Environmental Protection Department
Water Guidance and Monitoring Division

UCRL-AR-10191-07-4

Lawrence Livermore National Laboratory Experimental Test Site 300

Compliance Monitoring Program for RCRA-Closed Landfill Pits 1 and 7

Annual Report 2007

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LLNL Experimental Test Site 300 Compliance Monitoring Program for RCRA-Closed Landfill Pits 1 and 7Annual Report 2007

Summary

This combined fourth quarter and annual report summarizes compliance activities performed during 2007 at two Lawrence Livermore National Laboratory (LLNL) Site 300 landfills known as Pits 1 and 7. These pits were closed in 1993 under the Resource Conservation and Recovery Act (RCRA). Compliance activities at the pits consist of ground water sampling and analysis, pit cap inspections, and reporting of analytical results. Ground water measurements for all quarters of 2007 are contained in **Appendix A, Tables A-1** to **A-4**.

No new releases of constituents of concern (COCs) to ground water from either Pit 1 or Pit 7 are evident in the fourth quarter monitoring data. During this quarter barium, tritium, and uranium were detected above their statistical limits (SLs) in some ground water samples. Background barium concentrations appear to be increasing in ground water monitoring wells both upgradient and downgradient of the pits. The data, therefore, do not provide evidence of a release of barium during 2007. The tritium detected in ground water by the network of Pit 1 monitoring wells is likely from a source at the Building 850 firing table. The primary sources of COCs detected in ground water samples collected from the Pit 7 monitoring network are the adjacent closed landfills known as Pits 3 and 5. Elevated downgradient uranium activities in ground water samples from the Pit 7 monitoring wells are likely a combined result of releases from Pits 3, 5, and 7 and natural sources in the rocks and sediments surrounding Pit 7. All required inspections and surveys of the Pit 1 and 7 caps were performed during 2007, demonstrating the continued functional and structural integrity of the caps, vegetative cover, and drainage structures.

Introduction

This 2007 annual report summarizes compliance monitoring results for two closed landfills known as Pit 1 and Pit 7 at the LLNL Experimental Test Site (Site 300). Site 300 is a 30.3 square kilometers (km^2) (11.8 square miles [mi^2]) site, located in the Altamont Hills approximately 10.5 km (6.5 mi) southwest of downtown Tracy, California (**Figure 1**). The landfills are located in the northern portion of the site (**Figure 2**). Closure of these unlined Class I waste management units was completed in December 1992. Site 300 is owned by the United States Department of Energy (DOE) and is operated by the Lawrence Livermore National Security, LLC.

Figure 1. Location of LLNL Site 300.

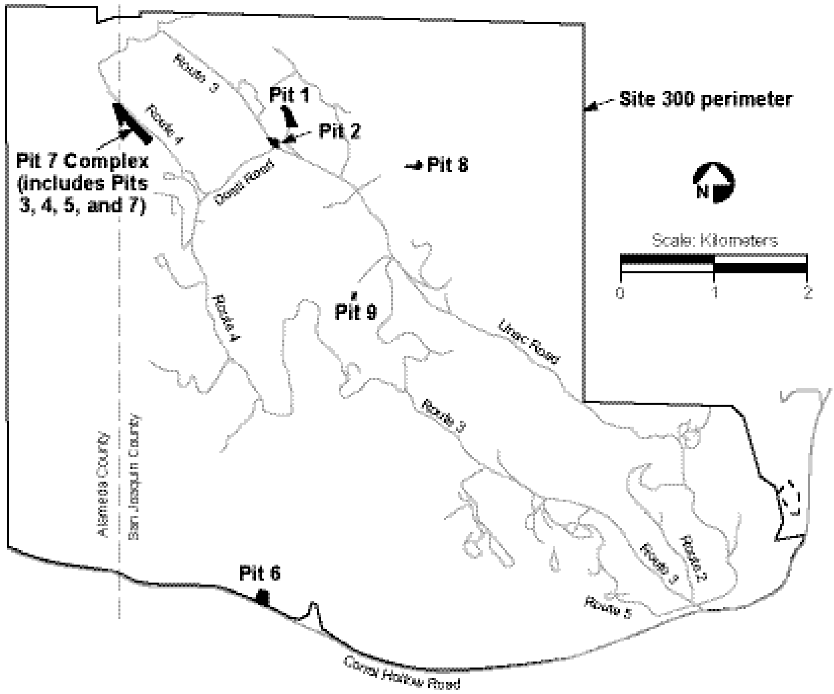

Figure 2. Locations of RCRA-closed landfill Pits 1 and 7 at LLNL Site 300.

Pit 1 is located in the Elk Ravine drainage area, about 300 meters (m) or 984 feet (ft) above mean sea level (MSL). Ground water generally flows in an east-northeast direction beneath Pit 1, following the inclination (dip) of underlying Miocene-age sedimentary rocks (Webster-Scholten, 1994).

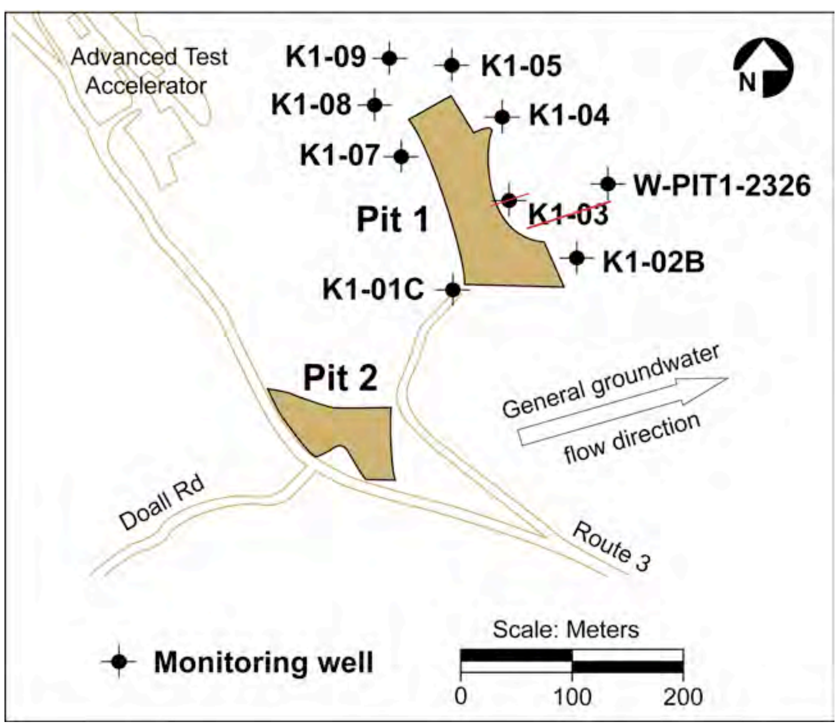

Figure 3. Locations of Pit 1 compliance monitoring wells.

Figure 3 shows the locations of the eight compliance monitoring wells that are used to sample the ground water in the vicinity of Pit 1. Wells K1-01C and K1-07 are hydrologically upgradient from Pit 1. Wells K1-02B, W-PIT1-2326, K1-04, and K1-05 are downgradient. Wells K1-08 and K1-09 are cross-gradient. The wells are screened in the uppermost water-bearing zone in the Neroly Formation lower blue sandstone unit ($Tnbs_1$). The Neroly Formation contains the main aquifer beneath Site 300. Pit 2, which was closed before RCRA was enacted, is hydrologically upgradient from Pit 1. In 1992, a 2.4 m (8 ft) thick RCRA cap, containing an impermeable layer of clay, 0.6 m (2 ft) thick, was constructed over Pit 1. The cap prevents rainwater from percolating through the waste buried in the pit. A water diversion channel was constructed around the pit cap to remove storm water runoff. The diversion channel empties into the adjacent arroyo, a head water of Elk Ravine.

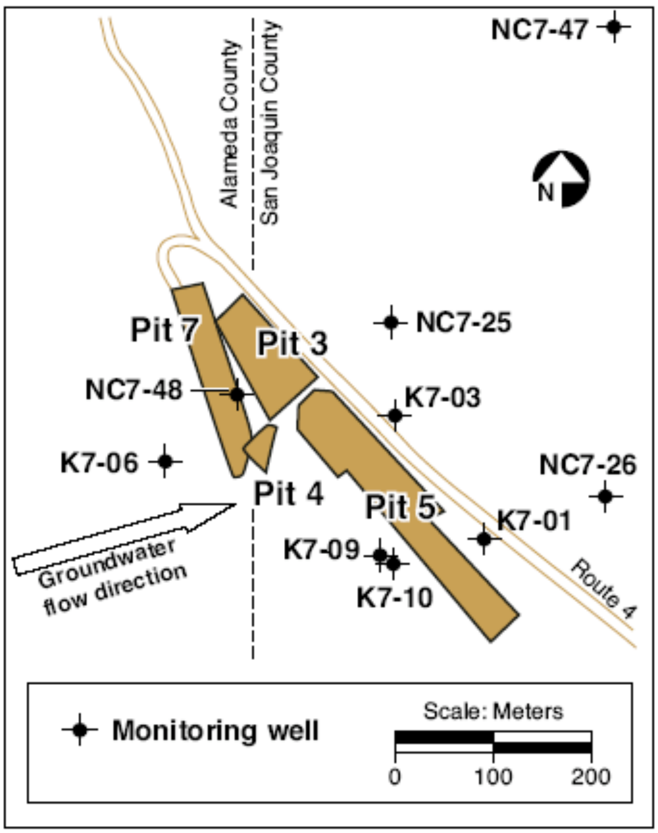

Figure 4. Locations of Pit 7 compliance monitoring wells.

Pit 7 is located in a valley 1.5 km (0.9 miles) west of Pit 1, at an elevation of about 400 m (1,312 ft) above mean sea level (MSL). The Pit 7 Complex comprises Pits 3, 4, 5, and 7. Pits 3, 4, and 5 ceased receiving waste before 1980, when RCRA was enacted. Ground water in bedrock flows 5 to 15 meters per year (m/yr) (16-49 ft/yr) in a generally east-northeast direction beneath the Pit 7 Complex, following the dip of the underlying Neroly Formation basal sandstone ($Tnbs_0$) (Webster-Scholten, 1994). With sufficient seasonal rainfall, unconfined ground water can rise from bedrock into the more permeable valley-fill alluvium on the northeast side of the Pit 7 Complex and flow southeastward at velocities of up to 40 m/yr (131 ft/yr). Surface water from the area may also flow southeastward towards Doall Ravine and quickly infiltrate into the sandy soils.

Figure 4 shows the locations of the nine compliance monitoring wells that are used to sample the ground water in the vicinity of Pit 7. Well K7-06 is hydrologically upgradient from Pit 7. Wells K7-01, K7-03, NC7-25, NC7-26, NC7-47, and NC7-48 are downgradient. Wells K7-09 and K7-10 are cross-gradient. Eight of the nine wells are screened in the Qal/weathered bedrock or $Tnbs_0$ water-bearing zones. Well K7-09 samples a deeper water-bearing zone within the Neroly Formation basal silty claystone unit ($Tnsc_0$).

In 1992, a RCRA cap, similar to the Pit 1 cap, was constructed over Pit 7. It, too, contains a layer of impermeable clay, 0.6 m (2 ft) thick, to prevent rain water infiltration. The RCRA cap also covers Pit 4 and about 30% of Pit 3. RCRA construction included surface water diversion channels around the cap and a shallow interflow interceptor trench on the west side (upgradient) of Pit 7. Some shallow recharge water is intercepted and diverted to lessen ground water rise into the unlined landfills.

Compliance Monitoring Program Overview

This report fulfills quarterly requirements set forth in the following two documents: (1.) *Waste Discharge Requirements Order 93-100* (WDR 93-100), and *Revised Programs No. 93-100 and 96-248*, administered by the California Central Valley Regional Water Quality Control Board (CVRWQCB) (CVRWQCB 1993 and 1998); and (2.) *LLNL Site 300 RCRA Closure and Post-Closure Plans, Landfill Pits 1 and 7* (Rogers/Pacific Corporation 1990). The post–closure plan (PCP) was approved by the California Department of Health Services. It is currently administered under a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Federal Facility Agreement, with oversight by the U.S. Environmental Protection Agency (EPA) Region 9, the California Environmental Protection Agency (Cal EPA) Department of Toxic Substances Control (DTSC), and the CVRWQCB.

The Compliance Monitoring Program for Pits 1 and 7 combines PCP and WDR 93-100 requirements. The combined requirements include quarterly ground water sampling and analyses to detect potential releases of COCs from landfills, quarterly and annual visual inspections, annual surveys of pit cap marker elevations, repairs as necessary to maintain the integrity of the landfills and their water-diversion systems, and quarterly and annual written reports of work performed.

Quality Assurance

To ensure quality data, we work within the established Quality Assurance (QA) program of the LLNL Environmental Protection Department (EPD). We use protocols and procedures that cover all aspects of ground water sampling, sample tracking, and data management. These written protocols and procedures are contained in the *LLNL Livermore Site and Site 300 Environmental Restoration Project Standard Operating Procedures (SOPs)* (Goodrich and Wimborough, 2006), the *Environmental Monitoring Plan* (Woods, 2002), and the *EPD Quality Assurance Management Plan* (Clark, 2006). SOPs are used to minimize inadvertent sample contamination and maintain sample integrity from the well to the analytical laboratory. Data management SOPs ensure that all laboratory measurements are received, accurately recorded, and properly stored both in a computer database and in hardcopy format.

Each quarter, a duplicate (collocated) set of ground water samples is collected from each monitoring network and a set of blank samples is prepared from a randomly chosen well. Results of quality assurance duplicate analyses are in **Appendix C**. In addition, equipment blanks are prepared and analyzed to ensure that sampling equipment is properly cleaned before use. Each day when samples are collected for volatile organic compound (VOC) analysis, a trip blank (prepared at the analytical laboratory) is carried into the field. It is returned unopened to the analytical laboratory for VOC analysis. If VOCs are detected in a trip blank and in any of the routine samples obtained that day, sample results may be discounted and new sampling may be performed.

As required by DOE Order 241.1, our measurements are reported in *Système Internationale* (SI) units. The SI unit for radioactivity is the becquerel (Bq), equal to 1 nuclear disintegration per second. The more commonly used unit, picocurie (pCi), is equal to 1 nuclear disintegration per 27 seconds. As a convenience, maximum contaminant levels (MCLs) for radioactivity in drinking water are given in both becquerels per liter (Bq/L) and picocuries per liter (pCi/L) in **Table 1** below. Note that MCLs are provided for reference only, because this report does not involve wells used for potable domestic, livestock, or industrial water supply.

Table 1. MCLs for radioactivity in drinking water.

Radiological parameter	**MCL** (Bq/L)	**MCL** (pCi/L)
Gross alpha	0.555	15
Gross beta	1.85	50
Tritium	740	20,000
Radium (total)	0.185	5
Uranium (total)	0.74	20

Description of Report Contents

The **Summary of Analytical Results** section reviews any COCs detected in ground water during 2007, with emphasis on the fourth quarter. COC measurements that exceeded SLs or MCLs in drinking water are discussed, as are all detections of organic COCs. COC source information is given where it is known from LLNL CERCLA studies.

Appendix A contains the ground water analytical measurements for 2007. Pit 1 data are in **Tables A-1** and **A-2**. Pit 7 data are in **Tables A-3** and **A-4**. Note that the **Appendix A** tables may include some small negative values for radioactivity measurements. These are below the method reporting limits (RLs) and are calculated values. They simply indicate that the radioactivity for that ground water sample is close to zero.

Appendix B explains the methods we use to determine the statistical limit of concentration (SL) for a COC. Requirements for statistical treatment of ground water data are established in the *California Code of Regulations* (CCR), Title 23, Division 3, Chapter 15, Section 2550.7. The statistical methods we use, prediction intervals (PI) and control charts (CC), are consistent with CCR requirements. If a routine quarterly COC measurement exceeds its SL and is confirmed by retesting, it is reported to the CVRWQCB as statistically significant evidence of a release. **Table B-1** lists the COCs for metals and radioisotopes that have exceeded SLs since Pits 1 and 7 were officially closed in February 1993. Under the Federal Facility Agreement, CERCLA Remedial Project Managers (RPMs) may direct LLNL to undertake further study of a COC that shows statistically significant evidence of a release to ground water. Additional studies covering the Pits 1 and 7 areas have been completed for barium, tritium, uranium, and vanadium (Taffet *et al*. 1996; 2005).

Appendix C contains the results for quality assurance (QA) sample analyses performed during all four quarters of 2007 at Pit 1 (**Table C-1**) and Pit 7 (**Table C-2**).

Appendix D consists of **Table D-1** summarizing COCs and the sampling frequencies in the monitoring networks for both pits. The regulatory drivers for each COC are also included in **Table D-1**.

Appendix E is the graphical presentation of the complete ground water monitoring data set collected for each monitoring well for all the COCs. Some of these graphs will be discussed in the **Summary of Analytical Results** section in relation to increasing trends in data values. Data values out of range of the Y-axis graph scales are listed in **Table E-1**.

Summary of Analytical Results

As mentioned in the last annual report, there are two continuing issues for the Pit 1 and 7 compliance program networks that will potentially impact monitoring into the next year. The major issue for 2008 at Pit 7 will be remediation activities by LLNL's Environmental Restoration Department. These activities will include pumping, treatment, and re-injection of ground water which are scheduled to commence at the Pit 7 Complex, following completion of construction of the ground water extraction and treatment system. This activity has the potential to alter hydrologic conditions and equilibrium background chemistry in the ground water in the vicinity of the monitoring wells. This potential change in background ground water chemistry may result in exceedance of the SLs that are not indicative of releases from the pit. LLNL Environmental Restoration Department has proposed an alternative detection monitoring program for Pit 7 in the *Draft Remedial Design for the Pit 7 Complex*.

The other issue is the sampling and development of SLs for the ground water monitoring well drilled to replace well K1-03. This issue was summarized in a letter to the CVRWQCB (Goodwin, 2007a) and the Regional Board responses (CVRWQCB, 2007a; CVRWQCB, 2007b). The replacement monitoring well, W- PIT1-2326, has been drilled and is in the final stages of being completed and initially sampled. Analytical results for well W-PIT1-2326 will be summarized in the quarterly report following initial sampling and analysis. Statistical limits for the COCs in ground water samples from this monitoring well will be determined after a sufficient number of samples have been taken. The sufficient number of samples to calculate the SLs will be selected based on discussion with the CVRWQCB.

No evidence of a new release of COCs from Pit 1 or Pit 7 is indicated by fourth quarter measurements. During the fourth quarter at Pit 1, tritium exceeded SLs in ground water samples (**Table A-1)**. As summarized in the previous reports, barium background concentrations appear to be increasing in the ground water around these wells (Campbell, 2006). This increase is also occurring in monitoring wells upgradient of Pit 1 and appears to be unrelated to any releases from the pit.

Tritium activities exceeded SLs in ground water samples from K1-04 (6.6 Bq/L [178 pCi/L], SL=3.7 Bq/L [100 pCi/L]); K1-05 (3.8 Bq/L [102 pCi/L], SL=3.7 Bq/L [100 pCi/L]); and K1-08 (4.2 Bq/L [114 pCi/L], SL=3.7 Bq/L [100 pCi/L]). The observed tritium activities likely result from a tritium plume that extends beneath Pit 1 from an upgradient source beneath the Building 850 firing table (Taffet *et al.,* 1996; Ziagos and Reber-Cox, 1998).

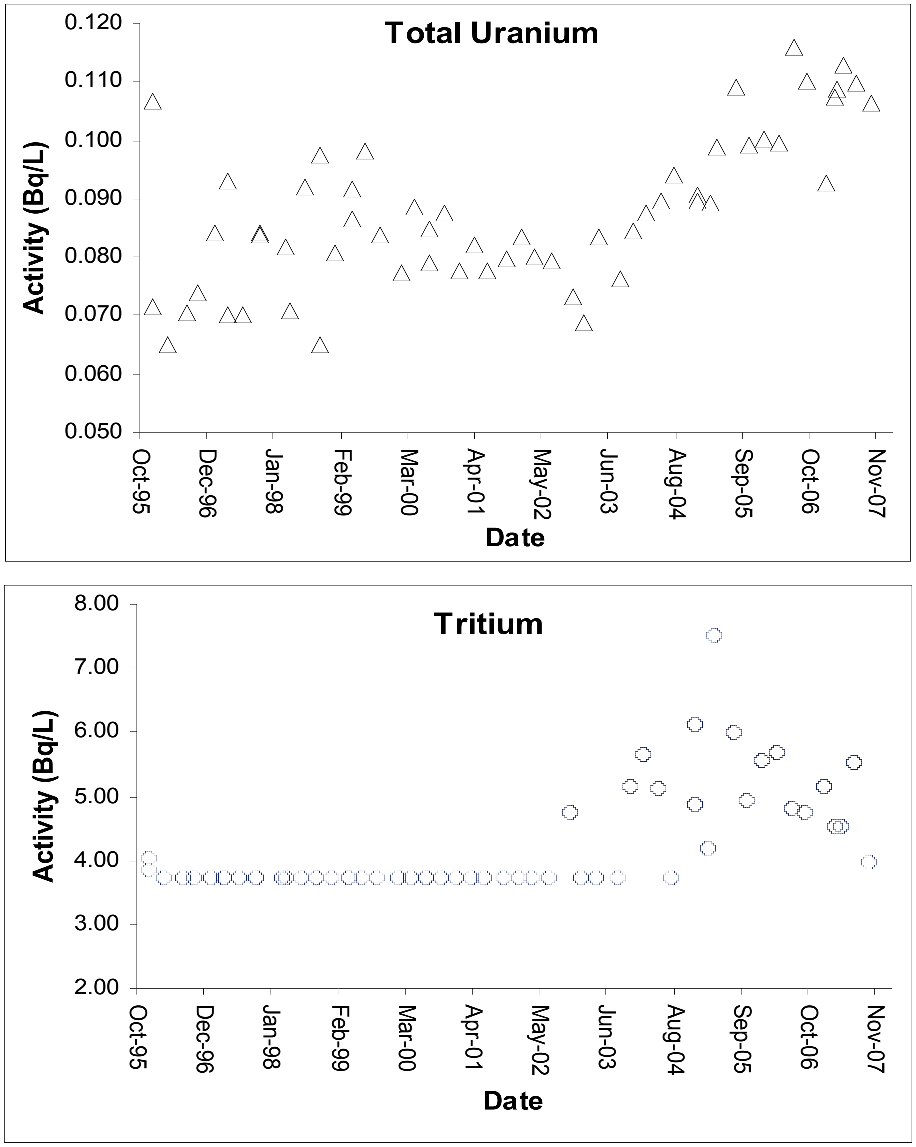

Figure 5. Historical tritium and total uranium activities (Bq/L) at ground water monitoring well K1-09.

Although the fourth quarter data did not exceed the SL, total uranium activities in ground water samples collected during the previous quarters of 2007 from well K1-09 exceeded the SL of 0.109 Bq/L (2.95 pCi/L). Evidence of SL exceedance for total uranium in ground water samples from well K1-09 was previously reported to the CVRWQCB (Goodwin, 2007b). Monitoring well K1-09 is hydrologically cross-gradient from Pit 1, not downgradient. In an examination of historical data, there appears to be a slight upward trend in total uranium activities in ground water samples from well K1-09 over the last 10 years and that increase is similar in pattern to tritium activities in samples from the same well (**Figure 5**). As shown in the 2005 Annual Report (Campbell and MacQueen, 2006) and the plots in **Appendix E**, there is a similar slight increase in the total uranium in ground water samples collected from monitoring wells in the vicinity of Pit 1. LLNL performed a mass spectrometric uranium isotope analysis on samples collected on November 25, 2003, February 3, 2004, and July 20, 2004. The mass ratios (U-235/U-238) for those samples were 0.0073, 0.0072, and 0.0072, which are all consistent with the natural mass ratio of 0.0072. However, given that the increased activities began to be observed during 2004, LLNL will collect additional samples to determine the current mass ratio. The total uranium results are most likely explained by an increase in local natural background and are not the result of a release from Pit 1. Given the available information, it does not appear that this exceedance of the statistical limit is indicative of a release of uranium from Pit 1.

A ground water sample collected during the fourth quarter at Pit 7, exceeded the SL for barium in well K7-09 (29 μg/L, SL = 25 μg/L) and total uranium at well K7-01 (0.651 Bq/L, SL = 0.636 Bq/L) (**Table A-3**). However, no new release of these COCs from Pit 7 is indicated. As summarized in previous reports, barium background concentrations appear to be increasing in the ground water around these wells (Campbell, 2006). The change in background barium concentrations appears unrelated to Pit 7. We have previously reported relatively elevated total uranium activity in the ground water to be statistical evidence for a release of depleted uranium from Pit 7 (**Table B-1**). Previous CERCLA investigations that used mass spectrometry to measure the masses of individual uranium isotopes showed that the uranium in the ground water at wells K7-01 and K7-03 was a mixture of depleted uranium, released historically from Pits 3, 5, and 7, and natural uranium (Taffet *et al.*, 1996). It is possible that oxidation of vegetation in the valley sediment or wood debris in the pits may have increased bicarbonate alkalinity downgradient of the pits and enhanced the solubility of natural uranium. For additional information on the total uranium studies, see Taffet *et al.* (2005).

Although no SLs for tritium were exceeded at Pit 7 during the fourth quarter 2007, tritium activities did exceed the drinking water MCL of 740 Bq/L in the ground water at monitoring wells K7-01 (1740.0 Bq/L [47,027 pCi/L]), K7-03 (3520.0 Bq/L [95,135 pCi/L]), and NC7-25 (10,700.0 Bq/L [298,189 pCi/L]). CERCLA investigations have linked the tritium activity in the ground water at monitoring wells K7-01, K7-03, and NC7-25 to releases of tritium from Pits 3 and 5 or underlying sediments during the winter of 1992–93, and continuing during the successive winters of 1994–95, 1995–96, 1996–97, and 1997–98. Generally the highest water levels in the Pit 7 Complex monitoring wells were observed in 1997–98, when these pits were partially inundated from beneath by rising ground water (Taffet *et al*., 1996 and 2005; Ziagos and Reber-Cox, 1998). CERCLA modeling studies indicate that, given tritium's short half-life of 12.3 years, the relatively slow rate of ground water flow (5-40 m/yr), and the long flow path to the Site 300 boundary, tritium activity in ground water will decrease to below background activities of <3.7 Bq/L (<100 pCi/L) before it can travel off site (Taffet *et al.*, 1996 and 2005).

For this annual report, freon-113 results for ground water samples collected from monitoring wells K1-05, K1-08, and K1-09 are plotted (**Figure 6**). The freon-113 arises from a source at Building 865, about 300 m (984 ft) west of Pit 1 (Ferry and Holtzapple, 2006). While freon-113 is not a primary or secondary COC for Pit 1, there have been measurable historic concentrations that have been decreasing. In the past few years the concentrations appear to be relatively stabile.

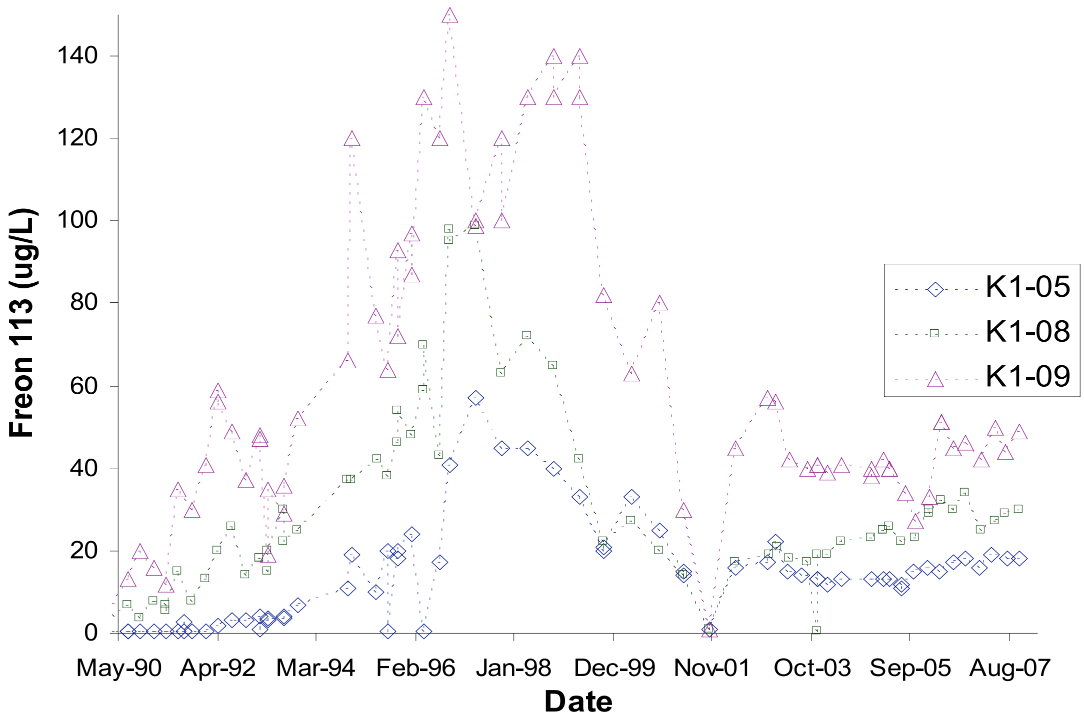

Figure 6. Freon-113 concentrations in water samples collected from ground water monitoring wells around Pit 1.

For the annual report, historical concentrations of two secondary COCs were examined. Perchlorate concentrations in samples collected from ground water monitoring wells K7-01, K7-03, and NC7-25 are shown in **Figure 7**. While perchlorate has been observed above the detection limit (4 μg/L) in ground water samples from these wells, concentrations do not appear to be significantly increasing. LLNL will continue to monitor this secondary COC to examine any trends in the data.

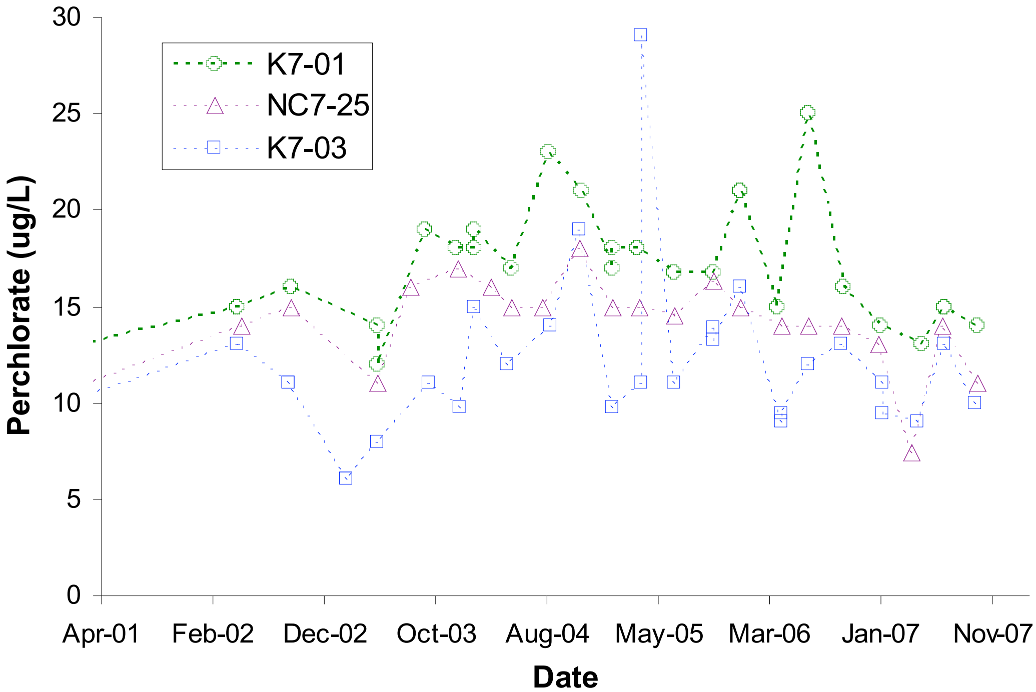

Figure 7. Perchlorate concentrations in water samples collected from ground water monitoring wells around Pit 7.

Nitrate concentrations in samples collected from ground water monitoring wells K7-01, K7-03, NC7-25, and NC7-47 are presented in **Figure 8**. Other than a few concentrations from samples collected in the early 1990s from well K7-01, nitrate concentrations appear to be stable with no obvious trend. Both nitrate and perchlorate issues at Site 300 have been examined in detail by the Environmental Restoration Department.

The concentrations of all VOCs detected in ground water samples from monitoring wells are summed and presented as Total VOCs (TVOCs). As in the past, VOCs were detected in ground water samples from two monitoring wells (**Table A-4**). The TVOC concentration detected in the ground water at Pit 7 wells K7-01 and K7-03 were 1.4 and 3.8 μg/L, respectively. These VOCs are associated with historical releases from Pit 5, not Pit 7 (Webster-Scholten, 1994; Taffet *et al.*, 1996).

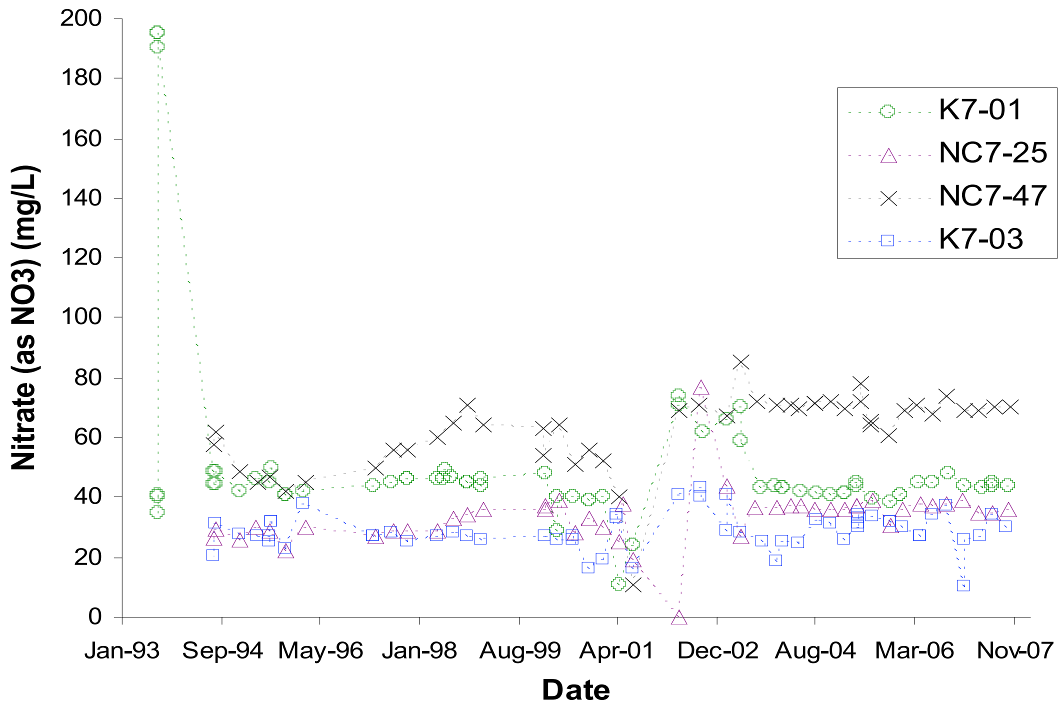

Figure 8. Nitrate concentrations in water samples collected from ground water monitoring wells around Pit 7.

Inspection and Maintenance Summary

Fourth quarter inspections of the caps were performed at Pit 1 and 7 by LLNL staff. These quarterly visual cap inspections include a check list of issues related to cap integrity, vegetation, and drainage. No deficiencies were noted in the condition of the cap at either pit, although animal burrows were observed on the north east side of Pit 1. The annual permanent marker elevation surveys and inspections by a licensed P.E. were performed and reported for the Pit 1 and 7 caps during the second and third quarters of 2007. The survey and inspection did not identify major deficiencies, however, a continuing need to repair larger animal burrows was noted. The pit caps and drainage structures for both pits continue to function adequately.

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Abbreviations and Acronyms

1,1-DCE	1,1-dichloroethene
Bq	becquerel (SI unit of radioactivity)
Cal EPA	California Environmental Protection Agency
CC	control chart (statistical method)
CCR	California Code of Regulations
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	constituent of concern
CVRWQCB	Central Valley Regional Water Quality Control Board
DOE	U.S. Department of Energy
DTSC	Department of Toxic Substances Control (California)
EPA	U.S. Environmental Protection Agency
EPD	Environmental Protection Department (LLNL)
ft	foot
GWE	ground water elevation (in feet above MSL)
km	kilometer
L	liter
LLNL	Lawrence Livermore National Laboratory
m	meter
MCL	maximum contaminant level (for drinking water)
mg	milligram
MSL	mean sea level (datum for elevation measurements)
m/yr	ground water seepage rate in meters per year
μg	microgram
nd	no detections above reporting limits
nd (exc)	no detections, except as listed
pCi	picocurie (unit of radioactivity equal to 0.037 Bq)
PCP	post-closure plan
PE	Professional Engineer
PI	prediction interval (statistical method)
QA	quality assurance
RCRA	Resource Conservation and Recovery Act
RL	reporting limit (contractual concentration near zero)
RPM	Remedial Program Manager
SI	*Système Internationale* (units of measurement)
Site 300	Experimental Test Site, LLNL
SL	statistically determined concentration limit
SOP	standard operating procedure
TCE	trichloroethene
$Tnbs_0$	Neroly Formation basal sandstone
$Tnbs_1$	Neroly Formation lower blue sandstone
$Tnsc_0$	Neroly Formation basal silty claystone
TVOC	total volatile organic compounds
VOC	volatile organic compound
WDR	Waste Discharge Requirements (permit)

Appendix A

Tables of Ground Water Measurements

Table A-1. Pit 1 COCs, monitoring wells, SLs, and quarterly analytical results for 2007.

Quarter			**1**	**2**	**3**	**4**
COC (units)	**Well**	**SL**	**Result**	**Result**	**Result**	**Result**
Arsenic (µg/L)	K1-01C	–[a]	11	12	12	12
	K1-07	–[a]	13	13	12	13
	K1-02B	20	14	12	11	12
	W-PIT1-02[d]	[d]	13	NR[h]	NR	NR
	K1-04	19	12	12	11	12
	K1-05	24	14	14	14	14
	K1-08	21	14	15	13	14
	K1-09	19	14	14	13	13
Barium (µg/L)	K1-01C	–	< 25	< 25	< 25	< 25
	K1-07	–	28	27	28	28
	K1-02B	25	< 25	25	< 25	< 25
	W-PIT1-02		46	NR	NR	NR
	K1-04	32	30	28	28	27
	K1-05	41	39	40	40	37
	K1-08	51	41	46	43	41
	K1-09	46	45	47	47	45
Beryllium (µg/L)	K1-01C	–	< 0.5	< 0.5	< 0.5	< 2
	K1-07	–	< 0.5	< 0.5	< 0.5	< 0.5
	K1-02B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	W-PIT1-02		< 0.5	NR	NR	NR
	K1-04	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K1-05	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K1-08	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K1-09	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cadmium (µg/L)	K1-01C	–	< 0.5	< 0.5	< 0.5	< 0.5
	K1-07	–	< 0.5	< 0.5	< 0.5	< 0.5
	K1-02B	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	W-PIT1-02		< 0.5	NR	NR	NR
	K1-04	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K1-05	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K1-08	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K1-09	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cobalt (µg/L)	K1-01C	–	< 25	< 25	< 25	< 25
	K1-07	–	< 25	< 25	< 25	< 25
	K1-02B	25	< 25	< 25	< 25	< 25
	W-PIT1-02		< 25	NR	NR	NR
	K1-04	25	< 25	< 25	< 25	< 25
	K1-05	25	< 25	< 25	< 25	< 25
	K1-08	25	< 25	< 25	< 25	< 25
	K1-09	25	< 25	< 25	< 25	< 25
Copper (µg/L)	K1-01C	–	< 10	< 10	< 10	< 10
	K1-07	–	< 10	< 10	< 10	< 10
	K1-02B	34	13	14	< 10	< 10
	W-PIT1-02		< 10	NR	NR	NR
	K1-04	34	< 10	< 10	< 10	< 10
	K1-05	34	< 10	< 10	< 10	< 10
	K1-08	34	< 10	< 10	< 10	< 10
	K1-09	34	< 10	< 10	< 10	< 10

Table A-1. Pit 1 COCs, monitoring wells, SLs, and quarterly analytical results for 2007.

Quarter			1	2	3	4
COC (units)	**Well**	**SL**	**Result**	**Result**	**Result**	**Result**
Lead (μg/L)	K1-01C	–	< 2	< 2	< 2	< 2
	K1-07	–	< 2	< 2	< 2	< 2
	K1-02B	2	< 2	< 2	< 2	< 2
	W-PIT1-02		< 2	NR	NR	NR
	K1-04	2	< 2	< 2	< 2	< 2
	K1-05	2	< 2	< 2	< 2	< 2
	K1-08	2	< 2	< 2	< 2	< 2
	K1-09	2	< 2	< 2	< 2	< 2
Nickel (μg/L)	K1-01C	–	< 5	< 5	< 5	< 5
	K1-07	–	5.5	10	5.5	< 5
	K1-02B	12	< 5	< 5	< 5	< 5
	W-PIT1-02		< 5	NR	NR	NR
	K1-04	12	< 5	< 5	< 5	< 5
	K1-05	12	< 5	< 5	< 5	< 5
	K1-08	12	< 5	< 5	< 5	< 5
	K1-09	12	< 5	< 5	< 5	< 5
Vanadium (μg/L)	K1-01C	–	59	66	62	65
	K1-07	–	62	70	70	73
	K1-02B	78	53	50	52	50
	W-PIT1-02		47	NR	NR	NR
	K1-04	48	34	37	37	38
	K1-05	97	65	68	59	65
	K1-08	100	65	66	62	64
	K1-09	92	58	64	56	60
Zinc (μg/L)	K1-01C	–	< 20	< 20	< 20	< 20
	K1-07	–	< 20	< 20	< 20	< 20
	K1-02B	94	26	< 20	< 20	< 20
	W-PIT1-02		< 20	NR	NR	NR
	K1-04	94	< 20	< 20	< 20	< 20
	K1-05	94	< 20	< 20	< 20	< 20
	K1-08	94	< 20	41	< 20	< 20
	K1-09	94	< 20	50	< 20	< 20
Radium 226 (Bq/L)[c]	K1-01C	–	0.004	0.004	0.005	0.004
	K1-07	–	0.005	0.000	0.007	0.003
	K1-02B	0.044	0.005	0.000	0.009	0.002
	W-PIT1-02		0.002	NR	NR	NR
	K1-04	0.044	LA [e]	0.003	0.013	0.003
	K1-05	0.044	0.007	0.004	0.006	0.002
	K1-08	0.044	0.002	0.003	0.002	0.003
	K1-09	0.044	0.001	0.006	-0.001	0.007
Tritium (Bq/L)	K1-01C	–	29.7	30.3	27.6	25.6
	K1-07	–	1.6	1.0	1.7	-2.5
	K1-02B	– [b]	147.3	140.2	148.0	144.0
	W-PIT1-02		52.2, 59.9 [f]	NR	NR	NR
	K1-04	3.7	LA	9.5	17.0	6.6
	K1-05	3.7	7.7	5.6	5.7	3.8
	K1-08	3.7	6.8	5.8	6.3	4.2
	K1-09	4.4	5.1	4.5	5.5	4.0

Table A-1. Pit 1 COCs, monitoring wells, SLs, and quarterly analytical results for 2007.

Quarter			1	2	3	4
COC (units)	**Well**	**SL**	**Result**	**Result**	**Result**	**Result**
Uranium (total, Bq/L)	K1-01C	–	0.130	0.143	0.136	0.130
	K1-07	–	0.096	0.077	0.103	0.091
	K1-02B	0.192	0.121	0.121	0.141	0.105
	W-PIT1-02		0.103	NR	NR	NR
	K1-04	0.124	LA	0.067	0.076	0.063
	K1-05	0.109	0.105	0.103	0.106	0.099
	K1-08	0.120	0.109	0.108	0.116	0.095
	K1-09	0.109	0.093, 0.106, 0.110 (g)	0.112	0.110	0.106
Thorium 228 (Bq/L)	K1-01C	–	0.000	-0.001	0.000	0.000
	K1-07	–	0.000	0.000	0.003	0.000
	K1-02B	0.023	0.000	0.001	0.001	0.001
	W-PIT1-02		0.000	NR	NR	NR
	K1-04	0.023	LA	-0.001	0.001	0.001
	K1-05	0.023	0.000	0.001	-0.001	-0.001
	K1-08	0.023	-0.001	0.000	-0.001	0.000
	K1-09	0.023	0.001	0.000	0.000	0.000
Thorium 232 (Bq/L)	K1-01C	–	0.000	-0.001	-0.001	0.000
	K1-07	–	0.000	0.000	0.000	-0.001
	K1-02B	0.009	0.000	0.000	-0.001	0.000
	W-PIT1-02		0.000	NR	NR	NR
	K1-04	0.009	LA	0.000	0.001	0.000
	K1-05	0.009	0.000	0.000	0.000	0.000
	K1-08	0.009	0.000	0.001	0.000	0.000
	K1-09	0.009	0.000	0.000	0.000	0.000
HMX (μg/L)	K1-01C	–	< 1	< 1	< 1	< 1
	K1-07	–	< 1	< 1	< 1	< 1
	K1-02B	5	< 1	< 1	< 1	< 1
	W-PIT1-02		< 1	NR	NR	NR
	K1-04	5	< 1	< 1	< 1	< 1
	K1-05	5	< 1	< 1	< 1	< 1
	K1-08	5	< 1	< 1	< 1	< 1
	K1-09	5	< 1	< 1	< 1	< 1
RDX (μg/L)	K1-01C	–	< 1	< 1	< 1	< 1
	K1-07	–	< 1	< 1	< 1	< 1
	K1-02B	5	< 1	< 1	< 1	< 1
	W-PIT1-02		< 1	NR	NR	NR
	K1-04	5	< 1	< 1	< 1	< 1
	K1-05	5	< 1	< 1	< 1	< 1
	K1-08	5	< 1	< 1	< 1	< 1
	K1-09	5	< 1	< 1	< 1	< 1

(a) Wells K1-01C and K1-07 have no release detection SLs for COCs, because they are upgradient of Pit 1.
(b) K1-02B is an exempt well (deemed to be insensitive to the detection of a tritium release from Pit 1).
(c) Radioactivity measurements are corrected for the background radioactivity inside the measurement chamber. A negative result for radioactivity indicates that the sample measured lower than the background by the amount shown. Radioactivity values shown as 0.000 measured less than 0.0005 Bq/L.
(d) Samples could not be collected from well K1-03 as notified in the letter, Goodwin (2007a). Well W-PIT1-02 was monitored in place of K1-03, although monitoring at W-PIT1-02 did not continue second quarter. A replacement well for K1-03 will be drilled as soon as funding and planning logistics allow. The SLs for K1-03 are not displayed as they do not apply to results from well W-PIT1-02.
(e) Lost analysis - Radioactivity samples for monitoring well K1-04 were not collected this quarter.
(f) Duplicate analyses results.
(g) Retest analyses results for an exceedance of the SL during 4th quarter 2006 (see 1st quarter 2007 report for details). A letter was sent to CVRWQCB to explain these results (Goodwin 2007b).
(h) No longer reported or monitored.

Concluded

Table A-2. Pit 1 additional PCP constituents and fourth quarter 2007 analytical results.

Constituent (units)	Monitoring Well							
	K1-01C[(a)]	**K1-07**[(a)]	**K1-02B**	**K1-03**	**K1-04**	**K1-05**	**K1-08**	**K1-09**
Dates Sampled	18-Oct	17-Oct	16-Oct	NM[(b)]	17-Oct	16-Oct	17-Oct	16-Oct
Depth to water (ft)	105.14	139.67	133.41	NM	154.78	169.74	153.96	160.38
Ground water elevation (ft above MSL)	976.08	969.96	973.82	NM	967.89	961.12	968.78	966.3
pH (pH units)	7.16	7.25	7.23	NM	7.22	7.34	7.35	7.35
Conductance (umhos/cm)	673	607	708	NM	598	628	642	651
Temperature (degrees C)	21.6	21.3	20.6	NM	20.9	21.3	21.6	7.1
Gross alpha (Bq/L)	0.004	0.056	0.104	NM	-0.025	0.155	0.118	0.041
Gross beta (Bq/L)	0.137	0.143	0.125	NM	0.129	0.123	0.112	0.127
Nitrate (as NO_3, mg/L)	35	33	35	NM	34	36	36	35
Perchlorate (μg/L)	< 4	< 4	6.8	NM	< 4	< 4	< 4	< 4

(a) Upgradient well.
(b) Not monitored, well K1-03 has been abandoned and a new monitoring well will be drilled.

Table A-3. Pit 7 COCs, monitoring wells, SLs, and quarterly analytical results for 2007.

Quarter			1	2	3	4
COC (units)	**Well**	**SL**	**Result**	**Result**	**Result**	**Result**
Arsenic (µg/L)	K7-06	— [a]	21.0	19.0	19.0	20.0
	K7-01	14.0	8.7	8.3	9.0	9.2
	K7-03	3.2	< 2.0	< 2.0	< 2.0	< 2.0
	K7-09	2.0	< 2.0	< 2.0	< 2.0	< 2.0
	K7-10	4.2	2.2	2.2	< 2.0	2.3
	NC7-25	8.6	4.9	5.5	5.1	5.8
	NC7-26	3.6	< 2.0	2.1	< 2.0	< 2.0
	NC7-47	17.0	12.0	12.0	13.0	11.0
	NC7-48	19.0	6.0	5.5	6.2	6.1
Barium (µg/L)	K7-06	—	85	85	85	90
	K7-01	230	180	190	190	190
	K7-03	85	73	61	81	72
	K7-09	25	25	< 25	27	29
	K7-10	120	79	74	69	61
	NC7-25	140	74	79	75	79
	NC7-26	39	25	26	26	25
	NC7-47	63	57	64	59	60
	NC7-48	400	110	110	120	120
Beryllium (µg/L)	K7-06	—	< 0.5	< 0.5	< 0.5	< 0.5
	K7-01	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K7-03	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K7-09	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K7-10	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	NC7-25	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	NC7-26	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	NC7-47	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	NC7-48	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cadmium (µg/L)	K7-06	—	1.7	2.6	0.99	1
	K7-01	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K7-03	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K7-09	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	K7-10	1.6	< 0.5	< 0.5	< 0.5	< 0.5
	NC7-25	0.6	< 0.5	< 0.5	< 0.5	< 0.5
	NC7-26	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	NC7-47	0.5	< 0.5	< 0.5	< 0.5	< 0.5
	NC7-48	1.2	< 0.5	< 0.5	< 0.5	< 0.5
Cobalt (µg/L)	K7-06	—	< 25	< 25	< 25	< 25
	K7-01	25	< 25	< 25	< 25	< 25
	K7-03	25	< 25	< 25	< 25	< 25
	K7-09	25	< 25	< 25	< 25	< 25
	K7-10	25	< 25	< 25	< 25	< 25
	NC7-25	25	< 25	< 25	< 25	< 25
	NC7-26	25	< 25	< 25	< 25	< 25
	NC7-47	25	< 25	< 25	< 25	< 25
	NC7-48	25	< 25	< 25	< 25	< 25

Table A-3. Pit 7 COCs, monitoring wells, SLs, and quarterly analytical results for 2007.

Quarter			**1**	**2**	**3**	**4**
COC (units)	**Well**	**SL**	**Result**	**Result**	**Result**	**Result**
Copper (μg/L)	K7-06	—	< 10	< 10	< 10	< 10
	K7-01	40	< 10	< 10	< 10	< 10
	K7-03	140	89	17	17	15
	K7-09	10	< 10	< 10	< 10	< 10
	K7-10	10	< 10	< 10	< 10	< 10
	NC7-25	10	< 10	< 10	< 10	< 10
	NC7-26	10	41, <1, <1 [d]	< 10	< 10	< 10
	NC7-47	10	< 10	< 10	< 10	< 10
	NC7-48	10	< 10	< 10	< 10	< 10
Lead (μg/L)	K7-06	—	< 2	< 2	< 2	< 2
	K7-01	6	< 2	< 2	< 2	< 2
	K7-03	6.1	< 2	< 2	< 2	< 2
	K7-09	5.9	< 2	< 2	< 2	< 2
	K7-10	2	< 2	< 2	< 2	< 2
	NC7-25	2	< 2	< 2	< 2	< 2
	NC7-26	5.1	< 2	< 2	< 2	< 2
	NC7-47	7.6	< 2	< 2	< 2	< 2
	NC7-48	2	< 2	< 2	< 2	< 2
Nickel (μg/L)	K7-06	—	< 5	< 5	< 5	< 5
	K7-01	25	< 5	< 5	< 5	< 5
	K7-03	26	27, 3.9, 3.2	< 5	< 5	< 5
	K7-09	29	< 5	< 5	< 5	< 5
	K7-10	13	< 5	< 5	< 5	< 5
	NC7-25	13	< 5	< 5	< 5	< 5
	NC7-26	5	< 5	< 5	< 5	< 5
	NC7-47	14	< 5	< 5	< 5	< 5
	NC7-48	48	< 5	< 5	< 5	< 5
Vanadium (μg/L)	K7-06	—	41	40	36	41
	K7-01	25	< 25	< 25	< 25	< 25
	K7-03	25	< 25	< 25	< 25	< 25
	K7-09	25	< 25	< 25	< 25	< 25
	K7-10	25	< 25	< 25	< 25	< 25
	NC7-25	25	< 25	< 25	< 25	< 25
	NC7-26	25	< 25	< 25	< 25	< 25
	NC7-47	79	54	60	58	65
	NC7-48	110	< 25	< 25	< 25	< 25
Zinc (μg/L)	K7-06	—	< 20	47	< 20	< 20
	K7-01	52	< 20	41	< 20	< 20
	K7-03	72	110, 15, <50	47	< 20	< 20
	K7-09	20	< 20	39, <10, <10	< 20	< 20
	K7-10	20	< 20	36, <10, <10	< 20	< 20
	NC7-25	36	< 20	< 20	< 20	< 20
	NC7-26	20	110, <10, 2.7	42, <10, <10	< 20	< 20
	NC7-47	50	< 20	< 20	< 20	< 20
	NC7-48	44	< 20	38	< 20	< 20

Table A-3. Pit 7 COCs, monitoring wells, SLs, and quarterly analytical results for 2007.

Quarter			1	2	3	4
COC (units)	**Well**	**SL**	**Result**	**Result**	**Result**	**Result**
Radium 226 (Bq/L)[(b)]	K7-06	—	0.013	0.018	0.015	0.014
	K7-01	0.080	0.039	0.073	0.053	0.033
	K7-03	0.030	0.010	0.002	0.006	0.006
	K7-09	0.023	0.004	0.001	0.013	0.004
	K7-10	0.032	0.006	0.005	0.012	0.004
	NC7-25	0.054	0.029	0.024	0.050	0.020
	NC7-26	0.034	0.012	0.013	0.012	0.016
	NC7-47	0.022	0.000	0.003	0.003	0.002
	NC7-48	0.040	0.015	0.009	0.014	0.014
Tritium (Bq/L)	K7-06	—	-1.6	-0.3	-1.4	0.5
	K7-01	— [(c)]	1787.1	1790.8	1780.0	1740.0
	K7-03	— [(c)]	3359.6	3270.8	3400.0	3520.0
	K7-09	4.8	-0.2	-1.6	0.5	-0.5
	K7-10	4.8	-0.7	-3.0	-3.5	-1.2
	NC7-25	— [(c)]	10582.0	10841.0	11300.0	10700.0
	NC7-26	— [(c)]	100.6	104.3	108.0	98.8
	NC7-47	4.8	0.3	-0.4	-0.8	-0.4
	NC7-48	16.4	5.1	-1.0	2.9	1.5
Uranium (total, Bq/L)	K7-06	—	0.030	0.033	0.034	0.040
	K7-01	0.636	0.587	0.574	0.623	0.651
	K7-03	0.224	0.178	0.188	0.175	0.211
	K7-09	0.035	0.001	0.002	0.002	0.001
	K7-10	0.083	0.012	0.009	0.013	0.015
	NC7-25	1.262	1.154	1.193	1.234	1.241
	NC7-26	0.034	0.008	0.011	0.012	0.010
	NC7-47	0.178	0.074	0.074	0.076	0.065
	NC7-48	2.327	0.232	0.234	0.216	0.252
Thorium 228 (Bq/L)	K7-06	—	-0.001	-0.001	-0.001	0.000
	K7-01	0.024	0.000	-0.001	0.001	0.001
	K7-03	0.024	0.000	-0.001	0.015	0.000
	K7-09	0.024	0.001	0.001	0.001	0.000
	K7-10	0.024	-0.001	-0.001	0.002	0.001
	NC7-25	0.024	0.001	0.009	0.002	0.000
	NC7-26	0.024	-0.001	0.001	0.003	-0.001
	NC7-47	0.024	-0.001	0.002	-0.001	-0.001
	NC7-48	0.024	0.001	0.000	0.002	0.000
Thorium 232 (Bq/L)	K7-06	—	0.000	0.000	0.000	0.000
	K7-01	0.014	0.000	0.000	0.000	0.000
	K7-03	0.014	0.000	0.000	0.010	0.000
	K7-09	0.014	0.000	0.000	-0.001	0.000
	K7-10	0.014	0.000	0.000	0.000	0.000
	NC7-25	0.014	0.001	-0.001	-0.001	0.000
	NC7-26	0.014	0.000	0.000	0.000	0.000
	NC7-47	0.014	0.000	0.000	0.000	0.000
	NC7-48	0.014	-0.001	0.000	0.000	0.000

Table A-3. Pit 7 COCs, monitoring wells, SLs, and quarterly analytical results for 2007.

Quarter			**1**	**2**	**3**	**4**
COC (units)	**Well**	**SL**	**Result**	**Result**	**Result**	**Result**
HMX (µg/L)	K7-06	—	< 1	< 1	< 1	< 1
	K7-01	5	< 1	< 1	< 1	< 1
	K7-03	5	< 1	< 1	< 1	< 1
	K7-09	5	< 1	< 1	< 1	< 1
	K7-10	5	< 1	< 1	< 1	< 1
	NC7-25	5	< 1	< 1	< 1	< 1
	NC7-26	5	< 1	< 1	< 1	< 1
	NC7-47	5	< 1	< 1	< 1	< 1
	NC7-48	5	< 1	< 1	< 1	< 1
RDX (µg/L)	K7-06	—	< 1	< 1	< 1	< 1
	K7-01	5	< 1	< 1	< 1	< 1
	K7-03	5	< 1	< 1	< 1	< 1
	K7-09	5	< 1	< 1	< 1	< 1
	K7-10	5	< 1	< 1	< 1	< 1
	NC7-25	5	< 1	< 1	< 1	< 1
	NC7-26	5	< 1	< 1	< 1	< 1
	NC7-47	5	< 1	< 1	< 1	< 1
	NC7-48	5	< 1	< 1	< 1	< 1

[a] Well K7-06 has no SLs for COCs, because it is upgradient from Pit 7.

[b] Radioactivity measurements are corrected for the background radioactivity inside the measurement chamber. A negative result for radioactivity indicates that the sample measured lower than the background by the amount shown. Radioactivity values shown as 0.000 are less than 0.0005 Bq/L.

[c] Exempt well (insensitive to further detection of tritium releases).

[d] Multiple data separated by commas indicate resample, reanalysis, or duplicate results.

Concluded

Table A-4. Pit 7 additional PCP constituents and fourth quarter 2007 analytical results.

	Monitoring Well								
Constituent (units)	**K7-06[(a)]**	**K7-01**	**K7-03**	**K7-09**	**K7-10**	**NC7-25**	**NC7-26**	**NC7-47**	**NC7-48**
Dates Sampled	2-Oct	8-Oct	2-Oct	4-Oct	4-Oct	8-Oct	8-Oct	24-Oct	2-Oct
Depth to water (ft)	26.88	20.82	28.18	49.51	36.73	67.44	71.82	63.08	48.02
Ground water elevation (ft above MSL)	1387.07	1298.2	1310.91	1295.79	1306.58	1299.38	1256.85	1205.43	1345.38
Field pH (Units)	7.67	7.02	7.36	7.91	7.41	7.31	7.31	7.68	7.01
Field Specific Conductance (µmhos/cm)	449	723	679	747	1014	1021	652	652	696
Field Temperature (Degrees C)	19.4	20.1	20.9	19.7	18.8	20.1	21	17.9	19.3
Gross alpha (Bq/L)	-0.169	0.577	0.166	-0.065	-0.024	1.754	-0.076	-0.08	0.055
Gross beta (Bq/L)	0.075	0.339	0.154	0.655	0.155	0.455	0.088	0.13	0.129
VOCs[(b)] (E8260) (µg/L)	none	1.4	3.8	none	none	none	none	none	none
Toluene	none	none	0.82	none	none	none	none	none	none
Trichloroethene	none	1.4	1.5	none	none	none	none	none	none
Total xylene isomers	none	none	1.5	none	none	none	none	none	none
Nitrate (as NO3) (mg/L)	15	44	30	< 0.5	0.62	36	< 0.5	70	16
Perchlorate (µg/L)	< 4	14	10	< 4	< 4	11	< 4	< 4	< 4

(a) Upgradient well.

(b) The "none" refers to results where no data were greater than the detection limit for the VOCs.

Appendix B

Statistical Methods for Release Detection

Appendix B

Statistical Methods for Release Detection

Monitoring and reporting provisions of the RCRA closure and post-closure plan (PCP) for landfill Pits 1 and 7 require the use of U.S. EPA-approved statistical methods to evaluate the monitoring data. Waste Discharge Requirements (WDR) Order 93-100 requires statistical methods from the California Code of Regulations (CCR), Title 23. LLNL applies statistical methods from CCR, Title 23, Division 3, Chapter 15, Section 2550.7, as they are also consistent with U.S. EPA guidance.

We use statistically determined concentration limits (SLs) to detect potential releases of constituents of concern (COCs) to ground water from solid wastes contained in closed landfills. We employ two statistical methods, prediction intervals (PIs) and control charts (CCs), to generate SLs. Both methods are sensitive to COC concentration increases. Both methods are cost-effective, requiring only one measurement of a COC per quarter per monitoring well.

We prefer the PI method when COC concentrations in ground water are similar upgradient and downgradient from the monitored unit. We use parametric PI methods when the upgradient COC concentration data are all above the detection limit and the data are approximately normally distributed. Analysts also use parametric methods on log-transformed data, if the transformed data follow a normal distribution. Nonparametric PI methods are more effective when the data cannot be transformed to a normal distribution, or when they contain nondetections.

When the concentration of a COC is spatially variable in the vicinity of a monitored unit, we develop a control chart for each downgradient monitoring well. The control chart compares each new quarterly COC measurement with its concentration history for that well.

Wherever sufficient historical detections of a COC exist, we calculate an SL such that a single future measurement has approximately a 1-in-100 chance of exceeding the SL, when no change in concentration has actually occurred. This yields a statistical test with a significance level of approximately 0.01. Where historical detections exist, but nondetections constitute part of the data, we set the SL equal to the highest concentration measured. If historical analyses show all nondetections of a COC, then we select the analytical laboratory reporting limit (RL) as the SL. To test false-positive results, we employ a verification procedure containing two discrete retests, in accordance with CCR Title 23, Chapter 15, Section 2550.7.

Table B-1 lists all COCs that have indicated statistically significant evidence of release to ground water from Pit 1 or Pit 7, the date when the CVRWQCB was notified by letter, and the status of any further investigation.

Table B-1. Reported WDR 93-100 COCs showing statistical evidence of release.

COC	Pit	Reported to CVRWQCB	Status of Release investigation
Metals			
Arsenic	1	06/03/94	Transferred to CERCLA
Arsenic	7	10/17/95	Transferred to CERCLA
Barium	1	10/17/95	Transferred to CERCLA
Barium	1	06/14/96	Transferred to CERCLA
Barium	1	10/25/00	Transferred to CERCLA
Barium	7	11/09/93	Completed[(a)]
Barium	7	07/10/97	Transferred to CERCLA
Barium	7	08/03/00	Transferred to CERCLA
Barium	7	02/08/01	Transferred to CERCLA
Cadmium	7	10/17/95	Transferred to CERCLA
Copper	1	02/08/01	Transferred to CERCLA
Copper	7	10/17/95	Transferred to CERCLA
Lead	1	04/01/99	Transferred to CERCLA
Nickel	7	10/17/95	Transferred to CERCLA
Nickel	7	05/03/96	Transferred to CERCLA
Nickel	7	07/10/01	Transferred to CERCLA
Vanadium	7	06/03/94	Completed[(a)]
Zinc	7	10/17/95	Transferred to CERCLA
Zinc	7	04/19/99	Transferred to CERCLA
Radioisotopes			
Radium-226	7	10/17/95	Transferred to CERCLA
Tritium	1	10/21/96	Transferred to CERCLA
Tritium	1	01/14/99	Transferred to CERCLA
Tritium	7	011/9/93	Completed[(a)]
Uranium	1	02/17/94	Completed[(a)]
Uranium	1	10/21/96	Transferred to CERCLA
Uranium	7	09/10/93	Completed[(a)]
Uranium	7	11/10/98	Transferred to CERCLA
Uranium	1	04/26/07	Transferred to CERCLA

[(a)] Taffet *et al.*, 1996.

Appendix C

Quality Assurance Samples

Table C-1. Pit 1 Quality assurance for routine, duplicate, and field blank samples for 2007.

First Quarter 2007				Second Quarter 2007				
	K1-02B	K1-02B	PIT 1		K1-07	K1-07	PIT 1	
Constituent	routine	duplicate	field blank	Constituent	routine	duplicate	field blank	units
Arsenic	14	14	<2	Arsenic	<2	13	13	µg/L
Barium	<25	<25	<25	Barium	<25	27	27	µg/L
Beryllium	<0.5	<0.5	<0.5	Beryllium	<0.5	<0.5	<0.5	µg/L
Cadmium	<0.5	<0.5	<0.5	Cadmium	<0.5	<0.5	<0.5	µg/L
Cobalt	<25	<25	<25	Cobalt	<25	<25	<25	µg/L
Copper	13	11	<10	Copper	<10	<10	<10	µg/L
Lead	<2	<2	<2	Lead	<2	<2	<2	µg/L
Nickel	<5	<5	<5	Nickel	<5	10	9.7	µg/L
Vanadium	53	55	<25	Vanadium	<25	70	70	µg/L
Zinc	26	<20	20	Zinc	<20	<20	<20	µg/L
Nitrate (as NO3)	38	38	<0.5	Nitrate (as NO3)	<0.5	33	33	mg/L
Perchlorate	7.7	8.5	<4	Perchlorate	<4	<4	<4	µg/L
HMX	<1	<1	<1	HMX	<1	<1	<1	µg/L
RDX	<1	<1	<1	RDX	<1	<1	<1	µg/L
Radium 226[(a)]	0.005 ± 0.004	-0.002 ± 0.004	0.001 ± 0.004	Radium 226[(a)]	0.001 ± 0.004	0.000 ± 0.004	0.000 ± 0.005	Bq/L
Tritium	147 ± 15.2	154 ± 15.9	-0.651 ± 2.15	Tritium	0.301 ± 1.89	0.992 ± 2.03	0.0 ± 1.96	Bq/L
Uranium (total)	0.121 ± 0.011	0.115 ± 0.011	0.000 ± 0.001	Uranium (total)	0.001 ± 0.001	0.077 ± 0.007	0.105 ± 0.011	Bq/L
Thorium 228	0.000 ± 0.001	0.000 ± 0.001	-0.001 ± 0.002	Thorium 228	0.000 ± 0.002	0.000 ± 0.001	0.001 ± 0.001	Bq/L
Thorium 232	0.000 ± 0.000	0.000 ± 0.001	0.000 ± 0.001	Thorium 232	0.000 ± 0.001	0.000 ± 0.000	0.000 ± 0.001	Bq/L
Thorium 230	-0.001 ± 0.002	0.000 ± 0.002	-0.001 ± 0.002	Thorium 230	0.000 ± 0.002	0.000 ± 0.002	0.000 ± 0.002	Bq/L
Gross alpha	0.043 ± 0.044	0.053 ± 0.048	-0.001 ± 0.011	Gross alpha	-0.004 ± 0.007	0.071 ± 0.070	0.068 ± 0.055	Bq/L
Gross beta	0.130 ± 0.037	0.121 ± 0.041	-0.005 ± 0.037	Gross beta	-0.002 ± 0.021	0.068 ± 0.044	0.102 ± 0.035	Bq/L

Third Quarter 2007				Fourth Quarter 2007				
	K1-02B	K1-02B	PIT 1		K1-01C	K1-01C	PIT 1	
Constituent	routine	duplicate	field blank	Constituent	routine	duplicate	field blank	units
Arsenic	11	11	<2	Arsenic	12	12	<2	µg/L
Barium	<25	<25	<25	Barium	<25	<25	<25	µg/L
Beryllium	<0.5	<0.5	<0.5	Beryllium	<2	<2	<0.5	µg/L
Cadmium	<0.5	<0.5	<0.5	Cadmium	<0.5	4	<0.5	µg/L
Cobalt	<25	<25	<25	Cobalt	<25	<25	<25	µg/L
Copper	<10	<10	<10	Copper	<10	<10	<10	µg/L
Lead	<2	<2	<2	Lead	<2	<2	<2	µg/L
Nickel	<5	<5	<5	Nickel	<5	<5	<5	µg/L
Vanadium	52	52	<25	Vanadium	65	66	<25	µg/L
Zinc	<20	<20	<20	Zinc	<20	<20	<20	µg/L
Nitrate (as NO3)	35	34	<0.5	Nitrate (as NO3)	35	36	<0.5	mg/L
Perchlorate	7.5	7.6	<4	Perchlorate	<4	<4	<4	µg/L
HMX	<1	<1	<1	HMX	ND [(b)]	ND	<1	µg/L
RDX	<1	<1	<1	RDX	ND	ND	<1	µg/L
Radium 226[(a)]	0.009 ± 0.005	0.005 ± 0.005	-0.004 ± 0.003	Radium 226[(a)]	0.004 ± 0.004	0.003 ± 0.004	-0.001 ± 0.003	Bq/L
Tritium	148 ± 30.3	157 ± 32.0	-0.781 ± 4.07	Tritium	25.6 ± 3.44	25.6 ± 3.48	-2.28 ± 1.85	Bq/L
Uranium (total)	0.141 ± 0.013	0.145 ± 0.013	0.001 ± 0.001	Uranium (total)	0.130 ± 0.011	0.138 ± 0.013	0.000 ± 0.001	Bq/L
Thorium 228	0.001 ± 0.002	0.002 ± 0.003	-0.001 ± 0.003	Thorium 228	0.000 ± 0.001	0.000 ± 0.001	0.001 ± 0.001	Bq/L
Thorium 232	-0.001 ± 0.000	0.000 ± 0.001	0.000 ± 0.001	Thorium 232	0.000 ± 0.000	0.000 ± 0.000	0.000 ± 0.001	Bq/L
Thorium 230	0.002 ± 0.002	0.000 ± 0.001	0.004 ± 0.003	Thorium 230	0.001 ± 0.002	-0.002 ± 0.002	-0.002 ± 0.002	Bq/L
Gross alpha	0.120 ± 0.058	0.145 ± 0.047	-0.032 ± 0.020	Gross alpha	0.004 ± 0.070	0.095 ± 0.074	-0.035 ± 0.031	Bq/L
Gross beta	0.121 ± 0.048	0.144 ± 0.045	-0.001 ± 0.032	Gross beta	0.137 ± 0.041	0.142 ± 0.041	-0.001 ± 0.022	Bq/L

(a) Radioactivity is corrected for the background radioactivity inside the measurement apparatus. Negative activity indicates that the sample contained less than the background activity by the amount shown. Radioactivity equal to or less than the 2-sigma uncertainty shown is considered to be a nondetection.

(b) ND = No Data, problems at the analytical laboratory resulted in lost samples and analyses

Table C-2. Pit 7 Quality assurance for routine, duplicate, and field blank samples for 2007.

	First Quarter 2007			Second Quarter 2007			
	K7-01	K7-01	PIT 7	K7-09	K7-09	PIT 7	
Constituent	routine	duplicate	field blank	routine	duplicate	field blank	units
Arsenic	<2	<2	<2	<2	<2	<2	µg/L
Barium	<25	73	70	<25	<25	<25	µg/L
Beryllium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Cadmium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Cobalt	<25	<25	<25	<25	<25	<25	µg/L
Copper	<10	89	24	<10	<10	<10	µg/L
Lead	<2	<2	<2	<2	<2	<2	µg/L
Nickel	<5	27	<5	<5	<5	<5	µg/L
Vanadium	<25	<25	<25	<25	<25	<25	µg/L
Zinc	<20	110	<20	40	39	37	µg/L
Nitrate (as NO3)	<0.5	10	26	<0.5	<0.5	<0.5	mg/L
Perchlorate	<4	11	9.4	<4	<4	<4	µg/L
HMX	<1	<1	<1	<1	<1	<1	µg/L
RDX	<1	<1	<1	<1	<1	<1	µg/L
Radium 226[(a)]	-0.001 ± 0.004	0.010 ± 0.005	0.002 ± 0.004	0.001 ± 0.004	0.001 ± 0.004	0.006 ± 0.005	Bq/L
Tritium	-0.228 ± 1.63	3360 ± 363	3500 ± 370	1.64 ± 2.00	-1.65 ± 1.96	-3.10 ± 1.92	Bq/L
Uranium (total)	0.000 ± 0.001	0.178 ± 0.015	0.190 ± 0.016	0.000 ± 0.001	0.002 ± 0.001	0.003 ± 0.001	Bq/L
Thorium 228	0.000 ± 0.001	0.000 ± 0.002	0.000 ± 0.004	0.000 ± 0.002	0.001 ± 0.002	0.001 ± 0.002	Bq/L
Thorium 232	0.000 ± 0.001	0.000 ± 0.000	0.000 ± 0.001	0.000 ± 0.000	0.000 ± 0.001	0.000 ± 0.001	Bq/L
Thorium 230	0.000 ± 0.002	-0.001 ± 0.002	0.000 ± 0.003	0.002 ± 0.002	-0.001 ± 0.002	-0.002 ± 0.002	Bq/L
Gross alpha	-0.010 ± 0.010	0.184 ± 0.074	0.134 ± 0.063	-0.017 ± 0.011	-0.061 ± 0.036	-0.063 ± 0.044	Bq/L
Gross beta	0.005 ± 0.021	0.159 ± 0.044	0.173 ± 0.048	0.007 ± 0.021	1.288 ± 0.263	1.321 ± 0.270	Bq/L
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
1,1-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
1,1-Dichloroethene	<0.5	0.72	0.63	<0.5	<0.5	<0.5	µg/L
1,2-Dichloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
1,2-Dichloroethene (total)	<1	<1	<1	<1	<1	<1	µg/L
1,2-Dichloropropane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
2-Chloroethylvinylether	<10	<10	<10	<10	<10	<10	µg/L
Bromodichloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Bromoform	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Bromomethane	<1	<1	<1	<1	<1	<1	µg/L
Carbon tetrachloride	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Chlorobenzene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Chloroethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Chloroform	<0.5	<0.5	<0.5	1.3	<0.5	<0.5	µg/L
Chloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
cis-1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Dibromochloromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Dichlorodifluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Freon 113	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Methylene chloride	<1	<1	<1	<1	<1	<1	µg/L
Tetrachloroethene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
trans-1,3-Dichloropropene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Trichloroethene	<0.5	2.5	2.3	<0.5	<0.5	<0.5	µg/L
Trichlorofluoromethane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L
Vinyl chloride	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	µg/L

Table C-2. Pit 7 Quality assurance for routine, duplicate, and field blank samples for 2007.

	Third Quarter 2007			Fourth Quarter 2007			
	K7-01	K7-01	PIT 7	K7-10	K7-10	PIT 7	
Constituent	routine	duplicate	field blank	routine	duplicate	field blank	units
Arsenic	9	8.6	<2	2.3	2.5	< 2	µg/L
Barium	190	200	<25	61	54	< 25	µg/L
Beryllium	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Cadmium	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Cobalt	<25	<25	<25	< 25	< 25	< 25	µg/L
Copper	<10	<10	<10	< 10	< 10	< 10	µg/L
Lead	<2	<2	<2	< 2	< 2	< 2	µg/L
Nickel	<5	<5	<5	< 5	< 5	< 5	µg/L
Vanadium	<25	<25	<25	< 25	< 25	< 25	µg/L
Zinc	<20	<20	<20	< 20	< 20	< 20	µg/L
Nitrate (as NO3)	45	44	<0.5	0.62	0.66	< 0.5	mg/L
Perchlorate	15	15	<4	< 4	< 4	< 4	µg/L
HMX	<1	<1	<1	<1	<1	<1	µg/L
RDX	<1	<1	<1	<1	<1	<1	µg/L
Radium 226[a]	0.053 ± 0.013	0.043 ± 0.009	0.001 ± 0.003	0.004 ± 0.004	0.006 ± 0.004	0.005 ± 0.004	Bq/L
Tritium	1780 ± 178	1750 ± 174	6.07 ± 3.37	-1.17 ± 1.92	-1.57 ± 1.96	1.96 ± 2.15	Bq/L
Uranium (total)	0.623 ± 0.047	0.616 ± 0.047	0.008 ± 0.002	0.015 ± 0.003	0.013 ± 0.003	0.000 ± 0.001	Bq/L
Thorium 228	0.001 ± 0.001	0.001 ± 0.002	0.000 ± 0.001	0.001 ± 0.002	0.000 ± 0.002	0.000 ± 0.001	Bq/L
Thorium 232	0.000 ± 0.001	0.000 ± 0.001	0.000 ± 0.000	0.000 ± 0.001	0.000 ± 0.000	0.000 ± 0.001	Bq/L
Thorium 230	0.000 ± 0.002	0.001 ± 0.003	-0.001 ± 0.002	0.001 ± 0.002	0.003 ± 0.003	0.001 ± 0.002	Bq/L
Gross alpha	0.345 ± 0.104	0.313 ± 0.166	-0.005 ± 0.007	-0.024 ± 0.085	-0.078 ± 0.070	-0.039 ± 0.024	Bq/L
Gross beta	0.293 ± 0.070	0.178 ± 0.074	0.004 ± 0.023	0.155 ± 0.044	0.152 ± 0.052	0.001 ± 0.022	Bq/L
1,1,1-Trichloroethane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
1,1,2,2-Tetrachloroethane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
1,1,2-Trichloroethane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
1,1-Dichloroethane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
1,1-Dichloroethene	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
1,2-Dichloroethane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
1,2-Dichloroethene (total)	<1	<1	<1	< 1	< 1	< 1	µg/L
1,2-Dichloropropane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
2-Chloroethylvinylether	<10	<10	<10	< 10	< 10	< 10	µg/L
Bromodichloromethane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Bromoform	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Bromomethane	<1	<1	<1	< 1	< 1	< 1	µg/L
Carbon tetrachloride	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Chlorobenzene	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Chloroethane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Chloroform	<0.5	<0.5	0.86	< 0.5	< 0.5	0.59	µg/L
Chloromethane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
cis-1,3-Dichloropropene	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Dibromochloromethane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Dichlorodifluoromethane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Freon 113	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Methylene chloride	<1	<1	<1	< 1	< 1	< 1	µg/L
Tetrachloroethene	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
trans-1,3-Dichloropropene	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Trichloroethene	1.7	1.6	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Trichlorofluoromethane	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L
Vinyl chloride	<0.5	<0.5	<0.5	< 0.5	< 0.5	< 0.5	µg/L

[a] Radioactivity is corrected for the background radioactivity inside the measurement apparatus.
Negative activity indicates that the sample contained less than the background activity by the amount shown.
Radioactivity equal to or less than the 2-sigma uncertainty shown is considered to be a nondetection.

Appendix D

Constituents of Concern (COCs) and Monitoring Frequencies

Table D-1. Pits 1 and 7 constituents of concern (COC) and monitoring frequencies.[a]

Constituent	WDR[b]	PCP[c]	Pit 1	Pit 7
Arsenic	X		Q	Q
Barium	X		Q	Q
Beryllium	X		Q	Q
Cadmium	X		Q	Q
Chloride		X	A	
Chromium		X	SA	
Cobalt	X		Q	Q
Copper	X		Q	Q
Iron		X	SA	
Lead	X		Q	Q
Manganese		X	SA	
Mercury		X	SA	
Nickel	X		Q	Q
Nitrate		X	SA	
Selenium		X	SA	
Silver		X	SA	
Sodium		X	SA	
Sulfate		X	A	
Vanadium	X		Q	Q
Zinc	X		Q	Q
Total organic carbon (TOC)		X	A	
Total organic halides (TOX)		X	A	
EPA Method 601		X		Q
EPA Method 624		X	A	
EPA Method 625		X	A	
EPA Method 608		X	A	
Gross alpha and gross beta		X	SA	Q
Radium 226	X		Q	Q
Thorium 228	X		Q	Q
Thorium 232	X		Q	Q
Tritium	X		Q	Q
Uranium (total)	X		Q	Q
HMX	X		Q	Q
RDX	X		Q	Q
Ground water elevation		X	SA	Q
Ground water temperature		X	SA	
pH		X	SA	
Specific conductance		X	SA	

(a) Monitoring frequencies are: Q (quarterly); SA (semiannually); A (annually).

(b) COCs required to be monitored by WDR 93-100 Rev. 2 (CVRWQCB 1998).

(c) Additional COCs required to be monitored by the post-closure plan (Rogers/Pacific Corporation 1990).

Appendix E

Graphs of Ground Water Measurements

Table E-1. Analytical results from 2007 that were omitted from the Appendix E plots due to QA/QC or related issues.

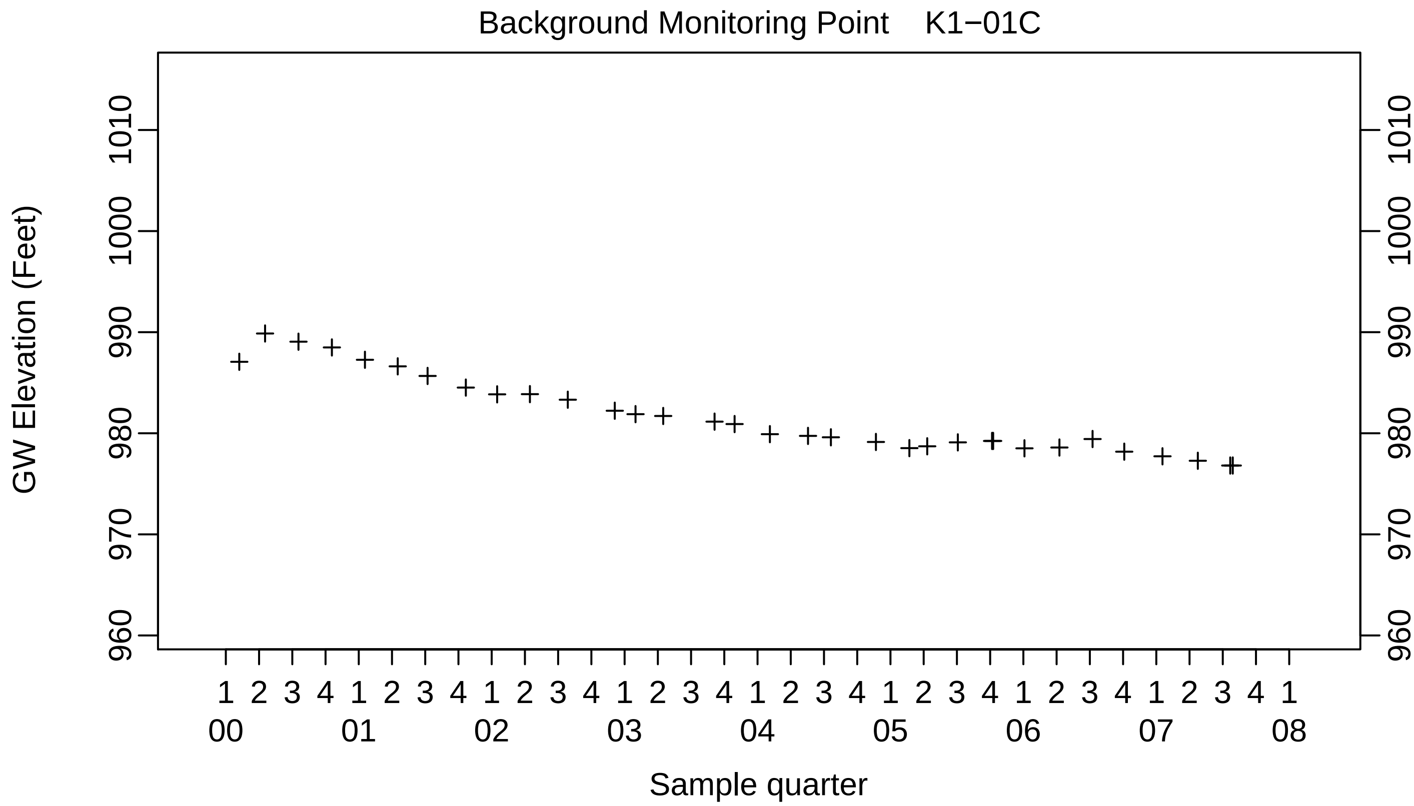
Pit Area	Constituent	Monitoring Well	Date Sampled	LOS (<) or Hit (h)[(a)]	Concentration	Units
Pit 7	Arsenic	K7-10	30-Sep-07	<	1000	ug/L
Pit 7	Arsenic	NC7-26	18-Jan-10	<	50	ug/L
Pit 7	Arsenic	NC7-26	20-Jan-10	<	50	ug/L
Pit 7	Arsenic	NC7-26	11-Jan-10	<	50	ug/L
Pit 7	Copper	K7-01	25-Oct-09	h	193	ug/L
Pit 7	Copper	K7-09	08-Feb-07	h	20	ug/L
Pit 7	Copper	K7-09	05-Apr-09	<	50	ug/L
Pit 7	Copper	K7-10	05-Apr-09	<	50	ug/L
Pit 7	Copper	NC7-25	07-Apr-09	<	50	ug/L
Pit 7	Copper	NC7-26	25-Jan-11	h	41	ug/L
Pit 7	Copper	NC7-26	07-Apr-09	<	50	ug/L
Pit 7	Copper	NC7-48	07-Apr-09	<	50	ug/L
Pit 7	Copper	NC7-48	01-May-06	<	50	ug/L
Pit 7	Copper	NC7-48	27-Apr-05	<	50	ug/L
Pit 7	Copper	NC7-48	07-May-07	<	50	ug/L
Pit 7	Nickel	K7-01	06-Apr-09	<	100	ug/L
Pit 7	Nickel	K7-03	28-Nov-06	h	60	ug/L
Pit 7	Nickel	K7-03	21-Apr-08	h	70	ug/L
Pit 7	Nickel	K7-03	22-Jan-08	h	79	ug/L
Pit 7	Nickel	K7-03	15-Apr-09	<	100	ug/L
Pit 7	Nickel	K7-03	15-Apr-09	<	100	ug/L
Pit 7	Nickel	K7-06	06-Apr-09	<	100	ug/L
Pit 7	Nickel	K7-09	05-Apr-09	<	100	ug/L
Pit 7	Nickel	K7-10	05-Apr-09	<	100	ug/L
Pit 7	Nickel	NC7-25	07-Apr-09	<	100	ug/L
Pit 7	Nickel	NC7-26	07-Apr-09	<	100	ug/L
Pit 7	Nickel	NC7-47	27-Apr-09	<	100	ug/L
Pit 7	Zinc	K7-01	05-Aug-08	h	110	ug/L
Pit 7	Zinc	K7-03	18-Apr-05	h	180	ug/L
Pit 7	Zinc	K7-03	11-Jun-05	h	110	ug/L

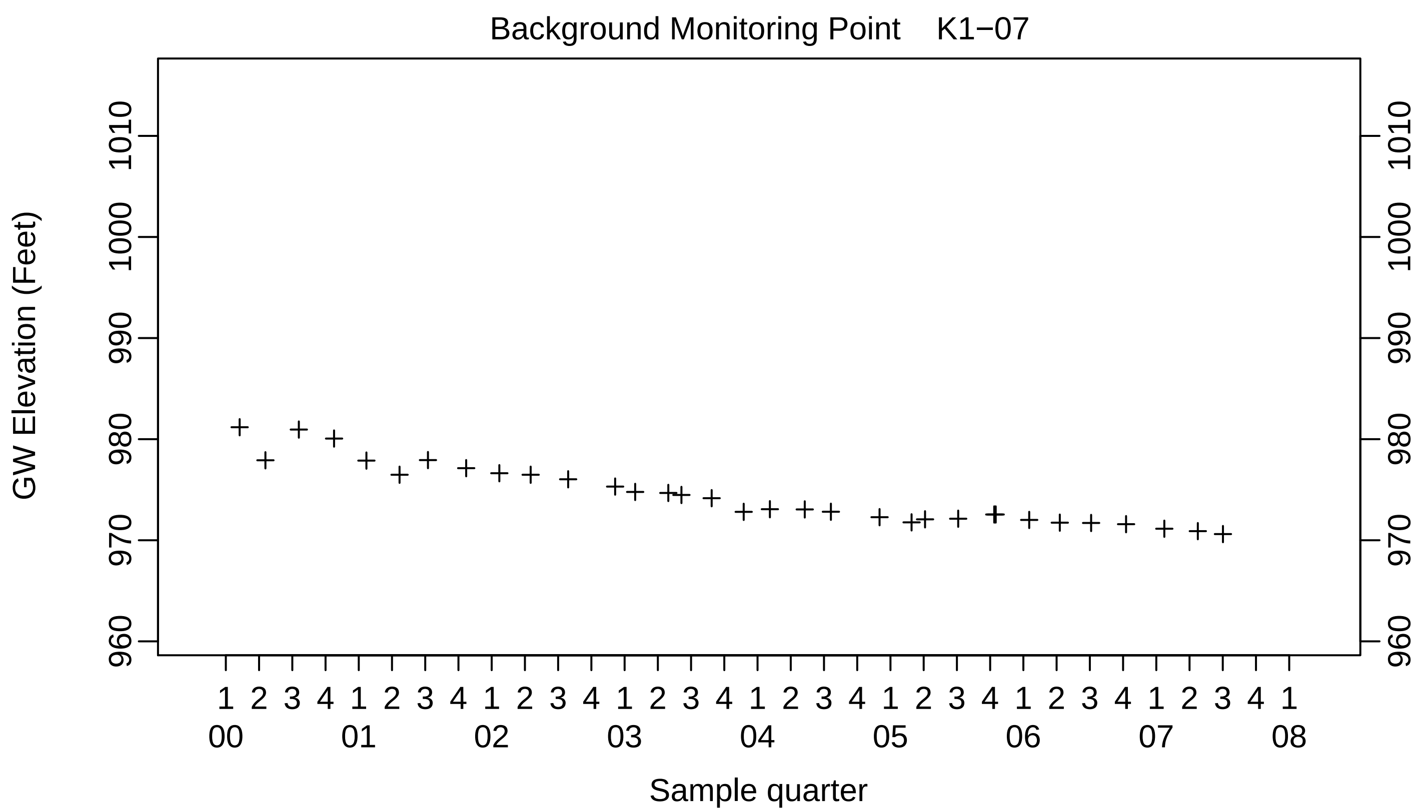
Table E-1. Analytical results from 2007 that were omitted from the Appendix E plots due to QA/QC or related issues.

Pit Area	Constituent	Monitoring Well	Date Sampled	LOS (<) or Hit (h)[a]	Concentration	Units
Pit 7	Zinc	K7-03	15-Apr-09	h	110	ug/L
Pit 7	Zinc	K7-03	01-Jul-09	h	162	ug/L
Pit 7	Zinc	K7-03	25-Jan-11	h	110	ug/L
Pit 7	Zinc	NC7-26	25-Jan-11	h	110	ug/L

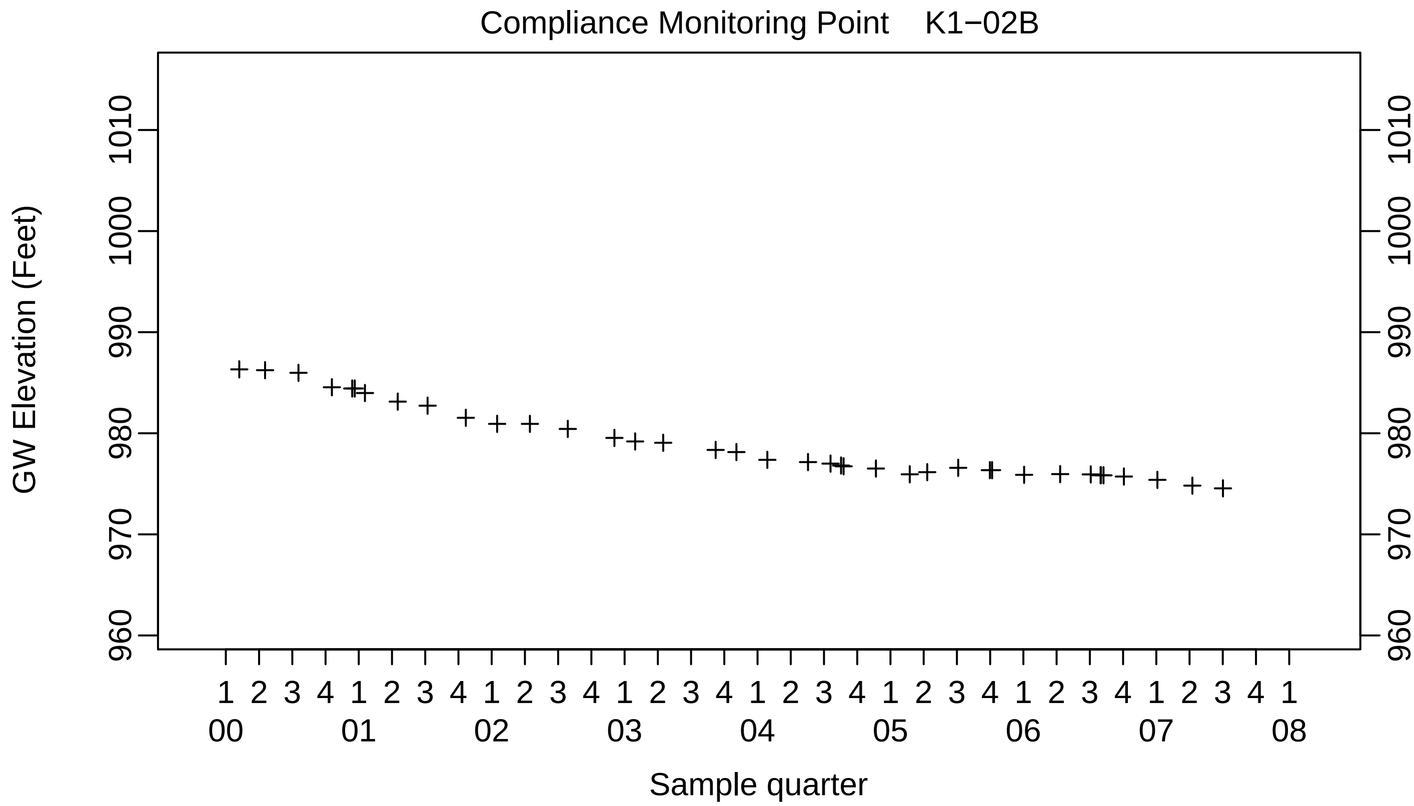
[a] Values labed as "<" had high limits of sensitivity (LOS) for that particular analysis result provided by the contract laboratory. These values were not inculded in the plots. The "h" values indicate hits that, if plotted would have significantly altered the Y-axis scale. These hits have been addressed in past reports and are not an indication of a problem at a well.

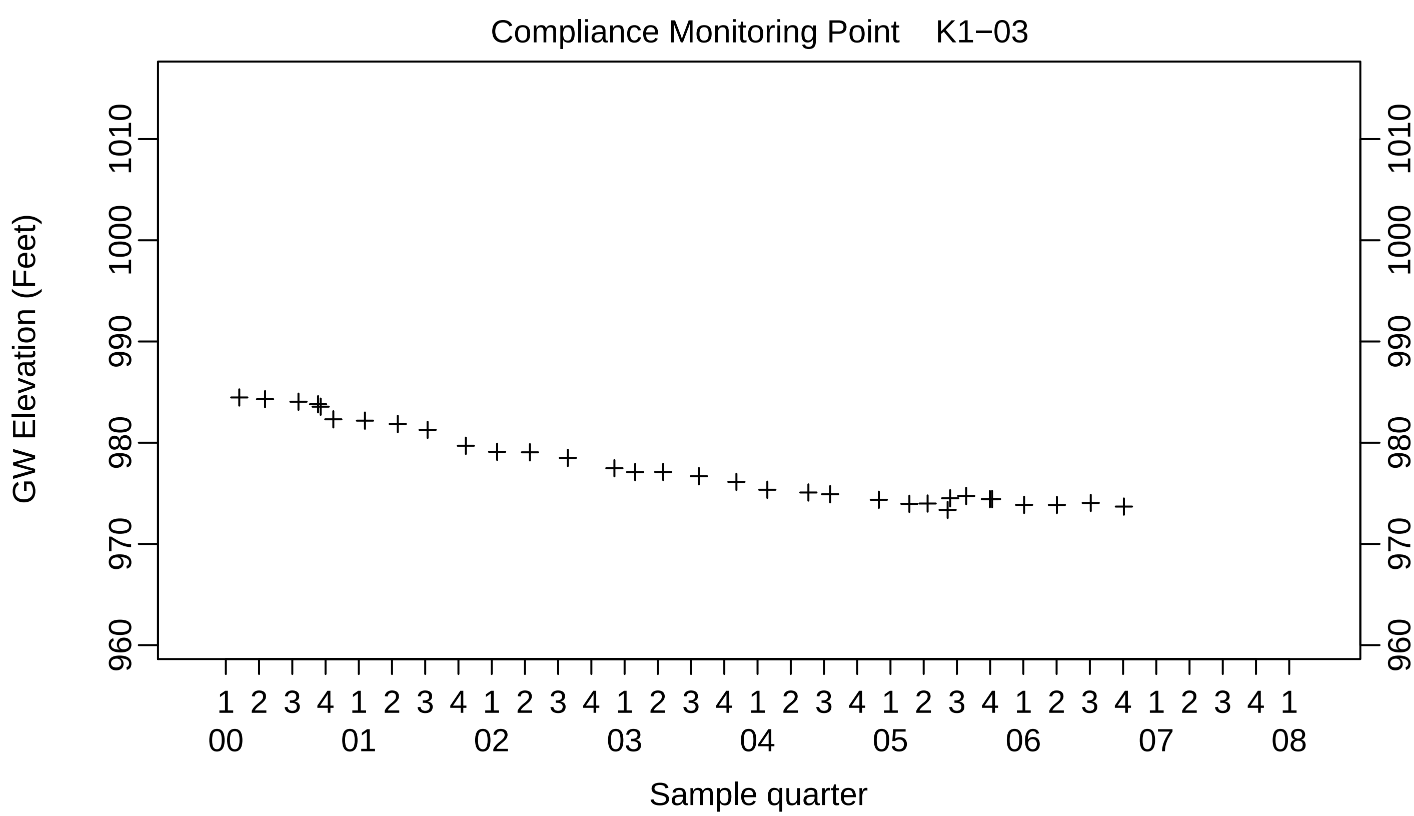
Pit 1 Area
GW Elevation (Feet)



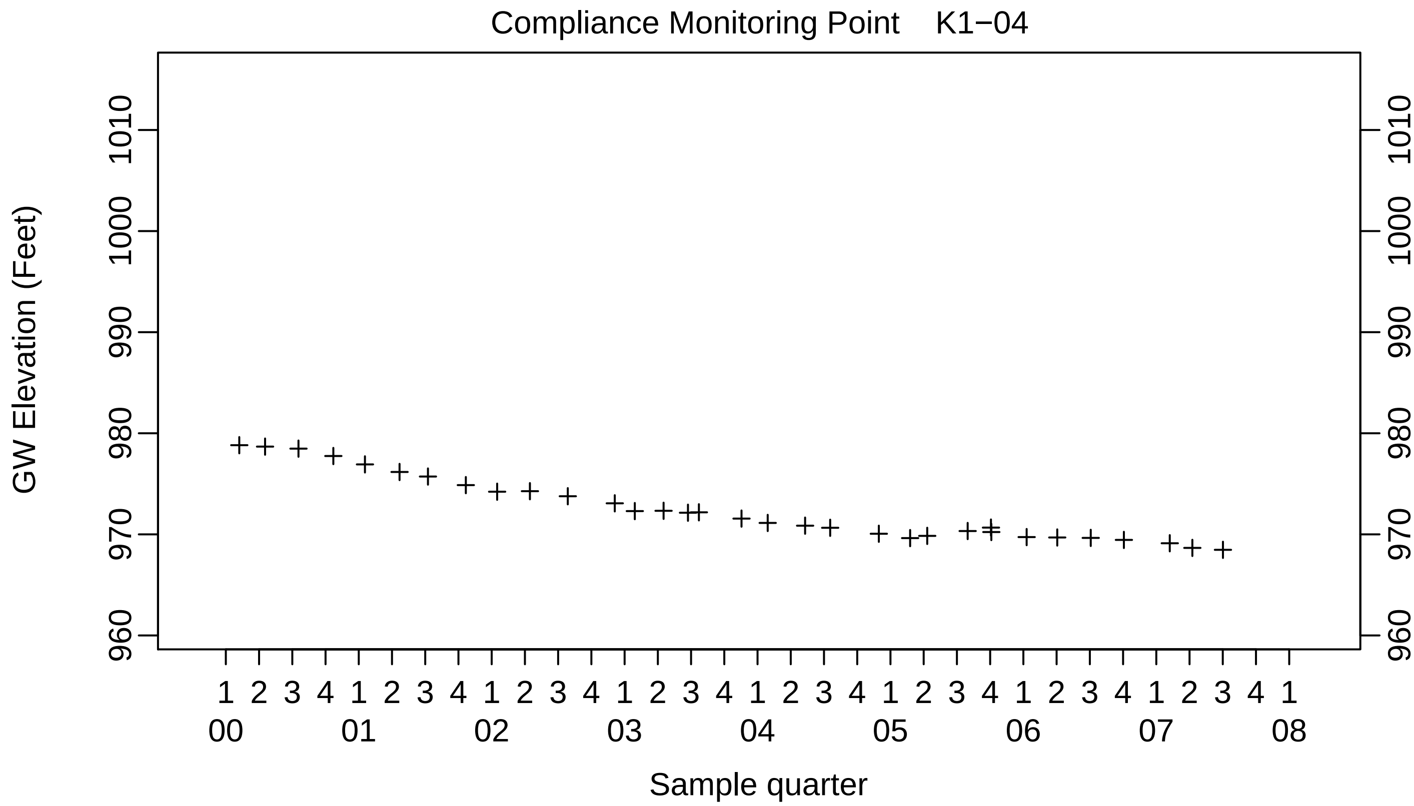


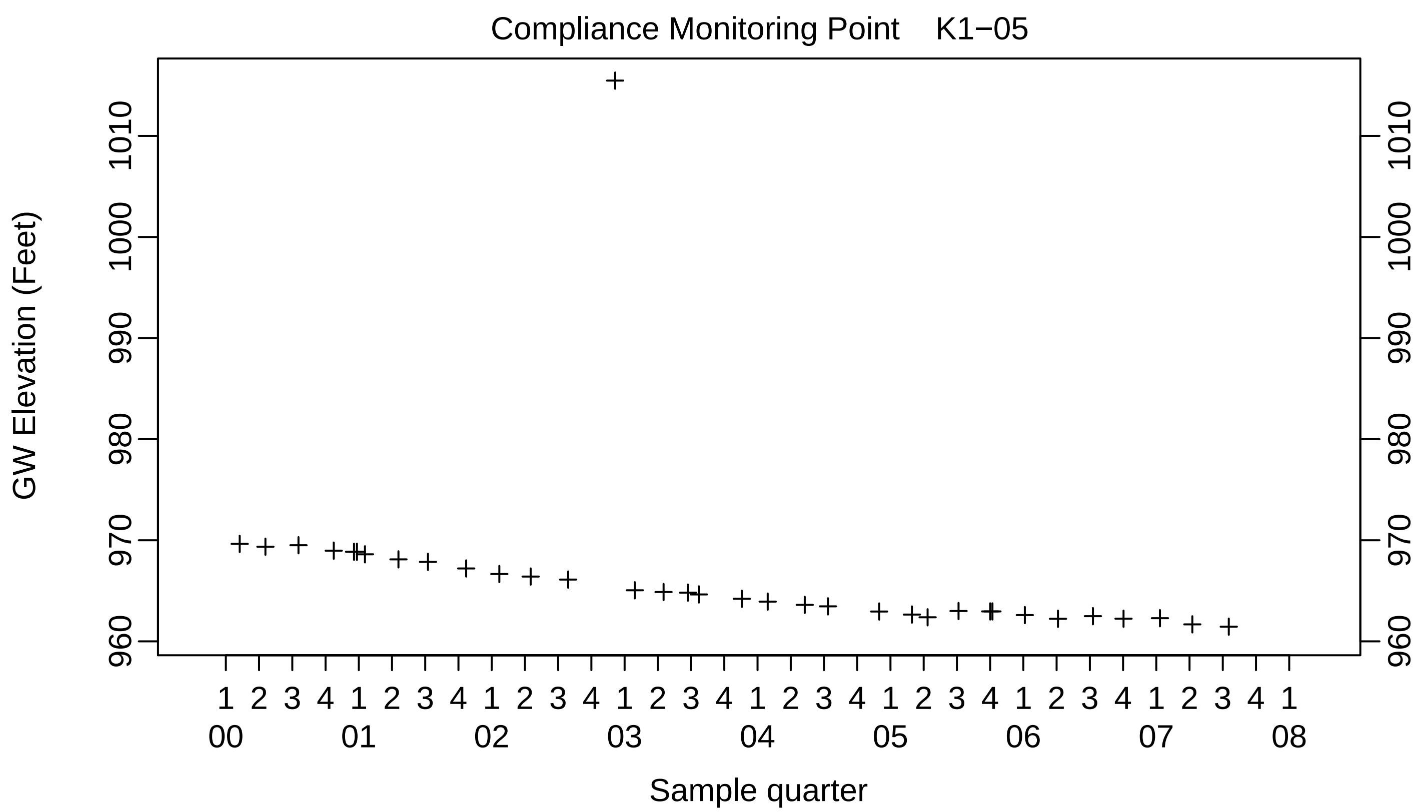
Pit 1 Area
GW Elevation (Feet)



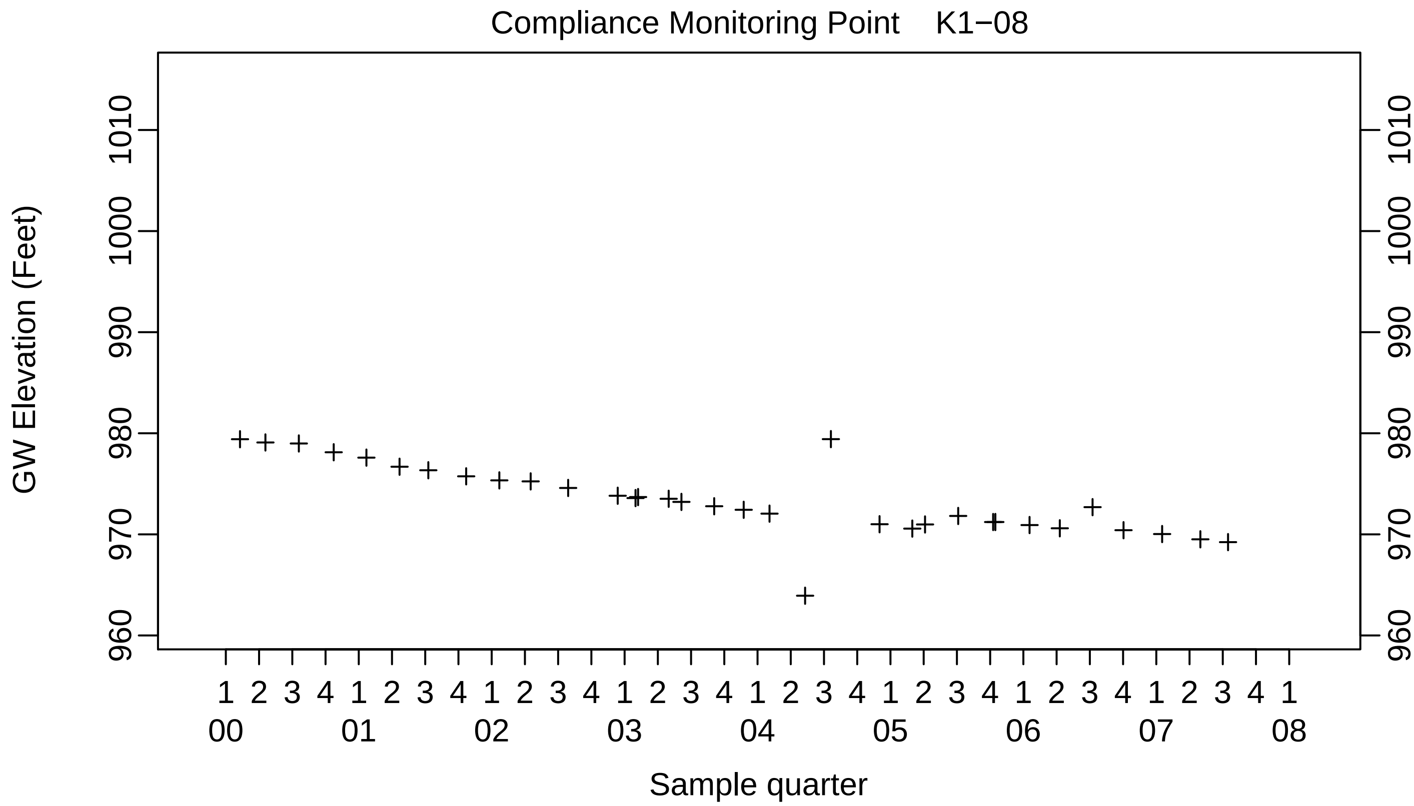


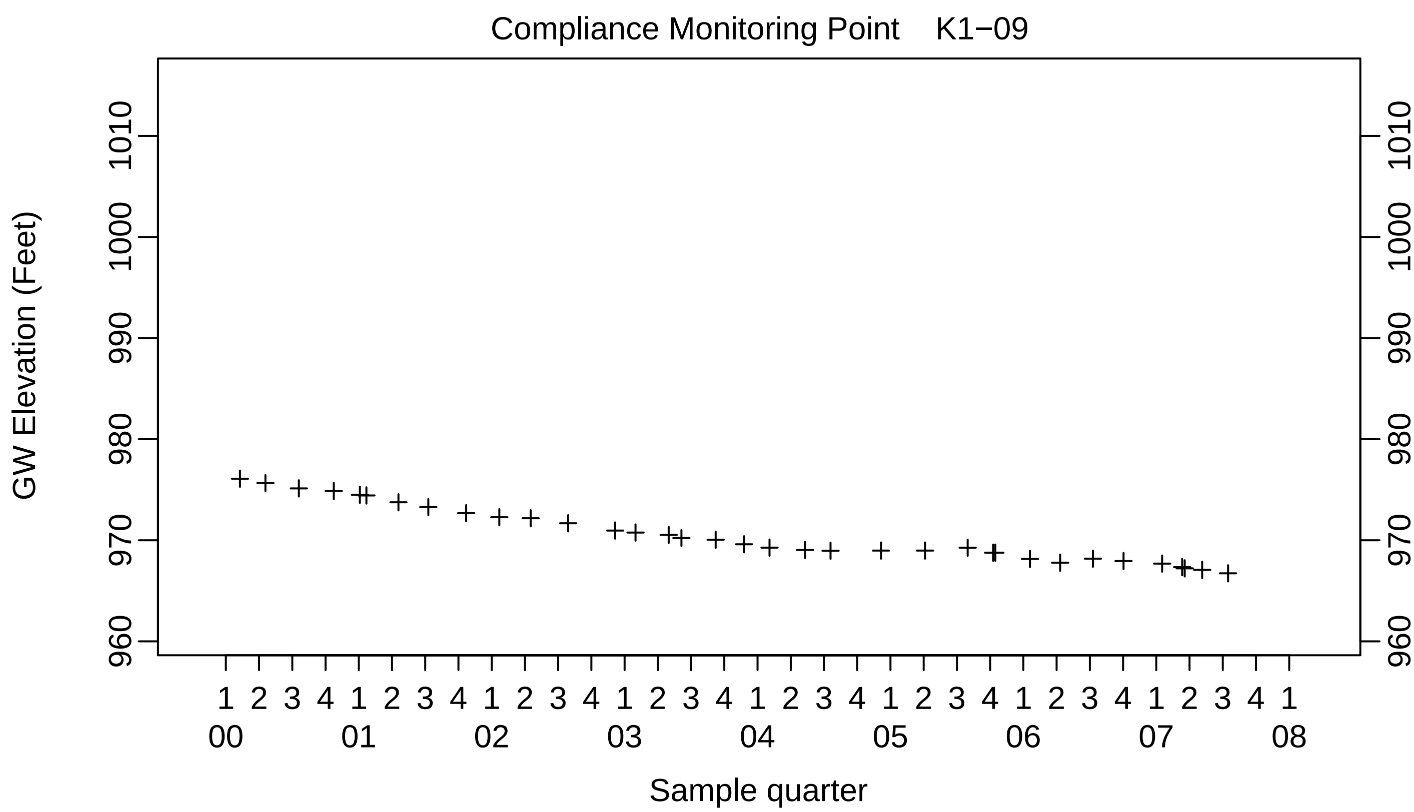
Pit 1 Area
GW Elevation (Feet)



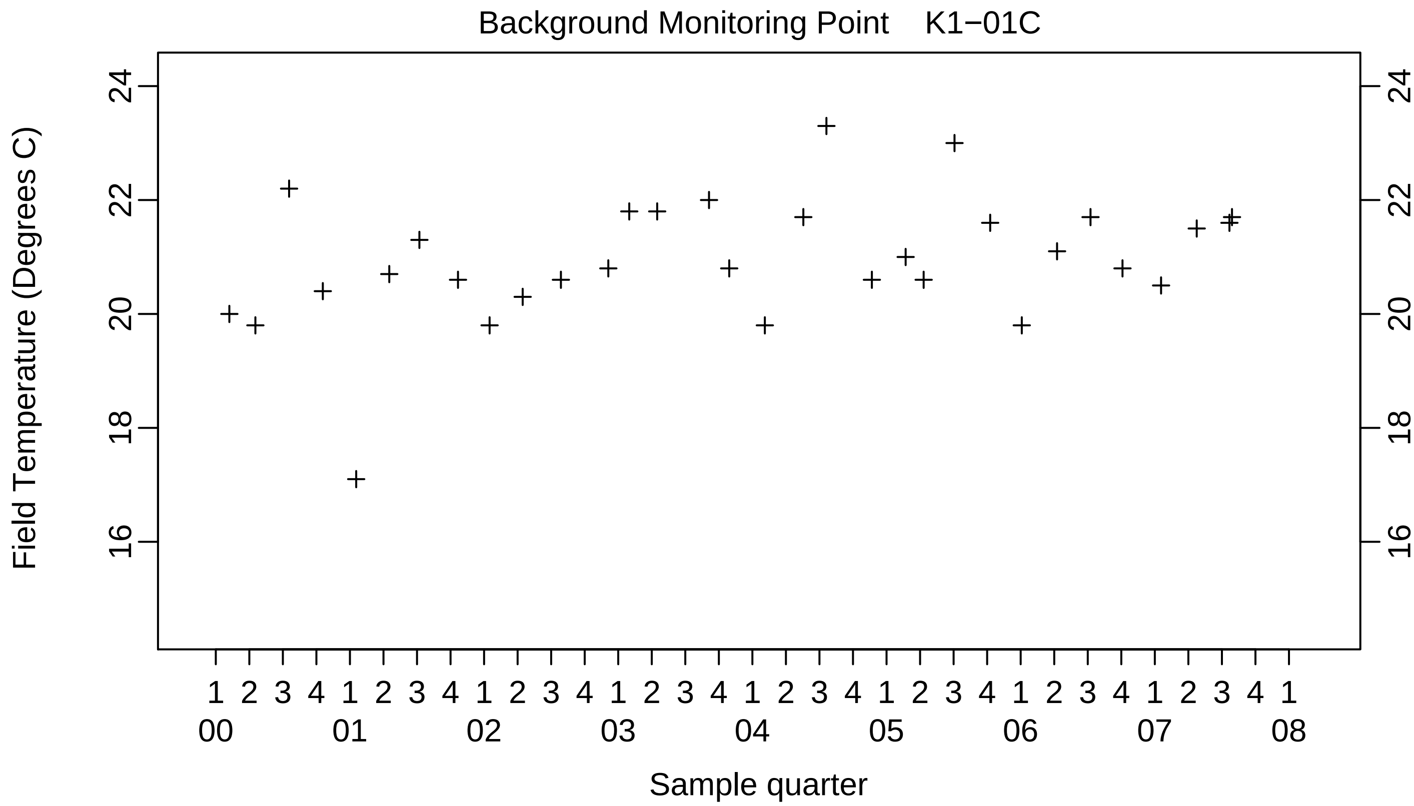


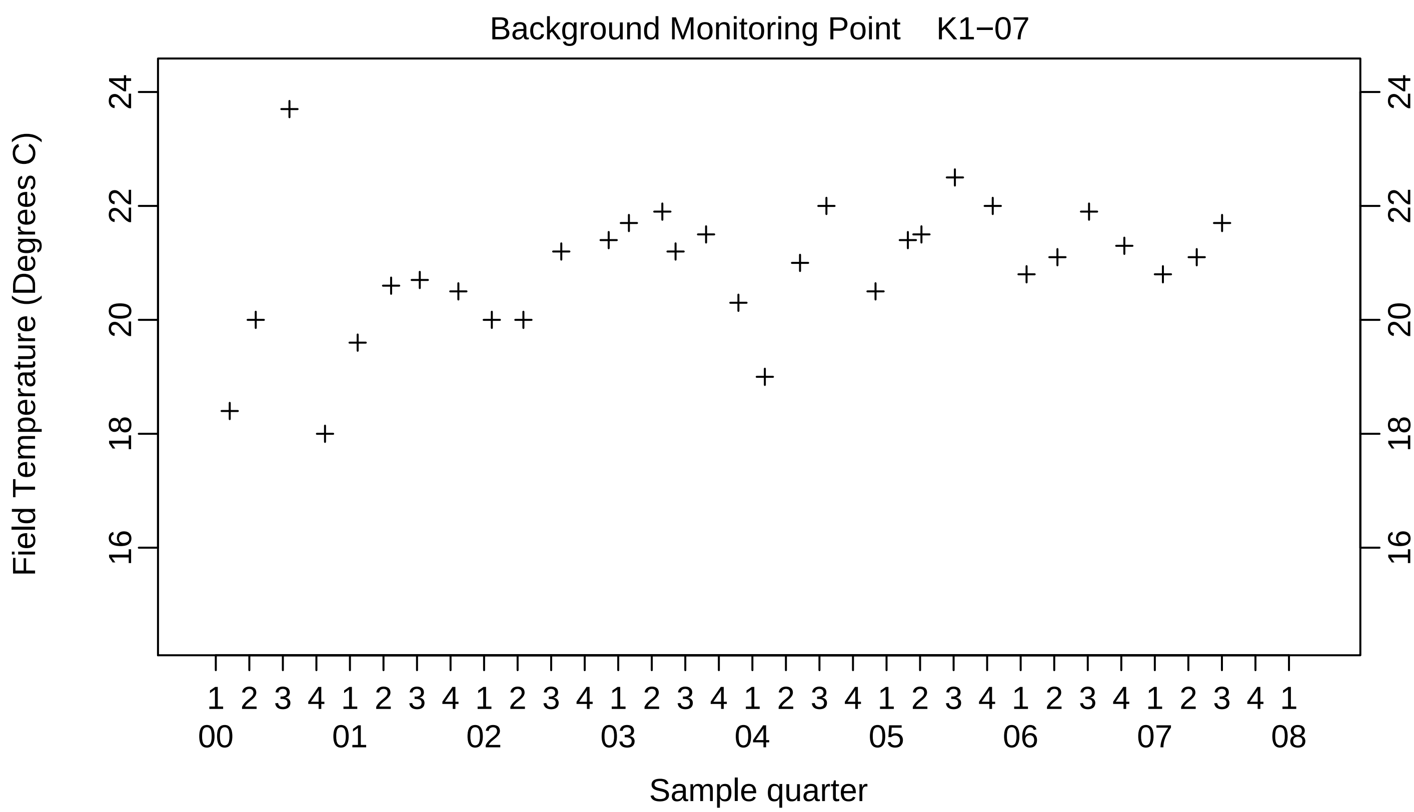
Pit 1 Area
GW Elevation (Feet)



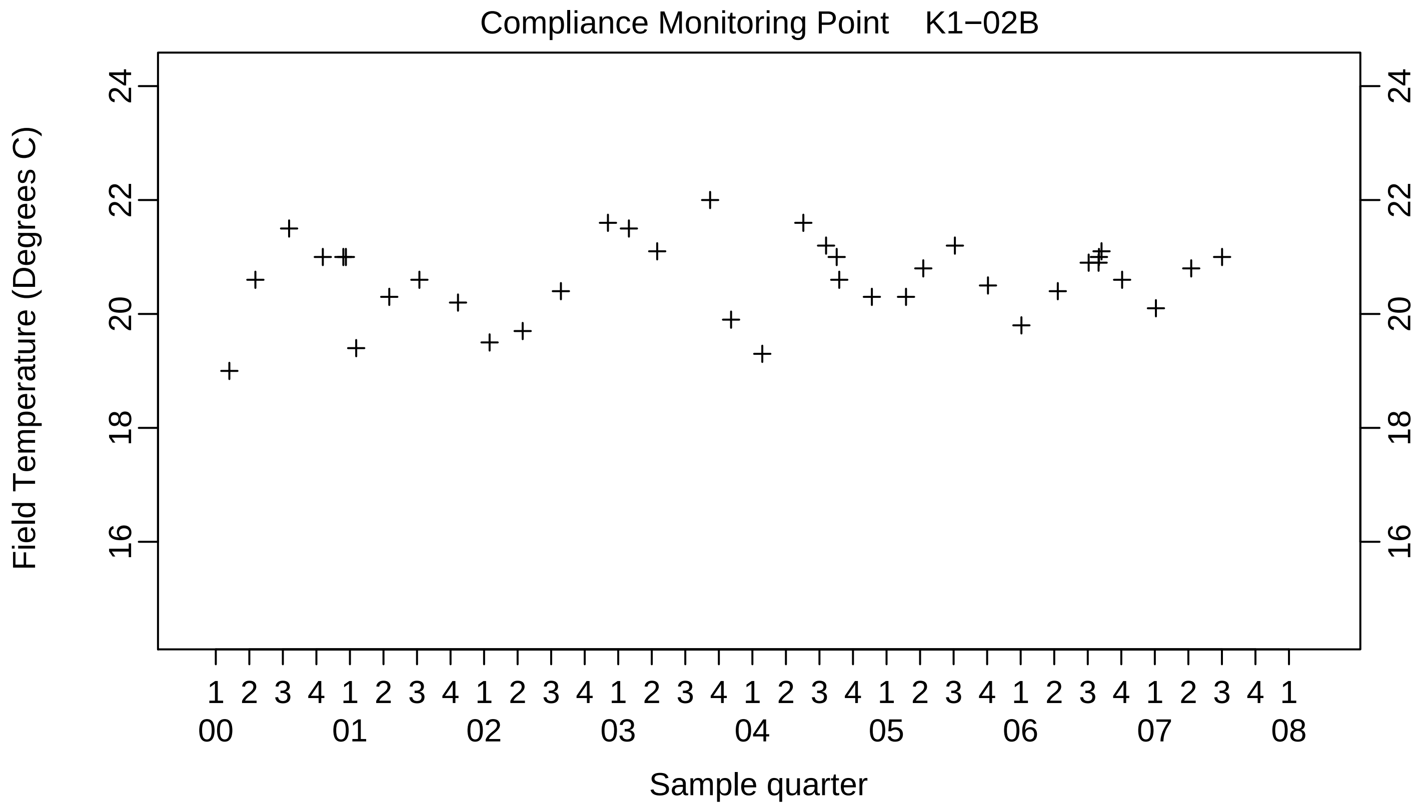


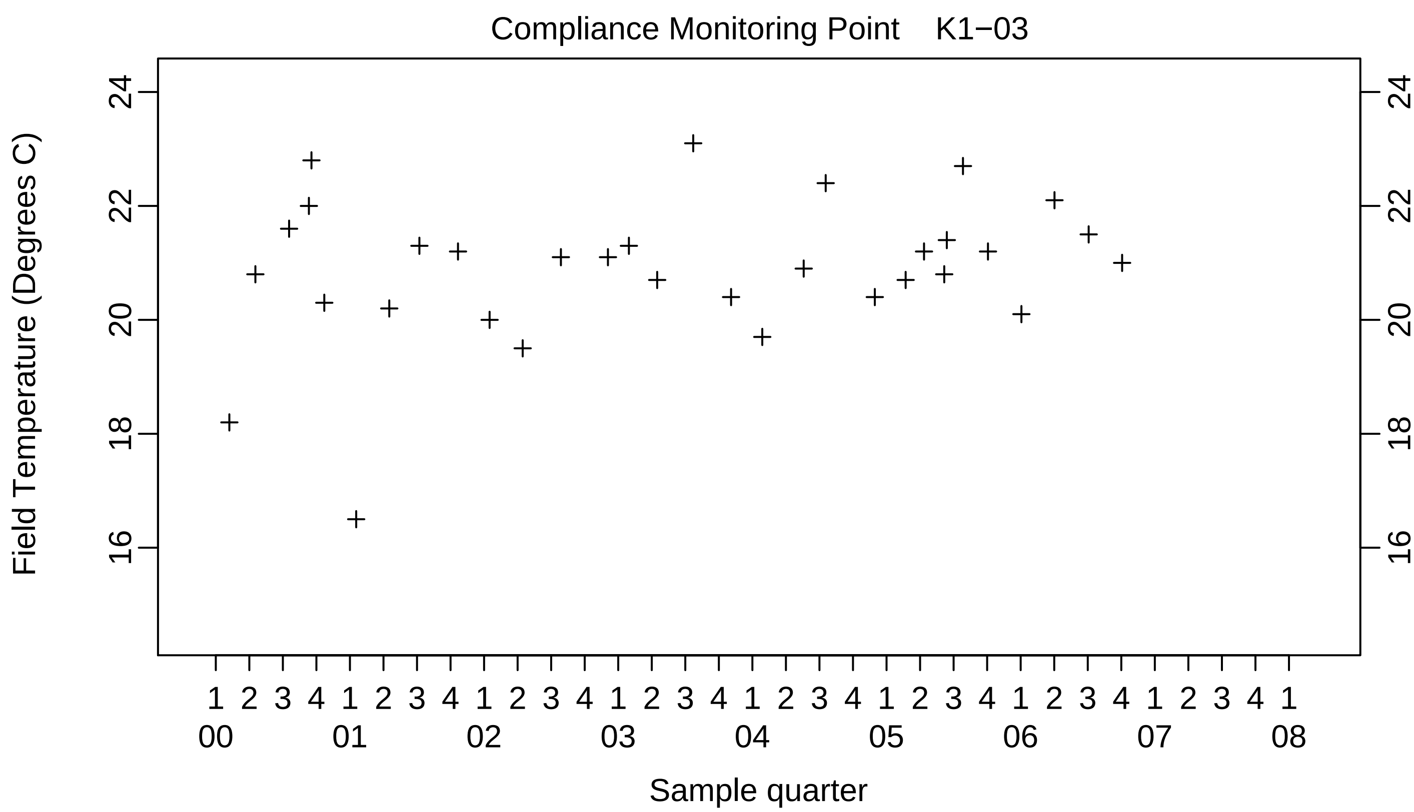
Pit 1 Area
Field Temperature (Degrees C)



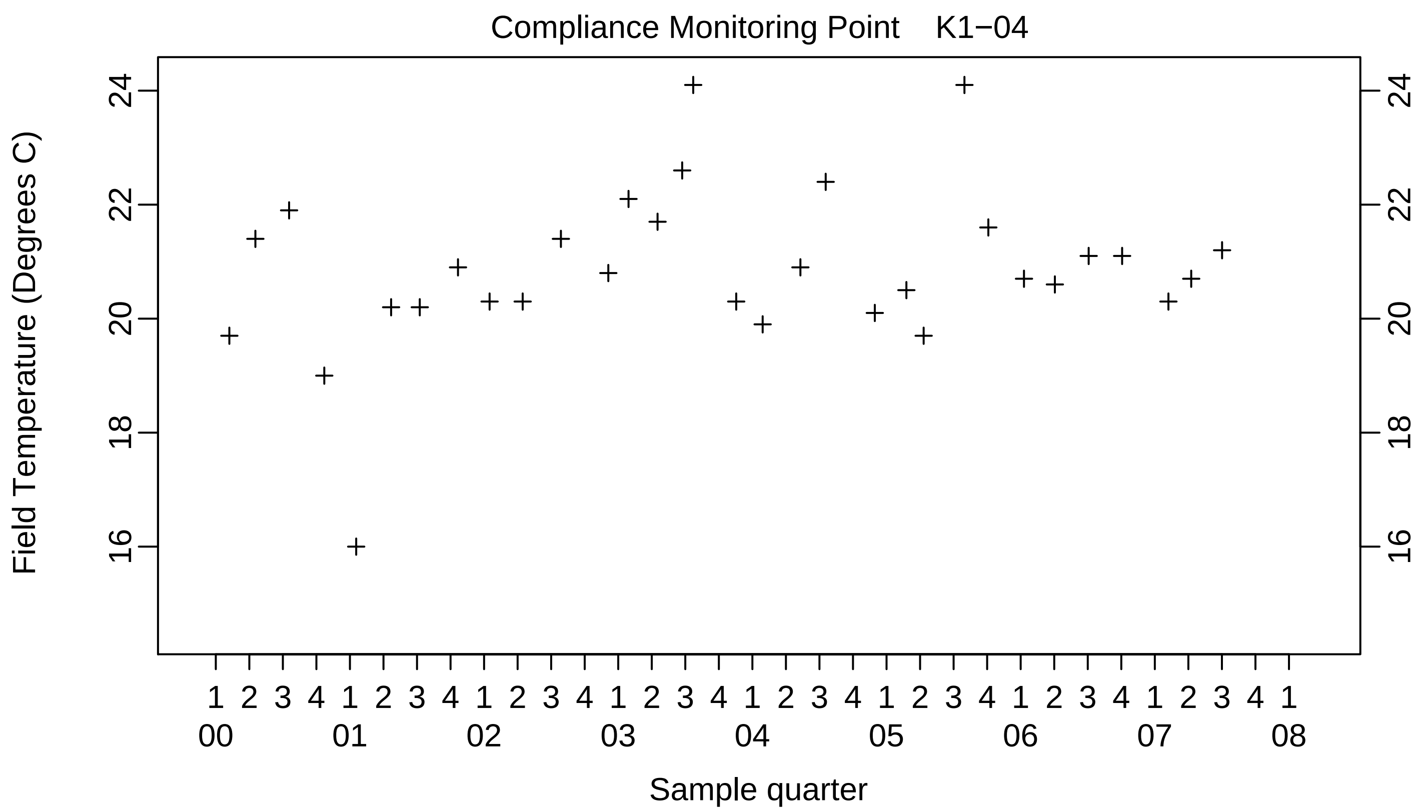


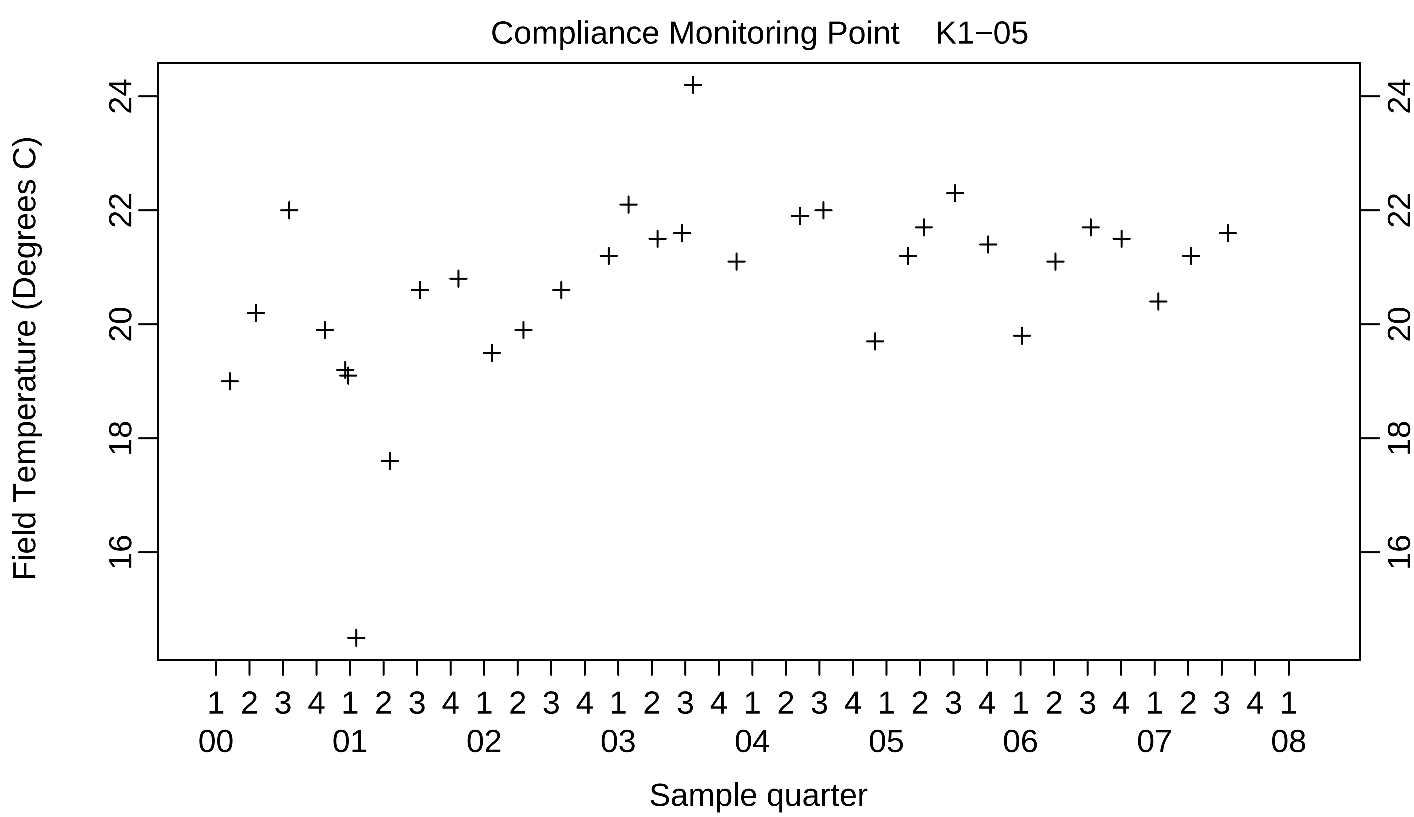
Pit 1 Area
Field Temperature (Degrees C)



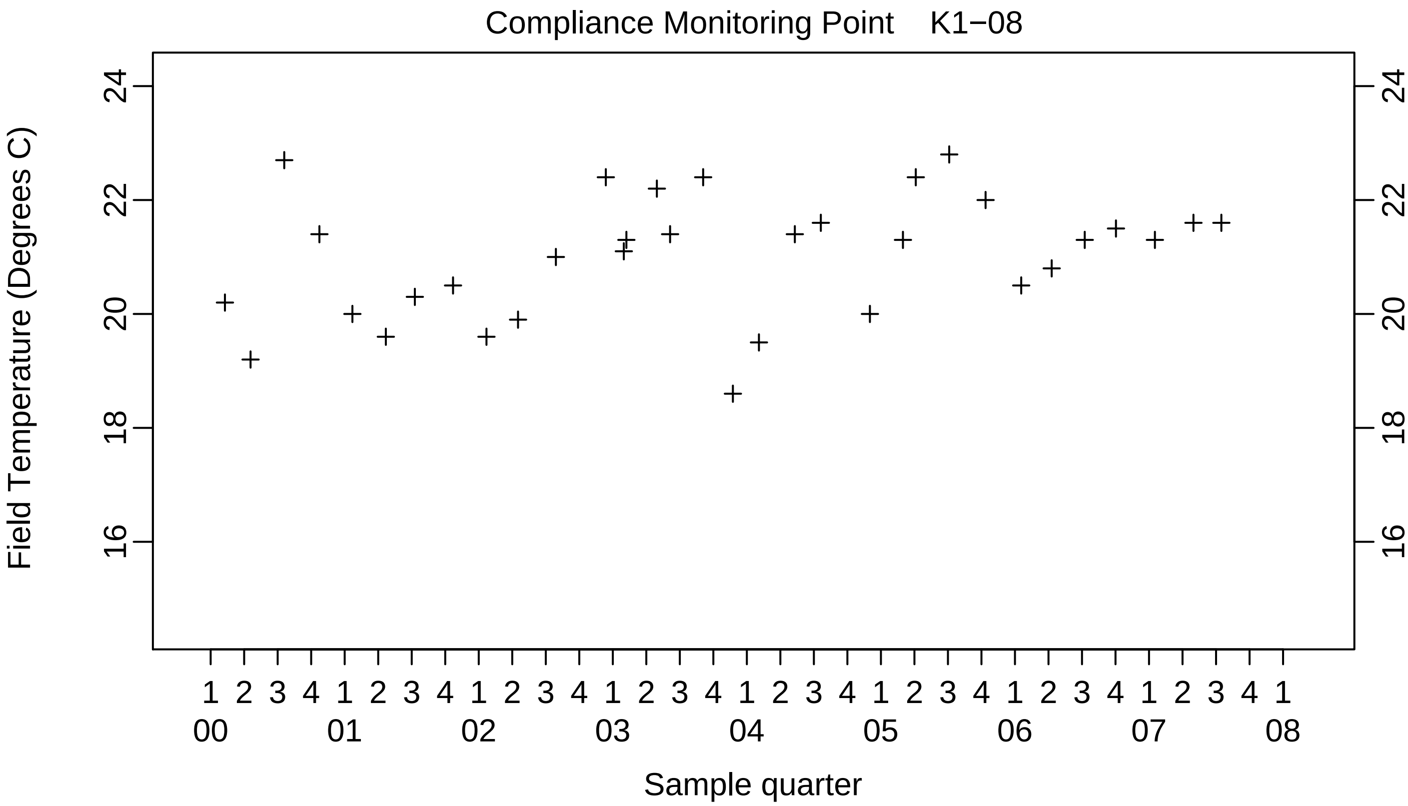


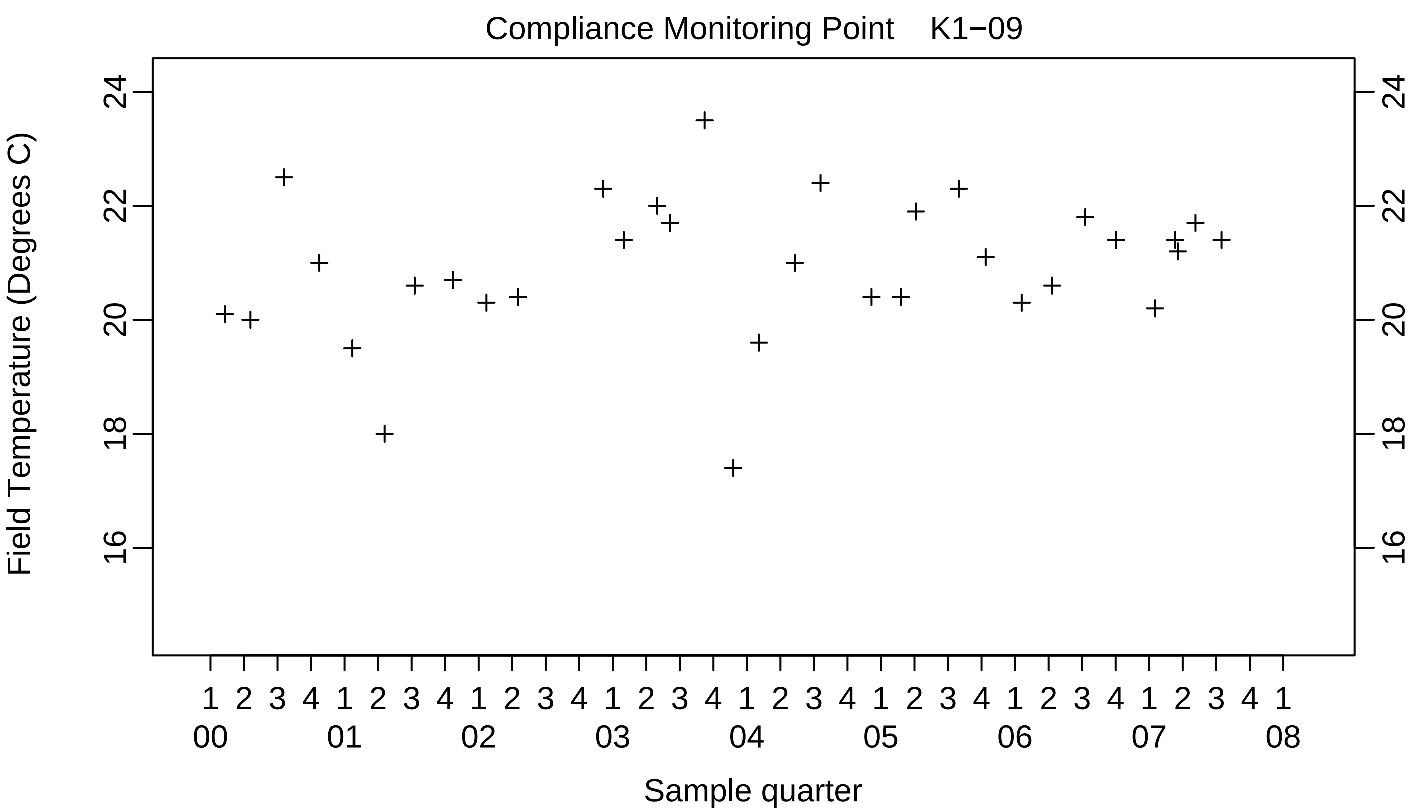
Pit 1 Area
Field Temperature (Degrees C)



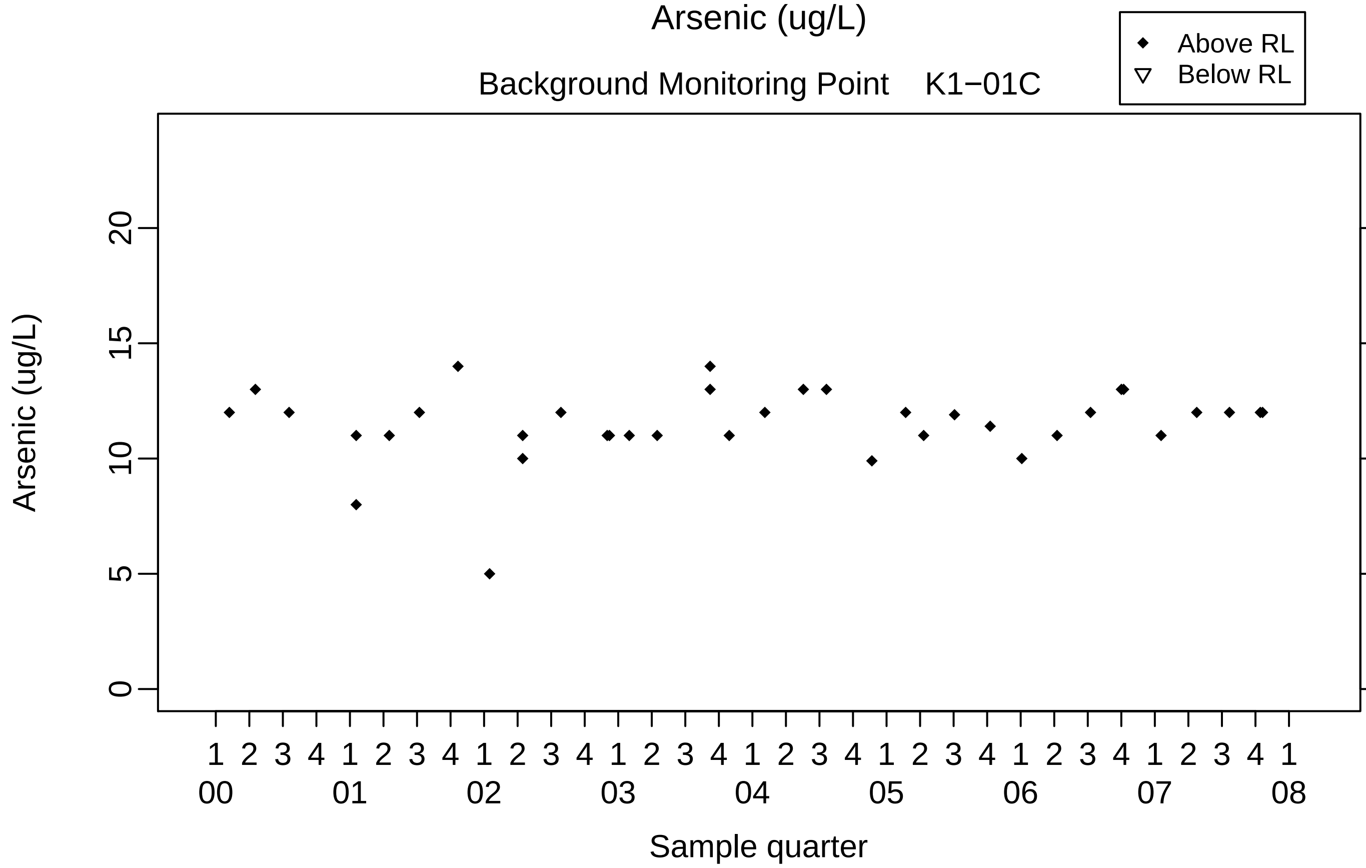


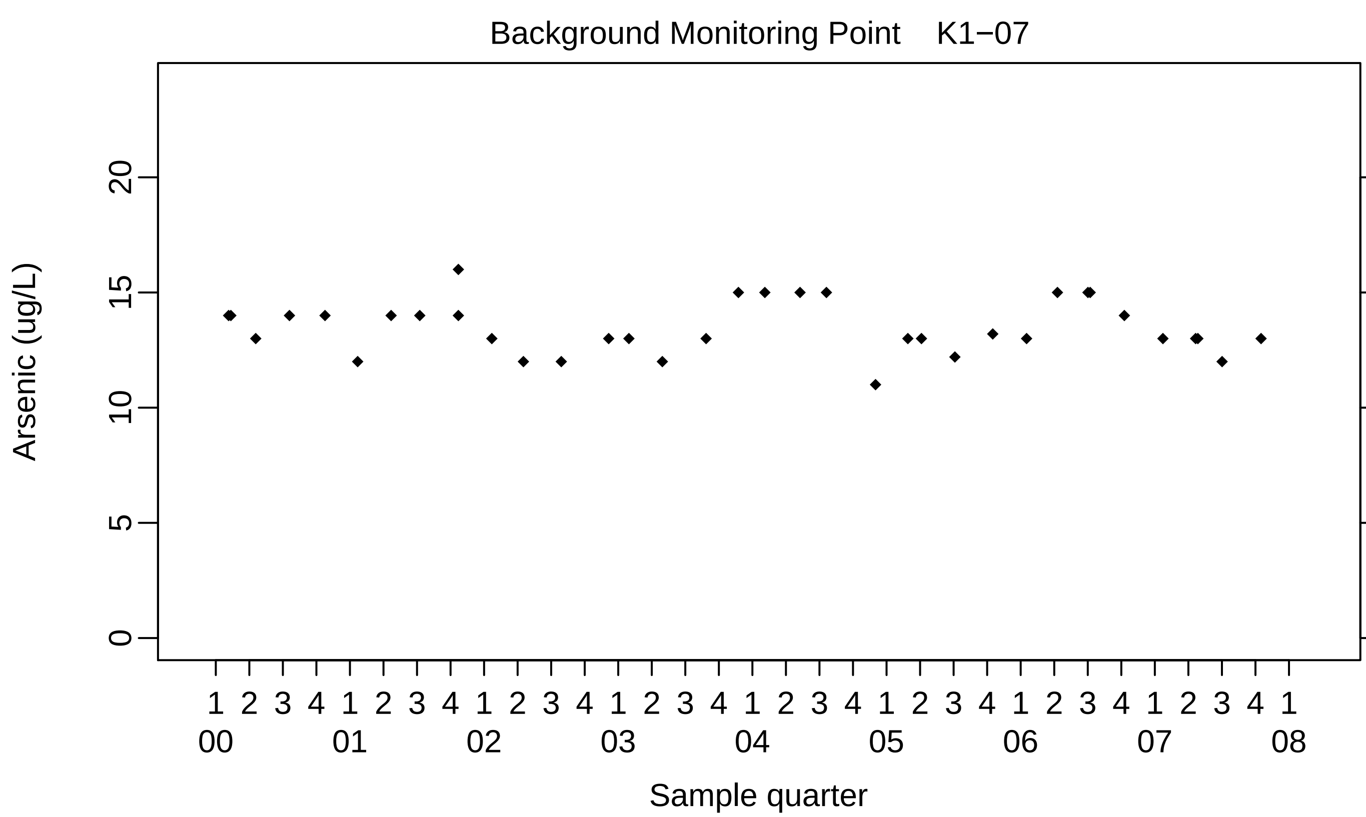
Pit 1 Area
Field Temperature (Degrees C)



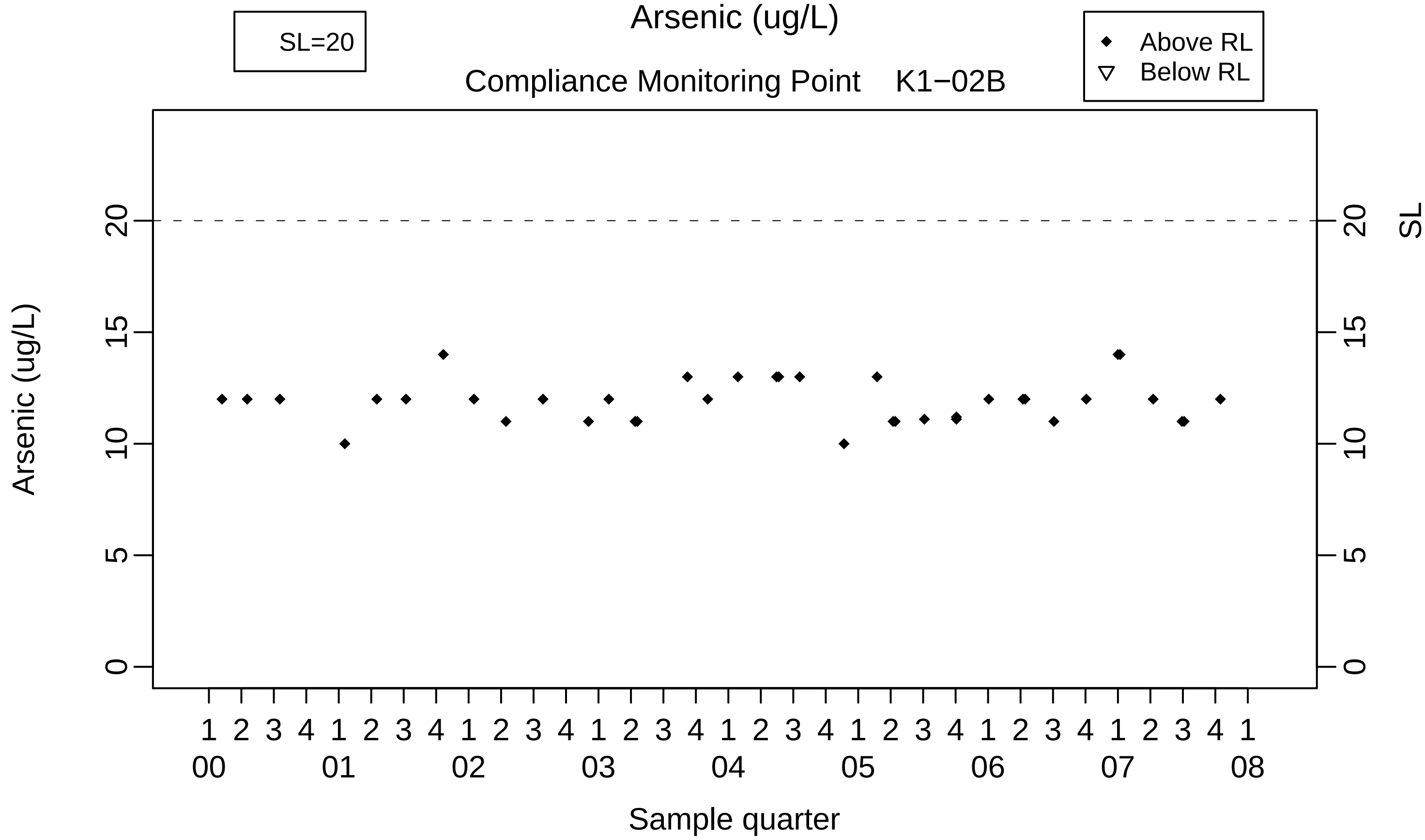


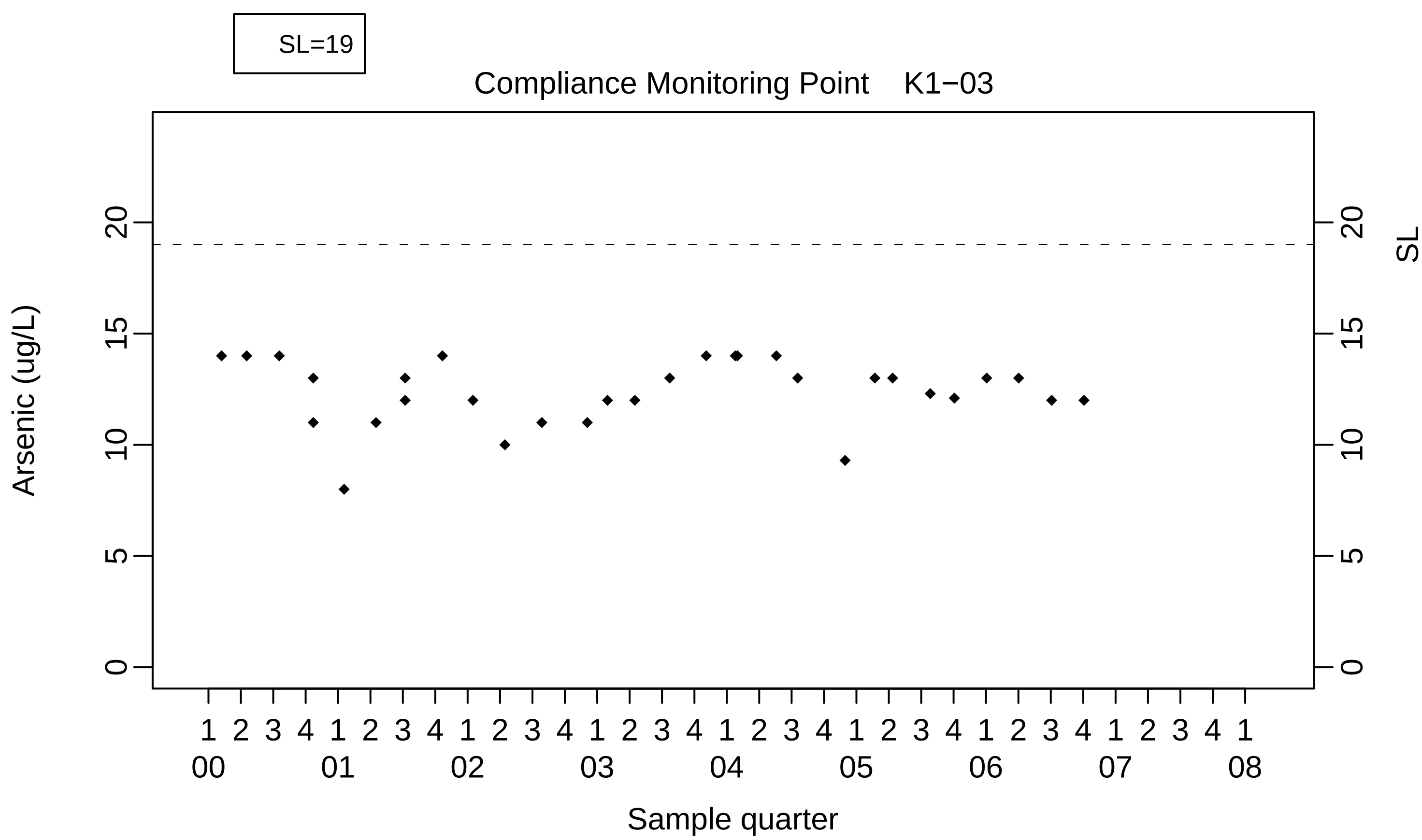
Pit 1 Area
Arsenic (ug/L)



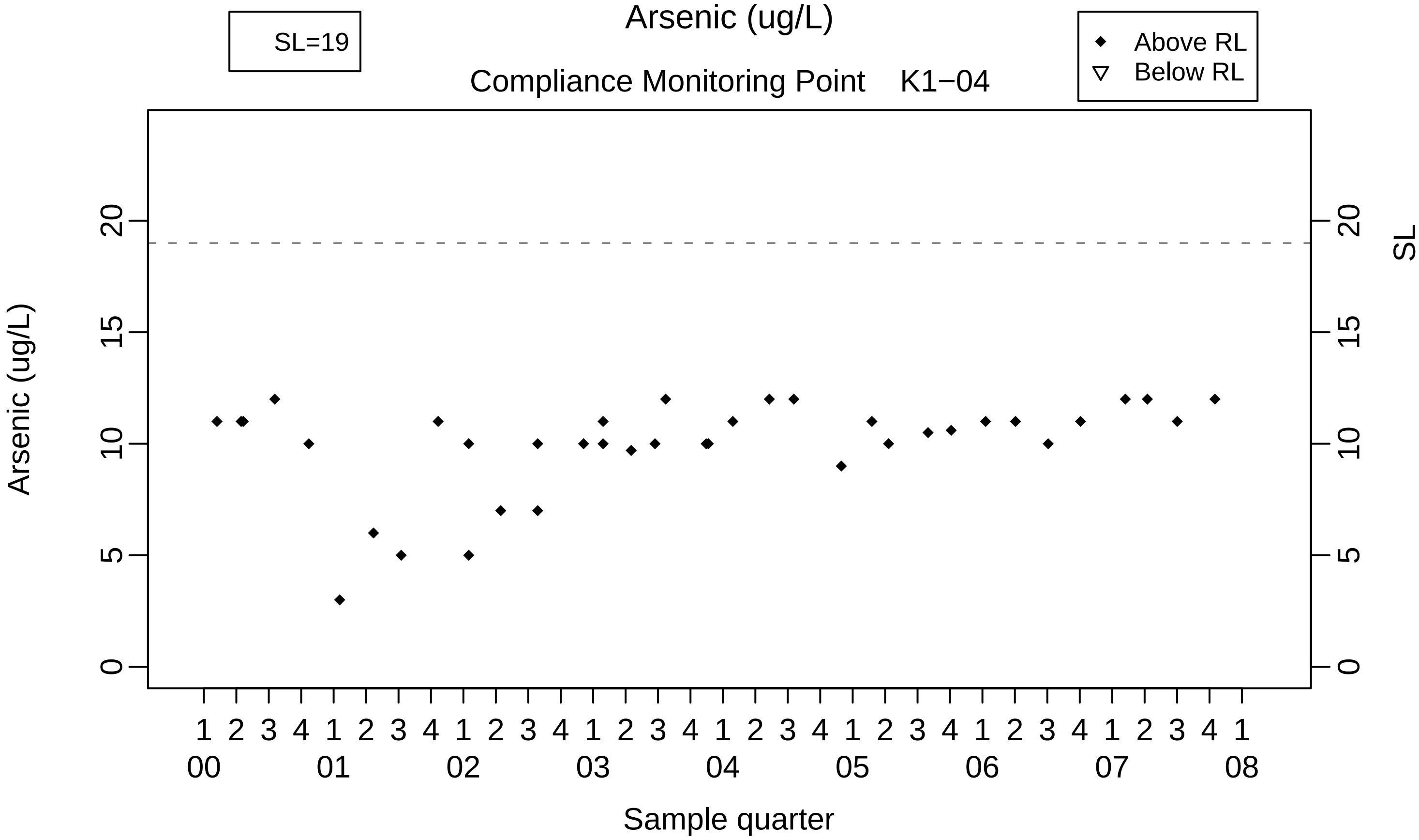


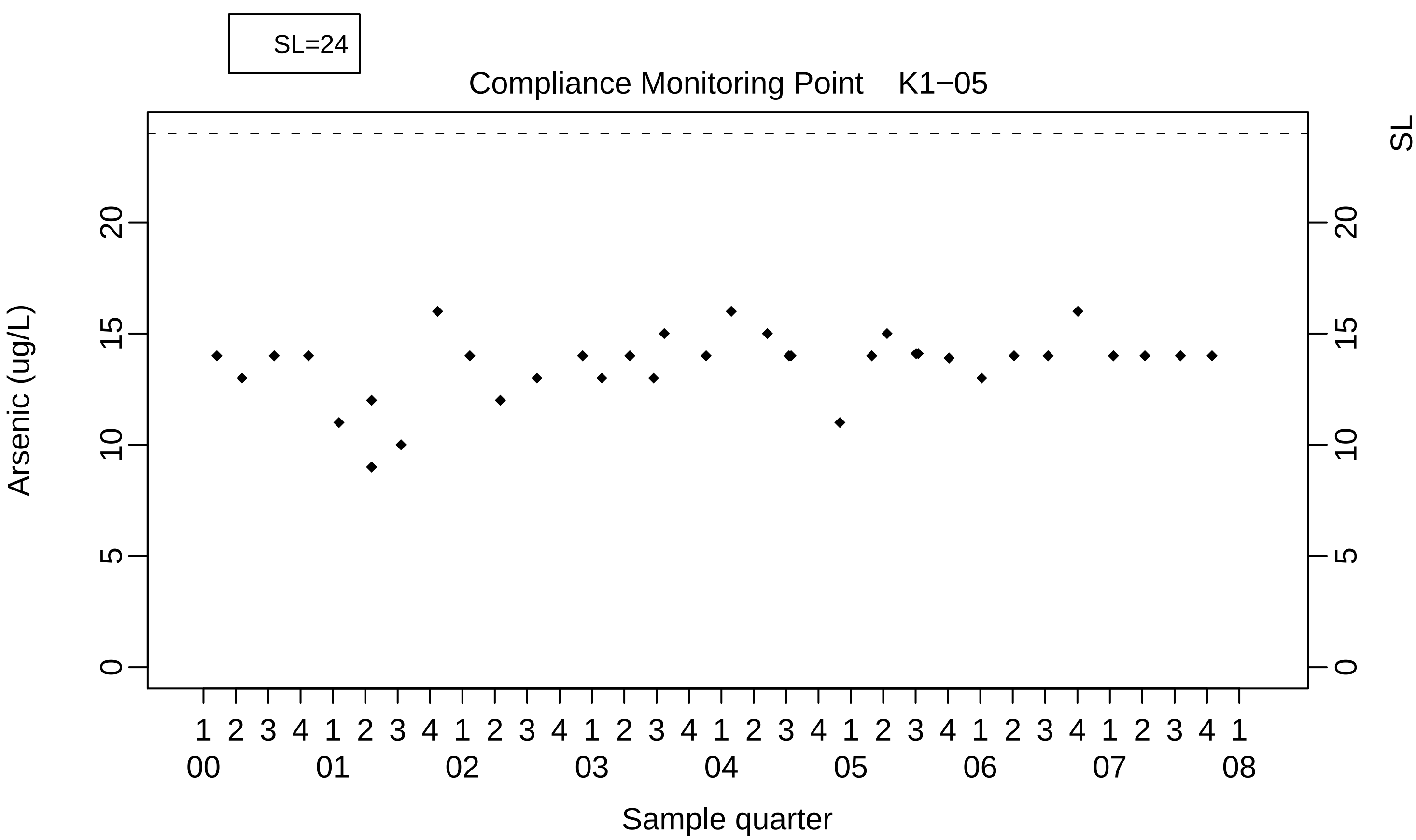
Pit 1 Area
Arsenic (ug/L)

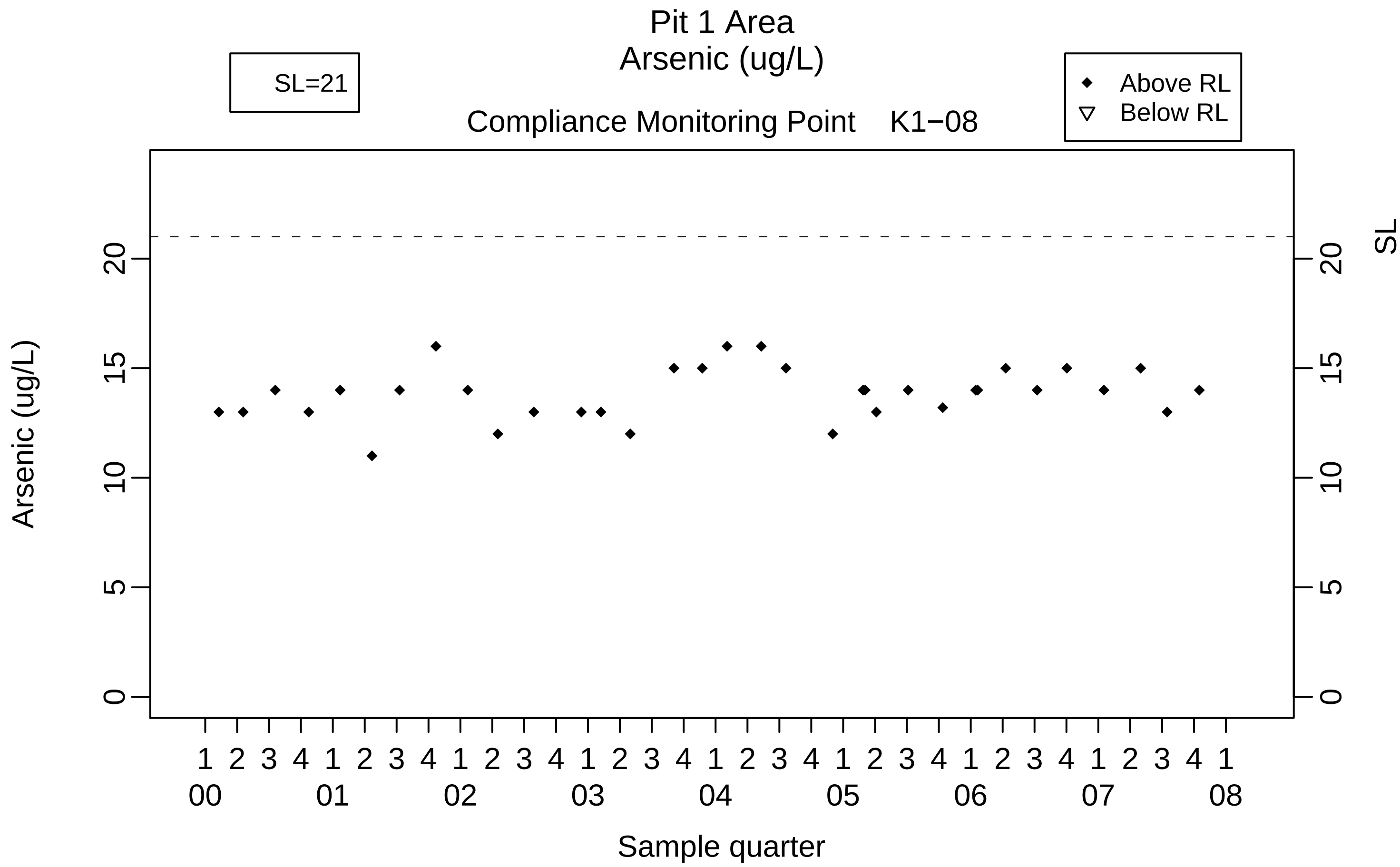


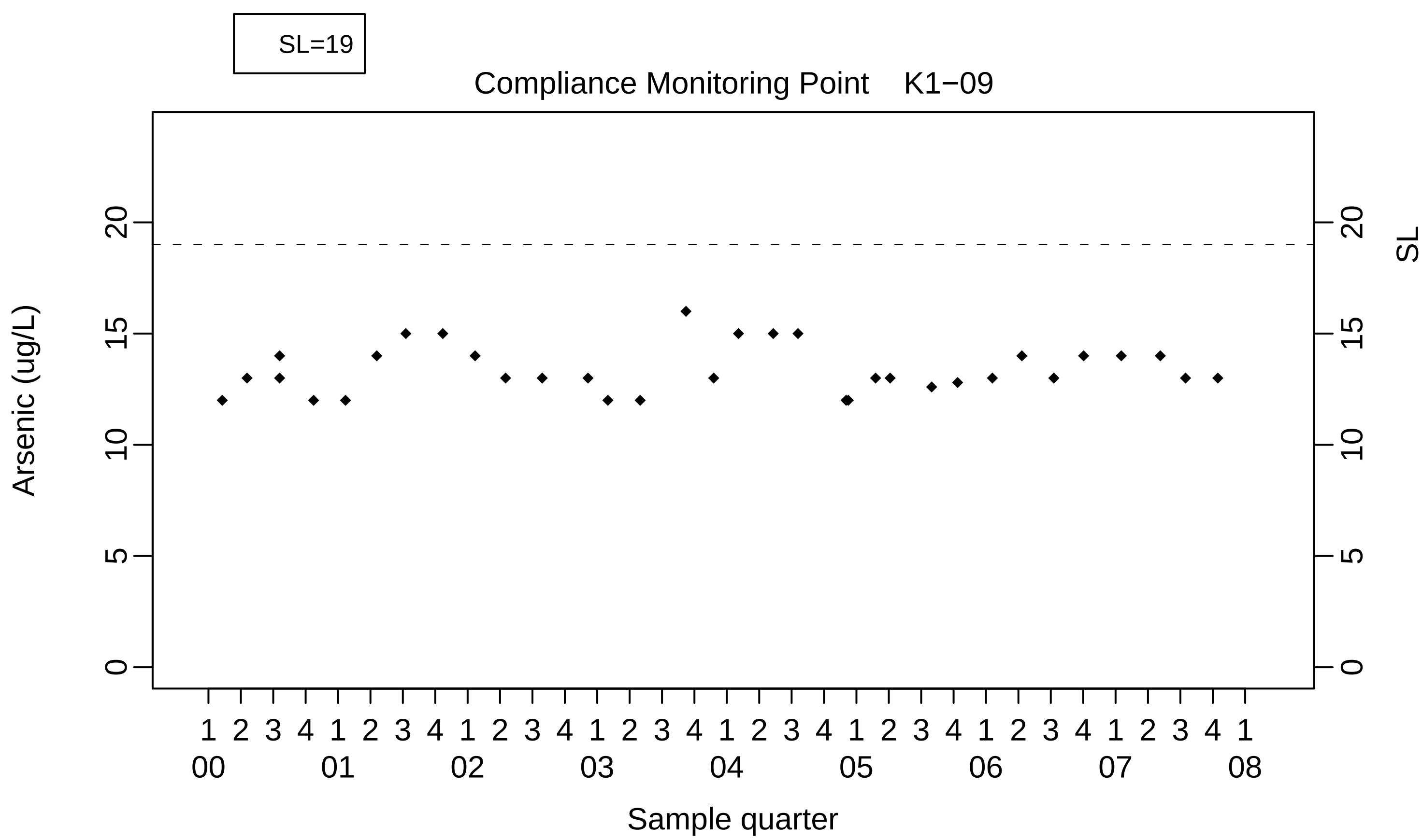


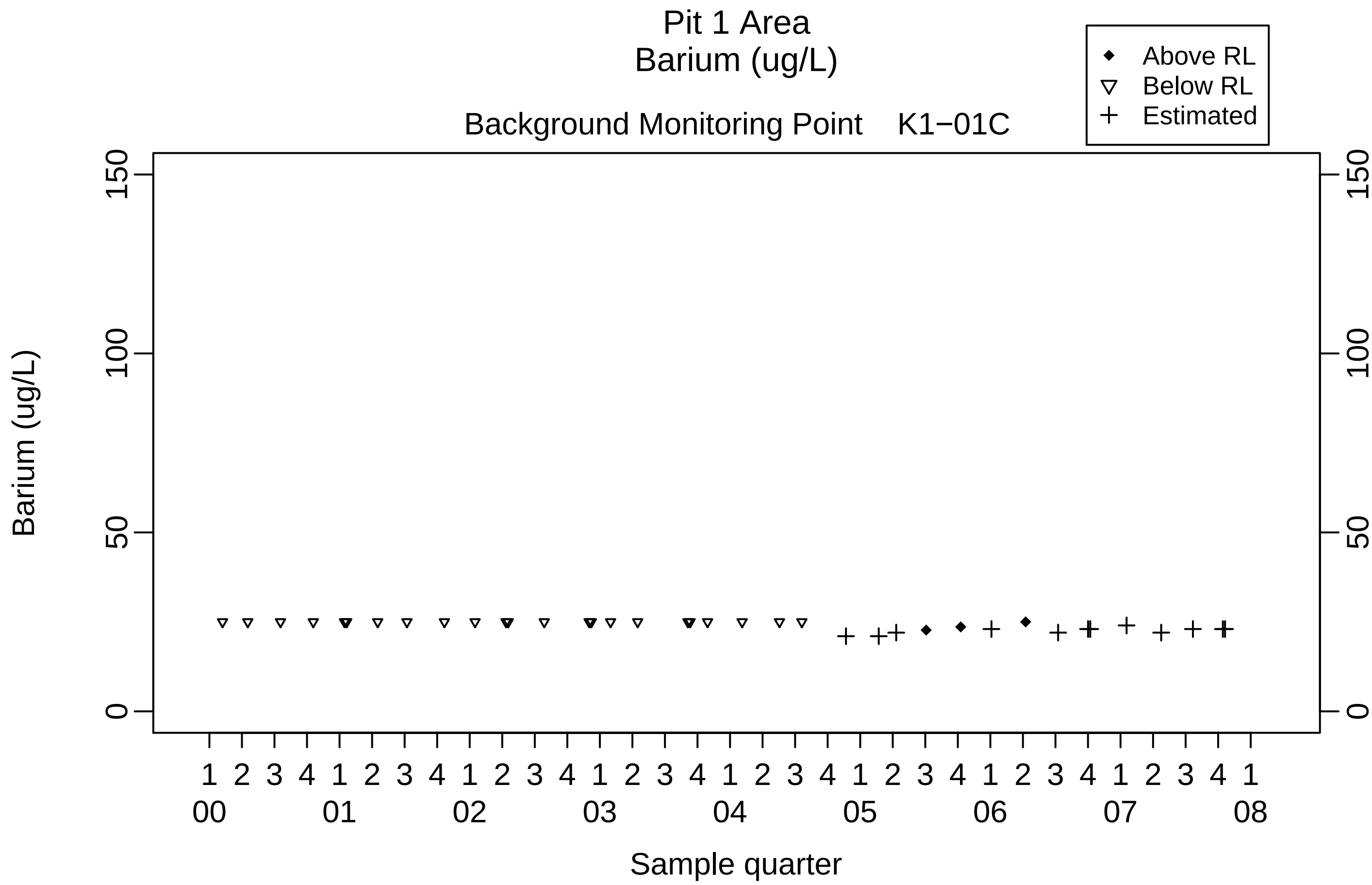
Pit 1 Area
Arsenic (ug/L)

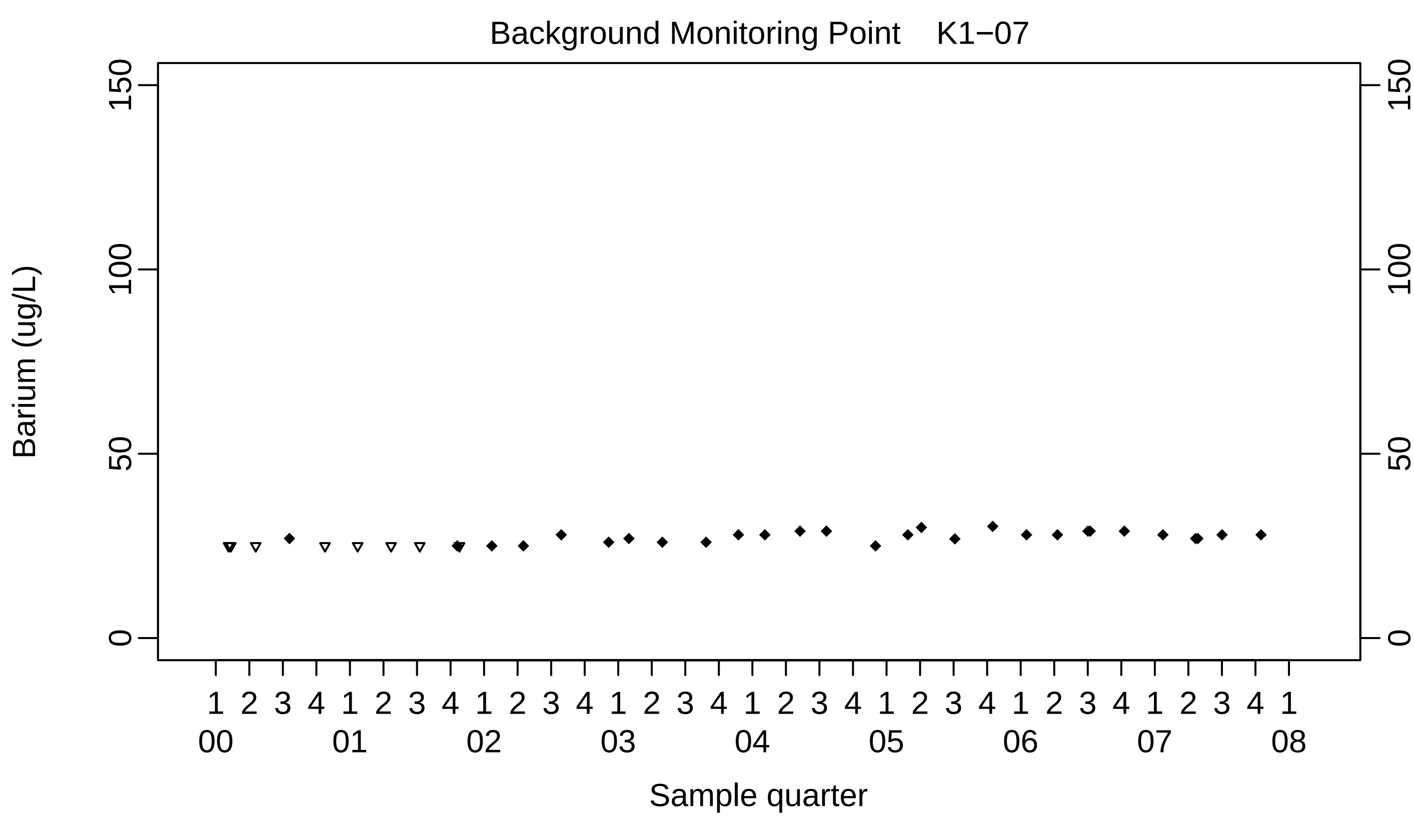


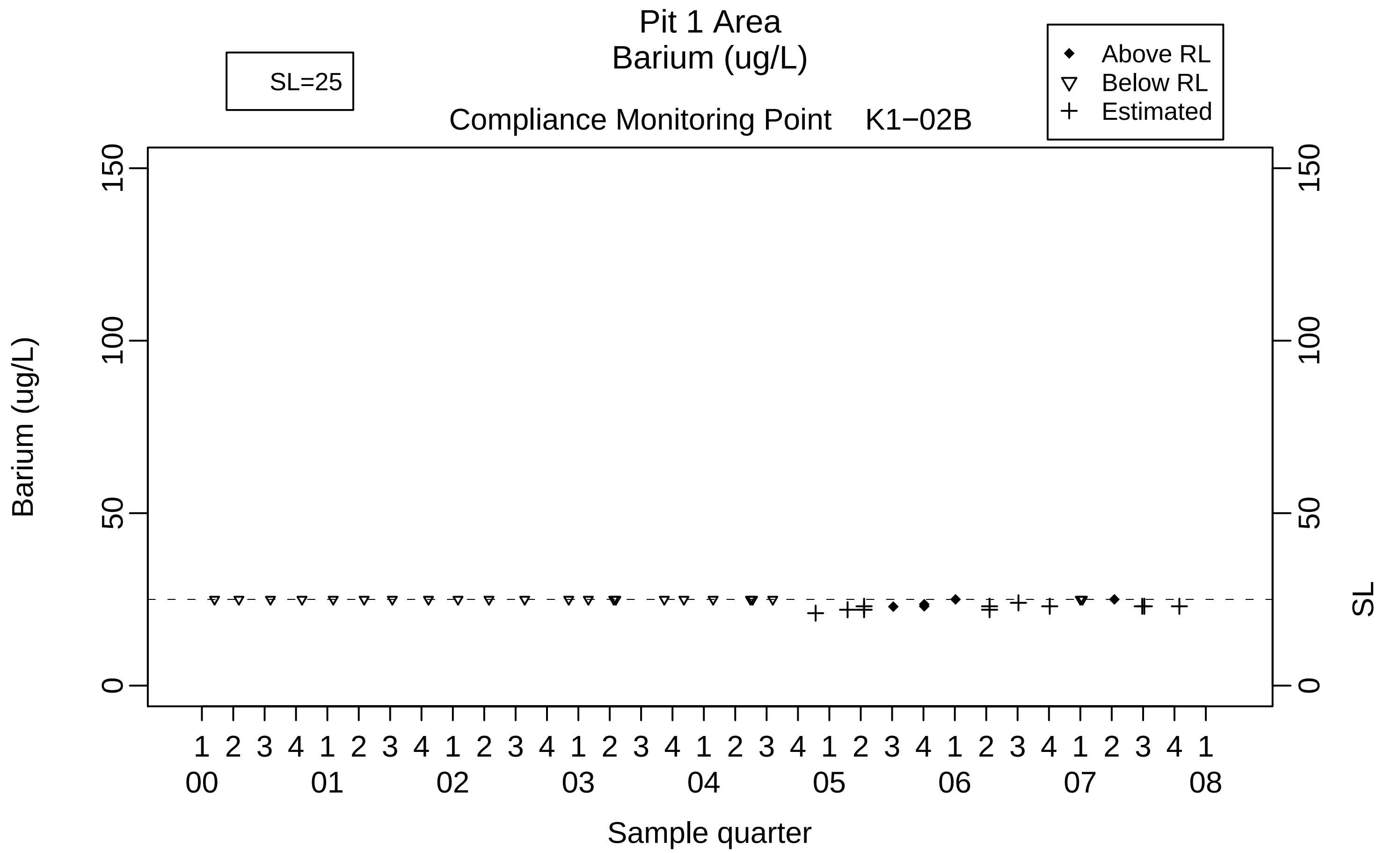


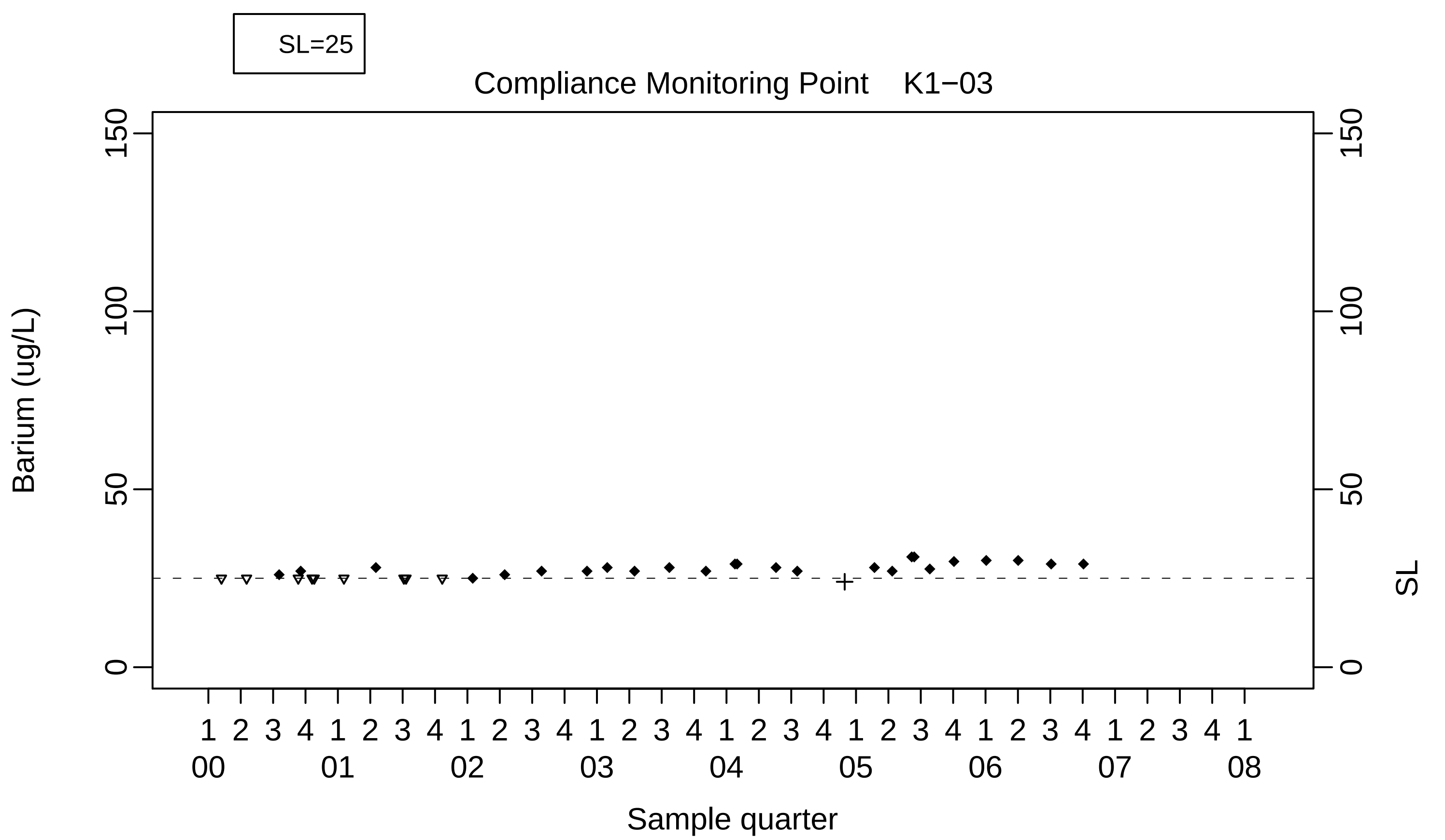

Pit 1 Area
Arsenic (ug/L)
SL=21
Above RL
Below RL
Compliance Monitoring Point K1−08
Arsenic (ug/L)
SL
0
5
10
15
20
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


SL=19
Compliance Monitoring Point K1−09
Arsenic (ug/L)
SL
0
5
10
15
20
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

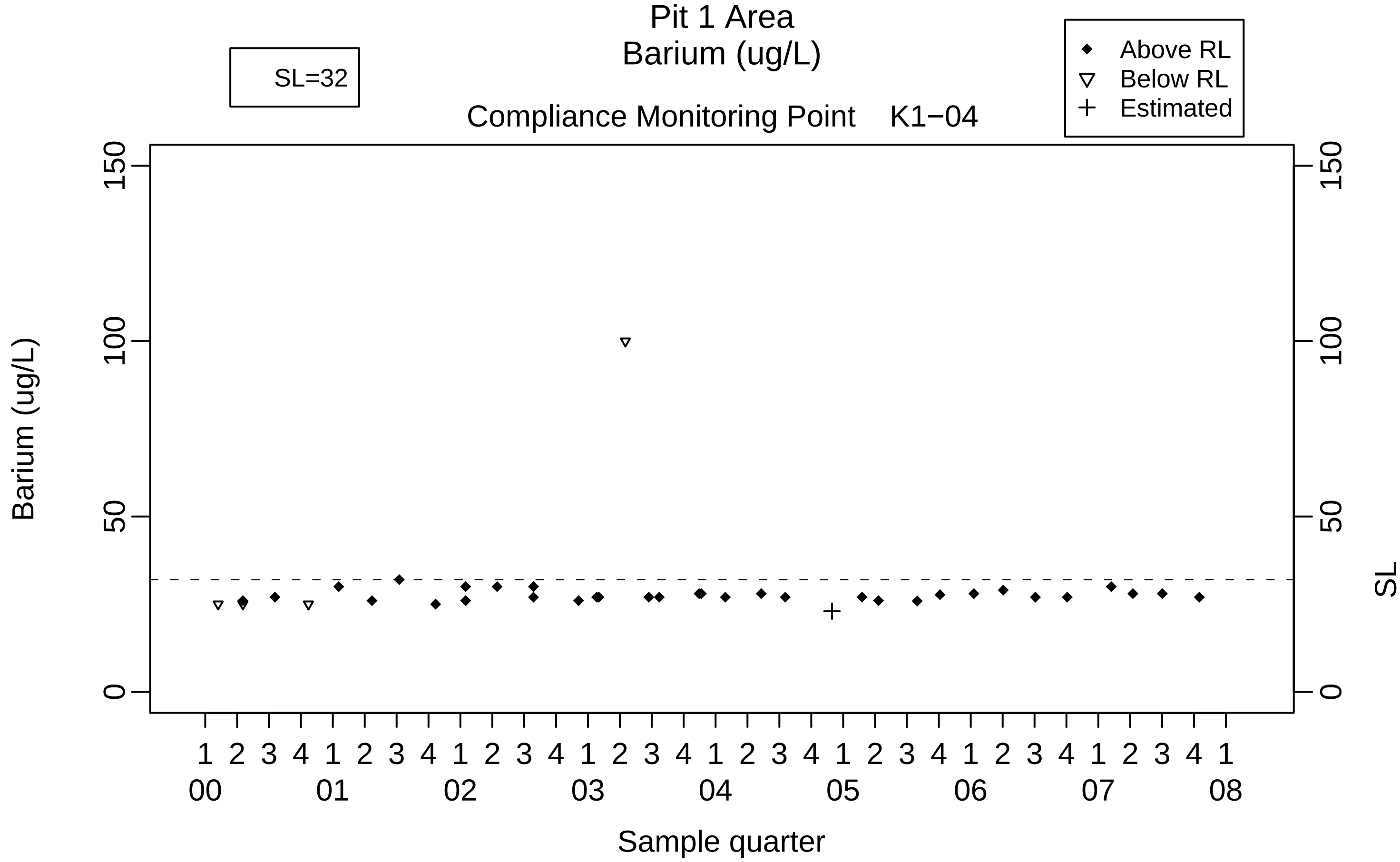

Pit 1 Area
Barium (ug/L)
Above RL
Below RL
Estimated
Background Monitoring Point K1−01C
Barium (ug/L)
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

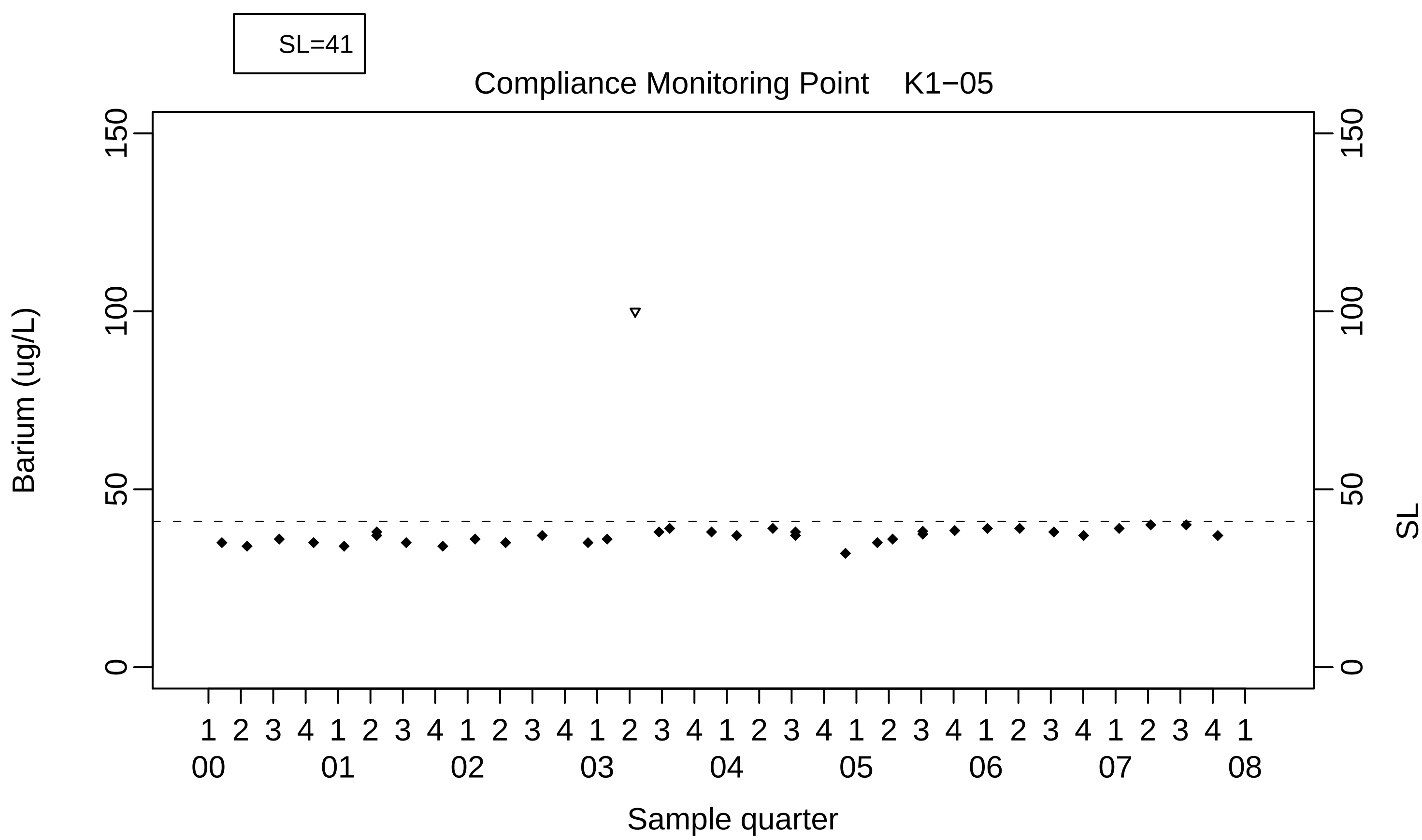

Background Monitoring Point K1−07
Barium (ug/L)
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

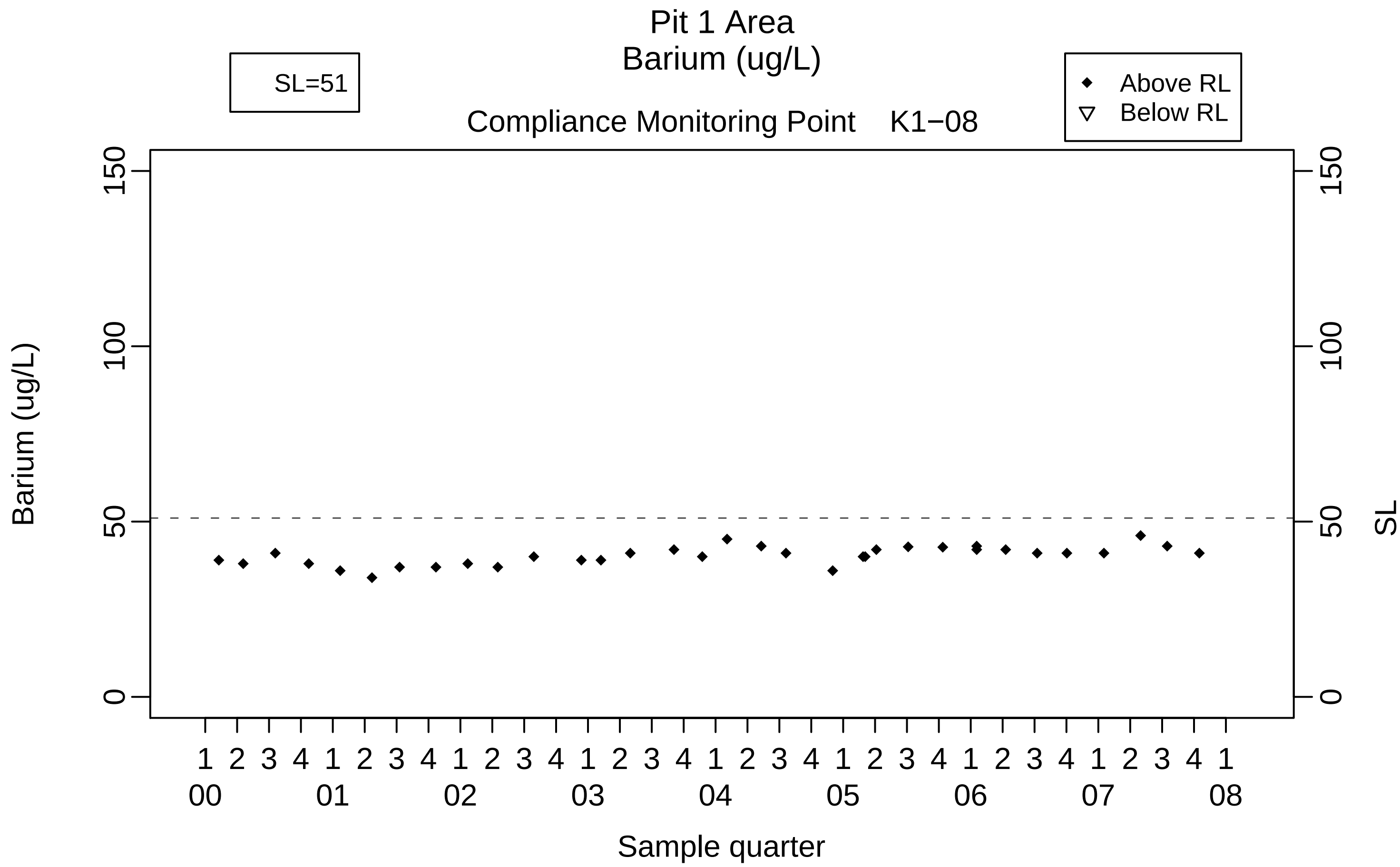

Pit 1 Area
Barium (ug/L)
SL=25
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−02B
Barium (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

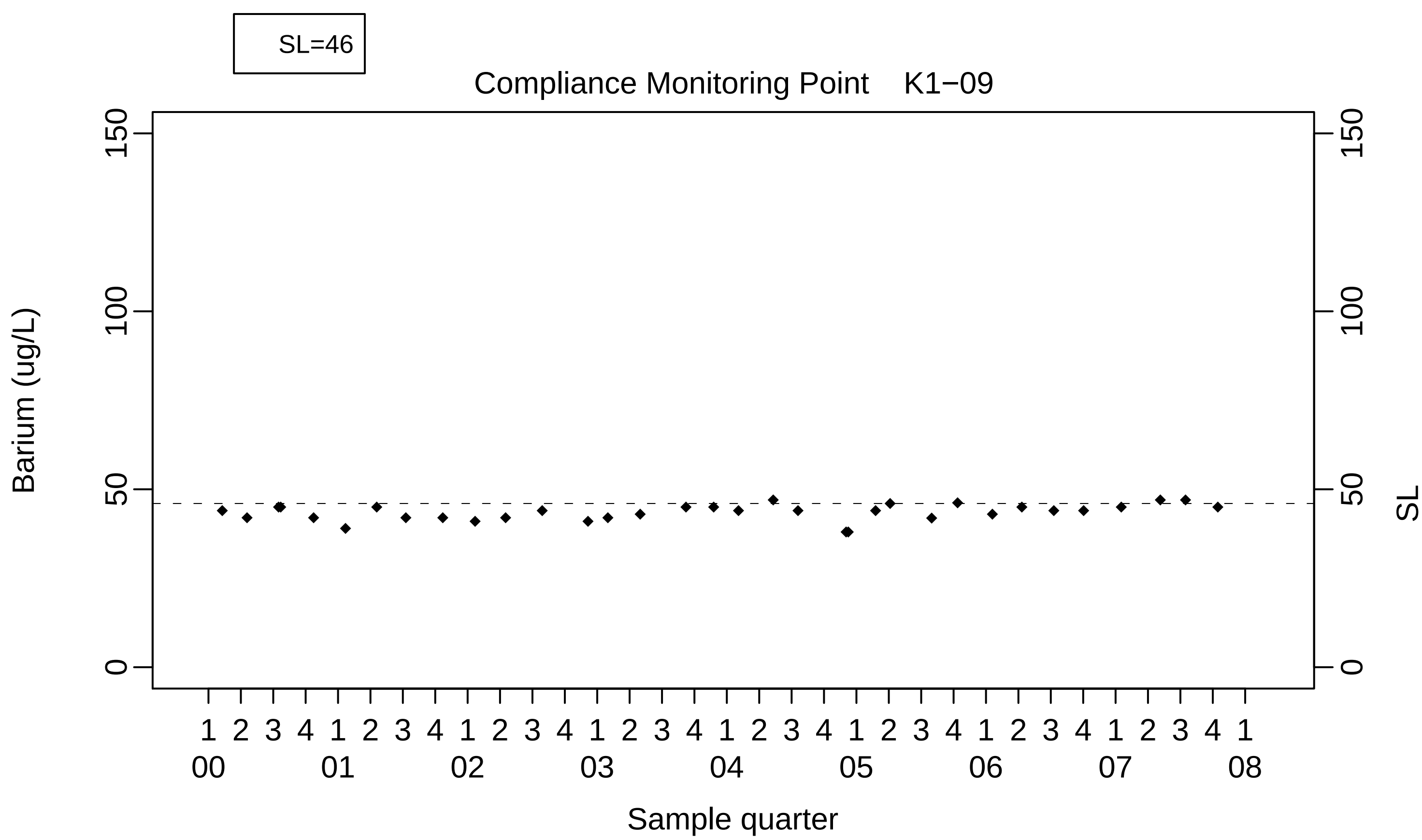

SL=25
Compliance Monitoring Point K1−03
Barium (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

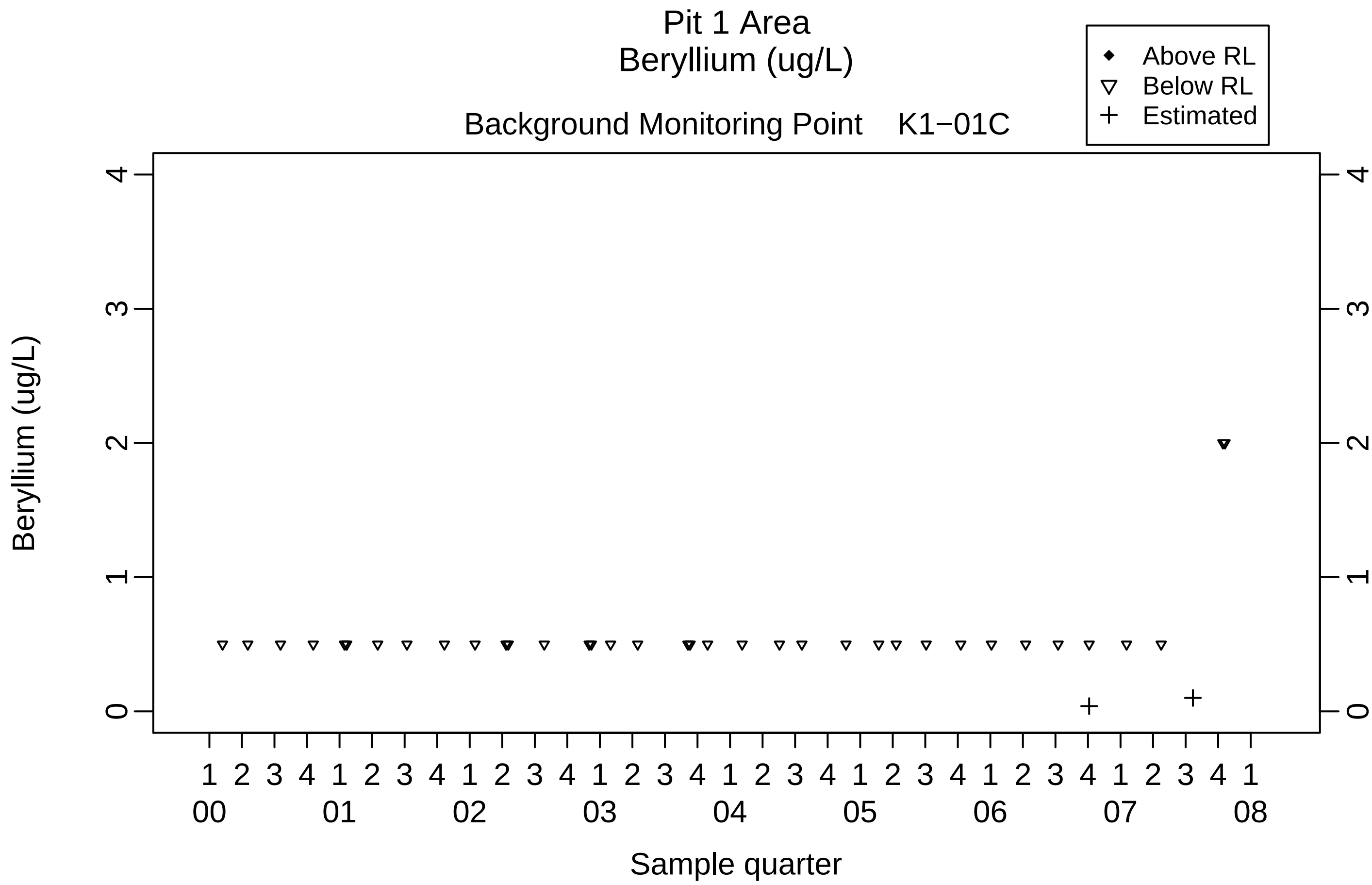
Pit 1 Area
Barium (ug/L)

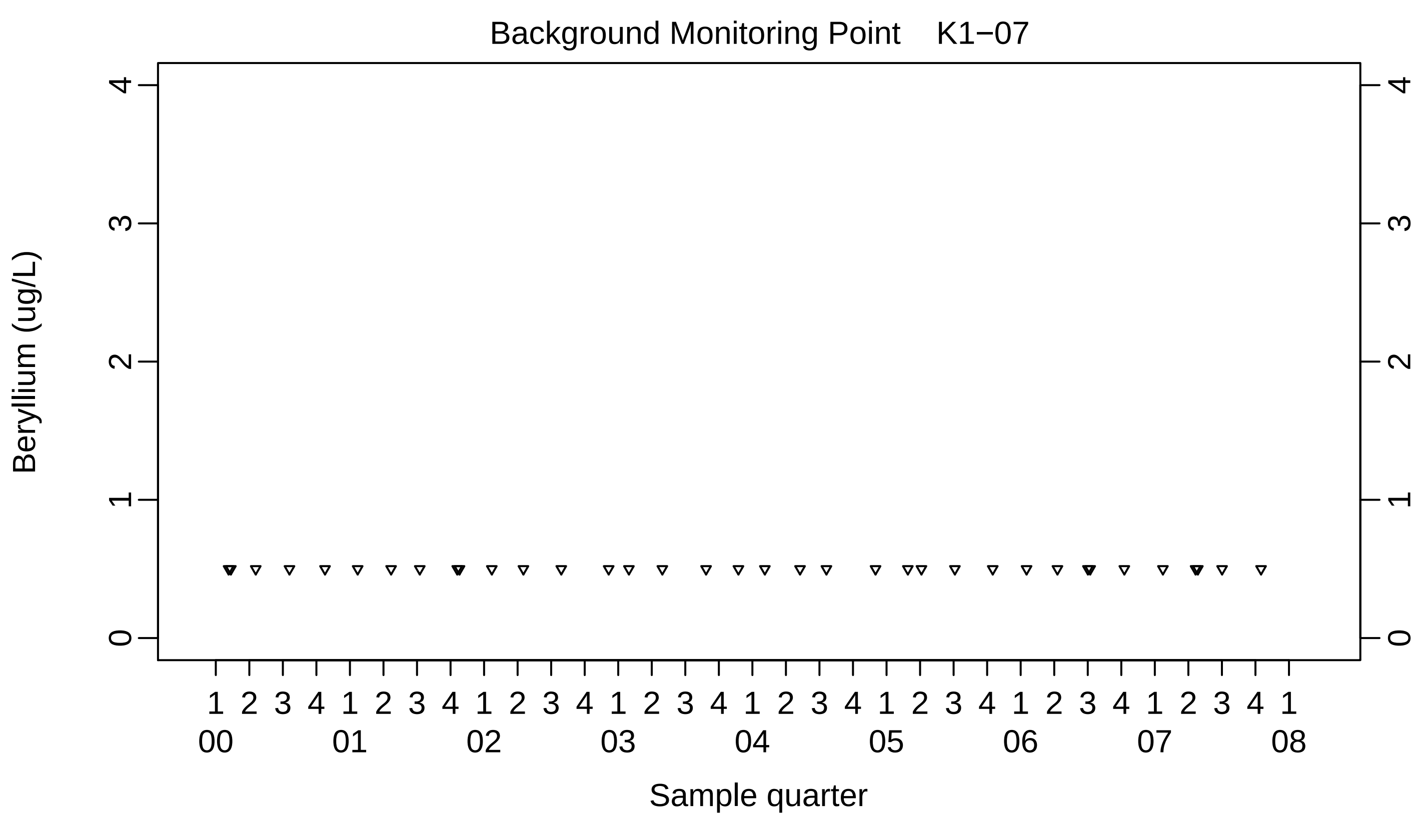


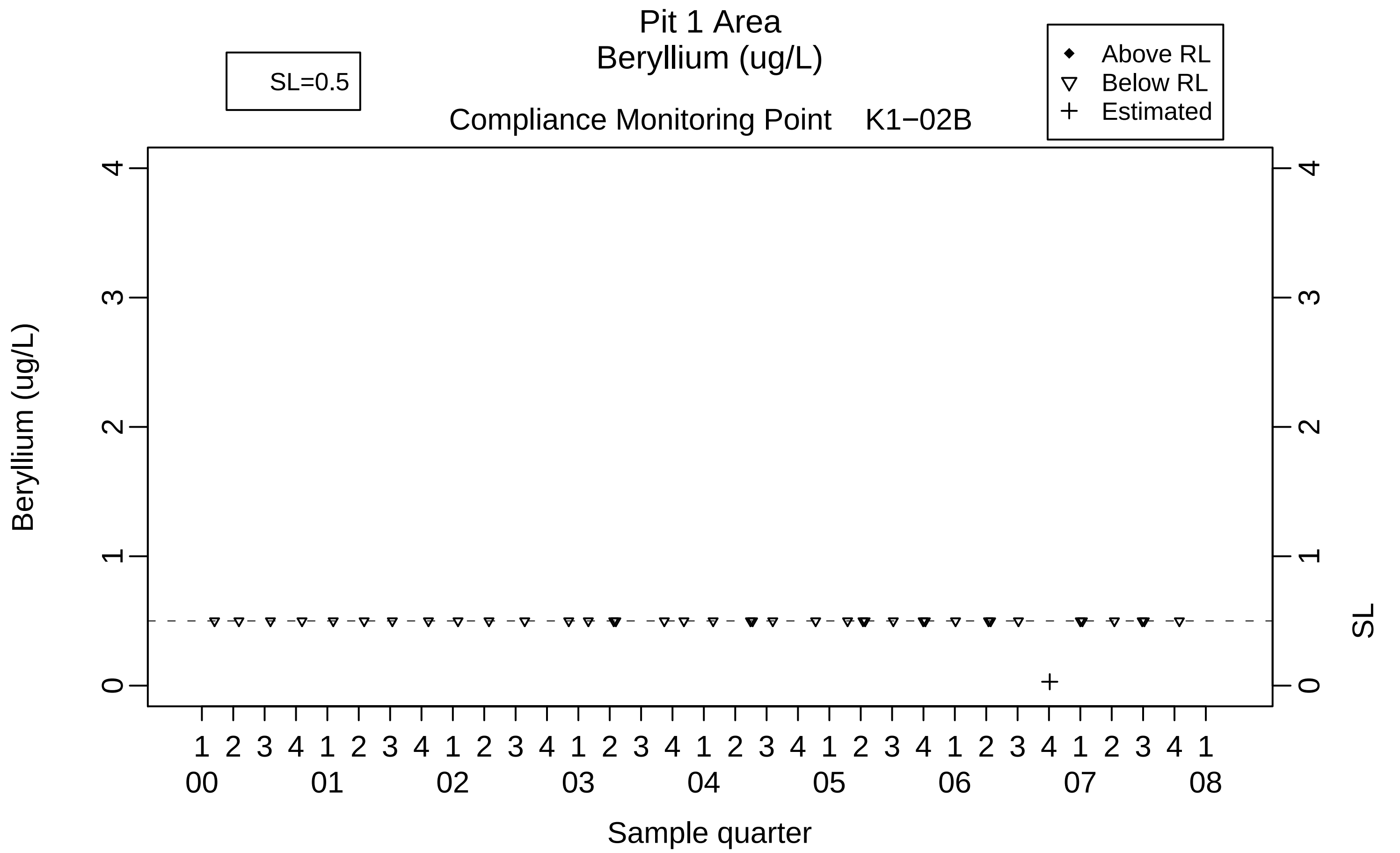


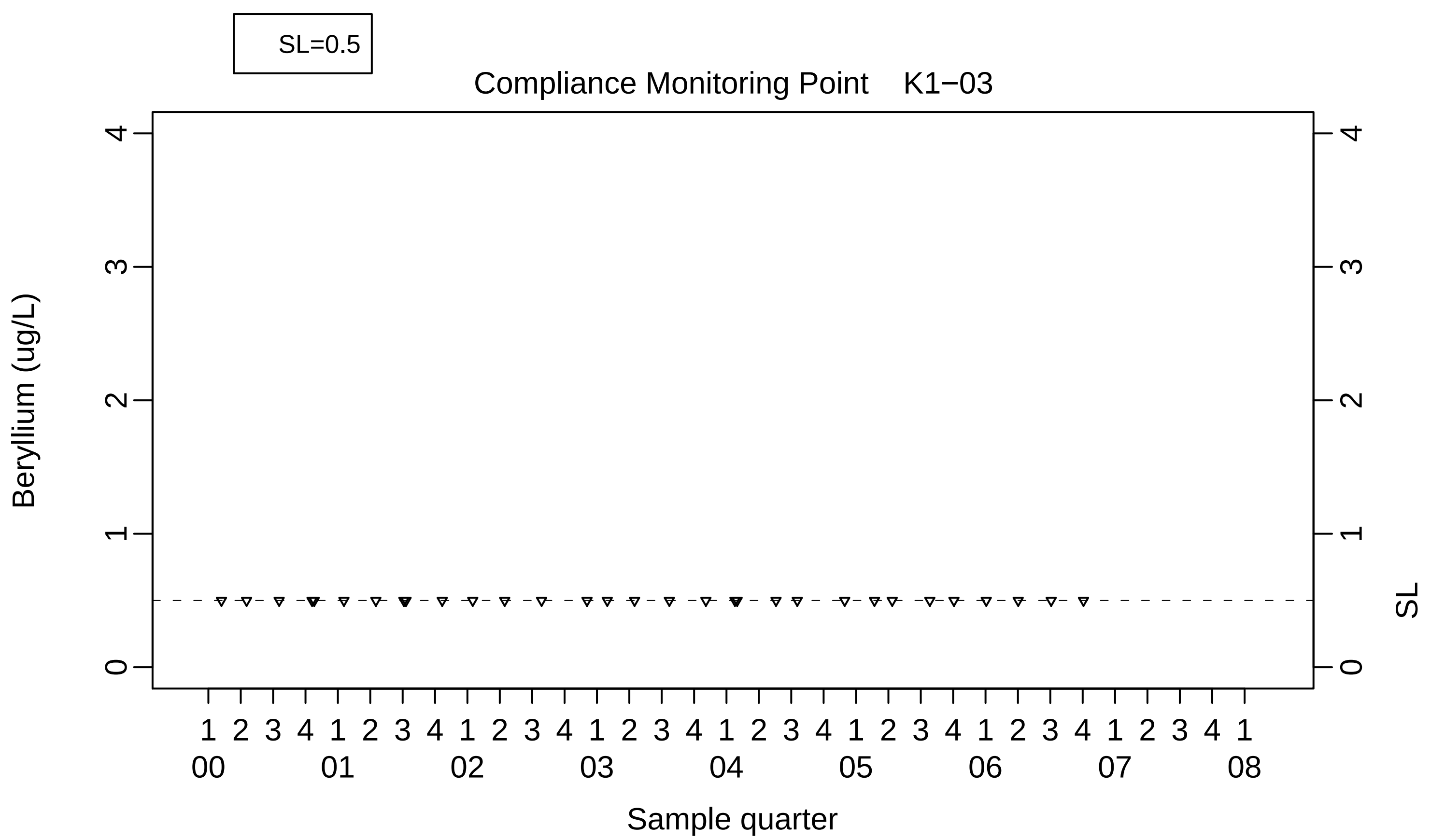

Pit 1 Area
Barium (ug/L)
SL=51
Above RL
Below RL
Compliance Monitoring Point K1−08
Barium (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


SL=46
Compliance Monitoring Point K1−09
Barium (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

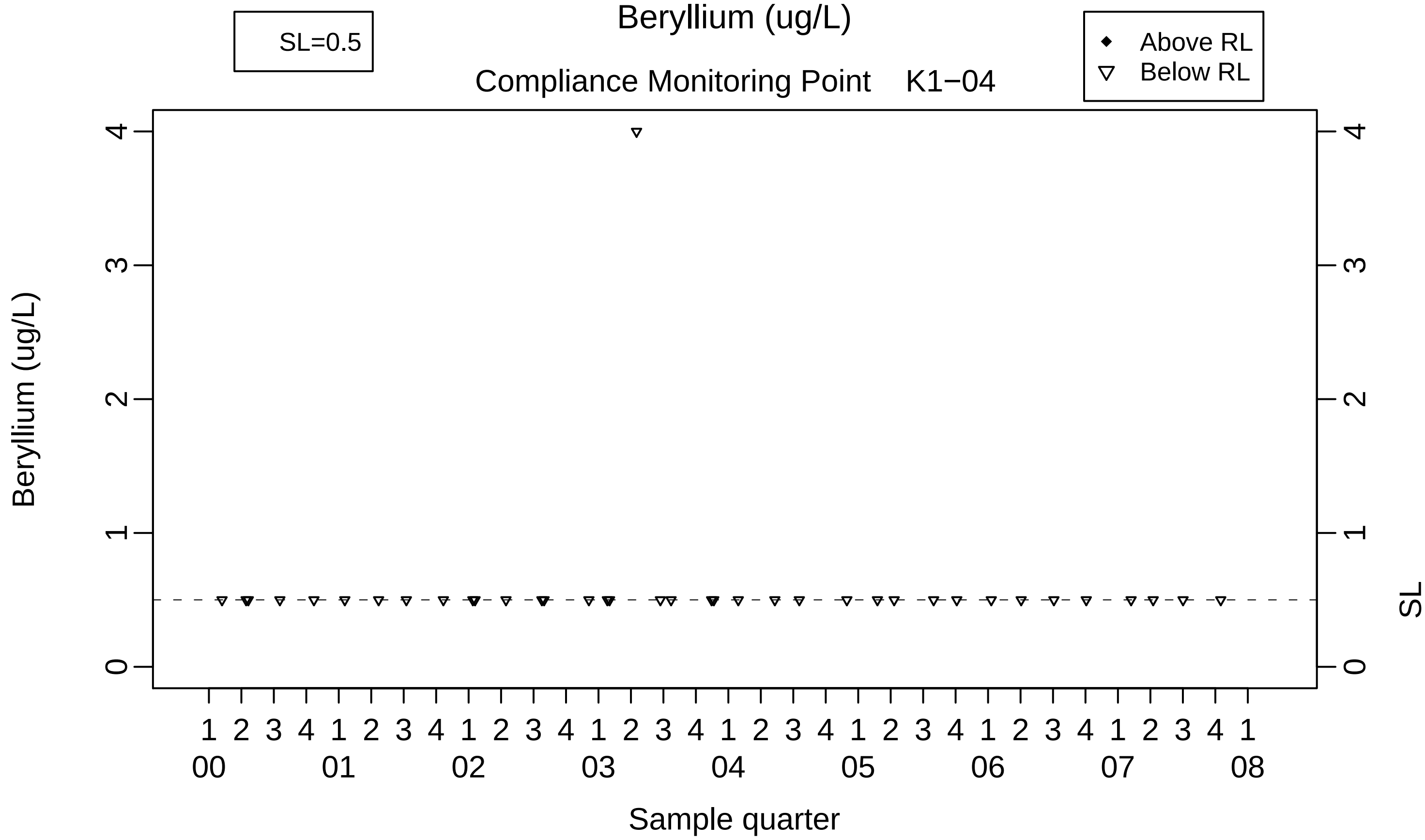

Pit 1 Area
Beryllium (ug/L)
Above RL
Below RL
Estimated
Background Monitoring Point K1−01C
Beryllium (ug/L)
0
1
2
3
4
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

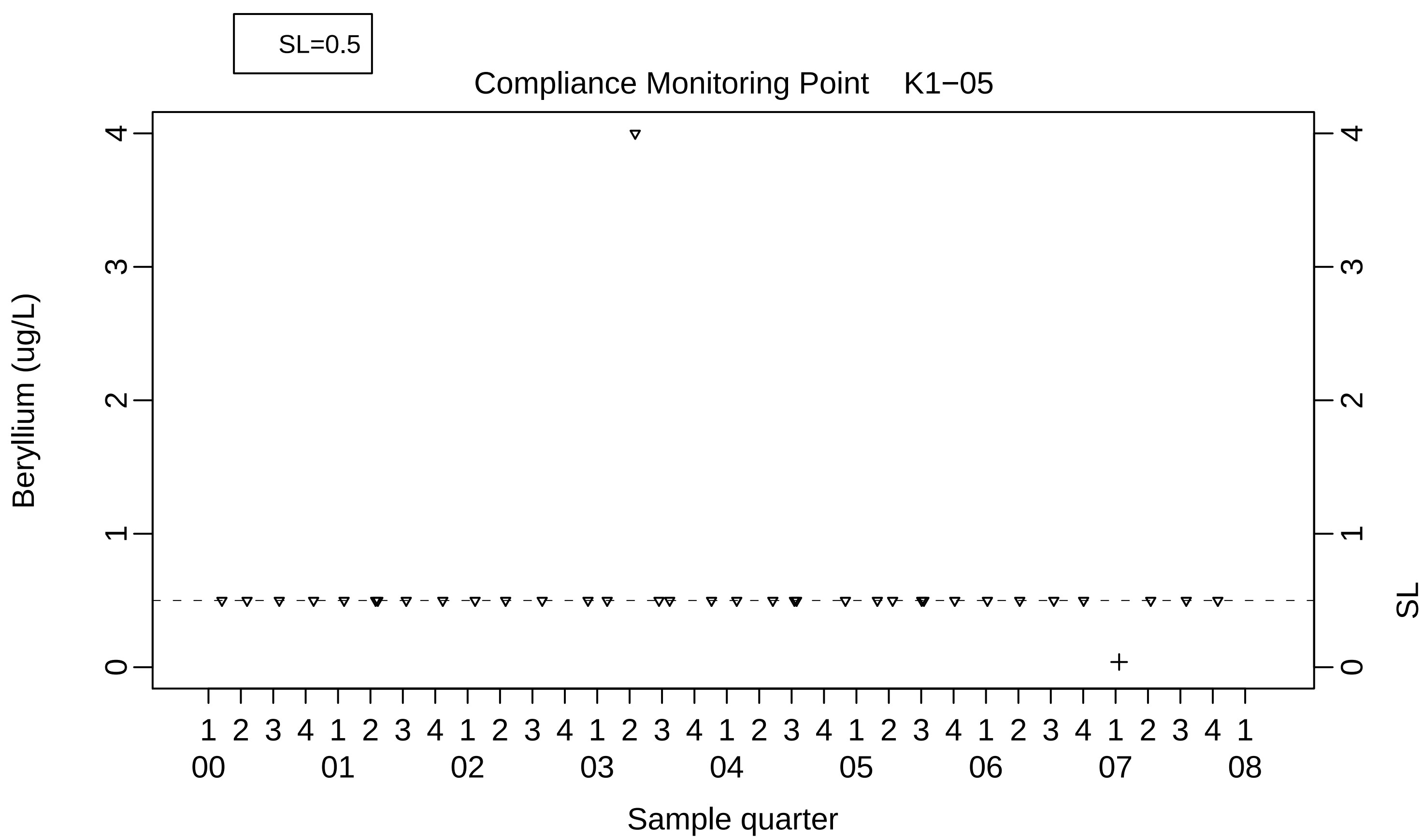

Background Monitoring Point K1−07
Beryllium (ug/L)
0
1
2
3
4
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

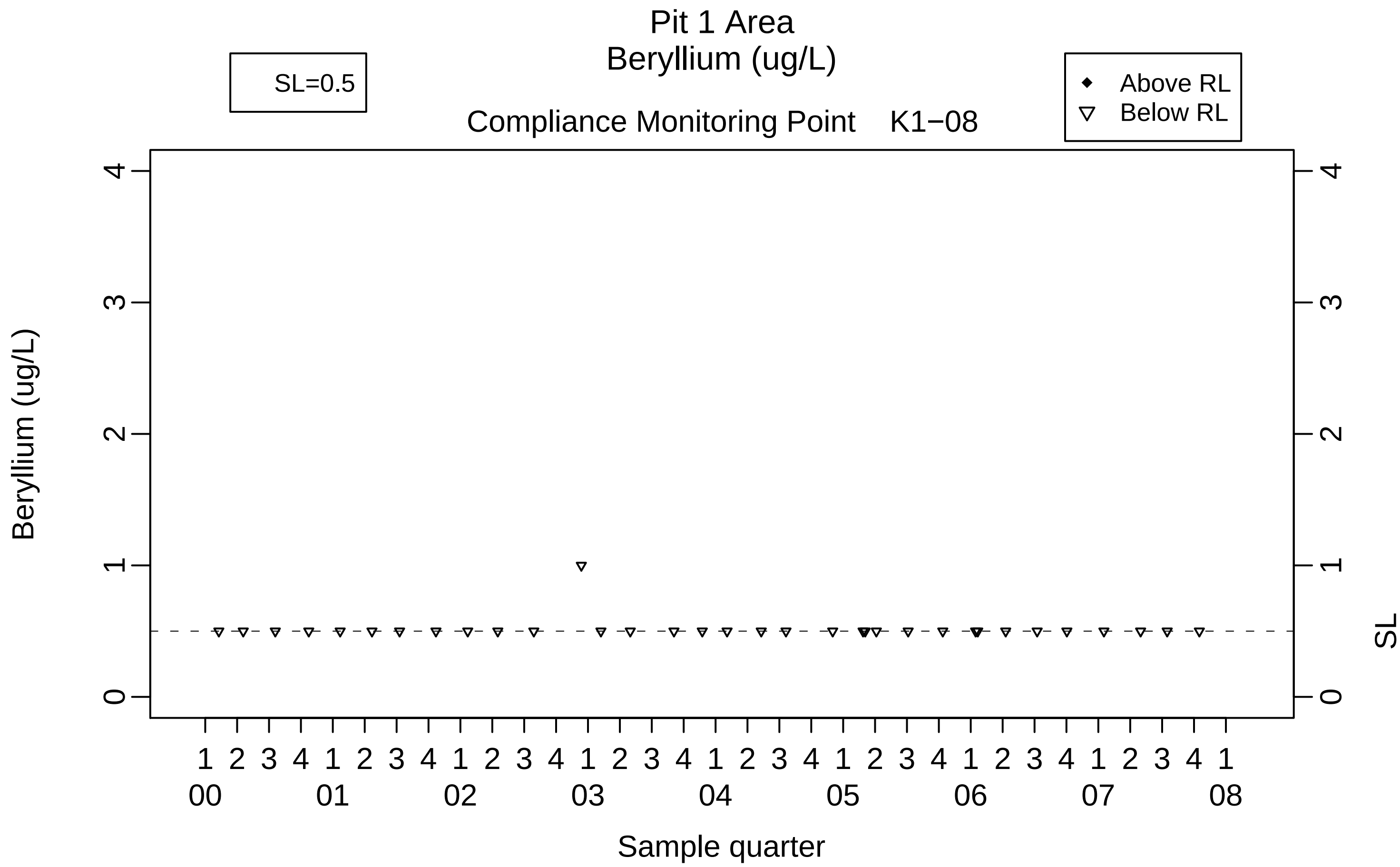

Pit 1 Area
Beryllium (ug/L)
SL=0.5
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−02B
Beryllium (ug/L)
SL
Sample quarter

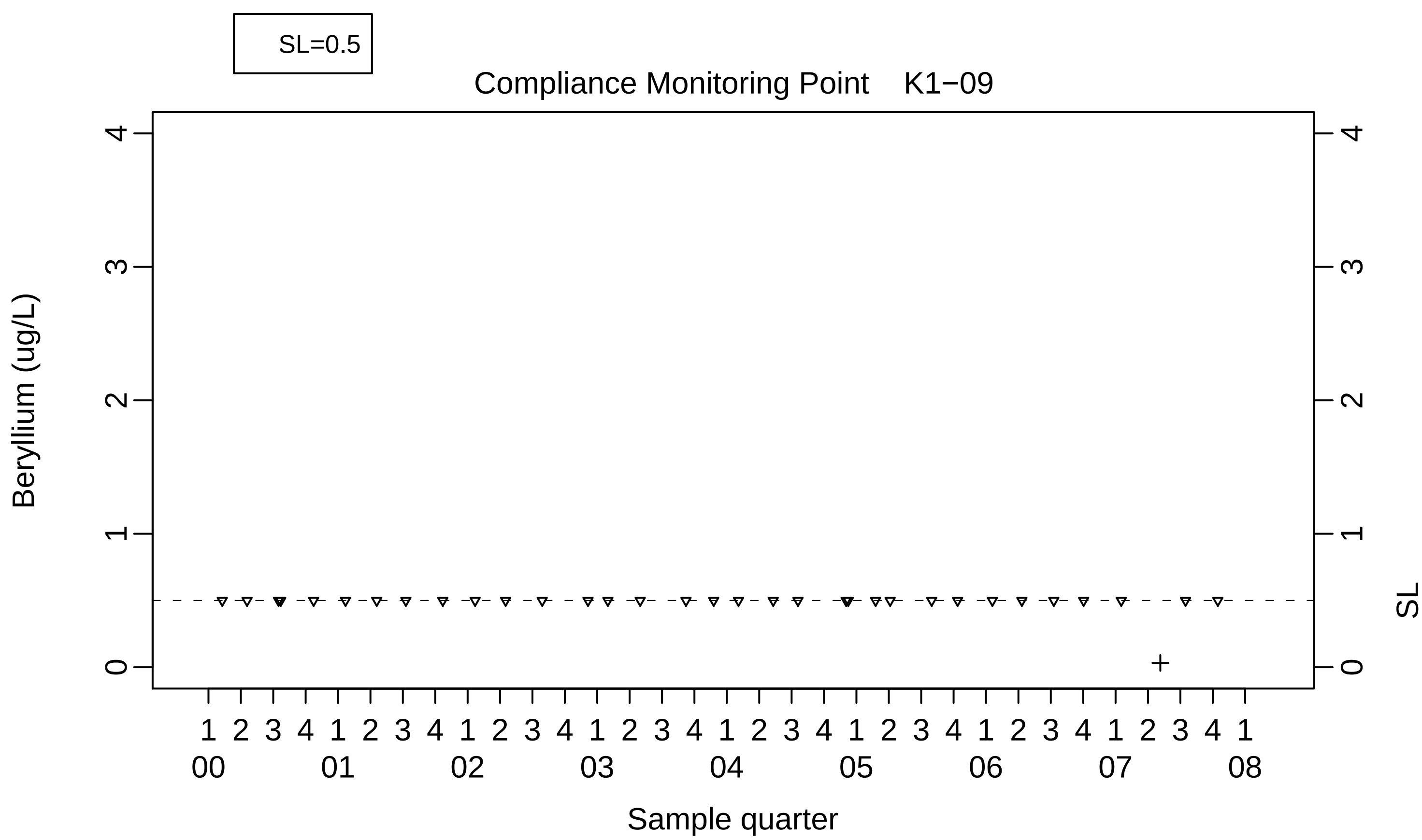

SL=0.5
Compliance Monitoring Point K1−03
Beryllium (ug/L)
SL
Sample quarter

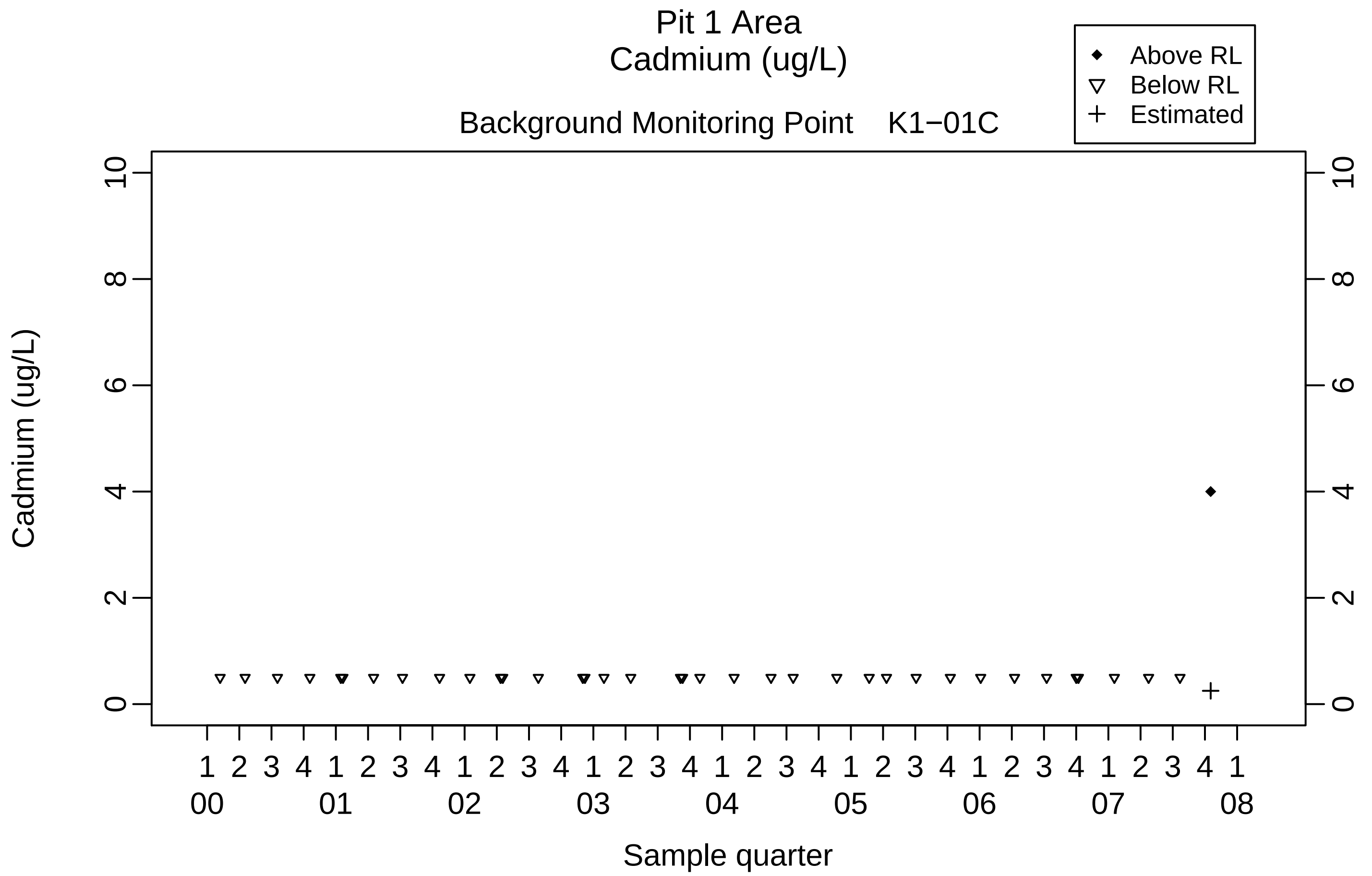
Pit 1 Area
Beryllium (ug/L)

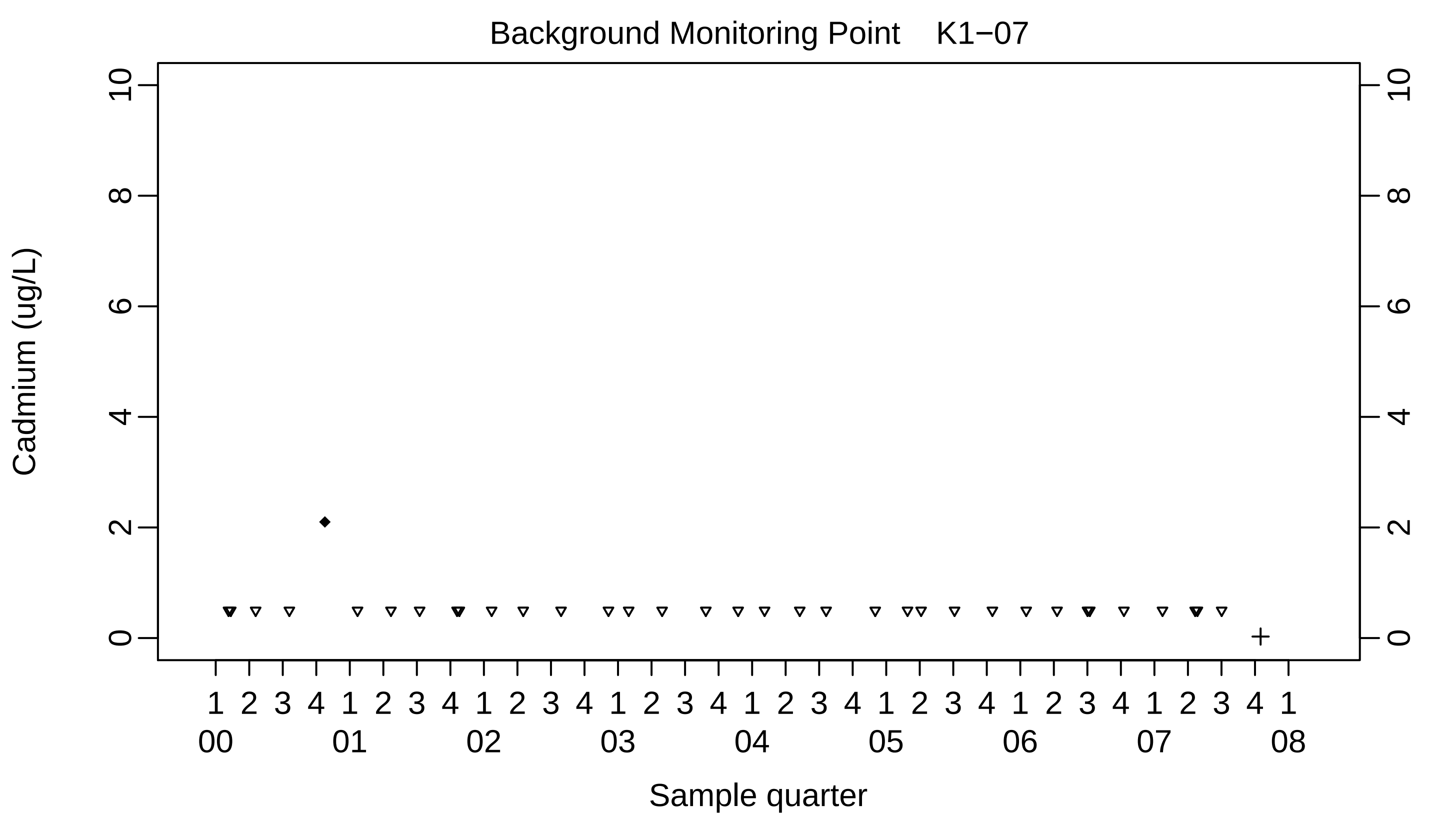


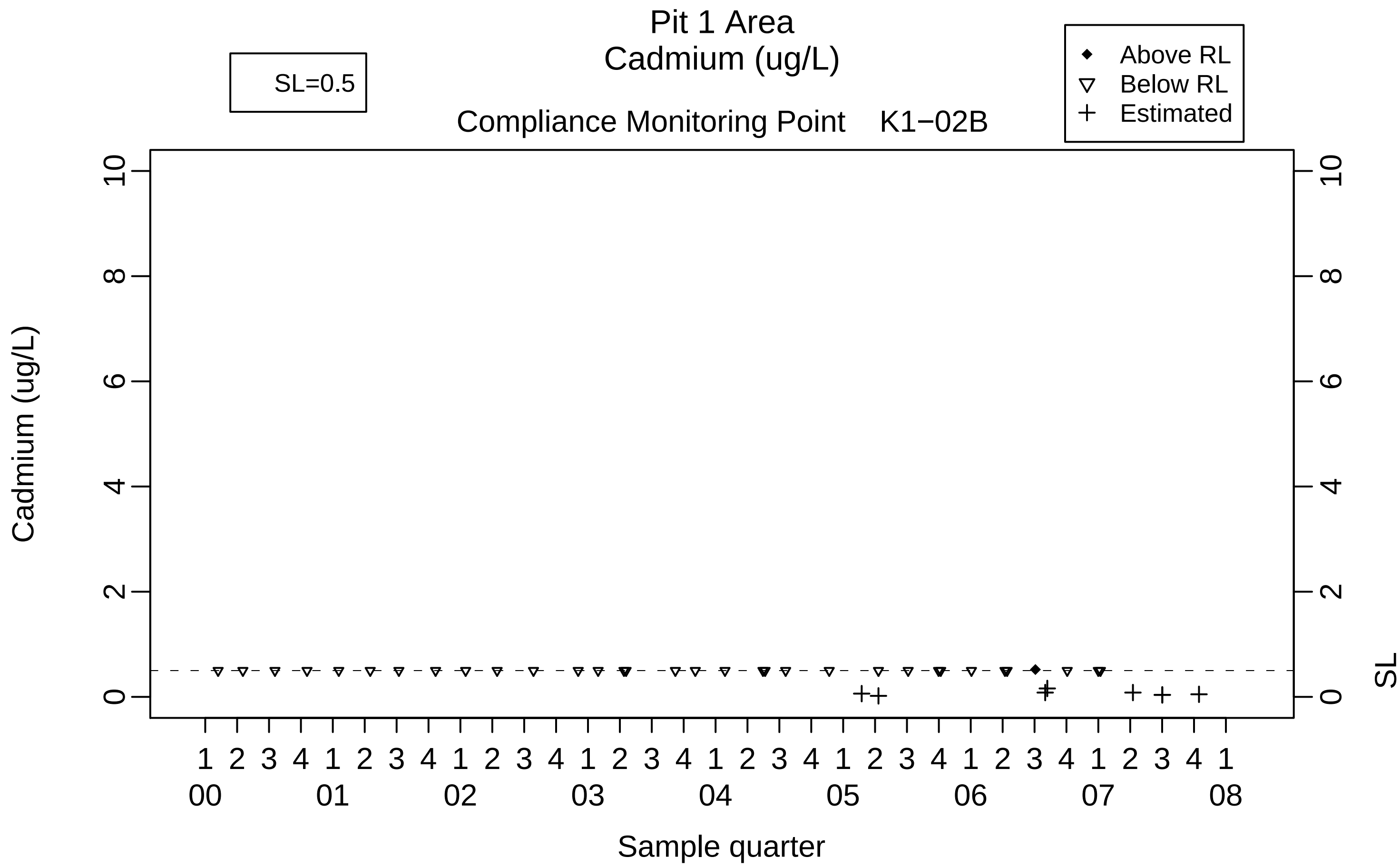


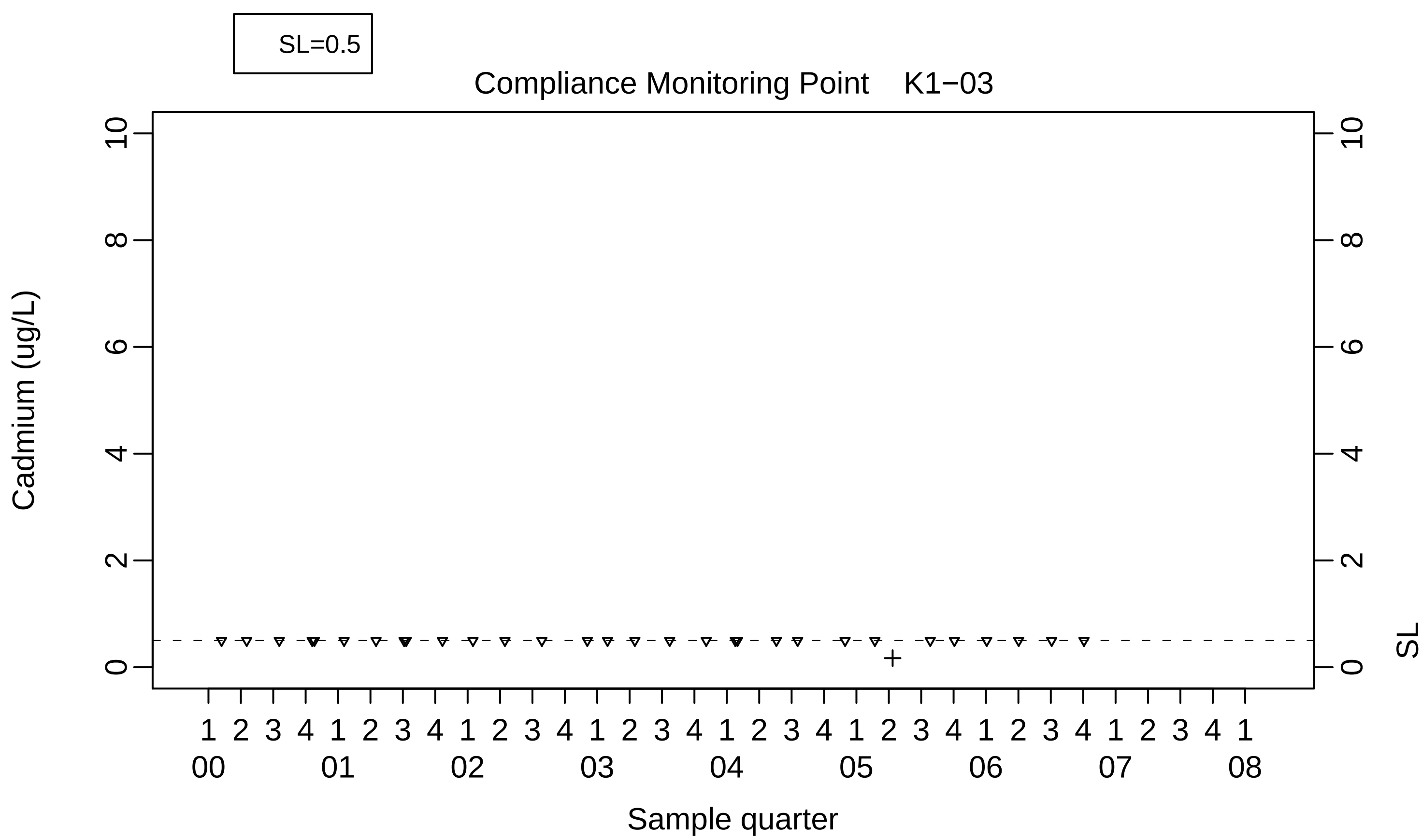

Pit 1 Area
Beryllium (ug/L)
SL=0.5
Above RL
Below RL
Compliance Monitoring Point K1−08
Beryllium (ug/L)
0
1
2
3
4
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

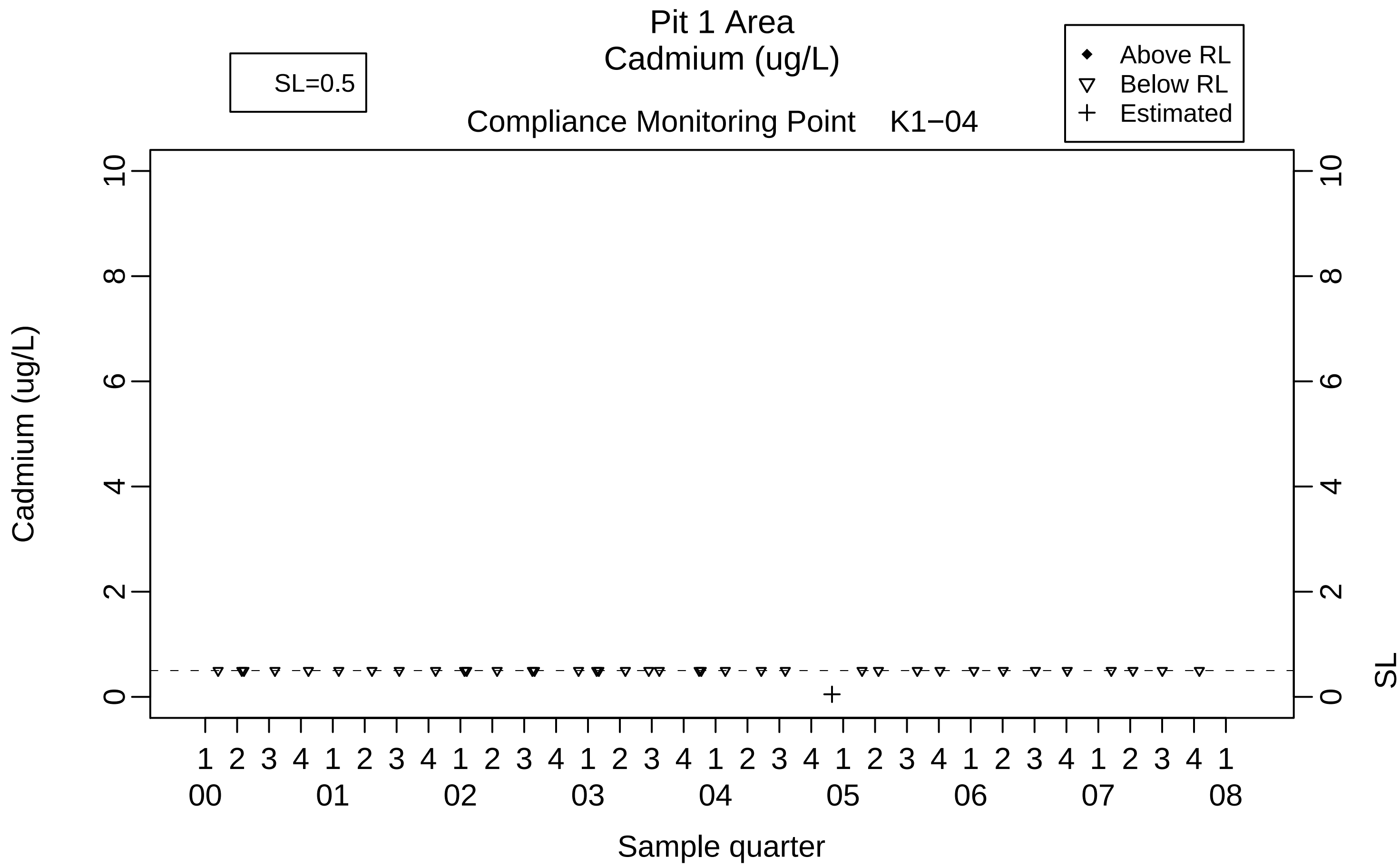

SL=0.5
Compliance Monitoring Point K1−09
Beryllium (ug/L)
0
1
2
3
4
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

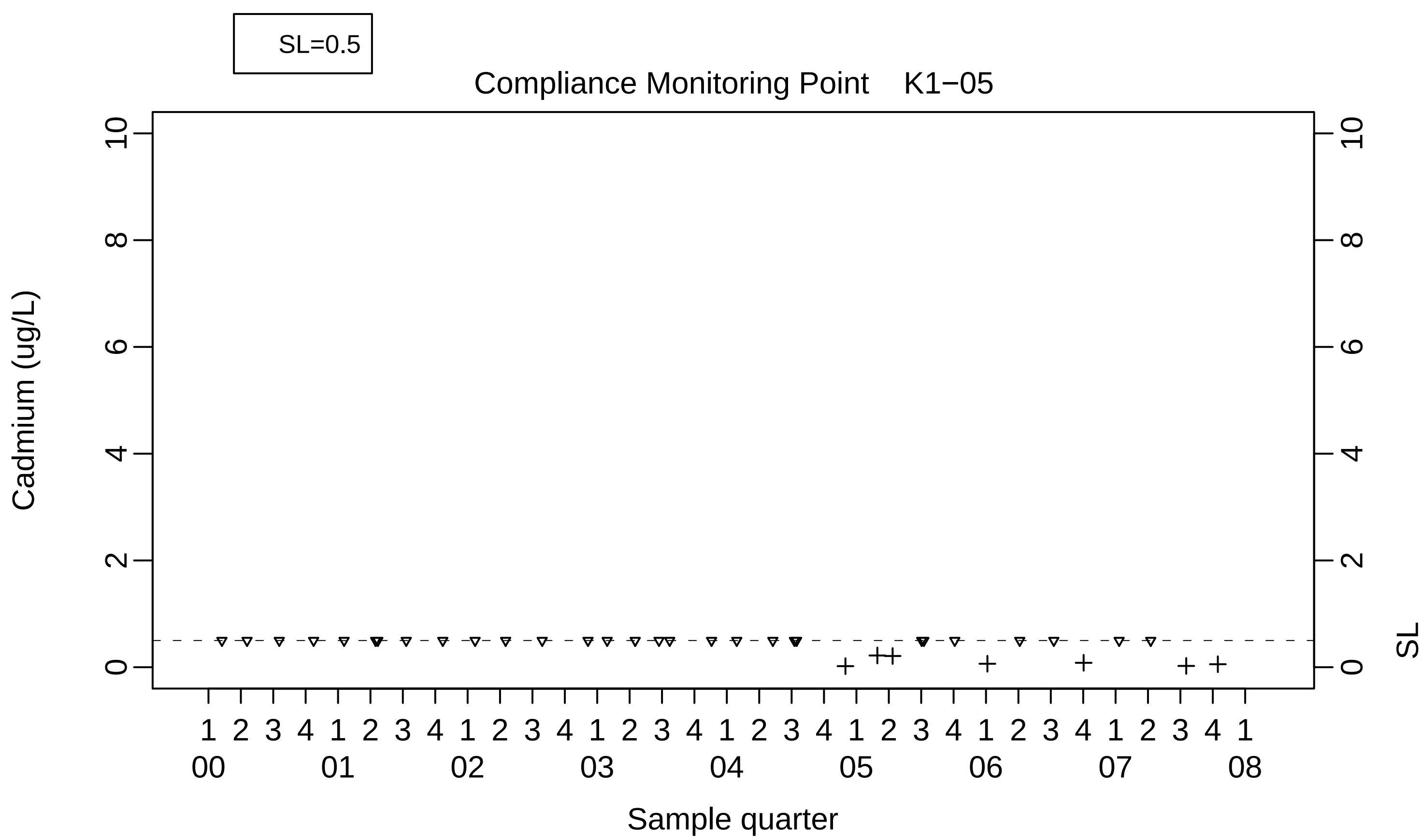

Pit 1 Area
Cadmium (ug/L)
Above RL
Below RL
Estimated
Background Monitoring Point K1−01C
Cadmium (ug/L)
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

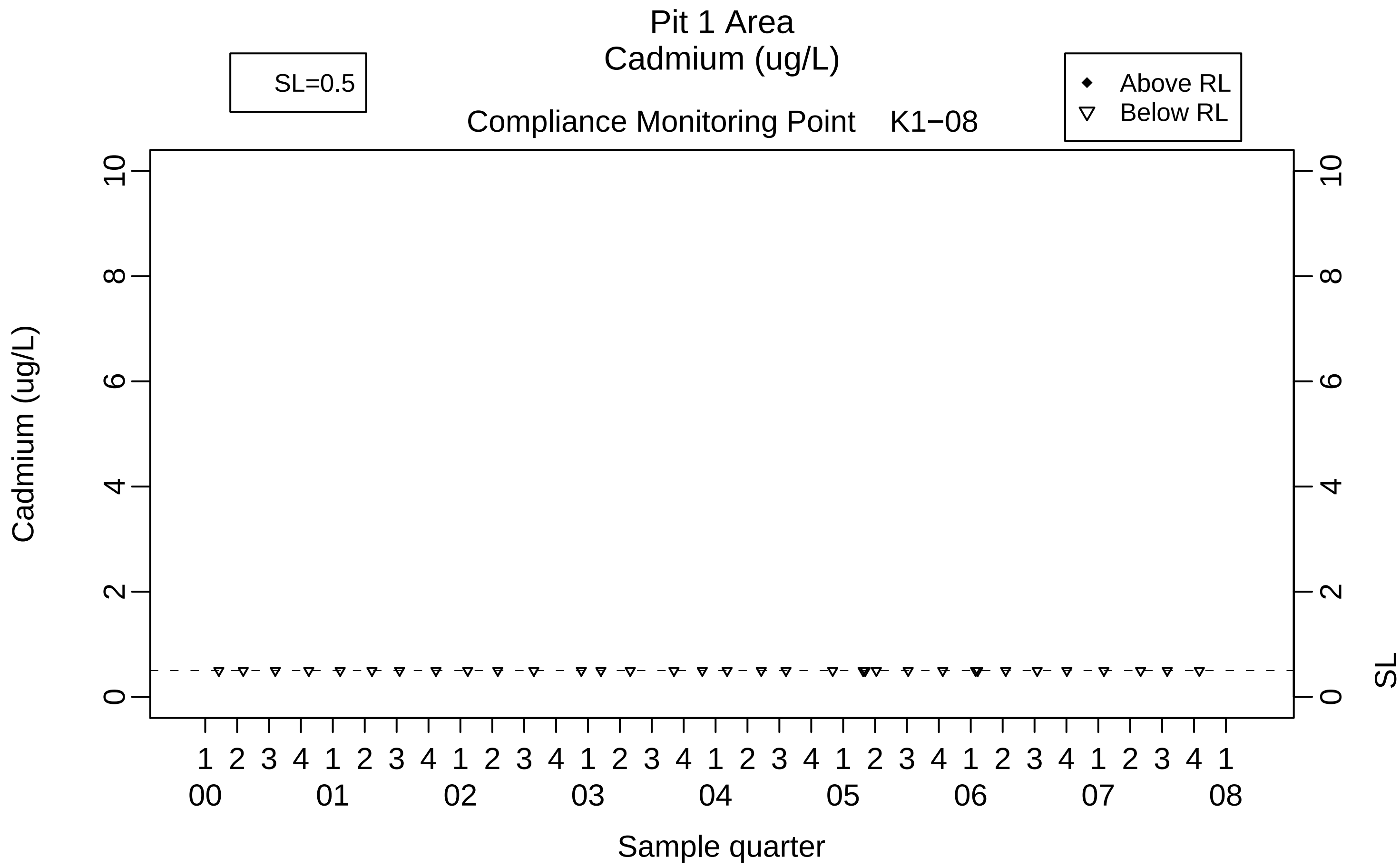

Background Monitoring Point K1−07
Cadmium (ug/L)
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

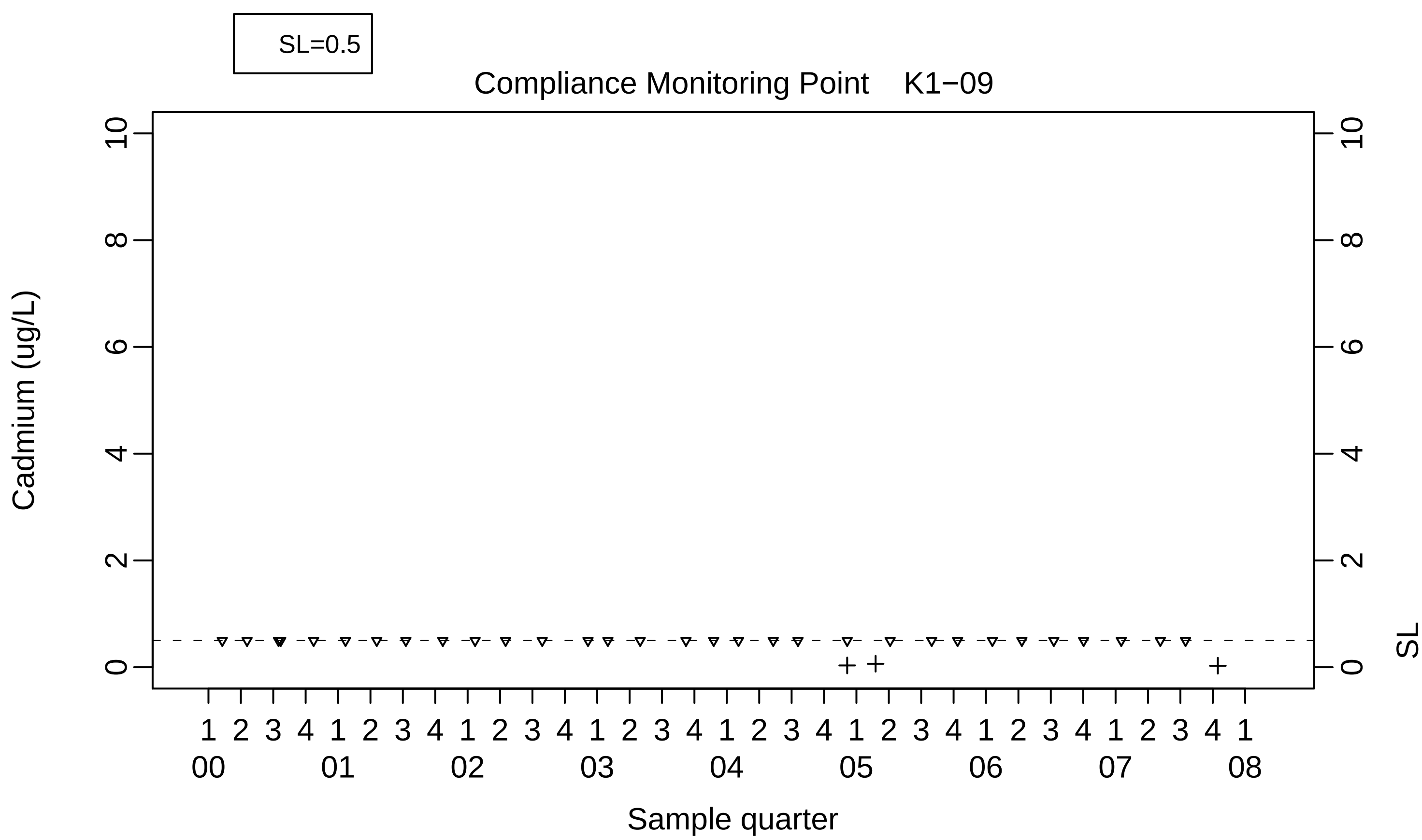

Pit 1 Area
Cadmium (ug/L)
SL=0.5
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−02B
Cadmium (ug/L)
SL
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


SL=0.5
Compliance Monitoring Point K1−03
Cadmium (ug/L)
SL
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 1 Area
Cadmium (ug/L)
SL=0.5
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−04
Cadmium (ug/L)
0 2 4 6 8 10
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

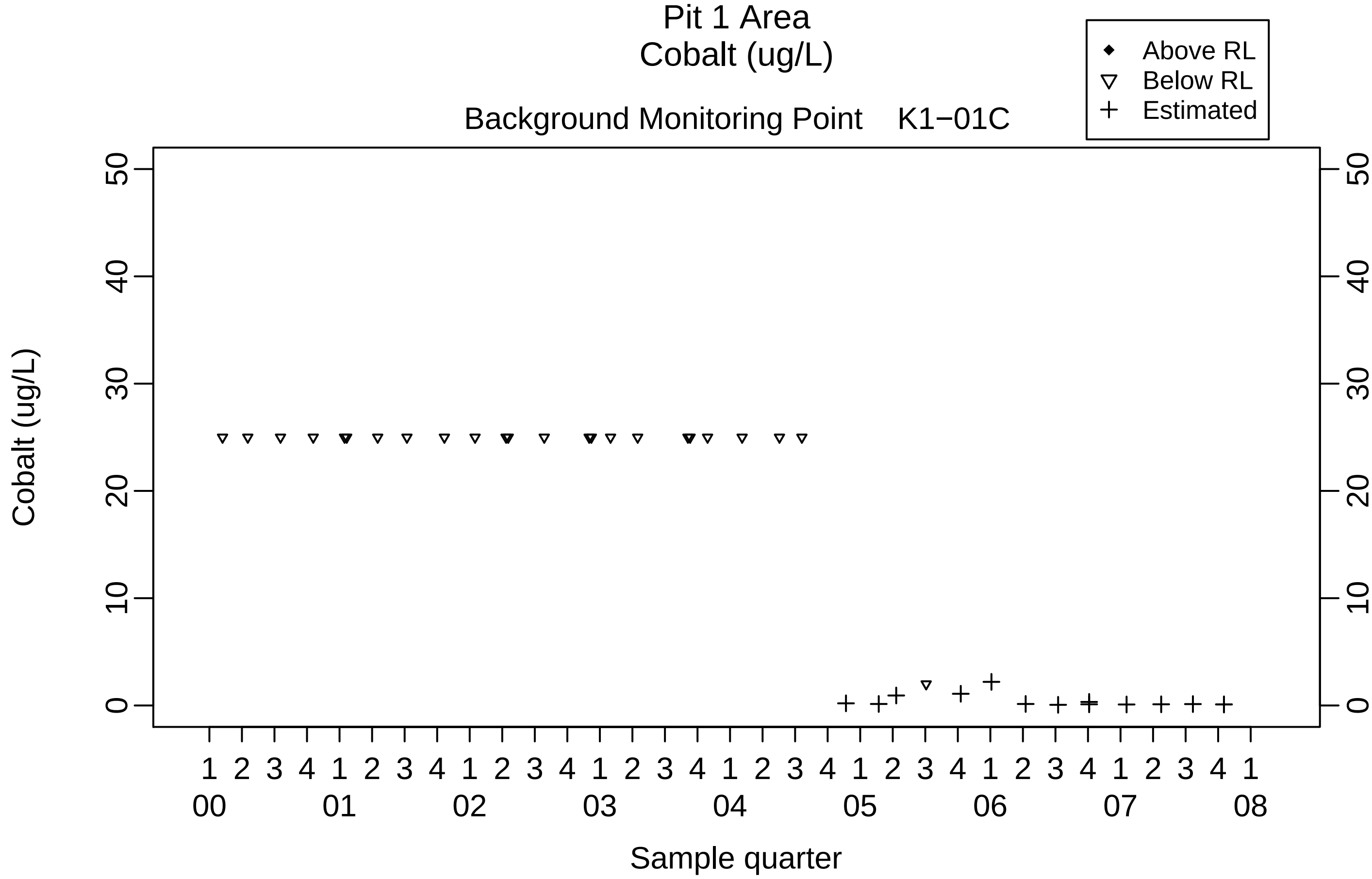

SL=0.5
Compliance Monitoring Point K1−05
Cadmium (ug/L)
0 2 4 6 8 10
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 1 Area
Cadmium (ug/L)
SL=0.5
Above RL
Below RL
Compliance Monitoring Point K1−08
Cadmium (ug/L)
SL
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

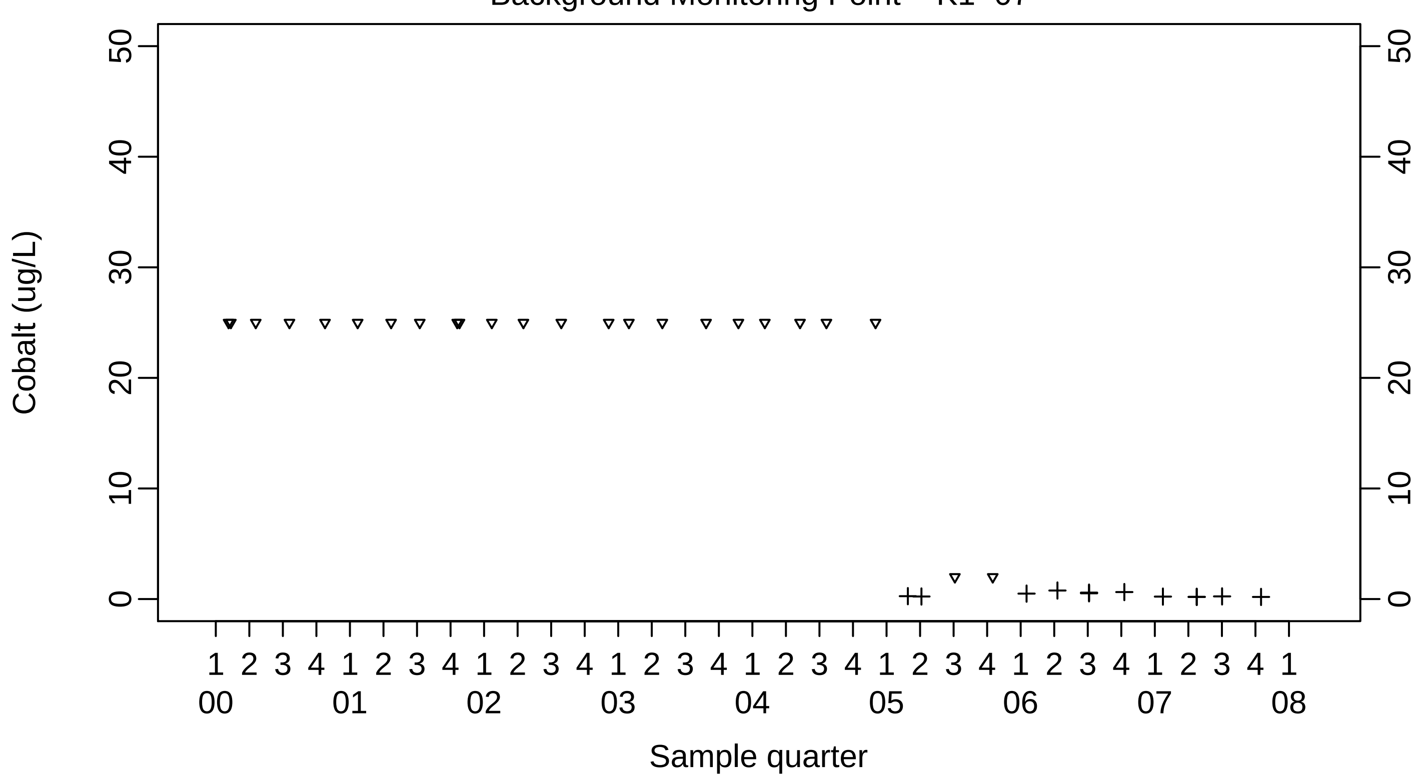

SL=0.5
Compliance Monitoring Point K1−09
Cadmium (ug/L)
SL
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

Pit 1 Area
Cobalt (ug/L)

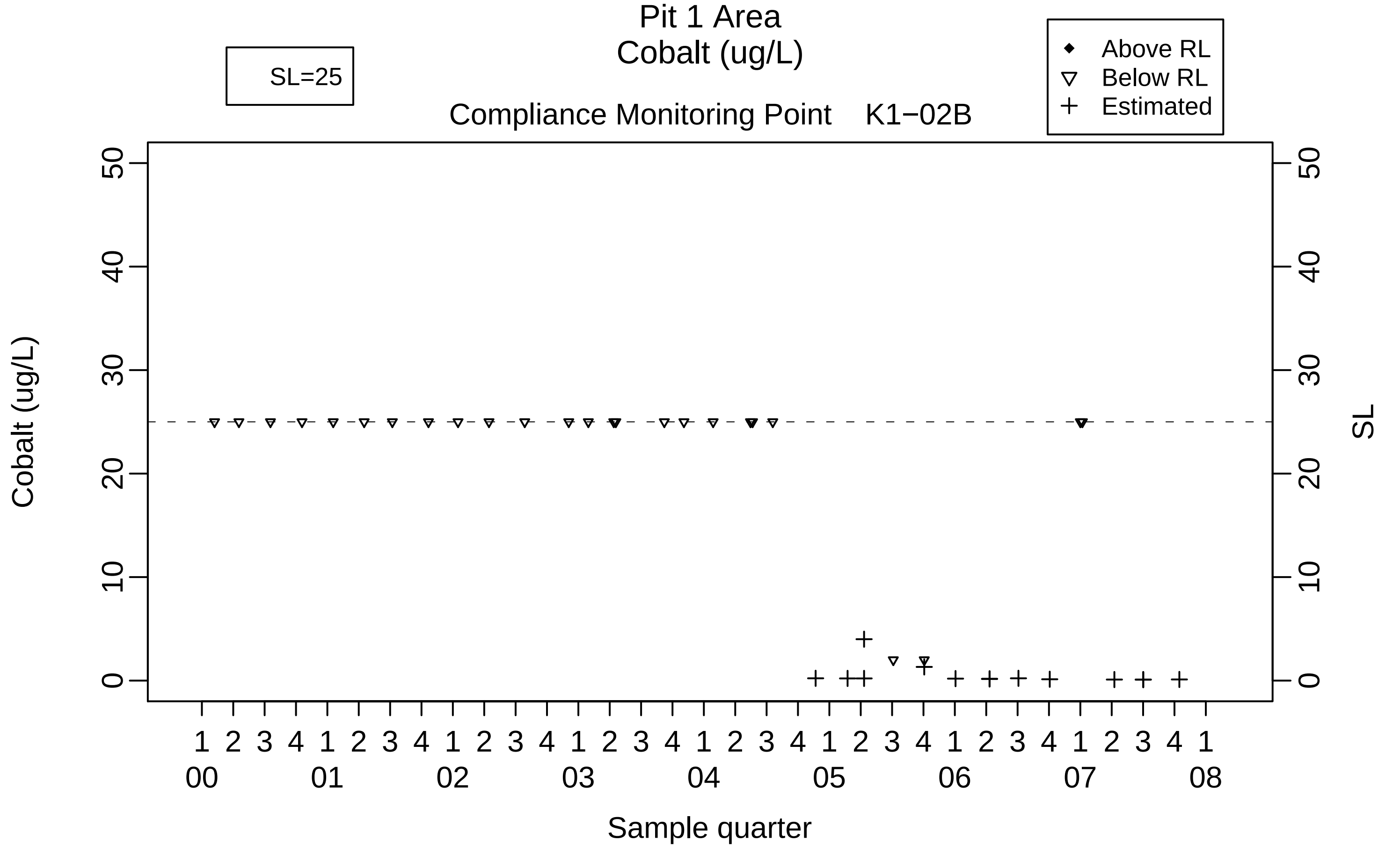
Background Monitoring Point K1−01C

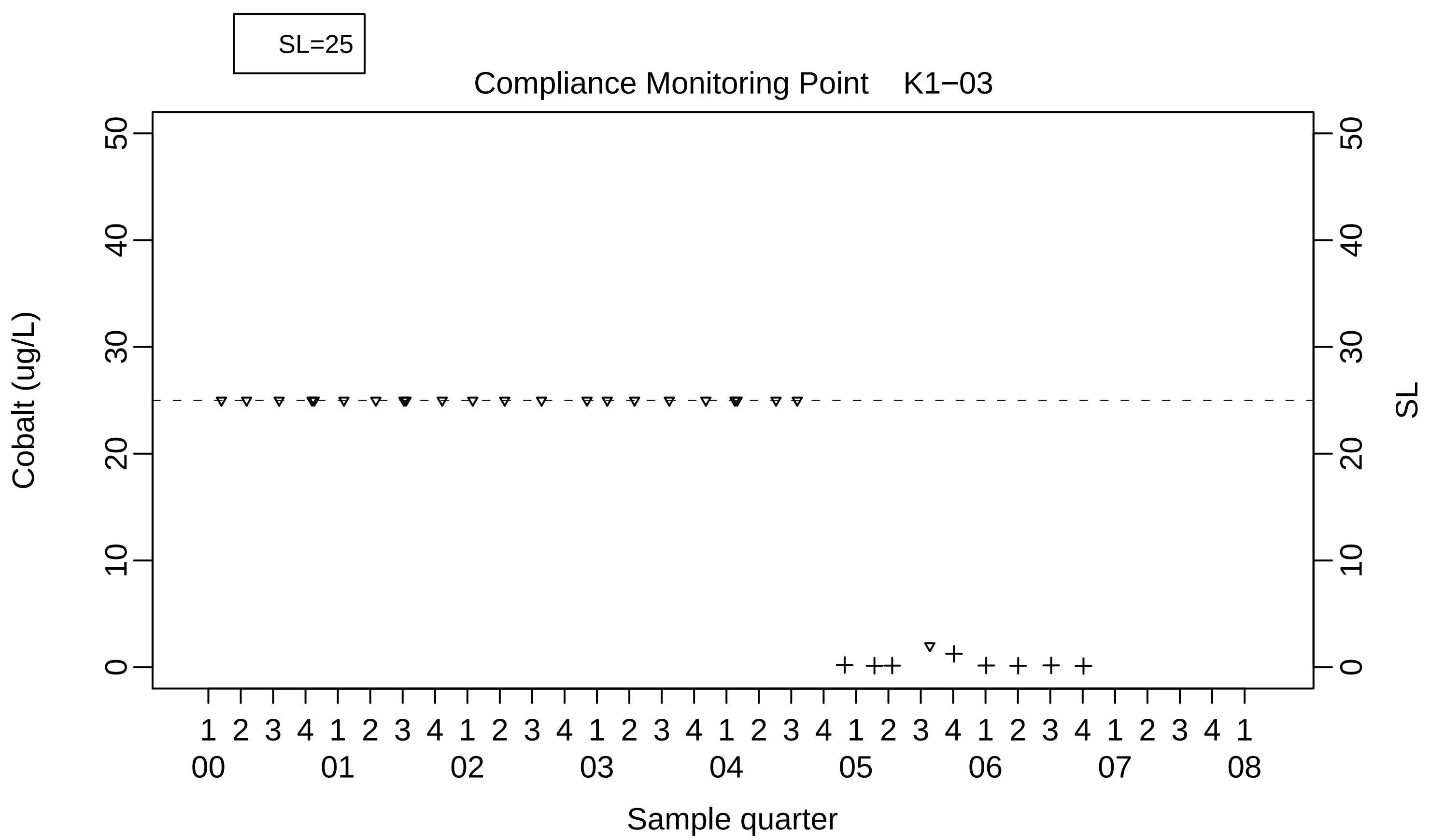


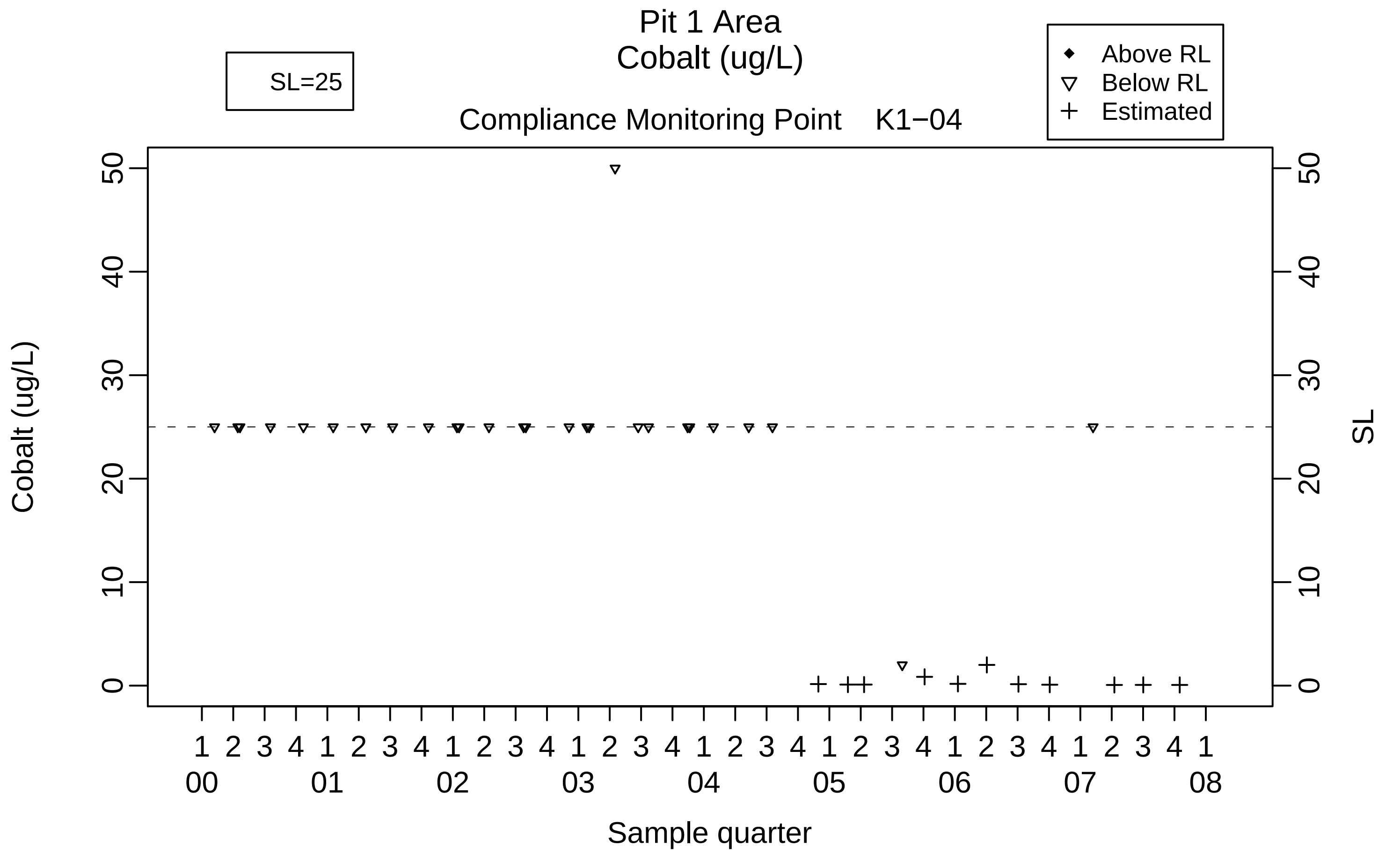
Background Monitoring Point K1−07

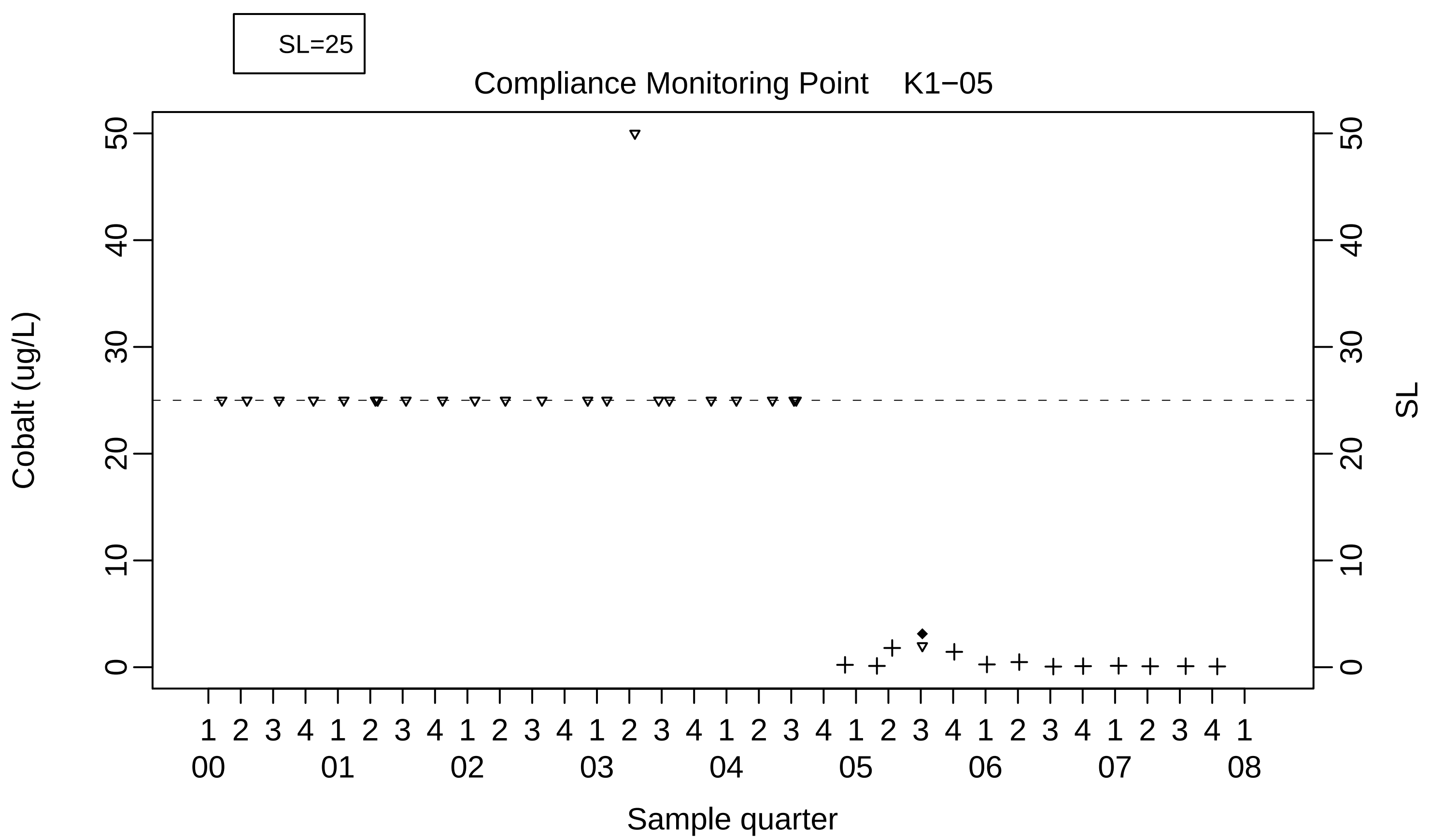


Pit 1 Area
Cobalt (ug/L)

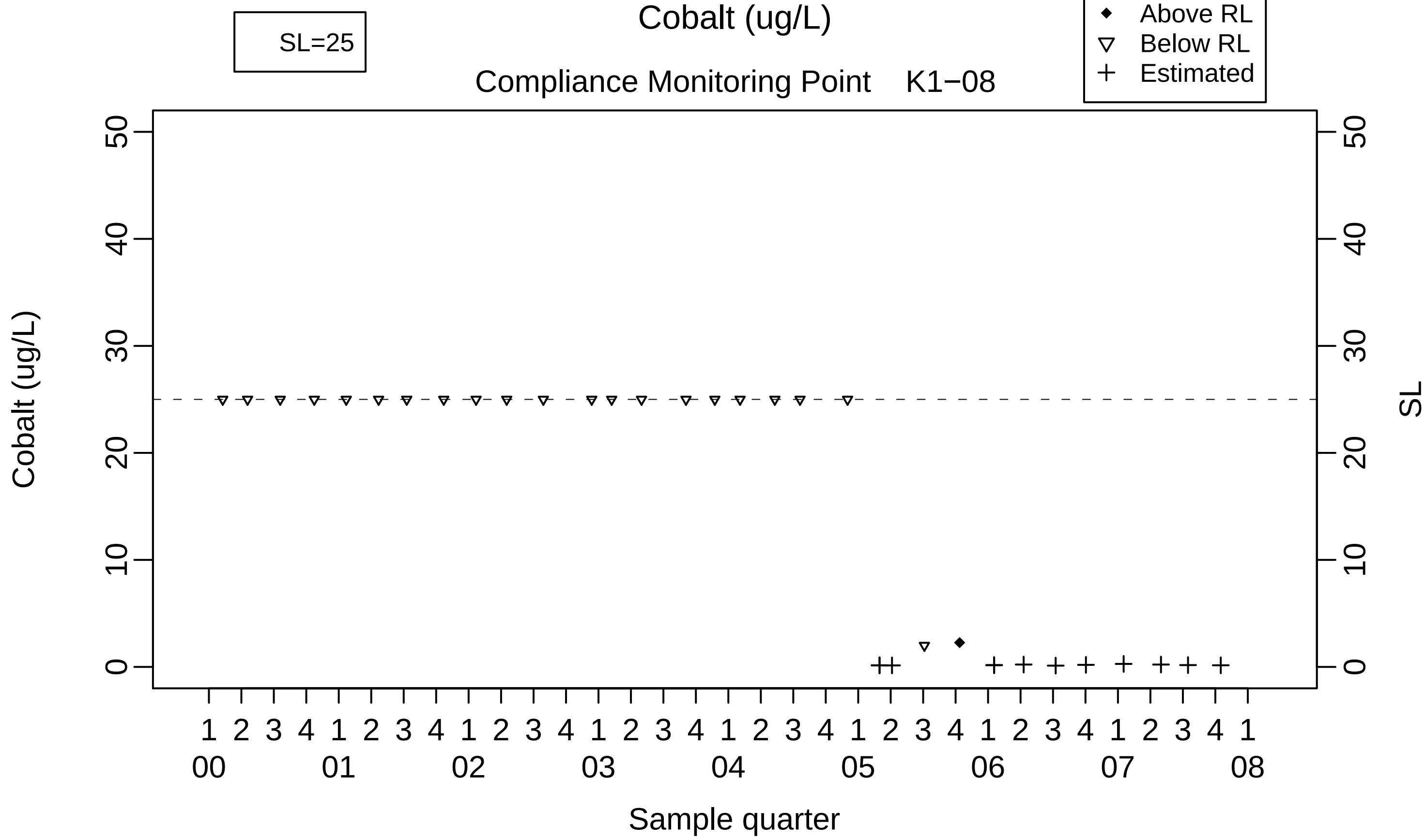


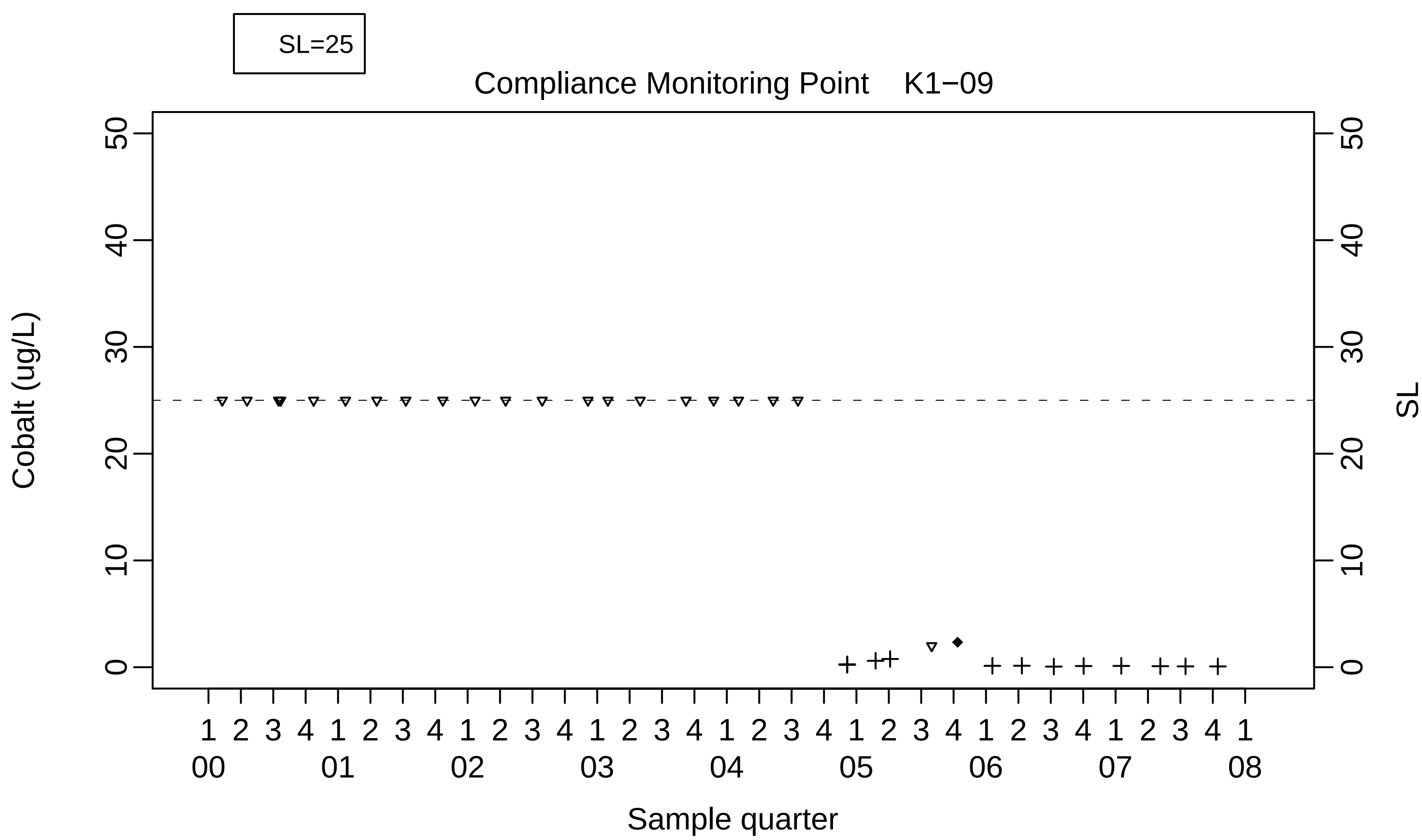


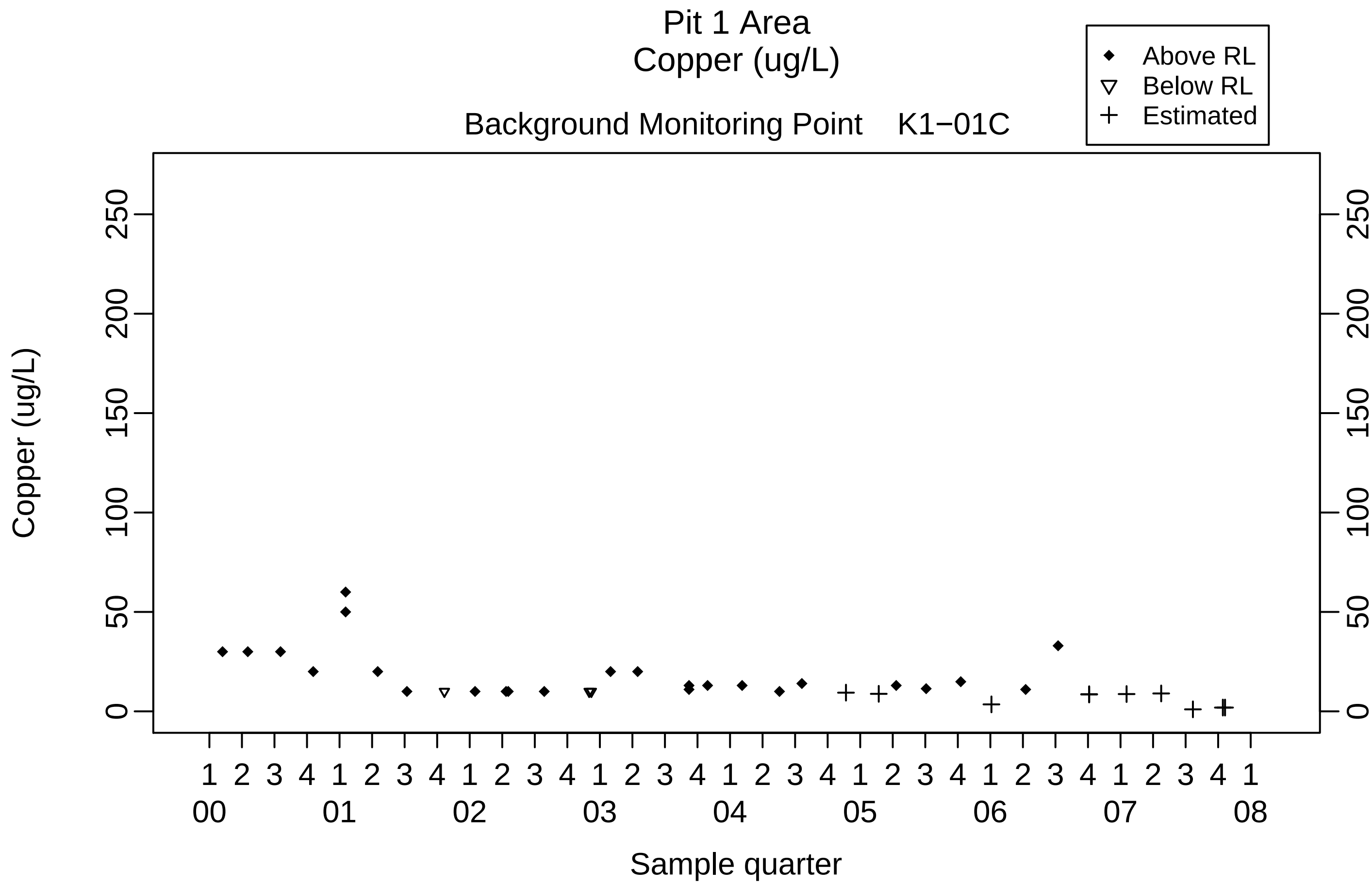

Pit 1 Area
Cobalt (ug/L)
SL=25
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−04
Cobalt (ug/L)
SL
0
10
20
30
40
50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


SL=25
Compliance Monitoring Point K1−05
Cobalt (ug/L)
SL
0
10
20
30
40
50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

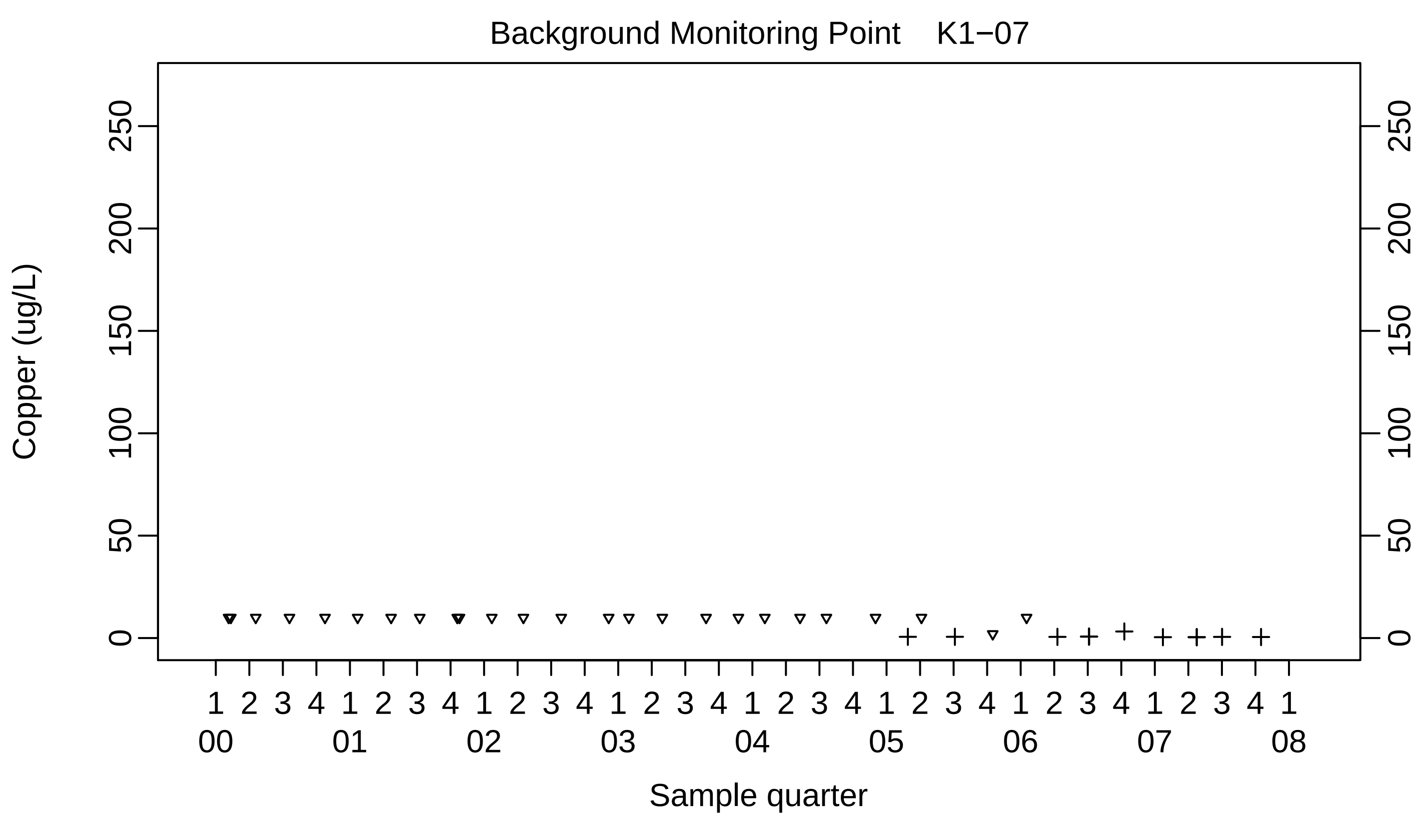
Pit 1 Area
Cobalt (ug/L)



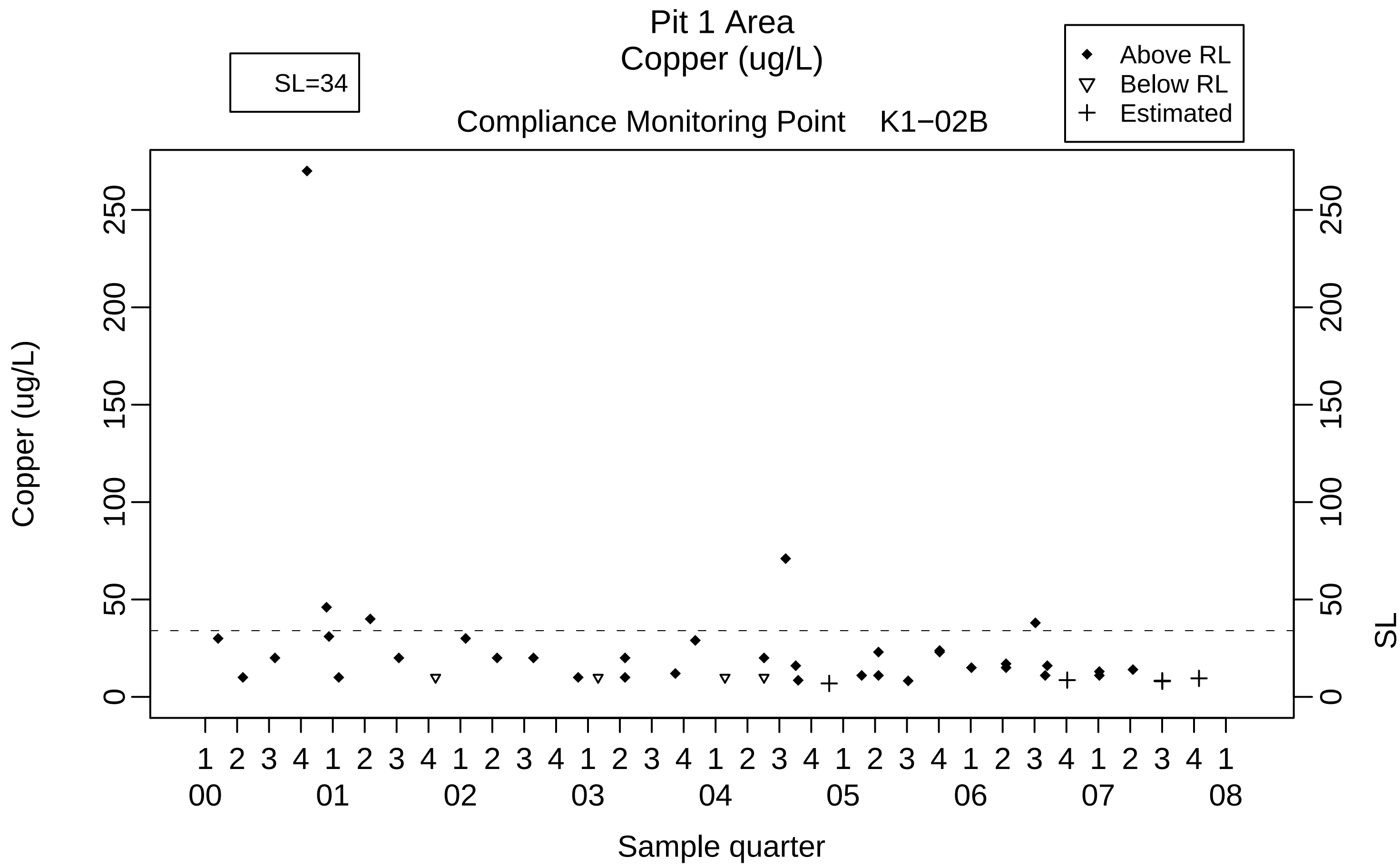


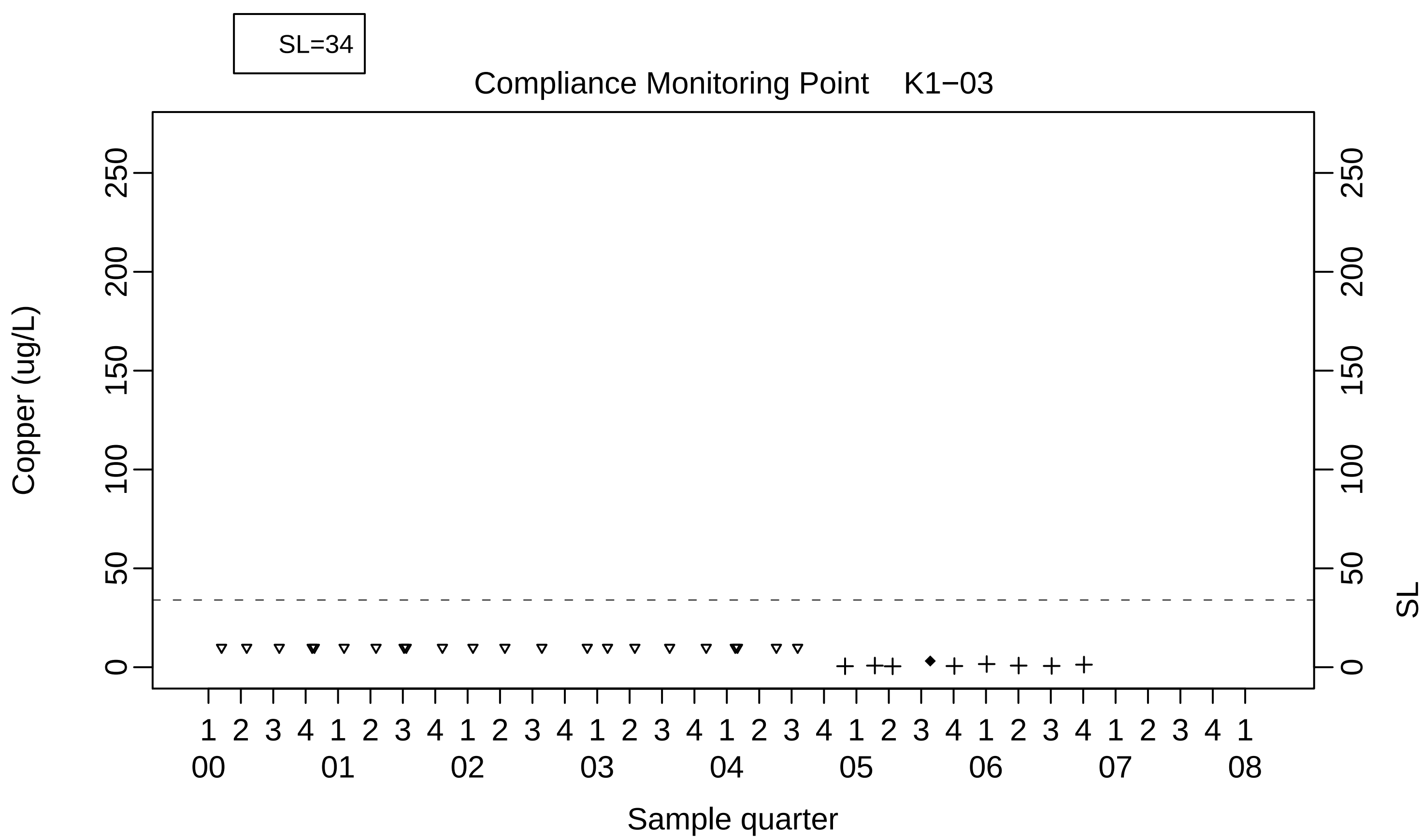


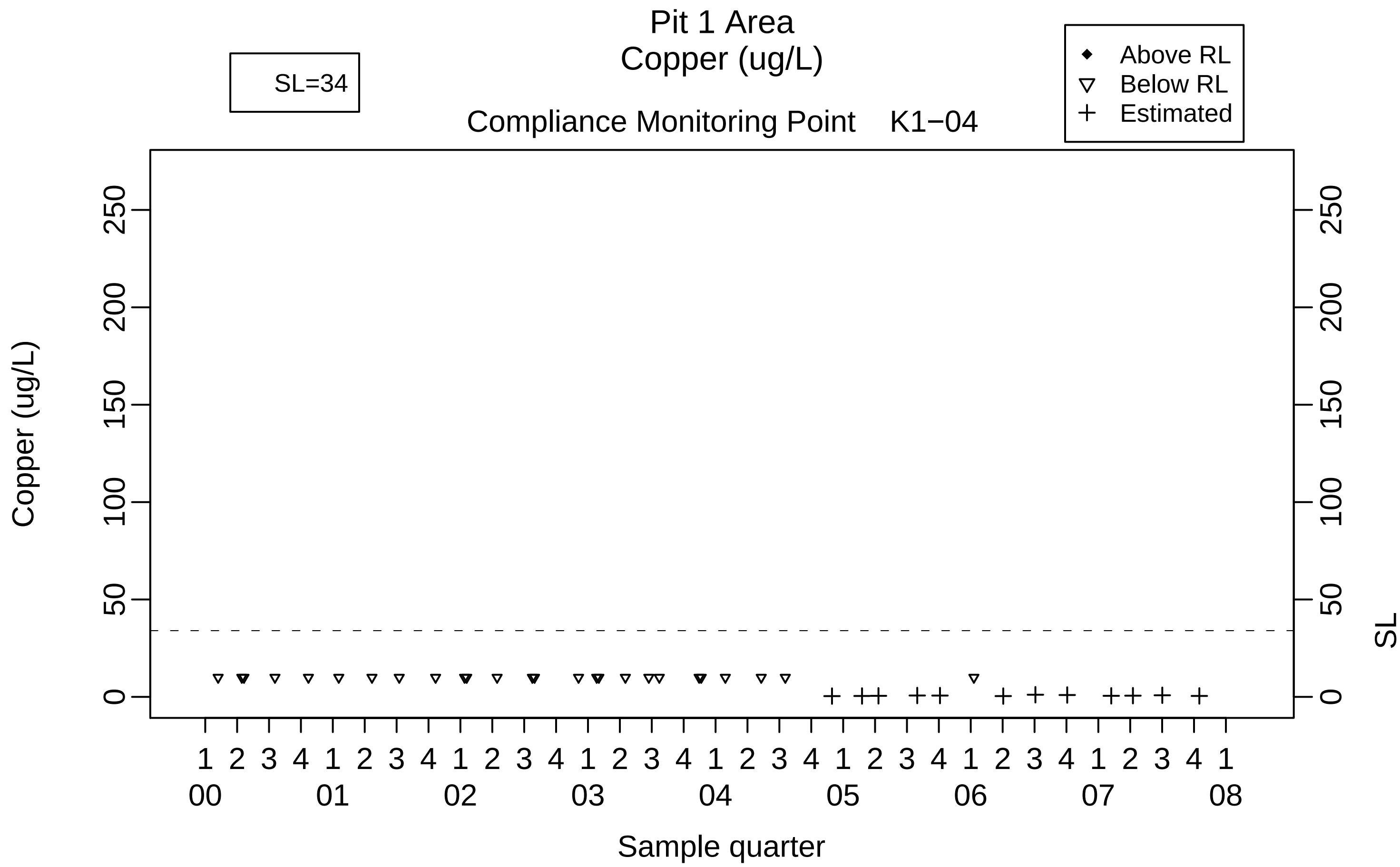
Pit 1 Area
Copper (ug/L)
Above RL
Below RL
Estimated
Background Monitoring Point K1−01C
Copper (ug/L)
0
50
100
150
200
250
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

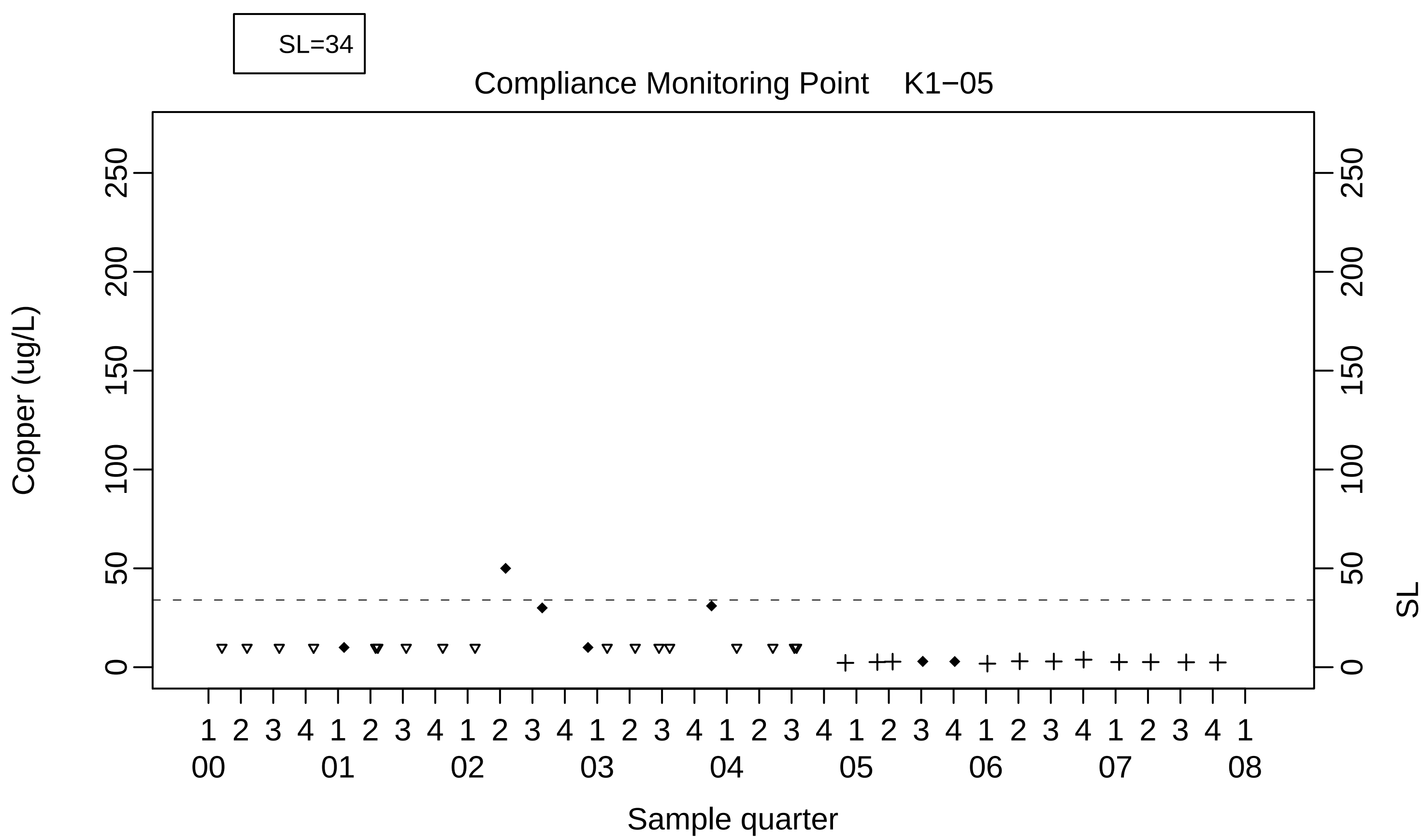


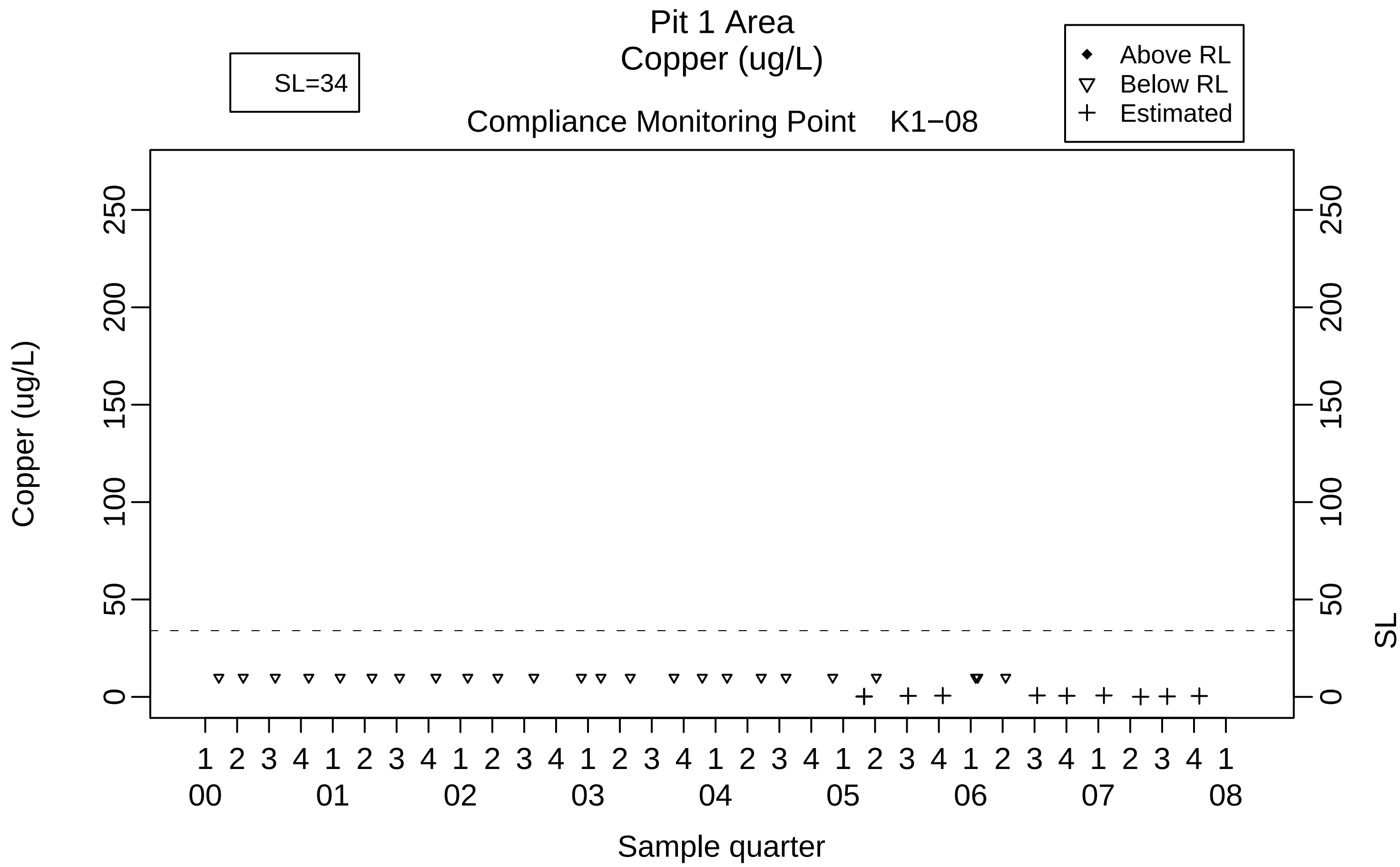
Background Monitoring Point K1−07
Copper (ug/L)
0
50
100
150
200
250
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

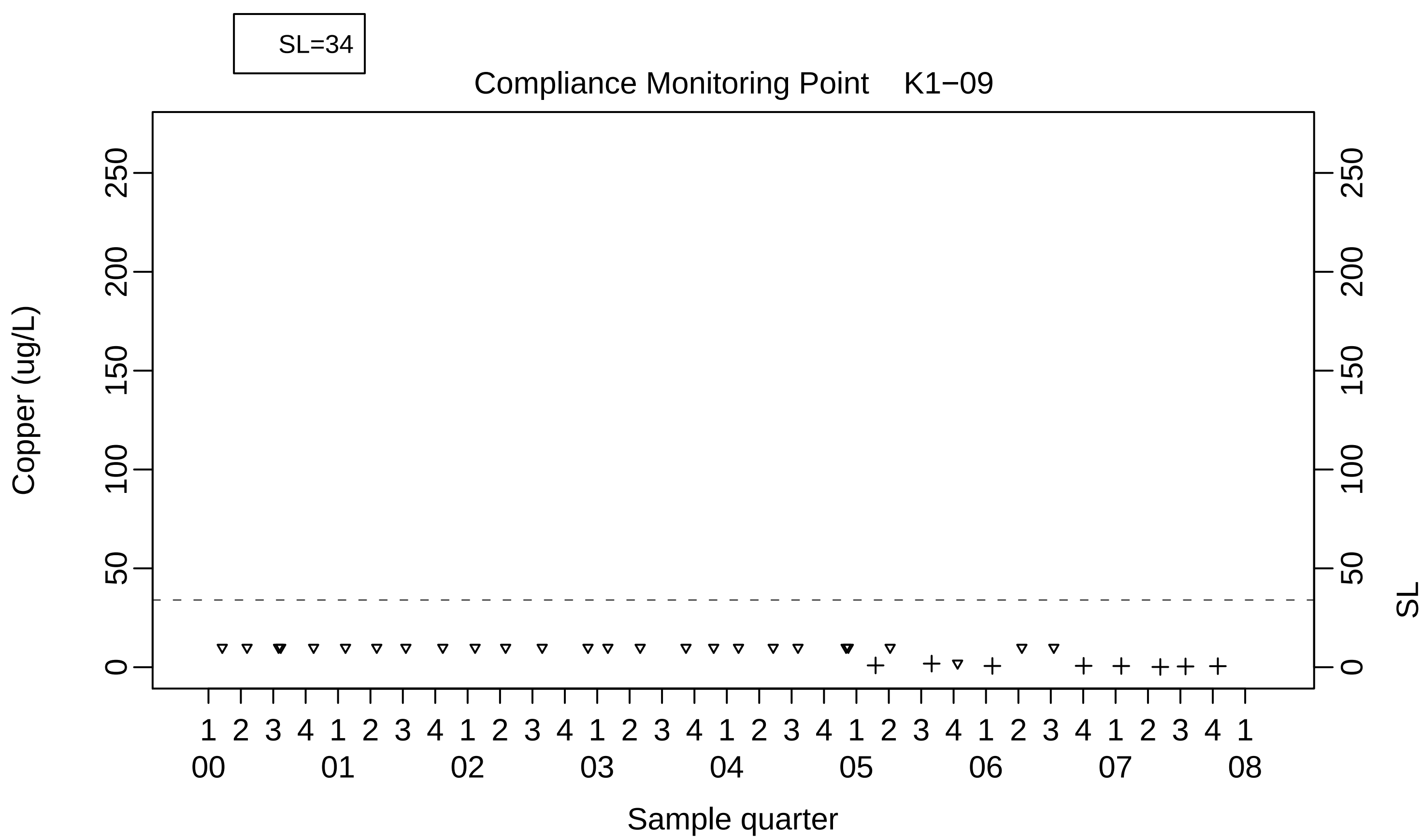

Pit 1 Area
Copper (ug/L)
SL=34
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−02B
Copper (ug/L)
SL
0
50
100
150
200
250
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


SL=34
Compliance Monitoring Point K1−03
Copper (ug/L)
SL
0
50
100
150
200
250
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

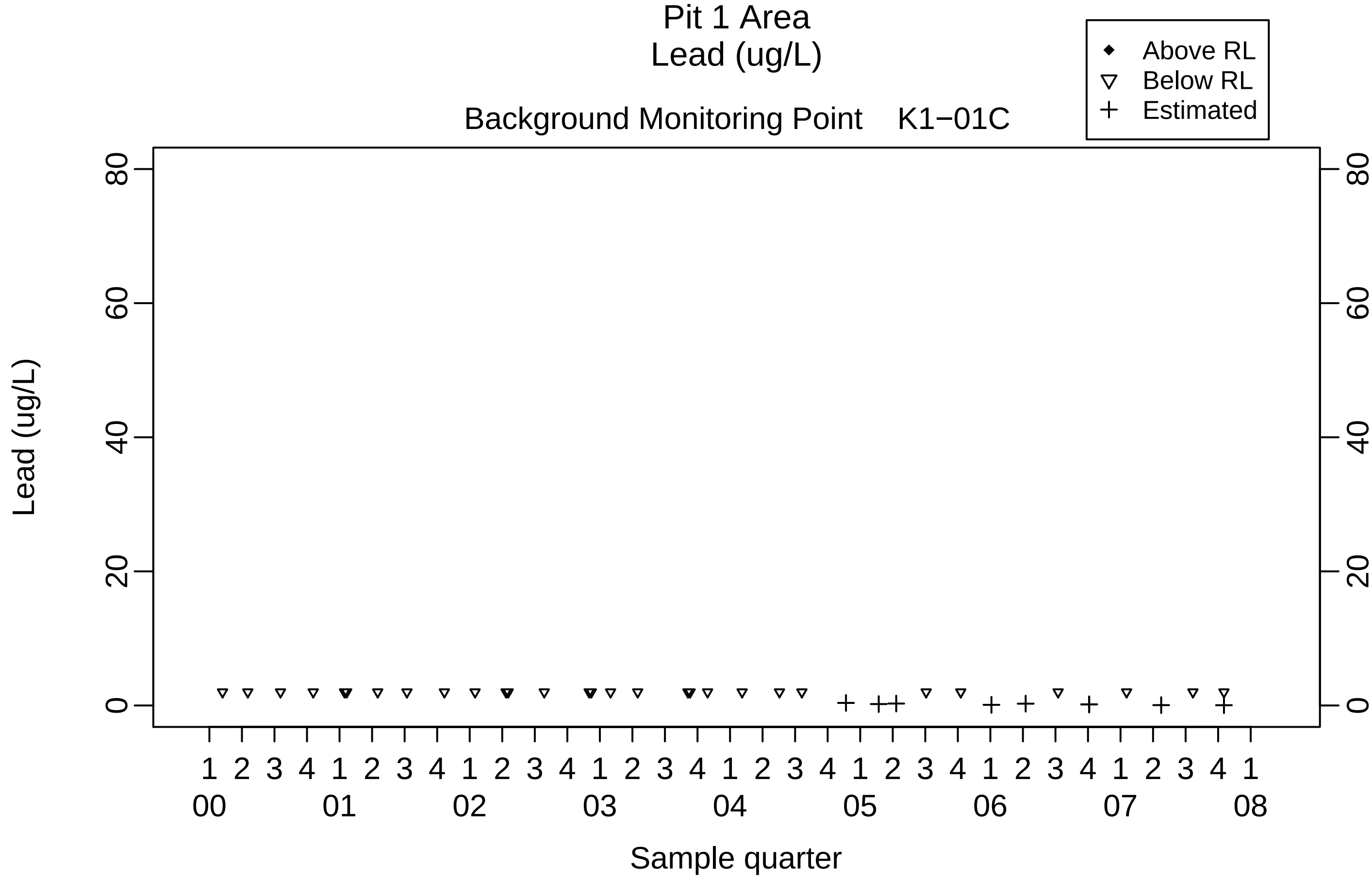

Pit 1 Area
Copper (ug/L)
SL=34
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−04
Copper (ug/L)
SL
0
50
100
150
200
250
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

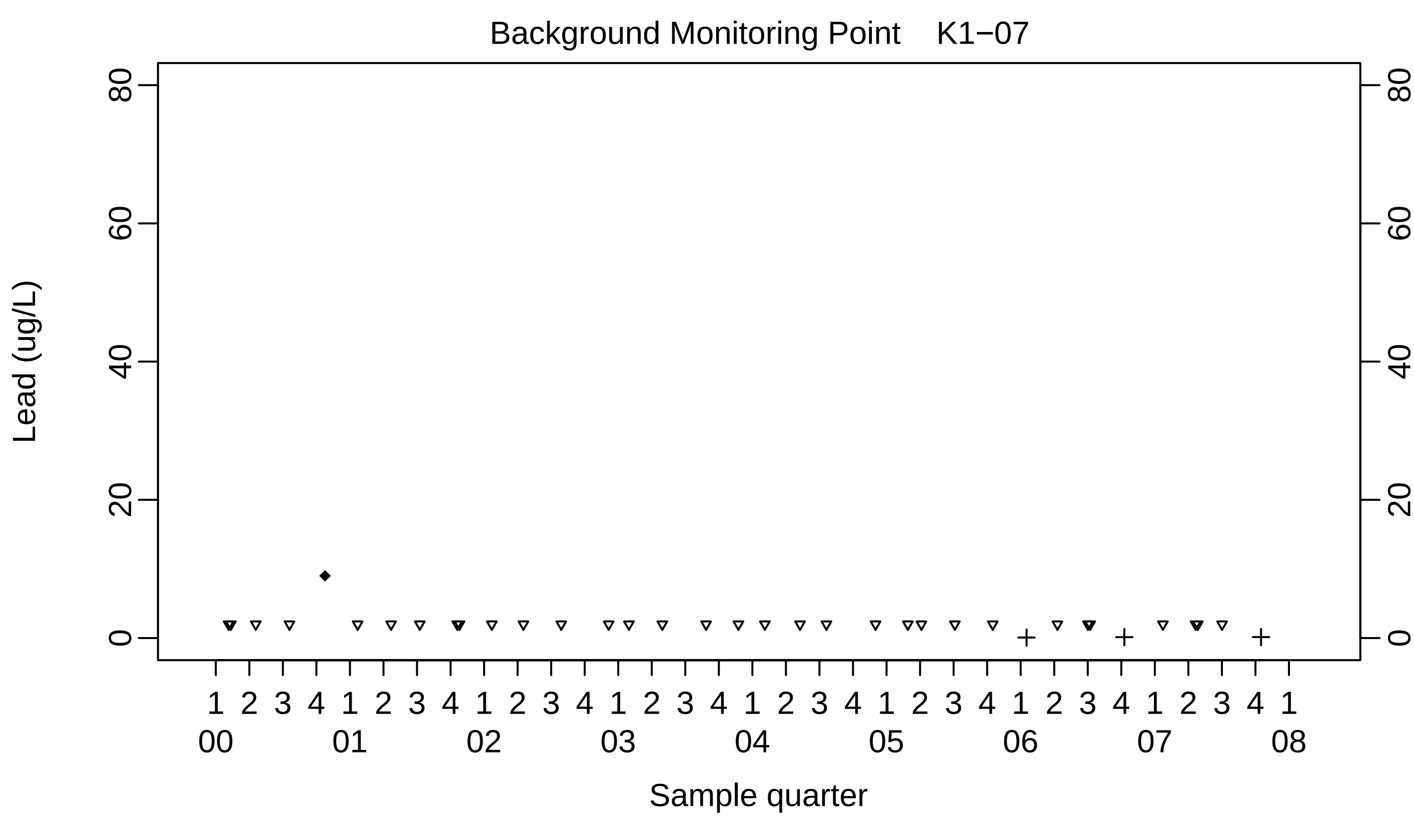

SL=34
Compliance Monitoring Point K1−05
Copper (ug/L)
SL
0
50
100
150
200
250
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

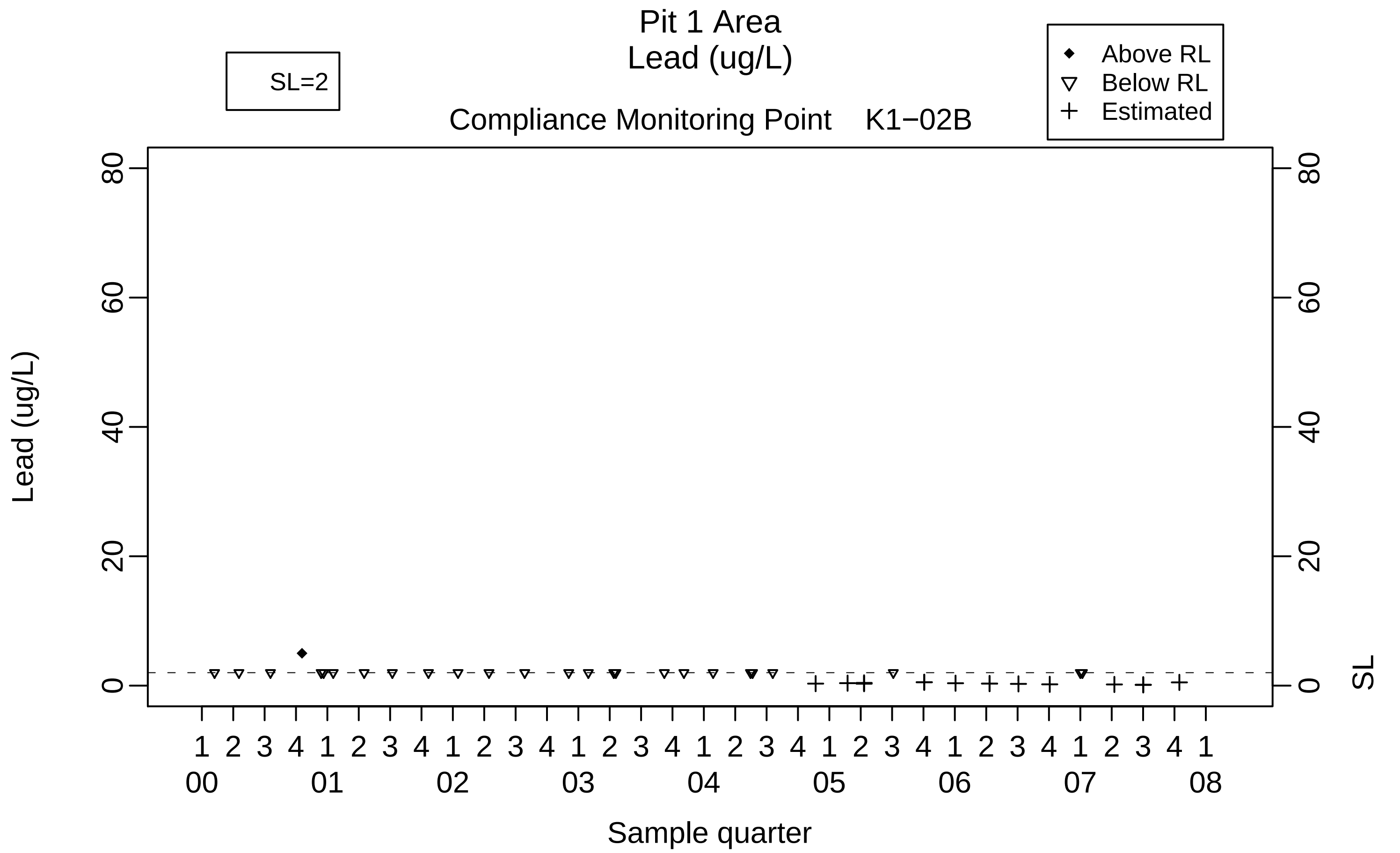

Pit 1 Area
Copper (ug/L)
SL=34
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−08
Copper (ug/L)
SL
Sample quarter

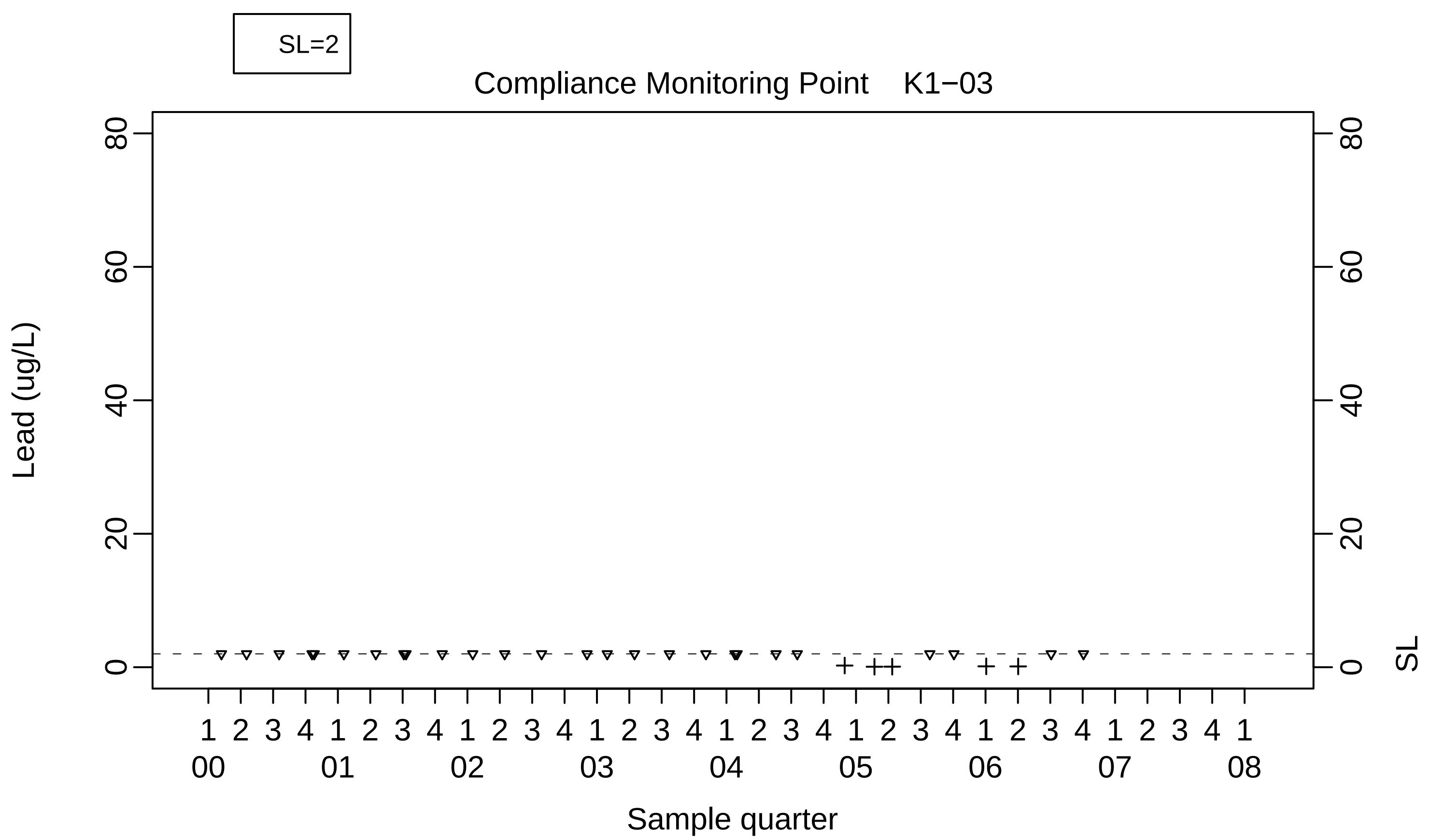

SL=34
Compliance Monitoring Point K1−09
Copper (ug/L)
SL
Sample quarter

Pit 1 Area
Lead (ug/L)

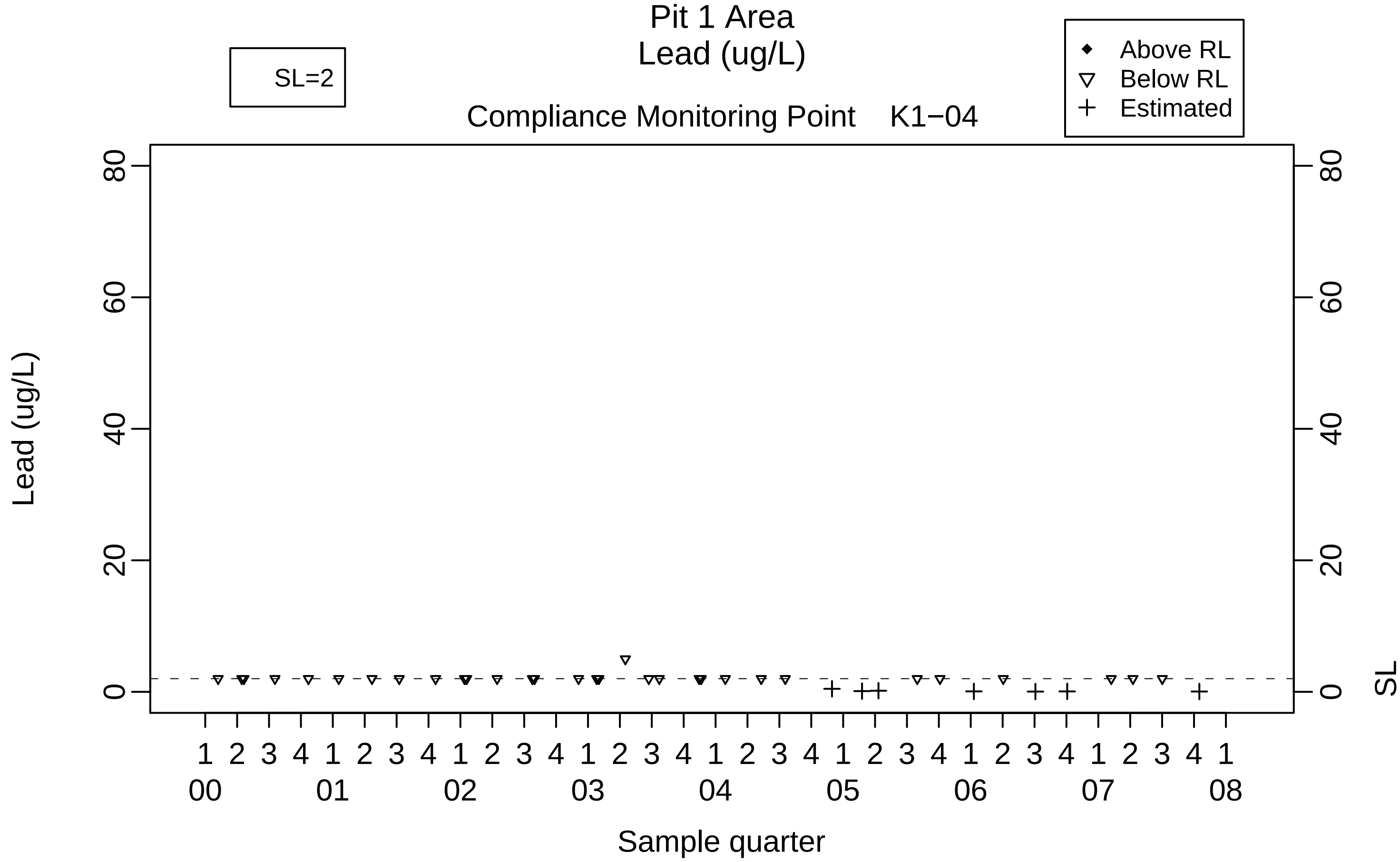


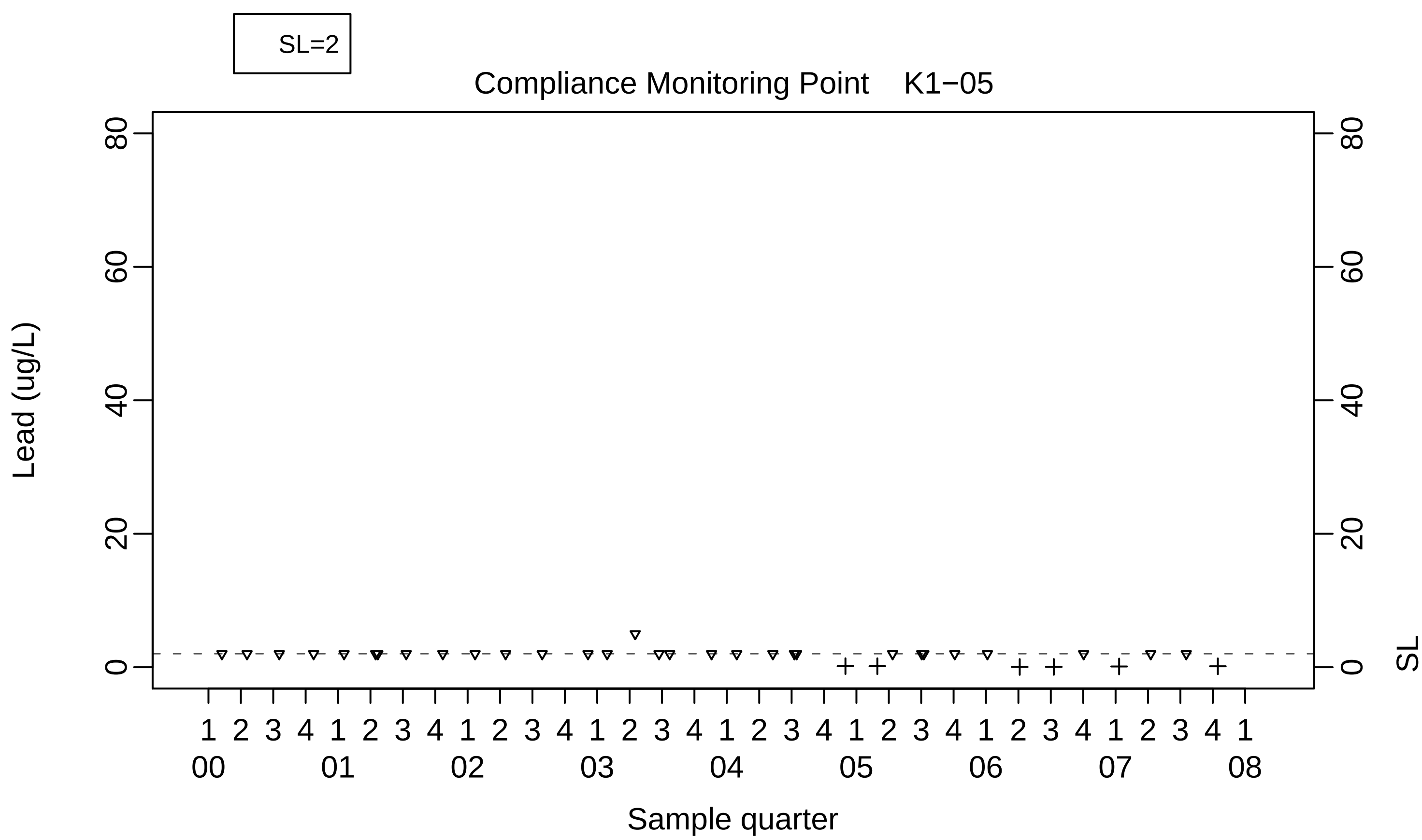


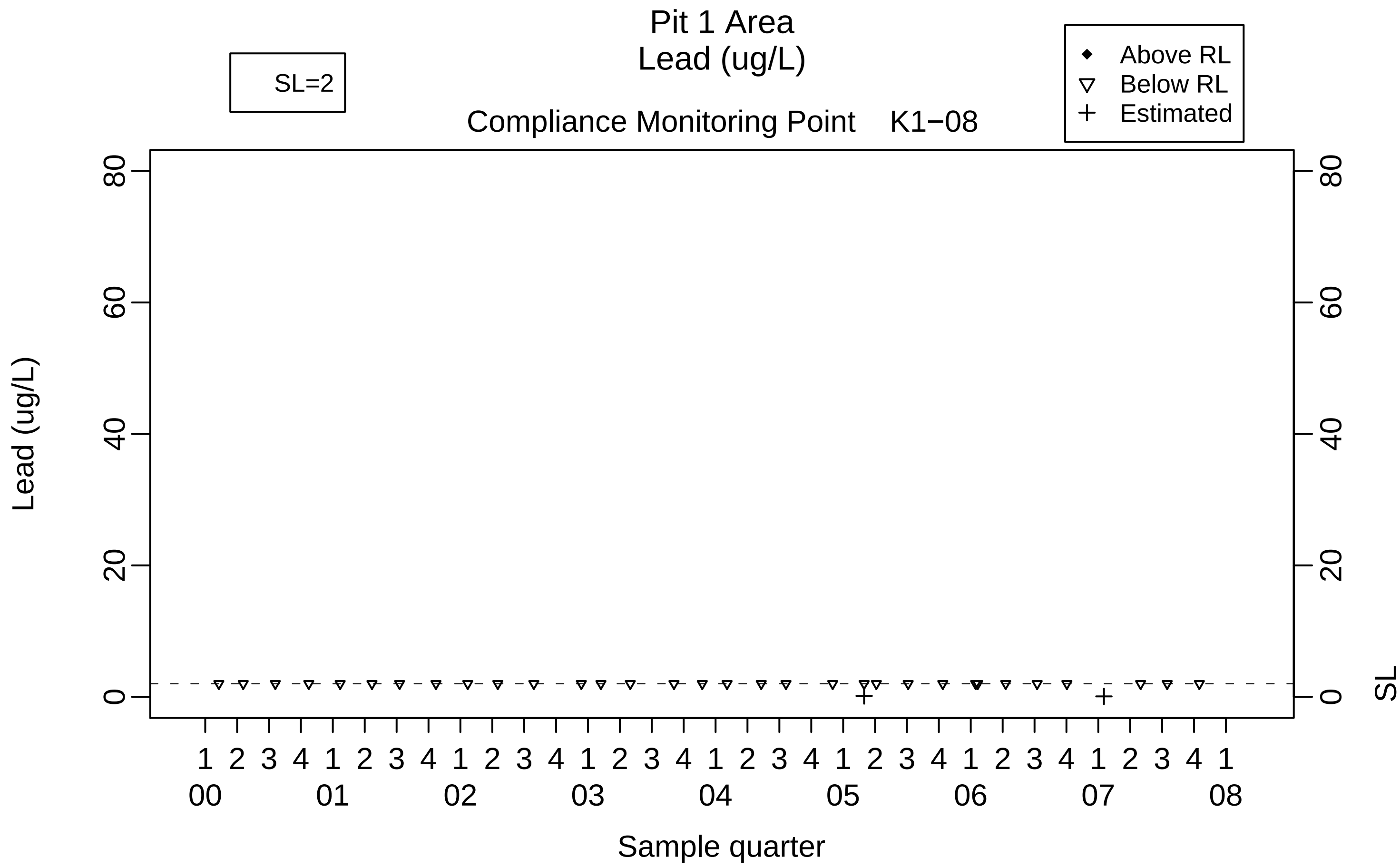

Pit 1 Area
Lead (ug/L)
SL=2
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−02B
Lead (ug/L)
0 20 40 60 80
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

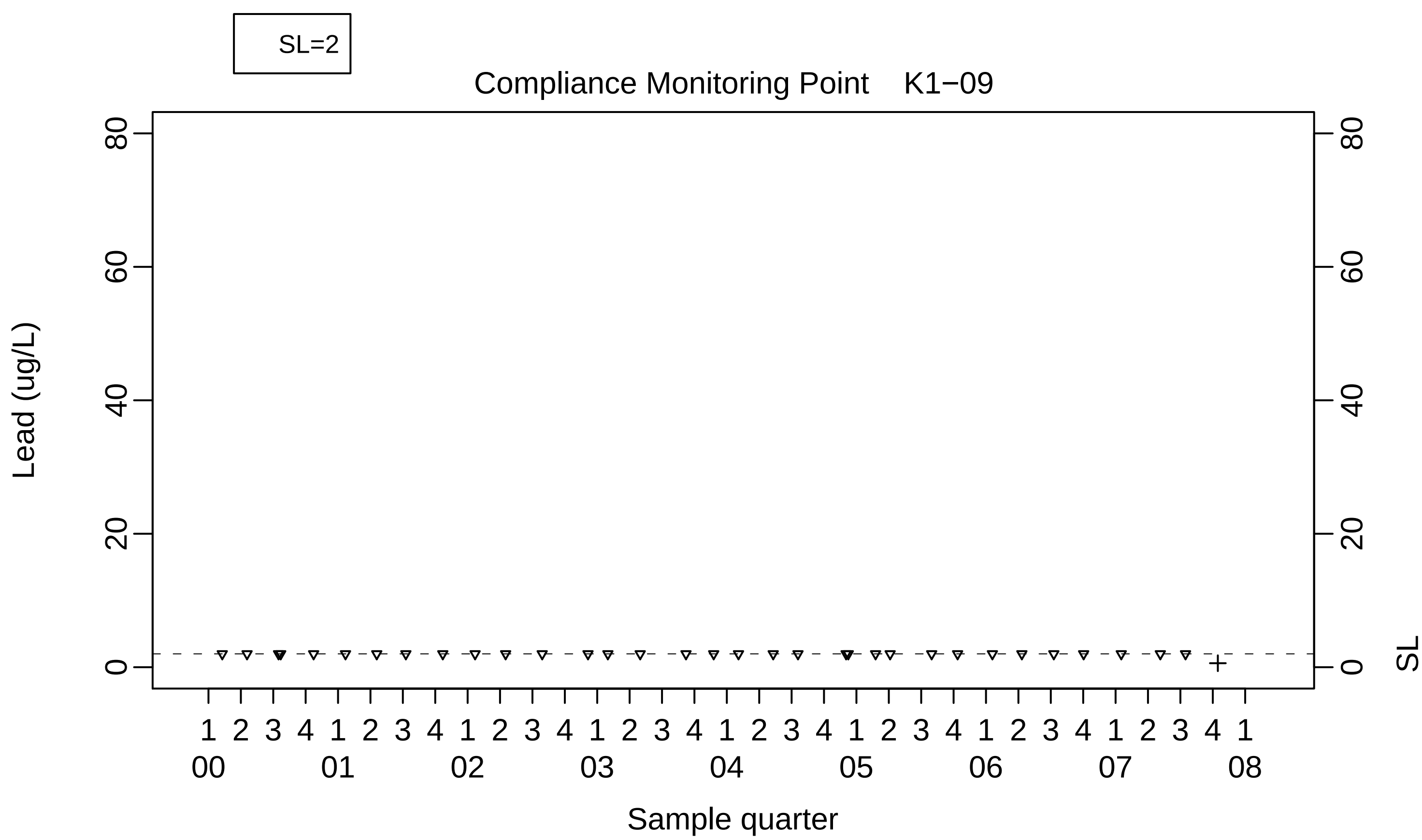

SL=2
Compliance Monitoring Point K1−03
Lead (ug/L)
0 20 40 60 80
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

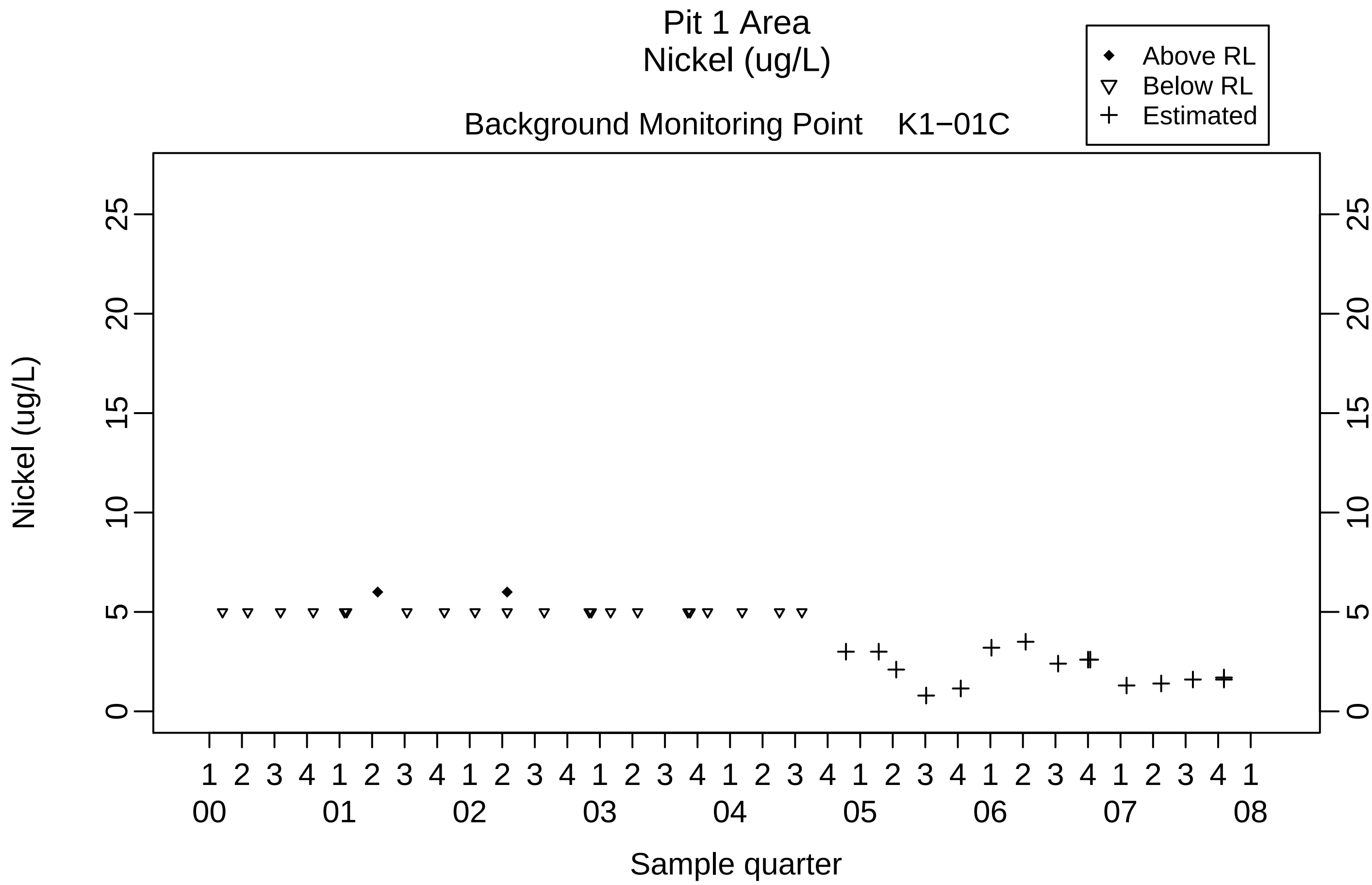
Pit 1 Area
Lead (ug/L)

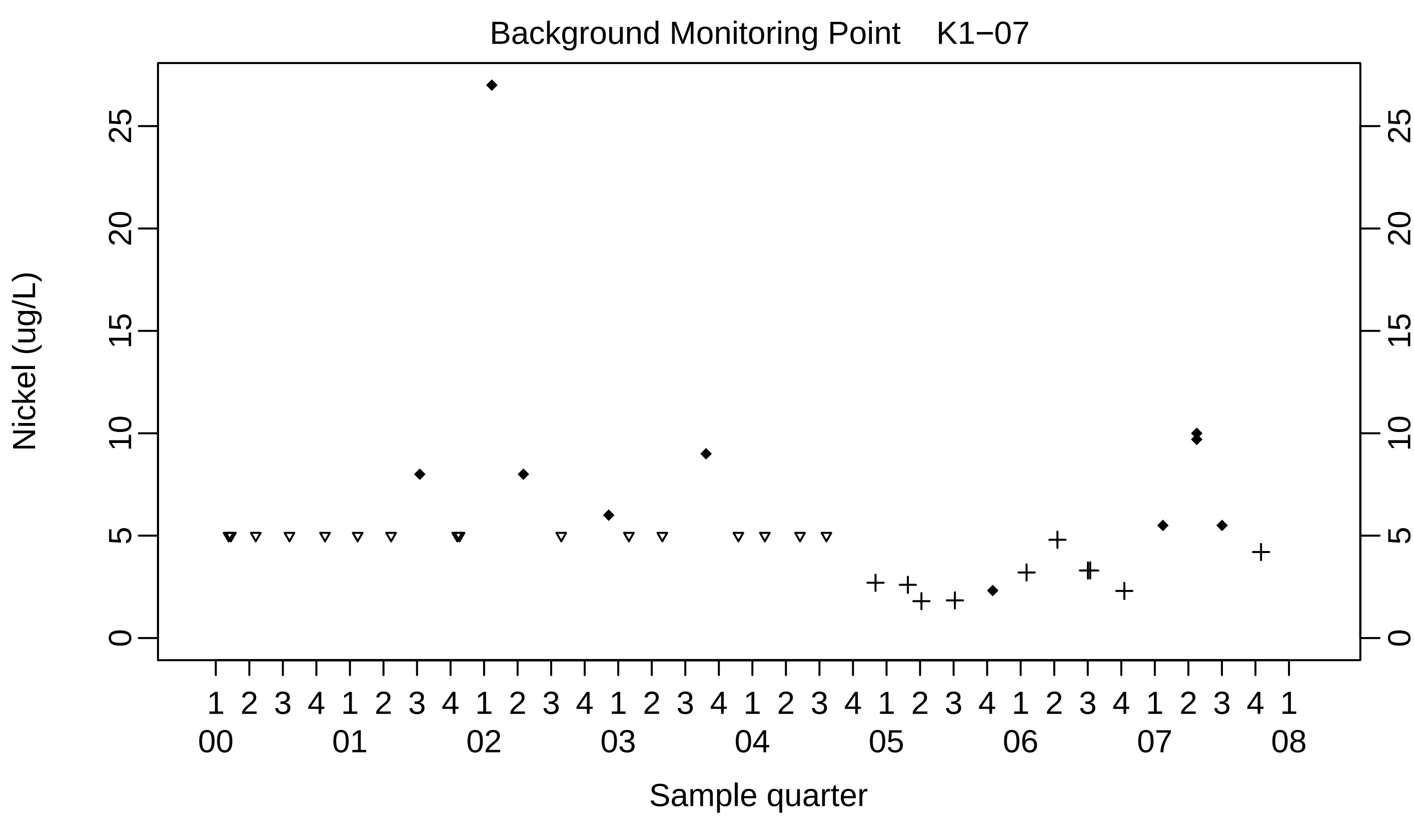


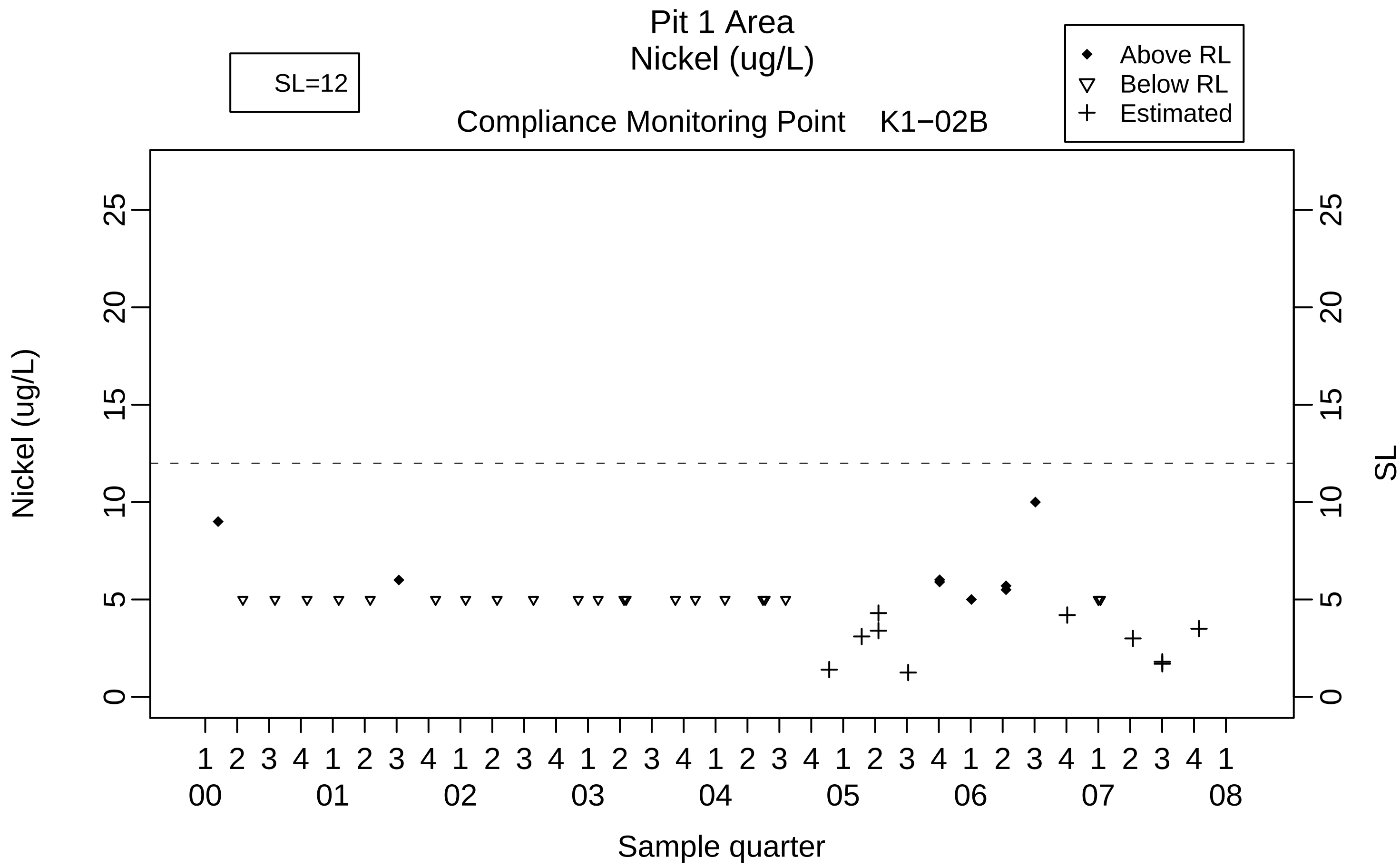


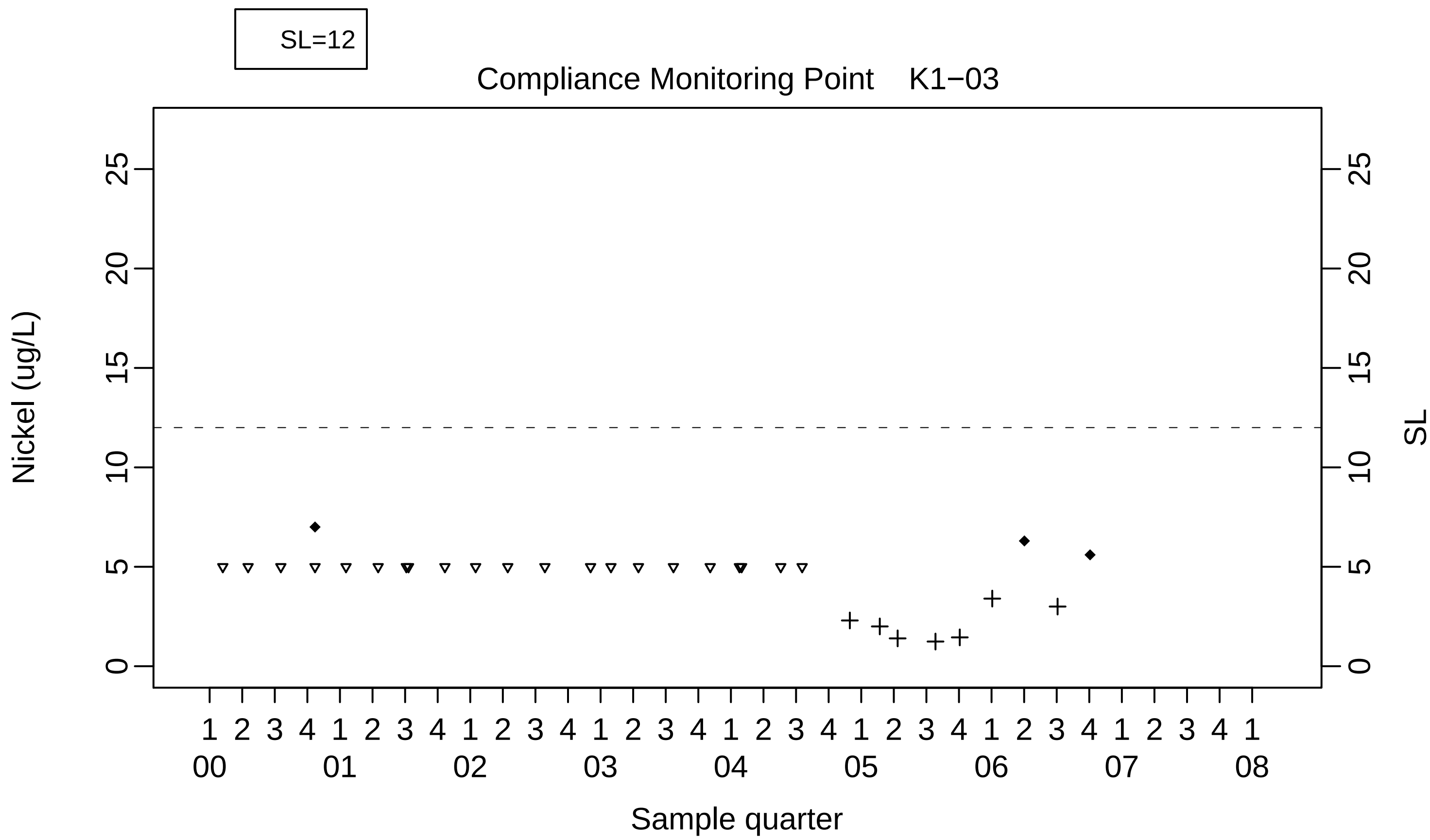

Pit 1 Area
Lead (ug/L)
SL=2
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−08
Lead (ug/L)
0
20
40
60
80
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

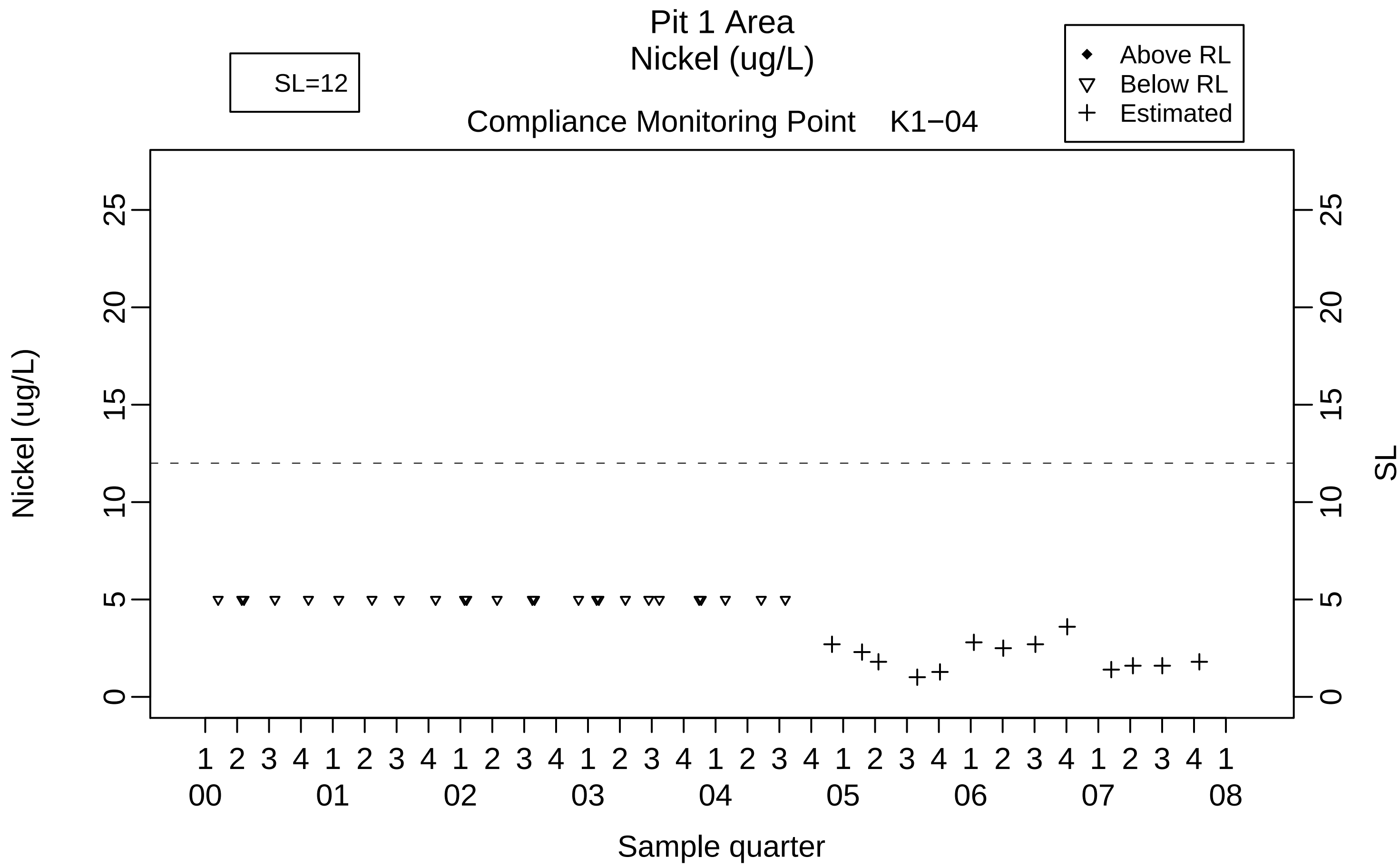

SL=2
Compliance Monitoring Point K1−09
Lead (ug/L)
0
20
40
60
80
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

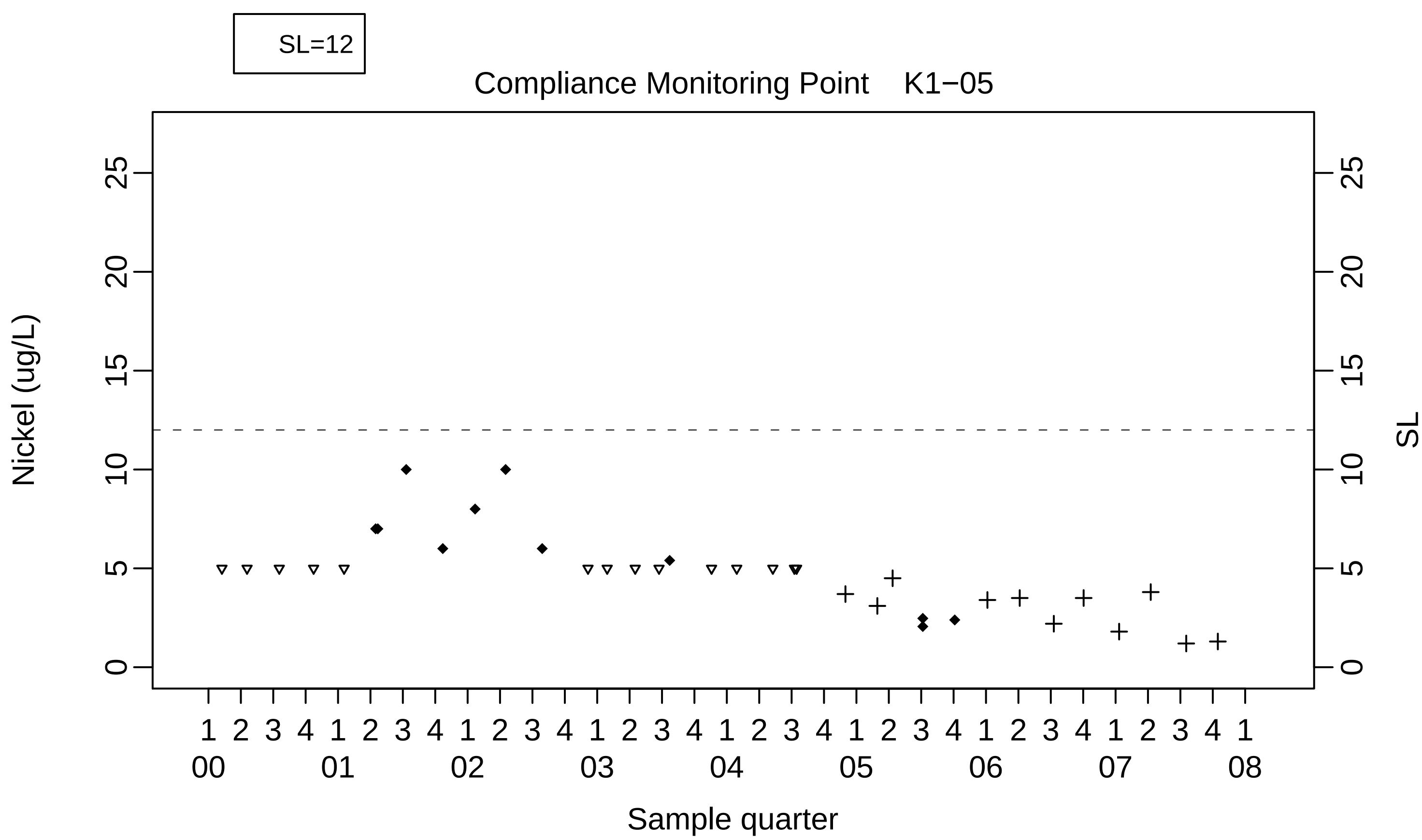

Pit 1 Area
Nickel (ug/L)
Background Monitoring Point K1−01C
Above RL
Below RL
Estimated
Nickel (ug/L)
0
5
10
15
20
25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

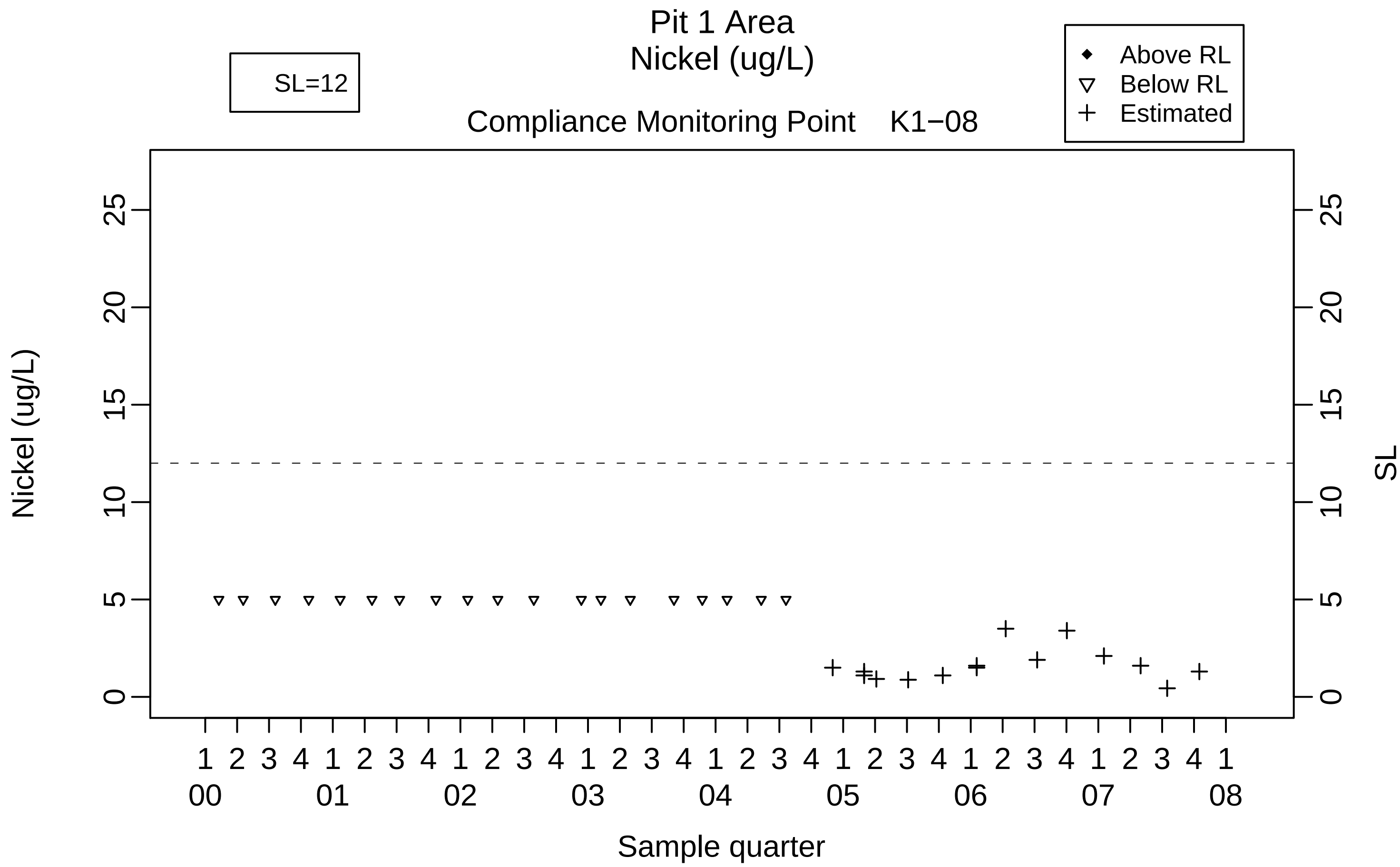

Background Monitoring Point K1−07
Nickel (ug/L)
0
5
10
15
20
25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

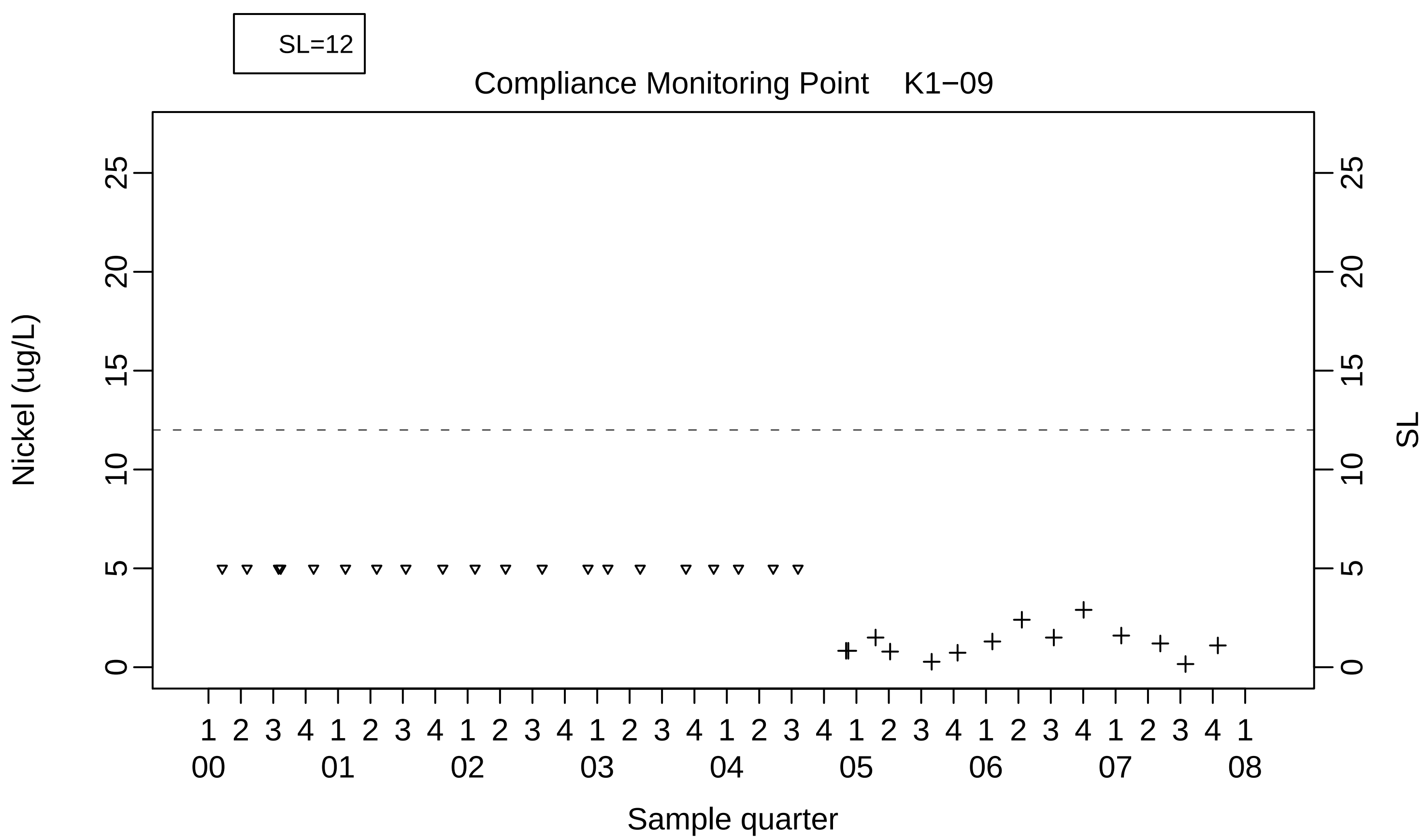

Pit 1 Area
Nickel (ug/L)
SL=12
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−02B
Nickel (ug/L)
SL
0
5
10
15
20
25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


SL=12
Compliance Monitoring Point K1−03
Nickel (ug/L)
SL
0
5
10
15
20
25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

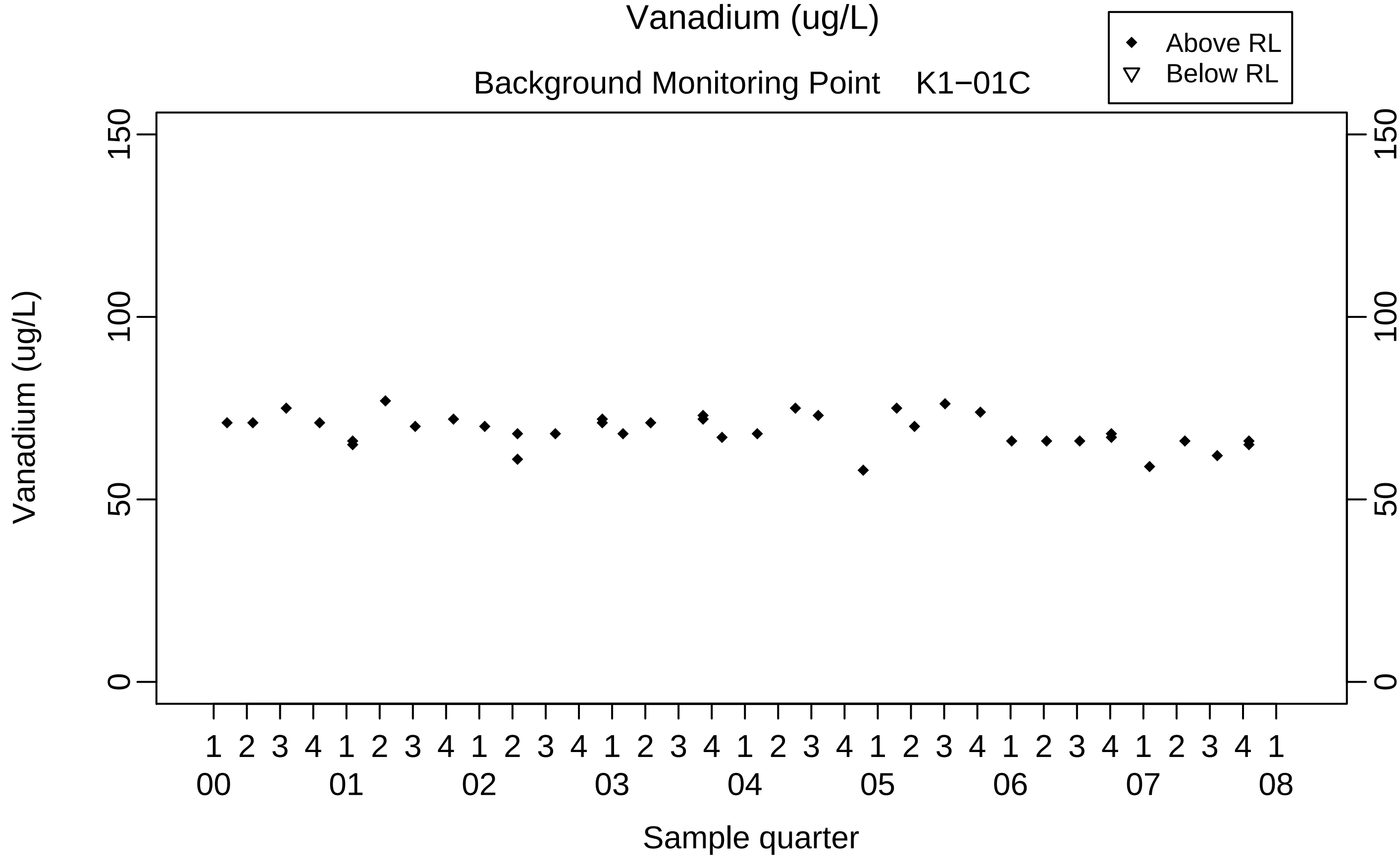

Pit 1 Area
Nickel (ug/L)
SL=12
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−04
Nickel (ug/L)
SL
0
5
10
15
20
25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

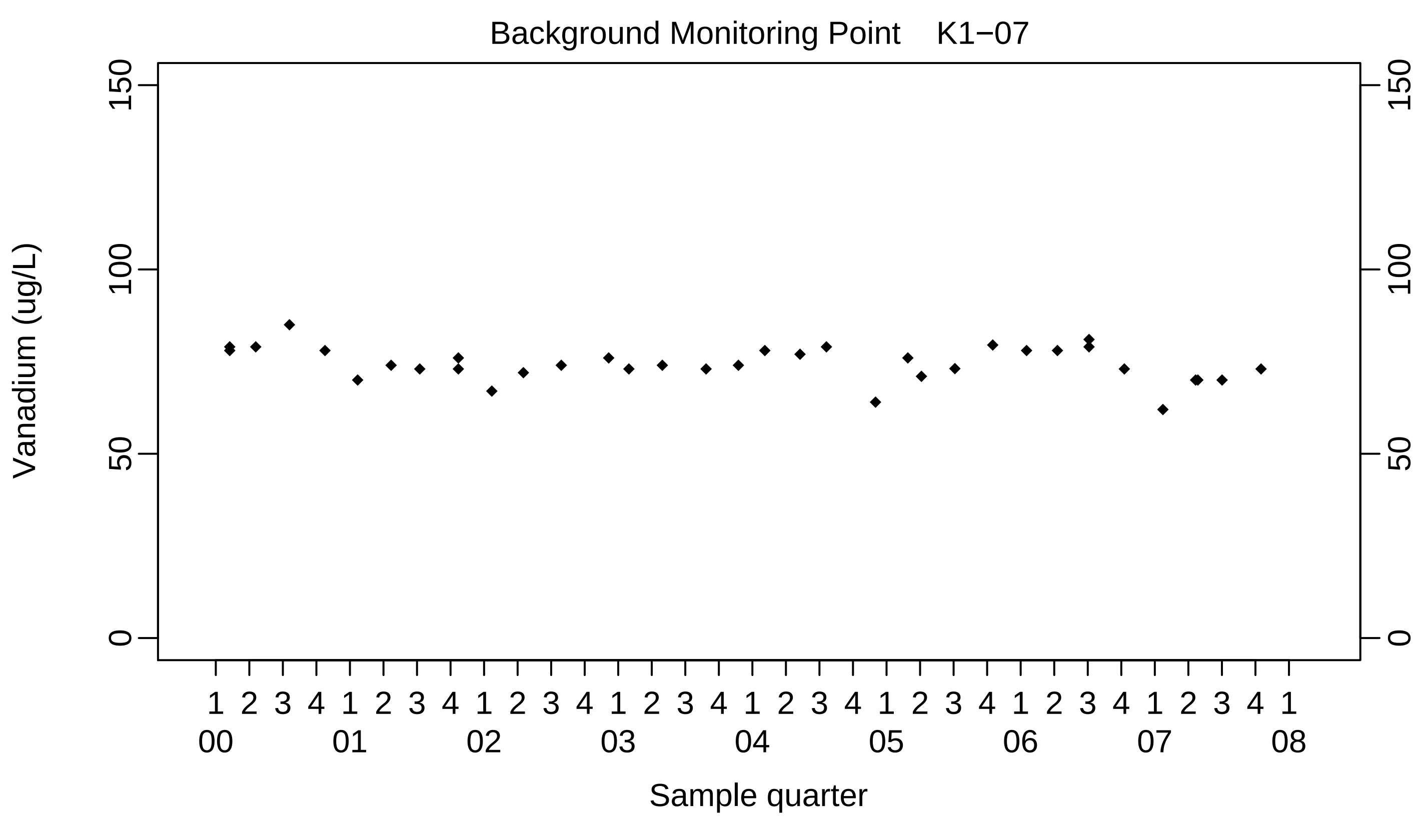

SL=12
Compliance Monitoring Point K1−05
Nickel (ug/L)
SL
0
5
10
15
20
25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

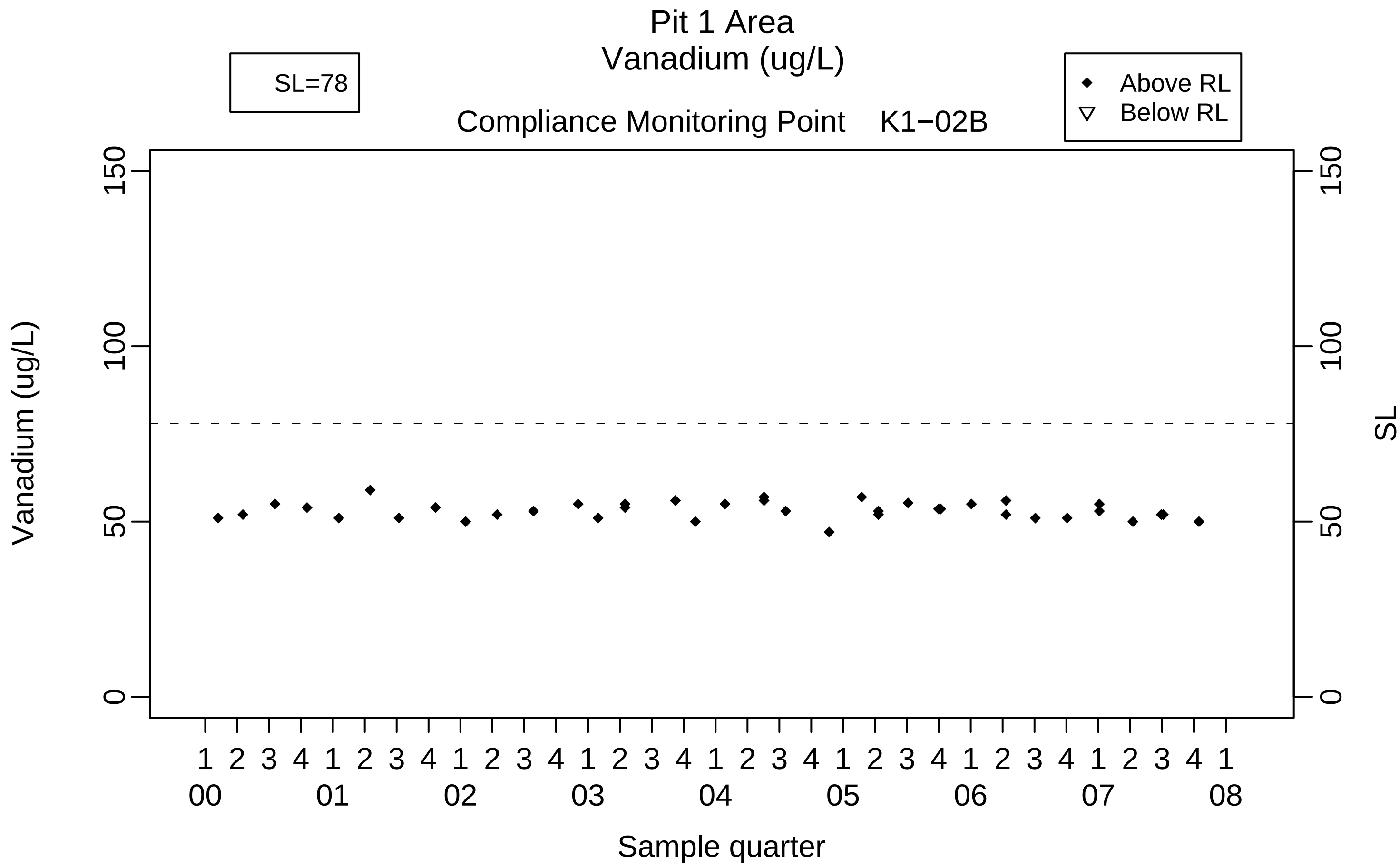

Pit 1 Area
Nickel (ug/L)
SL=12
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−08
Nickel (ug/L)
SL
0 5 10 15 20 25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

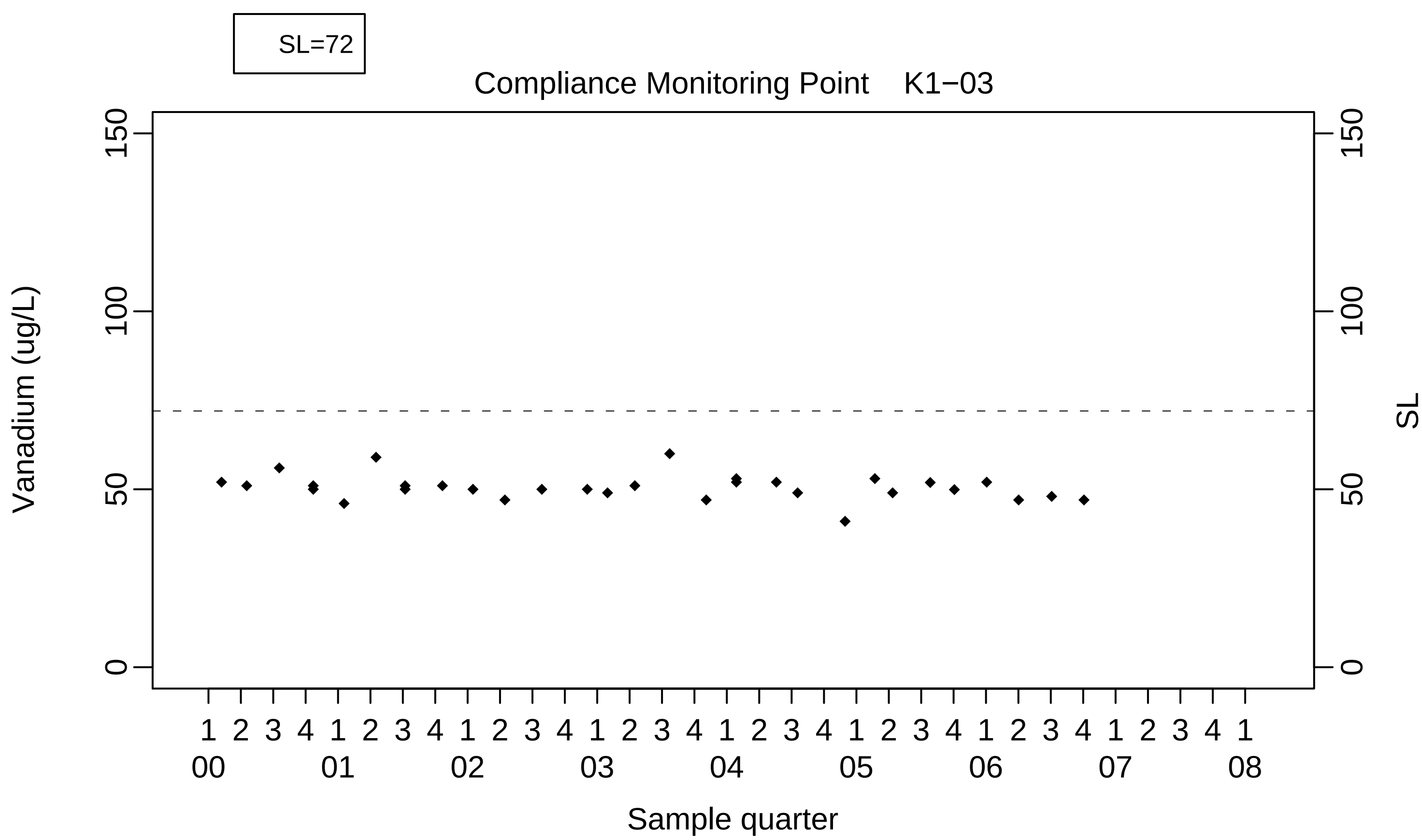

SL=12
Compliance Monitoring Point K1−09
Nickel (ug/L)
SL
0 5 10 15 20 25
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

Pit 1 Area
Vanadium (ug/L)

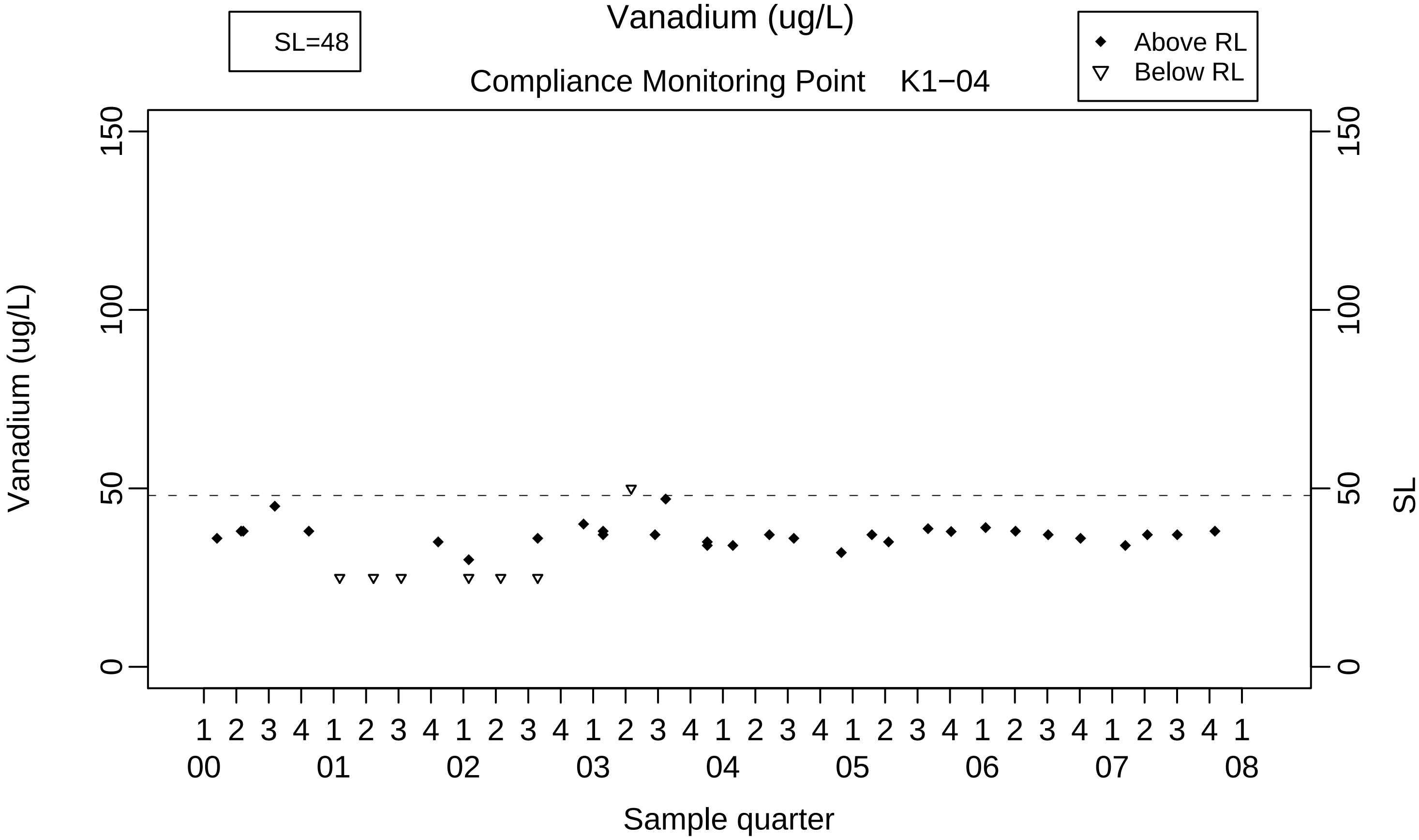


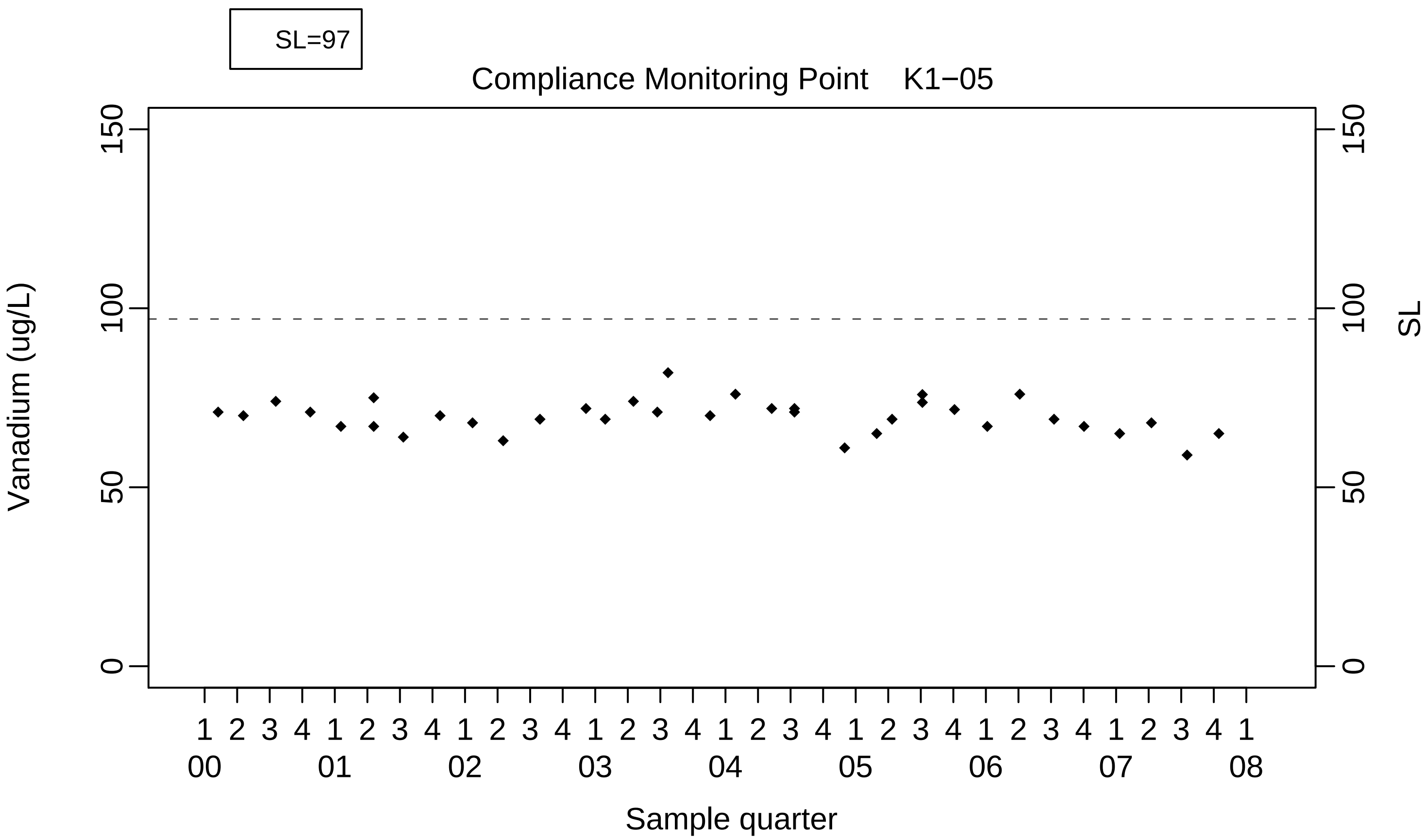



Pit 1 Area
Vanadium (ug/L)
SL=78
Above RL
Below RL
Compliance Monitoring Point K1−02B
Vanadium (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

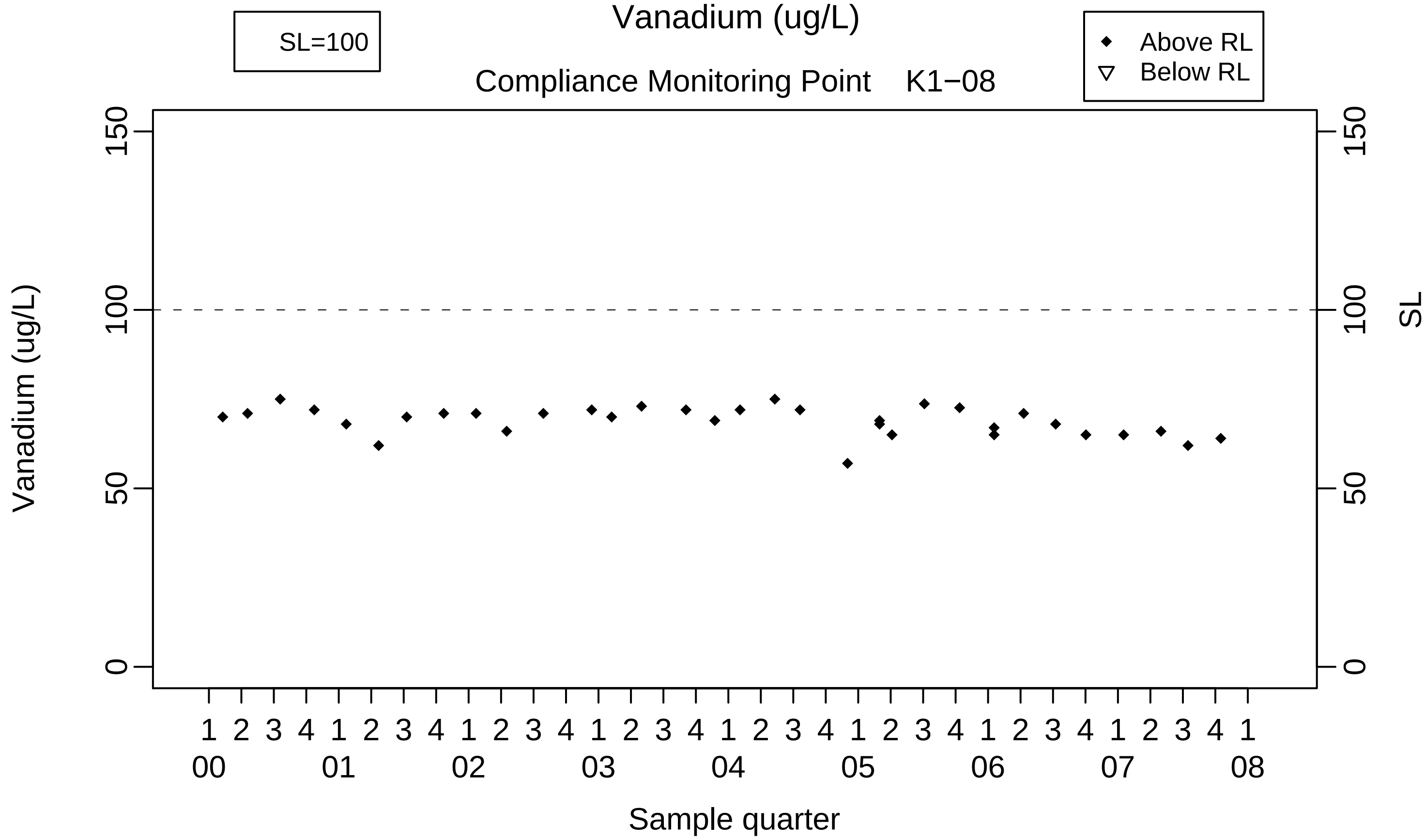

SL=72
Compliance Monitoring Point K1−03
Vanadium (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

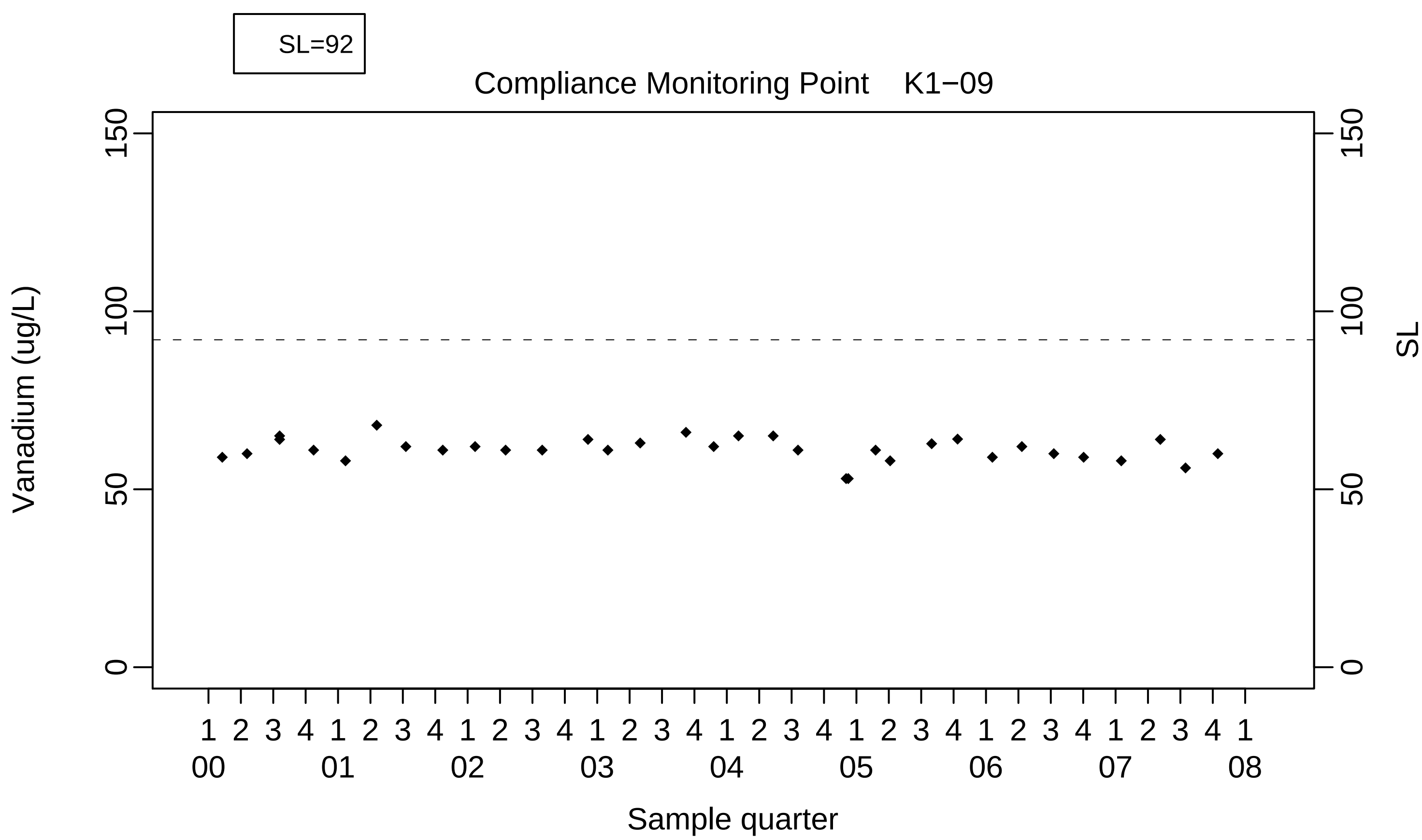
Pit 1 Area
Vanadium (ug/L)

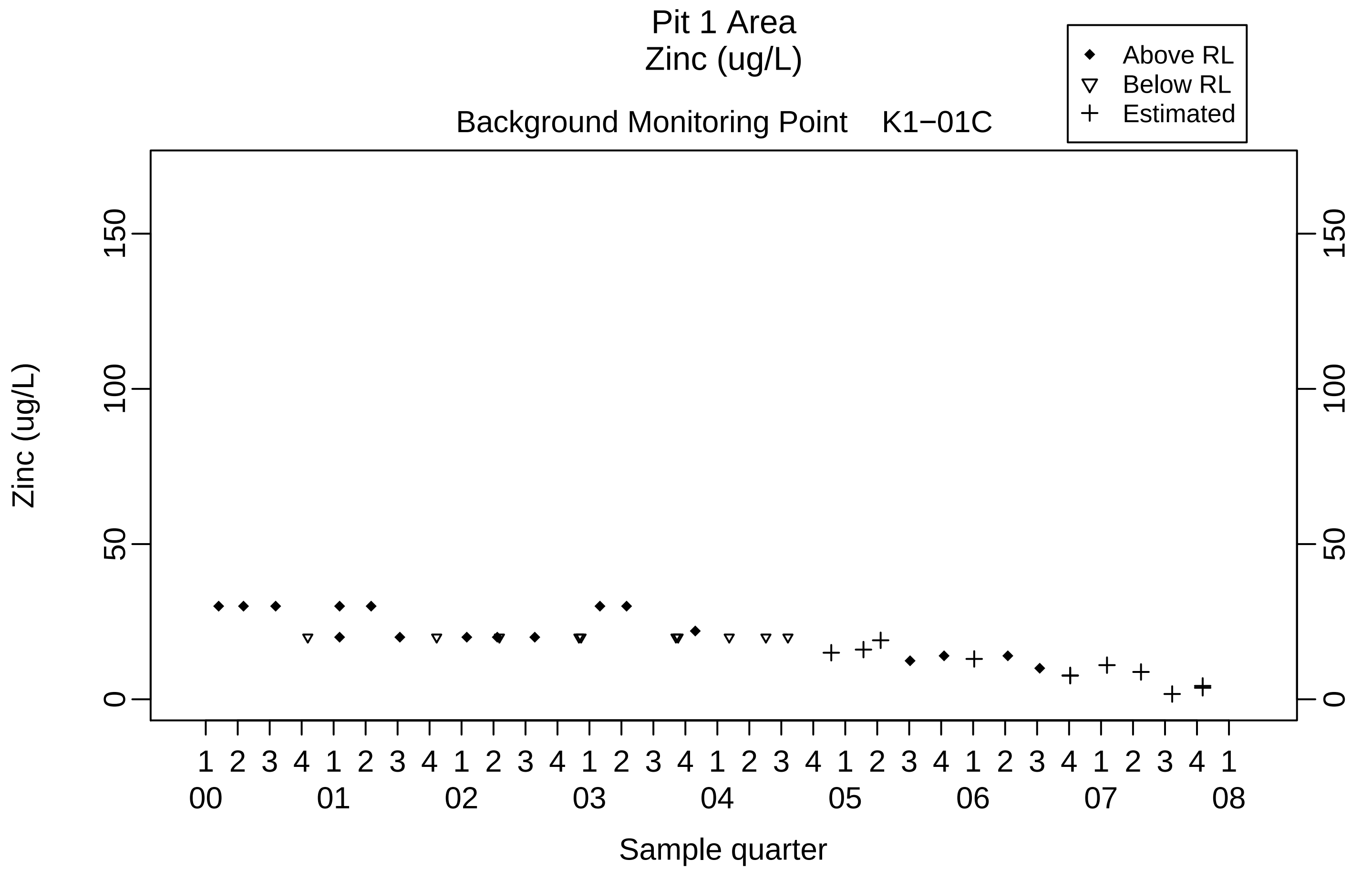


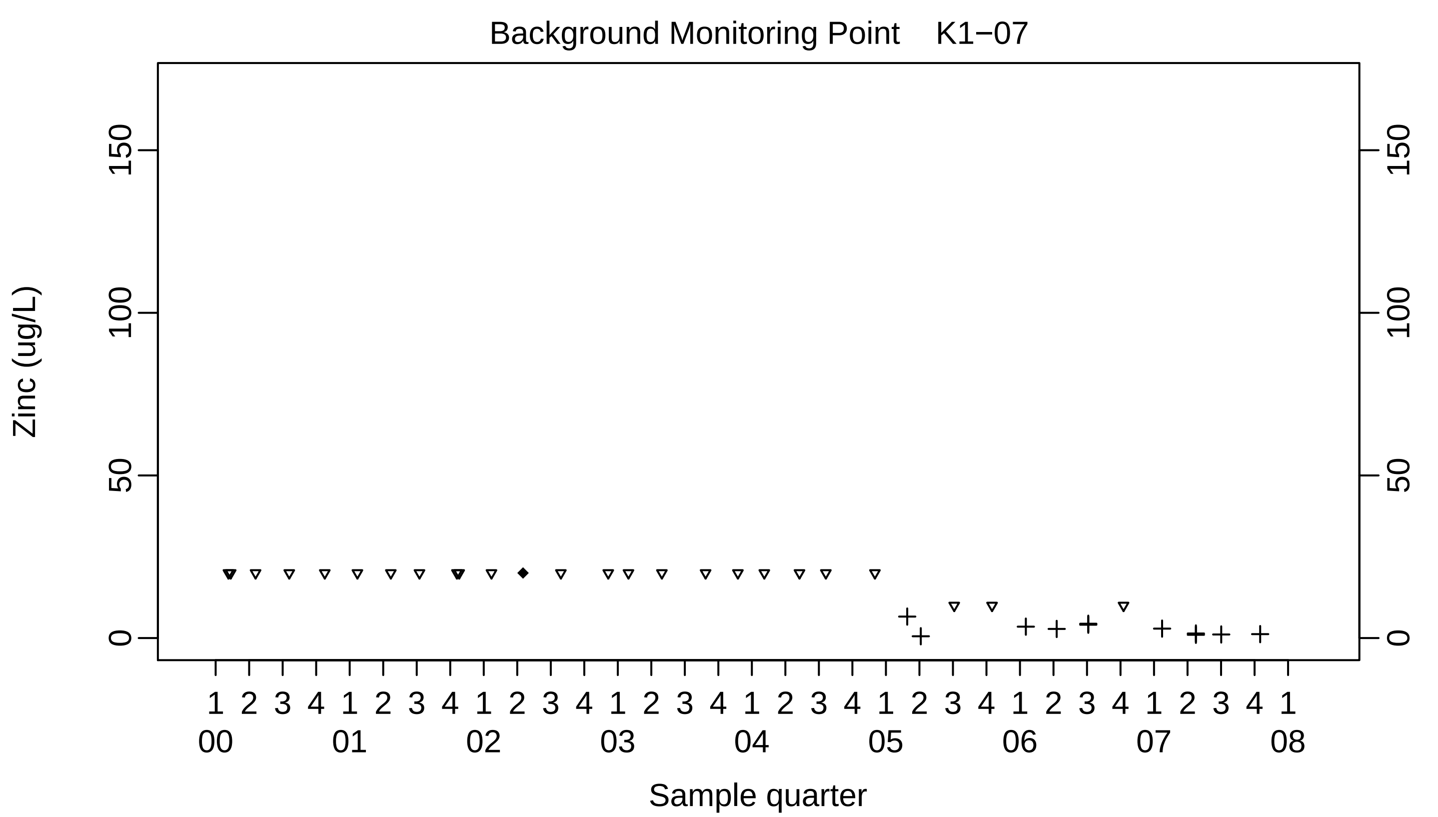


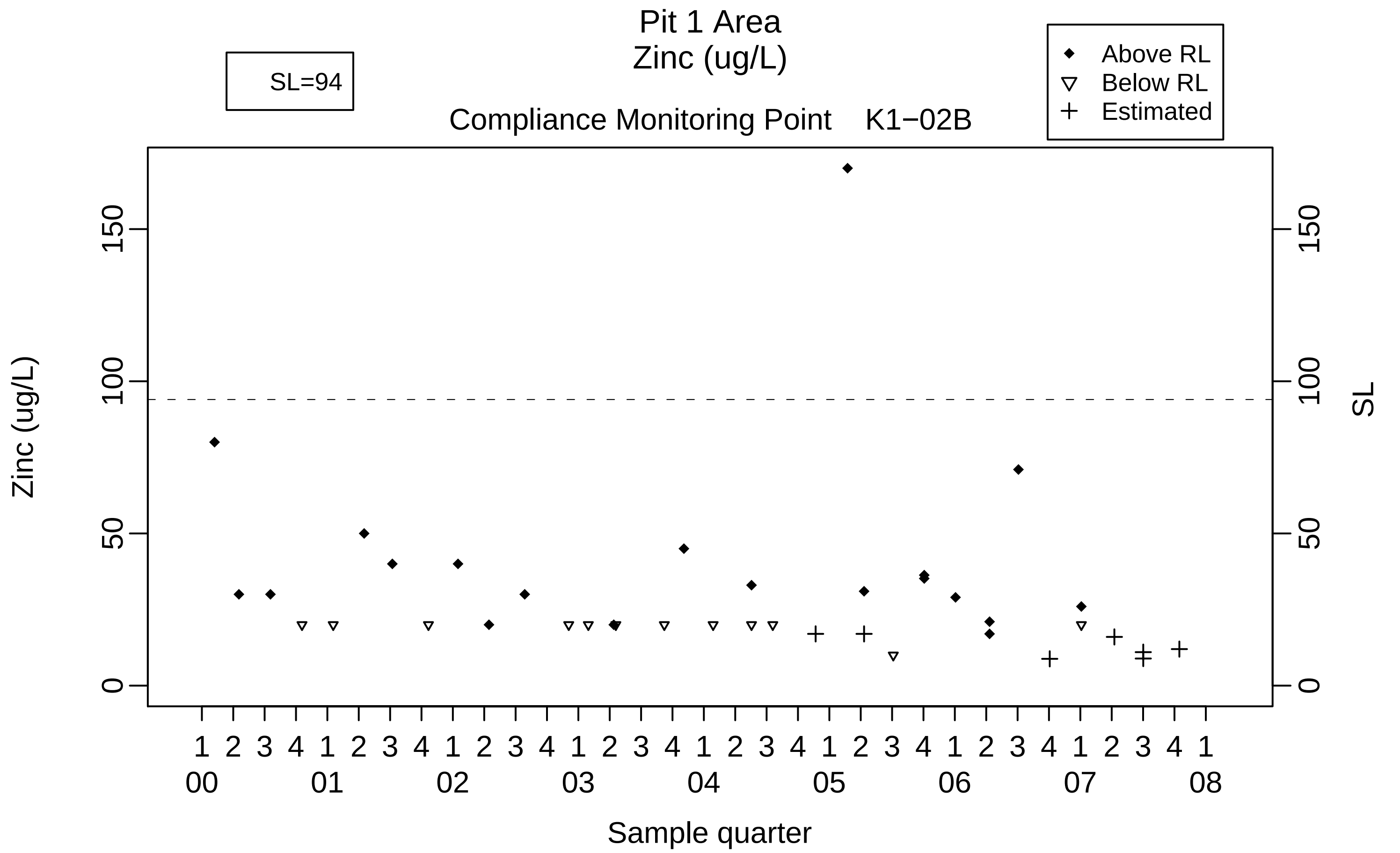
Pit 1 Area
Vanadium (ug/L)

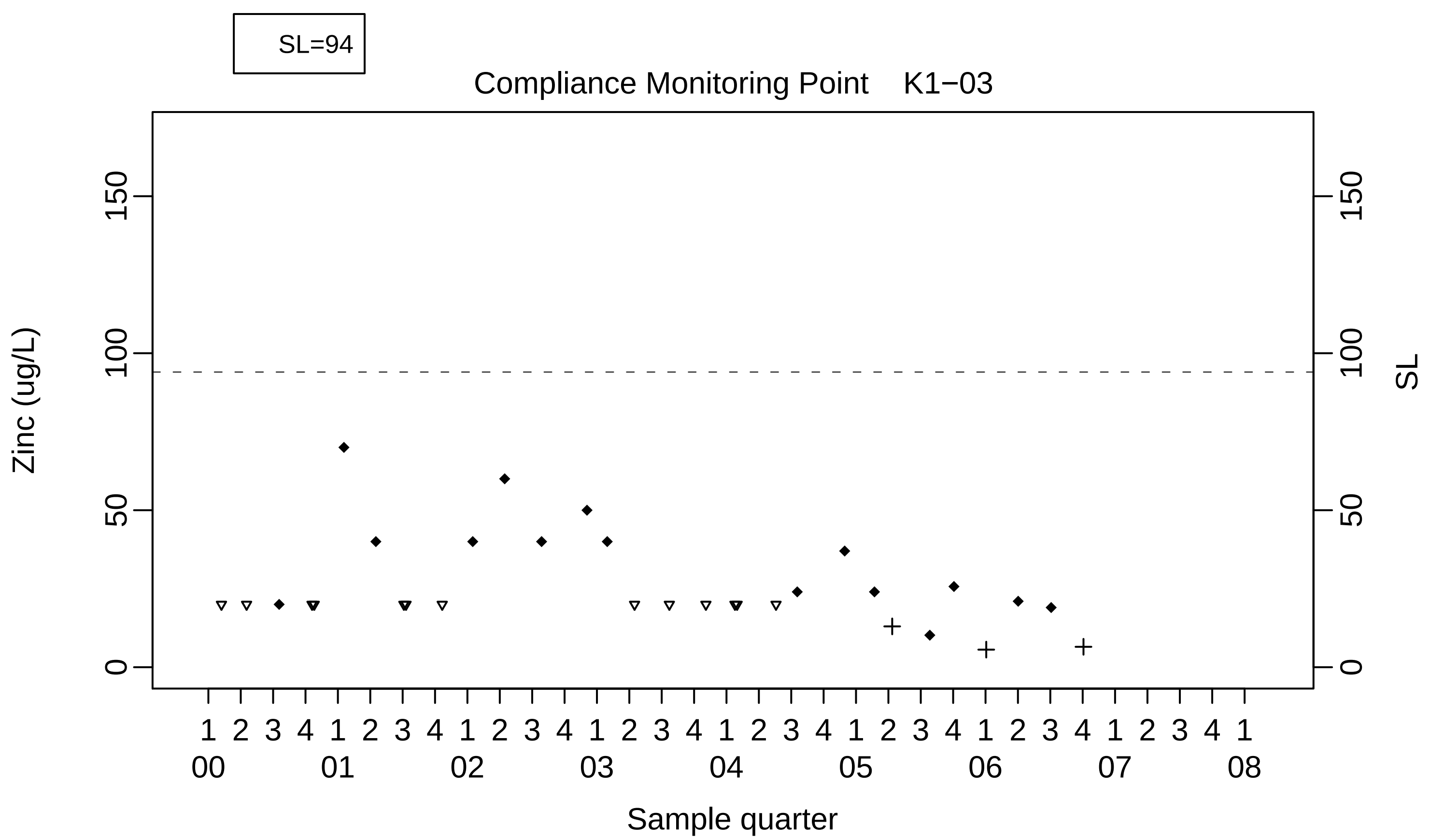


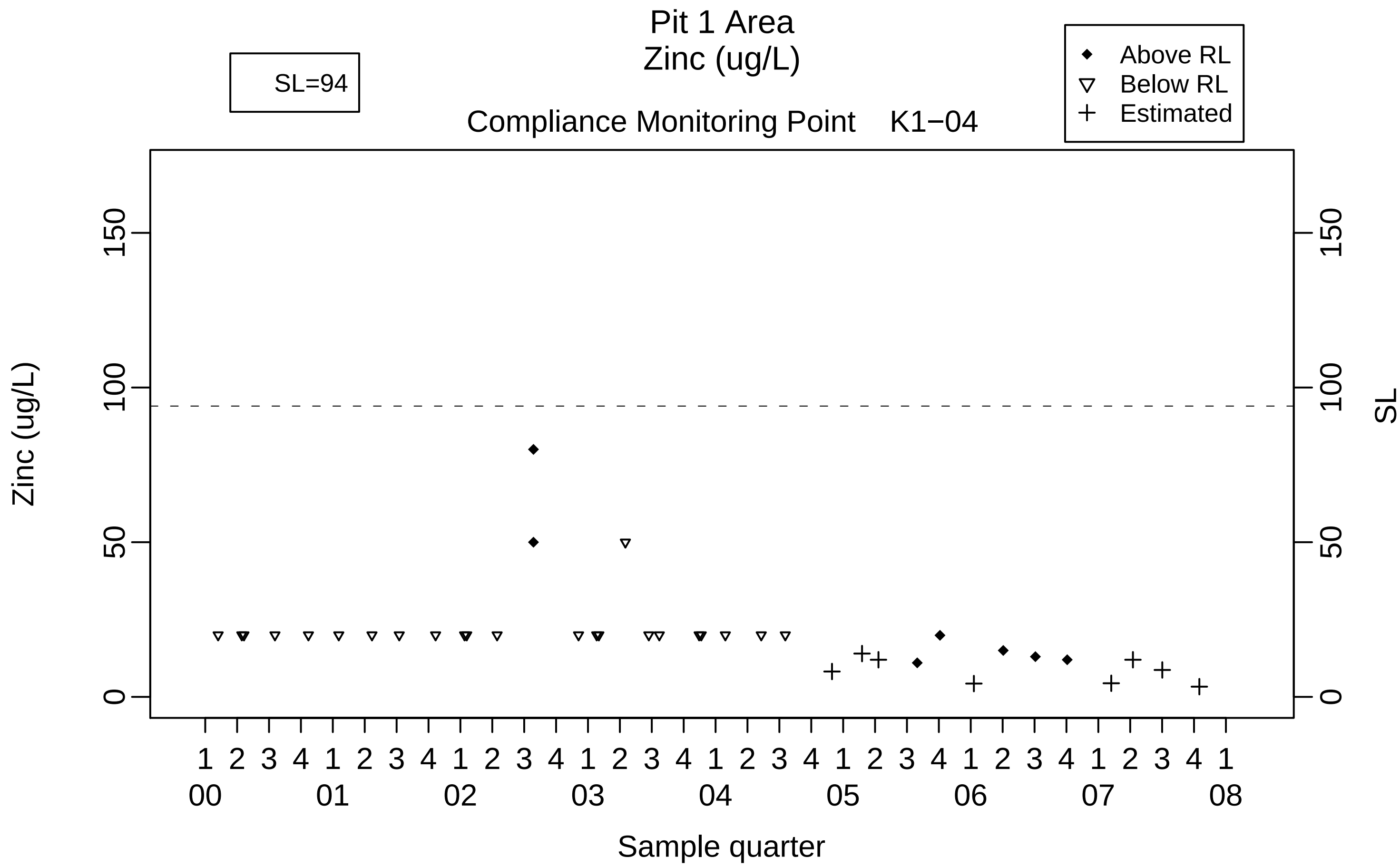


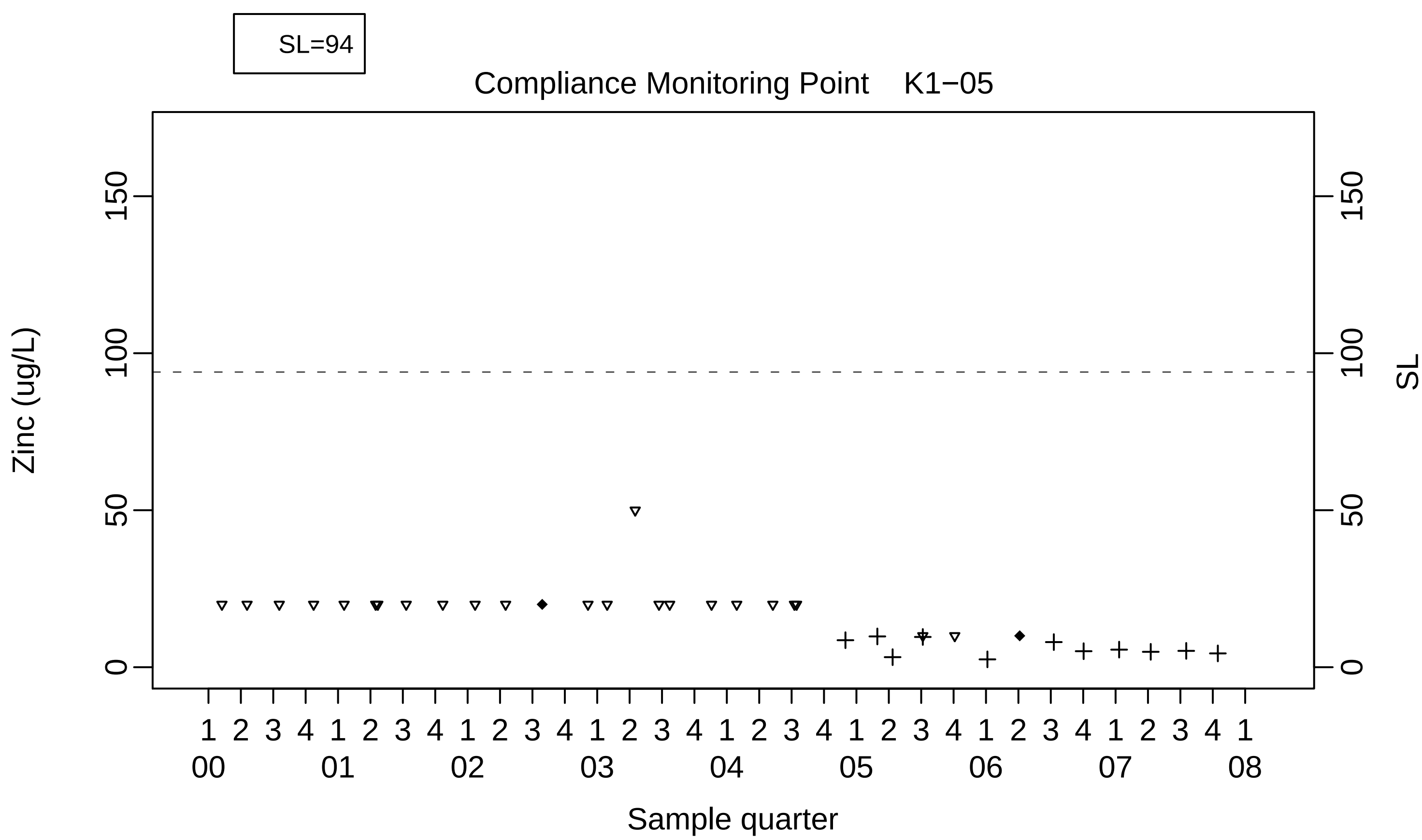

Pit 1 Area
Zinc (ug/L)
Above RL
Below RL
Estimated
Background Monitoring Point K1−01C
Zinc (ug/L)
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Background Monitoring Point K1−07
Zinc (ug/L)
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

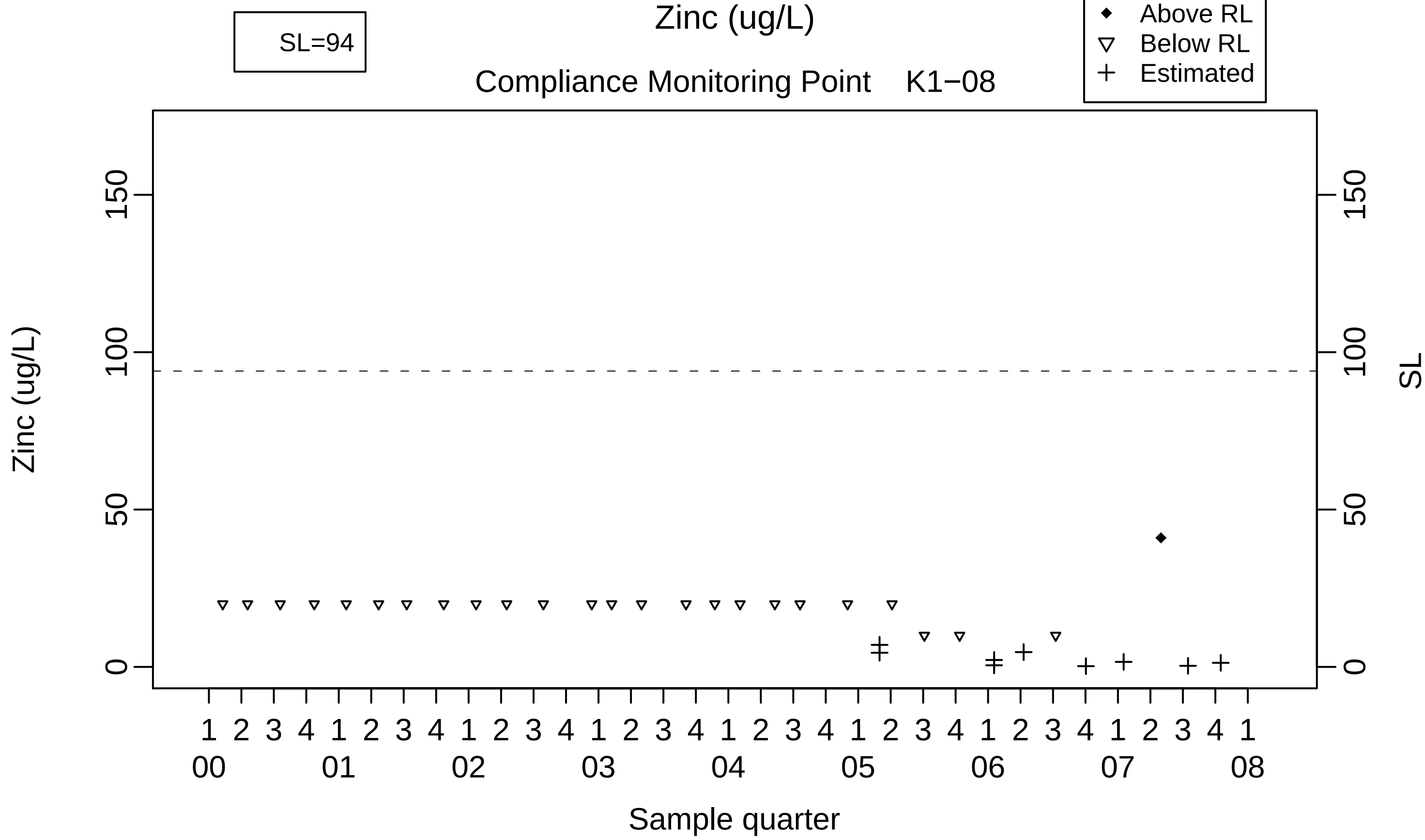

Pit 1 Area
Zinc (ug/L)
SL=94
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−02B
Zinc (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

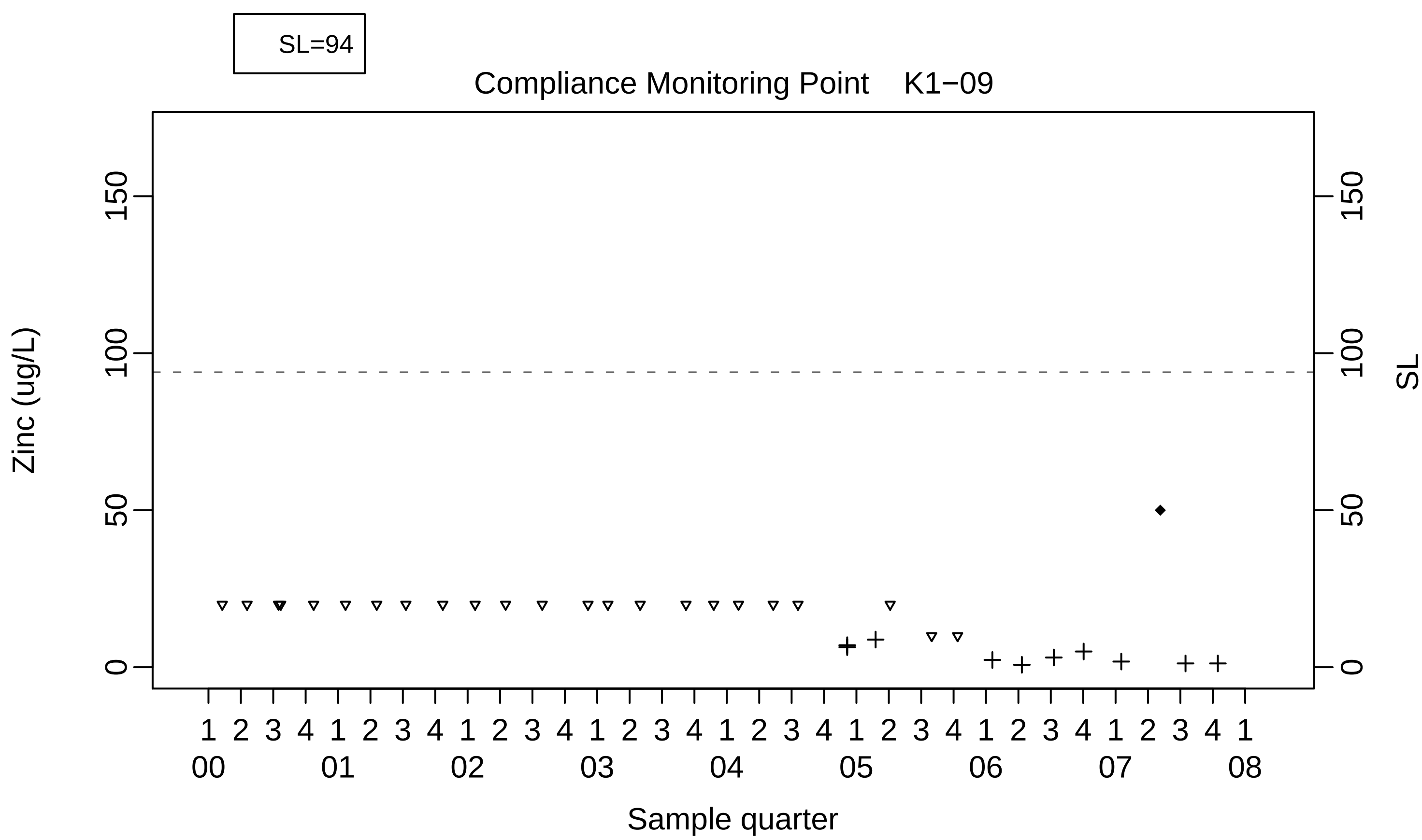

SL=94
Compliance Monitoring Point K1−03
Zinc (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 1 Area
Zinc (ug/L)
SL=94
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−04
Zinc (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

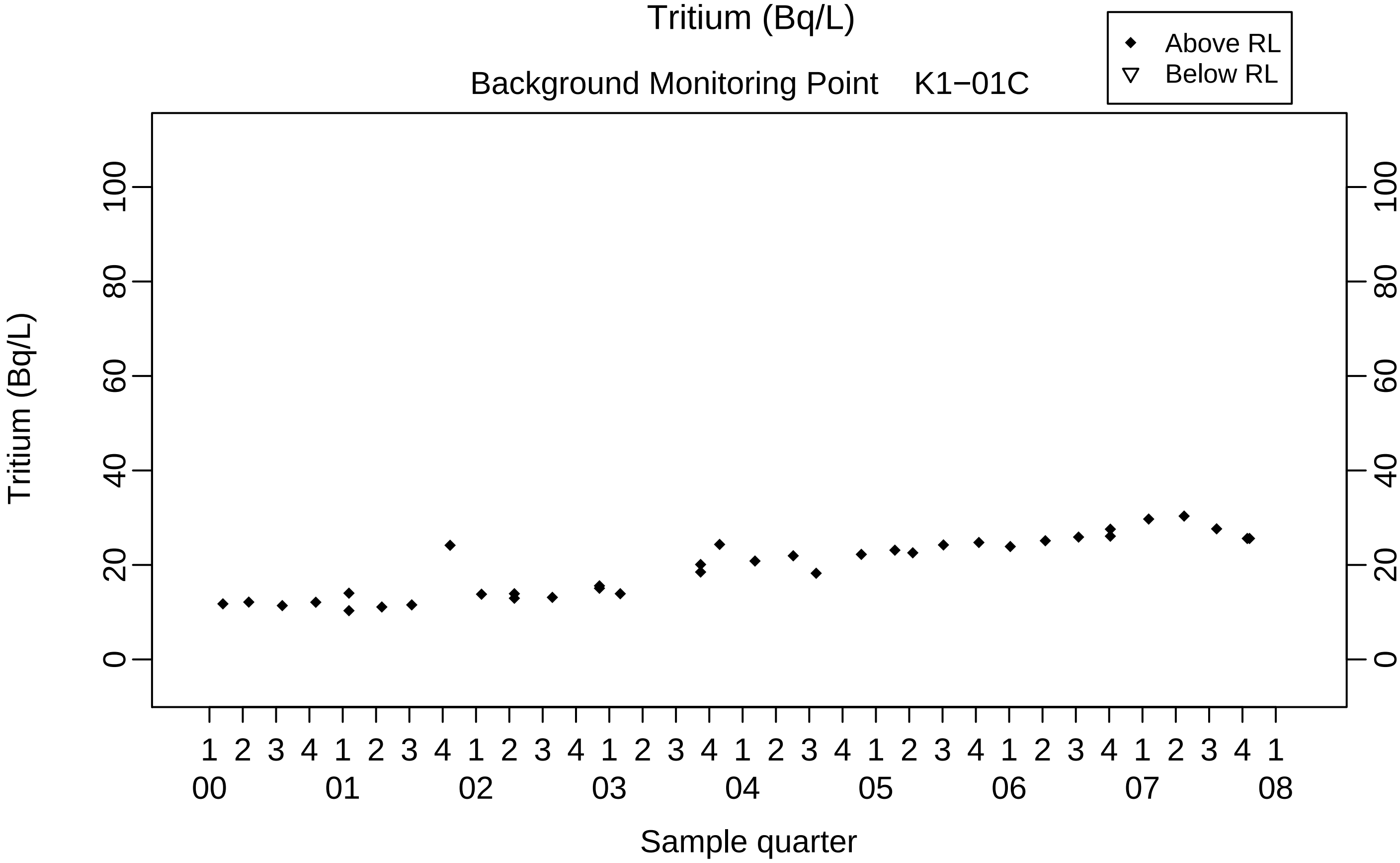

SL=94
Compliance Monitoring Point K1−05
Zinc (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

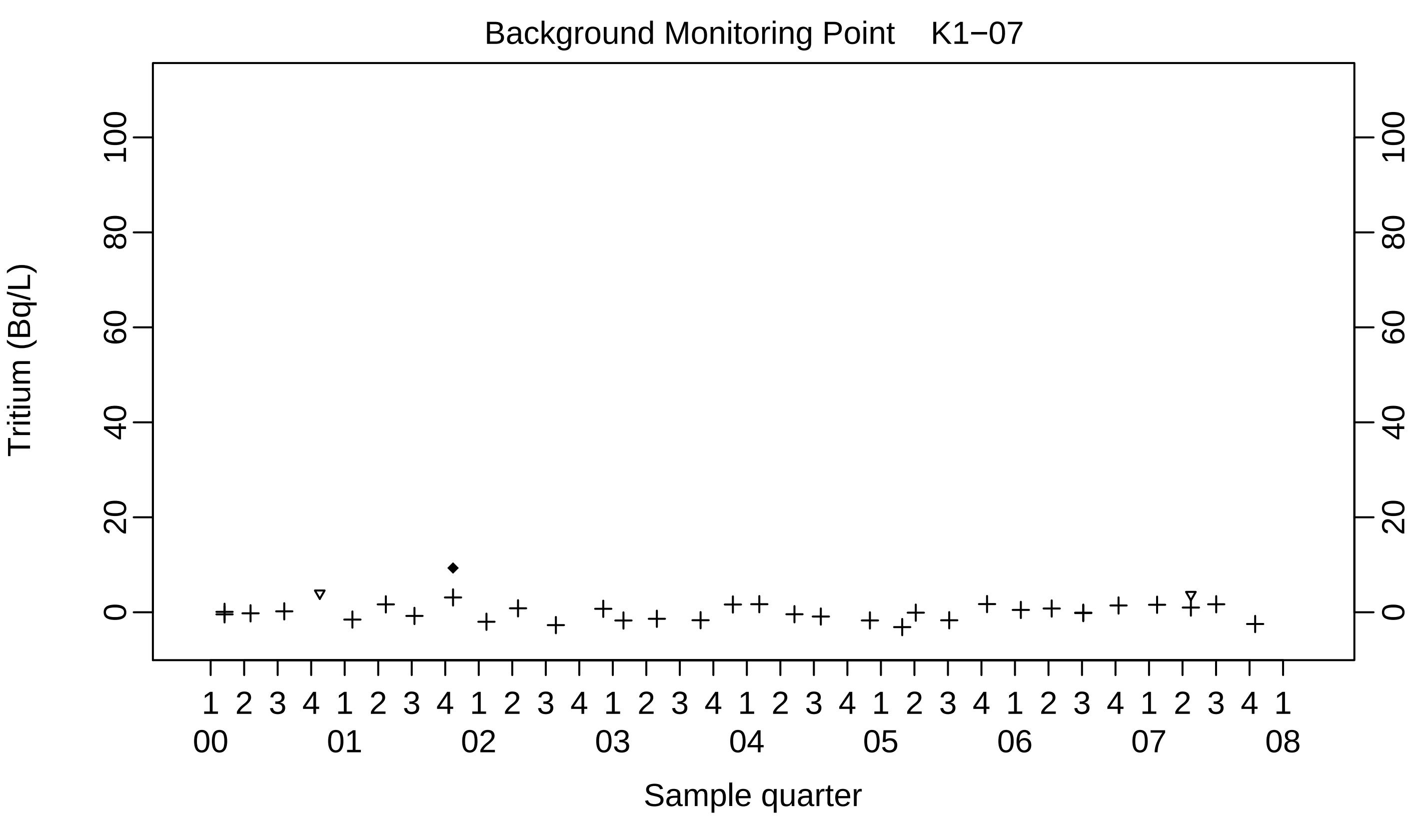
Pit 1 Area
Zinc (ug/L)

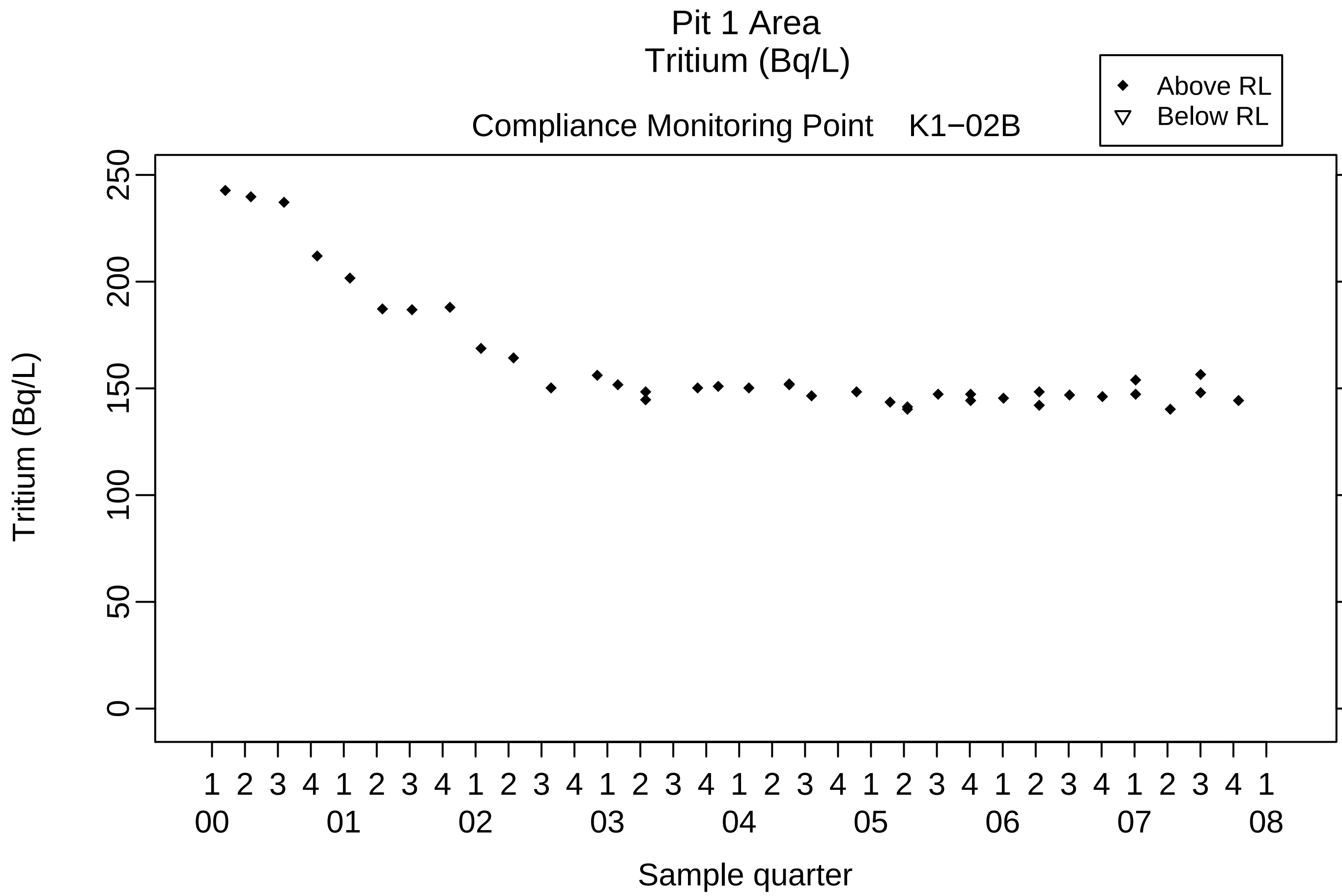


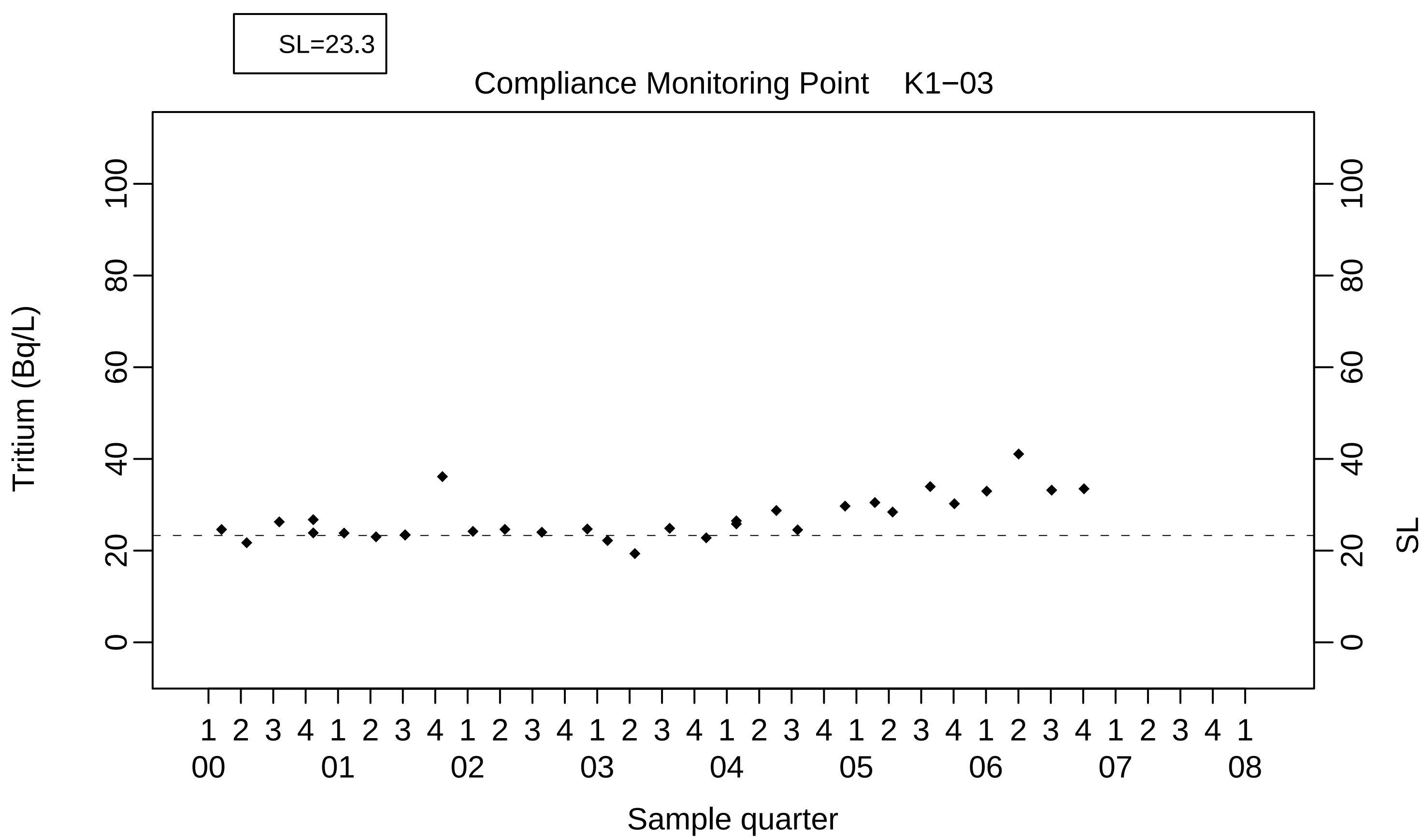


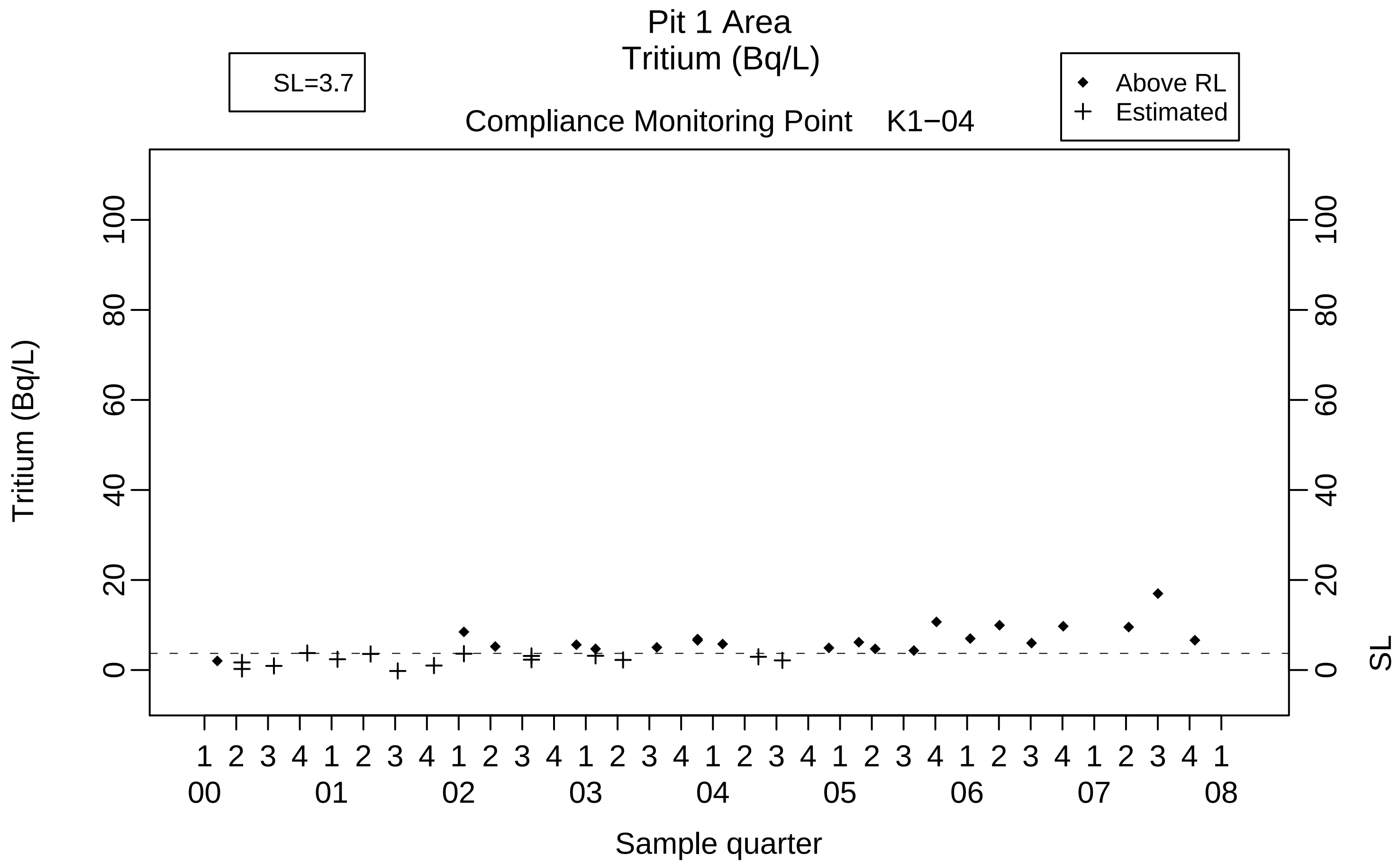
Pit 1 Area
Tritium (Bq/L)

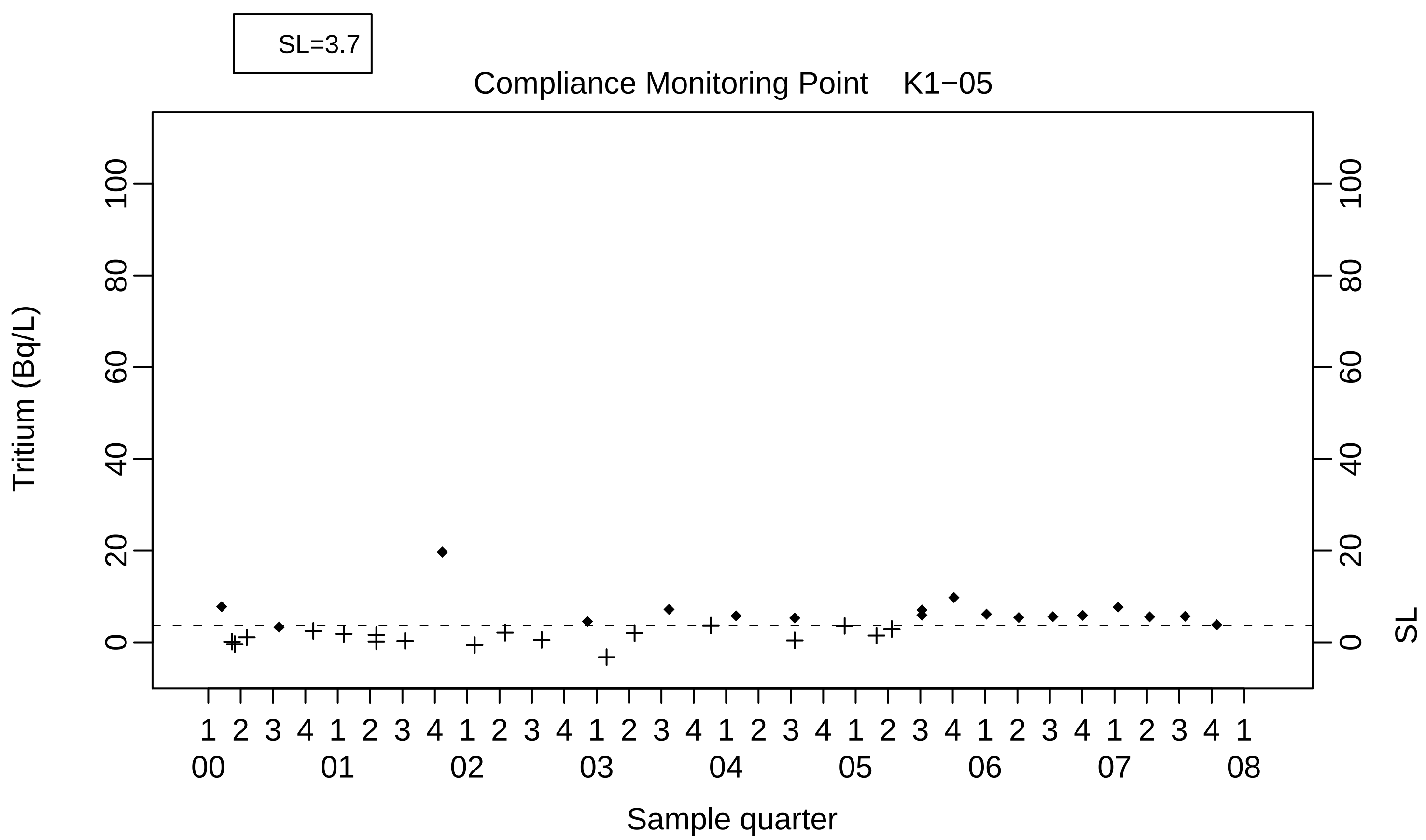


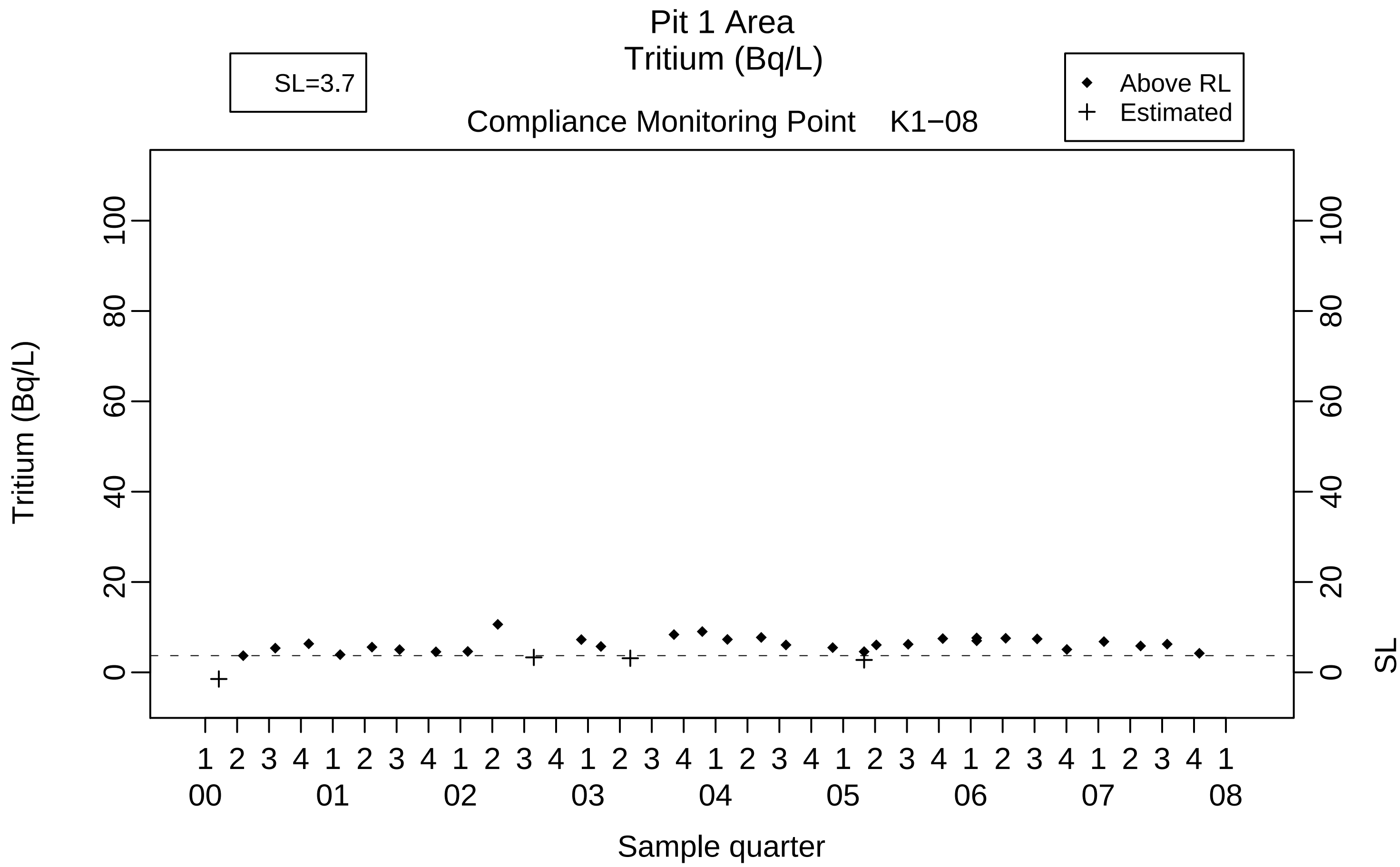


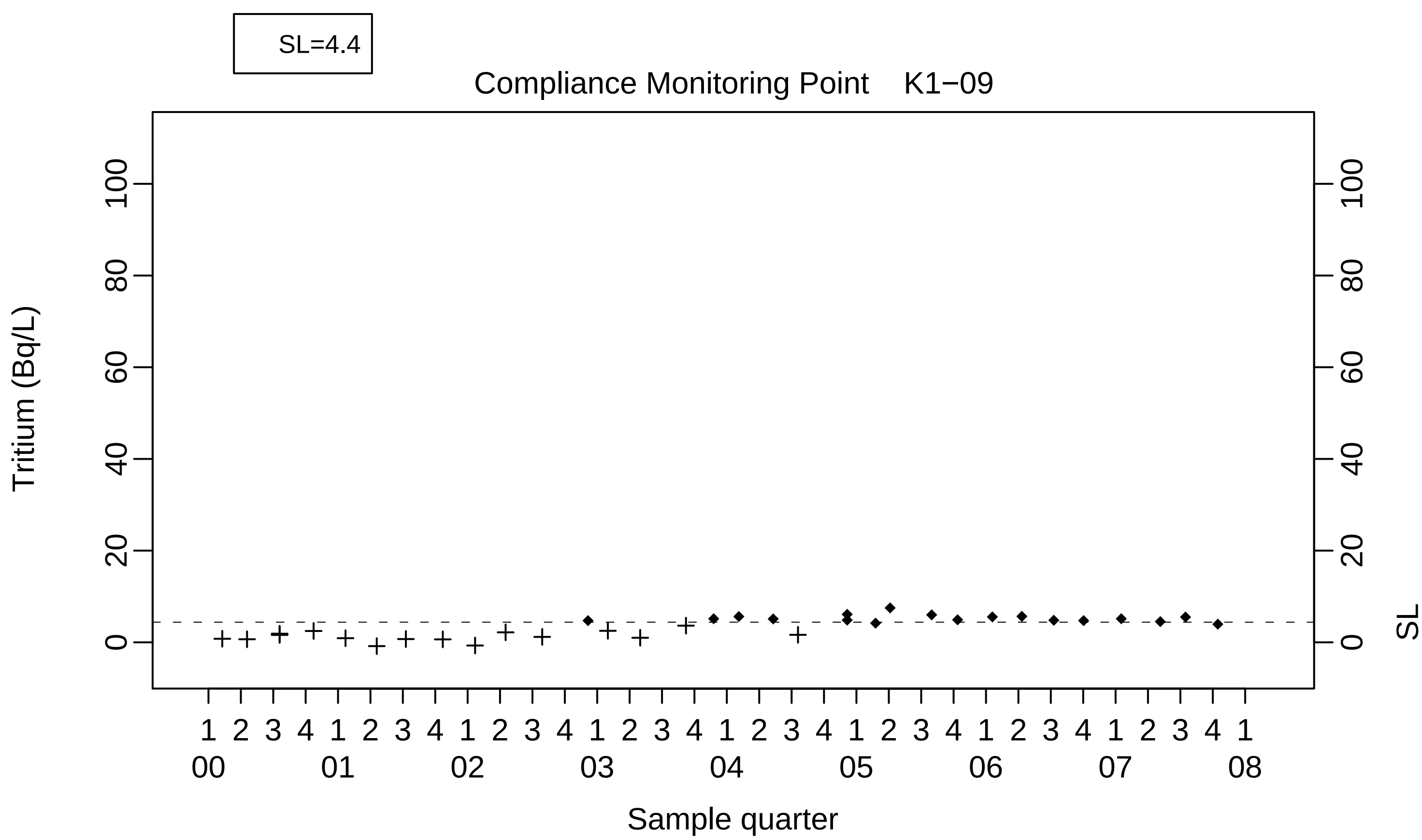

Pit 1 Area
Tritium (Bq/L)
Above RL
Below RL
Compliance Monitoring Point K1−02B
Tritium (Bq/L)
0
50
100
150
200
250
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


SL=23.3
Compliance Monitoring Point K1−03
Tritium (Bq/L)
0
20
40
60
80
100
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

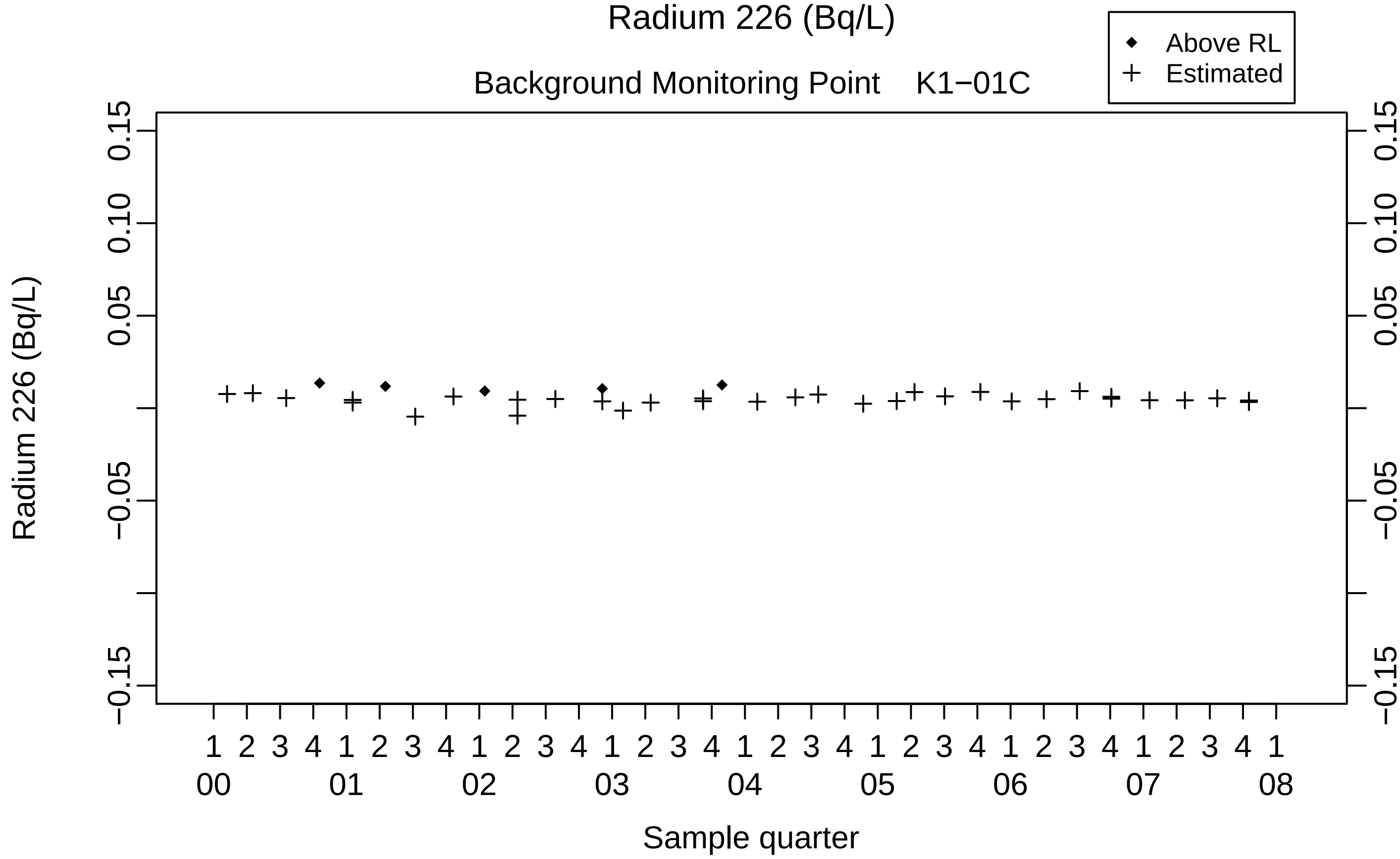

Pit 1 Area
Tritium (Bq/L)
SL=3.7
Above RL
Estimated
Compliance Monitoring Point K1−04
Tritium (Bq/L)
0
20
40
60
80
100
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

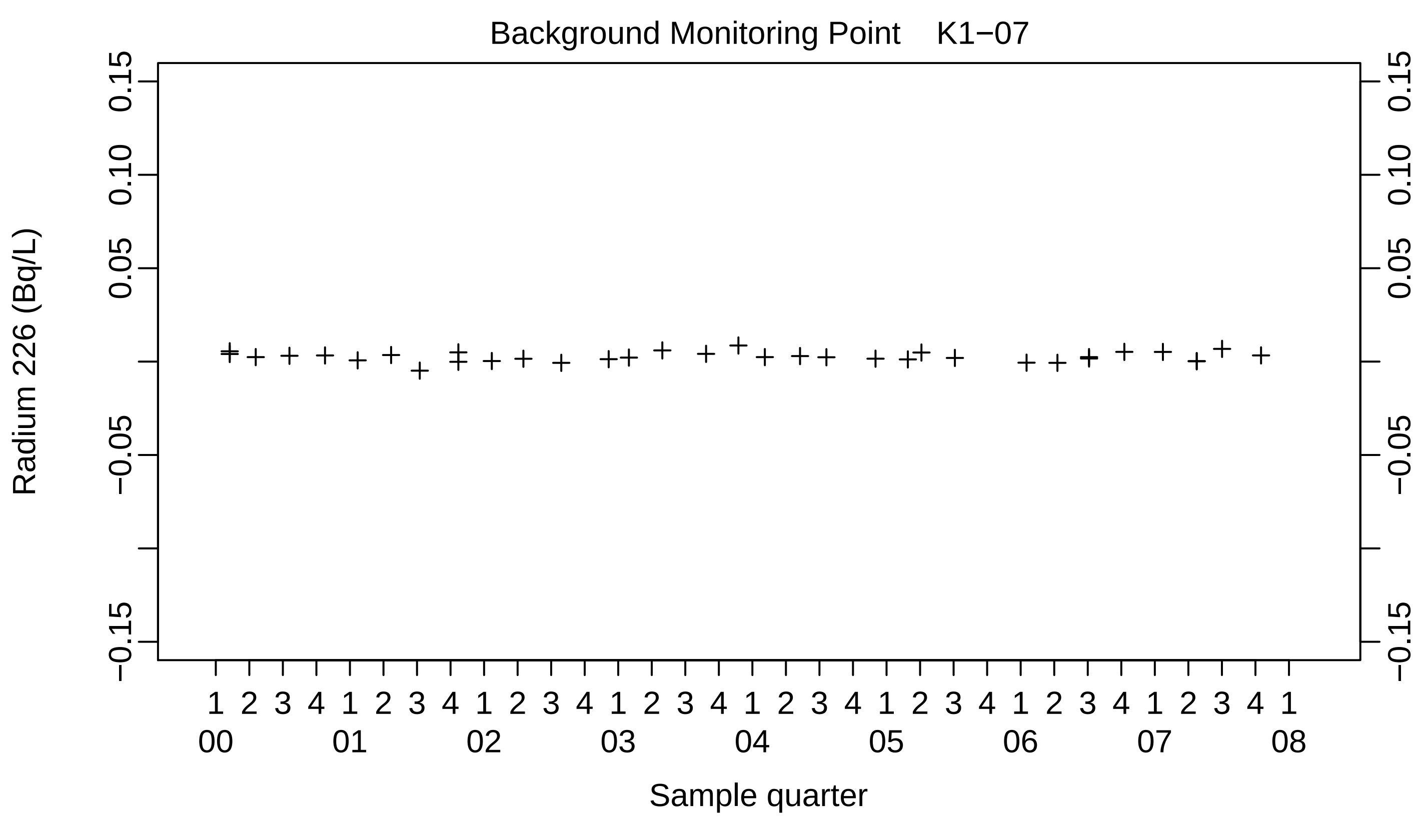

SL=3.7
Compliance Monitoring Point K1−05
Tritium (Bq/L)
0
20
40
60
80
100
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 1 Area
Tritium (Bq/L)
SL=3.7
Above RL
Estimated
Compliance Monitoring Point K1−08
Tritium (Bq/L)
0
20
40
60
80
100
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

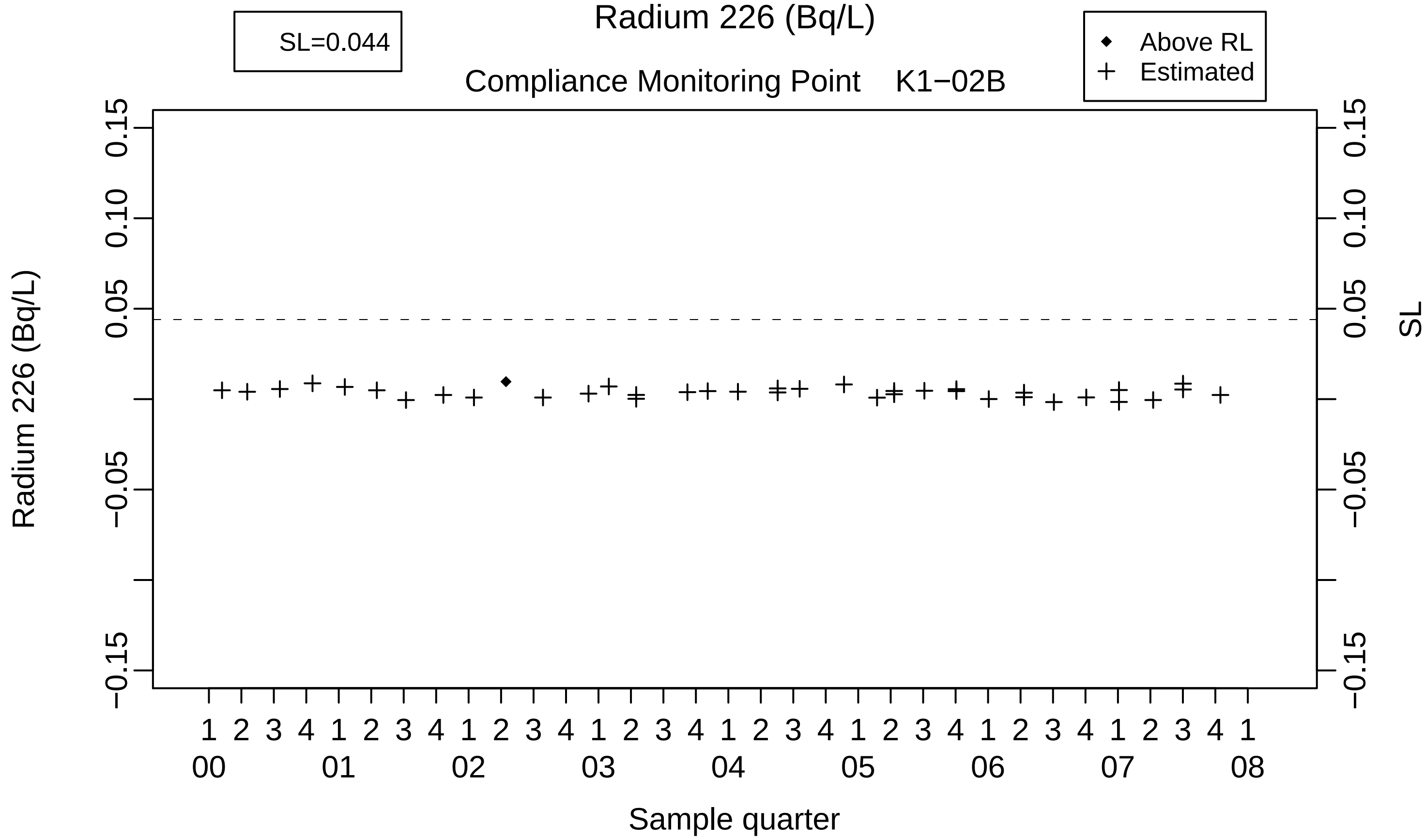

SL=4.4
Compliance Monitoring Point K1−09
Tritium (Bq/L)
0
20
40
60
80
100
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

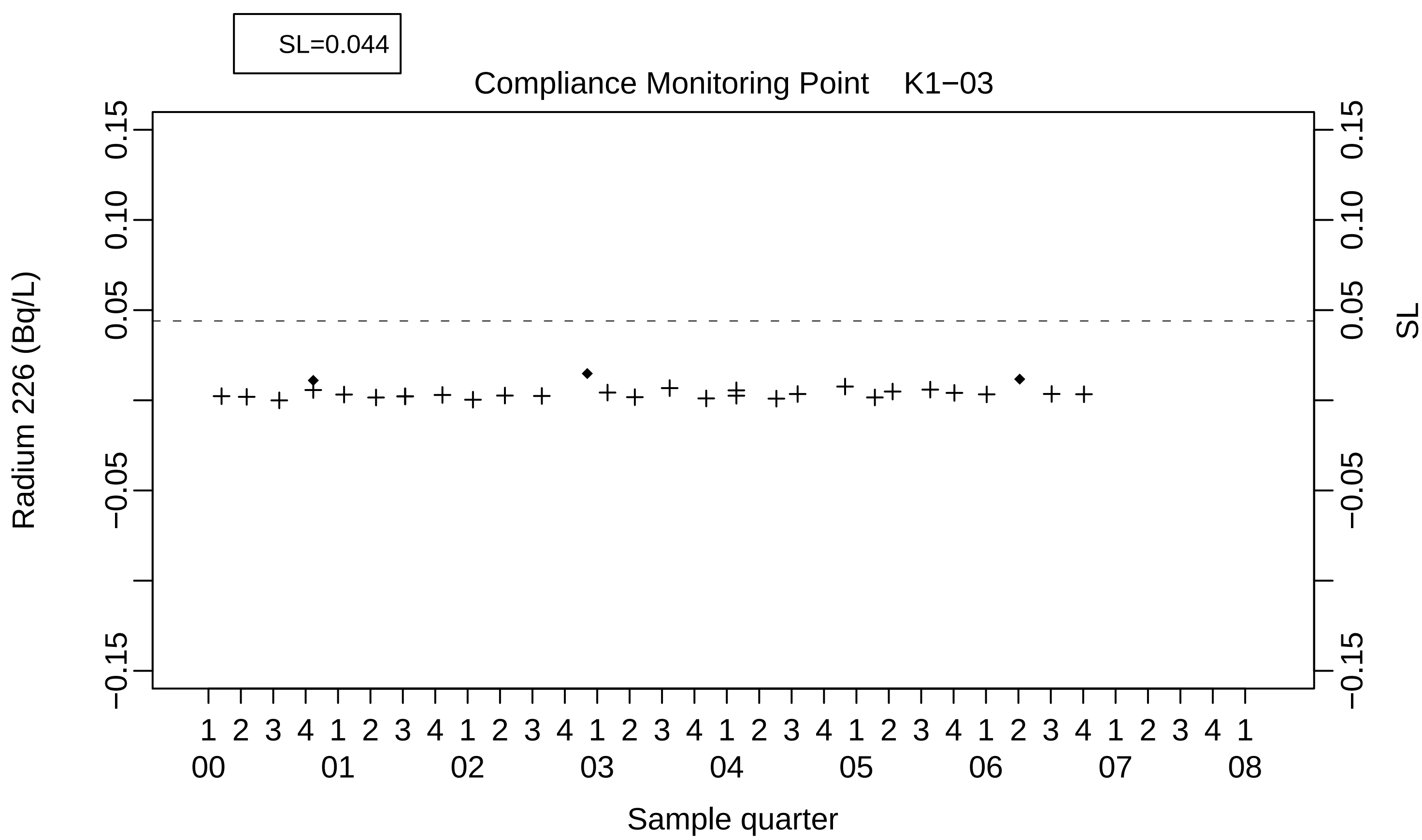
Pit 1 Area
Radium 226 (Bq/L)

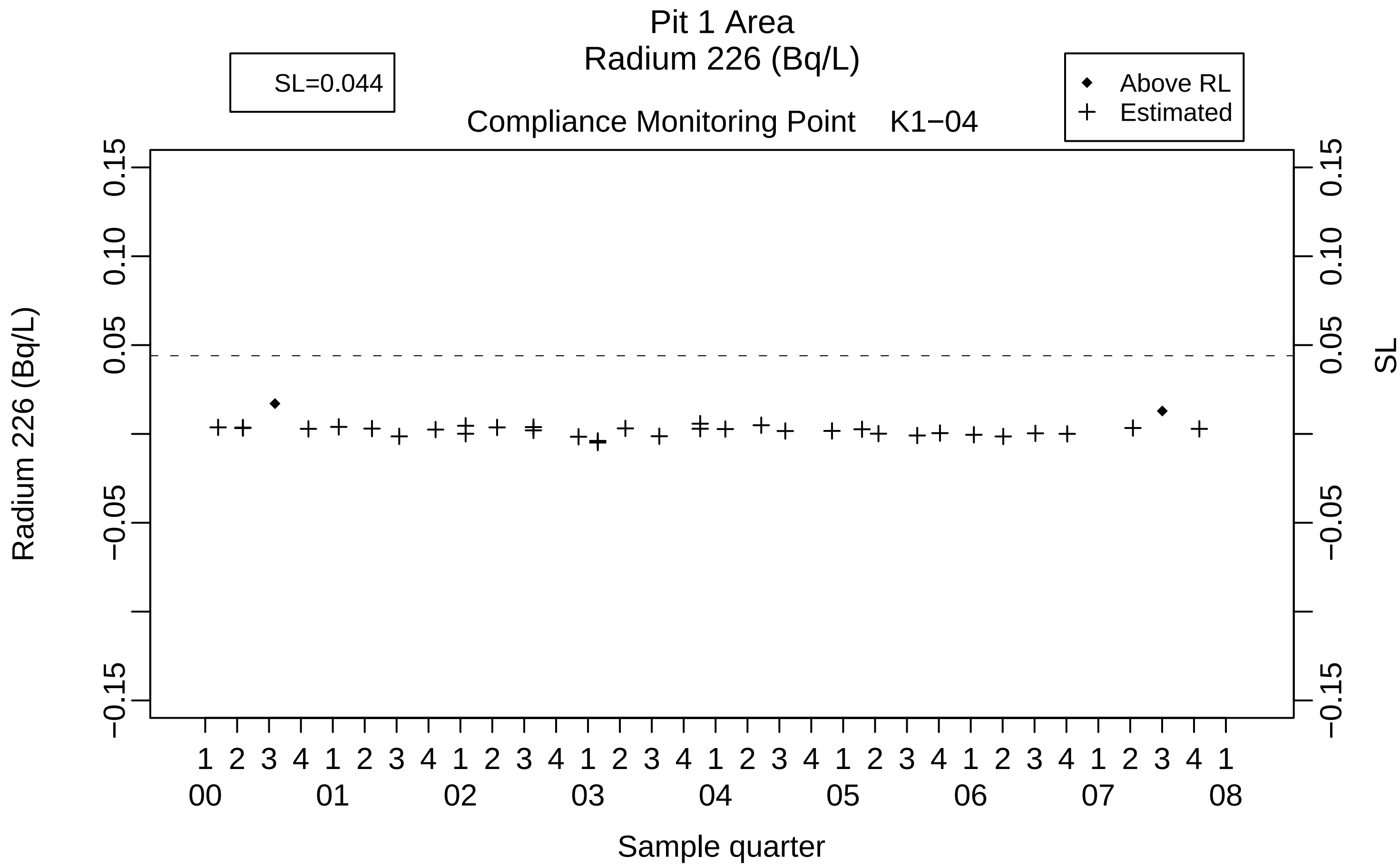


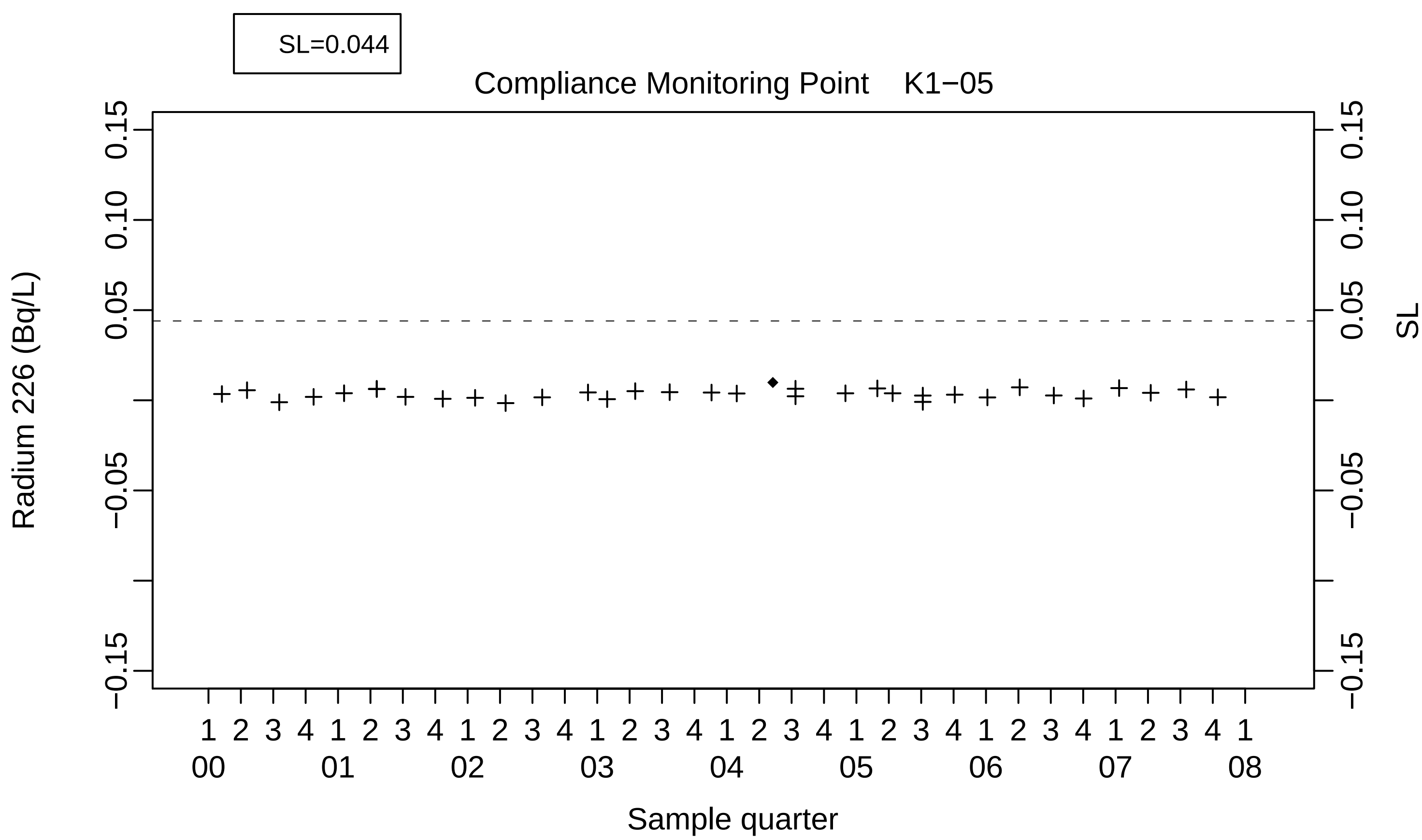


Pit 1 Area
Radium 226 (Bq/L)

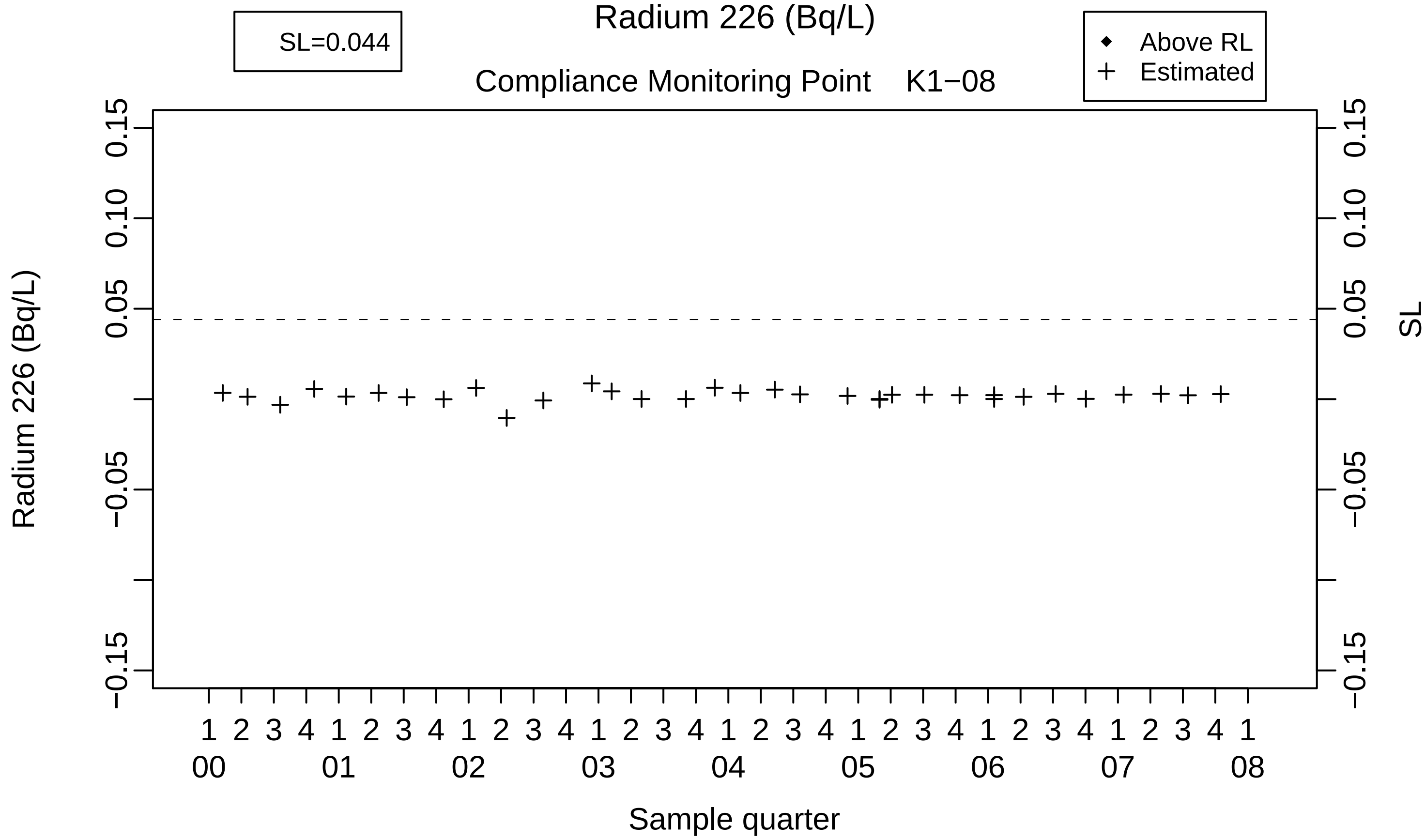


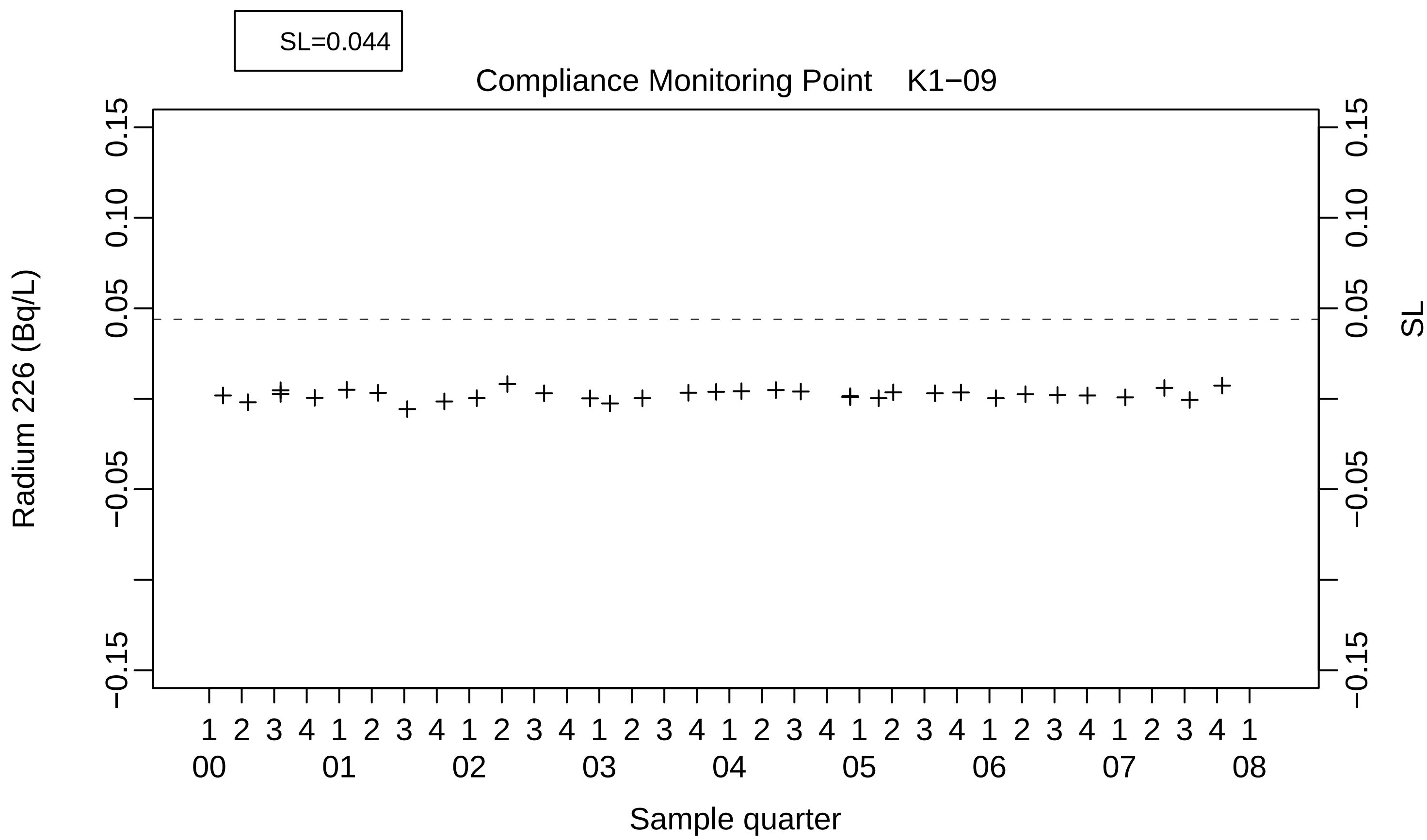



Pit 1 Area
Radium 226 (Bq/L)
SL=0.044
Above RL
Estimated
Compliance Monitoring Point K1−04
Radium 226 (Bq/L)
SL
Sample quarter

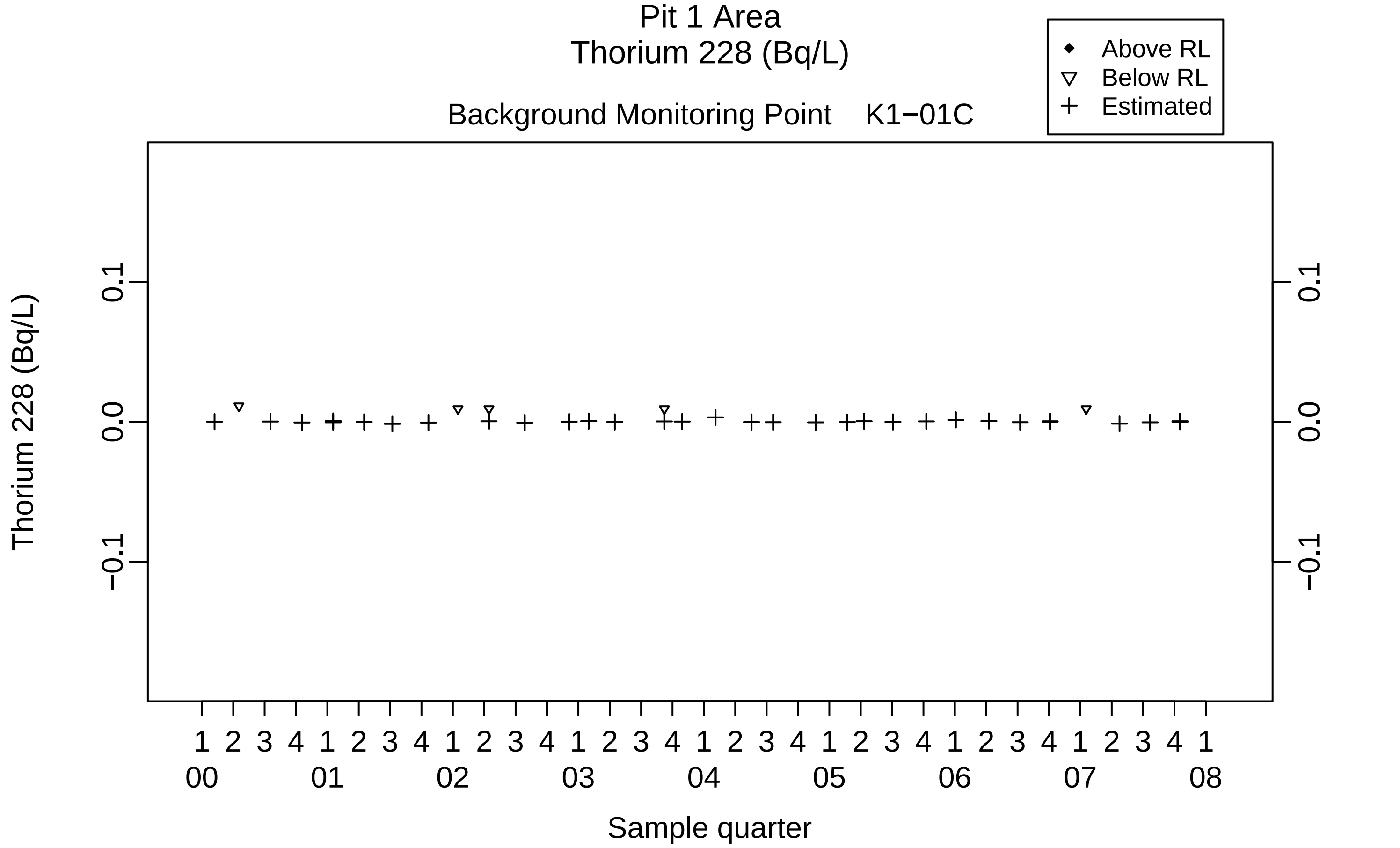

SL=0.044
Compliance Monitoring Point K1−05
Radium 226 (Bq/L)
SL
Sample quarter

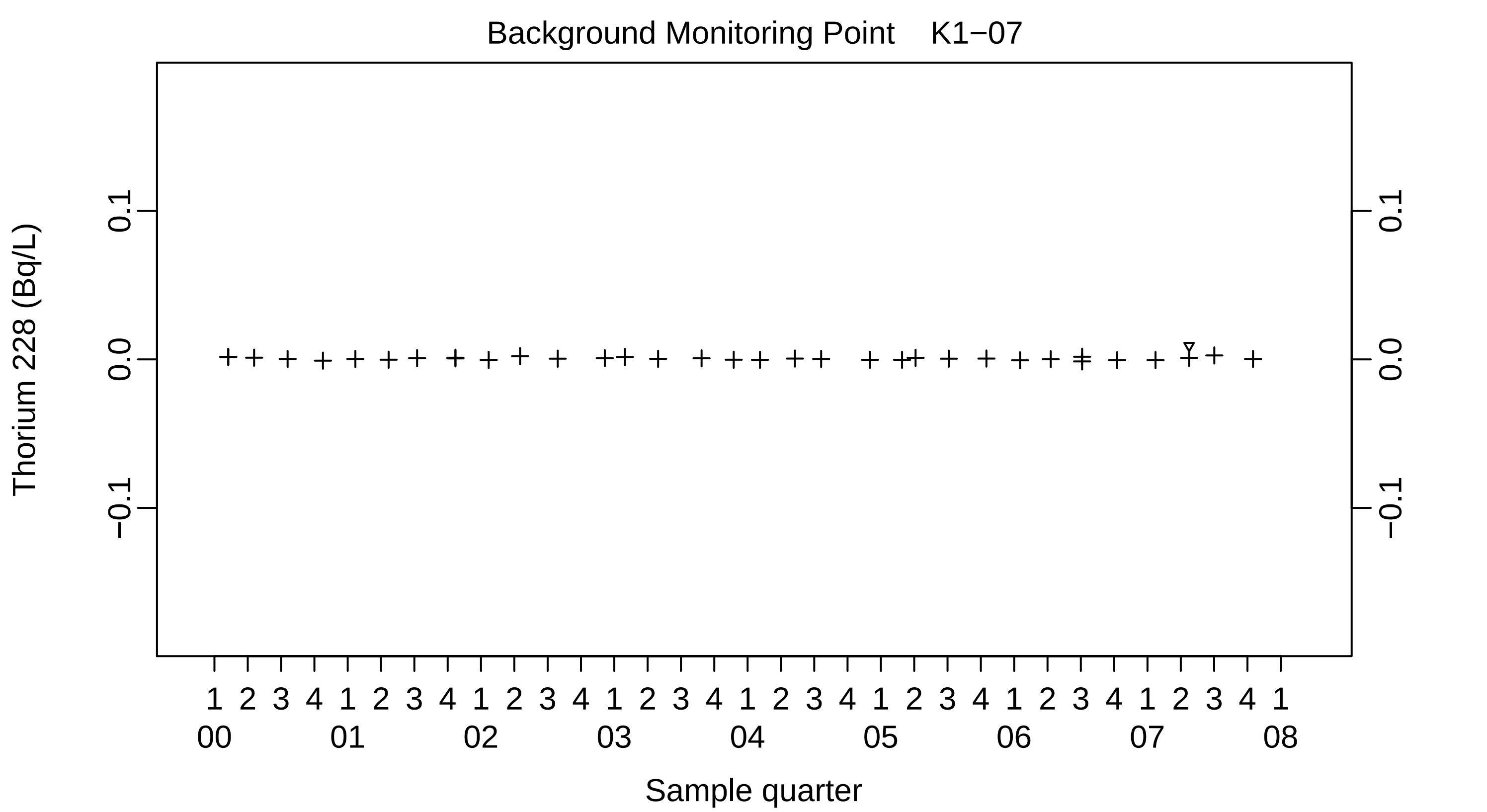
Pit 1 Area
Radium 226 (Bq/L)

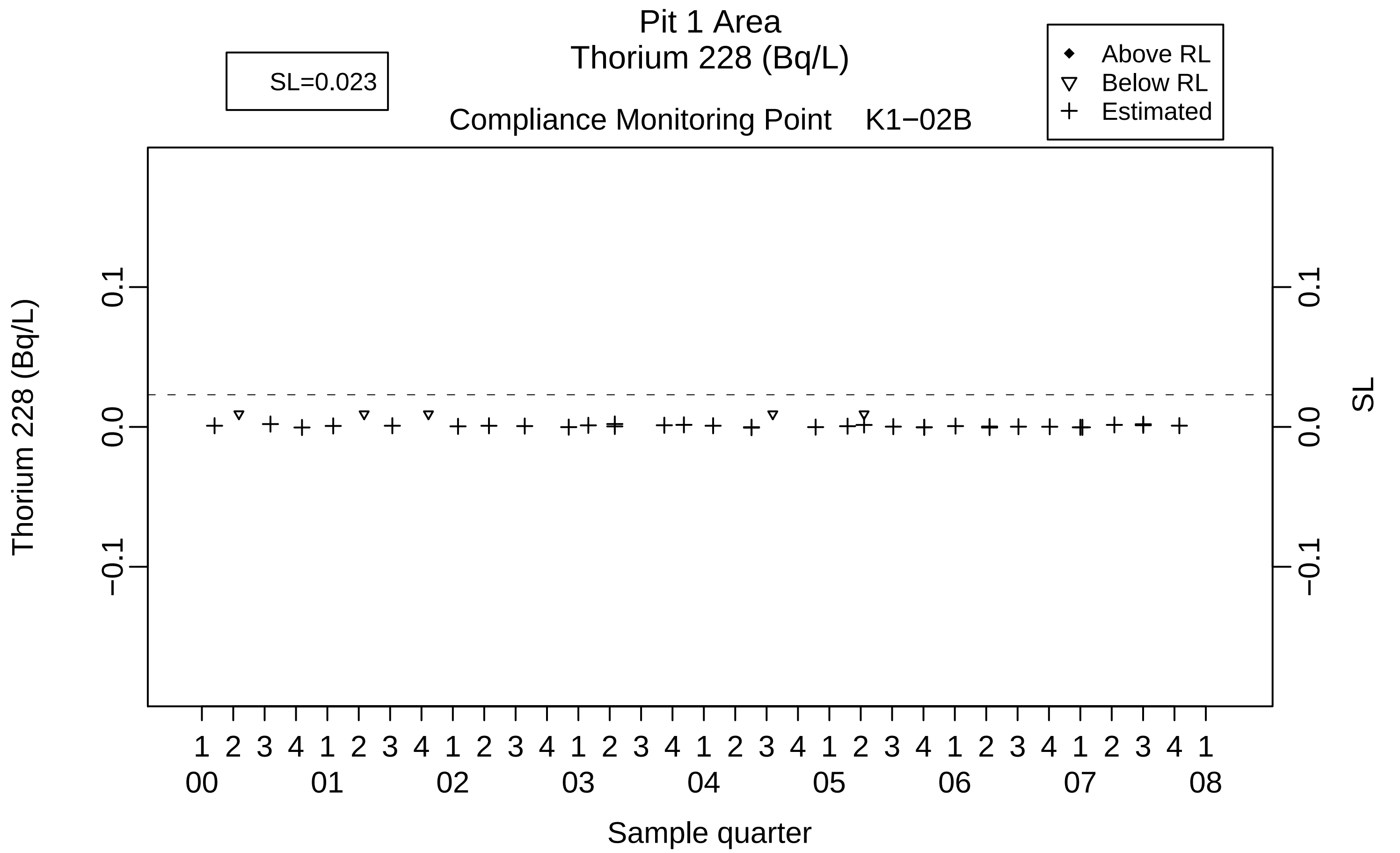


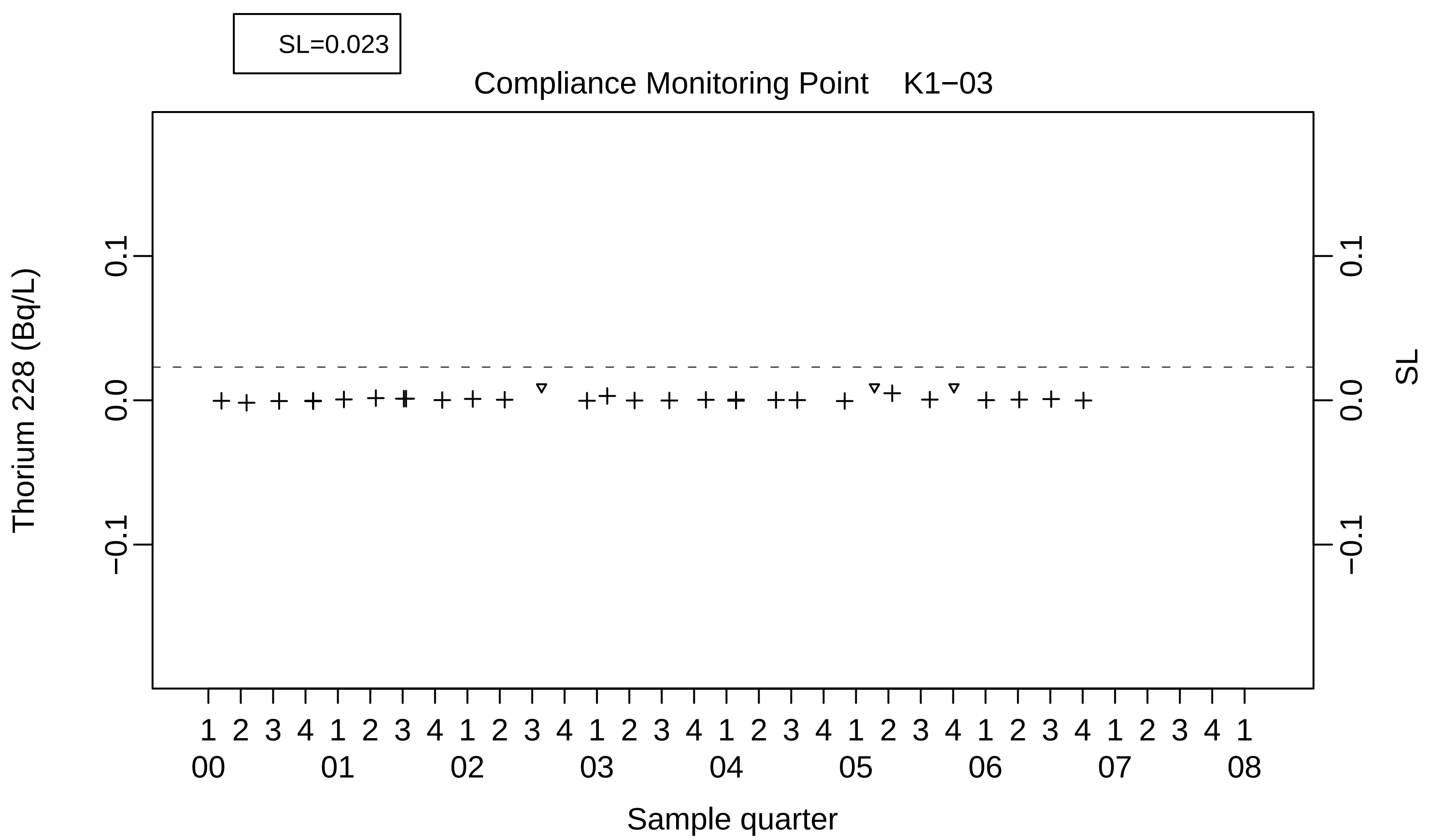


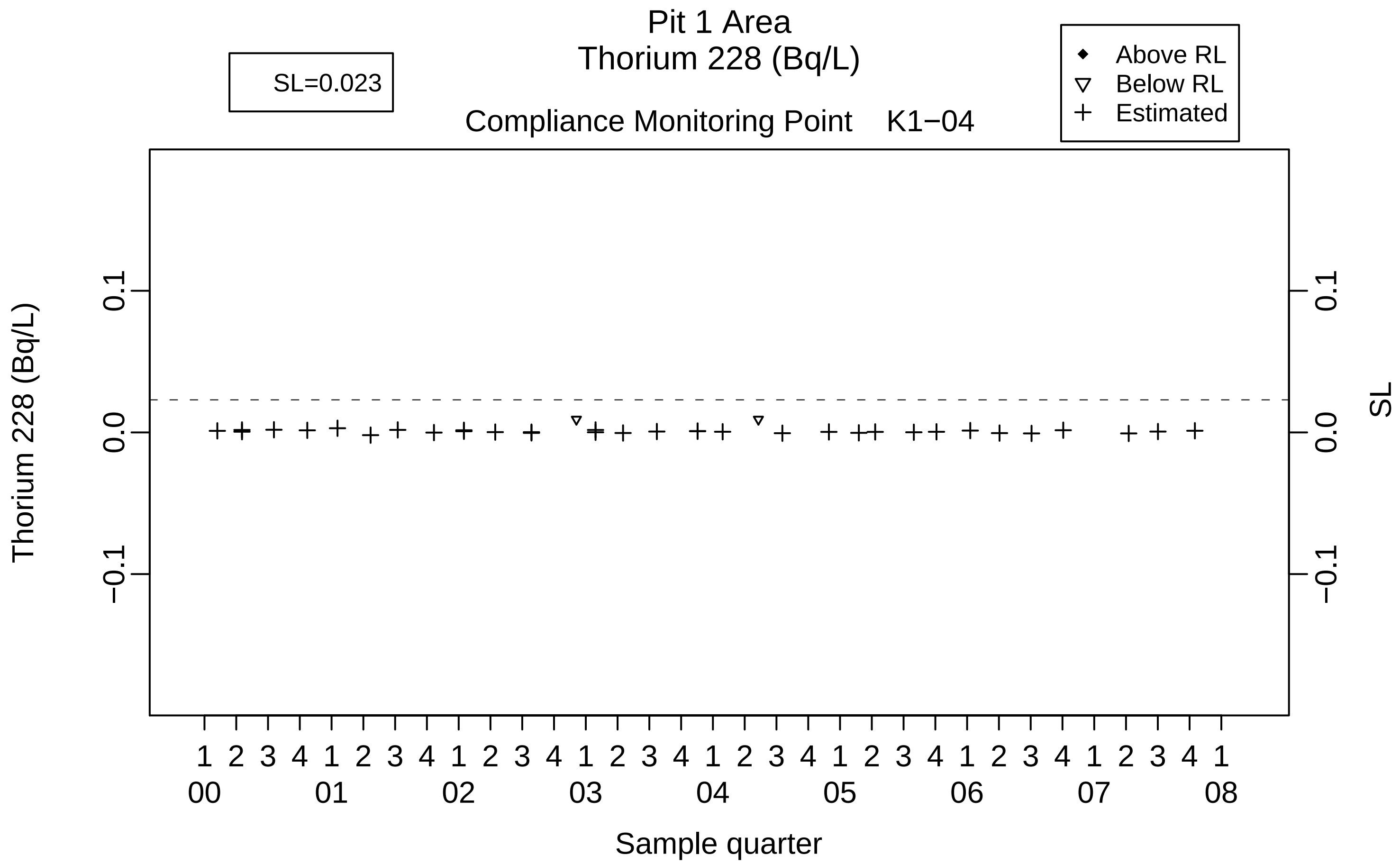
Pit 1 Area
Thorium 228 (Bq/L)

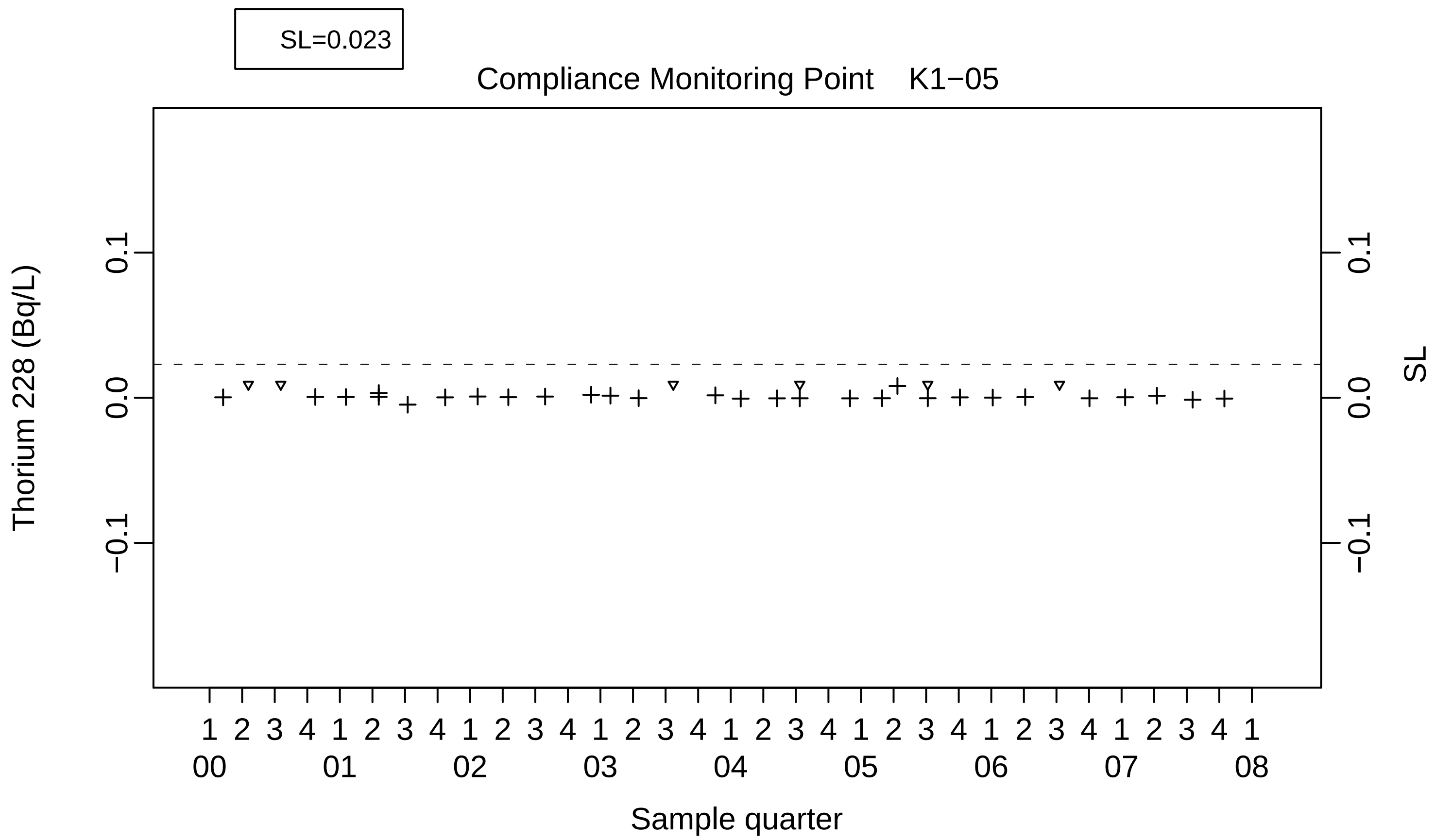


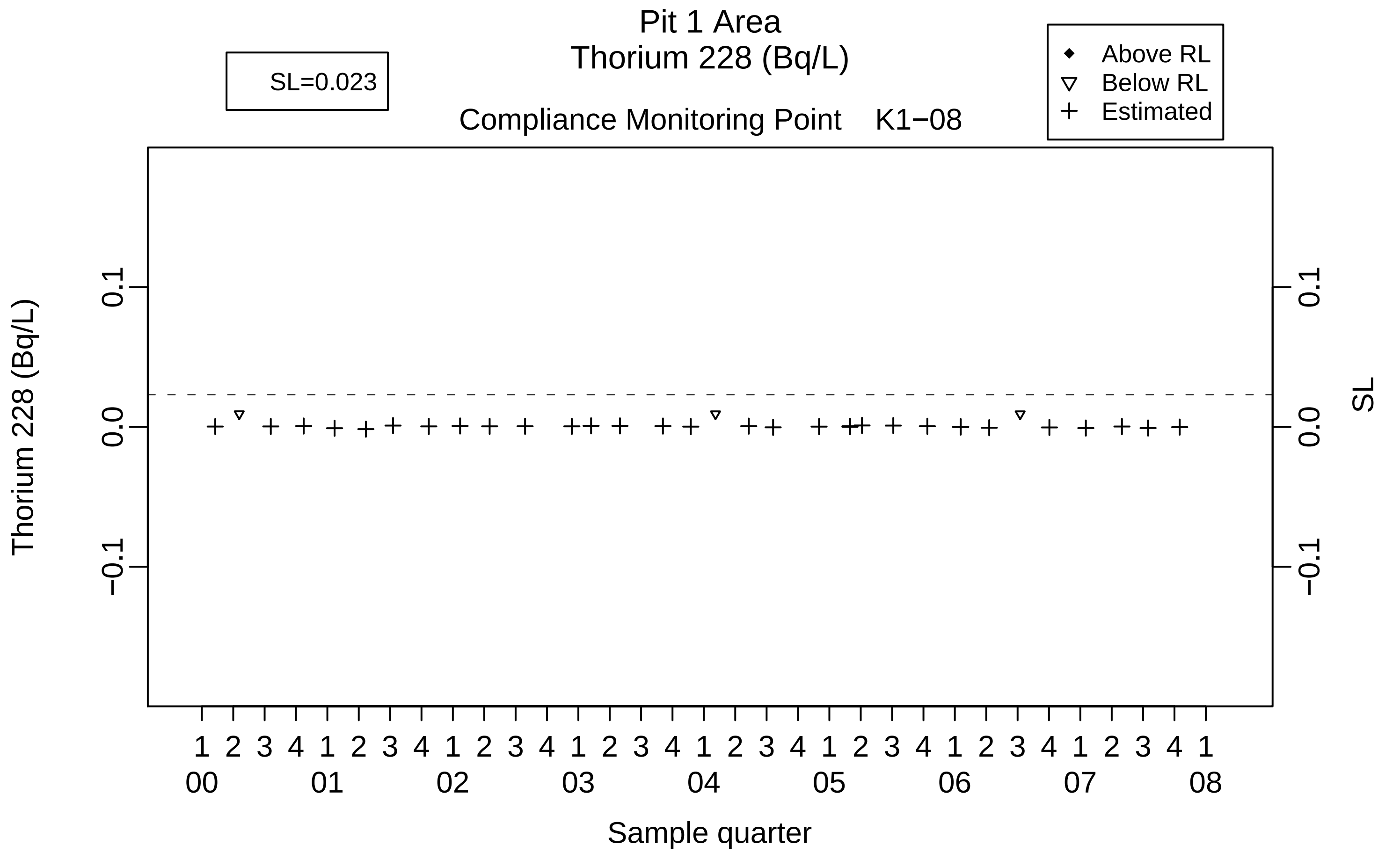


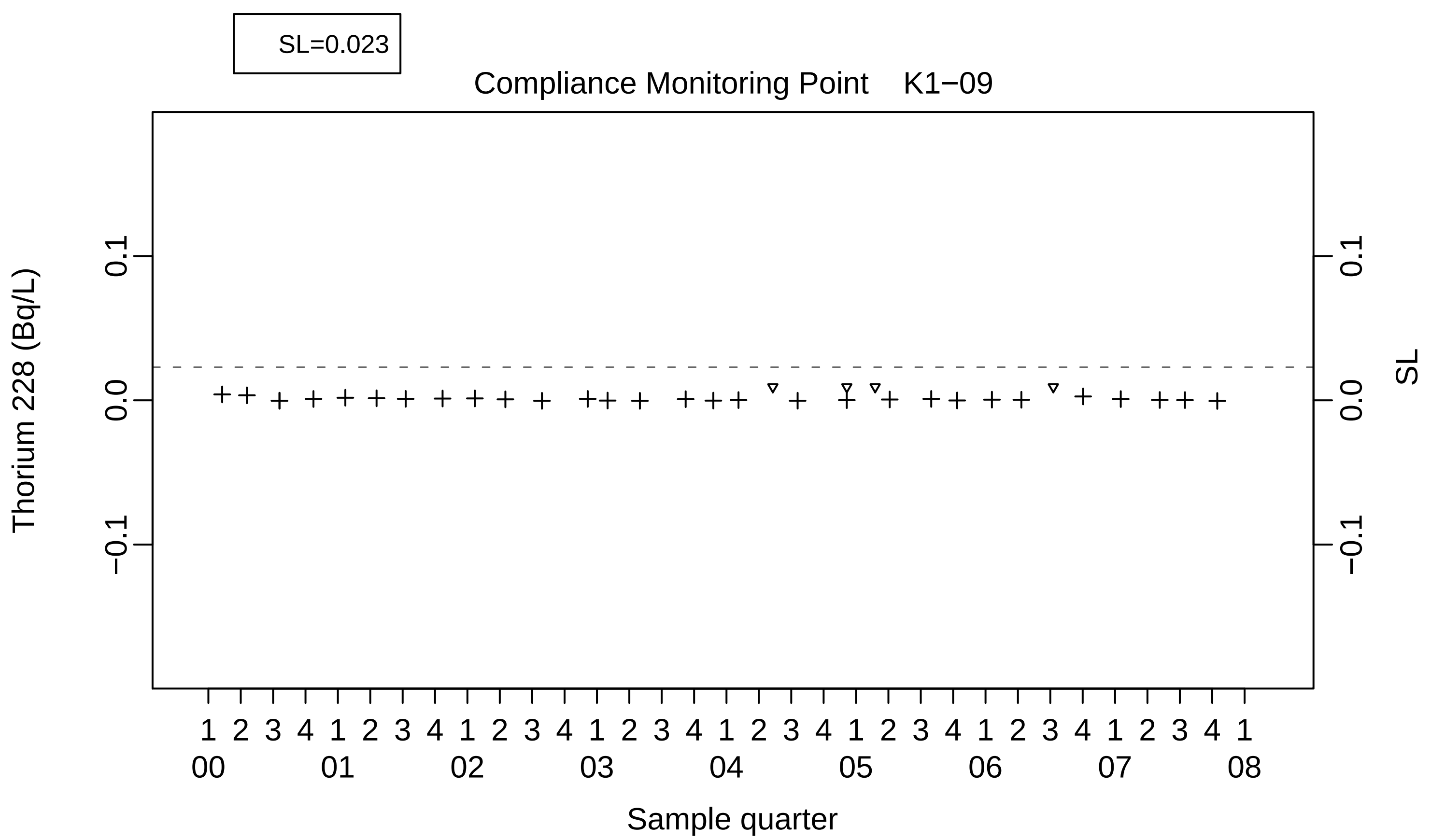

Pit 1 Area
Thorium 228 (Bq/L)
SL=0.023
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−02B
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


SL=0.023
Compliance Monitoring Point K1−03
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

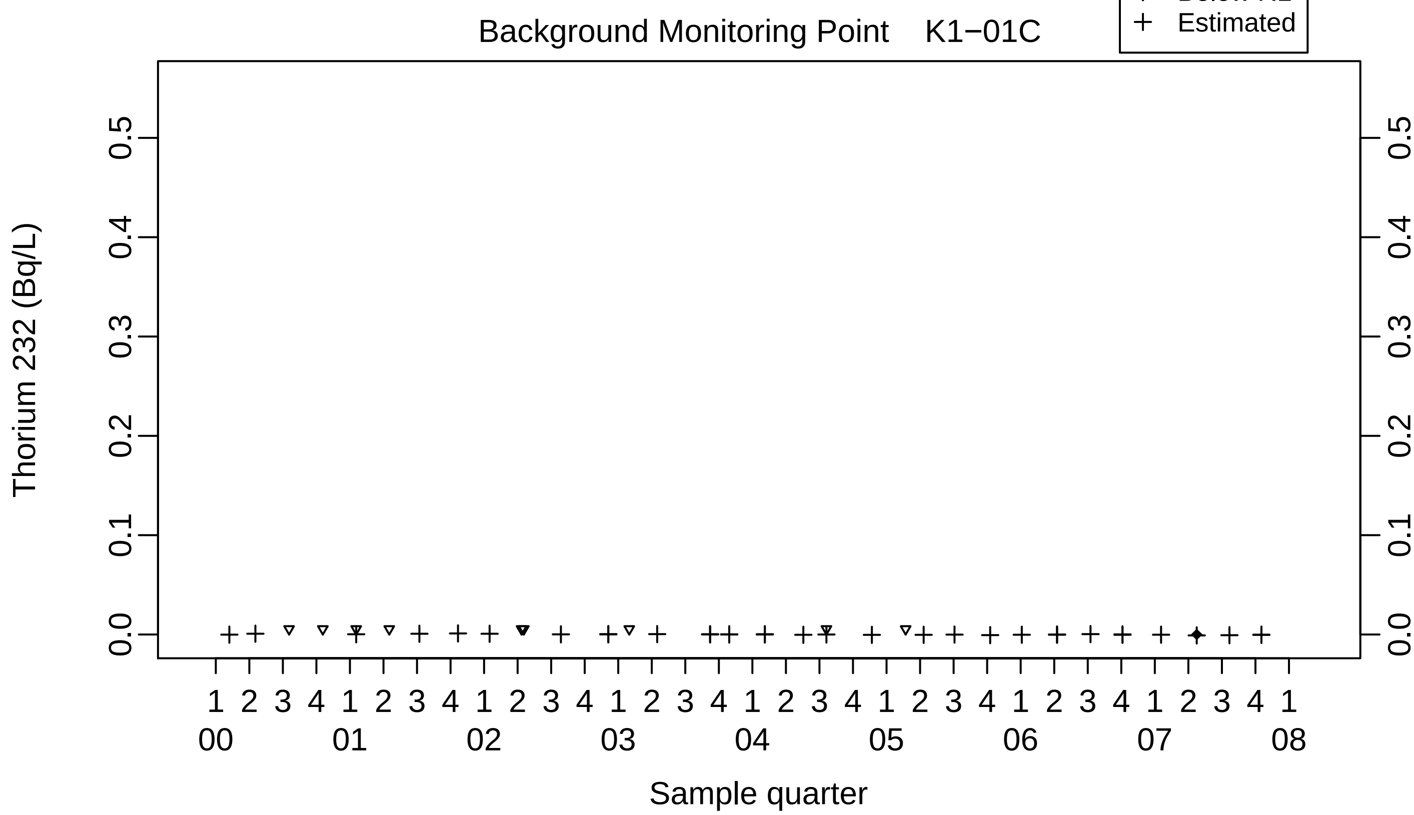

Pit 1 Area
Thorium 228 (Bq/L)
SL=0.023
Compliance Monitoring Point K1−04
Above RL
Below RL
Estimated
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
Sample quarter
00
01
02
03
04
05
06
07
08

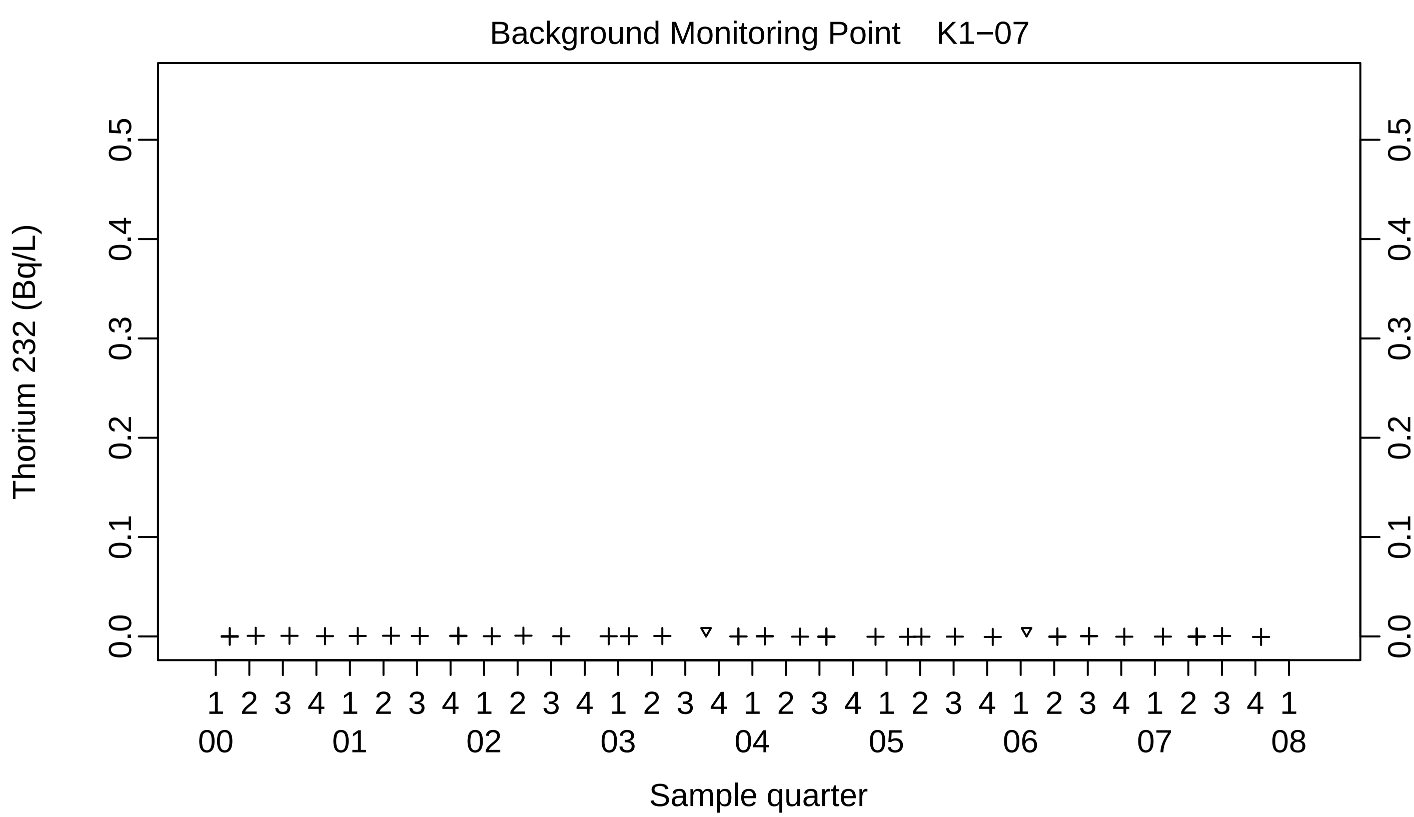

SL=0.023
Compliance Monitoring Point K1−05
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
Sample quarter
00
01
02
03
04
05
06
07
08


Pit 1 Area
Thorium 228 (Bq/L)
SL=0.023
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−08
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

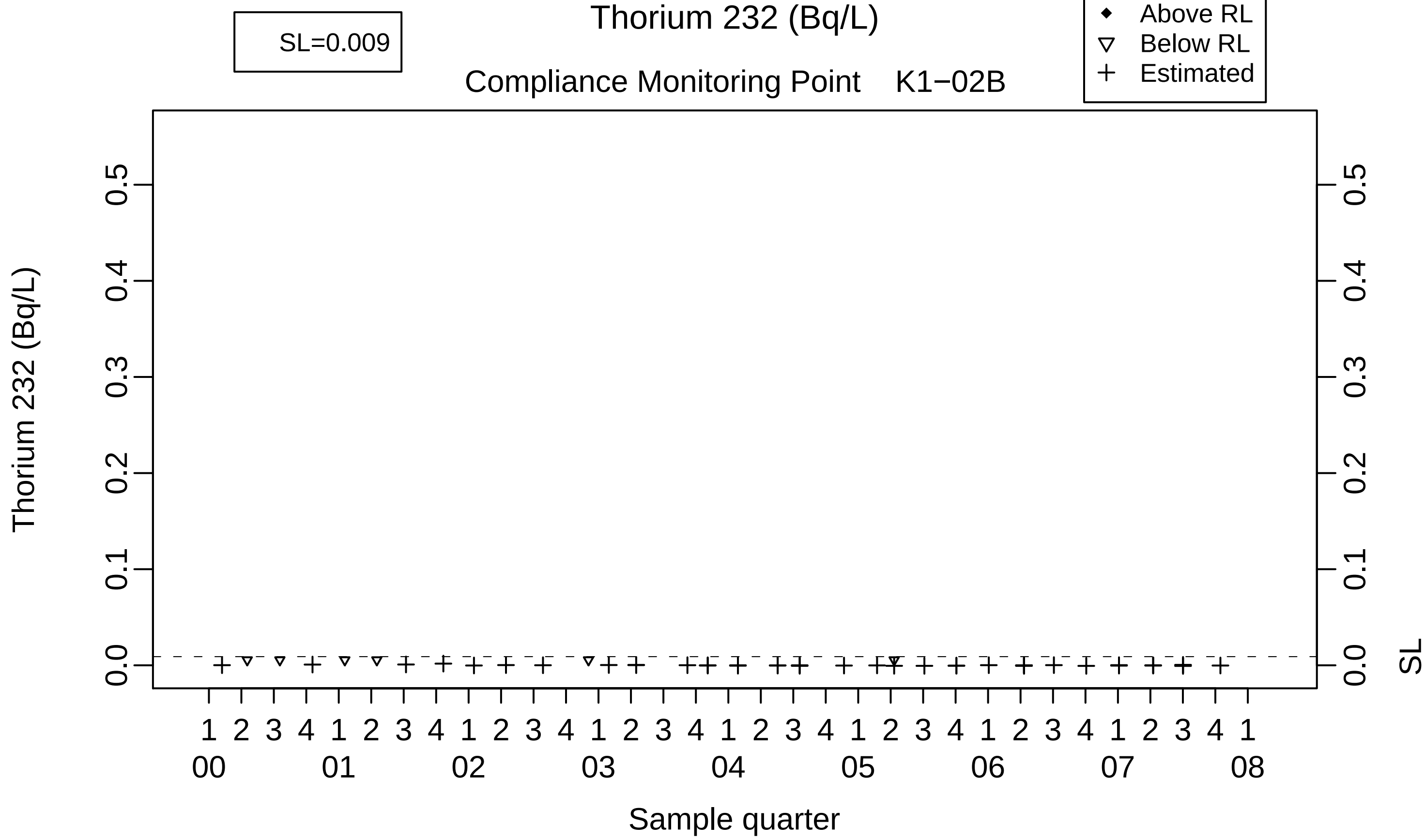

SL=0.023
Compliance Monitoring Point K1−09
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

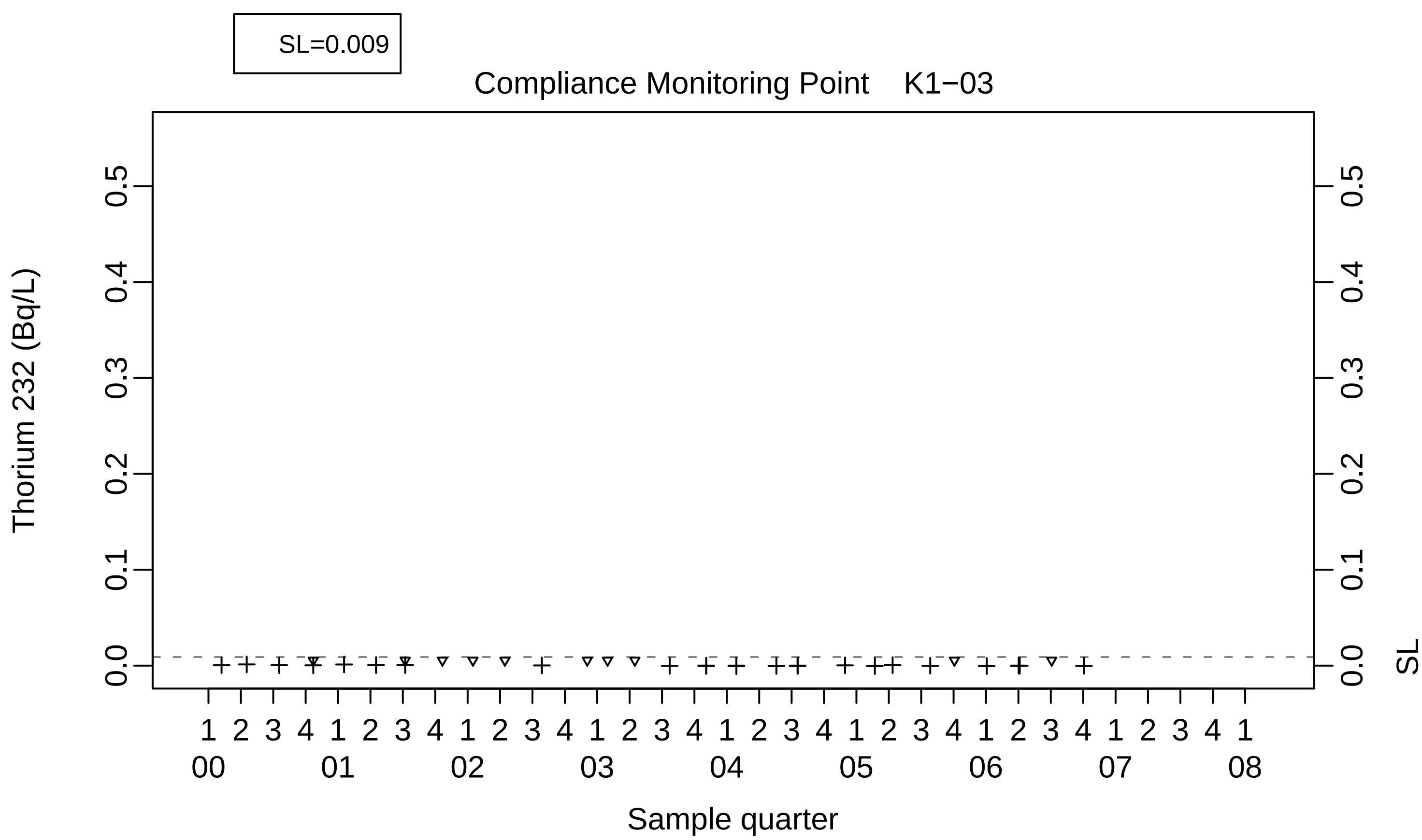
Pit 1 Area
Thorium 232 (Bq/L)

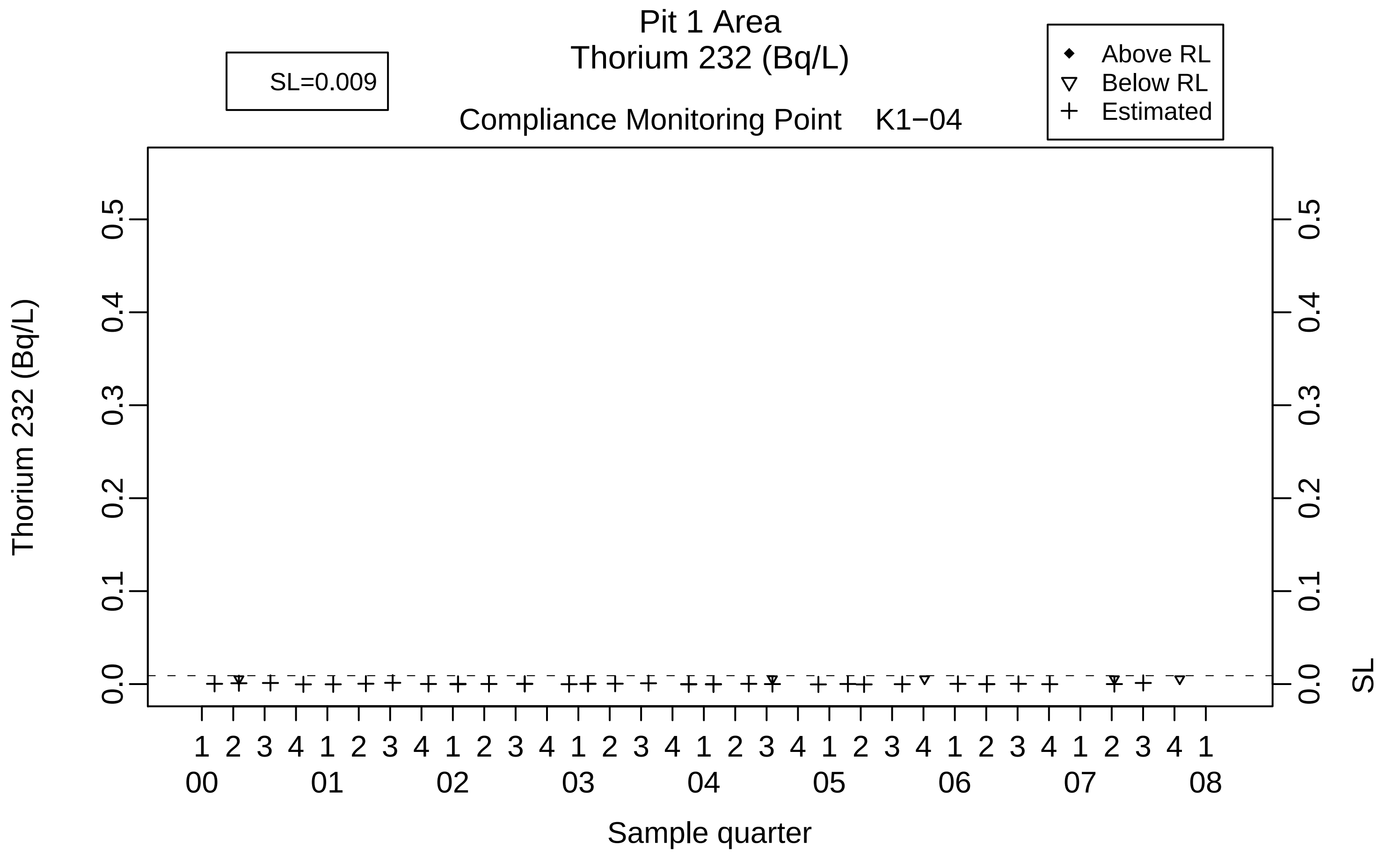


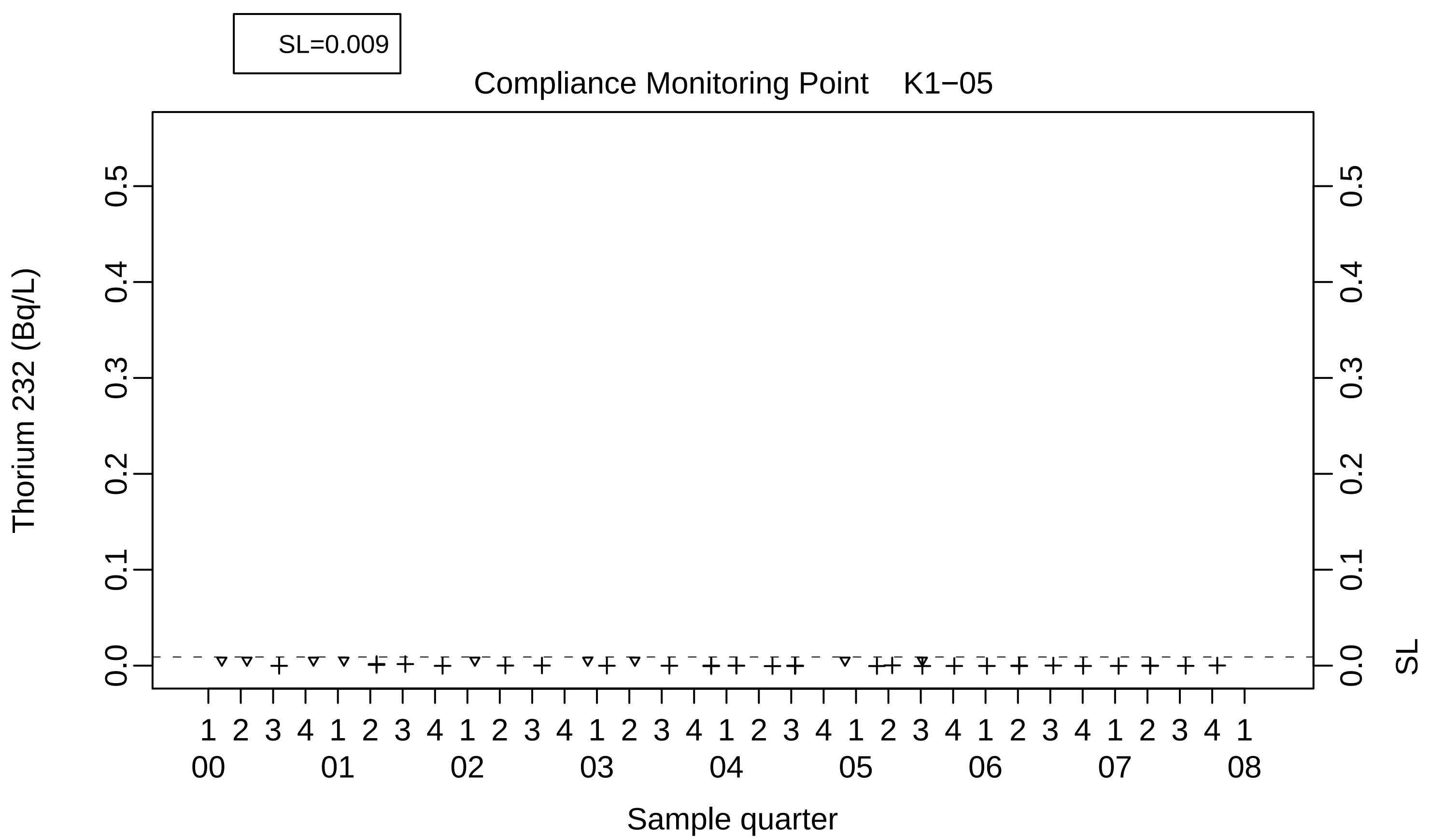


Pit 1 Area
Thorium 232 (Bq/L)



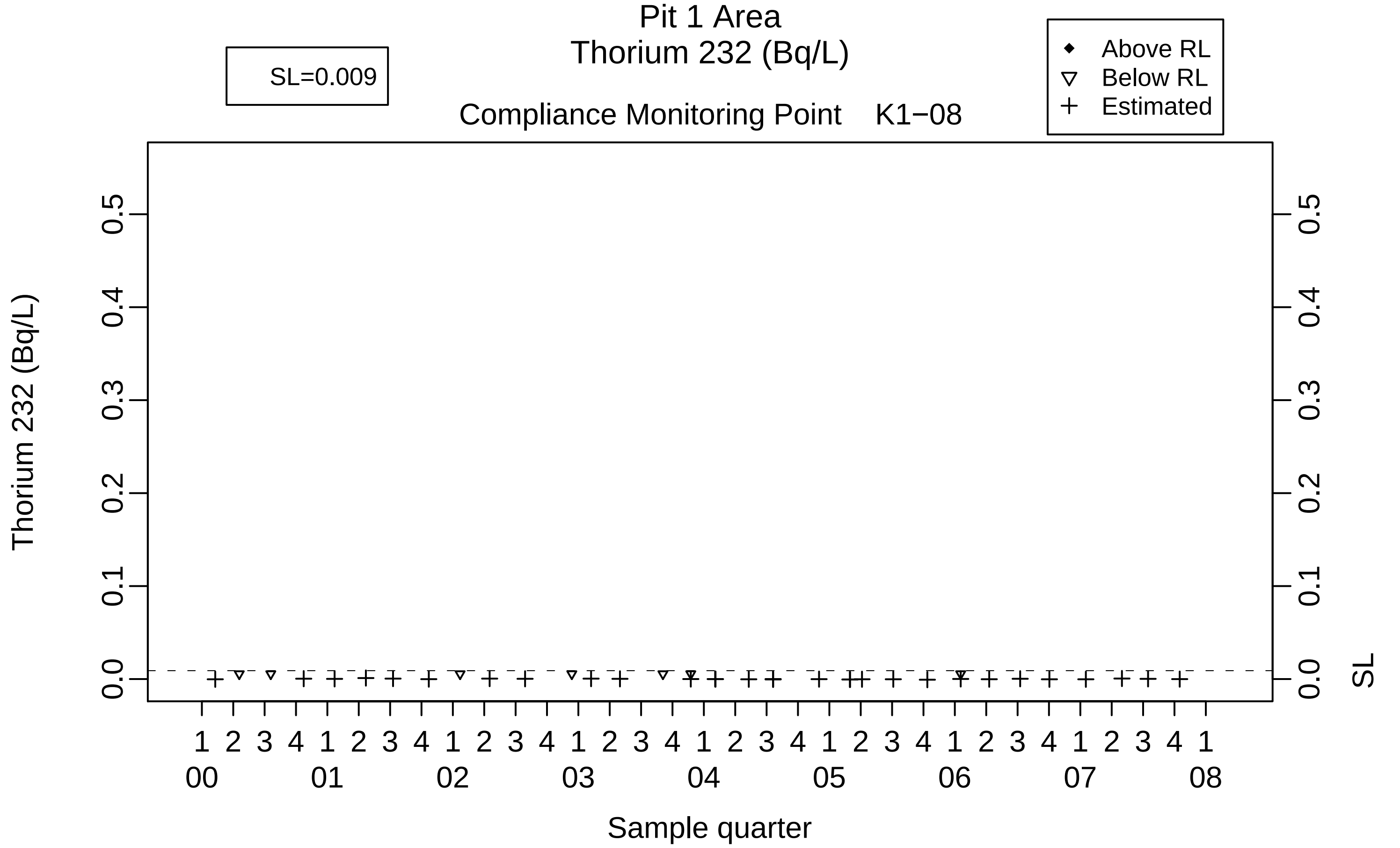



Pit 1 Area
Thorium 232 (Bq/L)
SL=0.009
Above RL
Below RL
Estimated
Compliance Monitoring Point K1−04
Thorium 232 (Bq/L)
0.0
0.1
0.2
0.3
0.4
0.5
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

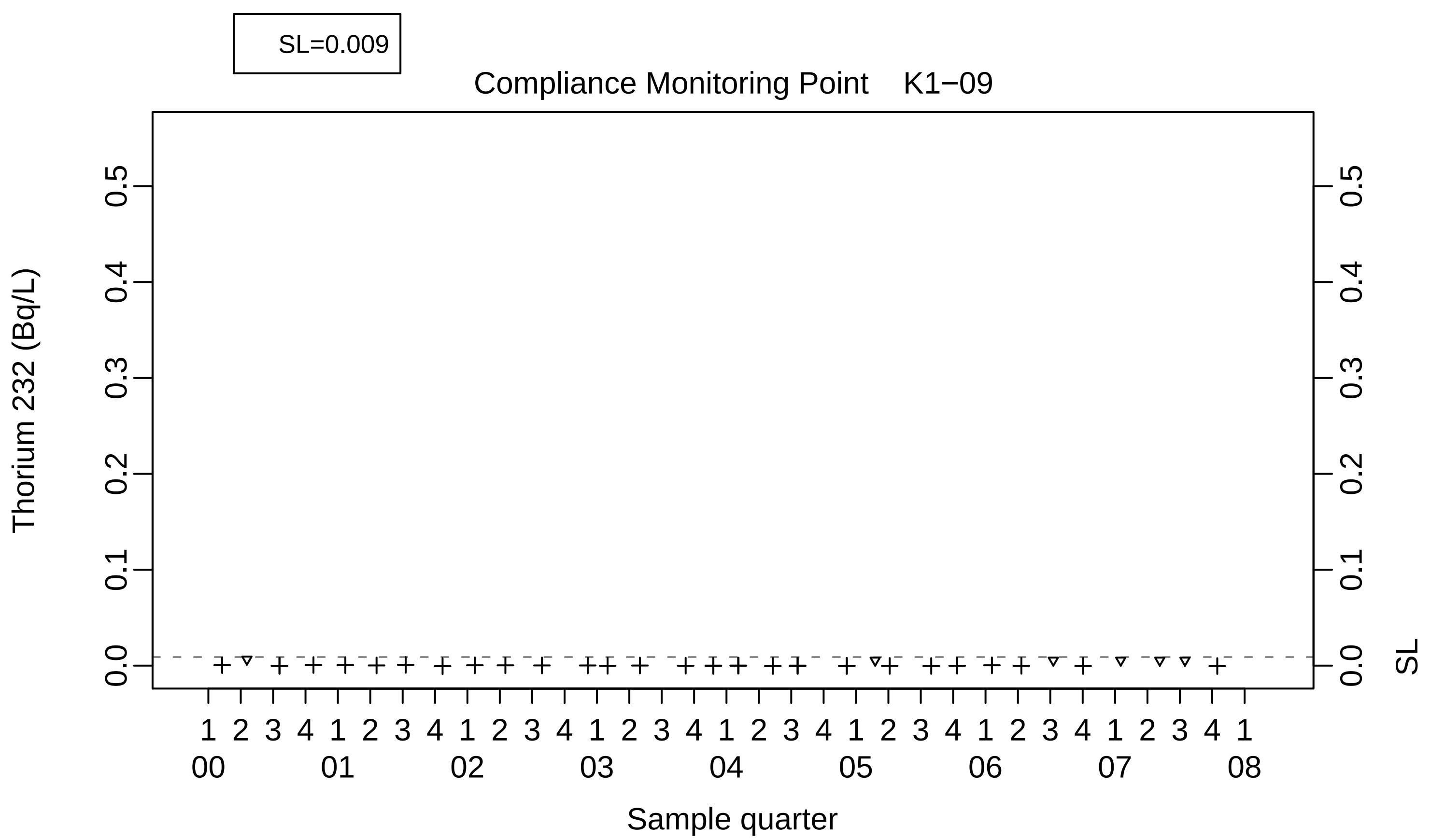

SL=0.009
Compliance Monitoring Point K1−05
Thorium 232 (Bq/L)
0.0
0.1
0.2
0.3
0.4
0.5
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

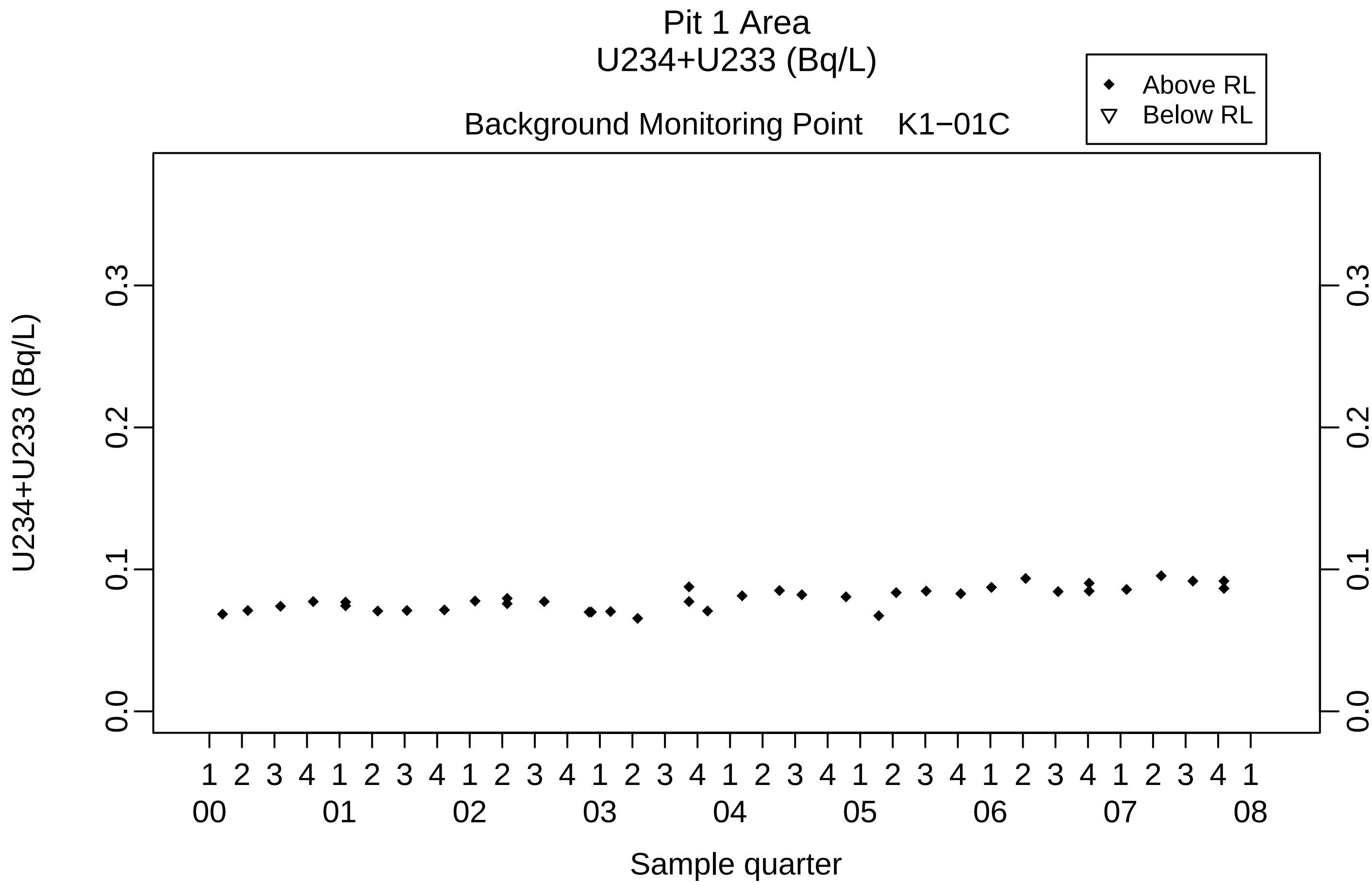
Pit 1 Area
Thorium 232 (Bq/L)

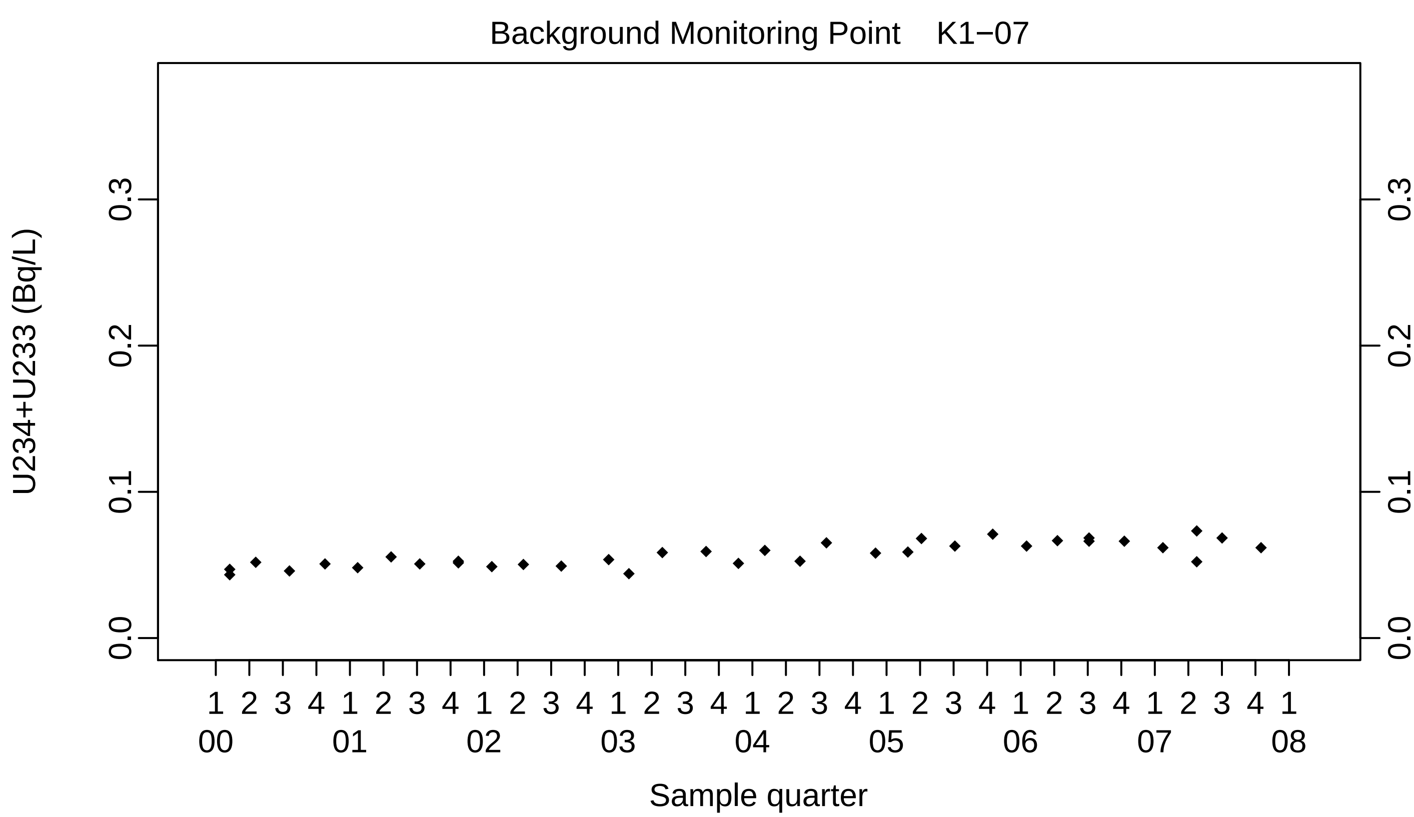
Compliance Monitoring Point K1−08



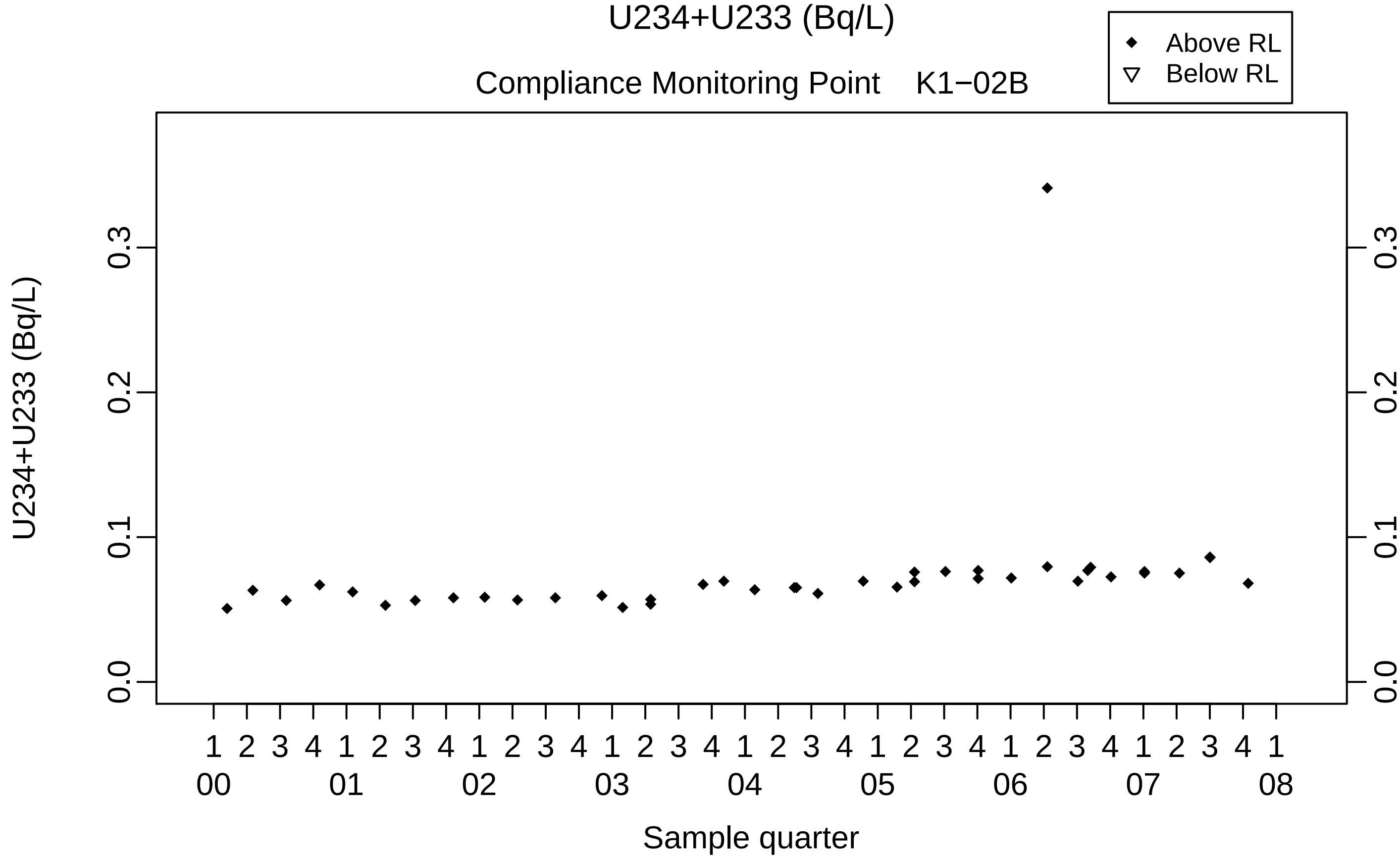
Compliance Monitoring Point K1−09

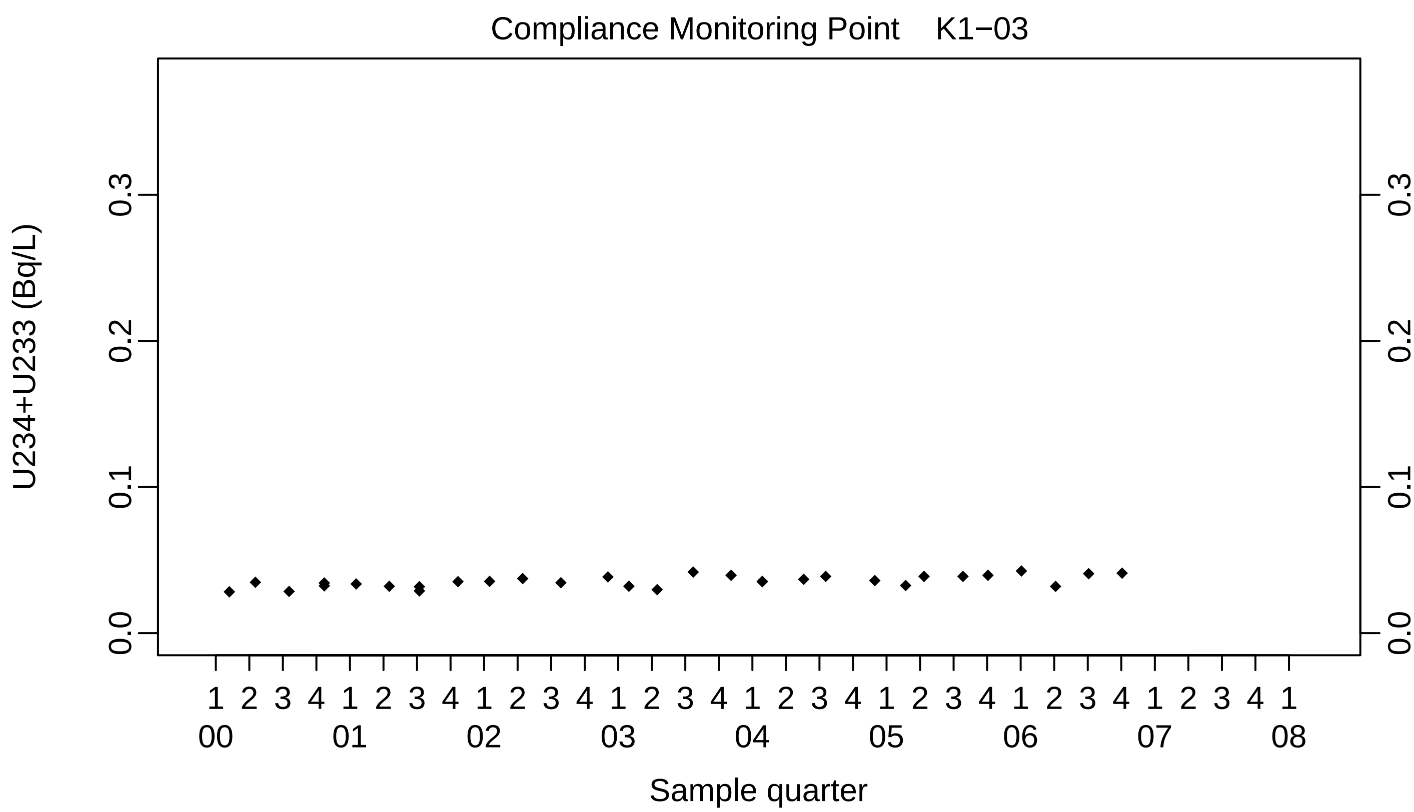



Pit 1 Area
U234+U233 (Bq/L)
Above RL
Below RL
Background Monitoring Point K1−01C
U234+U233 (Bq/L)
0.0
0.1
0.2
0.3
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

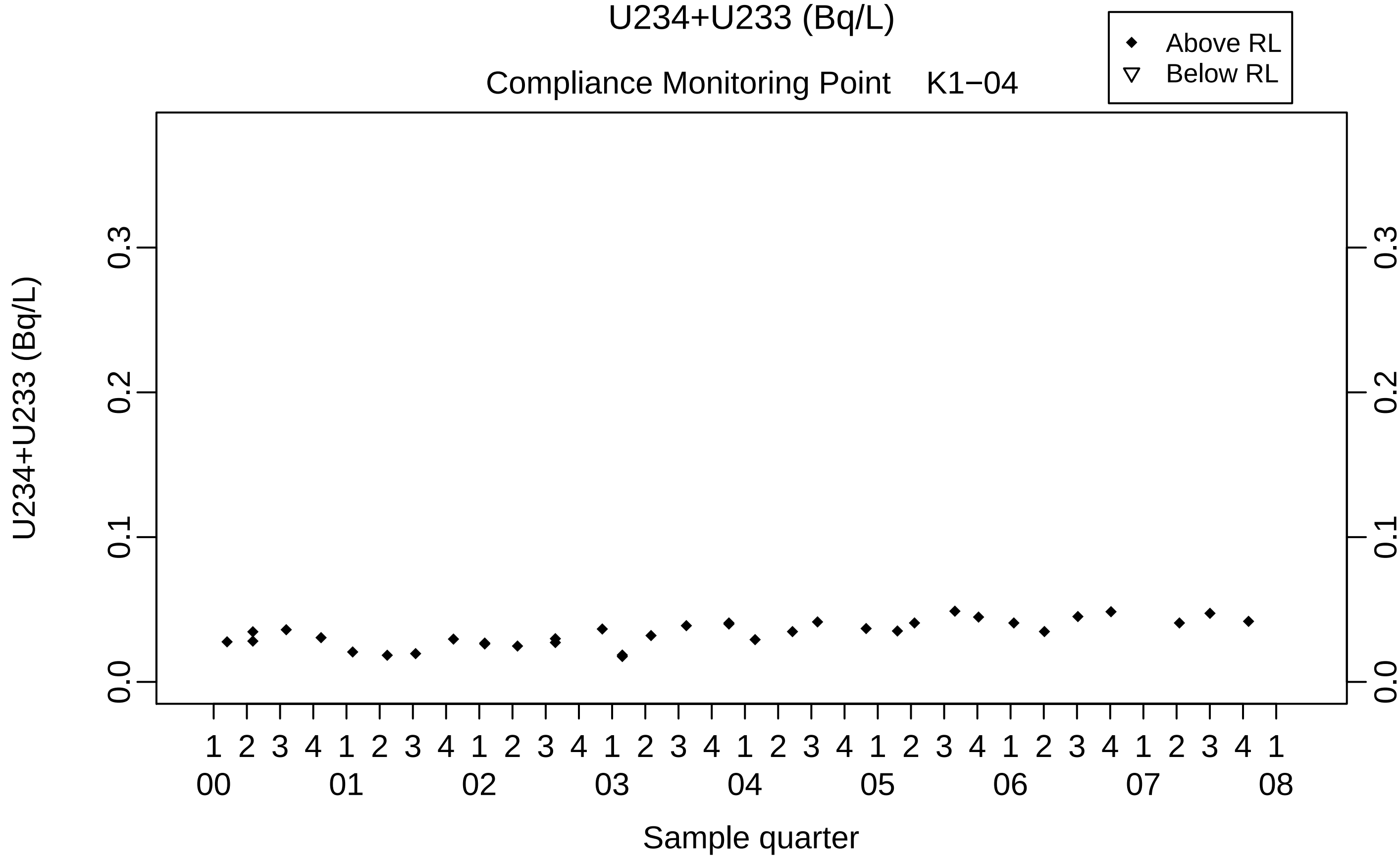

Background Monitoring Point K1−07
U234+U233 (Bq/L)
0.0
0.1
0.2
0.3
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

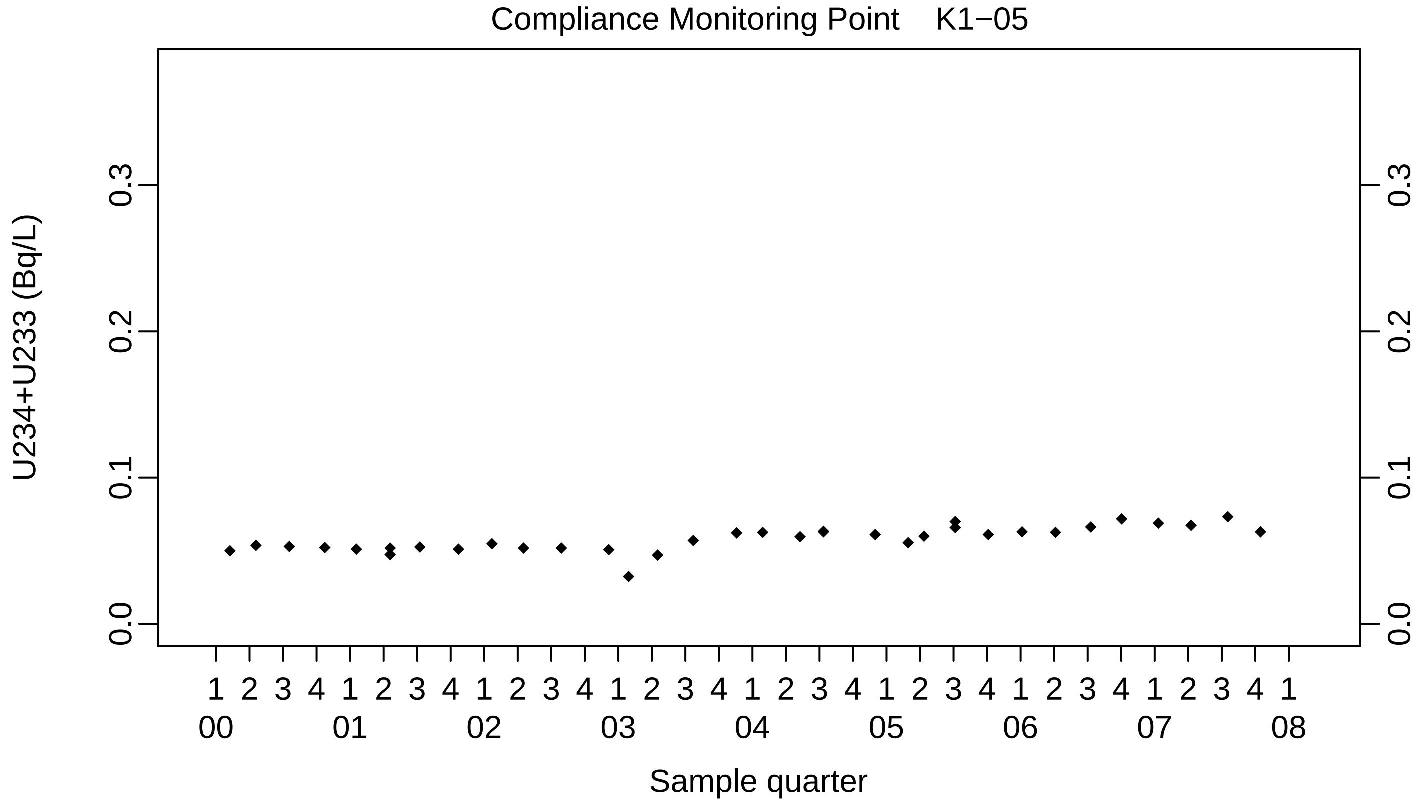
Pit 1 Area
U234+U233 (Bq/L)



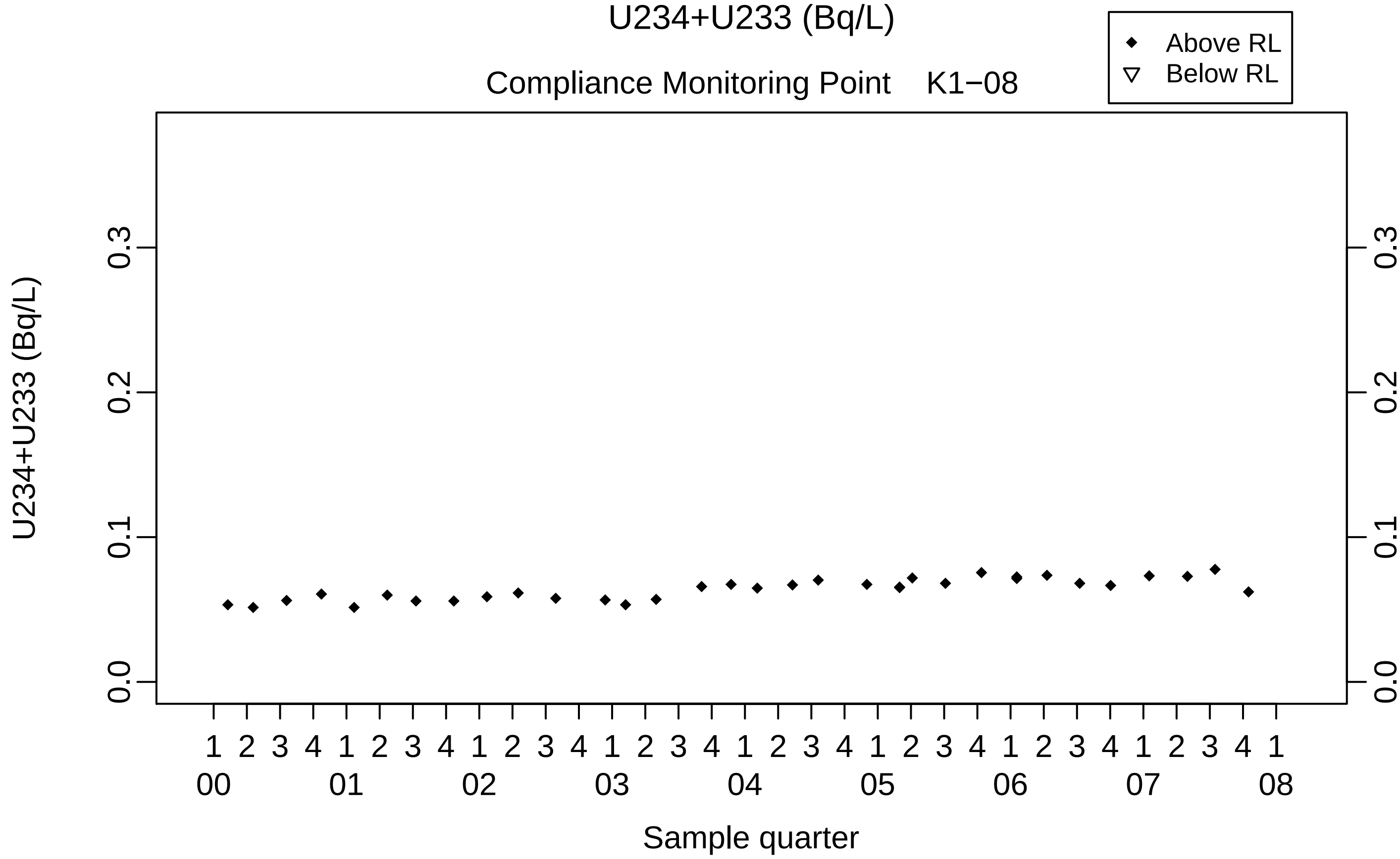


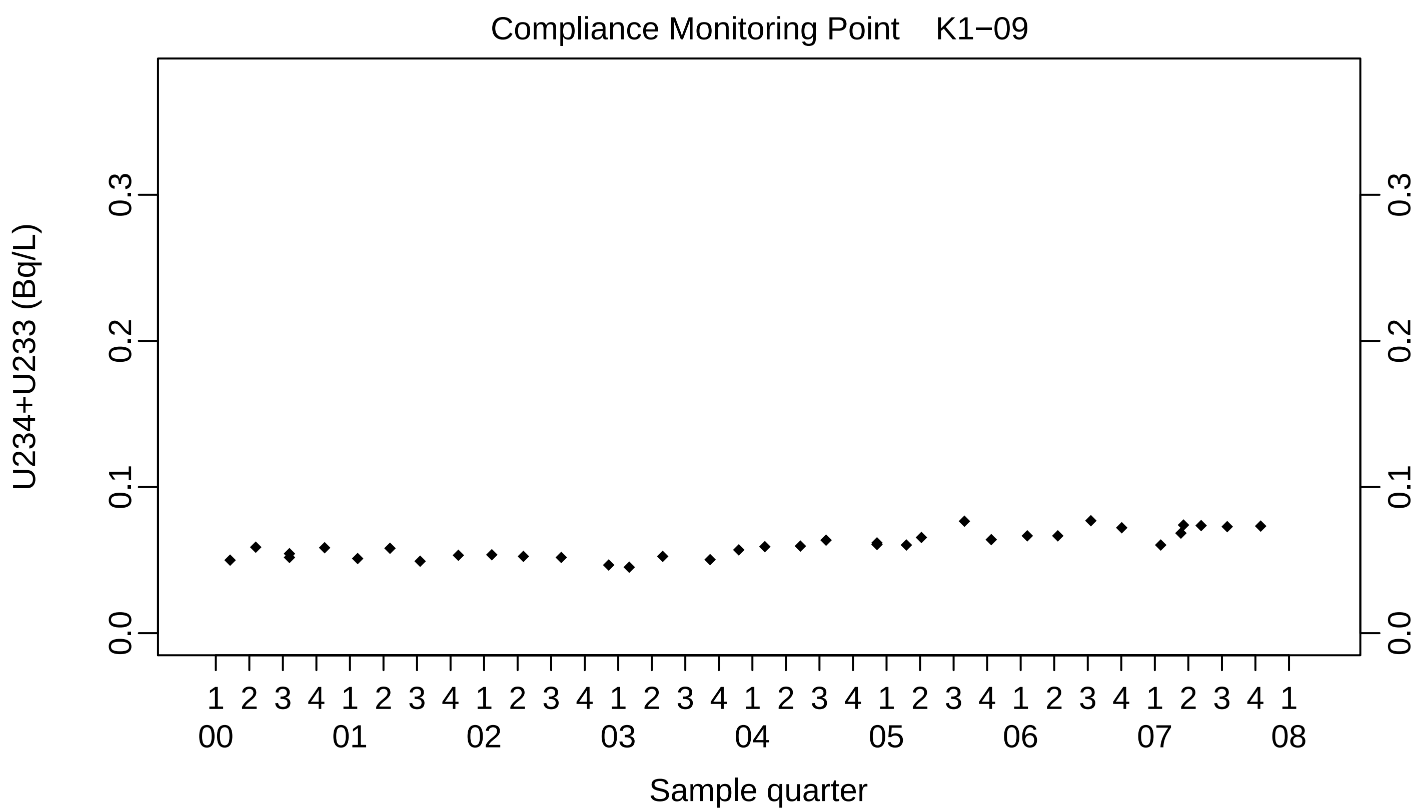
Pit 1 Area
U234+U233 (Bq/L)



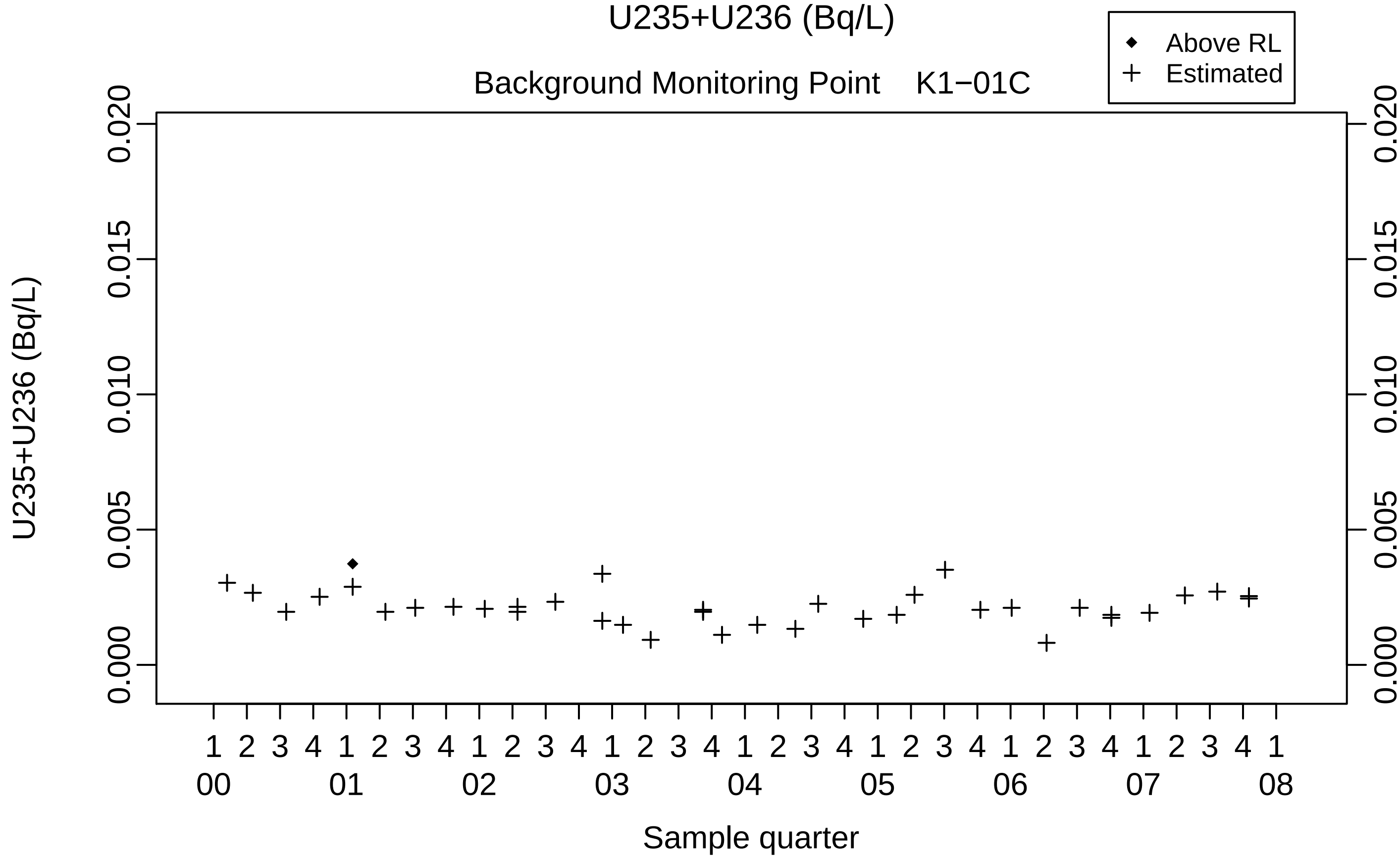


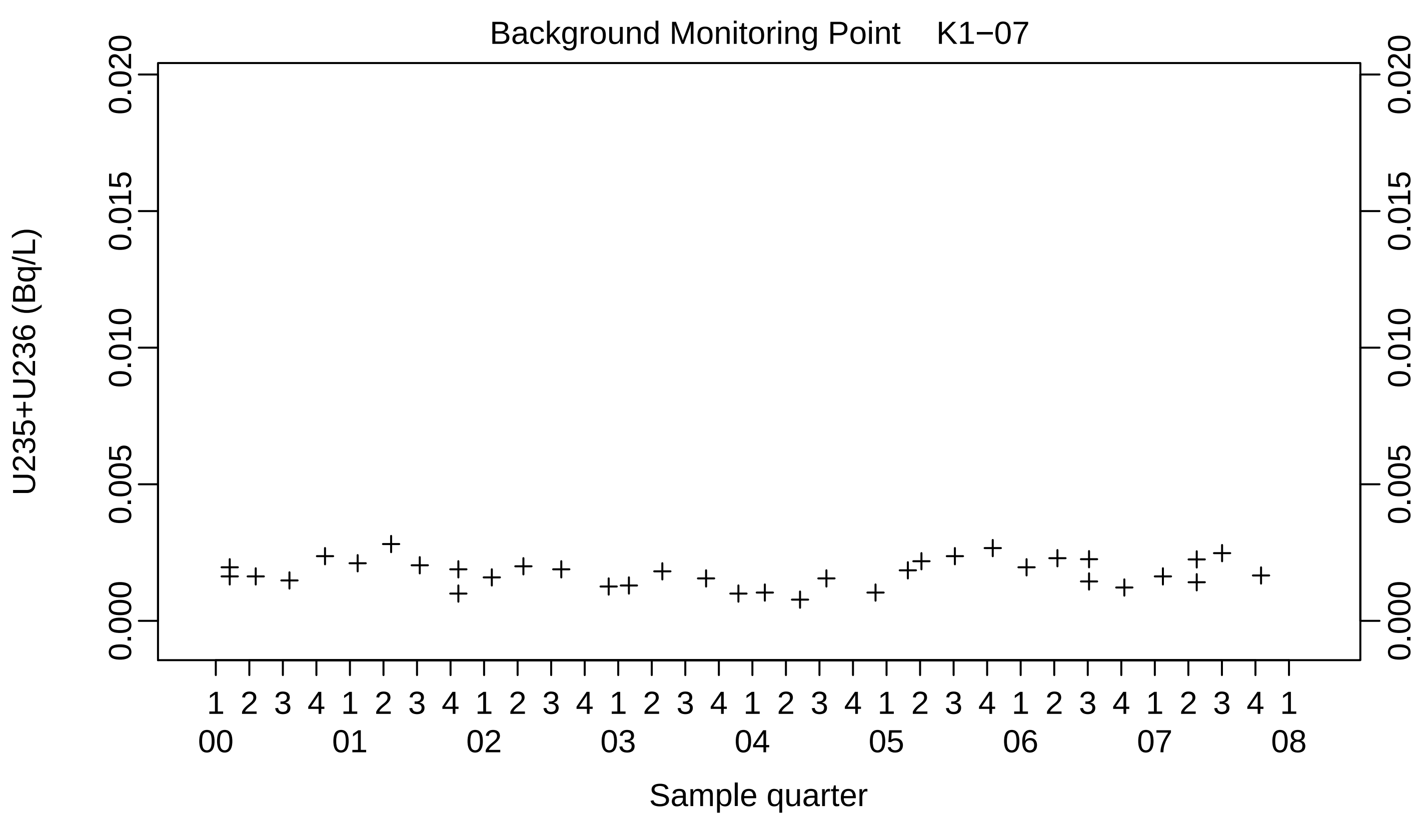
Pit 1 Area
U234+U233 (Bq/L)



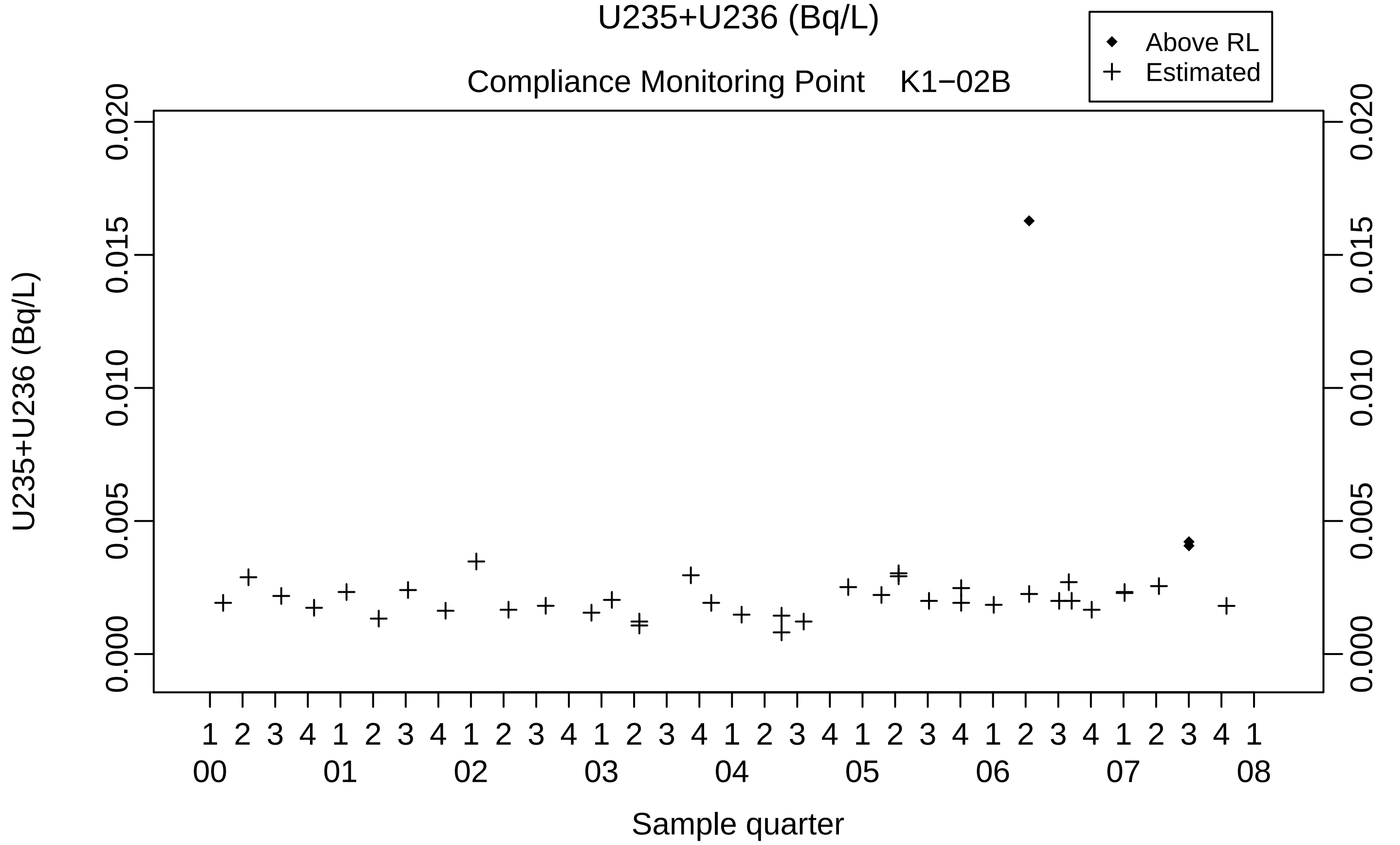


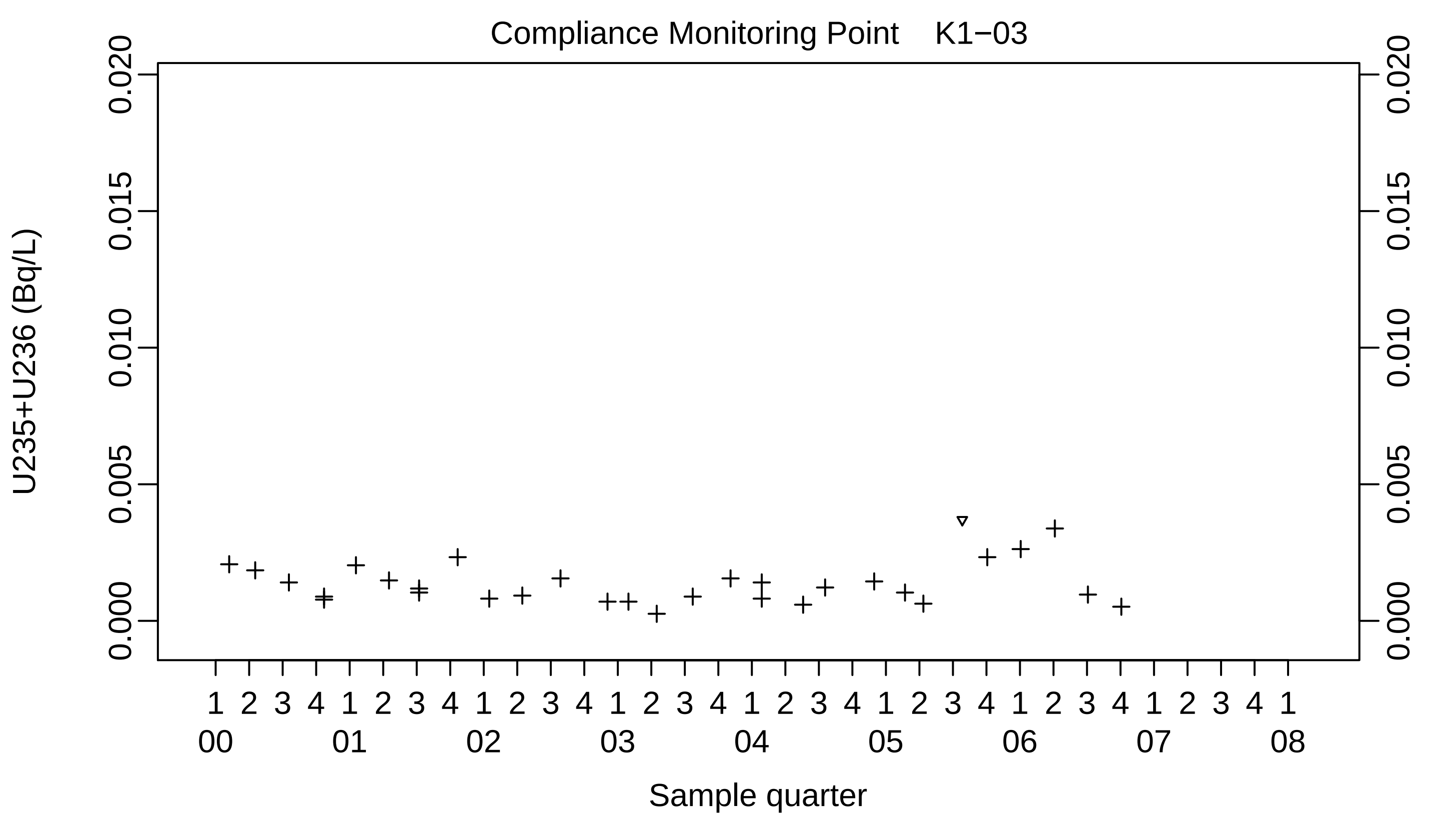
Pit 1 Area
U235+U236 (Bq/L)

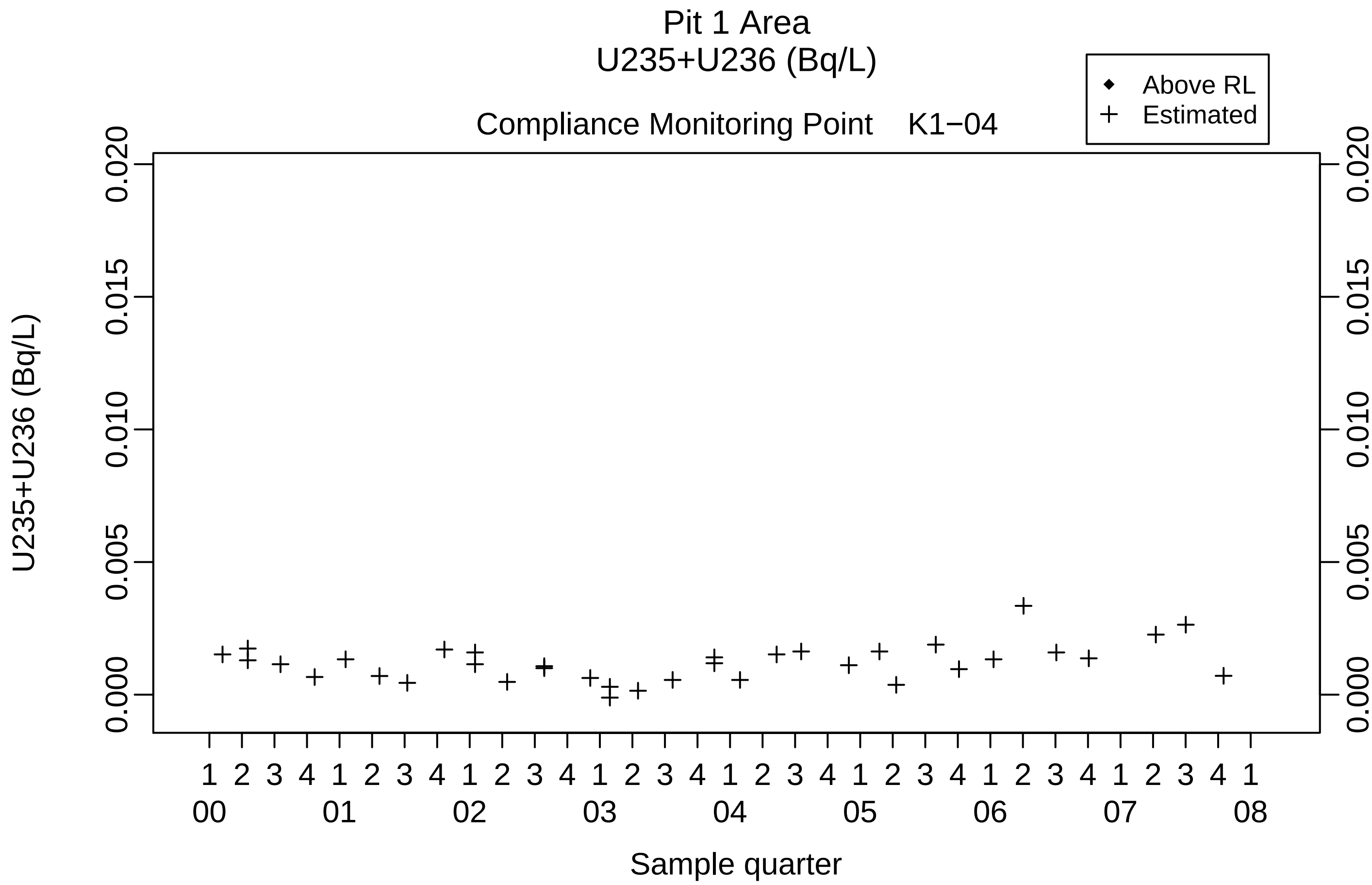


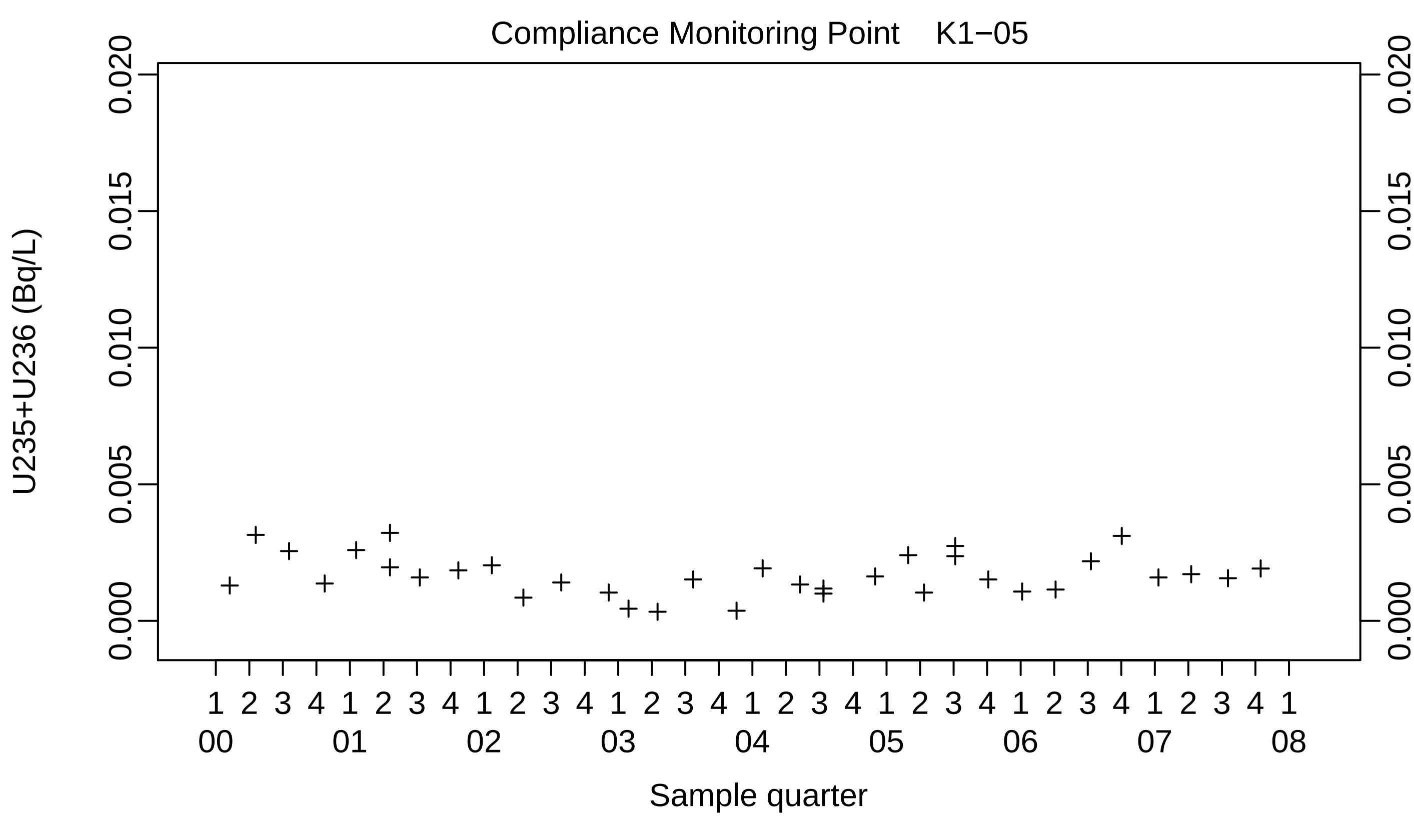


Pit 1 Area
U235+U236 (Bq/L)

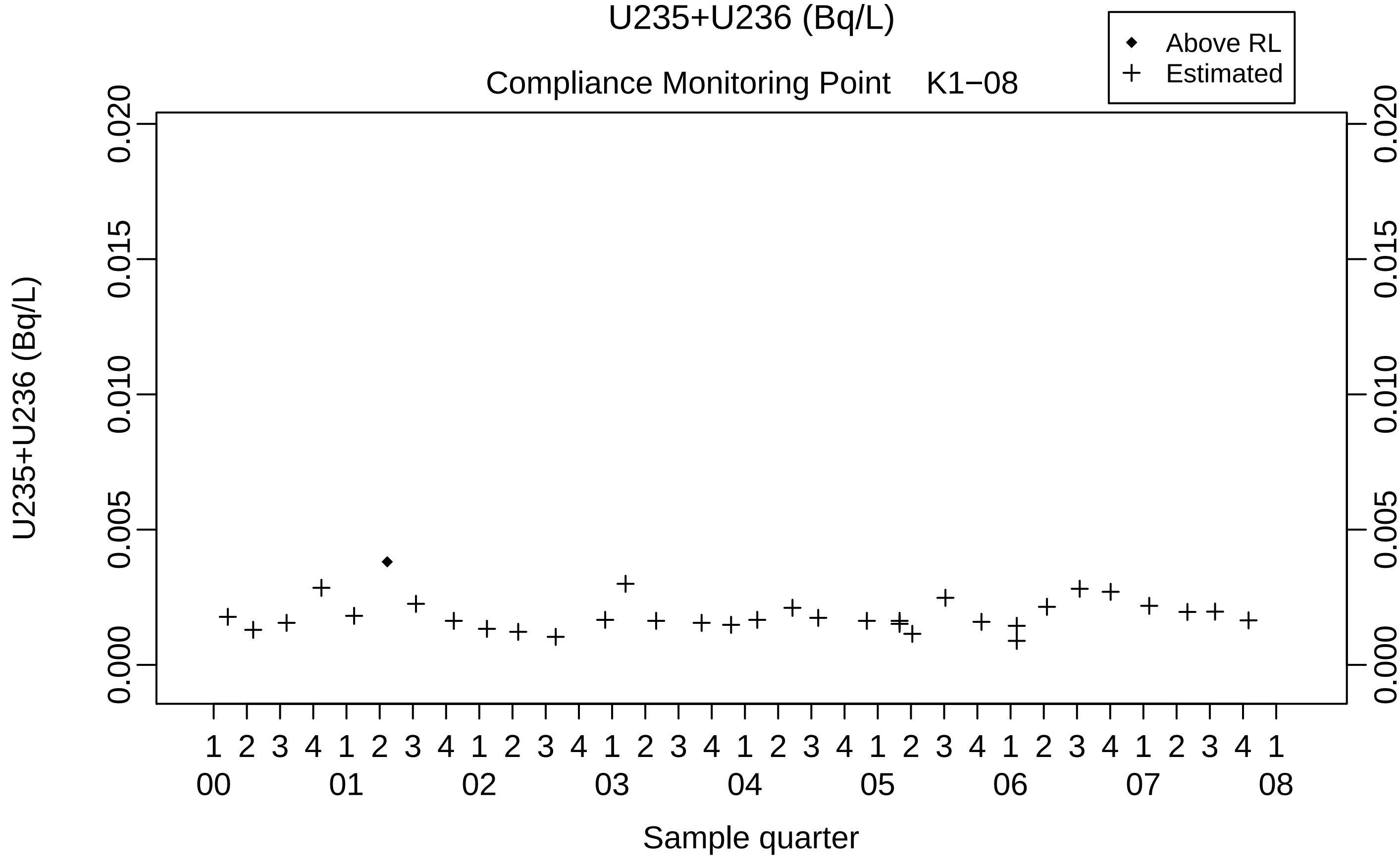


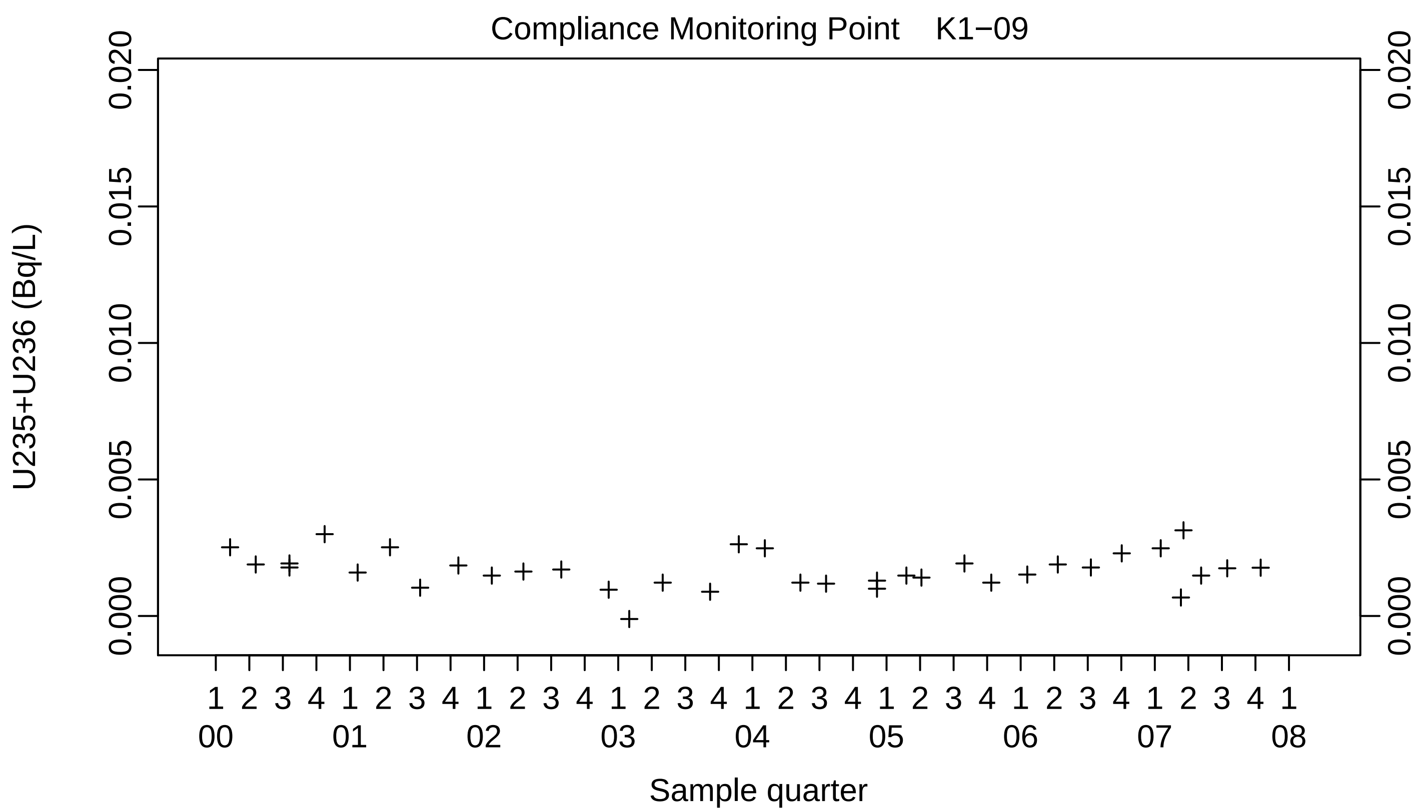


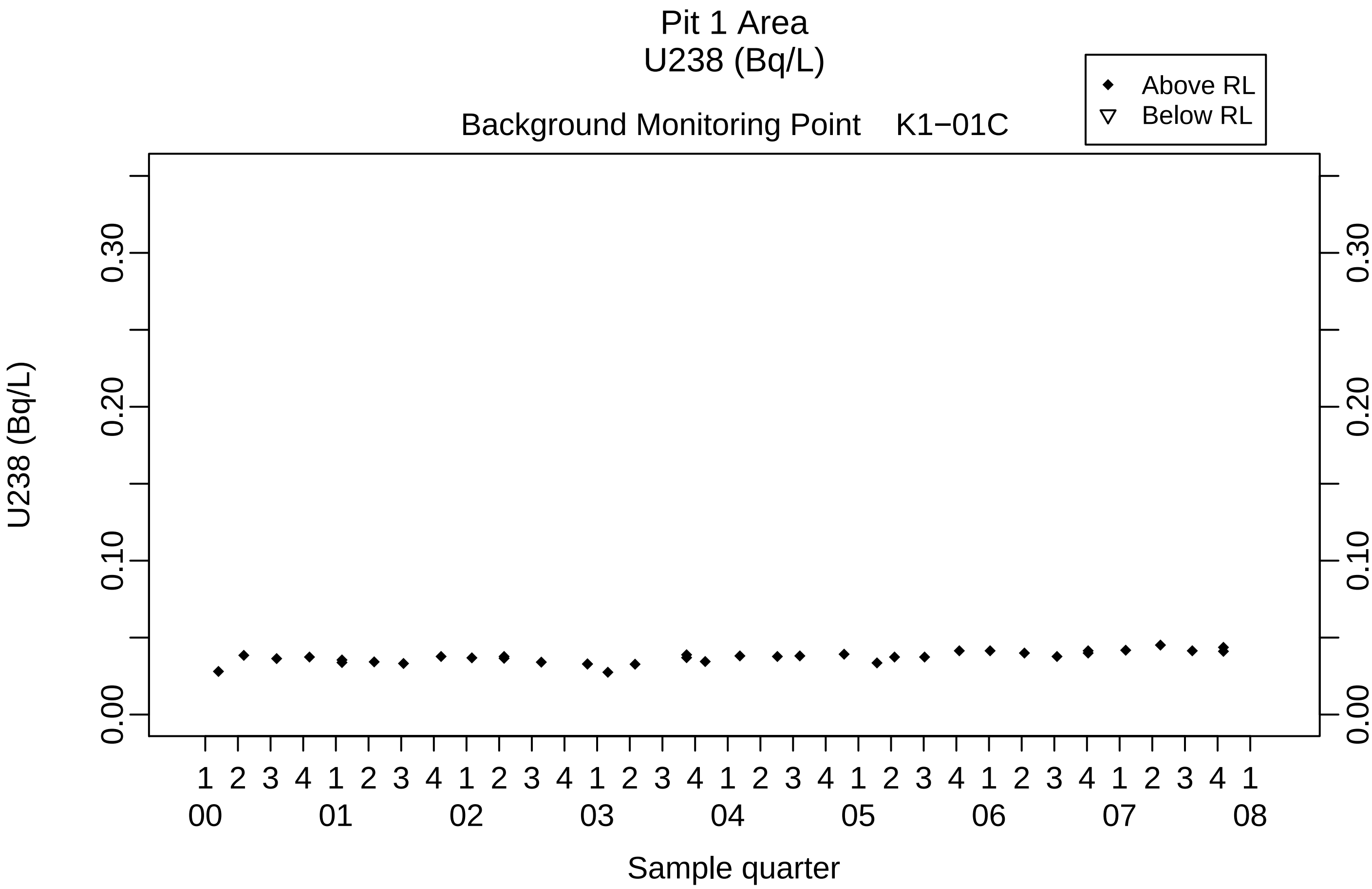

Pit 1 Area
U235+U236 (Bq/L)
Above RL
Estimated
Compliance Monitoring Point K1−04
U235+U236 (Bq/L)
0.000
0.005
0.010
0.015
0.020
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

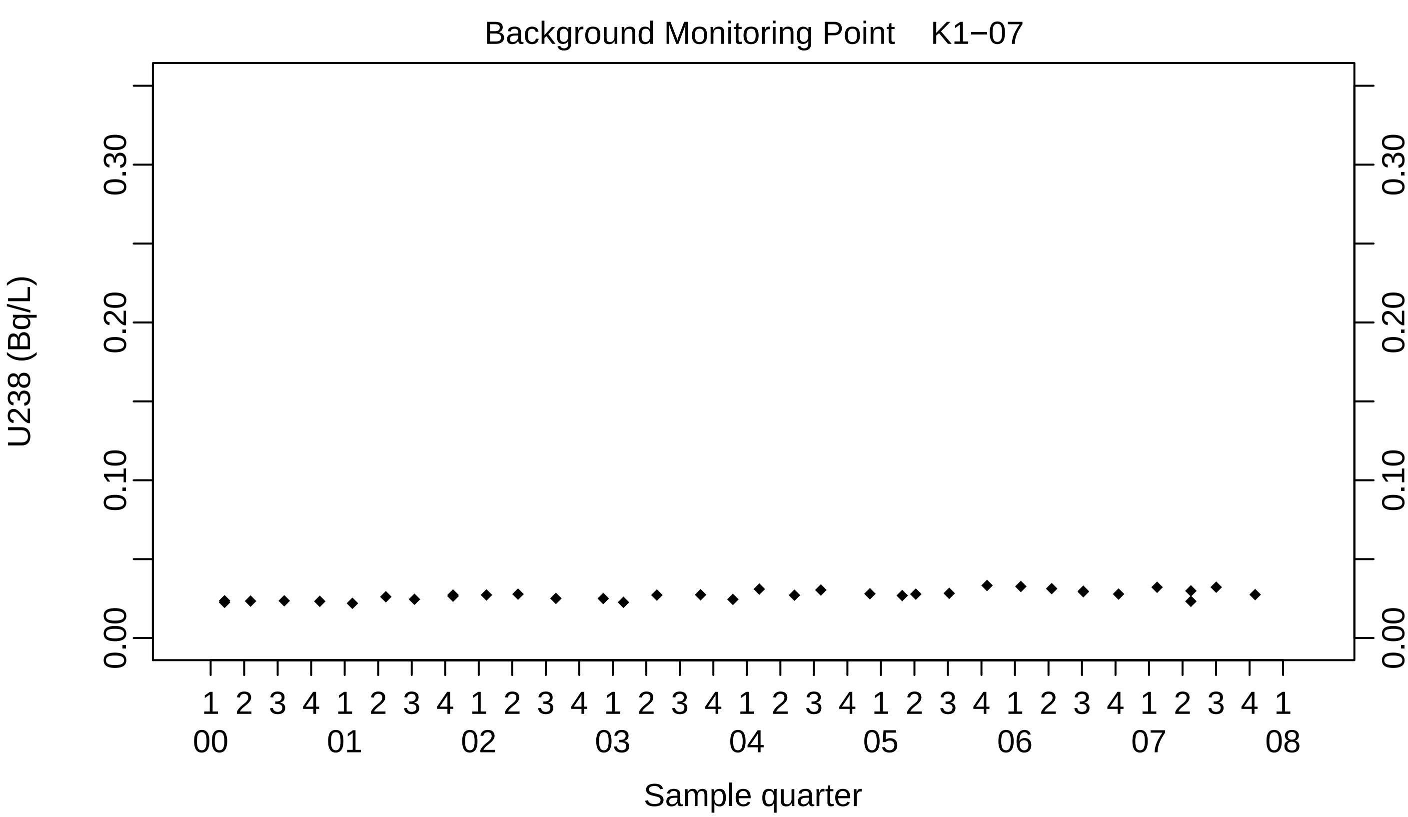

Compliance Monitoring Point K1−05
U235+U236 (Bq/L)
0.000
0.005
0.010
0.015
0.020
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

Pit 1 Area
U235+U236 (Bq/L)

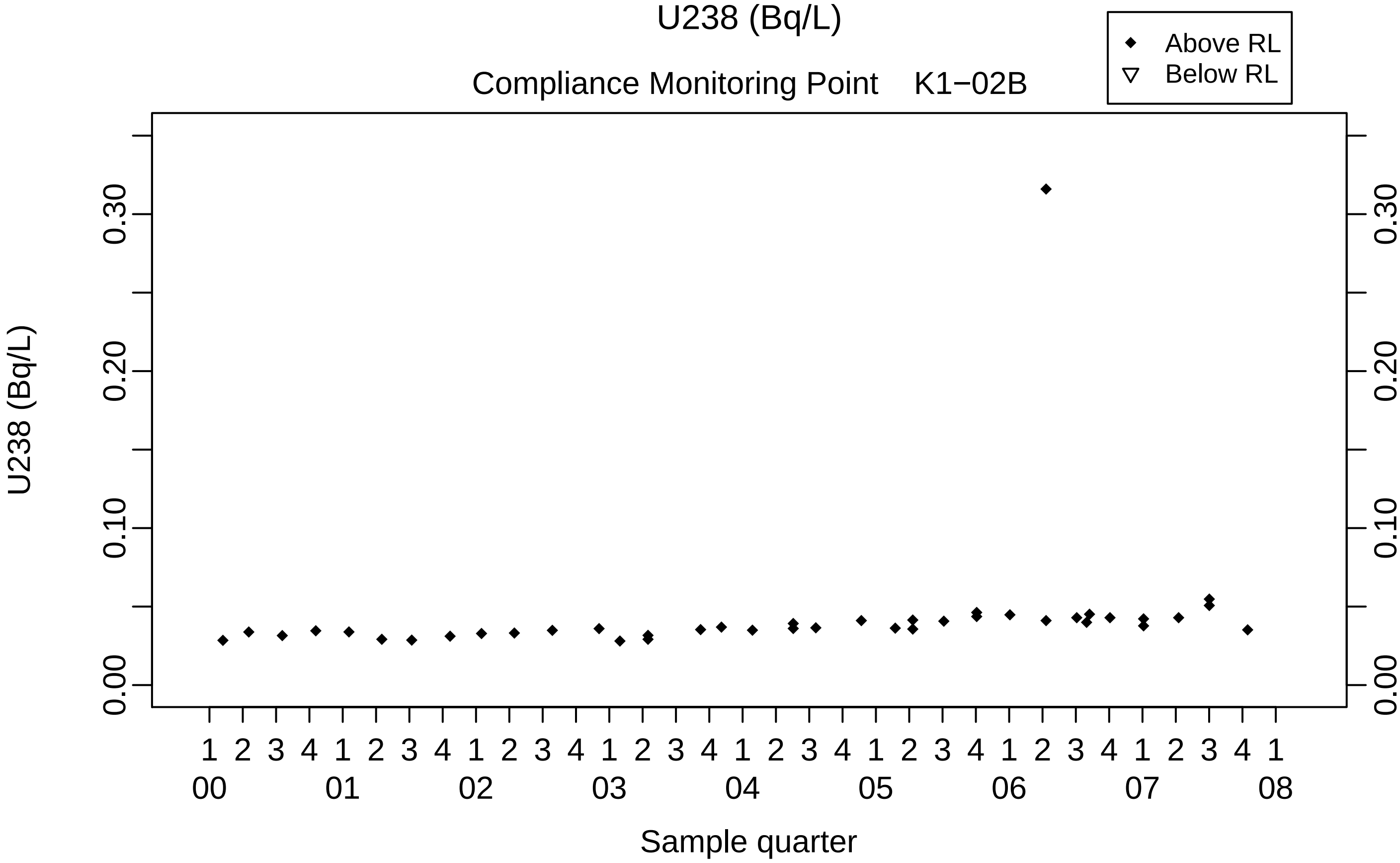


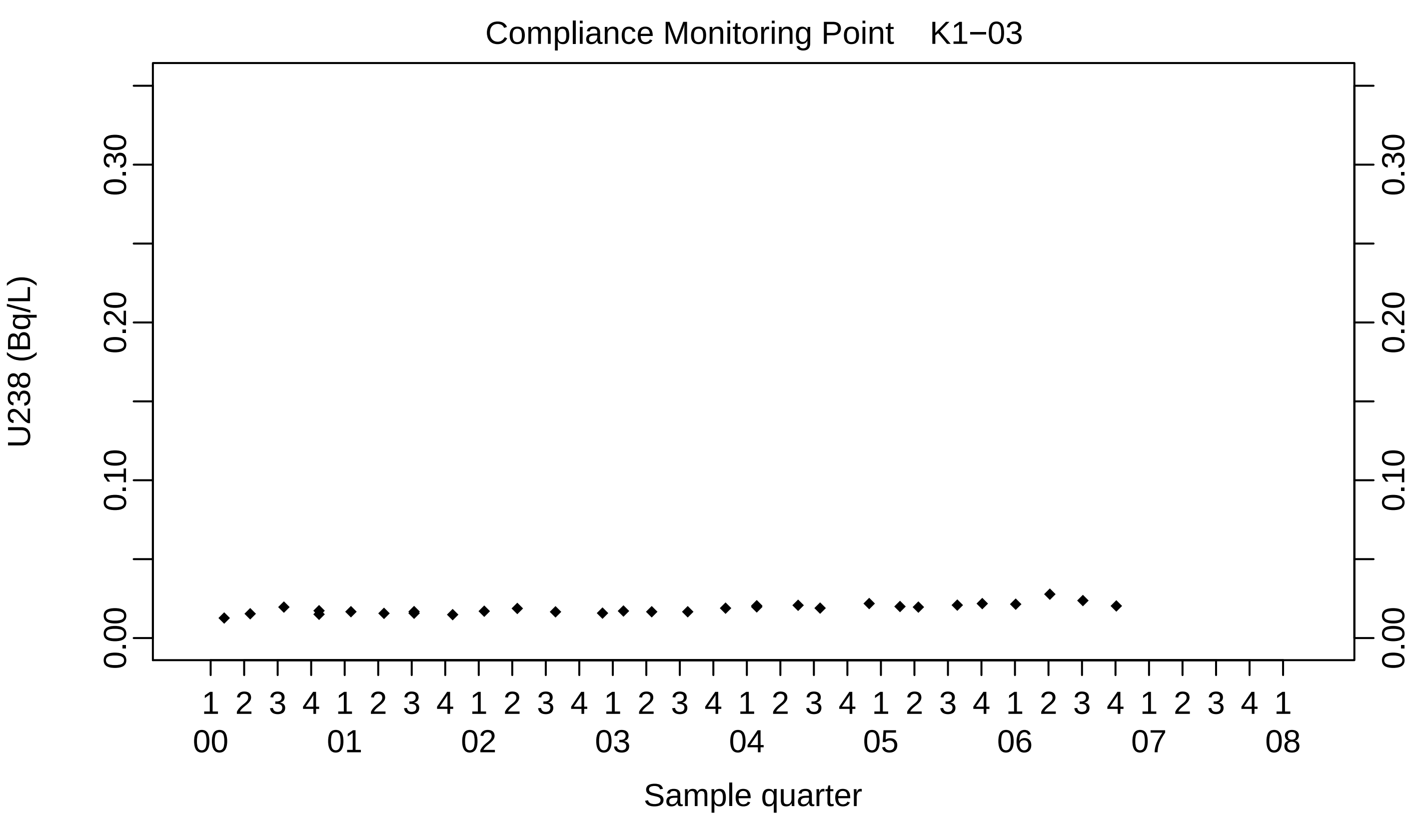



Pit 1 Area
U238 (Bq/L)
Above RL
Below RL
Background Monitoring Point K1−01C
U238 (Bq/L)
0.00
0.10
0.20
0.30
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

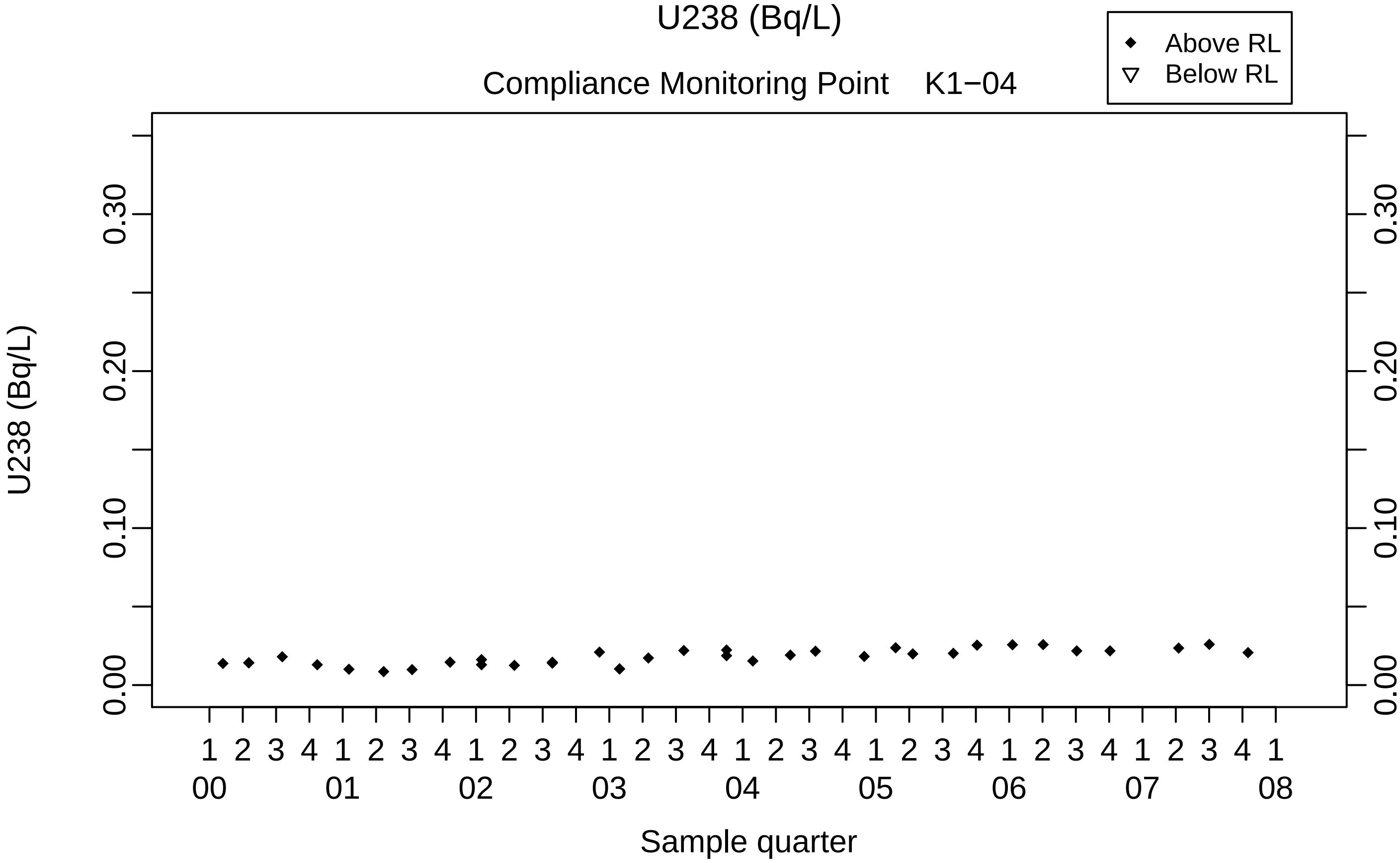

Background Monitoring Point K1−07
U238 (Bq/L)
0.00
0.10
0.20
0.30
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

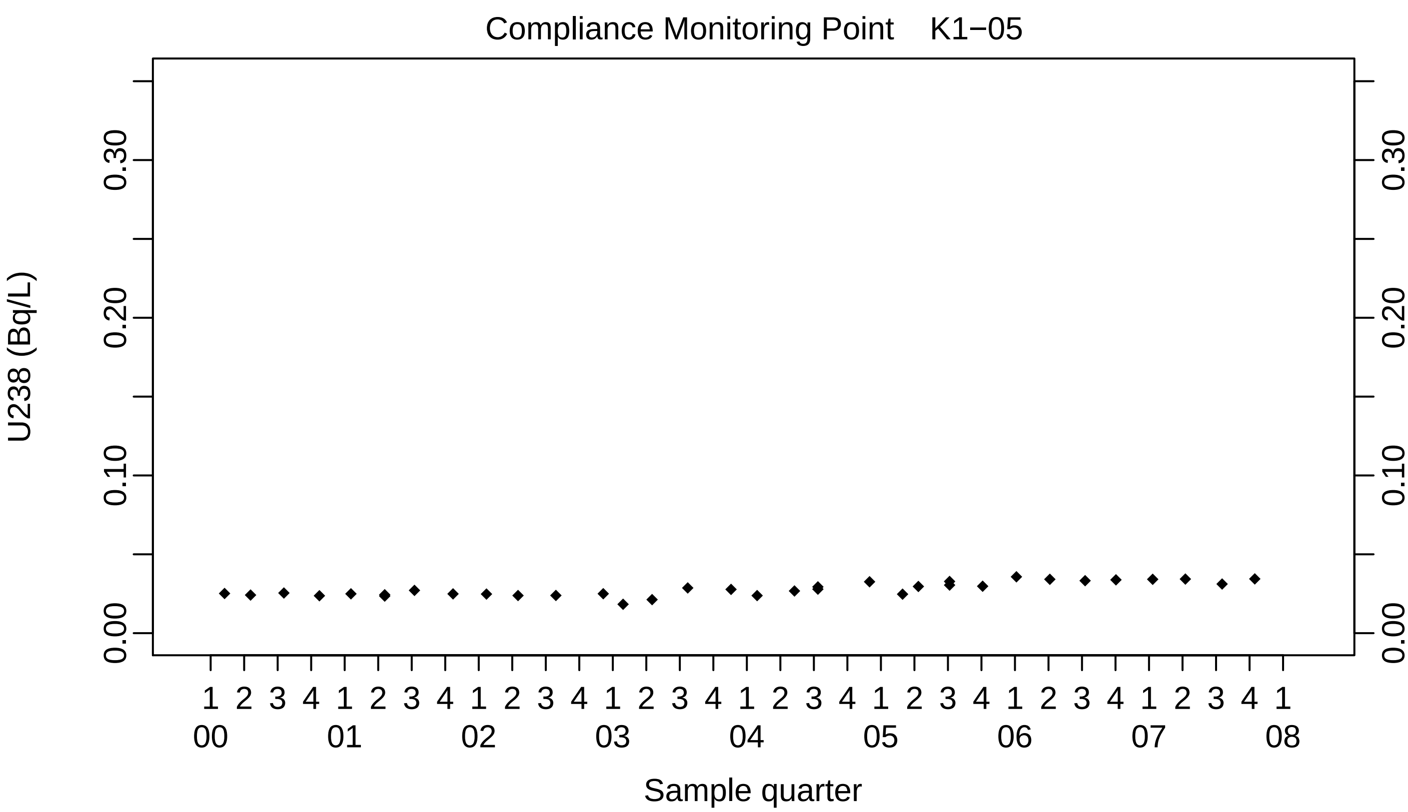
Pit 1 Area
U238 (Bq/L)



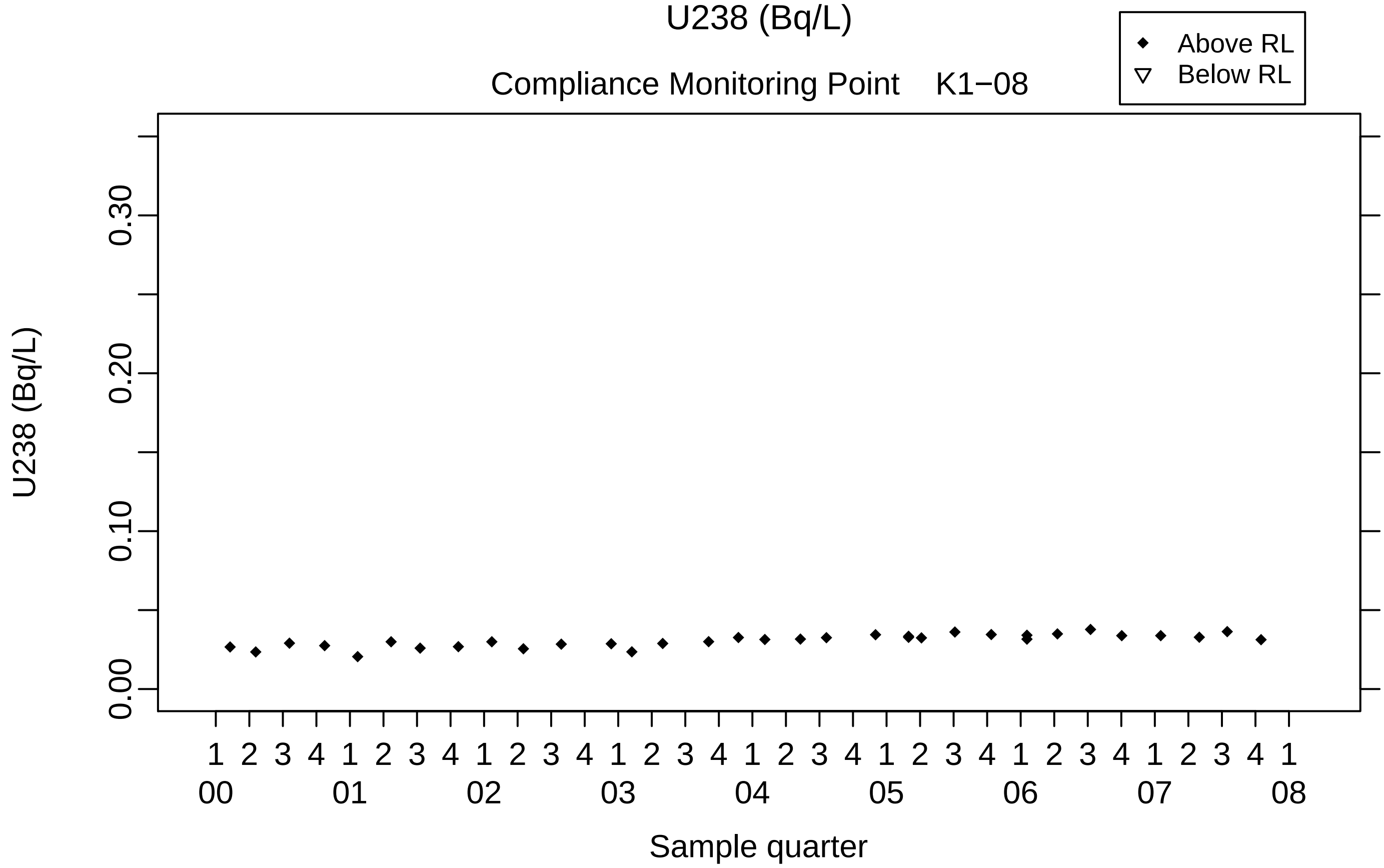


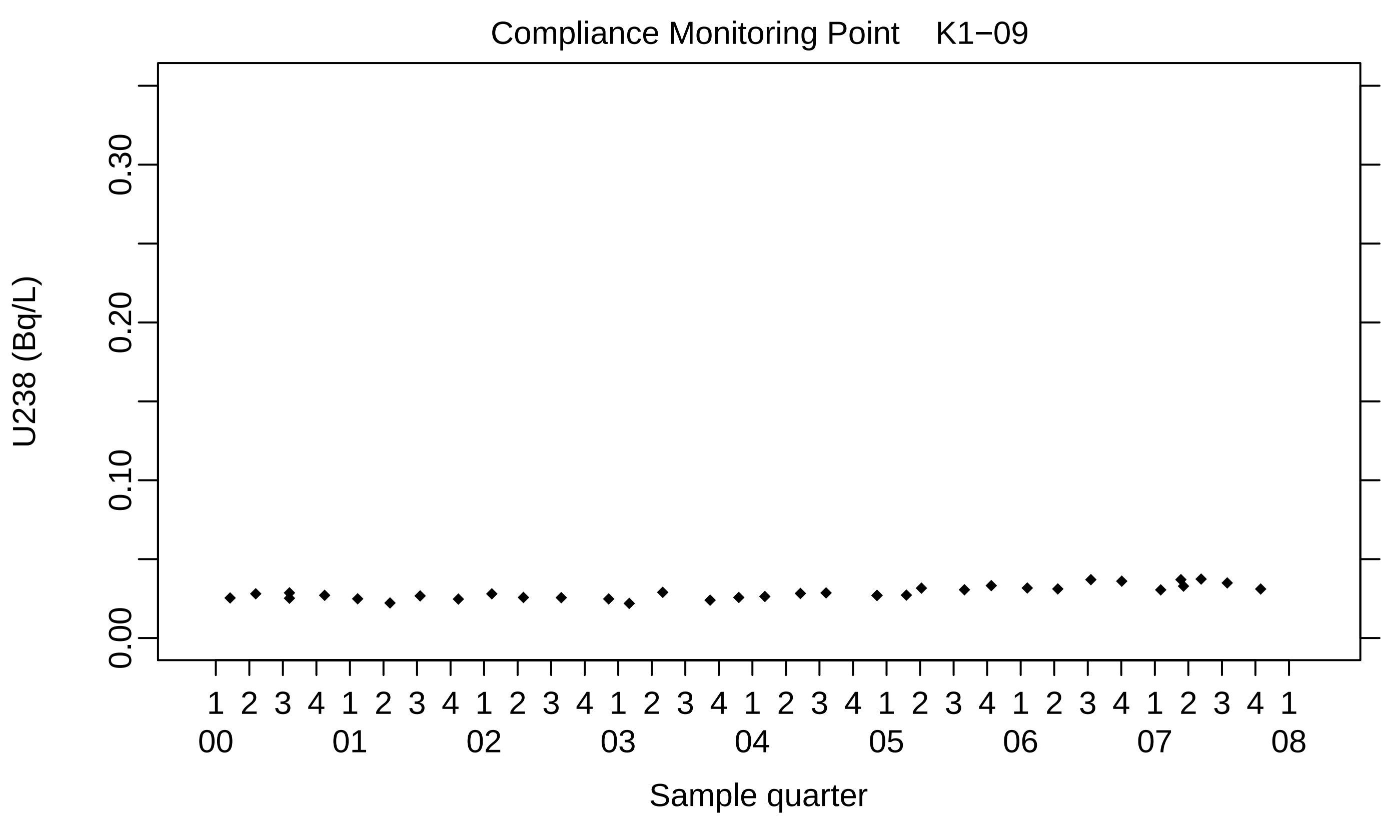
Pit 1 Area
U238 (Bq/L)

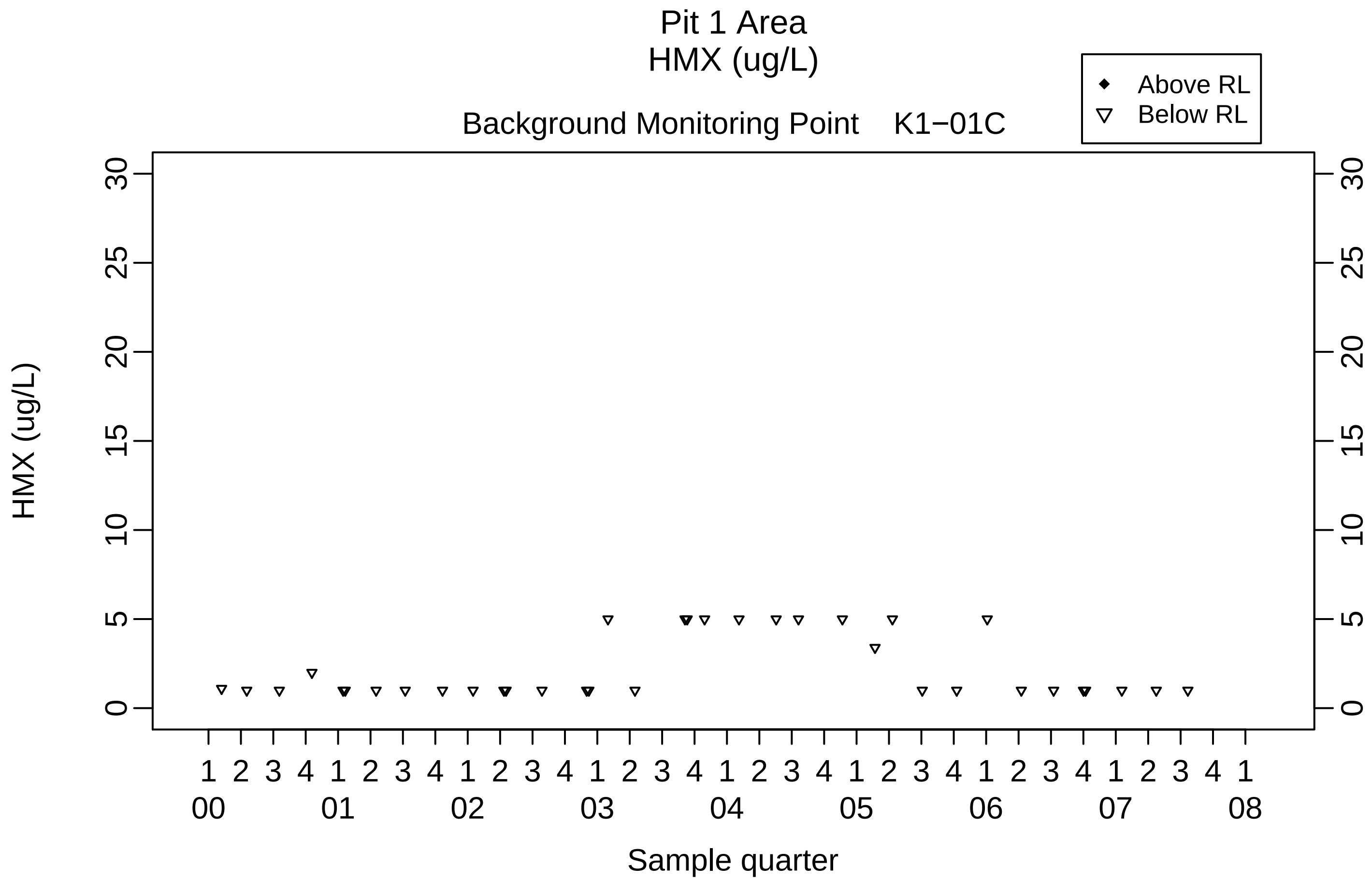


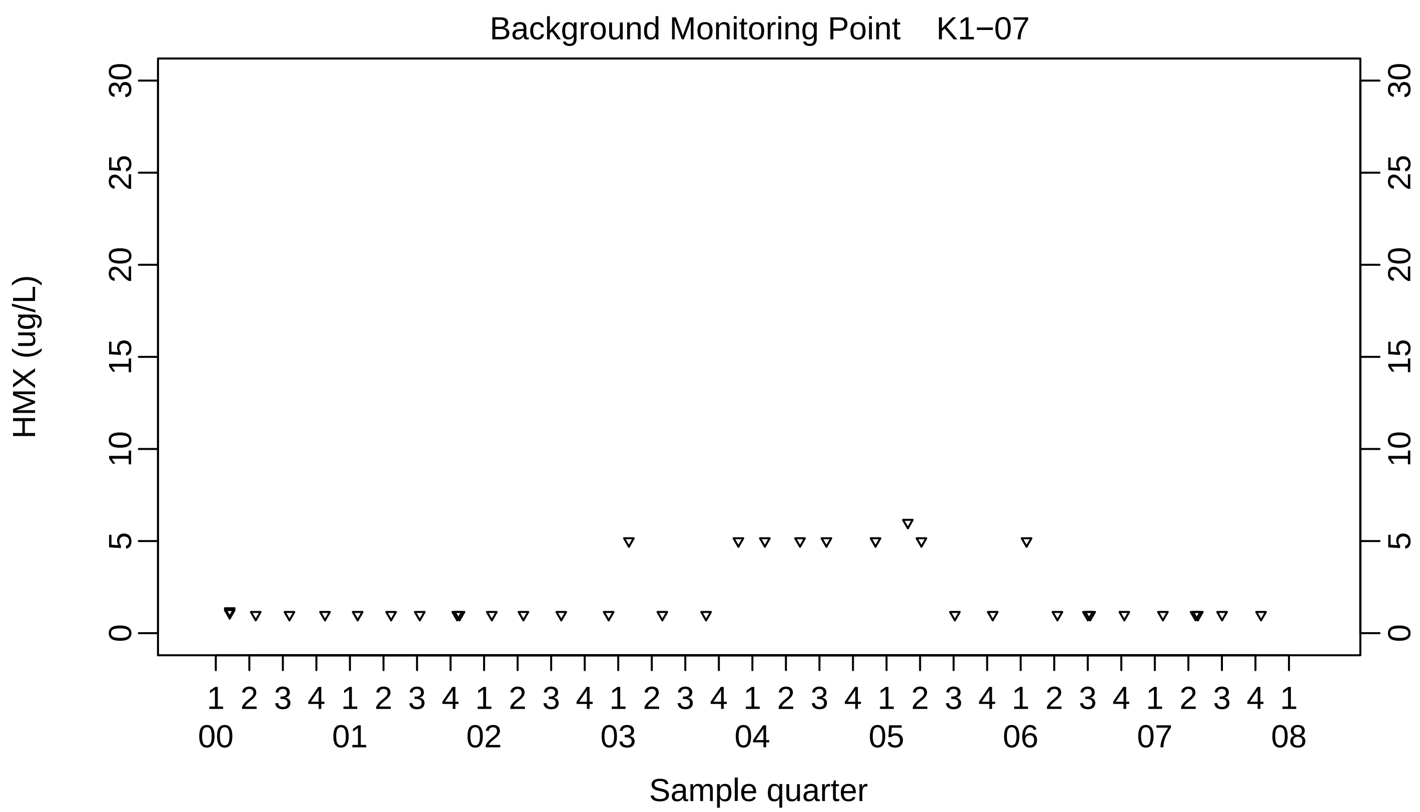


Pit 1 Area
U238 (Bq/L)

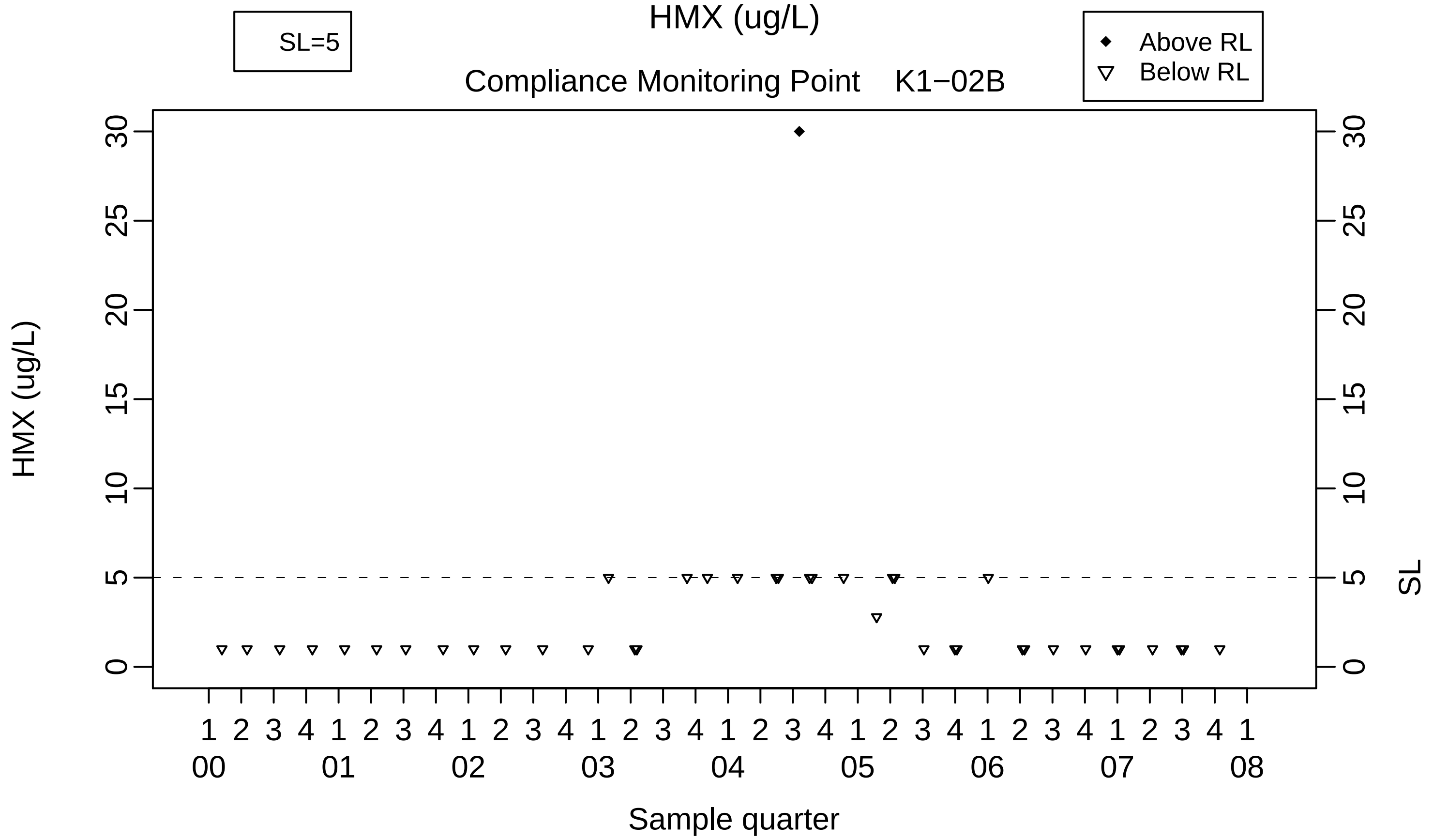


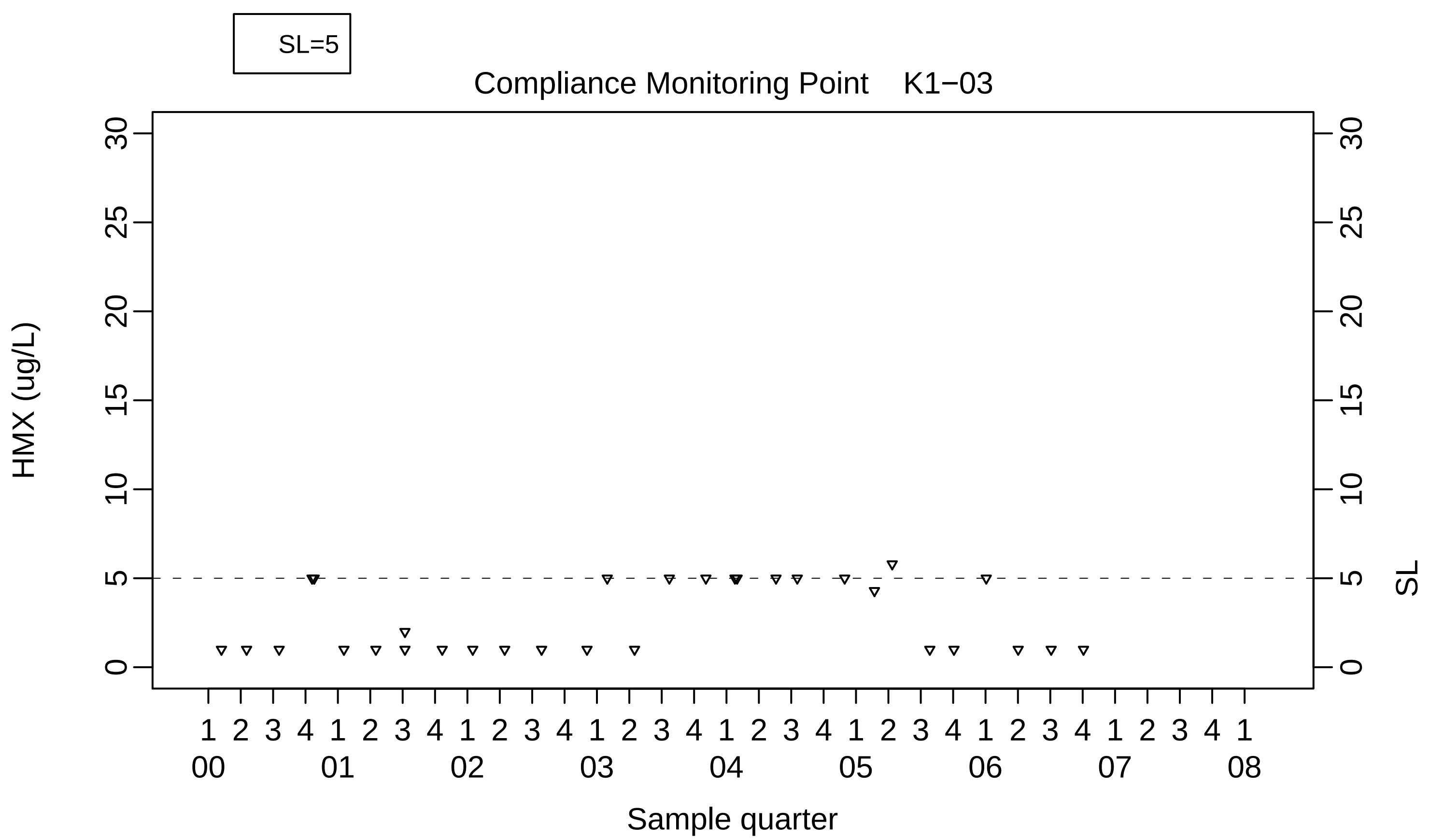



Pit 1 Area
HMX (ug/L)
Above RL
Below RL
Background Monitoring Point K1−01C
HMX (ug/L)
0
5
10
15
20
25
30
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

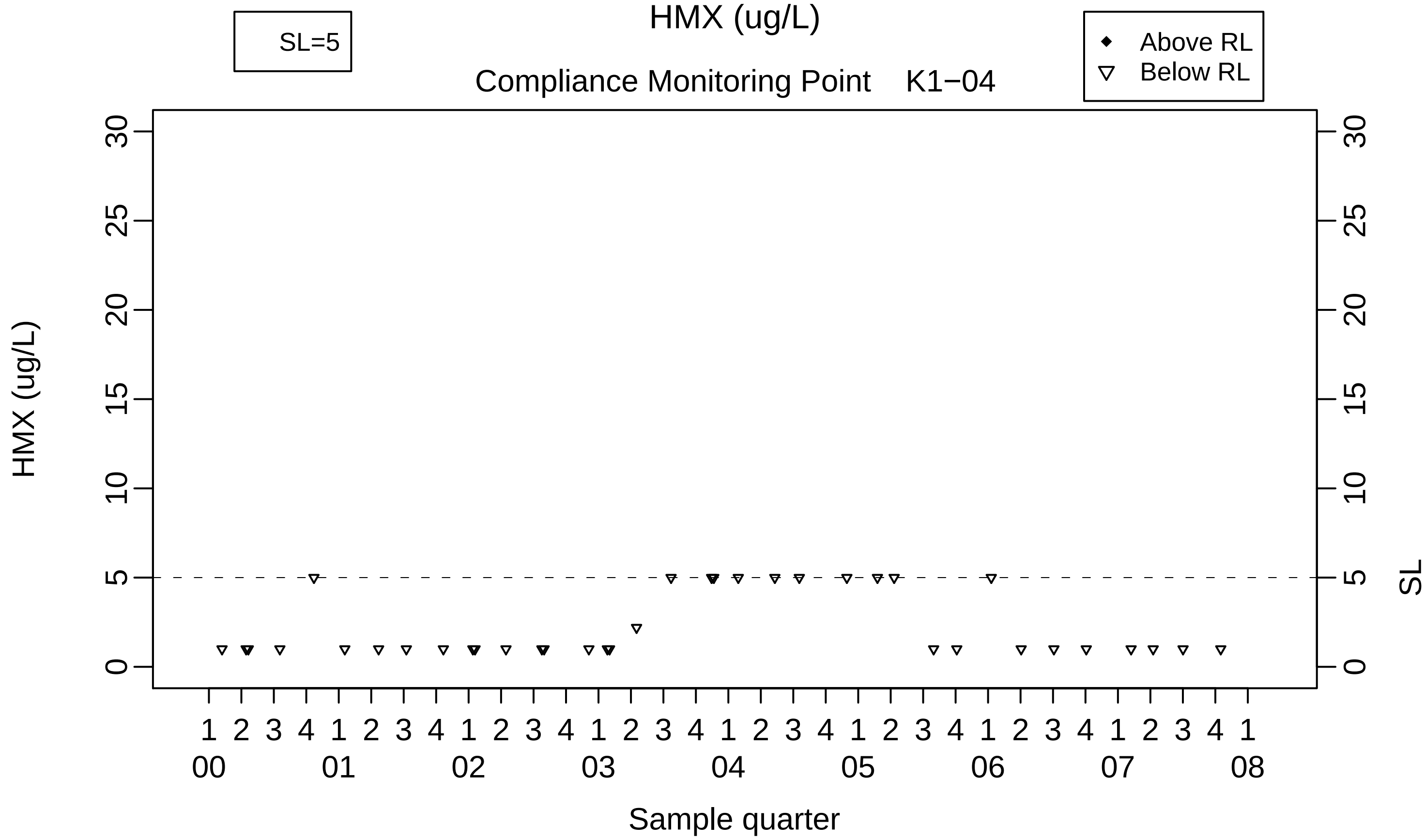

Background Monitoring Point K1−07
HMX (ug/L)
0
5
10
15
20
25
30
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

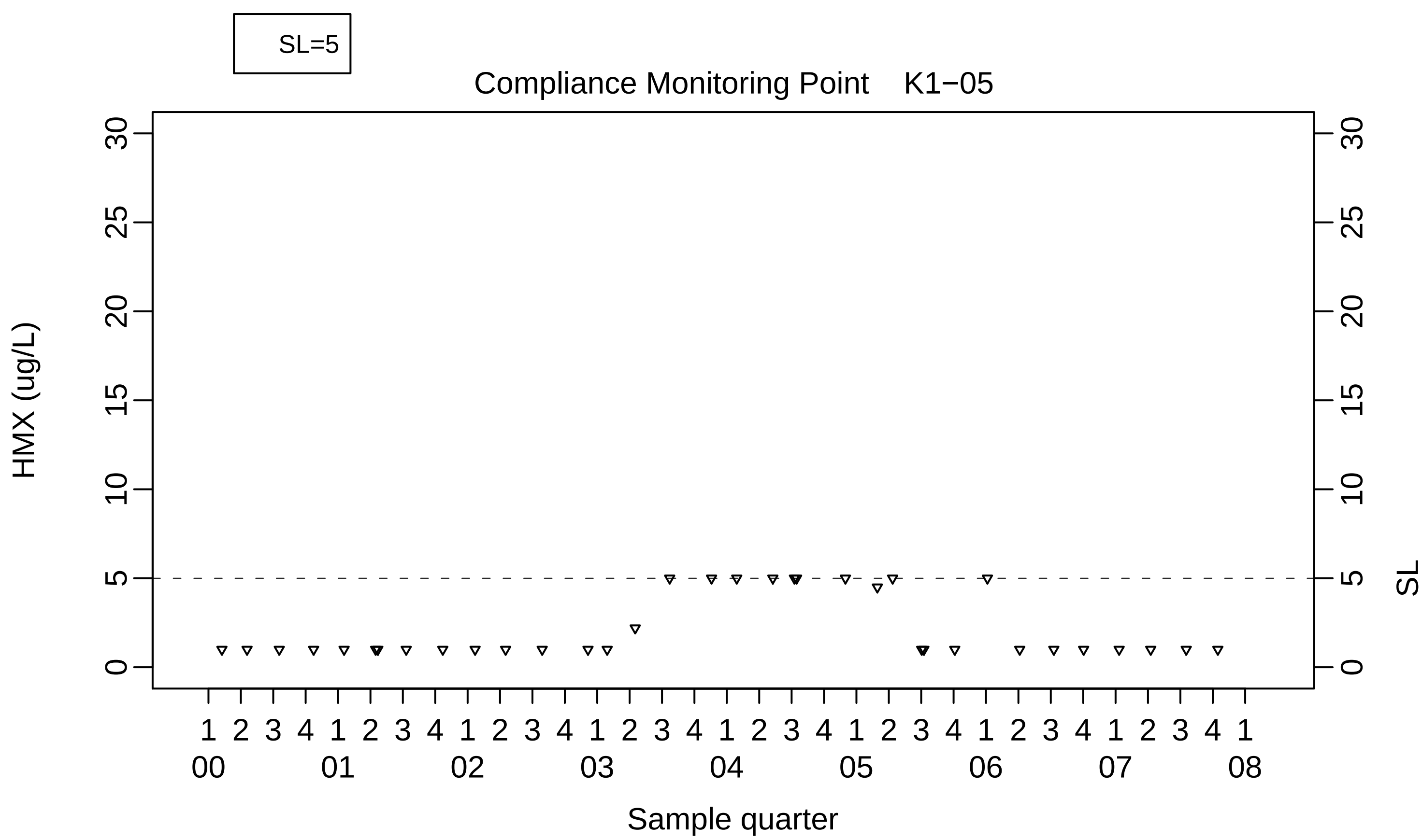
Pit 1 Area
HMX (ug/L)

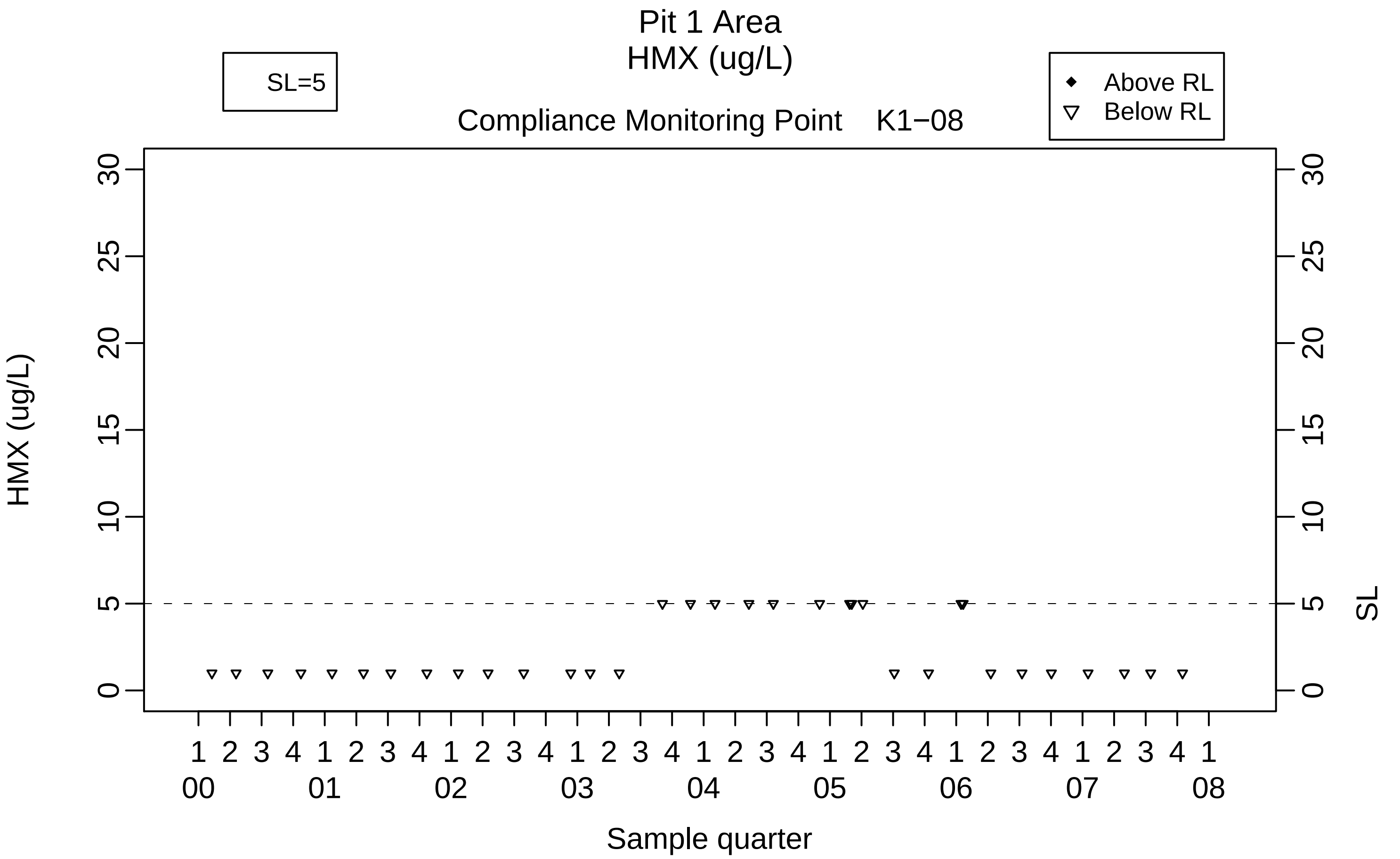


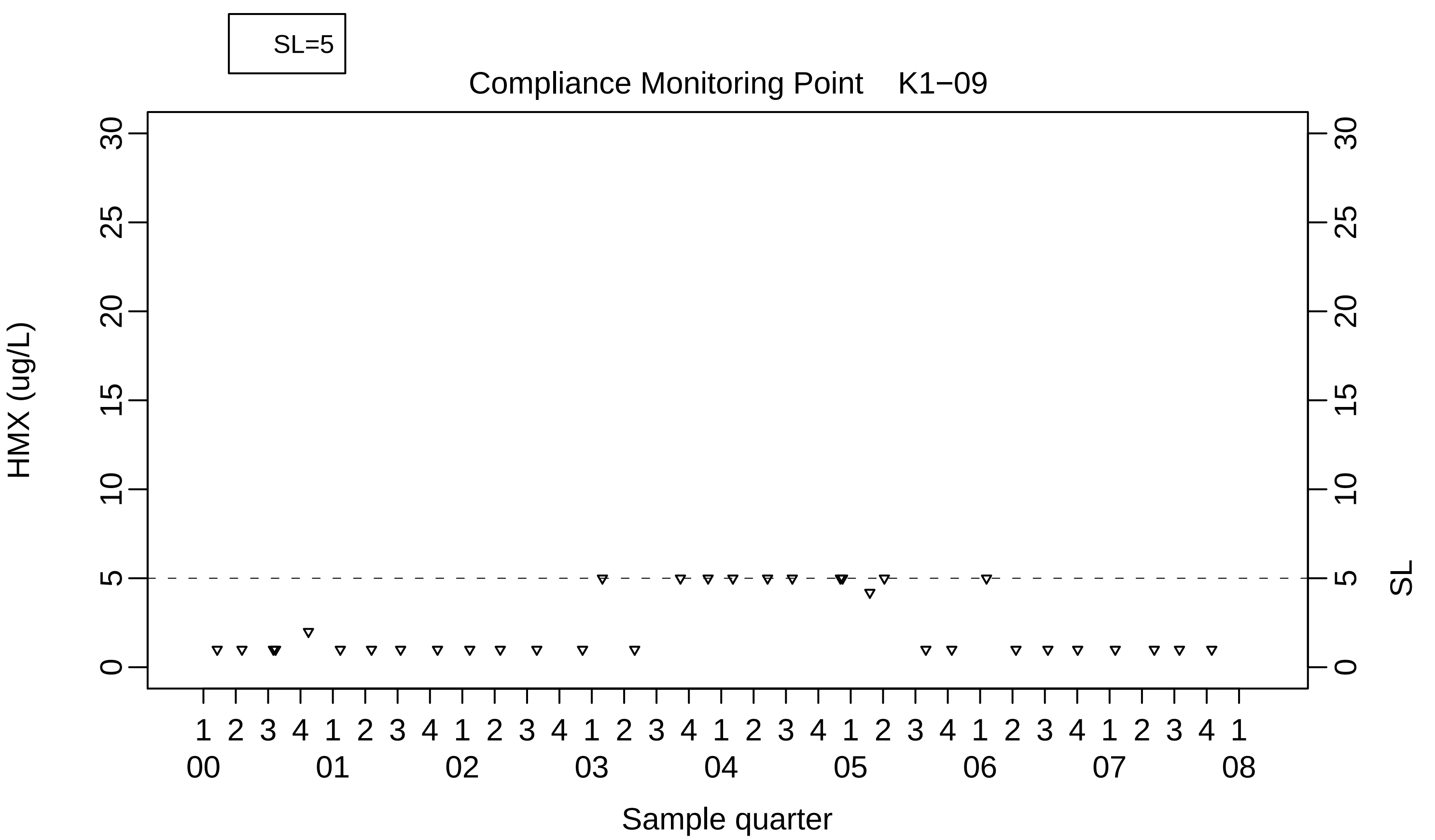


Pit 1 Area
HMX (ug/L)

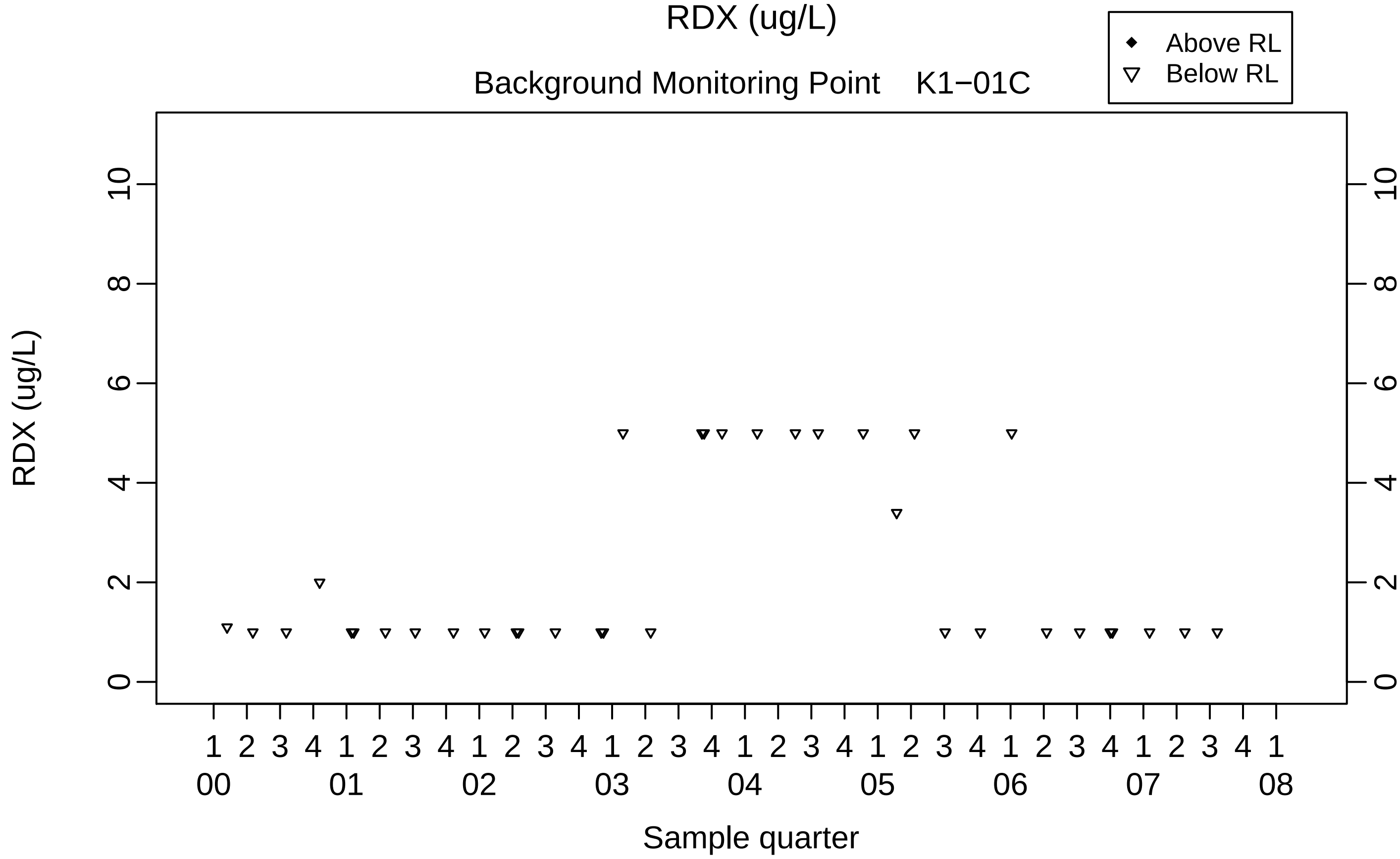


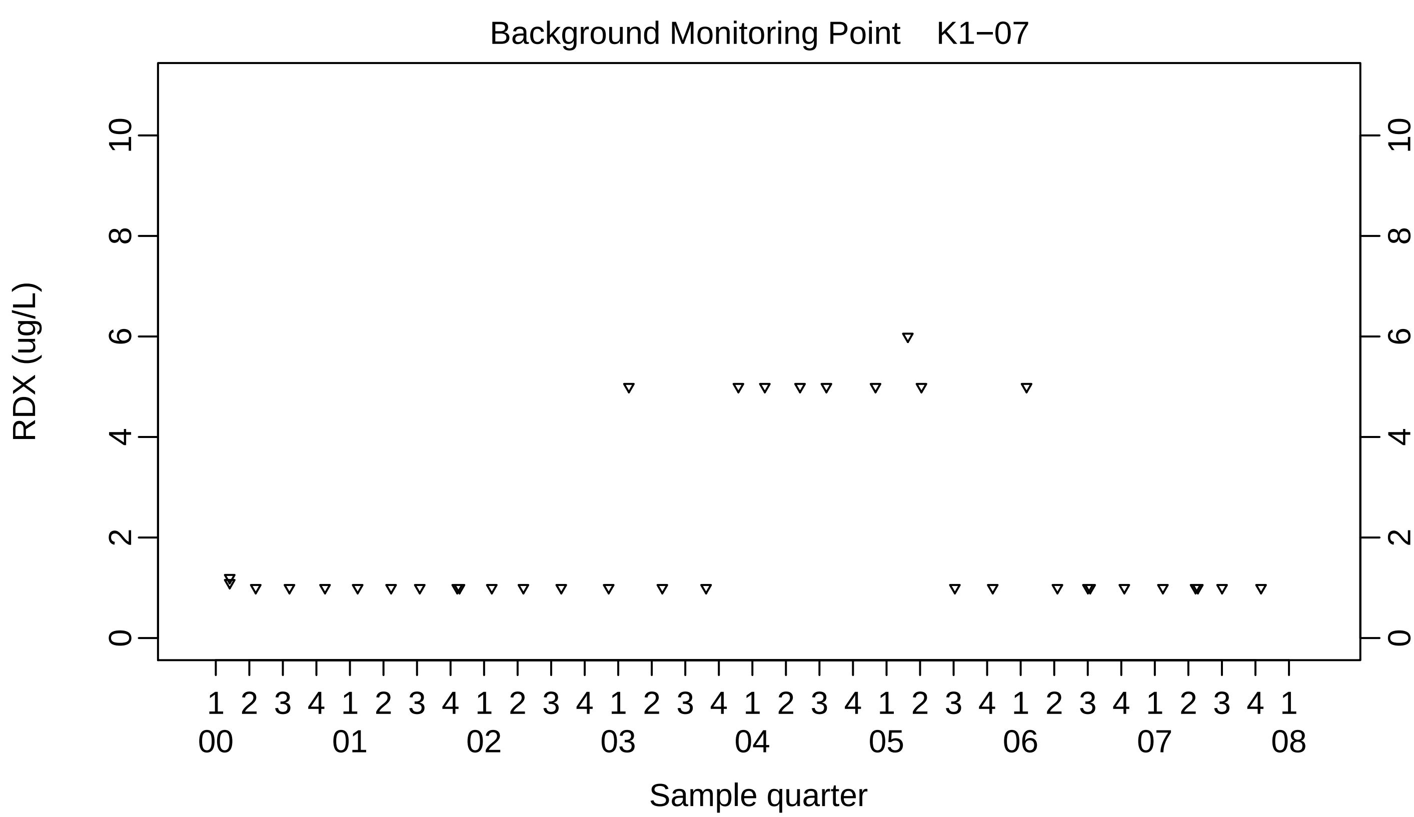


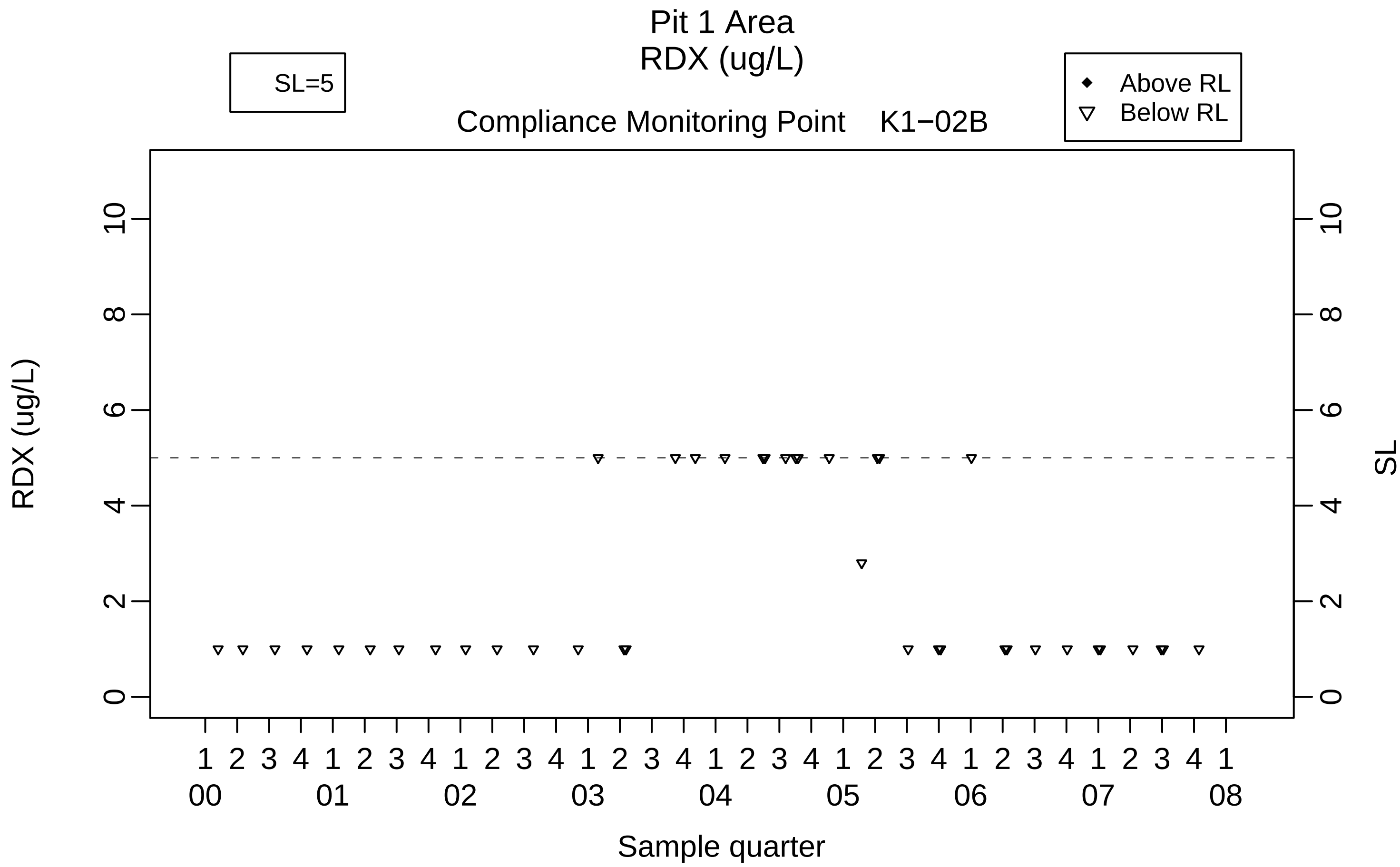

Pit 1 Area
HMX (ug/L)
SL=5
Above RL
Below RL
Compliance Monitoring Point K1−08
HMX (ug/L)
SL
Sample quarter

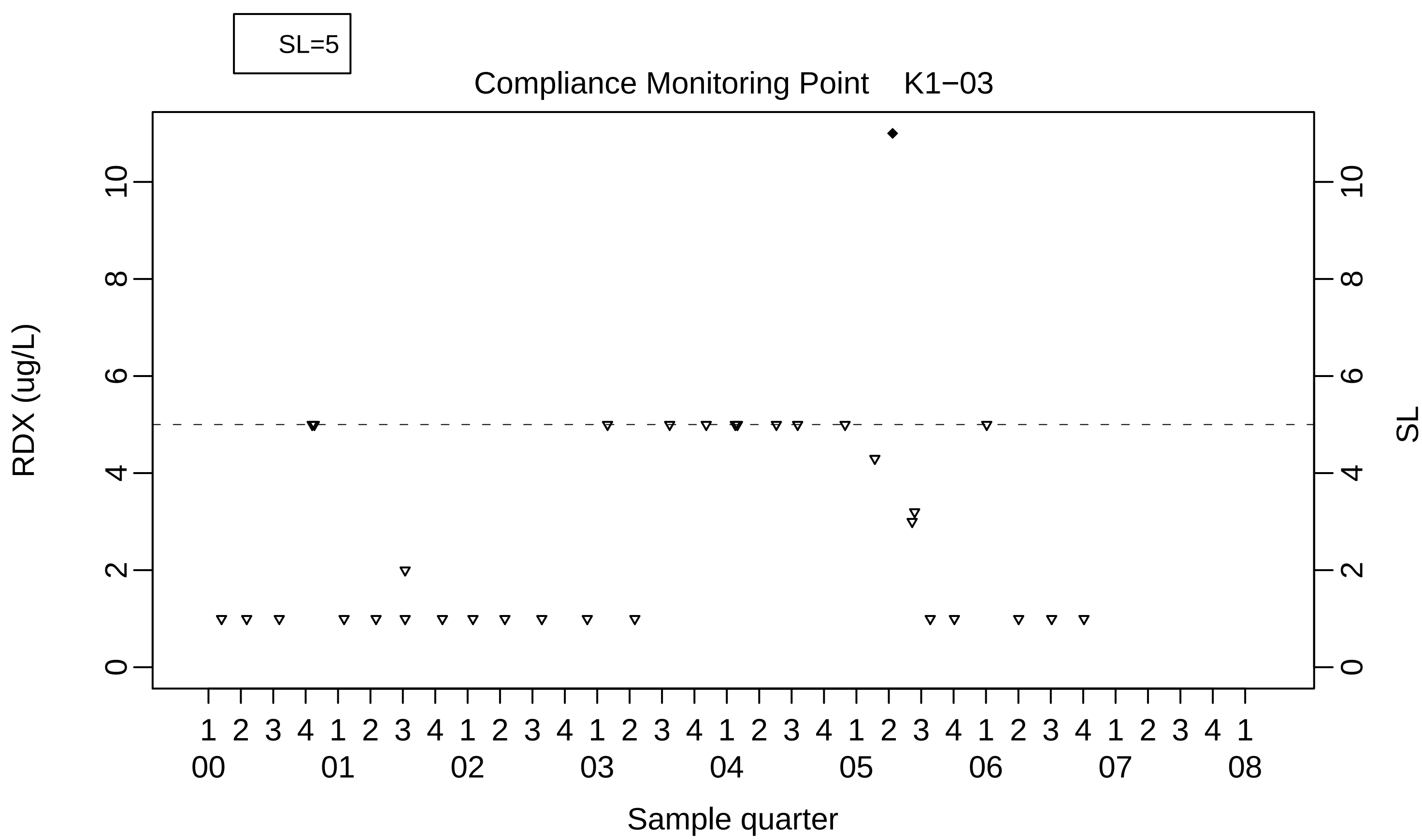

SL=5
Compliance Monitoring Point K1−09
HMX (ug/L)
SL
Sample quarter

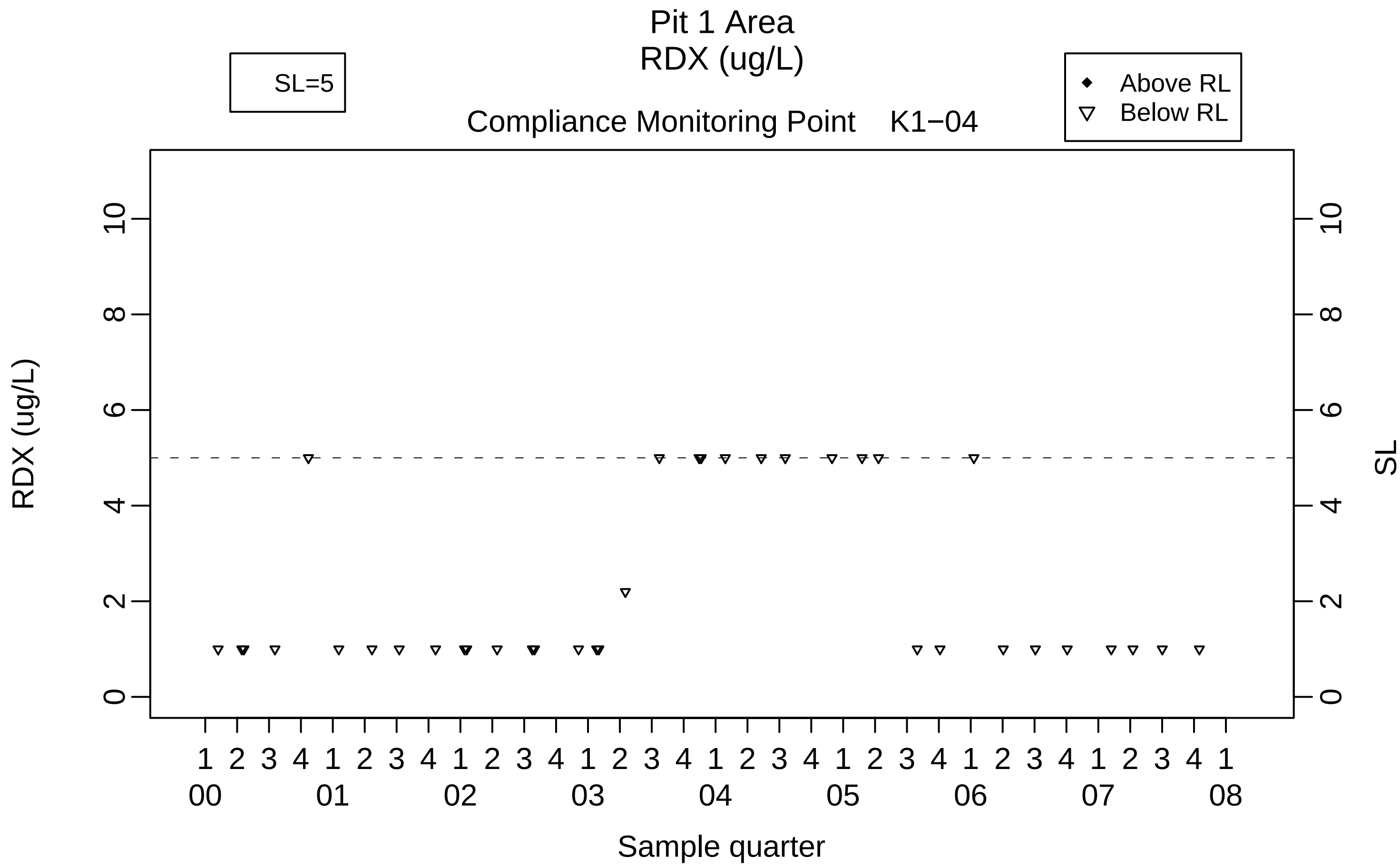
Pit 1 Area
RDX (ug/L)

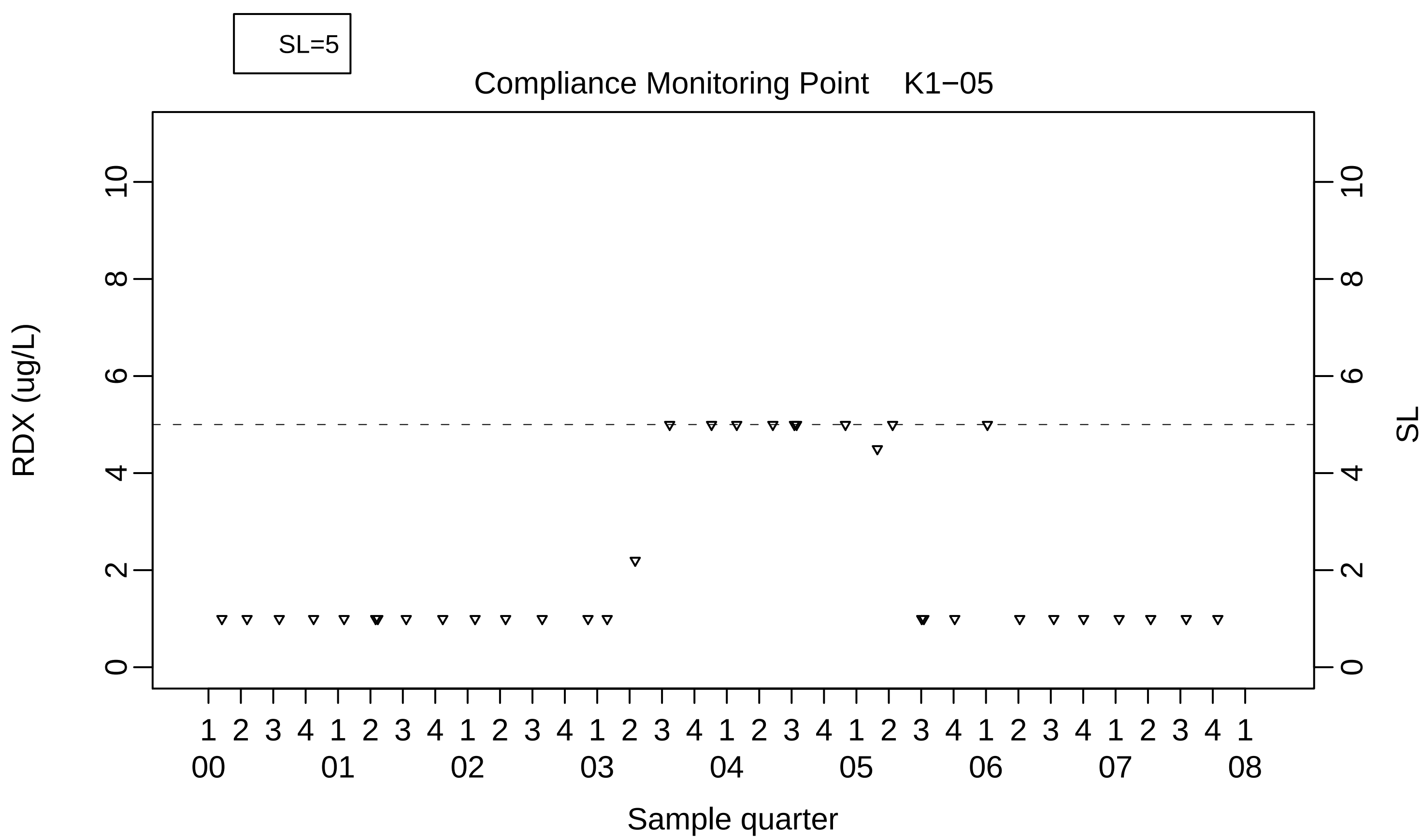




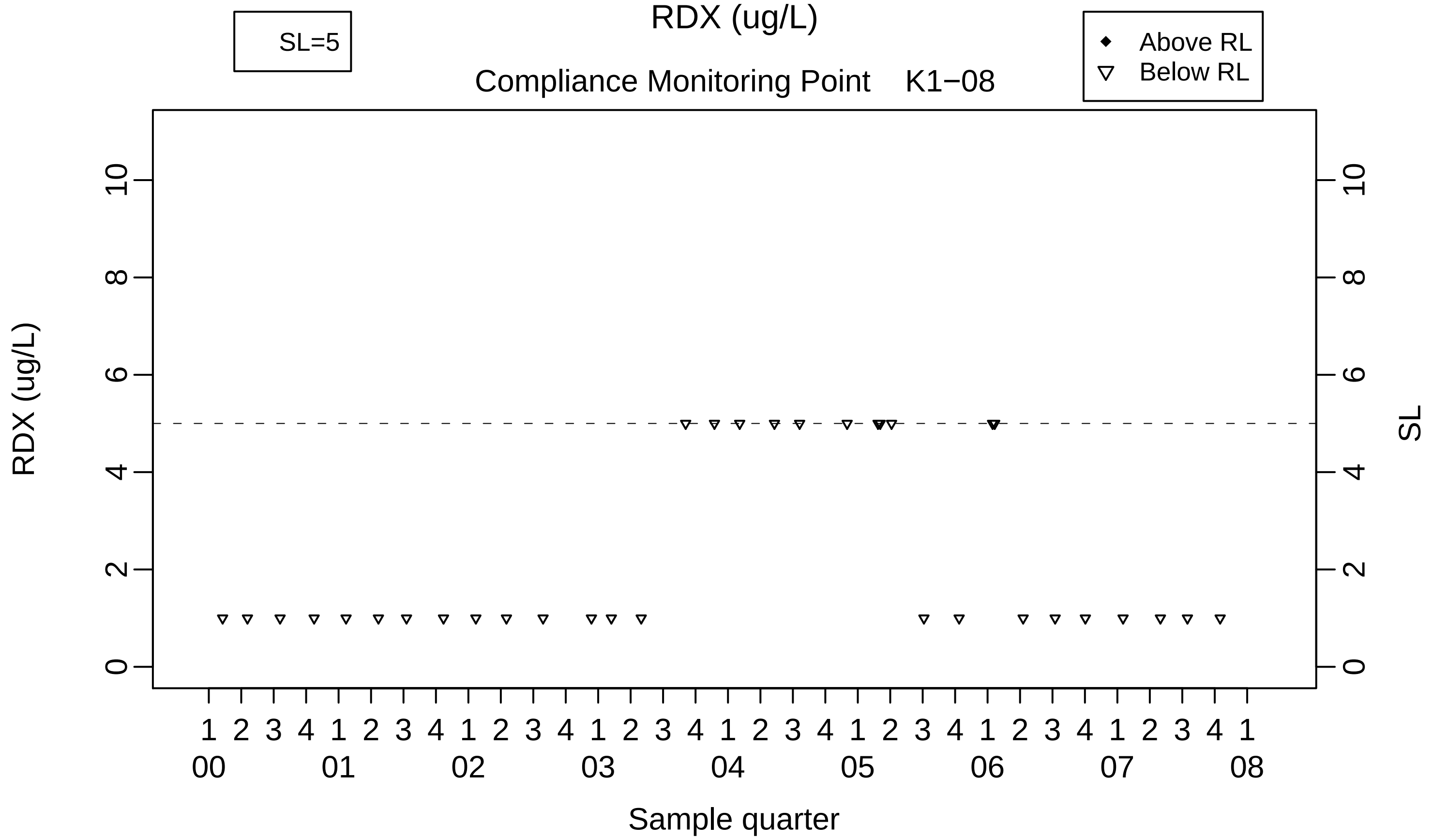

Pit 1 Area
RDX (ug/L)
SL=5
Above RL
Below RL
Compliance Monitoring Point K1−02B
RDX (ug/L)
SL
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

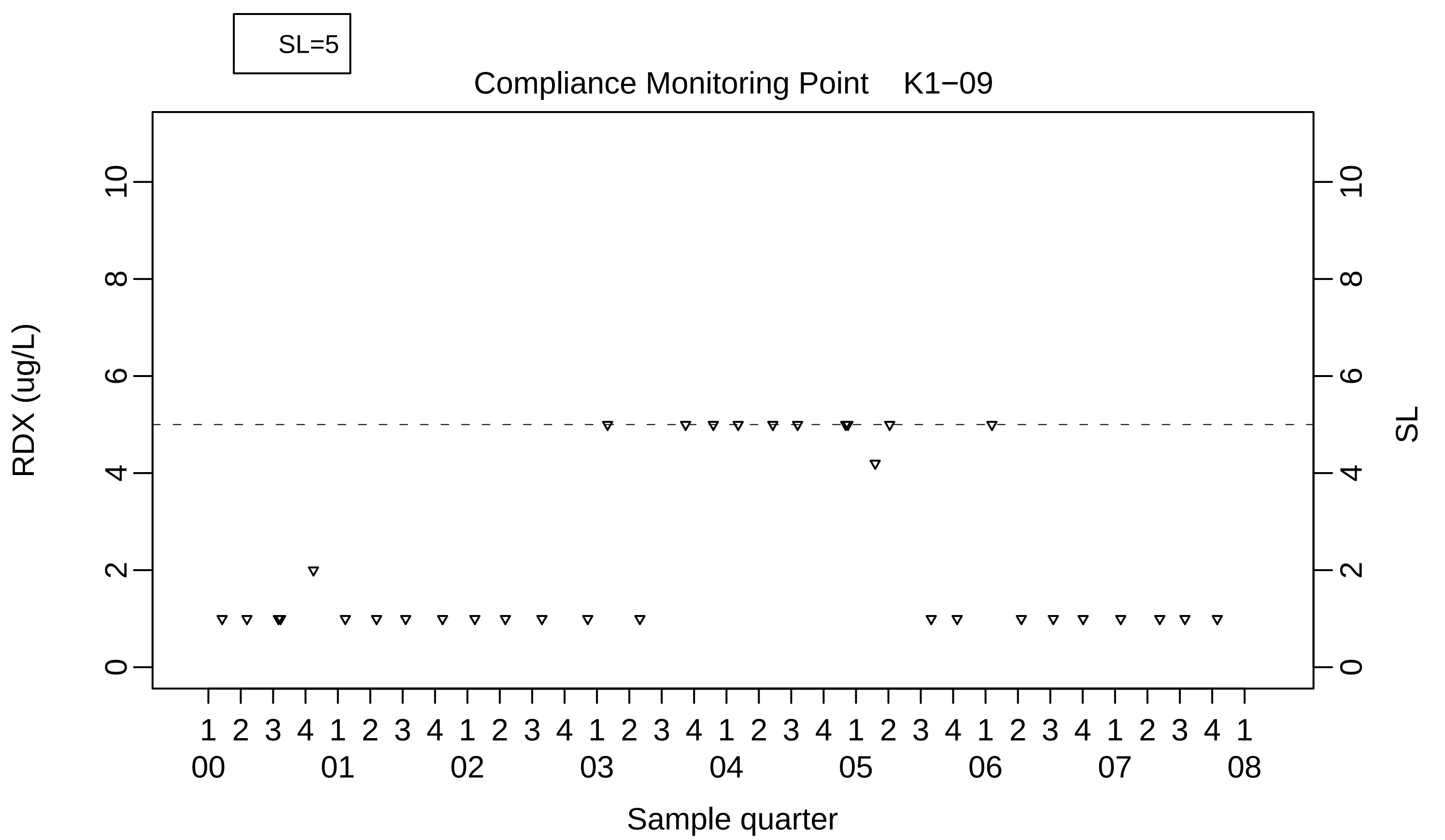

SL=5
Compliance Monitoring Point K1−03
RDX (ug/L)
SL
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 1 Area
RDX (ug/L)
SL=5
Above RL
Below RL
Compliance Monitoring Point K1−04
RDX (ug/L)
SL
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

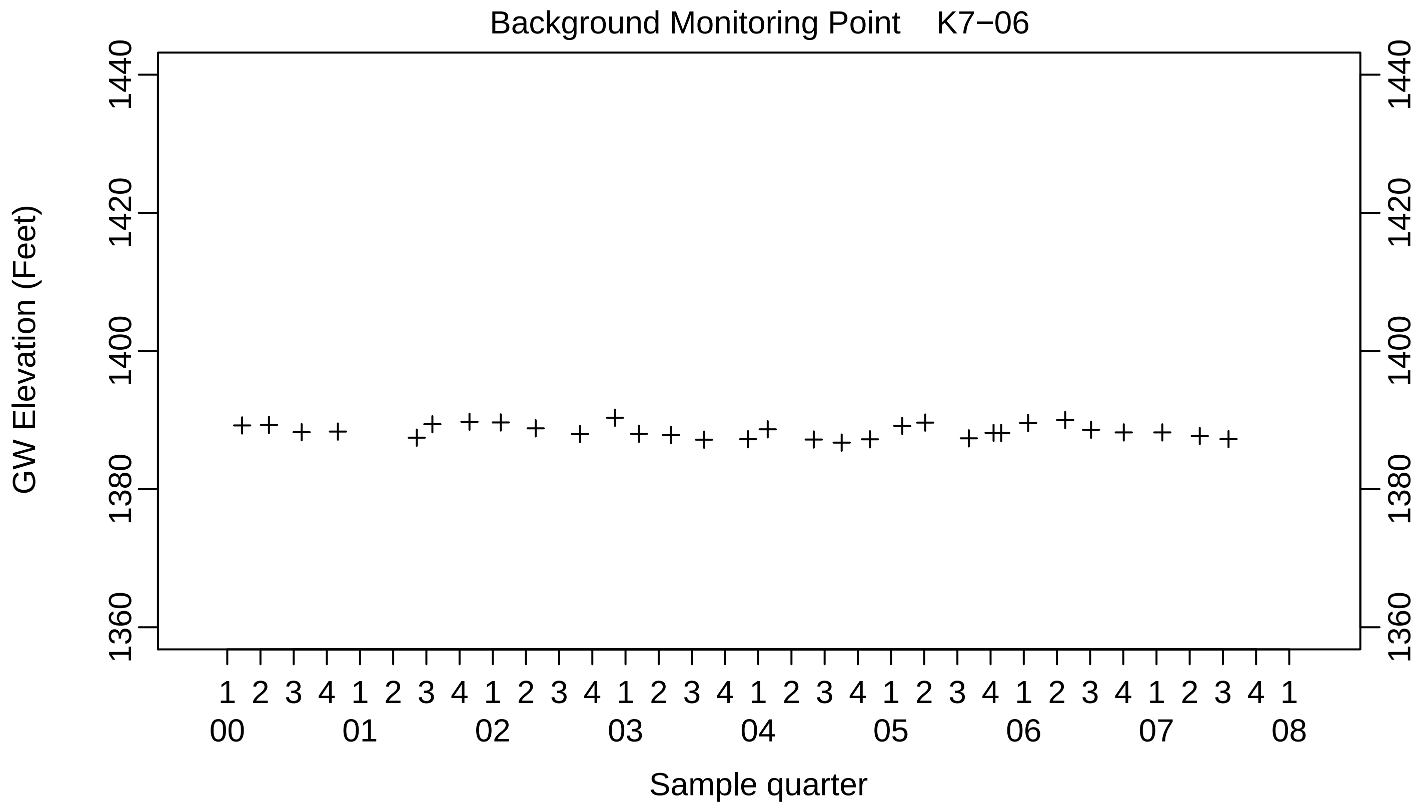

SL=5
Compliance Monitoring Point K1−05
RDX (ug/L)
SL
0
2
4
6
8
10
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

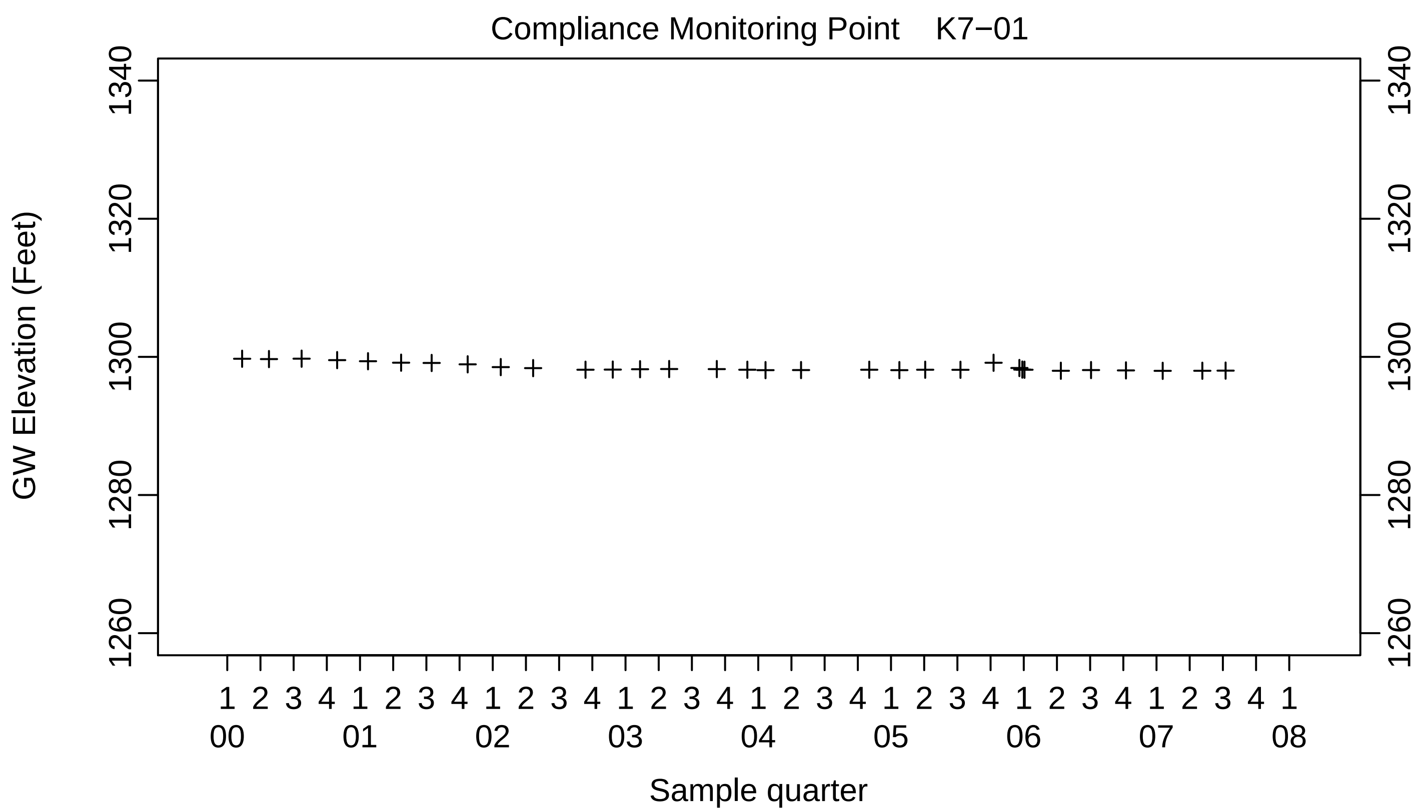
Pit 1 Area
RDX (ug/L)



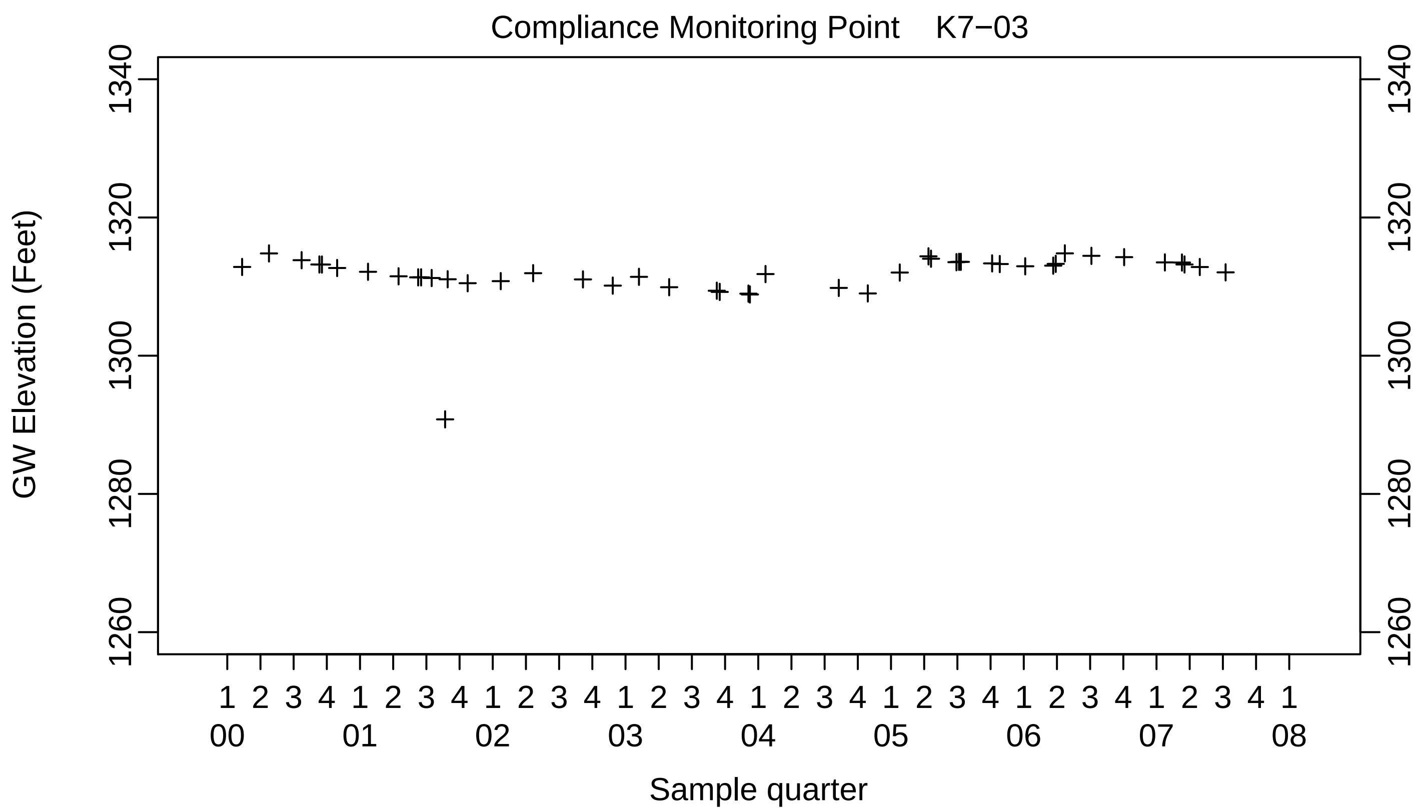


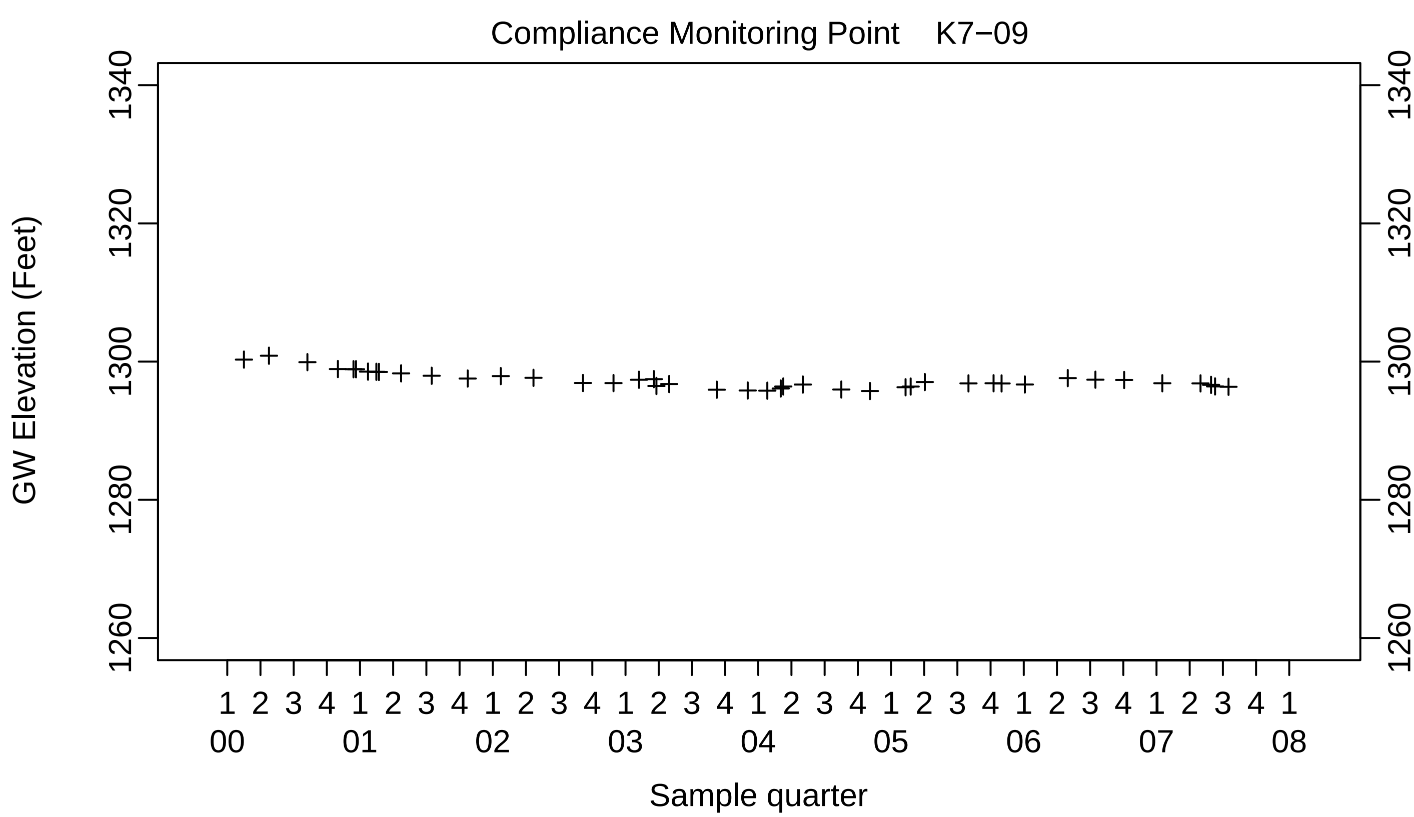
Pit 7 Complex
GW Elevation (Feet)



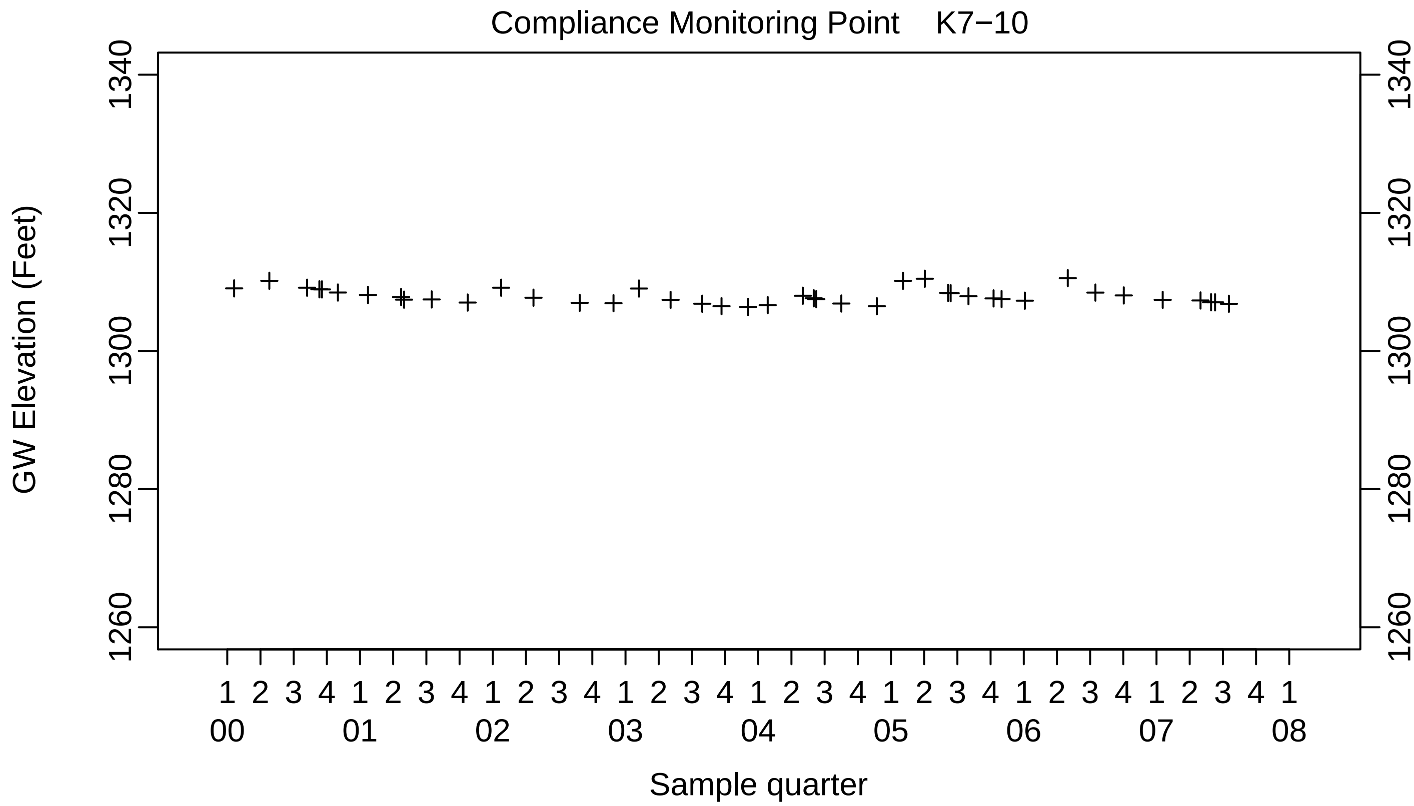


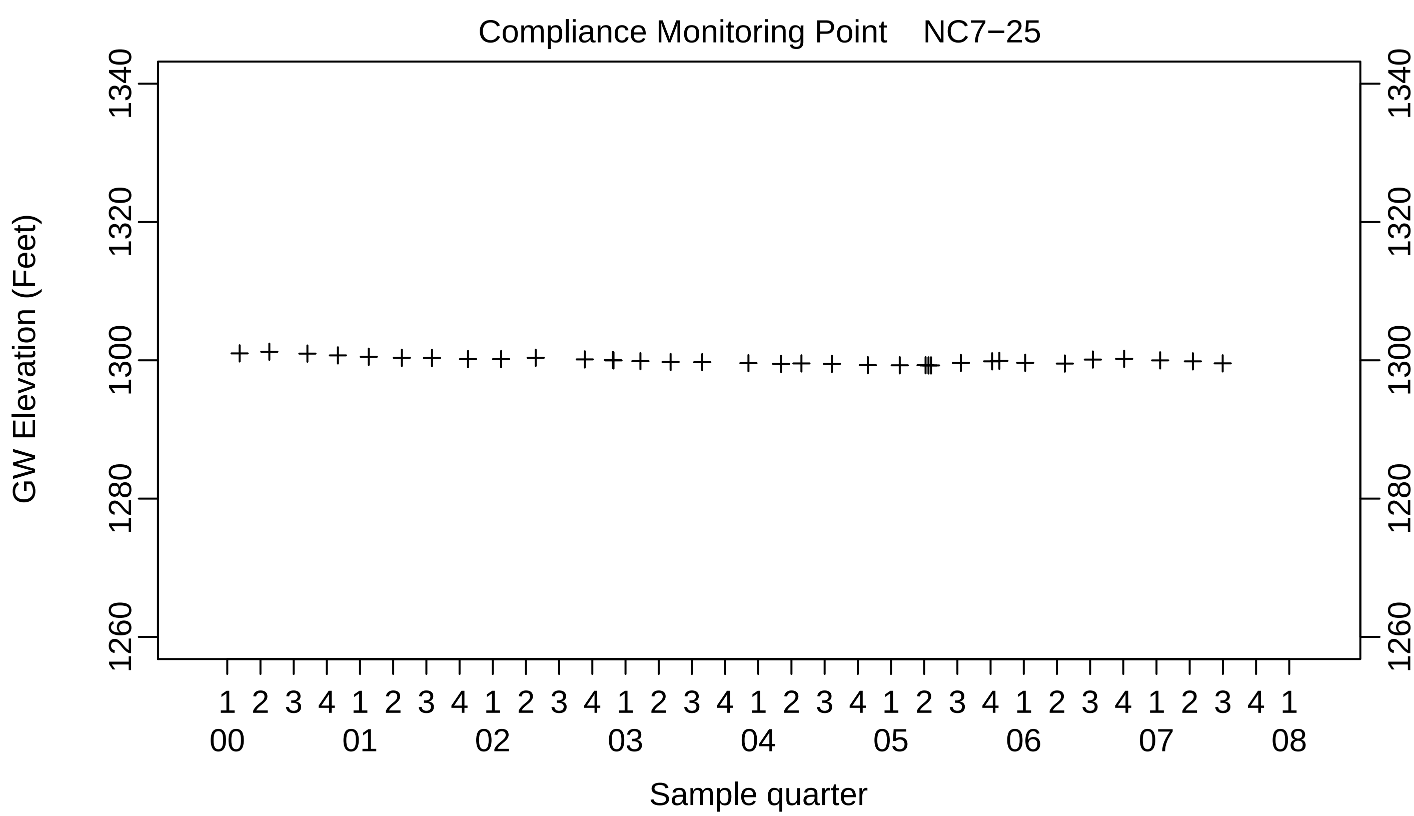
Pit 7 Complex
GW Elevation (Feet)



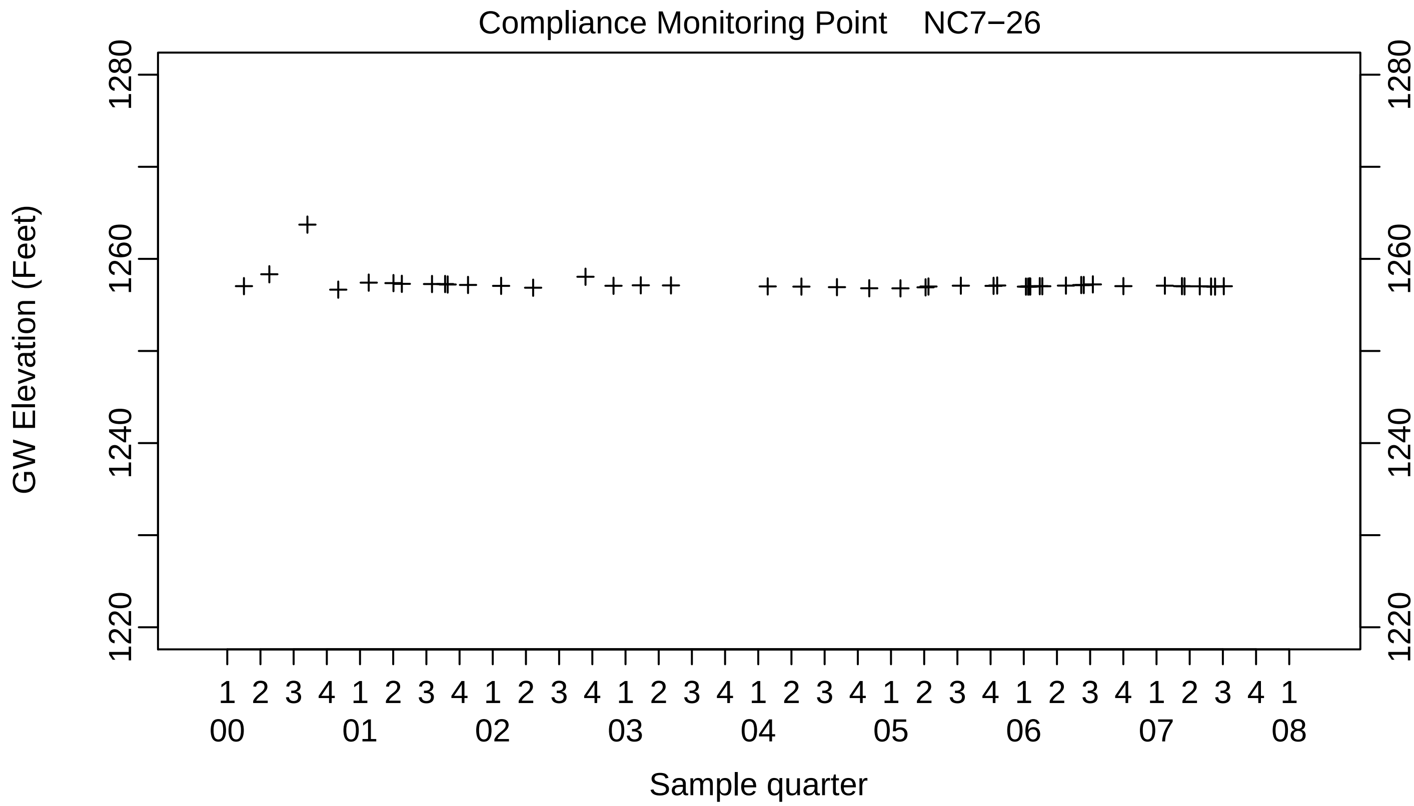


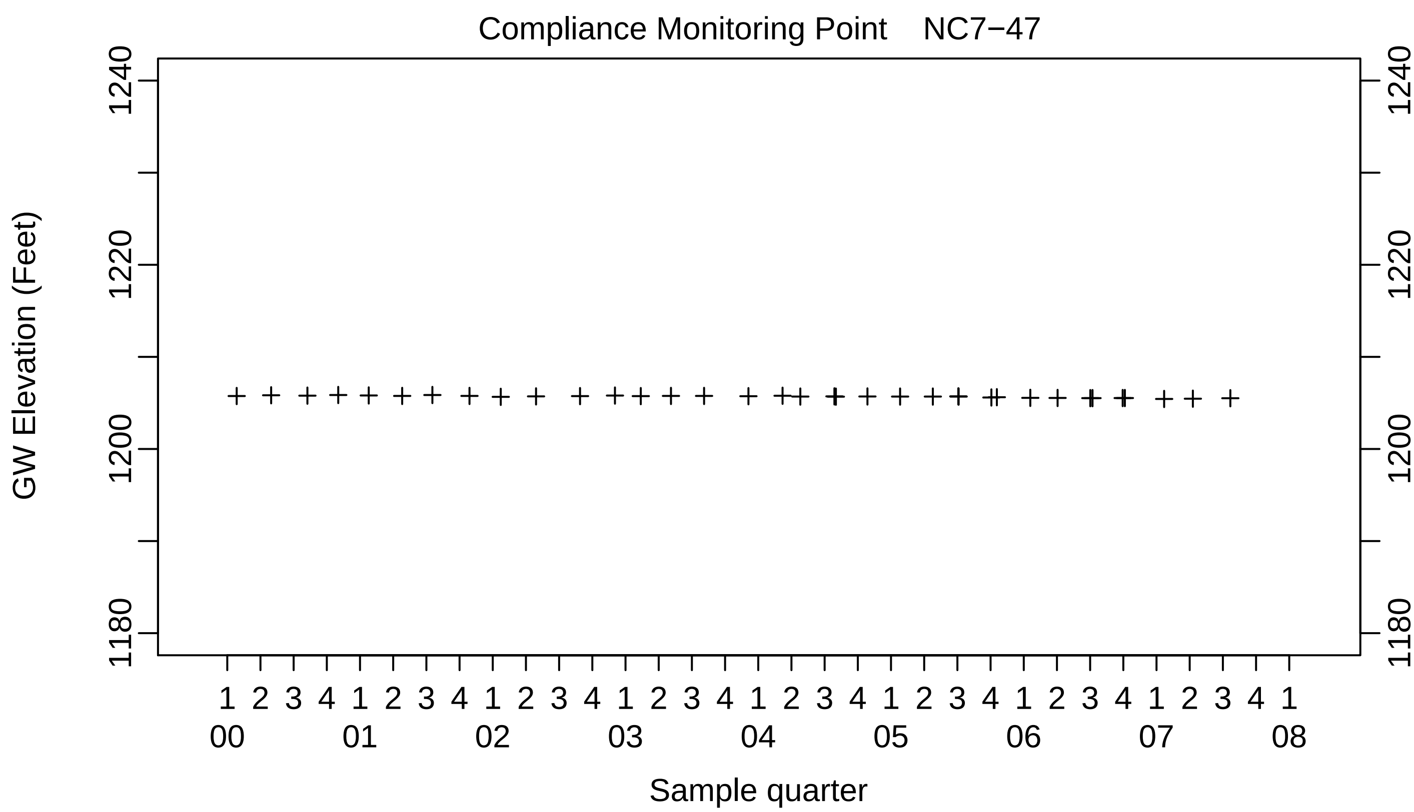
Pit 7 Complex
GW Elevation (Feet)

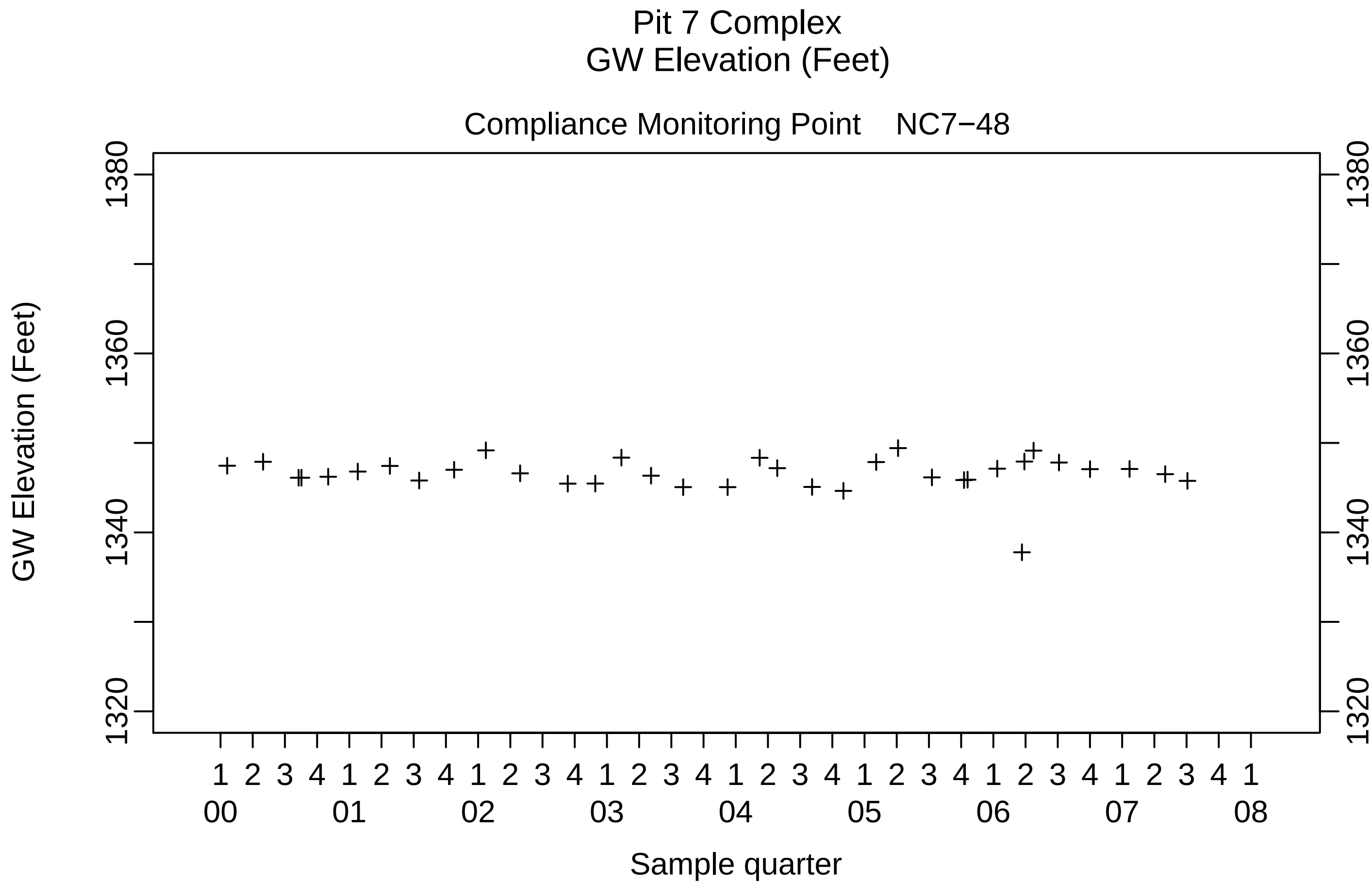




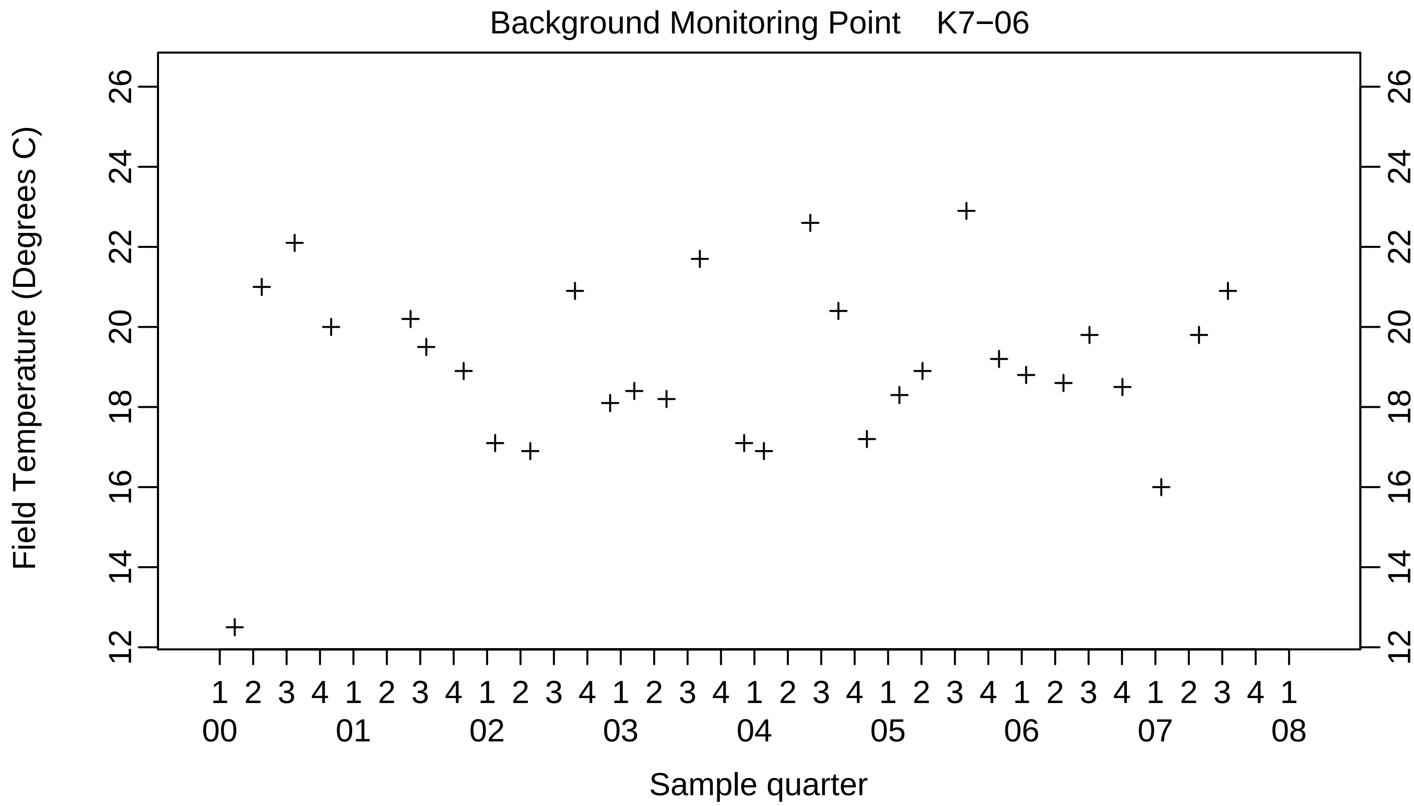
Pit 7 Complex
GW Elevation (Feet)

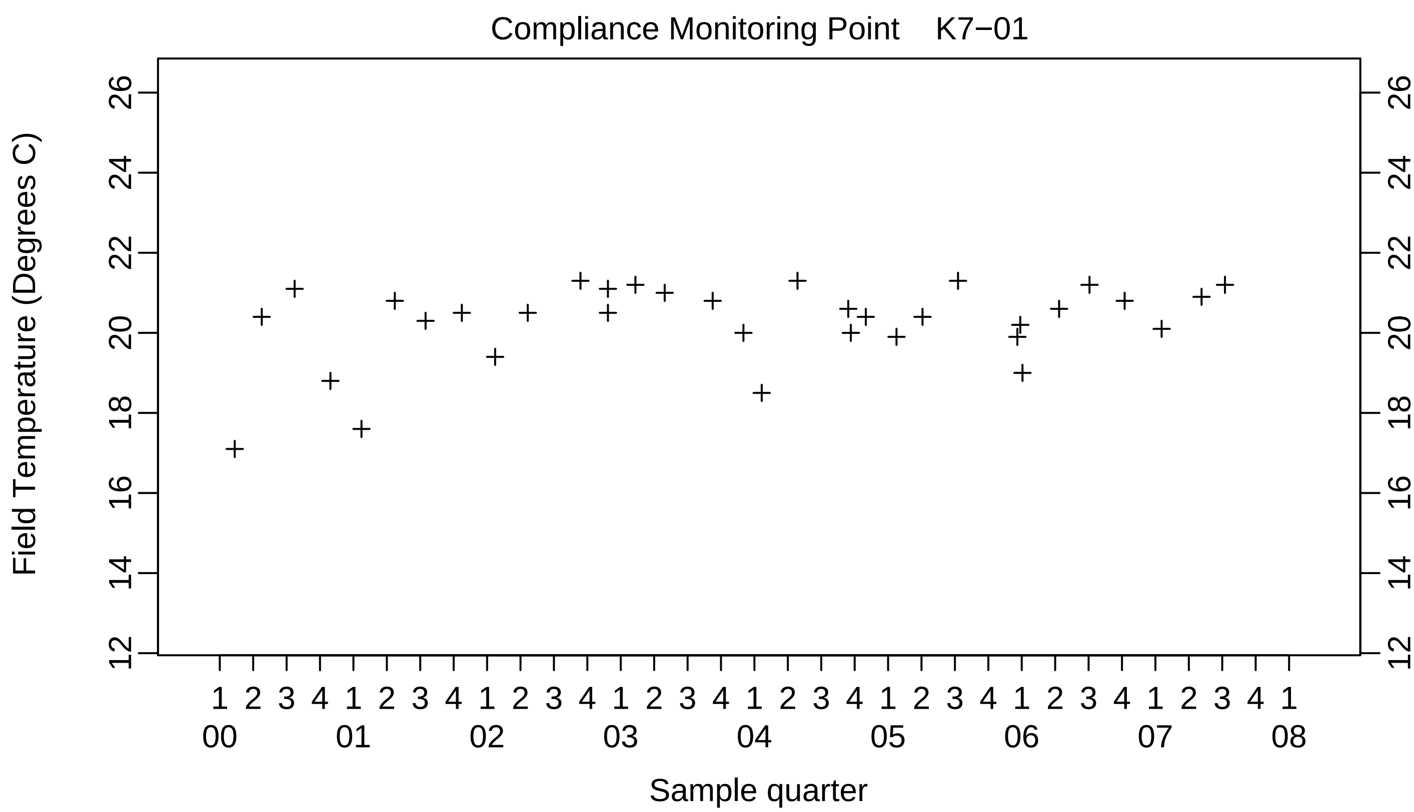




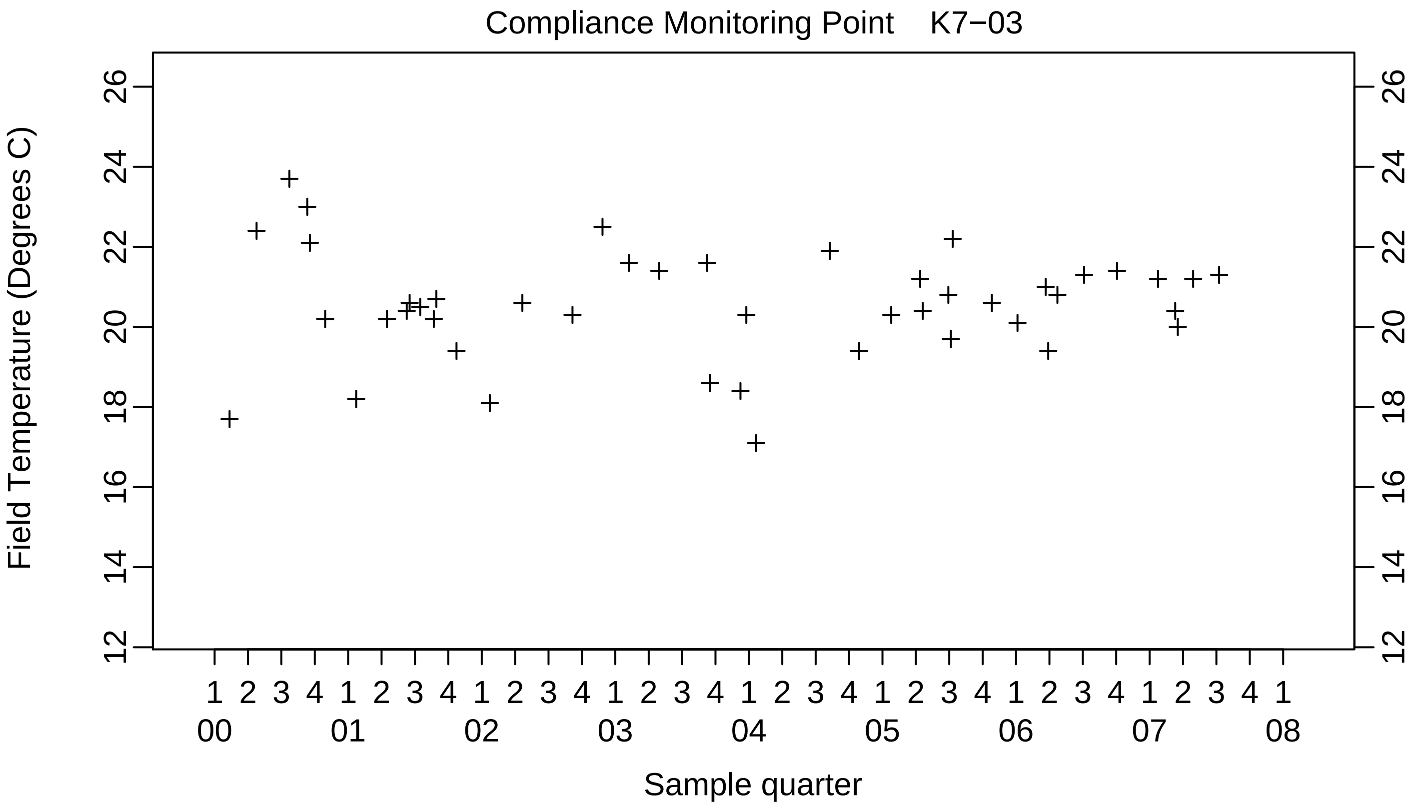

Pit 7 Complex
GW Elevation (Feet)
Compliance Monitoring Point NC7−48
GW Elevation (Feet)
1320
1340
1360
1380
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

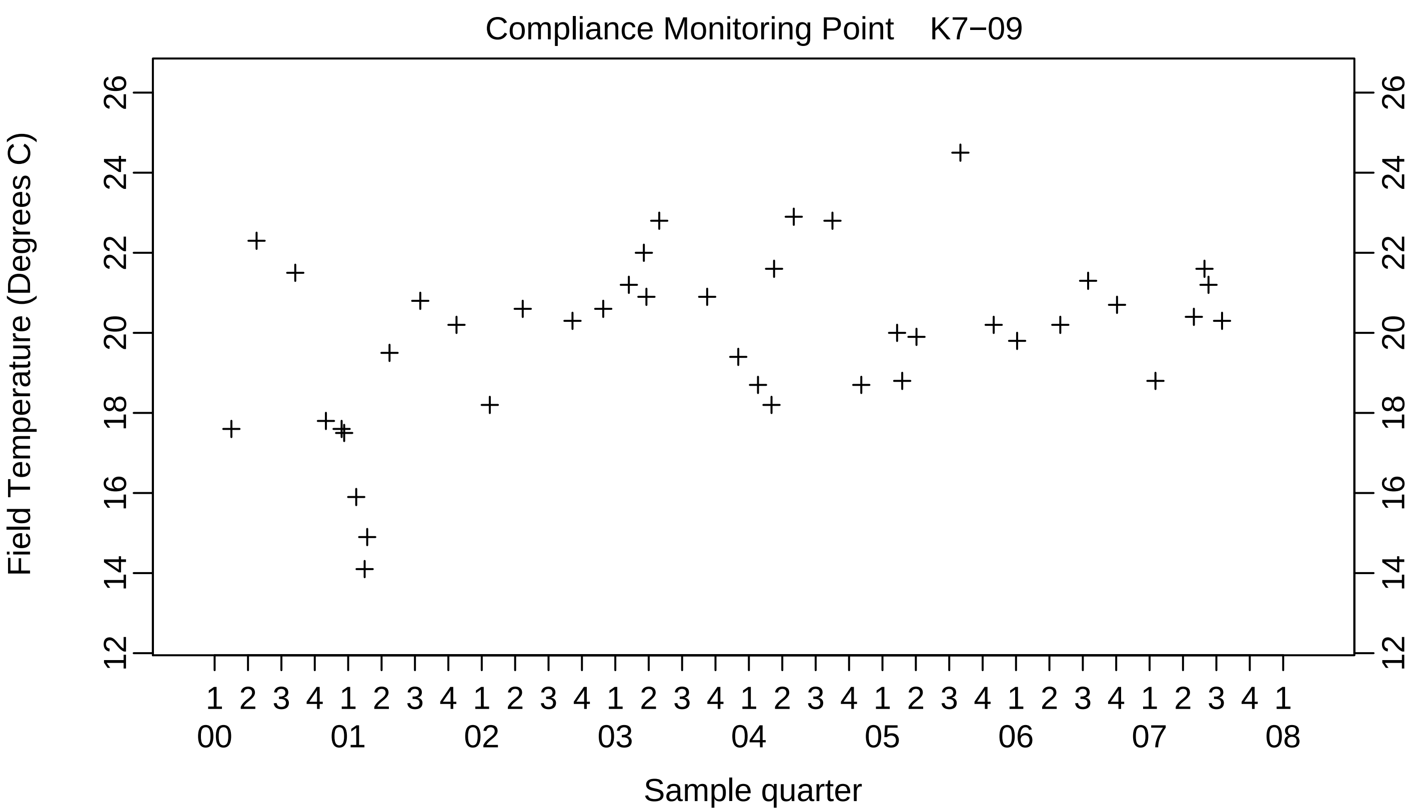
Pit 7 Complex
Field Temperature (Degrees C)



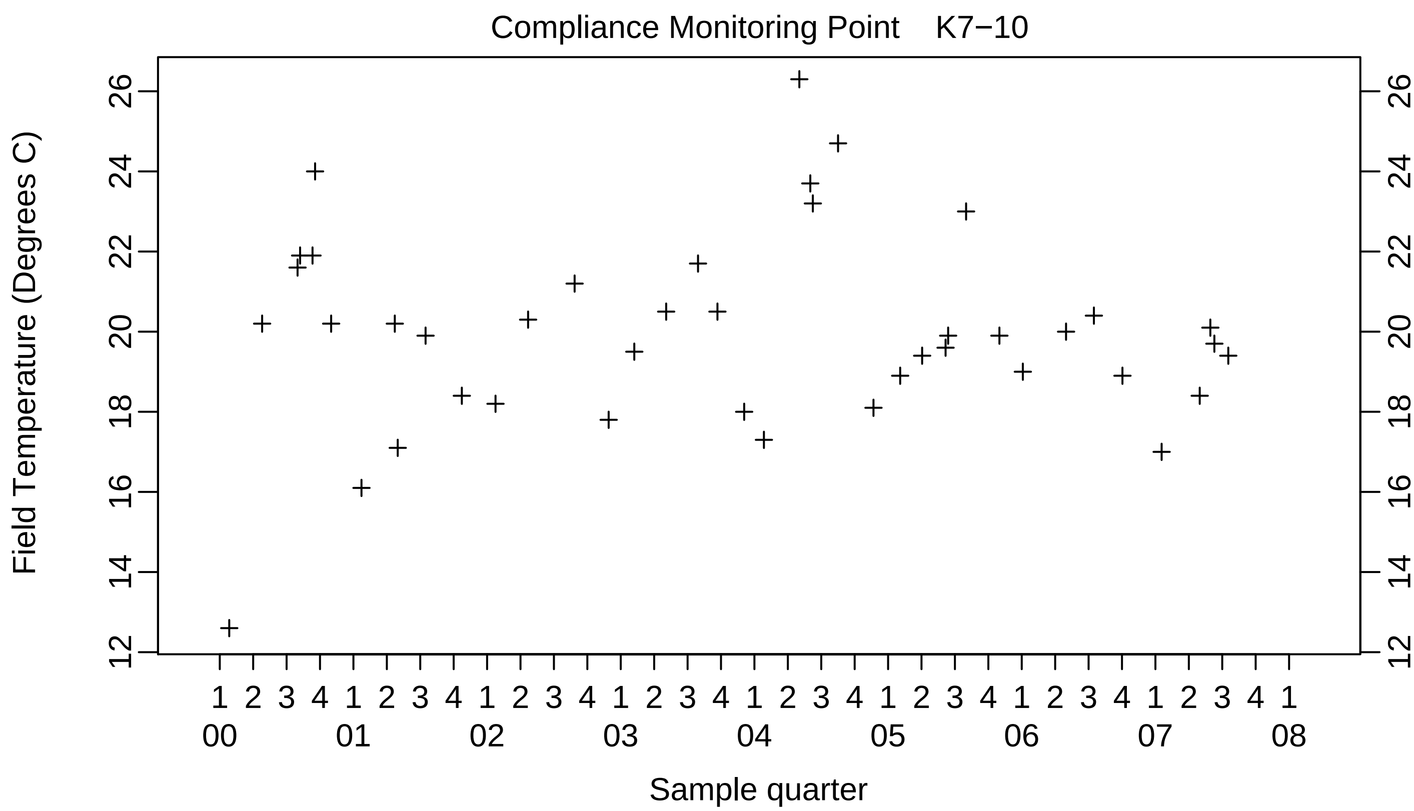


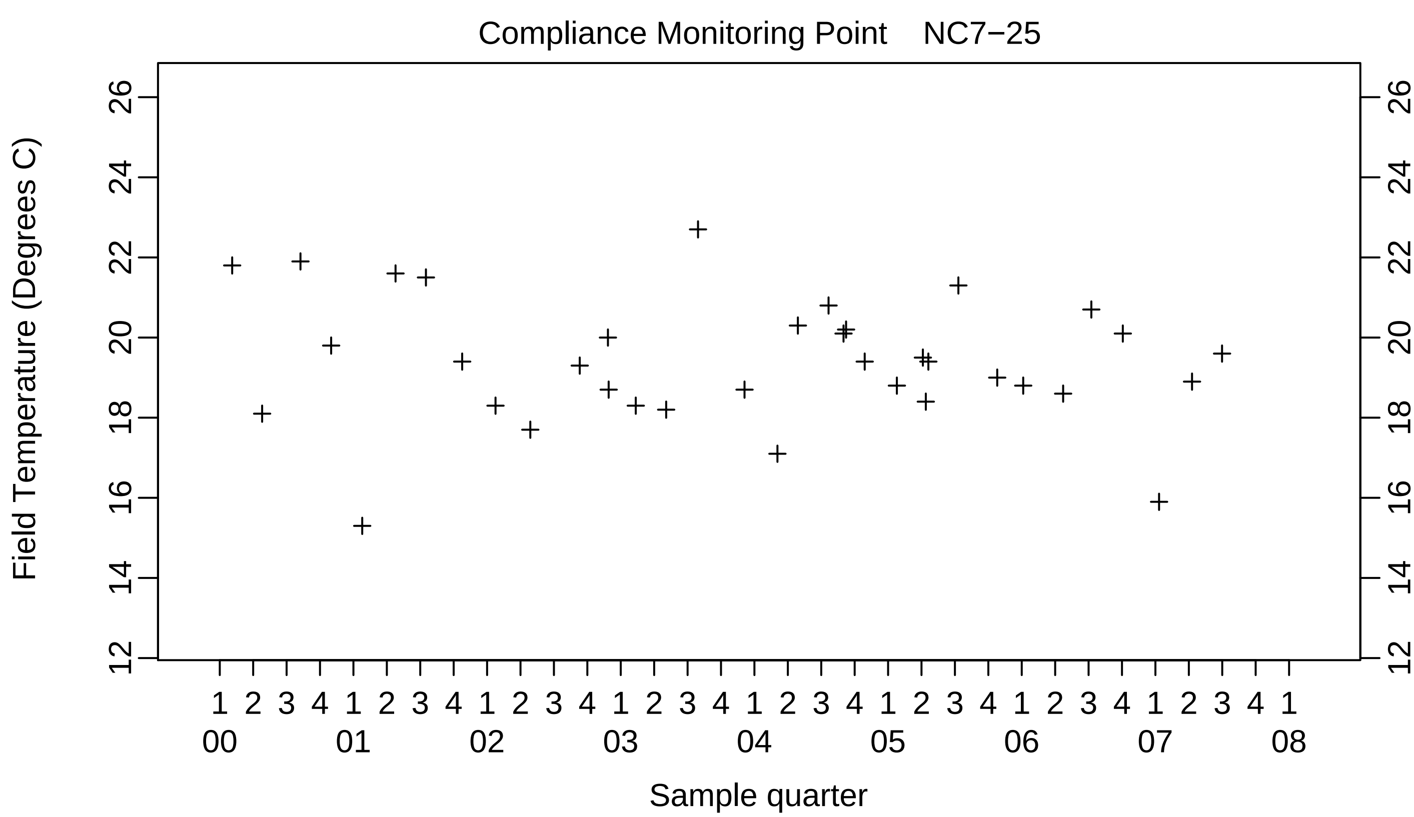
Pit 7 Complex
Field Temperature (Degrees C)





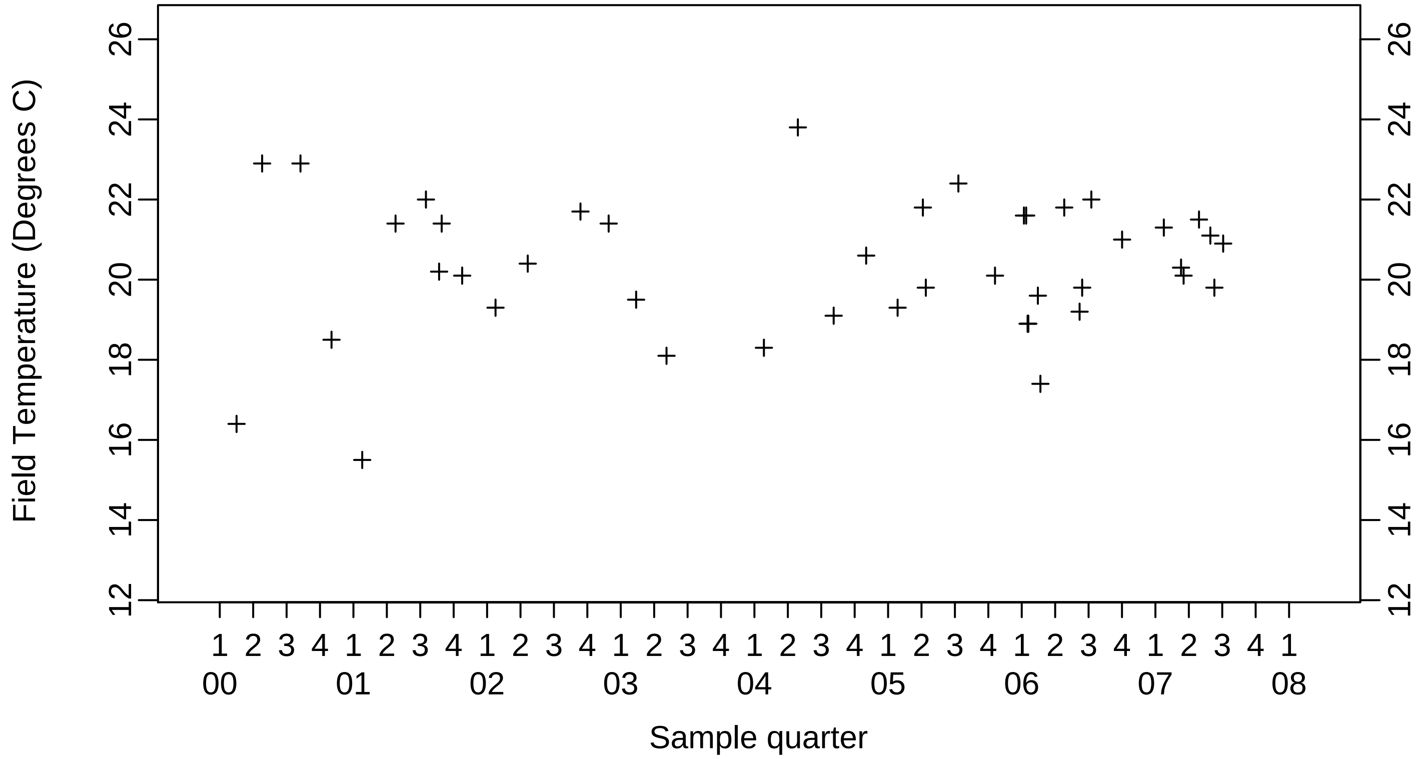
Pit 7 Complex
Field Temperature (Degrees C)



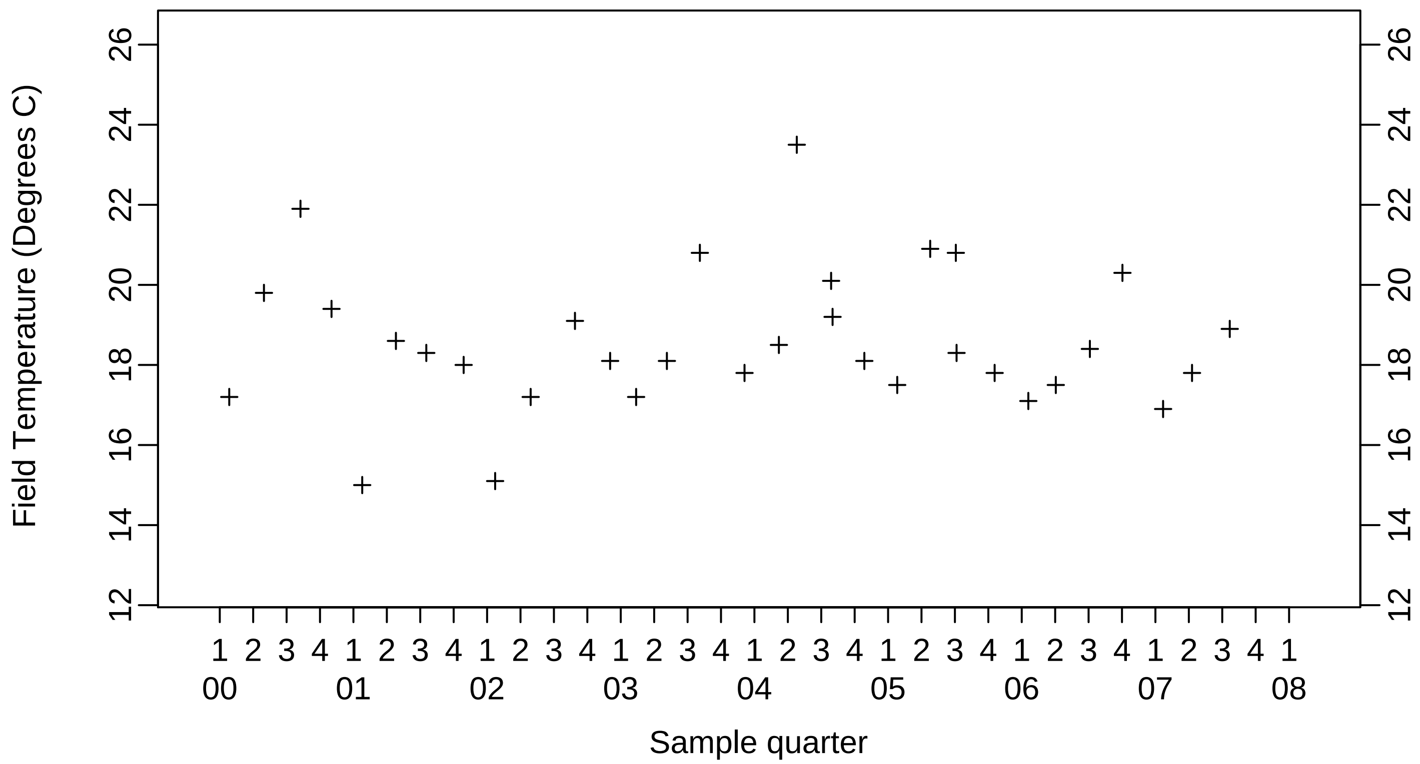


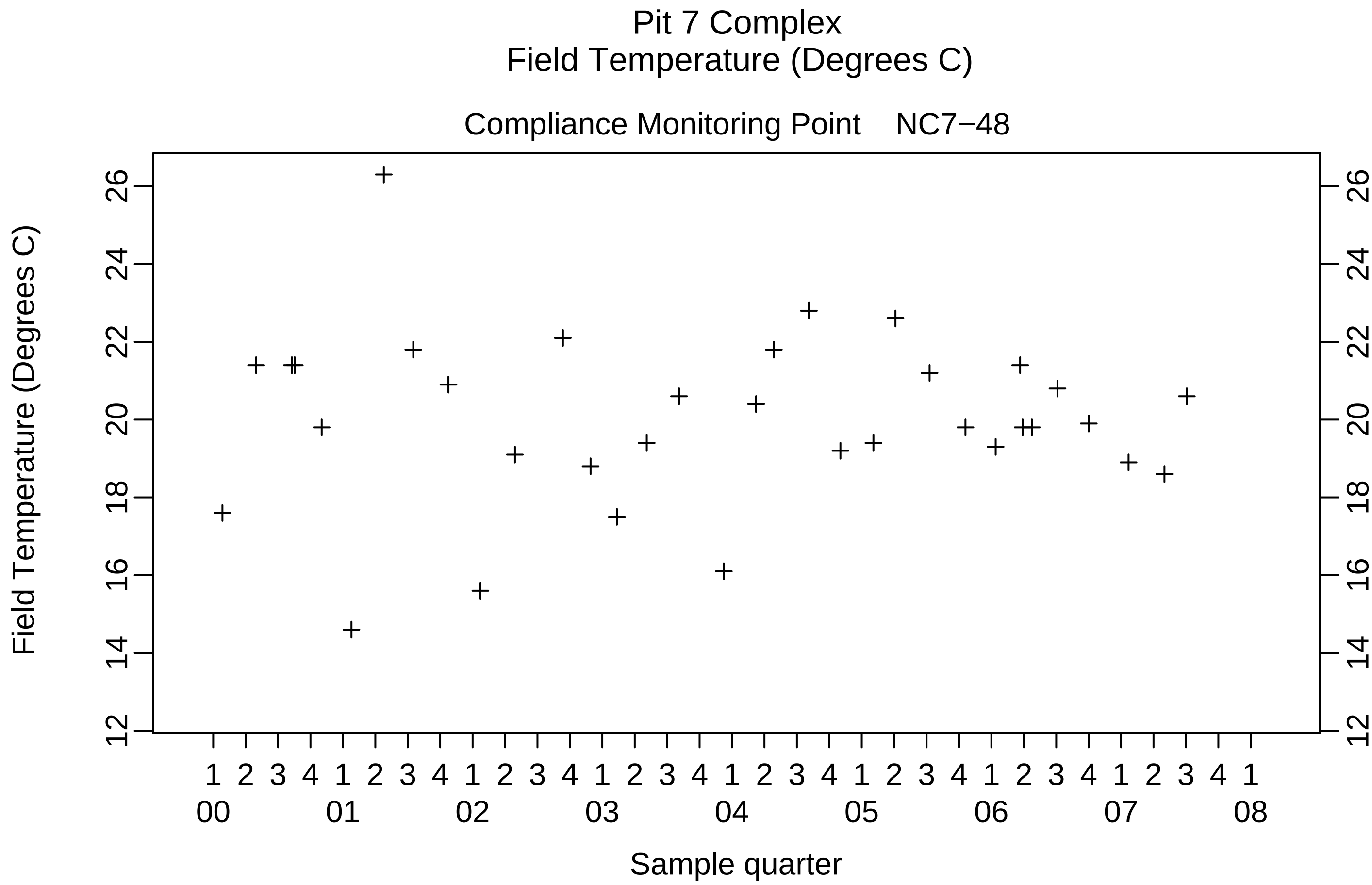
Pit 7 Complex
Field Temperature (Degrees C)

Compliance Monitoring Point NC7−26

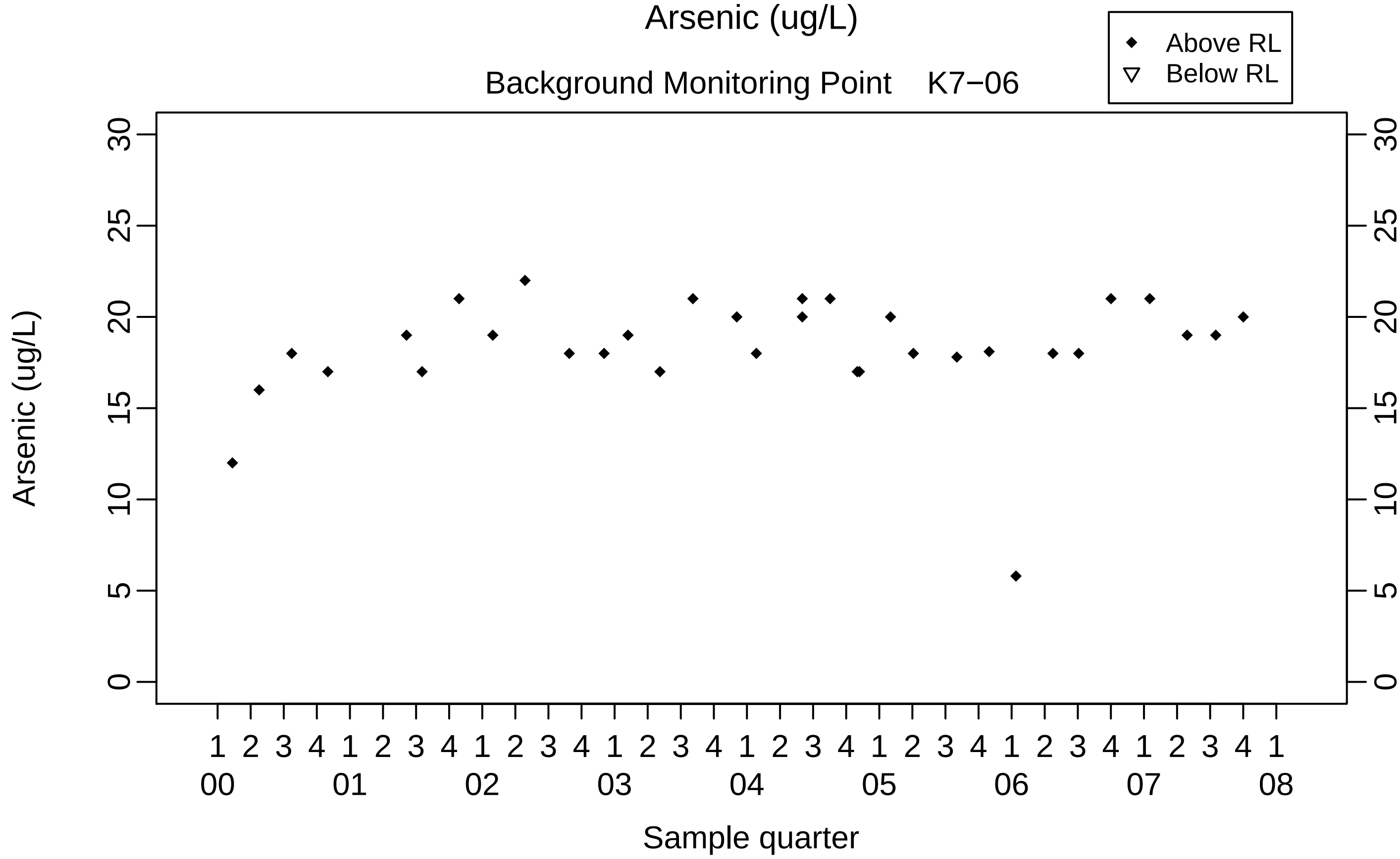


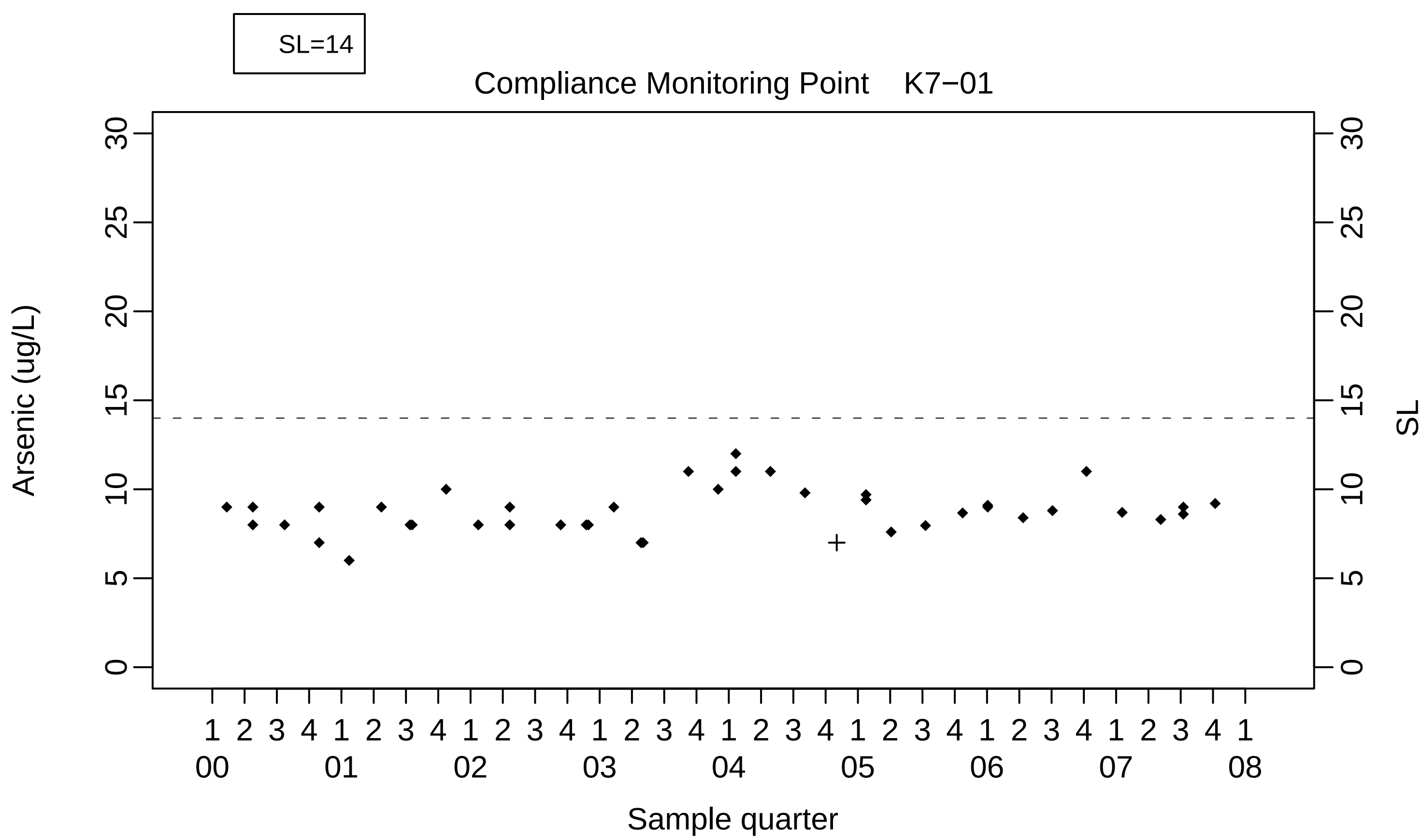
Compliance Monitoring Point NC7−47

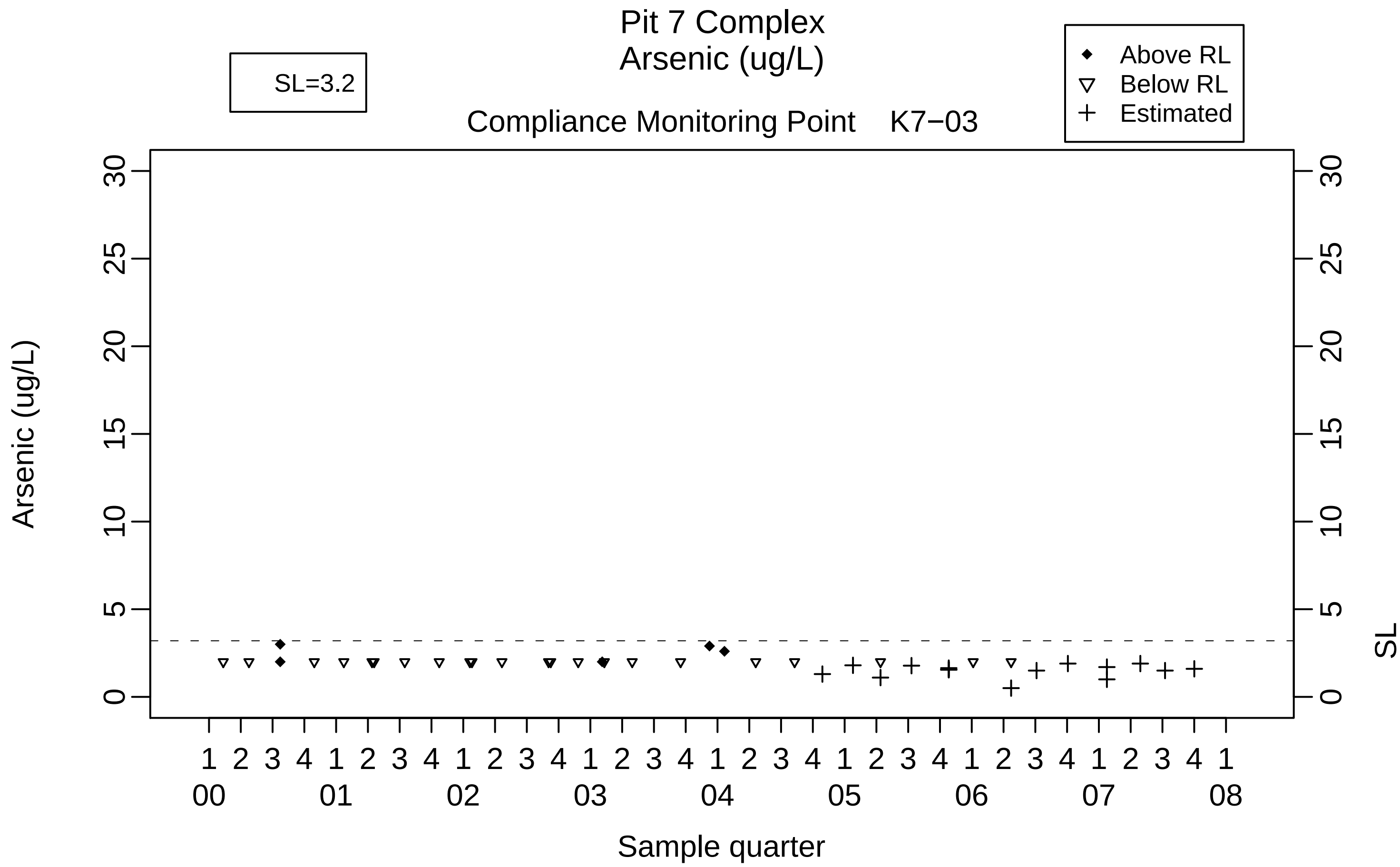


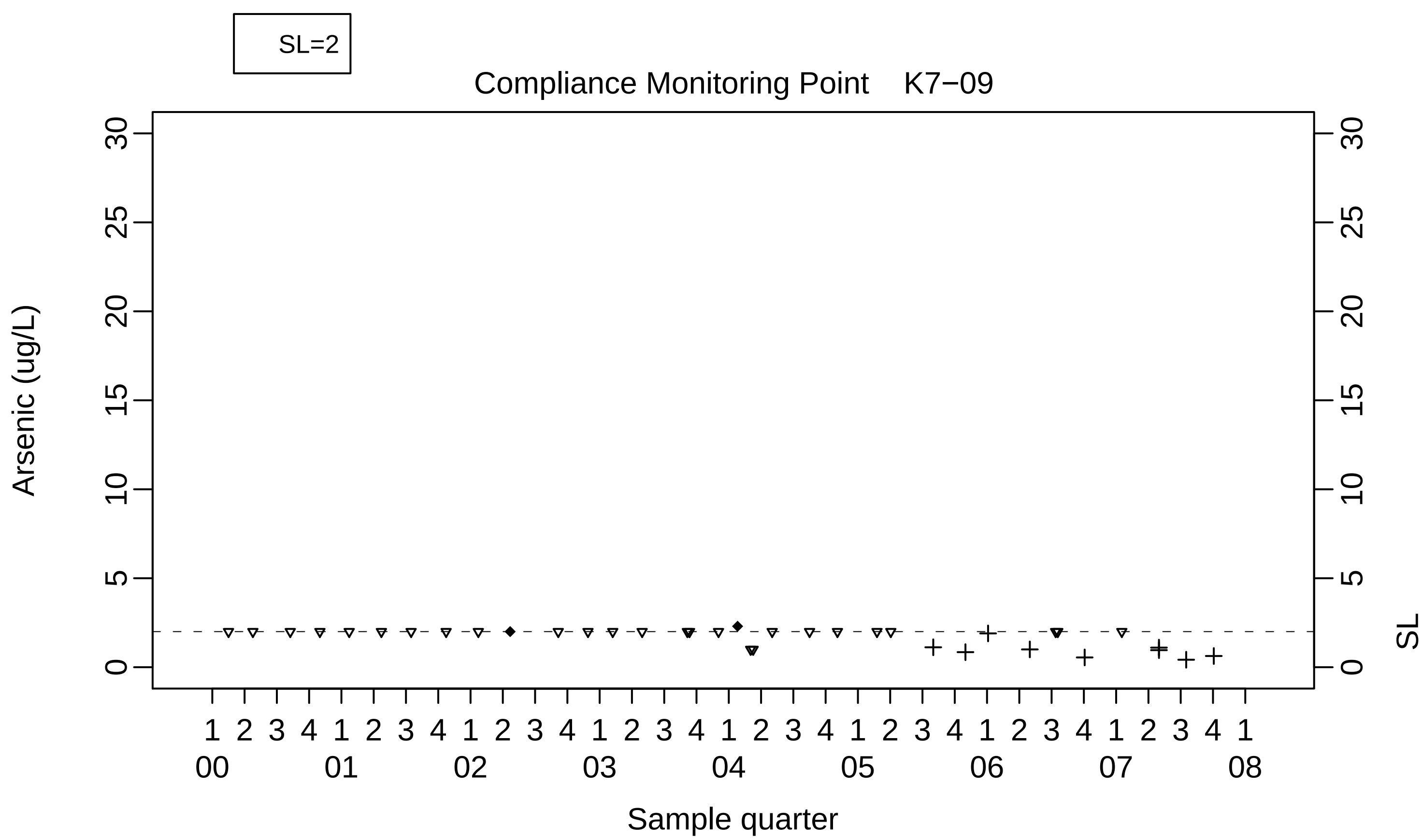

Pit 7 Complex
Field Temperature (Degrees C)
Compliance Monitoring Point NC7−48
Field Temperature (Degrees C)
12
14
16
18
20
22
24
26
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

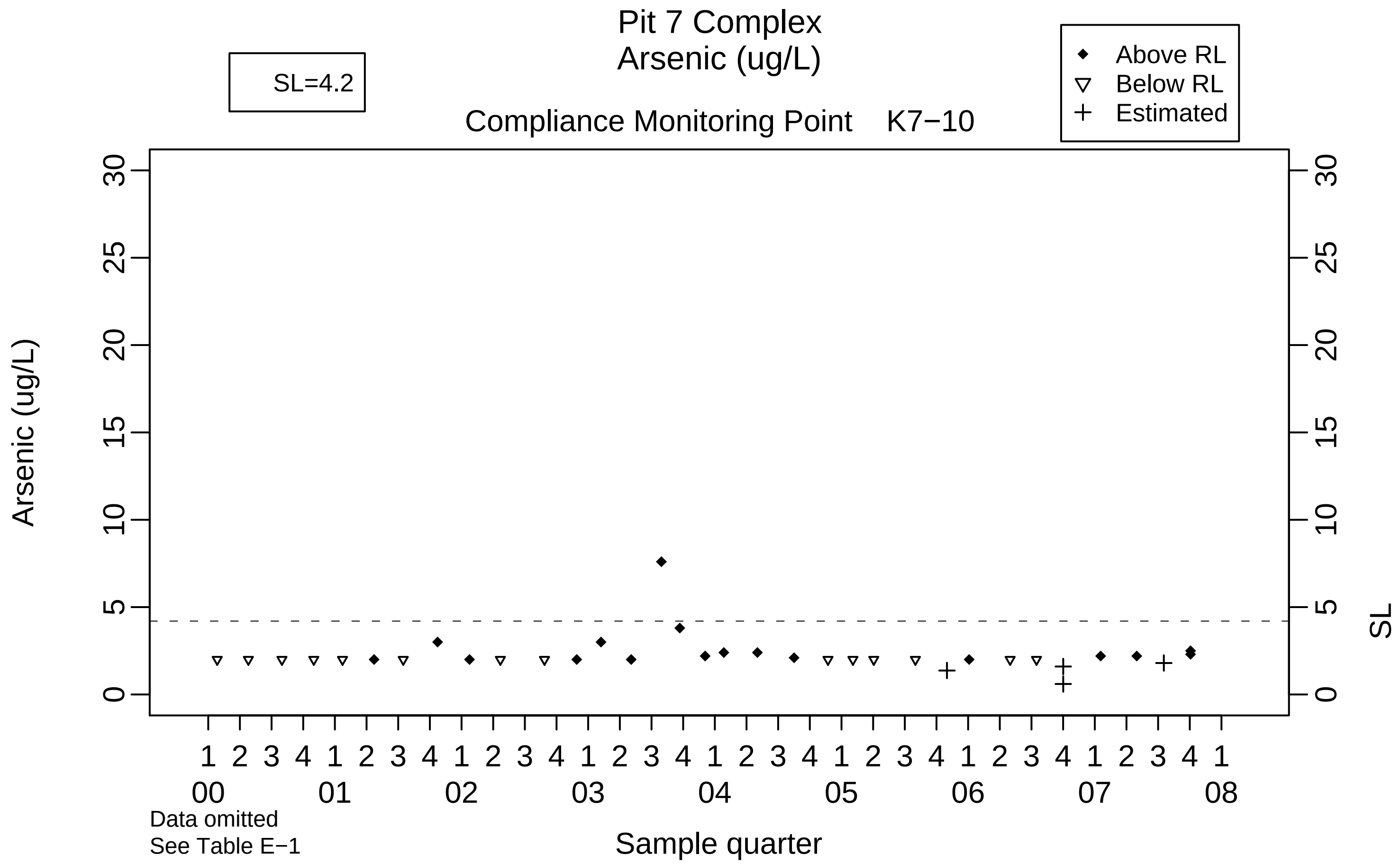
Pit 7 Complex
Arsenic (ug/L)

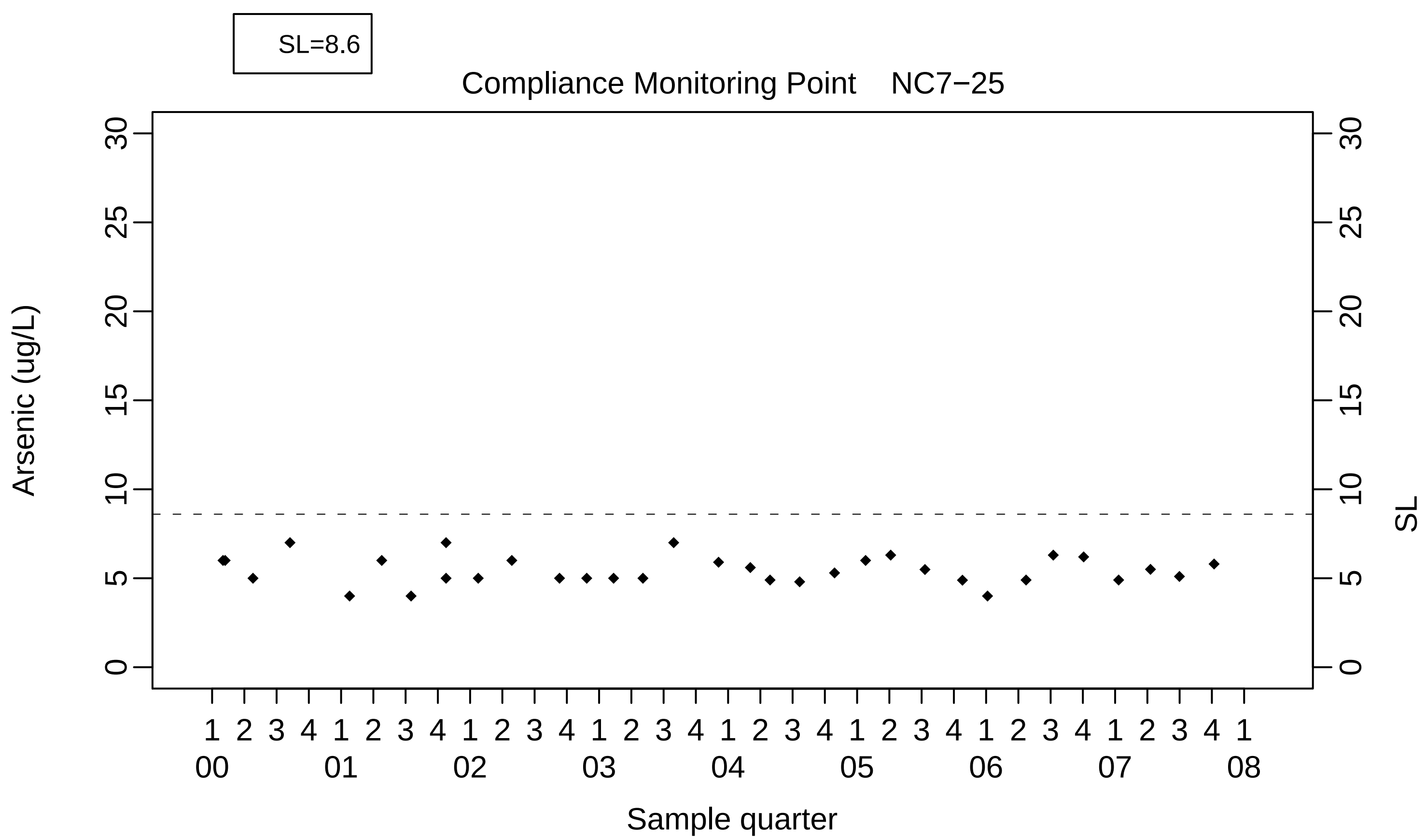


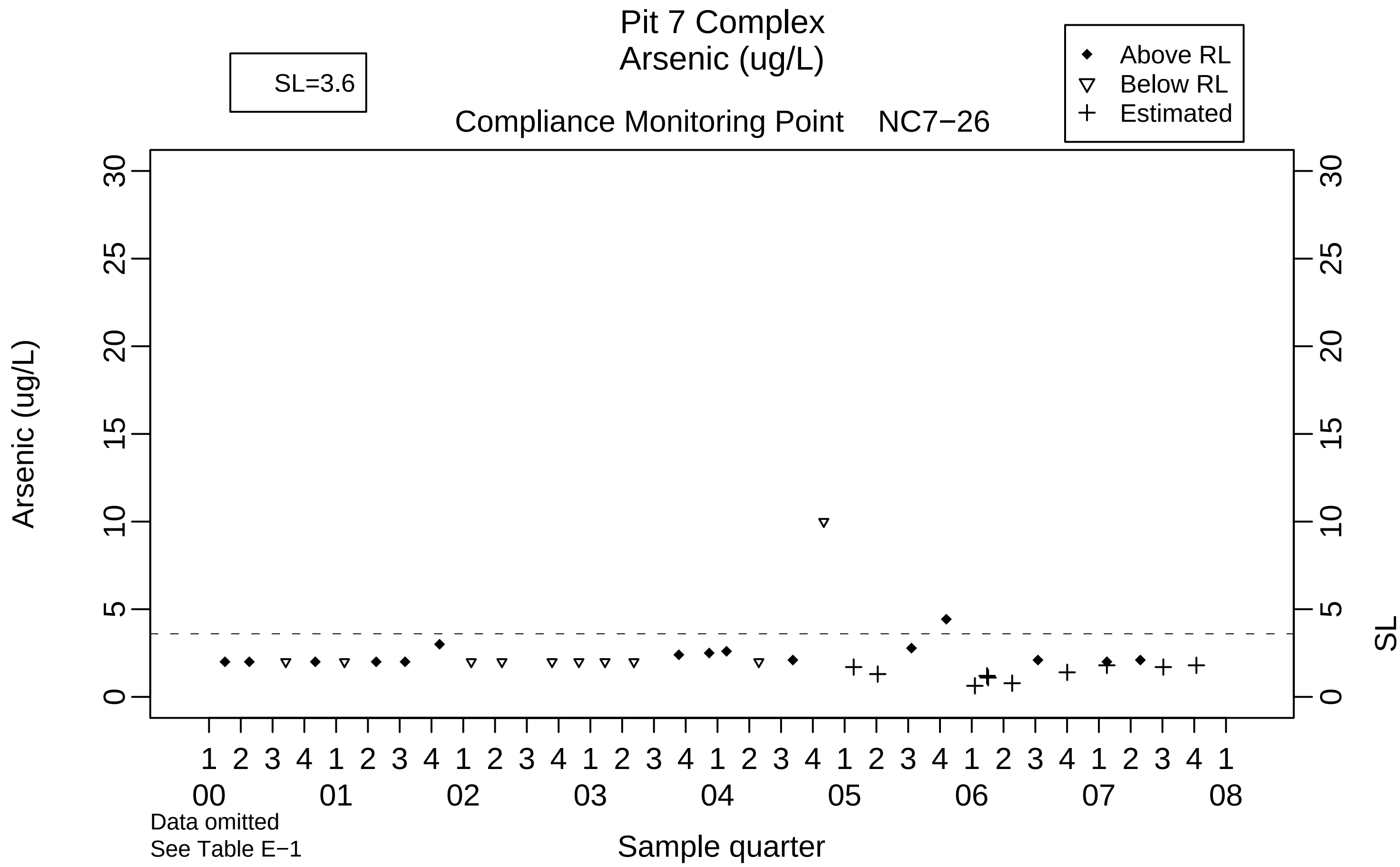


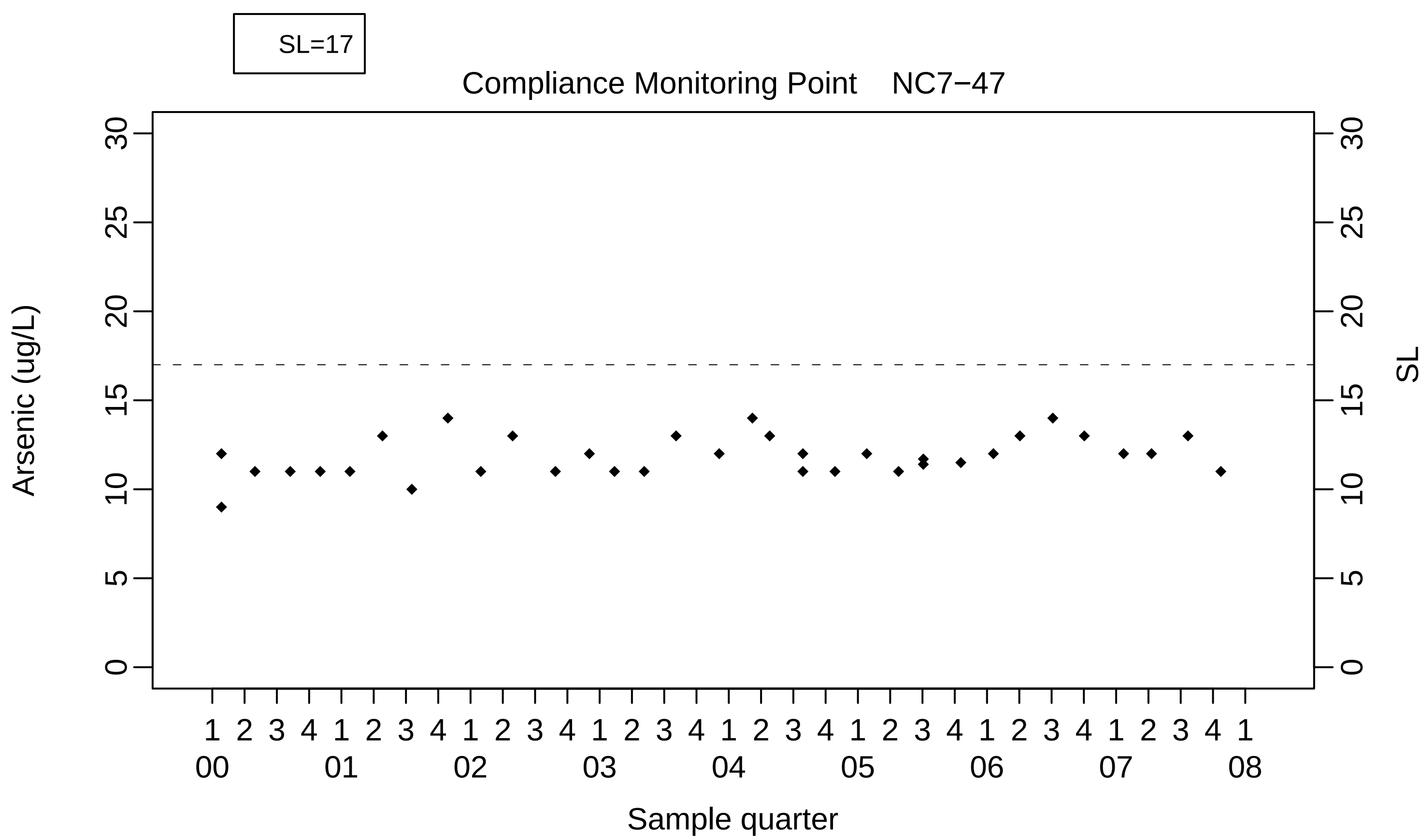

Pit 7 Complex
Arsenic (ug/L)
SL=3.2
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−03
Arsenic (ug/L)
SL
0
5
10
15
20
25
30
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

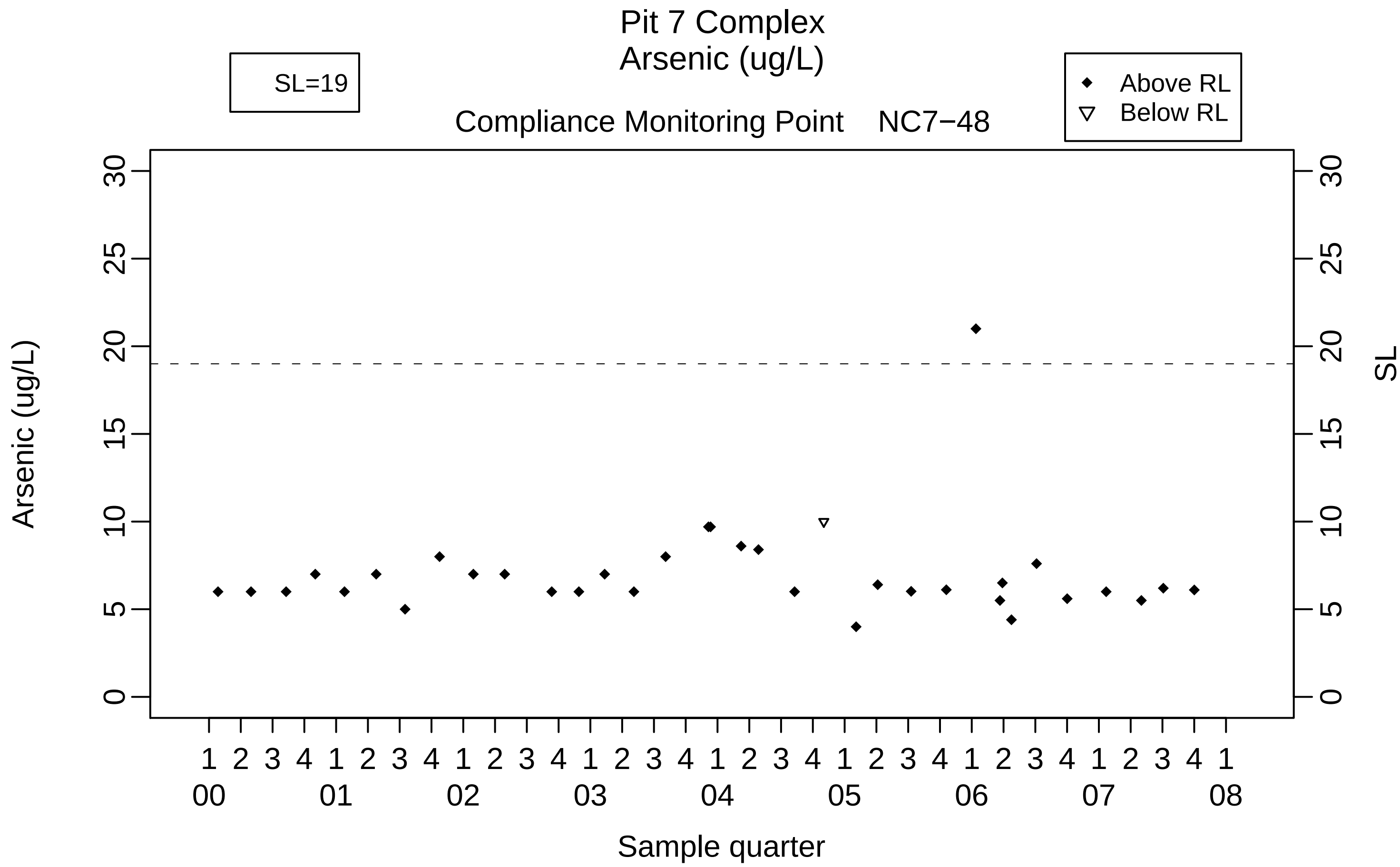

SL=2
Compliance Monitoring Point K7−09
Arsenic (ug/L)
SL
0
5
10
15
20
25
30
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

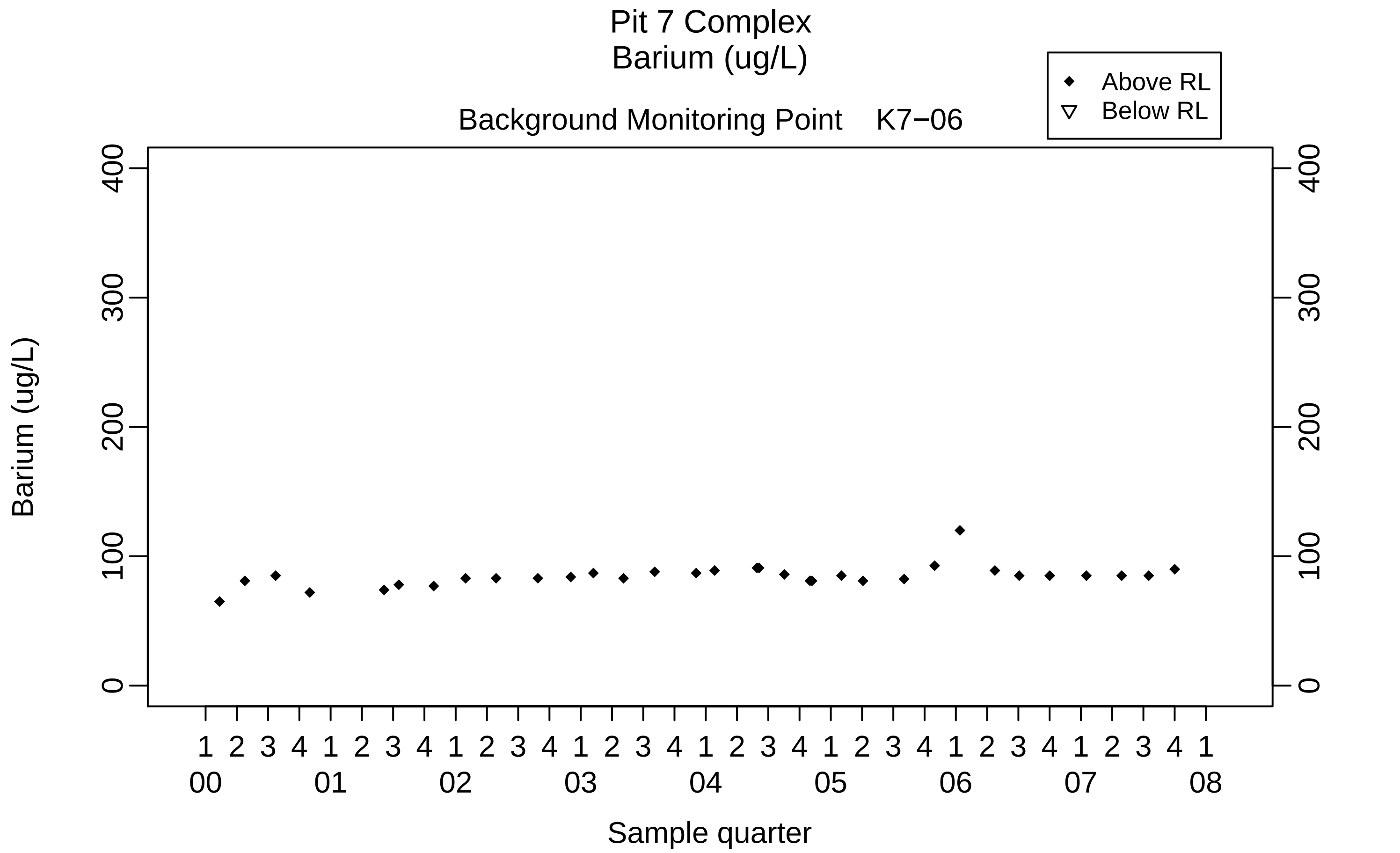

Pit 7 Complex
Arsenic (ug/L)
SL=4.2
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−10
Arsenic (ug/L)
SL
Sample quarter
Data omitted
See Table E−1

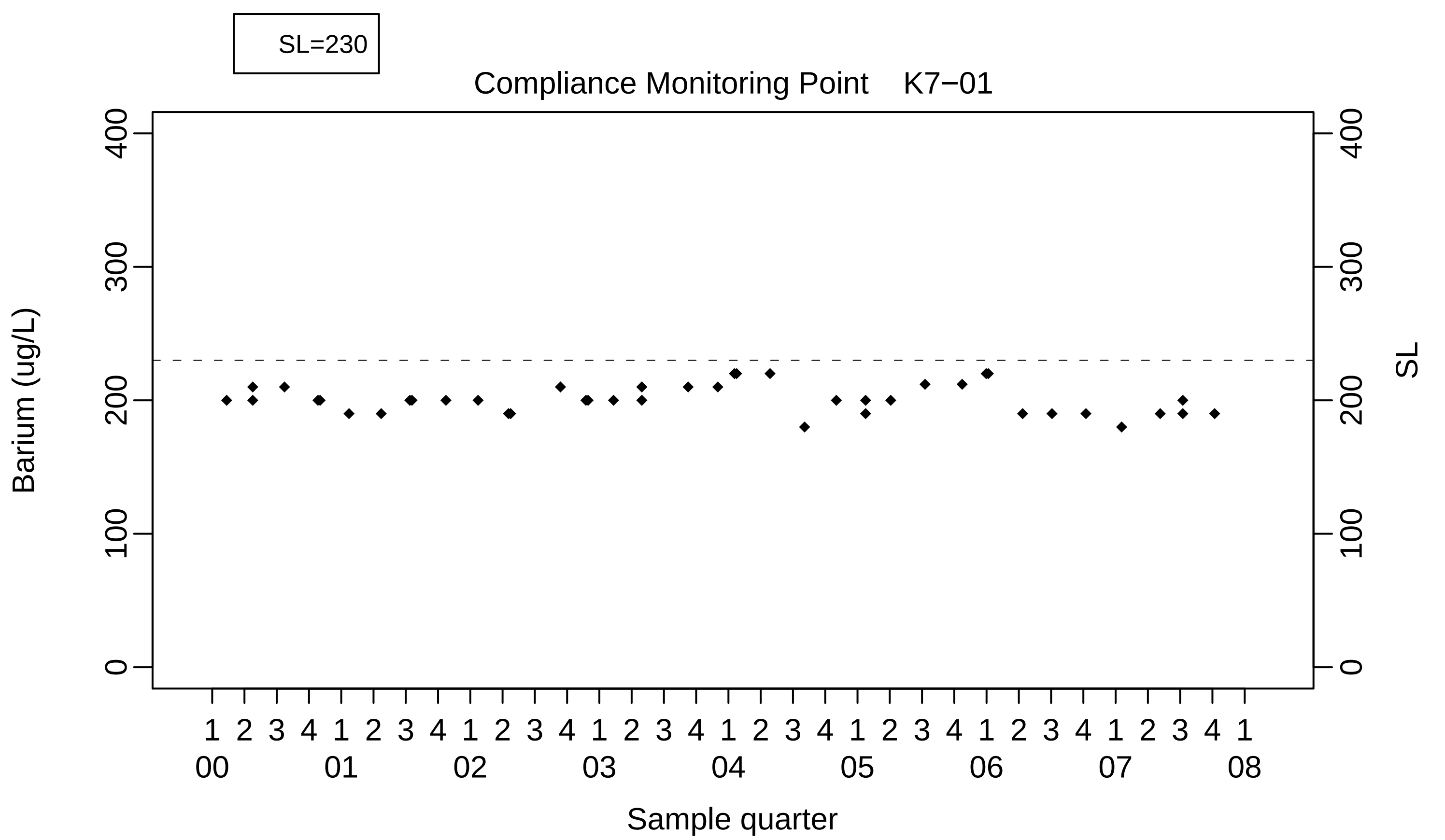

SL=8.6
Compliance Monitoring Point NC7−25
Arsenic (ug/L)
SL
Sample quarter

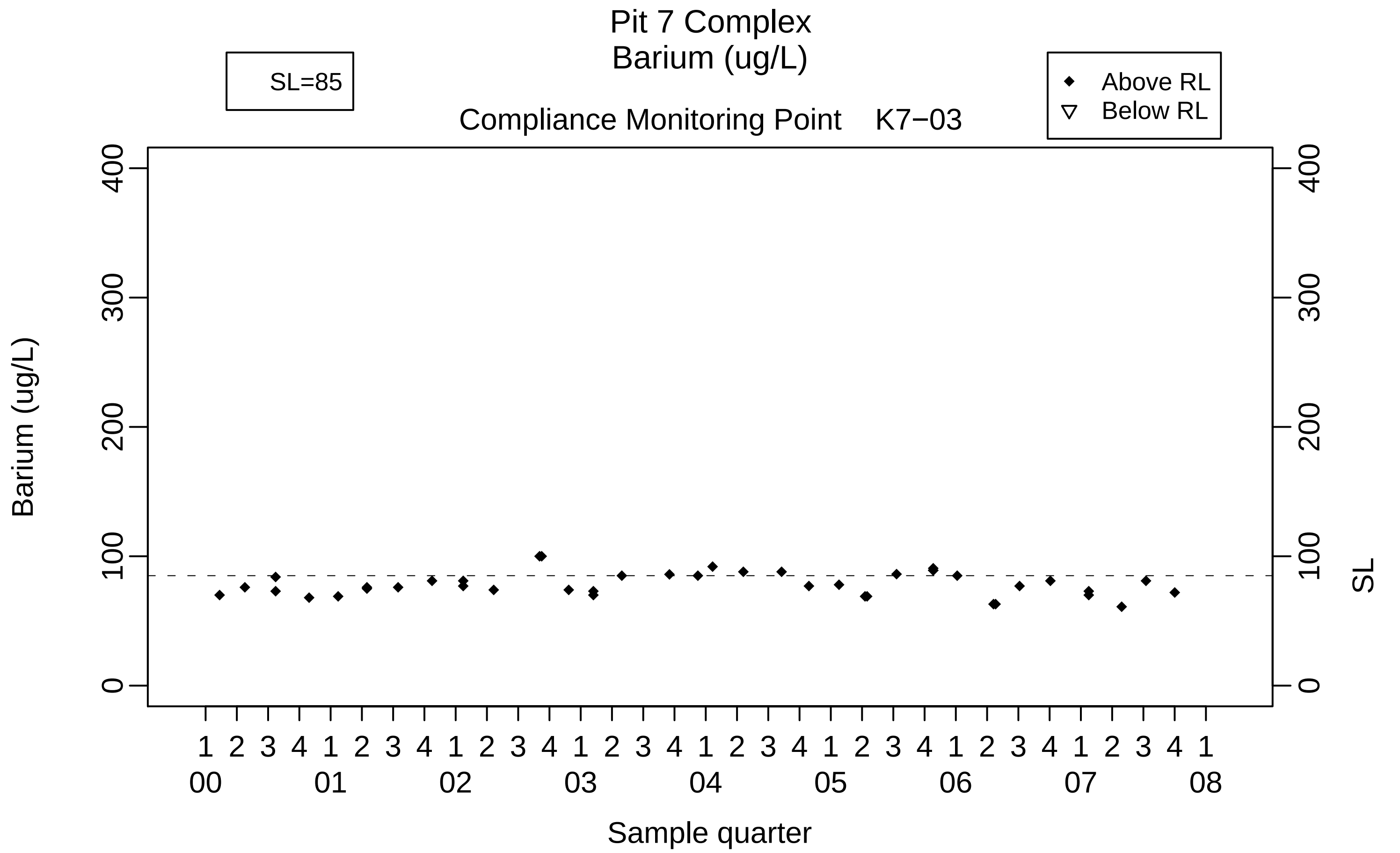

Pit 7 Complex
Arsenic (ug/L)
SL=3.6
Compliance Monitoring Point NC7−26
Above RL
Below RL
Estimated
Arsenic (ug/L)
SL
0 5 10 15 20 25 30
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

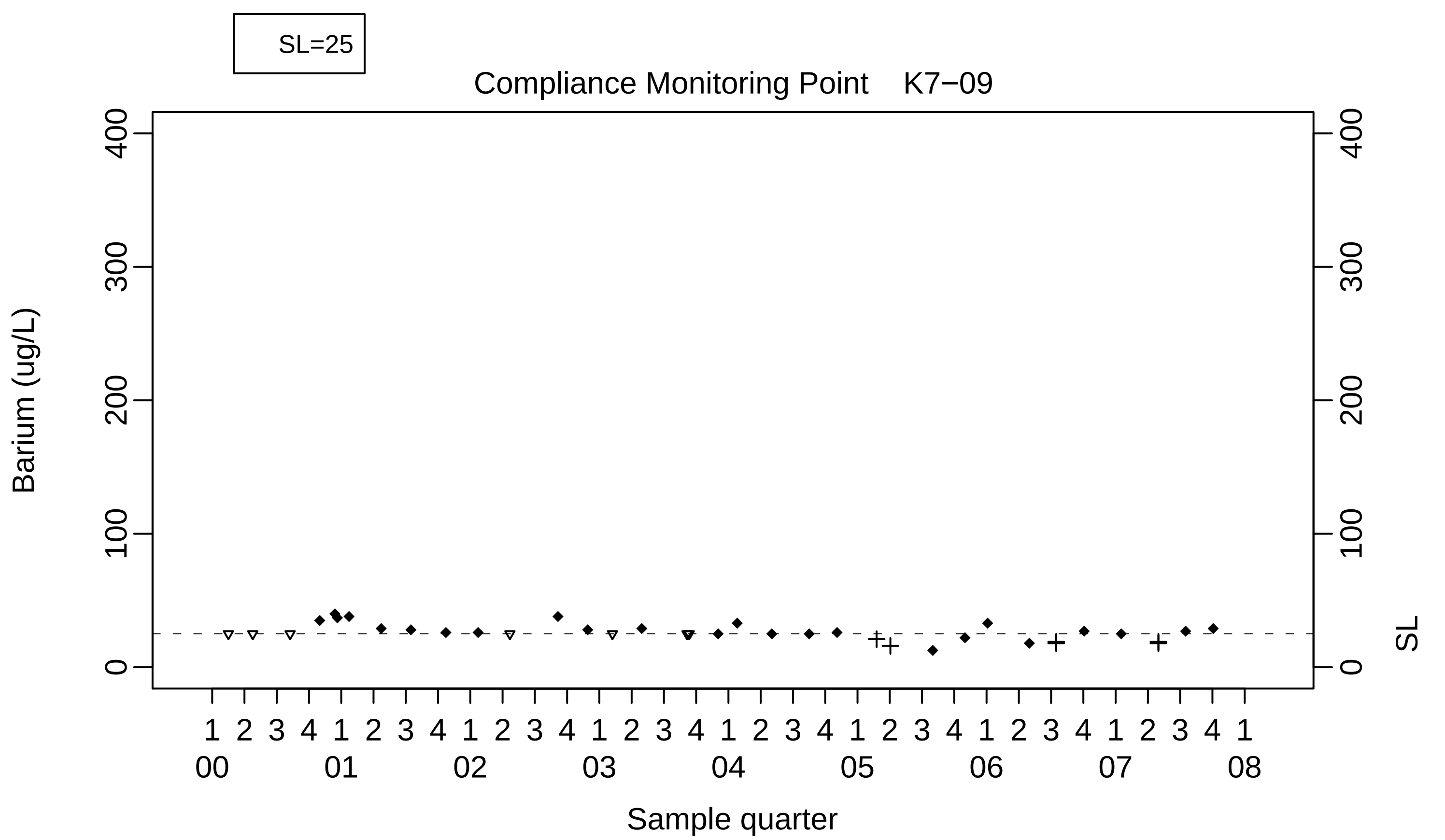

SL=17
Compliance Monitoring Point NC7−47
Arsenic (ug/L)
SL
0 5 10 15 20 25 30
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 7 Complex
Arsenic (ug/L)
SL=19
Above RL
Below RL
Compliance Monitoring Point NC7−48
Arsenic (ug/L)
SL
0
5
10
15
20
25
30
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

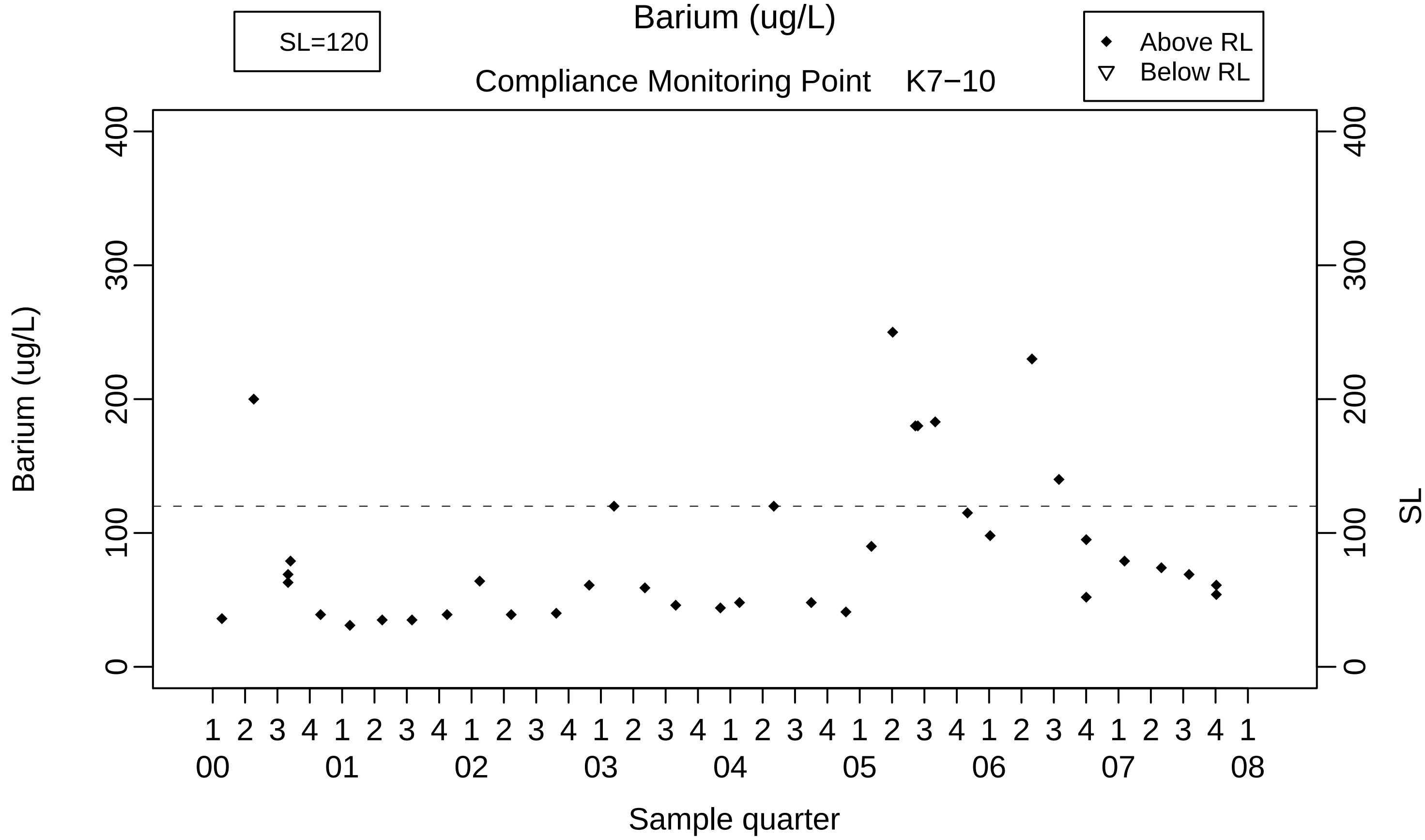

Pit 7 Complex
Barium (ug/L)
Above RL
Below RL
Background Monitoring Point K7−06
Barium (ug/L)
0
100
200
300
400
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

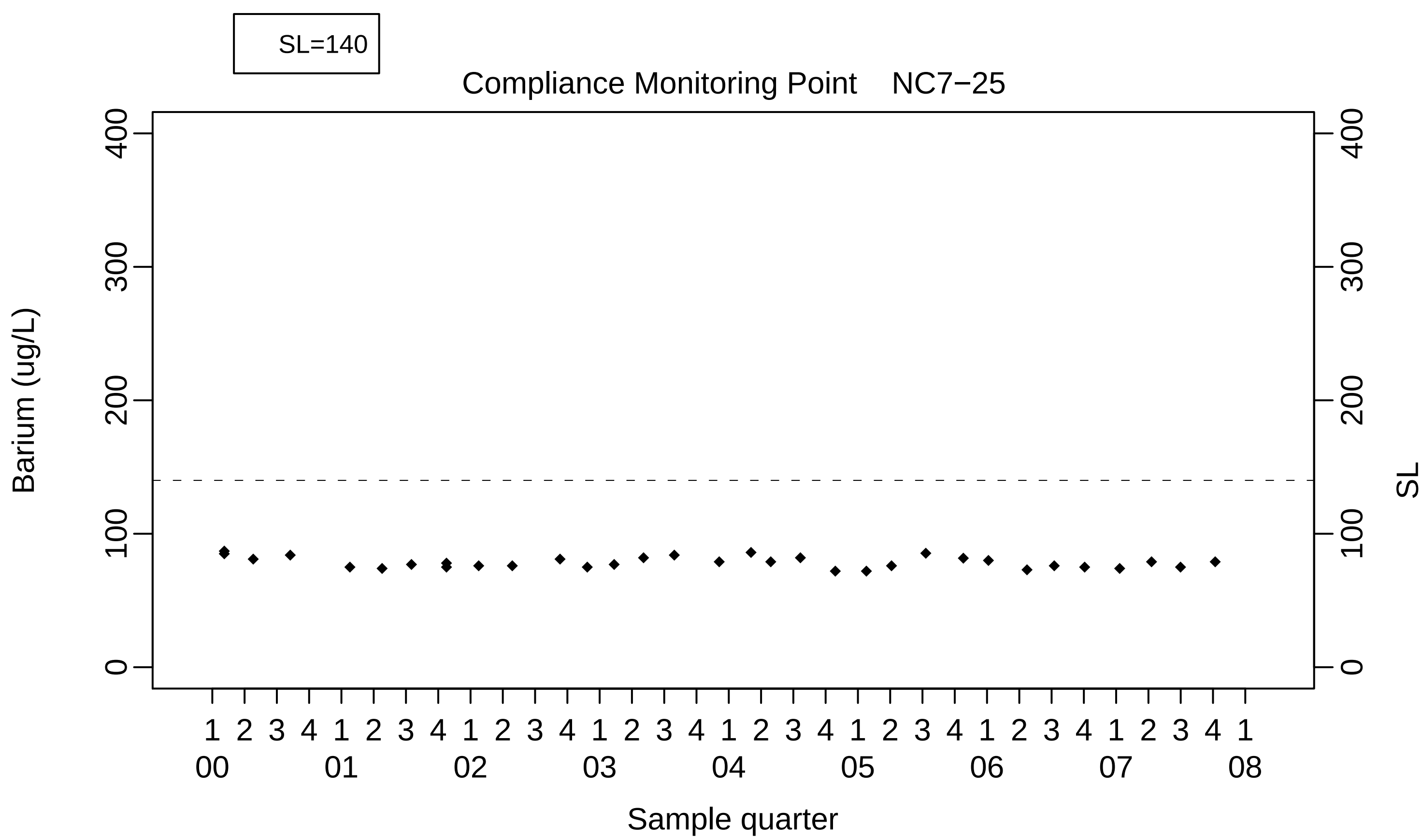

SL=230
Compliance Monitoring Point K7−01
Barium (ug/L)
SL
0
100
200
300
400
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 7 Complex
Barium (ug/L)
SL=85
Above RL
Below RL
Compliance Monitoring Point K7−03
Barium (ug/L)
SL
0
100
200
300
400
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

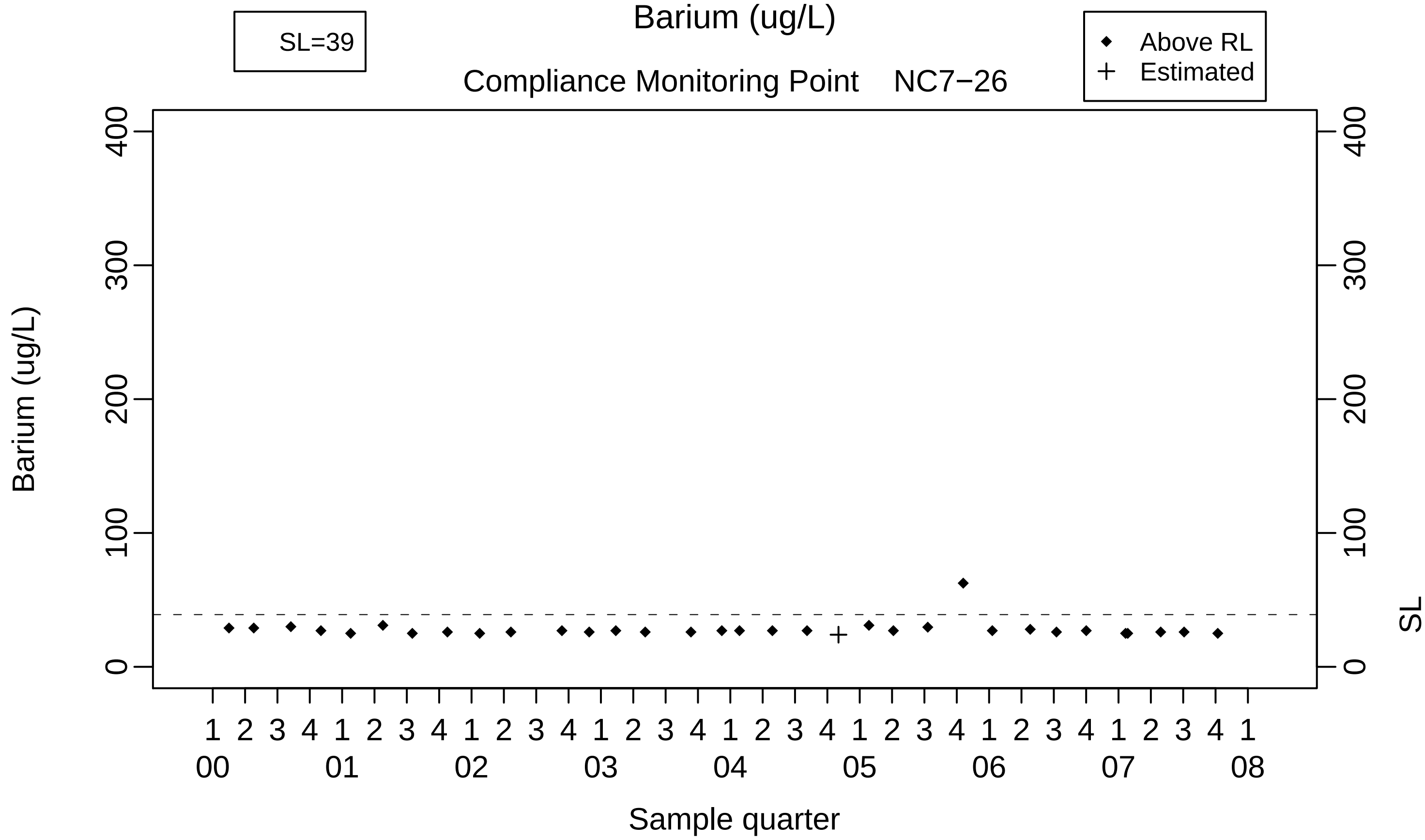

SL=25
Compliance Monitoring Point K7−09
Barium (ug/L)
SL
0
100
200
300
400
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

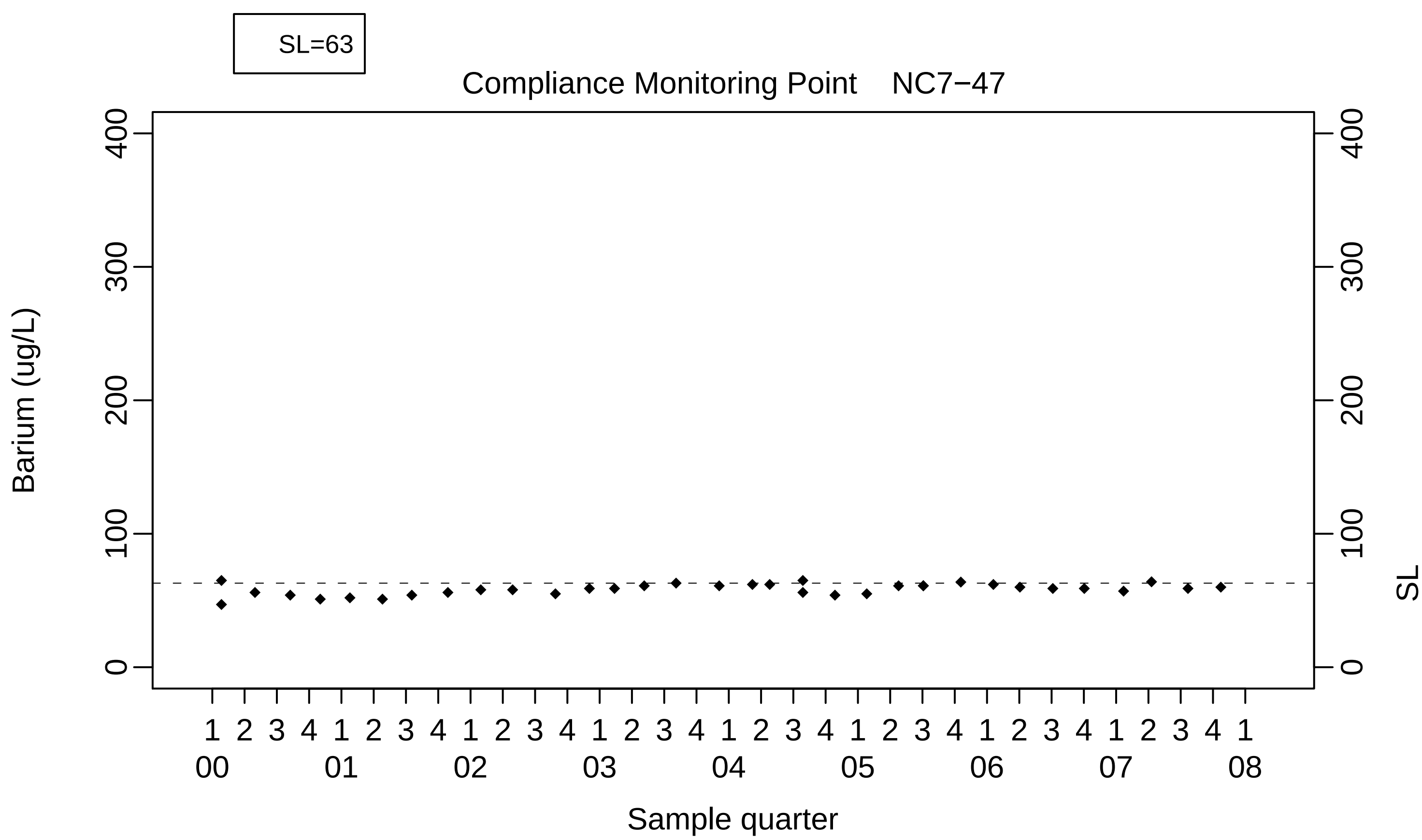
Pit 7 Complex
Barium (ug/L)

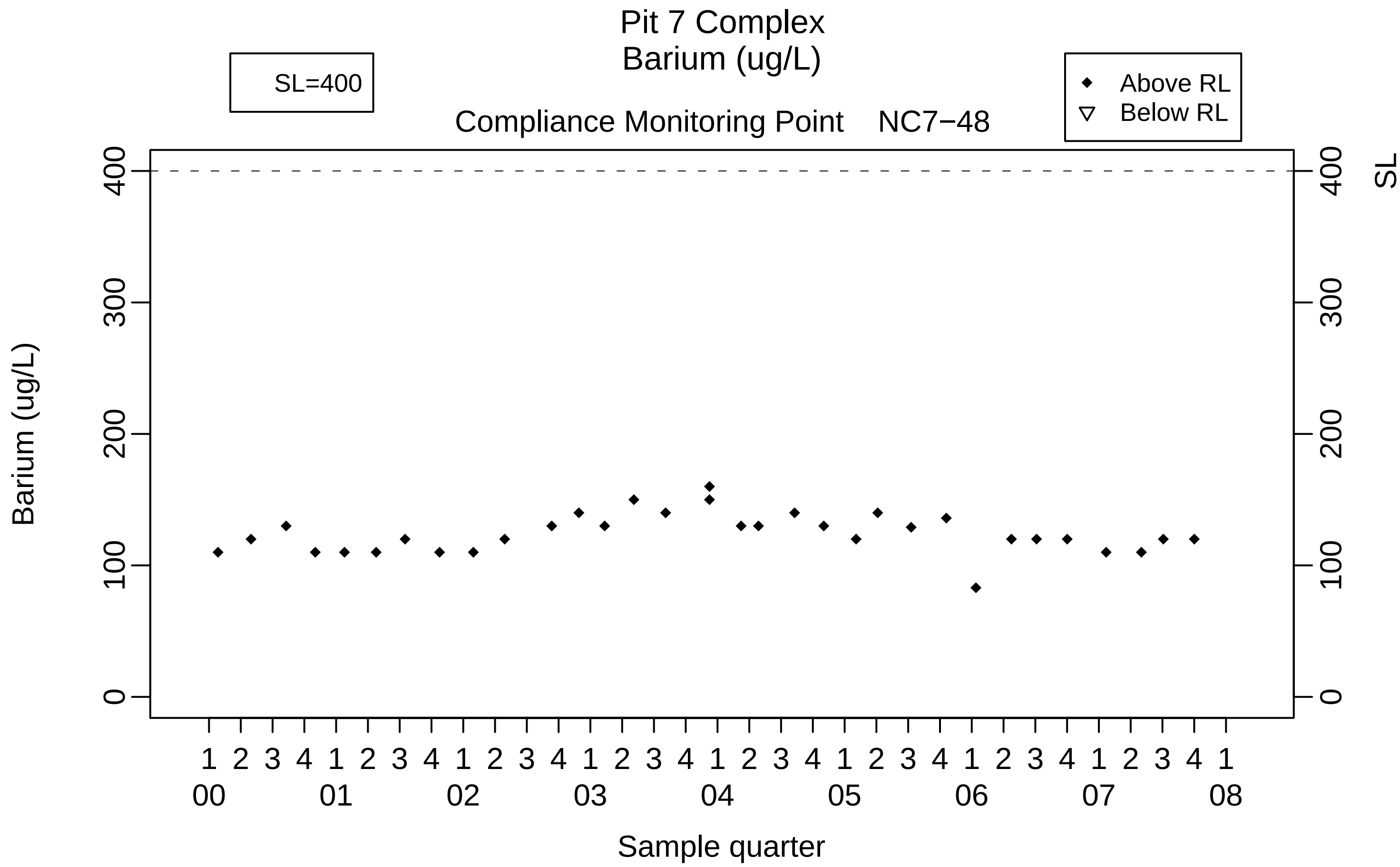


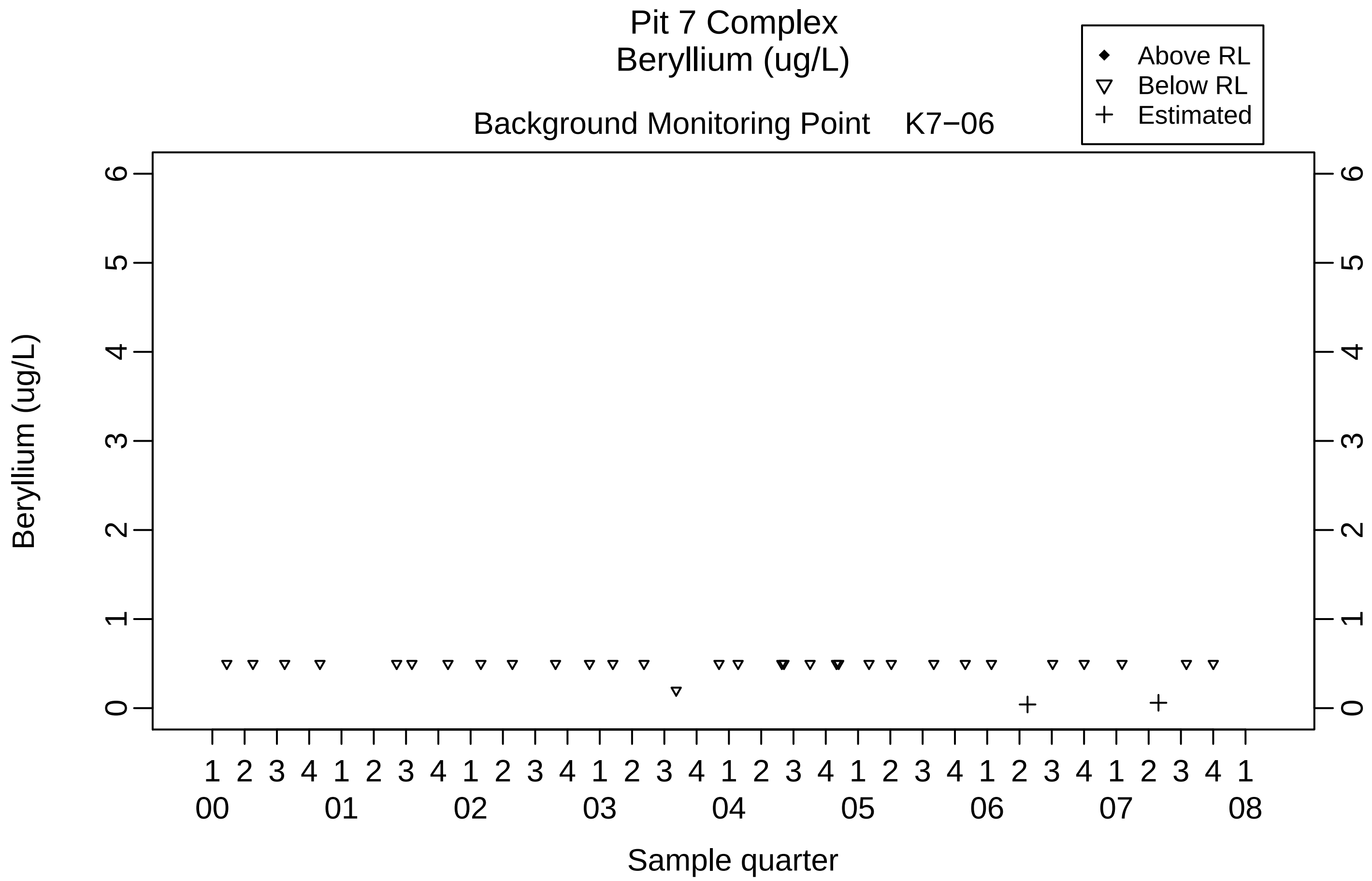


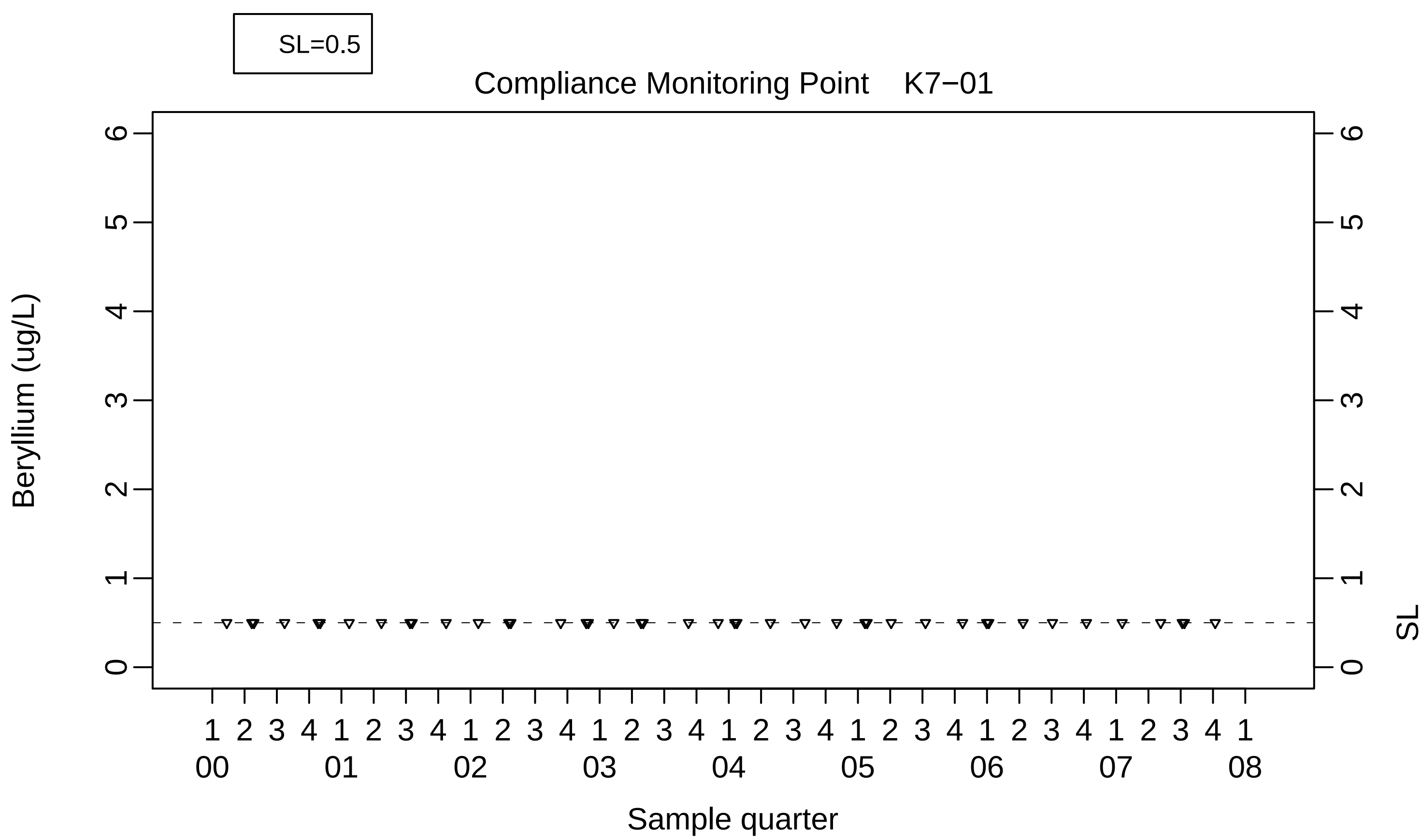
Pit 7 Complex
Barium (ug/L)



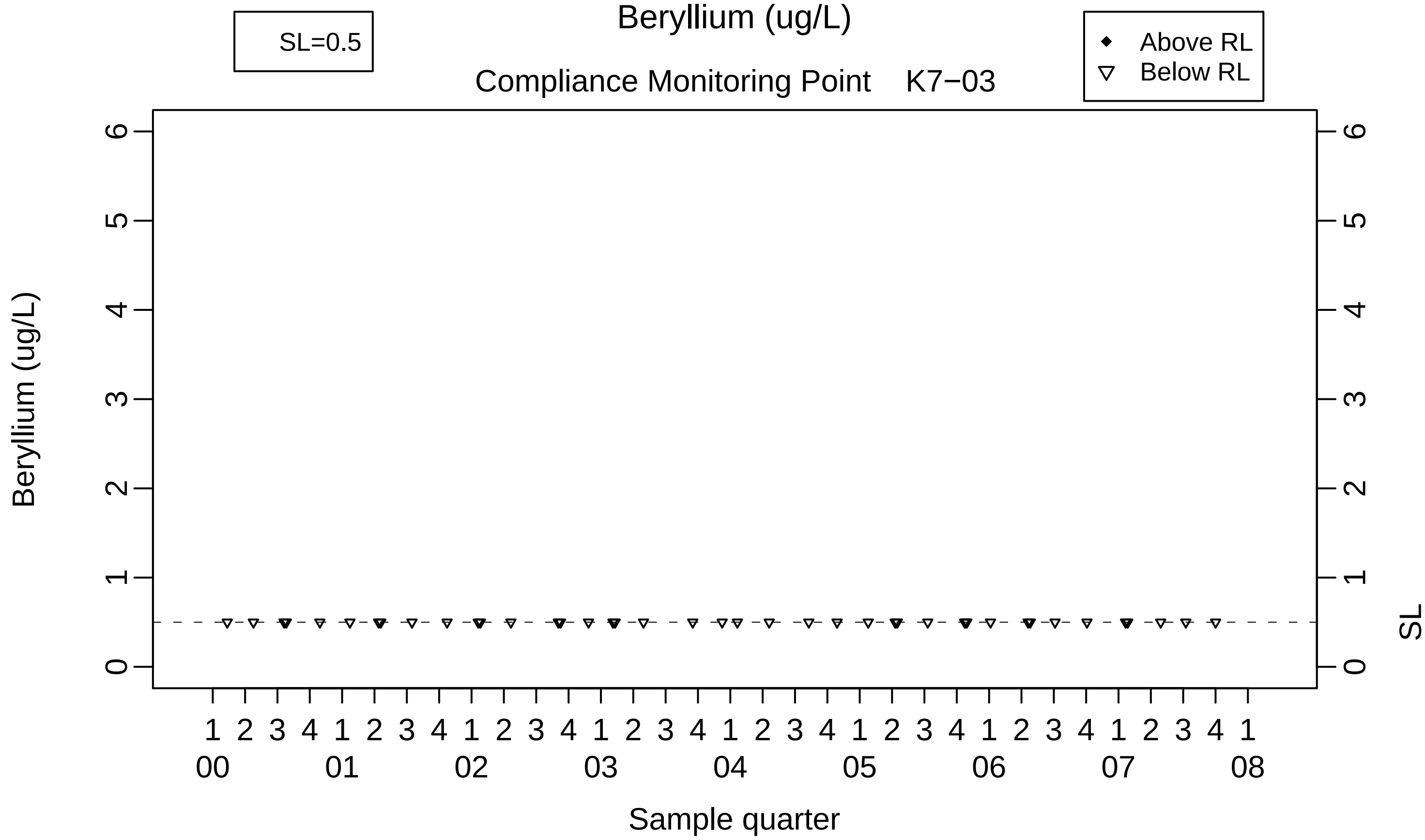


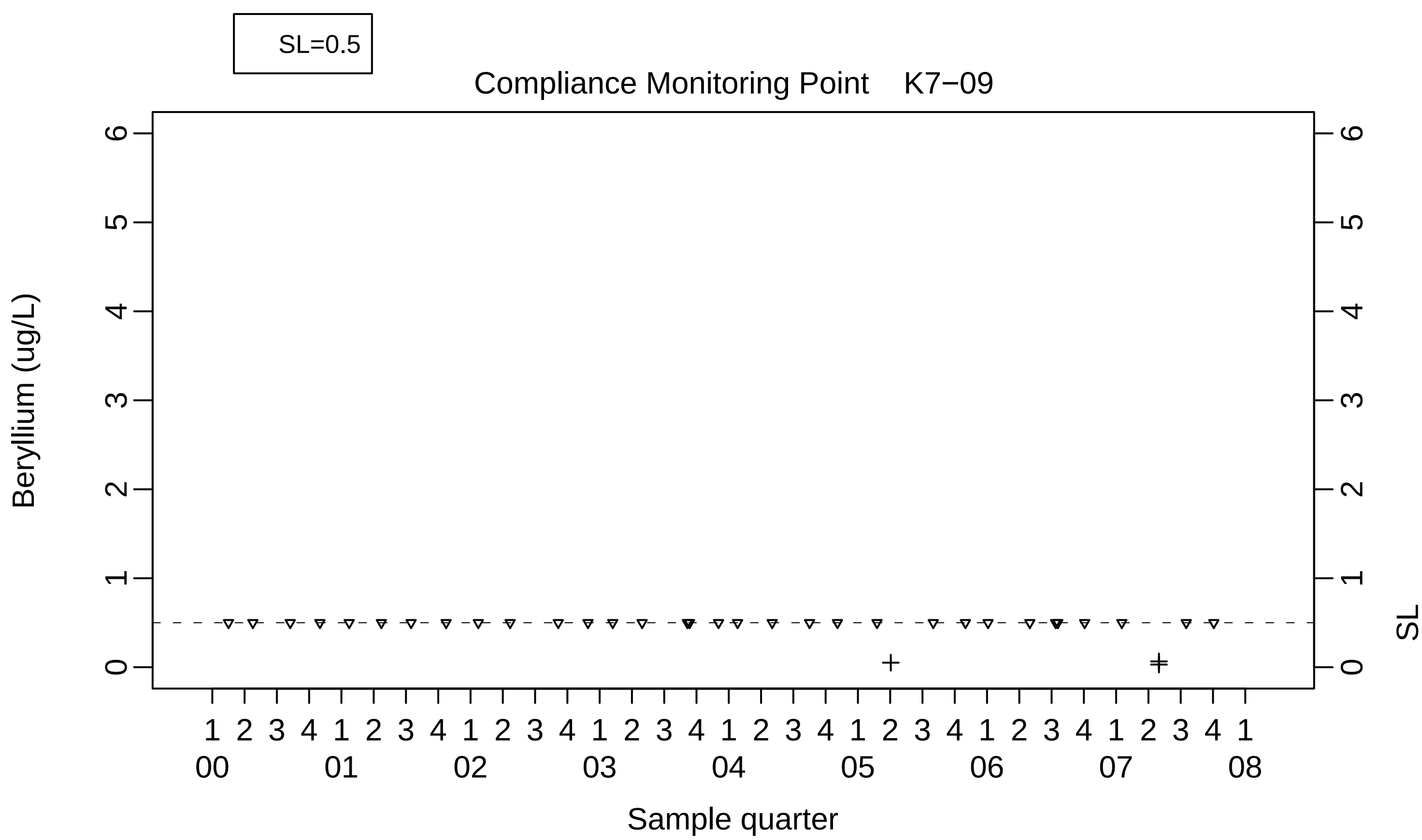

Pit 7 Complex
Barium (ug/L)
SL=400
Above RL
Below RL
Compliance Monitoring Point NC7−48
Barium (ug/L)
0
100
200
300
400
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

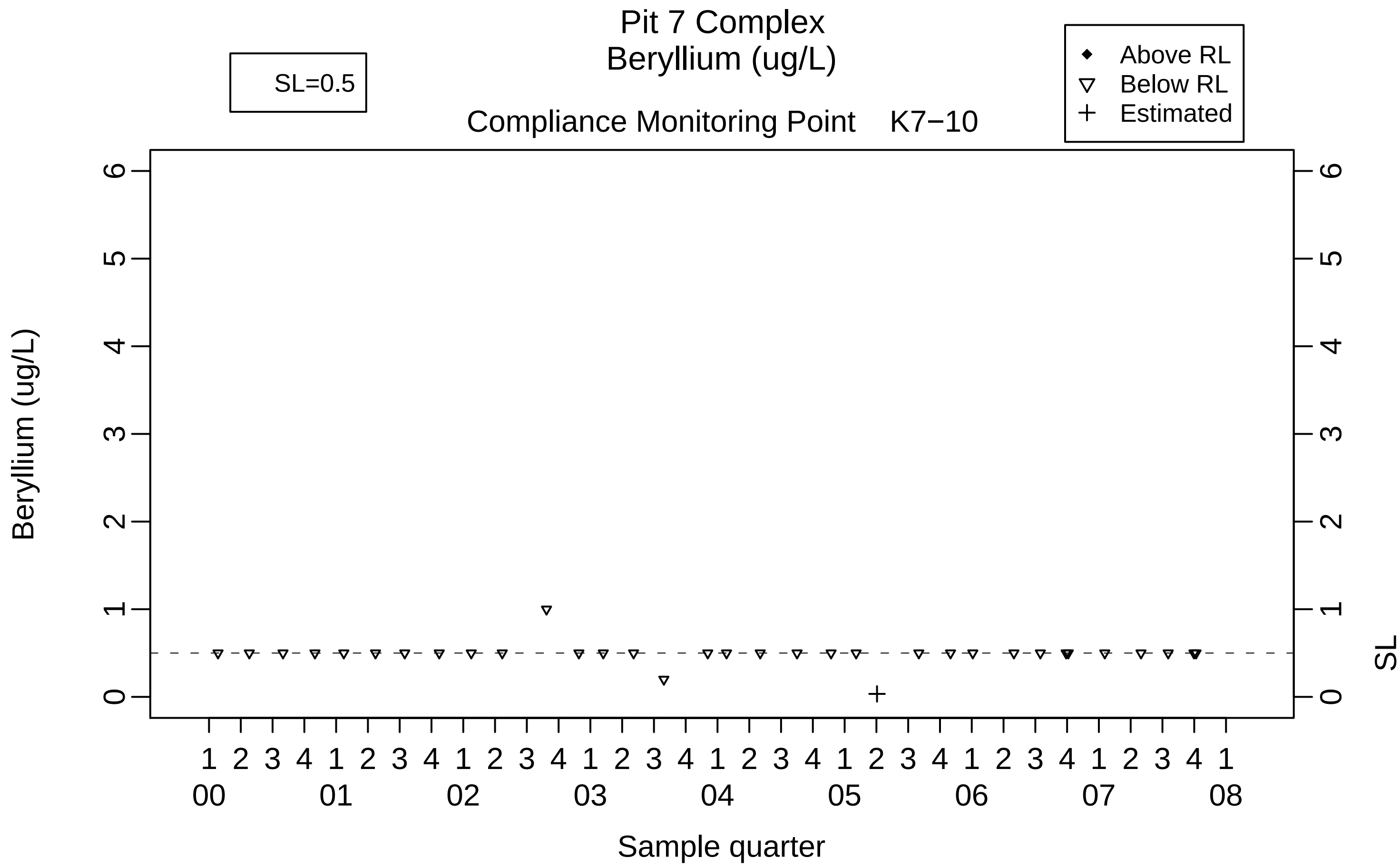

Pit 7 Complex
Beryllium (ug/L)
Above RL
Below RL
Estimated
Background Monitoring Point K7−06
Beryllium (ug/L)
0
1
2
3
4
5
6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

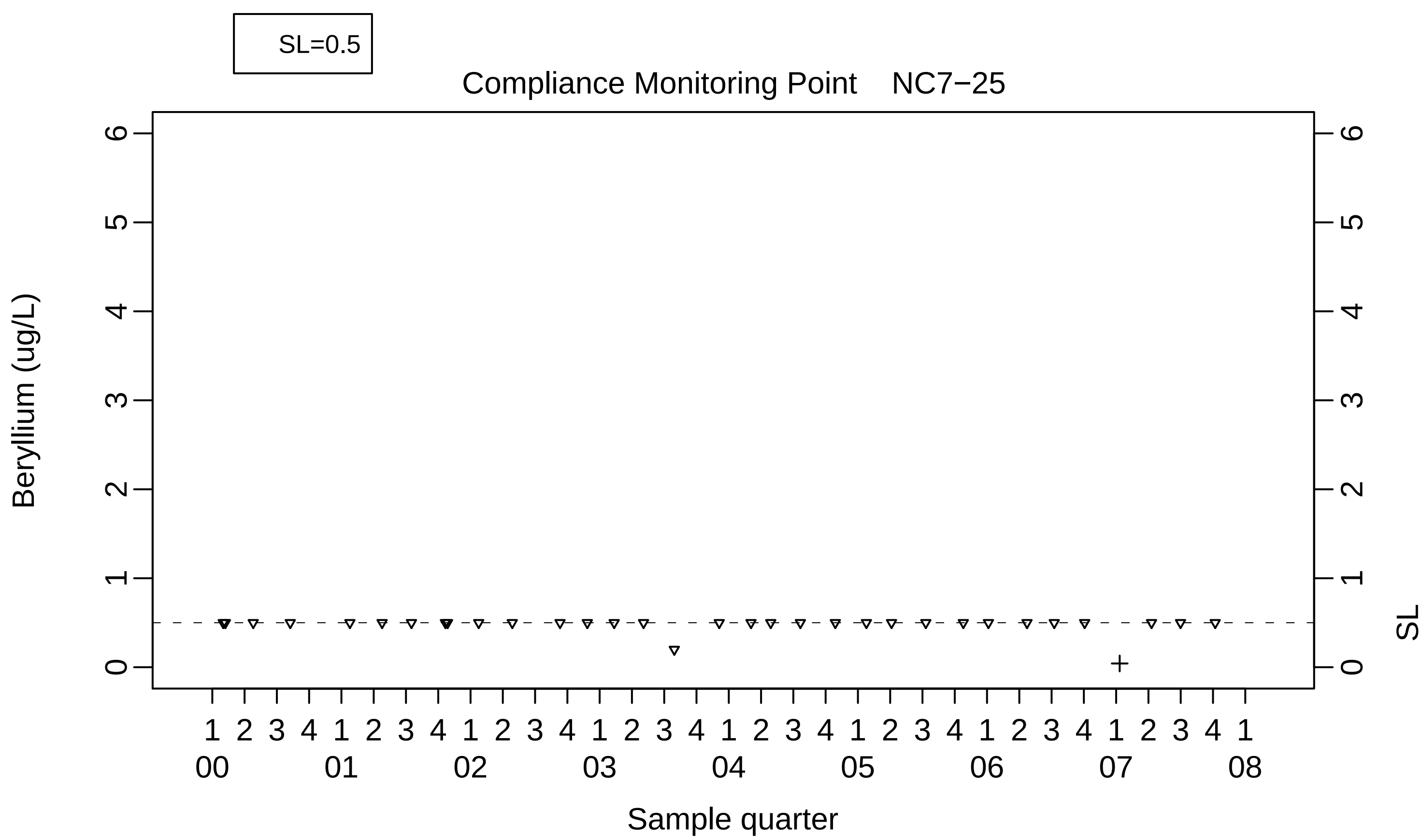

SL=0.5
Compliance Monitoring Point K7−01
Beryllium (ug/L)
0
1
2
3
4
5
6
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

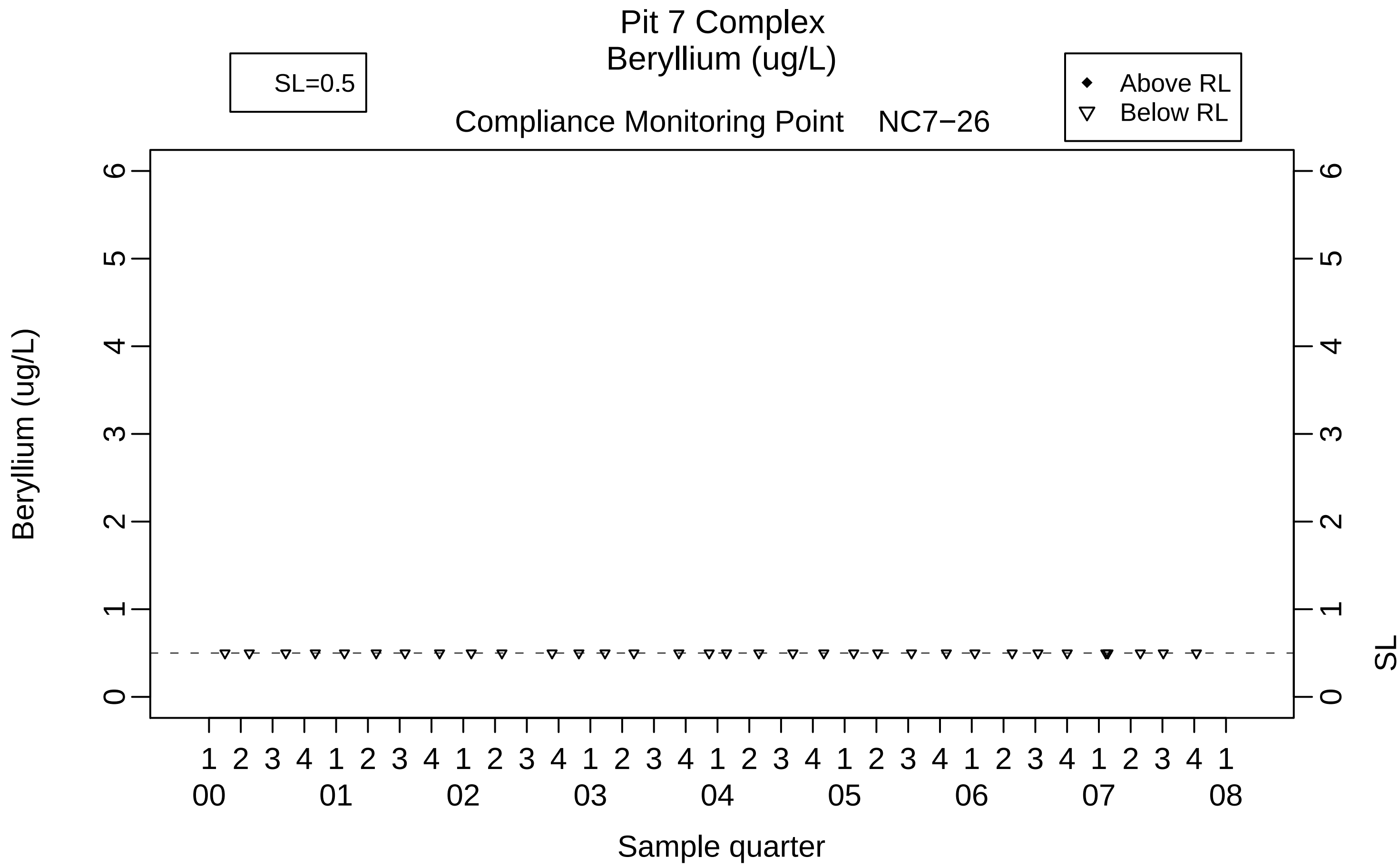
Pit 7 Complex
Beryllium (ug/L)

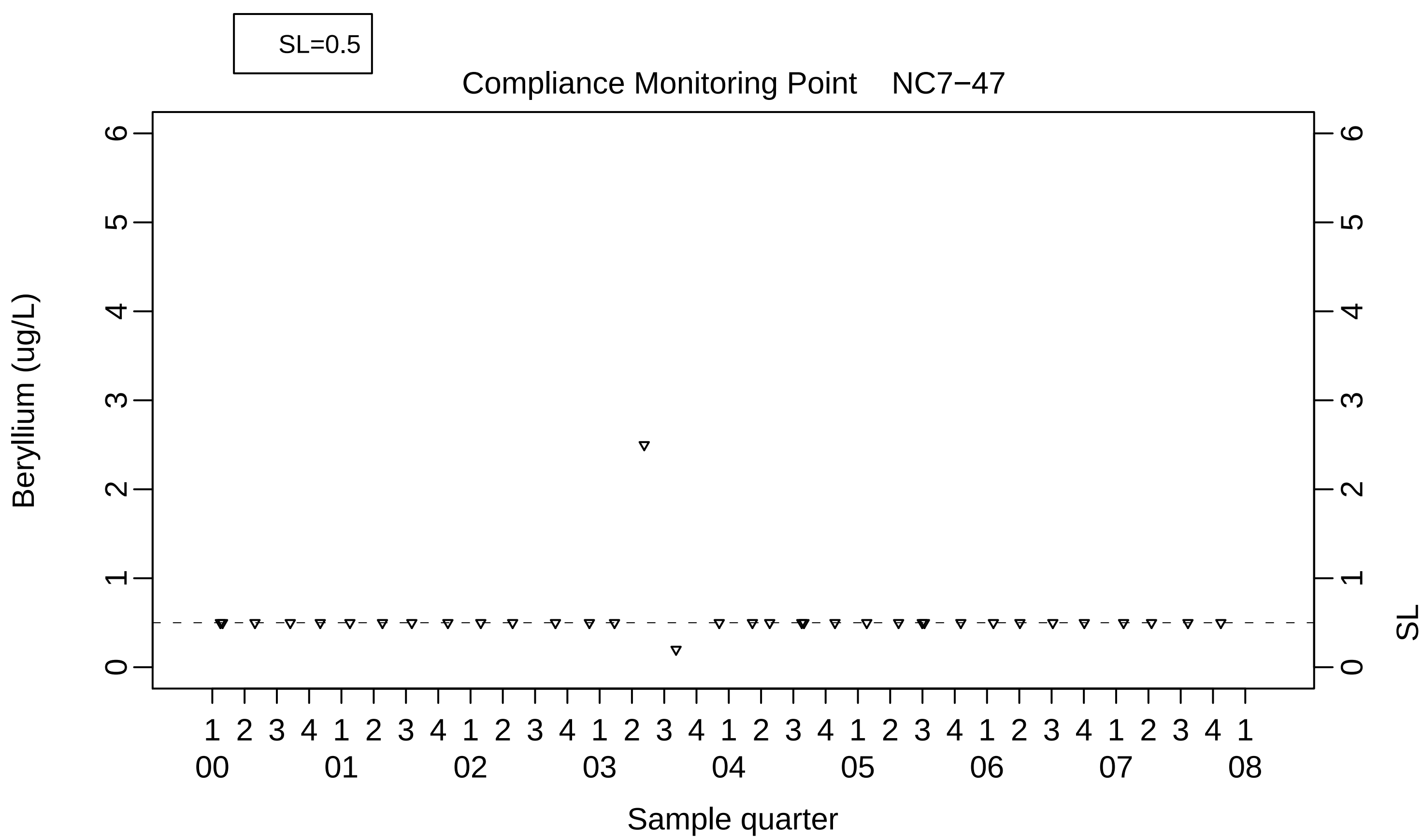


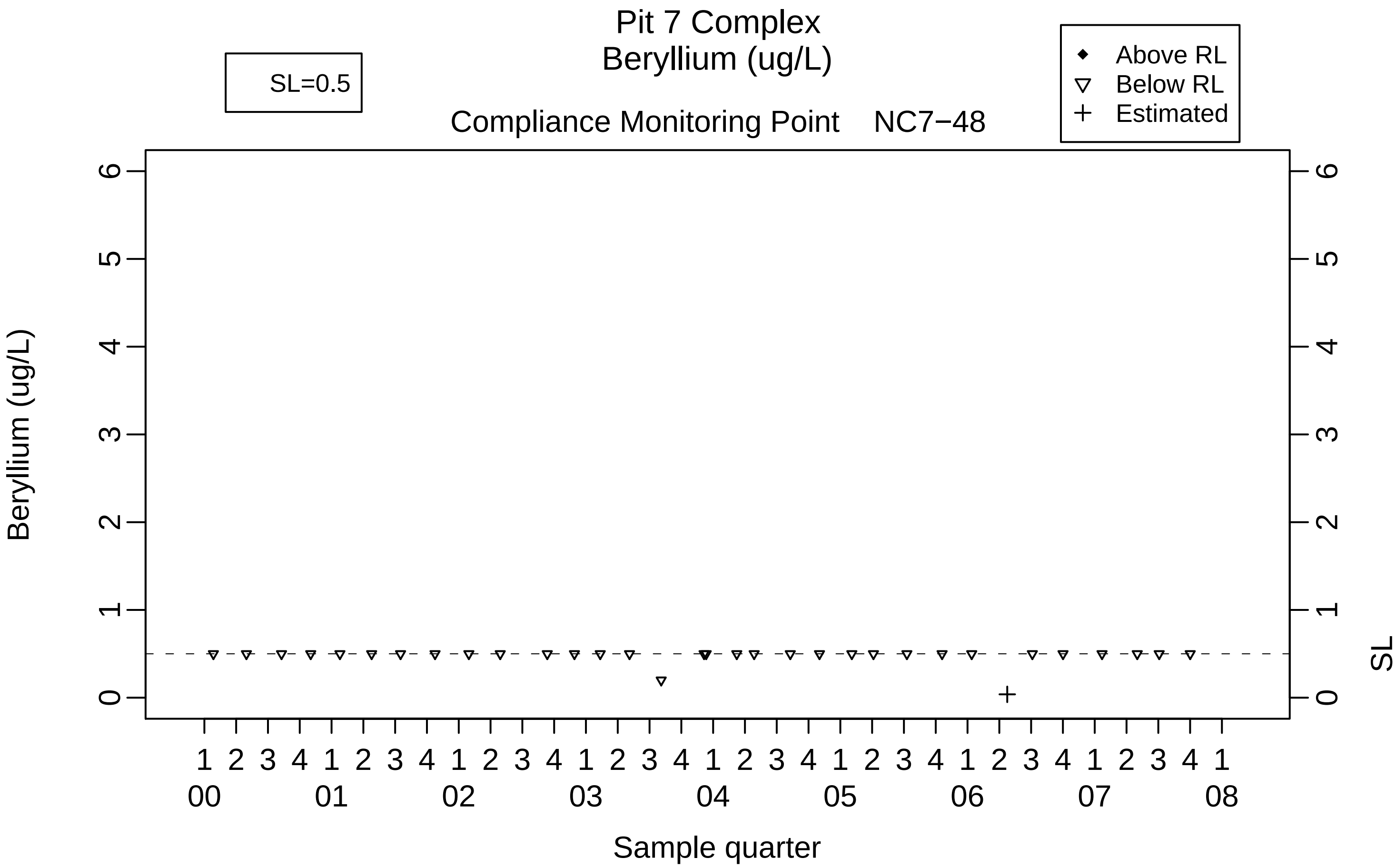



Pit 7 Complex
Beryllium (ug/L)
SL=0.5
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−10
Beryllium (ug/L)
SL
0 1 2 3 4 5 6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

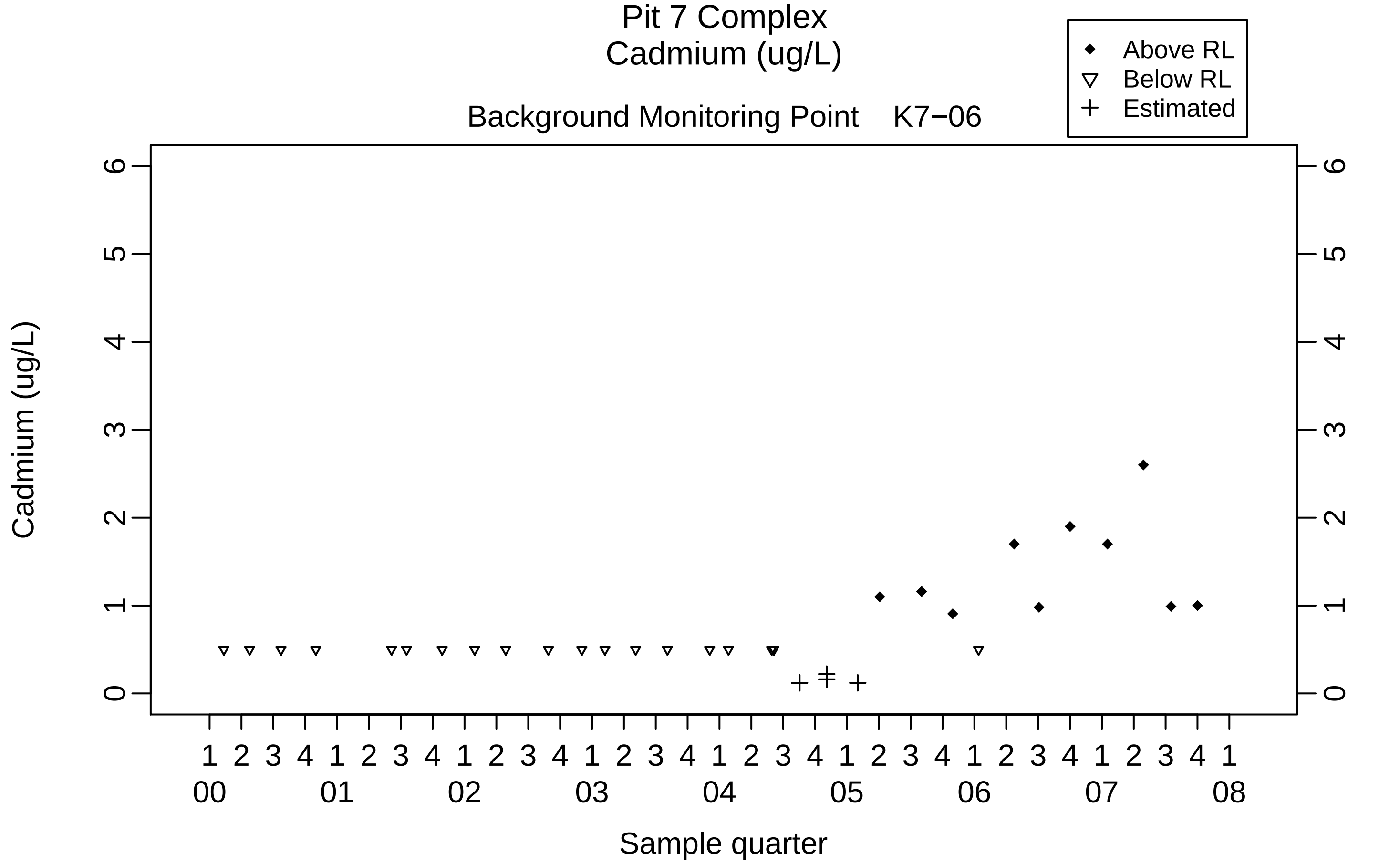

SL=0.5
Compliance Monitoring Point NC7−25
Beryllium (ug/L)
SL
0 1 2 3 4 5 6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

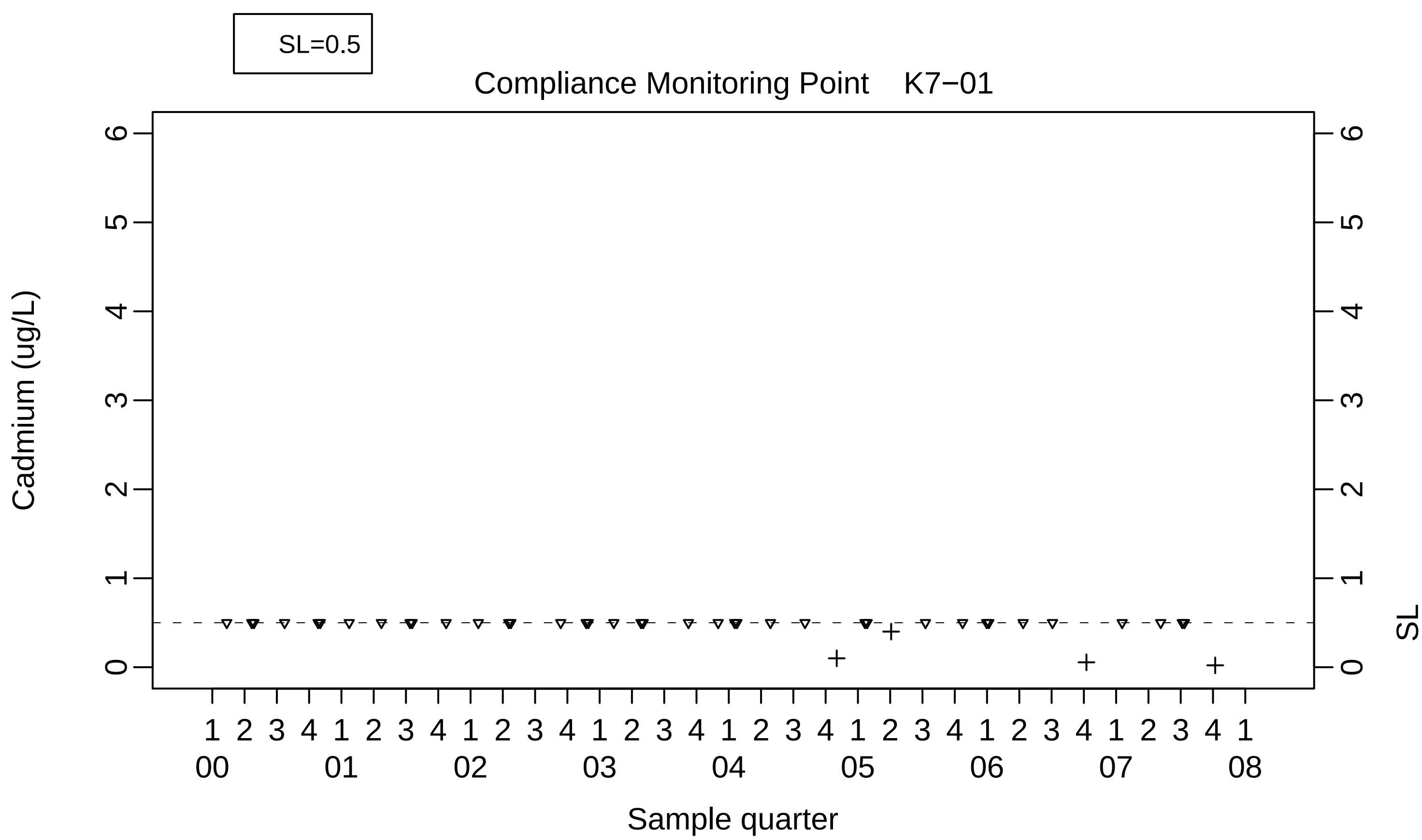

Pit 7 Complex
Beryllium (ug/L)
SL=0.5
Above RL
Below RL
Compliance Monitoring Point NC7−26
Beryllium (ug/L)
SL
0
1
2
3
4
5
6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

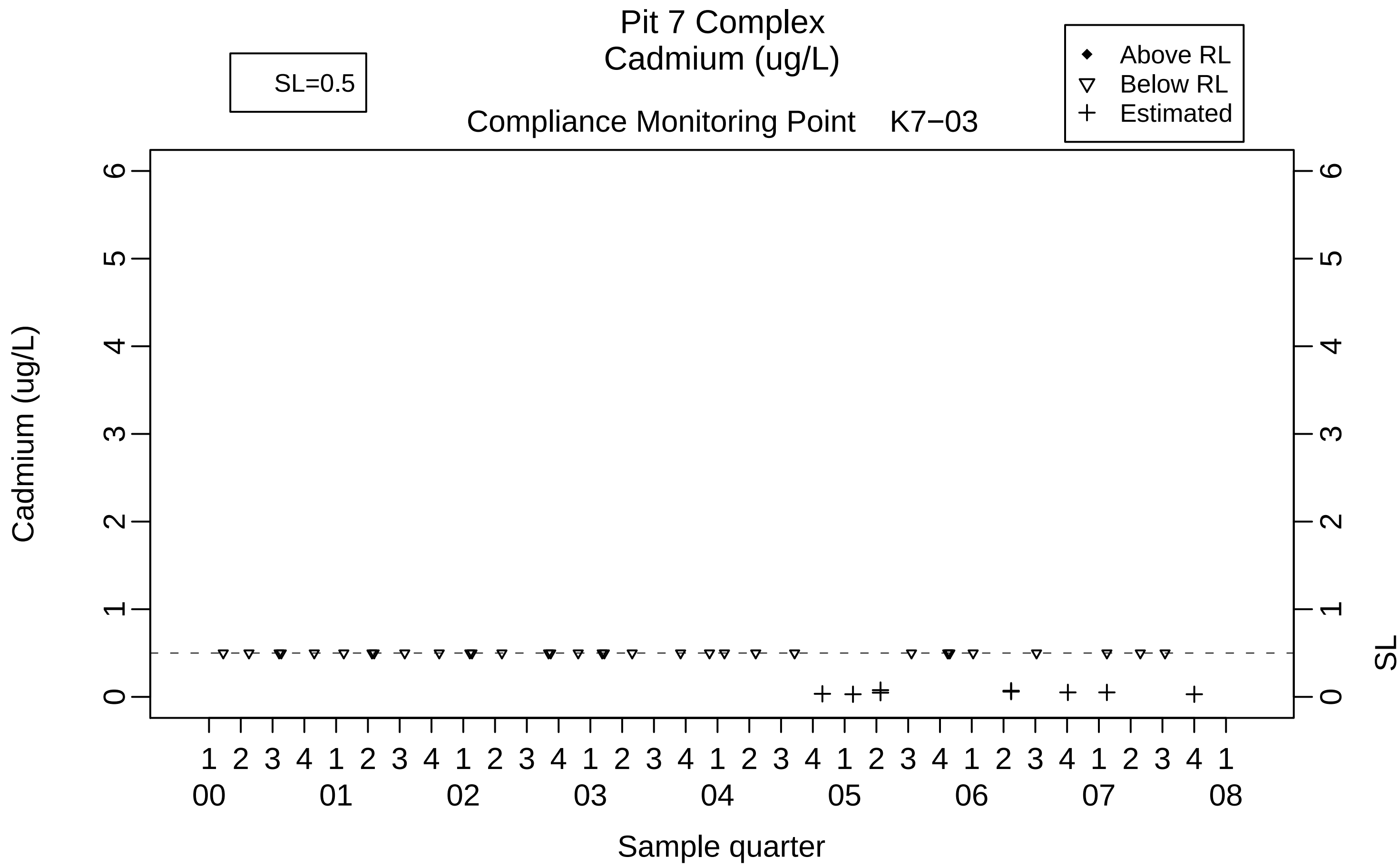

SL=0.5
Compliance Monitoring Point NC7−47
Beryllium (ug/L)
SL
0
1
2
3
4
5
6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

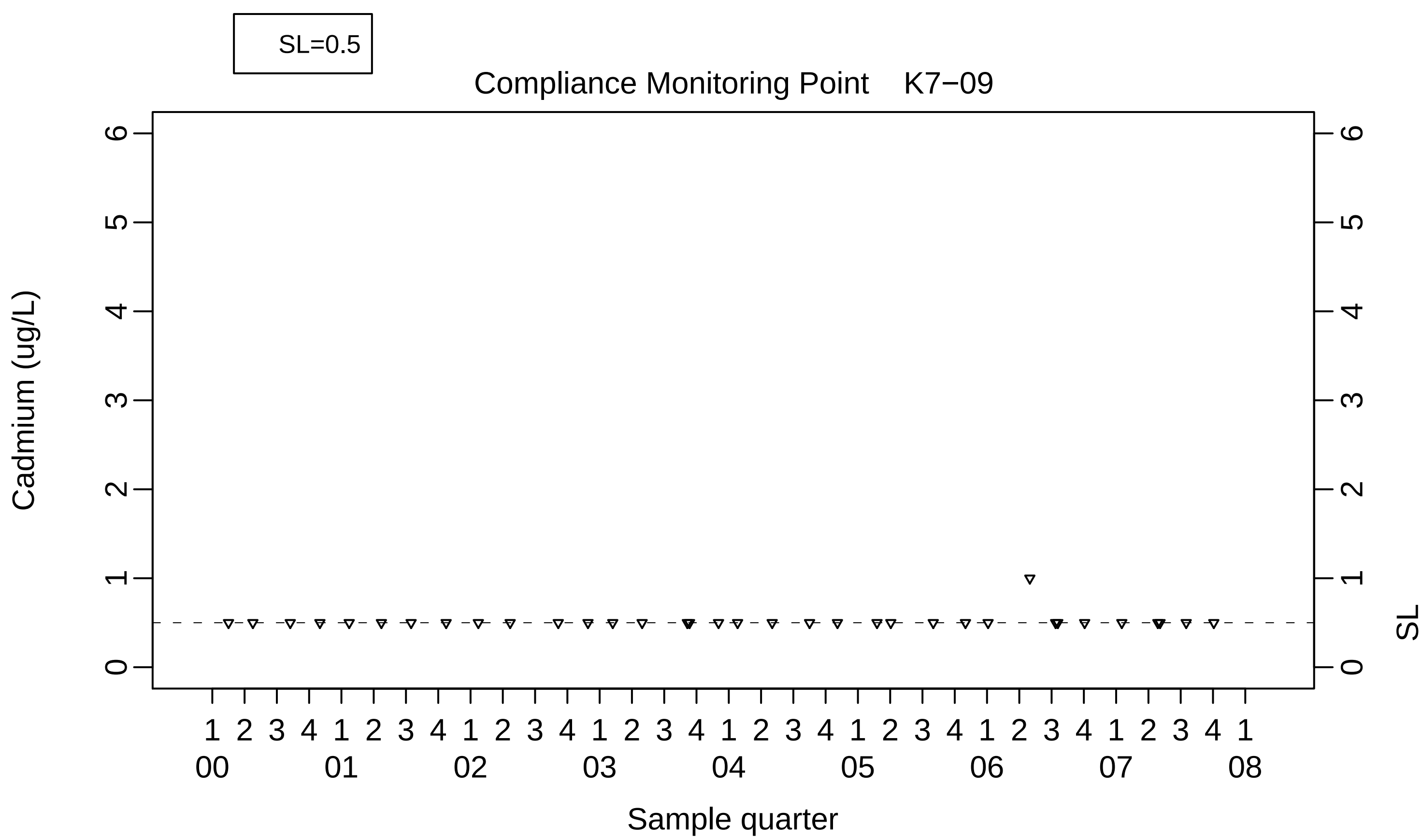

Pit 7 Complex
Beryllium (ug/L)
SL=0.5
Above RL
Below RL
Estimated
Compliance Monitoring Point NC7−48
Beryllium (ug/L)
SL
0
1
2
3
4
5
6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

Pit 7 Complex
Cadmium (ug/L)

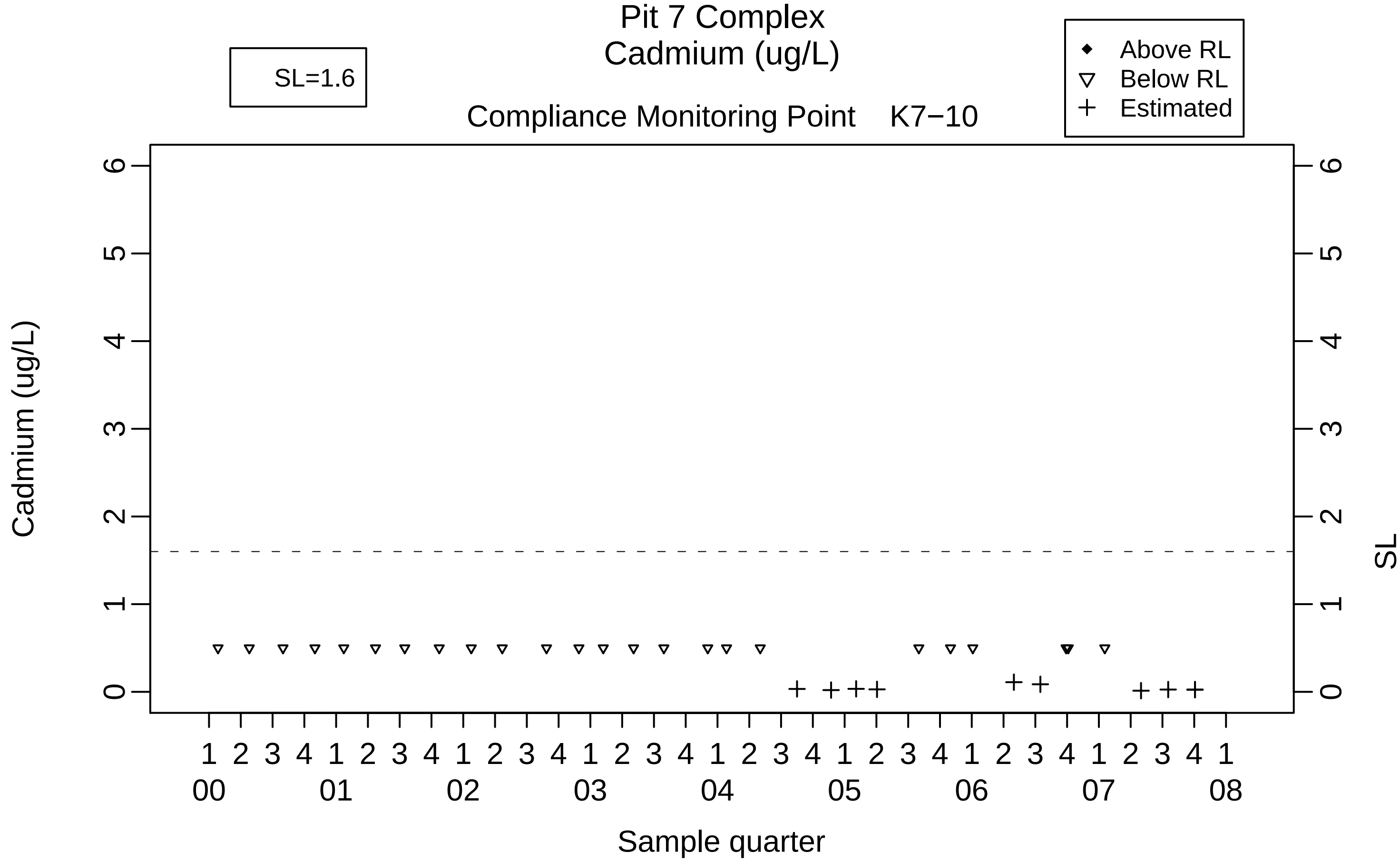


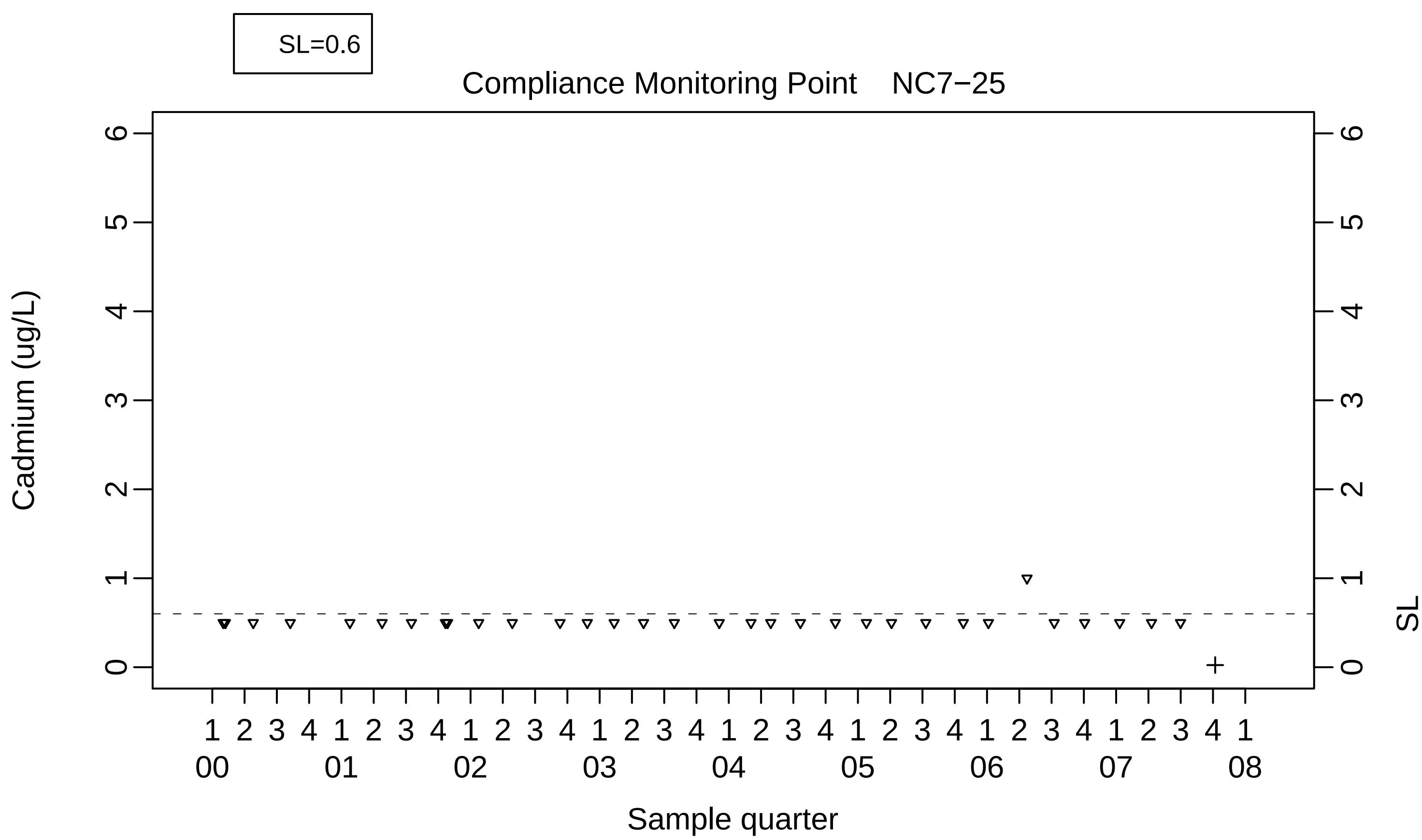


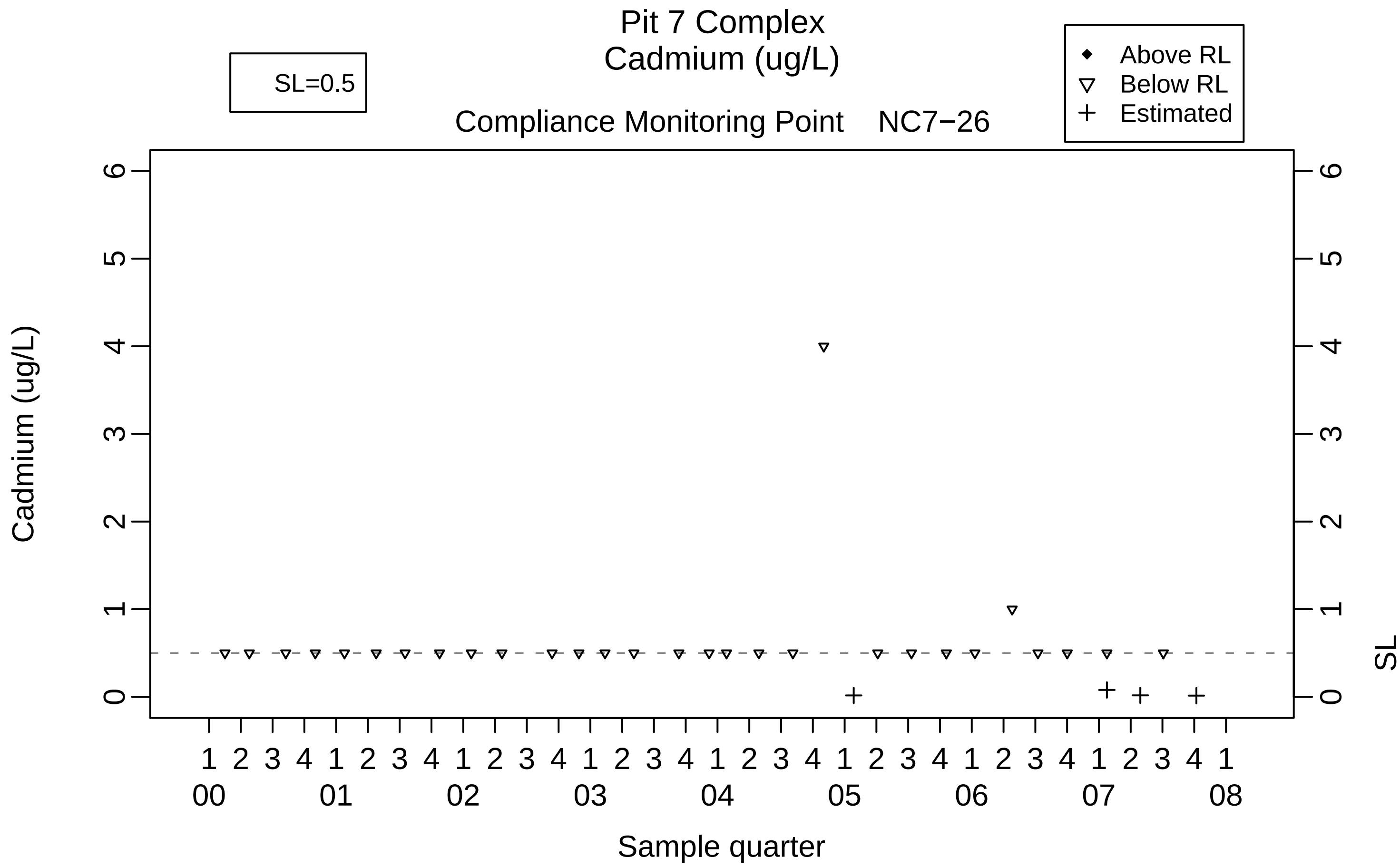

Pit 7 Complex
Cadmium (ug/L)
SL=0.5
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−03
Cadmium (ug/L)
SL
0 1 2 3 4 5 6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

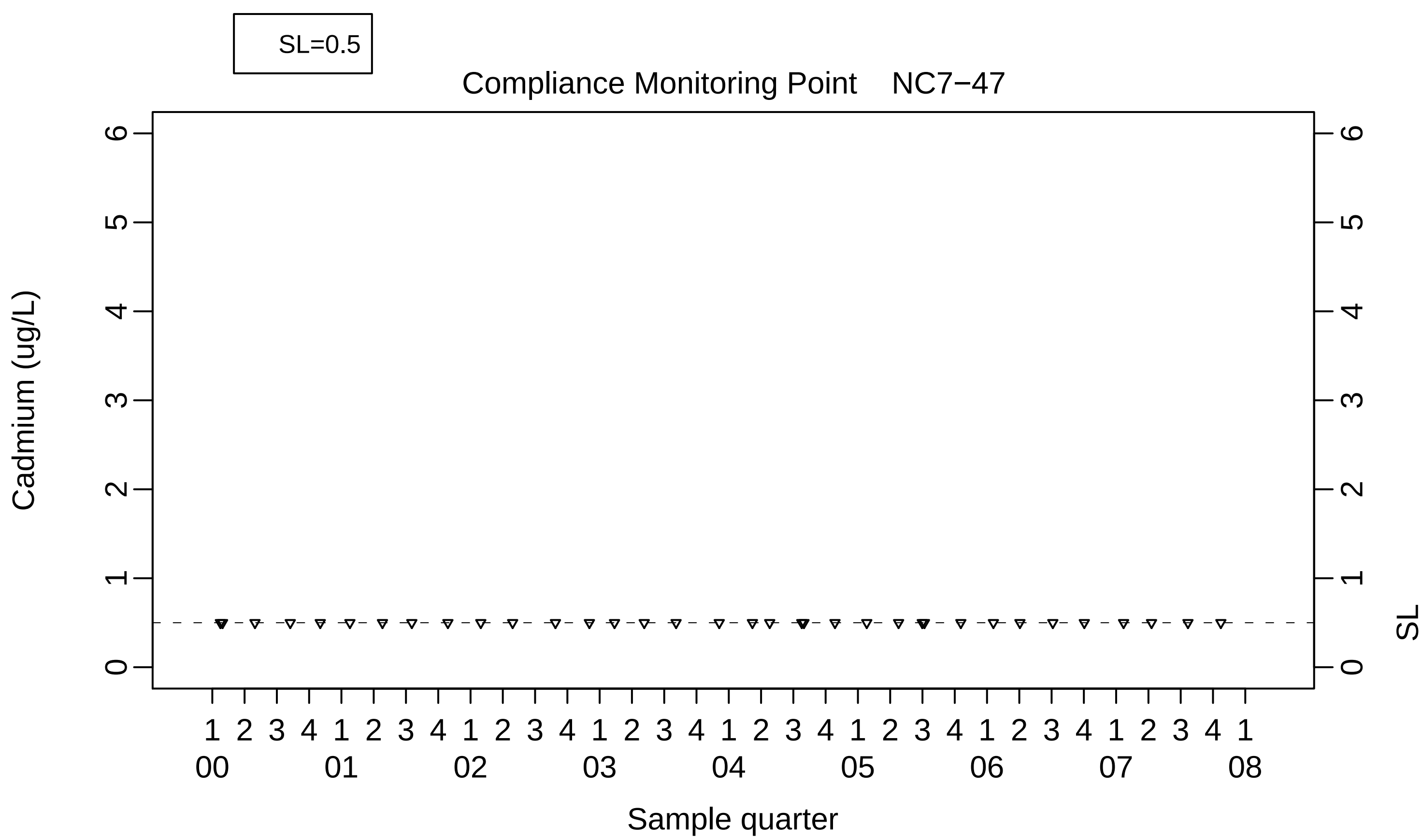

SL=0.5
Compliance Monitoring Point K7−09
Cadmium (ug/L)
SL
0 1 2 3 4 5 6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

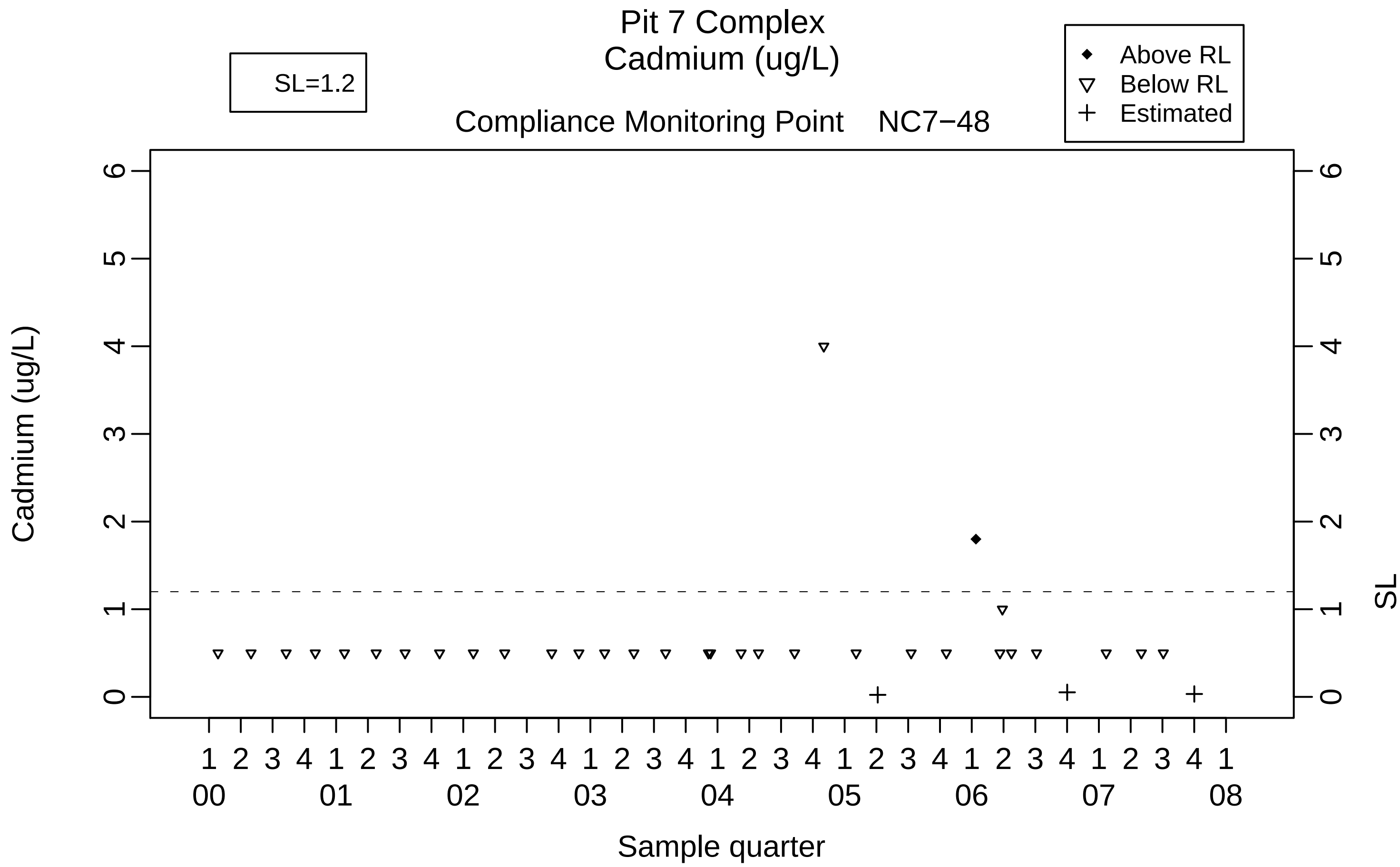
Pit 7 Complex
Cadmium (ug/L)



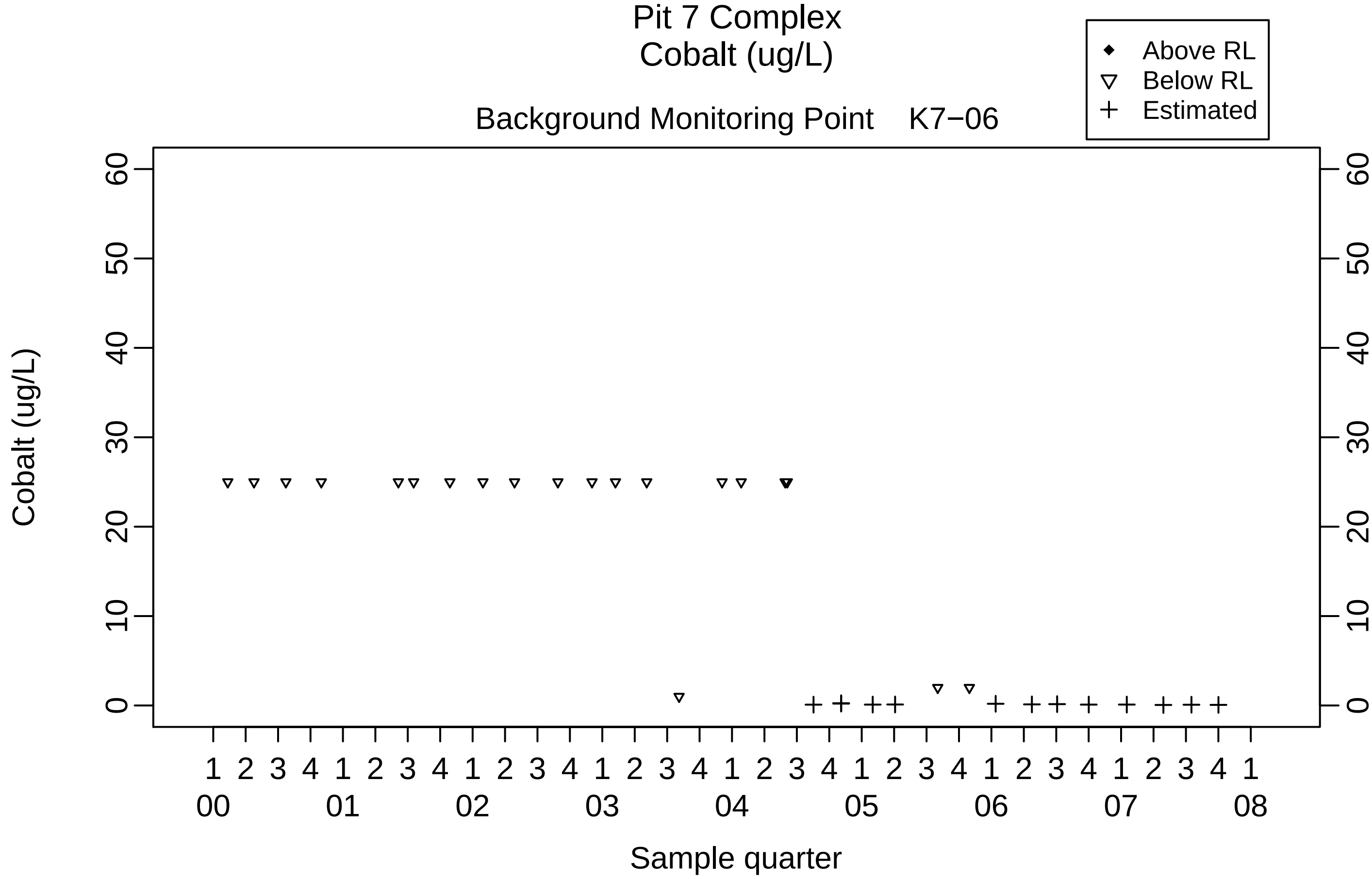


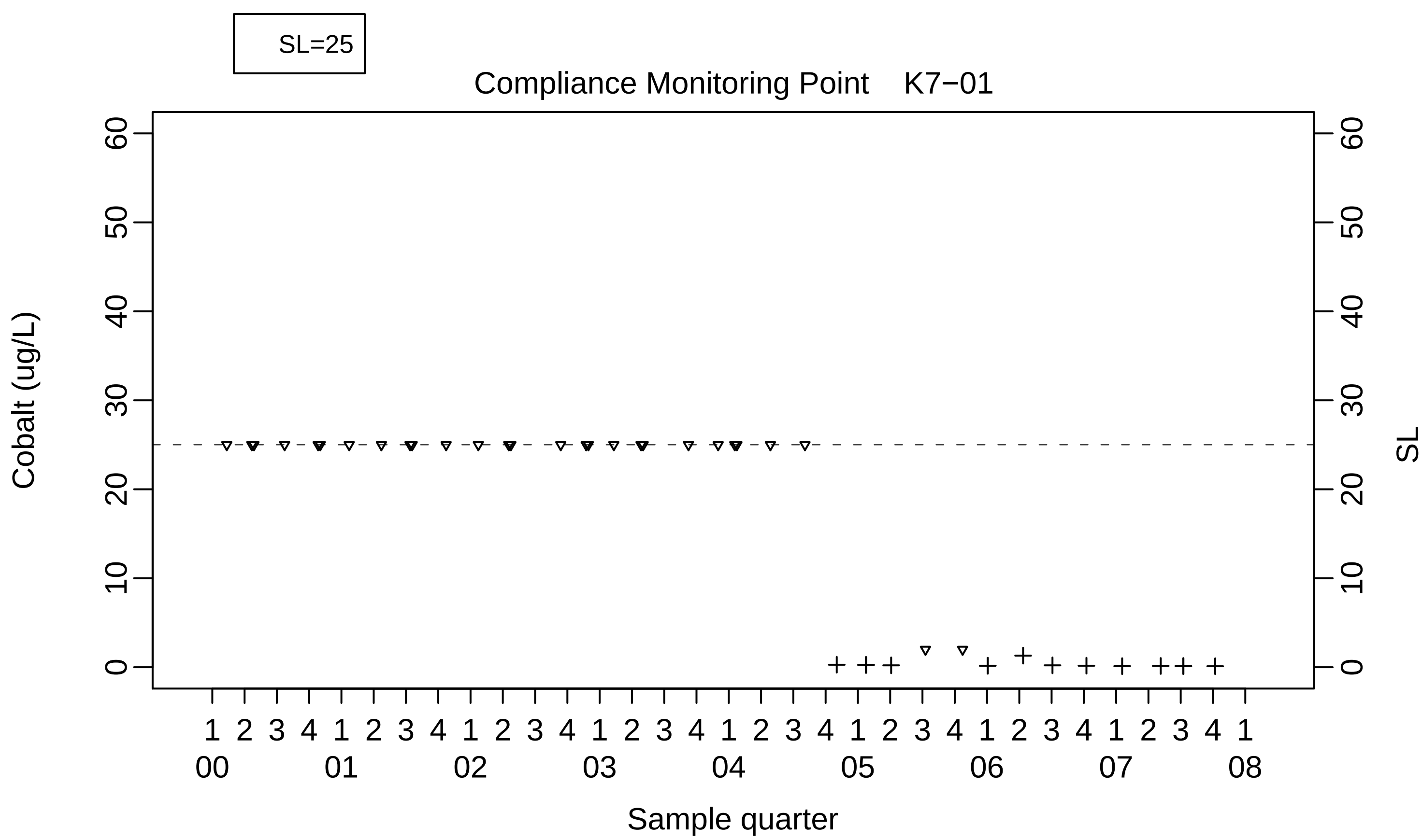

Pit 7 Complex
Cadmium (ug/L)
SL=0.5
Above RL
Below RL
Estimated
Compliance Monitoring Point NC7−26
Cadmium (ug/L)
SL
Sample quarter
00 01 02 03 04 05 06 07 08


SL=0.5
Compliance Monitoring Point NC7−47
Cadmium (ug/L)
SL
Sample quarter
00 01 02 03 04 05 06 07 08

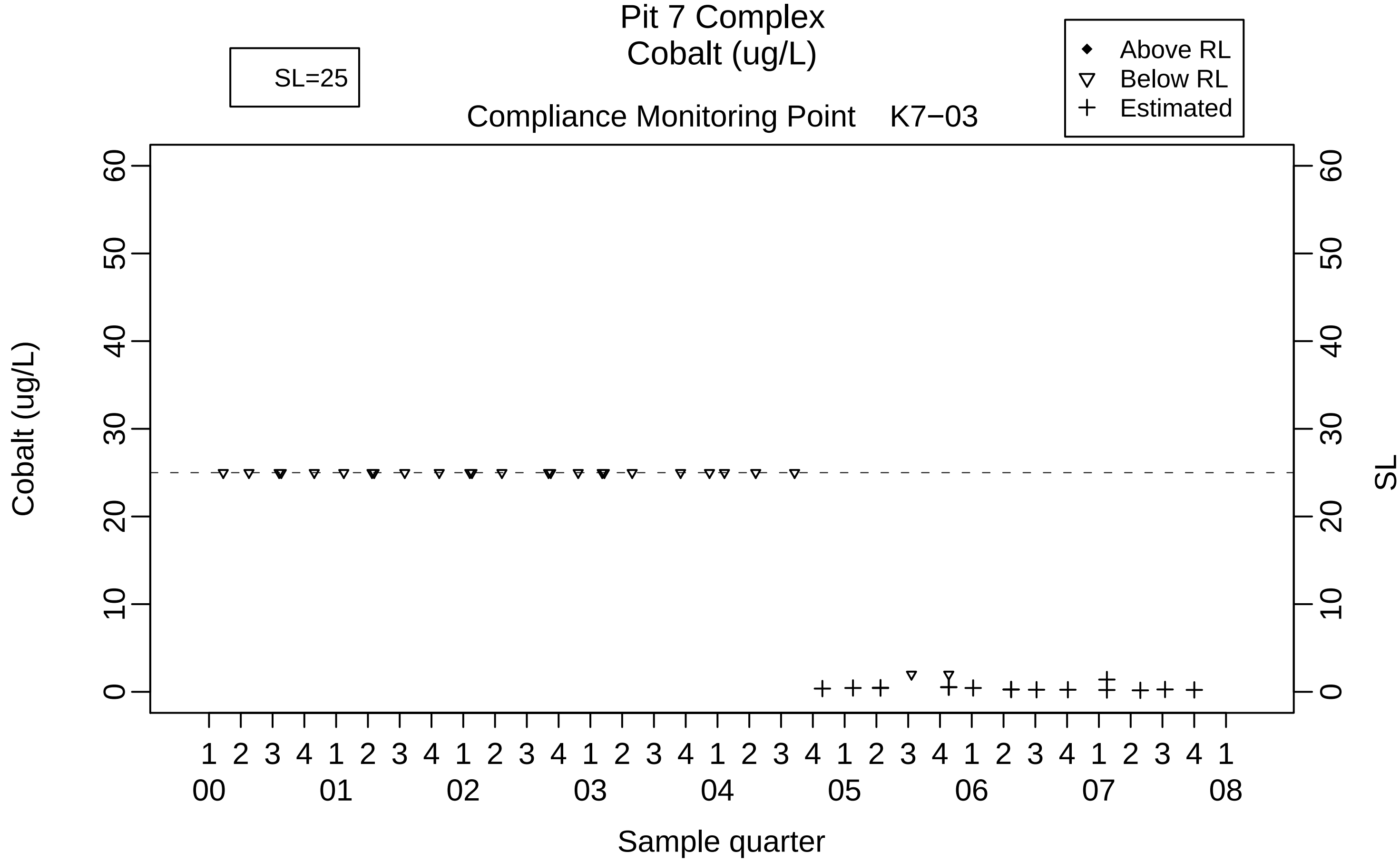

Pit 7 Complex
Cadmium (ug/L)
SL=1.2
Compliance Monitoring Point NC7−48
Above RL
Below RL
Estimated
Cadmium (ug/L)
SL
0
1
2
3
4
5
6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

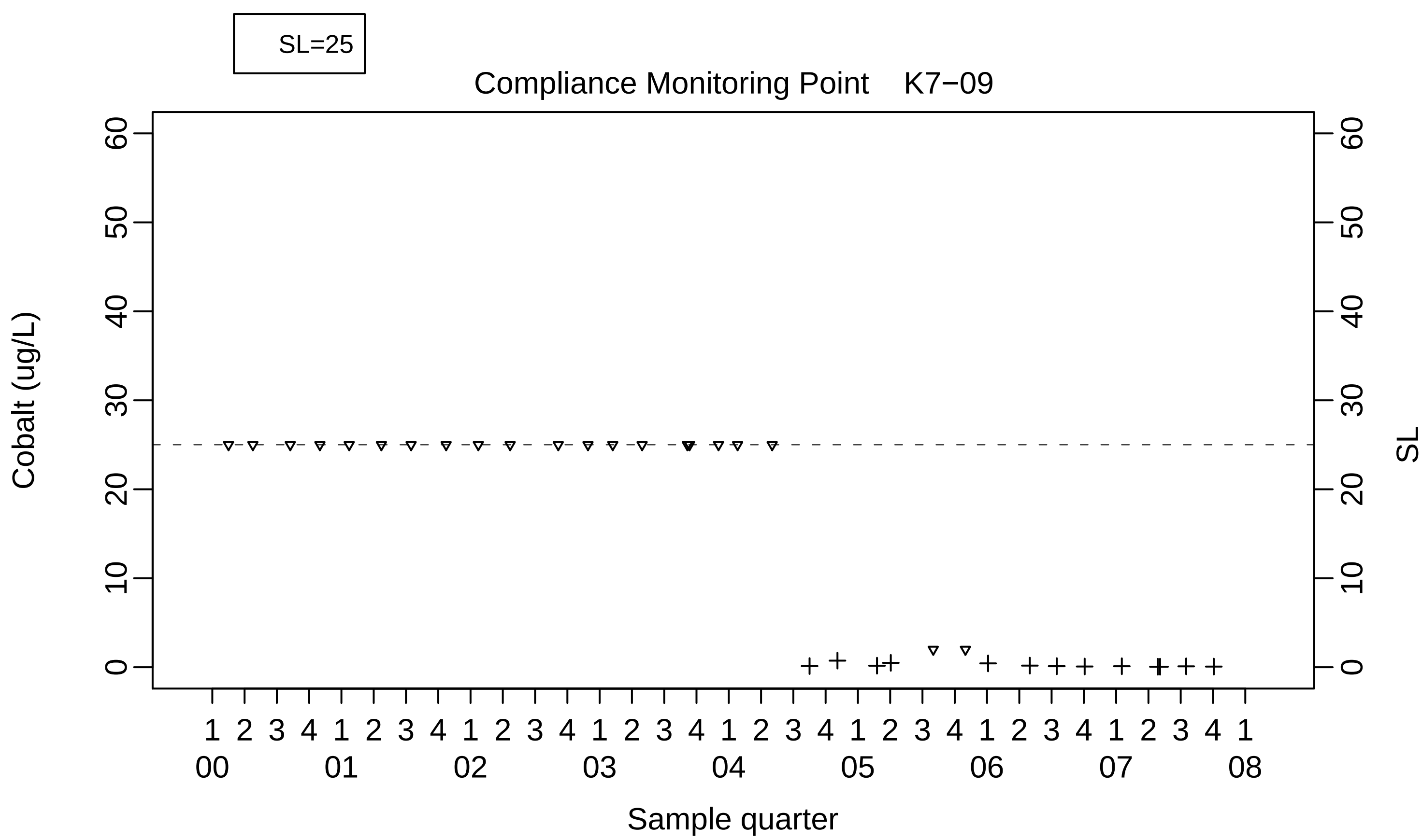
Pit 7 Complex
Cobalt (ug/L)

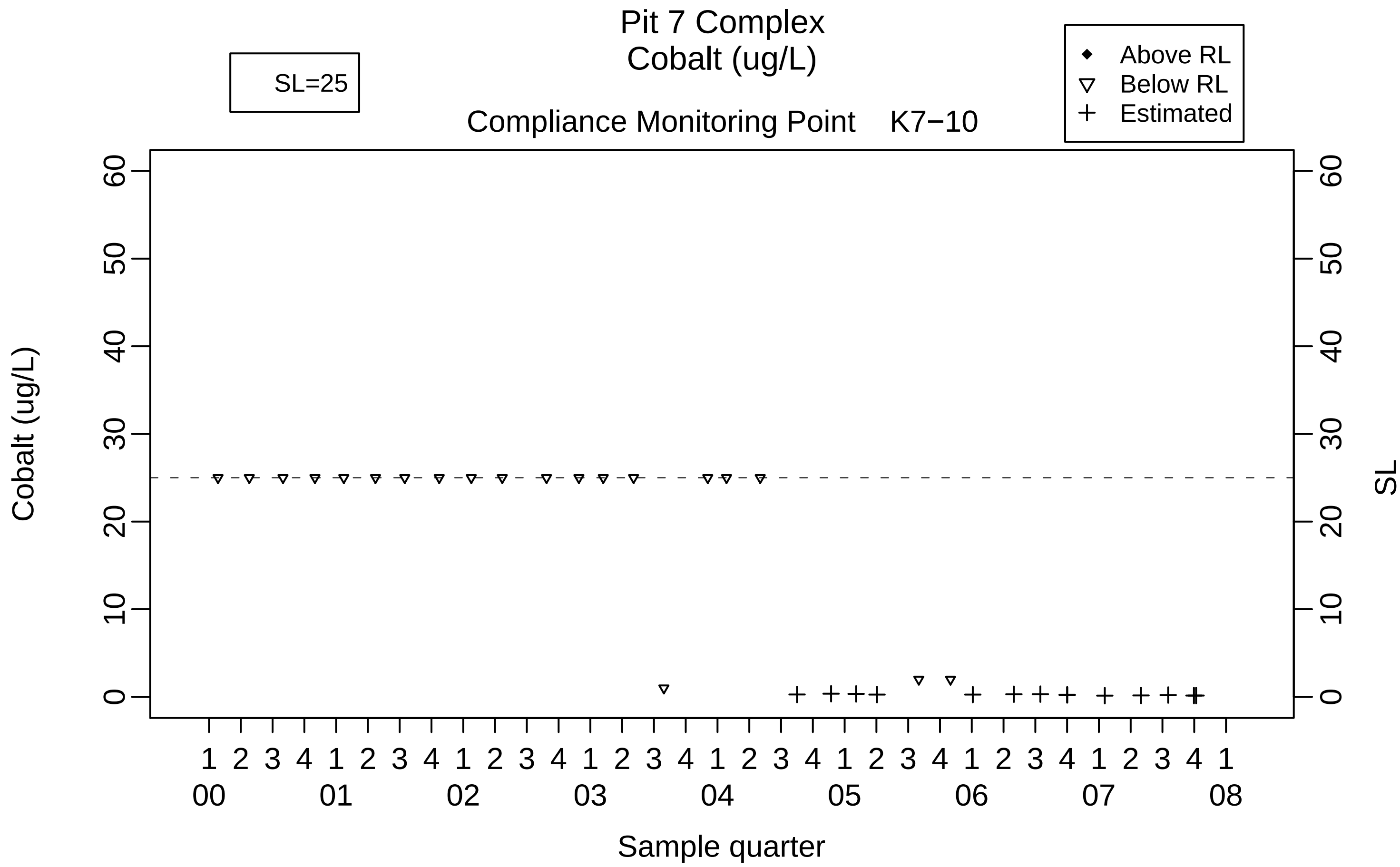


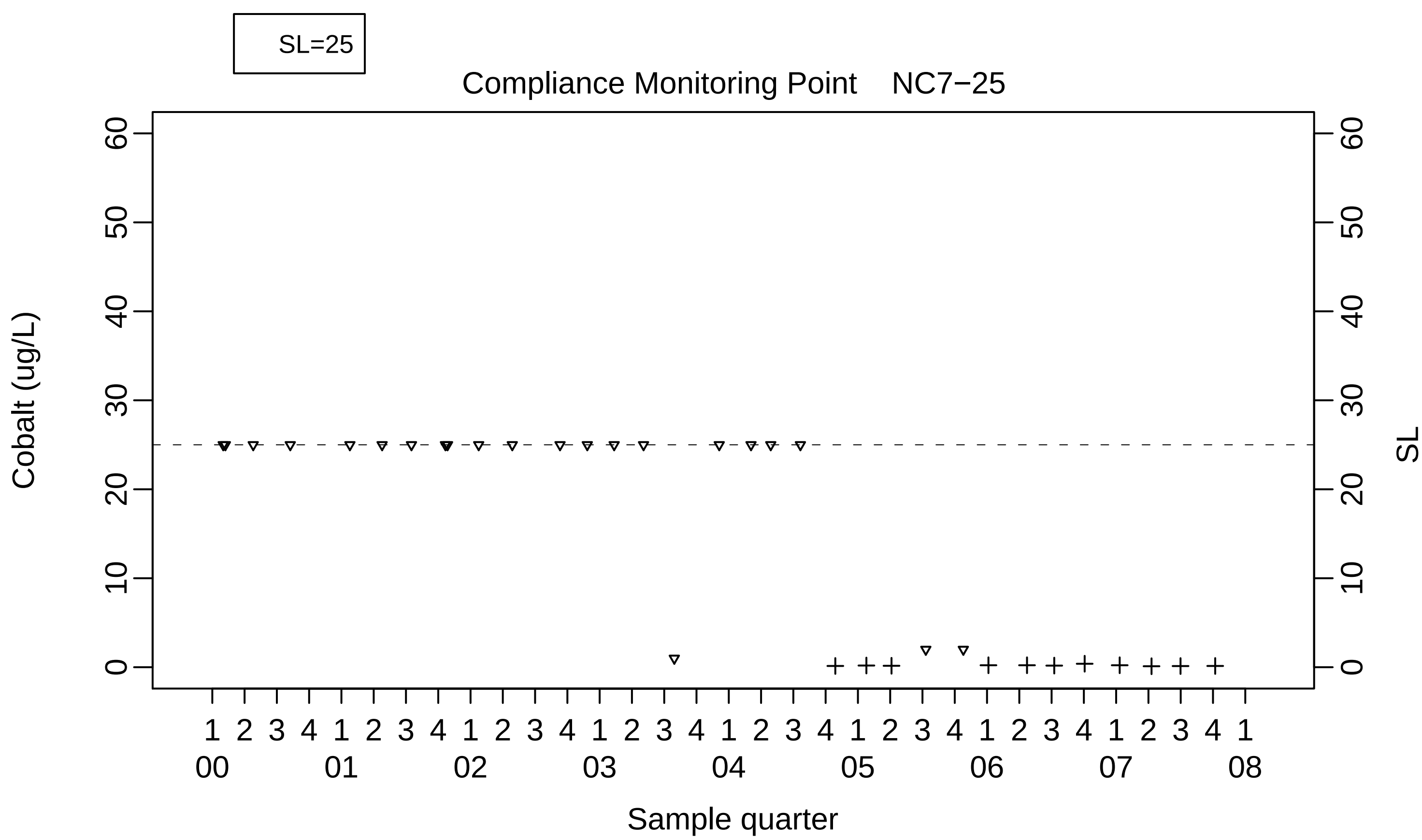


Pit 7 Complex
Cobalt (ug/L)

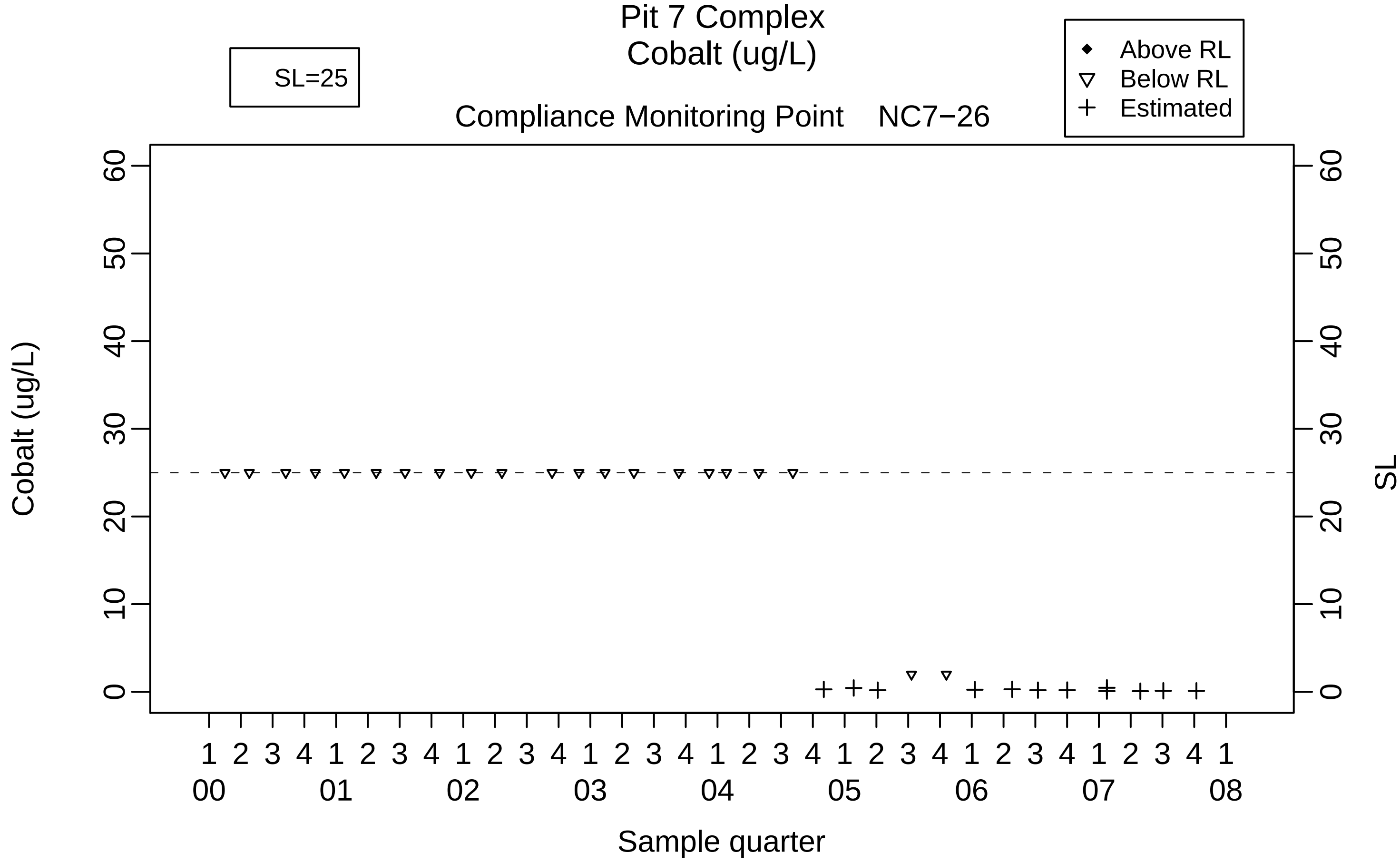


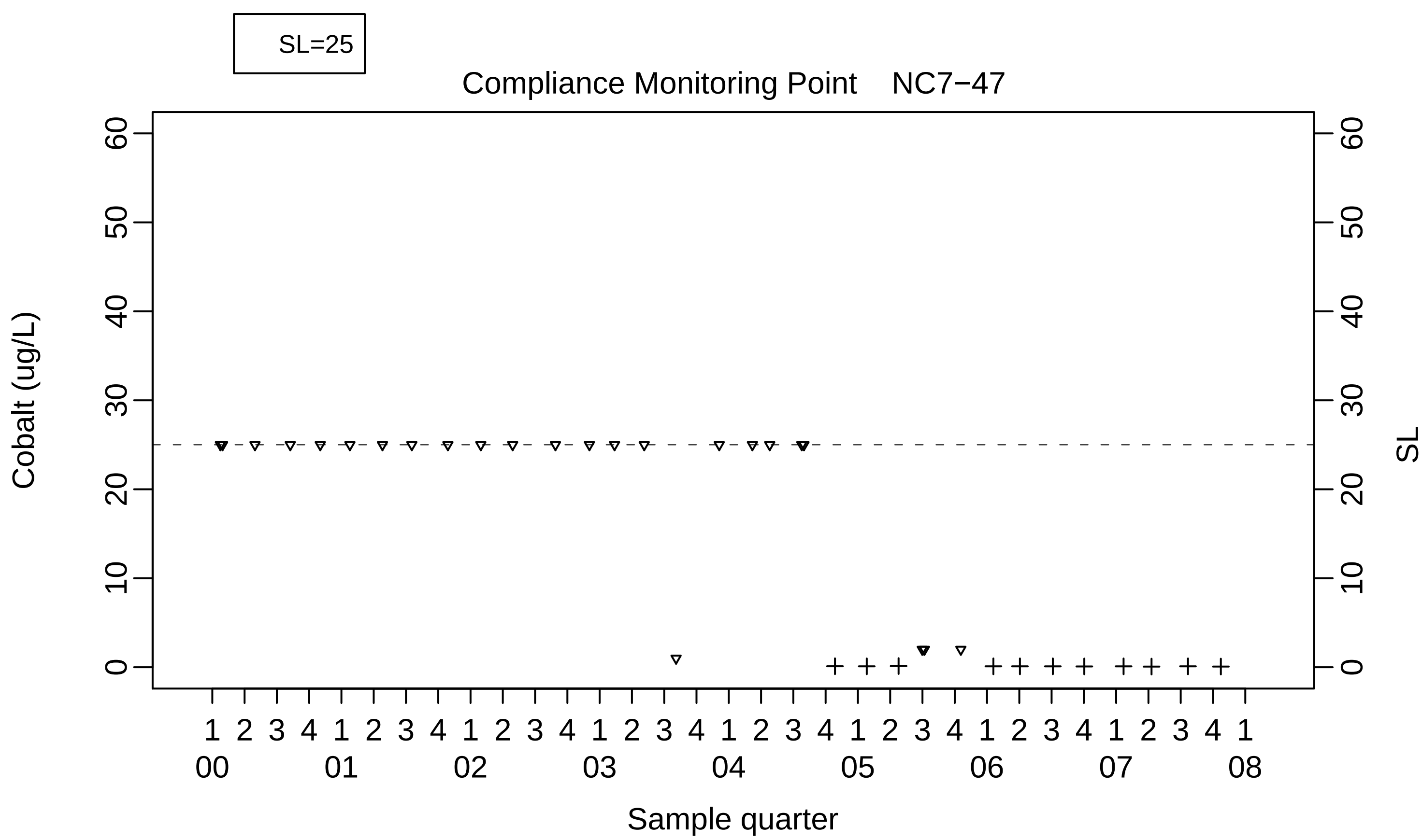


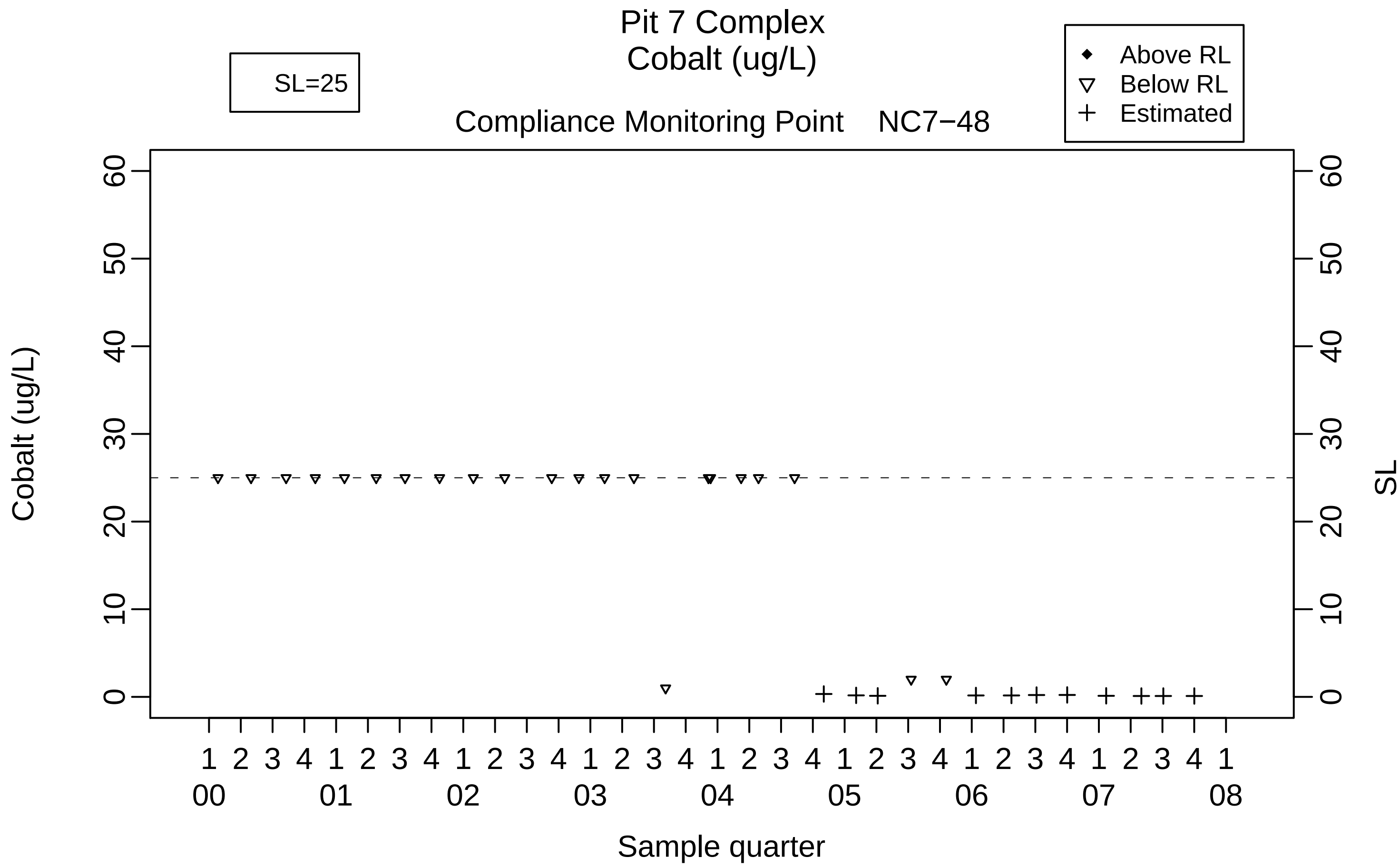

Pit 7 Complex
Cobalt (ug/L)
SL=25
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−10
Cobalt (ug/L)
SL
Sample quarter
00
01
02
03
04
05
06
07
08

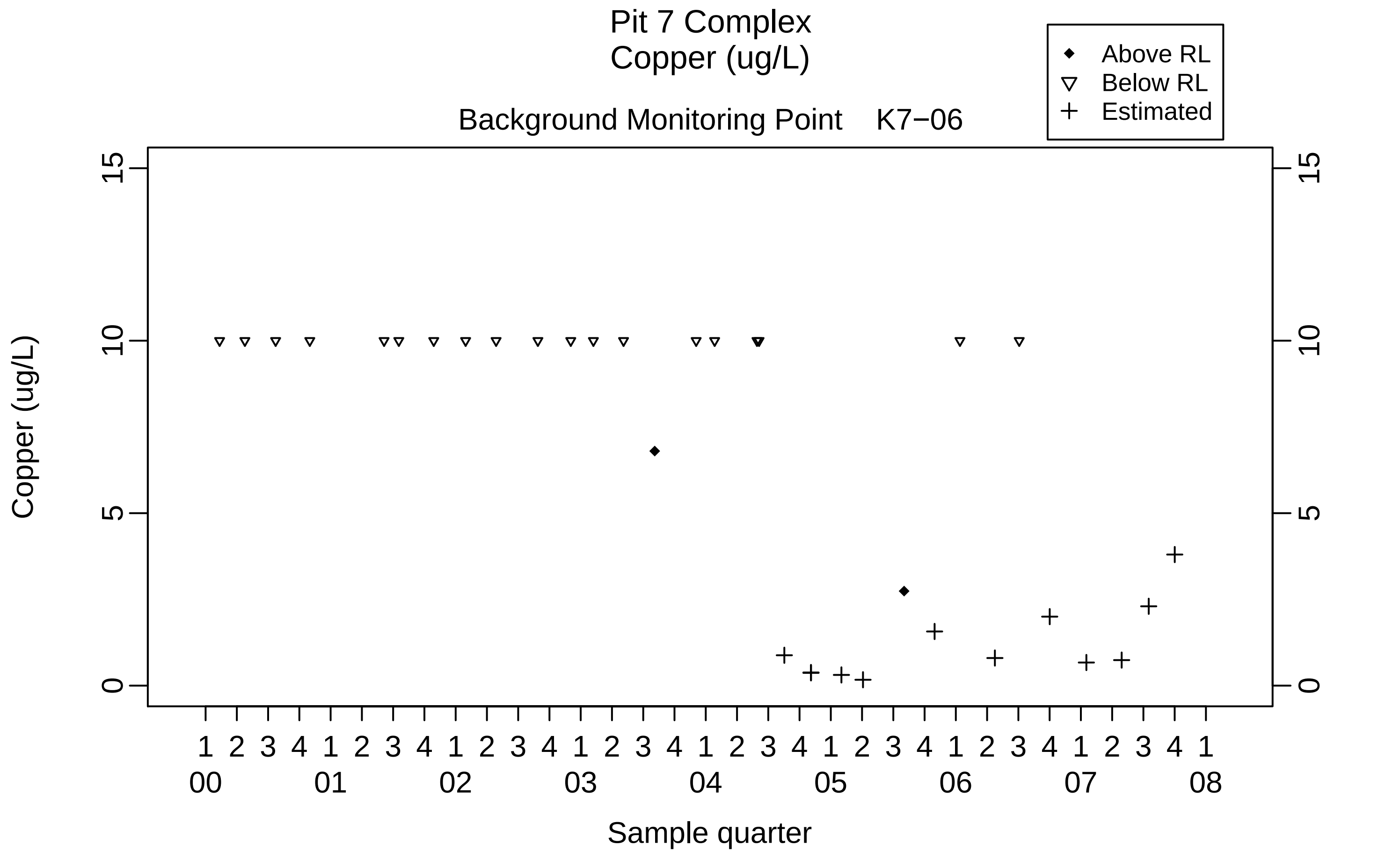

SL=25
Compliance Monitoring Point NC7−25
Cobalt (ug/L)
SL
Sample quarter
00
01
02
03
04
05
06
07
08

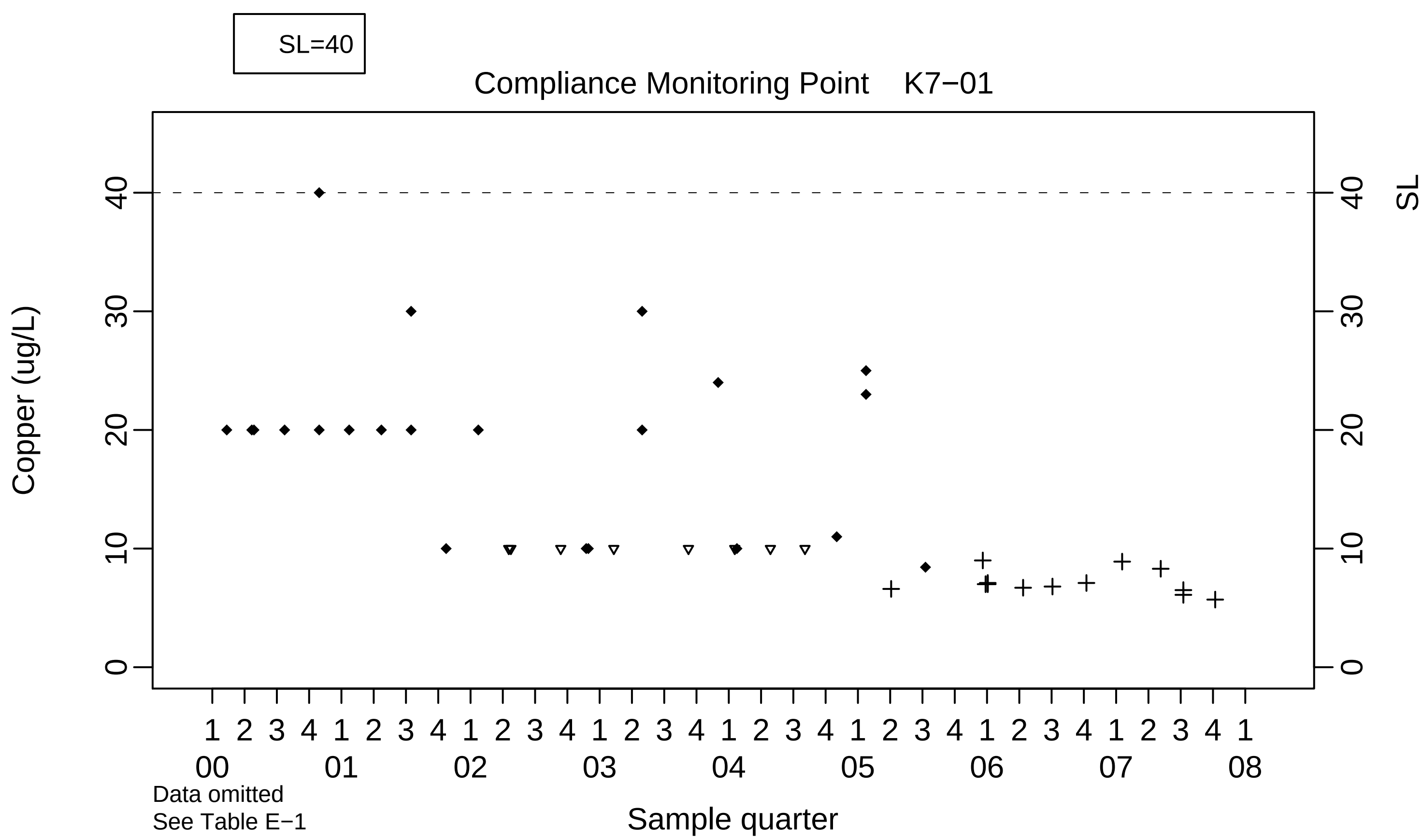
Pit 7 Complex
Cobalt (ug/L)



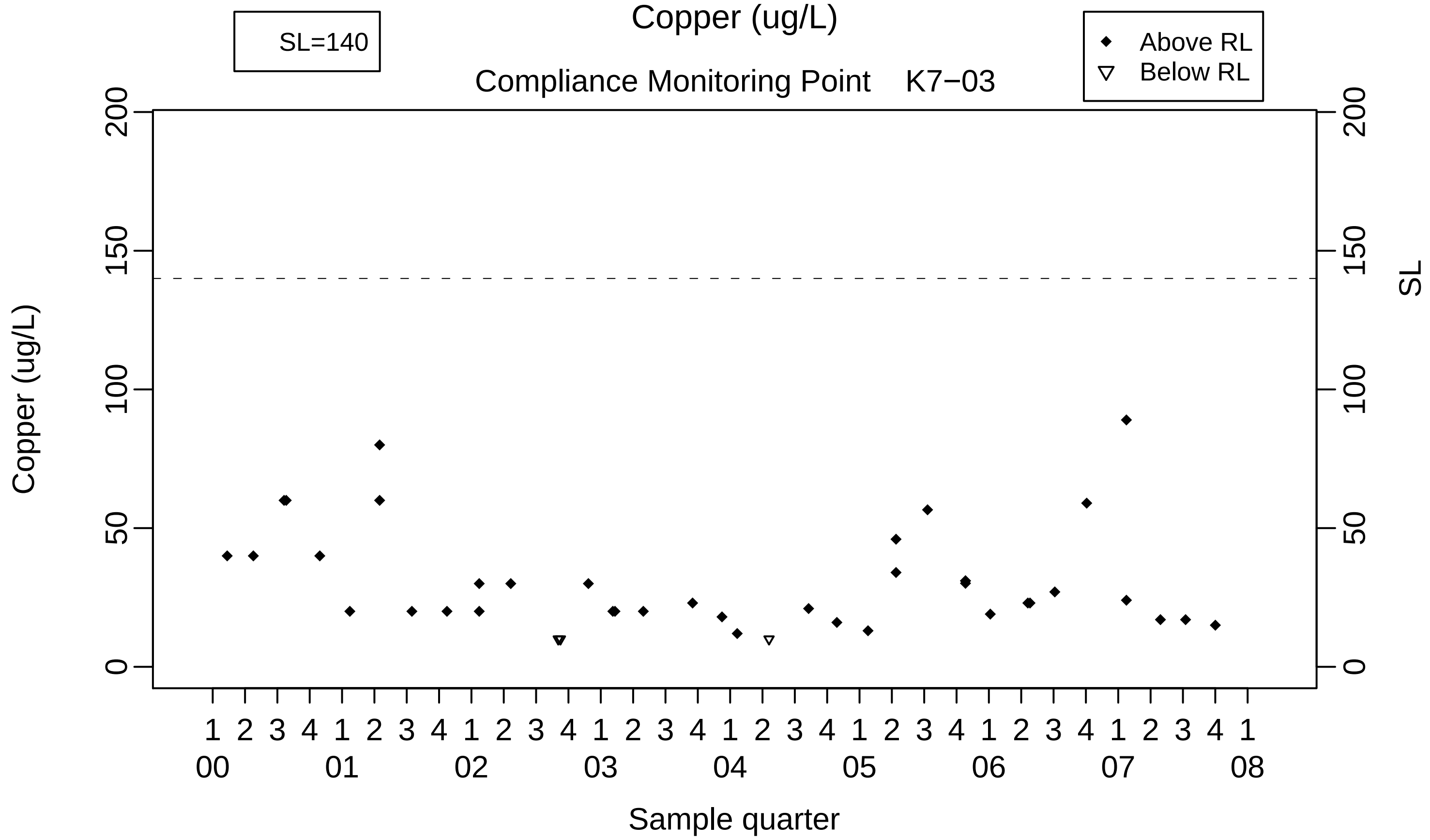


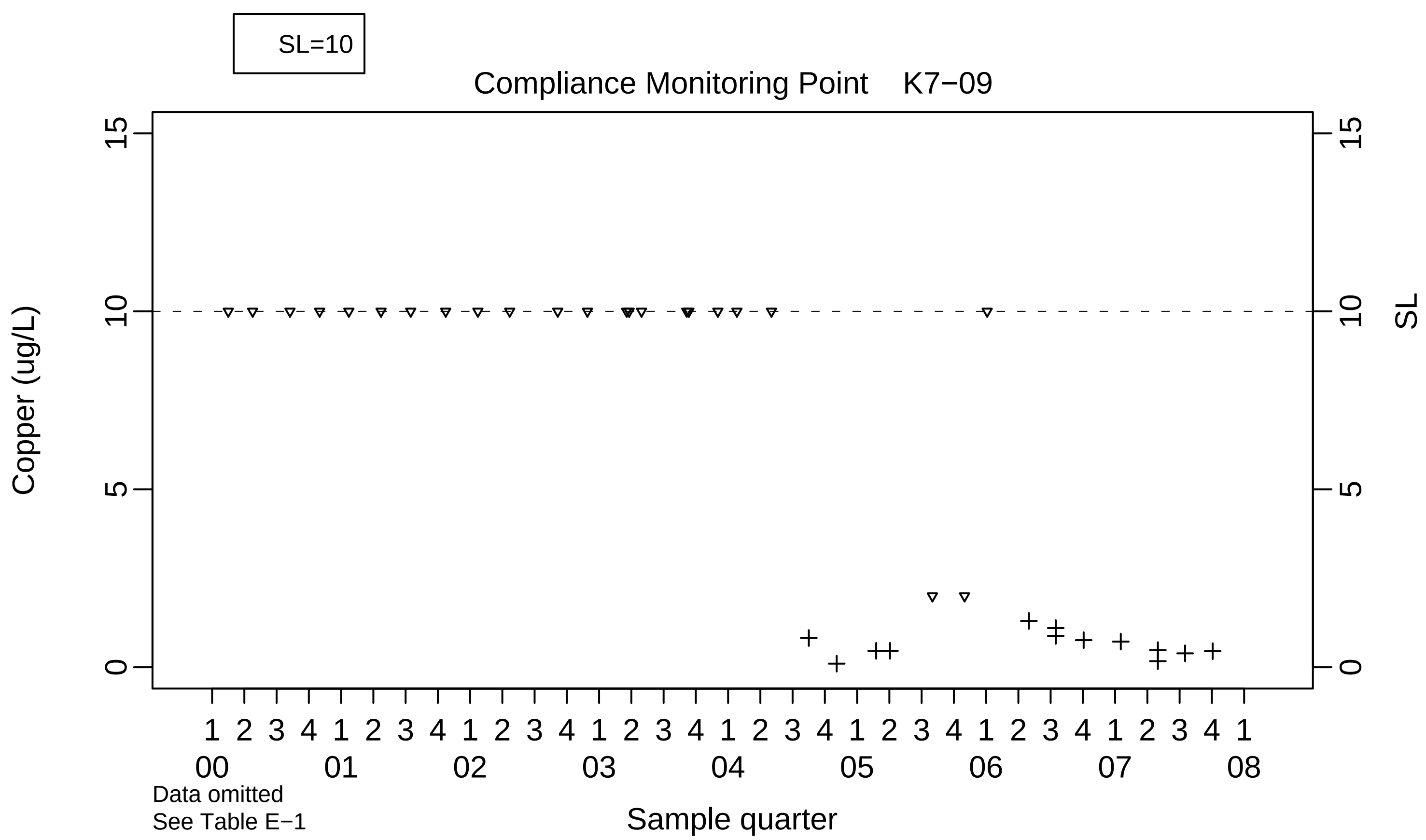

Pit 7 Complex
Cobalt (ug/L)
SL=25
Above RL
Below RL
Estimated
Compliance Monitoring Point NC7−48
Cobalt (ug/L)
SL
0
10
20
30
40
50
60
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

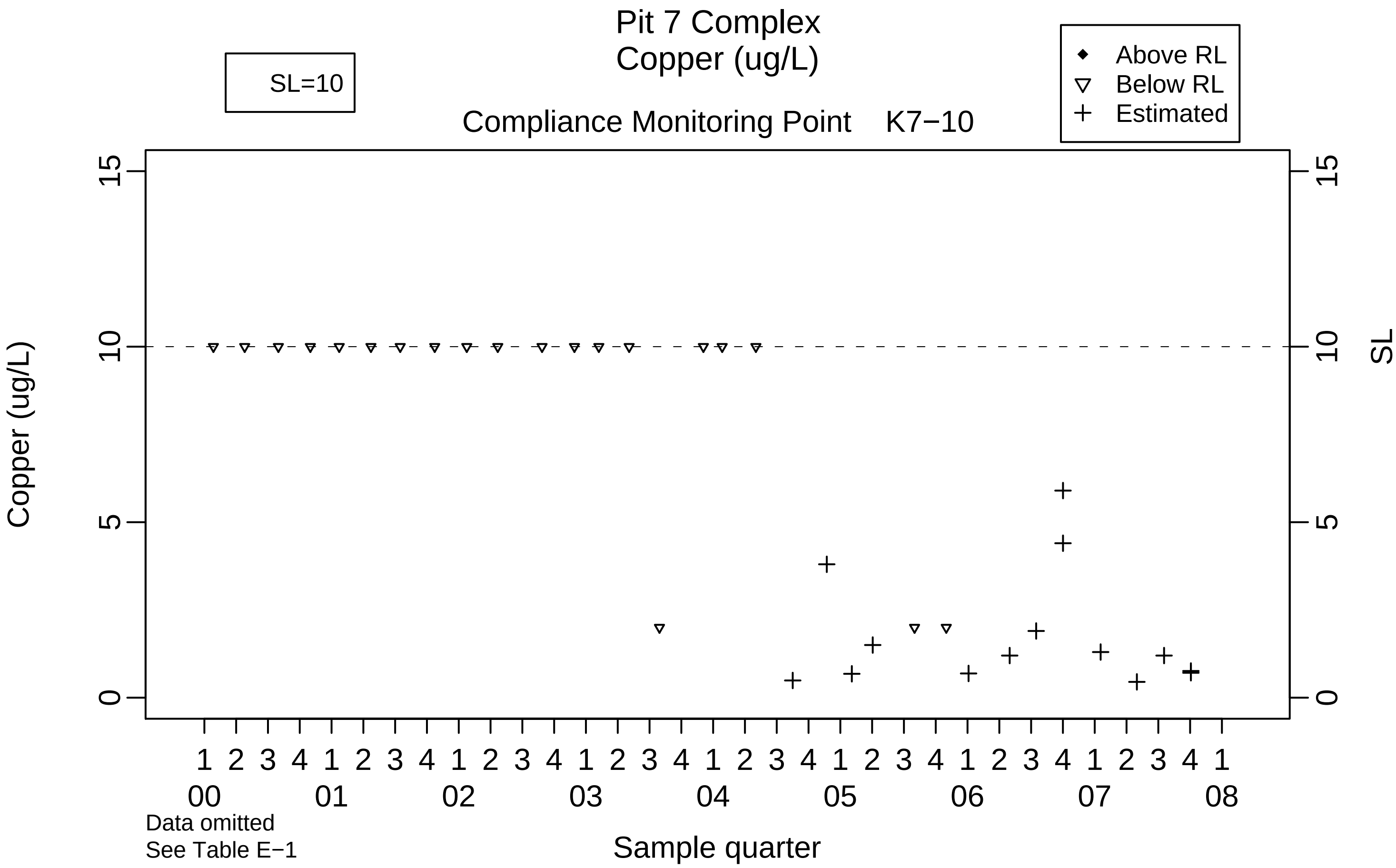

Pit 7 Complex
Copper (ug/L)
Above RL
Below RL
Estimated
Background Monitoring Point K7−06
Copper (ug/L)
0
5
10
15
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

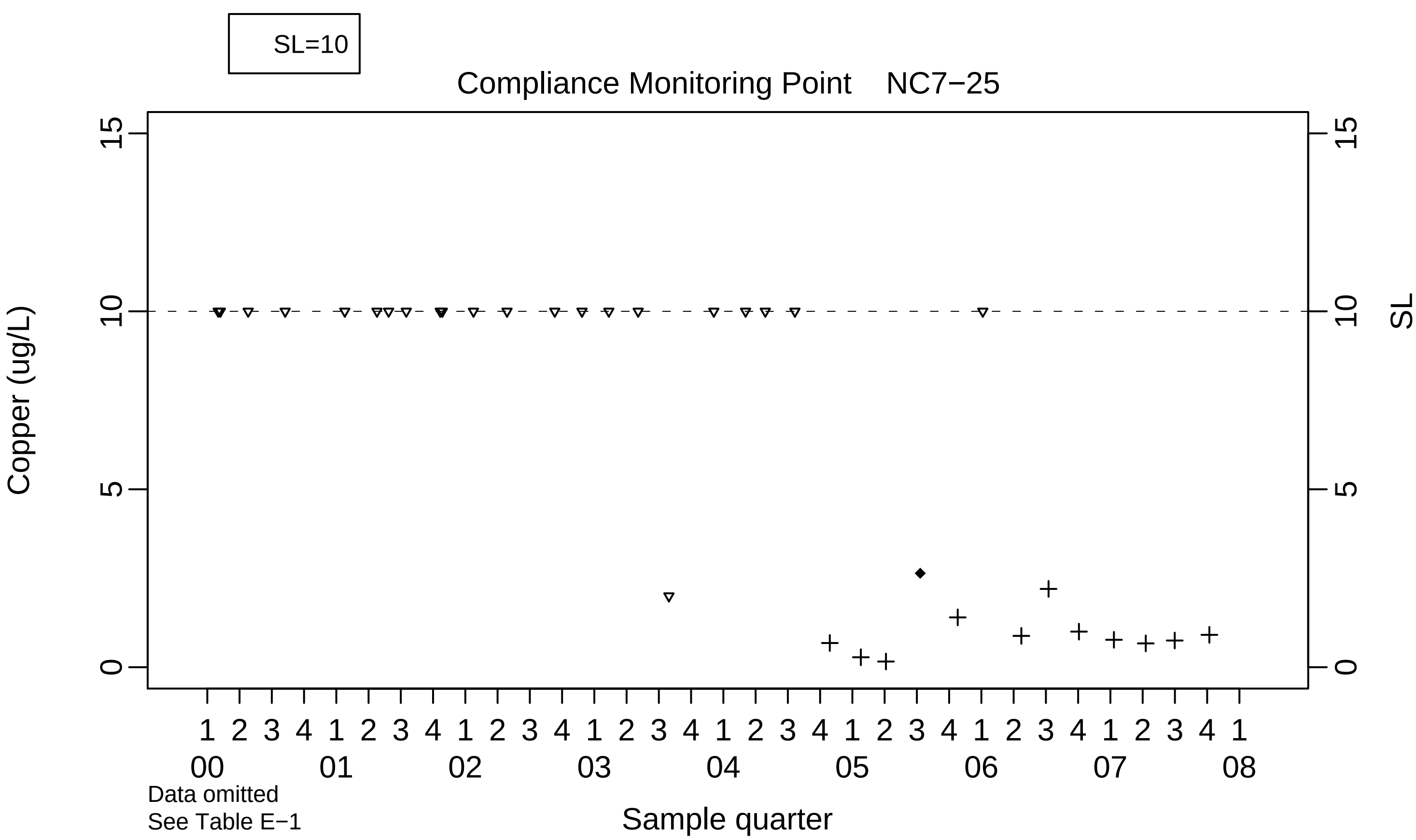

SL=40
Compliance Monitoring Point K7−01
Copper (ug/L)
0
10
20
30
40
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

Pit 7 Complex
Copper (ug/L)

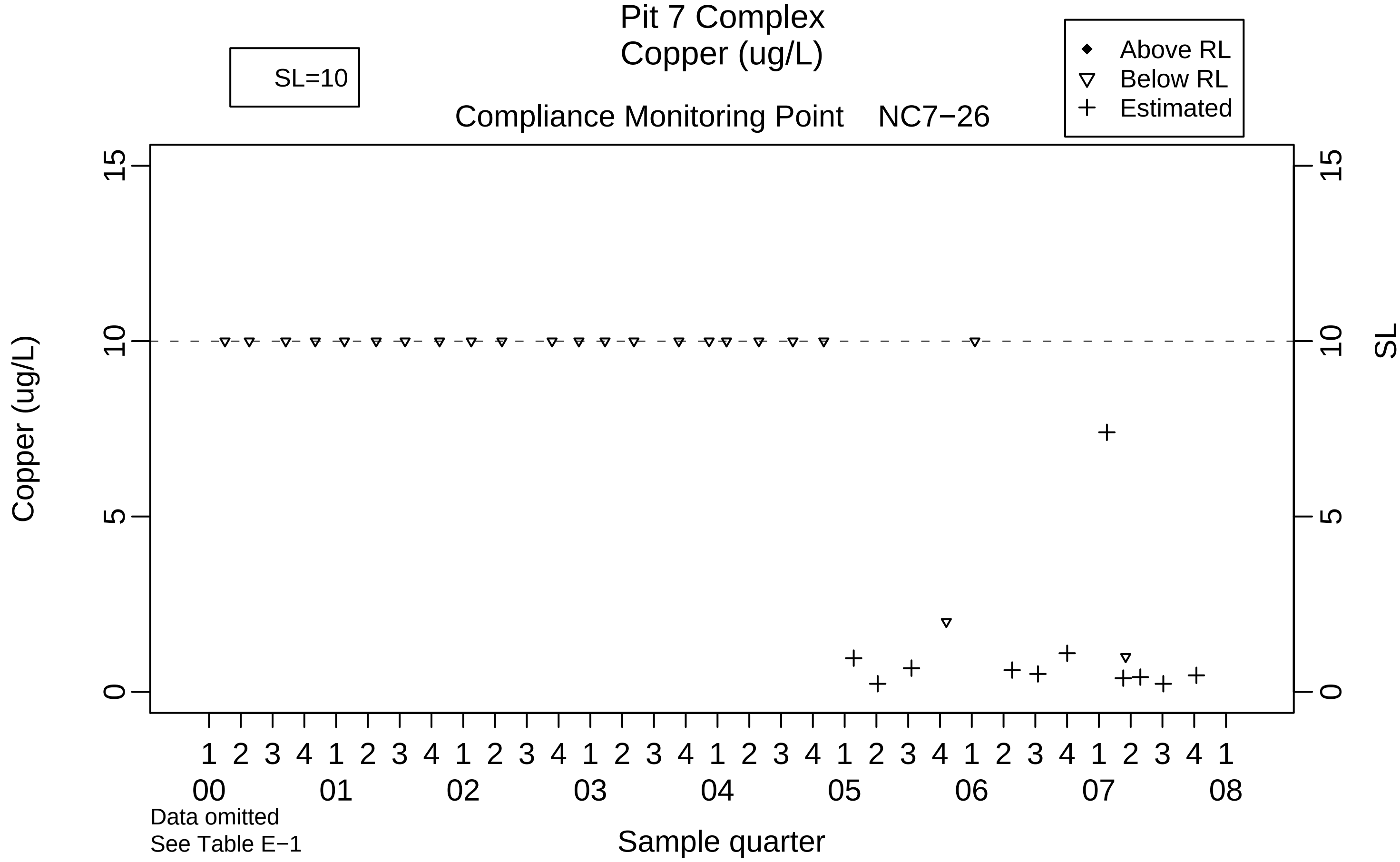


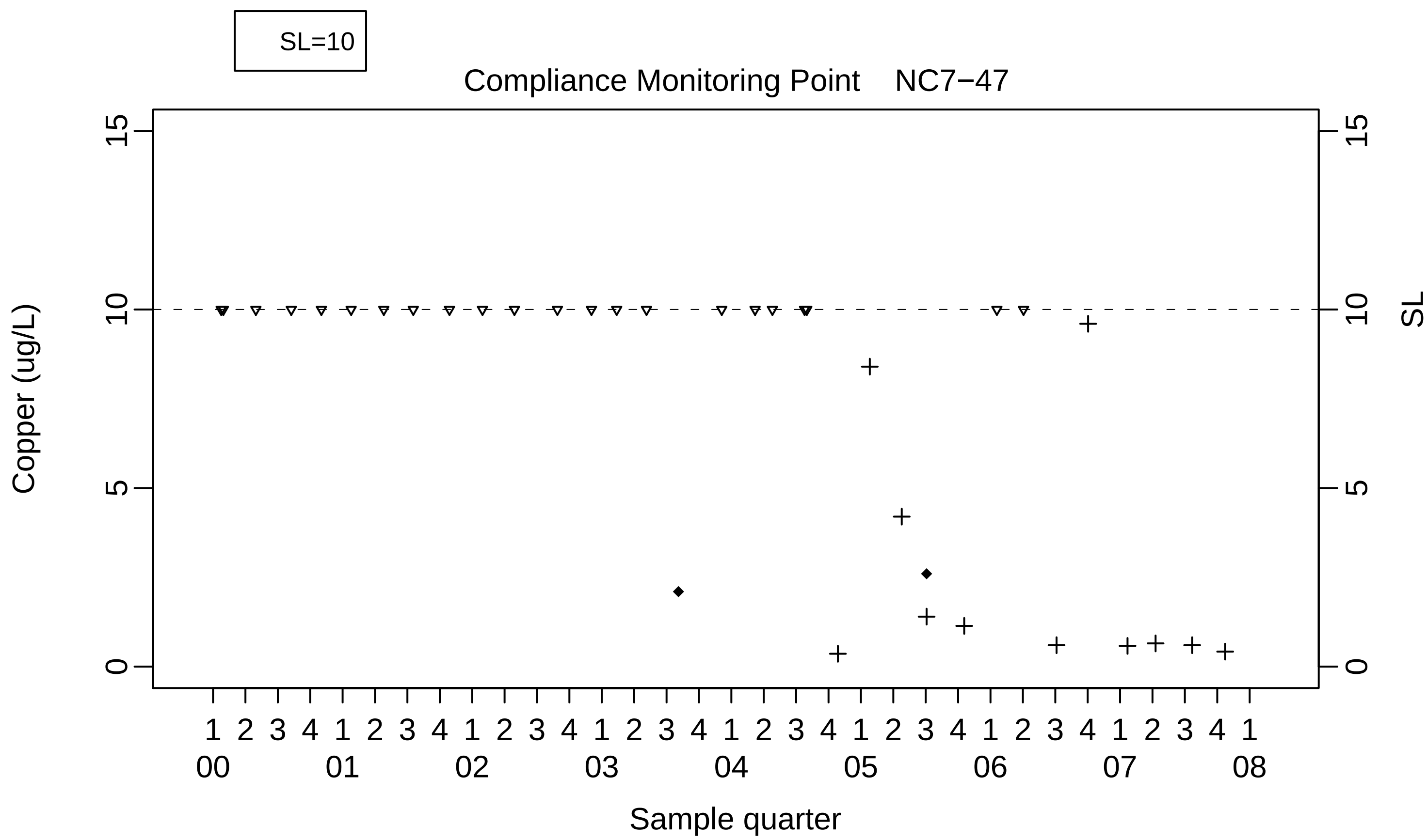


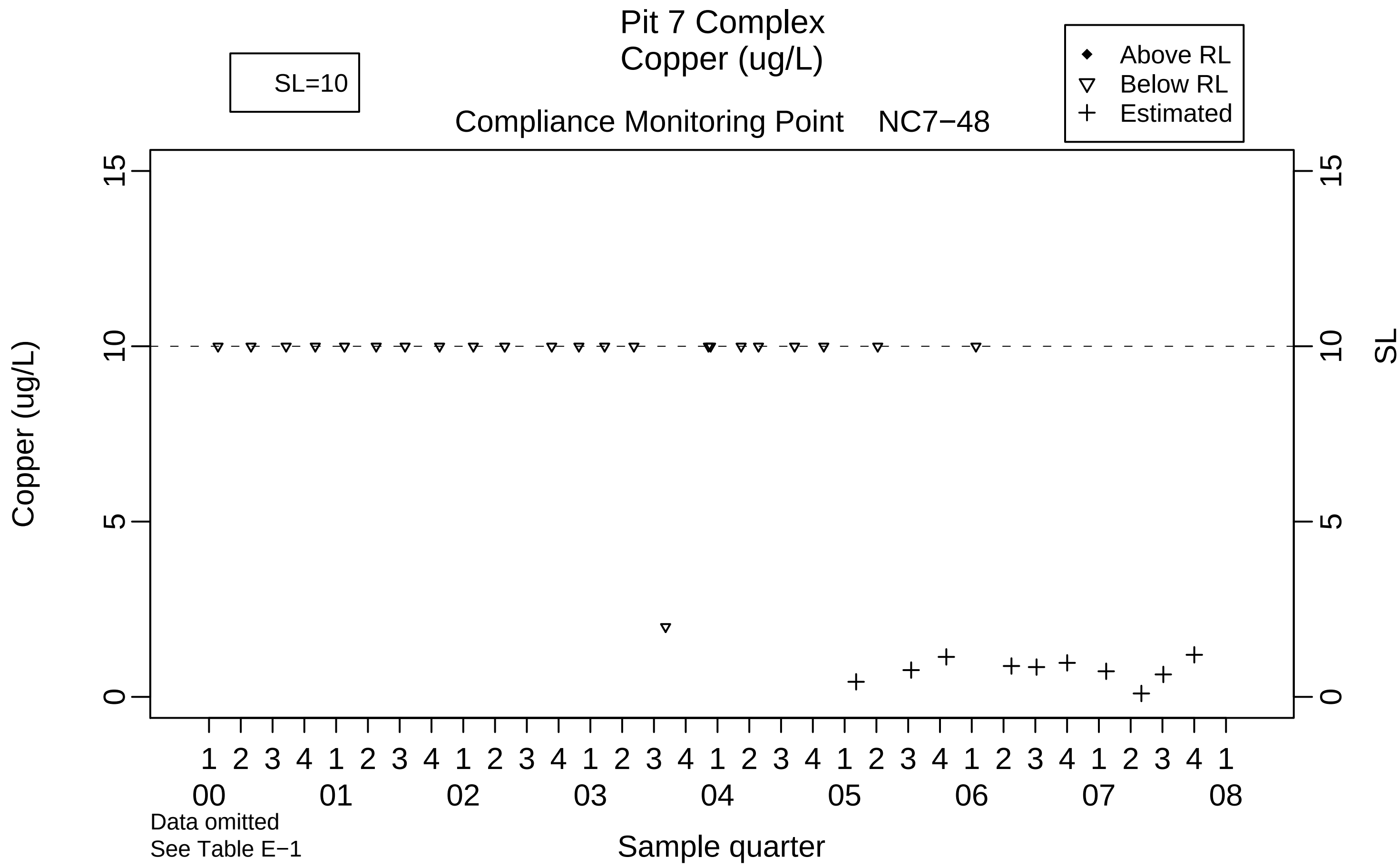

Pit 7 Complex
Copper (ug/L)
SL=10
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−10
Copper (ug/L)
SL
0
5
10
15
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter


SL=10
Compliance Monitoring Point NC7−25
Copper (ug/L)
SL
0
5
10
15
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

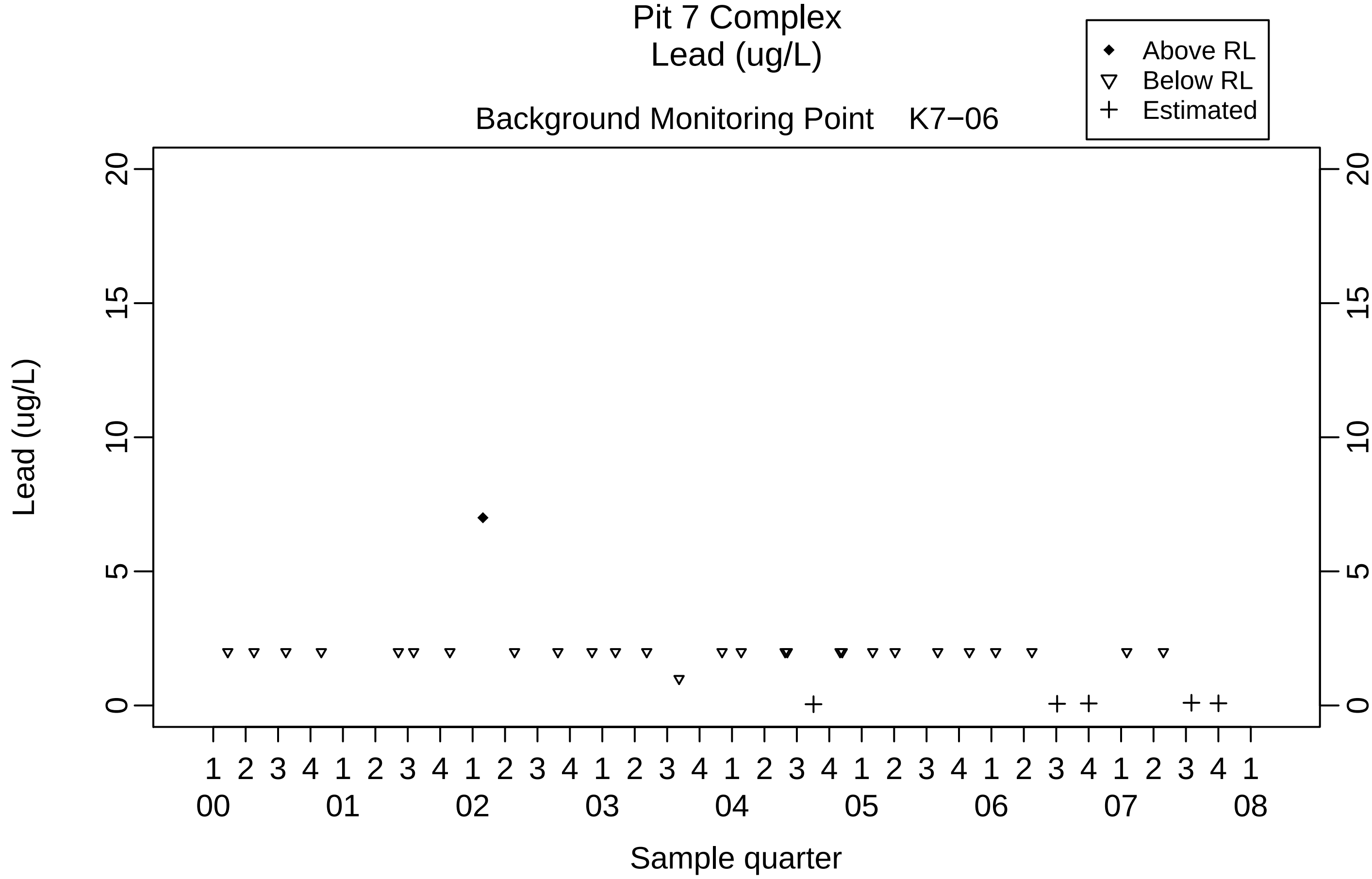
Pit 7 Complex
Copper (ug/L)

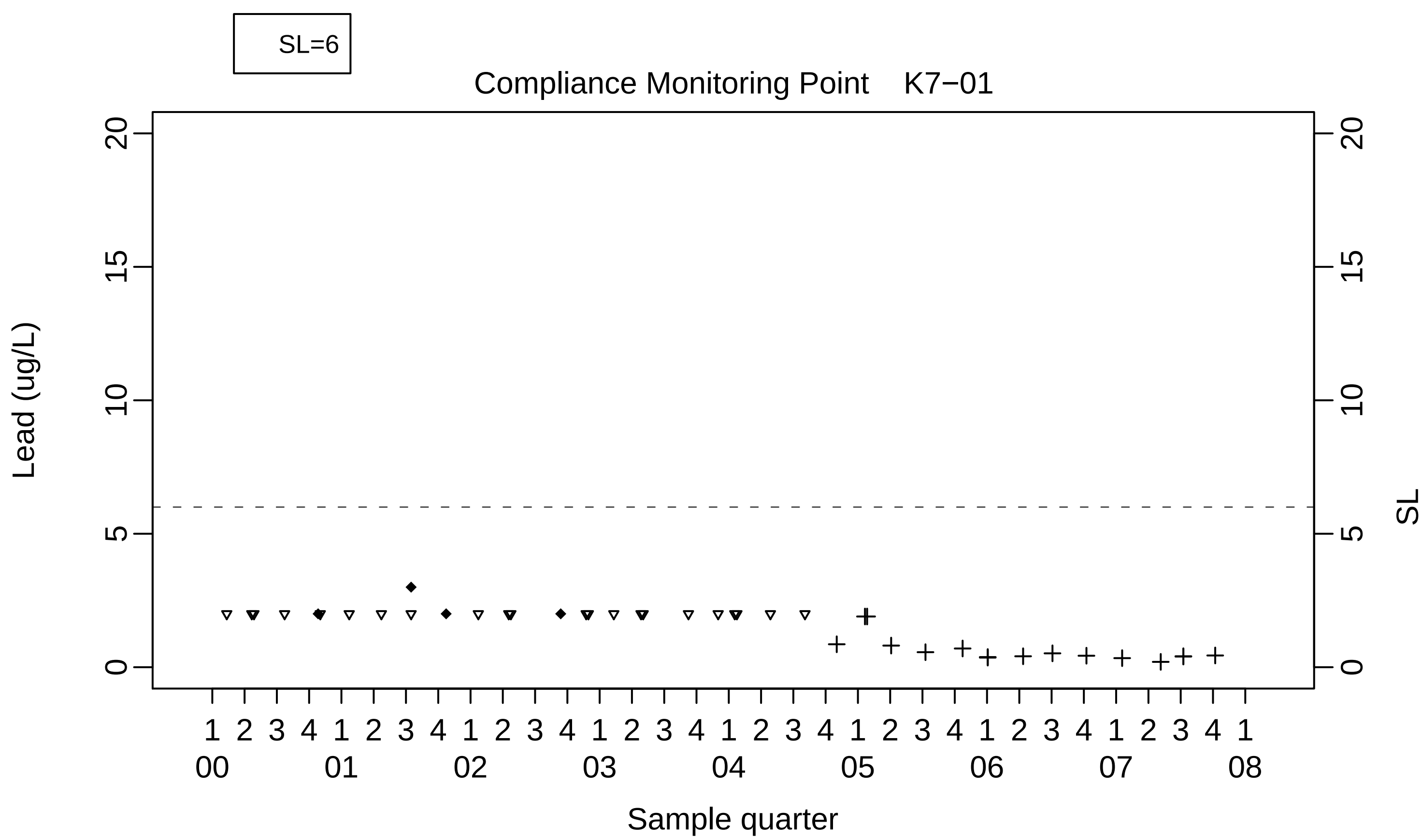


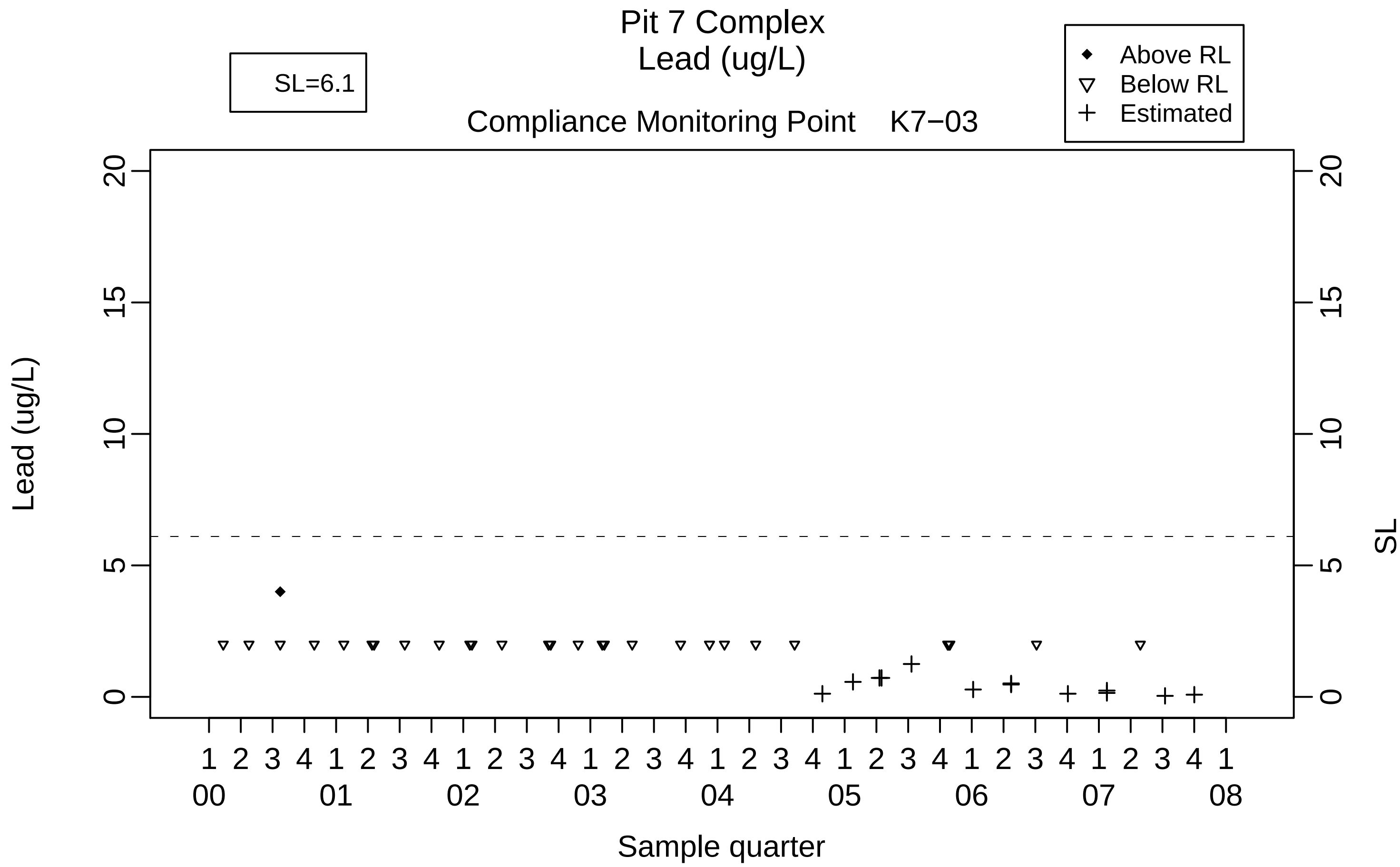


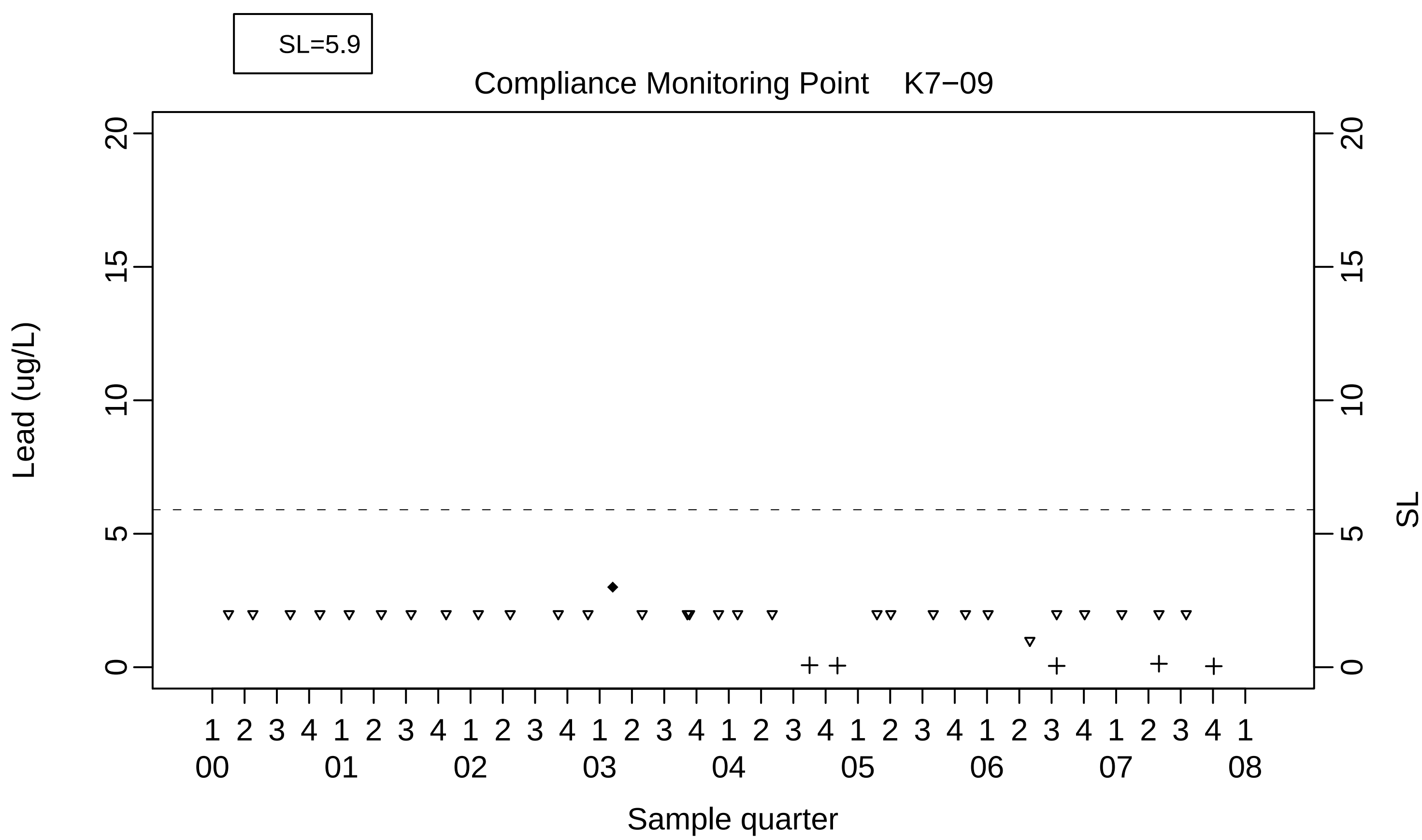

Pit 7 Complex
Copper (ug/L)
SL=10
Above RL
Below RL
Estimated
Compliance Monitoring Point NC7−48
Copper (ug/L)
SL
0
5
10
15
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

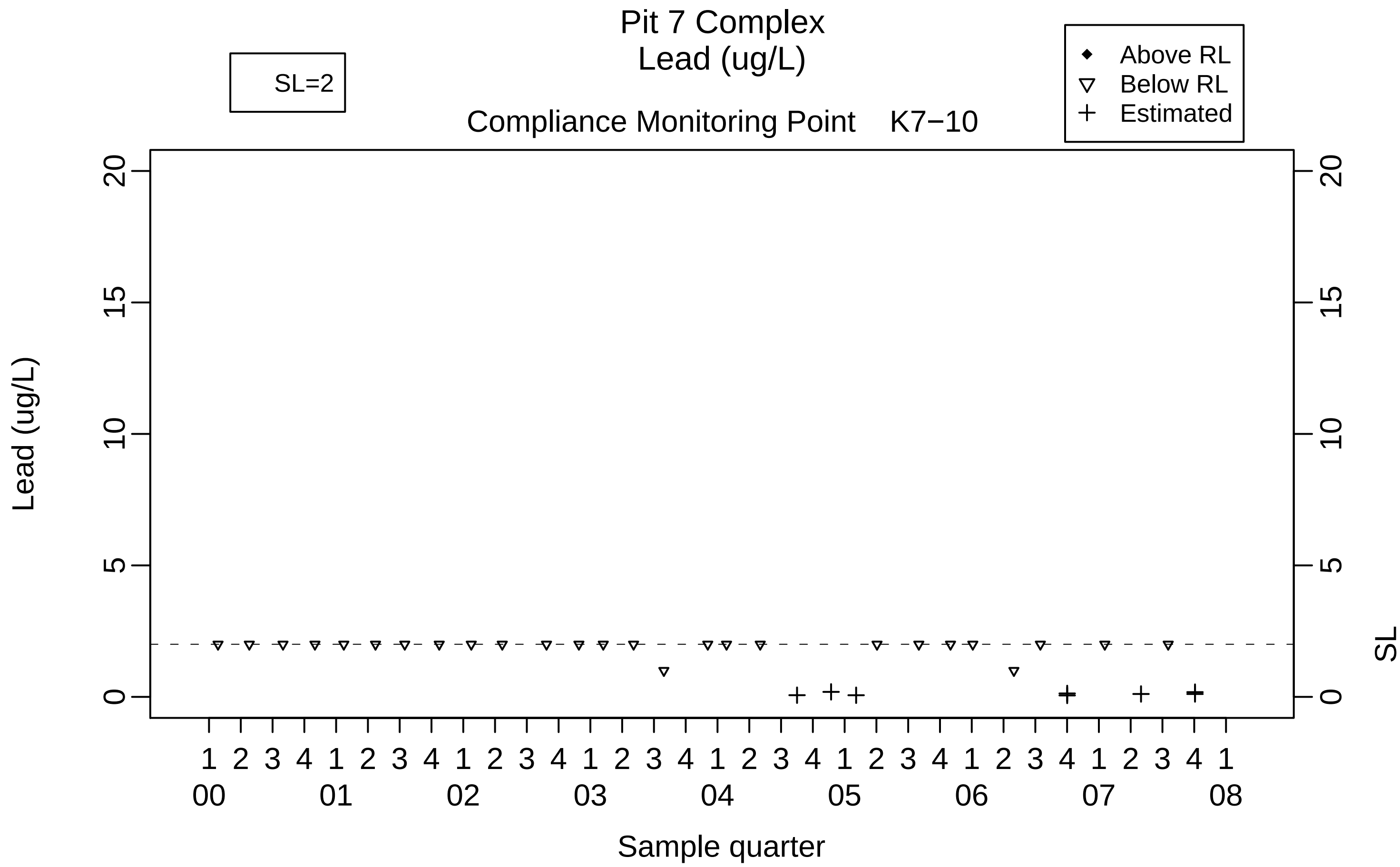
Pit 7 Complex
Lead (ug/L)

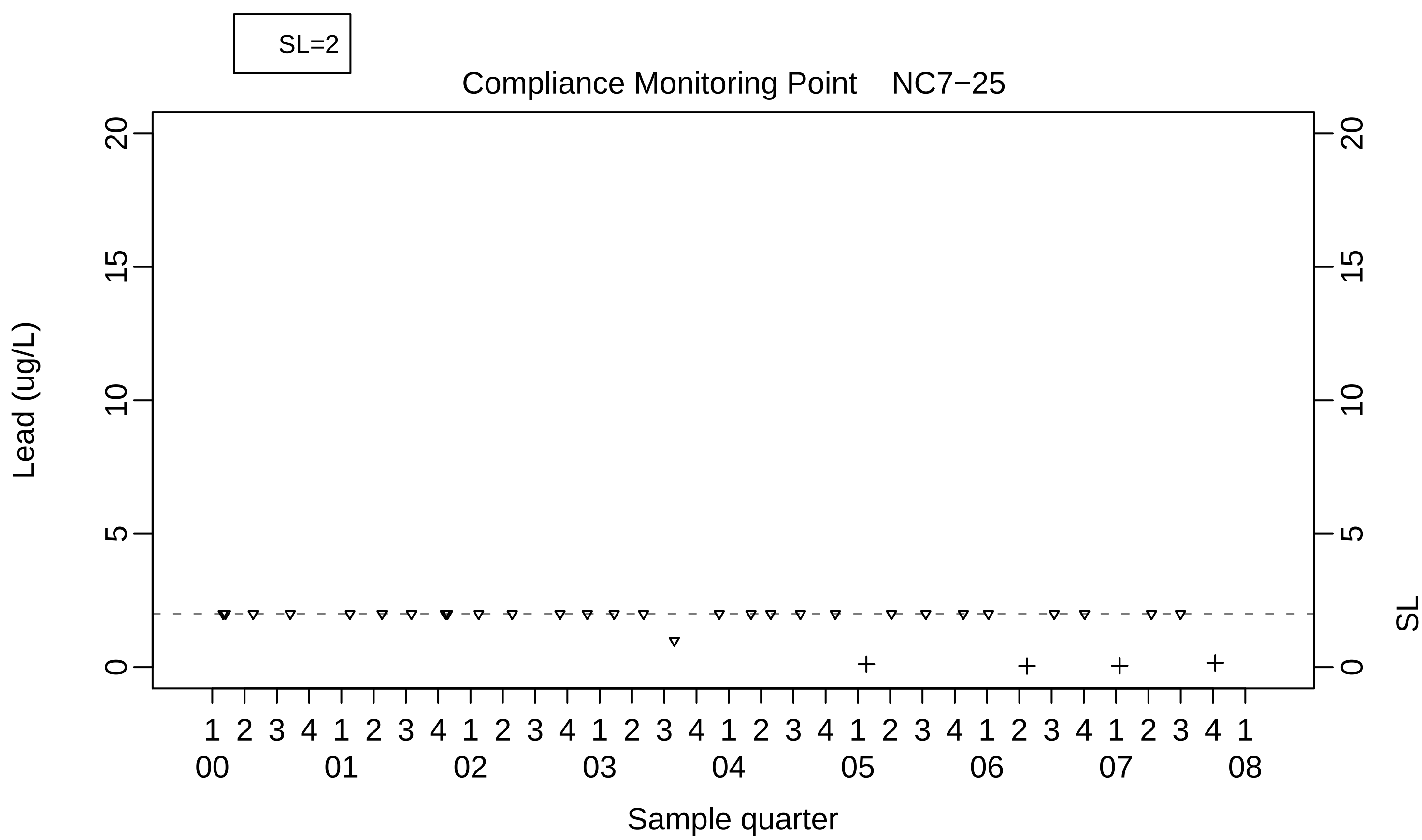


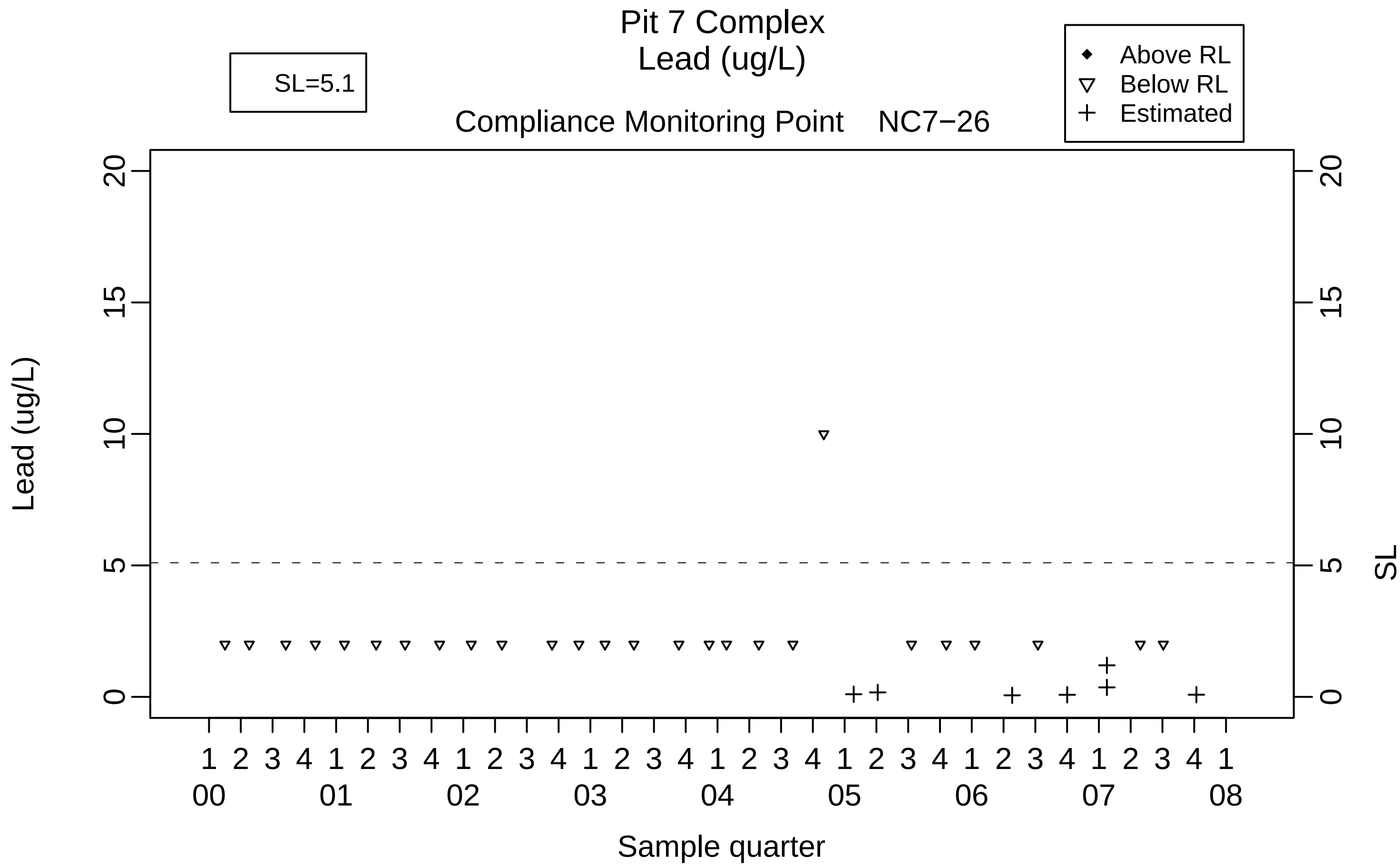


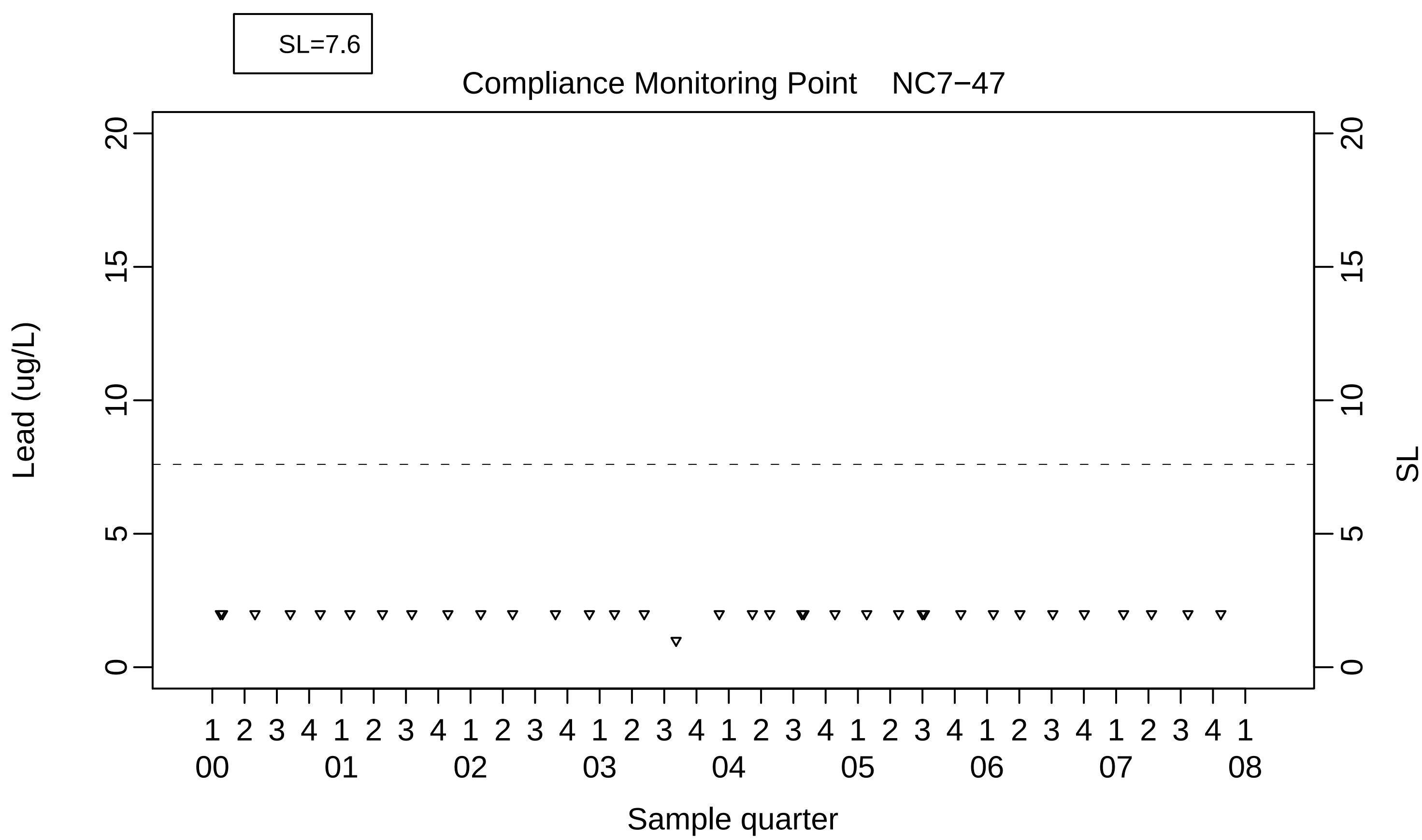

Pit 7 Complex
Lead (ug/L)
SL=6.1
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−03
Lead (ug/L)
SL
0
5
10
15
20
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

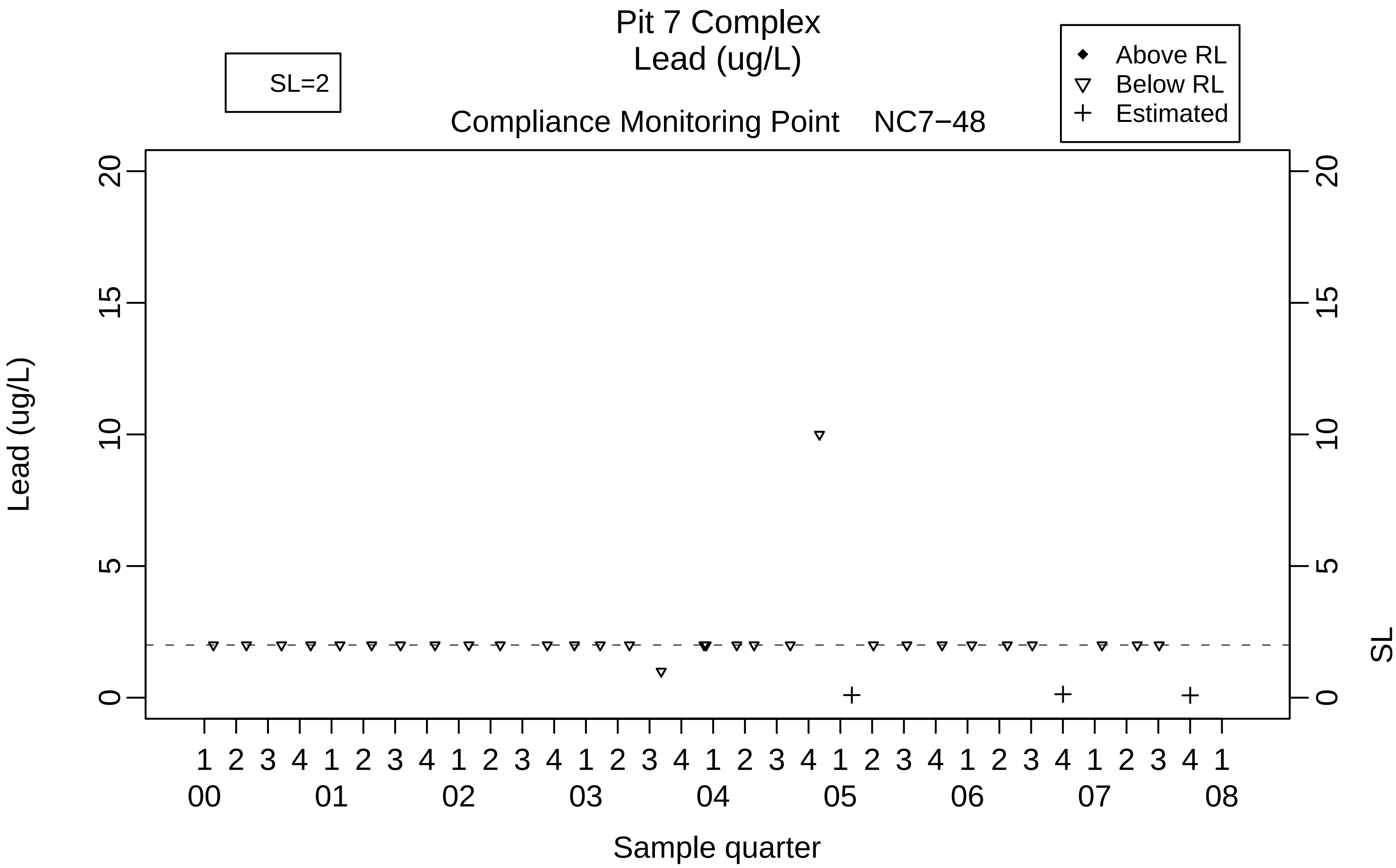

SL=5.9
Compliance Monitoring Point K7−09
Lead (ug/L)
SL
0
5
10
15
20
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

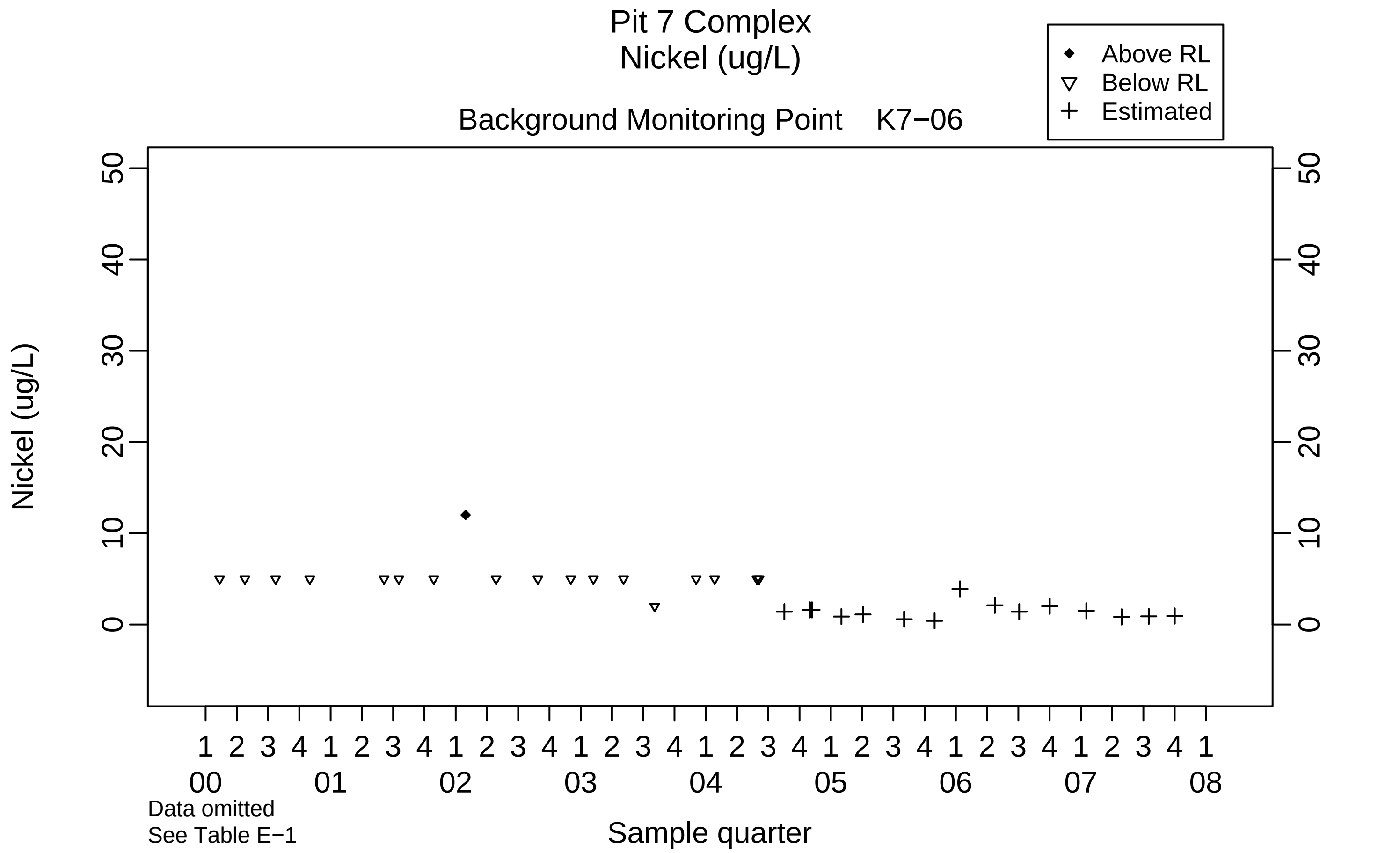

Pit 7 Complex
Lead (ug/L)
SL=2
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−10
Lead (ug/L)
SL
0
5
10
15
20
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

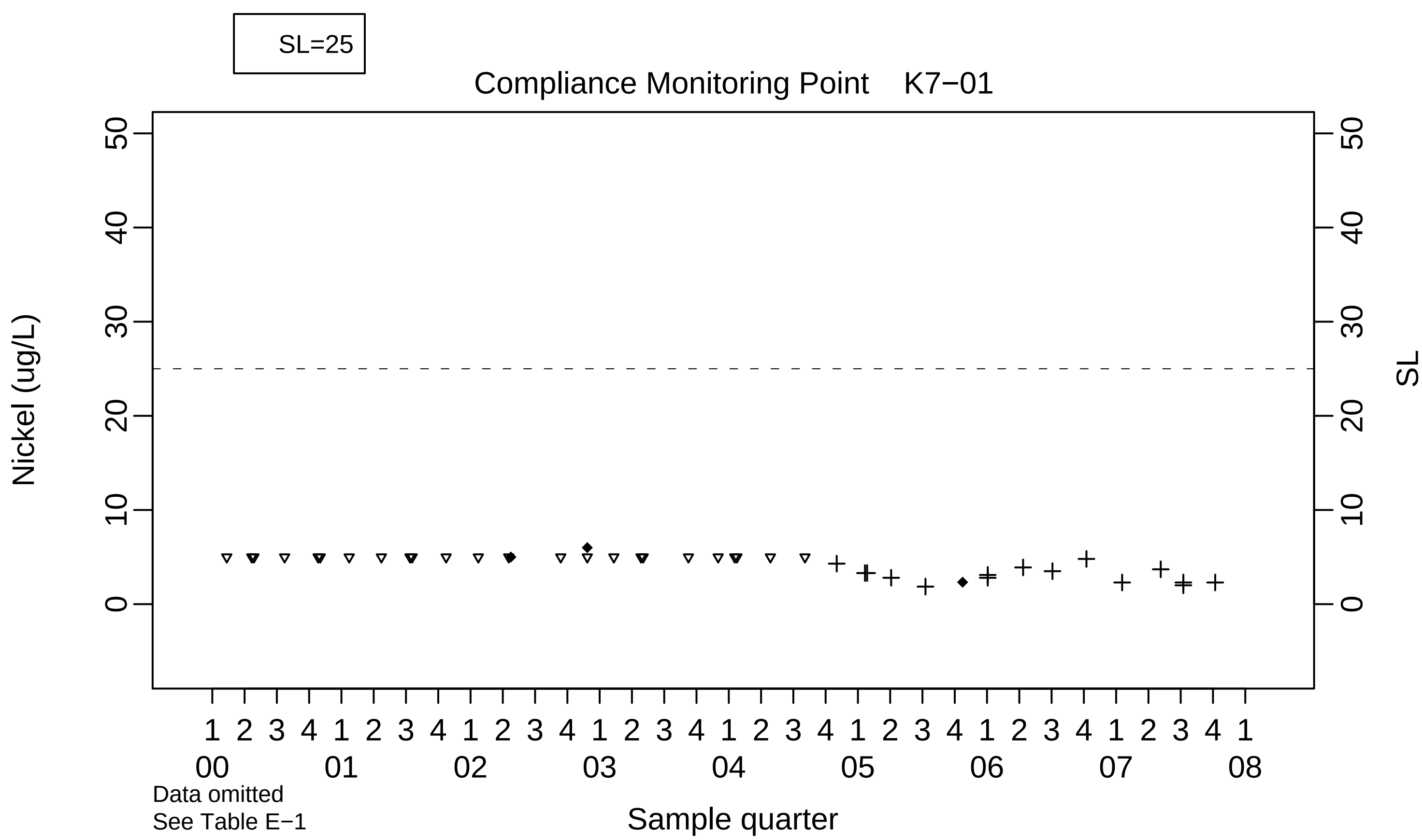

SL=2
Compliance Monitoring Point NC7−25
Lead (ug/L)
SL
0
5
10
15
20
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

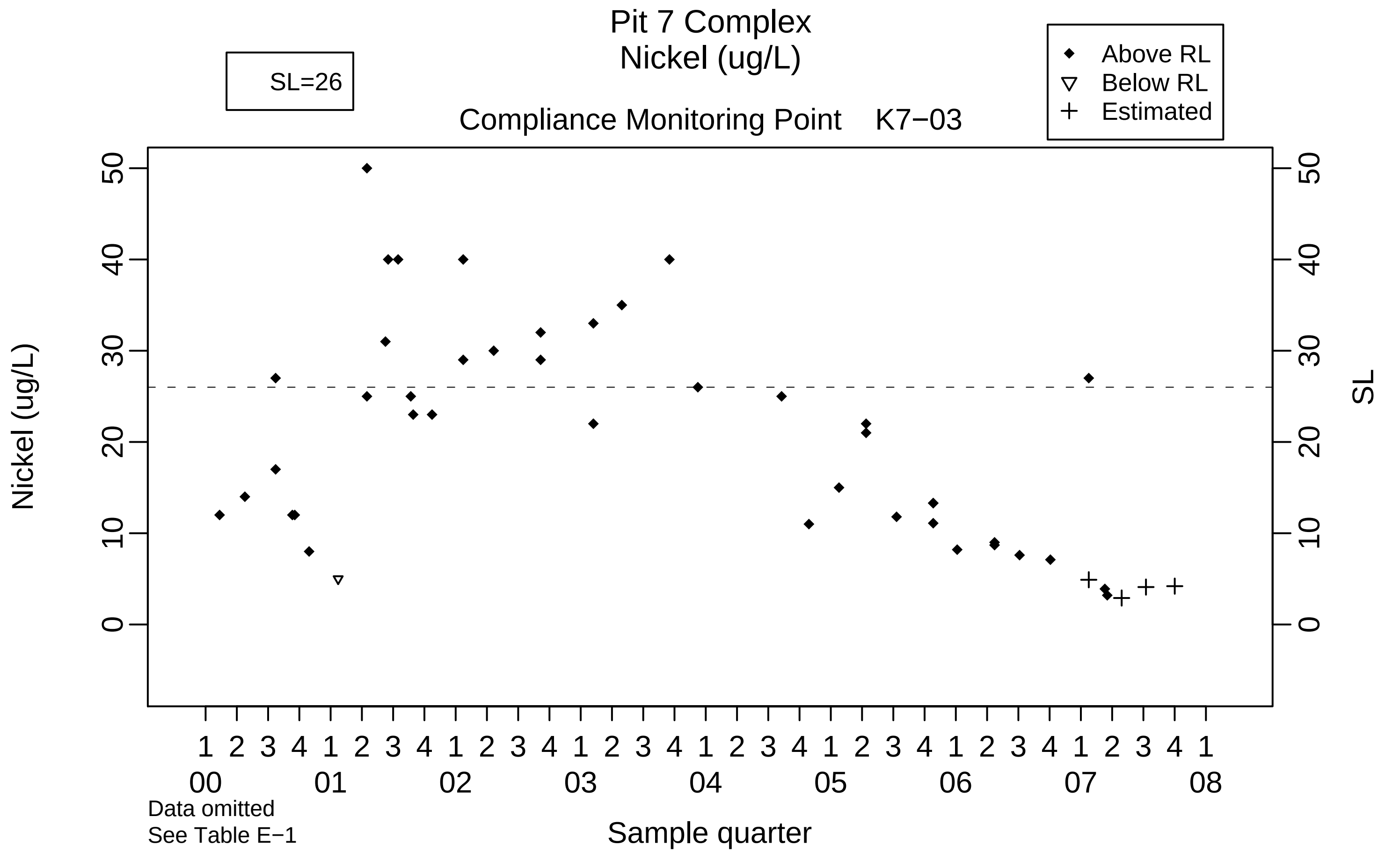

Pit 7 Complex
Lead (ug/L)
SL=5.1
Above RL
Below RL
Estimated
Compliance Monitoring Point NC7−26
Lead (ug/L)
SL
0
5
10
15
20
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

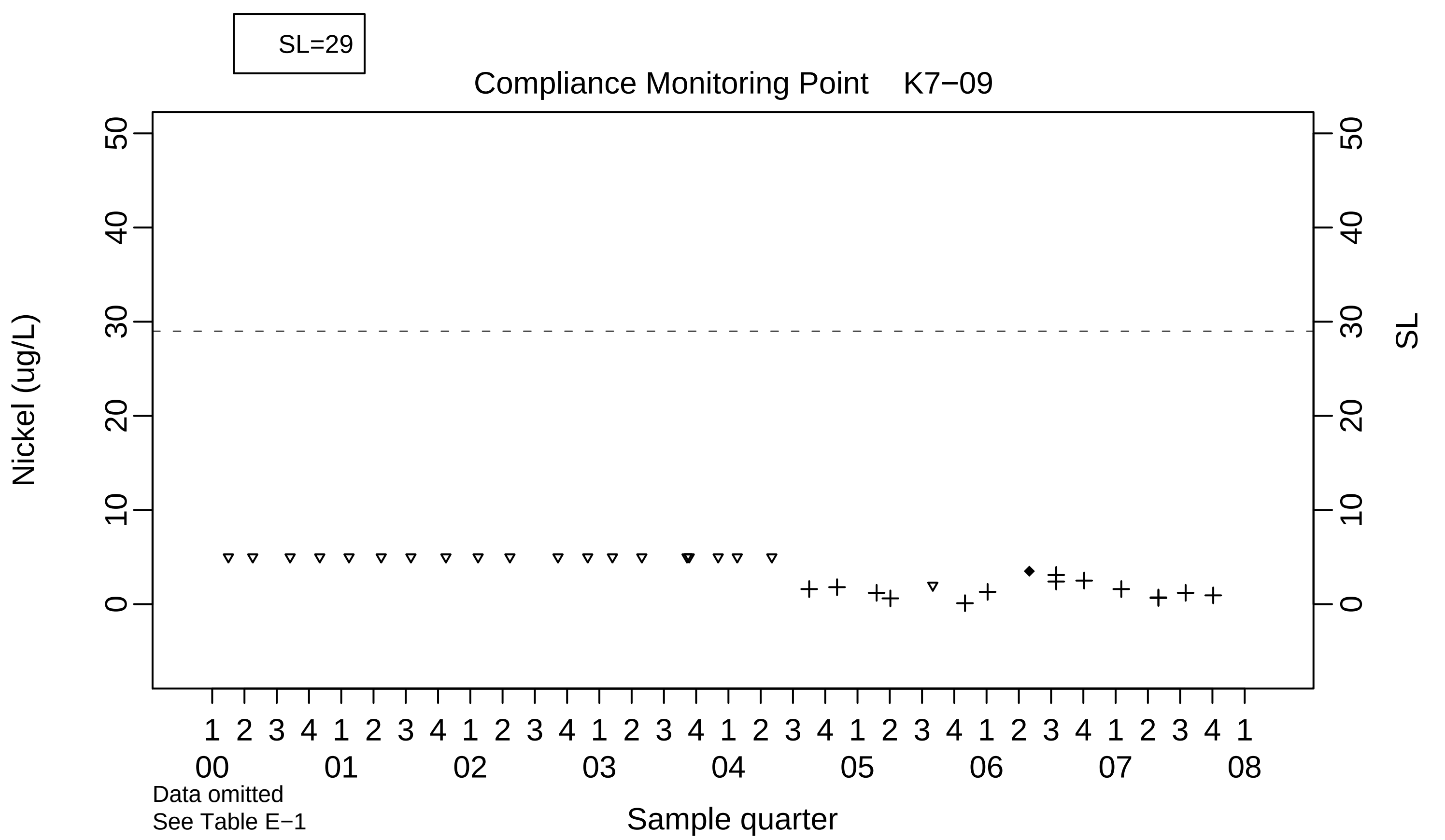

SL=7.6
Compliance Monitoring Point NC7−47
Lead (ug/L)
SL
0
5
10
15
20
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

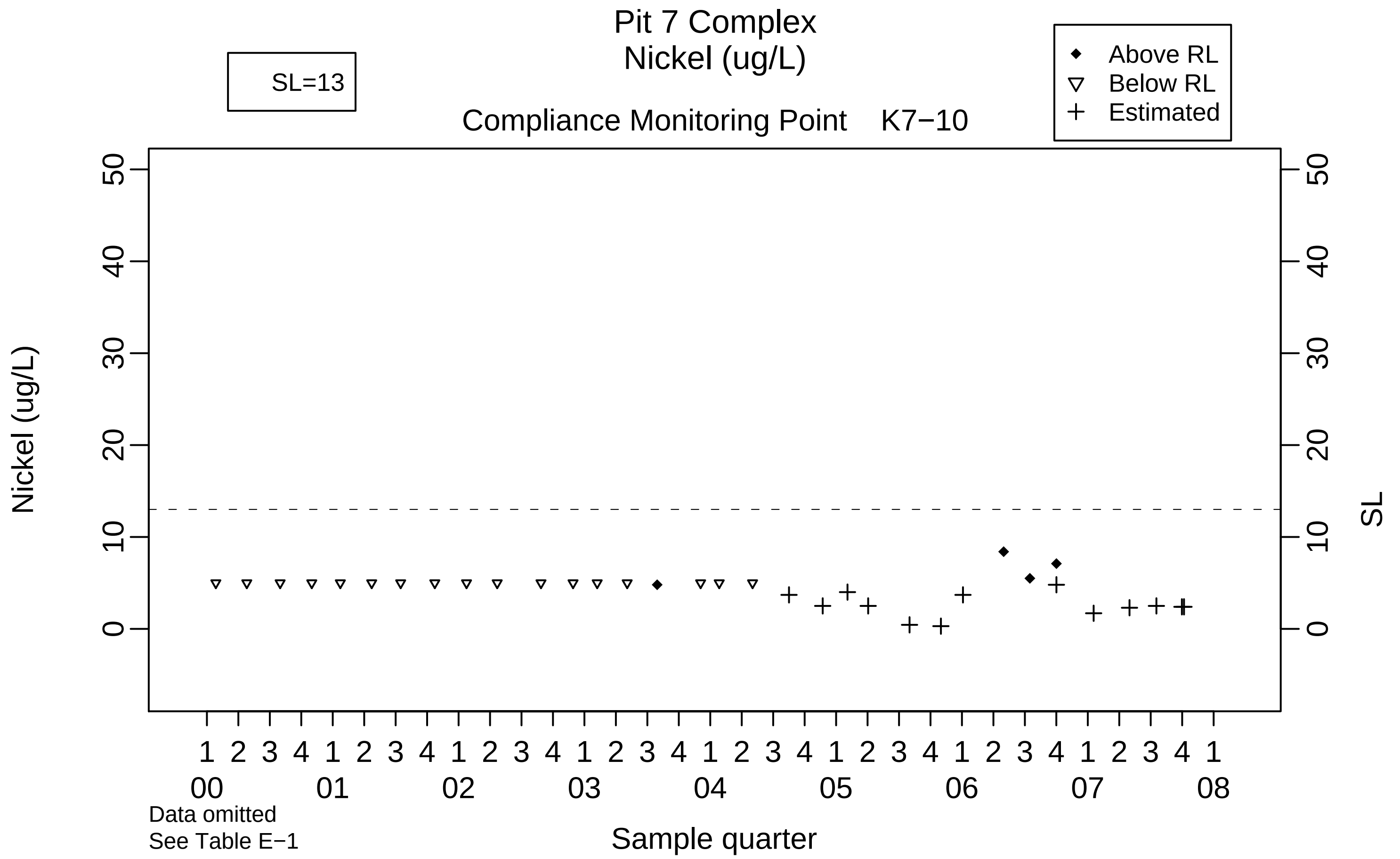

Pit 7 Complex
Lead (ug/L)
SL=2
Above RL
Below RL
Estimated
Compliance Monitoring Point NC7−48
Lead (ug/L)
SL
0
5
10
15
20
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

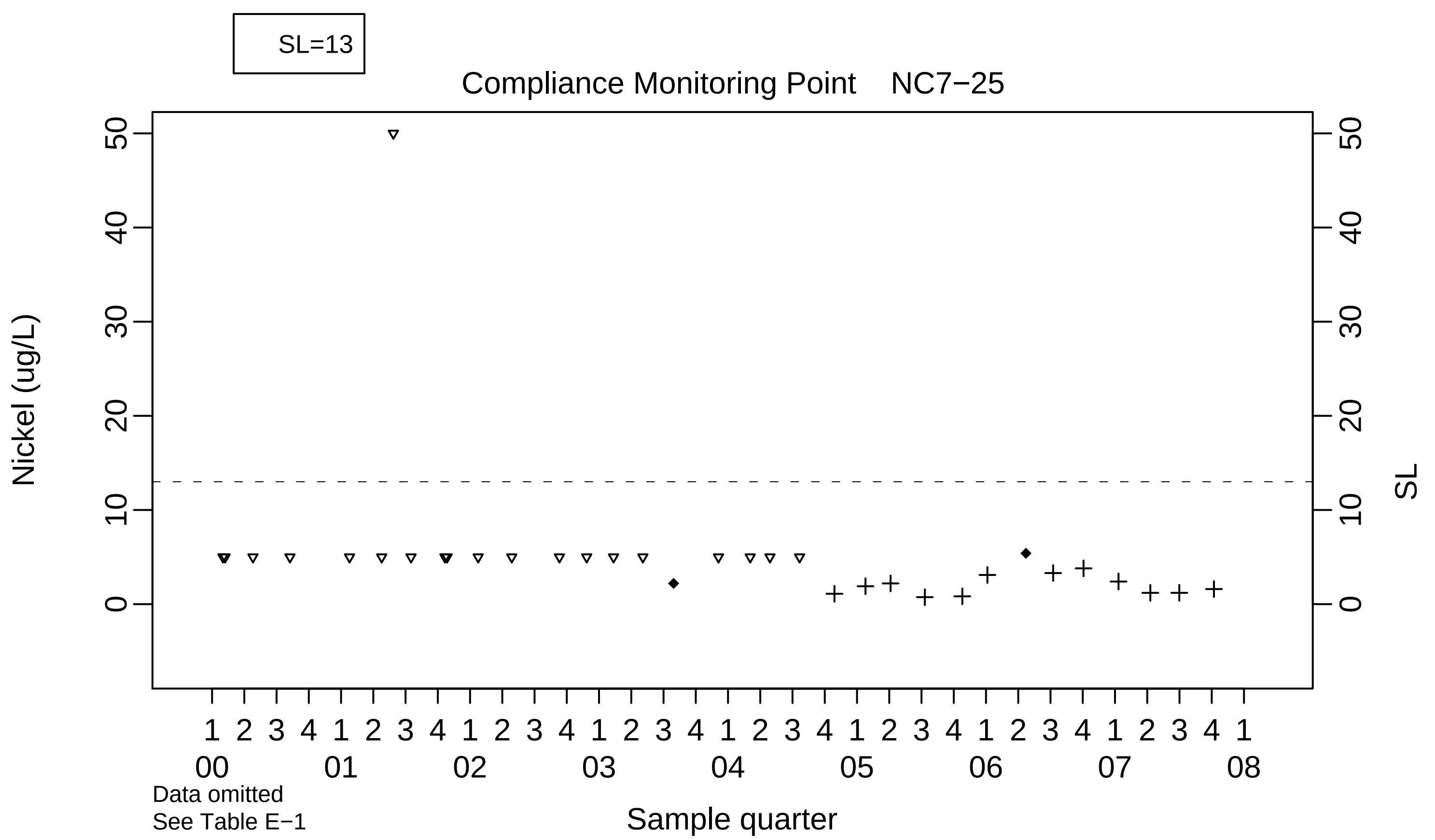

Pit 7 Complex
Nickel (ug/L)
Above RL
Below RL
Estimated
Background Monitoring Point K7−06
Nickel (ug/L)
0
10
20
30
40
50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

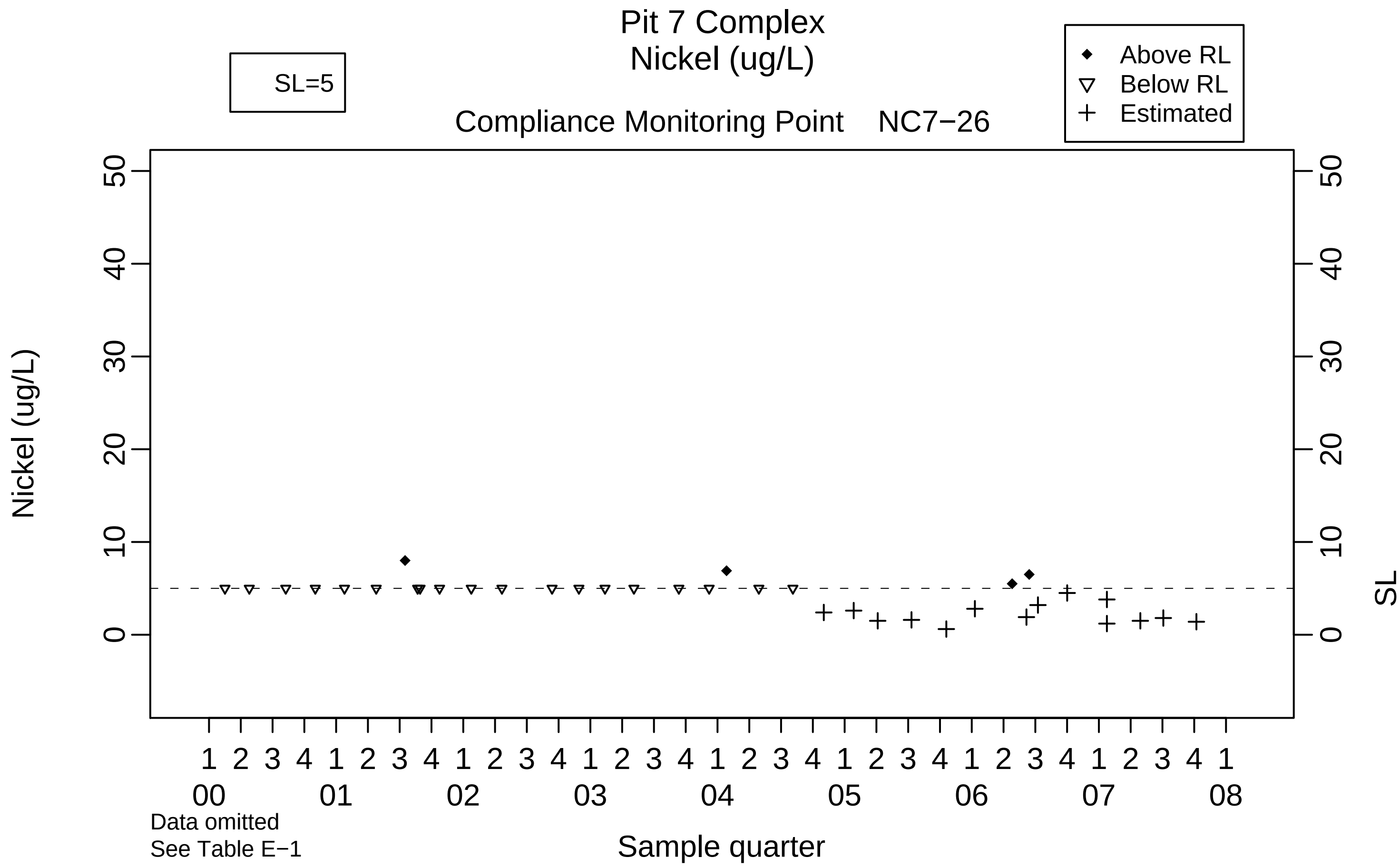

SL=25
Compliance Monitoring Point K7−01
Nickel (ug/L)
SL
0
10
20
30
40
50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

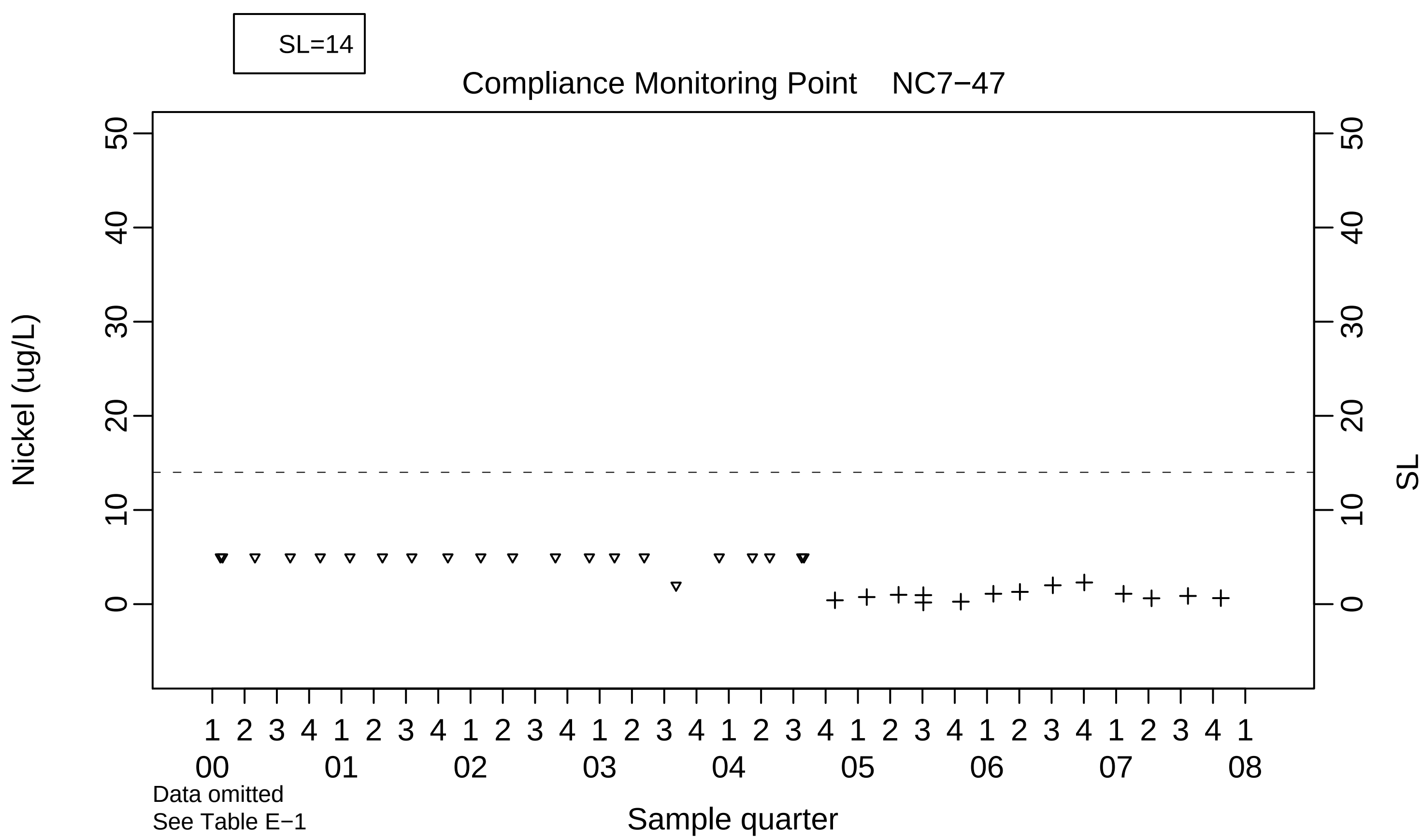

Pit 7 Complex
Nickel (ug/L)
SL=26
Compliance Monitoring Point K7−03
Above RL
Below RL
Estimated
Nickel (ug/L)
SL
0 10 20 30 40 50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

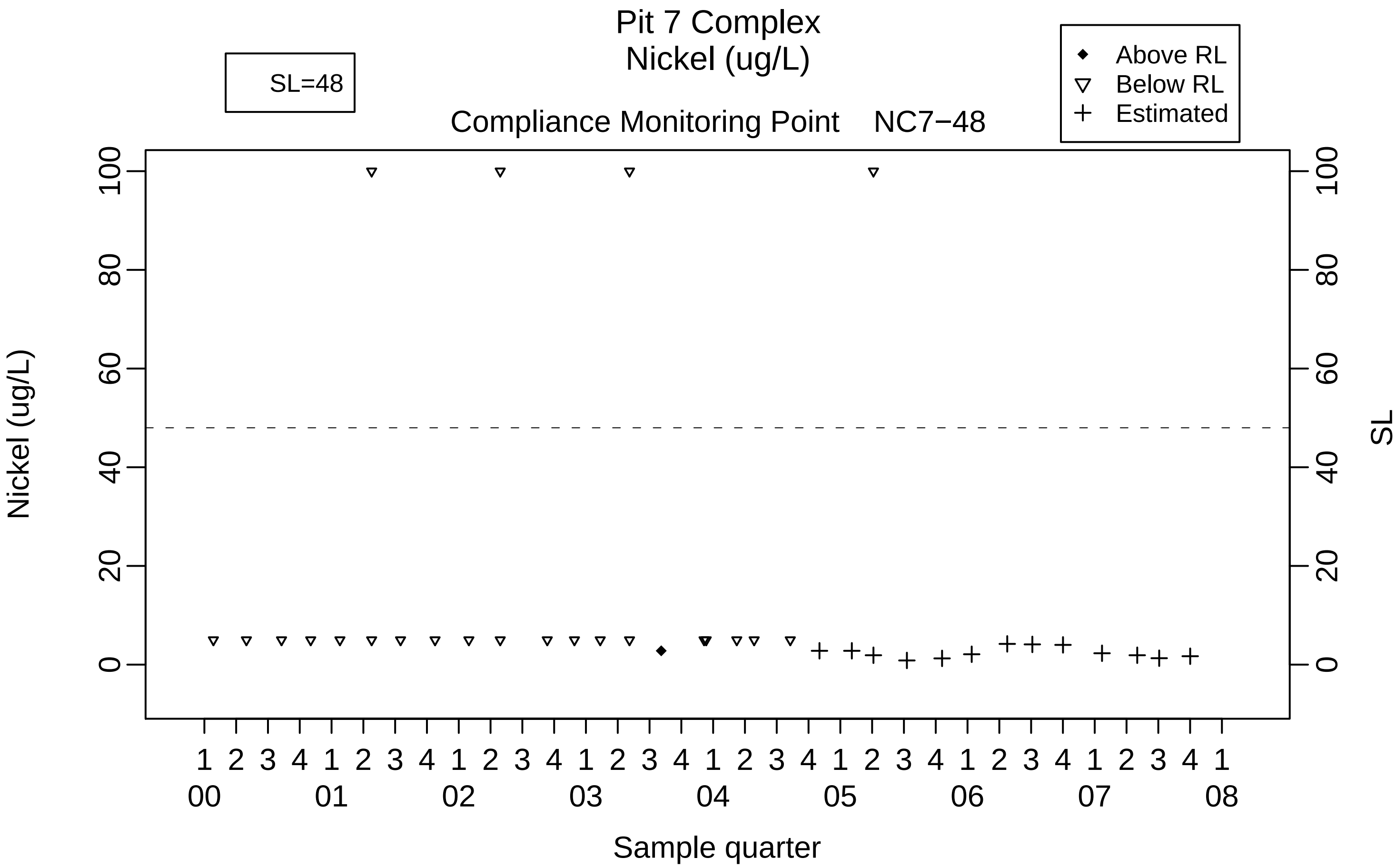

SL=29
Compliance Monitoring Point K7−09
Nickel (ug/L)
SL
0 10 20 30 40 50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter


Pit 7 Complex
Nickel (ug/L)
SL=13
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−10
Nickel (ug/L)
SL
0
10
20
30
40
50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

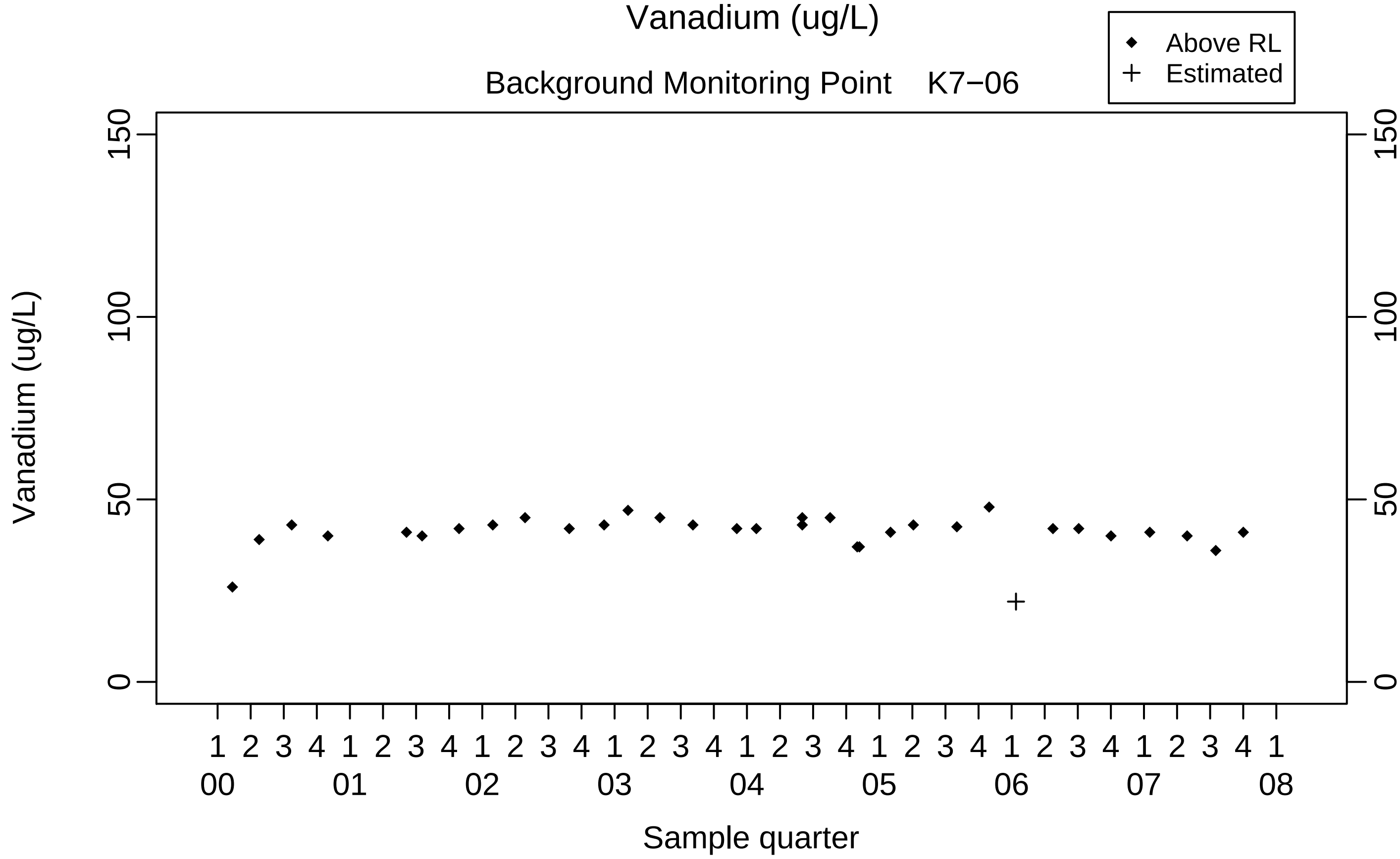

SL=13
Compliance Monitoring Point NC7−25
Nickel (ug/L)
SL
0
10
20
30
40
50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

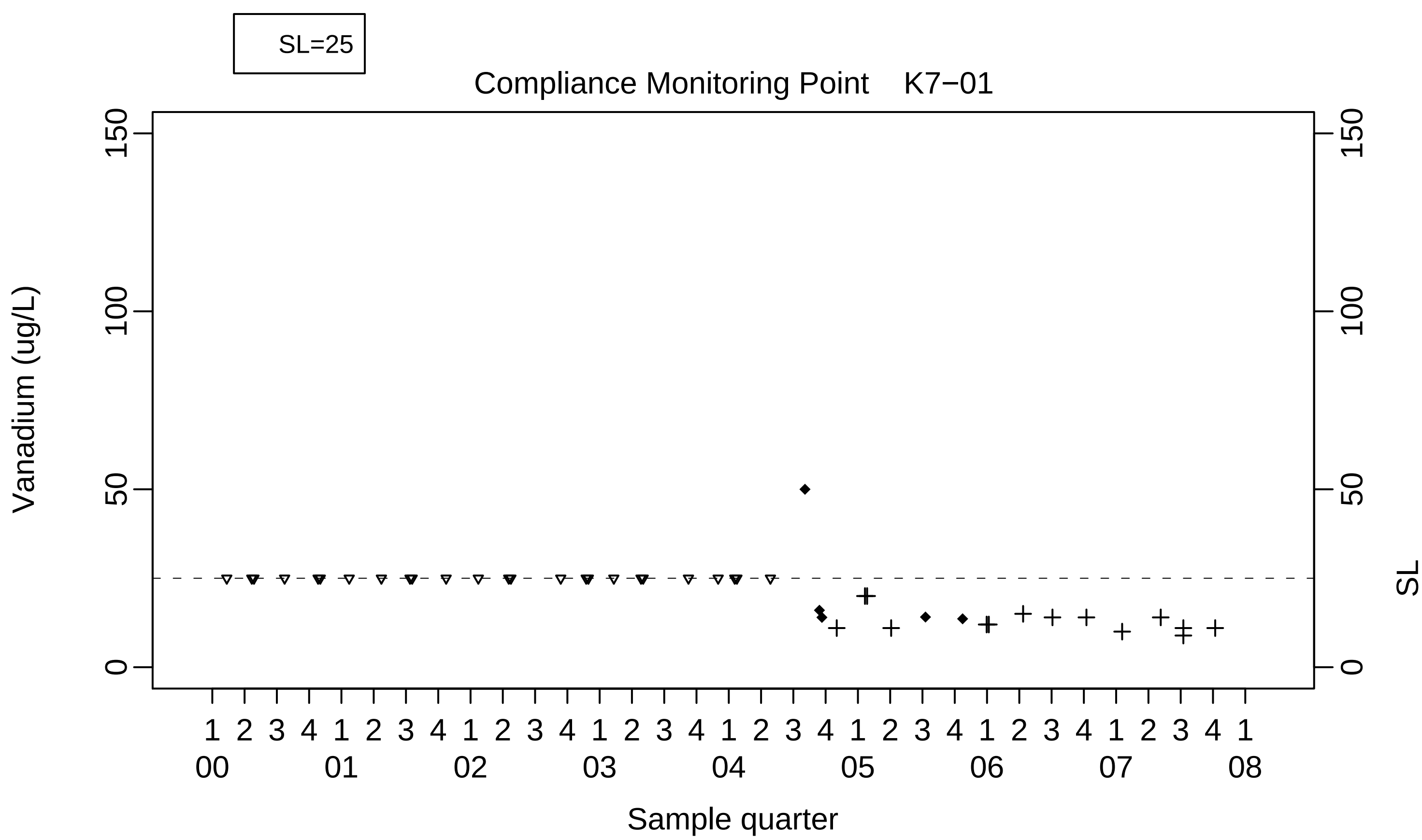

Pit 7 Complex
Nickel (ug/L)
SL=5
Above RL
Below RL
Estimated
Compliance Monitoring Point NC7−26
Nickel (ug/L)
SL
0
10
20
30
40
50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

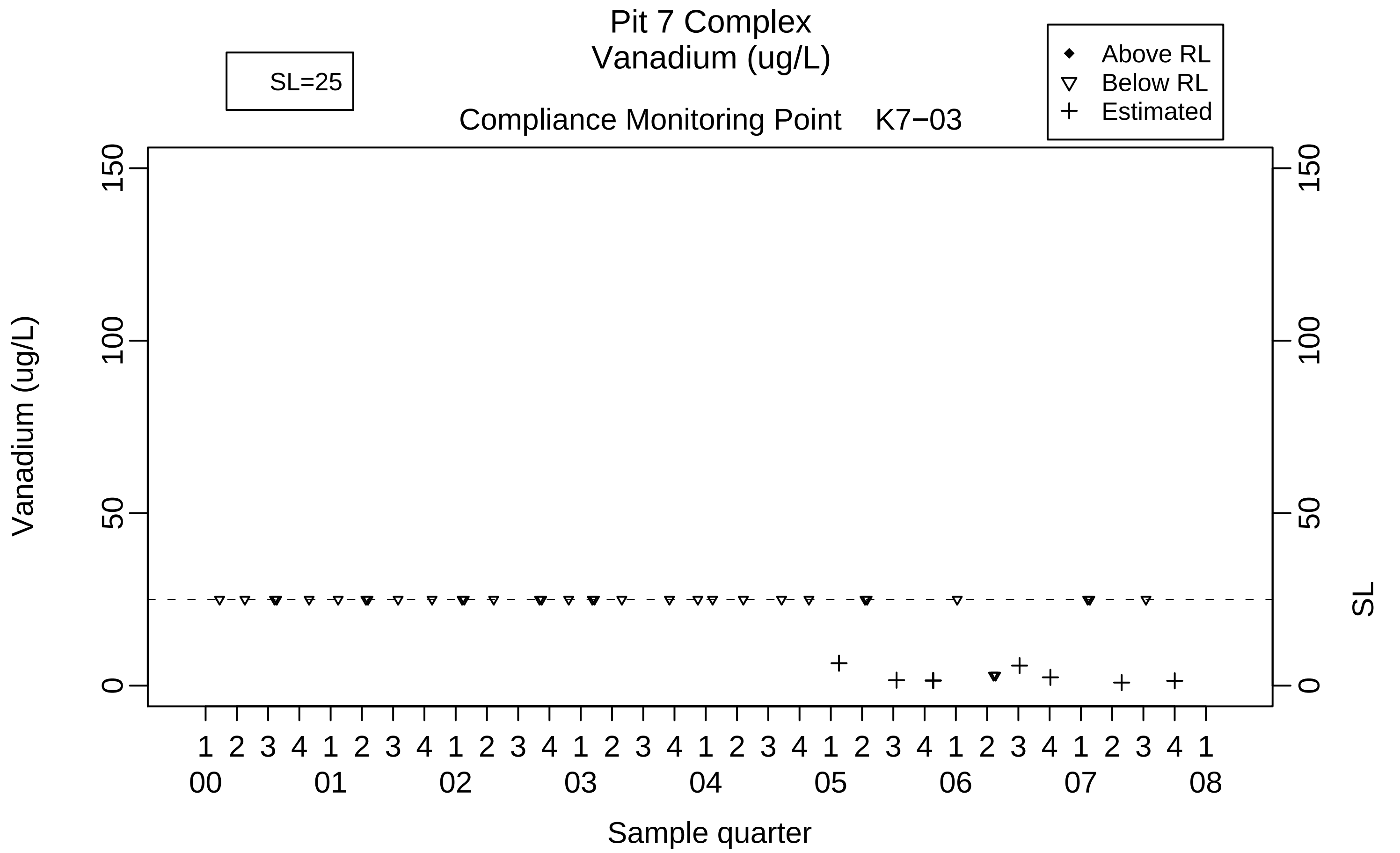

SL=14
Compliance Monitoring Point NC7−47
Nickel (ug/L)
SL
0
10
20
30
40
50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

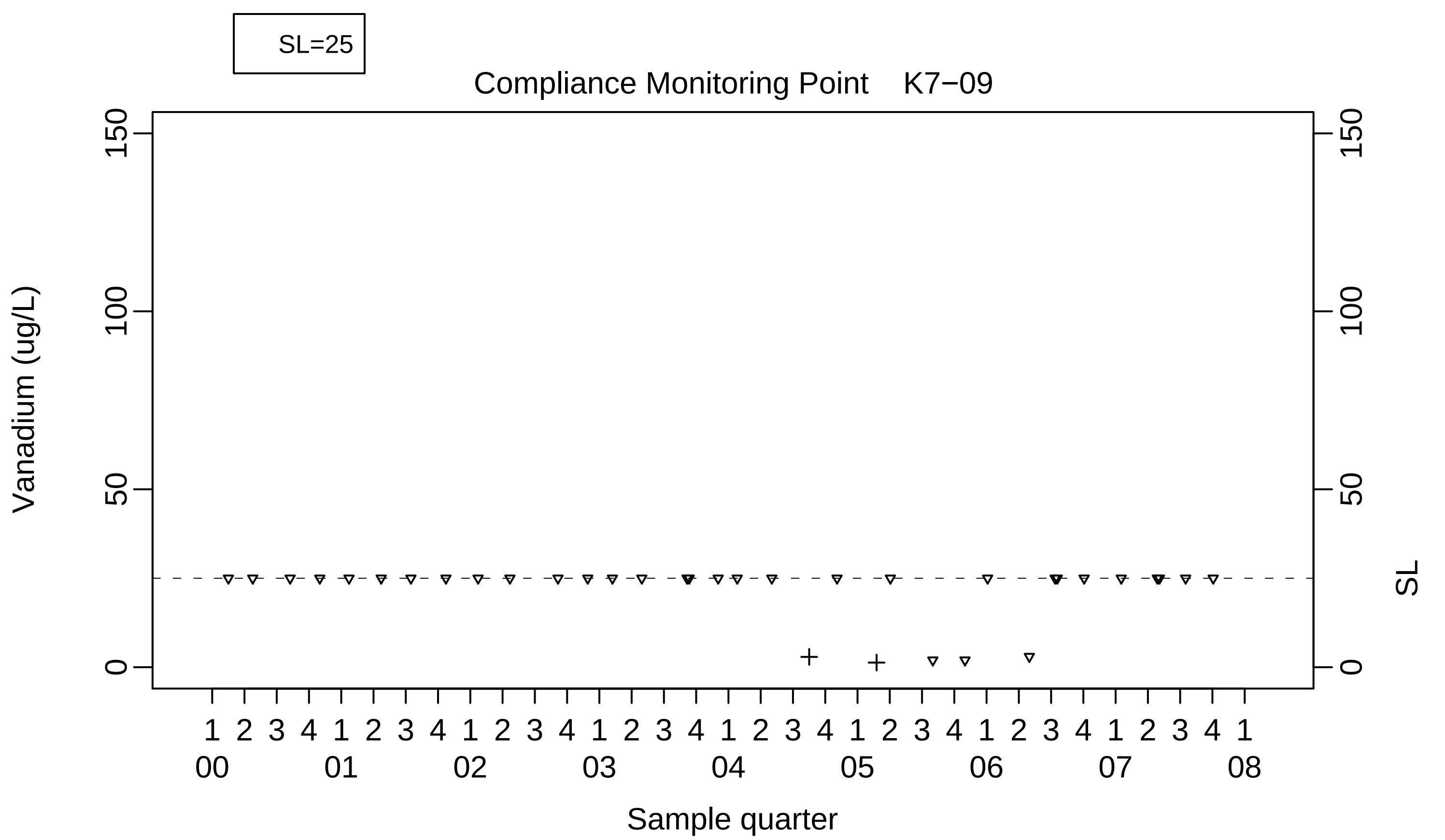

Pit 7 Complex
Nickel (ug/L)
SL=48
Compliance Monitoring Point NC7−48
Above RL
Below RL
Estimated
Nickel (ug/L)
SL
0
20
40
60
80
100
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

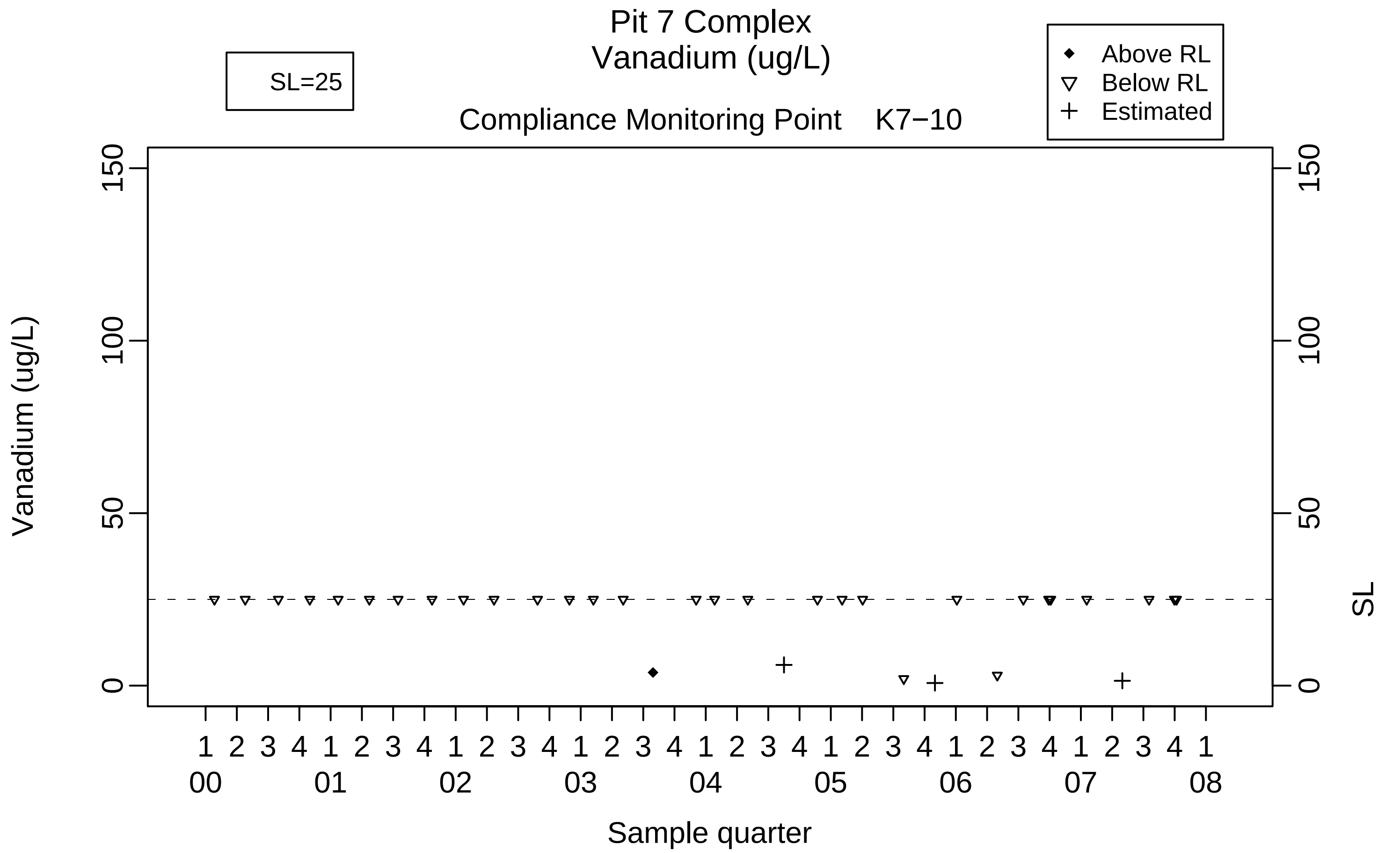
Pit 7 Complex
Vanadium (ug/L)

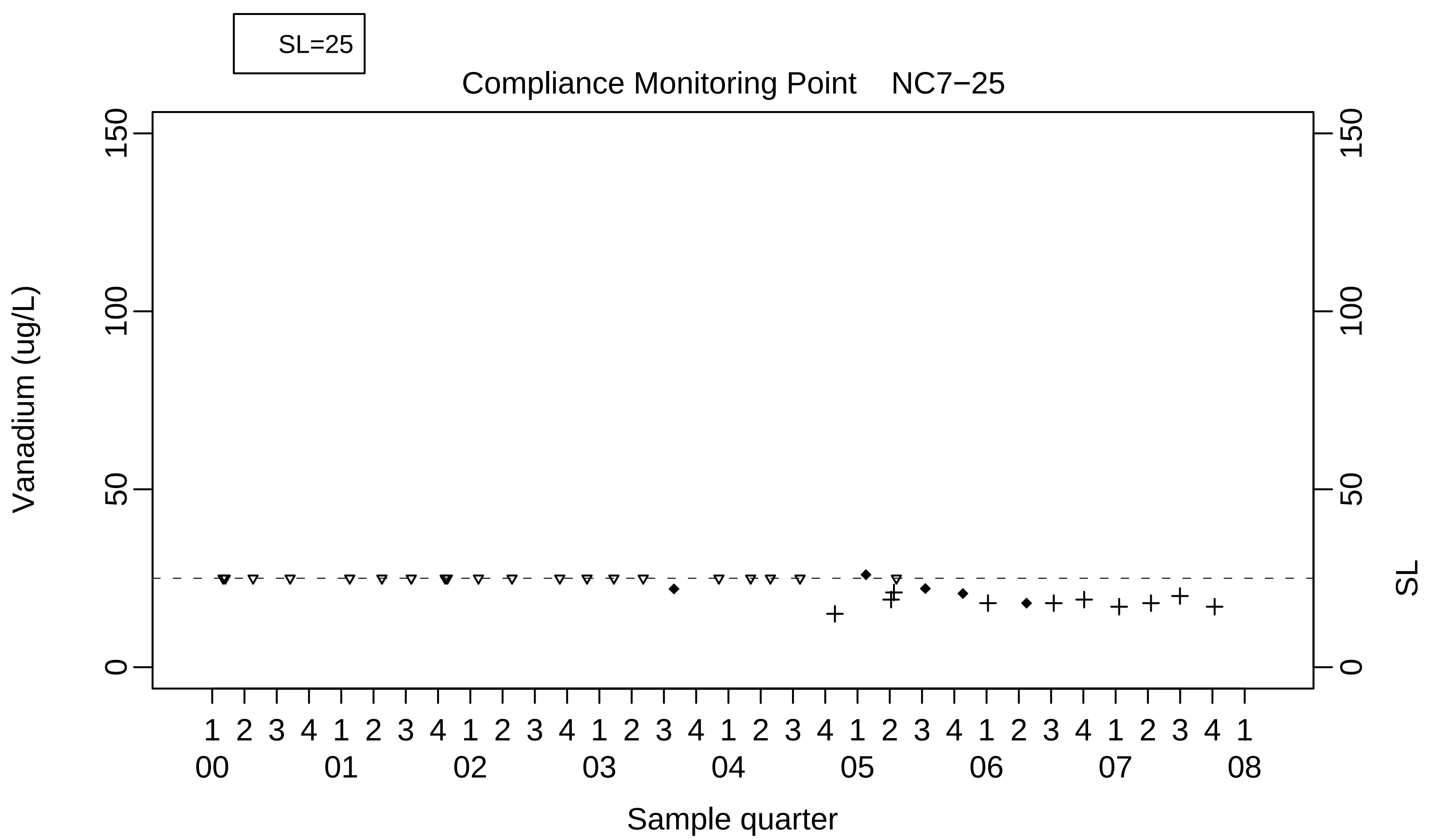




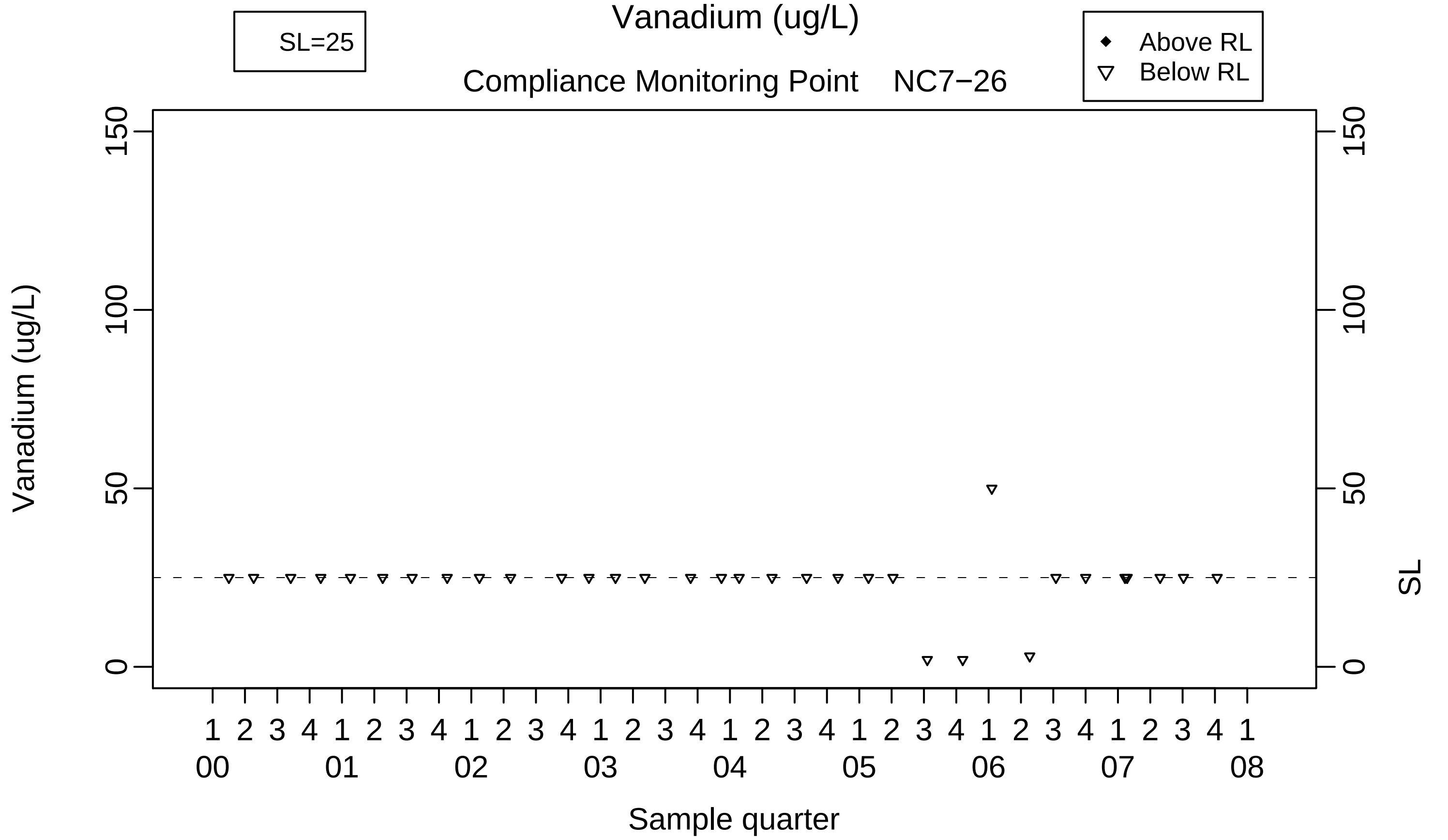

Pit 7 Complex
Vanadium (ug/L)
SL=25
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−03
Vanadium (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

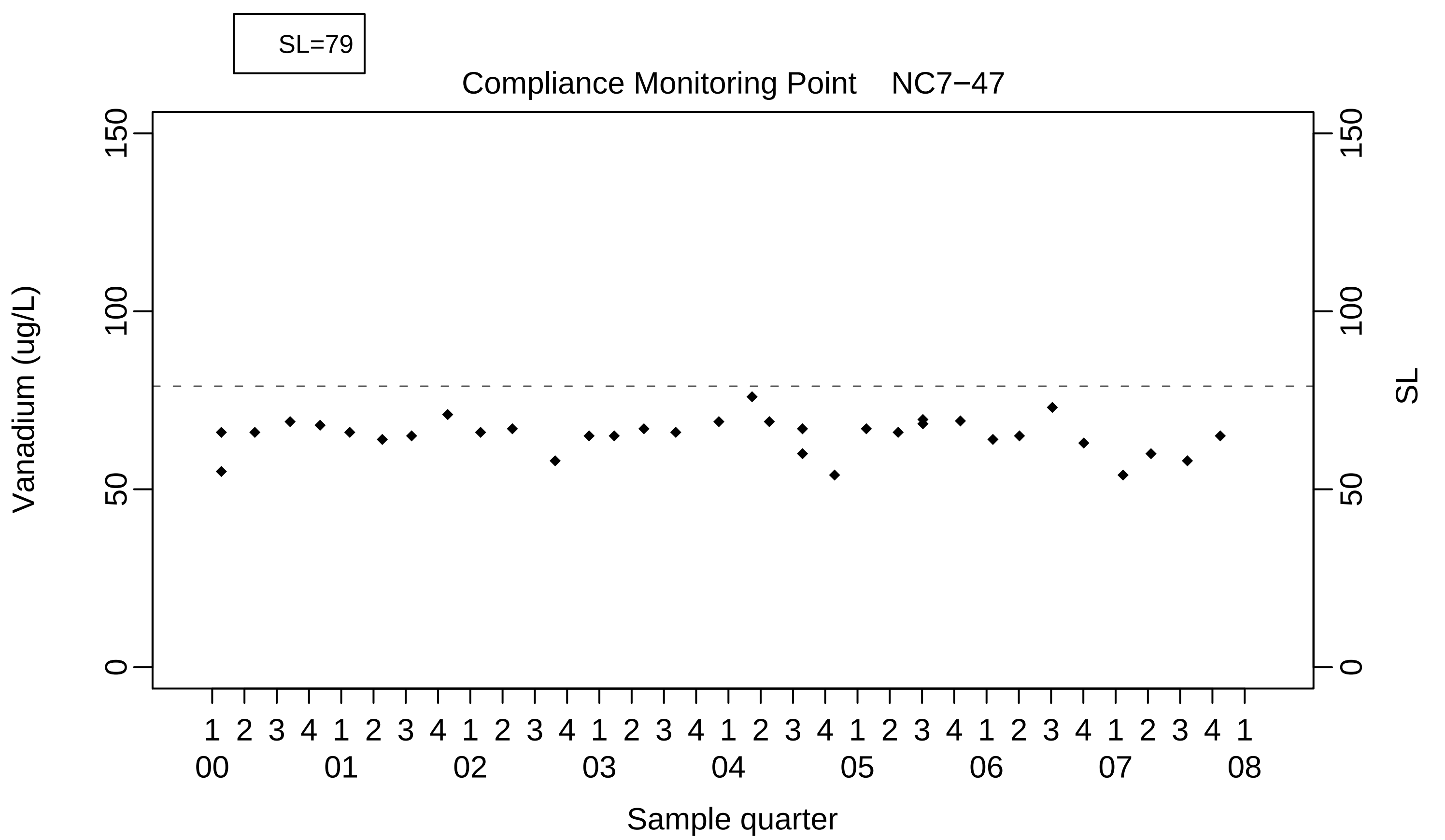

SL=25
Compliance Monitoring Point K7−09
Vanadium (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

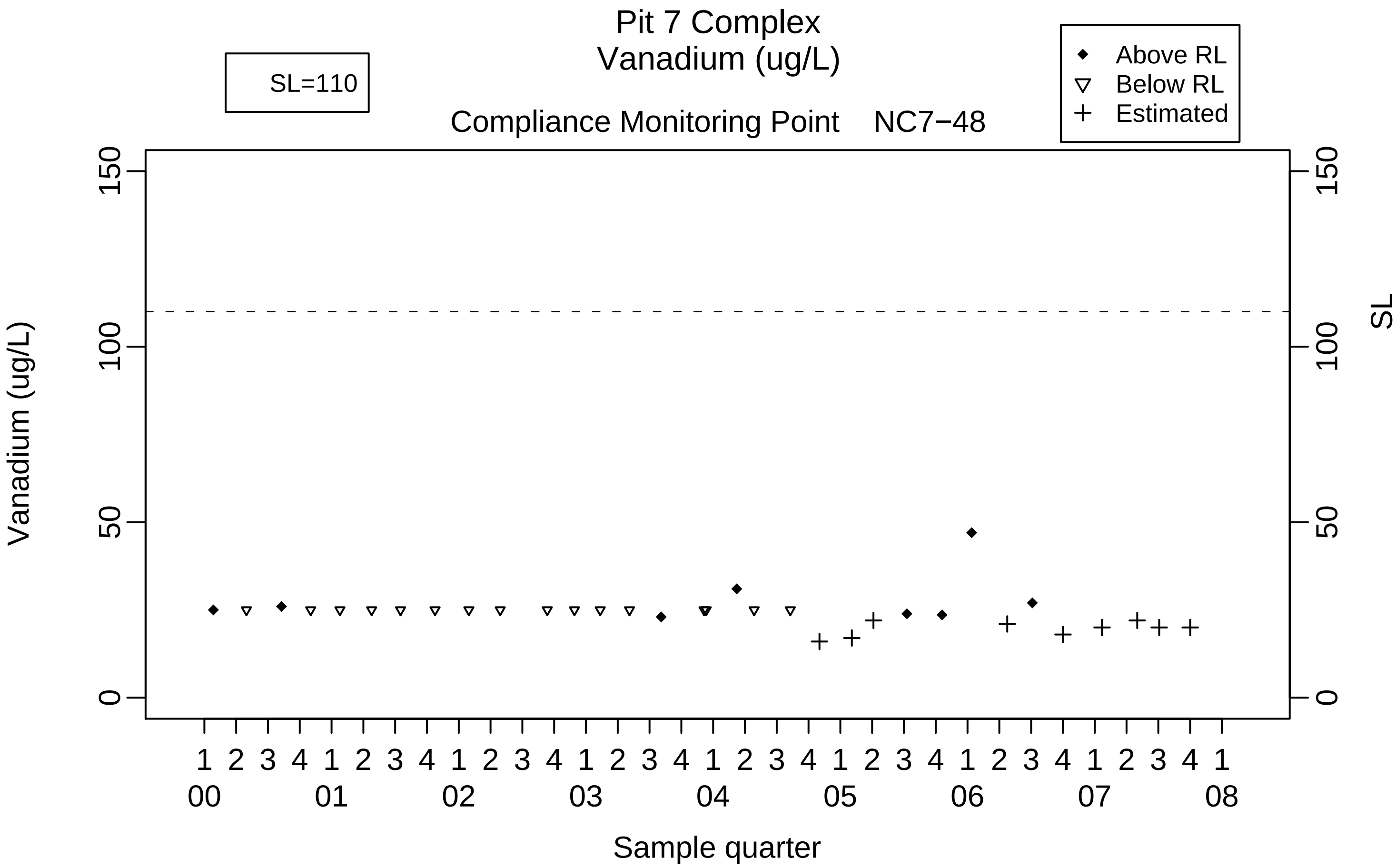

Pit 7 Complex
Vanadium (ug/L)
SL=25
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−10
Vanadium (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

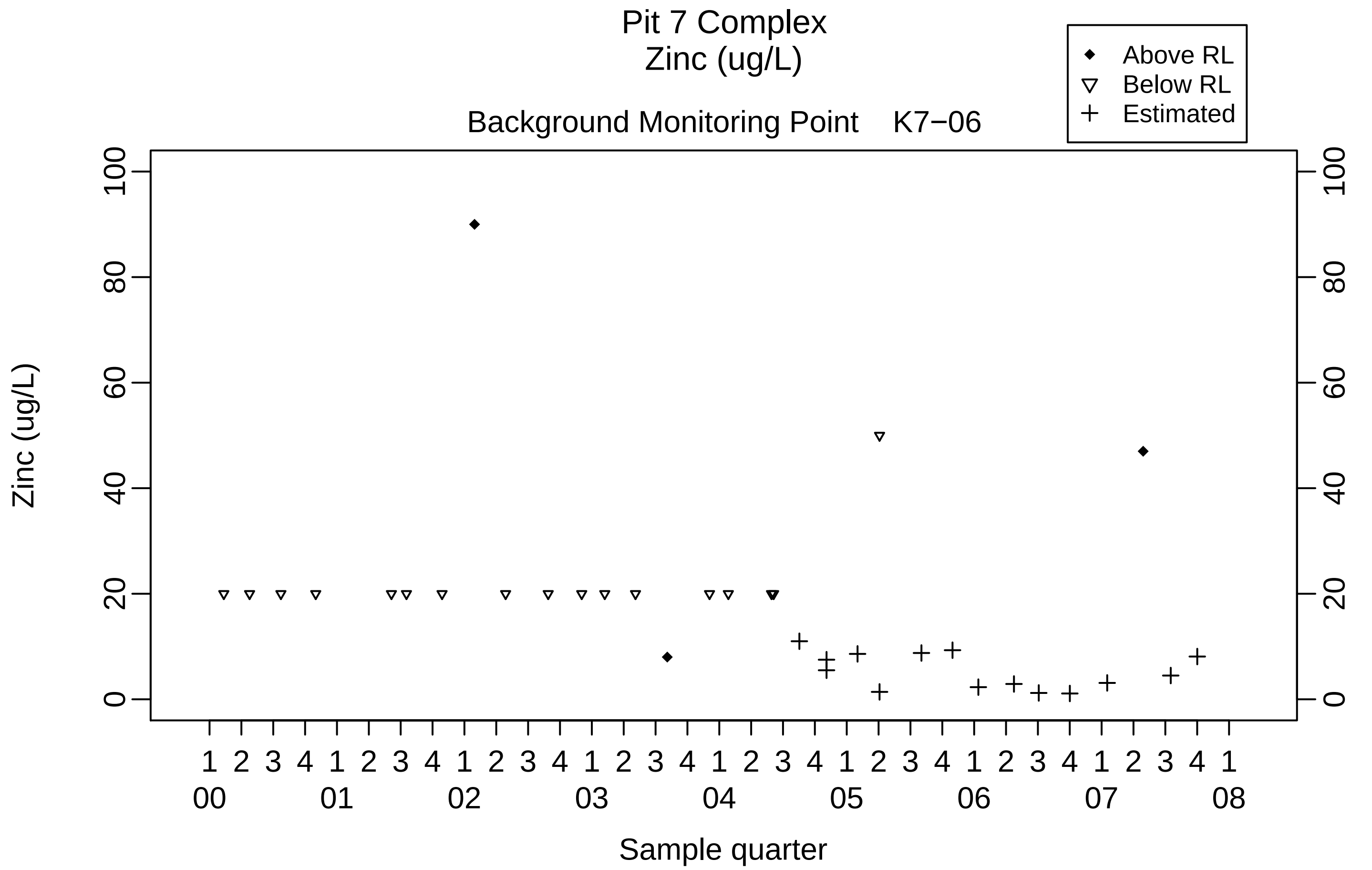

SL=25
Compliance Monitoring Point NC7−25
Vanadium (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

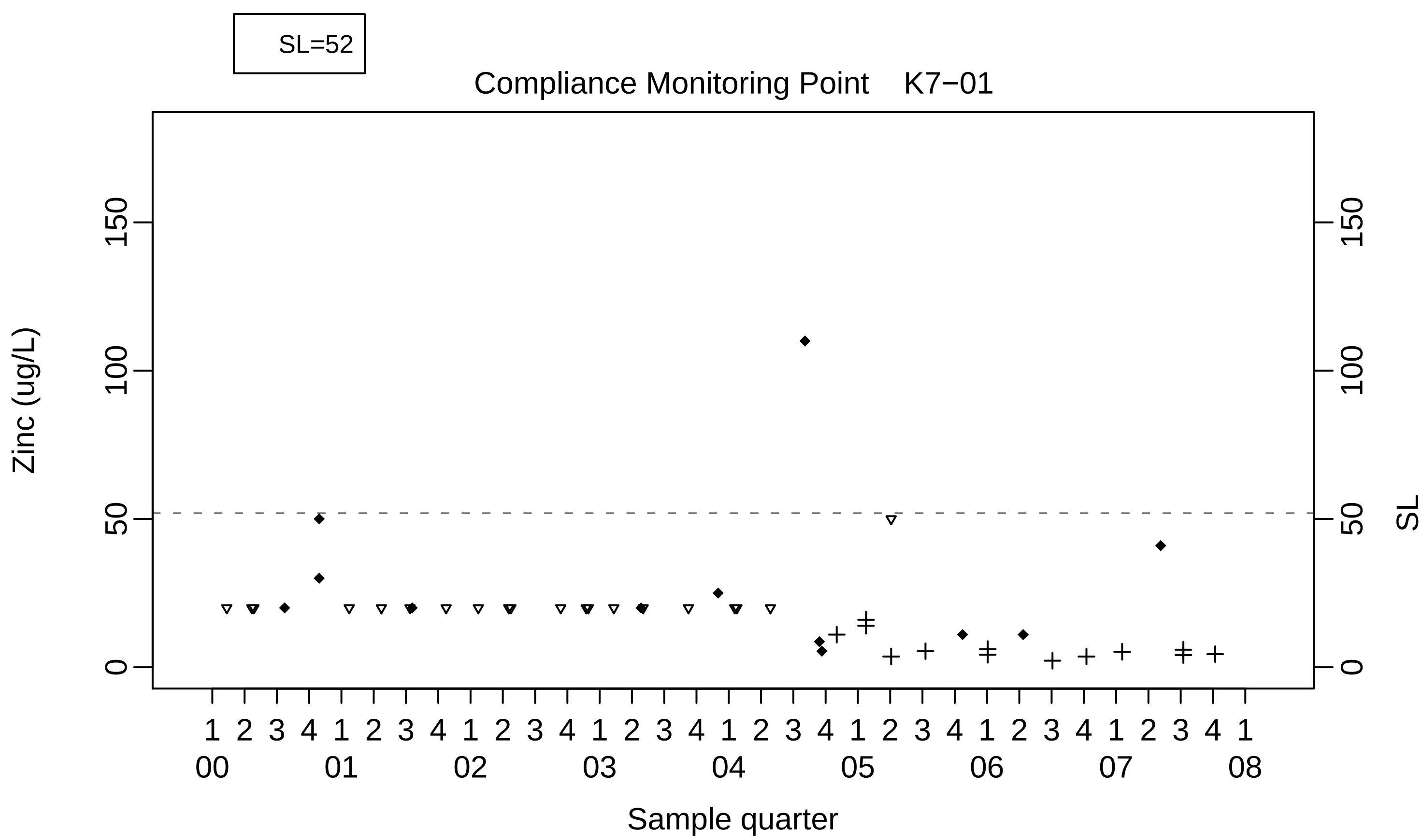
Pit 7 Complex
Vanadium (ug/L)

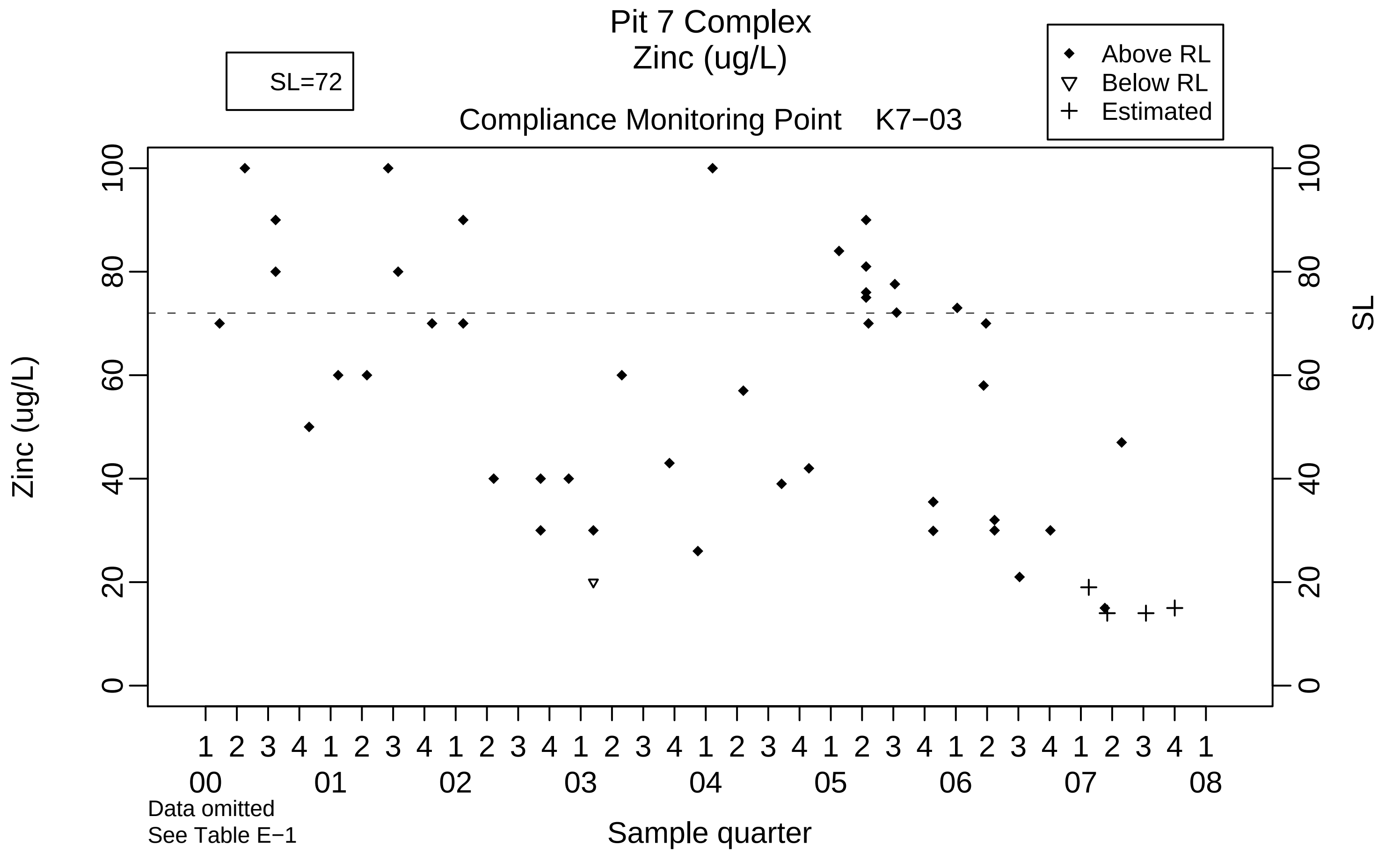


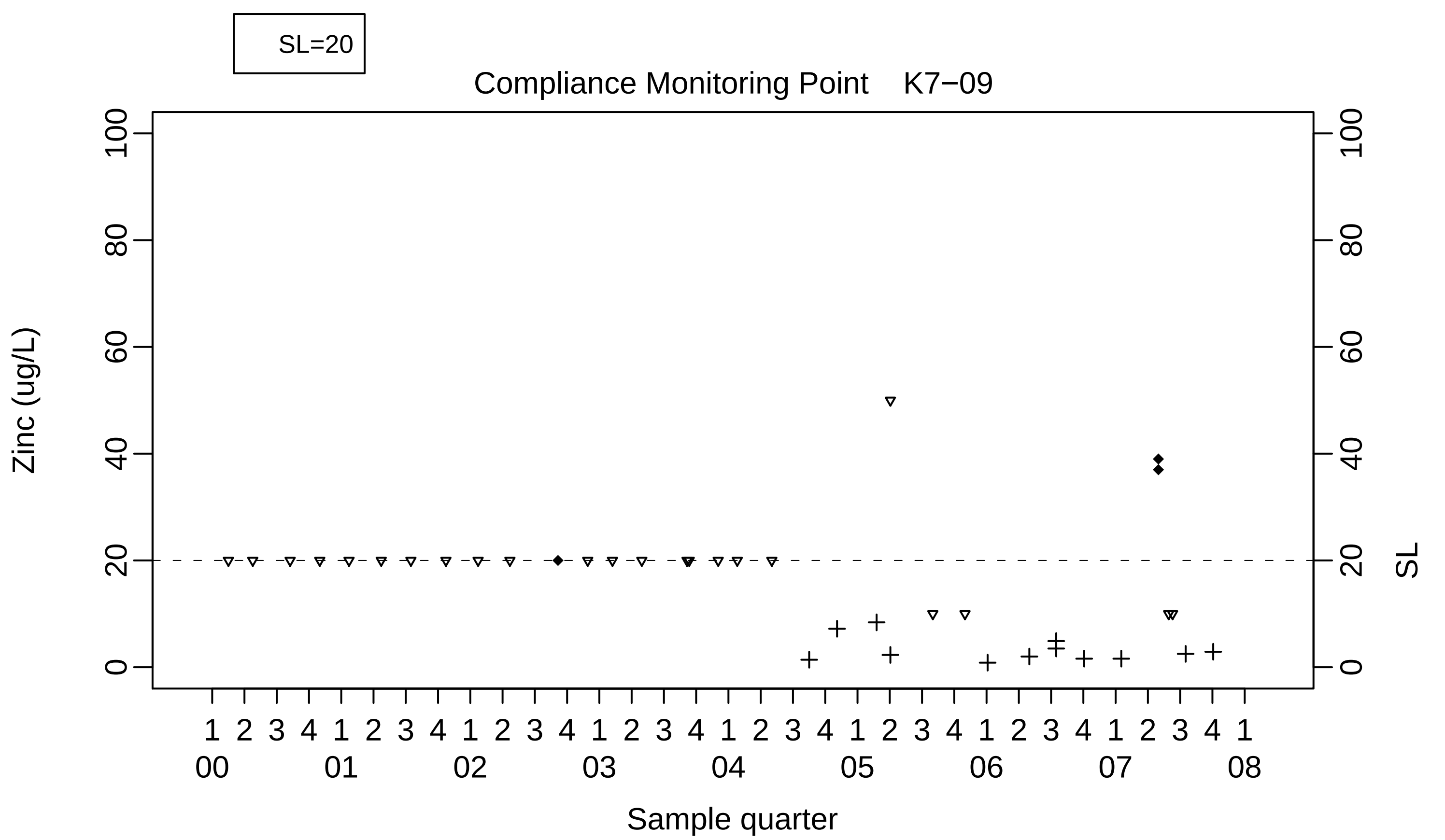


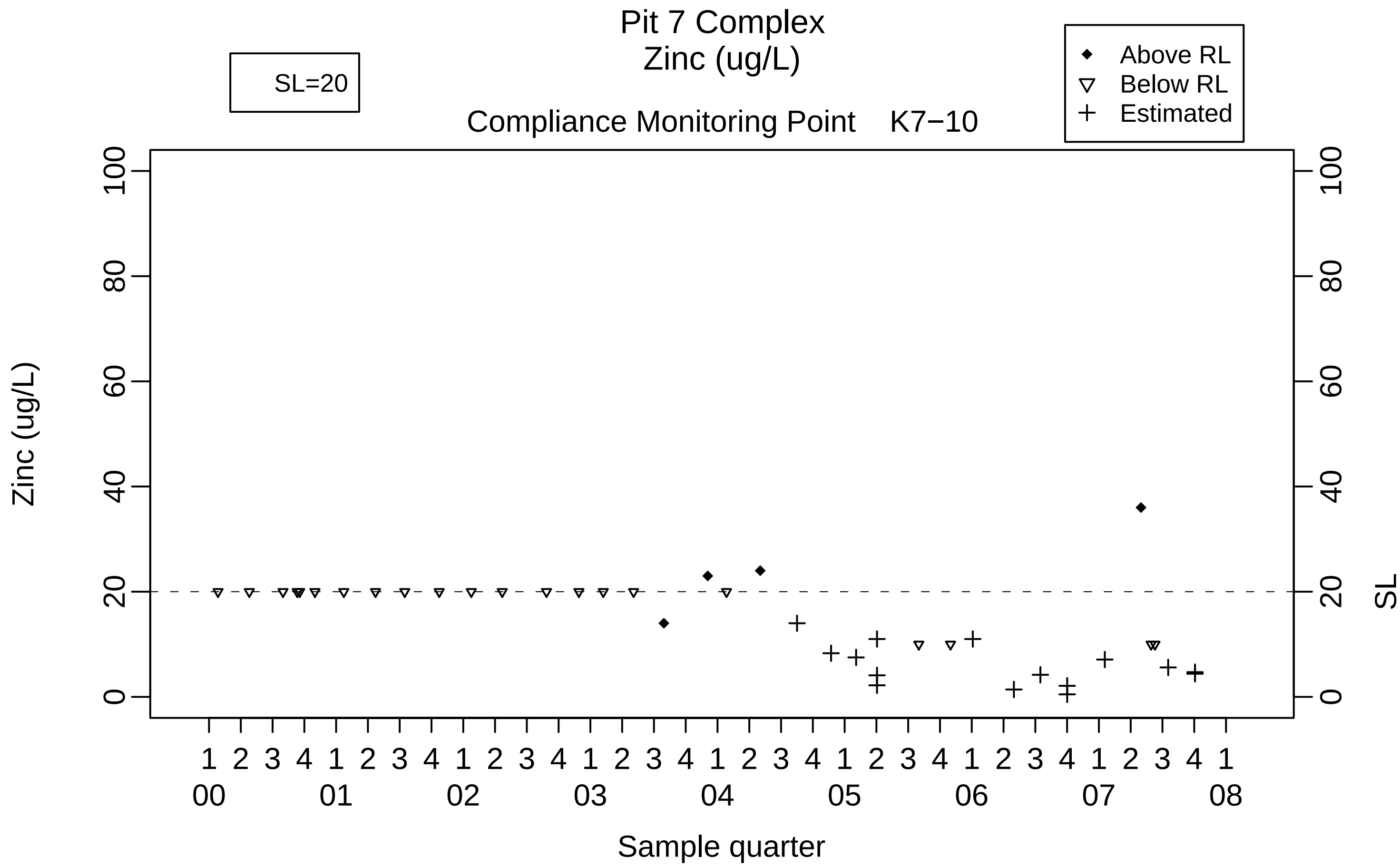

Pit 7 Complex
Vanadium (ug/L)
SL=110
Compliance Monitoring Point NC7−48
Above RL
Below RL
Estimated
Vanadium (ug/L)
SL
0
50
100
150
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

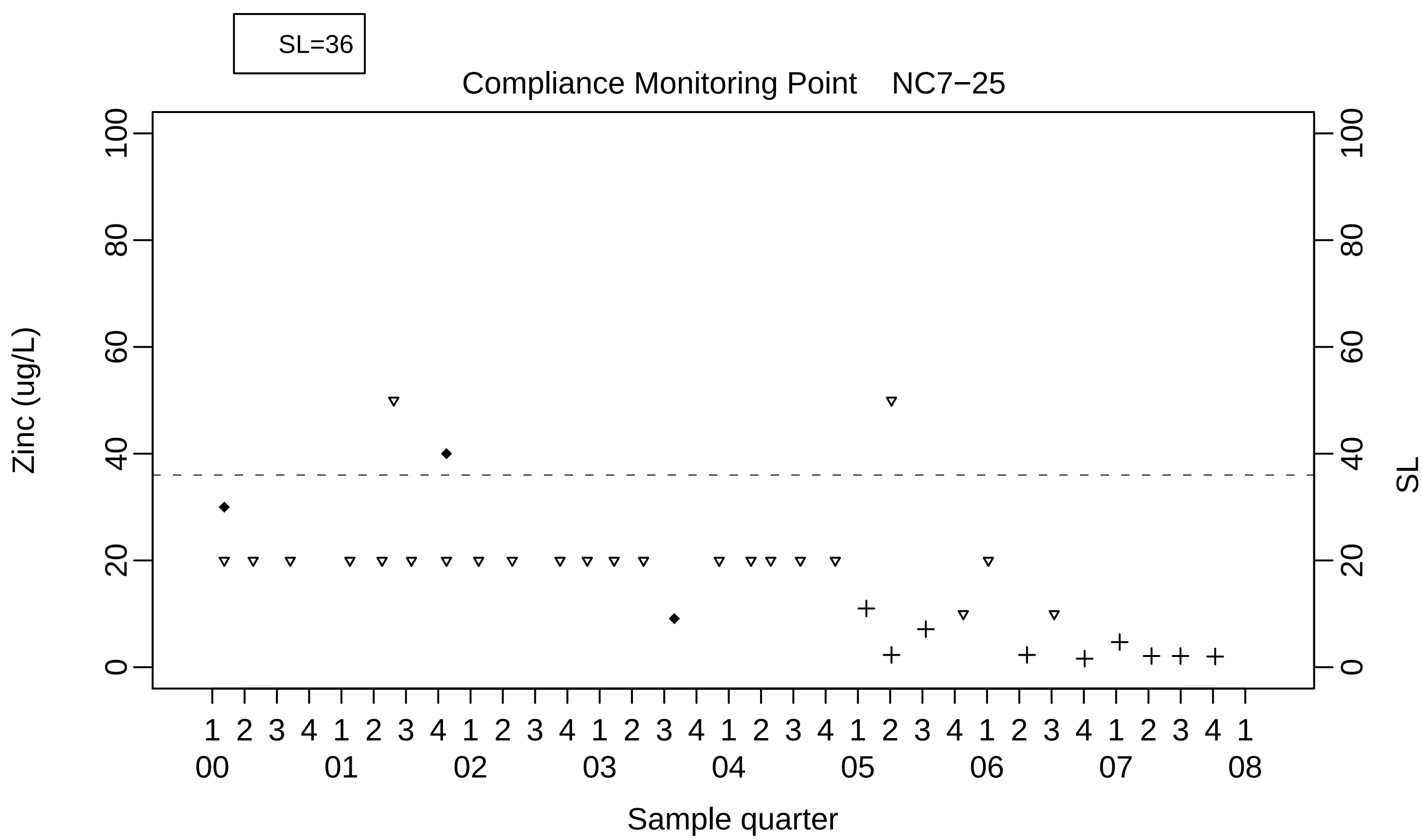

Pit 7 Complex
Zinc (ug/L)
Above RL
Below RL
Estimated
Background Monitoring Point K7−06
Zinc (ug/L)
0
20
40
60
80
100
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

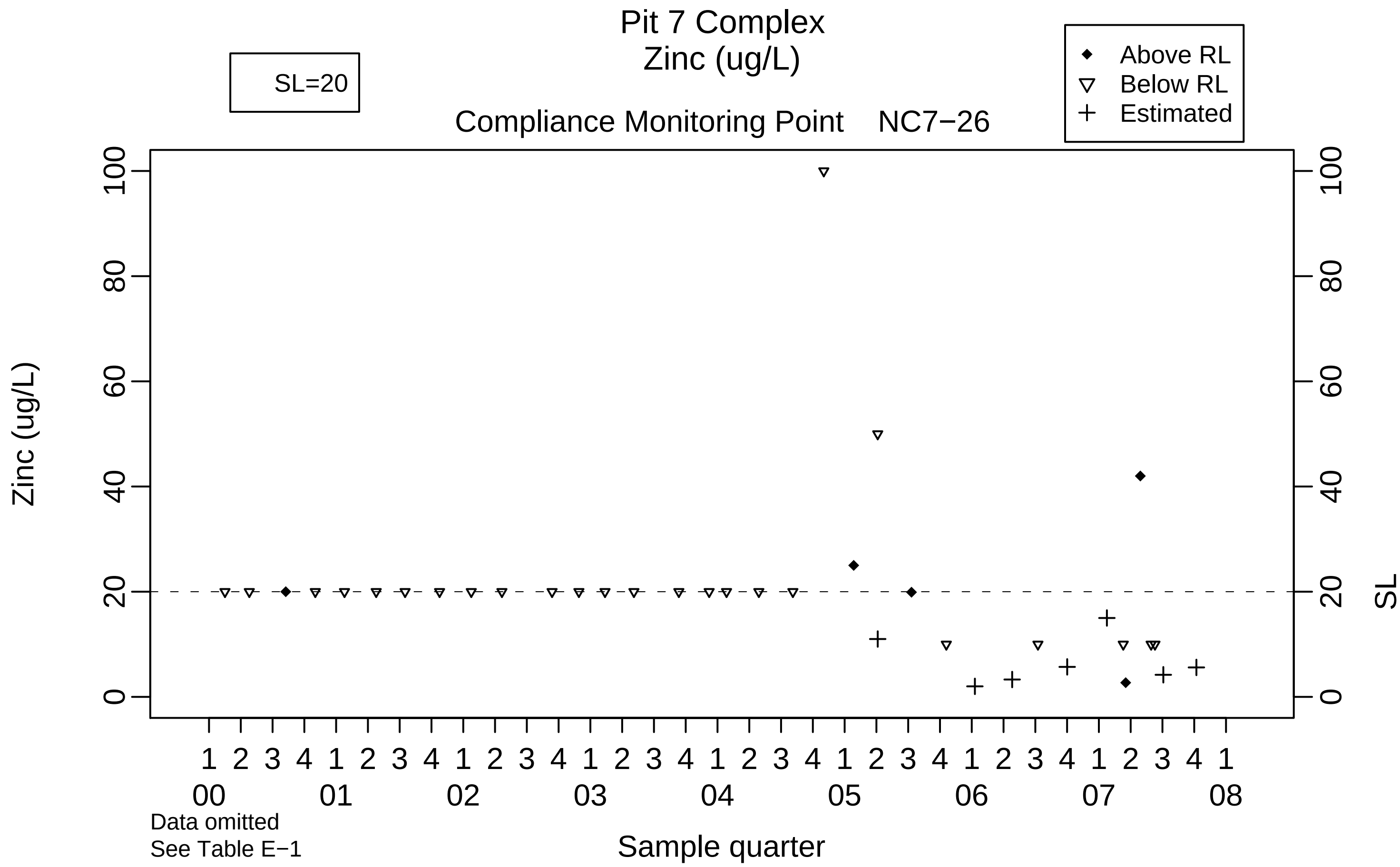

SL=52
Compliance Monitoring Point K7−01
Zinc (ug/L)
0
50
100
150
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

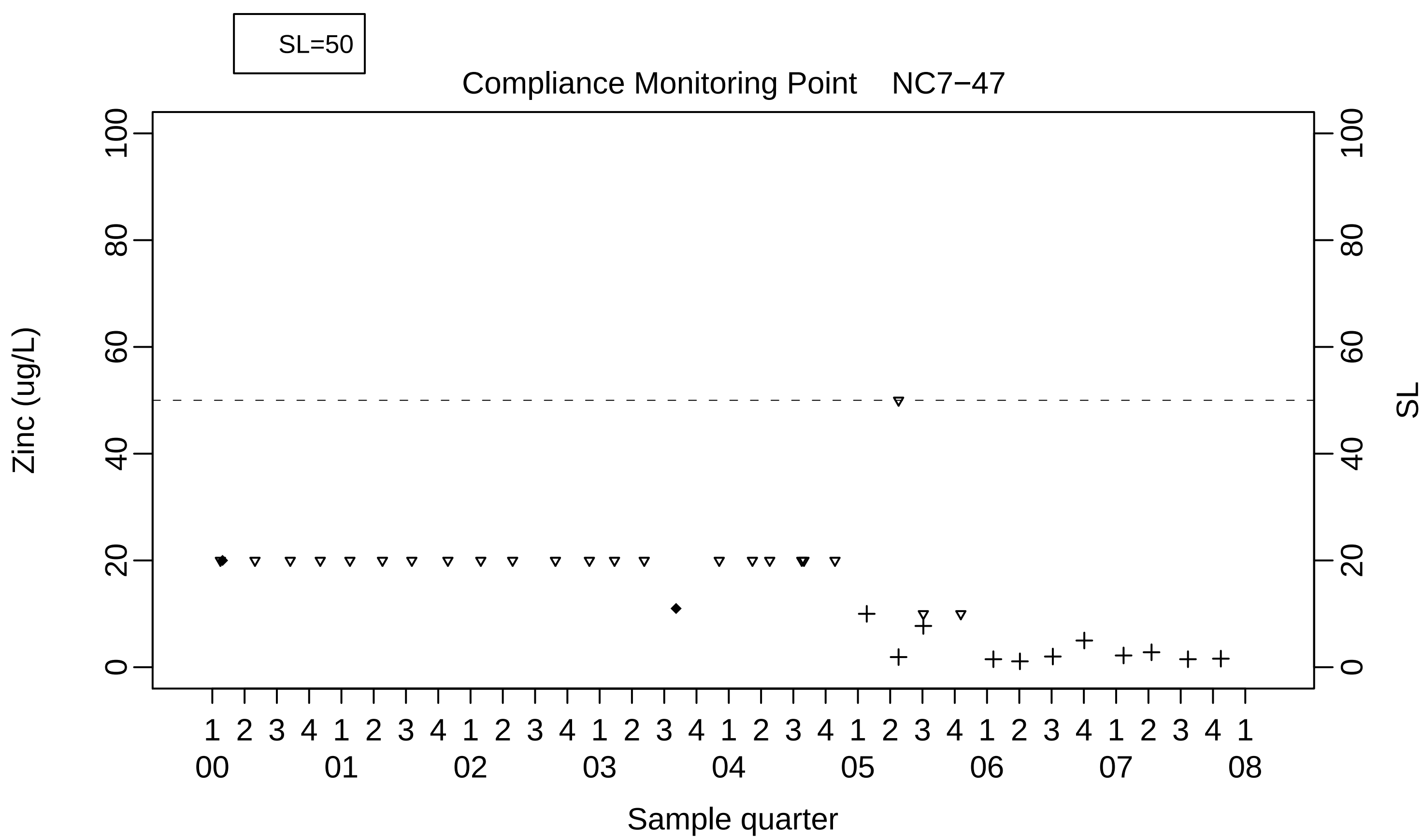

Pit 7 Complex
Zinc (ug/L)
SL=72
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−03
Zinc (ug/L)
SL
0 20 40 60 80 100
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

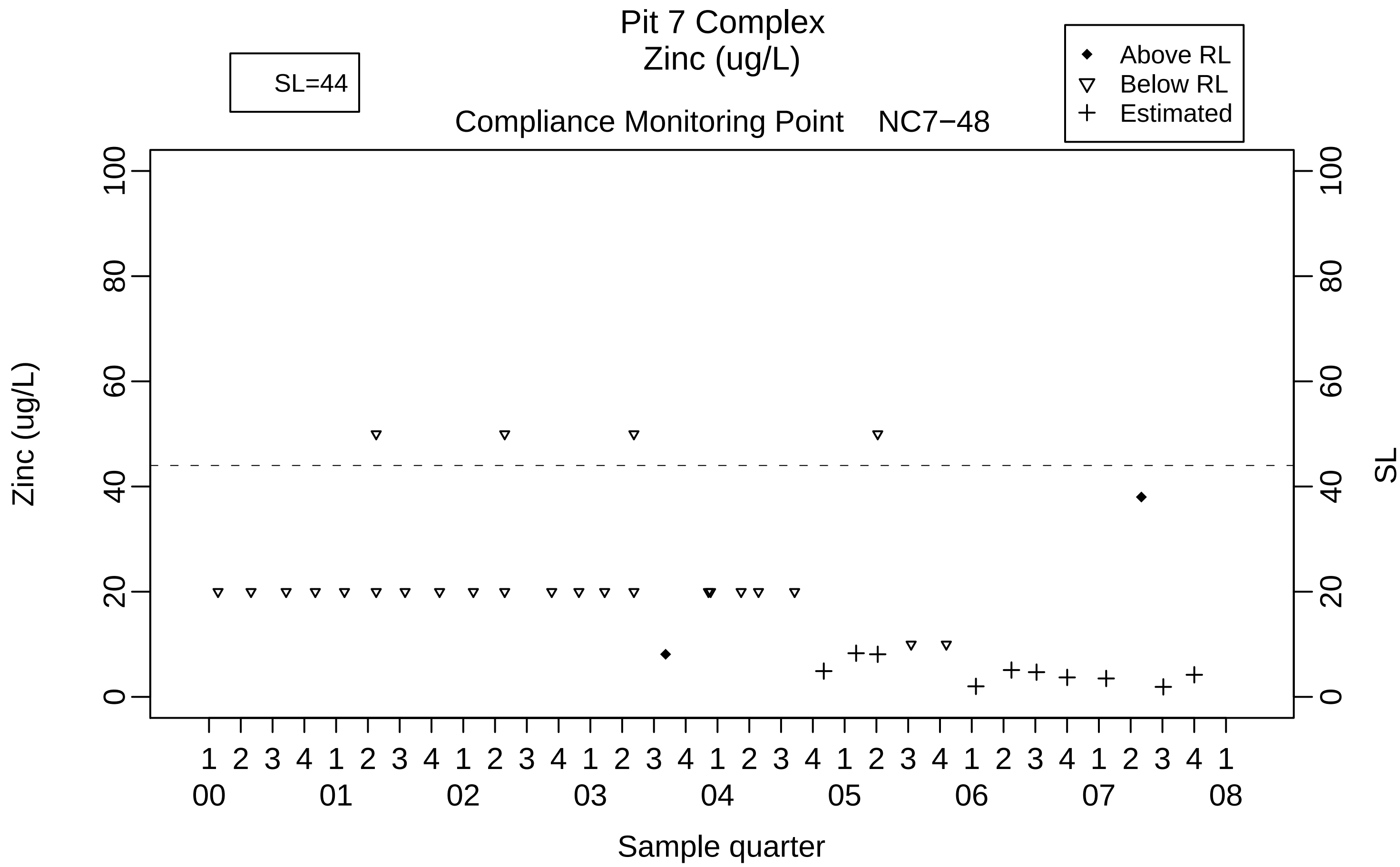

SL=20
Compliance Monitoring Point K7−09
Zinc (ug/L)
SL
0 20 40 60 80 100
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

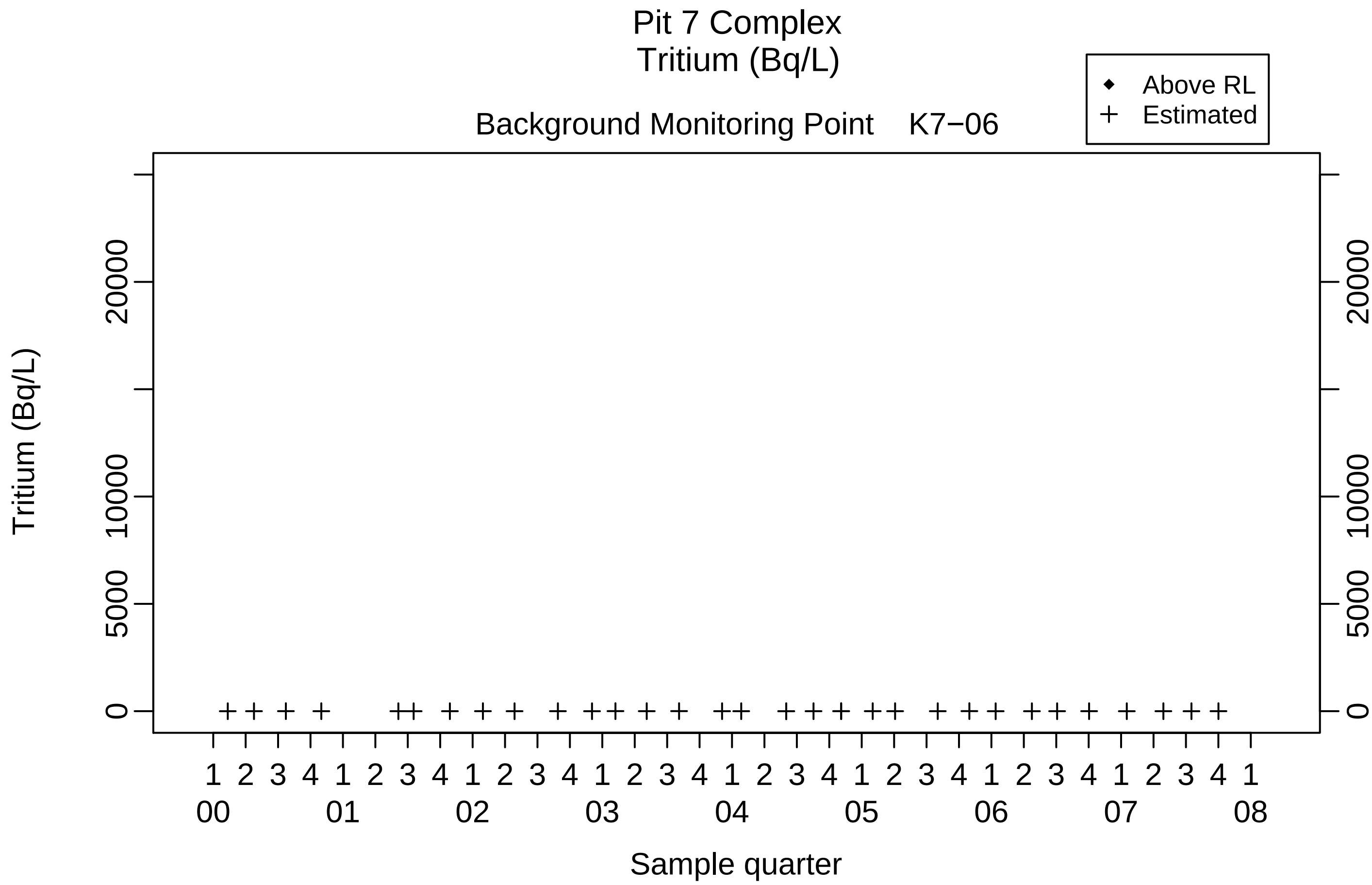

Pit 7 Complex
Zinc (ug/L)
SL=20
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−10
Zinc (ug/L)
SL
0
20
40
60
80
100
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

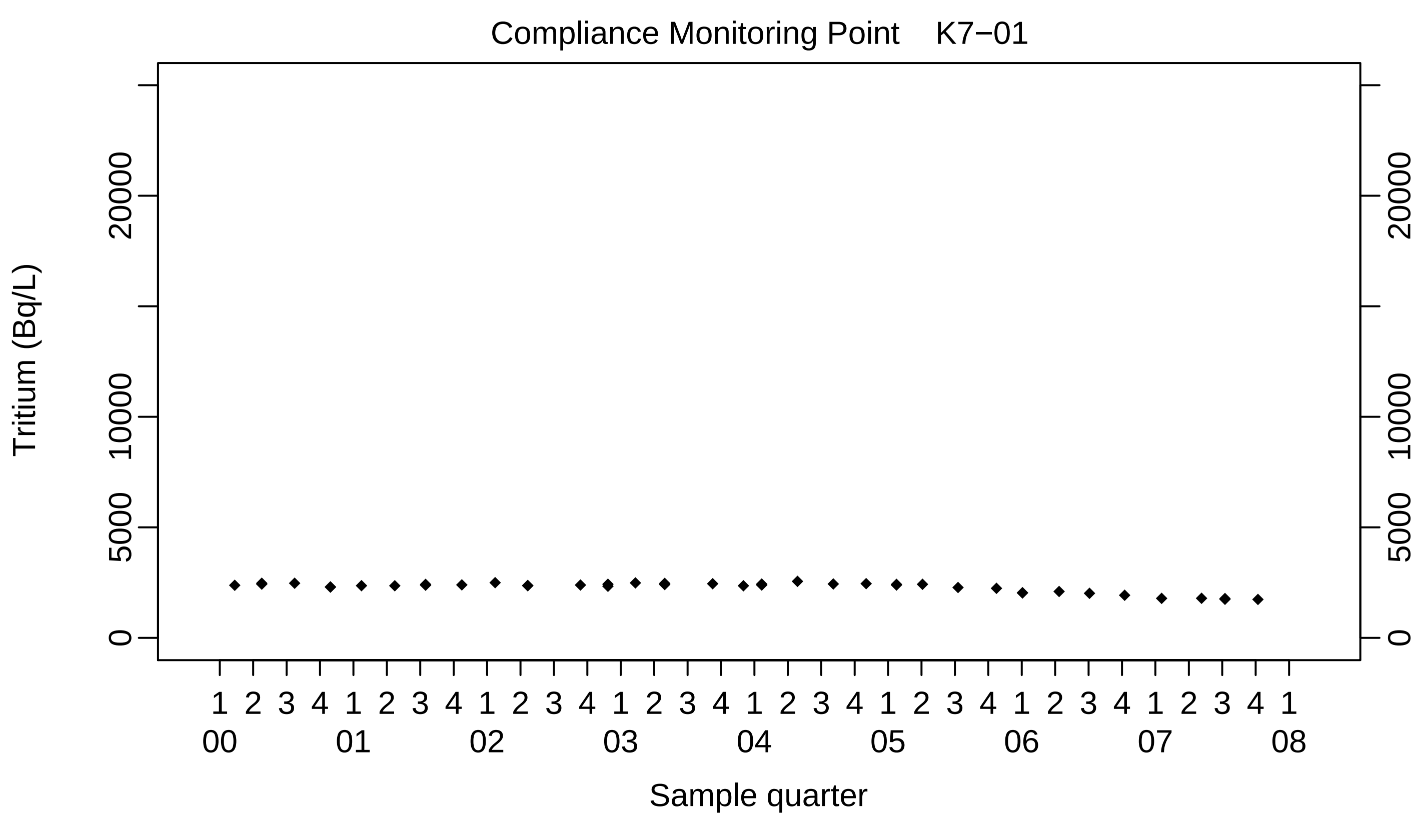

SL=36
Compliance Monitoring Point NC7−25
Zinc (ug/L)
SL
0
20
40
60
80
100
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 7 Complex
Zinc (ug/L)
SL=20
Above RL
Below RL
Estimated
Compliance Monitoring Point NC7−26
Zinc (ug/L)
SL
0 20 40 60 80 100
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Data omitted
See Table E−1
Sample quarter

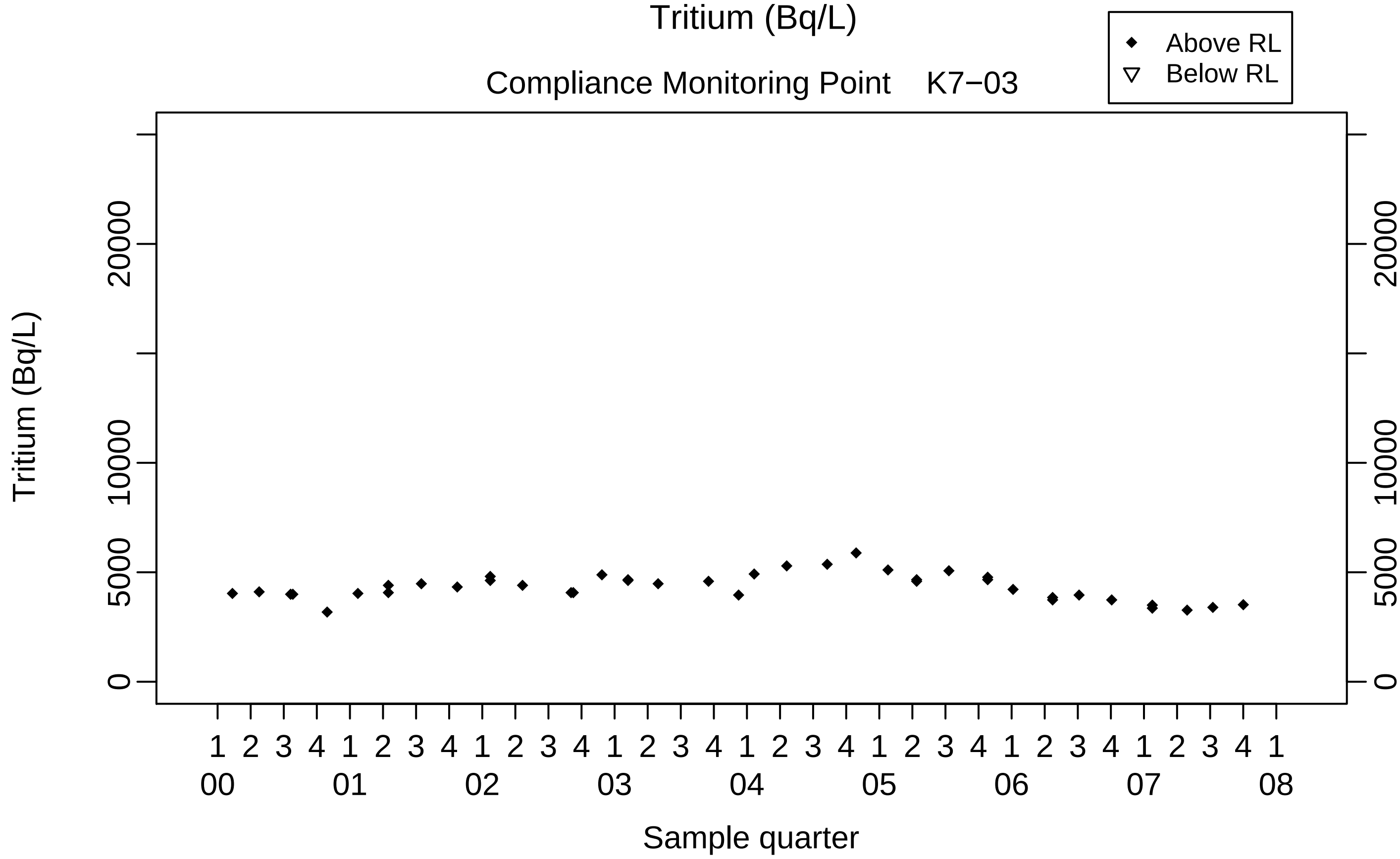

SL=50
Compliance Monitoring Point NC7−47
Zinc (ug/L)
SL
0 20 40 60 80 100
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

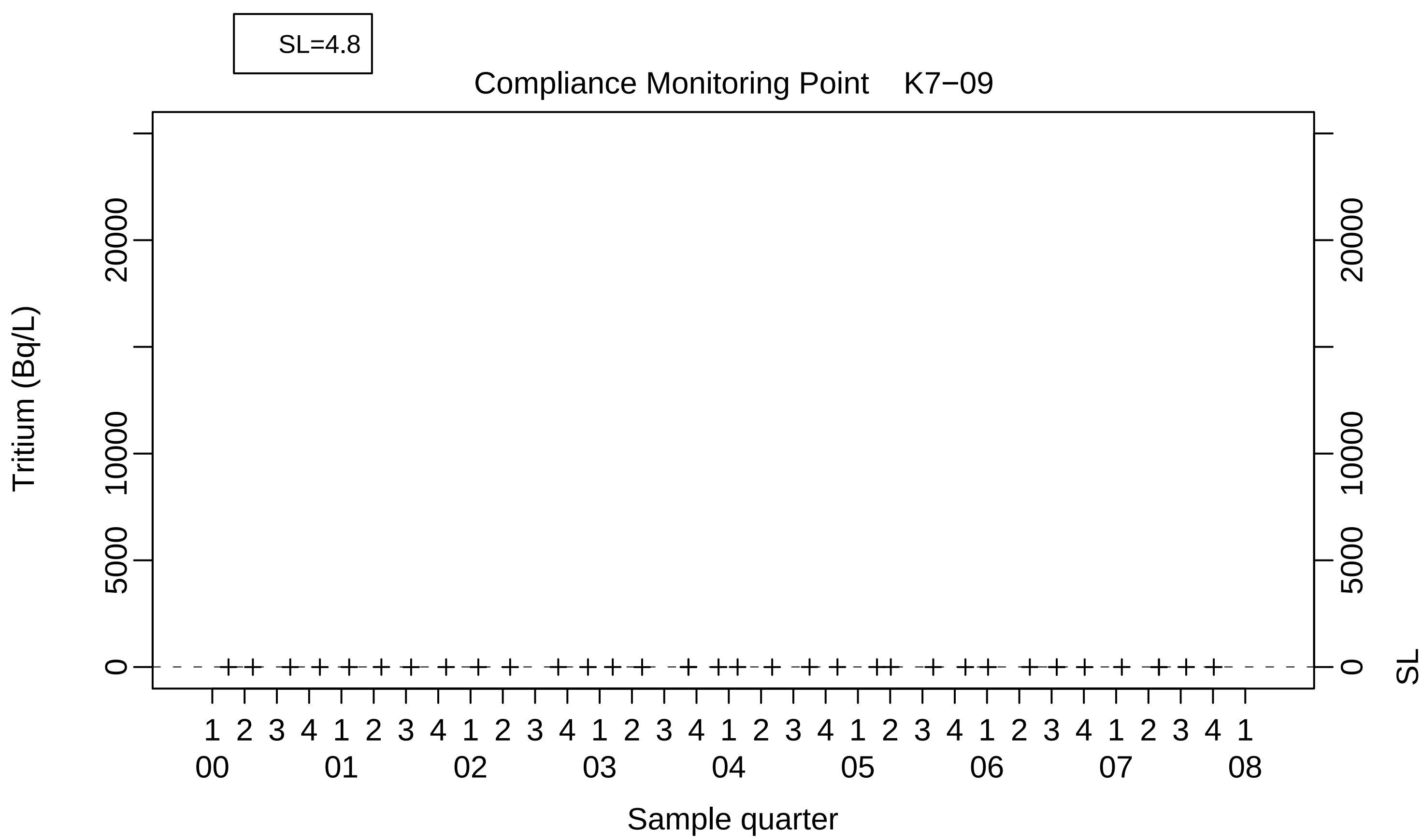

Pit 7 Complex
Zinc (ug/L)
SL=44
Compliance Monitoring Point NC7−48
Above RL
Below RL
Estimated
Zinc (ug/L)
SL
0
20
40
60
80
100
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 7 Complex
Tritium (Bq/L)
Above RL
Estimated
Background Monitoring Point K7−06
Tritium (Bq/L)
0
5000
10000
20000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

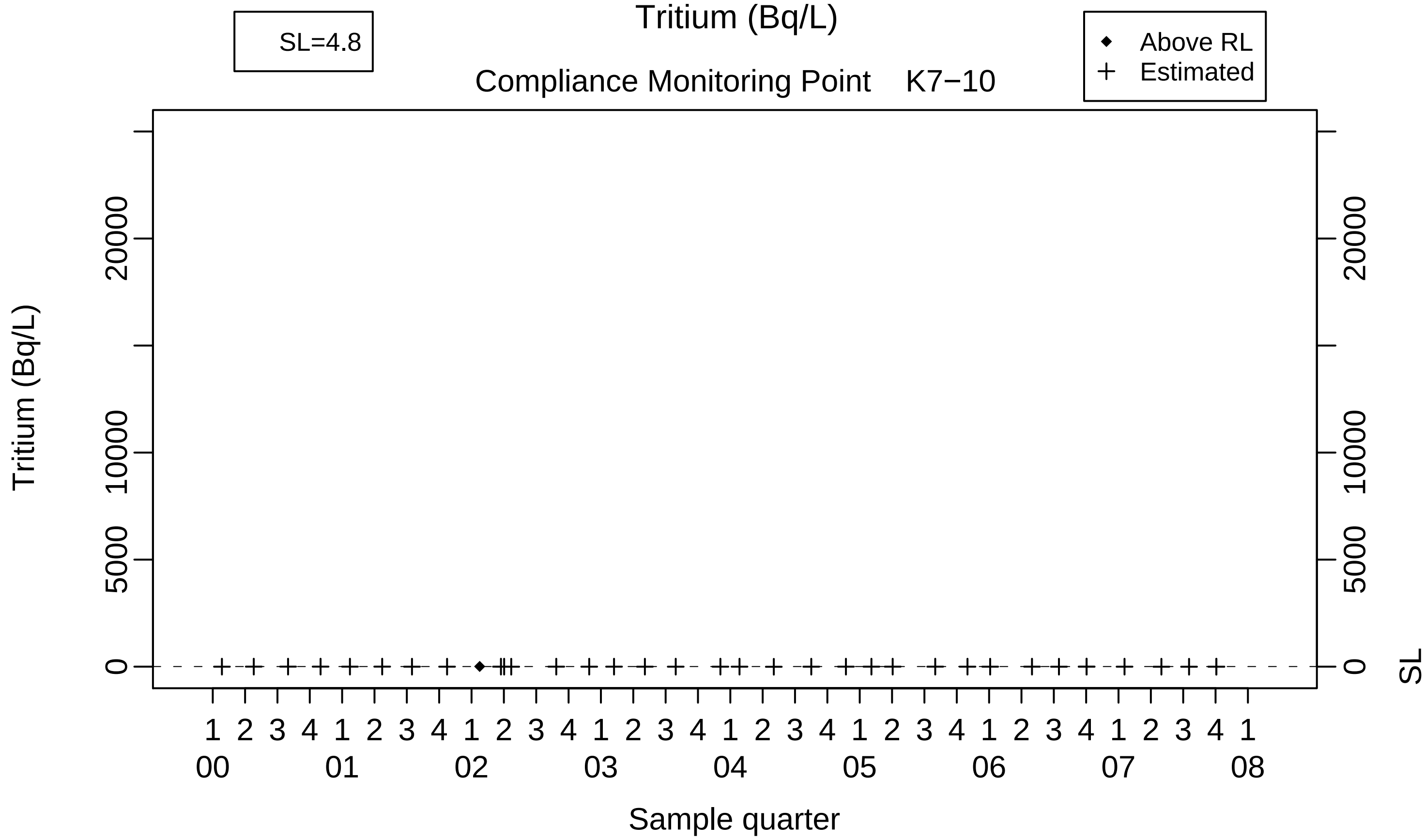

Compliance Monitoring Point K7−01
Tritium (Bq/L)
0
5000
10000
20000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

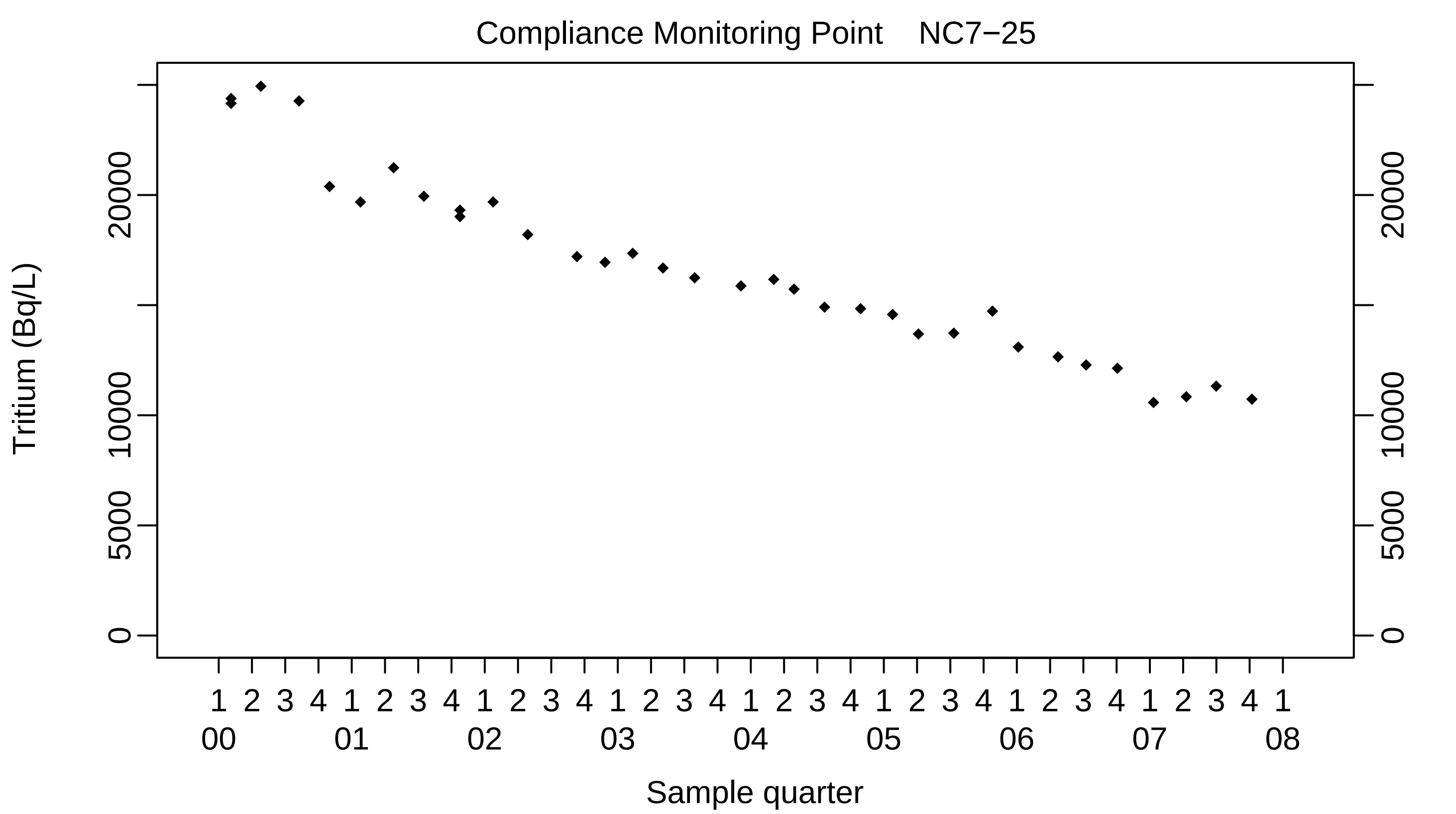
Pit 7 Complex
Tritium (Bq/L)

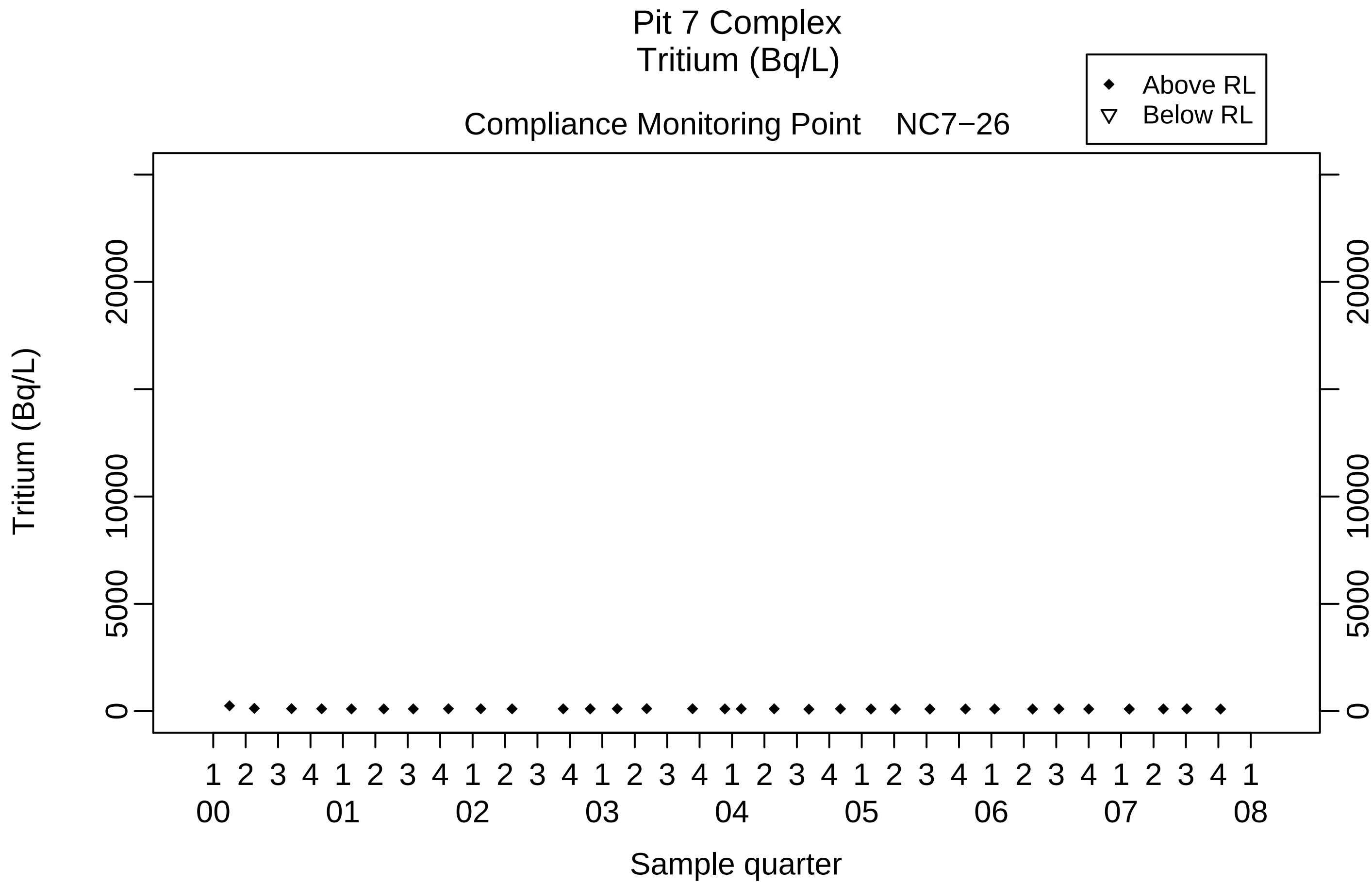


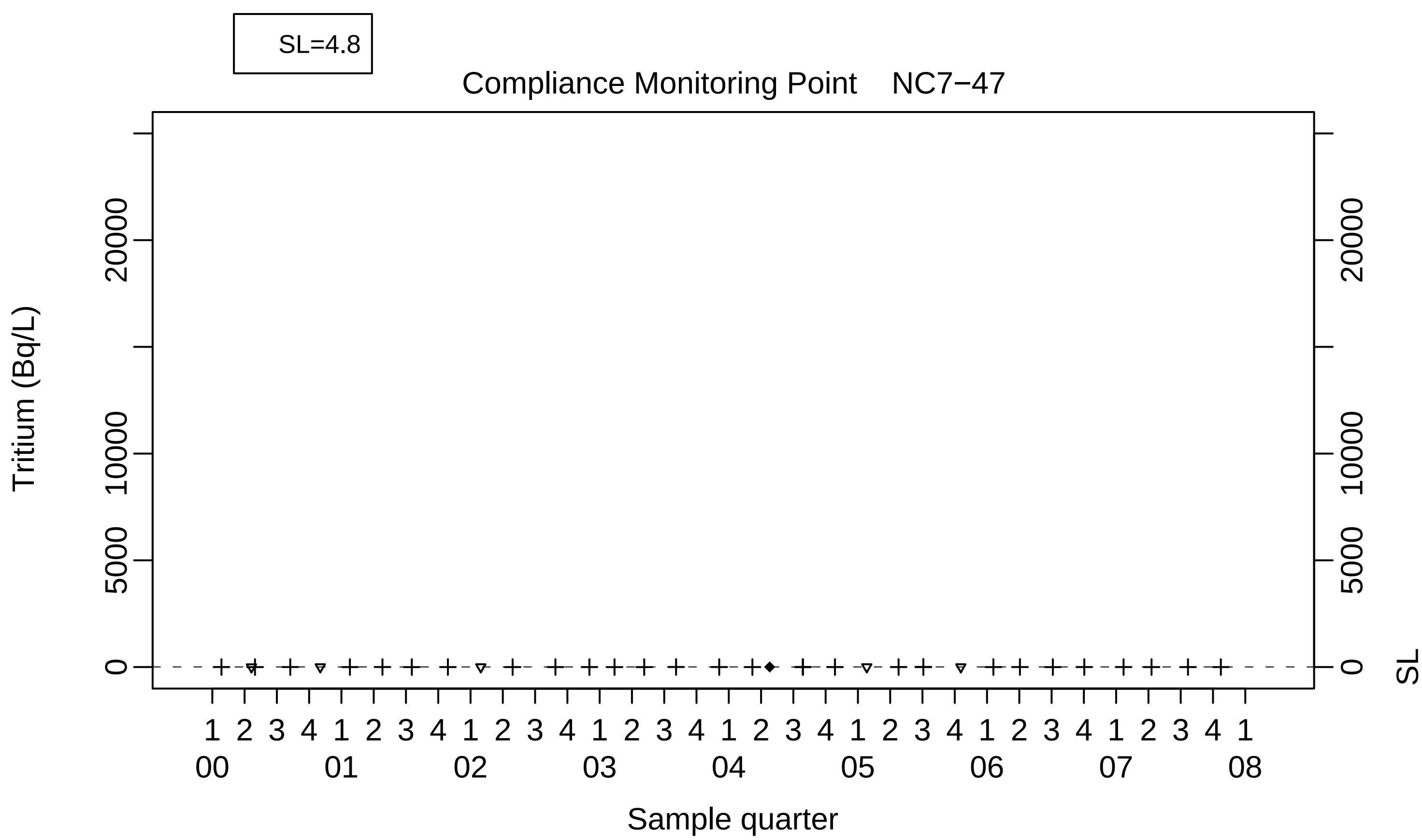


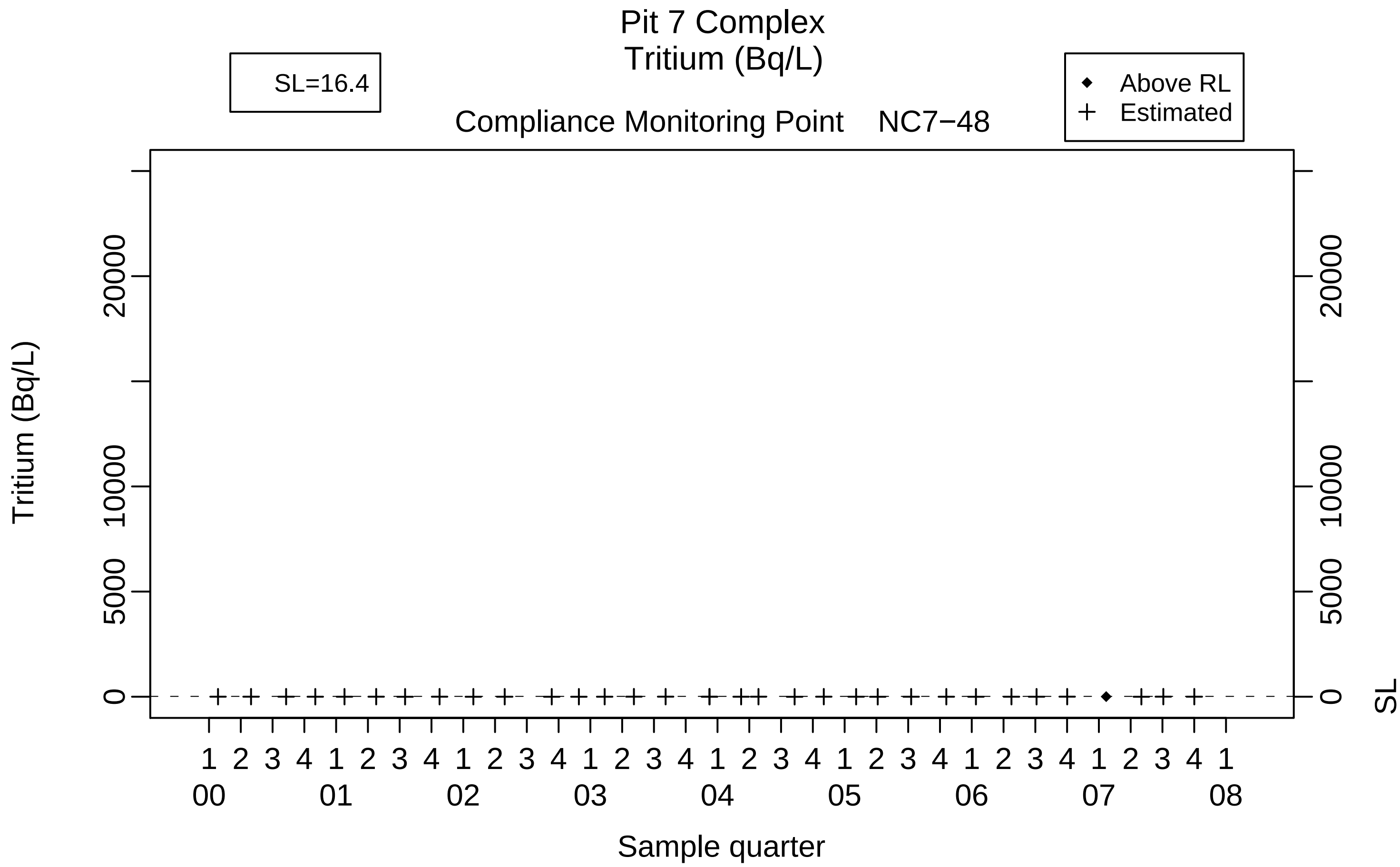
Pit 7 Complex
Tritium (Bq/L)

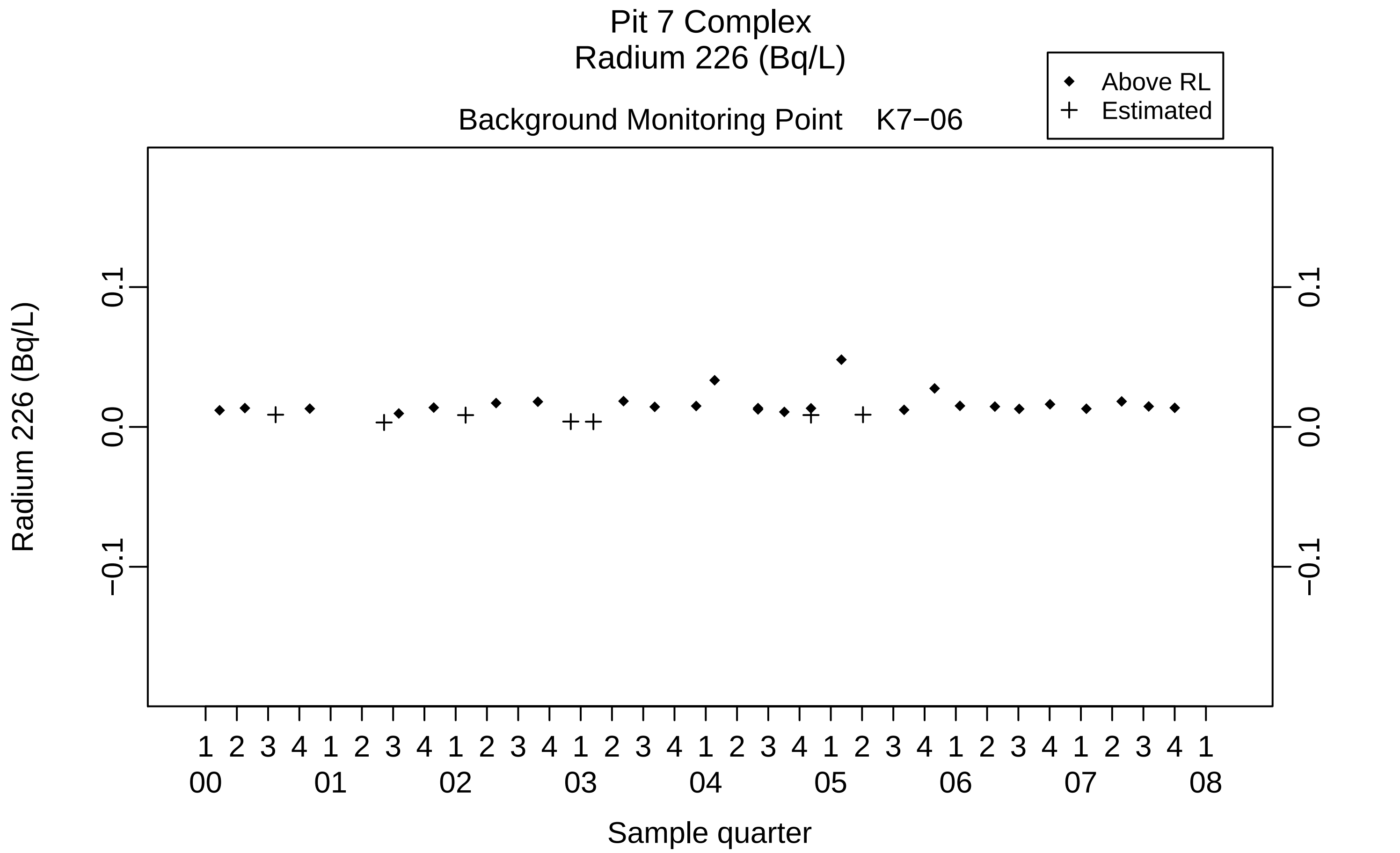


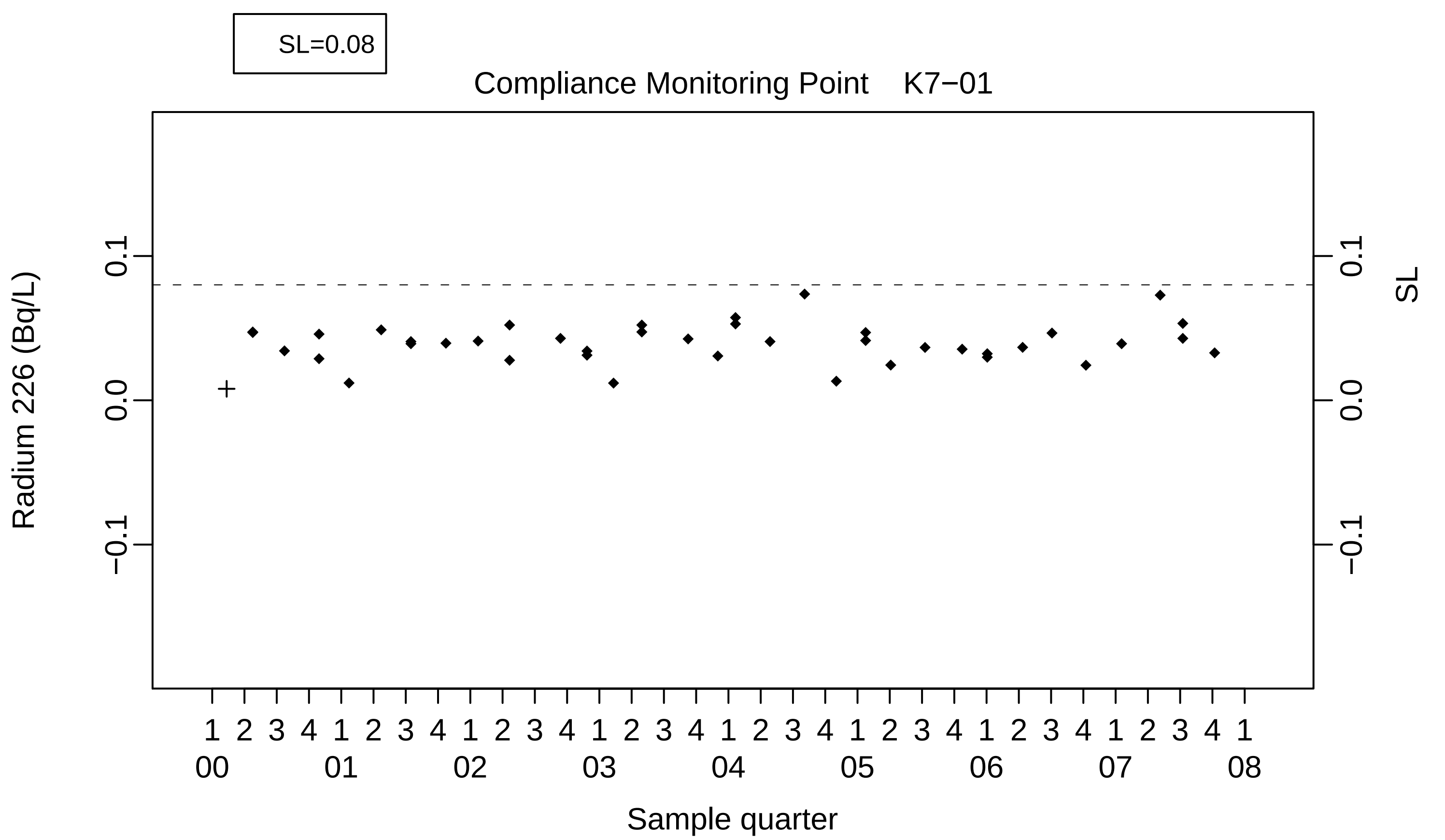


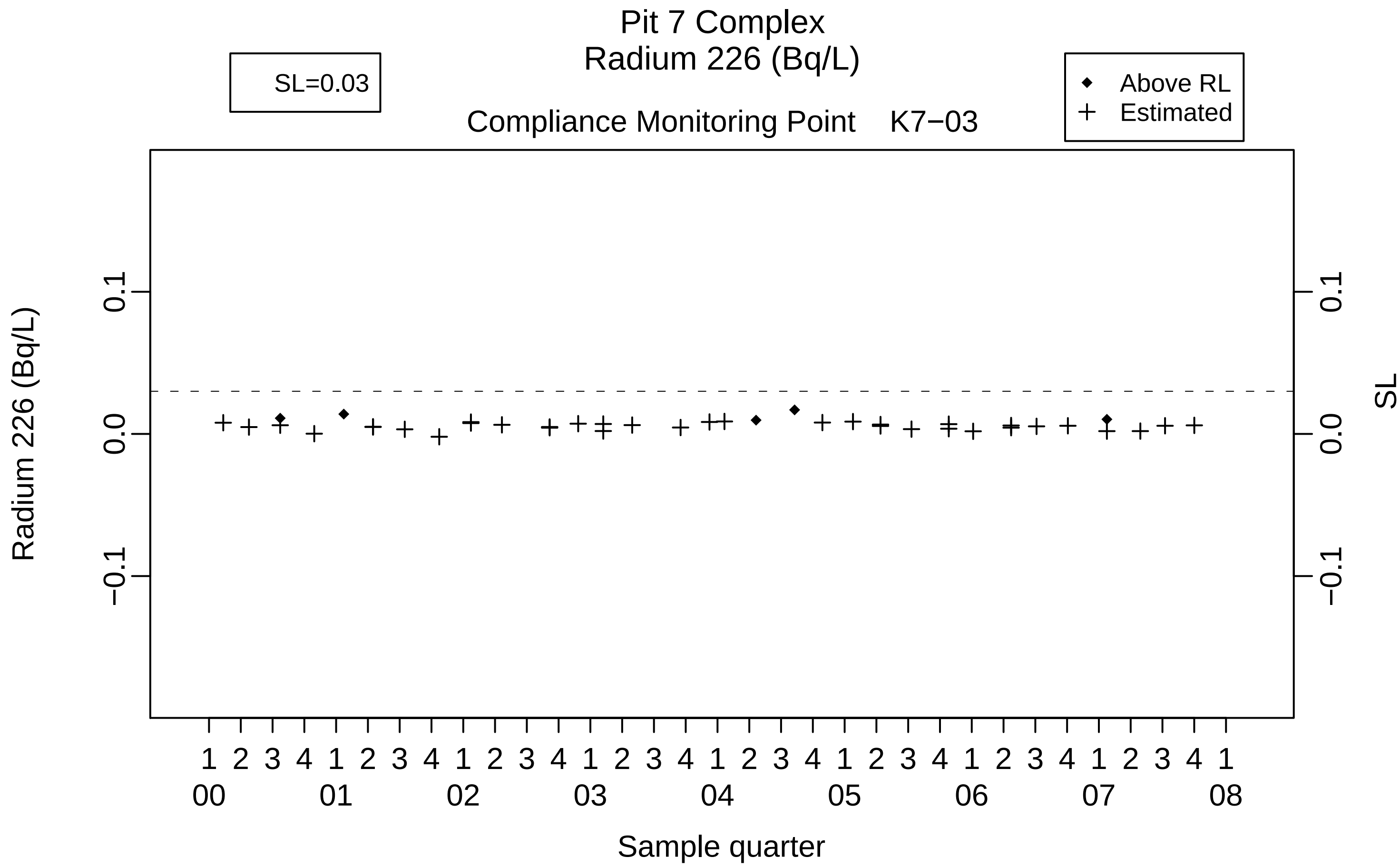

Pit 7 Complex
Tritium (Bq/L)
Above RL
Below RL
Compliance Monitoring Point NC7−26
Tritium (Bq/L)
0
5000
10000
20000
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

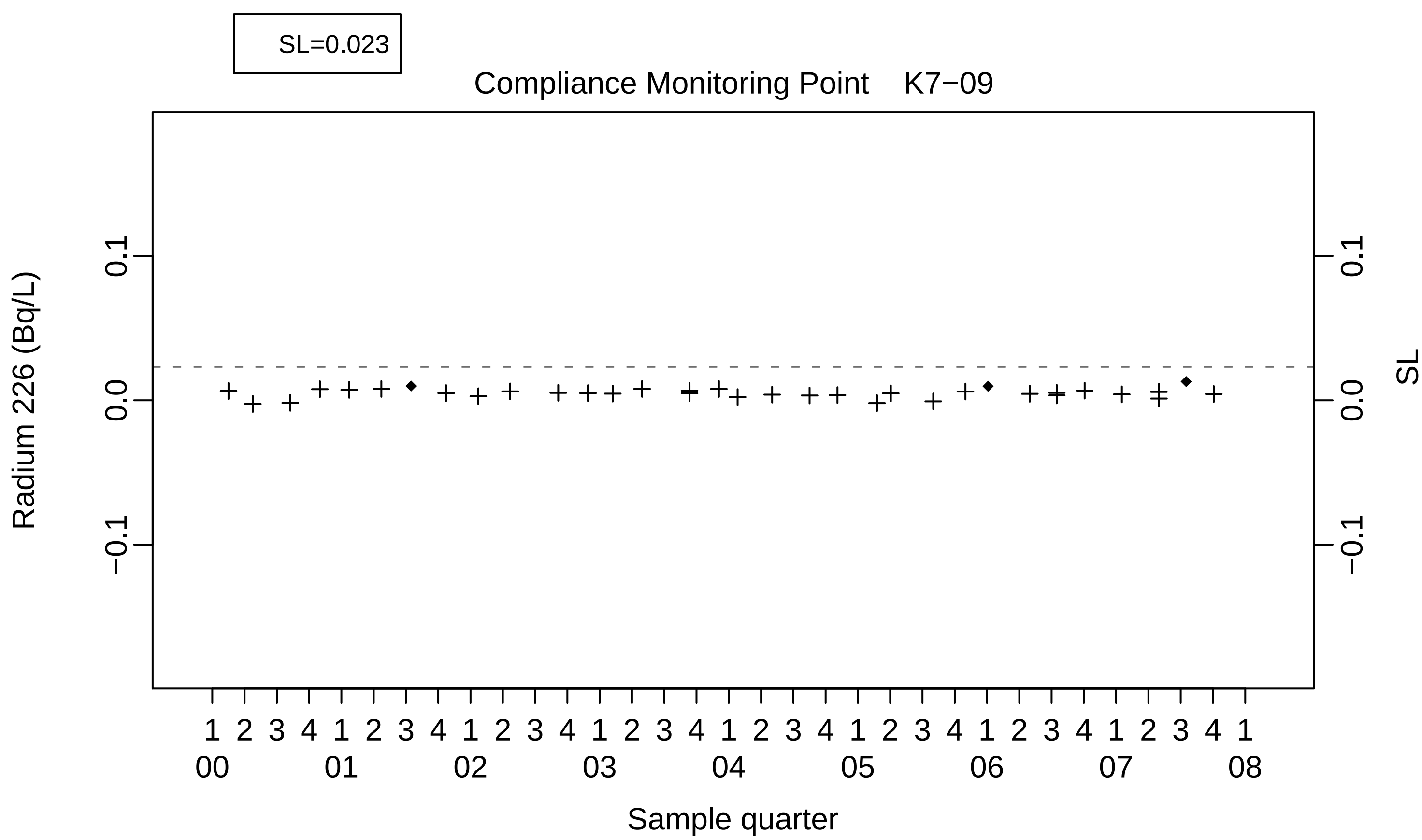

SL=4.8
Compliance Monitoring Point NC7−47
Tritium (Bq/L)
0
5000
10000
20000
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

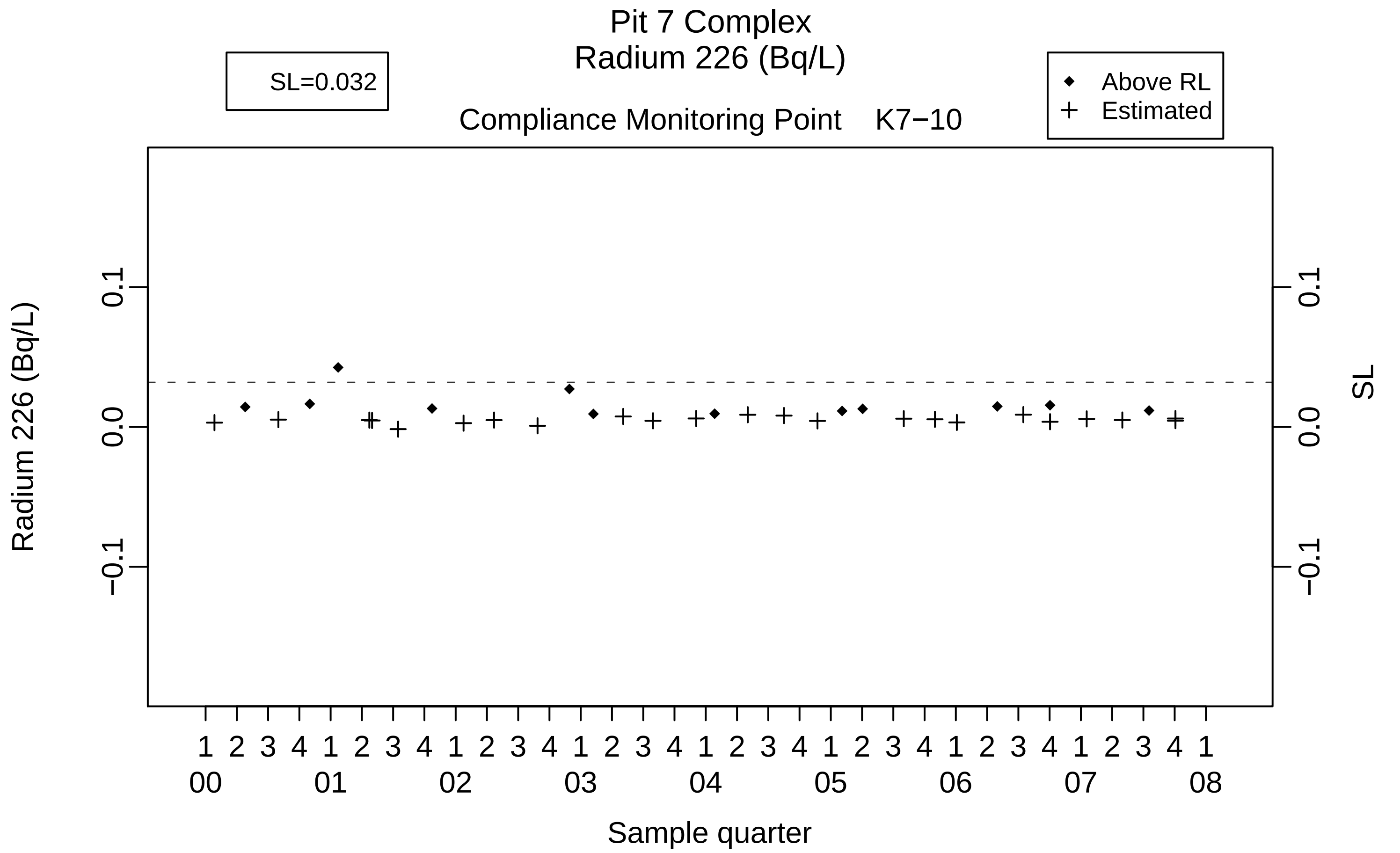

Pit 7 Complex
Tritium (Bq/L)
SL=16.4
Compliance Monitoring Point NC7−48
Above RL
Estimated
Tritium (Bq/L)
0
5000
10000
20000
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

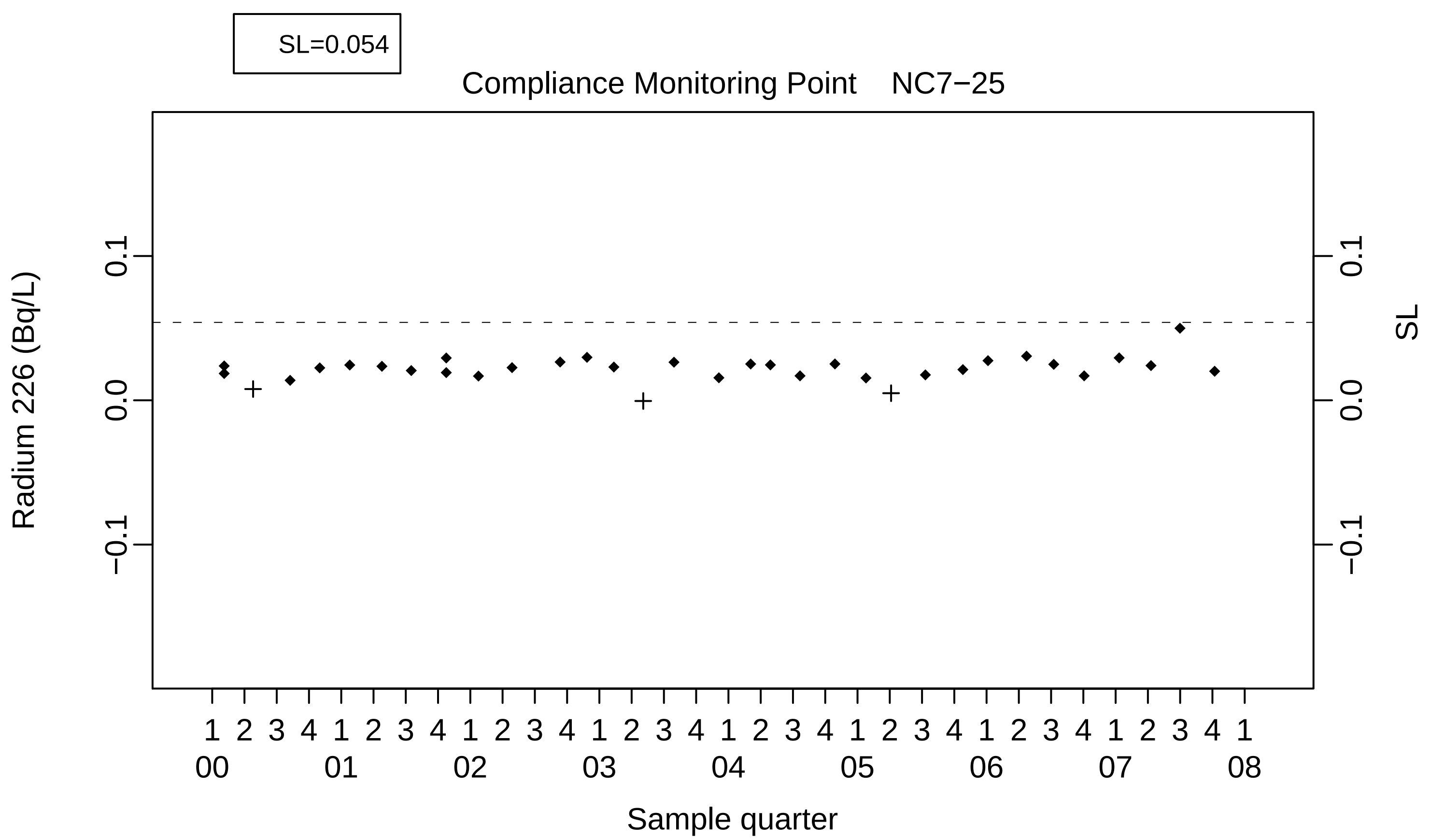

Pit 7 Complex
Radium 226 (Bq/L)
Above RL
Estimated
Background Monitoring Point K7−06
Radium 226 (Bq/L)
0.1
0.0
−0.1
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


SL=0.08
Compliance Monitoring Point K7−01
Radium 226 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

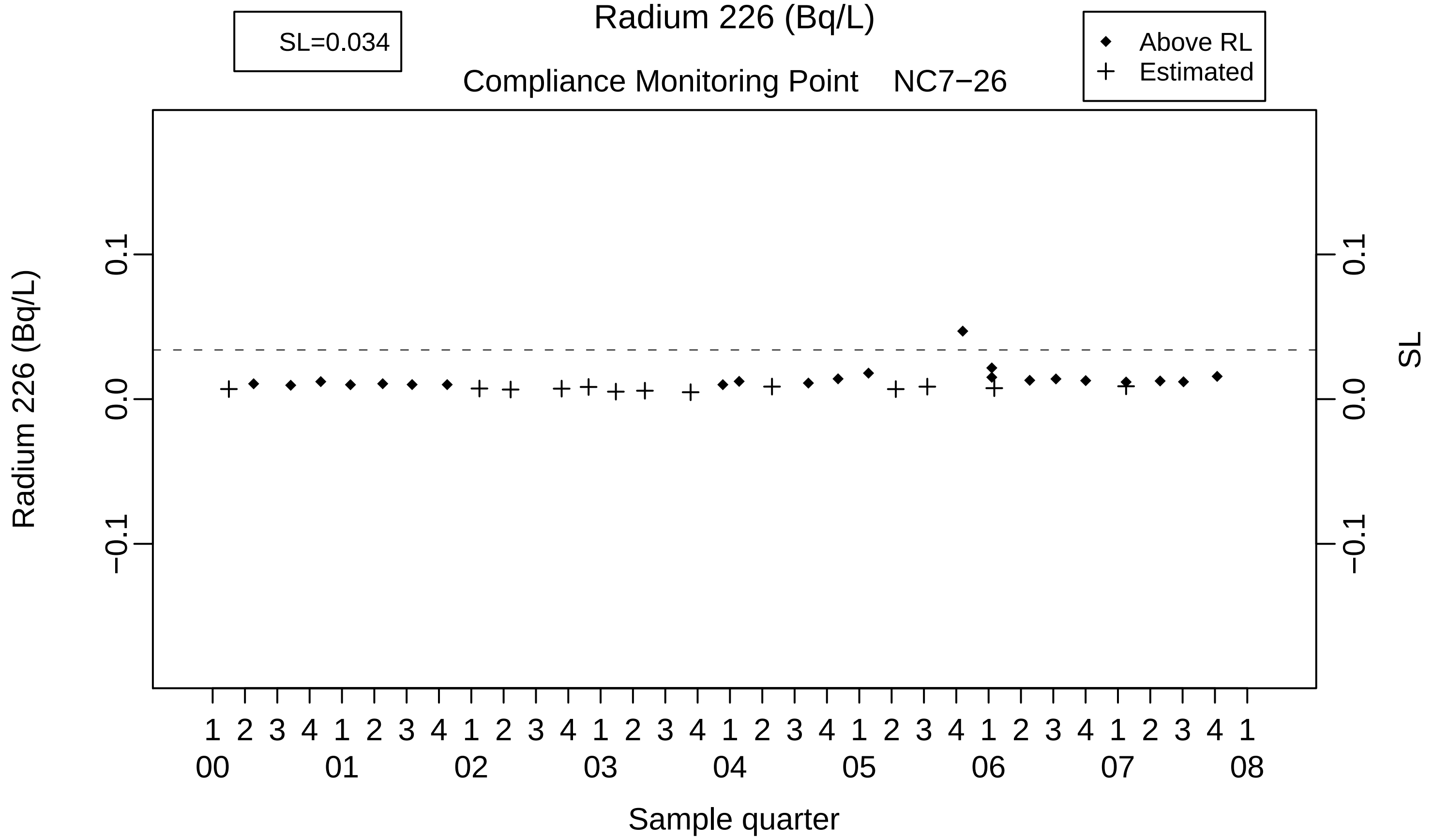

Pit 7 Complex
Radium 226 (Bq/L)
SL=0.03
Above RL
Estimated
Compliance Monitoring Point K7−03
Radium 226 (Bq/L)
SL
0.1
0.0
−0.1
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

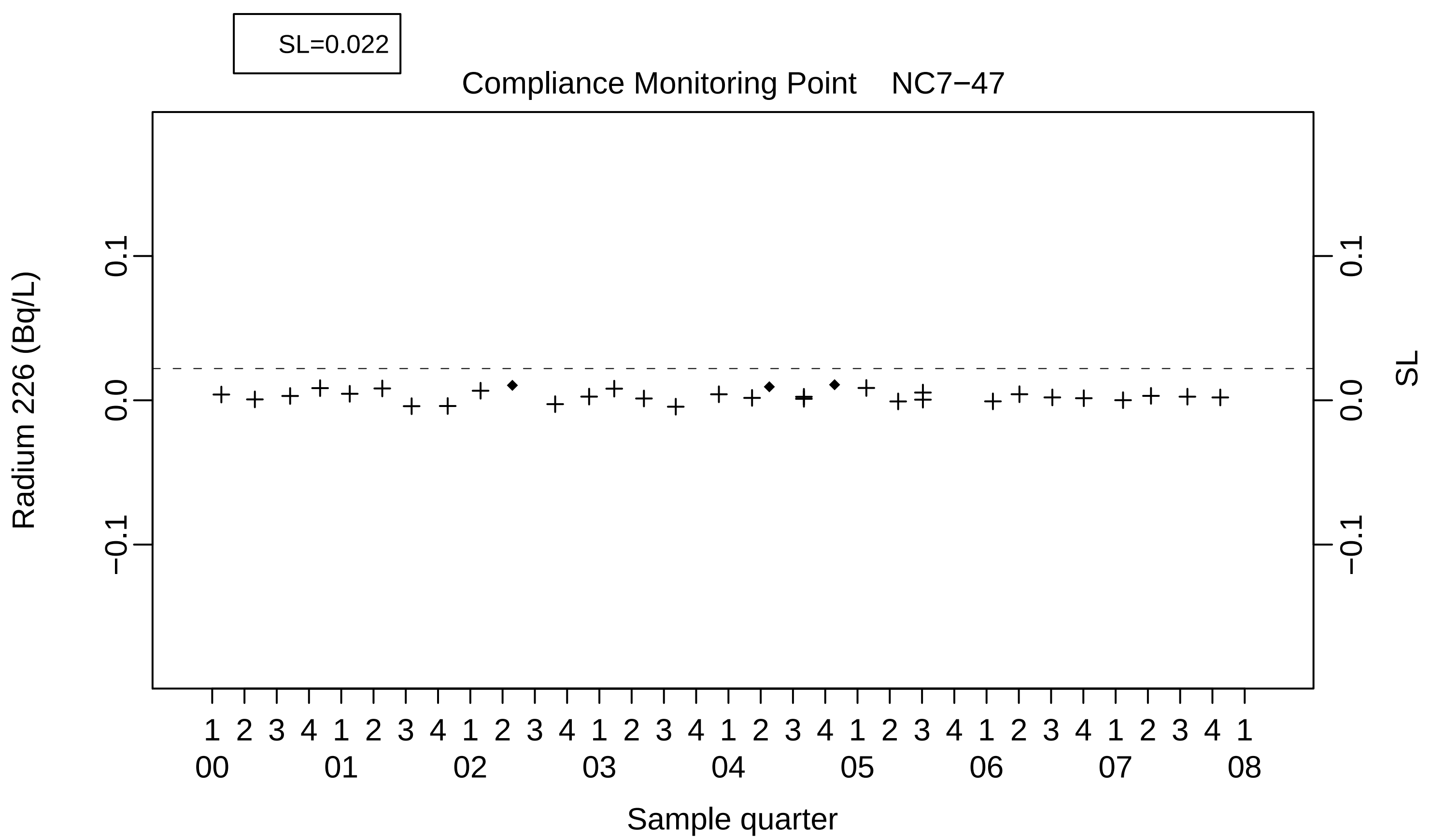

SL=0.023
Compliance Monitoring Point K7−09
Radium 226 (Bq/L)
SL
0.1
0.0
−0.1
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

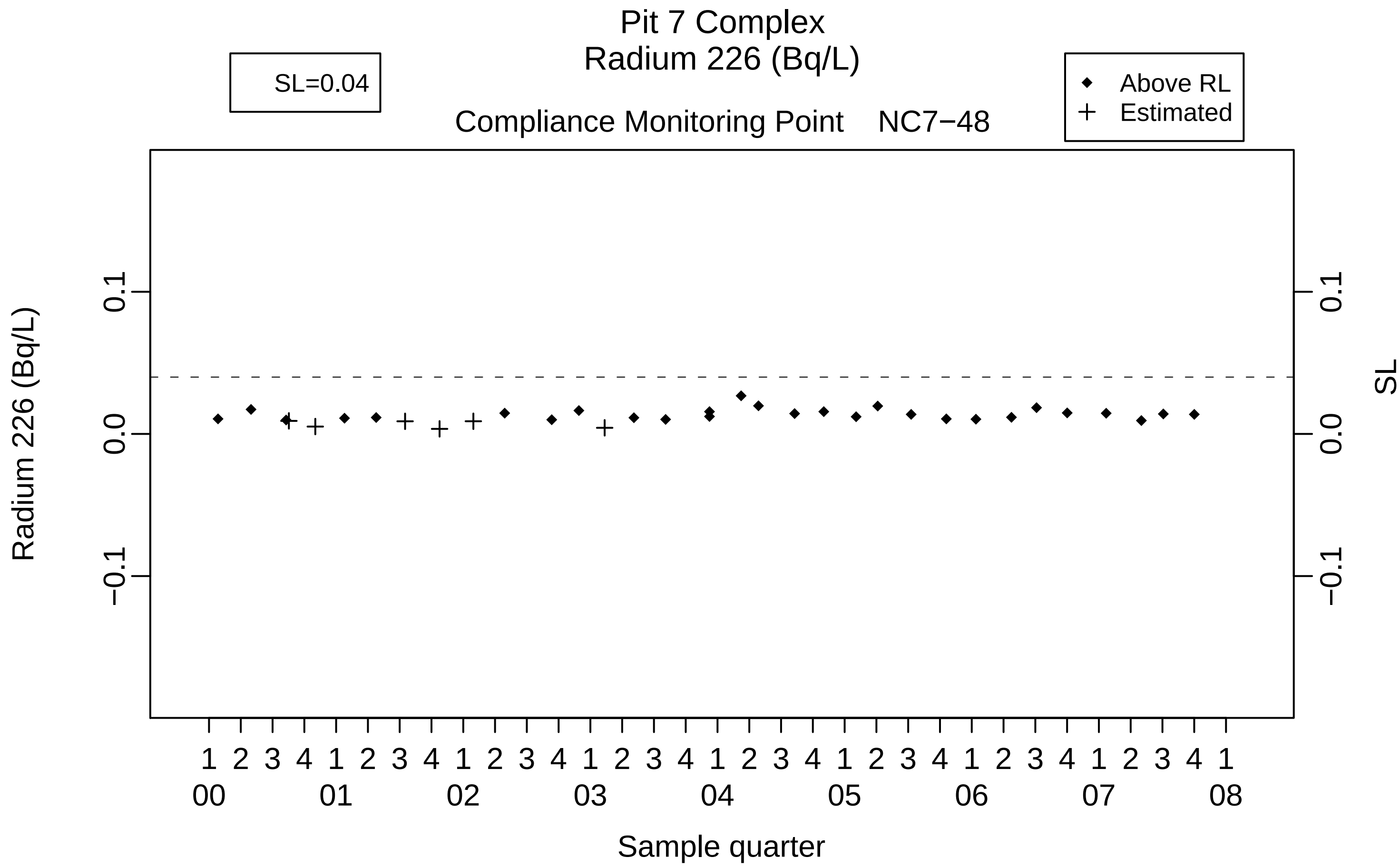

Pit 7 Complex
Radium 226 (Bq/L)
SL=0.032
Above RL
Estimated
Compliance Monitoring Point K7−10
Radium 226 (Bq/L)
SL
0.1
0.0
−0.1
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

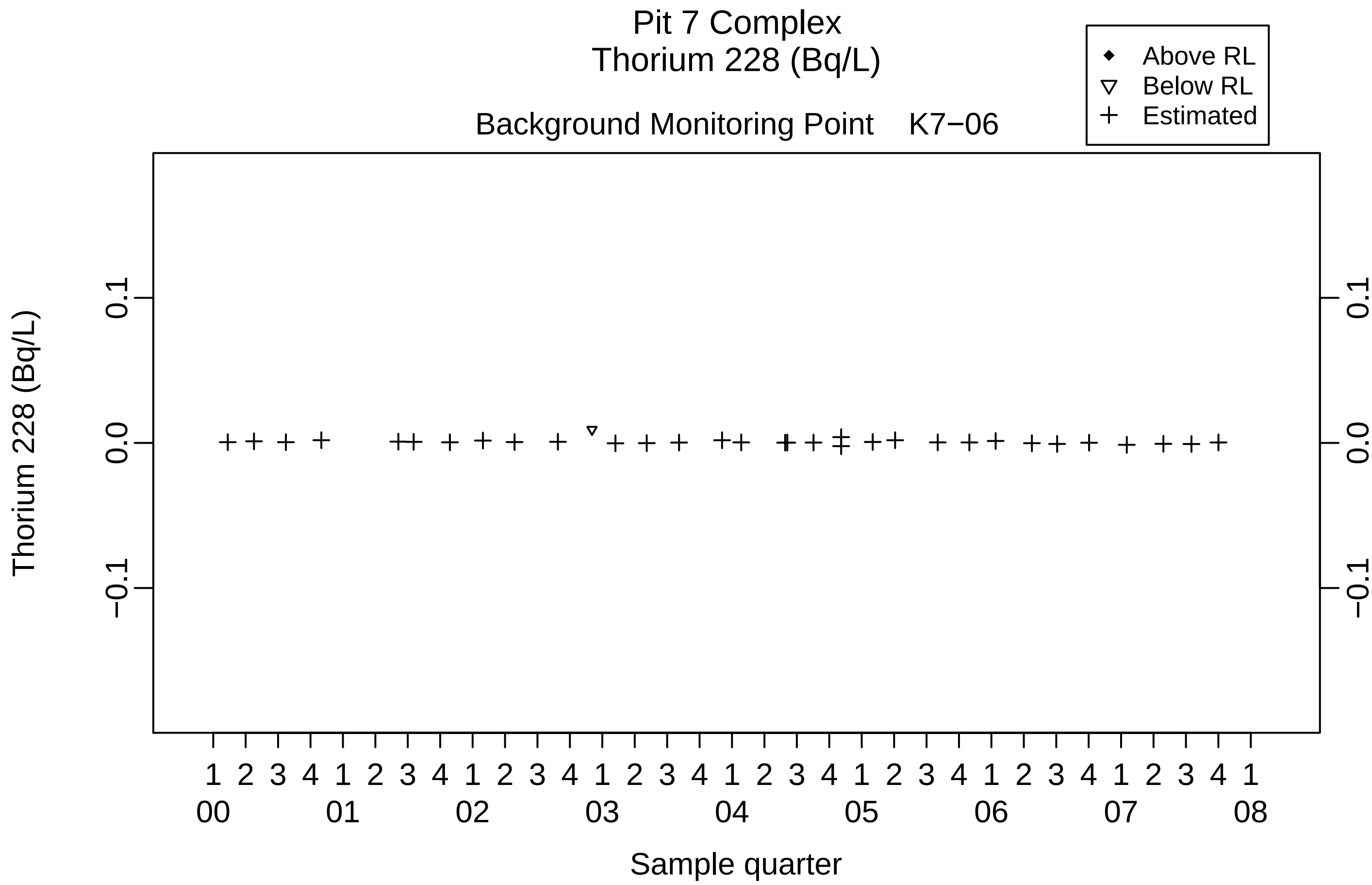

SL=0.054
Compliance Monitoring Point NC7−25
Radium 226 (Bq/L)
SL
0.1
0.0
−0.1
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

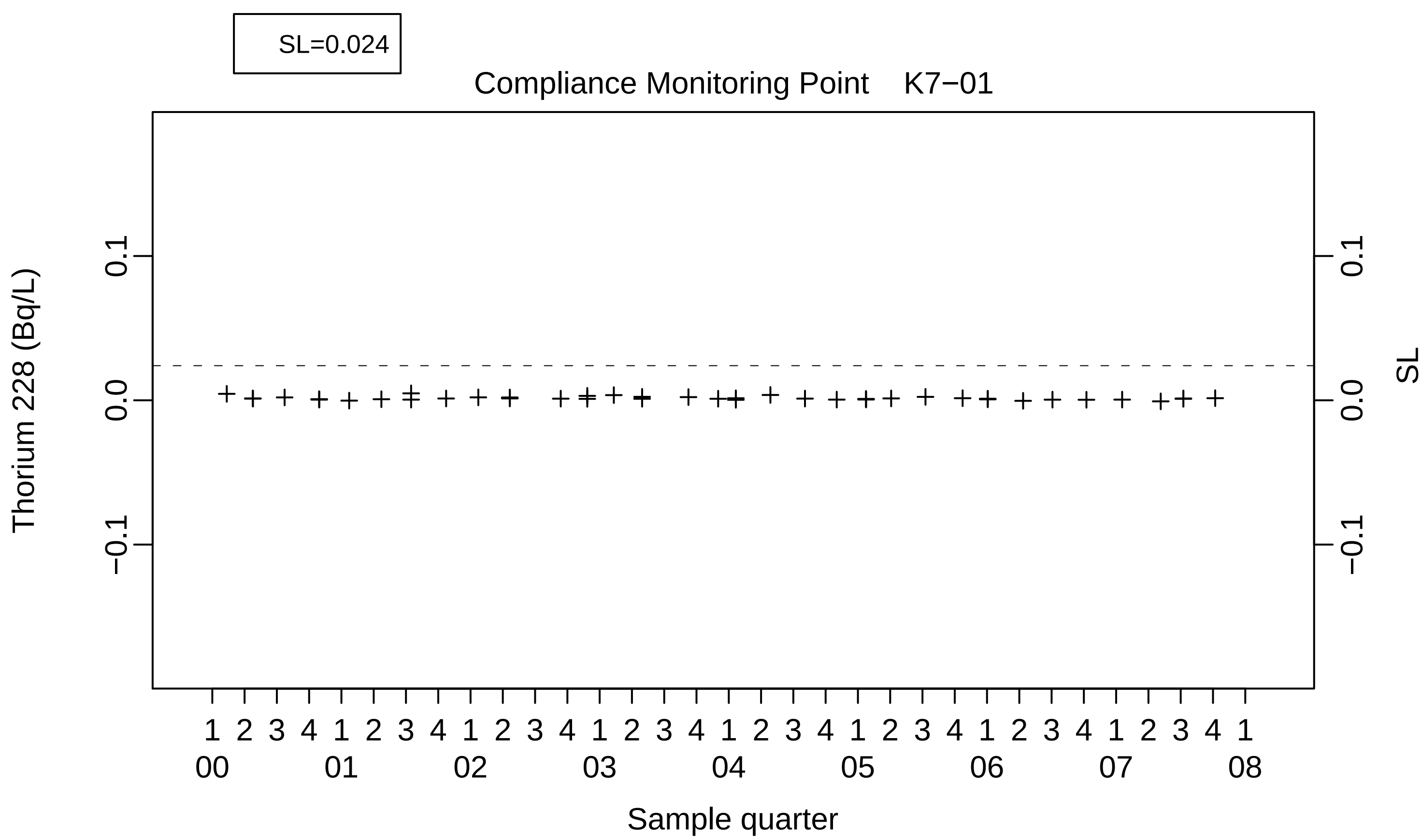
Pit 7 Complex
Radium 226 (Bq/L)

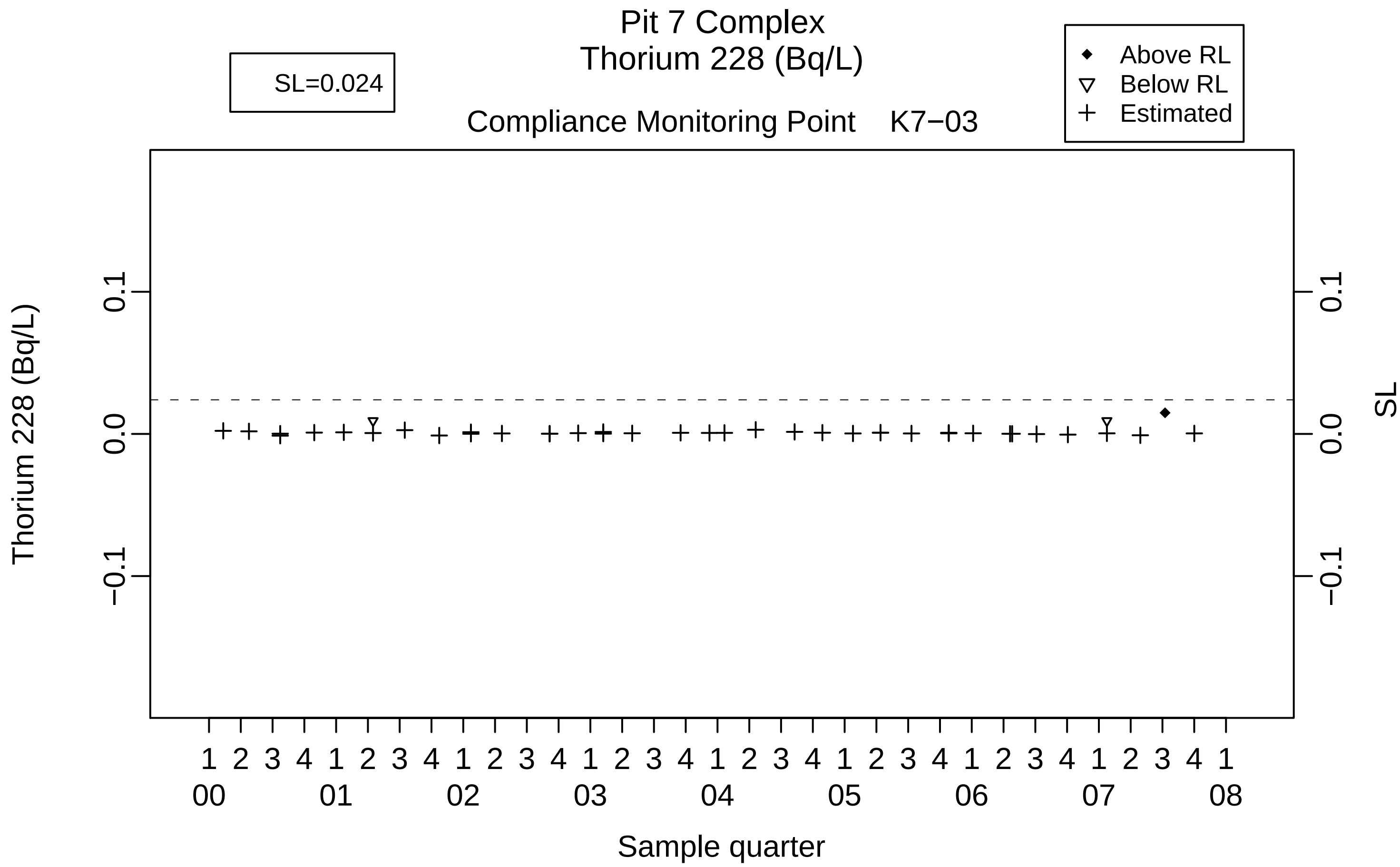


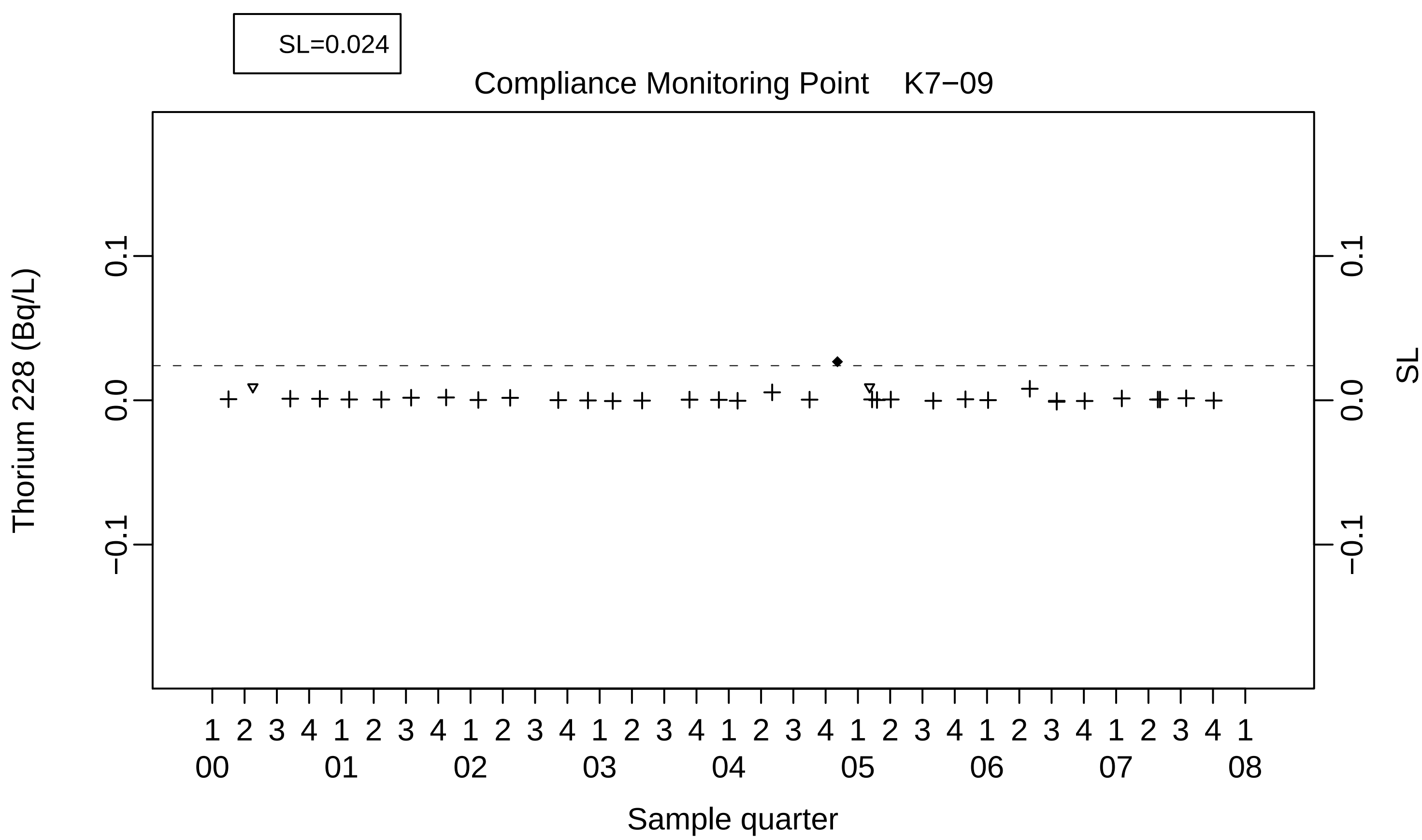


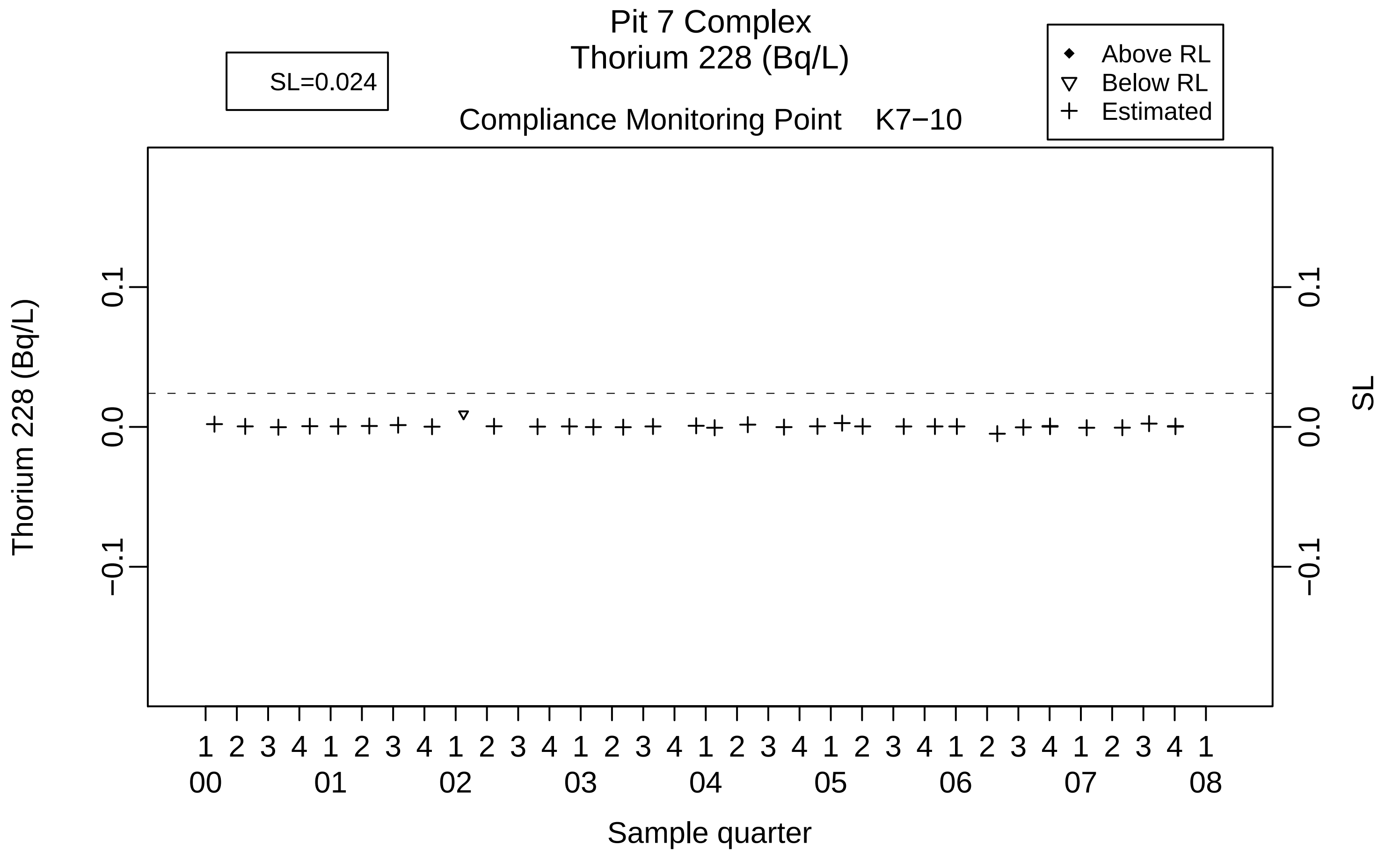

Pit 7 Complex
Radium 226 (Bq/L)
SL=0.04
Above RL
Estimated
Compliance Monitoring Point NC7−48
Radium 226 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

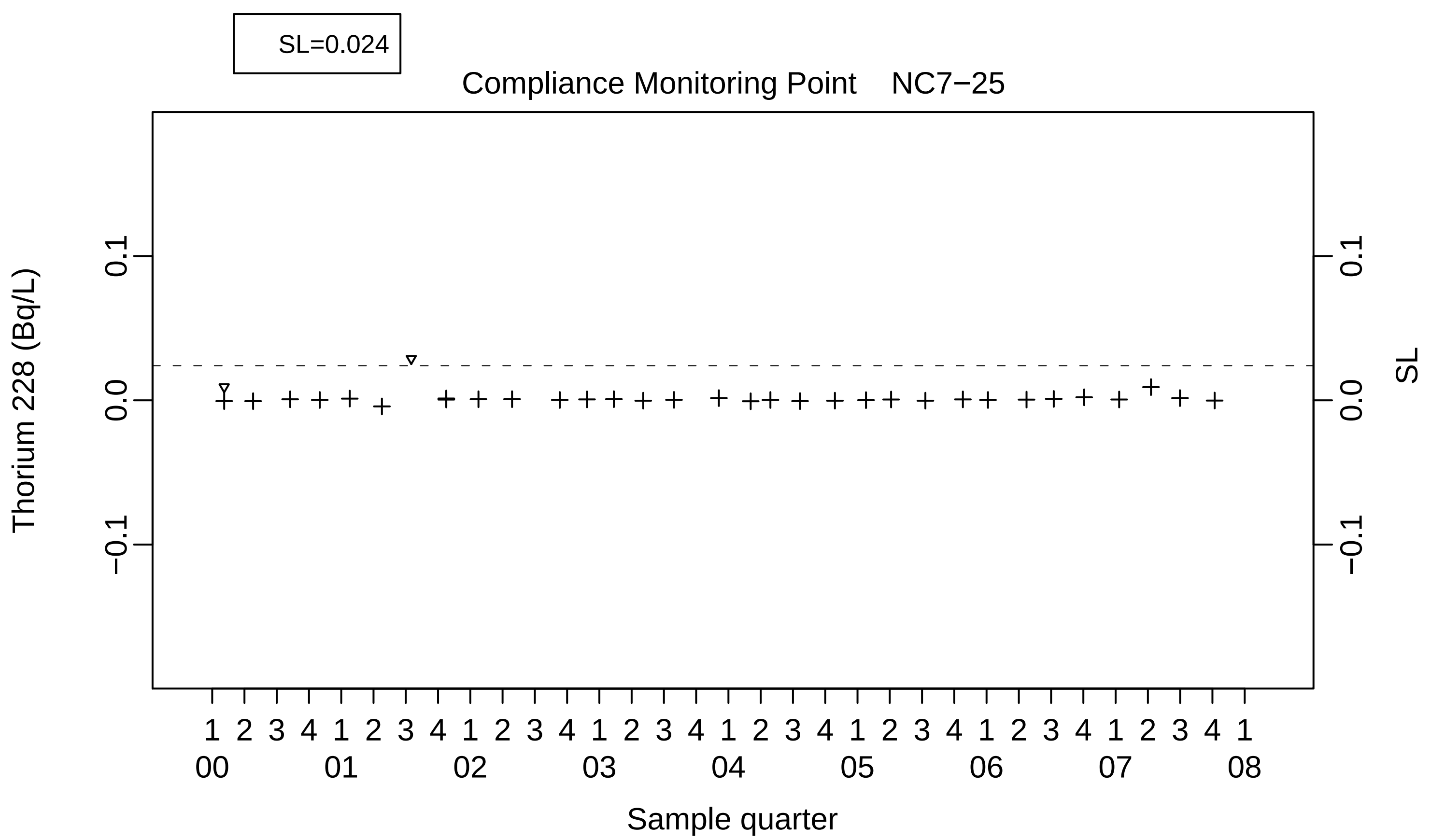

Pit 7 Complex
Thorium 228 (Bq/L)
Above RL
Below RL
Estimated
Background Monitoring Point K7−06
Thorium 228 (Bq/L)
0.1
0.0
−0.1
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

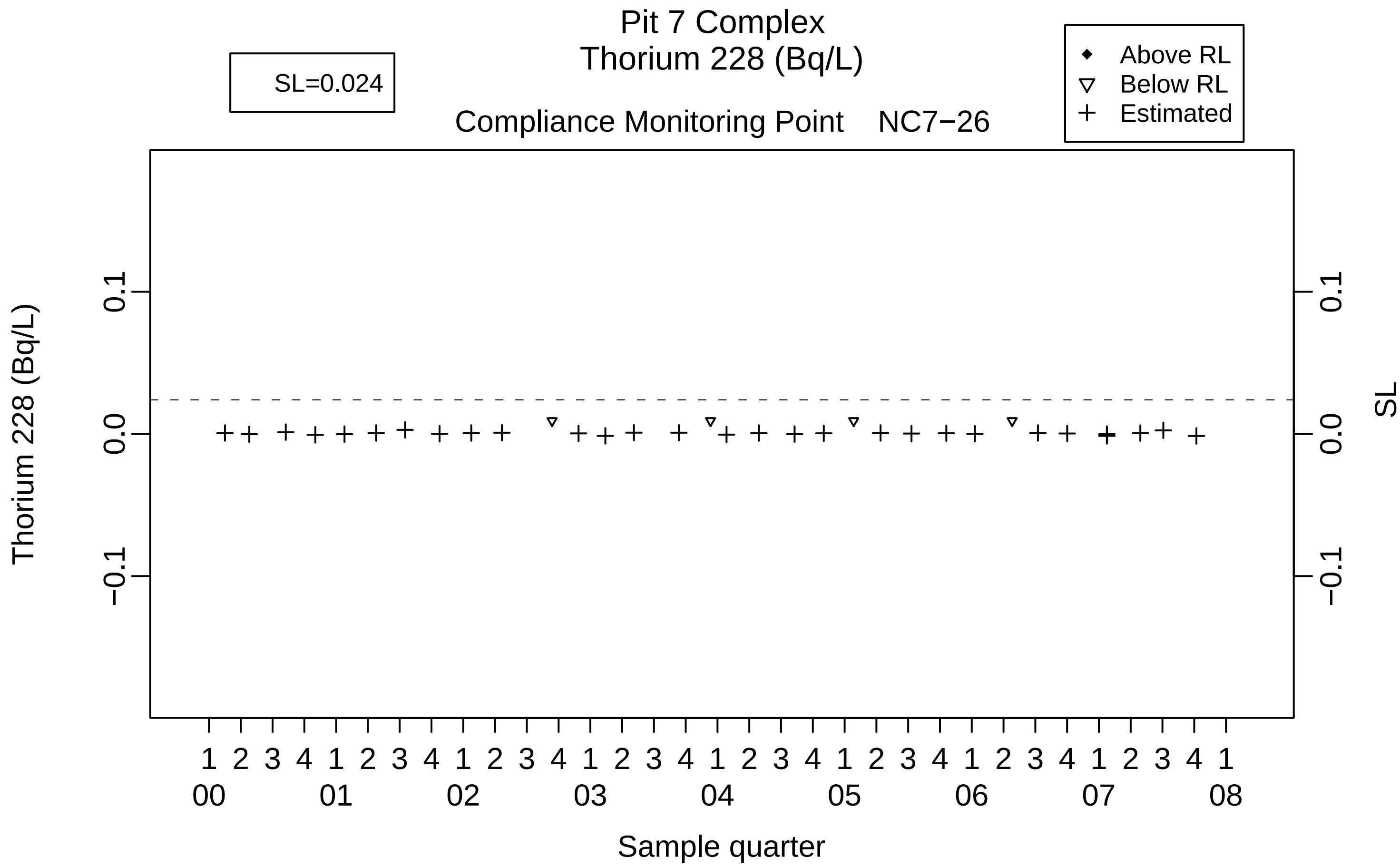

SL=0.024
Compliance Monitoring Point K7−01
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 7 Complex
Thorium 228 (Bq/L)
SL=0.024
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−03
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

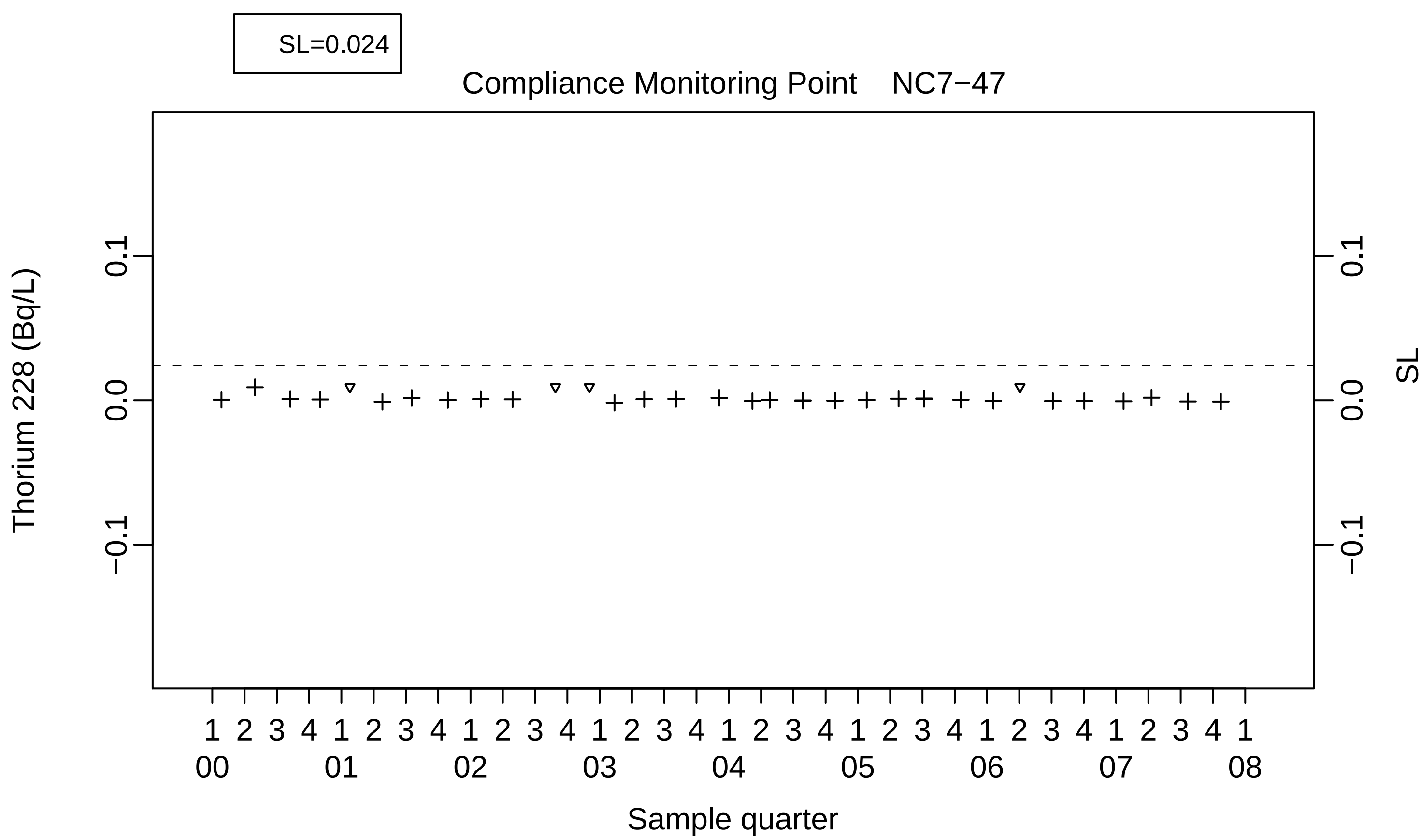

SL=0.024
Compliance Monitoring Point K7−09
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 7 Complex
Thorium 228 (Bq/L)
SL=0.024
Above RL
Below RL
Estimated
Compliance Monitoring Point K7−10
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

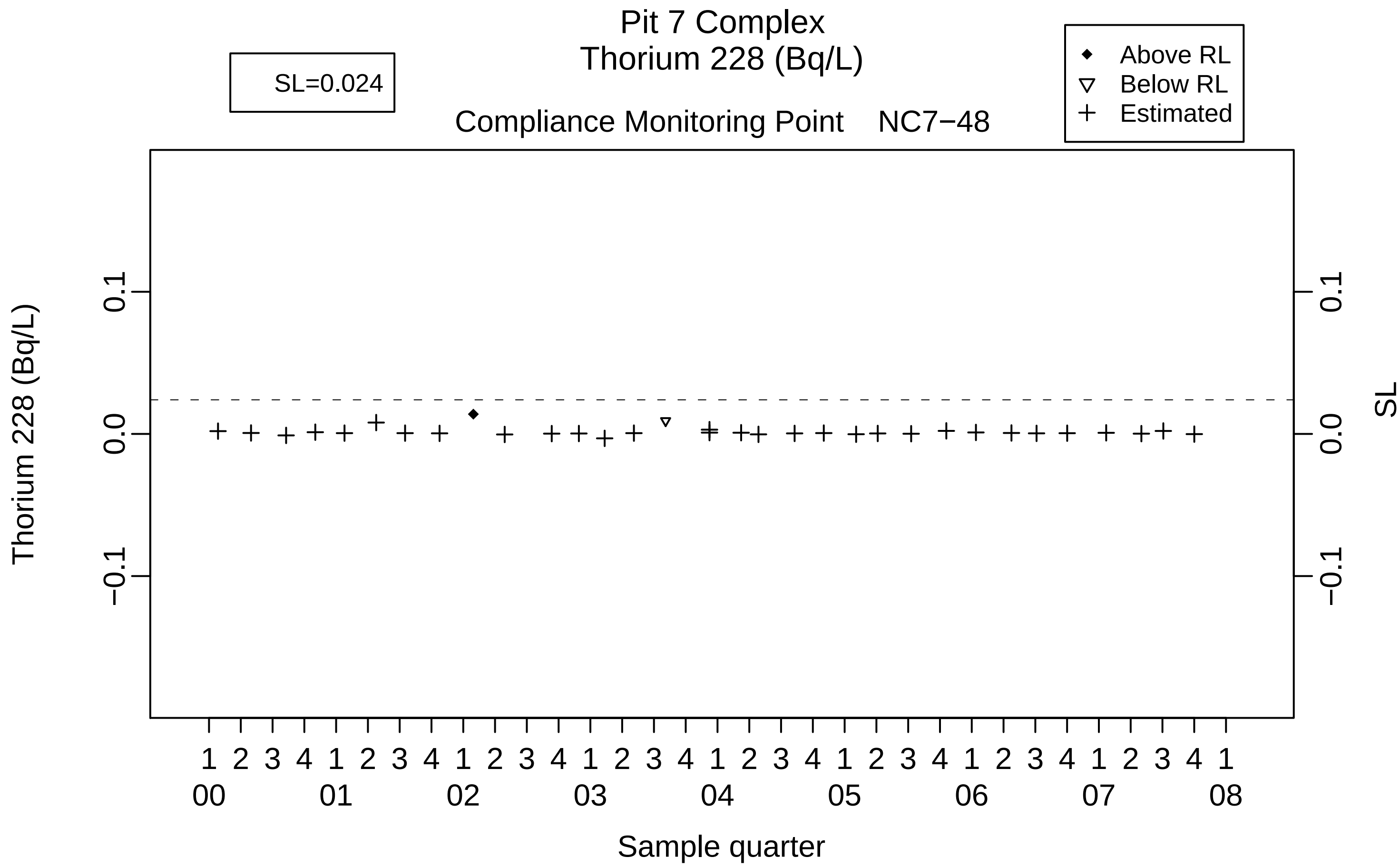

SL=0.024
Compliance Monitoring Point NC7−25
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

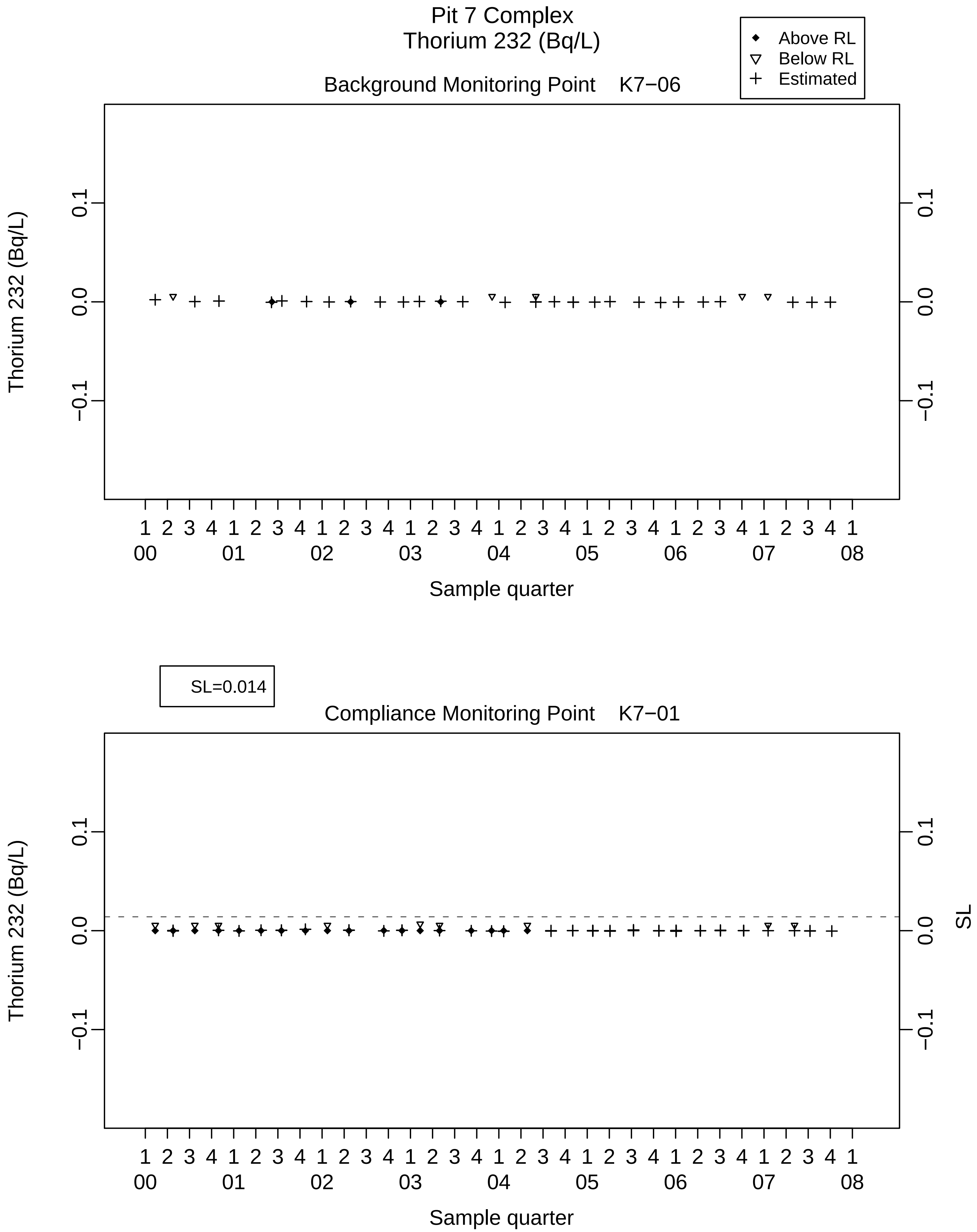


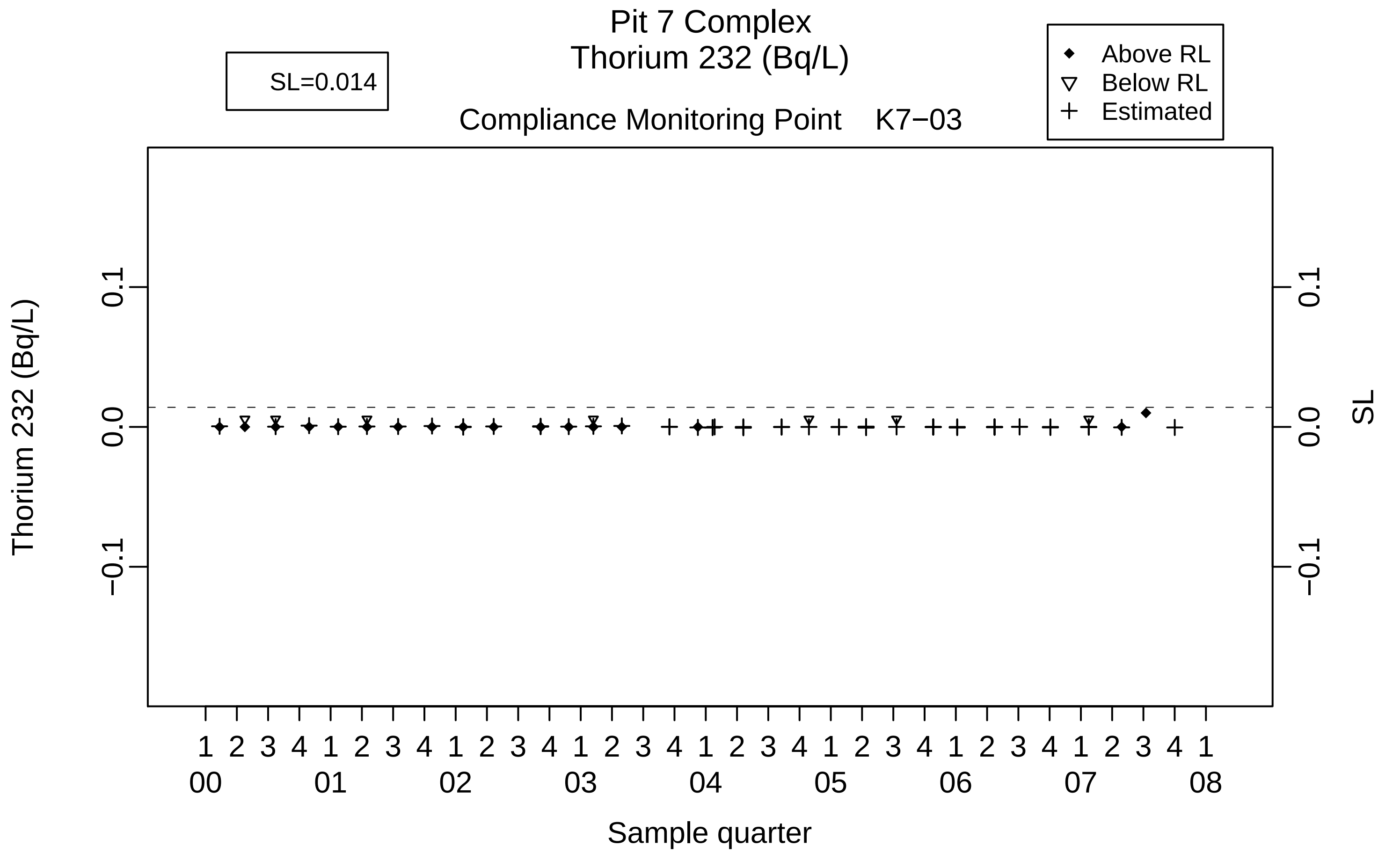
Pit 7 Complex
Thorium 228 (Bq/L)
SL=0.024
Compliance Monitoring Point NC7−26
Above RL
Below RL
Estimated
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

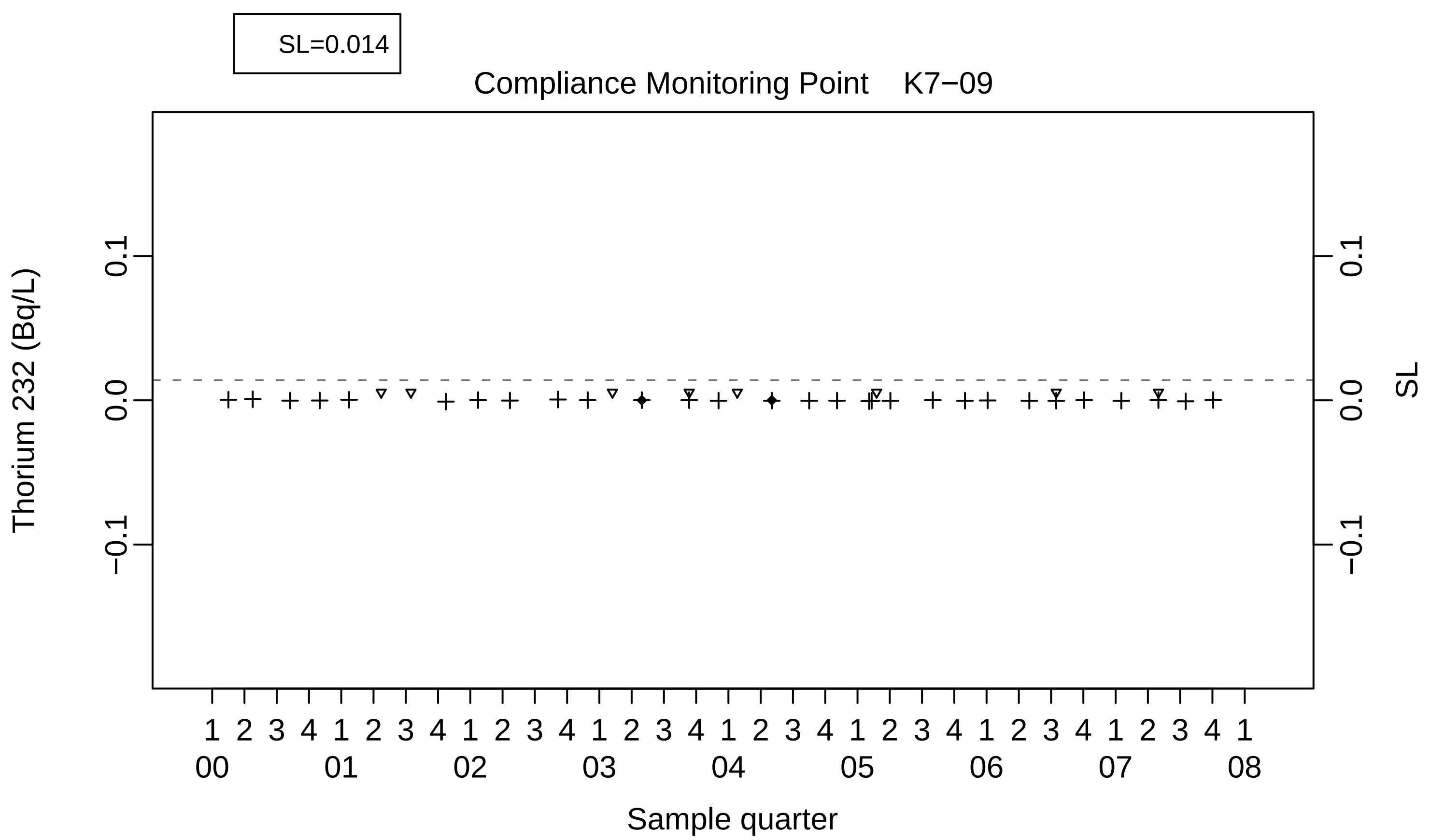


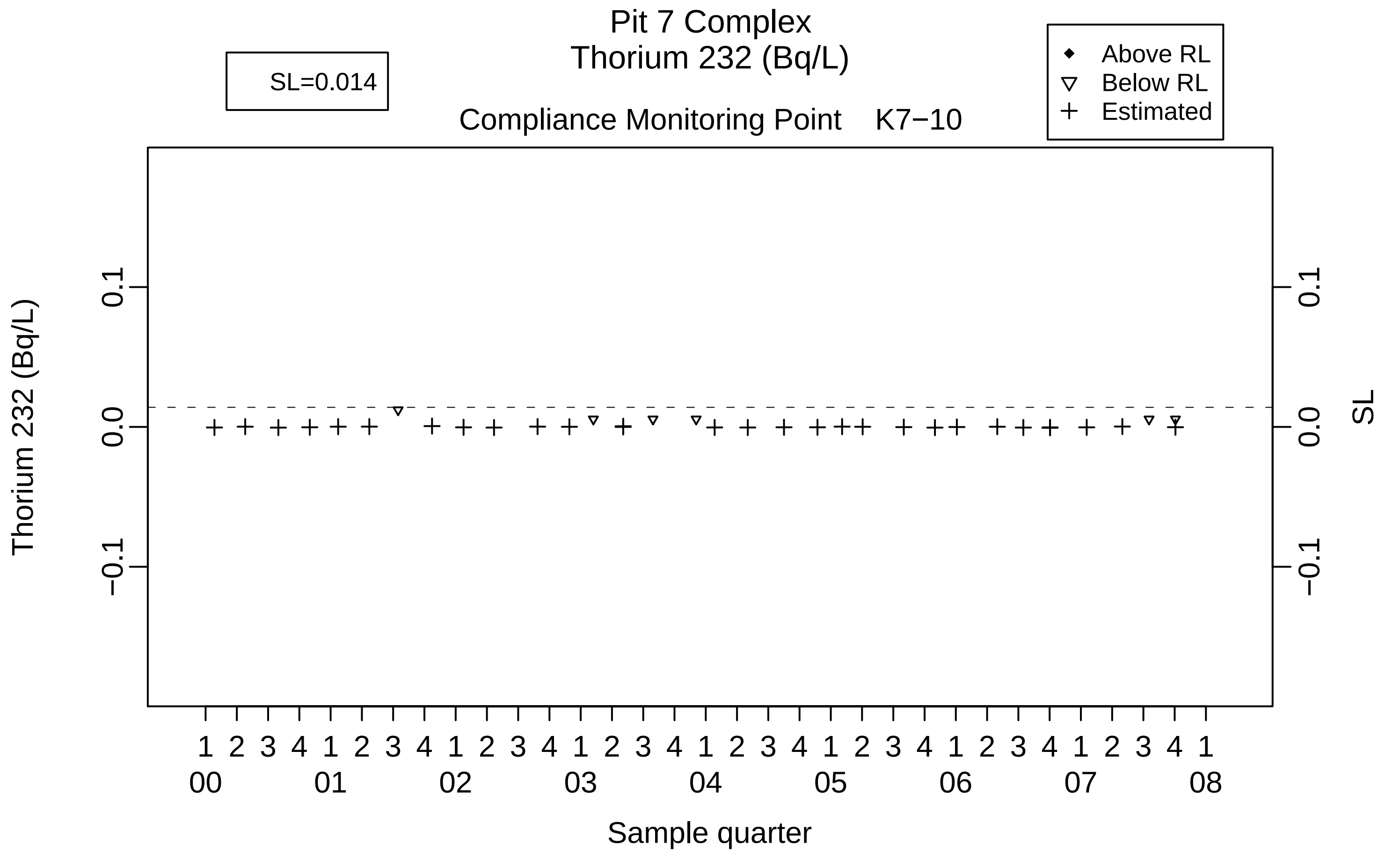
SL=0.024
Compliance Monitoring Point NC7−47
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

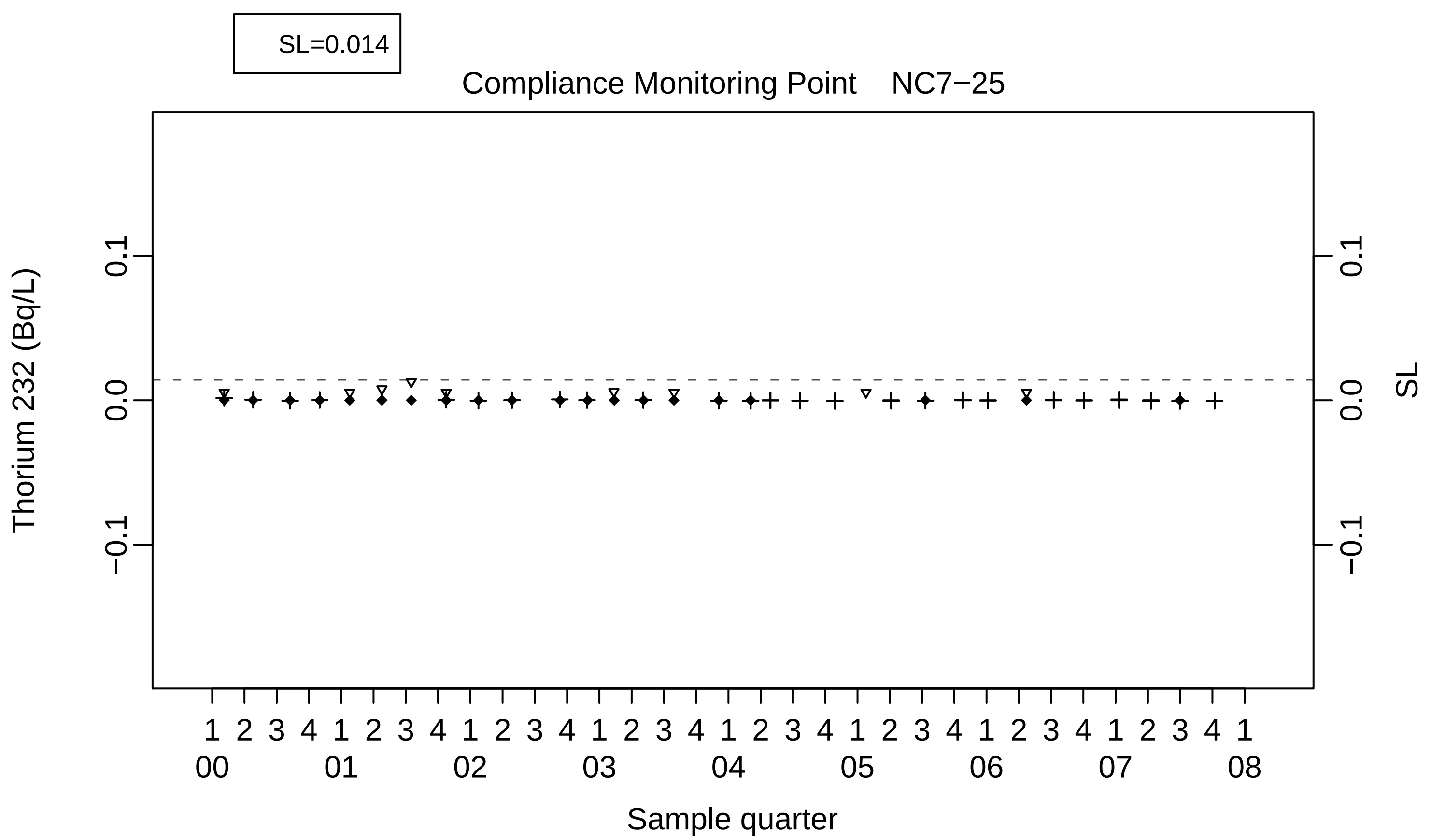

Pit 7 Complex
Thorium 228 (Bq/L)
Compliance Monitoring Point NC7−48
SL=0.024
Above RL
Below RL
Estimated
Thorium 228 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

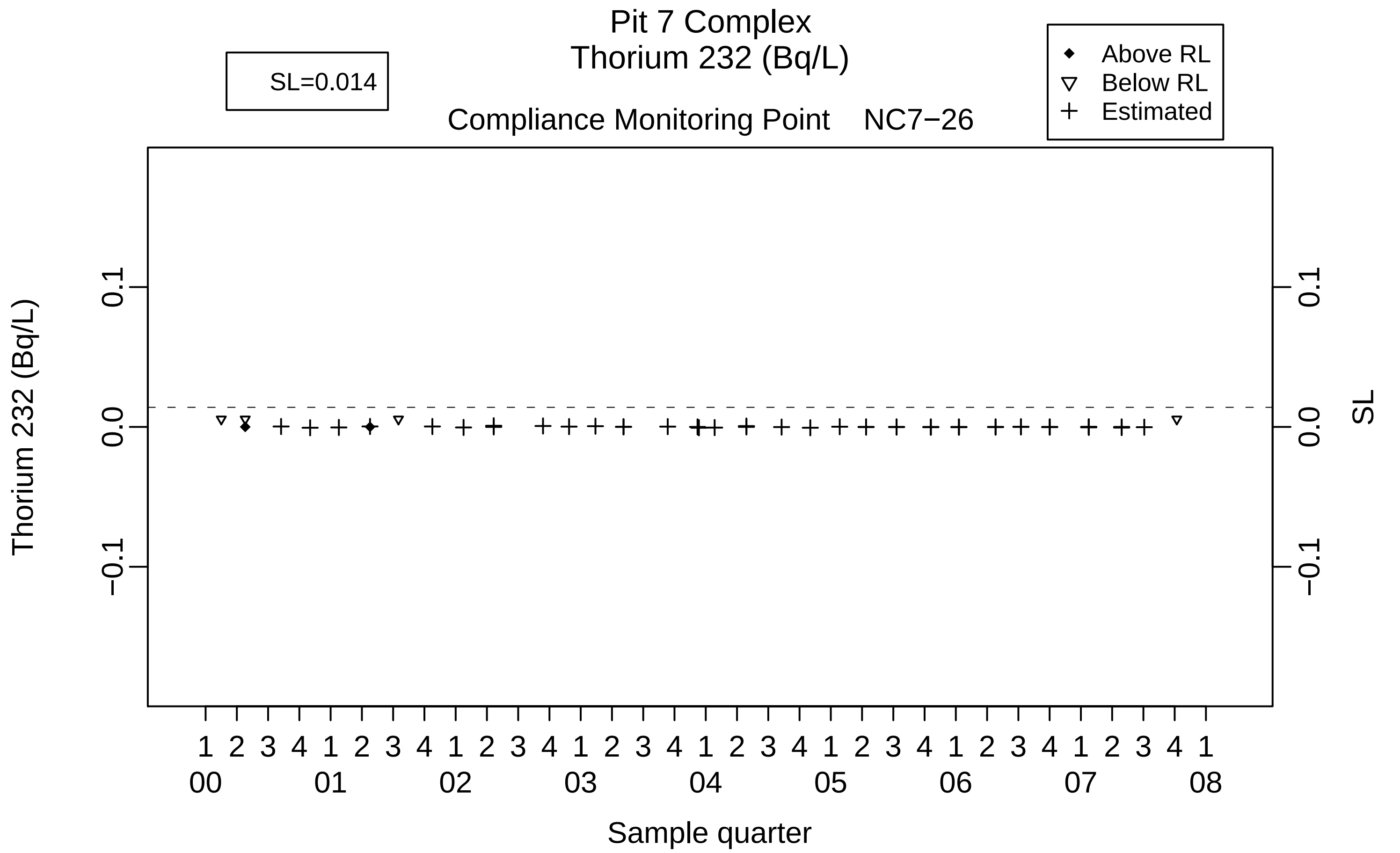

Pit 7 Complex
Thorium 232 (Bq/L)
Above RL
Below RL
Estimated
Background Monitoring Point K7−06
Thorium 232 (Bq/L)
0.1
0.0
−0.1
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter
SL=0.014
Compliance Monitoring Point K7−01
SL
Sample quarter

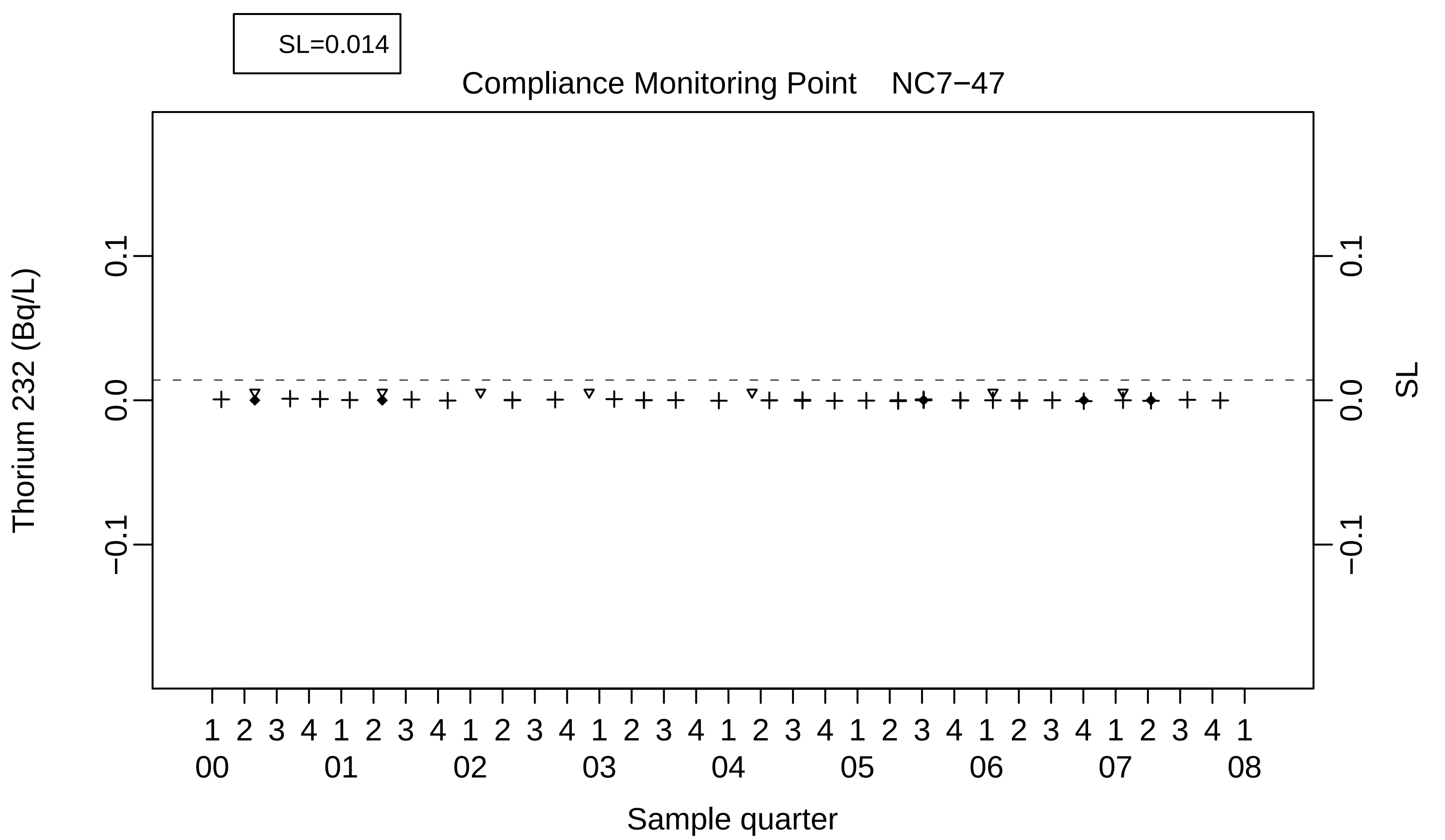

Pit 7 Complex
Thorium 232 (Bq/L)
SL=0.014
Compliance Monitoring Point K7−03
Above RL
Below RL
Estimated
Thorium 232 (Bq/L)
SL
0.1
0.0
−0.1
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

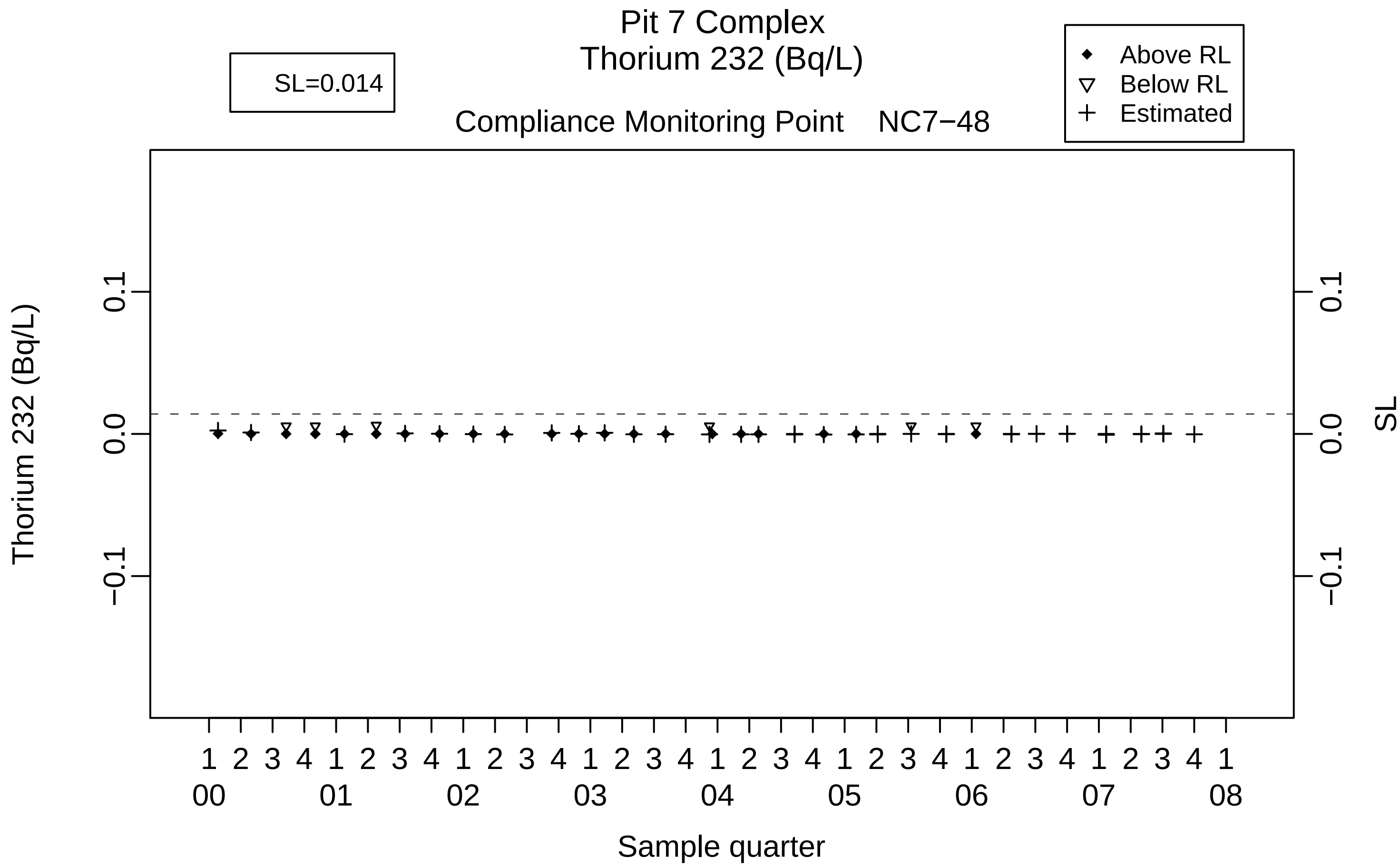

SL=0.014
Compliance Monitoring Point K7−09
Thorium 232 (Bq/L)
SL
0.1
0.0
−0.1
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 7 Complex
Thorium 232 (Bq/L)
SL=0.014
Compliance Monitoring Point K7−10
Above RL
Below RL
Estimated
Thorium 232 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

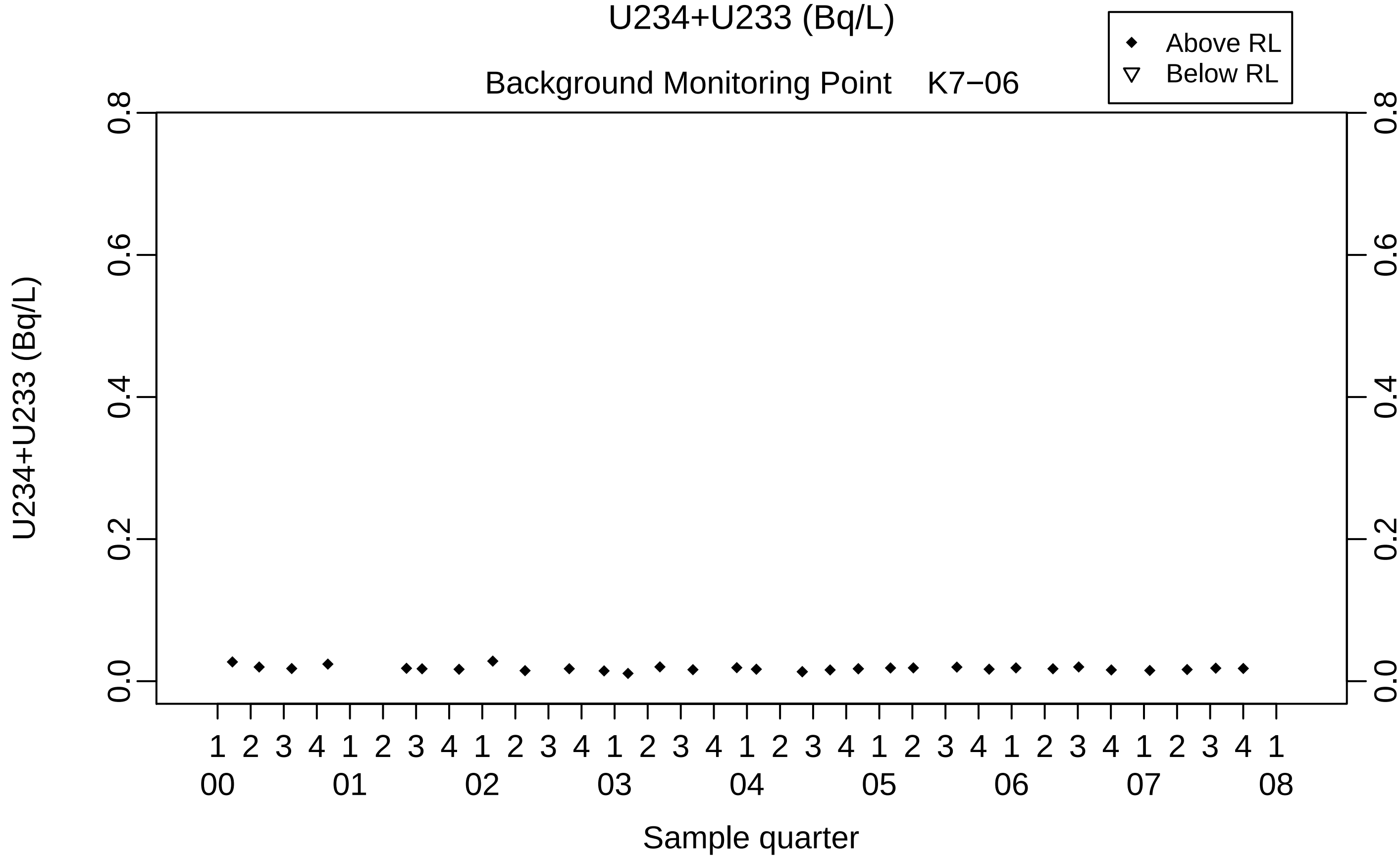

SL=0.014
Compliance Monitoring Point NC7−25
Thorium 232 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

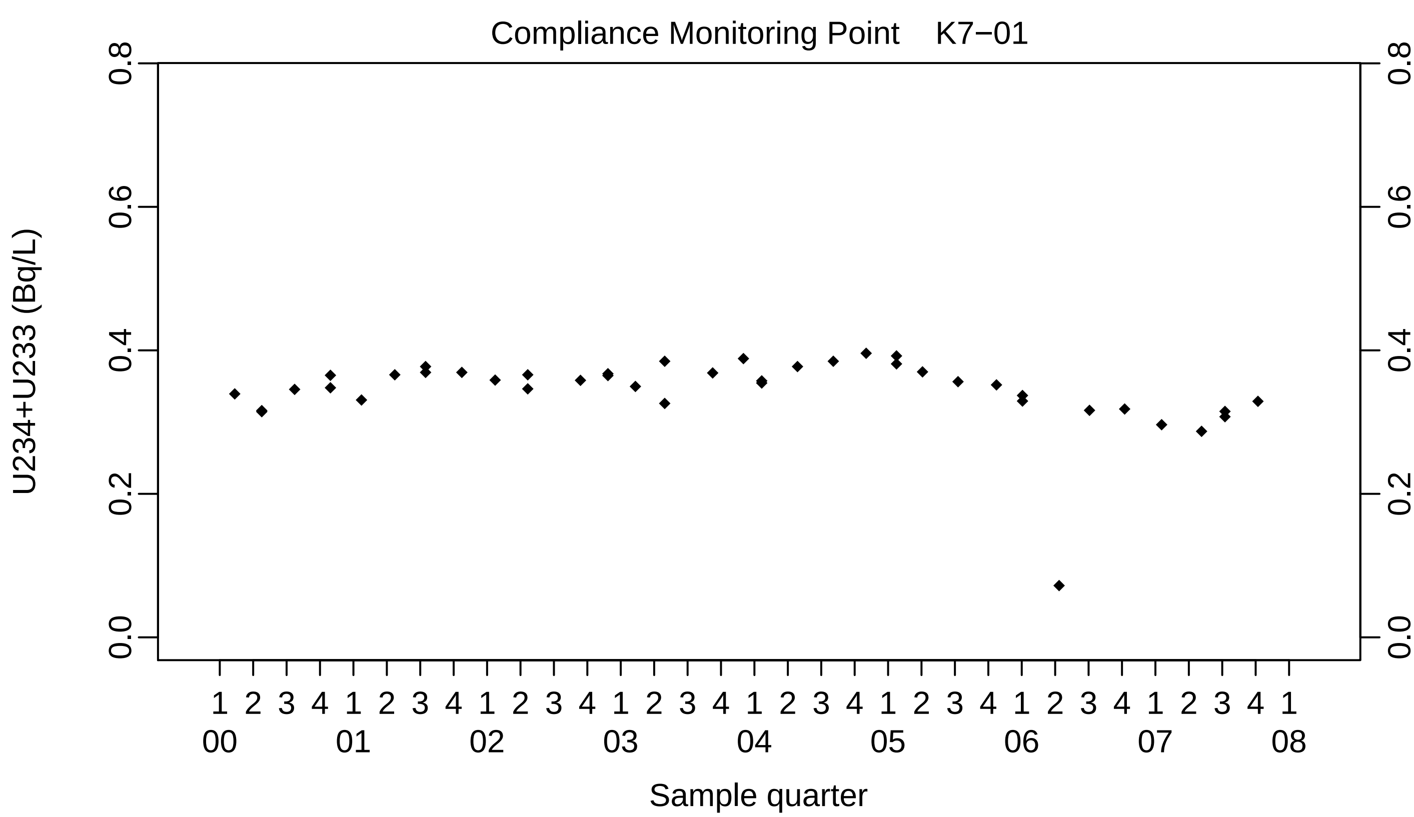

Pit 7 Complex
Thorium 232 (Bq/L)
SL=0.014
Compliance Monitoring Point NC7−26
Above RL
Below RL
Estimated
Thorium 232 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


SL=0.014
Compliance Monitoring Point NC7−47
Thorium 232 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

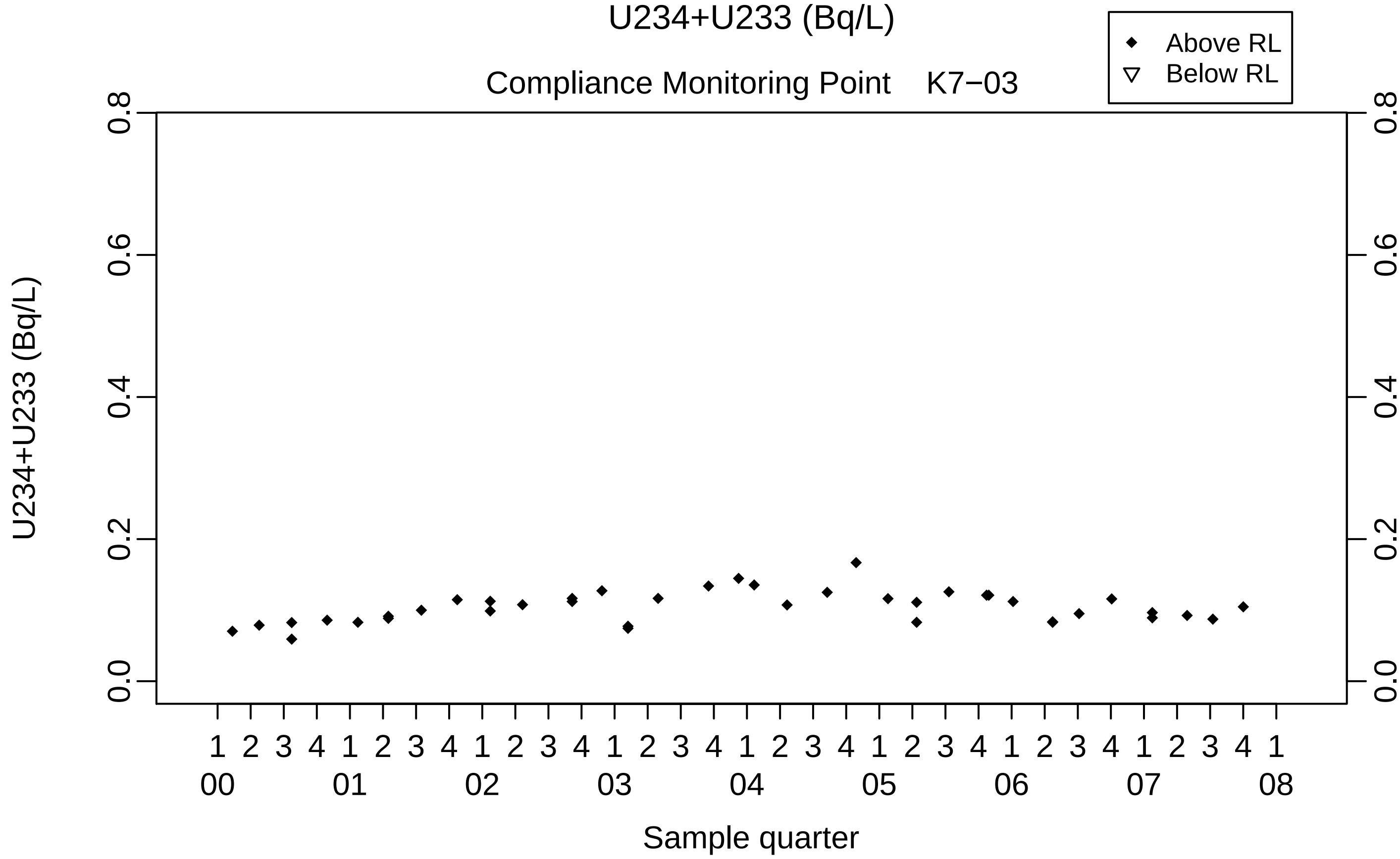

Pit 7 Complex
Thorium 232 (Bq/L)
SL=0.014
Compliance Monitoring Point NC7−48
Above RL
Below RL
Estimated
Thorium 232 (Bq/L)
0.1
0.0
−0.1
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

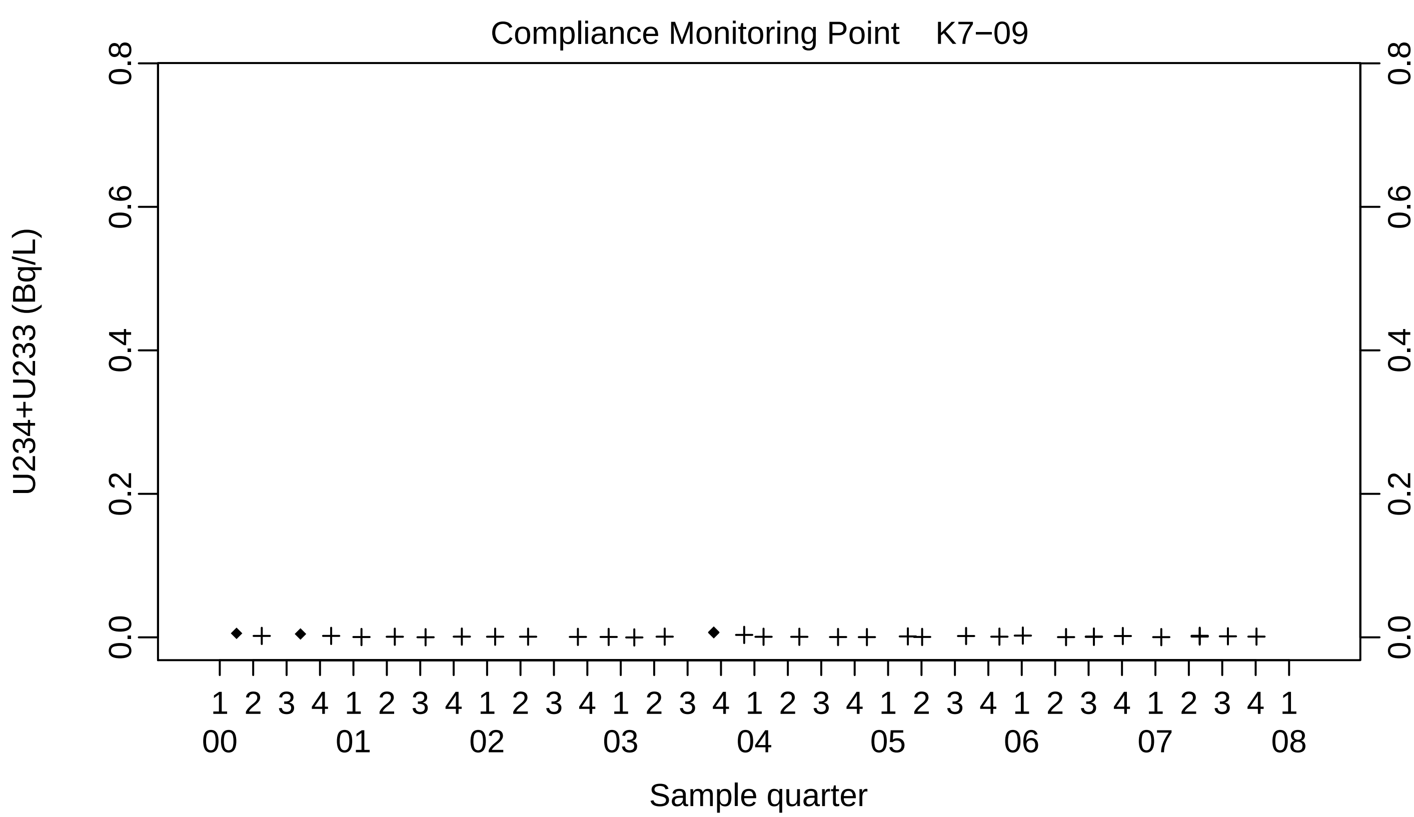
Pit 7 Complex
U234+U233 (Bq/L)



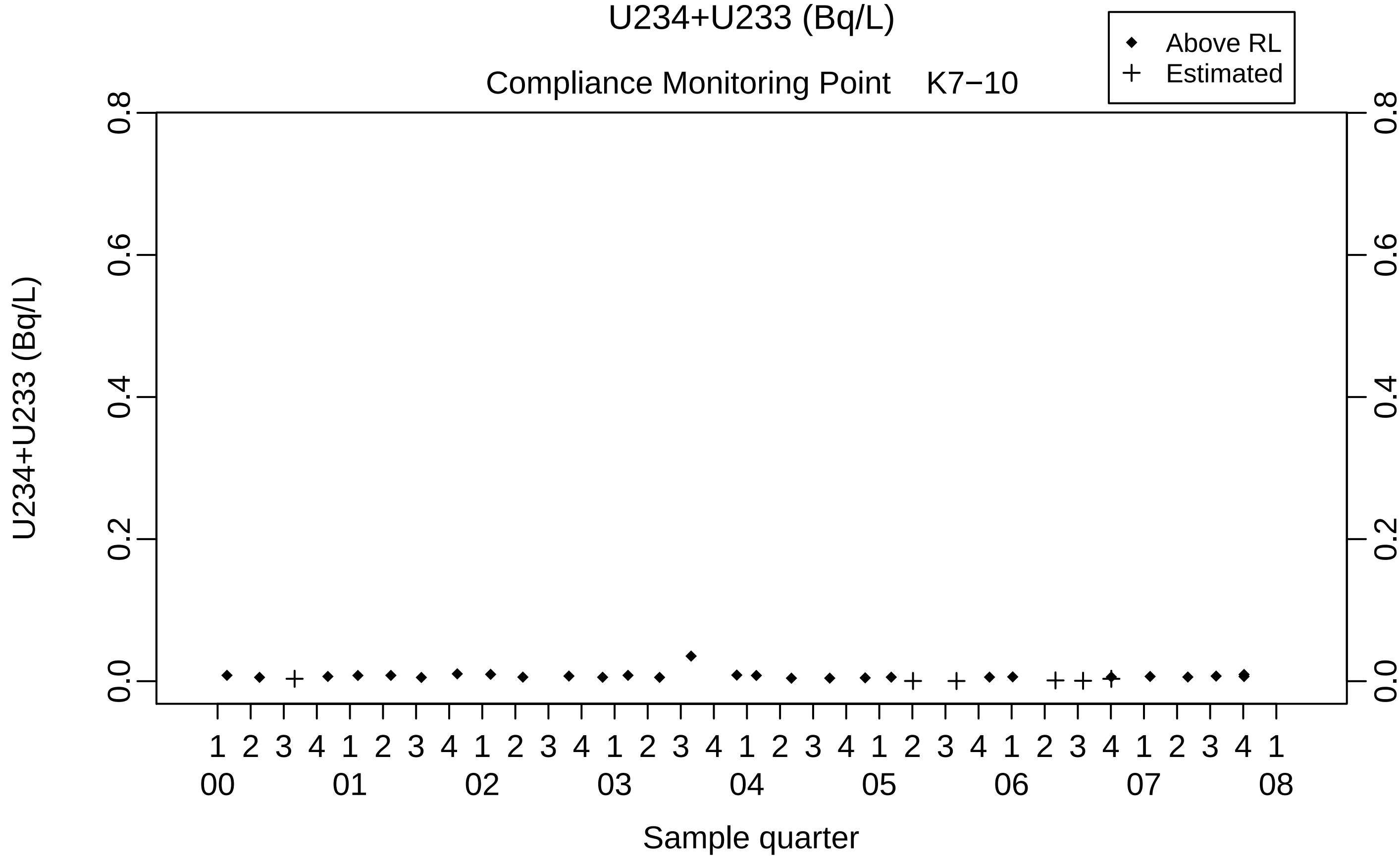


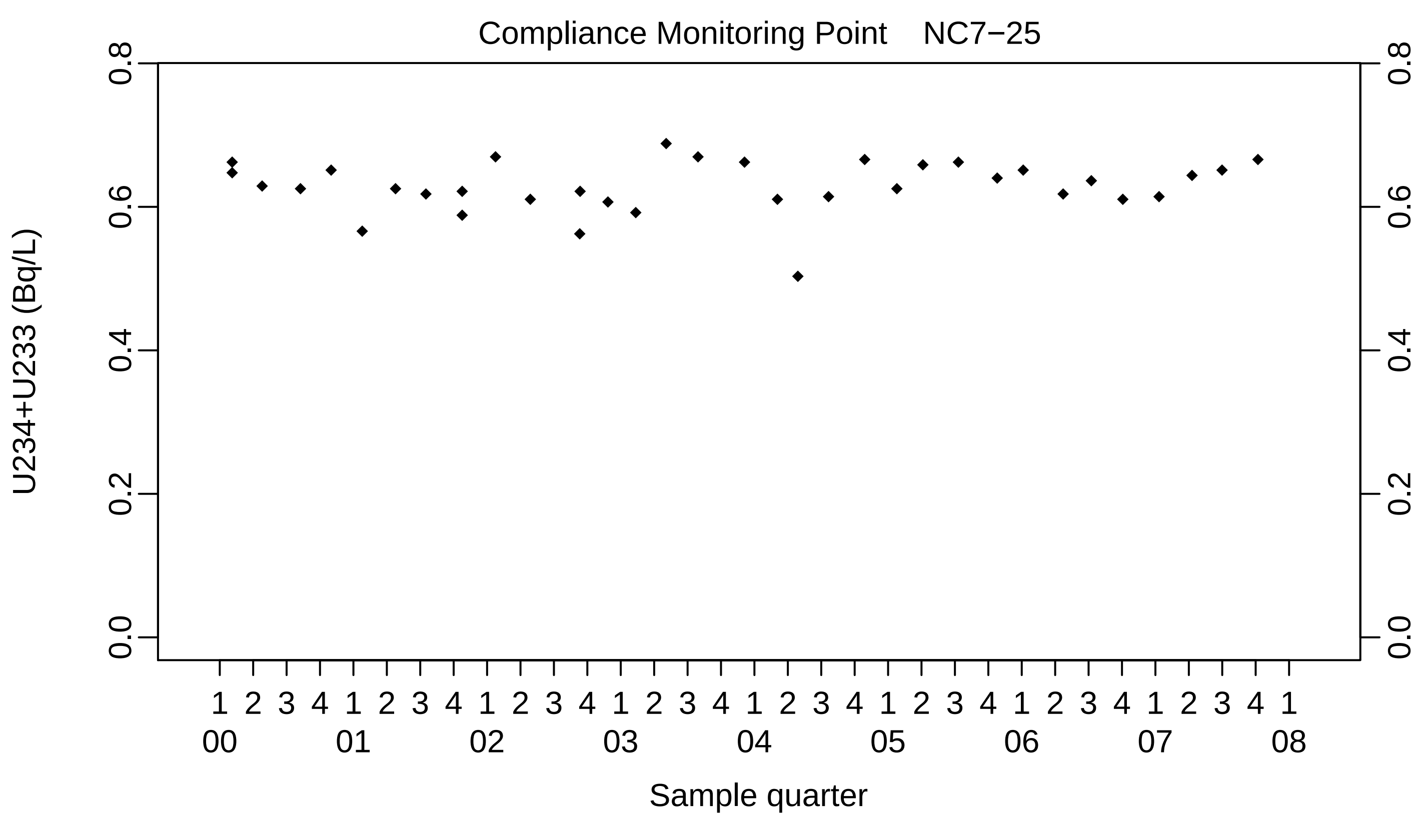
Pit 7 Complex
U234+U233 (Bq/L)



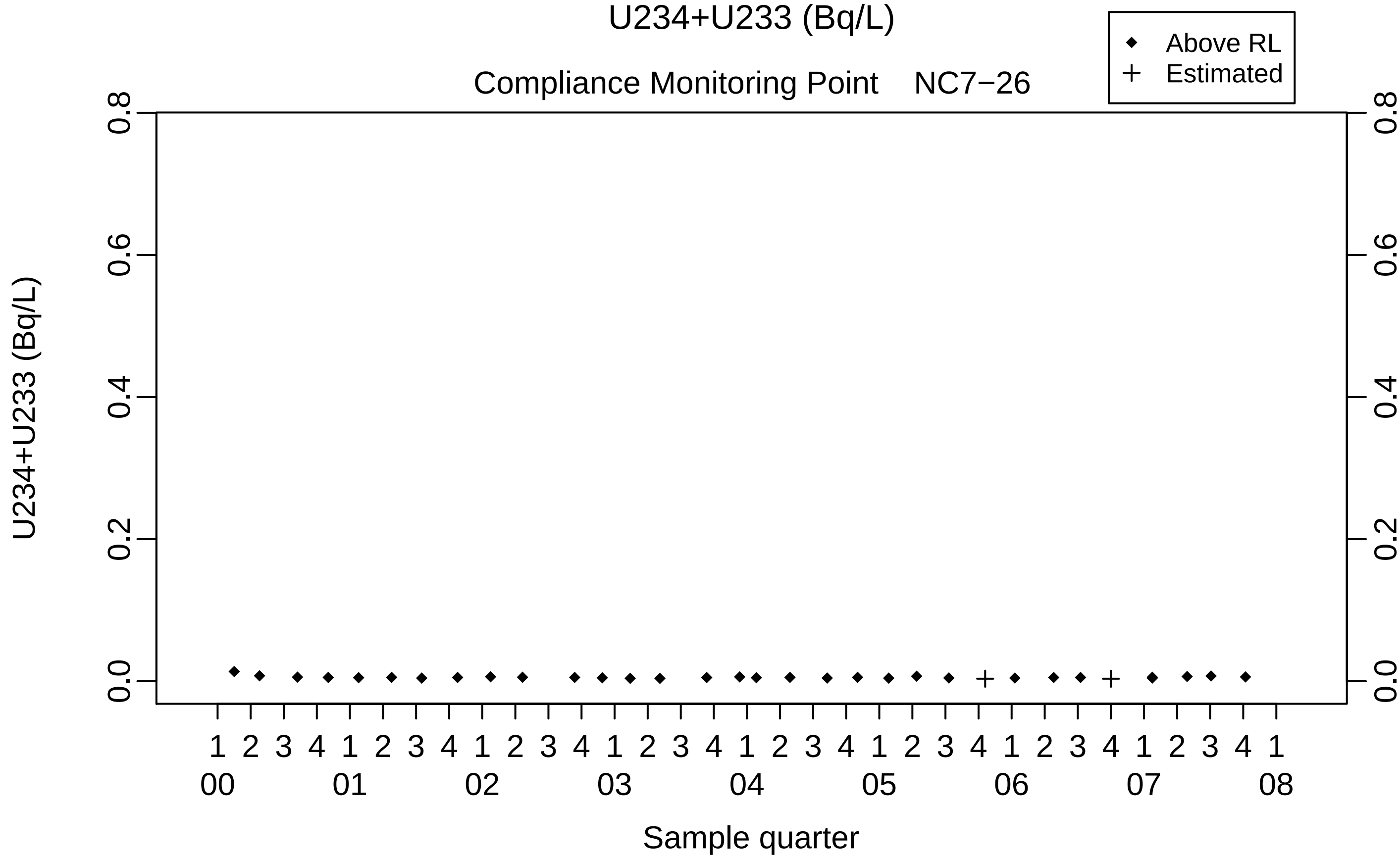


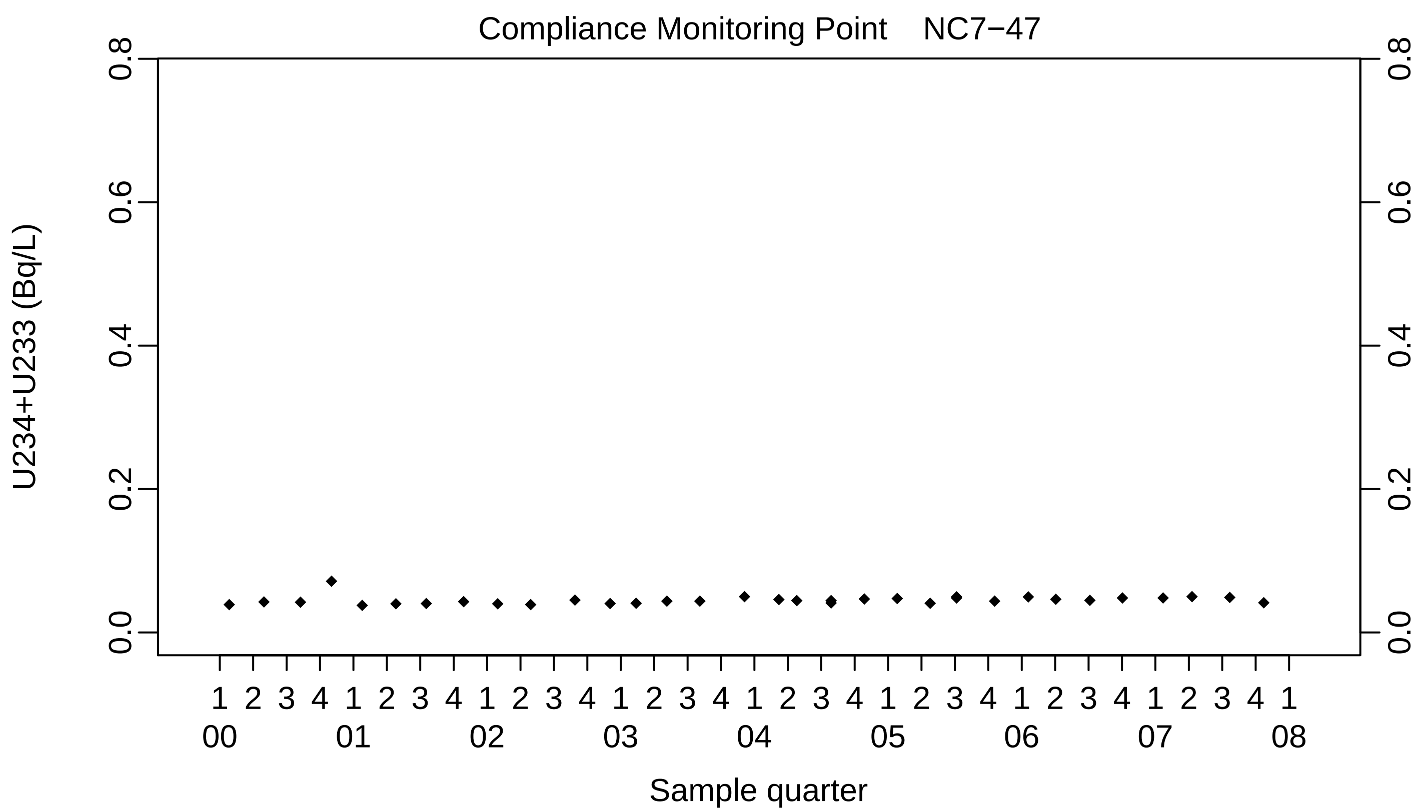
Pit 7 Complex
U234+U233 (Bq/L)

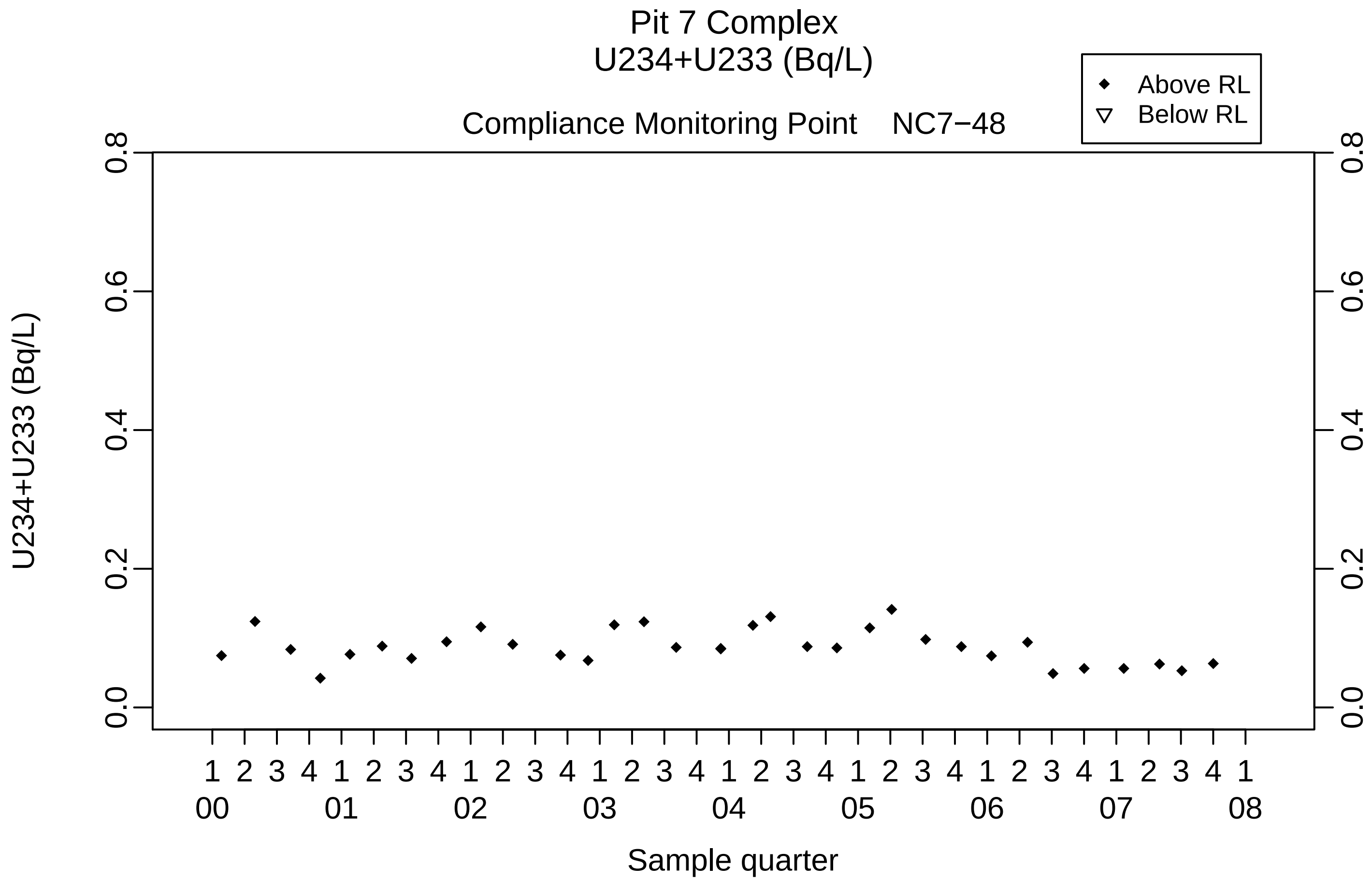


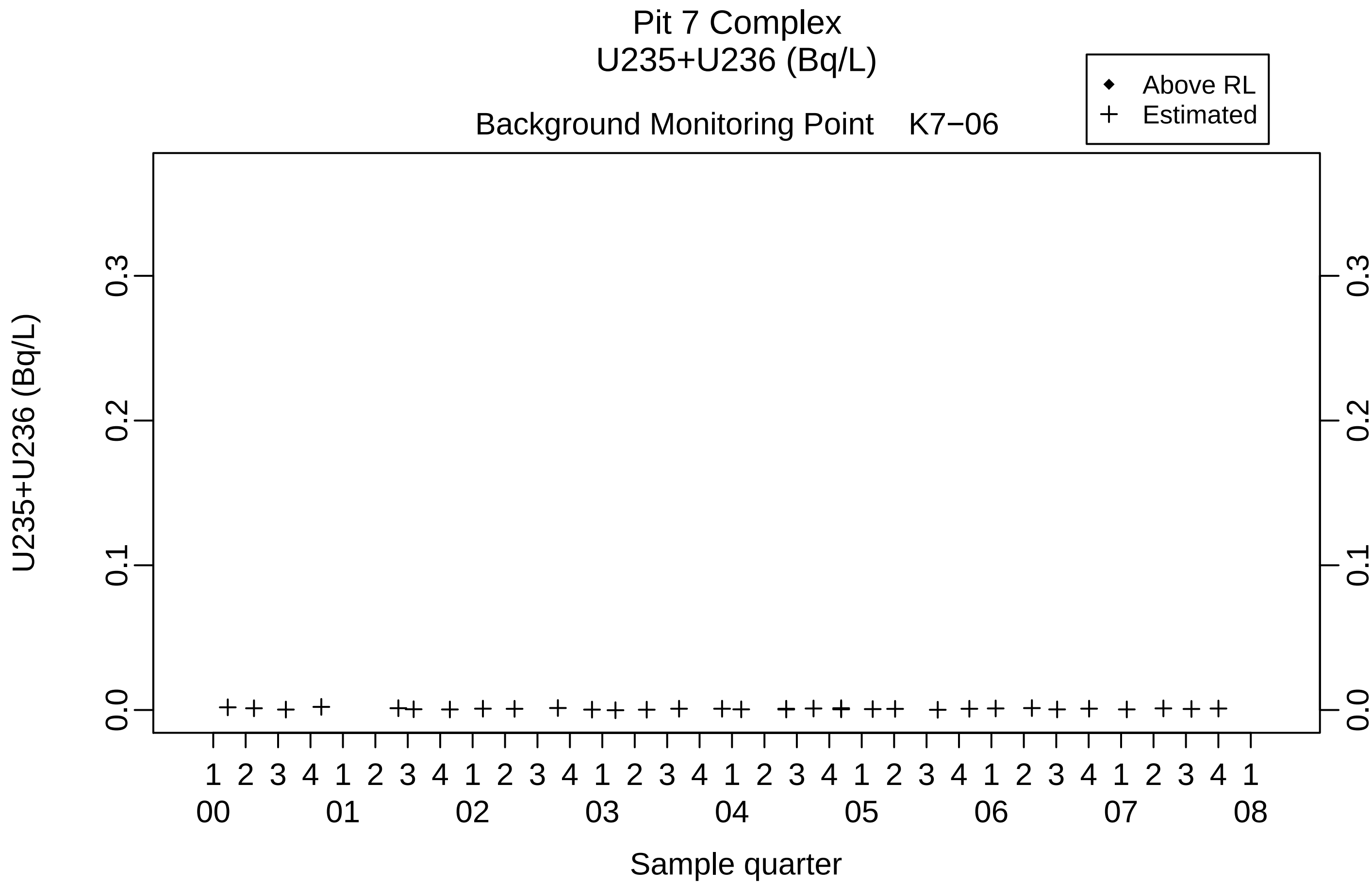


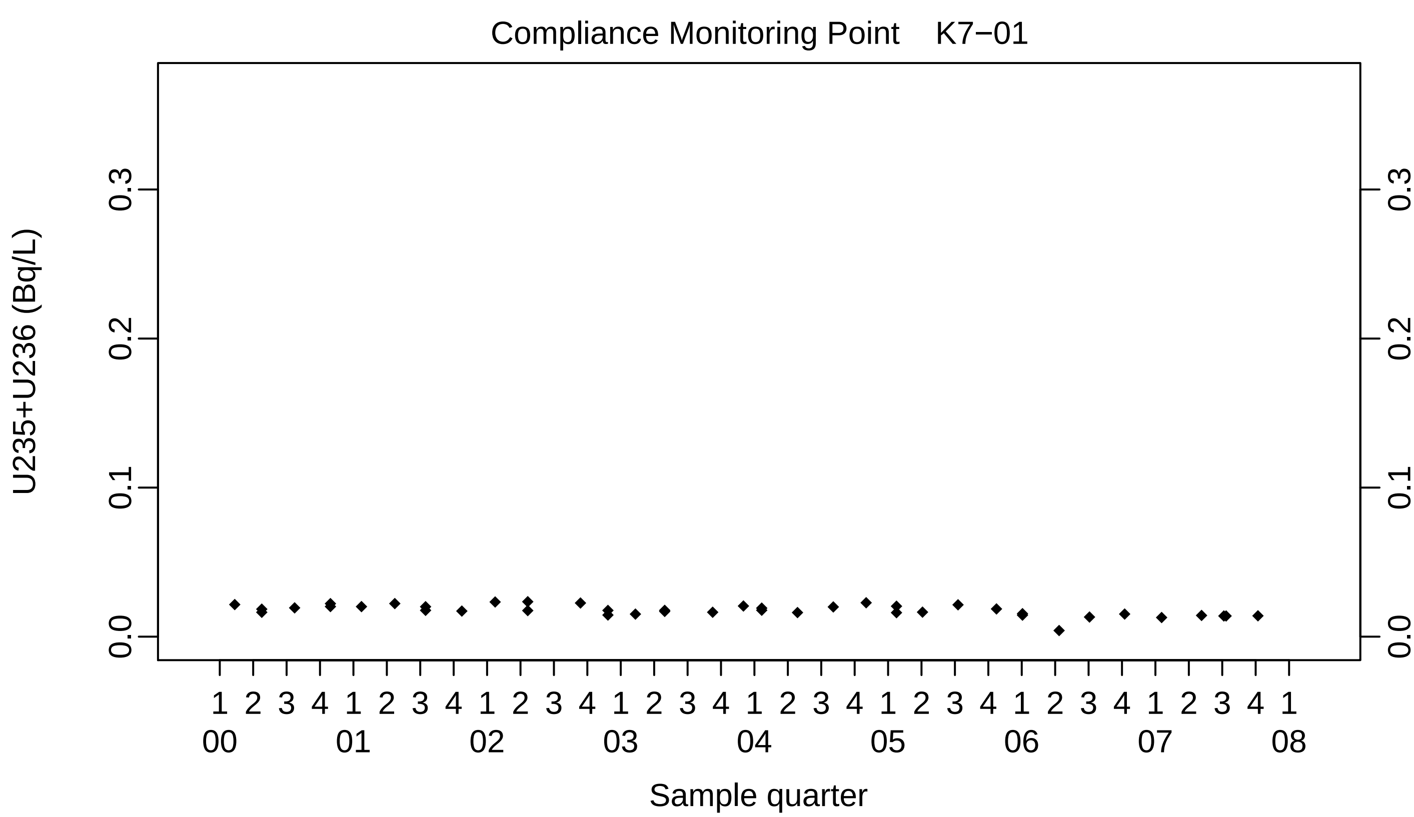
Pit 7 Complex
U234+U233 (Bq/L)



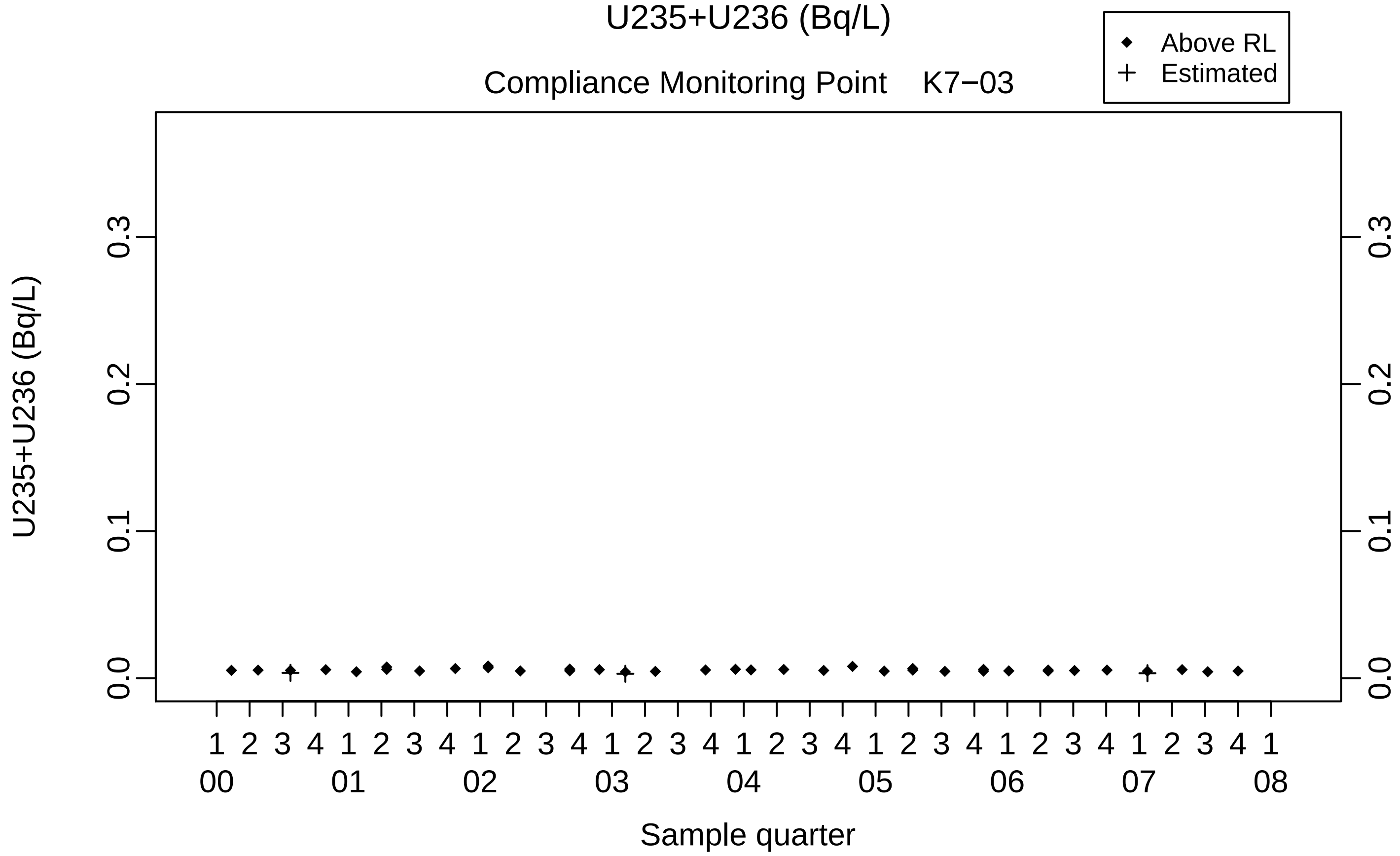


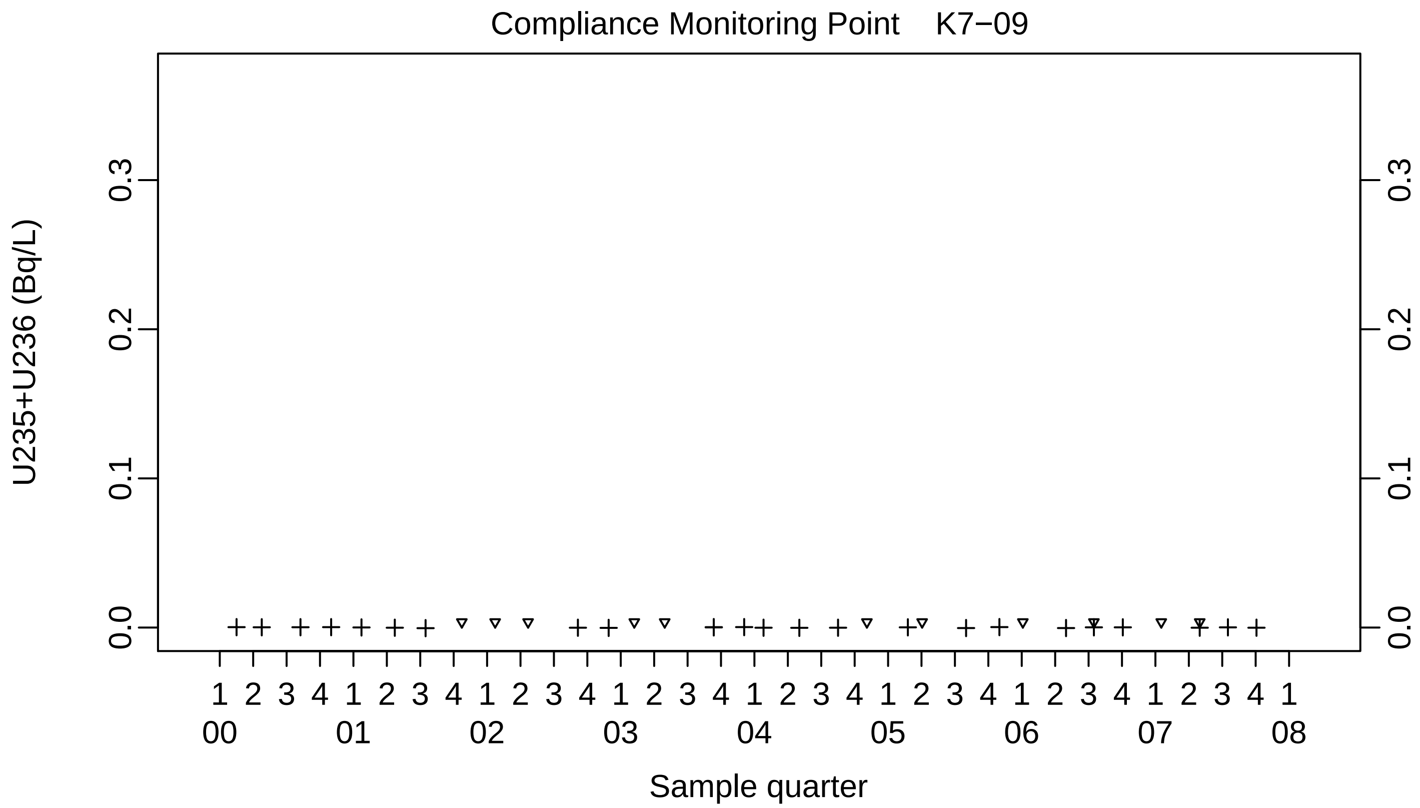

Pit 7 Complex
U234+U233 (Bq/L)
Compliance Monitoring Point NC7−48
Above RL
Below RL
U234+U233 (Bq/L)
0.0
0.2
0.4
0.6
0.8
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 7 Complex
U235+U236 (Bq/L)
Above RL
Estimated
Background Monitoring Point K7−06
U235+U236 (Bq/L)
0.0
0.1
0.2
0.3
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

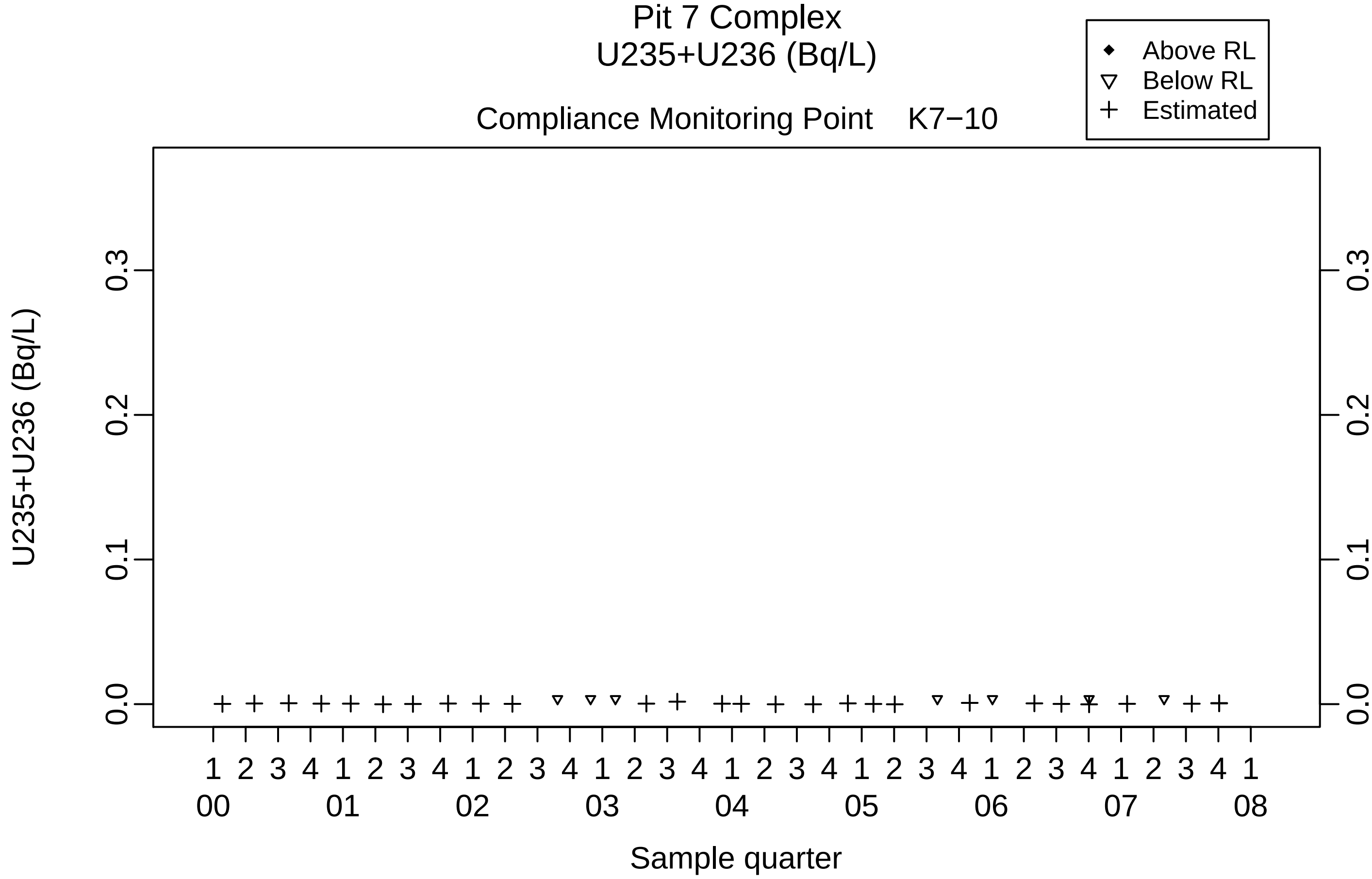

Compliance Monitoring Point K7−01
U235+U236 (Bq/L)
0.0
0.1
0.2
0.3
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

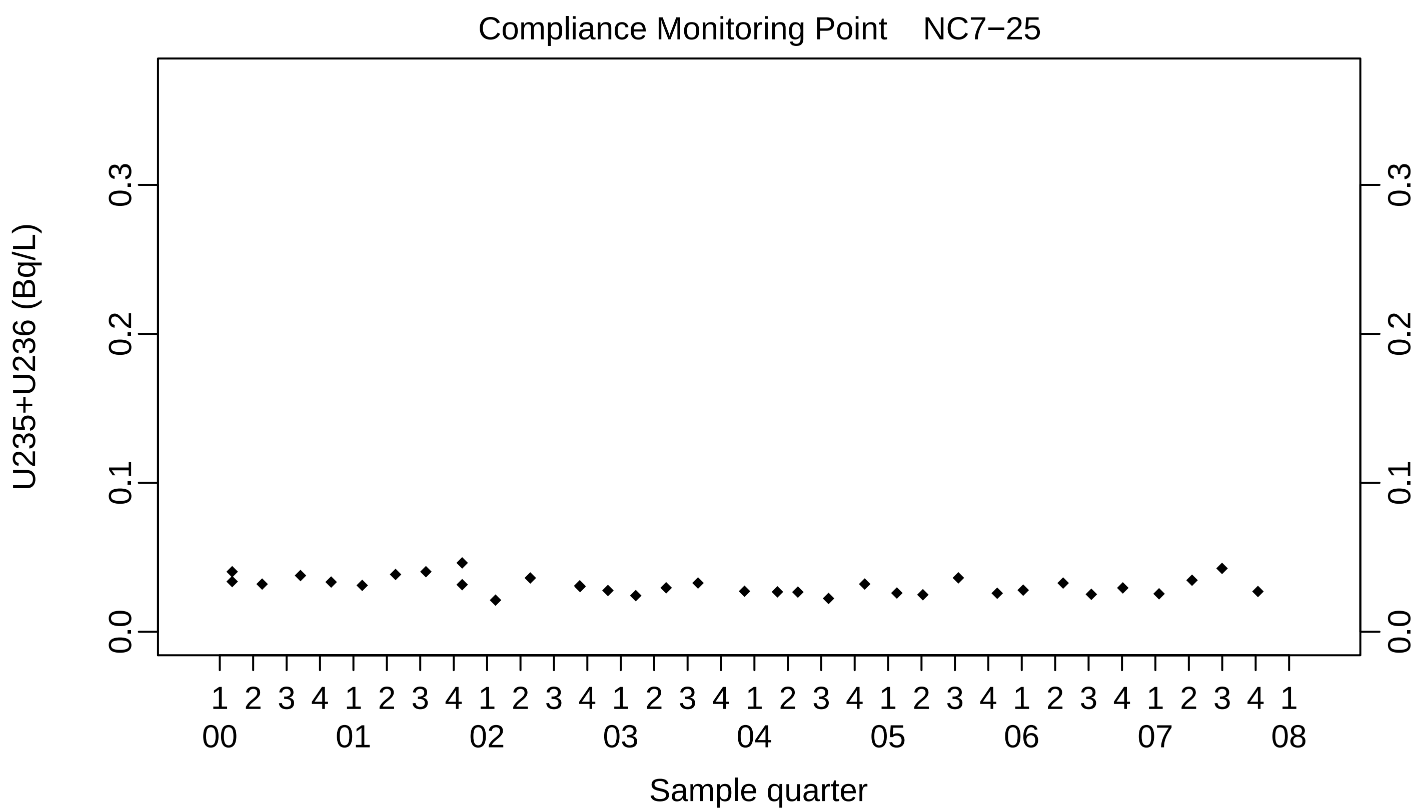
Pit 7 Complex
U235+U236 (Bq/L)

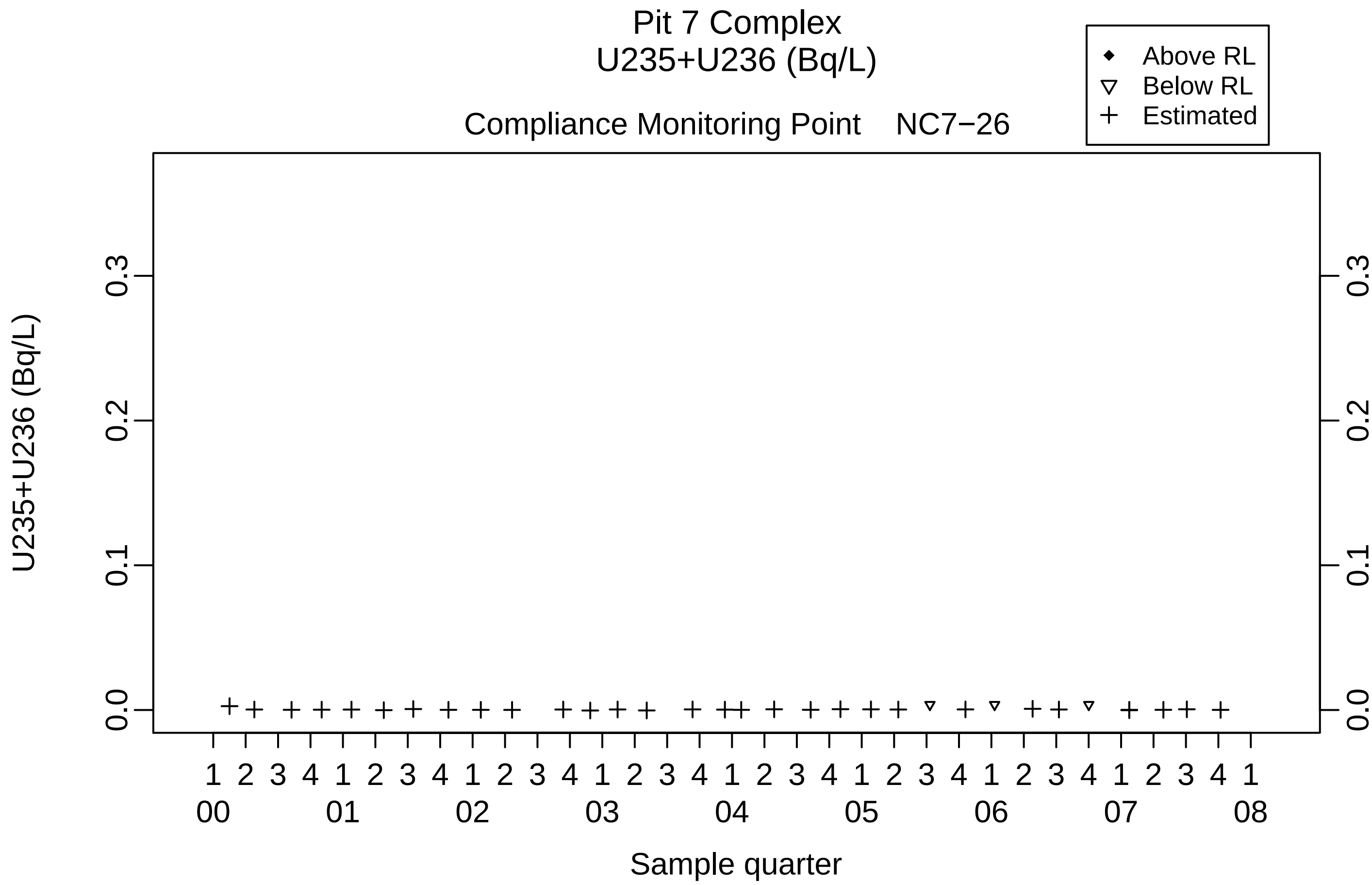


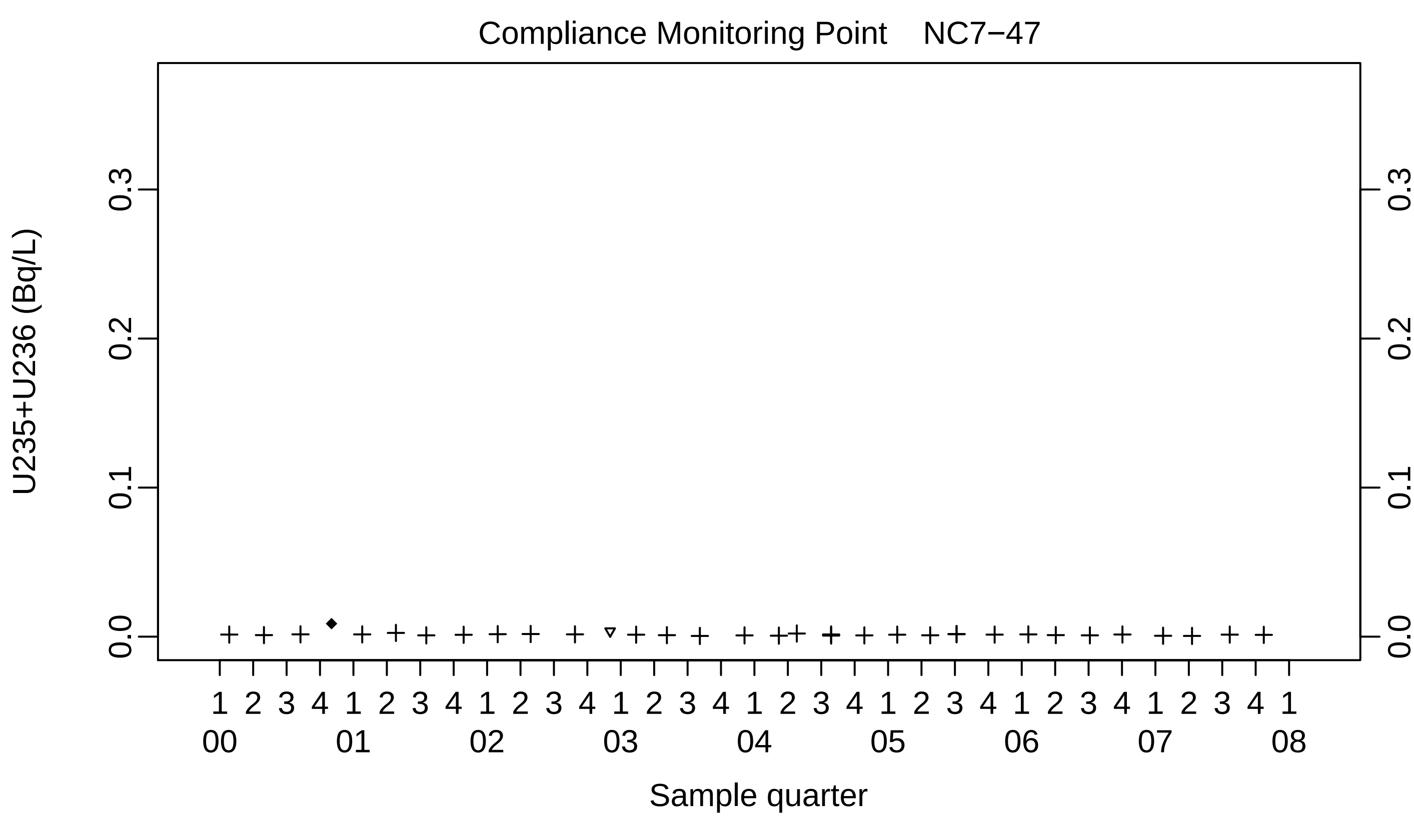


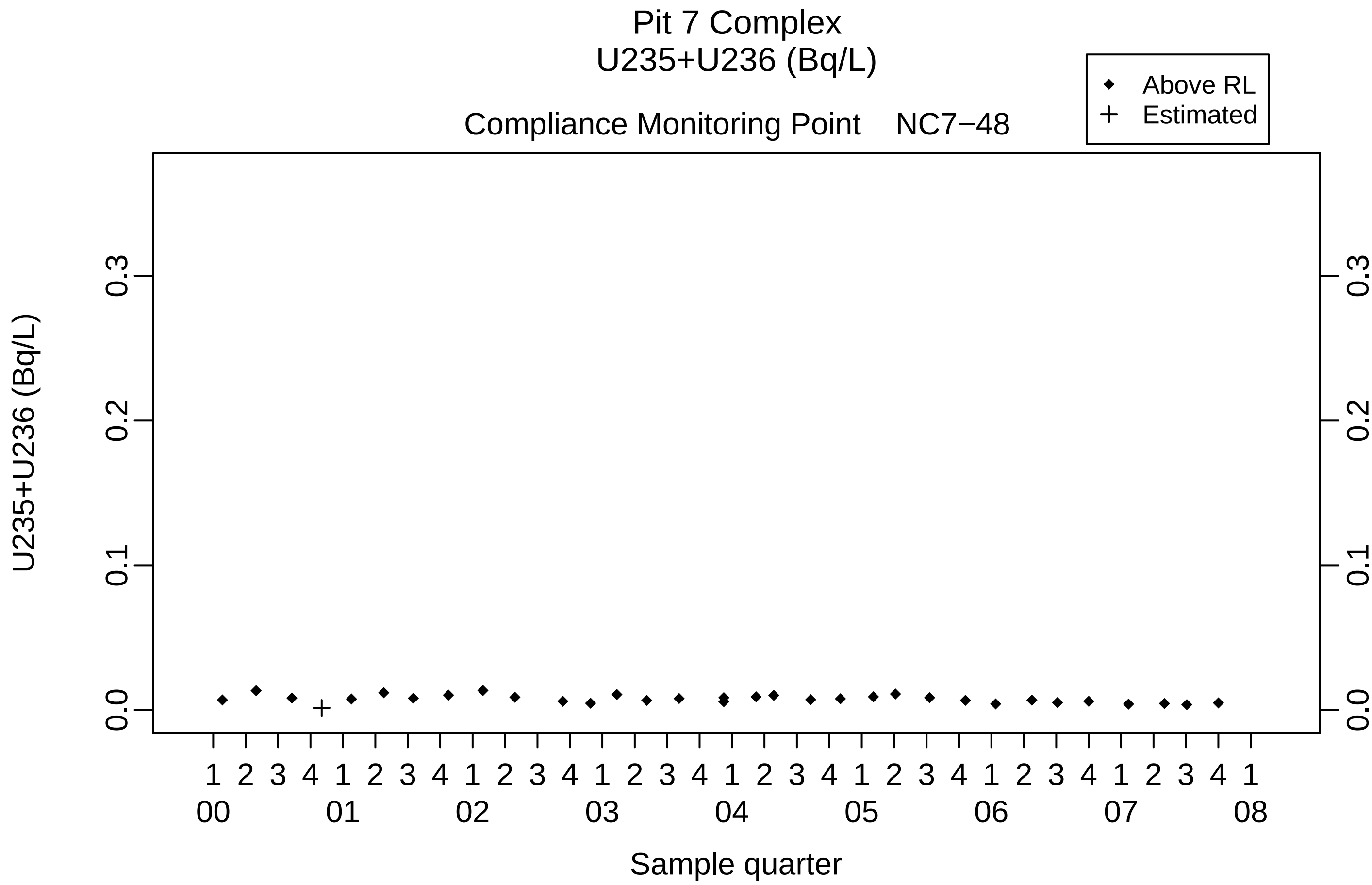
Pit 7 Complex
U235+U236 (Bq/L)





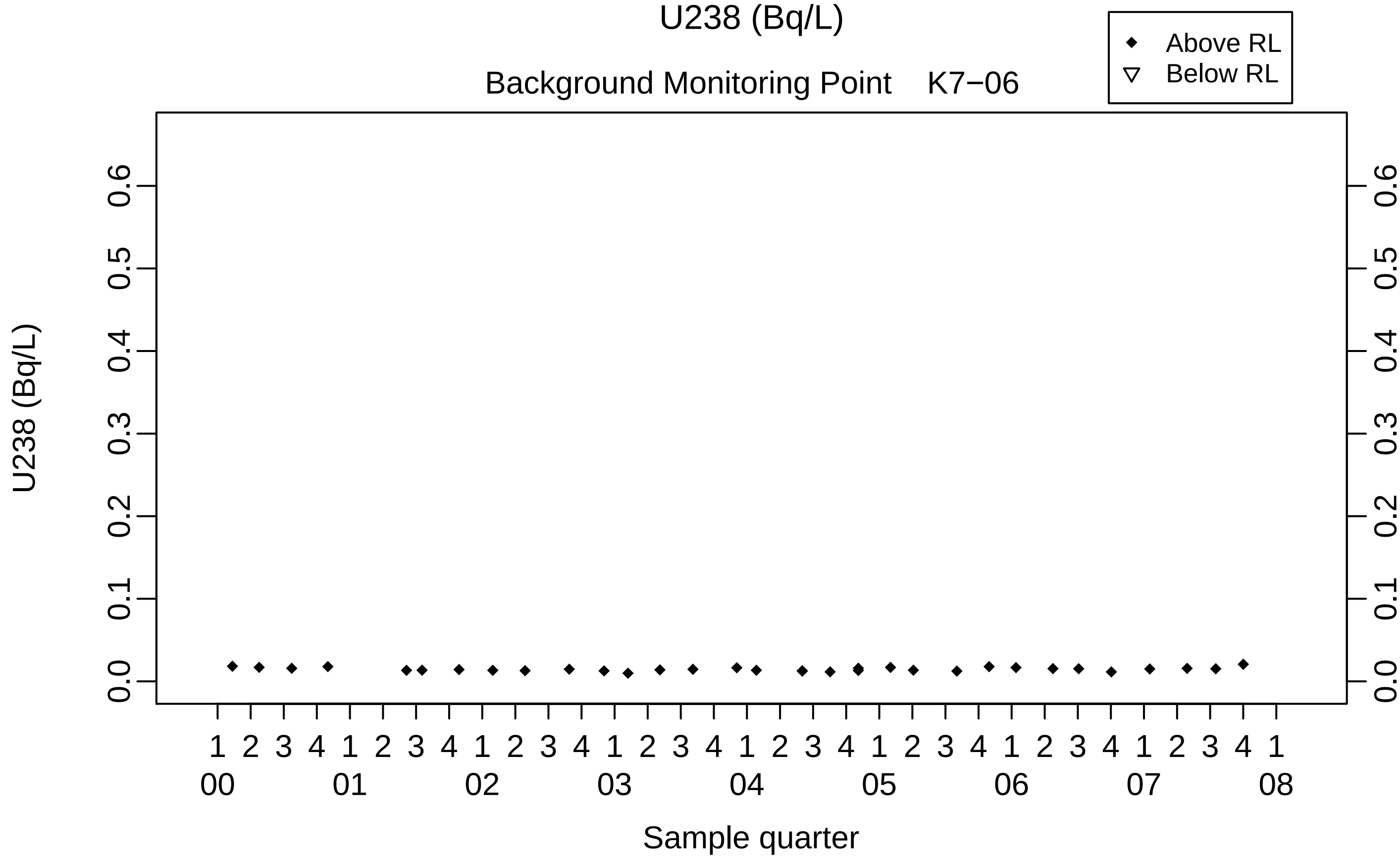

Pit 7 Complex
U235+U236 (Bq/L)
Above RL
Below RL
Estimated
Compliance Monitoring Point NC7−26
U235+U236 (Bq/L)
0.0
0.1
0.2
0.3
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Compliance Monitoring Point NC7−47
U235+U236 (Bq/L)
0.0
0.1
0.2
0.3
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

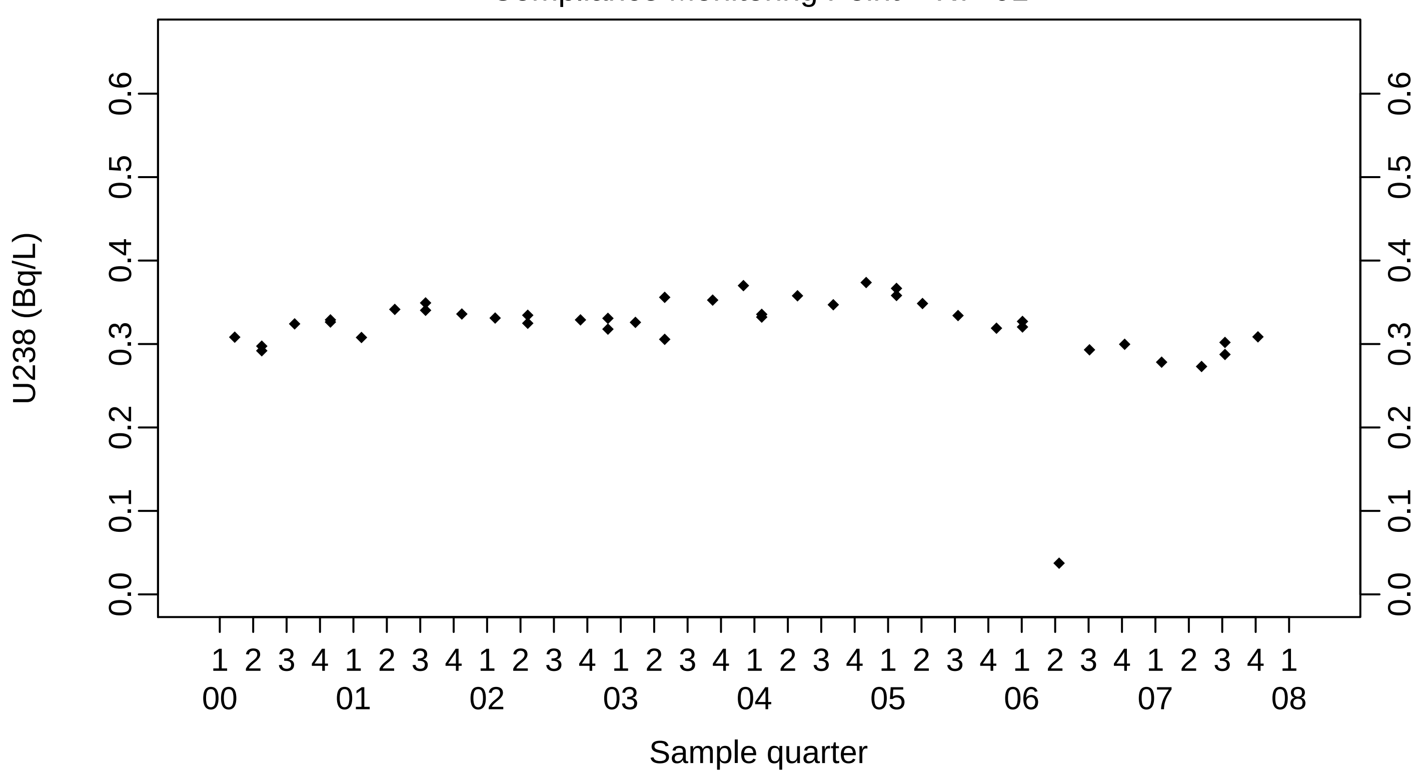

Pit 7 Complex
U235+U236 (Bq/L)
Compliance Monitoring Point NC7−48
Above RL
Estimated
U235+U236 (Bq/L)
0.0
0.1
0.2
0.3
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

Pit 7 Complex
U238 (Bq/L)

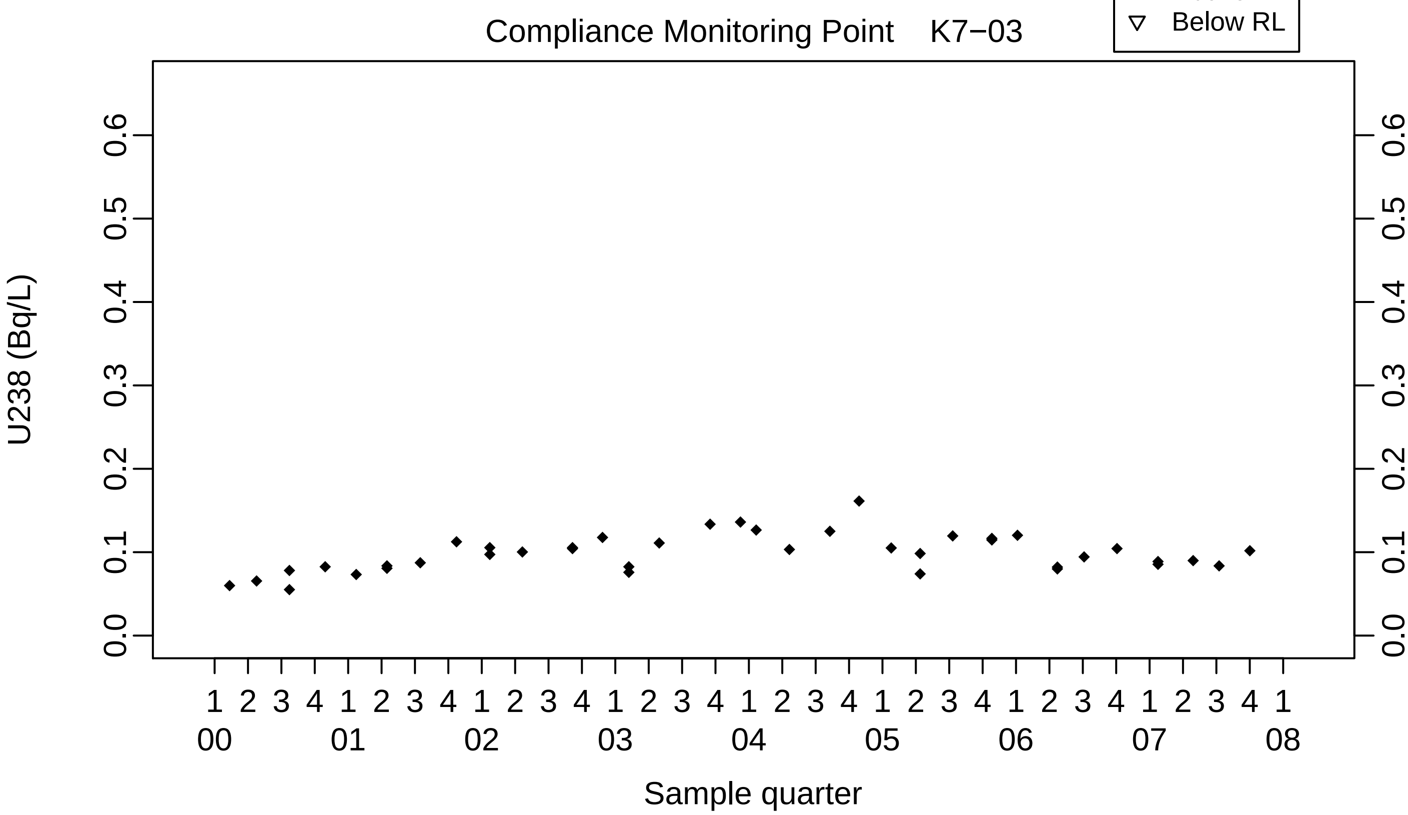
Background Monitoring Point K7−06

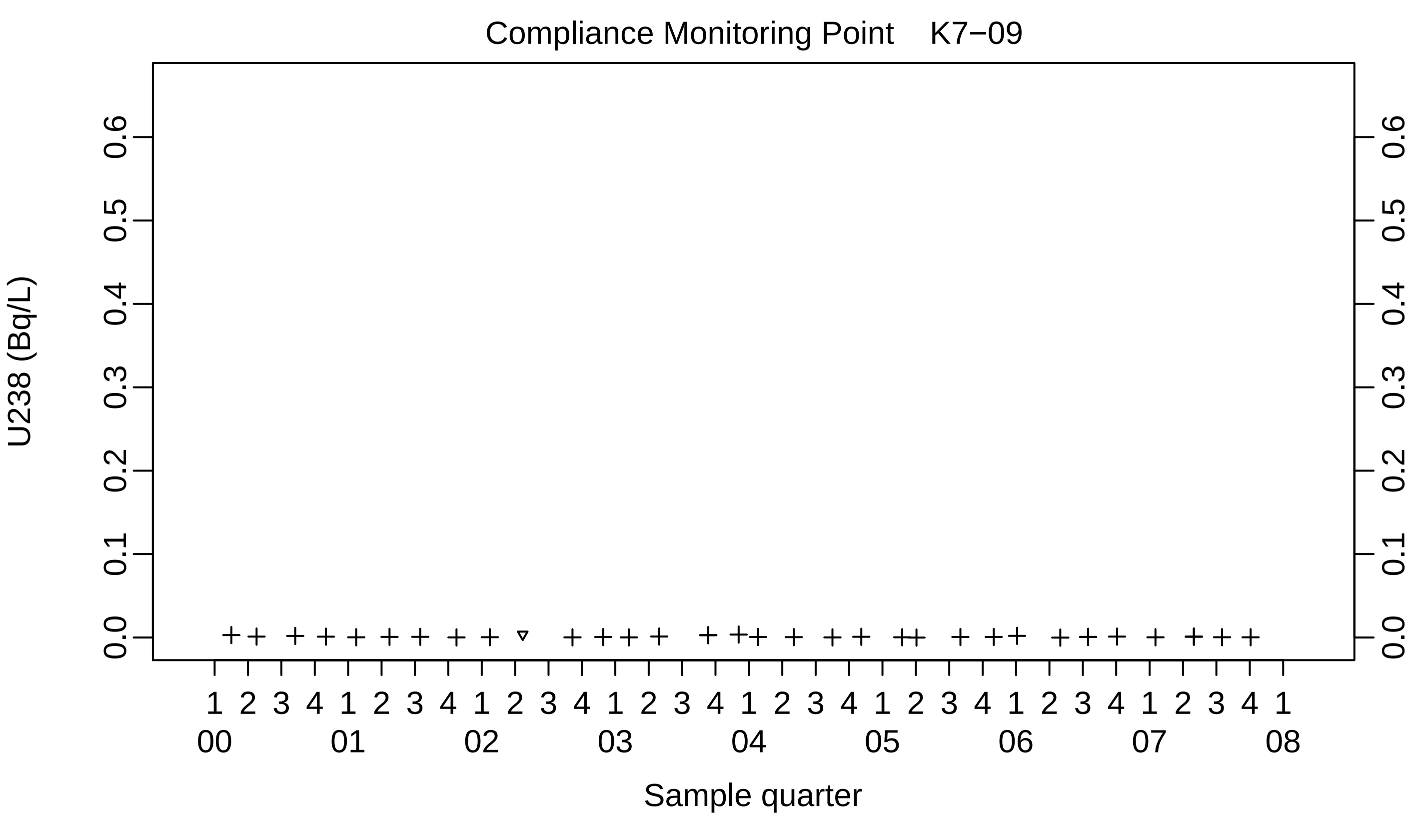


Compliance Monitoring Point K7−01

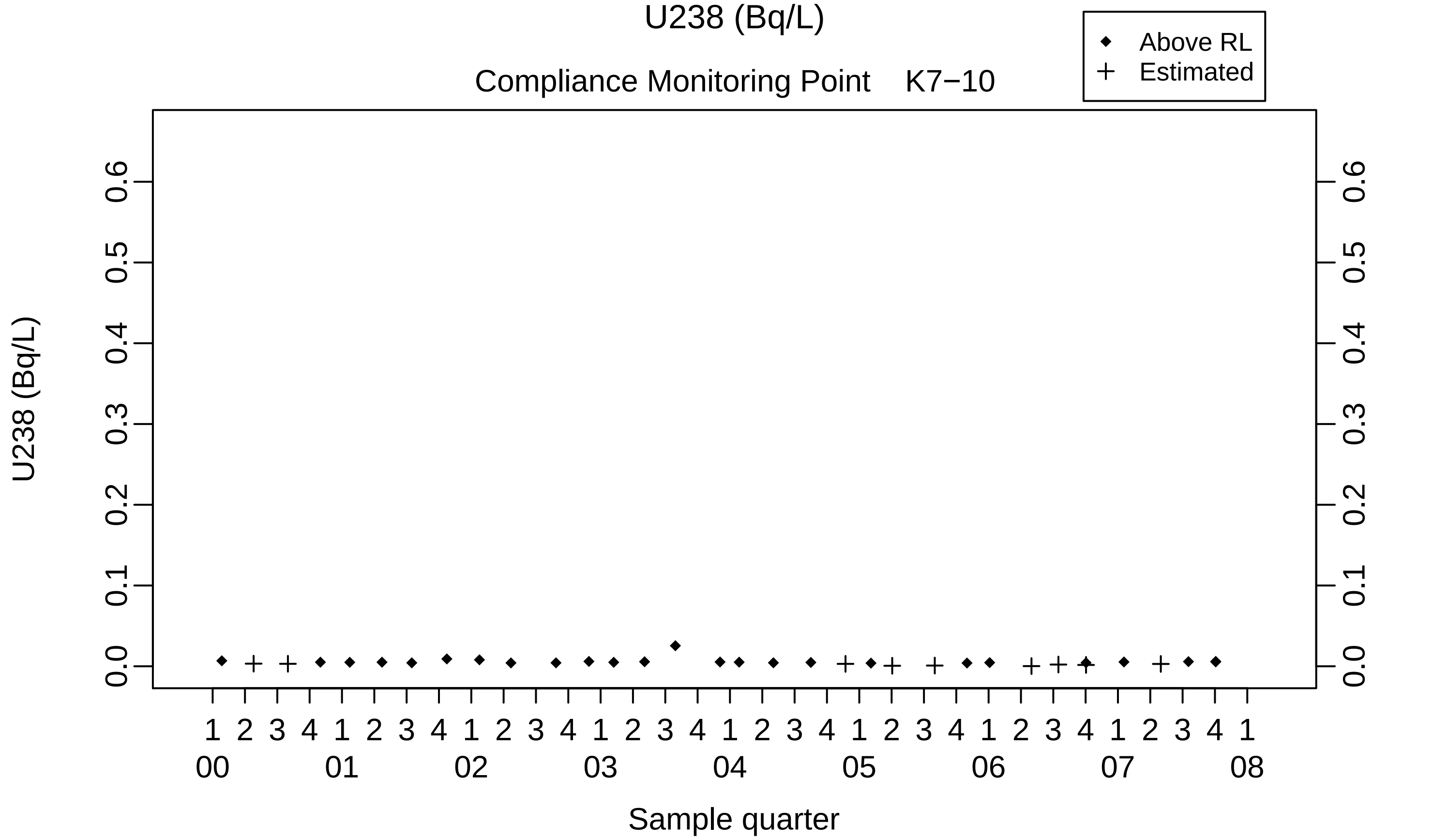


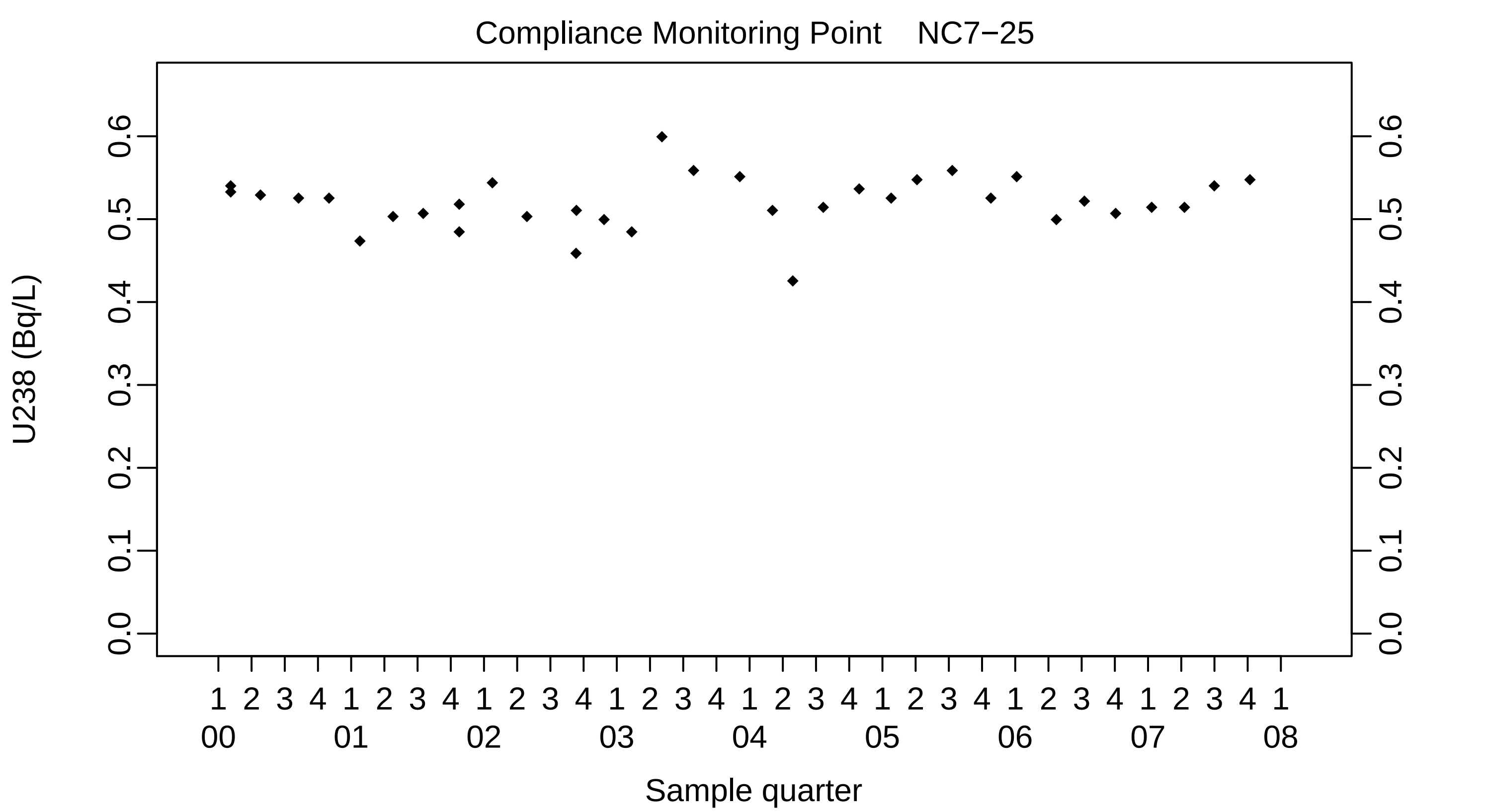
Pit 7 Complex
U238 (Bq/L)

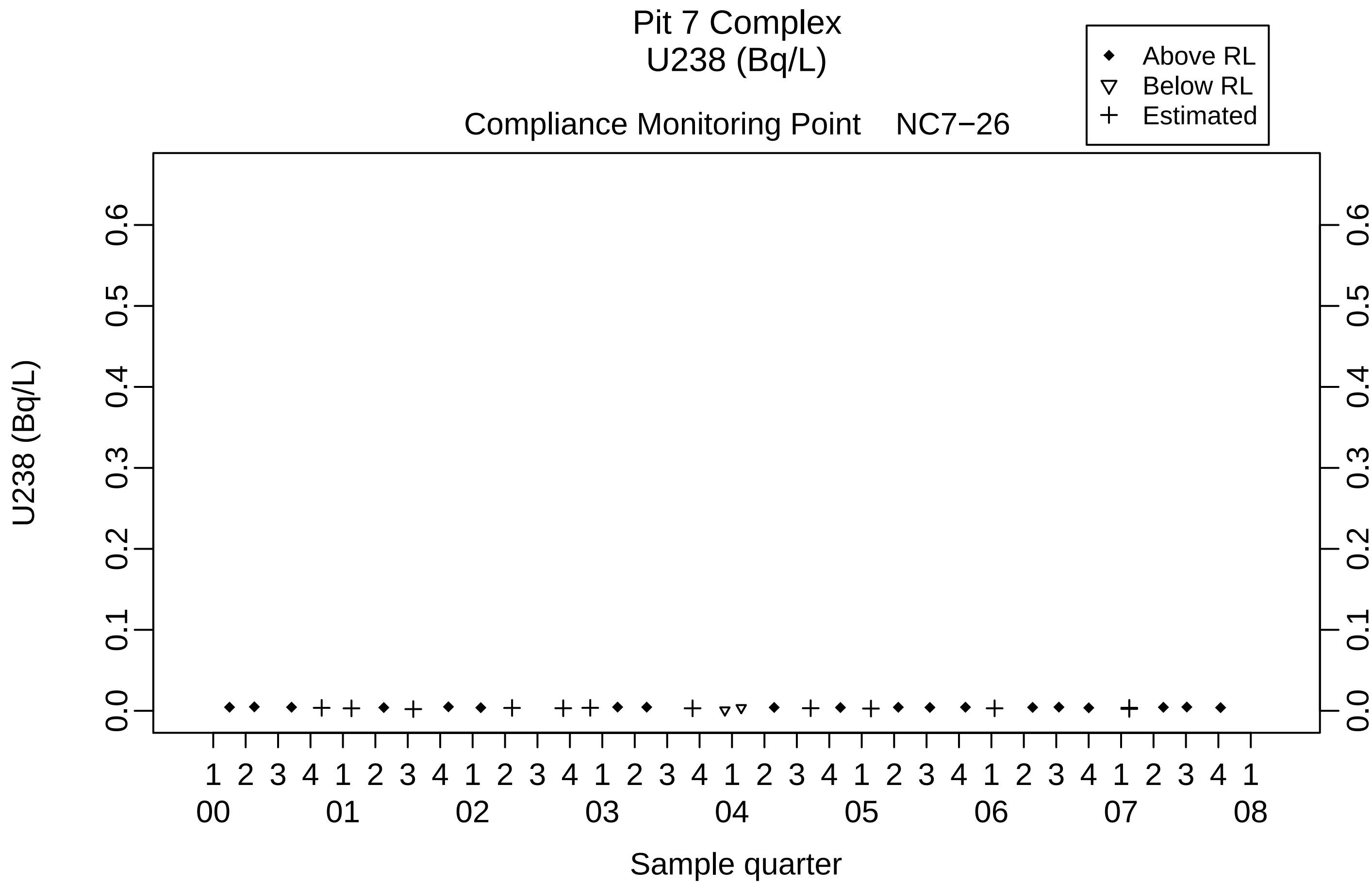


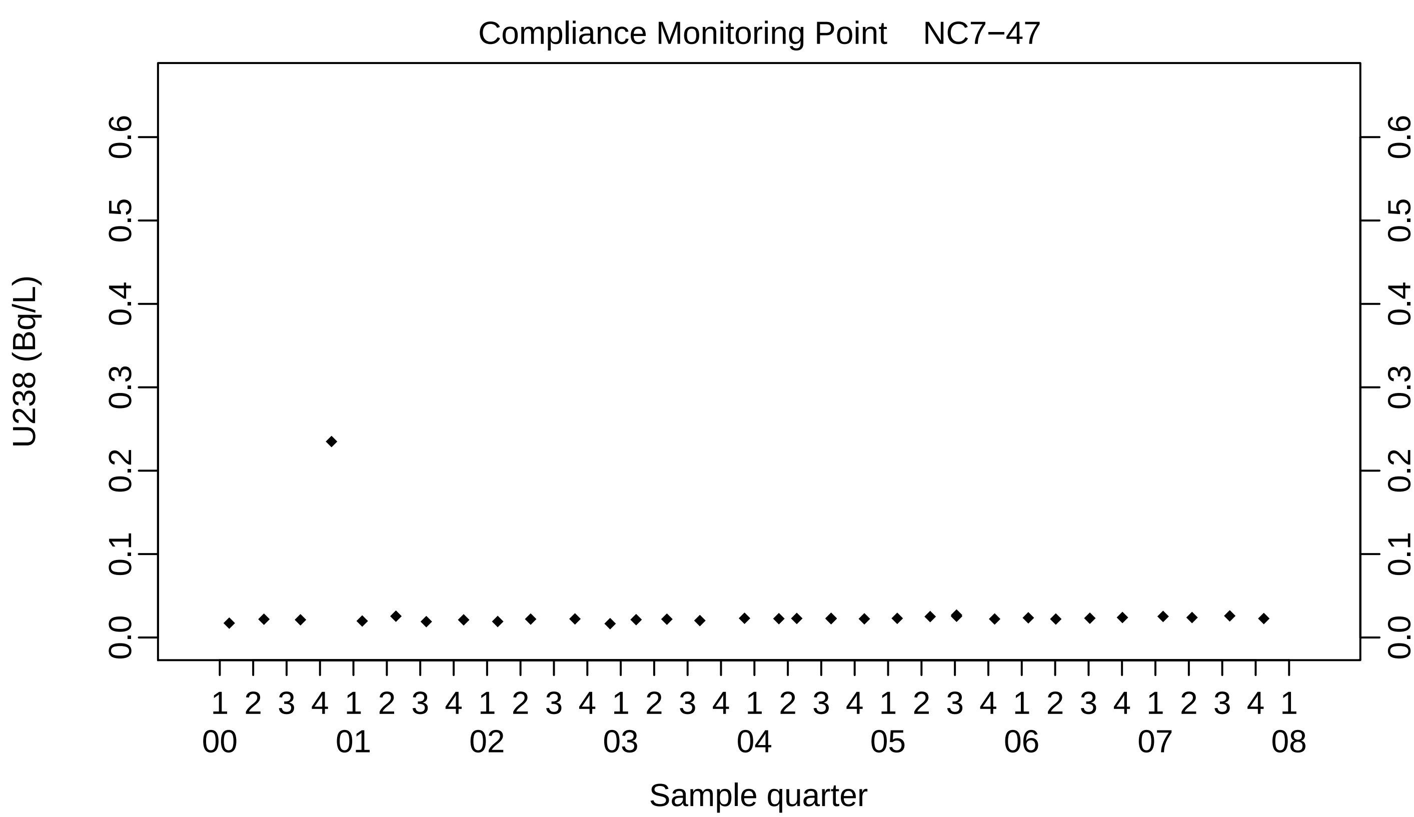


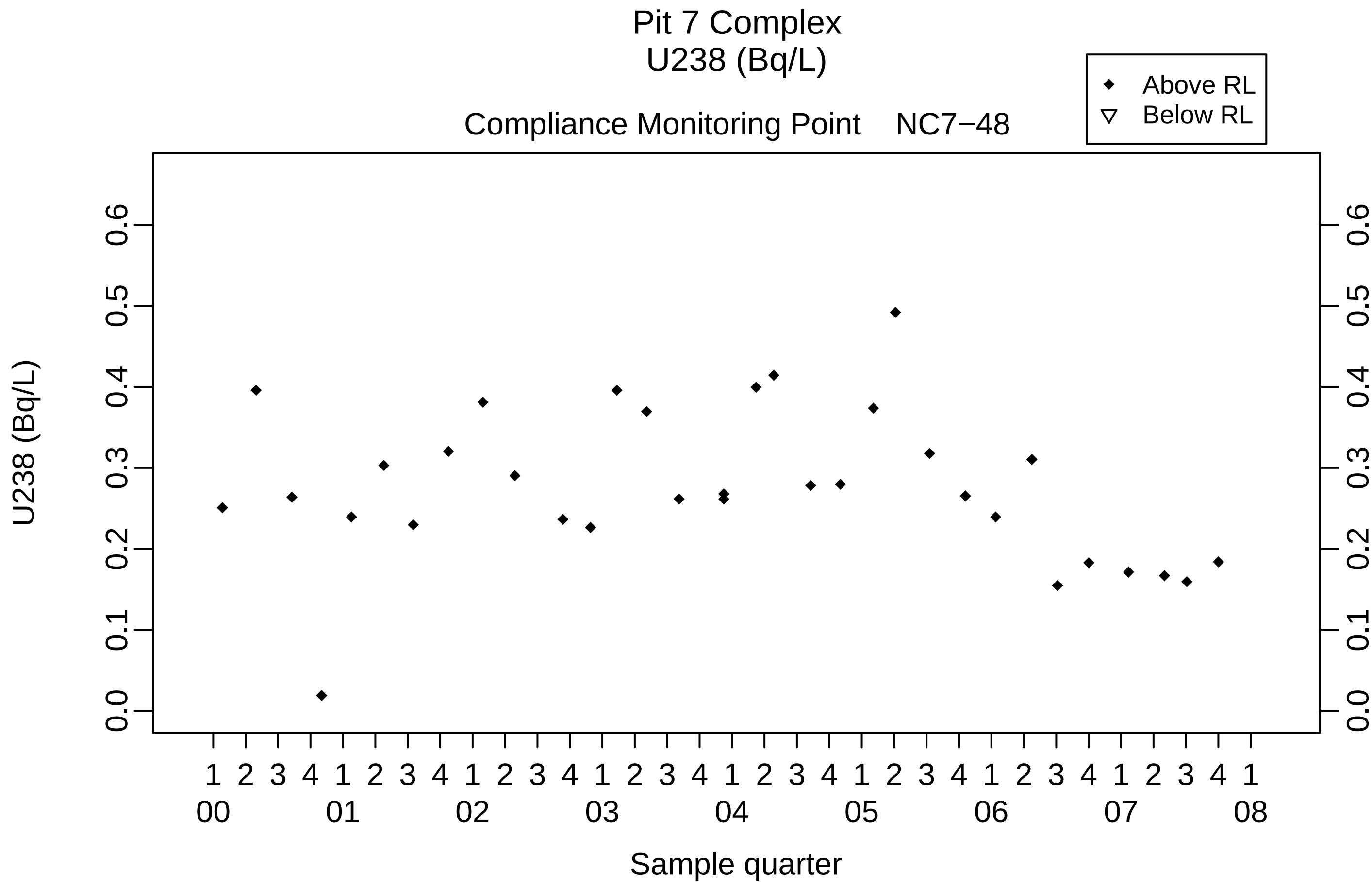
Pit 7 Complex
U238 (Bq/L)



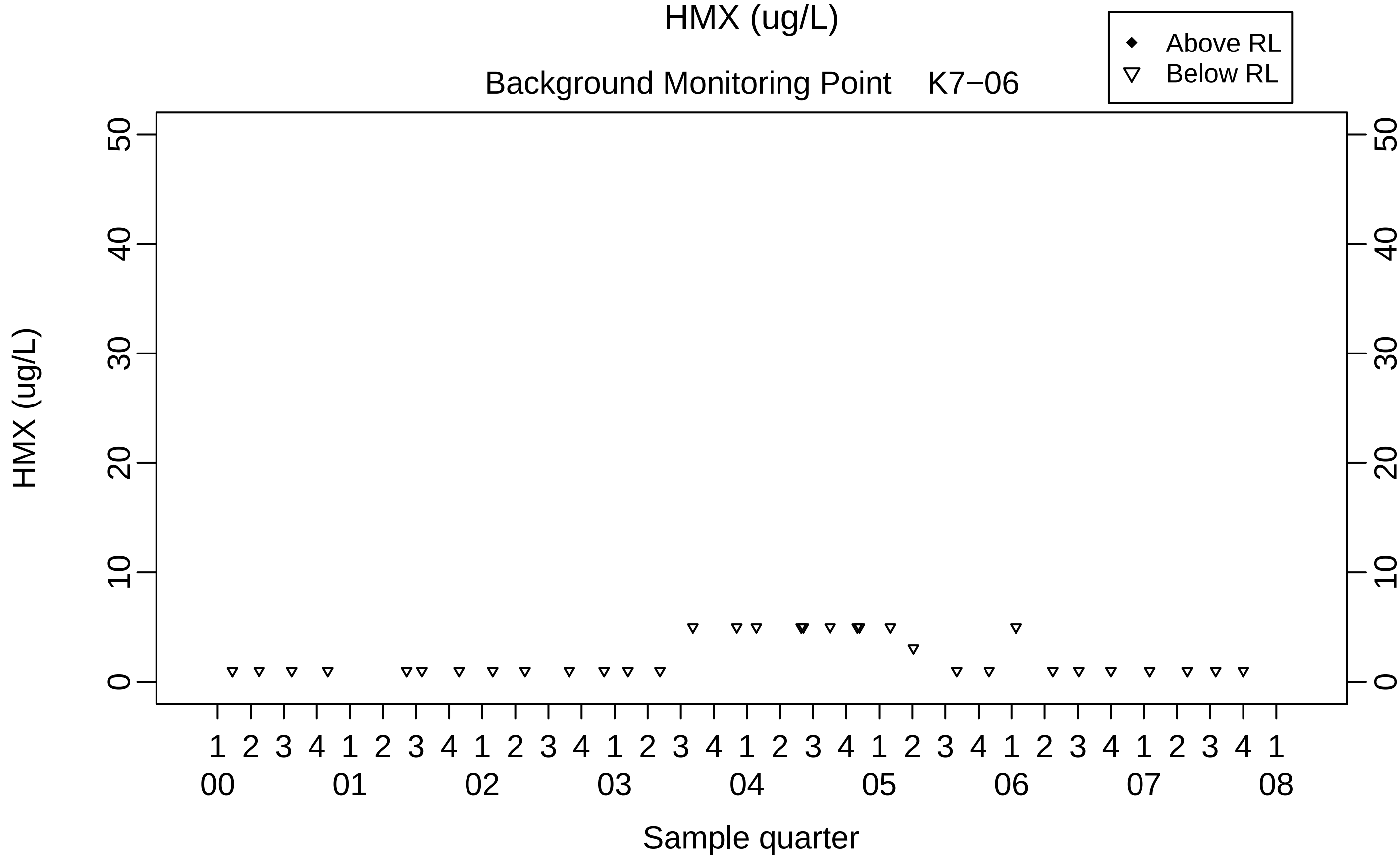


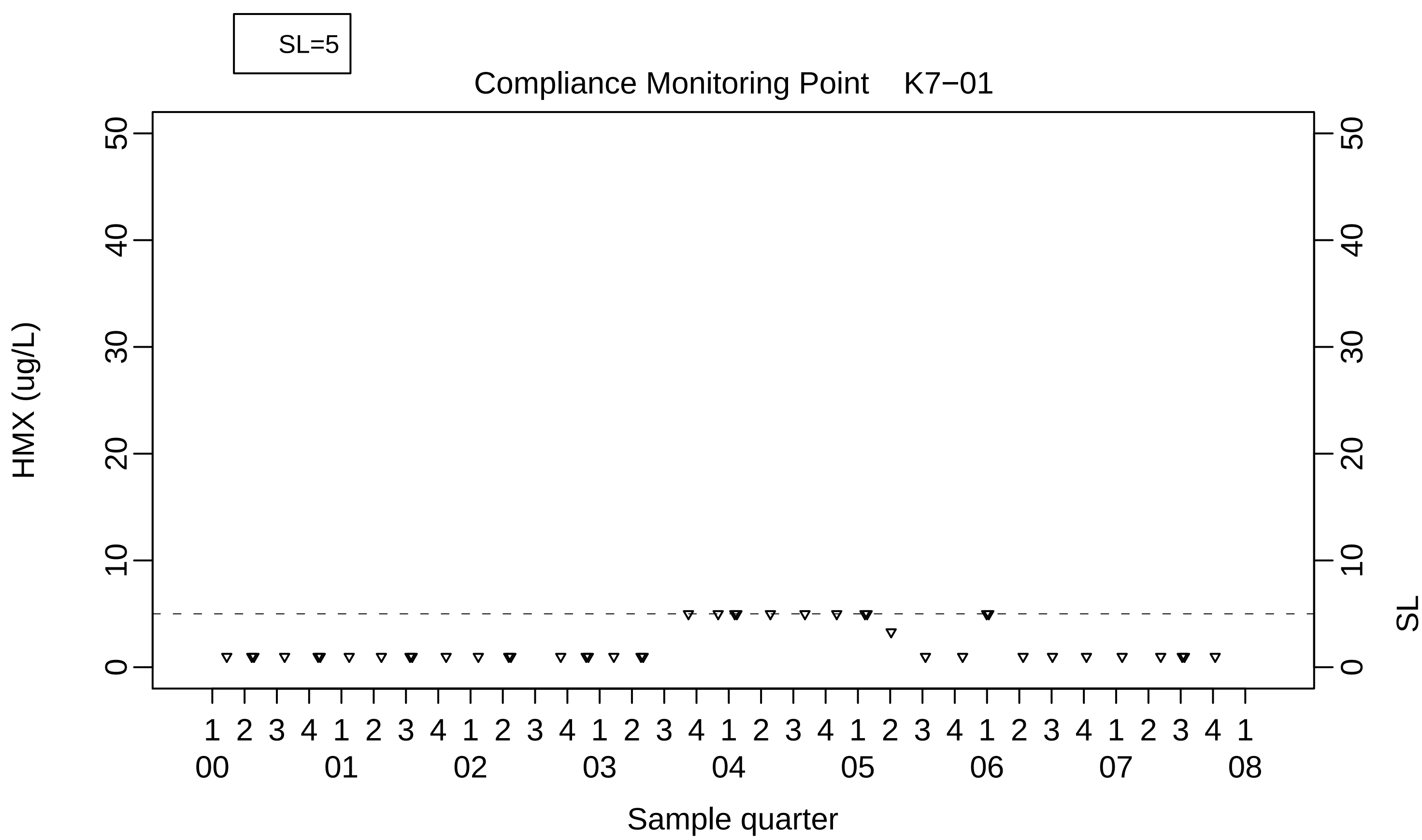

Pit 7 Complex
U238 (Bq/L)
Above RL
Below RL
Estimated
Compliance Monitoring Point NC7−26
U238 (Bq/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

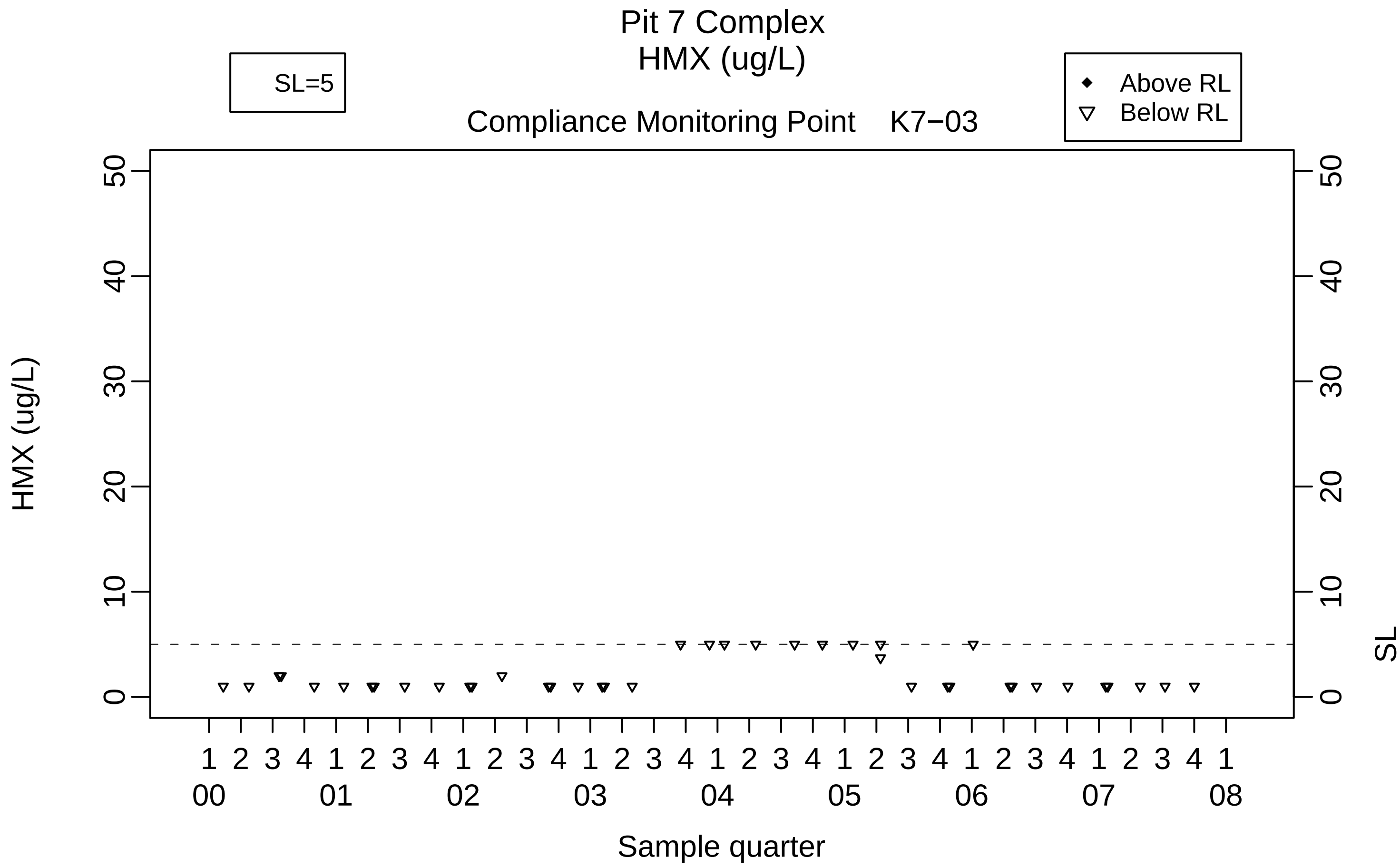

Compliance Monitoring Point NC7−47
U238 (Bq/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

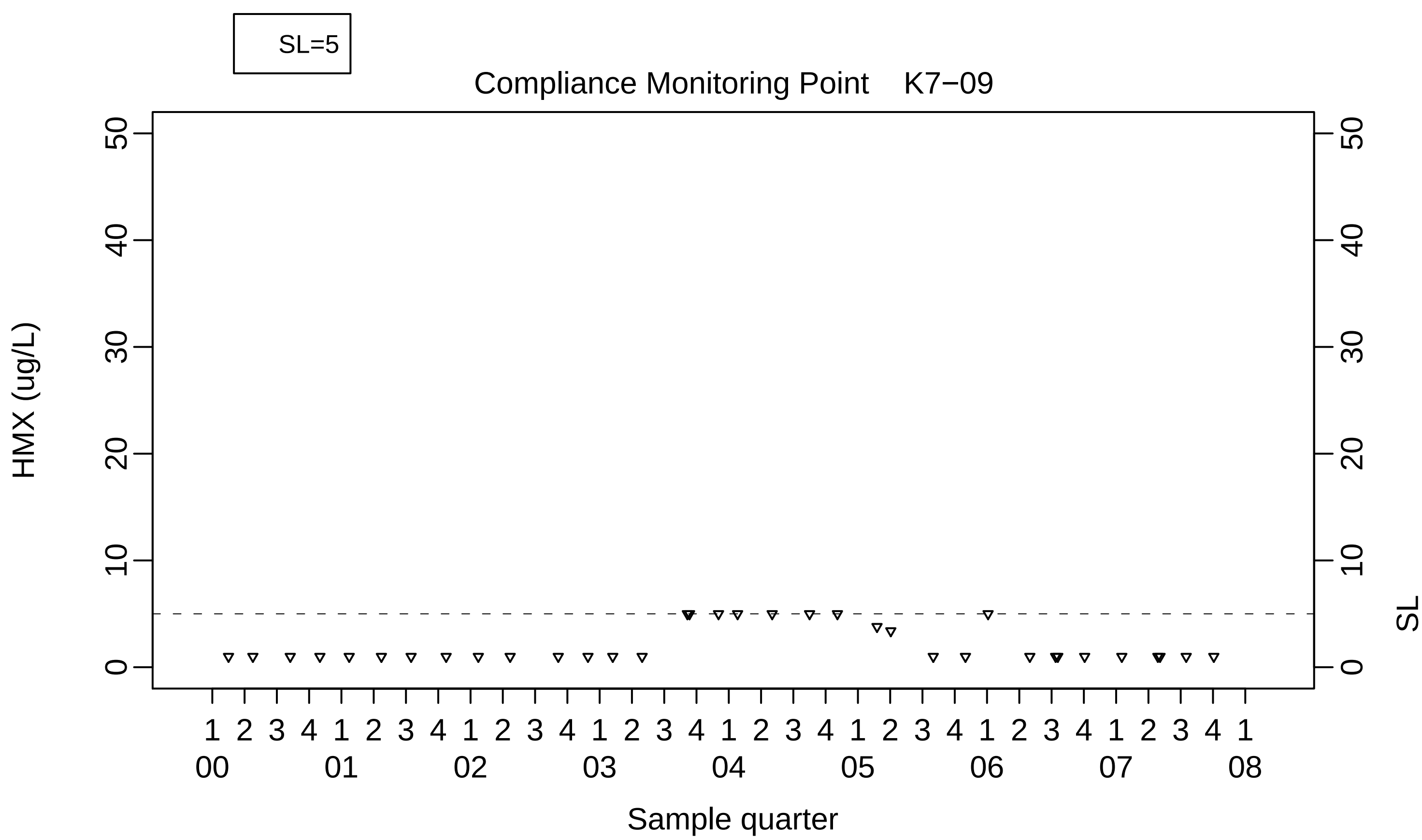

Pit 7 Complex
U238 (Bq/L)
Compliance Monitoring Point NC7−48
Above RL
Below RL
U238 (Bq/L)
0.0
0.1
0.2
0.3
0.4
0.5
0.6
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

Pit 7 Complex
HMX (ug/L)

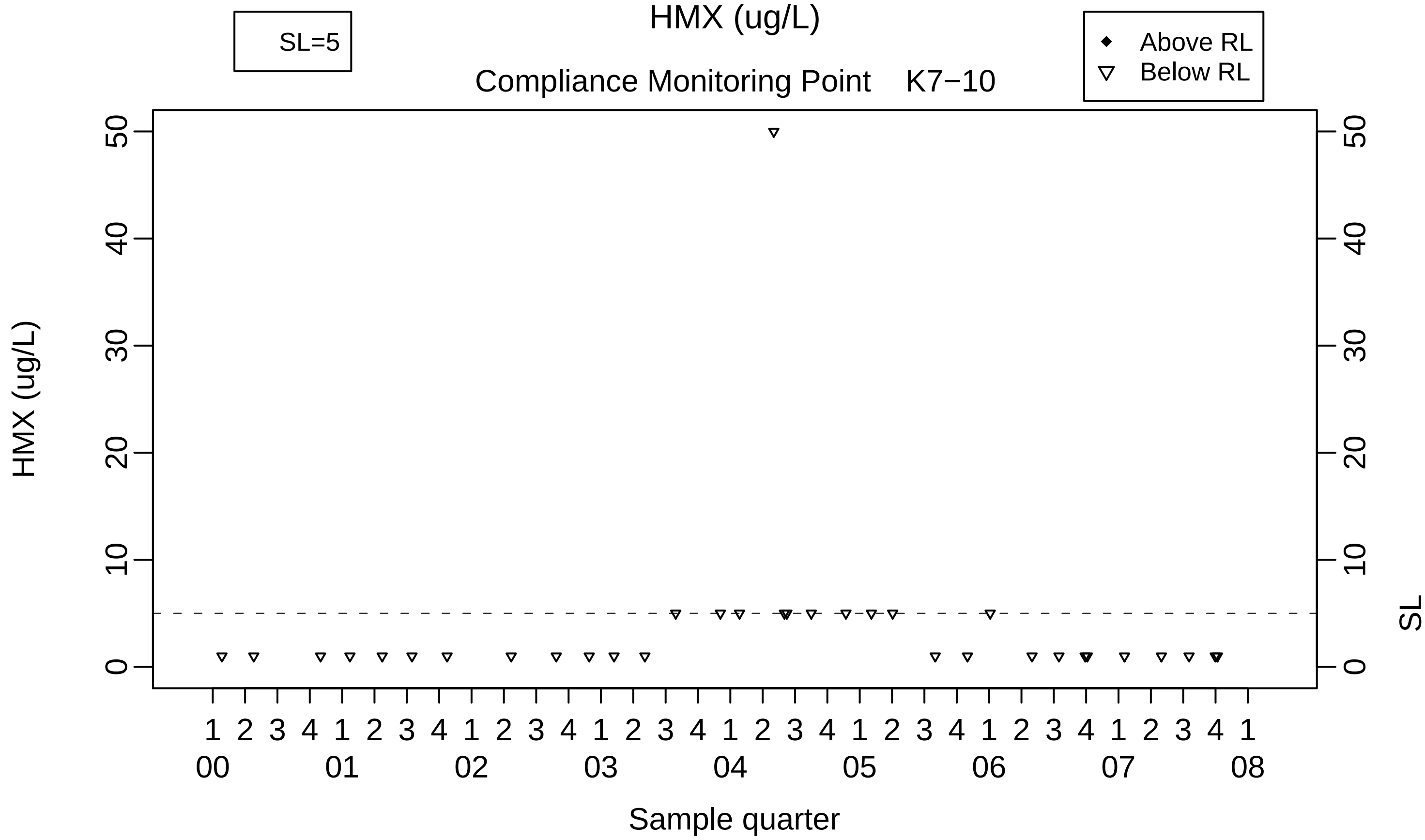


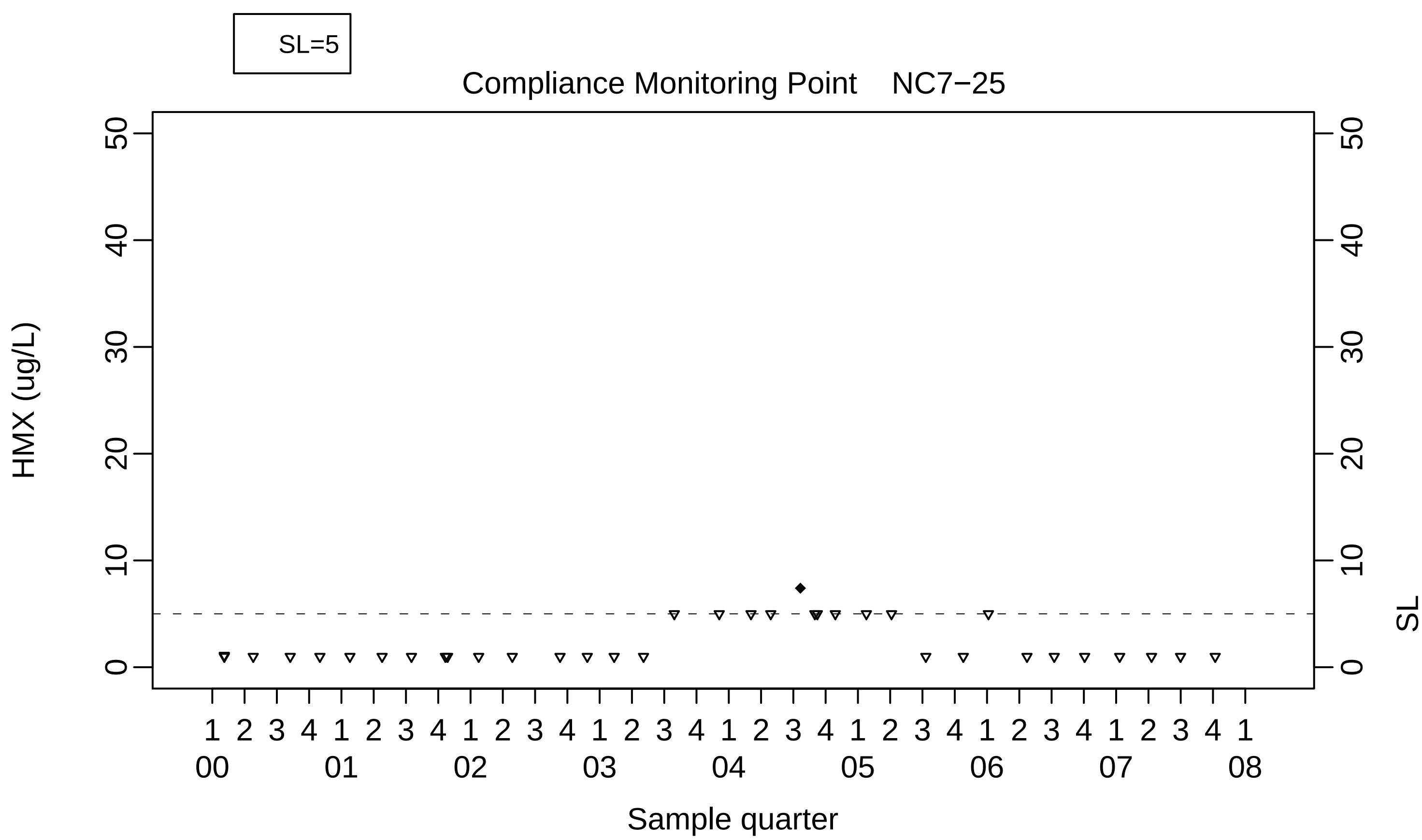



Pit 7 Complex
HMX (ug/L)
SL=5
Above RL
Below RL
Compliance Monitoring Point K7−03
HMX (ug/L)
SL
0
10
20
30
40
50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

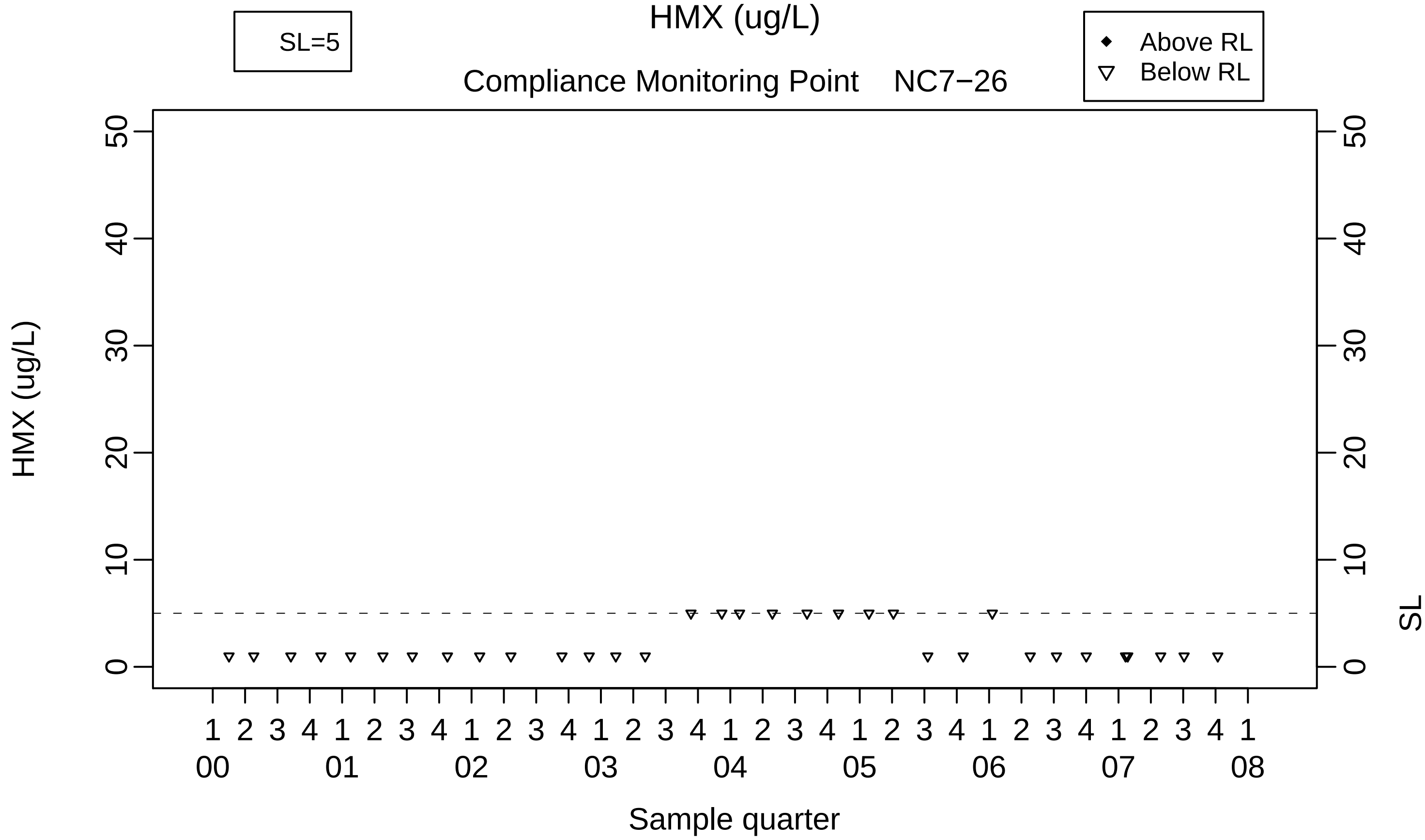

SL=5
Compliance Monitoring Point K7−09
HMX (ug/L)
SL
0
10
20
30
40
50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

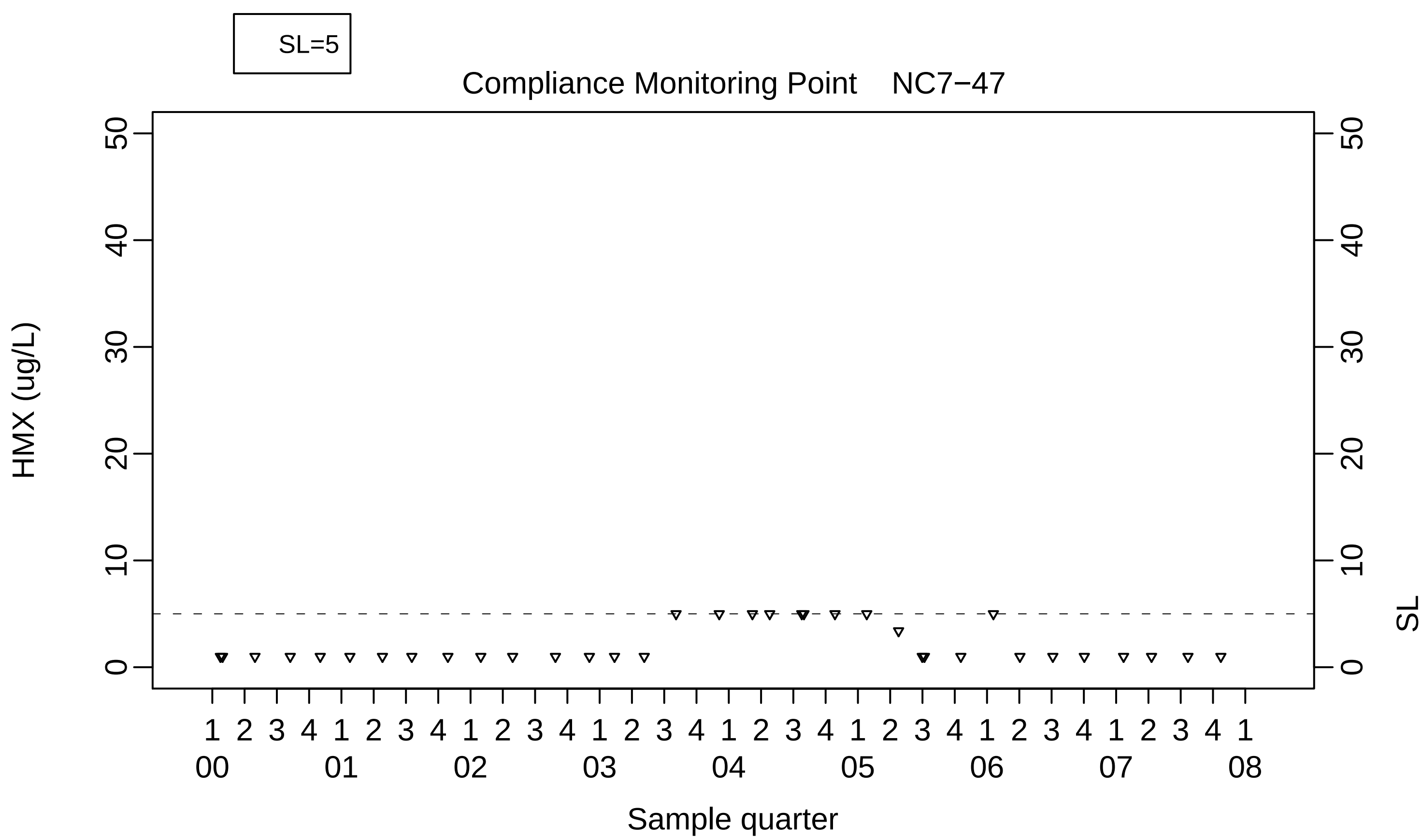
Pit 7 Complex
HMX (ug/L)

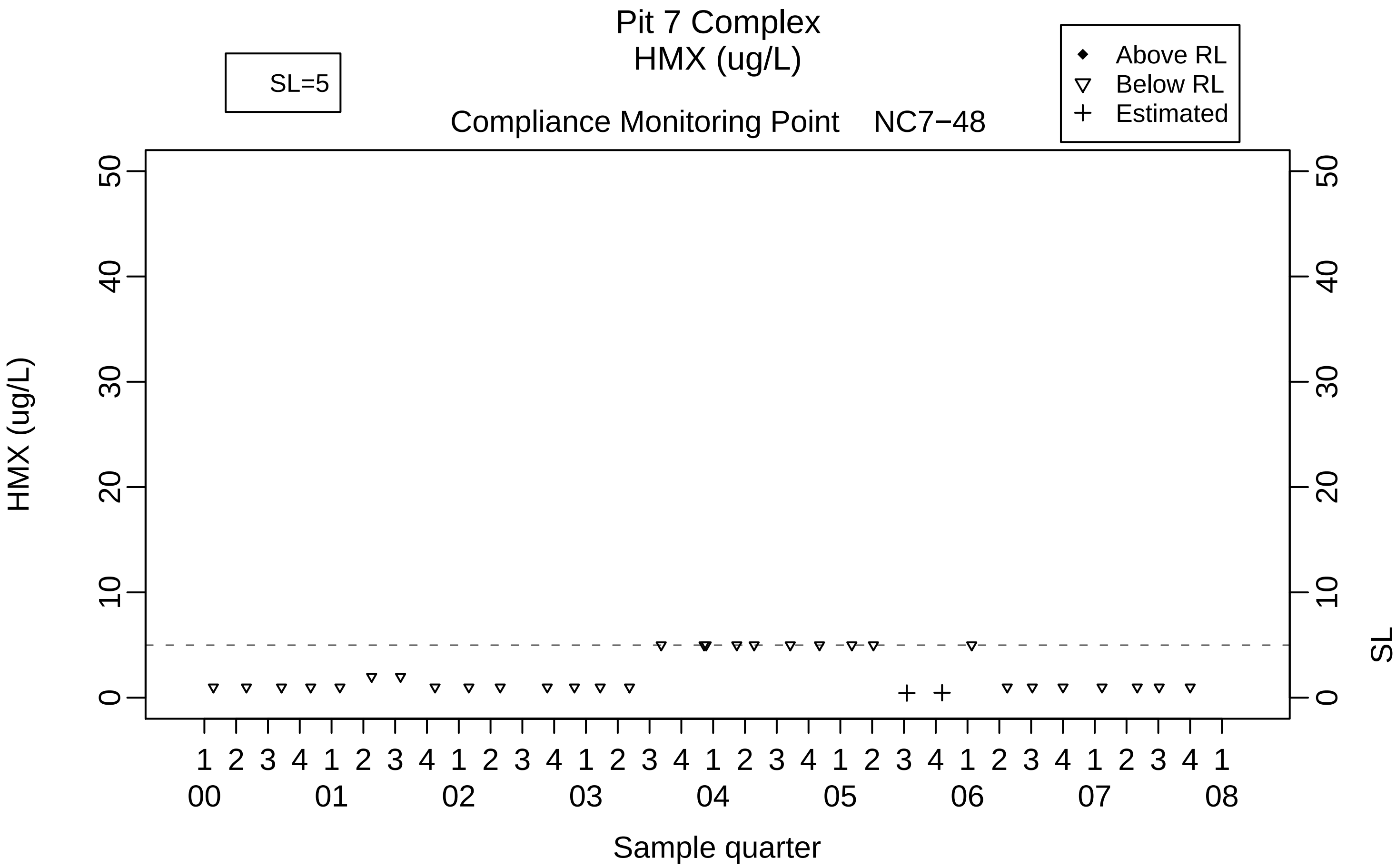




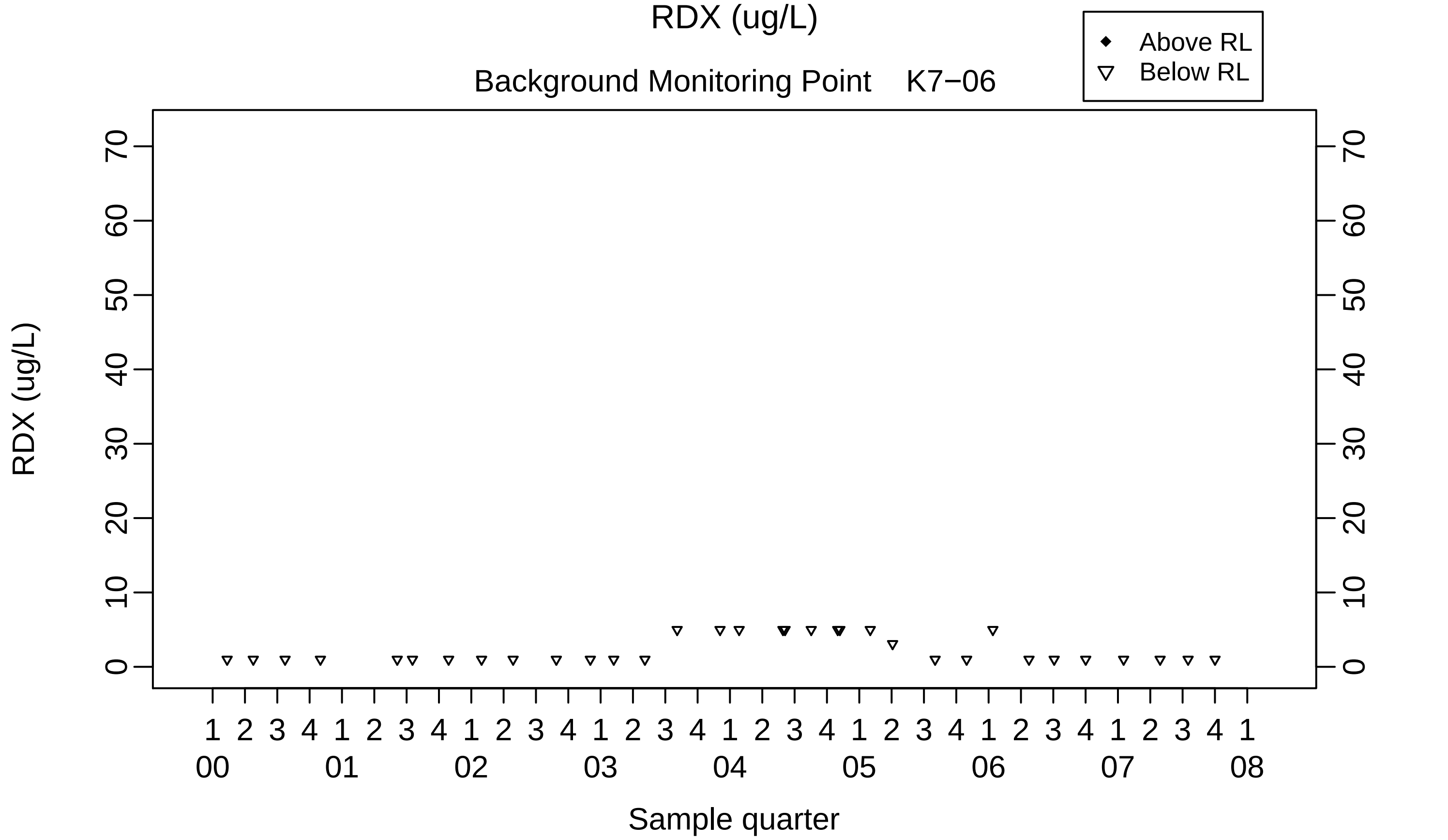
Pit 7 Complex
HMX (ug/L)

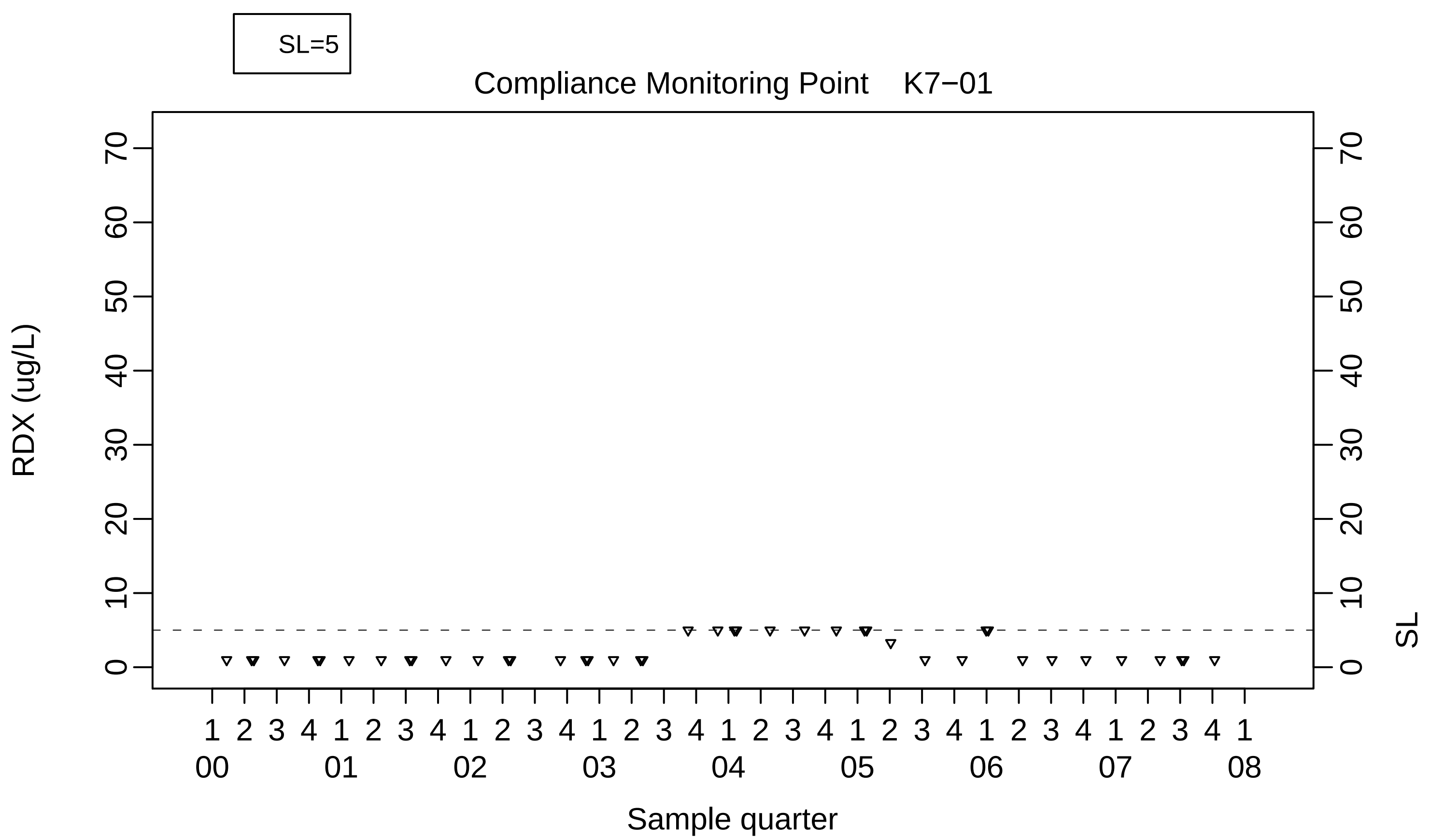


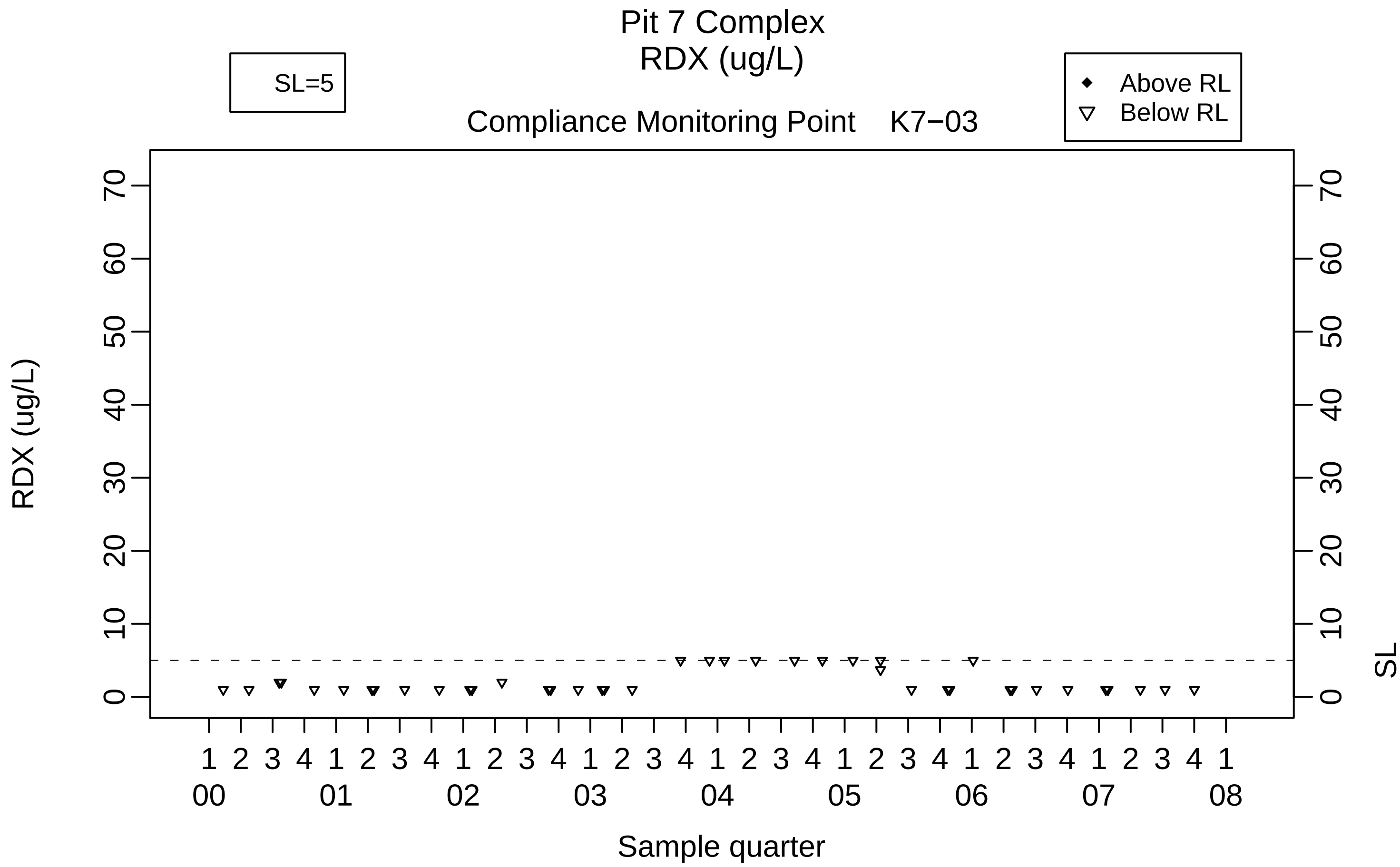


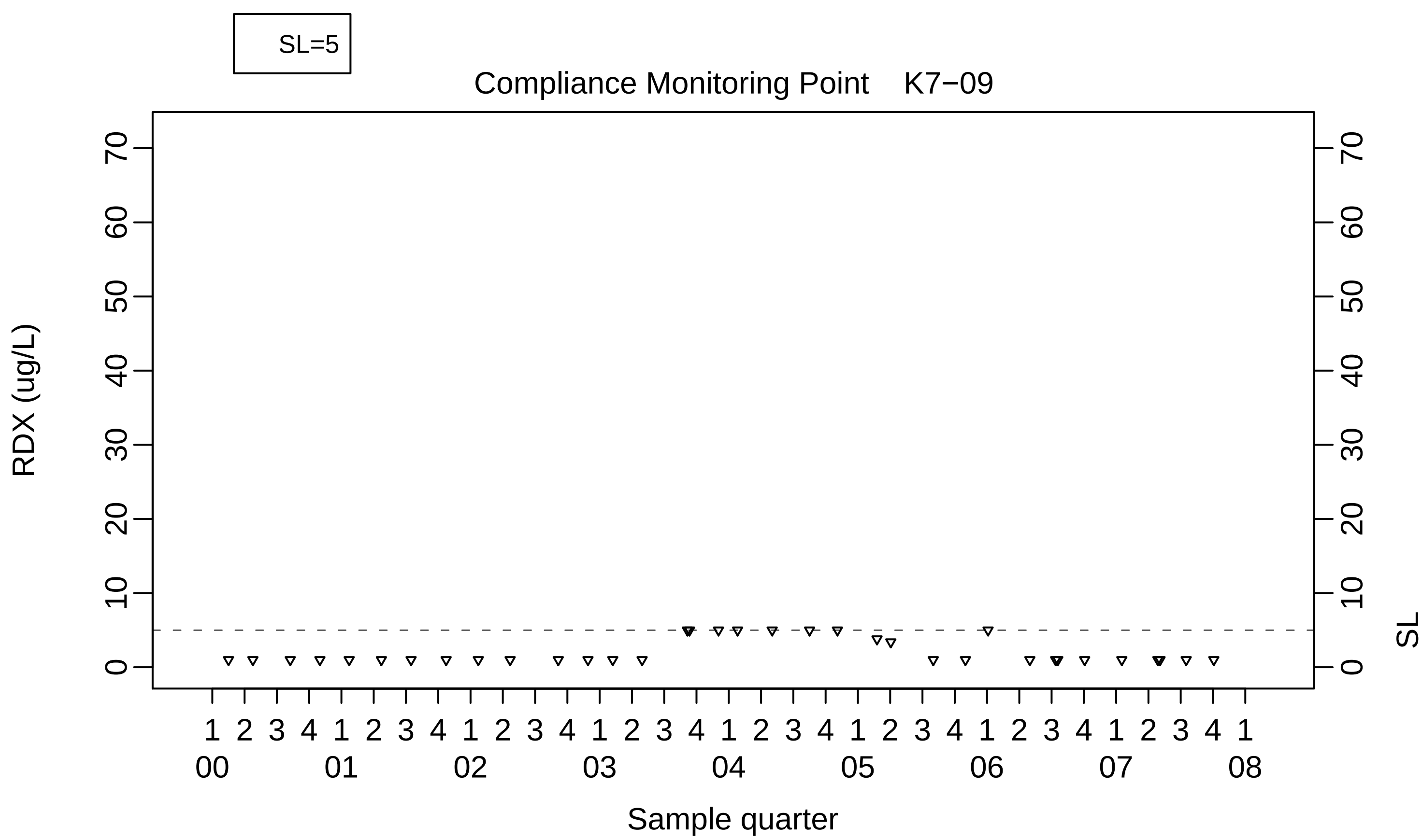

Pit 7 Complex
HMX (ug/L)
SL=5
Above RL
Below RL
Estimated
Compliance Monitoring Point NC7−48
HMX (ug/L)
SL
0
10
20
30
40
50
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

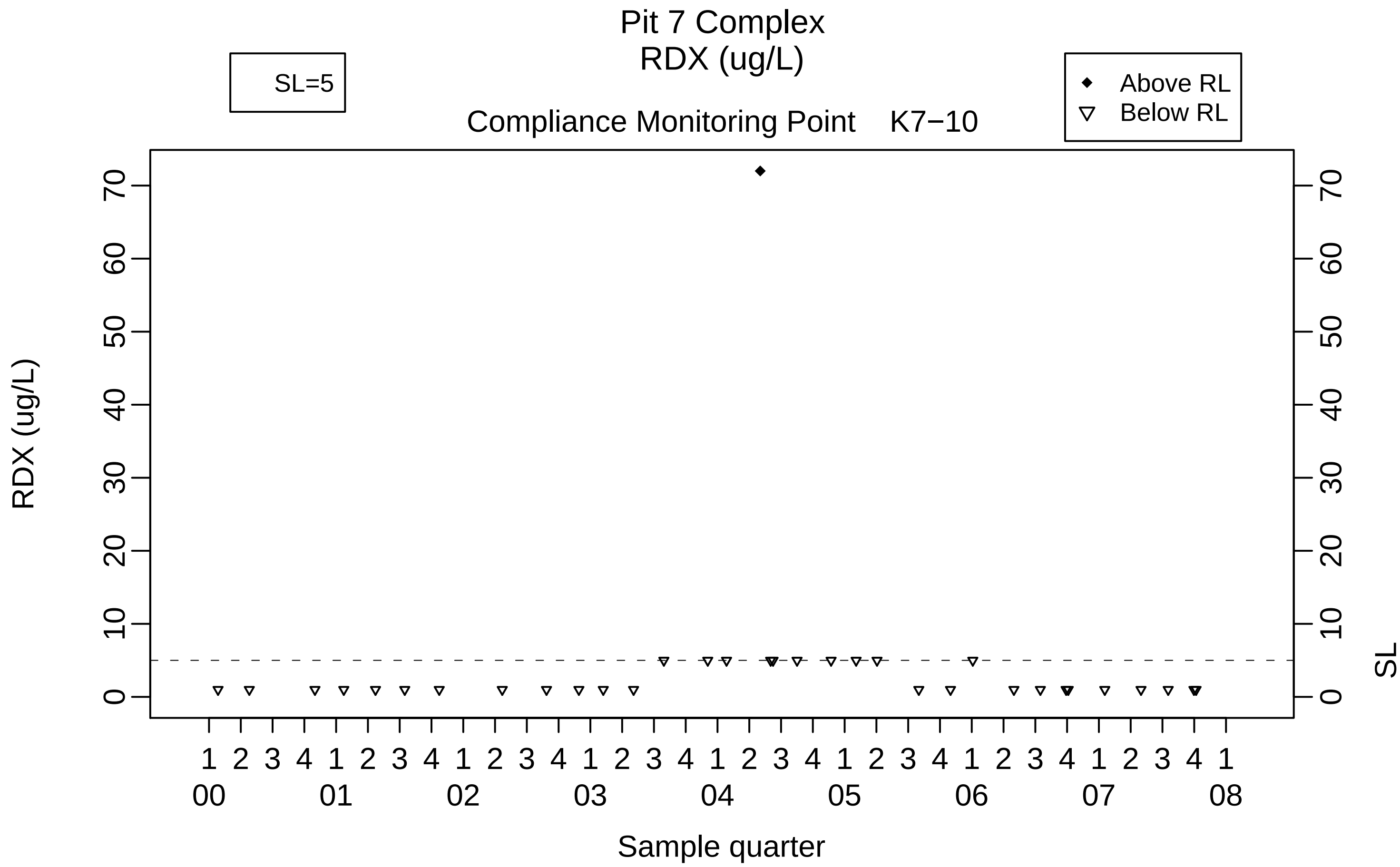
Pit 7 Complex
RDX (ug/L)

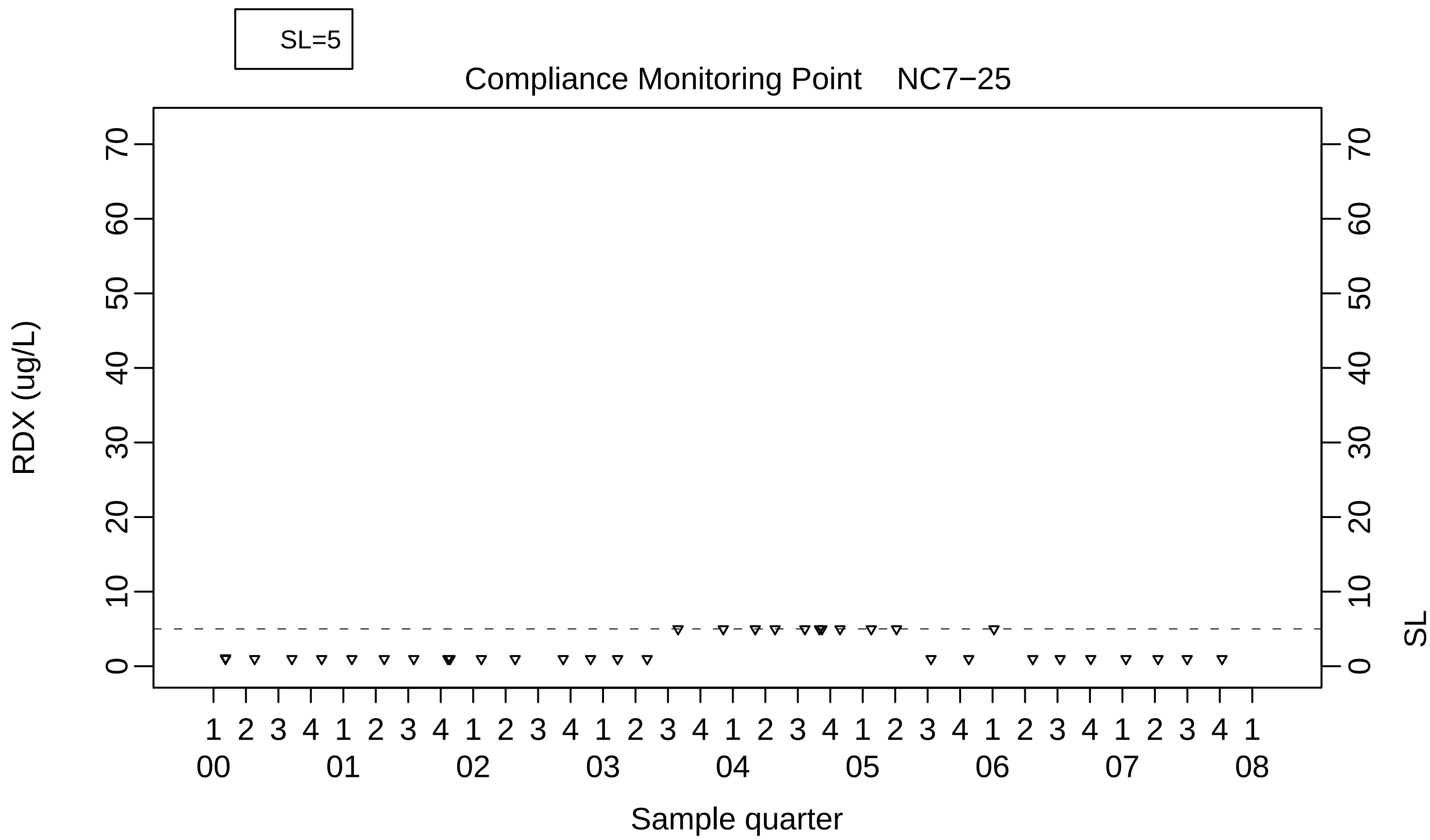


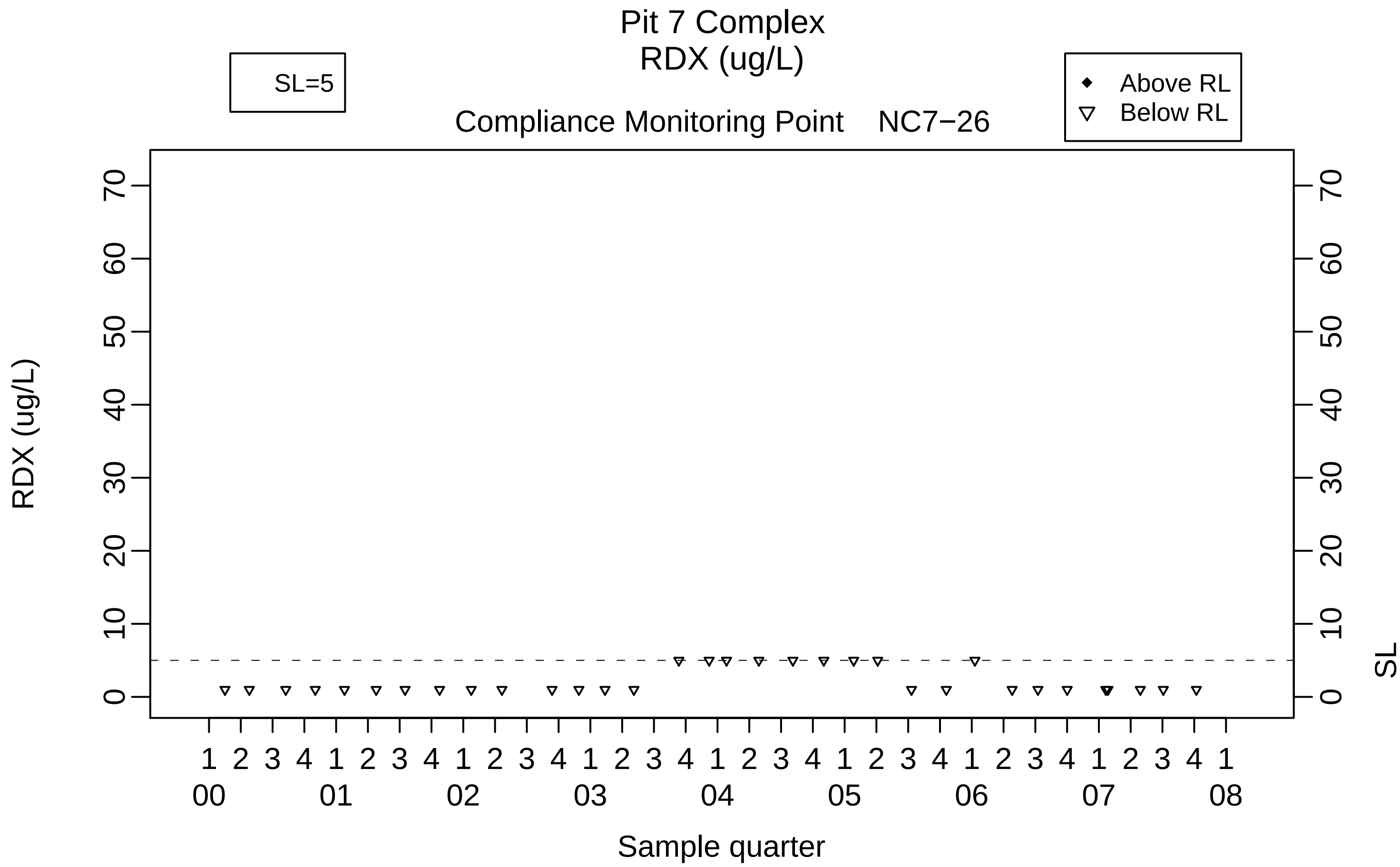



Pit 7 Complex
RDX (ug/L)
SL=5
Above RL
Below RL
Compliance Monitoring Point K7−03
RDX (ug/L)
0 10 20 30 40 50 60 70
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

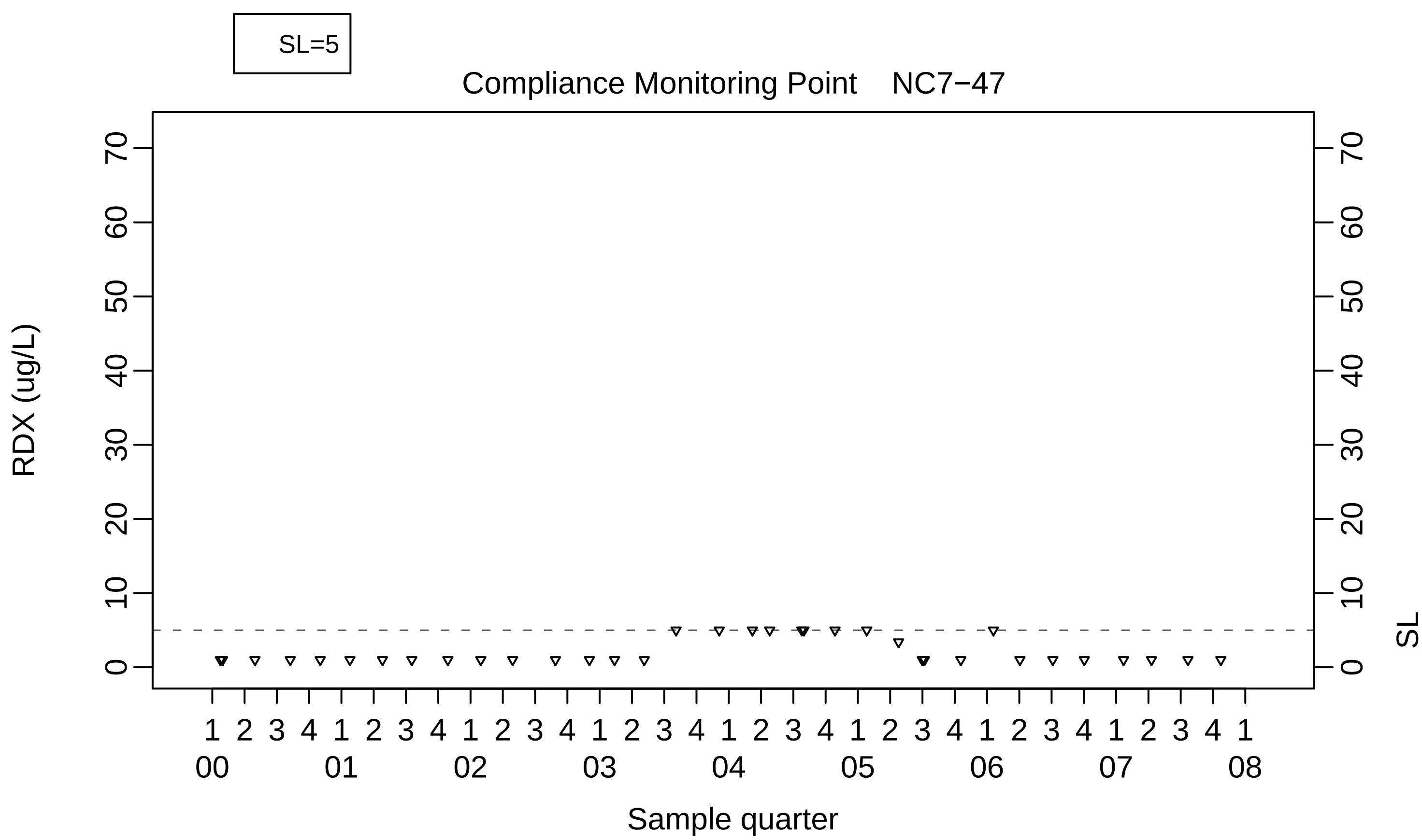

SL=5
Compliance Monitoring Point K7−09
RDX (ug/L)
0 10 20 30 40 50 60 70
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 7 Complex
RDX (ug/L)
SL=5
Above RL
Below RL
Compliance Monitoring Point K7−10
RDX (ug/L)
SL
0 10 20 30 40 50 60 70
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

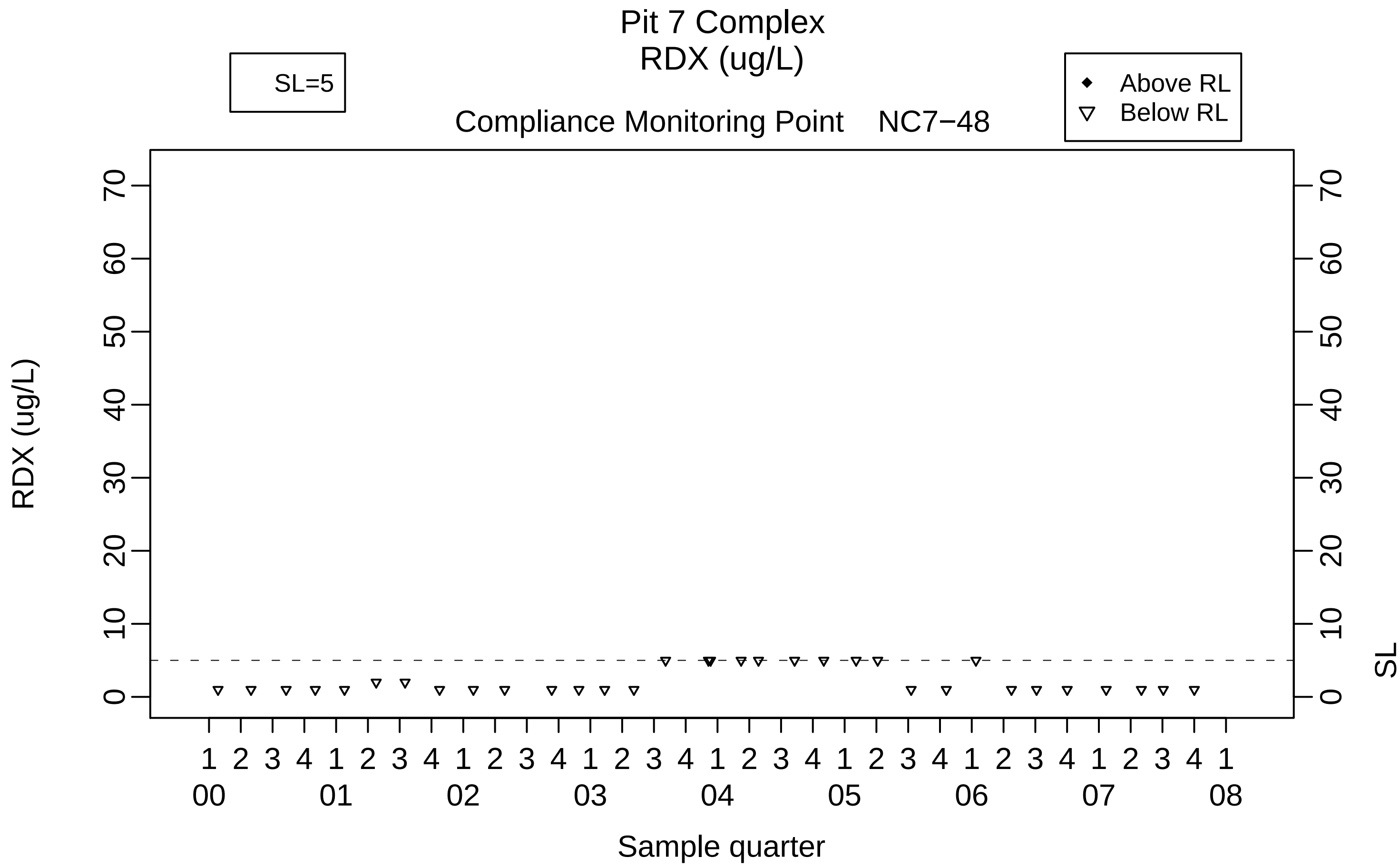

SL=5
Compliance Monitoring Point NC7−25
RDX (ug/L)
SL
0 10 20 30 40 50 60 70
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter



Pit 7 Complex
RDX (ug/L)
SL=5
Above RL
Below RL
Compliance Monitoring Point NC7−26
RDX (ug/L)
SL
0
10
20
30
40
50
60
70
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter



SL=5
Compliance Monitoring Point NC7−47
RDX (ug/L)
SL
0
10
20
30
40
50
60
70
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter


Pit 7 Complex
RDX (ug/L)
SL=5
Above RL
Below RL
Compliance Monitoring Point NC7−48
RDX (ug/L)
0
10
20
30
40
50
60
70
SL
1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1
00 01 02 03 04 05 06 07 08
Sample quarter

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