ND	0.394			PCB-84/92	ND	0.686		
PCB-40	ND	0.618			PCB-85/116	ND	0.627		
PCB-41/64/71/72	ND	0.430			PCB-86	ND	0.868		
PCB-42/59	ND	0.425			PCB-87/117/125	ND	0.546		
PCB-43/49	ND	0.508			PCB-88/91	ND	0.701		

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: Method Blank					EPA Method 1668C				
Matrix:	Aqueous	QC Batch:	B7F0131	Lab Sample:	B7F0131-BLK1	Date Extracted:	30-Jun-2017 7:22	Date Analyzed:	06-Jul-17 18:04 Column: ZB-1
Sample Size:	1.00 L								
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	0.723			PCB-137	ND	0.324		
PCB-90/101	ND	0.604			PCB-138/163/164	ND	0.283		
PCB-93	ND	0.785			PCB-139/149	ND	0.510		
PCB-94	ND	0.739			PCB-140	ND	0.562		
PCB-95/98/102	ND	0.660			PCB-141	ND	0.330		
PCB-96	ND	0.588			PCB-142	ND	0.411		
PCB-97	ND	0.666			PCB-144	ND	0.508		
PCB-99	ND	0.601			PCB-145	ND	0.418		
PCB-100	ND	0.644			PCB-146/165	ND	0.319		
PCB-103	ND	0.639			PCB-147	ND	0.577		
PCB-104	ND	0.516			PCB-148	ND	0.552		
PCB-105	ND	0.554			PCB-150	ND	0.408		
PCB-106/118	ND	0.467			PCB-151	ND	0.546		
PCB-107/109	ND	0.466			PCB-152	ND	0.402		
PCB-108/112	ND	0.608			PCB-153	ND	0.311		
PCB-110	0.540		J		PCB-154	ND	0.501		
PCB-111/115	ND	0.466			PCB-155	ND	0.382		
PCB-113	ND	0.538			PCB-156	ND	0.248		
PCB-114	ND	0.573			PCB-157	ND	0.245		
PCB-119	ND	0.463			PCB-158/160	ND	0.257		
PCB-120	ND	0.428			PCB-159	ND	0.243		
PCB-121	ND	0.489			PCB-166	ND	0.265		
PCB-122	ND	0.632			PCB-167	ND	0.253		
PCB-123	ND	0.465			PCB-168	ND	0.258		
PCB-124	ND	0.464			PCB-169	ND	0.257		
PCB-126	ND	0.591			PCB-170	ND	0.224		
PCB-127	ND	0.605			PCB-171	ND	0.228		
PCB-128/162	ND	0.300			PCB-172	ND	0.237		
PCB-129	ND	0.384			PCB-173	ND	0.281		
PCB-130	ND	0.401			PCB-174	ND	0.247		
PCB-131/133	ND	0.399			PCB-175	ND	0.251		
PCB-132/161	ND	0.320			PCB-176	ND	0.185		
PCB-134/143	ND	0.396			PCB-177	ND	0.265		
PCB-135	ND	0.566			PCB-178	ND	0.256		
PCB-136	ND	0.391			PCB-179	ND	0.201		

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: Method Blank					EPA Method 1668C				
Matrix:	Aqueous	QC Batch:	B7F0131	Lab Sample:	B7F0131-BLK1	Date Extracted:	30-Jun-2017 7:22	Date Analyzed:	06-Jul-17 18:04 Column: ZB-1
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.231			Total octaCB	0.630			
PCB-181	ND	0.234			Total nonaCB	ND	0.246		
PCB-182/187	ND	0.233			DecaCB	ND	0.311		
PCB-183	ND	0.216			Total PCB	16.4			
PCB-184	ND	0.200							
PCB-185	ND	0.236							
PCB-186	ND	0.184							
PCB-188	ND	0.184							
PCB-189	ND	0.144							
PCB-190	ND	0.161							
PCB-191	ND	0.172							
PCB-192	ND	0.183							
PCB-193	ND	0.177							
PCB-194	0.630			J					
PCB-195	ND	0.290							
PCB-196/203	ND	0.408							
PCB-197	ND	0.294							
PCB-198	ND	0.428							
PCB-199	ND	0.465							
PCB-200	ND	0.315							
PCB-201	ND	0.310							
PCB-202	ND	0.336							
PCB-204	ND	0.329							
PCB-205	ND	0.204							
PCB-206	ND	0.246							
PCB-207	ND	0.168							
PCB-208	ND	0.171							
PCB-209	ND	0.311							
Total monoCB	ND	0.593							
Total diCB	7.60								
Total triCB	3.68								
Total tetraCB	3.94		4.37						
Total pentaCB	0.540								
Total hexaCB	ND	0.577							
Total heptaCB	ND	0.281							

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: Method Blank					EPA Method 1668C		
Matrix:	Aqueous	QC Batch:	B7F0131	Lab Sample:	B7F0131-BLK1		
Sample Size:	1.00 L	Date Extracted:	30-Jun-2017 7:22	Date Analyzed:	06-Jul-17 18:04	Column:	ZB-1
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
IS 13C-PCB-1	61.7	5-145		13C-PCB-157	89.2	10-145	
13C-PCB-3	61.4	5-145		13C-PCB-159	86.2	10-145	
13C-PCB-4	63.9	5-145		13C-PCB-167	88.2	10-145	
13C-PCB-11	74.0	5-145		13C-PCB-169	91.2	10-145	
13C-PCB-9	66.0	5-145		13C-PCB-170	94.1	10-145	
13C-PCB-19	77.1	5-145		13C-PCB-180	92.5	10-145	
13C-PCB-28	70.7	5-145		13C-PCB-188	85.0	10-145	
13C-PCB-32	80.7	5-145		13C-PCB-189	93.1	10-145	
13C-PCB-37	79.2	5-145		13C-PCB-194	92.3	10-145	
13C-PCB-47	88.0	5-145		13C-PCB-202	113	10-145	
13C-PCB-52	86.3	5-145		13C-PCB-206	79.3	10-145	
13C-PCB-54	71.8	5-145		13C-PCB-208	77.2	10-145	
13C-PCB-70	85.9	5-145		13C-PCB-209	81.9	10-145	
13C-PCB-77	92.1	10-145		CRS 13C-PCB-79	93.0	10-145	
13C-PCB-80	87.0	10-145		13C-PCB-178	94.2	10-145	
13C-PCB-81	91.4	10-145					
13C-PCB-95	87.7	10-145					
13C-PCB-97	90.4	10-145					
13C-PCB-101	90.2	10-145					
13C-PCB-104	82.7	10-145					
13C-PCB-105	86.7	10-145					
13C-PCB-114	87.3	10-145					
13C-PCB-118	92.8	10-145					
13C-PCB-123	96.7	10-145					
13C-PCB-126	89.1	10-145					
13C-PCB-127	86.9	10-145					
13C-PCB-138	87.9	10-145					
13C-PCB-141	88.2	10-145					
13C-PCB-153	84.3	10-145					
13C-PCB-155	95.1	10-145					
13C-PCB-156	88.1	10-145					

DL - Sample specific estimated detection limit

EMPC - Estimated maximum possible concentration

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: OPR					EPA Method 1668C			
Matrix:	Aqueous <th>QC Batch:</th> <td>B7F0131</td> <th></th> <th>Lab Sample:</th> <td>B7F0131-BS1</td> <th></th>	QC Batch:	B7F0131		Lab Sample:	B7F0131-BS1		
Sample Size:	1.00 L	Date Extracted:	30-Jun-2017 7:22		Date Analyzed:	06-Jul-17 14:48	Column: ZB-1	
Analyte	Amt Found (pg/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL	
PCB-1	915	1000	91.5	60 - 135	IS 13C-PCB-1	27.0	15 - 145	
PCB-3	927	1000	92.7	60 - 135	IS 13C-PCB-3	31.9	15 - 145	
PCB-4/10	2120	2000	106	60 - 135	IS 13C-PCB-4	35.0	15 - 145	
PCB-15	1170	1000	117	60 - 135	IS 13C-PCB-11	50.3	15 - 145	
PCB-19	824	1000	82.4	60 - 135	IS 13C-PCB-9	34.9	15 - 145	
PCB-37	1010	1000	101	60 - 135	IS 13C-PCB-19	48.4	15 - 145	
PCB-54	849	1000	84.9	60 - 135	IS 13C-PCB-28	57.1	15 - 145	
PCB-77	913	1000	91.3	60 - 135	IS 13C-PCB-32	55.2	15 - 145	
PCB-81	875	1000	87.5	60 - 135	IS 13C-PCB-37	68.9	15 - 145	
PCB-104	860	1000	86.0	60 - 135	IS 13C-PCB-47	64.0	15 - 145	
PCB-105	1070	1000	107	60 - 135	IS 13C-PCB-52	62.2	15 - 145	
PCB-106/118	1690	2000	84.6	60 - 135	IS 13C-PCB-54	49.5	15 - 145	
PCB-114	1090	1000	109	60 - 135	IS 13C-PCB-70	68.2	15 - 145	
PCB-123	835	1000	83.5	60 - 135	IS 13C-PCB-77	74.3	40 - 145	
PCB-126	1100	1000	110	60 - 135	IS 13C-PCB-80	68.2	40 - 145	
PCB-155	878	1000	87.8	60 - 135	IS 13C-PCB-81	72.1	40 - 145	
PCB-156	929	1000	92.9	60 - 135	IS 13C-PCB-95	69.3	40 - 145	
PCB-157	922	1000	92.2	60 - 135	IS 13C-PCB-97	73.5	40 - 145	
PCB-167	927	1000	92.7	60 - 135	IS 13C-PCB-101	70.9	40 - 145	
PCB-169	963	1000	96.3	60 - 135	IS 13C-PCB-104	60.2	40 - 145	
PCB-188	842	1000	84.2	60 - 135	IS 13C-PCB-105	75.0	40 - 145	
PCB-189	875	1000	87.5	60 - 135	IS 13C-PCB-114	74.2	40 - 145	
PCB-202	822	1000	82.2	60 - 135	IS 13C-PCB-118	74.3	40 - 145	
PCB-205	1020	1000	102	60 - 135	IS 13C-PCB-123	78.2	40 - 145	
PCB-206	954	1000	95.4	60 - 135	IS 13C-PCB-126	75.0	40 - 145	
PCB-208	956	1000	95.6	60 - 135	IS 13C-PCB-127	74.9	40 - 145	
PCB-209	862	1000	86.2	60 - 135	IS 13C-PCB-138	71.9	40 - 145	
					IS 13C-PCB-141	71.6	40 - 145	
					IS 13C-PCB-153	68.4	40 - 145	
					IS 13C-PCB-155	72.1	40 - 145	
					IS 13C-PCB-156	72.2	40 - 145	
					IS 13C-PCB-157	73.2	40 - 145	
					IS 13C-PCB-159	70.5	40 - 145	
					IS 13C-PCB-167	71.0	40 - 145	
					IS 13C-PCB-169	73.9	40 - 145	
					IS 13C-PCB-170	77.7	40 - 145	
					IS 13C-PCB-180	76.3	40 - 145	
					IS 13C-PCB-188	68.2	40 - 145	
					IS 13C-PCB-189	76.3	40 - 145	
					IS 13C-PCB-194	76.8	40 - 145	

Sample ID: OPR					EPA Method 1668C			
Matrix:	Aqueous <th>QC Batch:</th> <td>B7F0131<th>Lab Sample:</th><td>B7F0131-BS1<th data-cs="2" data-kind="parent"></th><th data-kind="ghost"></th></td></td>	QC Batch:	B7F0131 <th>Lab Sample:</th> <td>B7F0131-BS1<th data-cs="2" data-kind="parent"></th><th data-kind="ghost"></th></td>	Lab Sample:	B7F0131-BS1 <th data-cs="2" data-kind="parent"></th> <th data-kind="ghost"></th>			
Sample Size:	1.00 L	Date Extracted:	30-Jun-2017 7:22	Date Analyzed:	06-Jul-17 14:48	Column:	ZB-1	
Analyte	Amt Found (pg/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL	
					IS 13C-PCB-202	90.8	40 - 145	
					IS 13C-PCB-206	64.1	40 - 145	
					IS 13C-PCB-208	60.7	40 - 145	
					IS 13C-PCB-209	63.2	40 - 145	
					CRS 13C-PCB-79	74.8	40 - 145	
					CRS 13C-PCB-178	76.7	40 - 145	

LCL-UCL - Lower control limit - upper control limit

Sample ID: GW_136**EPA Method 1668C**

Client Data					Sample Data					Laboratory Data				
Name:	Walla Walla Basin Watershed Council				Matrix:	Aqueous		Lab Sample:	1700798-01		Date Received:	29-Jun-2017 9:59		
Project:	Stiller Pond				Sample Size:	0.999 L		QC Batch:	B7F0131		Date Extracted:	30-Jun-2017 7:22		
Date Collected:	28-Jun-2017 11:10				Date Analyzed : 15-Jul-17 02:37 Column: ZB-1									
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers					
PCB-1	7.98				PCB-44	2.37				J, B				
PCB-2	ND		0.568		PCB-45	0.783				J				
PCB-3	2.92			J	PCB-46	ND		0.330						
PCB-4/10	9.66			J	PCB-47	ND		1.65						
PCB-5/8	19.0				PCB-48/75	1.04				J				
PCB-6	3.26			J	PCB-50	ND		0.363						
PCB-7/9	1.60			J	PCB-51	ND		0.585						
PCB-11	13.2			B	PCB-52/69	2.16				J, B				
PCB-12/13	ND	0.272			PCB-53	0.591				J				
PCB-14	ND	0.228			PCB-54	ND		0.297						
PCB-15	5.09				PCB-55	ND		0.217						
PCB-16/32	9.60			J	PCB-56/60	1.18				J				
PCB-17	5.08				PCB-57	ND		0.228						
PCB-18	13.4				PCB-58	ND		0.218						
PCB-19	1.69			J	PCB-61/70	1.92				J, B				
PCB-20/21/33	7.28			J, B	PCB-62	ND		0.267						
PCB-22	4.79			J	PCB-63	ND		0.220						
PCB-23	ND	0.220			PCB-65	ND		0.272						
PCB-24/27	1.12			J	PCB-66/76	1.20				J				
PCB-25	0.856			J	PCB-67	ND		0.241						
PCB-26	1.52			J	PCB-68	ND		0.225						
PCB-28	9.06			B	PCB-73	ND		0.252						
PCB-29	ND	0.213			PCB-74	ND		0.711						
PCB-30	ND	0.135			PCB-77	ND		0.244						
PCB-31	7.94			B	PCB-78	ND		0.245						
PCB-34	ND	0.215			PCB-79	ND		0.223						
PCB-35	ND	0.233			PCB-80	ND		0.200						
PCB-36	ND	0.218			PCB-81	ND		0.235						
PCB-37	1.23			J	PCB-82	ND		0.338						
PCB-38	ND	0.229			PCB-83	ND		0.212						
PCB-39	ND	0.214			PCB-84/92	ND		0.282						
PCB-40	0.727			J	PCB-85/116	ND		0.256						
PCB-41/64/71/72	2.02			J	PCB-86	ND		0.331						
PCB-42/59	ND	1.04			PCB-87/117/125	ND		0.232						
PCB-43/49	2.04			J	PCB-88/91	ND		0.280						

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

Appendix B - Page 180

Sample ID: GW_136						EPA Method 1668C			
Client Data			Sample Data		Laboratory Data				
Name:	Walla Walla Basin Watershed Council			Matrix:	Aqueous	Lab Sample:	1700798-01	Date Received:	29-Jun-2017 9:59
Project:	Stiller Pond			Sample Size:	0.999 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22
Date Collected:	28-Jun-2017 11:10			Date Analyzed : 15-Jul-17 02:37 Column: ZB-1					
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	0.297			PCB-137	ND	0.256		
PCB-90/101	ND		1.28		PCB-138/163/164	ND		0.840	
PCB-93	ND	0.311			PCB-139/149	ND		0.645	
PCB-94	ND	0.287			PCB-140	ND	0.205		
PCB-95/98/102	1.35			J	PCB-141	ND	0.262		
PCB-96	ND	0.222			PCB-142	ND	0.297		
PCB-97	ND	0.271			PCB-144	ND	0.184		
PCB-99	ND	0.244			PCB-145	ND	0.162		
PCB-100	ND	0.245			PCB-146/165	ND	0.238		
PCB-103	ND	0.243			PCB-147	ND	0.211		
PCB-104	ND	0.199			PCB-148	ND	0.205		
PCB-105	ND		0.507		PCB-150	ND	0.155		
PCB-106/118	ND		1.01		PCB-151	ND	0.196		
PCB-107/109	ND	0.196			PCB-152	ND	0.153		
PCB-108/112	ND	0.248			PCB-153	ND		0.591	
PCB-110	1.51			J, B	PCB-154	ND	0.194		
PCB-111/115	ND	0.200			PCB-155	ND	0.148		
PCB-113	ND	0.236			PCB-156	ND	0.180		
PCB-114	ND	0.232			PCB-157	ND	0.183		
PCB-119	ND	0.191			PCB-158/160	ND	0.202		
PCB-120	ND	0.193			PCB-159	ND	0.194		
PCB-121	ND	0.194			PCB-166	ND	0.215		
PCB-122	ND	0.257			PCB-167	ND	0.181		
PCB-123	ND	0.198			PCB-168	ND	0.191		
PCB-124	ND	0.201			PCB-169	ND	0.214		
PCB-126	ND	0.246			PCB-170	ND	0.198		
PCB-127	ND	0.243			PCB-171	0.251			J
PCB-128/162	ND	0.229			PCB-172	ND	0.207		
PCB-129	ND	0.292			PCB-173	ND	0.244		
PCB-130	ND	0.285			PCB-174	0.296			J
PCB-131/133	ND	0.290			PCB-175	ND	0.243		
PCB-132/161	ND	0.240			PCB-176	ND	0.177		
PCB-134/143	ND	0.292			PCB-177	ND	0.221		
PCB-135	ND	0.204			PCB-178	ND	0.248		
PCB-136	ND	0.149			PCB-179	ND	0.193		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW_136					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-01	Date Received:	29-Jun-2017 9:59		
Project:	Stiller Pond	Sample Size:	0.999 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22		
Date Collected:	28-Jun-2017 11:10	Date Analyzed : 15-Jul-17 02:37 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND		0.226		Total octaCB	0.576			
PCB-181	ND	0.202			Total nonaCB	ND	0.458		
PCB-182/187	ND	0.225			DecaCB	ND	0.298		
PCB-183	ND	0.210			Total PCB	146			
PCB-184	ND	0.202							
PCB-185	ND	0.206							
PCB-186	ND	0.186							
PCB-188	ND	0.187							
PCB-189	ND	0.143							
PCB-190	ND	0.148							
PCB-191	ND	0.156							
PCB-192	ND	0.169							
PCB-193	ND	0.159							
PCB-194	0.576			J, B					
PCB-195	ND	0.290							
PCB-196/203	ND	0.135							
PCB-197	ND	0.0960							
PCB-198	ND	0.145							
PCB-199	ND	0.141							
PCB-200	ND	0.110							
PCB-201	ND	0.103							
PCB-202	ND	0.112							
PCB-204	ND	0.112							
PCB-205	ND	0.229							
PCB-206	ND	0.458							
PCB-207	ND	0.183							
PCB-208	ND	0.185							
PCB-209	ND	0.298							
Total monoCB	10.9		11.5						
Total diCB	51.8								
Total triCB	63.6								
Total tetraCB	16.0		20.4						
Total pentaCB	2.87		5.66						
Total hexaCB	ND		2.08						
Total heptaCB	0.548		0.774						

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW_136**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data							
Name:		Walla Walla Basin Watershed Council		Matrix:		Aqueous		Lab Sample:		1700798-01		Date Received:		29-Jun-2017 9:59	
Project:		Stiller Pond		Sample Size:		0.999 L		QC Batch:		B7F0131		Date Extracted:		30-Jun-2017 7:22	
Date Collected:		28-Jun-2017 11:10						Date Analyzed :		15-Jul-17 02:37 Column: ZB-1					
Labeled Standard		%R	LCL-UCL	Qualifiers		Labeled Standard		%R	LCL-UCL	Qualifiers					
IS	13C-PCB-1	53.6	5 -145			13C-PCB-170		91.9	10 -145						
	13C-PCB-3	58.8	5 -145			13C-PCB-180		89.9	10 -145						
	13C-PCB-4	46.3	5 -145			13C-PCB-188		75.3	10 -145						
	13C-PCB-11	66.1	5 -145			13C-PCB-189		89.6	10 -145						
	13C-PCB-9	50.9	5 -145			13C-PCB-194		84.0	10 -145						
	13C-PCB-19	67.8	5 -145			13C-PCB-202		86.9	10 -145						
	13C-PCB-28	65.4	5 -145			13C-PCB-206		121	10 -145						
	13C-PCB-32	84.0	5 -145			13C-PCB-208		146	10 -145	H					
	13C-PCB-37	71.0	5 -145			13C-PCB-209		130	10 -145						
	13C-PCB-47	83.0	5 -145			CRS	13C-PCB-79	84.4	10 -145						
	13C-PCB-52	84.1	5 -145				13C-PCB-178	70.1	10 -145						
	13C-PCB-54	74.2	5 -145												
	13C-PCB-70	86.2	5 -145												
	13C-PCB-77	81.6	10 -145												
	13C-PCB-80	85.3	10 -145												
	13C-PCB-81	80.8	10 -145												
	13C-PCB-95	88.8	10 -145												
	13C-PCB-97	86.6	10 -145												
	13C-PCB-101	87.9	10 -145												
	13C-PCB-104	86.8	10 -145												
	13C-PCB-105	49.6	10 -145												
	13C-PCB-114	49.3	10 -145												
	13C-PCB-118	90.2	10 -145												
	13C-PCB-123	89.0	10 -145												
	13C-PCB-126	50.7	10 -145												
	13C-PCB-127	50.3	10 -145												
	13C-PCB-138	83.0	10 -145												
	13C-PCB-141	82.3	10 -145												
	13C-PCB-153	81.9	10 -145												
	13C-PCB-155	86.6	10 -145												
	13C-PCB-156	88.7	10 -145												
	13C-PCB-157	89.4	10 -145												
	13C-PCB-159	83.9	10 -145												
	13C-PCB-167	88.8	10 -145												
	13C-PCB-169	87.4	10 -145												

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: GW_145					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-02	Date Received:	29-Jun-2017 9:59		
Project:	Stiller Pond	Sample Size:	1.01 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22		
Date Collected:	28-Jun-2017 11:30	Date Analyzed : 19-Jul-17 12:04 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	8.14				PCB-44	ND		1.72	
PCB-2	ND	0.890			PCB-45	ND	0.590		
PCB-3	ND	0.879			PCB-46	ND	0.622		
PCB-4/10	ND	5.31			PCB-47	1.79			J, B
PCB-5/8	ND	3.65			PCB-48/75	ND		0.976	
PCB-6	ND	3.72			PCB-50	ND	0.594		
PCB-7/9	ND	3.68			PCB-51	ND	0.531		
PCB-11	ND	3.72			PCB-52/69	ND		1.80	
PCB-12/13	ND	3.73			PCB-53	ND	0.532		
PCB-14	ND	3.13			PCB-54	ND	0.485		
PCB-15	ND	3.20			PCB-55	ND	0.393		
PCB-16/32	6.94			J	PCB-56/60	1.12			J
PCB-17	3.82			J	PCB-57	ND	0.401		
PCB-18	10.2				PCB-58	ND	0.384		
PCB-19	ND	0.885			PCB-61/70	ND		1.11	
PCB-20/21/33	6.50			J, B	PCB-62	ND	0.462		
PCB-22	2.84			J	PCB-63	ND	0.387		
PCB-23	ND	0.902			PCB-65	ND	0.472		
PCB-24/27	ND	0.500			PCB-66/76	0.875			J
PCB-25	ND	0.973			PCB-67	ND	0.424		
PCB-26	ND	0.900			PCB-68	ND	0.391		
PCB-28	8.47			B	PCB-73	ND	0.425		
PCB-29	ND	0.870			PCB-74	ND		0.517	
PCB-30	ND	0.572			PCB-77	ND	0.495		
PCB-31	6.53			B	PCB-78	ND	0.496		
PCB-34	ND	0.880			PCB-79	ND	0.403		
PCB-35	ND	1.18			PCB-80	ND	0.361		
PCB-36	ND	1.11			PCB-81	ND	0.477		
PCB-37	ND	1.01			PCB-82	ND	0.937		
PCB-38	ND	1.16			PCB-83	ND	0.525		
PCB-39	ND	1.09			PCB-84/92	ND	0.696		
PCB-40	ND	0.688			PCB-85/116	ND	0.635		
PCB-41/64/71/72	ND		1.08		PCB-86	ND	0.820		
PCB-42/59	ND	0.480			PCB-87/117/125	ND	0.575		
PCB-43/49	ND		1.71		PCB-88/91	ND	0.706		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW_145					EPA Method 1668C				
Client Data			Sample Data		Laboratory Data				
Name:	Walla Walla Basin Watershed Council		Matrix:	Aqueous	Lab Sample:	1700798-02	Date Received:	29-Jun-2017 9:59	
Project:	Stiller Pond		Sample Size:	1.01 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22	
Date Collected:	28-Jun-2017 11:30		Date Analyzed : 19-Jul-17 12:04 Column: ZB-1						
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	0.733			PCB-137	ND	0.721		
PCB-90/101	ND	0.614			PCB-138/163/164	ND		2.23	
PCB-93	ND	0.784			PCB-139/149	ND	0.387		
PCB-94	ND	0.723			PCB-140	ND	0.419		
PCB-95/98/102	ND	0.646			PCB-141	ND	0.738		
PCB-96	ND	0.566			PCB-142	ND	0.776		
PCB-97	ND	0.671			PCB-144	ND	0.375		
PCB-99	ND	0.601			PCB-145	ND	0.330		
PCB-100	ND	0.625			PCB-146/165	ND	0.622		
PCB-103	ND	0.621			PCB-147	ND	0.430		
PCB-104	ND	0.507			PCB-148	ND	0.417		
PCB-105	ND	0.769			PCB-150	ND	0.316		
PCB-106/118	ND	0.532			PCB-151	ND	0.400		
PCB-107/109	ND	0.544			PCB-152	ND	0.312		
PCB-108/112	ND	0.614			PCB-153	ND		2.35	
PCB-110	ND		1.60		PCB-154	ND	0.395		
PCB-111/115	ND	0.496			PCB-155	ND	0.302		
PCB-113	ND	0.581			PCB-156	ND	0.706		
PCB-114	ND	0.814			PCB-157	ND	0.694		
PCB-119	ND	0.475			PCB-158/160	ND	0.546		
PCB-120	ND	0.477			PCB-159	ND	0.599		
PCB-121	ND	0.488			PCB-166	ND	0.663		
PCB-122	ND	0.902			PCB-167	ND	0.606		
PCB-123	ND	0.549			PCB-168	ND	0.500		
PCB-124	ND	0.557			PCB-169	ND	1.04		
PCB-126	ND	1.02			PCB-170	ND	0.797		
PCB-127	ND	0.941			PCB-171	ND	0.714		
PCB-128/162	ND	0.705			PCB-172	ND	0.746		
PCB-129	ND	0.789			PCB-173	ND	0.878		
PCB-130	ND	0.805			PCB-174	ND	0.830		
PCB-131/133	ND	0.758			PCB-175	ND	0.568		
PCB-132/161	ND	0.626			PCB-176	ND	0.415		
PCB-134/143	ND	0.762			PCB-177	ND	0.794		
PCB-135	ND	0.417			PCB-178	ND	0.580		
PCB-136	ND	0.305			PCB-179	ND	0.451		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW_145					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-02	Date Received:	29-Jun-2017 9:59		
Project:	Stiller Pond	Sample Size:	1.01 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22		
Date Collected:	28-Jun-2017 11:30	Date Analyzed : 19-Jul-17 12:04 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND		3.42		Total octaCB	ND		1.80	
PCB-181	ND	0.727			Total nonaCB	ND	1.67		
PCB-182/187	ND		1.78		DecaCB	ND	1.05		
PCB-183	ND		0.723		Total PCB	57.2			
PCB-184	ND	0.474							
PCB-185	ND	0.741							
PCB-186	ND	0.434							
PCB-188	ND	0.438							
PCB-189	ND	0.667							
PCB-190	ND	0.599							
PCB-191	ND	0.562							
PCB-192	ND	0.609							
PCB-193	ND	0.573							
PCB-194	ND	0.987							
PCB-195	ND	1.10							
PCB-196/203	ND		1.80						
PCB-197	ND	0.340							
PCB-198	ND	0.512							
PCB-199	ND	0.497							
PCB-200	ND	0.388							
PCB-201	ND	0.366							
PCB-202	ND	0.396							
PCB-204	ND	0.395							
PCB-205	ND	0.868							
PCB-206	ND	1.67							
PCB-207	ND	0.661							
PCB-208	ND	0.671							
PCB-209	ND	1.05							
Total monoCB	8.14								
Total diCB	ND	5.31							
Total triCB	45.3								
Total tetraCB	3.79		12.7						
Total pentaCB	ND		1.60						
Total hexaCB	ND		4.58						
Total heptaCB	ND		5.92						

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW_145**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:		Walla Walla Basin Watershed Council		Matrix:		Aqueous		Lab Sample:		Date Received:	
Project:		Stiller Pond		Sample Size:		1.01 L		QC Batch:		Date Extracted:	
Date Collected:		28-Jun-2017 11:30		Date Analyzed :		19-Jul-17 12:04 Column: ZB-1					
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	89.8	5 -145		13C-PCB-170	74.1	10 -145					
13C-PCB-3	95.4	5 -145		13C-PCB-180	79.5	10 -145					
13C-PCB-4	68.7	5 -145		13C-PCB-188	102	10 -145					
13C-PCB-11	76.3	5 -145		13C-PCB-189	60.4	10 -145					
13C-PCB-9	70.6	5 -145		13C-PCB-194	91.7	10 -145					
13C-PCB-19	134	5 -145		13C-PCB-202	75.8	10 -145					
13C-PCB-28	85.7	5 -145		13C-PCB-206	118	10 -145					
13C-PCB-32	143	5 -145		13C-PCB-208	153	10 -145	H				
13C-PCB-37	78.6	5 -145		13C-PCB-209	133	10 -145					
13C-PCB-47	91.4	5 -145		CRS 13C-PCB-79	89.5	10 -145					
13C-PCB-52	94.2	5 -145		13C-PCB-178	101	10 -145					
13C-PCB-54	87.0	5 -145									
13C-PCB-70	93.1	5 -145									
13C-PCB-77	78.5	10 -145									
13C-PCB-80	90.4	10 -145									
13C-PCB-81	79.2	10 -145									
13C-PCB-95	90.6	10 -145									
13C-PCB-97	91.0	10 -145									
13C-PCB-101	90.2	10 -145									
13C-PCB-104	89.6	10 -145									
13C-PCB-105	57.2	10 -145									
13C-PCB-114	53.7	10 -145									
13C-PCB-118	84.0	10 -145									
13C-PCB-123	83.5	10 -145									
13C-PCB-126	54.0	10 -145									
13C-PCB-127	55.0	10 -145									
13C-PCB-138	98.2	10 -145									
13C-PCB-141	94.5	10 -145									
13C-PCB-153	98.4	10 -145									
13C-PCB-155	92.6	10 -145									
13C-PCB-156	77.0	10 -145									
13C-PCB-157	76.8	10 -145									
13C-PCB-159	85.9	10 -145									
13C-PCB-167	86.3	10 -145									
13C-PCB-169	63.4	10 -145									

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: GW_146					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-03	Date Received:	29-Jun-2017 9:59	Date Extracted: 30-Jun-2017 7:22	Date Analyzed : 19-Jul-17 13:05 Column: ZB-1
Project:	Stiller Pond	Sample Size:	1.02 L	QC Batch:	B7F0131				
Date Collected:	28-Jun-2017 10:40								
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	9.40				PCB-44	3.17			J, B
PCB-2	0.864			J	PCB-45	ND		0.724	
PCB-3	3.93			J	PCB-46	0.309			J
PCB-4/10	11.3				PCB-47	4.15			J, B
PCB-5/8	27.9				PCB-48/75	ND		0.727	
PCB-6	5.06				PCB-50	ND	0.195		
PCB-7/9	ND	0.467			PCB-51	0.891			J
PCB-11	13.9			B	PCB-52/69	2.94			J, B
PCB-12/13	ND	0.473			PCB-53	ND		0.615	
PCB-14	ND	0.397			PCB-54	ND	0.160		
PCB-15	5.52				PCB-55	ND	0.131		
PCB-16/32	9.78			J	PCB-56/60	ND		0.893	
PCB-17	5.09				PCB-57	ND	0.133		
PCB-18	13.8				PCB-58	ND	0.127		
PCB-19	1.89			J	PCB-61/70	ND		1.60	
PCB-20/21/33	7.43			J, B	PCB-62	ND	0.148		
PCB-22	4.35			J	PCB-63	ND	0.128		
PCB-23	ND	0.195			PCB-65	ND	0.151		
PCB-24/27	1.02			J	PCB-66/76	ND		1.14	
PCB-25	1.17			J	PCB-67	ND	0.140		
PCB-26	1.74			J	PCB-68	ND		0.575	
PCB-28	9.41			B	PCB-73	ND	0.141		
PCB-29	ND	0.188			PCB-74	ND		0.616	
PCB-30	ND	0.0997			PCB-77	ND	0.142		
PCB-31	8.02			B	PCB-78	ND	0.143		
PCB-34	ND	0.190			PCB-79	ND	0.135		
PCB-35	ND	0.244			PCB-80	ND	0.120		
PCB-36	ND	0.229			PCB-81	ND	0.137		
PCB-37	1.55			J	PCB-82	ND	0.119		
PCB-38	ND	0.240			PCB-83	ND	0.0747		
PCB-39	ND	0.225			PCB-84/92	0.735			J
PCB-40	ND	0.220			PCB-85/116	ND	0.0903		
PCB-41/64/71/72	ND	2.12			PCB-86	ND	0.117		
PCB-42/59	1.06			J	PCB-87/117/125	ND		0.499	
PCB-43/49	1.99			J	PCB-88/91	0.339			J

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW_146**EPA Method 1668C**

Client Data					Sample Data					Laboratory Data				
Name:	Walla Walla Basin Watershed Council				Matrix:	Aqueous		Lab Sample:	1700798-03		Date Received:	29-Jun-2017 9:59		
Project:	Stiller Pond				Sample Size:	1.02 L		QC Batch:	B7F0131		Date Extracted:	30-Jun-2017 7:22		
Date Collected:	28-Jun-2017 10:40				Date Analyzed : 19-Jul-17 13:05 Column: ZB-1									
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	0.108			PCB-137	ND	0.113			PCB-138/163/164	1.17			J
PCB-90/101	1.50			J	PCB-139/149	ND				PCB-140	ND	0.0744		
PCB-93	ND	0.115			PCB-141	ND	0.116			PCB-142	ND	0.126		
PCB-94	ND	0.106			PCB-144	ND	0.0666			PCB-145	ND	0.0587		
PCB-95/98/102	1.10			J	PCB-146/165	ND		0.208		PCB-147	ND	0.0763		
PCB-96	ND	0.0828			PCB-148	ND	0.0741			PCB-150	ND	0.0561		
PCB-97	ND		0.426		PCB-151	ND	0.0711			PCB-152	ND	0.0554		
PCB-99	0.675			J	PCB-153	0.866				PCB-154	ND	0.0702		J
PCB-100	ND	0.0915			PCB-155	ND	0.0536			PCB-156	ND	0.0806		
PCB-103	ND	0.0909			PCB-157	ND	0.0802			PCB-158/160	ND	0.0873		
PCB-104	ND	0.0742			PCB-159	ND	0.0848			PCB-166	ND	0.0939		
PCB-105	0.645			J	PCB-167	ND	0.0811			PCB-168	ND	0.0811		
PCB-106/118	1.06			J	PCB-169	ND	0.0970			PCB-169	ND	0.0970		
PCB-107/109	ND	0.0692			PCB-170	ND	0.0954			PCB-170	ND	0.0954		
PCB-108/112	ND	0.0873			PCB-171	ND	0.0899			PCB-171	ND	0.0899		
PCB-110	1.55			J, B	PCB-172	ND	0.0938			PCB-172	ND	0.0938		
PCB-111/115	0.359			J	PCB-173	ND	0.110			PCB-173	ND	0.110		
PCB-113	ND	0.0857			PCB-174	ND	0.104			PCB-174	ND	0.104		
PCB-114	ND	0.144			PCB-175	ND	0.0915			PCB-175	ND	0.0915		
PCB-119	ND	0.0675			PCB-176	ND	0.0669			PCB-176	ND	0.0669		
PCB-120	ND	0.0679			PCB-177	ND	0.0999			PCB-177	ND	0.0999		
PCB-121	ND	0.0716			PCB-178	ND	0.0934			PCB-178	ND	0.0934		
PCB-122	ND	0.159			PCB-179	ND	0.0726			PCB-179	ND	0.0726		
PCB-123	ND	0.0699												
PCB-124	ND	0.0709												
PCB-126	ND	0.165												
PCB-127	ND	0.162												
PCB-128/162	ND	0.0999												
PCB-129	ND	0.126												
PCB-130	ND	0.126												
PCB-131/133	ND	0.123												
PCB-132/161	ND		0.211											
PCB-134/143	ND	0.124												
PCB-135	ND	0.0740												
PCB-136	ND		0.236											

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

Appendix B - Page 189

Sample ID: GW_146					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-03	Date Received:	29-Jun-2017 9:59		
Project:	Stiller Pond	Sample Size:	1.02 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22		
Date Collected:	28-Jun-2017 10:40	Date Analyzed : 19-Jul-17 13:05 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND		0.688		Total octaCB	0.537			
PCB-181	ND	0.0915			Total nonaCB	ND	0.149		
PCB-182/187	0.399			J	DecaCB	ND	0.129		
PCB-183	ND	0.0793			Total PCB	169			
PCB-184	ND	0.0762							
PCB-185	ND	0.0932							
PCB-186	ND	0.0699							
PCB-188	ND	0.0705							
PCB-189	ND	0.0704							
PCB-190	ND	0.0717							
PCB-191	ND	0.0707							
PCB-192	ND	0.0766							
PCB-193	ND	0.0721							
PCB-194	0.537			J, B					
PCB-195	ND	0.103							
PCB-196/203	ND	0.0590							
PCB-197	ND	0.0421							
PCB-198	ND	0.0635							
PCB-199	ND	0.0617							
PCB-200	ND	0.0481							
PCB-201	ND	0.0453							
PCB-202	ND	0.0491							
PCB-204	ND	0.0490							
PCB-205	ND	0.0818							
PCB-206	ND	0.149							
PCB-207	ND	0.0634							
PCB-208	ND	0.0643							
PCB-209	ND	0.129							
Total monoCB	14.2								
Total diCB	63.7								
Total triCB	65.2								
Total tetraCB	14.5	23.5							
Total pentaCB	7.95	8.88							
Total hexaCB	2.03	3.57							
Total heptaCB	0.399	1.09							

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW_146**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data							
Name:		Walla Walla Basin Watershed Council		Matrix:		Aqueous		Lab Sample:		1700798-03		Date Received:		29-Jun-2017 9:59	
Project:		Stiller Pond		Sample Size:		1.02 L		QC Batch:		B7F0131		Date Extracted:		30-Jun-2017 7:22	
Date Collected:		28-Jun-2017 10:40						Date Analyzed :		19-Jul-17 13:05 Column: ZB-1					
Labeled Standard		%R	LCL-UCL	Qualifiers		Labeled Standard		%R	LCL-UCL	Qualifiers					
IS	13C-PCB-1	89.7	5 -145			13C-PCB-170		91.4	10 -145						
	13C-PCB-3	98.1	5 -145			13C-PCB-180		91.9	10 -145						
	13C-PCB-4	71.1	5 -145			13C-PCB-188		92.0	10 -145						
	13C-PCB-11	73.4	5 -145			13C-PCB-189		83.1	10 -145						
	13C-PCB-9	72.0	5 -145			13C-PCB-194		92.9	10 -145						
	13C-PCB-19	116	5 -145			13C-PCB-202		85.1	10 -145						
	13C-PCB-28	87.0	5 -145			13C-PCB-206		121	10 -145						
	13C-PCB-32	126	5 -145			13C-PCB-208		139	10 -145						
	13C-PCB-37	80.4	5 -145			13C-PCB-209		135	10 -145						
	13C-PCB-47	94.7	5 -145			CRS	13C-PCB-79	99.1	10 -145						
	13C-PCB-52	96.5	5 -145				13C-PCB-178	105	10 -145						
	13C-PCB-54	90.4	5 -145												
	13C-PCB-70	94.6	5 -145												
	13C-PCB-77	92.0	10 -145												
	13C-PCB-80	92.8	10 -145												
	13C-PCB-81	90.6	10 -145												
	13C-PCB-95	89.2	10 -145												
	13C-PCB-97	89.3	10 -145												
	13C-PCB-101	88.9	10 -145												
	13C-PCB-104	89.1	10 -145												
	13C-PCB-105	52.0	10 -145												
	13C-PCB-114	51.8	10 -145												
	13C-PCB-118	93.5	10 -145												
	13C-PCB-123	94.0	10 -145												
	13C-PCB-126	51.6	10 -145												
	13C-PCB-127	52.5	10 -145												
	13C-PCB-138	91.5	10 -145												
	13C-PCB-141	90.3	10 -145												
	13C-PCB-153	91.8	10 -145												
	13C-PCB-155	89.6	10 -145												
	13C-PCB-156	95.9	10 -145												
	13C-PCB-157	97.2	10 -145												
	13C-PCB-159	90.8	10 -145												
	13C-PCB-167	94.7	10 -145												
	13C-PCB-169	97.6	10 -145												

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: GW_147**EPA Method 1668C**

Client Data					Sample Data					Laboratory Data							
Name:	Walla Walla Basin Watershed Council				Matrix:	Aqueous				Lab Sample:	1700798-04				Date Received:	29-Jun-2017 9:59	
Project:	Stiller Pond				Sample Size:	1.01 L				QC Batch:	B7F0131				Date Extracted:	30-Jun-2017 7:22	
Date Collected:	28-Jun-2017 10:10				Date Analyzed : 19-Jul-17 14:07 Column: ZB-1												
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers			
PCB-1	9.52				PCB-44	2.96				PCB-45	0.821			J, B			
PCB-2	0.845			J	PCB-46	ND				PCB-47	ND			0.339			
PCB-3	3.56			J	PCB-48/75	0.849				PCB-49	ND			2.28			
PCB-4/10	13.4				PCB-50	ND				PCB-50	ND			0.151			
PCB-5/8	25.1				PCB-51	ND				PCB-52/69	3.16			0.679			
PCB-6	4.15			J	PCB-53	ND				PCB-54	ND			J, B			
PCB-7/9	ND	0.592		B	PCB-55	ND				PCB-55	ND			0.618			
PCB-11	11.9				PCB-56/60	ND				PCB-56/60	ND			1.08			
PCB-12/13	ND	0.600			PCB-57	ND				PCB-57	ND			0.104			
PCB-14	ND	0.504			PCB-58	ND				PCB-58	ND			0.0998			
PCB-15	7.23				PCB-61/70	1.61				PCB-59	ND			J			
PCB-16/32	13.5				PCB-62	ND				PCB-62	ND			0.118			
PCB-17	7.07				PCB-63	ND				PCB-63	ND			0.100			
PCB-18	17.2				PCB-65	ND				PCB-65	ND			0.120			
PCB-19	2.18			J	PCB-66/76	1.65				PCB-66/76	ND			J			
PCB-20/21/33	10.6			J, B	PCB-67	ND				PCB-67	ND			0.110			
PCB-22	5.52				PCB-68	0.253				PCB-68	ND			J			
PCB-23	ND	0.176			PCB-73	ND				PCB-73	ND			0.109			
PCB-24/27	1.53			J	PCB-74	ND				PCB-74	ND			0.619			
PCB-25	1.32			J	PCB-77	ND				PCB-77	ND			0.113			
PCB-26	ND	2.56			PCB-78	ND				PCB-78	ND			0.111			
PCB-28	11.4			B	PCB-79	ND				PCB-79	ND			0.104			
PCB-29	ND	0.169			PCB-80	ND				PCB-80	ND			0.0933			
PCB-30	ND	0.104			PCB-81	ND				PCB-81	ND			0.107			
PCB-31	11.6			B	PCB-82	ND				PCB-82	ND			0.145			
PCB-34	ND	0.171			PCB-83	ND				PCB-83	ND			0.0929			
PCB-35	ND	0.207			PCB-84/92	0.583				PCB-84/92	ND			J			
PCB-36	ND	0.194			PCB-85/116	ND				PCB-85/116	ND			0.112			
PCB-37	1.75			J	PCB-86	ND				PCB-86	ND			0.145			
PCB-38	ND	0.204			PCB-87/117/125	ND				PCB-87/117/125	ND			0.527			
PCB-39	ND	0.190			PCB-88/91	ND				PCB-88/91	ND			0.123			
PCB-40	ND	0.581															
PCB-41/64/71/72	2.78			J													
PCB-42/59	ND	0.778															
PCB-43/49	ND	1.74															

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW_147					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-04	Date Received:	29-Jun-2017 9:59		
Project:	Stiller Pond	Sample Size:	1.01 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22		
Date Collected:	28-Jun-2017 10:10	Date Analyzed : 19-Jul-17 14:07 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	0.127			PCB-137	ND	0.100		
PCB-90/101	ND		1.09		PCB-138/163/164	ND		0.741	
PCB-93	ND	0.136			PCB-139/149	0.879			J
PCB-94	ND	0.126			PCB-140	ND	0.105		
PCB-95/98/102	1.21			J	PCB-141	ND	0.102		
PCB-96	ND	0.102			PCB-142	ND	0.112		
PCB-97	ND		0.290		PCB-144	ND	0.0939		
PCB-99	ND		0.404		PCB-145	ND	0.0827		
PCB-100	ND	0.112			PCB-146/165	ND	0.0896		
PCB-103	ND	0.112			PCB-147	ND	0.108		
PCB-104	ND	0.0912			PCB-148	ND	0.104		
PCB-105	0.350			J	PCB-150	ND	0.0790		
PCB-106/118	0.950			J	PCB-151	0.346			J
PCB-107/109	ND	0.0841			PCB-152	ND	0.0781		
PCB-108/112	ND	0.109			PCB-153	0.839			J
PCB-110	1.23			J, B	PCB-154	ND	0.0989		
PCB-111/115	ND		0.293		PCB-155	ND	0.0755		
PCB-113	ND	0.101			PCB-156	ND	0.0845		
PCB-114	ND	0.127			PCB-157	ND	0.0844		
PCB-119	ND	0.0839			PCB-158/160	ND	0.0805		
PCB-120	ND	0.0845			PCB-159	ND	0.0791		
PCB-121	ND	0.0848			PCB-166	ND	0.0876		
PCB-122	ND	0.140			PCB-167	ND	0.0811		
PCB-123	ND	0.0850			PCB-168	ND	0.0719		
PCB-124	ND	0.0861			PCB-169	ND	0.105		
PCB-126	ND	0.160			PCB-170	ND	0.0903		
PCB-127	ND	0.141			PCB-171	ND	0.0865		
PCB-128/162	ND	0.0932			PCB-172	ND	0.0903		
PCB-129	ND	0.116			PCB-173	ND	0.106		
PCB-130	ND	0.112			PCB-174	ND	0.100		
PCB-131/133	ND	0.109			PCB-175	ND	0.0807		
PCB-132/161	ND	0.0902			PCB-176	ND	0.0590		
PCB-134/143	ND	0.110			PCB-177	ND	0.0961		
PCB-135	ND	0.104			PCB-178	ND	0.0824		
PCB-136	ND	0.0762			PCB-179	ND	0.0641		

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

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Sample ID: GW_147					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-04	Date Received:	29-Jun-2017 9:59		
Project:	Stiller Pond	Sample Size:	1.01 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22		
Date Collected:	28-Jun-2017 10:10	Date Analyzed : 19-Jul-17 14:07 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	ND	0.0870			Total octaCB	0.196			
PCB-181	ND	0.0881			Total nonaCB	ND	0.206		
PCB-182/187	ND		0.415		DecaCB	ND	0.126		
PCB-183	ND	0.0700			Total PCB	180			
PCB-184	ND	0.0673							
PCB-185	ND	0.0897							
PCB-186	ND	0.0617							
PCB-188	ND	0.0622							
PCB-189	ND	0.0674							
PCB-190	ND	0.0678							
PCB-191	ND	0.0681							
PCB-192	ND	0.0737							
PCB-193	ND	0.0694							
PCB-194	ND	0.195							
PCB-195	ND	0.217							
PCB-196/203	0.196			J					
PCB-197	ND	0.0733							
PCB-198	ND	0.111							
PCB-199	ND	0.107							
PCB-200	ND	0.0838							
PCB-201	ND	0.0789							
PCB-202	ND	0.0855							
PCB-204	ND	0.0853							
PCB-205	ND	0.171							
PCB-206	ND	0.206							
PCB-207	ND	0.0968							
PCB-208	ND	0.0982							
PCB-209	ND	0.126							
Total monoCB	13.9								
Total diCB	61.8								
Total triCB	83.7	86.2							
Total tetraCB	14.1	22.8							
Total pentaCB	4.32	6.93							
Total hexaCB	2.06	2.81							
Total heptaCB	ND	0.415							

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

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Sample ID: GW_147**EPA Method 1668C**

Client Data				Sample Data				Laboratory Data			
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-04	Date Received:	29-Jun-2017 9:59				
Project:	Stiller Pond	Sample Size:	1.01 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22				
Date Collected:	28-Jun-2017 10:10	Date Analyzed : 19-Jul-17 14:07 Column: ZB-1									
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers				
IS 13C-PCB-1	73.8	5 -145		13C-PCB-170	88.9	10 -145					
13C-PCB-3	80.2	5 -145		13C-PCB-180	90.1	10 -145					
13C-PCB-4	50.7	5 -145		13C-PCB-188	94.7	10 -145					
13C-PCB-11	70.3	5 -145		13C-PCB-189	83.6	10 -145					
13C-PCB-9	51.3	5 -145		13C-PCB-194	93.3	10 -145					
13C-PCB-19	108	5 -145		13C-PCB-202	84.5	10 -145					
13C-PCB-28	76.7	5 -145		13C-PCB-206	147	10 -145	H				
13C-PCB-32	126	5 -145		13C-PCB-208	155	10 -145	H				
13C-PCB-37	76.4	5 -145		13C-PCB-209	199	10 -145	H				
13C-PCB-47	93.7	5 -145		CRS 13C-PCB-79	95.5	10 -145					
13C-PCB-52	96.1	5 -145		13C-PCB-178	106	10 -145					
13C-PCB-54	86.4	5 -145									
13C-PCB-70	92.1	5 -145									
13C-PCB-77	85.7	10 -145									
13C-PCB-80	88.4	10 -145									
13C-PCB-81	87.0	10 -145									
13C-PCB-95	91.6	10 -145									
13C-PCB-97	92.9	10 -145									
13C-PCB-101	92.5	10 -145									
13C-PCB-104	88.2	10 -145									
13C-PCB-105	58.2	10 -145									
13C-PCB-114	58.6	10 -145									
13C-PCB-118	92.2	10 -145									
13C-PCB-123	93.3	10 -145									
13C-PCB-126	53.9	10 -145									
13C-PCB-127	57.1	10 -145									
13C-PCB-138	95.1	10 -145									
13C-PCB-141	96.4	10 -145									
13C-PCB-153	97.3	10 -145									
13C-PCB-155	85.9	10 -145									
13C-PCB-156	89.1	10 -145									
13C-PCB-157	91.7	10 -145									
13C-PCB-159	92.2	10 -145									
13C-PCB-167	93.3	10 -145									
13C-PCB-169	86.6	10 -145									

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

Sample ID: INTAKE					EPA Method 1668C				
Client Data			Sample Data		Laboratory Data				
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-05	Date Received:	29-Jun-2017 9:59		
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22		
Date Collected:	28-Jun-2017 11:50	Date Analyzed :		19-Jul-17 15:08	Column:	ZB-1			
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-1	ND	0.413			PCB-44	ND		2.35	
PCB-2	ND	0.347			PCB-45	ND		0.420	
PCB-3	5.22				PCB-46	ND		0.335	
PCB-4/10	ND	2.43			PCB-47	3.26			J, B
PCB-5/8	ND	1.64			PCB-48/75	0.484			J
PCB-6	ND	1.67			PCB-50	ND		0.300	
PCB-7/9	ND	1.65			PCB-51	ND		0.922	
PCB-11	12.0			B	PCB-52/69	3.37			J, B
PCB-12/13	ND	1.67			PCB-53	ND		0.344	
PCB-14	ND	1.40			PCB-54	ND		0.245	
PCB-15	ND	1.43			PCB-55	ND		0.219	
PCB-16/32	2.20			J	PCB-56/60	ND		1.36	
PCB-17	1.34			J	PCB-57	ND		0.230	
PCB-18	3.54			J	PCB-58	ND		0.220	
PCB-19	ND	0.388			PCB-61/70	3.18			J, B
PCB-20/21/33	1.80			J, B	PCB-62	ND		0.242	
PCB-22	ND		1.41		PCB-63	ND		0.221	
PCB-23	ND	0.403			PCB-65	ND		0.247	
PCB-24/27	ND	0.233			PCB-66/76	ND		1.99	
PCB-25	ND	0.435			PCB-67	ND		0.243	
PCB-26	ND	0.402			PCB-68	ND		0.204	
PCB-28	3.07			J, B	PCB-73	ND		0.229	
PCB-29	ND	0.389			PCB-74	ND		0.673	
PCB-30	ND	0.251			PCB-77	ND		0.266	
PCB-31	2.74			J, B	PCB-78	ND		0.267	
PCB-34	ND	0.393			PCB-79	ND		0.225	
PCB-35	ND	0.567			PCB-80	ND		0.202	
PCB-36	ND	0.531			PCB-81	ND		0.257	
PCB-37	ND		0.978		PCB-82	ND		0.375	
PCB-38	ND	0.558			PCB-83	ND		0.214	
PCB-39	ND	0.522			PCB-84/92	ND		1.78	
PCB-40	ND	0.359			PCB-85/116	ND		0.258	
PCB-41/64/71/72	2.06			J	PCB-86	ND		0.333	
PCB-42/59	ND		0.725		PCB-87/117/125	1.79			J
PCB-43/49	ND		1.69		PCB-88/91	0.821			J

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

Appendix B - Page 196

Sample ID: INTAKE					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-05	Date Received:	29-Jun-2017 9:59	Date Extracted: 30-Jun-2017 7:22	Date Analyzed : 19-Jul-17 15:08 Column: ZB-1
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7F0131				
Date Collected:	28-Jun-2017 11:50								
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-89	ND	0.308			PCB-137	ND	0.371		
PCB-90/101	ND		3.62		PCB-138/163/164	4.50			J
PCB-93	ND	0.312			PCB-139/149	3.99			J
PCB-94	ND	0.287			PCB-140	ND	0.193		
PCB-95/98/102	4.29			J	PCB-141	1.06			J
PCB-96	ND	0.219			PCB-142	ND	0.420		
PCB-97	1.22			J	PCB-144	ND	0.173		
PCB-99	2.80			J	PCB-145	ND	0.152		
PCB-100	ND	0.242			PCB-146/165	ND		0.726	
PCB-103	ND	0.240			PCB-147	ND	0.198		
PCB-104	ND	0.196			PCB-148	ND	0.192		
PCB-105	1.41			J	PCB-150	ND	0.145		
PCB-106/118	4.21			J	PCB-151	ND		0.949	
PCB-107/109	ND	0.217			PCB-152	ND	0.144		
PCB-108/112	ND	0.250			PCB-153	ND		3.95	
PCB-110	5.40			B	PCB-154	ND	0.182		
PCB-111/115	ND		0.898		PCB-155	ND	0.139		
PCB-113	ND	0.244			PCB-156	ND	0.354		
PCB-114	ND	0.353			PCB-157	ND	0.354		
PCB-119	ND	0.193			PCB-158/160	ND	0.301		
PCB-120	ND	0.194			PCB-159	ND	0.321		
PCB-121	ND	0.194			PCB-166	ND	0.356		
PCB-122	ND	0.391			PCB-167	ND	0.330		
PCB-123	ND	0.220			PCB-168	ND	0.270		
PCB-124	ND	0.223			PCB-169	ND	0.506		
PCB-126	ND	0.512			PCB-170	ND	0.329		
PCB-127	ND	0.418			PCB-171	ND	0.307		
PCB-128/162	ND	0.378			PCB-172	0.632			J
PCB-129	ND	0.435			PCB-173	ND	0.377		
PCB-130	ND	0.414			PCB-174	ND	0.357		
PCB-131/133	ND	0.410			PCB-175	ND	0.243		
PCB-132/161	1.26			J	PCB-176	ND	0.178		
PCB-134/143	ND	0.412			PCB-177	ND	0.341		
PCB-135	0.623			J	PCB-178	ND	0.248		
PCB-136	ND	0.140			PCB-179	0.792			J

DL - Sample specific estimated detection limit

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See individual congeners for qualifiers.

EMPC - Estimated maximum possible concentration

Appendix B - Page 197

Sample ID: INTAKE					EPA Method 1668C				
Client Data		Sample Data		Laboratory Data					
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-05	Date Received:	29-Jun-2017 9:59		
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22		
Date Collected:	28-Jun-2017 11:50	Date Analyzed : 19-Jul-17 15:08 Column: ZB-1							
Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers	Analyte	Conc. (pg/L)	DL	EMPC	Qualifiers
PCB-180	3.44			J	Total octaCB	2.30			
PCB-181	ND	0.313			Total nonaCB	ND		0.471	
PCB-182/187	ND		1.57		DecaCB	ND		0.529	
PCB-183	0.801			J	Total PCB	85.6			
PCB-184	ND	0.202							
PCB-185	ND	0.318							
PCB-186	ND	0.186							
PCB-188	ND	0.187							
PCB-189	ND	0.265							
PCB-190	ND	0.247							
PCB-191	ND	0.242							
PCB-192	ND	0.262							
PCB-193	ND	0.246							
PCB-194	ND	0.568							
PCB-195	ND	0.633							
PCB-196/203	1.09			J					
PCB-197	ND	0.146							
PCB-198	ND	0.221							
PCB-199	1.21			J					
PCB-200	ND	0.167							
PCB-201	ND	0.158							
PCB-202	ND	0.171							
PCB-204	ND	0.170							
PCB-205	ND	0.500							
PCB-206	ND	0.641							
PCB-207	ND	0.302							
PCB-208	ND		0.471						
PCB-209	ND	0.529							
Total monoCB	5.22								
Total diCB	12.0								
Total triCB	14.7		17.1						
Total tetraCB	12.4		22.8						
Total pentaCB	22.0		28.3						
Total hexaCB	11.4		17.1						
Total heptaCB	5.66		7.24						

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

EMPC - Estimated maximum possible concentration

See individual congeners for qualifiers.

Appendix B - Page 198

Sample ID: INTAKE					EPA Method 1668C			
Client Data		Sample Data		Laboratory Data				
Name:	Walla Walla Basin Watershed Council	Matrix:	Aqueous	Lab Sample:	1700798-05	Date Received:	29-Jun-2017 9:59	
Project:	Stiller Pond	Sample Size:	1.00 L	QC Batch:	B7F0131	Date Extracted:	30-Jun-2017 7:22	
Date Collected:	28-Jun-2017 11:50			Date Analyzed :	19-Jul-17 15:08	Column:	ZB-1	
Labeled Standard	%R	LCL-UCL	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers	
IS 13C-PCB-1	72.5	5 -145		13C-PCB-170	65.9	10 -145		
13C-PCB-3	83.5	5 -145		13C-PCB-180	68.2	10 -145		
13C-PCB-4	58.4	5 -145		13C-PCB-188	86.9	10 -145		
13C-PCB-11	68.3	5 -145		13C-PCB-189	56.1	10 -145		
13C-PCB-9	62.2	5 -145		13C-PCB-194	78.4	10 -145		
13C-PCB-19	116	5 -145		13C-PCB-202	76.1	10 -145		
13C-PCB-28	62.8	5 -145		13C-PCB-206	137	10 -145		
13C-PCB-32	124	5 -145		13C-PCB-208	140	10 -145		
13C-PCB-37	60.0	5 -145		13C-PCB-209	179	10 -145	H	
13C-PCB-47	79.1	5 -145		CRS 13C-PCB-79	77.0	10 -145		
13C-PCB-52	81.3	5 -145		13C-PCB-178	98.6	10 -145		
13C-PCB-54	81.7	5 -145						
13C-PCB-70	76.6	5 -145						
13C-PCB-77	70.3	10 -145						
13C-PCB-80	75.0	10 -145						
13C-PCB-81	68.3	10 -145						
13C-PCB-95	82.5	10 -145						
13C-PCB-97	79.7	10 -145						
13C-PCB-101	79.6	10 -145						
13C-PCB-104	85.2	10 -145						
13C-PCB-105	47.9	10 -145						
13C-PCB-114	48.5	10 -145						
13C-PCB-118	75.7	10 -145						
13C-PCB-123	76.6	10 -145						
13C-PCB-126	40.7	10 -145						
13C-PCB-127	45.1	10 -145						
13C-PCB-138	83.5	10 -145						
13C-PCB-141	84.9	10 -145						
13C-PCB-153	86.0	10 -145						
13C-PCB-155	88.2	10 -145						
13C-PCB-156	69.6	10 -145						
13C-PCB-157	72.5	10 -145						
13C-PCB-159	74.3	10 -145						
13C-PCB-167	72.4	10 -145						
13C-PCB-169	58.9	10 -145						

DL - Sample specific estimated detection limit

LCL-UCL- Lower control limit - upper control limit

See individual congeners for qualifiers.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The associated compound concentration exceeded the calibration range of the instrument.
H	Recovery and/or RPD was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Reporting Limit/LOQ.
M	Estimated Maximum Possible Concentration. (CA Region 2 projects only)
*	See Cover Letter
Conc.	Concentration
NA	Not applicable
ND	Not Detected
TEQ	Toxic Equivalency

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
Arkansas Department of Environmental Quality	17-015-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-18
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2016026
Minnesota Department of Health	1175673
Nevada Division of Environmental Protection	CA004132017-1
New Hampshire Environmental Accreditation Program	207716
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	013
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	8621
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B

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Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenz-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A



CHAIN OF CUSTODY

Walla Walla Basin Aquifer Recharge Annual Report Water Year 2017

FOR LABORATORY USE ONLY

Storage
SecuredYes No Storage ID WL2 Temp 1.3 °CProject I.D.: STILLER POND P.O.# _____ Sampler: STEVEN PATTEN
(Name)

TAT: (Check One):

Standard: 21 Days

Rush (surcharge may apply):

 14 days 7 days Specify: _____

Invoice to: Name <u>CHRIS STEETS</u>	Company <u>WWSL</u>	Address <u>810 S. MAIN, MILLION-FREEWATER</u>	City <u>OR</u>	State <u>97862</u>	Zip <u></u>	Ph# <u>541-938-2170</u>	Fax# <u></u>
Relinquished by: (Signature and Printed Name) <u>STEVEN PATTEN</u>	Date: <u>6-28-17</u>	Time: <u>12:30</u>	Received by: (Signature and Printed Name) <u>UPS</u>			Date: <u>6-28-17</u>	Time: <u>12:30</u>
Relinquished by: (Signature and Printed Name) <u>UPS</u>	Date: <u></u>	Time: <u></u>	Received by: (Signature and Printed Name) <u>Marissa Sparks</u>			Date: <u>6/29/17</u>	Time: <u>1005</u>

See "Sample Log-in Checklist" for additional sample information

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 • Fax (916) 673-0106

ATTN: _____

Method of Shipment:
UPS

Tracking No.: _____

Add Analysis(es) Requested

Container(s)

Quantity
Type

Matrix

2378-TCDD

PCDD/TCDF

2378-TCDF

PCDD/PCDF

2378-TCDF

PCDD/PCDF

2378-TCDF

PCDD/PCDF

TOTALS

COPLANAR PCB's

209 CONGENEKS

PBDE

PAH

WHO-29

CARB429

Sample ID	Date	Time	Location/Sample Description
GW-136	6-28-17	11:10	STILLER POND
GW-145		11:30	
GW-146		10:40	
GW-147		10:10	
INTAKE	↓	11:50	↓

Special Instructions/Comments: _____

SEND
DOCUMENTATION
AND RESULTS TO:Name: STEVEN PATTENCompany: WWSLAddress: 810 S. MAINCity: MILLION-FREEWATER State: OR Zip: 97862Phone: 541-938-2170 Fax: _____Email: steven.patten@wwsl.org

Matrix Types: DW = Drinking Water, EF = Effluent, PP = Pulp/Paper,

SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum

AQ = Aqueous, O = Other _____

Appendix B - Page 204

Container Types: A = 1 Liter Amber, G = Glass Jar
P = PUF, T = MM5 Train, O = Other _____*Bottle Preservative Type: T = Thiosulfate,
O = Other _____

WHITE - ORIGINAL

YELLOW - ARCHIVE

PINK - COPY

Sample Log-in Checklist

Vista Work Order #:

1700798

TAT

83d

Samples Arrival:	Date/Time 6/29/17 0959		Initials: WNS		Location: WR-2 Shelf/Rack: N/A		
Logged In:	Date/Time 06/29/17 1510		Initials: JASB		Location: WR-2 Shelf/Rack: A 3		
Delivered By:	FedEx	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	Ice		Blue Ice		Dry Ice		None
Temp °C:	1.7	(uncorrected)	Time:	1002	Thermometer ID: IR-2		
Temp °C:	1.3	(corrected)	Probe used:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			

	YES	NO	NA			
Adequate Sample Volume Received?	✓					
Holding Time Acceptable?	✓					
Shipping Container(s) Intact?	✓					
Shipping Custody Seals Intact?	✓					
Shipping Documentation Present?	✓					
Airbill	Trk # 1Z 62E 3F7 01 0800 0830	✓				
Sample Container Intact?	✓					
Sample Custody Seals Intact?		✓				
Chain of Custody / Sample Documentation Present?	✓					
COC Anomaly/Sample Acceptance Form completed?		✓	✓			
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓			
Preservation Documented:	Na ₂ S ₂ O ₃	Trizma	None	Yes	No	NA
Shipping Container	Vista	Client	Retain	Return	Dispose	

Comments:

APPENDIX C - WALLA WALLA BASIN AQUIFER RECHARGE WATER QUALITY AND WATER LEVEL MONITORING QUALITY ASSURANCE PROJECT PLAN

http://www.wwbwc.org/images/Projects/AR/Reports/QAPP_1.3_WA.pdf