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Part I

**H-Area Hazardous Waste Management Facility Correction Action
Report, Third and Fourth Quarter 1998, Volumes I and II**

by

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RECORDS ADMINISTRATION



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H-AREA HAZARDOUS WASTE MANAGEMENT FACILITY CORRECTIVE ACTION REPORT (U)

THIRD AND FOURTH QUARTER 1998

Volume I

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Executive Summary

The groundwater in the uppermost aquifer beneath the H-Area Hazardous Waste Management Facility (HWMF), also known as the H-Area Seepage Basins, at the Savannah River Site (SRS) is monitored periodically for various hazardous and radioactive constituents as required by Module III, Section D, of the 1995 Resource Conservation and Recovery Act (RCRA) Renewal Permit (South Carolina Hazardous and Mixed Waste Permit SC1-890-008-989), effective October 5, 1995 (hereafter called the RCRA permit). Currently, the H-Area HWMF monitoring network consists of 130 wells of the HSB series and 8 wells of the HSL series screened in the three hydrostratigraphic units that make up the uppermost aquifer beneath the H-Area HWMF (Figures 2-5, Appendix B). This report presents the results of the required groundwater monitoring program as identified in Section IIID.H.11.c of the RCRA permit and Section C of the Underground Injection Control (UIC) permit application (hereafter referred to as the UIC application).

As shown in Table C-1 (Appendix C), the following constituents or summations exceeded the Groundwater Protection Standards (GWPS) in wells at the H-Area HWMF during the second half of 1998: beta dose, cobalt, lead, mercury, nitrate-nitrite (as N), tin, total radium, tritium, vanadium, bis(2-ethylhexyl) phthalate, gross alpha, nonvolatile beta, and the sums of both alpha- and beta-emitting radionuclides.

In addition, the following radionuclides individually exceeded the standard for either sum of alpha emitters or sum of beta emitters: carbon-14, iodine-129, radium-226, strontium-90, technetium-99, and uranium-233/234. Radium-226 alone exceeded the standard for total radium.

Tritium was the primary constituent detected above the GWPS; it was elevated in 91 (65%) of the wells. Mercury was the only metal that exceeded the GWPS in more than 10 wells. Bis(2-ethylhexyl) phthalate in three wells was the only organic constituent that definitively exceeded the GWPS during the second half of 1998.

Isoconcentration maps included in Volume II of this report indicate both the concentration or activity and the extent of the contamination during the second half of 1998 in each of the three hydrostratigraphic units.

Tritium, the radionuclide most frequently above the GWPS at the H-Area HWMF, had a maximum activity of 8,500 pCi/mL in Aquifer Zone IIB₁ (Barnwell/McBean) well HSB137C during fourth quarter 1998. Maximum activities for three key radionuclides occurred in Aquifer Zone IIB₂ (Water Table) wells: nonvolatile beta, 2,700 pCi/L in well HSB115D during fourth quarter, and iodine-129, 110 pCi/L in well HSB114D and strontium-90, 930 pCi/L in well HSB115D, both during third quarter. The maximum activity for gross alpha, 58 pCi/L in HSB102D, occurred in the fourth quarter.

Nitrate-nitrite (as N) had a maximum concentration of 44,000 µg/L in Aquifer Zone IIB₁ (Barnwell/McBean) well HSB137C during fourth quarter 1998. Mercury had a maximum concentration of 19 µg/L in Aquifer Zone IIB₂ (Water Table) well HSB106D during third quarter.

Water-level maps indicate that the groundwater velocities and directions at the H-Area HWMF have remained relatively constant since the basins ceased operation in 1988. Groundwater flow in Aquifer Zone IIB₂ (Water Table) for third and fourth quarter 1998 was south or southwest and in Aquifer Zone IIB₁ (Barnwell/McBean) south to southeast toward Fourmile Branch. Flow in Aquifer Unit IIA (Congaree) was northwest toward Upper Three Runs Creek.

The estimated maximum groundwater velocities during the second half of 1998 ranged from approximately 770 to 880 ft/year during third quarter and from 690 to 840 ft/year during fourth quarter in Aquifer Zone IIB₂ (Water Table). In Aquifer Zone IIB₁ (Barnwell/McBean), velocity estimates ranged from 230 to 280 ft/year during third quarter and from 210 to 230 ft/year during fourth quarter. The estimated velocity in Aquifer Unit IIA (Congaree) was 320 ft/year for third quarter and 310 ft/year for fourth quarter 1998.

The H-Area Groundwater Remediation Wastewater Treatment Units (WTU) facility operating permit was received on July 7, 1997, and shakedown operations began on July 8, 1997. The WTUs operated in a shakedown mode through fourth quarter 1998.

Semiannual Corrective Action Report

Introduction

SRS monitors groundwater quality at the H-Area Hazardous Waste Management Facility (HWMF) and provides results of this monitoring to the South Carolina Department of Health and Environmental Control (SCDHEC) semiannually as required by the Resource Conservation and Recovery Act (RCRA) permit. SRS also performs monthly sampling of the WTU effluent in accordance with Section C of the Underground Injection Control (UIC) application.

The H-Area HWMF is described in the introduction to Module III, Section D, of the RCRA permit. The H-Area HWMF well network monitors three distinct hydrostratigraphic units in the uppermost aquifer beneath the facility. The hydrostratigraphy at the H-Area HWMF is described in RCRA permit Section IIID.H.2, and the groundwater monitoring system is described in IIID.H.4 and Appendix IIID-B. A detailed description of the uppermost aquifer is included in the RCRA Part B post-closure care RCRA permit renewal application for the H-Area HWMF submitted to SCDHEC in October 1993.

Sampling and analysis are conducted as required by Section IIID.H.6 for the constituents and at the intervals specified in Appendix IIID-D of the RCRA permit. Groundwater quality is compared to the Groundwater Protection Standards (GWPS) list described in Appendix IIID-A of the RCRA permit.

System Evaluation

The H-Area Wastewater Treatment Unit (WTU) continued in a shakedown mode during the third and fourth quarter 1998. Consistent flow rates were limited due to ongoing system testing. Full-scale operation was not initiated due to various problems with the WTU. SRS has initiated a significant effort to identify and correct the problems that have been encountered during shakedown operations.

A statistical evaluation of water quality and water level data was performed and is included in this report (Section IIID.H.11.c.ix). Shewhart-CUSUM charts (Appendix F) are provided in accordance with the RCRA permit application. Due to limited operations during 1998, no significant effects due to remediation system operation were identified. However, several trends in water quality and water levels were identified as discussed in Section IIID.H.11.c.ix.

Water Quality and Elevation Data Tables (IIID.H.11.c.i)

Water-quality and water-elevation data for the second half of 1998 for all H-Area HWMF wells are presented in Table C-1 (Appendix C). Table C-1 identifies field parameters and modifiers that define laboratory accuracy and precision. Definitions of the abbreviations and the modifiers, as well as descriptions of holding times, data rounding, and data qualification practices are also provided in Appendix C. Constituents that exceeded either the GWPS or United States Environmental Protection Agency (US EPA)-approved holding times are denoted by symbols in columns headed ST and H, respectively.

SRS implemented a data filtering process during third and fourth quarter 1998 to better evaluate the data collected. This process qualifies certain data ("L", "R", "U", and "J") for the purposes of regulatory decision making. The data tables in Appendix C include both a column for all data collected and a column for filtered data for comparison purposes. Permission to implement the data filtering process was requested from SCDHEC (Cook to Taylor; November 25, 1997) and granted (Taylor to Cook; April 21, 1998).

Variable-speed pumps have been installed in wells with a history of elevated analytical results for metals. Samples from wells with variable-speed pumps can be collected at a slower rate to minimize turbidity, which has been associated with elevated metals levels. The chart below identifies those wells that currently have variable-speed pumps as well as those with single-speed pumps.

Variable-Speed Pumps	Single-Speed Pumps
HSB 67, 68, 69, 84A, 84D, 86C, 86D, 101D, 102D, 103D, 104D, 105D, 106D, 107D, 108D, 110D, 111D, 111E, 112D, 112E, 113D, 114C, 114D, 116C, 116D, 117C, 125D, and 136D HSL 1D, 2D, 3D, 4D, 5D, 6D, 7D, and 8D	All remaining HSB wells have single-speed pumps

Analytical Results

All data received from the laboratories are validated and verified in accordance with Savannah River Site (SRS) and US EPA guidelines. Due to analytical limitations, curium-245/246 activities are reported as an upper limit of curium-246 activities, and uranium-233/234 activities are reported as an upper limit of uranium-234.

Data received from the laboratories for the following radionuclide analyses were rejected during third quarter due to matrix interference: thorium-228 (in wells HSB102D, HSB112E, HSB113C, and HSB115D) and iodine-129 (in well HSB116D).

Well HSB141C was abandoned on November 2, 1998. Well HSB141CR had previously replaced HSB141C for monitoring purposes.

Well HSB 65A had maintenance problems for the first two attempts at sampling, on July 1 and July 28. Maintenance was performed, and the well was successfully sampled on August 27, 1998, with no loss of permit-required data.

Well HSB119 was purged through the sample port to lower turbidity for fourth quarter 1998 sampling.

Appendix IX Analyses

During third quarter 1998, Appendix IX analyses were performed as required by the RCRA renewal permit. Sulfide in well HSB107D was the only constituent not already on the RCRA permit Groundwater Protection Standards list that was reported above its detection limit in H-Area wells. Confirmation sampling was performed during January 1999, and laboratory results are pending.

Water Elevations

Synchronous water elevations were measured during third and fourth quarter 1998 in compliance with Section IIID.H.7 of the RCRA permit. Potentiometric maps are provided in Volume II. A significant water level increase observed in most wells in the spring of 1998 is likely due to increased precipitation and associated recharge during this time period. Compared to the uppermost aquifer zone, the lower aquifer zones generally have smaller, yet more gradual increases, as would be expected from recharge effects.

Hydrographs (IIID.H.11.c.ii)

Hydrographs showing the water elevations for the H-Area HWMF are provided in Appendix E. Hydrograph data include synchronous water level measurements and water level measurements taken during sampling. A significant water level increase in most wells in the spring of 1998 is likely due to increased precipitation and associated recharge during this time period. See also section IIID.H.11.c.xiii. Compared to the uppermost aquifer zone, the lower aquifer zones generally have smaller yet more gradual increases, as would be expected from recharge effects.

Time vs. Concentration Plots (IIID.H.11.c.iii)

Appendix D contains time series plots of mercury, nitrate/nitrite, gross alpha, iodine-129, nonvolatile beta, strontium-90, and tritium data for selected wells. The wells were selected to delineate the extent of the constituent distribution, to monitor the migration of the constituents, and to follow trends of constituents present at high levels. Constituents reported as below detection were not plotted.

Isoconcentration Maps (IIID.H.11.c.iv)

Isoconcentration maps for iodine-129 and strontium-90 in the three hydrostratigraphic units during third quarter 1998 and for mercury, nitrate, gross alpha, nonvolatile beta, and tritium during fourth quarter 1998 are presented in Volume II.

Potentiometric Maps (IIID.H.11.c.v)

Piezometric and potentiometric surface maps for the monitored water-bearing units during third and fourth quarter 1998 are located in Volume II. The maps illustrate groundwater flow patterns beneath the H-Area HWMF for the third and fourth quarter 1998.

Potentiometric Cross Sections and Isoconcentration Cross-Sections (IIID.H.11.c.vi)

Potentiometric and isoconcentration cross-sections, required by RCRA permit Section IIID.H.11.c.vi, are located in Appendix B.

Groundwater Velocity and Direction (IIID.H.11.c.vii)

Horizontal velocity calculations are used to estimate the transport rate of constituents originating from the H-Area HWMF. Velocities in Aquifer Zone IIB₂ (Water Table) and Aquifer Zone IIB₁ (Barnwell/McBean) are calculated along two paths (designated flow paths A and B) to characterize the approximate maximum and minimum groundwater velocities within these units in areas associated with the basins. The velocity is calculated along a single flow path for Aquifer Unit IIA (Congaree).

Velocities are estimated using the following equation:

$$\text{Flow (ft / day)} = \frac{\text{Hydraulic Conductivity (ft / day)}}{\text{Porosity (unitless)}} \times \frac{dh(\text{ft})}{dl(\text{ft})}$$

The value dh is the difference in head, and dl is the length of the flow path. Flow path length is calculated to the nearest 100 ft for path B of Aquifer Zone IIB₁ (Barnwell/ McBean) and to the nearest 50 ft for the remaining flow paths. Maximum velocity per day is calculated and rounded to two significant digits, then multiplied by 365 and rounded to two significant digits to obtain the velocity per year. Velocity estimates vary depending upon the vertical gradient between wells, the size of the area under consideration, the number of data points, and the length and location of the flow path. Because these calculations are based on inferred or estimated parameters, velocity estimates are accurate to an order of magnitude only.

Maximum horizontal velocity estimates for the hydrostratigraphic units during third and fourth quarter 1998 are provided in Table 1.

Table 1. Horizontal Groundwater Velocities (ft/year) in the H-Area HWMF

	Aquifer Zone IIB ₂ (Water Table)	Aquifer Zone IIB ₁ (Barnwell/McBean)	Aquifer Unit IIA (Congaree)
K _h (ft/day)	20–40	1.5–10	65
Effective porosity	20%	20%	20%
dh/dl	Varies	varies	Varies
Velocity (ft/yr) (3Q98)	770–880	230–280	320
Velocity (ft/yr) (4Q98)	690–840	210–230	310

The hydraulic conductivity (K_h) values represent regional average hydraulic conductivities and may vary locally.

During both third and fourth quarter 1998, flow in Aquifer Zones IIB₂ (Water Table) and IIB₁ (Barnwell/McBean) was south along both flow paths A and B toward Fourmile Branch. Flow in Aquifer Unit IIA (Congaree) was west or northwest toward Upper Three Runs Creek during both quarters.

Extent and Severity of Groundwater Contamination (IIID.H.11.c.viii)

Constituents that exceeded the GWPS (Table A-1, Appendix A) during third and fourth quarter 1998 in the H-Area HWMF wells are denoted in Table C-1 (Appendix C).

As shown in Table C-1, the following constituents or summations exceeded the GWPS in wells at the H-Area HWMF: beta dose, cobalt, lead, mercury, nitrate-nitrite (as N), tin, vanadium, bis(2-ethylhexyl) phthalate, gross alpha, nonvolatile beta, total radium, tritium, beta dose, and the sums of both alpha- and beta-emitting radionuclides.

In addition, carbon-14, iodine-129, radium-226, strontium-90, technetium-99, and uranium-233/234 individually exceeded the standard for either total alpha emitters or total beta emitters (15 pCi/L and 50 pCi/L, respectively). Radium-226 alone also exceeded the standard for total radium.

The extent and severity of groundwater contamination is delineated by the contours above the GWPS on the isoconcentration maps (Volume II). Tritium is the most widespread contaminant and exceeds the GWPS in all three aquifers (Maps 28–30 in Appendix H). Elevated activities north of the basins are probably due to tritium sources in the burial grounds. The highest activities are downgradient of the basins in the Water Table and the Barnwell/McBean aquifer zones. Tritium is also present in the Water Table aquifer zone along the H-Area Inactive Process Sewer Line to the basins. Tritium is elevated in some Congaree wells near the western end of the basins.

Nitrate-nitrite (as N) (Maps 16–18) is present in all the aquifer zones under and south of the basins. Gross alpha (Maps 4–6), uranium-234 (Maps 31–33), uranium-238 (Maps 34–36), and iodine-129 (Maps 7–9) are present in a few wells, mostly near the western end of the basins. Nonvolatile beta and strontium-90 (Maps 19–24) are present in the Water Table aquifer zone below and south of the basins. Nonvolatile beta is also present to a lesser extent in the Barnwell/McBean aquifer zone. Technetium-99 (Maps 25–27) is present in the Water Table and Barnwell/McBean aquifer zones below and south of the western end of the basins. Mercury (Maps 13–15) is present in the Water Table and Barnwell/McBean aquifer zones below and south of the eastern end of the basins.

Background Results

Wells HSB 66, 83A, and 85B are the background wells for the H-Area HWMF. They are screened in the Water Table, Middle Congaree, and lower Barnwell/McBean aquifer zones, respectively. No constituents were found to exceed their GWPS in any of the three background wells during third and fourth quarter 1998.

Tritium has historically been above its GWPS of 20 pCi/mL in well HSB 66 during both third and fourth quarter of every year since 1993 and during second quarter 1995; however, tritium levels fell to 14 in third quarter and 12 in fourth quarter 1998.

Statistical Evaluation (IIID.H.11.c.ix)

The H-Area RCRA Permit requires an annual statistical evaluation of water quality and water level data to assess significant changes or impacts associated with operation of the H-Area WTU. Constituents listed in Appendix IIID-A of the RCRA permit must be evaluated in all Point of Compliance (POC) wells and in a representative number of plume assessment wells.

Control charts have historically been used in industry and laboratories to monitor processes to determine whether the monitoring data shows a constituent either "in control" or "out of control." For groundwater monitoring, control charts can be used to monitor water quality data and to flag anomalous results. The statistical procedure employed by SRS to assess the effectiveness of corrective action is the Shewhart-CUSUM control chart, detailed in Appendix F. The chart will be used to detect both increasing and decreasing trends and to identify either sudden incursions (a contaminant slug) or steady drift (a change in plume concentration or size). Water level data will be evaluated similarly.

The selected wells for this statistical analysis include all POC wells (as listed in Table IIID-B of the RCRA permit) and a representative number of plume wells, as follows:

HSB125D	HSB129D	HSB137D
HSB126C	HSB135C	HSB139C
HSB126D	HSB135D	HSB139D
HSB127C	HSB136C	HSB145C
HSB127D	HSB136D	HSB145D
HSB129C	HSB137C	

For this evaluation, background samples consisted of all samples between the first quarter of 1991 and the last quarter of 1995. The end of 1995 was chosen as a background cutoff date to provide adequate background sample numbers and to provide control plot points for at least one year prior to startup of remediation operations.

Plotting of Results

Shewhart-CUSUM Control Plots are given in Appendix F for those constituent/well pairings that made it through the data qualification and treatment process described above. To maintain clarity and uniformity in all the control plots, the y-axis ranges have been set to between -6 and +6 standardized units.

Due to the limited operation of the WTU and the minimal available trend data since the background time period, the analysis of the control chart statistics cannot be extensive but some general comments can be made concerning the indications of gradual increases/decreases or sudden breakthroughs (or sudden drops).

In general, the charts do not show any effect from the shakedown operations. There are a number of wells that show statistically significant decreases of tritium, nonvolatile beta, and nitrate-nitrite as N, but at the same time there are also a number of wells that show statistically significant increases of these same constituents. There is no evident spatial correlation to these increases or decreases.

Evaluation of Water Quality and Water Elevation Data (IIID.H.11.c.x)

Due to the limited remediation operations, the zone of capture and drawdown has not yet been determined. No significant trends or changes have been attributed to the operation of the WTU.

Volume and Rates of Groundwater Pumped (IIID.H.11.c.xi)

Table 2 summarizes the pump rates, monthly volumes, and total volumes pumped from each extraction well during third and fourth quarter 1998. The pump rates represent the average pump rate for each well. The individual well volumes (and consequently, the average flow rates) are estimated due to instrument errors. The well totals are based on recorded well performance (PLC) and extraction totals. The total volumes extracted and injected are based on the totalizers on the extraction and injection tanks. Data are collected daily from the totalizers.

Table 2. Volume Pumped (gallons) During the Second Half of 1998

Well	Rate (gpm)	July 1998	August 1998	Sept. 1998	October 1998	Nov. 1998	Dec. 1998	6-Month Total
HEX 1	4.7	34,090	146,890	90,210	186,270	6,293	314,525	778,278
HEX 2	-	-	-	-	-	-	-	-
HEX 3	11.9	320,385	343,186	411,831	441,679	25,137	314,650	1,856,868
HEX 4	6.6	272,505	229,438	387,501	299,772	-	105,710	1,294,926
HEX 9	5.4	185,937	101,002	262,787	119,209	5,870	172,155	846,960
HEX 12	5.2	169,632	132,176	192,188	110,551	12,483	141,014	758,044
HEX 16	9.3	367,992	264,353	399,268	497,793	6,994	183,395	1,719,795
HEX 17	13.1	490,838	332,462	576,563	527,470	7,011	497,139	2,431,483
HEX 18	7.8	143,093	147,140	-	-	16,758	309,843	616,834
HEX 19	5.7	156,772	109,731	172,577	114,969	9,747	38,499	602,295
Total		2,141,244	1,806,378	2,492,925	2,297,713	90,293	2,076,930	10,905,483

Volume and Rates of Treated Groundwater Injected (IIID.H.11.c.xii)

Table 3 summarizes the pump rates, monthly volumes, and total volumes pumped to each injection well during third and fourth quarter 1998. The pump rates are the average pump rate for each well. The individual well volumes (and consequently, the average flow rates) are estimated due to instrument errors. The well totals are based on recorded well performance (PLC) and injection totals. The total volumes extracted and injected are based on the totalizers on the extraction and injection tanks. Data are collected daily from the totalizers. The difference in total volume extracted (Table 2) and total volume injected (Table 3) is due to the time delay between collecting extraction and injection readings as well as water retention in the WTU.

Table 3. Volume Injected (gallons) During the Second Half of 1998

Well	Rate (gpm)	July 1998	August 1998	Sept. 1998	October 1998	Nov. 1998	Dec. 1998	6-Month Total
HIN 1	5.4	157,867	127,937	235,332	320,089	5,608	145,691	992,524
HIN 2	6.6	105,062	179,561	341,231	389,619	9,834	159,609	1,184,916
HIN 3	5.4	190,152	105,990	235,332	287,444	8,430	123,750	951,098
HIN 4	11.1	481,809	177,387	439,286	255,223	32,319	181,550	1,567,574
HIN 5	7.9	388,512	179,560	352,998	288,702	7,079	194,840	1,411,691
HIN 6	-	-	-	-	-	-	-	-
HIN 7	-	-	-	-	-	-	-	-
HIN 8	12.0	477,537	269,341	630,421	570,650	7,028	304,548	2,259,525
HIN 9	2.7	93,006	142,651	125,510	64,865	2,804	34,354	463,190
HIN 10	3.7	145,555	69,330	113,734	129,731	9,832	76,607	544,789
HIN 11	0.4	-	-	-	-	-	66,075	66,075
HIN 12	1.1	-	-	-	-	-	174,028	174,028
HIN 13	0.5	-	-	-	-	-	82,751	82,751
HIN 14	1.1	-	-	-	-	-	200,155	200,155
HIN 15	0.9	-	-	-	-	-	170,141	170,141
HIN 16	0.3	-	-	-	-	-	50,779	50,779
HIN 17	4.0	-	508,755	-	-	-	116,352	625,107
Total		2,039,500	1,760,512	2,473,844	2,306,323	82,934	2,081,230	10,744,343

Rainfall and Recharge (IIID.H.11.c.xiii)

Figure 1 illustrates the rainfall data for H Area during third and fourth quarter 1998. Recharge to groundwater is estimated to be 30% of rainfall in the General Separations Area.

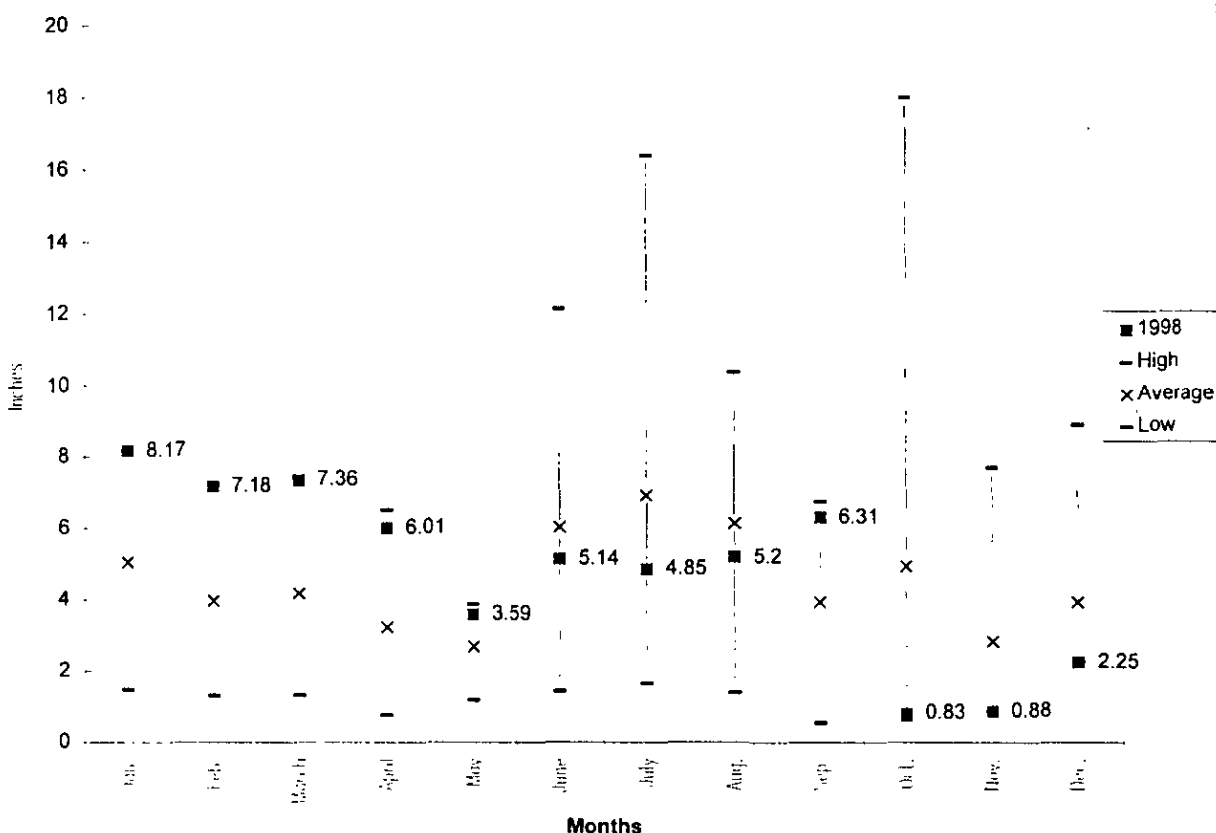


Figure 1. Rainfall Data for H Area During Third And Fourth Quarter 1998

Summary of System Downtime (IID.H.11.c.xiv)

Significant downtime for the facility was incurred because of lightning strikes in the well fields or in the vicinity of the control room programmable logic controller (PLC). The electrical surges through the system resulted in damage to well instrumentation, PLC input/output modules, and miscellaneous controls. Initial modifications consisted of the addition of in-line fuses to help protect electrical components. In addition, SRS is currently designing improved lightning protection system. The additional fuses have been effective in reducing much of the electrical damage of lightning strikes. The design is complete and scheduled for installation during second quarter 1999.

Vibration problems that have been identified during this time period will be resolved in the near future. The first area of concern is the vibration induced into the system from the positive displacement, piston-type, reverse osmosis (RO) pumps. To date, three cracks have developed in the "B" RO Pump's stainless steel inlet or outlet piping that may have been aggravated by pump vibration. A vibration analysis is being conducted and will be followed by recommendations for design modifications, as applicable. Completion of the modifications is estimated for third quarter 1999. The second area of concern is the vibration caused by the air-driven diaphragm pumps used for sludge transfer from the sludge collection tanks (flocculation tank, clarifier, or filtrate return tank) to the filter press. This vibration has contributed to problems with the system surge protectors. SRS is currently designing modifications to the sludge transfer system to reduce vibration and improve reliability. Completion of this modification is for third quarter 1999.

The H-Area facility was limited to one-RO operation due to problems associated with the clarification and sludge removal systems. Most operations and maintenance downtime problems were due to one of the following problems:

- Clogging, pump, or flow problems with the polymer feed system
- Clogging, pump, or flow problems with the ferric chloride feed system
- Clogging, pump, or flow problems with the caustic (NaOH) feed system
- Excessive carryover of the flocculant and precipitants through the clarifier due to incomplete chemical reaction and/or settling
- pH probe coating or calibration problems
- Removal of process solids caking on top of the medium in the roughing filters
- Fouling or plating of the flow control valve in the chemical feed line due to iron settling out of solution during low-flow or no-flow operating conditions.

SRS assumed operation of the WTU from the subcontractor on January 1, 1999. Upon transition to SRS operation, several modifications to improve process efficiency and reliability are anticipated.

Appendix G summarizes the operating activities and downtime for third and fourth quarter 1998.

Minor Modifications to the System (IIID.H.11.c.xv)

Subsequent to receiving the wastewater permit to operate the modified treatment system on April 30, 1998, it was determined that numerous process changes would be required to correct the problems associated with the effective operation of the treatment system. These approved temporary process changes included: installation of additional roughing filters, new PolyBlend addition system, and numerous piping reconfigurations. A permit application modification for the H-Area WTU, which incorporated these and other temporary changes, was submitted to SCDHEC on September 30, 1998. A permit to construct was issued on November 10, 1998. Implementation of the permanent changes will commence upon receipt of the permanent roughing filters.

Permanent access platforms for the ion exchangers were fabricated and installed. In addition, a permanent platform and stairway for the flocculation/sludge tank was fabricated and installed. Eight new injection wells (HIN-11 through HIN-16, HIW-11D, and HIW-21C) were added to the H-Area injection system and became operational in December 1998.

Effectiveness of the Corrective Action System (IIID.H.11.c.xvi)

The H-Area WTU operated in a shakedown mode during the third and fourth quarter 1998 but has not commenced full-scale operation. Approximately 10.7 million gallons of groundwater were treated and injected during this period. A statistical analysis was completed on the POC wells and a representative number of plume assessment wells, and this information will serve as a baseline for future reports. Due to the limited operations thus far, no direct impact to groundwater from operation of the WTU has been established. The statistical analysis did identify groundwater trends for a few constituents, and this information is discussed in Section IIIC.H.11.b.ix.

Underground Injection Control (UIC) Sampling Results

SRS collected samples to determine compliance with UIC standards as specified in the operating permit issued on April 17, 1997. The results of these samples are presented in Appendix C.

The H-Area WTU was sampled on July 30, August 20, September 22, October 13, November 23, and December 9, 1998, for the suite of contaminants specified in the current UIC permit. Results

were reported to SCDHEC both by electronic submittal and by letter. Whenever an exceedance was confirmed, SRS immediately notified SCDHEC. In each case, SCDHEC granted approval to restart/continue operating the unit based on the proposed corrective actions.

Starting with the October 1998 samples, a change was implemented in the reporting format for UIC sampling results. SRS replaced the AN95 reporting format with the AN98, the most significant change being the implementation of a sample-specific quantitation limit (ssEQL) for radionuclide results. Radionuclides were previously reported using the method detection limit as the quantitation limit. Reported detection limits that appear higher for October, November, and December may be attributable to this change.

The UIC permit divides the compliance suite of constituents into four sections: Section I, Inorganics; Section II, Organics; Section III, Radionuclides; and Section IV, Radionuclides. Section IV includes speciated radionuclide results, and Section III reports results for gross alpha, gross (nonvolatile) beta, and total radium.

No Section I or Section II constituents exceeded their respective regulatory standards during the third and fourth quarters of 1998. Only barium, mercury, cobalt, nickel, and copper regularly exceeded their respective quantitation limits during the third and fourth quarters of 1998. Mercury results were between 0.5 ppb and 1 ppb during the third and fourth quarters.

Gross alpha did not exceed its limit of 15 pCi/L; however, the October result showed an elevated quantitation limit of 29.18 pCi/L. The October raw result was only 6.03 pCi/L, and it is highly unlikely that gross alpha was over 15 pCi/L in that month. Gross (nonvolatile) beta and total radium were below their respective compliance limits of 50 pCi/L and 5 pCi/L for all six months. Gross beta reported a slightly elevated quantitation limit in October of 52.8 pCi/L; however, the raw result was 15.9 pCi/L, and it is highly unlikely that the sample was higher than 50 pCi/L.

The alpha-emitting radionuclides americium-241, curium-242, curium-243/244, curium-246, plutonium-238, plutonium-239/240, thorium-228, thorium-230, thorium-232, and uranium-235 were all below their respective detection limits during the third and fourth quarters of 1998. Radium-226 exceeded its detection limit during August but was below the compliance limit of 5 pCi/L for total radium in both of those months. Uranium-233/234 and uranium-238 exceeded their respective detection limits in July, but both remained below their respective detection limits for the other five months. The July results for both constituents were well below the sum of the alpha compliance limit of 15 pCi/L. Consequently, the sum of the alpha contributors standard was not exceeded in any month and was above a detection limit only in July and August. Overall, the sum of the alpha contributors remained relatively steady at acceptable levels during all six months of the third and fourth quarters of 1998.

Results for the beta-emitting radionuclides cesium-137, cobalt-60, nickel-63, radium-228, and technetium-99 were all below their respective detection limits during each of the six months of the third and fourth quarters of 1998. Carbon-14 exceeded its detection limit in July, September, October, and December, but no result exceeded the 50 pCi/L compliance limit for the sum of the beta contributors. Iodine-129 was detected in each month except November but remained well below the 50 pCi/L compliance limit for the sum of the beta contributors. Strontium-90 exceeded its detection limit in July, August, September, and October. During July and October, it exceeded its compliance limit of 8 pCi/L but remained below that limit in the other months. Due to the August result of 5.79 pCi/L, there was no confirmed exceedance of strontium-90 during the third and fourth quarters of 1998. Modifications performed on the H-Area WTU appear to have resulted in lower strontium-90 results during the fourth quarter of 1998. The sum of the beta contributors exceeded its compliance limit in October, but there was no confirmed exceedance; all results ranged between 11.04 pCi/L and 61.49 pCi/L. The most common contributors to that sum were iodine-129 and strontium-90. Modifications to the unit designed to control strontium-90 appear to have been successful relative to the limited operations through the end of 1998.

Appendix A

Regulatory Standards

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Table A-1. Groundwater Protection Standard

Established for the H-Area Hazardous Waste Management Facility by the 1995 RCRA Renewal Permit (SCDHEC, 1995).

Analyte	Concentration/ Activity Limit	Unit
<i>Inorganic Constituents</i>		
Antimony	6	µg/L
Arsenic	50	µg/L
Barium	2,000	µg/L
Cadmium	5	µg/L
Chromium	100	µg/L
Cobalt	3 ^a	µg/L
Copper	1,300	µg/L
Cyanide	20 ^b	µg/L
Lead	15	µg/L
Mercury	2	µg/L
Nickel	100	µg/L
Nitrate	10,000	µg/L
Selenium	50	µg/L
Silver	50	µg/L
Tin	2.6 ^a	µg/L
Vanadium	4 ^a	µg/L
Zinc	5,000	µg/L
<i>Organic Constituents</i>		
Benzene	5	µg/L
Bis(2-ethylhexyl) phthalate	10 ^c	µg/L
Dichloromethane (Methylene chloride)	5	µg/L
Tetrachloroethylene	5	µg/L
Trichloroethylene	5	µg/L
Trichlorofluoromethane	5 ^d	µg/L
<i>Radionuclide Constituents</i>		
Gross alpha	15	pCi/L
Nonvolatile beta	50 ^e	pCi/L
Tritium	20,000	pCi/L
Americium-241	Sum of alphas <15 pCi/L	pCi/L
Carbon-14	Sum of beta dose <4 mrem/yr and <50 pCi/L	pCi/L
Cobalt-60	Sum of beta dose <4 mrem/yr and <50 pCi/L	pCi/L
Curium-242	Sum of alphas <15 pCi/L	pCi/L
Curium-243/244	Sum of alphas <15 pCi/L	pCi/L
Curium-245/246	Sum of alphas <15 pCi/L	pCi/L
Iodine-129	Sum of beta dose <4 mrem/yr and <50 pCi/L	pCi/L
Nickel-63 ^f	Sum of beta dose <4 mrem/yr and	pCi/L

Analyte	Concentration/ Activity Limit	Unit
	<50 pCi/L	
Plutonium-238	Sum of alphas <15 pCi/L	pCi/L
Plutonium-239/240	Sum of alphas <15 pCi/L	pCi/L
Radium-226	Total radium <5 pCi/L	pCi/L
Radium-228	Sum of beta dose <4 mrem/yr and <50 pCi/L and total radium <5 pCi/L	pCi/L
Strontium-90	Sum of beta dose <4 mrem/yr and <50 pCi/L and strontium-90 <8 pCi/L	pCi/L
Technetium-99	Sum of beta dose <4 mrem/yr and <50 pCi/L	pCi/L
Thorium-228	Sum of alphas <15 pCi/L	pCi/L
Thorium-230	Sum of alphas <15 pCi/L	pCi/L
Thorium-232	Sum of alphas <15 pCi/L	pCi/L
Total alpha-emitting radium ⁹	5	pCi/L
Total radium (radium-226 and -228)	5	pCi/L
Uranium-233/234	Sum of alphas <15 pCi/L	pCi/L
Uranium-234	Sum of alphas <15 pCi/L	pCi/L
Uranium-235	Sum of alphas <15 pCi/L	pCi/L
Uranium-238	Sum of alphas <15 pCi/L	pCi/L

- a Concentrations are observed background levels.
- b Concentration is the practical quantitation limit (PQL) for EPA Method 335.2 (used by WA) and 335.3 (used by GE).
- c Concentration is the PQL for EPA Method 8270 as published in 40CFR Part 264, Appendix IX.
- d Concentration is the PQL for EPA Method 8240 as published in 40CFR Part 264, Appendix IX.
- e This is the screening level above which providers of public drinking water should perform analyses for specific man-made radionuclides. The standard for the total dose equivalent from all such radionuclides is 4 mrem/yr.
- f The activity of nickel-63 is calculated based on the activity of cobalt-60 until development of a reliable analytical method as required by permit condition III.C.H.6.f.
- g Results reported by this analysis, which does not distinguish among radium-223, radium-224, and radium-226, are assumed to be primarily radium-226 and are compared to the GWPs for total radium.

Table A-2. Regulatory Limits for UIC Permitted Constituents

Constituent	Reg. Limit	Unit
Section I, Inorganics		
Arsenic	50	µg/L
Barium	2,000	µg/L
Cadmium	5	µg/L
Chromium	100	µg/L
Lead	50	µg/L
Mercury	2	µg/L
Selenium	50	µg/L
Silver	50	µg/L
Section II, Organics		
Antimony	6	µg/L
Cobalt	140	µg/L
Copper	1,300	µg/L
Cyanide	200,000	µg/L
Benzene	5	µg/L
Bis(2-ethylhexyl) phthalate	140	µg/L
Methylene chloride (Dichloromethane)	5	µg/L
Nickel	100	µg/L
Tetrachloroethylene	5	µg/L
Tin	50	µg/L
Trichloroethylene	5	µg/L
Trichlorofluoromethane	100	µg/L
Vanadium	49	µg/L
Zinc	5,000	µg/L
Section III, Radionuclides		
Gross Alpha	15	pCi/L
Gross Beta	50	pCi/L
Total Radium (226+228)	5	pCi/L
Section IV, Radionuclides		
Americium-241	SOA	pCi/L
Cesium-137	SOB	pCi/L
Curium-242	SOA	pCi/L
Curium-243/244	SOA	pCi/L
Curium-246	SOA	pCi/L

Constituent	Reg. Limit	Unit
Carbon-14	SOB	pCi/L
Cobalt-60	SOB	pCi/L
Iodine-129	SOB	pCi/L
Plutonium-238	SOA	pCi/L
Plutonium-239/240	SOA	pCi/L
Nickel-63	SOB	pCi/L
Radium-226	SOR	pCi/L
Radium-228	SOR	pCi/L
Strontium-90	SOB	pCi/L
Technetium-99	SOB	pCi/L
Thorium-228	SOA	pCi/L
Thorium-230	SOA	pCi/L
Thorium-232	SOA	pCi/L
Uranium-233/234	SOA	pCi/L
Uranium-235	SOA	pCi/L
Uranium-238	SOA	pCi/L
Sum of Alphas		
Sum of Betas		

Appendix B

Figures

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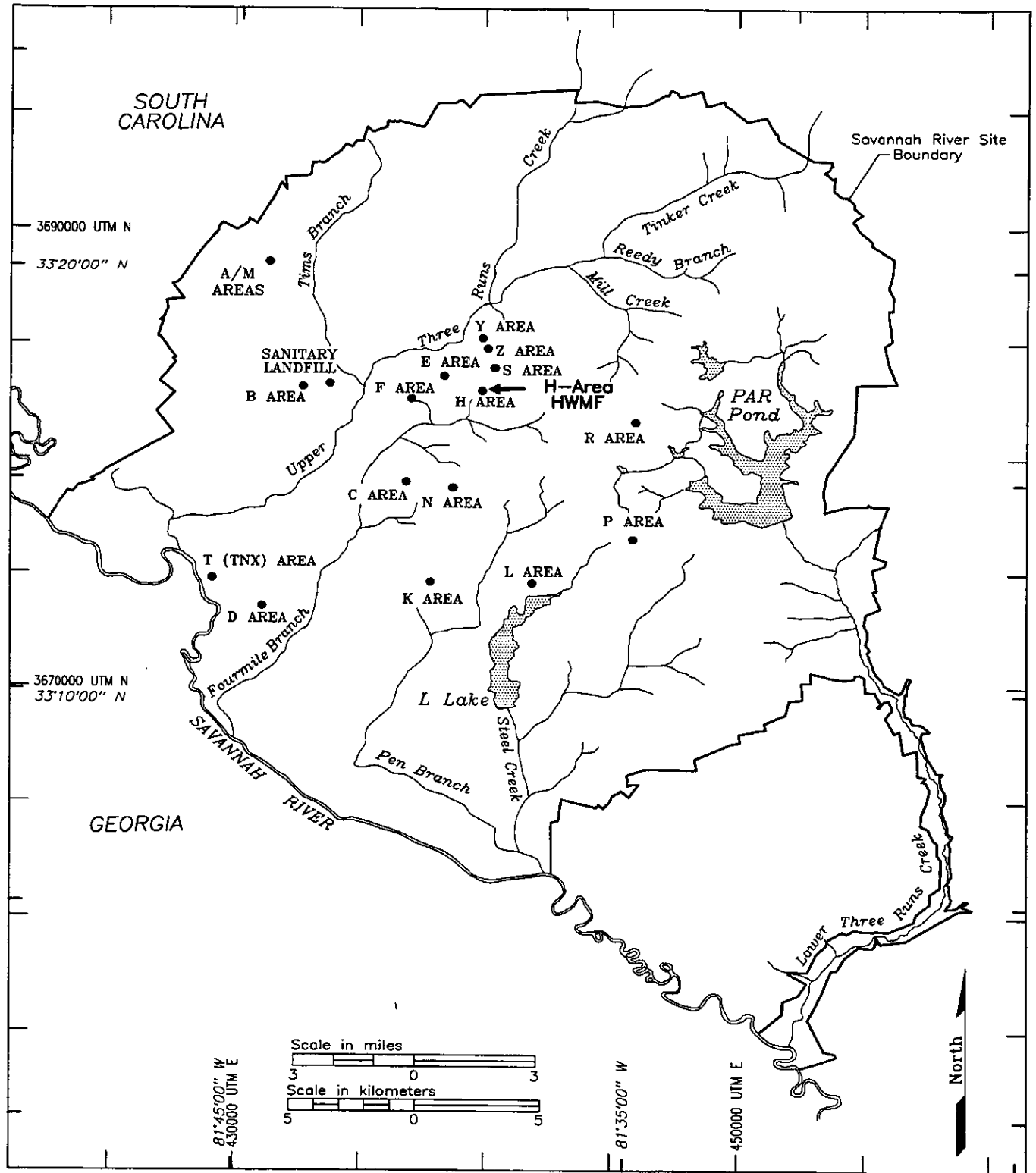


Figure 1. Location of the H-Area HWMF at the Savannah River Site



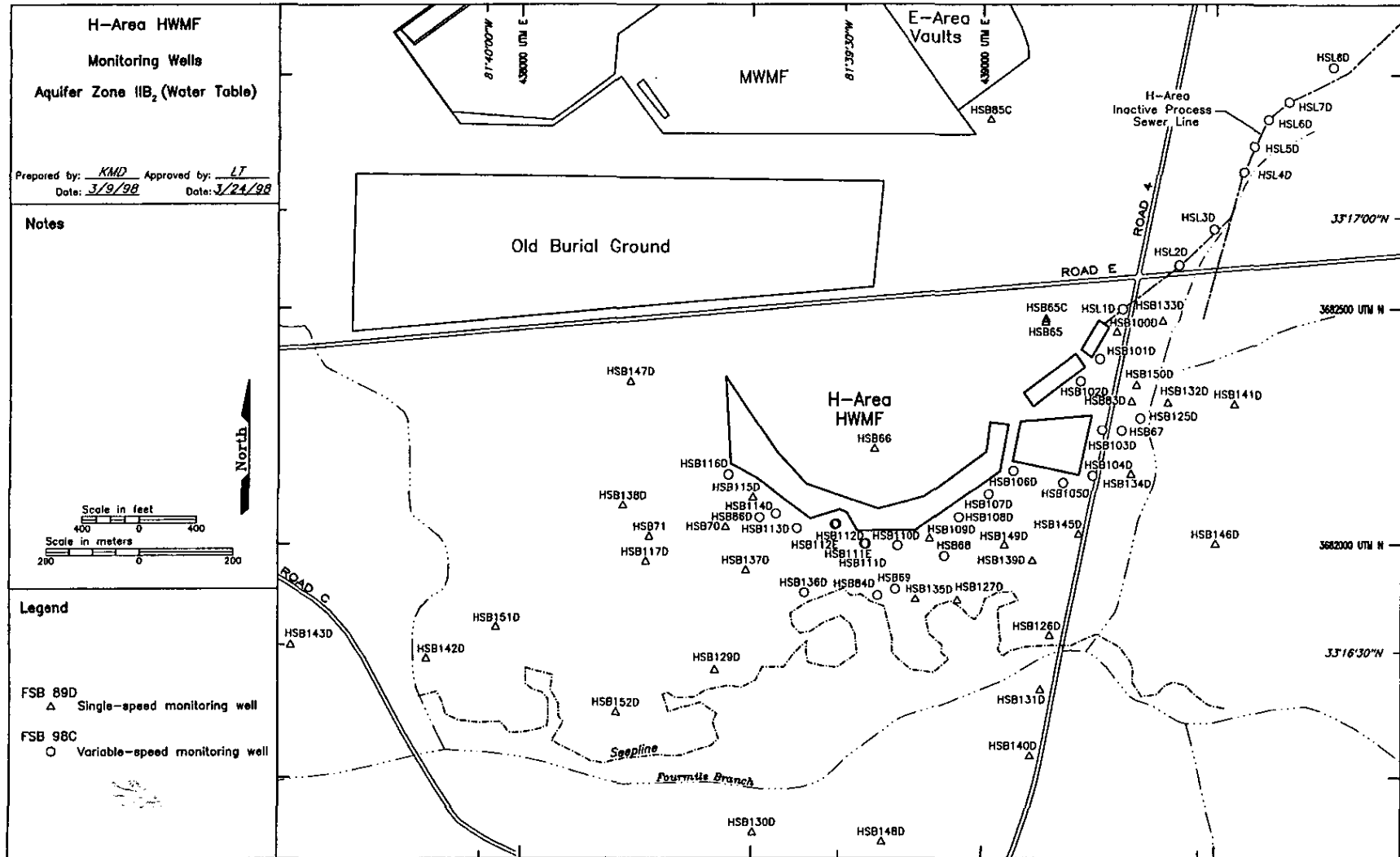


Figure 3. Location of Aquifer Zone IIB₂ (Water Table) Groundwater Monitoring Wells at the H-Area HWMF

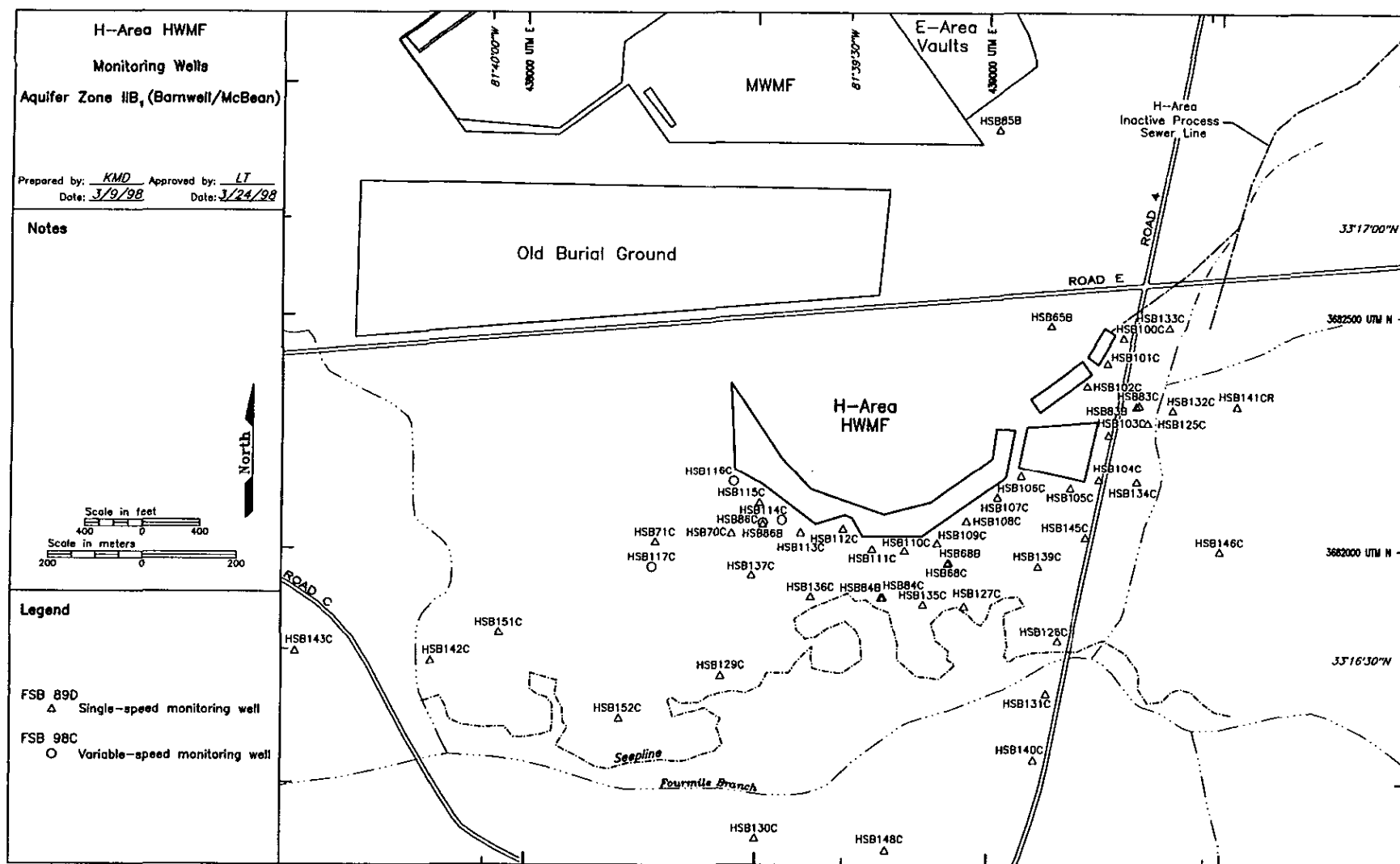


Figure 4. Location of Aquifer Zone IIB₁ (Barnwell/McBean) Groundwater Monitoring Wells at the H-Area HWMF

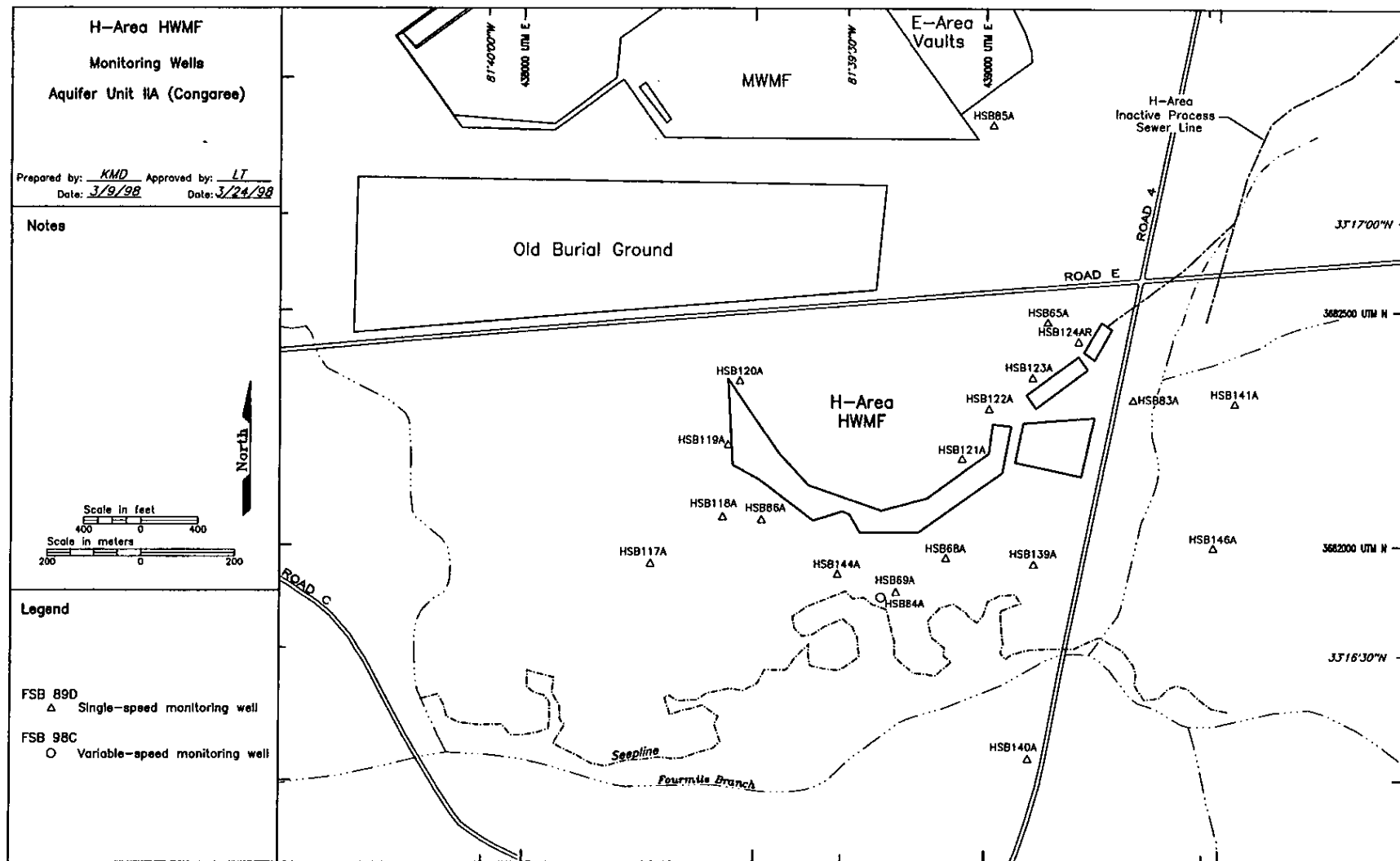


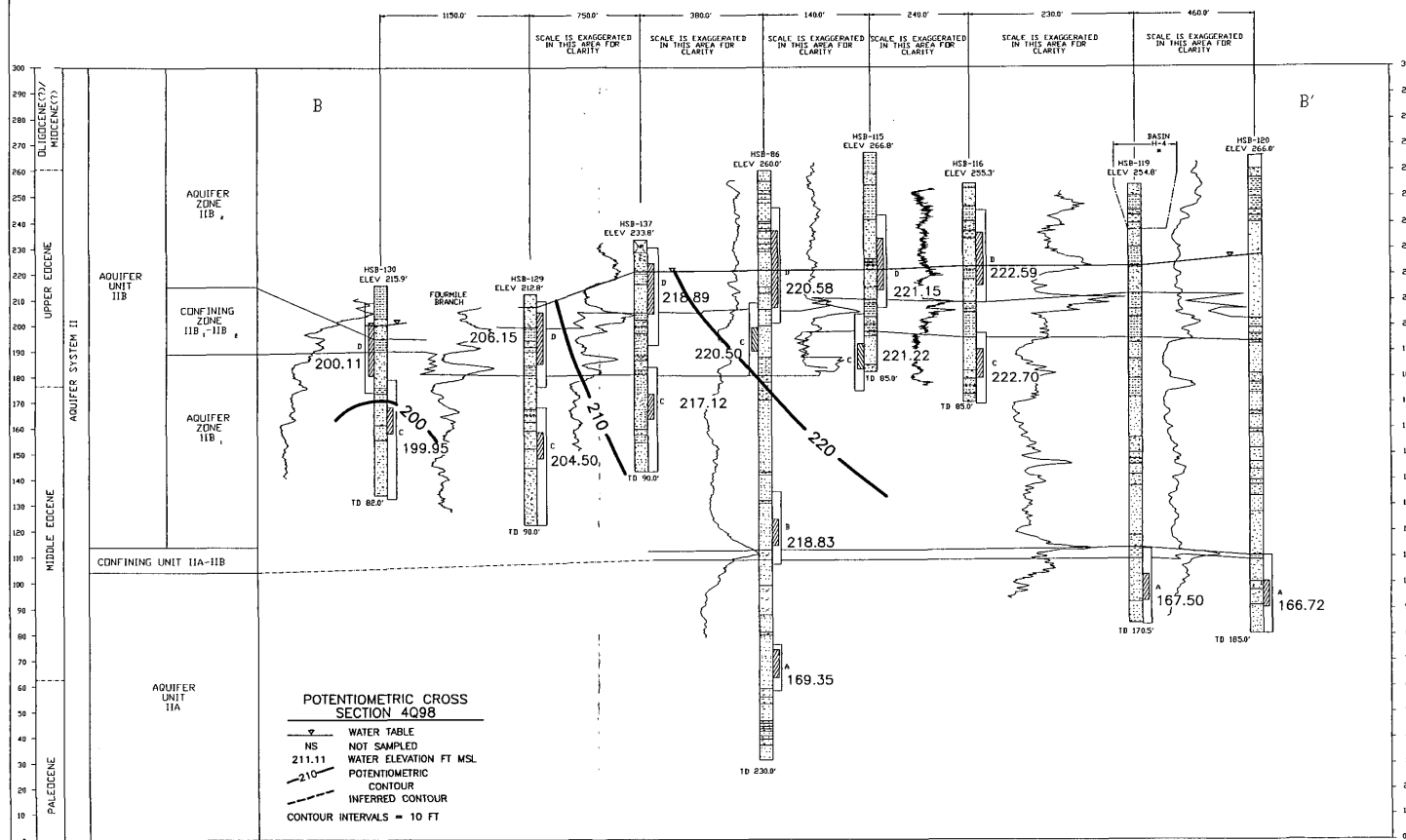
Figure 5. Location of Aquifer Unit IIA (Congaree) Groundwater Monitoring Wells at the H-Area HWMF

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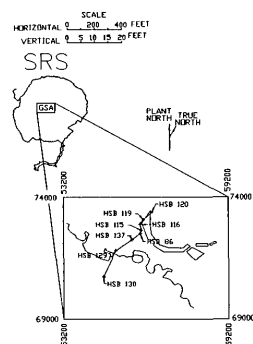
Figure 6. Hydrogeologic Cross-Section Showing Potentiometric Surfaces at the H-Area HWMF, Fourth Quarter 1998

Figure 7. Hydrogeologic Cross-Section Showing Mercury Concentrations at the H-Area HWMF, Fourth Quarter 1998

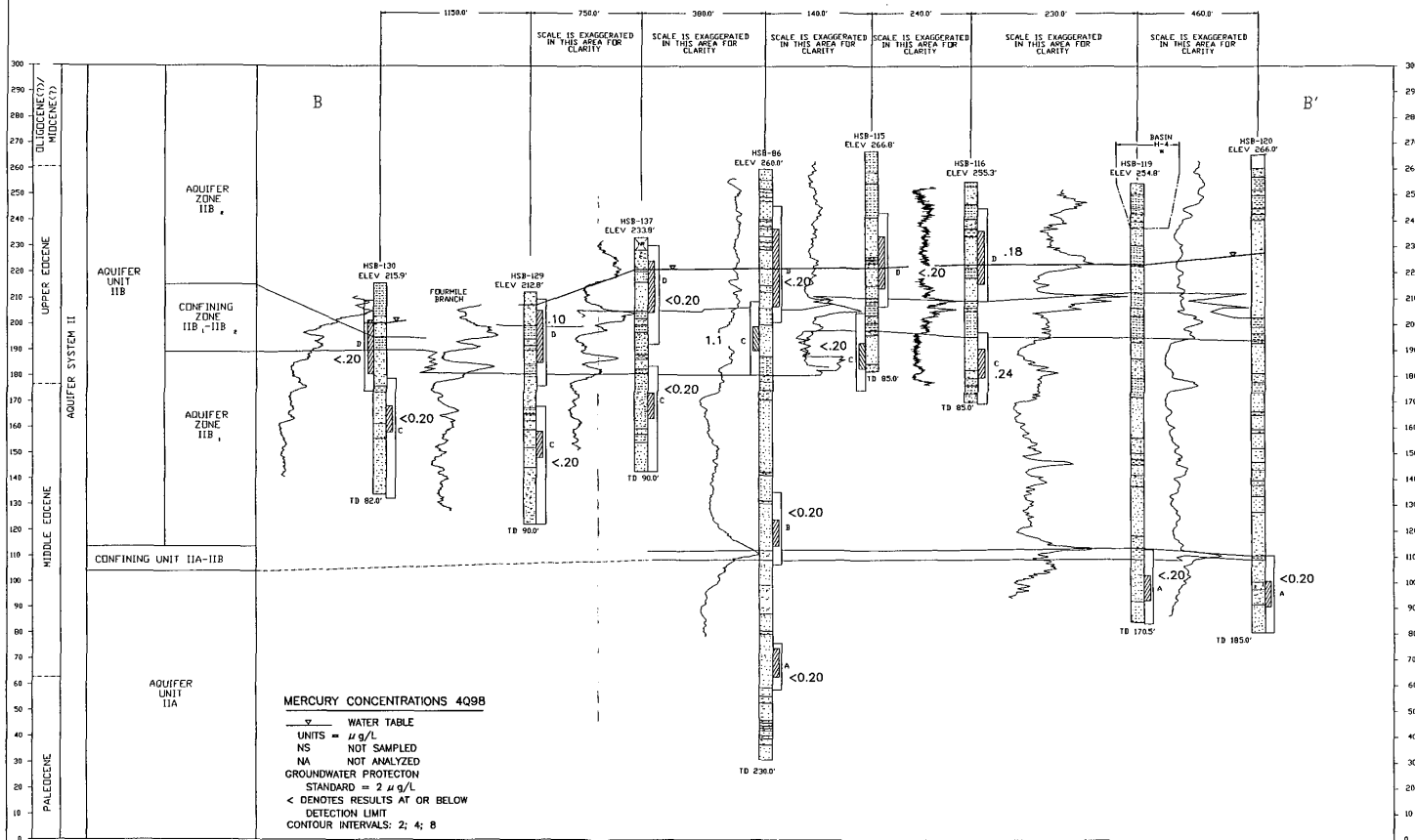
H AREA SEEPAGE BASINS HYDROSTRATIGRAPHIC CROSS-SECTION B



SAND PACK INTERVAL -
 INCLUDES MONTICITE SEAL
 SCREENED INTERVAL
 TD = TOTAL DEPTH
 GSA = GENERAL SEPARATIONS AREA
 NR = NO RECOVERY
 * BASIN N-4 PLACED TO SCALE
 RELATIVE TO HSB-119
 - - - CONFINING ZONE, UNIT, AND SYSTEM BOUNDARIES
 GEOPHYSICAL CURVE = NATURAL GAMMA



H AREA SEEPAGE BASINS HYDROSTRATIGRAPHIC CROSS-SECTION B



SAND PACK INTERVAL -
INCLUDES BENTONITE SEAL
SCREENED INTERVAL

TD = TOTAL DEPTH
GSA = GENERAL SEPARATIONS AREA
NR = NO RECOVERY
* BASIN H-A PLACED TO SCALE
RELATIVE TO HSB-119
— = CONFINING ZONE, UNIT, AND SYSTEM BOUNDARIES.
GEOPHYSICAL CURVE = NATURAL GAMMA

SCALE
HORIZONTAL 1" = 400 FEET
VERTICAL 1" = 10 FEET

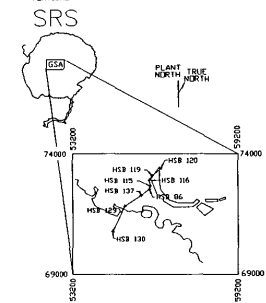
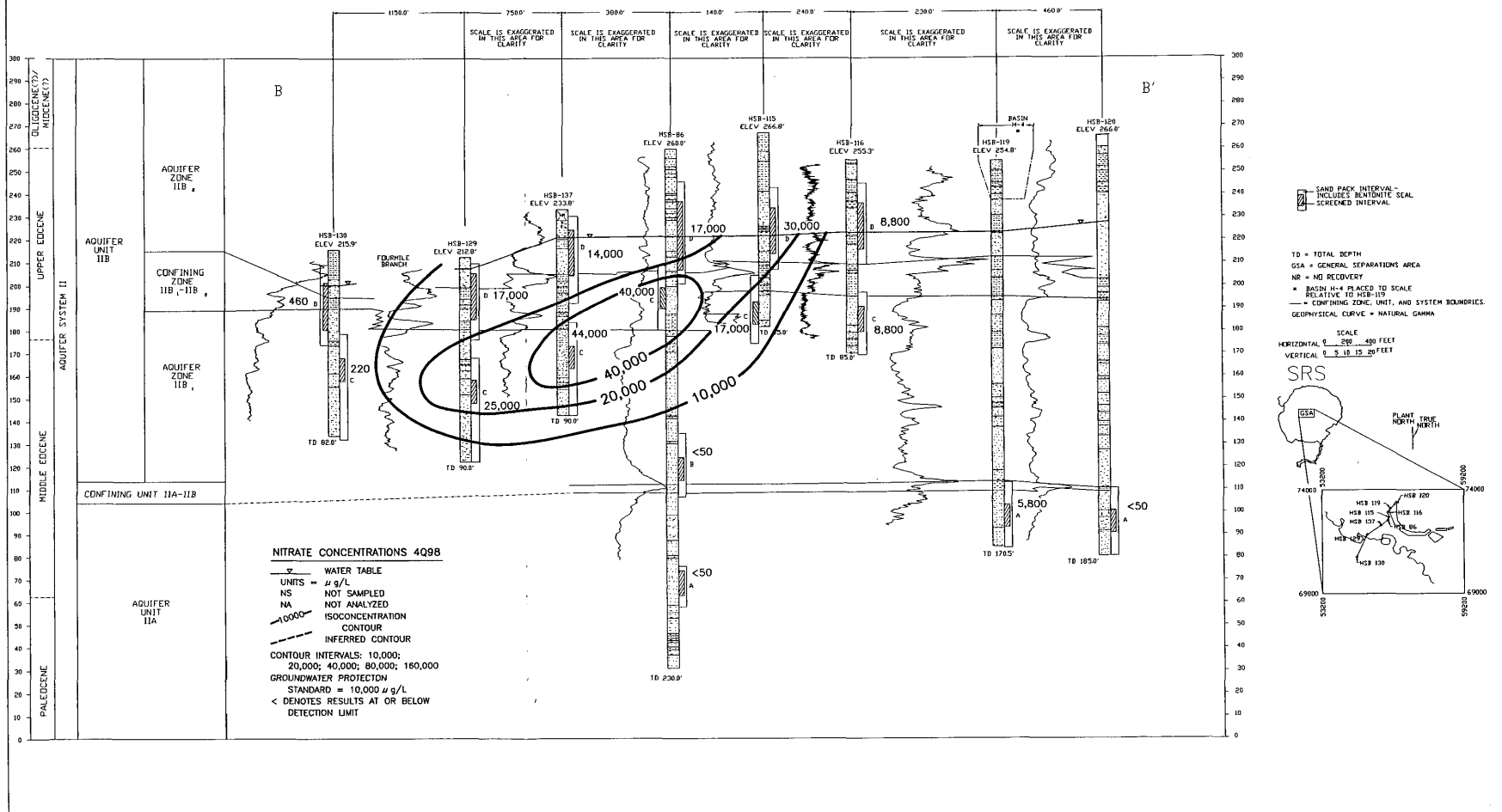


Figure 8. Hydrogeologic Cross-Section Showing Nitrate Concentrations at the H-Area HWMF, Fourth Quarter 1998

Figure 9. Hydrogeologic Cross-Section Showing Tritium Activities at the H-Area HWMF, Fourth Quarter 1998

H AREA SEEPAGE BASINS HYDROSTRATIGRAPHIC CROSS-SECTION B



H AREA SEEPAGE BASINS HYDROSTRATIGRAPHIC CROSS-SECTION B

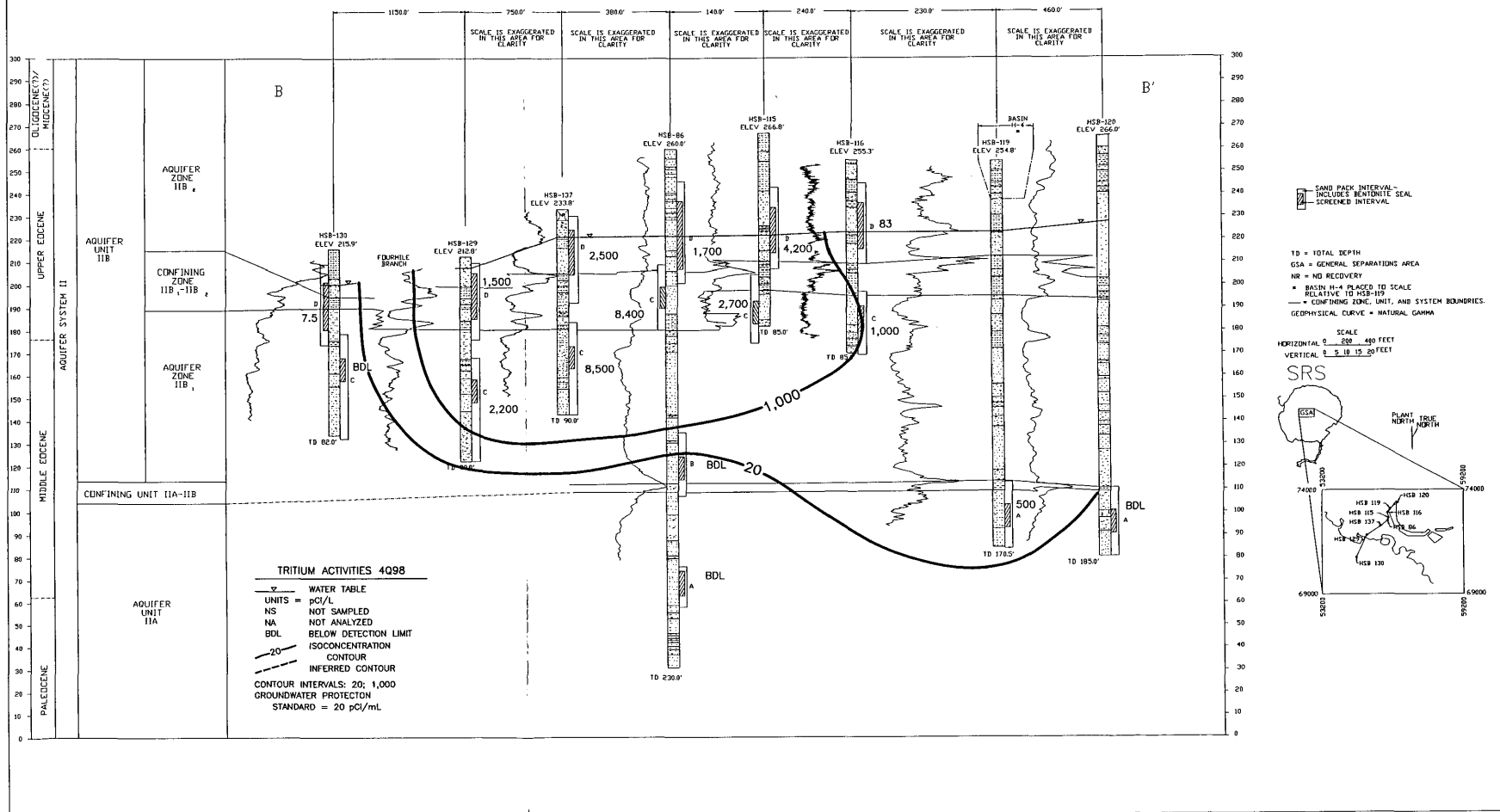
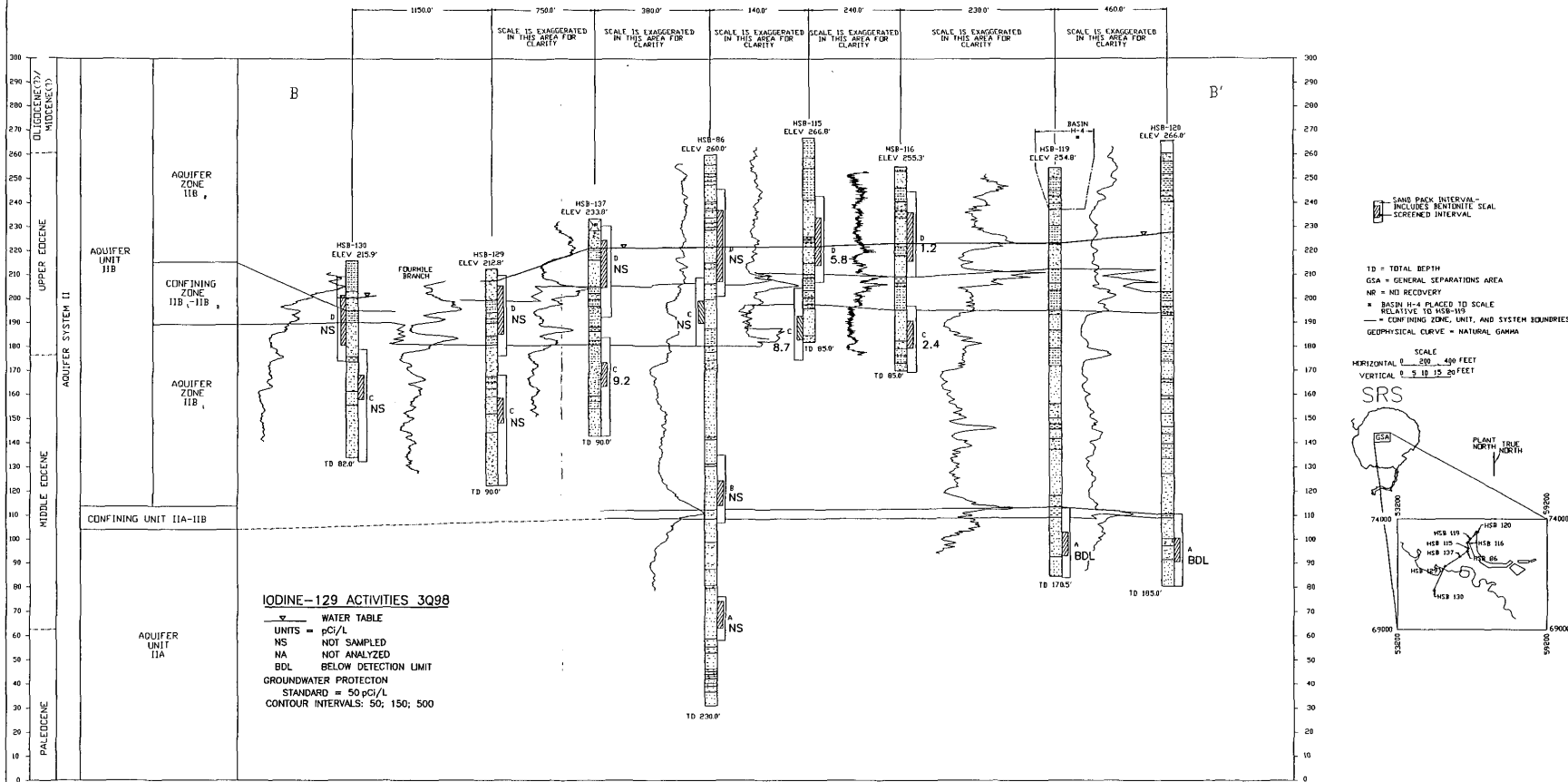


Figure 10. Hydrogeologic Cross-Section Showing Iodine-129 Activities at the H-Area HWMF, Third Quarter 1998

Figure 11. Hydrogeologic Cross-Section Showing Strontium-90 Activities at the H-Area HWMF, Third Quarter 1998

H AREA SEEPAGE BASINS HYDROSTRATIGRAPHIC CROSS-SECTION B



[illegible]

Figure 12. Hydrogeologic Cross-Section Showing Gross Alpha Activities at the H-Area HWMF, Fourth Quarter 1998

Figure 13. Hydrogeologic Cross-Section Showing Nonvolatile Beta Activities at the H-Area HWMF, Fourth Quarter 1998

[illegible]

The map shows the location of the study site (USA) relative to the study site (USA). The map includes a scale bar and a north arrow.

**H AREA SEEPAGE BASINS HYDROSTRATIGRAPHIC
CROSS-SECTION B**

GROSS ALPHA ACTIVITIES 4Q98

- WATER TABLE
- UNITS = pCi/L
- NS NOT SAMPLED
- NA NOT ANALYZED
- BDL BELOW DETECTION LIMIT
- - - ISOCONCENTRATION CONTOUR
- . - INFERRED CONTOUR
- CONTOUR INTERVALS: 15; 500; 1,000
- GROUNDWATER PROTECTION STANDARD = 15 pCi/L


SAND PACK INTERVAL INCLUDES NEUTRONIC SCALE SCREENED INTERVAL

TD = TOTAL DEPTH
GSA = GENERAL SEPARATIONS AREA
NR = NO RECOVERY
* BASIN #4 PLACED TO SCALE RELATIVE TO HSB-IIB
--- CONFINING ZONE, UNIT, AND SYSTEM BOUNDARIES
GEOPHYSICAL CURVE = NATURAL GAMMA

SCALE
HORIZONTAL 0 200 400 FEET
VERTICAL 0 50 100 200 FEET

SRS

PLANT TRUE NORTH

 SAND PACK INTERVAL - INCLUDES BENTONITE SEAL
 SCREENED INTERVAL

TD = TOTAL DEPTH
GSA = GENERAL SEPARATIONS AREA
NR = NO RECOVERY
* BASIN H-4 PLACED TO SCALE
RELATIVE TO HSB-119
— = CONFINING ZONE, UNIT, AND SYSTEM BOUNDARIES.
GEOPHYSICAL CURVE = NATURAL GAMMA

SCALE
HORIZONTAL 0 200 400 FEET
VERTICAL 0 5 10 15 20 FEET

SRS

PLANT TRUE NORTH

Appendix C

Analytical Results

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Key to Reading the Tables

The following abbreviations may appear in the data tables:

Constituents

Sp. conductance Specific conductance

Laboratories

EM	Environmental Protection Department/Environmental Monitoring Section (EPD/EMS) Laboratory
GE and GP	General Engineering Laboratories, Inc.
TM	Thermo NUtech
WA	Recra LabNet Philadelphia (was Roy F. Weston, Inc., until June 1997)

Sampling Codes

A	Pump was surging excessively; aerated
B	Blank sample was collected
C	Well was pumping continuously
D	Well was dry
I	Well went dry during sampling; insufficient water to collect all samples
L	Well went dry before sampling began; only depth to water can be determined
N	Well was not stabilized before sampling began
P	Inaccessibility or mechanical failure prevented sample collection and field analysis of the water
S	No water in standpipe; for water-level events only
T	Samples were collected, but some samples were not sent to the laboratory due to high turbidity
W	Unable to sample well because of stabilization or sampling equipment failure; water-level measurements were obtained
X	Well went dry during purging; samples were collected after well recovered

Units

mg/L	milligrams per liter
msl	mean sea level
NTU	nephelometric turbidity unit
pCi/L	picocuries per liter
pCi/mL	picocuries per milliliter
pH	pH units
µg/L	micrograms per liter
µS/cm	microsiemens per centimeter

Data Table Column Headings

DF	dilution factor
H	exceeded the holding time
Mod	modifier
ST	exceeded the GWPS

Other

CS	carbon steel
E	exponential notation (e.g., $1.1\text{E}-09 = 1.1 \times 10^{-9} = 0.0000000011$)
PVC	polyvinyl chloride
TOC	top of casing

Data Qualification

The contract laboratories submit sample- or batch-specific quality assurance/quality control information either at the same time as analytical results or in a quarterly summary. Properly defined and used data modifiers (also referred to as qualifiers) can be a key component in assessing data usability. These modifiers appear in the data tables under the column *Mod*. Data for third quarter 1998 were reported by the laboratories in data format AN95, while data for fourth quarter 1998 were reported in AN98. One major difference between the two formats is the modifiers used. In the data tables, three possible fields for modifiers for each quarter are separated by slashes. For AN95 data, result qualifiers (RQ) may appear before the first slash, analysis qualifiers (AQ) between the two slashes, and bias modifiers (B) after the second. For AN98 data, functional guidance qualifiers (FG) may appear before the first slash, STORET codes (SC) between the two slashes, and EMS codes (EC) after the second slash. For further information on modifiers and their definitions, contact EMS.

AN95 Modifiers

(Blank)	Data are not qualified. Numbers should be interpreted exactly as reported.
J	Value is estimated because quantitation in the sample or in associated quality control samples did not meet specifications. (RQ)
L	Value is off-scale high. The actual value is not known but is known to be greater than the value shown. (RQ)
R	Result was rejected because performance requirements in the sample analysis or associated quality control analyses were not met. (RQ)
U	Material was analyzed for but not detected. Analytical result reported is less than the sample quantitation limit. (RQ)
E	The detected result is between the sample-specific EQL and the method detection limit. (AQ)
I	The value in the result field is the instrument reading, not the sample quantitation limit. Always used with the result qualifier <i>U</i> . (AQ)
O	Surrogate or tracer spike recovery is out of specification. (AQ)
V	Analyte was detected in an associated method blank. (AQ)
Y	Result was obtained from an unpreserved or improperly preserved sample. Data may not be accurate. (AQ)
4	Matrix interference. Value cannot be determined. Used with RQ <i>R</i> . (AQ)

AN98 Modifiers

(Blank)	Data are not qualified. Numbers should be interpreted exactly as reported.
J	The analyte was positively identified; the associated numerical value is an estimated concentration of the analyte in the sample. (FG)
R	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified. (FG)
U	Material analyzed for, but not detected. The analyte concentration is <ssEQL. (SC)
C	The result is calculated. (SC)
I	The result is less than the ssEQL, but equal to or greater than the MDL. (SC)
K	The actual concentration is known to be less than the reported result. (SC)
L	The actual concentration is known to be greater than the reported result. (SC)
Q	The sample was held beyond the normal holding time prior to analysis. (SC)
V	The analyte was detected in both the method blank and the sample. (SC)
Y	The result is from an unpreserved or incorrectly preserved sample; the data may not be accurate. (SC)
A	Compound identification criteria were not met. (EC)
C	LCS or BS criteria were not met. (EC)
D	ICP serial dilution criteria were not met. (EC)
H	Internal standard criteria were not met when the IS was used for quantitation. (EC)
I	Matrix spike recovery was not within the control limits. (EC)
K	A tentatively identified compound is a suspected aldol-condensation product. (EC)
L	Initial or continuing calibration criteria were not met. (EC)
O	Surrogate or tracer spike recovery is out of specification. (EC)
P	Graphite furnace atomic absorption QC a. Duplicate injection criteria were not met. b. Post-digestion spike recovery was not within control limits and the sample absorbance is > 50% of the post-digestion spike absorbance. (EC)
S	The sample was analyzed by the method of standard additions. (EC)
W	Graphite furnace atomic absorption QC: the post-digestion spike recovery is not within control limits and the sample absorbance is < 50% of the post-digestion spike absorbance. (EC)
X	The laboratory duplicate RPD or MS/MSD RPD was not within control limits. (EC)
4	Matrix interference is present. (EC)
5	Matrix spike concentration was < 0.25× the sample concentration, and the percent recovery cannot be determined. (EC)
6	The analyte was detected in both the sample and associated field blank. (EC)
8	The analyte was detected in both the sample and associated trip blank. (EC)
9	The field duplicate RPD was not within control limits. (EC)

Results below Detection

For radiological analyses, the analytical result field contains the result recorded on the analytical instrument and reported by the laboratory, even if it is negative. For nonradiological analyses, if the analyte is not detected, the sample-specific estimated quantitation limit (EQL) is entered into the result field and is reported with a less than [$<$] sign. The EQL is defined as the lowest concentration that can be achieved reliably within specified limits of precision and accuracy during routine laboratory operating conditions. The sample-specific EQL is modified for sample concentration or dilution or unusual aliquot size that affects analytical sensitivity.

Data Filtering

Data in the column headed *Filt.* have been filtered to clarify their usability. In this column, *Rej.* is used to indicate rejected data.

For nondetects, this column contains the less-than symbol and the sample-specific method detection limit or sample-specific minimum detectable activity. For chemical analyses, this is the same numeric value as appears in the unfiltered result column with a few exceptions, generally data that were qualified as nondetects during validation because of contamination in an associated blank.

For data qualified with the result qualifier (third quarter 1998) or field guidance code (fourth quarter 1998) *J*, indicating an estimated quantity, the *Filt.* column contains the letters *NDD*, meaning that these data are considered not "decision" data.

Holding Times

Standard analytical methods include a limit, called holding time, on the maximum elapsed time between sample collection and extraction or analysis by the laboratory. In the data tables, a large bullet (\bullet) in the *H* (holding time) column indicates that holding time was exceeded. Analyses performed beyond holding times may not yield valid results.

The laboratory procedure used for the determination of specific conductance allows one day to elapse between sampling and analysis. Thus, laboratory specific conductance measurements may exceed the holding time criterion.

Data Rounding

A constituent result in the analytical results tables that is not marked in the *ST* column but appears to equal an Appendix A standard is below the standard in the database. Values stored in the database contain more significant digits than the reported results. Apparent discrepancies in the tables are due to the rounding of reported results.

Sampling Dates

Samples for field data are collected once each quarter, but samples for analytical data may be collected more than once each quarter. Because the results tables present the highest analytical results for each quarter, the date of collection for reported analytical results may not coincide with the date of collection for field data.

Table C-1. Groundwater Monitoring Results for Individual Wells

WELL HSB 65

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72425.6 E58432.0	33.281296 °N 81.653622 °W	242.4-212.4 ft msl	272 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/06/98	11/20/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	233.8	233.7	ft msl
pH	4.5	4.9	pH
Sp. conductance	34	30	µS/cm
Water temperature	22.5	19.9	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	5.3	4.2	well vol
Sampling code			
Synchronous water level	237.0 (09/17/98)	234.1 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	UJ/I/1	< 0.20			1	GE	<0.36	U/V/	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	1,100	/V/				1	GE	1,400	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 65 (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.3E+00	//				1	GP	<5.7E-01	U//	<4.4E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<4.8E-01	UI//	< 0.8750			1	GP	<1.0E+00	U//	<1.0E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.5E+02	/6/		■		1	GP	8.5E+02	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 65A

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72436.2 E58436.0	33.281326 °N 81.653633 °W	73.2-62.5 ft msl	273.6 ft msl	4" PVC	S	L. Congaree (IIA)

SAMPLE DATE	08/27/98	10/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	169.4	172.0	ft msl
pH	7.2	7.6	pH
Sp. conductance	200	160	µS/cm
Water temperature	20.2	20.2	°C
Alkalinity as CaCO ₃	81	90	mg/L
Turbidity	3	1	NTU
Volumes purged	2.2	2.2	well vol
Sampling code			
Synchronous water level	172.1 (09/17/98)	171.9 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.088	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	<50	U//	< 50			1	GE	<30	U/V/	<50			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 65A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.1E+00	//				1	GP	<1.2E+00	U//	<9.0E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.6E+00	//				1	GP	<1.3E+00	U//	<1.1E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<1.9E-01	U//	<5.8E-01			1	GP	<2.4E-02	U//	<5.3E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 65B

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72445.6 E58439.4	33.281352 °N 81.653642 °W	133.3-123.3 ft msl	273.7 ft msl	4" PVC	S	McBean (IIB ₁)

SAMPLE DATE	07/06/98	10/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	226.9	225.8	ft msl
pH	7.1	8.0	pH
Sp. conductance	190	180	µS/cm
Water temperature	22.6	20.3	°C
Alkalinity as CaCO ₃	87	10	mg/L
Turbidity	2	3	NTU
Volumes purged	2.3	2.1	well vol
Sampling code			
Synchronous water level	226.0 (09/17/98)	224.5 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	19	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	4.6	//				1	GE								µg/L
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable	0.36	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	<0.18	UJ/IV/1	< 0.20	1		GE	<0.20 U//		<				1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	60	N//				1	GE	<40	U//	<50			1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 65B (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<4.0E-02	UI//	< 0.93			1	TM	<2.3E-01	U//	<5.5E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<1.3E-01	UI//	< 1.4			1	GP	<2.6E-01	U//	<1.1E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.8E+00	//				1	TM	<2.8E-01	U//	<5.2E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

● = exceeded holding time

■ = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 65C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72439.6 E58447.1	33.281351 °N 81.653610 °W	218.6-207.8 ft msl	273.6 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/01/98	10/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	240.1	237.2	ft msl
pH	4.5	4.9	pH
Sp. conductance	77	160	µS/cm
Water temperature	21.7	21.4	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	0	1	NTU
Volumes purged	3.2	2.3	well vol
Sampling code			
Synchronous water level	237.6 (09/17/98)	234.7 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	5,100	//				3	GE	13,000	//				5	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 65C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.5E+00	//					1	GP	4.2E+00	//				1	GE pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	3.0E+00	//					1	GP	3.1E+00	//				1	GE pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	3.5E+02	//		■			1	GP	2.0E+03	//				1	GE pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 66

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72429.2 E56928.3	33.278850 °N 81.657589 °W	228.1-198.1 ft msl	280.2 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/06/98	10/06/98
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FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	225.8	226.1	ft msl
pH	4.5	4.7	pH
Sp. conductance	31	29	µS/cm
Water temperature	21.1	20.3	°C
Alkalinity as CaCO ₃	1	0	mg/L
Turbidity	1	2	NTU
Volumes purged	4.8	2.6	well vol
Sampling code			
Synchronous water level	226.1 (09/17/98)	225.1 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable								3.0	//				1	GE	µg/L
Barium, total recoverable															
Cadmium, total recoverable								1.0	//				1	GE	µg/L
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable								9.6	//				1	GE	µg/L
Mercury, total recoverable	<0.20	UJ/I/1	< 0.20	1	GE		0.0070		J/I/C	NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	1,700	/V/				1	GE	1,800	//				1	GE	µg/L
Selenium, total recoverable								5.0	//				1	GE	µg/L
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 66 (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.0E+00	//				1	GP	<8.5E-01	U//	<3.5E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<2.1E-01	U//	< 0.8380			1	GP	<9.2E-01	U//	<1.0E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.4E+01	//				1	GP	1.2E+01	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 67

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71505.0 E58424.3	33.279247 °N 81.651855 °W	230.7-200.7 ft msl	237.8 ft msl	4" PVC	V	Water Table (11B2)

SAMPLE DATE	07/09/98	10/13/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	210.9	222.8	ft msl
pH	4.0	4.0	pH
Sp. conductance	98	82	µS/cm
Water temperature	19.8	20.6	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	0	NTU
Volumes purged	11	4.6	well vol
Sampling code			
Synchronous water level	210.9 (09/17/98)	222.8 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	1.7	//					1 GE	4.5	//		■		1 GE	µg/L	
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	7,200	N/I					5 GE	6,700	//				5 GE	µg/L	
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 67 (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	2.8E+01	//		■	1		GP	1.4E+01	//				1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	6.9E+02	//		■	1		GP	5.8E+02	//		■		1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.4E+02	//		■	1		GP	5.1E+02	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 68

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71528.0 E56901.0	33.276813 °N 81.655911 °W	243.3-213.3 ft msl	250.1 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE	07/07/98	10/13/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	221.9	220.5	ft msl
pH	3.8	4.0	pH
Sp. conductance	100	130	µS/cm
Water temperature	18.3	18.9	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	2	NTU
Volumes purged	8.7	7.8	well vol
Sampling code			
Synchronous water level	220.9 (09/17/98)	219.7 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.80	//				1	GE	0.98	//				1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	8,800	//				5	GE	13,000	//		■		5	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 68 (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	4.7E+01	//		■		1	GP	2.9E+01	//		■		1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.8E+03	//		■		1	GP	2.4E+03	//		■		1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.6E+02	//		■		1	GP	3.4E+02	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 68A

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71526.9 E56892.1	33.276796 °N 81.655932 °W	58.0-47.5 ft msl	249.4 ft msl	4" PVC	S	L. Congaree (IIA)

SAMPLE DATE	07/02/98	10/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	172.1	172.7	ft msl
pH	6.2	6.6	pH
Sp. conductance	120	110	µS/cm
Water temperature	20.4	19.7	°C
Alkalinity as CaCO ₃	11	54	mg/L
Turbidity	1	1	NTU
Volumes purged	3.5	1.9	well vol
Sampling code			
Synchronous water level	172.8 (09/17/98)	172.5 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	UJ//1	< 0.20	1			GE	<0.20	U//	<0.2				1 GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	<20	U/V/	< 50			1	GE	<30	U/V/	<50				1 GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 68A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<2.8E-01	UI//	< 0.5770			1	GP	<4.7E-01	U//	<6.3E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	2.6E+00	//				1	GP	<2.5E+00	U//	<1.3E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<3.2E-01	UI//	<5.8E-01			1	GP	<6.4E-01	U//	<5.3E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 68B

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71525.5 E56882.1	33.276776 °N 81.655956 °W	134.5-123.5 ft msl	250 ft msl	4" PVC	S	McBean (IIB-1)

SAMPLE DATE	07/02/98	10/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	218.8	217.1	ft msl
pH	7.4	7.5	pH
Sp. conductance	220	210	µS/cm
Water temperature	21.4	20.7	°C
Alkalinity as CaCO ₃	83	108	mg/L
Turbidity	8	10	NTU
Volumes purged	2.4	2.1	well vol
Sampling code			
Synchronous water level	217.0 (09/17/98)	216.0 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	UJ//1	< 0.20			1	GE	<0.20	U//	<0.2			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	250	N//				1	GE	270	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 68B (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	8.4E-01	//													
Iodine-129															
Nickel-63															
Nonvolatile beta	2.7E+00	//													
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.4E+01	//													
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 68C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71524.1 E56872.7	33.276758 °N 81.655978 °W	179.5-168.4 ft msl	250.1 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE 07/13/98 10/05/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	218.4	217.7	ft msl
pH	4.9	5.3	pH
Sp. conductance	130	110	µS/cm
Water temperature	20.5	20.6	°C
Alkalinity as CaCO ₃	25	9	mg/L
Turbidity	2	5	NTU
Volumes purged	0.030	0.062	well vol
Sampling code	XN	XN	
Synchronous water level	217.9 (09/17/98)	216.8 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.42	//				1	GE	0.40	//				1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	12,000	//		■		5	GE	12,000	//		■		5	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 68C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<7.7E-01	U//	< 1.0500			1	GP	<1.4E+00	U//	<6.0E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	7.4E+00	//				1	GP	6.7E+00	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.6E+03	//		■		1	GP	1.9E+03	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 69

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71546.9 E56475.1	33.276160 °N 81.657069 °W	229.0-199.0 ft msl	236 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/07/98 10/13/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	219.1	218.1	ft msl
pH	4.2	4.0	pH
Sp. conductance	54	45	µS/cm
Water temperature	19.8	20.8	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	4.0	3.6	well vol
Sampling code			
Synchronous water level	218.4 (09/17/98)	217.5 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20				1	GE	0.16	J//	NDD			1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	2,500	N//					2	GE	2,300	//				1	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 69 (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	9.9E+00	//				1	GP	<2.6E+00	U//				<1.1E+00	1	GE pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	5.3E+02	//		■		1	GP	5.4E+02	//				■	1	GE pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.5E+01	//		■		1	GP	2.6E+01	//				■	1	GE pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 69A

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71549.4 E56465.1	33.276149 °N 81.657100 °W	93.1-83.1 ft msl	236.6 ft msl	4" PVC	S	M. Congaree (IIA)

SAMPLE DATE	07/01/98	10/06/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	173.2	173.0	ft msl
pH	6.4	6.4	pH
Sp. conductance	140	140	µS/cm
Water temperature	21.4	20.0	°C
Alkalinity as CaCO ₃	36	68	mg/L
Turbidity	1	0	NTU
Volumes purged	3.0	1.9	well vol
Sampling code			
Synchronous water level	173.3 (09/17/98)	152.8 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20				1	GE	<0.20	JU/L/C			<0.20	1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	10	J/E/	NDD				1	GE	90	//				1	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 69A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<6.1E-01	UI//	< 0.7810			1	GP	<6.8E-01	U//	<7.0E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.3E+00	//				1	GP	<1.2E+00	U//	<1.3E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<1.5E-01	UI//	<5.8E-01			1	GP	<4.4E-02	U//	<6.4E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 70

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72606.9 E55758.9	33.277336 °N 81.661013 °W	235.7-205.7 ft msl	242.8 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/06/98	10/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	224.1	222.4	ft msl
pH	4.7	5.0	pH
Sp. conductance	64	58	µS/cm
Water temperature	19.0	19.0	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	5	1	NTU
Volumes purged	9.4	2.9	well vol
Sampling code			
Synchronous water level	223.0 (09/17/98)	221.3 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//1	< 0.20			1	GE	<0.20	U//	<0.2				1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	150	/N/				1	GE	220	//					1	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 70 (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	2.0E+00	//				1	GP	1.8E+00	//				1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	8.4E+00	//				1	GP	8.5E+00	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.0E+01	//				1	GP	2.7E+01	//				■	1	GE pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 70C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72597.3 E55757.1	33.277311 °N 81.660999 °W	174.9-164.9 ft msl	243.1 ft msl	4" PVC	S	Barnwell (IB ₁)

SAMPLE DATE 07/28/98 11/05/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	222.8	221.1	ft msl
pH	10.2	7.5	pH
Sp. conductance	480	410	µS/cm
Water temperature	19.8	15.7	°C
Alkalinity as CaCO ₃	56	29	mg/L
Turbidity	2.9	1	NTU
Volumes purged	0.63	0.027	well vol
Sampling code	XN	XN	
Synchronous water level	222.02 (09/17/98)	220.3 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	110	//				1	GE								µg/L
Cadmium, total recoverable	0.54	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	0.80	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.74	//				1	GE								µg/L
Copper, total recoverable	0.55	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.91	J/EV/	NDD			1	GE								µg/L
Mercury, total recoverable	0.070	J/E/	NDD			1	GE	<0.20	U//	<0.2			1	GE	µg/L
Nickel, total recoverable	4.9	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	39,000	/N/		■		25	GE	38,000	//		■		25	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	18	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	<10			1	GE								µg/L
Dichloromethane	5.8	J/O/1	NDD			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 70C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<3.7E-02	UI//	< 0.1670	■		1	GP								pCi/L
Beta dose	2.75			■											pCi/L
Carbon-14	3.0E+02	//		■		1	GP								pCi/L
Cobalt-60	<2.6E-01	UI//	< 3.5100			1	GP								pCi/L
Curium-242	<3.5E-02	UI//	< 0.2550			1	GP								pCi/L
Curium-243/244	<8.0E-02	UI//	< 0.1980			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0951			1	GP								pCi/L
Gross alpha	4.9E+00	//				1	GP	<3.9E+00	U//	<2.6E+00			1	GE	pCi/L
Iodine-129	2.4E+00	//				1	GP								pCi/L
Nickel-63	<2.6E-01	UI	< 3.5100												pCi/L
Nonvolatile beta	1.1E+02	//		■		1	GP	1.8E+01	//				1	GE	pCi/L
Plutonium-238	<-7.2E-03	UI//	< 0.2910			1	GP								pCi/L
Plutonium-239/240	<-8.6E-03	UI//	< 0.1900			1	GP								pCi/L
Radium-226	4.2E+00	//				1	GP								pCi/L
Radium-228	<-2.2E-01	UI//	< 1.2100			1	GP								pCi/L
Strontium-90	<4.2E-01	UI//L/				1	GP								pCi/L
Technetium-99	1.8E+02	//		■		1	GP								pCi/L
Thorium-228	<0.0E+00	UI//C/				1	GP								pCi/L
Thorium-230	7.9E-01	J/C/	NDD			1	GP								pCi/L
Thorium-232	<0.0E+00	UI//C/				1	GP								pCi/L
Sum of alphas	7.9E-01														pCi/L
Sum of betas	4.8E+02			■											pCi/L
Total radium	4.2E+00														pCi/L
Tritium	4.5E+03	//		■		1	GP	4.7E+03	//				1	GE	pCi/mL
Uranium-233/234	<1.1E-01	UI//	< 0.1800			1	GP								pCi/L
Uranium-235	<2.0E-02	UI//	< 0.1370			1	GP								pCi/L
Uranium-238	<7.2E-03	UI//	< 0.1800			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 71

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72875.9 E55279.2	33.277148 °N 81.662799 °W	234.8-204.8 ft msl	241.4 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/08/98	10/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	223.0	222.6	ft msl
pH	4.6	5.1	pH
Sp. conductance	27	29	µS/cm
Water temperature	19.4	20.0	°C
Alkalinity as CaCO ₃	2	3	mg/L
Turbidity	5	3	NTU
Volumes purged	3.6	2.4	well vol
Sampling code			
Synchronous water level	223.7 (09/17/98)	225.9 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.2			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	190	N//				1	GE	320	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 71 (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<5.0E-01	U//	< 0.525			1	GP	<6.3E-02	U//	<5.8E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.4E+00	//				1	GP	<-5.3E-01	U//	<5.8E-01			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.4E+01	//		■		1	GP	3.7E+01	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 71C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72866.6 E55281.5	33.277131 °N 81.662775 °W	181.9-171.9 ft msl	241.6 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/13/98	11/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	222.3	221.1	ft msl
pH	5.5	5.7	pH
Sp. conductance	220	200	µS/cm
Water temperature	21.5	19.1	°C
Alkalinity as CaCO ₃	10	16	mg/L
Turbidity	4	2	NTU
Volumes purged	0.030	0.90	well vol
Sampling code	XN	XN	
Synchronous water level	222.2 (09/17/98)	219.6 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.33	//				1	GE	0.10	J//	NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	24,000	//		■		25	GE	21,000	//		■		10	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 71C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	4.8E+00	//				1	GP	<4.2E+00	U//				<2.2E+00	1	GE pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	2.3E+01	//				1	GP	2.7E+01	//					1	GE pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.5E+03	//		■		1	GP	2.4E+03	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 83A

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71648.6 E58606.1	33.279861 °N 81.651655 °W	76.0-65.2 ft msl	237.3 ft msl	4" PVC	S	M. Congaree (IIA)

SAMPLE DATE 07/01/98 10/06/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	174.3	174.0	ft msl
pH	6.6	7.1	pH
Sp. conductance	160	170	µS/cm
Water temperature	20.4	19.8	°C
Alkalinity as CaCO ₃	53	84	mg/L
Turbidity	1	1	NTU
Volumes purged	2.8	2.2	well vol
Sampling code			
Synchronous water level	174.2 (09/17/98)	173.7 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C	<2.0			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	20	J/E/	NDD			1	GE	<20	U/V/	<50			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 83A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.0E+00	//				1	GP	<4.8E-01	U//	<8.0E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.5E+00	//				1	GP	<9.6E-01	U//	<1.2E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<2.4E-02	UI//	<5.8E-01			1	GP	<-1.4E-01	U//	<6.5E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 83B

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71639.6 E58594.9	33.279823 °N 81.651667 °W	132.1-121.2 ft msl	237 ft msl	4" PVC	S	McBean (IIB ₁)

SAMPLE DATE	07/01/98	10/06/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	224.8	223.6	ft msl
pH	6.0	6.8	pH
Sp. conductance	100	100	µS/cm
Water temperature	20.5	19.8	°C
Alkalinity as CaCO ₃	12	40	mg/L
Turbidity	1	1	NTU
Volumes purged	3.0	2.0	well vol
Sampling code			
Synchronous water level	223.9 (09/17/98)	222.3 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C				1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	20	J/E/	NDD			1	GE	<40	U/V/	<50			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 83B (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<2.3E-01	U//	< 0.6890			1	GP	<2.6E-01	U//	<6.4E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<7.1E-01	U//	< 1.1700			1	GP	<1.1E-01	U//	<1.3E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	8.5E-01	//				1	GP	<1.1E+00	U//	<6.4E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 83C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71636.9 E58614.8	33.279849 °N 81.651609 °W	171.2-160.2 ft msl	237.1 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/01/98	10/06/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	227.0	225.6	ft msl
pH	4.8	5.1	pH
Sp. conductance	22	23	µS/cm
Water temperature	21.2	20.3	°C
Alkalinity as CaCO ₃	2	2	mg/L
Turbidity	1	0	NTU
Volumes purged	3.7	2.2	well vol
Sampling code			
Synchronous water level	225.9 (09/17/98)	224.2 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	50	J/E/	NDD			1	GE	60	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 83C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	4.8E-01	//				1	GP	<4.0E-01	U//	<6.3E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<8.6E-01	UI//	< 1.0700			1	GP	<4.8E-01	U//	<1.3E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<2.5E-01	UI//	<5.9E-01			1	GP	<7.0E-02	U//	<6.4E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 83D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71628.1 E58601.7	33.279809 °N 81.651627 °W	228.7-198.7 ft msl	237 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 07/02/98 10/06/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	225.4	224.8	ft msl
pH	5.0	4.9	pH
Sp. conductance	70	58	µS/cm
Water temperature	20.4	21.9	°C
Alkalinity as CaCO ₃	2	0	mg/L
Turbidity	1	1	NTU
Volumes purged	4.6	2.0	well vol
Sampling code			
Synchronous water level	225.2 (09/17/98)	223.7 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.45	UJ/IV/1	< 0.20	1	GE	0.93	J/L/C		NDD					1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	3,500	NI				2	GE	4,200	//					3	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 83D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.7E+00	//													
Iodine-129															
Nickel-63															
Nonvolatile beta	4.3E+01	//													
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.7E+02	//		■											
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 84A

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71586.2 E56359.1	33.276057 °N 81.657450 °W	75.9-64.7 ft msl	228.7 ft msl	4" PVC	V	L. Congaree (IIA)

SAMPLE DATE	07/01/98	10/27/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	173.0	172.6	ft msl
pH	5.9	6.5	pH
Sp. conductance	120	100	µS/cm
Water temperature	20.8	19.8	°C
Alkalinity as CaCO ₃	28	38	mg/L
Turbidity	0	1	NTU
Volumes purged	2.2	2.4	well vol
Sampling code			
Synchronous water level	172.9 (09/17/98)	172.2 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	0.062	J//	NDD				1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	50	J/E/	NDD			1	GE	100	//					1	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 84A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	8.6E-01	//				1	GP	2.2E+00	J//	NDD			1	TM	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.7E+01	//				1	GP	2.6E+01	//				1	TM	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	4.5E+00	//				1	GP	4.0E+00	//					TM	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 84B

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71603.3 E56352.4	33.276084 °N 81.657501 °W	132.9-121.8 ft msl	228.9 ft msl	4" PVC	S	McBean (IIB ₁)

SAMPLE DATE 07/01/98 10/06/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	211.1	210.7	ft msl
pH	7.0	8.5	pH
Sp. conductance	170	150	µS/cm
Water temperature	21.6	20.1	°C
Alkalinity as CaCO ₃	51	73	mg/L
Turbidity	1	1	NTU
Volumes purged	2.2	0.034	well vol
Sampling code		XN	
Synchronous water level	210.7 (09/17/98)	209.7 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C				1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	600	//				1	GE	1,200	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 84B (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<3.3E-01	UI//	< 0.7290			1	GP	<6.6E-01	U//	<			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	3.8E+00	//				1	GP	5.2E+00	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.1E+01	//		■		1	GP	3.9E+01	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 84C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71597.1 E56360.1	33.276083 °N 81.657469 °W	181.8-170.9 ft msl	229.1 ft msl	4" PVC	S	Barnwell (HB ₁)

SAMPLE DATE 07/01/98 10/06/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	214.1	213.3	ft msl
pH	7.3	6.6	pH
Sp. conductance	110	78	µS/cm
Water temperature	22.4	20.9	°C
Alkalinity as CaCO ₃	15	22	mg/L
Turbidity	3	2	NTU
Volumes purged	0.035	0.072	well vol
Sampling code	XN	XN	
Synchronous water level	213.3 (09/17/98)	212.3 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	3,300	//				2	GE	3,300	//				3	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 84C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<5.1E-01	UI//	< 0.6280			1	GP	<5.0E-01	UI//	<4.6E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	9.0E+00	//				1	GP	4.0E+00	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	4.2E+02	//		■		1	GP	4.0E+02	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 84D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71583.9 E56349.9	33.276037 °N 81.657470 °W	219.5-199.5 ft msl	228.8 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/08/98 10/13/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	218.4	217.6	ft msl
pH	4.2	4.1	pH
Sp. conductance	50	45	µS/cm
Water temperature	19.4	19.8	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	0	NTU
Volumes purged	4.8	3.4	well vol
Sampling code			
Synchronous water level	217.9 (09/17/98)	217.2 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	7.3	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	0.65	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	1.0	//				1	GE								µg/L
Copper, total recoverable	<3.9	U/V/	< 0.20			1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<0.092	U/V/	< 2.0			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	0.13	J//	NDD			1	GE	µg/L
Nickel, total recoverable	<3.4	U/V/	< 0.20			1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	2,800	N//				1	GE	2,000	//				1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<0.13	U/V/	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<10	U/V/	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	U//	< 9.9			1	GE								µg/L
Dichloromethane	<2.4	UJ/OV/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	0.76	J/E/O/1	NDD			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 84D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<5.8E-02	U//	< 0.1180	■		1	GP								pCi/L
Beta dose	16.46														pCi/L
Carbon-14	<4.7E-01	U//	< 8.9500			1	GP								pCi/L
Cobalt-60	6.9E+00	//				1	GP								pCi/L
Curium-242	<3.0E-02	U//	< 0.1240			1	GP								pCi/L
Curium-243/244	<9.1E-03	U//	< 0.1180			1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.0570			1	GP								pCi/L
Gross alpha	5.4E+00	//				1	GP	<2.4E+00	U//	<7.4E-01			1	GE	pCi/L
Iodine-129	<8.3E-01	U//	< 1.3100			1	GP								pCi/L
Nickel-63	6.9E+00	//													pCi/L
Nonvolatile beta	3.0E+02	//		■		1	GP	2.8E+02	//		■		1	GE	pCi/L
Plutonium-238	<9.5E-02	U//	< 0.1910			1	GP								pCi/L
Plutonium-239/240	<9.2E-03	U//	< 0.0989			1	GP								pCi/L
Radium-226	1.6E+00	//				1	GP								pCi/L
Radium-228	4.0E+00	J//2	NDD			1	GP								pCi/L
Strontium-90	1.3E+02	//		■		1	GP								pCi/L
Technetium-99	<1.4E+01	U//	< 20.4000			1	GP								pCi/L
Thorium-228	<2.8E-01	U//	< 0.9530			1	GP								pCi/L
Thorium-230	<7.2E-02	U//	< 0.5010			1	GP								pCi/L
Thorium-232	<0.0E+00	U//	< 0.2850			1	GP								pCi/L
Sum of alphas	1.1E+00														pCi/L
Sum of betas	1.5E+02			■											pCi/L
Total radium	5.6E+00														pCi/L
Tritium	1.2E+02	//		■		1	GP	9.0E+01	//		■		1	GE	pCi/mL
Uranium-233/234	6.6E-01	N//				1	GP								pCi/L
Uranium-235	<1.1E-01	U//	< 0.1180			1	GP								pCi/L
Uranium-238	4.1E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 85A

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N73791.9 E58943.4	33.285152 °N 81.654930 °W	71.1-61.1 ft msl	294.4 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE 07/08/98 11/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	169.5	169.3	ft msl
pH	7.1	6.9	pH
Sp. conductance	160	180	µS/cm
Water temperature	20.9	19.5	°C
Alkalinity as CaCO ₃	64	78	mg/L
Turbidity	0	1	NTU
Volumes purged	2.9	2.8	well vol
Sampling code			
Synchronous water level	169.5 (09/17/98)	169.2 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<1.0	U//	< 1.0			5	GE	<27	U//	<27			1	WA	µg/L
Arsenic, total recoverable								<40	U//	<40			1	WA	µg/L
Barium, total recoverable								29	//				1	WA	µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE	<1.0	U//	<1.0			1	GE	µg/L
Chromium, total recoverable								<7.0	U//	<7.0			1	WA	µg/L
Cobalt, total recoverable	0.64	J/E/	NDD			5	GE								µg/L
Copper, total recoverable	5.8	N/				5	GE	3.3	J/N/	NDD			1	WA	µg/L
Cyanide															
Lead, total recoverable	4.0	J/EV/	NDD			5	GE	0.81	J/N/	NDD			1	GE	µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	1.2	//				1	GE	µg/L
Nickel, total recoverable	<2.1	U/N/	< 1.0			5	GE	<26	U//	<26			1	WA	µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	22	//				1	WA	<20	U/N/	<50			1	GE	µg/L
Selenium, total recoverable								<66	U//	<66			1	WA	µg/L
Silver, total recoverable								<5.0	U//	<5.0			1	WA	µg/L
Tin, total recoverable	7.7	J/EV/	NDD			5	GE	<70	U//	<70			1	WA	µg/L
Vanadium, total recoverable	13	N/				5	GE								µg/L
Zinc, total recoverable	12	J/EV/	NDD			5	GE	<53	U//	<53				WA	µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene								<5.0	U//	<5.0			1	WA	µg/L
Bis(2-ethylhexyl) phthalate															
Dichloromethane								<5.0	U//	<5.0			1	WA	µg/L
Tetrachloroethylene								<5.0	U//	<5.0			1	WA	µg/L
Trichloroethylene								<5.0	U//	<5.0			1	WA	µg/L
Trichlorofluoromethane								<5.0	U//	<5.0			1	WA	µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 85A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14								<5.0E+01	U//	<1.8E+02			1	TM	pCi/L
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.9E+00	//				1	TM	1.3E+00	J//	NDD			1	TM	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	2.5E+00	//				1	TM	<1.2E+00	U//	<1.1E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium, total alpha-emitting								<1.5E-01	U//	<8.8E-01			1	TM	pCi/L
Radium-226															
Radium-228															
Strontium-90								1.9E+00	J//	NDD			1	TM	pCi/L
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas								1.9E+00							pCi/L
Tritium	<1.2E-01	U//	< 1.3E+00			1	TM	<3.4E-02	U//	<6.4E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

● = exceeded holding time

■ = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 85B

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N73789.3 E58953.3	33.285162 °N 81.654898 °W	143.2-133.2 ft msl	294.5 ft msl	4" PVC	S	McBean (IIB1)

SAMPLE DATE	07/06/98	10/30/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	236.1	234.5	ft msl
pH	10.5	10.5	pH
Sp. conductance	270	470	µS/cm
Water temperature	21.7	22.3	°C
Alkalinity as CaCO ₃	52	52	mg/L
Turbidity	1	2	NTU
Volumes purged	0.030	0.015	well vol
Sampling code	XN	XN	
Synchronous water level	235.2 (09/17/98)	233.7 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable								<27	U//	<27			1	WA	µg/L
Arsenic, total recoverable								<40	U//	<40			1	WA	µg/L
Barium, total recoverable								26	//				1	WA	µg/L
Cadmium, total recoverable								<4.7	U//	<4.7			1	WA	µg/L
Chromium, total recoverable								3.4	J//	NDD			1	WA	µg/L
Cobalt, total recoverable															
Copper, total recoverable								<15	U//	<15			1	WA	µg/L
Cyanide															
Lead, total recoverable								<47	U//	<47			1	WA	µg/L
Mercury, total recoverable	<0.20	UJ//1	< 0.20			1	GE	<0.20	U//	<0.2			1	GE	µg/L
Nickel, total recoverable								<26	U//	<26			1	WA	µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	700	N//				1	GE	1,100	//				1	GE	µg/L
Selenium, total recoverable								<66	U//	<66			1	WA	µg/L
Silver, total recoverable								<5.0	U//	<5.0			1	WA	µg/L
Tin, total recoverable								<70	U//	<70			1	WA	µg/L
Vanadium, total recoverable															
Zinc, total recoverable								<53	U//	<53			1	WA	µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene								<5.0	U//	<5.0			1	WA	µg/L
Bis(2-ethylhexyl) phthalate															
Dichloromethane								<2.8	U//	<5.0			1	WA	µg/L
Tetrachloroethylene								<5.0	U//	<5.0			1	WA	µg/L
Trichloroethylene								<5.0	U//	<5.0			1	WA	µg/L
Trichlorofluoromethane								<5.0	U//	<5.0			1	WA	µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 85B (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14								<8.7E+01	U//	<1.7E+02			1	TM	pCi/L
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<1.1E-02	UI//	< 0.8580			1	GP	<2.0E-01	U//	<1.2E+00			1	TM	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<7.4E-01	UI//	< 1.1900			1	GP	3.2E+00	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium, total alpha-emitting								<1.9E-01	U//	<1.5E+00			1	TM	pCi/L
Radium-226															
Radium-228															
Strontium-90								<2.4E-01	U//	<1.5E+00			1	TM	pCi/L
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	3.0E+00	//				1	GP	9.3E+00	//				1	TM	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 85C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N73802.3 E58947.4	33.285182 °N 81.654939 °W	224.2-214.2 ft msl	294.1 ft msl	4" PVC	S	Water Table (11B2)

SAMPLE DATE 07/06/98 11/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	243.2	241.2	ft msl
pH	4.2	4.7	pH
Sp. conductance	41	35	µS/cm
Water temperature	22.2	20.4	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	3.5	4.1	well vol
Sampling code			
Synchronous water level	242.4 (09/17/98)	240.6 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable								<27	U//	<27			1	WA	µg/L
Arsenic, total recoverable								<40	U//	<40			1	WA	µg/L
Barium, total recoverable								12	//				1	WA	µg/L
Cadmium, total recoverable								0.56	J//	NDD			1	WA	µg/L
Chromium, total recoverable								<7.0	U//	<7.0			1	WA	µg/L
Cobalt, total recoverable															
Copper, total recoverable								80	//				1	WA	µg/L
Cyanide															
Lead, total recoverable								<47	U//	<47			1	WA	µg/L
Mercury, total recoverable	<0.20	U//1	< 0.20			1	GE	0.31	//				1	GE	µg/L
Nickel, total recoverable								<26	U//	<26			1	WA	µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	2,600	N//				1	GE	2,600	//				1	GE	µg/L
Selenium, total recoverable								<66	U//	<66			1	WA	µg/L
Silver, total recoverable								<5.0	U//	<5.0			1	WA	µg/L
Tin, total recoverable								<70	U//	<70			1	WA	µg/L
Vanadium, total recoverable															
Zinc, total recoverable								<53	U//	<53			1	WA	µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene								<5.0	U//	<5.0			1	WA	µg/L
Bis(2-ethylhexyl) phthalate															
Dichloromethane								<5.0	U//	<5.0			1	WA	µg/L
Tetrachloroethylene								<5.0	U//	<5.0			1	WA	µg/L
Trichloroethylene								<5.0	U//	<5.0			1	WA	µg/L
Trichlorofluoromethane								<5.0	U//	<5.0			1	WA	µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 85C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14								<-7.2E+00	U//						
Cobalt-60										<1.8E+02			1	TM	pCi/L
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	3.4E+00	//				1	GP	3.5E+00	//				1	TM	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	2.0E+00	//				1	GP	3.4E+00	J//	NDD			1	TM	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium, total alpha-emitting								2.5E+00	//				1	TM	pCi/L
Radium-226															
Radium-228															
Strontium-90								<-7.5E-01	U//	<1.5E+00			1	TM	pCi/L
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.0E+01	//				1	GP	1.3E+01	//				1	TM	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 86A

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72520.2 E55985.9	33.277514 °N 81.660247 °W	73.9-63.1 ft msl	262.4 ft msl	4" PVC	S	L. Congaree (IIA)

SAMPLE DATE	07/01/98	10/06/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	169.7	169.4	ft msl
pH	8.0	6.5	pH
Sp. conductance	120	110	µS/cm
Water temperature	20.8	20.6	°C
Alkalinity as CaCO ₃	48	51	mg/L
Turbidity	1	0	NTU
Volumes purged	2.2	2.1	well vol
Sampling code			
Synchronous water level	169.6 (09/17/98)	169.4 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C				1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	10	J/E/	NDD			1	GE	<10	U/V/	<50			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 86A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.2E+00	J/C/	NDD			1	GP	<5.7E-01	U//	<6.9E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.9E+00	//				1	GP	<1.5E+00	U//	<1.2E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	7.9E-01	//				1	GP	<7.9E-01	U//	<6.5E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 86B

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72519.0 E55976.9	33.277497 °N 81.660269 °W	124.0-113.8 ft msl	261.9 ft msl	4" PVC	S	McBean (IIB ₁)

SAMPLE DATE 07/01/98 10/06/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	221.8	221.0	ft msl
pH	7.6	7.4	pH
Sp. conductance	180	210	µS/cm
Water temperature	21.9	20.9	°C
Alkalinity as CaCO ₃	41	106	mg/L
Turbidity	1	6	NTU
Volumes purged	1.9	2.0	well vol
Sampling code			
Synchronous water level	220.5 (09/17/98)	218.8 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C				1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	40	J/E/	NDD			1	GE	<40	U/V/	<50			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 86B (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<6.8E-01	UI//	< 0.9870			1	GP	<5.3E-01	U//	<9.6E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.7E+00	//				1	GP	<1.3E+00	U//	<1.2E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<5.2E-01	UI//	<5.9E-01			1	GP	<1.9E-01	U//	<6.5E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 86C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72529.7 E55984.6	33.277533 °N 81.660269 °W	199.4-189.4 ft msl	262.9 ft msl	4" PVC	V	Barnwell (IIB ₁)

SAMPLE DATE 07/13/98 10/14/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	222.7	221.3	ft msl
pH	4.6	4.5	pH
Sp. conductance	320	300	µS/cm
Water temperature	20.0	19.6	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	0	NTU
Volumes purged	3.4	2.9	well vol
Sampling code		N	
Synchronous water level	221.9 (09/17/98)	220.5 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	1.7	//				1	GE	1.1	//				1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	39,000	/V/		■		25	GE	40,000	//		■		25	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 86C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	2.7E+01	//		■		1	GP	2.7E+01	//		■		1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	4.7E+02	//		■		1	GP	3.7E+02	//		■		1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	8.4E+03	//		■		1	GP	8.4E+03	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 86D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72522.1 E55996.5	33.277536 °N 81.660223 °W	236.6-206.6 ft msl	263 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE	07/13/98	10/14/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation		221.2	ft msl
pH	4.2	4.4	pH
Sp. conductance	100	140	µS/cm
Water temperature	19.5	20.6	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	2	1	NTU
Volumes purged		3.1	well vol
Sampling code		N	
Synchronous water level	221.9 (09/17/98)	220.6 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.20	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	12,000	I//		■		5	GE	17,000	//		■		10	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB 86D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	9.0E+00	//				1	GP	1.2E+01	//				1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	4.6E+02	//		■		1	GP	5.3E+02	//		■		1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	9.9E+02	//		■		1	GP	1.7E+03	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

● = exceeded holding time

■ = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB100C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72077.2 E58806.5	33.281136 °N 81.651960 °W	163.0-153.0 ft msl	260.2 ft msl	4" PVC	S	Barnwell (11B ₁)

SAMPLE DATE 07/09/98 10/07/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	229.1	227.9	ft msl
pH	4.7	5.3	pH
Sp. conductance	33	30	µS/cm
Water temperature	21.5	21.0	°C
Alkalinity as CaCO ₃	4	7	mg/L
Turbidity	0	1	NTU
Volumes purged	3.1	2.1	well vol
Sampling code			
Synchronous water level	229.1 (09/17/98)	226.4 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<2.0	U//	< 2.0			10	GE								µg/L
Arsenic, total recoverable	<30	U//	< 30.0000			10	GE								µg/L
Barium, total recoverable	4.8	//				10	GE								µg/L
Cadmium, total recoverable	<10	U//	< 10			10	GE								µg/L
Chromium, total recoverable	<30	U//	< 30.0000			10	GE								µg/L
Cobalt, total recoverable	<2.0	U//	< 2.0			10	GE								µg/L
Copper, total recoverable	2.1	//				10	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.65	J/E/	NDD			10	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	2.6	/N/				10	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	140	/N/				1	GE	140	//				1	GE	µg/L
Selenium, total recoverable	19	J/E/	NDD			10	GE								µg/L
Silver, total recoverable	<10	U//	< 10			10	GE								µg/L
Tin, total recoverable	<20	U//	< 20.0000			10	GE								µg/L
Vanadium, total recoverable	<20	U//	< 20.0000			10	GE								µg/L
Zinc, total recoverable	<50	U//	< 50			10	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB100C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<-1.7E-02	U//	< 0.1410			1	GP								pCi/L
Carbon-14	<3.4E+00	U//	< 9.2300			1	GP								pCi/L
Cobalt-60	<-1.4E-01	U//	< 3.0400			1	GP								pCi/L
Curium-242	<-3.5E-03	U//	< 0.1420			1	GP								pCi/L
Curium-243/244	<2.9E-02	U//	< 0.0870			1	GP								pCi/L
Curium-245/246	<1.7E-02	U//	< 0.0494			1	GP								pCi/L
Gross alpha	<-2.9E-02	U//	< 0.7260			1	GP	<3.3E-01	U//	<6.0E-01			1	GE	pCi/L
Iodine-129	<9.8E-01	U//	< 1.3600			1	GP								pCi/L
Nickel-63	<-1.4E-01	U	< 3.0400												pCi/L
Nonvolatile beta	<6.1E-01	U//	< 1.2100			1	GP	<9.7E-01	U//	<1.1E+00			1	GE	pCi/L
Plutonium-238	<1.7E-02	U//	< 0.0500			1	GP								pCi/L
Plutonium-239/240	<1.7E-02	U//	< 0.0499			1	GP								pCi/L
Radium-226	<3.5E-01	U//	< 0.6360			1	GP								pCi/L
Radium-228	<1.3E-01	U//	< 0.9360			1	GP								pCi/L
Strontium-90	<-5.8E-01	U//				1	GP								pCi/L
Technetium-99	<-8.6E+00	U//	< 27.8000			1	GP								pCi/L
Thorium-228	<1.3E-01	U//	< 0.5560			1	GP								pCi/L
Thorium-230	<5.6E-02	U//	< 0.0841			1	GP								pCi/L
Thorium-232	<-1.4E-02	U//	< 0.1740			1	GP								pCi/L
Sum of alphas															
Sum of betas															
Tritium	1.2E+00	//				1	GP	1.8E+00	//				1	GE	pCi/mL
Uranium-233/234	<2.6E-01	U//	< 0.0647			1	GP								pCi/L
Uranium-235	<2.2E-02	U//	< 0.0649			1	GP								pCi/L
Uranium-238	<3.8E-02	U//	< 0.1140			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB100D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72073.8 E58796.9	33.281113 °N 81.651978 °W	236.9-216.9 ft msl	260.1 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 07/07/98 10/07/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	238.0	236.6	ft msl
pH	4.8	5.1	pH
Sp. conductance	78	68	µS/cm
Water temperature	21.1	20.6	°C
Alkalinity as CaCO ₃	6	4	mg/L
Turbidity	5	2	NTU
Volumes purged	4.5	2.5	well vol
Sampling code			
Synchronous water level	237.2 (09/17/98)	234.4 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	15	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	0.17	J/E/	NDD			1	GE								µg/L
Copper, total recoverable	21	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	3.1	/N/				1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	0.77	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	3,800	/N/				3	GE	3,600	//				2	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	48	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	U//	< 9.9			1	GE								µg/L
Dichloromethane	<0.79	U/N8/	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB100D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt	ST	H	DF	Lab	4Q98	Mod	Filt	ST	H	DF	Lab	Unit
Americium-241	<1.6E-02	UI//	< 0.1020	■		1	GP								pCi/L
Beta dose	8.19														pCi/L
Carbon-14	<8.1E+00	UI//	< 8.8000			1	GP								pCi/L
Cobalt-60	<-9.0E-01	UI//	< 5.1300			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0519			1	GP								pCi/L
Curium-243/244	<0.0E+00	UI//	< 0.0491			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0490			1	GP								pCi/L
Gross alpha	3.6E+00	//				1	GP	<2.1E+00	U//	<8.9E-01			1	GE	pCi/L
Iodine-129	<2.7E-01	UI//	< 0.8360			1	GP								pCi/L
Nickel-63	<-9.0E-01	UI	< 5.1300												pCi/L
Nonvolatile beta	1.4E+02	//		■		1	GP	1.2E+02	//		■		1	GE	pCi/L
Plutonium-238	<1.9E-02	UI//	< 0.2180			1	GP								pCi/L
Plutonium-239/240	<4.3E-03	UI//	< 0.1070			1	GP								pCi/L
Radium-226	<7.6E-01	U//	< 0.6410			1	GP								pCi/L
Radium-228	2.8E+00	//				1	GP								pCi/L
Strontium-90	6.1E+01	//		■		1	GP								pCi/L
Technetium-99	<9.0E+00	UI//	< 20.7000			1	GP								pCi/L
Thorium-228	<2.5E-01	UI//	< 0.6150			1	GP								pCi/L
Thorium-230	<6.7E-02	UI//	< 0.3630			1	GP								pCi/L
Thorium-232	<4.0E-02	UI//	< 0.2760			1	GP								pCi/L
Sum of alphas				■											
Sum of betas	6.4E+01														pCi/L
Total radium	2.8E+00														pCi/L
Tritium	8.2E+01	//		■		1	GP	8.9E+01	//		■		1	GE	pCi/mL
Uranium-233/234	<1.8E-01	U//	< 0.1040			1	GP								pCi/L
Uranium-235	<4.2E-02	UI//	< 0.1040			1	GP								pCi/L
Uranium-238	<1.3E-02	UI//	< 0.0878			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB101C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72001.9 E58604.4	33.280640 °N 81.652346 °W	176.3-166.3 ft msl	258.5 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE 07/07/98 10/30/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	227.8	232.4	ft msl
pH	5.0	6.2	pH
Sp. conductance	41	340	µS/cm
Water temperature	20.9	19.4	°C
Alkalinity as CaCO ₃	6	42	mg/L
Turbidity	1	39	NTU
Volumes purged	2.9	0.023	well vol
Sampling code		XN	
Synchronous water level	233.4 (09/17/98)	230.9 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.085	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	12	//				1	GE								µg/L
Cadmium, total recoverable	0.16	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	3.5	//				1	GE								µg/L
Cobalt, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Copper, total recoverable	0.58	//				1	GE								µg/L
Cyanide	4.8	J/E/1/2	NDD			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	4.8	//		■		1	GE	µg/L
Nickel, total recoverable	1.2	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	910	/N/				1	GE	29,000	//		■		25	GE	µg/L
Selenium, total recoverable	0.96	J/E/	NDD			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	7.8	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	U//	< 9.9			1	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB101C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt	ST	H	DF	Lab	4Q98	Mod	Filt	ST	H	DF	Lab	Unit
Americium-241	<1.6E-02	U//	< 0.0757			1	GP								pCi/L
Carbon-14	<2.5E+00	U//	< 8.9100			1	GP								pCi/L
Cobalt-60	<-1.6E+00	U//	< 3.3200			1	GP								pCi/L
Curium-242	<-6.4E-03	U//	< 0.1410			1	GP								pCi/L
Curium-243/244	<7.0E-02	U//	< 0.1330			1	GP								pCi/L
Curium-245/246	<-6.1E-03	U//	< 0.1330			1	GP								pCi/L
Gross alpha	<6.1E-01	U//	< 0.6300			1	GP	<9.1E+00	U//	<2.9E+00			1	GE	pCi/L
Iodine-129	<-3.0E-01	U//	< 0.9360			1	GP								pCi/L
Nickel-63	<-1.6E+00	U	< 3.3200												pCi/L
Nonvolatile beta	<1.1E+00	U//	< 1.7300			1	GP	7.6E+01	//		■		1	GE	pCi/L
Plutonium-238	<6.1E-04	U//	< 0.1150			1	GP								pCi/L
Plutonium-239/240	<-1.8E-02	U//	< 0.1230			1	GP								pCi/L
Radium-226	<4.9E-01	U//	< 0.1890			1	GP								pCi/L
Radium-228	<5.9E-01	U//	< 1.2100			1	GP								pCi/L
Strontium-90	<9.4E-01	U//	< 1.7600			1	GP								pCi/L
Technetium-99	<2.9E-01	U//	< 20.7000			1	GP								pCi/L
Thorium-228	<1.8E-01	U//	< 0.8440			1	GP								pCi/L
Thorium-230	<1.9E-01	U//	< 0.5180			1	GP								pCi/L
Thorium-232	<4.4E-02	U//	< 0.3030			1	GP								pCi/L
Sum of alphas															
Sum of betas															
Tritium	1.0E+01	//				1	GP	2.9E+03	//		■		1	GE	pCi/mL
Uranium-233/234	<1.6E-02	U//	< 0.1120			1	GP								pCi/L
Uranium-235	<2.1E-02	U//	< 0.0640			1	GP								pCi/L
Uranium-238	<1.6E-02	U//	< 0.1120			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB101D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71997.5 E58594.8	33.280614 °N 81.652362 °W	236.1-216.1 ft msl	258.7 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/27/98 11/05/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	257.7	226.2	ft msl
pH	21.5	9.3	pH
Sp. conductance	7	95	µS/cm
Water temperature	280	18.2	°C
Alkalinity as CaCO ₃	124	9	mg/L
Turbidity		2	NTU
Volumes purged	0.0	2.4	well vol
Sampling code	6	N	
Synchronous water level	227.2 (09/17/98)	225.5 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	0.19	J/E/	NDD			1	GE								µg/L
Arsenic, total recoverable	39	N/				1	GE								µg/L
Barium, total recoverable	3.1	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	2.0	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.13	J/E/	NDD			1	GE								µg/L
Copper, total recoverable	0.40	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	2.4	//		■		1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	17,000	N/		■		10	GE	600	//				1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	140	//		■		1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<16	UJ/OV/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB101D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<3.0E-02	U//	< 0.0297	■		1	GP								pCi/L
Beta dose	8.03			■											pCi/L
Carbon-14	5.8E+02	//		■		1	GP								pCi/L
Cobalt-60	<-1.5E+00	U//	< 3.4200			1	GP								pCi/L
Curium-242	<1.1E-02	U//	< 0.0316			1	GP								pCi/L
Curium-243/244	<1.5E-02	U//	< 0.0626			1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.0297			1	GP								pCi/L
Gross alpha	9.5E-01	//				1	GP	<3.4E-01	U//	<1.1E+00			1	GE	pCi/L
Iodine-129	5.2E+00	//				1	GP								pCi/L
Nickel-63	<-1.5E+00	U	< 3.4200												pCi/L
Nonvolatile beta	1.0E+01	//				1	GP	<1.5E+00	U//	<1.8E+00			1	GE	pCi/L
Plutonium-238	<0.0E+00	U//	< 0.0246			1	GP								pCi/L
Plutonium-239/240	<1.6E-02	U//	< 0.0245			1	GP								pCi/L
Radium-226	1.6E+00	//				1	GP								pCi/L
Radium-228	<2.6E-01	U//	< 1.0900			1	GP								pCi/L
Strontium-90	2.0E+01	//		■		1	GP								pCi/L
Technetium-99	3.9E+01	//				1	GP								pCi/L
Thorium-228	<1.2E-01	UIJ/C/	<0.659			1	GP								pCi/L
Thorium-230	<-6.8E-02	UIJ/C/	<0.652			1	GP								pCi/L
Thorium-232	<-4.5E-02	UIJ/C/	<0.584			1	GP								pCi/L
Sum of alphas	3.3E+00														pCi/L
Sum of betas	6.4E+02			■											pCi/L
Total radium	1.6E+00														pCi/L
Tritium	1.2E+03	//		■		1	GP	6.6E+00	//				1	GE	pCi/mL
Uranium-233/234	1.3E+00	//				1	GP								pCi/L
Uranium-235	2.5E-01	//				1	GP								pCi/L
Uranium-238	1.8E+00	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB102C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71960.1 E58399.7	33.280213 °N 81.652803 °W	176.7-166.7 ft msl	259 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/07/98	10/07/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	226.7	225.7	ft msl
pH	5.6	5.5	pH
Sp. conductance	180	170	µS/cm
Water temperature	21.5	21.3	°C
Alkalinity as CaCO ₃	34	16	mg/L
Turbidity	3	1	NTU
Volumes purged	3.0	2.1	well vol
Sampling code			
Synchronous water level	226.0 (09/17/98)	224.3 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	<0.068	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	45	//				1	GE								µg/L
Cadmium, total recoverable	0.46	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	1.2	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	1.6	//				1	GE								µg/L
Copper, total recoverable	0.61	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	0.40	//				1	GE	0.43	//				1	GE	µg/L
Nickel, total recoverable	5.5	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	16,000	N//		■		25	GE	14,000	//		■		5	GE	µg/L
Selenium, total recoverable	1.9	J/E/	NDD			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	0.19	J/E/	NDD			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	28	//				1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB102C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<9.3E-03	UI//	< 0.0474			1	GP								pCi/L
Beta dose	0.58														pCi/L
Carbon-14	<3.3E+00	UI//	< 9.0100			1	GP								pCi/L
Cobalt-60	<1.1E+00	UI//	< 4.0800			1	GP								pCi/L
Curium-242	<4.7E-03	UI//	< 0.1160			1	GP								pCi/L
Curium-243/244	<1.6E-02	UI//	< 0.0474			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0474			1	GP								pCi/L
Gross alpha	3.3E+00	//				1	GP	1.9E+00	//			1	GE		pCi/L
Iodine-129	<8.3E-01	UI//	< 0.9600			1	GP								pCi/L
Nickel-63	<1.1E+00	UI	< 4.0800												pCi/L
Nonvolatile beta	5.6E+00	//				1	GP	3.7E+00	//			1	GE		pCi/L
Plutonium-238	<8.0E-03	UI//	< 0.1220			1	GP								pCi/L
Plutonium-239/240	<6.8E-03	UI//	< 0.0886			1	GP								pCi/L
Radium-226	2.1E+00	//				1	GP								pCi/L
Radium-228	1.4E+00	//				1	GP								pCi/L
Strontium-90	2.4E+00	//				1	GP								pCi/L
Technetium-99	<1.7E+00	UI//	< 19.8000			1	GP								pCi/L
Thorium-228	<1.9E-01	UI//	< 0.7590			1	GP								pCi/L
Thorium-230	<8.3E-02	UI//	< 0.3730			1	GP								pCi/L
Thorium-232	<9.2E-03	UI//	< 0.3730			1	GP								pCi/L
Sum of alphas															
Sum of betas	3.8E+00														pCi/L
Total radium	3.5E+00														pCi/L
Tritium	1.5E+02	//		■		1	GP	1.7E+02	//		■	1	GE		pCi/mL
Uranium-233/234	<4.2E-02	UI//	< 0.1280			1	GP								pCi/L
Uranium-235	<4.7E-02	UI//	< 0.1150			1	GP								pCi/L
Uranium-238	<1.4E-02	UI//	< 0.0974			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB102D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71952.4 E58393.4	33.280186 °N 81.652805 °W	236.3-216.3 ft msl	258.6 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/21/98 10/13/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	231.2	230.1	ft msl
pH	3.6	3.3	pH
Sp. conductance	120	170	µS/cm
Water temperature	20.0	18.2	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	5	7	NTU
Volumes purged	0.10	0.0	well vol
Sampling code	XN	XN	
Synchronous water level	232.7 (09/17/98)	228.3 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	14	//				1	GE								µg/L
Cadmium, total recoverable	0.34	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	1.1	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	1.5	//				1	GE								µg/L
Copper, total recoverable	9.0	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	4.5	//				1	GE								µg/L
Mercury, total recoverable	0.64	//				1	GE	0.41	//				1	GE	µg/L
Nickel, total recoverable	6.5	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	10,000	J/IV/1	NDD			5	GE	13,000	//				5	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	38	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.6	U//	< 9.6			1	GE								µg/L
Dichloromethane	<1.5	UJ/O8/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB102D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<7.4E-02	UI//	< 0.138	■		1	GP								pCi/L
Beta dose	93.71			■											pCi/L
Carbon-14	3.8E+01	//				1	GP								pCi/L
Cobalt-60	1.3E+01	//				1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.149			1	GP								pCi/L
Curium-243/244	<4.6E-02	UI//	< 0.139			1	GP								pCi/L
Curium-245/246	<1.1E-02	UI//	< 0.243			1	GP								pCi/L
Gross alpha	5.0E+01	//		■		1	GP	5.8E+01	//		■		1	GE	pCi/L
Iodine-129	2.0E+00	//				1	GP								pCi/L
Nickel-63	4.5E+01	//				1	GP								pCi/L
Nonvolatile beta	1.6E+03	//		■		1	GP	2.3E+03	//		■		1	GE	pCi/L
Plutonium-238	<5.2E-02	UI//	< 0.156			1	GP								pCi/L
Plutonium-239/240	<5.2E-02	UI//	< 0.156			1	GP								pCi/L
Radium-226	2.6E+00	//				1	GP								pCi/L
Radium-228	3.3E+00	//				1	GP								pCi/L
Strontium-90	7.2E+02	//		■		1	GP								pCi/L
Technetium-99	<1.8E+01	UI//	< 22.4			1	GP								pCi/L
Thorium-228	5.0E-01	R/4/	Rej			1	GP								pCi/L
Thorium-230	<1.5E-01	UI//	< 0.224			1	GP								pCi/L
Thorium-232	<0.0E+00	UI//	< 0.224			1	GP								pCi/L
Sum of alphas	3.0E+01			■											pCi/L
Sum of betas	8.2E+02			■											pCi/L
Total radium	6.0E+00														pCi/L
Tritium	2.6E+02	//		■		1	GP	1.4E+03	//		■		1	GE	pCi/mL
Uranium-233/234	1.6E+01	//		■		1	GP								pCi/L
Uranium-235	7.9E-01	//				1	GP								pCi/L
Uranium-238	1.3E+01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB103C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71593.9 E58323.6	33.279279 °N 81.652293 °W	169.2-159.2 ft msl	247.4 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/07/98	10/07/98
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FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	225.4	224.2	ft msl
pH	4.5	4.9	pH
Sp. conductance	190	180	µS/cm
Water temperature	22.2	21.4	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	2	0	NTU
Volumes purged	2.8	2.2	well vol
Sampling code			
Synchronous water level	224.6 (09/17/98)	223.0 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.077	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	0.62	J/E/	NDD			1	GE								µg/L
Barium, total recoverable	75	//				1	GE								µg/L
Cadmium, total recoverable	0.64	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	0.64	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	15	//		■		1	GE								µg/L
Copper, total recoverable	0.96	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	1.3	//				1	GE	1.2	//				1	GE	µg/L
Nickel, total recoverable	6.0	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	20,000	N//		■		25	GE	21,000	//		■		25	GE	µg/L
Selenium, total recoverable	0.95	J/E/	NDD			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	21	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	U//	< 9.9			1	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	3.8	//				1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB103C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<9.3E-03	UI//	< 0.0637	■		1	GP								pCi/L
Beta dose	4.93														pCi/L
Carbon-14	1.3E+01	//				1	GP								pCi/L
Cobalt-60	<1.8E-01	UI//	< 4.3500			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0673			1	GP								pCi/L
Curium-243/244	<2.1E-02	UI//	< 0.0637			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0636			1	GP								pCi/L
Gross alpha	4.4E+00	//				1	GP	4.6E+00	//				1	GE	pCi/L
Iodine-129	4.9E+00	/V/				1	GP								pCi/L
Nickel-63	<1.8E-01	UI	< 4.3500												pCi/L
Nonvolatile beta	1.3E+01	//				1	GP	1.3E+01	//				1	GE	pCi/L
Plutonium-238	<2.6E-02	UI//	< 0.0771			1	GP								pCi/L
Plutonium-239/240	<3.5E-03	UI//	< 0.0771			1	GP								pCi/L
Radium-226	2.2E+00	//				1	GP								pCi/L
Radium-228	<8.1E-01	UI//	< 1.1200			1	GP								pCi/L
Strontium-90	<1.2E+00	UI//	< 1.8900			1	GP								pCi/L
Technetium-99	2.4E+01	//				1	GP								pCi/L
Thorium-228	<3.4E-01	UI//	< 0.6350			1	GP								pCi/L
Thorium-230	<4.9E-02	UI//	< 0.1470			1	GP								pCi/L
Thorium-232	<3.5E-02	UI//	< 0.3400			1	GP								pCi/L
Sum of alphas	9.7E-02														pCi/L
Sum of betas	4.2E+01														pCi/L
Total radium	2.2E+00														pCi/L
Tritium	4.4E+02	//		■		1	GP	5.5E+02	//		■		1	GE	pCi/mL
Uranium-233/234	<7.7E-02	UI//	< 0.0855			1	GP								pCi/L
Uranium-235	<3.3E-02	UI//	< 0.0487			1	GP								pCi/L
Uranium-238	9.7E-02	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB103D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71588.1 E58315.6	33.279253 °N 81.652302 °W	233.7-213.7 ft msl	247.6 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/14/98 10/13/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	226.6	225.6	ft msl
pH	4.4	4.7	pH
Sp. conductance	120	150	µS/cm
Water temperature	20.3	17.6	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	2	14	NTU
Volumes purged	4.4	0.0	well vol
Sampling code		XN	
Synchronous water level	226.0 (09/17/98)	224.1 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	26	//				1	GE								µg/L
Cadmium, total recoverable	0.28	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	1.3	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	1.3	//				1	GE								µg/L
Copper, total recoverable	2.3	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.64	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	2.5	//		■		1	GE	7.7	//		■		1	GE	µg/L
Nickel, total recoverable	3.2	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	14,000	/N/		■		10	GE	15,000	//		■		10	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	9.1	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	UJ/Q/	< 10	●		1	GE								µg/L
Dichloromethane	<1.9	UJ/VQ8/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB103D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt	ST	H	DF	Lab	4Q98	Mod	Filt	ST	H	DF	Lab	Unit
Americium-241	<9.5E-02	UI//	< 0.2810	■		1	GP								pCi/L
Beta dose	81.43			■											pCi/L
Carbon-14	7.2E+01	//		■		1	GP								pCi/L
Cobalt-60	<2.8E+00	UI//	< 5.9700			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.1500			1	GP								pCi/L
Curium-243/244	<4.5E-02	UI//	< 0.1360			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.1360			1	GP								pCi/L
Gross alpha	1.4E+01	//				1	GP	9.4E+00	//				1	GE	pCi/L
Iodine-129	7.6E+00	//				1	GP								pCi/L
Nickel-63	<2.8E+00	UI	< 5.9700												pCi/L
Nonvolatile beta	1.0E+03	//		■		1	GP	1.1E+03	//		■		1	GE	pCi/L
Plutonium-238	<3.4E-02	UI//	< 0.3290			1	GP								pCi/L
Plutonium-239/240	<1.9E-03	UI//	< 0.3570			1	GP								pCi/L
Radium-226	3.4E+00	//				1	GP								pCi/L
Radium-228	<8.6E-01	UI//	< 1.1100			1	GP								pCi/L
Strontium-90	5.9E+02	//		■		1	GP								pCi/L
Technetium-99	3.6E+01	//				1	GP								pCi/L
Thorium-228	<4.9E-01	UI//	< 0.6380			1	GP								pCi/L
Thorium-230	<1.7E-02	UI//	< 0.3800			1	GP								pCi/L
Thorium-232	<0.0E+00	UI//	< 0.2730			1	GP								pCi/L
Sum of alphas	1.4E+00														pCi/L
Sum of betas	7.1E+02			■											pCi/L
Total radium	3.4E+00														pCi/L
Tritium	5.5E+02	//		■		1	GP	1.1E+03	//		■		1	GE	pCi/mL
Uranium-233/234	1.1E+00	//				1	GP								pCi/L
Uranium-235	<0.0E+00	UI//	< 0.1800			1	GP								pCi/L
Uranium-238	3.0E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB104C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71376.8 E58082.6	33.278406 °N 81.652506 °W	173.5-163.5 ft msl	247.9 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/07/98	10/07/98
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FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	221.8	220.9	ft msl
pH	9.1	9.8	pH
Sp. conductance	150	160	µS/cm
Water temperature	22.6	21.2	°C
Alkalinity as CaCO ₃	44	46	mg/L
Turbidity	0	0	NTU
Volumes purged	2.4	2.1	well vol
Sampling code			
Synchronous water level	221.3 (09/17/98)	219.7 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.070	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	85	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	1.7	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.18	J/E/	NDD			1	GE								µg/L
Copper, total recoverable	0.48	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	0.66	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	7.200	N//				5	GE	4,800	//				2	GE	µg/L
Selenium, total recoverable	1.5	J/E/	NDD			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	6.7	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.8	U//	< 9.8			1	GE								µg/L
Dichloromethane	<0.79	U/VB/	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	0.67	J/E/	NDD			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB104C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<1.4E-02	UI//	< 0.1120			1	GP								pCi/L
Beta dose	0.69														pCi/L
Carbon-14	<8.0E+00	UI//	< 8.7500			1	GP								pCi/L
Cobalt-60	<4.0E-01	UI//	< 2.6100			1	GP								pCi/L
Curium-242	<4.5E-02	UI//	< 0.0675			1	GP								pCi/L
Curium-243/244	<1.6E-02	UI//	< 0.1120			1	GP								pCi/L
Curium-245/246	<1.6E-02	UI//	< 0.1120			1	GP								pCi/L
Gross alpha	2.2E+00	//				1	GP	<8.7E-01	U//	<6.4E-01			1	GE	pCi/L
Iodine-129	<2.5E-01	UI//	< 0.7380			1	GP								pCi/L
Nickel-63	<4.0E-01	UI	< 2.6100												pCi/L
Nonvolatile beta	1.1E+01	//				1	GP	1.2E+01	//				1	GE	pCi/L
Plutonium-238	<1.5E-02	UI//	< 0.1340			1	GP								pCi/L
Plutonium-239/240	<1.4E-02	UI//	< 0.1080			1	GP								pCi/L
Radium-226	1.6E+00	//				1	GP								pCi/L
Radium-228	1.3E+00	//				1	GP								pCi/L
Strontium-90	3.4E+00	//				1	GP								pCi/L
Technetium-99	<1.1E+01	UI//	< 20.9000			1	GP								pCi/L
Thorium-228	<9.9E-02	UI//	< 0.4480			1	GP								pCi/L
Thorium-230	<4.5E-02	UI//	< 0.3500			1	GP								pCi/L
Thorium-232	<0.0E+00	UI//	< 0.1390			1	GP								pCi/L
Sum of alphas															
Sum of betas	4.7E+00														pCi/L
Total radium	2.9E+00														pCi/L
Tritium	1.9E+02	//		■		1	GP	2.3E+02	//		■		1	GE	pCi/mL
Uranium-233/234	<2.8E-02	UI//	< 0.1150			1	GP								pCi/L
Uranium-235	<1.9E-02	UI//	< 0.1400			1	GP								pCi/L
Uranium-238	<1.4E-02	UI//	< 0.0972			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB104D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71370.2 E58075.8	33.278380 °N 81.652511 °W	230.6-210.6 ft msl	247.8 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/08/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	225.3	224.7	ft msl
pH	4.4	4.4	pH
Sp. conductance	64	60	µS/cm
Water temperature	20.2	21.7	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	2	3	NTU
Volumes purged	3.7	3.6	well vol
Sampling code			
Synchronous water level	218.0 (09/17/98)	222.9 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	16	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	1.0	//				1	GE								µg/L
Copper, total recoverable	<2.7	U/V/	< 0.20			1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.53	J/EV/	NDD			1	GE								µg/L
Mercury, total recoverable	1.8	//				1	GE	5.7	//				1	GE	µg/L
Nickel, total recoverable	<2.4	U/V/	< 0.20			1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	3,100	N/				3	GE	2,900	//				1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<0.17	U/V/	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<11	U/V/	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	U//	< 9.9			1	GE								µg/L
Dichloromethane	<2.4	UJ/OV/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	1.6	J/O/1	NDD			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB104D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<1.2E-01	UI//	< 0.1460	■		1	GP								pCi/L
Beta dose	36.20														pCi/L
Carbon-14	<7.1E+00	UI//	< 8.8400			1	GP								pCi/L
Cobalt-60	<2.7E+00	UI//	< 3.7900			1	GP								pCi/L
Curium-242	<7.9E-03	UI//	< 0.1530			1	GP								pCi/L
Curium-243/244	<4.3E-02	UI//	< 0.1060			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0508			1	GP								pCi/L
Gross alpha	7.1E+00	//				1	GP	4.4E+00	//				1	GE	pCi/L
Iodine-129	1.2E+00	//				1	GP								pCi/L
Nickel-63	<2.7E+00	UI	< 3.7900												pCi/L
Nonvolatile beta	6.3E+02	//		■		1	GP	3.3E+02	//				1	GE	pCi/L
Plutonium-238	<3.5E-02	UI//	< 0.2050			1	GP								pCi/L
Plutonium-239/240	<2.4E-02	UI//	< 0.0604			1	GP								pCi/L
Radium-226	1.3E+00	//				1	GP								pCi/L
Radium-228	<3.4E-01	UI//	< 1.1200			1	GP								pCi/L
Strontium-90	2.8E+02	//		■		1	GP								pCi/L
Technetium-99	<1.3E+01	UI//	< 21.3000			1	GP								pCi/L
Thorium-228	<8.2E-02	UI//	< 0.8260			1	GP								pCi/L
Thorium-230	<3.7E-02	UI//	< 0.3580			1	GP								pCi/L
Thorium-232	<1.2E-02	UI//	< 0.2720			1	GP								pCi/L
Sum of alphas	9.2E-01														pCi/L
Sum of betas	2.8E+02			■											pCi/L
Total radium	1.3E+00														pCi/L
Tritium	2.1E+02	//		■		1	GP	2.8E+02	//				1	GE	pCi/mL
Uranium-233/234	7.5E-01	//				1	GP								pCi/L
Uranium-235	<0.0E+00	UI//	< 0.0567			1	GP								pCi/L
Uranium-238	1.7E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB105C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71447.3 E57883.8	33.278237 °N 81.653166 °W	162.2-152.2 ft msl	249.5 ft msl	4" PVC	S	Barnwell (IIB1)

SAMPLE DATE 07/09/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	220.7	219.8	ft msl
pH	5.3	5.5	pH
Sp. conductance	100	91	µS/cm
Water temperature	20.2	19.3	°C
Alkalinity as CaCO ₃	30	5	mg/L
Turbidity	1	0	NTU
Volumes purged	2.8	0.90	well vol
Sampling code			
Synchronous water level	220.2 (09/17/98)	218.8 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	8.6	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.7	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Copper, total recoverable	2.9	//				1	GE								µg/L
Cyanide	8.0	J/E/	NDD			1	GE								µg/L
Lead, total recoverable	0.39	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	0.084	J//	NDD			1	GE	µg/L
Nickel, total recoverable	1.7	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	4,400	//				5	GE	4,800	//				3	GE	µg/L
Selenium, total recoverable	0.59	J/E/	NDD			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<0.36	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	16	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB105C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<4.4E-02	U//	< 0.1330			1	GP								pCi/L
Carbon-14	<6.8E+00	U//	< 9.0400			1	GP								pCi/L
Cobalt-60	<-6.2E-02	U//	< 3.2900			1	GP								pCi/L
Curium-242	<9.8E-03	U//	< 0.1170			1	GP								pCi/L
Curium-243/244	<-4.2E-03	U//	< 0.0928			1	GP								pCi/L
Curium-245/246	<-4.2E-03	U//	< 0.0927			1	GP								pCi/L
Gross alpha	9.2E-01	//				1	GP	<4.2E-01	U//	<7.2E-01			1	GE	pCi/L
Iodine-129	<3.8E-01	U//	< 0.6940			1	GP								pCi/L
Nickel-63	<-6.2E-02	U//	< 3.2900												pCi/L
Nonvolatile beta	<8.0E-01	U//	< 1.2100			1	GP	<2.6E+00	U//	<1.3E+00			1	GE	pCi/L
Plutonium-238	<8.6E-03	U//	< 0.1020			1	GP								pCi/L
Plutonium-239/240	<-4.0E-03	U//	< 0.0868			1	GP								pCi/L
Radium-226	5.2E-01	//				1	GP								pCi/L
Radium-228	<6.3E-01	U//	< 1.1400			1	GP								pCi/L
Strontium-90	<1.1E-02	U//				1	GP								pCi/L
Technetium-99	<-1.4E+01	U//	< 31.2000			1	GP								pCi/L
Thorium-228	<2.8E-01	U//	< 0.4190			1	GP								pCi/L
Thorium-230	<1.1E-01	U//	< 0.1630			1	GP								pCi/L
Thorium-232	<0.0E+00	U//	< 0.0645			1	GP								pCi/L
Sum of alphas	4.9E+00														pCi/L
Sum of betas															
Total radium	5.2E-01														
Tritium	8.9E+01	//		■		1	GP	9.2E+01	//		■		1	GE	pCi/L
Uranium-233/234	1.4E+00	//				1	GP								pCi/mL
Uranium-235	2.3E-01	//				1	GP								pCi/L
Uranium-238	3.3E+00	//				1	GP								pCi/L

Notes:

● = exceeded holding time

■ = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB105D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71454.8 E57877.4	33.278244 °N 81.653197 °W	231.8-211.8 ft msl	249.5 ft msl	4" PVC	V	Water Table (IIB2)

<u>SAMPLE DATE</u>	07/08/98	10/12/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	222.9	225.3	ft msl
pH	4.0	3.9	pH
Sp. conductance	100	130	µS/cm
Water temperature	21.8	21.6	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	2	1	NTU
Volumes purged	5.6	4.3	well vol
Sampling code			
Synchronous water level	225.9 (09/17/98)	223.1 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	25	//				1	GE								µg/L
Cadmium, total recoverable	0.22	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	1.7	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	5.3	//		■		1	GE								µg/L
Copper, total recoverable	12	/N/				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	3.0	/N/				1	GE								µg/L
Mercury, total recoverable	5.3	//		■		1	GE	3.5	//		■		1	GE	µg/L
Nickel, total recoverable	<6.3	U/N/	< 0.20			1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	12,000	/N/		■		5	GE	13,000	//		■		5	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<0.41	U/N/	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	53	/N/				1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<2.5	UJ/OV/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	1.3	J/O/1	NDD			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB105D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<3.6E-02	U//	< 0.1520	■		1	GP								pCi/L
Beta dose	64.16														pCi/L
Carbon-14	3.7E+01	//				1	GP								pCi/L
Cobalt-60	1.3E+01	//				1	GP								pCi/L
Curium-242	<1.4E-02	U//	< 0.0977			1	GP								pCi/L
Curium-243/244	<2.7E-02	U//	< 0.1090			1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.0533			1	GP								pCi/L
Gross alpha	1.7E+01	//		■		1	GP	1.2E+01	//				1	GE	pCi/L
Iodine-129	1.0E+01	//				1	GP								pCi/L
Nickel-63	1.3E+01	//													pCi/L
Nonvolatile beta	1.0E+03	//		■		1	GP	1.0E+03	//		■		1	GE	pCi/L
Plutonium-238	<7.9E-03	U//				1	GP								pCi/L
Plutonium-239/240	<4.0E-03	U//	< 0.1730			1	GP								pCi/L
Radium-226	2.5E+00	//				1	GP								pCi/L
Radium-228	<4.6E-01	U//	< 0.7290			1	GP								pCi/L
Strontium-90	4.3E+02	//		■		1	GP								pCi/L
Technetium-99	<1.9E+01	U//	< 21.0			1	GP								pCi/L
Thorium-228	<3.4E-02	U//	< 0.4910			1	GP								pCi/L
Thorium-230	<8.4E-02	U//	< 0.2080			1	GP								pCi/L
Thorium-232	<0.0E+00	U//	< 0.1000			1	GP								pCi/L
Sum of alphas	1.5E+00														pCi/L
Sum of betas	5.0E+02			■											pCi/L
Total radium	2.5E+00														pCi/L
Tritium	1.6E+03	//		■		1	GP	1.3E+03	//		■		1	GE	pCi/mL
Uranium-233/234	1.3E+00	N//				1	GP								pCi/L
Uranium-235	<2.8E-02	U//	< 0.1150			1	GP								pCi/L
Uranium-238	2.1E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB106C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71720.9 E57651.5	33.278464 °N 81.654309 °W	168.7-158.7 ft msl	252.9 ft msl	4" PVC	S	Bamwell (IIB ₁)

SAMPLE DATE 07/09/98 10/12/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	223.3	222.0	ft msl
pH	4.8	5.3	pH
Sp. conductance	74	78	µS/cm
Water temperature	23.9	19.6	°C
Alkalinity as CaCO ₃	6	2	mg/L
Turbidity	1	0	NTU
Volumes purged	2.8	2.3	well vol
Sampling code			
Synchronous water level	222.5 (09/17/98)	221.0 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	14	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<2.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	0.089	J/E/	NDD			1	GE								µg/L
Copper, total recoverable	0.89	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.19	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	0.59	//				1	GE	0.57	//				1	GE	µg/L
Nickel, total recoverable	1.8	N/				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	5,800	N/				5	GE	6,400	//				3	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<0.16	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	12	//				1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	59	//				1	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB106C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<3.1E-02	U//	< 0.1500			1	GP								pCi/L
Beta dose	0.01														pCi/L
Carbon-14	1.1E+01	//				1	GP								pCi/L
Cobalt-60	<2.3E-01	U//	< 3.7300			1	GP								pCi/L
Curium-242	<-1.5E-02	U//	< 0.1470			1	GP								pCi/L
Curium-243/244	<3.5E-02	U//	< 0.1050			1	GP								pCi/L
Curium-245/246	<2.0E-02	U//	< 0.0594			1	GP								pCi/L
Gross alpha	7.5E-01	//				1	GP	8.1E-01	J/K/C	NDD			1	TM	pCi/L
Iodine-129	<8.2E-01	U//	< 1.2200			1	GP								pCi/L
Nickel-63	<2.3E-01	U	< 3.7300												pCi/L
Nonvolatile beta	2.0E+00	//				1	GP	3.6E+00	//				1	TM	pCi/L
Plutonium-238	<7.4E-02	U//	< 0.1020			1	GP								pCi/L
Plutonium-239/240	<2.9E-02	U//	< 0.0863			1	GP								pCi/L
Radium-226	<6.0E-01	U/V	< 0.5580			1	GP								pCi/L
Radium-228	<4.2E-01	U//	< 1.2700			1	GP								pCi/L
Strontium-90	<-3.3E-02	U//L				1	GP								pCi/L
Technetium-99	<-1.0E+01	U//	< 22.1000			1	GP								pCi/L
Thorium-228	<9.7E-02	U//	< 0.3990			1	GP								pCi/L
Thorium-230	<9.8E-02	U//	< 0.1340			1	GP								pCi/L
Thorium-232	<2.2E-02	U//	< 0.0648			1	GP								pCi/L
Sum of alphas															
Sum of betas	1.1E+01														
Tritium	1.6E+02	//		■		1	GP	1.8E+02	//		■		1	GE	pCi/mL
Uranium-233/234	<1.3E-01	U/V	< 0.1160			1	GP								pCi/L
Uranium-235	<6.6E-02	U//	< 0.0662			1	GP								pCi/L
Uranium-238	<3.9E-02	U//	< 0.1160			1	GP								pCi/L

Notes:

● = exceeded holding time

■ = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB106D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71727.8 E57644.8	33.278468 °N 81.654340 °W	230.7-210.7 ft msl	252.9 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/08/98 10/14/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	228.6	226.0	ft msl
pH	4.2	3.9	pH
Sp. conductance	88	81	µS/cm
Water temperature	19.5	18.2	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	4.0	3.7	well vol
Sampling code			
Synchronous water level	226.6 (09/17/98)	224.5 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	20	//				1	GE								µg/L
Cadmium, total recoverable	0.19	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	0.63	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	2.2	//				1	GE								µg/L
Copper, total recoverable	8.0	N//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	1.5	J/EV/	NDD			1	GE								µg/L
Mercury, total recoverable	19	//		■		2	GE	6.3	//		■		1	GE	µg/L
Nickel, total recoverable	<5.3	U/V/	< 0.20			1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	7,300	N//				5	GE	10,000	//		■		5	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<0.54	U/V/	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<24	U/V/	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	UJ/Q/	< 10		●	1	GE								µg/L
Dichloromethane	<2.3	UJ/OV/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB106D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	2.2E-01	//				1	GP								pCi/L
Beta dose	29.61			■											pCi/L
Carbon-14	2.2E+01	//				1	GP								pCi/L
Cobalt-60	<1.4E+00	U//	< 4.7000			1	GP								pCi/L
Curium-242	<1.0E-02	U//	< 0.1330			1	GP								pCi/L
Curium-243/244	<1.4E-01	U//	< 0.1070			1	GP								pCi/L
Curium-245/246	<4.9E-03	U//	< 0.1070			1	GP								pCi/L
Gross alpha	7.0E+00	//				1	GP	4.7E+00	//				1	GE	pCi/L
Iodine-129	7.1E+00	//				1	GP								pCi/L
Nickel-63	<1.4E+00	U	< 4.7000												pCi/L
Nonvolatile beta	4.5E+02	//		■		1	GP	5.2E+02	//				1	GE	pCi/L
Plutonium-238	<2.9E-03	U//	< 0.1620			1	GP								pCi/L
Plutonium-239/240	<1.2E-02	U//	< 0.0505			1	GP								pCi/L
Radium-226	2.1E+00	//				1	GP								pCi/L
Radium-228	<1.7E-01	U//	< 1.3400			1	GP								pCi/L
Strontium-90	1.8E+02	//		■		1	GP								pCi/L
Technetium-99	<2.0E+00	U//	< 20.7000			1	GP								pCi/L
Thorium-228	<6.7E-01	U//	< 0.8490			1	GP								pCi/L
Thorium-230	<4.6E-02	U//	< 0.3210			1	GP								pCi/L
Thorium-232	<1.2E-01	U//	< 0.1820			1	GP								pCi/L
Sum of alphas	1.4E+00														pCi/L
Sum of betas	2.0E+02			■											pCi/L
Total radium	2.1E+00														pCi/L
Tritium	2.9E+02	//		■		1	GP	7.1E+02	//				1	GE	pCi/mL
Uranium-233/234	9.9E-01	/N/				1	GP								pCi/L
Uranium-235	<6.2E-02	U//	< 0.0618			1	GP								pCi/L
Uranium-238	2.0E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB107C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71698.5 E57432.0	33.278056 °N 81.654844 °W	169.3-159.3 ft msl	261.6 ft msl	4" PVC	S	Barnwell (IB1)

SAMPLE DATE 07/22/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	220.0	219.3	ft msl
pH	6.7	6.5	pH
Sp. conductance	120	140	µS/cm
Water temperature	21.4	20.5	°C
Alkalinity as CaCO ₃	16	25	mg/L
Turbidity	3	0	NTU
Volumes purged	2.9	2.3	well vol
Sampling code			
Synchronous water level	219.6 (09/17/98)	218.3 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.14	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	38	//				1	GE								µg/L
Cadmium, total recoverable	0.36	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	0.89	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Copper, total recoverable	0.89	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	2.9	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	7,900	N//				5	GE	8,000	//				3	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	12	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<11	U//	< 11			1	GE								µg/L
Dichloromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.2	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.4	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	4.4	J/O/1	NDD			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB107C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<1.3E-01	UI//	< 0.2930			1	GP								pCi/L
Beta dose	0.20														pCi/L
Carbon-14	<4.6E+00	UI//	< 8.5100			1	GP								pCi/L
Cobalt-60	<2.1E-01	UI//	< 3.5100			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0665			1	GP								pCi/L
Curium-243/244	<4.2E-02	UI//	< 0.0632			1	GP								pCi/L
Curium-245/246	<1.5E-02	UI//	< 0.1460			1	GP								pCi/L
Gross alpha	9.4E-01	//				1	GP	<8.1E-01	U//	<5.2E-01		1	GE		pCi/L
Iodine-129	<1.5E-01	UI//	< 0.7400			1	GP								pCi/L
Nickel-63	<2.1E-01	UI	< 3.5100												pCi/L
Nonvolatile beta	5.1E+00	//				1	GP	5.3E+00	//			1	GE		pCi/L
Plutonium-238	<2.6E-02	UI//	< 0.1310			1	GP								pCi/L
Plutonium-239/240	<1.7E-02	UI//	< 0.0999			1	GP								pCi/L
Radium-226	<3.4E-01	U//	< 0.1540			1	GP								pCi/L
Radium-228	<1.0E+00	UI//	< 1.2600			1	GP								pCi/L
Strontium-90	1.6E+00	//				1	GP								pCi/L
Technetium-99	<2.1E+00	UI//	< 24.2000			1	GP								pCi/L
Thorium-228	<9.1E-02	UI//	< 0.4050			1	GP								pCi/L
Thorium-230	3.7E-01	//				1	GP								pCi/L
Thorium-232	<2.8E-02	UI//	< 0.1970			1	GP								pCi/L
Sum of alphas	3.7E-01														pCi/L
Sum of betas	1.6E+00														pCi/L
Tritium	3.2E+02	//		■		1	GP	4.1E+02	//		■	1	GE		pCi/mL
Uranium-233/234	<2.5E-01	UI//	< 0.3480			1	GP								pCi/L
Uranium-235	<6.6E-02	UI//	< 0.1980			1	GP								pCi/L
Uranium-238	<1.3E-01	UI//	< 0.1980			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB107D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71696.6 E57412.2	33.278019 °N 81.654892 °W	235.1-215.1 ft msl	262.3 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/08/98 10/13/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	225.7	224.3	ft msl
pH	4.6	4.6	pH
Sp. conductance	120	120	µS/cm
Water temperature	20.0	18.0	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	6.1	7.2	well vol
Sampling code			
Synchronous water level	224.7 (09/17/98)	223.0 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	34	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	0.74	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	1.7	//				1	GE								µg/L
Copper, total recoverable	<3.3	U/V/	< 0.20			1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<0.42	U/V/	< 2.0			1	GE								µg/L
Mercury, total recoverable	4.8	//		■		1	GE	3.6	//		■		1	GE	µg/L
Nickel, total recoverable	<3.1	U/V/	< 0.20			1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	13,000	/V/		■		25	GE	12,000	//		■		10	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<0.27	U/V/	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<1.7	U/V/	< 2.0			1	GE								µg/L
Zinc, total recoverable	<16	U/V/	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U/J/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<3.0	U/J/OV/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U/J/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U/J/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U/J/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB107D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<2.9E-02	UI//	< 0.1170	■		1	GP								pCi/L
Beta dose	65.73														pCi/L
Carbon-14	<2.0E+00	UI//	< 9.0100			1	GP								pCi/L
Cobalt-60	1.0E+01	//				1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0540			1	GP								pCi/L
Curium-243/244	<6.3E-02	UI//	< 0.0889			1	GP								pCi/L
Curium-245/246	<4.0E-03	UI//	< 0.0887			1	GP								pCi/L
Gross alpha	1.0E+01	//				1	GP	1.0E+01	//				1	GE	pCi/L
Iodine-129	5.4E+00	//				1	GP								pCi/L
Nickel-63	1.0E+01	//													pCi/L
Nonvolatile beta	1.2E+03	//		■		1	GP	1.1E+03	//		■		1	GE	pCi/L
Plutonium-238	<0.0E+00	UIJ/C/				1	GP								pCi/L
Plutonium-239/240	<9.1E-03	UIJ/C/				1	GP								pCi/L
Radium-226	1.8E+00	//				1	GP								pCi/L
Radium-228	<5.3E-01	UI//	< 1.0800			1	GP								pCi/L
Strontium-90	4.8E+02	//		■		1	GP								pCi/L
Technetium-99	3.0E+01	//				1	GP								pCi/L
Thorium-228	<1.6E-01	UI//	< 0.5250			1	GP								pCi/L
Thorium-230	<2.7E-02	UI//	< 0.2410			1	GP								pCi/L
Thorium-232	<3.0E-02	UI//	< 0.0911			1	GP								pCi/L
Sum of alphas	4.3E+00			■											pCi/L
Sum of betas	5.3E+02														pCi/L
Total radium	1.8E+00														pCi/L
Tritium	3.6E+02	//		■		1	GP	4.5E+02	//		■		1	GE	pCi/mL
Uranium-233/234	3.0E+00	N/				1	GP								pCi/L
Uranium-235	7.5E-01	N/				1	GP								pCi/L
Uranium-238	5.2E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB108C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71688.7 E57155.5	33.277583 °N 81.655553 °W	196.0-186.0 ft msl	266.2 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE 07/22/98 10/12/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	219.1	218.3	ft msl
pH	7.1	6.7	pH
Sp. conductance	120	125	µS/cm
Water temperature	22.3	20.0	°C
Alkalinity as CaCO ₃	47	48	mg/L
Turbidity	1	1	NTU
Volumes purged	4.1	2.8	well vol
Sampling code			
Synchronous water level	218.7 (09/17/98)	217.4 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	<0.21	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	9.7	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	3.8	//				1	GE								µg/L
Cobalt, total recoverable	0.047	J/E/	NDD			1	GE								µg/L
Copper, total recoverable	3.8	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	3.4	//				1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	2.0	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	1,800	N//				1	GE	1,800	//				1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	12	//				1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB108C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<3.2E-02	U//	< 0.0621	■		1	GP								pCi/L
Beta dose	2.40														pCi/L
Carbon-14	<3.1E+00	U//	< 8.7700			1	GP								pCi/L
Cobalt-60	<-1.0E+00	U//	< 3.1800			1	GP								pCi/L
Curium-242	<0.0E+00	U//	< 0.0653			1	GP								pCi/L
Curium-243/244	<3.6E-02	U//	< 0.1090			1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.0620			1	GP								pCi/L
Gross alpha	4.9E-01	//				1	GP	<5.8E-01	U//	<7.0E-01			1	GE	pCi/L
Iodine-129	2.4E+00	//				1	GP								pCi/L
Nickel-63	<-1.0E+00	U//	< 3.1800												pCi/L
Nonvolatile beta	<8.1E-01	U//	< 1.1400			1	GP	6.2E+00	//				1	GE	pCi/L
Plutonium-238	1.0E-01	//				1	GP								pCi/L
Plutonium-239/240	1.4E-01	//				1	GP								pCi/L
Radium-226	<1.6E-01	U//	< 0.4880			1	GP								pCi/L
Radium-228	<1.7E+00	U//	< 1.0600			1	GP								pCi/L
Strontium-90	<2.6E-02	U//	< 2.3700			1	GP								pCi/L
Technetium-99	<5.8E+00	U//	< 23.9000			1	GP								pCi/L
Thorium-228	<1.3E-01	U//	< 0.2810			1	GP								pCi/L
Thorium-230	<1.3E-01	U//	< 0.1790			1	GP								pCi/L
Thorium-232	<2.6E-02	U//	< 0.1790			1	GP								pCi/L
Sum of alphas	2.4E-01														pCi/L
Sum of betas	2.4E+00														pCi/L
Tritium	1.3E+02	//		■		1	GP	1.5E+02	//		■		1	GE	pCi/mL
Uranium-233/234	<4.3E-02	U//	< 0.3000			1	GP								pCi/L
Uranium-235	<1.6E-01	U//	< 0.3010			1	GP								pCi/L
Uranium-238	<4.0E-01	U//	< 0.1710			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB108D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71688.0 E57145.6	33.277566 °N 81.655577 °W	232.0-212.0 ft msl	266.3 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE	07/14/98	10/13/98
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FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	224.2	222.8	ft msl
pH	4.8	4.9	pH
Sp. conductance	76	65	µS/cm
Water temperature	20.0	19.4	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	5.9	5.8	well vol
Sampling code			
Synchronous water level	223.2 (09/17/98)	221.8 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.11	U/V/	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	15	//				1	GE								µg/L
Cadmium, total recoverable	0.30	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	<2.0	U/V/	< 3.0			1	GE								µg/L
Cobalt, total recoverable	1.8	//				1	GE								µg/L
Copper, total recoverable	38	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	3.7	//				1	GE								µg/L
Mercury, total recoverable	2.8	//		■		1	GE	2.9	//		■		1	GE	µg/L
Nickel, total recoverable	5.9	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	6,900	//				3	GE	6,400	//				5	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<0.093	UJ/CV/	< 1.0			1	GE								µg/L
Tin, total recoverable	<0.43	U/V/	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	48	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	U//	< 9.9			1	GE								µg/L
Dichloromethane	<2.4	UJ/VO8/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB108D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<4.4E-03	U//	< 0.2950	■		1	GP								pCi/L
Beta dose	50.32														pCi/L
Carbon-14	2.5E+01	J/X/	NDD			1	GP								pCi/L
Cobalt-60	7.4E+00	//				1	GP								pCi/L
Curium-242	<0.0E+00	U//	< 0.20			1	GP								pCi/L
Curium-243/244	<0.0E+00	U//	< 0.1920			1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.1920			1	GP								pCi/L
Gross alpha	1.5E+01	//		■		1	GP	1.2E+01	//				1	GE	pCi/L
Iodine-129	2.6E+00	//				1	GP								pCi/L
Nickel-63	7.4E+00	//													pCi/L
Nonvolatile beta	9.2E+02	//		■		1	GP	9.9E+02	//				1	GE	pCi/L
Plutonium-238	<0.0E+00	U//	< 0.1850			1	GP								pCi/L
Plutonium-239/240	<-1.5E-02	U//	< 0.3250			1	GP								pCi/L
Radium-226	1.7E+01	//		■		1	GP								pCi/L
Radium-228	<-1.2E-02	U//	< 1.3800			1	GP								pCi/L
Strontium-90	3.8E+02	//		■		1	GP								pCi/L
Technetium-99	<-9.1E+00	U//	< 22.3000			1	GP								pCi/L
Thorium-228	<5.2E-02	U//	< 0.1890			1	GP								pCi/L
Thorium-230	<5.3E-02	U//	< 0.0606			1	GP								pCi/L
Thorium-232	<-9.7E-03	U//	< 0.0737			1	GP								pCi/L
Sum of alphas	1.1E+00														pCi/L
Sum of betas	4.2E+02			■											pCi/L
Total radium	1.7E+01														pCi/L
Tritium	2.3E+02	//		■		1	GP	3.7E+02	//				1	GE	pCi/mL
Uranium-233/234	1.1E+00	//				1	GP								pCi/L
Uranium-235	<-4.5E-03	U//	< 0.0998			1	GP								pCi/L
Uranium-238	<3.8E-02	U//	< 0.0566			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB109C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71684.8 E56895.6	33.277151 °N 81.656229 °W	178.4-168.4 ft msl	261.6 ft msl	4" PVC	S	Barnwell (IIB1)

SAMPLE DATE 07/22/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	219.5	218.6	ft msl
pH	6.2	5.3	pH
Sp. conductance	54	52	µS/cm
Water temperature	22.7	20.4	°C
Alkalinity as CaCO ₃	13	2	mg/L
Turbidity	1	0	NTU
Volumes purged	3.5	2.2	well vol
Sampling code			
Synchronous water level	219.0 (09/17/98)	217.7 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	4.9	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	1.4	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Copper, total recoverable	2.4	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.41	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	0.90	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	1,800	N/I				1	GE	1,900	//				1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<11	U//	< 11			1	GE								µg/L
Dichloromethane	<1.0	U//O/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB109C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<3.8E-03	UI//	< 0.1560			1	GP								pCi/L
Carbon-14	<1.2E-01	UI//	< 8.6100			1	GP								pCi/L
Cobalt-60	<3.4E-02	UI//	< 3.4800			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0793			1	GP								pCi/L
Curium-243/244	<5.0E-02	UI//	< 0.0754			1	GP								pCi/L
Curium-245/246	<5.0E-02	UI//	< 0.0753			1	GP								pCi/L
Gross alpha	<2.2E-01	UI//	< 0.3720			1	GP	<5.3E-01	U//	<6.4E-01			1	GE	pCi/L
Iodine-129	<8.1E-01	UI//	< 0.8900			1	GP								pCi/L
Nickel-63	<3.4E-02	UI	< 3.4800												pCi/L
Nonvolatile beta	<9.9E-01	UI//	< 1.0500			1	GP	6.2E+00	//				1	GE	pCi/L
Plutonium-238	<2.3E-02	UI//	< 0.0706			1	GP								pCi/L
Plutonium-239/240	<1.6E-02	UI//	< 0.0934			1	GP								pCi/L
Radium-226	<2.6E-01	UI//	< 0.3830			1	GP								pCi/L
Radium-228	<4.7E-01	UI//	< 1.1100			1	GP								pCi/L
Strontium-90	<1.3E-01	UI//	< 1.6300			1	GP								pCi/L
Technetium-99	<1.5E+01	UI//	< 24.2000			1	GP								pCi/L
Thorium-228	<1.7E-01	UI//	< 0.2320			1	GP								pCi/L
Thorium-230	<1.7E-01	UI//	< 0.1920			1	GP								pCi/L
Thorium-232	<8.8E-03	UI//	< 0.1920			1	GP								pCi/L
Sum of alphas															
Sum of betas															
Tritium	4.1E+01	//		■		1	GP	4.9E+01	//		■		1	GE	pCi/mL
Uranium-233/234	<2.3E-01	UI//	< 0.1690			1	GP								pCi/L
Uranium-235	<4.3E-02	UI//	< 0.2980			1	GP								pCi/L
Uranium-238	<1.7E-01	UI//	< 0.1690			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB109D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71685.6 E56885.5	33.277136 °N 81.656257 °W	233.0-213.0 ft msl	261.2 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 07/09/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	221.4	221.7	ft msl
pH	4.2	4.4	pH
Sp. conductance	46	40	µS/cm
Water temperature	21.8	23.2	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	0	NTU
Volumes purged	5.3	2.5	well vol
Sampling code			
Synchronous water level	222.0 (09/17/98)	(12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	14	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<1.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	1.3	//				1	GE								µg/L
Copper, total recoverable	3.5	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	1.4	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	0.64	//				1	GE	0.73	//				1	GE	µg/L
Nickel, total recoverable	3.3	N/				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	2,800	N/				1	GE	2,800	//				2	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<0.22	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	13	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.8	U//	< 9.8			1	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB109D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<4.9E-03	U//	< 0.1430			1	GP								pCi/L
Carbon-14	<7.0E+00	U//	< 9.4500			1	GP								pCi/L
Cobalt-60	<2.3E+00	U//	< 2.7600			1	GP								pCi/L
Curium-242	<3.3E-02	U//	< 0.0994			1	GP								pCi/L
Curium-243/244	<9.2E-03	U//	< 0.1100			1	GP								pCi/L
Curium-245/246	<4.2E-03	U//	< 0.0930			1	GP								pCi/L
Gross alpha	5.1E+00	//				1	GP	<1.2E+00	U//	<4.1E-01			1	GE	pCi/L
Iodine-129	<4.7E-01	U//	< 1.2200			1	GP								pCi/L
Nickel-63	<2.3E+00	U//	< 2.7600												pCi/L
Nonvolatile beta	1.9E+02	//		■		1	GP	1.2E+01	//				1	GE	pCi/L
Plutonium-238	<0.0E+00	U//	< 0.0449			1	GP								pCi/L
Plutonium-239/240	<1.1E-02	U//	< 0.0788			1	GP								pCi/L
Radium-226	2.9E+00	//				1	GP								pCi/L
Radium-228	<1.0E+00	U//	< 1.1700			1	GP								pCi/L
Strontium-90	9.5E+01	J/L	NDD			1	GP								pCi/L
Technetium-99	<-1.0E+01	U//	< 20.9000			1	GP								pCi/L
Thorium-228	<1.7E-01	U//	< 0.4400			1	GP								pCi/L
Thorium-230	<3.6E-02	U//	< 0.1970			1	GP								pCi/L
Thorium-232	<1.9E-02	U//	< 0.0560			1	GP								pCi/L
Sum of alphas	1.4E+00														pCi/L
Sum of betas	9.5E+01			■											pCi/L
Total radium	2.9E+00														pCi/L
Tritium	3.1E+01	//		■		1	GP	6.7E+01	//				1	GE	pCi/mL
Uranium-233/234	8.4E-01	//				1	GP								pCi/L
Uranium-235	3.0E-01	//				1	GP								pCi/L
Uranium-238	2.4E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB110C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71779.3 E56680.7	33.277009 °N 81.656979 °W	181.4-171.4 ft msl	255.7 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/23/98	10/12/98
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FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	219.8	218.8	ft msl
pH	5.6	6.8	pH
Sp. conductance	26	30	µS/cm
Water temperature	20.8	20.4	°C
Alkalinity as CaCO ₃	2	1	mg/L
Turbidity	1	2	NTU
Volumes purged	2.1	0.064	well vol
Sampling code		XN	
Synchronous water level	219.2 (09/17/98)	217.9 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	5.3	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	2.3	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.12	J/E/	NDD			1	GE								µg/L
Copper, total recoverable	5.6	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	3.3	//				1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20				1	GE
Nickel, total recoverable	1.2	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	530	J/IV/1	NDD			1	GE	530	//					1	GE
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	8.8	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	32	//				1	GE								µg/L
Dichloromethane	<1.5	UJ/V08/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB110C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<5.9E-02	UI//	< 0.0680			1	GP								pCi/L
Carbon-14	<3.0E+00	UI//	< 8.4900			1	GP								pCi/L
Cobalt-60	<7.8E-01	UI//	< 3.6000			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0713			1	GP								pCi/L
Curium-243/244	<5.7E-02	UI//	< 0.1410			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0680			1	GP								pCi/L
Gross alpha	<3.3E-01	UI//	< 0.4320			1	GP	<1.5E-01	U//	<5.3E-01		1	GE		pCi/L
Iodine-129	<1.9E-01	UI//	< 0.5930			1	GP								pCi/L
Nickel-63	<7.8E-01	UI	< 3.6000												pCi/L
Nonvolatile beta	<4.4E-01	UI//	< 0.9690			1	GP	<1.2E+00	U//	<1.0E+00		1	GE		pCi/L
Plutonium-238	<4.5E-02	UI//	< 0.2170			1	GP								pCi/L
Plutonium-239/240	<8.9E-02	UI//	< 0.3250			1	GP								pCi/L
Radium-226	<7.8E-01	UI//	< 0.8050			1	GP								pCi/L
Radium-228	<6.9E-01	UI//	< 1.3000			1	GP								pCi/L
Strontium-90	<3.5E-02	UI/JC/				1	GP								pCi/L
Technetium-99	<-2.1E+00	UI//	< 22.0			1	GP								pCi/L
Thorium-228	<1.6E-02	UI//	< 0.1860			1	GP								pCi/L
Thorium-230	<1.6E-01	UI//	< 0.2510			1	GP								pCi/L
Thorium-232	<-2.8E-02	UI//	< 0.2210			1	GP								pCi/L
Sum of alphas															
Sum of betas															
Tritium	7.1E+00	//				1	GP	1.1E+01	//			1	GE		pCi/mL
Uranium-233/234	<2.0E-03	UI//	< 0.3760			1	GP								pCi/L
Uranium-235	<-2.4E-02	UI//	< 0.3100			1	GP								pCi/L
Uranium-238	<5.0E-02	UI//	< 0.1490			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB110D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71785.2 E56672.1	33.277008 °N 81.657013 °W	231.4-211.4 ft msl	255.6 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/23/98 10/28/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	222.1	220.6	ft msl
pH	4.3	4.4	pH
Sp. conductance	42	35	µS/cm
Water temperature	20.6	20.5	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	0	0	NTU
Volumes purged	2.7	2.0	well vol
Sampling code			
Synchronous water level	221.3 (09/17/98)	220.2 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	3.9	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	1.2	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	2.9	//				1	GE								µg/L
Copper, total recoverable	2.0	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	1.6	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	1,500	J//V/1	NDD			1	GE	1,400	//				1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<1.6	UJ/VO8/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB110D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<3.1E-03	UI//	< 0.4200			1	GP								pCi/L
Carbon-14	<1.4E+00	UI//	< 8.7600			1	GP								pCi/L
Cobalt-60	<6.8E-01	UI//	< 2.8700			1	GP								pCi/L
Curium-242	<1.9E-01	UI//	< 0.3590			1	GP								pCi/L
Curium-243/244	<4.6E-01	UI//	< 0.6190			1	GP								pCi/L
Curium-245/246	<6.0E-02	UI//	< 0.1800			1	GP								pCi/L
Gross alpha	1.5E+00	J/C/	NDD			1	GP	<2.2E+00	U//	<8.0E-01			1	GE	pCi/L
Iodine-129	<5.1E-01	UI//	< 0.8240			1	GP								pCi/L
Nickel-63	<0.0E+00	UI//	< 24.0000			1	GP								pCi/L
Nonvolatile beta	6.4E+01	//		■		1	GP	5.8E+01	//		■		1	GE	pCi/L
Plutonium-238	<4.1E-03	UI//	< 0.0861			1	GP								pCi/L
Plutonium-239/240	<2.0E-02	UI//	< 0.1140			1	GP								pCi/L
Radium-226	8.1E-01	//				1	GP								pCi/L
Radium-228	<1.4E+00	U/V/	< 0.8250			1	GP								pCi/L
Strontium-90	3.0E+01	J/C/	NDD			1	GP								pCi/L
Technetium-99	<1.4E+00	UI//	< 20.3000			1	GP								pCi/L
Thorium-228	<1.7E-02	UI//	< 0.2080			1	GP								pCi/L
Thorium-230	<1.3E-01	UI//	< 0.0978			1	GP								pCi/L
Thorium-232	<3.3E-02	UI//	< 0.0978			1	GP								pCi/L
Sum of alphas	4.6E-01														pCi/L
Sum of betas	3.0E+01														pCi/L
Total radium	8.1E-01														pCi/L
Tritium	1.5E+01	//				1	GP	1.8E+01	//				1	GE	pCi/mL
Uranium-233/234	4.6E-01	//				1	GP								pCi/L
Uranium-235	<0.0E+00	UI//	< 0.2050			1	GP								pCi/L
Uranium-238	<5.2E-02	UI//	< 0.3600			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB111C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71919.4 E56501.9	33.277027 °N 81.657722 °W	150.7-140.7 ft msl	256 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE 07/22/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	220.8	219.7	ft msl
pH	5.2	4.9	pH
Sp. conductance	100	110	µS/cm
Water temperature	20.6	20.3	°C
Alkalinity as CaCO ₃	1	0	mg/L
Turbidity	1	0	NTU
Volumes purged	3.4	2.0	well vol
Sampling code			
Synchronous water level	220.0 (09/17/98)	218.7 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	9.9	//				1	GE								µg/L
Cadmium, total recoverable	0.35	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	1.9	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.75	//				1	GE								µg/L
Copper, total recoverable	2.7	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.36	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	3.4	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	12,000	N//		■		5	GE	11,000	//		■		6	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	16	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB111C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<9.6E-03	U//	< 0.0566			1	GP								pCi/L
Beta dose	0.06														pCi/L
Carbon-14	<5.0E+00	U//	< 8.6700			1	GP								pCi/L
Cobalt-60	<3.0E-01	U//	< 3.3500			1	GP								pCi/L
Curium-242	<4.8E-03	U//	< 0.1050			1	GP								pCi/L
Curium-243/244	<1.9E-02	U//	< 0.0566			1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.0566			1	GP								pCi/L
Gross alpha	8.8E-01	//				1	GP	1.2E+00	J//K/C	NDD			1	TM	pCi/L
Iodine-129	<1.8E-01	U//	< 1.1800			1	GP								pCi/L
Nickel-63	<3.0E-01	U/	< 3.3500												pCi/L
Nonvolatile beta	1.8E+01	//				1	GP	2.9E+01	//				1	TM	pCi/L
Plutonium-238	<5.7E-02	U//	< 0.0821			1	GP								pCi/L
Plutonium-239/240	<1.5E-02	U//	< 0.0458			1	GP								pCi/L
Radium-226	<3.1E-01	U//	< 0.3780			1	GP								pCi/L
Radium-228	<5.3E-01	U//	< 0.9320			1	GP								pCi/L
Strontium-90	<2.3E+00	U//	< 4.6300			1	GP								pCi/L
Technetium-99	5.5E+01	//		■		1	GP								pCi/L
Thorium-228	<1.9E-02	U//	< 0.3160			1	GP								pCi/L
Thorium-230	<1.4E-01	U//	< 0.1600			1	GP								pCi/L
Thorium-232	<0.0E+00	U//	< 0.0907			1	GP								pCi/L
Sum of alphas				■											
Sum of betas	5.5E+01			■											
Tritium	1.2E+03	//		■		1	GP	1.4E+03	//		■		1	GE	pCi/L
Uranium-233/234	<5.5E-02	U//	< 0.1640			1	GP								pCi/mL
Uranium-235	<4.2E-02	U//	< 0.2890			1	GP								pCi/L
Uranium-238	<1.3E-02	U//	< 0.2880			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB111D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71926.2 E56494.5	33.277030 °N 81.657754 °W	195.7-185.7 ft msl	256 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/27/98 10/15/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	221.6	220.0	ft msl
pH	5.0	5.0	pH
Sp. conductance	220	220	µS/cm
Water temperature	20.8	19.6	°C
Alkalinity as CaCO ₃	6	1	mg/L
Turbidity	0.8	0	NTU
Volumes purged	3.7	2.2	well vol
Sampling code		N	
Synchronous water level	220.8 (09/17/98)	219.5 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	11	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	2.1	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.70	//				1	GE								µg/L
Copper, total recoverable	2.5	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.60	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	1.7	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	25,000	N/		■		10	GE	24,000	//		■		10	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	10	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<15	U/V/	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB111D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<2.5E-02	U//	< 0.0625	■		1	GP								pCi/L
Beta dose	4.06														pCi/L
Carbon-14	4.8E+01	//				1	GP								pCi/L
Cobalt-60	<4.7E-01	U//	< 3.3900			1	GP								pCi/L
Curium-242	<0.0E+00	U//	< 0.0317			1	GP								pCi/L
Curium-243/244	<9.9E-03	U//	< 0.0298			1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.0297			1	GP								pCi/L
Gross alpha	4.2E+00	//				1	GP	<1.6E+00	U//	<1.7E+00			1	GE	pCi/L
Iodine-129	3.9E+00	//				1	GP								pCi/L
Nickel-63	<4.7E-01	U/	< 3.3900												pCi/L
Nonvolatile beta	4.8E+01	//				1	GP	2.0E+01	//				1	GE	pCi/L
Plutonium-238	<0.0E+00	U//	< 0.0317			1	GP								pCi/L
Plutonium-239/240	<1.1E-02	U//	< 0.0317			1	GP								pCi/L
Radium-226	2.8E+00	//				1	GP								pCi/L
Radium-228	<2.5E-01	U//	< 1.3300			1	GP								pCi/L
Strontium-90	<3.1E-01	U//	< 1.2300			1	GP								pCi/L
Technetium-99	1.2E+02	//		■		1	GP								pCi/L
Thorium-228	<3.7E-03	U//C/				1	GP								pCi/L
Thorium-230	<2.2E-02	U//C/				1	GP								pCi/L
Thorium-232	<0.0E+00	U//C/				1	GP								pCi/L
Sum of alphas	4.2E-01														pCi/L
Sum of betas	1.7E+02			■											pCi/L
Total radium	2.8E+00														pCi/L
Tritium	3.0E+03	//		■		1	GP	3.2E+03	//		■		1	GE	pCi/mL
Uranium-233/234	2.6E-01	//				1	GP								pCi/L
Uranium-235	<8.0E-02	U//	< 0.1840			1	GP								pCi/L
Uranium-238	1.5E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB111E

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71932.8 E56487.2	33.277033 °N 81.657786 °W	231.7-211.7 ft msl	255.9 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE	07/09/98	10/14/98
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FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	217.9	220.3	ft msl
pH	4.4	4.3	pH
Sp. conductance	42	40	µS/cm
Water temperature	20.5	18.7	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	8.8	5.0	well vol
Sampling code		N	
Synchronous water level	220.9 (09/17/98)	219.5 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	5.1	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<1.9	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	0.41	//				1	GE								µg/L
Copper, total recoverable	1.5	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.40	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	1.1	N//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	2,300	N//				1	GE	3,200	//				3	GE	µg/L
Selenium, total recoverable	0.60	J/E/	NDD			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<0.23	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	4.7	J/E/	NDD			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB111E (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<2.1E-02	U//	< 0.1500			1	GP								pCi/L
Beta dose	0.28														pCi/L
Carbon-14	<1.2E+00	U//	< 8.9300			1	GP								pCi/L
Cobalt-60	<1.4E+00	U//	< 4.9100			1	GP								pCi/L
Curium-242	<6.2E-03	U//	< 0.1360			1	GP								pCi/L
Curium-243/244	<1.4E-02	U//	< 0.1660			1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.0725			1	GP								pCi/L
Gross alpha	4.2E+00	//				1	GP	3.4E+00	J//	NDD			1	GE	pCi/L
Iodine-129	<2.1E-01	U//	< 0.7810			1	GP								pCi/L
Nickel-63	<1.4E+00	U	< 4.9100												pCi/L
Nonvolatile beta	1.6E+02	//		■		1	GP	1.2E+02	//		■		1	GE	pCi/L
Plutonium-238	<0.0E+00	U//	< 0.0527			1	GP								pCi/L
Plutonium-239/240	<0.0E+00	U//	< 0.0527			1	GP								pCi/L
Radium-226	5.7E+00	//		■		1	GP								pCi/L
Radium-228	1.4E+00	//				1	GP								pCi/L
Strontium-90	8.3E+01	J//	NDD			1	GP								pCi/L
Technetium-99	<5.5E+00	U//	< 21.60			1	GP								pCi/L
Thorium-228	<2.6E-02	U//	< 0.495			1	GP								pCi/L
Thorium-230	<1.1E-01	U//	< 0.199			1	GP								pCi/L
Thorium-232	<1.2E-02	U//	< 0.144			1	GP								pCi/L
Sum of alphas	7.0E-01														pCi/L
Sum of betas	8.4E+01			■											pCi/L
Tritium	4.1E+03	//		■		1	GP	7.9E+02	//		■		1	GE	pCi/mL
Uranium-233/234	5.3E-01	//				1	GP								pCi/L
Uranium-235	1.6E-01	//				1	GP								pCi/L
Uranium-238	<7.7E-02	U//	< 0.1080			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB112C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72156.4 E56417.4	33.277413 °N 81.658404 °W	150.6-140.6 ft msl	254.9 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE 08/03/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	222	220.6	ft msl
pH	7.0	7.2	pH
Sp. conductance	92	82	µS/cm
Water temperature	20.7	20.8	°C
Alkalinity as CaCO ₃	6.0	9	mg/L
Turbidity	7	0	NTU
Volumes purged	0.75	2.1	well vol
Sampling code			
Synchronous water level	220.9 (09/17/98)	219.6 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	0.24	//				1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	14	//				1	GE								µg/L
Cadmium, total recoverable	0.37	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	1.6	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.54	//				1	GE								µg/L
Copper, total recoverable	1.5	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.40	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	0.070	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	2.7	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	5,900	N//				5	GE	4,300	//				3	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	0.74	J/E/	NDD			1	GE								µg/L
Tin, total recoverable	4.0	//				1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	32	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	UJ/Q/	< 10			1	GE								µg/L
Dichloromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB112C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<6.2E-02	U//	< 0.0681			1	GP								pCi/L
Beta dose	0.34														pCi/L
Carbon-14	2.6E+01	//				1	GP								pCi/L
Cobalt-60	<3.4E-02	U//	< 3.2500			1	GP								pCi/L
Curium-242	<2.4E-02	U//	< 0.0733			1	GP								pCi/L
Curium-243/244	<4.7E-03	U//	< 0.1620			1	GP								pCi/L
Curium-245/246	<2.3E-02	U//	< 0.0681			1	GP								pCi/L
Gross alpha	<6.2E-01	U//	< 1.2100			1	GP	<2.5E-01	U//	<5.1E-01			1	GE	pCi/L
Iodine-129	<3.9E-02	U//	< 1.3000			1	GP								pCi/L
Nickel-63	<3.4E-02	U/	< 3.2500												pCi/L
Nonvolatile beta	1.1E+01	//				1	GP	<6.7E-01	U//	<1.1E+00			1	GE	pCi/L
Plutonium-238	<3.8E-02	U//	< 0.1140			1	GP								pCi/L
Plutonium-239/240	<6.7E-02	U//	< 0.20			1	GP								pCi/L
Radium-226	<4.5E-01	U//	< 0.4140			1	GP								pCi/L
Radium-228	1.4E+00	//				1	GP								pCi/L
Strontium-90	<1.2E+00	U//C/				1	GP								pCi/L
Technetium-99	4.2E+01	//				1	GP								pCi/L
Thorium-228	<8.7E-02	U//	< 0.2930			1	GP								pCi/L
Thorium-230	<1.0E-01	U//	< 0.1000			1	GP								pCi/L
Thorium-232	<8.0E-03	U//	< 0.1760			1	GP								pCi/L
Sum of alphas	1.4E+01														pCi/L
Sum of betas	6.9E+01														pCi/L
Total radium	1.4E+00														pCi/L
Total radium	7.1E+00														pCi/L
Tritium	8.5E+02	//				1	GP	4.8E+02	//				1	GE	pCi/mL
Uranium-233/234	8.4E+00	//				1	GP								pCi/L
Uranium-235	8.6E-01	//				1	GP								pCi/L
Uranium-238	4.4E+00	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB112D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72161.6 E56408.1	33.277410 °N 81.658439 °W	198.3-188.3 ft msl	255.1 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 08/03/98 10/28/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	222.6	220.9	ft msl
pH	6.8	5.5	pH
Sp. conductance	80	80	µS/cm
Water temperature	19.6	19.6	°C
Alkalinity as CaCO ₃	1	2	mg/L
Turbidity	0.3	0	NTU
Volumes purged	2.0	2.2	well vol
Sampling code			
Synchronous water level	221.7 (09/17/98)	220.2 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	1.7	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	1.4	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.21	//				1	GE								µg/L
Copper, total recoverable	0.74	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	5,800	N//				5	GE	6,300	//				5	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	0.33	J/E/	NDD			1	GE								µg/L
Tin, total recoverable	4.4	//				1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB112D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<6.9E-02	UI//	< 0.1590	■		1	GP								pCi/L
Beta dose	4.72														pCi/L
Carbon-14	<8.9E+00	UI//	< 9.1200			1	GP								pCi/L
Cobalt-60	<8.3E-02	UI//	< 3.3700			1	GP								pCi/L
Curium-242	<5.0E-02	UI//	< 0.1870			1	GP								pCi/L
Curium-243/244	<3.1E-02	UI//	< 0.2420			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0686			1	GP								pCi/L
Gross alpha	<5.3E-02	UI//	< 0.6600			1	GP	3.1E+00	//			1	GE		pCi/L
Iodine-129	4.7E+00	NI/				1	GP								pCi/L
Nickel-63	<8.3E-02	UI	< 3.3700												pCi/L
Nonvolatile beta	2.1E+00	//				1	GP	4.0E+00	//			1	GE		pCi/L
Plutonium-238	<0.0E+00	UI//	< 0.1240			1	GP								pCi/L
Plutonium-239/240	<8.3E-02	UI//	< 0.1240			1	GP								pCi/L
Radium-226	7.6E-01	//				1	GP								pCi/L
Radium-228	<1.2E+00	UI//	< 1.2900			1	GP								pCi/L
Strontium-90	<9.7E-02	UI//C/				1	GP								pCi/L
Technetium-99	1.6E+01	//				1	GP								pCi/L
Thorium-228	<6.7E-03	UI//	< 0.4120			1	GP								pCi/L
Thorium-230	<6.2E-02	UI//	< 0.2550			1	GP								pCi/L
Thorium-232	<0.0E+00	UI//	< 0.1230			1	GP								pCi/L
Sum of alphas	1.7E-01														pCi/L
Sum of betas	2.1E+01														pCi/L
Total radium	7.6E-01														pCi/L
Tritium	7.9E+02	//		■		1	GP	7.9E+02	//		■	1	GE		pCi/mL
Uranium-233/234	<1.5E-01	U//	< 0.1260			1	GP								pCi/L
Uranium-235	<4.0E-02	UI//	< 0.0596			1	GP								pCi/L
Uranium-238	1.7E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB112E

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72166.6 E56399.5	33.277407 °N 81.658471 °W	231.7-211.7 ft msl	255.1 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE	07/23/98	10/28/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	222.6	220.7	ft msl
pH	5.4	5.0	pH
Sp. conductance	52	45	µS/cm
Water temperature	26.1	20.1	°C
Alkalinity as CaCO ₃	5	0	mg/L
Turbidity	21	5	NTU
Volumes purged	0.14	0.17	well vol
Sampling code	XN	XN	
Synchronous water level	221.5 (09/17/98)	220.1 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	0.28	//				1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	14	//				1	GE								µg/L
Cadmium, total recoverable	0.39	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	0.78	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	2.5	//				1	GE								µg/L
Copper, total recoverable	7.9	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	2.5	//				1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	3.6	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	3,500	J/IV/1	NDD			2	GE	3,300	//				3	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	0.57	J/E/	NDD			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	12	//				1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<11	U//	< 10			1	GE								µg/L
Dichloromethane	<1.5	UJ/VO8/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB112E (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<5.2E-02	U//	< 0.1510			1	GP								pCi/L
Beta dose	1.60			■											pCi/L
Carbon-14	<2.8E+01	U//	< 9.4300			1	GP								pCi/L
Cobalt-60	<9.9E-01	U//	< 2.9300			1	GP								pCi/L
Curium-242	<0.0E+00	U//	< 0.0765			1	GP								pCi/L
Curium-243/244	<-5.8E-03	U//	< 0.1290			1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.0730			1	GP								pCi/L
Gross alpha	2.1E+00	J/C/	NDD			1	GP	<2.7E+00	U//	<1.2E+00			1	GE	pCi/L
Iodine-129	1.6E+00	//				1	GP								pCi/L
Nickel-63	<9.9E-01	U/	< 2.9300												pCi/L
Nonvolatile beta	8.4E+01	//		■		1	GP	9.7E+01	//		■		1	GE	pCi/L
Plutonium-238	<-1.5E-02	U//	< 0.1350			1	GP								pCi/L
Plutonium-239/240	<-1.1E-04	U//	< 0.1470			1	GP								pCi/L
Radium-226	1.6E+00	//				1	GP								pCi/L
Radium-228	<2.3E+00	U//	< 1.1900			1	GP								pCi/L
Strontium-90	3.6E+01	J/C/	NDD			1	GP								pCi/L
Technetium-99	<3.8E+00	U//	< 21.2000			1	GP								pCi/L
Thorium-228	1.9E+00	R/4/	Rej			1	GP								pCi/L
Thorium-230	<4.0E-02	U//	< 0.2910			1	GP								pCi/L
Thorium-232	<1.2E-01	U//	< 0.1150			1	GP								pCi/L
Sum of alphas															
Sum of betas	3.7E+01														pCi/L
Total radium	1.6E+00														pCi/L
Tritium	3.5E+01	//		■		1	GP	3.9E+01	//		■		1	GE	pCi/mL
Uranium-233/234	<1.0E-01	U//	< 0.1510			1	GP								pCi/L
Uranium-235	<1.0E-01	U//	< 0.1520			1	GP								pCi/L
Uranium-238	<1.0E-01	U//	< 0.1510			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB113C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72312.3 E56160.4	33.277339 °N 81.659384 °W	161.7-151.7 ft msl	261 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE 07/28/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	222.0	220.6	ft msl
pH	5.2	4.6	pH
Sp. conductance	100	100	µS/cm
Water temperature	22.4	20.9	°C
Alkalinity as CaCO ₃	1	0	mg/L
Turbidity	2	0	NTU
Volumes purged	2.8	2.2	well vol
Sampling code			
Synchronous water level	220.9 (09/17/98)	219.4 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	24	//				1	GE								µg/L
Cadmium, total recoverable	0.33	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	0.68	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	1.3	//				1	GE								µg/L
Copper, total recoverable	1.1	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.42	J/EV/	NDD			1	GE								µg/L
Mercury, total recoverable	0.13	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	2.7	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	12,000	N/		■		5	GE	12,000	//		■		5	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	22	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<5.1	UJ/V08/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB113C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<2.5E-01	UI//	< 0.5460			1	GP								pCi/L
Beta dose	0.10														pCi/L
Carbon-14	1.0E+02	//		■		1	GP								pCi/L
Cobalt-60	<7.3E-01	UI//	< 3.5600			1	GP								pCi/L
Curium-242	<2.7E-02	UI//	< 0.2620			1	GP								pCi/L
Curium-243/244	<7.8E-02	UI//	< 0.4120			1	GP								pCi/L
Curium-245/246	<1.9E-02	UI//	< 0.2290			1	GP								pCi/L
Gross alpha	9.5E-01	//				1	GP	2.5E+00	//				1	GE	pCi/L
Iodine-129	<1.0E+00	UI//	< 1.3000			1	GP								pCi/L
Nickel-63	<7.3E-01	UI	< 3.5600												pCi/L
Nonvolatile beta	2.1E+01	//				1	GP	2.2E+02	//		■		1	GE	pCi/L
Plutonium-238	<0.0E+00	UI//	< 0.0537			1	GP								pCi/L
Plutonium-239/240	<4.3E-03	UI//	< 0.0945			1	GP								pCi/L
Radium-226	6.7E-01	//				1	GP								pCi/L
Radium-228	<6.9E-01	UI//	< 0.9960			1	GP								pCi/L
Strontium-90	<2.3E-01	UI/J/C/				1	GP								pCi/L
Technetium-99	4.9E+01	//				1	GP								pCi/L
Thorium-228	2.1E-01	R/4/	Rej			1	GP								pCi/L
Thorium-230	1.7E-01	//				1	GP								pCi/L
Thorium-232	<0.0E+00	UI//	< 0.1020			1	GP								pCi/L
Sum of alphas	1.7E-01														pCi/L
Sum of betas	1.5E+02			■											pCi/L
Total radium	6.7E-01														pCi/L
Tritium	9.9E+02	//		■		1	GP	1.3E+03	//		■		1	GE	pCi/mL
Uranium-233/234	<3.5E-02	UI//	< 0.4240			1	GP								pCi/L
Uranium-235	<0.0E+00	UI//	< 0.2050			1	GP								pCi/L
Uranium-238	<0.0E+00	UI//	< 0.1690			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB113D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72302.7 E56164.3	33.277324 °N 81.659355 °W	236.2-216.2 ft msl	260.9 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/14/98 11/10/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	221.7	220.7	ft msl
pH	3.8	3.7	pH
Sp. conductance	240	250	µS/cm
Water temperature	22.3	19.1	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	7	NTU
Volumes purged	3.6	2.0	well vol
Sampling code		XN	
Synchronous water level	220.9 (09/17/98)	219.7 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	0.21	//				1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	50	//				1	GE								µg/L
Cadmium, total recoverable	0.30	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	2.3	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	5.5	//		■		1	GE								µg/L
Copper, total recoverable	12	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	1.8	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	0.71	//				1	GE	0.38	//				1	GE	µg/L
Nickel, total recoverable	11	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	26,000	/N/		■		25	GE	25,000	//		■		25	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	77	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	UJ/Q/	< 10	●		1	GE								µg/L
Dichloromethane	<1.9	UJ/V08/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB113D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	3.4E-01	//		■		1	GP								pCi/L
Beta dose	111.74			■											pCi/L
Carbon-14	1.3E+02	//		■		1	GP								pCi/L
Cobalt-60	3.3E+01	//				1	GP								pCi/L
Curium-242	<1.2E-02	UI//	< 0.261			1	GP								pCi/L
Curium-243/244	1.3E+00	//				1	GP								pCi/L
Curium-245/246	<4.5E-02	UI//	< 0.134			1	GP								pCi/L
Gross alpha	2.1E+01	//		■		1	GP	2.9E+01	//		■		1	GE	pCi/L
Iodine-129	4.5E+01	//				1	GP								pCi/L
Nickel-63	3.3E+01	//													pCi/L
Nonvolatile beta	9.2E+02	//		■		1	GP	9.3E+02	//		■		1	GE	pCi/L
Plutonium-238	<1.2E-02	UI//	< 0.273			1	GP								pCi/L
Plutonium-239/240	<3.9E-02	UI//	< 0.273			1	GP								pCi/L
Radium-226	9.7E+00	//		■		1	GP								pCi/L
Radium-228	3.0E+00	//				1	GP								pCi/L
Strontium-90	5.2E+02	//		■		1	GP								pCi/L
Technetium-99	7.7E+01	//		■		1	GP								pCi/L
Thorium-228	<2.0E-01	UI//	< 0.799			1	GP								pCi/L
Thorium-230	<3.7E-01	UI//	< 0.374			1	GP								pCi/L
Thorium-232	<1.3E-01	UI//	< 0.374			1	GP								pCi/L
Sum of alphas	4.0E+00														pCi/L
Sum of betas	8.4E+02			■											pCi/L
Total radium	1.3E+01														pCi/L
Tritium	2.2E+03	//		■		1	GP	1.1E+03	//		■		1	GE	pCi/mL
Uranium-233/234	1.3E+00	//				1	GP								pCi/L
Uranium-235	2.8E-01	//				1	GP								pCi/L
Uranium-238	8.1E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB114C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72464.6 E56107.0	33.277589 °N 81.659820 °W	195.6-185.6 ft msl	263.8 ft msl	4" PVC	V	Barnwell (IIB ₁)

SAMPLE DATE 07/29/98 11/05/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	222.8	221.1	ft msl
pH	4.6	4.1	pH
Sp. conductance	200	200	µS/cm
Water temperature	19.9	17.8	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	0.9	1	NTU
Volumes purged	2.0	3.0	well vol
Sampling code		N	
Synchronous water level	221.61 (9/17/98)	(12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	25	//				1	GE								µg/L
Cadmium, total recoverable	0.52	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	0.87	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	2.0	//				1	GE								µg/L
Copper, total recoverable	2.4	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	0.73	//				1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	4.0	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	22,000	N/		■		25	GE	20,000	//		■		10	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	20	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	5.5	J/O/1	NDD			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB114C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt	ST	H	DF	Lab	4Q98	Mod	Filt	ST	H	DF	Lab	Unit
Americium-241	<9.3E-02	UI//	< 0.2370	■		1	GP								pCi/L
Beta dose	3.52			■											pCi/L
Carbon-14	8.6E+01	//		■		1	GP								pCi/L
Cobalt-60	<5.6E-01	UI//	< 3.7500			1	GP								pCi/L
Curium-242	<1.4E-02	UI//	< 0.2660			1	GP								pCi/L
Curium-243/244	<8.2E-02	UI//	< 0.2370			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0876			1	GP								pCi/L
Gross alpha	4.4E+00	//				1	GP	<4.4E+00	U//	<1.4E+00			1	GE	pCi/L
Iodine-129	3.4E+00	//				1	GP								pCi/L
Nickel-63	<5.6E-01	UI	< 3.7500												pCi/L
Nonvolatile beta	2.8E+01	//				1	GP	1.6E+01	//				1	GE	pCi/L
Plutonium-238	<8.7E-02	UI//	< 0.3220			1	GP								pCi/L
Plutonium-239/240	<6.5E-02	UI//	< 0.2650			1	GP								pCi/L
Radium-226	1.0E+01	//		■		1	GP								pCi/L
Radium-228	<5.8E-01	UI//	< 1.2700			1	GP								pCi/L
Strontium-90	<2.4E-01	UI//L/				1	GP								pCi/L
Technetium-99	7.1E+01	//		■		1	GP								pCi/L
Thorium-228	<8.3E-02	UI//C/				1	GP								pCi/L
Thorium-230	5.4E-01	J/C/	NDD			1	GP								pCi/L
Thorium-232	<3.6E-02	UI//C/				1	GP								pCi/L
Sum of alphas	5.4E-01			■											pCi/L
Sum of betas	1.6E+02														pCi/L
Total radium	1.0E+01														pCi/L
Tritium	2.2E+03	//		■		1	GP	2.6E+03	//		■		1	GE	pCi/mL
Uranium-233/234	<8.2E-02	UI//	< 0.2360			1	GP								pCi/L
Uranium-235	<8.1E-02	UI//	< 0.1540			1	GP								pCi/L
Uranium-238	<1.4E-01	UI//	< 0.1540			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB114D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72474.2 E56104.6	33.277606 °N 81.659845 °W	232.8-212.8 ft msl	264 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/14/98 10/14/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	222.3	220.9	ft msl
pH	3.8	4.0	pH
Sp. conductance	260	320	µS/cm
Water temperature	20.6	19.5	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	0	2	NTU
Volumes purged	10	2.3	well vol
Sampling code		N	
Synchronous water level	221.5 (09/17/98)	220.4 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	0.19	J/E/	NDD			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	77	//				1	GE								µg/L
Cadmium, total recoverable	0.65	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	0.95	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	16	//		■		1	GE								µg/L
Copper, total recoverable	11	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	1.6	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	0.64	//				1	GE	0.050	J//	NDD			1	GE	µg/L
Nickel, total recoverable	25	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	28,000	N//		■		25	GE	41,000	//		■		25	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	77	//				1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	UJ/Q/	< 10	●		1	GE								µg/L
Dichloromethane	<2.5	UJ/O/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB114D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<1.0E-01	UI//	< 0.2340	■		1	GP								pCi/L
Beta dose	208.64			■											pCi/L
Carbon-14	1.3E+02	//		■		1	GP								pCi/L
Cobalt-60	4.5E+01	//				1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.1470			1	GP								pCi/L
Curium-243/244	2.2E-01	//				1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.1330			1	GP								pCi/L
Gross alpha	3.5E+01	//		■		1	GP	2.5E+01	//		■		1	GE	pCi/L
Iodine-129	1.1E+02	//		■		1	GP								pCi/L
Nickel-63	4.5E+01	//													pCi/L
Nonvolatile beta	1.6E+03	//		■		1	GP	1.2E+03	//		■		1	GE	pCi/L
Plutonium-238	<0.0E+00	UI//	< 0.1590			1	GP								pCi/L
Plutonium-239/240	<1.1E-01	UI//	< 0.1590			1	GP								pCi/L
Radium-226	1.6E+01	//		■		1	GP								pCi/L
Radium-228	4.5E+00	//				1	GP								pCi/L
Strontium-90	7.7E+02	//		■		1	GP								pCi/L
Technetium-99	9.7E+01	//		■		1	GP								pCi/L
Thorium-228	<4.3E-01	UI//	< 0.8000			1	GP								pCi/L
Thorium-230	6.6E-01	//				1	GP								pCi/L
Thorium-232	<2.0E-02	UI//	< 0.4340			1	GP								pCi/L
Sum of alphas	4.5E+00			■											pCi/L
Sum of betas	1.2E+03														pCi/L
Total radium	2.1E+01														pCi/L
Tritium	4.1E+03	//		■		1	GP	6.1E+03	//		■		1	GE	pCi/mL
Uranium-233/234	2.4E+00	//				1	GP								pCi/L
Uranium-235	<5.1E-02	UI//	< 0.1520			1	GP								pCi/L
Uranium-238	1.3E+00	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB115C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72653.2 E56043.2	33.277902 °N 81.660355 °W	192.8-182.8 ft msl	269.3 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE 07/29/98 10/19/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	223.8	222.1	ft msl
pH	5.8	5.5	pH
Sp. conductance	180	170	µS/cm
Water temperature	21.2	20.0	°C
Alkalinity as CaCO ₃	9	7	mg/L
Turbidity	0.8	0	NTU
Volumes purged	5	3.5	well vol
Sampling code		N	
Synchronous water level	222.88 (9/17/98)	221.2 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	21	//				1	GE								µg/L
Cadmium, total recoverable	0.62	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	0.61	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	1.7	//				1	GE								µg/L
Copper, total recoverable	1.7	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.76	J/EV/	NDD			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	2.0	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	17,000	/N/		■		25	GE	17,000	//6		■		10	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	31	//		■		1	GE								µg/L
Dichloromethane	5.9	J/O/1	NDD			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB115C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<4.9E-02	UI//	< 0.2480			1	GP								pCi/L
Beta dose	8.77			■											pCi/L
Carbon-14	5.7E+01	//		■		1	GP								pCi/L
Cobalt-60	<5.5E-01	UI//	< 3.8200			1	GP								pCi/L
Curium-242	<9.7E-03	UI//	< 0.2420			1	GP								pCi/L
Curium-243/244	<1.6E-01	UI//	< 0.1730			1	GP								pCi/L
Curium-245/246	<3.3E-02	UI//	< 0.0984			1	GP								pCi/L
Gross alpha	5.1E+00	//				1	GP	5.9E+00	//				1	TM	pCi/L
Iodine-129	8.7E+00	//				1	GP								pCi/L
Nickel-63	<5.5E-01	UI	< 3.8200												pCi/L
Nonvolatile beta	3.1E+01	//				1	GP	5.3E+01	//		■		1	TM	pCi/L
Plutonium-238	<1.2E-01	UI//	< 0.3590			1	GP								pCi/L
Plutonium-239/240	<8.7E-02	UI//	< 0.4660			1	GP								pCi/L
Radium-226	3.8E+00	//				1	GP								pCi/L
Radium-228	<1.2E+00	UI//	< 1.2000			1	GP								pCi/L
Strontium-90	5.5E+00	J/L/	NDD			1	GP								pCi/L
Technetium-99	3.9E+01	//				1	GP								pCi/L
Thorium-228	<5.6E-03	UIJ/C/				1	GP								pCi/L
Thorium-230	2.3E-01	J/C/	NDD			1	GP								pCi/L
Thorium-232	<8.7E-02	UIJ/C/				1	GP								pCi/L
Sum of alphas	2.3E-01														pCi/L
Sum of betas	1.1E+02			■											pCi/L
Total radium	3.8E+00														pCi/L
Tritium	2.4E+03	//		■		1	GP	2.7E+03	//		■		1	TM	pCi/mL
Uranium-233/234	<1.4E-01	UI//	< 0.2760			1	GP								pCi/L
Uranium-235	<2.0E-02	UI//	< 0.1960			1	GP								pCi/L
Uranium-238	<3.4E-02	UI//	< 0.2270			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB115D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72662.3 E56039.8	33.277916 °N 81.660381 °W	233.9-213.9 ft msl	269.1 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 09/29/98 10/14/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	222.4	222.1	ft msl
pH	3.9	4.0	pH
Sp. conductance	280	250	µS/cm
Water temperature	23.3	26.0	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	3	12	NTU
Volumes purged	2.9	1.3	well vol
Sampling code	XN	XN	
Synchronous water level	222.6 (09/17/98)	221.2 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	0.61	//				1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	63	//				1	GE								µg/L
Cadmium, total recoverable	0.77	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	3.5	//				1	GE								µg/L
Cobalt, total recoverable	7.3	//		■		1	GE								µg/L
Copper, total recoverable	27	//				1	GE								µg/L
Cyanide	2.3	J/E/	NDD			1	GE								µg/L
Lead, total recoverable	21	//		■		1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	77	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	9,100	N/I				5	GE	31,000	//		■		25	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	3.9	//				1	GE								µg/L
Zinc, total recoverable	45	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	UJ/Q/	< 10	●		1	GE								µg/L
Dichloromethane	<2.6	UJ/VQ8/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB115D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<1.9E-02	U//	< 0.1380	■		1	GP								pCi/L
Beta dose	123.88														pCi/L
Carbon-14	3.2E+01	//				1	GP								pCi/L
Cobalt-60	2.8E+01	//				1	GP								pCi/L
Curium-242	<0.0E+00	U//	< 0.1530			1	GP								pCi/L
Curium-243/244	<1.1E-02	U//	< 0.2440			1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.1380			1	GP								pCi/L
Gross alpha	1.4E+01	//				1	GP	3.5E+01	//		■		1	GE	pCi/L
Iodine-129	5.8E+00	//				1	GP								pCi/L
Nickel-63	2.8E+01	//													pCi/L
Nonvolatile beta	1.7E+03	//		■		1	GP	2.7E+03	//		■		1	GE	pCi/L
Plutonium-238	<3.3E-02	U//	< 0.2290			1	GP								pCi/L
Plutonium-239/240	<3.1E-02	U//	< 0.3010			1	GP								pCi/L
Radium-226	6.0E+00	//		■		1	GP								pCi/L
Radium-228	4.6E+00	//				1	GP								pCi/L
Strontium-90	9.3E+02	//		■		1	GP								pCi/L
Technetium-99	4.5E+01	//				1	GP								pCi/L
Thorium-228	7.4E-01	R/4/	Rej			1	GP								pCi/L
Thorium-230	<0.0E+00	U//	< 0.3060			1	GP								pCi/L
Thorium-232	<0.0E+00	U//	< 0.3060			1	GP								pCi/L
Sum of alphas	1.8E+00														pCi/L
Sum of betas	1.1E+03			■											pCi/L
Total radium	1.1E+01														pCi/L
Tritium	2.8E+02	//		■		1	GP	4.2E+03	//		■		1	GE	pCi/mL
Uranium-233/234	1.3E+00	//				1	GP								pCi/L
Uranium-235	<1.2E-01	U//	< 0.1730			1	GP								pCi/L
Uranium-238	5.0E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB116C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72888.1 E55989.1	33.278333 °N 81.660953 °W	190.5-180.5 ft msl	257.5 ft msl	4" PVC	V	Barnwell (IB ₁)

SAMPLE DATE 07/23/98 10/28/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	225.2	223.5	ft msl
pH	5.0	5.2	pH
Sp. conductance	92	85	µS/cm
Water temperature	20.2	19.5	°C
Alkalinity as CaCO ₃	2	0	mg/L
Turbidity	1	0	NTU
Volumes purged	2.1	2.6	well vol
Sampling code			
Synchronous water level	224.5 (09/17/98)	222.7 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt	ST	H	DF	Lab	4Q98	Mod	Filt	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	6.9	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	3.8	//		■		1	GE								µg/L
Copper, total recoverable	0.65	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	0.28	//				1	GE	0.24	//				1	GE	µg/L
Nickel, total recoverable	0.85	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	8,800	J//V/1	NDD			5	GE	8,900	//				3	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt	ST	H	DF	Lab	4Q98	Mod	Filt	ST	H	DF	Lab	Unit
Benzene	<1.0	U//O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<1.5	U//VO8/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB116C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<3.4E-02	UI//	< 0.0642	■		1	GP								pCi/L
Beta dose	2.44														pCi/L
Carbon-14	<5.8E+00	UI//	< 8.4100			1	GP								pCi/L
Cobalt-60	<7.2E-01	UI//	< 4.0500			1	GP								pCi/L
Curium-242	<1.1E-02	UI//	< 0.1400			1	GP								pCi/L
Curium-243/244	<0.0E+00	UI//	< 0.0642			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0642			1	GP								pCi/L
Gross alpha	1.1E+00	J/C/	NDD			1	GP	<1.4E+00	U//	<1.0E+00			1	GE	pCi/L
Iodine-129	2.4E+00	//				1	GP								pCi/L
Nickel-63	<7.2E-01	UI	< 4.0500												pCi/L
Nonvolatile beta	7.1E+00	//				1	GP	<2.4E+00	U//	<1.6E+00			1	GE	pCi/L
Plutonium-238	<0.0E+00	UI//	< 0.0521			1	GP								pCi/L
Plutonium-239/240	<1.7E-02	UI//	< 0.0520			1	GP								pCi/L
Radium-226	1.5E+00	//				1	GP								pCi/L
Radium-228	<7.9E-01	U//	< 0.7220			1	GP								pCi/L
Strontium-90	<1.3E-01	UI/J/C/				1	GP								pCi/L
Technetium-99	3.2E+01	//				1	GP								pCi/L
Thorium-228	<2.6E-02	UI//	< 0.2500			1	GP								pCi/L
Thorium-230	1.8E-01	//				1	GP								pCi/L
Thorium-232	<0.0E+00	UI//	< 0.1050			1	GP								pCi/L
Sum of alphas	1.8E-01														pCi/L
Sum of betas	3.4E+01														pCi/L
Total radium	1.5E+00														pCi/L
Tritium	1.1E+03	//		■		1	GP	1.0E+03	//		■		1	GE	pCi/mL
Uranium-233/234	<2.0E-01	UI//	< 0.5990			1	GP								pCi/L
Uranium-235	<1.1E-01	UI//	< 0.5150			1	GP								pCi/L
Uranium-238	<6.8E-02	UI//	< 0.5990			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB116D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72898.1 E55988.2	33.278354 °N 81.660975 °W	234.5-214.5 ft msl	256.8 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/22/98 10/14/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	225.5	223.8	ft msl
pH	4.2	4.0	pH
Sp. conductance	94	93	µS/cm
Water temperature	20.2	17.8	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	2	NTU
Volumes purged	5.0	2.9	well vol
Sampling code			
Synchronous water level	224.5 (09/17/98)	222.6 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	27	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	3.6	//				1	GE								µg/L
Cobalt, total recoverable	1.4	//				1	GE								µg/L
Copper, total recoverable	4.4	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	2.2	//				1	GE								µg/L
Mercury, total recoverable	0.047	J/E/	NDD			1	GE	0.18	J//	NDD			1	GE	µg/L
Nickel, total recoverable	4.2	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	8,500	N//				5	GE	8,800	//				5	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	13	//				1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	UJ/Q/	< 9.0	●		1	GE								µg/L
Dichloromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB116D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<-1.4E-02	UI//	< 0.1090	■		1	GP								pCi/L
Beta dose	85.48														pCi/L
Carbon-14	<1.2E+01	U/V/	< 8.5000			1	GP								pCi/L
Cobalt-60	1.6E+01	//				1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0651			1	GP								pCi/L
Curium-243/244	<2.1E-02	UI//	< 0.0618			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0617			1	GP								pCi/L
Gross alpha	1.2E+01	//				1	GP	1.0E+01	//				1	GE	pCi/L
Iodine-129	1.2E+00	R/4/	Rej			1	GP								pCi/L
Nickel-63	1.6E+01	//													pCi/L
Nonvolatile beta	7.7E+02	//		■		1	GP	1.0E+03	//		■		1	GE	pCi/L
Plutonium-238	<-1.2E-02	UI//	< 0.1100			1	GP								pCi/L
Plutonium-239/240	<1.2E-02	UI//	< 0.0832			1	GP								pCi/L
Radium-226	3.0E+00	//				1	GP								pCi/L
Radium-228	<1.7E+00	U/V/	< 0.8390			1	GP								pCi/L
Strontium-90	6.8E+02	//		■		1	GP								pCi/L
Technetium-99	<2.9E+00	UI//	< 24.6000			1	GP								pCi/L
Thorium-228	<8.1E-02	UI//	< 0.2800			1	GP								pCi/L
Thorium-230	<6.3E-02	UI//	< 0.1930			1	GP								pCi/L
Thorium-232	<0.0E+00	UI//	< 0.0833			1	GP								pCi/L
Sum of alphas	1.2E+00														pCi/L
Sum of betas	7.1E+02			■											pCi/L
Total radium	3.0E+00														pCi/L
Tritium	1.1E+02	//		■		1	GP	8.3E+01	//		■		1	GE	pCi/mL
Uranium-233/234	1.2E+00	//				1	GP								pCi/L
Uranium-235	<-2.8E-02	UI//	< 0.3660			1	GP								pCi/L
Uranium-238	<1.8E-01	UI//	< 0.1760			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB117A

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72733.6 E55170.1	33.276655 °N 81.662810 °W	94.8-84.8 ft msl	237.3 ft msl	4" PVC	S	M. Congaree (IIA)

SAMPLE DATE	07/16/98	10/28/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	167.3	167.0	ft msl
pH	7.0	6.5	pH
Sp. conductance	140	125	µS/cm
Water temperature	19.7	19.3	°C
Alkalinity as CaCO ₃	60	46	mg/L
Turbidity	1	1	NTU
Volumes purged	2.3	1.9	well vol
Sampling code			
Synchronous water level	167.2 (09/17/98)	166.8 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.11	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	10	J/E/	NDD			1	GE	20	J//	NDD			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB117A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.1E+00	//				1	GP	<5.5E-01	U//	<1.4E+00			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	2.4E+00	//				1	GP	<2.6E+00	U//	<1.9E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<6.4E-01	U//	<6.9E-01			1	GP	<3.7E-01	U//	<6.3E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB117C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72740.7 E55162.9	33.276659 °N 81.662842 °W	175.1-165.1 ft msl	237.4 ft msl	4" PVC	V	Bamwell (IIB ₁)

SAMPLE DATE 07/27/98 10/19/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	237.1	219.3	ft msl
pH	18.5	4.3	pH
Sp. conductance	5	300	µS/cm
Water temperature	300	19.5	°C
Alkalinity as CaCO ₃	16	0	mg/L
Turbidity	1	1	NTU
Volumes purged	0.0	3.4	well vol
Sampling code	6	N	
Synchronous water level	220.7 (09/17/98)	218.0 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	62	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	3.9	//		■		1	GE								µg/L
Copper, total recoverable	0.94	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	0.20	//				1	GE	0.12	J//	NDD			1	GE	µg/L
Nickel, total recoverable	3.0	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	37,000	N//		■		25	GE	36,000	//		■		25	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	10	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<17	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB117C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	1.1E-01	//				1	GP								pCi/L
Beta dose	4.72			■											pCi/L
Carbon-14	5.2E+01	//		■		1	GP								pCi/L
Cobalt-60	<5.0E-01	UI//	< 2.4400			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0526			1	GP								pCi/L
Curium-243/244	<0.0E+00	UI//	< 0.0495			1	GP								pCi/L
Curium-245/246	1.5E-01	//				1	GP								pCi/L
Gross alpha	8.8E+00	//				1	GP	<7.5E+00	U//	<4.2E+00			1	GE	pCi/L
Iodine-129	4.1E+00	//				1	GP								pCi/L
Nickel-63	1.9E+01	//				1	GP								pCi/L
Nonvolatile beta	2.9E+01	//				1	GP	3.2E+01	//				1	GE	pCi/L
Plutonium-238	<0.0E+00	UI//	< 0.1500			1	GP								pCi/L
Plutonium-239/240	<0.0E+00	UI//	< 0.1500			1	GP								pCi/L
Radium-226	6.4E+00	//		■		1	GP								pCi/L
Radium-228	<1.9E-01	UI//	< 1.0900			1	GP								pCi/L
Strontium-90	<1.9E-01	UI//	< 1.5300			1	GP								pCi/L
Technetium-99	1.9E+02	//		■		1	GP								pCi/L
Thorium-228	<7.3E-02	UI//C/				1	GP								pCi/L
Thorium-230	<1.1E-01	UI//C/				1	GP								pCi/L
Thorium-232	<0.0E+00	UI//C/				1	GP								pCi/L
Sum of alphas	1.2E+00			■											pCi/L
Sum of betas	2.7E+02														pCi/L
Total radium	6.4E+00														pCi/L
Tritium	4.6E+03	//		■		1	GP	5.0E+03	//		■		1	GE	pCi/mL
Uranium-233/234	3.7E-01	//				1	GP								pCi/L
Uranium-235	2.2E-01	//				1	GP								pCi/L
Uranium-238	3.5E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB117D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72747.6 E55155.6	33.276662 °N 81.662875 °W	220.3-200.3 ft msl	237.6 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/16/98	10/28/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	222.2	220.5	ft msl
pH	3.9	5.2	pH
Sp. conductance	30	25	µS/cm
Water temperature	18.7	20.0	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	3.3	3.3	well vol
Sampling code			
Synchronous water level	222.9 (09/17/98)	219.2 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.13	J/E/	NDD				1	GE	<0.20	U//				1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	680	//					1	GE	720	//				1	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB117D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<5.0E-01	U//	< 0.6090			1	GP	<1.6E-01	U//	<8.1E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<7.3E-01	U//	< 1.1100			1	GP	<6.5E-01	U//	<1.5E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.6E+01	//		■		1	GP	2.2E+01	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB118A

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72696.4 E55775.6	33.277561 °N 81.661143 °W	101.0-91.0 ft msl	247.3 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE 07/28/98 10/19/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	168.5	168.3	ft msl
pH	7.2	6.7	pH
Sp. conductance	160	160	µS/cm
Water temperature	20.6	20.6	°C
Alkalinity as CaCO ₃	30	47	mg/L
Turbidity	1.5	0	NTU
Volumes purged	7.5	2.6	well vol
Sampling code		N	
Synchronous water level	168.51 (9/17/98)	168.2 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	1.7	J/E/	NDD			1	GE								µg/L
Barium, total recoverable	27	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	0.11	J/E/	NDD			1	GE								µg/L
Copper, total recoverable	0.50	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.66	J/EV/	NDD			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	3,500	/V/				3	GE	3,500	//				2	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	U//	< 9.9			1	GE								µg/L
Dichloromethane	6.1	J/O/1	NDD			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB118A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<7.4E-02	UI//	< 0.2660			1	GP								pCi/L
Beta dose	0.01														pCi/L
Carbon-14	1.0E+01	//				1	GP								pCi/L
Cobalt-60	<2.0E-03	UI//	< 3.7700			1	GP								pCi/L
Curium-242	<5.3E-02	UI//	< 0.2170			1	GP								pCi/L
Curium-243/244	<2.1E-01	UI//	< 0.2290			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0986			1	GP								pCi/L
Gross alpha	<6.8E-01	UI//	< 0.6960			1	GP	<2.2E+00	U//	<1.6E+00			1	GE	pCi/L
Iodine-129	<4.5E-01	UI//	< 0.8190			1	GP								pCi/L
Nickel-63	<2.0E-03	UI	< 3.7700												pCi/L
Nonvolatile beta	3.6E+00	//				1	GP	1.1E+01	//				1	GE	pCi/L
Plutonium-238	<2.2E-03	UI//	< 0.4060			1	GP								pCi/L
Plutonium-239/240	<3.9E-02	UI//	< 0.3720			1	GP								pCi/L
Radium-226	<5.7E-01	UI//	< 0.7510			1	GP								pCi/L
Radium-228	<6.5E-01	UI//	< 1.3100			1	GP								pCi/L
Strontium-90	<3.6E-01	UI//				1	GP								pCi/L
Technetium-99	<8.3E+00	UI//	< 15.8000			1	GP								pCi/L
Thorium-228	<1.8E-02	UI//C/				1	GP								pCi/L
Thorium-230	3.3E-01	J/C/	NDD			1	GP								pCi/L
Thorium-232	<0.0E+00	UI//C/				1	GP								pCi/L
Sum of alphas	3.3E-01														pCi/L
Sum of betas	1.0E+01														pCi/L
Tritium	1.1E+03	//		■		1	GP	1.1E+03	//		■		1	GE	pCi/mL
Uranium-233/234	<5.0E-02	UI//	< 0.2250			1	GP								pCi/L
Uranium-235	<4.9E-02	UI//	< 0.1470			1	GP								pCi/L
Uranium-238	<6.7E-03	UI//	< 0.1470			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB119A

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N73082.5 E56100.2	33.278944 °N 81.661038 °W	103.3-93.3 ft msl	257.1 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE 07/28/98 10/28/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	167.6	167.3	ft msl
pH	6.8	6.4	pH
Sp. conductance	100	125	µS/cm
Water temperature	21.9	20.6	°C
Alkalinity as CaCO ₃	45	23	mg/L
Turbidity	1	3	NTU
Volumes purged	3.3	0.041	well vol
Sampling code		XN	
Synchronous water level	167.8 (09/17/98)	167.5 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	2.2	J/E/	NDD			1	GE								µg/L
Barium, total recoverable	13	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	0.86	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.072	J/E/	NDD			1	GE								µg/L
Copper, total recoverable	0.72	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	2.1	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	5,400	N//				3	GE	5,800	//6				3	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	16	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<4.8	UJ/V08/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB119A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<5.2E-03	UI//	< 0.1000			1	GP								pCi/L
Beta dose	0.08														pCi/L
Carbon-14	8.3E+01	//		■		1	GP								pCi/L
Cobalt-60	<1.6E+00	UI//	< 2.9500			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0584			1	GP								pCi/L
Curium-243/244	<1.4E-02	UI//	< 0.1000			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0568			1	GP								pCi/L
Gross alpha	1.1E+00	//				1	GP	2.6E+00	//				1	GE	pCi/L
Iodine-129	<2.4E-01	UI//	< 0.9910			1	GP								pCi/L
Nickel-63	<1.6E+00	UI	< 2.9500												pCi/L
Nonvolatile beta	8.3E+00	//				1	GP	2.3E+01	//				1	TM	pCi/L
Plutonium-238	<0.0E+00	UI//	< 0.0529			1	GP								pCi/L
Plutonium-239/240	<1.8E-02	UI//	< 0.0528			1	GP								pCi/L
Radium-226	1.7E+00	//				1	GP								pCi/L
Radium-228	<2.8E-01	UI//	< 0.9450			1	GP								pCi/L
Strontium-90	<4.8E-02	UI/J/C/				1	GP								pCi/L
Technetium-99	3.5E+01	//				1	GP								pCi/L
Thorium-228	<1.9E-02	UI//	< 0.2470			1	GP								pCi/L
Thorium-230	<3.9E-02	UI//	< 0.1170			1	GP								pCi/L
Thorium-232	<3.9E-02	UI//	< 0.1170			1	GP								pCi/L
Sum of alphas				■											
Sum of betas	1.2E+02														pCi/L
Total radium	1.7E+00														pCi/L
Tritium	3.7E+02	//		■		1	GP	5.0E+02	//				1	TM	pCi/mL
Uranium-233/234	<0.0E+00	UI//	< 0.2180			1	GP								pCi/L
Uranium-235	<0.0E+00	UI//	< 0.2180			1	GP								pCi/L
Uranium-238	<3.8E-02	UI//	< 0.4510			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB120A

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N73395.1 E56431.9	33.280177 °N 81.660772 °W	101.0-91.0 ft msl	268.2 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE 07/23/98 10/28/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	167.1	166.9	ft msl
pH	7.1	7.2	pH
Sp. conductance	210	200	µS/cm
Water temperature	20.7	19.2	°C
Alkalinity as CaCO ₃	25	86	mg/L
Turbidity	0	1	NTU
Volumes purged	2.2	2.2	well vol
Sampling code			
Synchronous water level	167.0 (09/17/98)	166.7 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	1.2	J/E/	NDD			1	GE								µg/L
Barium, total recoverable	31	//				1	GE								µg/L
Cadmium, total recoverable	0.47	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	0.77	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.042	J/E/	NDD			1	GE								µg/L
Copper, total recoverable	1.1	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	<40	UJ/IV/1	< 50			1	GE	<50	U//	<50			1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<1.6	UJ/VO8/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB120A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<4.2E-02	UI//	< 0.0515			1	GP								pCi/L
Carbon-14	<-1.6E+00	UI//	< 8.7000			1	GP								pCi/L
Cobalt-60	<-1.1E-01	UI//	< 3.2600			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0540			1	GP								pCi/L
Curium-243/244	<1.7E-02	UI//	< 0.0515			1	GP								pCi/L
Curium-245/246	<-8.3E-03	UI//	< 0.1610			1	GP								pCi/L
Gross alpha	1.5E+00	J/C/	NDD			1	GP	<1.9E+00	U//	<8.3E-01			1	GE	pCi/L
Iodine-129	<3.8E-01	UI//	< 0.5330			1	GP								pCi/L
Nickel-63	<-1.1E-01	UI	< 3.2600												pCi/L
Nonvolatile beta	1.6E+00	//				1	GP	2.9E+00	//				1	GE	pCi/L
Plutonium-238	<0.0E+00	UI//	< 0.0799			1	GP								pCi/L
Plutonium-239/240	<-6.5E-03	UI//	< 0.2300			1	GP								pCi/L
Radium-226	<9.0E-01	UI//	< 0.9670			1	GP								pCi/L
Radium-228	<6.1E-02	UI//	< 0.6960			1	GP								pCi/L
Strontium-90	<3.0E-01	UI//C/				1	GP								pCi/L
Technetium-99	<3.5E+00	UI//	< 22.6000			1	GP								pCi/L
Thorium-228	<3.1E-02	UI//	< 0.3580			1	GP								pCi/L
Thorium-230	5.3E-01	//				1	GP								pCi/L
Thorium-232	<-1.7E-02	UI//	< 0.2210			1	GP								pCi/L
Sum of alphas	5.3E-01														pCi/L
Sum of betas															pCi/L
Tritium	<-3.2E-01	UI//	<6.3E-01			1	GP	<-2.4E-01	U//	<6.3E-01			1	GE	pCi/mL
Uranium-233/234	<6.2E-02	UI//	< 0.1870			1	GP								pCi/L
Uranium-235	<4.8E-02	UI//	< 0.3310			1	GP								pCi/L
Uranium-238	<1.9E-01	UI//	< 0.1870			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB121A

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72024.8 E57389.6	33.278709 °N 81.655589 °W	98.3-88.3 ft msl	274.6 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE 08/03/98 10/05/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	172.5	172.0	ft msl
pH	7.9	7.2	pH
Sp. conductance	220	200	µS/cm
Water temperature	20.2	20.3	°C
Alkalinity as CaCO ₃	90	93	mg/L
Turbidity	0.3	1	NTU
Volumes purged	2.1	4.3	well vol
Sampling code			
Synchronous water level	172.49 (9/17/98)	172.1 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	1.9	J/E/	NDD			1	GE								µg/L
Barium, total recoverable	39	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	0.63	J/E/	NDD			1	WA								µg/L
Copper, total recoverable	<0.43	U/6/	< 0.20			1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	0.84	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	<22	U/V/	< 20.0000			1	WA	<20	U/V/	<50			1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	10	J/E/	NDD			1	WA								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<3.6	U/V/	< 10			1	WA								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB121A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<1.6E-02	UI//	< 0.1900			1	GP								pCi/L
Carbon-14	<1.7E+00	UI//	< 9.4200			1	GP								pCi/L
Cobalt-60	<1.7E-01	UI//	< 6.9600			1	TM								pCi/L
Curium-242	<2.8E-02	UI//	< 0.2360			1	GP								pCi/L
Curium-243/244	<2.4E-02	UI//	< 0.2100			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0687			1	GP								pCi/L
Gross alpha	2.0E+00	//				1	TM	<9.8E-01	U//	<7.9E-01		1		GE	pCi/L
Iodine-129	<1.2E-01	UI//	< 0.9960			1	GP								pCi/L
Nickel-63	<1.7E-01	UI	< 6.9600												pCi/L
Nonvolatile beta	8.4E+00	J/X/	NDD			1	TM	<1.1E+00	U//	<1.1E+00		1		GE	pCi/L
Plutonium-238	<9.6E-03	UI//	< 0.2100			1	GP								pCi/L
Plutonium-239/240	<0.0E+00	UI//	< 0.1190			1	GP								pCi/L
Radium-226	1.2E+00	//				1	GP								pCi/L
Radium-228	<5.7E-01	UI//	< 2.9200			1	TM								pCi/L
Strontium-90	<0.0E+00	UI//	< 2.0300			1	TM								pCi/L
Technetium-99	<3.9E-01	UI//	< 6.5300			1	GP								pCi/L
Thorium-228	2.9E-01	//				1	GP								pCi/L
Thorium-230	1.1E+00	//				1	TM								pCi/L
Thorium-232	<0.0E+00	UI//	< 0.0900			1	GP								pCi/L
Sum of alphas	1.4E+00														pCi/L
Sum of betas															
Total radium	1.2E+00														
Tritium	<1.7E-01	UI//	< 1.2000			1	TM	<2.5E-01	U//	<5.3E-01		1		GE	pCi/L
Uranium-233/234	<1.3E-01	U//	< 0.0895			1	GP								pCi/mL
Uranium-235	<1.7E-02	UI//	< 0.0499			1	GP								pCi/L
Uranium-238	<3.6E-02	UI//	< 0.0533			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB122A

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72195.9 E57747.4	33.279671 °N 81.654979 °W	95.4-85.4 ft msl	271.6 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE 07/24/98 10/05/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	172.3	171.7	ft msl
pH	6.5	6.8	pH
Sp. conductance	190	180	µS/cm
Water temperature	21.1	20.3	°C
Alkalinity as CaCO ₃	69	78	mg/L
Turbidity	1	1	NTU
Volumes purged	3.9	5.3	well vol
Sampling code			
Synchronous water level	172.3 (09/17/98)	172.1 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	24	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Copper, total recoverable	0.36	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	0.039	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	1.3	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	<20	UJ/IV/1	< 50			1	GE	<10	U/V/	<			1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	9.2	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	U//	< 9.9			1	GE								µg/L
Dichloromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB122A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<1.5E-02	UI//	< 0.0724			1	GP								pCi/L
Carbon-14	<2.0E+00	UI//	< 9.8500			1	GP								pCi/L
Cobalt-60	<1.3E-01	UI//	< 3.5100			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0756			1	GP								pCi/L
Curium-243/244	<4.3E-02	UI//	< 0.1270			1	GP								pCi/L
Curium-245/246	<2.4E-02	UI//	< 0.0723			1	GP								pCi/L
Gross alpha	<3.8E-01	UI//	< 0.8560			1	GP	<4.3E-01	U//	<7.8E-01		1	GE		pCi/L
Iodine-129	<4.2E-01	UI//	< 1.1000			1	GP								pCi/L
Nickel-63	<1.3E-01	UI	< 3.5100												pCi/L
Nonvolatile beta	<9.9E-01	UI//	< 1.1700			1	GP	<1.5E+00	U//	<1.2E+00		1	GE		pCi/L
Plutonium-238	<0.0E+00	UI//	< 0.0589			1	GP								pCi/L
Plutonium-239/240	<2.2E-02	UI//	< 0.0666			1	GP								pCi/L
Radium-226	<8.0E-01	UI//	< 0.9600			1	GP								pCi/L
Radium-228	<6.4E-01	UI//	< 0.8810			1	GP								pCi/L
Strontium-90	<6.5E-02	UI/JC/				1	GP								pCi/L
Technetium-99	<5.0E+00	UI//	< 21.2000			1	GP								pCi/L
Thorium-228	<1.6E-01	UI//	< 0.2130			1	GP								pCi/L
Thorium-230	1.7E-01	//				1	GP								pCi/L
Thorium-232	<0.0E+00	UI//	< 0.1000			1	GP								pCi/L
Sum of alphas	1.7E-01														pCi/L
Sum of betas															pCi/L
Tritium	<9.3E-02	UI//	<5.9E-01			1	GP	<1.0E-01	U//	<5.3E-01		1	GE		pCi/mL
Uranium-233/234	<9.0E-02	UI//	< 0.4900			1	GP								pCi/L
Uranium-235	<1.7E-02	UI//	< 0.3730			1	GP								pCi/L
Uranium-238	<7.1E-02	UI//	< 0.2120			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB123A

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72189.8 E58124.8	33.280273 °N 81.653973 °W	103.6-93.6 ft msl	265.7 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE 07/24/98 10/05/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	173.4	174.3	ft msl
pH	10.9	10.9	pH
Sp. conductance	1000	700	µS/cm
Water temperature	22.2	27.3	°C
Alkalinity as CaCO ₃	151	92	mg/L
Turbidity	1	1	NTU
Volumes purged	0.0	0.019	well vol
Sampling code	XN	XN	
Synchronous water level	174.0 (09/17/98)	173.0 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	310	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	0.060	J/E/	NDD			1	GE								µg/L
Copper, total recoverable	0.43	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	2.7	//				1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	1.2	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	<40	UJ/IV/1	< 50			1	GE	120	//				1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	25	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.8	U//	< 9.8			1	GE								µg/L
Dichloromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB123A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<2.5E-01	U//	< 0.1630			1	GP								pCi/L
Beta dose	0.20														pCi/L
Carbon-14	<2.7E+00	U//	< 9.2200			1	GP								pCi/L
Cobalt-60	<1.0E+00	U//	< 3.0400			1	GP								pCi/L
Curium-242	<0.0E+00	U//	< 0.1830			1	GP								pCi/L
Curium-243/244	<5.3E-02	U//	< 0.4140			1	GP								pCi/L
Curium-245/246	<5.4E-02	U//	< 0.1630			1	GP								pCi/L
Gross alpha	2.4E+00	//				1	GP	<2.9E+00	U//	<9.8E-01			1	GE	pCi/L
Iodine-129	<3.3E-01	U//	< 0.6190			1	GP								pCi/L
Nickel-63	<1.0E+00	U	< 3.0400												pCi/L
Nonvolatile beta	3.3E+00	//				1	GP	5.1E+00	//				1	GE	pCi/L
Plutonium-238	<0.0E+00	U//	< 0.0600			1	GP								pCi/L
Plutonium-239/240	<0.0E+00	U//	< 0.0599			1	GP								pCi/L
Radium-226	6.4E+00	//				1	GP								pCi/L
Radium-228	1.0E+00	//				1	GP								pCi/L
Strontium-90	<5.1E-02	U//C/				1	GP								pCi/L
Technetium-99	<1.2E+00	U//	< 21.2000			1	GP								pCi/L
Thorium-228	<9.8E-02	U//	< 0.2430			1	GP								pCi/L
Thorium-230	1.6E-01	//				1	GP								pCi/L
Thorium-232	<3.1E-02	U//	< 0.0942			1	GP								pCi/L
Sum of alphas	1.6E-01														pCi/L
Sum of betas	1.0E+00														pCi/L
Total radium	7.5E+00														pCi/L
Tritium	<7.7E-03	U//	<6.3E-01			1	GP	<9.3E-02	U//	<5.3E-01			1	GE	pCi/mL
Uranium-233/234	<5.1E-02	U//	< 0.3520			1	GP								pCi/L
Uranium-235	<5.1E-02	U//	< 0.3530			1	GP								pCi/L
Uranium-238	<5.1E-02	U//	< 0.3520			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB124AR

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72202.7 E58531.7	33.280965 °N 81.652927 °W	104.6-94.6 ft msl	266.8 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE	08/03/98	10/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	172.6	172.4	ft msl
pH	7.4	6.8	pH
Sp. conductance	230	180	µS/cm
Water temperature	20.9	20.9	°C
Alkalinity as CaCO ₃	75	70	mg/L
Turbidity	4	1	NTU
Volumes purged	2.3	4.6	well vol
Sampling code			
Synchronous water level	172.73 (9/17/98)	172.4 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	1.1	J/E/	NDD			1	GE								µg/L
Barium, total recoverable	33	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	0.16	J/E/	NDD			1	GE								µg/L
Copper, total recoverable	0.42	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.79	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	0.77	//				1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	1.1	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	<30	U//	< 50			1	GE	<20	U//	<50			1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	U//	< 9.9			1	GE								µg/L
Dichloromethane	<1.4	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB124AR (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<1.8E-02	UI//	< 0.2180			1	GP								pCi/L
Beta dose	0.19														pCi/L
Carbon-14	<1.5E+00	UI//	< 9.2700			1	GP								pCi/L
Cobalt-60	<9.9E-01	UI//	< 3.7400			1	GP								pCi/L
Curium-242	<1.2E-02	UI//	< 0.1550			1	GP								pCi/L
Curium-243/244	<1.1E-02	UI//	< 0.1440			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0693			1	GP								pCi/L
Gross alpha	1.2E+00	//				1	GP	<1.1E+00	U//	<8.2E-01		1	GE		pCi/L
Iodine-129	<4.4E-01	UI//	< 0.5740			1	GP								pCi/L
Nickel-63	<9.9E-01	UI	< 3.7400												pCi/L
Nonvolatile beta	<1.8E+00	UI//	< 1.9000			1	GP	<1.1E+00	U//	<1.3E+00		1	GE		pCi/L
Plutonium-238	<8.9E-03	UI//	< 0.1960			1	GP								pCi/L
Plutonium-239/240	<3.7E-02	UI//	< 0.1110			1	GP								pCi/L
Radium-226	5.3E-01	//				1	GP								pCi/L
Radium-228	9.3E-01	//				1	GP								pCi/L
Strontium-90	<4.2E-01	UIJ/C/				1	GP								pCi/L
Technetium-99	<9.8E-01	UI//	< 6.9800			1	GP								pCi/L
Thorium-228	<9.1E-03	UI//	< 0.2250			1	GP								pCi/L
Thorium-230	<5.6E-02	UI//	< 0.1670			1	GP								pCi/L
Thorium-232	<7.6E-03	UI//	< 0.1670			1	GP								pCi/L
Sum of alphas															
Sum of betas	9.3E-01														pCi/L
Total radium	1.5E+00														pCi/L
Tritium	<2.2E-01	UI//	<5.6E-01			1	GP	<-7.6E-02	U//	<5.3E-01		1	GE		pCi/mL
Uranium-233/234	<1.4E-01	U//	< 0.0970			1	GP								pCi/L
Uranium-235	<8.5E-03	UI//	< 0.1150			1	GP								pCi/L
Uranium-238	<6.7E-02	UI//	< 0.0970			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB125C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71503.6 E58592.8	33.279519 °N 81.651408 °W	155.6-145.6 ft msl	231.9 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/20/98	10/28/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	225.0	223.8	ft msl
pH	4.9	5.3	pH
Sp. conductance	35	25	µS/cm
Water temperature	21.6	20.0	°C
Alkalinity as CaCO ₃	3	2	mg/L
Turbidity	2	1	NTU
Volumes purged	2.4	2.5	well vol
Sampling code			
Synchronous water level	224.5 (09/17/98)	223.0 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	120	N//				1	GE	<90	U//6	<50			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB125C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<2.6E-01	UI//	< 0.6130			1	GP	<2.2E-01	U//	<8.7E-01			1	TM	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<1.9E-02	UI//	< 1.3600			1	GP	<-2.6E-01	U//	<1.8E+00			1	TM	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.3E+00	//				1	GP	2.4E+00	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB125D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71498.2 E58584.1	33.279492 °N 81.651421 °W	219.4-199.4 ft msl	231.7 ft msl	4" PVC	V	Water Table (IB2)

SAMPLE DATE 08/03/98 10/28/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	220.7	220.4	ft msl
pH	6.4	5.6	pH
Sp. conductance	150	145	µS/cm
Water temperature	19.2	19.5	°C
Alkalinity as CaCO ₃	9	9	mg/L
Turbidity	0.4	0	NTU
Volumes purged	2.4	2.5	well vol
Sampling code			
Synchronous water level	220.67 (9/17/98)	220.0 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	13	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	2.4	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	2.8	//				1	GE								µg/L
Copper, total recoverable	0.84	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Mercury, total recoverable	1.2	//				1	GE	0.46	//				1	GE	µg/L
Nickel, total recoverable	2.8	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	8,800	N//				5	GE	11,000	//6		■		5	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	U//	< 9.9			1	GE								µg/L
Dichloromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB125D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt	ST	H	DF	Lab	4Q98	Mod	Filt	ST	H	DF	Lab	Unit
Americium-241	<-2.0E-02	UI//	< 0.1740			1	GP								pCi/L
Beta dose	0.64														pCi/L
Carbon-14	4.8E+01	//				1	GP								pCi/L
Cobalt-60	<-9.5E-01	UI//	< 3.2200			1	GP								pCi/L
Curium-242	<-5.8E-02	UI//	< 0.2860			1	GP								pCi/L
Curium-243/244	<-9.9E-02	UI//	< 0.1750			1	GP								pCi/L
Curium-245/246	<-6.7E-03	UI//	< 0.1480			1	GP								pCi/L
Gross alpha	<1.5E-01	UI//	< 0.6660			1	GP	<1.6E+00	U//	<7.3E-01			1	GE	pCi/L
Iodine-129	<2.5E+00	U//	< 0.6110			1	GP								pCi/L
Nickel-63	<-1.9E-01	UI//	< 19.0000			1	GP								pCi/L
Nonvolatile beta	1.9E+00	//				1	GP	8.1E+00	//				1	GE	pCi/L
Plutonium-238	<3.0E-02	UI//	< 0.2050			1	GP								pCi/L
Plutonium-239/240	<-1.9E-02	UI//	< 0.2420			1	GP								pCi/L
Radium-226	1.2E+00	//				1	GP								pCi/L
Radium-228	3.0E+00	//				1	GP								pCi/L
Strontium-90	1.2E+00	J/C/	NDD			1	GP								pCi/L
Technetium-99	1.3E+01	//				1	GP								pCi/L
Thorium-228	<1.3E-02	UI//	< 0.3300			1	GP								pCi/L
Thorium-230	<1.3E-01	UI//	< 0.2450			1	GP								pCi/L
Thorium-232	<2.4E-02	UI//	< 0.2890			1	GP								pCi/L
Sum of alphas	2.6E-01														pCi/L
Sum of betas	6.5E+01														pCi/L
Total radium	4.2E+00														pCi/L
Tritium	7.1E+02	//				1	GP	9.9E+02	//				1	GE	pCi/mL
Uranium-233/234	<2.8E-01	U//	< 0.0594			1	GP								pCi/L
Uranium-235	<4.9E-02	UI//	< 0.1270			1	GP								pCi/L
Uranium-238	2.6E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB126C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N70627.7 E57178.2	33.275273 °N 81.653432 °W	181.3-176.3 ft msl	212.6 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/20/98	10/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	204.7	204.4	ft msl
pH	6.8	7.1	pH
Sp. conductance	270	240	µS/cm
Water temperature	19.6	18.7	°C
Alkalinity as CaCO ₃	79	55	mg/L
Turbidity	1	1	NTU
Volumes purged	5.1	3.9	well vol
Sampling code			
Synchronous water level	204.6 (09/17/98)	204.0 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	12,000	N//		■		5	GE	12,000	//		■		5	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB126C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<7.8E-01	U//	< 1.0500			1	GP	<1.5E-01	U//	<9.6E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	3.5E+00	//				1	GP	6.4E+00	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	4.4E+02	//		■		1	GP	5.3E+02	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB126D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N70633.4 E57169.6	33.275272 °N 81.653466 °W	200.5-190.5 ft msl	212.7 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 07/31/98 10/05/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	204	204.9	ft msl
pH	5.0	5.0	pH
Sp. conductance	15-	240	µS/cm
Water temperature	19.2	20.9	°C
Alkalinity as CaCO ₃	9	6	mg/L
Turbidity	0.4	42	NTU
Volumes purged	3.8	0.11	well vol
Sampling code	XN	XN	
Synchronous water level	205.03 (9/17/98)	204.6 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	56	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	1.1	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	2.0	//				1	GE								µg/L
Copper, total recoverable	3.4	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	2.6	N//				1	GE								µg/L
Mercury, total recoverable	0.090	J/E/	NDD			1	GE	0.61	//				1	GE	µg/L
Nickel, total recoverable	3.0	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	29,000	N//		■		25	GE	32,000	//		■		25	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	10	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	140	J/Q/	NDD	●		4	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	0.74	J/E/	NDD			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB126D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt	ST	H	DF	Lab	4Q98	Mod	Filt	ST	H	DF	Lab	Unit
Americium-241	<1.5E-01	UI//	< 0.1720	■		1	GP								pCi/L
Beta dose	10.55														pCi/L
Carbon-14	3.5E+01	//				1	GP								pCi/L
Cobalt-60	<2.4E+00	UI//	< 4.9000			1	GP								pCi/L
Curium-242	<1.3E-02	UI//	< 0.2050			1	GP								pCi/L
Curium-243/244	<8.2E-02	UI//	< 0.2320			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0881			1	GP								pCi/L
Gross alpha	1.3E+00	//				1	GP	4.0E+00	//				1	GE	pCi/L
Iodine-129	1.0E+01	IV/				1	GP								pCi/L
Nickel-63	<2.4E+00	UI	< 4.9000												pCi/L
Nonvolatile beta	9.5E+00	//				1	GP	1.2E+01	//				1	GE	pCi/L
Plutonium-238	<7.6E-03	UI//	< 0.1670			1	GP								pCi/L
Plutonium-239/240	<0.0E+00	UI//	< 0.1790			1	GP								pCi/L
Radium-226	1.2E+00	//				1	GP								pCi/L
Radium-228	2.6E+00	//				1	GP								pCi/L
Strontium-90	<3.7E-01	UI//CL/				1	GP								pCi/L
Technetium-99	3.1E+01	//				1	GP								pCi/L
Thorium-228	<1.1E-02	UI//	< 0.2200			1	GP								pCi/L
Thorium-230	<4.2E-01	U/V/	< 0.1330			1	GP								pCi/L
Thorium-232	<6.1E-03	UI//	< 0.1330			1	GP								pCi/L
Sum of alphas															
Sum of betas	7.8E+01			■											pCi/L
Total radium	3.8E+00														pCi/L
Tritium	1.6E+03	//		■		1	GP	1.8E+03	//				1	GE	pCi/mL
Uranium-233/234	<1.0E-01	UI//	< 0.1110			1	GP								pCi/L
Uranium-235	<0.0E+00	UI//	< 0.0632			1	GP								pCi/L
Uranium-238	<1.6E-02	UI//	< 0.1110			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB127C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71210.1 E56792.1	33.275932 °N 81.655580 °W	158.4-148.4 ft msl	225.7 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE 07/21/98 10/05/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	210.8	210.1	ft msl
pH	6.9	7.2	pH
Sp. conductance	250	240	µS/cm
Water temperature	20.2	19.9	°C
Alkalinity as CaCO ₃	78	74	mg/L
Turbidity	1	1	NTU
Volumes purged	3.2	3.2	well vol
Sampling code			
Synchronous water level	210.3 (09/17/98)	209.7 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.060	J/E/	NDD				1	GE	<0.20	U//				1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	9,600	N//					5	GE	9,700	//				5	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB127C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	9.3E-01	//				1	GP	1.6E+00	//				1	GP	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	3.4E+00	//				1	GP	9.9E+00	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	8.8E+02	//		■		1	GP	1.0E+03	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB127D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71218.9 E56788.0	33.275945 °N 81.655608 °W	217.8-197.8 ft msl	226.1 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 07/30/98 10/14/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	217.4	216.2	ft msl
pH	6.4	4.7	pH
Sp. conductance	150	100	µS/cm
Water temperature	19.2	19.7	°C
Alkalinity as CaCO ₃	9	0	mg/L
Turbidity	0.4	1	NTU
Volumes purged	8.0	7.0	well vol
Sampling code			
Synchronous water level	215.68 (9/17/98)	216.4 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	10	//				1	GE								µg/L
Cadmium, total recoverable	0.81	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	0.93	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	4.4	//		■		1	GE								µg/L
Copper, total recoverable	6.1	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.59	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	4.5	//		■		1	GE	2.6	//		■		1	GE	µg/L
Nickel, total recoverable	4.6	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	12,000	N/		■		5	GE	8,400	//				5	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB127D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<2.6E-02	UIJ/C/		■		1	GP								pCi/L
Beta dose	5.46														pCi/L
Carbon-14	4.1E+01	//				1	GP								pCi/L
Cobalt-60	<2.5E+00	UI//	< 3.2700			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.0621			1	GP								pCi/L
Curium-243/244	<2.0E-02	UI//	< 0.0593			1	GP								pCi/L
Curium-245/246	<2.0E-02	UI//	< 0.0592			1	GP								pCi/L
Gross alpha	1.7E+00	//				1	GP	<2.0E+00	U//	<1.5E+00			1	GE	pCi/L
Iodine-129	5.0E+00	//				1	GP								pCi/L
Nickel-63	<2.5E+00	UI	< 3.2700												pCi/L
Nonvolatile beta	1.0E+01	//				1	GP	1.1E+02	//		■		1	GE	pCi/L
Plutonium-238	<2.0E-02	UI//	< 0.0593			1	GP								pCi/L
Plutonium-239/240	<0.0E+00	UI//	< 0.0592			1	GP								pCi/L
Radium-226	3.7E+00	//				1	GP								pCi/L
Radium-228	2.1E+00	//				1	GP								pCi/L
Strontium-90	6.7E+00	J/C/	NDD			1	GP								pCi/L
Technetium-99	2.2E+01	//				1	GP								pCi/L
Thorium-228	<2.0E-01	UI//	< 0.1980			1	GP								pCi/L
Thorium-230	<0.0E+00	UI//	< 0.2020			1	GP								pCi/L
Thorium-232	<0.0E+00	UI//	< 0.2020			1	GP								pCi/L
Sum of alphas	1.0E+00														pCi/L
Sum of betas	7.7E+01			■											pCi/L
Total radium	5.7E+00														pCi/L
Tritium	5.6E+02	//		■		1	GP	2.9E+02	//		■		1	GE	pCi/mL
Uranium-233/234	1.0E+00	//				1	GP								pCi/L
Uranium-235	<2.1E-02	UI//	< 0.0643			1	GP								pCi/L
Uranium-238	<4.3E-02	UI//	< 0.0641			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB129C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71830.4 E55110.0	33.274559 °N 81.661214 °W	157.8-147.8 ft msl	215.1 ft msl	4" PVC	S	Barnwell (IIB1)

SAMPLE DATE	07/13/98	10/19/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	205.1	205.1	ft msl
pH	4.9	5.3	pH
Sp. conductance	270	200	µS/cm
Water temperature	20.7	19.6	°C
Alkalinity as CaCO ₃	36	13	mg/L
Turbidity	1	3	NTU
Volumes purged	2.2	0.027	well vol
Sampling code		XN	
Synchronous water level	205.5 (09/17/98)	204.5 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	30,000	N//		■		25	GE	25,000	//		■		25	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB129C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	5.0E+00	//				1	GP	<4.2E+00	U//	<2.1E+00			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	5.3E+01	//		■		1	GP	5.5E+01	//		■		1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.5E+03	//		■		1	GP	2.2E+03	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB129D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71837.1 E55103.4	33.274563 °N 81.661244 °W	205.2-185.2 ft msl	214.7 ft msl	4" PVC	S	Water Table (I182)

SAMPLE DATE 07/21/98 10/08/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	208.5	207.2	ft msl
pH	4.3	4.6	pH
Sp. conductance	170	140	µS/cm
Water temperature	20.2	20.7	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	3.1	5.3	well vol
Sampling code			
Synchronous water level	207.7 (09/17/98)	206.2 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.080	J/E/	NDD			1	GE	0.10	J//	NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	16,000	N/I		■		10	GE	17,000	//		■		15	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB129D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.7E+00	//				1	GP	<1.6E+00	JU/L/I				1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.4E+01	//				1	GP	1.6E+01	J/L/I	NDD			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.5E+03	//		■		1	GP	1.5E+03	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB130C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N70762.4 E54643.6	33.271436 °N 81.660367 °W	169.9-159.9 ft msl	218.3 ft msl	4" PVC	S	Barnwell (IIB1)

SAMPLE DATE	07/16/98	10/08/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	200.5	200.4	ft msl
pH	7.3	7.5	pH
Sp. conductance	150	102	µS/cm
Water temperature	19.6	19.2	°C
Alkalinity as CaCO ₃	49	67	mg/L
Turbidity	1	1	NTU
Volumes purged	2.7	4.8	well vol
Sampling code			
Synchronous water level	200.5 (09/18/98)	200.0 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.11	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	230	//				1	GE	220	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB130C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.1E+00	//				1	GP	<1.4E-02	JU/L/I				1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<9.7E-01	UI//	< 1.3000			1	GP	<6.0E-01	JU/L/I				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<3.8E-01	UI//	<6.9E-01			1	GP	<9.1E-01	UI//	<6.3E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB130D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N70757.2 E54651.7	33.271438 °N 81.660336 °W	202.1-182.1 ft msl	218.6 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/16/98	10/08/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	200.9	200.1	ft msl
pH	5.5	5.9	pH
Sp. conductance	61	44	µS/cm
Water temperature	18.9	19.2	°C
Alkalinity as CaCO ₃	32	18	mg/L
Turbidity	1	1	NTU
Volumes purged	3.0	3.2	well vol
Sampling code			
Synchronous water level	200.5 (09/18/98)	200.1 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.11	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	350	//				1	GE	460	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB130D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<4.6E-01	UI//	< 0.4750			1	GP	<6.0E-01	JU/L/I	<NDD			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<8.3E-02	UI//	< 1.1700			1	GP	<1.0E+00	JU/L/I	<NDD			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	6.2E+00	//				1	GP	7.5E+00	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB131C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N70374.7 E56894.9	33.274252 °N 81.653687 °W	158.5-148.5 ft msl	211.7 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/16/98	10/12/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	204.3	204.2	ft msl
pH	7.0	7.5	pH
Sp. conductance	170	160	µS/cm
Water temperature	19.1	18.2	°C
Alkalinity as CaCO ₃	79	77	mg/L
Turbidity	1	1	NTU
Volumes purged	2.7	9.4	well vol
Sampling code			
Synchronous water level	204.3 (09/18/98)	203.7 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.10	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	3,300	//				2	GE	3,200	//				2	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB131C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.3E+00	//				1	GP	<3.1E-01	U//	<9.5E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<1.1E+00	U//	< 1.2300			1	GP	<6.4E-01	U//	<1.4E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.3E+02	//		■		1	GP	1.5E+02	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB131D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N70365.0 E56891.1	33.274224 °N 81.653678 °W	205.7-195.7 ft msl	212.1 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 07/16/98 10/12/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	205.4	204.9	ft msl
pH	4.1	4.7	pH
Sp. conductance	32	24	µS/cm
Water temperature	20.9	22.5	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	3	1	NTU
Volumes purged	4.9	5.5	well vol
Sampling code			
Synchronous water level	205.3 (09/18/98)	204.7 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.10	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	190	//				1	GE	260	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB131D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.4E+00	//				1	GP	<1.1E+00	U//	<5.6E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<1.0E+00	U//	< 1.3600			1	GP	<2.0E+00	U//	<1.1E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	8.4E+00	//				1	GP	8.0E+00	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB132C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71472.4 E58787.7	33.279768 °N 81.650835 °W	178.6-168.6 ft msl	240.5 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/30/98	10/07/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	231.8	220.7	ft msl
pH	5.0	4.6	pH
Sp. conductance	120	18	µS/cm
Water temperature	19.9	20.0	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1.0	1	NTU
Volumes purged	2.5	2.3	well vol
Sampling code			
Synchronous water level	220.93 (9/17/98)	220.2 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	<50	U//	< 50			1	GE	<40	U//	<			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB132C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<1.3E-01	U//	< 0.5710			1	GP	<4.0E-02	JU/L/I	<NDD			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<5.7E-01	U//	< 1.2900			1	GP	<-2.1E-01	JU/L/I	<NDD			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<8.4E-02	U//	<6.3E-01			1	GP	<5.2E-02	U//	<6.2E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB132D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71469.5 E58799.3	33.279780 °N 81.650798 °W	226.5-206.5 ft msl	240.7 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/30/98	10/07/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	220.5	218.0	ft msl
pH	5.0	4.5	pH
Sp. conductance	20	16	µS/cm
Water temperature	23.2	20.0	°C
Alkalinity as CaCO ₃	2	0	mg/L
Turbidity	4.1	2	NTU
Volumes purged	2.9	3.3	well vol
Sampling code			
Synchronous water level	220.26 (9/17/98)	219.7 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	630	N//				1	GE	650	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB132D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<4.3E-01	UI//	< 0.6840			1	GP	<7.5E-01	JU/L/I	<NDD			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<9.0E-01	UI//	< 1.1300			1	GP	<8.2E-01	JU/L/I	<NDD			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.1E+01	//				1	GP	1.3E+01	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB133C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71949.5 E59110.3	33.281349 °N 81.650912 °W	183.3-173.3 ft msl	255.6 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/14/98	10/12/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	232.8	231.6	ft msl
pH	5.3	5.4	pH
Sp. conductance	43	24	µS/cm
Water temperature	20.5	19.9	°C
Alkalinity as CaCO ₃	11	8	mg/L
Turbidity	3	2	NTU
Volumes purged	0.026	3.0	well vol
Sampling code	XN		
Synchronous water level	232.2 (09/17/98)	230.2 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	50	J/E/	NDD			1	GE	40	J//	NDD			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB133C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<2.6E-01	UI//	< 0.6370			1	GP	<1.8E-01	UI//	<8.1E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.5E+00	//				1	GP	<9.1E-01	UI//	<1.2E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<-2.3E-01	UI//	<6.2E-01			1	GP	<1.9E-02	UI//	<6.5E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB133D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71943.5 E59102.3	33.281323 °N 81.650921 °W	228.5-208.5 ft msl	255.3 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 07/14/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	237.8	236.8	ft msl
pH	5.1	4.9	pH
Sp. conductance	51	44	µS/cm
Water temperature	19.8	19.4	°C
Alkalinity as CaCO ₃	4	0	mg/L
Turbidity	1		NTU
Volumes purged	3.3	4.0	well vol
Sampling code			
Synchronous water level	237.4 (09/17/98)	235.0 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20				1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	660	//				1	GE	530	//					1	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB133D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<7.2E-01	U//	< 0.8840			1	GP	<2.5E-01	U//	<7.7E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<9.3E-01	U//	< 1.1800			1	GP	<3.3E-01	U//	<1.1E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.7E+01	//				1	GP	2.1E+01	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB134C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71210.3 E58289.9	33.278376 °N 81.651636 °W	159.1-149.1 ft msl	238.4 ft msl	4" PVC	S	Barnwell (IIB-1)

SAMPLE DATE	07/22/98	10/12/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	221.9	221.1	ft msl
pH	5.5	5.3	pH
Sp. conductance	58	36	µS/cm
Water temperature	20.5	19.5	°C
Alkalinity as CaCO ₃	1	6	mg/L
Turbidity	1	1	NTU
Volumes purged	2.1	3.5	well vol
Sampling code			
Synchronous water level	221.6 (09/17/98)	220.1 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	1,200	J/IV6/1	NDD			1	GE	1,200	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB134C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<3.8E-01	U//	< 0.5110			1	GP	<1.2E-01	U//	<6.1E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.7E+00	//				1	GP	<7.5E-01	U//	<1.2E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.4E+01	//		■		1	TM	2.5E+01	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB134D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71217.3 E58296.5	33.278402 °N 81.651633 °W	225.8-205.8 ft msl	238.1 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 07/09/98 10/14/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	212.8	220.8	ft msl
pH	4.0	3.9	pH
Sp. conductance	88	120	µS/cm
Water temperature	19.7	18.8	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	10	3.6	well vol
Sampling code			
Synchronous water level	221.3 (09/17/98)	220.1 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	50	//				1	GE								µg/L
Cadmium, total recoverable	0.20	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	<2.1	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	2.5	//				1	GE								µg/L
Copper, total recoverable	5.7	//				1	GE								µg/L
Cyanide	8.4	J/EI/2	NDD			1	GE								µg/L
Lead, total recoverable	3.1	//				1	GE								µg/L
Mercury, total recoverable								0.65	J/K/C	NDD			1	GE	µg/L
Nickel, total recoverable	3.6	N//				1	GE								µg/L
Nitrate as nitrogen															µg/L
Nitrate-nitrite as nitrogen	6,900	N//				5	GE	11,000	//				5	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<1.2	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	22	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.8	U//	< 9.8			1	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB134D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<1.0E-01	U//	< 0.1430	■		1	GP								pCi/L
Beta dose	5.50														pCi/L
Carbon-14	<3.3E+00	U//	< 14.8000			1	GP								pCi/L
Cobalt-60	<.6.5E-01	U//	< 3.5600			1	GP								pCi/L
Curium-242	<.2.0E-02	U//	< 0.2090			1	GP								pCi/L
Curium-243/244	<.6.3E-02	U//	< 0.1560			1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.0618			1	GP								pCi/L
Gross alpha	1.1E+01	//				1	GP	<2.2E+00	U//	<7.5E-01			1	GE	pCi/L
Iodine-129	5.5E+00	//				1	GP								pCi/L
Nickel-63	<0.0E+00	U//	<220.0000			1	GP								pCi/L
Nonvolatile beta	7.3E+02	//		■		1	GP	1.8E+02	//		■		1	GE	pCi/L
Plutonium-238	<0.0E+00	U//	< 0.0525			1	GP								pCi/L
Plutonium-239/240	<.8.4E-03	U//	< 0.1090			1	GP								pCi/L
Radium-226	2.8E+00	//				1	GP								pCi/L
Radium-228	<.3.6E-02	U//	< 0.8800			1	GP								pCi/L
Strontium-90	2.6E+02	J/L	NDD			1	GP								pCi/L
Technetium-99	<.9.7E+00	U//	< 23.1000			1	GP								pCi/L
Thorium-228	<.5.3E-02	U//	< 0.3780			1	GP								pCi/L
Thorium-230	<0.0E+00	U//	< 0.0665			1	GP								pCi/L
Thorium-232	<2.2E-02	U//	< 0.0665			1	GP								pCi/L
Sum of alphas	1.3E+00														pCi/L
Sum of betas	2.6E+02			■											pCi/L
Total radium	2.8E+00														pCi/L
Tritium	3.5E+02	//		■		1	GP	8.3E+02	//		■		1	GE	pCi/mL
Uranium-233/234	1.0E+00	//				1	GP								pCi/L
Uranium-235	<.4.4E-02	U//	< 0.0662			1	GP								pCi/L
Uranium-238	2.9E-01	//				1	GP								pCi/L

Notes:

● = exceeded holding time

■ = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB135C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71390.2 E56560.8	33.275953 °N 81.656539 °W	157.3-147.3 ft msl	232 ft msl	4" PVC	S	Bamwell (IIB ₁)

SAMPLE DATE	07/14/98	10/12/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	207.1	206.9	ft msl
pH	7.3	7.6	pH
Sp. conductance	160	180	µS/cm
Water temperature	19.9	19.1	°C
Alkalinity as CaCO ₃	84	85	mg/L
Turbidity	9	7	NTU
Volumes purged	3.0	3.7	well vol
Sampling code			
Synchronous water level	207.1 (09/17/98)	206.5 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	430	//				1	GE	540	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB135C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	6.9E-01	//				1	GP	<1.1E-01	U//	<7.6E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.4E+00	//				1	GP	<1.1E+00	U//	<1.2E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.0E+01	//				1	GP	3.3E+01	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB135D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71396.7 E56552.8	33.275954 °N 81.656572 °W	219.9-199.9 ft msl	232.3 ft msl	4" PVC	S	Water Table (11B2)

SAMPLE DATE 07/14/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	217.6	216.8	ft msl
pH	4.3	4.7	pH
Sp. conductance	26	26	µS/cm
Water temperature	20.1	19.6	°C
Alkalinity as CaCO ₃	1	0	mg/L
Turbidity	1	1	NTU
Volumes purged	4.3	7.2	well vol
Sampling code			
Synchronous water level	217.2 (09/17/98)	216.6 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	0.10	J//	NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	1,500	//				1	GE	2,100	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB135D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	6.2E-01	//				1	GP	<3.9E-01	U//	<6.3E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	3.2E+00	//				1	GP	4.1E+00	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.4E+01	//		■		1	GP	3.3E+01	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB136C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71900.3 E55949.6	33.276084 °N 81.659139 °W	170.5-160.5 ft msl	227.9 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE 07/28/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	215.2	214.6	ft msl
pH	8.8	9.8	pH
Sp. conductance	320	200	µS/cm
Water temperature	18.7	22.7	°C
Alkalinity as CaCO ₃	28	35	mg/L
Turbidity	1.9	6	NTU
Volumes purged	.02		
Sampling code	XN	XN	
Synchronous water level	214.8 (9/17/98)	214.7 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	87	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	1.0	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.55	//				1	GE								µg/L
Copper, total recoverable	0.62	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.55	J/EV/	NDD			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	1.5	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	30,000	N//		■		25	GE	28,000	//		■		25	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	9.2	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	5.4	J/O/1	NDD			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB136C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<5.2E-02	U//	< 0.1750	■		1	GP								pCi/L
Beta dose	38.23			■											pCi/L
Carbon-14	1.5E+02	//		■		1	GP								pCi/L
Cobalt-60	<-1.3E+00	U//	< 2.9200			1	GP								pCi/L
Curium-242	<8.4E-03	U//	< 0.2070			1	GP								pCi/L
Curium-243/244	1.7E-01	//				1	GP								pCi/L
Curium-245/246	<0.0E+00	U//	< 0.1100			1	GP								pCi/L
Gross alpha	5.0E+00	//				1	GP	<3.3E+00	U//	<1.5E+00			1	GE	pCi/L
Iodine-129	3.8E+01	//				1	GP								pCi/L
Nickel-63	<-1.3E+00	U/	< 2.9200												pCi/L
Nonvolatile beta	7.3E+01	//		■		1	GP	4.3E+01	//				1	GE	pCi/L
Plutonium-238	<7.3E-02	U//	< 0.2200			1	GP								pCi/L
Plutonium-239/240	<0.0E+00	U//	< 0.1250			1	GP								pCi/L
Radium-226	2.5E+00	//				1	GP								pCi/L
Radium-228	<5.5E-01	U//	< 1.1400			1	GP								pCi/L
Strontium-90	<9.5E-01	U//				1	GP								pCi/L
Technetium-99	1.4E+02	//		■		1	GP								pCi/L
Thorium-228	<7.6E-02	U//				1	GP								pCi/L
Thorium-230	4.0E-01	J/C/	NDD			1	GP								pCi/L
Thorium-232	<0.0E+00	U//				1	GP								pCi/L
Sum of alphas	5.7E-01														pCi/L
Sum of betas	3.2E+02			■											pCi/L
Total radium	2.6E+00														pCi/L
Tritium	4.6E+03	//		■		1	GP	3.8E+03	//		■		1	GE	pCi/mL
Uranium-233/234	<1.7E-02	U//	< 0.3040			1	GP								pCi/L
Uranium-235	<5.5E-02	U//	< 0.0830			1	GP								pCi/L
Uranium-238	<-3.7E-02	U//	< 0.2700			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB136D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71906.0 E55941.7	33.276084 °N 81.659171 °W	220.2-200.2 ft msl	228 ft msl	4" PVC	V	Water Table (IIB2)

SAMPLE DATE 07/13/98 10/14/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	219.8	218.8	ft msl
pH	3.8	4.2	pH
Sp. conductance	220	200	µS/cm
Water temperature	21.0	19.8	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	0	NTU
Volumes purged	10	3.7	well vol
Sampling code		N	
Synchronous water level	219.1 (09/17/98)	218.3 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	61	//				1	GE								µg/L
Cadmium, total recoverable	0.39	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable	5.0	//		■		1	GE								µg/L
Copper, total recoverable	2.7	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.37	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	0.29	//				1	GE	0.12	J//	NDD			1	GE	µg/L
Nickel, total recoverable	7.5	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	28,000	N//		■		25	GE	30,000	//		■		25	GE	µg/L
Selenium, total recoverable	<0.42	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	0.20	J/E/	NDD			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	36	//				1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.8	UJ/Q/	< 9.8	●		1	GE								µg/L
Dichloromethane	<2.2	UJ/VO8/1	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB136D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<3.2E-02	UI//	< 0.1520	■		1	GP								pCi/L
Beta dose	110.28			■											pCi/L
Carbon-14	1.5E+02	//		■		1	GP								pCi/L
Cobalt-60	3.0E+01	//				1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.1690			1	GP								pCi/L
Curium-243/244	<3.9E-02	UI//	< 0.2680			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.1520			1	GP								pCi/L
Gross alpha	4.1E+01	//		■		1	GP	3.6E+01	//		■		1	GE	pCi/L
Iodine-129	3.7E+01	//				1	GP								pCi/L
Nickel-63	3.0E+01	//													pCi/L
Nonvolatile beta	1.1E+03	//		■		1	GP	1.2E+03	//		■		1	GE	pCi/L
Plutonium-238	<-1.1E-02	UI//	< 0.2330			1	GP								pCi/L
Plutonium-239/240	<-3.2E-02	UI//	< 0.3070			1	GP								pCi/L
Radium-226	2.2E+01	//		■		1	GP								pCi/L
Radium-228	4.8E+00	//				1	GP								pCi/L
Strontium-90	5.7E+02	//		■		1	GP								pCi/L
Technetium-99	8.2E+01	//		■		1	GP								pCi/L
Thorium-228	<5.5E-01	UI//	< 0.6830			1	GP								pCi/L
Thorium-230	<1.8E-01	UI//	< 0.2630			1	GP								pCi/L
Thorium-232	<0.0E+00	UI//	< 0.2630			1	GP								pCi/L
Sum of alphas	2.4E+00			■											pCi/L
Sum of betas	9.0E+02														pCi/L
Total radium	2.7E+01														pCi/L
Tritium	4.3E+03	//		■		1	GP	5.3E+03	//		■		1	GE	pCi/mL
Uranium-233/234	1.5E+00	//				1	GP								pCi/L
Uranium-235	<8.3E-02	UI//	< 0.3380			1	GP								pCi/L
Uranium-238	9.1E-01	//				1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB137C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72269.9 E55700.2	33.276494 °N 81.660513 °W	173.8-163.8 ft msl	236 ft msl	4" PVC	S	Bamwell (IIB1)

SAMPLE DATE 07/28/98 10/15/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	218.0	217.1	ft msl
pH	5.8	6.1	pH
Sp. conductance	400	400	µS/cm
Water temperature	20.8	20.5	°C
Alkalinity as CaCO ₃	7.0	12	mg/L
Turbidity	0.8	1	NTU
Volumes purged	2.3	0.086	well vol
Sampling code		XN	
Synchronous water level	217.57 (9/17/98)	217.1 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	40	//				1	GE								µg/L
Cadmium, total recoverable	0.53	J/E/	NDD			1	GE								µg/L
Chromium, total recoverable	1.2	J/E/	NDD			1	GE								µg/L
Cobalt, total recoverable	0.70	//				1	GE								µg/L
Copper, total recoverable	1.1	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	0.50	J/EV/	NDD			1	GE								µg/L
Mercury, total recoverable	0.30	//				1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	3.5	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	42,000	N/		■		25	GE	44,000	//		■		25	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	24	//				1	GE								µg/L

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<10	U//	< 10			1	GE								µg/L
Dichloromethane	5.8	J/O/1	NDD			1	GE								µg/L
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	UJ/O/1	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB137C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<1.1E-01	UI//	< 0.3680			1	GP								pCi/L
Beta dose	9.43			■											pCi/L
Carbon-14	1.3E+02	//		■		1	GP								pCi/L
Cobalt-60	<6.6E-01	UI//	< 3.0300			1	GP								pCi/L
Curium-242	<4.6E-02	UI//	< 0.3100			1	GP								pCi/L
Curium-243/244	<1.8E-01	UI//	< 0.2730			1	GP								pCi/L
Curium-245/246	<1.1E-01	UI//	< 0.1080			1	GP								pCi/L
Gross alpha	7.4E+00	//				1	GP	<4.4E+00	U//	<2.1E+00			1	GE	pCi/L
Iodine-129	9.2E+00	//				1	GP								pCi/L
Nickel-63	<2.4E-01	UI//	< 17.9000			1	GP								pCi/L
Nonvolatile beta	7.3E+01	//		■		1	GP	3.4E+01	//				1	GE	pCi/L
Plutonium-238	<1.4E-02	UI//	< 0.3800			1	GP								pCi/L
Plutonium-239/240	<3.4E-02	UI//	< 0.3400			1	GP								pCi/L
Radium-226	1.8E+00	//				1	GP								pCi/L
Radium-228	<1.8E-01	UI//	< 1.1600			1	GP								pCi/L
Strontium-90	<2.4E-01	UI//				1	GP								pCi/L
Technetium-99	1.5E+02	//		■		1	GP								pCi/L
Thorium-228	<1.1E-01	UI//				1	GP								pCi/L
Thorium-230	3.8E-01	J/C/	NDD			1	GP								pCi/L
Thorium-232	<0.0E+00	UI//				1	GP								pCi/L
Sum of alphas	3.8E-01														pCi/L
Sum of betas	2.9E+02			■											pCi/L
Total radium	1.8E+00														pCi/L
Tritium	7.9E+03	//		■		1	GP	8.5E+03	//				1	GE	pCi/mL
Uranium-233/234	<1.5E-01	UI//	< 0.1950			1	GP								pCi/L
Uranium-235	<4.7E-02	UI//	< 0.2540			1	GP								pCi/L
Uranium-238	<3.8E-02	UI//	< 0.2960			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB137D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72278.9 E55696.1	33.276508 °N 81.660542 °W	225.3-205.3 ft msl	236.6 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 07/13/98 10/15/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	220.8	219.6	ft msl
pH	4.5	5.1	pH
Sp. conductance	150	150	µS/cm
Water temperature	19.1	18.9	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	0	NTU
Volumes purged	4.7	3.3	well vol
Sampling code		N	
Synchronous water level	220.3 (09/17/98)	218.9 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20				1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	14,000	N//		■		5	GE	14,000	//		■			10	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB137D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	2.5E+00	//				1	GP	<3.8E+00	U//					1	GE pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	4.4E+01	//				1	GP	4.6E+01	//					1	GE pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.4E+03	//		■		1	GP	2.5E+03	//		■			1	GE pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB138D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N73160.2 E55260.7	33.277746 °N 81.663400 °W	228.1-208.1 ft msl	252.4 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/21/98	10/08/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	224.7	223.1	ft msl
pH	4.9	4.7	pH
Sp. conductance	41	26	µS/cm
Water temperature	19.5	19.9	°C
Alkalinity as CaCO ₃	4	0	mg/L
Turbidity	1	6	NTU
Volumes purged	2.9	0.10	well vol
Sampling code		XN	
Synchronous water level	223.8 (09/17/98)	221.5 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	1,500	N//				1	GE	420	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB138D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<4.5E-01	UI//	< 0.5980			1	GP	<7.1E-01	JU/L/I	<NDD			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<6.4E-01	UI//	< 1.3600			1	GP	<1.1E+00	JU/L/I	<NDD			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.4E+01	//		■		1	GP	2.0E+01	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB139A

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71127.4 E57365.4	33.276684 °N 81.653910 °W	97.6-87.6 ft msl	233.7 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE	07/24/98	10/12/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	174.6	174.2	ft msl
pH	6.9	7.2	pH
Sp. conductance	210	160	µS/cm
Water temperature	20.3	19.8	°C
Alkalinity as CaCO ₃	49	94	mg/L
Turbidity	1	1	NTU
Volumes purged	3.1	5.2	well vol
Sampling code			
Synchronous water level	174.5 (09/17/98)	174.1 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	64	J/IVY/2	NDD			1	WA	50	J//	NDD			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB139A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<3.2E-01	U//	< 1.3900			1	TM	<2.9E-01	U//	<6.7E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.5E+00	//				1	GP	<8.6E-01	U//	<1.2E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<5.1E-02	U//	<6.0E-01			1	GP	<4.8E-01	U//	<6.5E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB139C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71129.8 E57374.5	33.276704 °N 81.653890 °W	158.5-148.5 ft msl	233.8 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE 07/13/98 11/05/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	214.6	214.0	ft msl
pH	4.5	5.1	pH
Sp. conductance	330	330	µS/cm
Water temperature	18.8	18.3	°C
Alkalinity as CaCO ₃	29	4	mg/L
Turbidity	0	1	NTU
Volumes purged	0.023	0.023	well vol
Sampling code	XN	XN	
Synchronous water level	214.4 (09/17/98)	213.3 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	0.52	J/E/	NDD			5	GE								µg/L
Arsenic, total recoverable	<15	U//	< 15.0			5	GE								µg/L
Barium, total recoverable	73	//				5	GE								µg/L
Cadmium, total recoverable	0.69	J/E/	NDD			5	GE								µg/L
Chromium, total recoverable	5.0	J/E/	NDD			5	GE								µg/L
Cobalt, total recoverable	7.3	//		■		5	GE								µg/L
Copper, total recoverable	2.9	//				5	GE								µg/L
Cyanide															
Lead, total recoverable	1.1	J/E/	NDD			5	GE								µg/L
Mercury, total recoverable	0.97	//				1	GE	1.5	//				1	GE	µg/L
Nickel, total recoverable	14	//				5	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	37,000	N//		■		25	GE	37,000	//		■		25	GE	µg/L
Selenium, total recoverable	6.4	J/EV/	NDD			5	GE								µg/L
Silver, total recoverable	<5.0	U//	< 5.0			5	GE								µg/L
Tin, total recoverable	0.83	J/E/	NDD			5	GE								µg/L
Vanadium, total recoverable	<10	U//	< 10			5	GE								µg/L
Zinc, total recoverable	120	//				5	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB139C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	3.0E+00	//				1	GP	<4.4E+00	U//	<1.9E+00			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.7E+01	//				1	GP	1.2E+01	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.3E+03	//		■		1	GP	2.3E+03	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB139D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71133.2 E57384.4	33.276728 °N 81.653871 °W	226.7-206.7 ft msl	233.8 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/20/98	10/12/98
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FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	221.9	220.5	ft msl
pH	4.3	4.5	pH
Sp. conductance	66	32	µS/cm
Water temperature	18.6	19.8	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	3	1	NTU
Volumes purged	6.3	5.7	well vol
Sampling code			
Synchronous water level	221.4 (09/17/98)	219.6 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	3,200	N//				3	GE	2,400	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB139D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	2.6E+00	//				1	GP	2.2E+00	//				1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	5.2E+01	//		■		1	GP	9.2E+01	//		■		1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.2E+02	//		■		1	GP	7.4E+01	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB140A

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N70050.3 E56535.4	33.272948 °N 81.654003 °W	91.0-81.0 ft msl	235.9 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE	07/20/98	10/07/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	176.6	176.1	ft msl
pH	6.6	6.7	pH
Sp. conductance	160	140	µS/cm
Water temperature	20.7	20.3	°C
Alkalinity as CaCO ₃	66	31	mg/L
Turbidity	1	2	NTU
Volumes purged	2.9	3.2	well vol
Sampling code			
Synchronous water level	176.4 (09/18/98)	176.0 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	<20	U/V/	< 50			1	GE	<20	U/V/	<50			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB140A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.1E+00	//				1	GP	<1.9E-01	JU/L/I				1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<1.1E+00	UI//	< 1.1100			1	GP	<6.9E-01	JU/L/I				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<-7.4E-02	UI//	<5.9E-01			1	GP	<1.8E-01	U//	<6.3E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB140C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N70049.2 E56551.8	33.272972 °N 81.653958 °W	171.6-161.6 ft msl	235.6 ft msl	4" PVC	S	Barnwell (IIB1)

SAMPLE DATE	07/20/98	10/07/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	207.3	199.1	ft msl
pH	5.5	5.5	pH
Sp. conductance	37	22	µS/cm
Water temperature	21.9	20.1	°C
Alkalinity as CaCO ₃	3	6	mg/L
Turbidity	2	1	NTU
Volumes purged	2.8	3.6	well vol
Sampling code			
Synchronous water level	206.5 (09/18/98)	205.5 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	510	N//				1	GE	540	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB140C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<4.5E-01	U//	< 0.6420			1	GP	<3.4E-02	JU/L/I	<NDD			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<7.9E-01	U//	< 1.0600			1	GP	<1.1E+00	JU/L/I	<NDD			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	3.0E+00	//				1	GP	3.3E+00	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB140D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N70036.0 E56560.6	33.272957 °N 81.653909 °W	214.1-194.1 ft msl	236.2 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/20/98	10/07/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	216.3	211.0	ft msl
pH	4.7	4.6	pH
Sp. conductance	29	18	µS/cm
Water temperature	21.0	20.8	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	3.7	9.0	well vol
Sampling code			
Synchronous water level	215.4 (09/18/98)	213.1 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	400	N//				1	GE	450	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB140D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.3E+00	//					1	GP	<8.6E-01	JU/L/I				1	GE pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.6E+00	//					1	GP	<9.5E-01	JU/L/I				1	GE pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.1E+01	//					1	GP	1.2E+01	//				1	GE pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB141A

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71213.6 E59168.7	33.279817 °N 81.649329 °W	90.6-80.6 ft msl	254.6 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE 08/03/98 10/07/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	175.5	175.4	ft msl
pH	11.2	11.3	pH
Sp. conductance	1200	1000	µS/cm
Water temperature	24.1	22.8	°C
Alkalinity as CaCO ₃	218	228	mg/L
Turbidity	7	1	NTU
Volumes purged	0.160	0.016	well vol
Sampling code	XN	XN	
Synchronous water level	175.6 (9/17/98)	175.3 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.10	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	110	N/				1	GE	100	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB141A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<1.4E-01	U//	< 0.9300			1	GP	1.7E+00	J//	NDD			1	TM	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.6E+00	//				1	GP	2.9E+00	J//	NDD			1	TM	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.6E+00	//				1	GP	3.3E+00	//				1	TM	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB141CR

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71226.7 E59167.2	33.279843 °N 81.649358 °W	162.1-152.1 ft msl	254.3 ft msl	4" PVC	S	Bamwell (IIB1)

SAMPLE DATE 08/03/98 10/07/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	229.3	228.5	ft msl
pH	5.2	5.1	pH
Sp. conductance	34	20	µS/cm
Water temperature	21.7	20.2	°C
Alkalinity as CaCO ₃	7.0	0	mg/L
Turbidity	0.7	2	NTU
Volumes purged	2.3	4.1	well vol
Sampling code			
Synchronous water level	229.21 (9/17/98)	227.0 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	200	N/6/				1	GE	150	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB141CR (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	8.5E-01	//				1	TM	<3.9E-01	JU/L/I	<NDD			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	3.0E+00	//				1	TM	<5.6E-01	JU/L/I	<NDD			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.4E+00	//				1	TM	<7.6E-01	U//	<6.3E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB141D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71184.4 E59170.9	33.279756 °N 81.649266 °W	237.8-217.8 ft msl	254.8 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	08/03/98	10/07/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	239	238.2	ft msl
pH	4.9	5.3	pH
Sp. conductance	39	32	µS/cm
Water temperature	23.3	25.3	°C
Alkalinity as CaCO ₃	3	3	mg/L
Turbidity	14.6	12	NTU
Volumes purged	0.72	0.075	well vol
Sampling code	XN	XN	
Synchronous water level	239.68 (9/17/98)	234.1 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	190	/V6/				1	GE	140	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB141D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.7E+00	//					1	GP	<2.6E+00	JU/L/I				<NDD	1 GE pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<8.6E-01	UI//	< 1.8800				1	GP	<9.5E-01	JU/L/I				<NDD	1 GE pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.2E+01	//					1	GP	1.3E+01	//					1 GE pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB142C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N73119.0 E53505.3	33.274791 °N 81.667942 °W	171.6-161.6 ft msl	204 ft msl	4" PVC	S	Bamwell (IIB ₁)

SAMPLE DATE	07/14/98	10/06/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	197.4	198.1	ft msl
pH	4.8	4.9	pH
Sp. conductance	21	20	µS/cm
Water temperature	17.9	18.2	°C
Alkalinity as CaCO ₃	1	0	mg/L
Turbidity	1	2	NTU
Volumes purged	3.2	6.3	well vol
Sampling code			
Synchronous water level	144.9 (09/18/98)	195.9 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C	<NDD				1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	310	//				1	GE	910	//					1	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB142C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<1.9E-02	U//	< 0.6150			1	GP	<1.0E+00	U//	<5.3E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<8.7E-01	U//	< 1.1400			1	GP	4.1E+00	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	6.9E+00	//				1	GP	3.1E+02	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB142D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N73113.0 E53493.1	33.274758 °N 81.667962 °W	199.7-189.7 ft msl	204.2 ft msl	4" PVC	S	Water Table (HB2)

SAMPLE DATE	07/14/98	10/06/98
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FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	195.8	196.8	ft msl
pH	4.9	4.7	pH
Sp. conductance	59	30	µS/cm
Water temperature	20.4	21.7	°C
Alkalinity as CaCO ₃	35	0	mg/L
Turbidity	12	70	NTU
Volumes purged	0.0	0.0	well vol
Sampling code	XN	XN	
Synchronous water level	197.0 (09/18/98)	196.8 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit	
Antimony, total recoverable																
Arsenic, total recoverable																
Barium, total recoverable																
Cadmium, total recoverable																
Chromium, total recoverable																
Cobalt, total recoverable																
Copper, total recoverable																
Cyanide																
Lead, total recoverable																
Mercury, total recoverable	<0.20	U//	< 0.20				1	GE	<0.20	JU/L/C	<NDD			1	GE	µg/L
Nickel, total recoverable																
Nitrate as nitrogen																
Nitrate-nitrite as nitrogen	500	//					1	GE	330	//				1	GE	µg/L
Selenium, total recoverable																
Silver, total recoverable																
Tin, total recoverable																
Vanadium, total recoverable																
Zinc, total recoverable																

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB142D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<3.8E-01	U//	< 1.0500			1	GP	<-3.9E-03	U//	<6.8E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	2.4E+00	//				1	GP	<7.4E-01	U//	<1.1E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	3.4E+02	//		■		1	GP	8.3E+00	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB143C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N73738.2 E52773.2	33.274966 °N 81.671072 °W	179.1-169.1 ft msl	222.2 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE	07/14/98	10/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	209.4	209.0	ft msl
pH	4.4	4.7	pH
Sp. conductance	45	44	µS/cm
Water temperature	20.2	18.9	°C
Alkalinity as CaCO ₃	2	0	mg/L
Turbidity	0	1	NTU
Volumes purged	3.4	9.7	well vol
Sampling code			
Synchronous water level	209.4 (09/18/98)	208.5 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.11	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	540	//				1	GE	540	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB143C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<1.5E-01	UI//	< 0.7460			1	GP	<7.5E-01	U//	<5.9E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<1.1E+00	UI//	< 1.3000			1	GP	<5.3E-01	U//	<1.2E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	6.5E+00	//				1	GP	8.1E+00	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB143D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N73754.0 E52774.5	33.275003 °N 81.671099 °W	216.9-196.9 ft msl	222.9 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/14/98	10/05/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	213.5	213.4	ft msl
pH	4.1	4.4	pH
Sp. conductance	22	19	µS/cm
Water temperature	20.4	19.5	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	3	1	NTU
Volumes purged	3.8	9.2	well vol
Sampling code			
Synchronous water level	213.4 (09/18/98)	210.0 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.11	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	390	//				1	GE	560	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB143D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.4E+00	//				1	GP	<1.1E+00	U//	<6.8E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<6.1E-01	U//	< 1.2000			1	GP	<8.1E-01	U//	<1.1E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	7.1E+00	//				1	GP	9.1E+00	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB144A

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71892.1 E56200.5	33.276475 °N 81.658462 °W	88.6-78.6 ft msl	235.6 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE	07/20/98	10/06/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	171.6	171.2	ft msl
pH	6.5	6.3	pH
Sp. conductance	150	120	µS/cm
Water temperature	19.9	19.8	°C
Alkalinity as CaCO ₃	53	41	mg/L
Turbidity	1	1	NTU
Volumes purged	2.7	4.3	well vol
Sampling code			
Synchronous water level	171.5 (09/17/98)	171.0 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C	<NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	180	N//				1	GE	80	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB144A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<5.0E-01	U//	< 0.6190			1	GP	<7.1E-01	U//	<9.0E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	3.7E+00	//				1	GP	<9.6E-01	U//	<1.3E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.6E+03	//		■		1	GP	2.8E+01	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB145C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71098.9 E57769.0	33.277280 °N 81.852792 °W	174.7-164.7 ft msl	235.7 ft msl	4" PVC	S	Barnwell (IIB ₁)

SAMPLE DATE 07/20/98 10/06/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	214.0	213.3	ft msl
pH	5.4	5.5	pH
Sp. conductance	340	280	µS/cm
Water temperature	21.2	20.2	°C
Alkalinity as CaCO ₃	34	9	mg/L
Turbidity	0	2	NTU
Volumes purged	2.5	3.2	well vol
Sampling code			
Synchronous water level	213.7 (09/17/98)	212.6 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.99	//				1	GE	1.4	J/L/C	NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	33,000	N/I		■		25	GE	36,000	//		■		25	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB145C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	3.6E+00	//						1	GP	<1.4E+00	U//			<1.1E+00	1 GE pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	3.0E+01	//						1	GP	3.0E+01	//				1 GE pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	3.7E+01	//		■				1	GP	1.6E+03	//			■	1 GE pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB145D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N71088.0 E57753.9	33.277231 °N 81.652810 °W	194.2-184.2 ft msl	236.2 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 07/13/98 10/13/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	219.4	218.8	ft msl
pH	4.8	5.0	pH
Sp. conductance	220	200	µS/cm
Water temperature	20.9	20.7	°C
Alkalinity as CaCO ₃	3	0	mg/L
Turbidity	1	1	NTU
Volumes purged	5.4	2.6	well vol
Sampling code		N	
Synchronous water level	219.3 (09/17/98)	217.7 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	2.1	//		■		1	GE	2.7	J/K/C	NDD				1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	25,000	N/		■		25	GE	29,000	//		■			25	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB145D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	4.8E+01	//		■		1	GP	3.9E+01	//		■		1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	5.8E+02	//		■		1	GP	5.2E+02	//		■		1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.7E+03	//		■		1	GP	1.8E+03	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB146A

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N70478.9 E58454.0	33.277026 °N 81.649784 °W	95.5-85.5 ft msl	251.6 ft msl	4" PVC	S	U. Congaree (IIA)

SAMPLE DATE 08/03/98 10/06/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	176.6	176.5	ft msl
pH	7.1	6.8	pH
Sp. conductance	170	140	µS/cm
Water temperature	20	20.0	°C
Alkalinity as CaCO ₃	63	48	mg/L
Turbidity	0.9	1	NTU
Volumes purged	3.1	3.7	well vol
Sampling code			
Synchronous water level	176.67 (9/17/98)	176.3 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.040	U/6/	< 0.20			1	GE	<0.20	JU/L/C				1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	43	NY6/				1	WA	<20	U/V/	<50			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB146A (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.2E+00	//				1	TM	<5.2E-01	U//	<7.3E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.4E+00	//				1	GP	<5.5E-01	U//	<1.3E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	<-1.2E-01	U//	<5.8E-01			1	GP	<1.3E-01	U//	<6.5E-01			1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB146C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N70471.6 E58473.1	33.277041 °N 81.649719 °W	162.3-152.3 ft msl	252.3 ft msl	4" PVC	S	Bamwell (IIB ₁)

SAMPLE DATE 08/03/98 10/06/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	210.0	209.7	ft msl
pH	8.1	6.9	pH
Sp. conductance	77	66	µS/cm
Water temperature	19.5	20.0	°C
Alkalinity as CaCO ₃	21	23	mg/L
Turbidity	0.4	2	NTU
Volumes purged	2.6	3.2	well vol
Sampling code			
Synchronous water level	209.97 (9/17/98)	209.3 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C	<NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	<610	U/V6/	< 50			1	GE	650	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB146C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	9.3E-01	//				1	GP	<1.1E+00	U//				<5.1E-01	1	GE pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.2E+00	//				1	GP	<1.1E+00	U//				<1.1E+00	1	GE pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	9.3E+00	//				1	GP	1.1E+01	//					1	GE pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB146D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N70469.7 E58493.0	33.277069 °N 81.649663 °W	224.1-204.0 ft msl	253.1 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	08/03/98	10/06/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	223.6	222.2	ft msl
pH	4.9	5.1	pH
Sp. conductance	17	24	µS/cm
Water temperature	19.2	24.2	°C
Alkalinity as CaCO ₃	0	4	mg/L
Turbidity	1.3	24	NTU
Volumes purged	3.6	0.17	well vol
Sampling code		XN	
Synchronous water level	222.54 (9/17/98)	220.6 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C	<NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	<360	U/V6/	< 50			1	GE	260	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB146D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	<4.4E-01	UI//	< 0.4950			1	GP	<2.7E+00	U//	<9.7E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<7.5E-01	UI//	< 1.1200			1	GP	<1.4E+00	U//	<2.2E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.1E+01	//				1	GP	1.2E+01	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB147D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N73827.9 E55804.4	33.280110 °N 81.663265 °W	235.2-215.2 ft msl	267.3 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/22/98	10/06/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	232.1	230.5	ft msl
pH	5.7	5.1	pH
Sp. conductance	34	28	µS/cm
Water temperature	18.9	22.5	°C
Alkalinity as CaCO ₃	3		mg/L
Turbidity	162	14	NTU
Volumes purged	0.090		well vol
Sampling code	XN	XN	
Synchronous water level	231.1 (09/17/98)	228.8 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C	<NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	350	/V/				1	GE	310	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB147D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	2.0E+00	//				1	GP	<1.3E+00	U//	<1.1E+00			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.9E+00	//				1	GP	<9.9E-01	U//	<2.4E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	9.0E+00	//				1	GP	1.1E+01	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB148C

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N70151.5 E55344.2	33.271228 °N 81.657336 °W	168.9-158.9 ft msl	250.9 ft msl	4" PVC	S	Barnwell (IIB1)

SAMPLE DATE 07/21/98 10/06/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	202.0	201.7	ft msl
pH	10.3	9.4	pH
Sp. conductance	100	98	µS/cm
Water temperature	20.1	21.9	°C
Alkalinity as CaCO ₃	32	13	mg/L
Turbidity	1	4	NTU
Volumes purged	0.035	0.036	well vol
Sampling code	XN	XN	
Synchronous water level	201.9 (09/18/98)	201.4 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C	<NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	510	N/				1	GE	540	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB148C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.2E+00	//				1	GP	<1.2E+00	U//	<6.4E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	3.0E+00	//				1	GP	2.6E+00	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.8E+00	//				1	GP	1.8E+00	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB148D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N70160.9 E55355.7	33.271268 °N 81.657324 °W	218.1-198.1 ft msl	251.1 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE	07/21/98	10/06/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	214.2	213.0	ft msl
pH	8.1	7.4	pH
Sp. conductance	140	100	µS/cm
Water temperature	19.3	19.6	°C
Alkalinity as CaCO ₃	67	48	mg/L
Turbidity	16	20	NTU
Volumes purged	0.095	0.10	well vol
Sampling code	XN	XN	
Synchronous water level	213.3 (09/18/98)	212.5 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	JU/L/C	<NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	70	N//				1	GE	<40	U//	<50			1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB148D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.6E+01	//		■		1	GP	8.9E+00	//				1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.7E+01	//				1	GP	8.5E+00	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	9.4E+00	//				1	GP	1.2E+01	//				1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB149D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71338.8 E57286.3	33.277023 °N 81.654529 °W	227.0-207.0 ft msl	240 ft msl	4" PVC	S	Water Table (11B2)

SAMPLE DATE 07/21/98 10/05/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	223.1	222.0	ft msl
pH	5.0	4.3	pH
Sp. conductance	18	17	µS/cm
Water temperature	20.7	23.0	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	3	3	NTU
Volumes purged	6.4	4.1	well vol
Sampling code			
Synchronous water level	222.2 (09/17/98)	220.7 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	220	N//				1	GE	280	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB149D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	7.1E-01	//				1	GP	<5.9E-01	U//	<3.1E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	<6.6E-01	U//	< 1.1500			1	GP	<7.7E-01	U//	<1.1E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.9E+01	//				1	GP	2.4E+01	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB150D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N71692.6 E58692.8	33.280100 °N 81.651512 °W	226.9-206.9 ft msl	239 ft msl	4" PVC	S	Water Table (IIB2)

SAMPLE DATE 08/03/98 10/12/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	224.6	225.4	ft msl
pH	5.1	4.7	pH
Sp. conductance	49	38	µS/cm
Water temperature	21.1	22.3	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	8.2	63	NTU
Volumes purged	0.086	0.082	well vol
Sampling code	XN	XN	
Synchronous water level	225.9 (9/17/98)	224.6 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable	<0.20	U//	< 0.20			1	GE								µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable	7.5	//				1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	6.9	//				1	GE								µg/L
Cobalt, total recoverable	0.30	//				1	GE								µg/L
Copper, total recoverable	13	//				1	GE								µg/L
Cyanide	<10	U//	< 10			1	GE								µg/L
Lead, total recoverable	1.7	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	0.060	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable	5.0	//				1	GE								µg/L
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	2,500	N/				1	GE	1,900	//				1	GE	µg/L
Selenium, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Vanadium, total recoverable	<2.0	U//	< 2.0			1	GE								µg/L
Zinc, total recoverable	<5.0	U//	< 5.0			1	GE								µg/L

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene	<1.0	U//	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate	<9.9	U//	< 9.9			1	GE								µg/L
Dichloromethane	<1.0	U//	< 1.0			1	GE								µg/L
Tetrachloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//	< 1.0			1	GE								µg/L
Trichlorofluoromethane	<1.0	U//	< 1.0			1	GE								µg/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB150D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241	<-6.5E-03	UI//	< 0.0977			1	GP								pCi/L
Beta dose	0.30														pCi/L
Carbon-14	<1.2E-01	UI//	< 8.9700			1	GP								pCi/L
Cobalt-60	<4.7E-01	UI//	< 4.0700			1	GP								pCi/L
Curium-242	<0.0E+00	UI//	< 0.1060			1	GP								pCi/L
Curium-243/244	<-5.9E-03	UI//	< 0.1620			1	GP								pCi/L
Curium-245/246	<0.0E+00	UI//	< 0.0976			1	GP								pCi/L
Gross alpha	<5.2E-01	UI//	< 0.7920			1	GP	<9.8E-01	U//	<1.0E+00			1	GE	pCi/L
Iodine-129	<1.1E+00	U/V/	< 0.7300			1	GP								pCi/L
Nickel-63	<4.7E-01	UI	< 4.0700												pCi/L
Nonvolatile beta	2.5E+00	//				1	GP	<2.4E+00	U//	<1.5E+00			1	GE	pCi/L
Plutonium-238	<-1.7E-02	UI//	< 0.2230			1	GP								pCi/L
Plutonium-239/240	<2.7E-02	UI//	< 0.1890			1	GP								pCi/L
Radium-226	<4.7E-01	UI//	< 0.6340			1	GP								pCi/L
Radium-228	1.5E+00	//				1	GP								pCi/L
Strontium-90	<6.5E-02	UI/J/C/				1	GP								pCi/L
Technetium-99	<5.8E+00	UI//	< 6.6000			1	GP								pCi/L
Thorium-228	<1.1E-02	UI//	< 0.2810			1	GP								pCi/L
Thorium-230	<1.9E-01	UI//	< 0.2090			1	GP								pCi/L
Thorium-232	<-1.9E-02	UI//	< 0.2470			1	GP								pCi/L
Sum of alphas															
Sum of betas	1.5E+00														pCi/L
Total radium	1.5E+00														pCi/L
Tritium	5.8E+01	//		■		1	GP	6.4E+01	//		■		1	GE	pCi/mL
Uranium-233/234	<3.4E-02	UI//	< 0.1360			1	GP								pCi/L
Uranium-235	<0.0E+00	UI//	< 0.0546			1	GP								pCi/L
Uranium-238	<2.7E-02	UI//	< 0.1160			1	GP								pCi/L

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB151C

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72997.9 E54014.9	33.275355 °N 81.666365 °W	180.6-170.6 ft msl	213.6 ft msl	4" PVC	S	Barnwell (IB1)

SAMPLE DATE 07/21/98 10/08/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	207.4	207.4	ft msl
pH	4.5	4.6	pH
Sp. conductance	97	78	µS/cm
Water temperature	20.5	18.9	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	2	NTU
Volumes purged	4.6	4.4	well vol
Sampling code			
Synchronous water level	207.3 (09/18/98)	206.3 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	0.096	J//	NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	8,100	N//				5	GE	8,700	//				5	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB151C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt	ST	H	DF	Lab	4Q98	Mod	Filt	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.9E+00	//					1	GP	9.6E-01	J/L/I			NDD	1	GE pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	9.1E+00	//					1	GP	6.8E+00	J/L/I			NDD	1	GE pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	9.8E+02	//		■			1	GP	1.1E+03	//			■	1	GE pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB151D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72997.8 E54026.4	33.275373 °N 81.666334 °W	207.6-197.6 ft msl	213.6 ft msl	4" PVC	S	Water Table (H2B2)

SAMPLE DATE 07/21/98 10/08/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	206.6	206.0	ft msl
pH	4.3	4.7	pH
Sp. conductance	41	24	µS/cm
Water temperature	21.0	21.5	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	5	4	NTU
Volumes purged	8.9	7.1	well vol
Sampling code			
Synchronous water level	206.6 (09/18/98)	205.4 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	1,700	N//				1	GE	1,800	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB151D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt	ST	H	DF	Lab	4Q98	Mod	Filt	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.0E+00	//													
Iodine-129															
Nickel-63															
Nonvolatile beta	1.8E+00	//													
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	4.4E+01	//													
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB152C

<u>SRS Coord</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72012.0 E54346.7	33.273716 °N 81.663576 °W	183.1-173.1 ft msl	214.1 ft msl	4" PVC	S	Bainwell (IIB ₁)

SAMPLE DATE	07/21/98	10/06/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	199.0	198.9	ft msl
pH	4.3	4.5	pH
Sp. conductance	140	100	µS/cm
Water temperature	18.7	18.6	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	3	2	NTU
Volumes purged	5.9	5.4	well vol
Sampling code			
Synchronous water level	199.0 (09/18/98)	198.5 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.10	J/E/	NDD			1	GE	0.22	//				1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	12.000	N/I		■		5	GE	12.000	//		■		5	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB152C (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.6E+00	//				1	GP	<1.8E+00	U//	<6.2E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	2.6E+01	//				1	GP	1.7E+01	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.1E+03	//		■		1	GP	1.3E+03	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB152D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72011.7 E54362.1	33.273740 °N 81.663535 °W	207.0-197.0 ft msl	214.1 ft msl	4" PVC	S	Water Table (11B2)

SAMPLE DATE 07/22/98 10/06/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation			ft msl
pH	4.6	5.0	pH
Sp. conductance	54	36	µS/cm
Water temperature	29.7	22.3	°C
Alkalinity as CaCO ₃	2	0	mg/L
Turbidity	13	110	NTU
Volumes purged			well vol
Sampling code	NSX	NSX	
Synchronous water level	(09/18/98)	(12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable															
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20				1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	2,100	/N/				1	GE	700	//					1	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSB152D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	2.6E+00	//				1	GP	3.1E+01	//		■		1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	4.2E+00	//				1	GP	<1.6E+01	U//	<9.3E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.6E+02	//		■		1	GP	1.8E+02	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 1D

SRS Coord	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72179.6 E58925.0	33.281556 °N 81.651846 °W	239.8-219.8 ft msl	264 ft msl	2" PVC	V	Water Table (IIB ₂)

SAMPLE DATE 07/21/98 10/19/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	233.0	237.3	ft msl
pH	4.0	3.8	pH
Sp. conductance	52	50	µS/cm
Water temperature	21.5	21.5	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	13	3.1	well vol
Sampling code			
Synchronous water level	238.3 (09/17/98)	235.4 (12/21/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable	0.48	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	2,900	N//				2	GE	3,500	//				3	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 1D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	5.6E+00	//				1	GP	4.8E+00	//				1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.6E+01	//				1	GP	1.8E+01	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	7.7E+01	//		■		1	GP	1.2E+02	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 2D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72190.8 E59423.5	33.282394 °N 81.650556 °W	245.3-225.2 ft msl	265.5 ft msl	2" PVC	V	Water Table (IIB ₂)

SAMPLE DATE 07/24/98 10/19/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	244.2	242.6	ft msl
pH	4.8	4.4	pH
Sp. conductance	59	38	µS/cm
Water temperature	21.6	20.0	°C
Alkalinity as CaCO ₃	3	0	mg/L
Turbidity	2	1	NTU
Volumes purged	10	3.9	well vol
Sampling code			
Synchronous water level	243.6 (09/18/98)	240.6 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable	<1.0	U//	< 1.0				1	GE							µg/L
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.046	J/E/	NDD				1	GE	<0.20	U//			<0.20	1	GE µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	980	/V/					1	GE	890	//				1	GE µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 2D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST H	DF	Lab	4Q98	Mod	Filt.	ST H	DF	Lab	Unit
Americium-241													
Carbon-14													
Cobalt-60													
Curium-242													
Curium-243/244													
Curium-245/246													
Gross alpha	<5.6E-01	U//	< 0.6100		1	GP	<1.0E+00	U//	<6.4E-01		1	GE	pCi/L
Iodine-129													
Nickel-63													
Nonvolatile beta	<9.0E-01	U//	< 1.1900		1	GP	<1.8E+00	U//	<1.2E+00		1	GE	pCi/L
Plutonium-238													
Plutonium-239/240													
Radium-226													
Radium-228													
Strontium-90													
Technetium-99													
Thorium-228													
Thorium-230													
Thorium-232													
Sum of alphas													
Sum of betas													
Tritium	2.5E+01	//		■	1	GP	2.7E+01	//		■	1	GE	pCi/mL
Uranium-233/234													
Uranium-235													
Uranium-238													

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 3D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72251.5 E59770.6	33.283094 °N 81.649759 °W	253.8-233.7 ft msl	267.6 ft msl	2" PVC	V	Water Table (IB2)

SAMPLE DATE 07/28/98 10/19/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	251.4	249.8	ft msl
pH	4.6	4.2	pH
Sp. conductance	36	26	µS/cm
Water temperature	21.1	23.0	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	8.2	3	NTU
Volumes purged	14.4	4.9	well vol
Sampling code			
Synchronous water level	251.04 (9/18/98)	247.6 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															µg/L
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable						1	GE								µg/L
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															µg/L
Lead, total recoverable	0.92	J/EV//	NDD			1	GE								µg/L
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen						1	GE	1,700	//				1	GE	µg/L
Nitrate-nitrite as nitrogen	1,500	/V/													
Selenium, total recoverable															µg/L
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	U//O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate															
Dichloromethane															µg/L
Tetrachloroethylene	<1.0	U//O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	U//O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 3D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt	ST	H	DF	Lab	4Q98	Mod	Filt	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.8E+00	//				1	GP	<1.1E+00	U//	<7.6E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	2.1E+00	//				1	GP	<1.1E+00	U//	<1.2E+00			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	9.9E+01	//		■		1	GP	1.2E+02	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 4D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72453.7 E60171.9	33.284196 °N 81.649095 °W	265.1-245.0 ft msl	273.2 ft msl	2" PVC	V	Water Table (IIB ₂)

SAMPLE DATE 07/22/98 10/14/98

FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	263.6	262.0	ft msl
pH	5.4	5.3	pH
Sp. conductance	88	70	µS/cm
Water temperature	22.0	22.9	°C
Alkalinity as CaCO ₃	16	1	mg/L
Turbidity	1	1	NTU
Volumes purged	12	3.2	well vol
Sampling code			
Synchronous water level	263.4 (09/18/98)	258.5 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Barium, total recoverable															
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable	<3.0	U//	< 3.0			1	GE								µg/L
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable	0.72	J/E/	NDD			1	GE								µg/L
Mercury, total recoverable	0.083	J/E/	NDD			1	GE	0.080	J/K/C	NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	710	N/				1	GE	430	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichloroethylene	<1.0	UJ/O/1	< 1.0			1	GE								µg/L
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 4D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.3E+00	//				1	GP	<1.5E+00	U//	<6.1E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	6.9E+01	//		■		1	GP	6.4E+01	//		■		1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	3.3E+01	//		■		1	GP	3.6E+01	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 5D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72562.2 E60339.4	33.284709 °N 81.648865 °W	267.7-247.8 ft msl	276.6 ft msl	2" PVC	V	Water Table (IIB ₂)

SAMPLE DATE	07/22/98	10/14/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	267.9	265.8	ft msl
pH	5.0	4.8	pH
Sp. conductance	48	50	µS/cm
Water temperature	29.8	27.2	°C
Alkalinity as CaCO ₃	5	0	mg/L
Turbidity	3	2	NTU
Volumes purged	7.9	6.4	well vol
Sampling code			
Synchronous water level	266.7 (09/18/98)	257.3 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	1,400	J/IV/1	NDD			1	GE	2,200	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 5D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.6E+00	//				1	GP	<6.3E-01	U//	<6.7E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.3E+01	//				1	GP	2.1E+01	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	1.5E+01	//				1	GP	3.6E+01	//				■	1	GE pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 6D

<u>SRS Coord.</u>	<u>Lat/Longitude</u>	<u>Screen Zone Elevation</u>	<u>Top of Casing</u>	<u>Casing</u>	<u>Pump</u>	<u>Screen Zone</u>
N72659.7 E60531.1	33.285238 °N 81.648549 °W	264.0-243.9 ft msl	280 ft msl	2" PVC	V	Water Table (IIB2)

SAMPLE DATE	07/23/98	10/14/98
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FIELD DATA

<u>Constituents</u>	<u>3Q98</u>	<u>4Q98</u>	<u>Unit</u>
Water elevation	262.8	260.6	ft msl
pH	4.4	4.2	pH
Sp. conductance	58	60	µS/cm
Water temperature	20.5	22.0	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	2	5	NTU
Volumes purged	13	6.2	well vol
Sampling code			
Synchronous water level	262.5 (09/18/98)	256.9 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	<0.20	U//	< 0.20			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	510	J/IV/1	NDD			1	GE	730	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

<u>Constituents</u>	<u>3Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>4Q98</u>	<u>Mod</u>	<u>Filt.</u>	<u>ST</u>	<u>H</u>	<u>DF</u>	<u>Lab</u>	<u>Unit</u>
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 6D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	3.3E+00	J/C/	NDD				1	GP	2.3E+00	//				1	GE pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	3.9E+01	//					1	GP	4.3E+01	//				1	GE pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	4.1E+01	//		■			1	GP	4.6E+01	//	■			1	GE pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

● = exceeded holding time

■ = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 7D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72674.4 E60723.0	33.285583 °N 81.648073 °W	262.4-242.3 ft msl	283.8 ft msl	2" PVC	V	Water Table (IB2)

SAMPLE DATE 07/23/98 10/14/98

FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	262.3	260.5	ft msl
pH	4.6	4.3	pH
Sp. conductance	48	38	µS/cm
Water temperature	19.8	22.2	°C
Alkalinity as CaCO ₃	0	0	mg/L
Turbidity	1	1	NTU
Volumes purged	8.5	3.0	well vol
Sampling code			
Synchronous water level	261.9 (09/18/98)	257.5 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.045	J/E/	NDD			1	GE	<0.20	U//	<0.20			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	2,100	J/IV/1	NDD			1	GE	2,400	//				1	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 7D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	1.4E+00	J/C/	NDD			1	GP	1.6E+00	//				1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	1.4E+00	//				1	GP	<1.9E+00	U//	<9.8E-01			1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	3.4E+01	//		■		1	GP	3.8E+01	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 8D

SRS Coord.	Lat/Longitude	Screen Zone Elevation	Top of Casing	Casing	Pump	Screen Zone
N72688.1 E61117.1	33.286257 °N 81.647061 °W	268.4-248.4 ft msl	288.7 ft msl	2" PVC	V	Water Table (IIB ₂)

SAMPLE DATE	07/22/98	10/14/98
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FIELD DATA

Constituents	3Q98	4Q98	Unit
Water elevation	263.3	261.9	ft msl
pH	4.8	4.5	pH
Sp. conductance	160	98	µS/cm
Water temperature	24.5	24.0	°C
Alkalinity as CaCO ₃	2	0	mg/L
Turbidity	7	1	NTU
Volumes purged	0.41	6.3	well vol
Sampling code	XN		
Synchronous water level	262.9 (09/18/98)	259.5 (12/22/98)	ft msl

ANALYTICAL DATA

Inorganic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Antimony, total recoverable															
Arsenic, total recoverable															
Barium, total recoverable															
Cadmium, total recoverable	<1.0	U//	< 1.0			1	GE								µg/L
Chromium, total recoverable															
Cobalt, total recoverable															
Copper, total recoverable															
Cyanide															
Lead, total recoverable															
Mercury, total recoverable	0.15	J/E/	NDD			1	GE	0.32	J/K/C	NDD			1	GE	µg/L
Nickel, total recoverable															
Nitrate as nitrogen															
Nitrate-nitrite as nitrogen	15,000	J/IV/1	NDD			5	GE	11,000	//		■		5	GE	µg/L
Selenium, total recoverable															
Silver, total recoverable															
Tin, total recoverable															
Vanadium, total recoverable															
Zinc, total recoverable															

Organic Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Benzene															
Bis(2-ethylhexyl) phthalate															
Dichloromethane															
Tetrachloroethylene															
Trichloroethylene															
Trichlorofluoromethane															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

WELL HSL 8D (cont.)

Radioactive Constituents

Constituents	3Q98	Mod	Filt.	ST	H	DF	Lab	4Q98	Mod	Filt.	ST	H	DF	Lab	Unit
Americium-241															
Carbon-14															
Cobalt-60															
Curium-242															
Curium-243/244															
Curium-245/246															
Gross alpha	3.6E+00	//				1	GP	<1.1E+00	U//	<5.2E-01			1	GE	pCi/L
Iodine-129															
Nickel-63															
Nonvolatile beta	2.8E+01	//				1	GP	1.4E+01	//				1	GE	pCi/L
Plutonium-238															
Plutonium-239/240															
Radium-226															
Radium-228															
Strontium-90															
Technetium-99															
Thorium-228															
Thorium-230															
Thorium-232															
Sum of alphas															
Sum of betas															
Tritium	2.1E+02	//		■		1	GP	1.4E+02	//		■		1	GE	pCi/mL
Uranium-233/234															
Uranium-235															
Uranium-238															

Notes:

- = exceeded holding time
- = exceeded groundwater protection or monitoring constituent standard (See Appendix A.)

H-Area WTU UIC Sample Results: July-December 1998

WSRC-TR-99-00013

Unclassified

UIC Permitted Constituents		Reg	Jul-98	Aug-98	Sep-98	Oct-98	Nov-98	Dec-98
Constituent	Unit	Limit	Result	Result	Result	Result	Result	Result
Section I, INORGANICS								
Arsenic	ug/L	50	<3	<3	<3	<3	<3	<3
Barium	ug/L	2000	2.66	3.63	2.69	2.83	32.90	2.07
Cadmium	ug/L	5	<1	<1	<1	<1	<1	<1
Chromium	ug/L	100	<3	<3	<3	<3	<3	<3
Lead	ug/L	50	<2	<2	<2	<2	<2	<2
Mercury	ug/L	2	0.65	0.74	1.00	<2	0.82	0.98
Selenium	ug/L	50	<5	<5	<5	<5	<5	<5
Silver	ug/L	50	<1	<1	<1	<1	<1	<1
Section II, ORGANICS								
Antimony	ug/L	6	<0.2	<0.2	<0.2	<0.2	2.04	<0.2
Cobalt	ug/L	140	<0.2	0.63	0.34	0.49	5.15	<0.2
Copper	ug/L	1300	<0.2	1.47	<0.2	0.84	1.76	4.08
Cyanide	ug/L	200000	<10	<10	<10	NR	<10	<10
Benzene	ug/L	5	<1	<1	<1	<1	<1	<1
BEHP	ug/L	140	<10.1	<9.9	<10.2	<10.1	<10	<10
Methylene Chloride	ug/L	5	<1	<1	<5	<5	<5	<5
Nickel	ug/L	100	<0.2	1.68	2.82	1.23	5.65	<0.2
Tetrachloroethylene	ug/L	5	<1	<1	<1	<1	<1	<1
Tin	ug/L	50	<2	<2	<2	<2	<2	<2
Trichloroethylene	ug/L	5	<1	<1	<1	<1	<1	<1
Trichlorofluoromethane	ug/L	100	<1	<1	<5	<5	<5	<5
Vanadium	ug/L	49	<2	<2	<2	<2	<2	<2
Zinc	ug/L	5000	<5	<5	<5	<5	64.80	<5
Section III, RADIONUCLIDES								
Gross Alpha	pCi/L	15	<0.781	<0.709	1.24	<29.18	<4.77	<2.46
Gross Beta	pCi/L	50	9.56	12.80	13.80	<52.8	16.90	6.12
Total Radium (226+228)	pCi/L	5	BDL	3.19	BDL	BDL	BDL	BDL
Section IV, RADIONUCLIDES								
Americium-241	pCi/L	SOA	<0.0873	<0.653	<0.237	<0.2098	<1.858	<0.708
Cesium-137	pCi/L	SOB	<3.5	<3.77	<3.49	R	R	<7.77
Curium-242	pCi/L	SOA	<0.0325	<0.891	<0.334	<0.1369	<0.327	<0.219
Curium-243/244	pCi/L	SOA	<0.0632	<1.19	<0.146	<0.3696	<0.892	<0.652
Curium-246	pCi/L	SOA	<0.03	<0.504	<0.107	<0.1242	<0.308	<0.208
Carbon-14	pCi/L	SOB	24.30	<16.1	48.50	42.90	<33.1	24.10
Cobalt-60	pCi/L	SOB	<3.81	<4.07	<4.36	<7.41	<14.87	<8.11
Iodine-129	pCi/L	SOB	12.40	5.25	11.40	12.20	<3.5	6.20
Plutonium-238	pCi/L	SOA	<0.122	R	<0.251	<0.4546	<0.806	<0.116
Plutonium-239/240	pCi/L	SOA	<0.0419	R	<0.203	<0.5662	<0.671	<0.116
Nickel-63	pCi/L	SOB	<24.2	<18.4	<14.7	<32.38	<30.24	<29.42
Radium-226	pCi/L	SOR	<0.17	3.19	<0.782	<1.029	<1.295	<1.502
Radium-228	pCi/L	SOR	<1.19	<1.6	<1.2	<2.738	<2.876	<2.494
Strontium-90	pCi/L	SOB	10.10	5.79	9.16	6.39	<5.81	<1.891
Technetium-99	pCi/L	SOB	<7.42	<8.16	<20.7	<17.27	<41.34	<12.38
Thorium-228	pCi/L	SOA	<0.81	<1.11	<0.571	<0.6068	<0.525	<0.487
Thorium-230	pCi/L	SOA	<0.399	<0.369	<0.497	<1.037	<0.387	<0.2464
Thorium-232	pCi/L	SOA	<0.227	<0.435	<0.31	<0.197	<0.272	<0.048
Uranium-233/234	pCi/L	SOA	0.76	<0.717	<0.309	<0.1566	<2.87	<0.231
Uranium-235	pCi/L	SOA	<0.192	<0.719	<0.189	<0.1061	<2.618	<0.1736
Uranium-238	pCi/L	SOA	0.19	<0.717	<0.16	<0.1265	<1.13	<0.1732
Sum of Alphas			0.95	3.19	BDL	BDL	BDL	BDL
Sum of Betas			46.80	11.04	20.56	61.49	BDL	30.30

H-Area WTU UIC Sample Results: July 1998

WSRC-TR-99-00013
Unclassified

UIC Permitted Constituents			Reg		Raw		Rad		July		Exceedence		Notes
Constituent	Unit	Limit	Result	Acc	Qual.	QL	Result	Y/N					
Section I, INORGANICS												Samples collected 7/30/98	
Arsenic	µg/L	50	3		UJ	3	<3	N					
Barium	µg/L	2000	2.66			0.2	2.66	N					
Cadmium	µg/L	5	1		U	1	<1	N					
Chromium	µg/L	100	1.78		J	3	<3	N					
Lead	µg/L	50	2		U	2	<2	N					
Mercury	µg/L	2	0.654			0.2	0.65	N					
Selenium	µg/L	50	5		U	5	<5	N					
Silver	µg/L	50	1		U	1	<1	N					
Section II, ORGANICS													
Antimony	µg/L	6	0.14		J	0.2	<0.2	N					
Cobalt	µg/L	140	0.159		J	0.2	<0.2	N					
Copper	µg/L	1300	0.679		U	0.2	<0.2	N					
Cyanide	µg/L	200000	10		U	10	<10	N					
Benzene	µg/L	5	1		UJ	1	<1	N					
BEHP	µg/L	140	10.1		U	10.1	<10.1	N					
Methylene Chloride	µg/L	5	3.99		UJ	1	<1	N					
Nickel	µg/L	100	2.97		U	0.2	<0.2	N					
Tetrachloroethylene	µg/L	5	1		UJ	1	<1	N					
Tin	µg/L	50	2		U	2	<2	N					
Trichloroethylene	µg/L	5	1		UJ	1	<1	N					
Trichlorofluoromethane	µg/L	100	1		UJ	1	<1	N					
Vanadium	µg/L	49	2		U	2	<2	N					
Zinc	µg/L	5000	21		U	5	<5	N					
Section III, RADIONUCLIDES													
Gross Alpha	pCi/L	15	0.468	0.467	UIJ	0.781	<0.781	N					
Gross Beta	pCi/L	50	9.56	1.04		1.15	9.56	N					
Total Radium (226+228)	pCi/L	5					BDL	N					
Section IV, RADIONUCLIDES													
Americium-241	pCi/L	SOA	0.0156	0.0275	UI	0.0873	<0.0873	N					
Cesium-137	pCi/L	SOB	-0.107	1.92	UI	3.5	<3.5	N					
Curium-242	pCi/L	SOA	0	0	UI	0.0325	<0.0325	N					
Curium-243/244	pCi/L	SOA	0.025	0.0363	UI	0.0632	<0.0632	N					
Curium-246	pCi/L	SOA	0	0	UI	0.03	<0.03	N					
Carbon-14	pCi/L	SOB	24.3	6.17		9.28	24.30	N					
Cobalt-60	pCi/L	SOB	0.924	2.13	UI	3.81	<3.81	N					
Iodine-129	pCi/L	SOB	12.4	2.44		1.3	12.40	N					
Plutonium-238	pCi/L	SOA	-0.0072	0.0372	UI	0.122	<0.122	N					
Plutonium-239/240	pCi/L	SOA	0.0419	0.0488	UI	0.0419	<0.0419	N					
Nickel-63	pCi/L	SOB	-1.11	13.9	UI	24.2	<24.2	N					
Radium-226	pCi/L	SOR	0.5	0.347	U	0.17	<0.17	N					
Radium-228	pCi/L	SOR	-0.48	0.504	UI	1.19	<1.19	N					
Strontium-90	pCi/L	SOB	10.1	1.32		1.37	10.10	Y					
Technetium-99	pCi/L	SOB	3.45	3.24	UI	7.42	<7.42	N					
Thorium-228	pCi/L	SOA	0.335	0.433	UIJ	0.81	<0.81	N					
Thorium-230	pCi/L	SOA	-0.0181	0.0366	UIJ	0.399	<0.399	N					
Thorium-232	pCi/L	SOA	0	0	UIJ	0.227	<0.227	N					
Uranium-233/234	pCi/L	SOA	0.756	0.324		0.191	0.76	N					
Uranium-235	pCi/L	SOA	0.148	0.147	UI	0.192	<0.192	N					
Uranium-238	pCi/L	SOA	0.192	0.158		0.0961	0.19	N					
Sum of Alphas							0.95	N					
Sum of Betas							46.80	N					

H-Area WTU UIC Sample Results: August 1998

WSRC-TR-99-00013
Unclassified

UIC Permitted Constituents			Reg	Raw	Rad			August	Exceedence	Notes
Constituent	Unit	Limit		Result	Acc	Qual.	QL	Result	Y/N	
Section I, INORGANICS										Samples collected 8/20/98
Arsenic	µg/L	50		3		UJ	3	<3	N	
Barium	µg/L	2000		3.63			0.2	3.63	N	
Cadmium	µg/L	5		1		U	1	<1	N	
Chromium	µg/L	100		1.09		J	3	<3	N	
Lead	µg/L	50		2		U	2	<2	N	
Mercury	µg/L	2		0.741			0.2	0.74	N	
Selenium	µg/L	50		5		U	5	<5	N	
Silver	µg/L	50		1		U	1	<1	N	
Section II, ORGANICS										
Antimony	µg/L	6		0.195		U	0.2	<0.2	N	
Cobalt	µg/L	140		0.632			0.2	0.63	N	
Copper	µg/L	1300		1.47			0.2	1.47	N	
Cyanide	µg/L	200000		10		UJ	10	<10	N	
Benzene	µg/L	5		1		UJ	1	<1	N	
BEHP	µg/L	140		9.9		U	9.9	<9.9	N	
Methylene Chloride	µg/L	5		1		U	1	<1	N	
Nickel	µg/L	100		1.68			0.2	1.68	N	
Tetrachloroethylene	µg/L	5		1		U	1	<1	N	
Tin	µg/L	50		2		U	2	<2	N	
Trichloroethylene	µg/L	5		1		U	1	<1	N	
Trichlorofluoromethane	µg/L	100		1		U	1	<1	N	
Vanadium	µg/L	49		2		U	2	<2	N	
Zinc	µg/L	5000		5		U	5	<5	N	
Section III, RADIONUCLIDES										
Gross Alpha	pCi/L	15		1.11	0.577	J	0.709	<0.709	N	
Gross Beta	pCi/L	50		12.8	1.13		1.05	12.80	N	
Total Radium (226+228)	pCi/L	5						3.19	N	
Section IV, RADIONUCLIDES										
Americium-241	pCi/L	SOA		0.107	0.218	UI	0.653	<0.653	N	
Cesium-137	pCi/L	SOB		0.413	2.07	UI	3.77	<3.77	N	
Curium-242	pCi/L	SOA		-0.0344	0.239	UI	0.891	<0.891	N	
Curium-243/244	pCi/L	SOA		0.645	0.665	UI	1.19	<1.19	N	
Curium-246	pCi/L	SOA		0.182	0.288	UI	0.504	<0.504	N	
Carbon-14	pCi/L	SOB		3.63	9.44	UI	16.1	<16.1	N	
Cobalt-60	pCi/L	SOB		2.22	2.09	UI	4.07	<4.07	N	
Iodine-129	pCi/L	SOB		5.25	2.42		1.21	5.25	N	
Plutonium-238	pCi/L	SOA		2.04	0.408	R	0.0405	R	N	
Plutonium-239/240	pCi/L	SOA		0.324	0.142	R	0.103	R	N	
Nickel-63	pCi/L	SOB		7.75	10.9	UI	18.4	<18.4	N	
Radium-226	pCi/L	SOR		3.19	0.834		3.19	3.19	N	
Radium-228	pCi/L	SOR		-0.243	0.678	UIJ	1.6	<1.6	N	
Strontium-90	pCi/L	SOB		5.79	1.75		2.52	5.79	N	
Technetium-99	pCi/L	SOB		-1.41	3.2	UI	8.16	<8.16	N	
Thorium-228	pCi/L	SOA		-0.172	0.37	UI	1.11	<1.11	N	
Thorium-230	pCi/L	SOA		0.193	0.247	UI	0.369	<0.369	N	
Thorium-232	pCi/L	SOA		-0.0335	0.0479	UI	0.435	<0.435	N	
Uranium-233/234	pCi/L	SOA		0.0875	0.262	UI	0.717	<0.717	N	
Uranium-235	pCi/L	SOA		-0.0403	0.0573	UI	0.719	<0.719	N	
Uranium-238	pCi/L	SOA		0.0875	0.262	UI	0.717	<0.717	N	
Sum of Alphas								3.19	N	
Sum of Betas								11.04	N	

H-Area WTU UIC Sample Results: September 1998

WSRC-TR-99-00013

Unclassified

UIC Permitted Constituents			Reg				Raw		Rad		September		Exceedence		Notes
Constituent	Unit	Limit	Result	Acc	Qual.	QL	Result	Y/N							
Section I, INORGANICS															
Arsenic	µg/L	50	3		U	3	<3	N	Samples collected 9/22/98						
Barium	µg/L	2000	2.69			0.2	2.69	N							
Cadmium	µg/L	5	1		U	1	<1	N							
Chromium	µg/L	100	1.87		J	3	<3	N							
Lead	µg/L	50	2		U	2	<2	N							
Mercury	µg/L	2	1			0.2	1.00	N							
Selenium	µg/L	50	5		U	5	<5	N							
Silver	µg/L	50	1		U	1	<1	N							
Section II, ORGANICS															
Antimony	µg/L	6	0.2		U	0.2	<0.2	N							
Cobalt	µg/L	140	0.335			0.2	0.34	N							
Copper	µg/L	1300	0.516		U	0.2	<0.2	N							
Cyanide	µg/L	200000	10		U	10	<10	N							
Benzene	µg/L	5	1		U	1	<1	N							
BEHP	µg/L	140	10.2		U	10.2	<10.2	N							
Methylene Chloride	µg/L	5	5		U	5	<5	N							
Nickel	µg/L	100	2.82			0.2	2.82	N							
Tetrachloroethylene	µg/L	5	1		U	1	<1	N							
Tin	µg/L	50	2		U	2	<2	N							
Trichloroethylene	µg/L	5	1		U	1	<1	N							
Trichlorofluoromethane	µg/L	100	5		U	5	<5	N							
Vanadium	µg/L	49	2		U	2	<2	N							
Zinc	µg/L	5000	5		U	5	<5	N							
Section III, RADIONUCLIDES															
Gross Alpha	pCi/L	15	1.24	0.648		0.878	1.24	N							
Gross Beta	pCi/L	50	13.8	1.22		1.28	13.80	N							
Total Radium (226+228)	pCi/L	5					BDL	N							
Section IV, RADIONUCLIDES															
Americium-241	pCi/L	SOA	-0.079	0.098	UI	0.237	<0.237	N							
Cesium-137	pCi/L	SOB	-1.04	2.04	UI	3.49	<3.49	N							
Curium-242	pCi/L	SOA	-0.128	0.113	UI	0.334	<0.334	N							
Curium-243/244	pCi/L	SOA	-0.14	0.167	UI	0.416	<0.146	N							
Curium-246	pCi/L	SOA	0.0594	0.0704	UI	0.107	<0.107	N							
Carbon-14	pCi/L	SOB	48.5	7.52		10.3	48.50	N							
Cobalt-60	pCi/L	SOB	2.35	1.58	UI	4.36	<4.36	N							
Iodine-129	pCi/L	SOB	11.4	2.2		1.01	11.40	N							
Plutonium-238	pCi/L	SOA	0.0457	0.107	UI	0.251	<0.251	N							
Plutonium-239/240	pCi/L	SOA	-0.0211	0.0245	UIJ	0.203	<0.203	N							
Nickel-63	pCi/L	SOB	9.82	8.84	UI	14.7	<14.7	N							
Radium-226	pCi/L	SOR	0.504	0.521	UI	0.782	<0.782	N							
Radium-228	pCi/L	SOR	-1.56	0.521	UIJ	1.2	<1.2	N							
Strontium-90	pCi/L	SOB	9.16	0.958		1.03	9.16	Y							
Technetium-99	pCi/L	SOB	-2.76	8.17	UI	20.7	<20.7	N							
Thorium-228	pCi/L	SOA	-0.00984	0.229	UI	0.571	<0.571	N							
Thorium-230	pCi/L	SOA	0.42	0.334	UI	0.497	<0.497	N							
Thorium-232	pCi/L	SOA	0.00198	0.0993	UI	0.31	<0.31	N							
Uranium-233/234	pCi/L	SOA	0.2	0.189	UI	0.309	<0.309	N							
Uranium-235	pCi/L	SOA	0.0158	0.0643	UI	0.189	<0.189	N							
Uranium-238	pCi/L	SOA	0.023	0.0624	UI	0.16	<0.16	N							
Sum of Alphas							BDL	N							
Sum of Betas							20.56	N							

H-Area WTU UIC Sample Results: October 1998

WSRC-TR-99-00013

Unclassified

UIC Permitted Constituents	Reg	Raw	Rad	Qual.	QL	October	Exceedence	Notes
Constituent	Unit	Limit	Result	Acc		Result	Y/N	
Section I, INORGANICS								
Arsenic	µg/L	50	3		U	3	<3	N
Barium	µg/L	2000	2.83			0.2	2.83	N
Cadmium	µg/L	5	1		U	1	<1	N
Chromium	µg/L	100	0.789		JI	3	<3	N
Lead	µg/L	50	2		U	2	<2	N
Mercury	µg/L	2	1.66		J	0.2	<2	N
Selenium	µg/L	50	5		U	5	<5	N
Silver	µg/L	50	1		U	1	<1	N
Section II, ORGANICS								
Antimony	µg/L	6	0.2		U	0.2	<0.2	N
Cobalt	µg/L	140	0.494			0.2	0.49	N
Copper	µg/L	1300	0.841			0.2	0.84	N
Cyanide	µg/L	200000						N
Benzene	µg/L	5	1		U	1	<1	N
BEHP	µg/L	140	10.1		UJ	10.1	<10.1	N
Methylene Chloride	µg/L	5	5		U	5	<5	N
Nickel	µg/L	100	1.23			0.2	1.23	N
Tetrachloroethylene	µg/L	5	1		U	1	<1	N
Tin	µg/L	50	2		U	2	<2	N
Trichloroethylene	µg/L	5	1		U	1	<1	N
Trichlorofluoromethane	µg/L	100	5		U	5	<5	N
Vanadium	µg/L	49	2		U	2	<2	N
Zinc	µg/L	5000	5		U	5	<5	N
Section III, RADIONUCLIDES								
Gross Alpha	pCi/L	15	6.03	7.94	U	29.18	<29.18	N
Gross Beta	pCi/L	50	15.9	14.4	U	52.8	<52.8	DL too high
Total Radium (226+228)	pCi/L	5					BDL	N
Section IV, RADIONUCLIDES								
Americium-241	pCi/L	SOA	0.0292	0.0469	U	0.2098	<0.2098	N
Cesium-137	pCi/L	SOB	6.9	2.38	R	9.76	R	Rejected Analysis
Curium-242	pCi/L	SOA	0.00805	0.0288	U	0.1369	<0.1369	N
Curium-243/244	pCi/L	SOA	0.0467	0.0908	U	0.3696	<0.3696	N
Curium-246	pCi/L	SOA	0.00731	0.0261	U	0.1242	<0.1242	N
Carbon-14	pCi/L	SOB	42.9	6.76		22.89	42.90	N
Cobalt-60	pCi/L	SOB	0.822	1.84	U	7.41	<7.41	N
Iodine-129	pCi/L	SOB	12.2	2.71		6.7	12.20	N
Plutonium-238	pCi/L	SOA	-0.0302	0.0313	U	0.4546	<0.4546	N
Plutonium-239/240	pCi/L	SOA	-0.0604	0.0456	U	0.5662	<0.5662	N
Nickel-63	pCi/L	SOB	-6.3	8.59	U	32.38	<32.38	N
Radium-226	pCi/L	SOR	0.463	0.319	JI	1.029	<1.029	N
Radium-228	pCi/L	SOR	-0.123	0.644	UJ	2.738	<2.738	N
Strontium-90	pCi/L	SOB	6.39	1.61		5.84	6.39	N
Technetium-99	pCi/L	SOB	8.37	4.23	U	17.27	<17.27	N
Thorium-228	pCi/L	SOA	-0.064	0.0514	U	0.6068	<0.6068	N
Thorium-230	pCi/L	SOA	0.524	0.42	U	1.037	<1.037	N
Thorium-232	pCi/L	SOA	0	0	U	0.197	<0.197	N
Uranium-233/234	pCi/L	SOA	0.0216	0.0386	U	0.1566	<0.1566	N
Uranium-235	pCi/L	SOA	0.0144	0.0264	U	0.1061	<0.1061	N
Uranium-238	pCi/L	SOA	0.0323	0.0367	U	0.1265	<0.1265	N
Sum of Alphas							BDL	N
Sum of Betas							61.49	Y

H-Area WTU UIC Sample Results: November 1998

WSRC-TR-99-00013
Unclassified

UIC Permitted Constituents			Reg	Raw	Rad		November	Exceedence	Notes	
Constituent	Unit	Limit	Result	Acc	Qual.	QL	Result	Y/N		
Section I, INORGANICS										
Arsenic	µg/L	50	3		U	3	<3	N	Samples collected 11/23/98	
Barium	µg/L	2000	32.9			0.2	32.90	N		
Cadmium	µg/L	5	0.494		J	1	<1	N		
Chromium	µg/L	100	1.97		J	3	<3	N		
Lead	µg/L	50	2		U	2	<2	N		
Mercury	µg/L	2	0.819			0.2	0.82	N		
Selenium	µg/L	50	5		U	5	<5	N		
Silver	µg/L	50	0.566		J	1	<1	N		
Section II, ORGANICS										
Antimony	µg/L	6	2.04			0.2	2.04	N		
Cobalt	µg/L	140	5.15			0.2	5.15	N		
Copper	µg/L	1300	1.76			0.2	1.76	N		
Cyanide	µg/L	200000	10		U	10	<10	N		
Benzene	µg/L	5	1		U	1	<1	N		
BEHP	µg/L	140	10		UJ	10	<10	N		
Methylene Chloride	µg/L	5	5		U	5	<5	N		
Nickel	µg/L	100	5.65			0.2	5.65	N		
Tetrachloroethylene	µg/L	5	1		U	1	<1	N		
Tin	µg/L	50	2		U	2	<2	N		
Trichloroethylene	µg/L	5	1		U	1	<1	N		
Trichlorofluoromethane	µg/L	100	5		U	5	<5	N		
Vanadium	µg/L	49	2		U	2	<2	N		
Zinc	µg/L	5000	64.8			5	64.80	N		
Section III, RADIONUCLIDES										
Gross Alpha	pCi/L	15	3.74	1.37	J	4.77	<4.77	N		
Gross Beta	pCi/L	50	16.9	1.83		6.09	16.90	N		
Total Radium (226+228)	pCi/L	5					BDL	N		
Section IV, RADIONUCLIDES										
Americium-241	pCi/L	SOA	0.965	0.658	JI	1.858	<1.858	N	Rejected analysis	
Cesium-137	pCi/L	SOB	3.2	2.68	R	8.15	R	N		
Curium-242	pCi/L	SOA	0	0	U	0.327	<0.327	N		
Curium-243/244	pCi/L	SOA	0.205	0.292	U	0.892	<0.892	N		
Curium-246	pCi/L	SOA	0	0	U	0.308	<0.308	N		
Carbon-14	pCi/L	SOB	16.3	9.15	JI	33.1	<33.1	N		
Cobalt-60	pCi/L	SOB	1.83	5.51	U	14.87	<14.87	N		
Iodine-129	pCi/L	SOB	3.43	1.1	JI	3.5	<3.5	N		
Plutonium-238	pCi/L	SOA	0.564	0.285	U	0.806	<0.806	N		
Plutonium-239/240	pCi/L	SOA	0.186	0.192	U	0.671	<0.671	N		
Nickel-63	pCi/L	SOB	6.82	8.22	U	30.24	<30.24	N		
Radium-226	pCi/L	SOR	0.746	0.436	JI	1.295	<1.295	N		
Radium-228	pCi/L	SOR	-0.557	0.668	U	2.876	<2.876	N		
Strontium-90	pCi/L	SOB	2.57	1.73	JI	5.81	<5.81	N		
Technetium-99	pCi/L	SOB	1.35	9.37	U	41.34	<41.34	N		
Thorium-228	pCi/L	SOA	-0.0609	0.11	U	0.525	<0.525	N		
Thorium-230	pCi/L	SOA	0.106	0.109	U	0.387	<0.387	N		
Thorium-232	pCi/L	SOA	0.0192	0.0615	U	0.272	<0.272	N		
Uranium-233/234	pCi/L	SOA	0.551	0.75	U	2.87	<2.87	N		
Uranium-235	pCi/L	SOA	0.64	0.744	U	2.618	<2.618	N		
Uranium-238	pCi/L	SOA	-0.0435	0.0872	U	1.13	<1.13	N		
Sum of Alphas							BDL	N		
Sum of Betas							BDL	N		

H-Area WTU UIC Sample Results: December 1998

WSRC-TR-99-00013
Unclassified

UIC Permitted Constituents			Reg	Raw	Rad		December	Exceedence	Notes
Constituent	Unit	Limit		Result	Acc	Qual.	QL	Result	
Section I, INORGANICS									Samples collected 12/09/98
Arsenic	µg/L	50		3		U	3	<3	
Barium	µg/L	2000		2.07			0.2	2.07	
Cadmium	µg/L	5		1		U	1	<1	
Chromium	µg/L	100		1.13		J	3	<3	
Lead	µg/L	50		2		U	2	<2	
Mercury	µg/L	2		0.977			0.2	0.98	
Selenium	µg/L	50		5		U	5	<5	
Silver	µg/L	50		1		U	1	<1	
Section II, ORGANICS									
Antimony	µg/L	6		0.2		U	0.2	<0.2	N
Cobalt	µg/L	140		0.15		J	0.2	<0.2	N
Copper	µg/L	1300		4.08			0.2	4.08	N
Cyanide	µg/L	200000		2.67		U	10	<10	N
Benzene	µg/L	5		1		U	1	<1	N
BEHP	µg/L	140		10		UJ	10	<10	N
Methylene Chloride	µg/L	5		5		U	5	<5	N
Nickel	µg/L	100		0.2		U	0.2	<0.2	N
Tetrachloroethylene	µg/L	5		1		U	1	<1	N
Tin	µg/L	50		2		U	2	<2	N
Trichloroethylene	µg/L	5		1		U	1	<1	N
Trichlorofluoromethane	µg/L	100		5		U	5	<5	N
Vanadium	µg/L	49		2		U	2	<2	N
Zinc	µg/L	5000		5		U	5	<5	N
Section III, RADIONUCLIDES									
Gross Alpha	pCi/L	15		0.834	0.65	U	2.46	<2.46	N
Gross Beta	pCi/L	50		6.12	0.91		3.04	6.12	N
Total Radium (226+228)	pCi/L	5						BDL	N
Section IV, RADIONUCLIDES									
Americium-241	pCi/L	SOA		0.104	0.171	U	0.708	<0.708	N
Cesium-137	pCi/L	SOB		1.02	1.98	U	7.77	<7.77	N
Curium-242	pCi/L	SOA		0	0	U	0.219	<0.219	N
Curium-243/244	pCi/L	SOA		0.0528	0.143	U	0.652	<0.652	N
Curium-246	pCi/L	SOA		0	0	U	0.208	<0.208	N
Carbon-14	pCi/L	SOB		24.1	4.29		14.98	24.10	N
Cobalt-60	pCi/L	SOB		-0.149	2.09	U	8.11	<8.11	N
Iodine-129	pCi/L	SOB		6.2	1.79		4.87	6.20	N
Plutonium-238	pCi/L	SOA		0	0	U	0.116	<0.116	N
Plutonium-239/240	pCi/L	SOA		0	0	U	0.116	<0.116	N
Nickel-63	pCi/L	SOB		-1.91	7.86	U	29.42	<29.42	N
Radium-226	pCi/L	SOR		0.901	0.481	J	1.502	<1.502	N
Radium-228	pCi/L	SOR		-0.908	0.557	U	2.494	<2.494	N
Strontium-90	pCi/L	SOB		0.957	0.521	J	1.891	<1.891	N
Technetium-99	pCi/L	SOB		-0.269	2.77	U	12.38	<12.38	N
Thorium-228	pCi/L	SOA		-0.0257	0.109	U	0.487	<0.487	N
Thorium-230	pCi/L	SOA		0.00776	0.0532	U	0.2464	<0.2464	N
Thorium-232	pCi/L	SOA		0	0	U	0.048	<0.048	N
Uranium-233/234	pCi/L	SOA		0.022	0.0565	U	0.231	<0.231	N
Uranium-235	pCi/L	SOA		0.0274	0.0451	U	0.1736	<0.1736	N
Uranium-238	pCi/L	SOA		0.0273	0.045	U	0.1732	<0.1732	N
Sum of Alphas								BDL	N
Sum of Betas								30.30	N

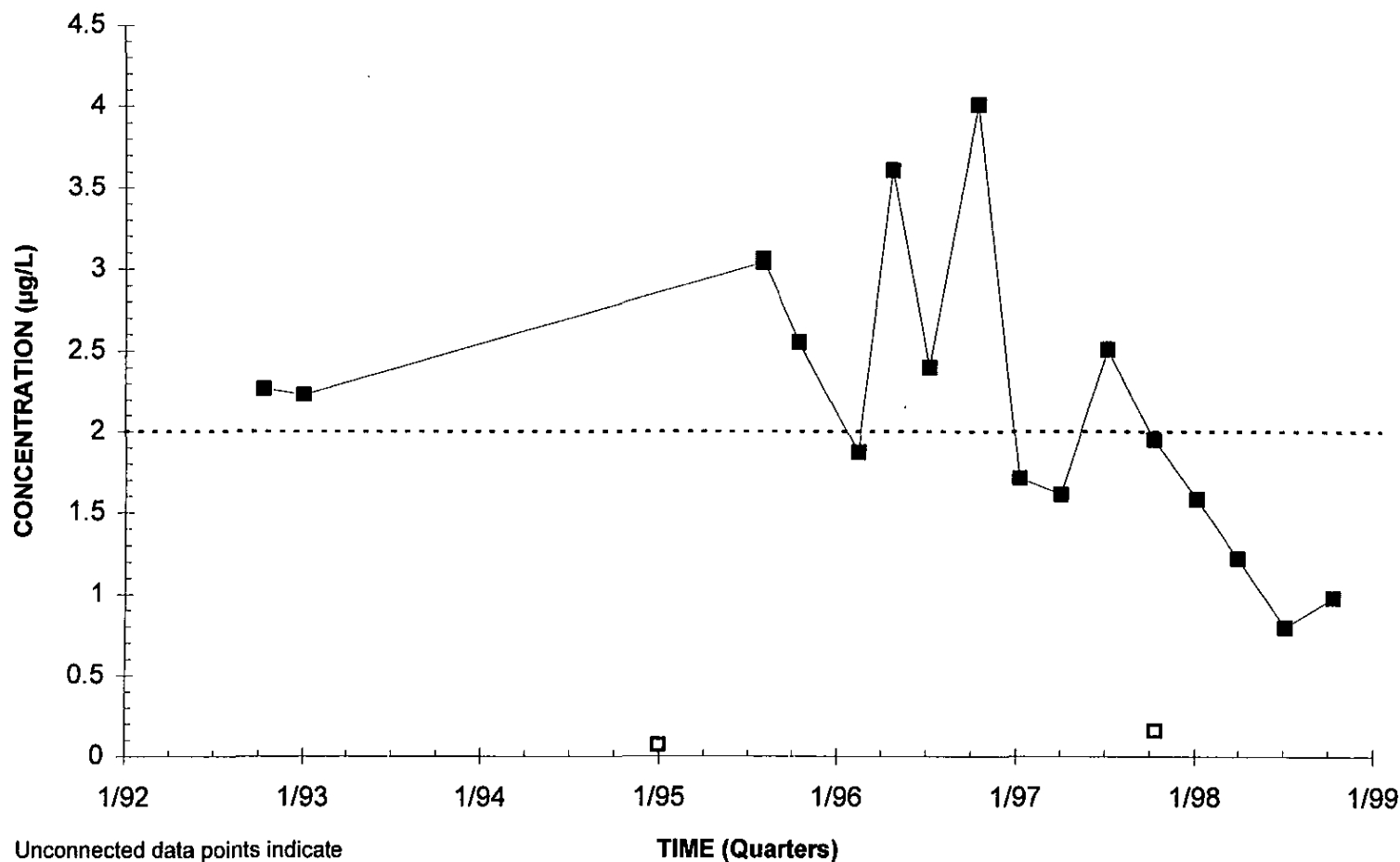
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Appendix D

Time Series Plots

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Mercury Concentrations Well Cluster HSB 68

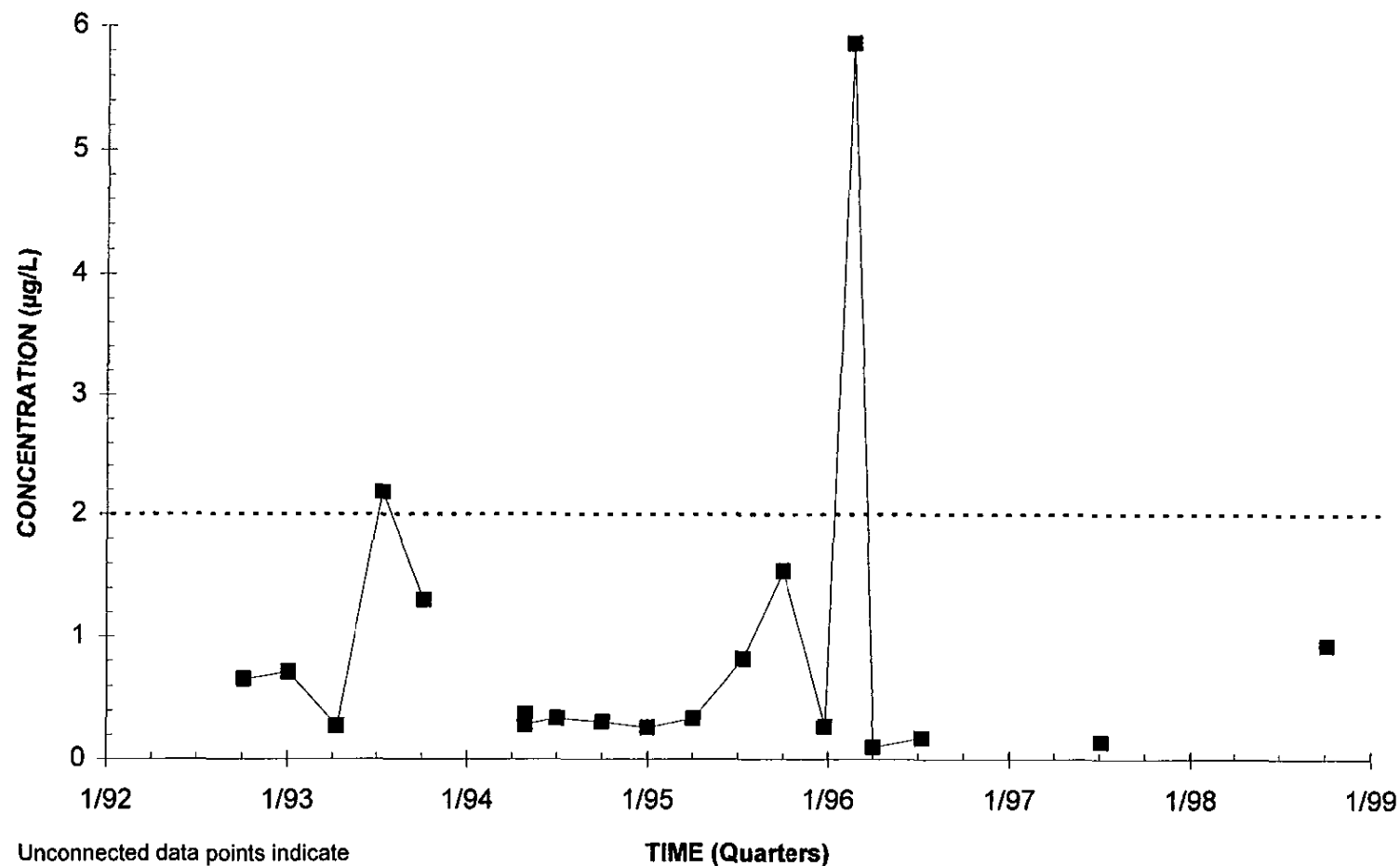


Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 2 µg/L

■ HSB 68 (W) □ HSB 68A (LC) - - - - - GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Mercury Concentrations Well HSB 83D

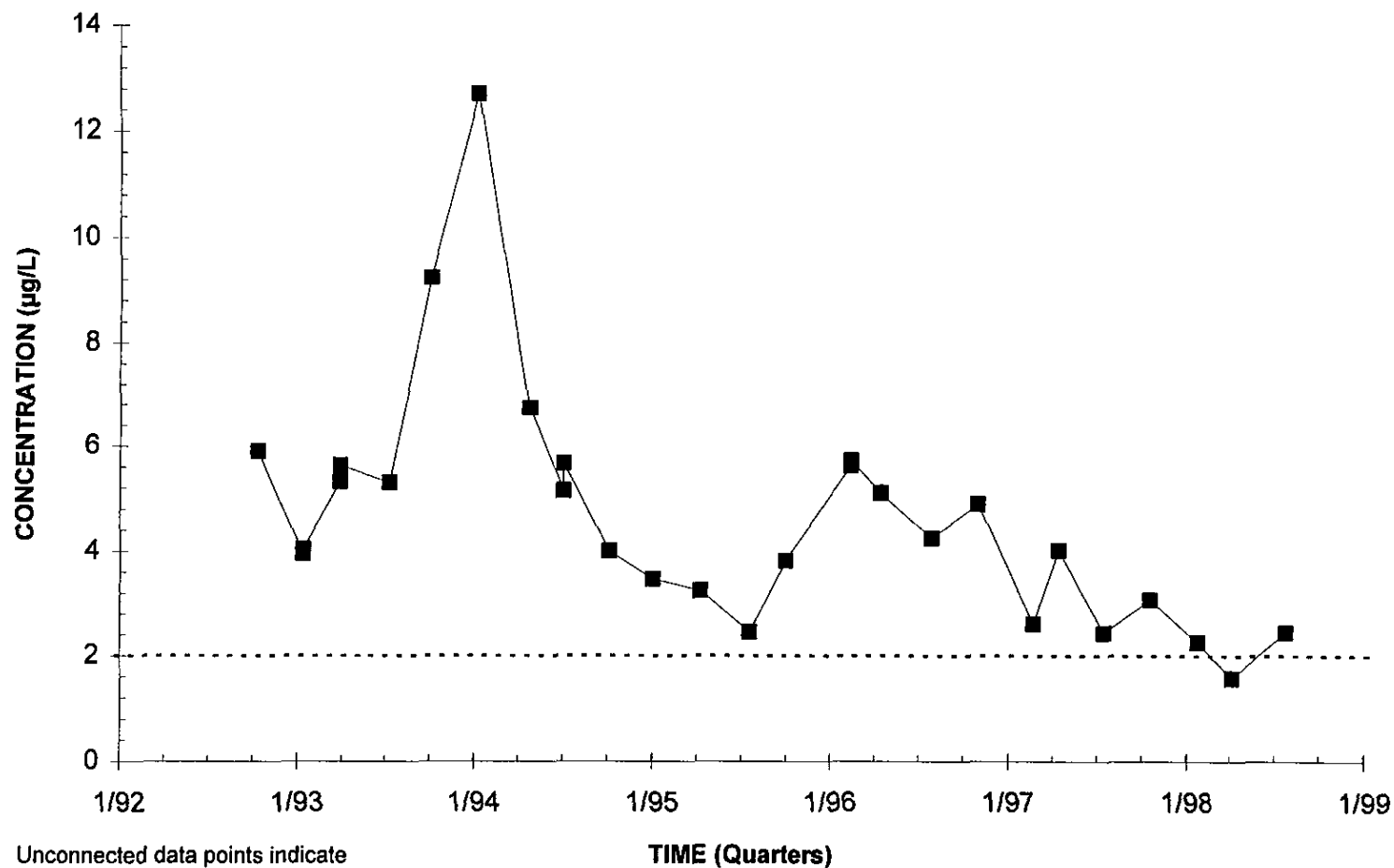


Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 2 µg/L

■ HSB 83D (W)GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Mercury Concentrations Well HSB101D



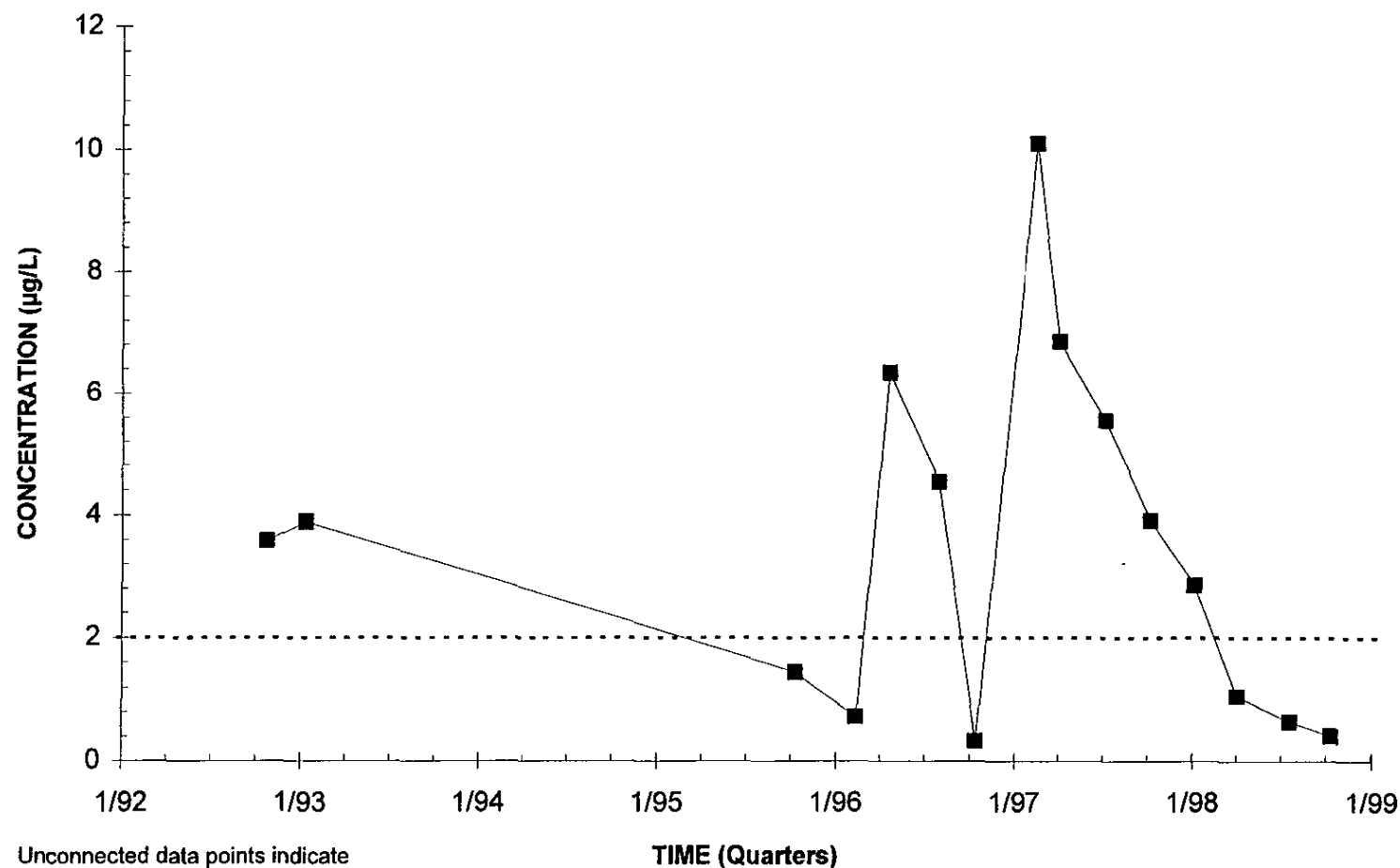
Unconnected data points indicate
intervals of dry wells or values
below the detection limit.

GWPS 2 µg/L

■ HSB101D (W) GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Mercury Concentrations Well HSB102D



Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 2 µg/L

■ HSB102D (W) GWPS

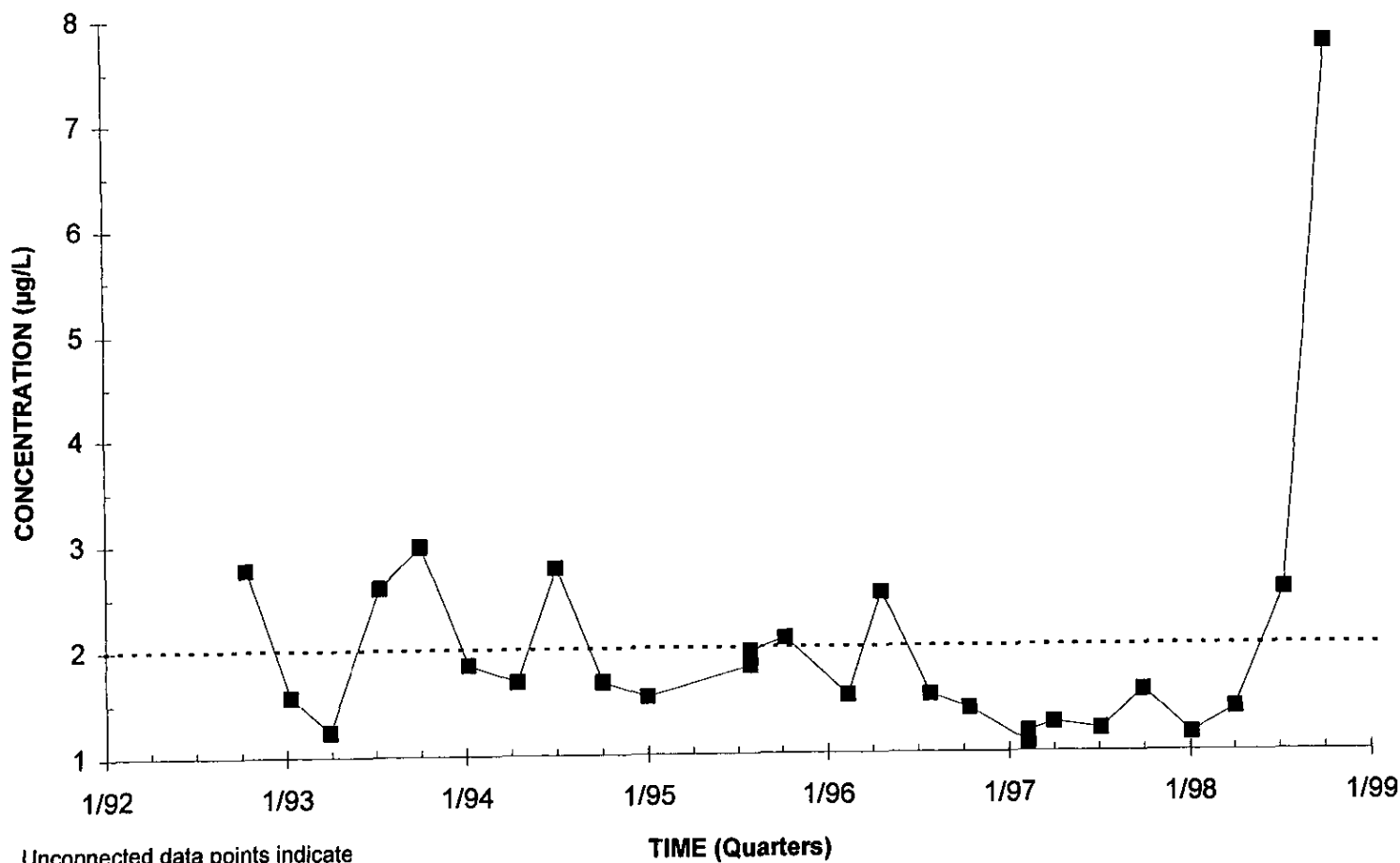
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

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Third and Fourth Quarter 1998

Mercury Concentrations Well HSB103D

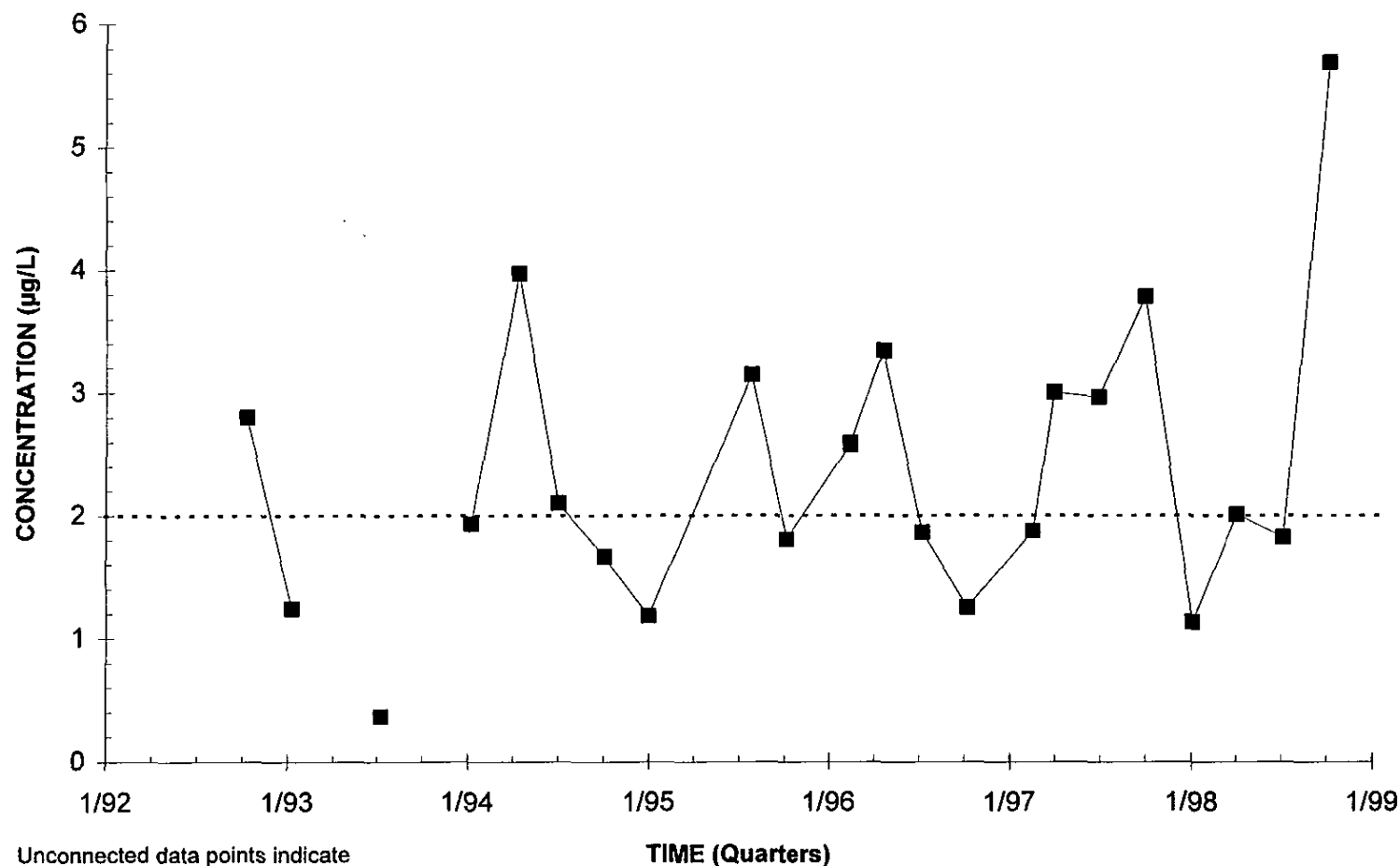


Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 2 µg/L

■ HSB103D (W) GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Mercury Concentrations Well HSB104D



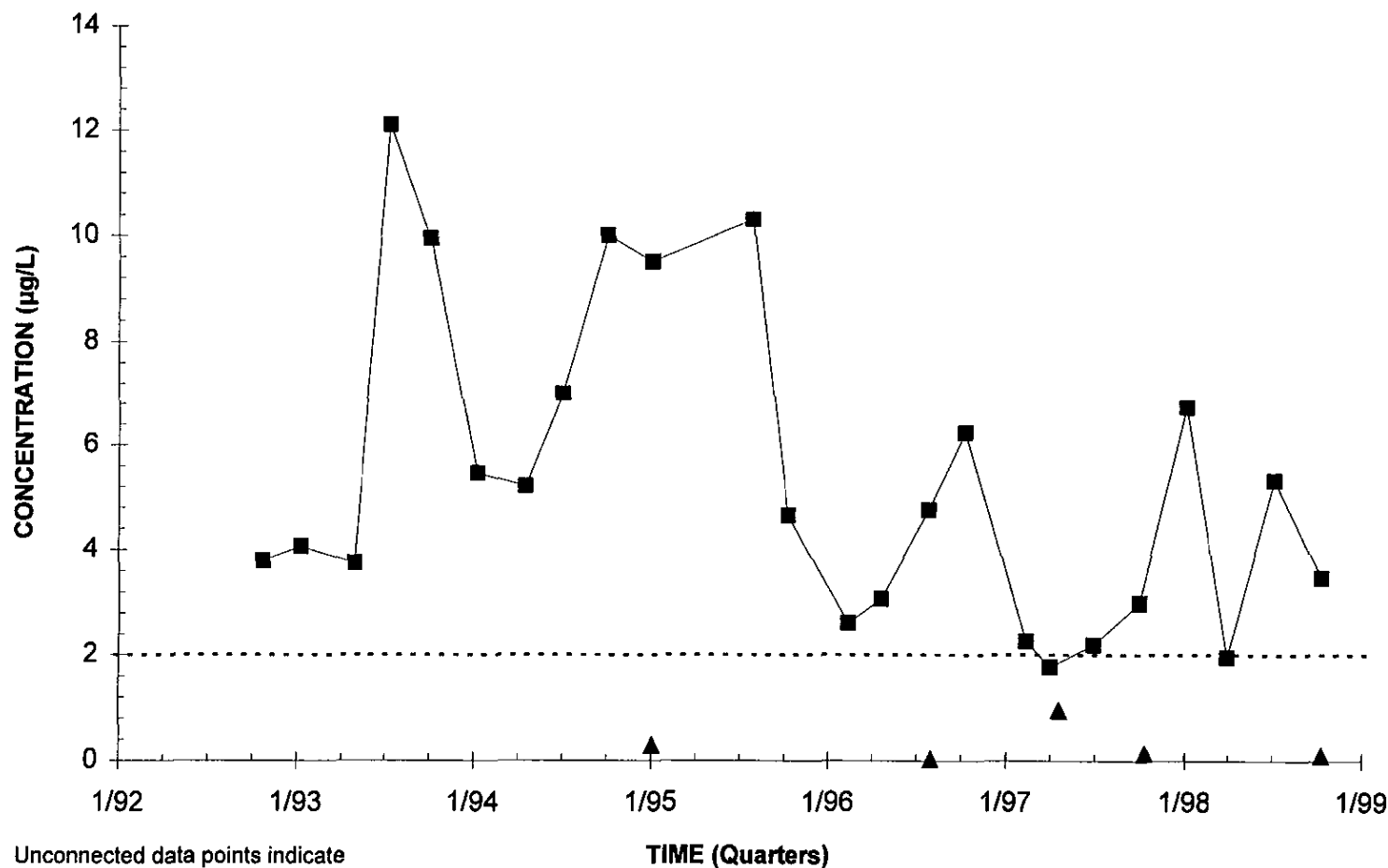
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

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Third and Fourth Quarter 1998

Mercury Concentrations Well Cluster HSB105



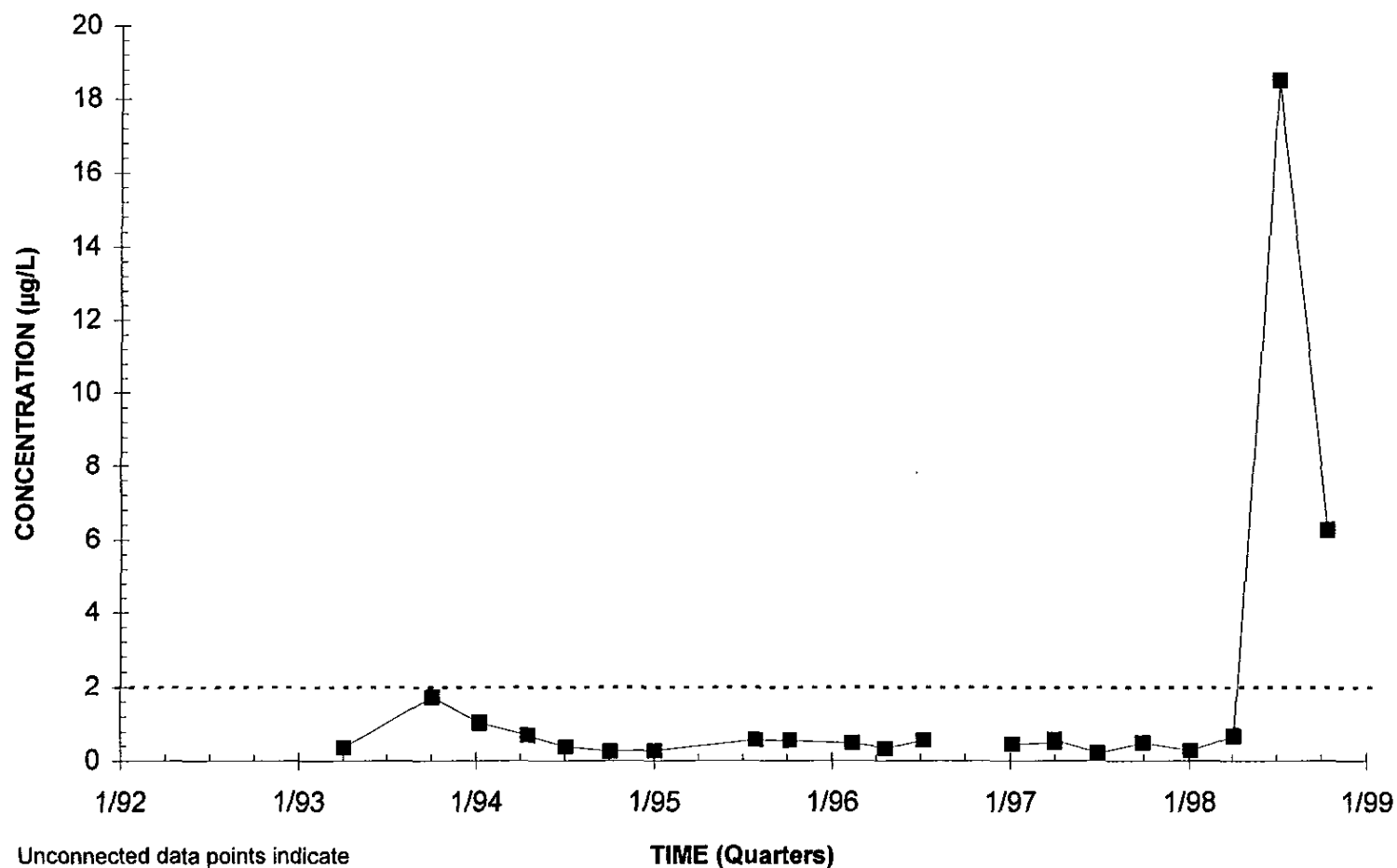
Unconnected data points indicate
intervals of dry wells or values
below the detection limit.

GWPS 2 µg/L

■ HSB105D (W) ▲ HSB105C (B) GWPS

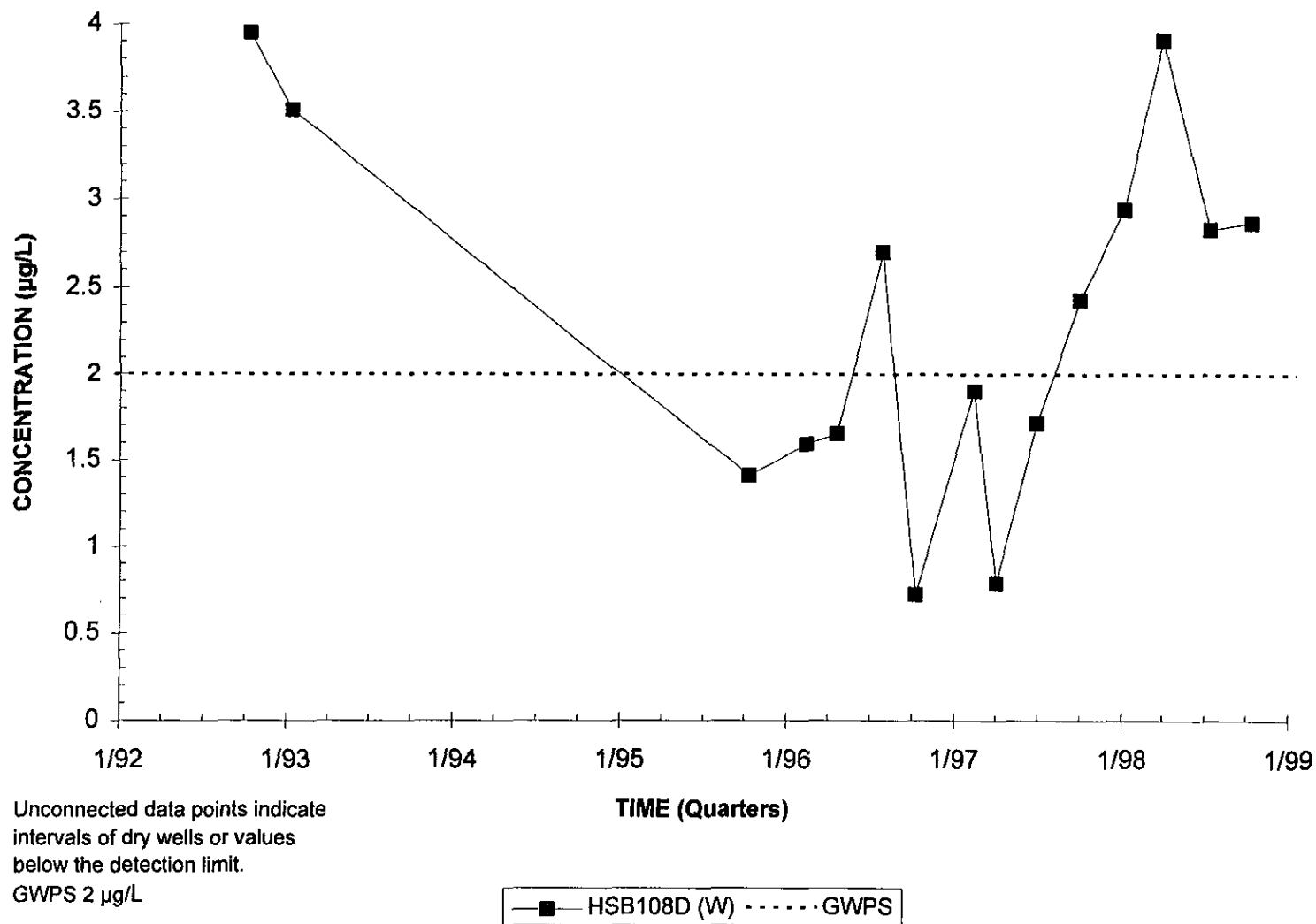
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Mercury Concentrations Well HSB106D



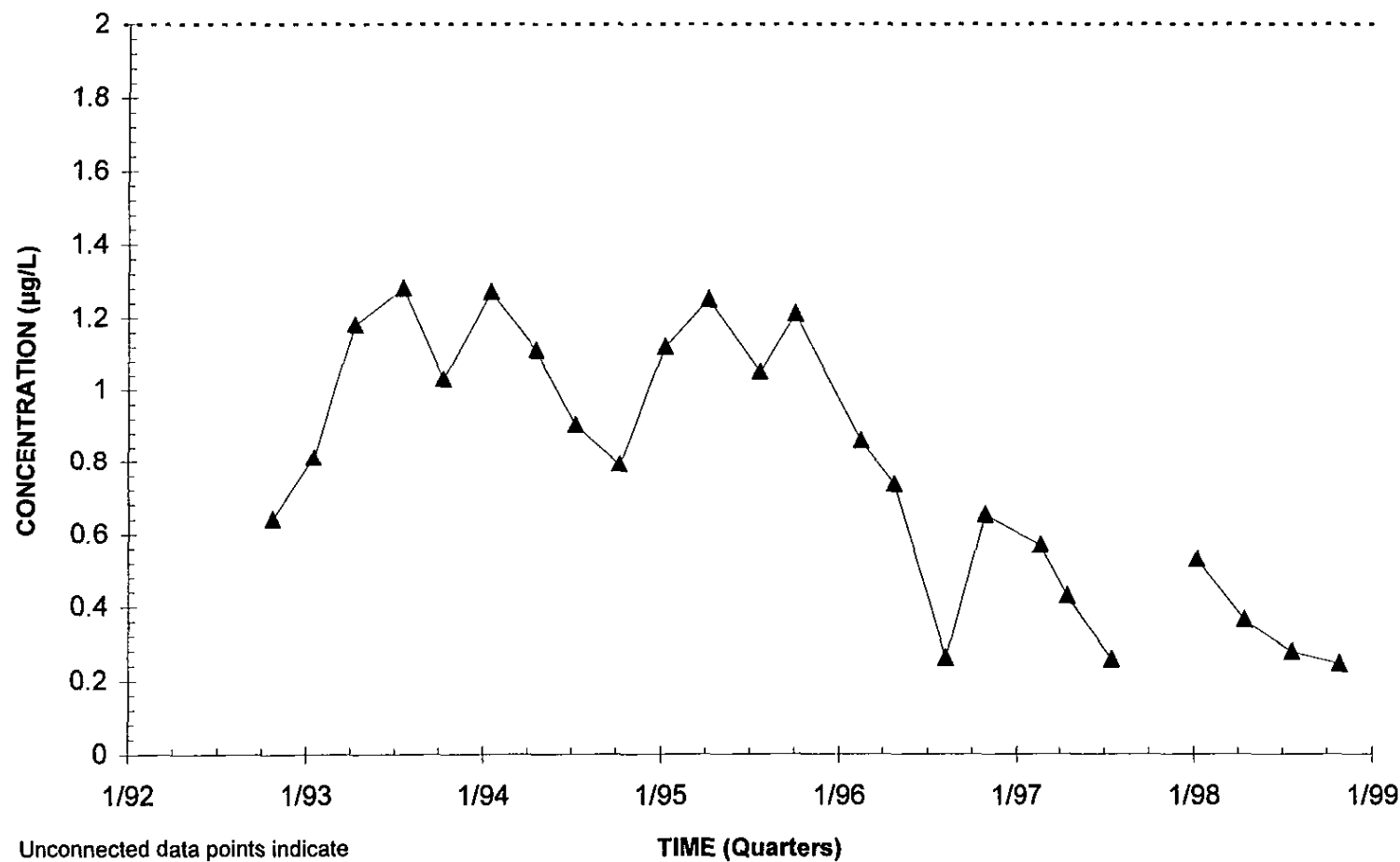
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Mercury Concentrations Well HSB108D



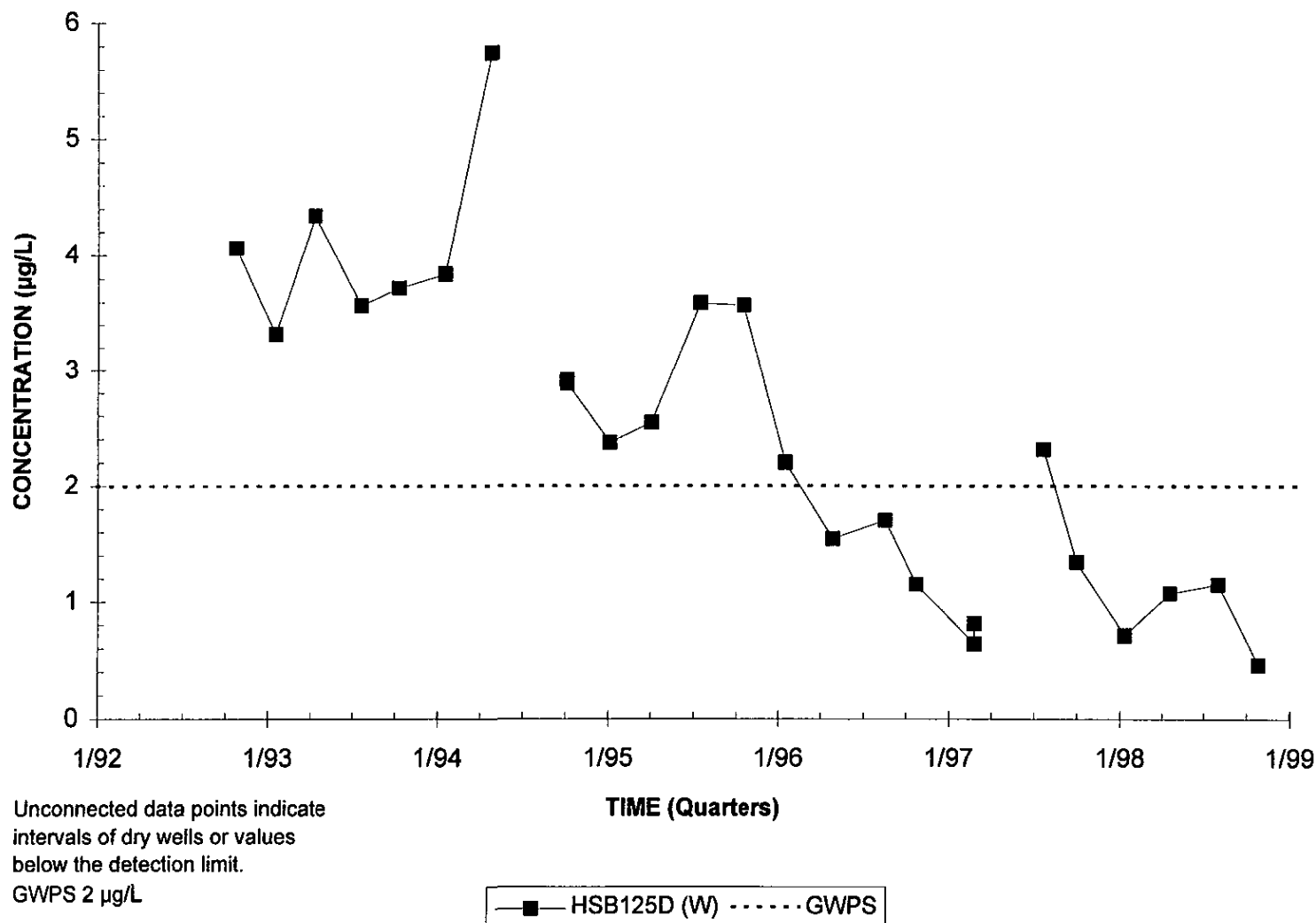
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Mercury Concentrations Well HSB116C



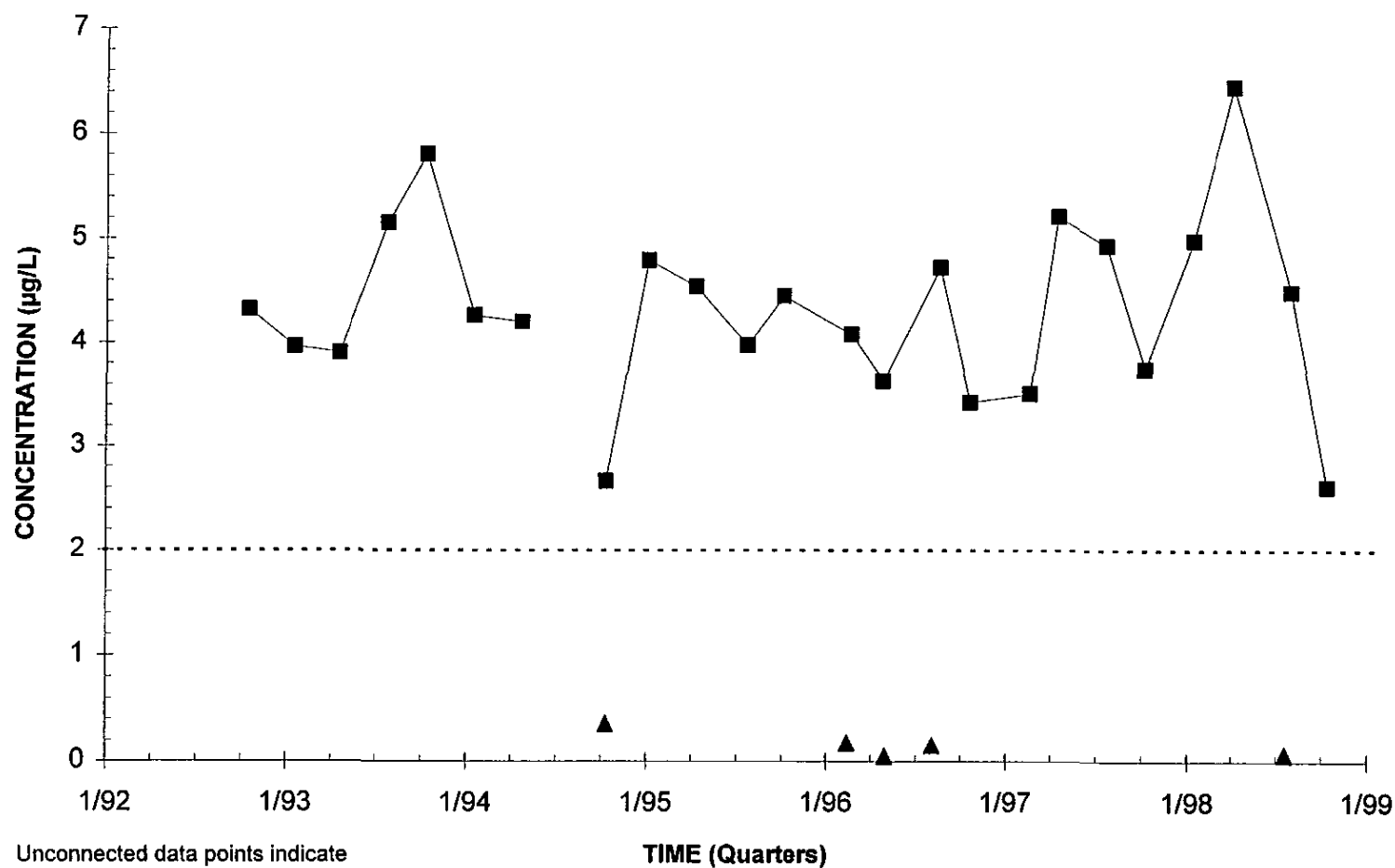
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Mercury Concentrations Well HSB125D



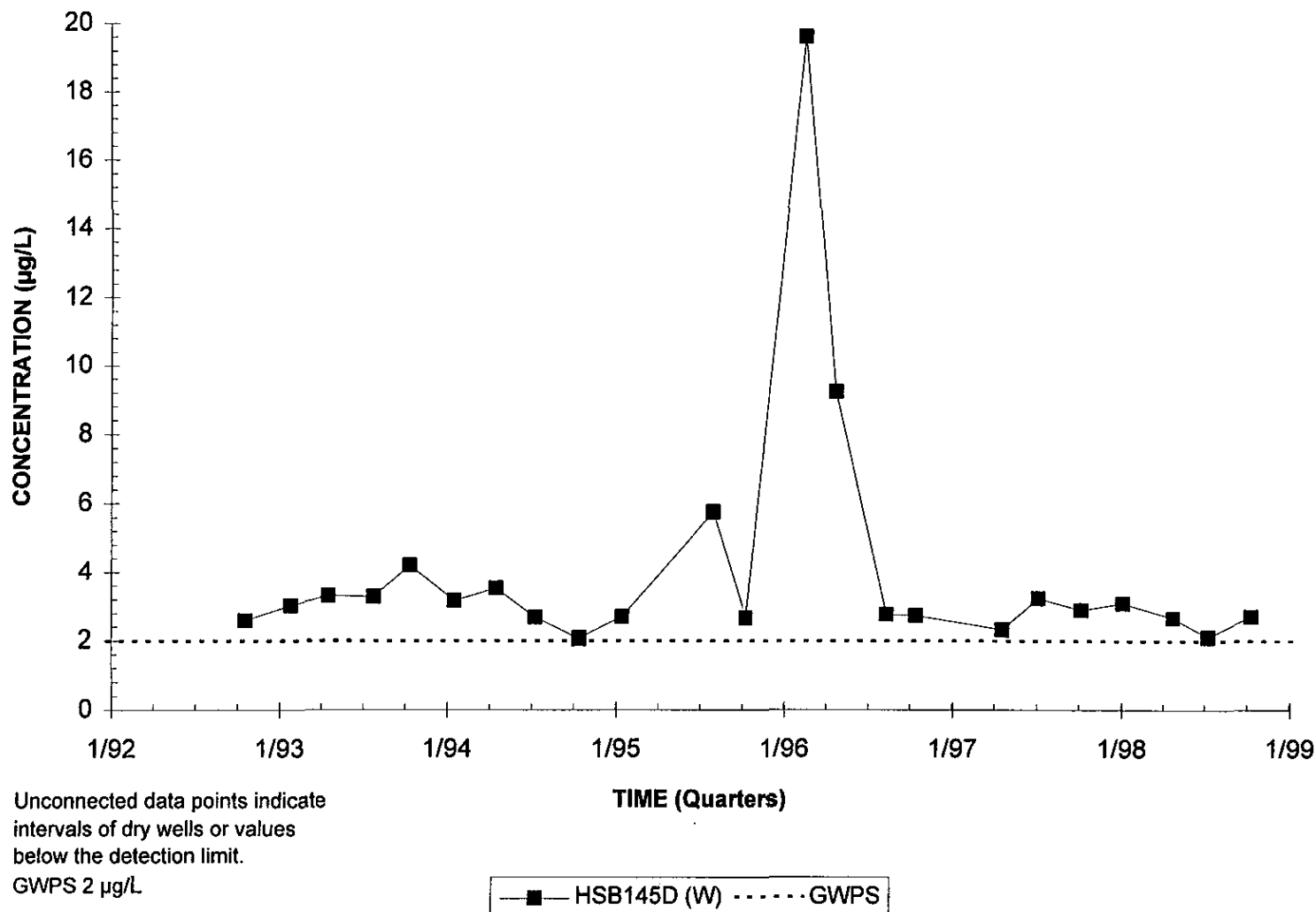
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Mercury Concentrations Well Cluster HSB127



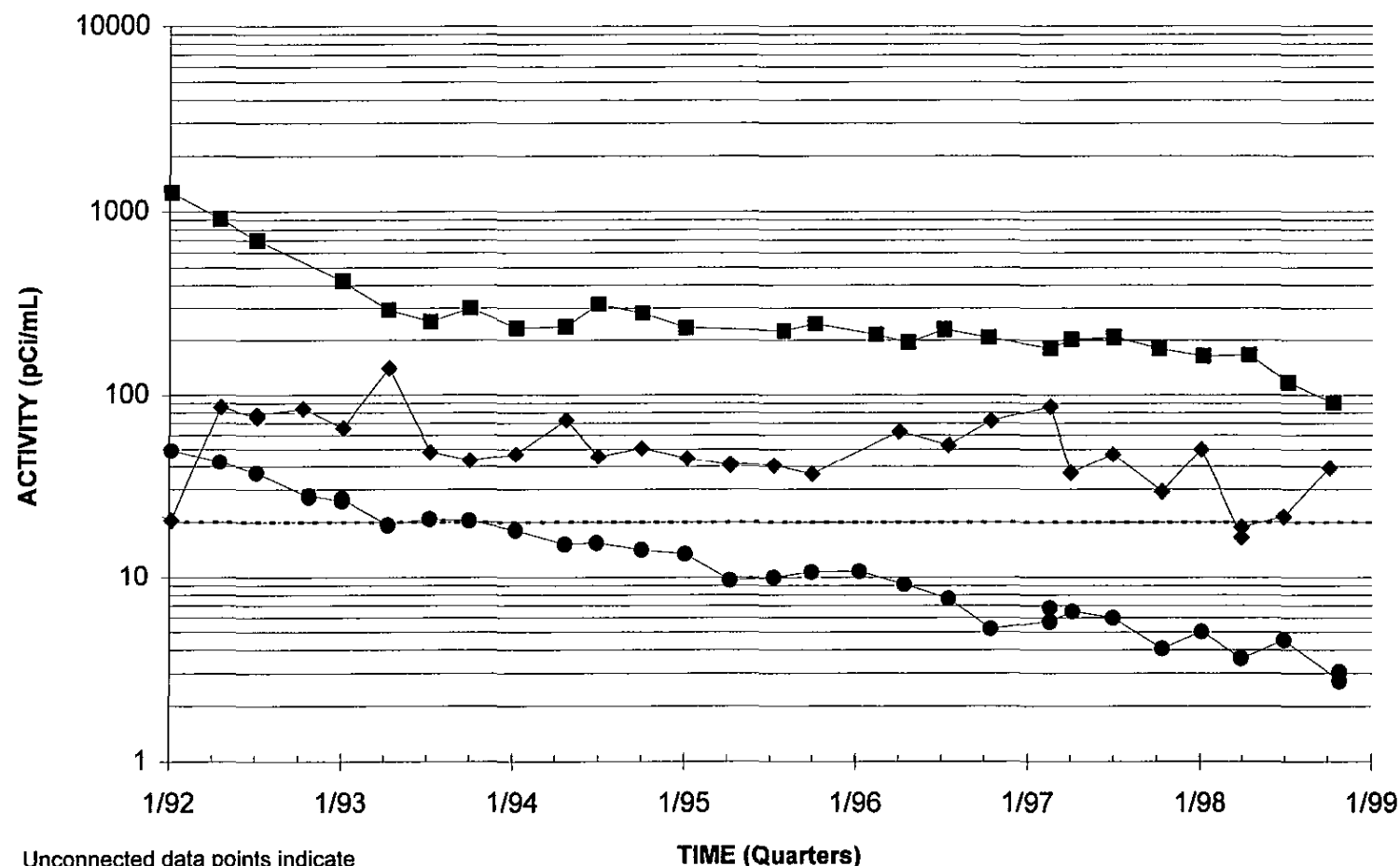
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Mercury Concentrations Well HSB145D



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

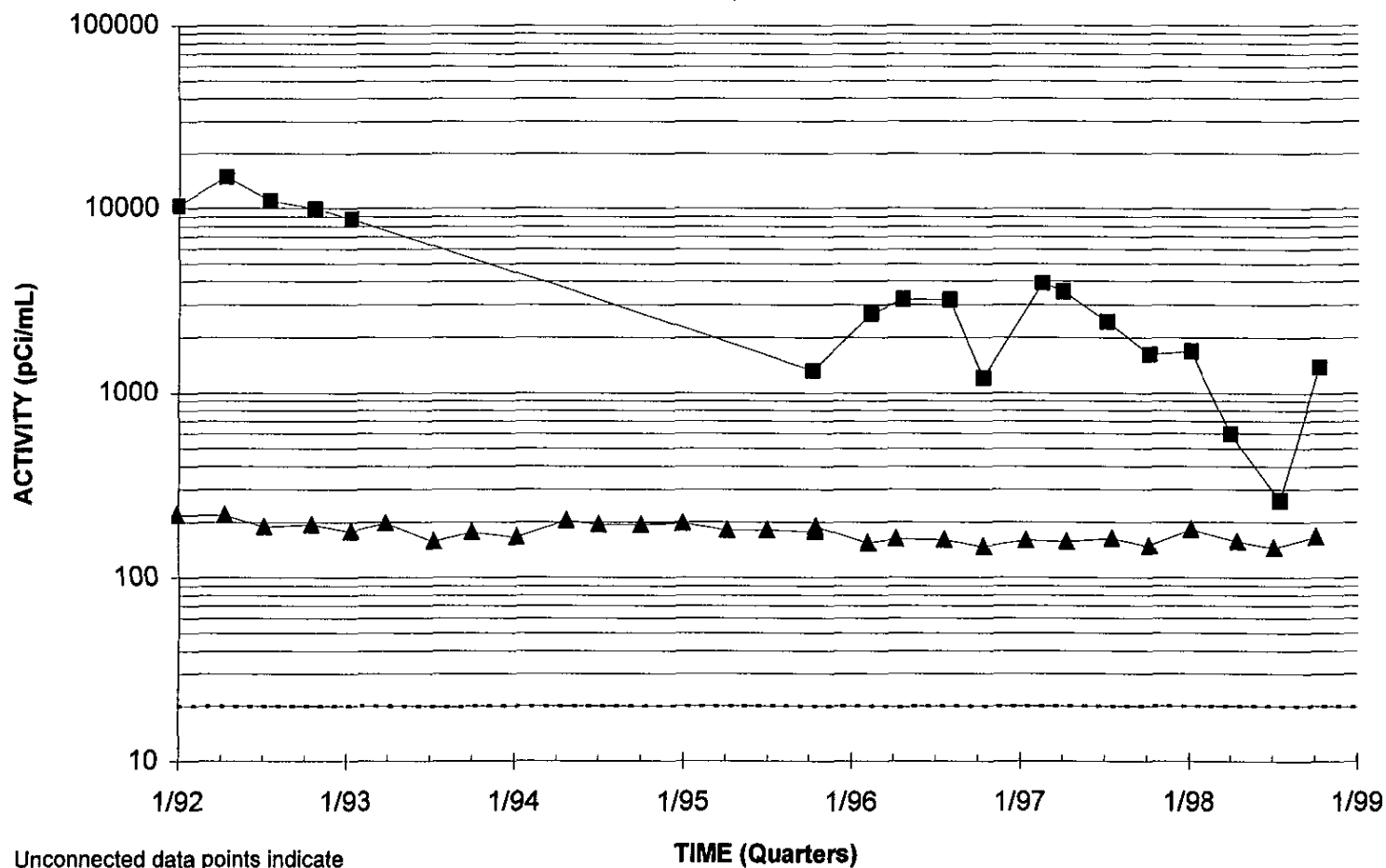
Tritium Activities Well Cluster HSB 84



■ HSB 84D (W)
 ◆ HSB 84B (M)
 ● HSB 84A (LC)
GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well Cluster HSB102



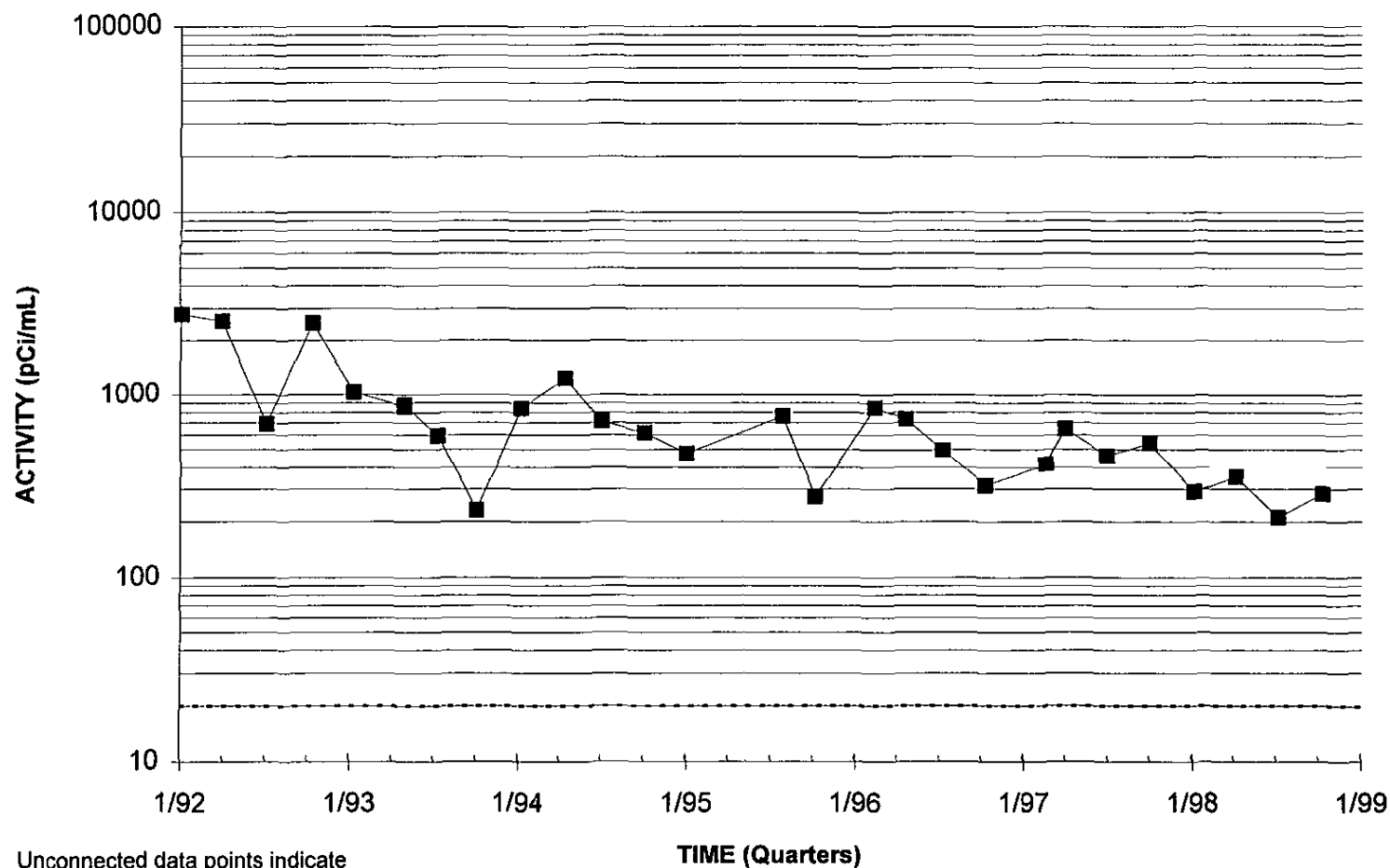
Unconnected data points indicate
intervals of dry wells or values
below the detection limit.

GWPS 20 pCi/mL

—■— HSB102D (W) —▲— HSB102C (B) GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well HSB104D

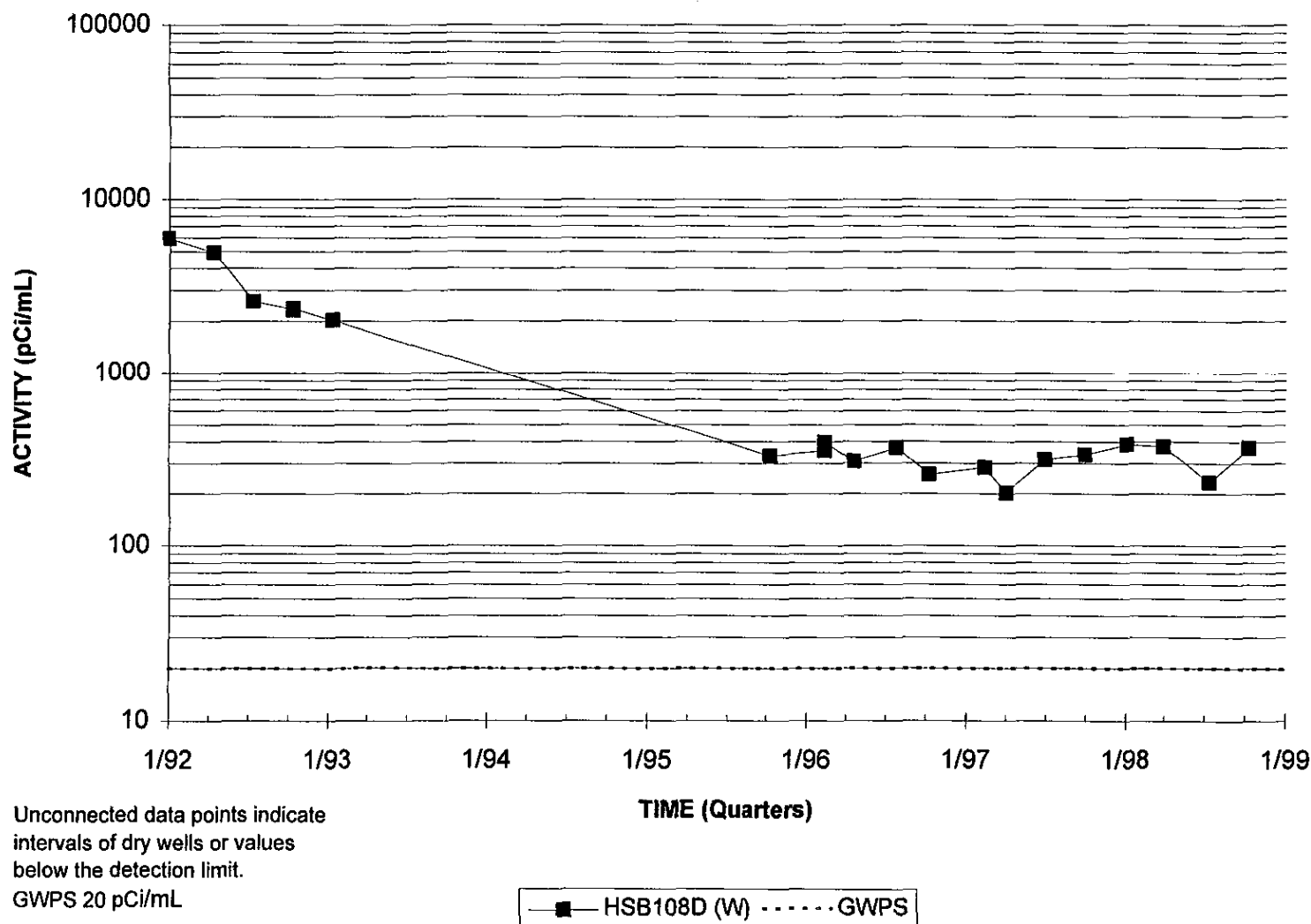


Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 20 pCi/mL

—■— HSB104D (W) GWPS

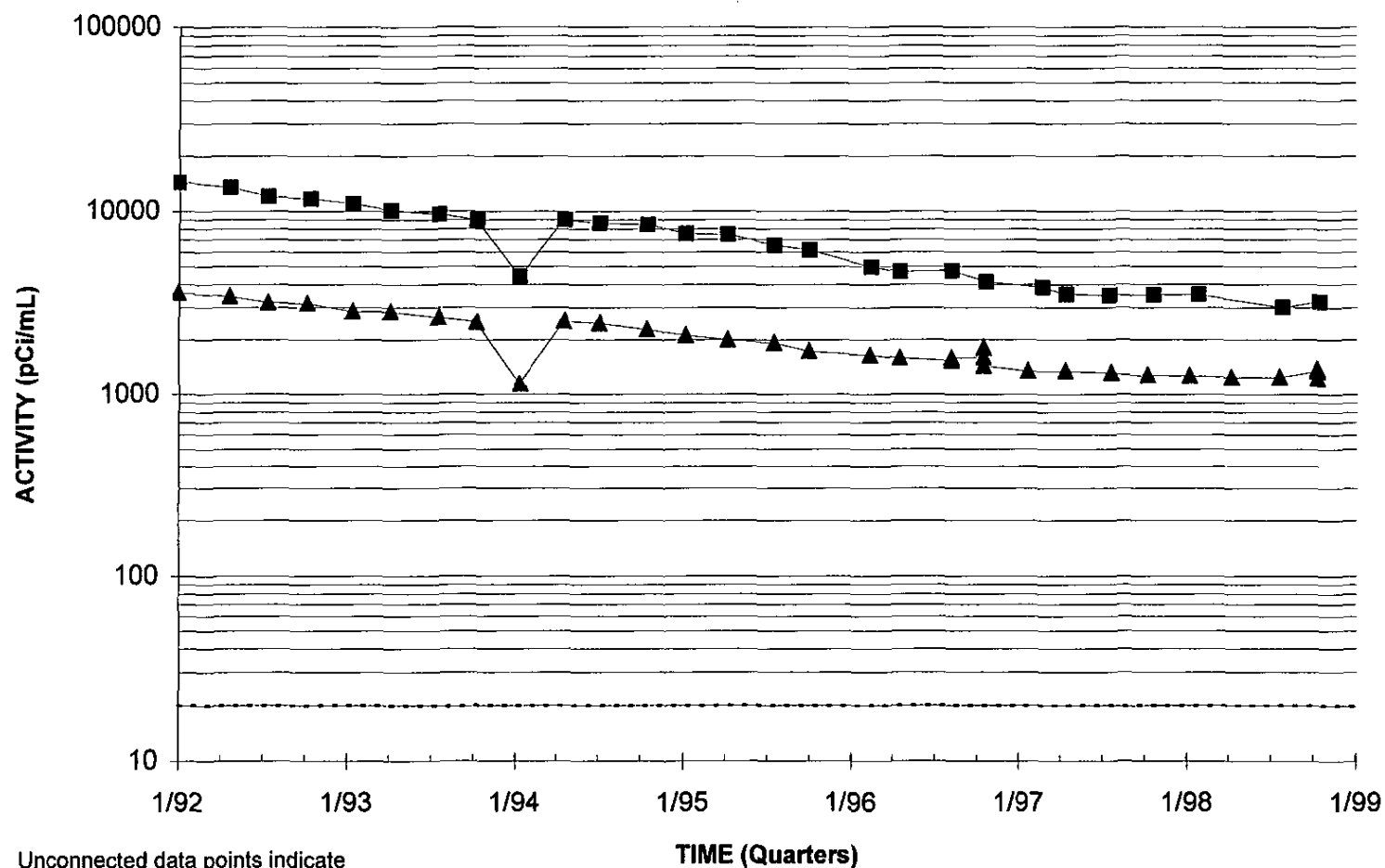
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well HSB108D



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well Cluster HSB111

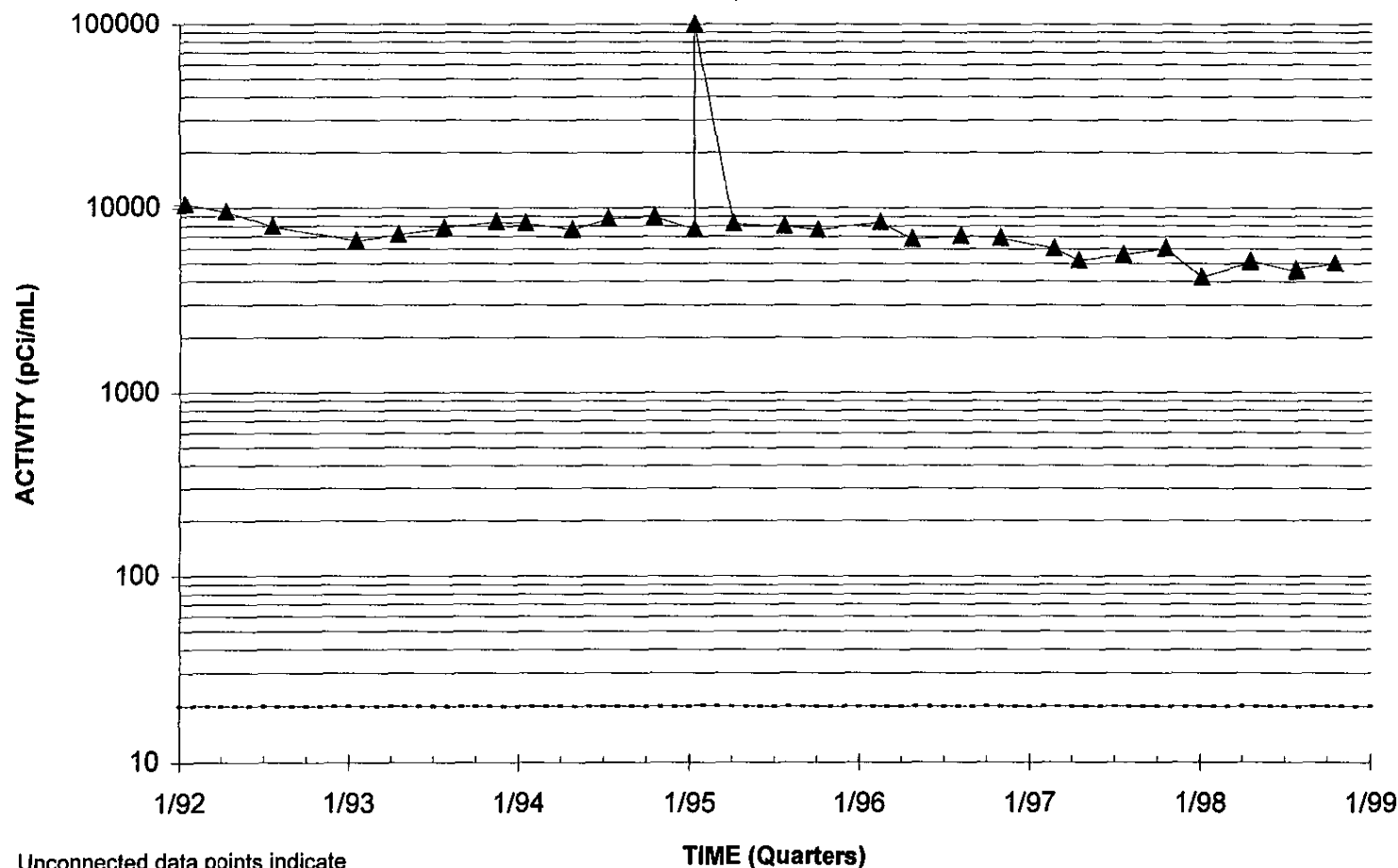


Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 20 pCi/mL

—■— HSB111D (W) —▲— HSB111C (B) - - - - - GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well Cluster HSB117



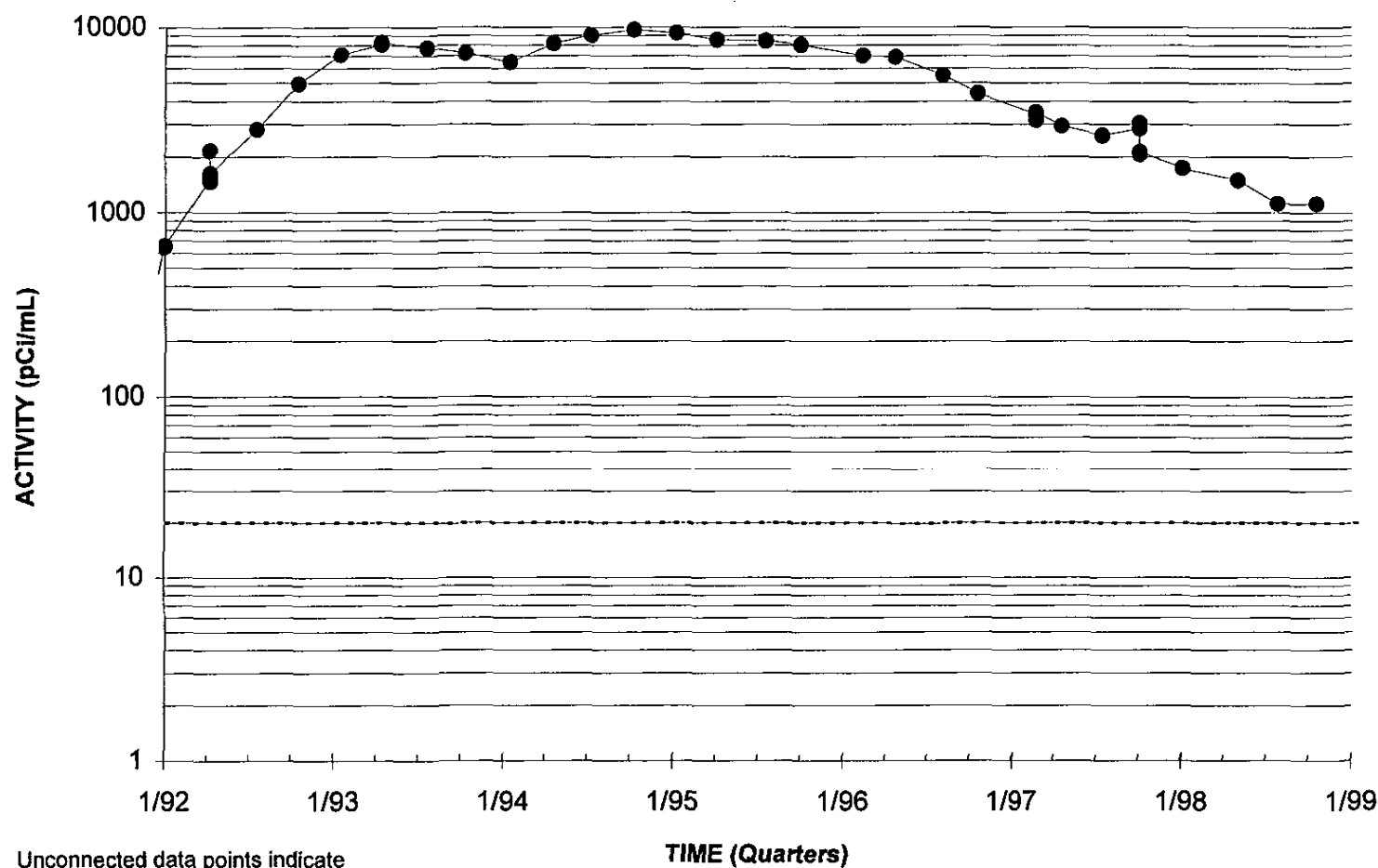
Unconnected data points indicate intervals of dry wells or values below the detection limit.

GWPS 20 pCi/mL

—▲— HSB117C (B) —x— HSB117A (MC) GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well HSB118A



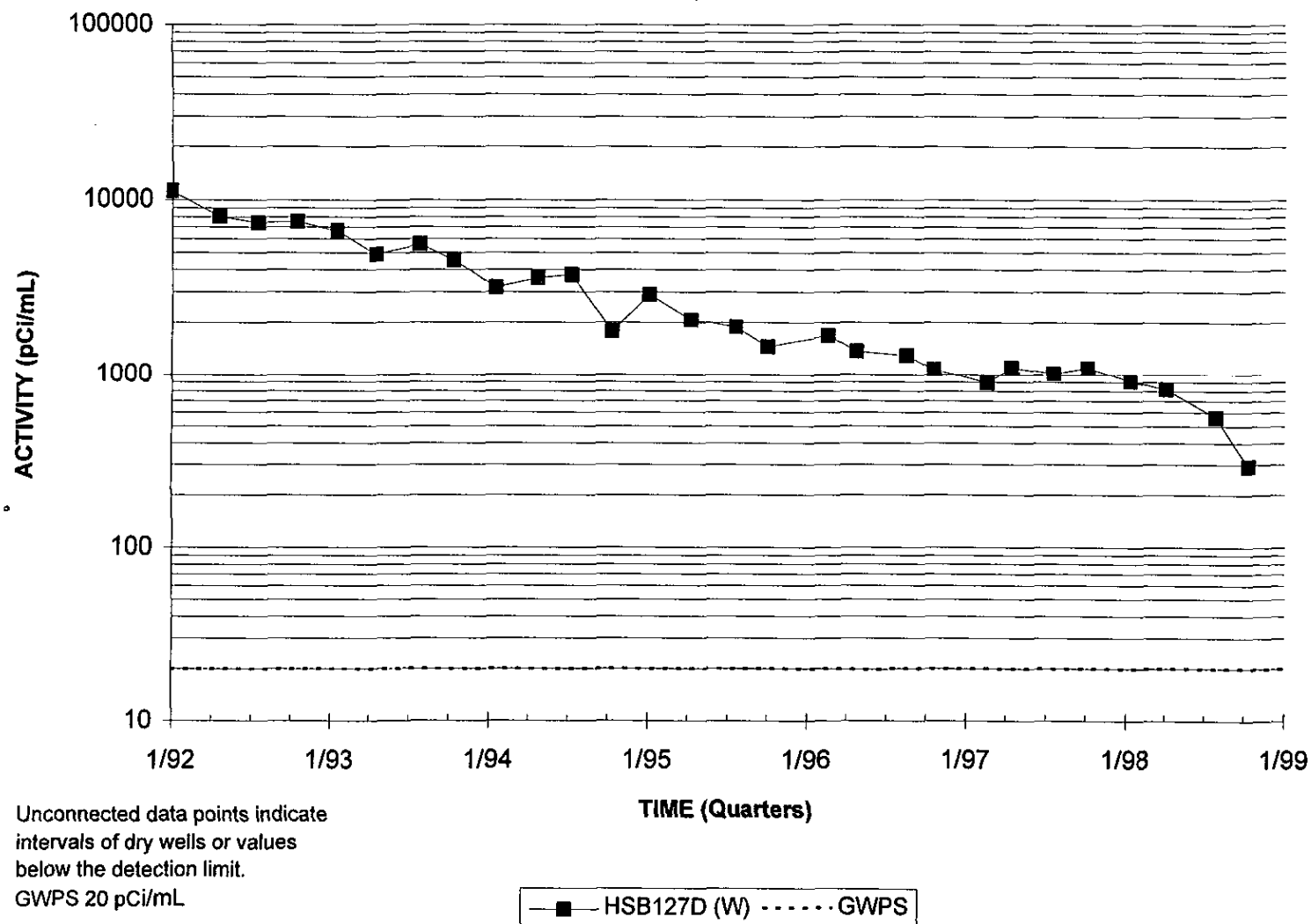
Unconnected data points indicate
intervals of dry wells or values
below the detection limit.

GWPS 20 pCi/mL

—●— HSB118A (UC) GWPS

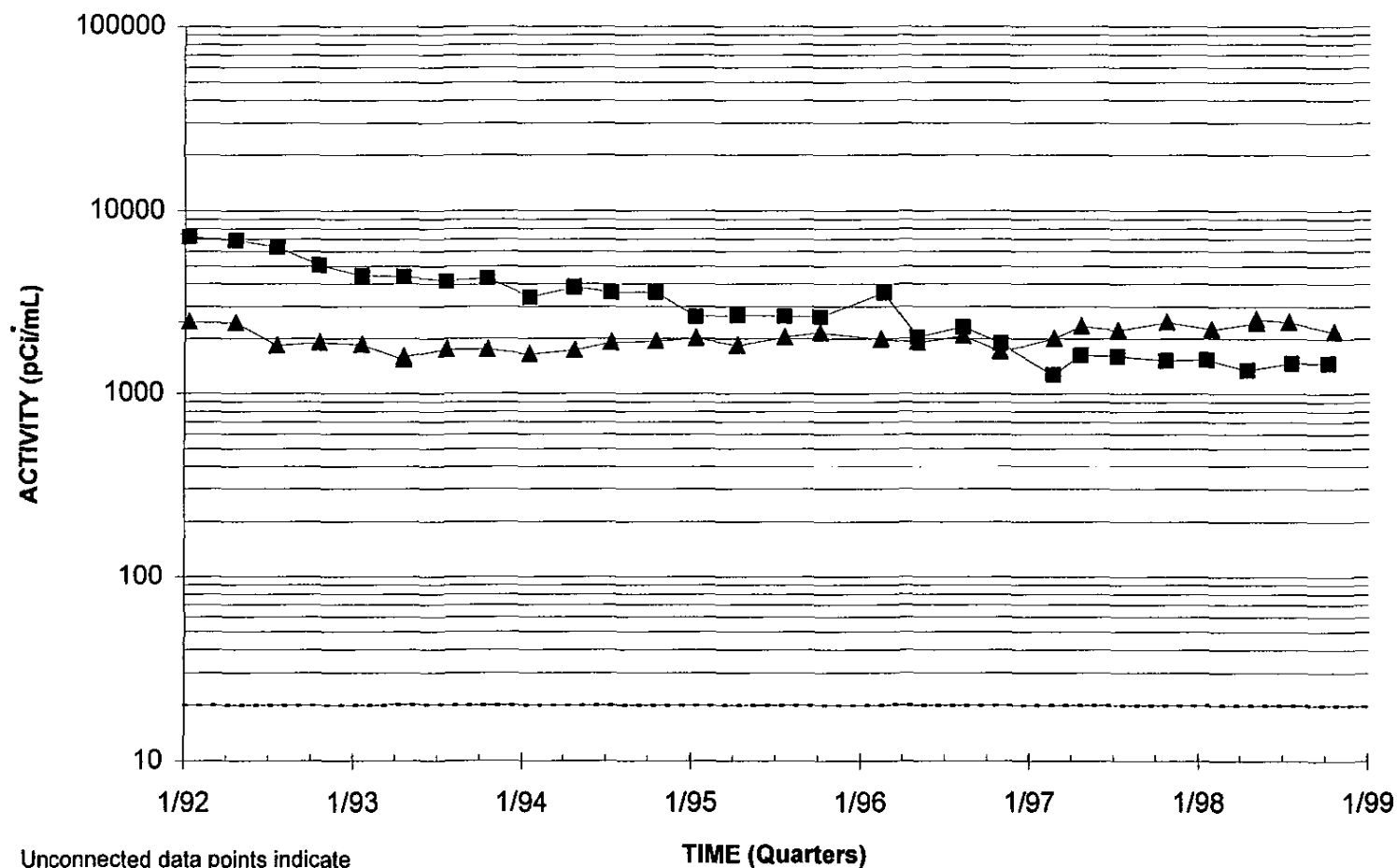
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well HSB127D



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well Cluster HSB129

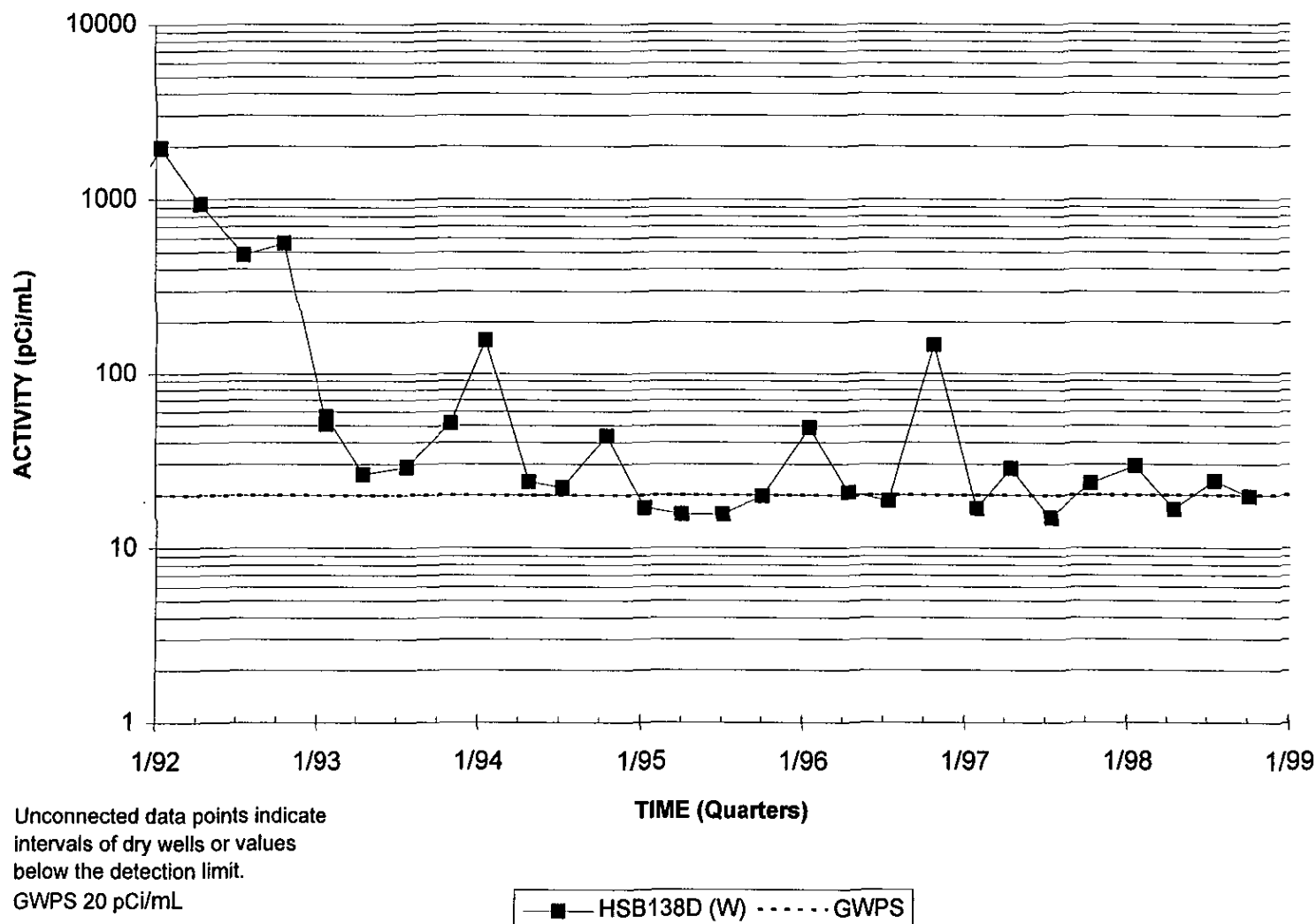


Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 20 pCi/mL

■ HSB129D (W)
▲ HSB129C (B)
..... GWPS

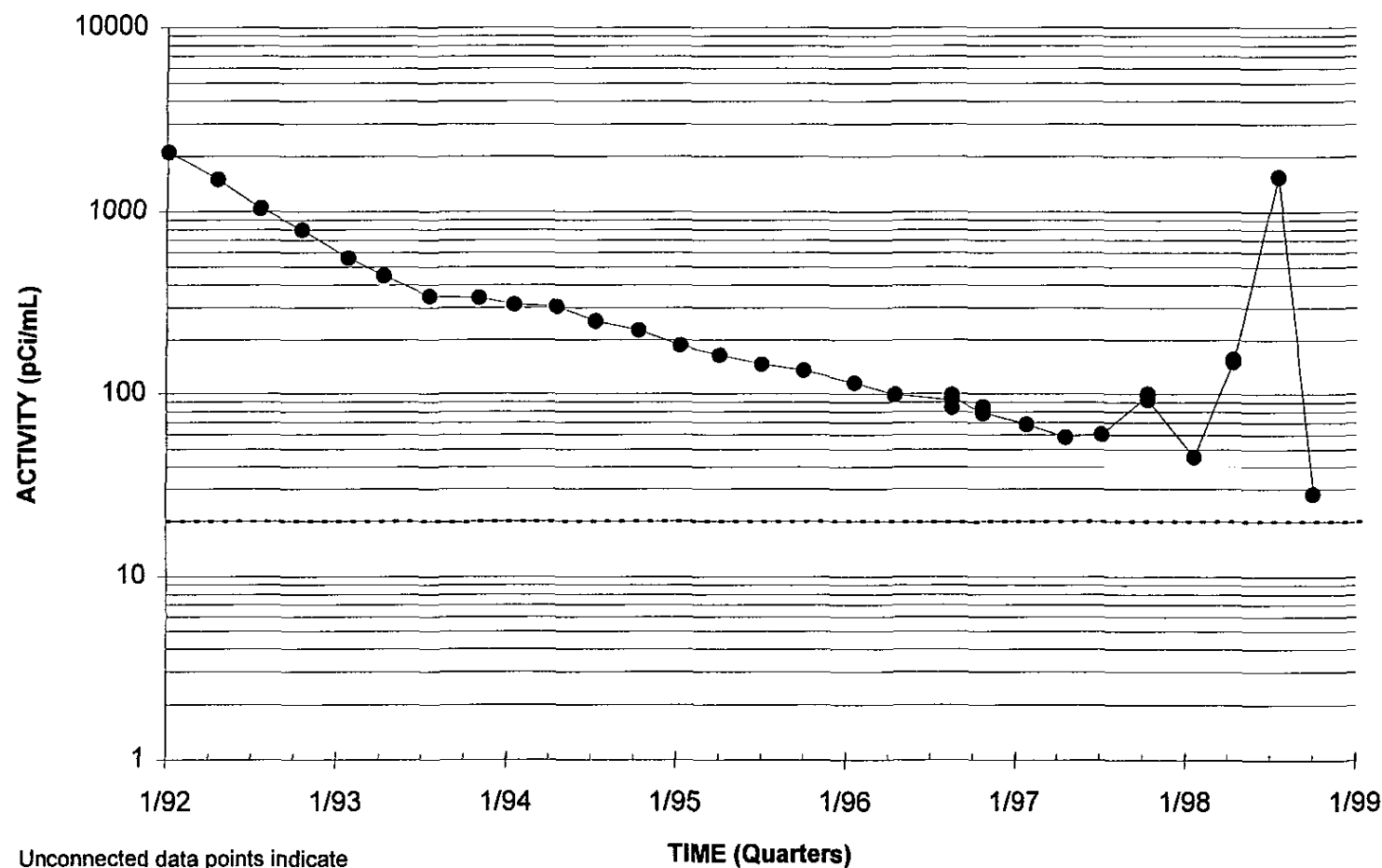
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well HSB138D



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well HSB144A

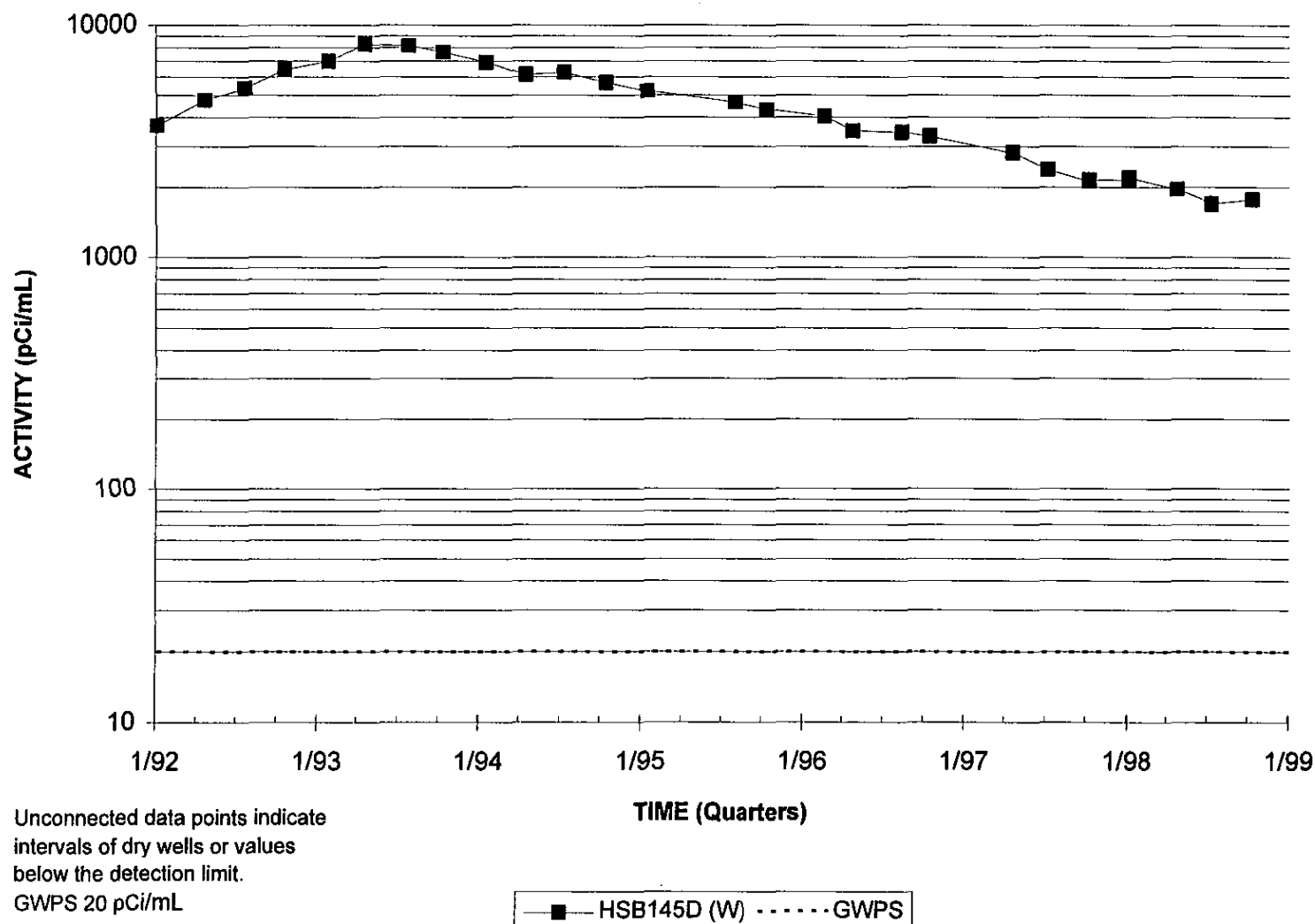


Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 20 pCi/mL

—●— HSB144A (UC)GWPS

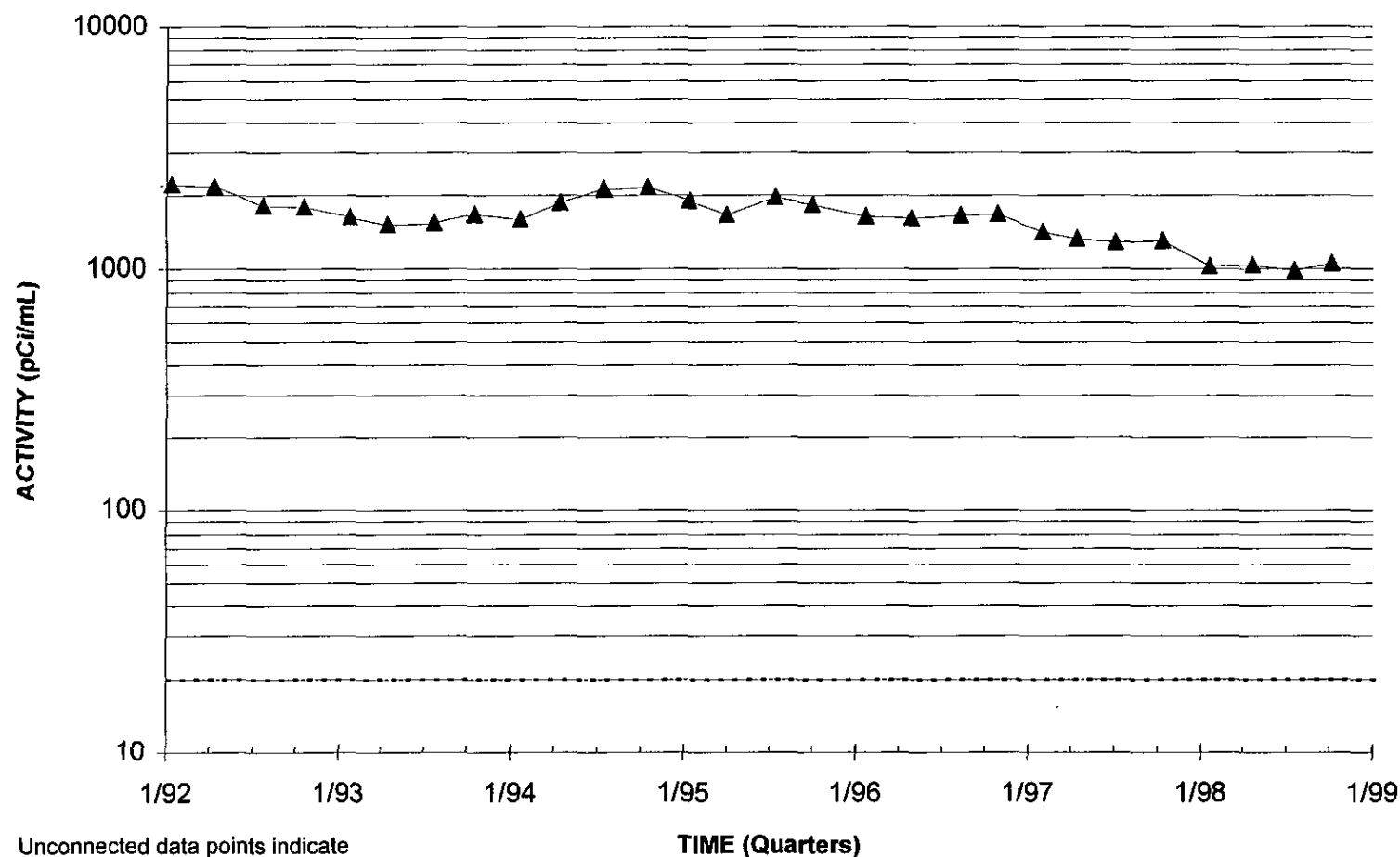
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well HSB145D



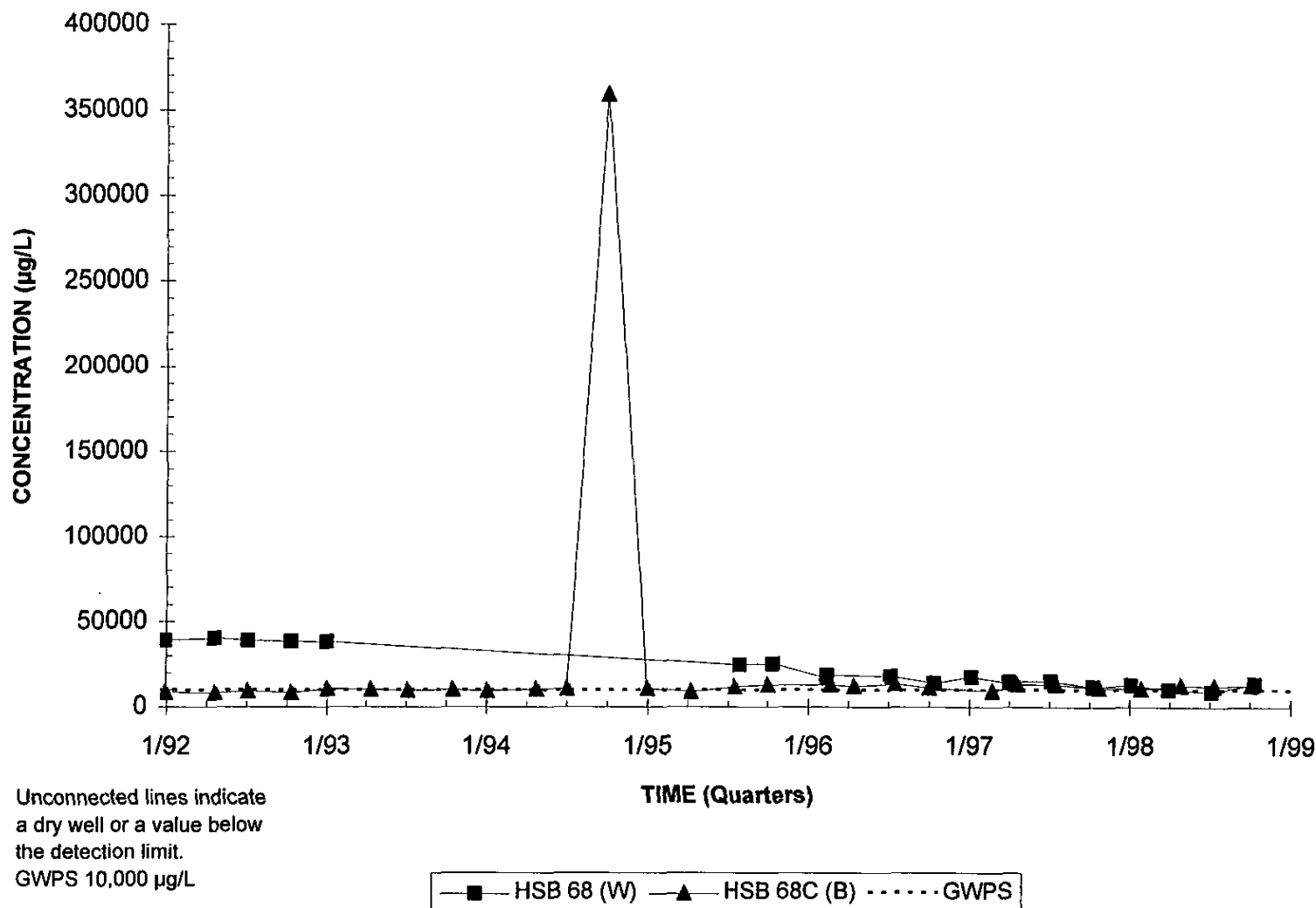
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Tritium Activities Well HSB151C



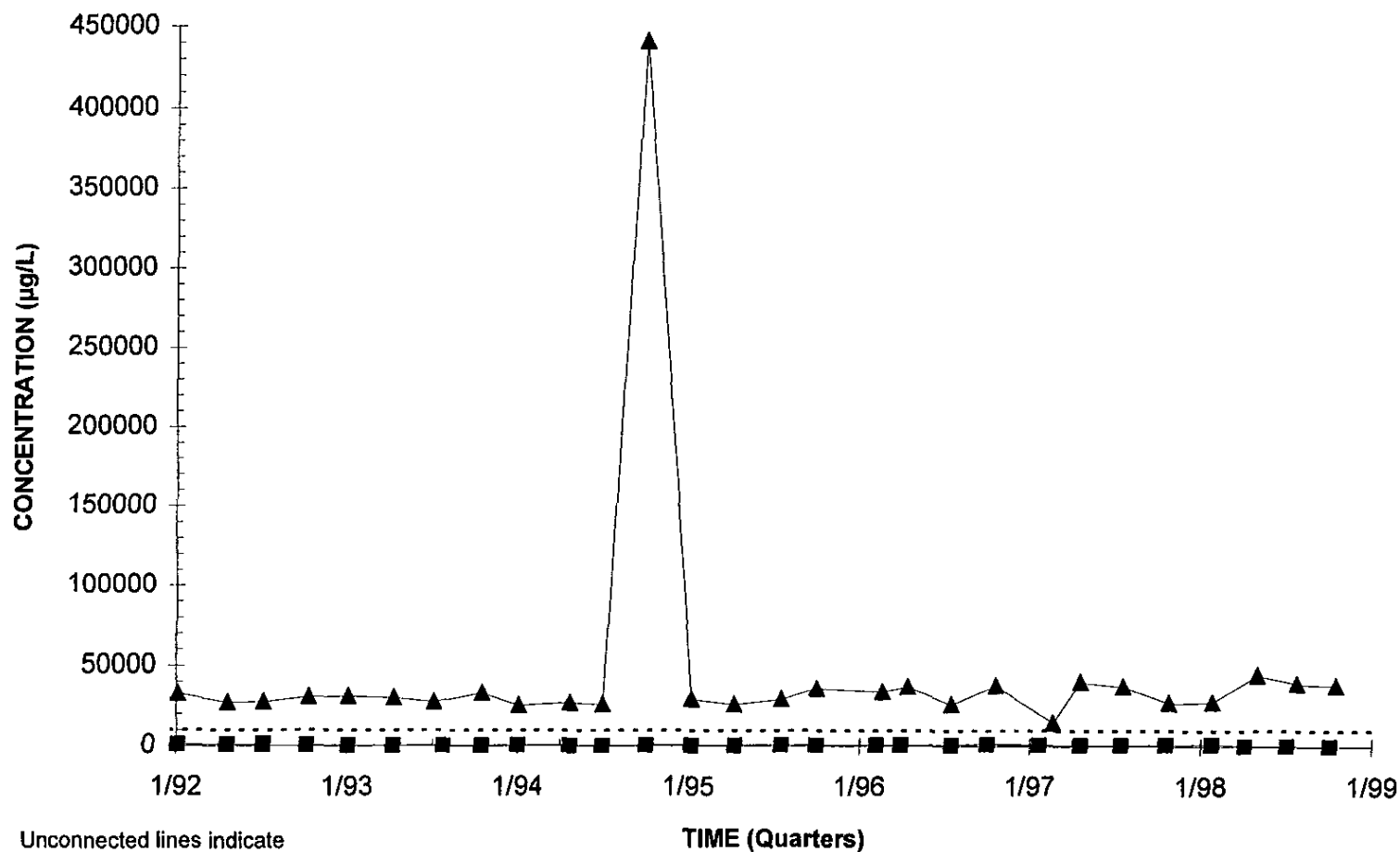
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well Cluster HSB 68



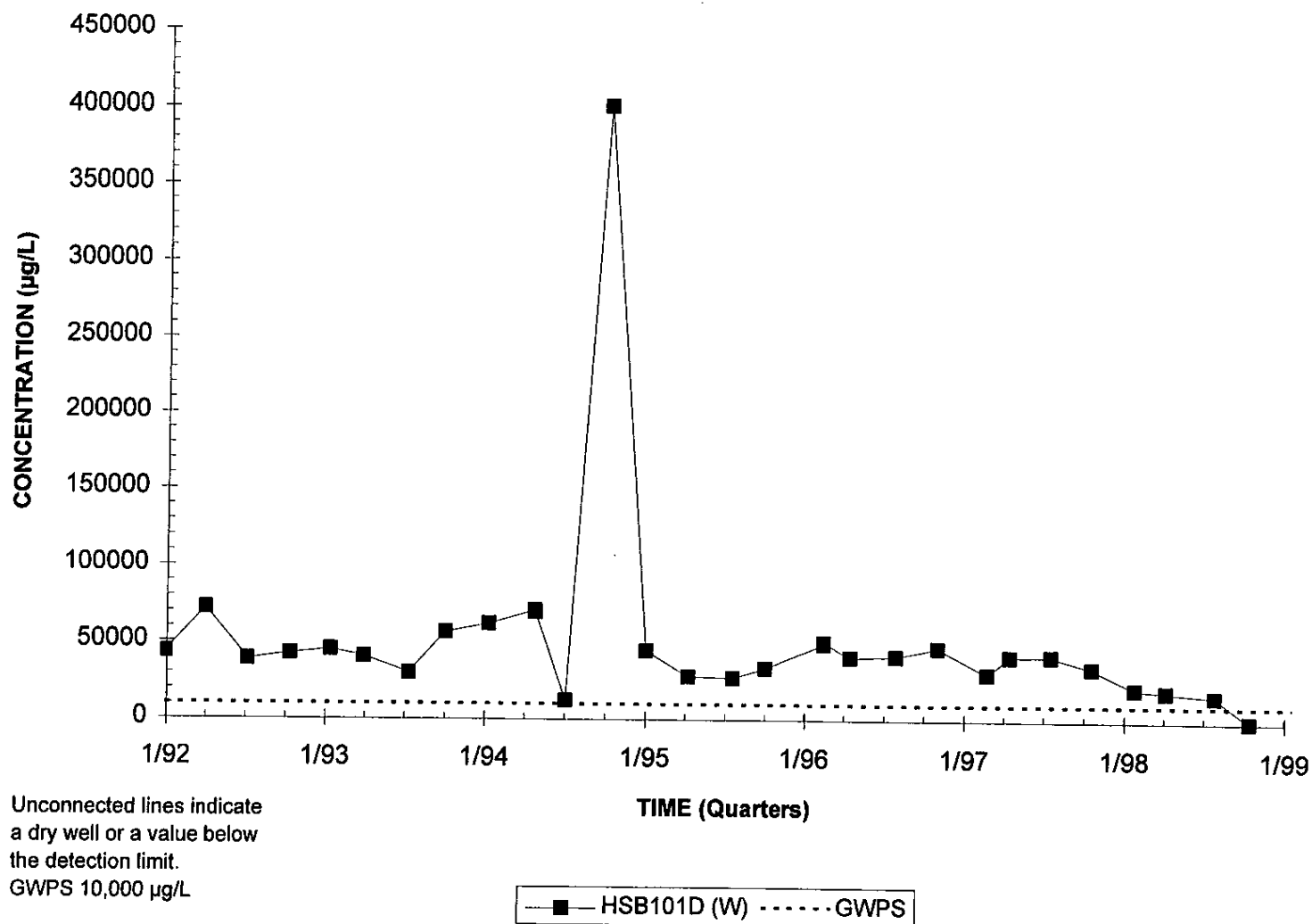
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well Cluster HSB 70



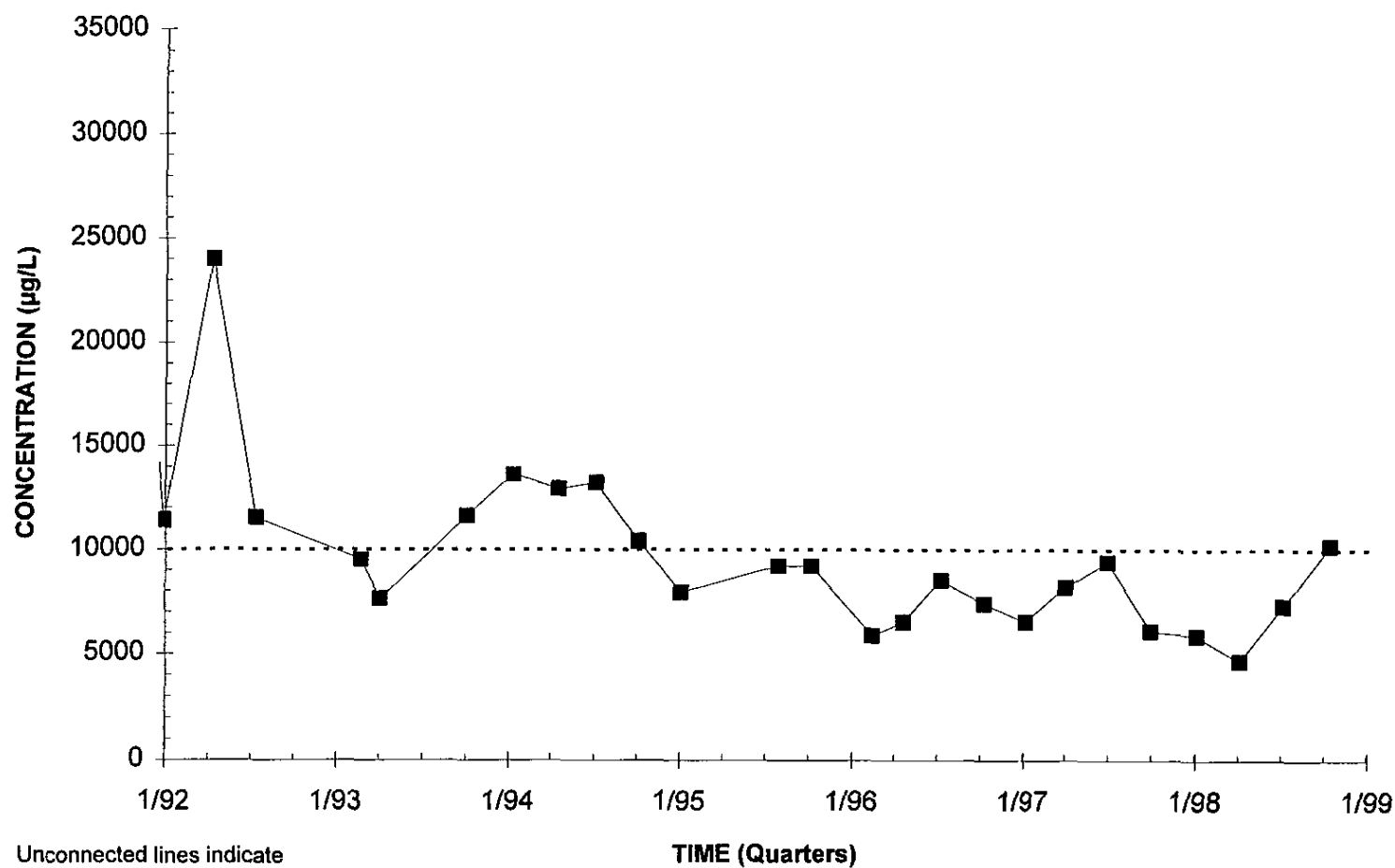
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well HSB101D



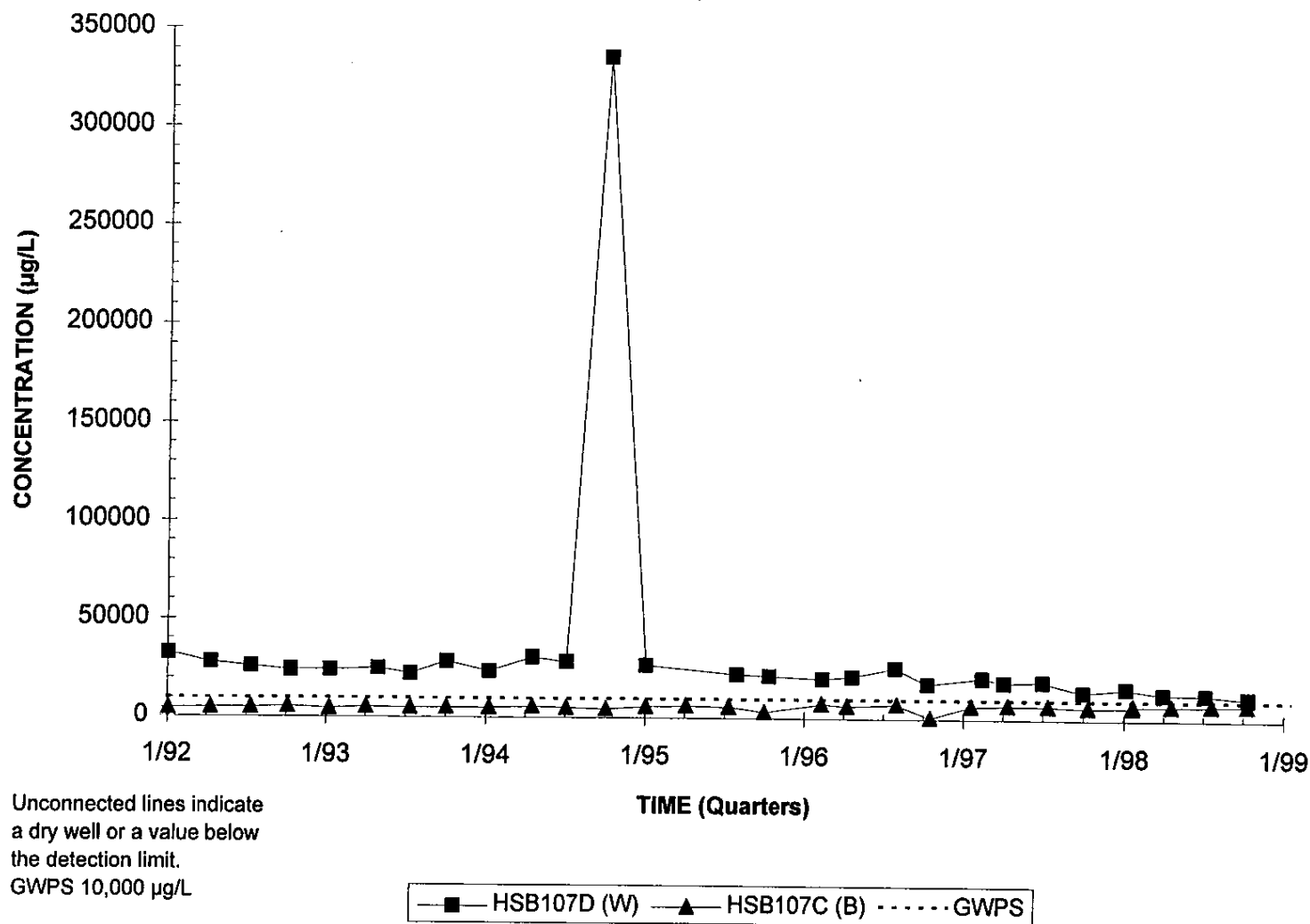
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well HSB106D



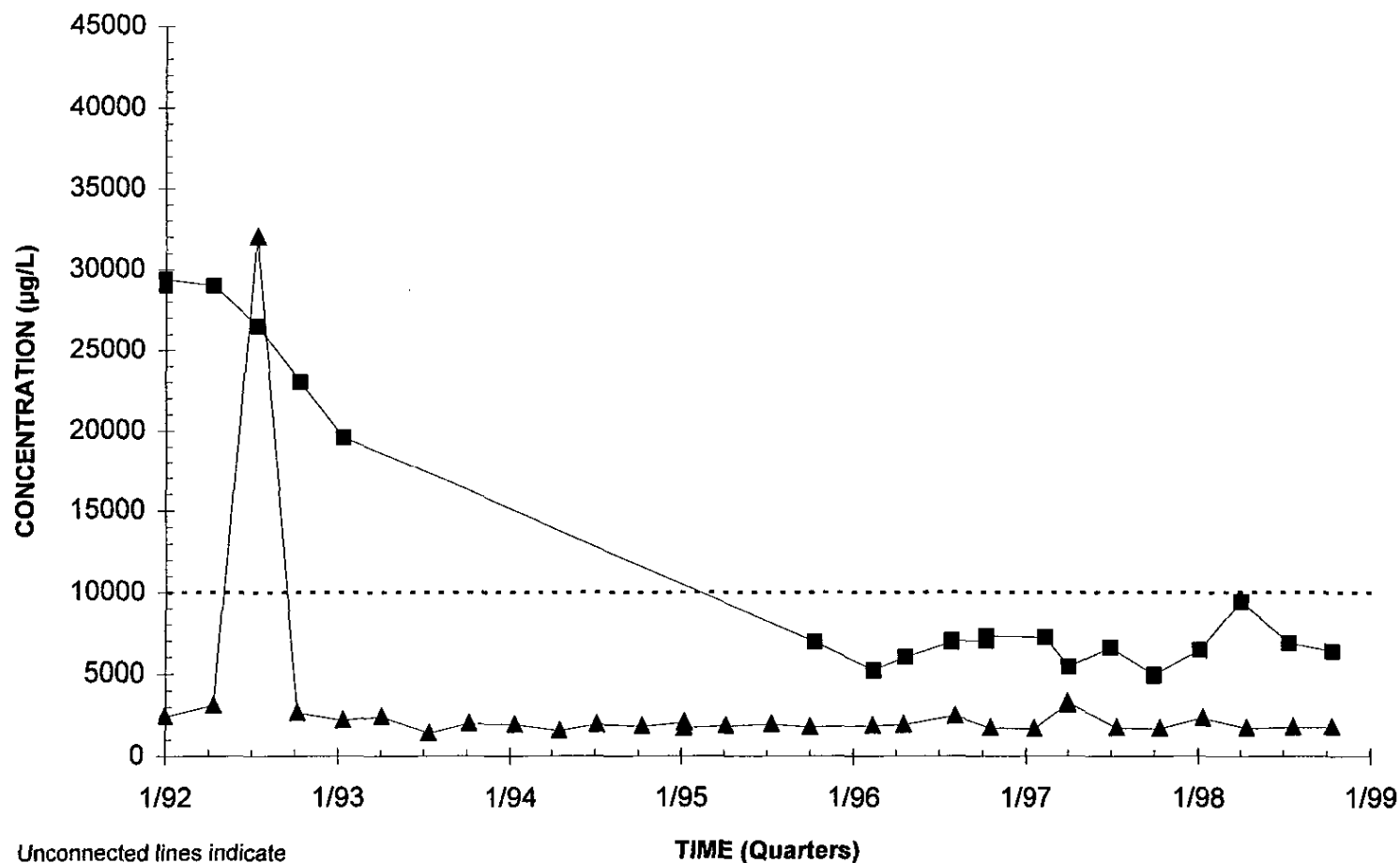
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well Cluster HSB107



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well Cluster HSB108

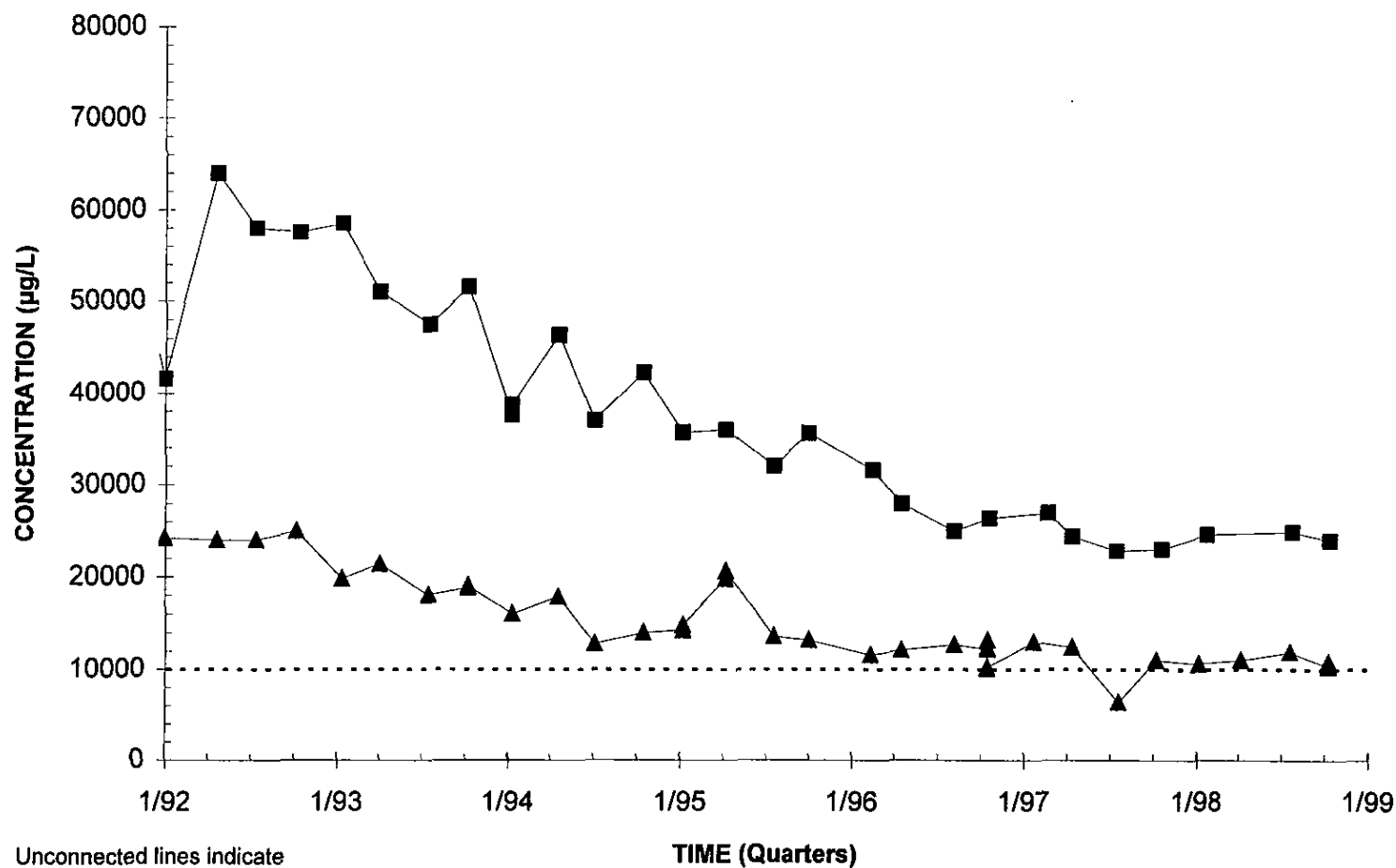


Unconnected lines indicate
a dry well or a value below
the detection limit.
GWPS 10,000 µg/L

—■— HSB108D (W) —▲— HSB108C (B) - - - - - GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well Cluster HSB111

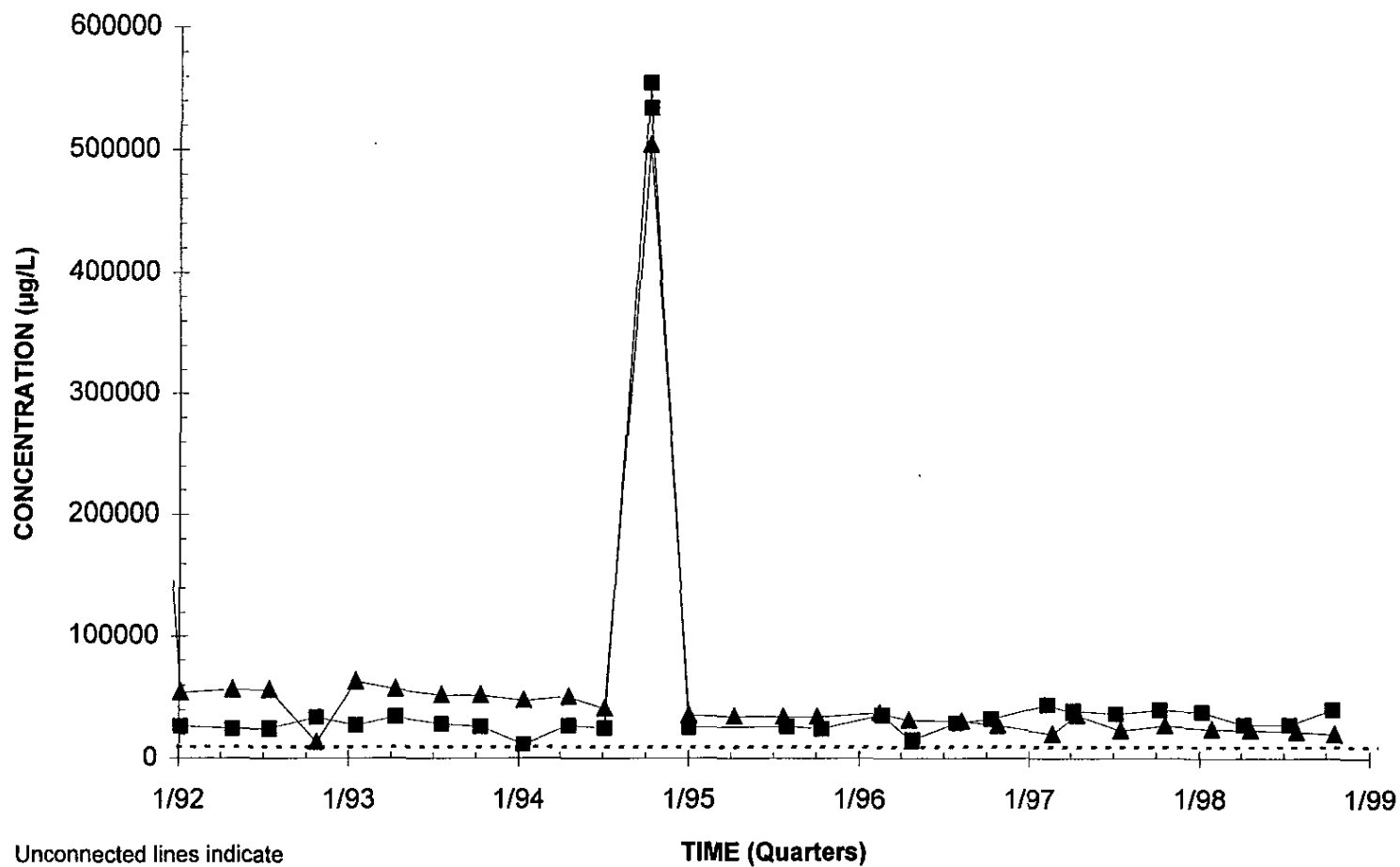


Unconnected lines indicate
a dry well or a value below
the detection limit.
GWPS 10,000 µg/L

■ HSB111D (W) ▲ HSB111C (B) GWPS

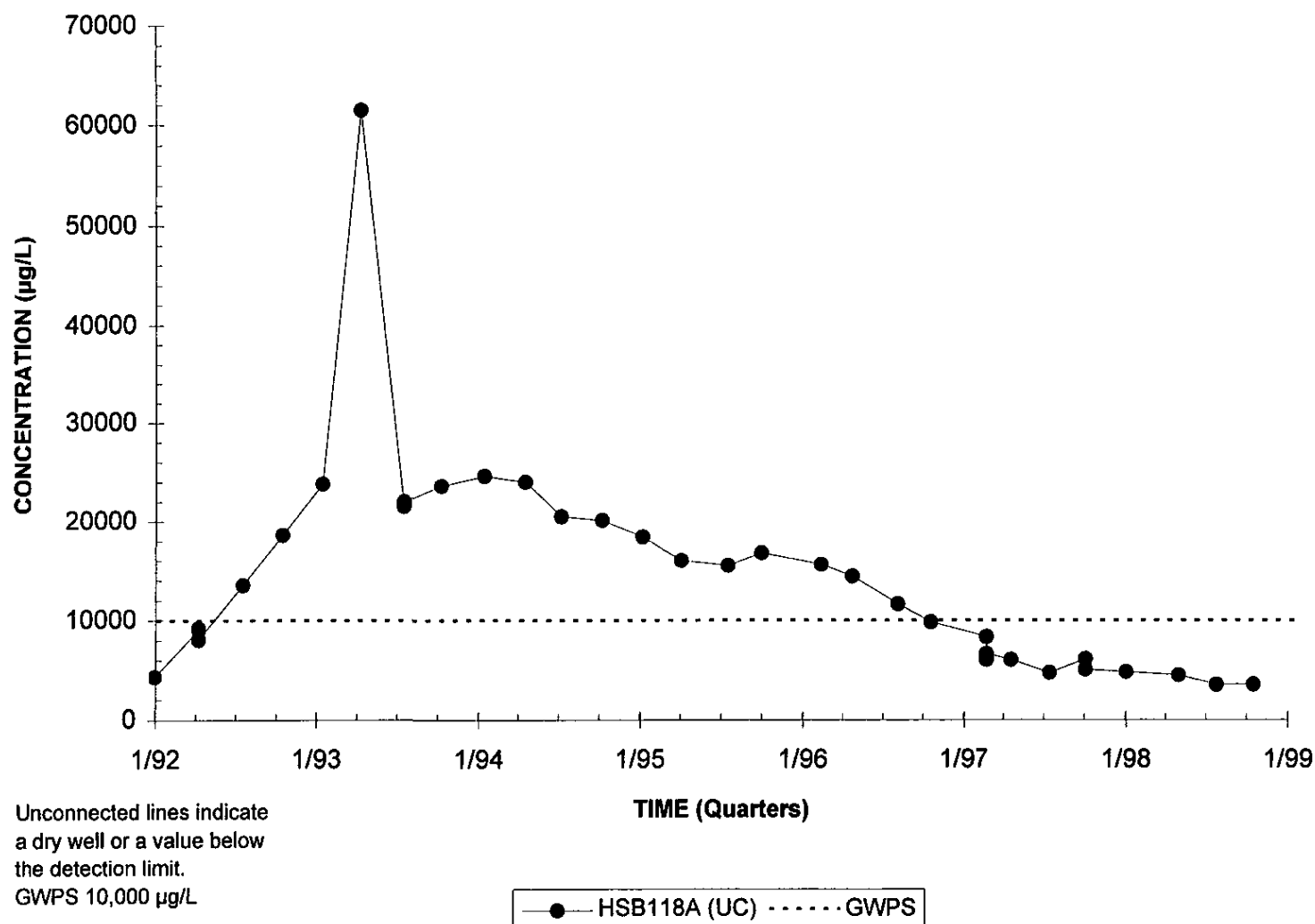
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well Cluster HSB114



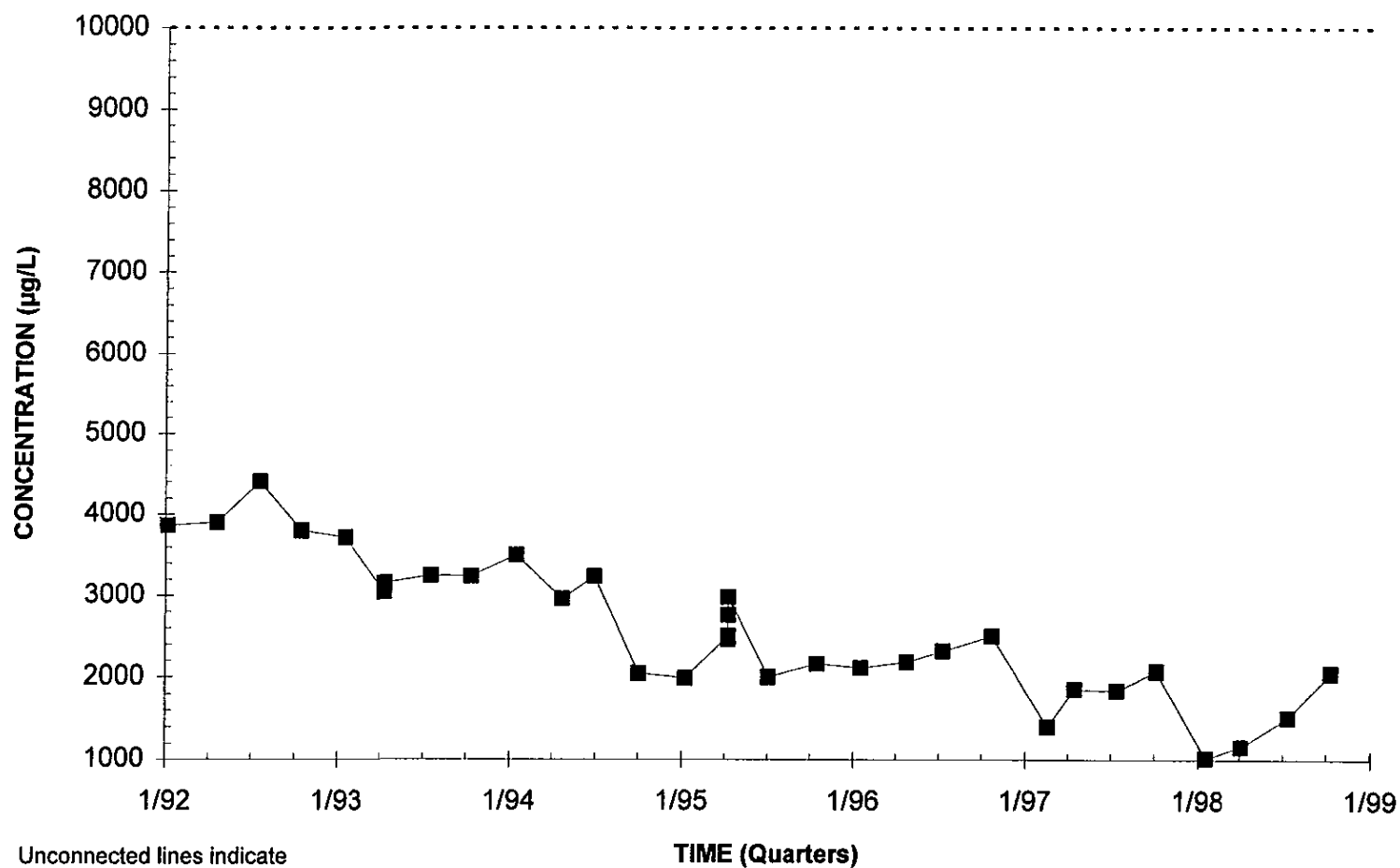
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well HSB118A



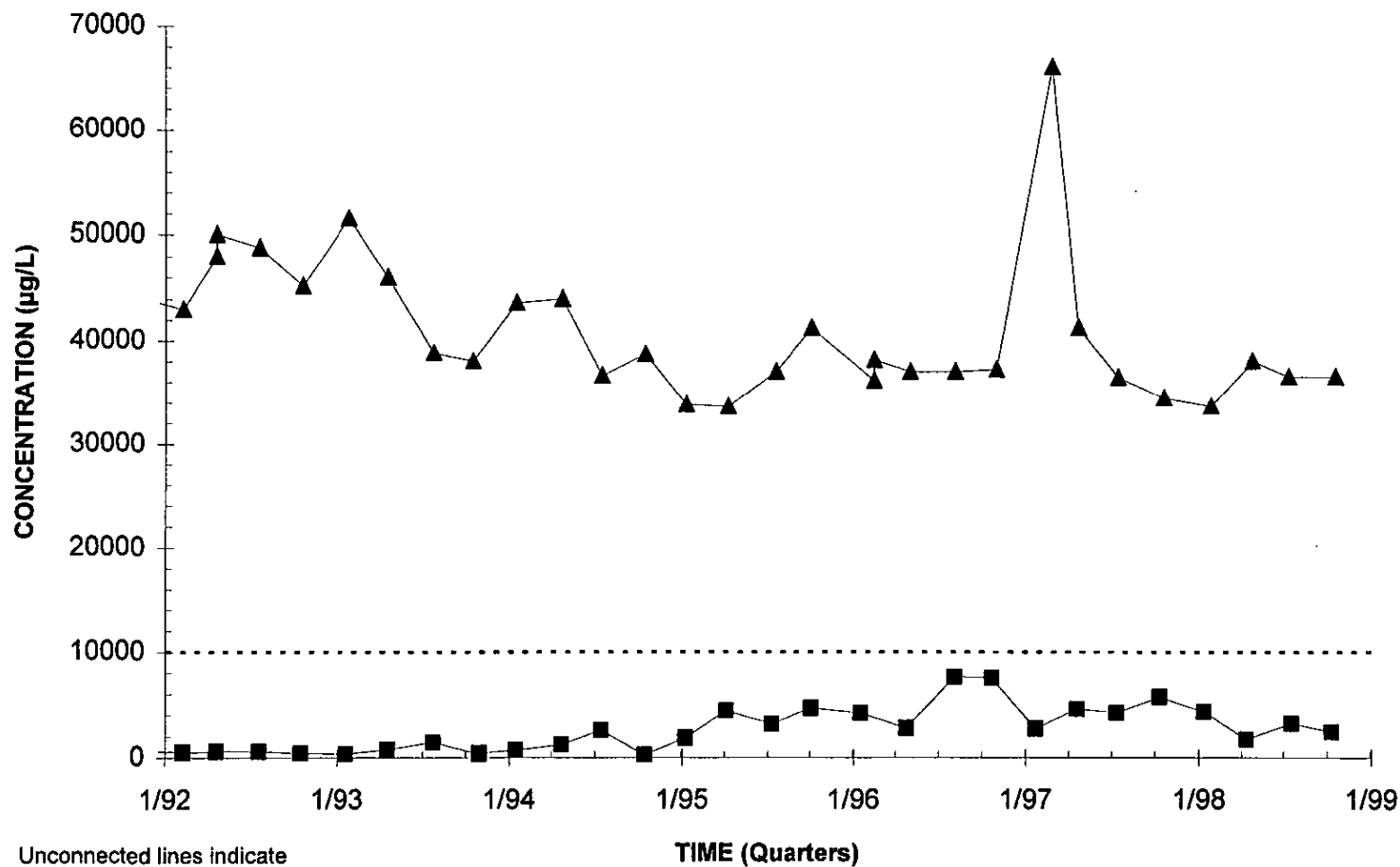
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well HSB135D



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well Cluster HSB139

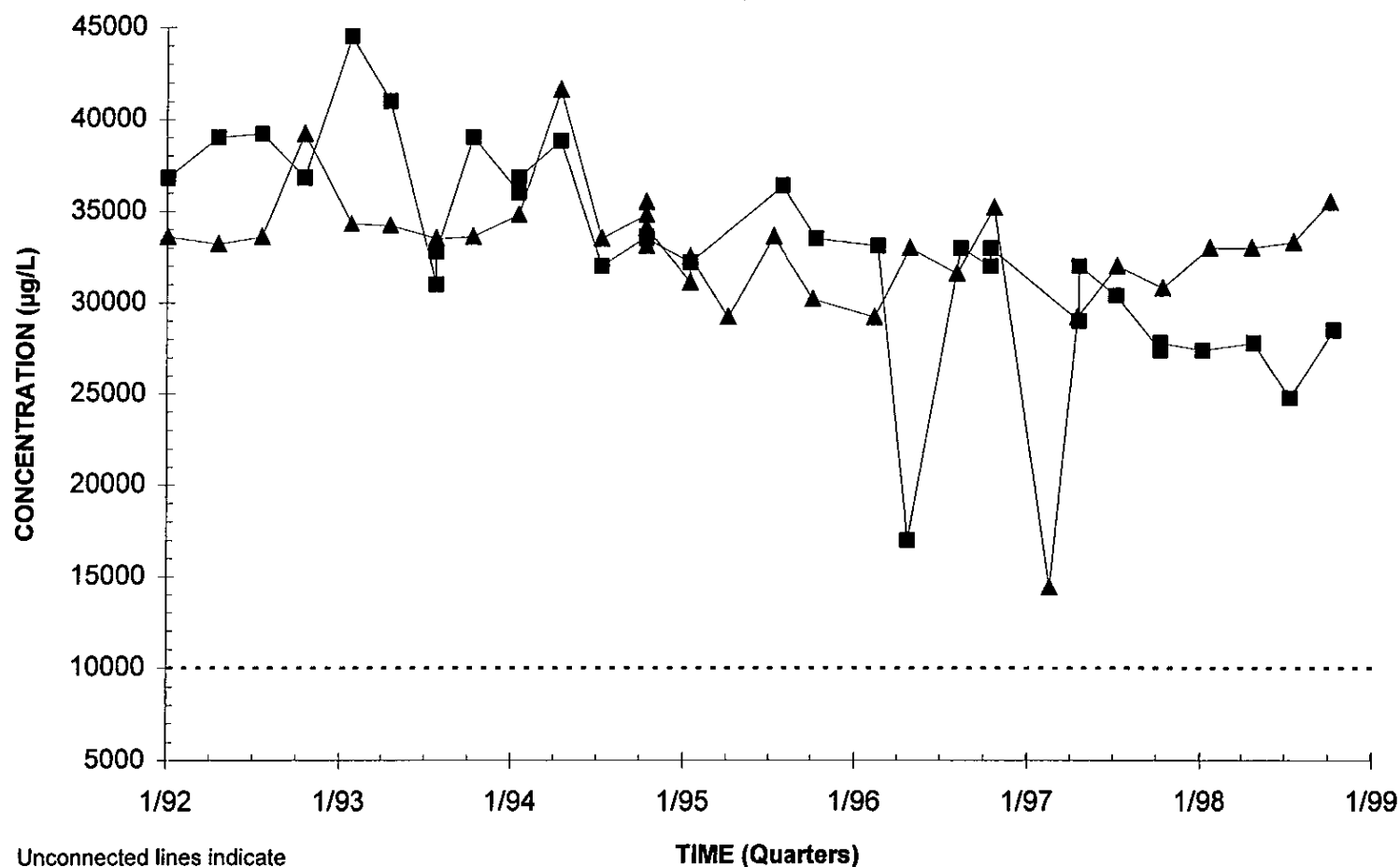


Unconnected lines indicate
a dry well or a value below
the detection limit.
GWPS 10,000 µg/L

—■— HSB139D (W) —▲— HSB139C (B)GWPS

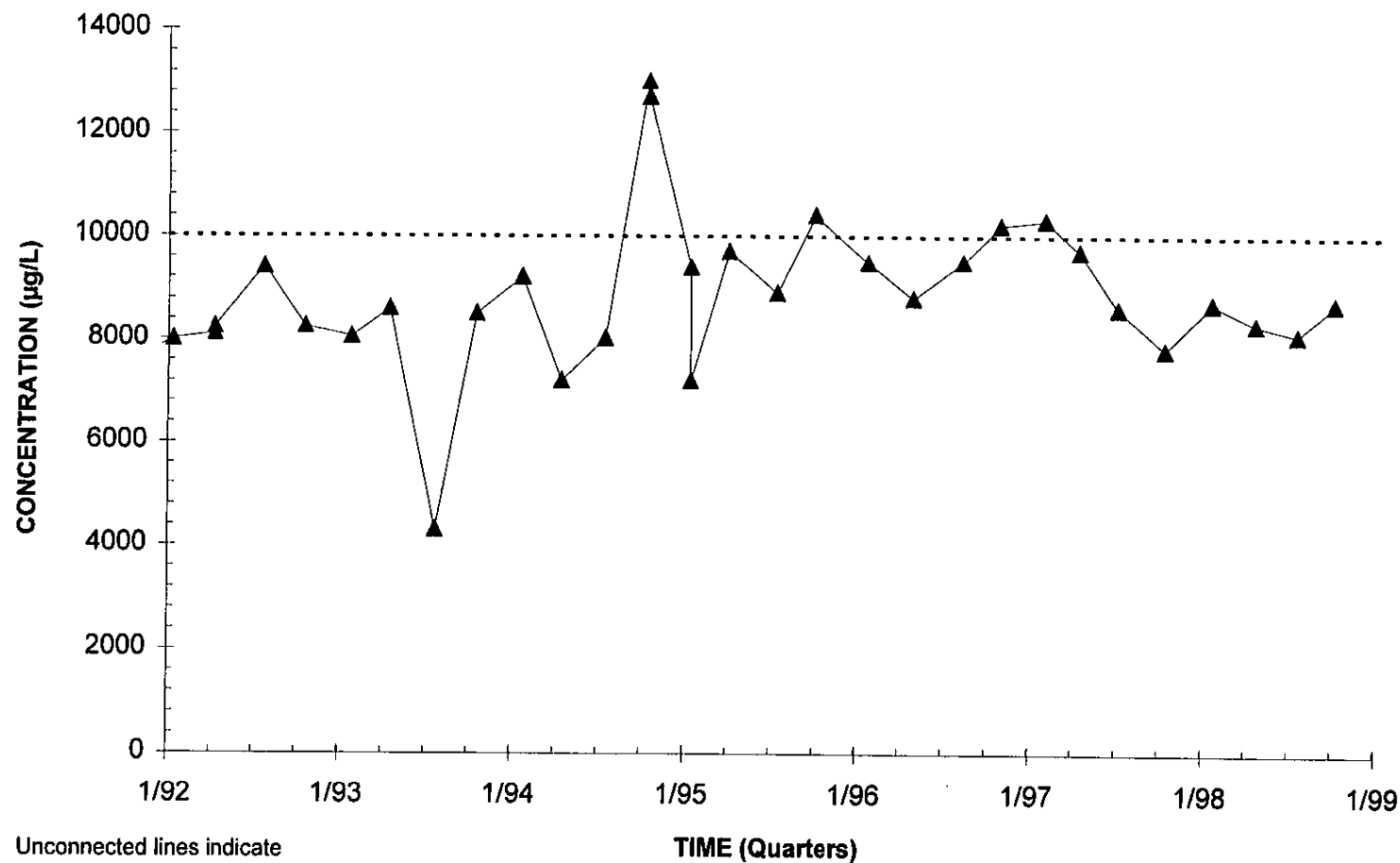
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well Cluster HSB145



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nitrate Concentrations Well HSB151C

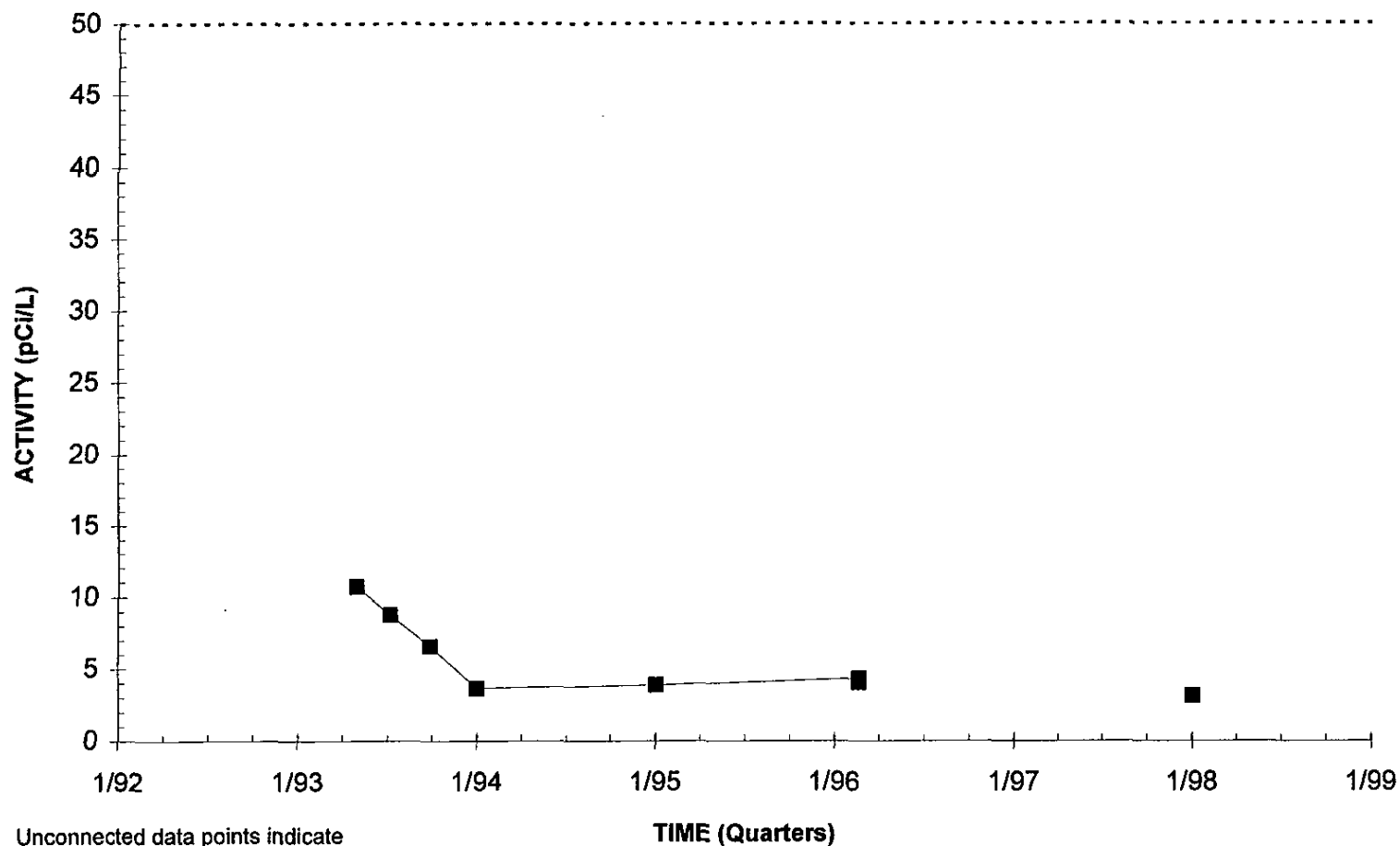


Unconnected lines indicate
a dry well or a value below
the detection limit.
GWPS 10,000 µg/L

—▲— HSB151C (B)GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

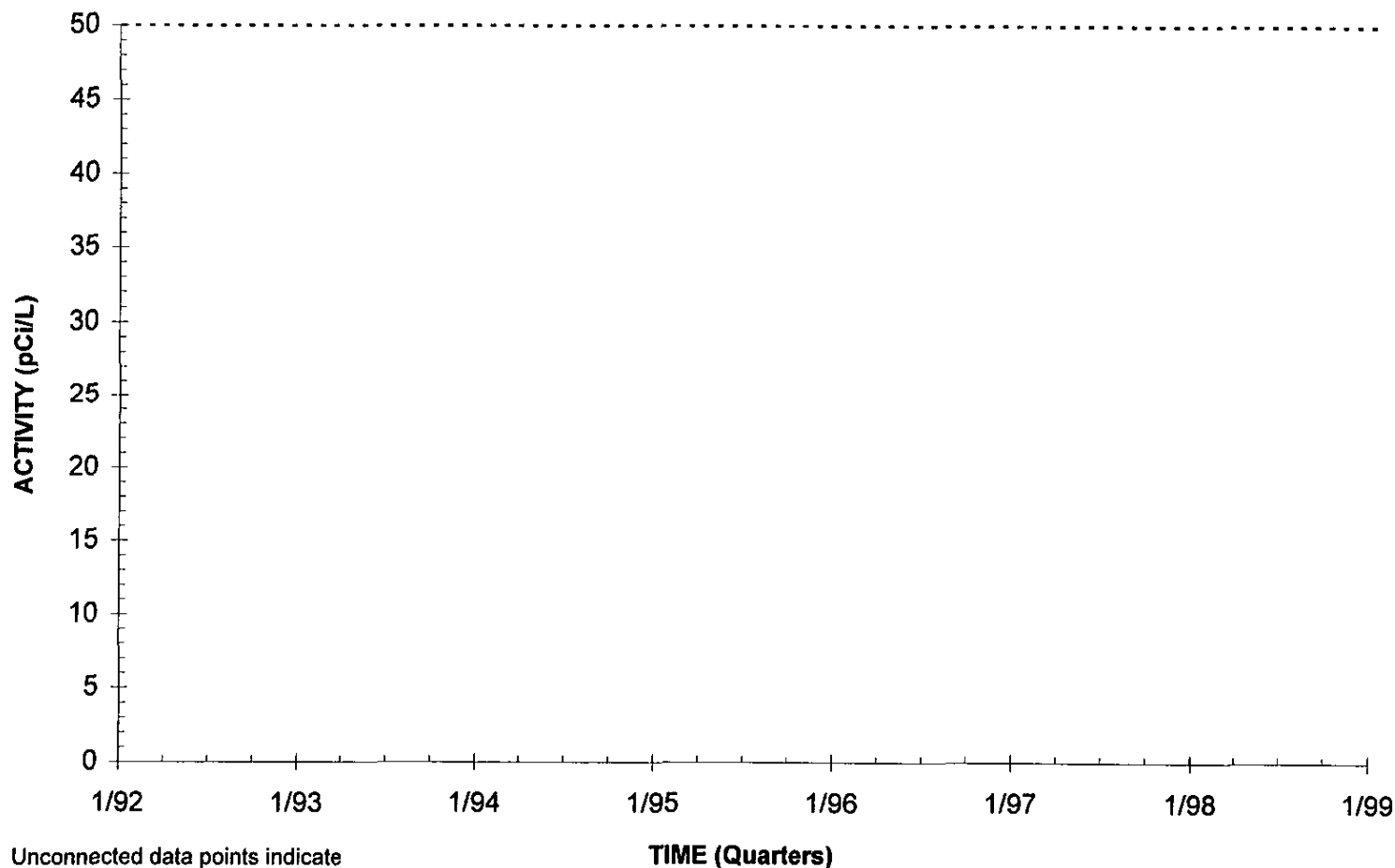
Iodine-129 Activities Well HSB 69



—■— HSB 69 (W) - - - - - Sum of alphas < 50 pCi/L

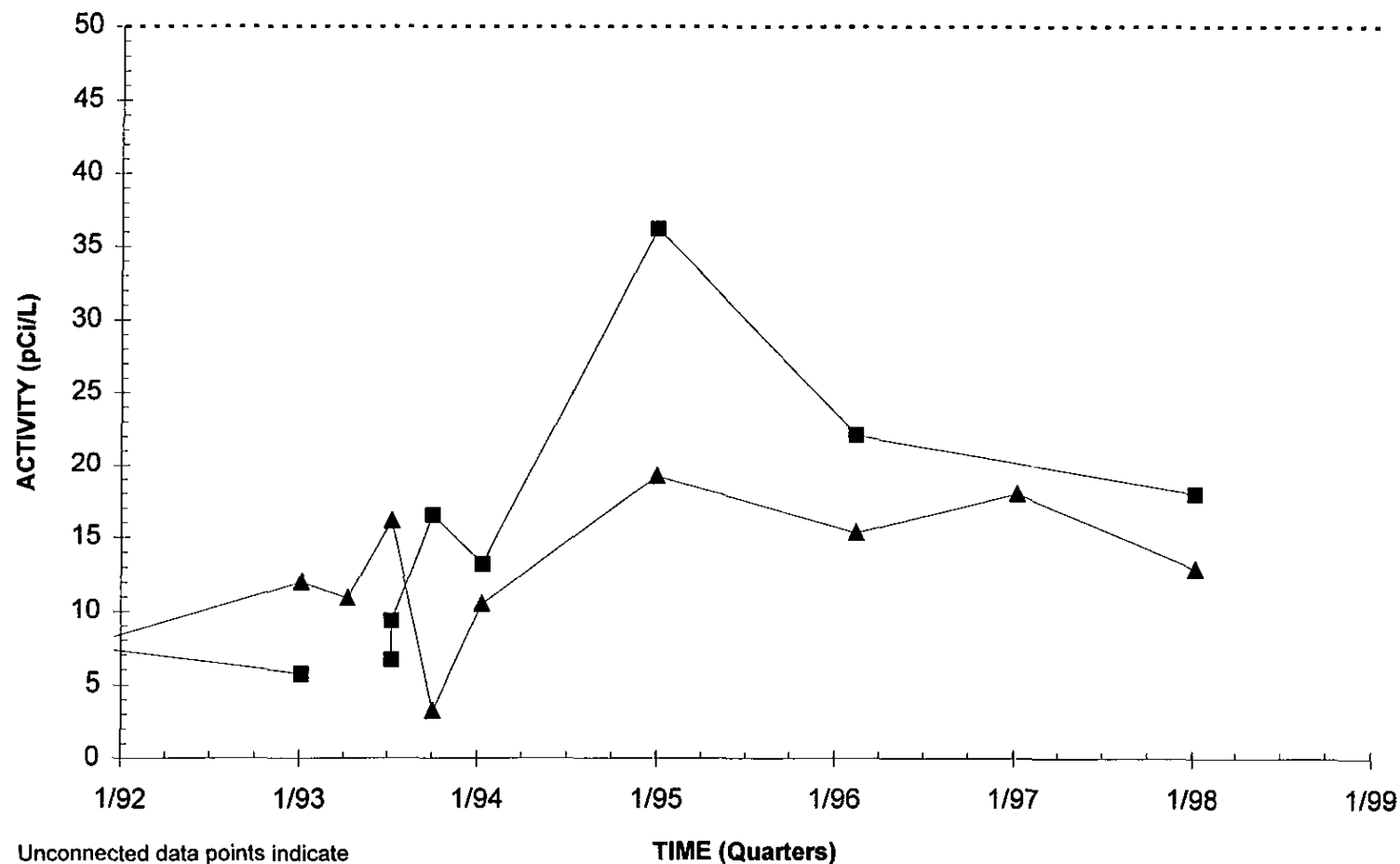
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Iodine-129 Activities Well Cluster HSB 84



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

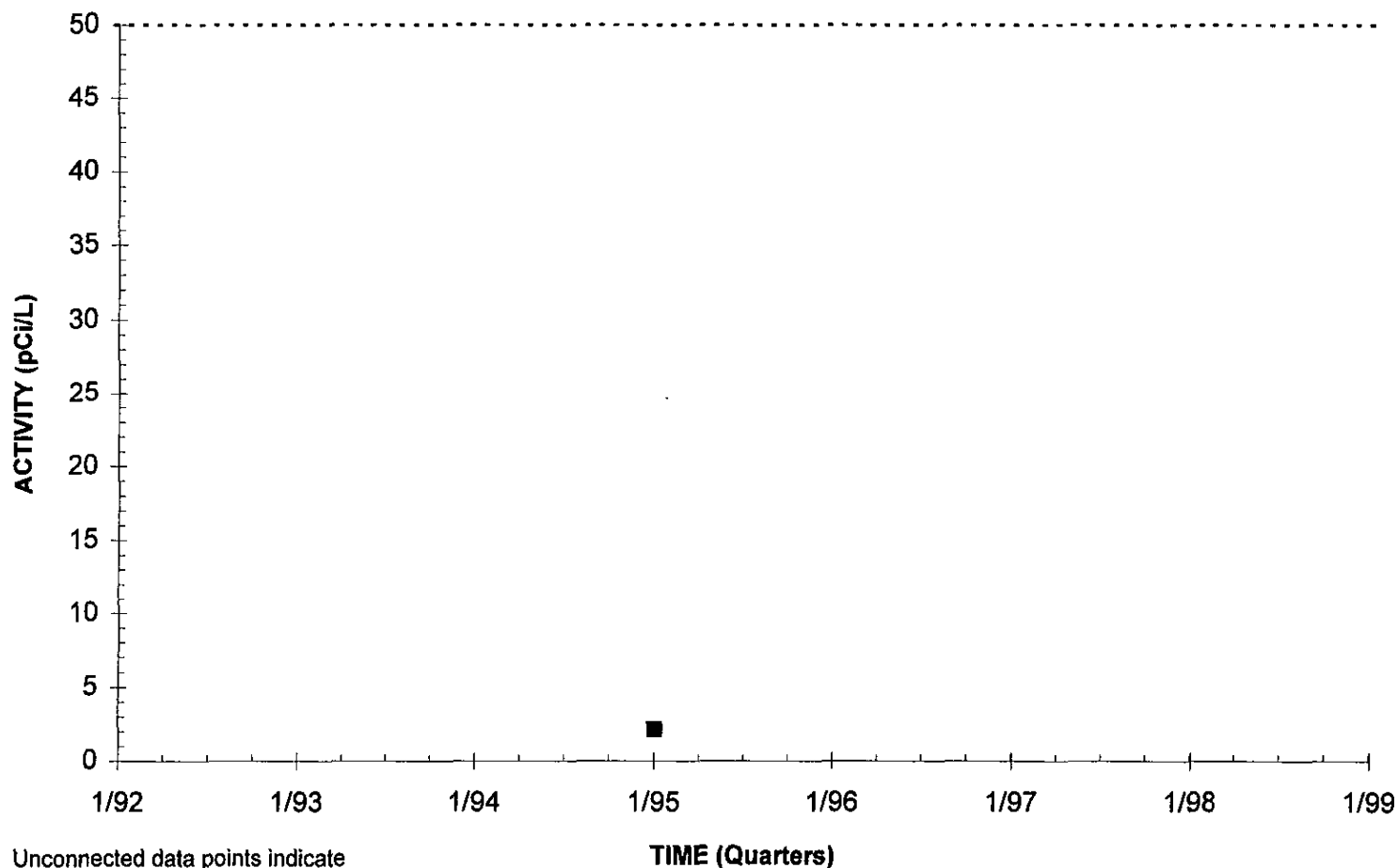
Iodine-129 Activities Well Cluster HSB 86



—■— HSB 86D (W) —▲— HSB 86C (B) —◆— HSB 86B (M) - - - - - Sum of alphas < 50 pCi/L

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

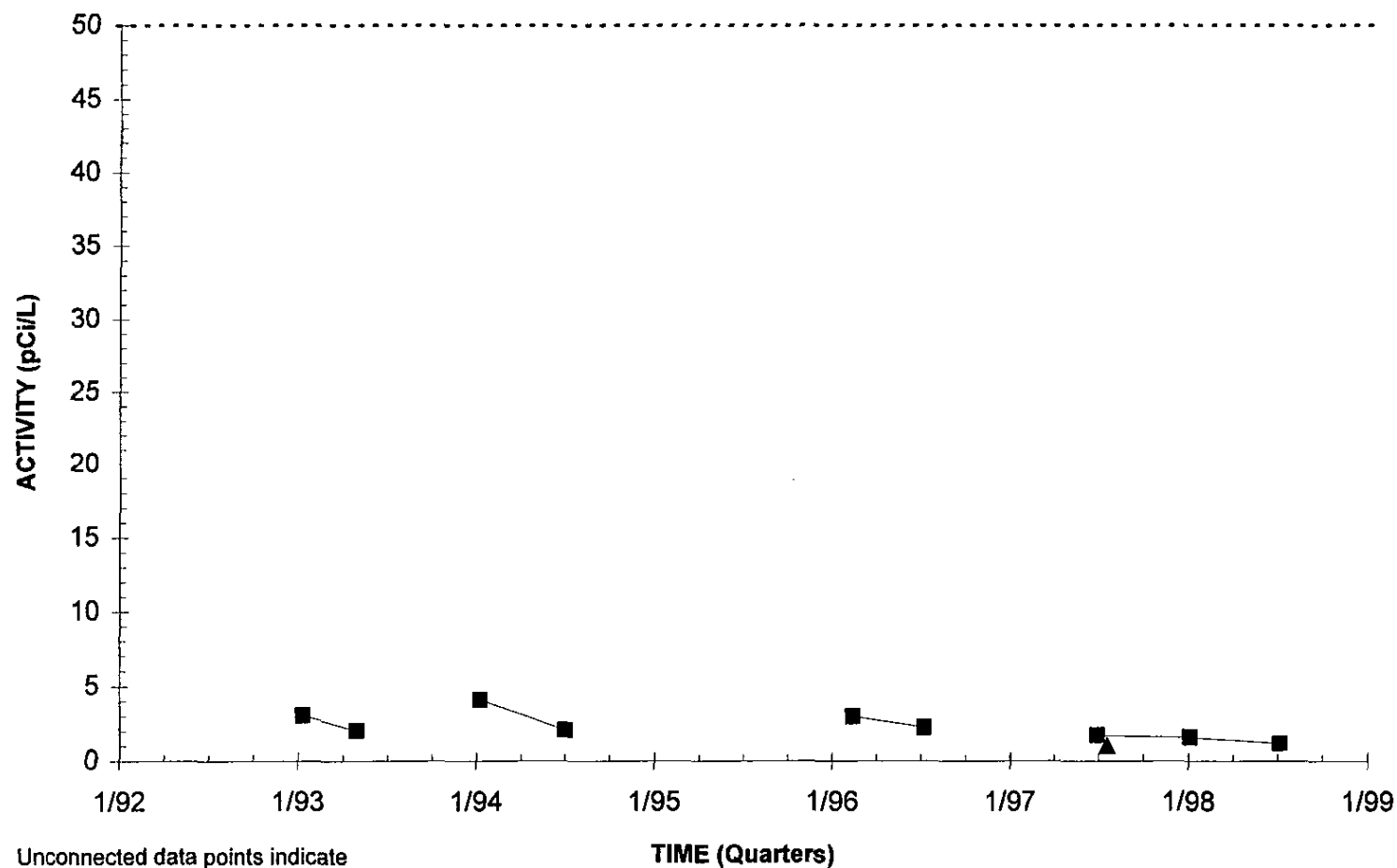
Iodine-129 Activities Well Cluster HSB100



Unconnected data points indicate intervals of dry wells or values below the detection limit.

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Iodine-129 Activities Well Cluster HSB104



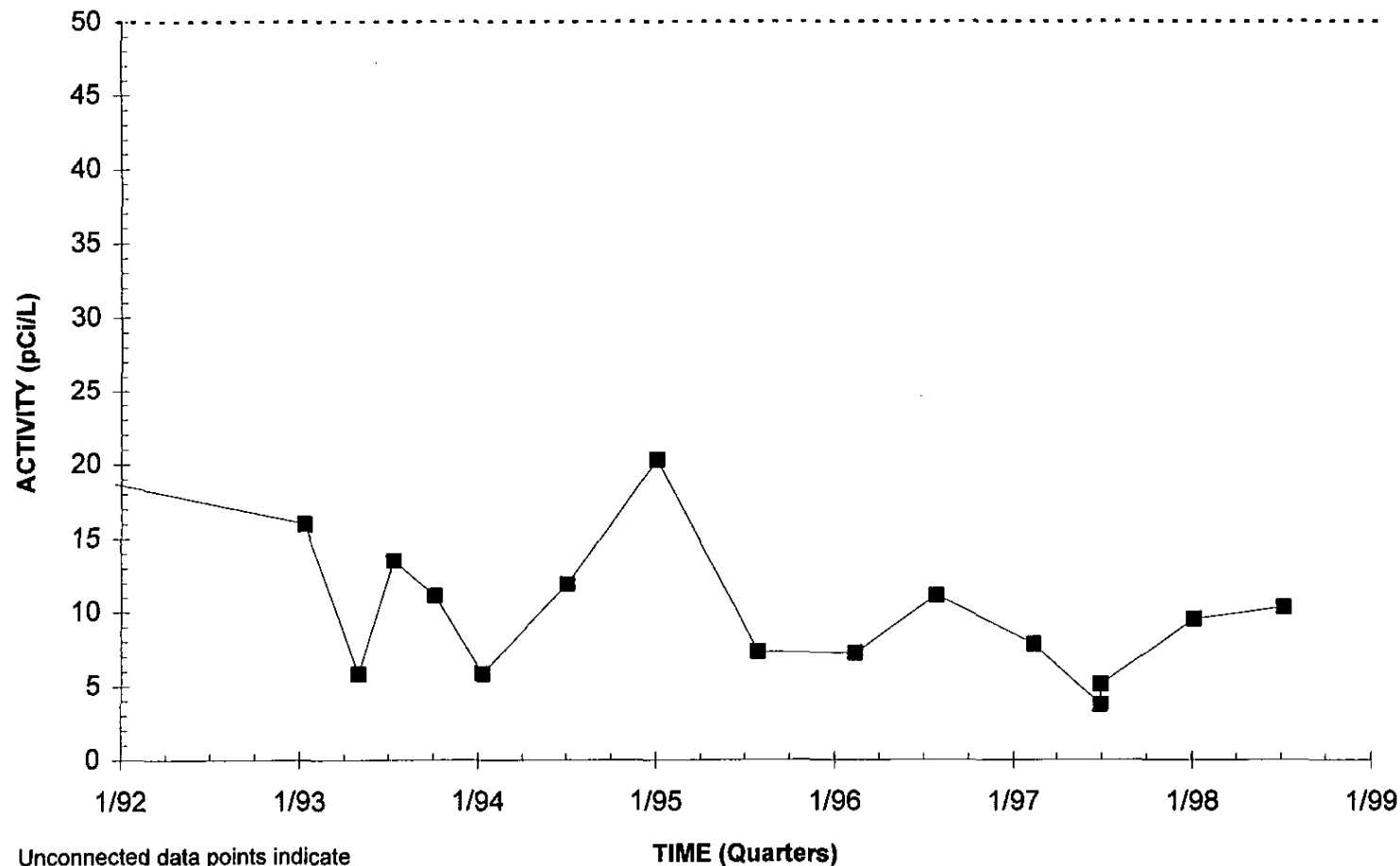
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

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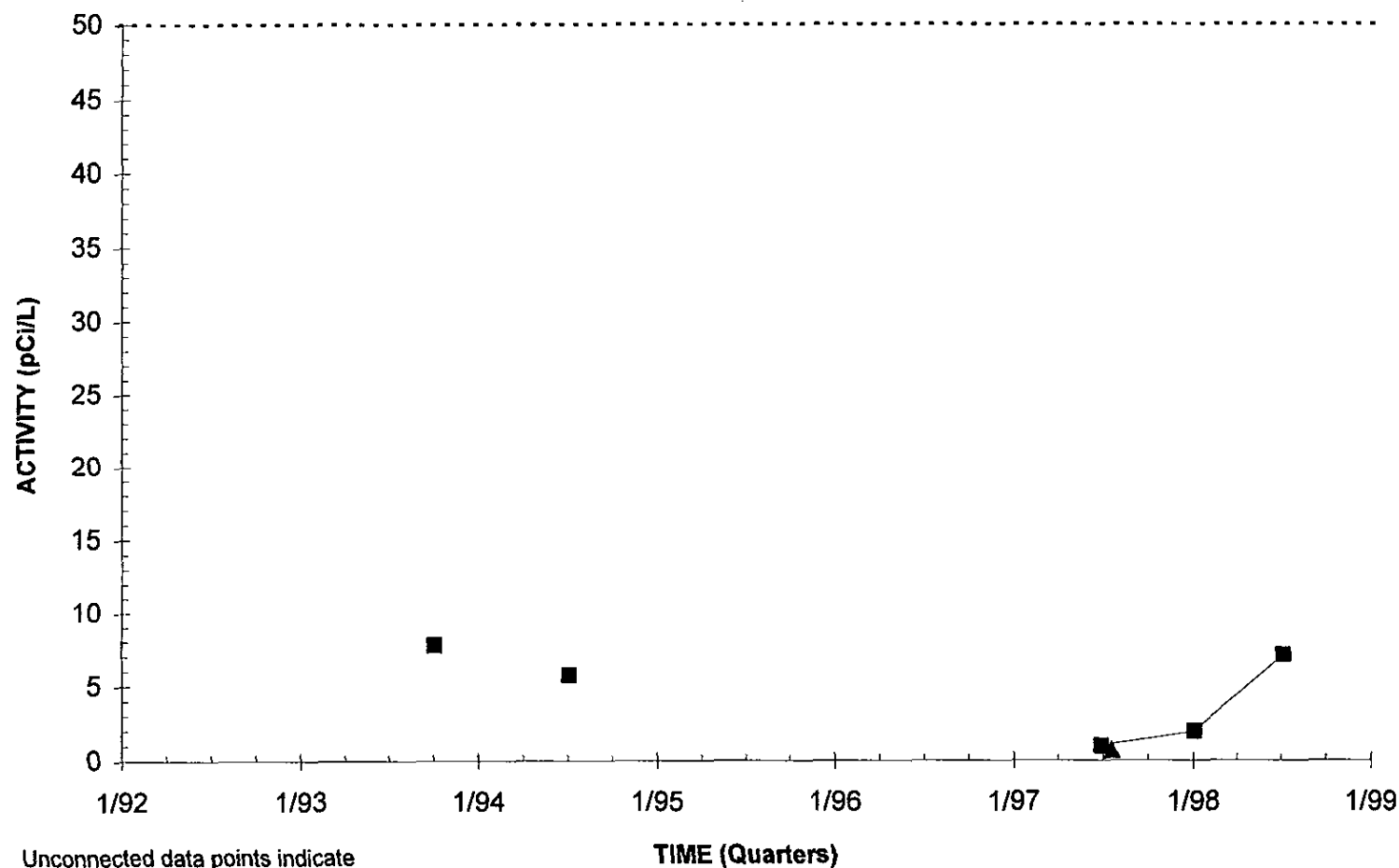
Iodine-129 Activities Well Cluster HSB105



■ HSB105D (W) ▲ HSB105C (B) - - - - - Sum of alphas < 50 pCi/L

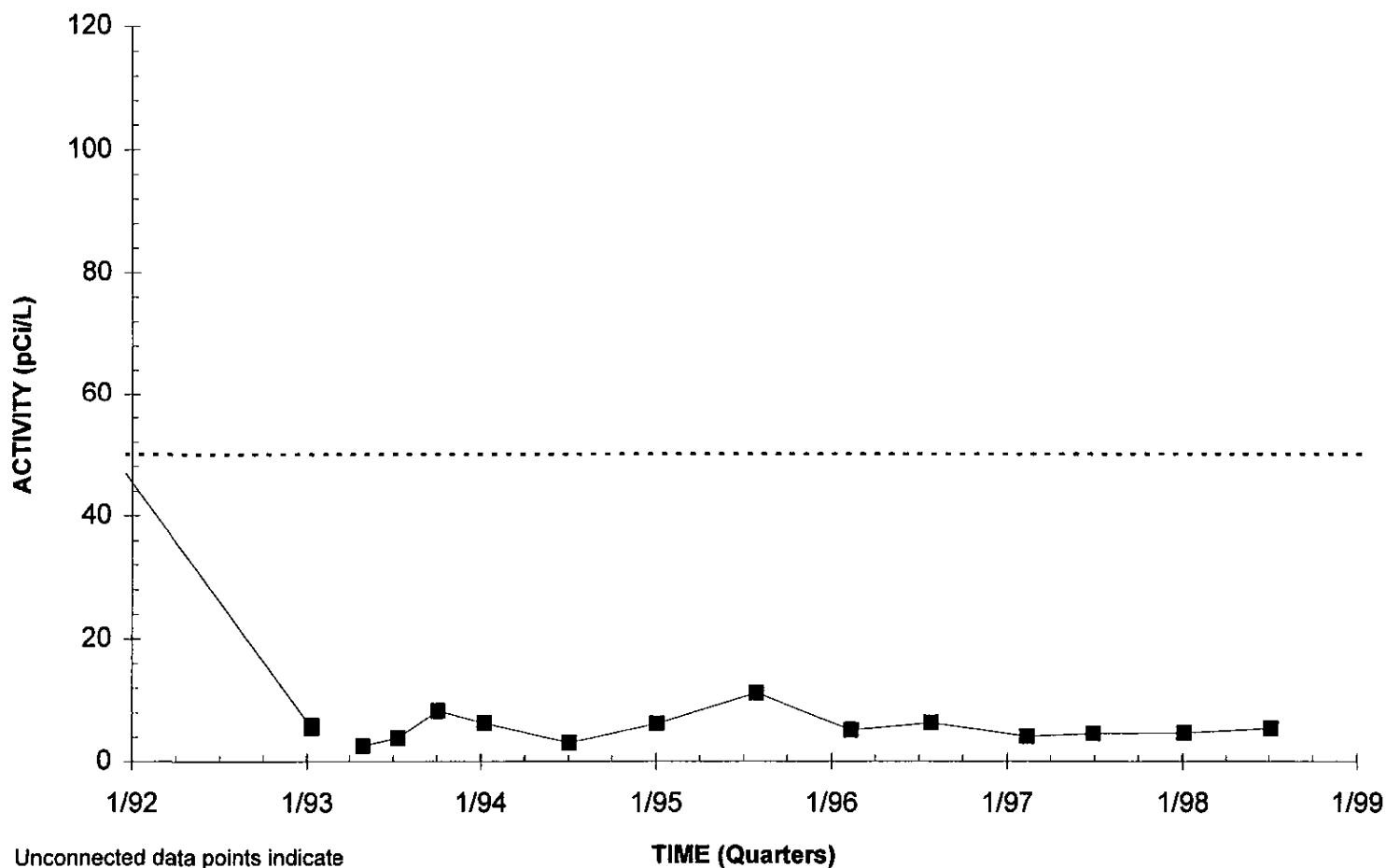
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Iodine-129 Activities Well Cluster HSB106



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Iodine-129 Activities Well Cluster HSB107

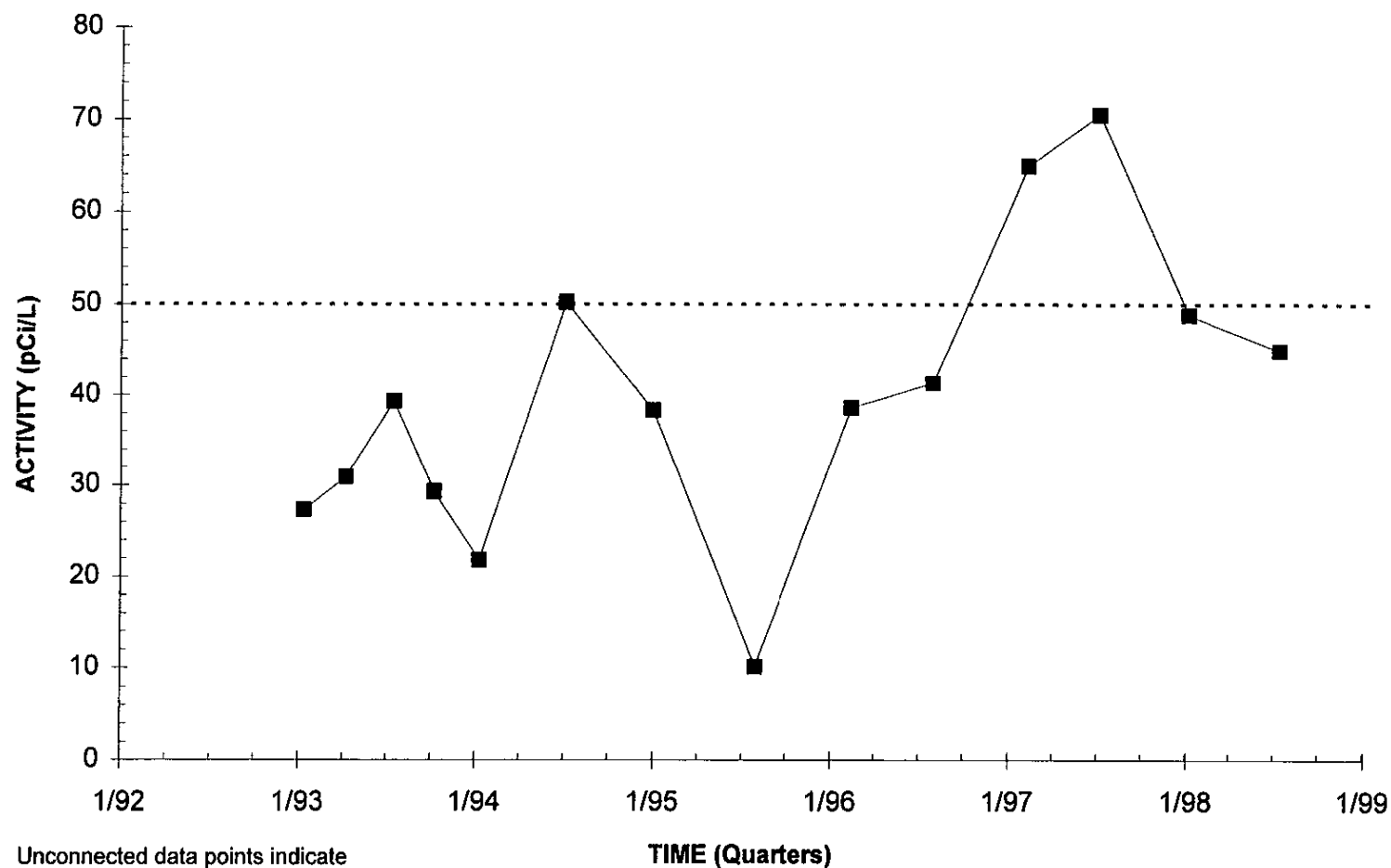


Unconnected data points indicate intervals of dry wells or values below the detection limit.

—■— HSB107D (W) —▲— HSB107C (B) - - - - - Sum of alphas < 50 pCi/L

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

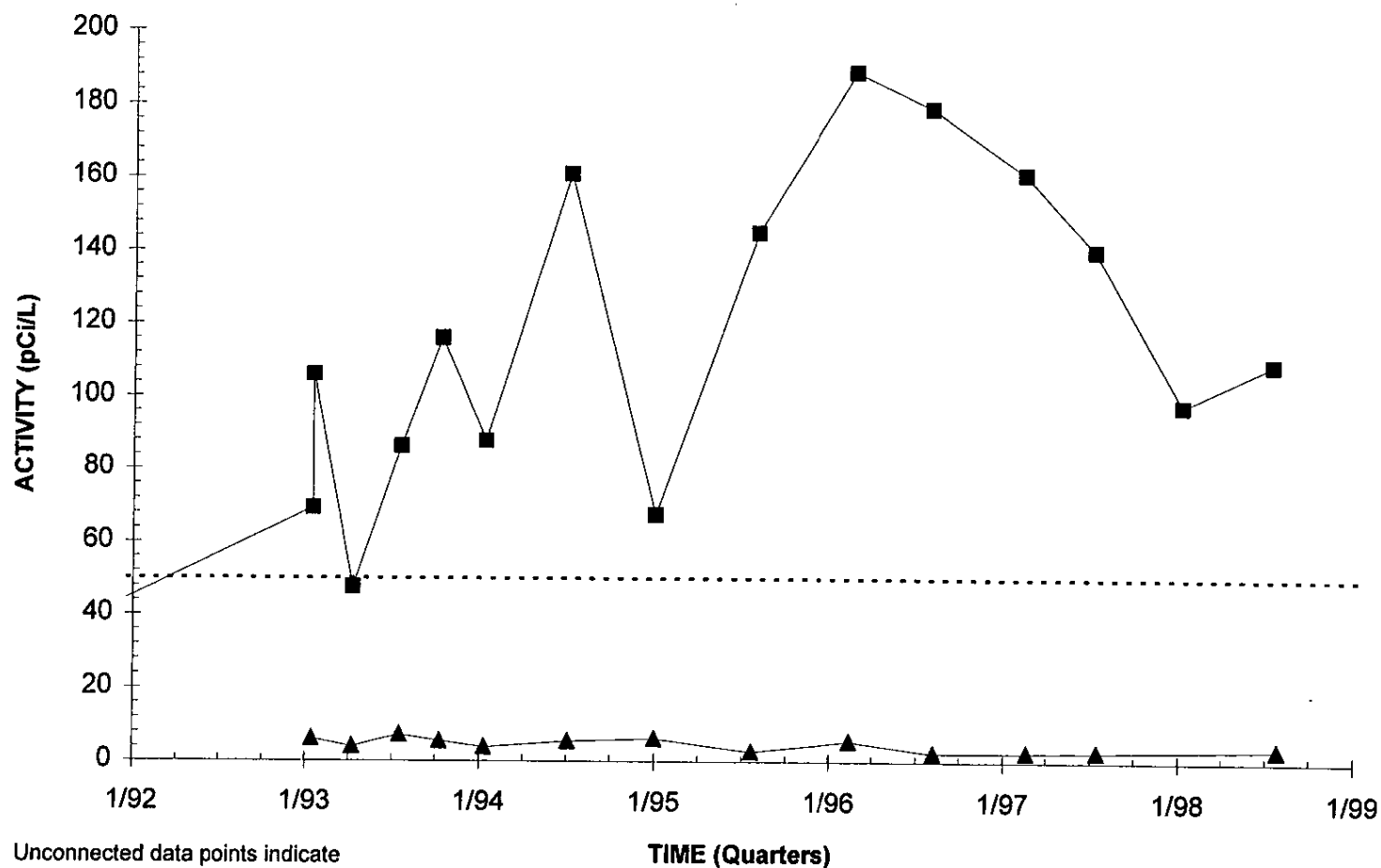
Iodine-129 Activities Well Cluster HSB113



—■— HSB113D (W) —▲— HSB113C (B) - - - - - Sum of alphas < 50 pCi/L

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Iodine-129 Activities Well Cluster HSB114

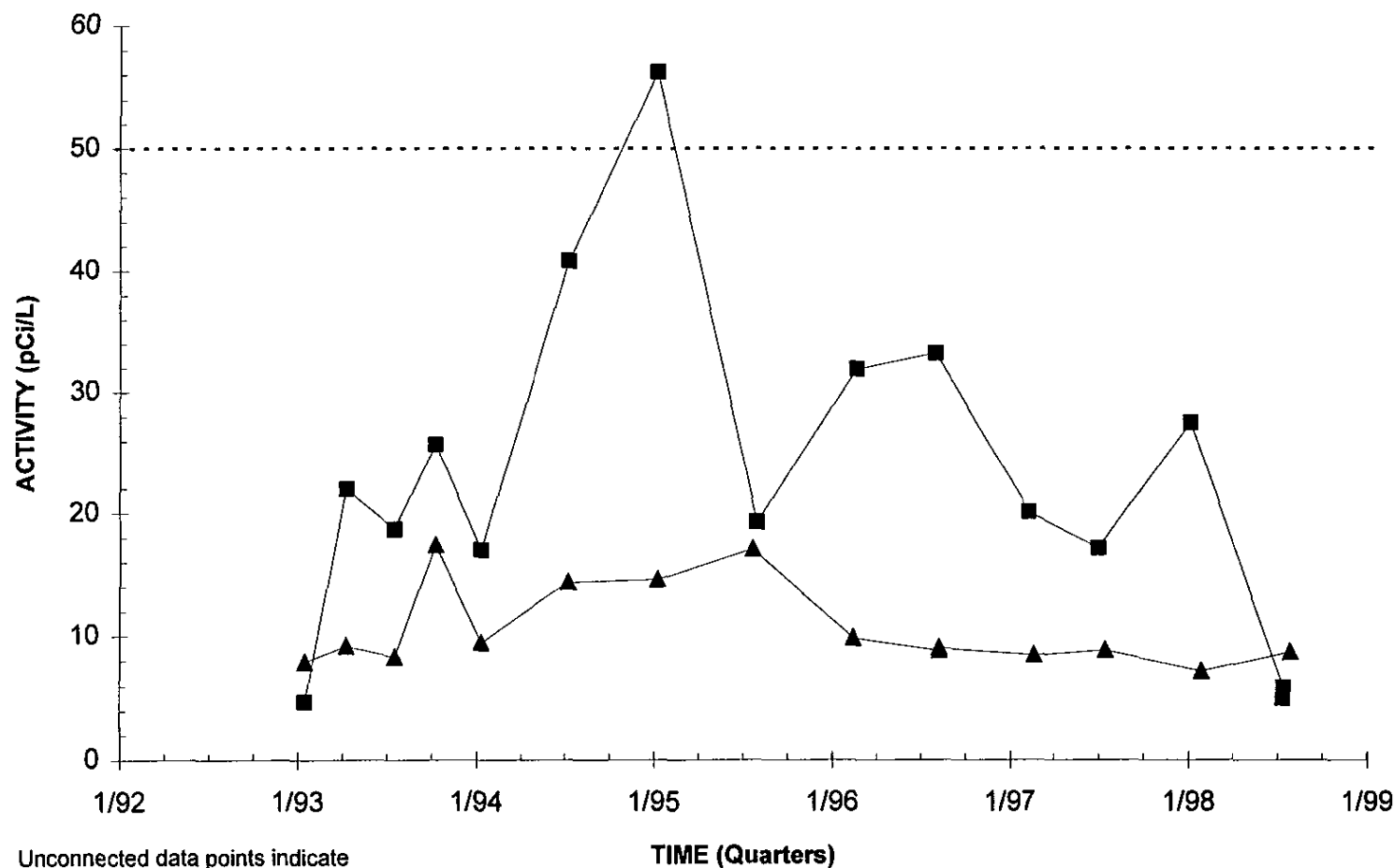


Unconnected data points indicate
intervals of dry wells or values
below the detection limit.

■ HSB114D (W) ▲ HSB114C (B) Sum of alphas < 50 pCi/L

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

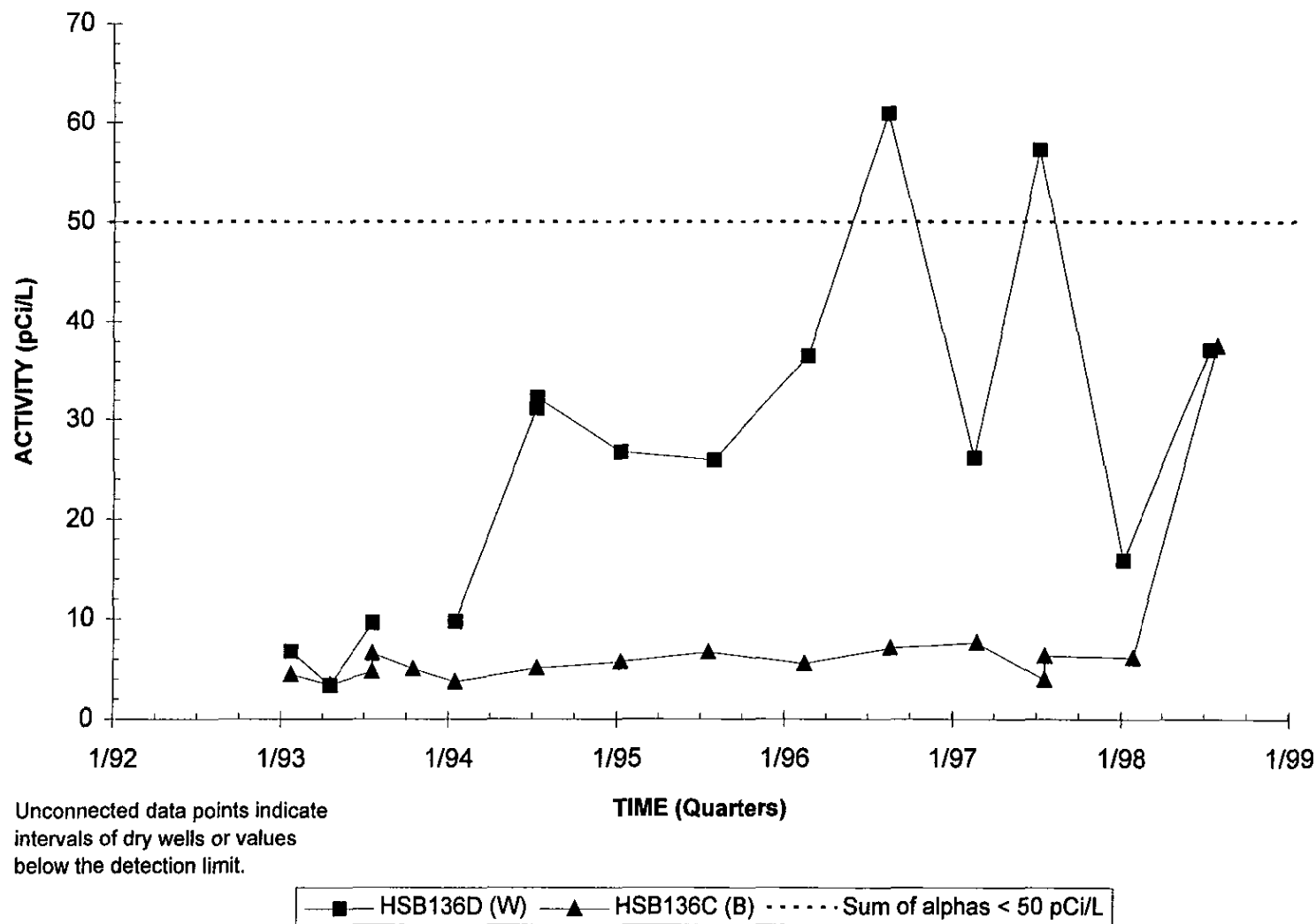
Iodine-129 Activities Well Cluster HSB115



—■— HSB115D (W) —▲— HSB115C (B) - - - - - Sum of alphas < 50 pCi/L

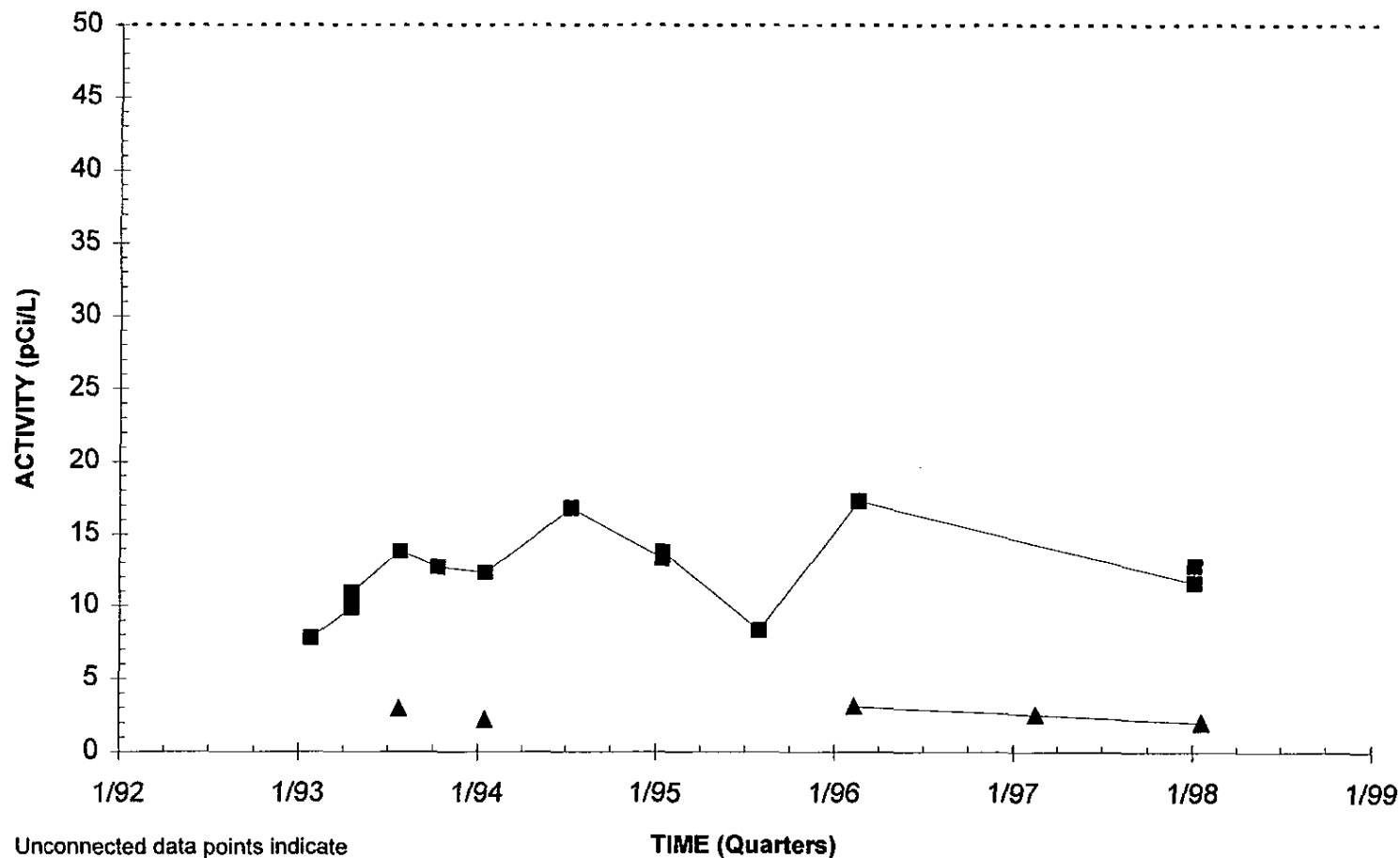
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Iodine-129 Activities Well Cluster HSB136



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

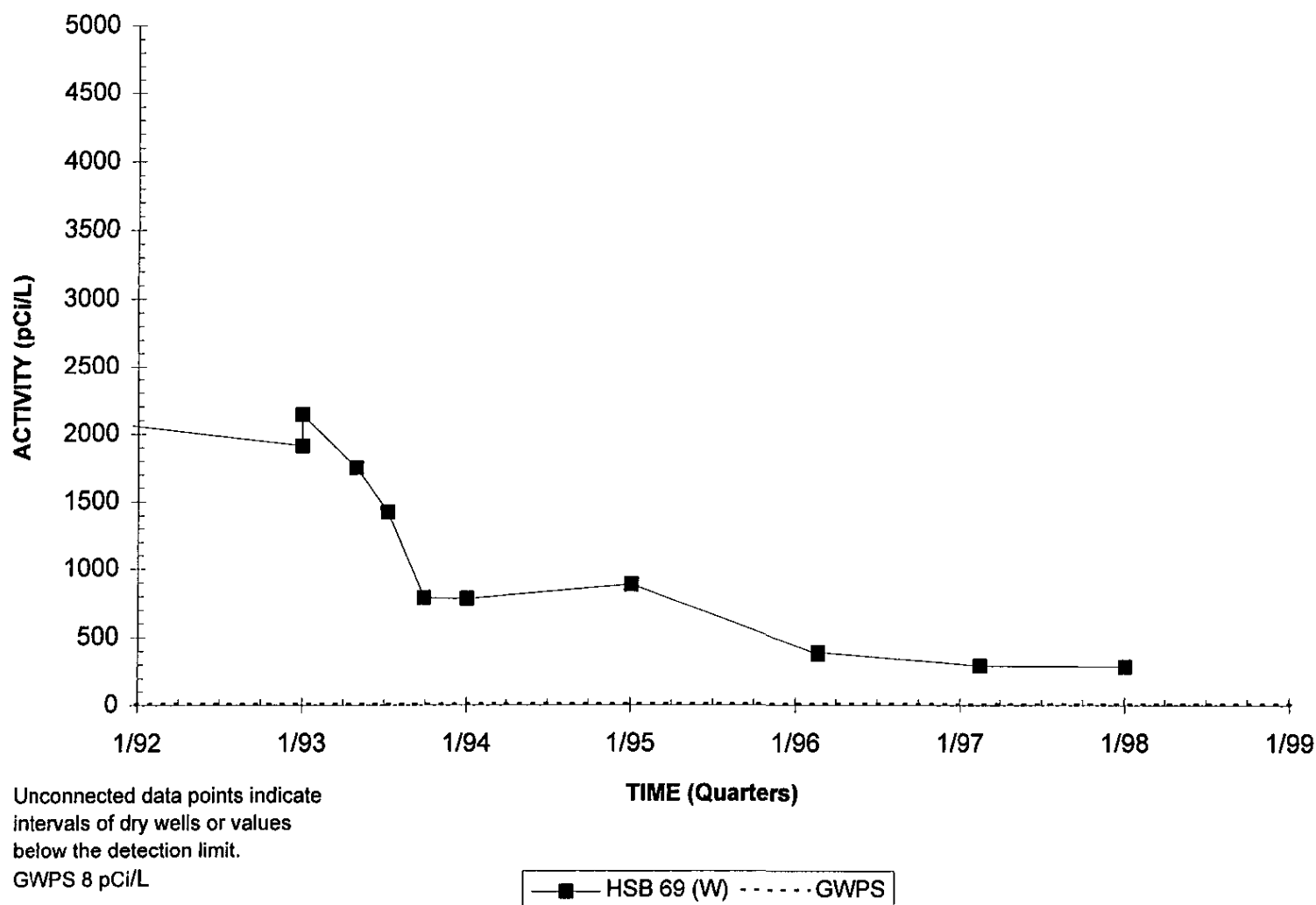
Iodine-129 Activities Well Cluster HSB145



—■— HSB145D (W) —▲— HSB145C (B) Sum of alphas < 50 pCi/L

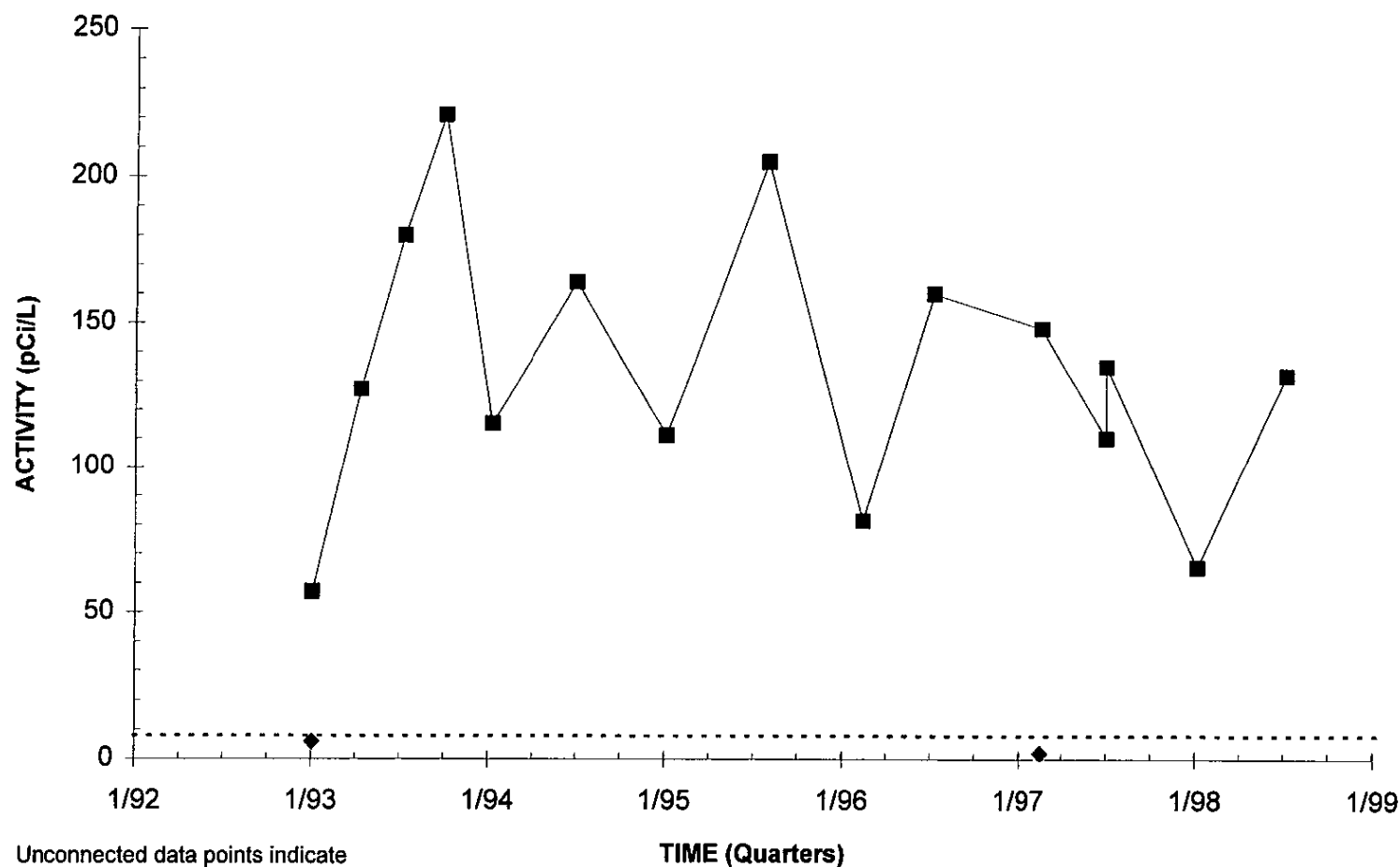
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well HSB 69



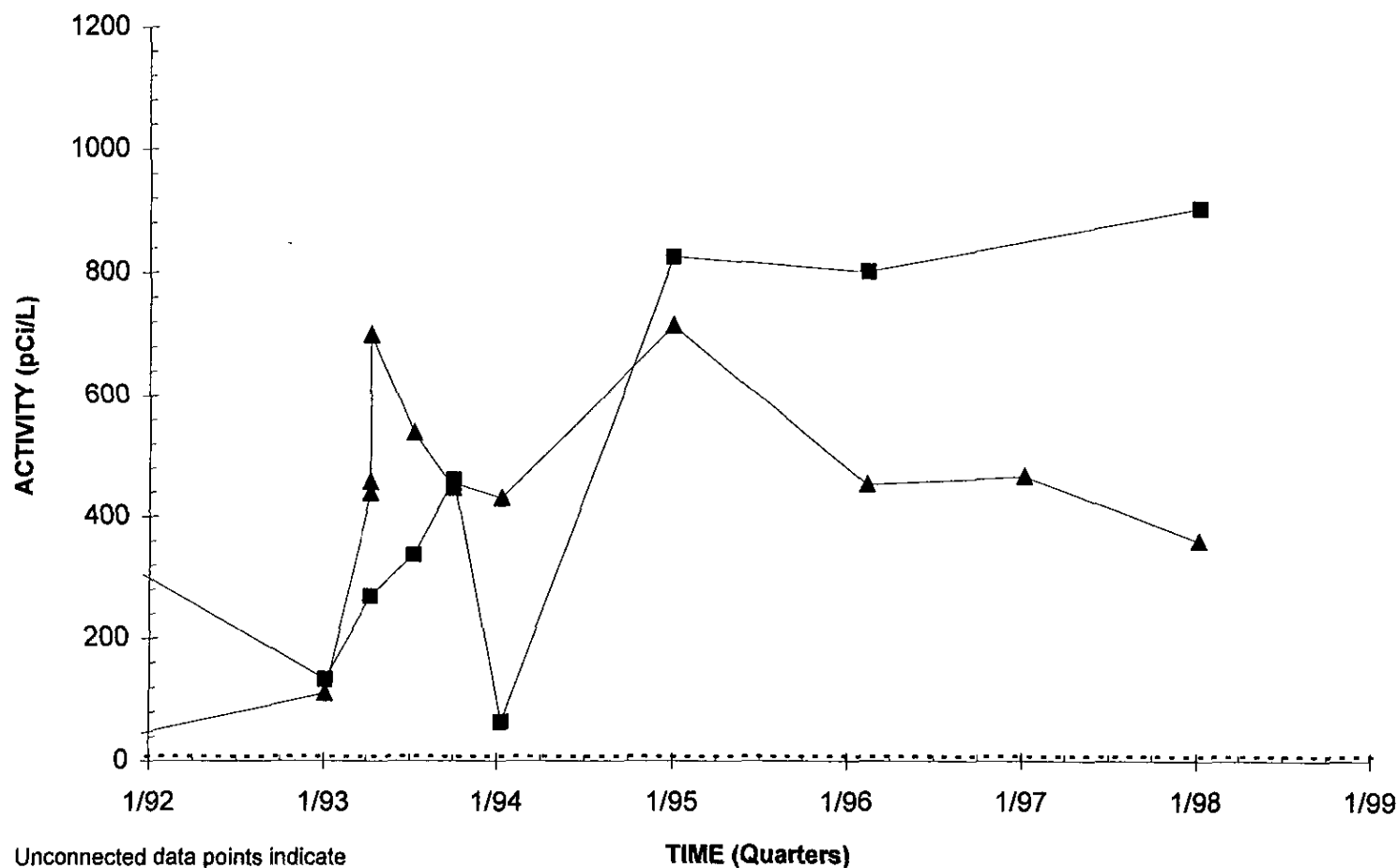
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well Cluster HSB 84



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well Cluster HSB 86



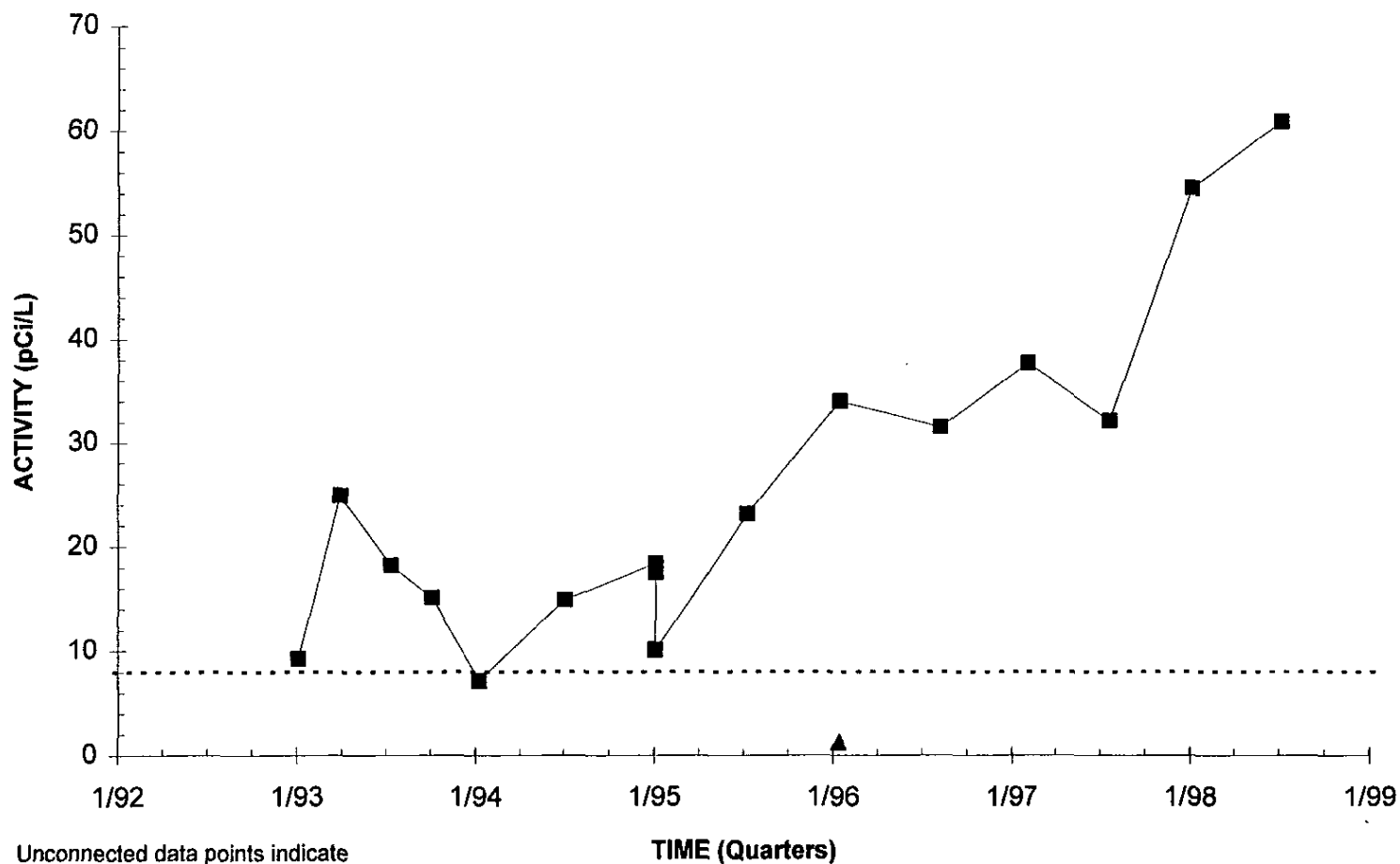
Unconnected data points indicate
intervals of dry wells or values
below the detection limit.

GWPS 8 pCi/L

■ HSB 86D (W) ▲ HSB 86C (B) ◆ HSB 86B (M) - - - - GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well Cluster HSB100



Unconnected data points indicate intervals of dry wells or values below the detection limit.
GWPS 8 pCi/L

■ HSB100D (W) ▲ HSB100C (B) - - - - GWPS

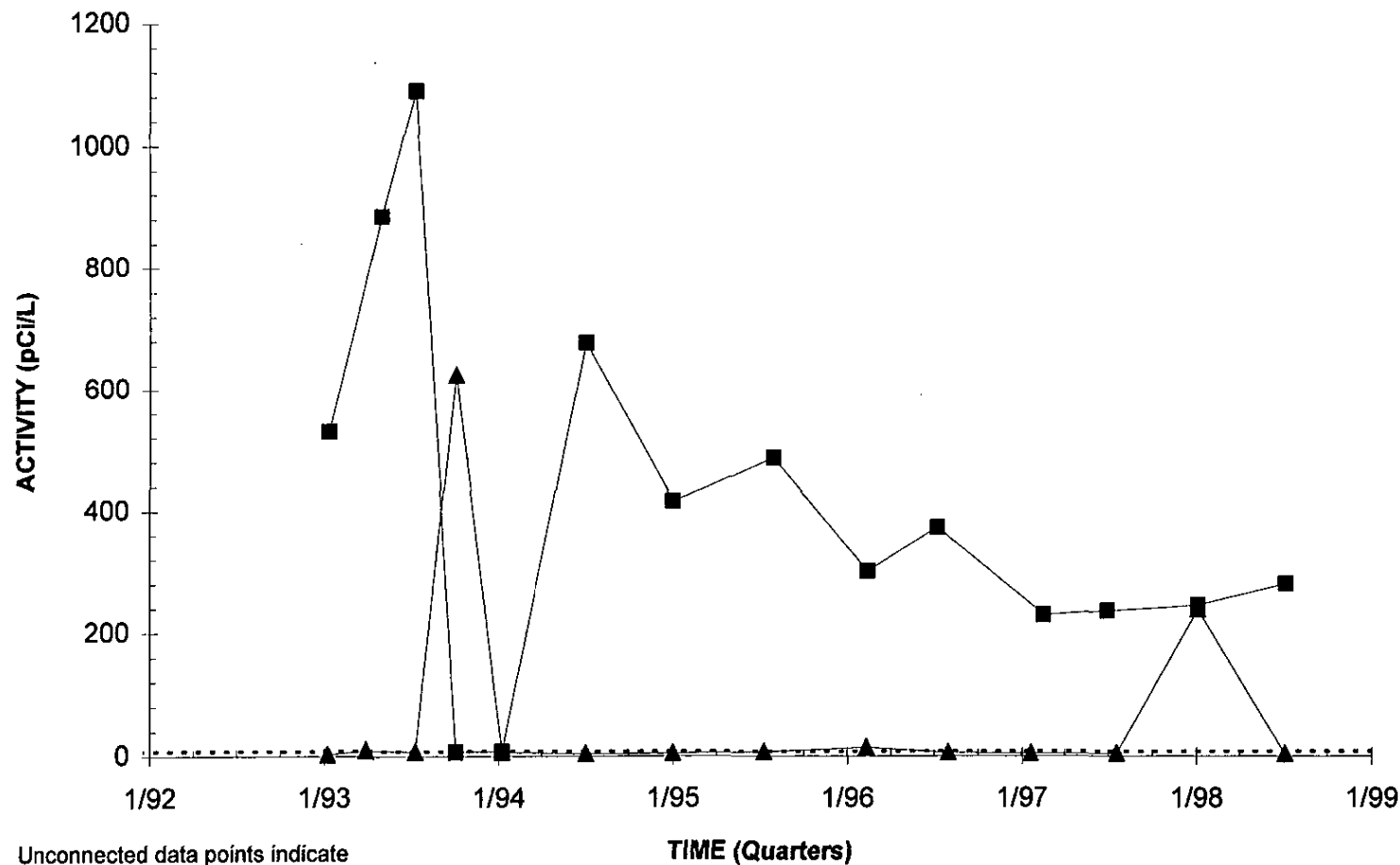
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

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Strontium-90 Activities Well Cluster HSB104



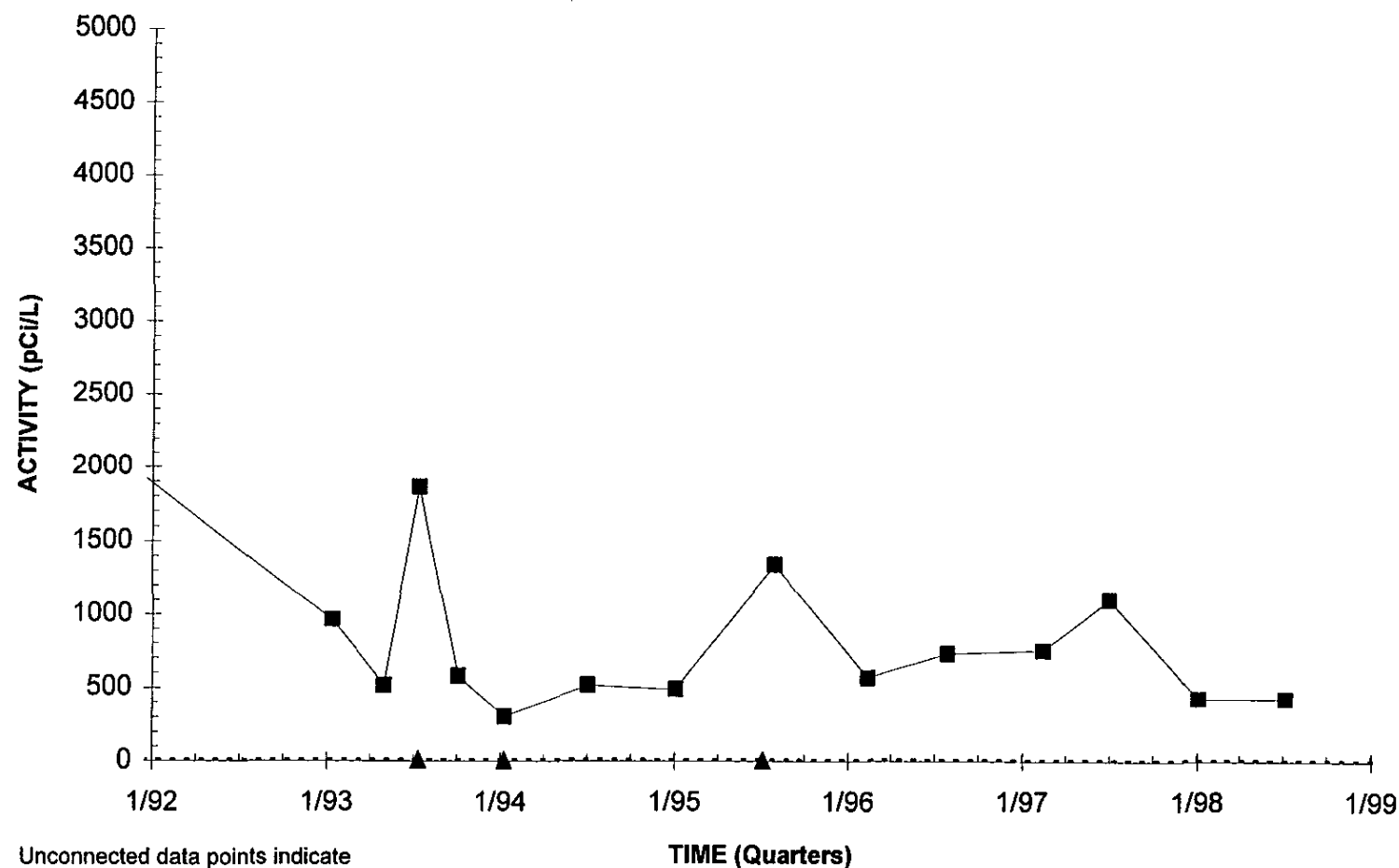
Unconnected data points indicate
intervals of dry wells or values
below the detection limit.

GWPS 8 pCi/L

—■— HSB104D (W) —▲— HSB104C (B) - - - - - GWPS

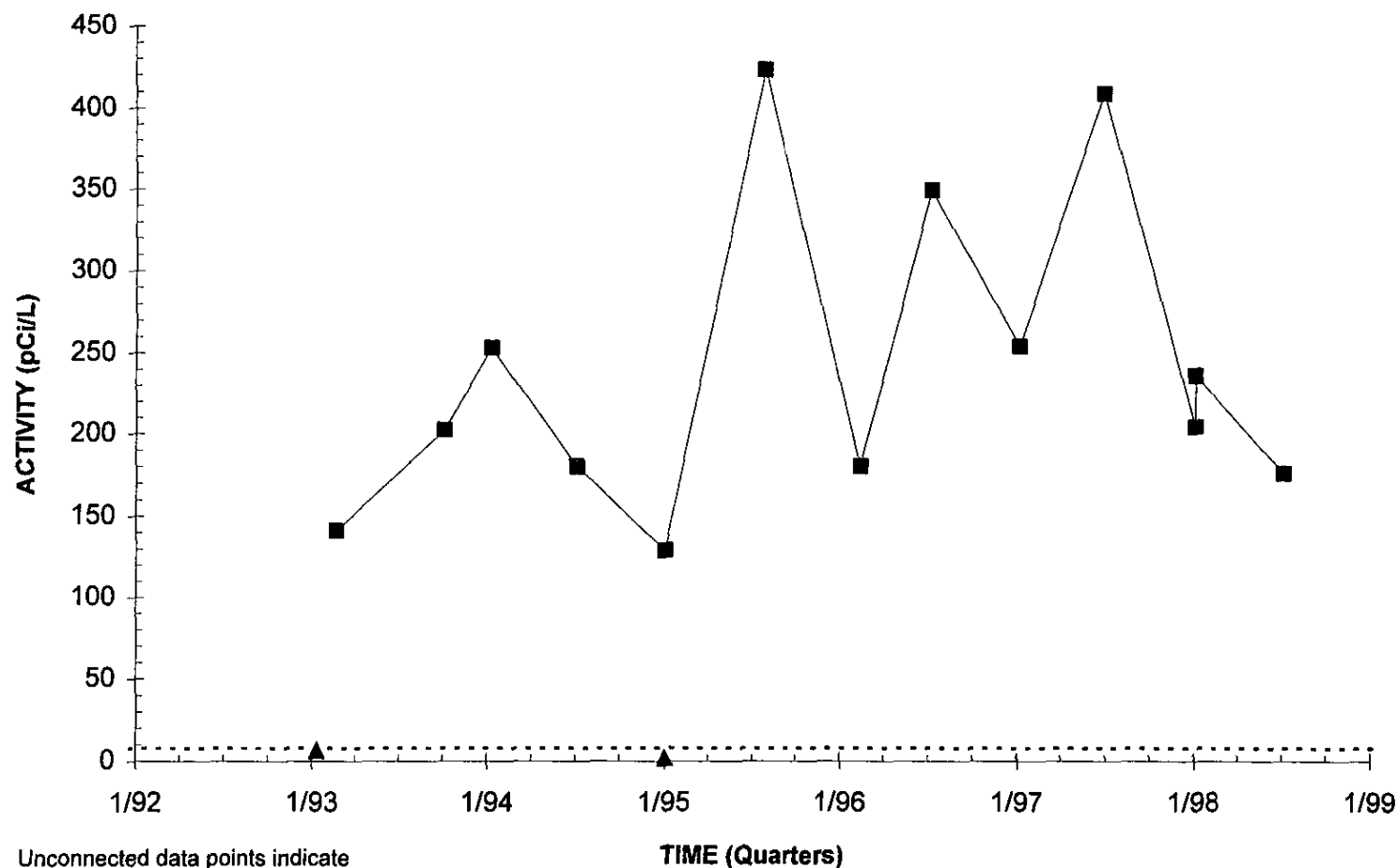
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well Cluster HSB105



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well Cluster HSB106



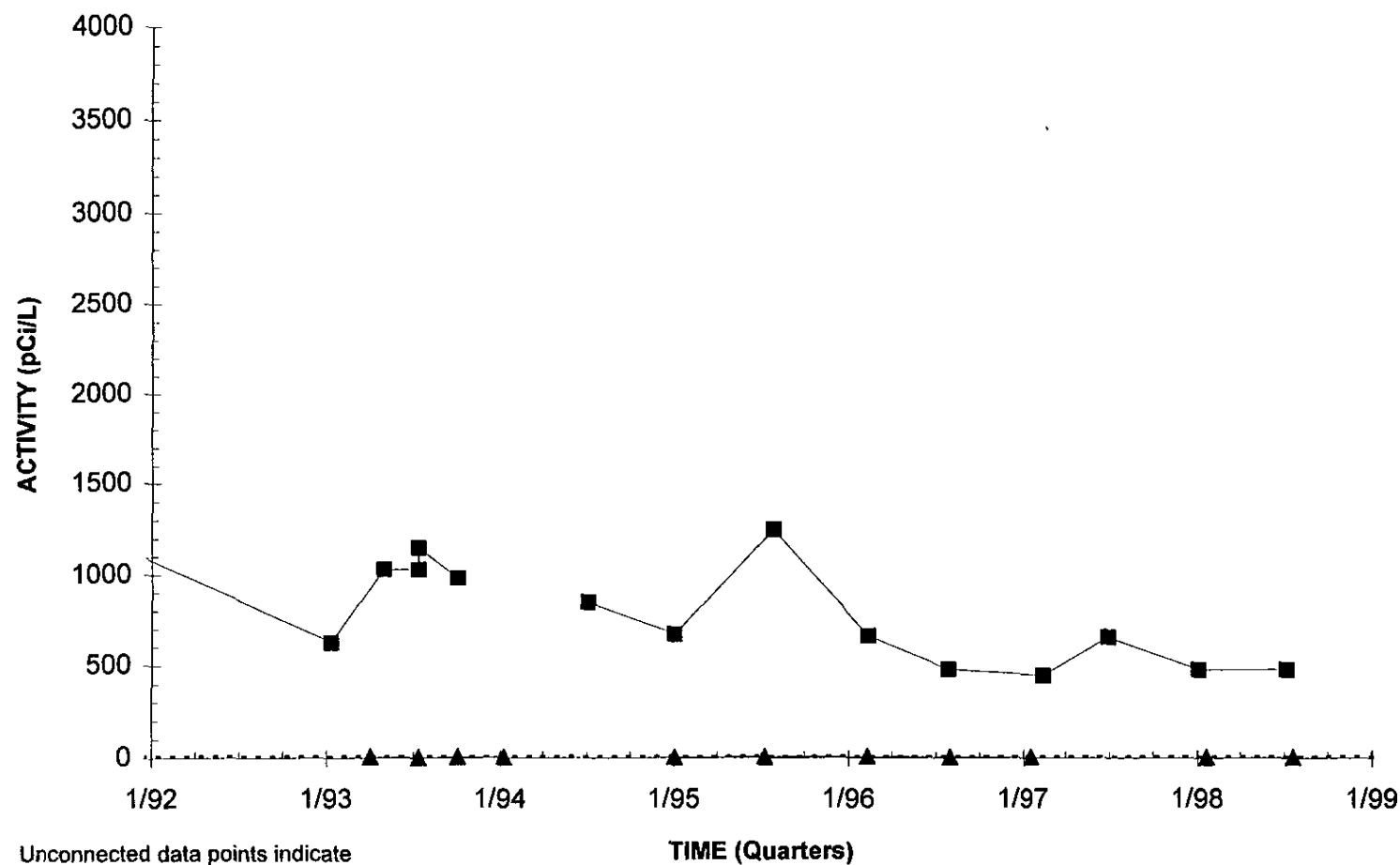
Unconnected data points indicate
intervals of dry wells or values
below the detection limit.

GWPS 8 pCi/L

■ HSB106D (W) ▲ HSB106C (B) GWPS

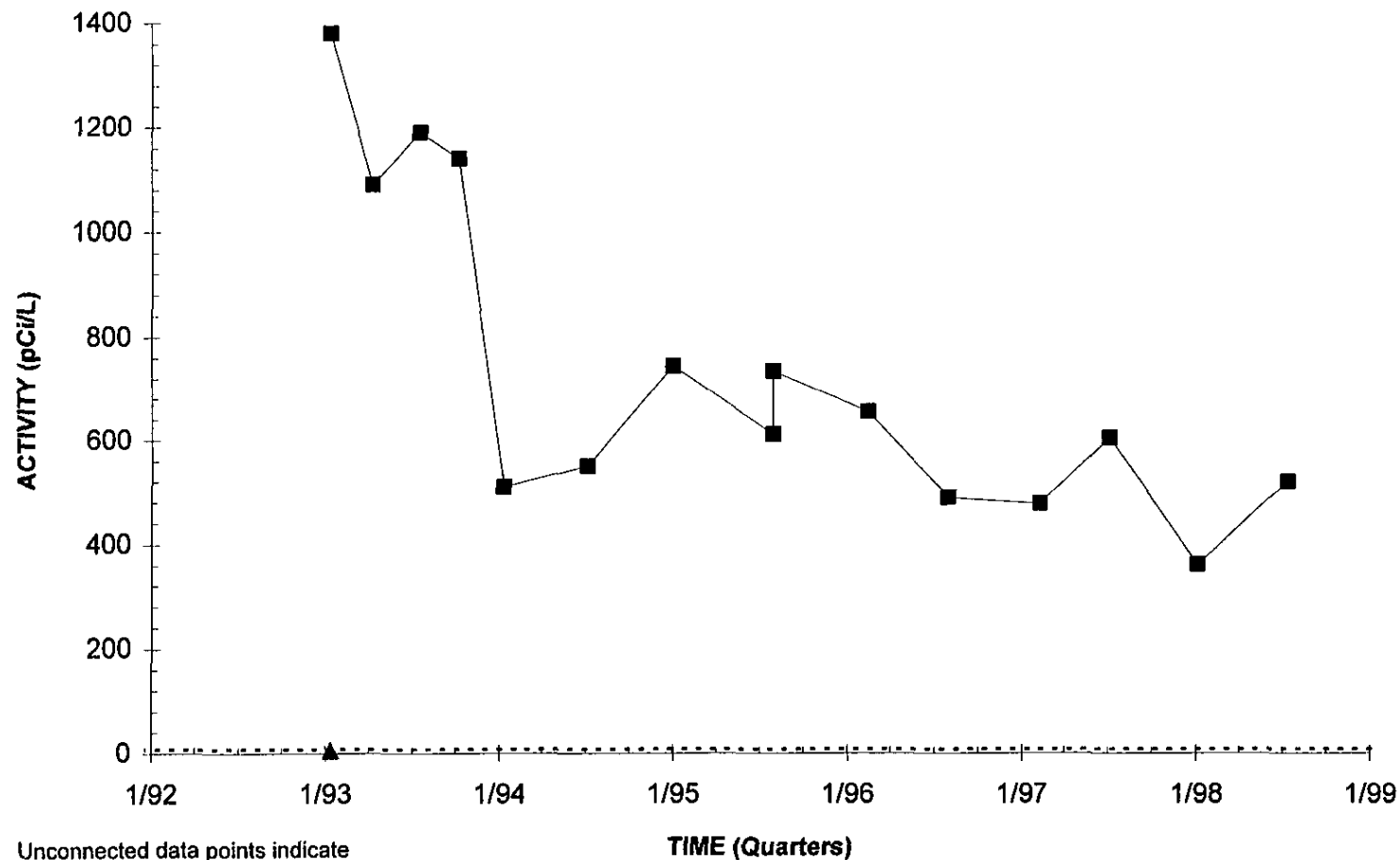
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well Cluster HSB107



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well Cluster HSB113



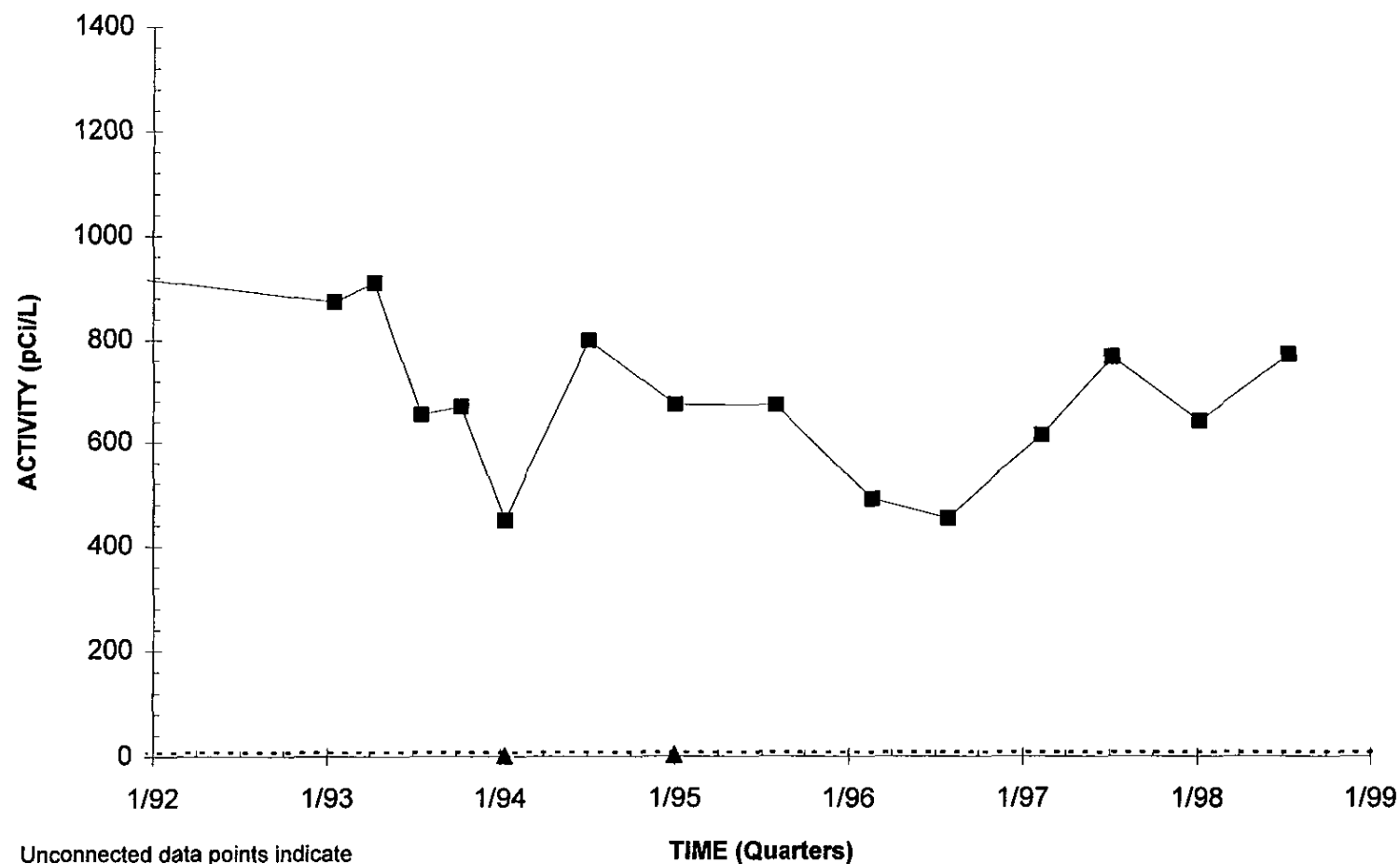
Unconnected data points indicate
intervals of dry wells or values
below the detection limit.

GWPS 8 pCi/L

—■— HSB113D (W) —▲— HSB113C (B)GWPS

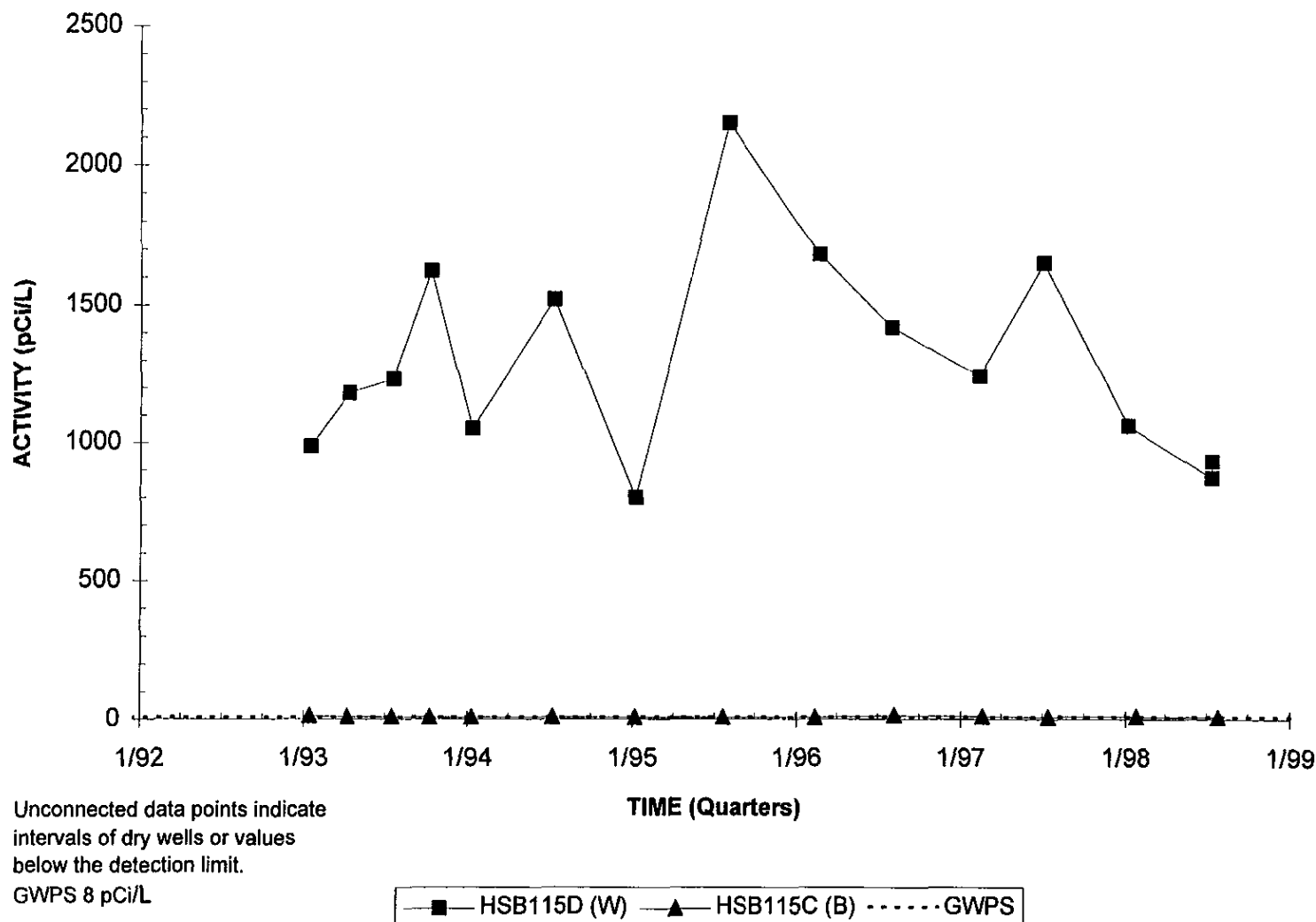
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well Cluster HSB114



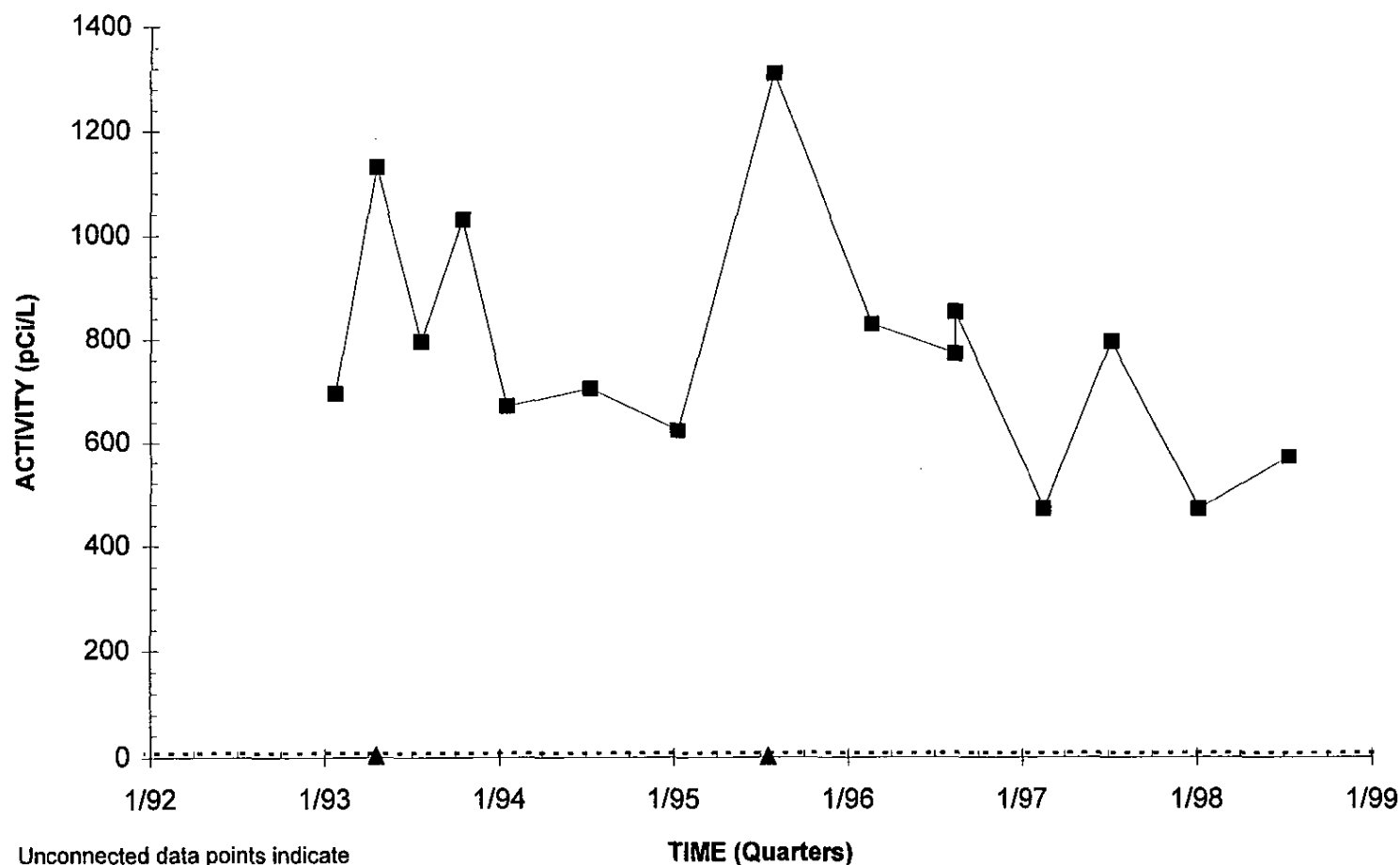
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well Cluster HSB115



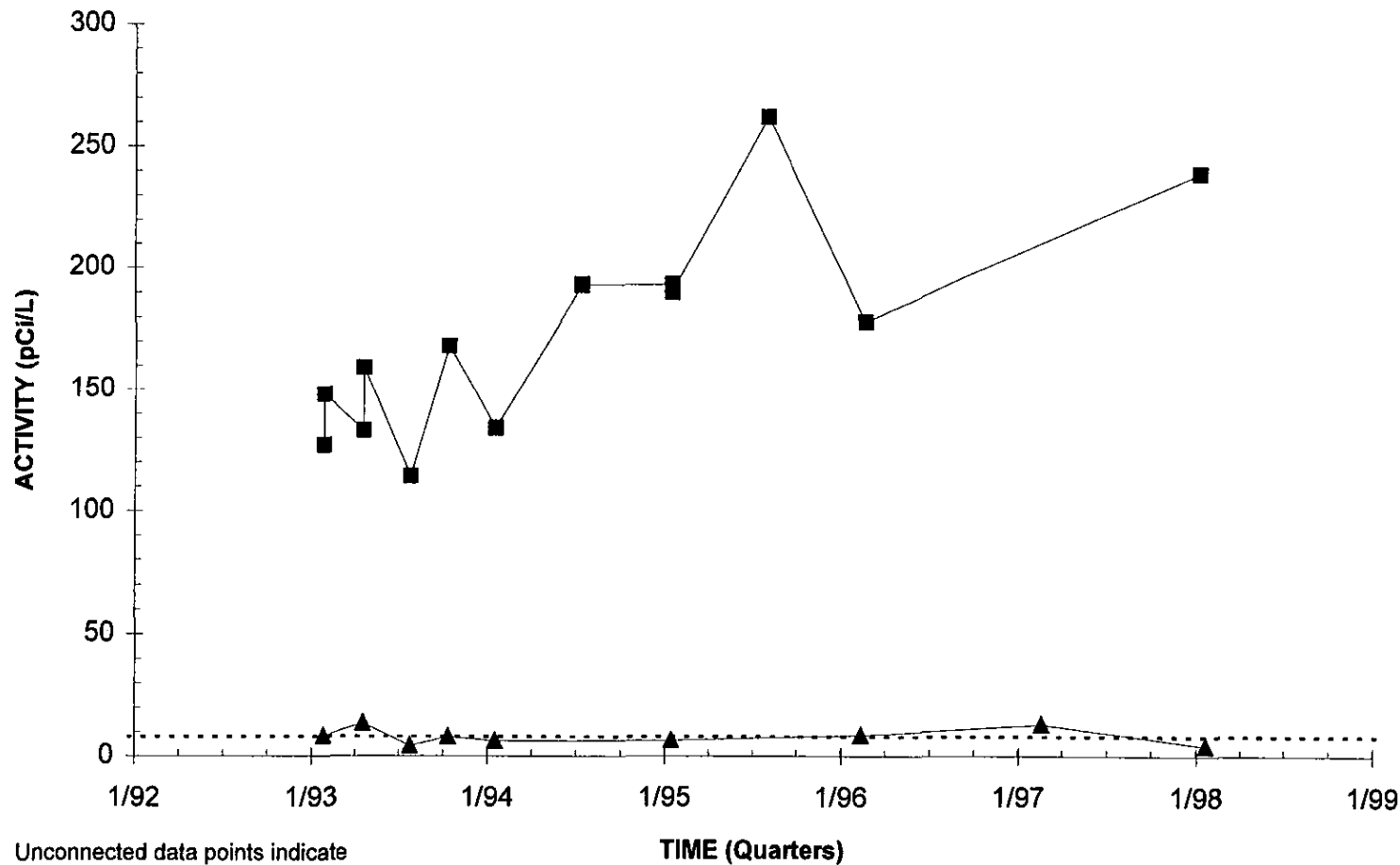
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well Cluster HSB136



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Strontium-90 Activities Well Cluster HSB145



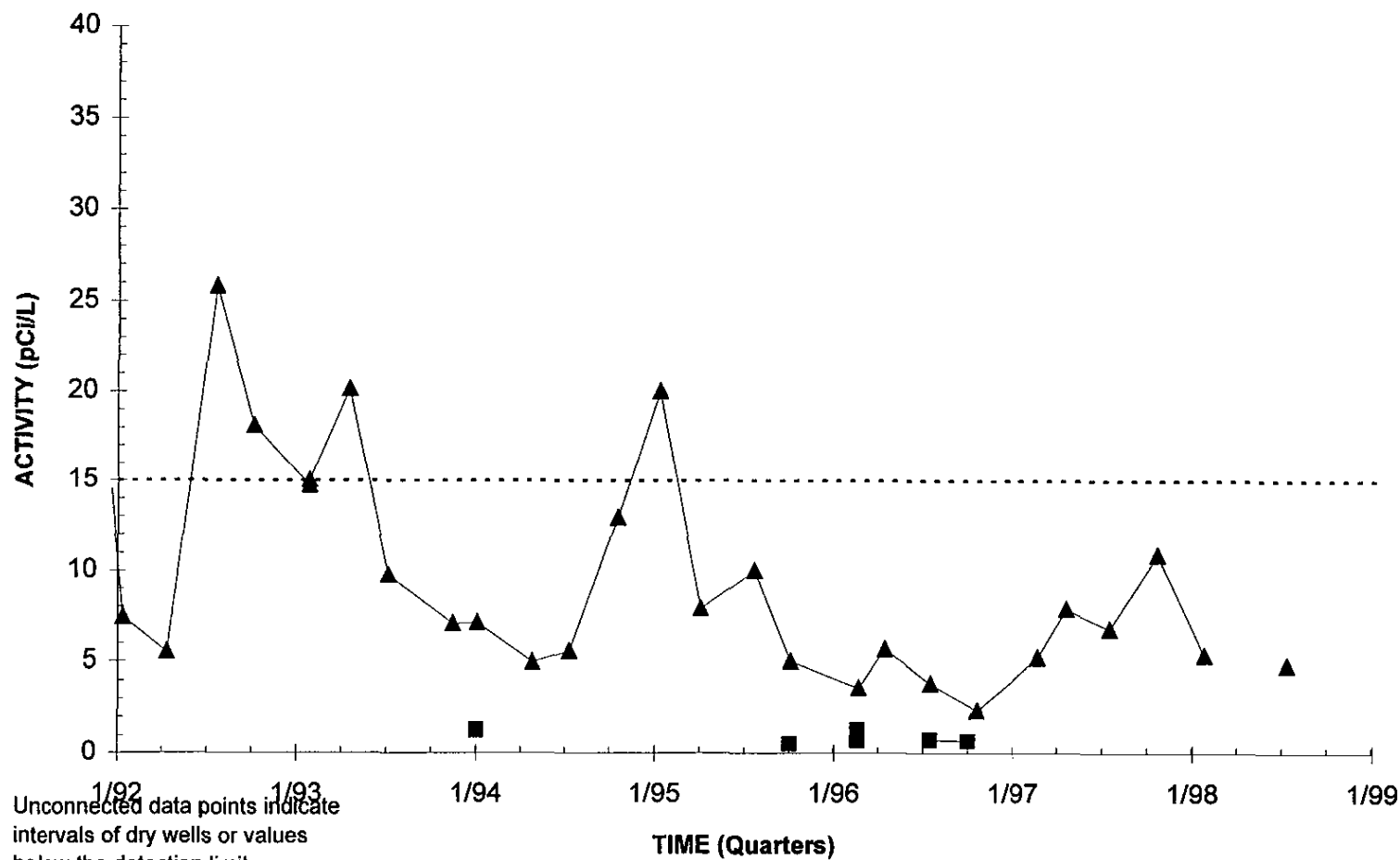
Unconnected data points indicate intervals of dry wells or values below the detection limit.

GWPS 8 pCi/L

—■— HSB145D (W) —▲— HSB145C (B) GWPS

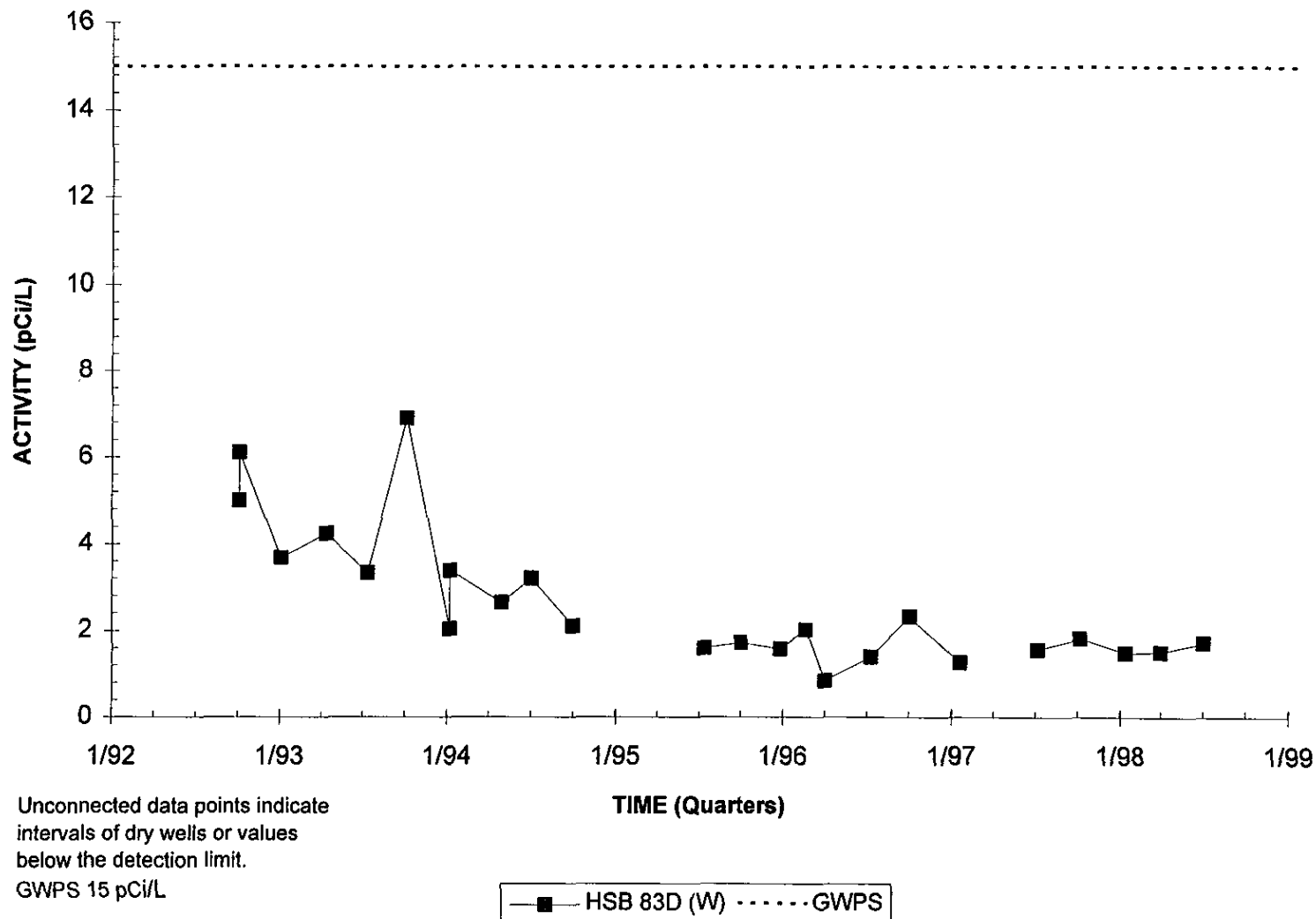
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Gross Alpha Activities Well Cluster HSB 71



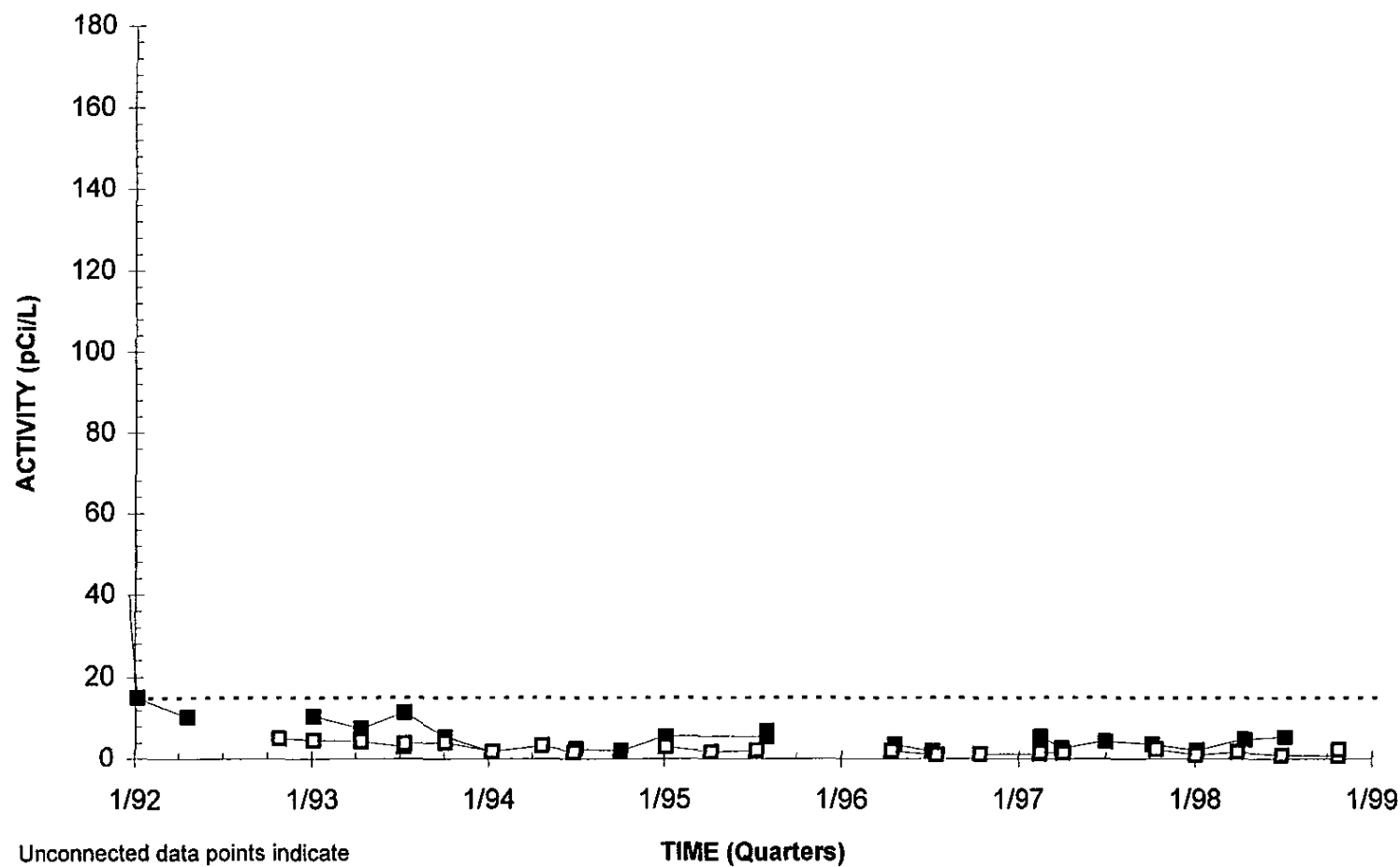
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Gross Alpha Activities Well HSB 83D



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Gross Alpha Activities Well Cluster HSB 84



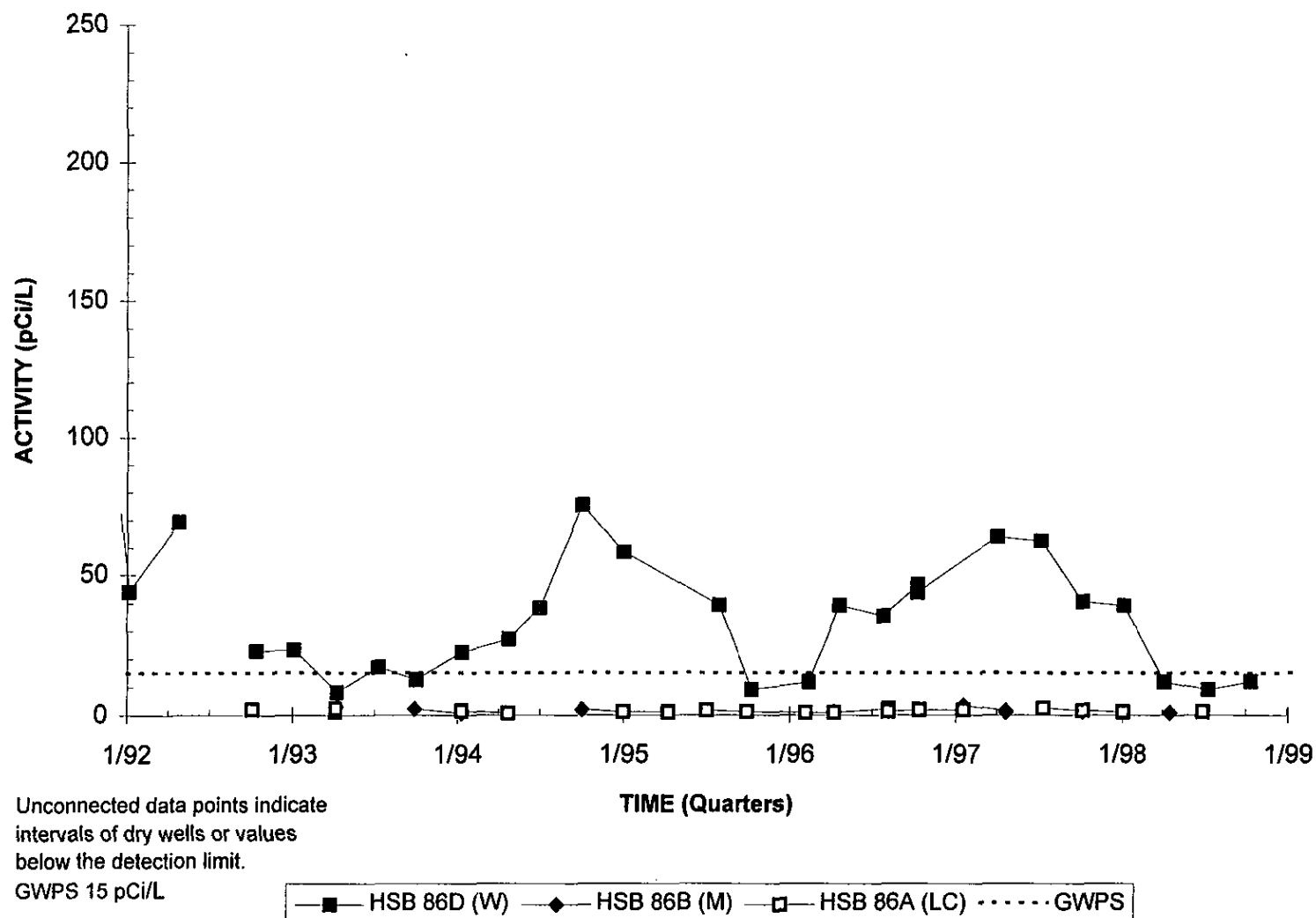
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

D - 70

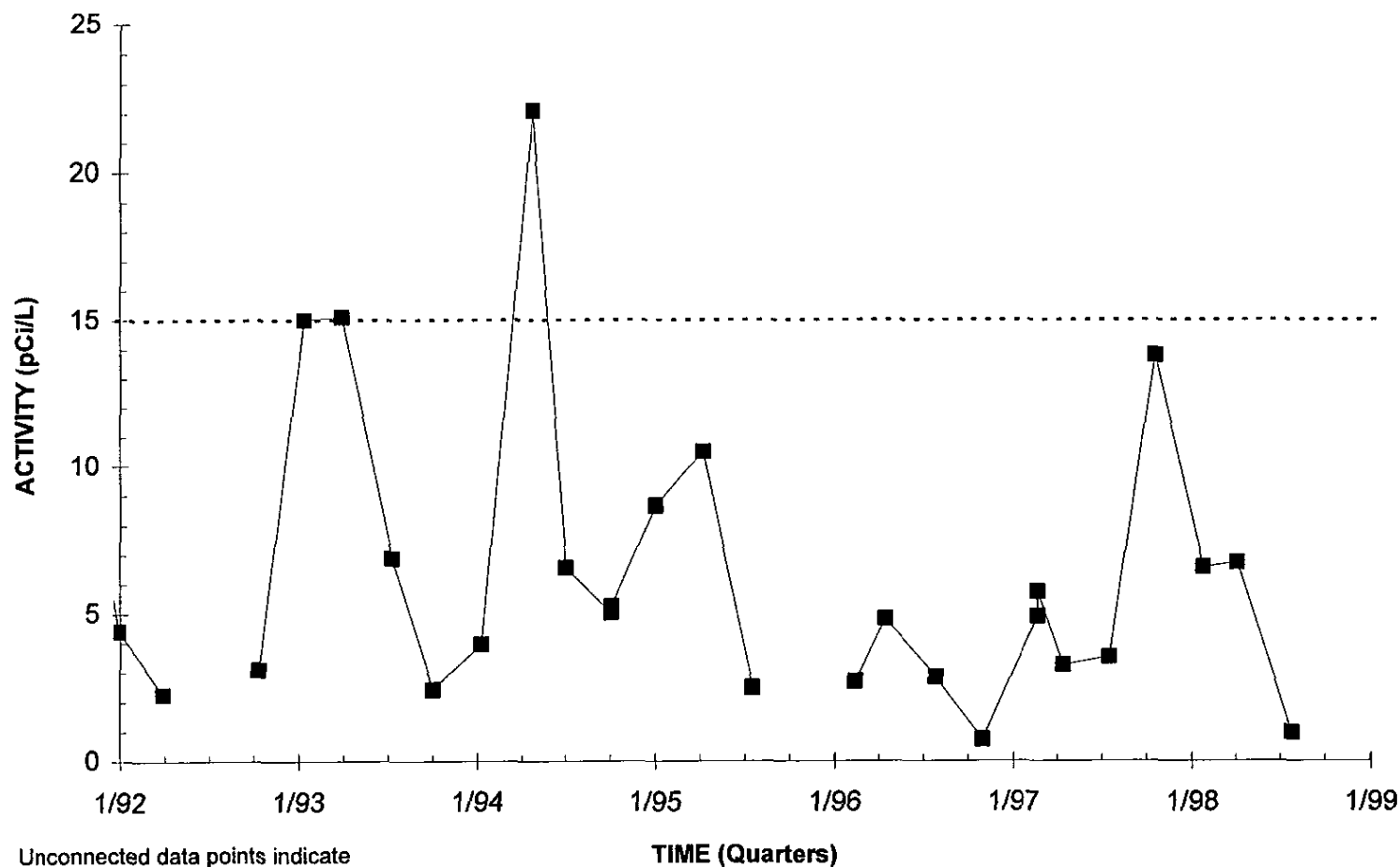
Third and Fourth Quarter 1998

Gross Alpha Activities Well Cluster HSB 86



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Gross Alpha Activities Well HSB101D

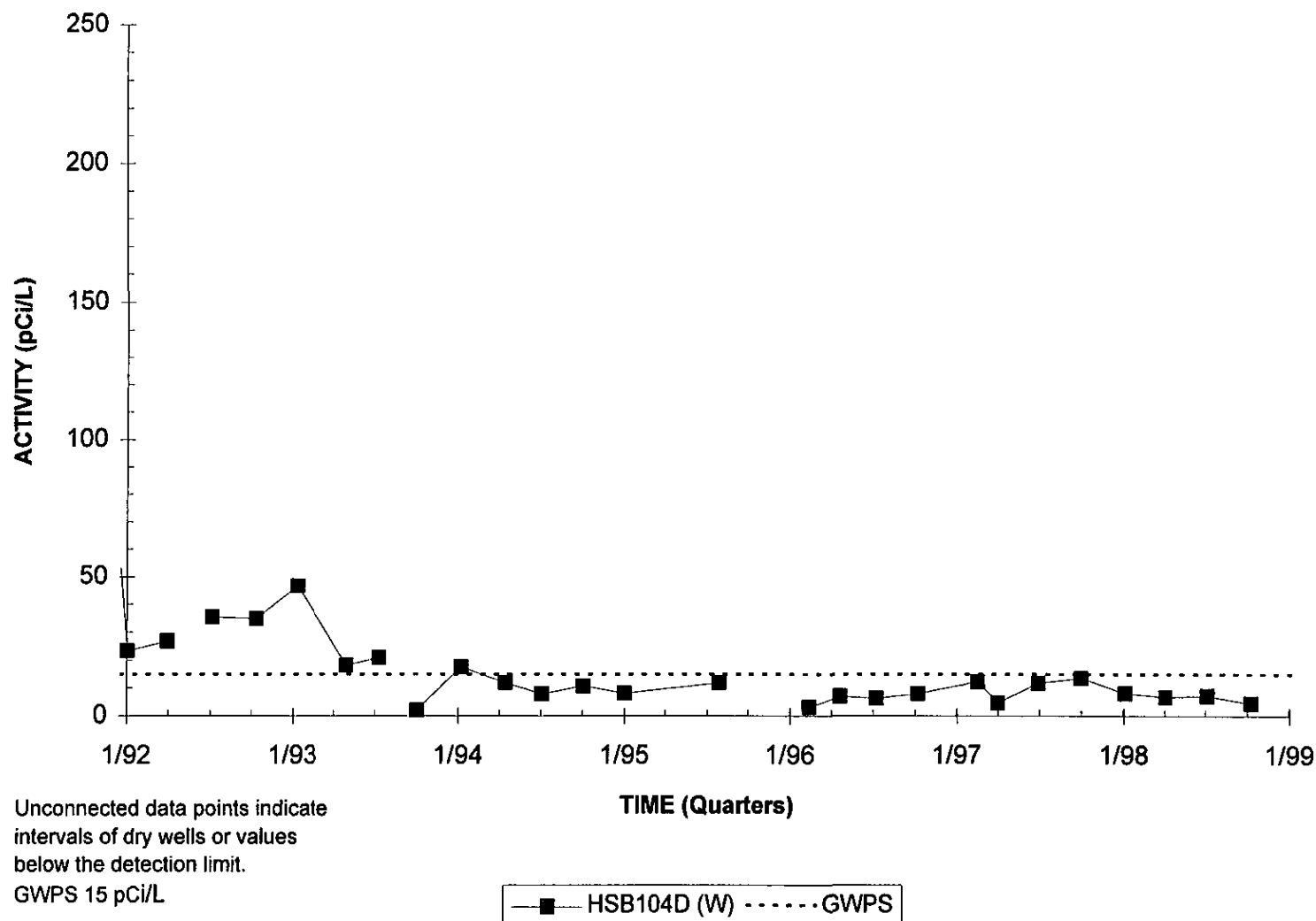


Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 15 pCi/L

—■— HSB101D (W) GWPS

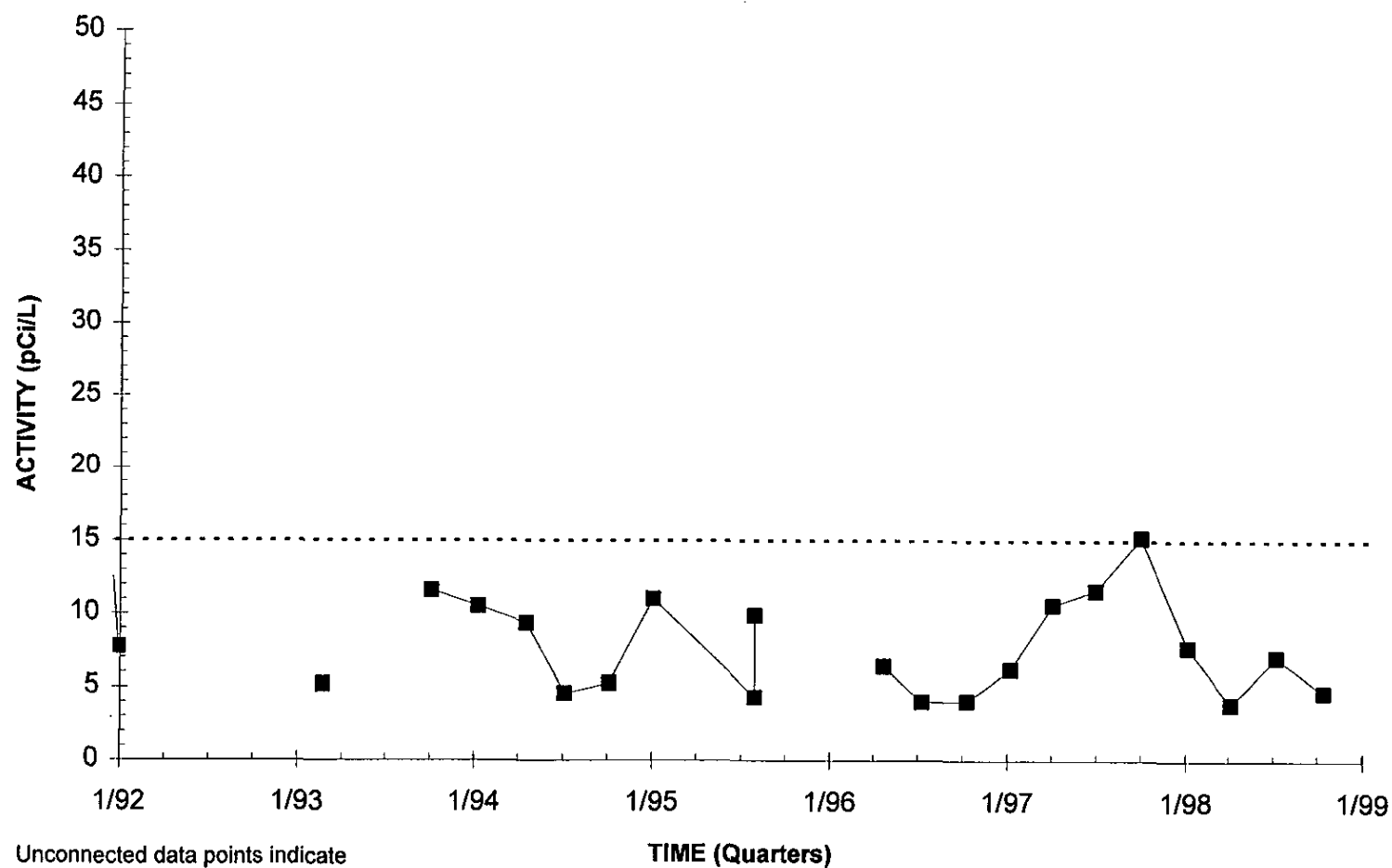
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Gross Alpha Activities Well HSB104D



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Gross Alpha Activities Well HSB106D



Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 15 pCi/L

—■— HSB106D (W) GWPS

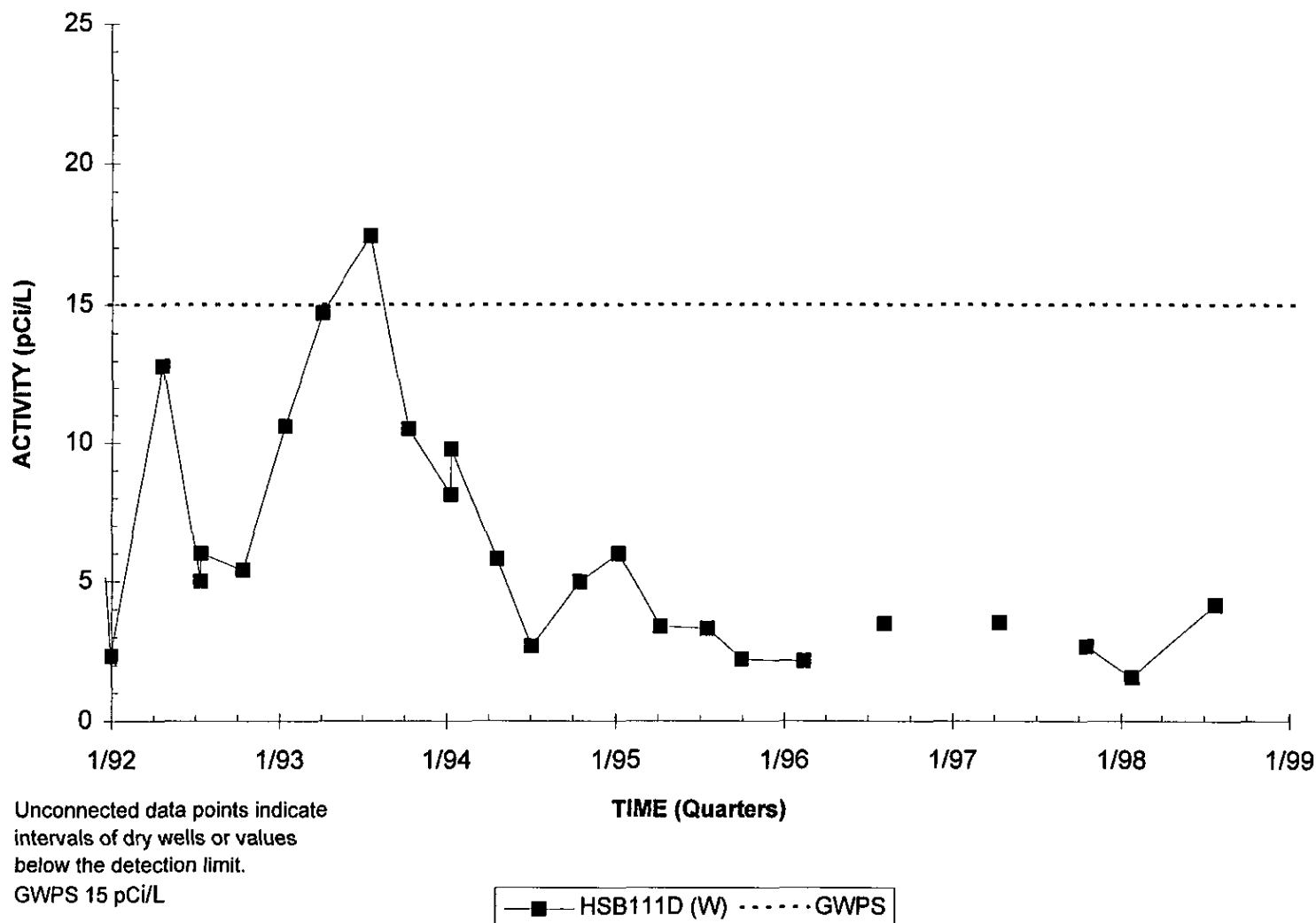
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

D - 74

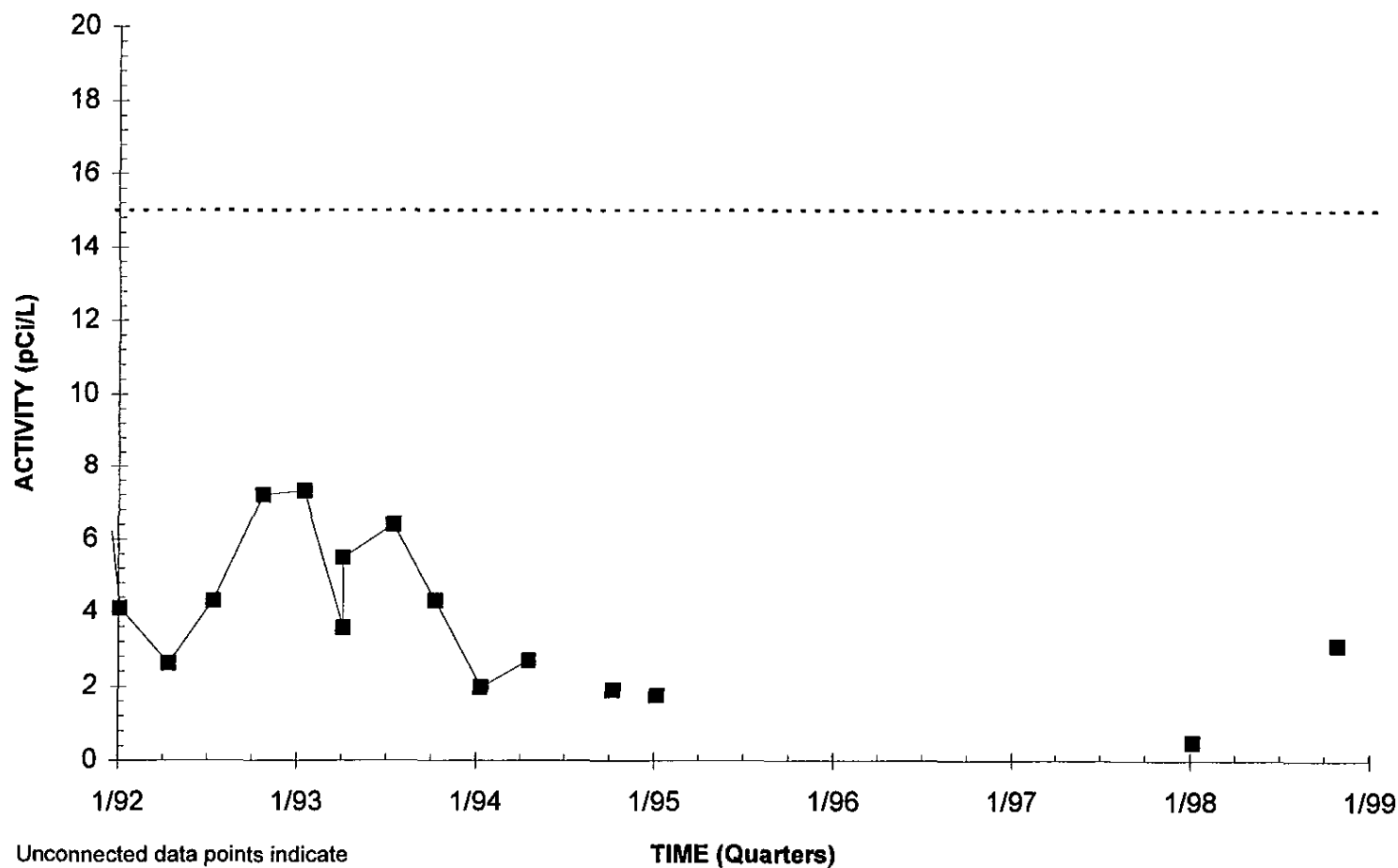
Third and Fourth Quarter 1998

Gross Alpha Activities Well HSB111D



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Gross Alpha Activities Well HSB112D



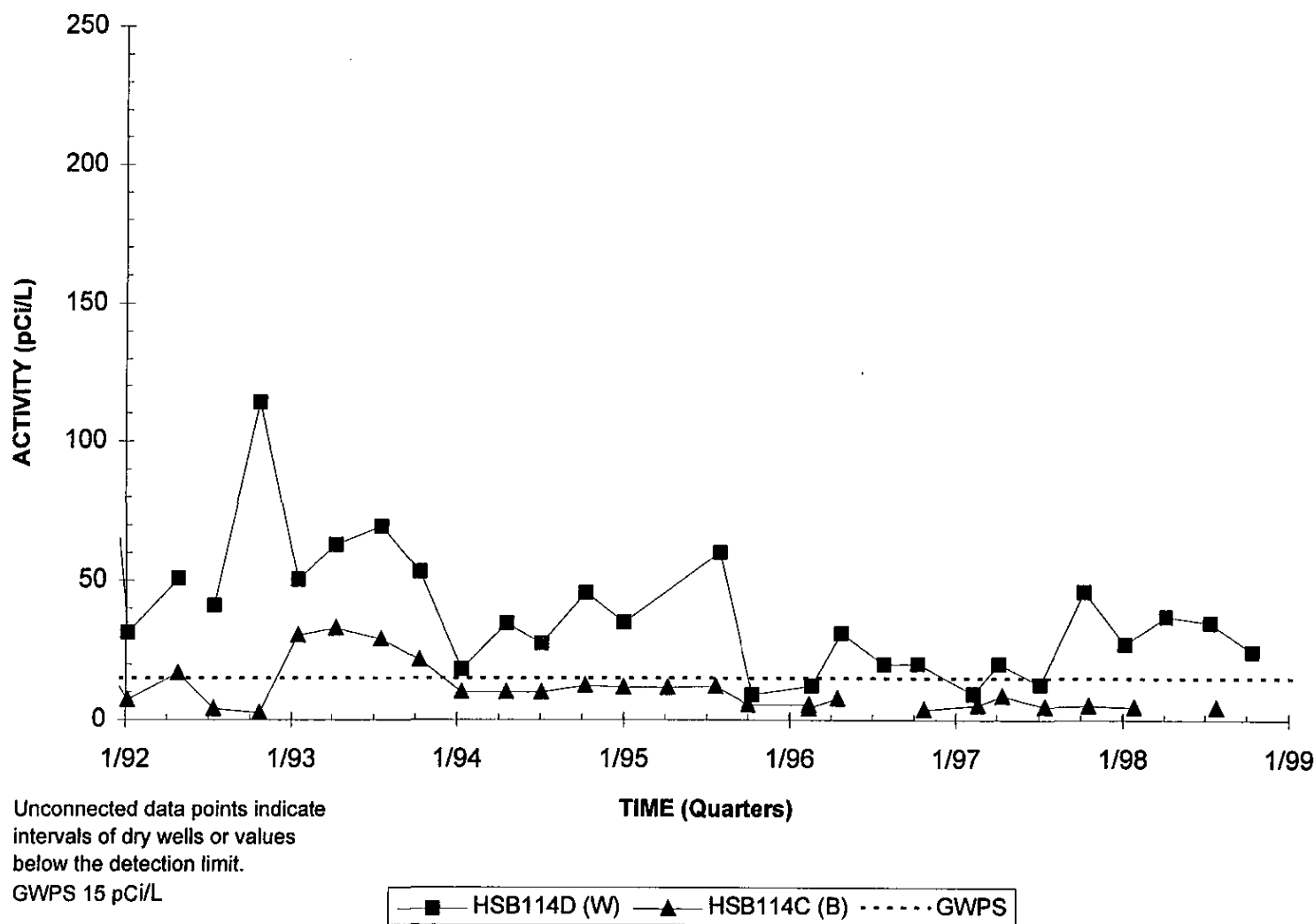
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

D - 76

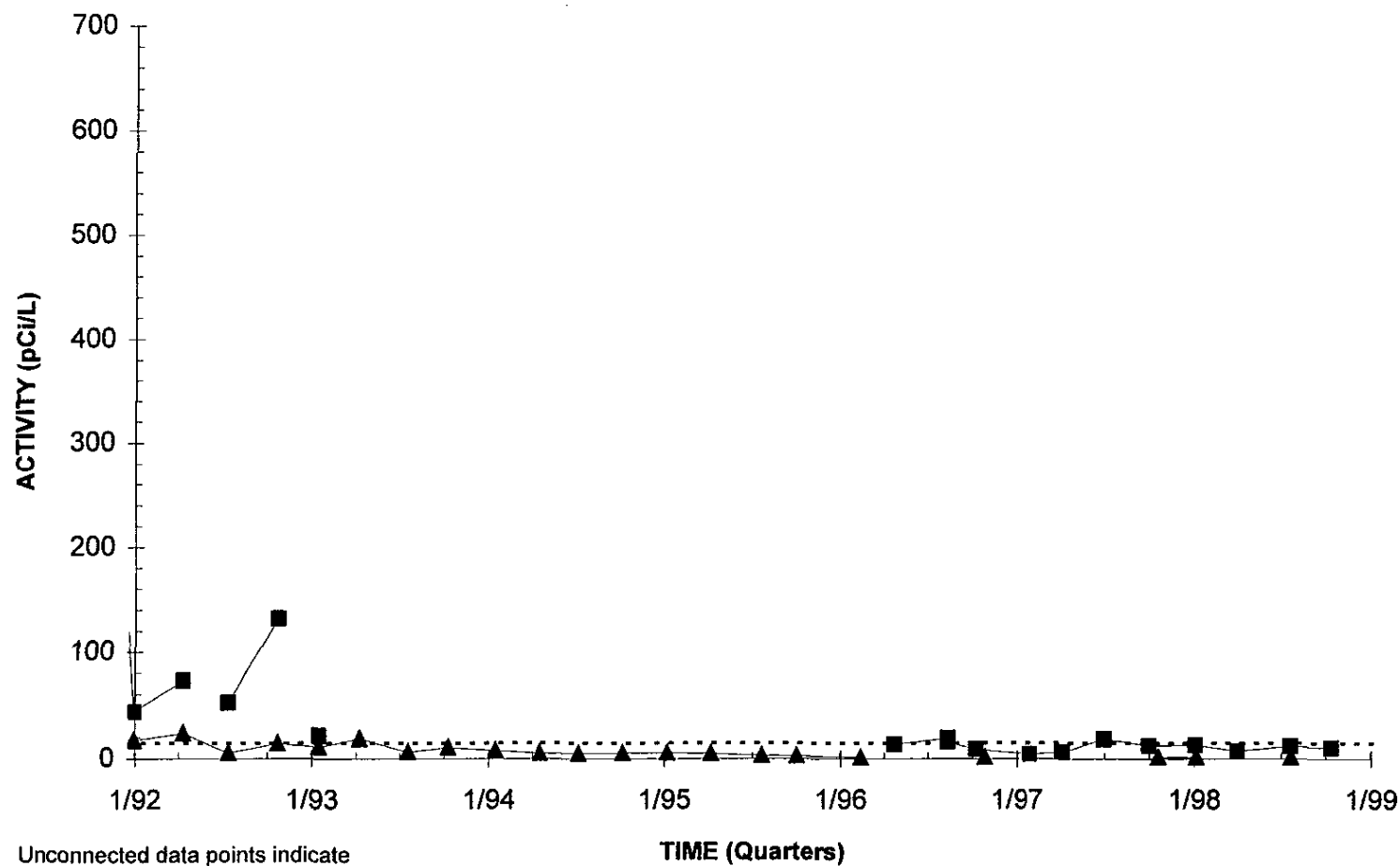
Third and Fourth Quarter 1998

Gross Alpha Activities Well Cluster HSB114



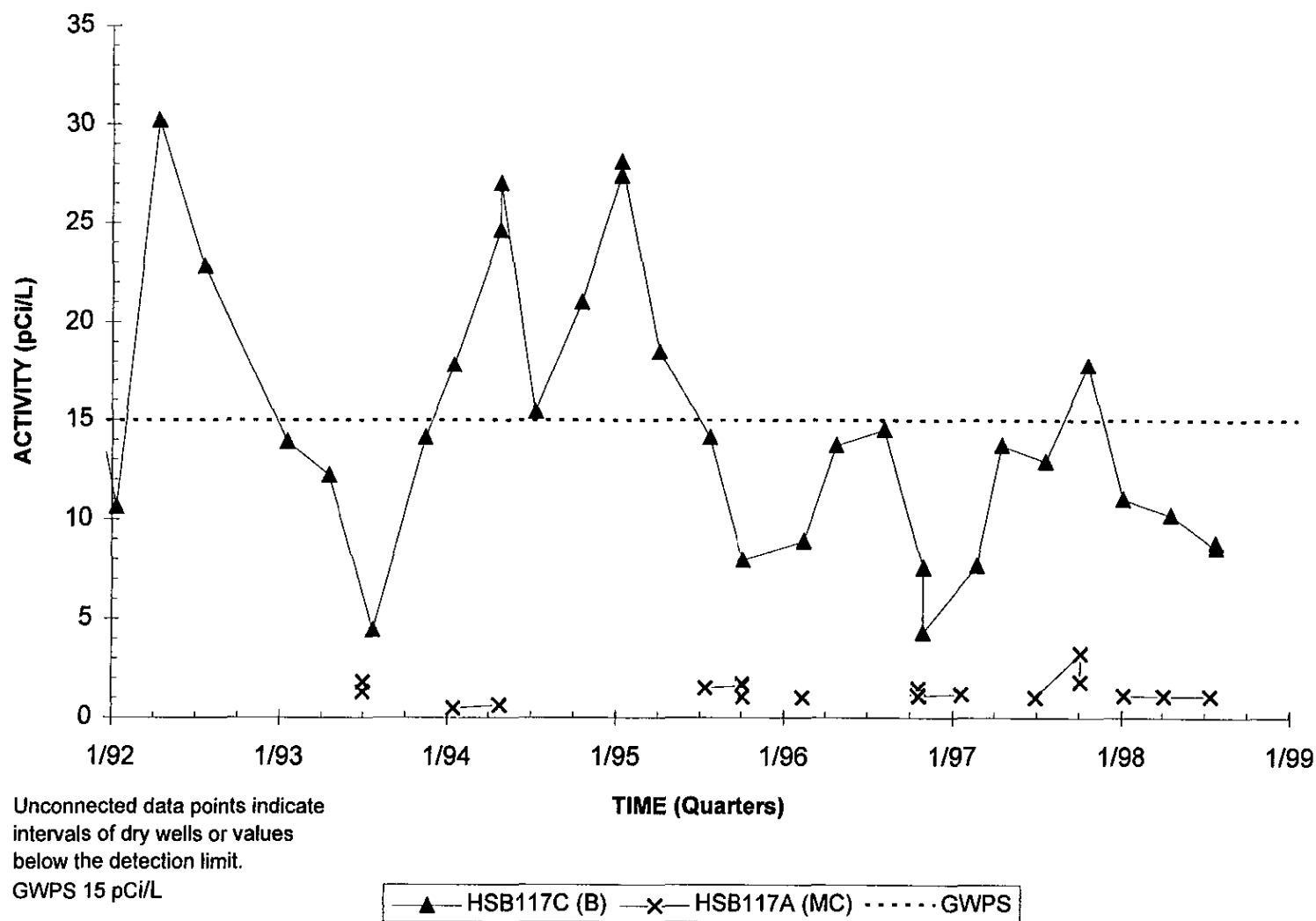
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Gross Alpha Activities Well Cluster HSB116



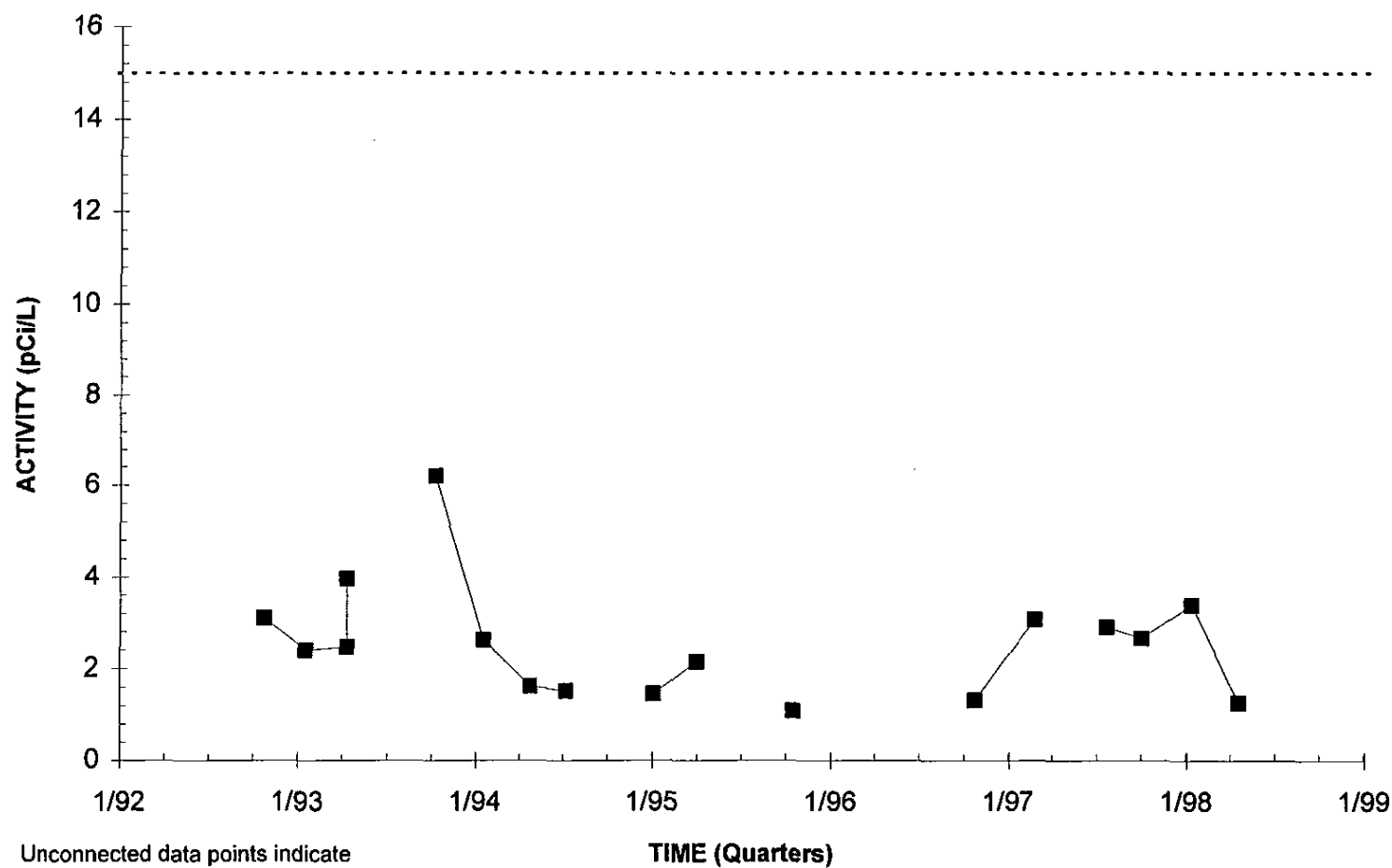
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Gross Alpha Activities Well Cluster HSB117



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Gross Alpha Activities Well HSB125D



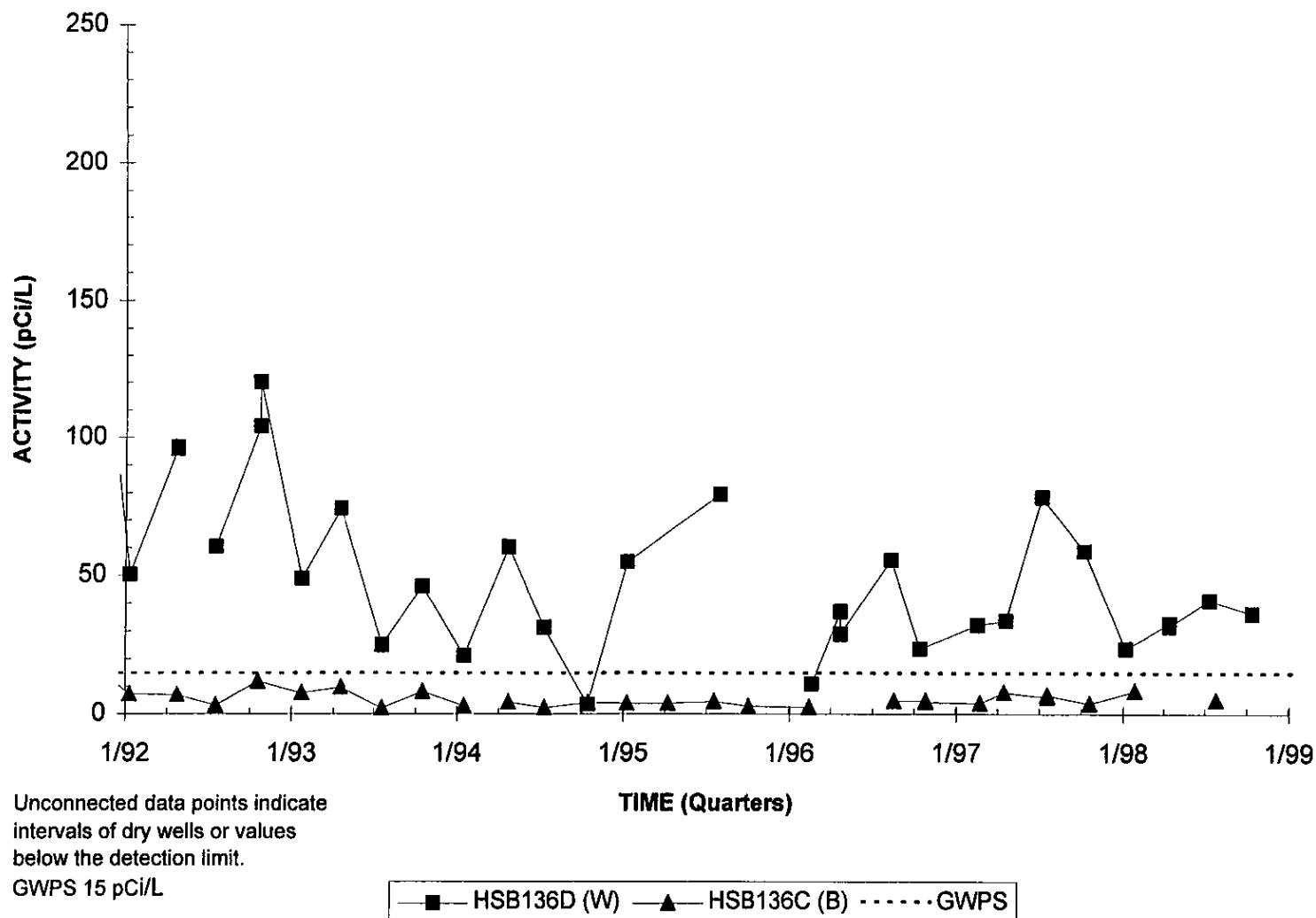
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

D - 80

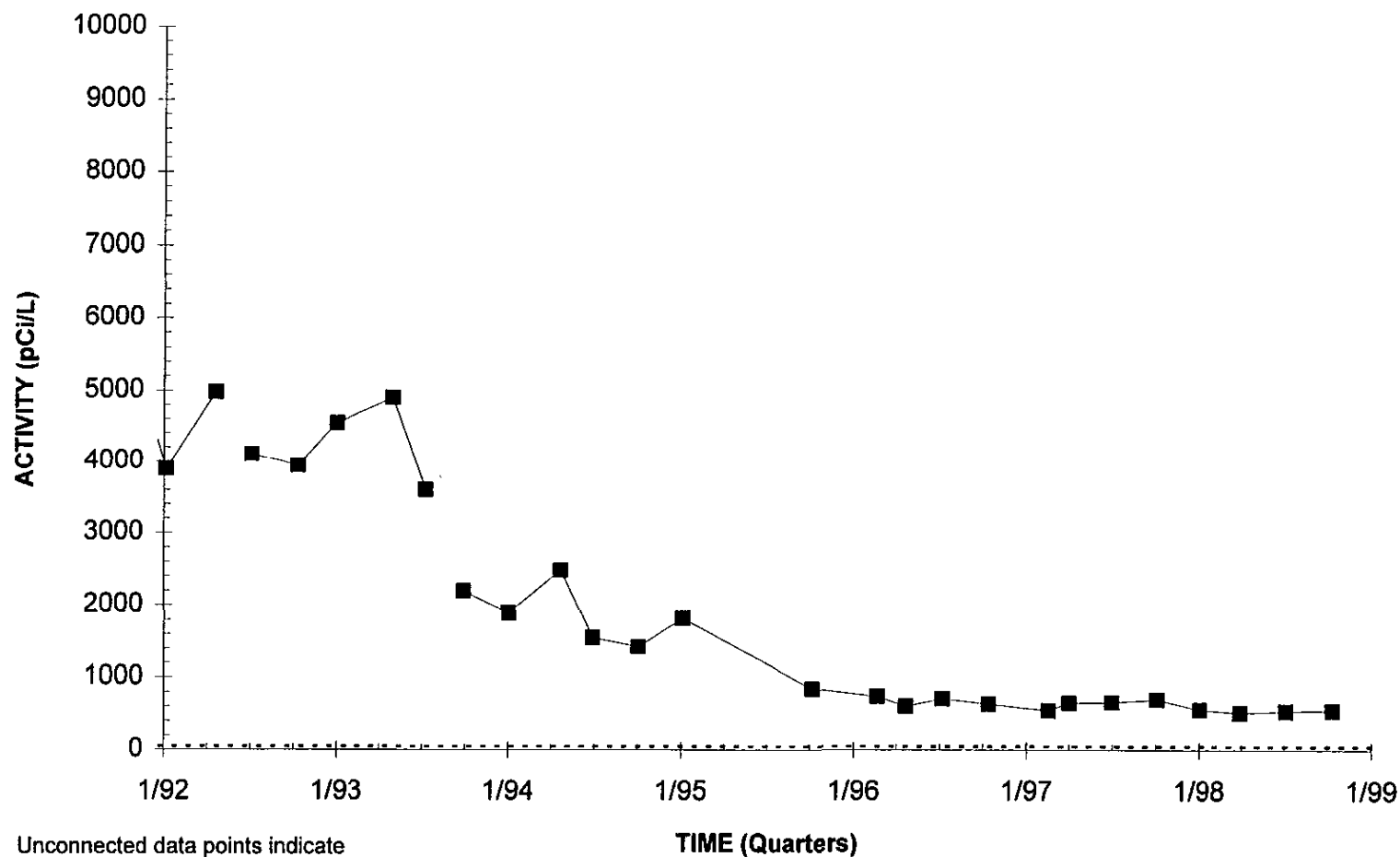
Third and Fourth Quarter 1998

Gross Alpha Activities Well Cluster HSB136



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

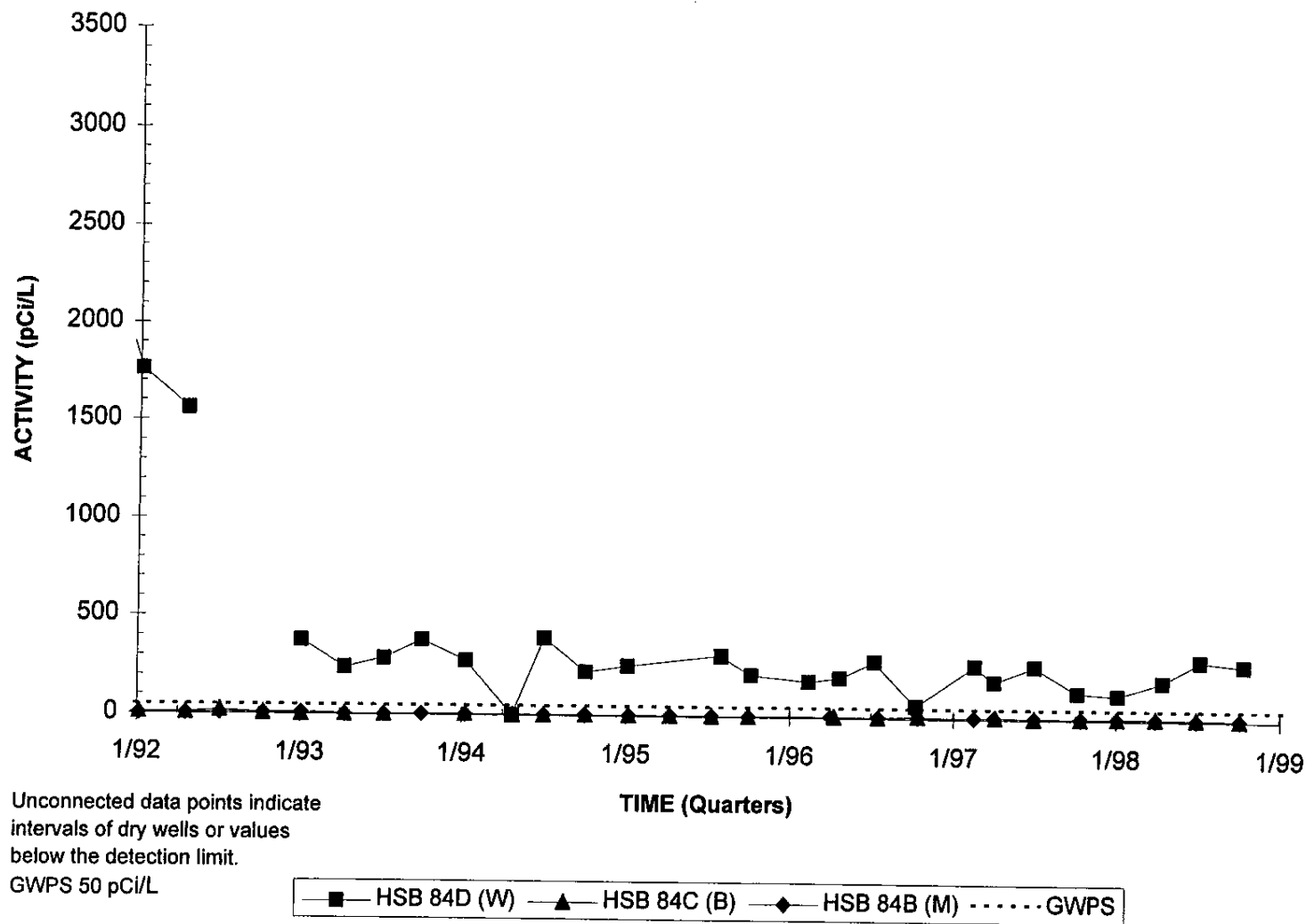
Nonvolatile Beta Activities Well HSB 69



Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 50 pCi/L

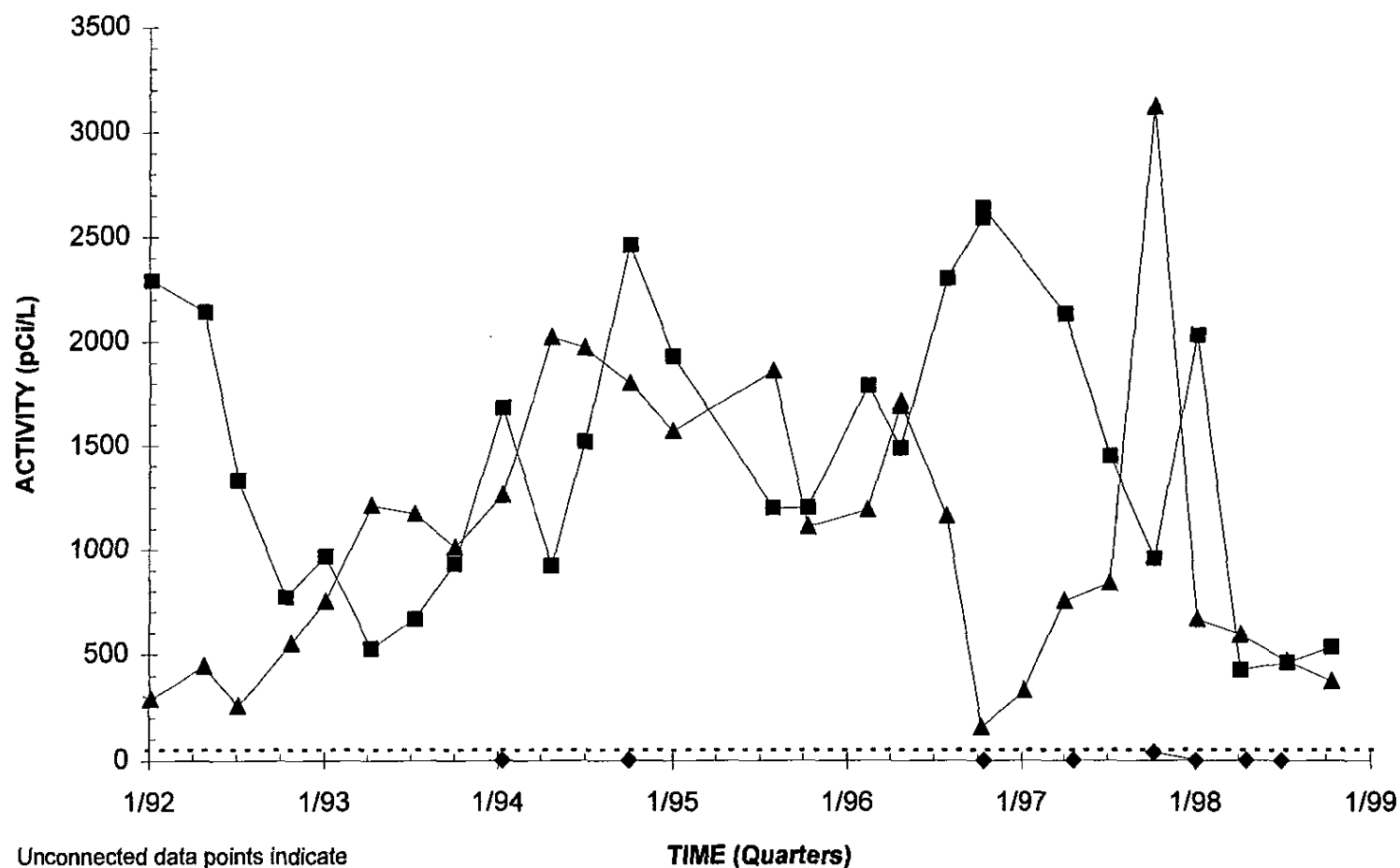
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nonvolatile Beta Activities Well Cluster HSB 84



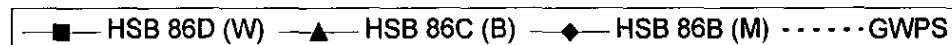
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nonvolatile Beta Activities Well Cluster HSB 86



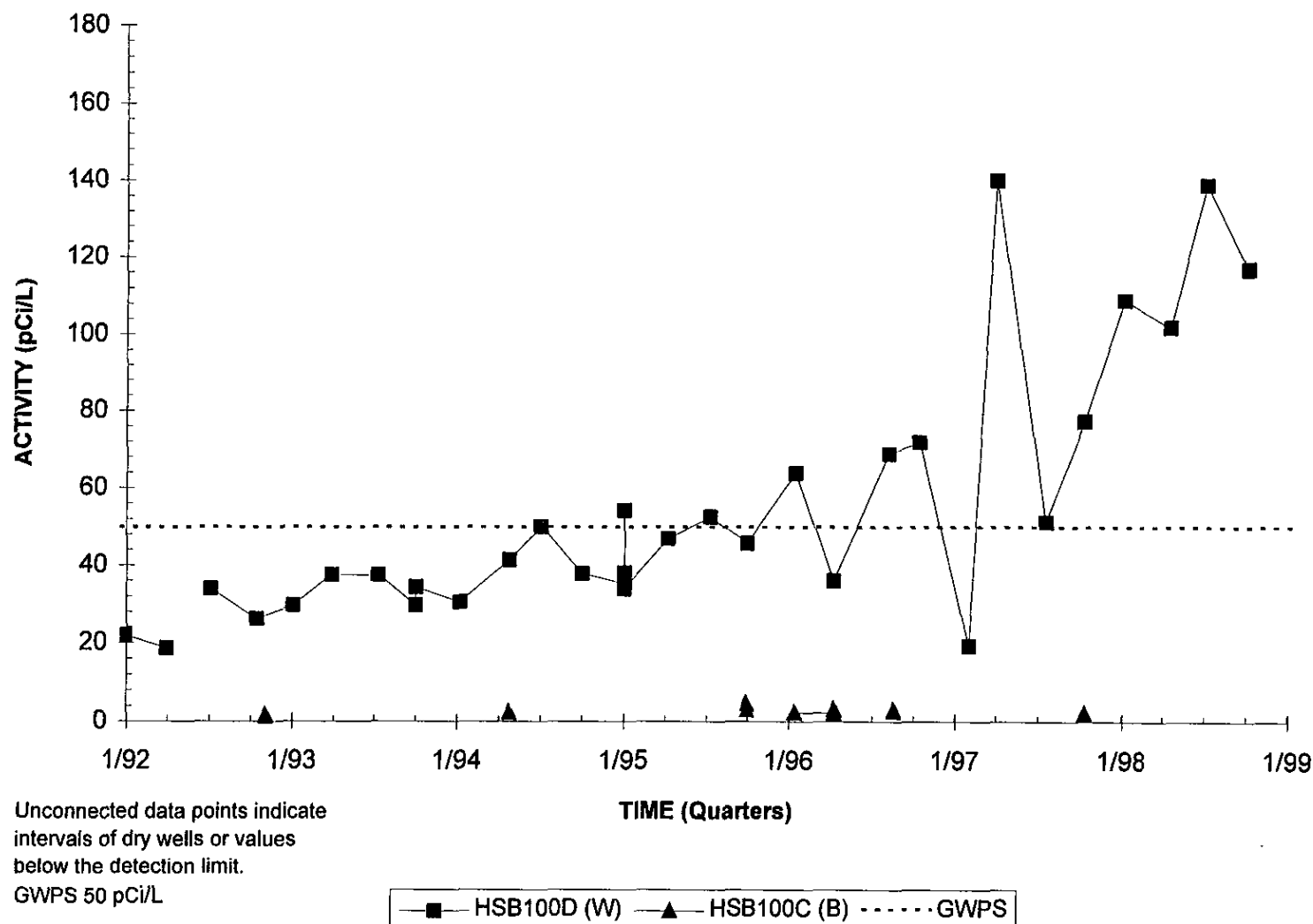
Unconnected data points indicate
intervals of dry wells or values
below the detection limit.

GWPS 50 pCi/L



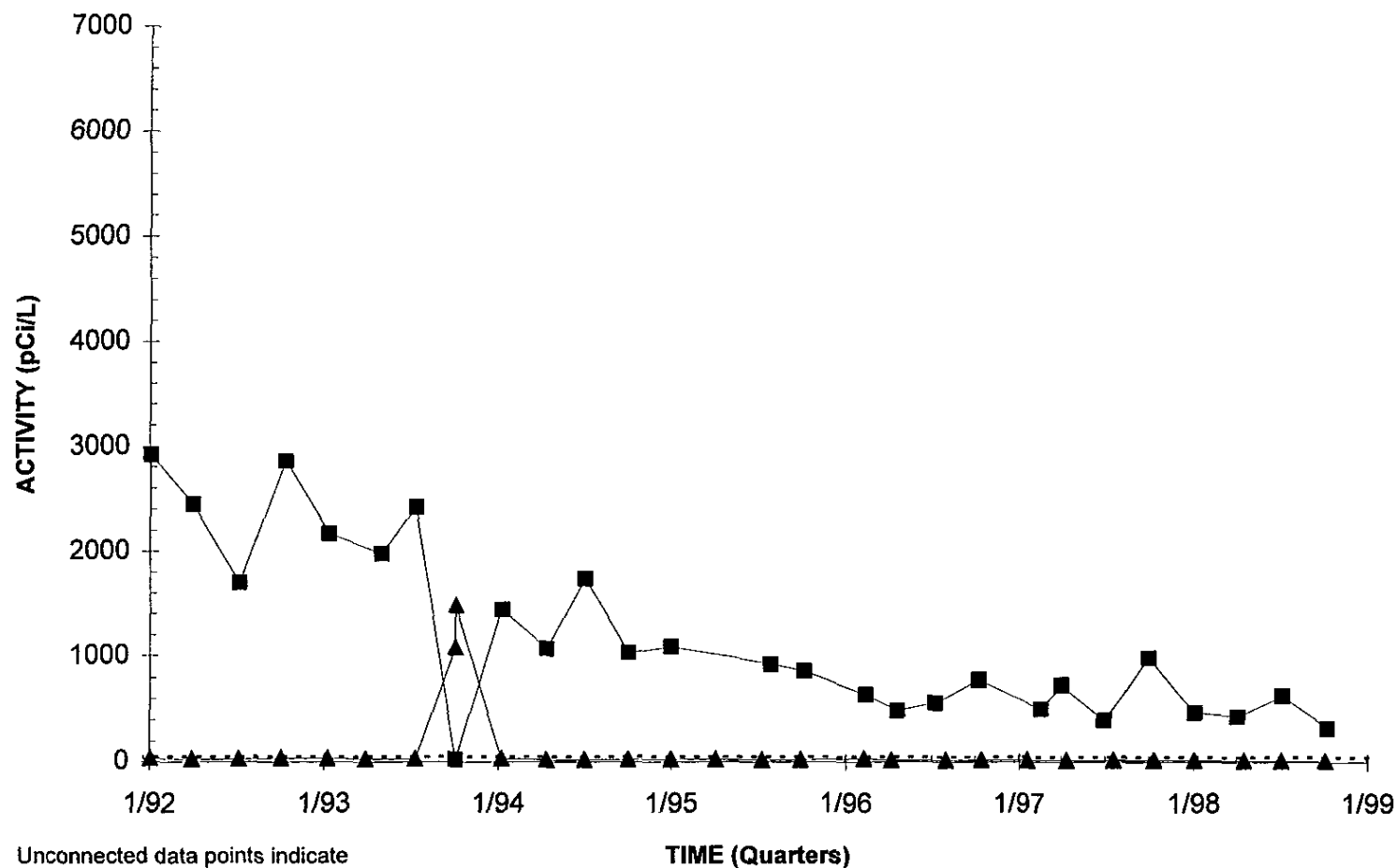
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nonvolatile Beta Activities Well Cluster HSB100



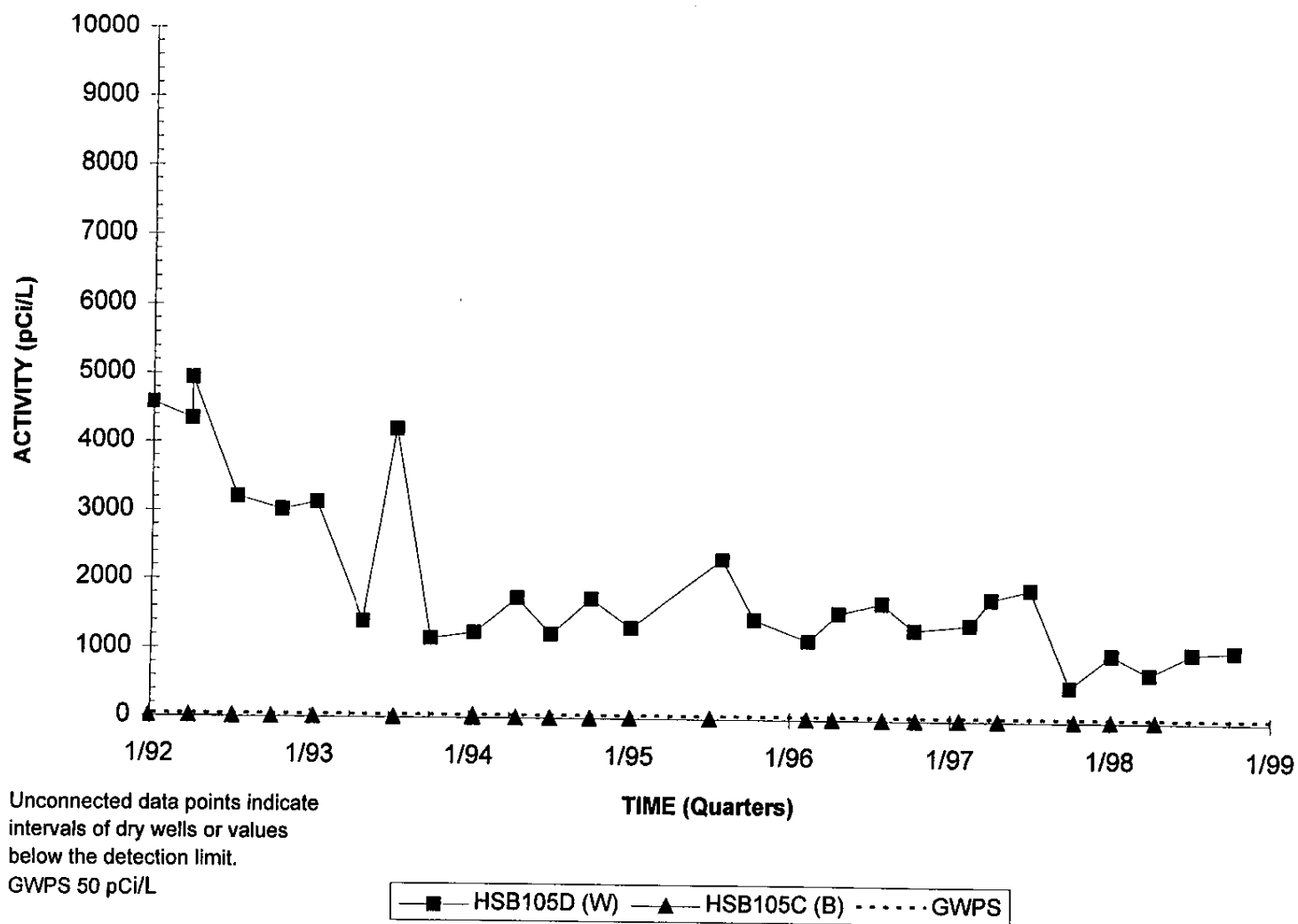
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nonvolatile Beta Activities Well Cluster HSB104



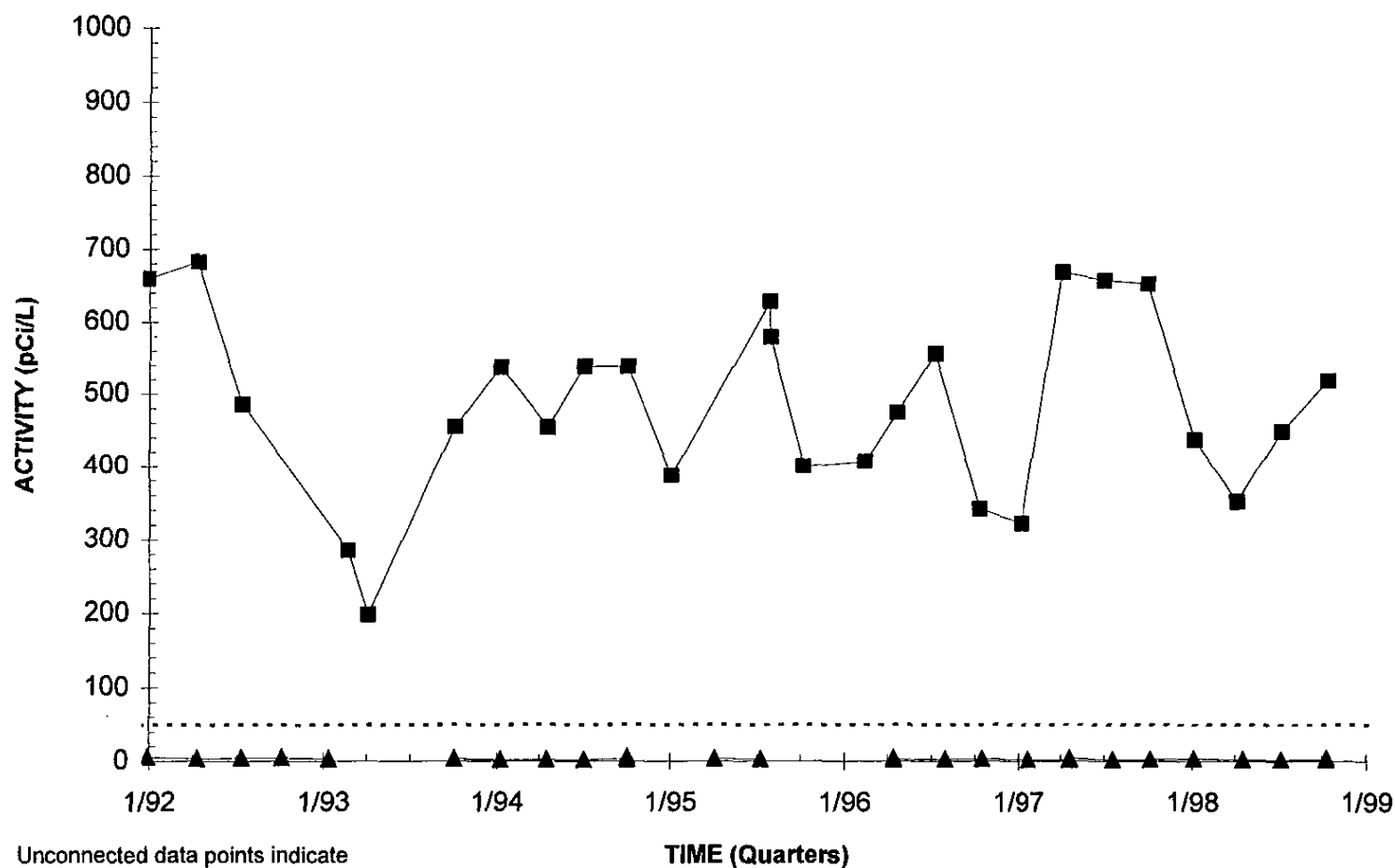
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nonvolatile Beta Activities Well Cluster HSB105



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nonvolatile Beta Activities Well Cluster HSB106

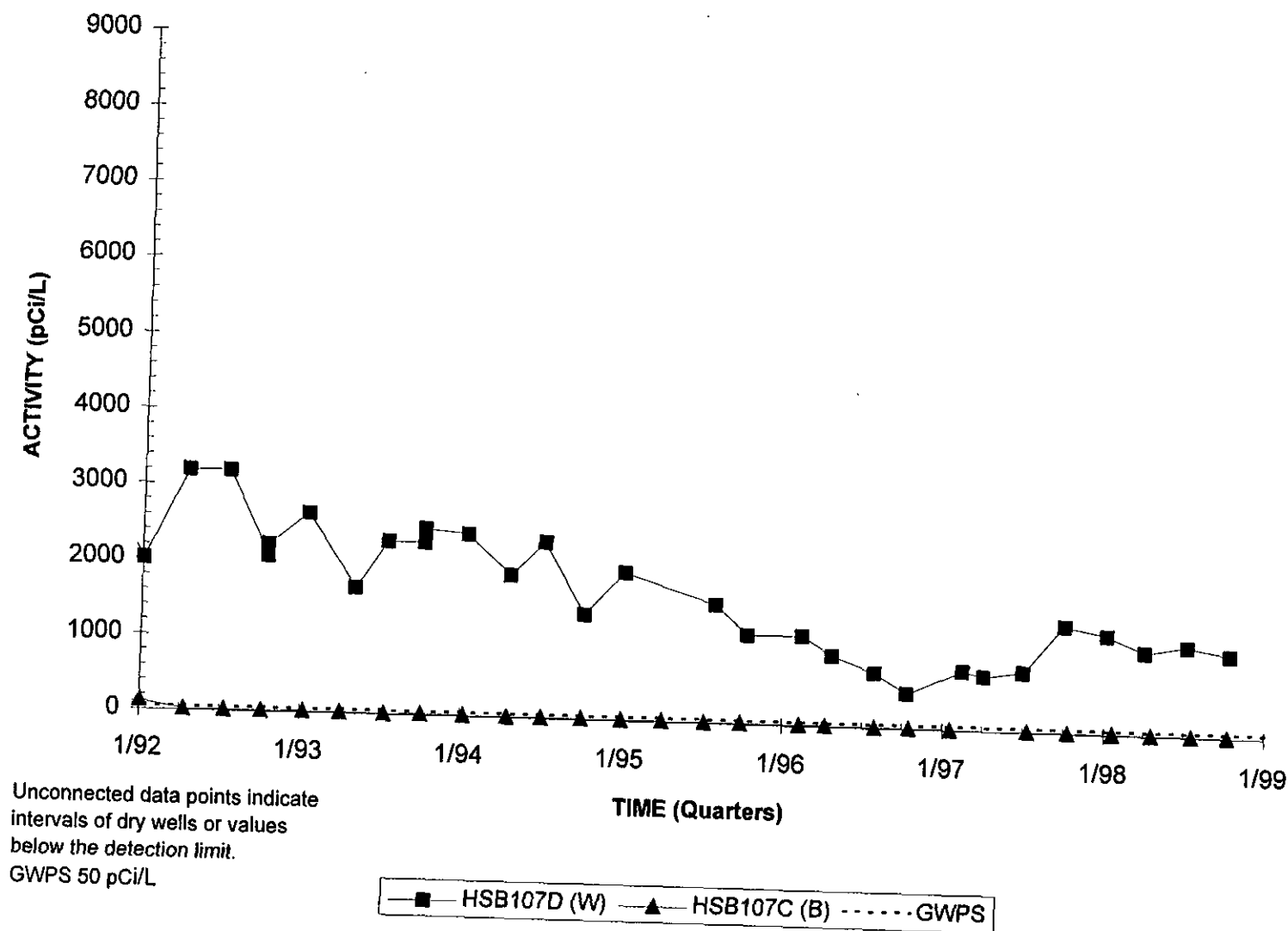


Unconnected data points indicate
intervals of dry wells or values
below the detection limit.
GWPS 50 pCi/L

—■— HSB106D (W) —▲— HSB106C (B) - - - - - GWPS

Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

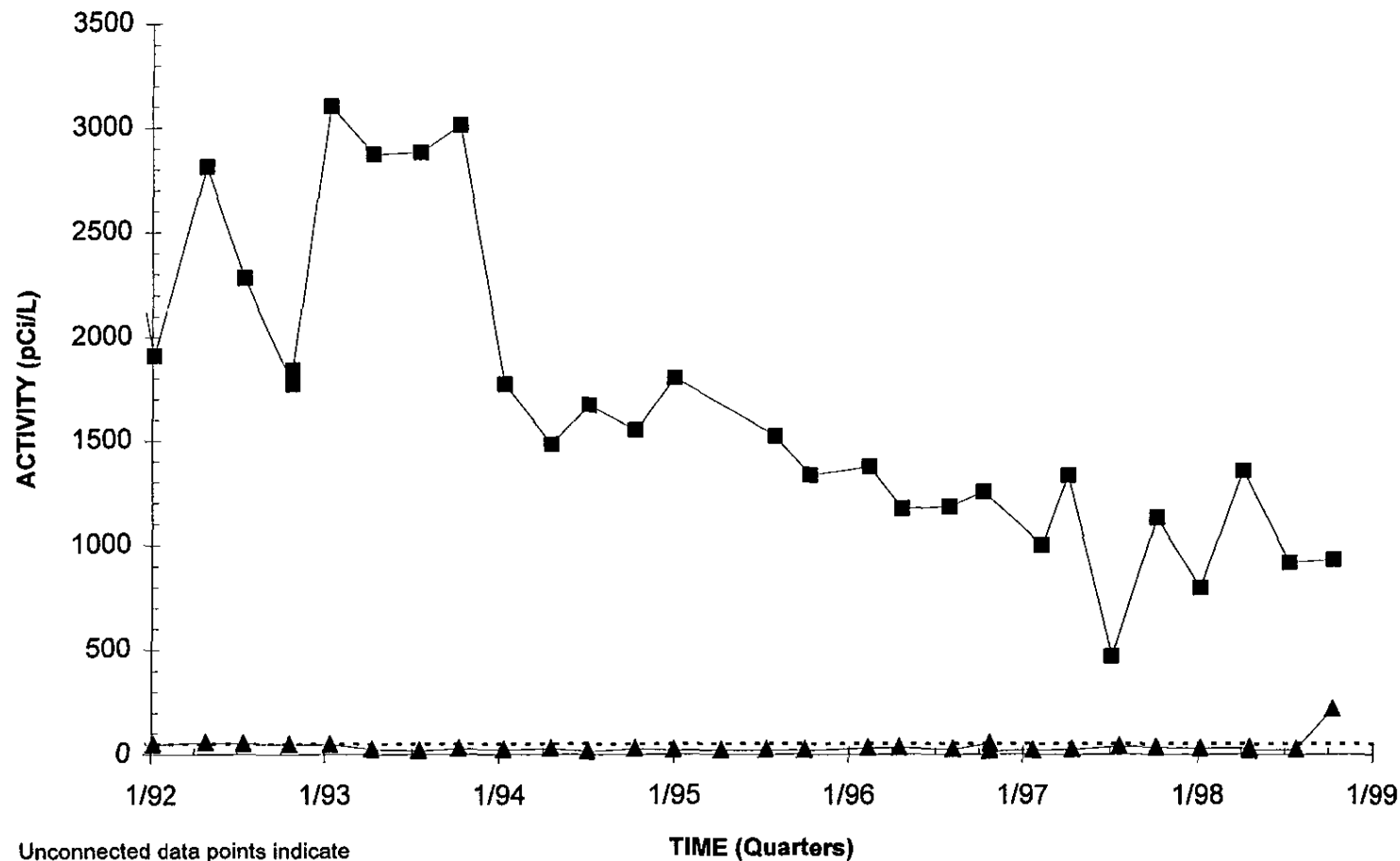
Nonvolatile Beta Activities Well Cluster HSB107



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

Nonvolatile Beta Activities Well Cluster HSB113



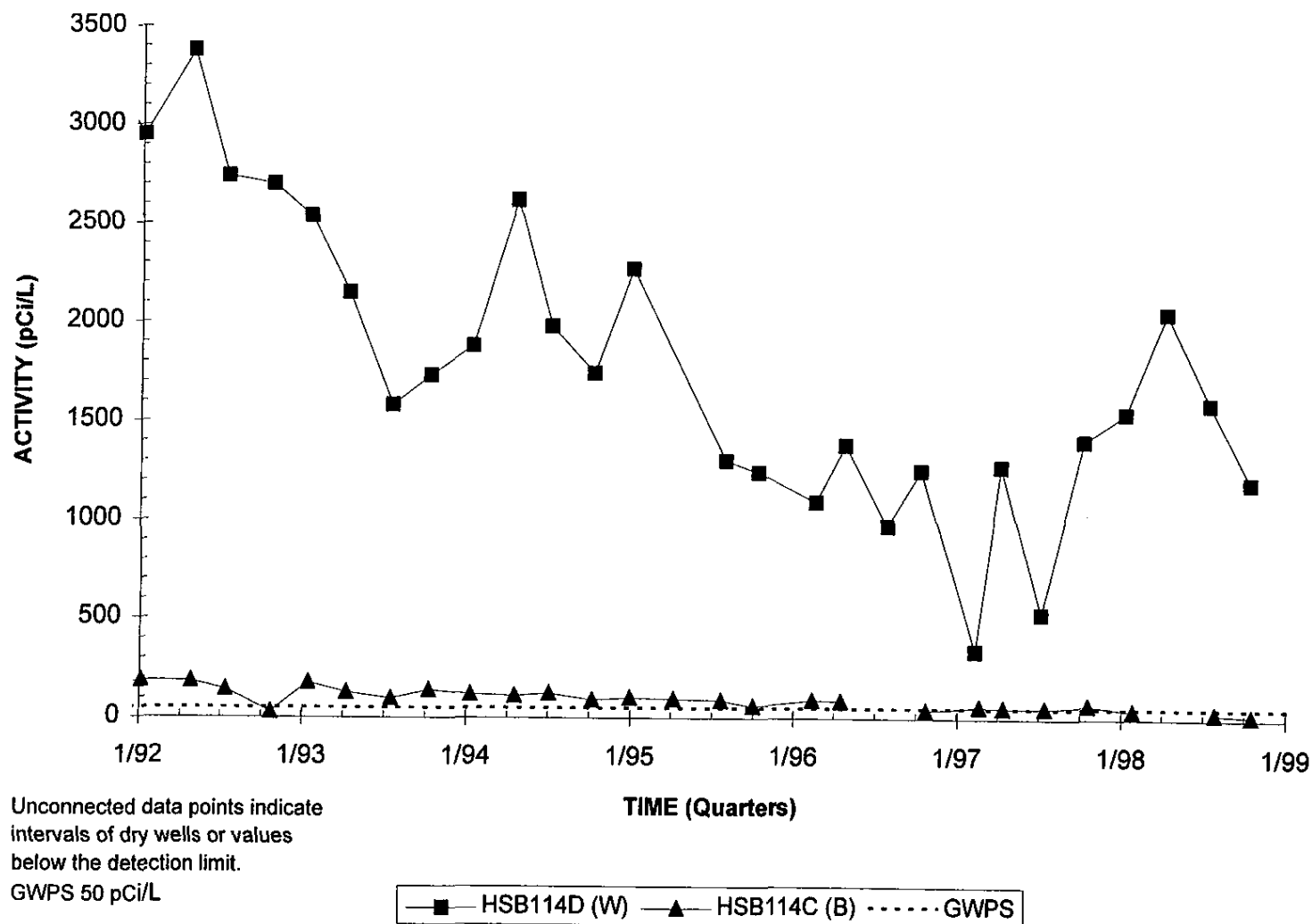
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

D - 90

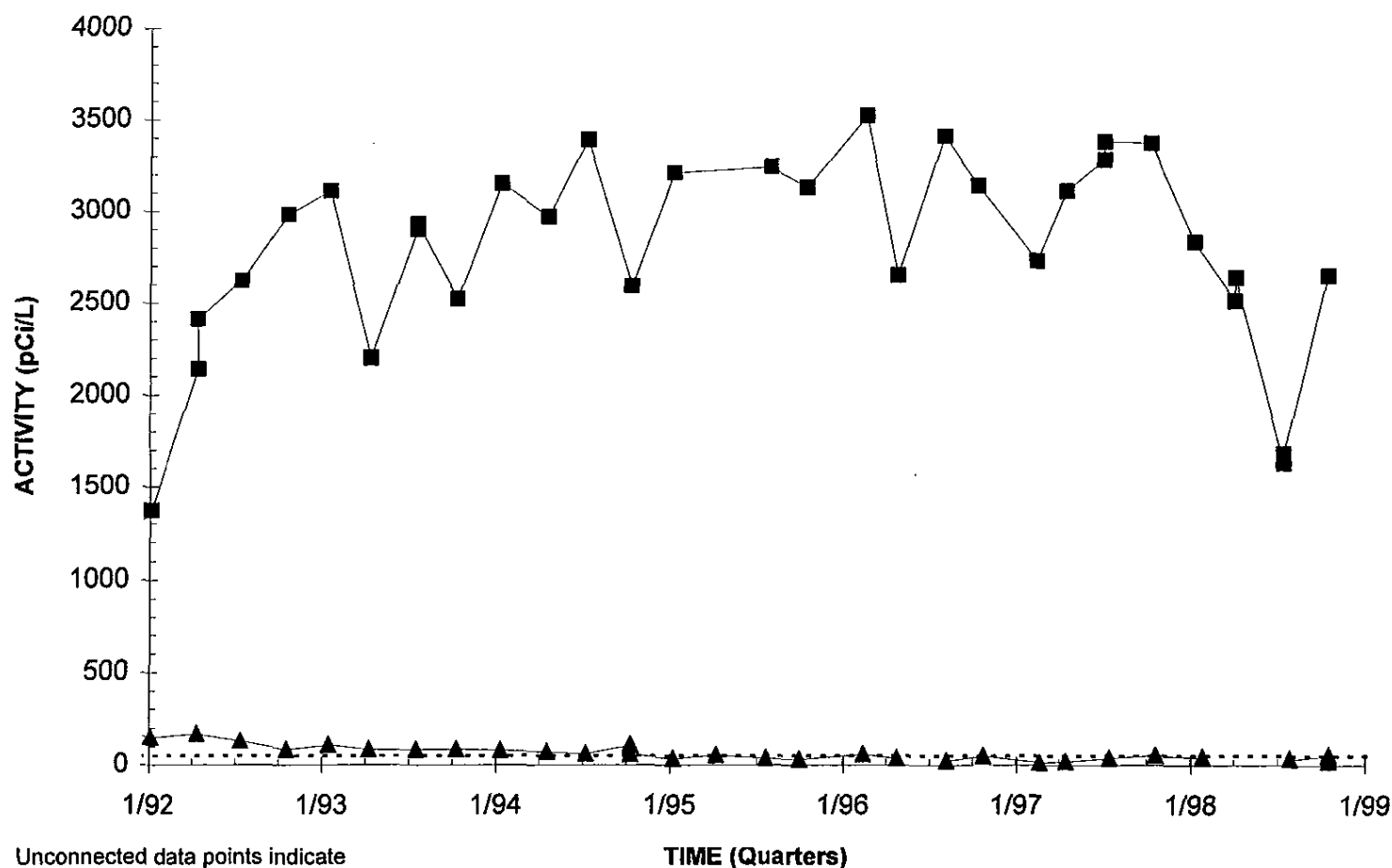
Third and Fourth Quarter 1998

Nonvolatile Beta Activities Well Cluster HSB114



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nonvolatile Beta Activities Well Cluster HSB115



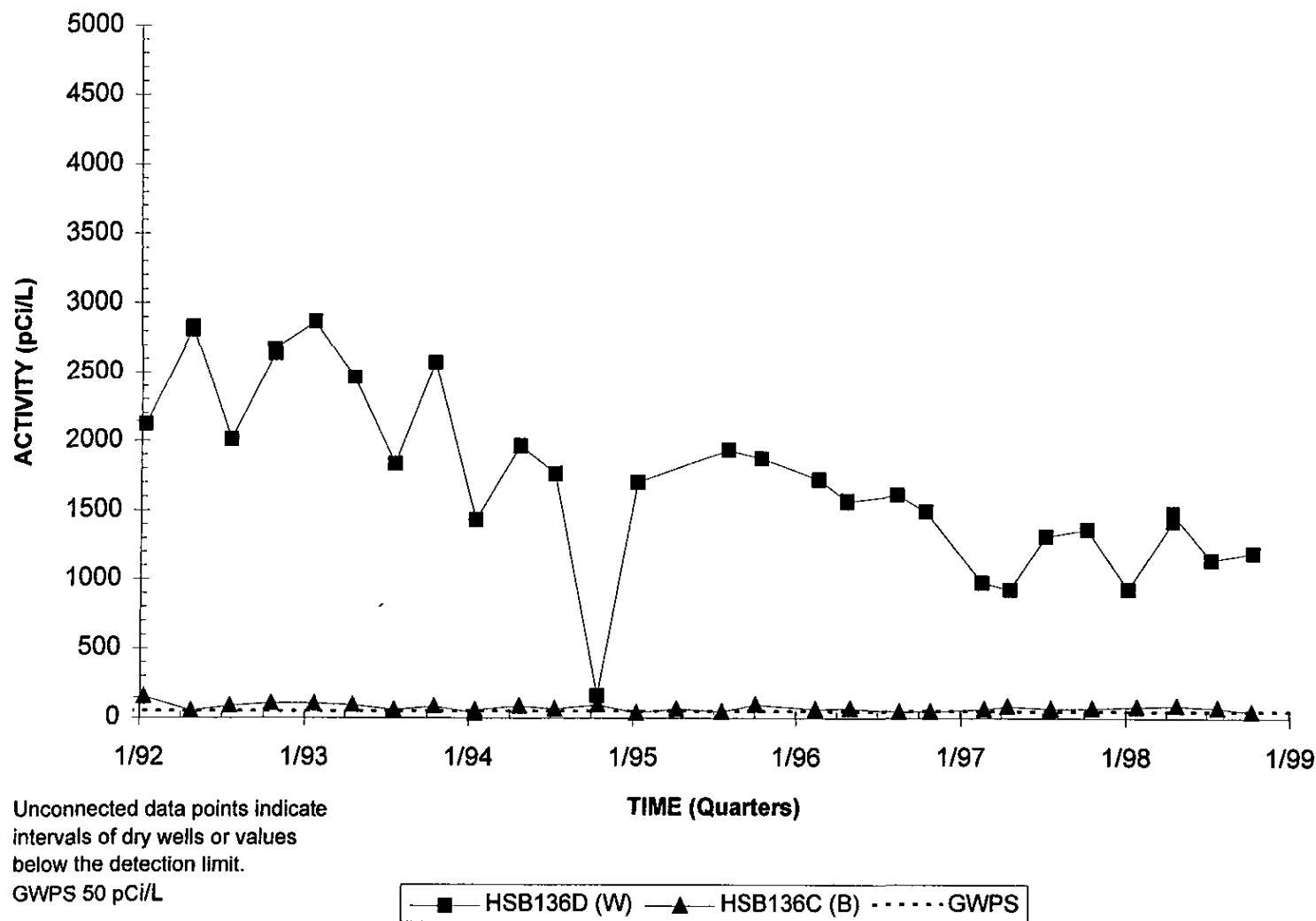
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

D - 92

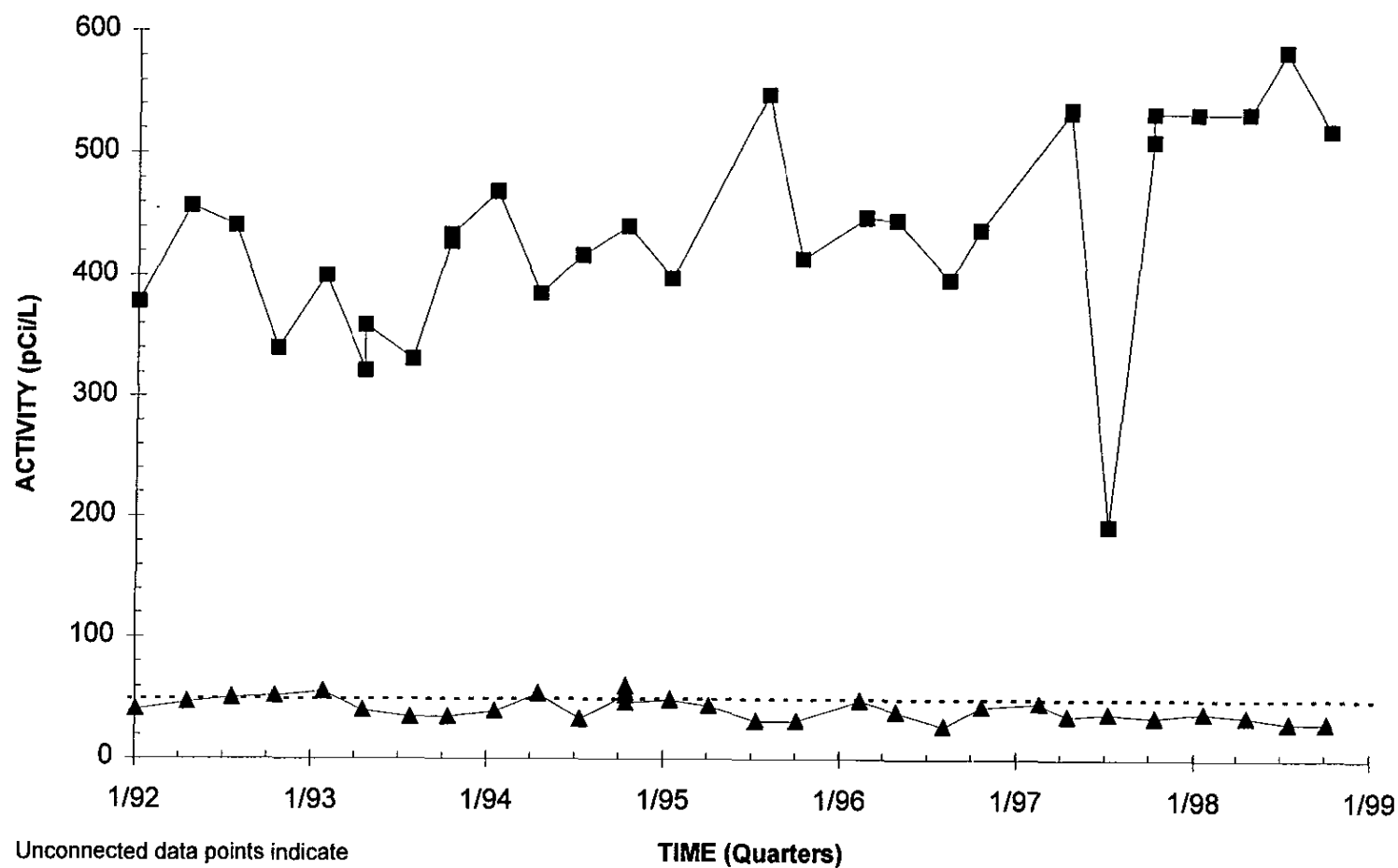
Third and Fourth Quarter 1998

Nonvolatile Beta Activities Well Cluster HSB136



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Nonvolatile Beta Activities Well Cluster HSB145



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Part II

Appendix E

Hydrographs

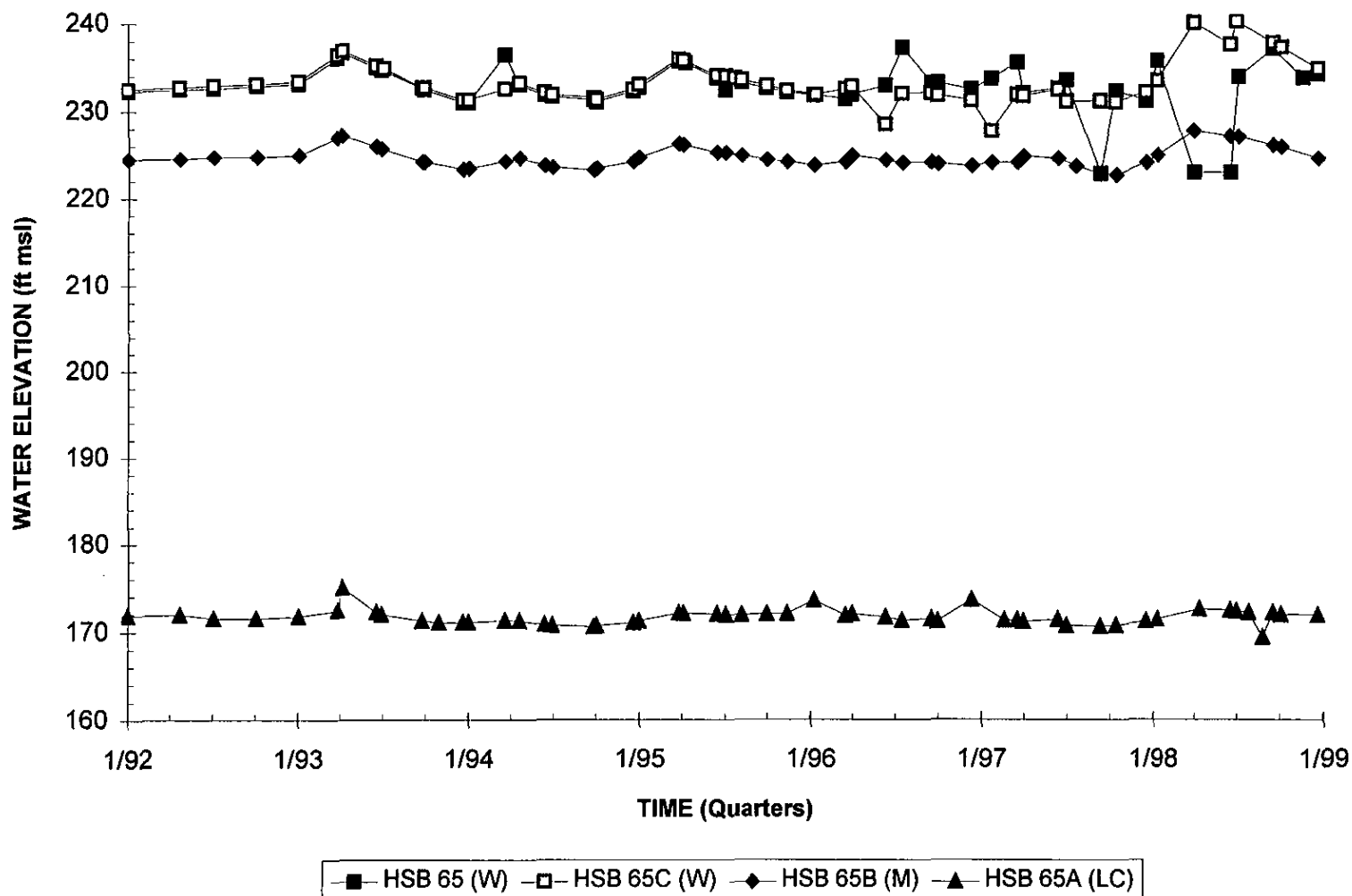
RECORDS ADMINISTRATION



R0124634

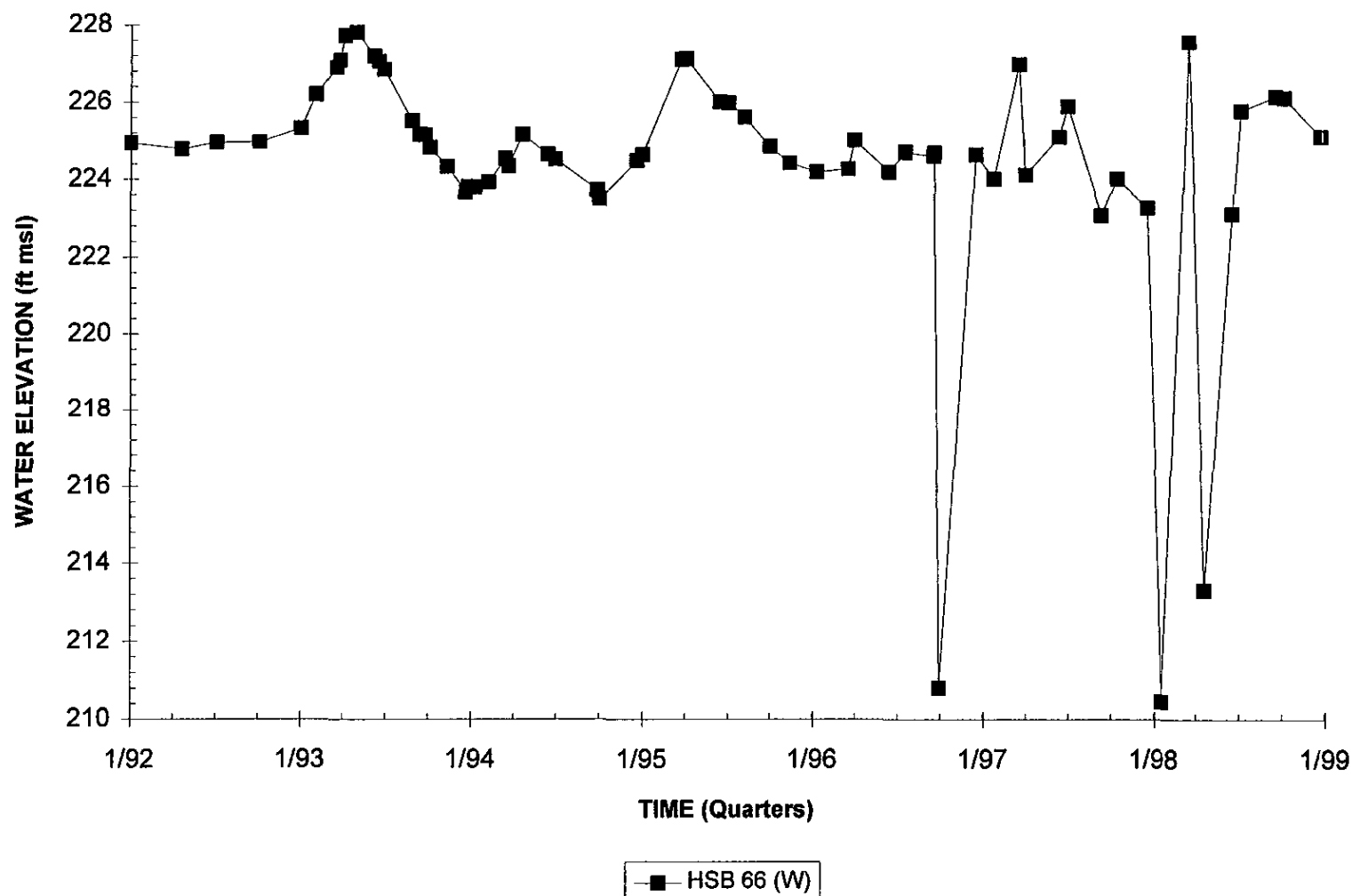
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Hydrograph Well Cluster HSB 65



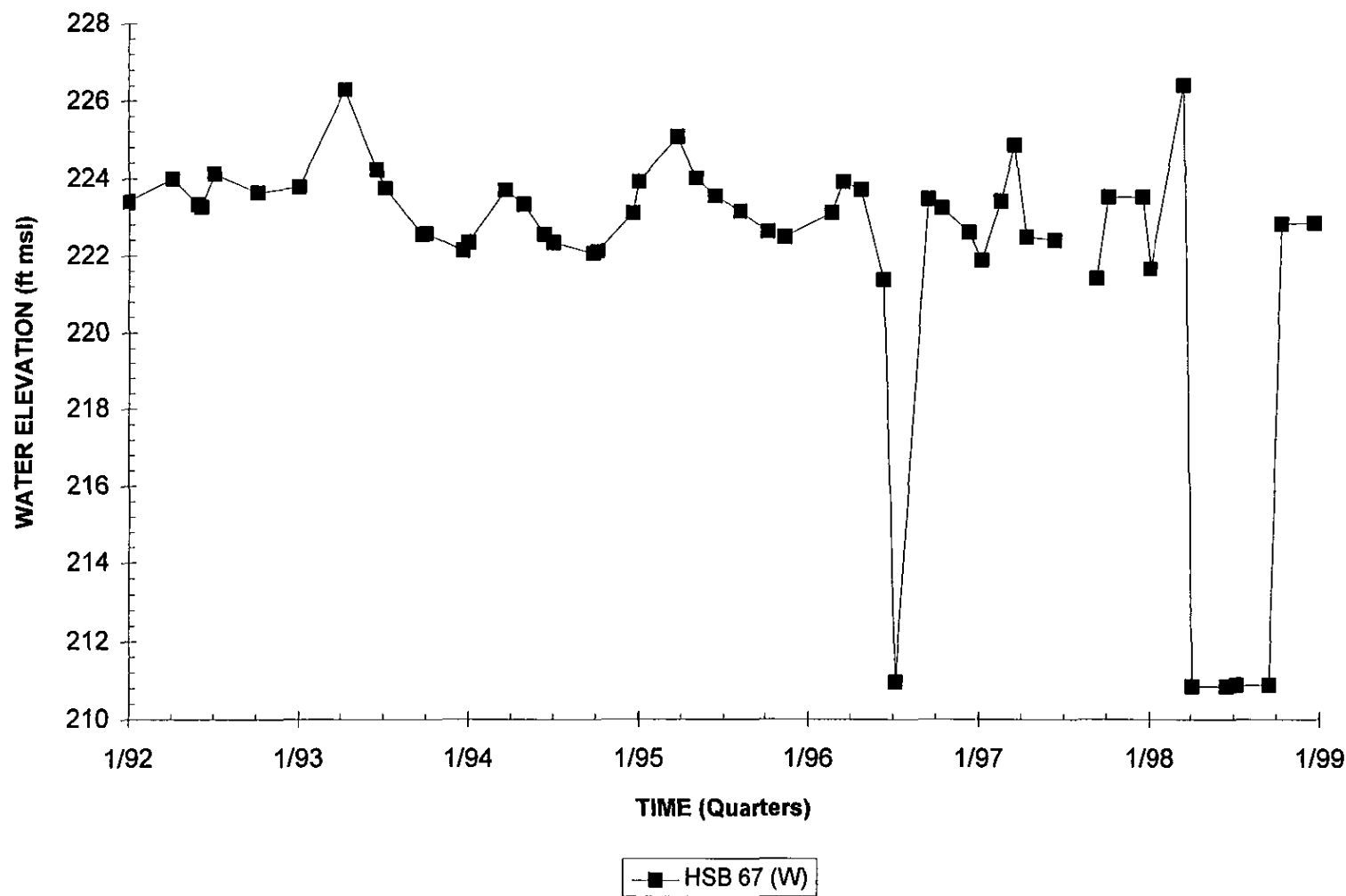
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB 66



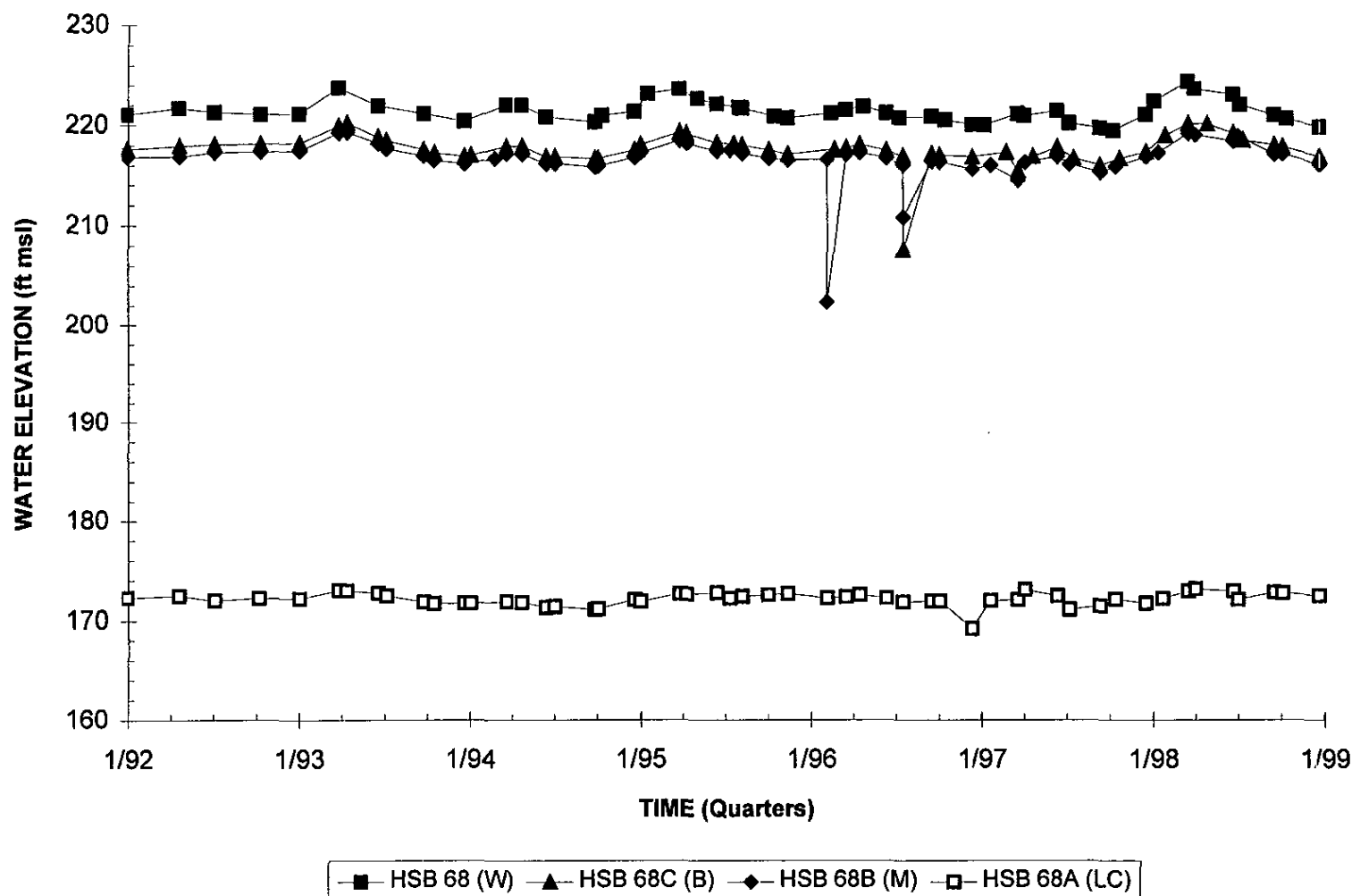
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB 67



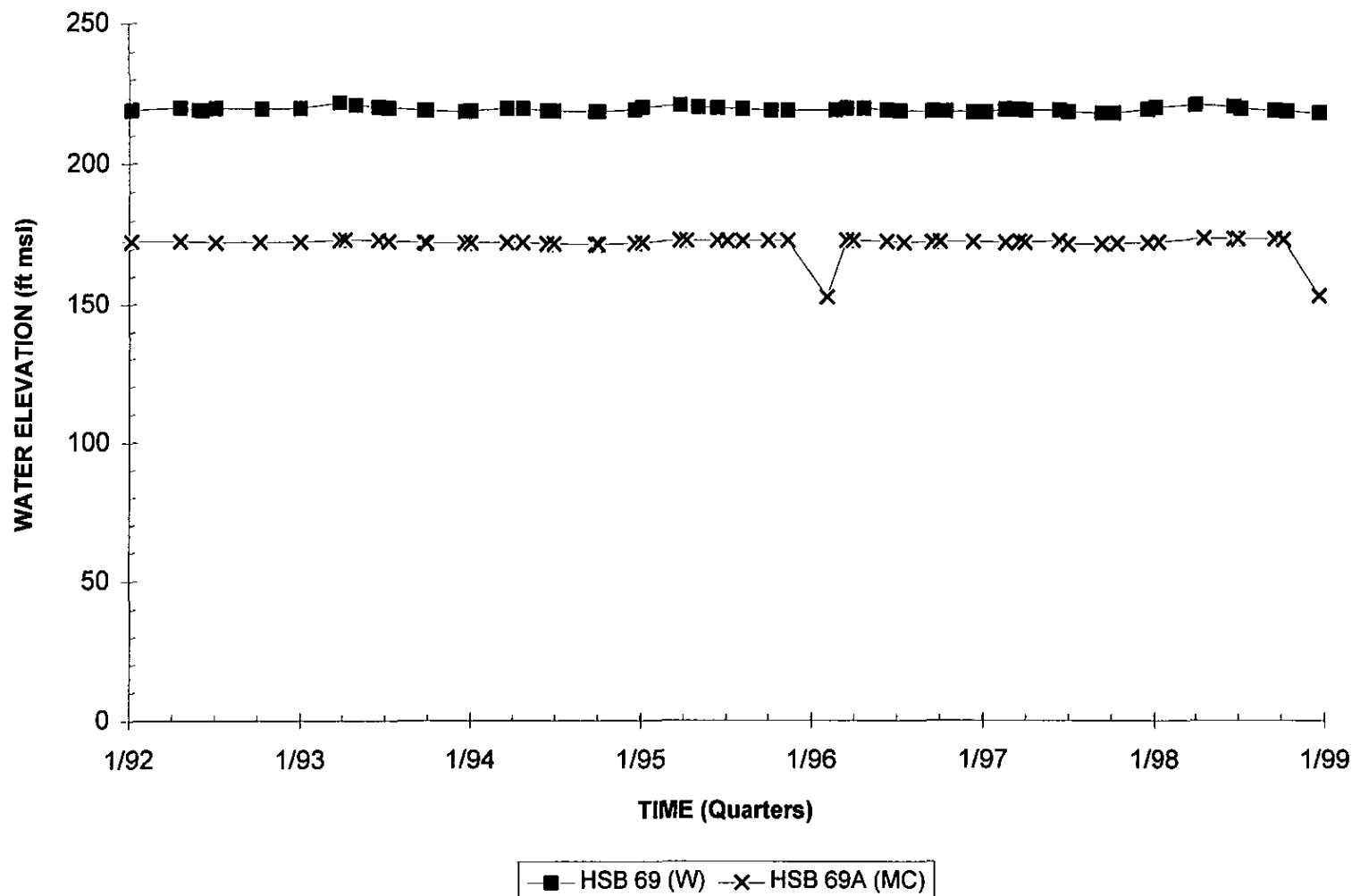
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB 68



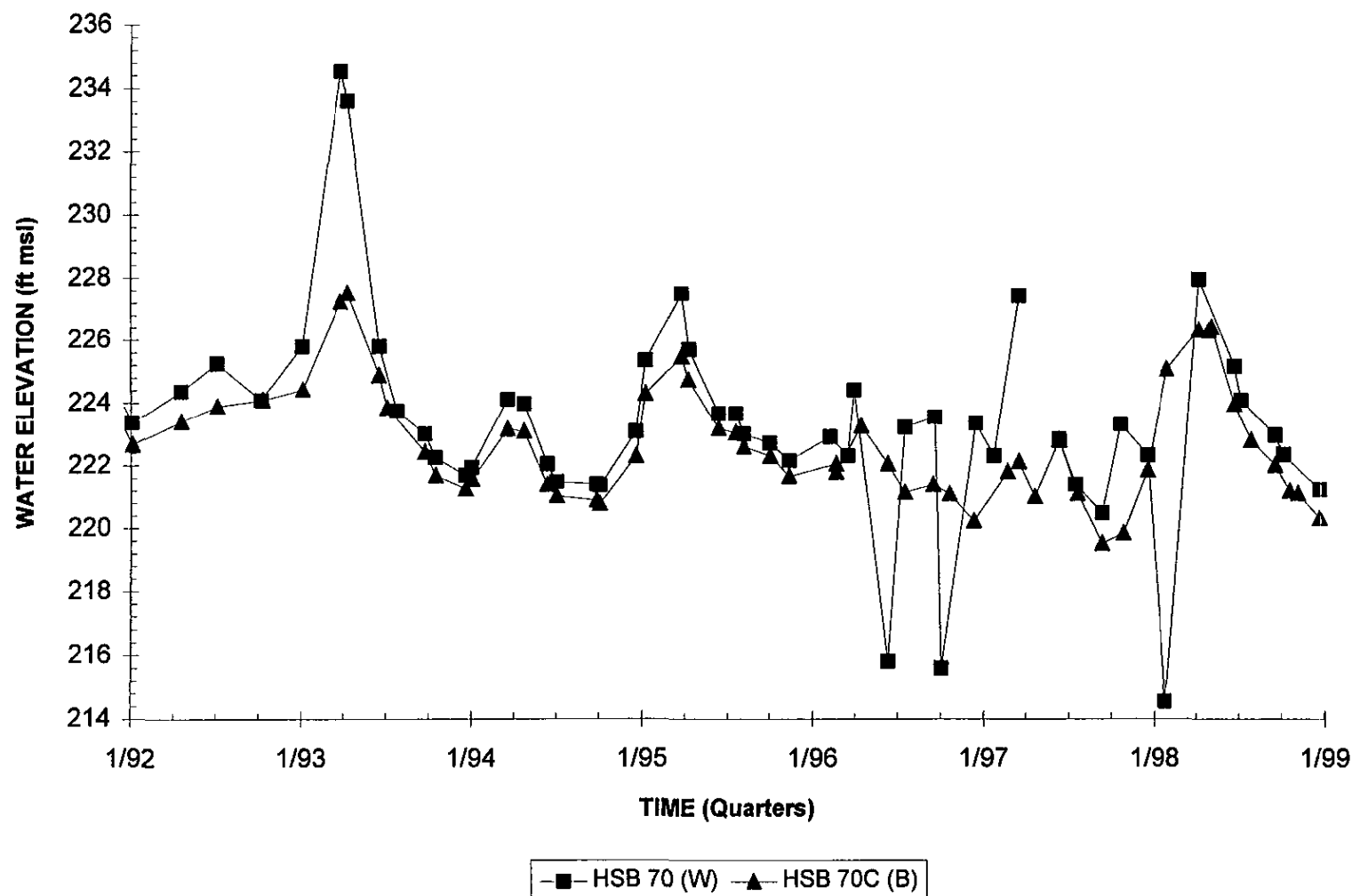
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB 69



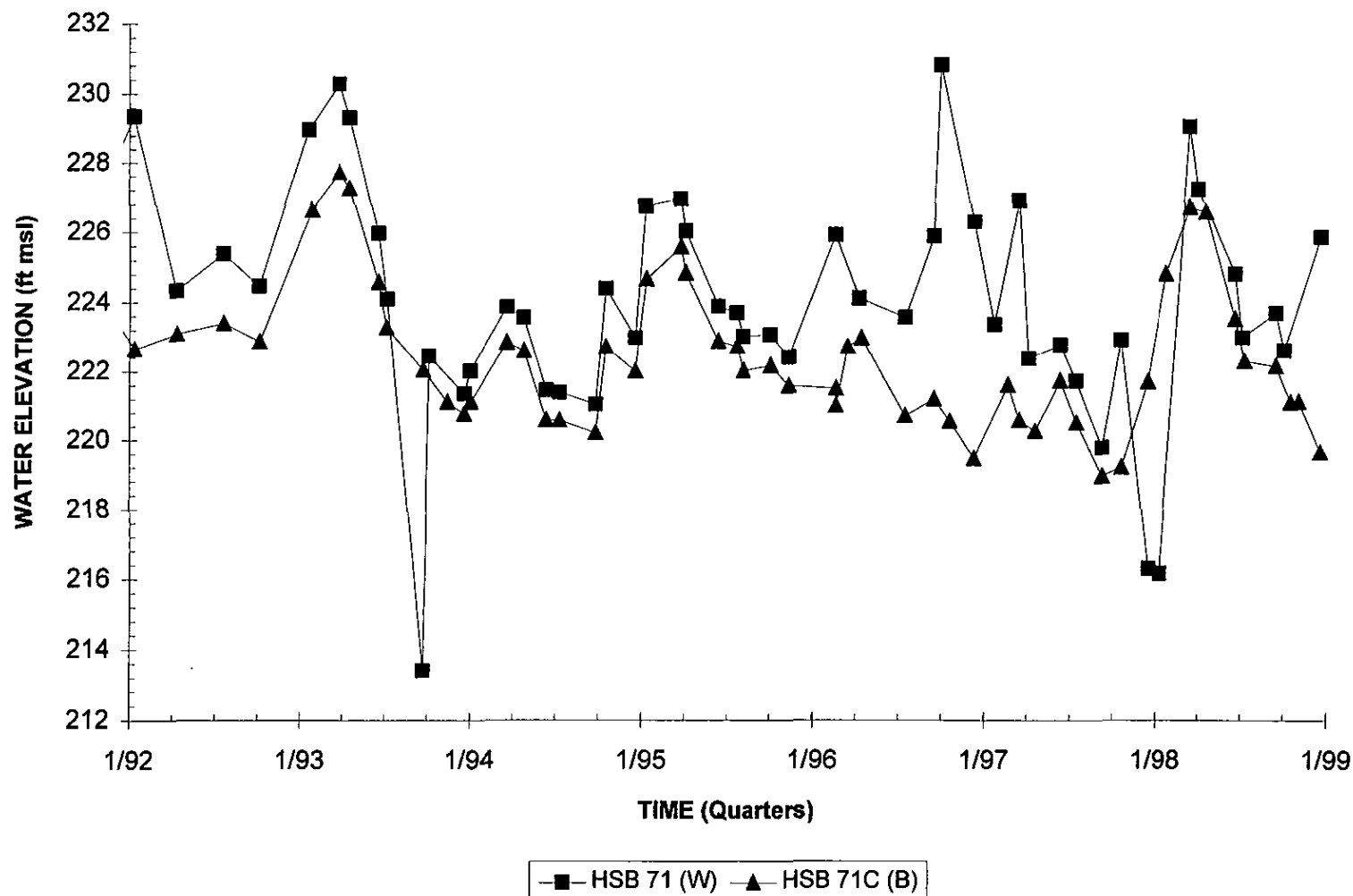
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB 70



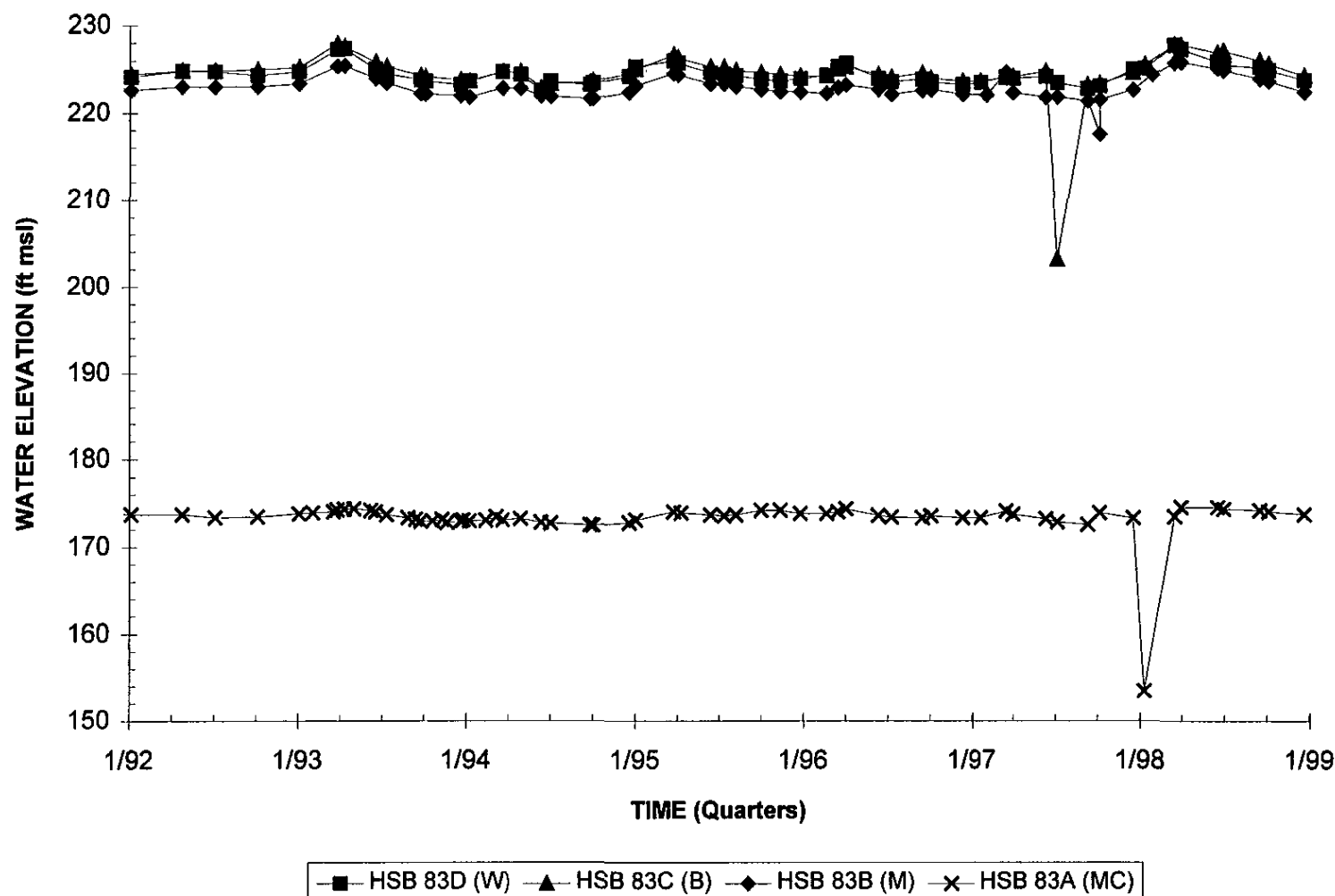
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB 71



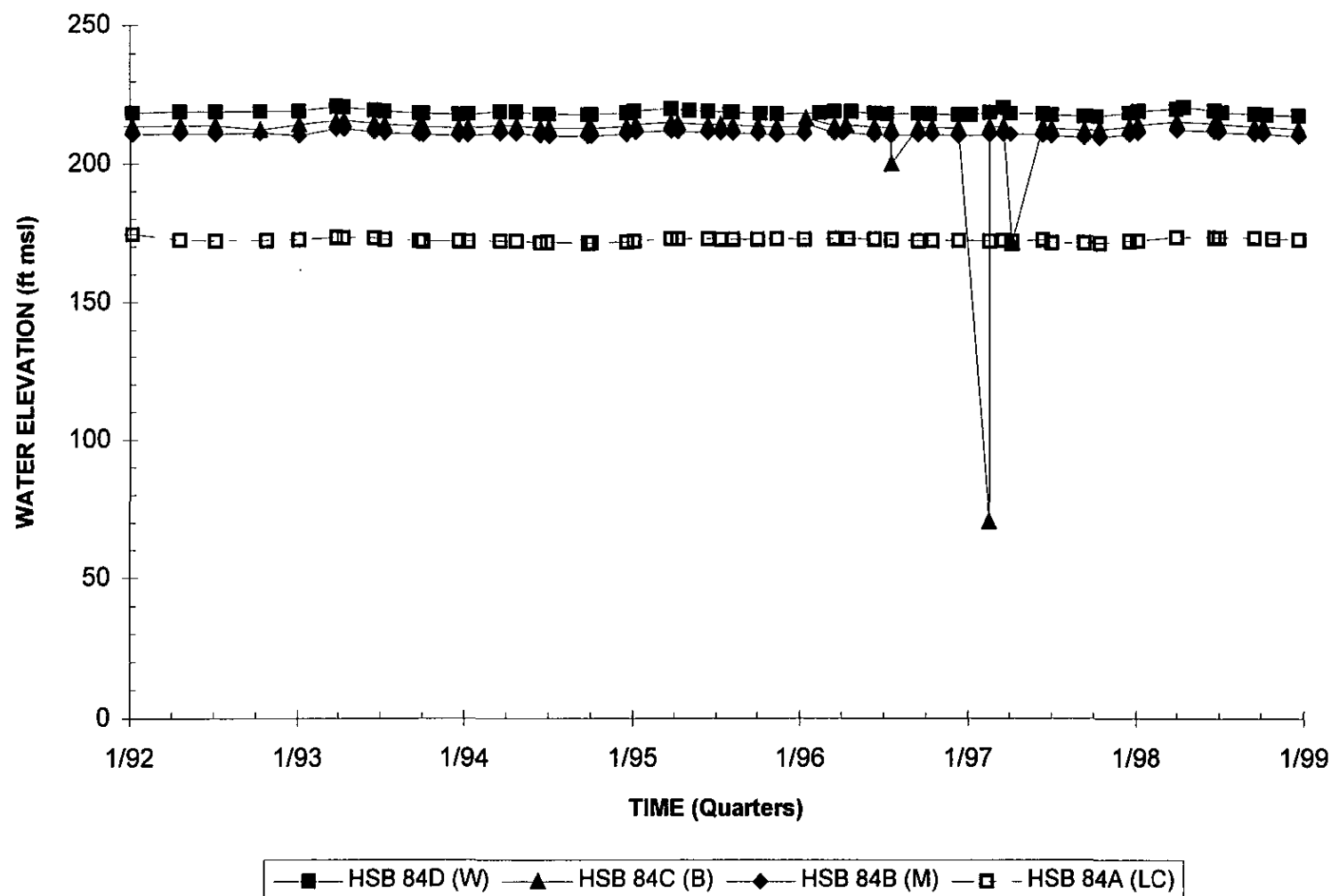
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB 83



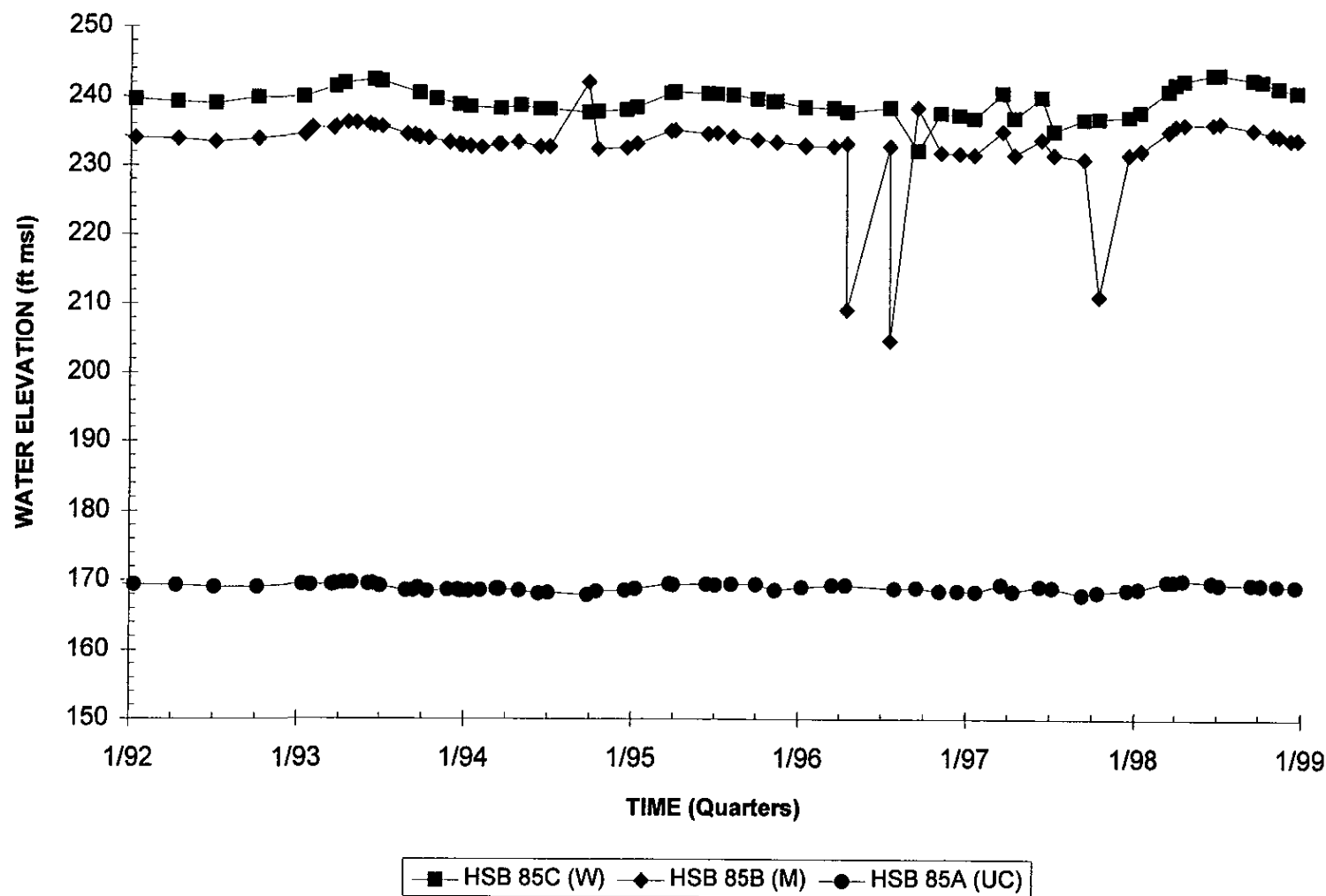
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB 84



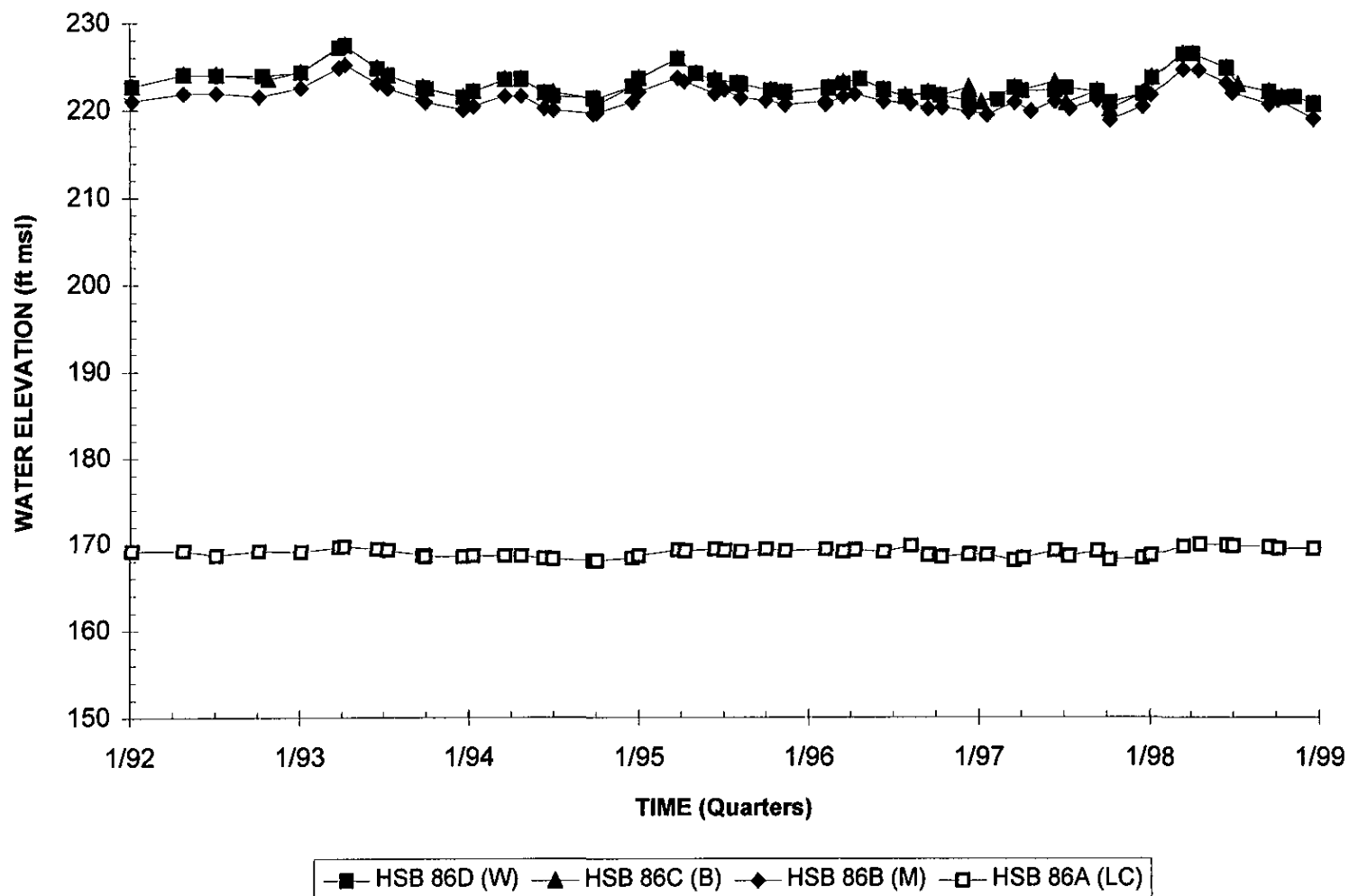
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB 85



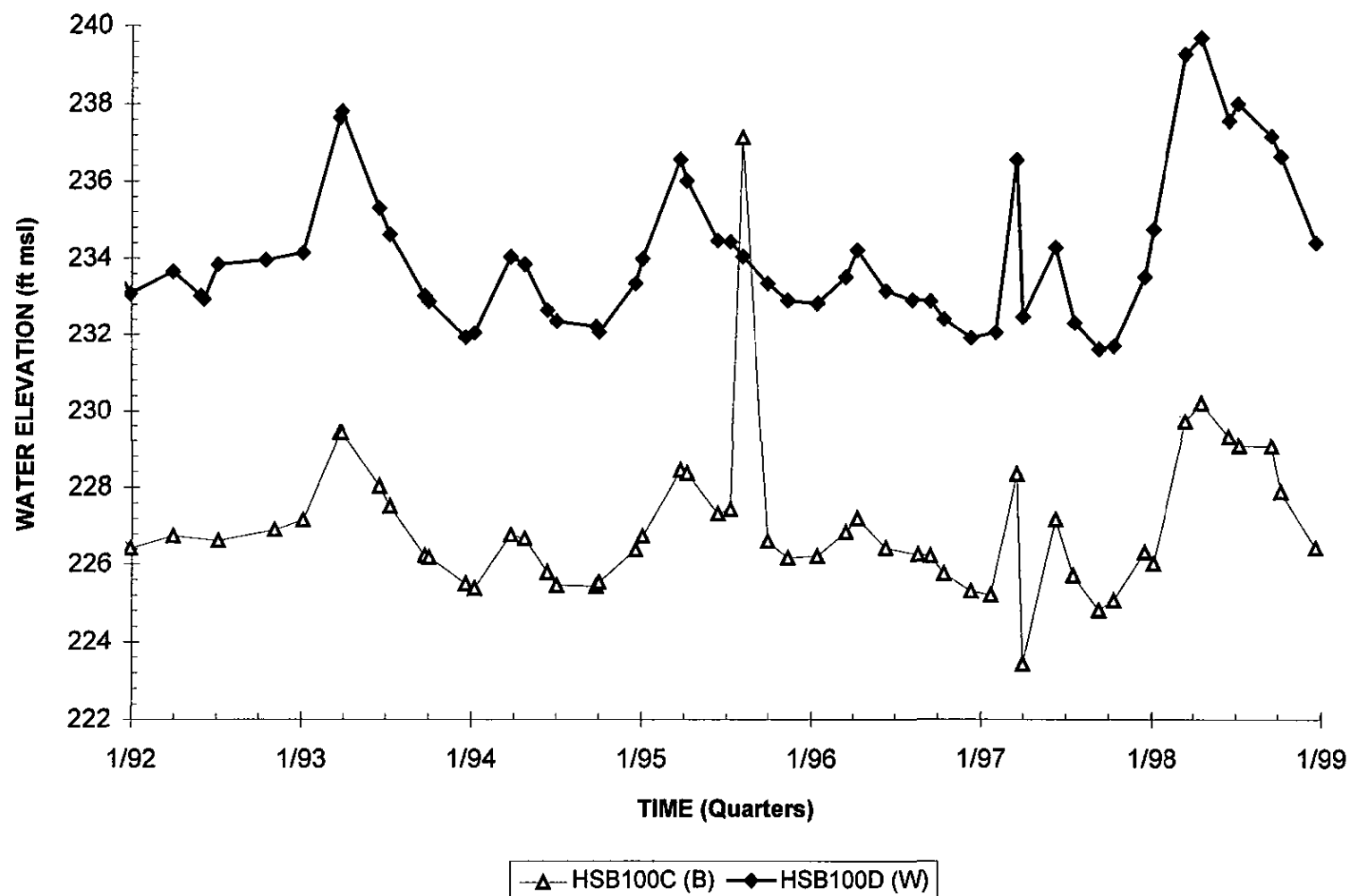
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB 86



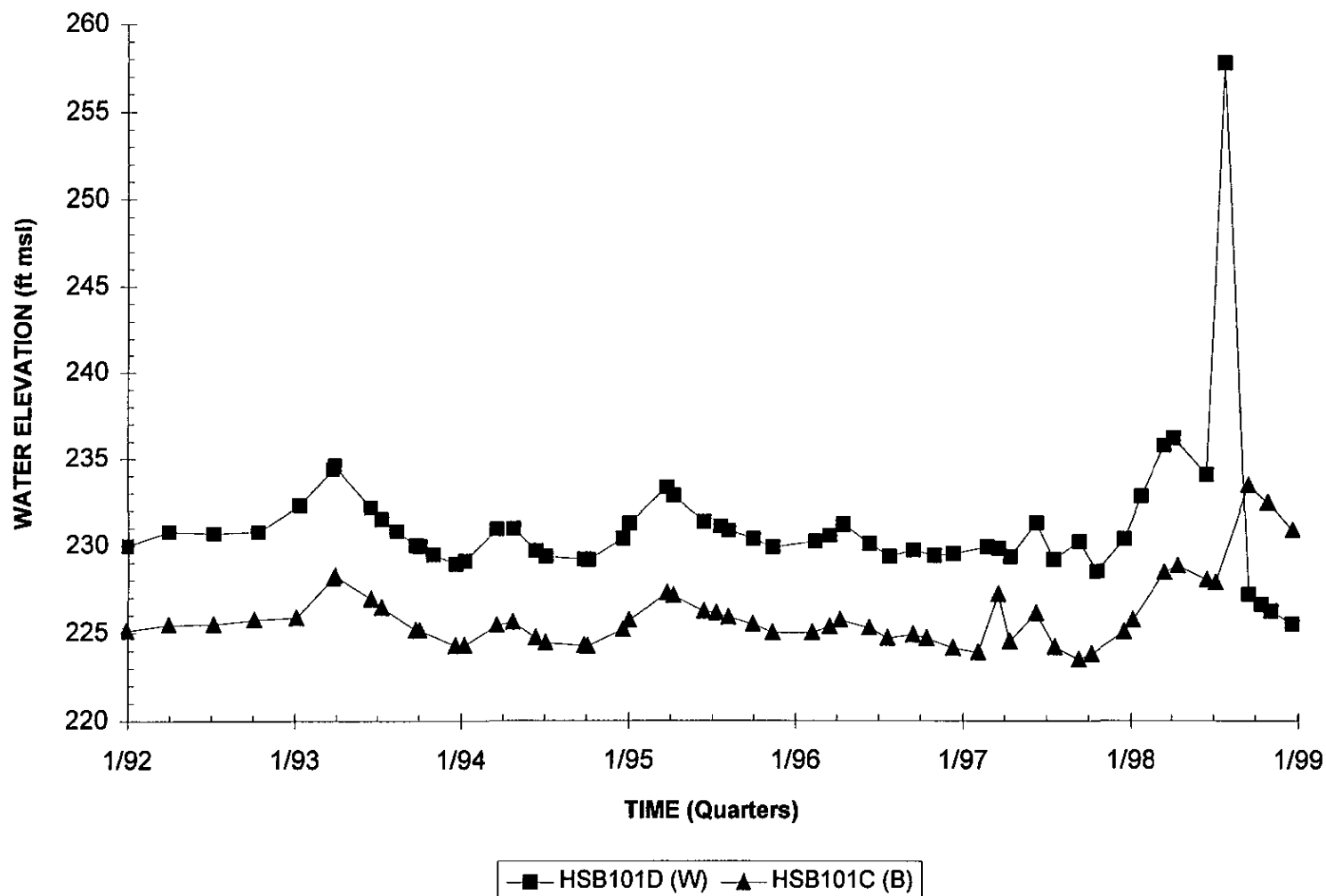
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB100



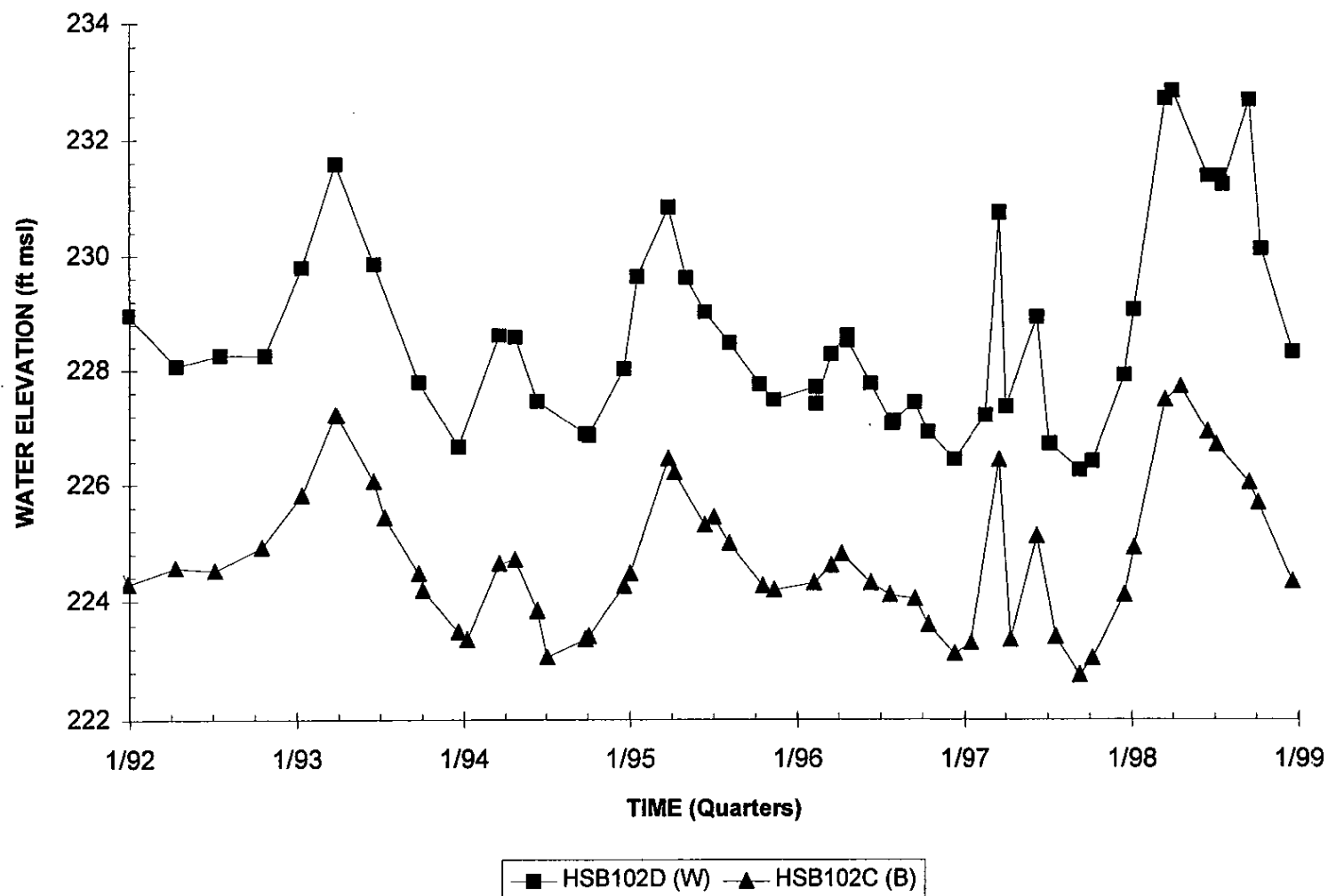
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB101



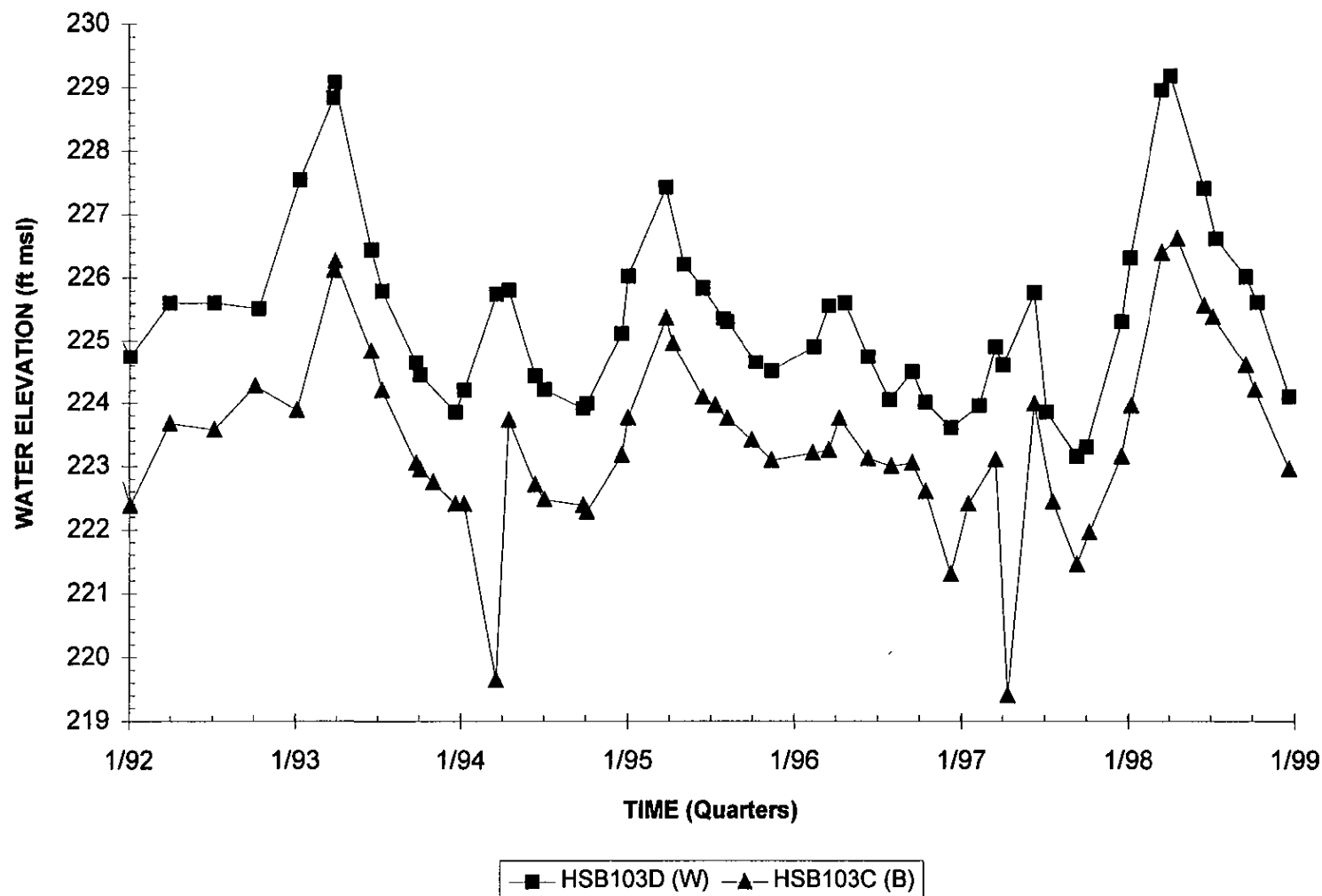
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB102



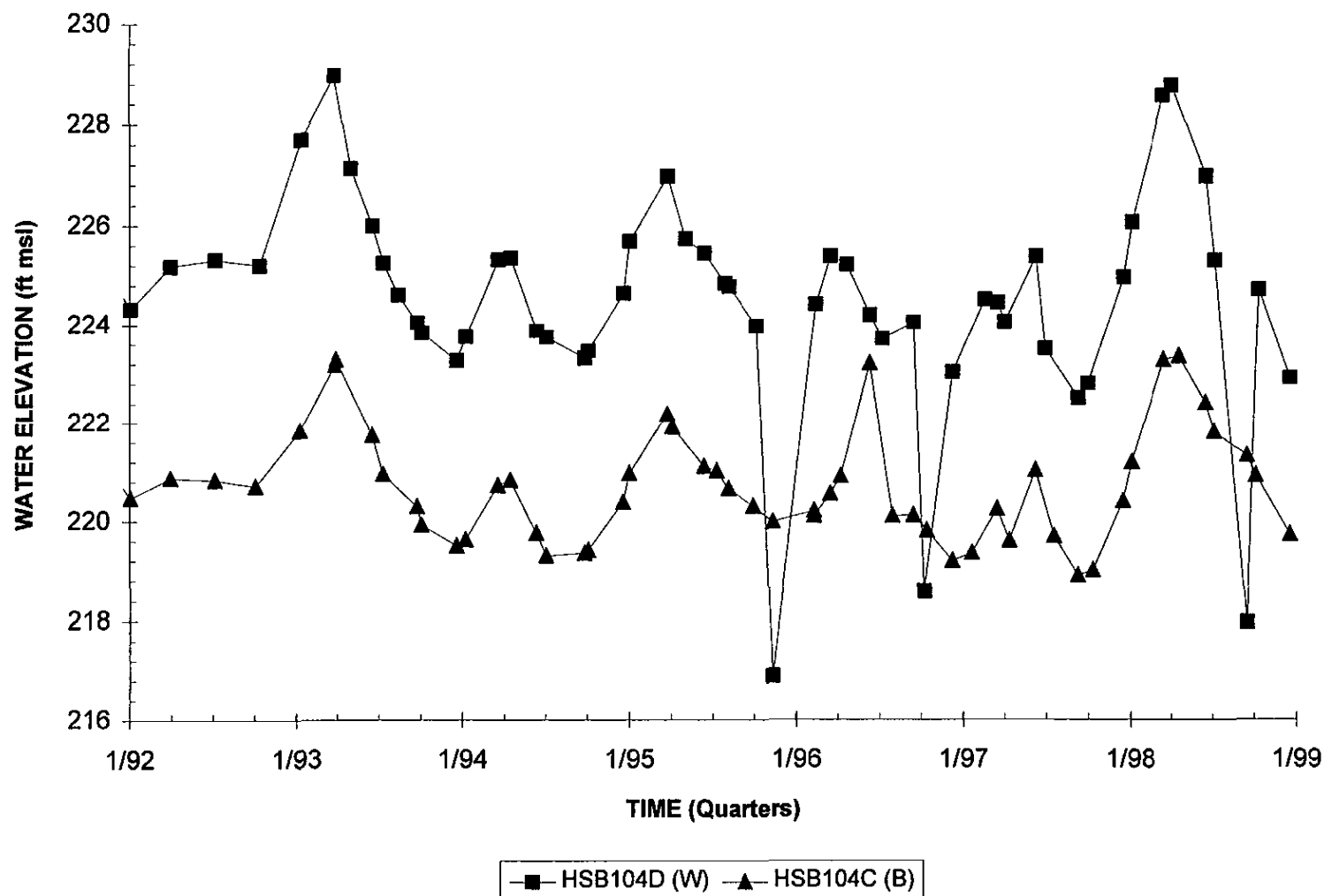
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB103



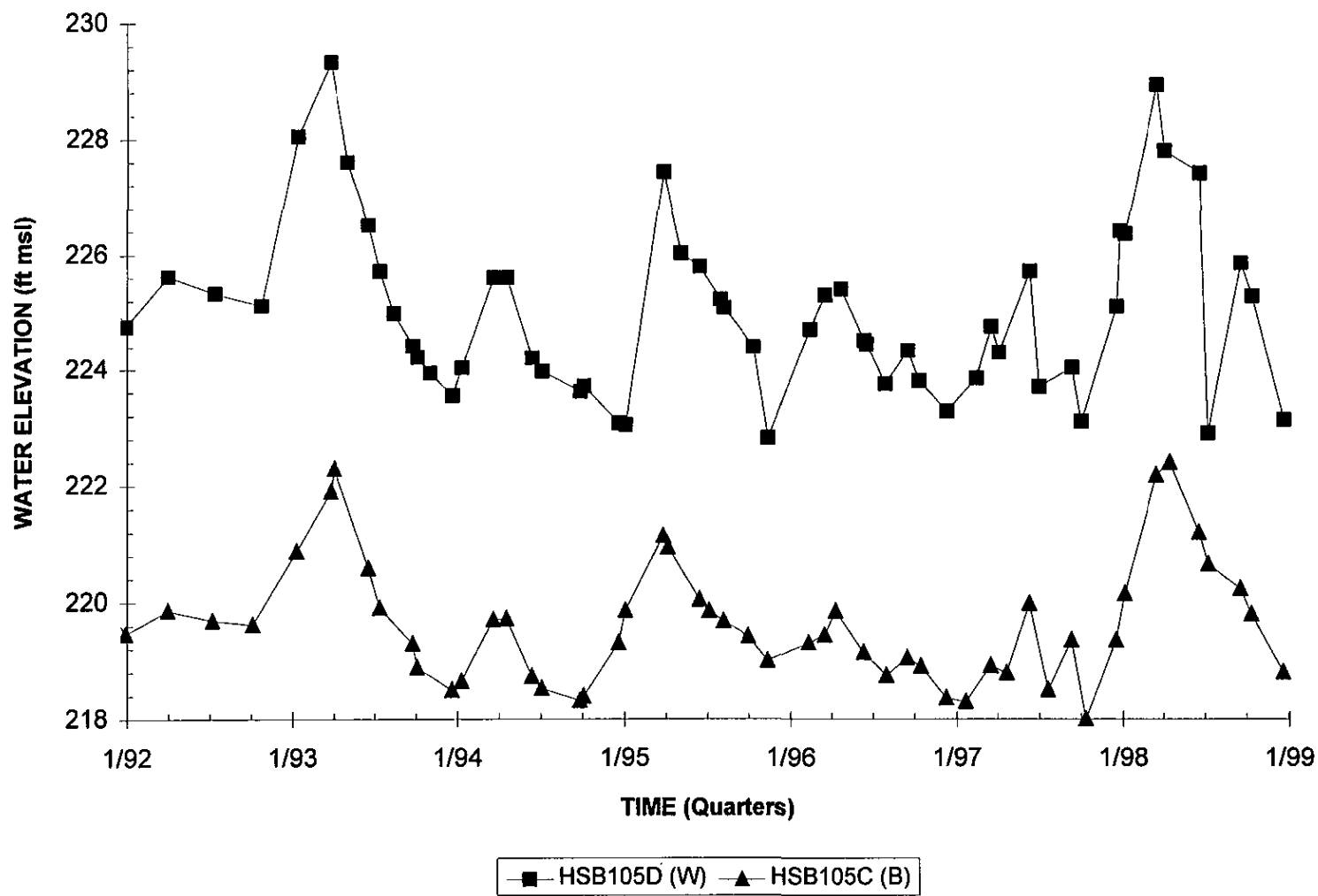
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB104



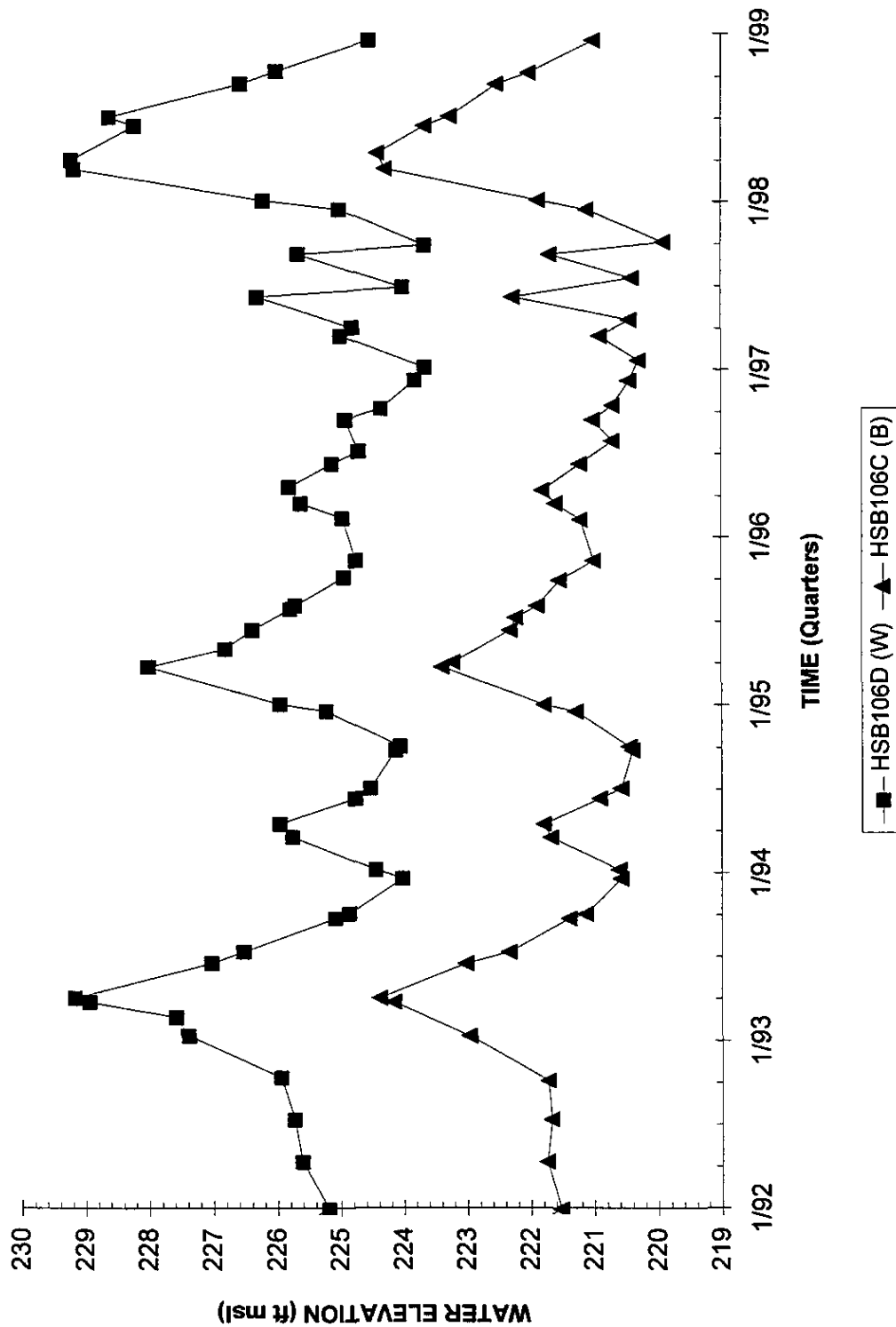
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB105



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB106



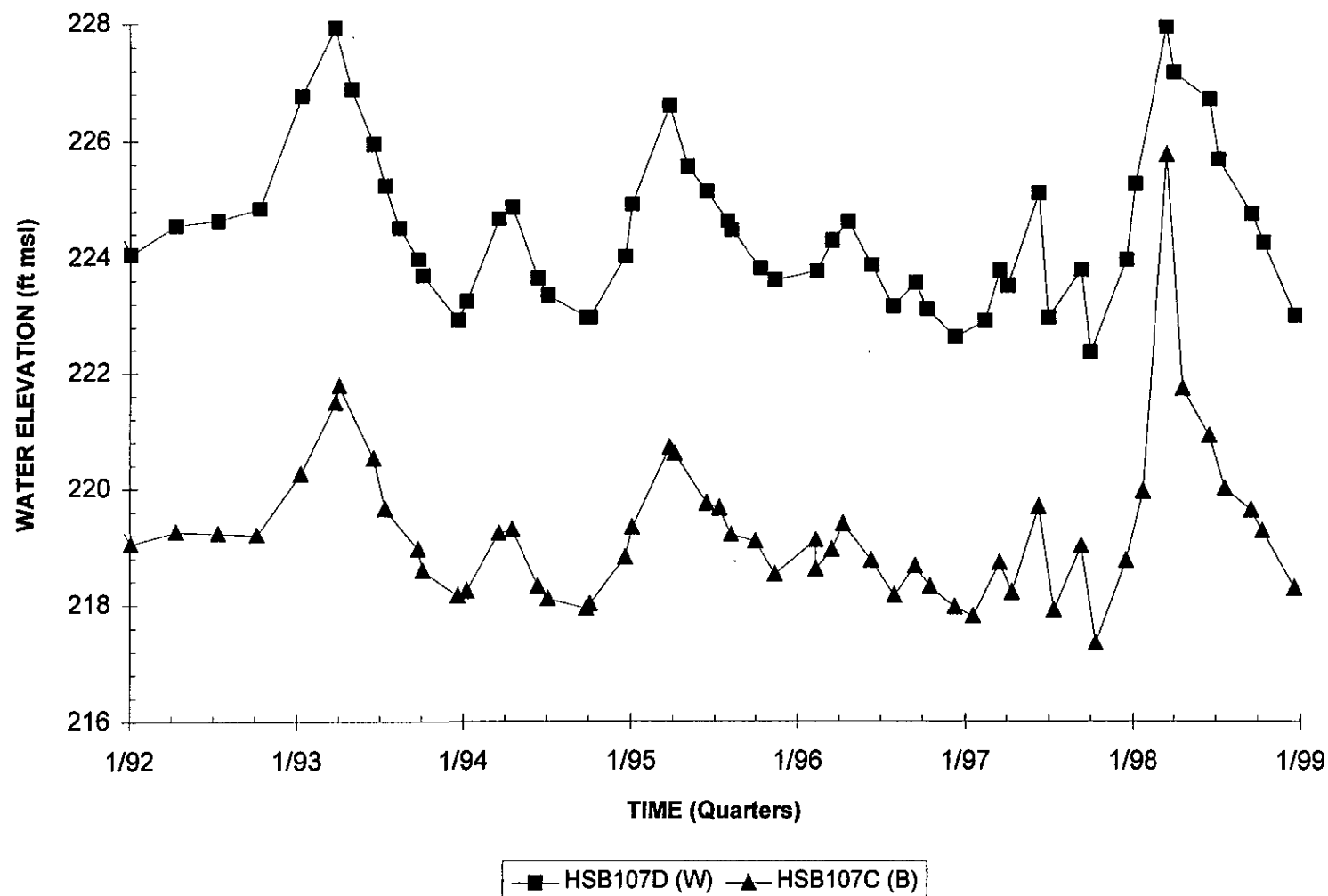
Note: W=Water Table (IB2); B=Barnwell (IB1); M=McBean (IB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

E - 20

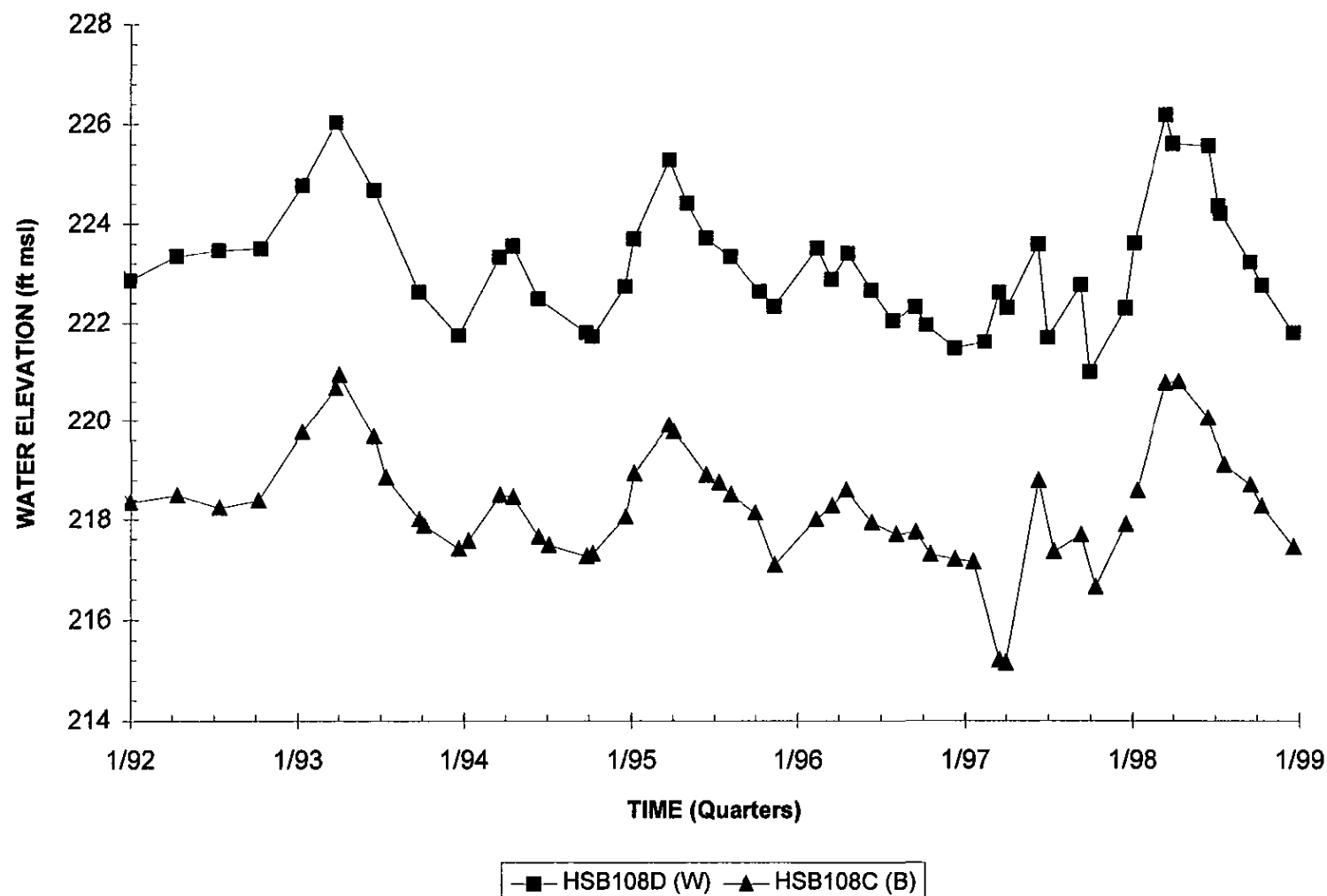
Third and Fourth Quarter 1998

Hydrograph Well Cluster HSB107



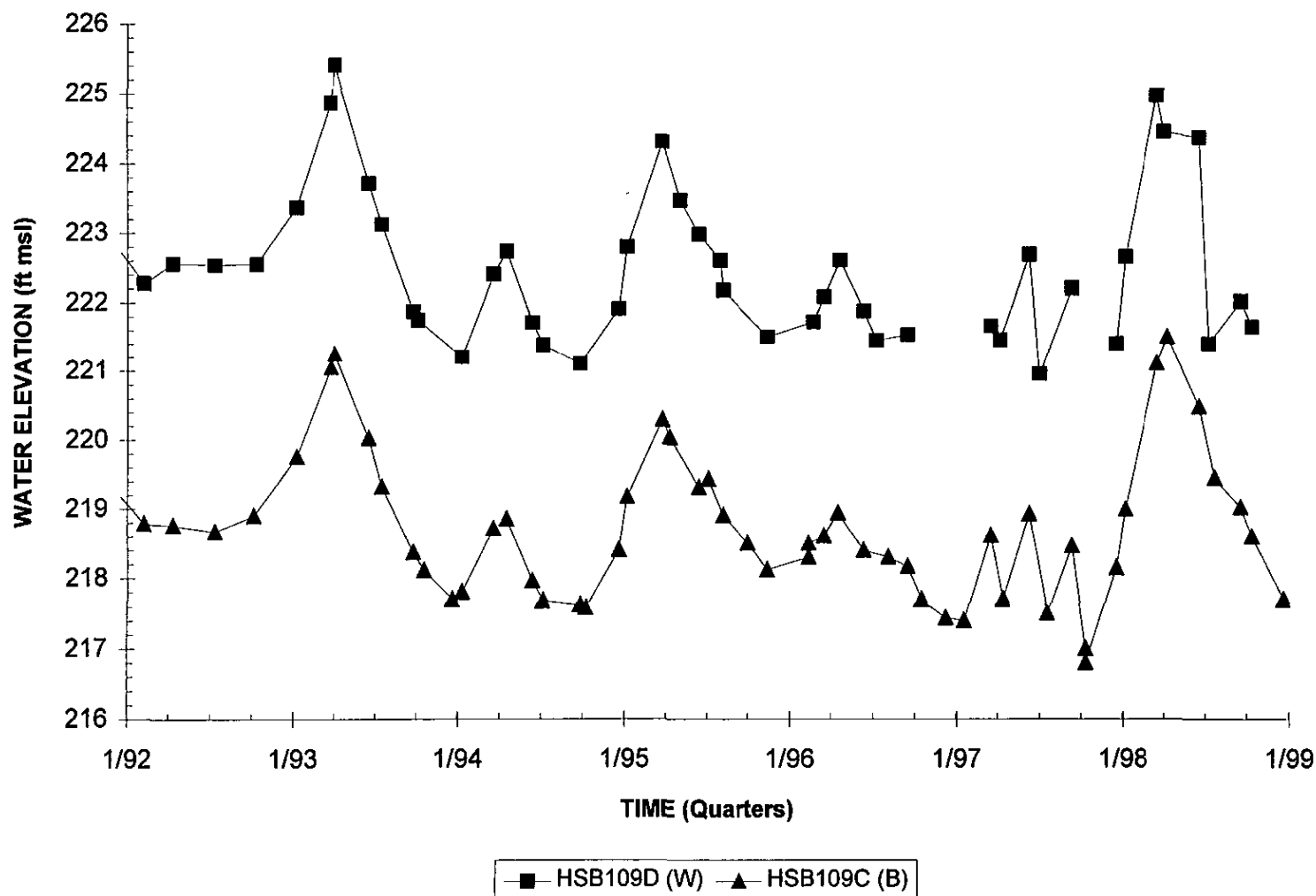
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB108



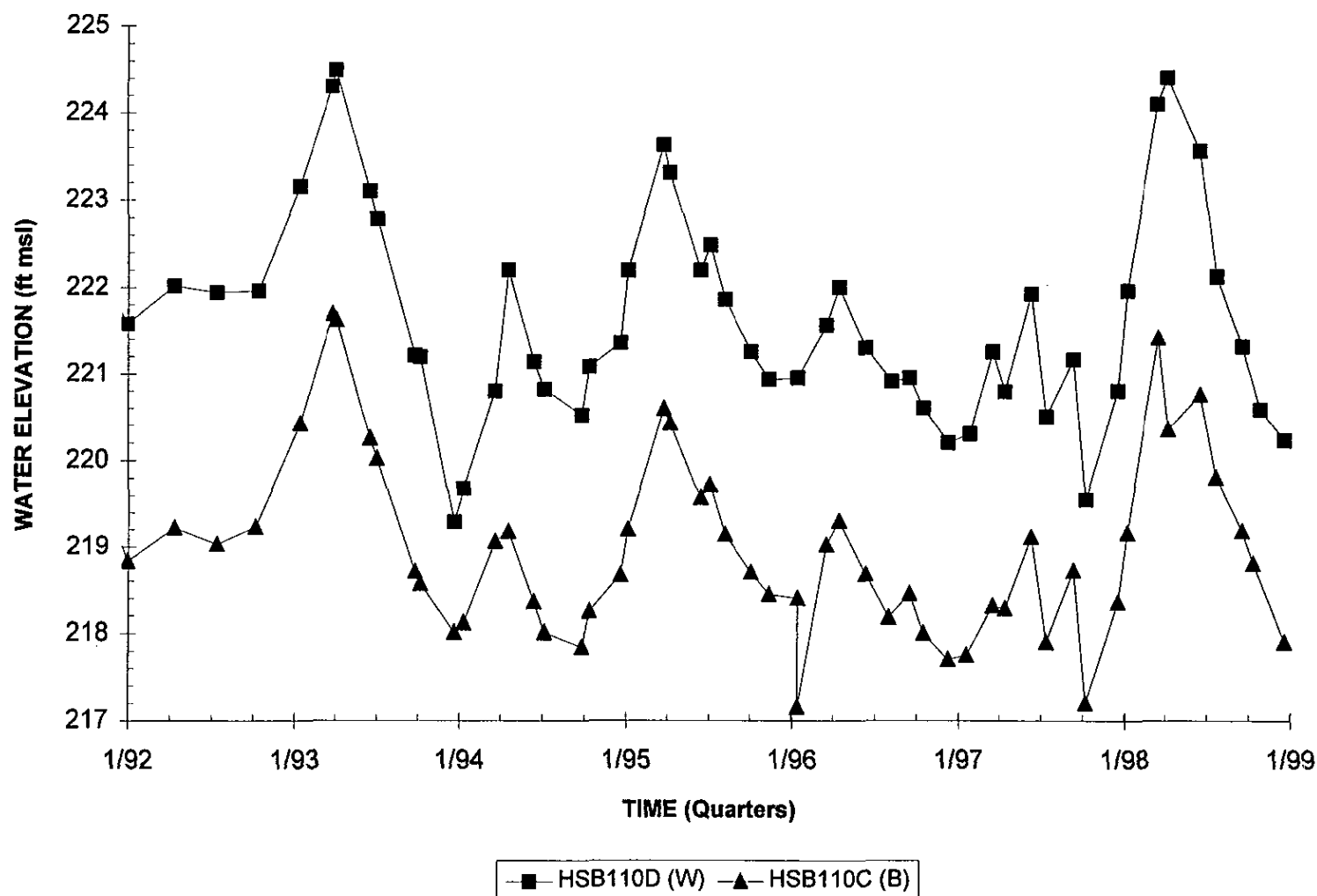
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB109



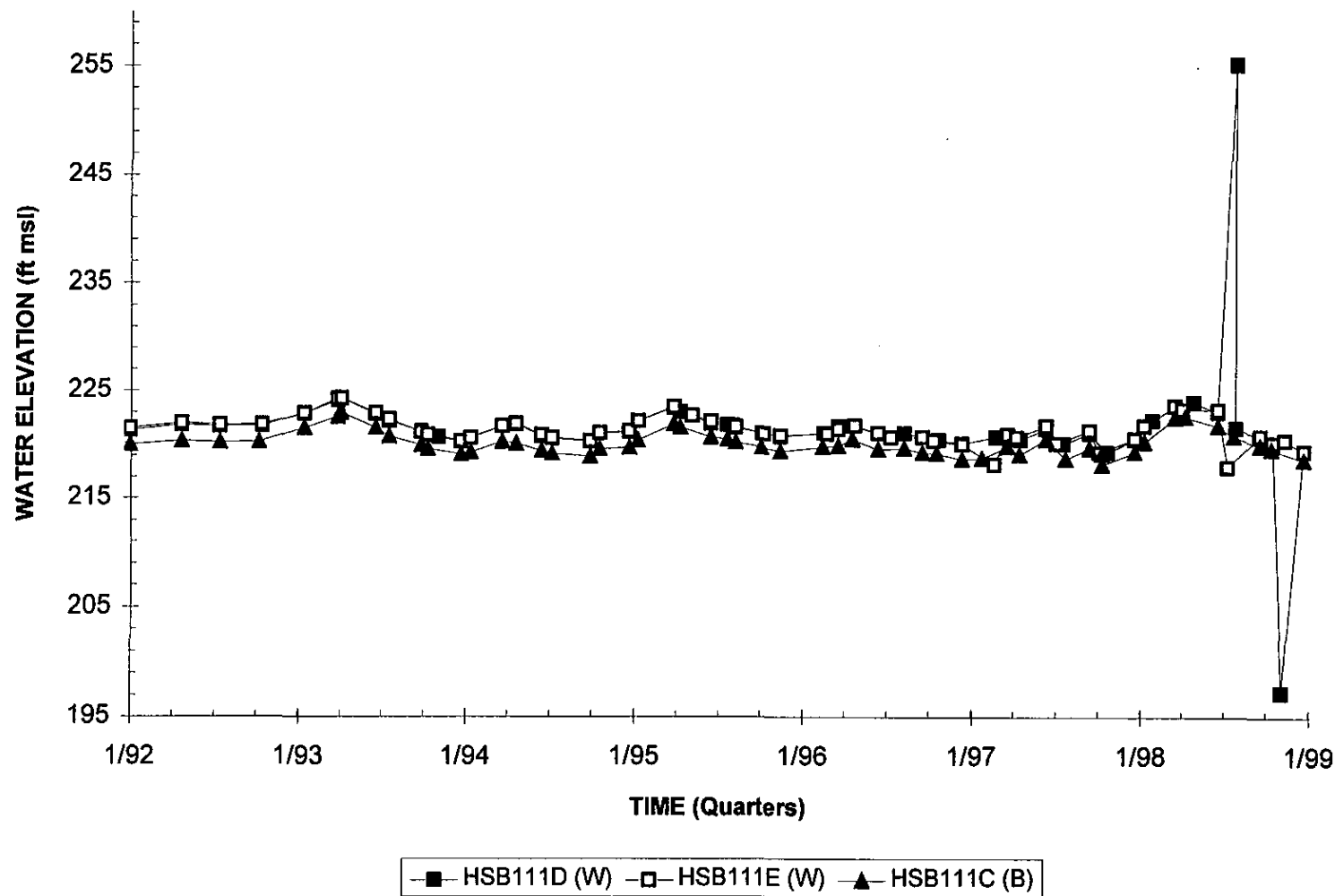
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB110



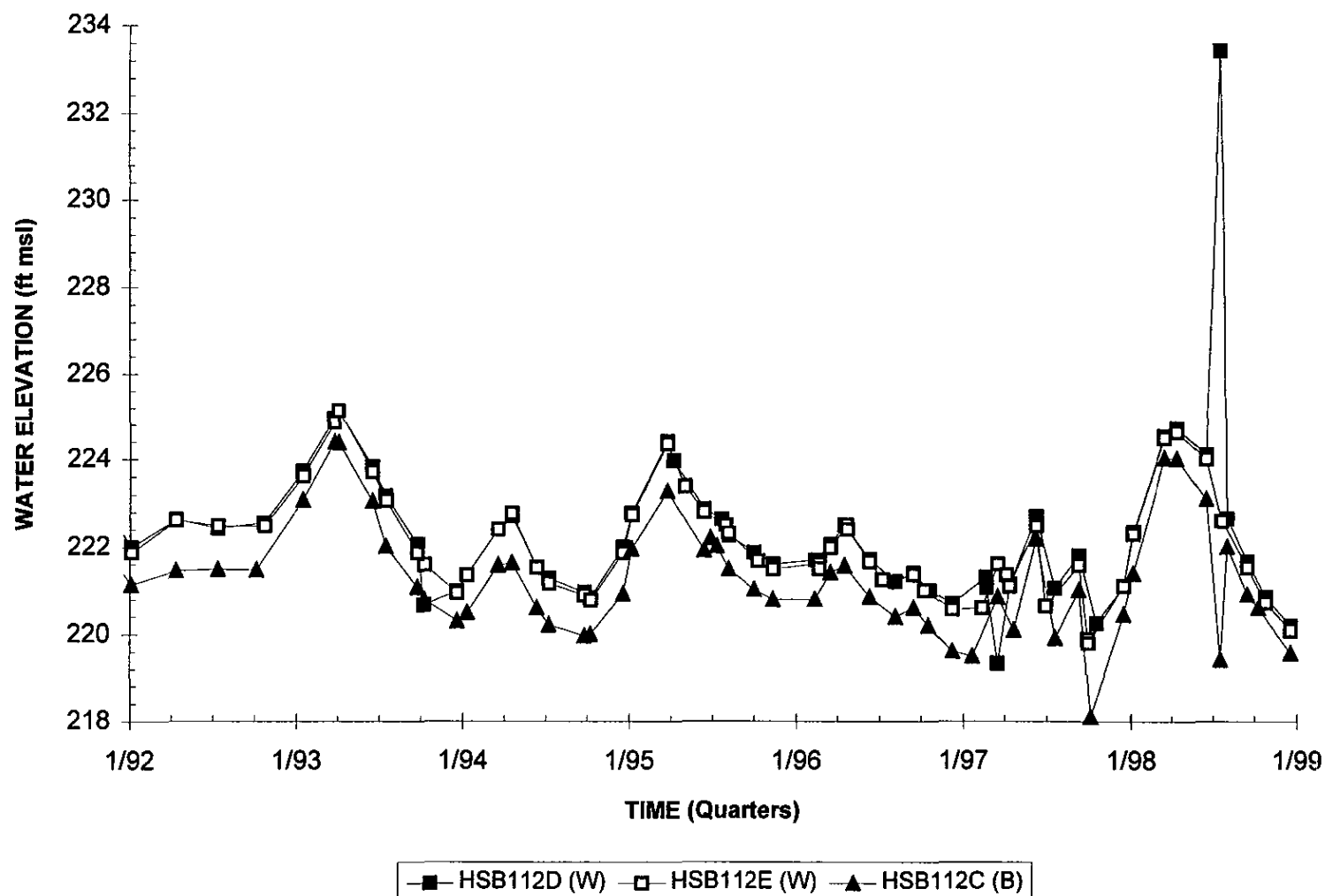
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB111



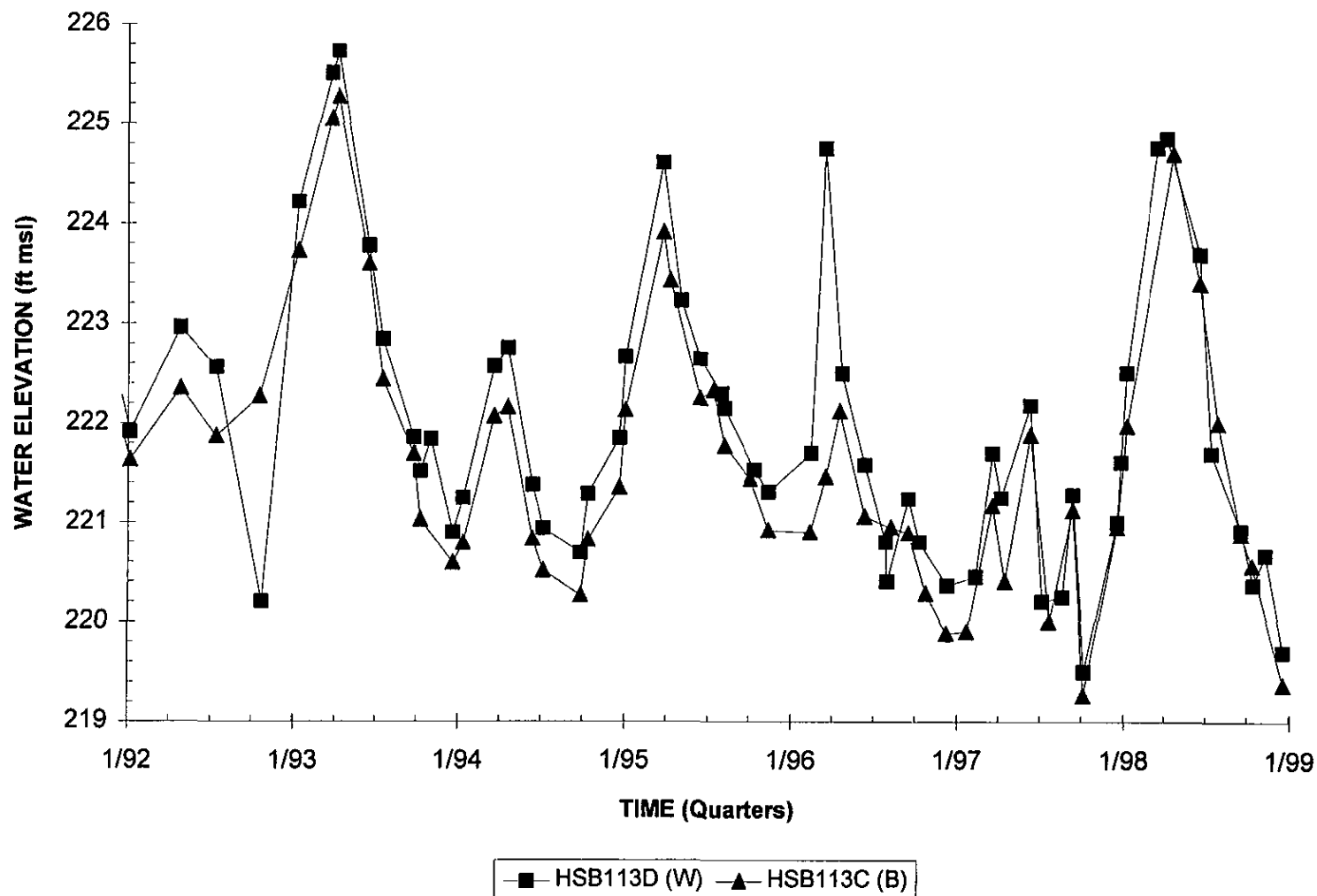
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB112



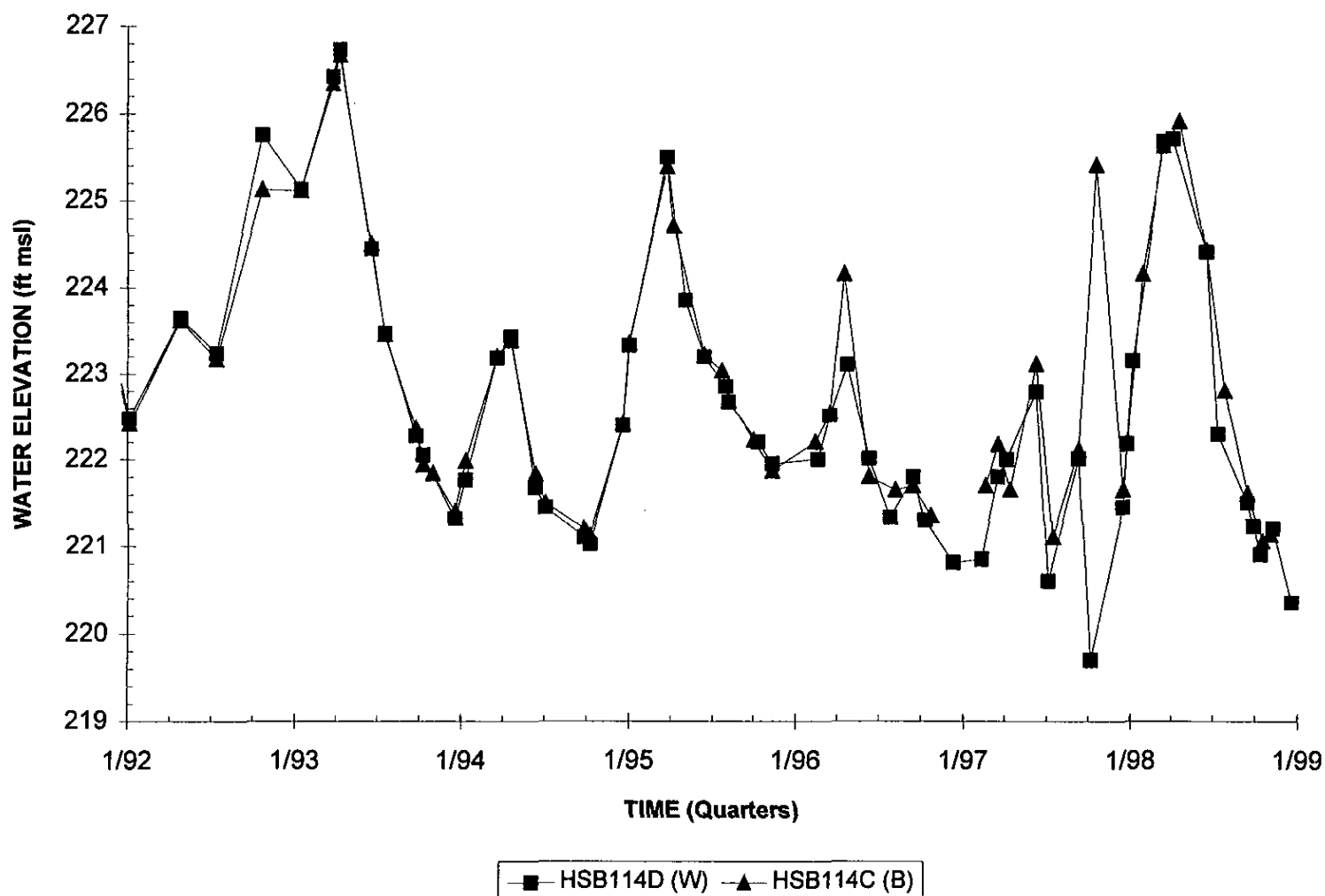
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB113



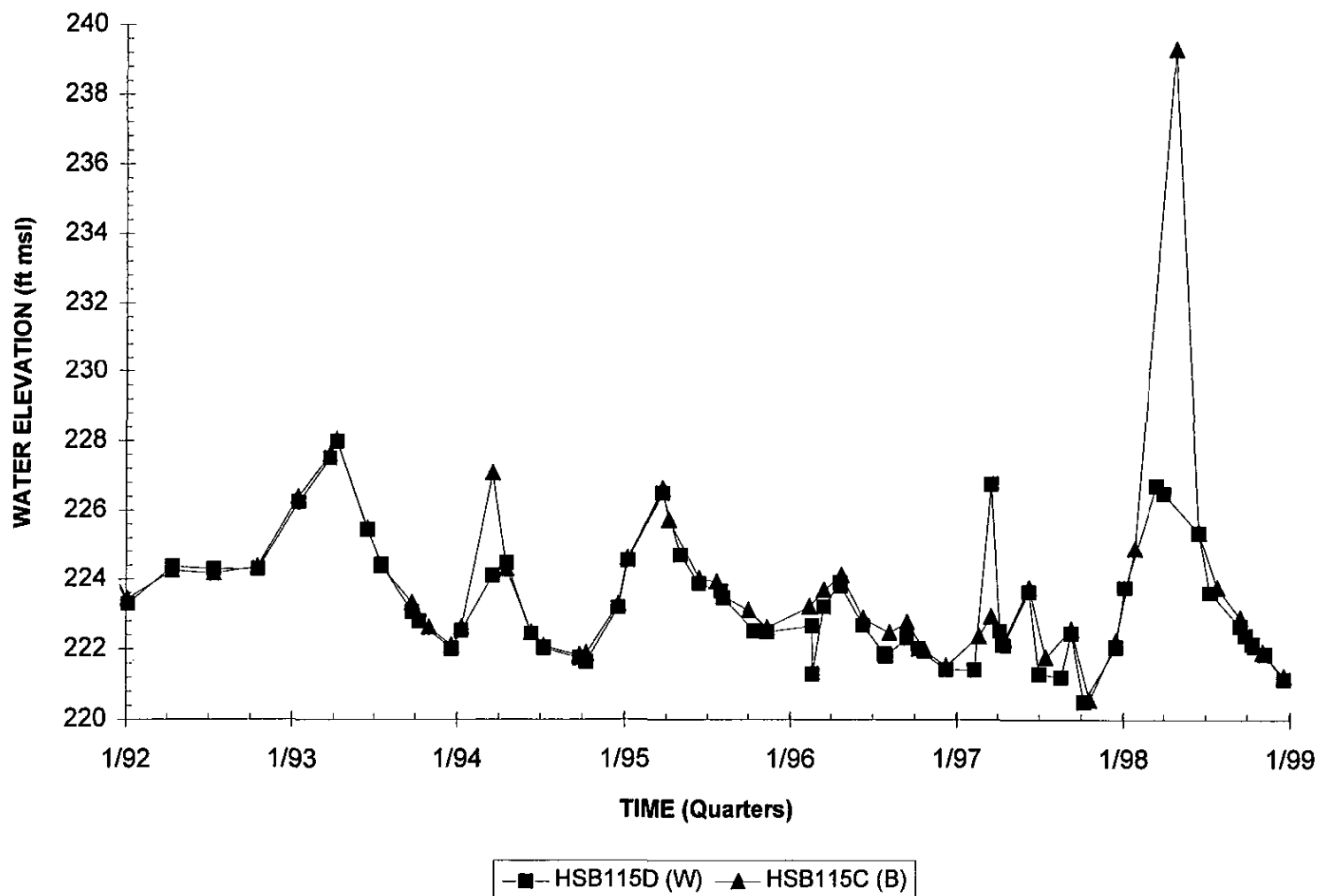
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB114



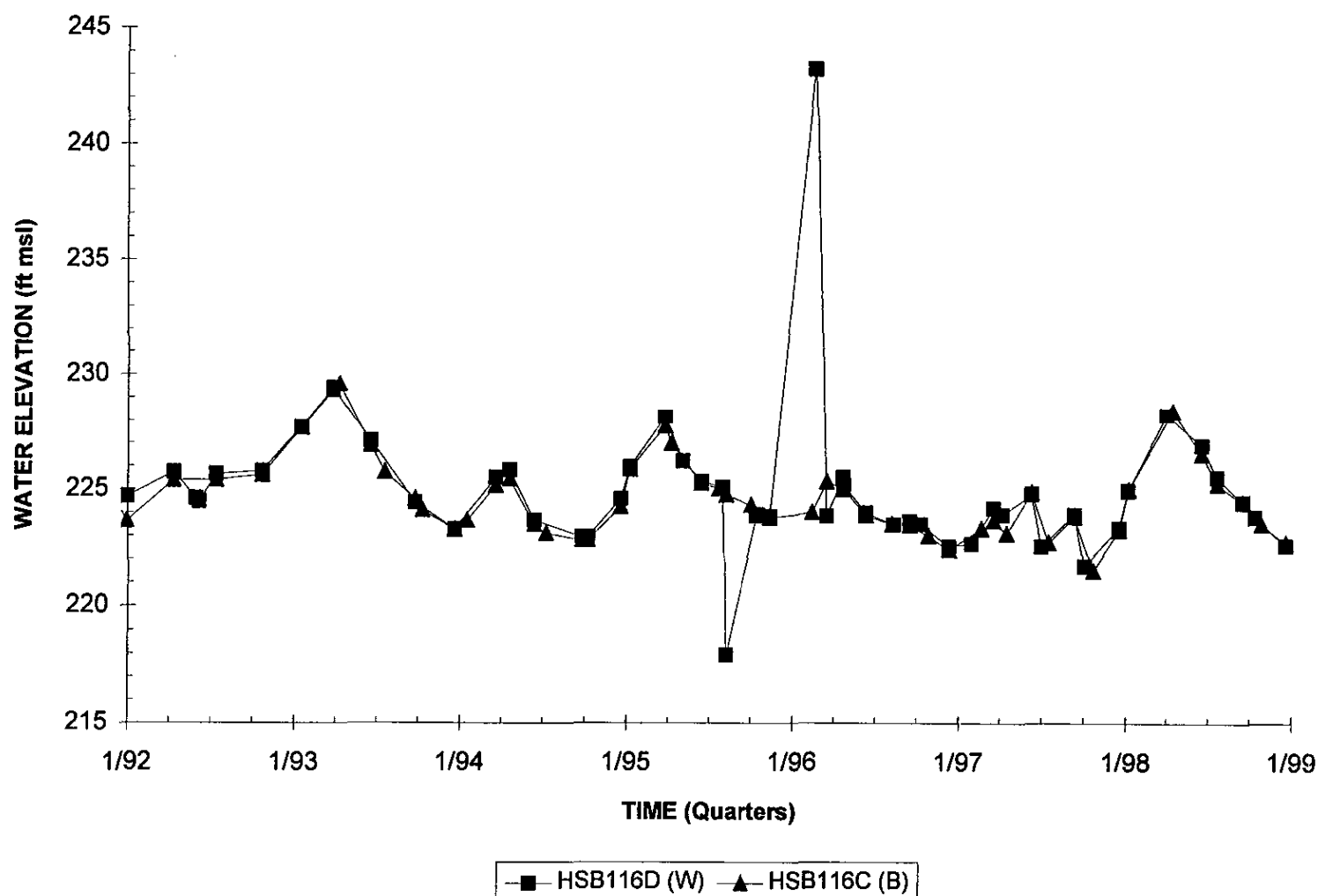
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB115



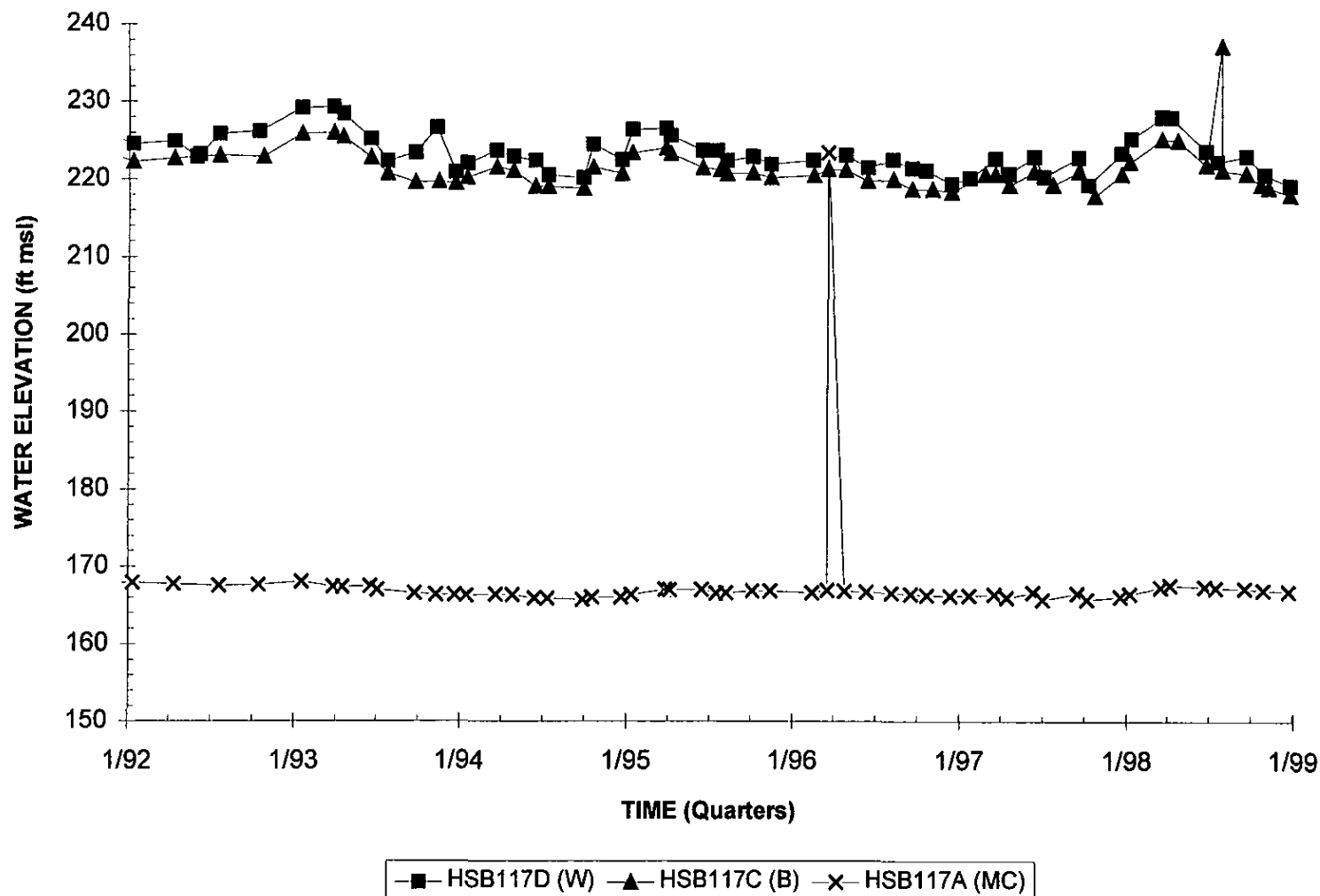
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB116



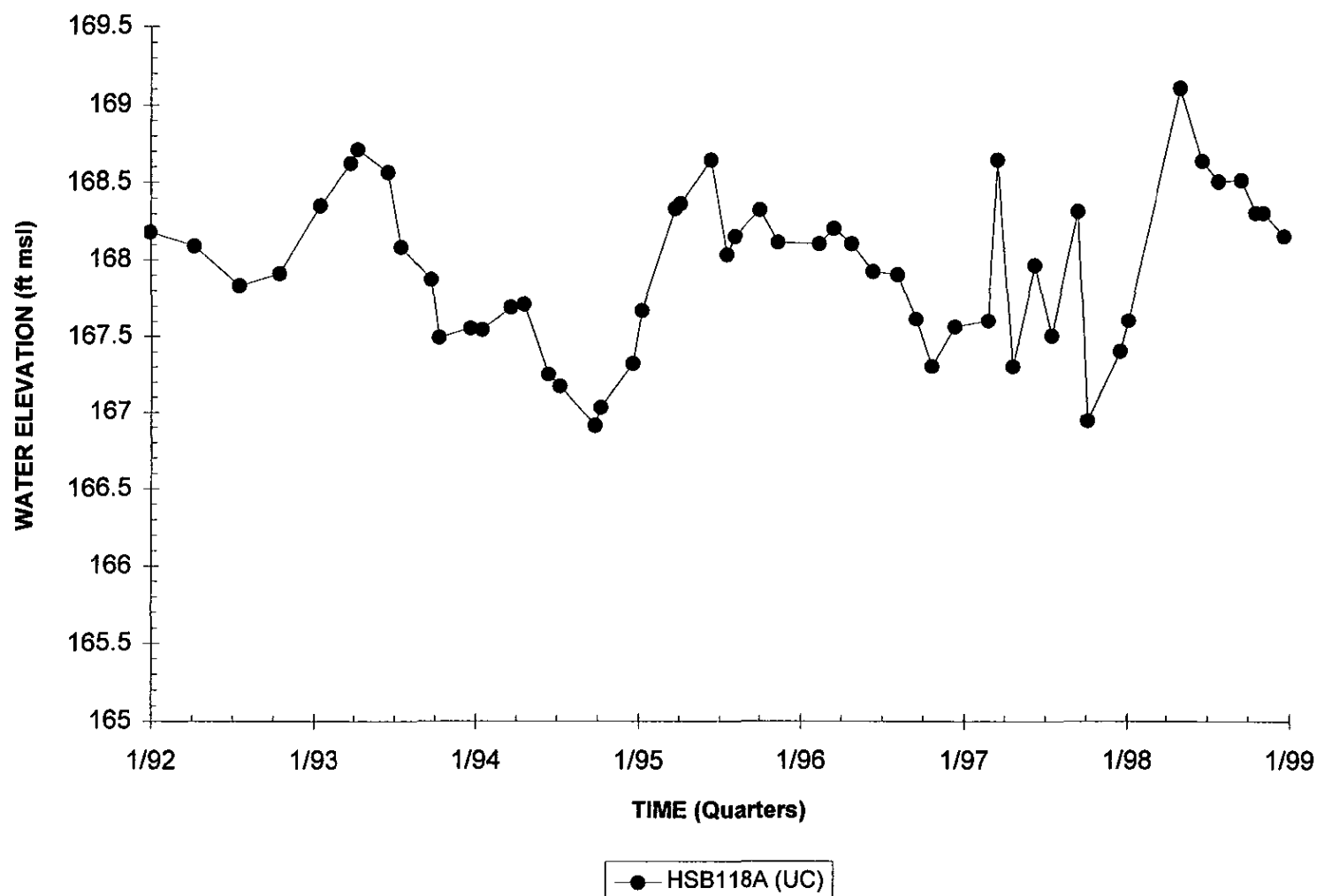
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB117



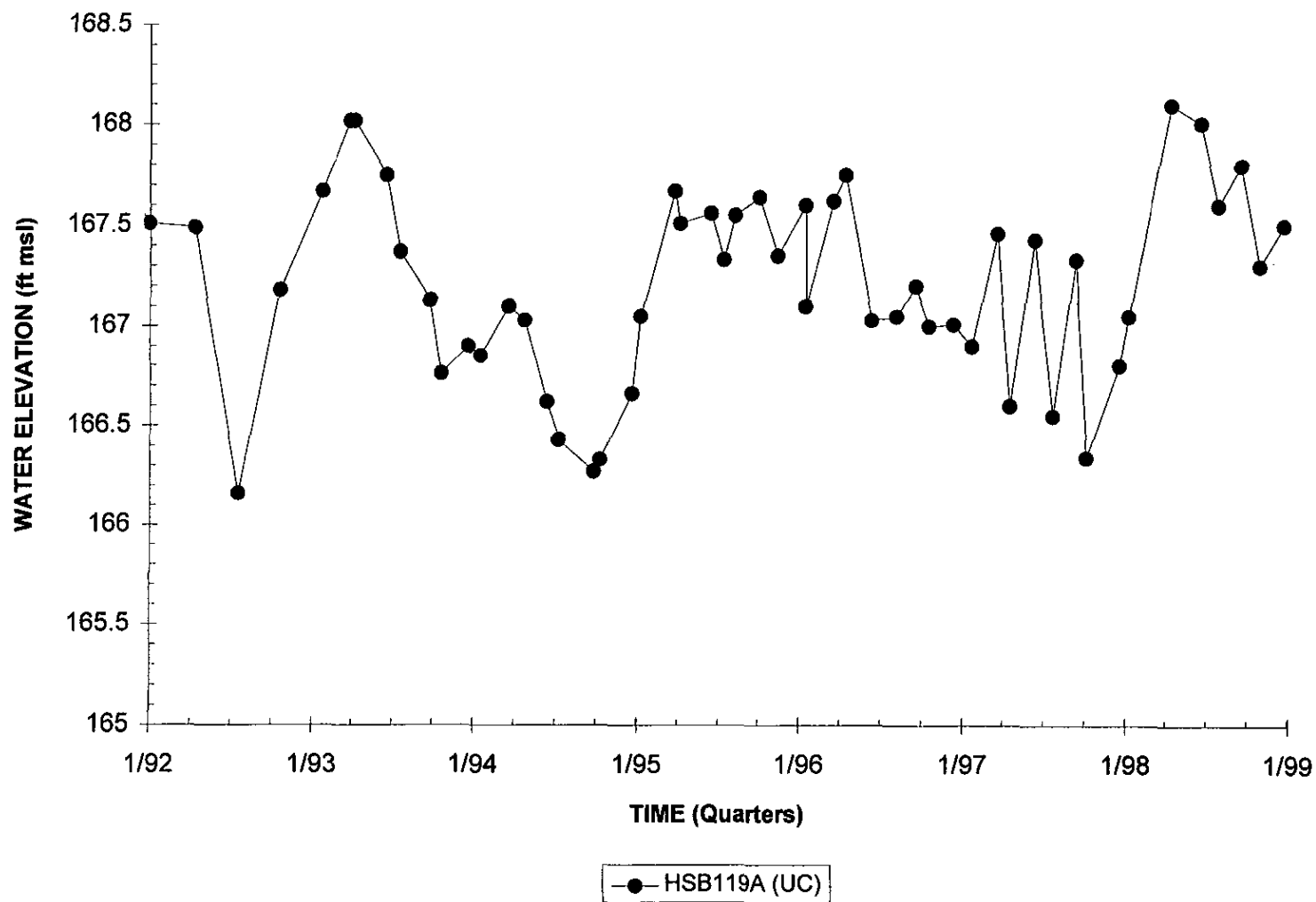
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB118A



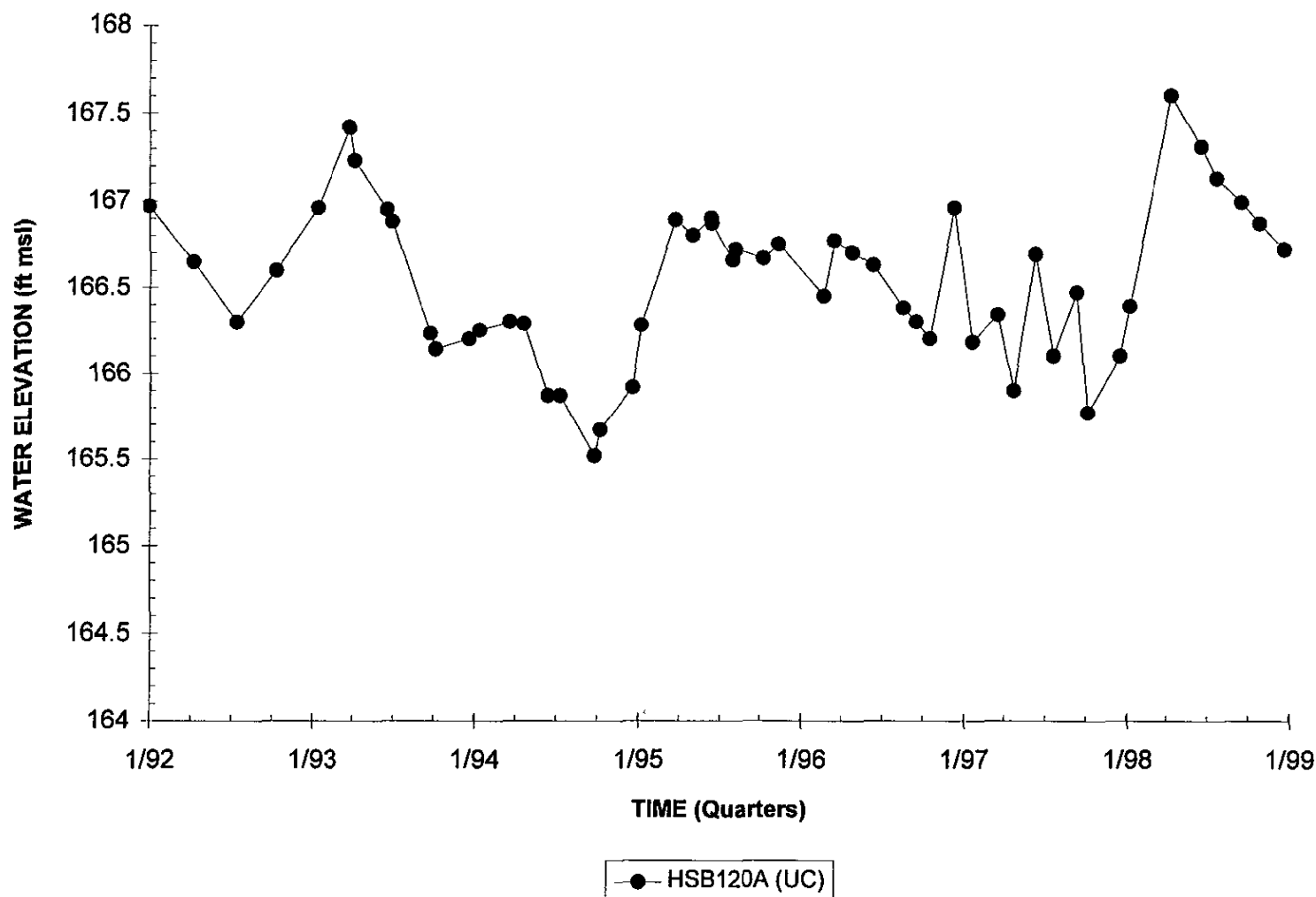
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB119A



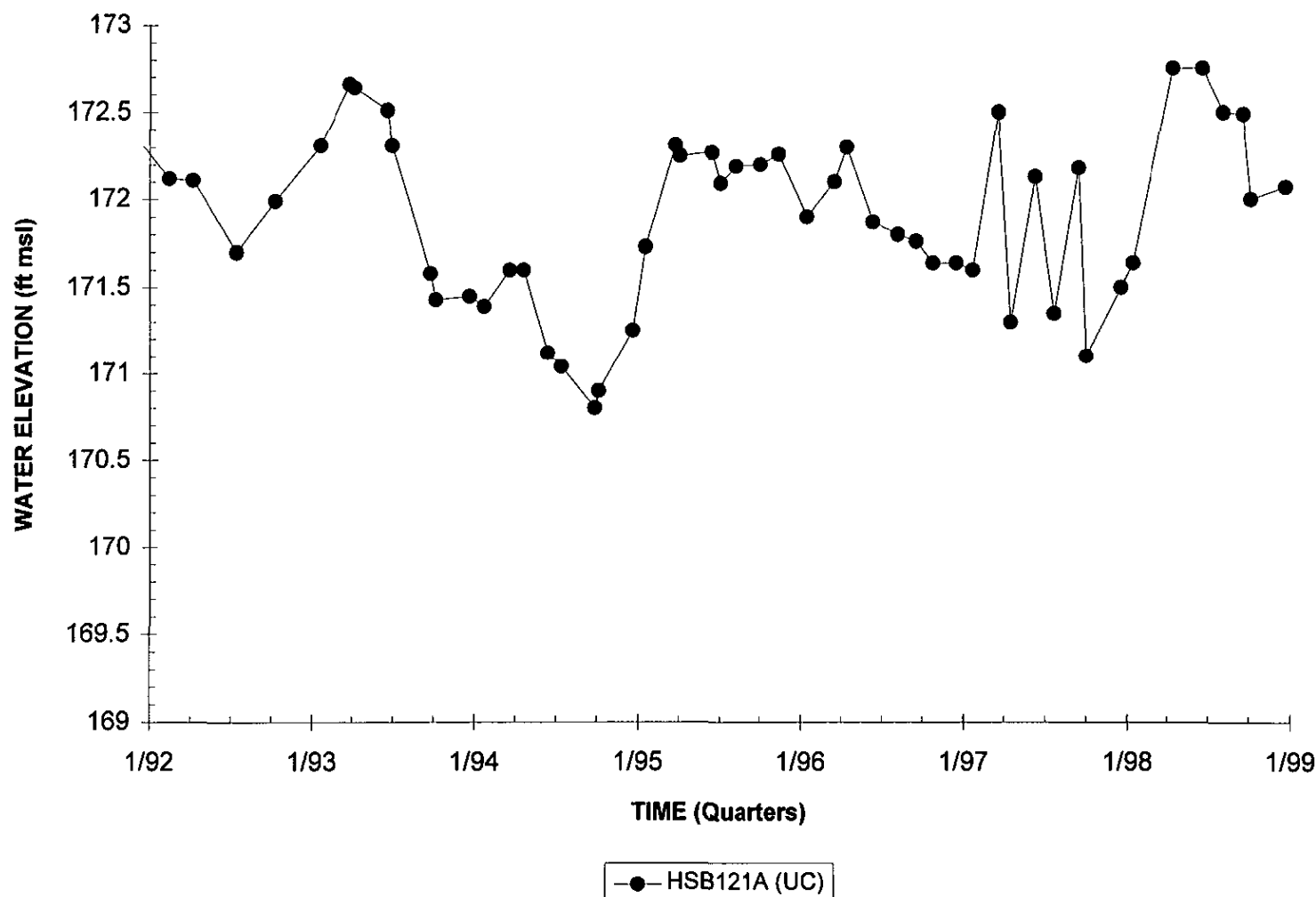
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB120A



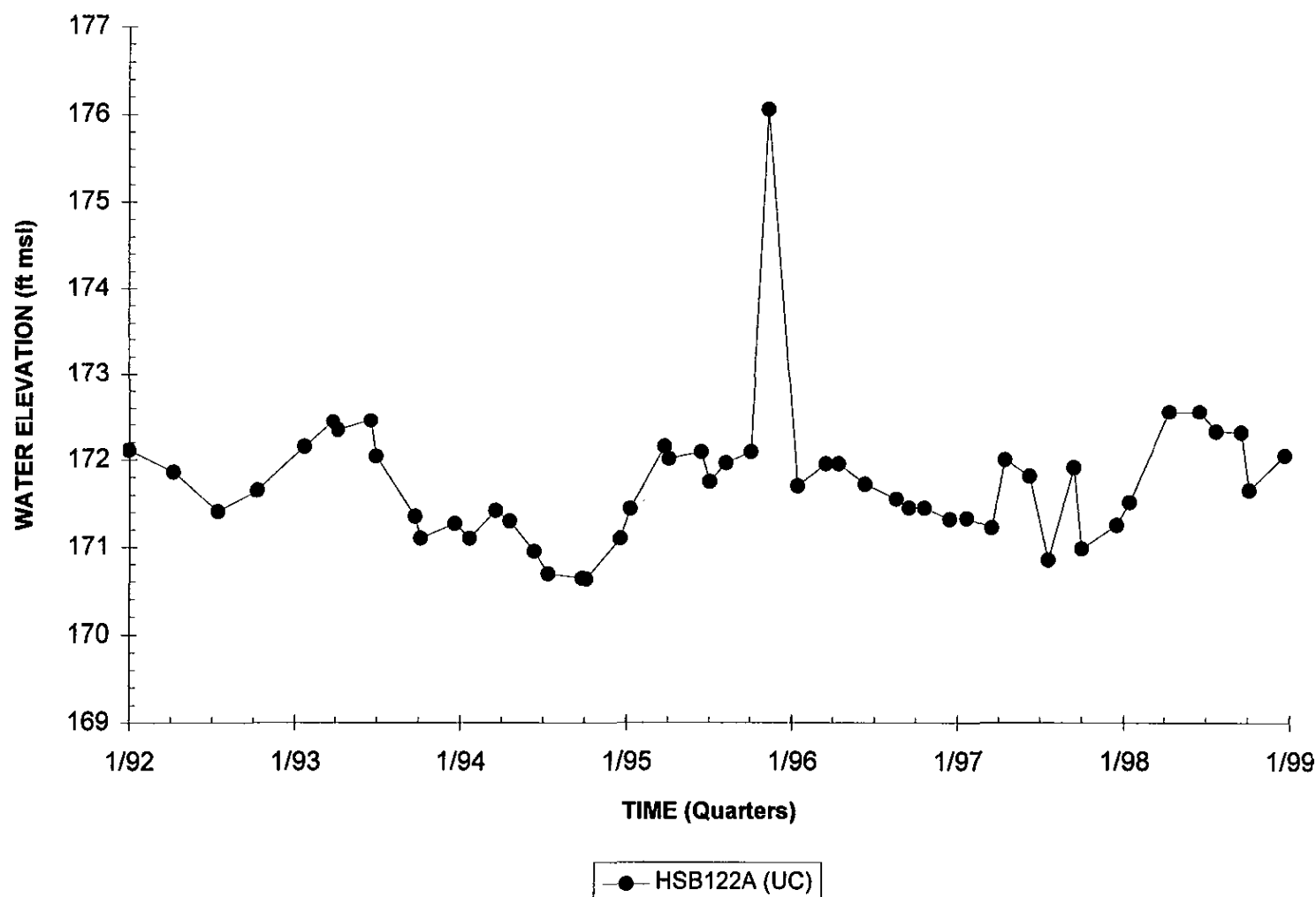
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB121A



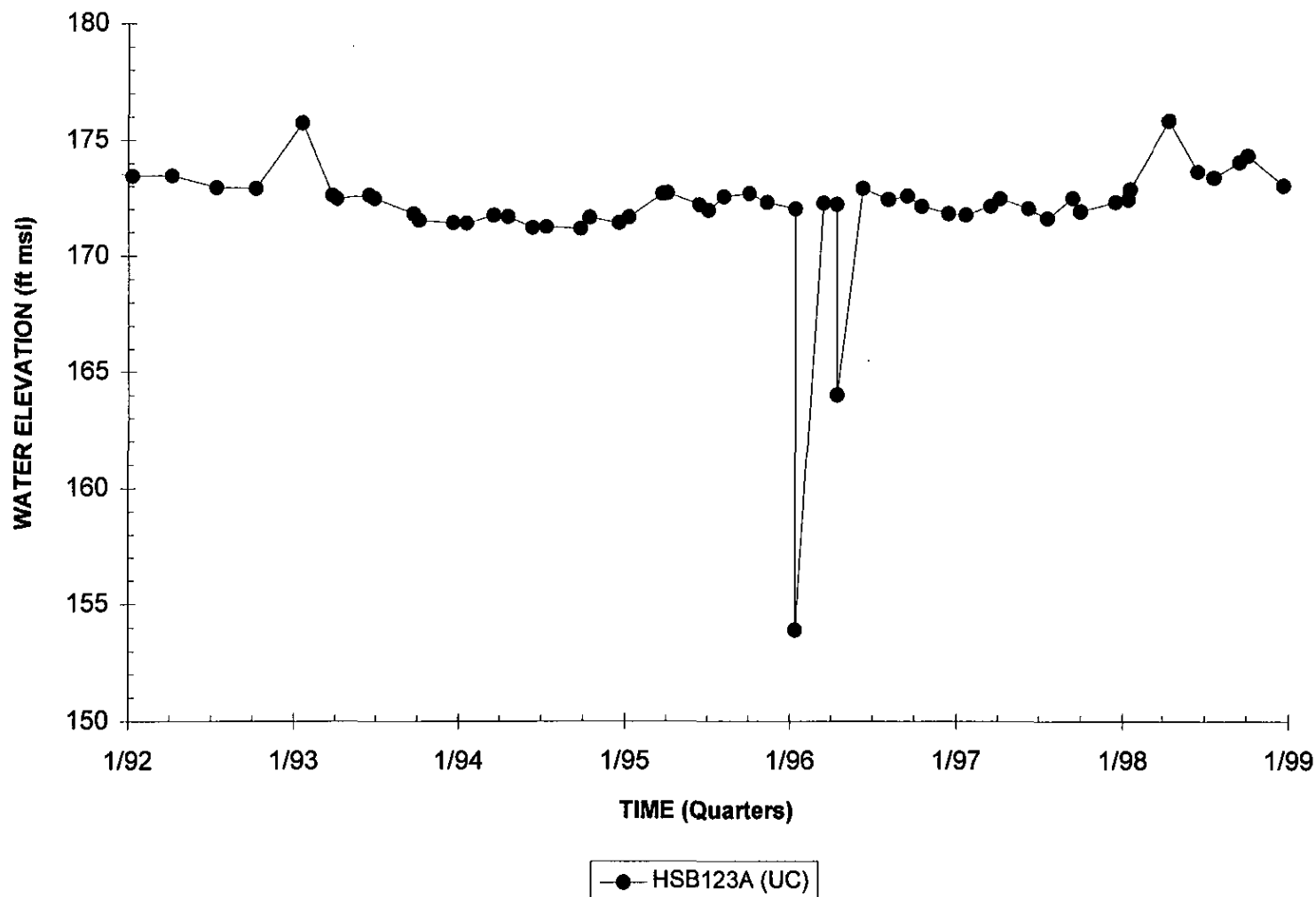
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB122A



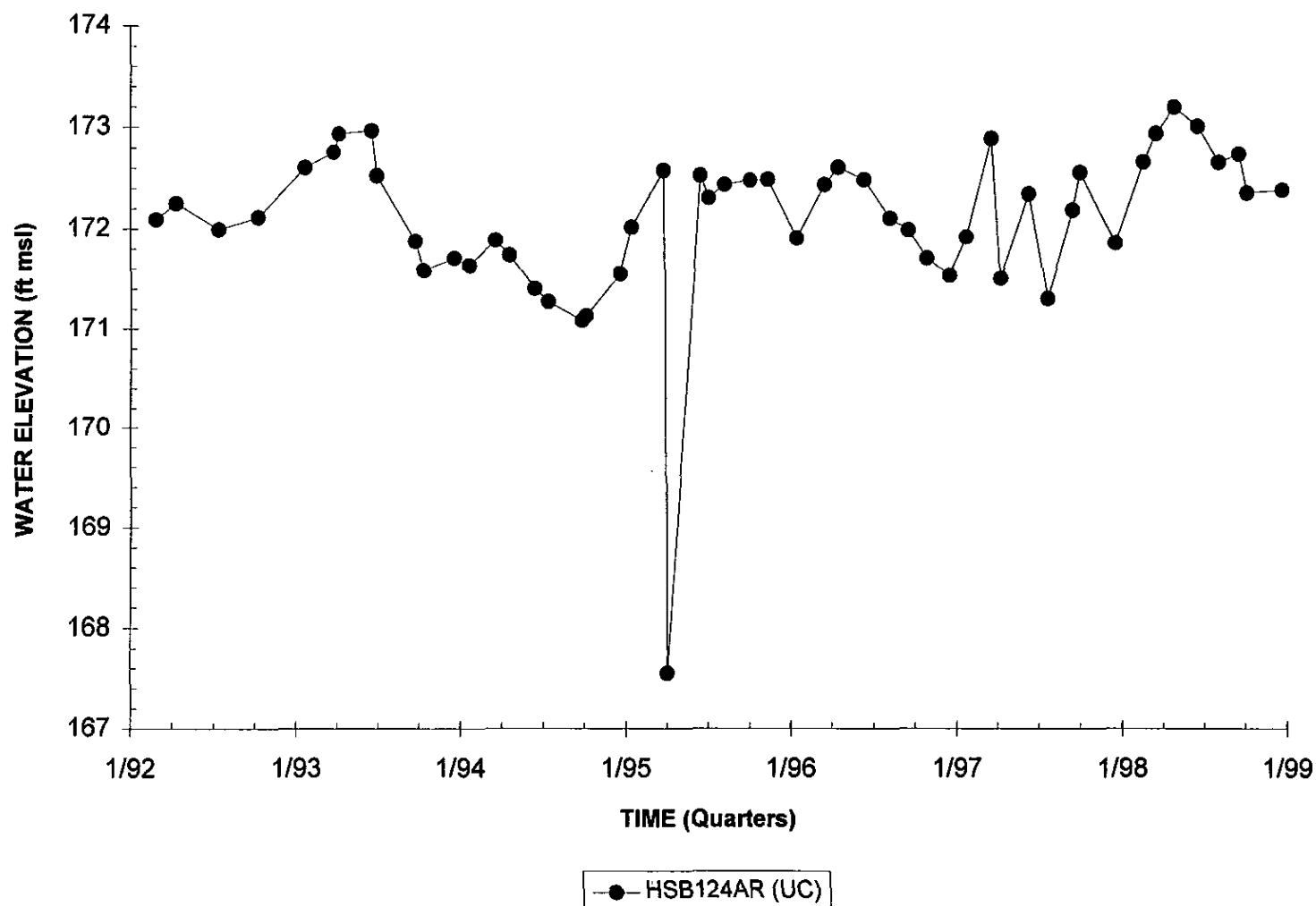
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB123A



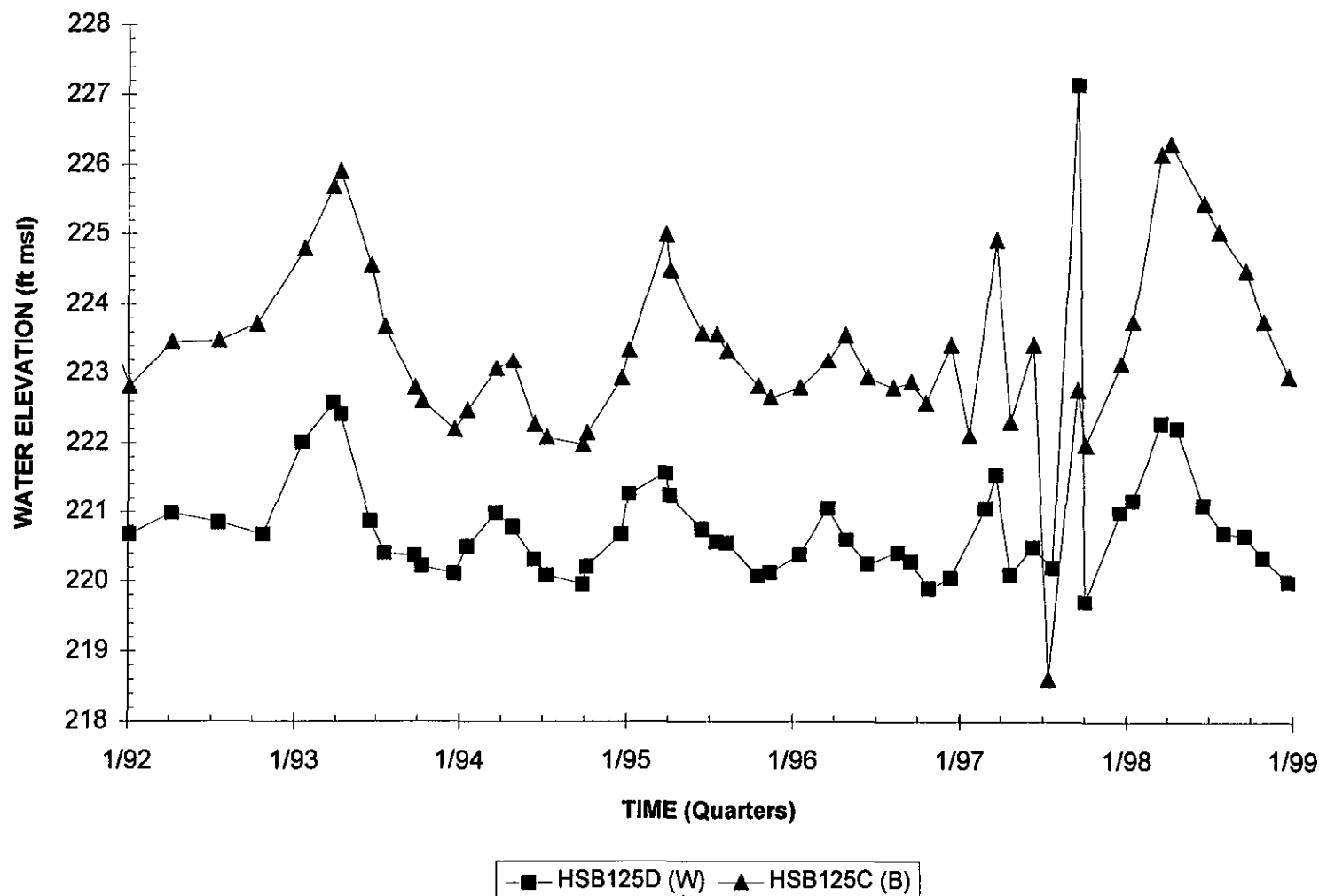
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB124AR



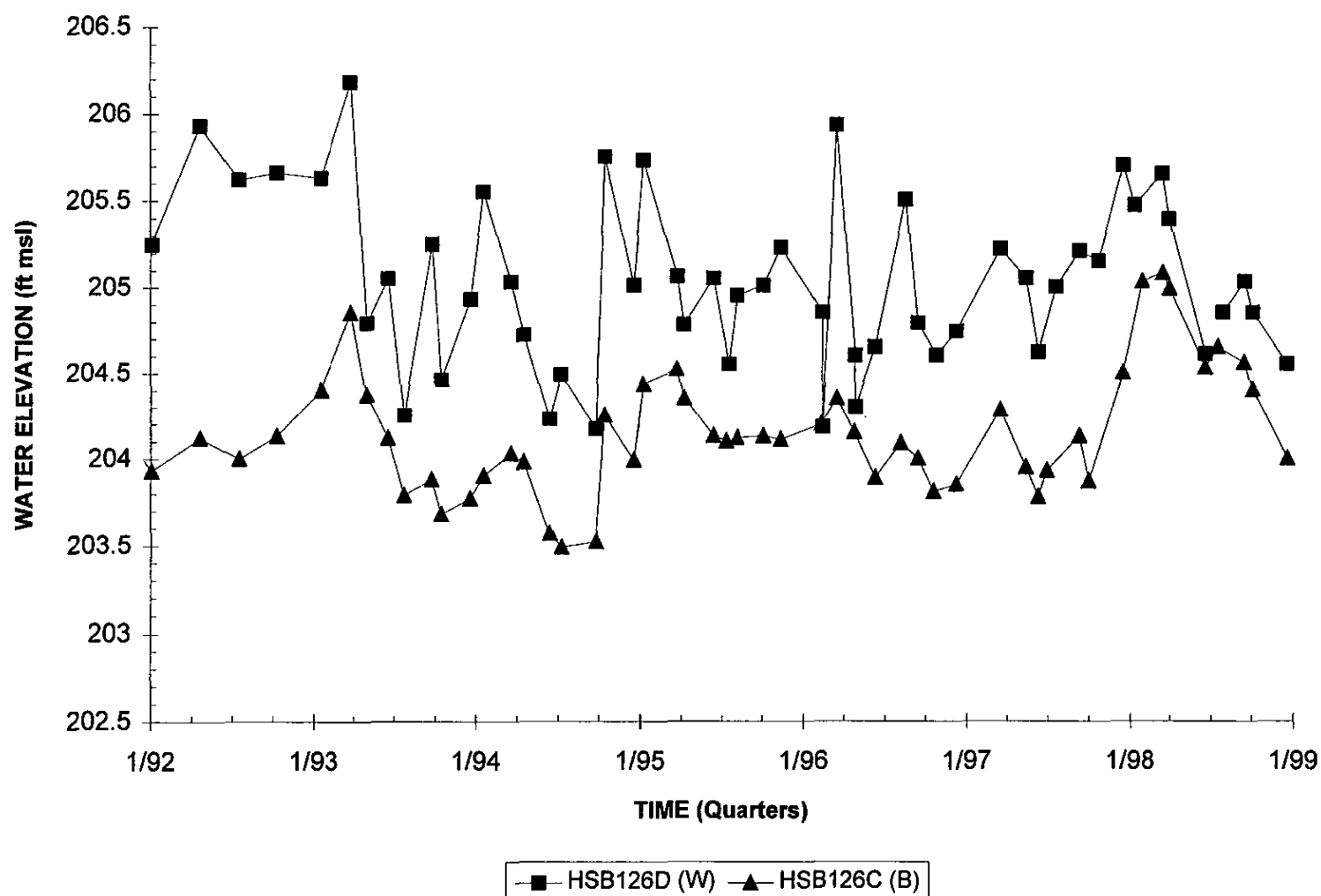
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB125



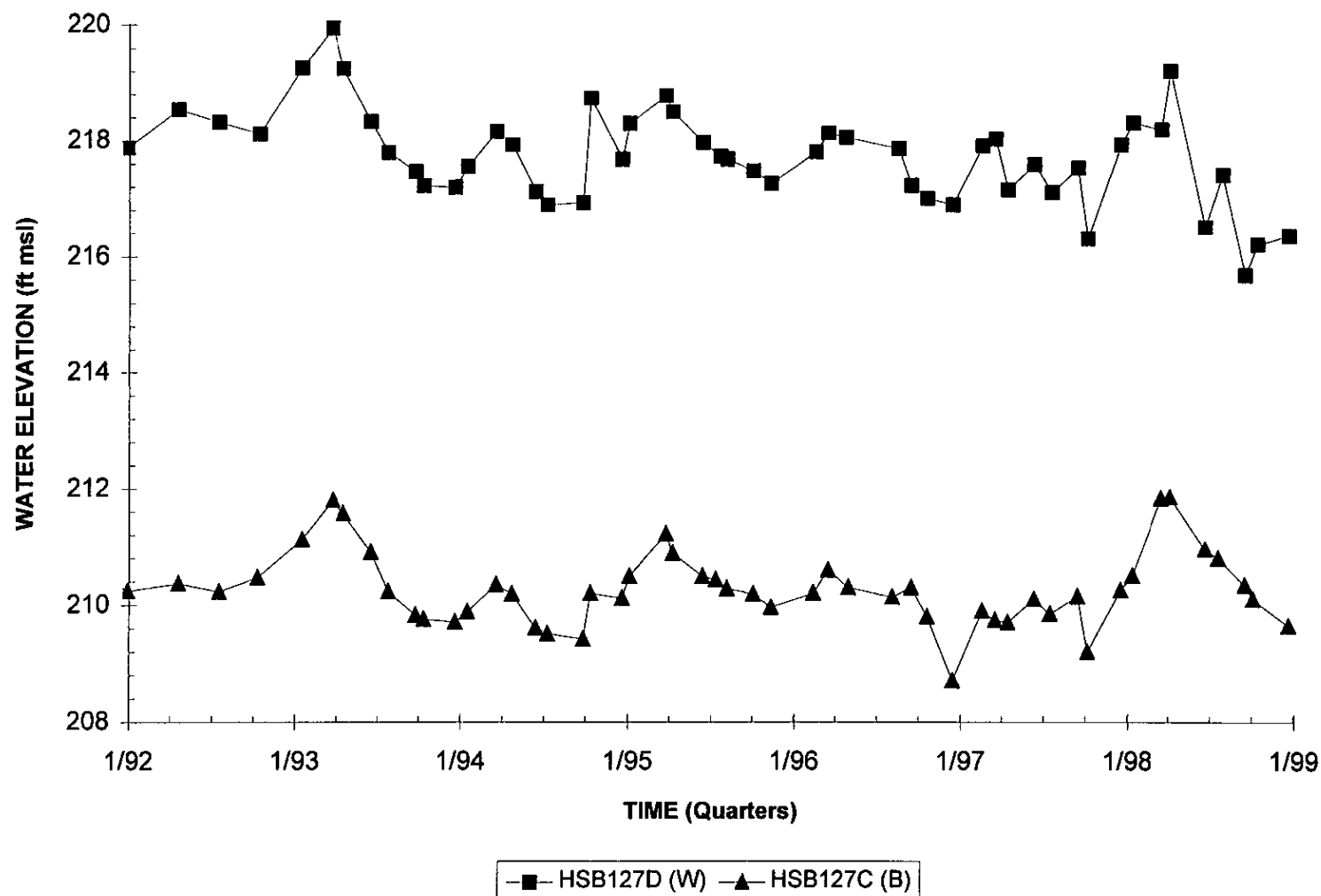
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB126



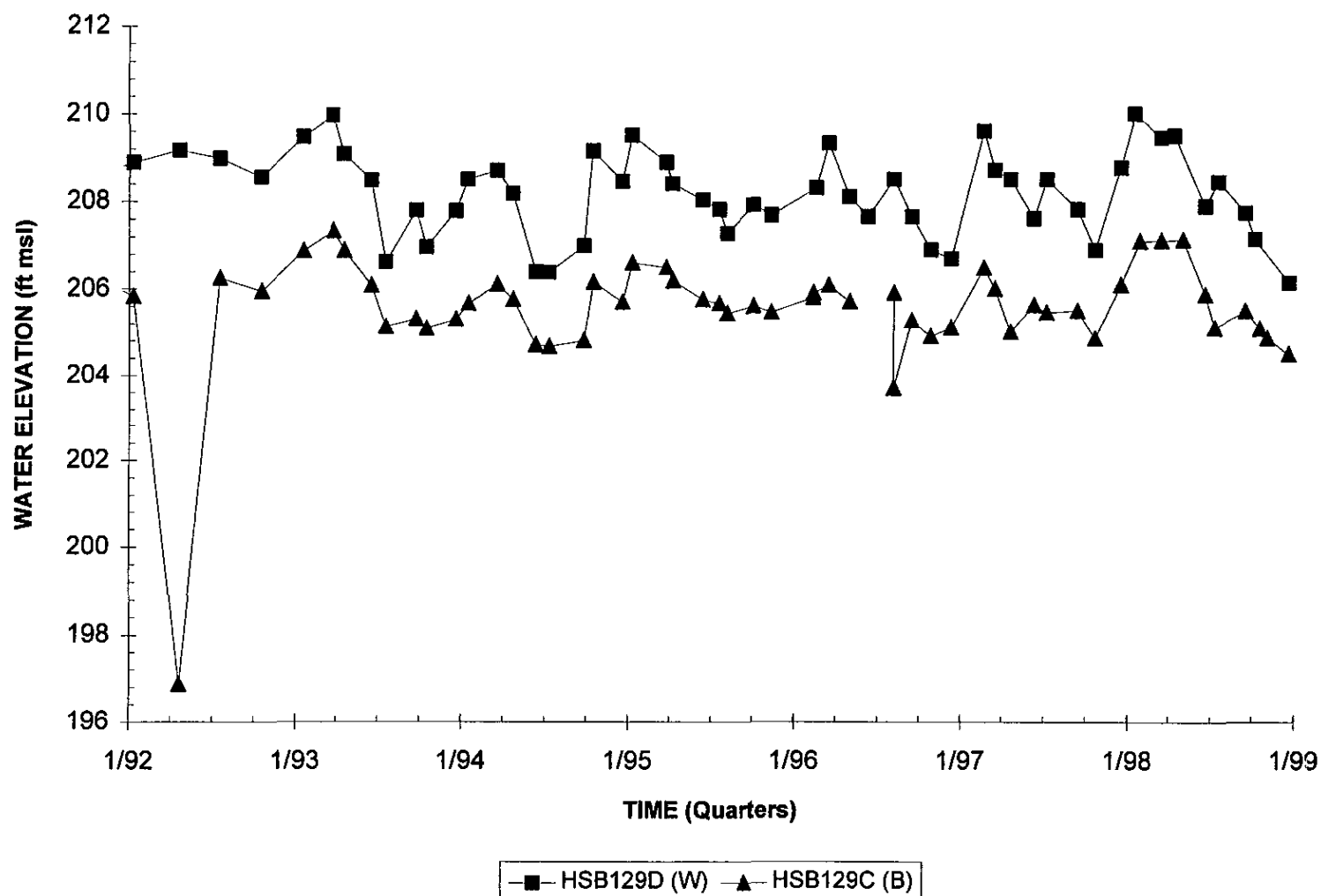
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB127



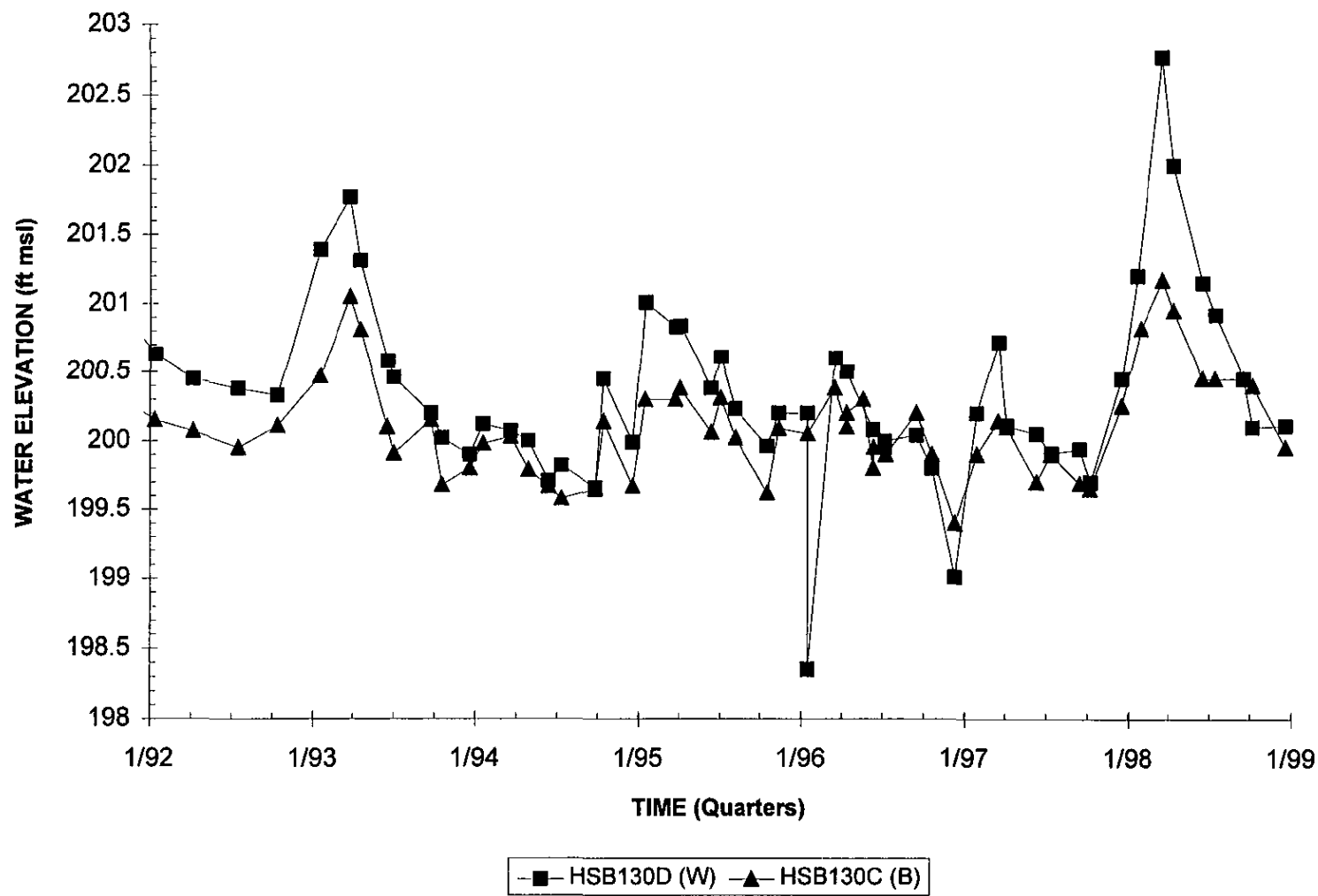
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB129



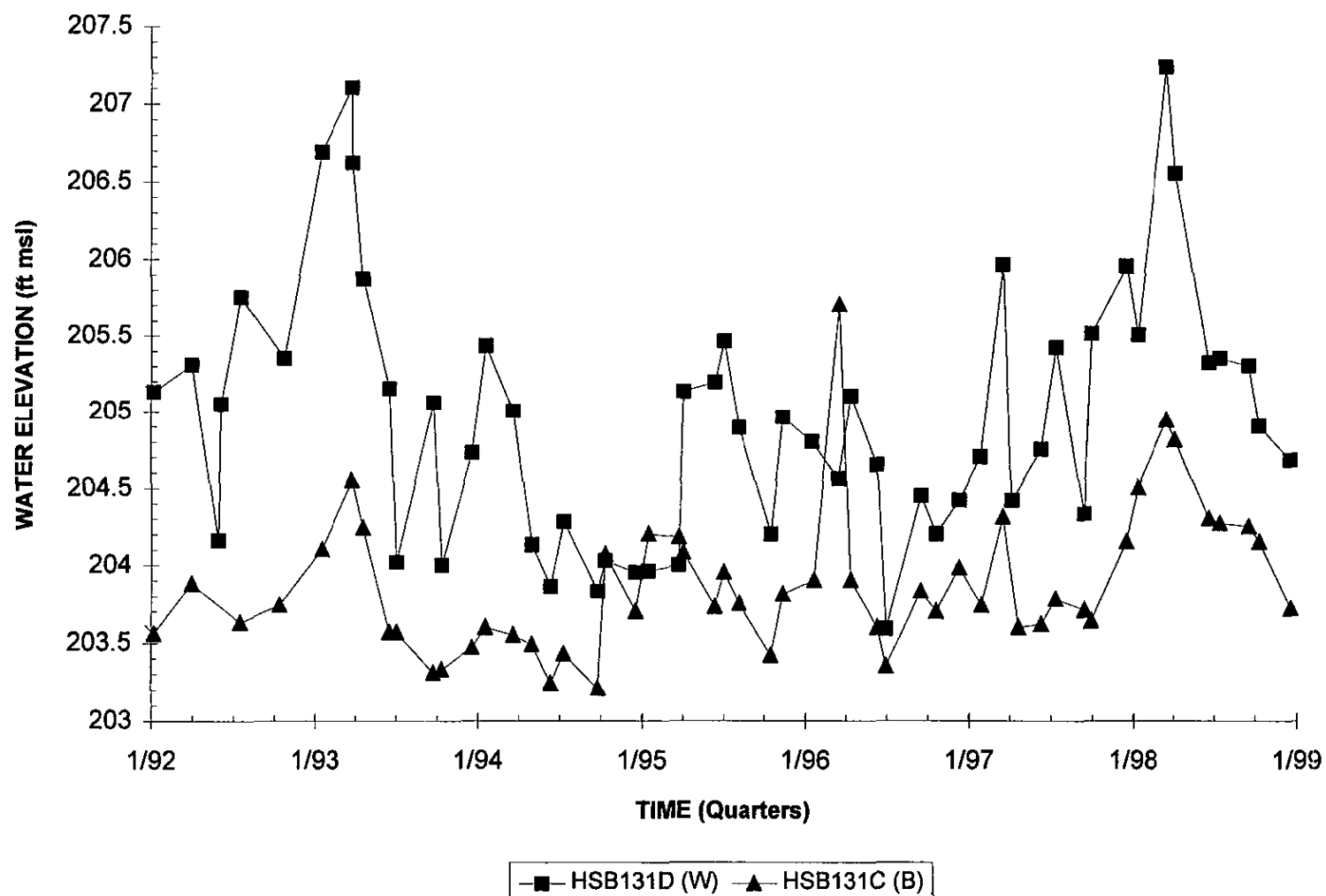
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB130



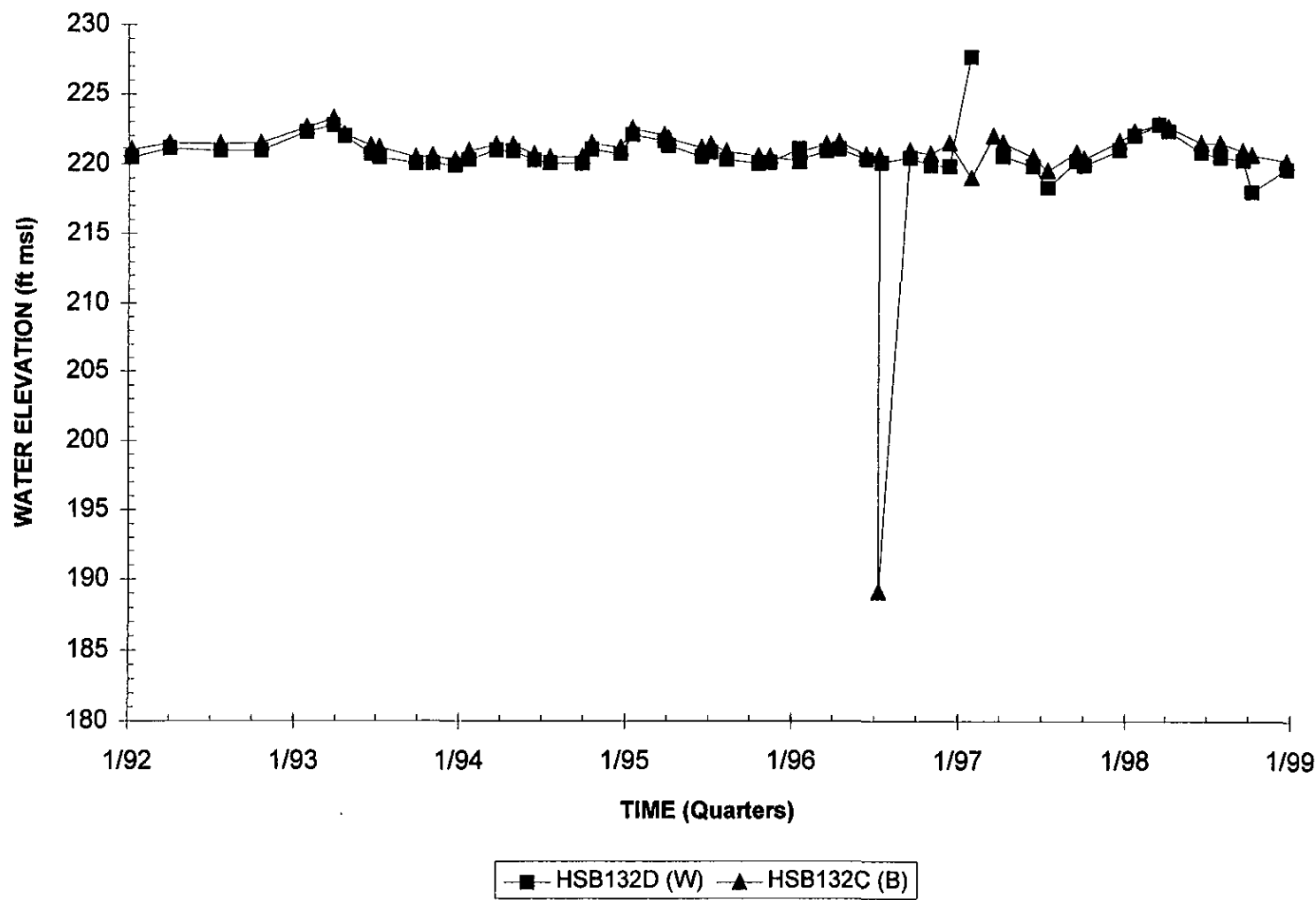
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB131



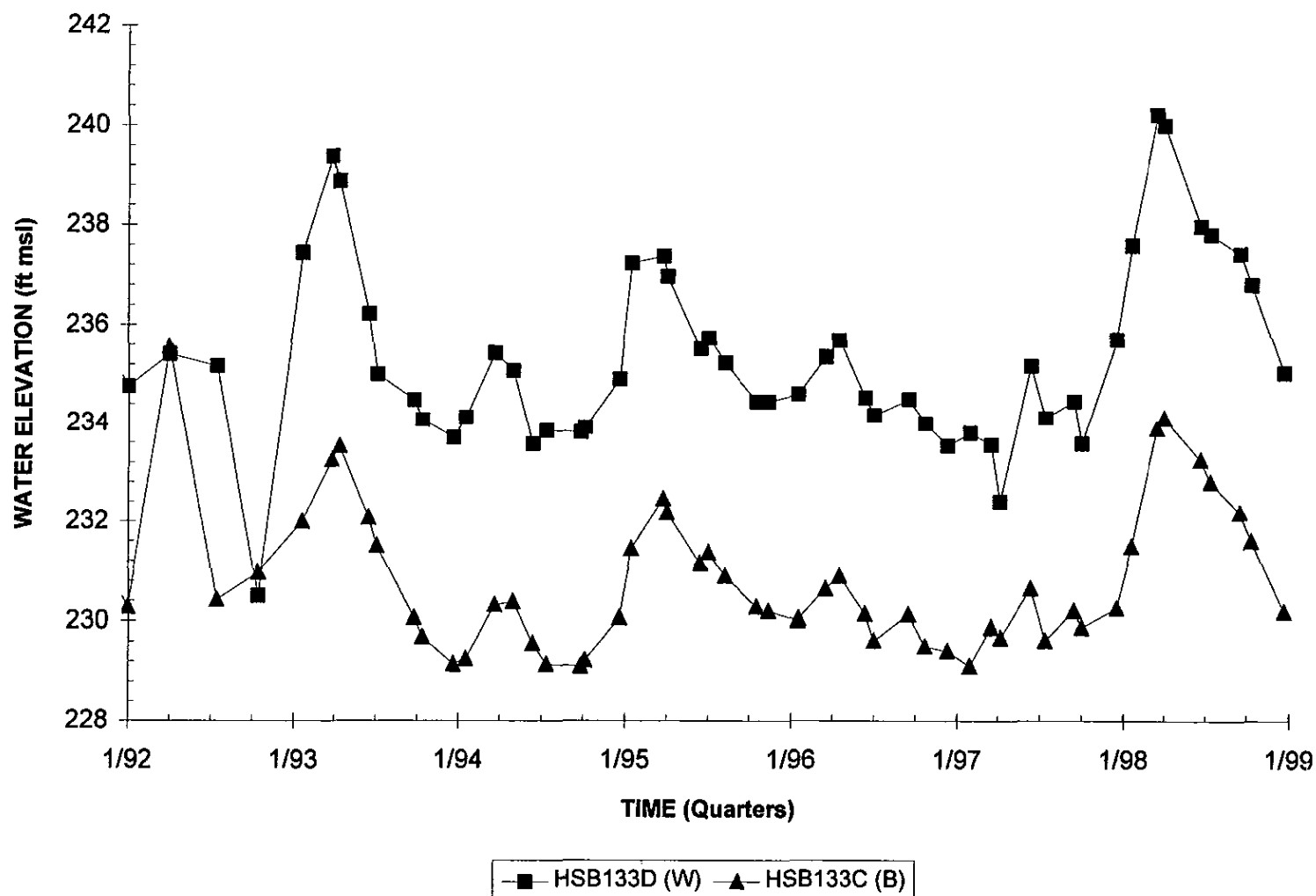
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB132



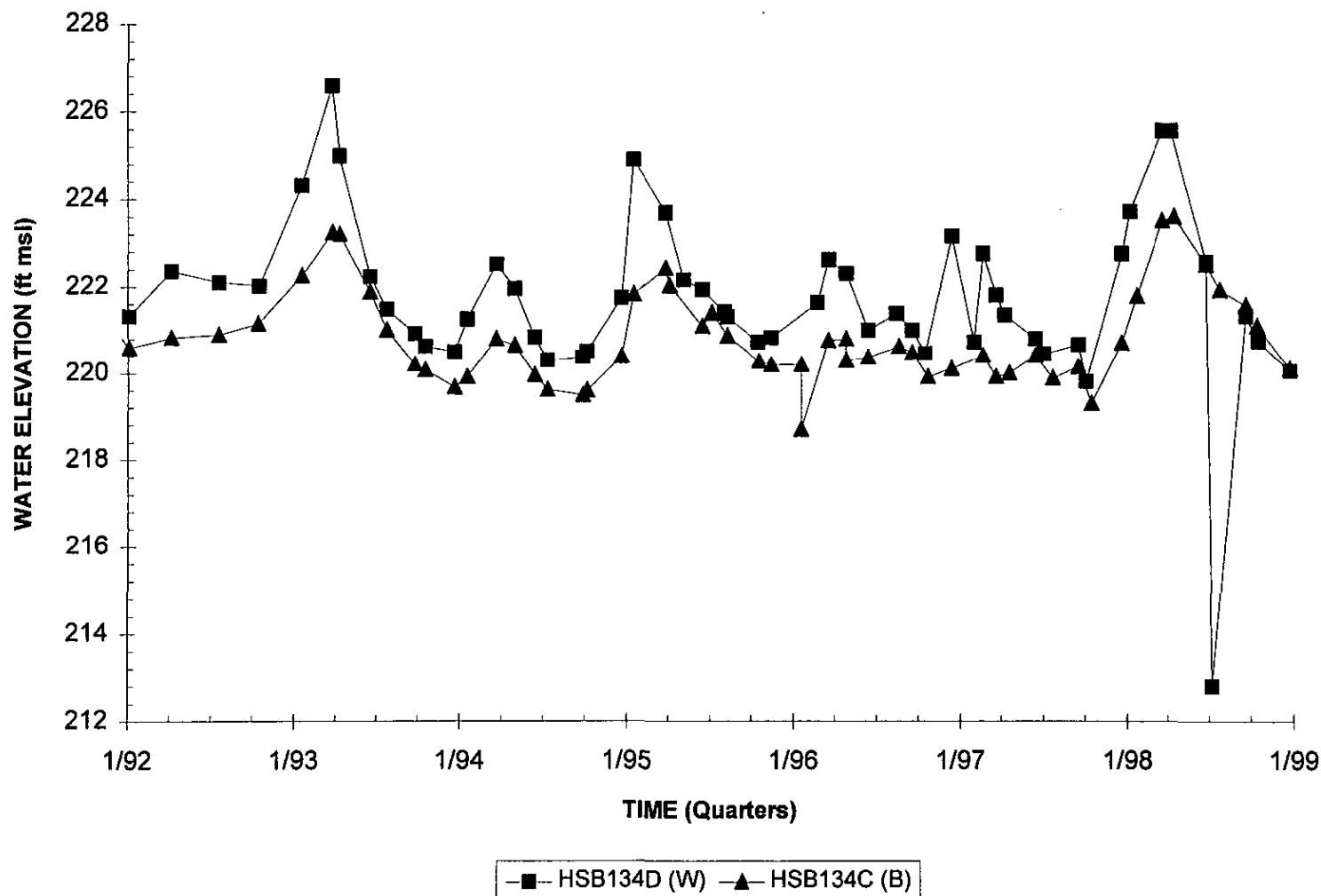
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB133



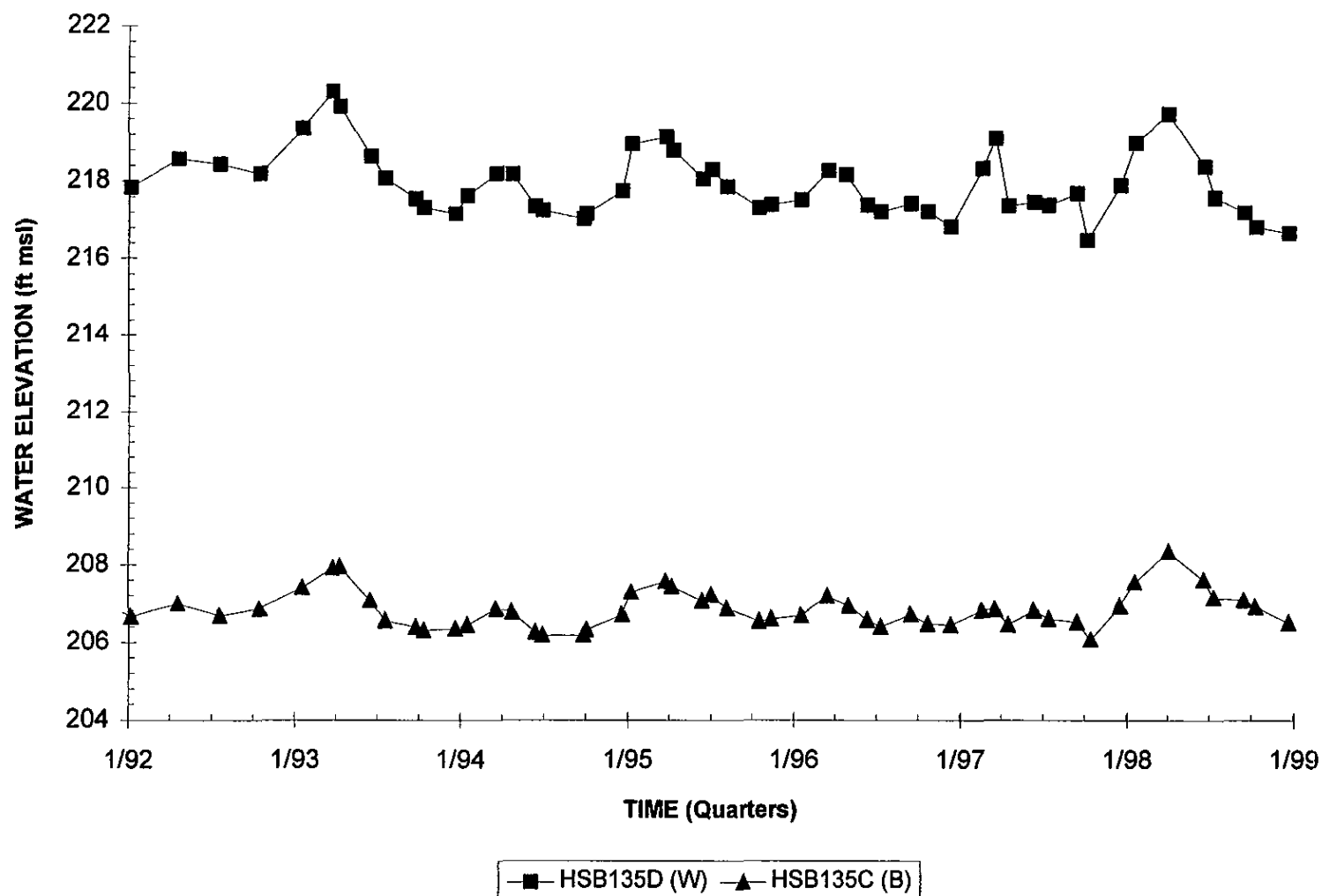
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB134



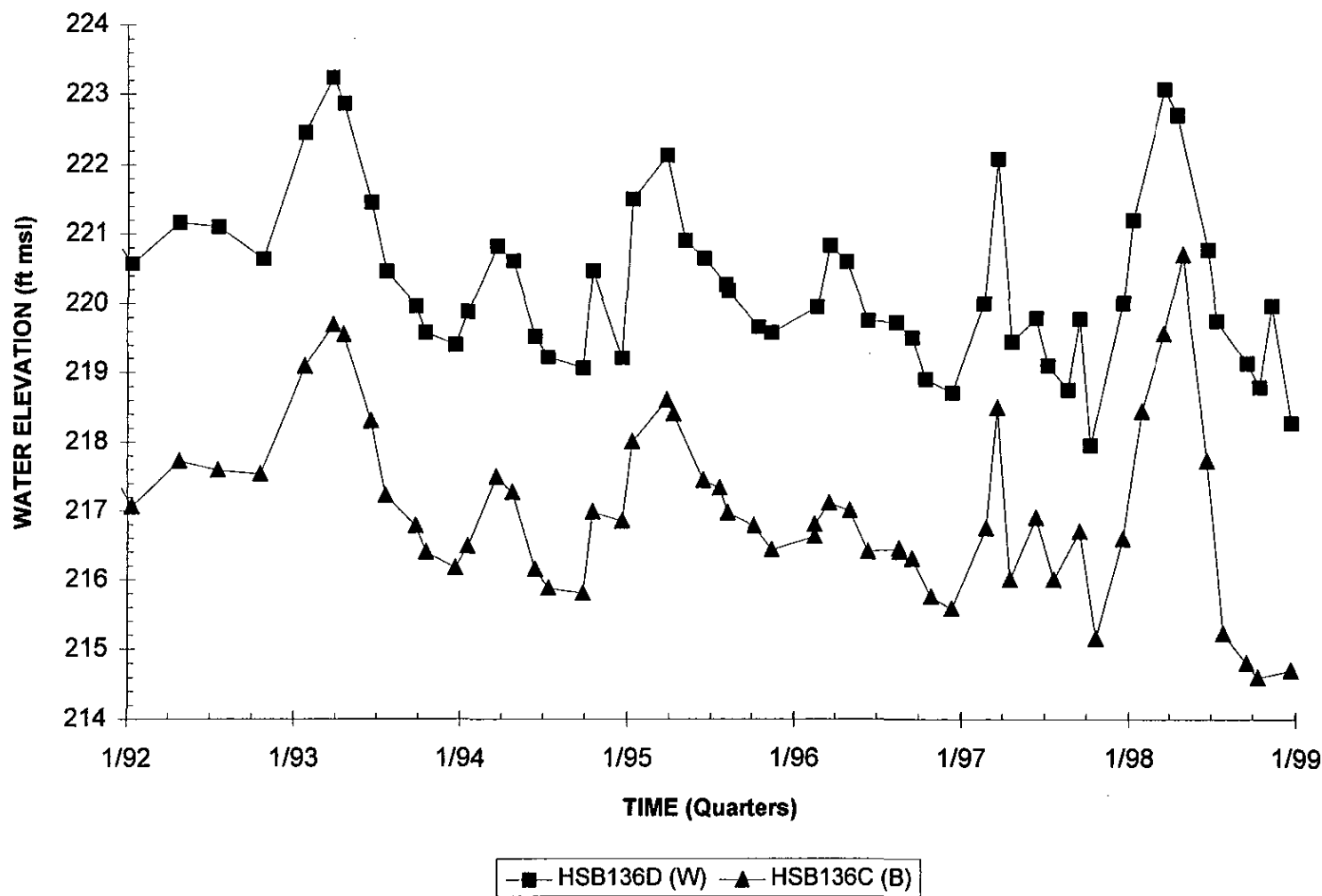
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB135



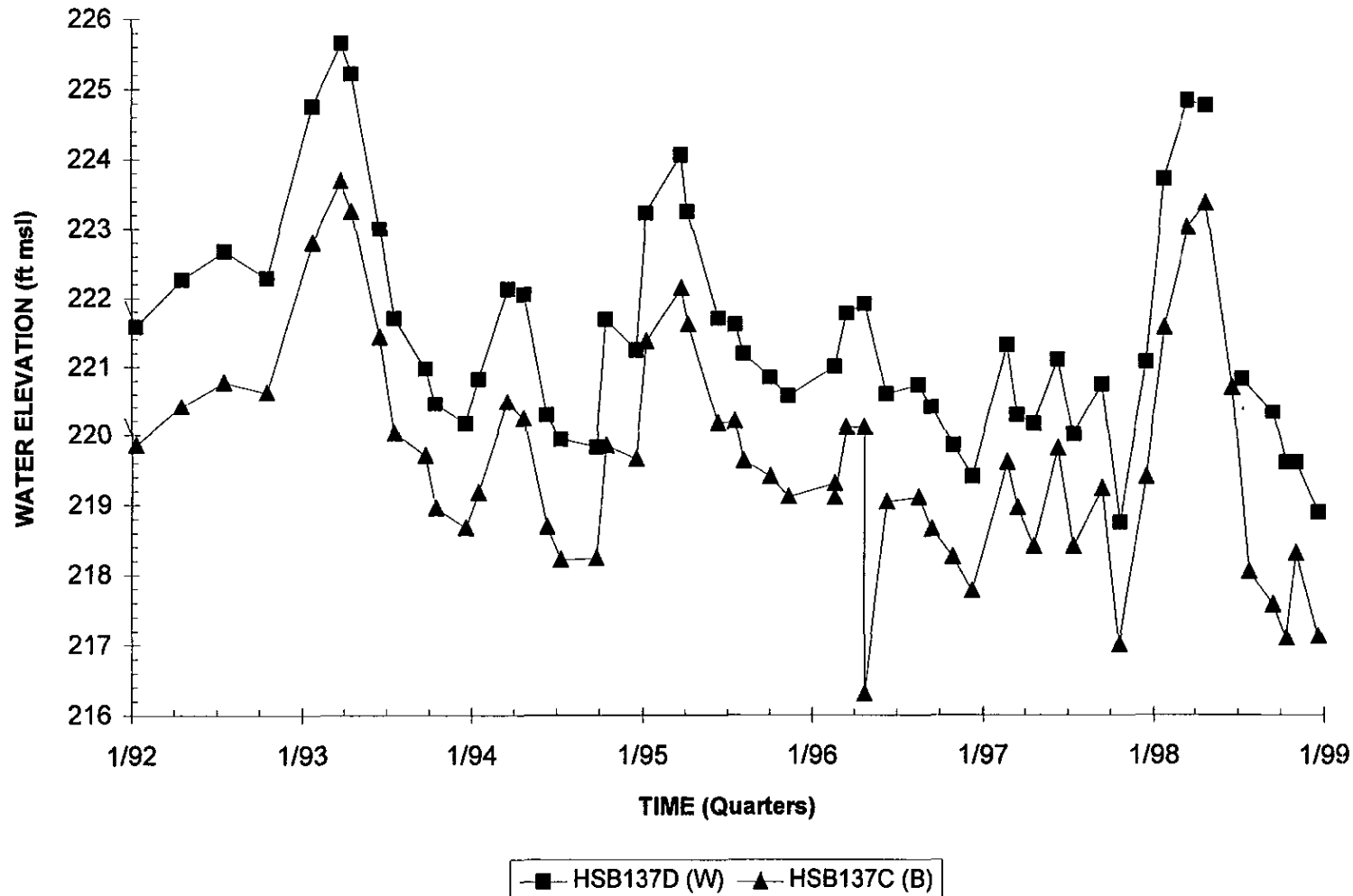
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB136



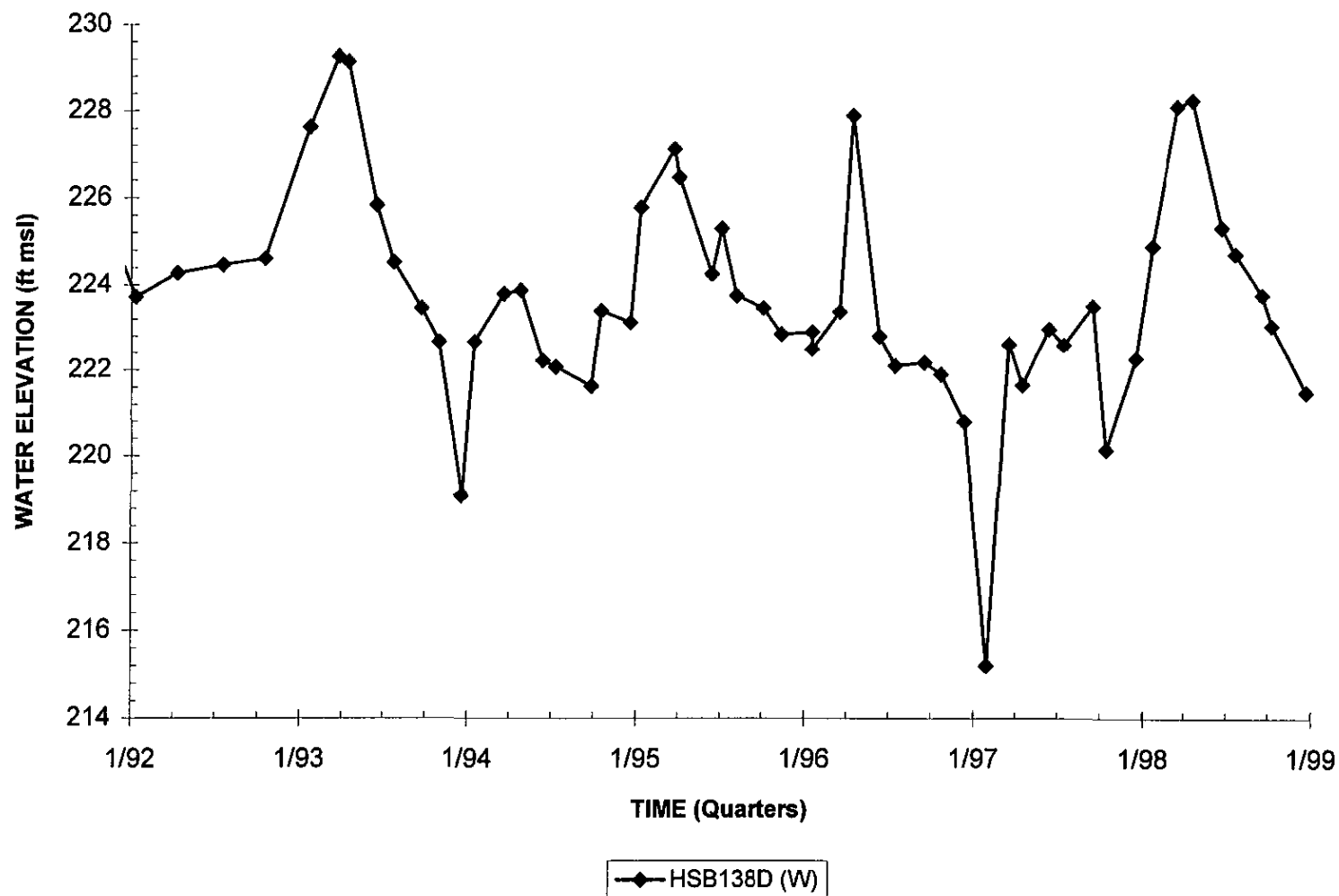
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB137



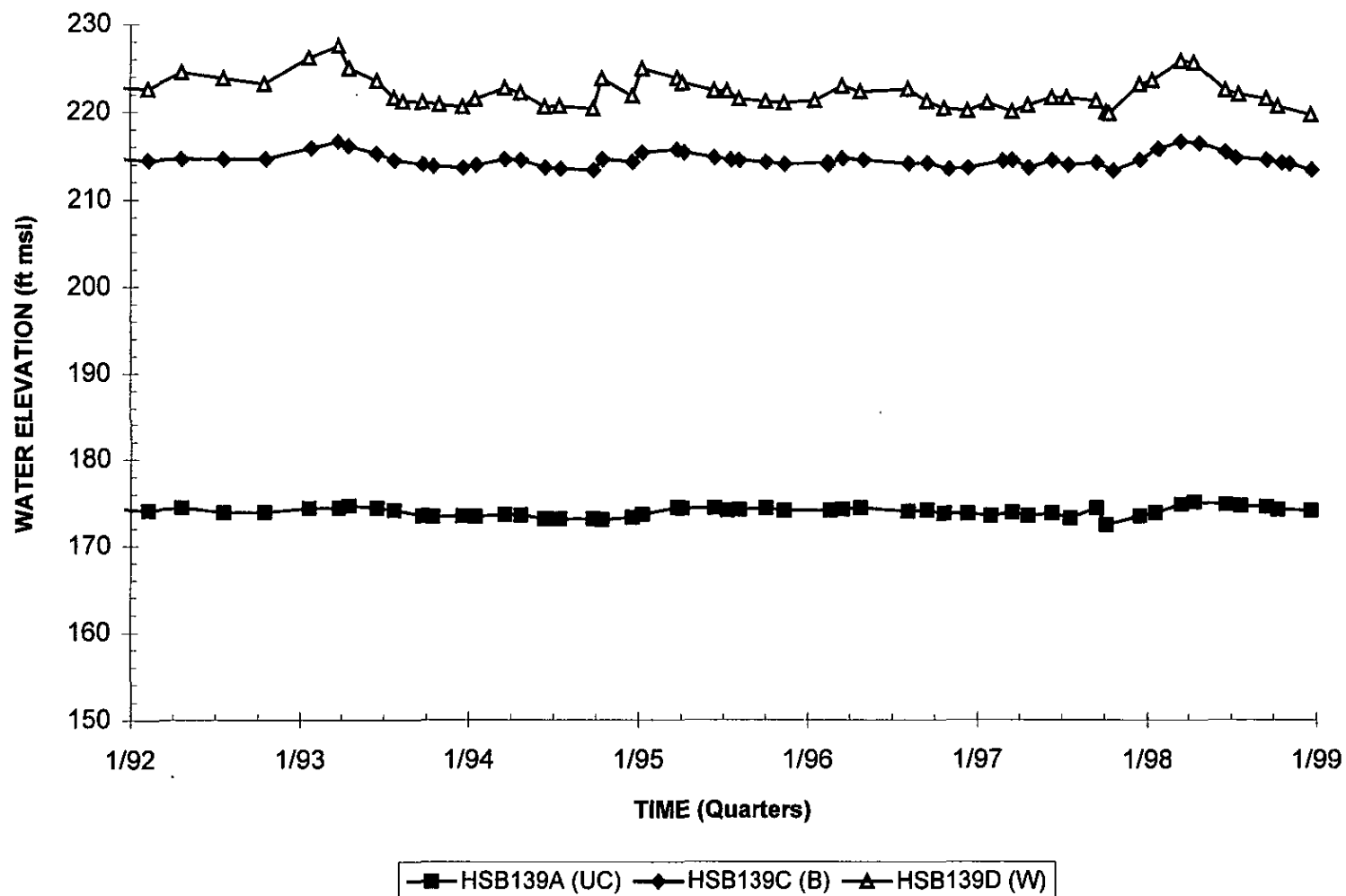
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB138



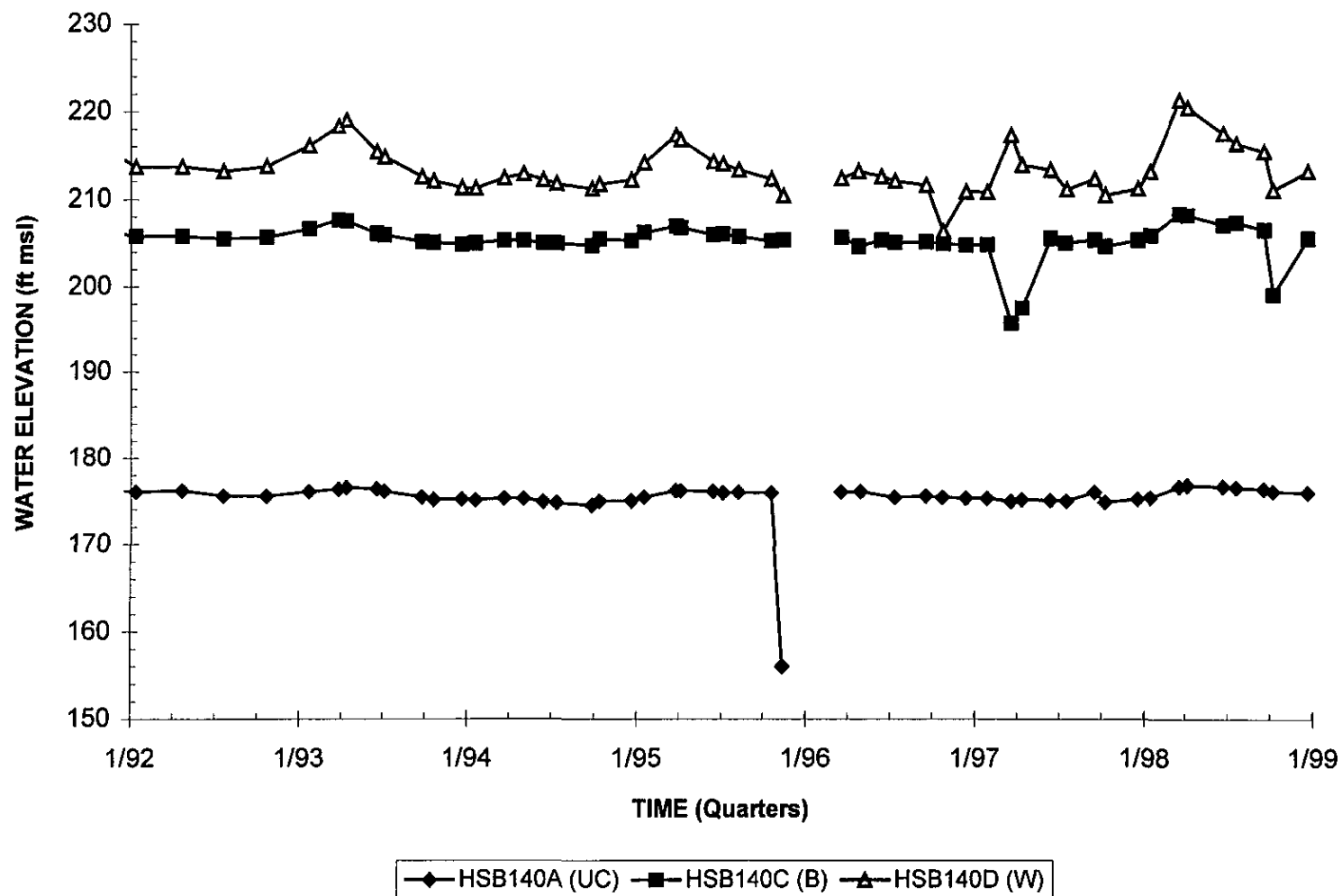
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB139



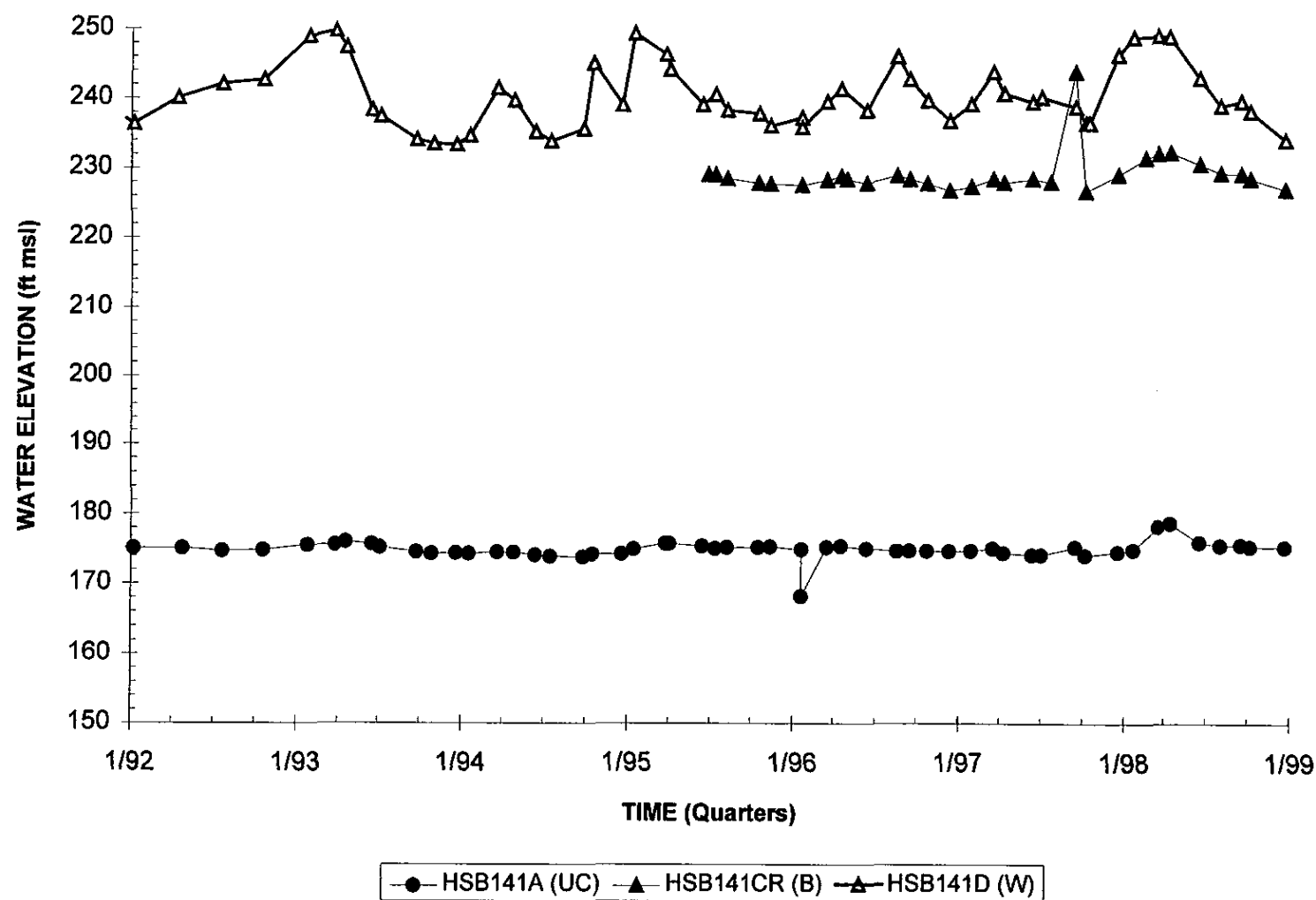
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB140



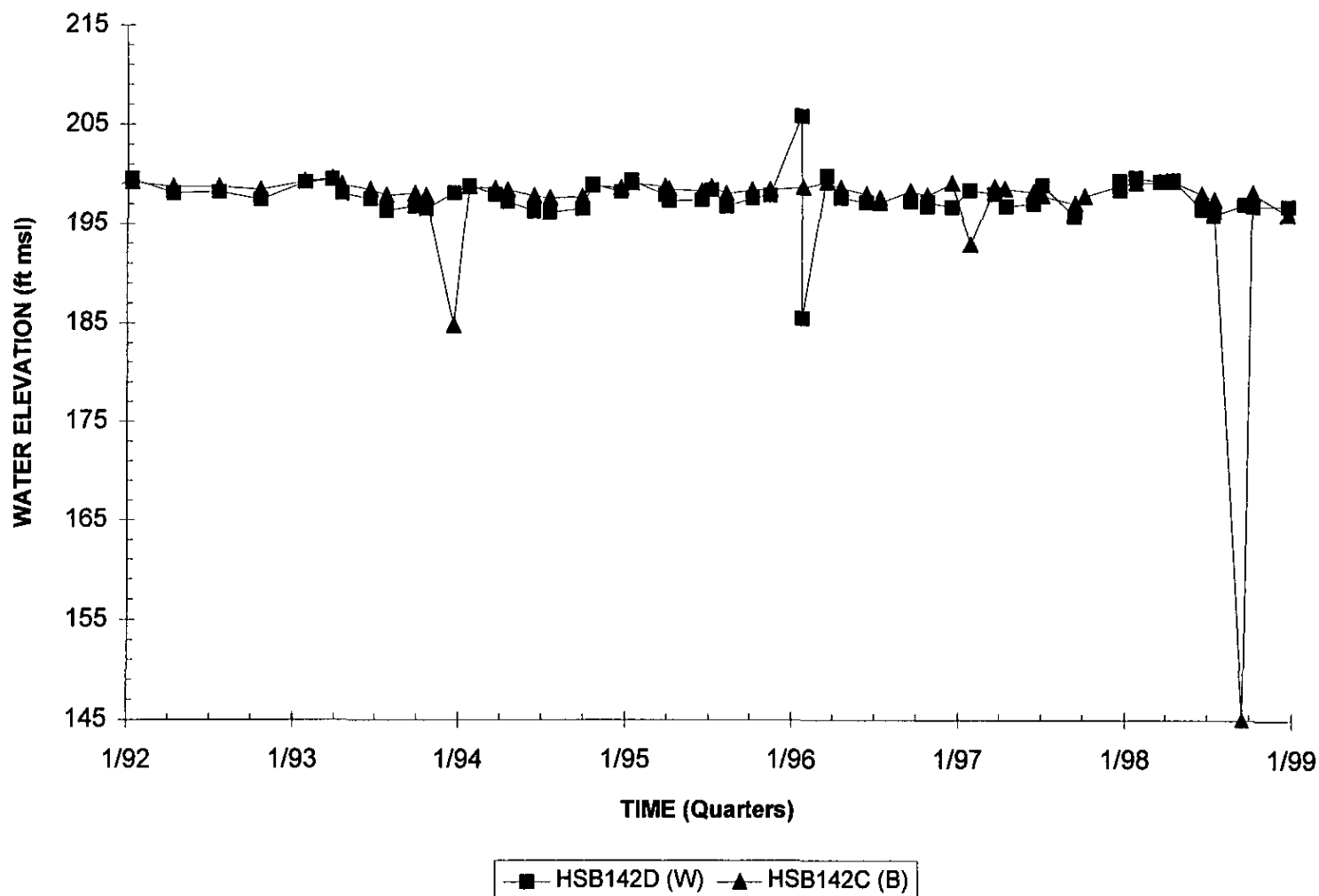
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB141



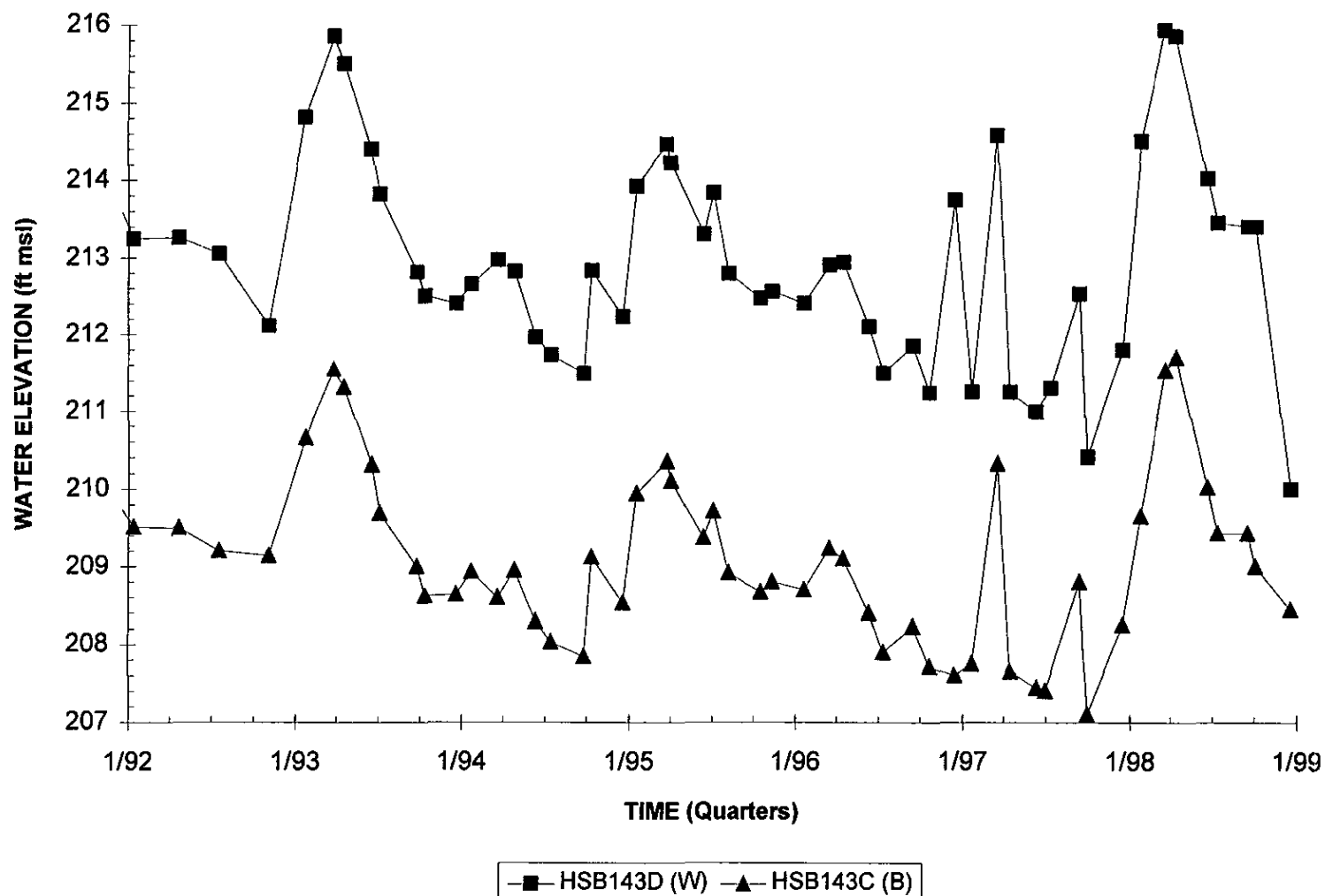
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB142



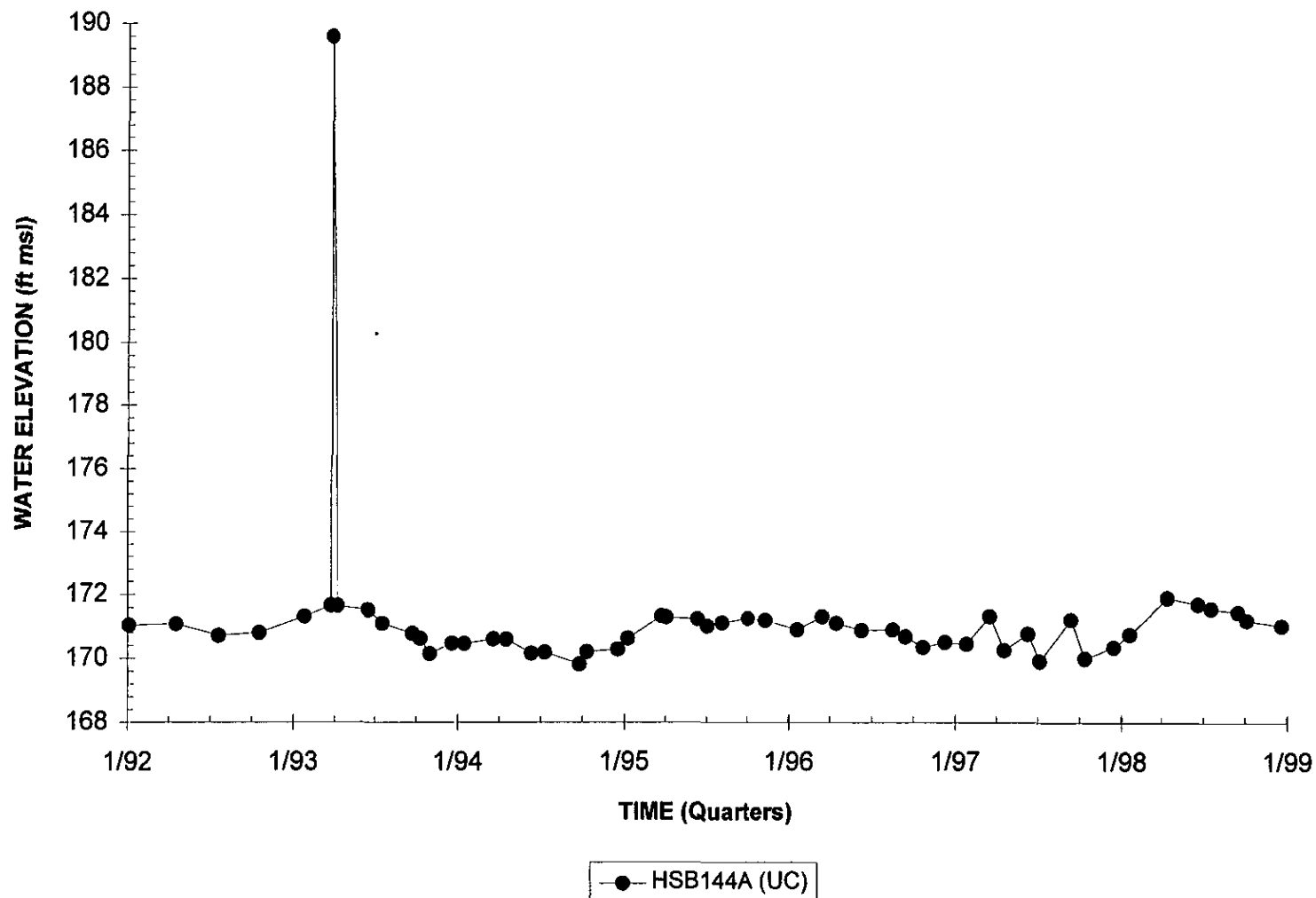
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB143



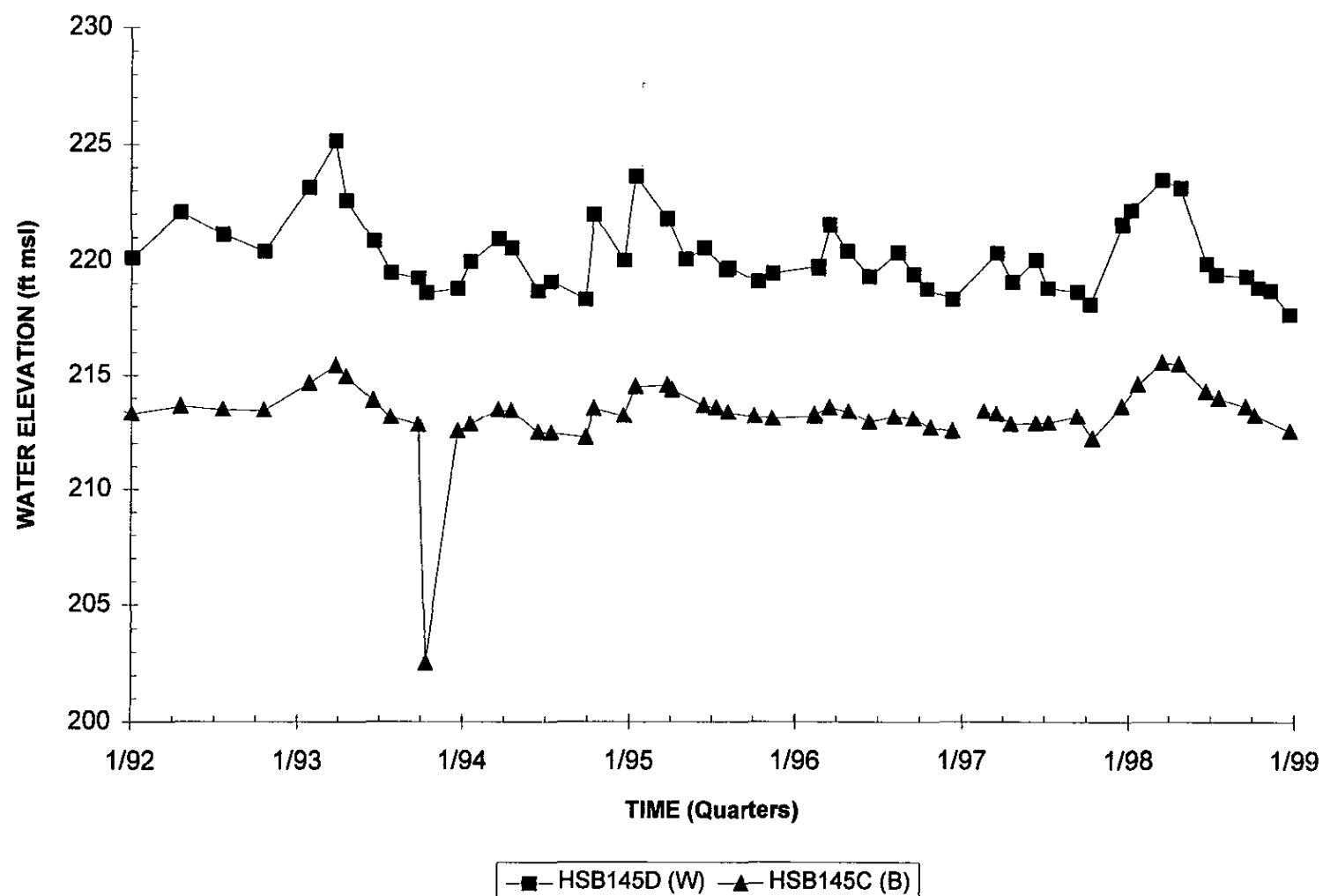
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB144A



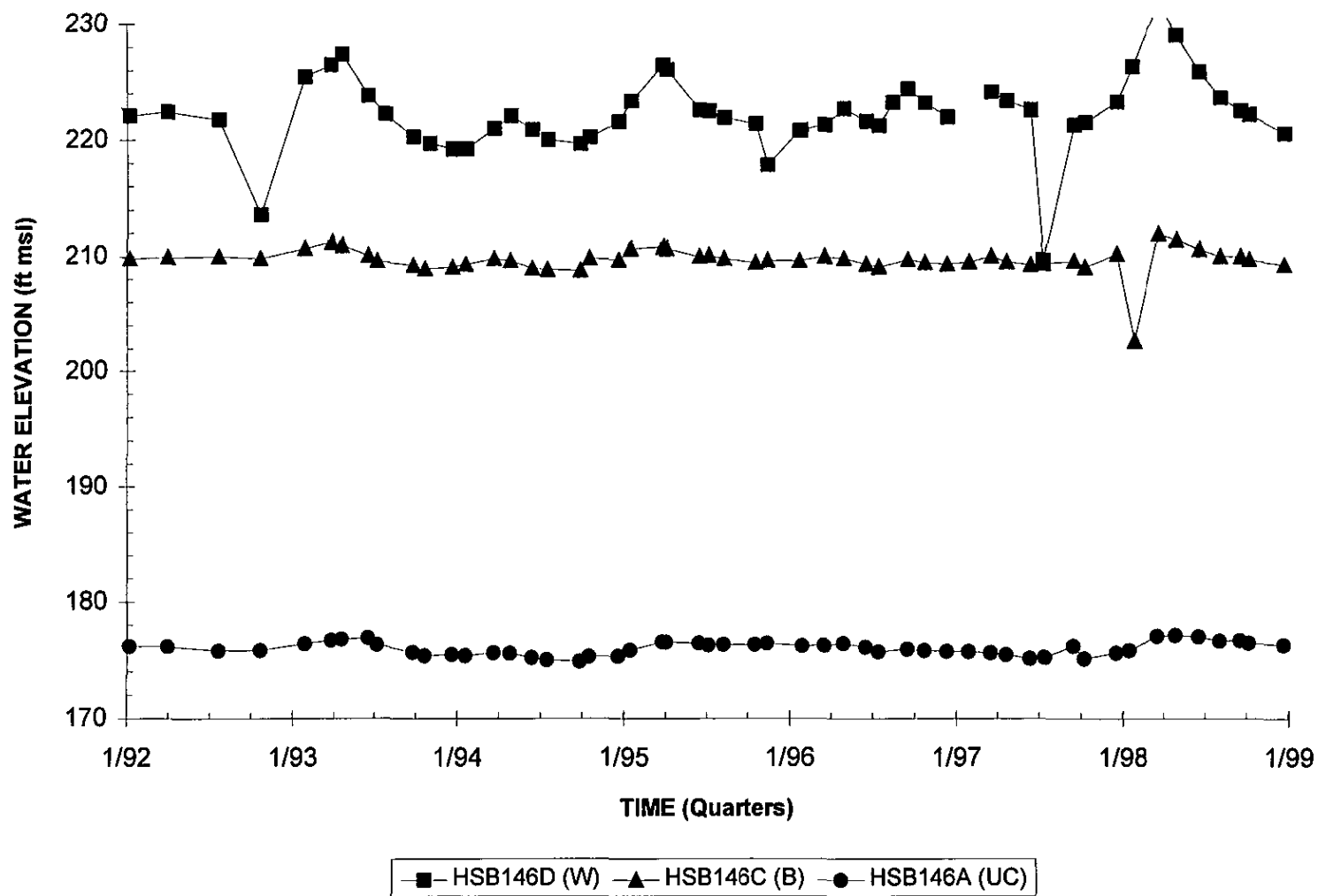
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB145



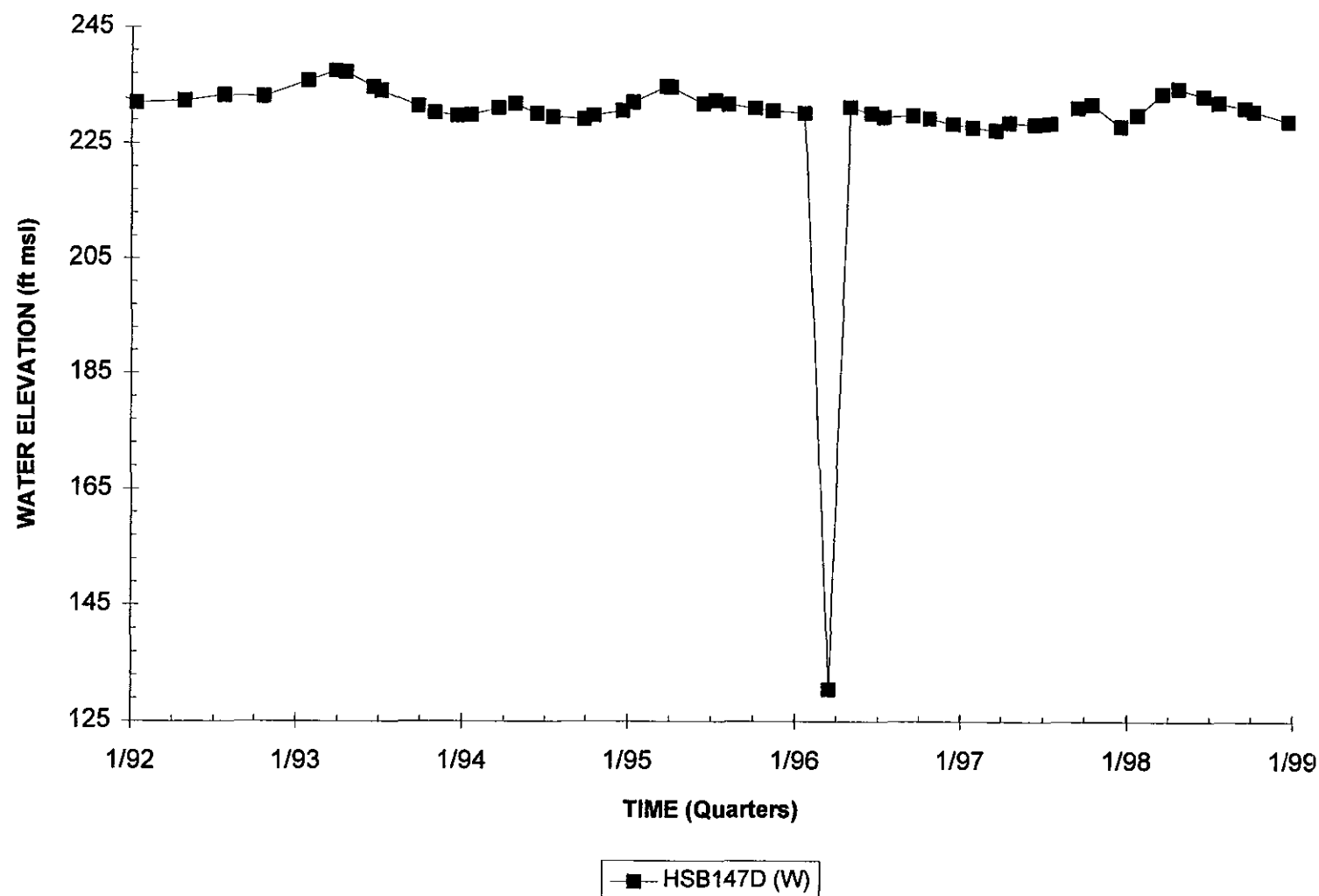
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB146



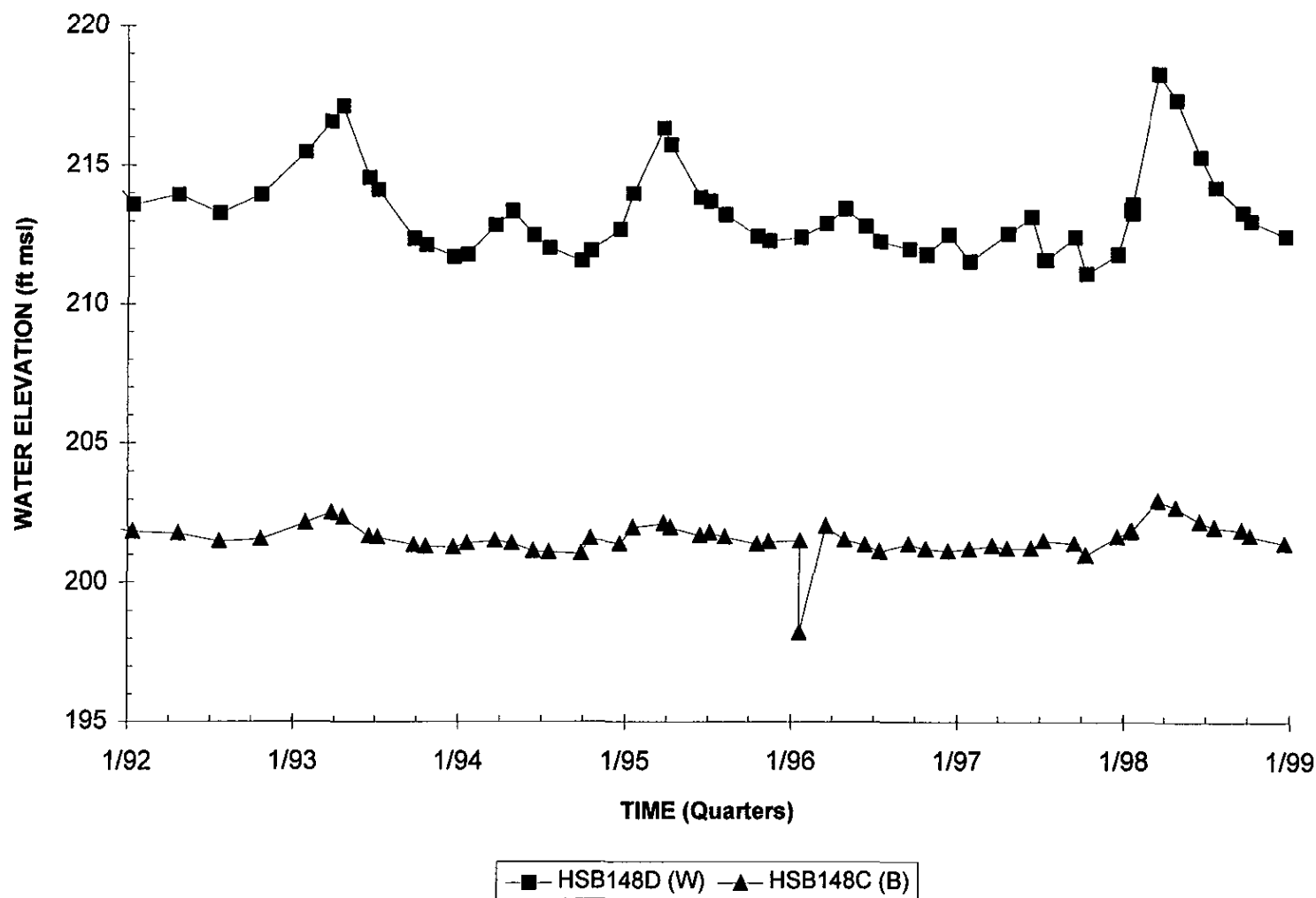
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB147D



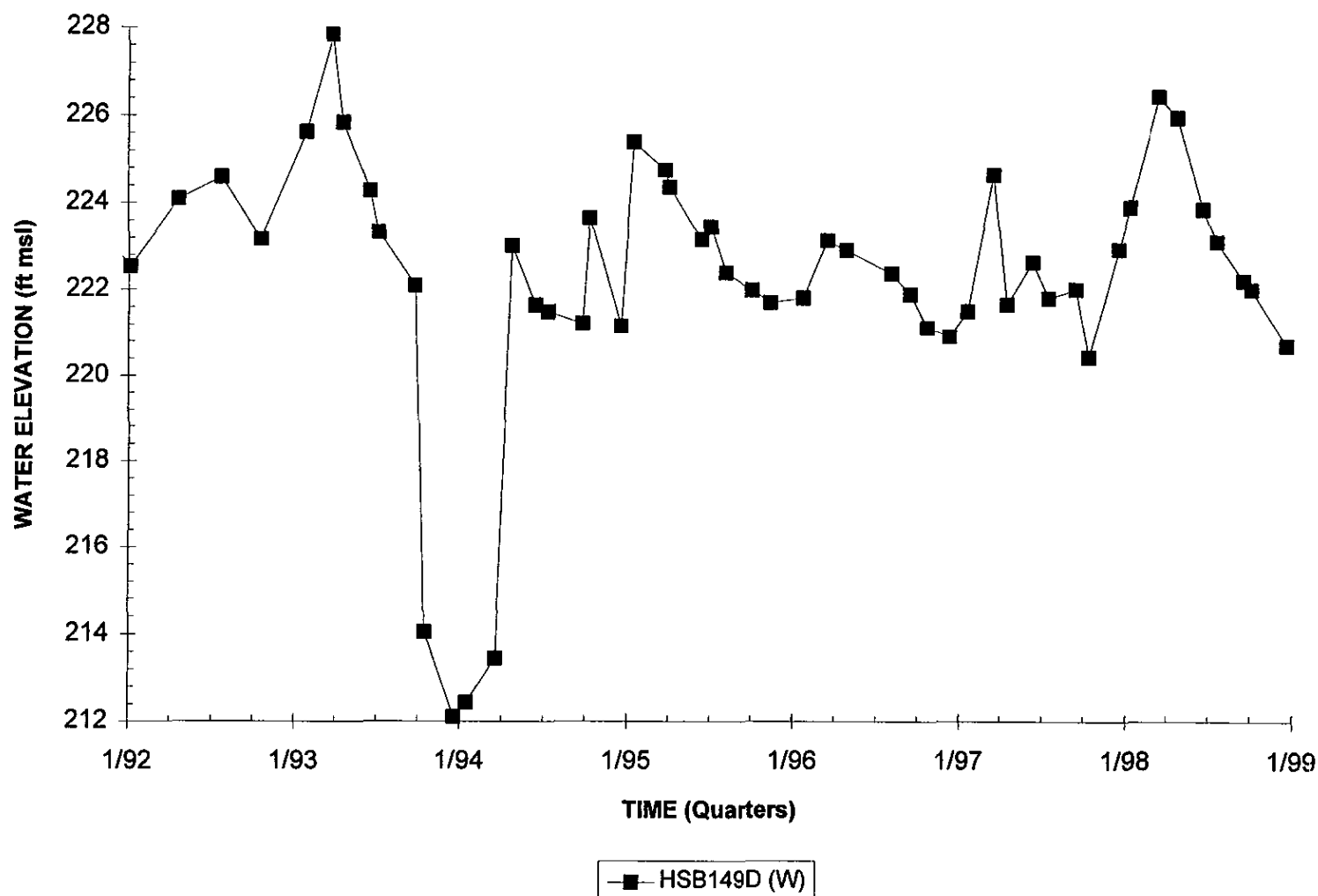
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB148



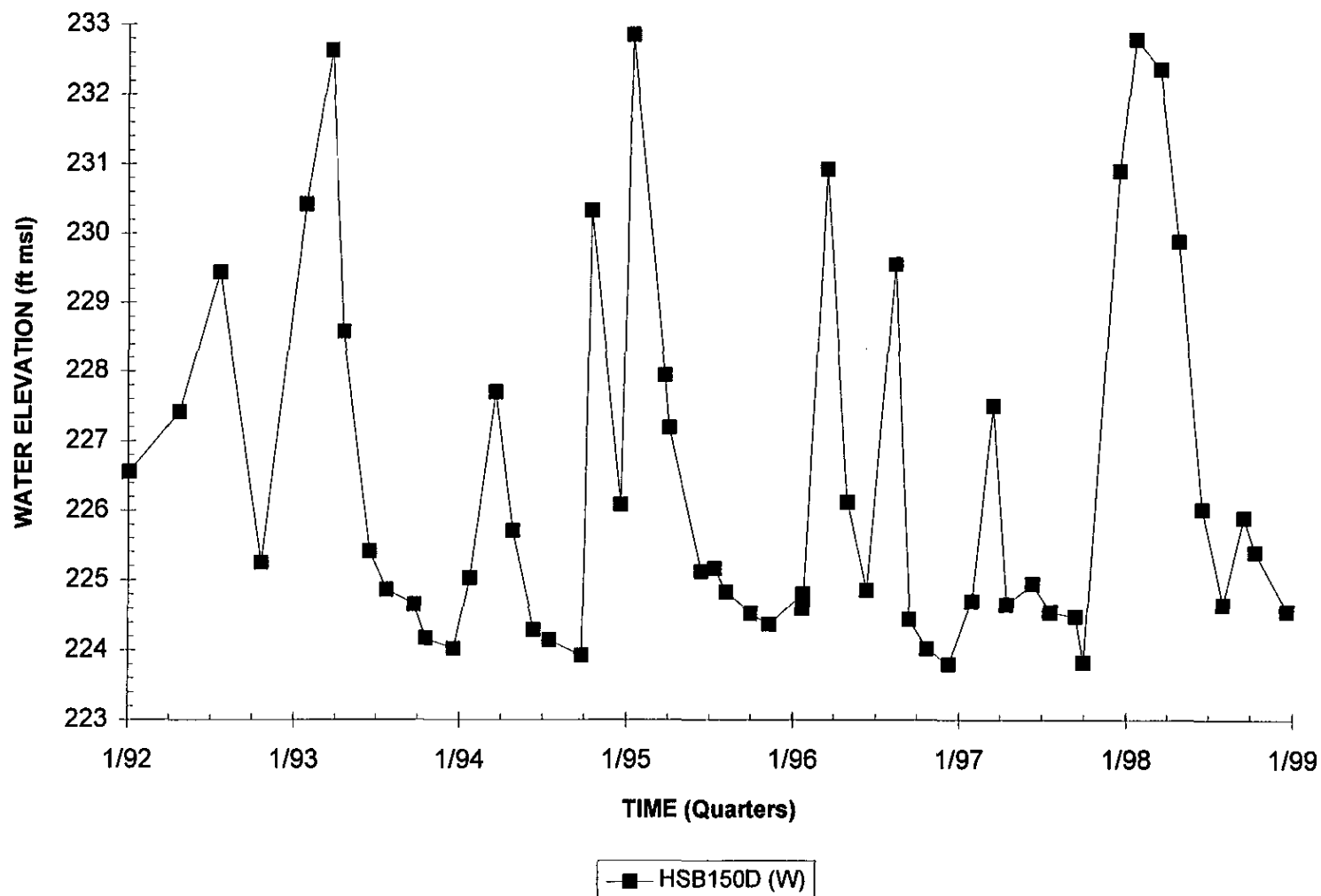
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB149D



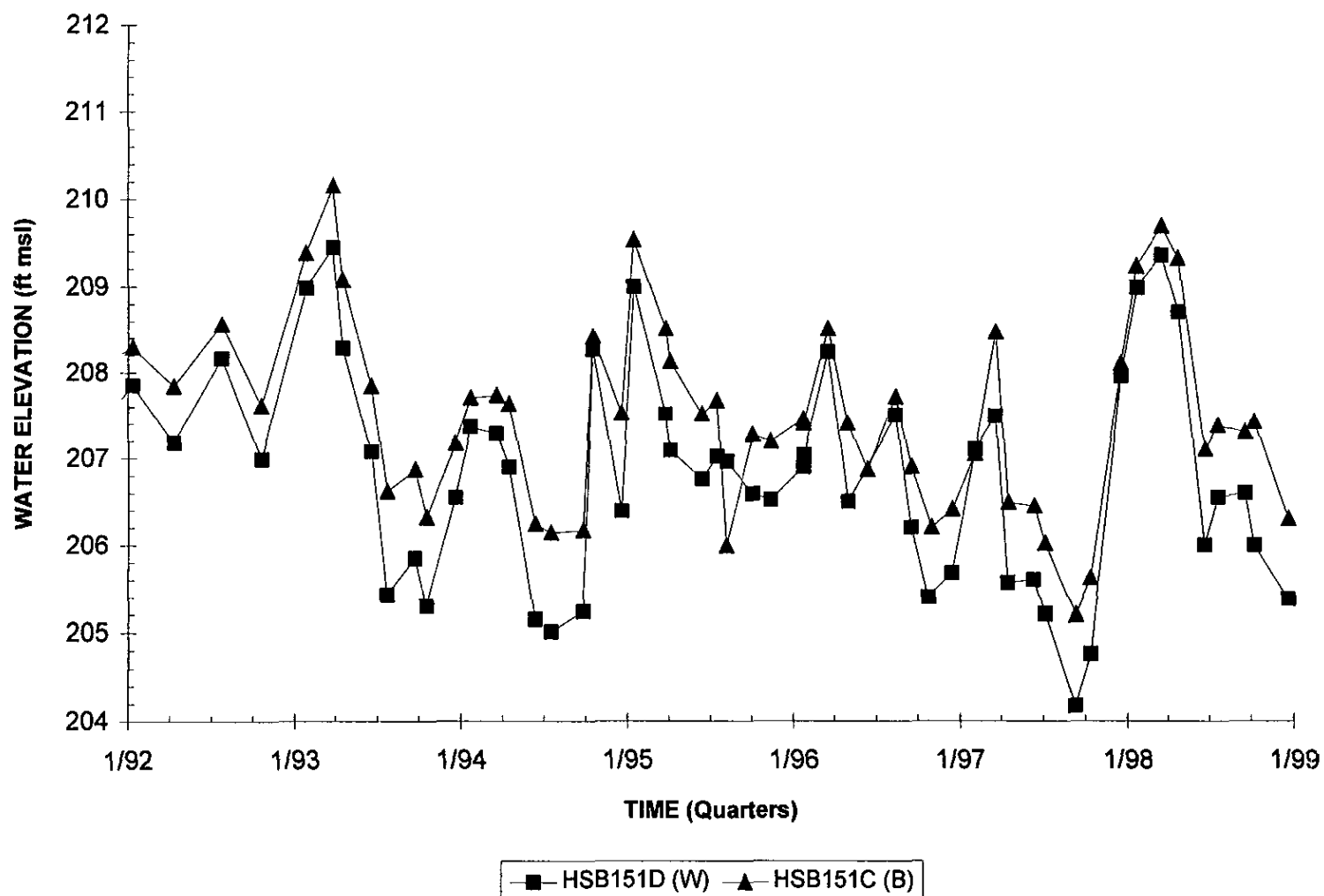
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSB150D



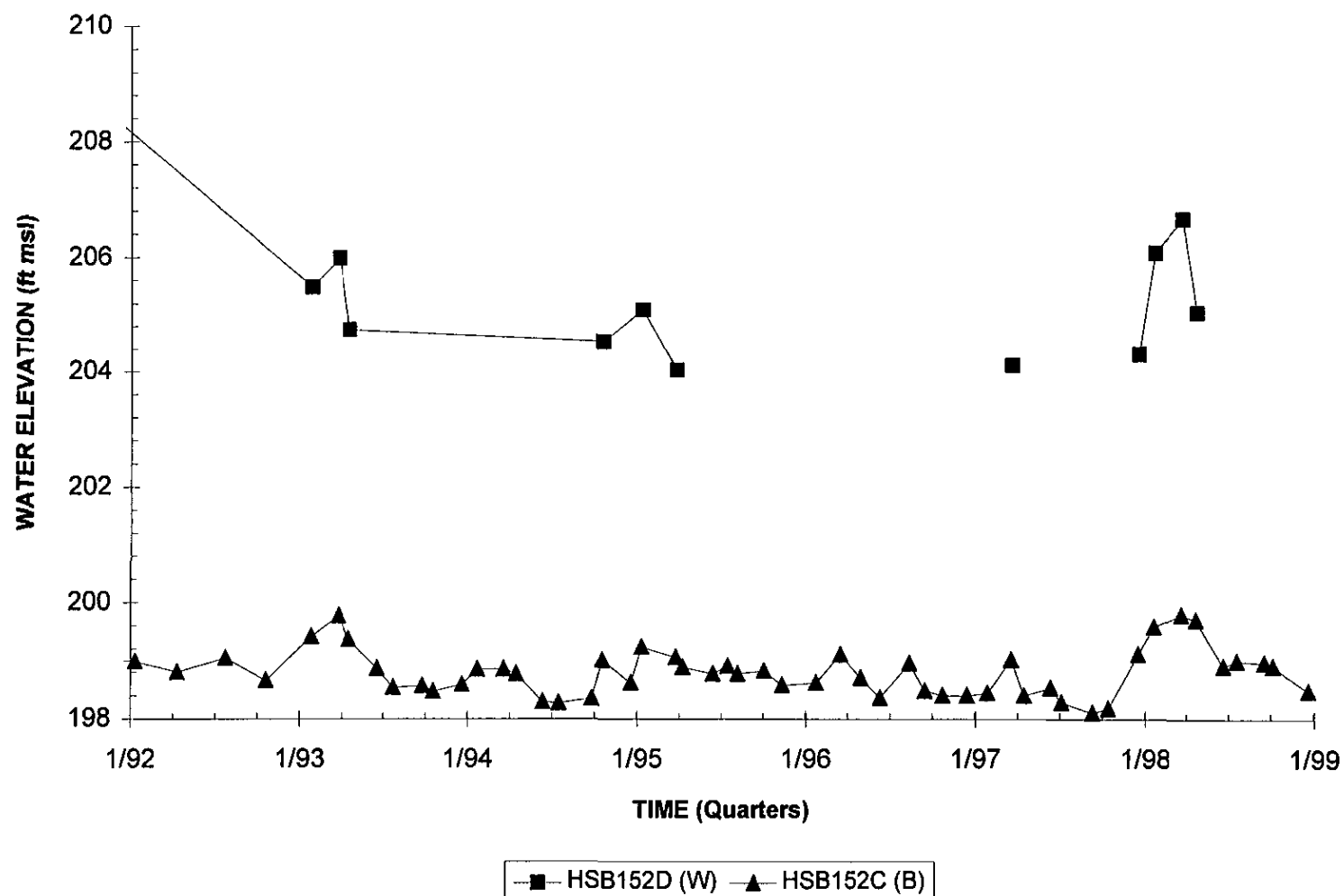
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB151



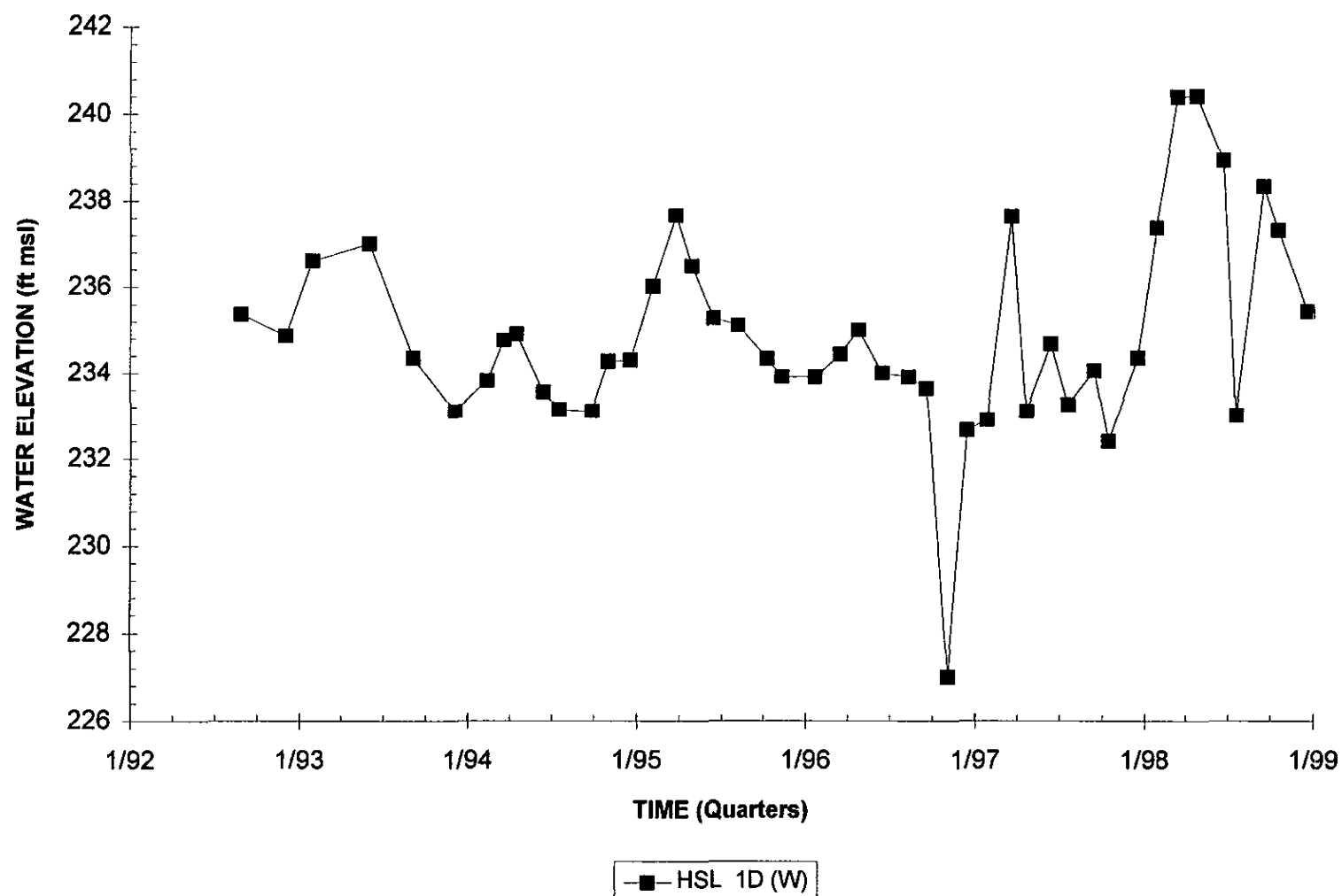
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well Cluster HSB152



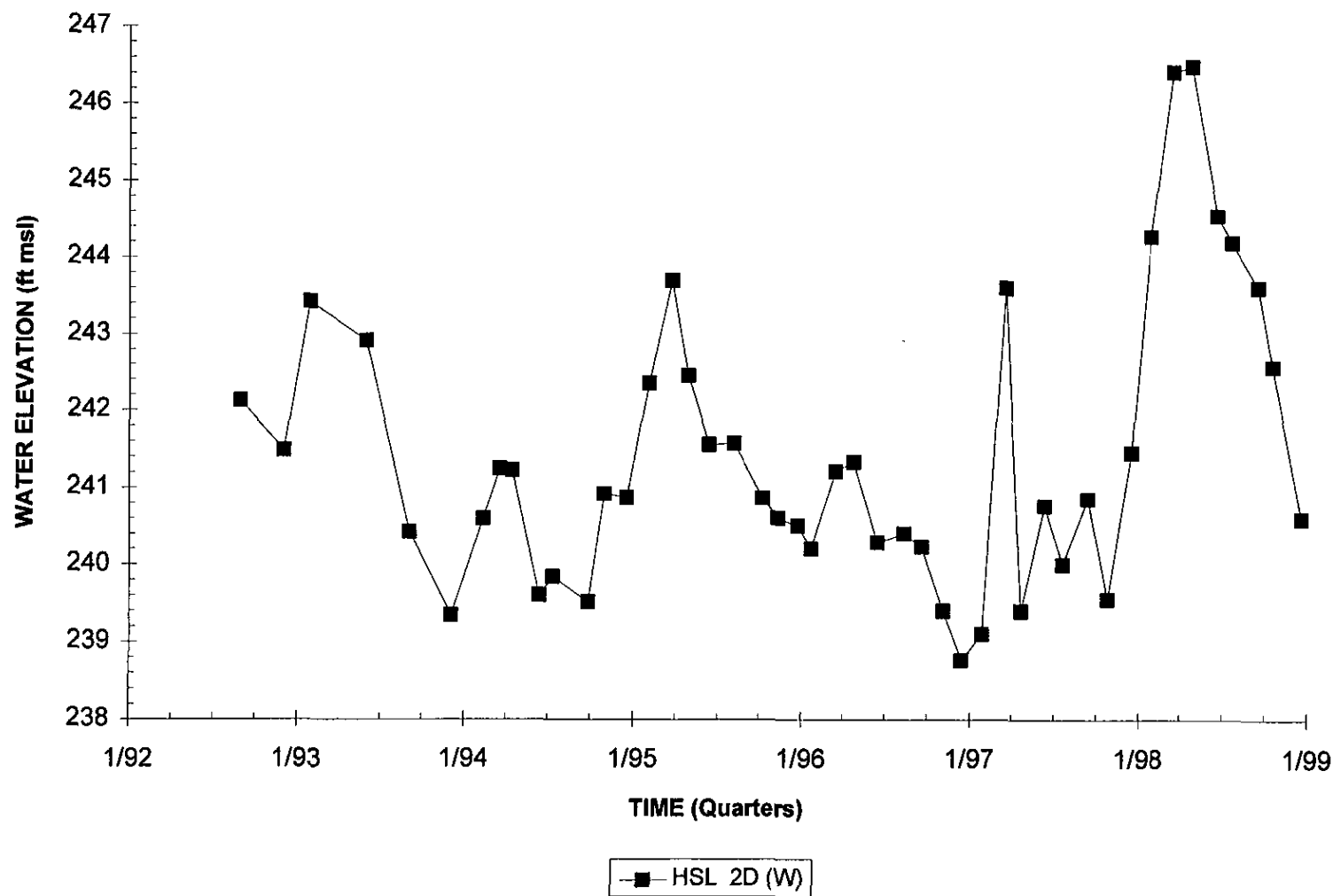
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSL 1D



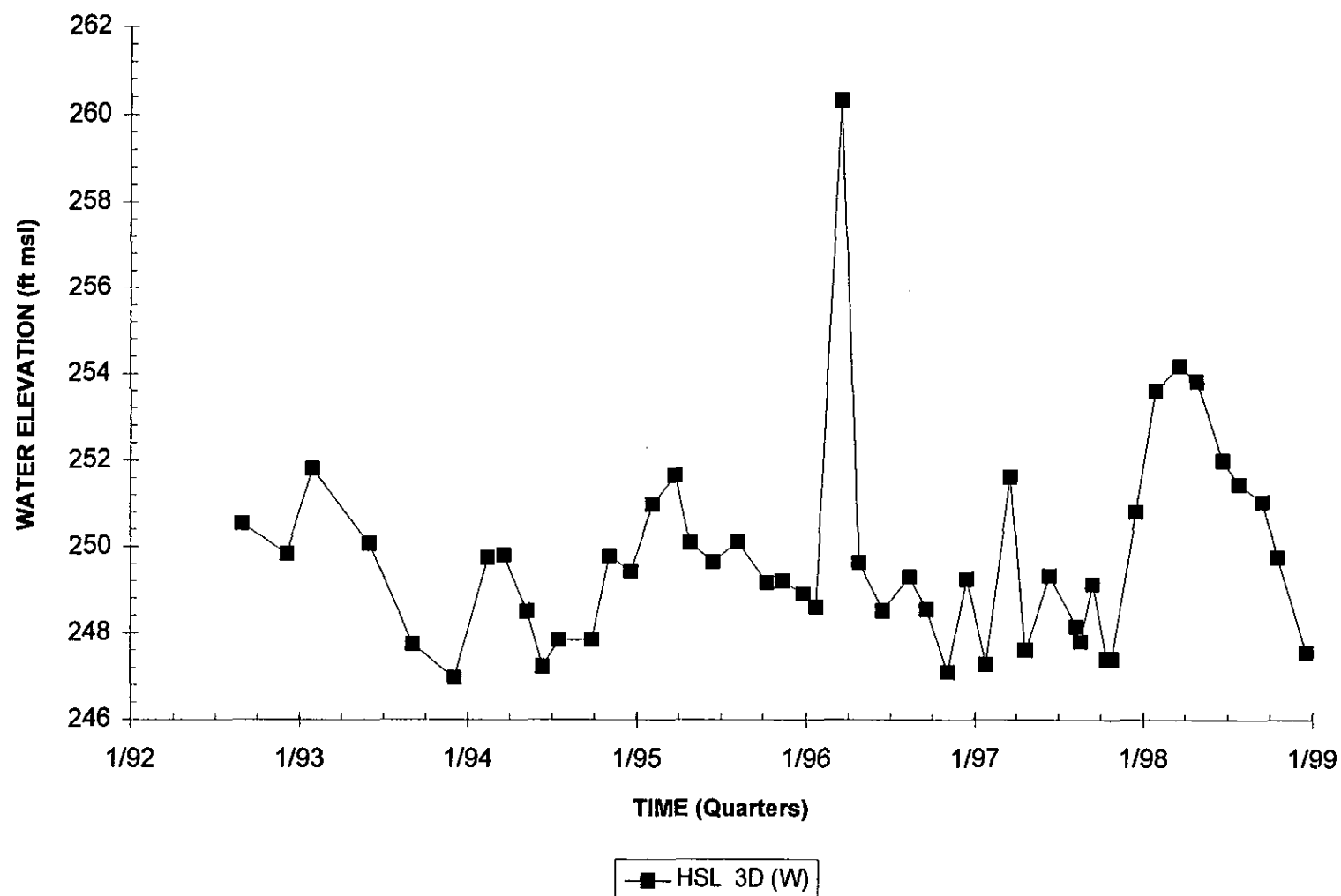
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSL 2D



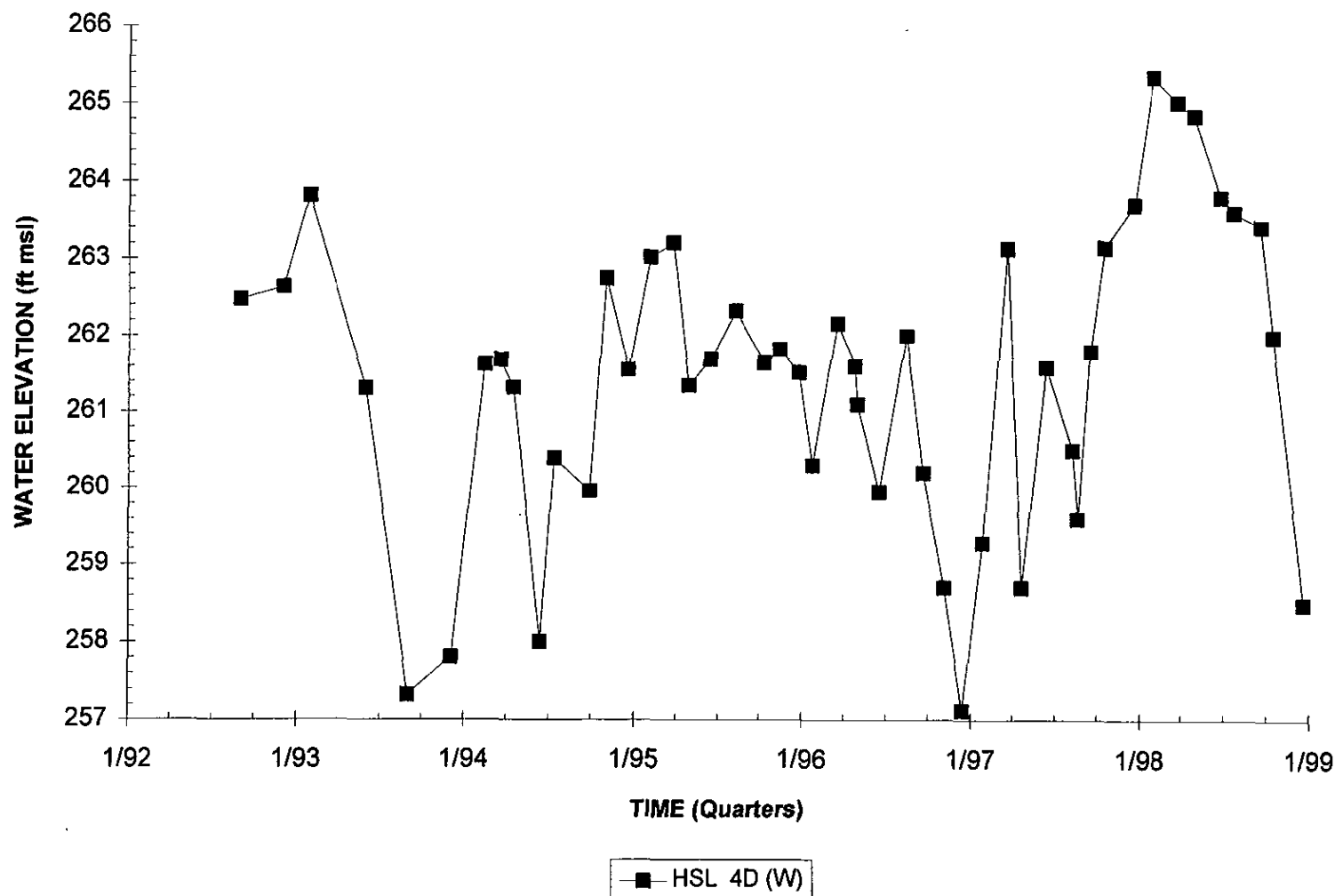
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSL 3D



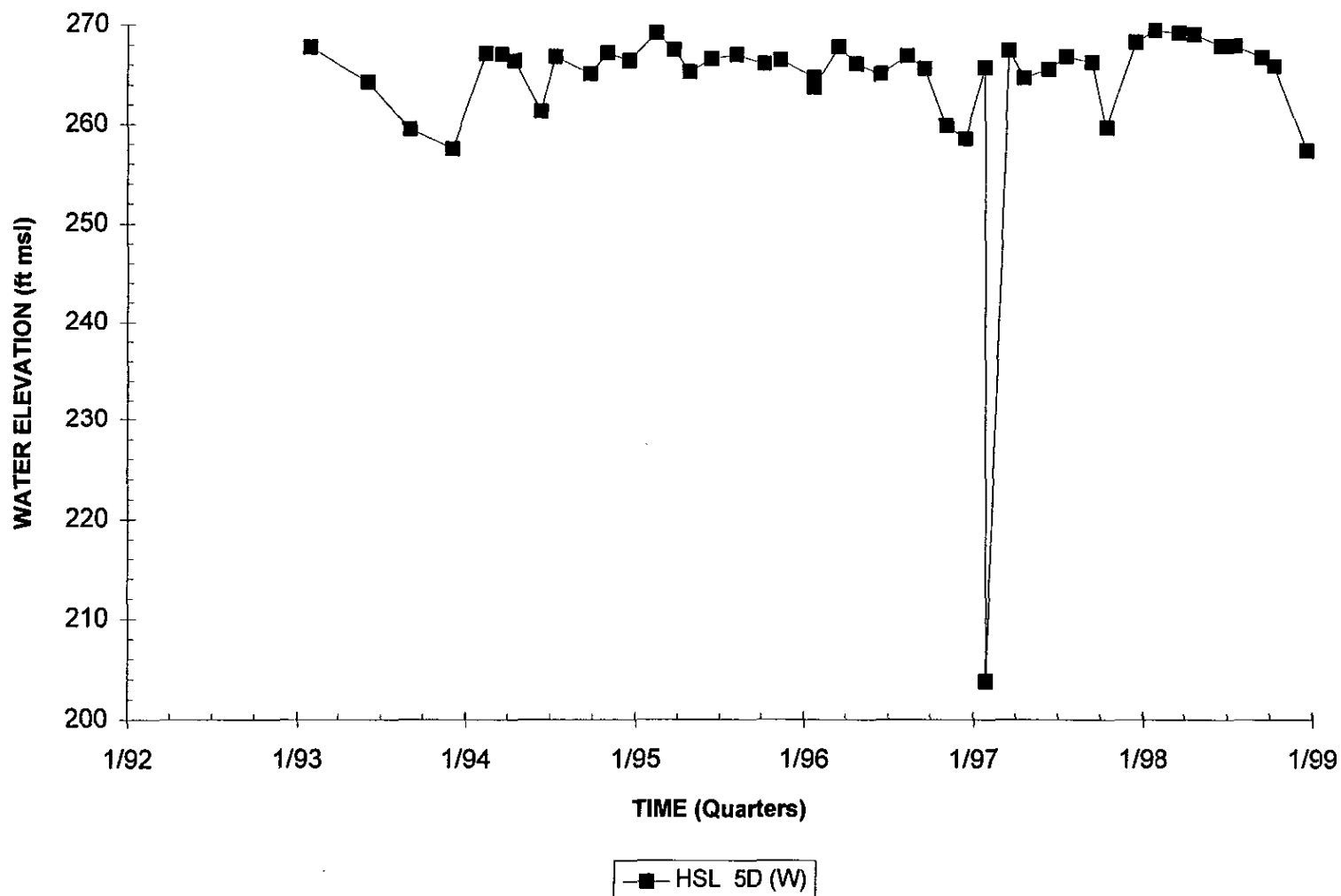
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSL 4D



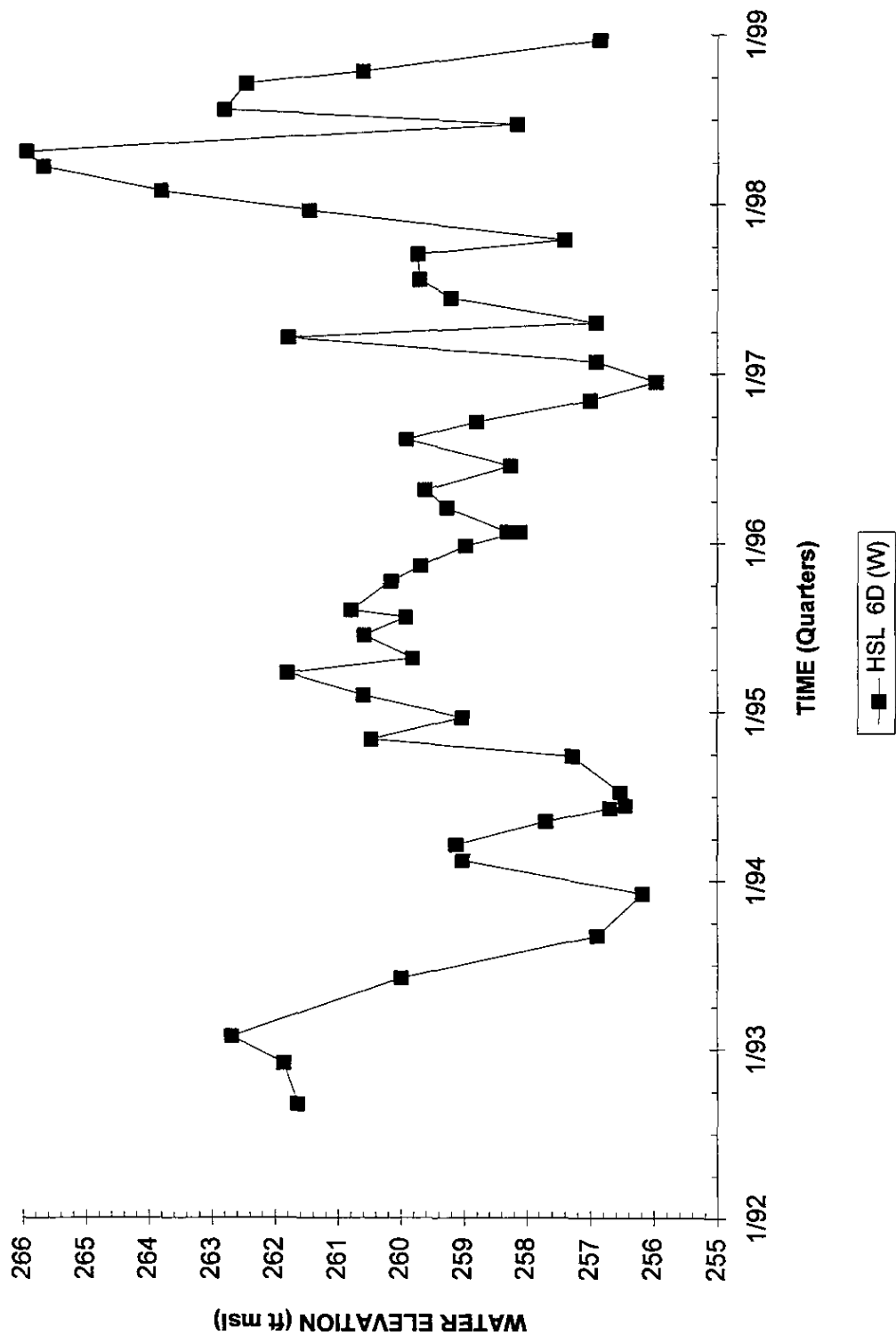
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSL 5D



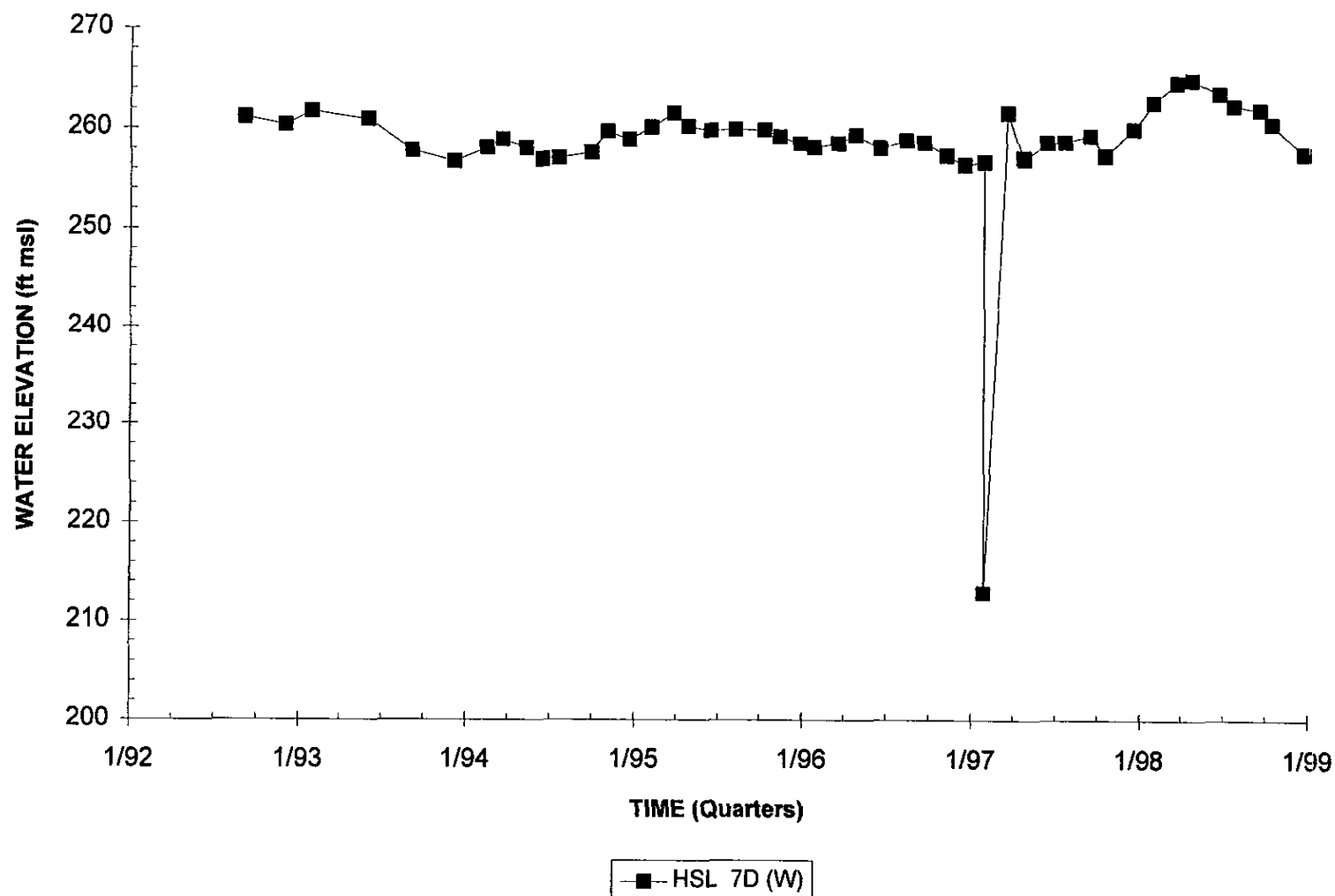
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSL 6D



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

Hydrograph Well HSL 7D



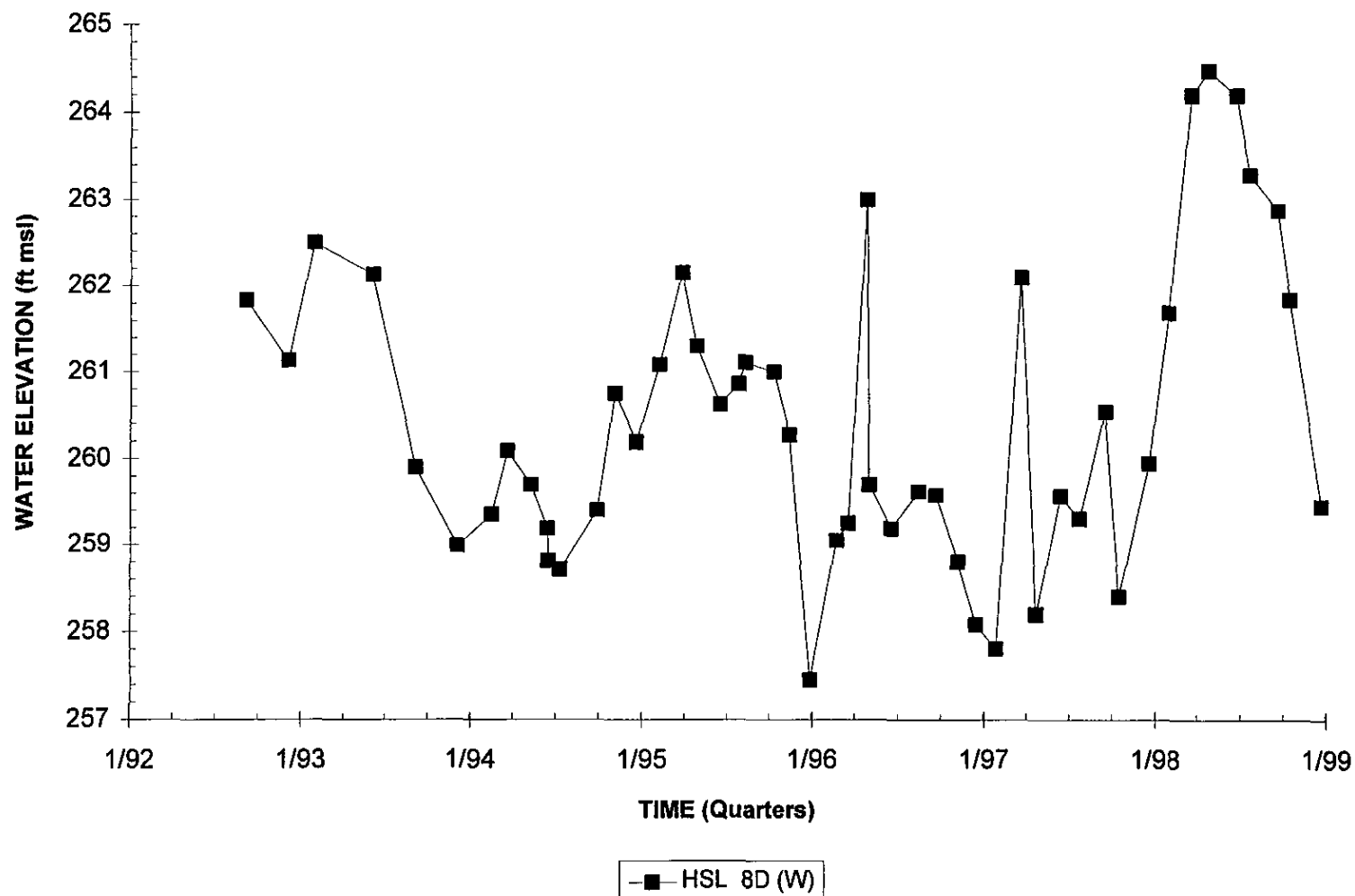
Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

H-Area HWMF

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Third and Fourth Quarter 1998

Hydrograph Well HSL 8D



Note: W=Water Table (IIB2); B=Barnwell (IIB1); M=McBean (IIB1); UC=Upper Congaree (IIA); MC=Middle Congaree (IIA); LC=Lower Congaree (IIA)

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Appendix F

Statistical Evaluations

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Introduction

The 1995 H-Area RCRA Part B Permit requires annual reports on the effectiveness of the corrective action program that are to include a "statistical evaluation of water quality data and water elevation data for significant changes." The permit application proposed that "SRS will use the combined Shewhart-CUSUM charts for detecting both increasing and decreasing trends, and to identify either sudden incursions (a contaminant slug) or steady drift (a change in plume concentration or size)." The text below reviews the appropriate statistical evaluation techniques for monitoring the effectiveness of remediation systems and outlines the technically correct procedures for the statistical evaluations.

Purpose of the Statistical Evaluation

The purpose of the statistical evaluation is to identify remediation system impacts to the groundwater quality in various wells. Identifying impacts requires a statistical evaluation since normal concentration fluctuations and trends make a non-statistical approach ineffective. The F&H/ASB Remediation Projects (F&H) permit application proposed the use of combined Shewhart-CUSUM control charts for the statistical evaluation of monitoring well data.

Typically, a control chart is the statistical method used identify intrawell changes, with the combined Shewhart-CUSUM control charts being most useful. Combined Shewhart-CUSUM control charts are designed to provide a visual tool to detecting both trends and abrupt changes in concentration levels, and is the method suggested by the EPA for intrawell comparisons. However, because F&H data show existing contamination, often with exponential trend decreases, the original proposal to use control charts is at odds with EPA recommendations and guidance. Specifically:

"The control chart method is recommended for uncontaminated wells only..."

"CAUTIONARY NOTE: Control charts are a useful supplement to other statistical techniques because they are graphical and simple to use. However, it is inappropriate to construct a control chart on wells that have shown evidence of contamination or an increasing trend (see §264.97(a)(1)(i)). ..."

It should be noted, however, that the EPA is referring to only the textbook combined Shewhart-CUSUM control chart, which is constructed to identify increasing levels of concentration at a single uncontaminated well over time. At F&H, we wish to monitor both increasing and decreasing effects in already contaminated monitoring wells over time. Thus, the "textbook" combined Shewhart-CUSUM control chart method can be slightly modified from the EPA procedure and the ASTM Provisional Standard Guide for use at F&H to statistically monitor both increasing and decreasing changes to our groundwater quality data. The following procedure details the modified combined Shewhart-CUSUM control chart method to be used for F- and H-Area statistical analysis of water quality and water elevation data.

Statistical Procedure

The statistical procedure for constructing and interpreting combined Shewhart-CUSUM control charts for use at F&H is described below. The procedure should be followed for each Constituent of Interest (COI), at each Well of Interest (WOI). The procedure has been modified from the control chart procedure recommended by the EPA and ASTM to accommodate the prior existence of contamination, and to detect both increasing and decreasing changes.

The procedure is composed of four major tasks: (1) collect monitoring data and select parameters, (2) adjust the data to fit the data randomness, independence, and normality assumptions required by the control chart statistics, (3) calculate the control chart values, and (4) plot the results. By far, the most complex statistical processes will occur in task (2) – adjustment of the data. Without proper data adjustment, the control chart results would be meaningless.

For each COI, for each WOI, do the following:

Task (1): Collect Monitoring Data

- (1)-1. **Collect Analytical Data:** From the Geochemical Information Management System (GIMS), extract the COI sample data for the WOIs. As per recent GIMS data guidance for compliance decisions, do not extract data with a result qualifier that contains an "R", "J", or "L". Non-detect flags (a result qualifier of "U") for each sample data should be retained.
- (1)-2. **Select Parameters:** Select the background time-period. For F&H, the background time-period is defined as 1/1/91 through 12/31/95. Select the control chart parameters and control limits. For F&H, the following control chart parameters/limits should be used: $k = 1$; $h = 5.0$; and $SCL = 4.5$, as per EPA guidance.

Task (2): Adjust Data

- (2)-1. **Average Samples by Quarter:** Control charts require data to be statistically independent. To ensure this independence, sampling is recommended at intervals no shorter than quarterly. As F&H monitoring data is regularly collected on a quarterly basis (some constituents are sampled less frequently), most wells will only be sampled once per quarter. However, for those instances when a well is sampled more than once per quarter, quarterly average concentration values need to be calculated. The quarterly arithmetic average, \bar{x}_i is to be calculated and stored for each quarter for all the data (the All Dataset). The background time-period data becomes the background time-period quarterly averaged dataset (the BG Dataset). Non-detects (NDs) should be handled as follows: If only NDs exist for a quarter, then no average is calculated (use "0.0" as a placeholder) and flag the average value as "ND". If less than half of the samples in the quarter are NDs, then replace the NDs with $\frac{1}{2}$ the practical quantitation limit (PQL) (or the method detection limit (MDL) if the PQL is not available) and proceed with the averaging calculation. If half or more of the samples are NDs (but not all), then do not use the NDs in the average calculation.
- (2)-2. **Non-Detect Quantity:** If the number of NDs in the entire BG Dataset exceeds 50%, then the control chart analysis should not be continued.
- (2)-3. **Handling of Non-Detects:** If the number of NDs in the BG Dataset is less than 15%, then replace the NDs with $\frac{1}{2}$ the practical quantitation limit (PQL) (or the method detection limit (MDL) if the PQL is not available). If the number of NDs is greater than 15% (but less than 50%), then Cohen's adjustment to the BG Dataset mean and variance will have to be made in a subsequent step.
- (2)-4. **Detection and Removal of Outliers:** The detection and removal of outliers is still subject to expert disagreement. The method described here, the Dixon test, is consistent with that recommended by the EPA, the ASTM, and others. To simplify the analysis, a test for a maximum of one high outlier will be performed for each set of observations in the All Dataset.
 - (2)-4.1. Log-transform the data. Assume ND values are $\frac{1}{2}$ PQL (or MDL).
 - (2)-4.2. Calculate the mean, \bar{x} , and the standard deviation, s , of the log-transformed data.
 - (2)-4.3. Calculate the T statistic, $T = (x_n - \bar{x})/s$, where x_n represents the sample with the largest positive difference from the mean, \bar{x} .
 - (2)-4.4. Compare the T statistic to the critical value given the sample size, n , in Table 1. If a T statistic exceeds the critical value from the table, this is evidence that the suspect observation is a statistical outlier. Remove the outlier from the All Dataset and repeat the test on the next highest value.
- (2)-5. **Minimum number of Background Samples:** If the BG Dataset contains less than 8 samples, then the control chart analysis should not be continued.
- (2)-6. **Normalize the Data:** Determine if the BG Dataset data fits a normal distribution by performing the Wilk-Shapiro test. [The Wilk-Shapiro test (sometimes referred to as Shapiro-Wilk test) is valid for sample

sizes less than or equal to 50. If the sample size is greater than 50, then perform the Shapiro-Francia test.] If the data is not normal, perform a logarithm transform and re-check as discussed below. For BG Dataset sample sizes of 50 or less, the Wilk-Shapiro test procedure is:

- (2)-6.1. Calculate the denominator of the W test statistic, as follows:

$$d = \sum_{i=1}^n (y_i - \bar{Y})^2$$

where y_i represents each data value in the BG Dataset and \bar{Y} is the mean of all BG Dataset values.

- (2)-6.2. Order the data from smallest to largest value then compute W :

$$W = \frac{1}{d} \left[\sum_{i=1}^k a_i (y_{[n-i+1]} - y_i) \right]^2$$

where k is the greatest integer less than or equal to $n/2$. The a_i coefficients are found in Table 2.

- (2)-6.3. The test statistic, W , is then checked against associated probabilities, which at the significance level of 0.05 results in the following decisions. If the W value is greater than that shown in Table 3, then a normal data distribution is indicated and no transformation is necessary. If the W value is less than that shown in Table 3, then non-normally distributed data is indicated. The All Dataset and BG Dataset data (including PQLs) should be transformed via $y = \ln(y)$, and the new BG Dataset should be rechecked for normality. If non-normality is indicated after the $\ln()$ transformation, then the control chart analysis should not be continued.

- (2)-7. **Trend Detection and Removal:** Control charts require the data to be random, i.e. data that does not exhibit a trend. For F&H, many of the monitoring well data will exhibit trends and these trends will need to be detected and removed. The Mann-Kendall test is used to determine if a trend exists. If so, the best-fit trend (either linear or exponential) will be determined and removed from the data. As the Mann-Kendall test is non-parametric, remaining NDs in the BG Dataset will be temporarily considered to be equal to $\frac{1}{2}$ PQL (or MDL) for this step.

- (2)-7.1. The Mann-Kendall test has two possible procedures, depending on the number of samples in the dataset. Typically if the BG Dataset contains less than 40 values, then an "exact test" is used. For F&H, however, we can use the "normal approximation test" (normally used for datasets with greater than 40 values) for any BG Dataset as the difference in results will be minor. In addition, determination of the test statistic results is more straight-forward using the "normal approximation test."

- (2)-7.1.1. Samples from the BG Dataset, ordered by time, are compared in a nested way to determine the non-parametric "sign" for each comparison:

$$\text{sgn}(x_j - x_i) = \begin{cases} 1 & \text{if } x_j - x_i > 0 \\ 0 & \text{if } x_j - x_i = 0 \\ -1 & \text{if } x_j - x_i < 0 \end{cases} .$$

- (2)-7.1.2. Then, the Mann-Kendall statistic is calculated as:

$$S = \sum_{i=1}^{n-1} \sum_{j=i+1}^n \text{sgn}(x_j - x_i) .$$

- (2)-7.1.3. The test statistic is then calculated as:

$$Z = \frac{S - 1}{\sqrt{\text{var}(S)}} \quad \text{if } S > 0$$

$$Z = 0 \quad \text{if } S = 0$$

$$Z = \frac{S + 1}{\sqrt{\text{var}(S)}} \quad \text{if } S < 0$$

where:

$$\text{var}(S) = \frac{n(n-1)(2n+5)}{18}$$

- (2)-7.1.4. The test statistic, Z , is then checked against associated probabilities, which at the significance level of 0.05 results in the following decisions: If the Z value is greater than 1.96, then a positive trend is indicated. If the Z value is less than -1.96, then a negative trend is indicated. Otherwise, no trend in the data is likely.
- (2)-7.2. If a trend was indicated by the Mann-Kendall test, then the best-fit trend function should be determined. Both linear and exponential trends will be tested, and the optimum will be chosen by comparing the coefficients of determination. It is expected at F&H that a majority of the trends will be exponential. (Note that an exponential trend on non-transformed data will be equal to a linear trend on (natural) log-transformed data.)
- (2)-7.2.1. Linear regression is used on the BG Dataset to calculate the slope (β), intercept (α), and the coefficient of determination (R^2) value, as follows:

$$\beta = \frac{\sum \bar{x}\bar{y}}{\sum \bar{x}^2}$$

$$\alpha = \bar{y} - \beta\bar{x}$$

$$R^2 = \frac{(\sum \bar{x}\bar{y})^2}{\sum \bar{x}^2 \sum \bar{y}^2}$$

where \bar{x} is the mean difference of the date, x_i ($x_i - \bar{x}$), and \bar{y} is the mean difference of the sample value, y_i ($y_i - \bar{y}$). The date can be in any "continuous" framework, i.e., decimal years, cumulative quarters, or any other "real" time frame.

- (2)-7.2.2. To calculate the exponential trend parameters (if the data has not been already log-transformed), the BG Dataset data should be transformed by $Y = \ln(y)$, and the linear regression outlined above is to be used to calculate the slope, intercept and coefficient of determination for the (x , Y) data pairs.
- (2)-7.2.3. The best-fit line would therefore be indicated by the greatest coefficient of determination. For a linear trend, the resulting equation is: $y = \alpha + \beta x$. For an exponential trend, the resulting equation is: $y = \alpha e^{\beta x}$.
- (2)-7.3. If applicable, de-trend the All Dataset and the BG Dataset data (including PQLs) as follows:

$$\hat{y} = y - \alpha - \beta x \quad \text{for linear trend}$$

$$\hat{y} = y - \alpha e^{\beta x} \quad \text{for exponential trend}$$

- (2)-8. **Seasonality Detection and Removal:** Seasonality in the BG Dataset can be detected using the Kruskal-Wallis test. However, this test requires at least 4 data points in each season. Thus, if the BG Dataset does not contain 4 data points for each season (defined as each quarter), then seasonality detection and removal will not be performed.

- (2)-8.1. All the data is ranked according to value (lowest being 1, highest being n). Ties are ranked at the average of the tied ranks. (For example, if the ordered dataset was [ND, ND, 1, 2, 2, 2, 3], then the rankings would be [1.5, 1.5, 3, 5, 5, 5, 7].) The Kruskal-Wallis statistic, H , is then calculated as follows:

$$H = \left[\frac{12}{n(n+1)} \sum_{i=1}^g \frac{R_i^2}{N_i} \right] - 3(n+1)$$

where n is the total number of samples, i indicates the season, N_i is the number of samples in each season, and R_i is the sum of the ranks for each season. For the F&H data, each quarter represents a different season.

- (2)-8.2. If there were ranking ties, then the H' statistic is calculated as follows:

$$H' = \frac{H}{1 - \left(\frac{\sum_{i=1}^g T_i}{(n^3 - n)} \right)}$$

where g is the total number of tied groups, and T_i is computed for each tied group as: $T_i = (t_i^3 - t_i)$, where t_i are the number of ties in each tied group.

- (2)-8.3. If either the H or H' statistic exceeds 7.815, then seasonality is indicated and should be removed per EPA guidelines as follows:

- (2)-8.3.1. Calculate the arithmetic average concentration for each season, \bar{Y}_i , in the BG Dataset.
- (2)-8.3.2. Calculate the grand mean arithmetic average for all BG Dataset data, \bar{Y} .
- (2)-8.3.3. Adjust the All Dataset and BG Dataset values, y_{ij} (including PQLs), using: $Z = y_{ij} - \bar{Y}_i + \bar{Y}$, where j is the data index, and i represents the corresponding season/quarter.

Task (3): Compute Control Chart Parameters and Values

- (3)-1. **Background Statistics Calculation:** The creation of a control chart requires the calculation of background statistical moments, as follows:
- (3)-1.1. Calculate the arithmetic mean, \bar{Y} , and standard deviation, S , of the (de-trended, seasonally adjusted, transformed) BG Dataset.
- (3)-1.2. If the ND test in step (2)-3. indicated the need for Cohen's adjustment, perform the adjustment as follows:

- (3)-1.2.1. Compute the arithmetic mean, \bar{Y}_d , and variance, S_d^2 , for the BG Dataset data that are not NDs.
- (3)-1.2.2. Compute the following parameters:

$$h = (n - m) / n$$

$$\gamma = S_d^2 / (\bar{Y}_d - DL)^2$$

where m is the number of samples above the detection limit, DL , and n is the total number of samples in the BG dataset. The value for DL in this equation will be the arithmetic average of $\frac{1}{2}$ the PQL's (transformed, detrended, and/or adjusted for seasonality, as appropriate) for the ND samples.

- (3)-1.2.3. Determine the parameter $\bar{\lambda}$, from Table 4, and estimate the corrected mean and standard deviation by using:

$$\bar{Y} = \bar{Y}_d - \bar{\lambda}(\bar{Y}_d - DL)$$

$$S = \sqrt{S_d^2 + \bar{\lambda}(\bar{Y}_d - DL)}$$

(3)-2. **Compute the Control Chart Values:** For each non-BG value in the All Dataset, compute the following:

- (3)-2.1. Calculate the standardized value, z_i , for each sample, y_i :

$$z_i = (y_i - \bar{Y}) / \sqrt{n_i} / S$$

where n_i is the number of sample values averaged for the quarter.

- (3)-2.2. Calculate the Positive CUSUM value, S_i^+ :

$$S_i^+ = \max(0, (z_i - k) + S_{i-1}^+)$$

- (3)-2.3. Calculate the Negative CUSUM value, S_i^- :

$$S_i^- = \min(0, (z_i + k) + S_{i-1}^-)$$

Task (4): Plot the Control Chart

- (4)-1. **Plot the results:** Plot z_i , S_i^+ , and S_i^- vs. t_i with the control limits.

Tables

Table 1. Dixon Test Critical Values

Number of Observations (n)	Upper 1% Significance Level	Number of Observations (n)	Upper 1% Significance Level	Number of Observations (n)	Upper 1% Significance Level	Number of Observations (n)	Upper 1% Significance Level
3	1.155	47	3.310	91	3.567	135	3.700
4	1.492	48	3.319	92	3.570	136	3.702
5	1.749	49	3.329	93	3.575	137	3.704
6	1.944	50	3.336	94	3.579	138	3.707
7	2.097	51	3.345	95	3.582	139	3.710
8	2.221	52	3.353	96	3.586	140	3.712
9	2.323	53	3.361	97	3.589	141	3.714
10	2.410	54	3.368	98	3.593	142	3.716
11	2.485	55	3.376	99	3.597	143	3.719
12	2.550	56	3.383	100	3.600	144	3.721
13	2.607	57	3.391	101	3.603	145	3.723
14	2.659	58	3.397	102	3.607	146	3.725
15	2.705	59	3.405	103	3.610	147	3.727
16	2.747	60	3.411	104	3.614		
17	2.785	61	3.418	105	3.617		
18	2.821	62	3.424	106	3.620		
19	2.854	63	3.430	107	3.623		
20	2.884	64	3.437	108	3.626		
21	2.912	65	3.442	109	3.629		
22	2.939	66	3.449	110	3.632		
23	2.963	67	3.454	111	3.636		
24	2.987	68	3.460	112	3.639		
25	3.009	69	3.466	113	3.642		
26	3.029	70	3.471	114	3.645		
27	3.049	71	3.476	115	3.647		
28	3.066	72	3.482	116	3.650		
29	3.085	73	3.487	117	3.653		
30	3.103	74	3.492	118	3.656		
31	3.119	75	3.496	119	3.659		
32	3.135	76	3.502	120	3.662		
33	3.150	77	3.507	121	3.665		
34	3.164	78	3.511	122	3.667		
35	3.178	79	3.516	123	3.670		
36	3.191	80	3.521	124	3.672		
37	3.204	81	3.525	125	3.675		
38	3.216	82	3.529	126	3.677		
39	3.228	83	3.534	127	3.680		
40	3.240	84	3.539	128	3.683		
41	3.251	85	3.543	129	3.686		
42	3.261	86	3.547	130	3.688		
43	3.271	87	3.551	131	3.690		
44	3.282	88	3.555	132	3.693		
45	3.292	89	3.559	133	3.695		
46	3.302	90	3.563	134	3.697		

Table 2. a Coefficients for the Wilk-Shapiro Test

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
1	.7071	.7071	.6872	.6646	.6431	.6233	.6052	.5888	.5739	.5601	.5475	.5359	.5251	.5150	.5056	.4968	.4886	.4808	.4734	.4663	.4590	.4522	.4453	.4450
2		.0000	.1677	.2413	.2806	.3031	.3164	.3244	.3291	.3315	.3325	.3325	.3318	.3306	.3290	.3273	.3253	.3232	.3211	.3185	.3156	.3126	.3088	.3069
3			.0000	.0875	.1401	.1743	.1976	.2141	.2260	.2347	.2412	.2460	.2495	.2521	.2540	.2553	.2561	.2565	.2578	.2571	.2563	.2554	.2543	
4				.0000	.0561	.0947	.1224	.1429	.1586	.1707	.1802	.1878	.1939	.1988	.2027	.2059	.2085	.2119	.2131	.2139	.2145	.2148		
5					.0000	.0399	.0695	.0922	.1099	.1240	.1353	.1447	.1524	.1587	.1641	.1686	.1736	.1764	.1787	.1807	.1822			
6						.0000	.0303	.0539	.0727	.0880	.1005	.1109	.1197	.1271	.1334	.1399	.1443	.1480	.1512	.1539				
7							.0000	.0240	.0433	.0593	.0725	.0837	.0932	.1013	.1092	.1150	.1201	.1245	.1283					
8								.0000	.0196	.0359	.0496	.0612	.0711	.0804	.0878	.0941	.0997	.1046						
9									.0000	.0163	.0303	.0422	.0530	.0618	.0696	.0764	.0823							
10										.0000	.0140	.0263	.0368	.0459	.0539	.0610								
11											.0000	.0122	.0228	.0321	.0403									
12												.0000	.0107	.0200										
13													.0000											

	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
1	.4407	.4366	.4328	.4291	.4254	.4220	.4188	.4156	.4127	.4096	.4068	.4040	.4015	.3989	.3964	.3940	.3917	.3894	.3872	.3850	.3830	.3808	.3789	.3770	.3751
2	.3043	.3018	.2992	.2968	.2944	.2921	.2898	.2876	.2854	.2834	.2813	.2794	.2774	.2755	.2737	.2719	.2701	.2684	.2667	.2651	.2635	.2620	.2604	.2589	.2574
3	.2533	.2522	.2510	.2499	.2487	.2475	.2463	.2451	.2439	.2427	.2415	.2403	.2391	.2380	.2368	.2357	.2345	.2334	.2323	.2313	.2302	.2291	.2281	.2271	.2260
4	.2151	.2152	.2151	.2150	.2148	.2145	.2141	.2137	.2132	.2127	.2121	.2116	.2110	.2104	.2098	.2091	.2085	.2078	.2072	.2065	.2058	.2052	.2045	.2038	.2032
5	.1836	.1848	.1857	.1864	.1870	.1874	.1878	.1880	.1882	.1883	.1883	.1883	.1881	.1880	.1878	.1876	.1874	.1871	.1868	.1865	.1862	.1859	.1855	.1851	.1847
6	.1563	.1584	.1601	.1616	.1630	.1641	.1651	.1660	.1667	.1673	.1678	.1683	.1686	.1689	.1691	.1693	.1694	.1695	.1695	.1695	.1695	.1695	.1693	.1692	.1691
7	.1316	.1346	.1372	.1395	.1415	.1433	.1449	.1463	.1475	.1487	.1496	.1505	.1513	.1520	.1526	.1531	.1535	.1539	.1542	.1545	.1548	.1550	.1551	.1553	.1554
8	.1089	.1128	.1162	.1192	.1219	.1243	.1265	.1284	.1301	.1317	.1331	.1344	.1356	.1366	.1376	.1384	.1392	.1398	.1405	.1410	.1415	.1420	.1423	.1427	.1430
9	.0876	.0923	.0965	.1002	.1036	.1066	.1093	.1118	.1140	.1160	.1179	.1196	.1211	.1225	.1237	.1249	.1259	.1269	.1278	.1286	.1293	.1300	.1306	.1312	.1317
10	.0672	.0728	.0778	.0822	.0862	.0899	.0931	.0961	.0988	.1013	.1036	.1056	.1075	.1092	.1108	.1123	.1136	.1149	.1160	.1170	.1180	.1189	.1197	.1205	.1212
11	.0476	.0540	.0598	.0650	.0697	.0739	.0777	.0812	.0844	.0873	.0900	.0924	.0947	.0967	.0986	.1004	.1020	.1035	.1049	.1062	.1073	.1085	.1095	.1105	.1113
12	.0284	.0358	.0424	.0483	.0537	.0585	.0629	.0669	.0706	.0739	.0770	.0798	.0824	.0848	.0870	.0891	.0909	.0927	.0943	.0959	.0972	.0986	.0998	.1010	.1020
13	.0094	.0178	.0253	.0320	.0381	.0435	.0485	.0530	.0572	.0610	.0645	.0677	.0706	.0733	.0759	.0782	.0804	.0824	.0842	.0860	.0876	.0892	.0906	.0919	
14		.0000	.0084	.0159	.0227	.0289	.0344	.0395	.0441	.0484	.0523	.0559	.0592	.0622	.0651	.0677	.0701	.0724	.0745	.0765	.0783	.0801	.0817	.0832	
15			.0000	.0076	.0144	.0206	.0262	.0314	.0361	.0404	.0444	.0481	.0515	.0546	.0575	.0602	.0628	.0651	.0673	.0694	.0713	.0731	.0748	.0764	
16				.0000	.0068	.0131	.0187	.0239	.0287	.0331	.0372	.0409	.0444	.0476	.0506	.0534	.0560	.0584	.0607	.0628	.0648	.0667	.0685	.0698	
17					.0000	.0062	.0119	.0172	.0220	.0264	.0305	.0343	.0379	.0411	.0442	.0471	.0497	.0522	.0546	.0568	.0588	.0608	.0628		
18						.0000	.0057	.0110	.0158	.0203	.0244	.0283	.0318	.0352	.0383	.0412	.0439	.0465	.0489	.0511	.0532	.0552			
19							.0000	.0053	.0101	.0146	.0188	.0227	.0263	.0296	.0328	.0357	.0385	.0411	.0436	.0459					
20								.0000	.0049	.0094	.0136	.0175	.0211	.0245	.0277	.0307	.0335	.0361	.0386						
21									.0000	.0045	.0087	.0126	.0163	.0197	.0229	.0259	.0288	.0314							
22										.0000	.0042	.0081	.0118	.0153	.0185	.0215	.0244								
23											.0000	.0039	.0076	.0111	.0143	.0174									
24												.0000	.0037	.0071	.0104										
25													.0000												

Table 3. Wilk-Shapiro Test Critical Values

Sample Size	Value of W @ 0.05	Sample Size	Value of W @ 0.05
3	0.767	27	0.923
4	0.748	28	0.924
5	0.762	29	0.926
6	0.788	30	0.927
7	0.803	31	0.929
8	0.818	32	0.930
9	0.829	33	0.931
10	0.842	34	0.933
11	0.850	35	0.934
12	0.859	36	0.935
13	0.866	37	0.936
14	0.874	38	0.938
15	0.881	39	0.939
16	0.887	40	0.940
17	0.892	41	0.941
18	0.897	42	0.942
19	0.901	43	0.943
20	0.905	44	0.944
21	0.908	45	0.945
22	0.911	46	0.945
23	0.914	47	0.946
24	0.916	48	0.947
25	0.918	49	0.947
26	0.920	50	0.947

Table 4. Cohen's Method $\bar{\lambda}$ Parameters

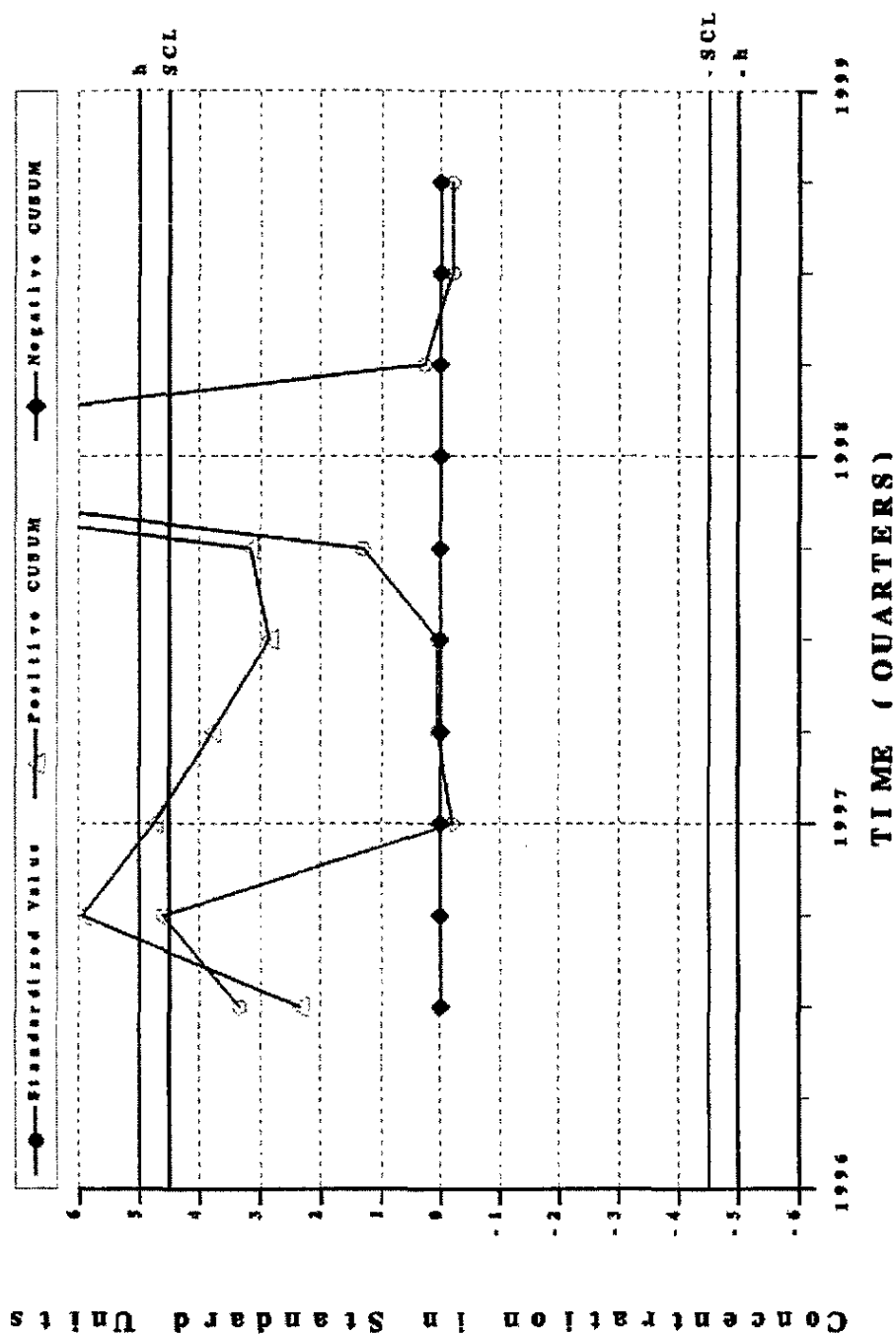
	Percentages of Non-detects										
γ	.01	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50
.01	.0102	.0530	.1111	.1747	.2443	.3205	.4043	.4967	.5989	.7128	.8403
.05	.0105	.0547	.1143	.1793	.2503	.3279	.4130	.5066	.6101	.7252	.8540
.10	.0110	.0566	.1180	.1848	.2574	.3366	.4233	.5184	.6234	.7400	.8703
.15	.0113	.0584	.1215	.1898	.2640	.3448	.4330	.5296	.6361	.7542	.8860
.20	.0116	.0600	.1247	.1946	.2703	.3525	.4422	.5403	.6483	.7678	.9012
.25	.0120	.0615	.1277	.1991	.2763	.3599	.4510	.5506	.6600	.7810	.9158
.30	.0122	.0630	.1306	.2034	.2819	.3670	.4595	.5604	.6713	.7937	.9300
.35	.0125	.0643	.1333	.2075	.2874	.3738	.4676	.5699	.6821	.8060	.9437
.40	.0128	.0657	.1360	.2114	.2926	.3803	.4755	.5791	.6927	.8179	.9570
.45	.0130	.0669	.1385	.2152	.2976	.3866	.4831	.5880	.7029	.8295	.9700
.50	.0133	.0681	.1409	.2188	.3025	.3928	.4904	.5967	.7129	.8408	.9826
.55	.0135	.0693	.1432	.2224	.3073	.3987	.4976	.6051	.7225	.8517	.9950
.60	.0137	.0704	.1455	.2258	.3118	.4045	.5046	.6133	.7320	.8625	1.0070
.65	.0140	.0715	.1477	.2291	.3163	.4101	.5114	.6213	.7412	.8729	1.0188
.70	.0142	.0726	.1499	.2323	.3206	.4156	.5180	.6291	.7502	.8832	1.0303
.75	.0144	.0736	.1520	.2355	.3249	.4209	.5245	.6367	.7590	.8932	1.0416
.80	.0146	.0747	.1540	.2386	.3290	.4261	.5308	.6441	.7676	.9031	1.0527
.85	.0148	.0756	.1560	.2416	.3331	.4312	.5370	.6515	.7761	.9127	1.0636
.90	.0150	.0766	.1579	.2445	.3370	.4362	.5430	.6586	.7844	.9222	1.0743
.95	.0152	.0755	.1598	.2474	.3409	.4411	.5490	.6656	.7925	.9314	1.0847
1.00	.0153	.0785	.1617	.2502	.3447	.4459	.5548	.6725	.8005	.9406	1.0951
1.05	.0155	.0794	.1635	.2530	.3484	.4506	.5605	.6793	.8084	.9496	1.1052
1.10	.0157	.0803	.1653	.2557	.3521	.4553	.5662	.6860	.8161	.9584	1.1152
1.15	.0159	.0811	.1671	.2584	.3557	.4598	.5717	.6925	.8237	.9671	1.1250
1.20	.0160	.0820	.1688	.2610	.3592	.4643	.5771	.6990	.8312	.9756	1.1347
1.25	.0162	.0828	.1705	.2636	.3627	.4687	.5825	.7053	.8385	.9841	1.1443
1.30	.0164	.0836	.1722	.2661	.3661	.4730	.5878	.7115	.8458	.9924	1.1537
1.35	.0165	.0845	.1738	.2686	.3695	.4773	.5930	.7177	.8529	1.0006	1.1629
1.40	.0167	.0853	.1754	.2710	.3728	.4815	.5981	.7238	.8600	1.0087	1.1721
1.45	.0168	.0860	.1770	.2735	.3761	.4856	.6031	.7298	.8670	1.0166	1.1812
1.50	.0170	.0868	.1786	.2758	.3793	.4897	.6081	.7357	.8738	1.0245	1.1901
1.55	.0171	.0876	.1801	.2782	.3825	.4938	.6130	.7415	.8806	1.0323	1.1989
1.60	.0173	.0883	.1817	.2805	.3856	.4977	.6179	.7472	.8873	1.0400	1.2076
1.65	.0174	.0891	.1832	.2828	.3887	.5017	.6227	.7529	.8939	1.0476	1.2162
1.70	.0176	.0898	.1846	.2851	.3918	.5055	.6274	.7585	.9005	1.0551	1.2248
1.75	.0177	.0905	.1861	.2873	.3948	.5094	.6321	.7641	.9069	1.0625	1.2332
1.80	.0179	.0913	.1876	.2895	.3978	.5132	.6367	.7696	.9133	1.0698	1.2415
1.85	.0180	.0920	.1890	.2917	.4007	.5167	.6413	.7750	.9169	1.0771	1.2497
1.90	.0181	.0927	.1904	.2938	.4036	.5206	.6458	.7804	.9259	1.0842	1.2579
1.95	.0183	.0933	.1918	.2960	.4065	.5243	.6502	.7857	.9321	1.0913	1.2660
2.00	.0184	.0940	.1932	.2981	.4093	.5279	.6547	.7909	.9382	1.0984	1.2739
2.05	.0186	.0947	.1945	.3001	.4122	.5315	.6590	.7961	.9442	1.1053	1.2819
2.10	.0187	.0954	.1959	.3022	.4149	.5350	.6634	.8013	.9502	1.1122	1.2897
2.15	.0188	.0960	.1972	.3042	.4177	.5385	.6676	.8063	.9562	1.1190	1.2974
2.20	.0189	.0967	.1986	.3062	.4204	.5420	.6719	.8114	.9620	1.1258	1.3051
2.25	.0191	.0973	.1999	.3082	.4231	.5454	.6761	.8164	.9679	1.1325	1.3127
2.30	.0192	.0980	.2012	.3102	.4258	.5488	.6802	.8213	.9736	1.1391	1.3203
2.35	.0193	.0986	.2025	.3122	.4285	.5522	.6844	.8262	.9794	1.1457	1.3278
2.40	.0194	.0992	.2037	.3141	.4311	.5555	.6884	.8311	.9850	1.1522	1.3352
2.45	.0196	.0998	.2050	.3160	.4337	.5588	.6925	.8359	.9906	1.1587	1.3425
2.50	.0197	.1005	.2062	.3179	.4363	.5621	.6965	.8407	.9962	1.1651	1.3498
2.55	.0198	.1011	.2075	.3198	.4388	.5654	.7005	.8454	1.0017	1.1714	1.3571
2.60	.0199	.1017	.2087	.3217	.4414	.5686	.7044	.8501	1.0072	1.1777	1.3642
2.65	.0201	.1023	.2099	.3236	.4439	.5718	.7083	.8548	1.0126	1.1840	1.3714
2.70	.0202	.1029	.2111	.3254	.4464	.5750	.7122	.8594	1.0180	1.1902	1.3784
2.75	.0203	.1035	.2123	.3272	.4489	.5781	.7161	.8639	1.0234	1.1963	1.3854
2.80	.0204	.1040	.2135	.3290	.4513	.5812	.7199	.8685	1.0287	1.2024	1.3924
2.85	.0205	.1046	.2147	.3308	.4537	.5843	.7237	.8730	1.0339	1.2085	1.3993
2.90	.0206	.1052	.2158	.3326	.4562	.5874	.7274	.8775	1.0392	1.2145	1.4061
2.95	.0207	.1058	.2170	.3344	.4585	.5905	.7311	.8819	1.0443	1.2205	1.4129
3.00	.0209	.1063	.2182	.3361	.4609	.5935	.7348	.8863	1.0495	1.2264	1.4197
3.05	.0210	.1069	.2193	.3378	.4633	.5965	.7385	.8907	1.0546	1.2323	1.4264
3.10	.0211	.1074	.2204	.3396	.4656	.5995	.7422	.8950	1.0597	1.2381	1.4330
3.15	.0212	.1080	.2216	.3413	.4679	.6024	.7458	.8993	1.0647	1.2439	1.4396
3.20	.0213	.1085	.2227	.3430	.4703	.6054	.7494	.9036	1.0697	1.2497	1.4462
3.25	.0214	.1091	.2238	.3447	.4725	.6083	.7529	.9079	1.0747	1.2554	1.4527
3.30	.0215	.1096	.2249	.3464	.4748	.6112	.7565	.9121	1.0796	1.2611	1.4592
3.35	.0216	.1102	.2260	.3480	.4771	.6141	.7600	.9163	1.0845	1.2668	1.4657
3.40	.0217	.1107	.2270	.3497	.4793	.6169	.7635	.9205	1.0894	1.2724	1.4720
3.45	.0218	.1112	.2281	.3513	.4816	.6197	.7670	.9246	1.0942	1.2779	1.4784

Table 4 (continued). Cohen's Method $\bar{\lambda}$ Parameters

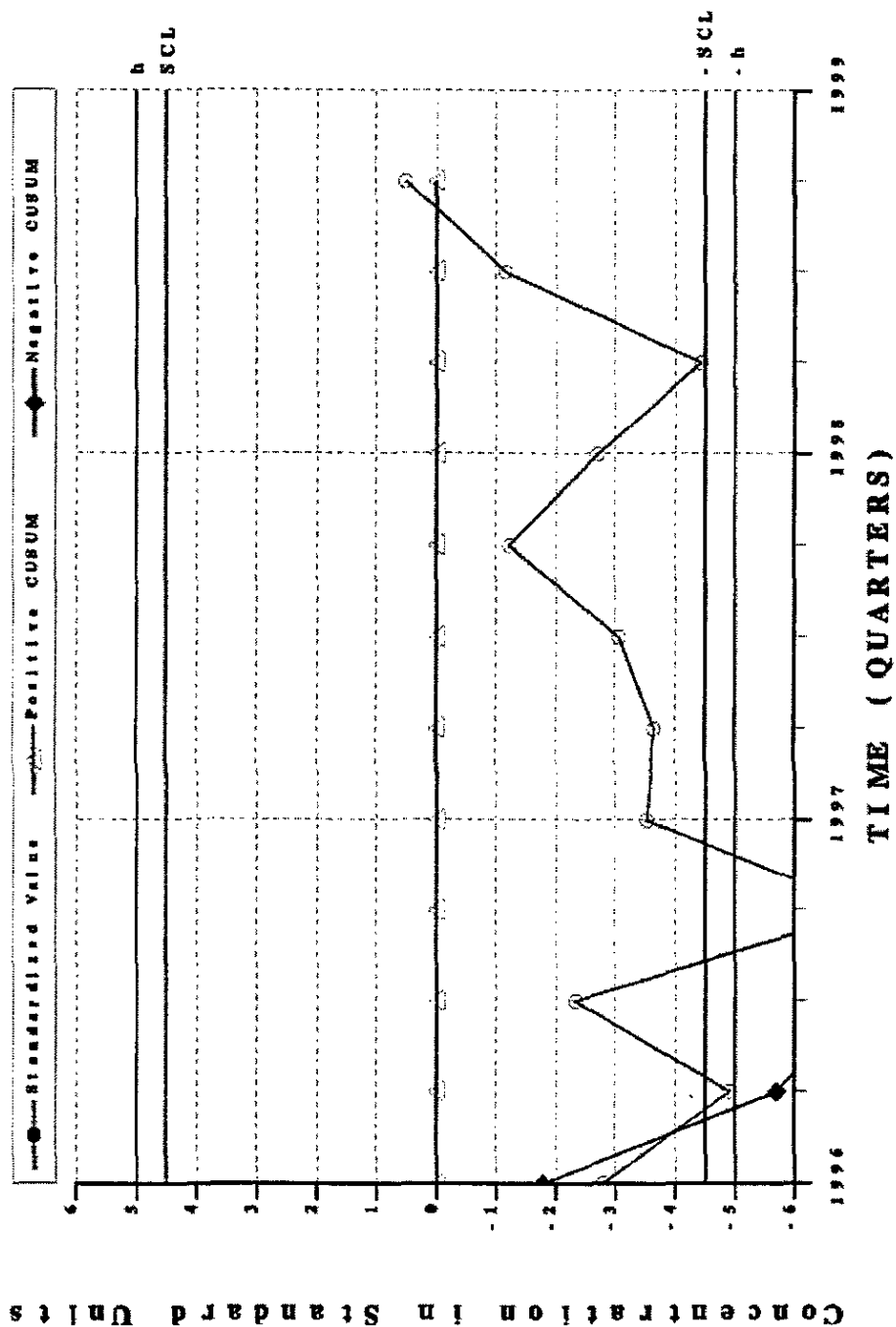
	Percentages of Non-detects										
γ	.01	.05	.10	.15	.20	.25	.30	.35	.40	.45	.50
3.50	.0219	.1118	.2292	.3529	.4838	.6226	.7704	.9287	1.0990	1.2835	1.4847
3.55	.0220	.1123	.2303	.3546	.4860	.6254	.7739	.9328	1.1038	1.2890	1.4910
3.60	.0221	.1128	.2313	.3562	.4882	.6282	.7773	.9369	1.1086	1.2945	1.4972
3.65	.0222	.1133	.2324	.3578	.4903	.6309	.7807	.9409	1.1133	1.2999	1.5034
3.70	.0223	.1138	.2334	.3594	.4925	.6337	.7840	.9449	1.1180	1.3053	1.5096
3.75	.0224	.1143	.2344	.3609	.4946	.6364	.7874	.9489	1.1226	1.3107	1.5157
3.80	.0225	.1148	.2355	.3625	.4968	.6391	.7907	.9529	1.1273	1.3160	1.5218
3.85	.0226	.1153	.2365	.3641	.4989	.6418	.7940	.9568	1.1319	1.3213	1.5279
3.90	.0227	.1158	.2375	.3656	.5010	.6445	.7973	.9607	1.1364	1.3266	1.5339
3.95	.0228	.1163	.2385	.3672	.5031	.6472	.8006	.9646	1.1410	1.3318	1.5399
4.00	.0229	.1168	.2395	.3687	.5052	.6498	.8038	.9685	1.1455	1.3371	1.5458
4.05	.0230	.1173	.2405	.3702	.5072	.6525	.8070	.9723	1.1500	1.3423	1.5518
4.10	.0231	.1178	.2415	.3717	.5093	.6551	.8102	.9766	1.1545	1.3474	1.5577
4.15	.0232	.1183	.2425	.3732	.5113	.6577	.8134	.9800	1.1590	1.3526	1.5635
4.20	.0233	.1188	.2435	.3747	.5134	.6603	.8166	.9837	1.1634	1.3577	1.5693
4.25	.0234	.1193	.2444	.3762	.5154	.6629	.8198	.9875	1.1678	1.3627	1.5751
4.30	.0235	.1197	.2454	.3777	.5174	.6654	.8229	.9913	1.1722	1.3678	1.5809
4.35	.0236	.1202	.2464	.3792	.5194	.6680	.8260	.9950	1.1765	1.3728	1.5866
4.40	.0237	.1207	.2473	.3806	.5214	.6705	.8291	.9987	1.1809	1.3778	1.5924
4.45	.0238	.1212	.2483	.3821	.5234	.6730	.8322	1.0024	1.1852	1.3828	1.5980
4.50	.0239	.1216	.2492	.3836	.5253	.6755	.8353	1.0060	1.1895	1.3878	1.6037
4.55	.0240	.1221	.2502	.3850	.5273	.6780	.8384	1.0097	1.1937	1.3927	1.6093
4.60	.0241	.1225	.2511	.3864	.5292	.6805	.8414	1.0133	1.1980	1.3976	1.6149
4.65	.0241	.1230	.2521	.3879	.5312	.6830	.8445	1.0169	1.2022	1.4024	1.6205
4.70	.0242	.1235	.2530	.3893	.5331	.6855	.8475	1.0205	1.2064	1.4073	1.6260
4.75	.0243	.1239	.2539	.3907	.5350	.6879	.8505	1.0241	1.2106	1.4121	1.6305
4.80	.0244	.1244	.2548	.3921	.5370	.6903	.8535	1.0277	1.2148	1.4169	1.6370
4.85	.0245	.1248	.2558	.3935	.5389	.6928	.8564	1.0312	1.2189	1.4217	1.6425
4.90	.0246	.1253	.2567	.3949	.5407	.6952	.8594	1.0348	1.2230	1.4265	1.6479
4.95	.0247	.1257	.2576	.3963	.5426	.6976	.8623	1.0383	1.2272	1.4312	1.6533
5.00	.0248	.1262	.2585	.3977	.5445	.7000	.8653	1.0418	1.2312	1.4359	1.6587
5.05	.0249	.1266	.2594	.3990	.5464	.7024	.8682	1.0452	1.2353	1.4406	1.6641
5.10	.0249	.1270	.2603	.4004	.5482	.7047	.8711	1.0487	1.2394	1.4453	1.6694
5.15	.0250	.1275	.2612	.4018	.5501	.7071	.8740	1.0521	1.2434	1.4500	1.6747
5.20	.0251	.1279	.2621	.4031	.5519	.7094	.8768	1.0556	1.2474	1.4546	1.6800
5.25	.0252	.1284	.2629	.4045	.5537	.7118	.8797	1.0590	1.2514	1.4592	1.6853
5.30	.0253	.1288	.2638	.4058	.5556	.7141	.8825	1.0624	1.2554	1.4638	1.6905
5.35	.0254	.1292	.2647	.4071	.5574	.7164	.8854	1.0658	1.2594	1.4684	1.6958
5.40	.0255	.1296	.2656	.4085	.5592	.7187	.8882	1.0691	1.2633	1.4729	1.7010
5.45	.0255	.1301	.2664	.4098	.5610	.7210	.8910	1.0725	1.2672	1.4775	1.7061
5.50	.0256	.1305	.2673	.4111	.5628	.7233	.8938	1.0758	1.2711	1.4820	1.7113
5.55	.0257	.1309	.2682	.4124	.5646	.7256	.8966	1.0792	1.2750	1.4865	1.7164
5.60	.0258	.1313	.2690	.4137	.5663	.7278	.8994	1.0825	1.2789	1.4910	1.7215
5.65	.0259	.1318	.2699	.4150	.5681	.7301	.9022	1.0858	1.2828	1.4954	1.7266
5.70	.0260	.1322	.2707	.4163	.5699	.7323	.9049	1.0891	1.2866	1.4999	1.7317
5.75	.0260	.1326	.2716	.4176	.5716	.7346	.9077	1.0924	1.2905	1.5043	1.7368
5.80	.0261	.1330	.2724	.4189	.5734	.7368	.9104	1.0956	1.2943	1.5087	1.7418
5.85	.0262	.1334	.2732	.4202	.5751	.7390	.9131	1.0989	1.2981	1.5131	1.7468
5.90	.0263	.1338	.2741	.4215	.5769	.7412	.9158	1.1021	1.3019	1.5175	1.7518
5.95	.0264	.1342	.2749	.4227	.5786	.7434	.9185	1.1053	1.3057	1.5218	1.7568
6.00	.0264	.1346	.2757	.4240	.5803	.7456	.9212	1.1085	1.3094	1.5262	1.7617

Control Charts

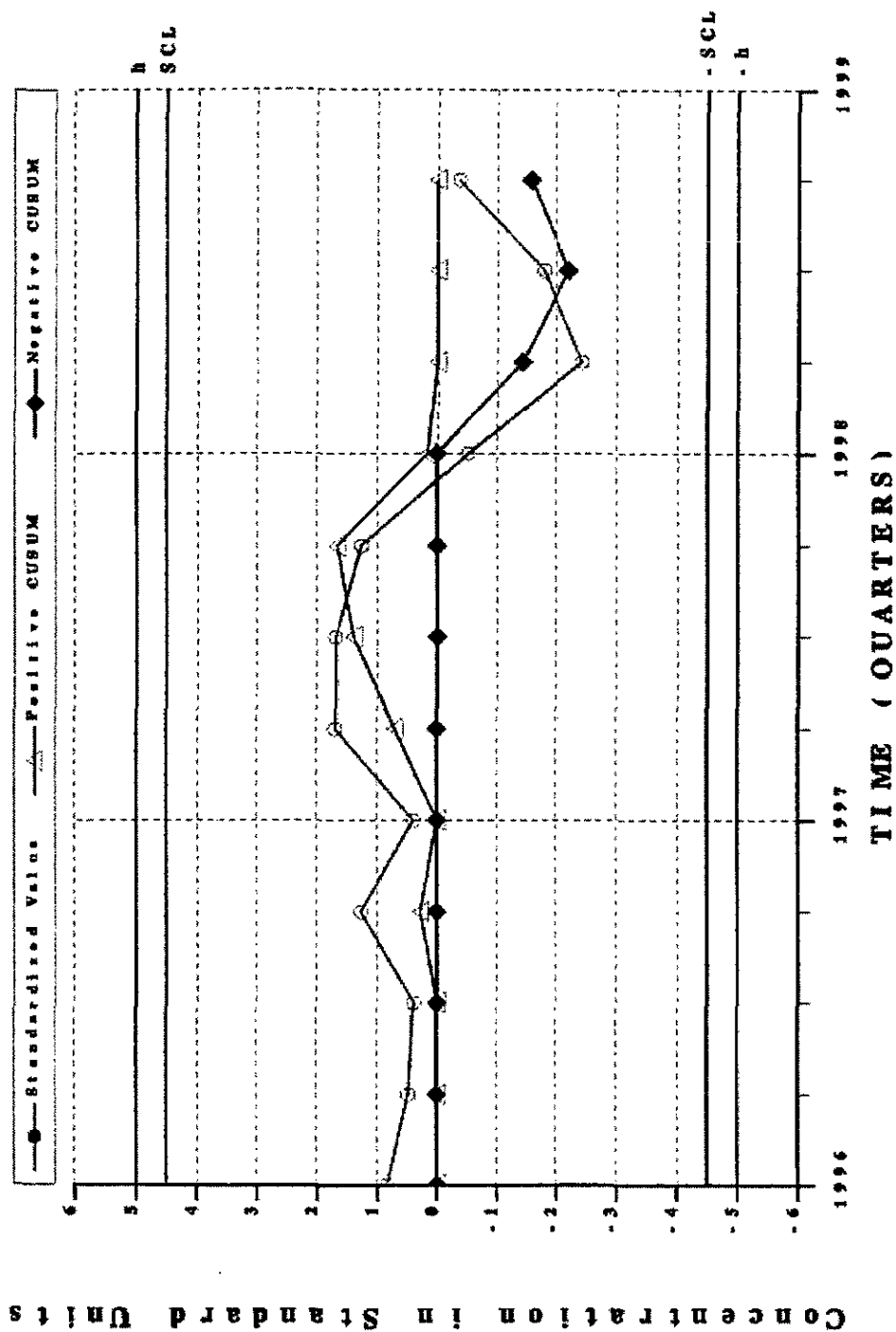
Combined Shewhart-CUSUM Control Chart
WELL HSB100C - Nitrate-nitrite as nitrogen



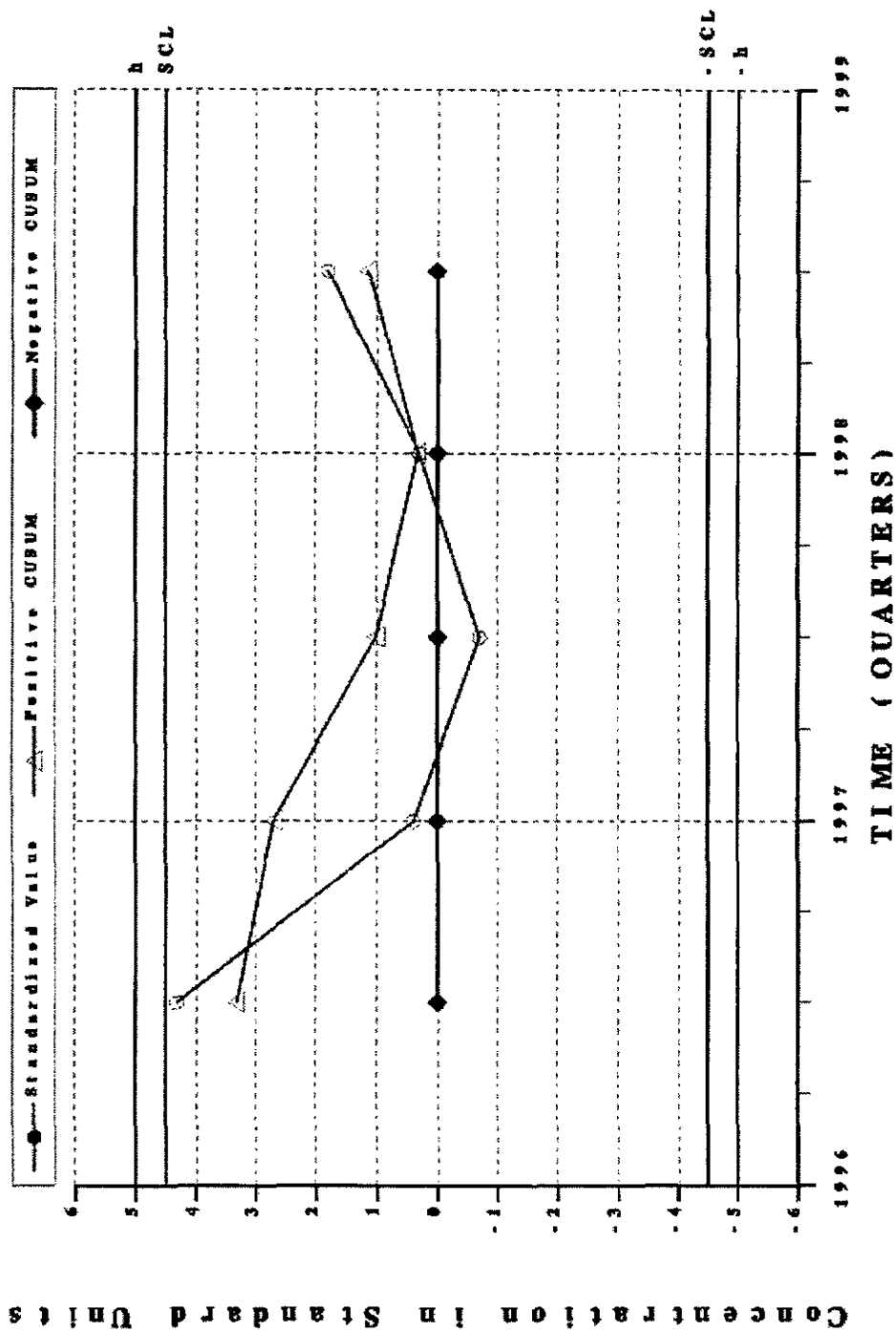
Combined Shewhart-CUSUM Control Chart
WELL HSB100C - Tritium



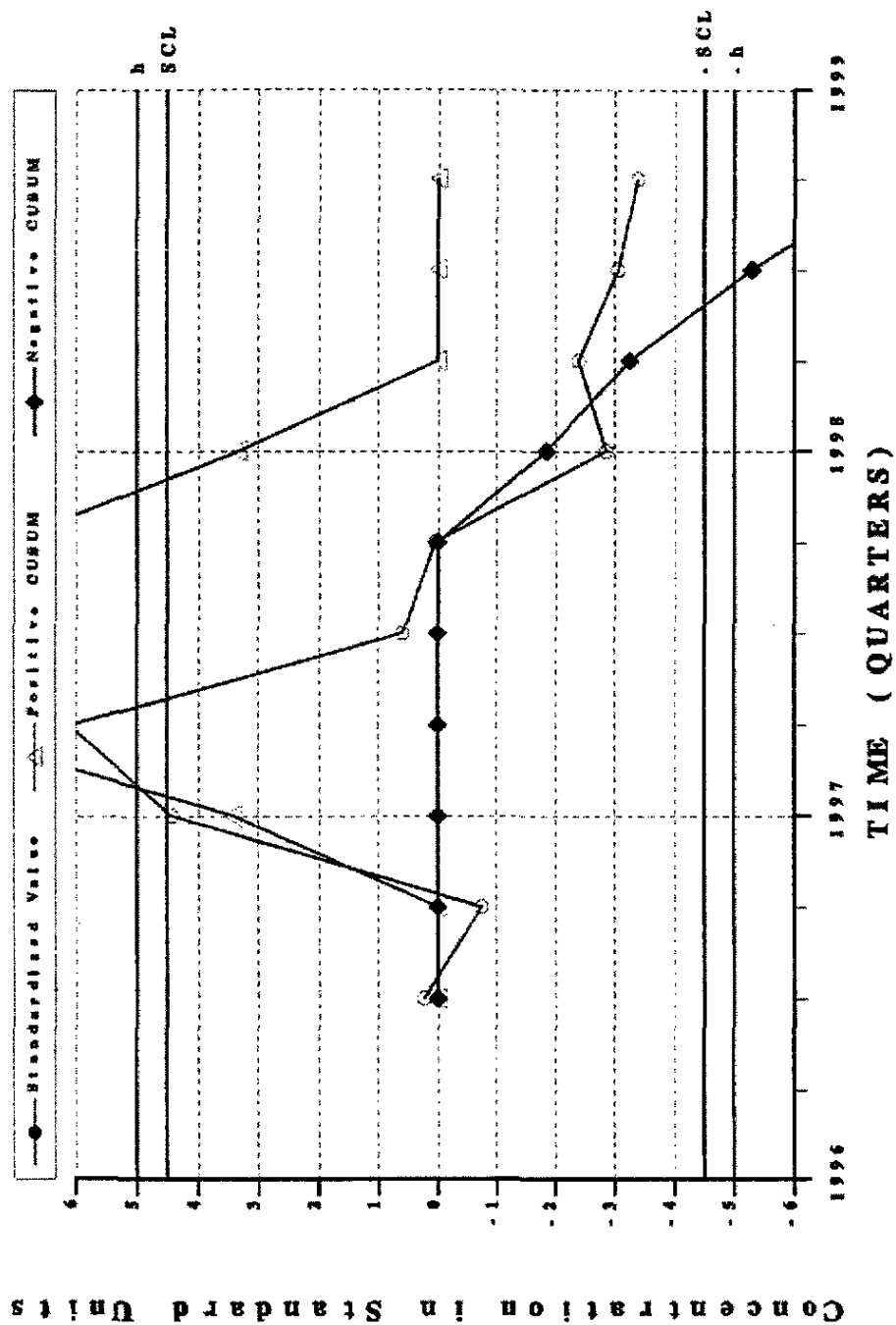
Combined Shewhart-CUSUM Control Chart WELL HSB100C - Water Level



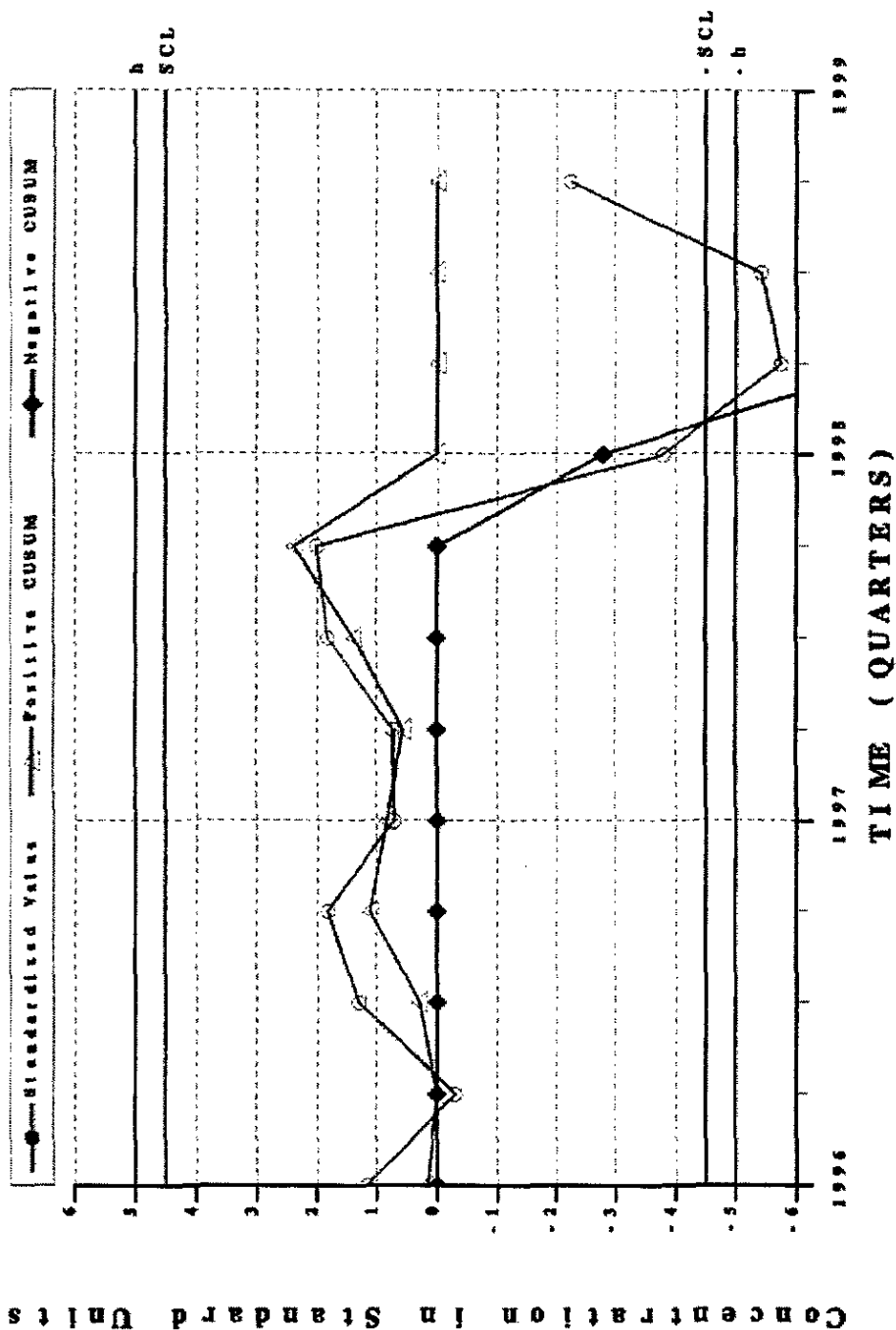
Combined Shewhart-CUSUM Control Chart WELL HSB100C - Zinc, total recoverable



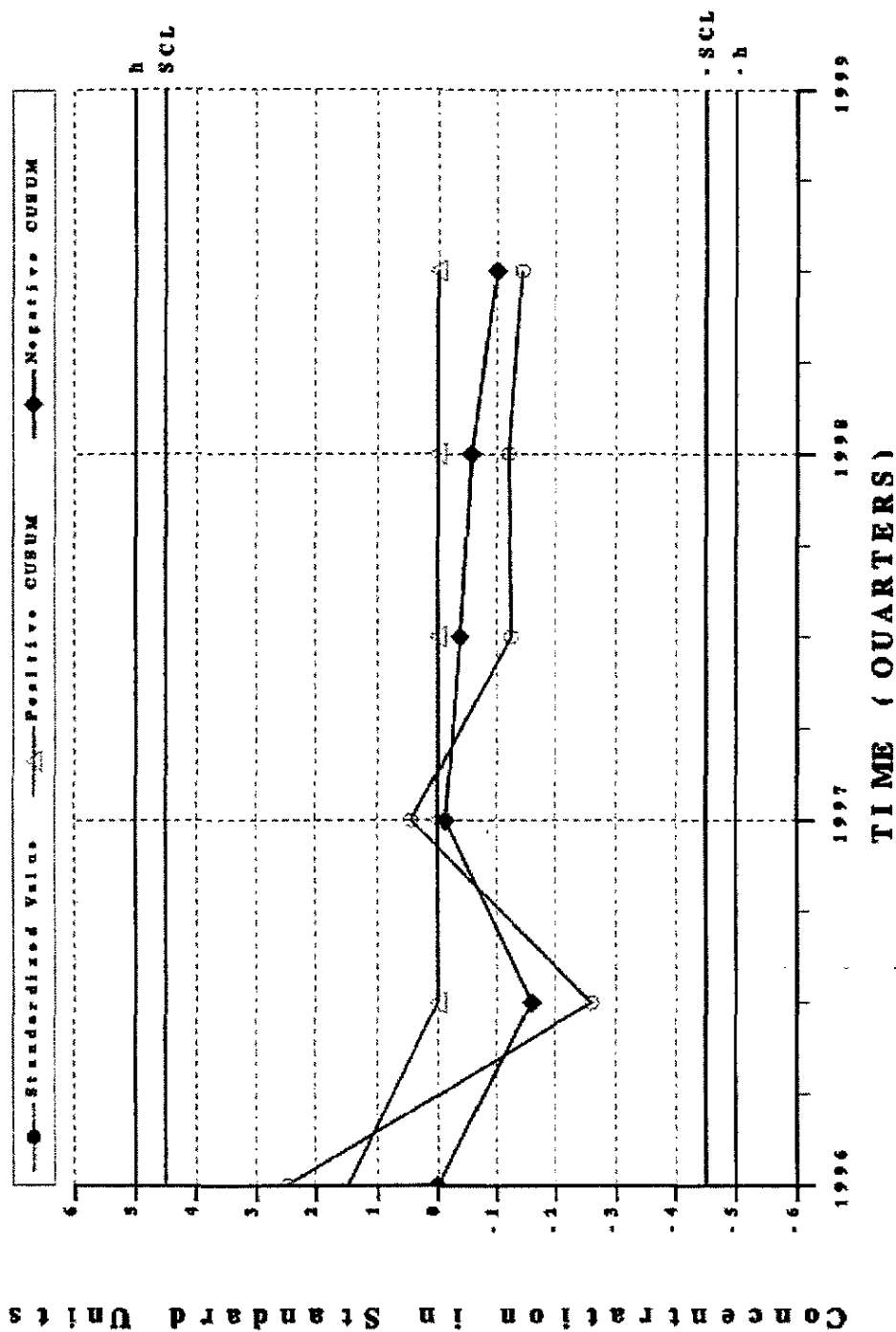
Combined Shewhart-CUSUM Control Chart
WELL HSB100D - Nitrate-nitrite as nitrogen



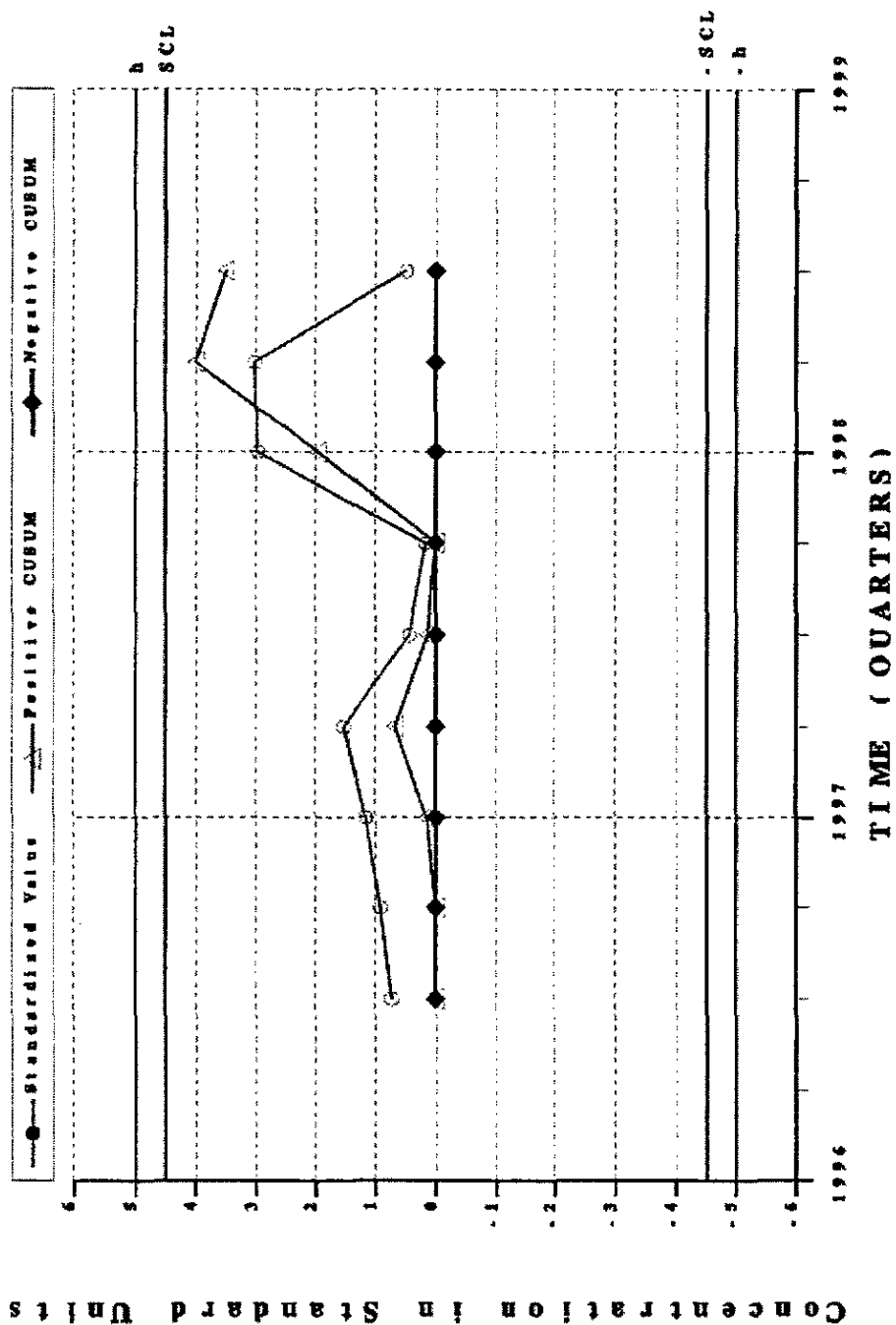
Combined Shewhart-CUSUM Control Chart WELL HSB100D - Water Level



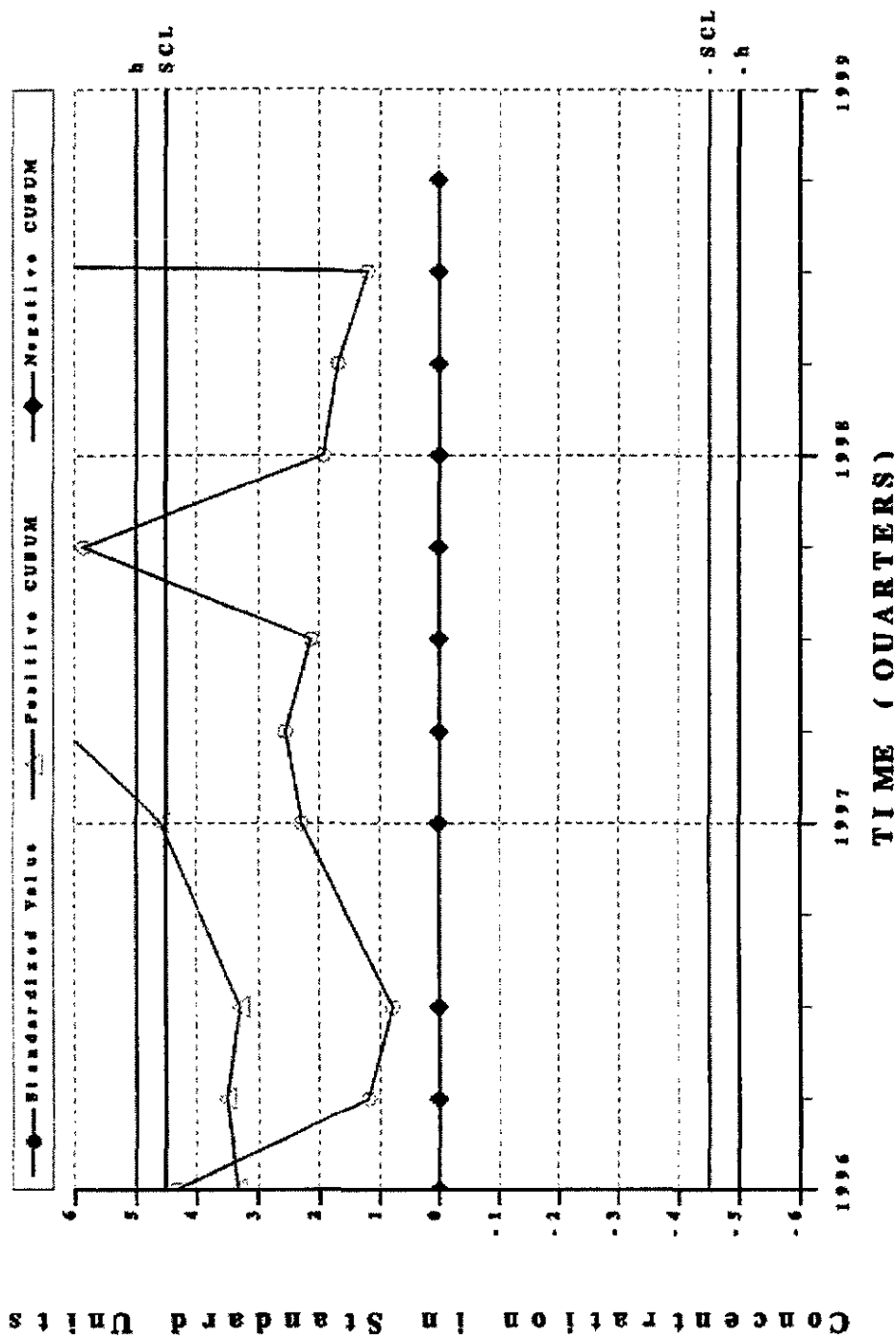
Combined Shewhart-CUSUM Control Chart WELL HSB101C - Barium, total recoverable



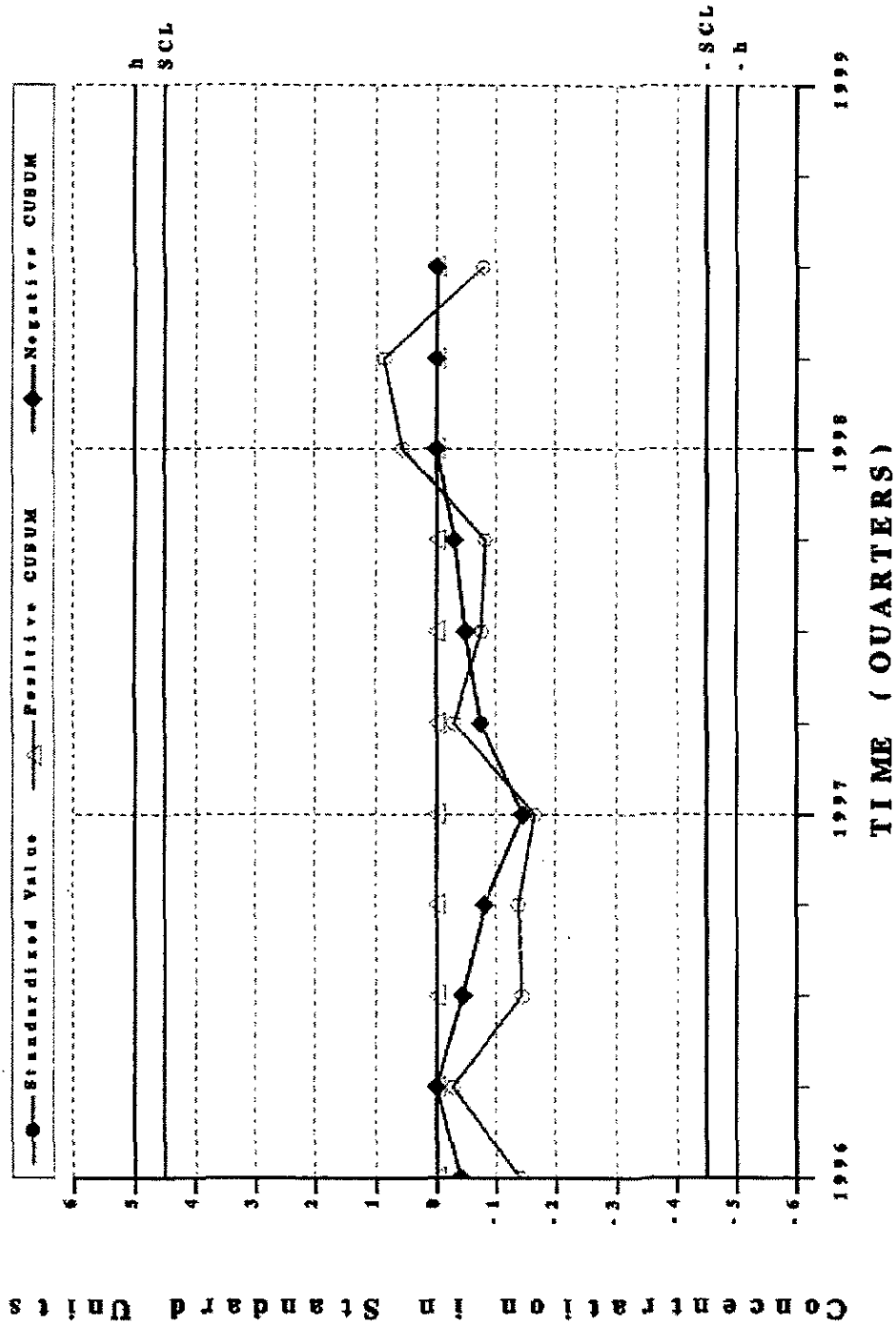
Combined Shewhart-CUSUM Control Chart
VELL HSB101C - Nitrate-nitrite as nitrogen



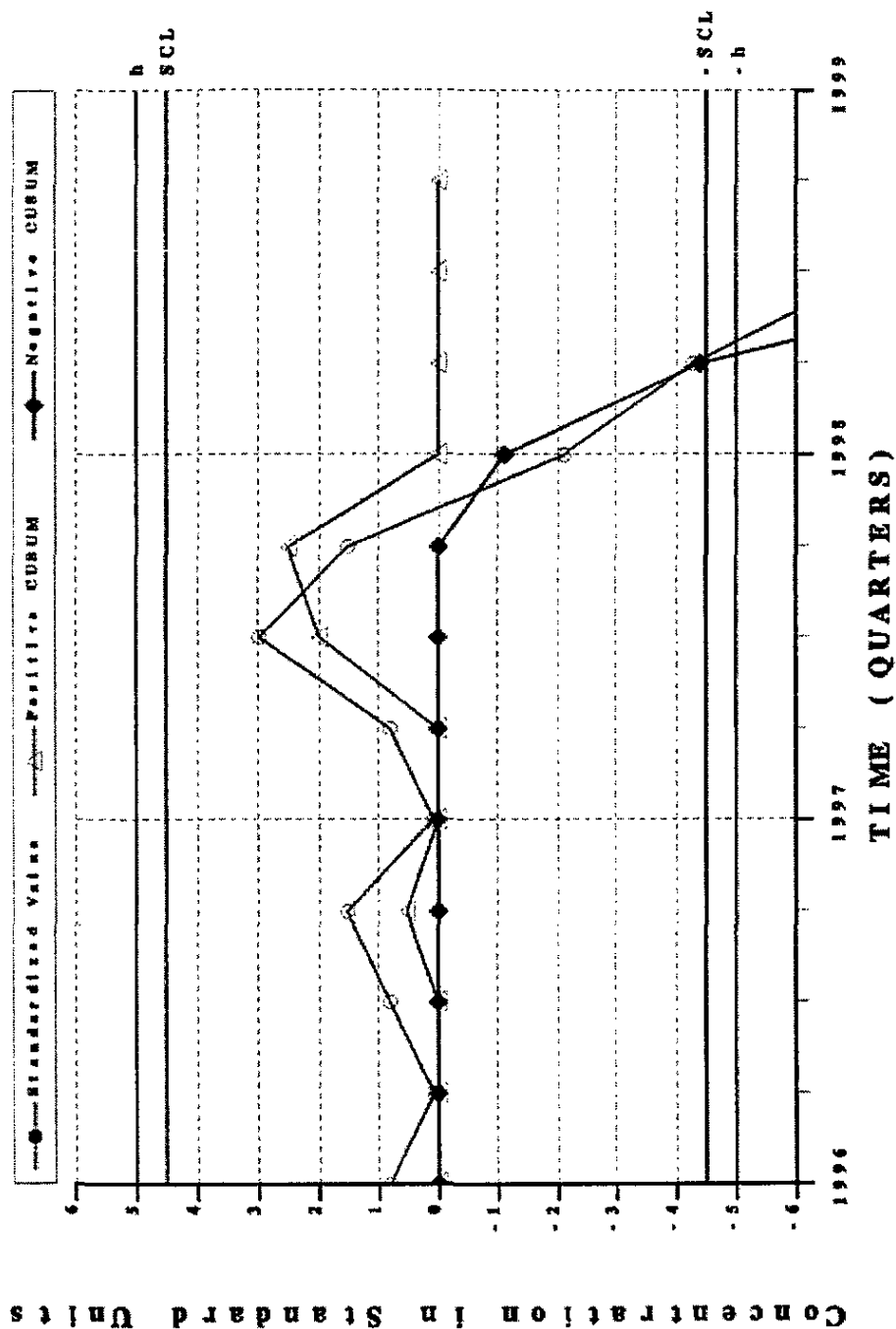
Combined Shewhart-CUSUM Control Chart
WELL HSB101C - Nonvolatile beta

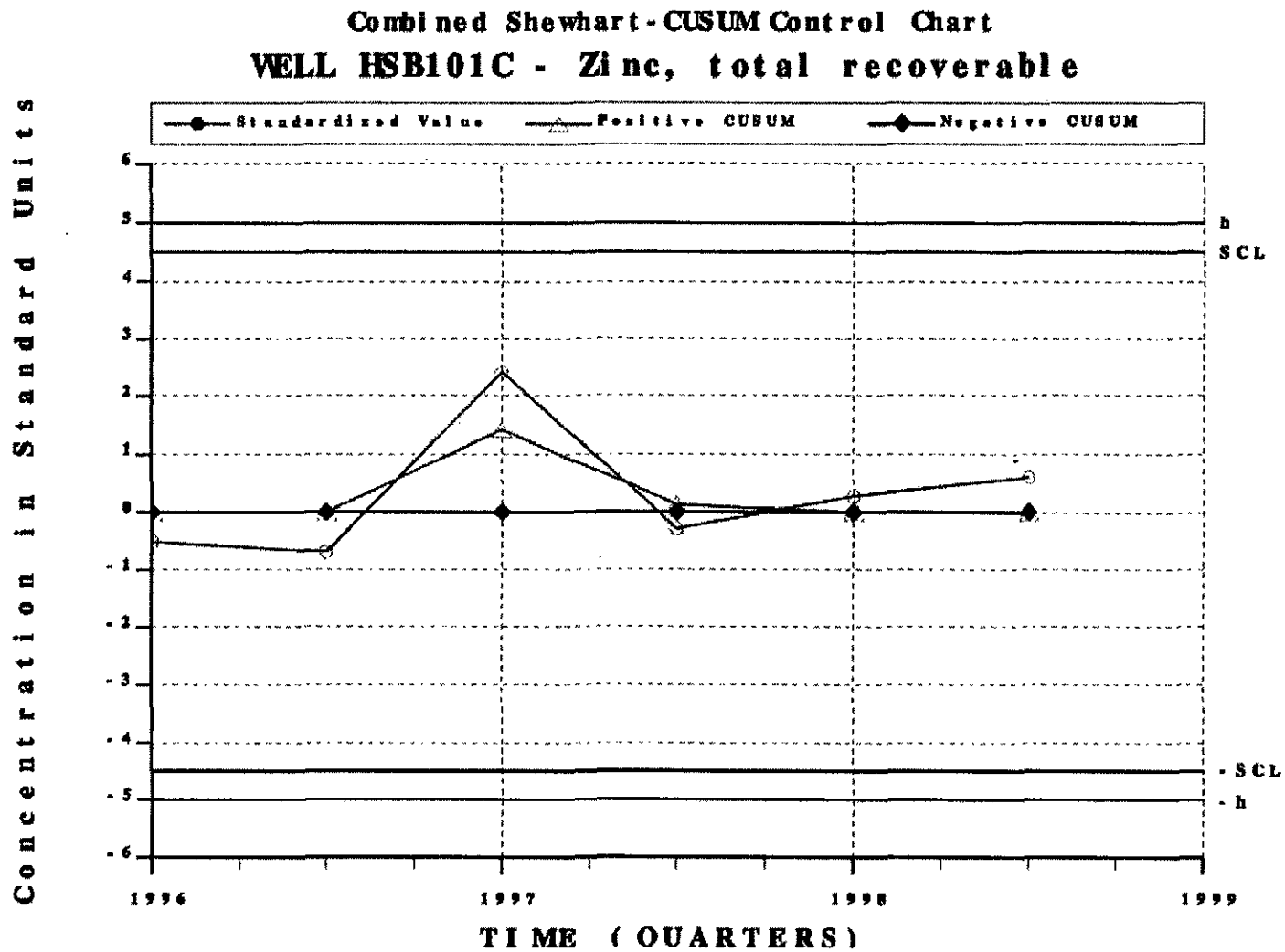


Combined Shewhart-CUSUM Control Chart
WELL HSB101C - Tritium

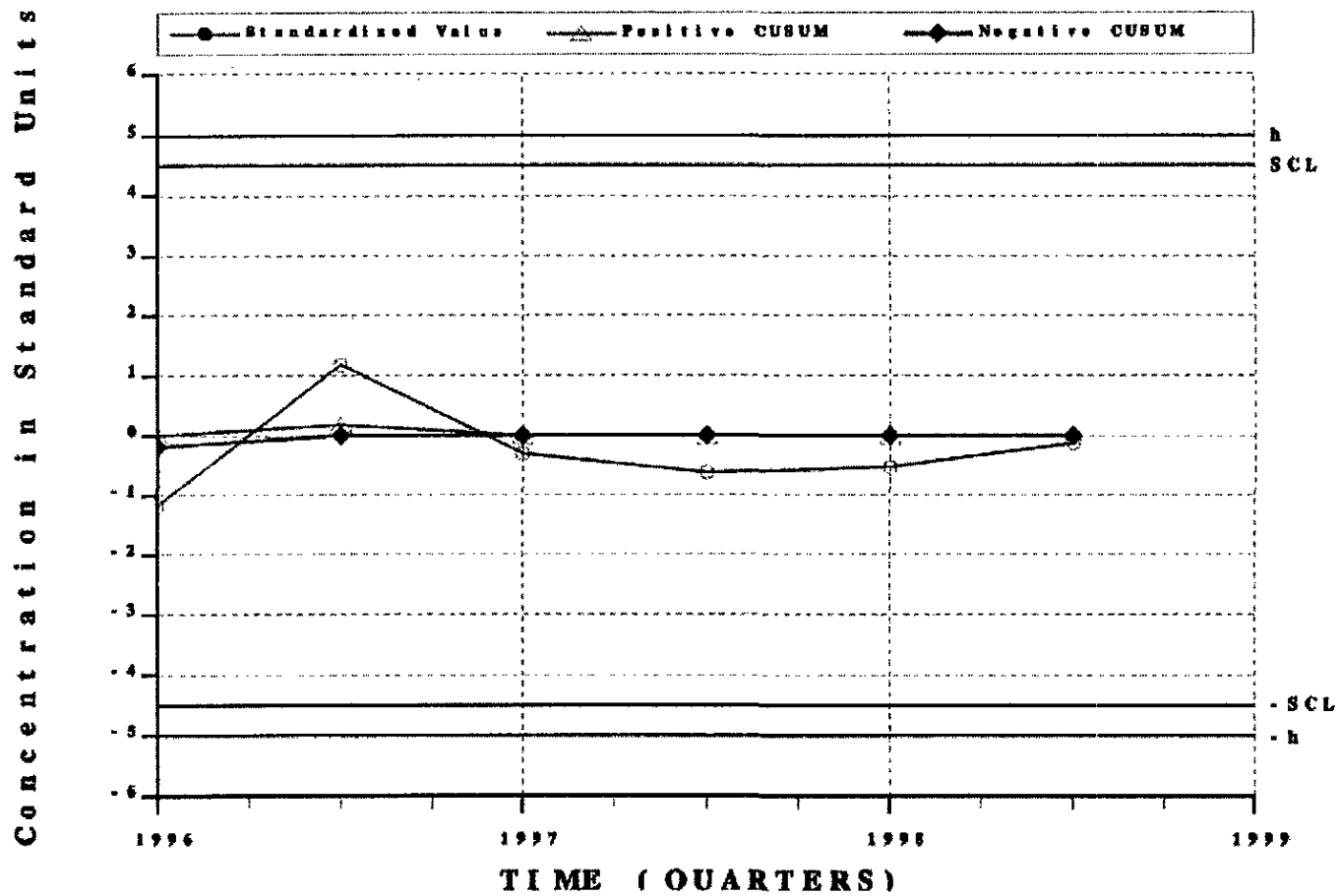


Combined Shewhart-CUSUM Control Chart WELL HSB101C - Water Level

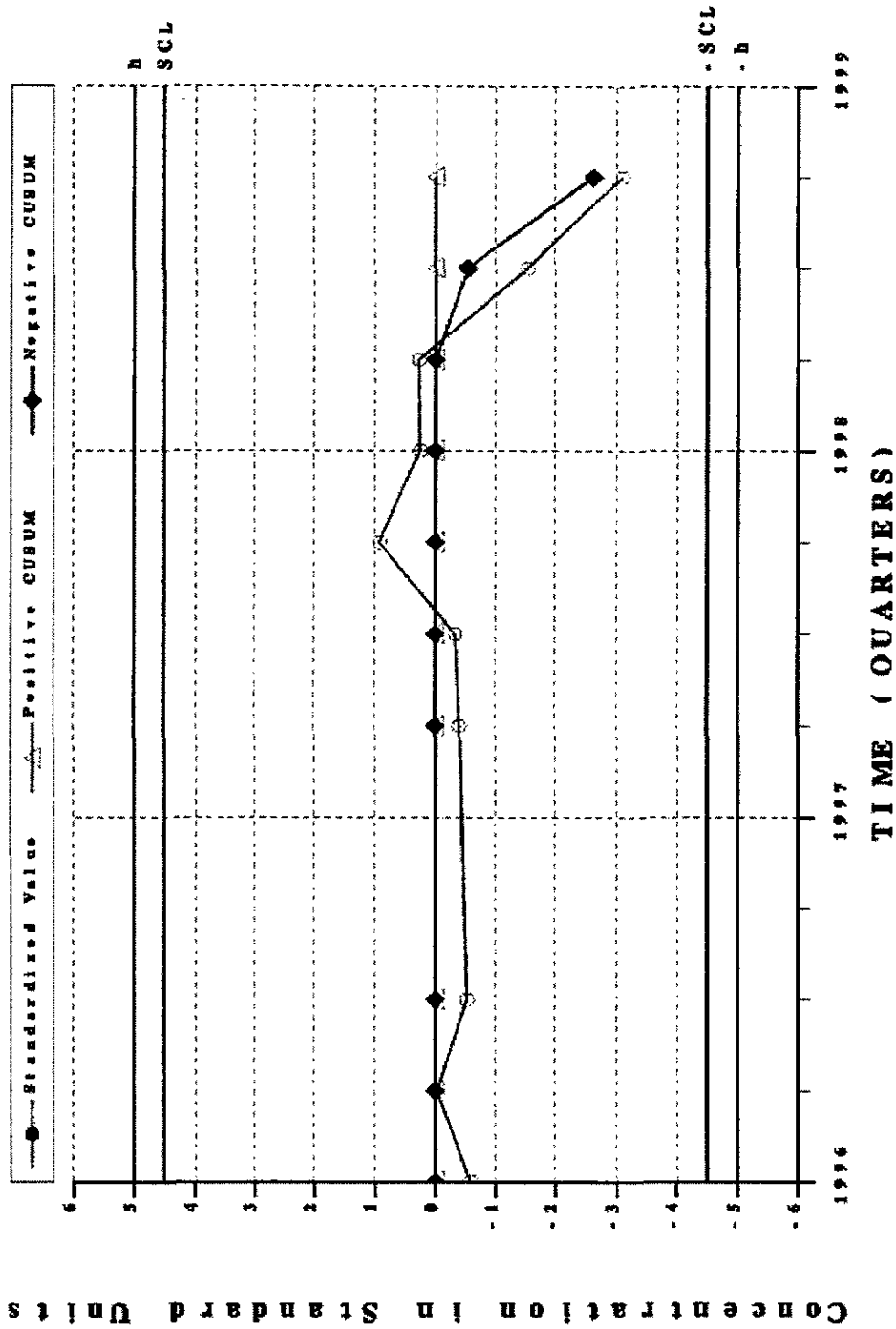




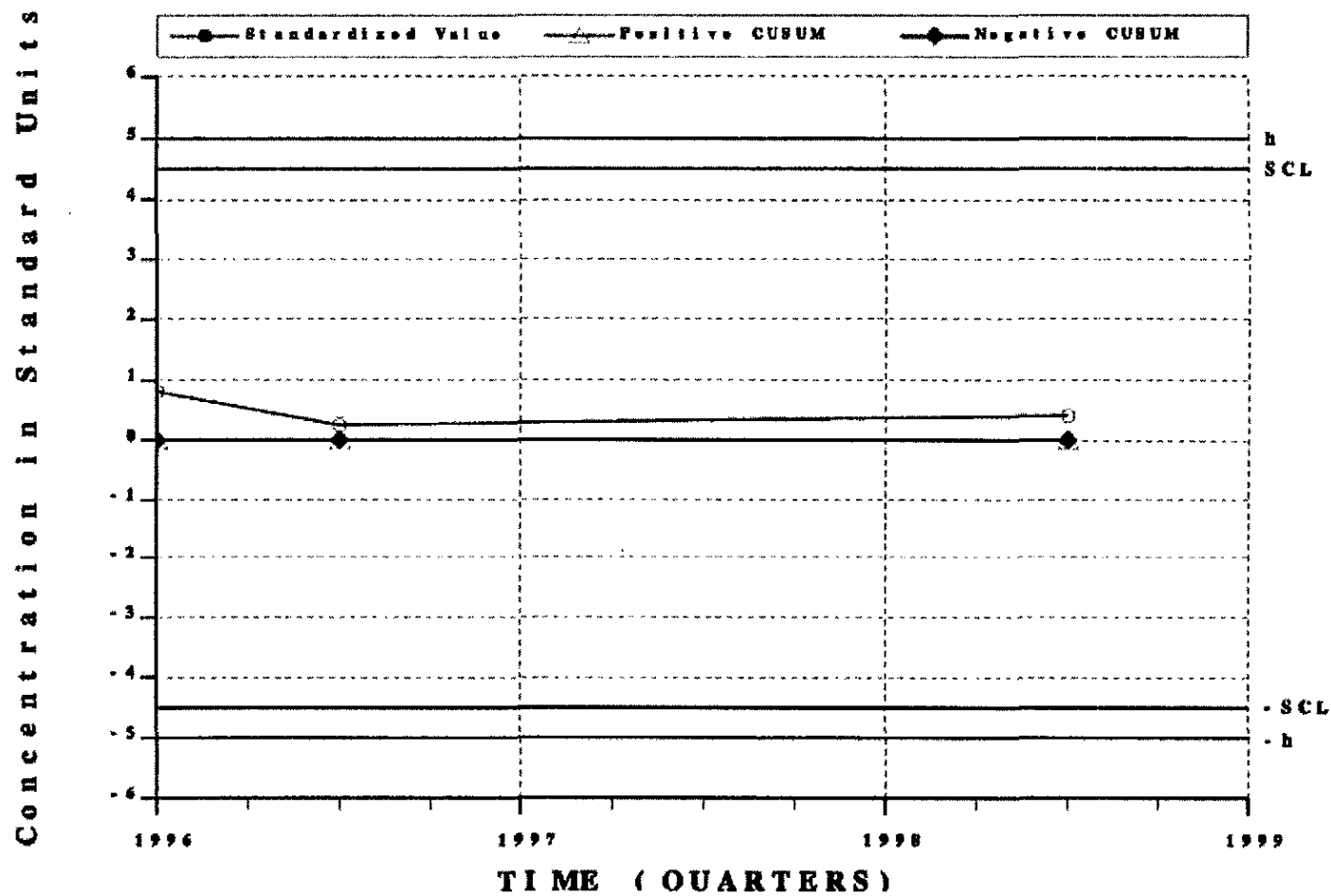
Combined Shewhart-CUSUM Control Chart
WELL HSB101D - Arsenic, total recoverable



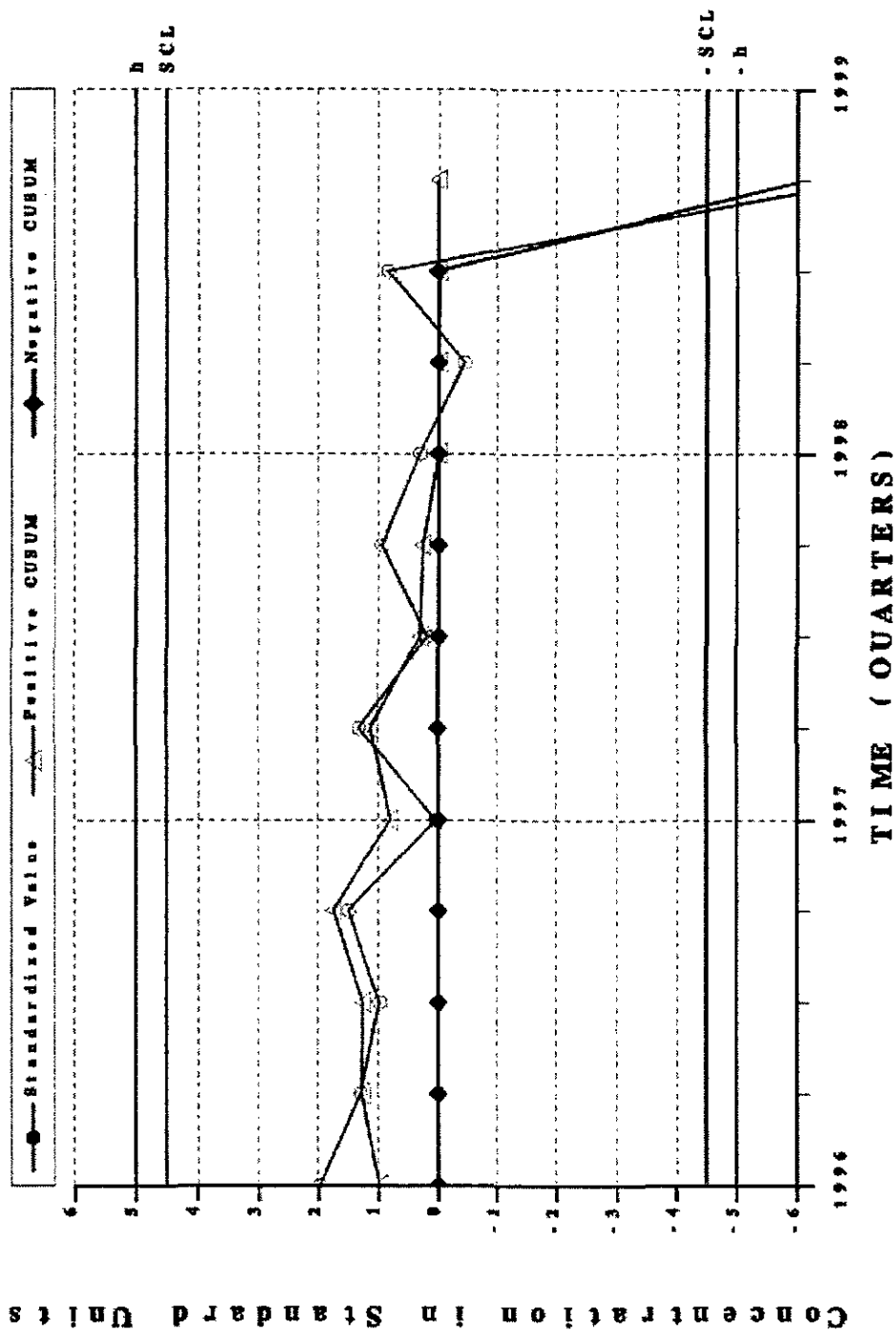
Combined Shewhart - CUSUM Control Chart WELL HSB101D - Gross alpha



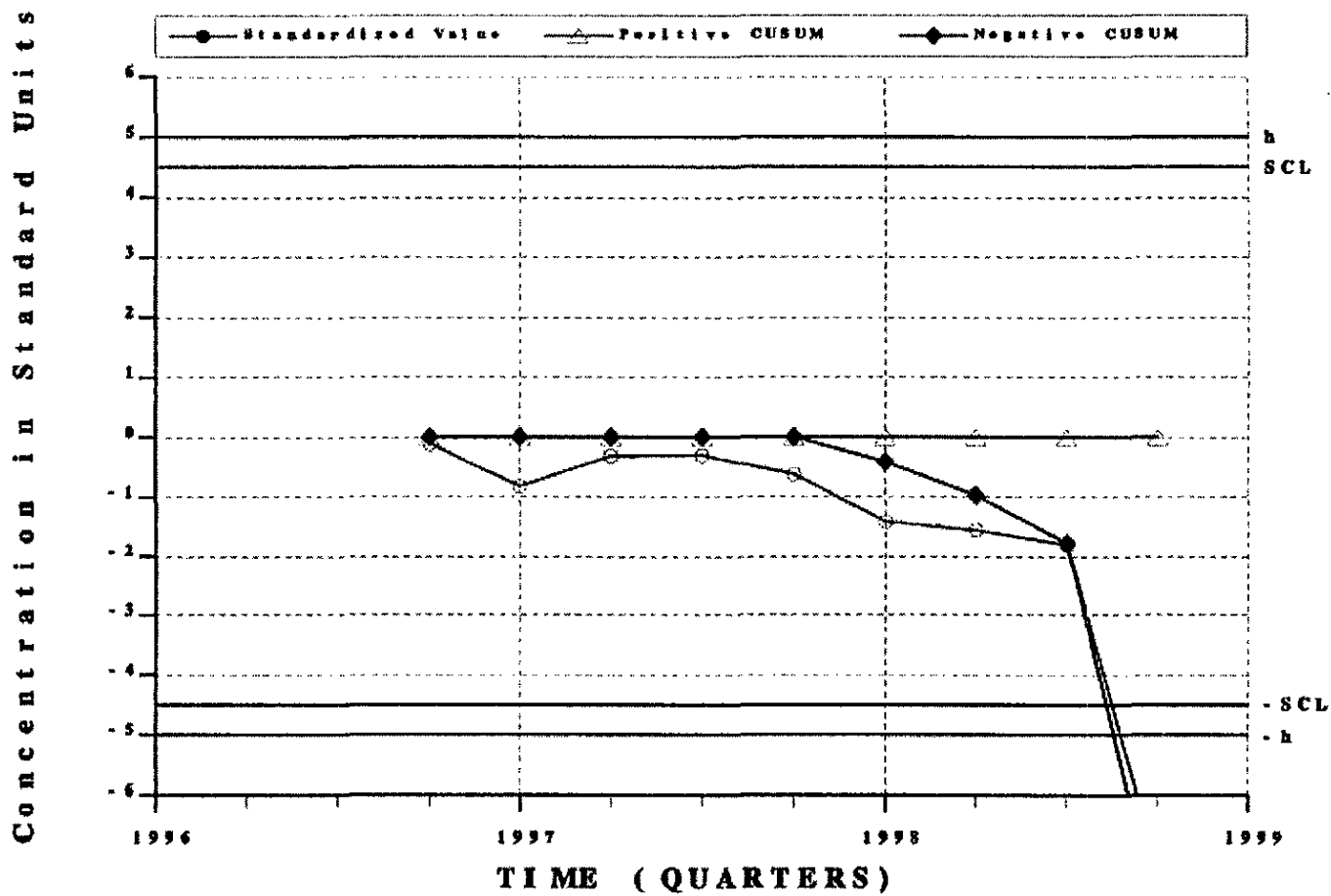
Combined Shewhart-CUSUM Control Chart
WELL HSB101D - Iodine - 129

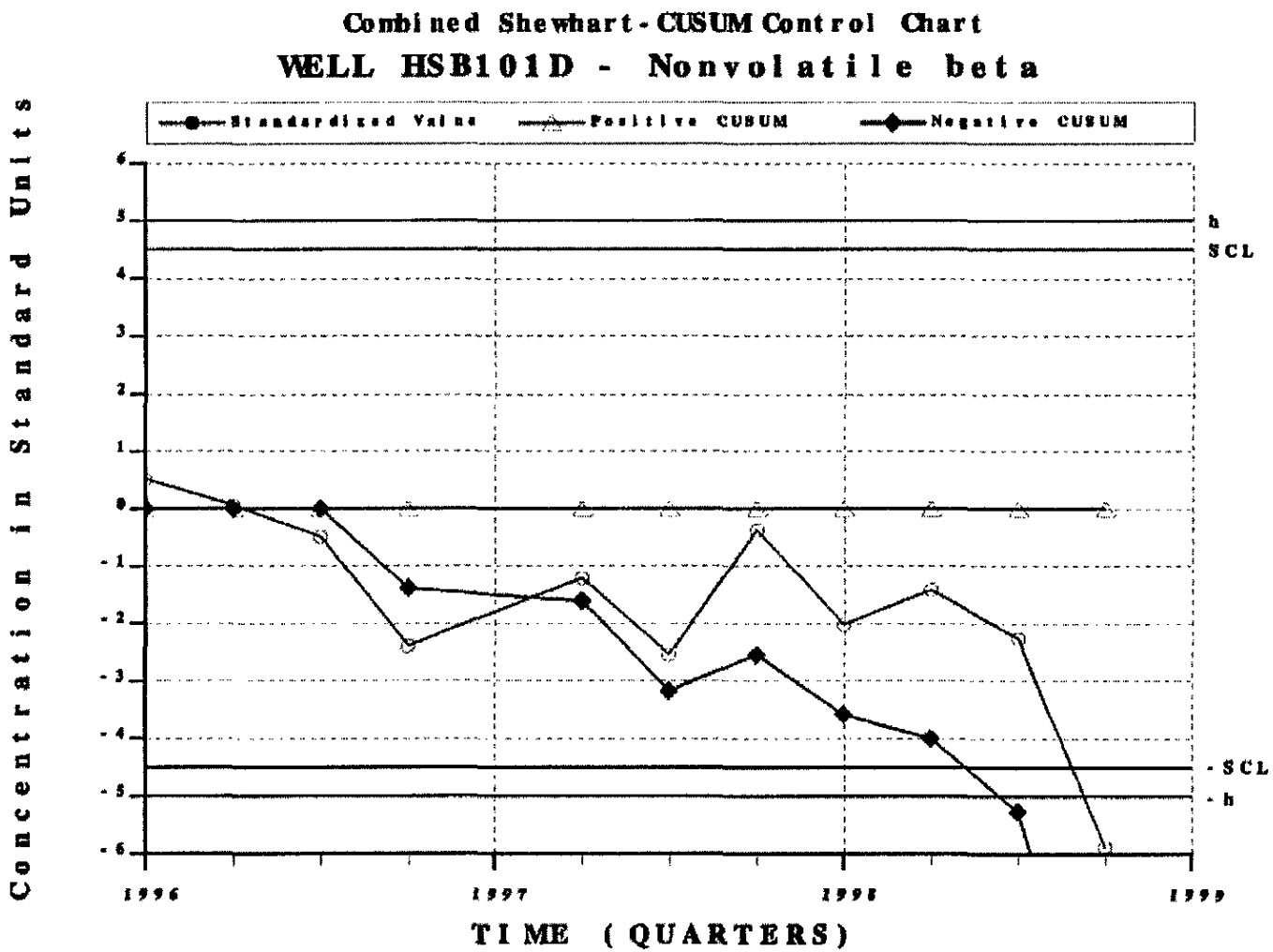


Combined Shewhart-CUSUM Control Chart
WELL HSB101D - Mercury, total recoverable

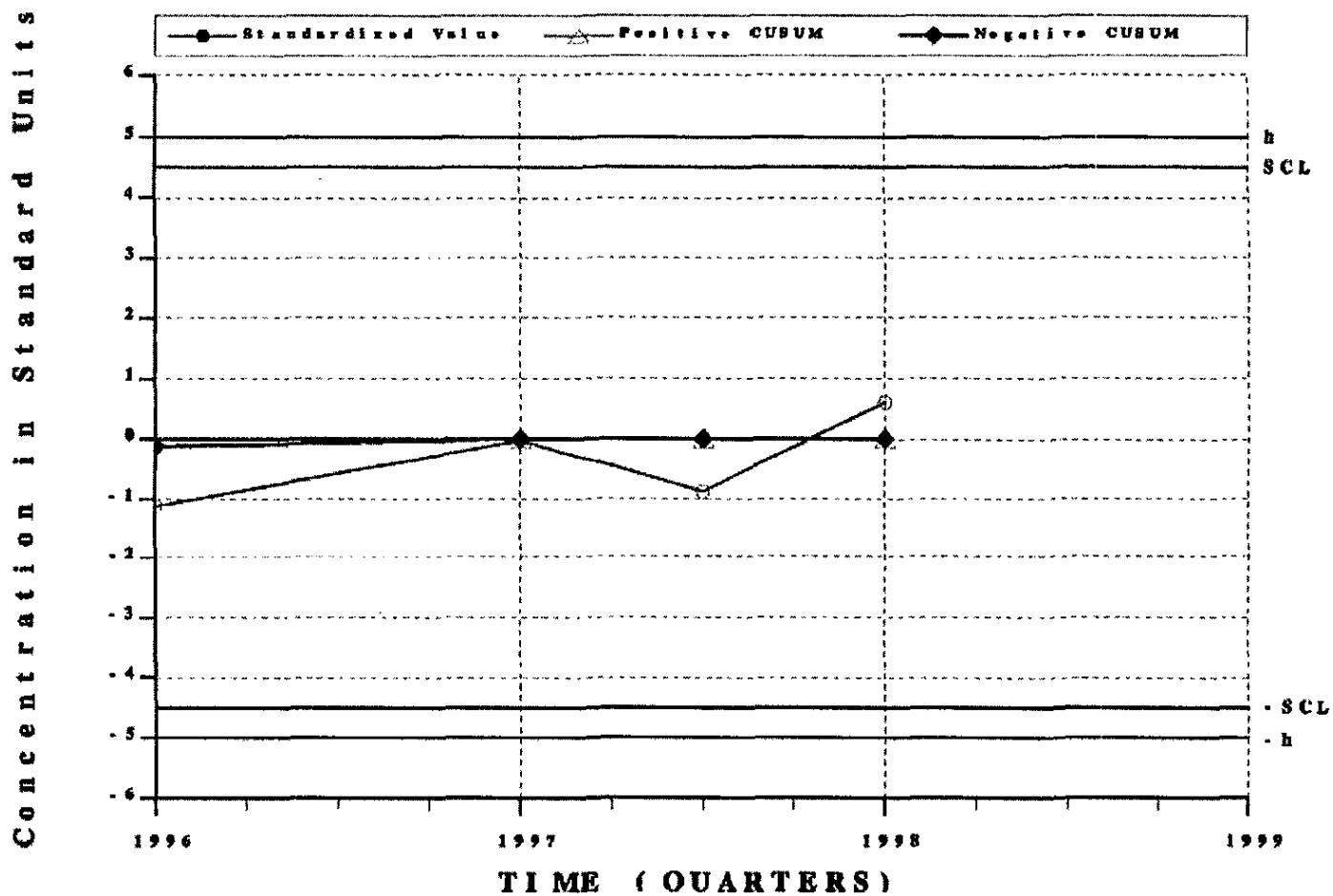


Combined Shewhart-CUSUM Control Chart
WELL HSB101D - Nitrate-nitrite as nitrogen

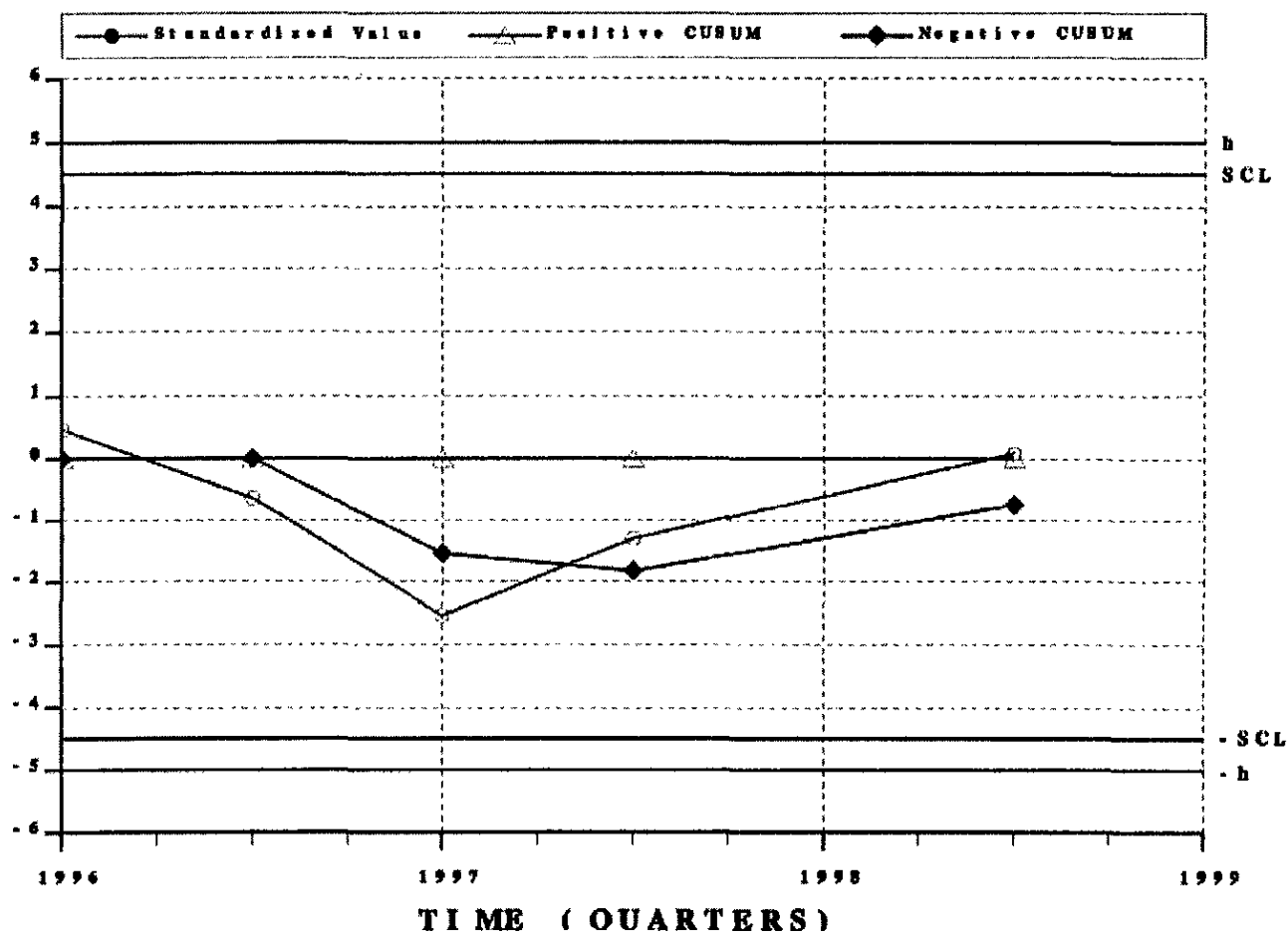




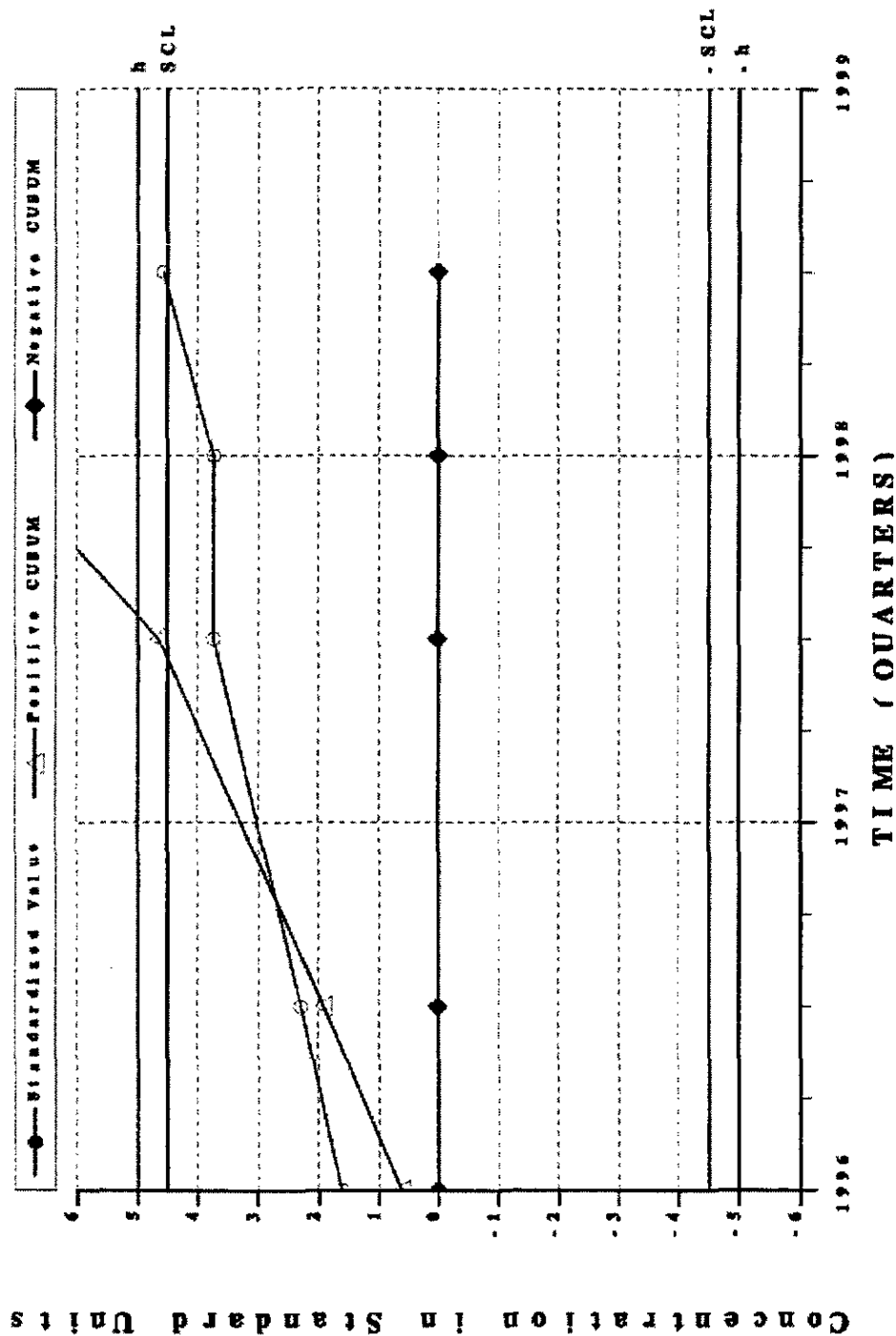
Combined Shewhart-CUSUM Control Chart
WELL HSB101D - Radium-228



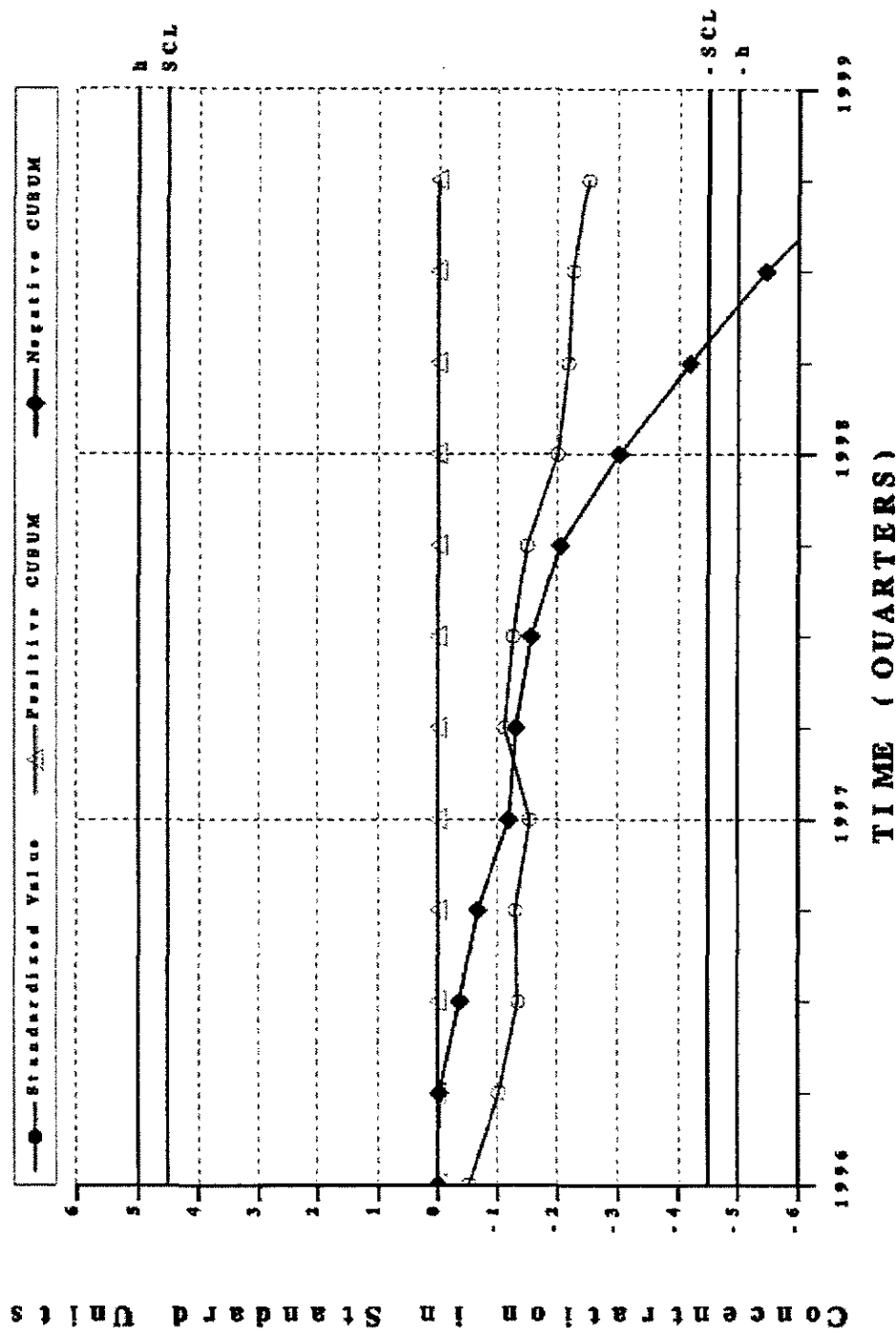
Concentration in Standard Units

Combined Shewhart-CUSUM Control Chart
WELL HSB101D - Strontium-90

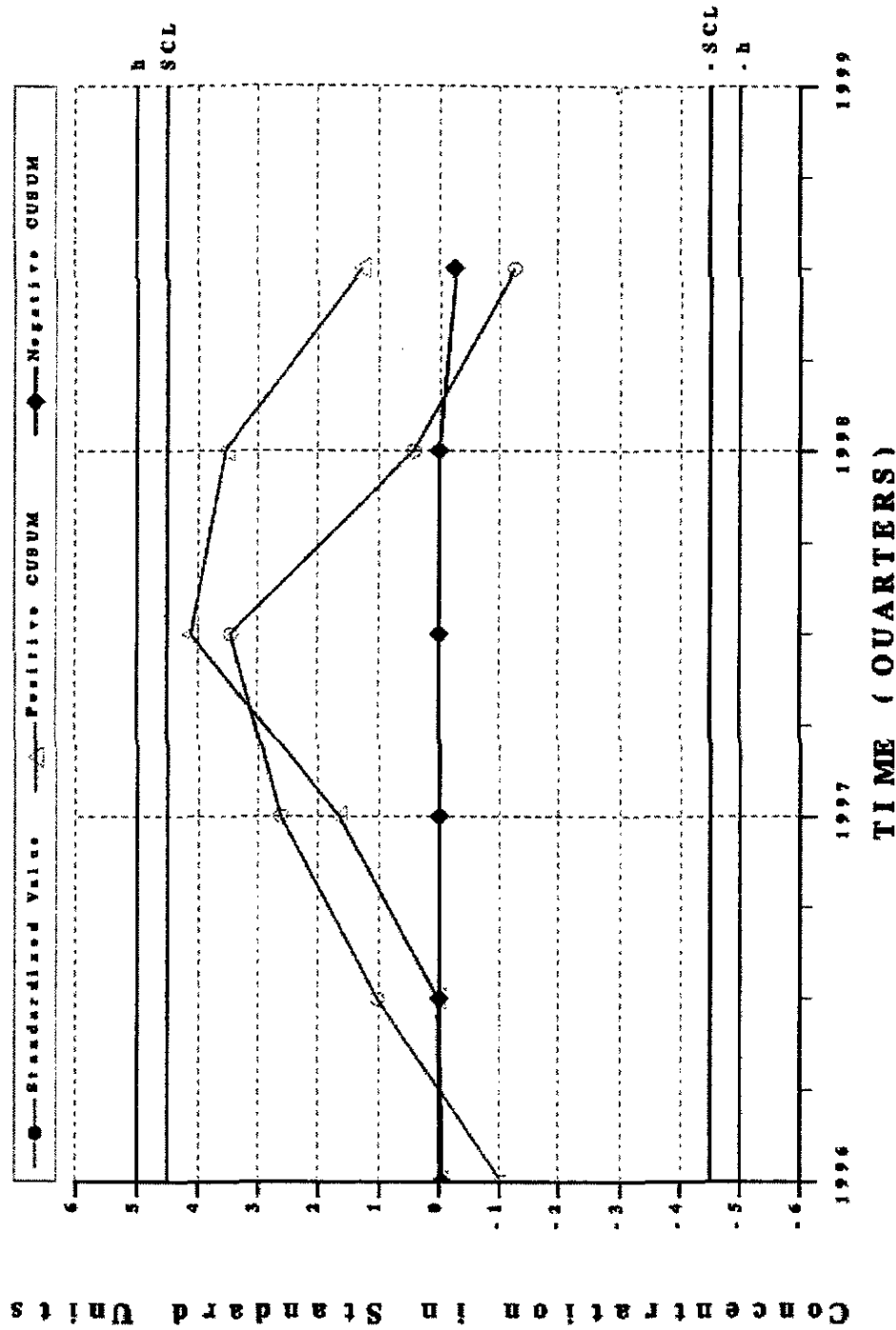
Combined Shewhart-CUSUM Control Chart WELL HSB101D - Technetium-99



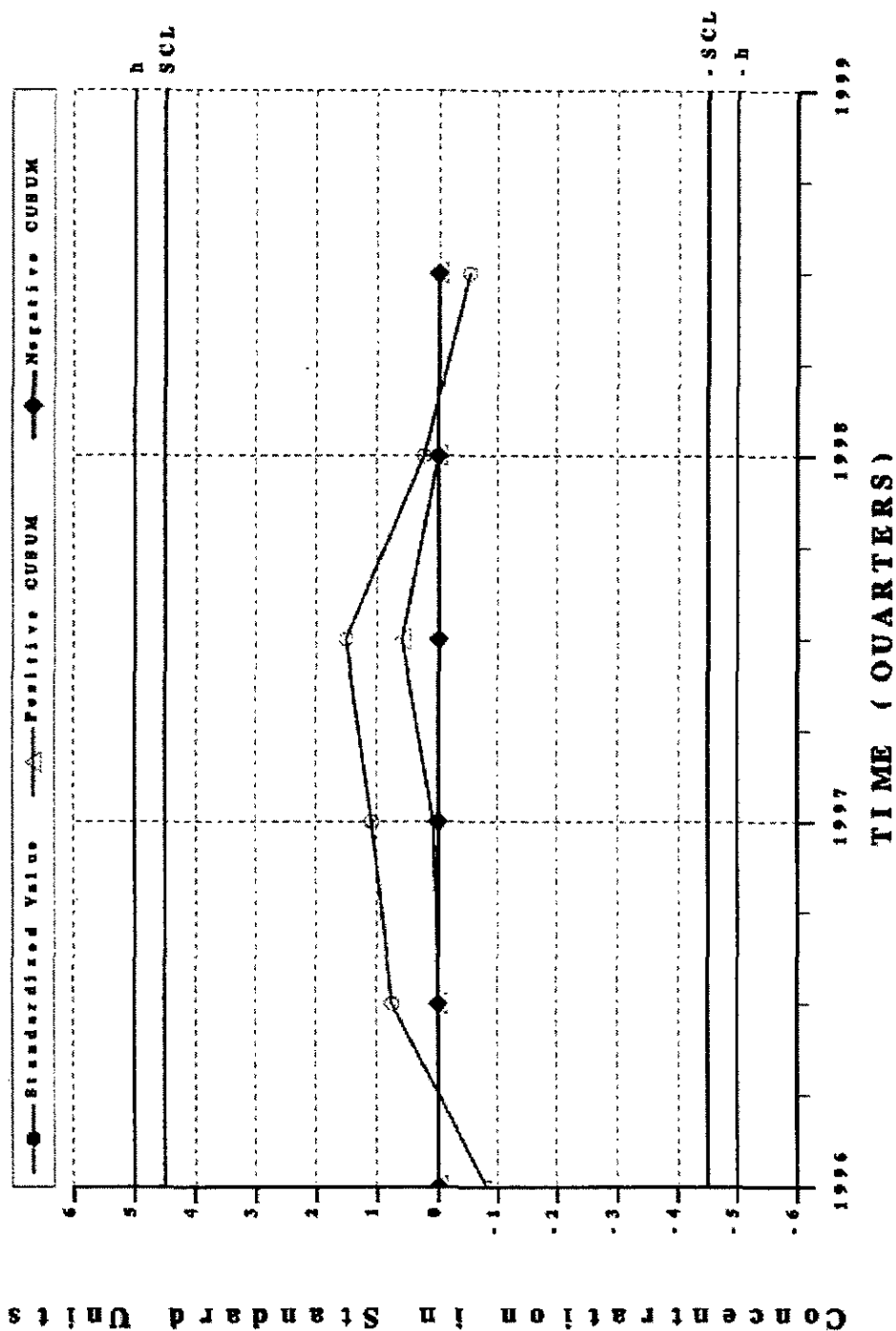
Combined Shewhart-CUSUM Control Chart WELL HSB101D - Tritium



Combined Shewhart-CUSUM Control Chart
WELL HSB101D - Uranium-233/234

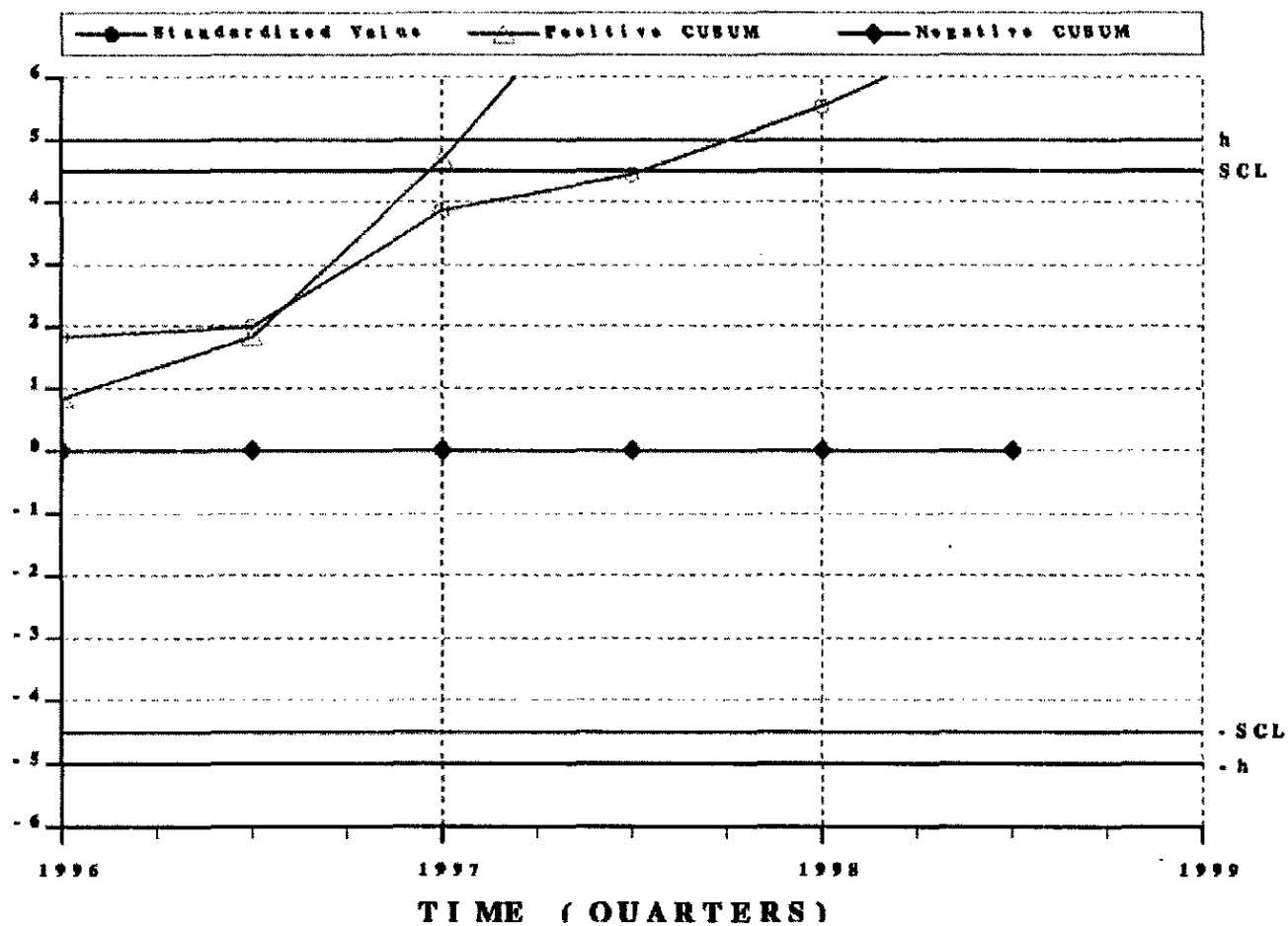


Combined Shewhart-CUSUM Control Chart
WELL HSB101D - Uranium-238

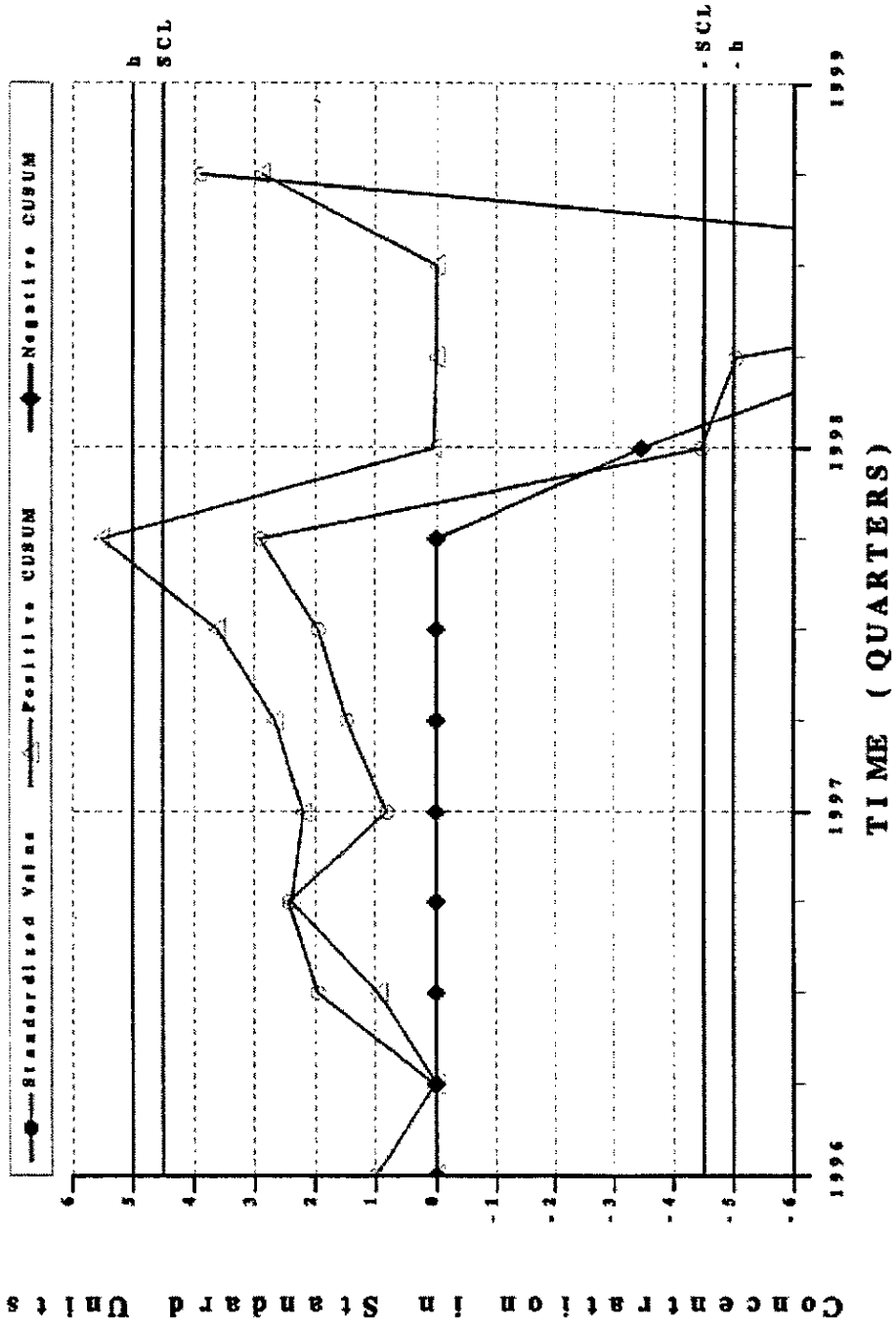


Concentration in Standard Units

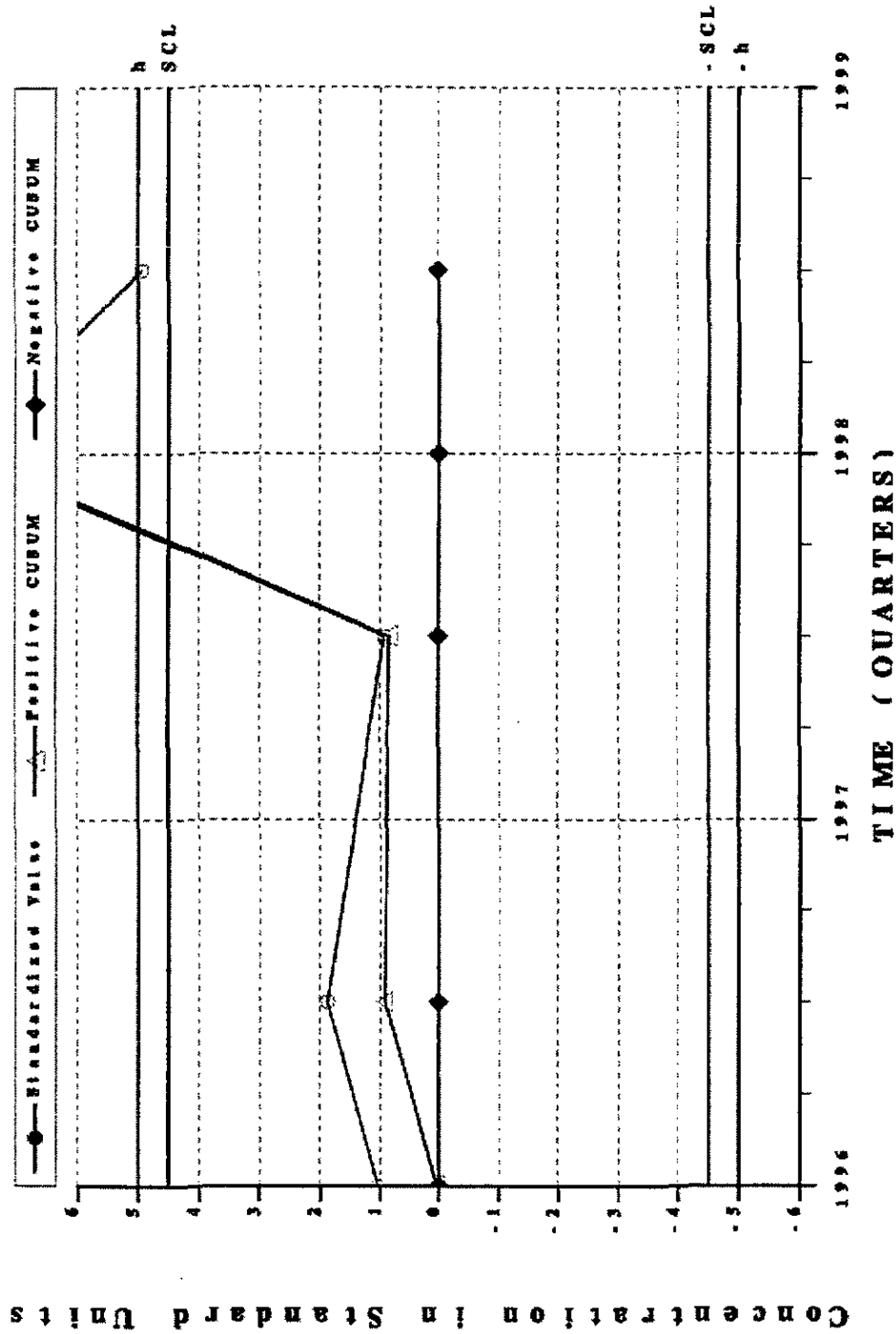
Combined Shewhart-CUSUM Control Chart
WELL HSB101D - Vanadium total recoverable



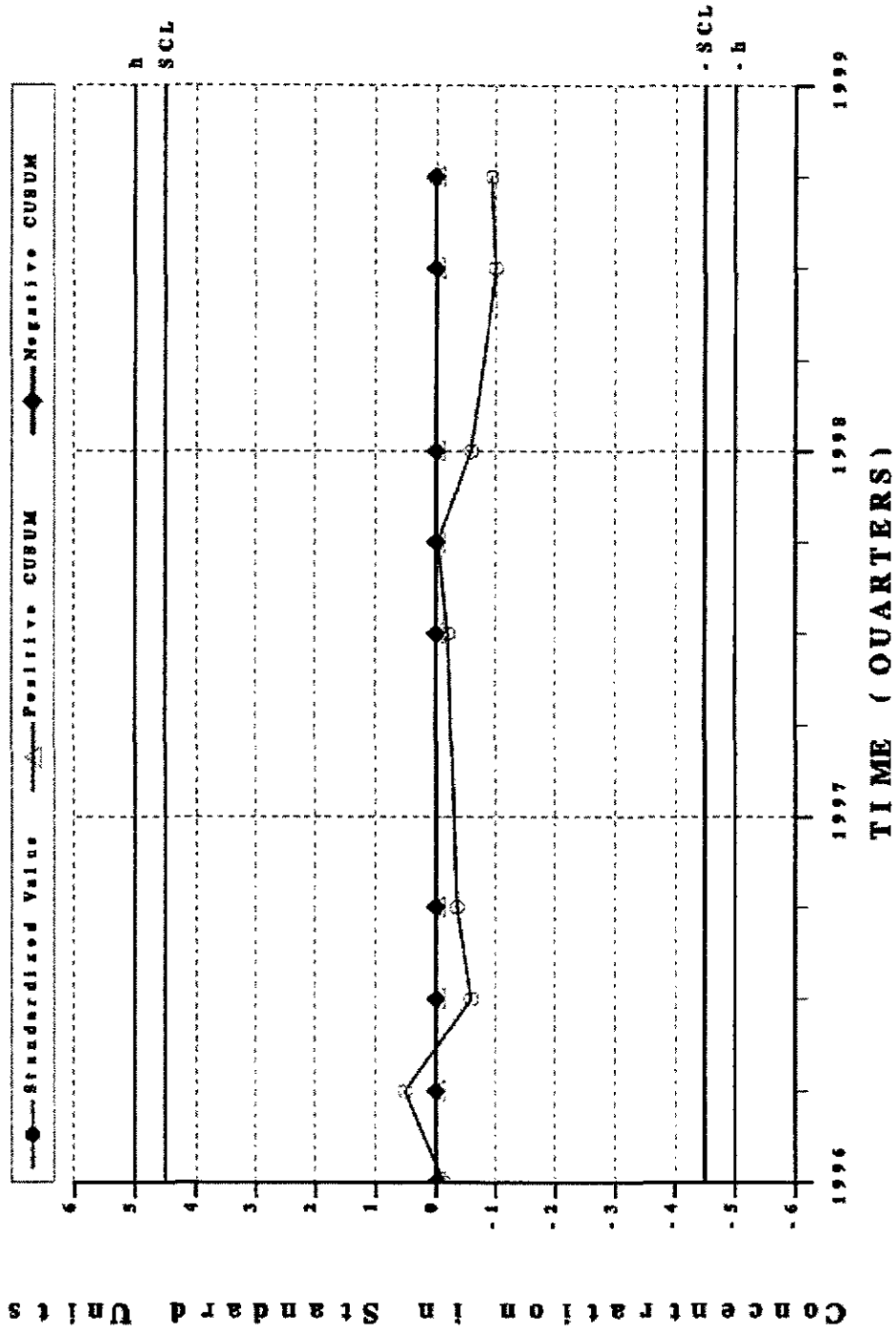
Combined Shewhart - CUSUM Control Chart
WELL HSB101D - Water Level



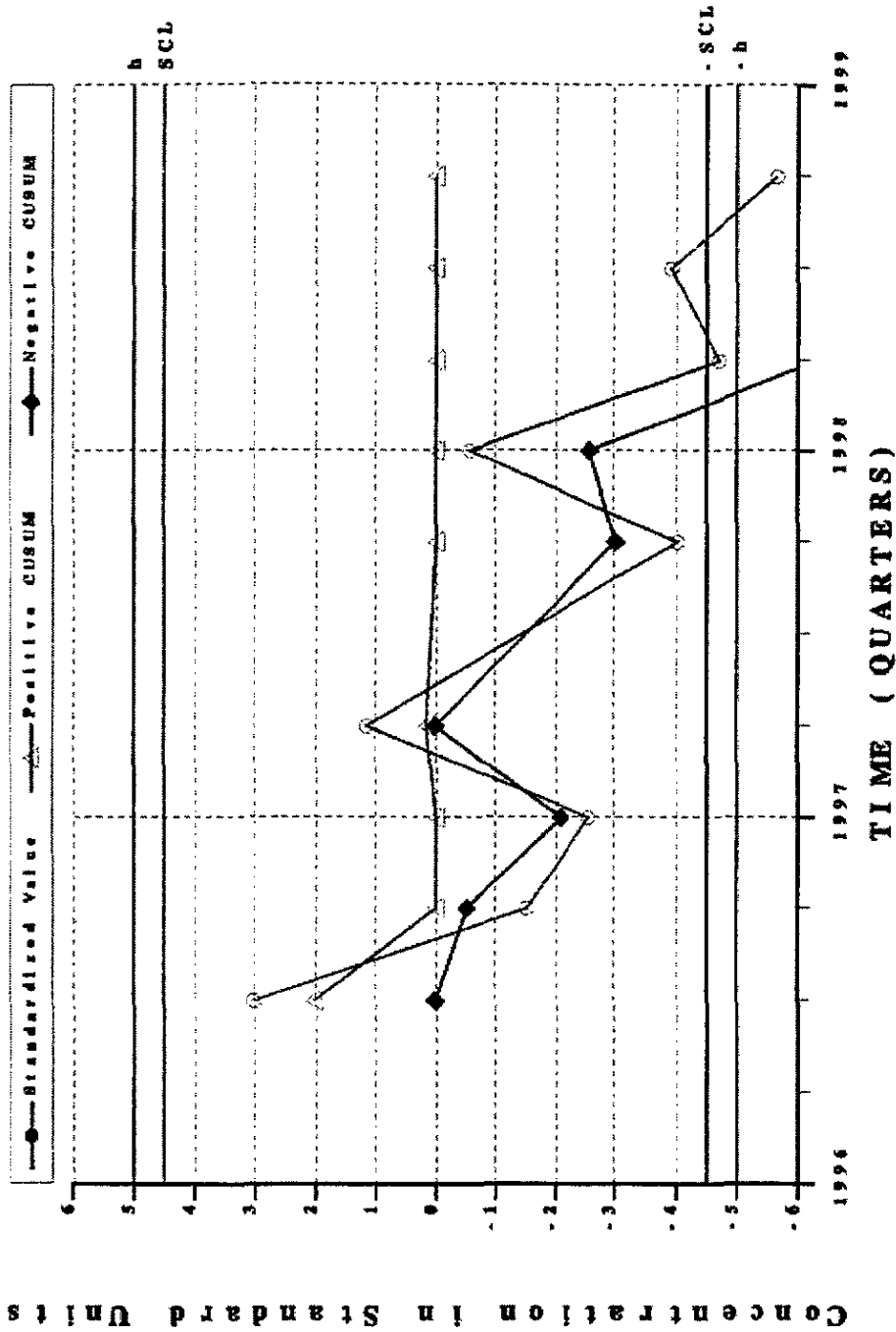
Combined Shewhart-CUSUM Control Chart
WELL HSB102C - Barium, total recoverable



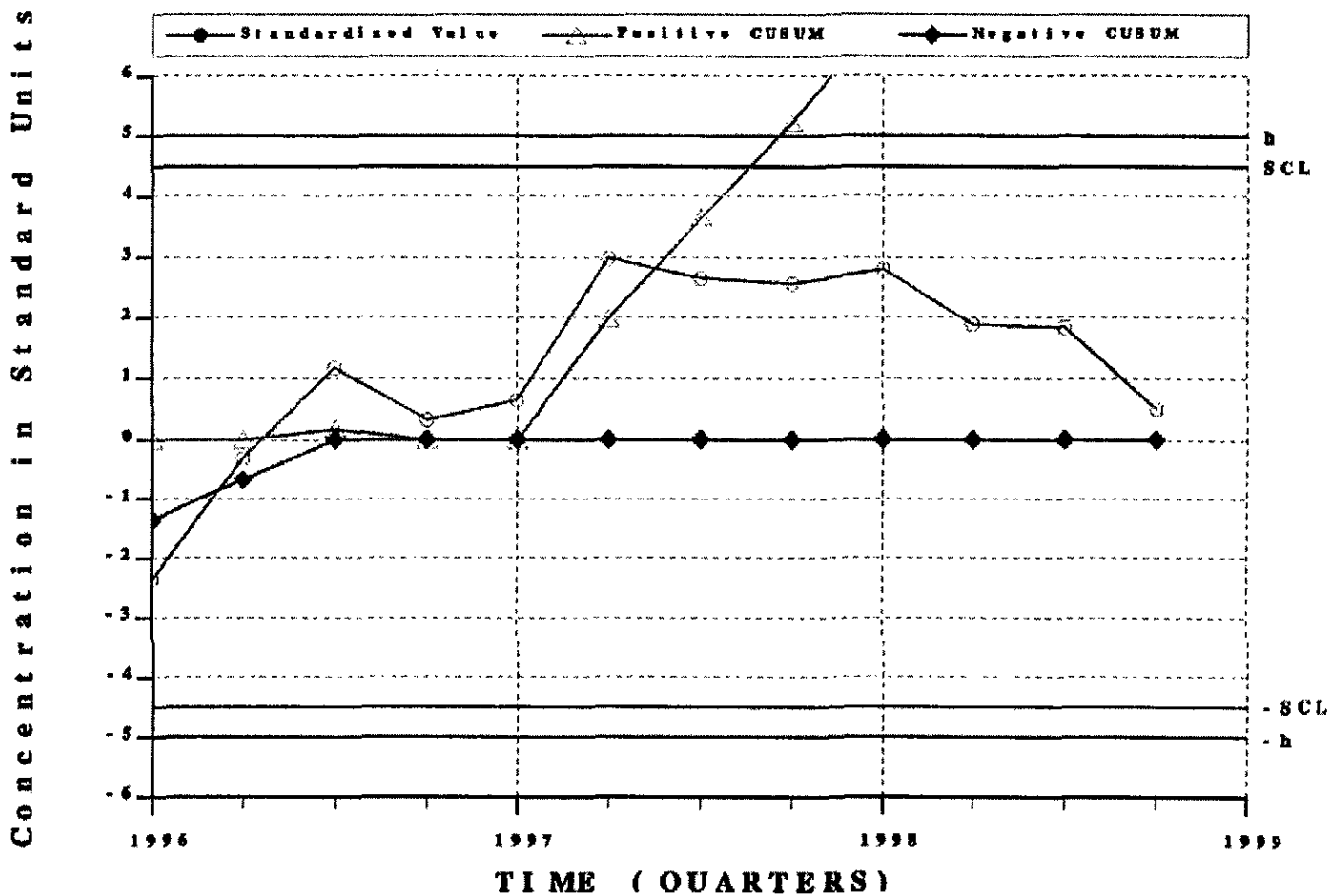
Combined Shewhart - CUSUM Control Chart
WELL HSB102C - Mercury, total recoverable



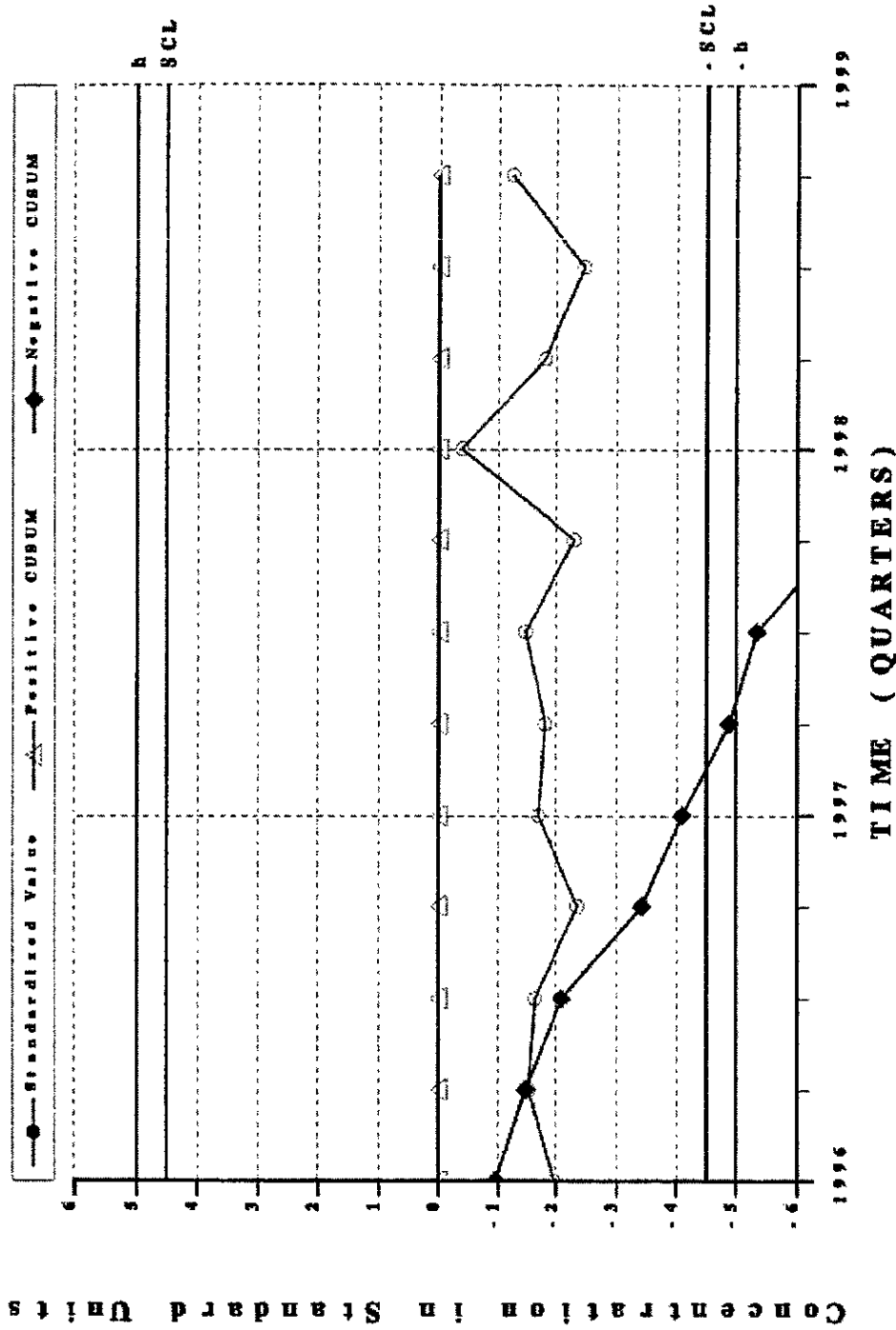
Combined Shewhart-CUSUM Control Chart
WELL HSB102C - Nitrate-nitrite as nitrogen



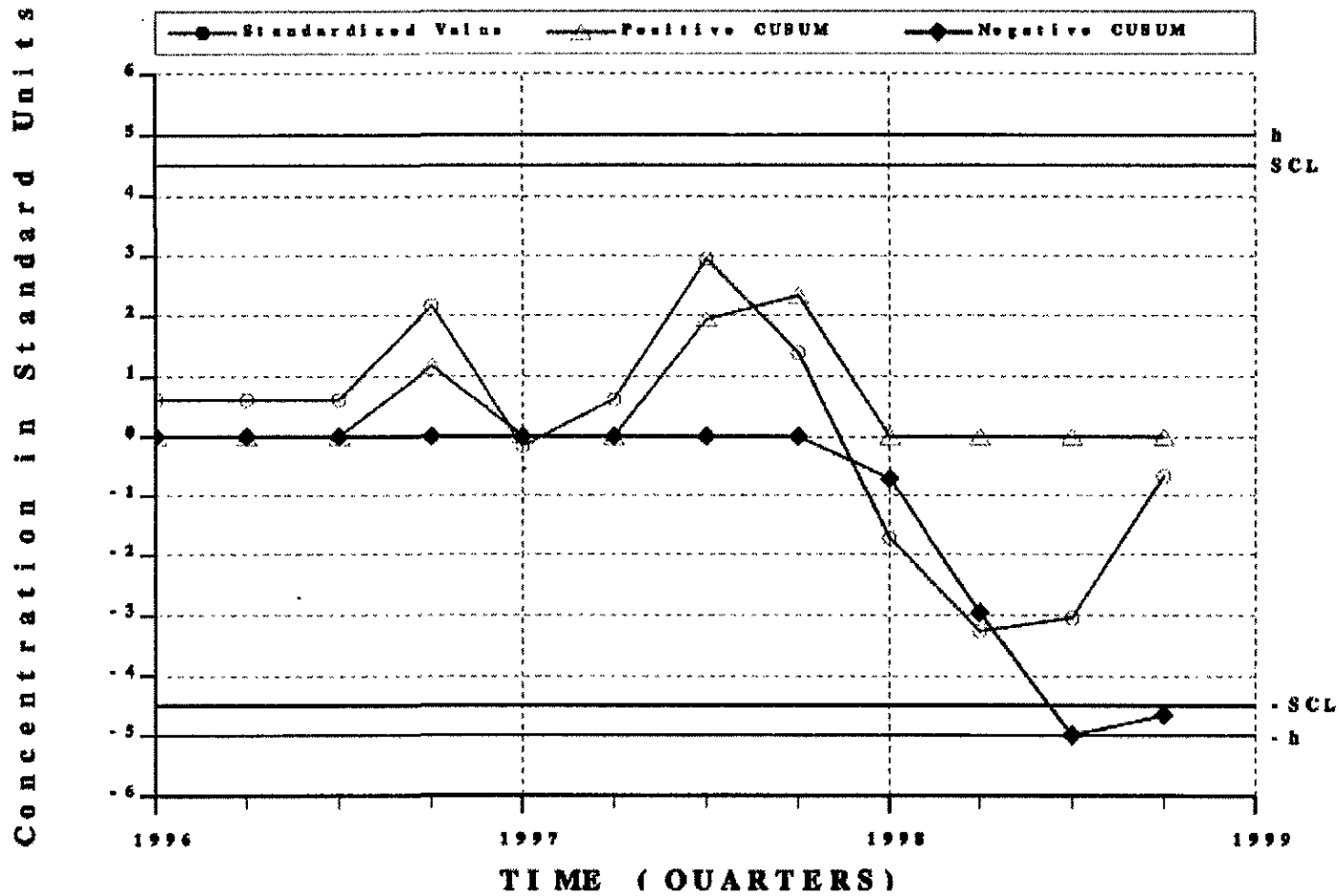
Combined Shewhart-CUSUM Control Chart WELL HSB102C - Nonvolatile beta



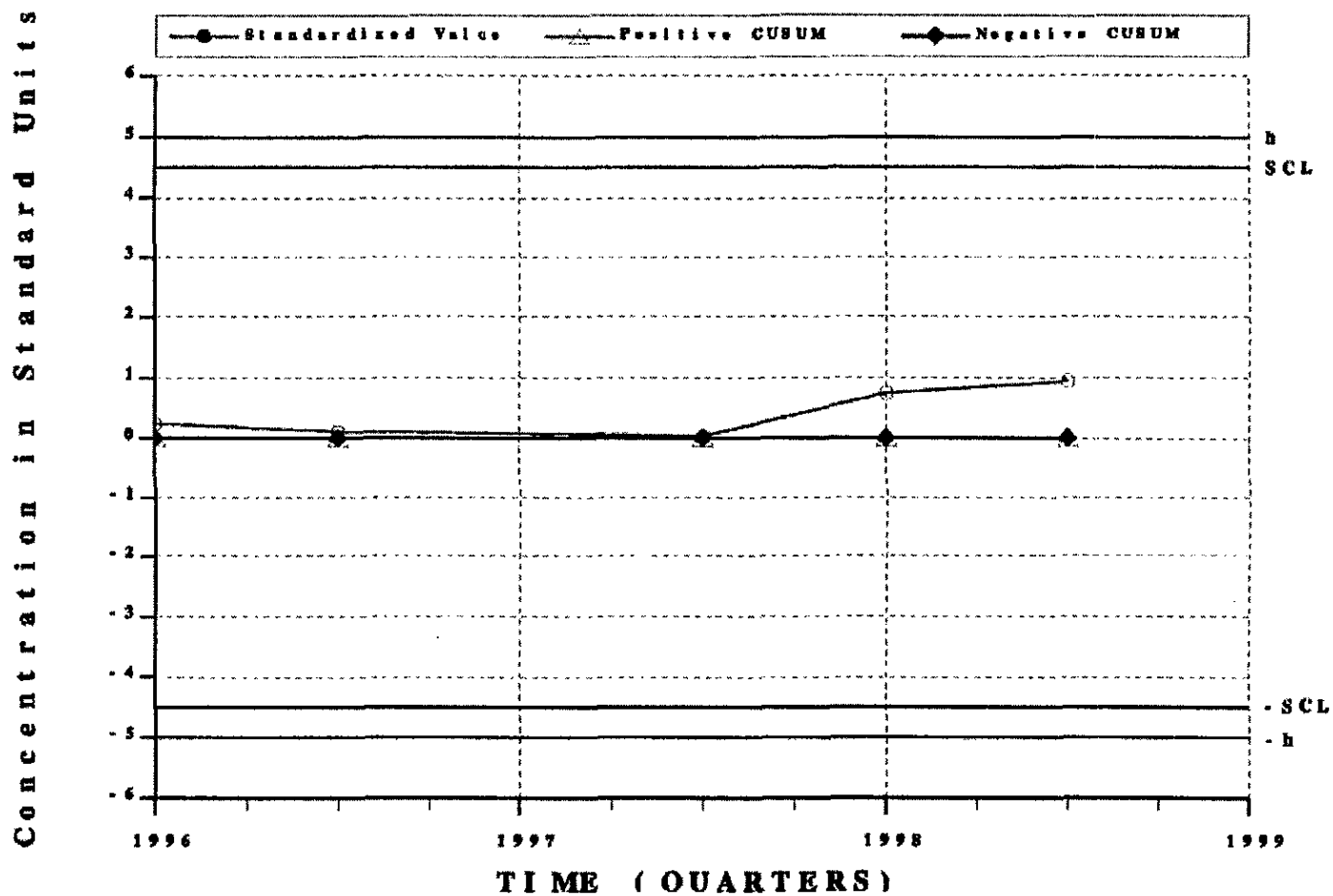
Combined Shewhart-CUSUM Control Chart WELL HSB102C - Tritium

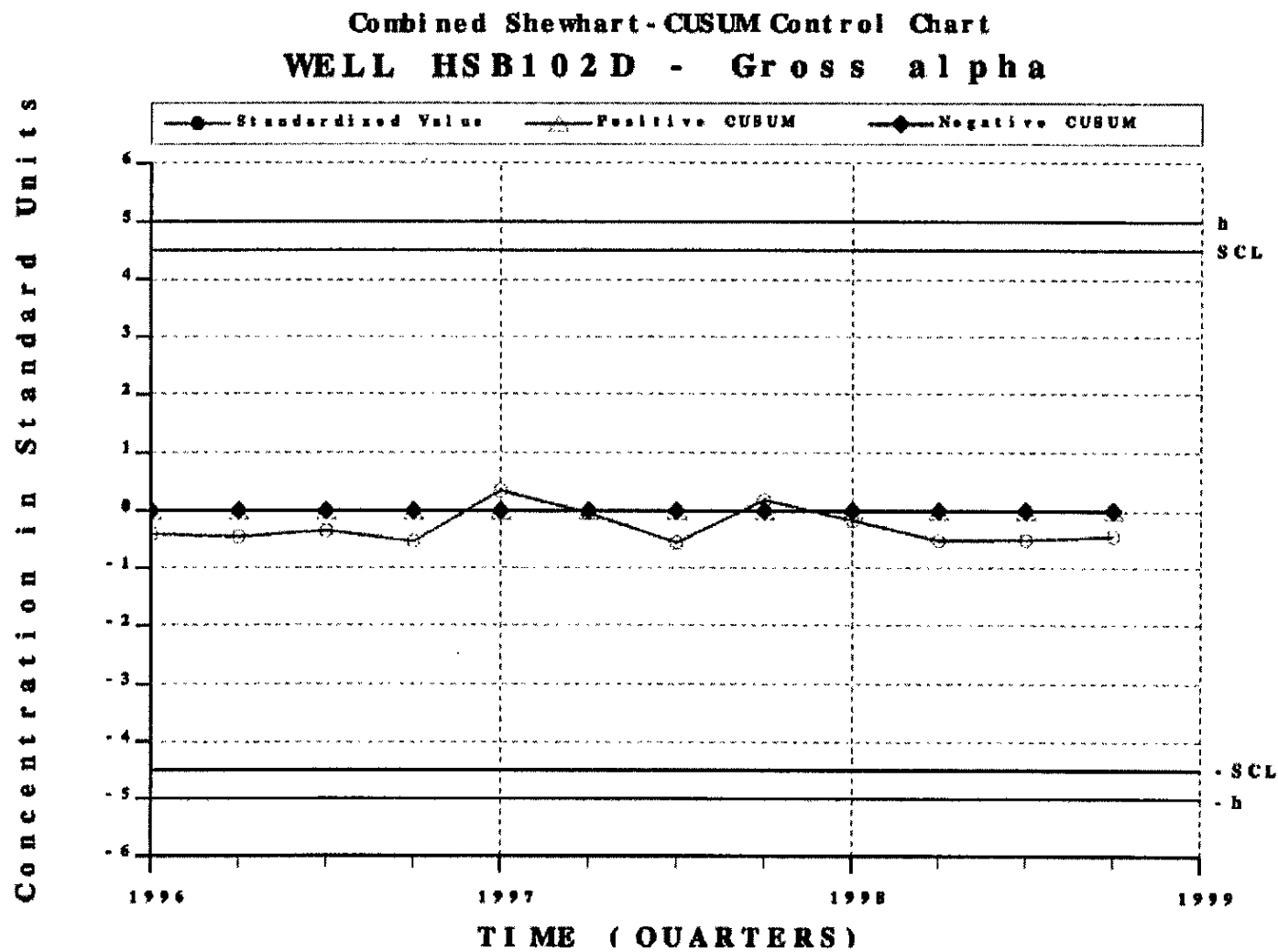


Combined Shewhart-CUSUM Control Chart WELL HSB102 C - Water Level

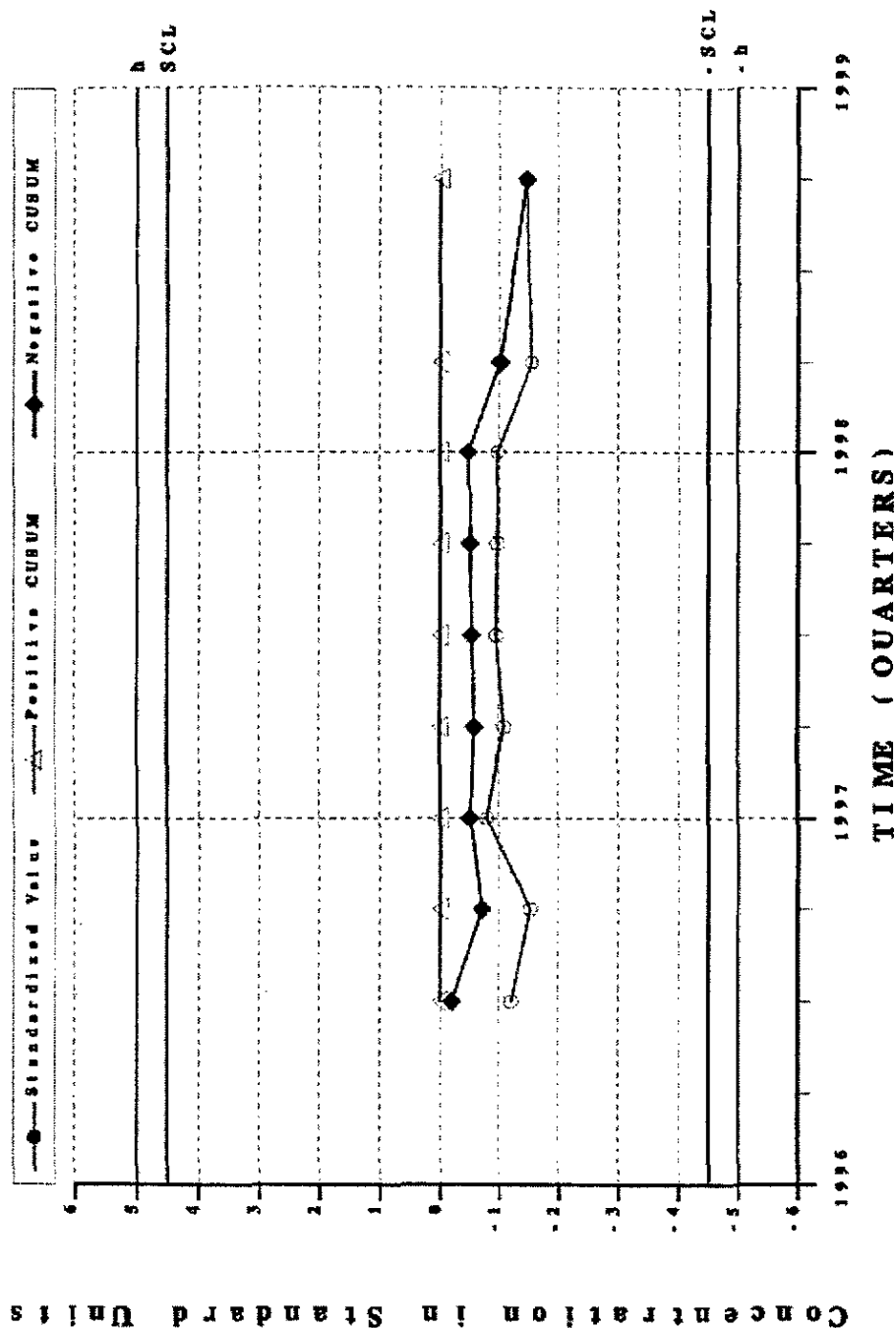


Combined Shewhart-CUSUM Control Chart
WELL HSB102C - Zinc, total recoverable

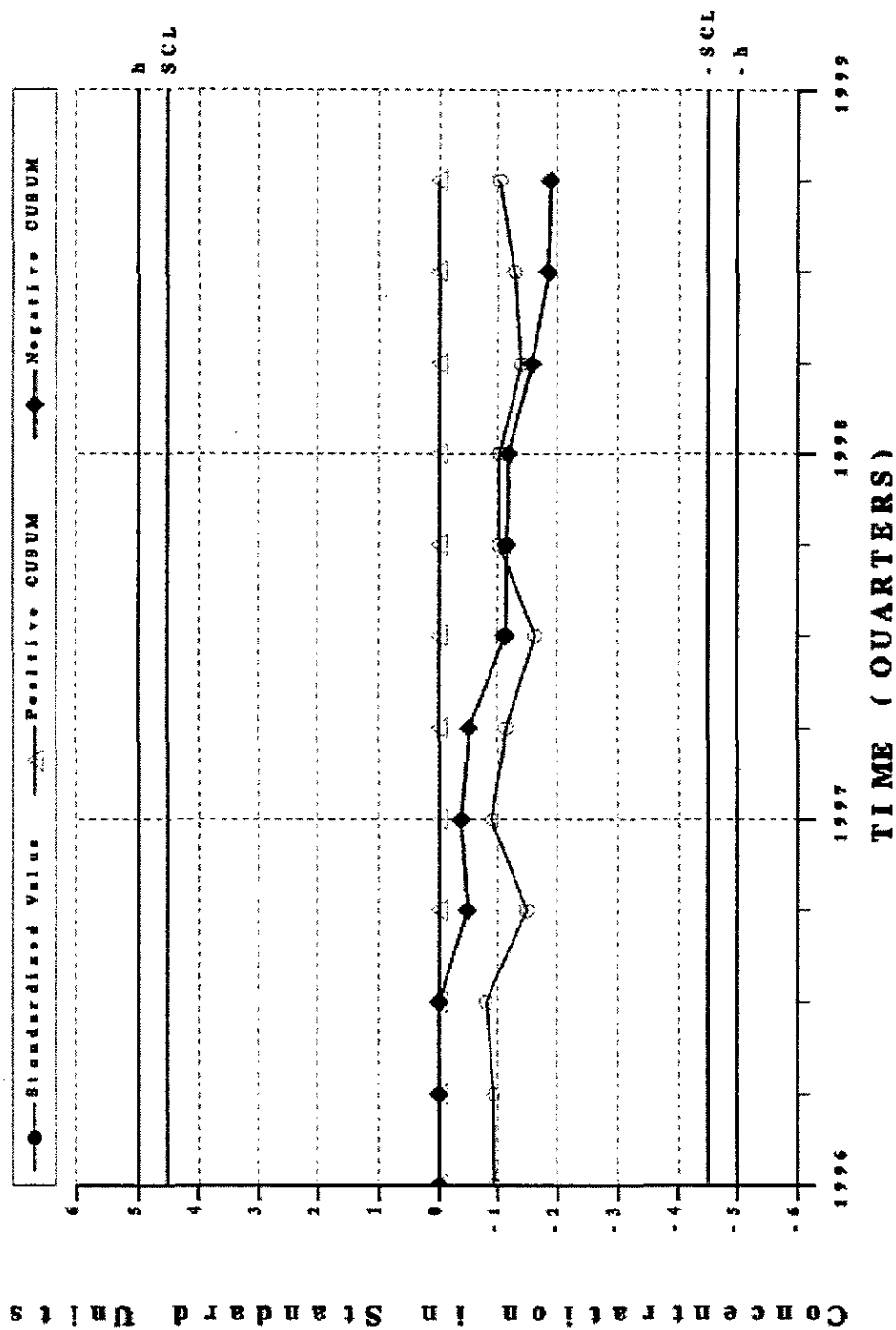




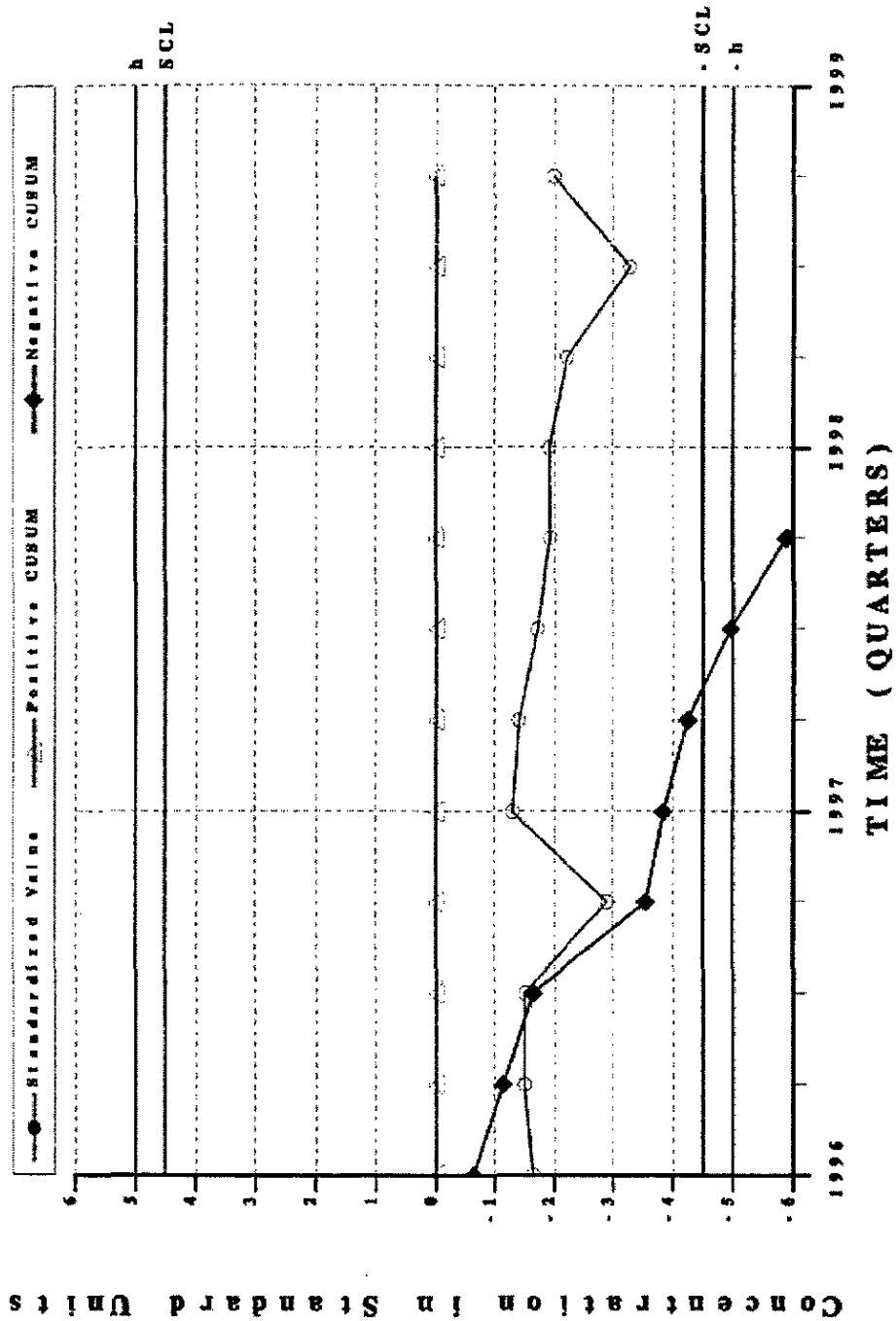
Combined Shewhart - CUSUM Control Chart
WELL HSB102D - Nitrate-nitrite as nitrogen

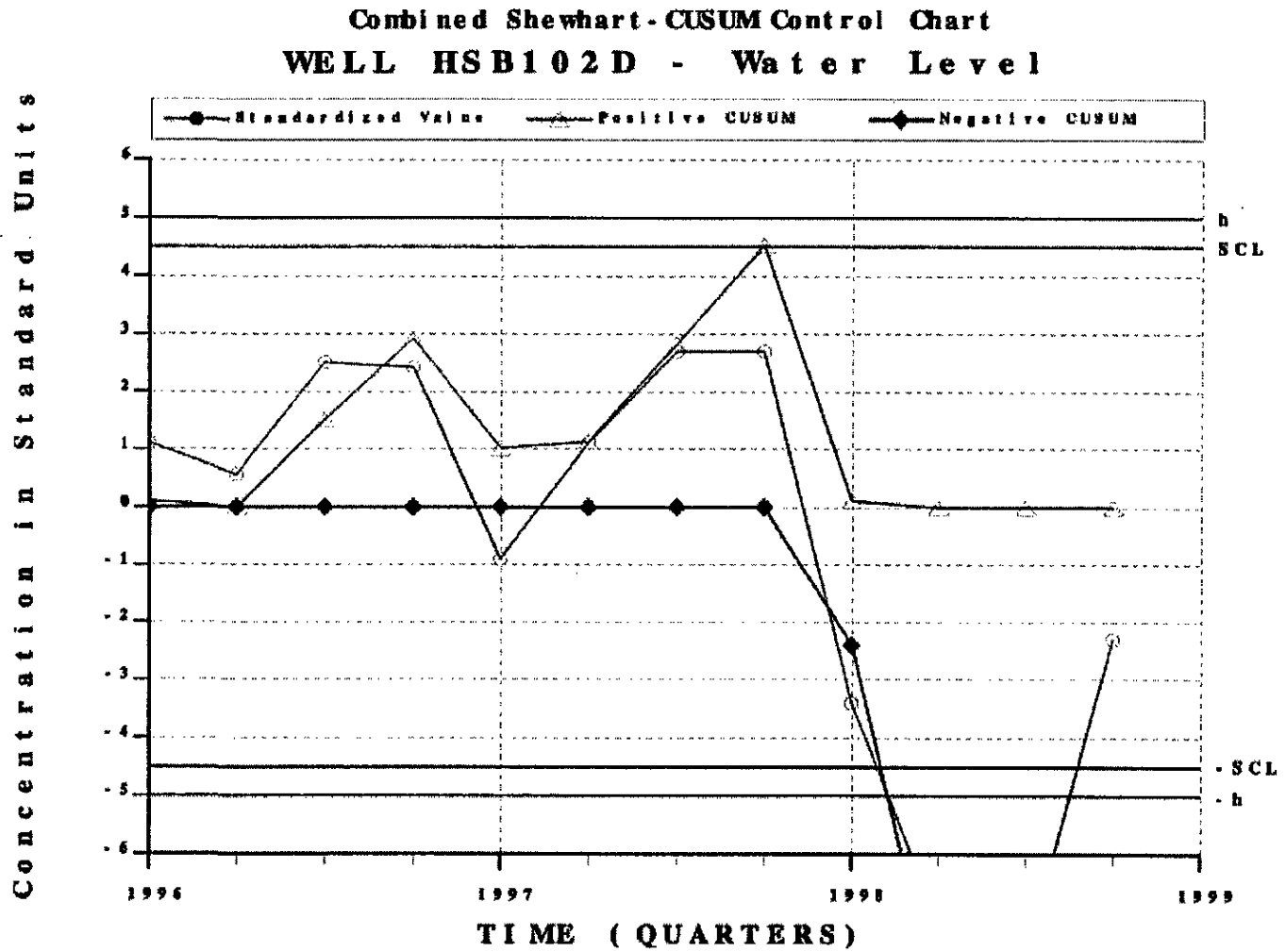


Combined Shewhart-CUSUM Control Chart WELL HSB102D - Nonvolatile beta

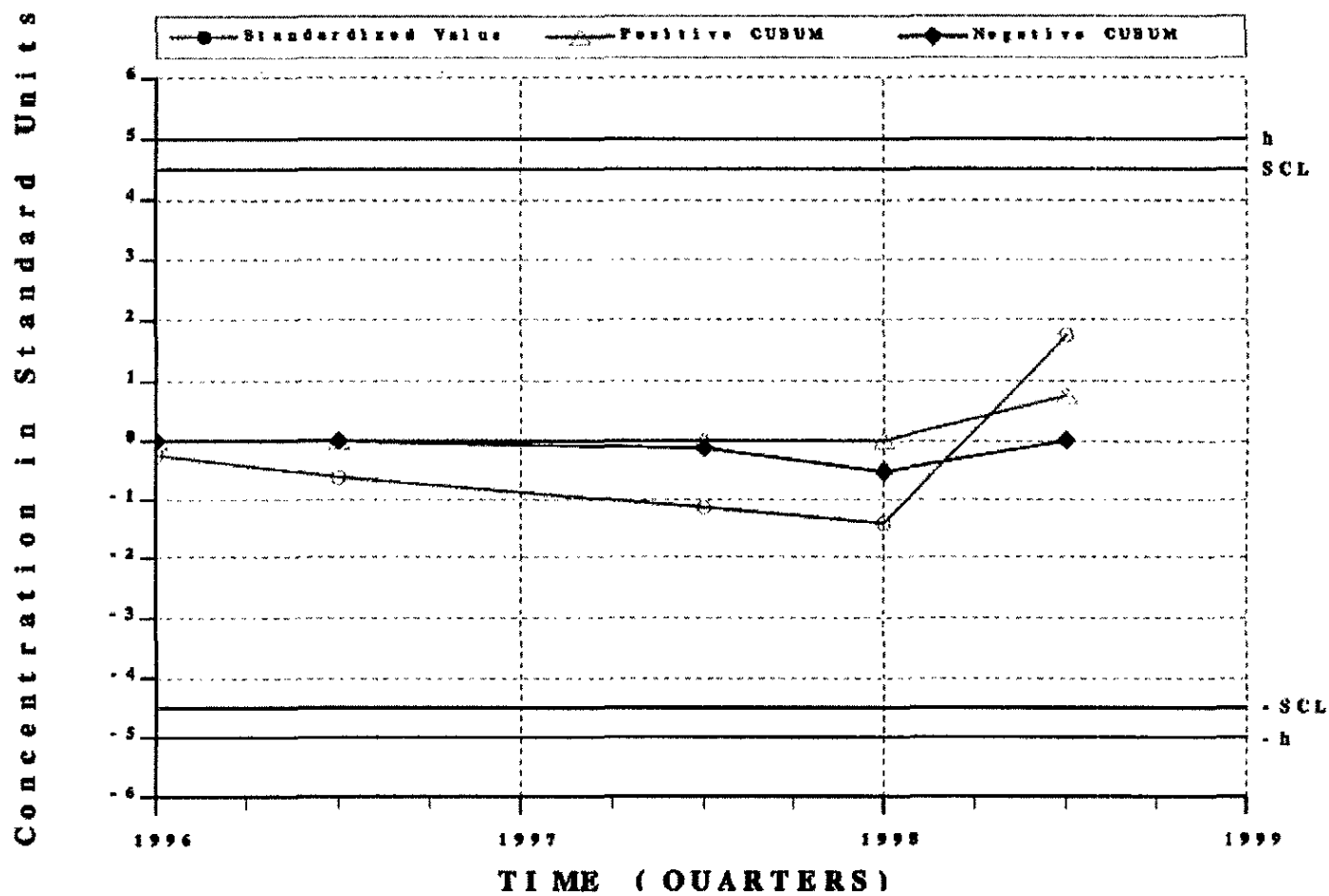


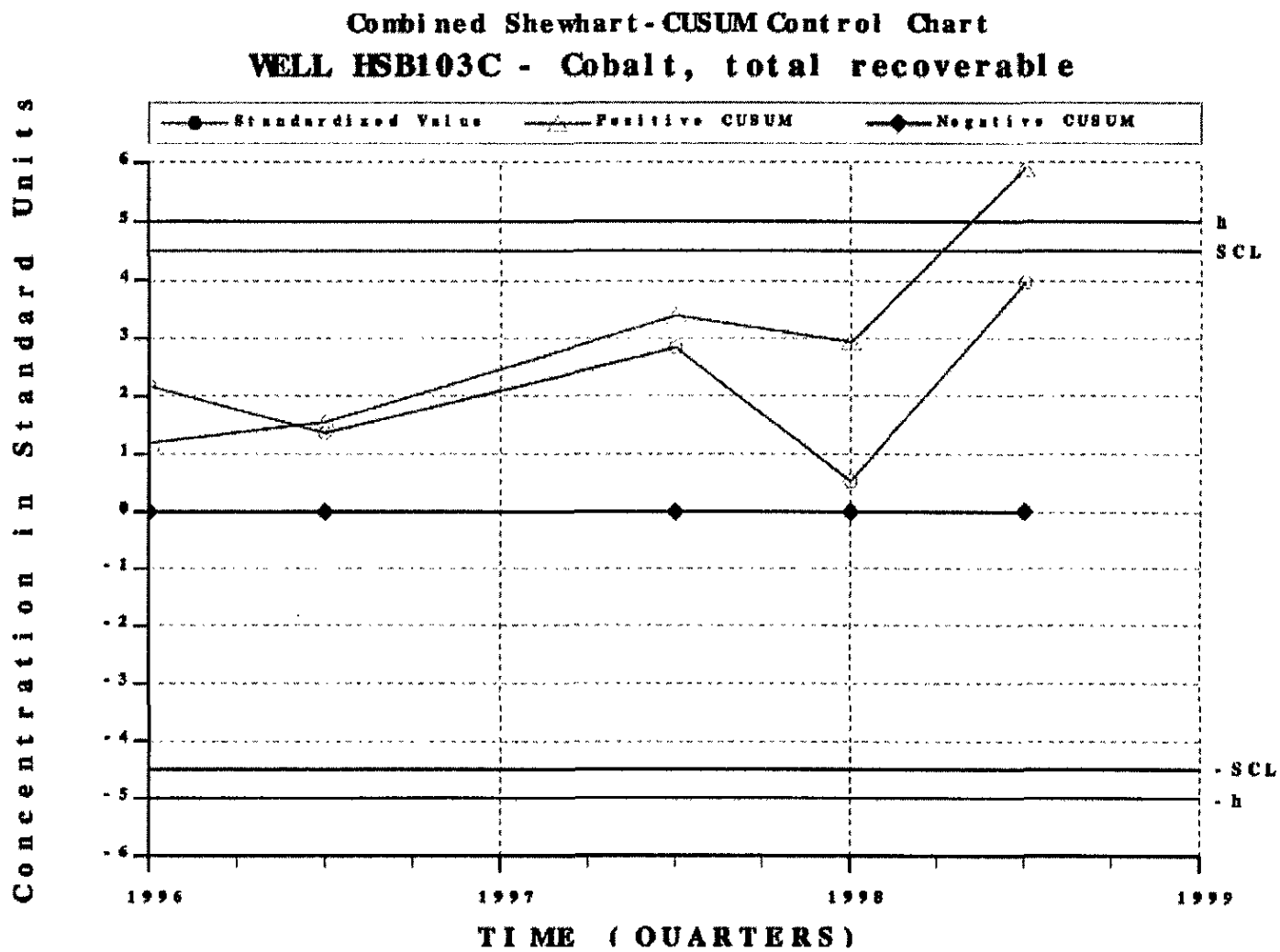
Combined Shewhart-CUSUM Control Chart
WELL HSB102D - Tritium



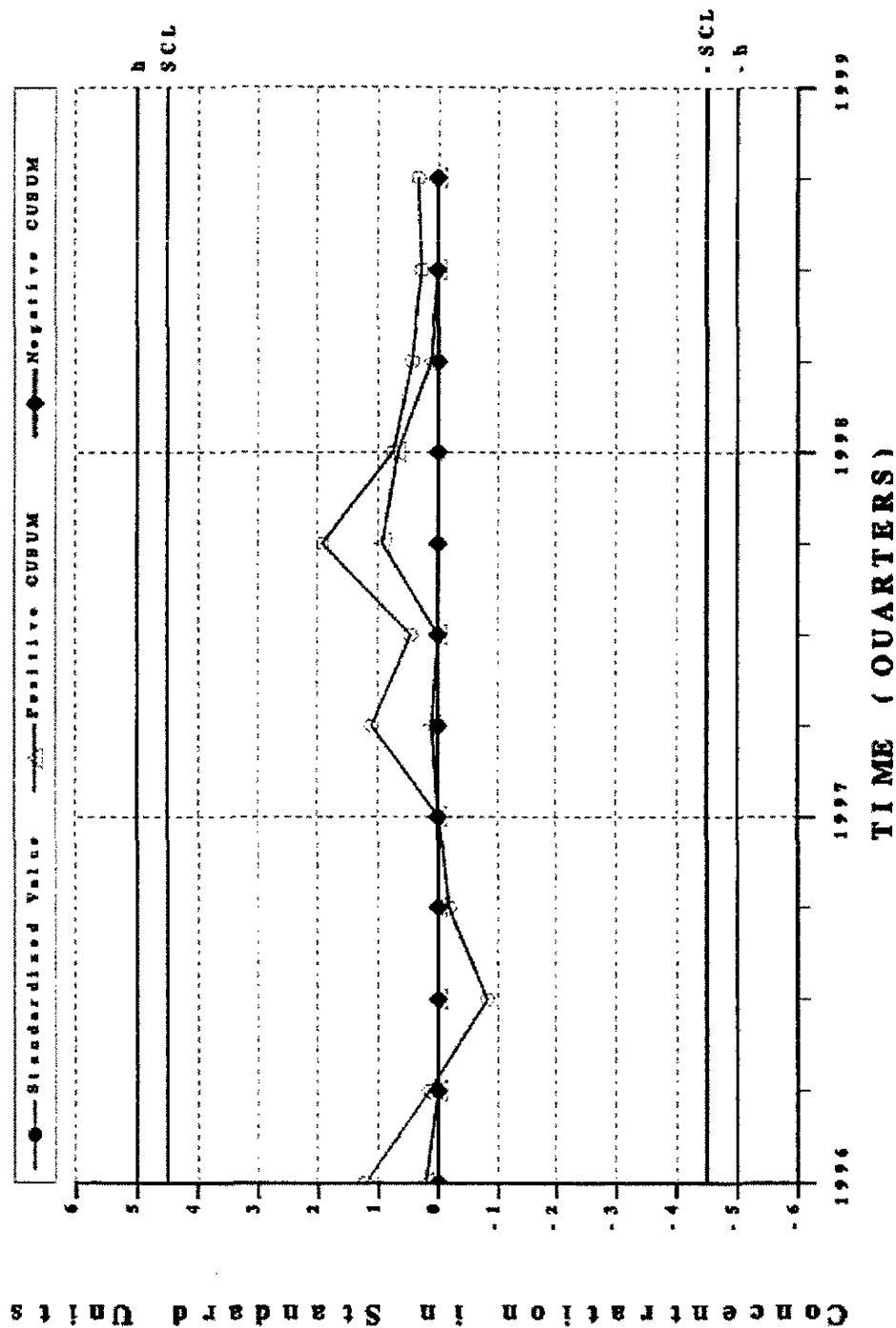


Combined Shewhart-CUSUM Control Chart
WELL HSB103C - Barium, total recoverable

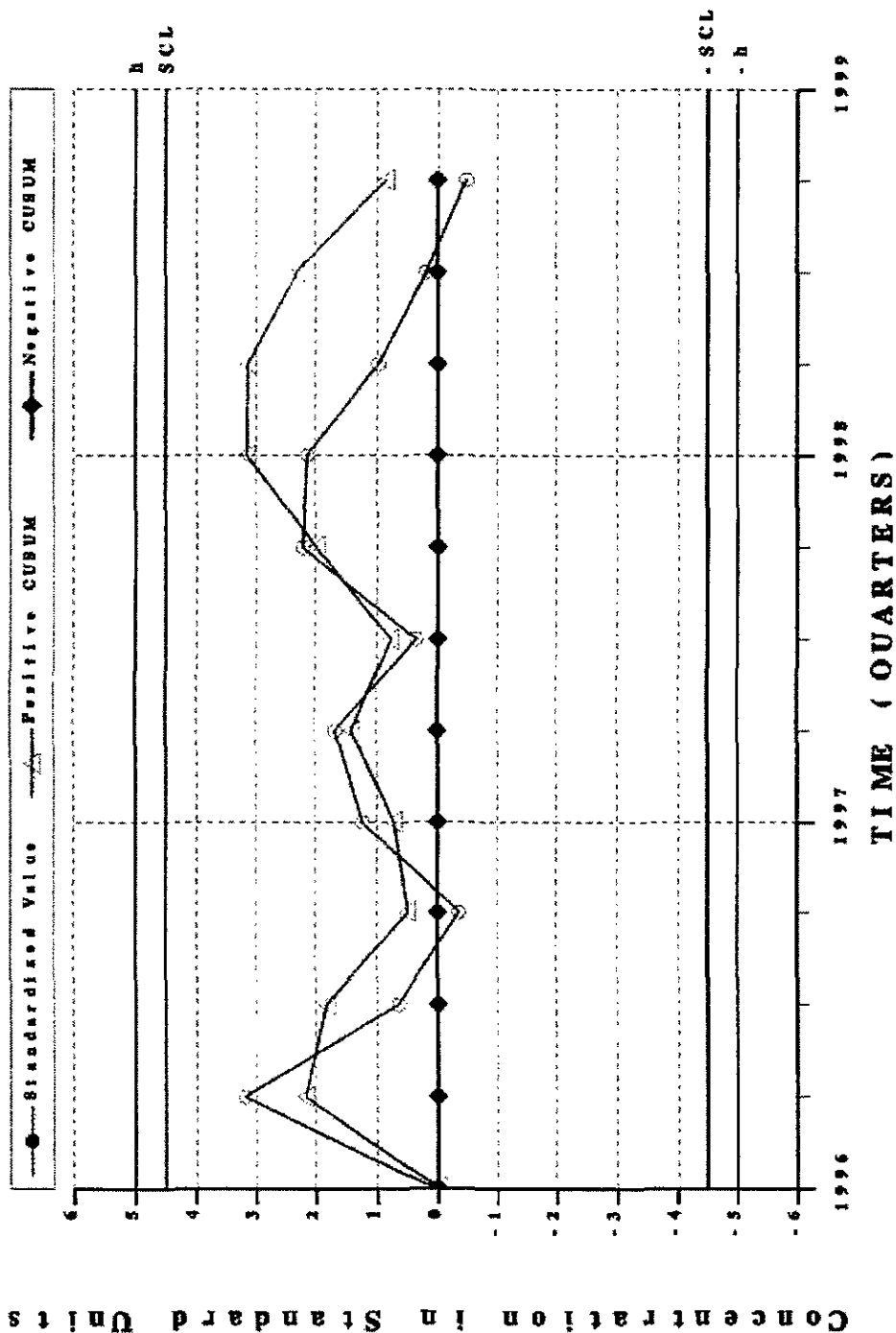




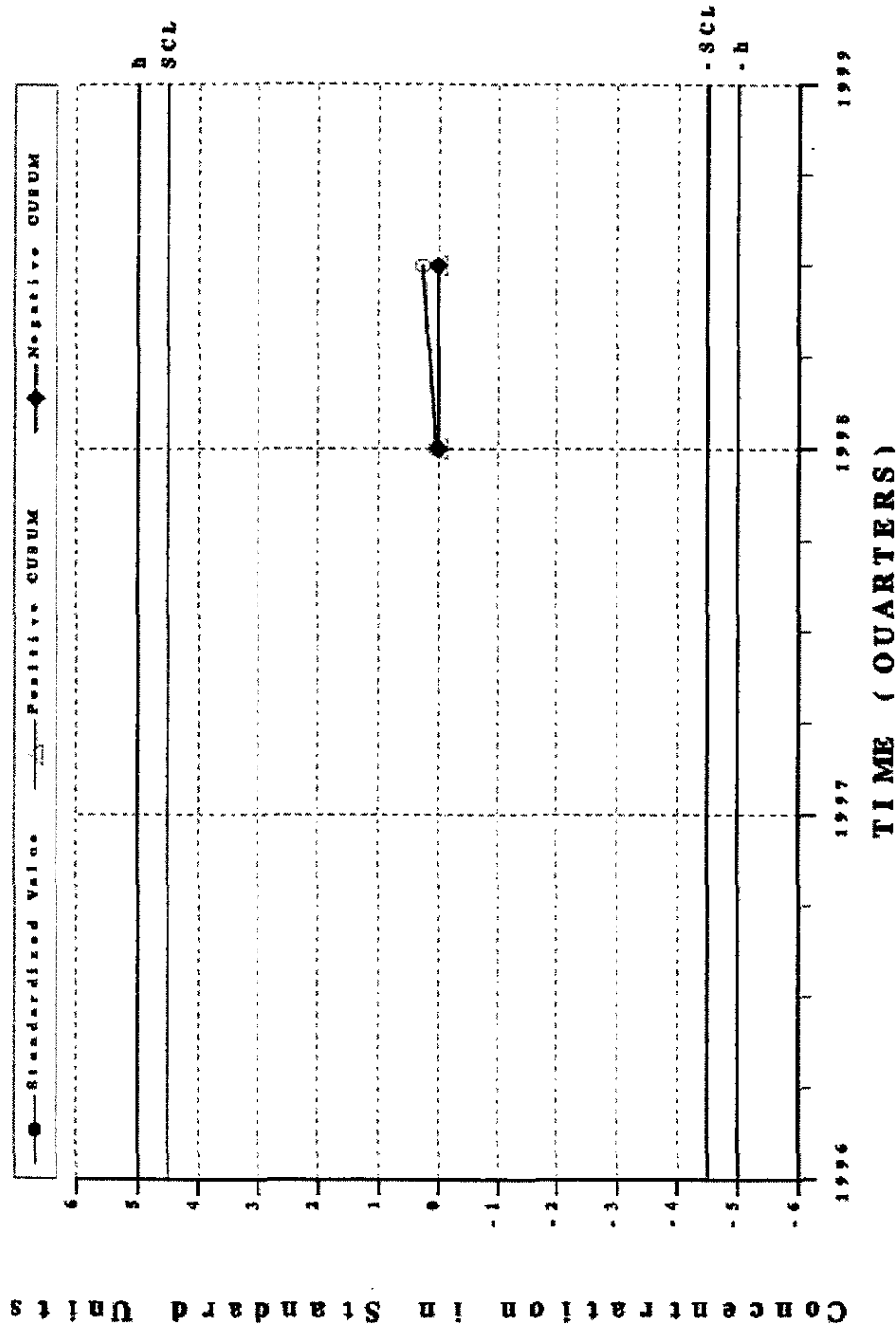
Combined Shewhart-CUSUM Control Chart WELL HSB103C - Gross alpha

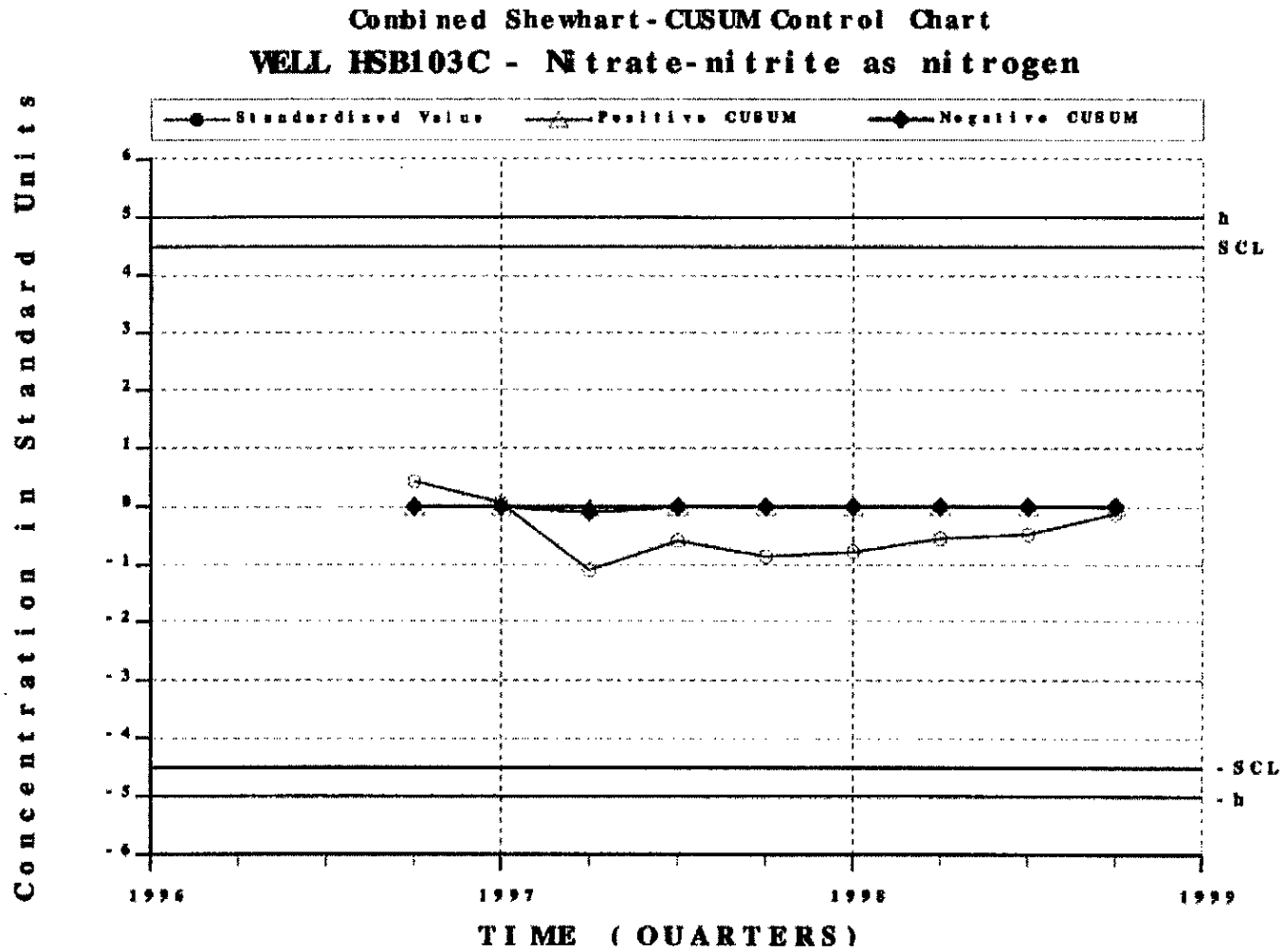


Combined Shewhart-CUSUM Control Chart
WELL HSB103C - Mercury, total recoverable

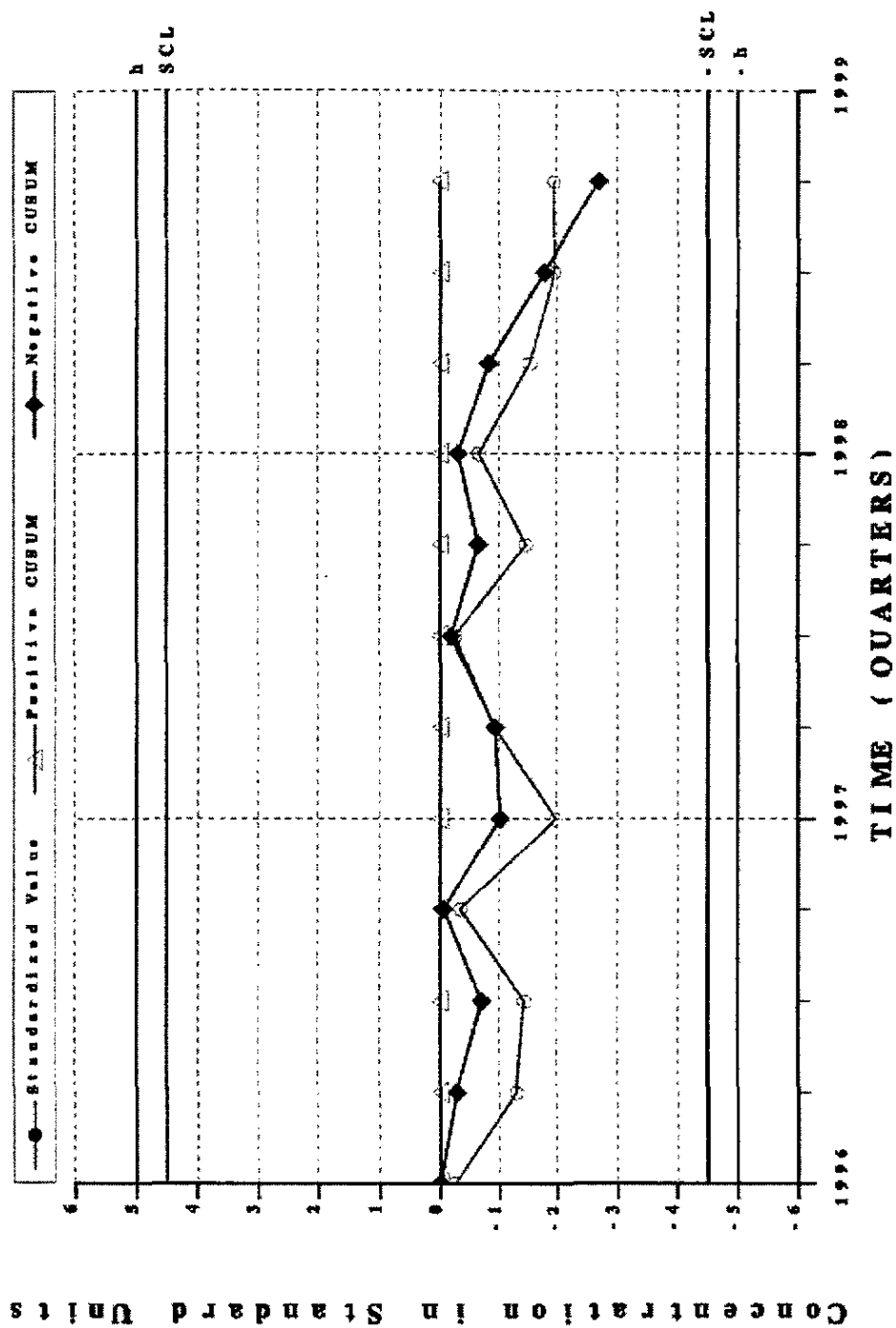


Combined Shewhart-CUSUM Control Chart WELL HSB103C - Nickel, total recoverable

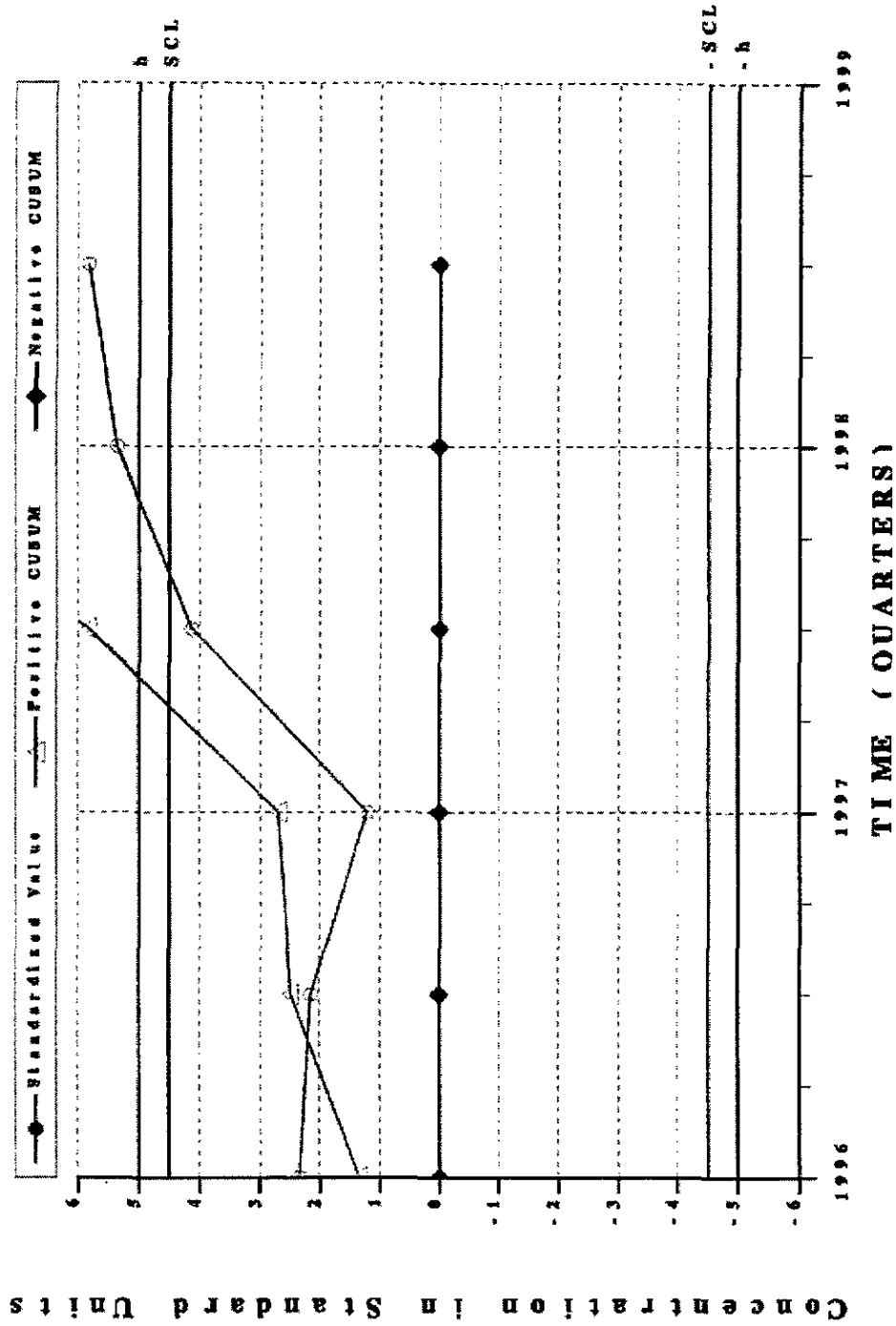




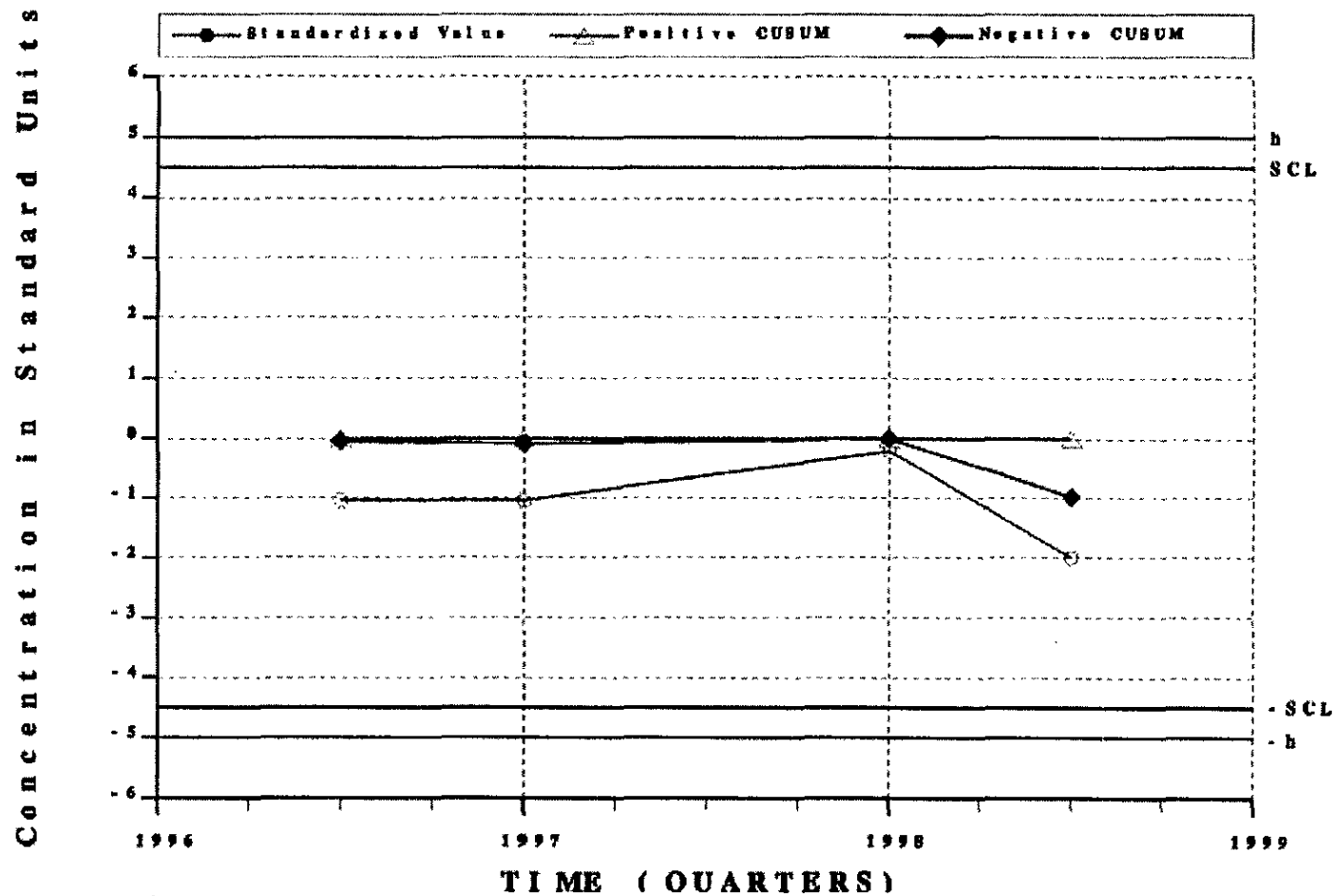
Combined Shewhart-CUSUM Control Chart
WELL HSB103C - Nonvolatile beta



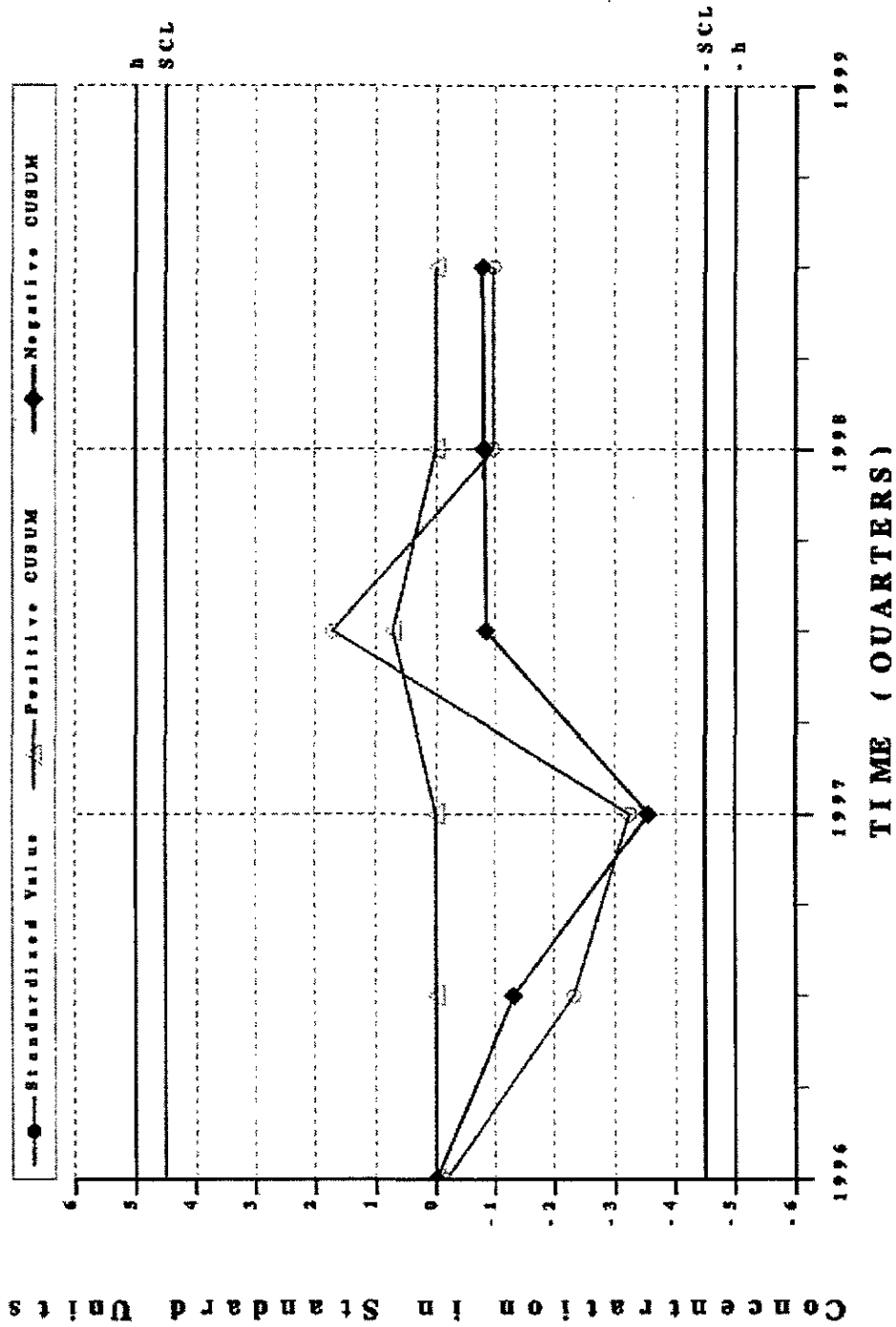
Combined Shewhart - CUSUM Control Chart
WELL HSB103C - Technetium-99



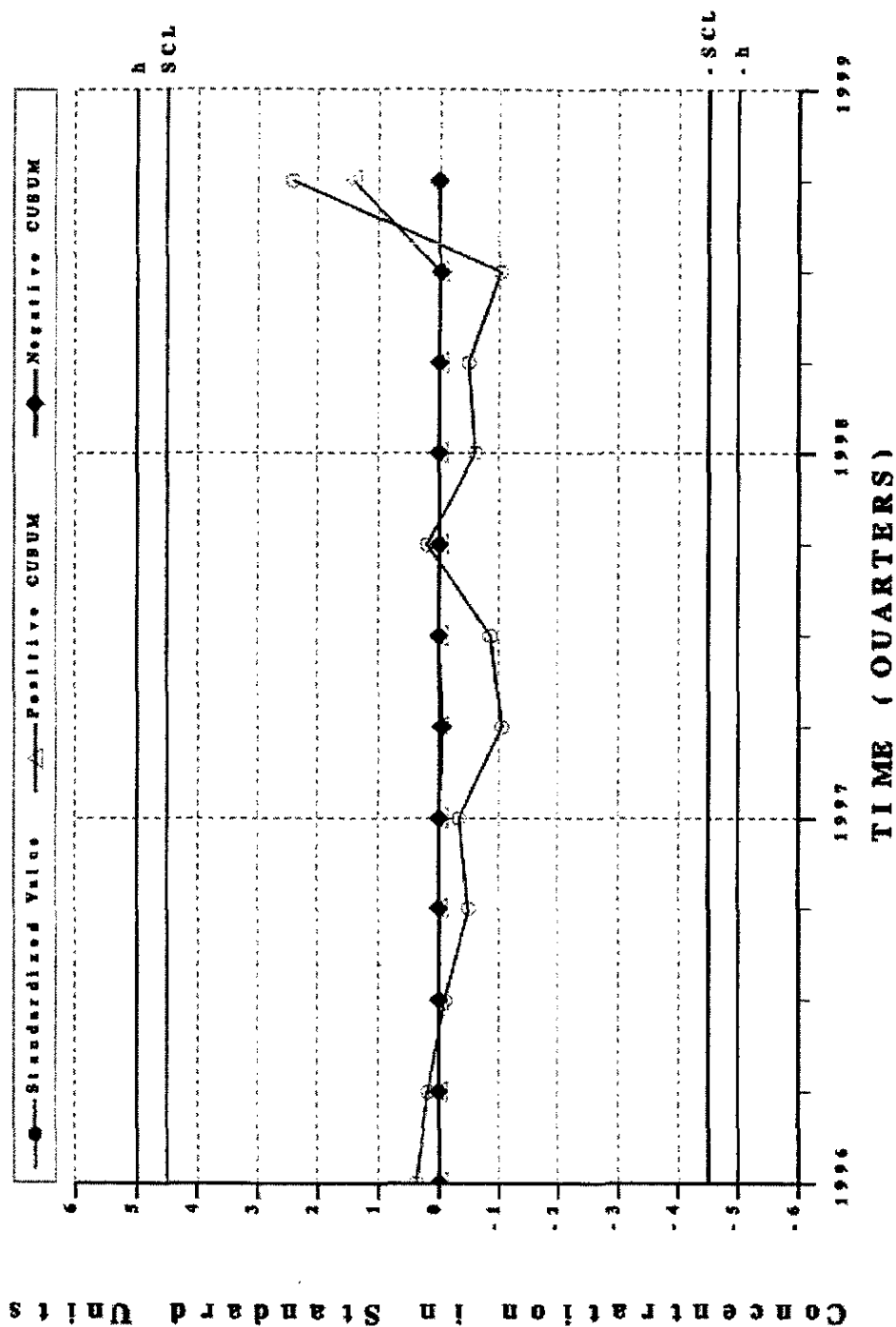
Combined Shewhart-CUSUM Control Chart
WELL HSB103C - Tetrachloroethylene



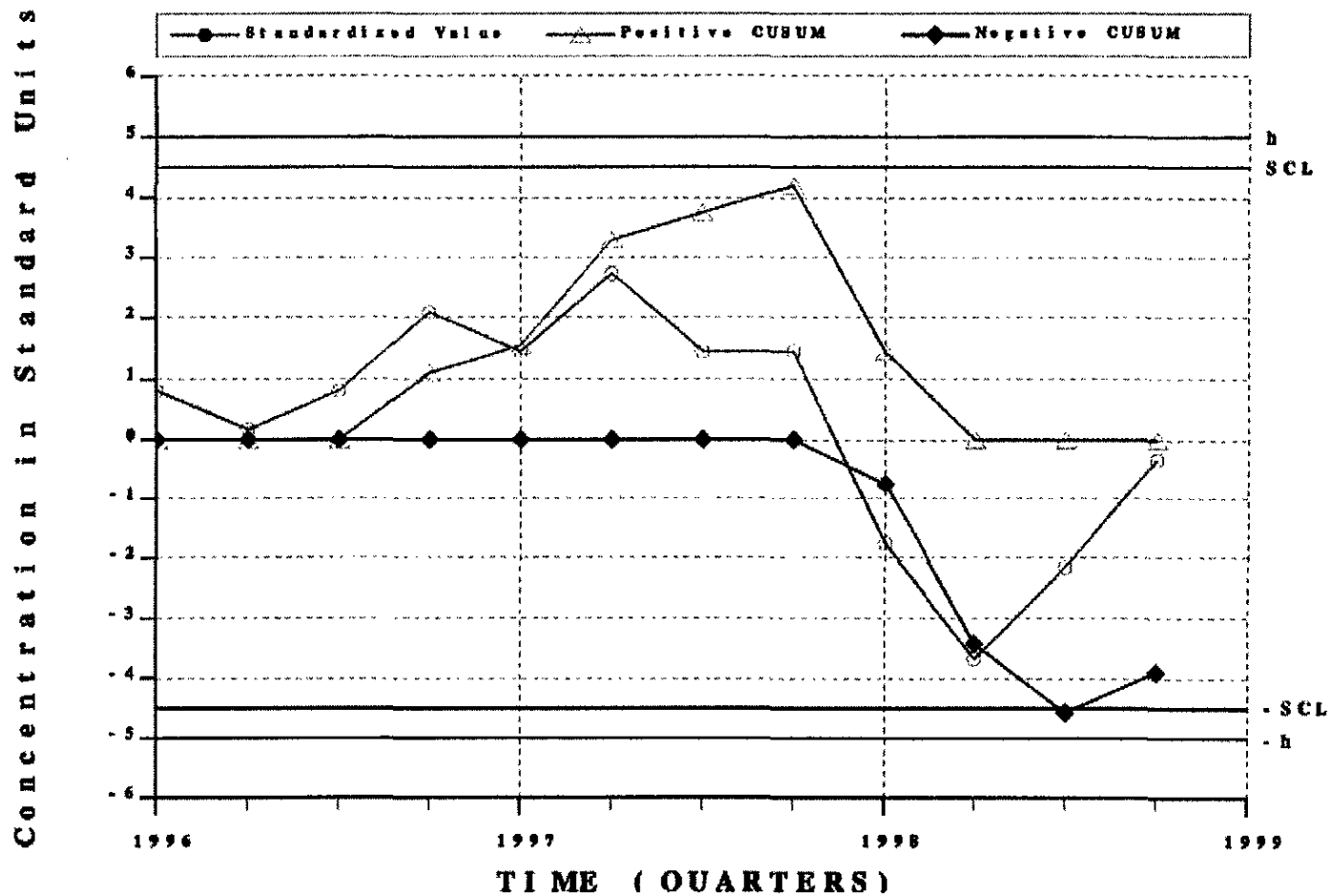
Combined Shewhart-CUSUM Control Chart
WELL HSB103C - Trichloroethylene



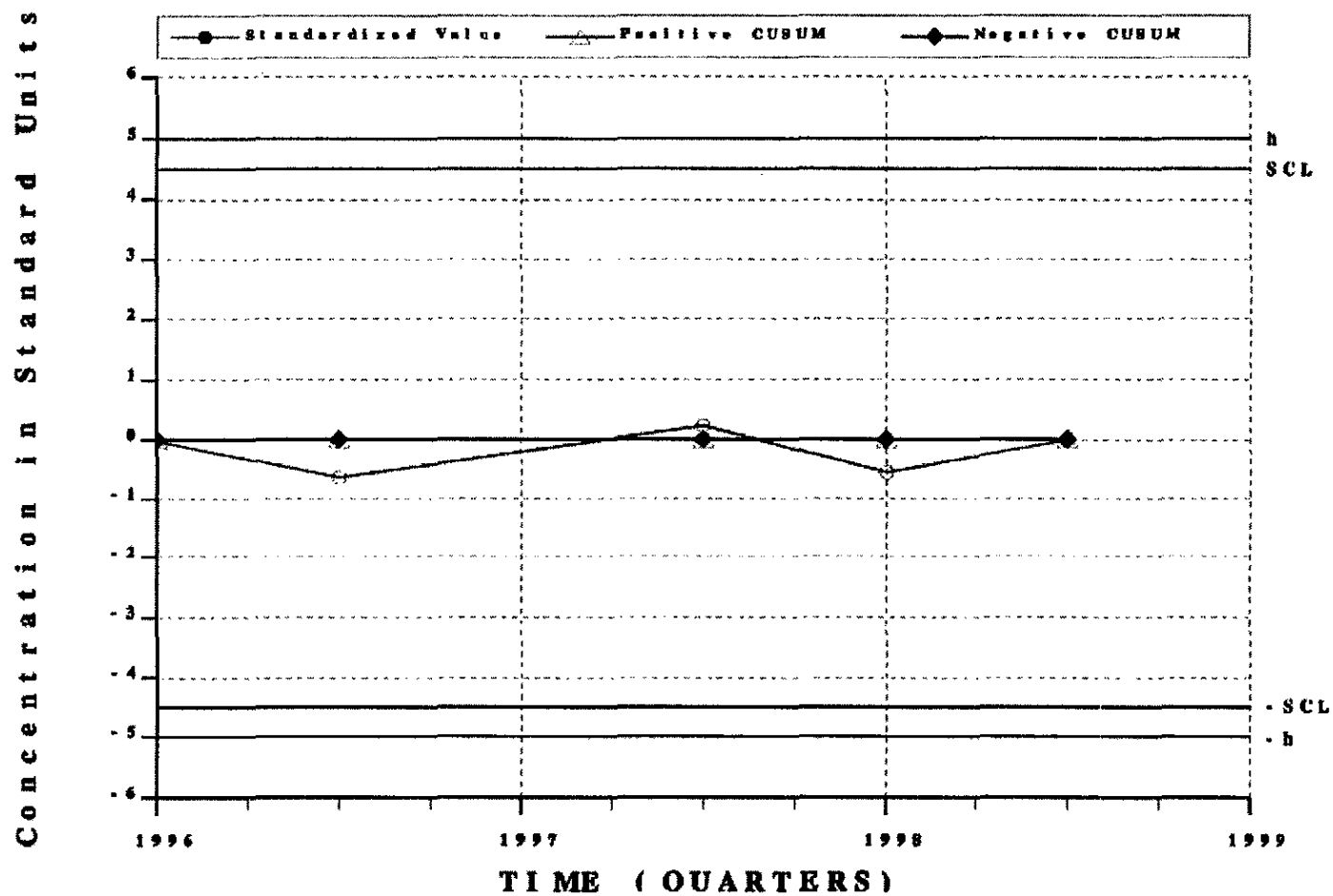
Combined Shewhart-CUSUM Control Chart WELL HSB103C - Tritium

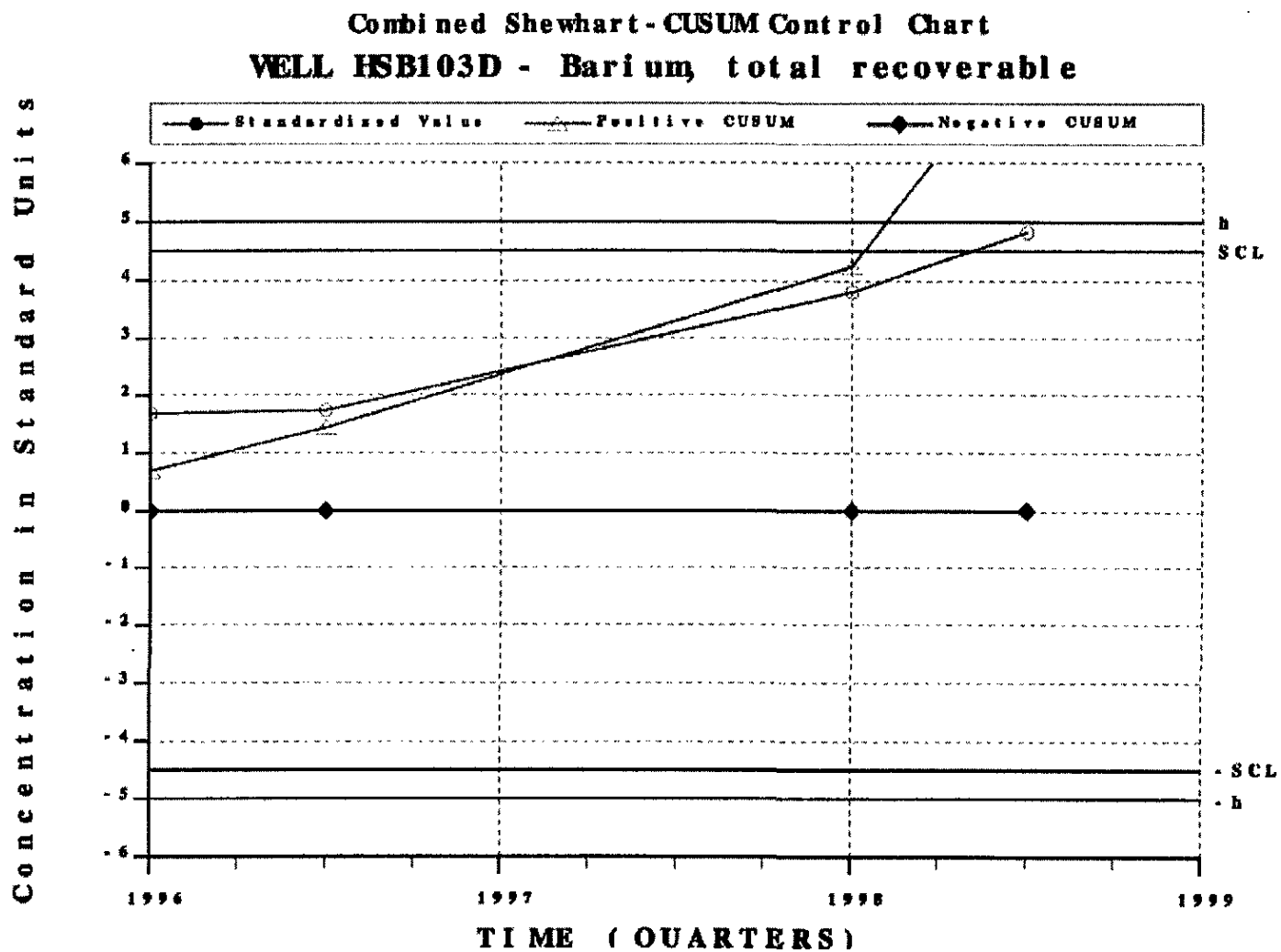


Combined Shewhart-CUSUM Control Chart
WELL HSB103C - Water Level

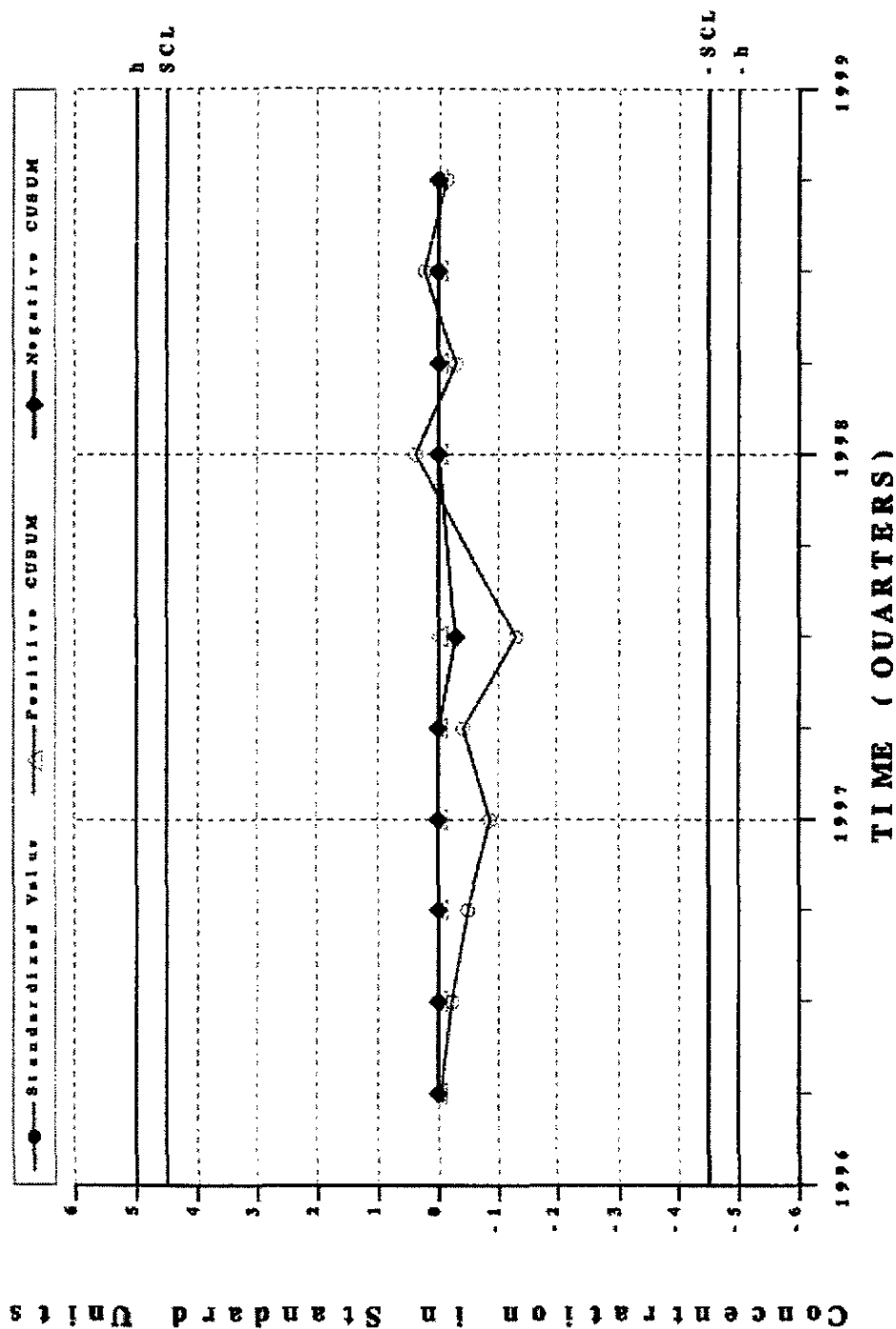


Combined Shewhart-CUSUM Control Chart
WELL HSB103C - Zinc, total recoverable

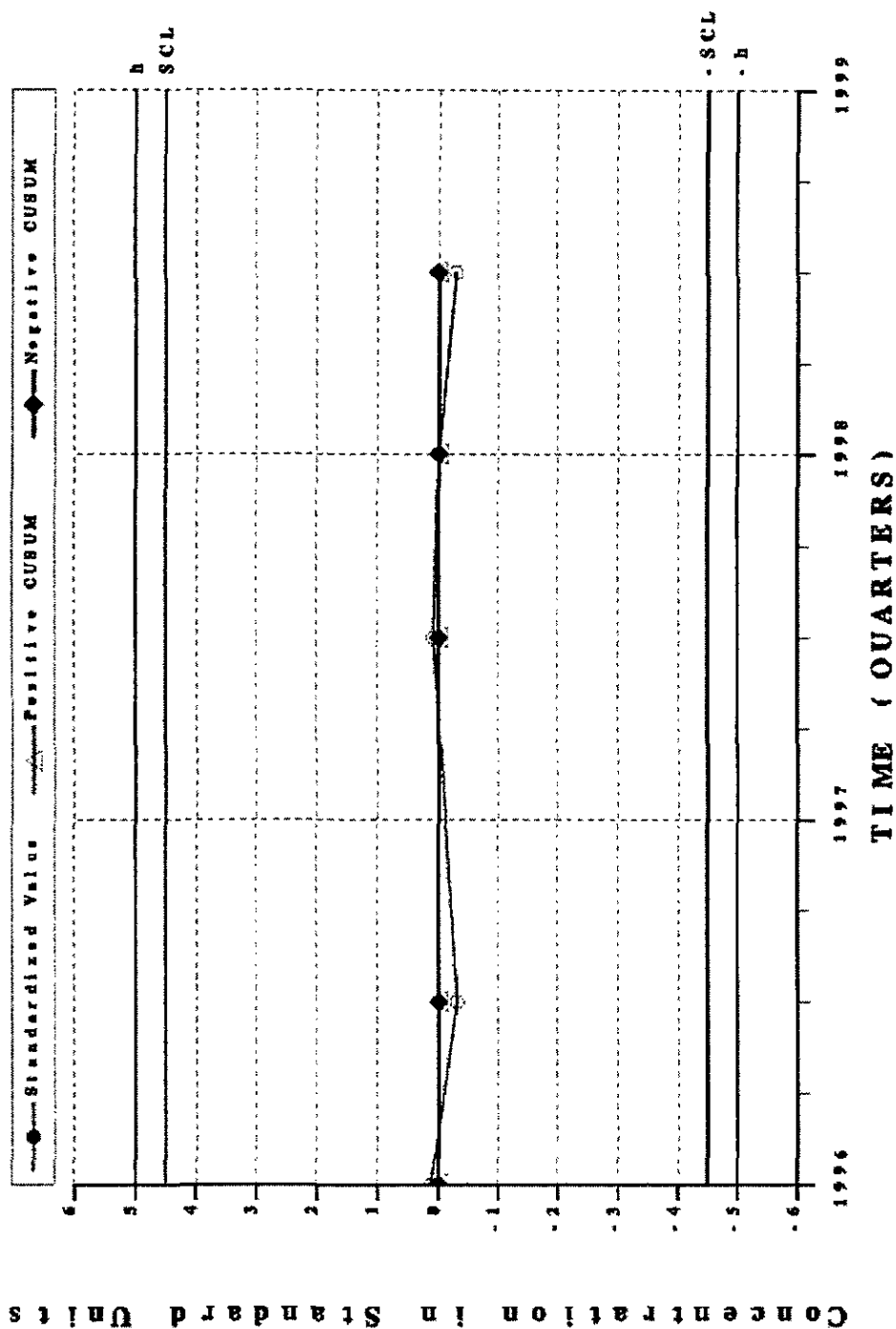




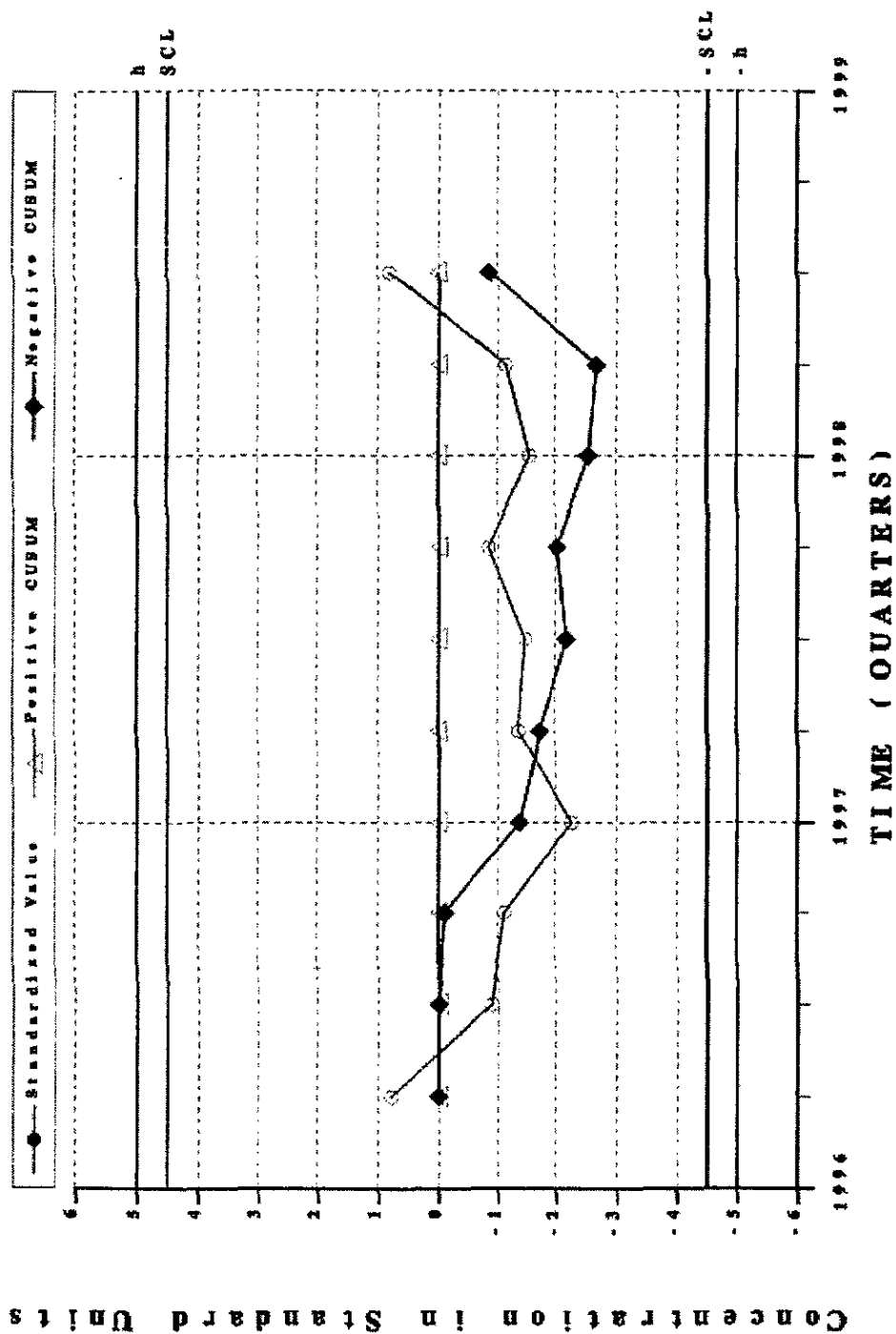
Combined Shewhart-CUSUM Control Chart WELL HSB103D - Gross alpha

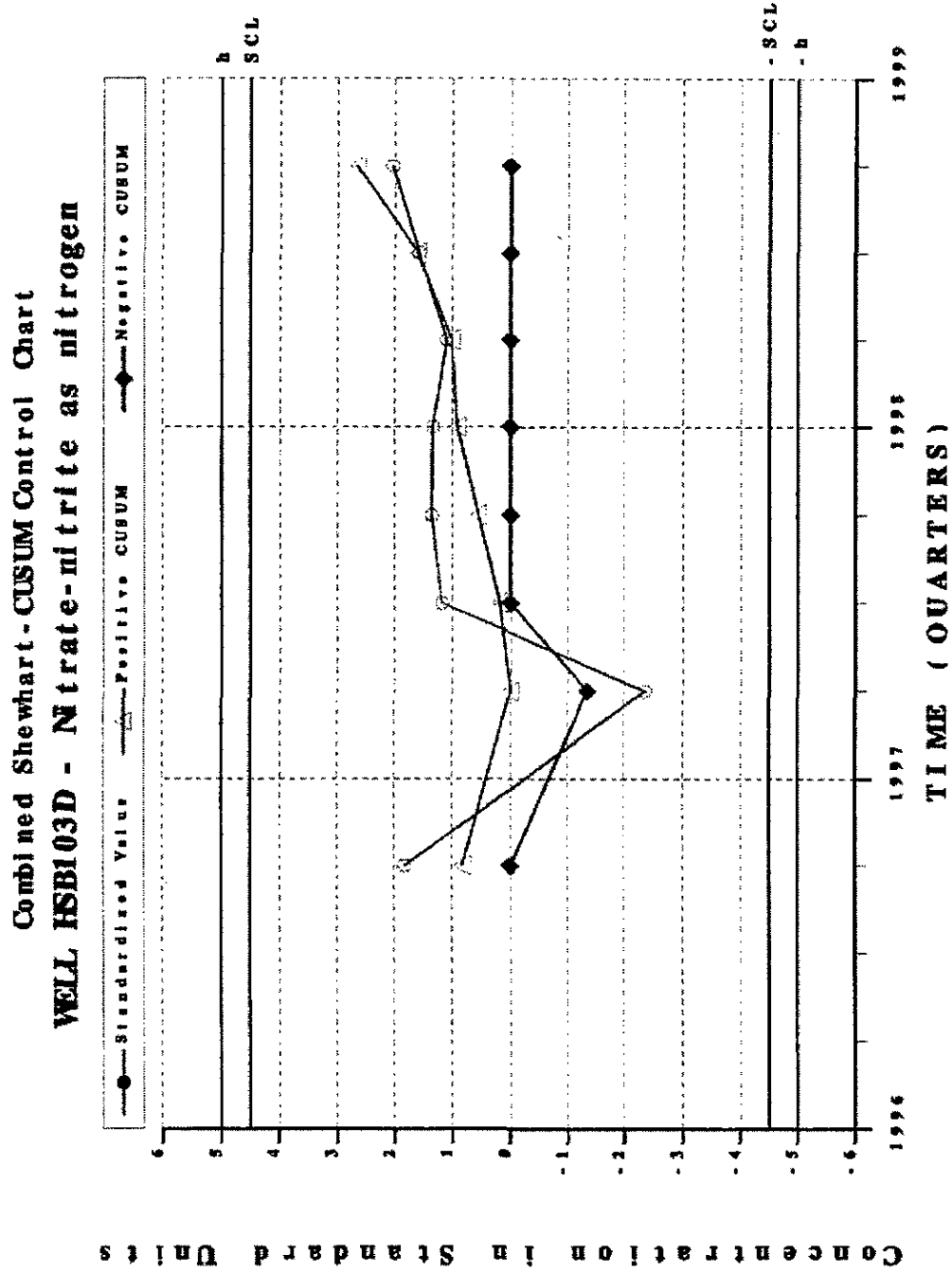


Combined Shewhart-CUSUM Control Chart
WELL HSB103D - Iodine-129

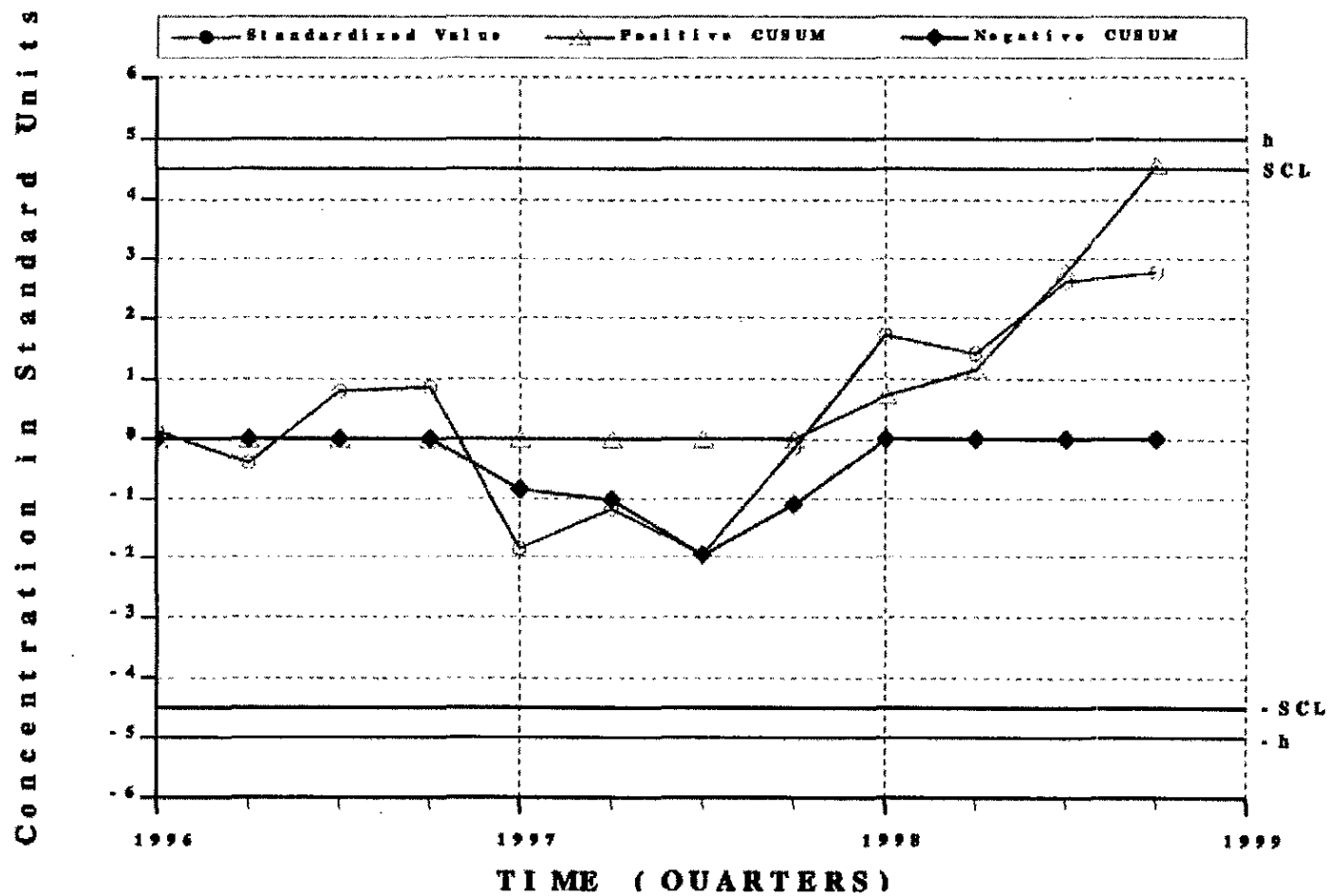


Combined Shewhart-CUSUM Control Chart
WELL HSB103D - Mercury, total recoverable

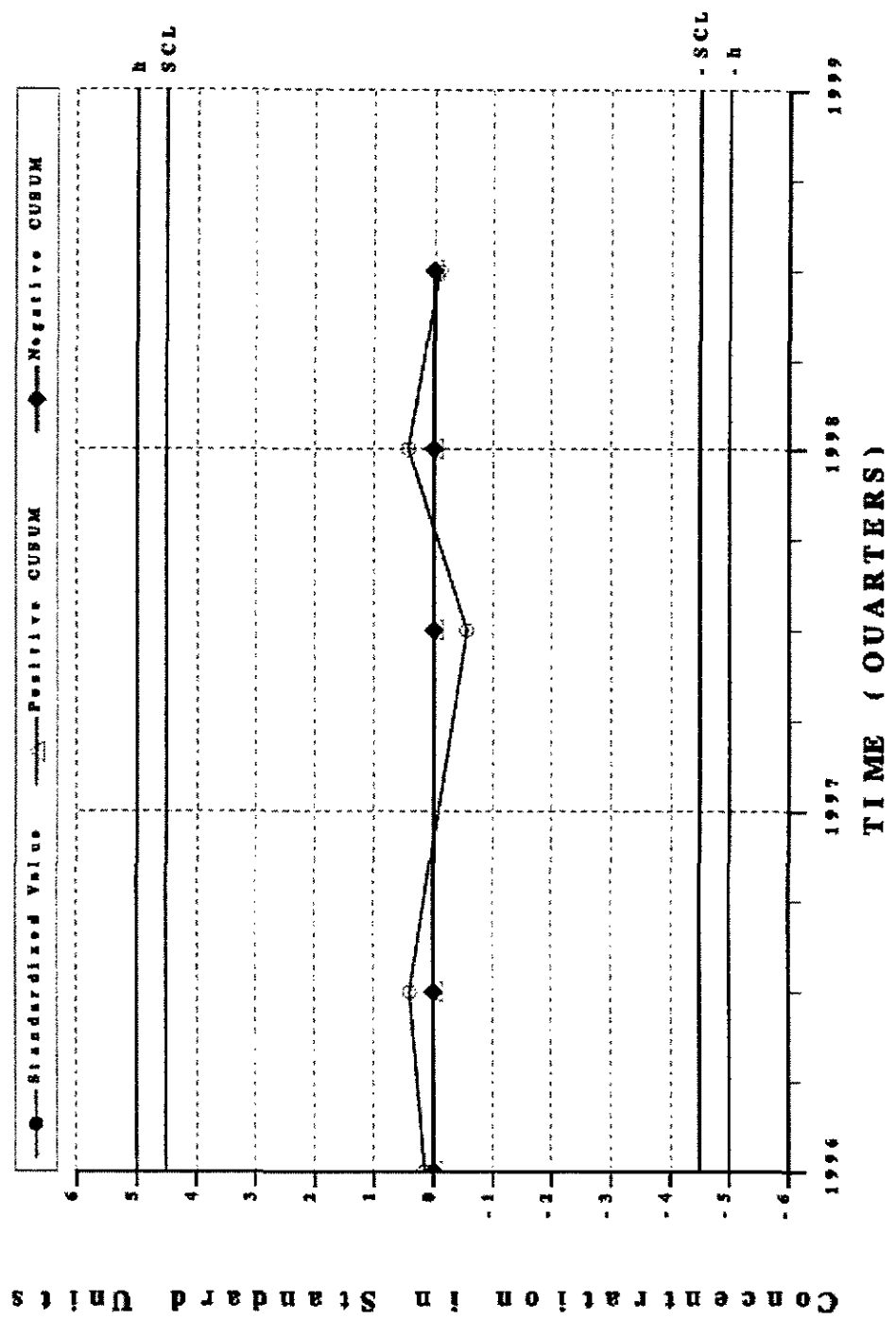




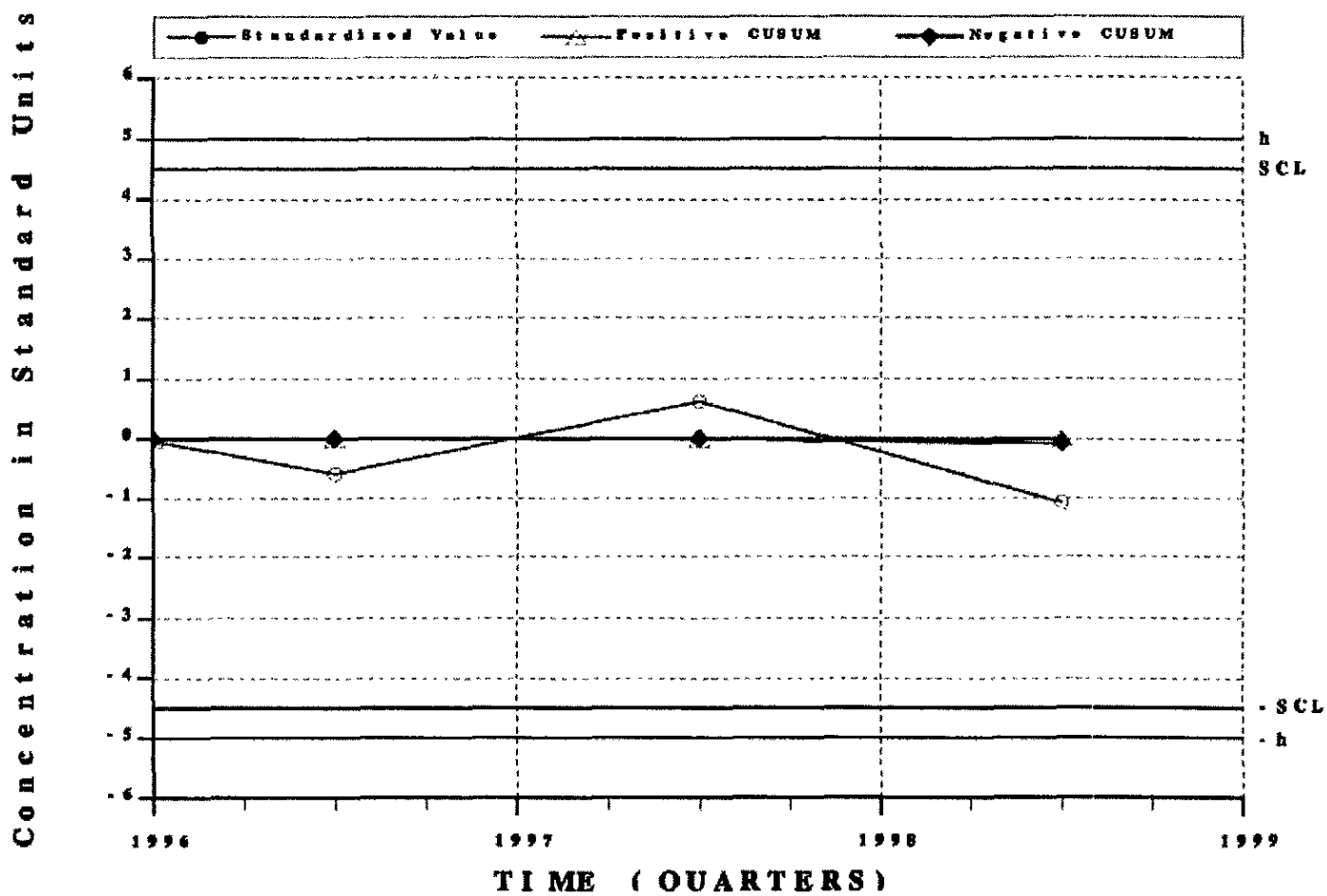
Combined Shewhart-CUSUM Control Chart
WELL HSB103D - Nonvolatile beta



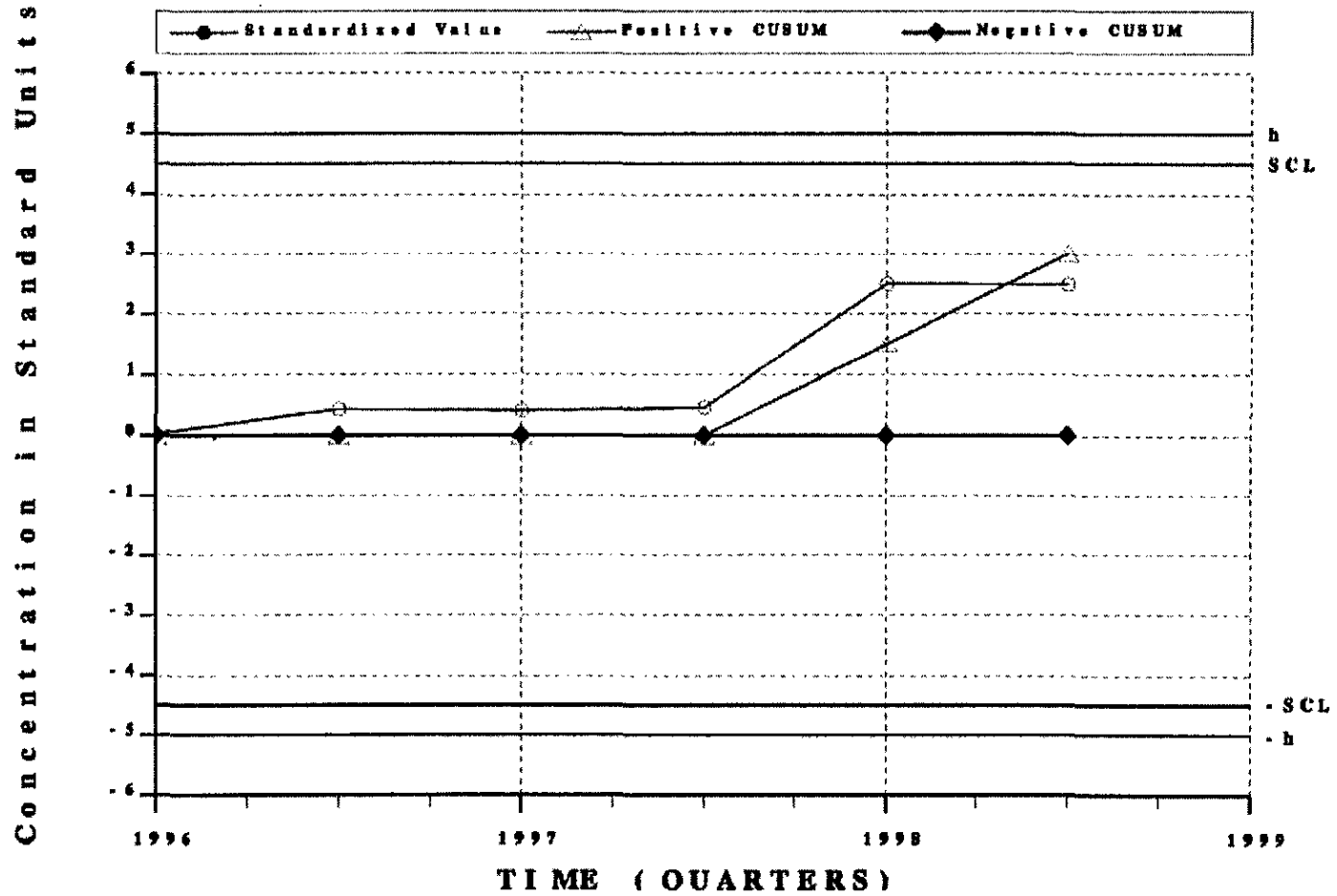
Combined Shewhart-CUSUM Control Chart WELL HSB103D - Radium-226



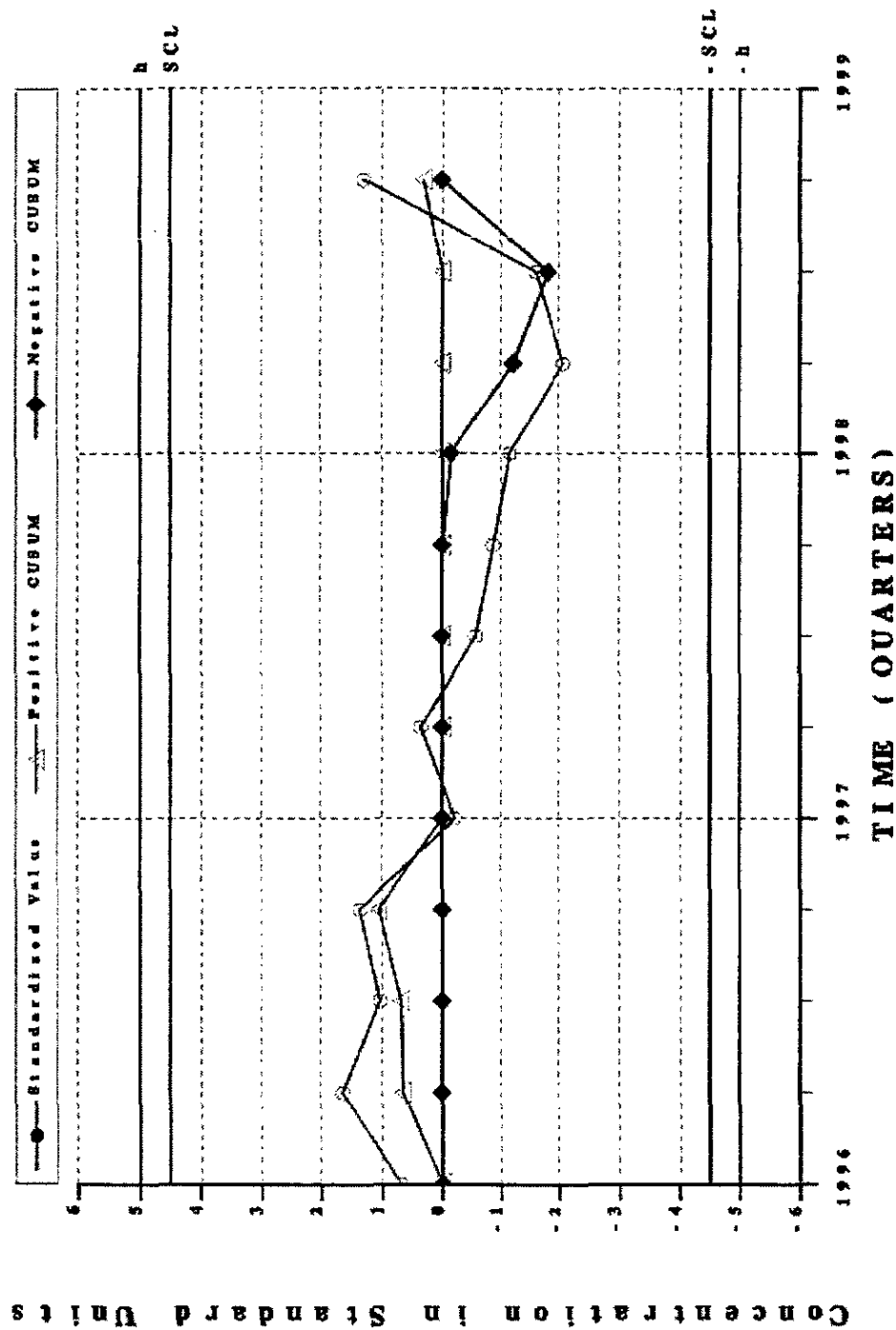
Combined Shewhart-CUSUM Control Chart
WELL HSB103D - Radium-228



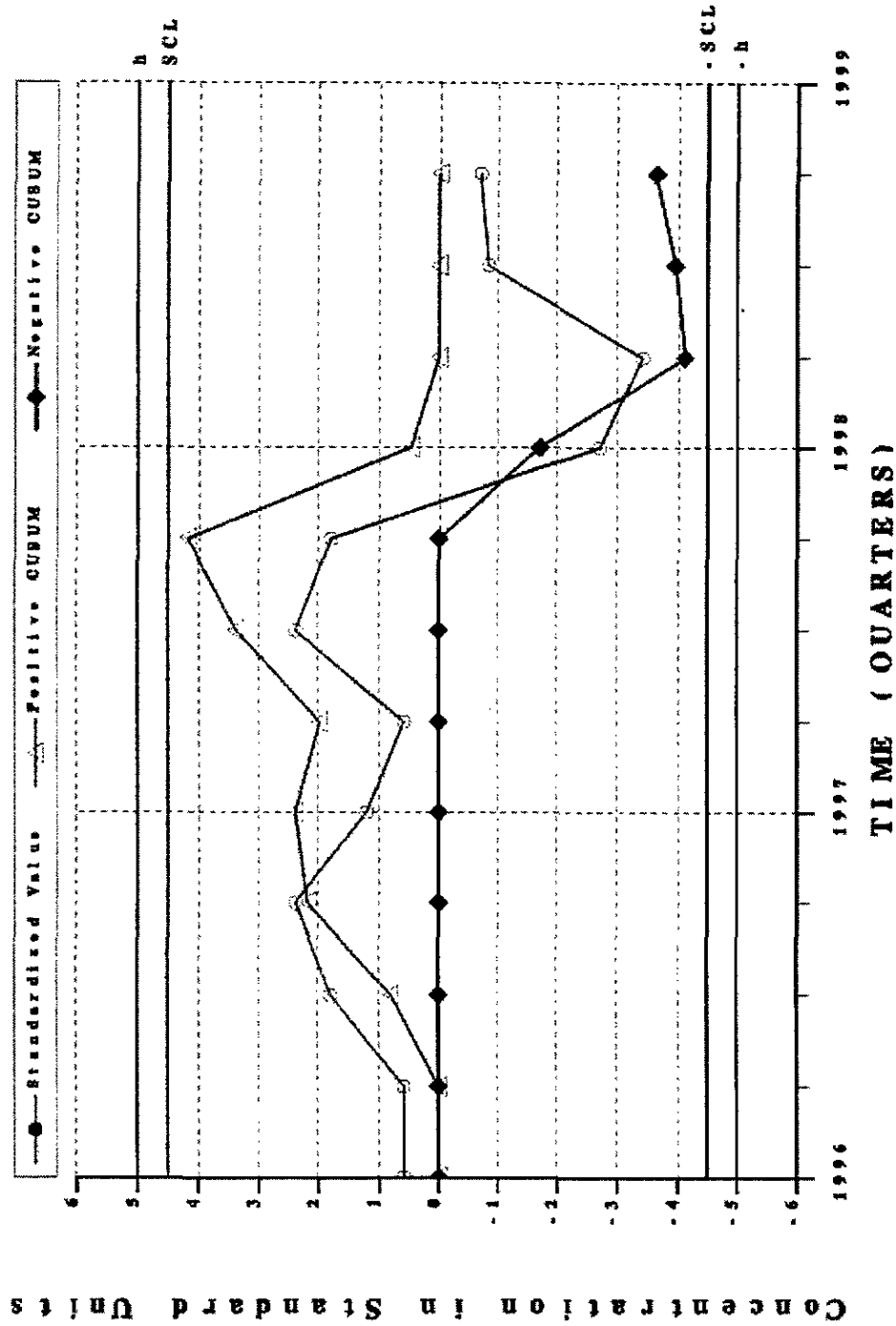
Combined Shewhart-CUSUM Control Chart
WELL HSB103D - Strontium-90



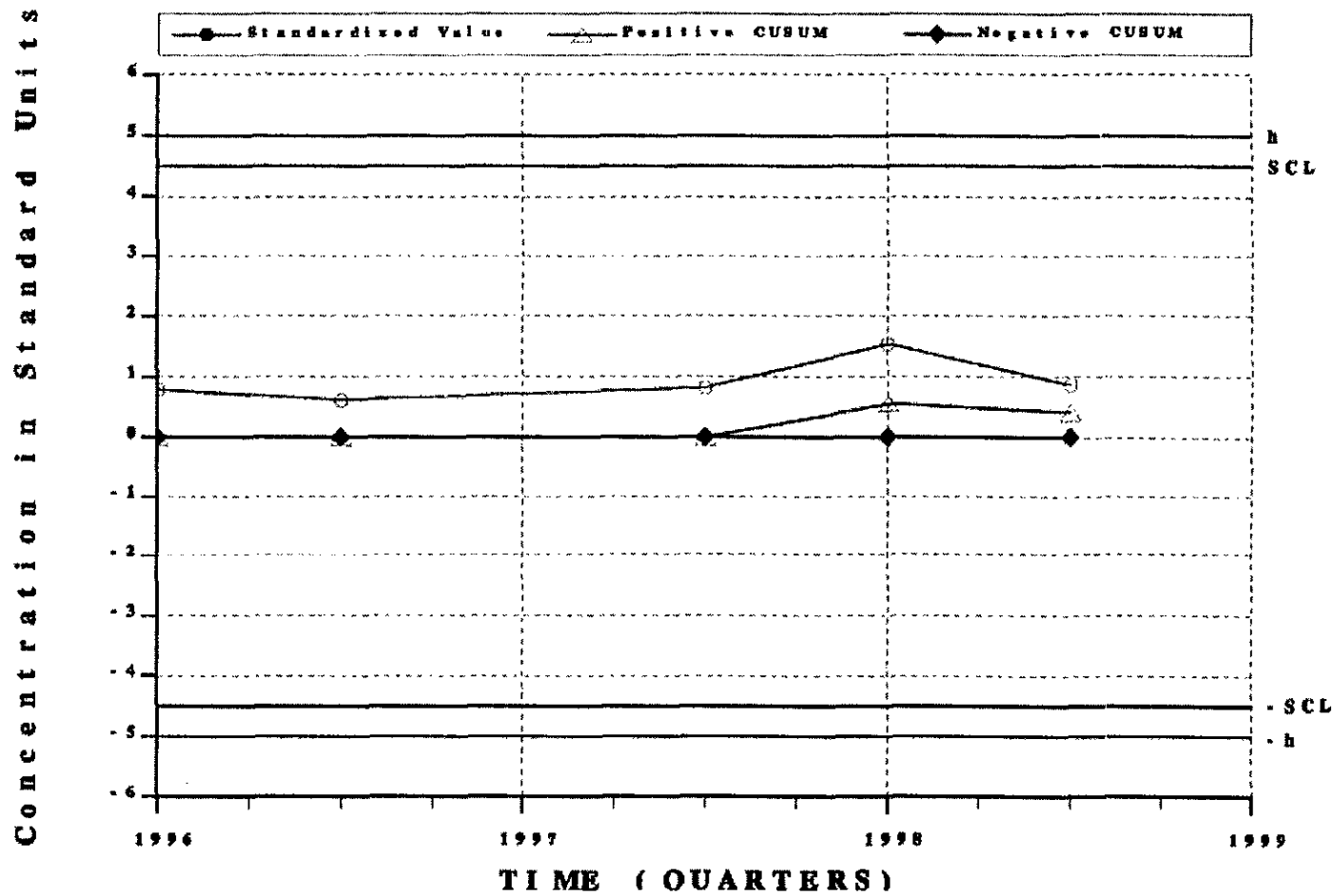
Combined Shewhart-CUSUM Control Chart WELL HSB103D - Tritium



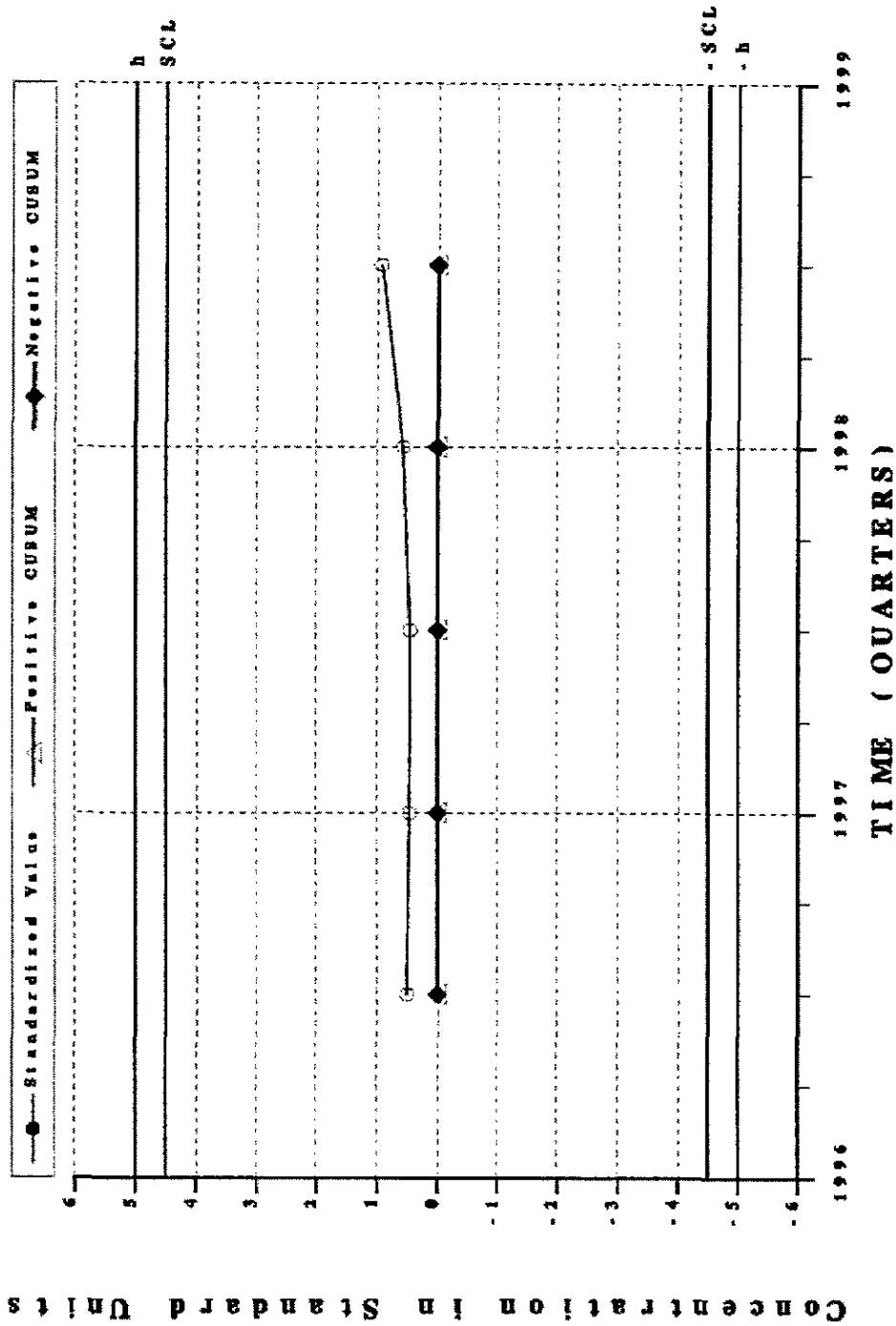
Combined Shewhart-CUSUM Control Chart WELL HSB103D - Water Level



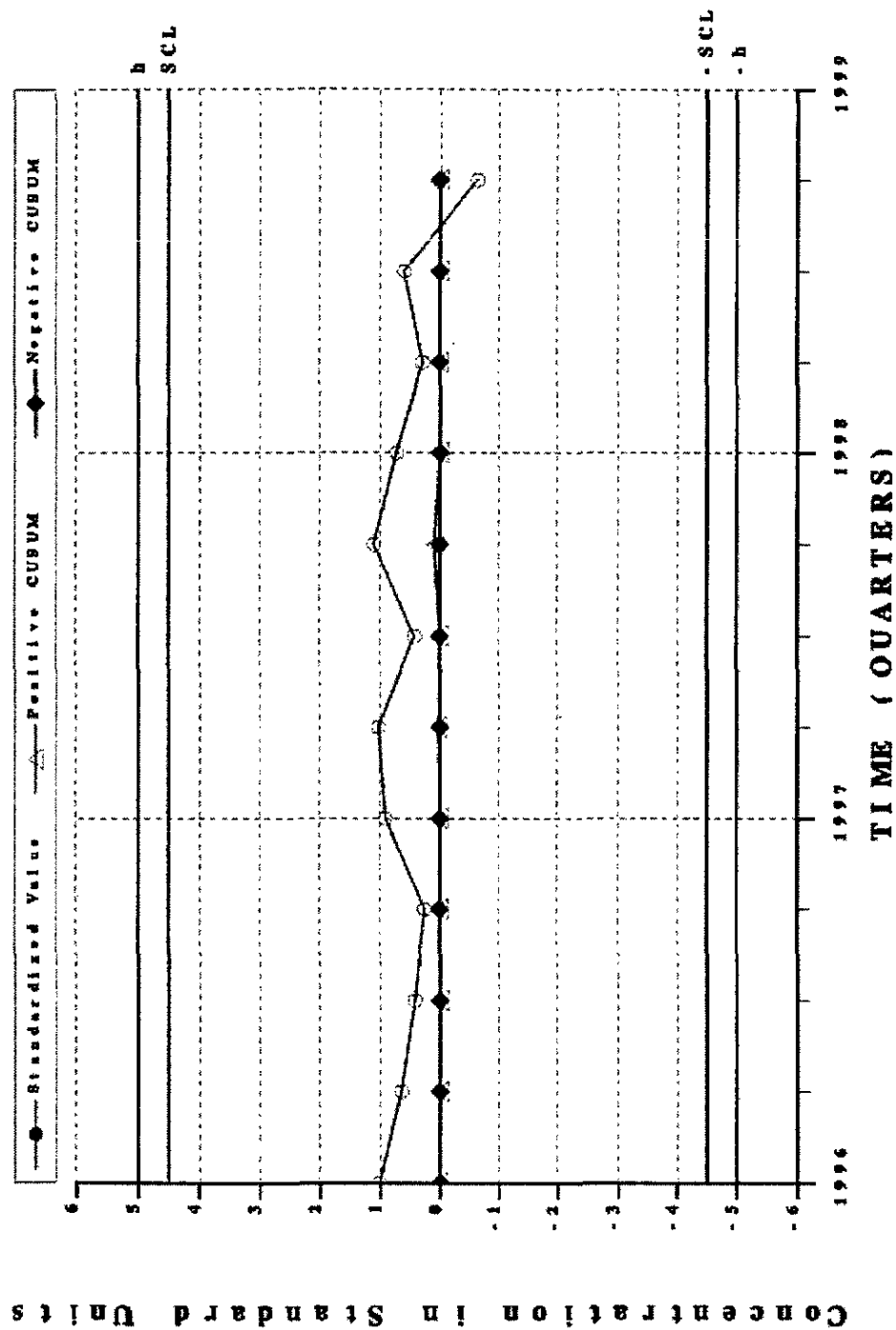
Combined Shewhart-CUSUM Control Chart
WELL HSB103D - Zinc, total recoverable

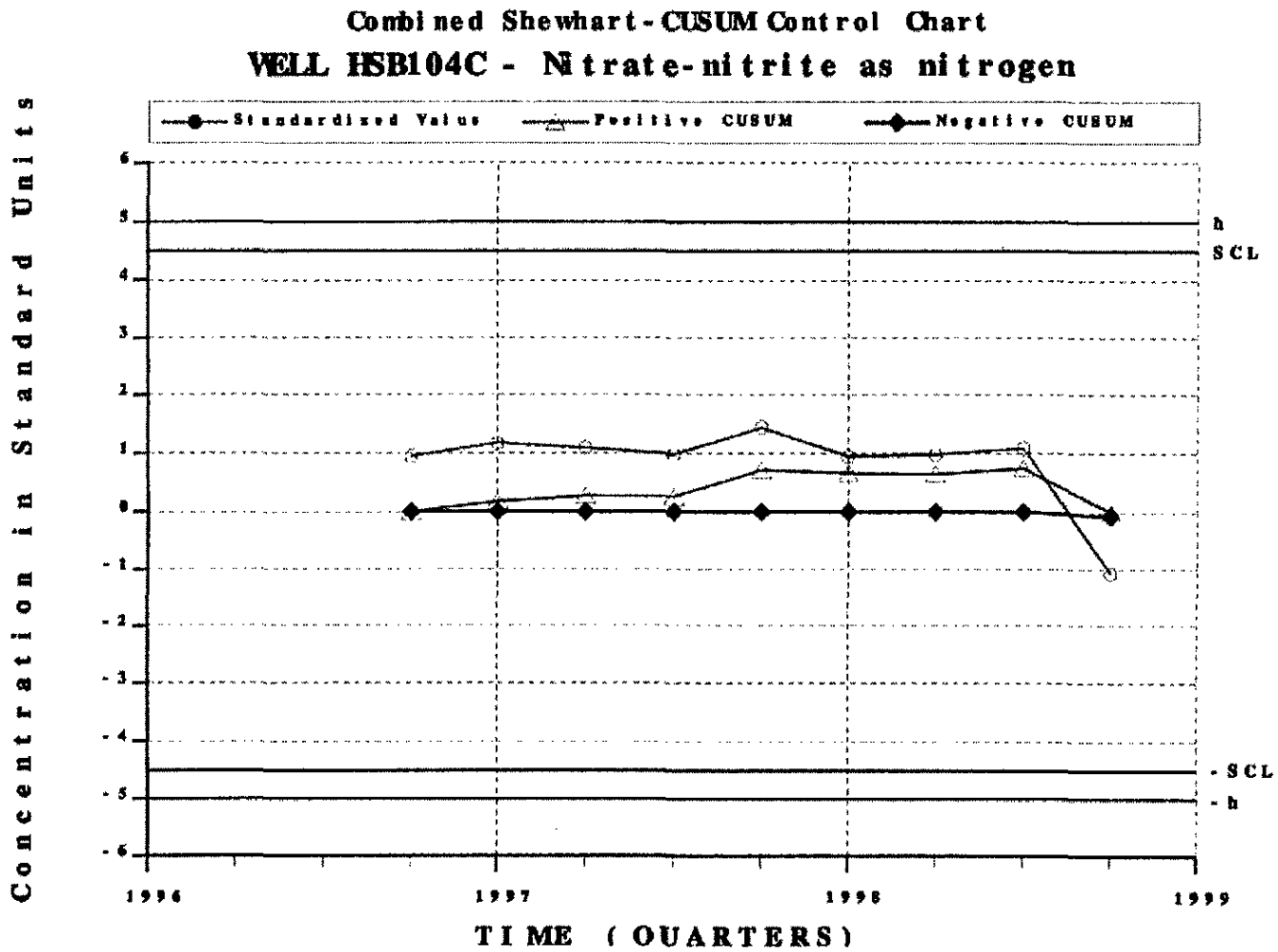


Combined Shewhart-CUSUM Control Chart
WELL HSB104C - Barium total recoverable

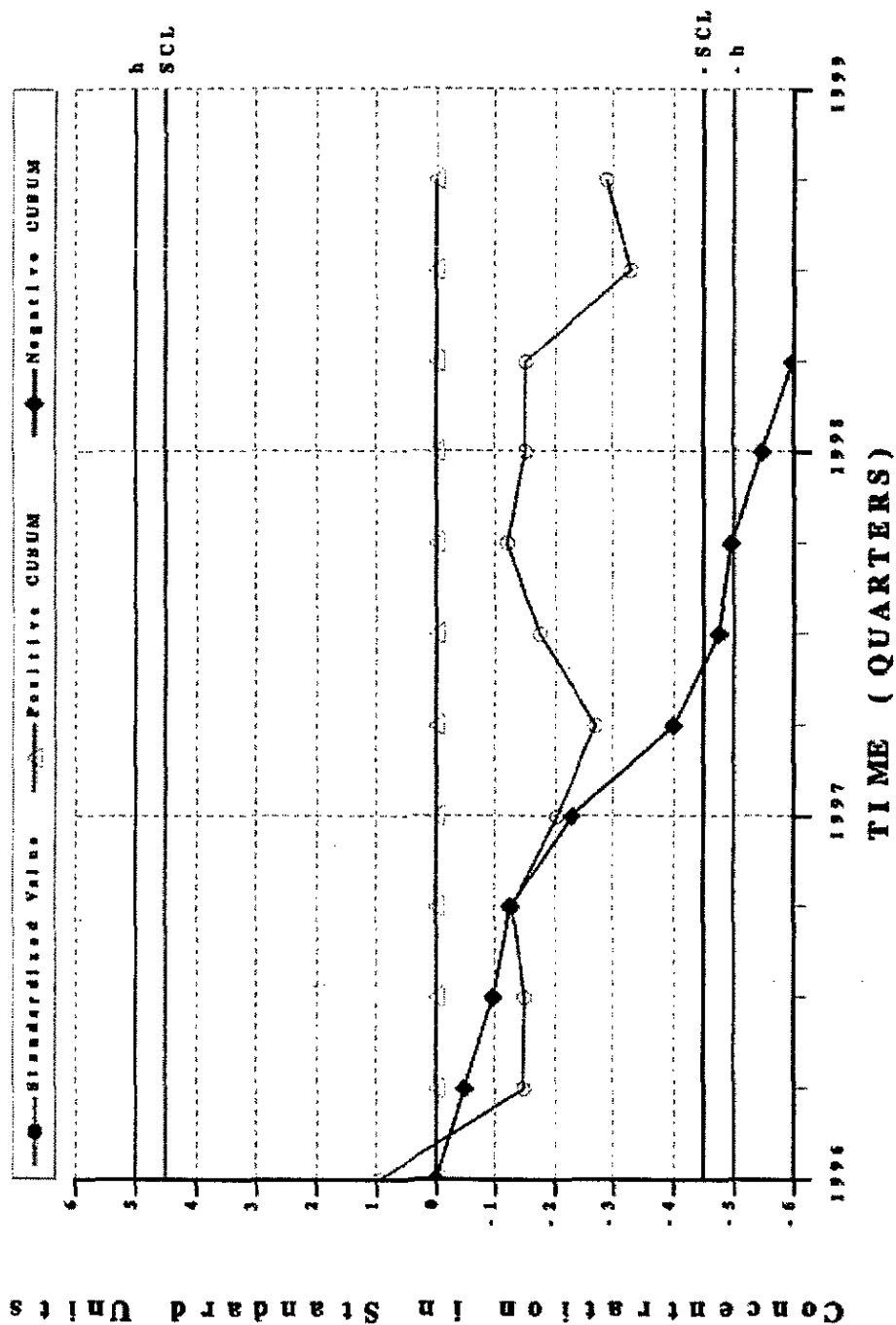


Combined Shewhart-CUSUM Control Chart WELL HSB104C - Gross alpha

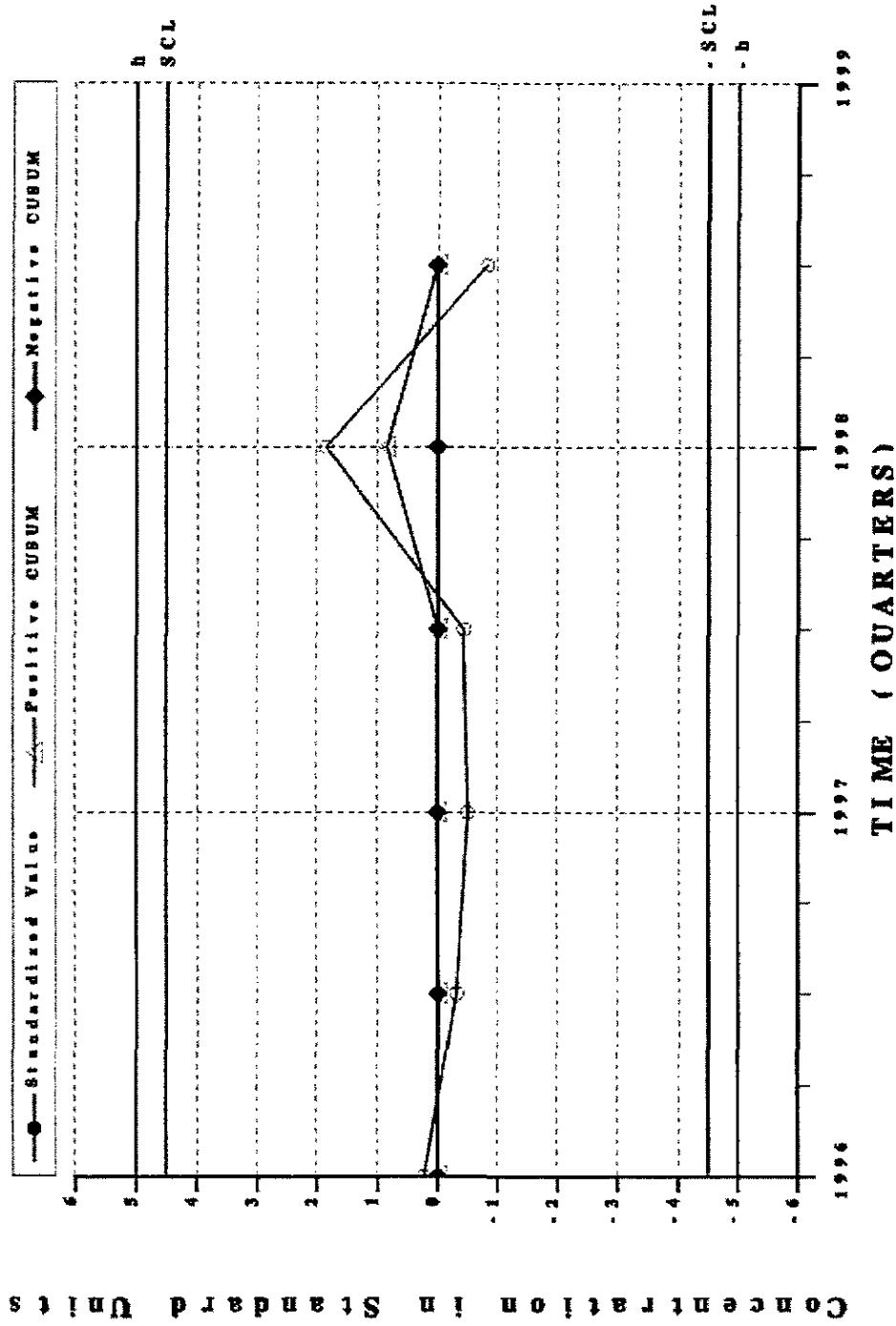




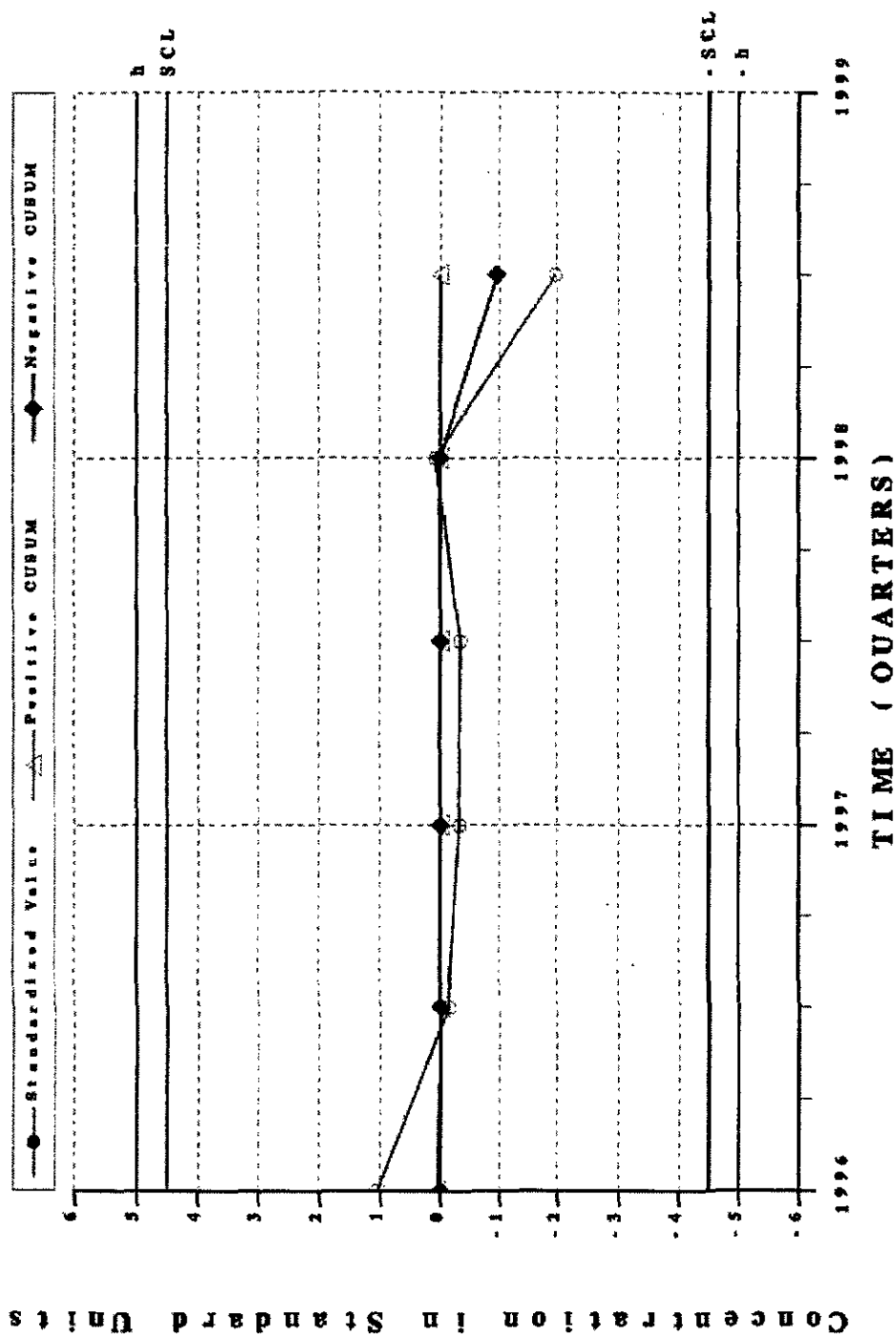
Combined Shewhart - CUSUM Control Chart
WELL HSB104C - Nonvolatile beta



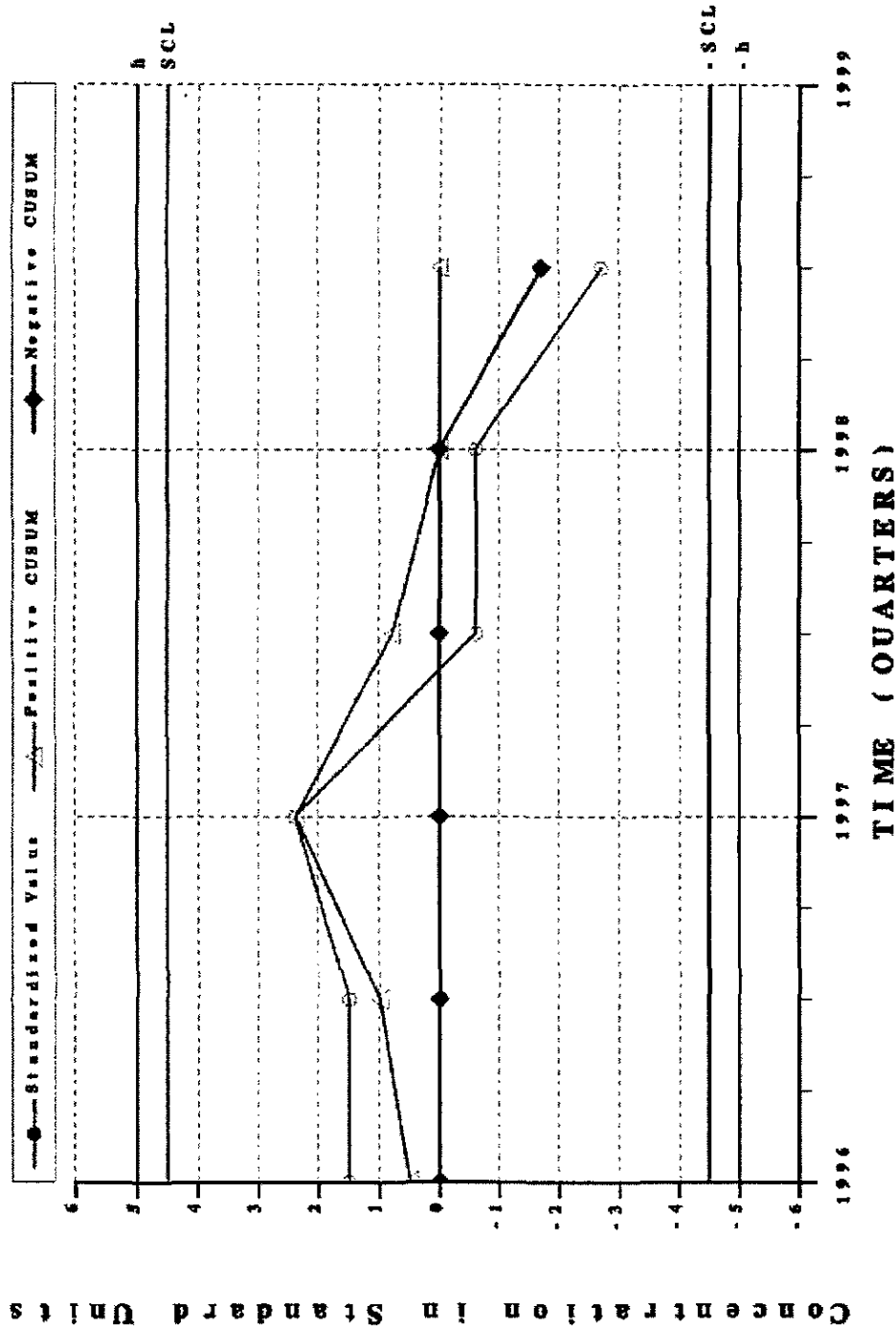
Combined Shewhart-CUSUM Control Chart
WELL HSB104C - Strontium-90



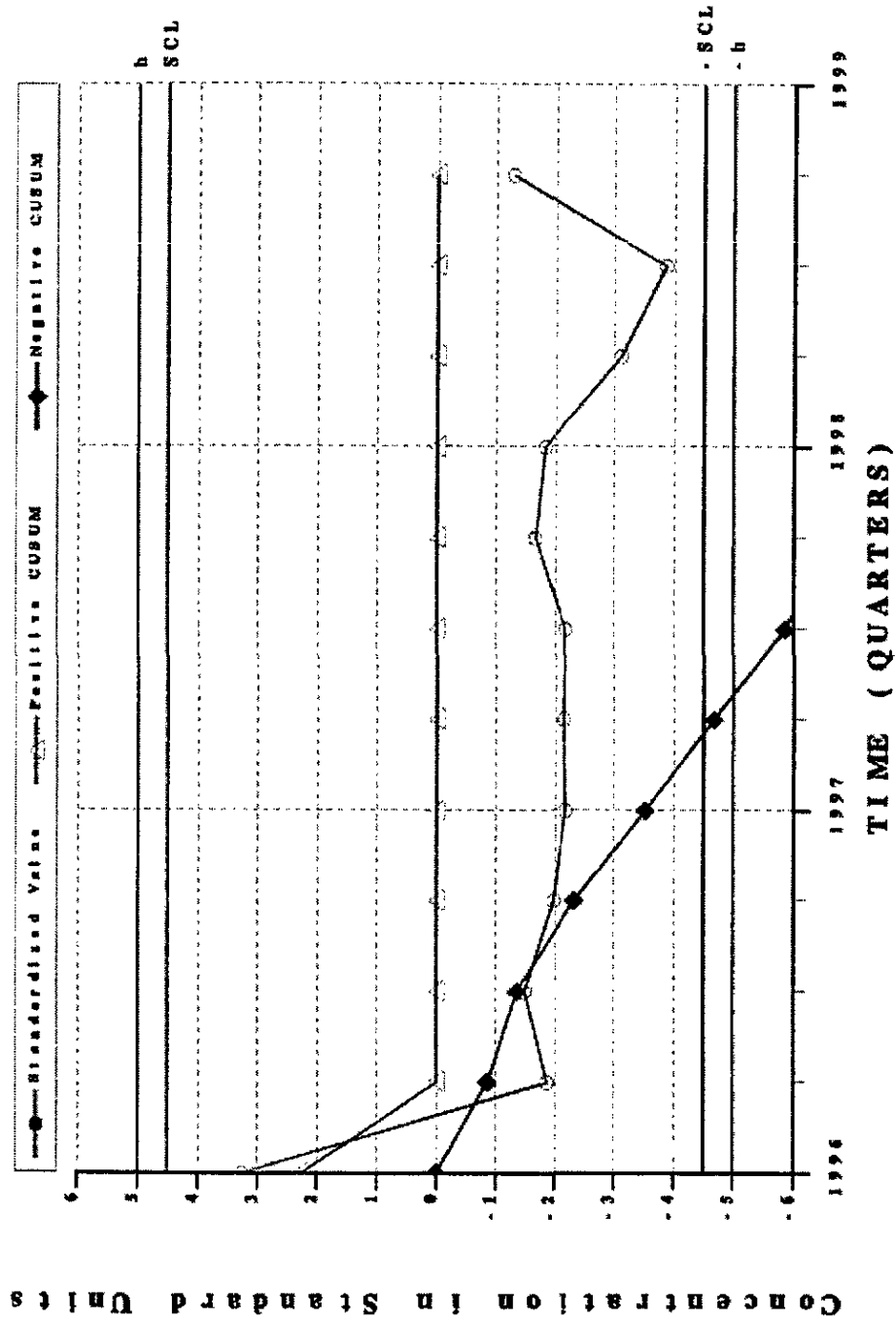
Combined Shewhart - CUSUM Control Chart
WELL HSB104C - Tetrachloroethylene



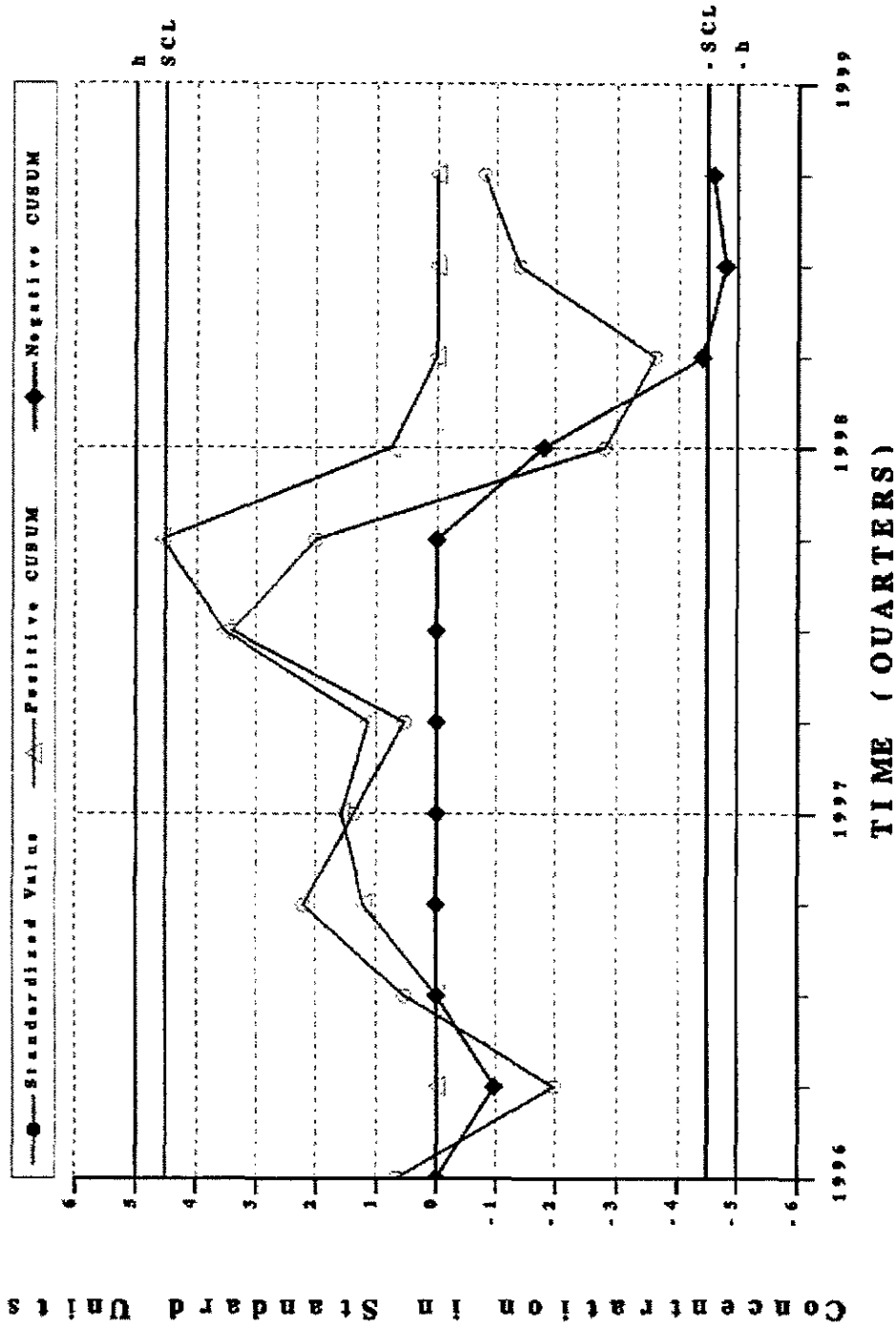
Combined Shewhart-CUSUM Control Chart
WELL HSB104C - Tin, total recoverable



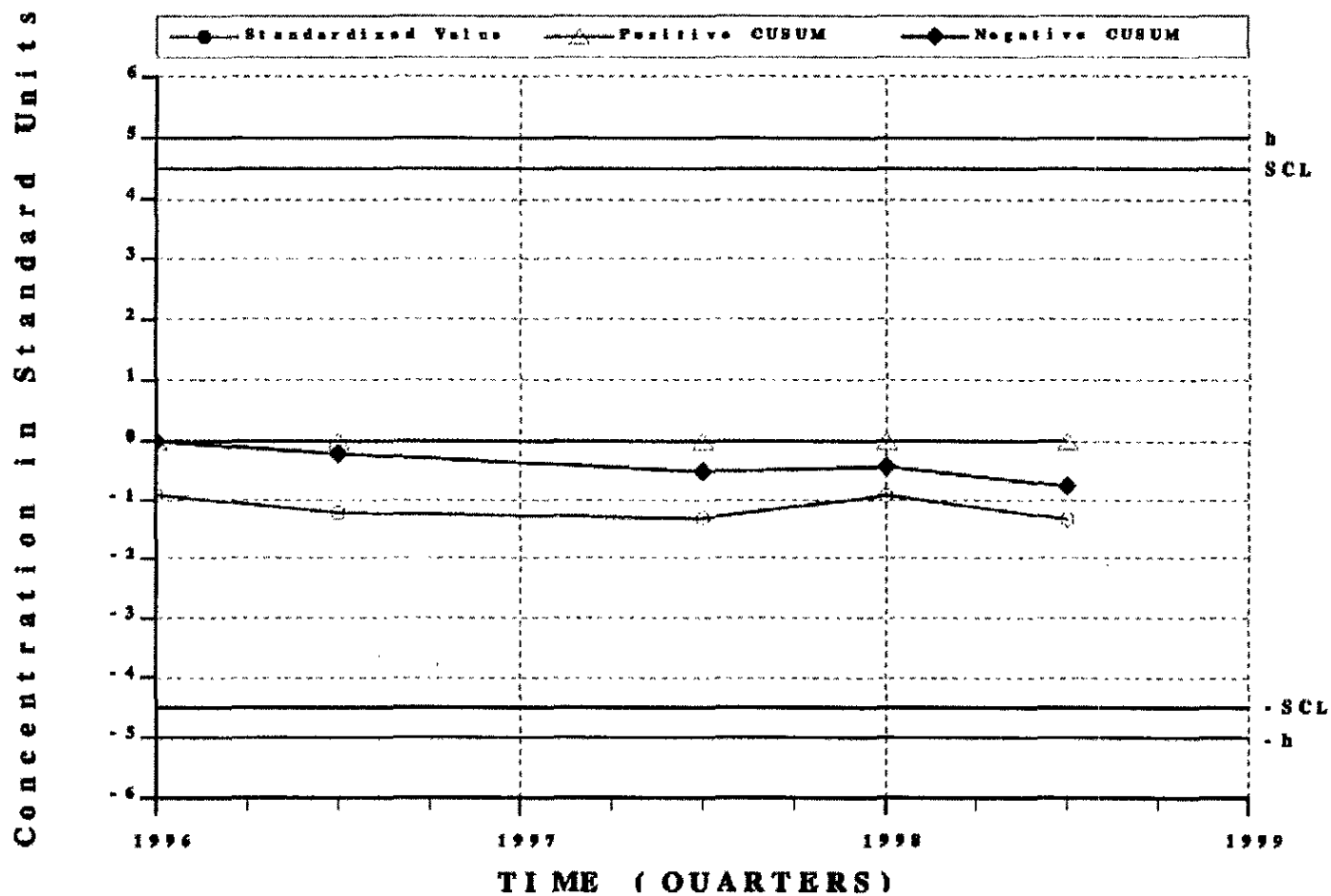
Combined Shewhart-CUSUM Control Chart
WELL HSB104C - Tritium



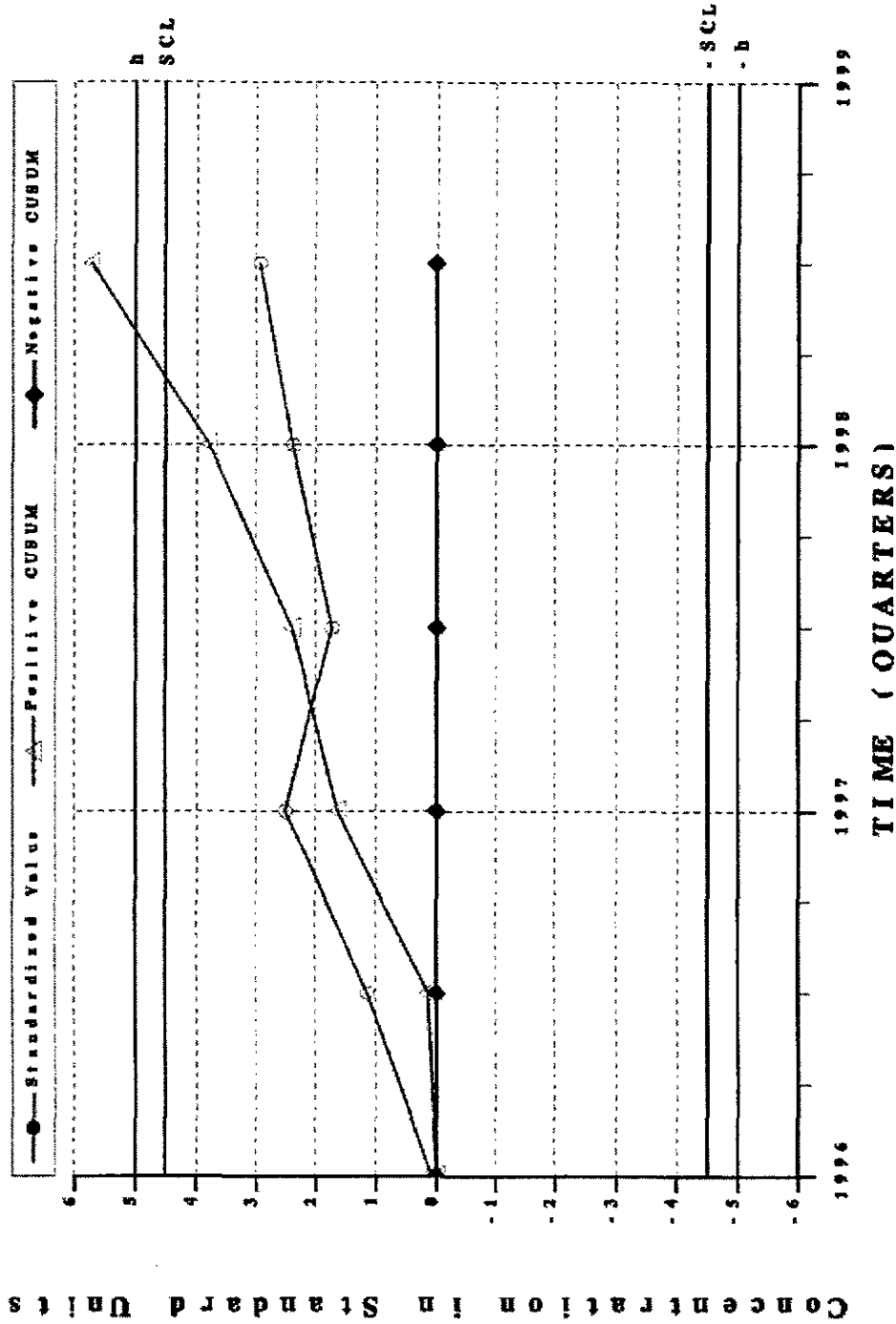
Combined Shewhart-CUSUM Control Chart
WELL HSB104C - Water Level



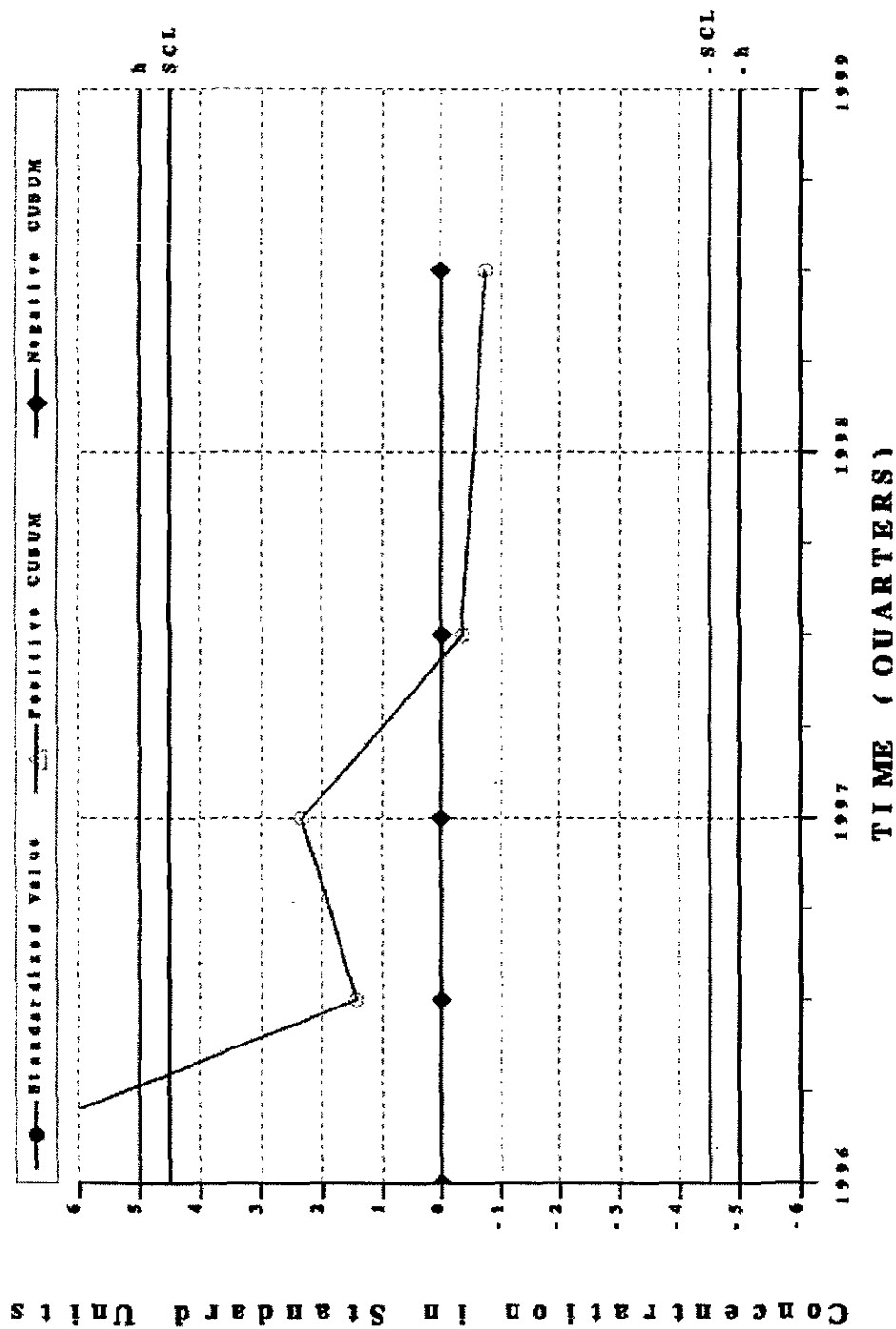
Combined Shewhart-CUSUM Control Chart
WELL HSB104D - Barium total recoverable



Combined Shewhart-CUSUM Control Chart
WELL HSB104D - Cobalt-60



Combined Shewhart - CUSUM Control Chart WELL HSB104D - Copper, total recoverable

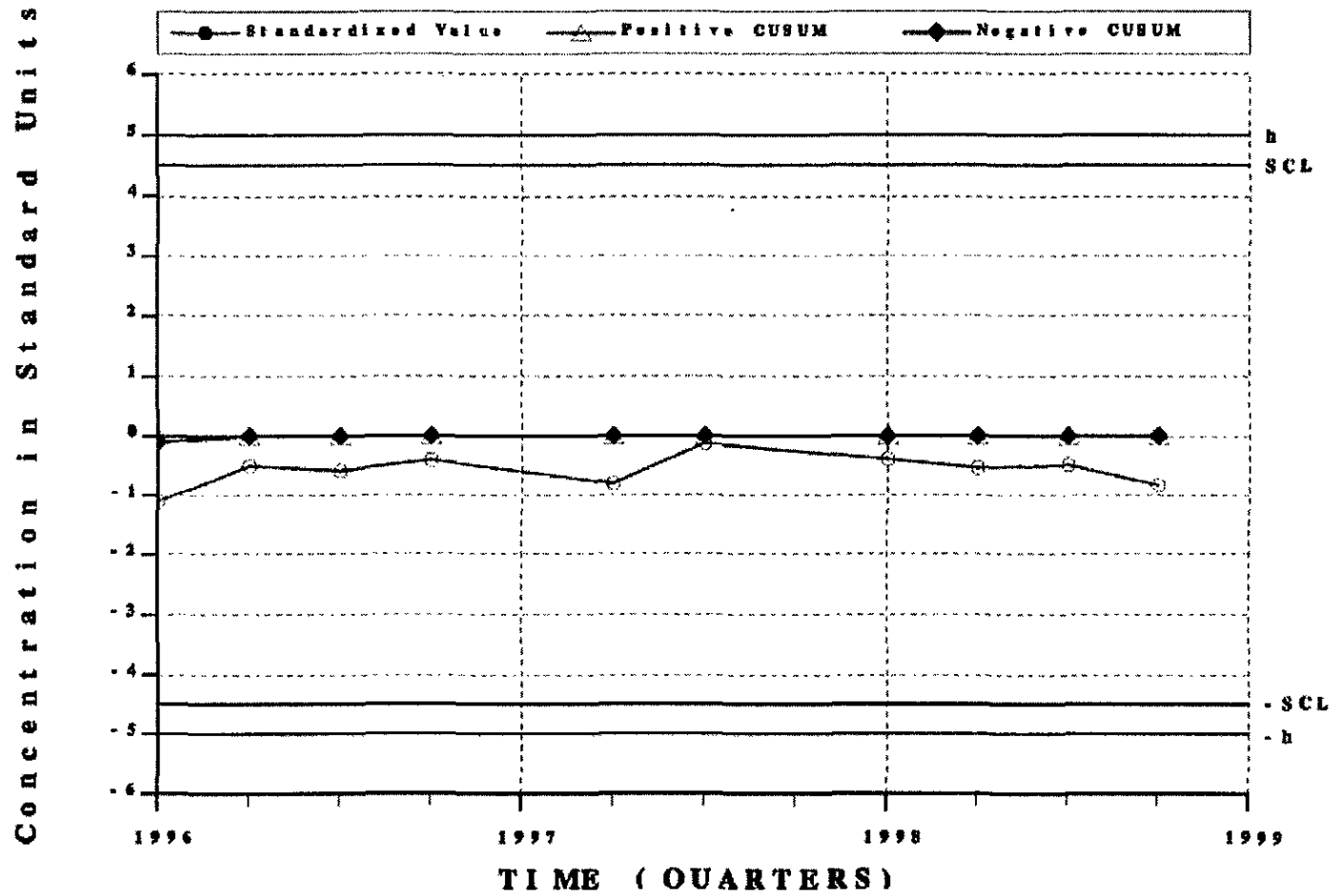


H-Area HMMF

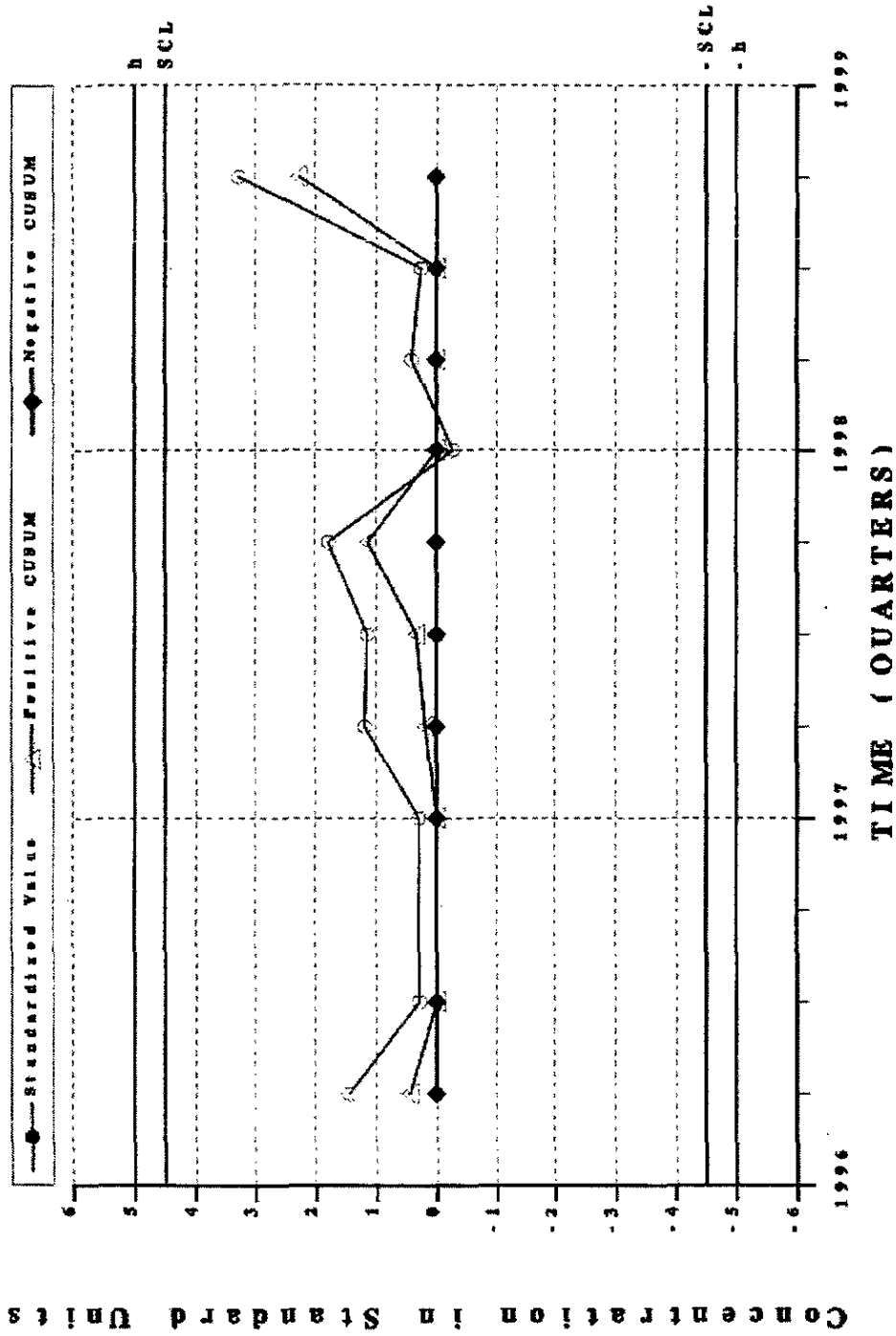
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Third and Fourth Quarter 1998

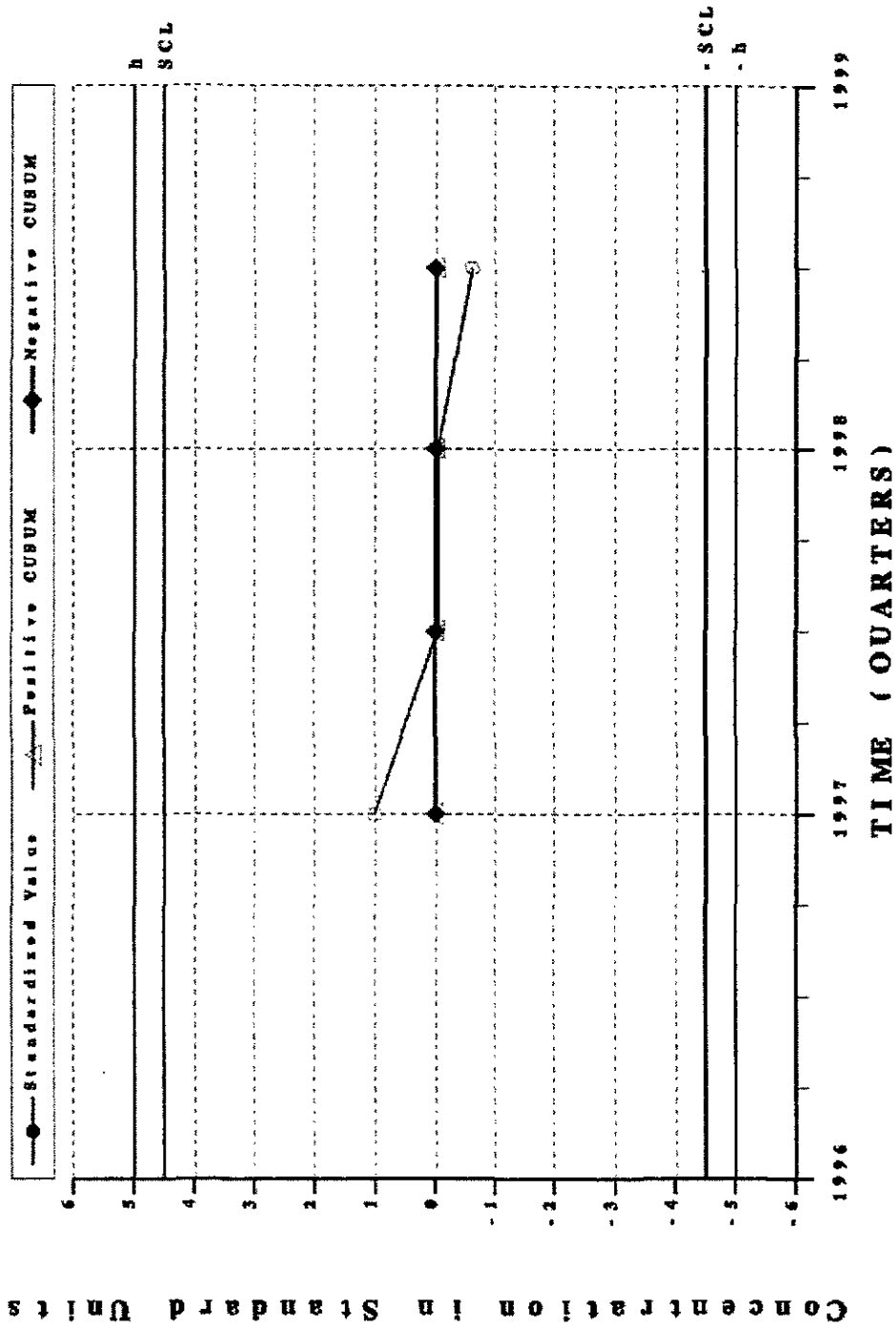
Combined Shewhart-CUSUM Control Chart WELL HSB104D - Gross alpha



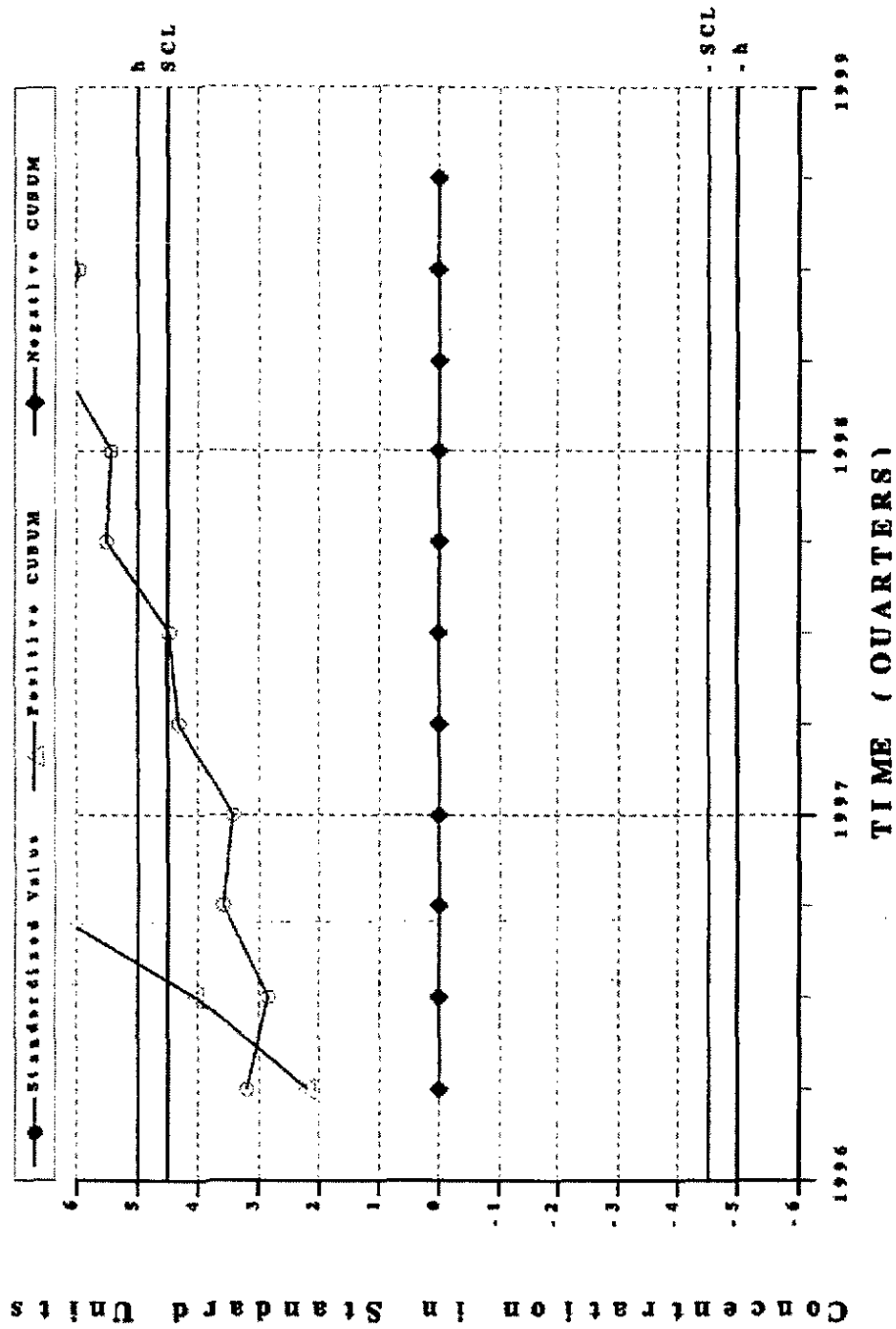
Combined Shewhart - CUSUM Control Chart
WELL HSB104D - Mercury, total recoverable



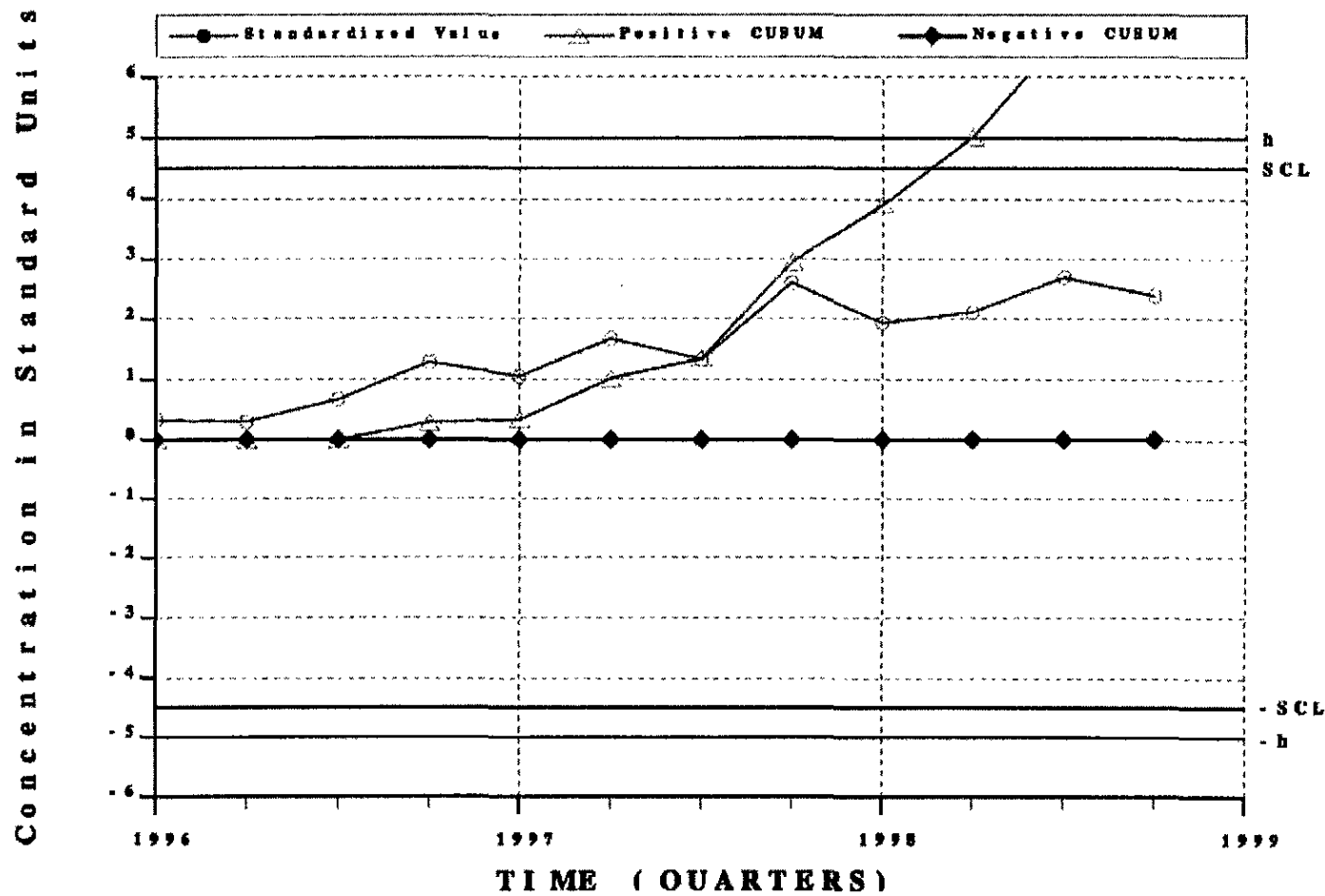
Combined Shewhart-CUSUM Control Chart
WELL HSB104D - Nickel, total recoverable



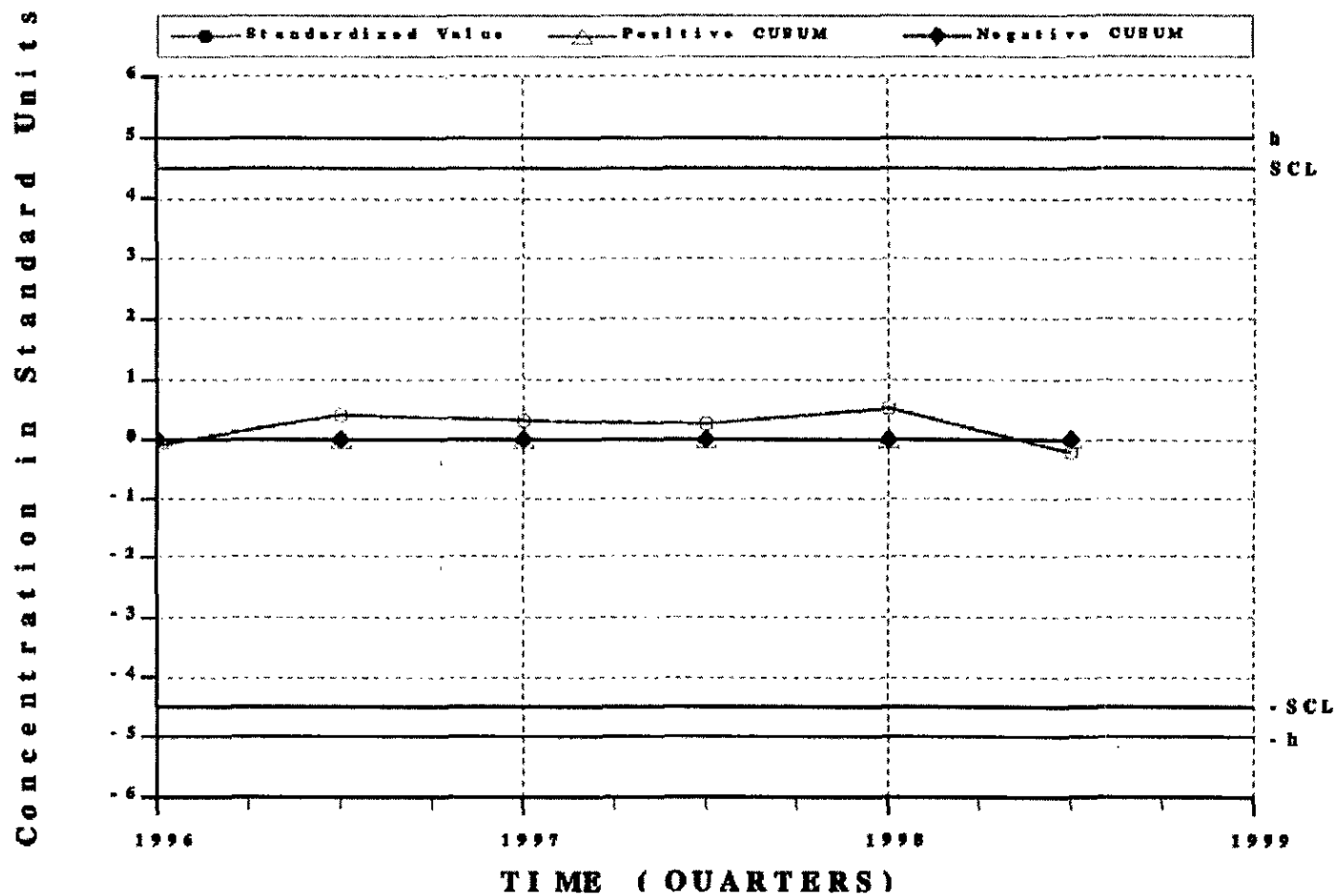
Combined Shewhart-CUSUM Control Chart
WELL HSB104D - Nitrate-nitrite as nitrogen



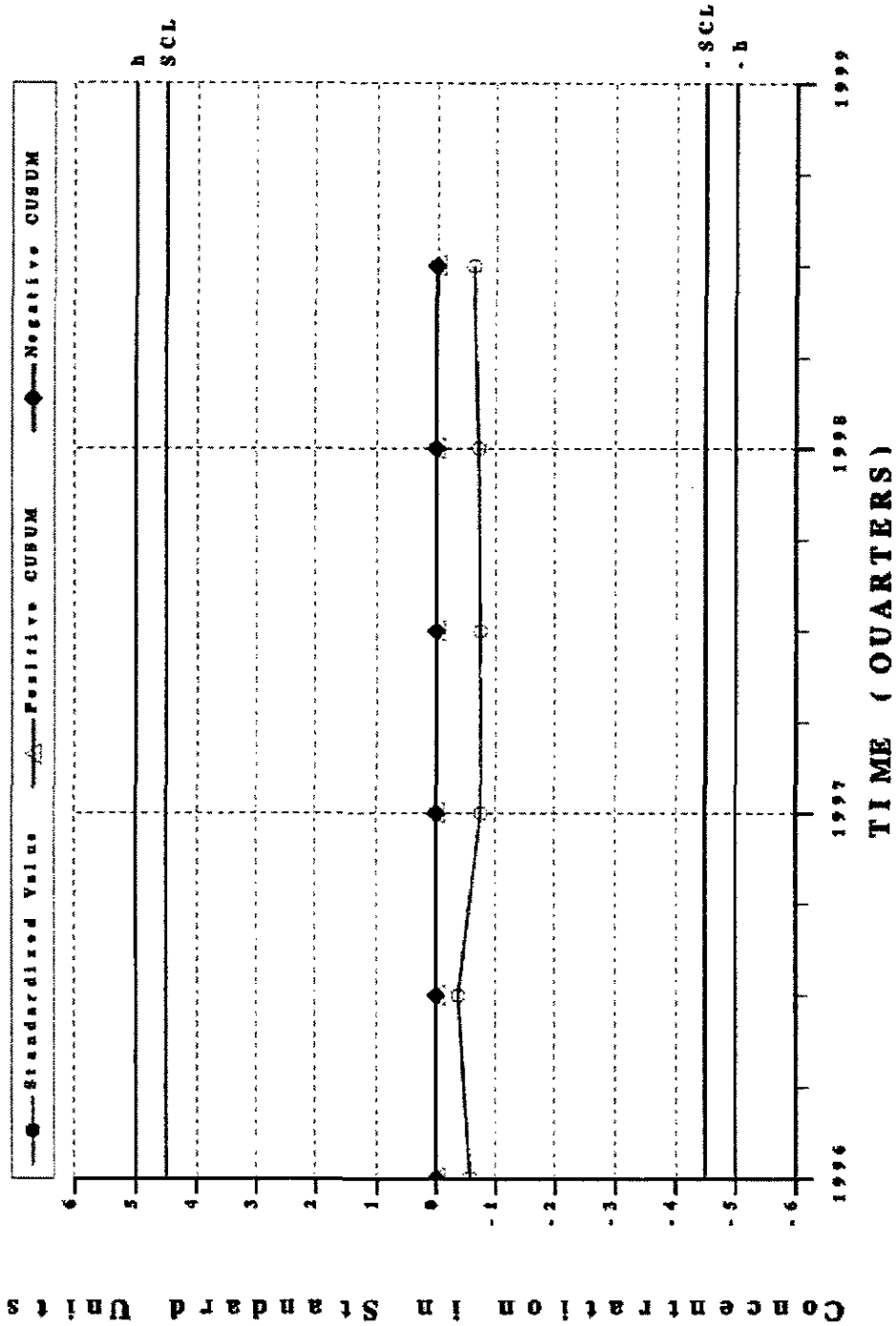
Combined Shewhart-CUSUM Control Chart
WELL HSB104D - Nonvolatile beta



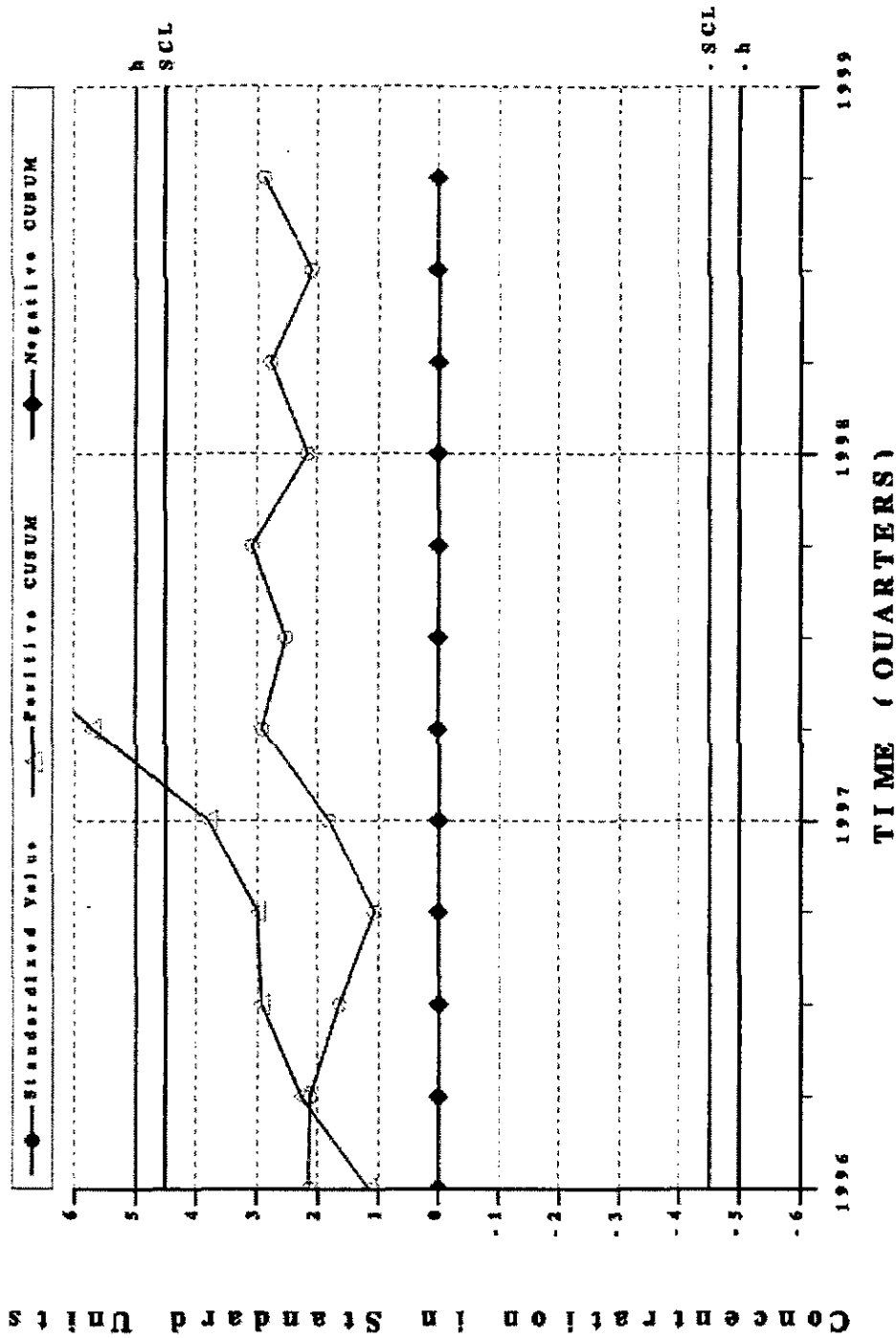
Combined Shewhart-CUSUM Control Chart
WELL HSB104D - Radium-226



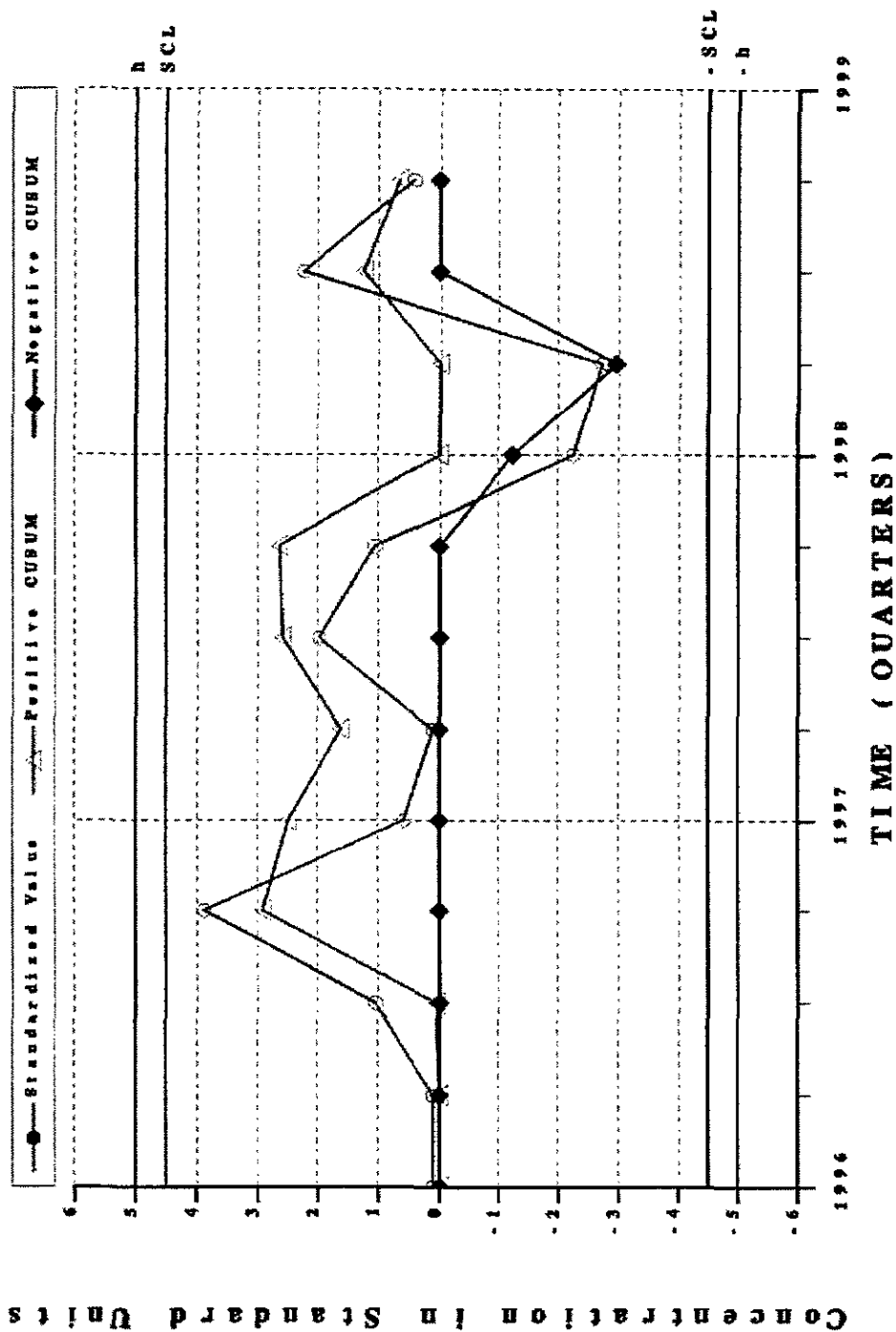
Combined Shewhart-CUSUM Control Chart
WELL HSB104D - Strontium-90



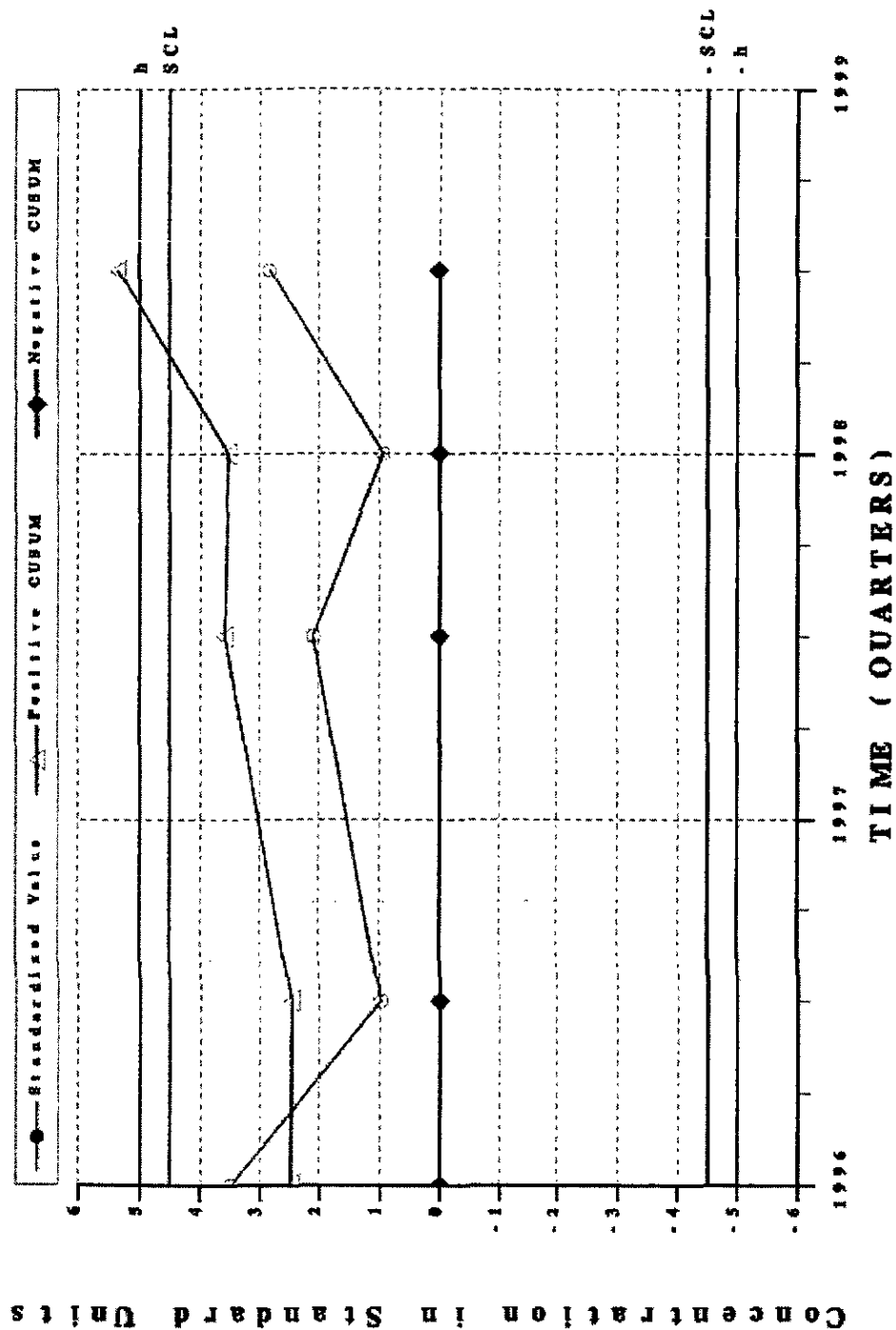
Combined Shewhart-CUSUM Control Chart
WELL HSB104D - Tritium



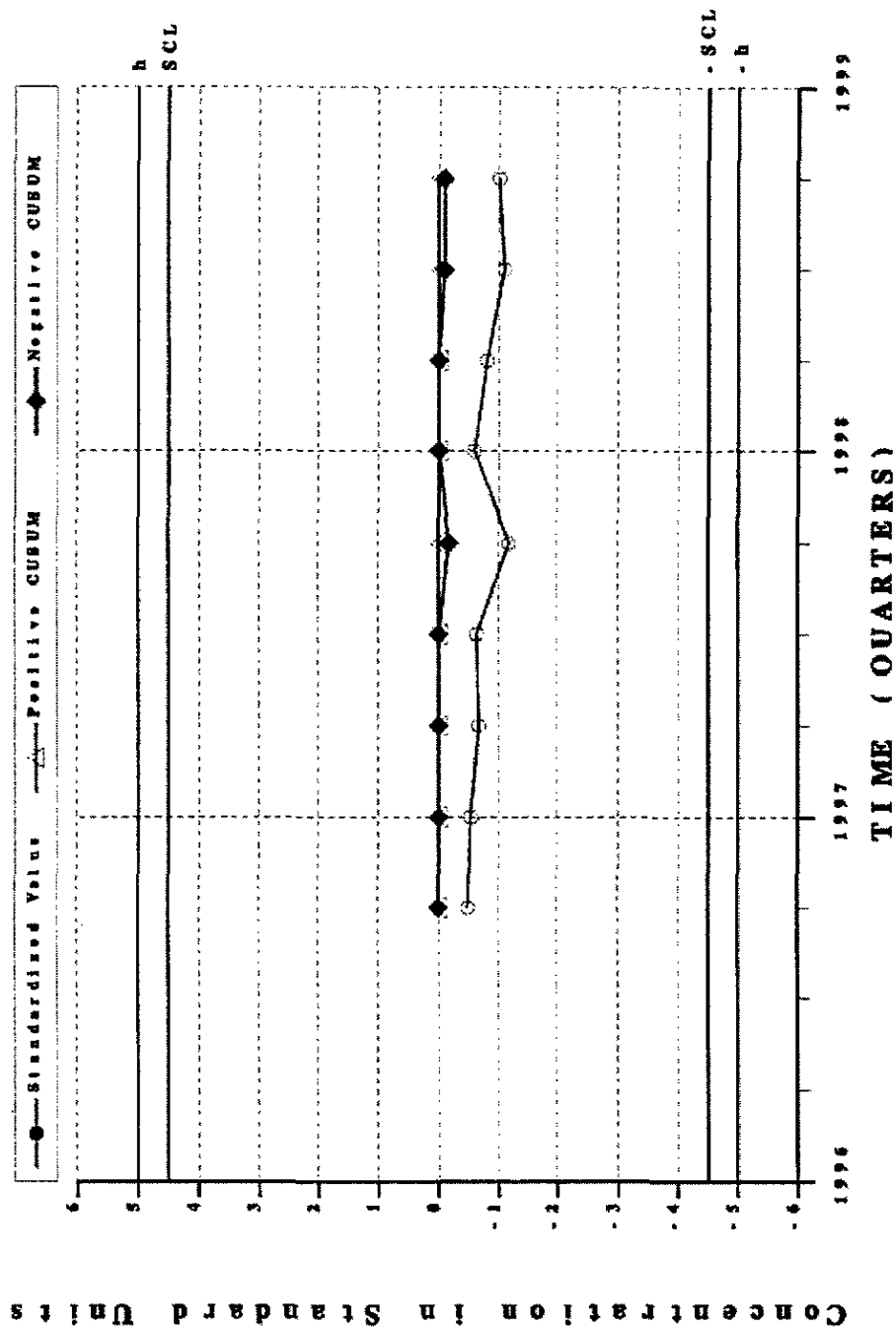
Combined Shewhart-CUSUM Control Chart WELL HSB104D - Water Level



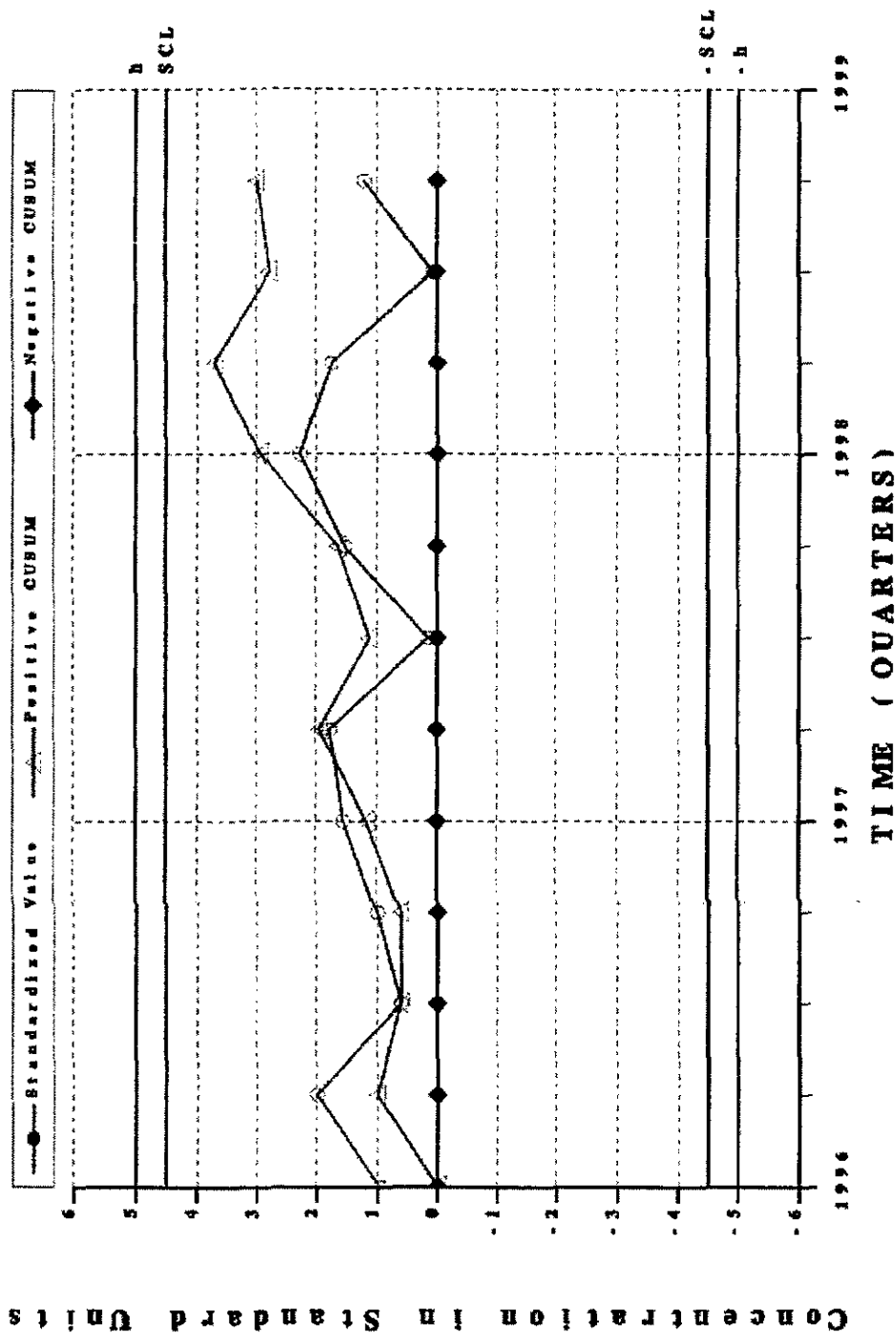
Combined Shewhart - CUSUM Control Chart WELL HSB105C - Barium total recoverable



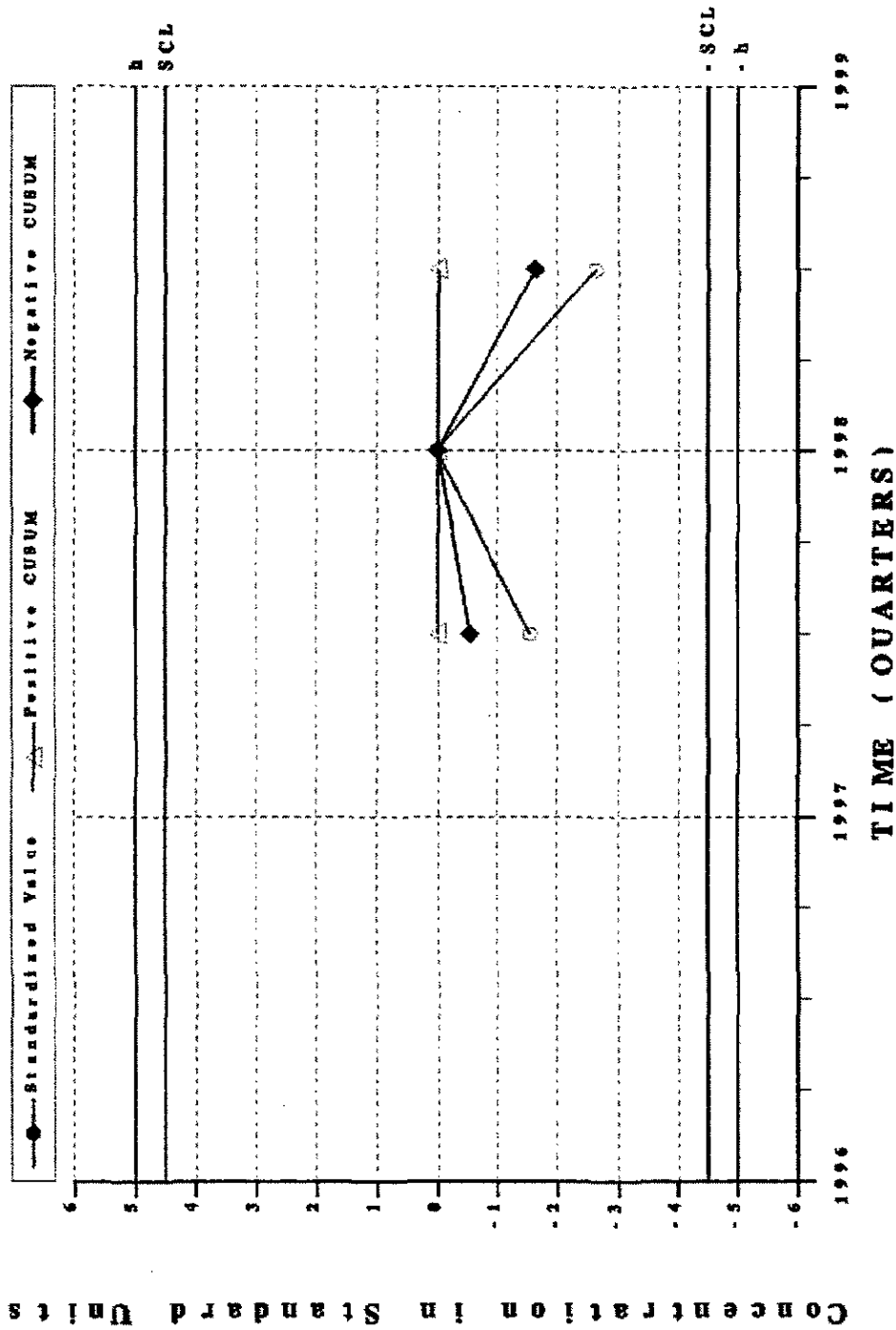
Combined Shewhart-CUSUM Control Chart
WELL HSB105C - Nitrate-nitrite as nitrogen



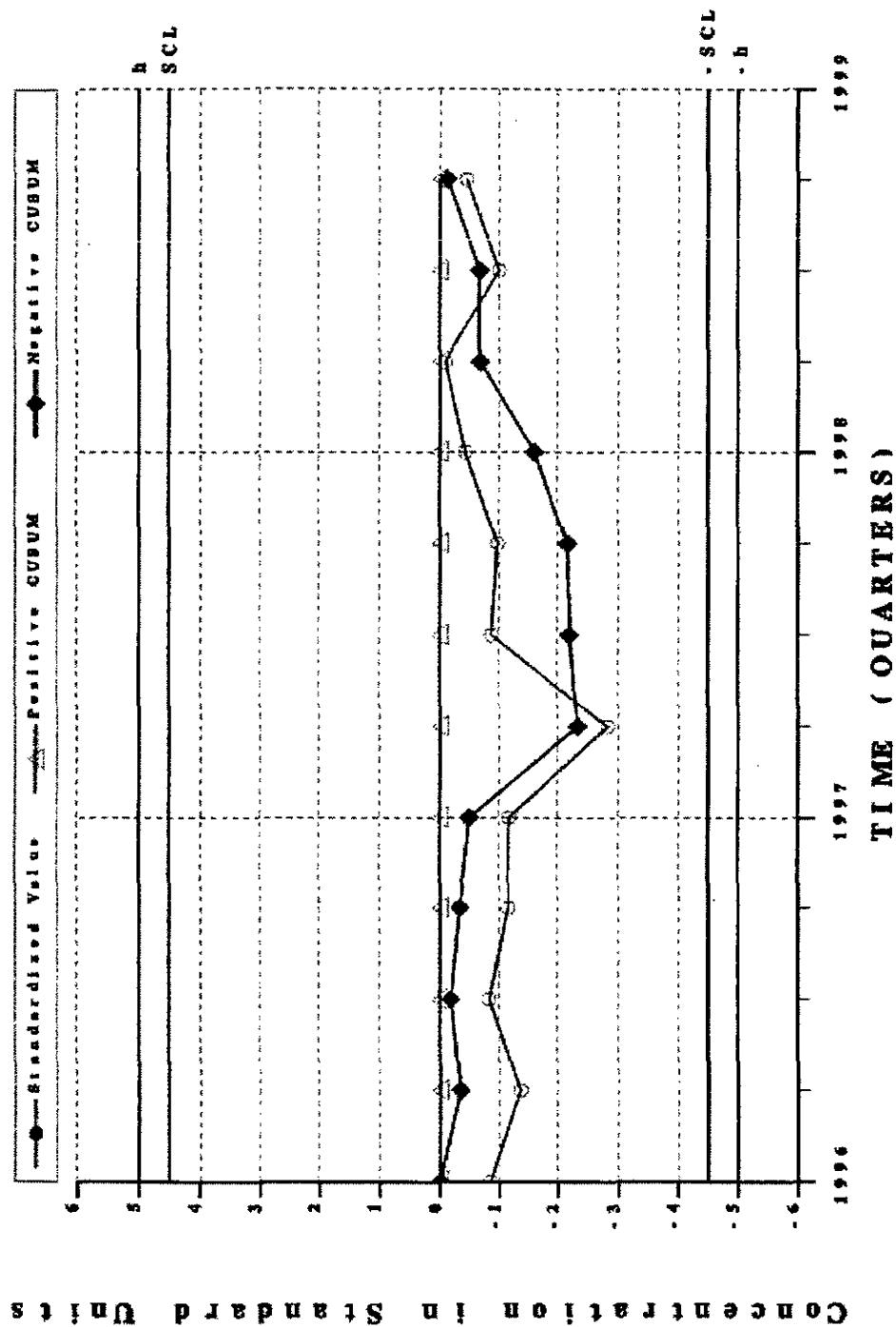
Combined Shewhart-CUSUM Control Chart WELL HSB105C - Nonvolatile beta

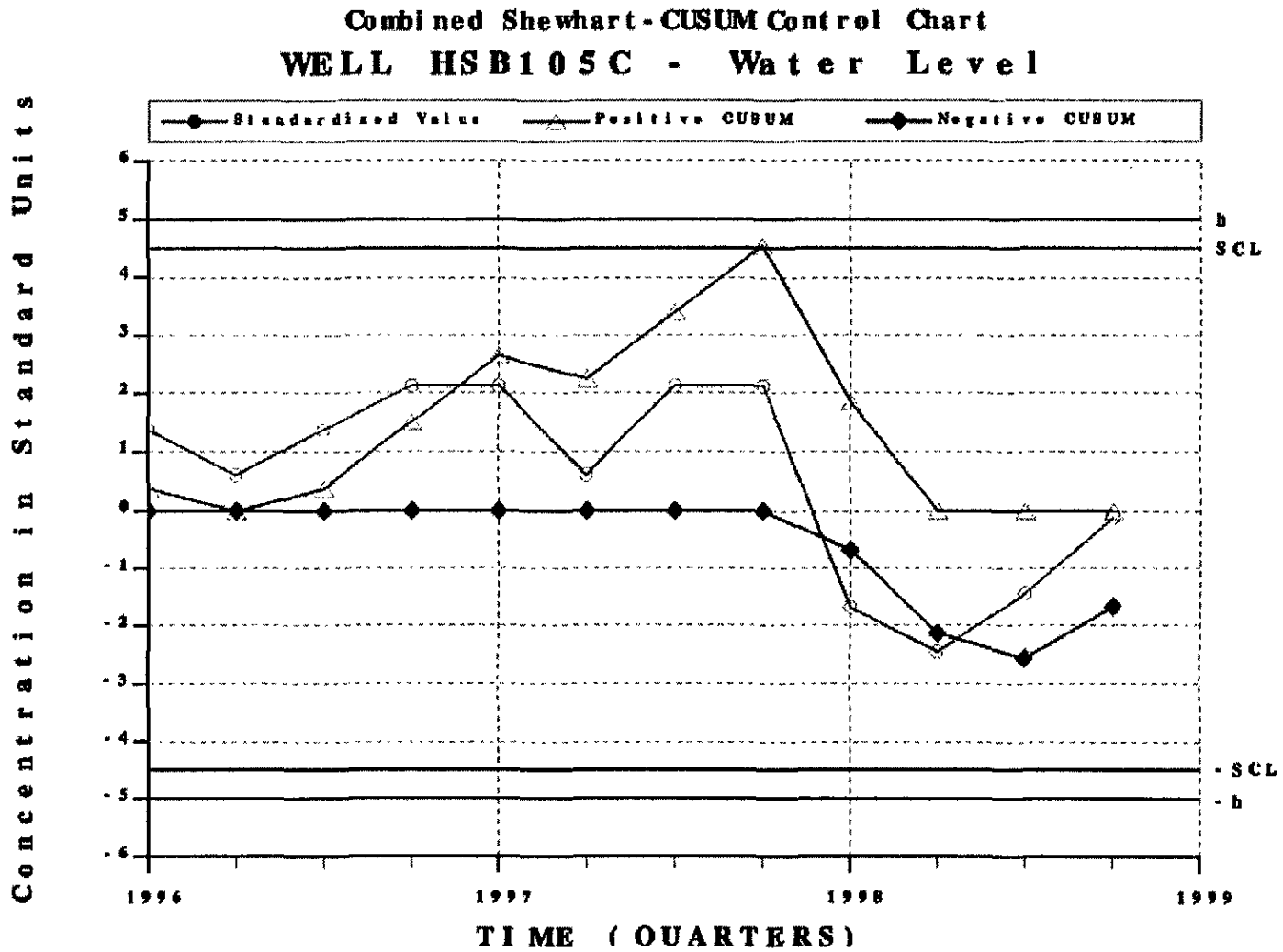


Combined Shewhart-CUSUM Control Chart
WELL HSB105C - Tetrachloroethylene

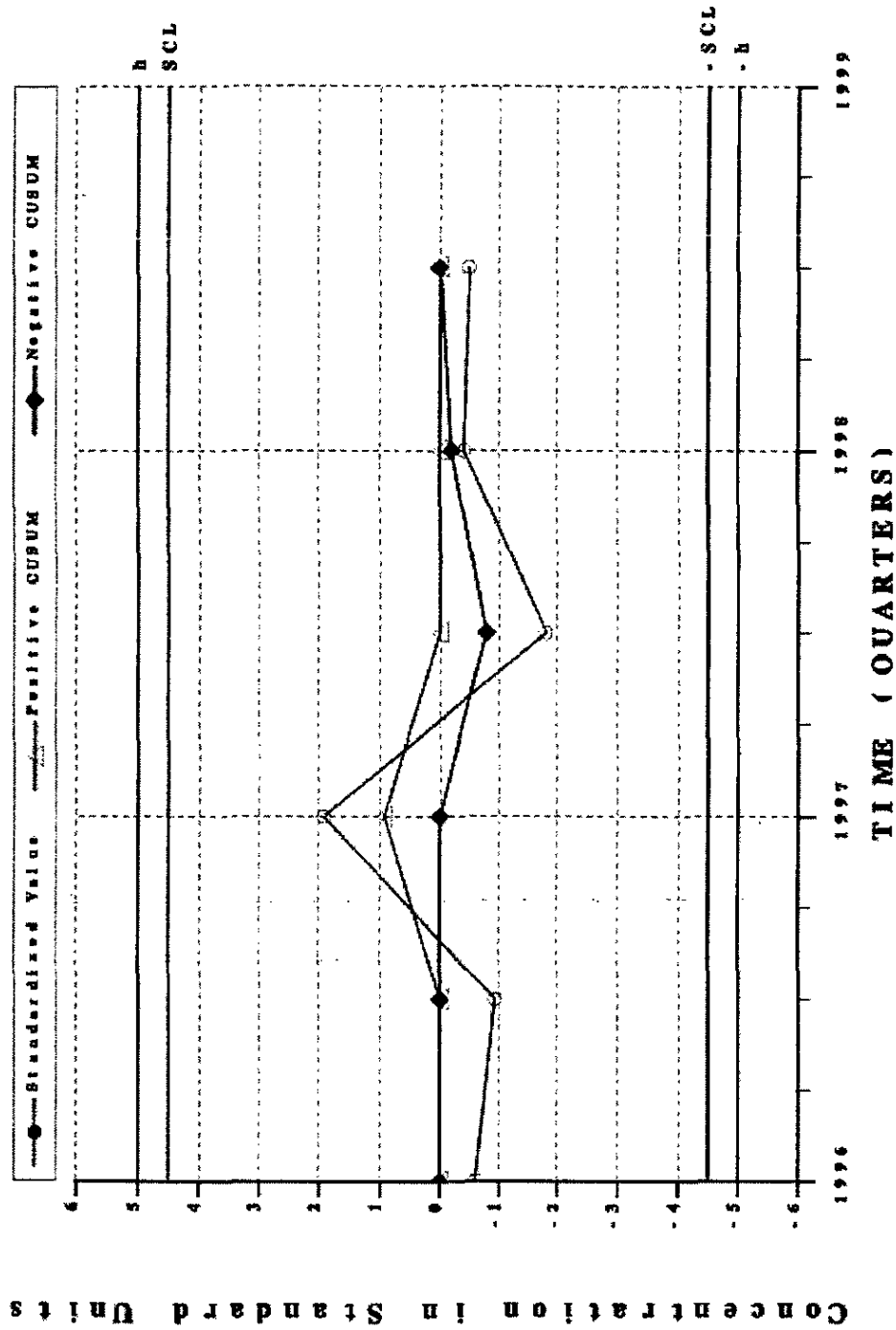


Combined Shewhart-CUSUM Control Chart WELL HSB105C - Tritium

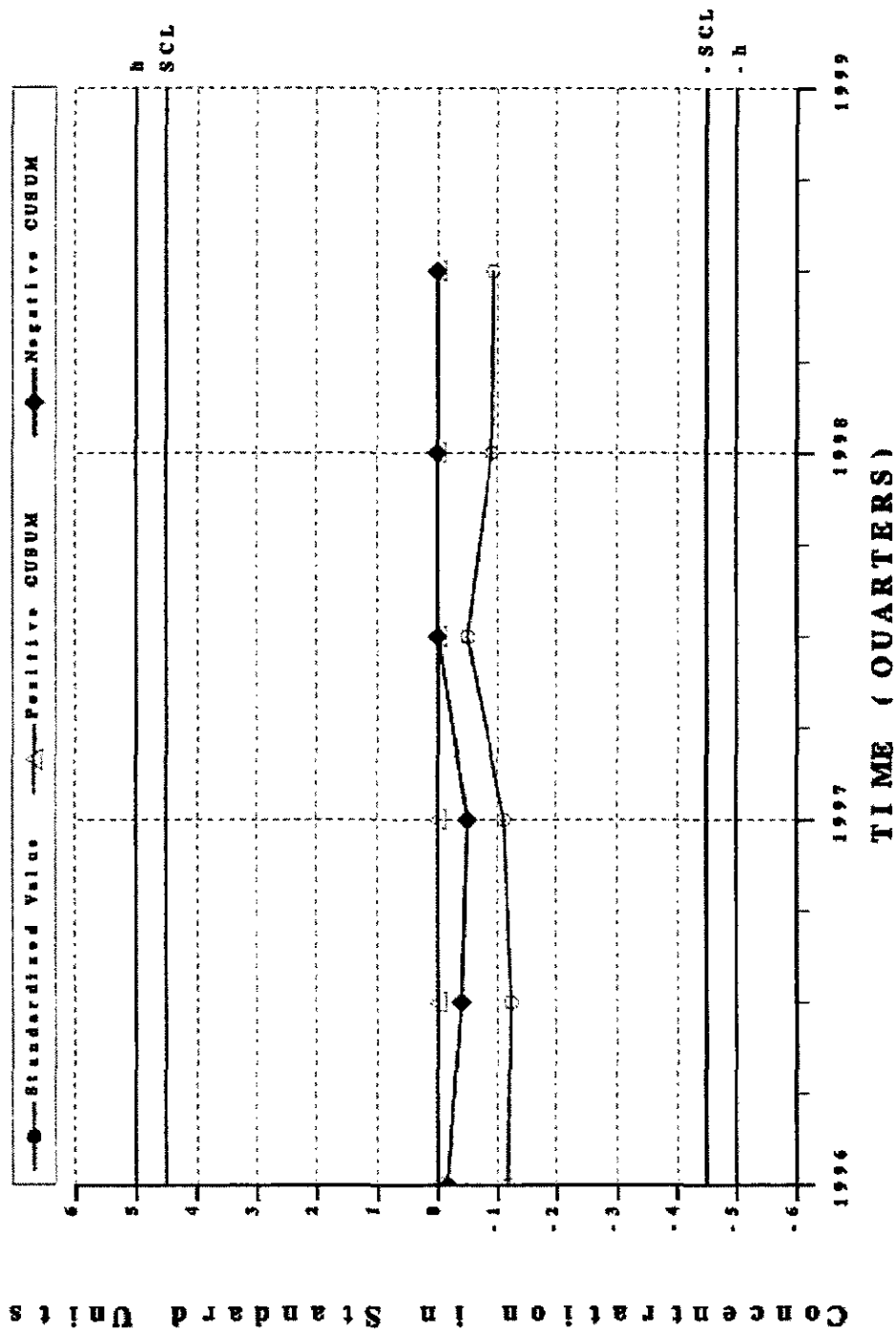




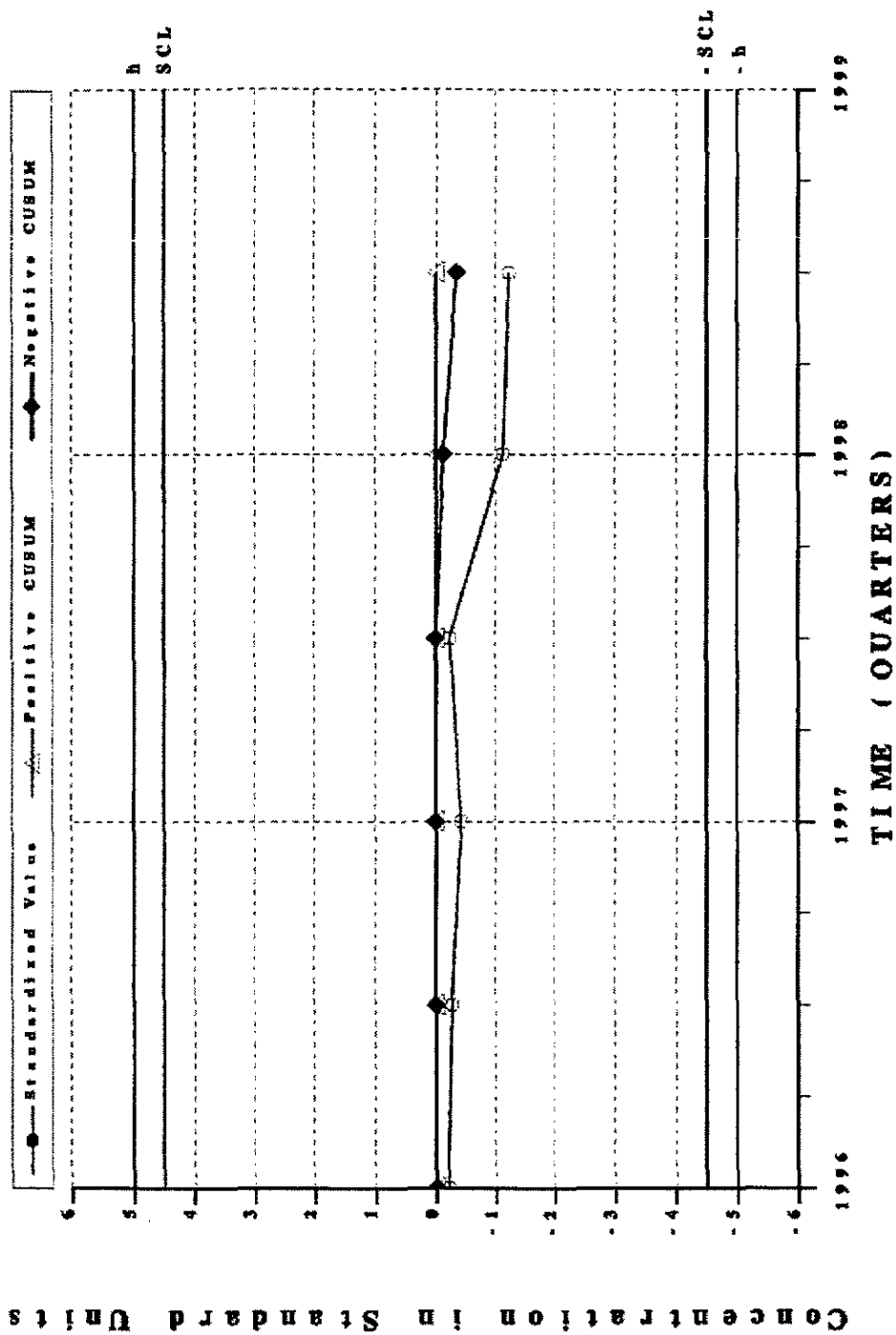
Combined Shewhart-CUSUM Control Chart
WELL HSB105C - Zinc, total recoverable



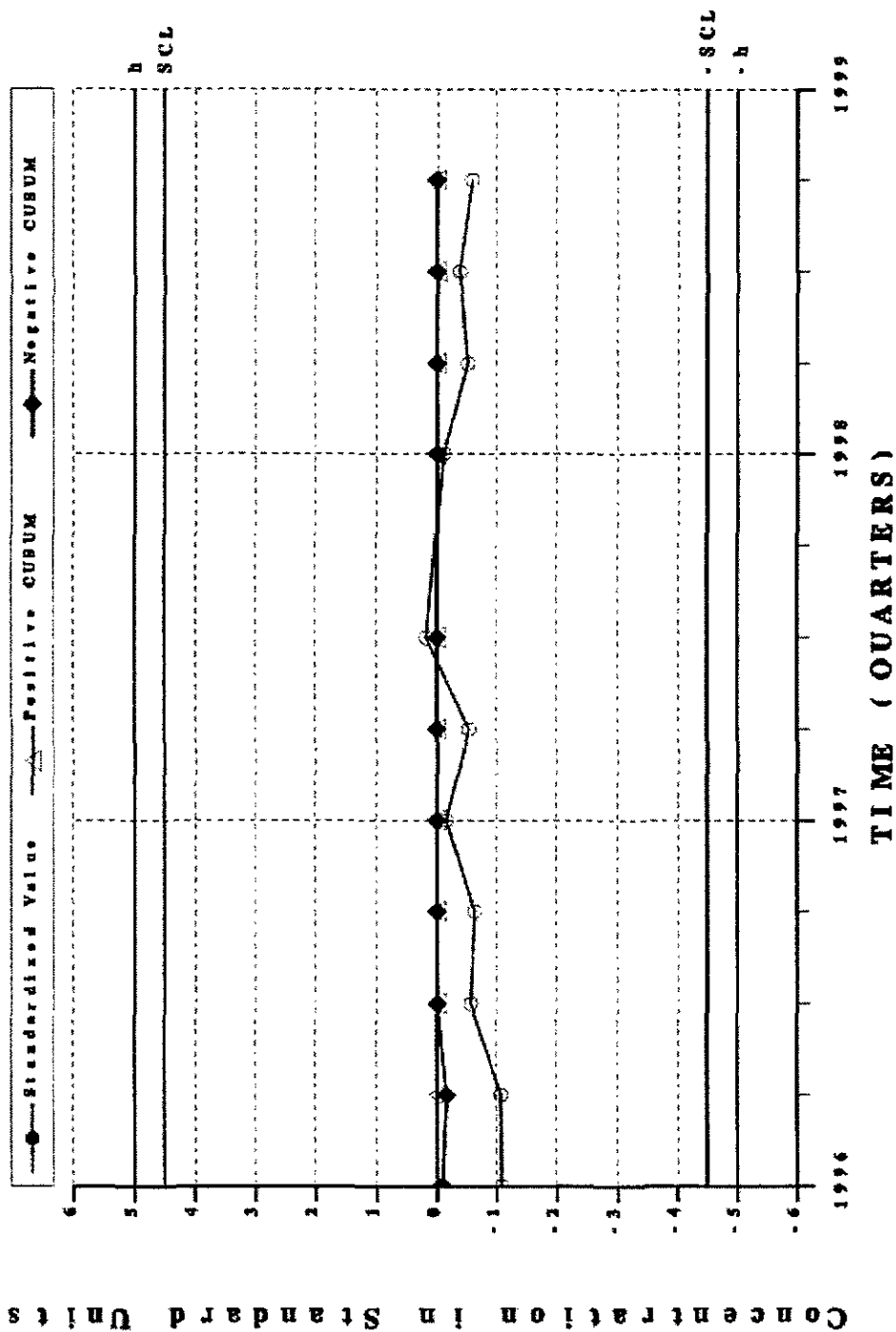
Combined Shewhart-CUSUM Control Chart
WELL HSB105D - Barium total recoverable



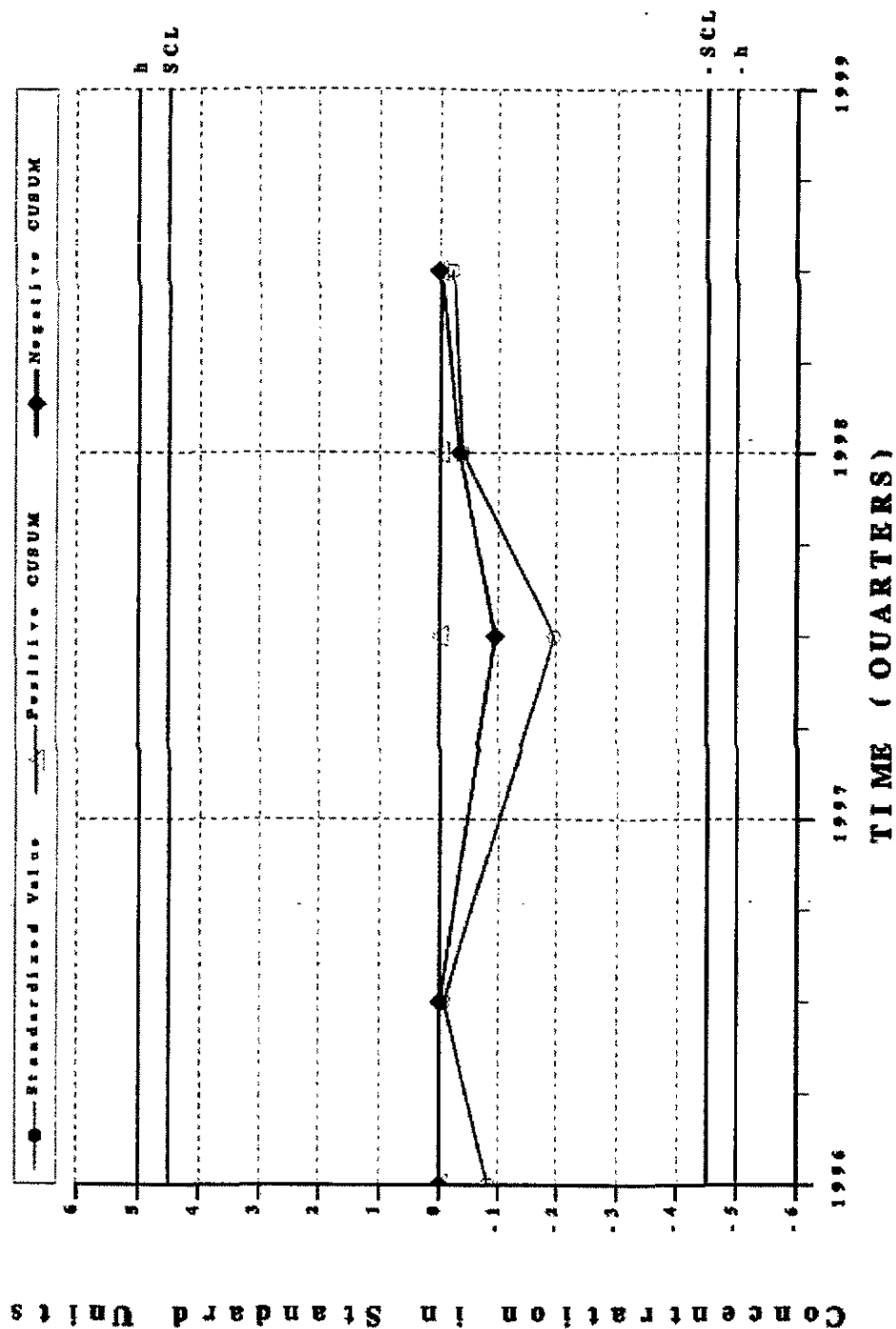
Combined Shewhart-CUSUM Control Chart
WELL HSB105D - Cobalt-60



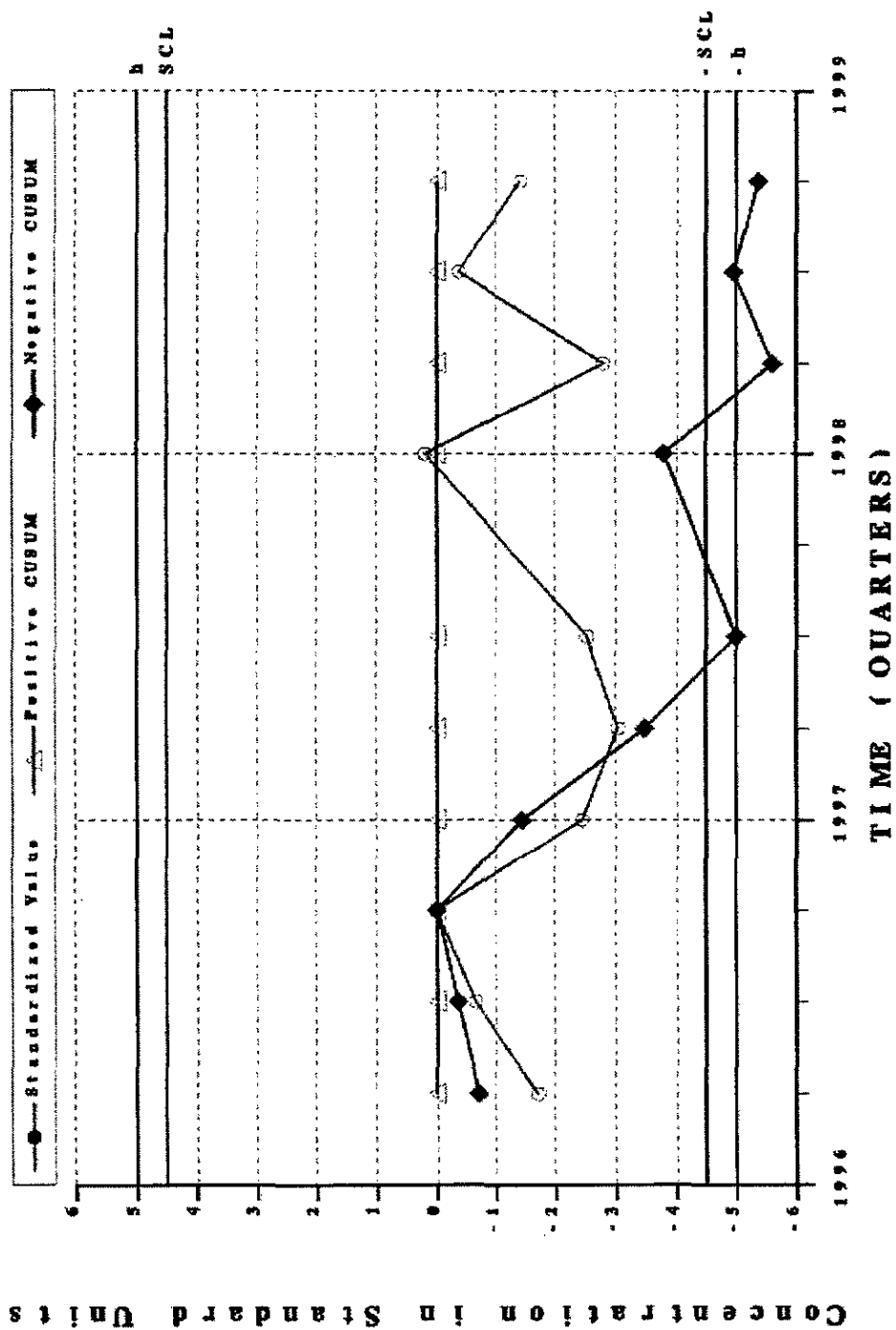
Combined Shewhart-CUSUM Control Chart WELL HSB105D - Gross alpha



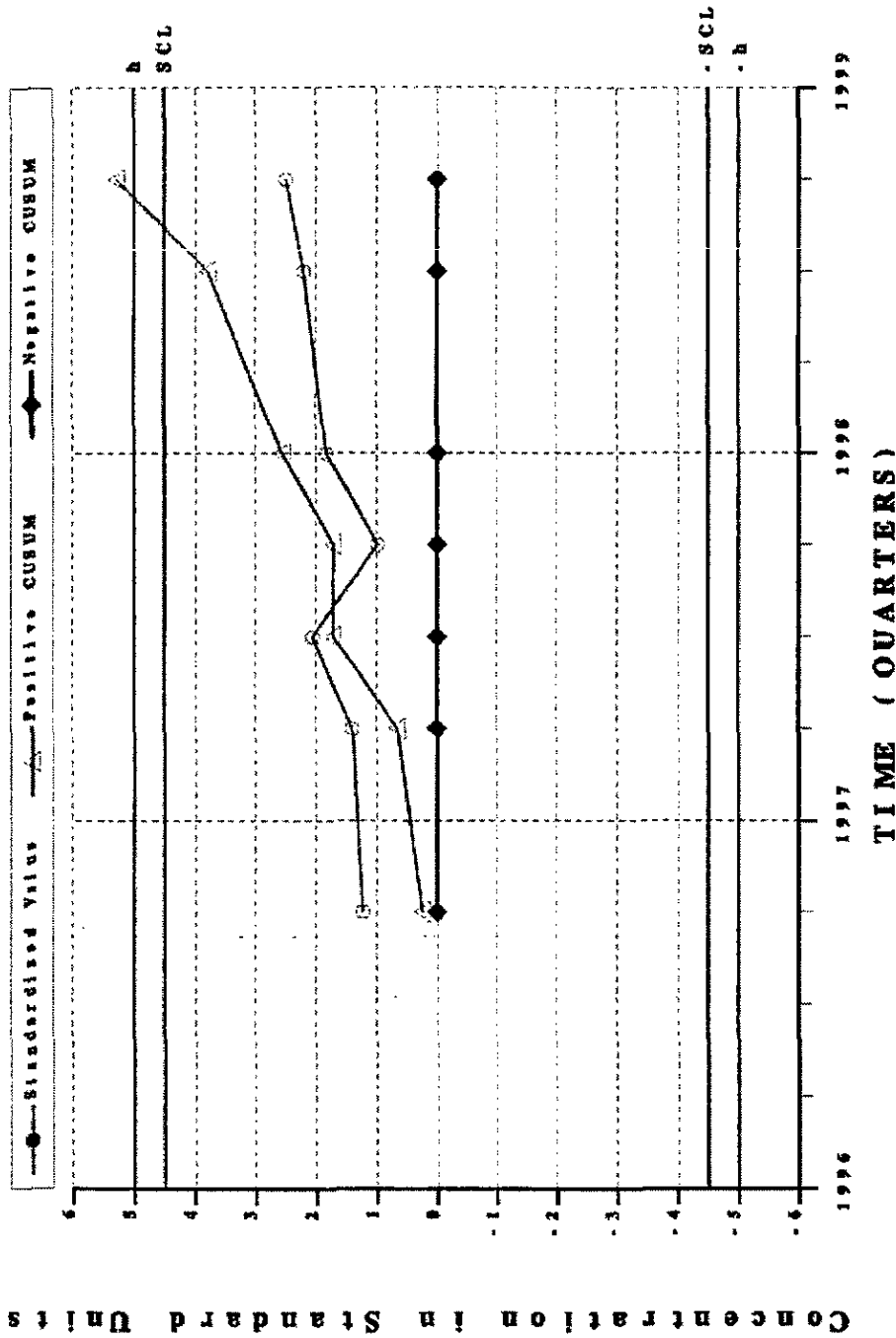
Combined Shewhart-CUSUM Control Chart WELL HSB105D - Iodine - 129



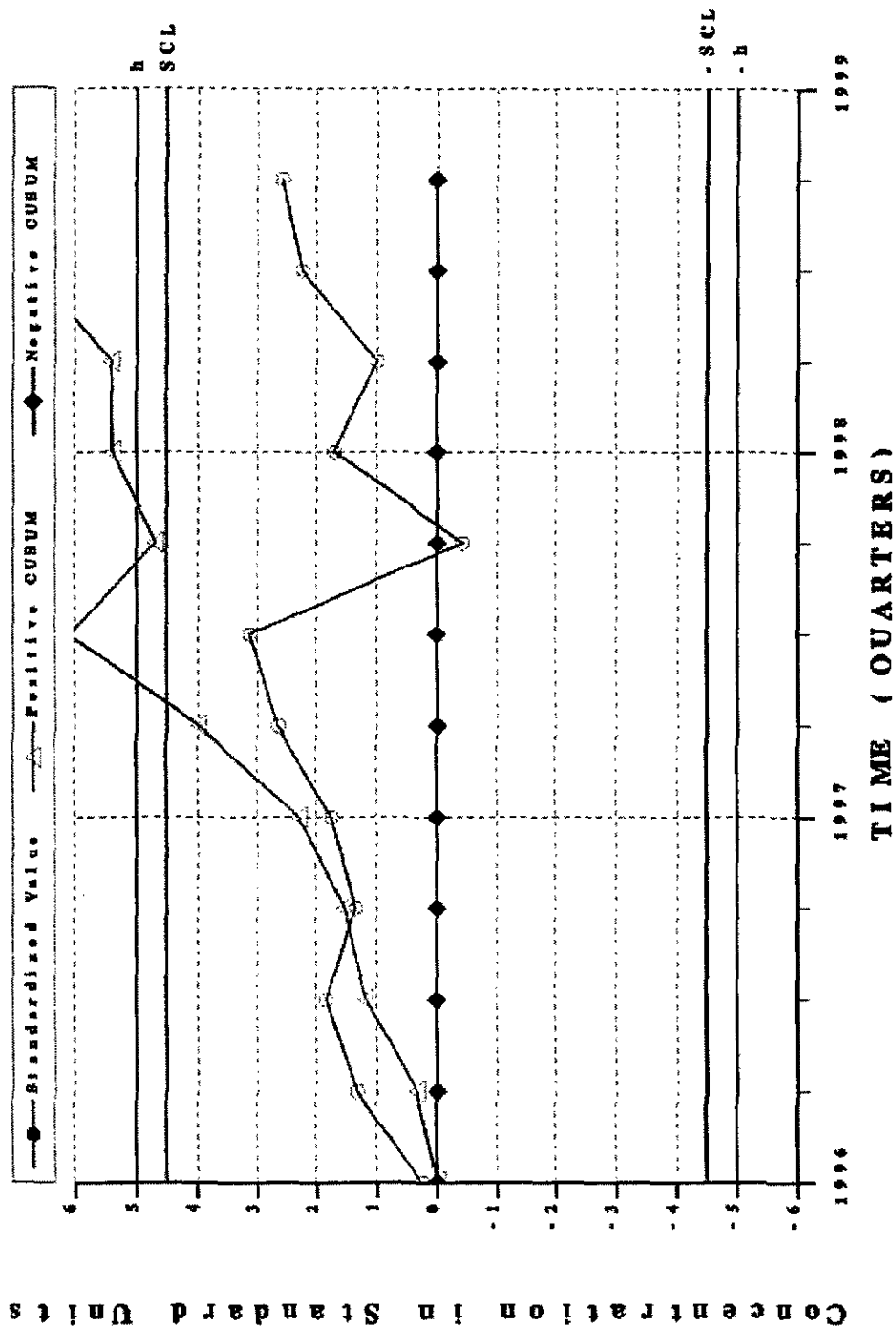
Combined Shewhart - CUSUM Control Chart
WELL HSB105D - Mercury, total recoverable



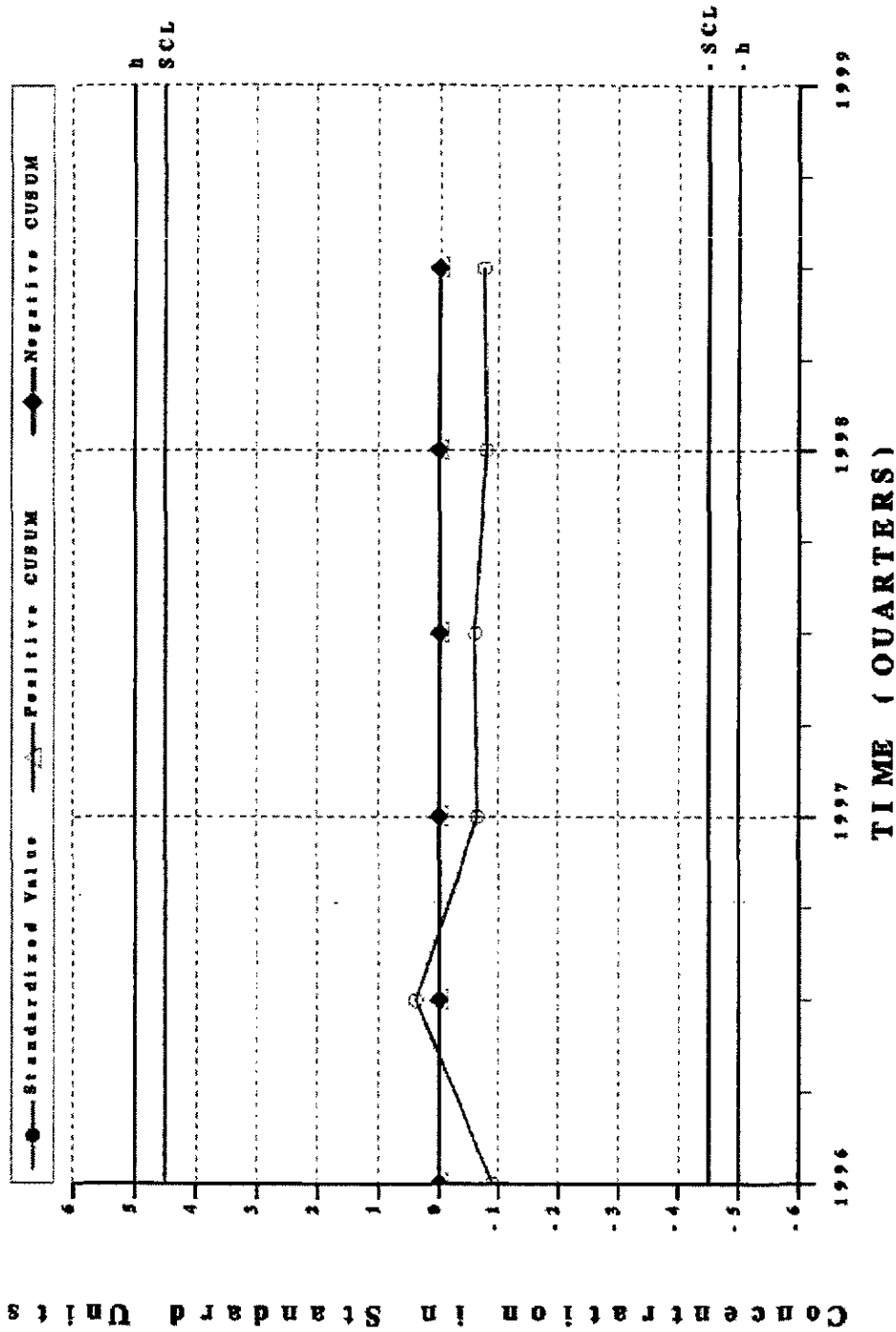
Combined Shewhart - CUSUM Control Chart
WELL HSB105D - Nitrate-nitrite as nitrogen



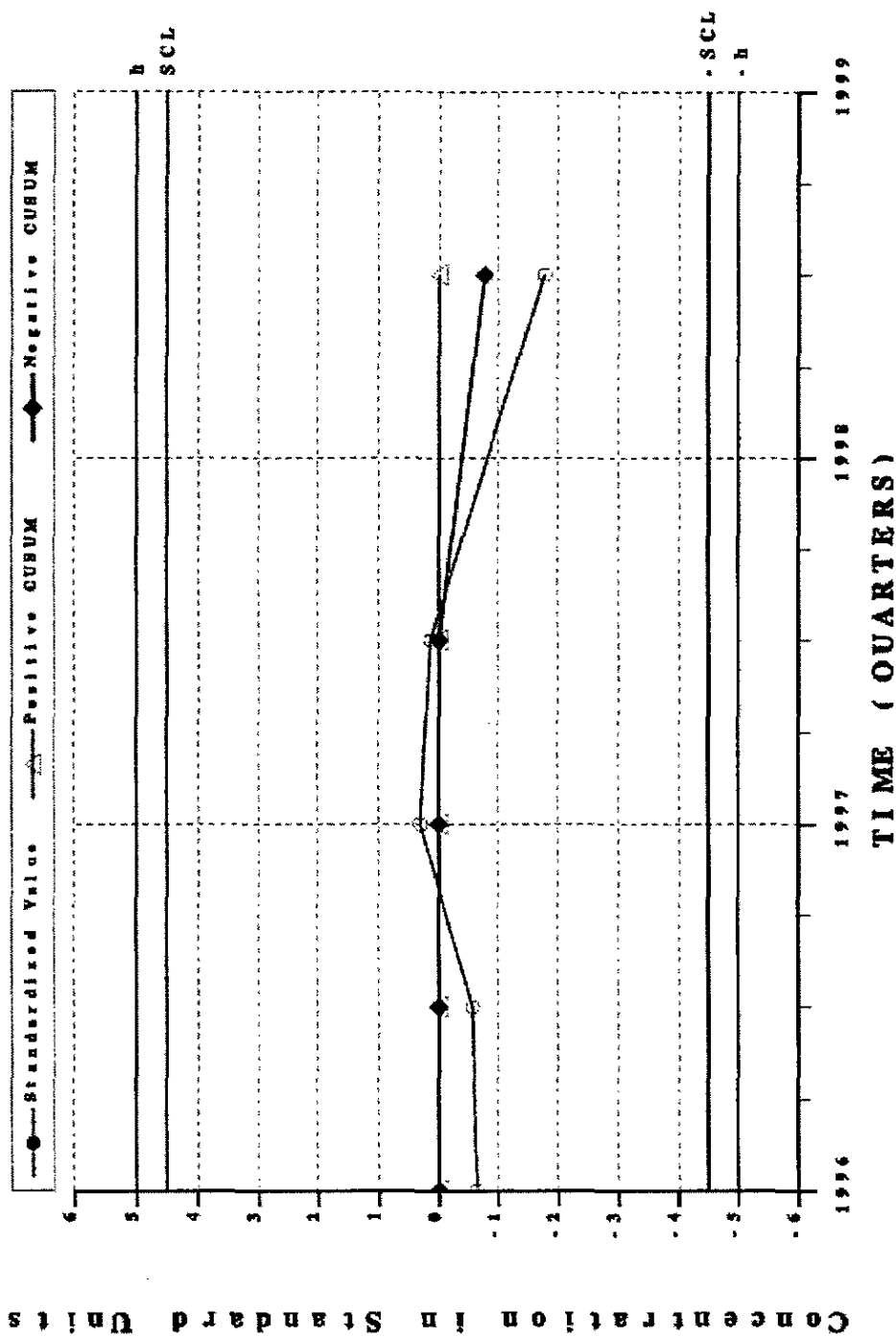
Combined Shewhart-CUSUM Control Chart
WELL HSB105D - Nonvolatile beta



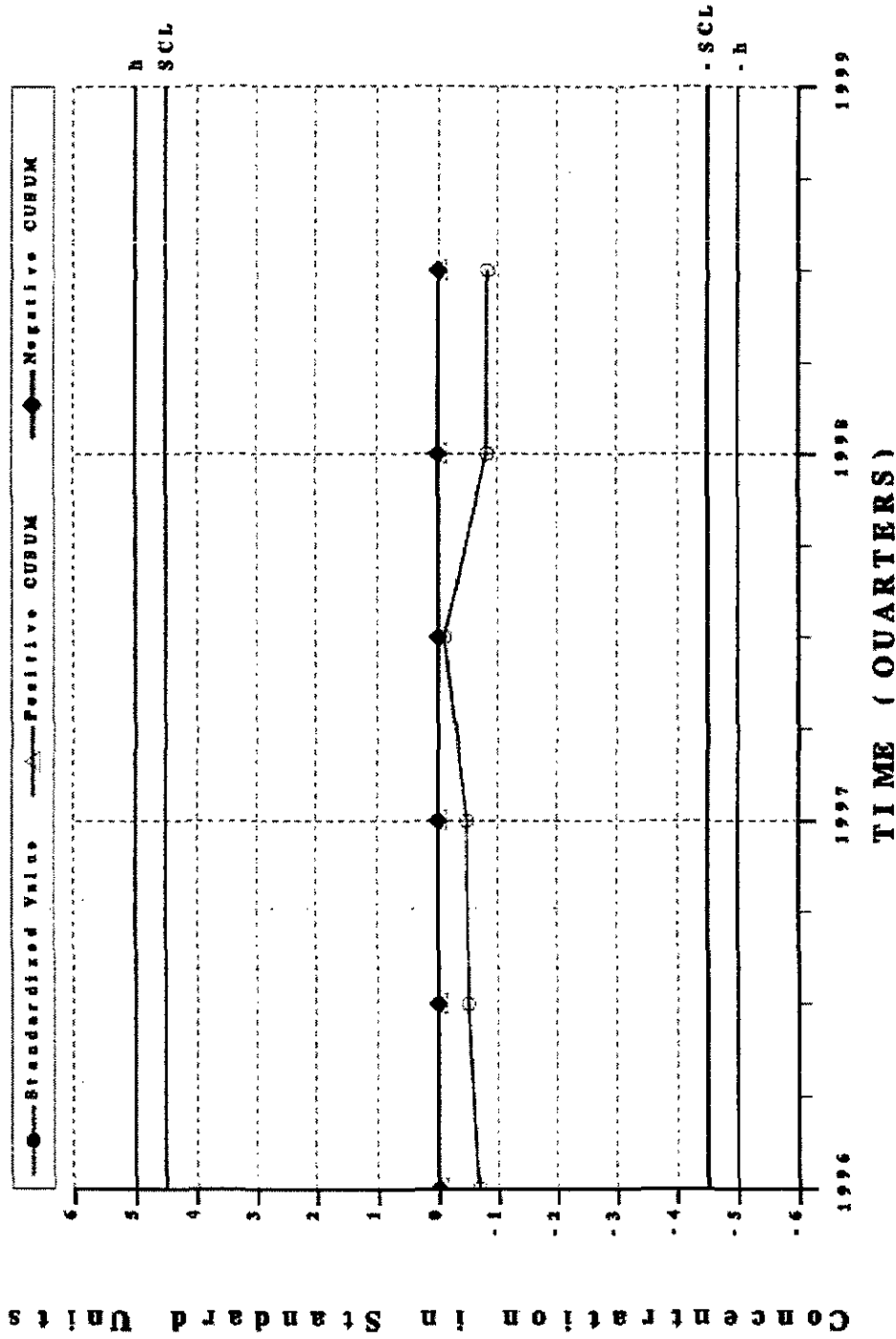
Combined Shewhart-CUSUM Control Chart
WELL HSB105D - Radium-226



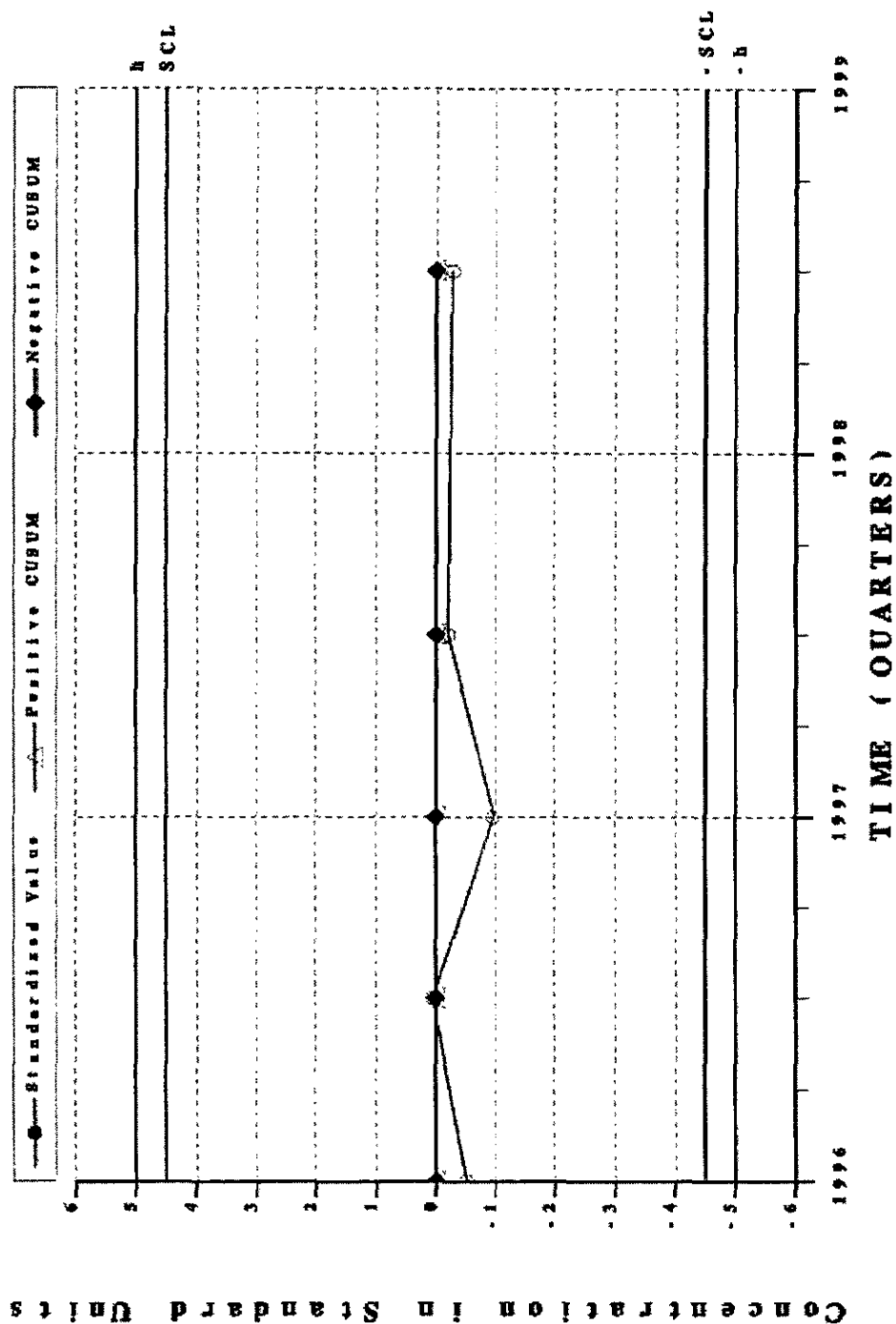
Combined Shewhart-CUSUM Control Chart
WELL HSB105D - Radium-228



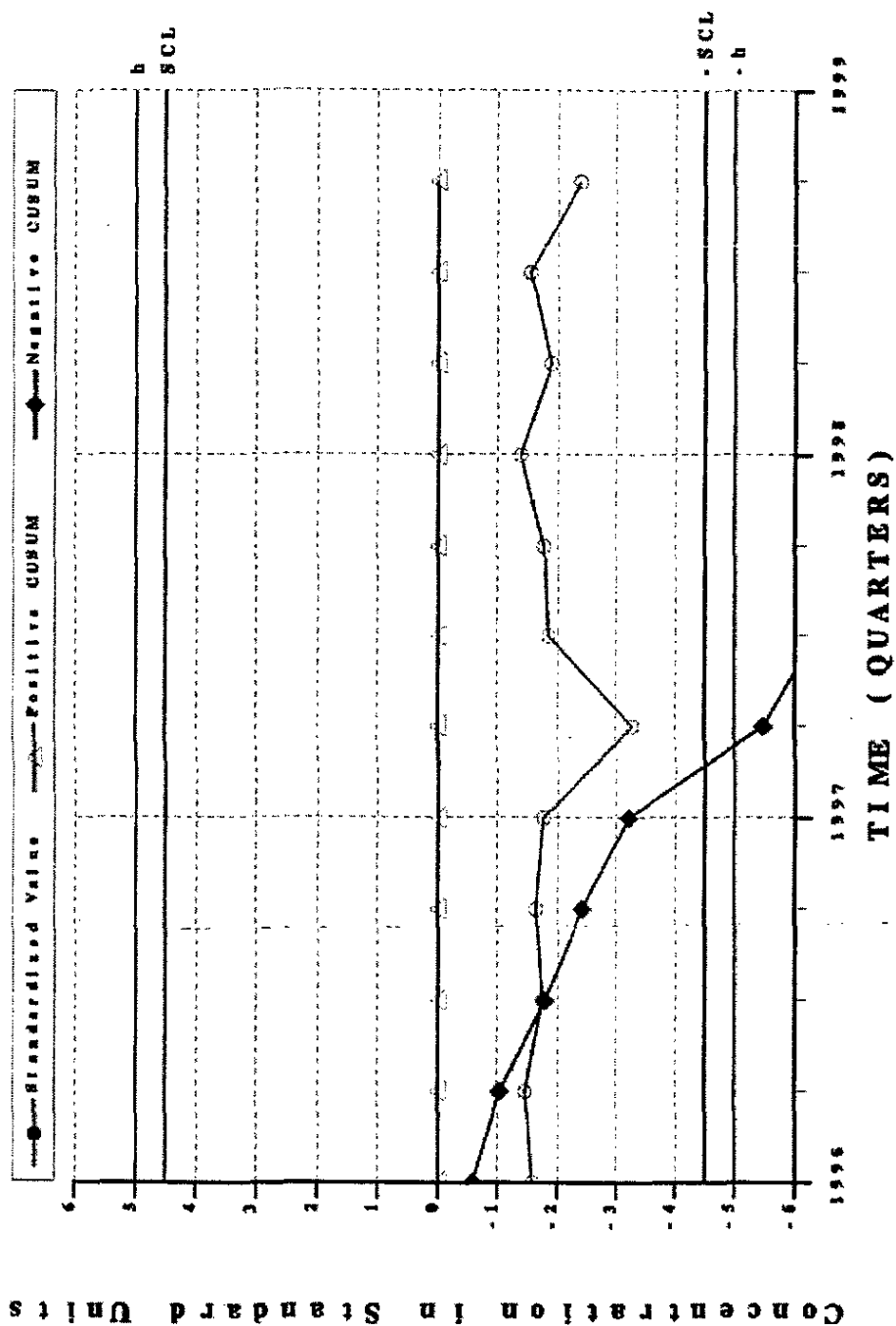
Combined Shewhart-CUSUM Control Chart
WELL HSB105D - Strontium-90



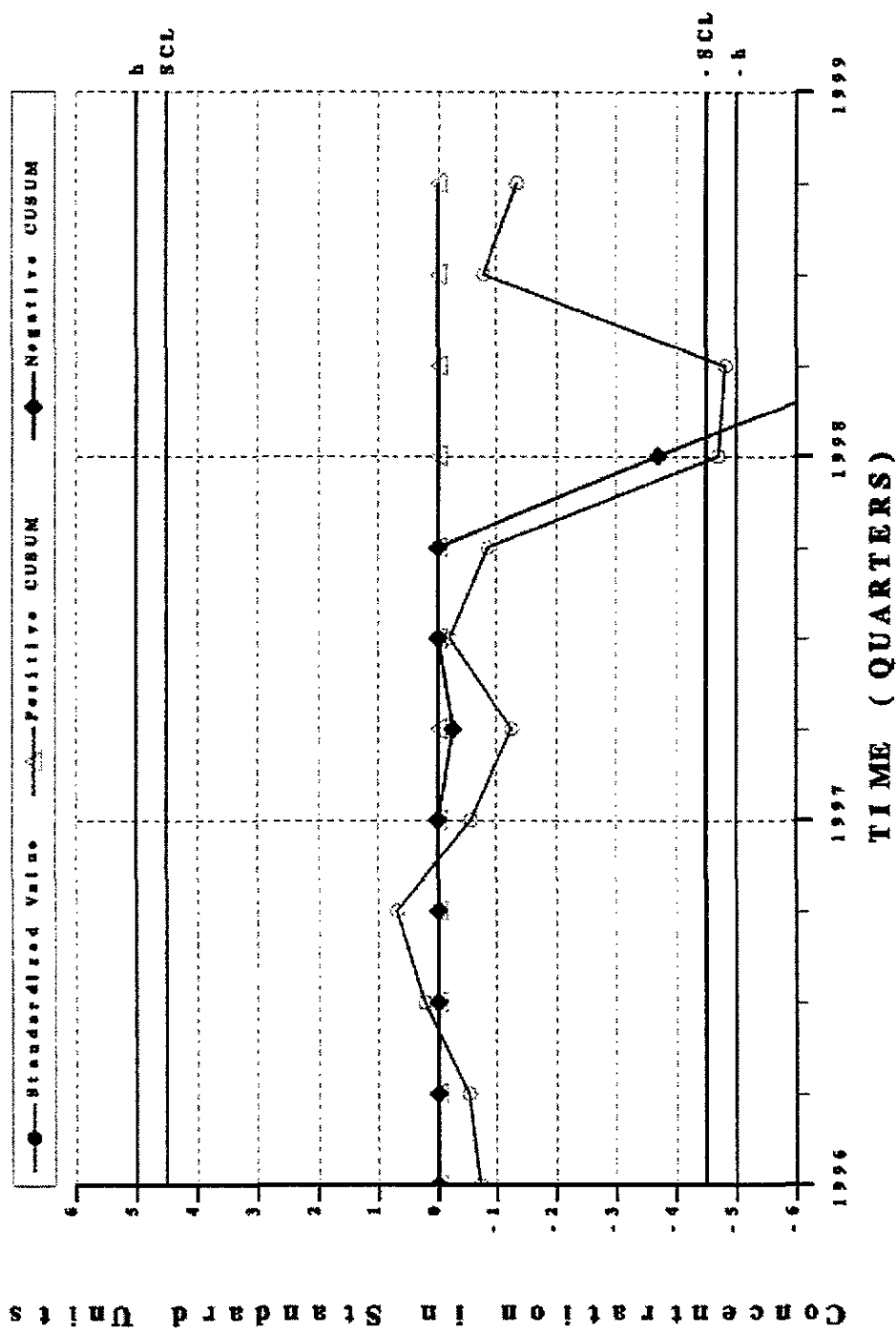
Combined Shewhart - CUSUM Control Chart WELL HSB105D - Technetium-99



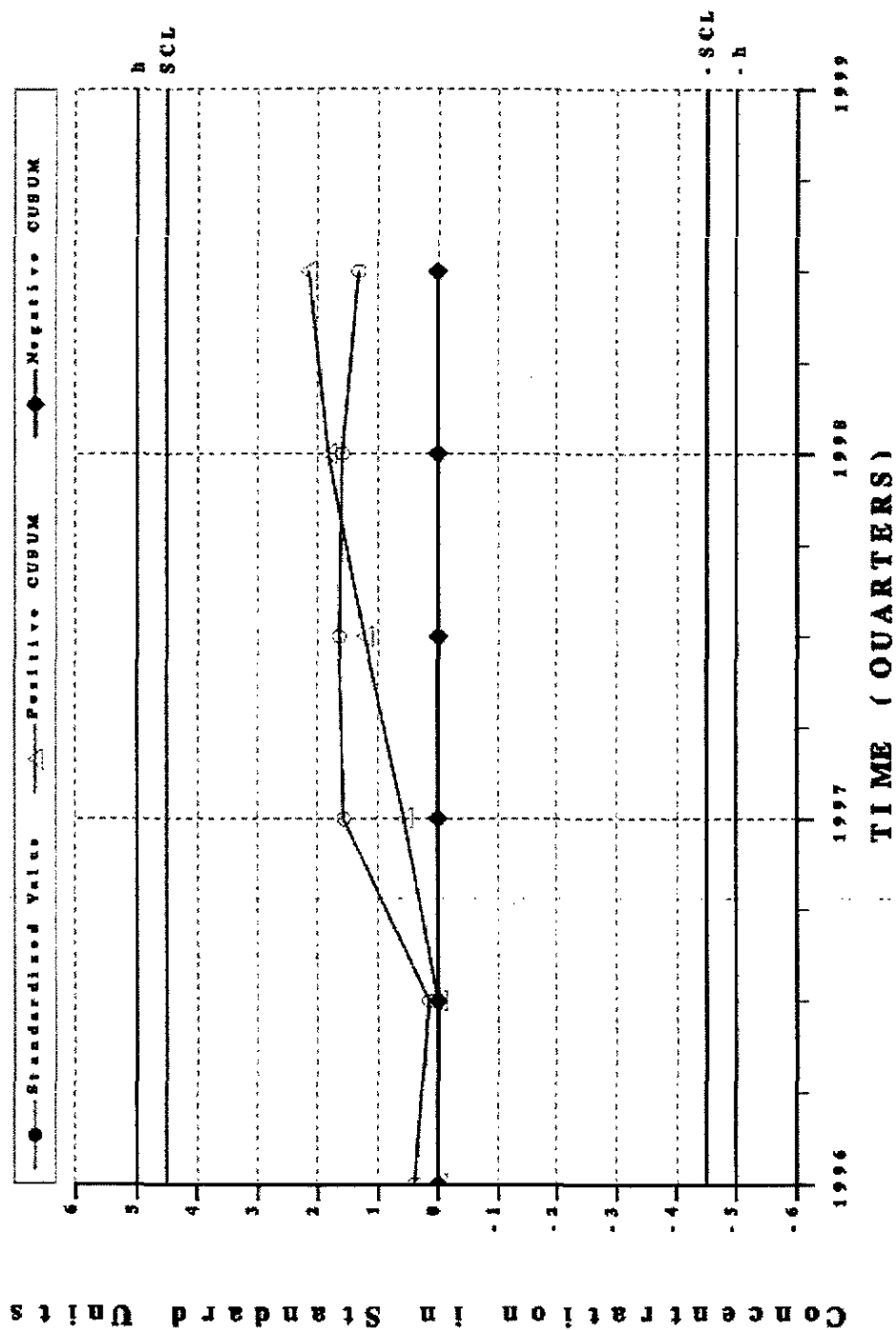
Combined Shewhart-CUSUM Control Chart
WELL HSB105D - Tritium



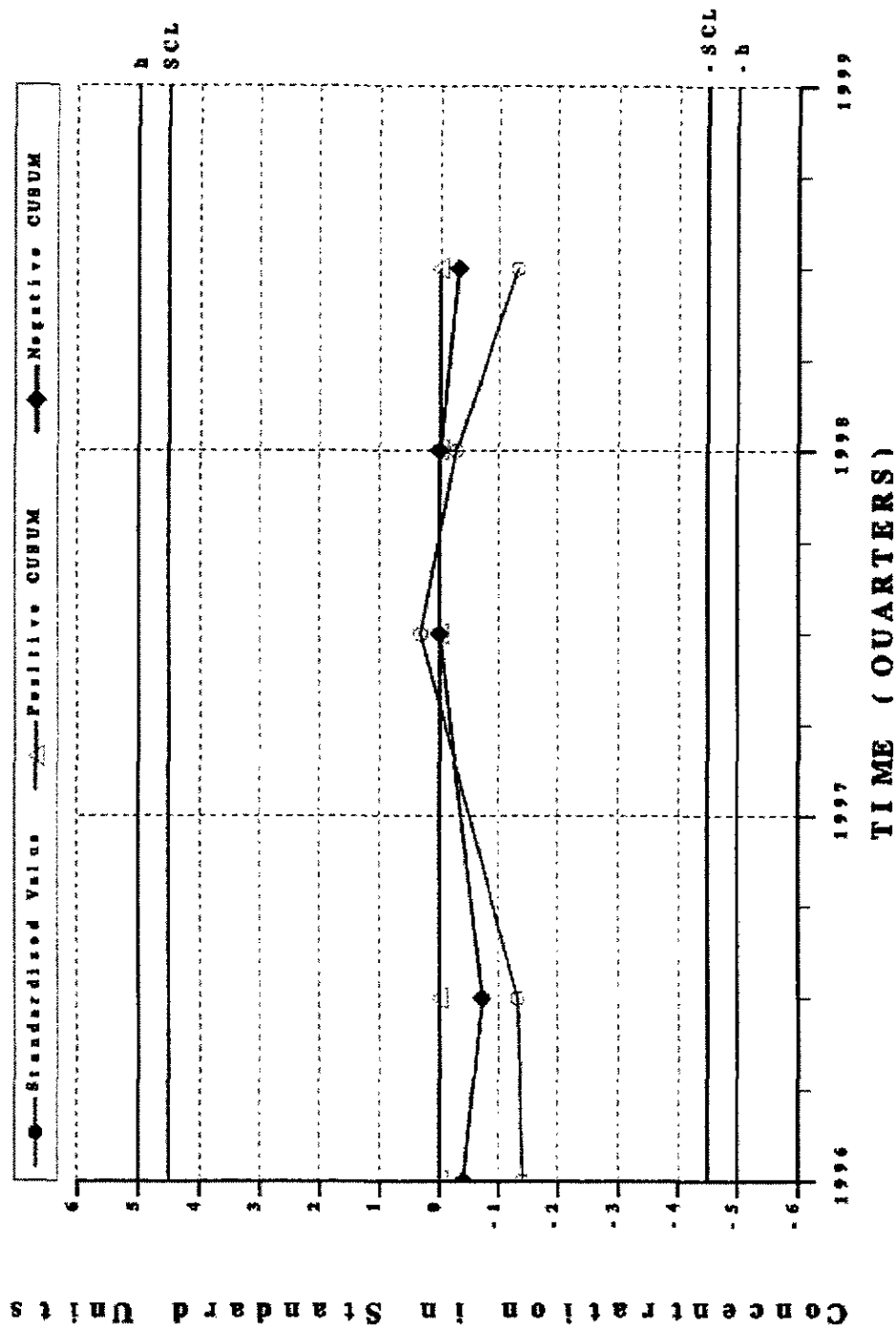
Combined Shewhart-CUSUM Control Chart WELL HSB105D - Water Level



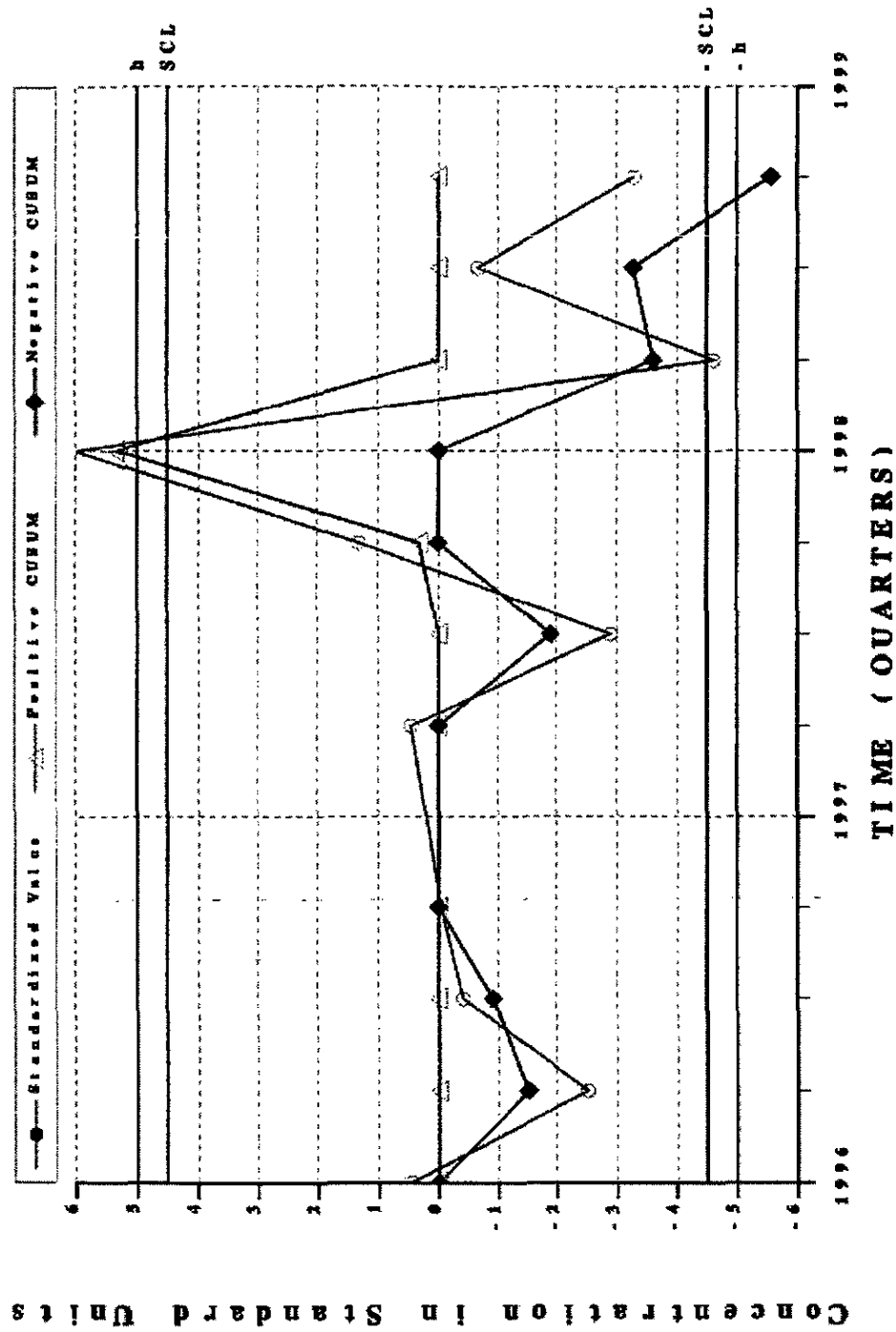
Combined Shewhart-CUSUM Control Chart
WELL HSB105D - Zinc, total recoverable



Combined Shewhart-CUSUM Control Chart
WELL HSB106C - Barium total recoverable

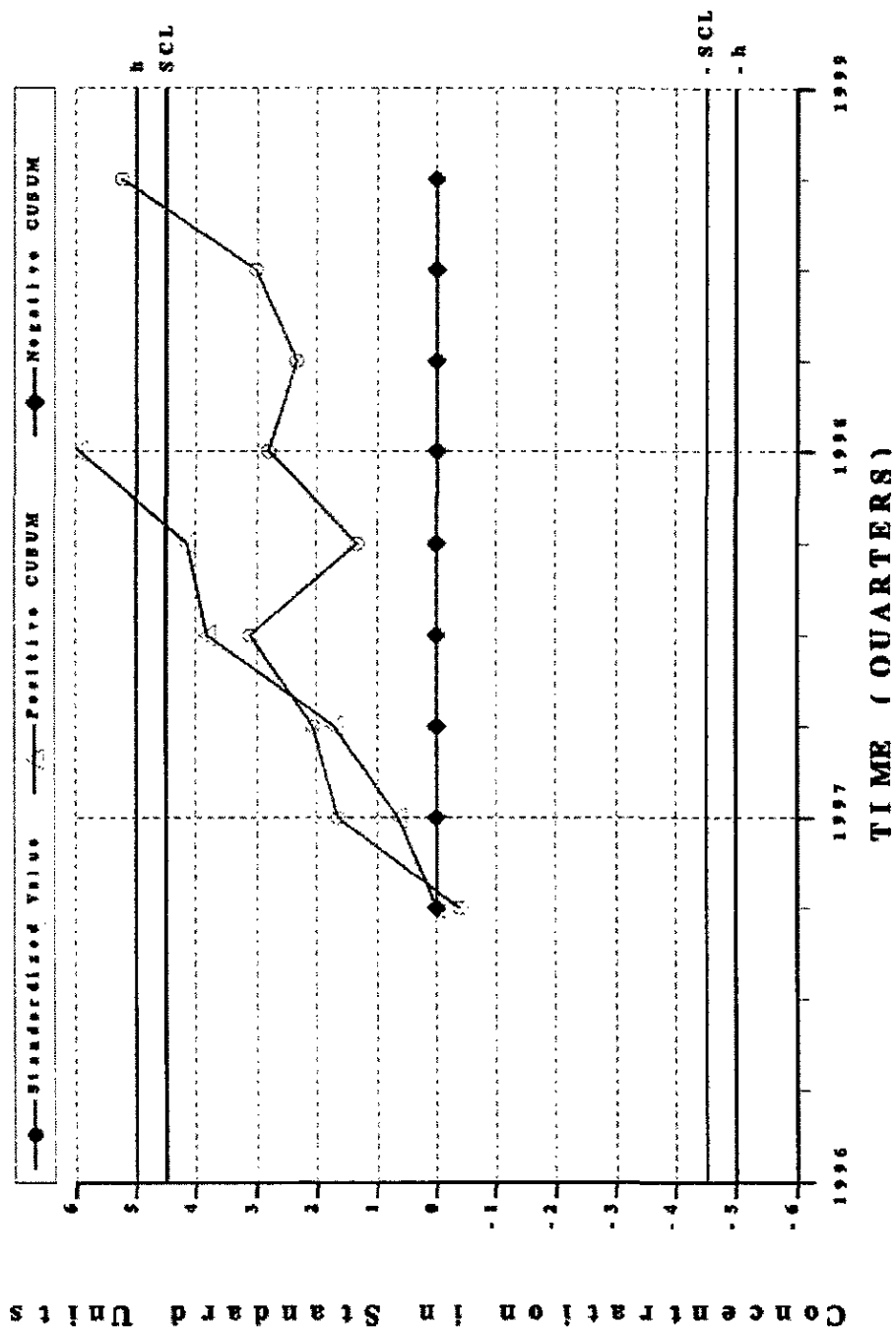


Combined Shewhart - CUSUM Control Chart
WELL HSB106C - Mercury, total recoverable

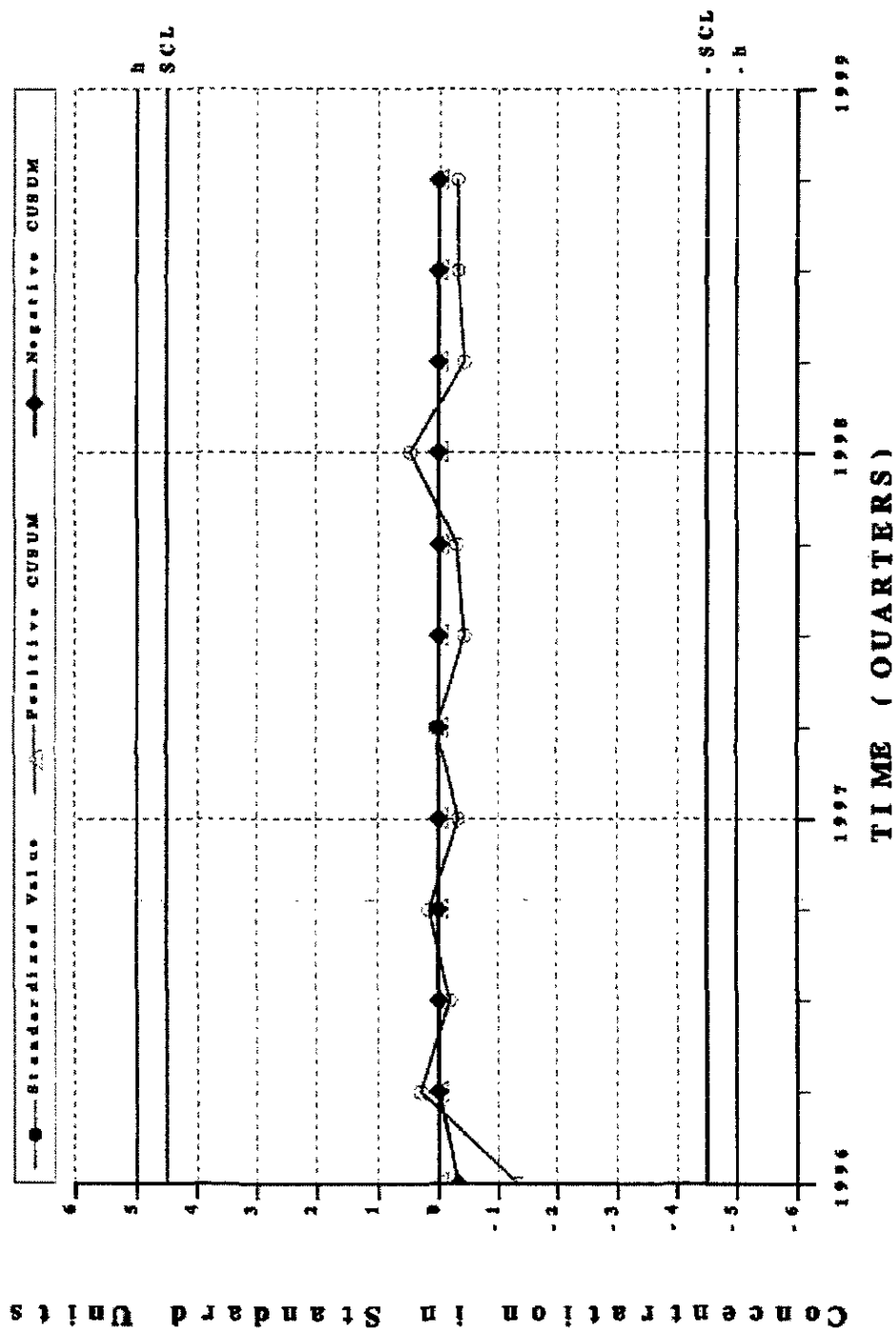


Combined Shewhart - CUSUM Control Chart

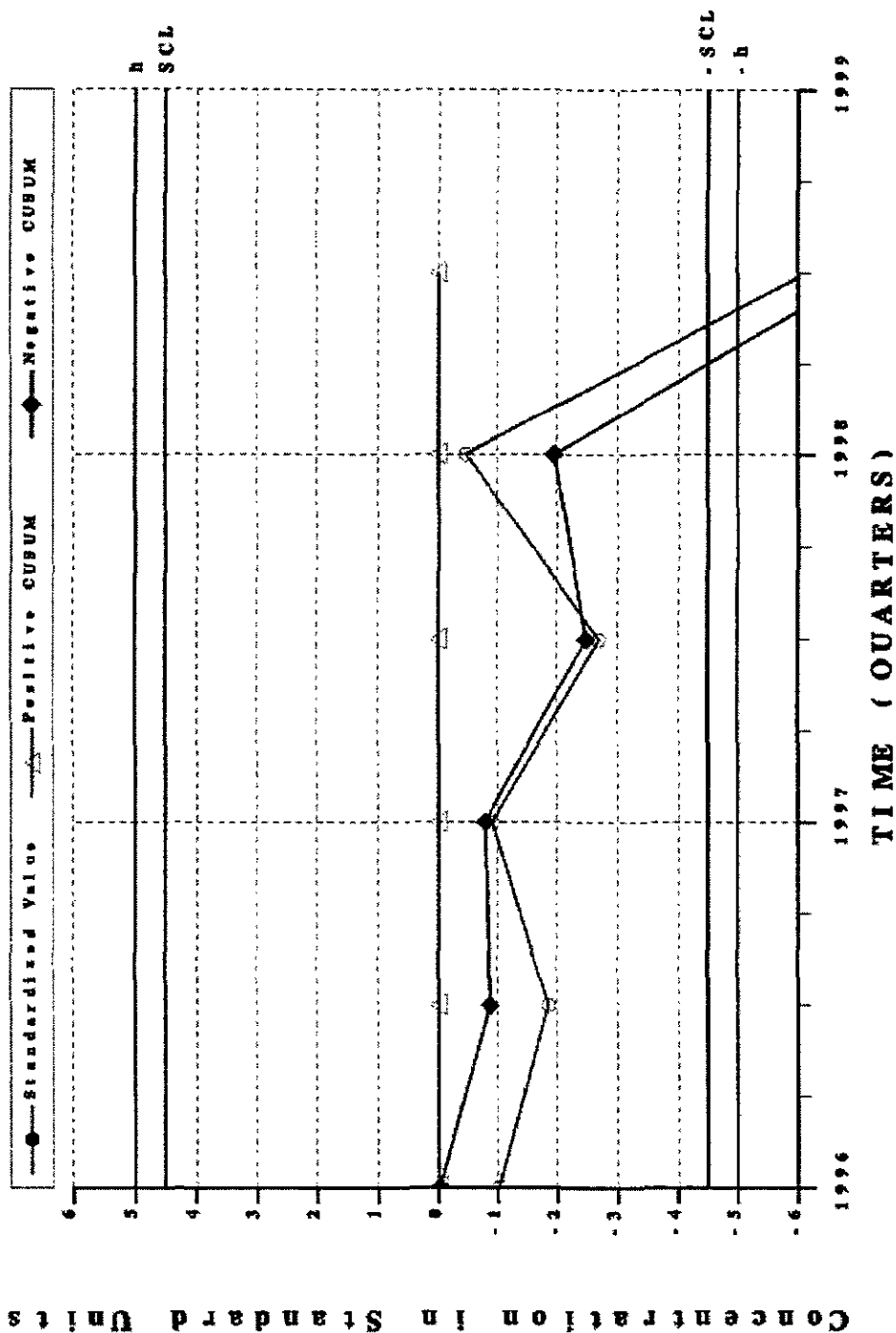
WELL HSB106C - Nitrate-nitrite as nitrogen



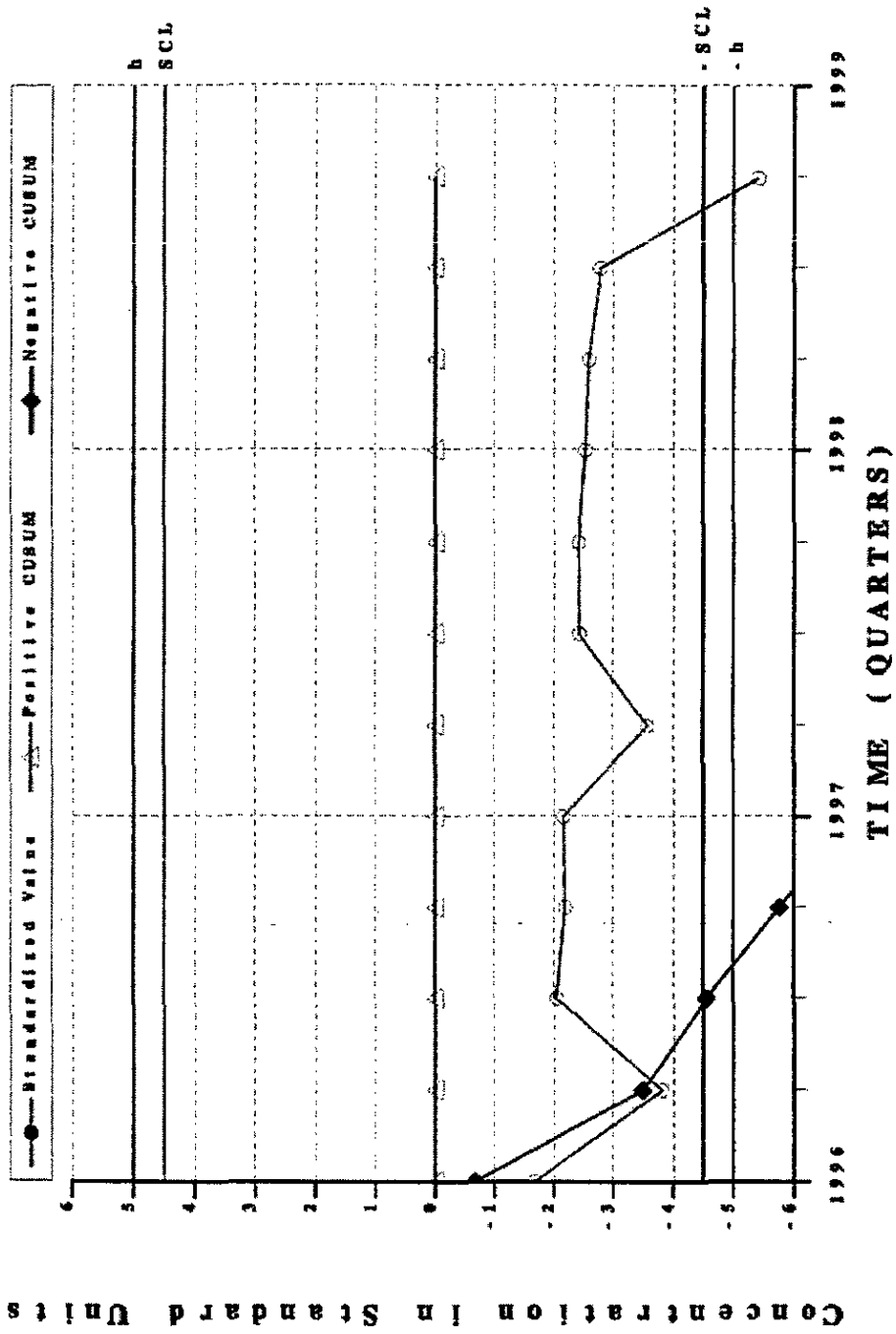
Combined Shewhart - CUSUM Control Chart
WELL HSB106C - Nonvolatile beta

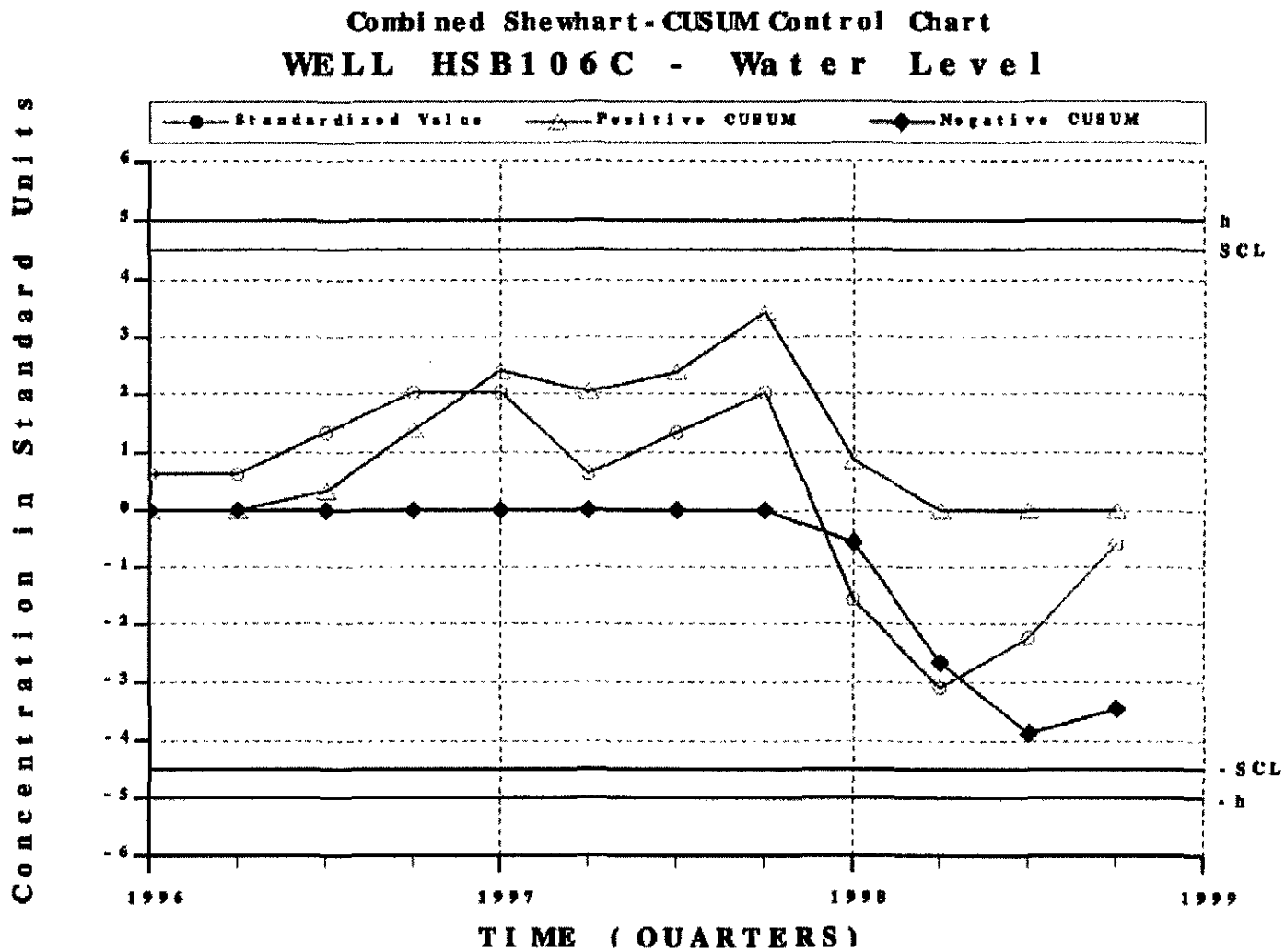


Combined Shewhart-CUSUM Control Chart
WELL HSB106C - Tetrachloroethylene

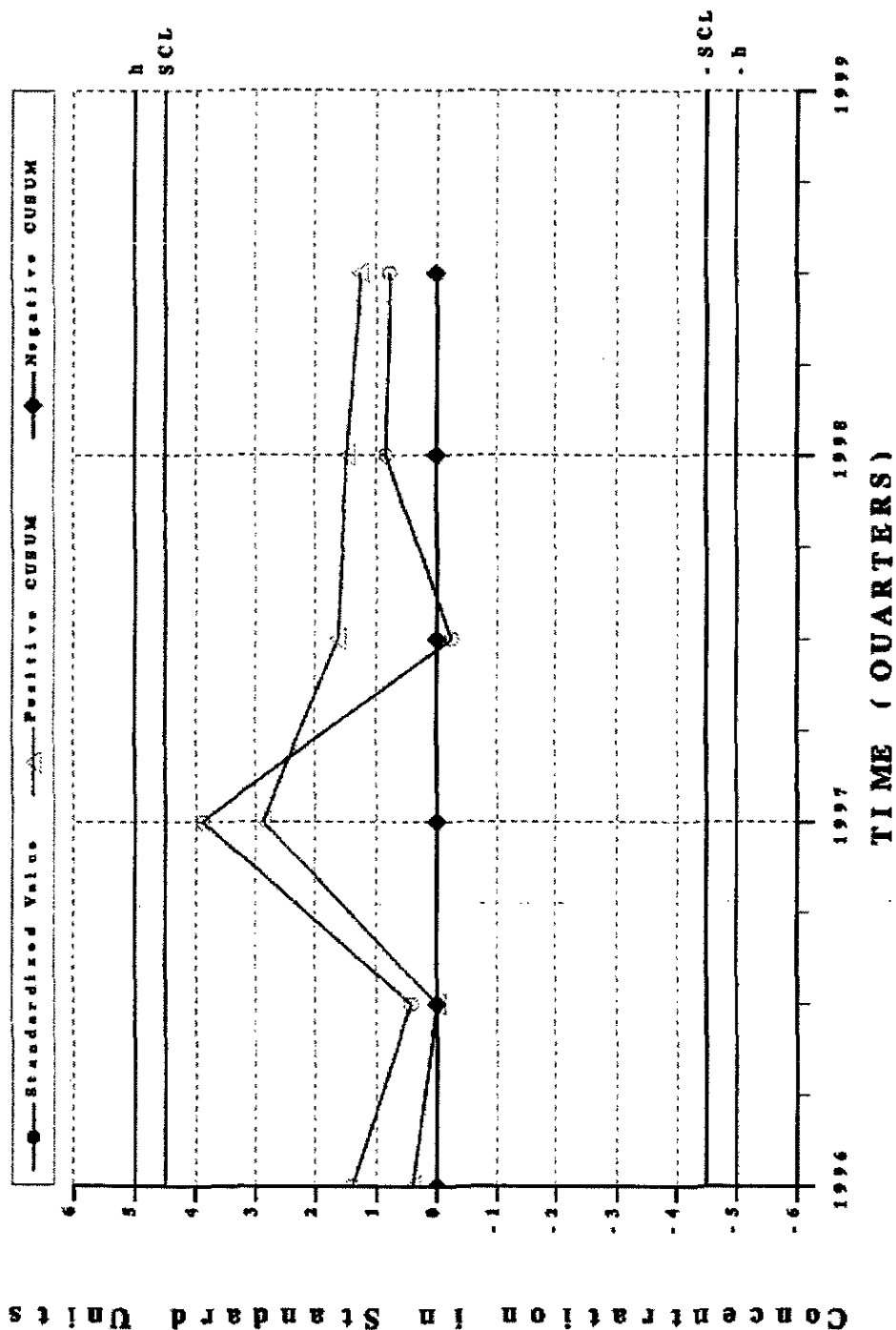


Combined Shewhart-CUSUM Control Chart
WELL HSB106C - Tritium

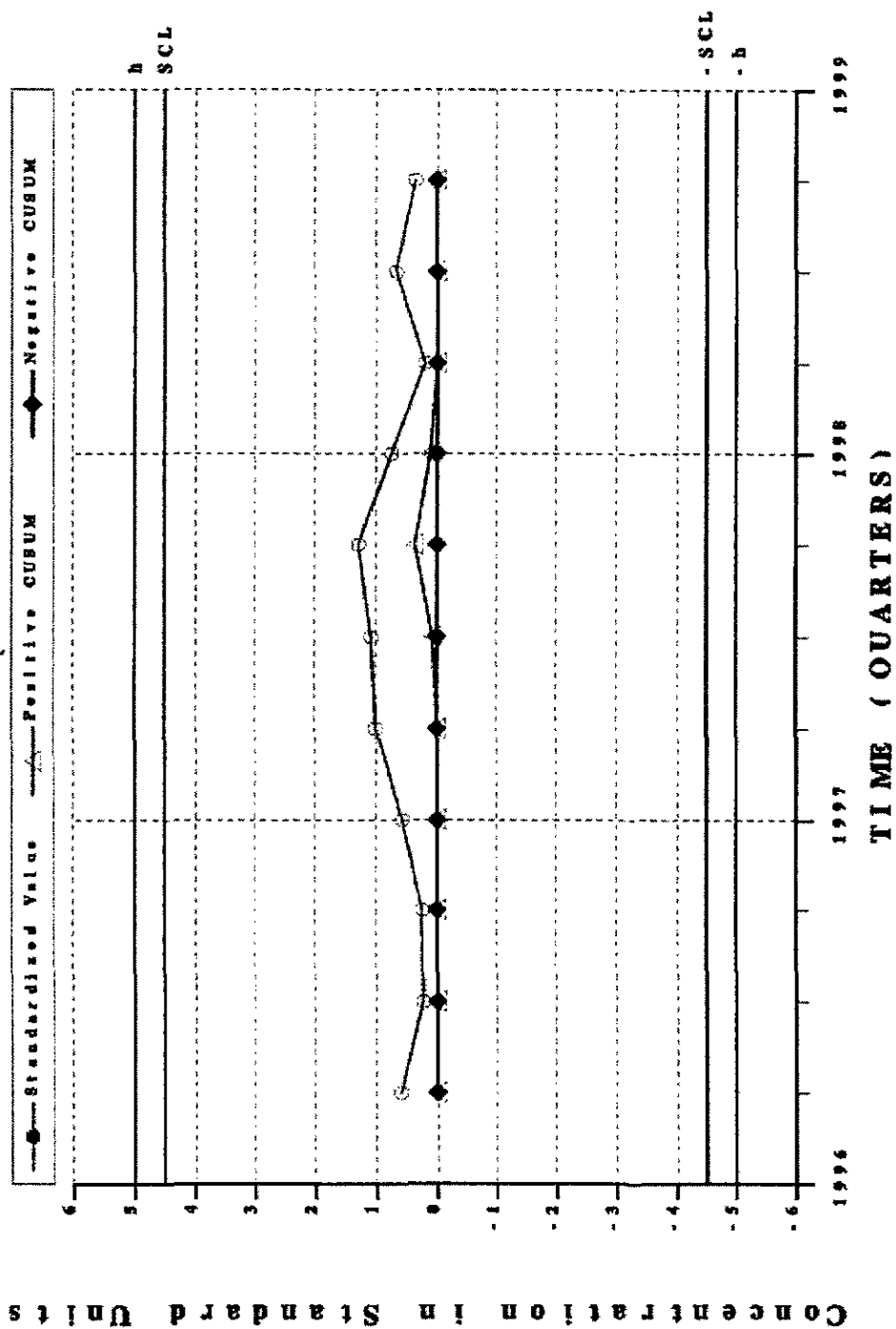




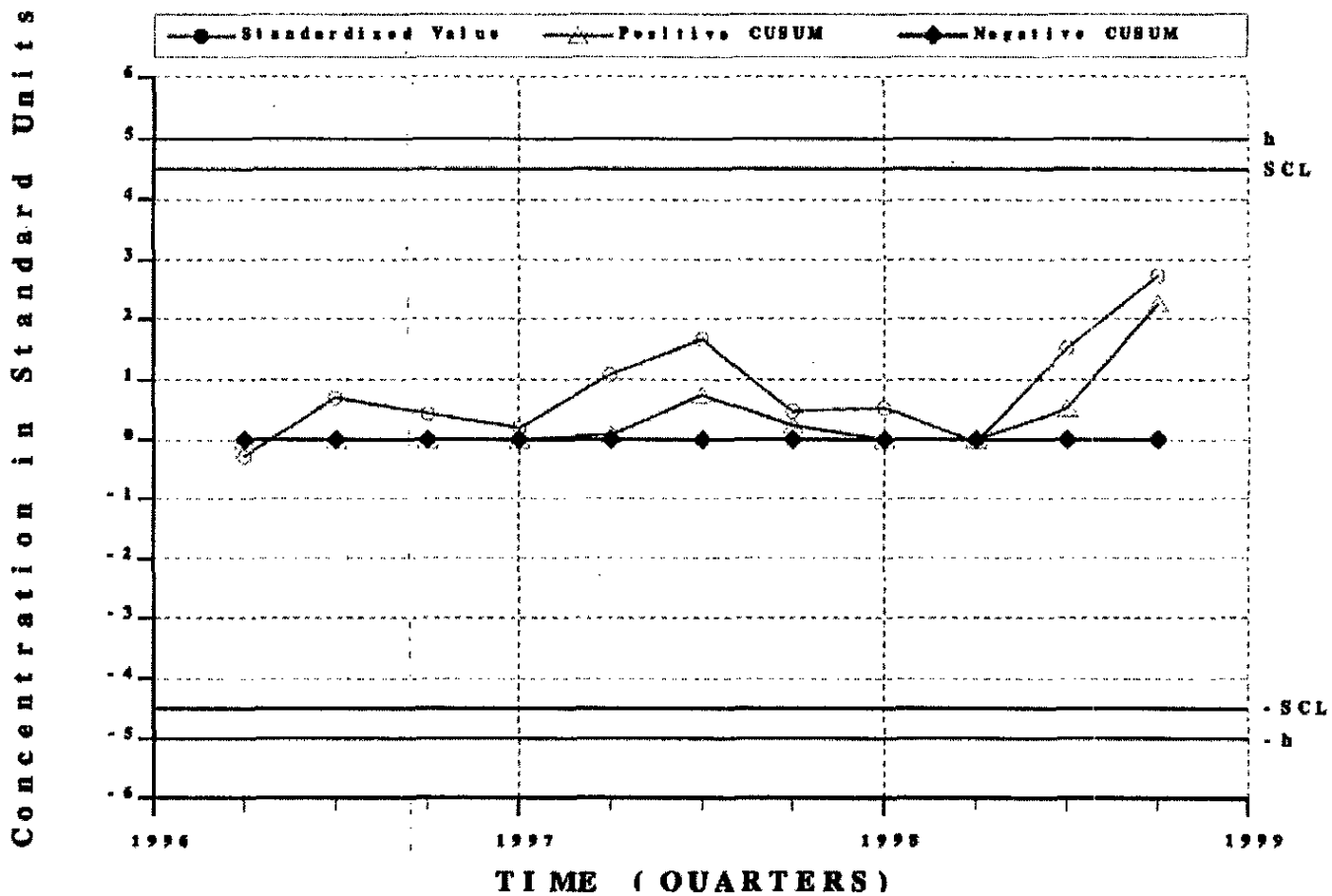
Combined Shewhart-CUSUM Control Chart WELL HSB106C - Zinc, total recoverable



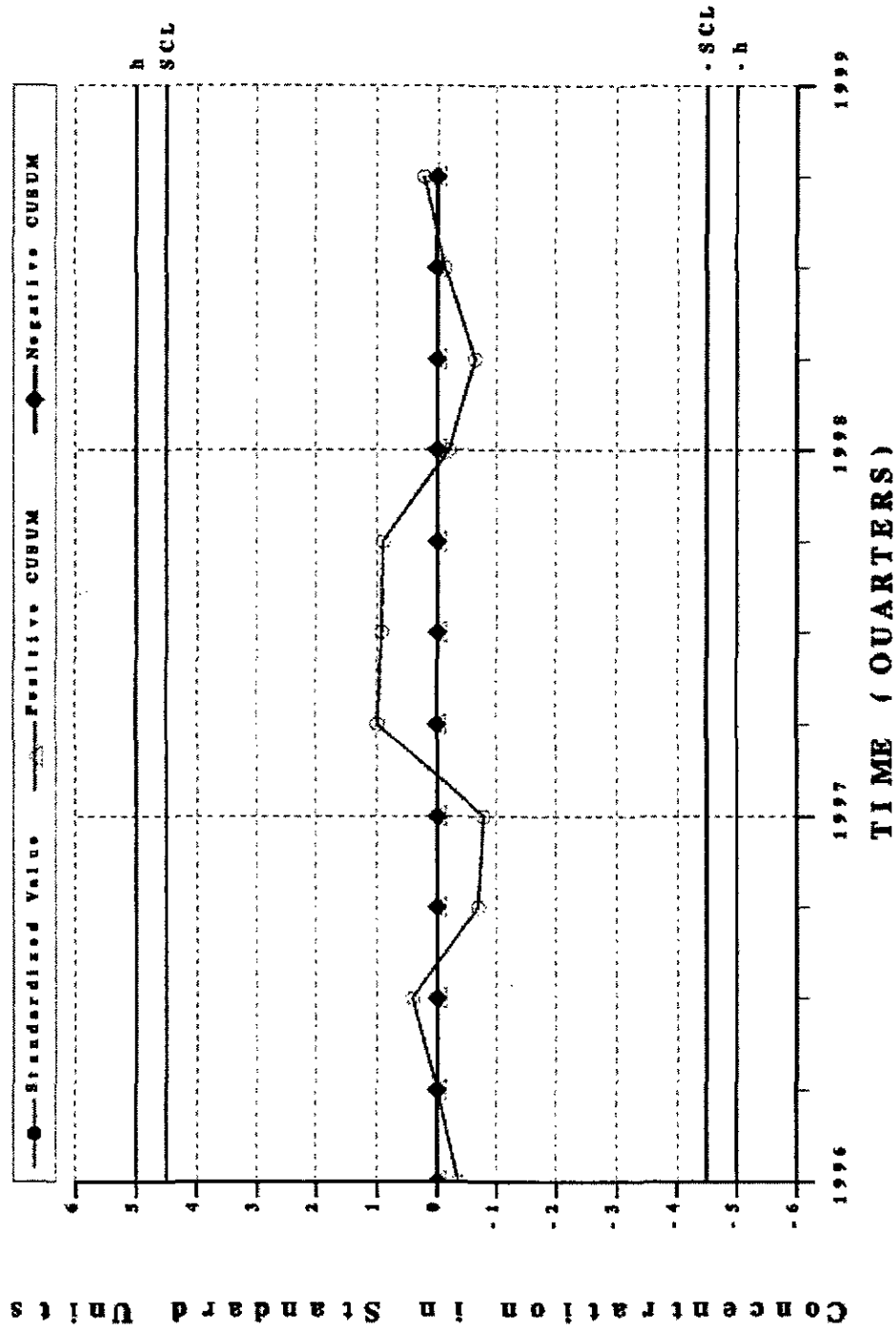
Combined Shewhart-CUSUM Control Chart WELL HSB106D - Gross alpha



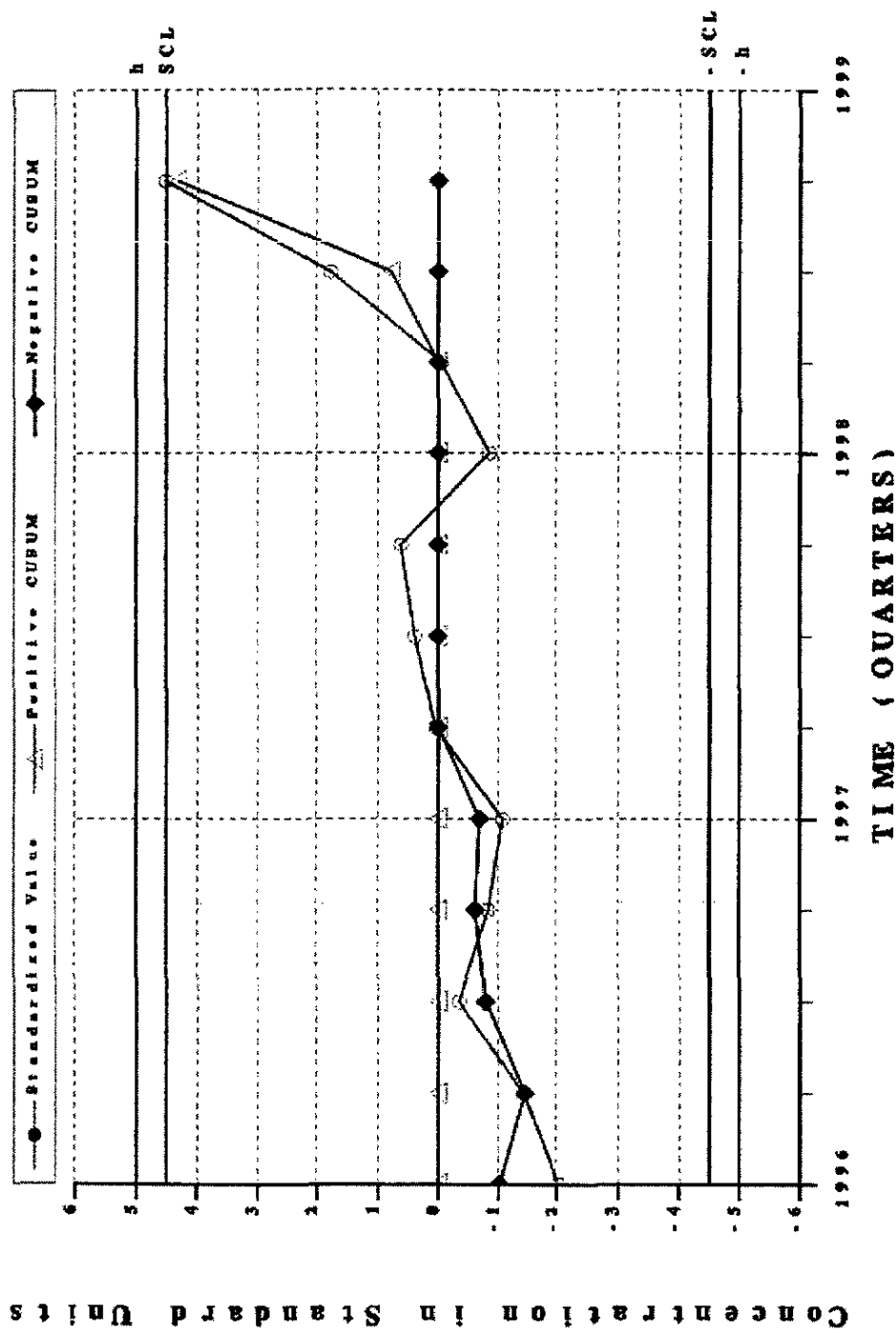
Combined Shewhart-CUSUM Control Chart
WELL HSB106D - Nitrate-nitrite as nitrogen



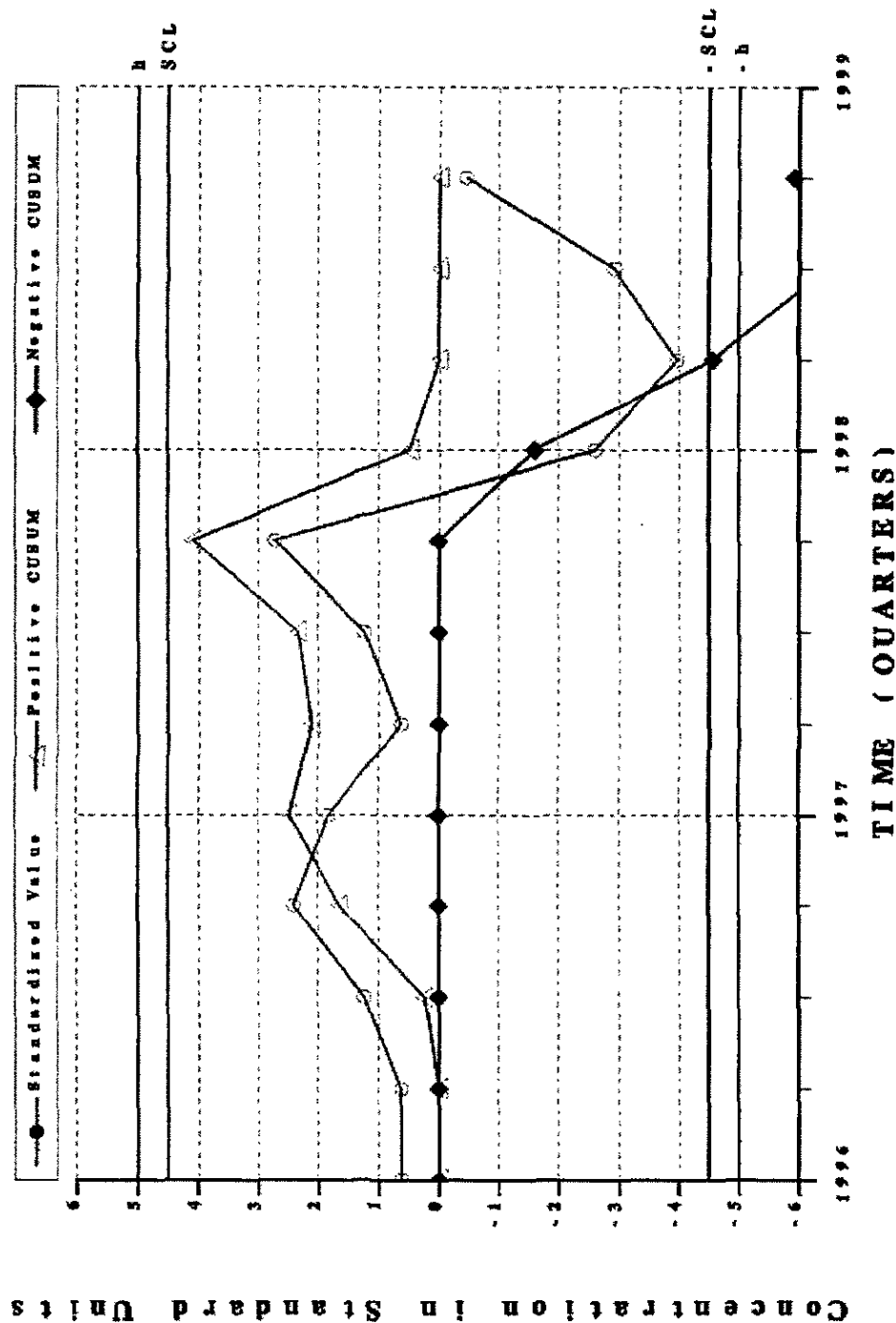
Combined Shewhart-CUSUM Control Chart
WELL HSB106D - Nonvolatile beta



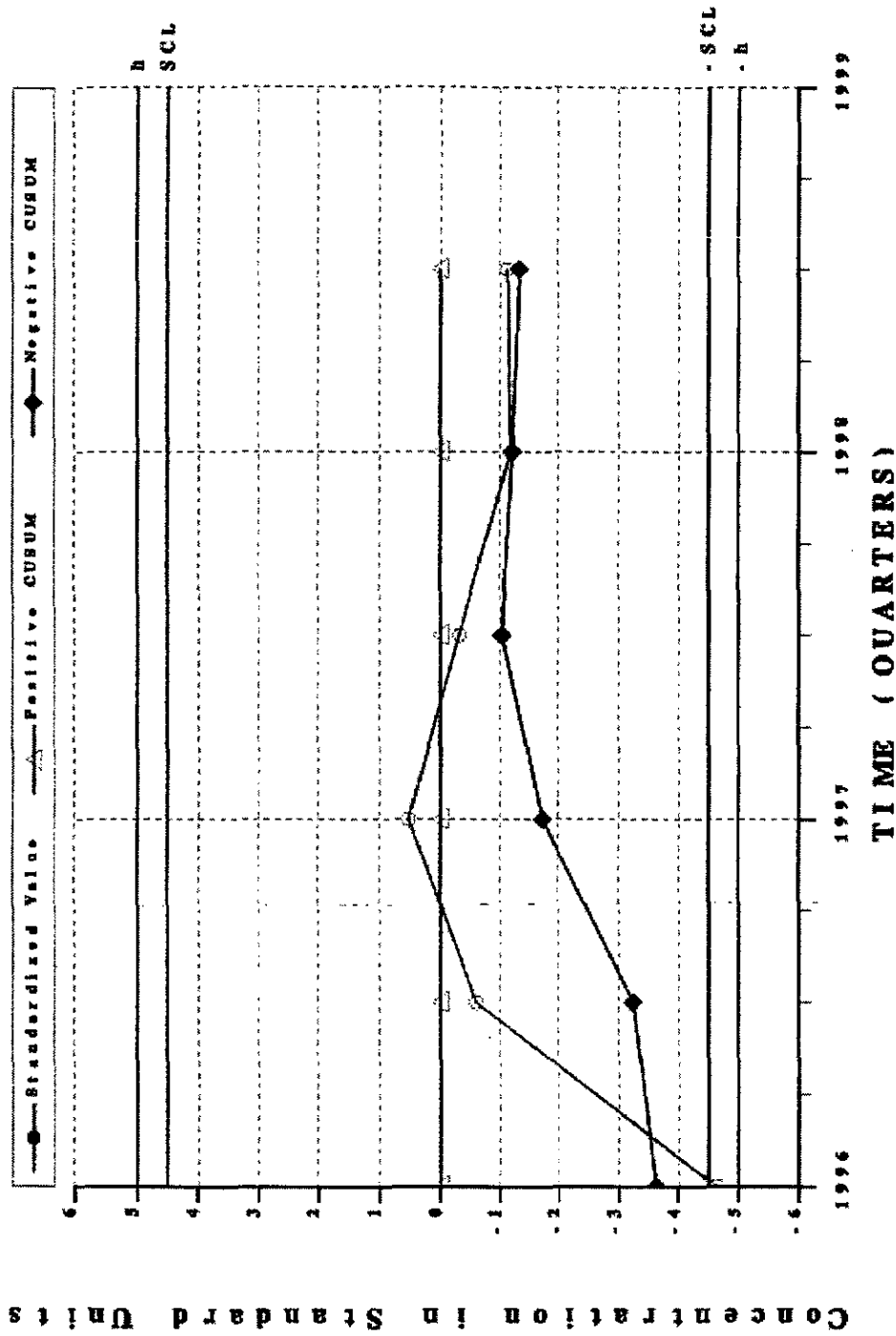
Combined Shewhart-CUSUM Control Chart WELL HSB106D - Tritium



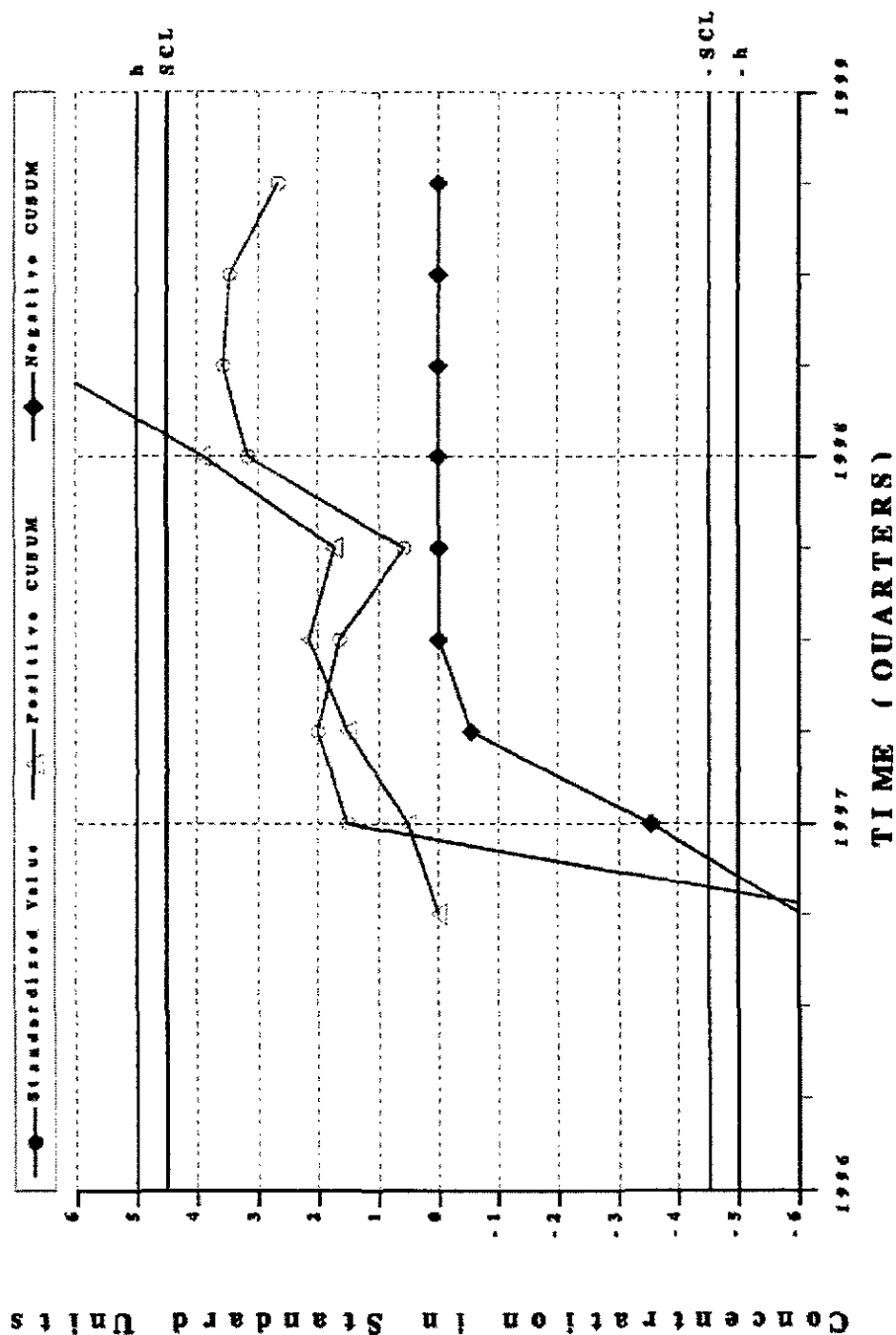
Combined Shewhart-CUSUM Control Chart WELL HSB106D - Water Level



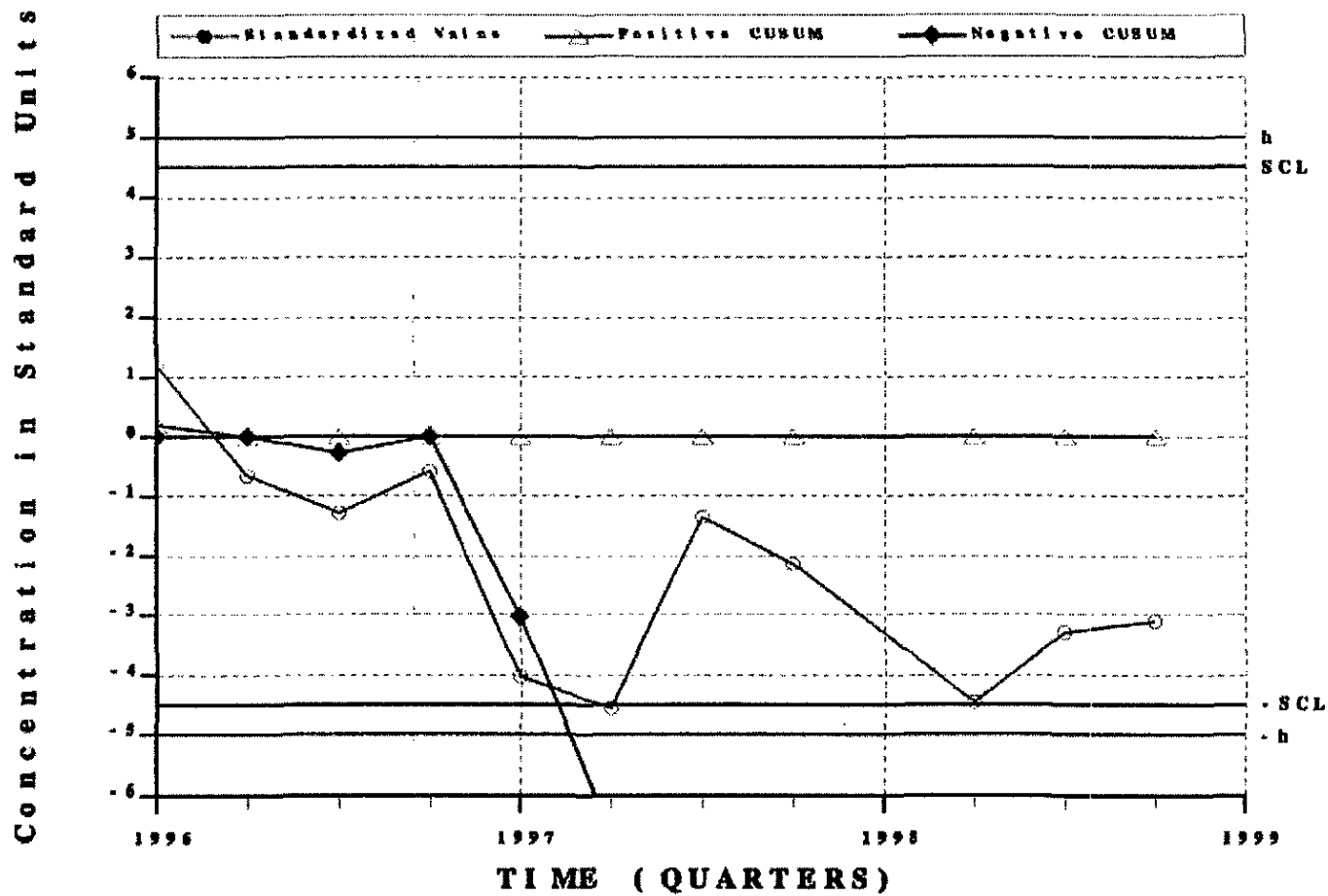
Combined Shewhart-CUSUM Control Chart
WELL HSB107C - Barium, total recoverable



Combined Shewhart-CUSUM Control Chart
WELL HSB107C - Nitrate-nitrite as nitrogen

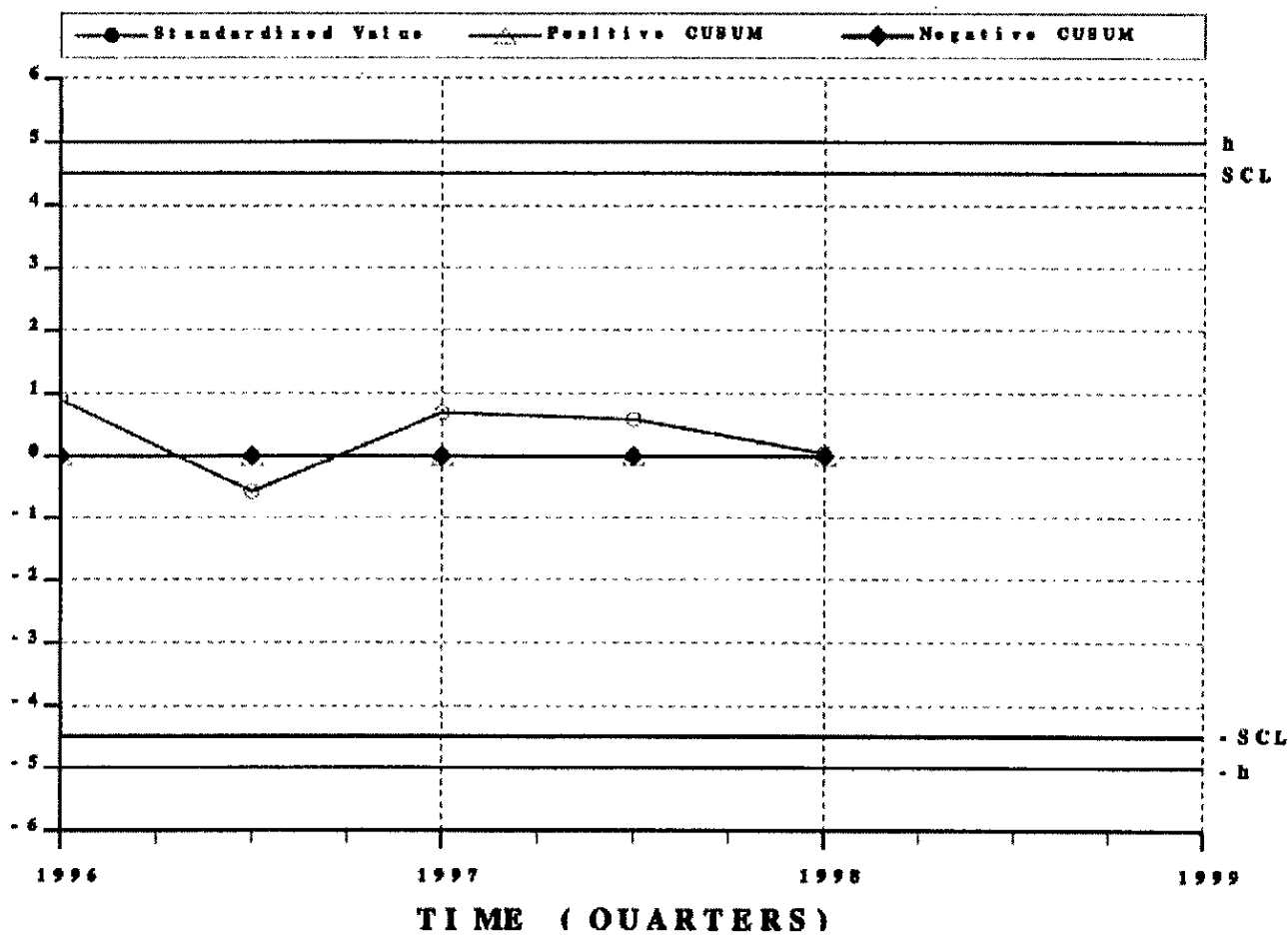


Combined Shewhart-CUSUM Control Chart
WELL HSB107C - Nonvolatile beta

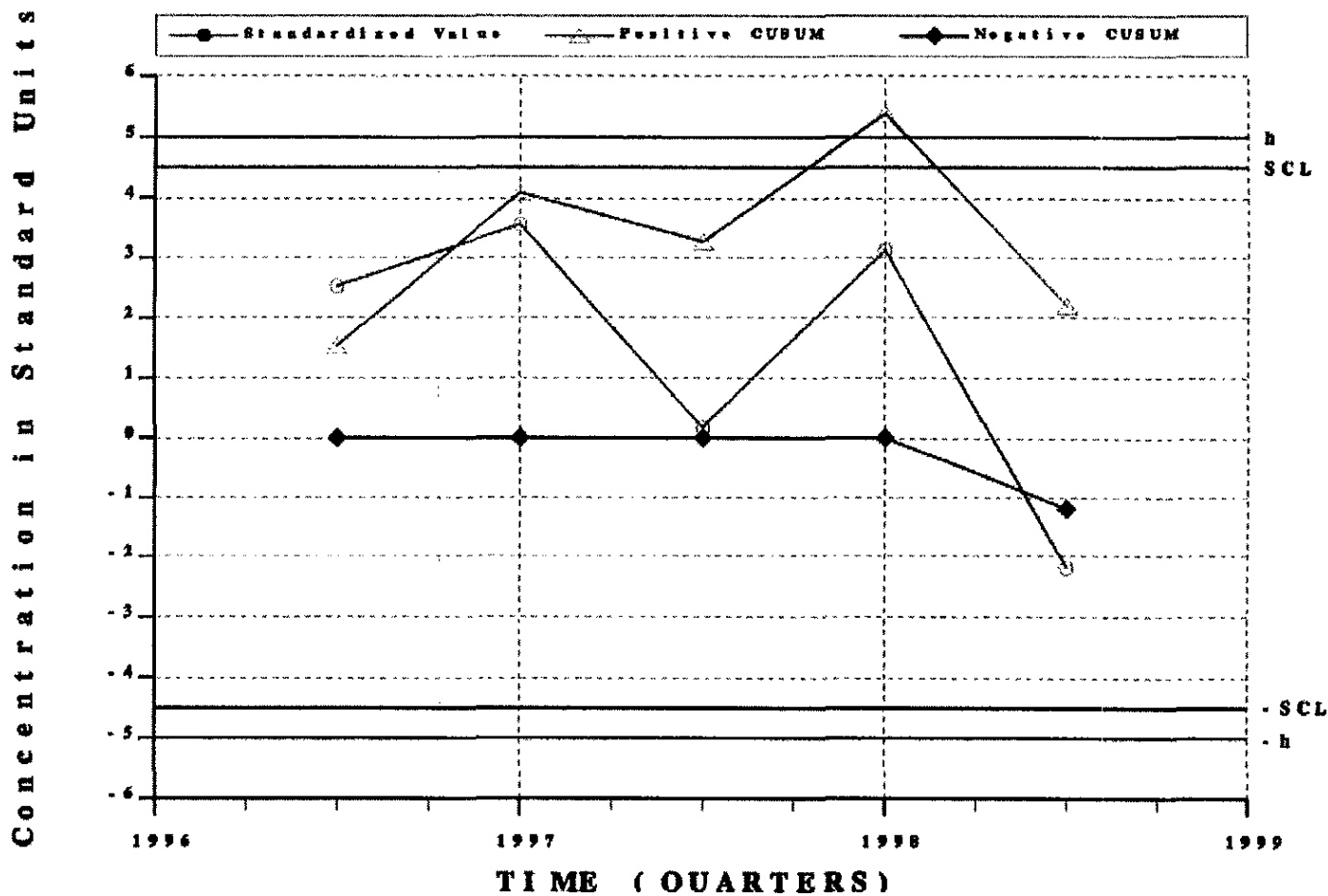


Concentration in Standard Units

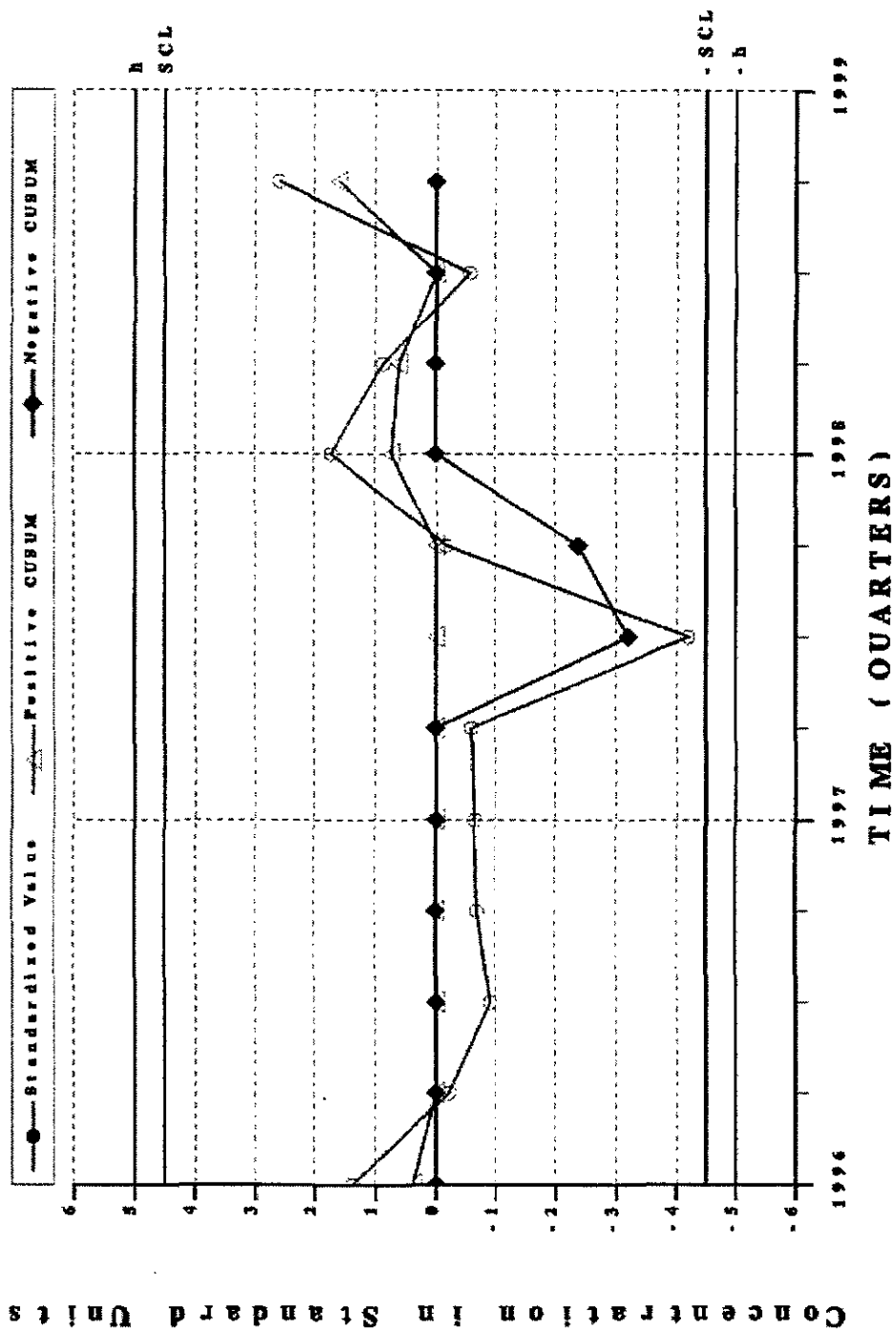
Combined Shewhart-CUSUM Control Chart
WELL HSB107C - Tetrachloroethylene



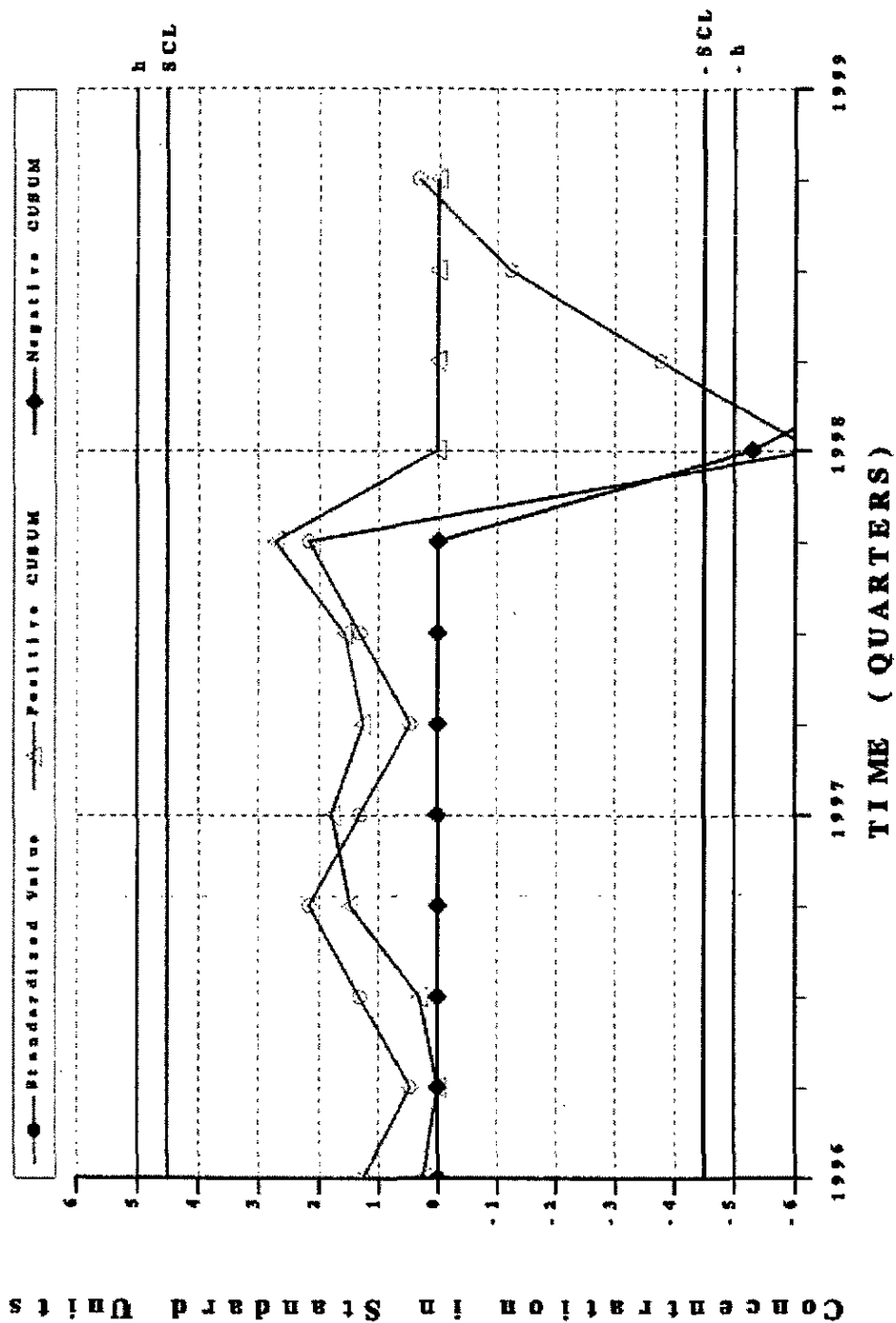
Combined Shewhart-CUSUM Control Chart
WELL HSB107C - Tin, total recoverable



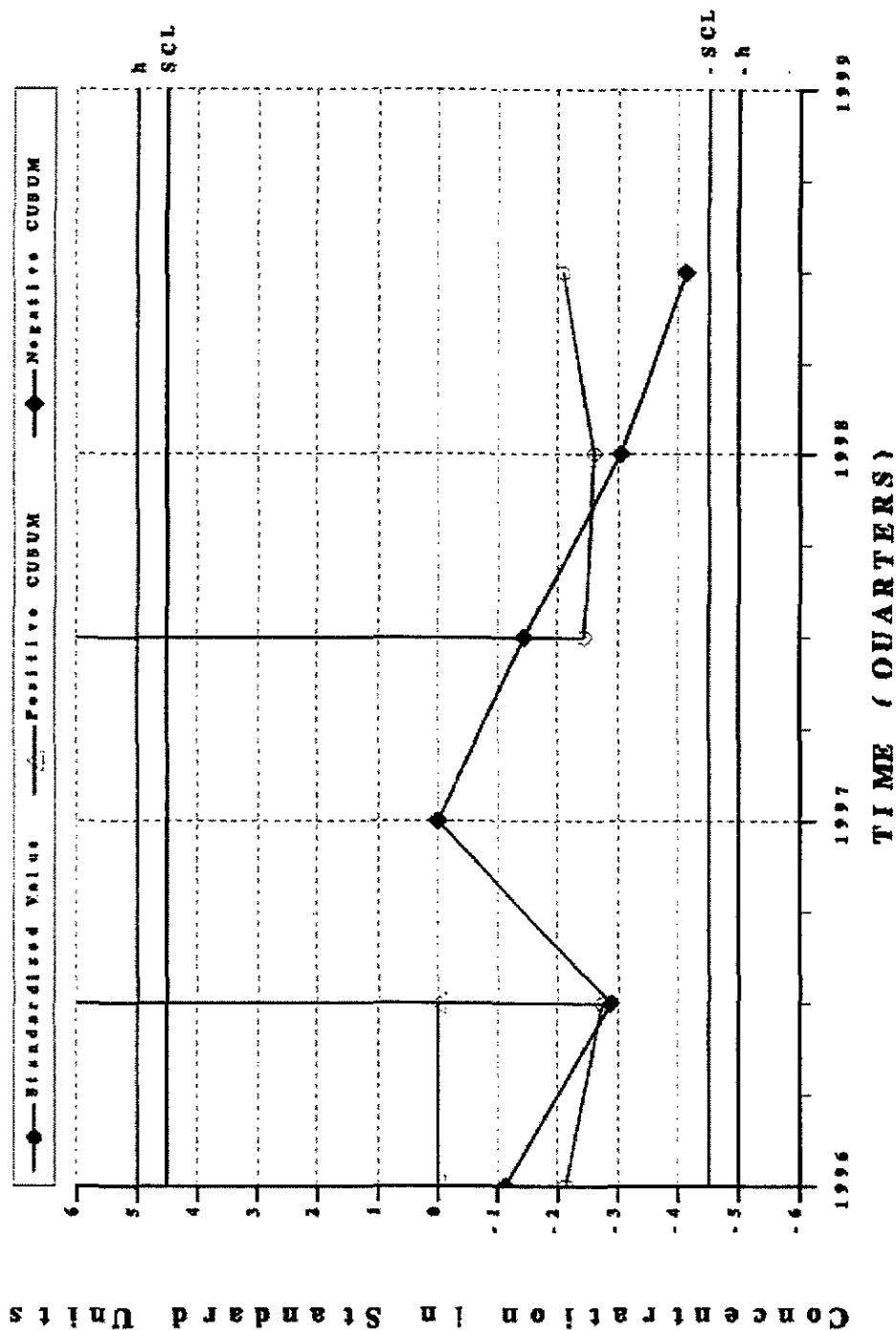
Combined Shewhart-CUSUM Control Chart
WELL HSB107C - Tritium



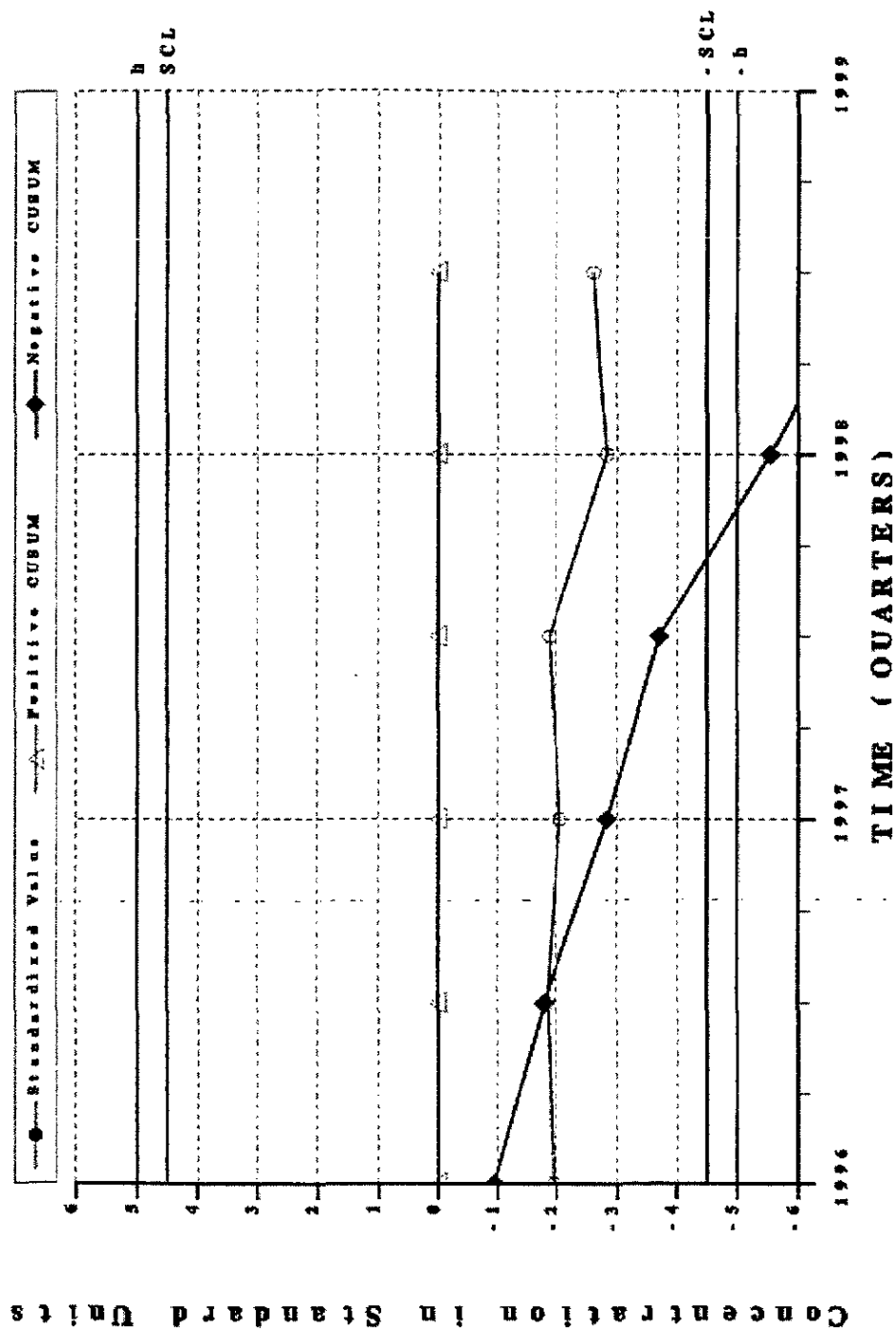
Combined Shewhart - CUSUM Control Chart WELL HSB107C - Water Level

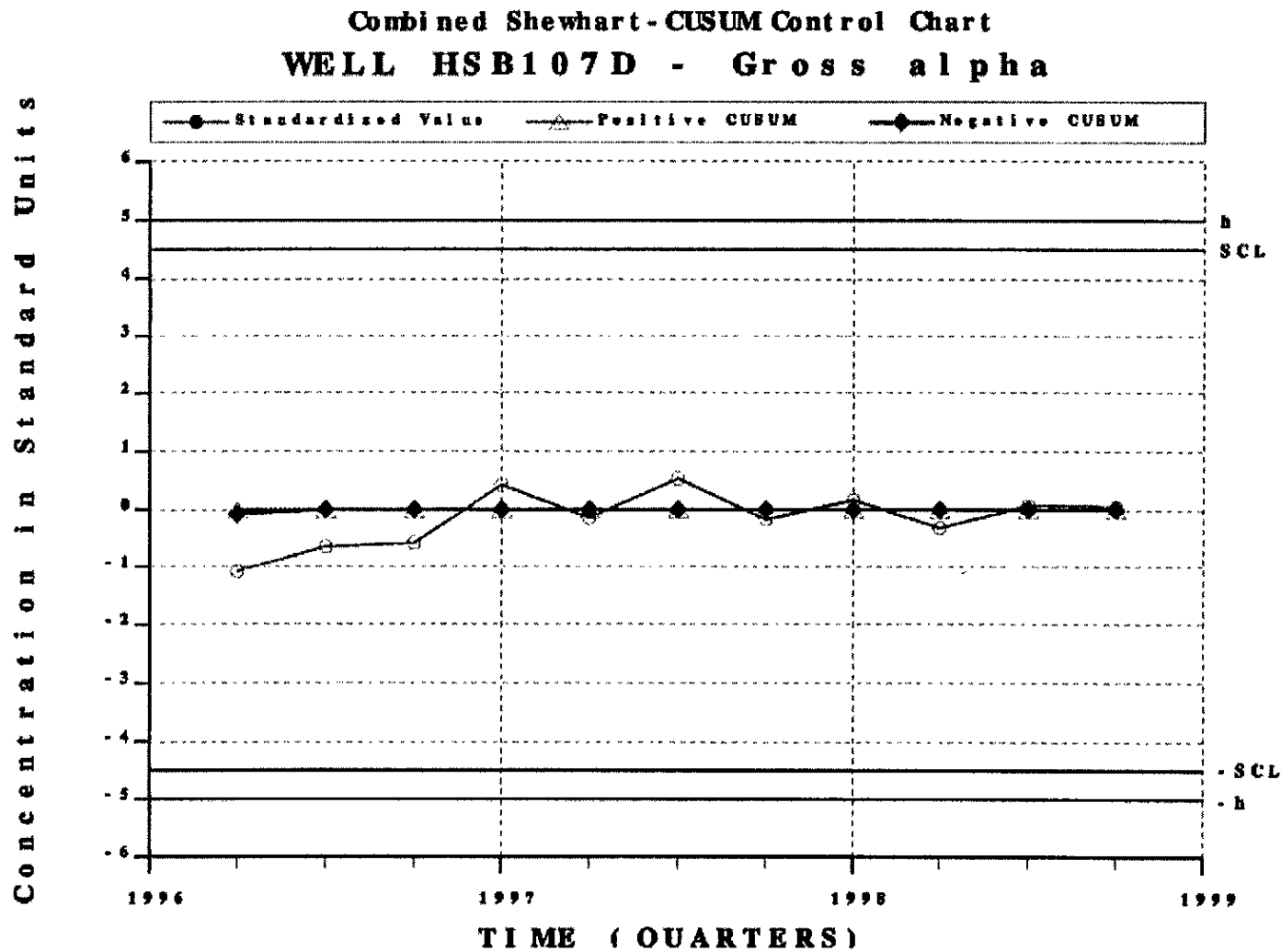


Combined Shewhart - CUSUM Control Chart
WELL HSB107D - Barium, total recoverable

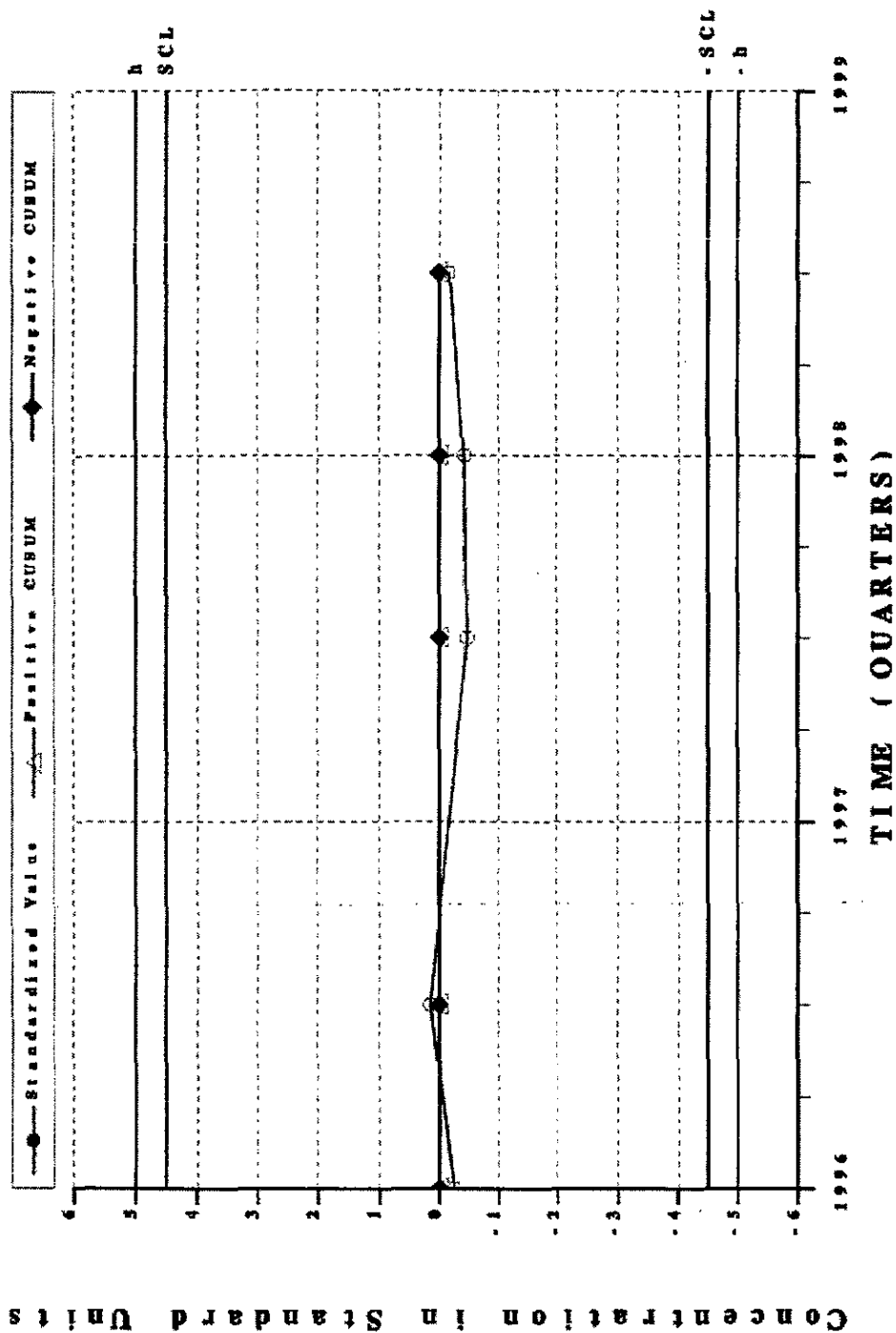


Combined Shewhart-CUSUM Control Chart WELL HSB107D - Cobalt-60



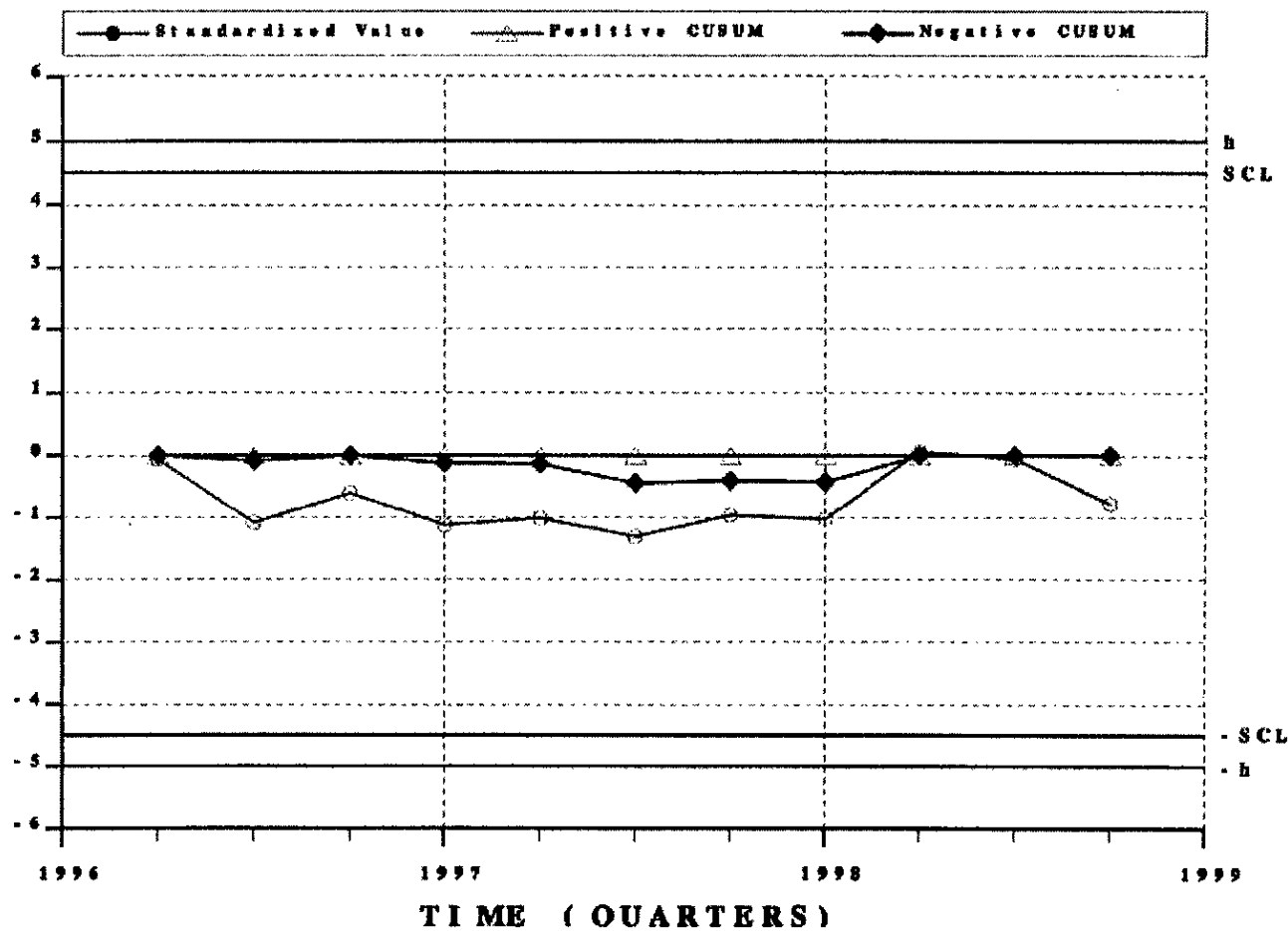


Combined Shewhart-CUSUM Control Chart WELL HSB107D - Iodine-129

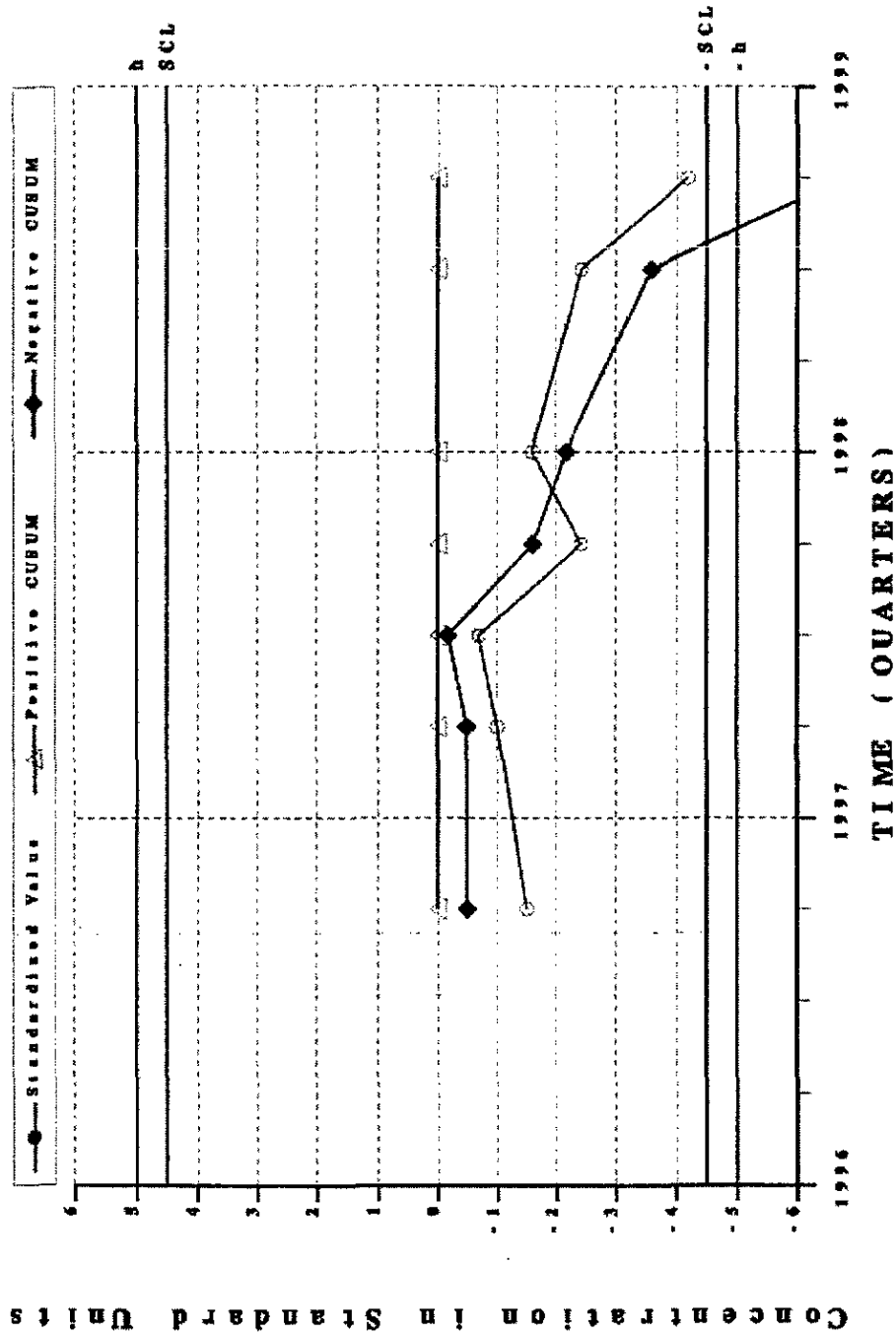


Concentration in Standard Units

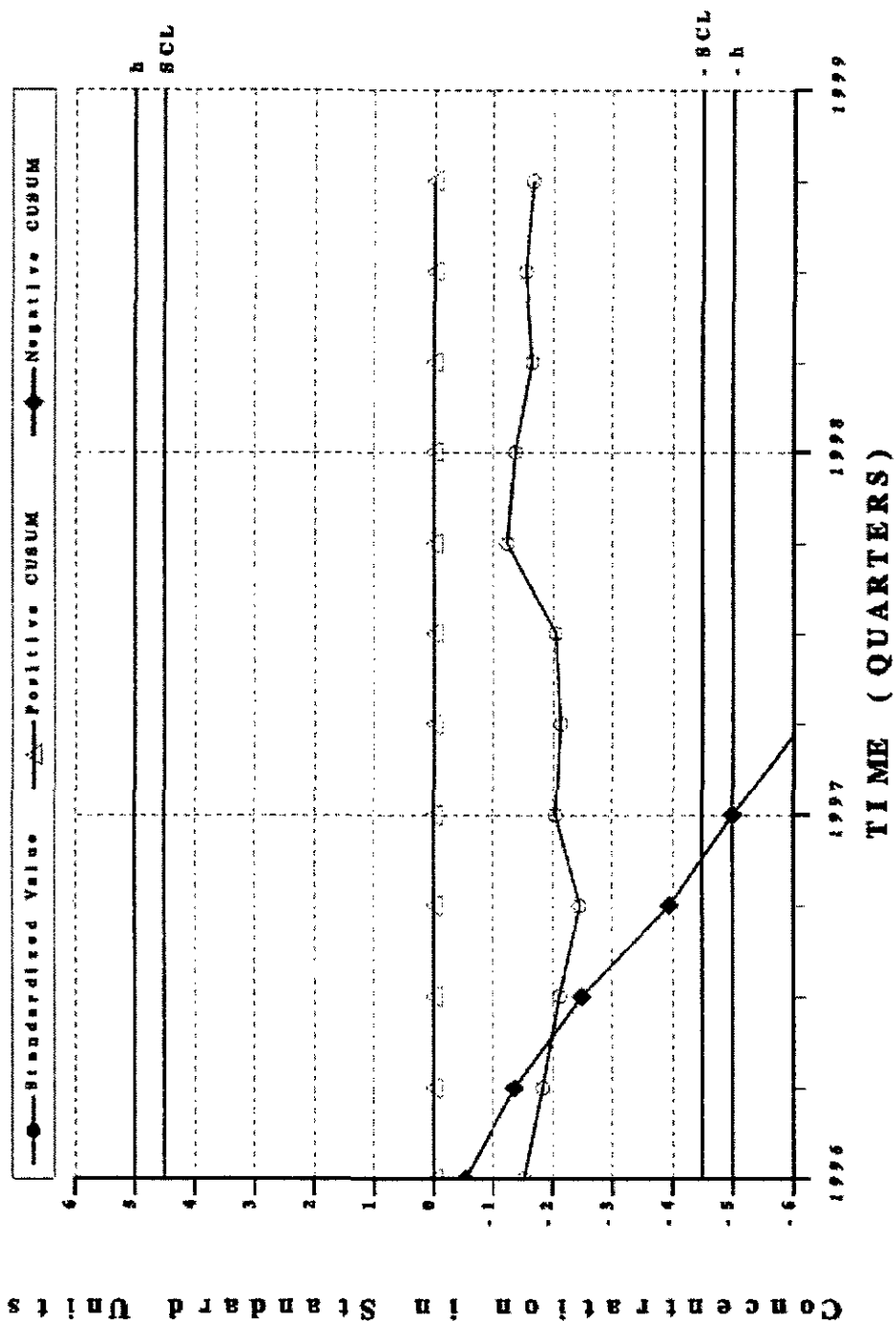
Combined Shewhart-CUSUM Control Chart
WELL HSB107D - Mercury, total recoverable



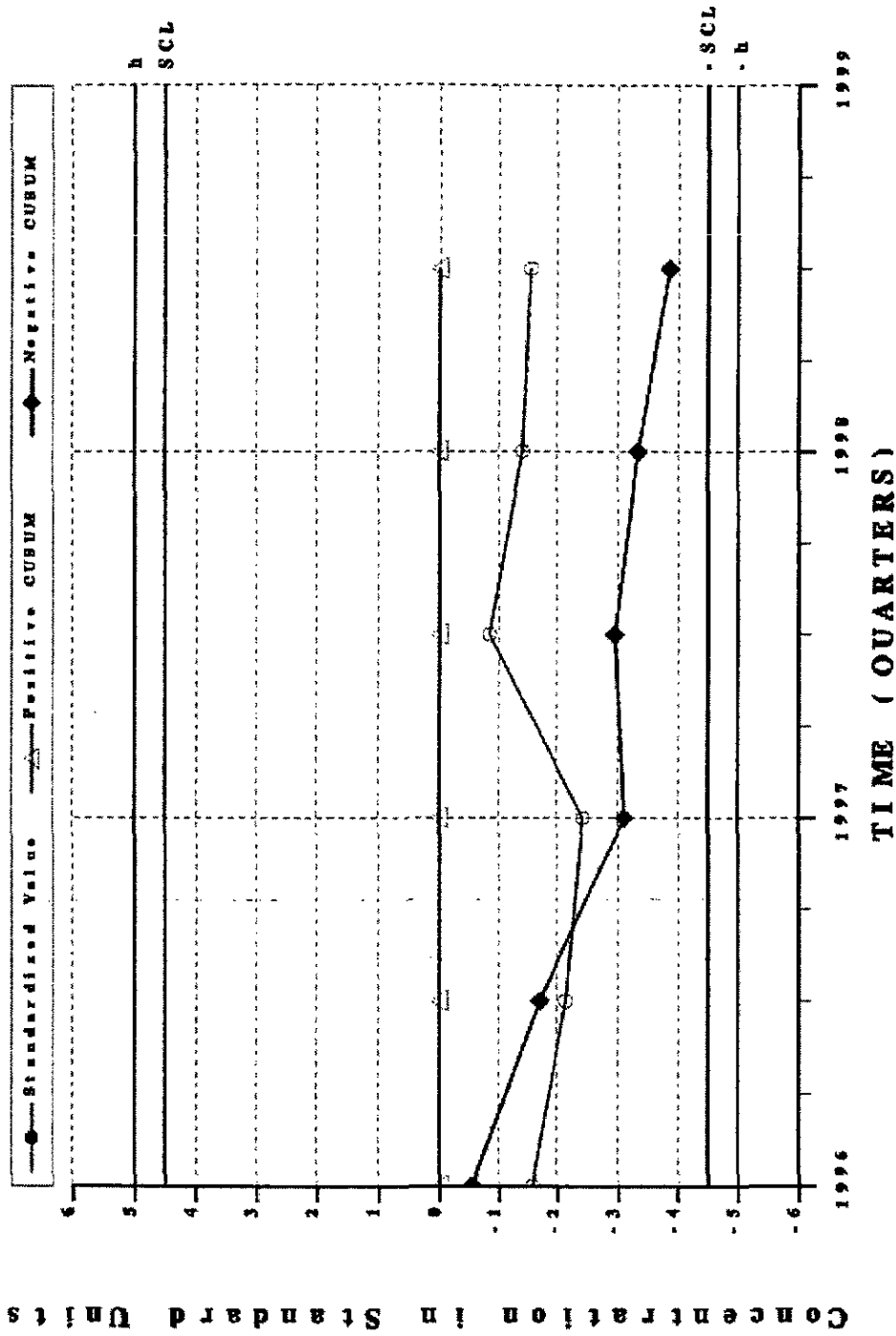
Combined Shewhart-CUSUM Control Chart
WELL HSB107D - Nitrate-nitrite as nitrogen



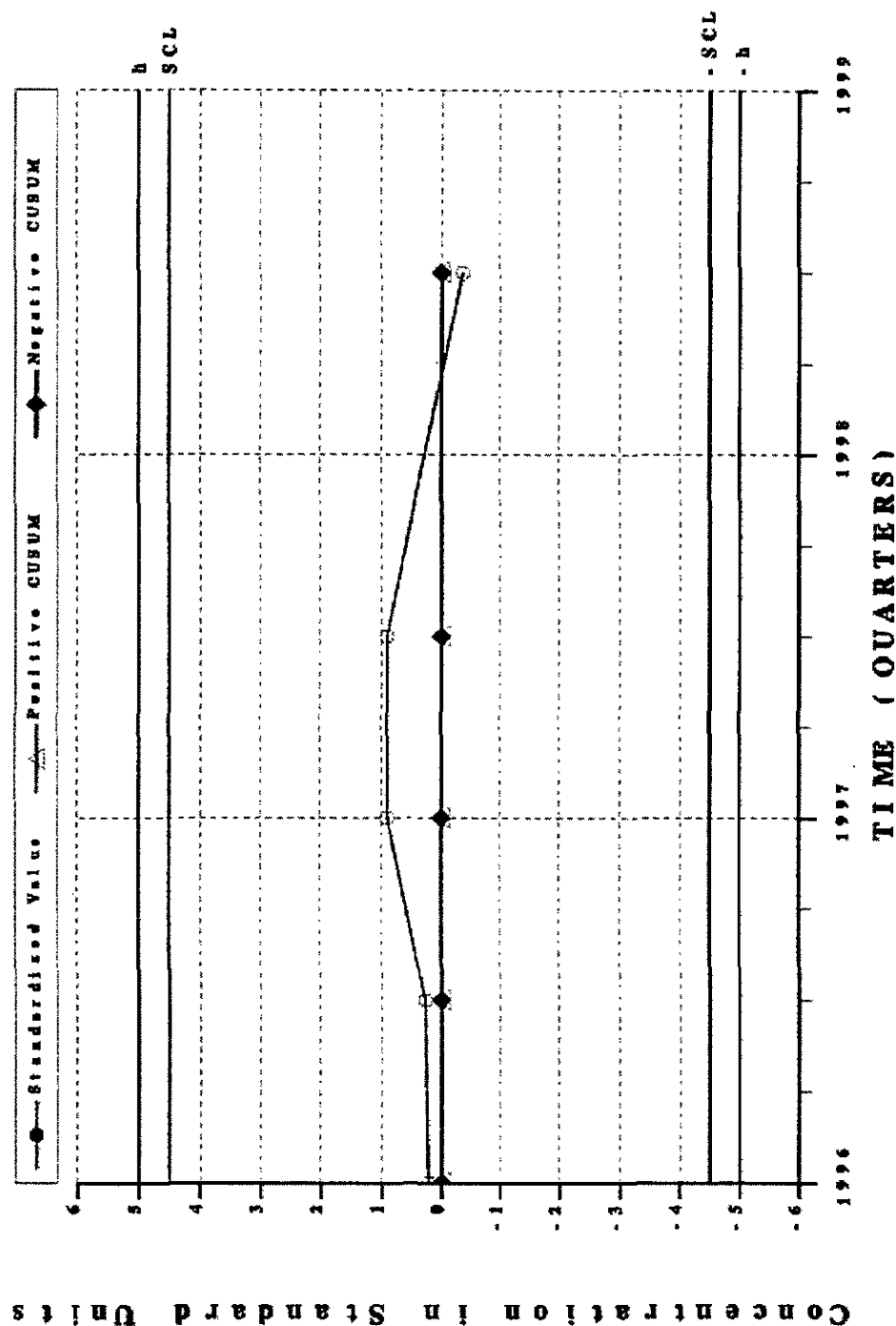
Combined Shewhart-CUSUM Control Chart
WELL HSB107D - Nonvolatile beta



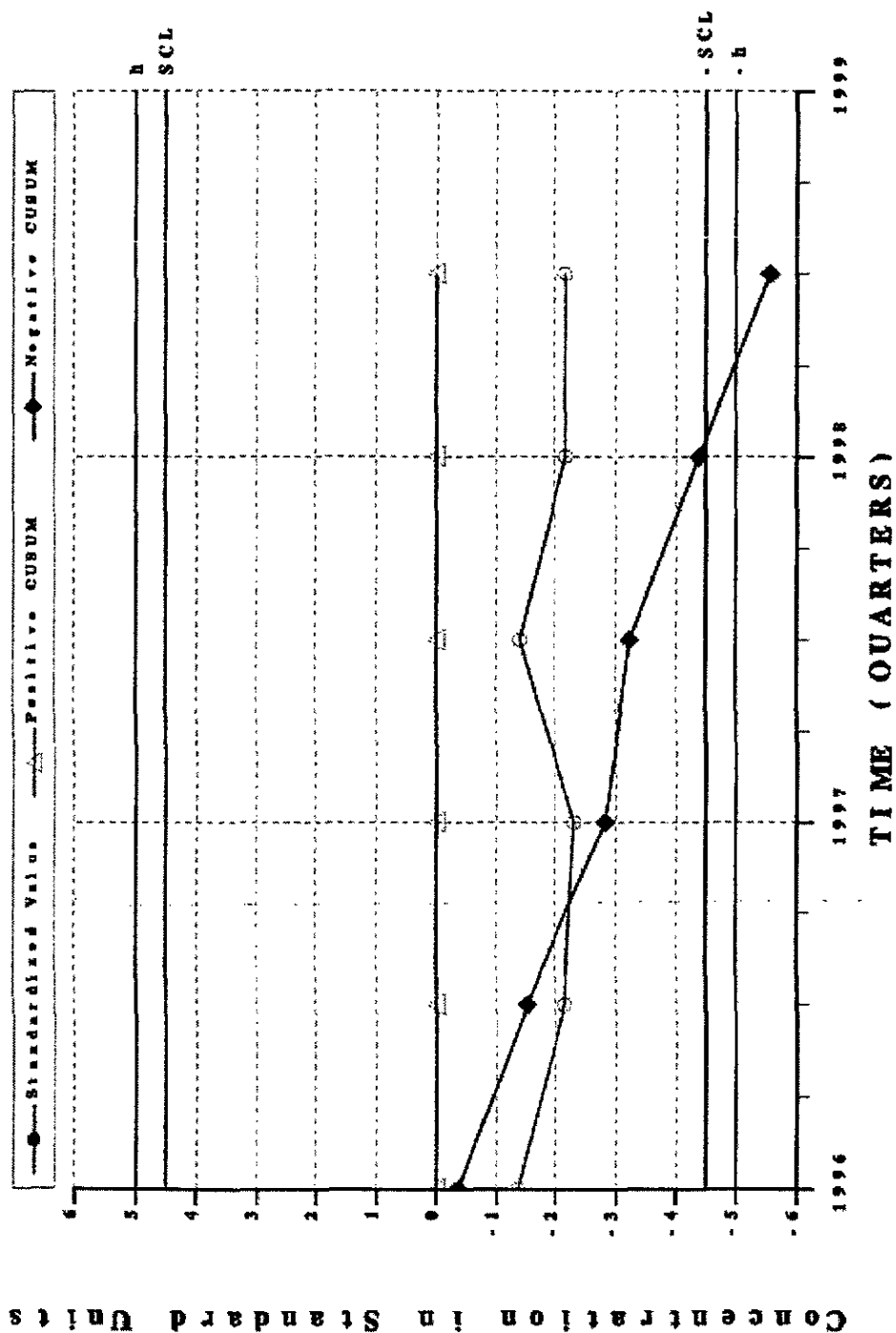
Combined Shewhart-CUSUM Control Chart
WELL HSB107D - Radium-226



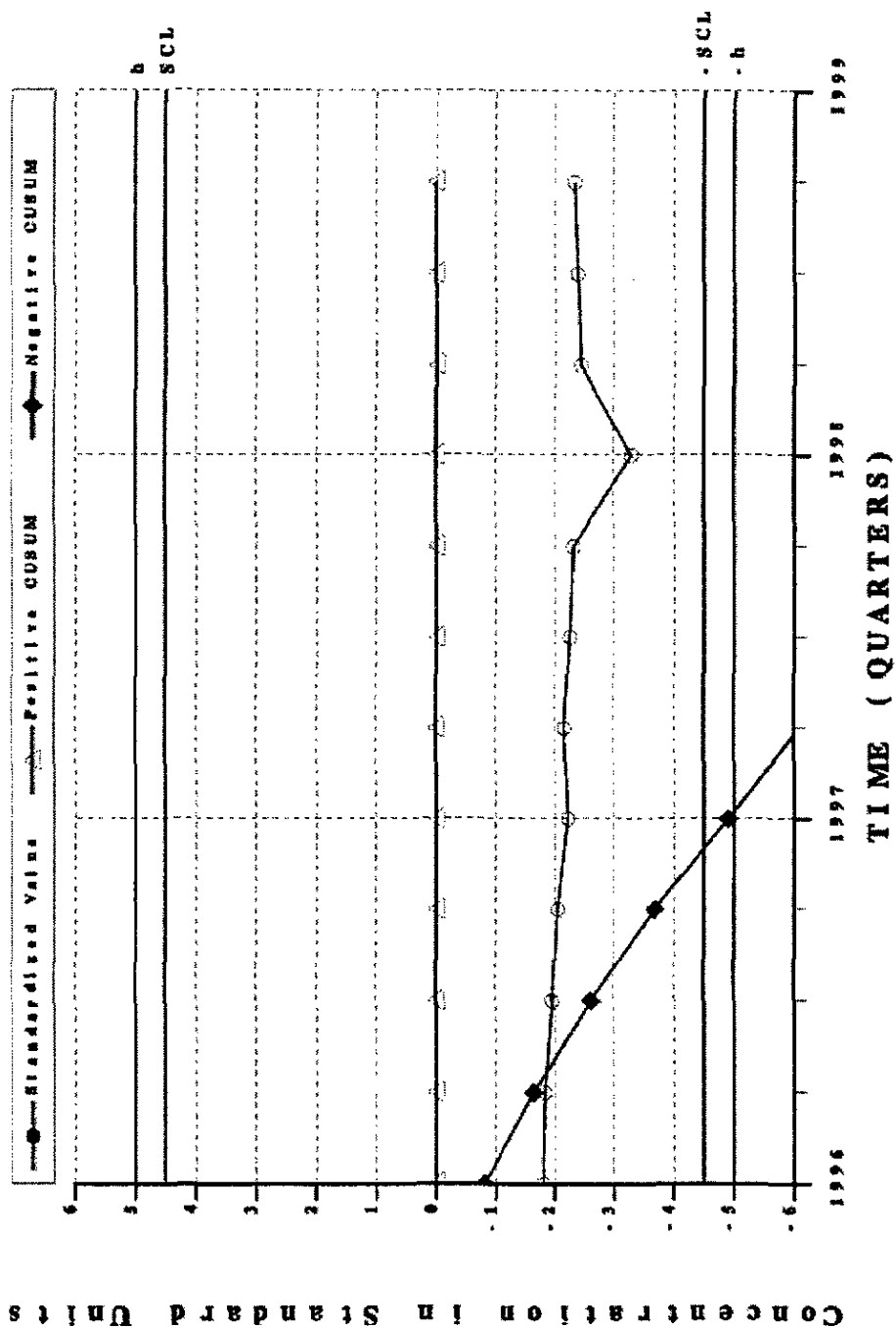
Combined Shewhart-CUSUM Control Chart
WELL HSB107D - Radium-228



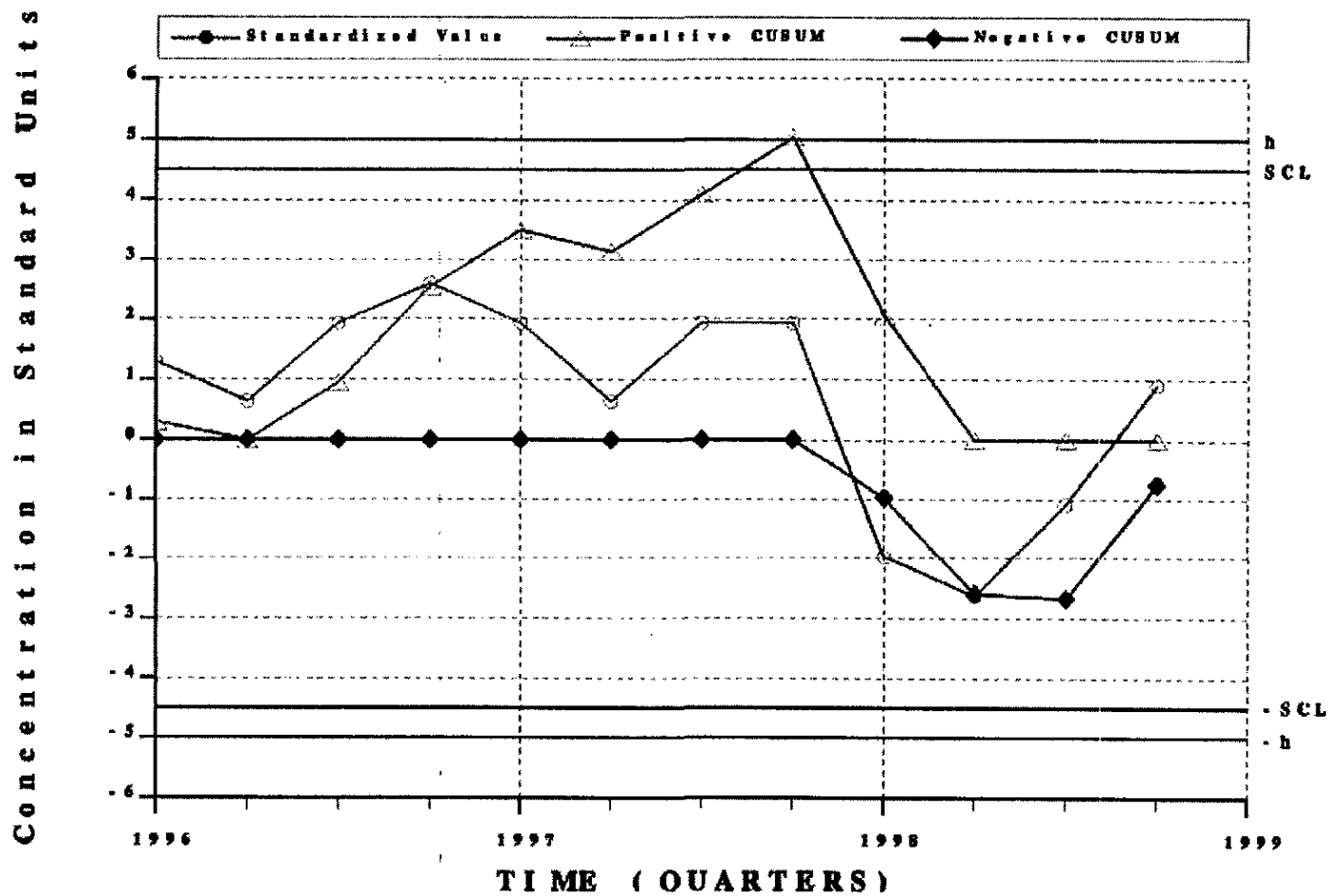
Combined Shewhart-CUSUM Control Chart WELL HSB107D - Strontium-90



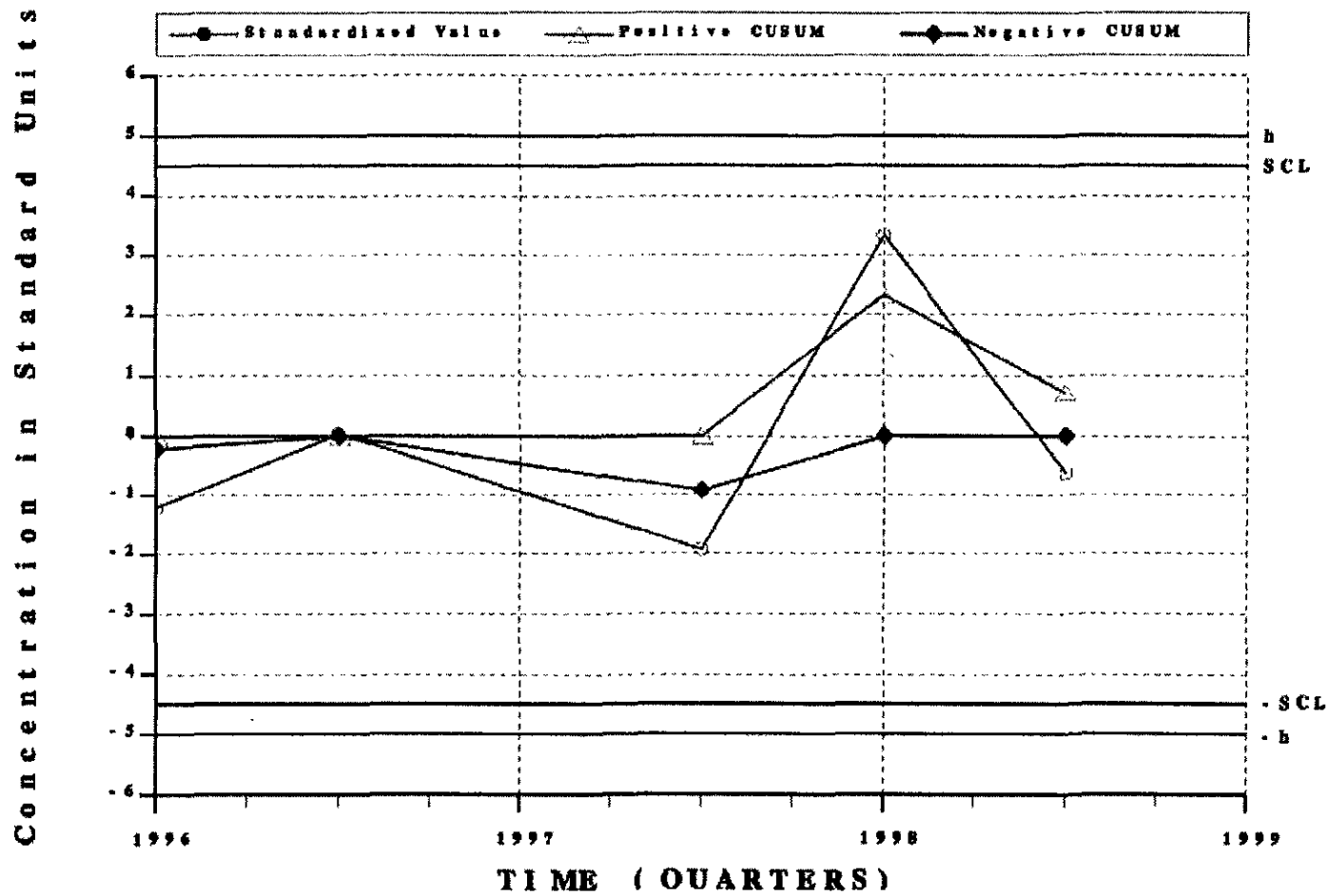
Combined Shewhart-CUSUM Control Chart
WELL HSB107D - Tritium



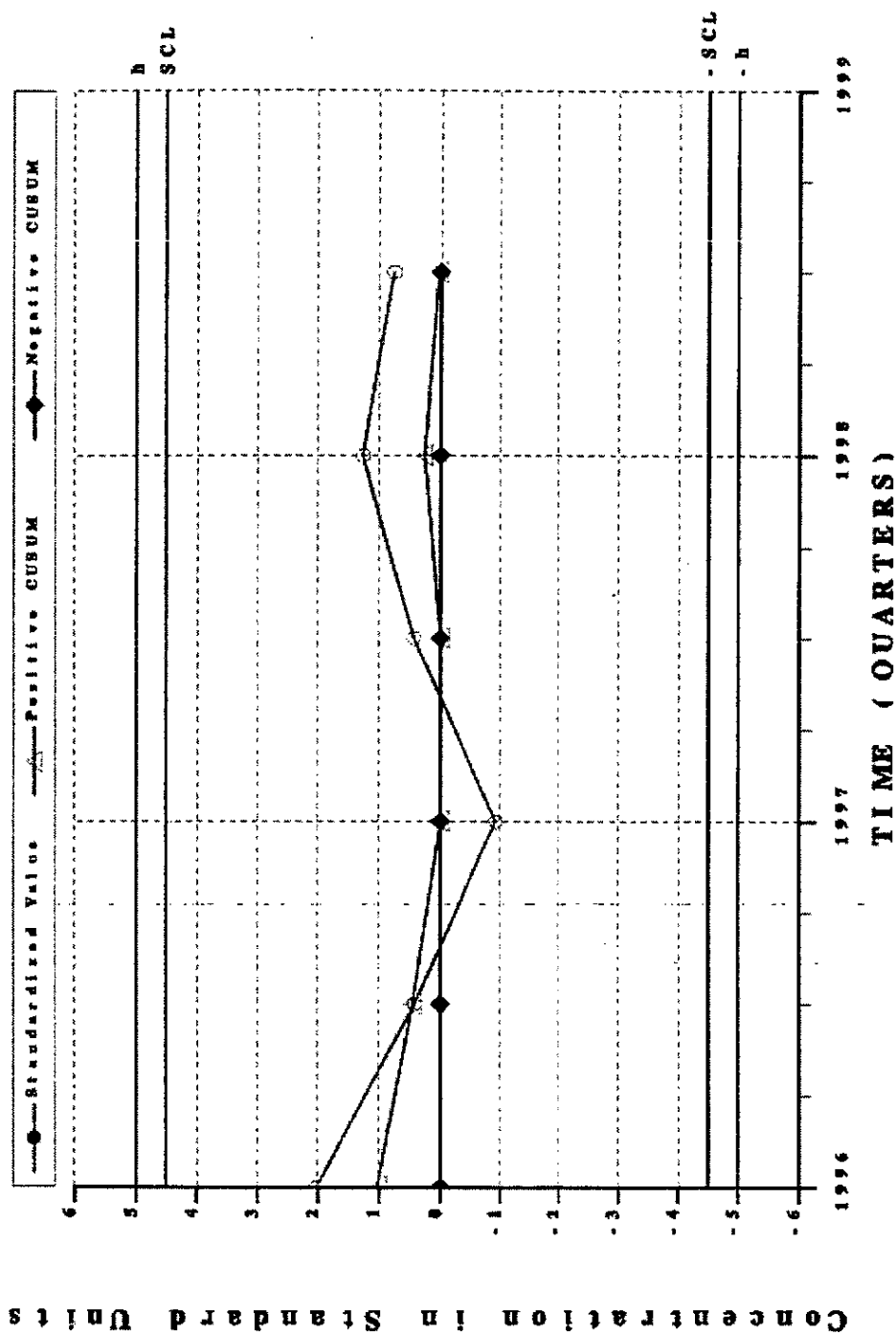
Combined Shewhart-CUSUM Control Chart
WELL HSB107D - Water Level



Combined Shewhart-CUSUM Control Chart
WELL HSB107D - Zinc, total recoverable

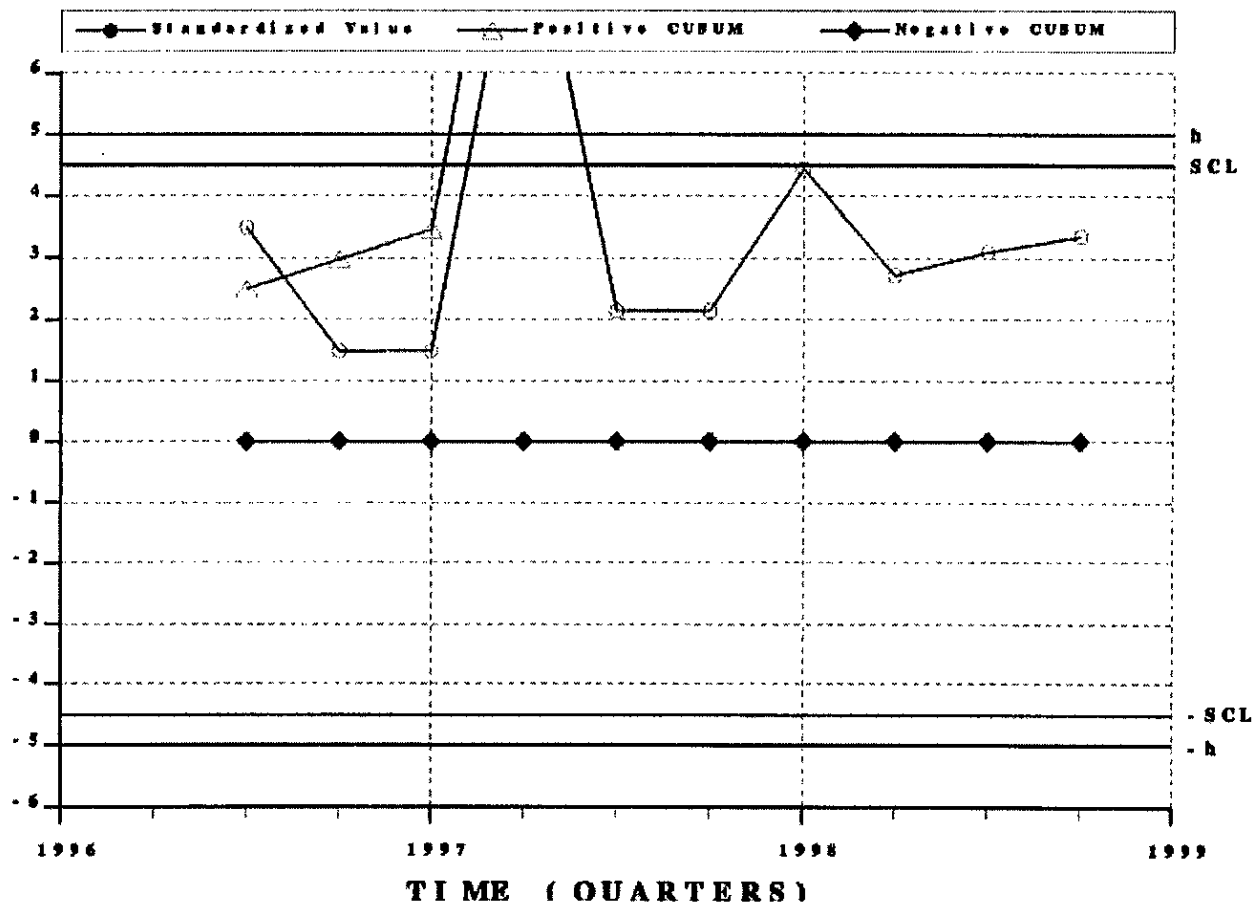


Combined Shewhart-CUSUM Control Chart WELL HSB108C - Barium total recoverable

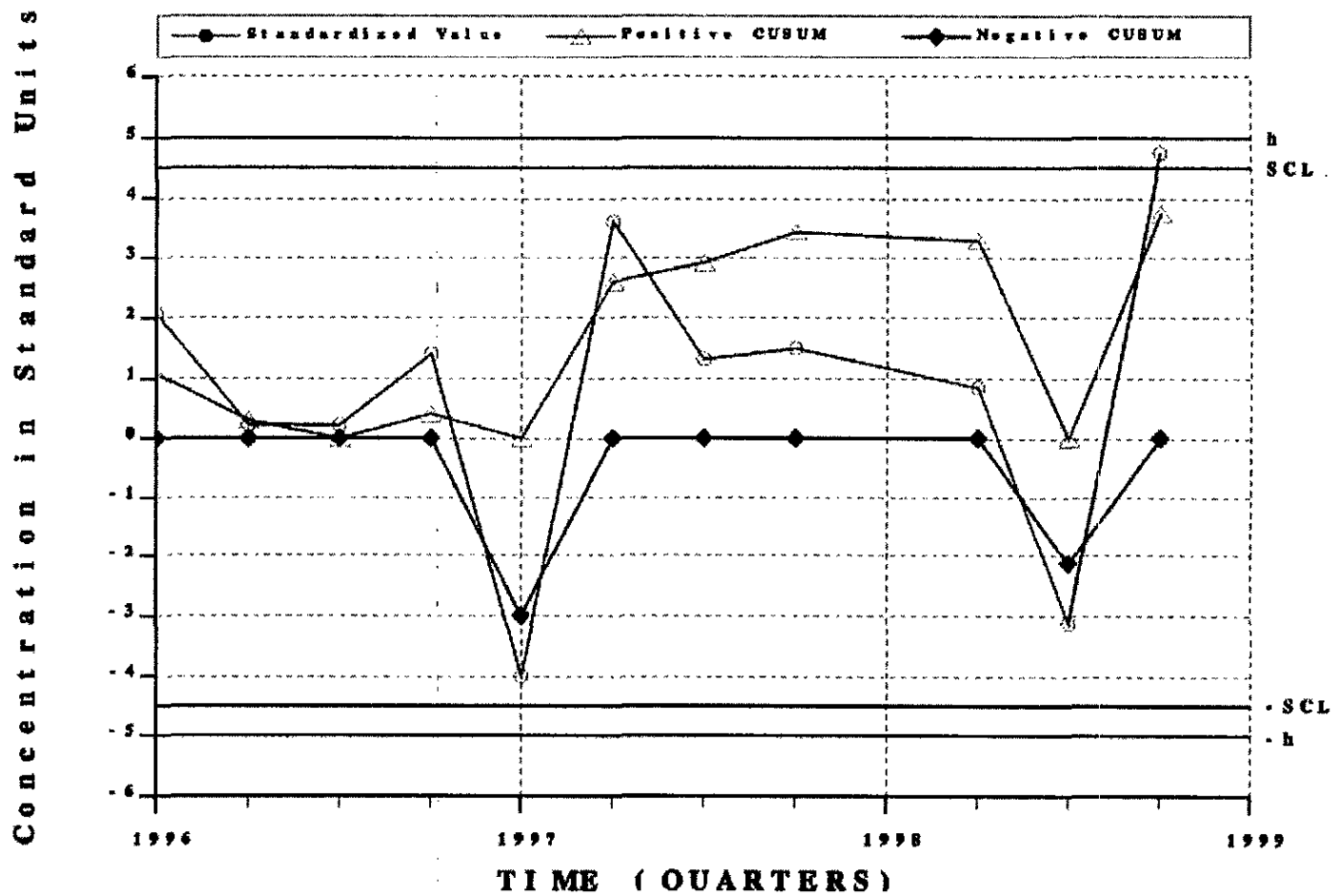


Concentration in Standard Units

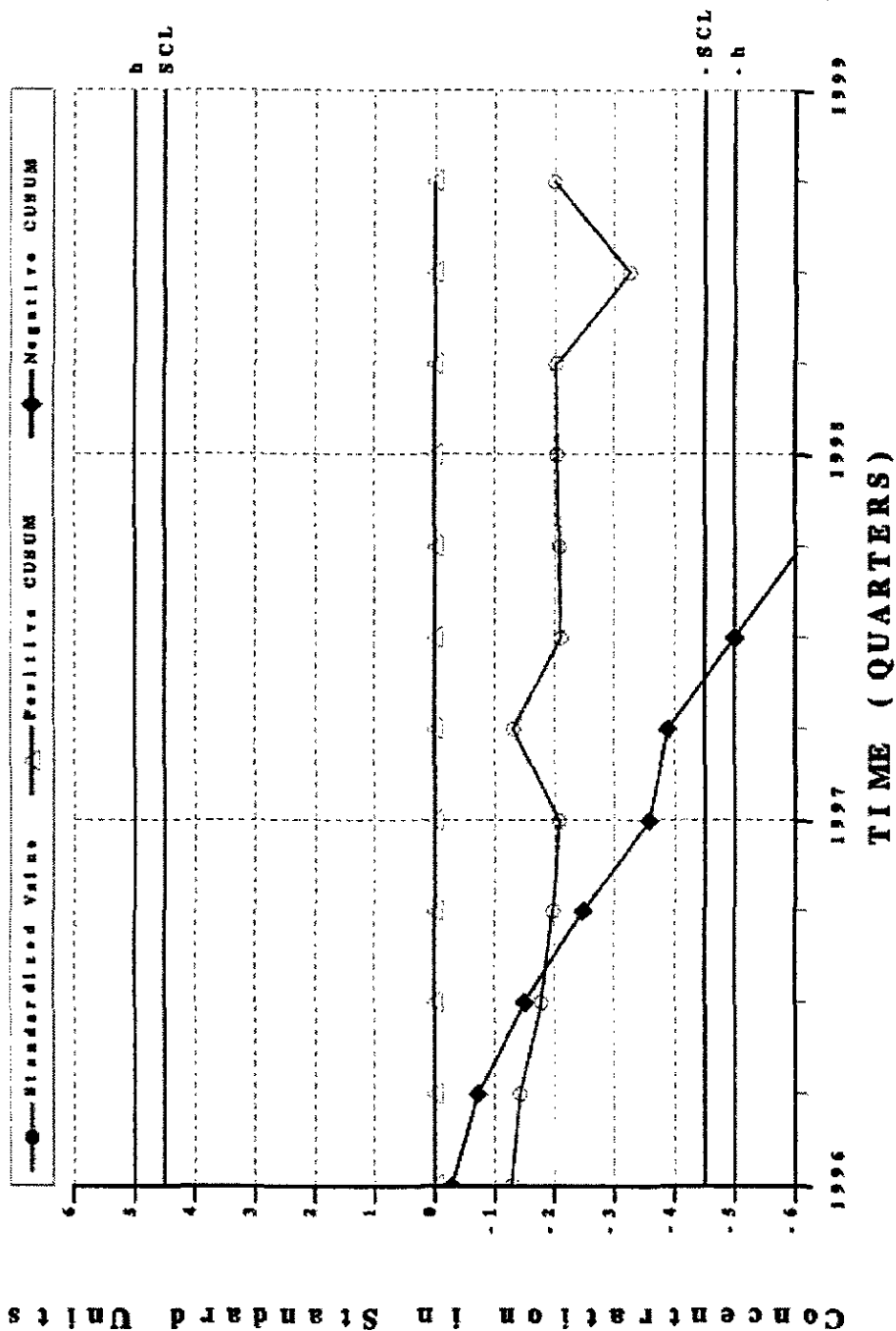
Combined Shewhart-CUSUM Control Chart
WELL HSB108C - Nitrate-nitrite as nitrogen



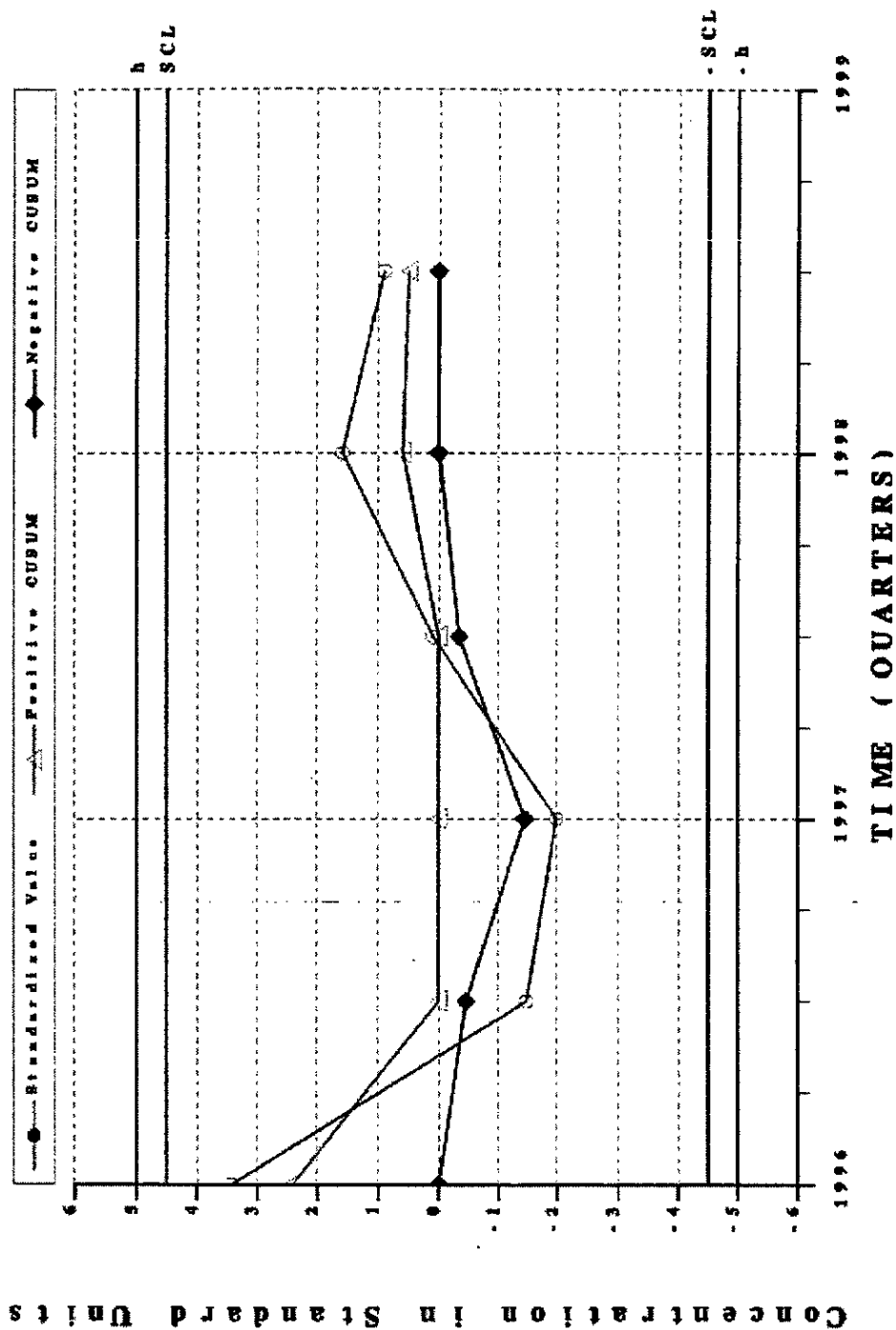
Combined Shewhart-CUSUM Control Chart
WELL HSB108C - Nonvolatile beta



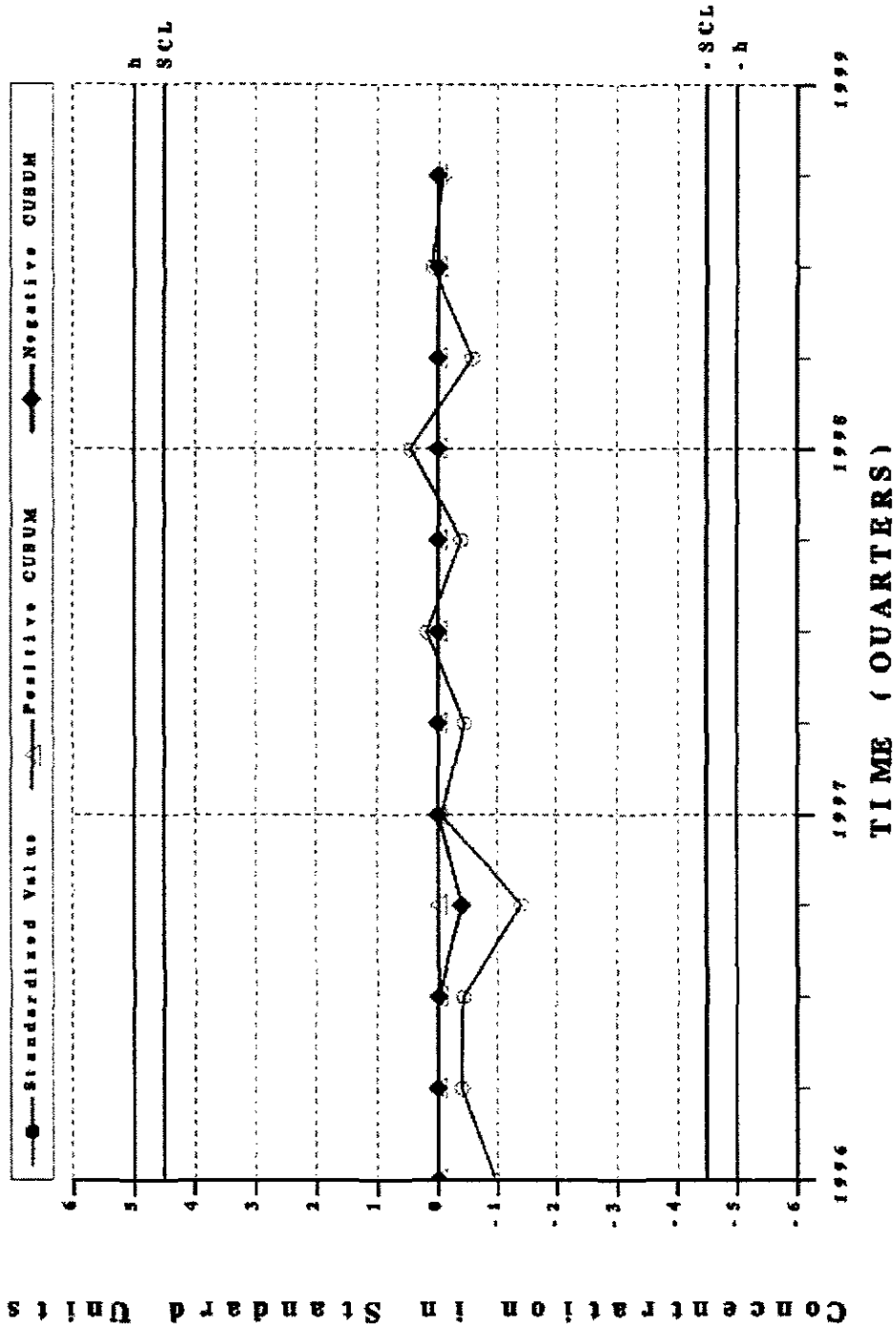
Combined Shewhart-CUSUM Control Chart
WELL HSB108C - Tritium



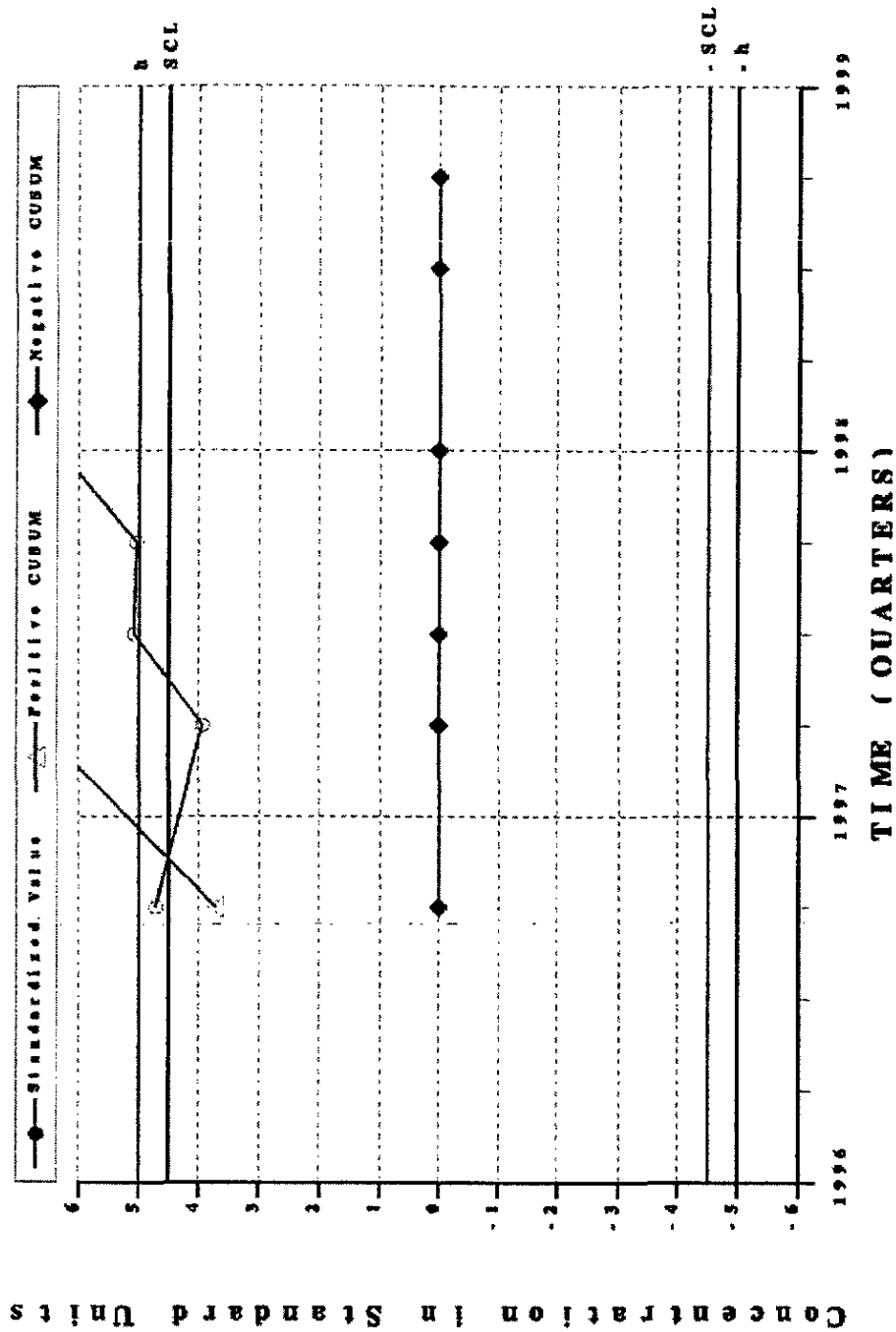
Combined Shewhart-CUSUM Control Chart
WELL HSB108C - Zinc, total recoverable

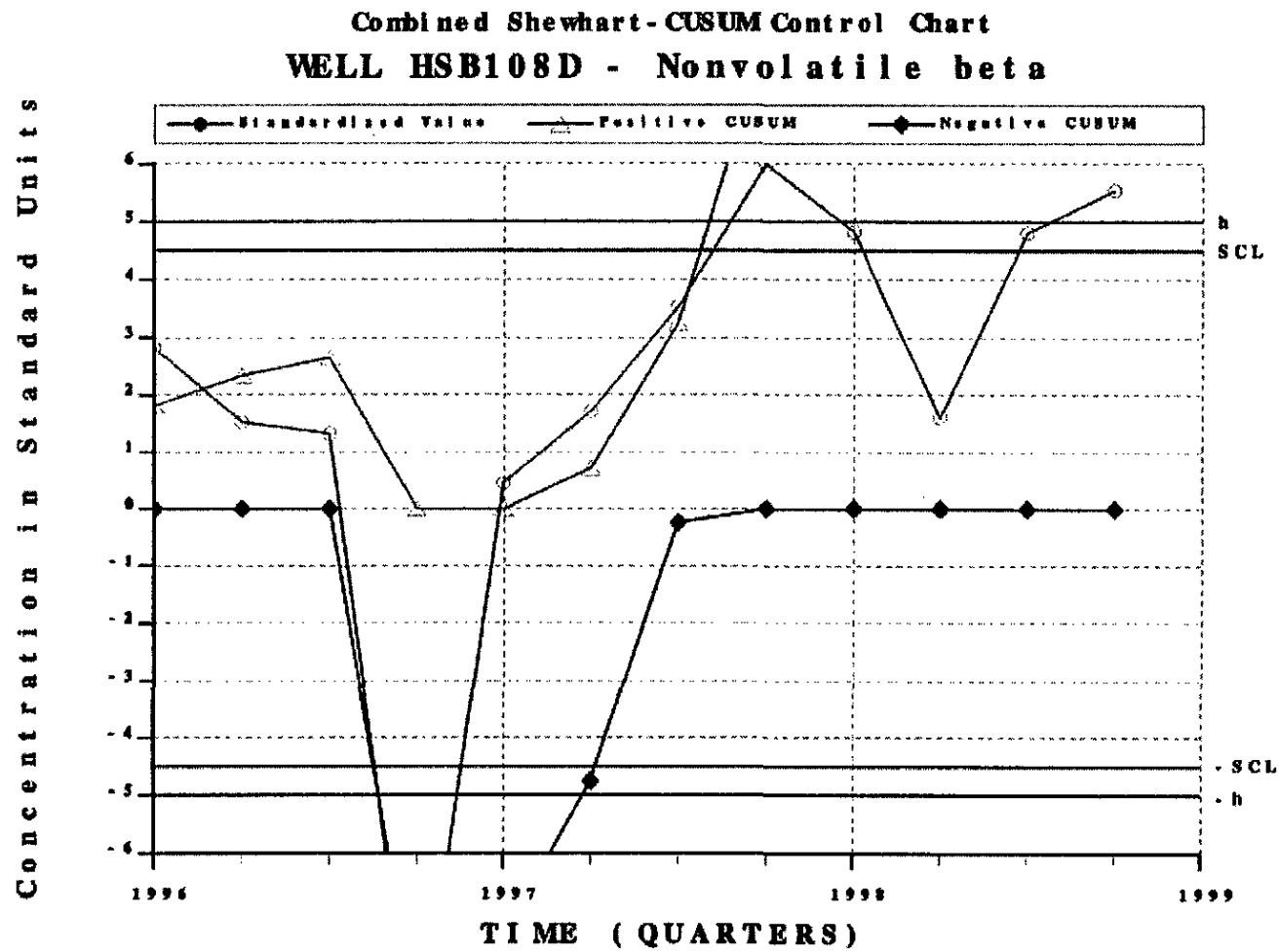


Combined Shewhart-CUSUM Control Chart
WELL HSB108D - Gross alpha

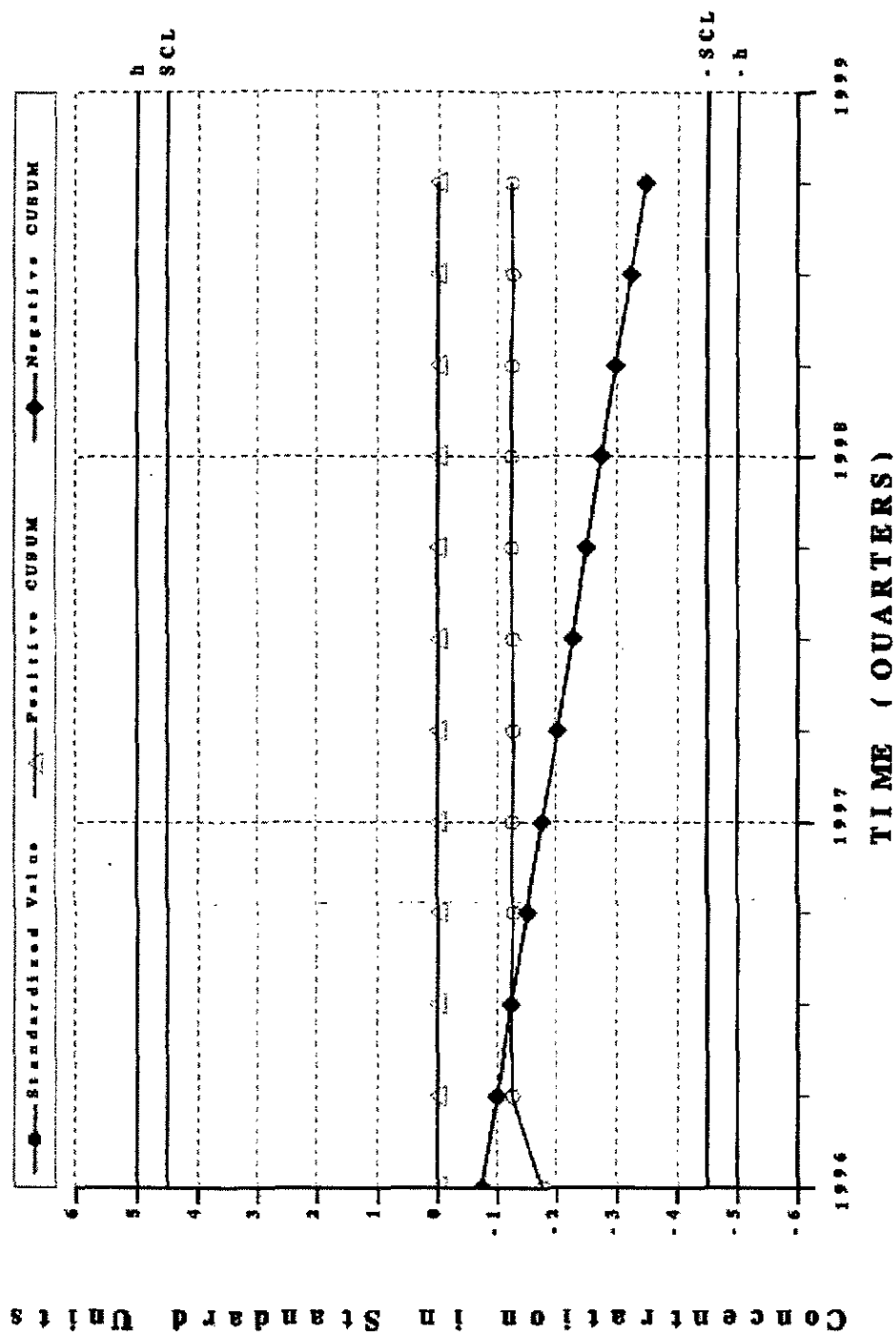


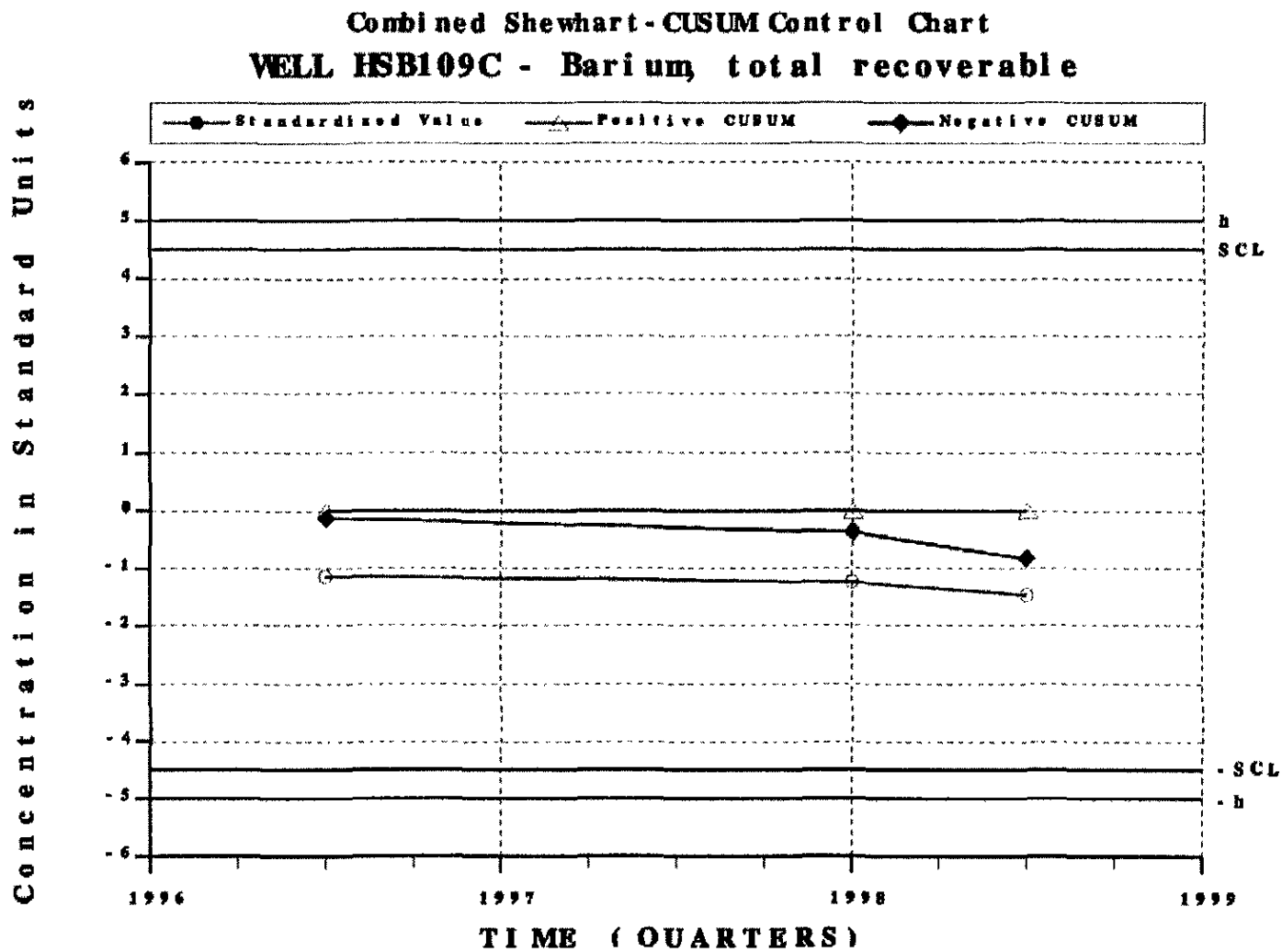
Combined Shewhart-CUSUM Control Chart
WELL HSB108D - Nitrate-nitrite as nitrogen



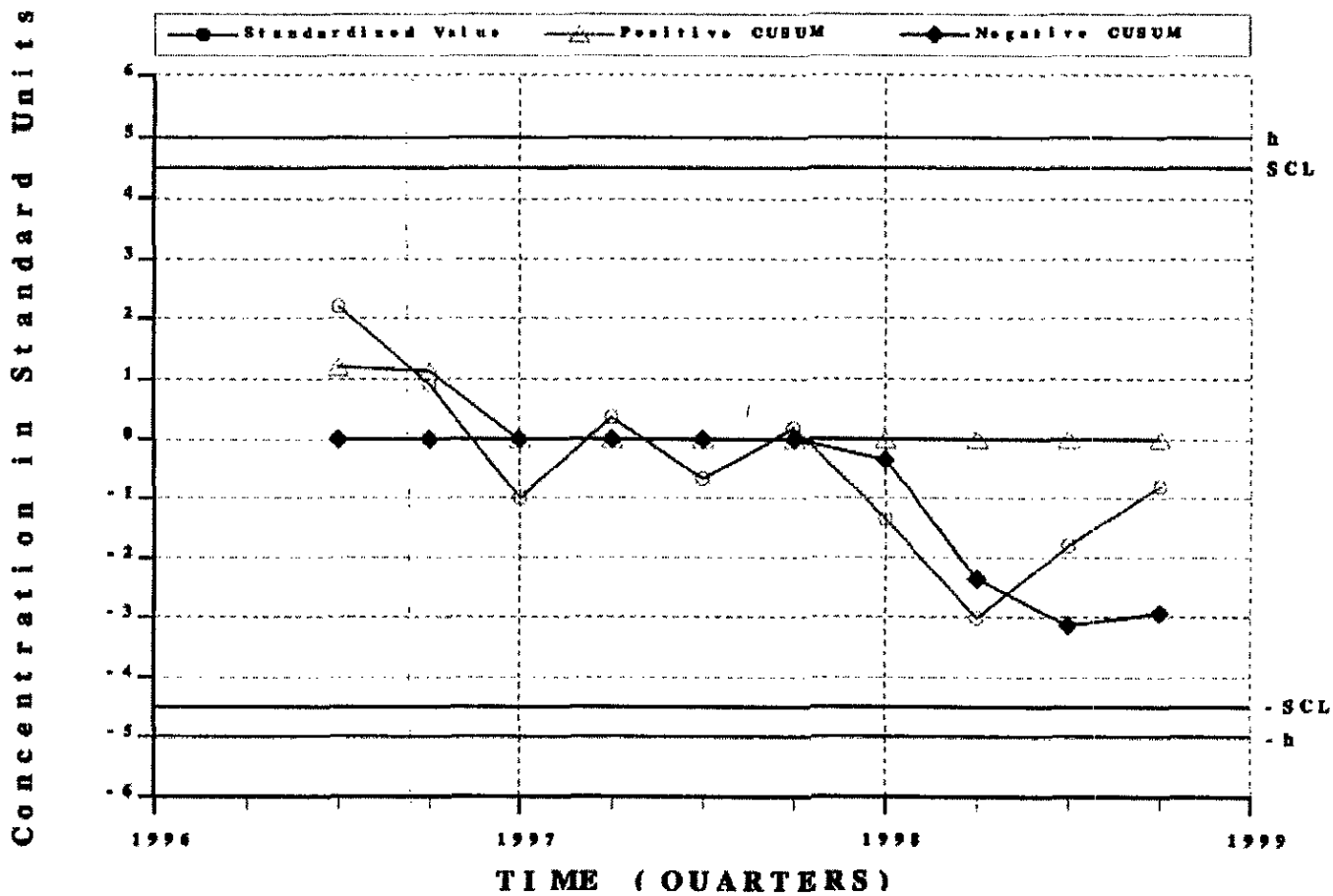


Combined Shewhart - CUSUM Control Chart WELL HSB108D - Tritium

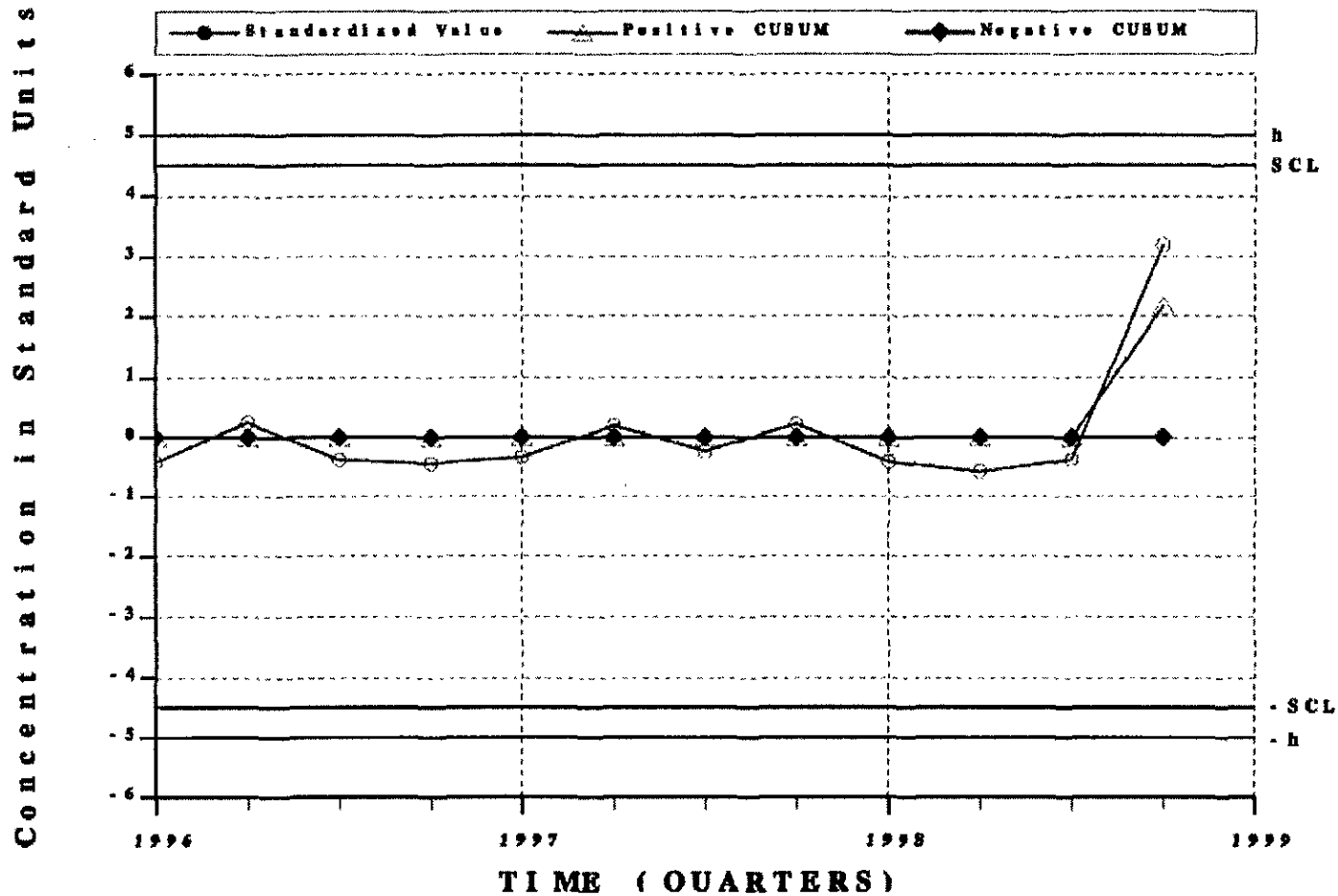




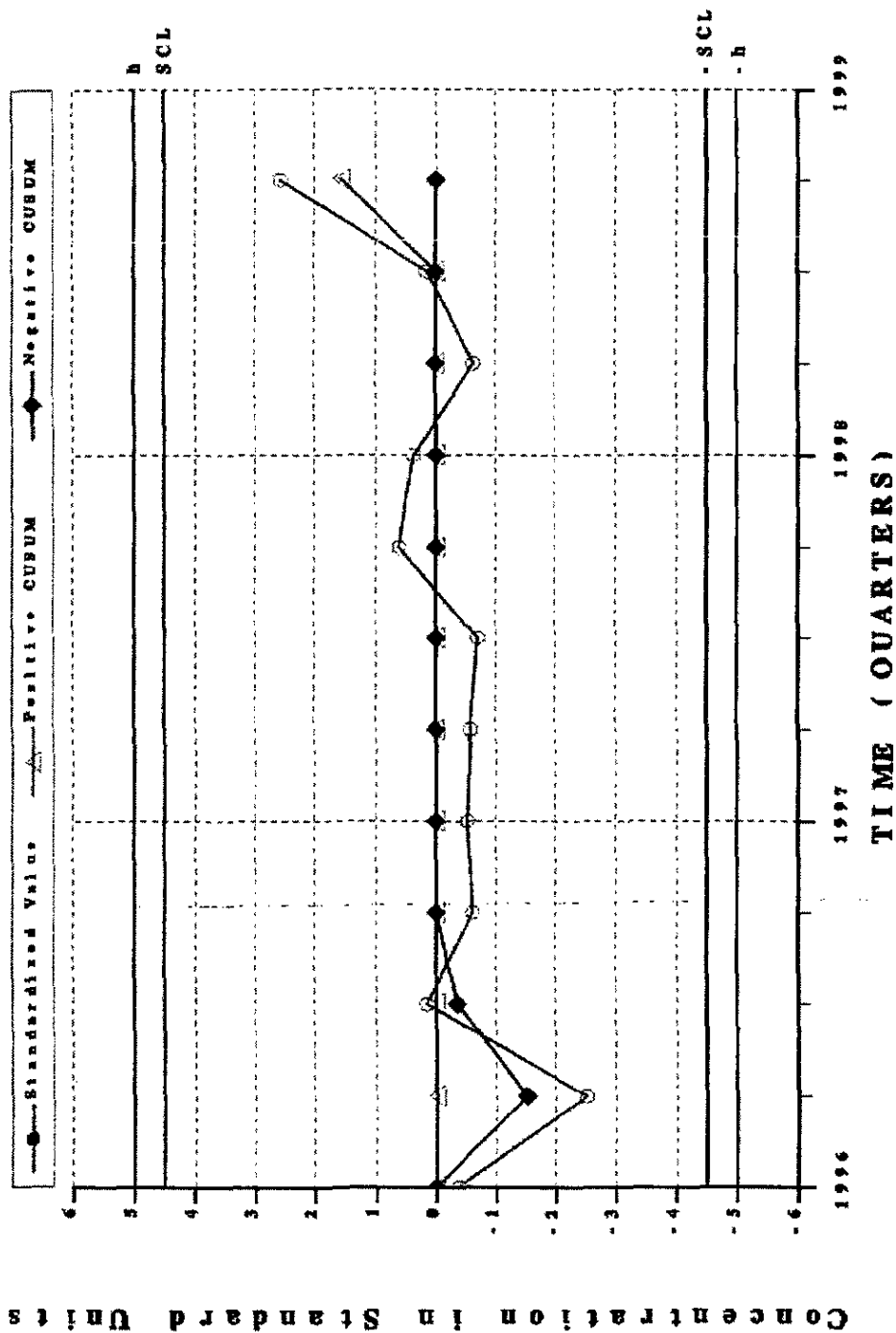
Combined Shewhart-CUSUM Control Chart
WELL HSB109C - Nitrate-nitrite as nitrogen



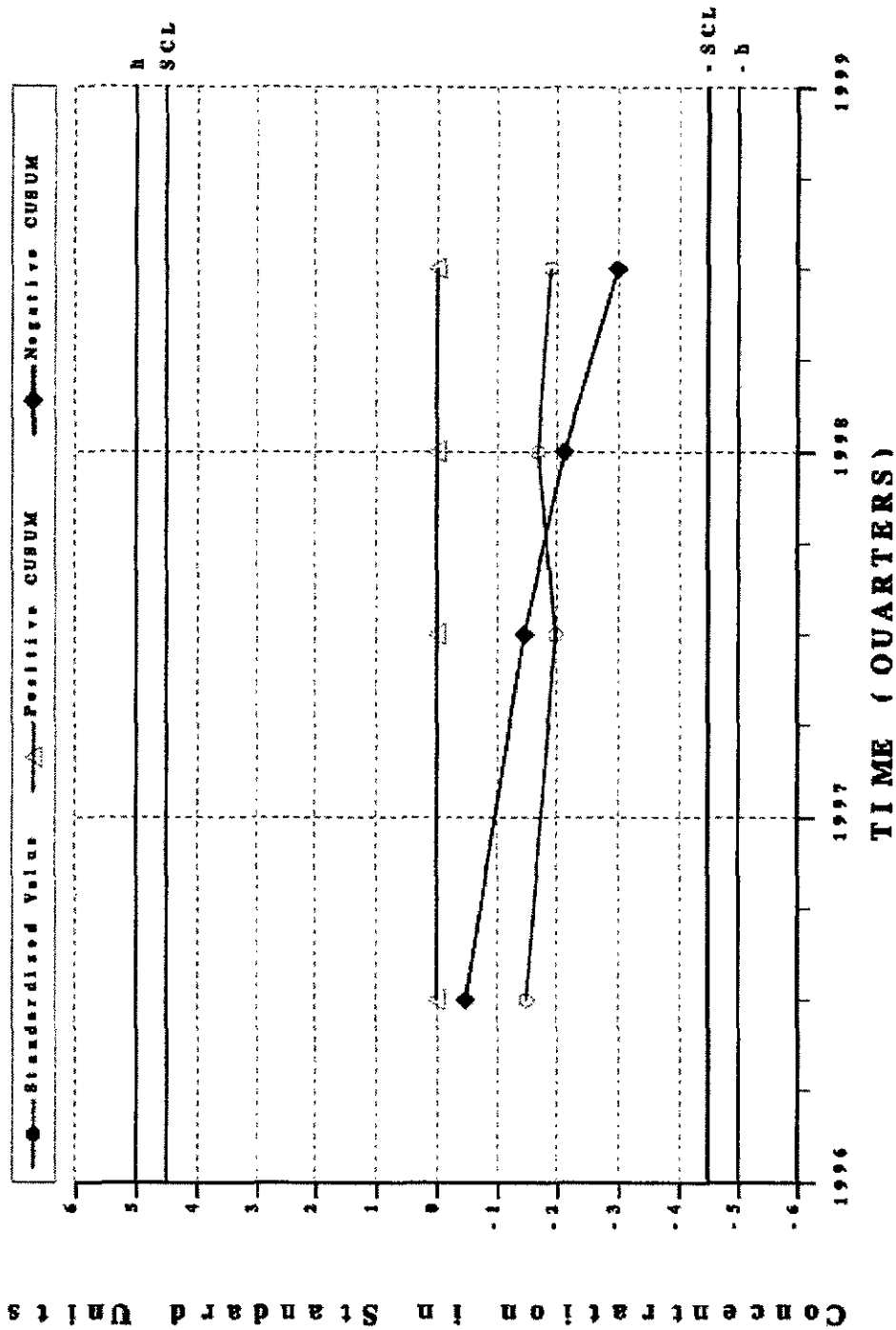
Combined Shewhart-CUSUM Control Chart
WELL HSB109C - Nonvolatile beta



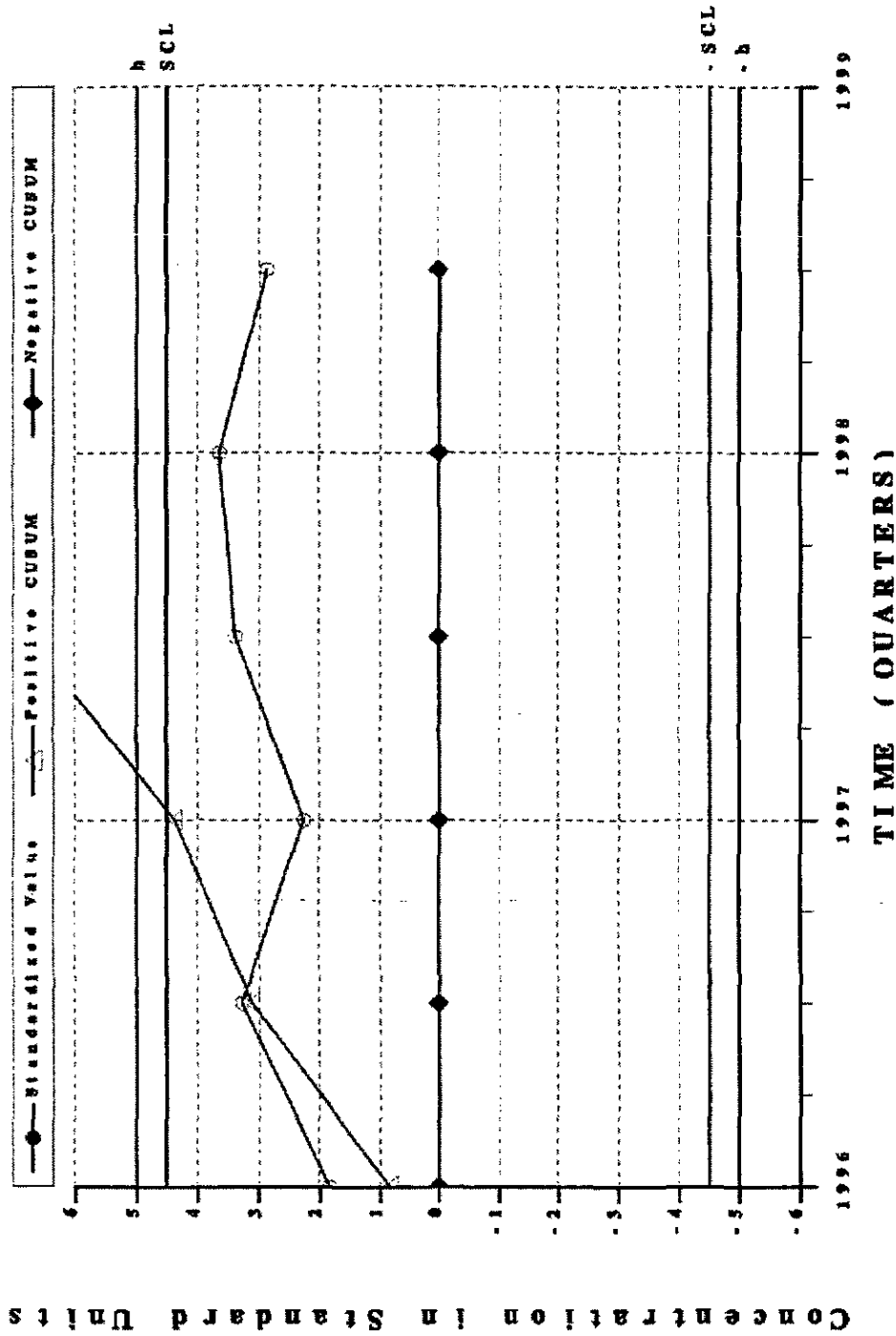
Combined Shewhart-CUSUM Control Chart WELL HSB109C - Tritium



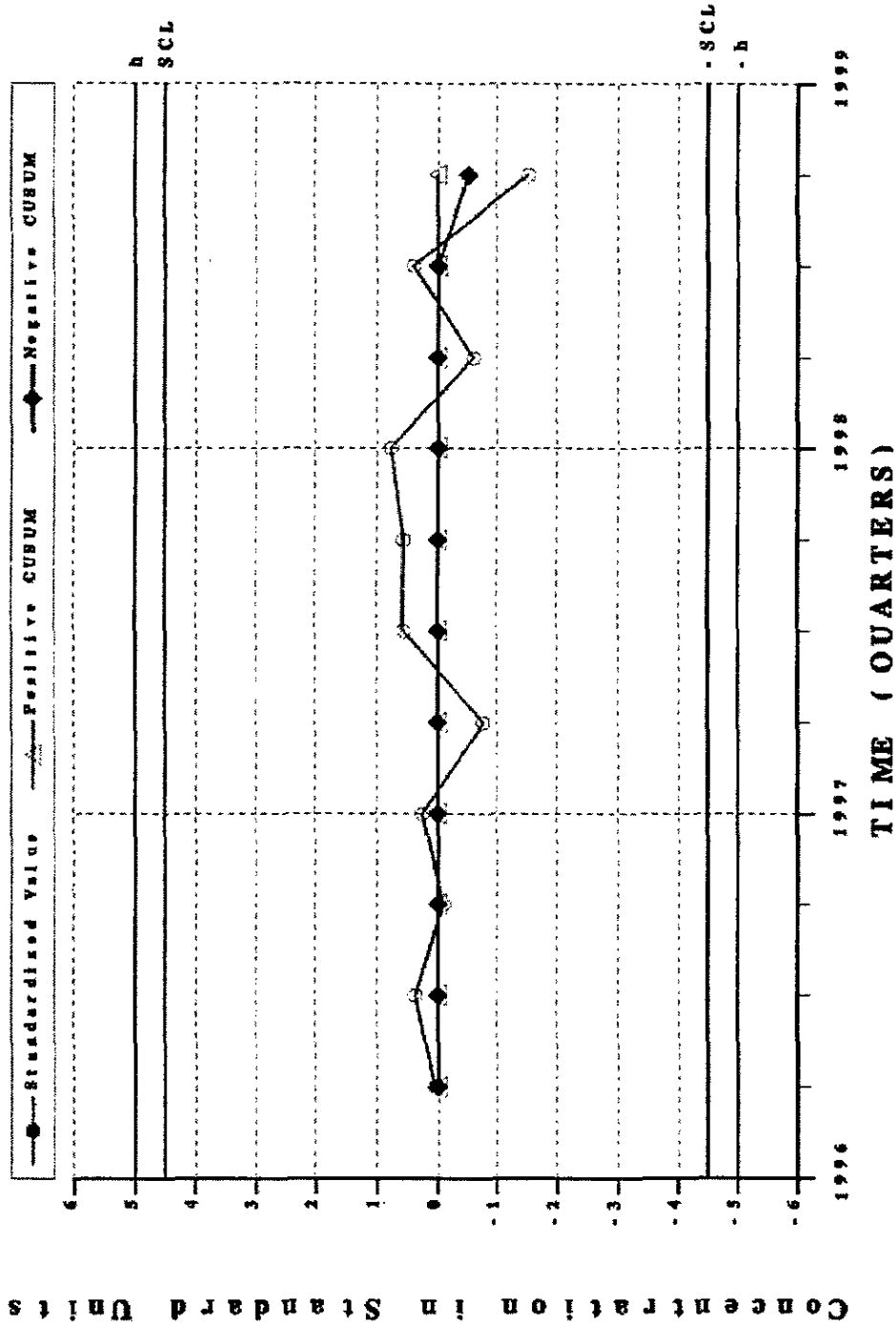
Combined Shewhart-CUSUM Control Chart
WELL HSB109D - Barium total recoverable



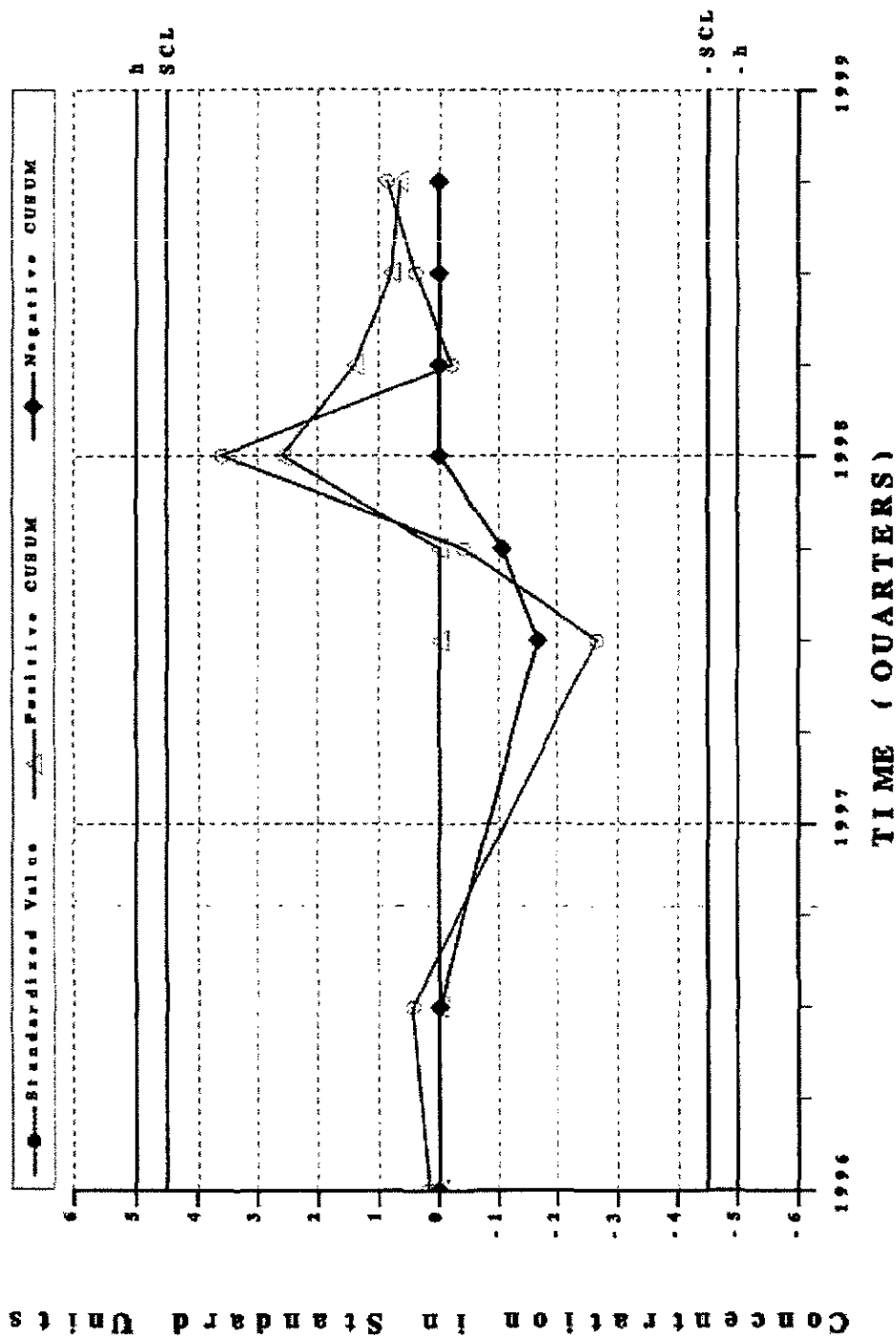
Combined Shewhart-CUSUM Control Chart
WELL HSB109D - Cobalt-60



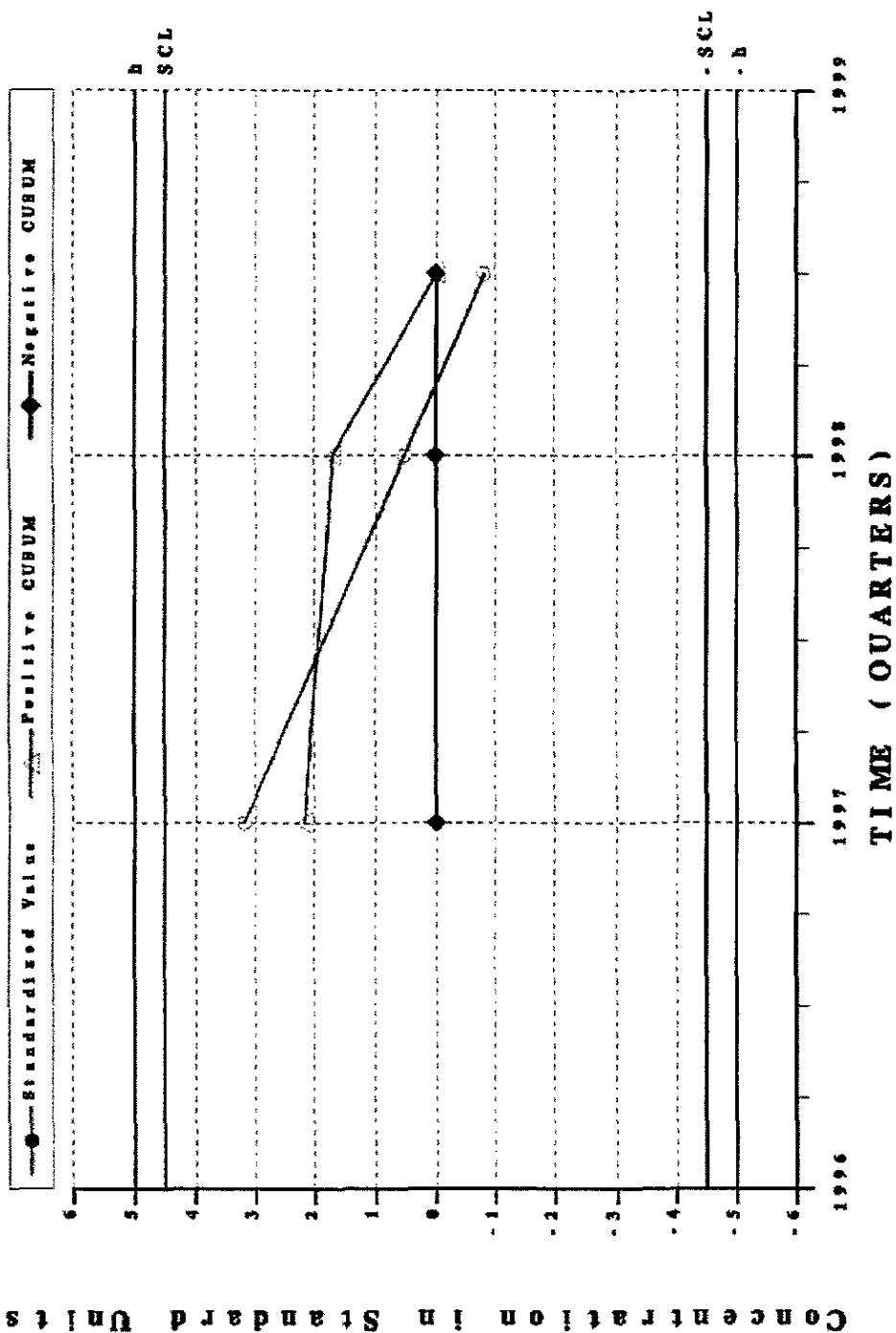
Combined Shewhart-CUSUM Control Chart
WELL HSB109D - Gross alpha



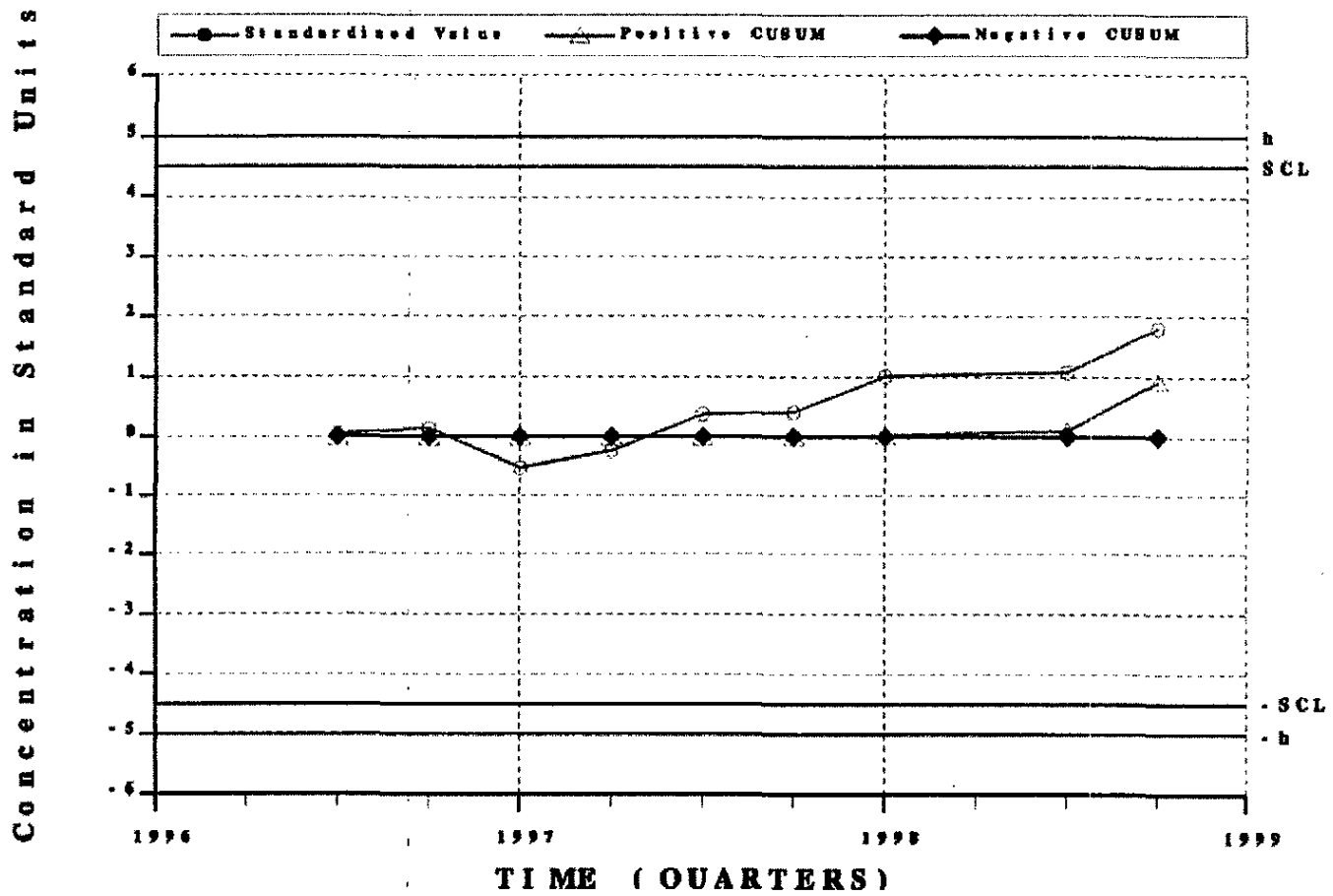
Combined Shewhart-CUSUM Control Chart
WELL HSB109D - Mercury, total recoverable



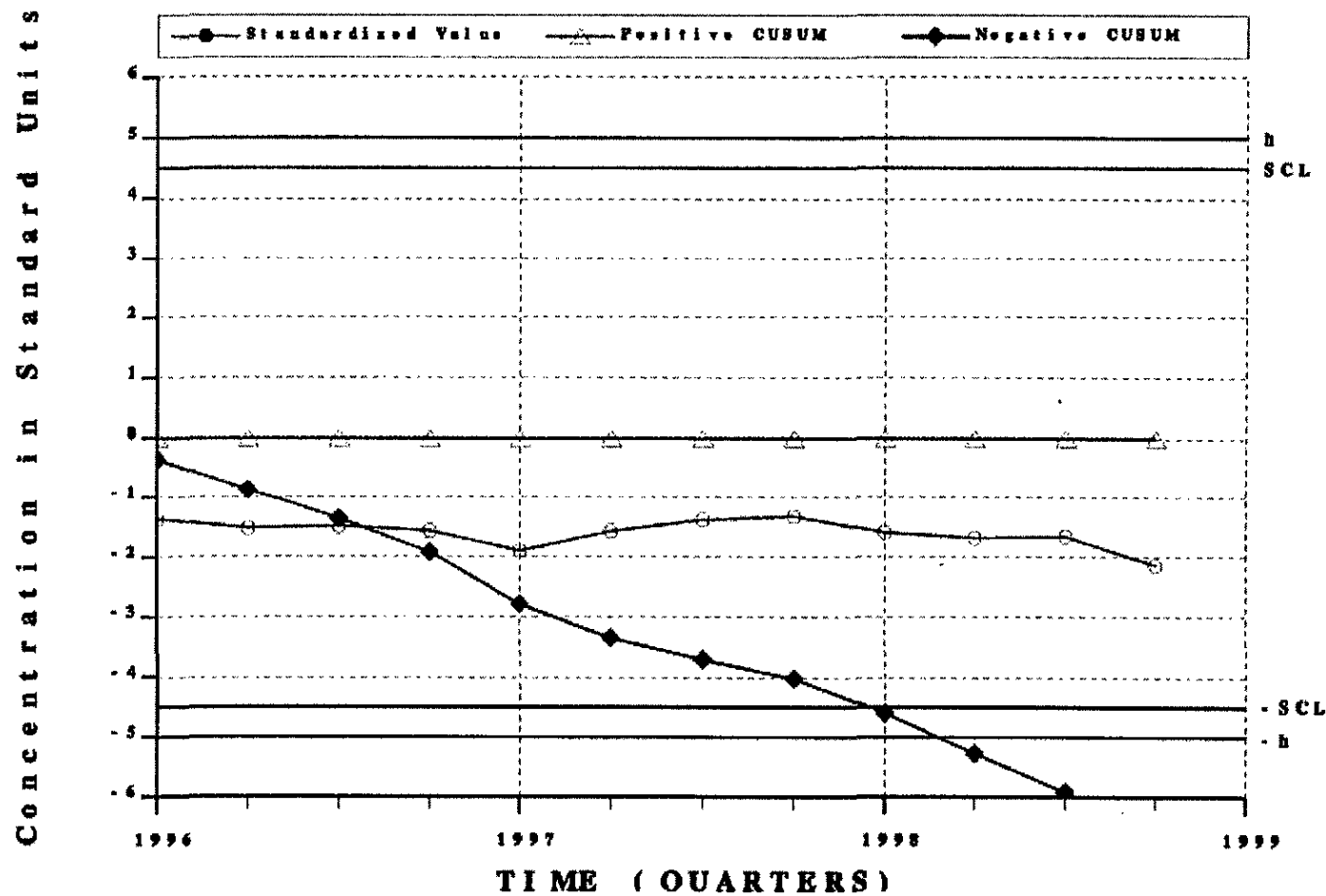
Combined Shewhart-CUSUM Control Chart
WELL HSB109D - Nickel, total recoverable



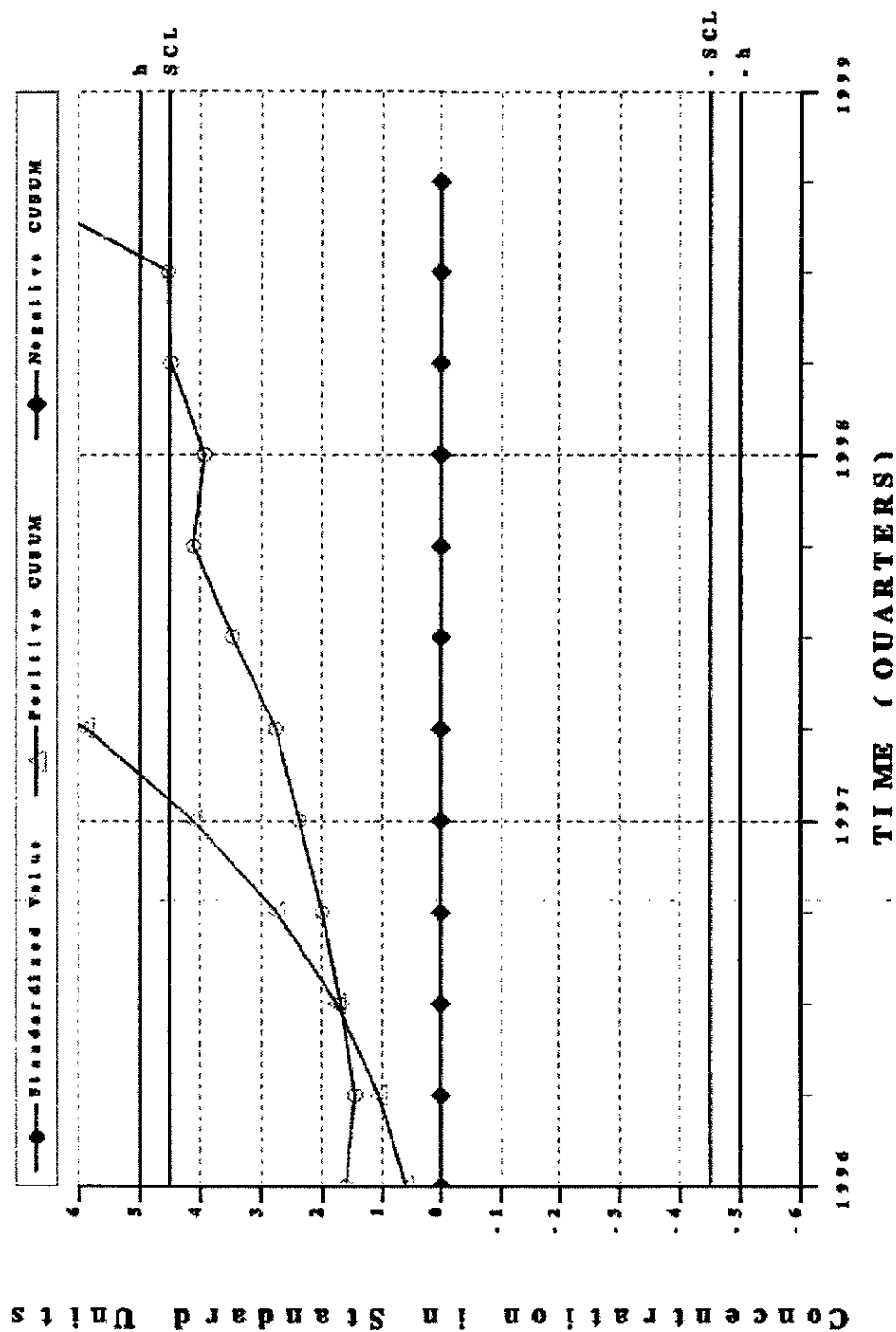
Combined Shewhart-CUSUM Control Chart
WELL HSB109D - Nitrate-nitrite as nitrogen



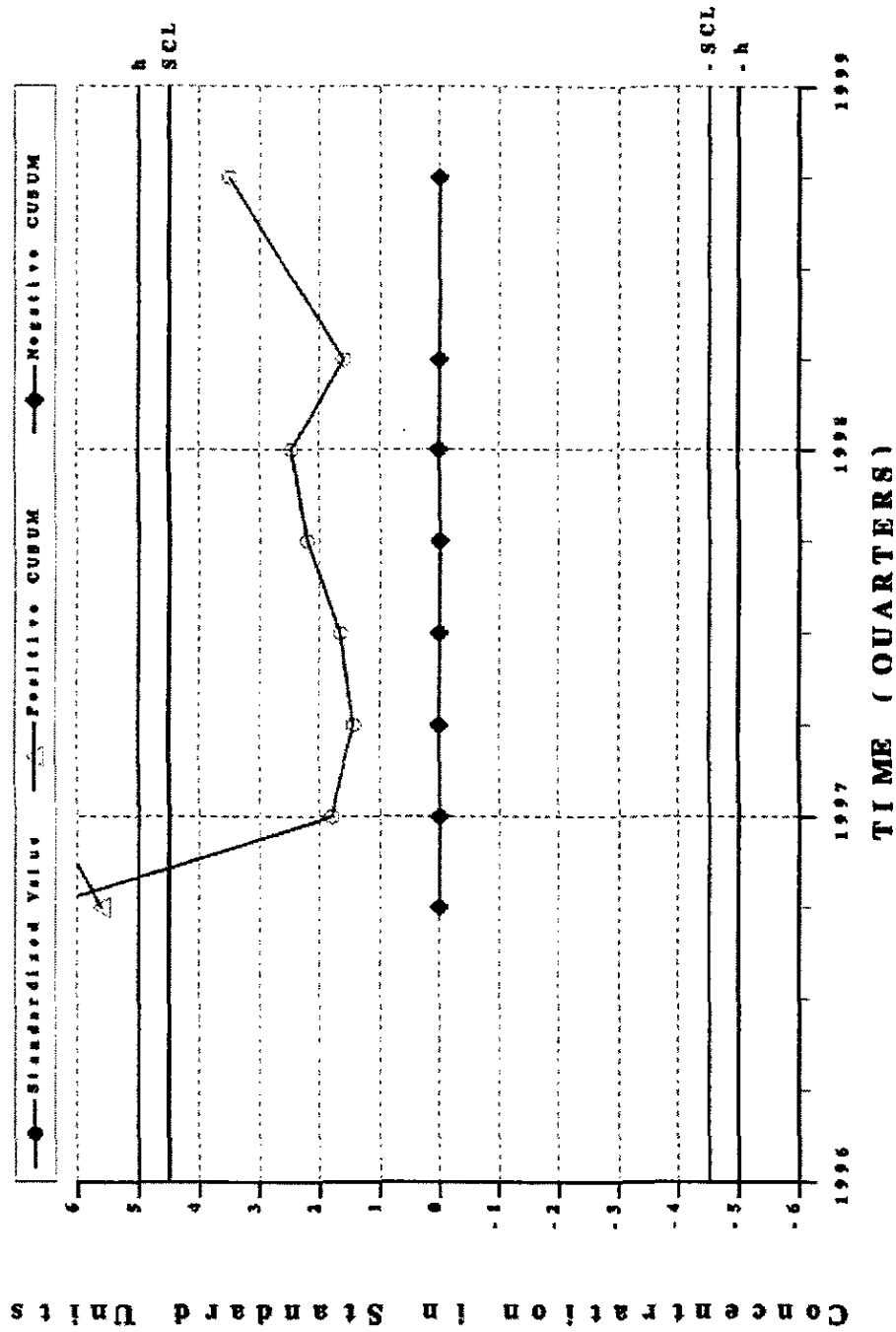
Combined Shewhart-CUSUM Control Chart
WELL HSB109D - Nonvolatile beta



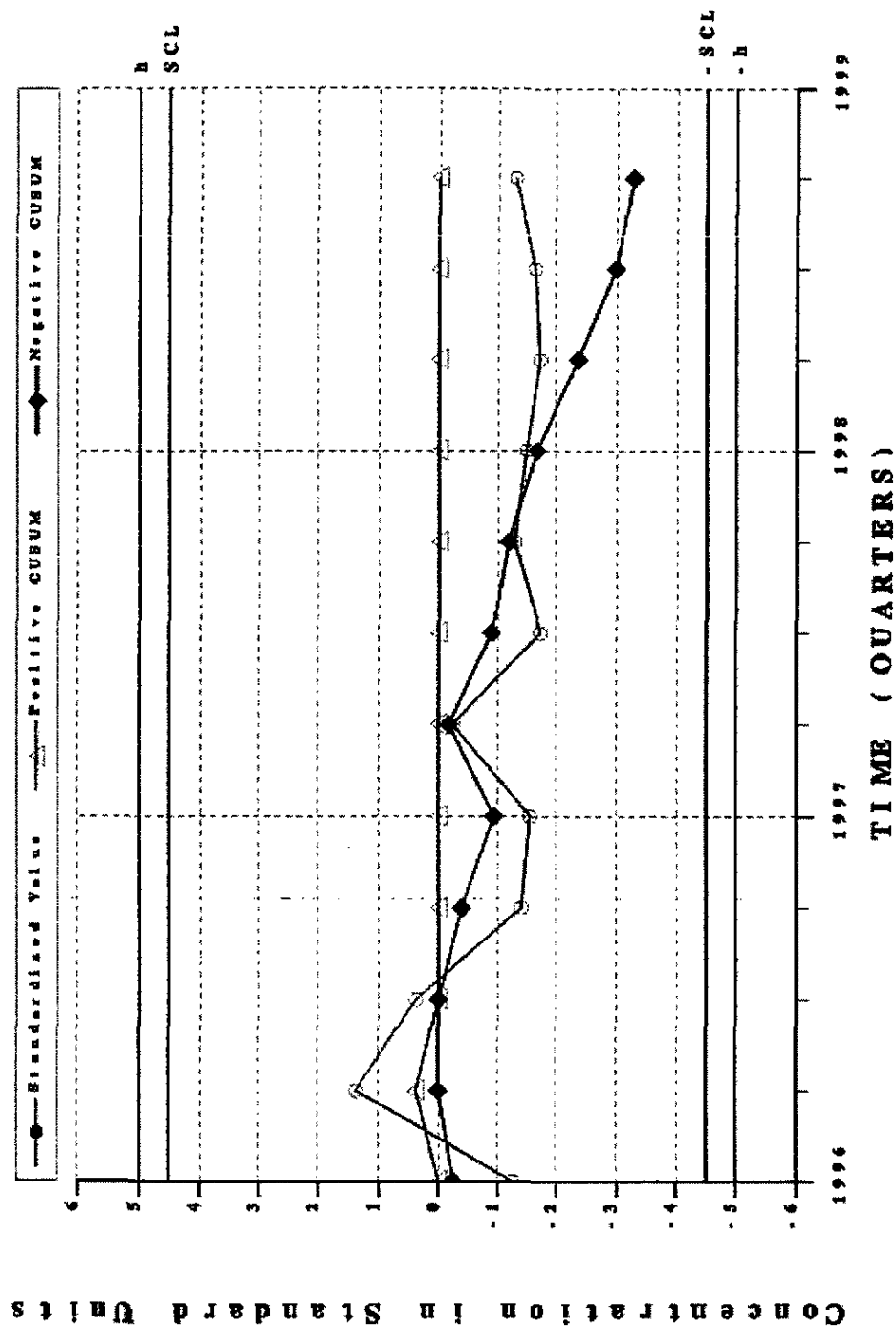
Combined Shewhart-CUSUM Control Chart WELL HSB109D - Tritium



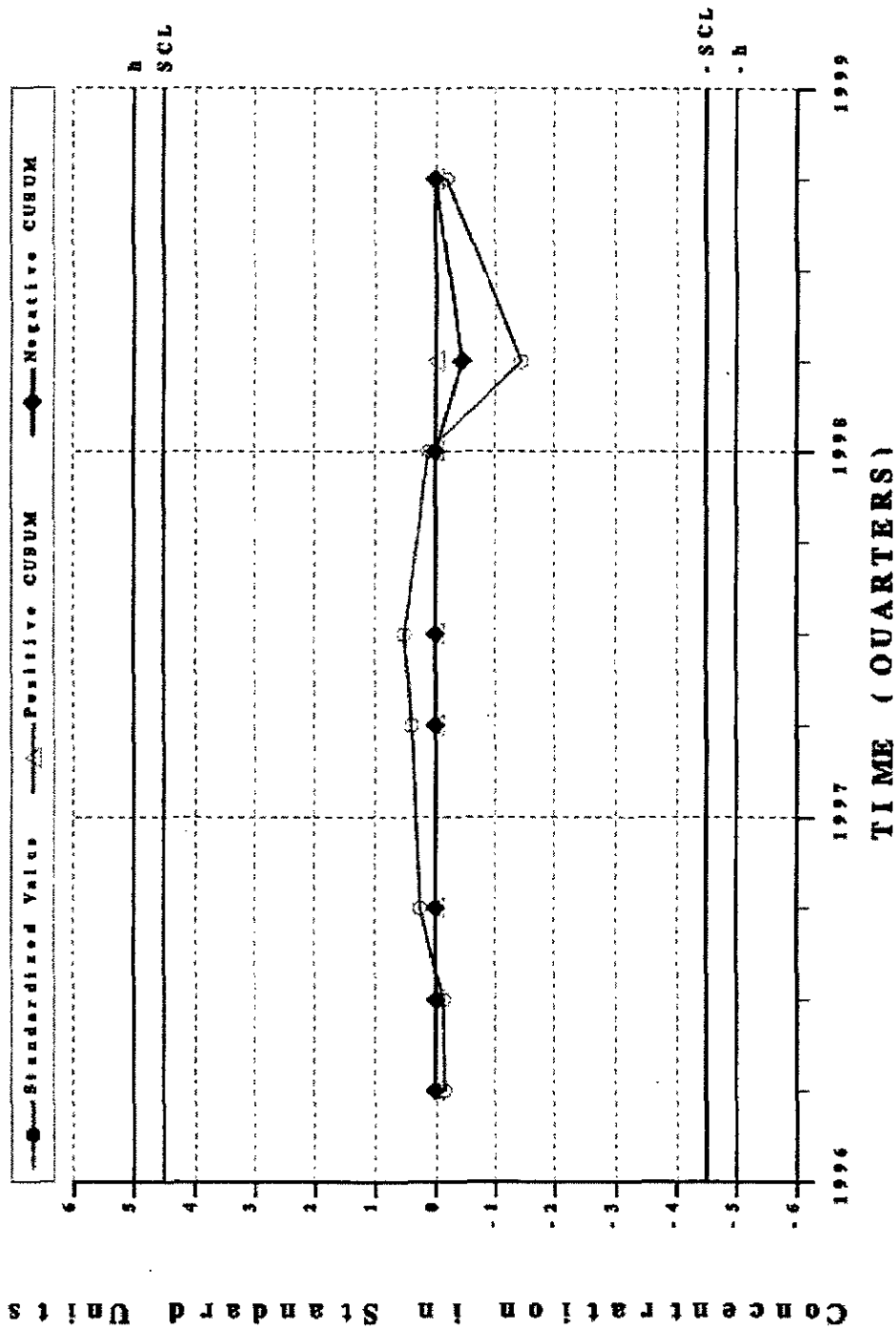
Combined Shewhart-CUSUM Control Chart
WELL HSB110C - Nitrate-nitrite as nitrogen



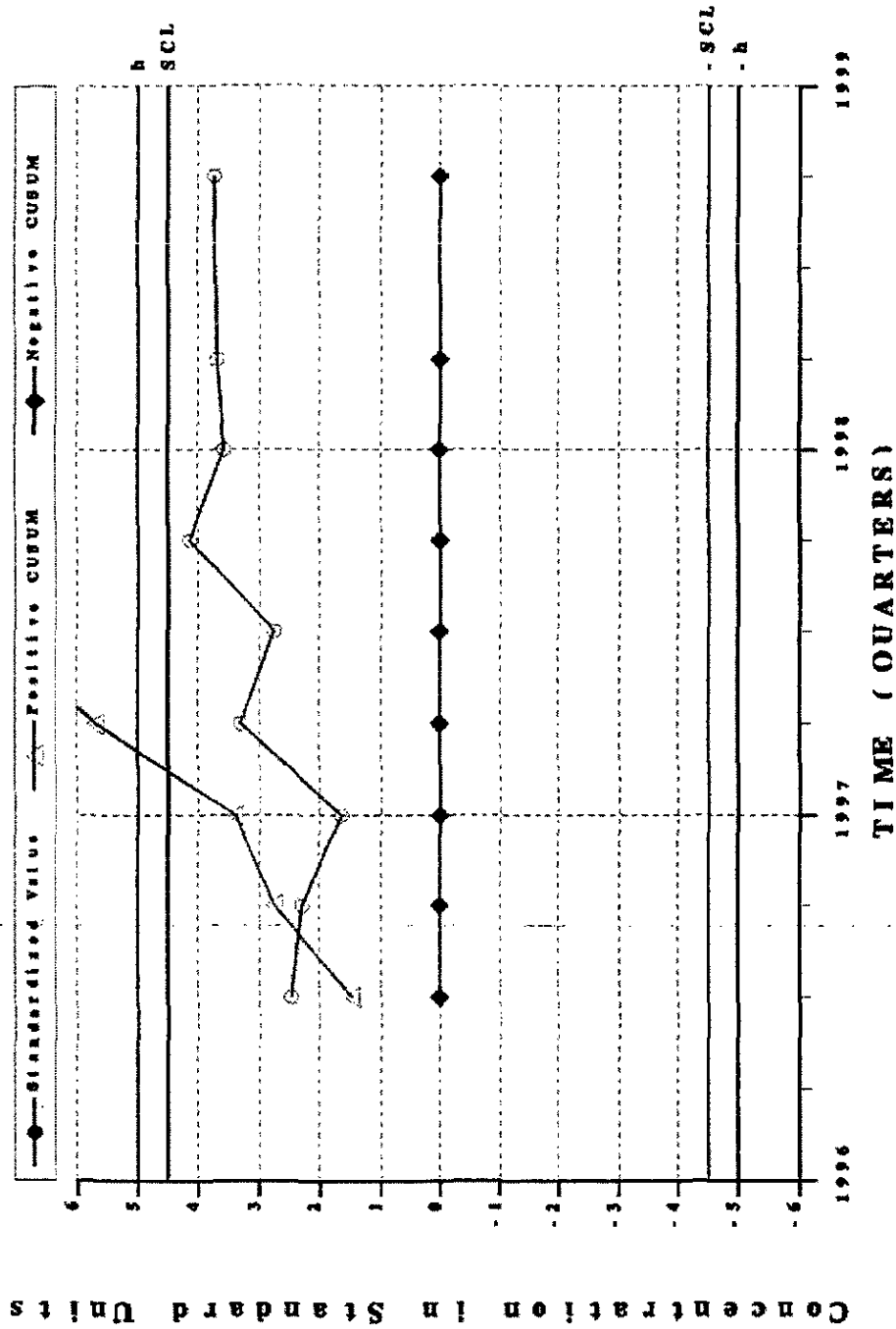
Combined Shewhart-CUSUM Control Chart WELL HSB110C - Tritium



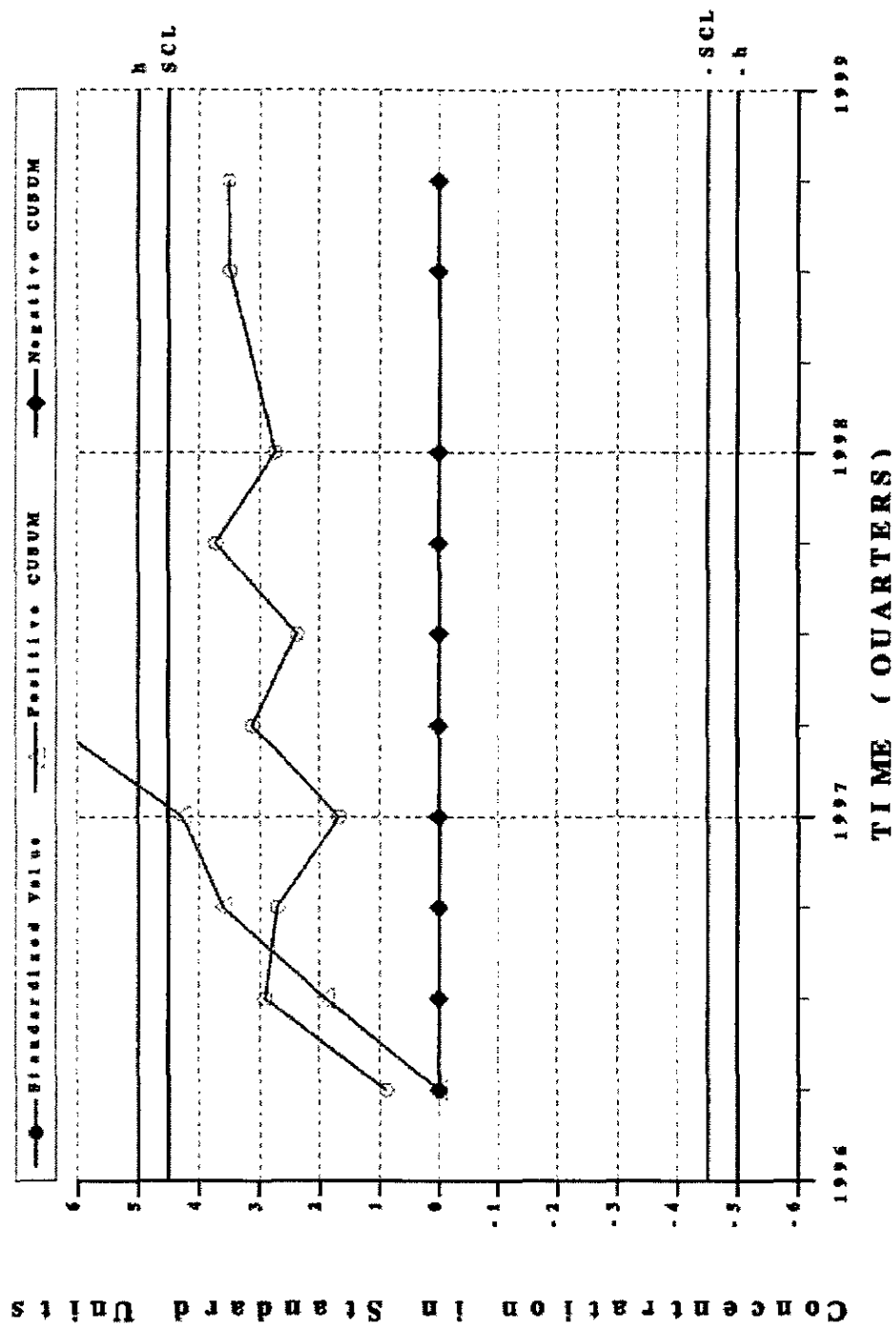
Combined Shewhart-CUSUM Control Chart
WELL HSB110D - Gross alpha



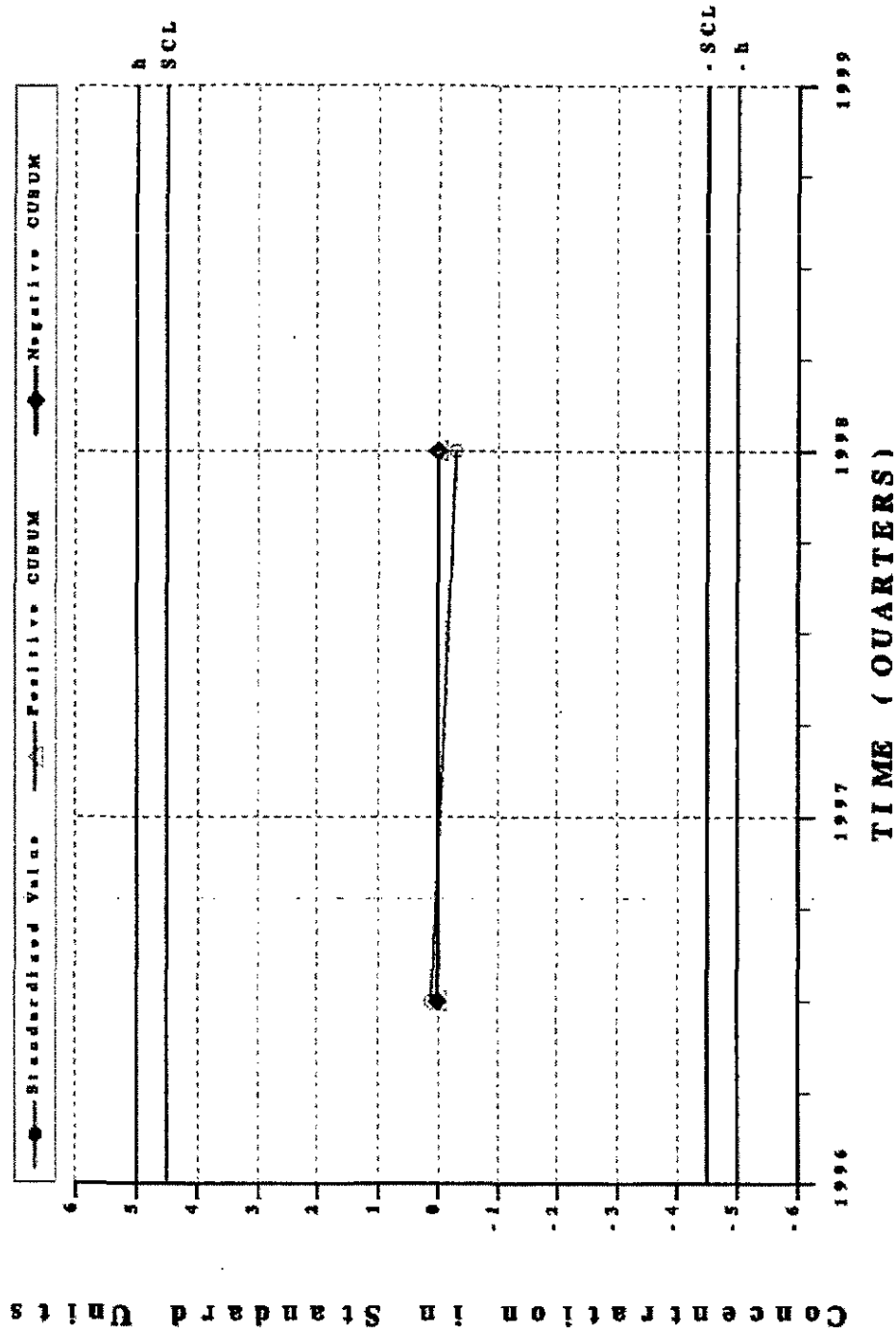
Combined Shewhart-CUSUM Control Chart
WELL HSB110D - Nitrate-nitrite as nitrogen



Combined Shewhart-CUSUM Control Chart WELL HSB110D - Nonvolatile beta

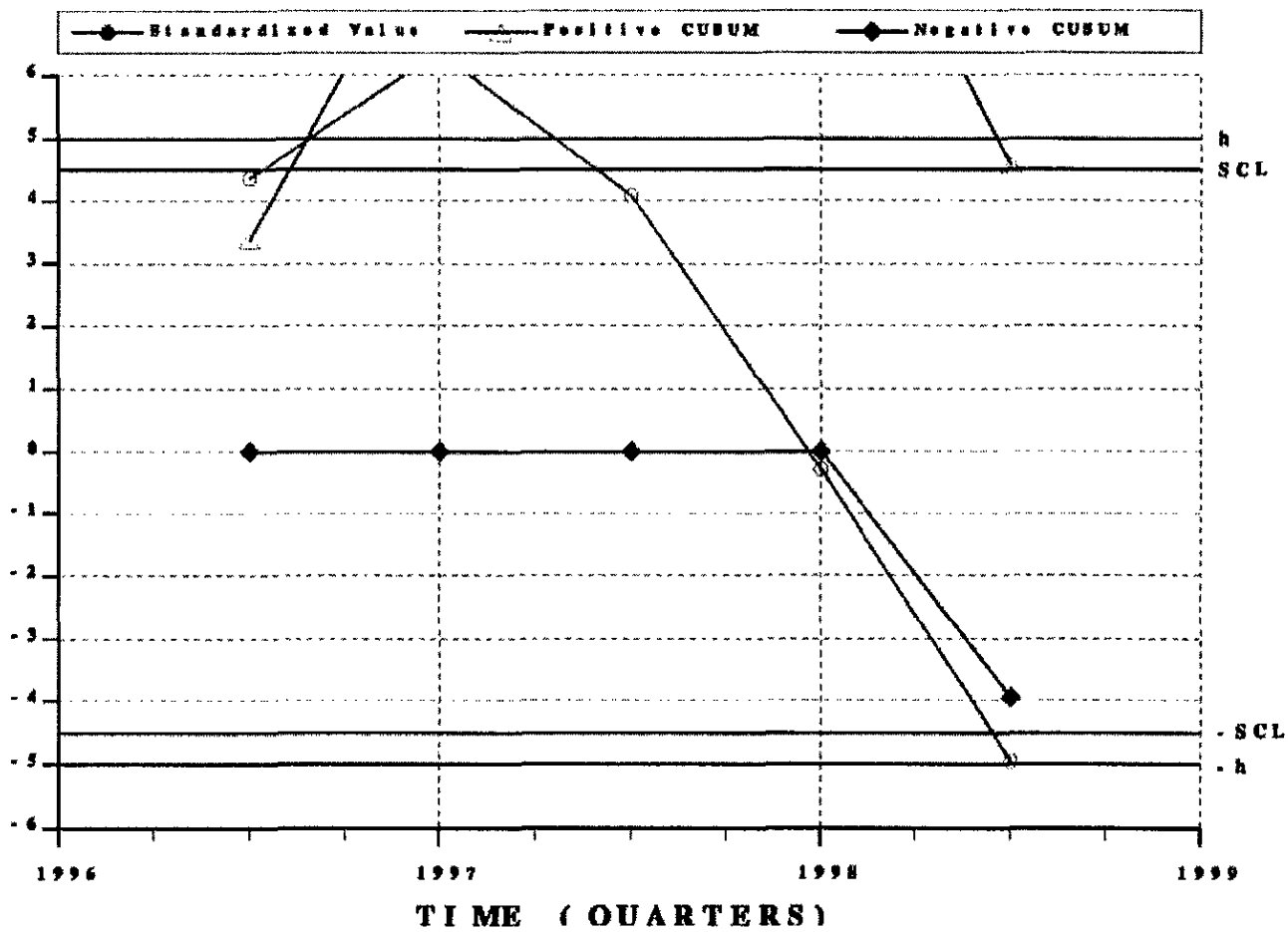


Combined Shewhart-CUSUM Control Chart WELL HSB110D - Strontium-90

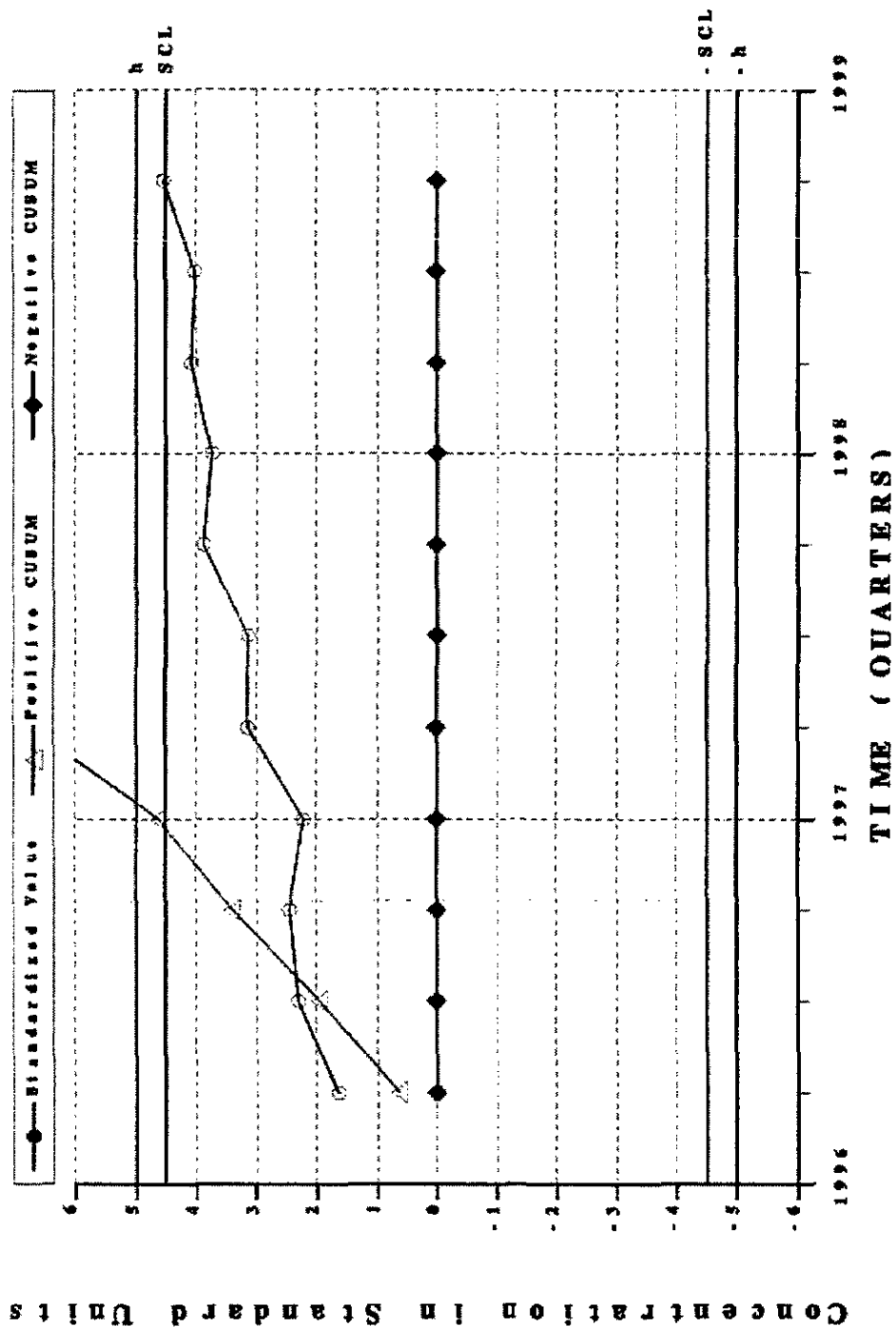


Concentration in Standard Units

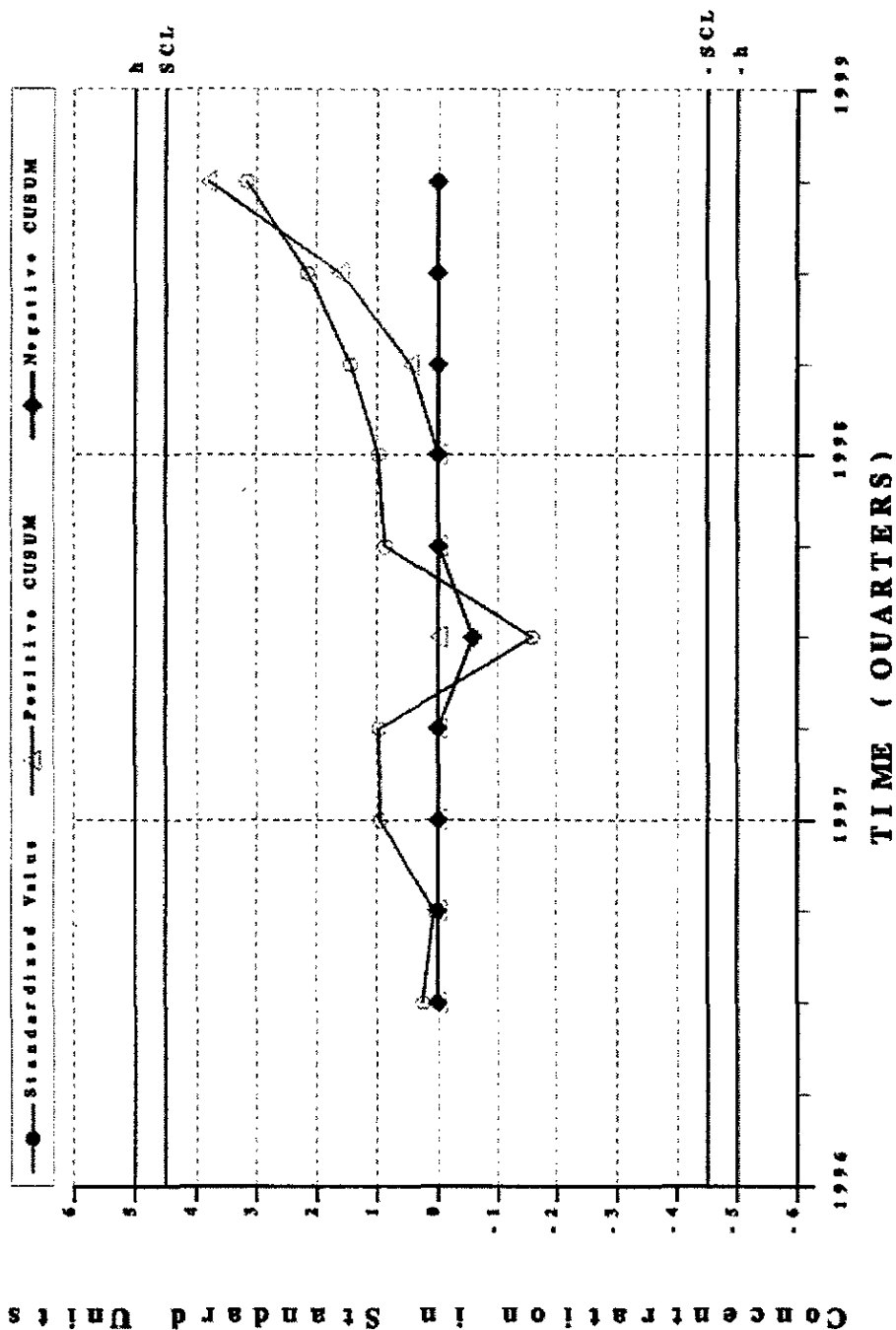
Combined Shewhart-CUSUM Control Chart
WELL HSB110D - Tin, total recoverable



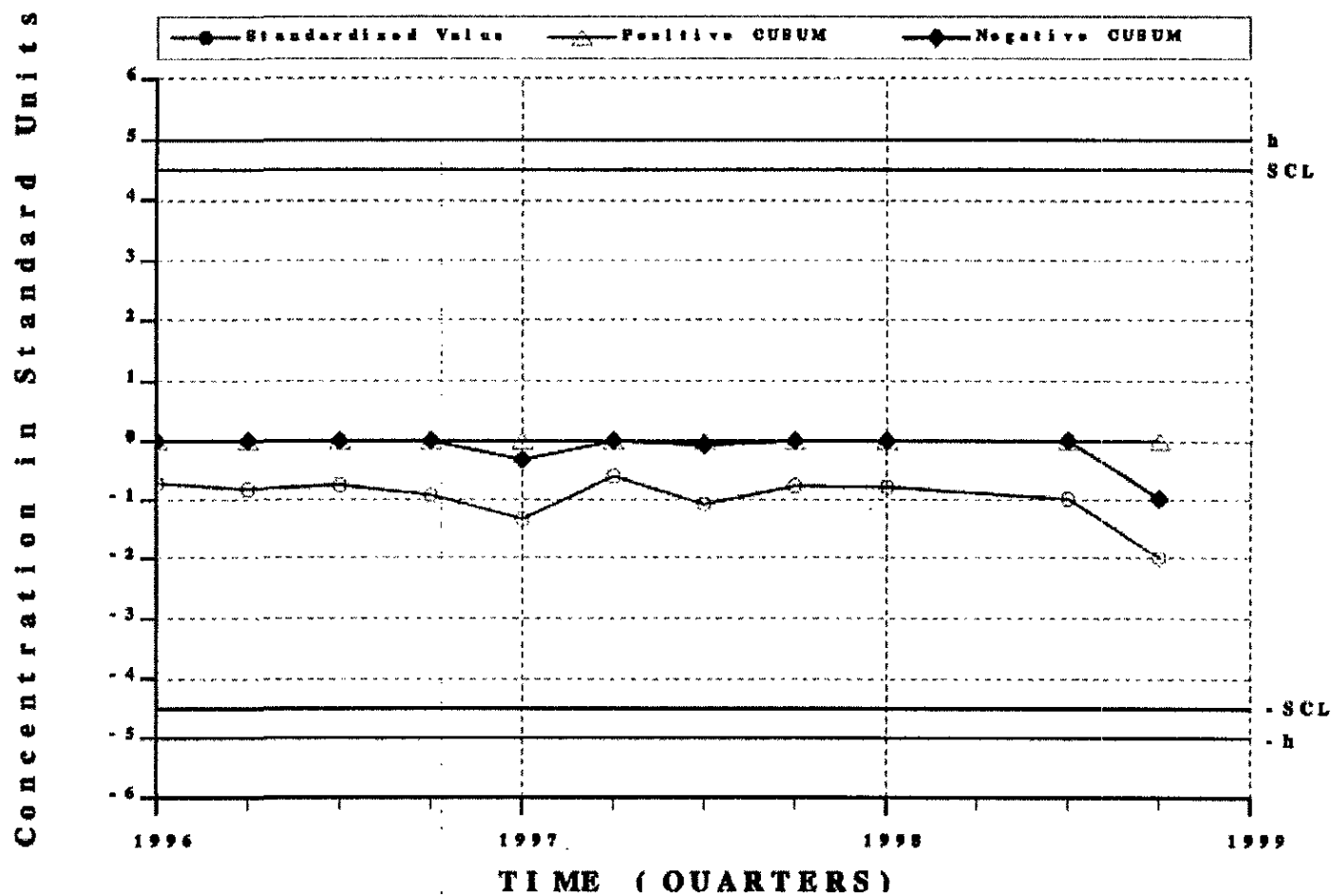
Combined Shewhart-CUSUM Control Chart WELL HSB110D - Tritium



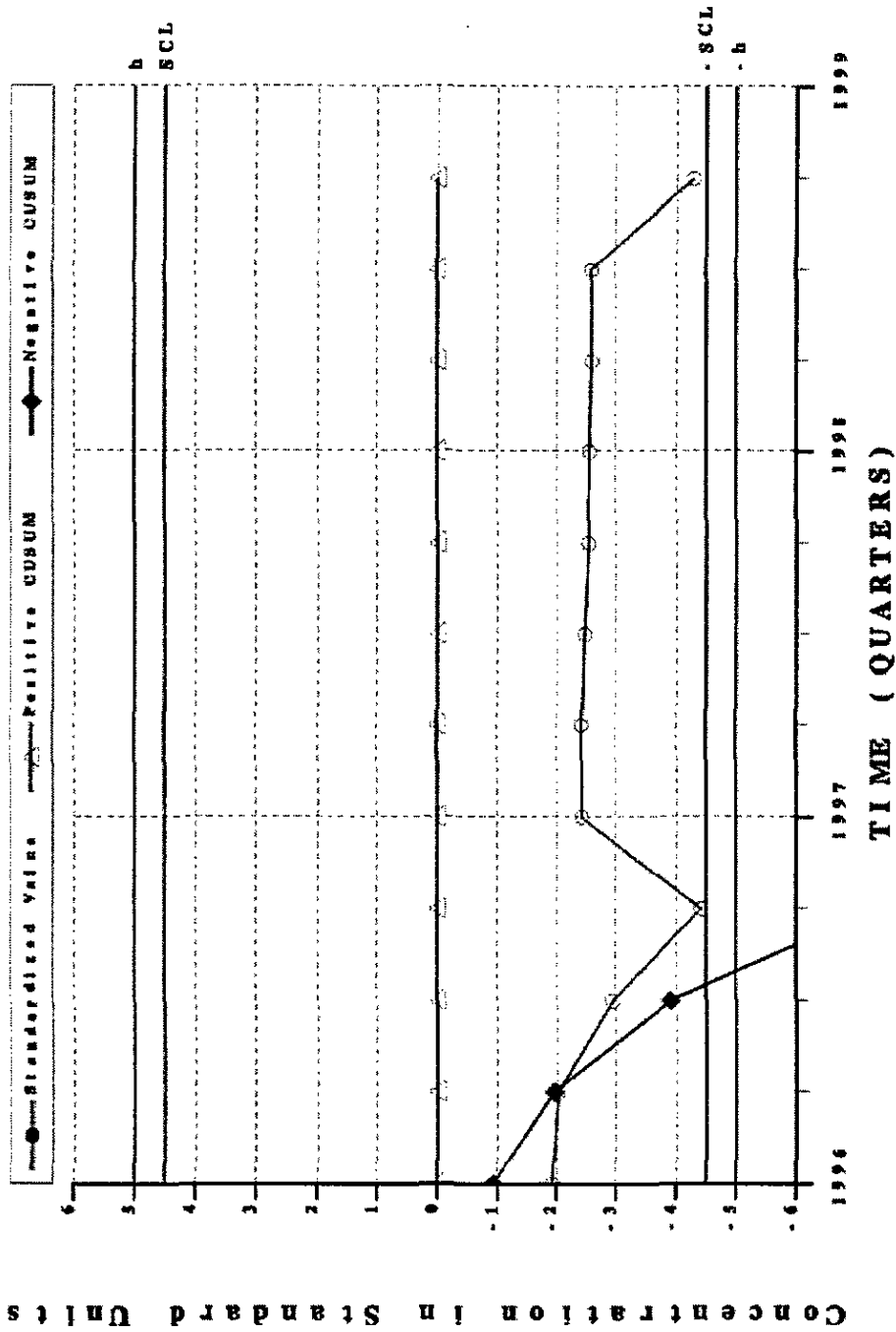
Combined Shewhart-CUSUM Control Chart
WELL HSB111C - Nitrate-nitrite as nitrogen



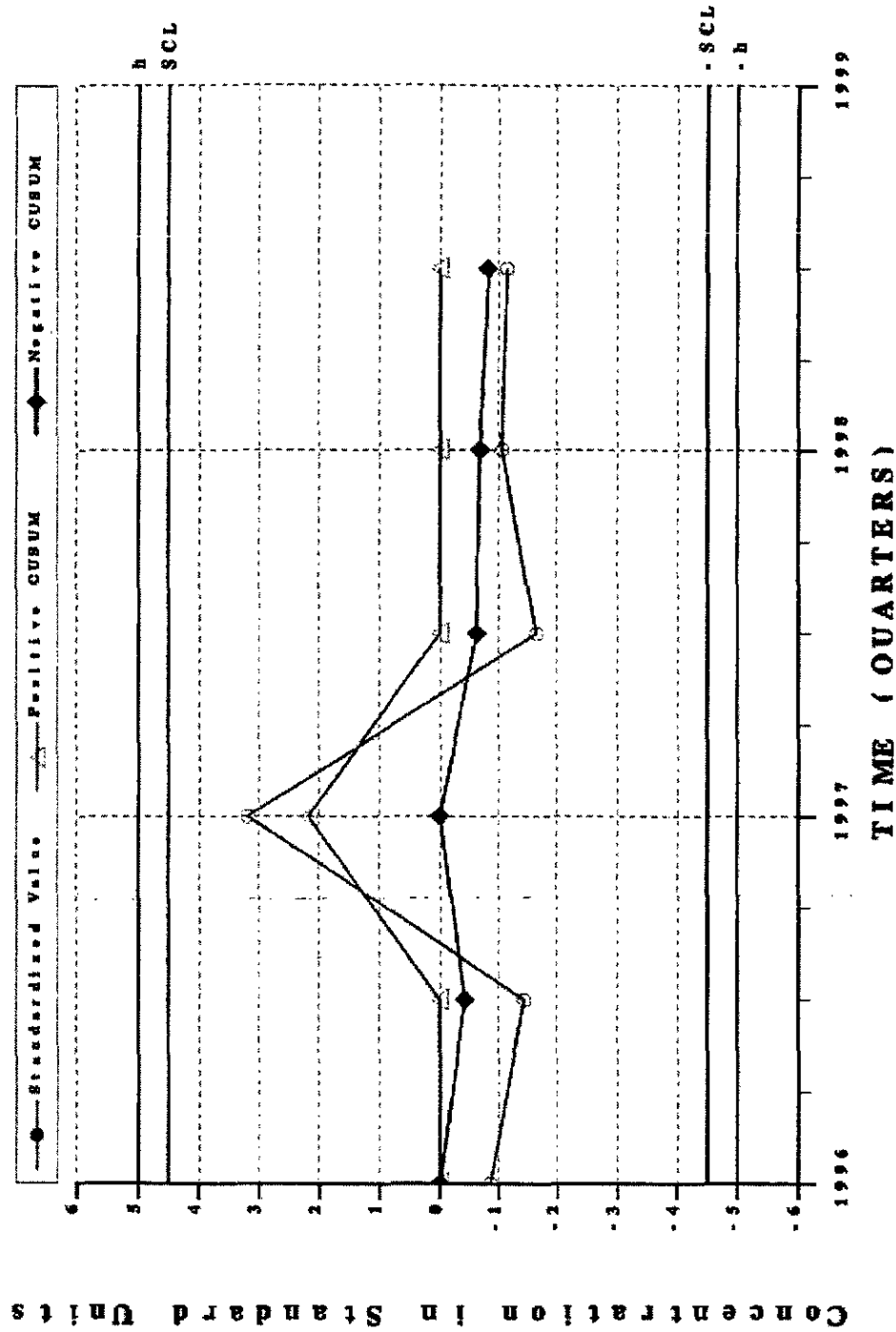
Combined Shewhart-CUSUM Control Chart
WELL HSB111C - Nonvolatile beta

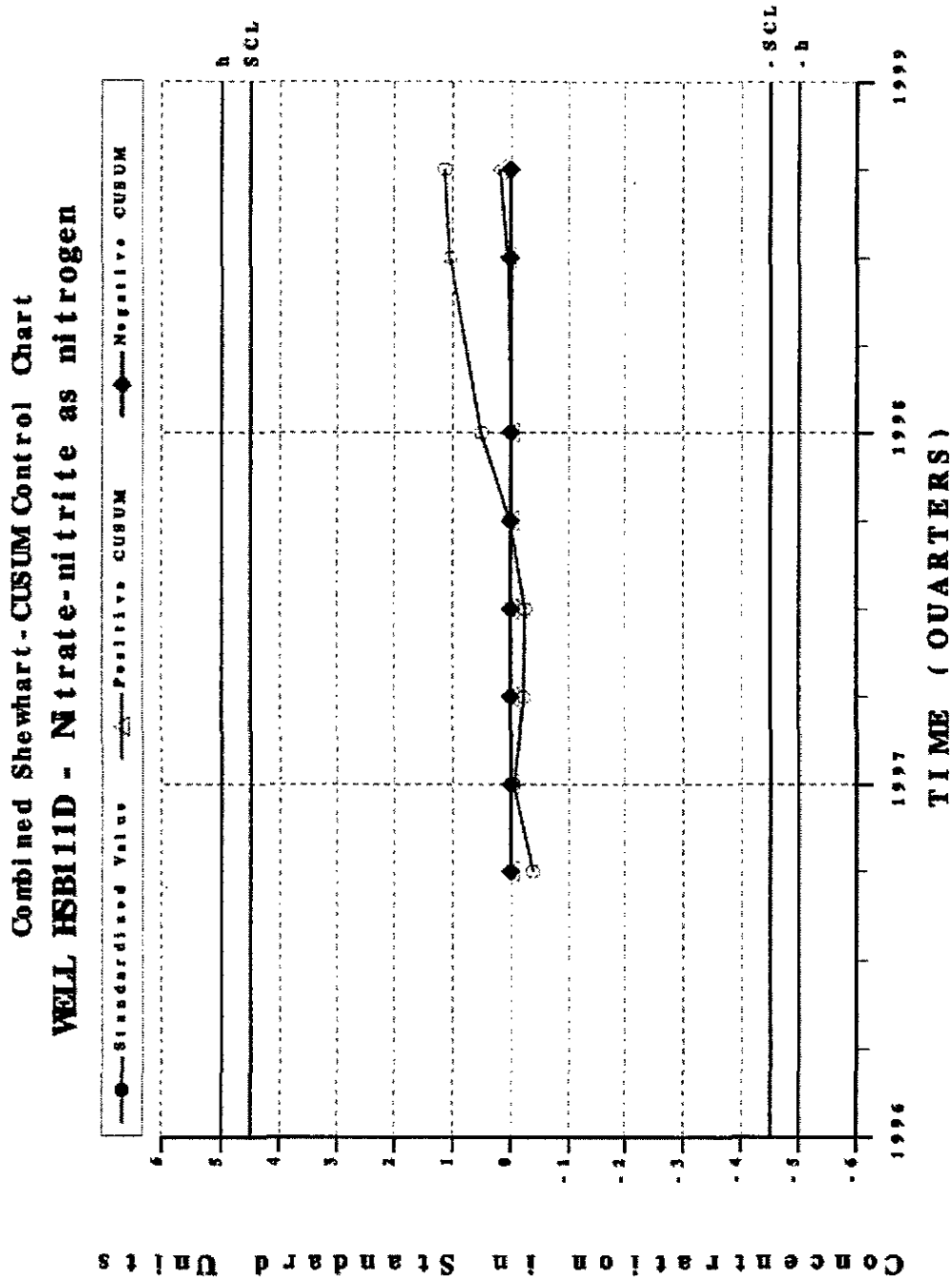


Combined Shewhart-CUSUM Control Chart
WELL HSB111C - Tritium

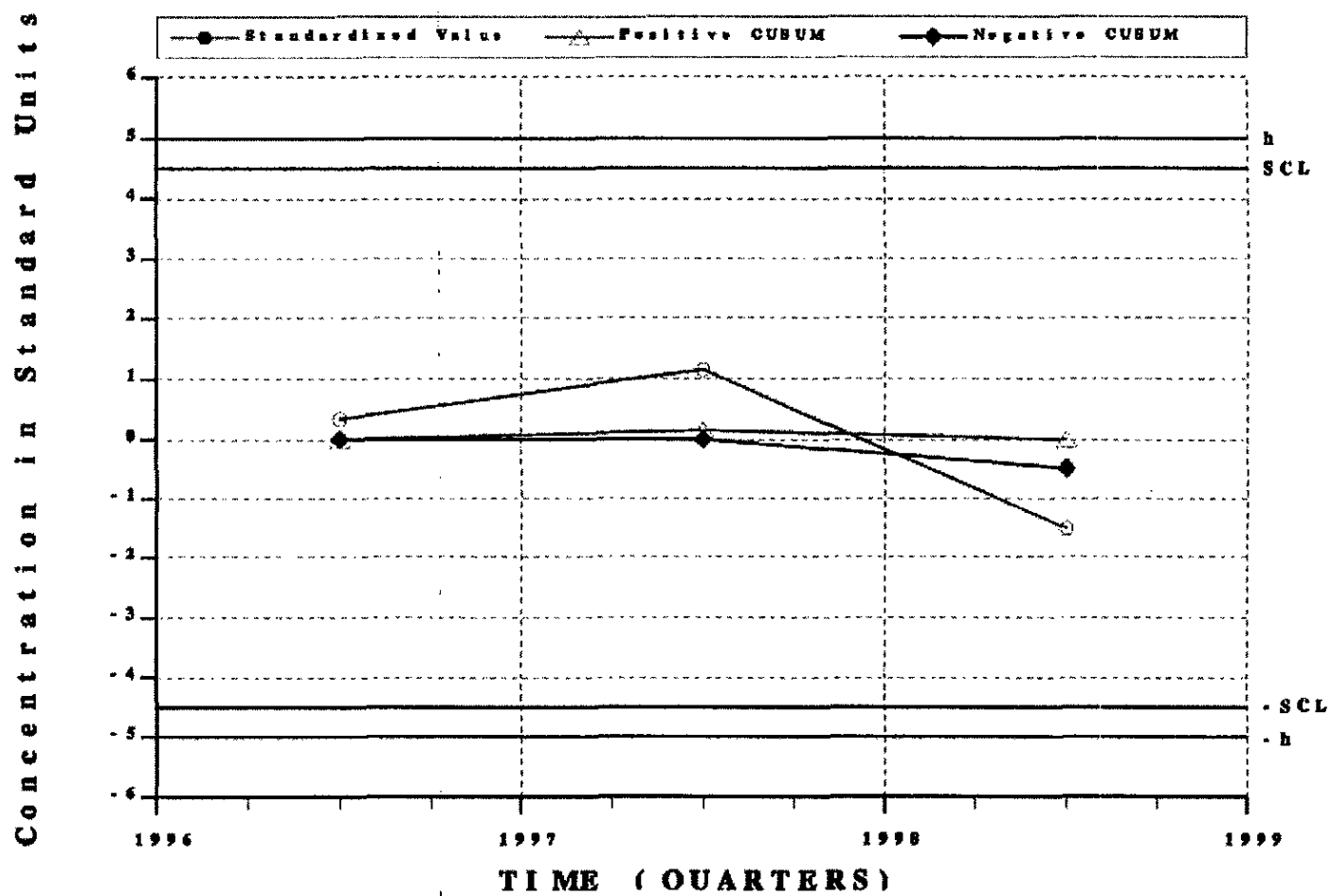


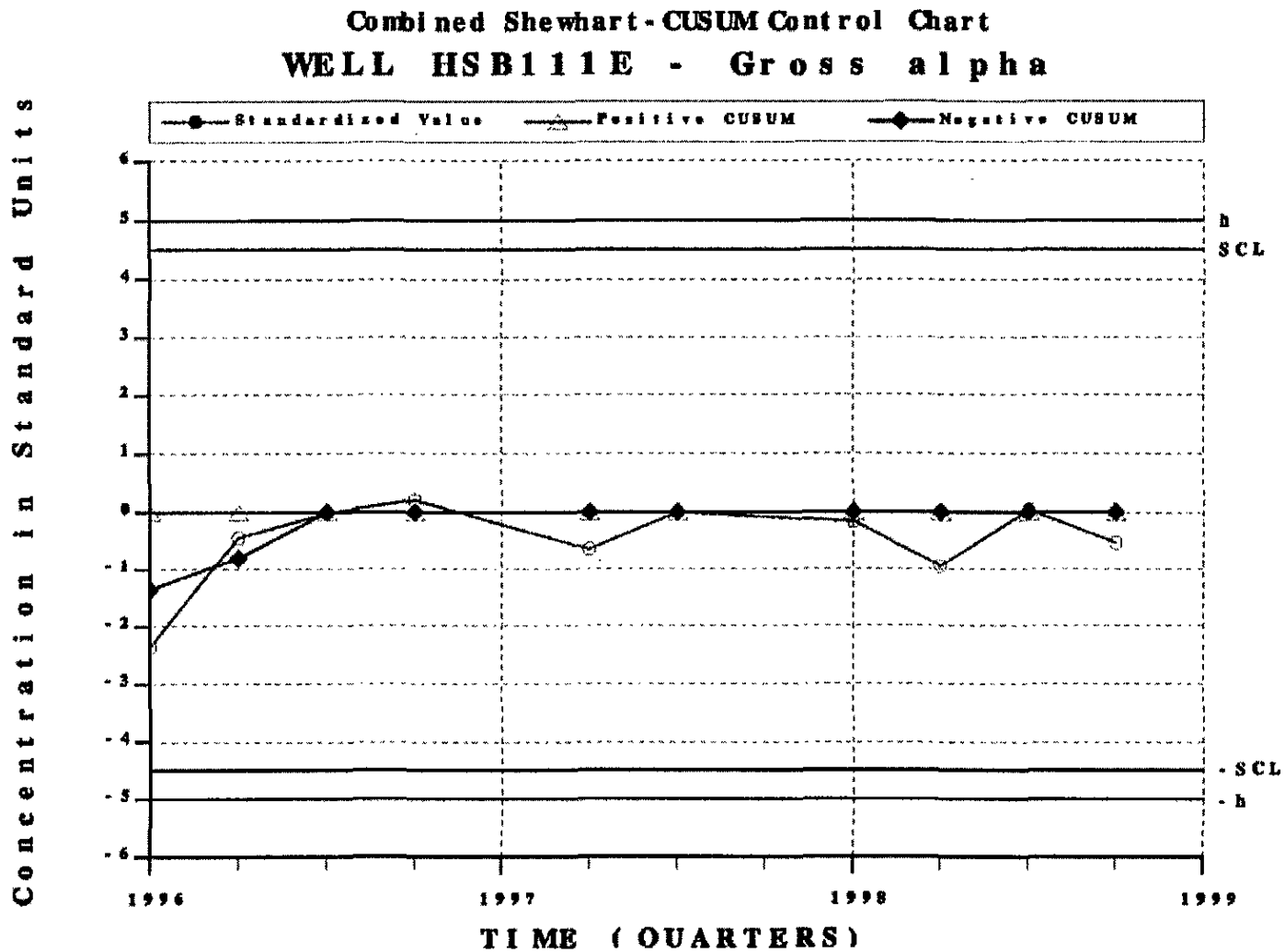
Combined Shewhart-CUSUM Control Chart WELL HSB111C - Zinc, total recoverable



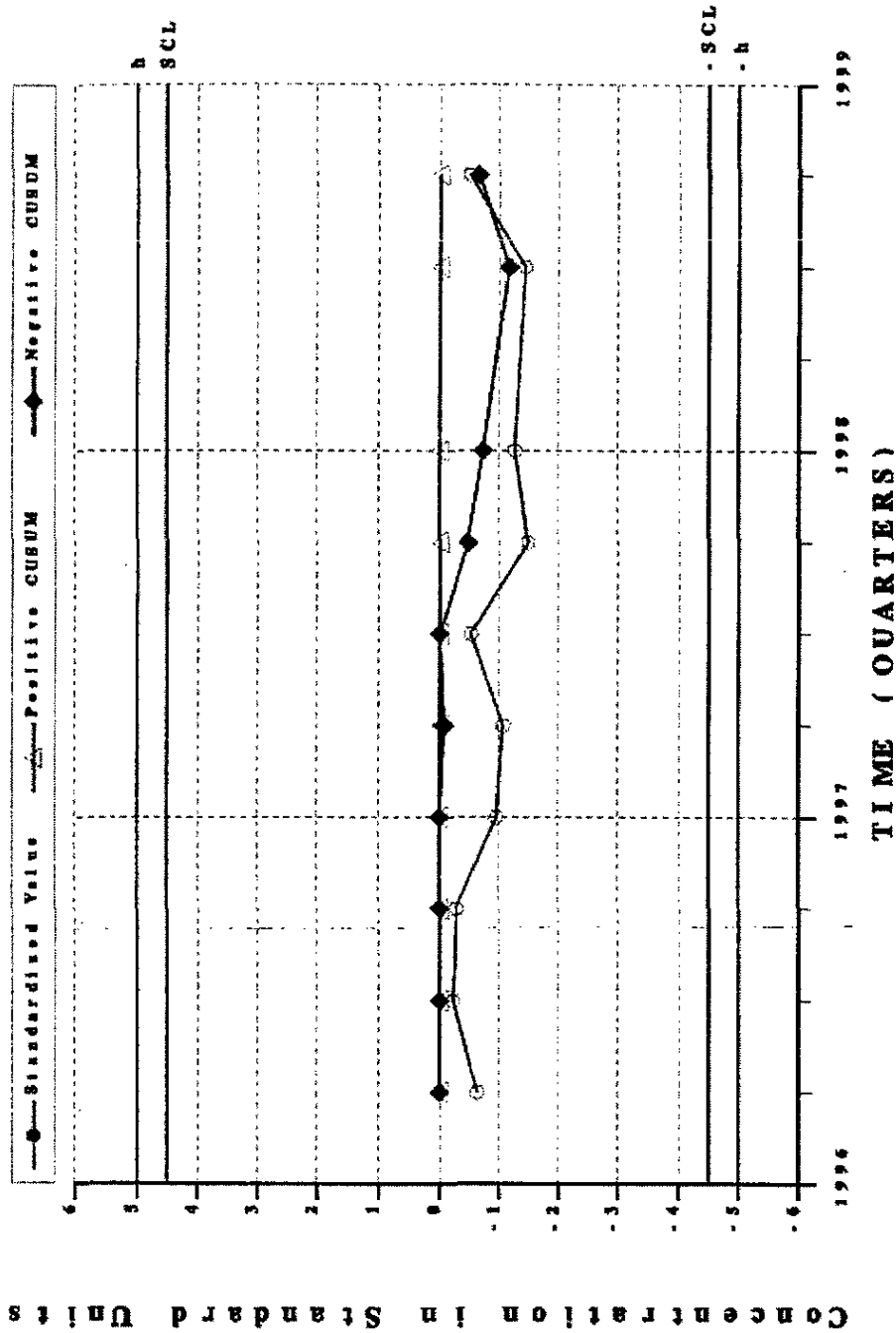


Combined Shewhart-CUSUM Control Chart
WELL HSB111E - Barium, total recoverable

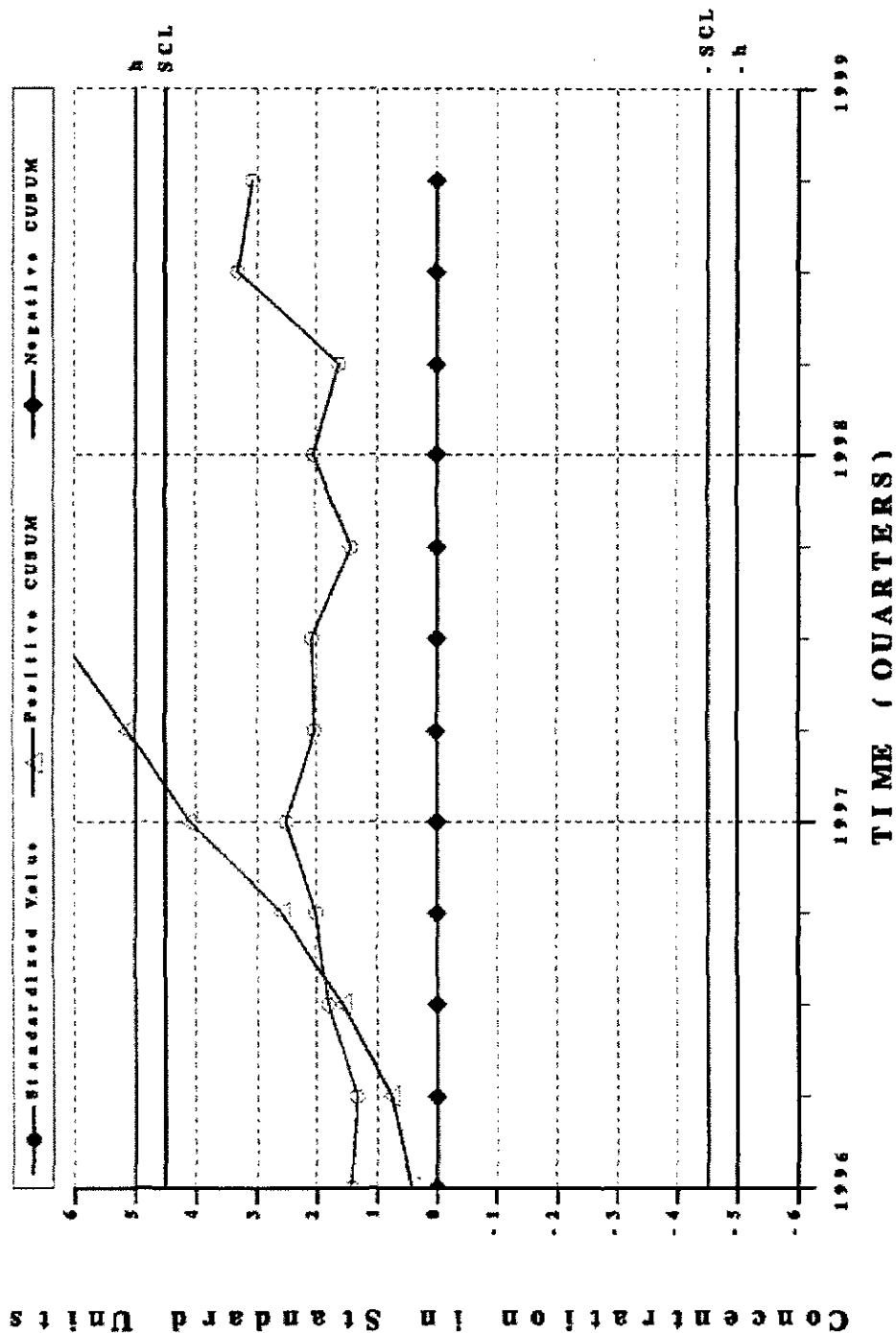




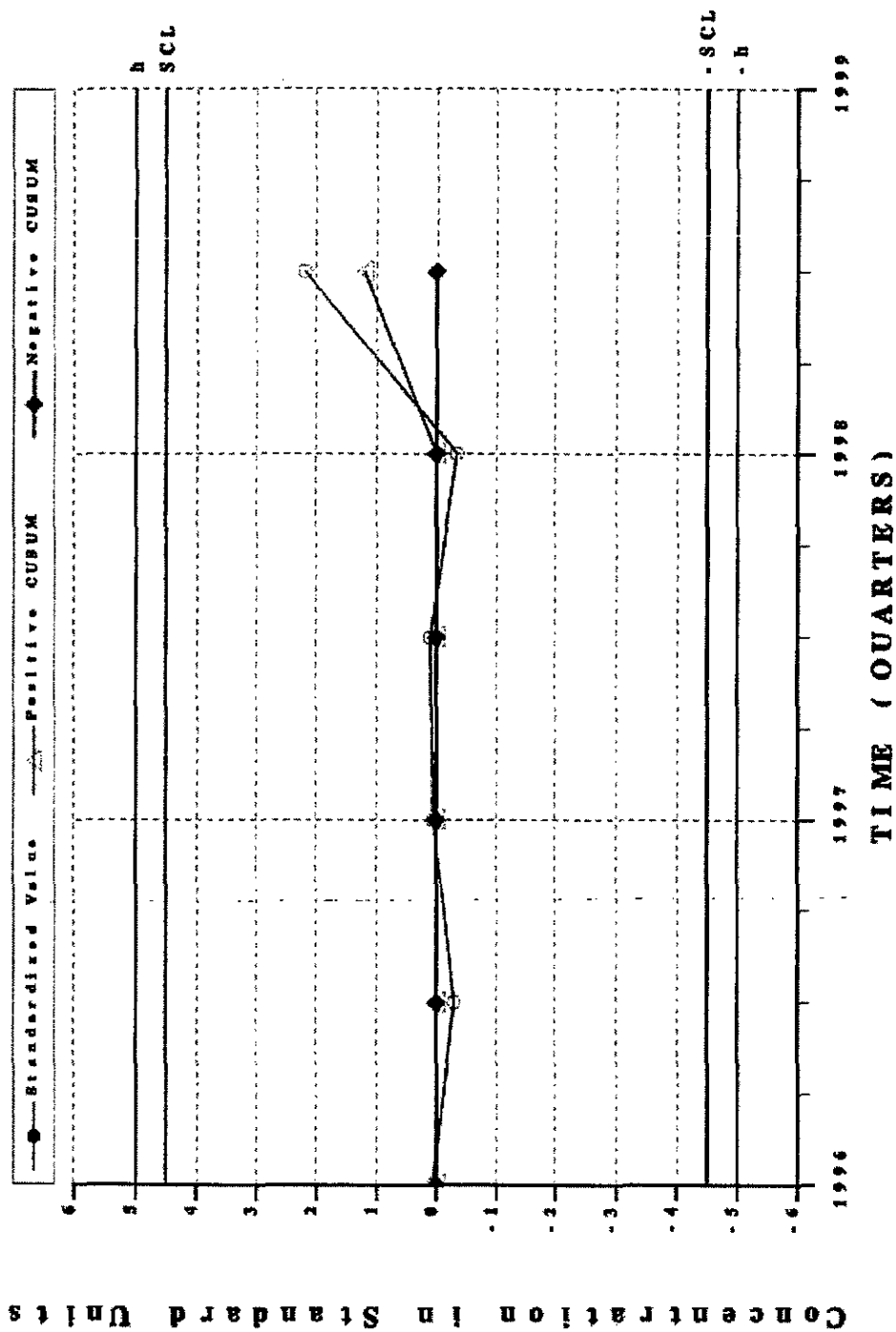
Combined Shewhart-CUSUM Control Chart
WELL HSB111E - Nitrate-nitrite as nitrogen



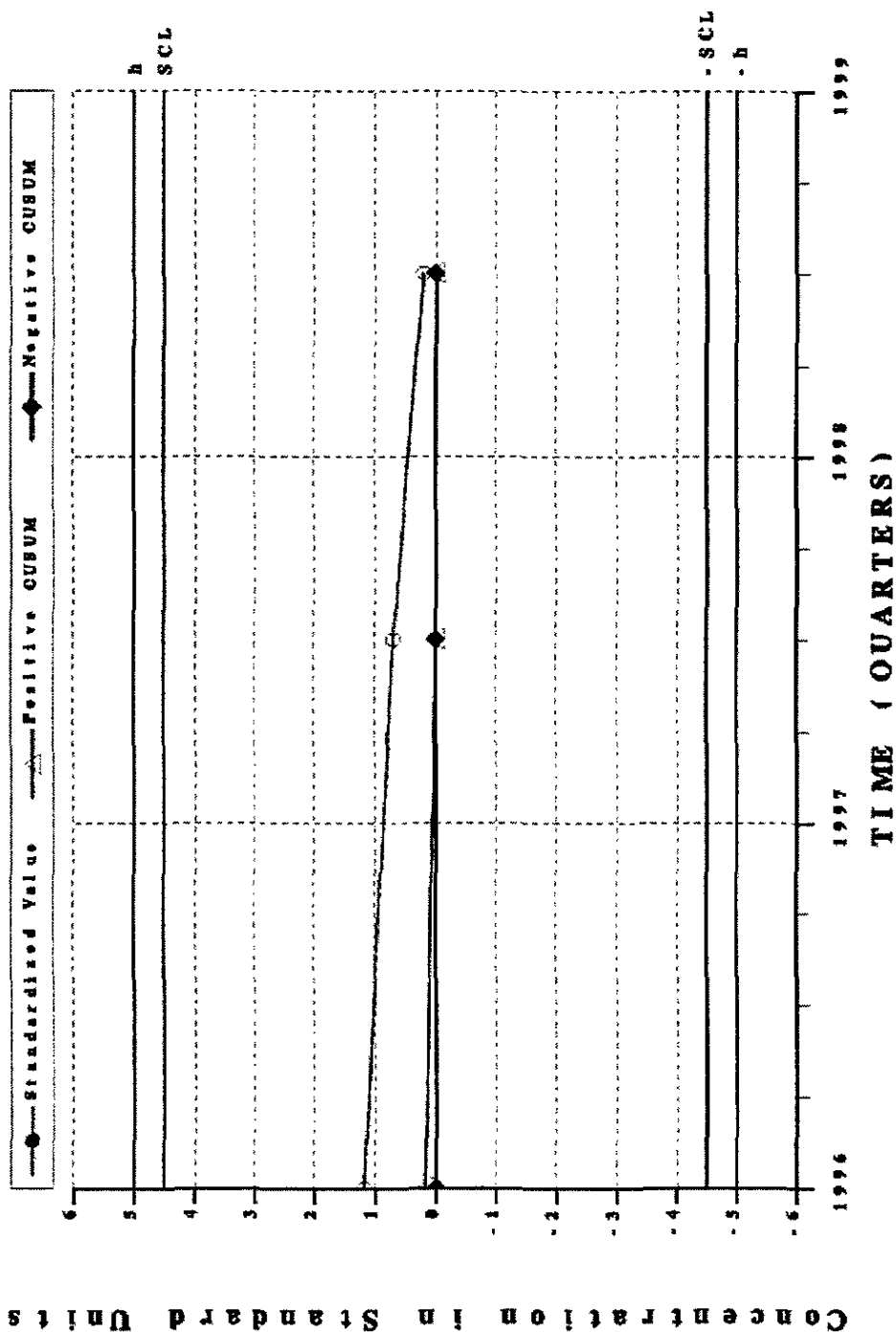
Combined Shewhart-CUSUM Control Chart WELL HSB111E - Nonvolatile beta



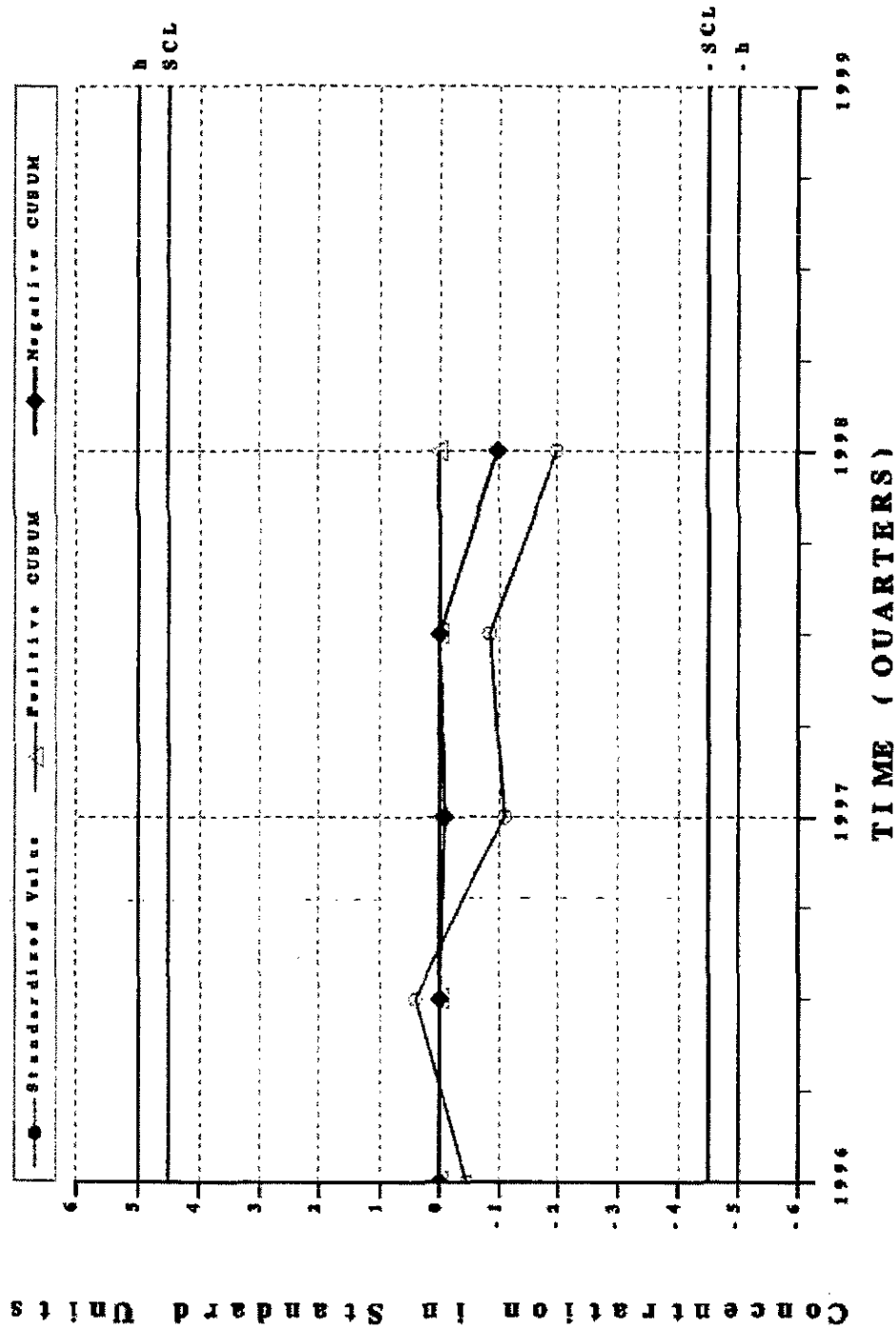
Combined Shewhart-CUSUM Control Chart WELL HSB111E - Radium-226



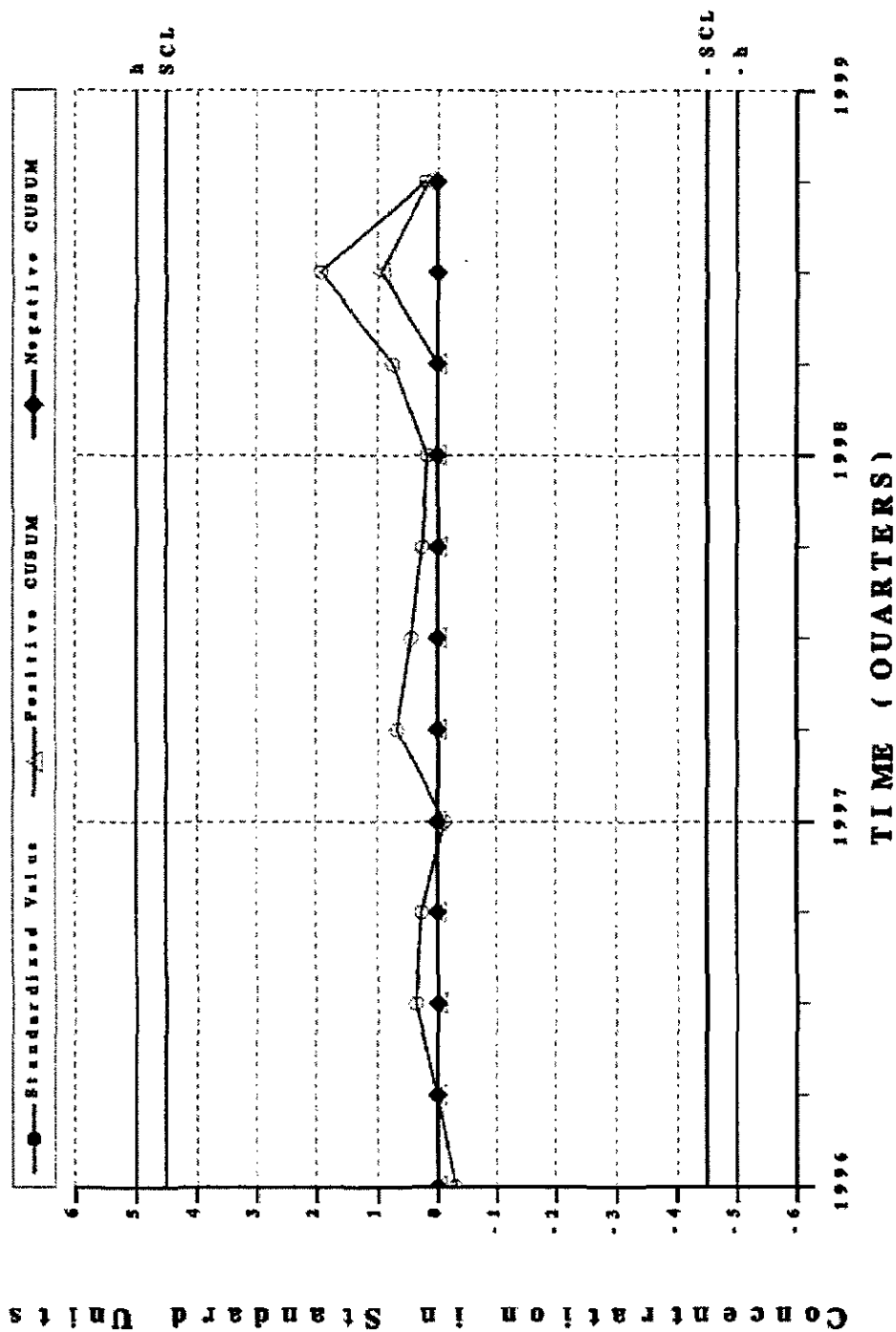
Combined Shewhart-CUSUM Control Chart
WELL HSB111E - Radium-228



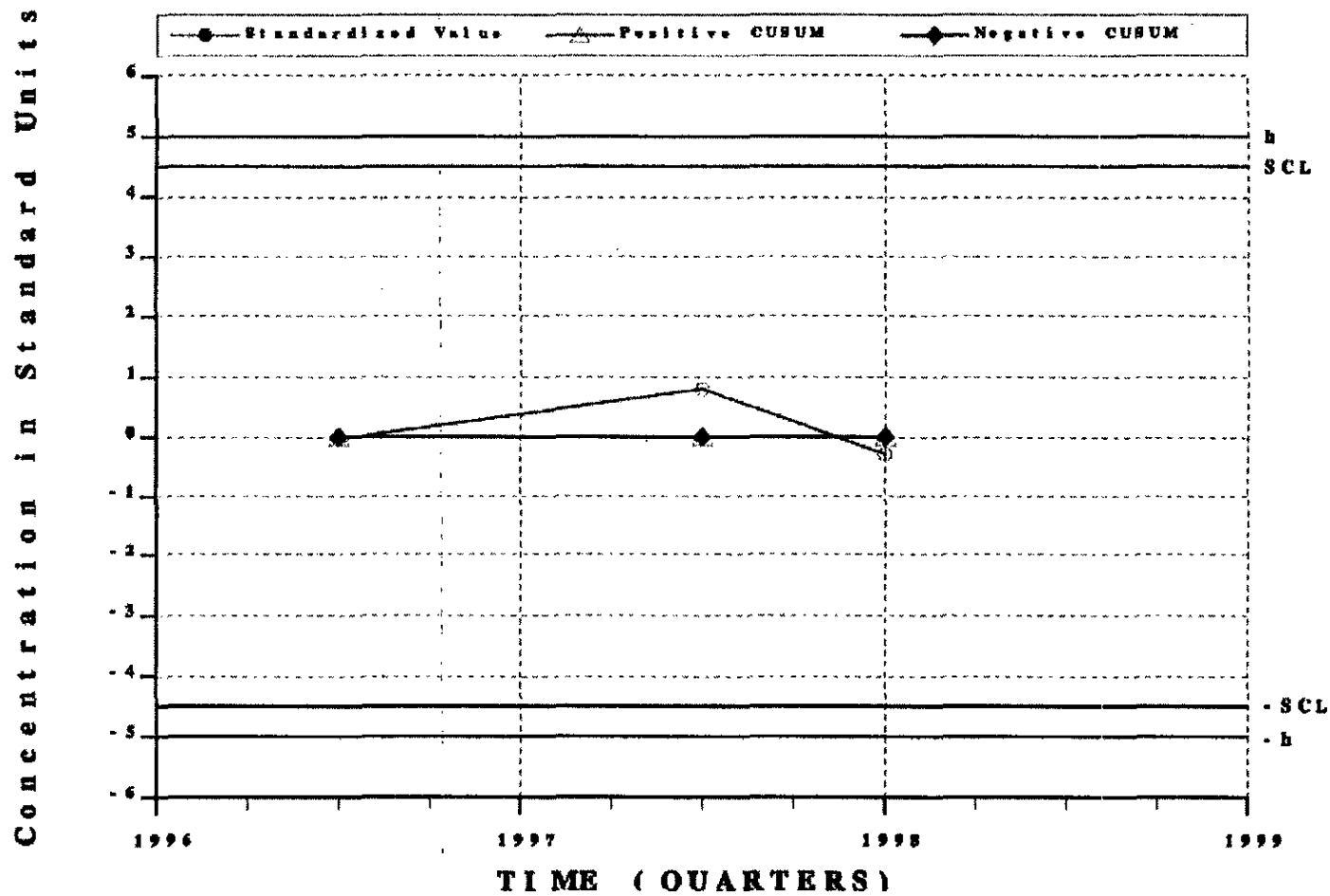
Combined Shewhart-CUSUM Control Chart
WELL HSB111E - Strontium-90

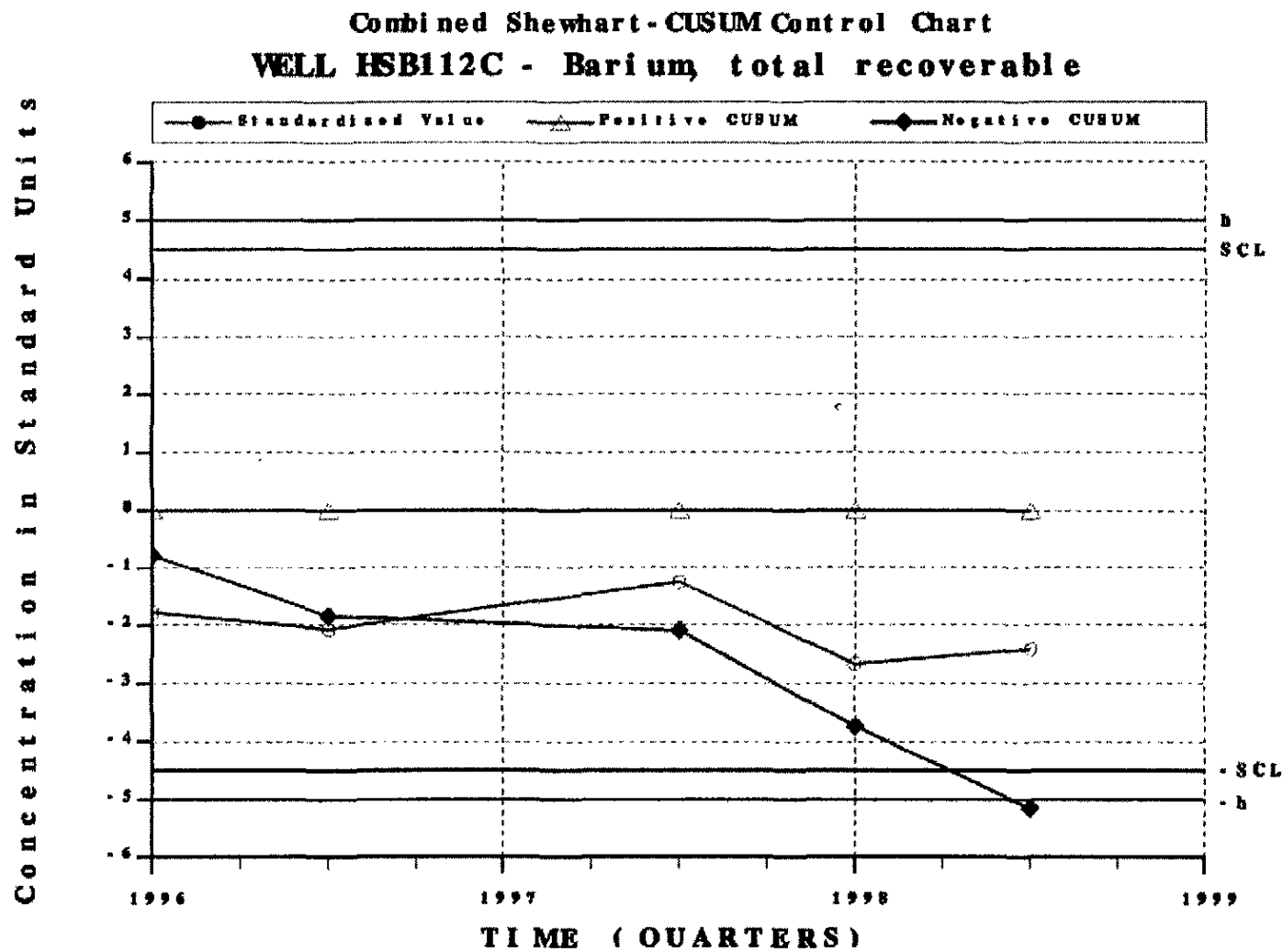


Combined Shewhart-CUSUM Control Chart WELL HSB111E - Tritium

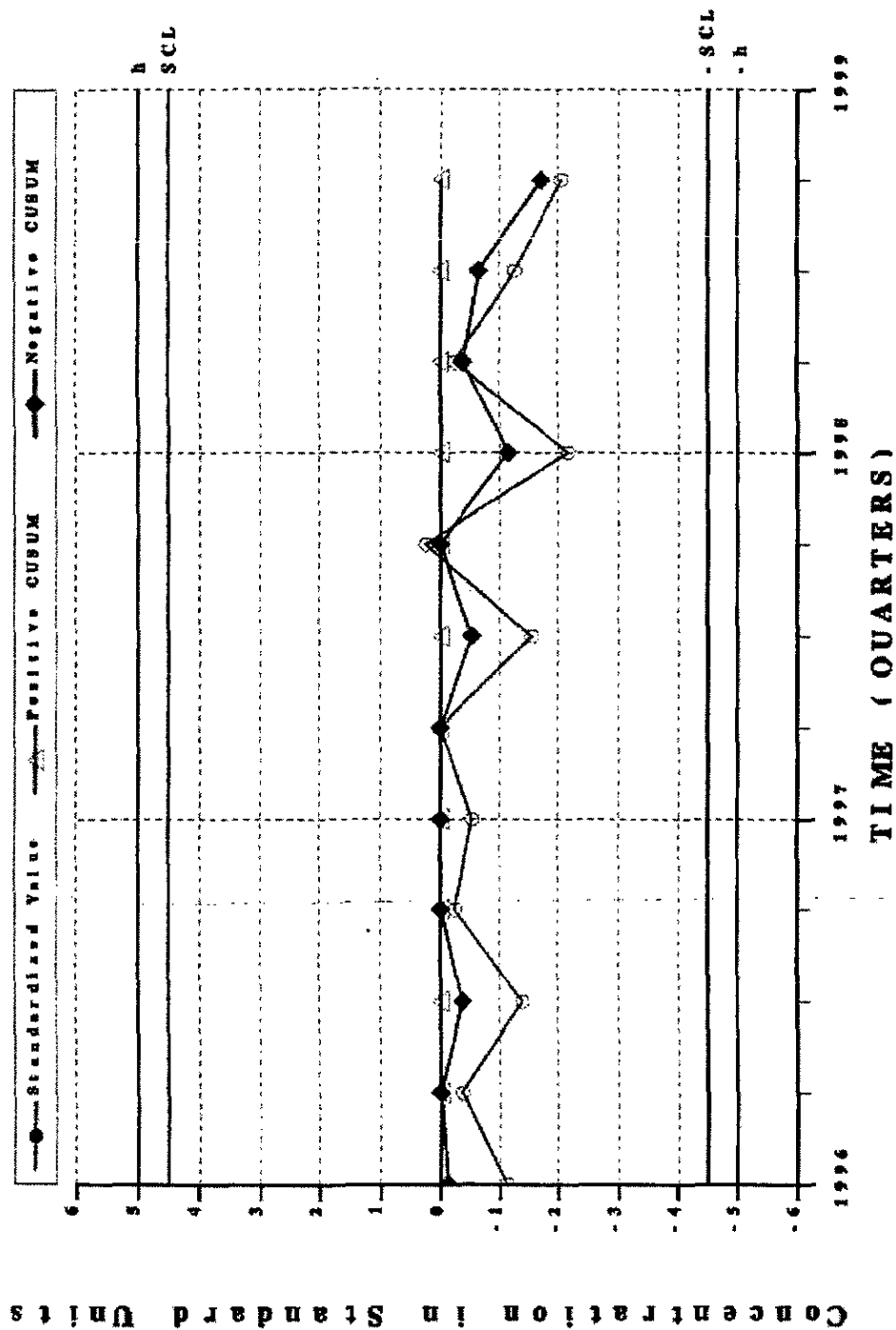


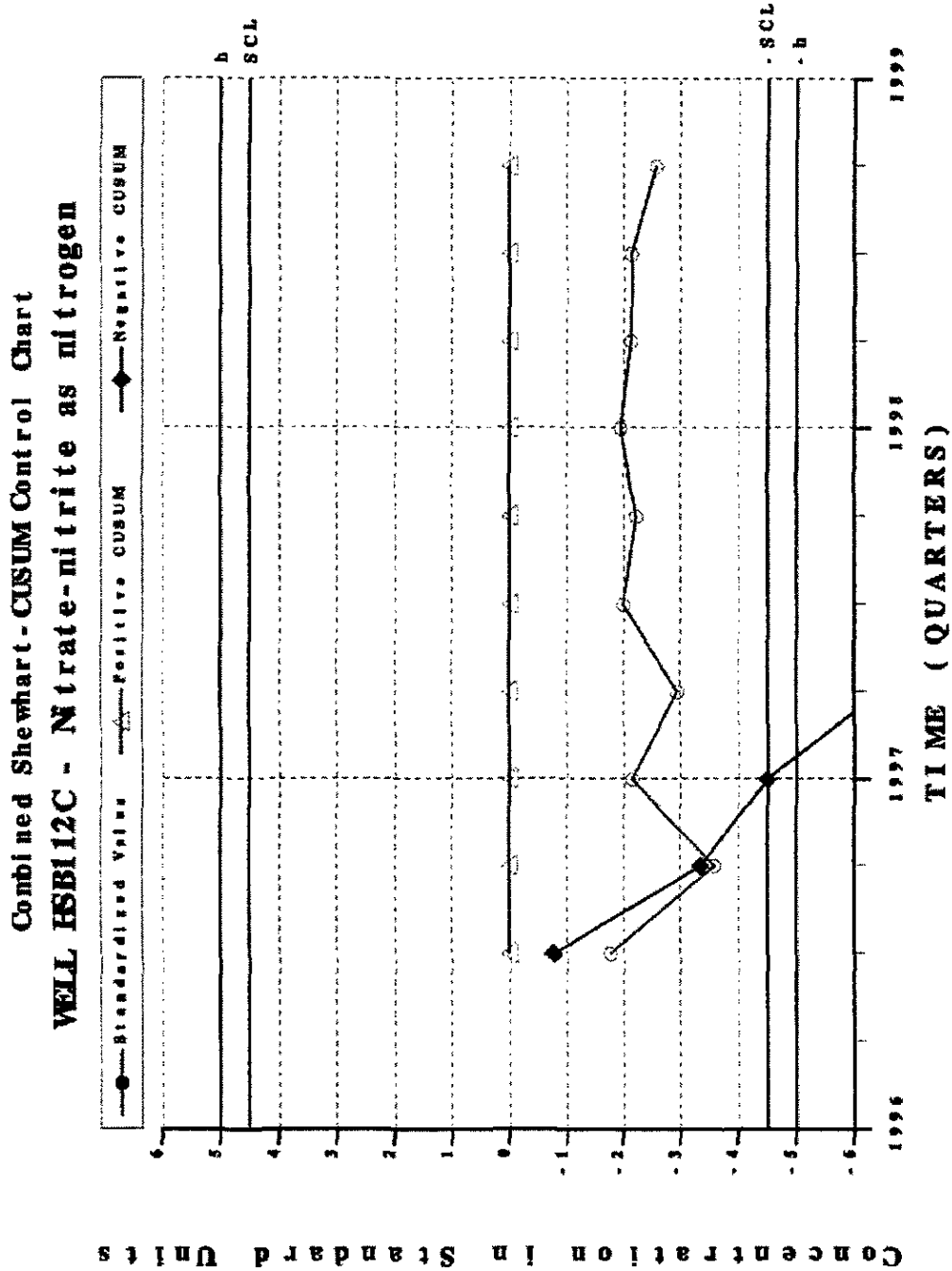
Combined Shewhart-CUSUM Control Chart
WELL HSB111E - Zinc, total recoverable



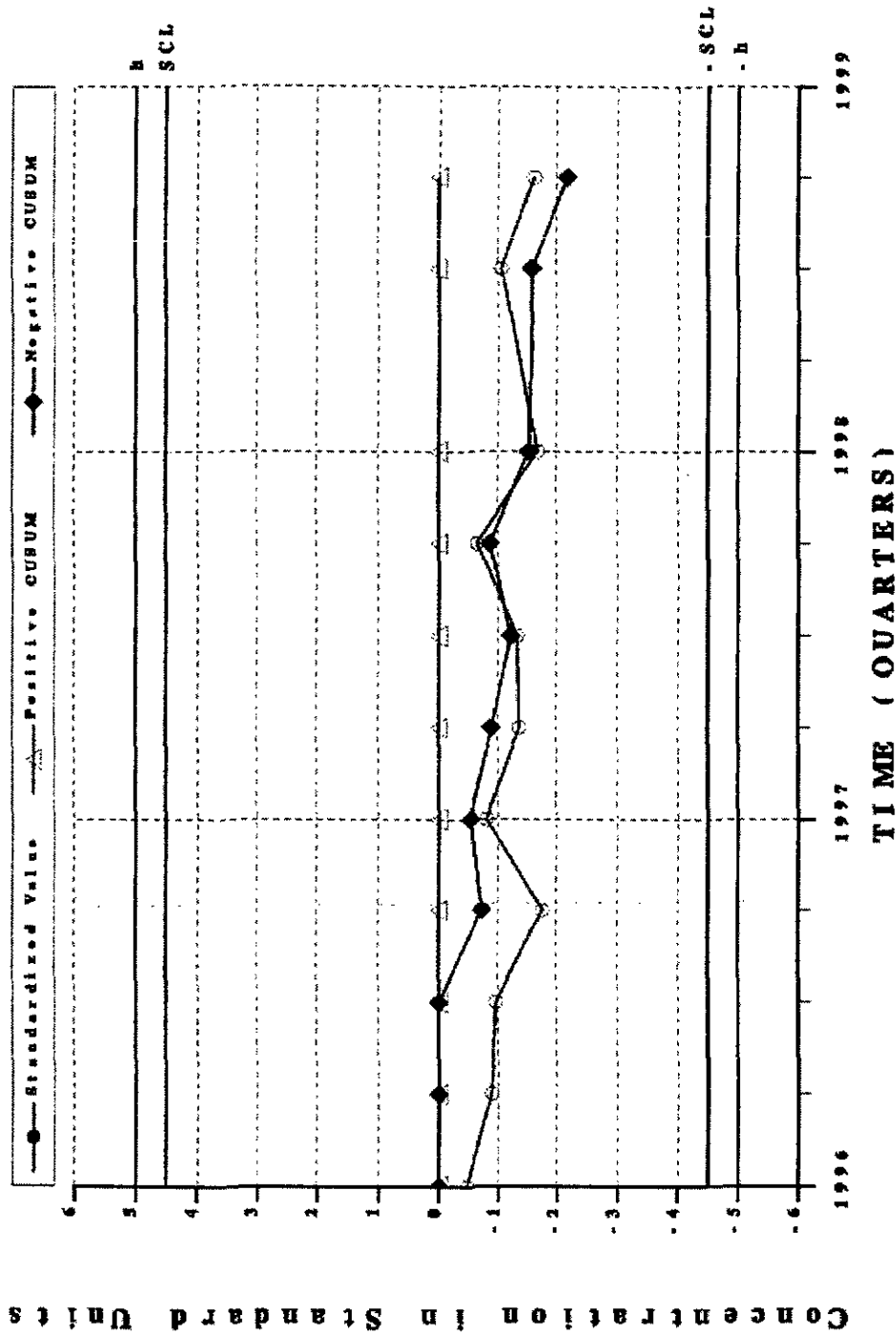


Combined Shewhart-CUSUM Control Chart WELL HSB112C - Gross alpha

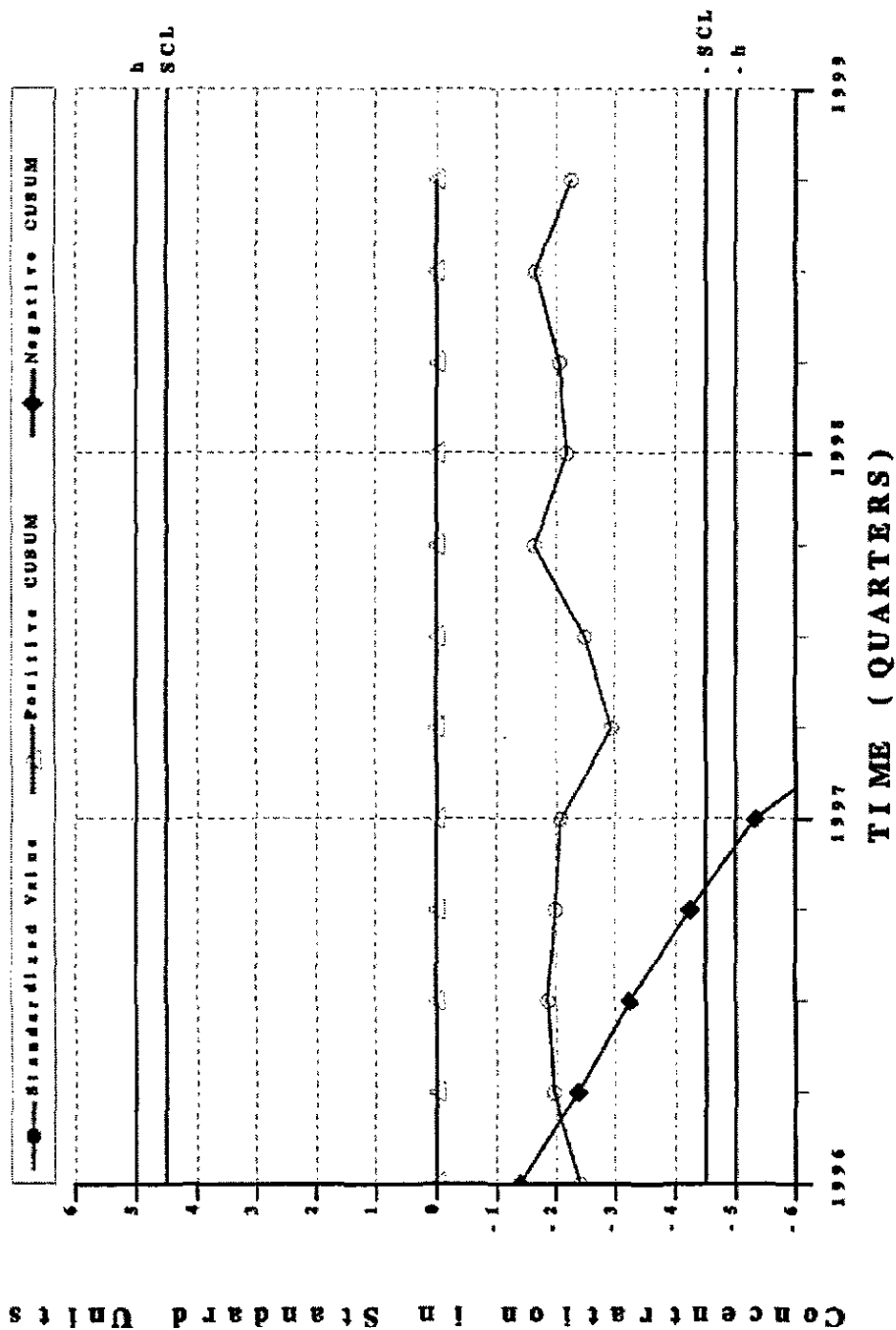




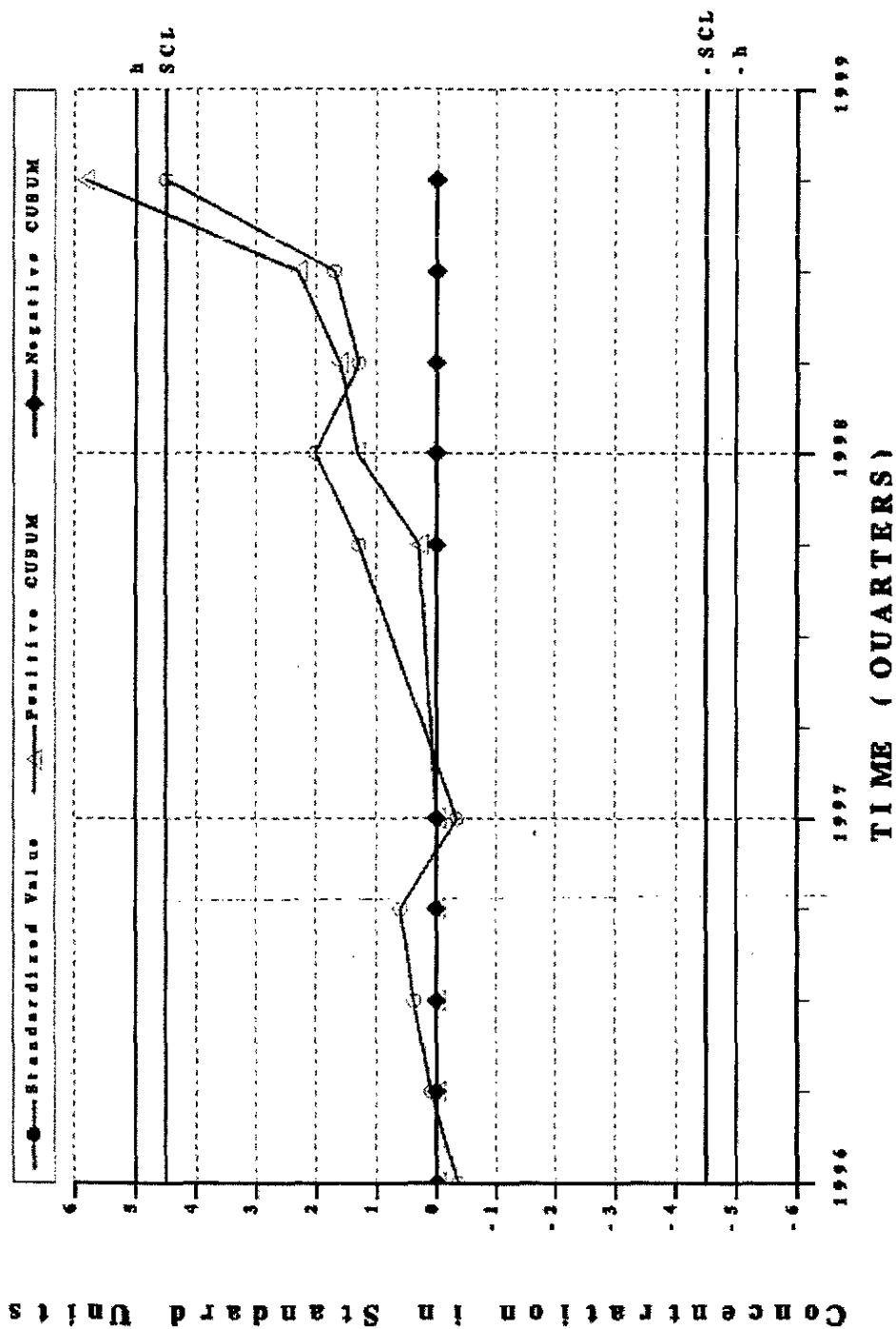
Combined Shewhart-CUSUM Control Chart
WELL HSB112C - Nonvolatile beta



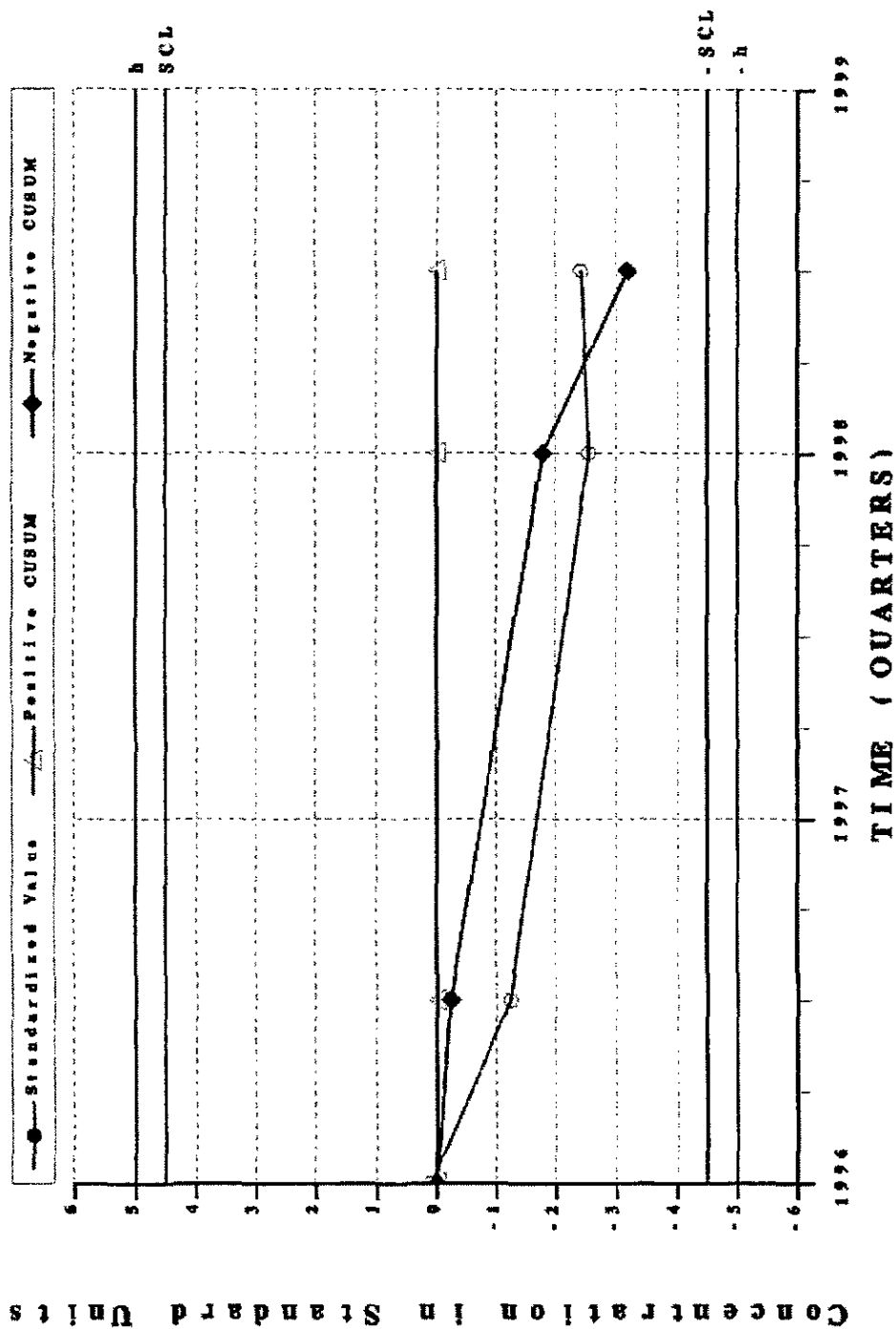
Combined Shewhart-CUSUM Control Chart
WELL HSB112C - Tritium



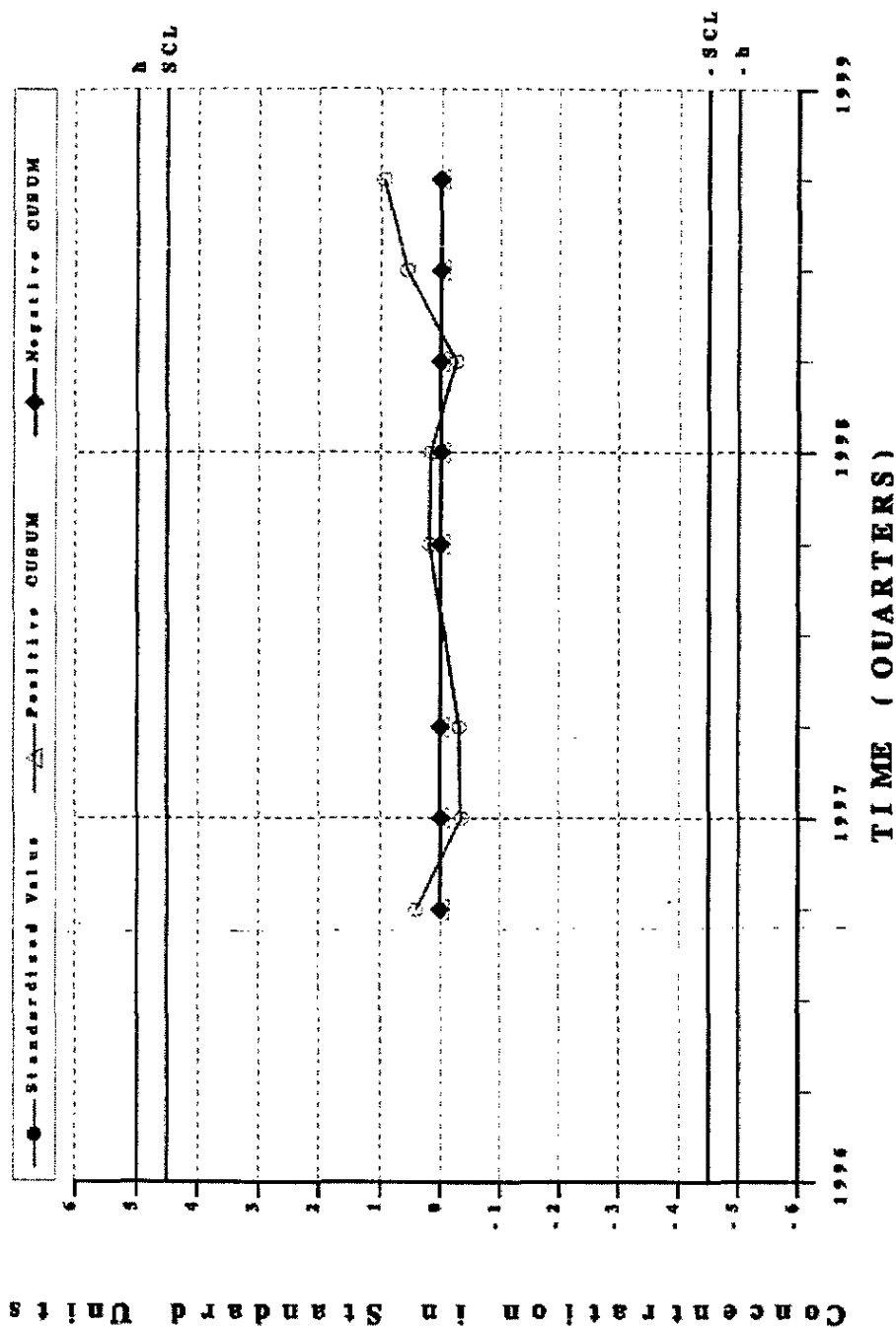
Combined Shewhart-CUSUM Control Chart WELL HSB112D - Gross alpha



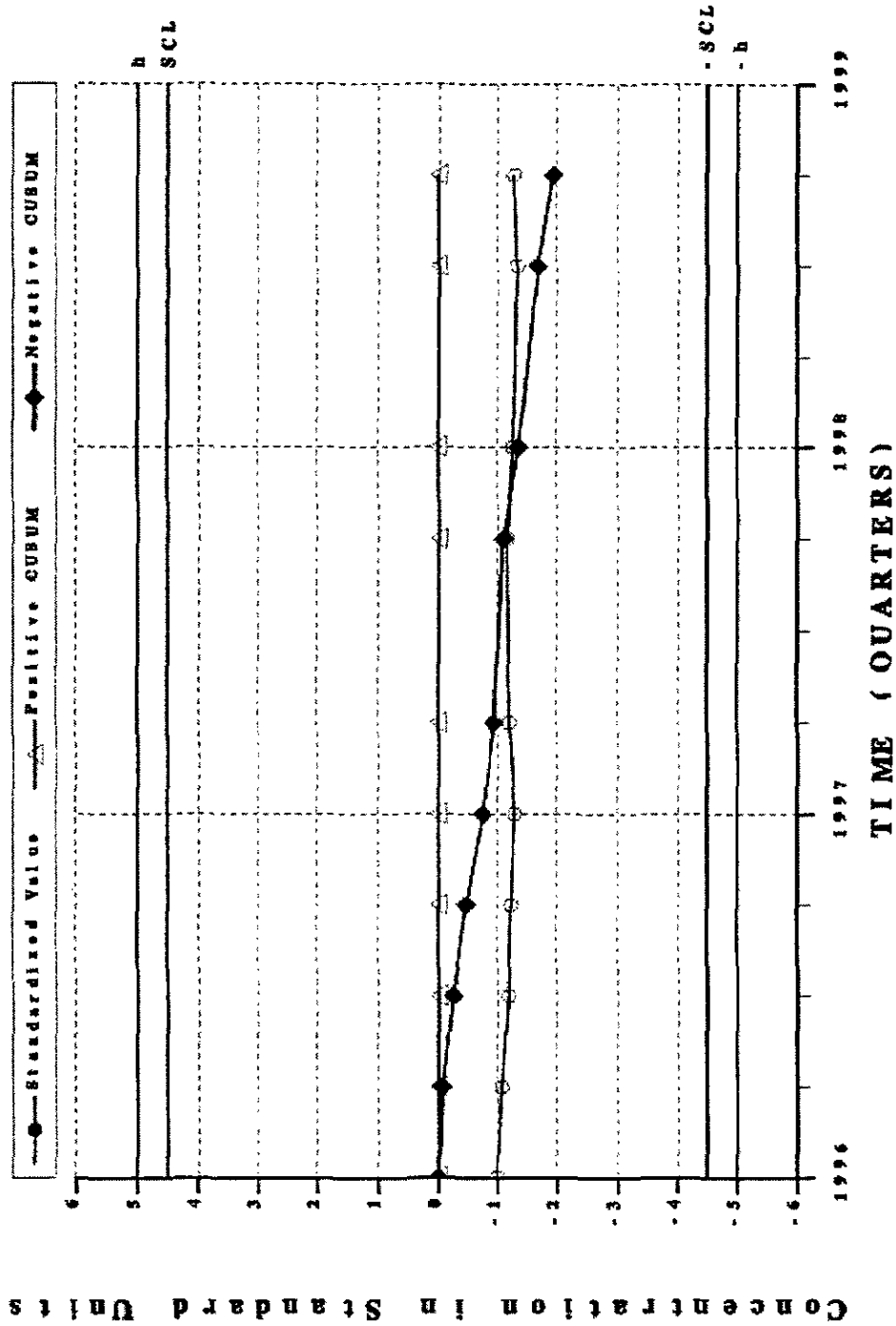
Combined Shewhart-CUSUM Control Chart
WELL HSB112D - Iodine-129



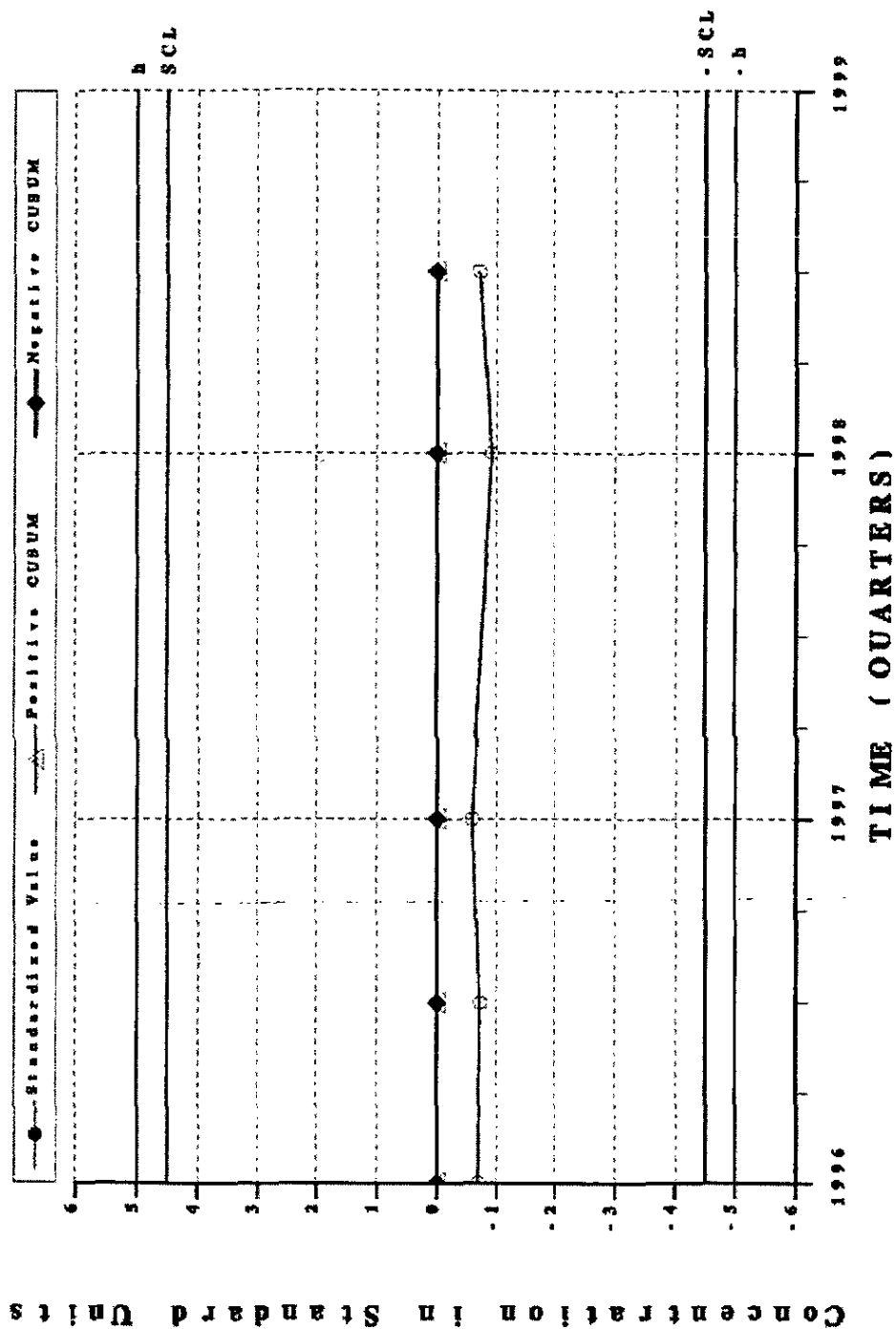
Combined Shewhart-CUSUM Control Chart
WELL HSB112D - Nitrate-nitrite as nitrogen



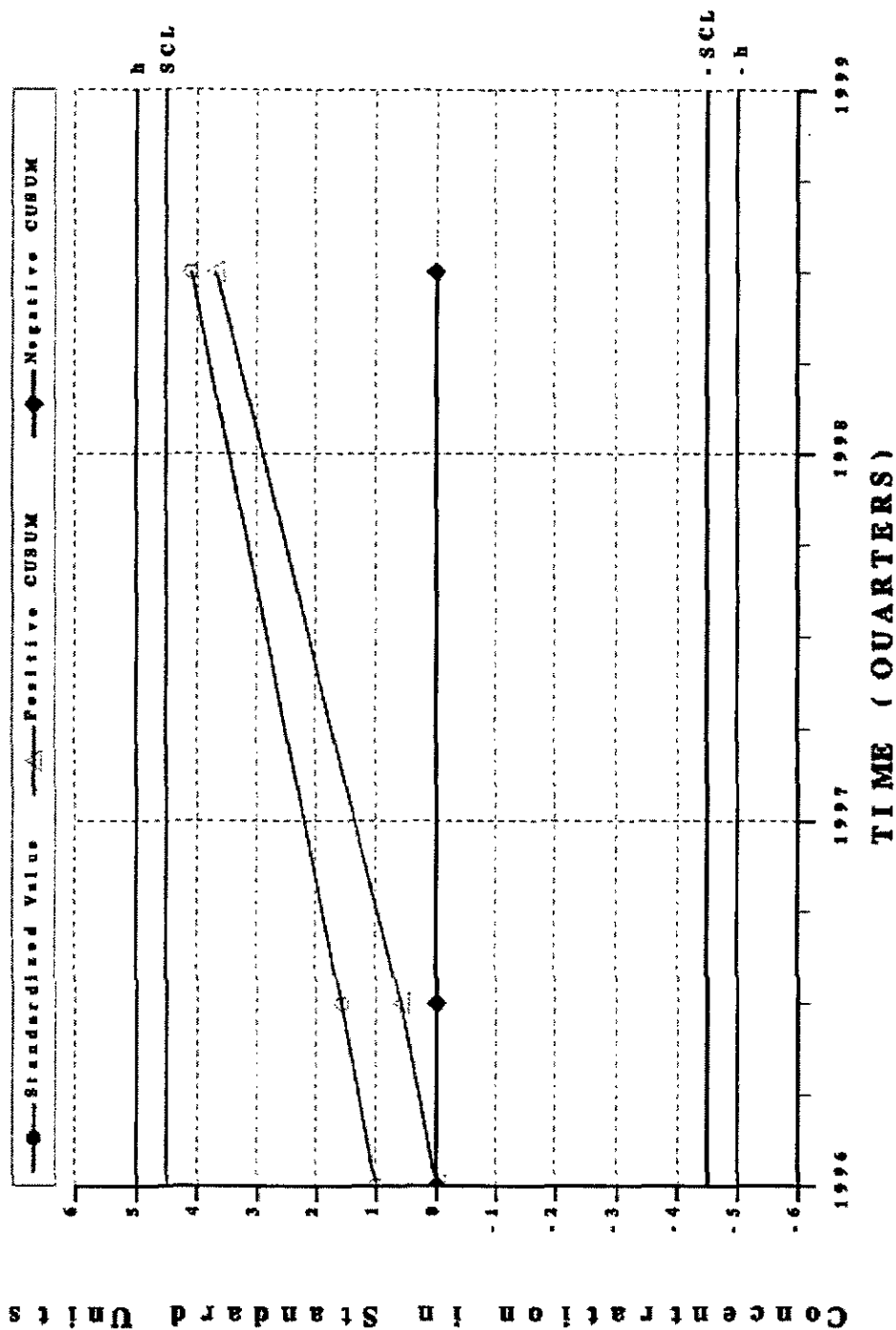
Combined Shewhart-CUSUM Control Chart
WELL HSB112D - Nonvolatile beta



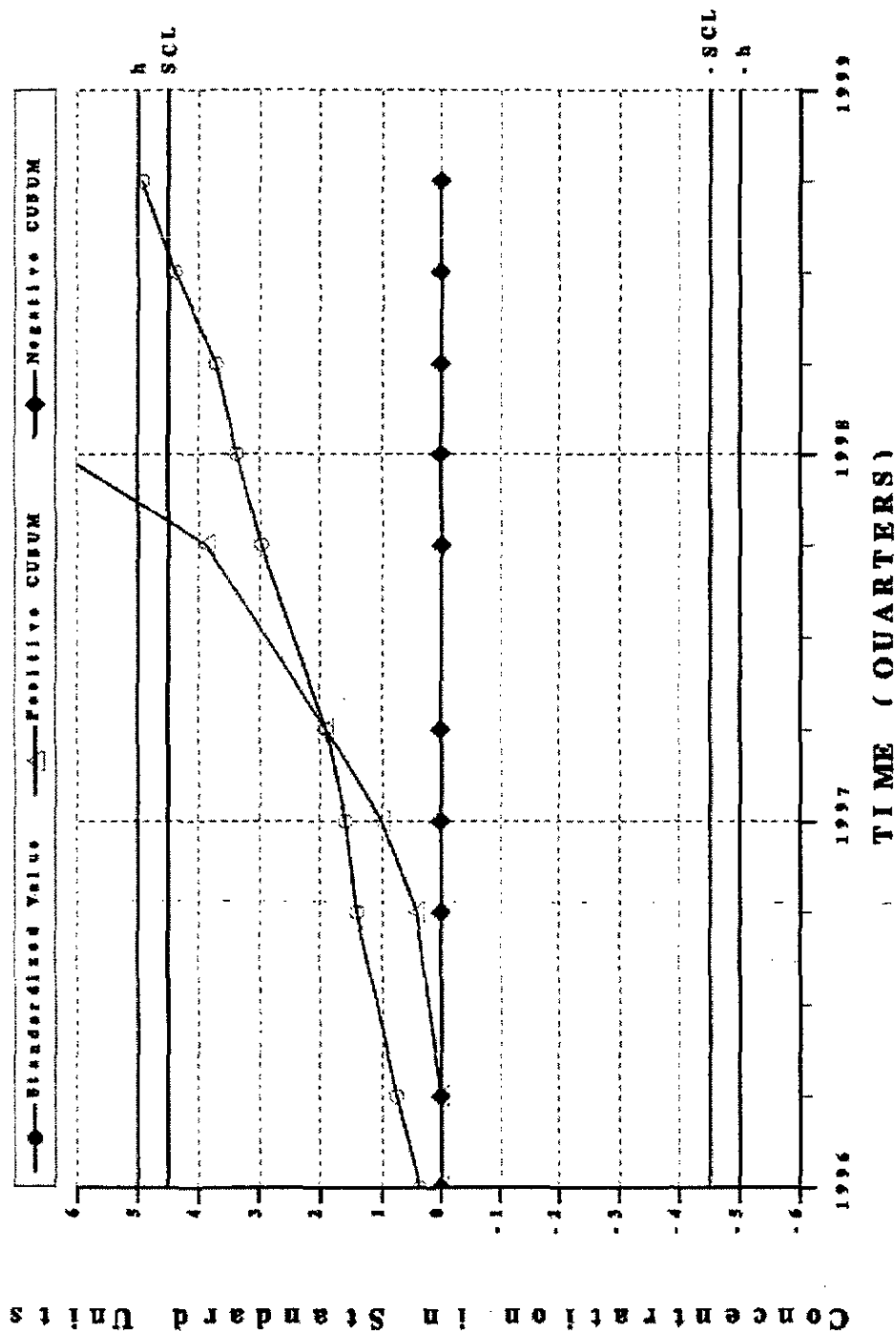
Combined Shewhart-CUSUM Control Chart WELL HSB112D - Radium-226



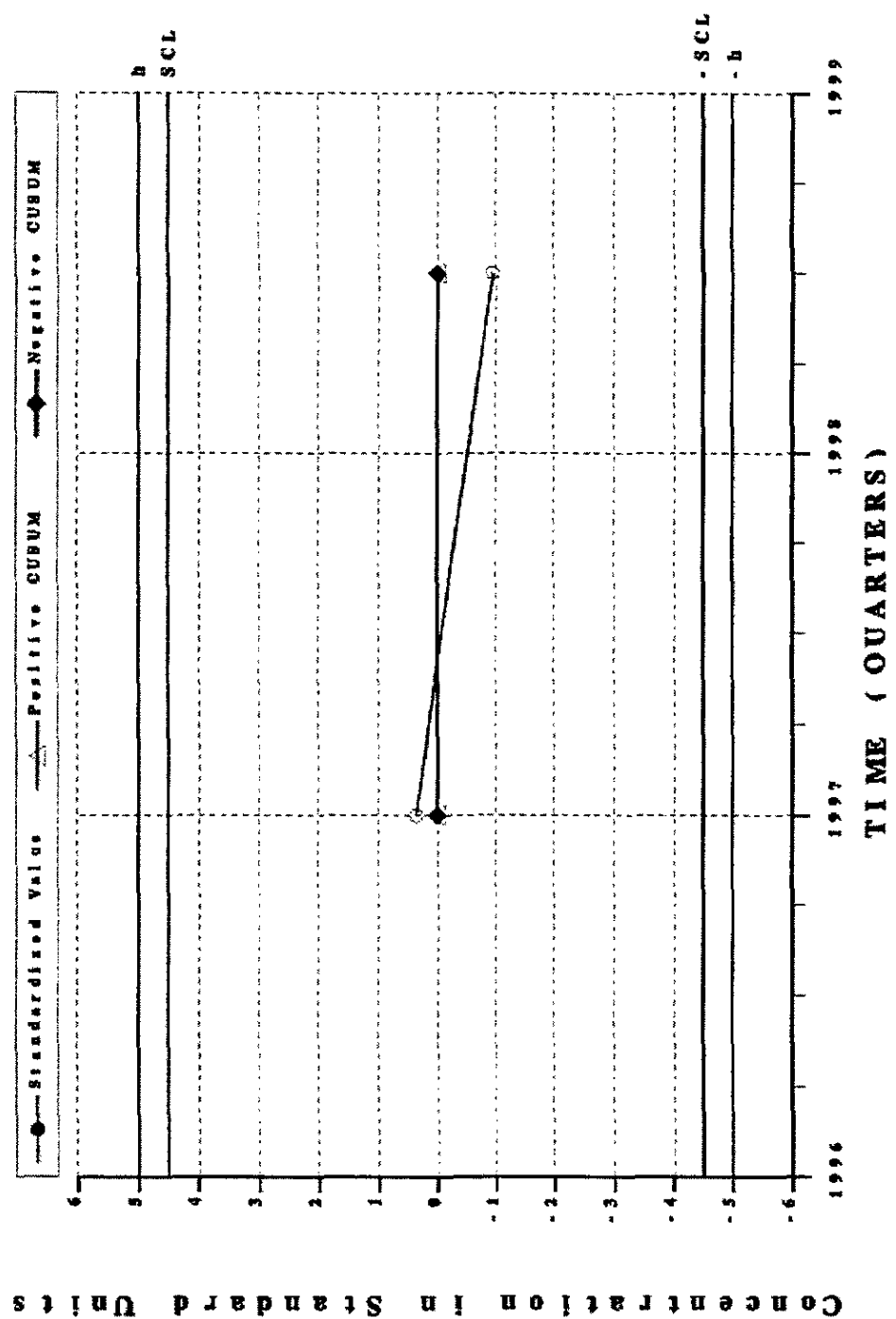
Combined Shewhart-CUSUM Control Chart
WELL HSB112D - Technetium-99



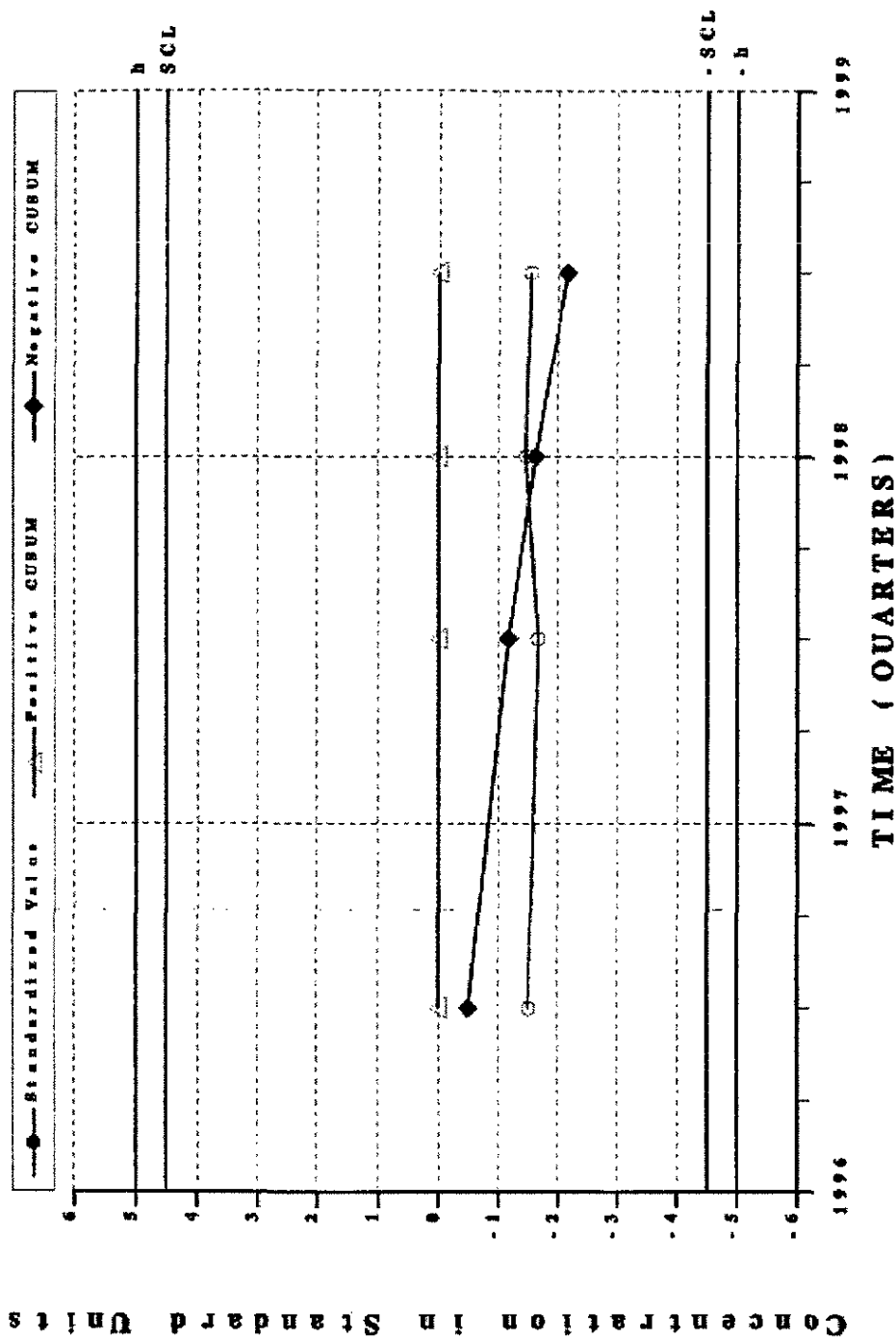
Combined Shewhart-CUSUM Control Chart
WELL HSB112D - Tritium



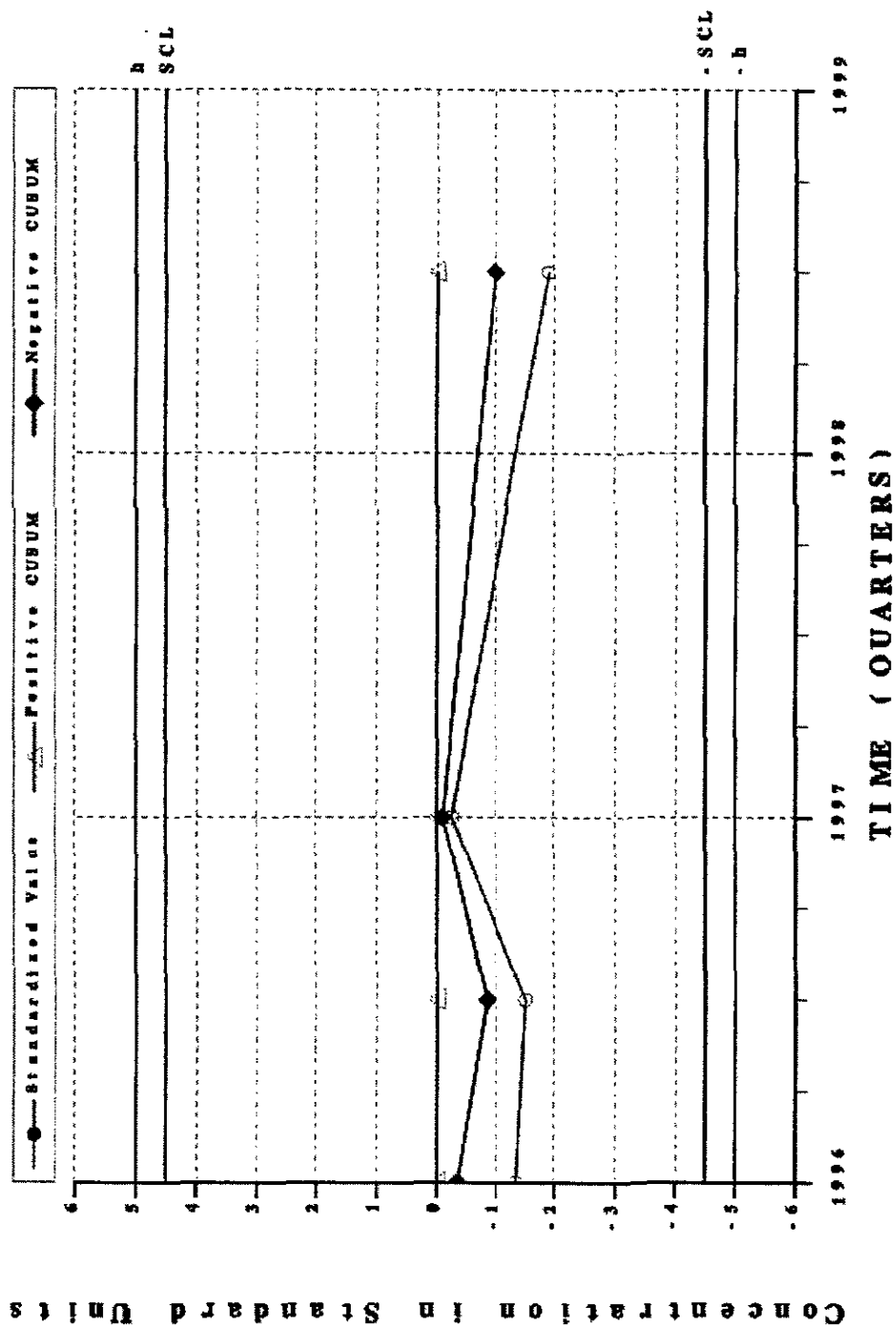
Combined Shewhart-CUSUM Control Chart
WELL HSB112D - Zinc, total recoverable



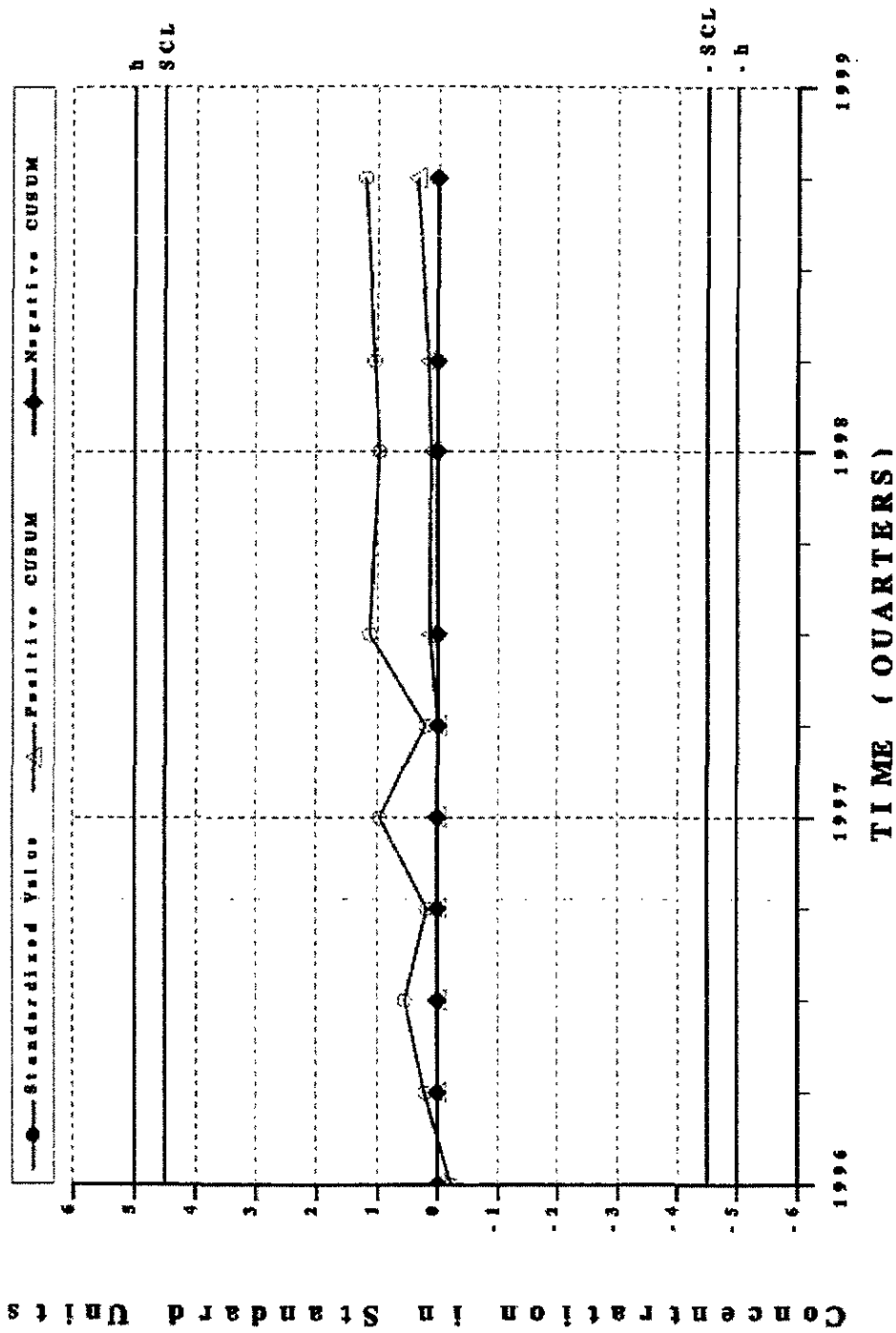
Combined Shewhart - CUSUM Control Chart WELL HSB112E - Barium, total recoverable

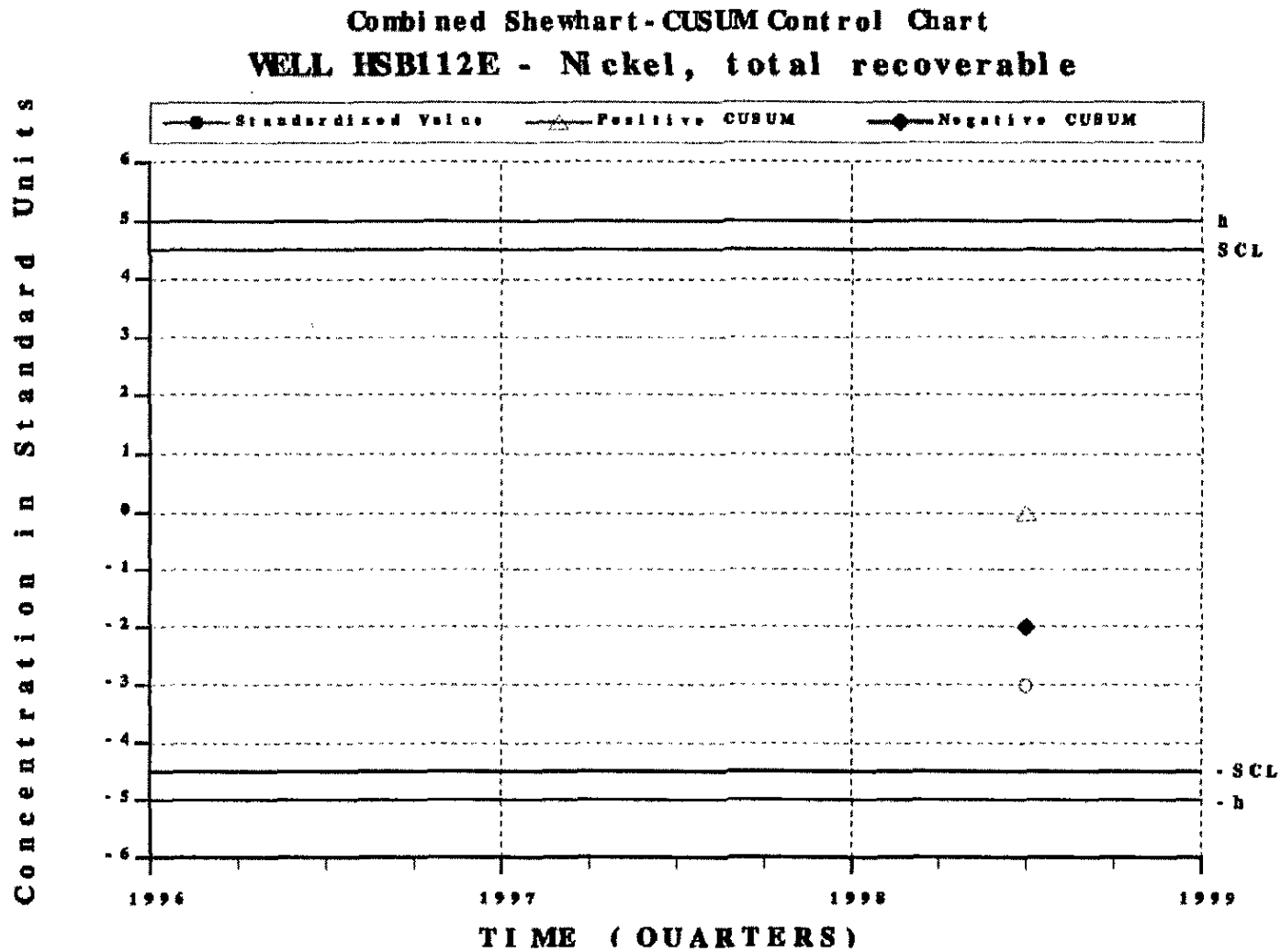


Combined Shewhart-CUSUM Control Chart WELL HSB112E - Cobalt, total recoverable

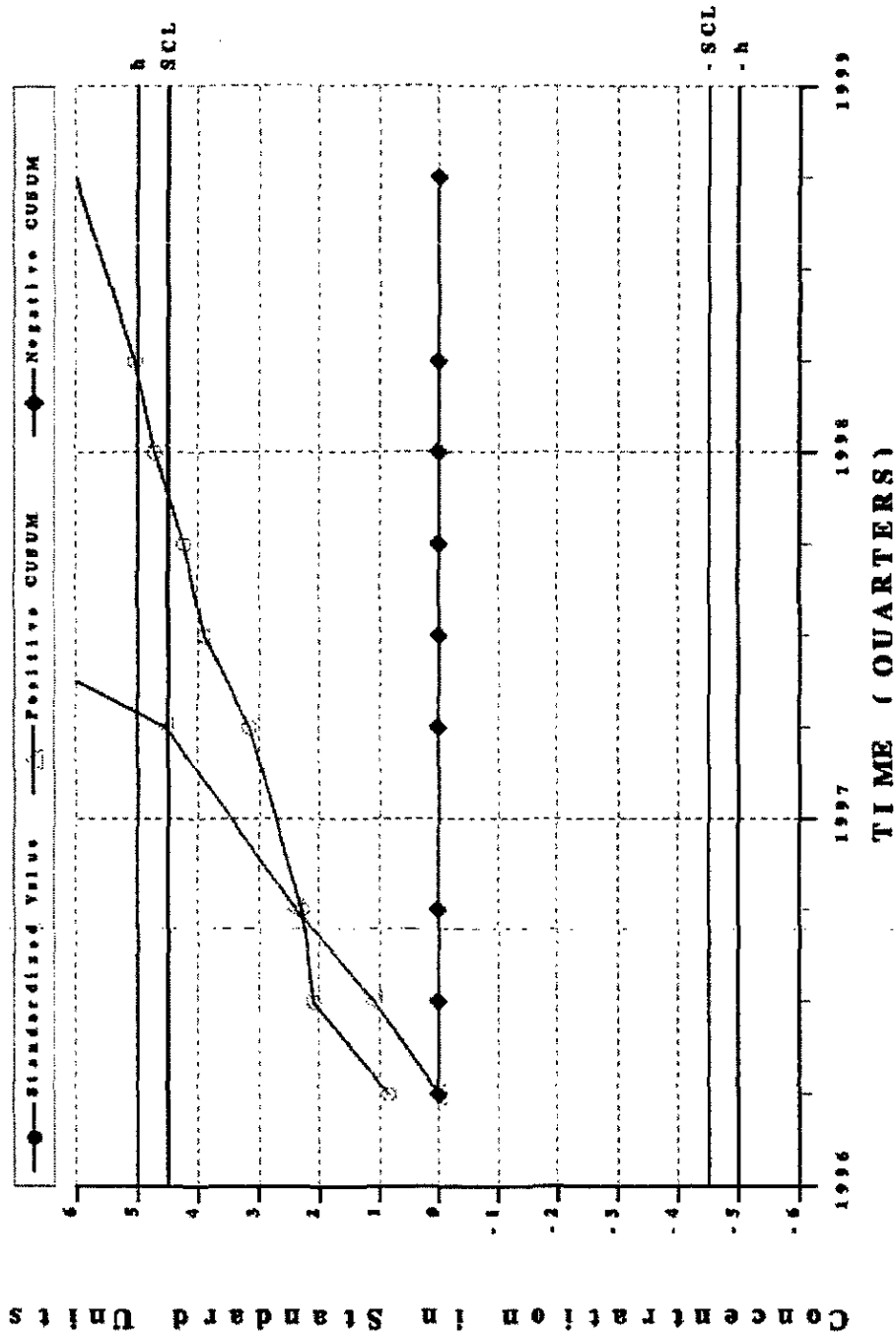


Combined Shewhart-CUSUM Control Chart
WELL HSB112E - Gross alpha

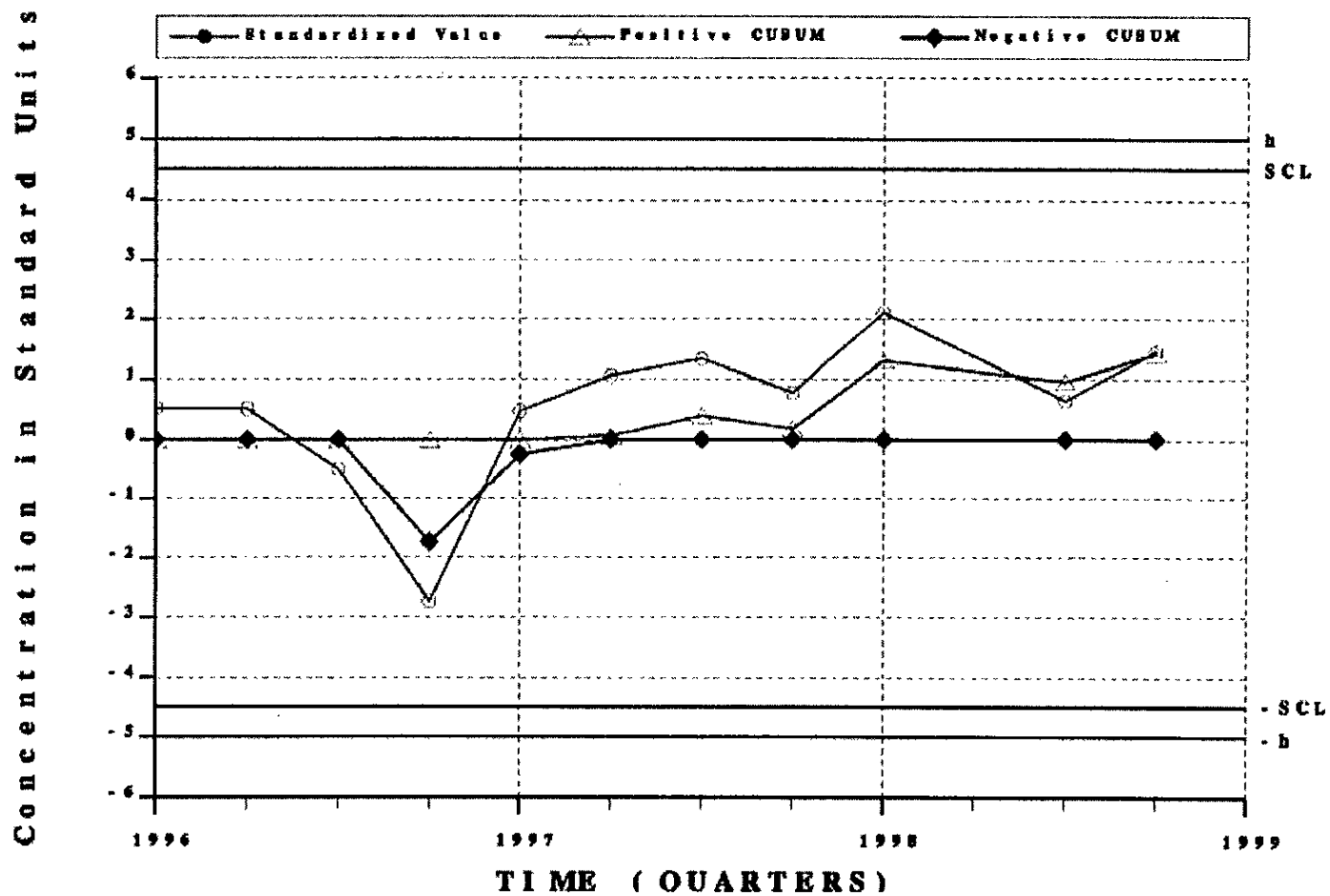




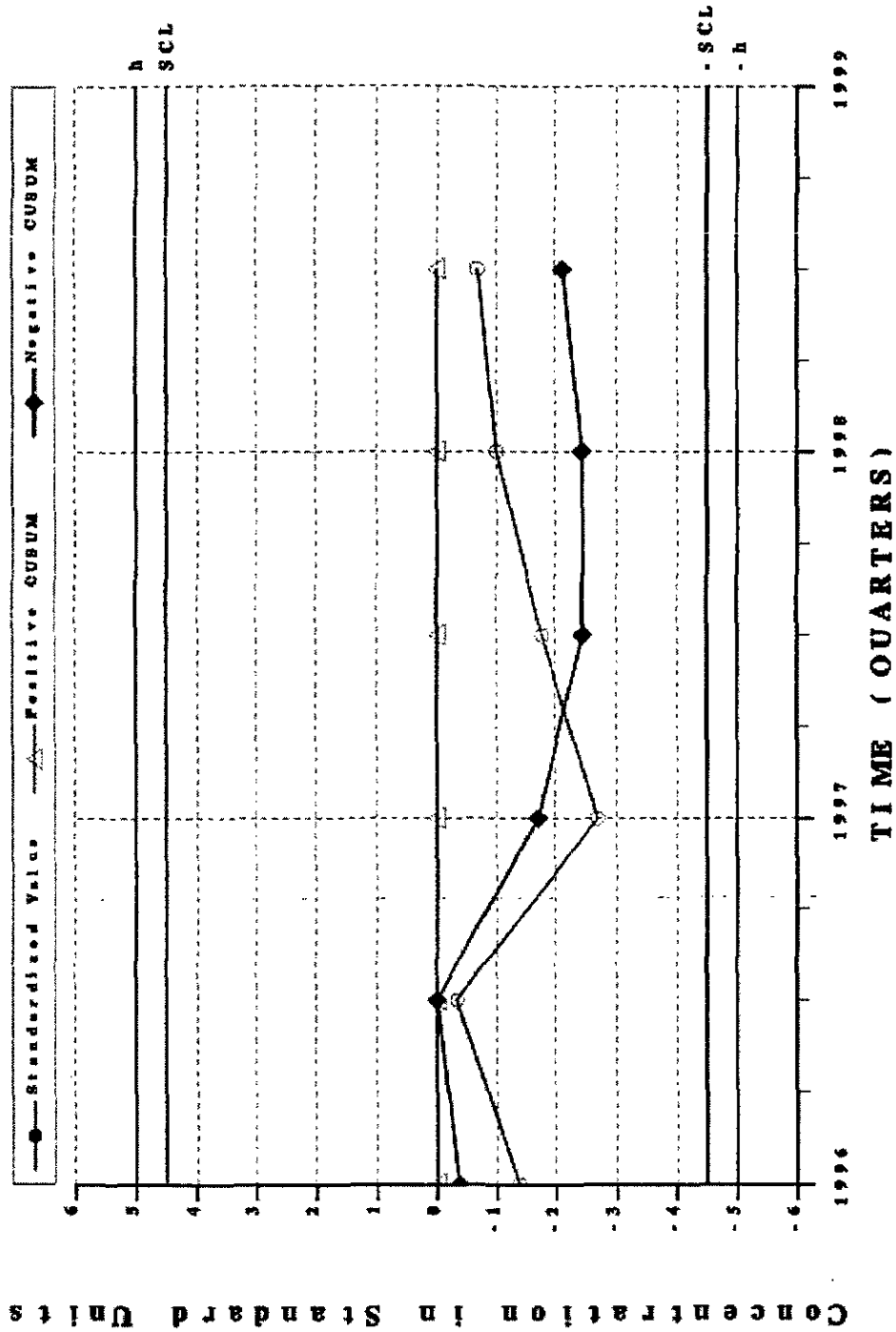
Combined Shewhart - CUSUM Control Chart
WELL HSB112E - Nitrate-nitrite as nitrogen



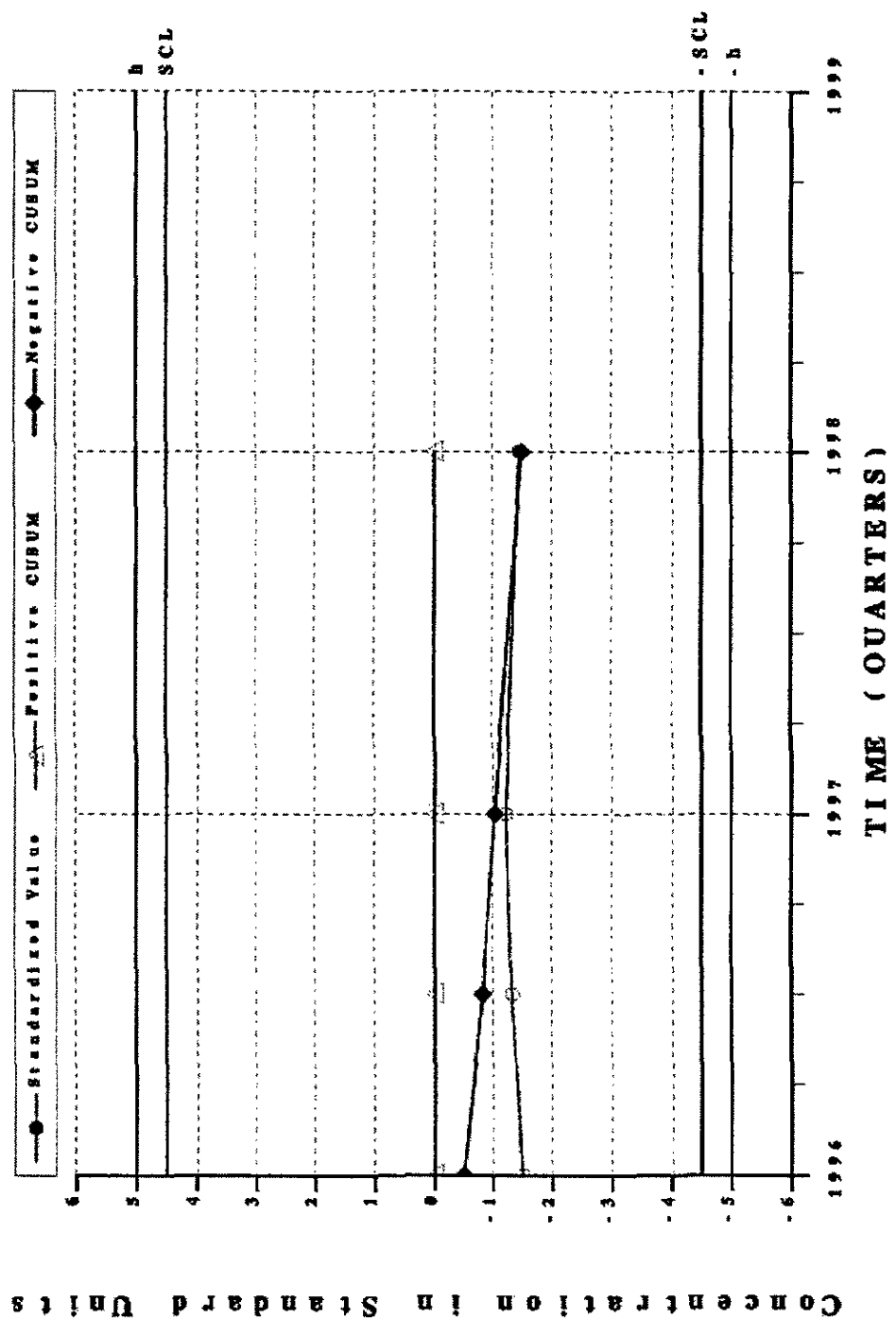
Combined Shewhart-CUSUM Control Chart
WELL HSB112E - Nonvolatile beta



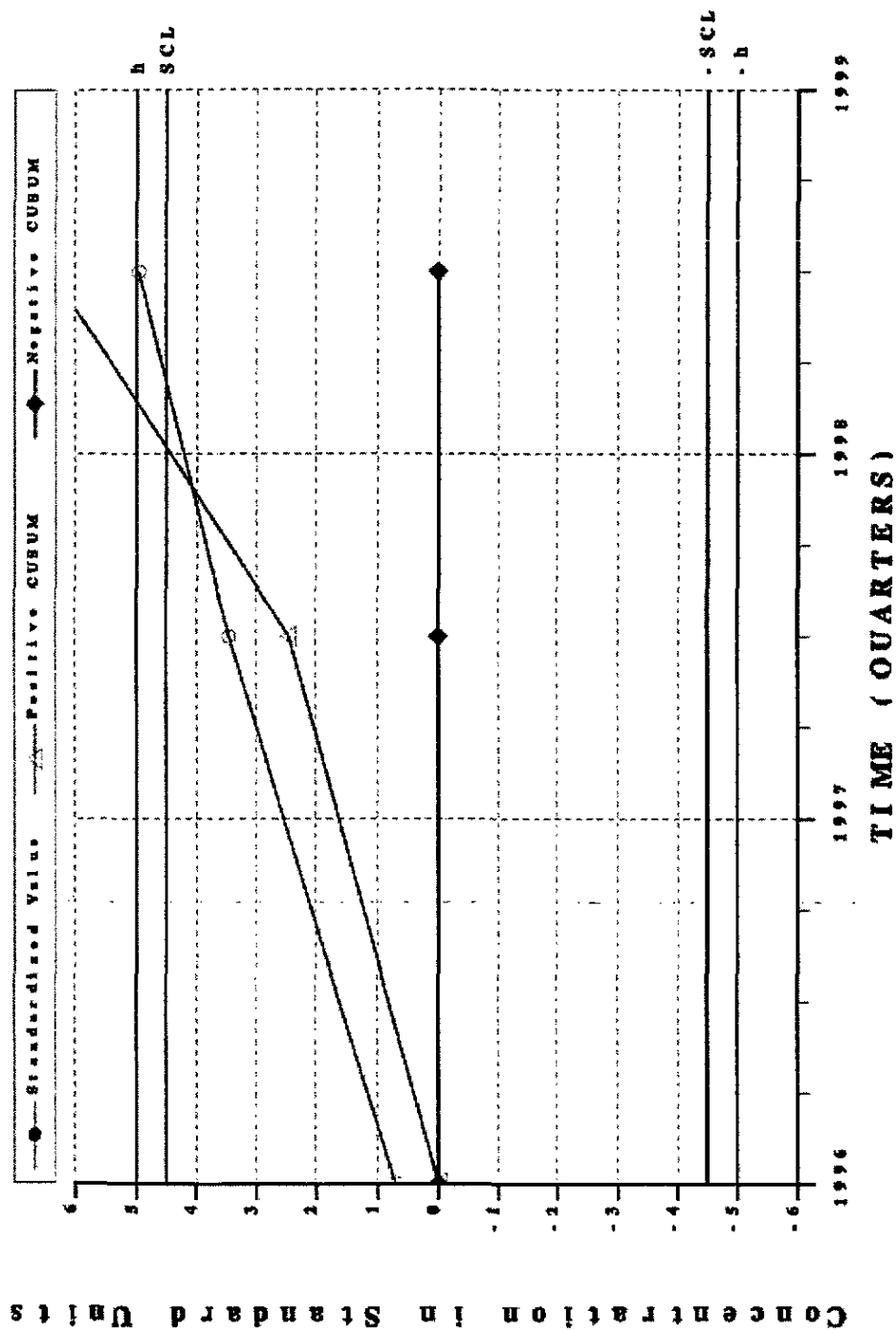
Combined Shewhart-CUSUM Control Chart
WELL HSB112E - Radium-226



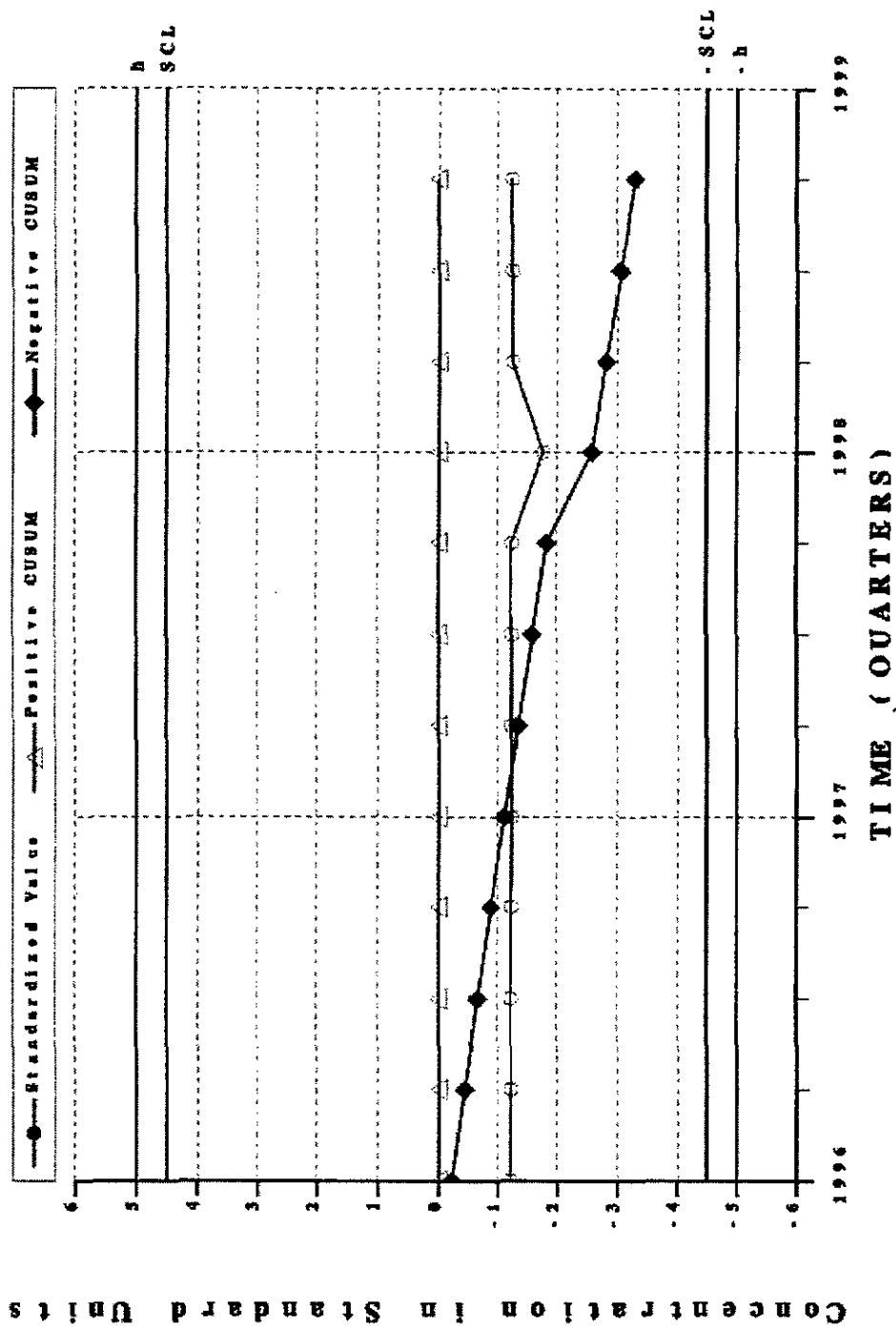
Combined Shewhart-CUSUM Control Chart
WELL HSB112E - Strontium-90



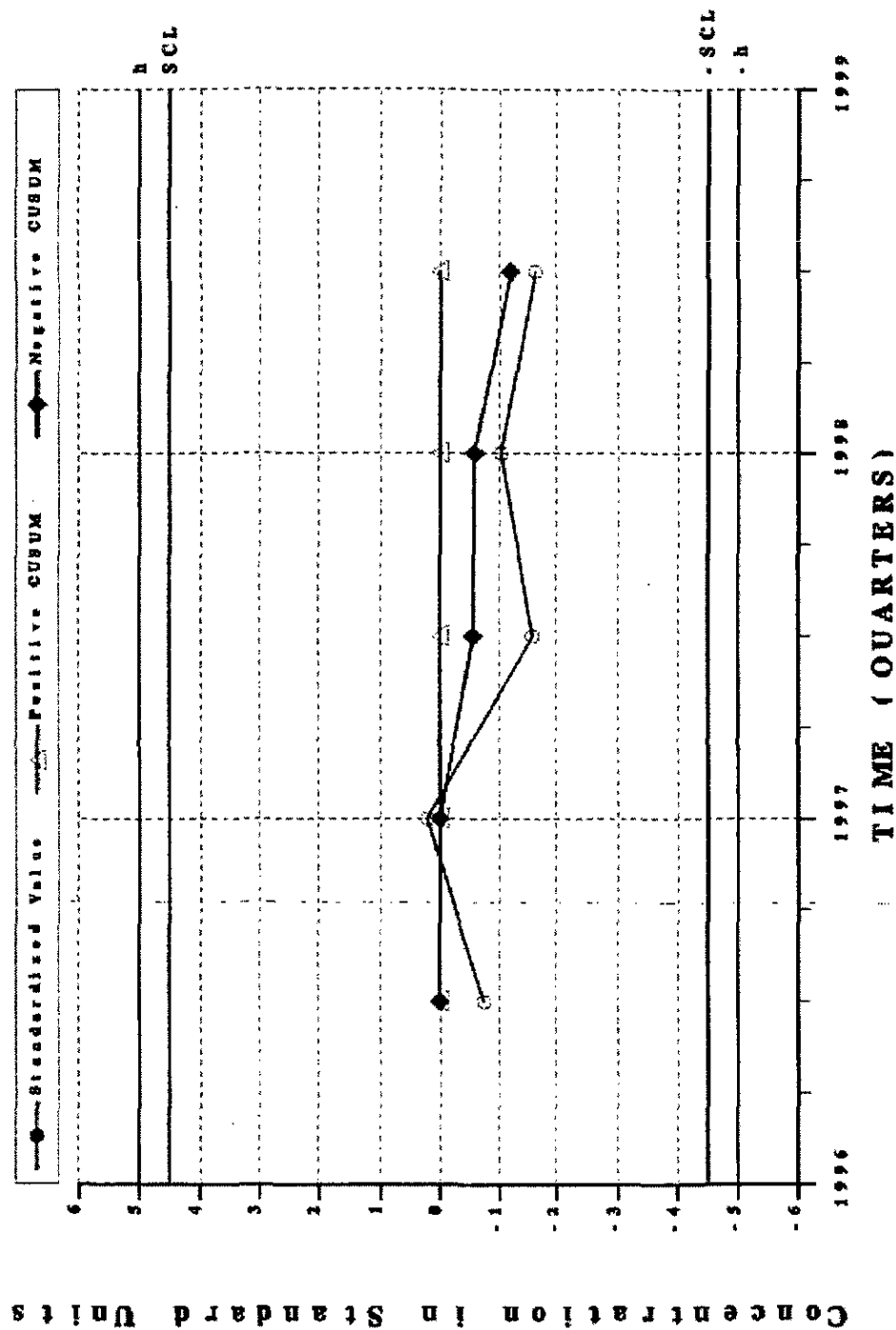
Combined Shewhart - CUSUM Control Chart WELL HSB112E - Technetium-99



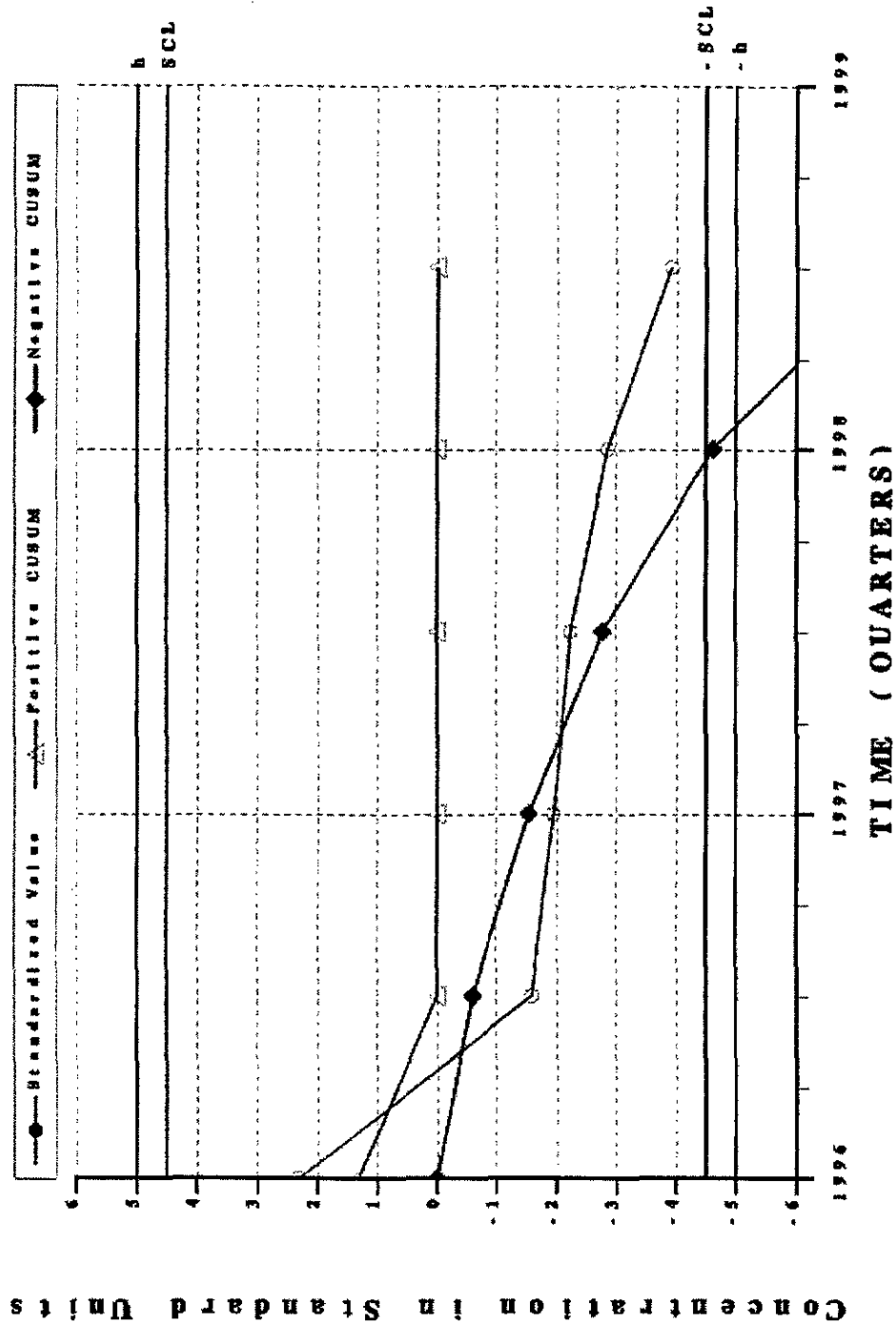
Combined Shewhart-CUSUM Control Chart WELL HSB112E - Tritium



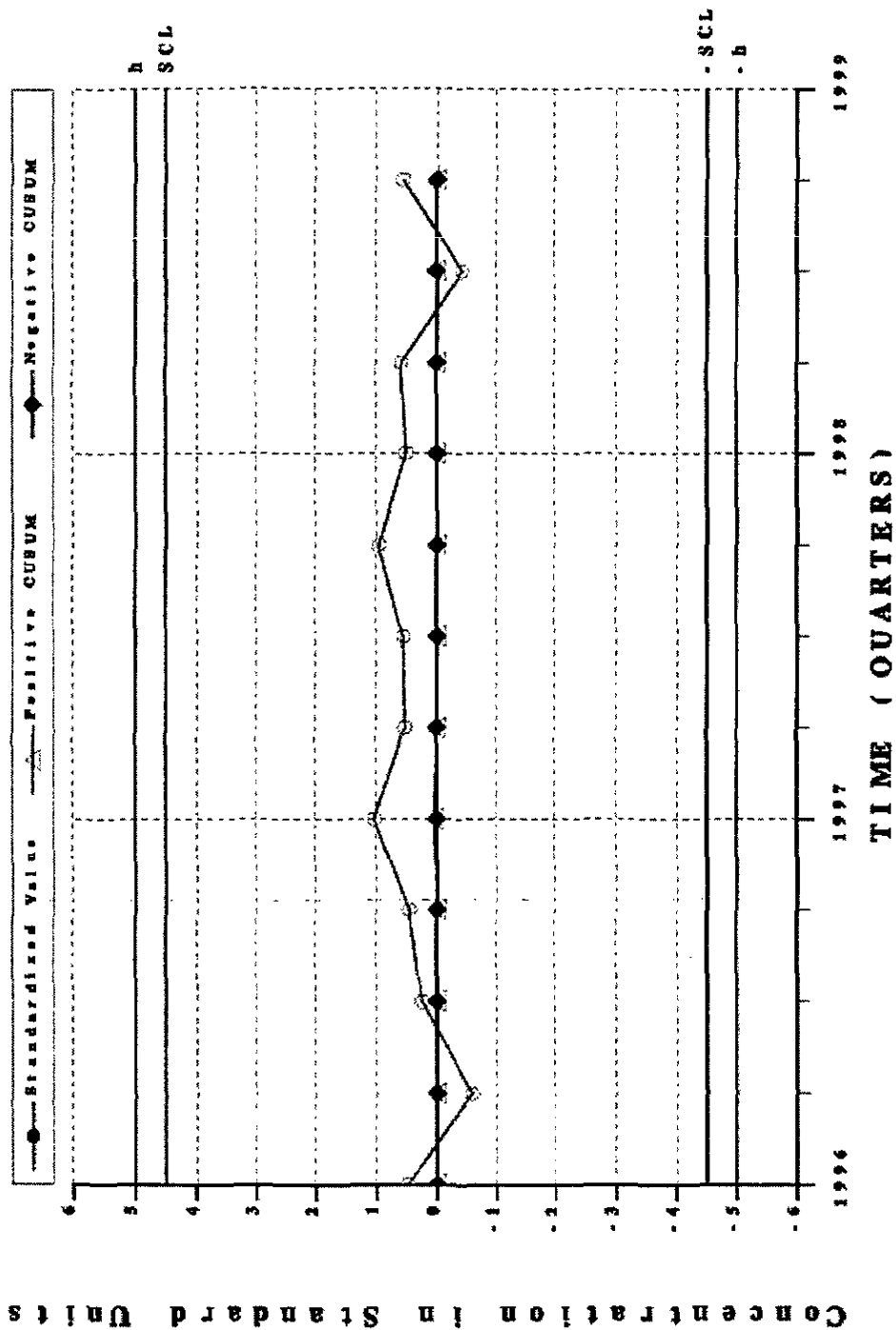
Combined Shewhart-CUSUM Control Chart
WELL HSB112E - Zinc, total recoverable

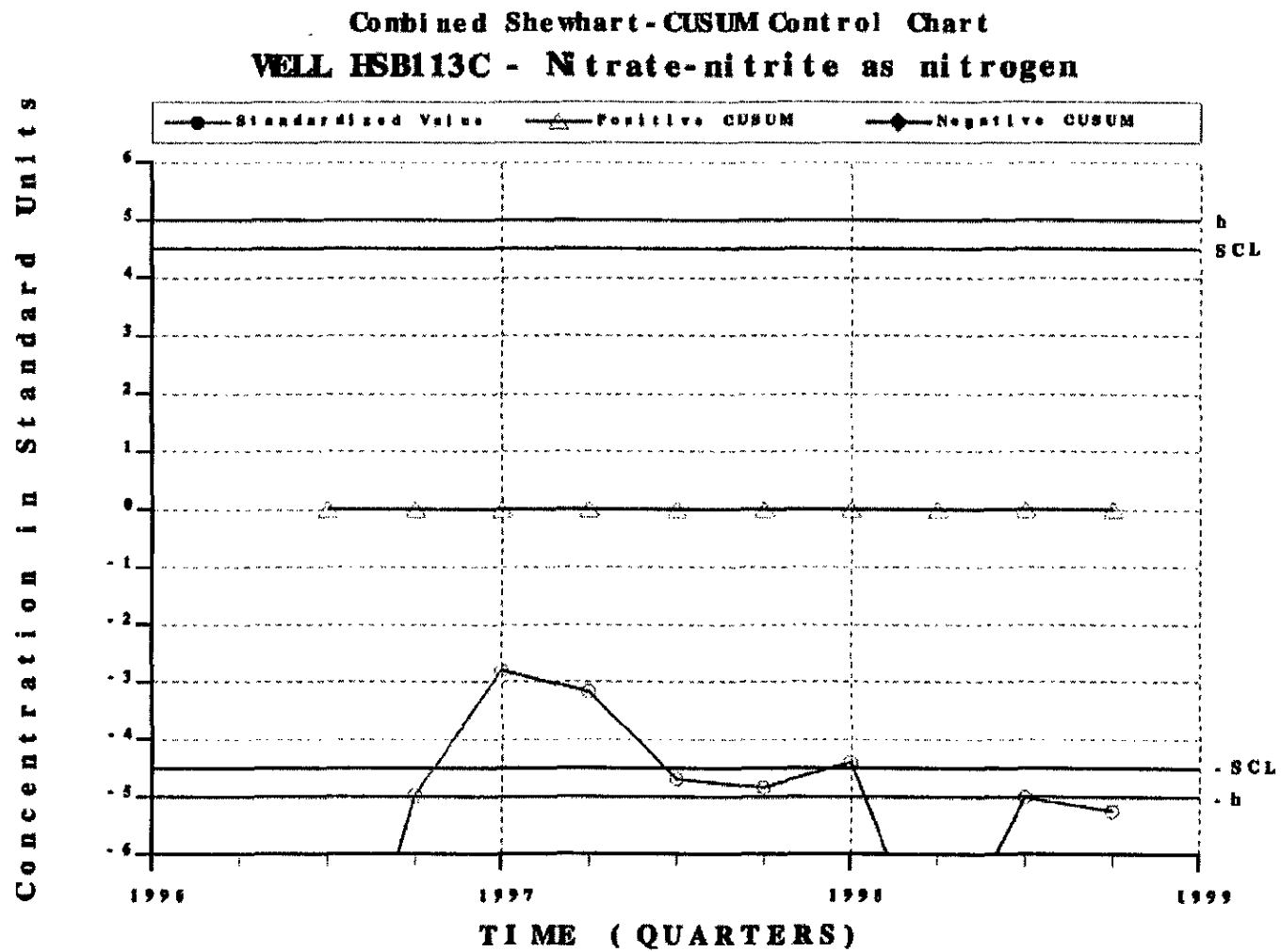


Combined Shewhart - CUSUM Control Chart
WELL HSB113C - Barium total recoverable

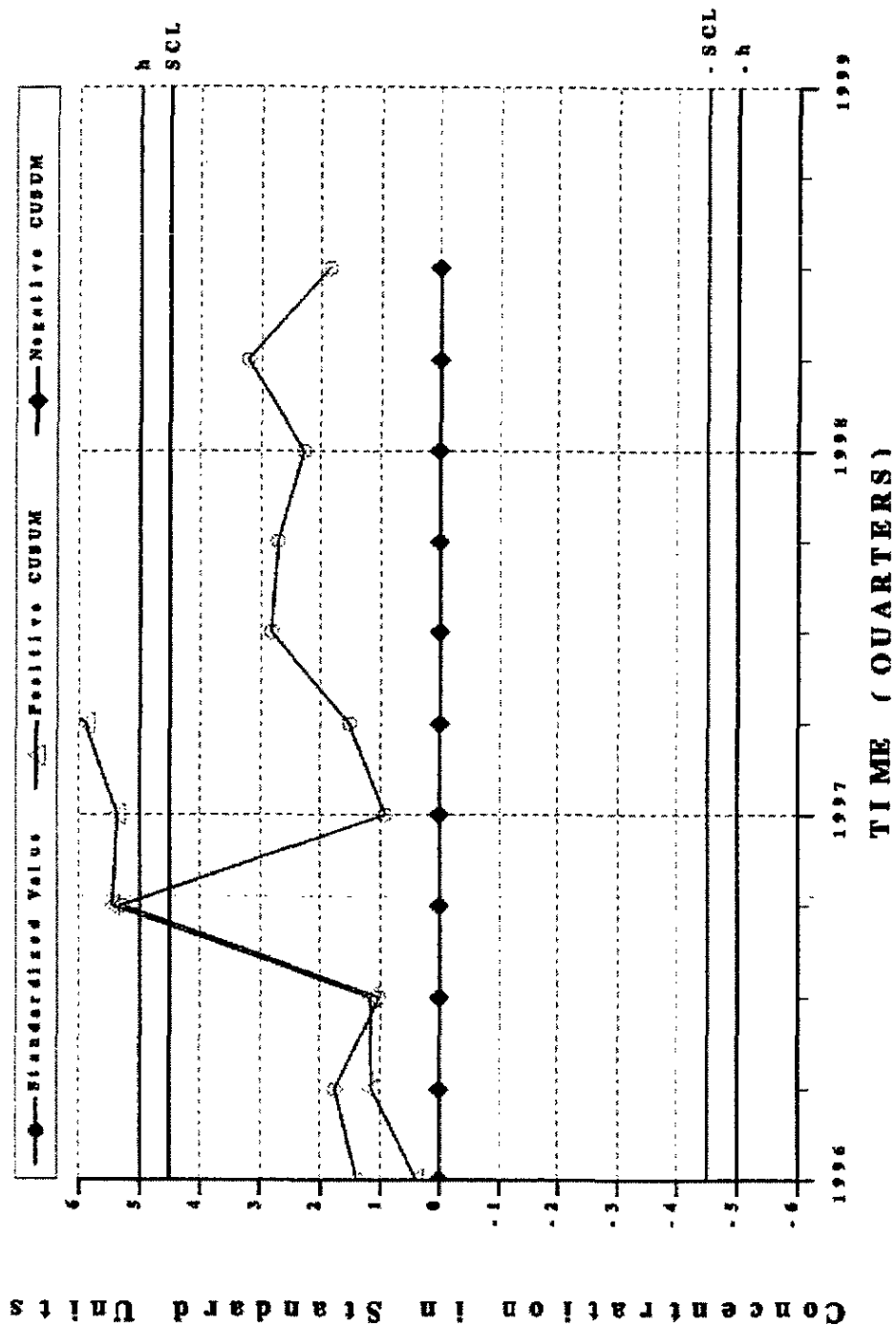


Combined Shewhart-CUSUM Control Chart WELL HSB113C - Gross alpha

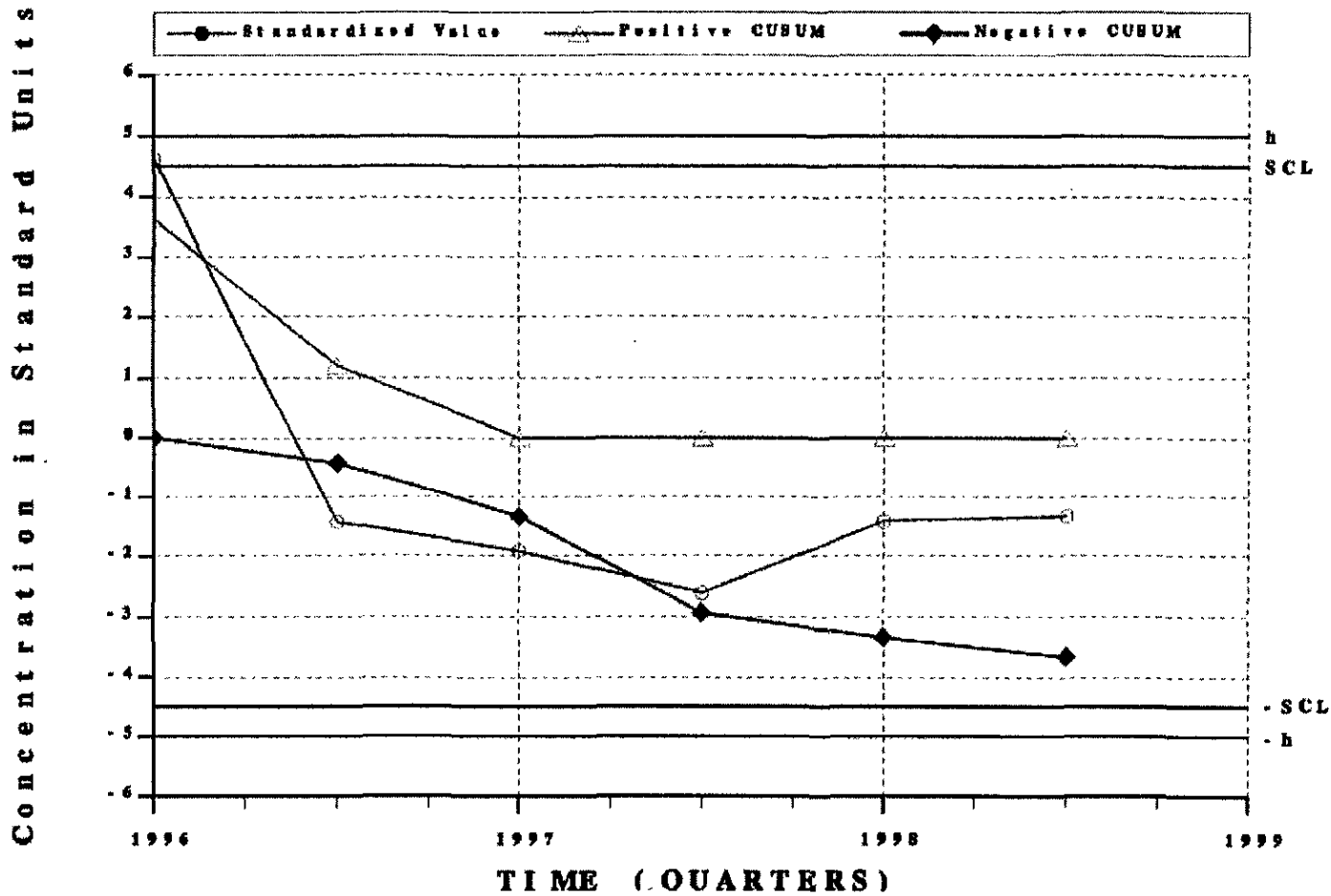




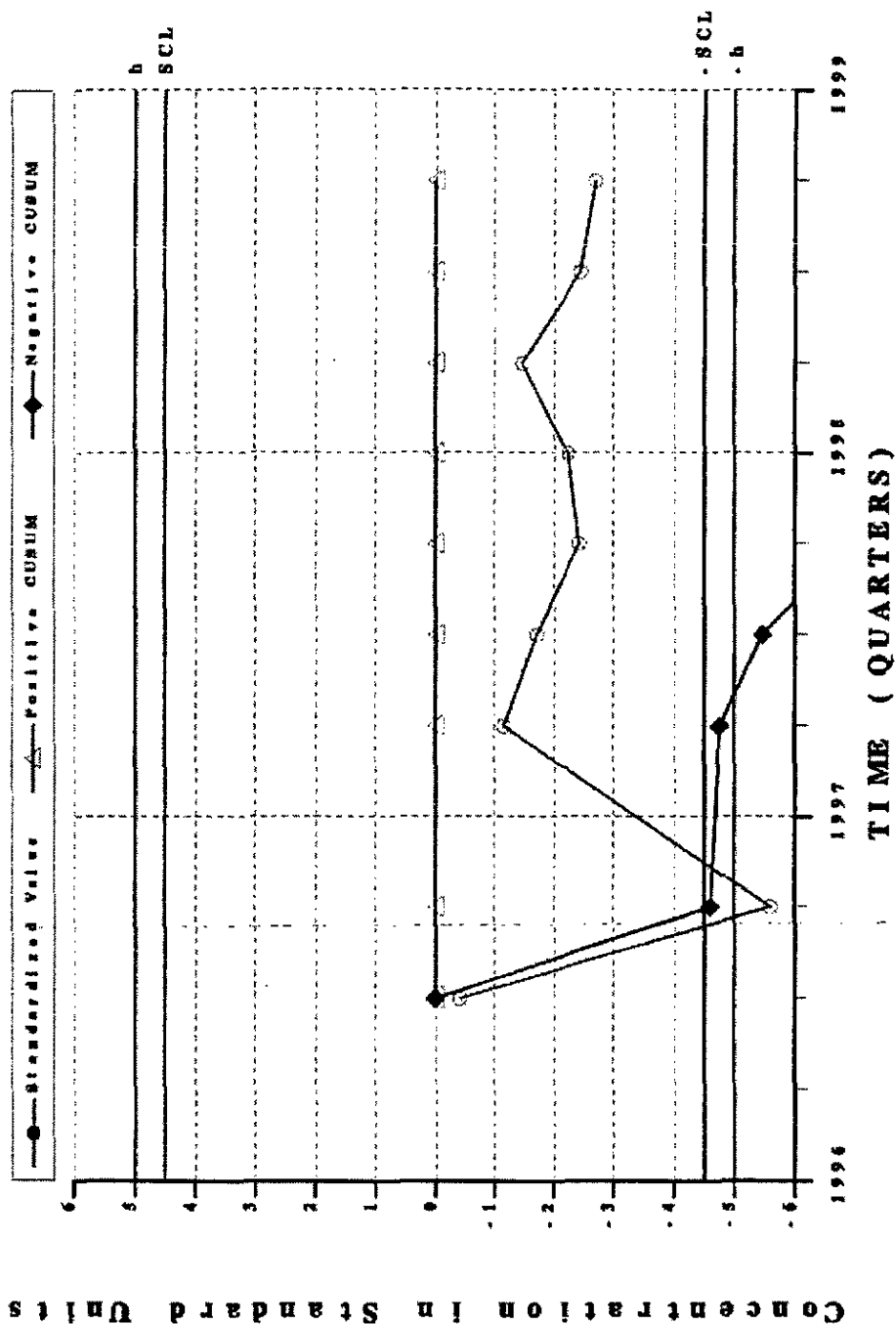
Combined Shewhart-CUSUM Control Chart WELL HSB113C - Nonvolatile beta



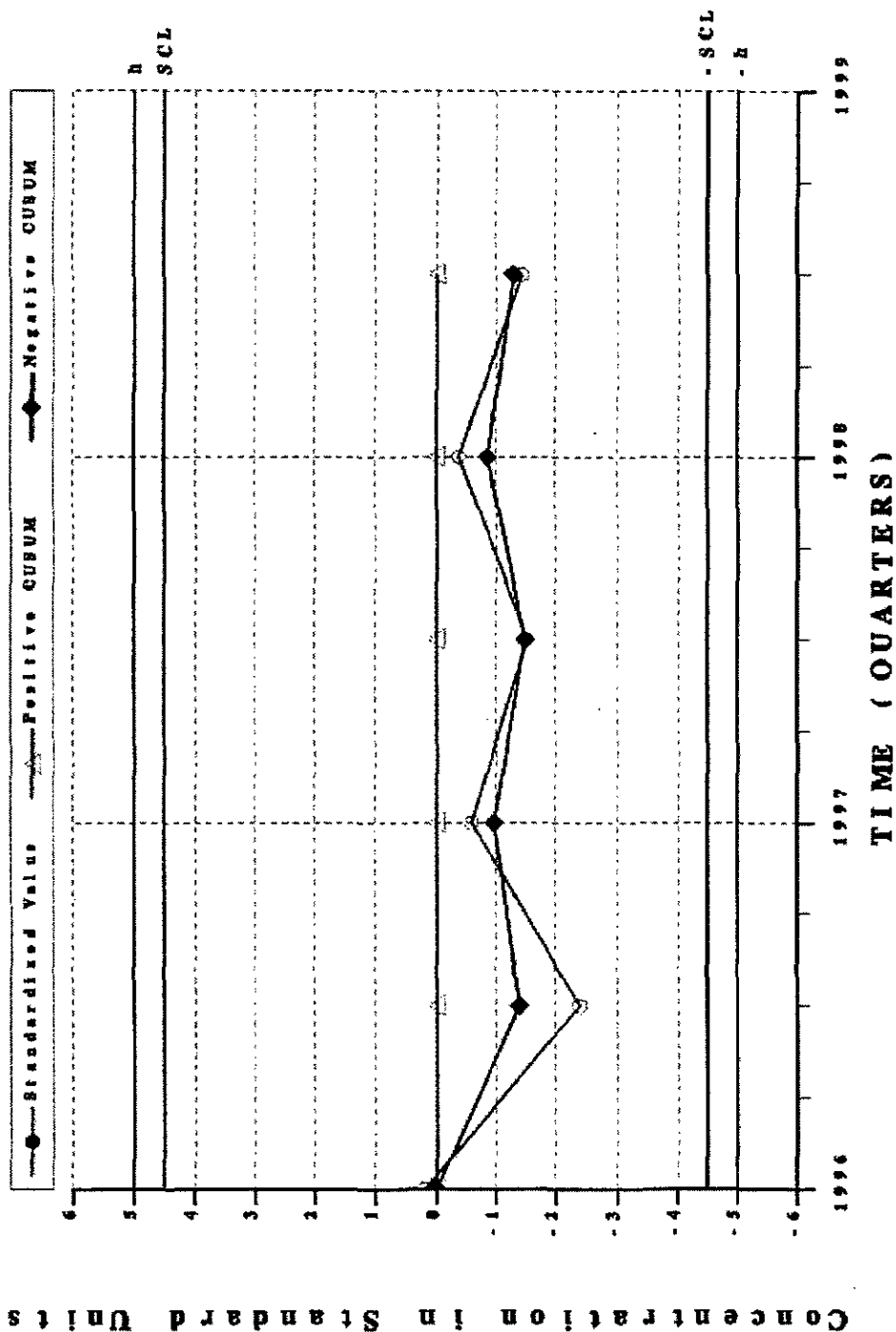
Combined Shewhart-CUSUM Control Chart WELL HSB113C - Zinc, total recoverable



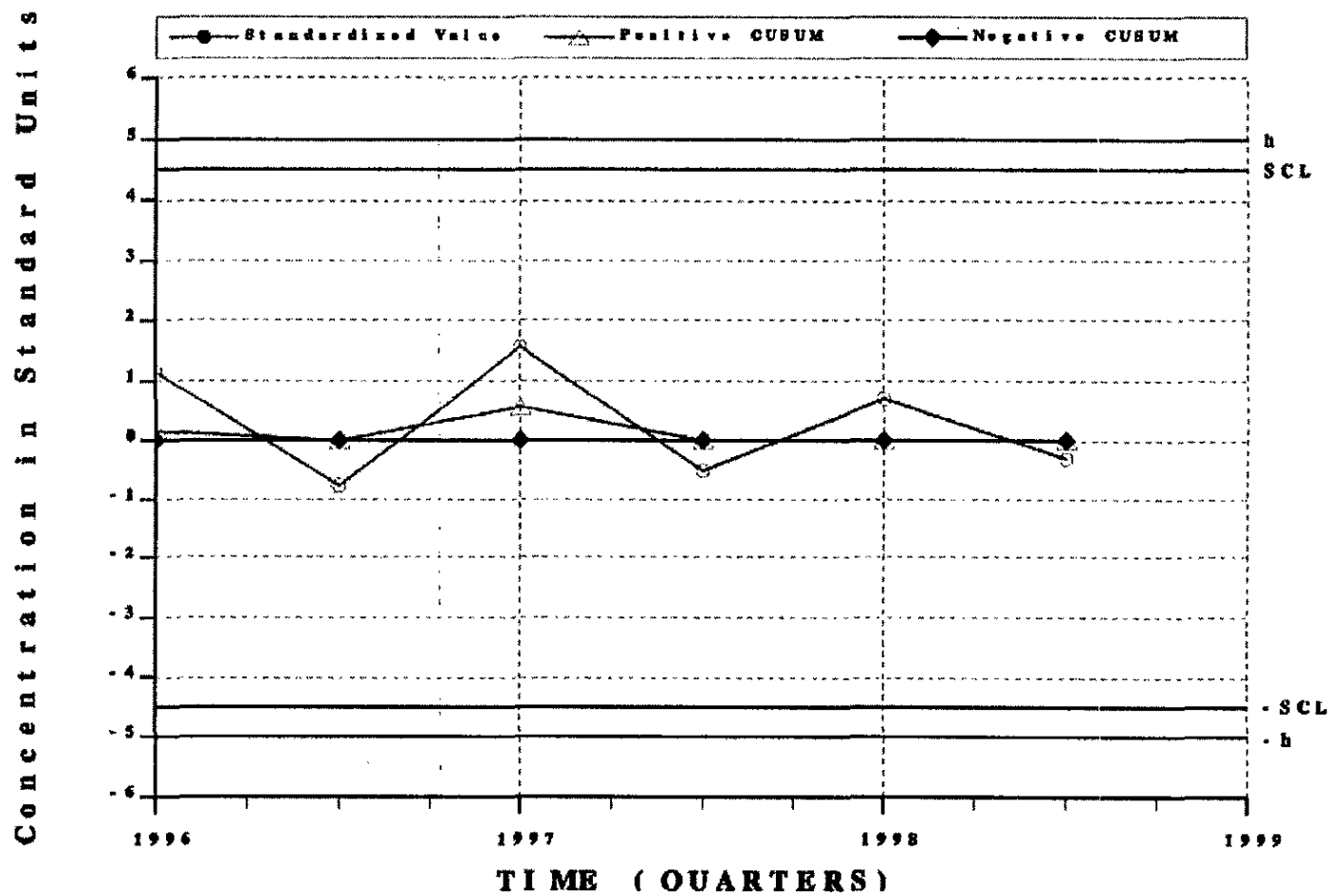
Combined Shewhart-CUSUM Control Chart
WELL HSB13D - Nitrate-nitrite as nitrogen

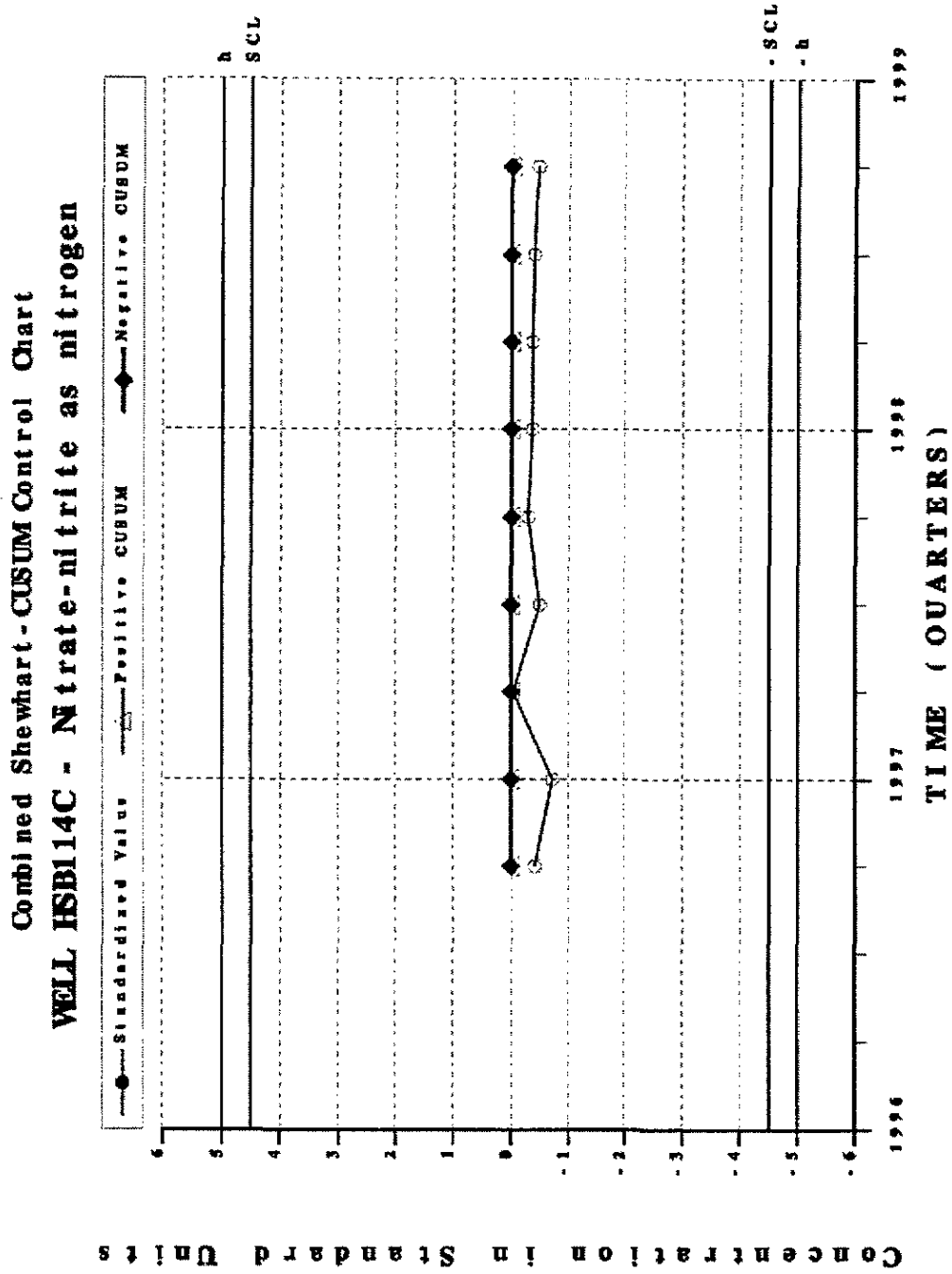


Combined Shewhart - CUSUM Control Chart
WELL HSB113D - Uranium-233/234

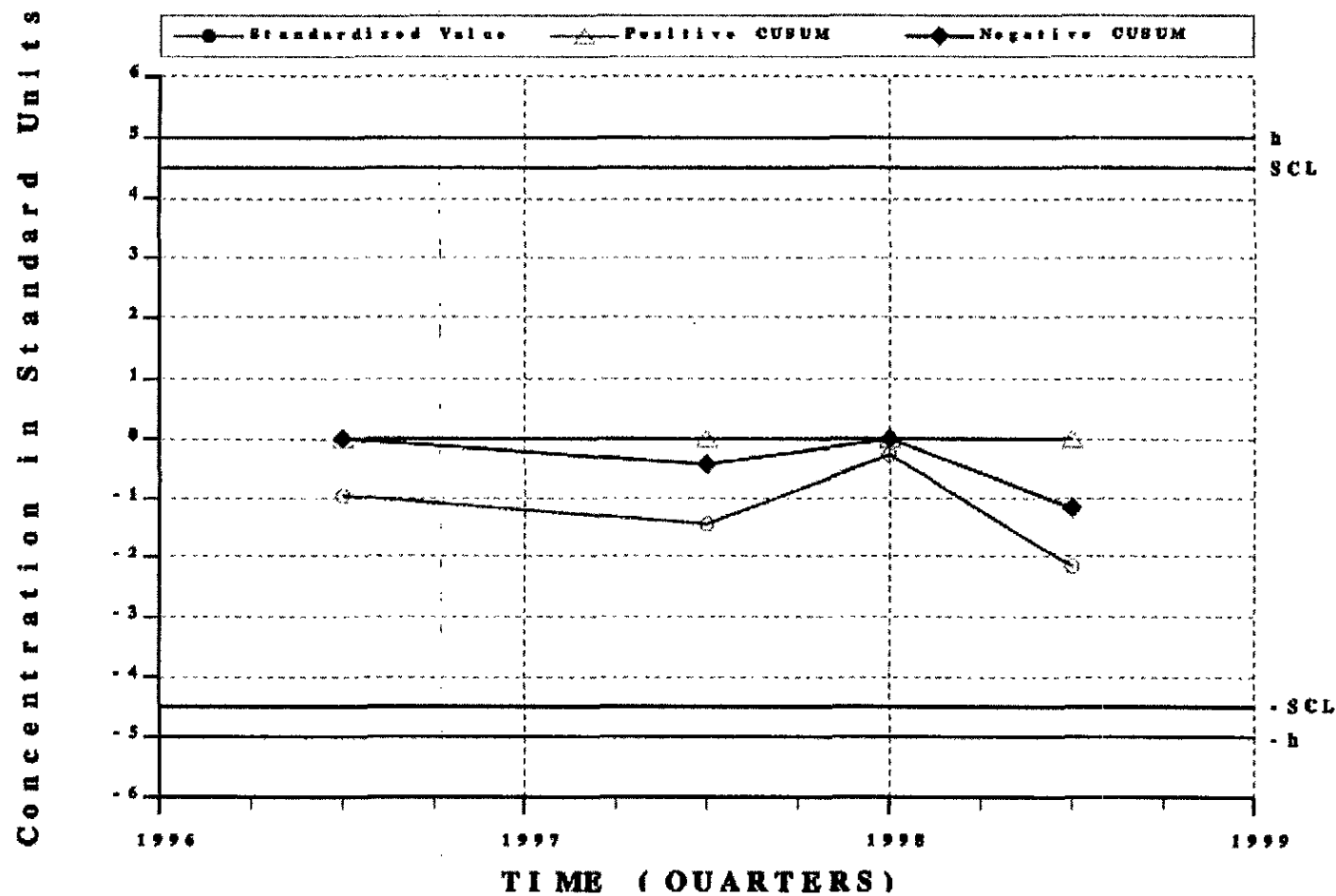


Combined Shewhart-CUSUM Control Chart
WELL HSB113D - Zinc, total recoverable

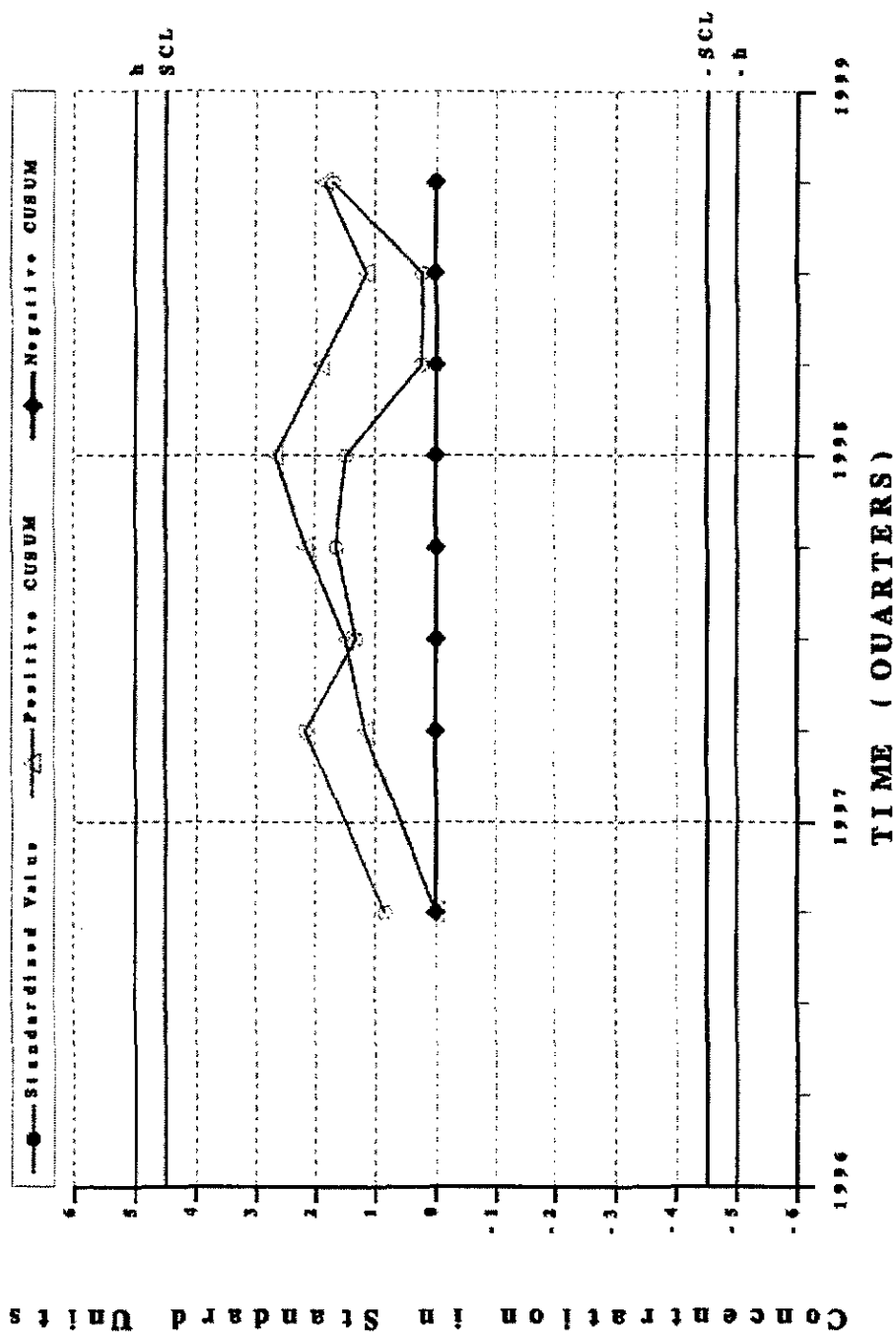




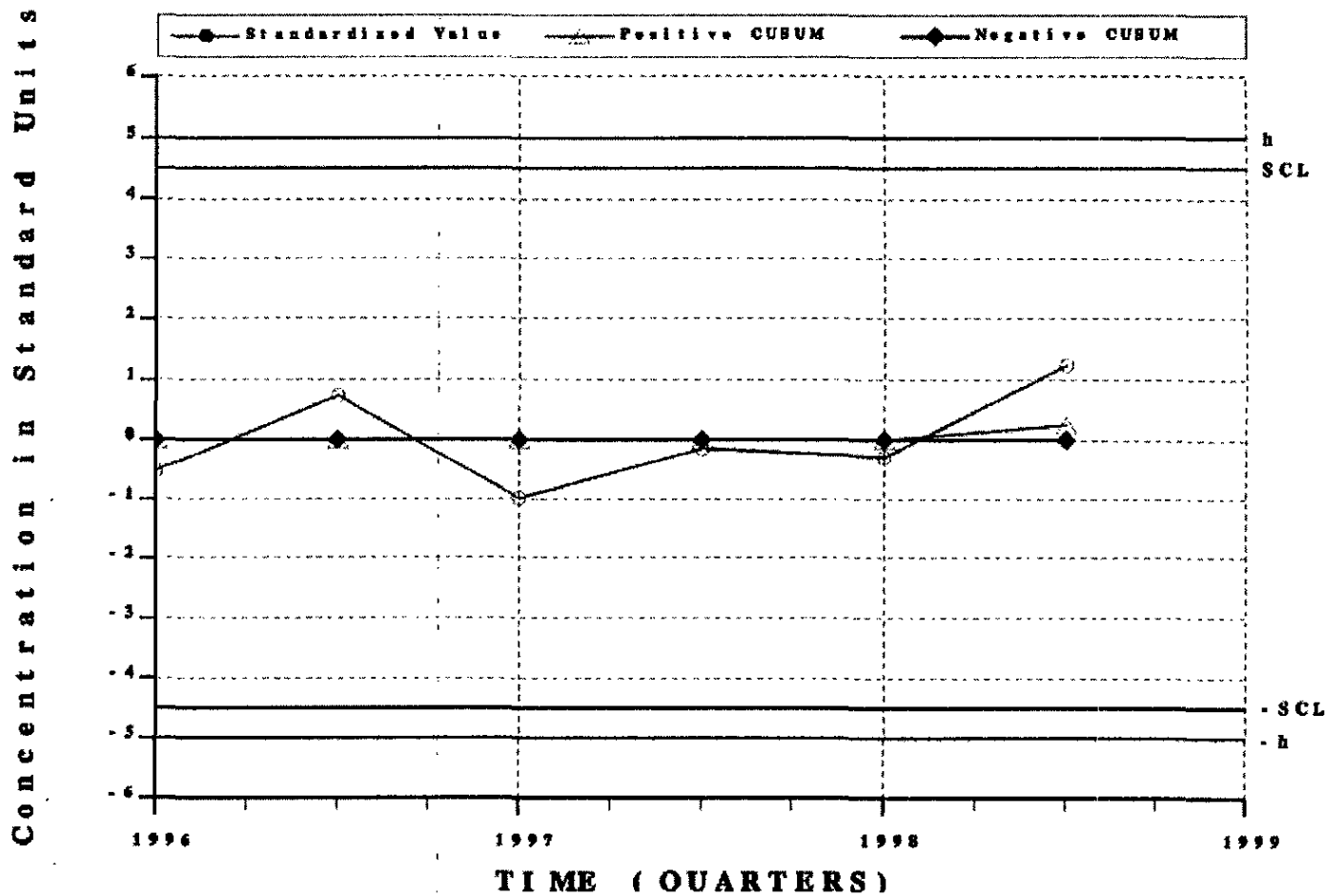
Combined Shewhart-CUSUM Control Chart
WELL HSB114C - Zinc, total recoverable



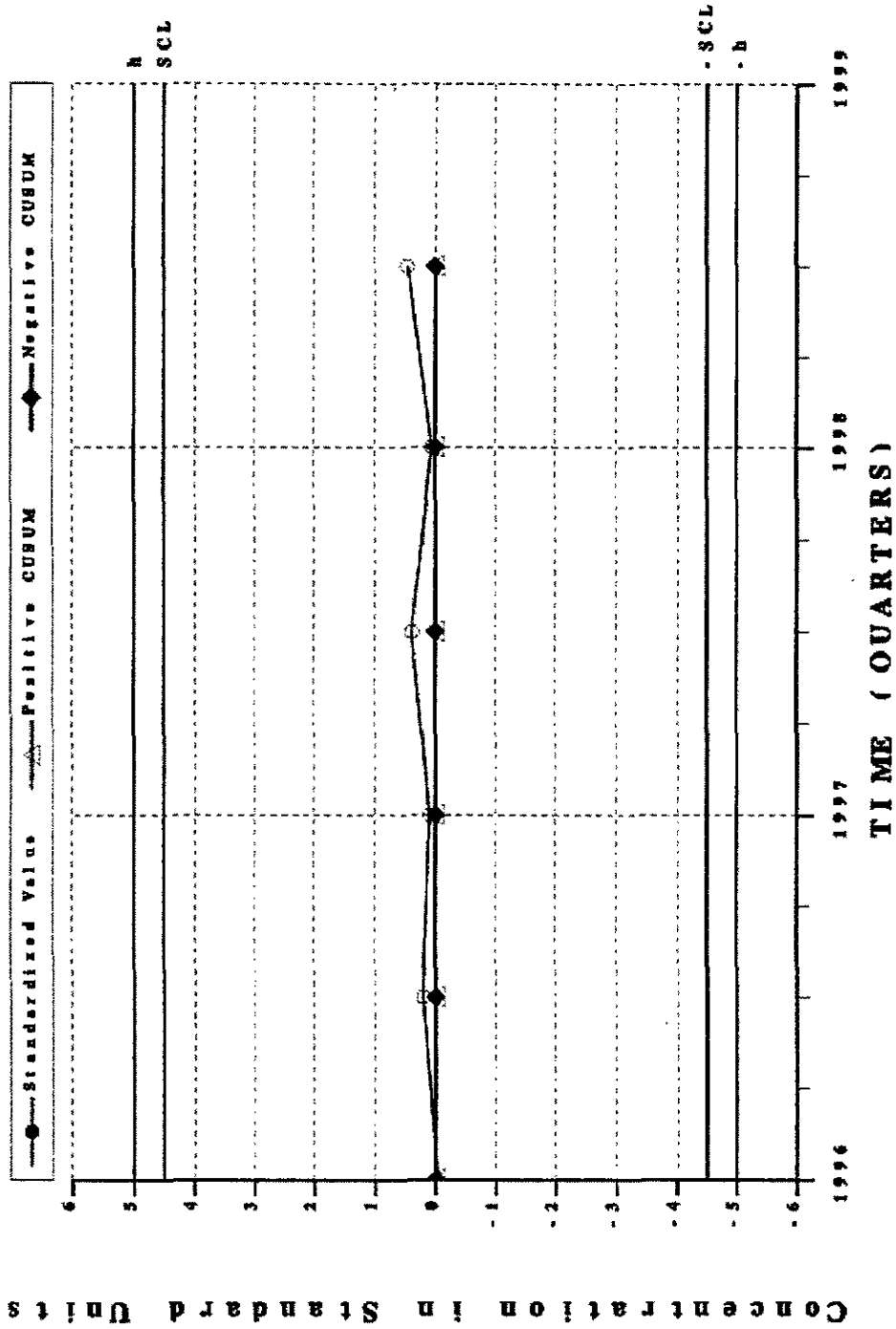
Combined Shewhart-CUSUM Control Chart
WELL HSB114D - Nitrate-nitrite as nitrogen



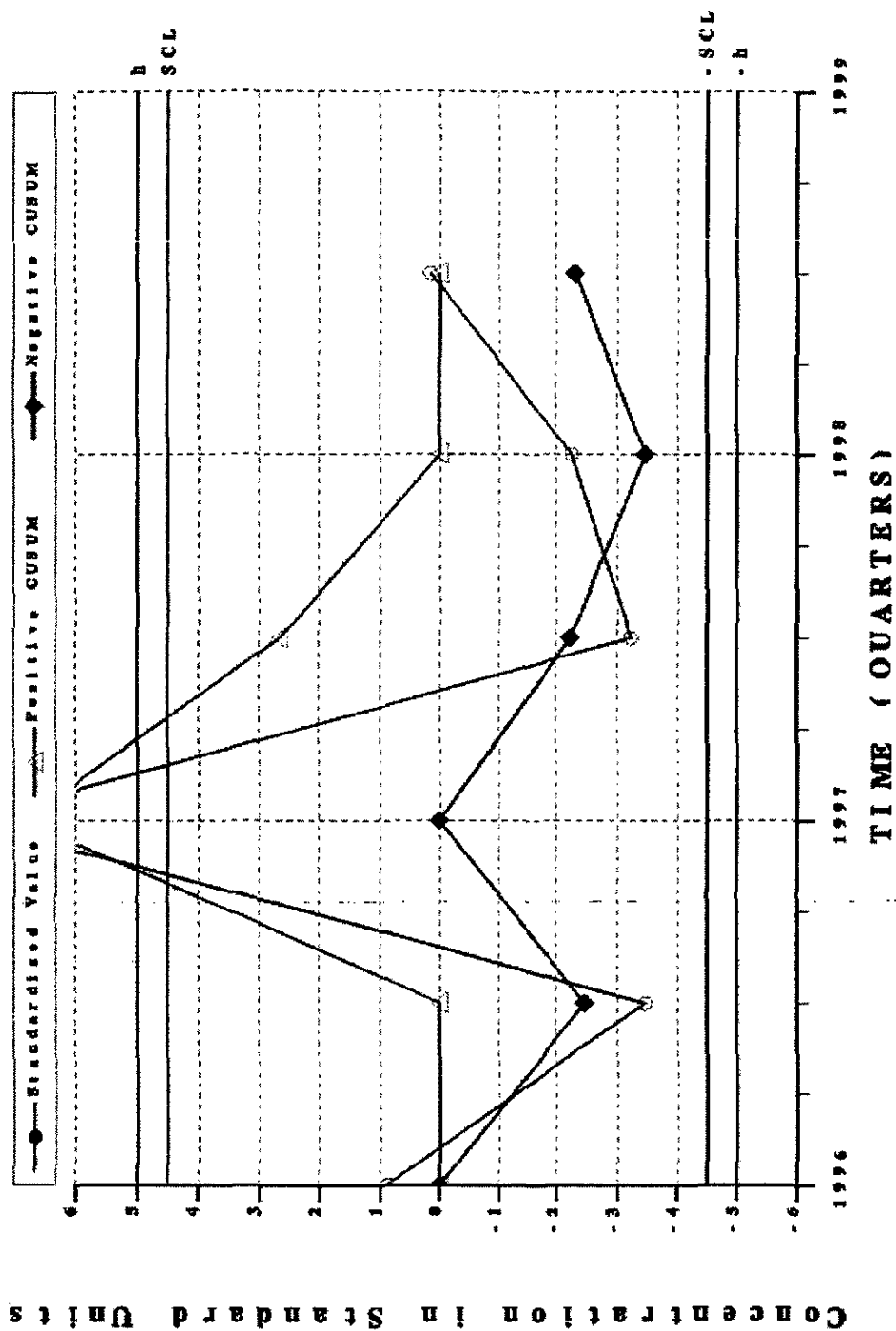
Combined Shewhart-CUSUM Control Chart
WELL HSB114D - Uranium-233/234



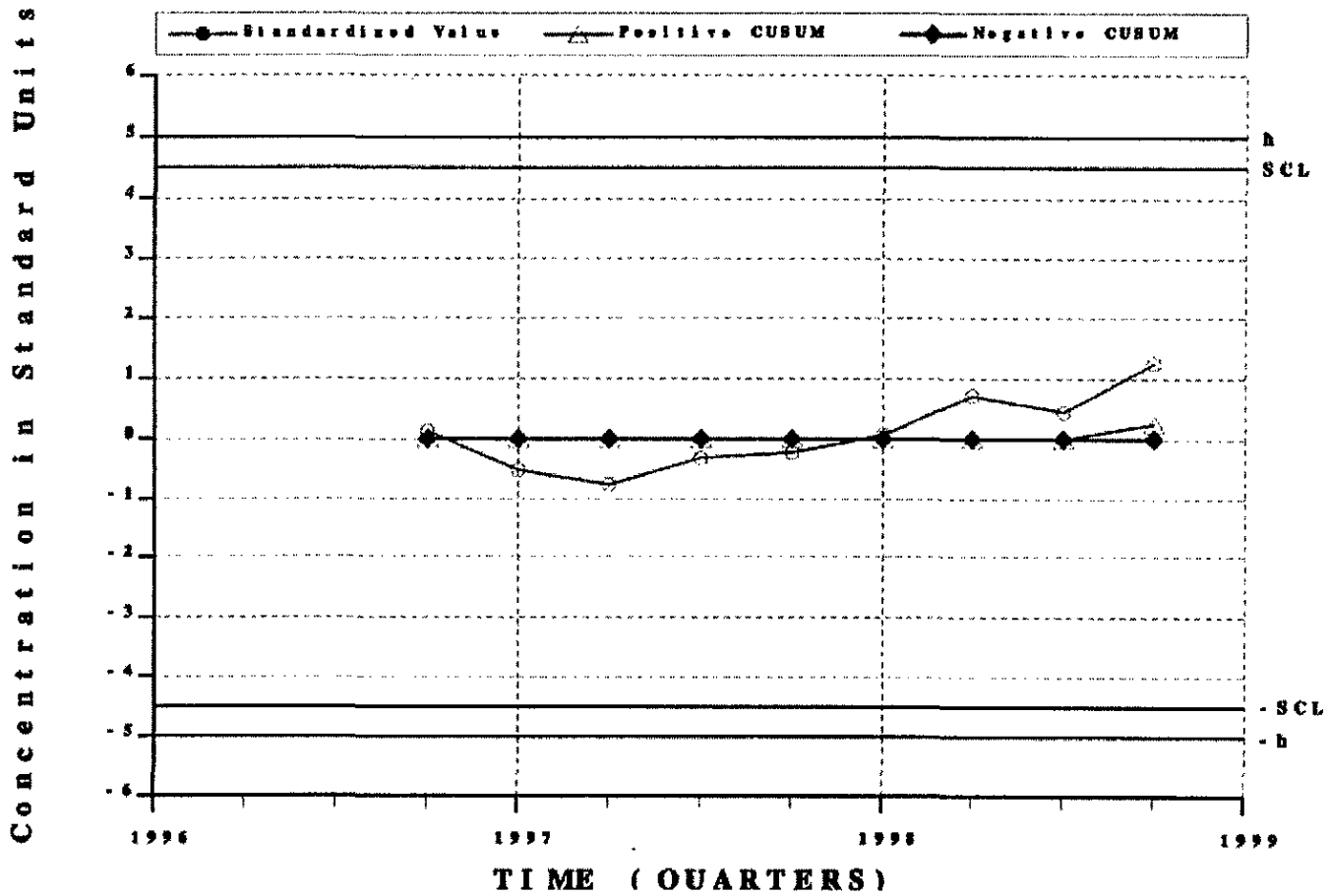
Combined Shewhart-CUSUM Control Chart
WELL HSB114D - Uranium-238



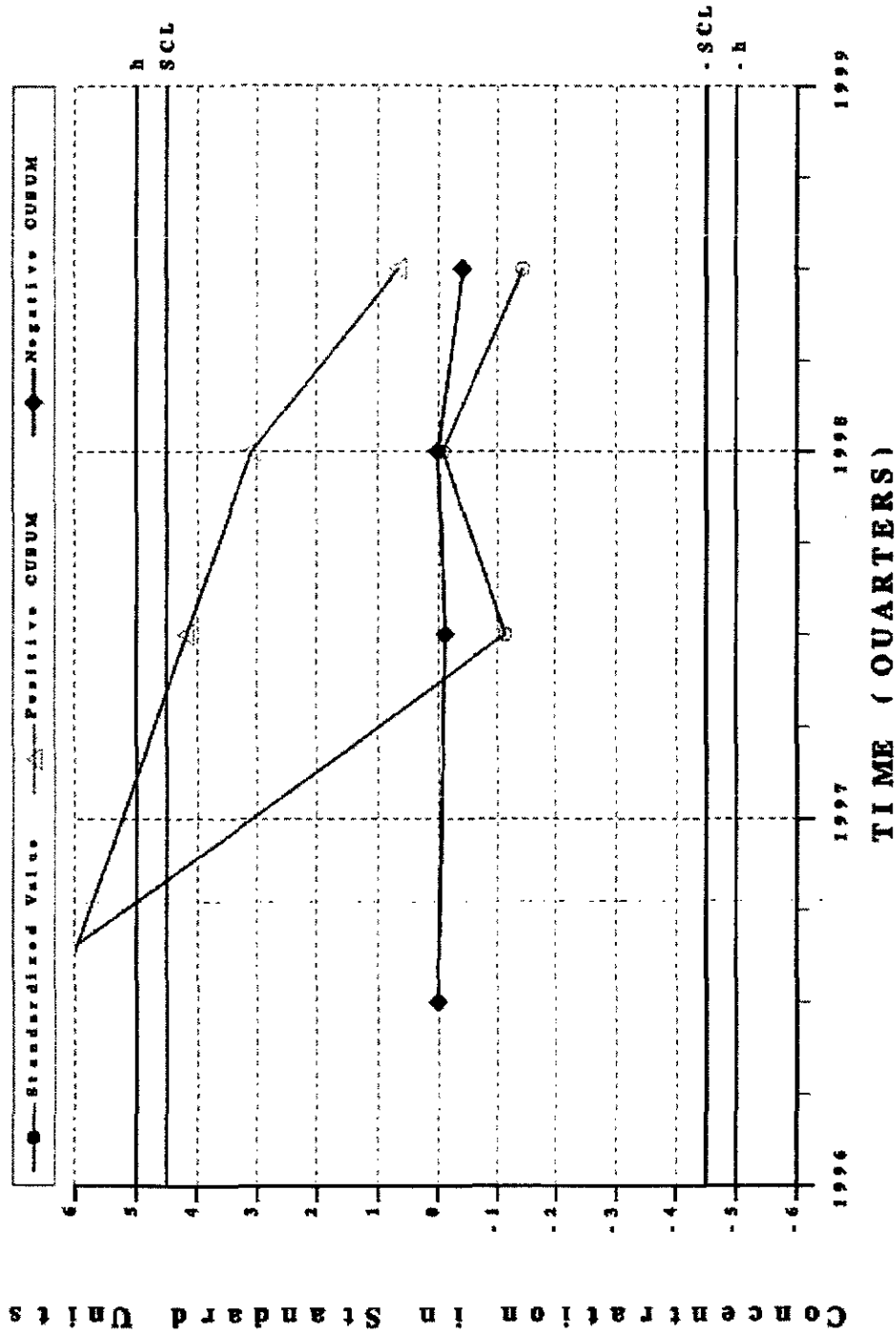
Combined Shewhart-CUSUM Control Chart
WELL HSB114D - Zinc, total recoverable



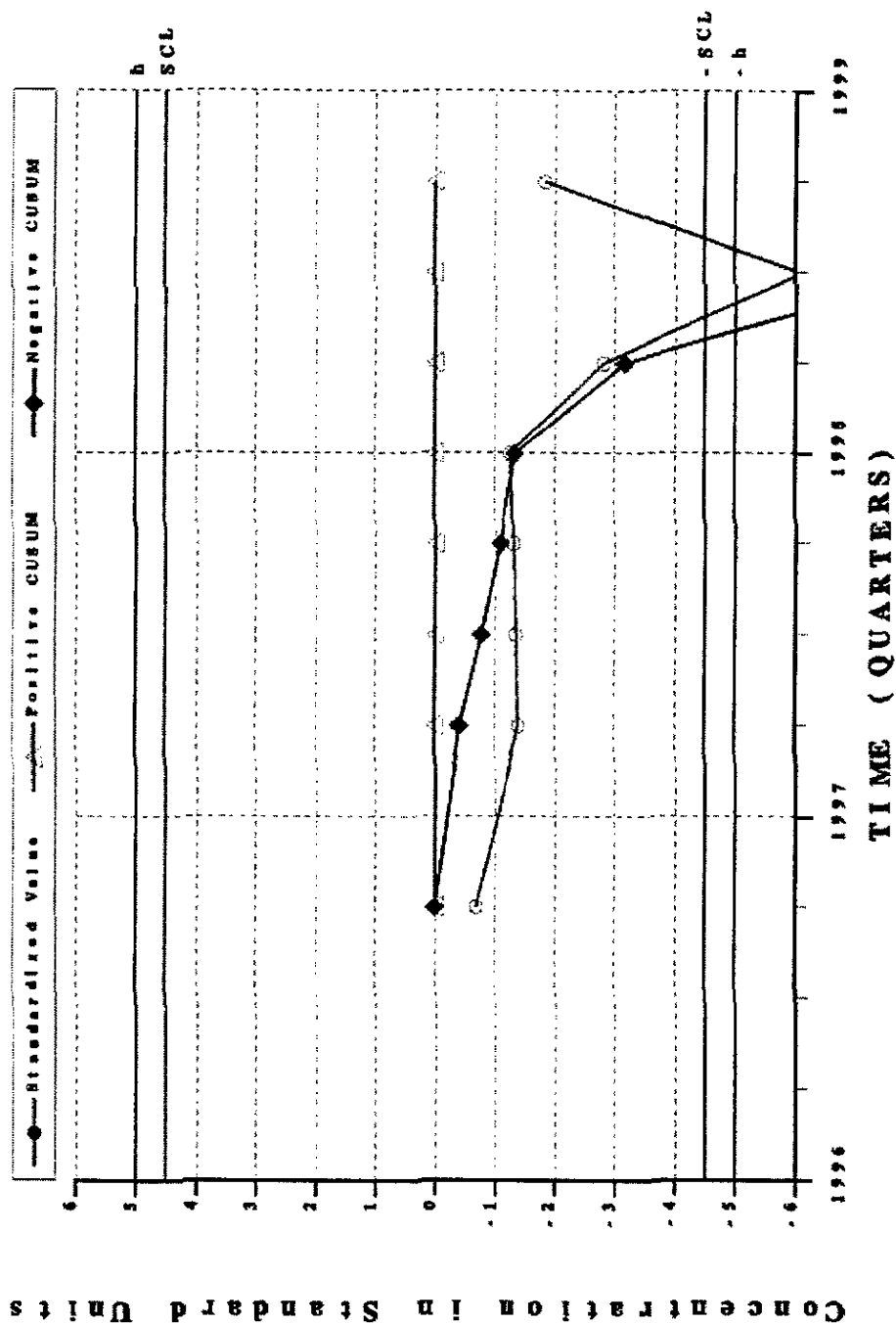
Combined Shewhart-CUSUM Control Chart WELL HSB115C - Nitrate-nitrite as nitrogen



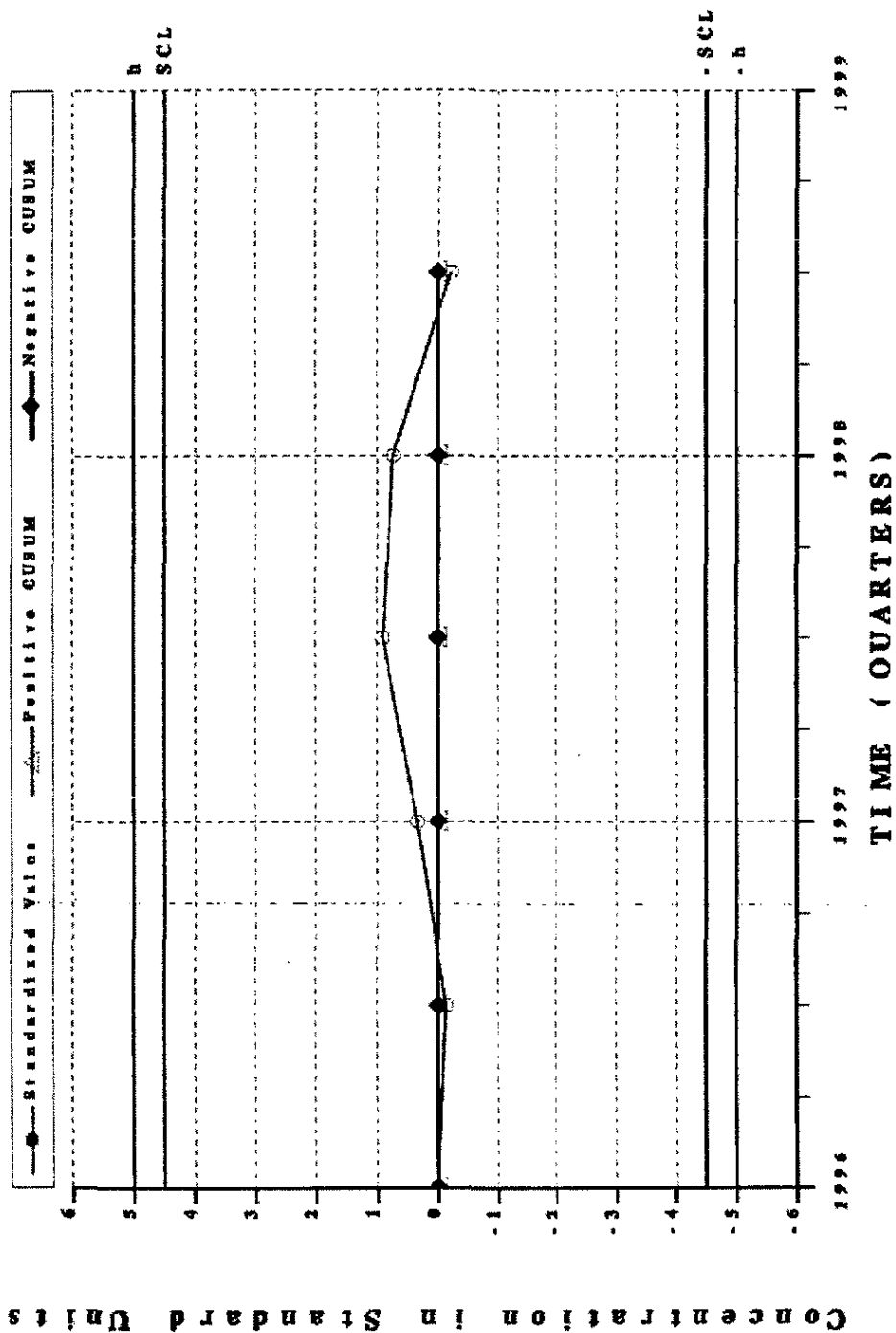
Combined Shewhart-CUSUM Control Chart WELL HSB115C - Zinc, total recoverable

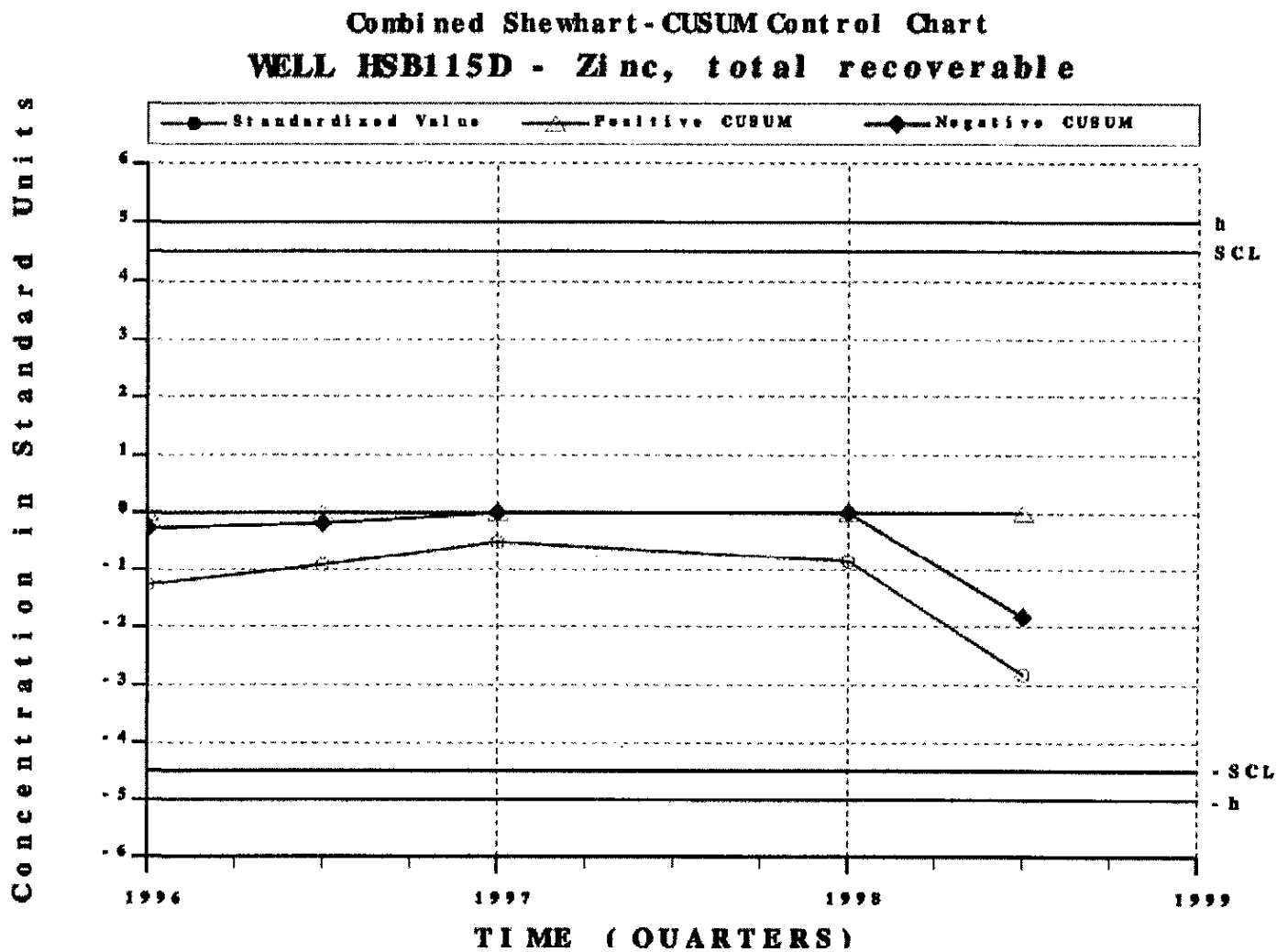


Combined Shewhart-CUSUM Control Chart
WELL HSB115D - Nitrate-nitrite as nitrogen

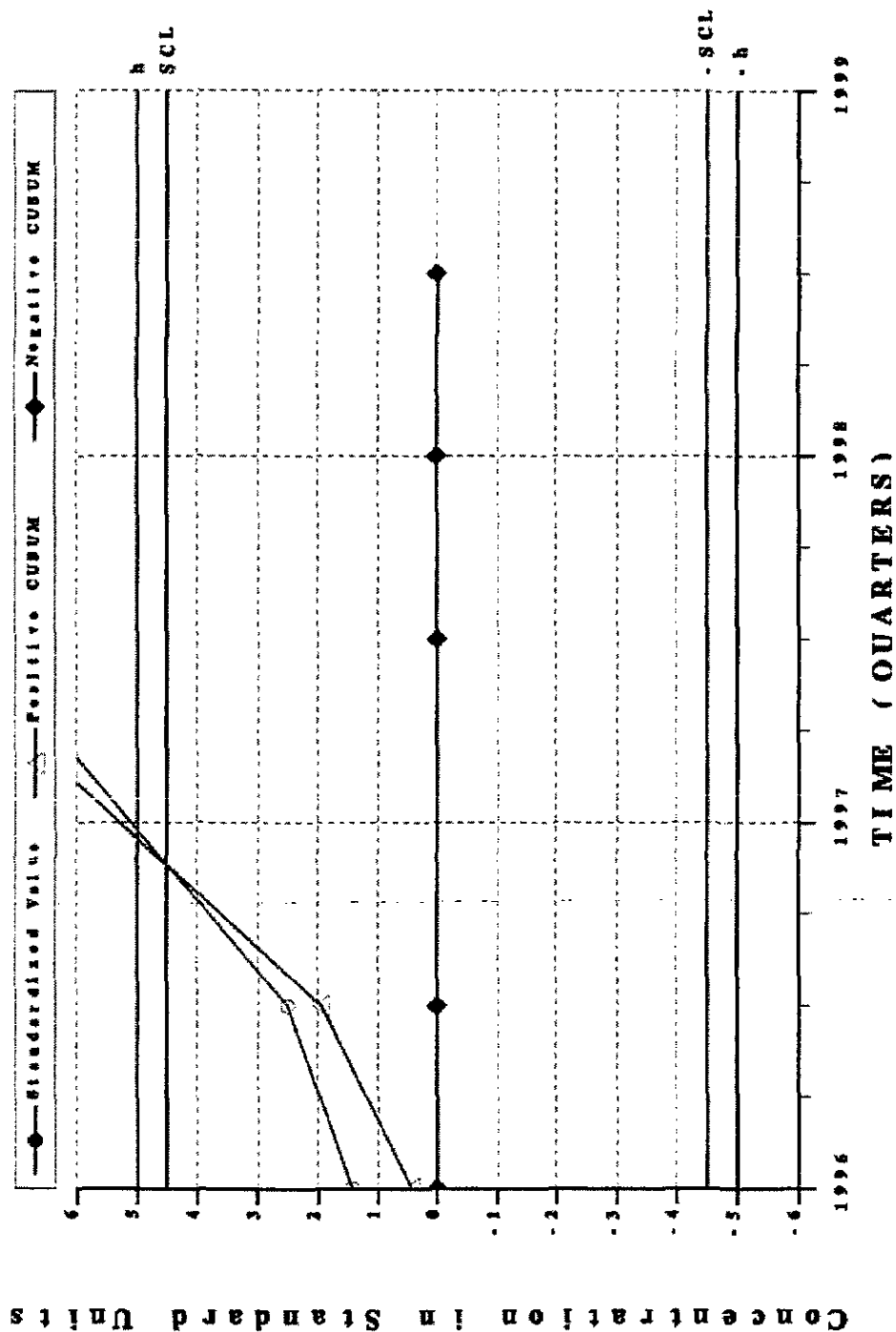


Combined Shewhart-CUSUM Control Chart WELL HSB115D - Uranium-238



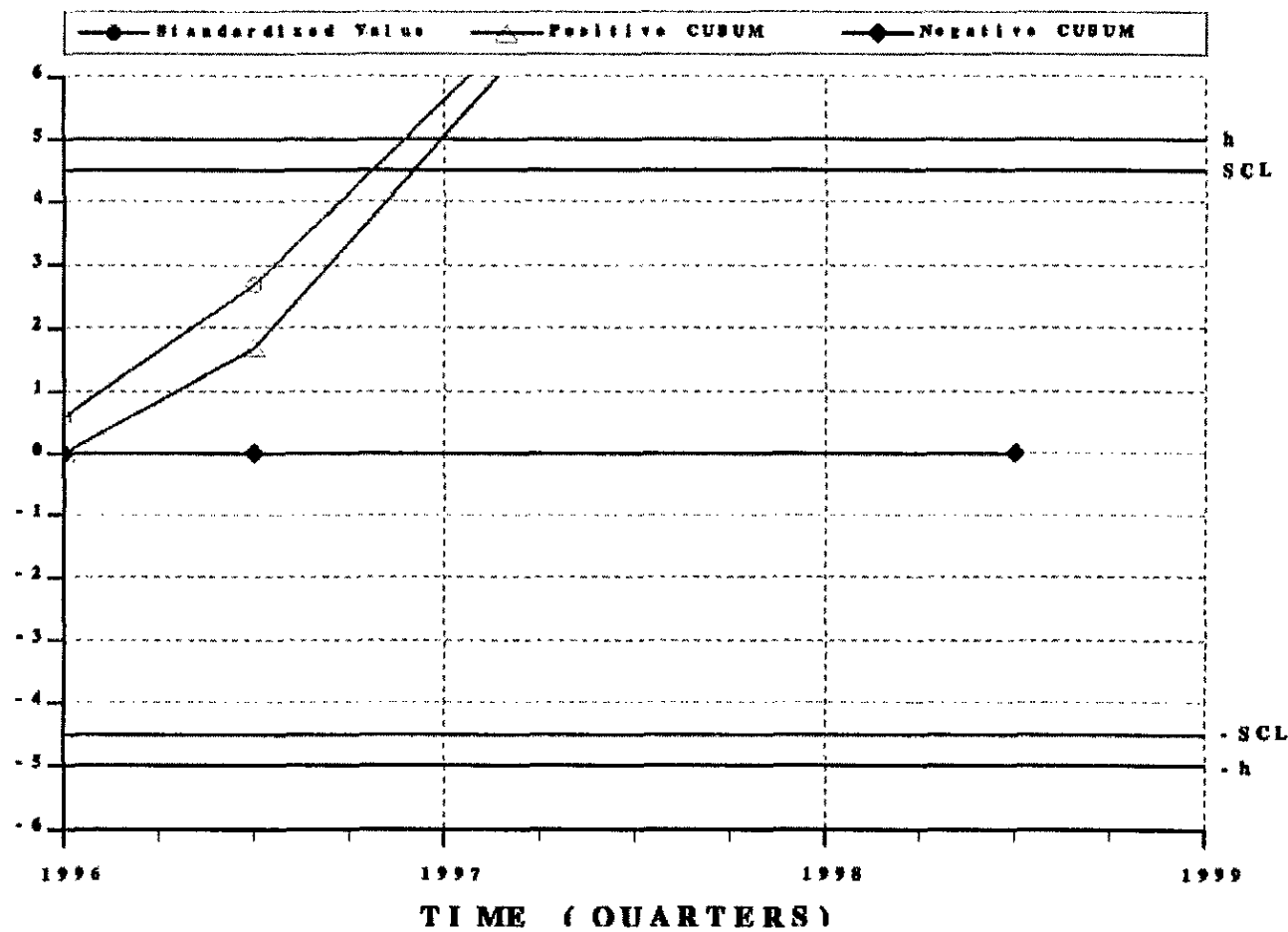


Combined Shewhart-CUSUM Control Chart
WELL HSB116C - Barium, total recoverable

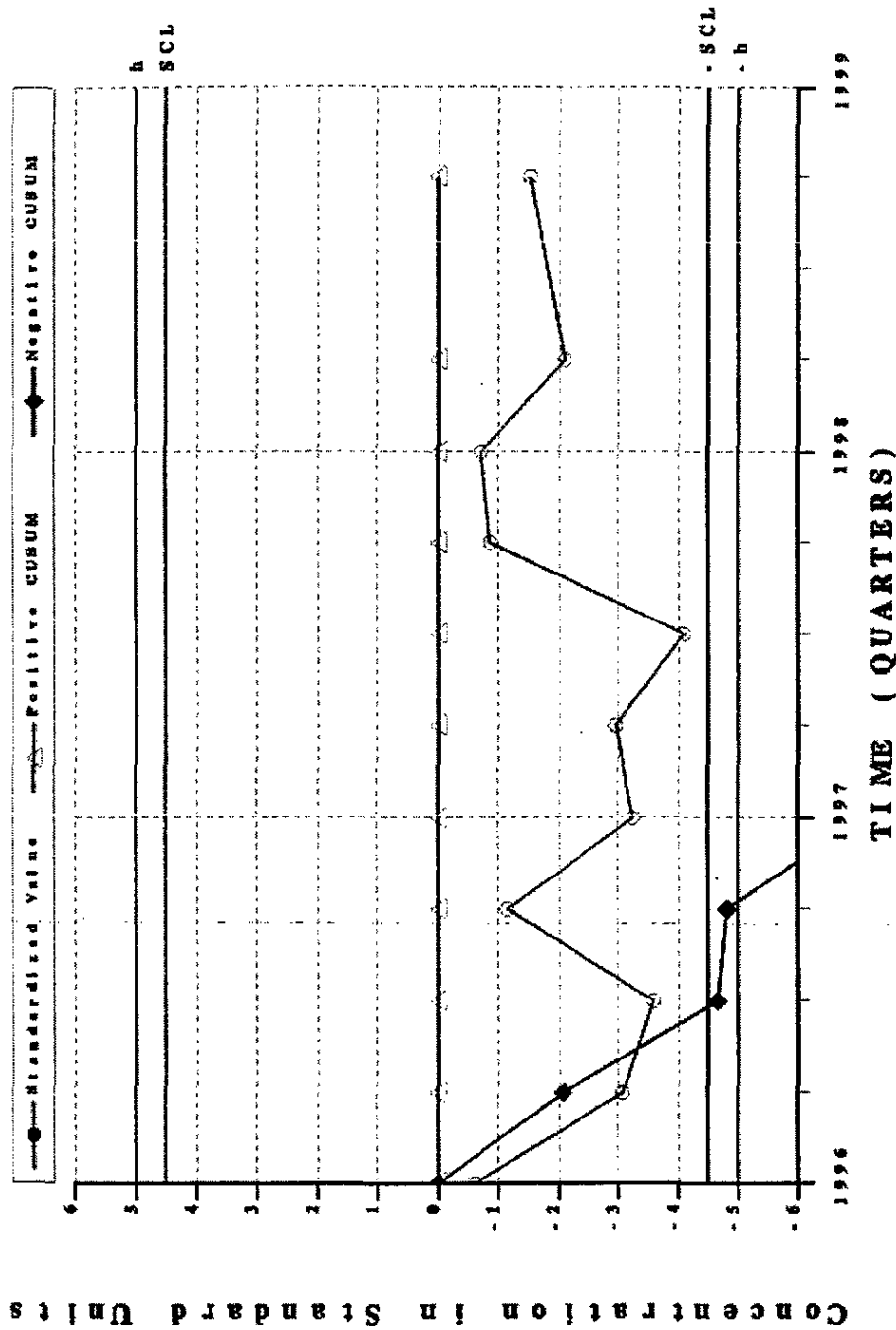


Concentration in Standard Units

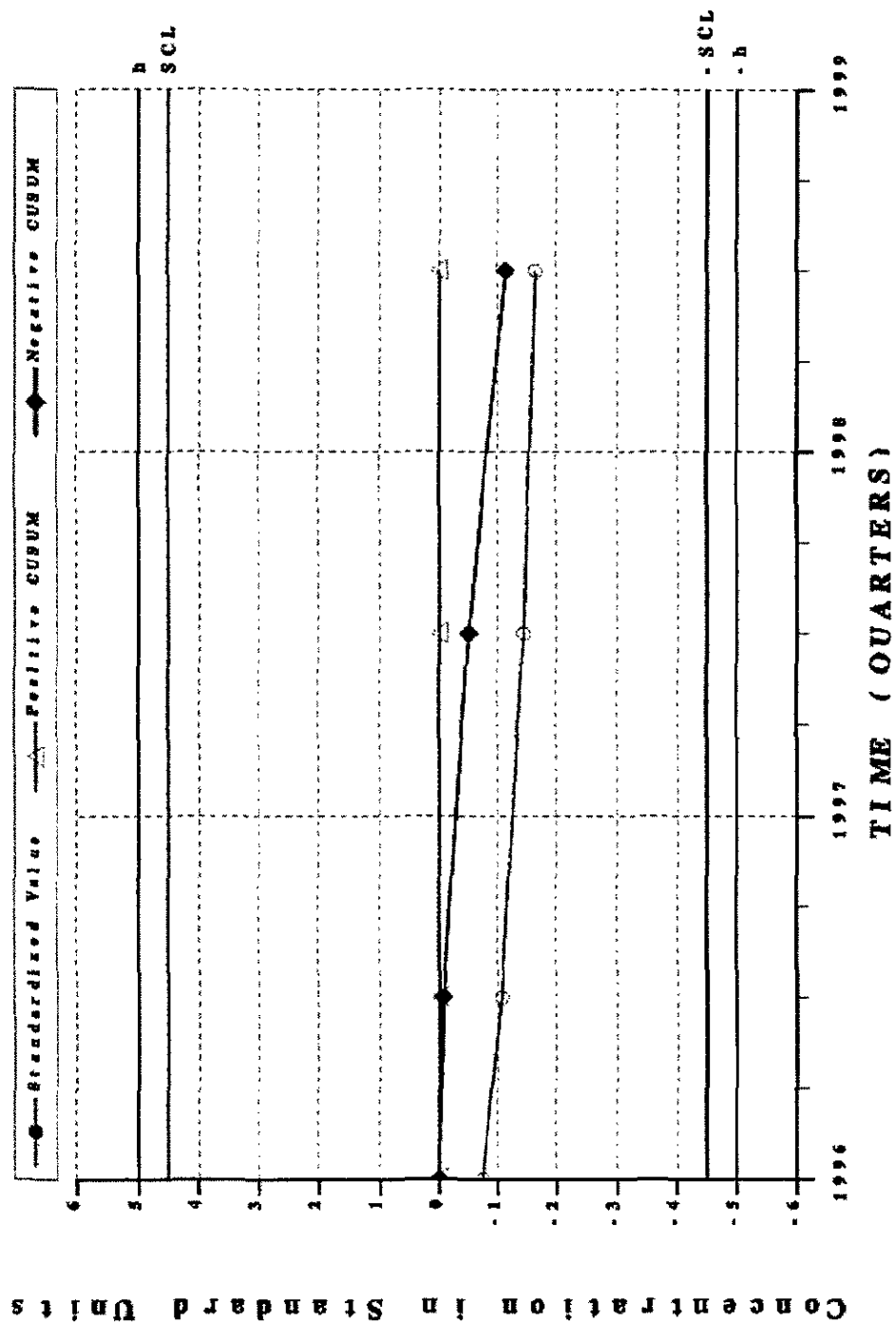
Combined Shewhart-CUSUM Control Chart
WELL HSB116C - Cobalt, total recoverable



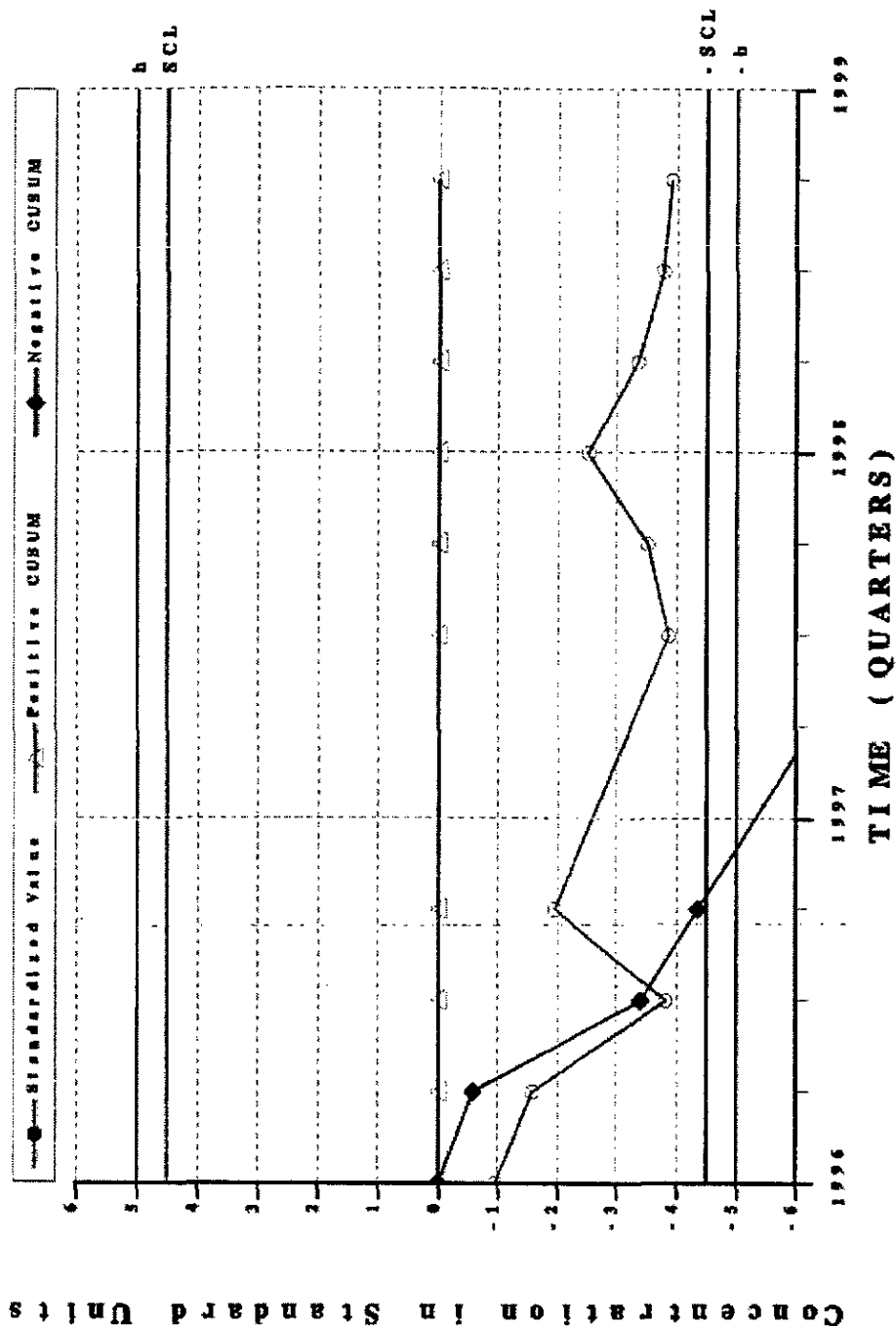
Combined Shewhart-CUSUM Control Chart
WELL HSB116C - Gross alpha

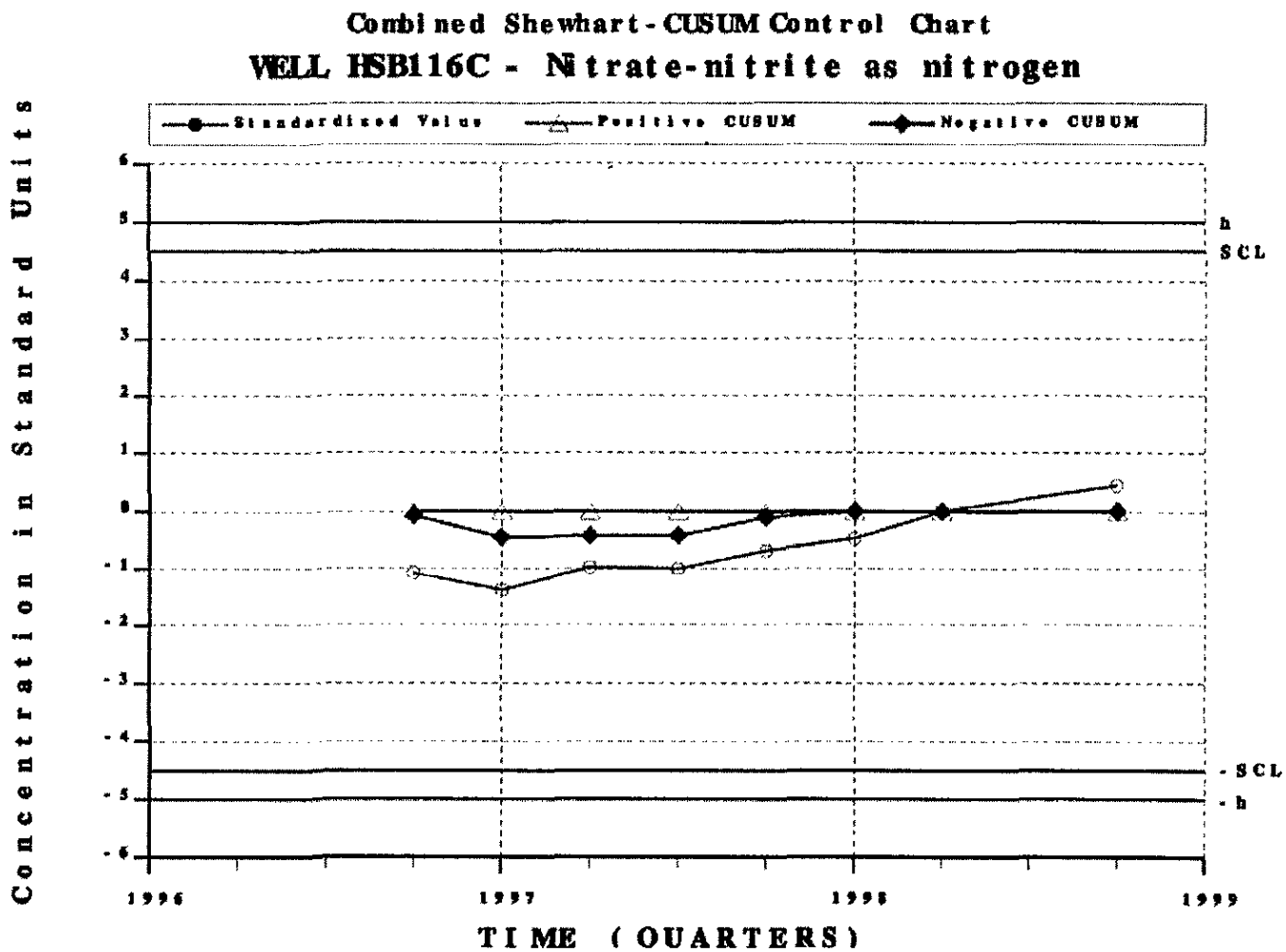


Combined Shewhart-CUSUM Control Chart
WELL HSB116C - Iodine-129

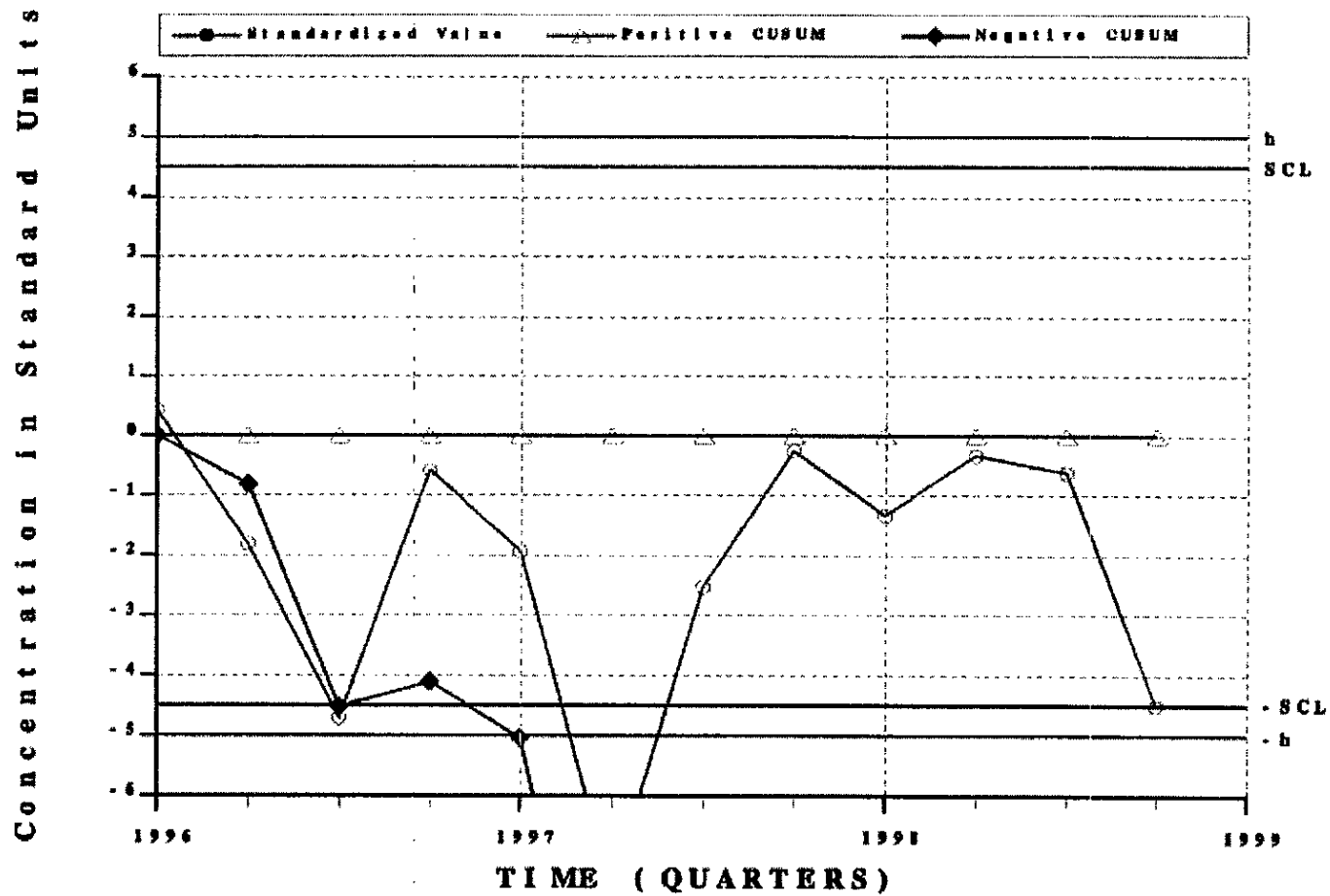


Combined Shewhart-CUSUM Control Chart
WELL HSB116C - Mercury, total recoverable

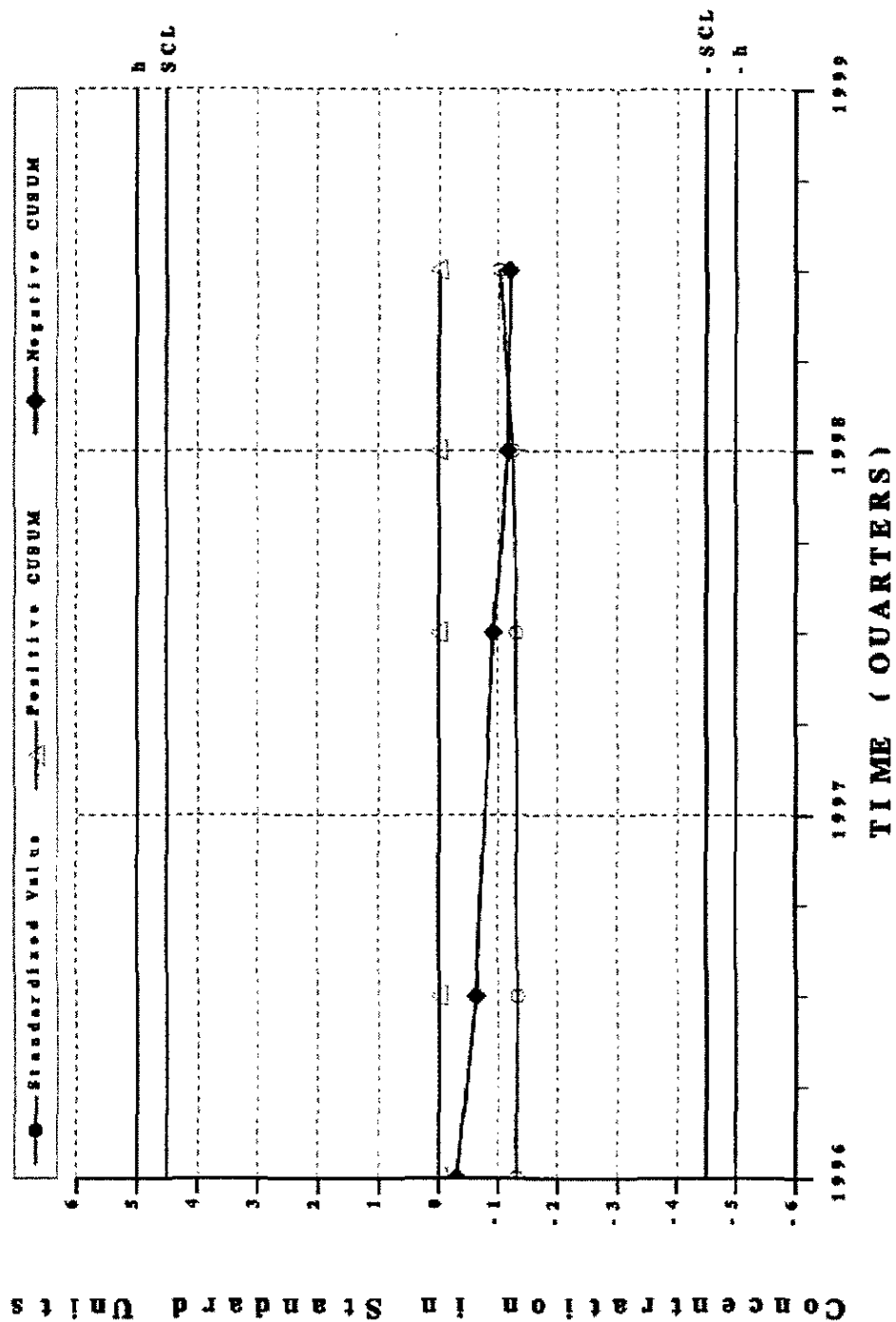




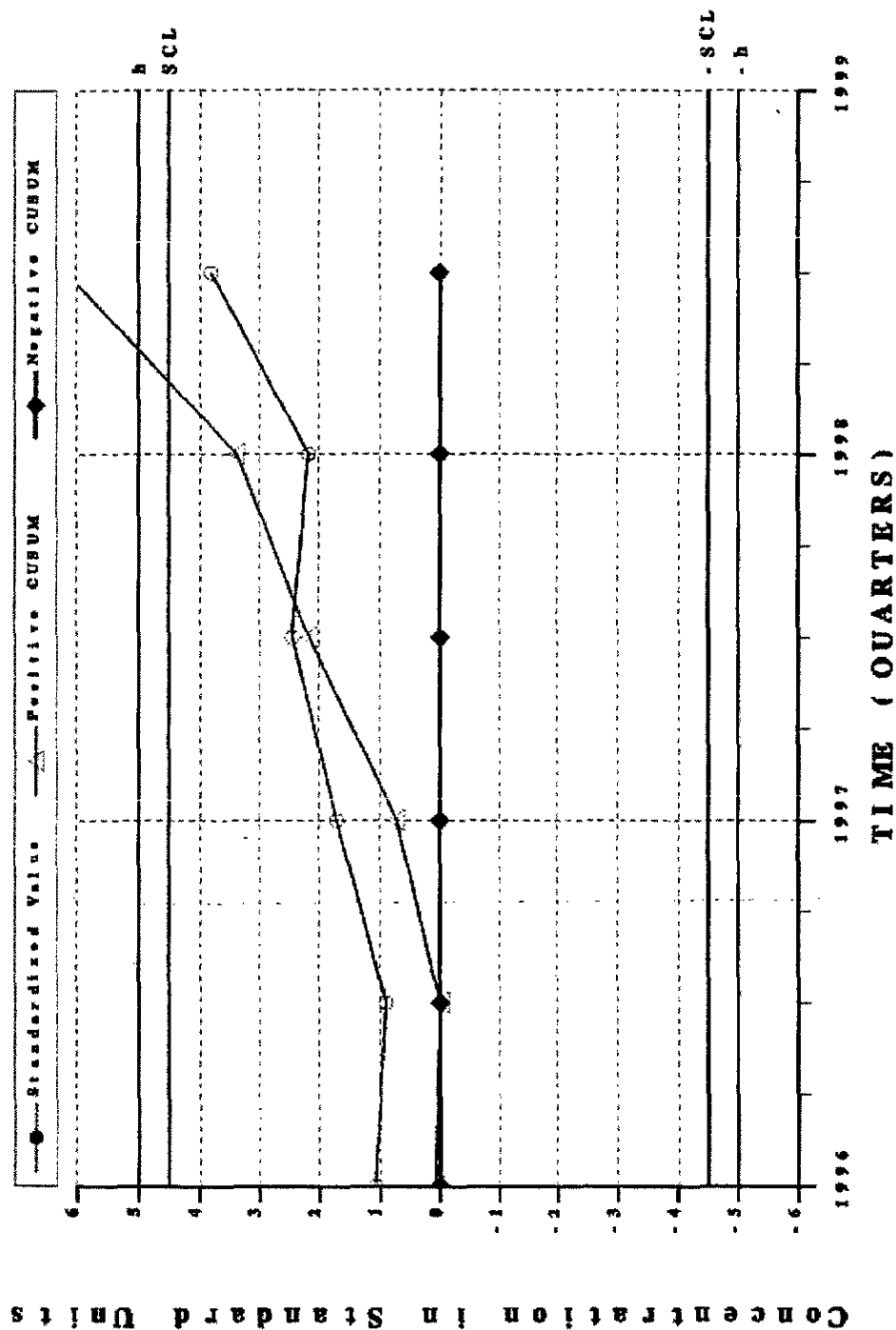
Combined Shewhart-CUSUM Control Chart
WELL HSB116C - Nonvolatile beta



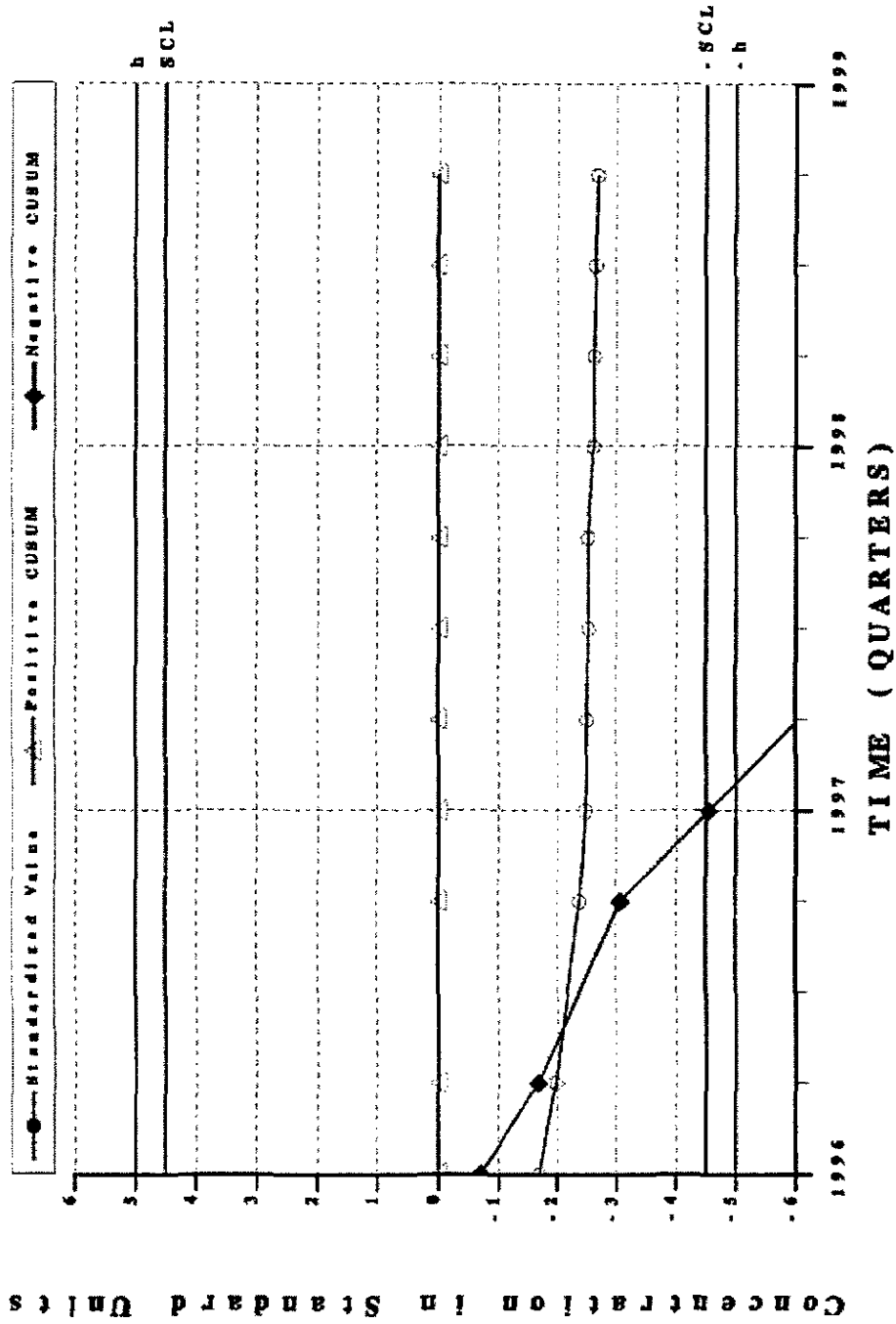
Combined Shewhart-CUSUM Control Chart
WELL HSB116C - Radium-226



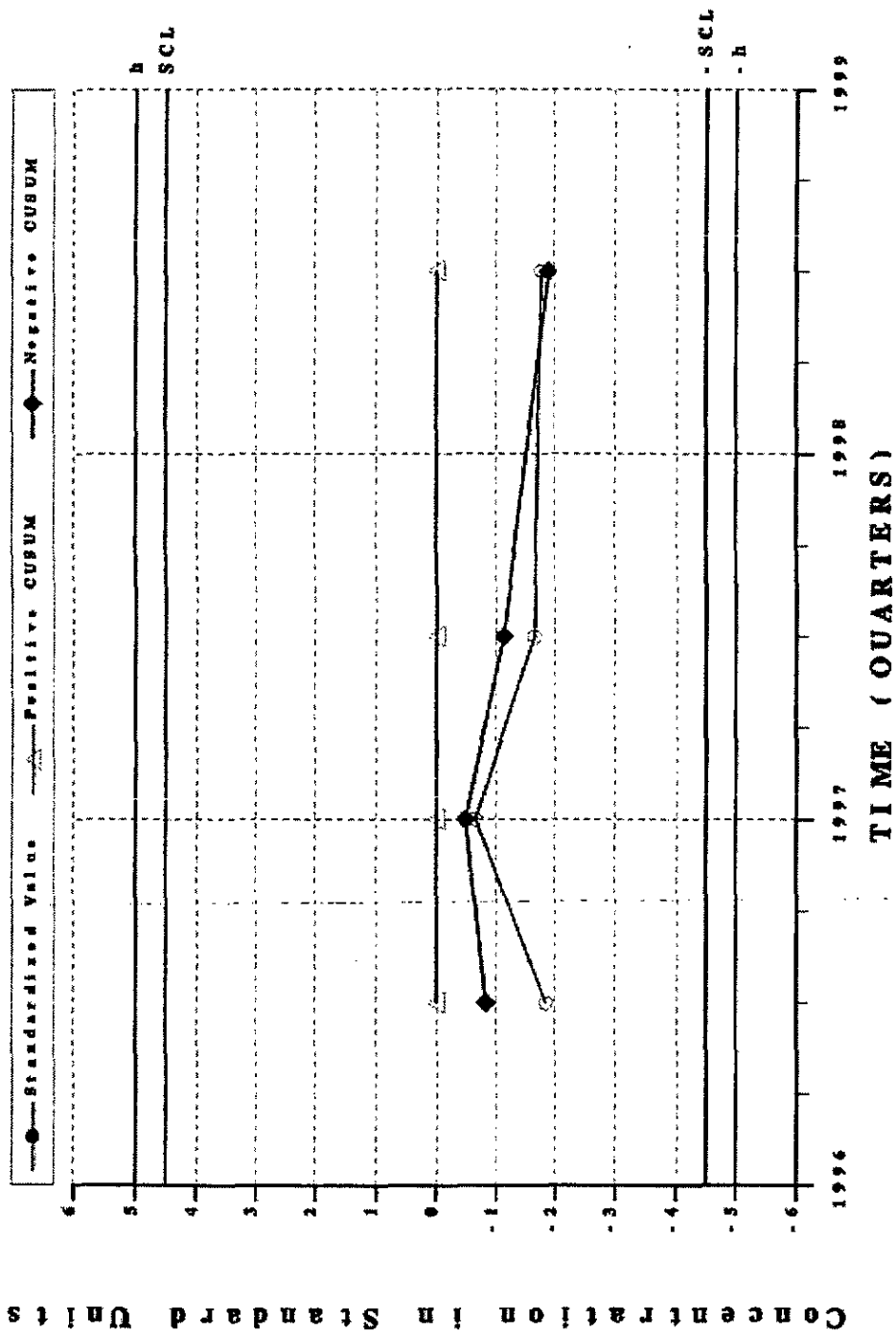
Combined Shewhart-CUSUM Control Chart WELL HSB116C - Technetium-99



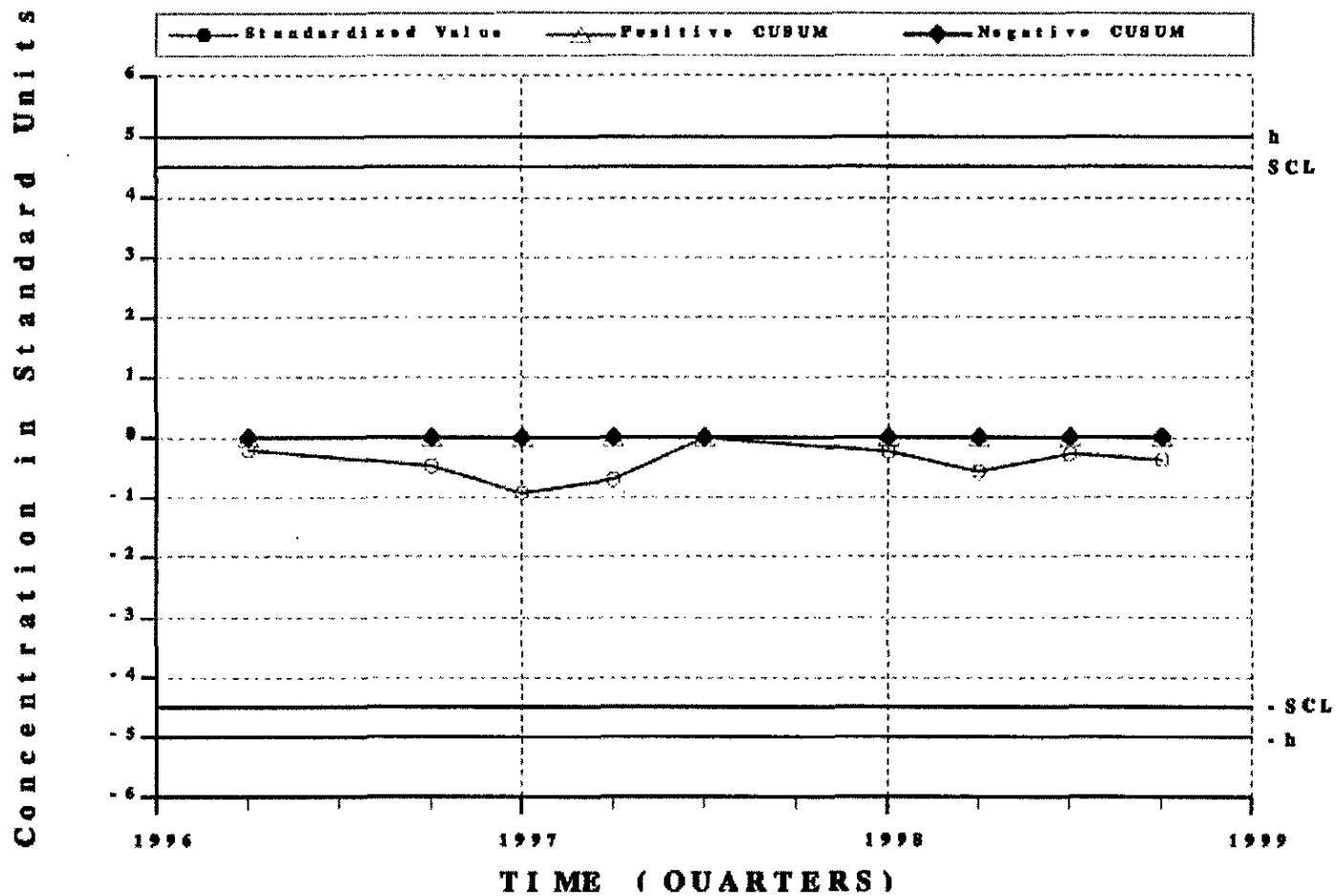
Combined Shewhart-CUSUM Control Chart
WELL HSB116C - Tritium



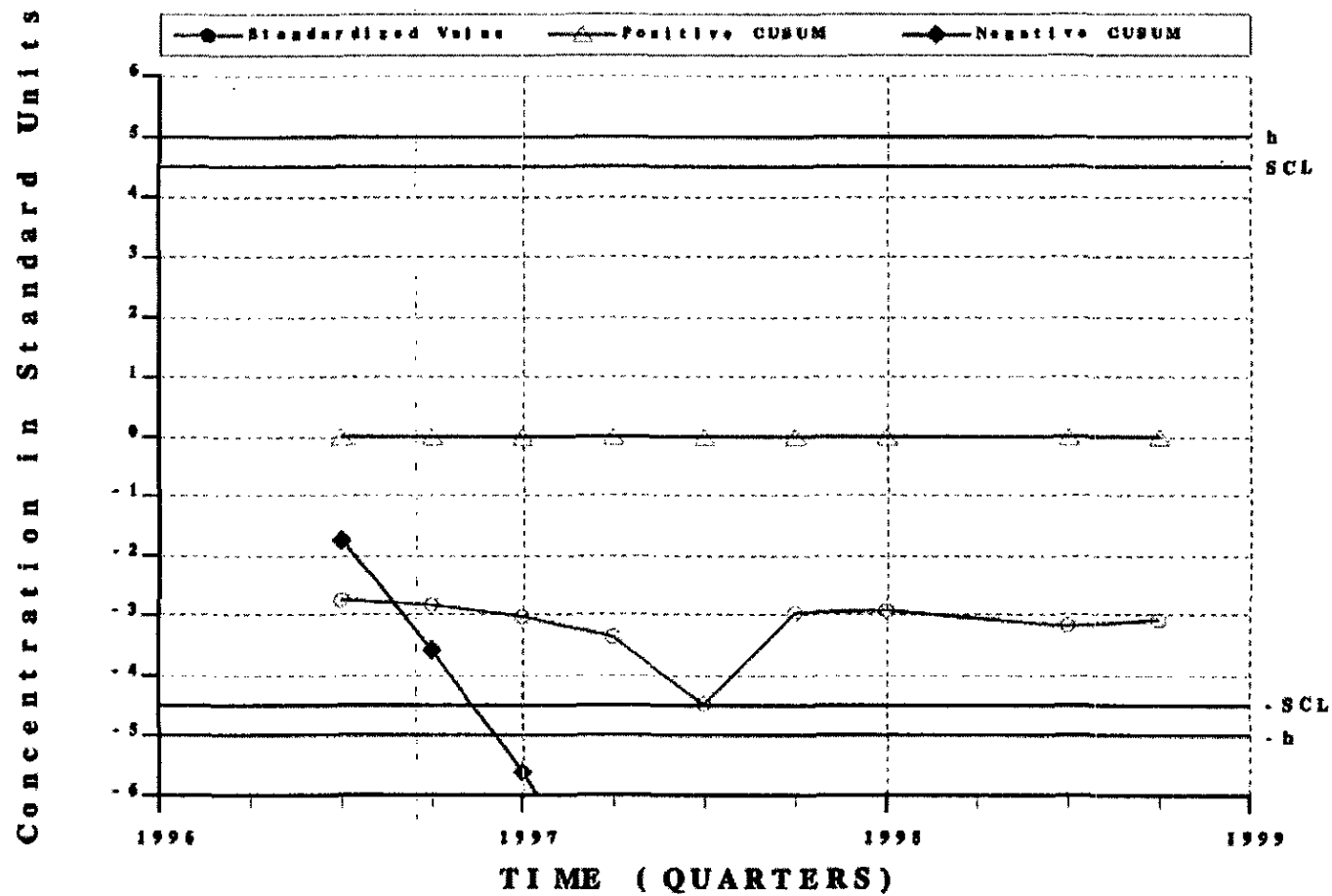
Combined Shewhart - CUSUM Control Chart WELL HSB116C - Zinc, total recoverable



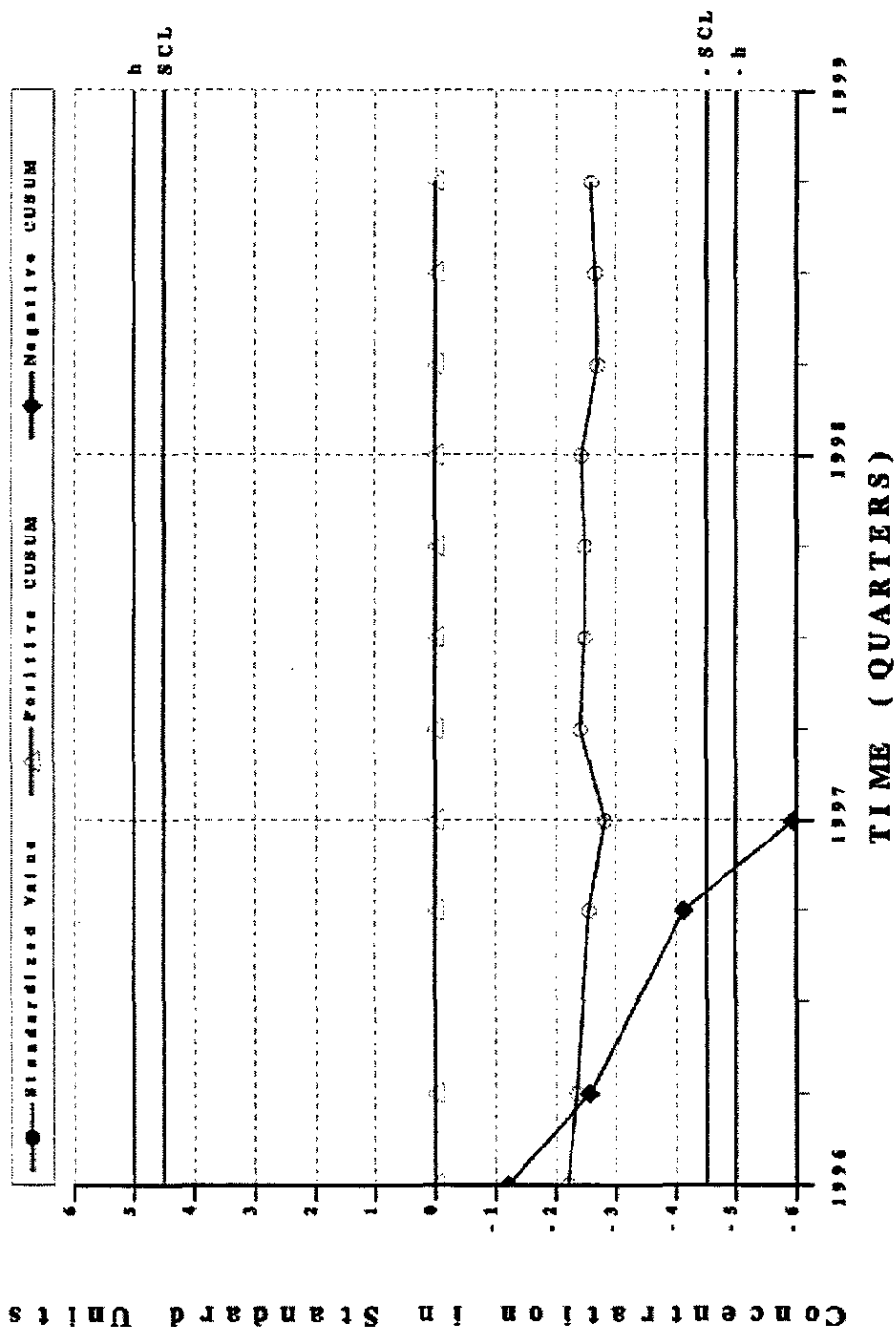
Combined Shewhart-CUSUM Control Chart WELL HSB116D - Gross alpha



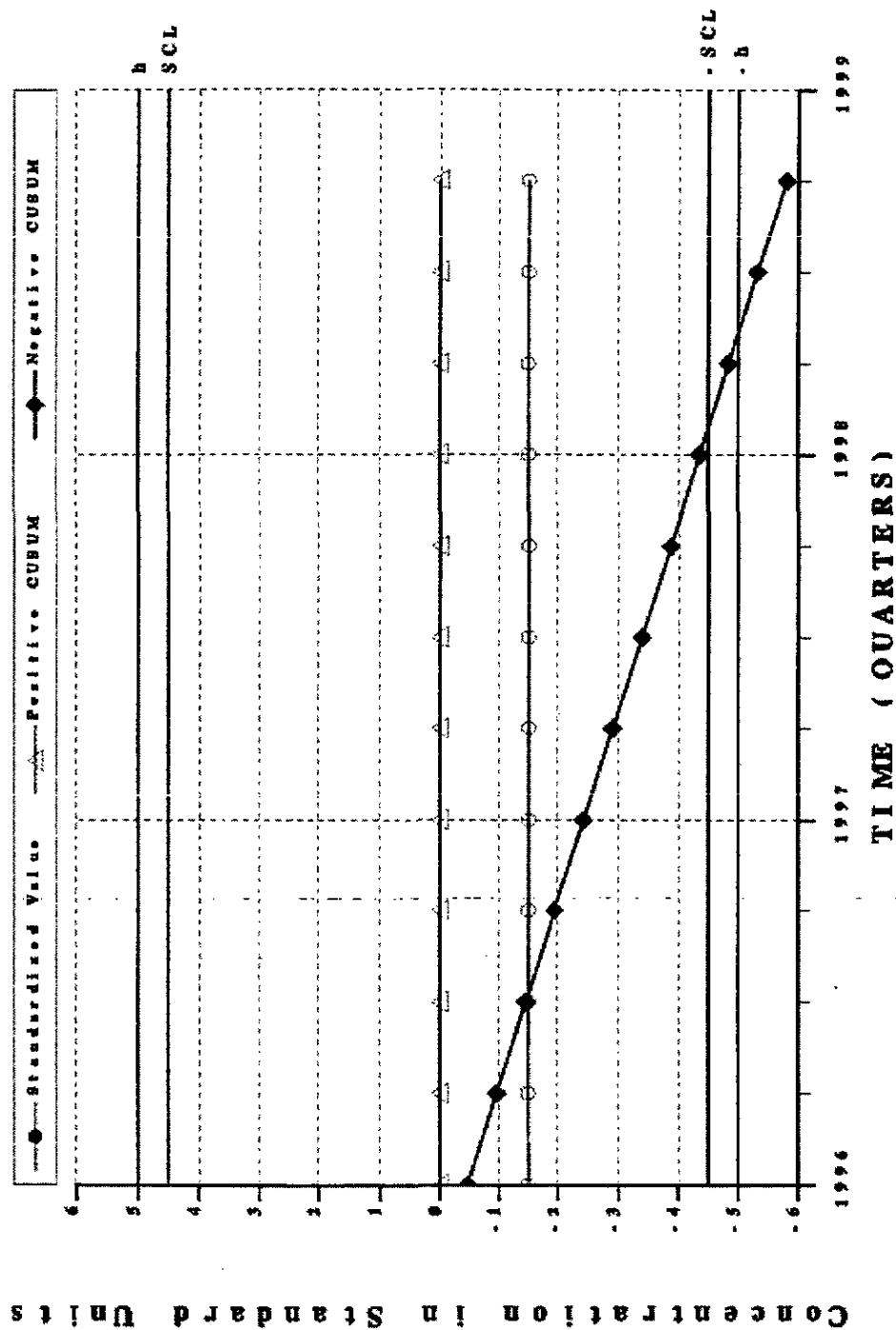
Combined Shewhart-CUSUM Control Chart
WELL HSB116D - Nitrate-nitrite as nitrogen



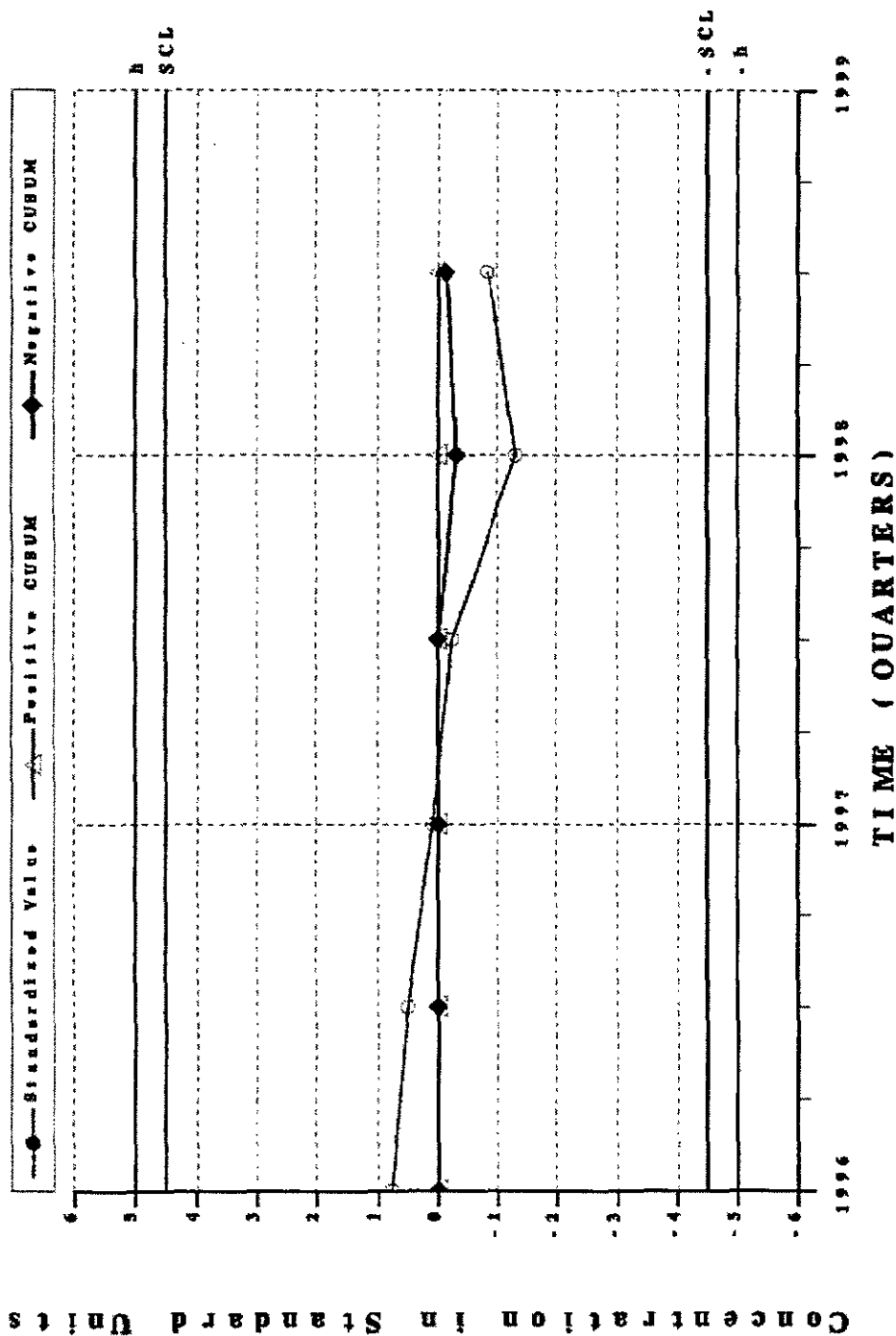
Combined Shewhart-CUSUM Control Chart
WELL HSB116D - Nonvolatile beta



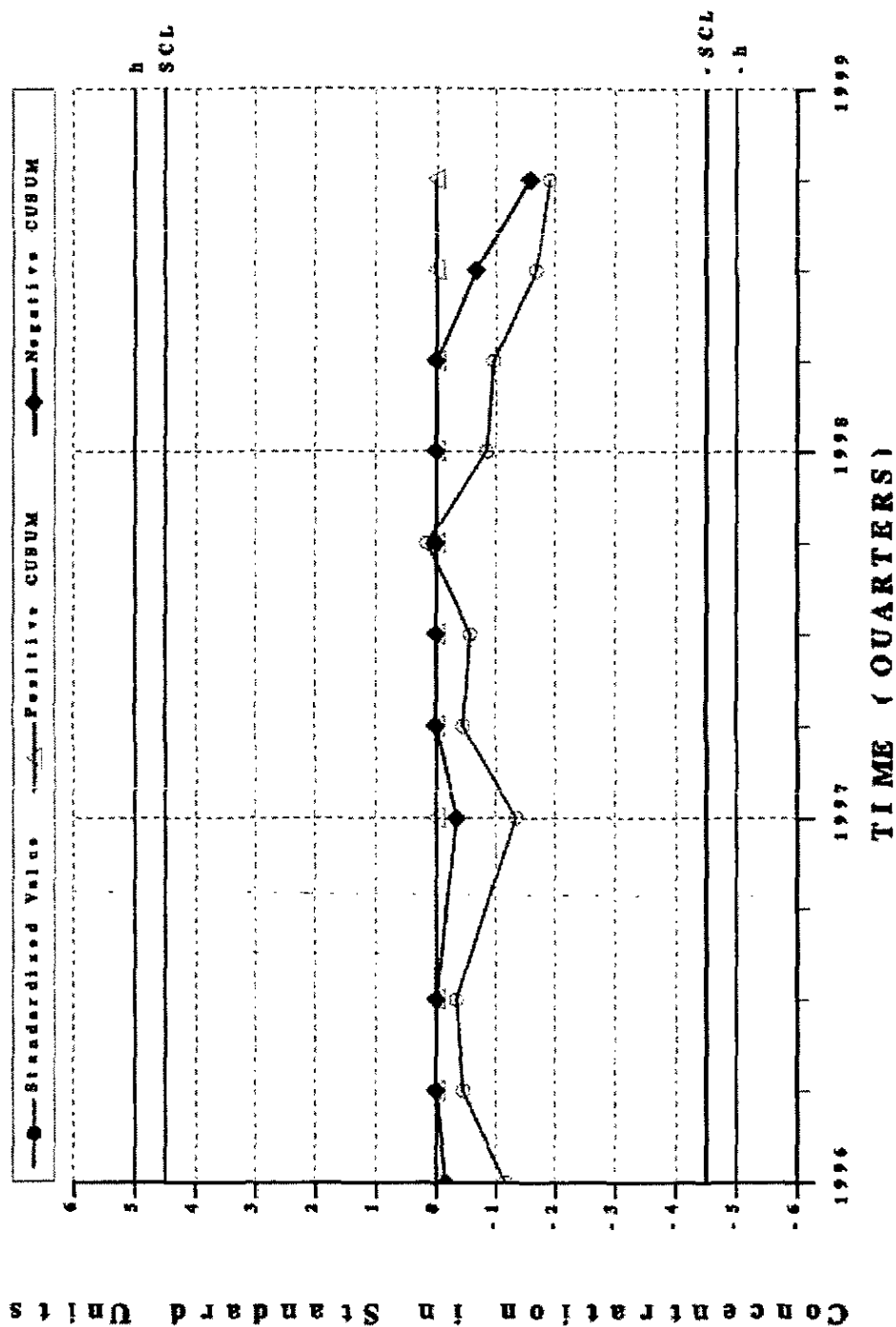
Combined Shewhart-CUSUM Control Chart WELL HSB116D - Tritium



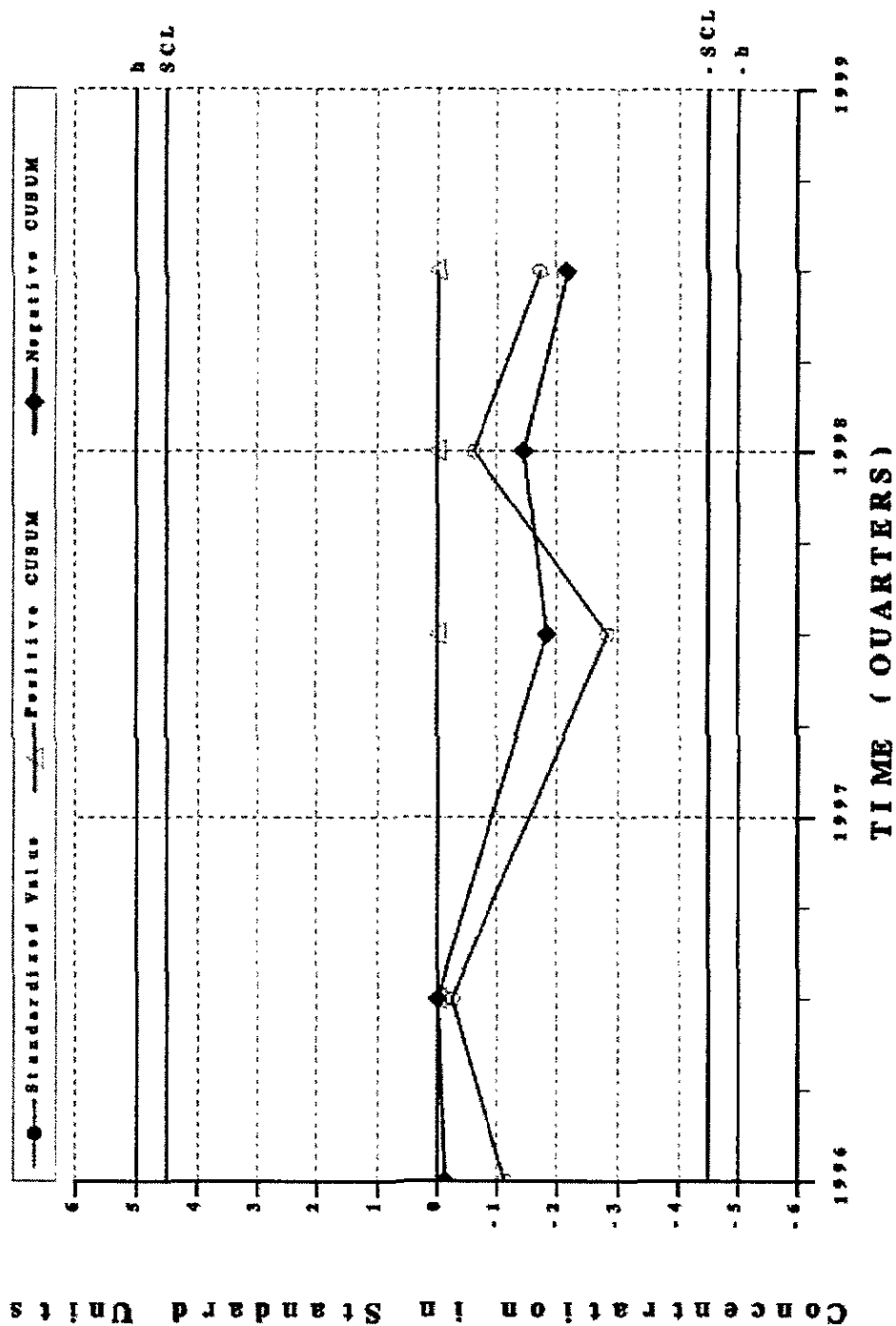
Combined Shewhart-CUSUM Control Chart WELL HSB117C - Barium total recoverable



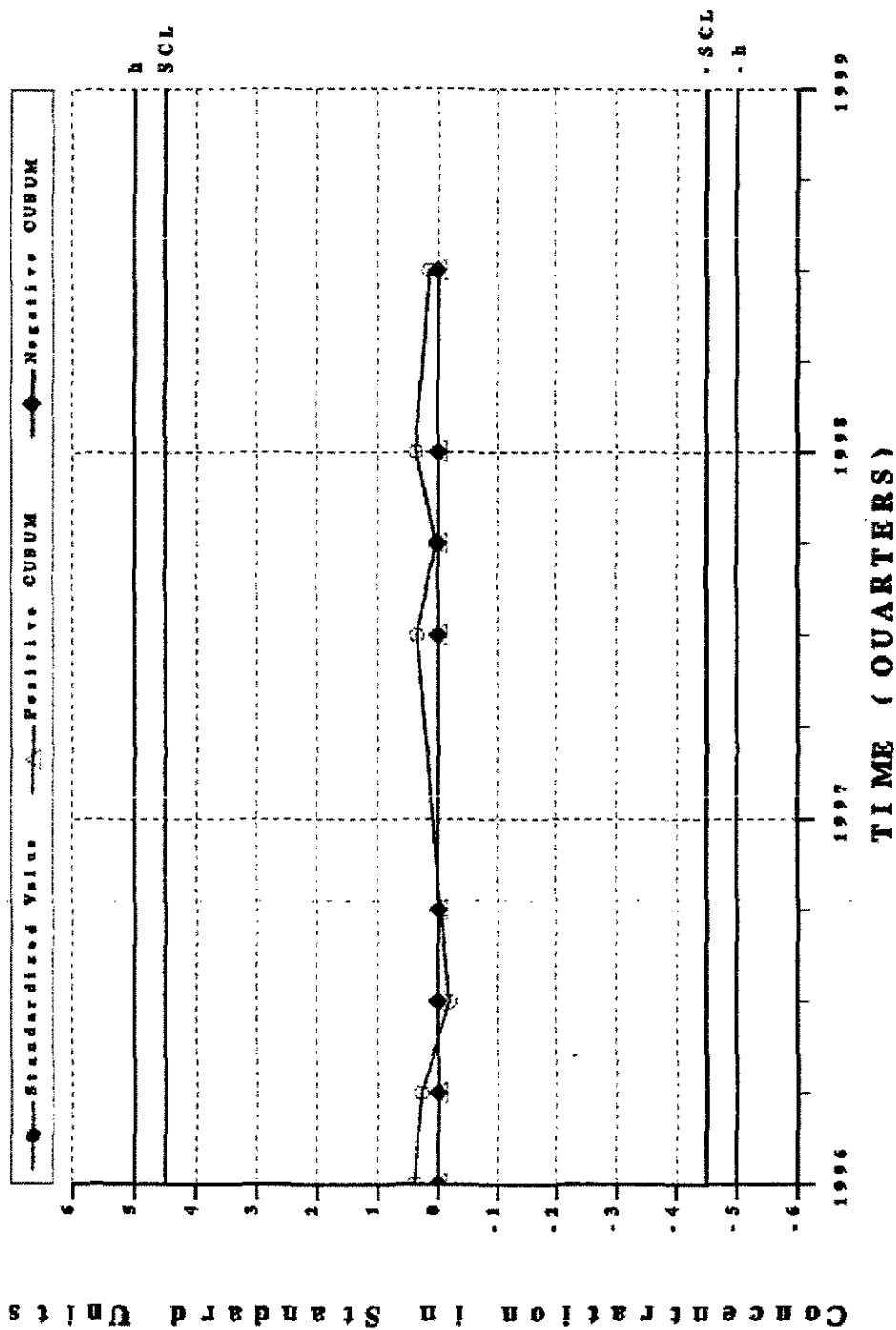
Combined Shewhart-CUSUM Control Chart WELL HSB117C - Gross alpha

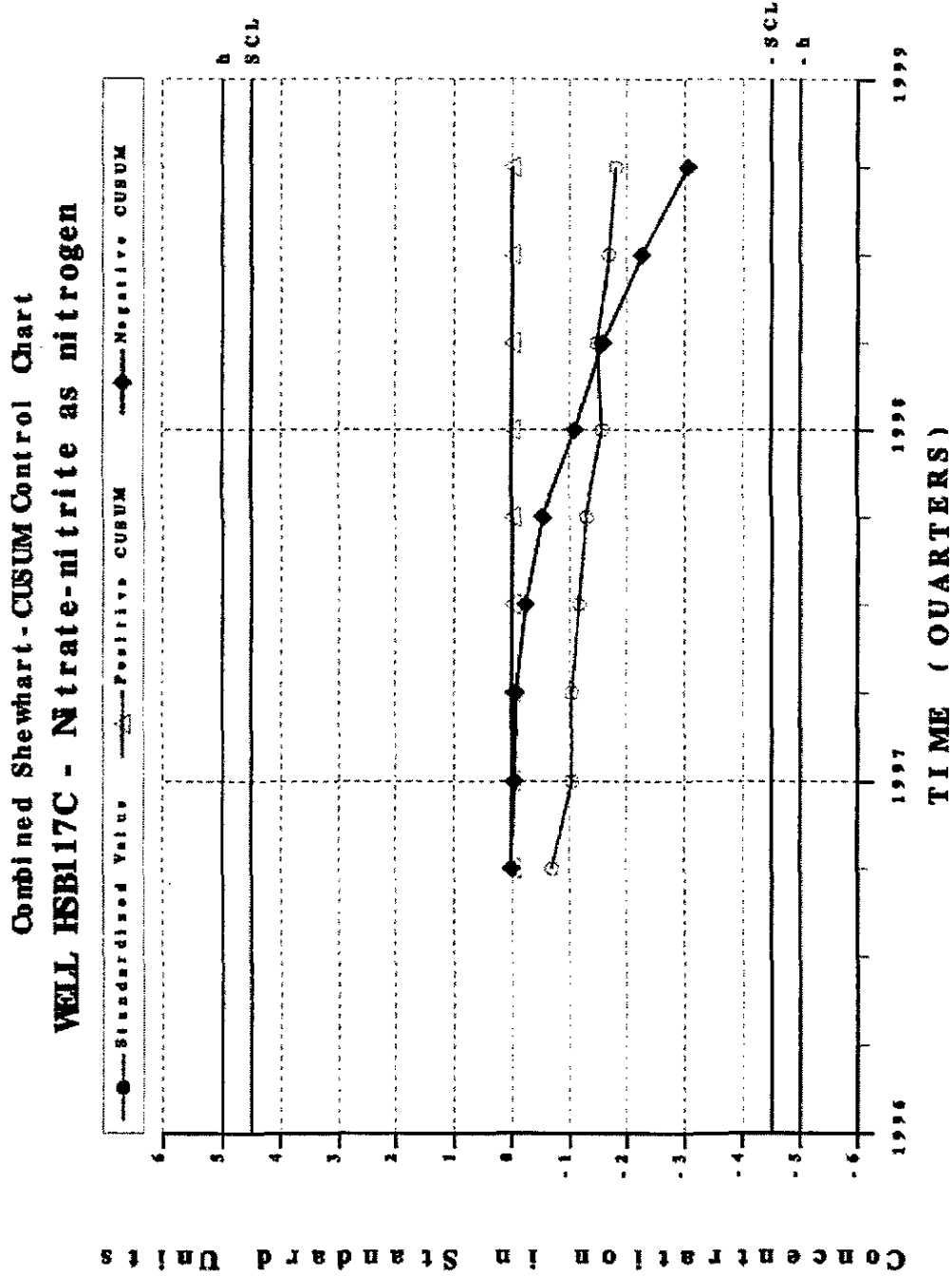


Combined Shewhart-CUSUM Control Chart
WELL HSB117C - Iodine-129

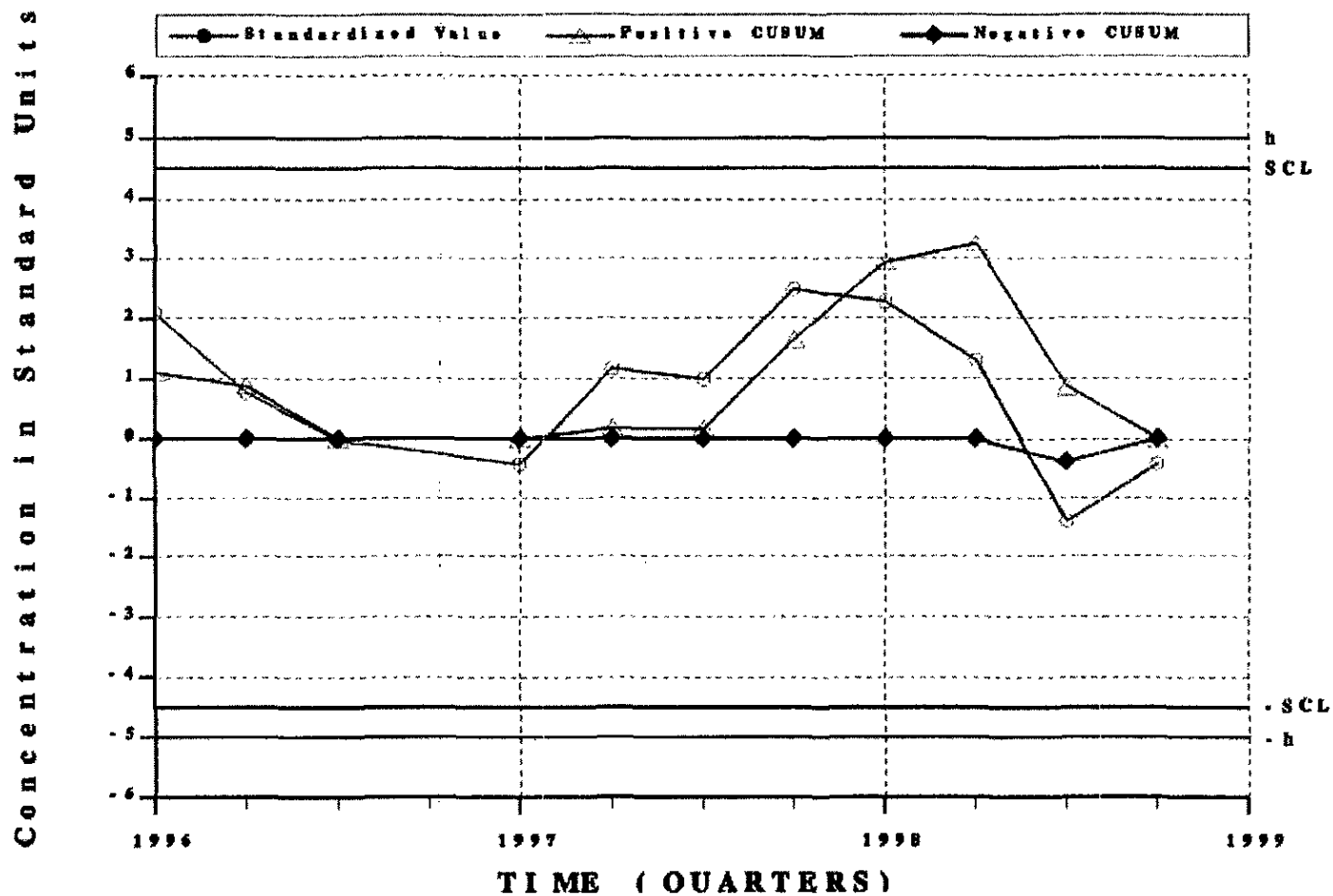


Combined Shewhart-CUSUM Control Chart
WELL HSB117C - Mercury, total recoverable

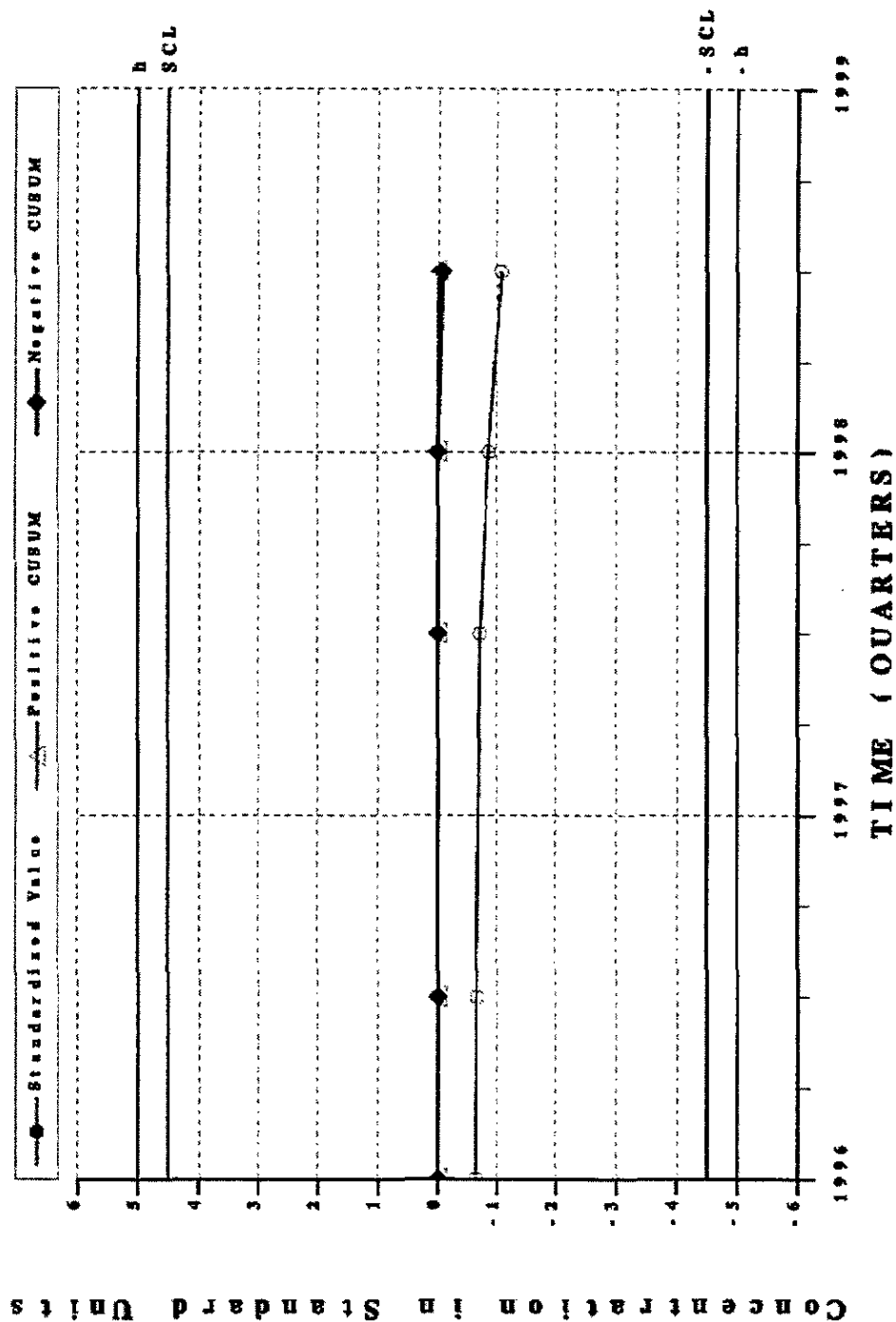




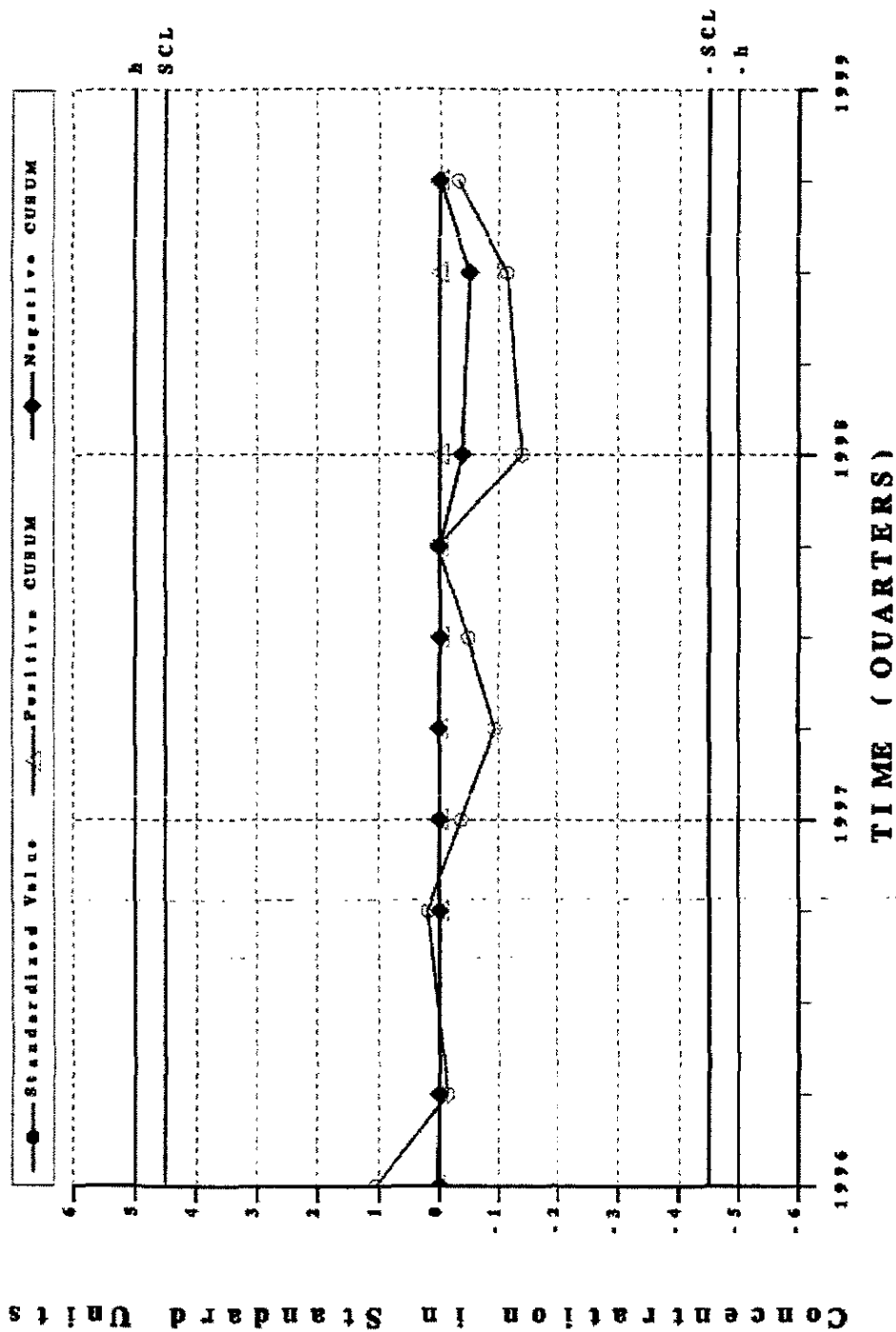
Combined Shewhart-CUSUM Control Chart
WELL HSB117C - Nonvolatile beta



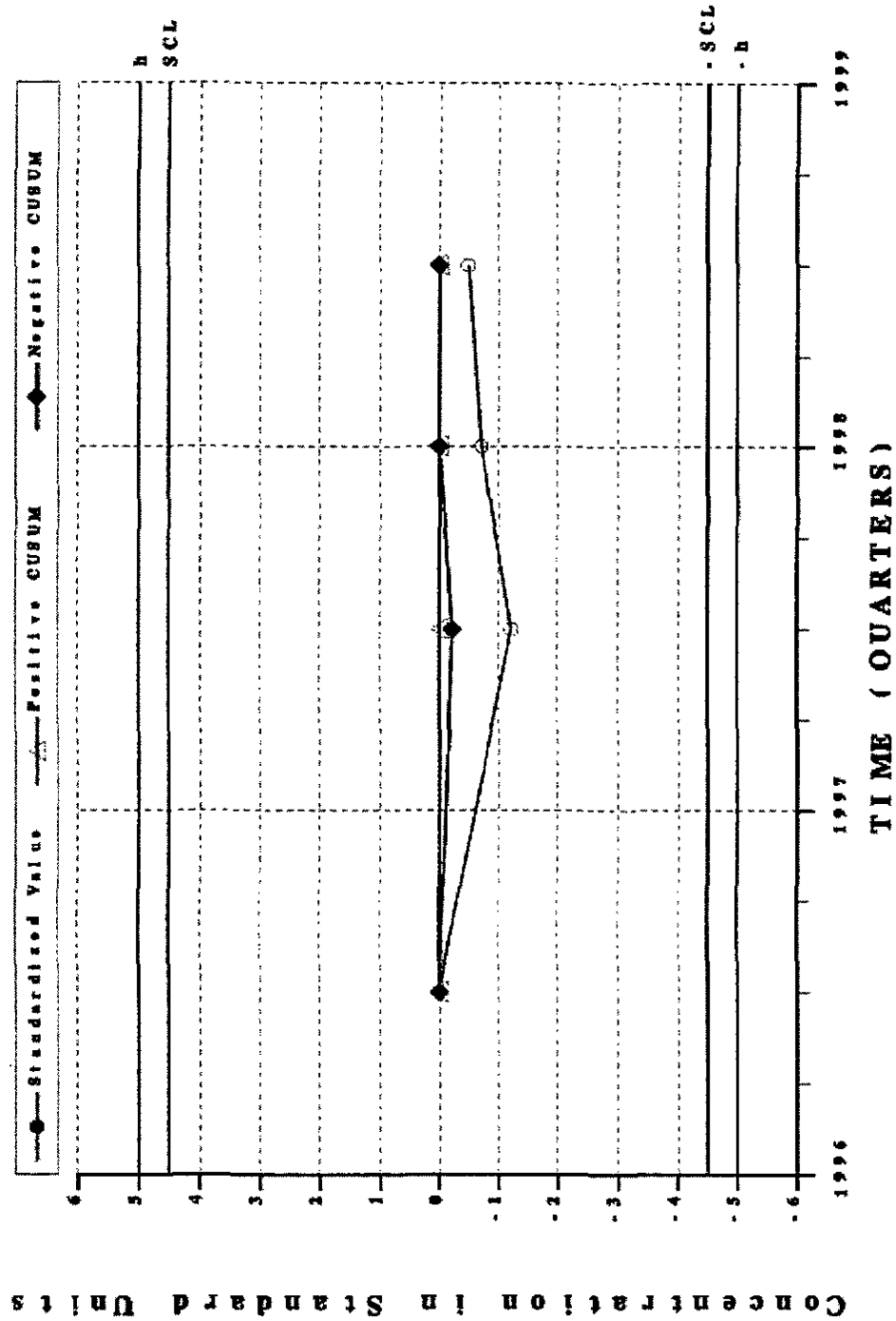
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WELL HSB117C - Technetium-99



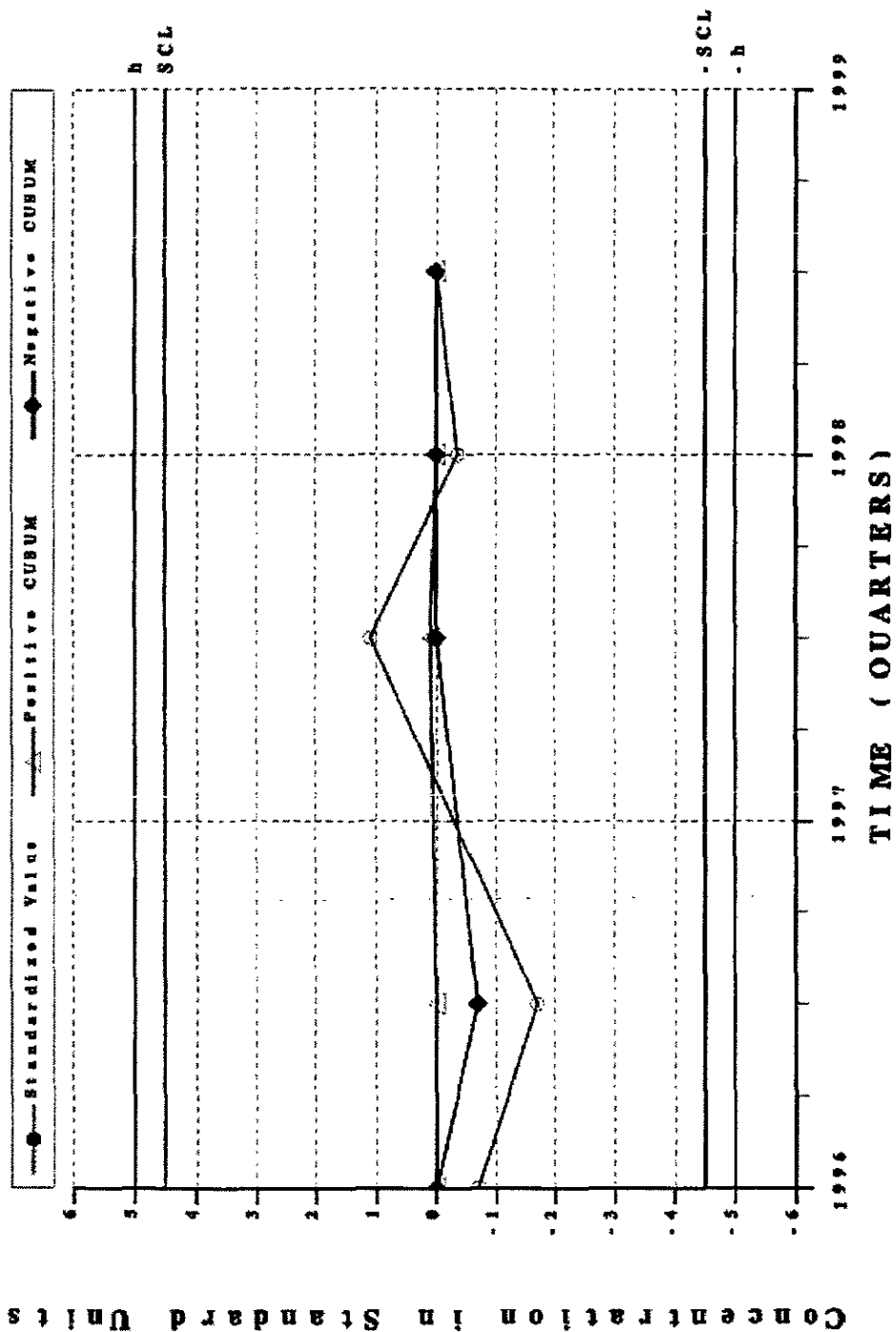
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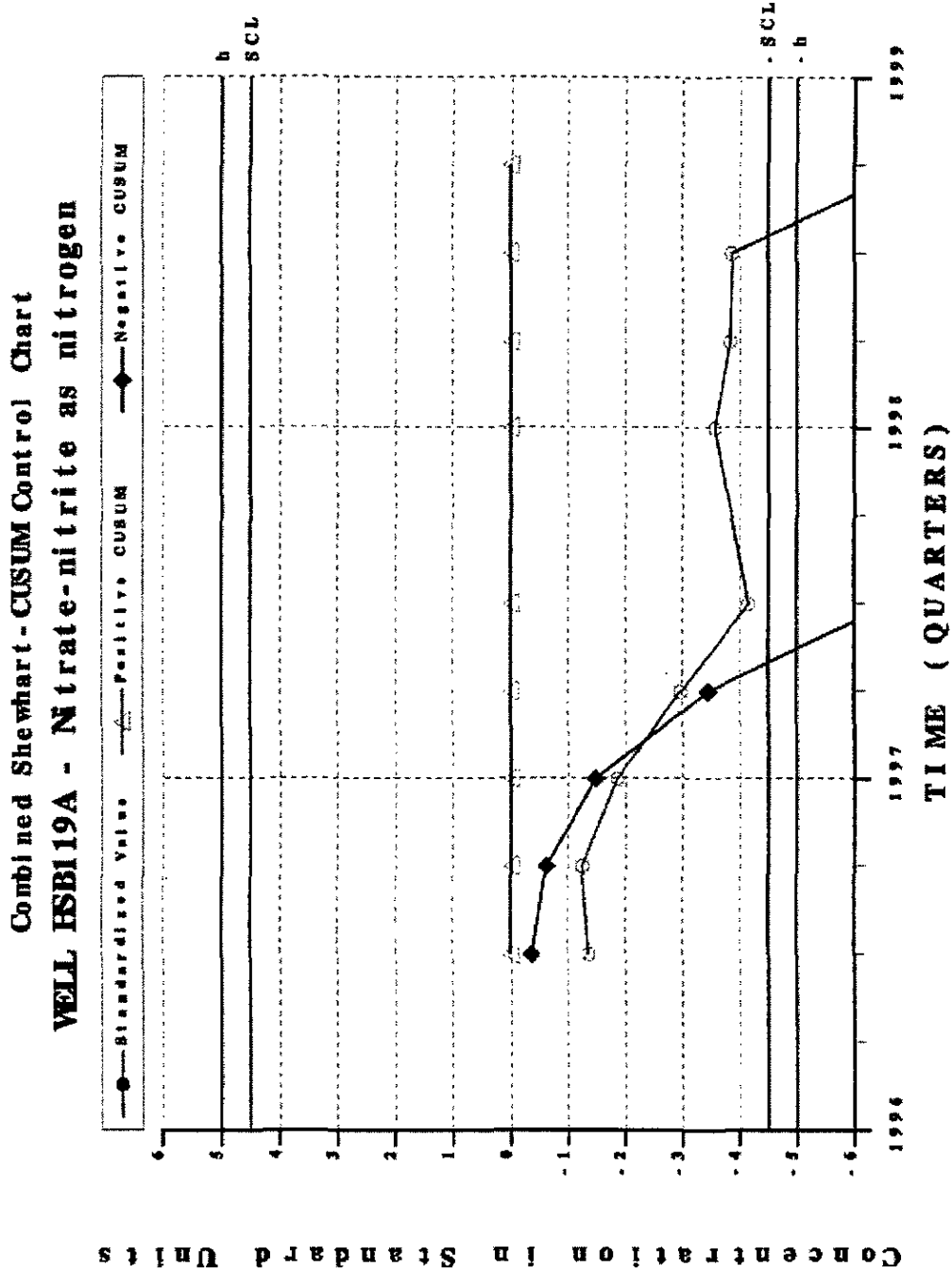


Combined Shewhart - CUSUM Control Chart
WELL HSB117C - Zinc, total recoverable

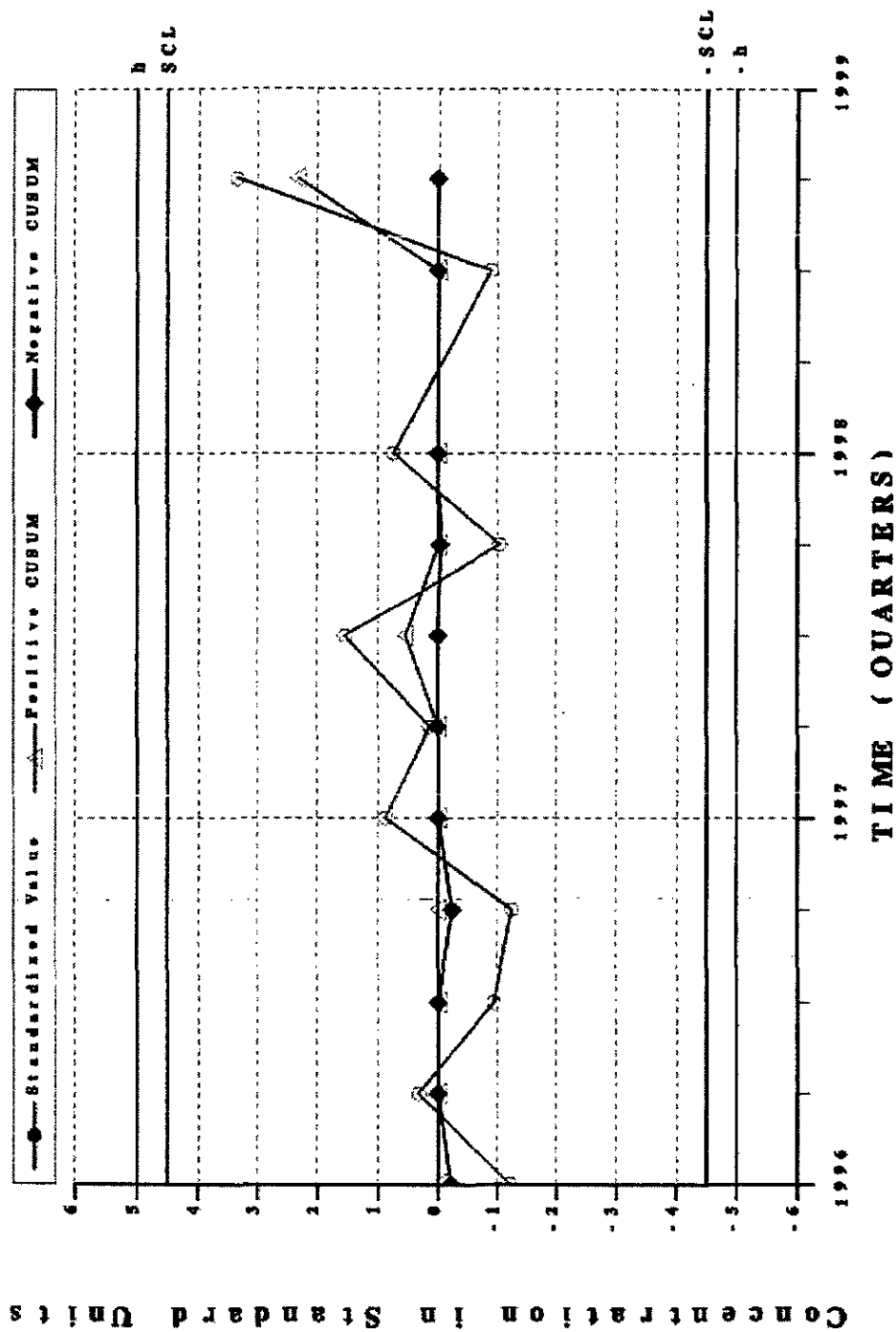


Combined Shewhart - CUSUM Control Chart WELL HSB119A - Barium total recoverable

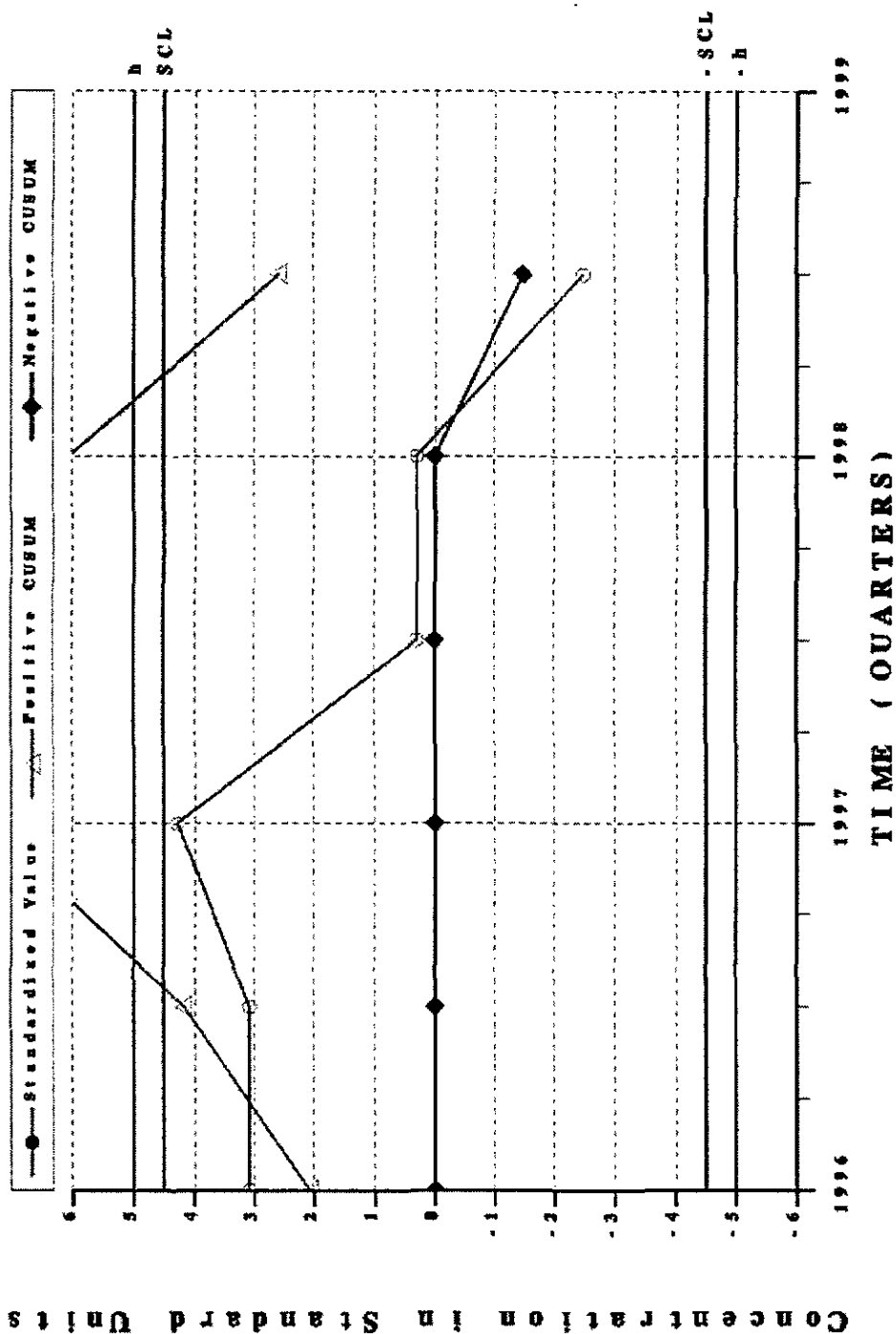




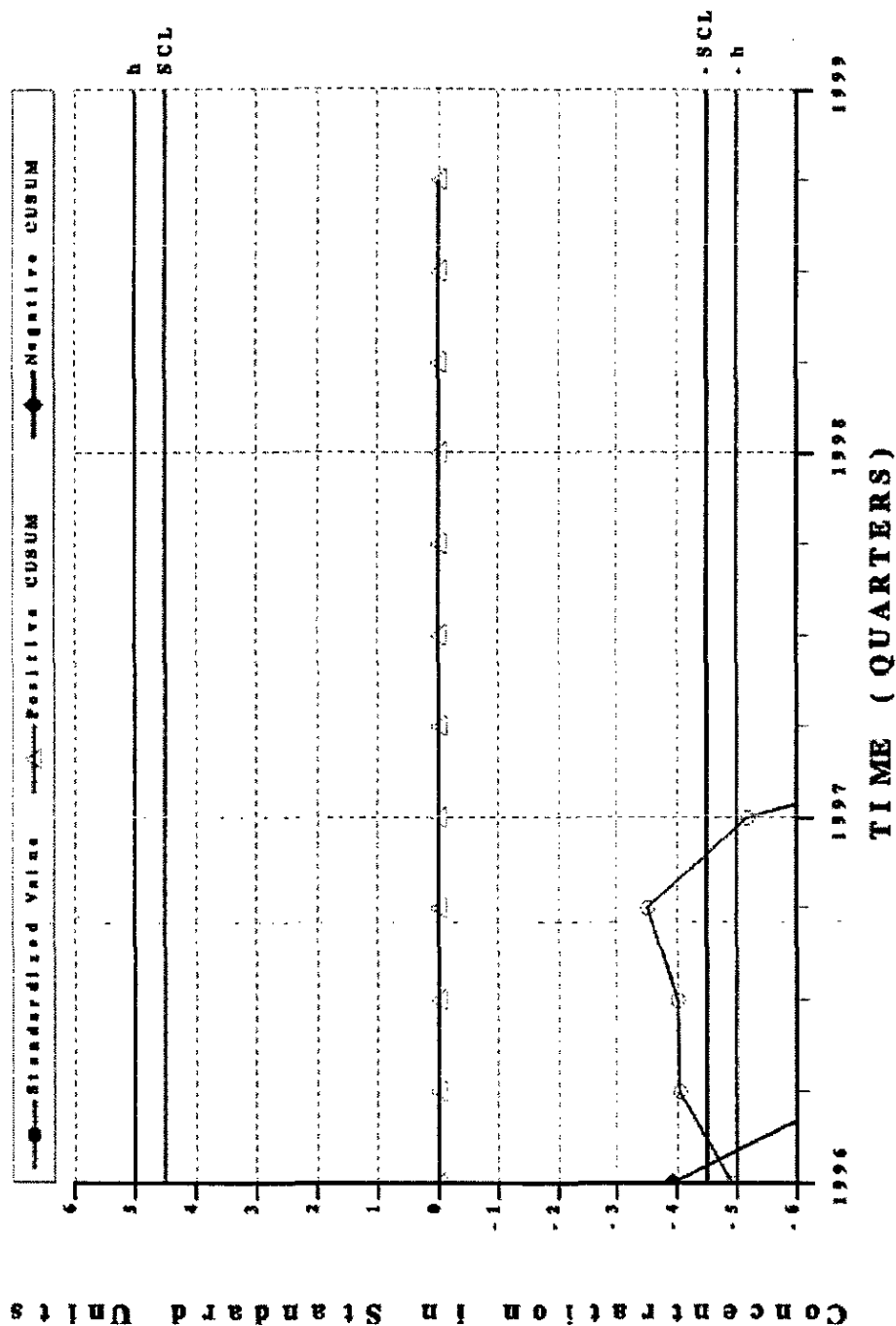
Combined Shewhart-CUSUM Control Chart
WELL HSB119A - Nonvolatile beta



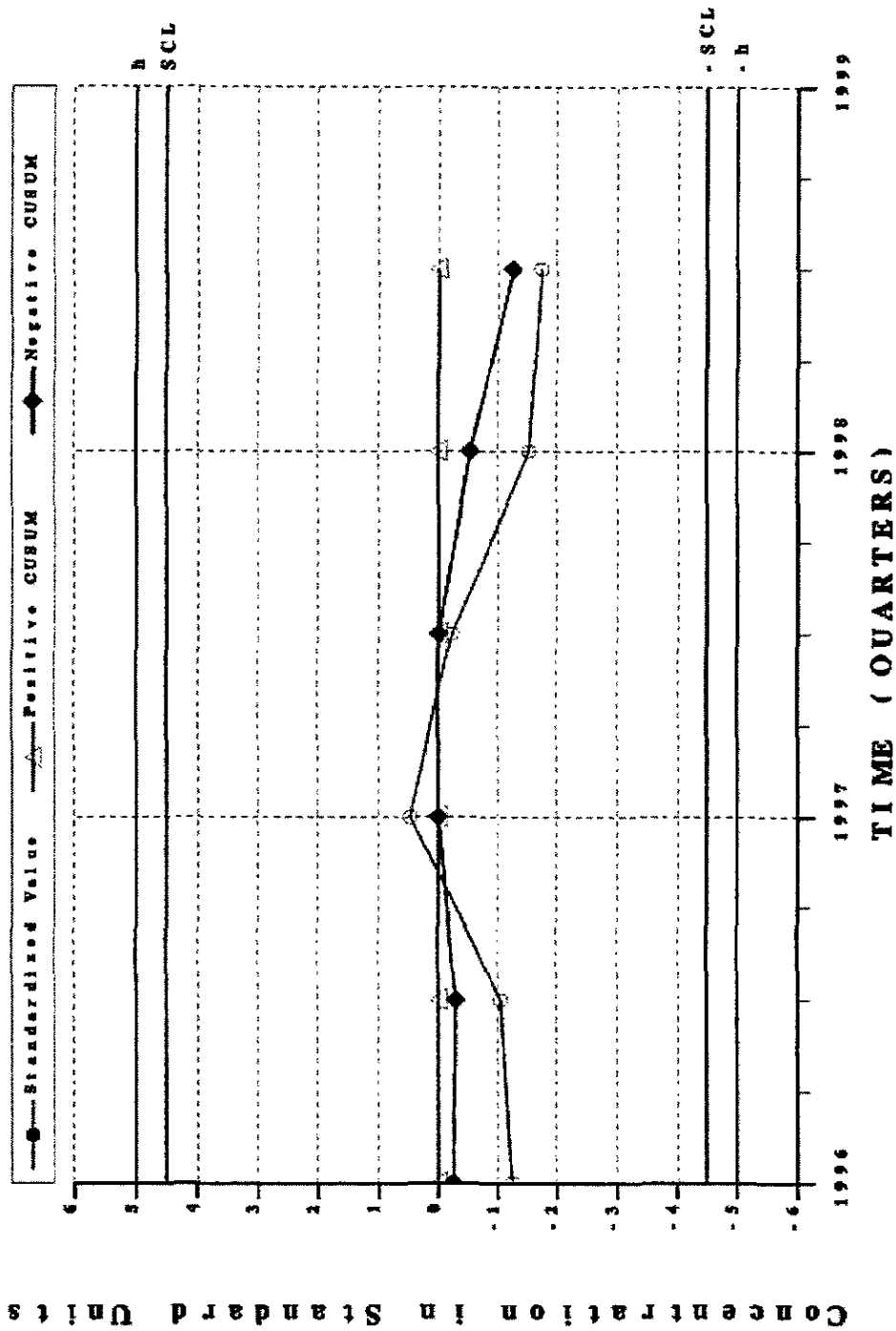
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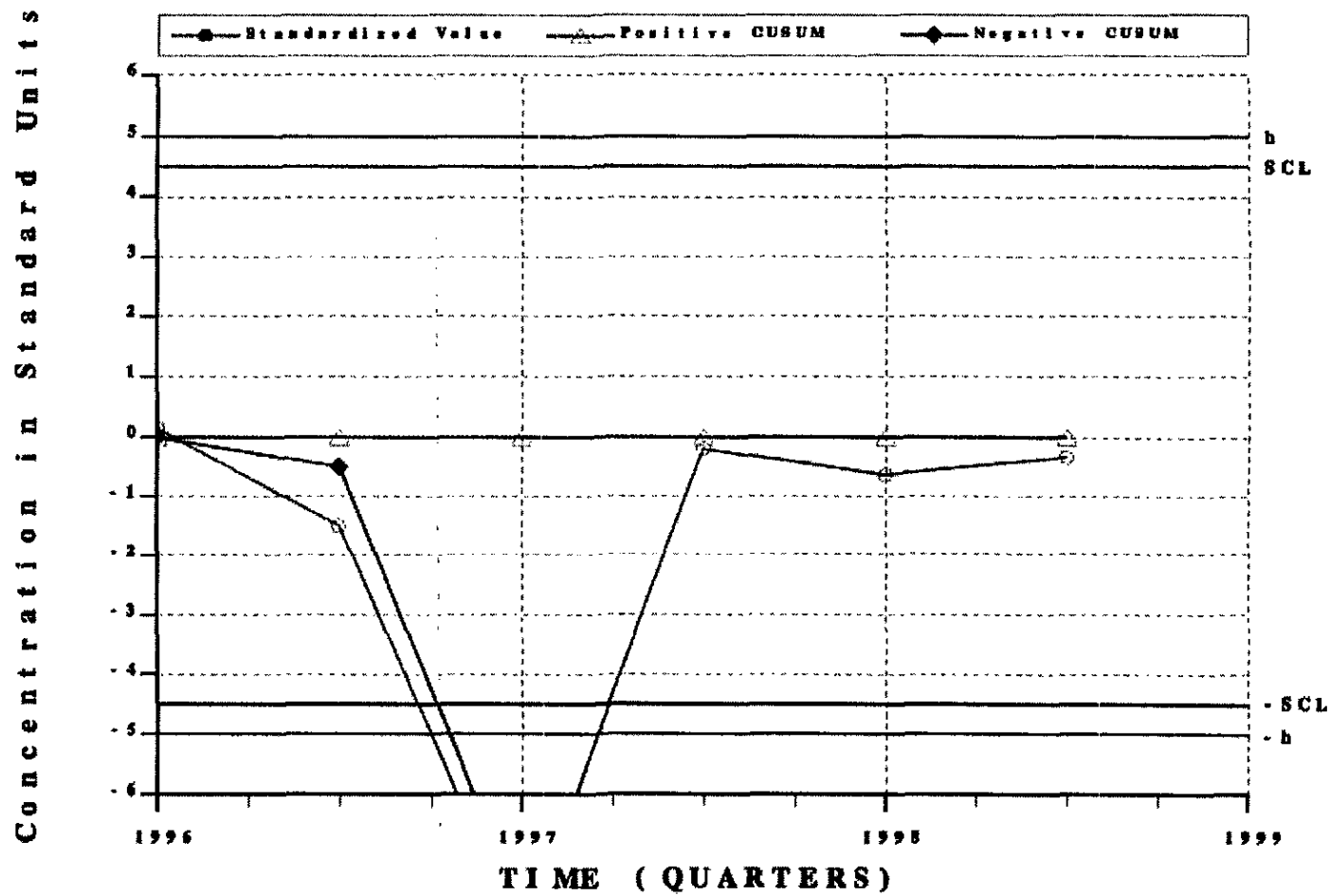
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WELL HSB119A - Tritium



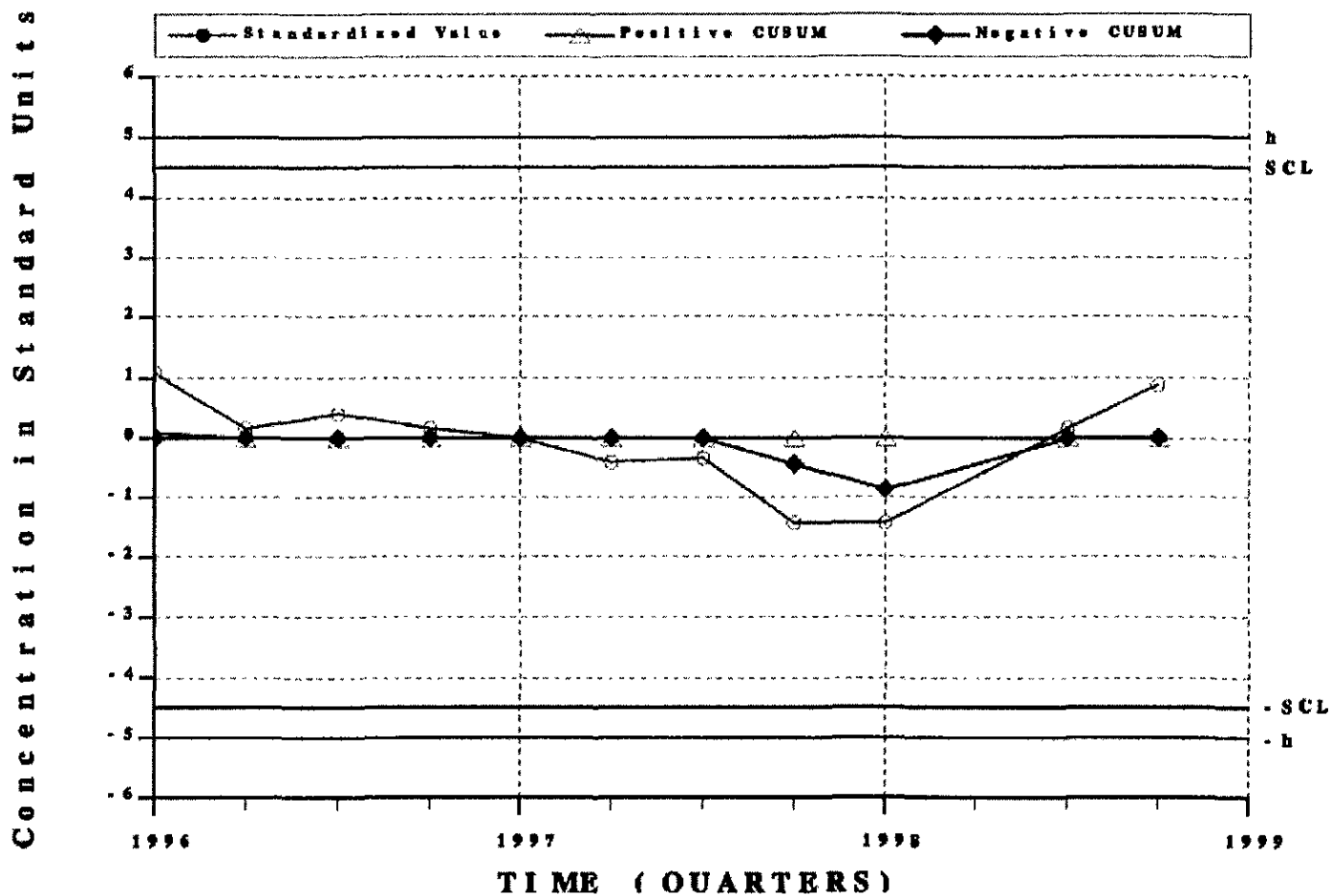
Combined Shewhart-CUSUM Control Chart
WELL HSB119A - Zinc, total recoverable



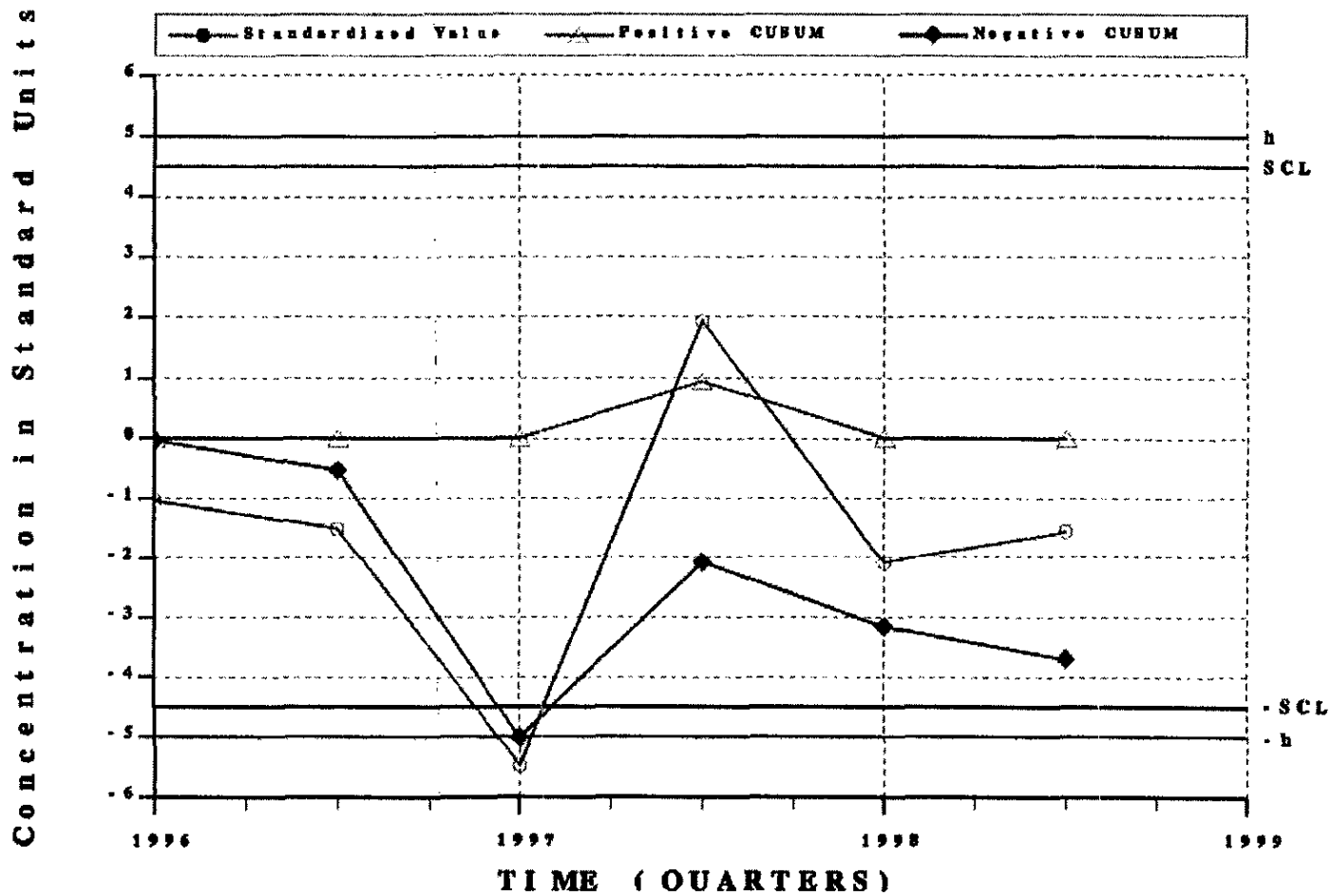
Combined Shewhart-CUSUM Control Chart
WELL HSB120A - Barium total recoverable



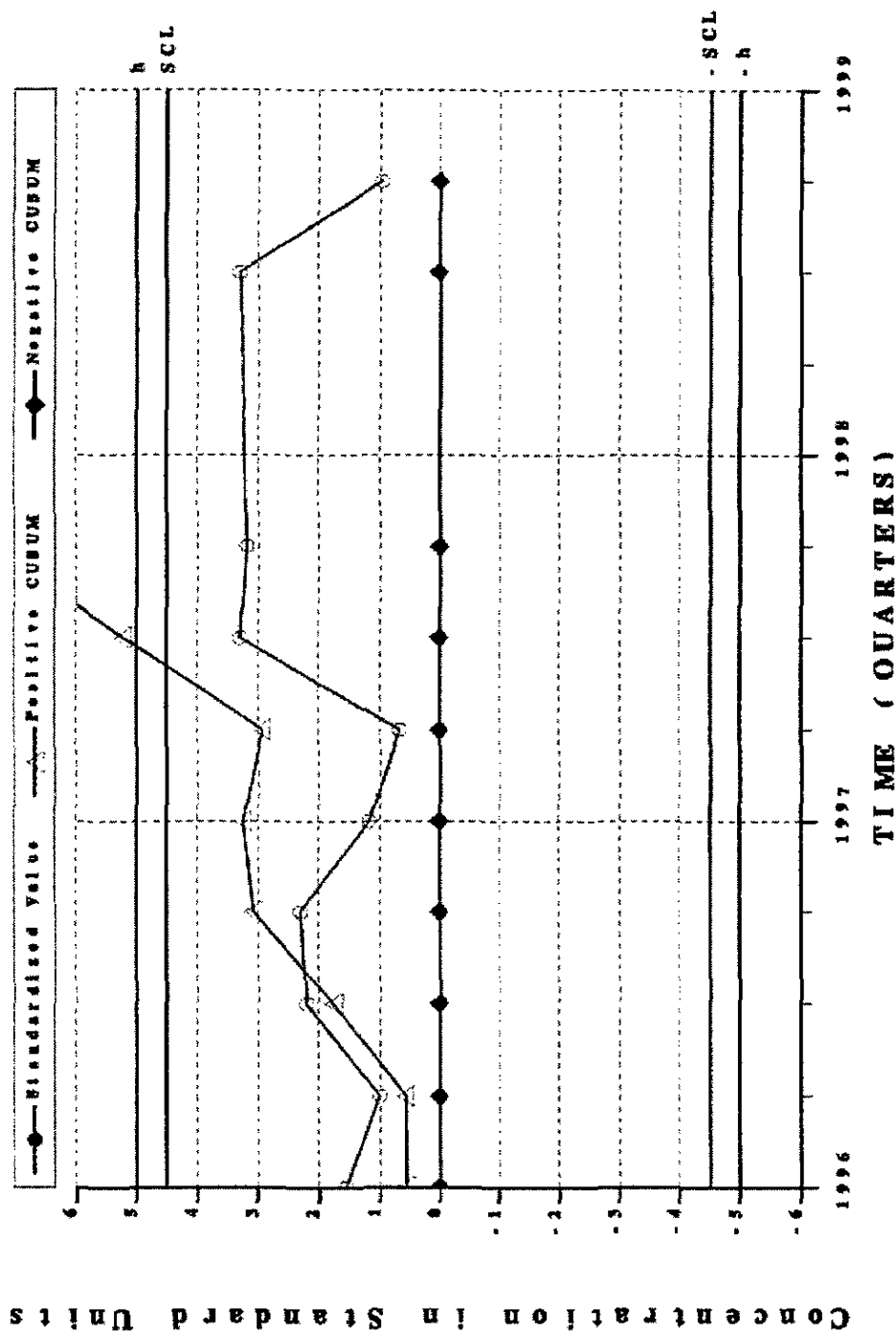
Combined Shewhart-CUSUM Control Chart
WELL HSB120A - Nonvolatile beta



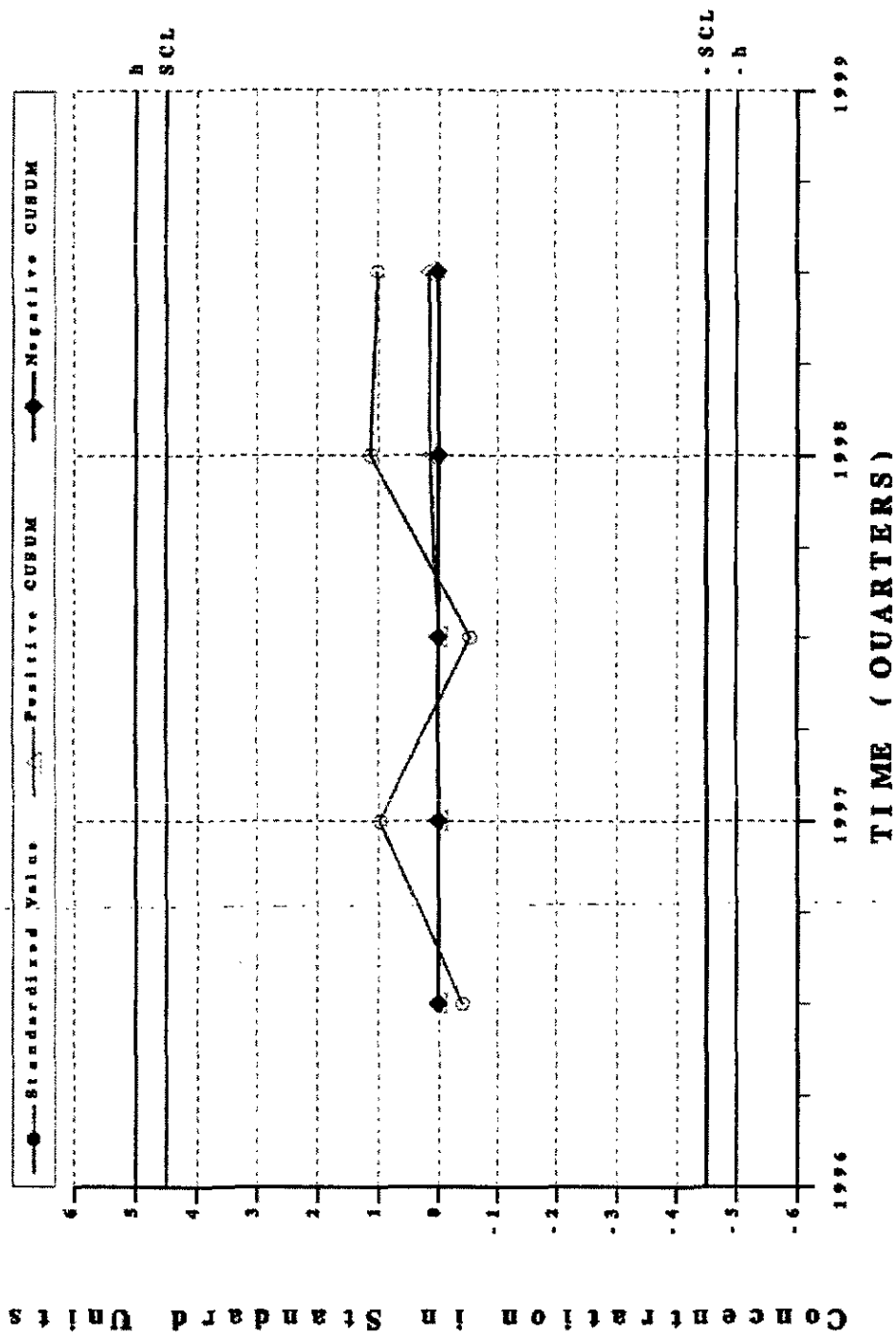
Combined Shewhart-CUSUM Control Chart
WELL HSB121A - Barium, total recoverable



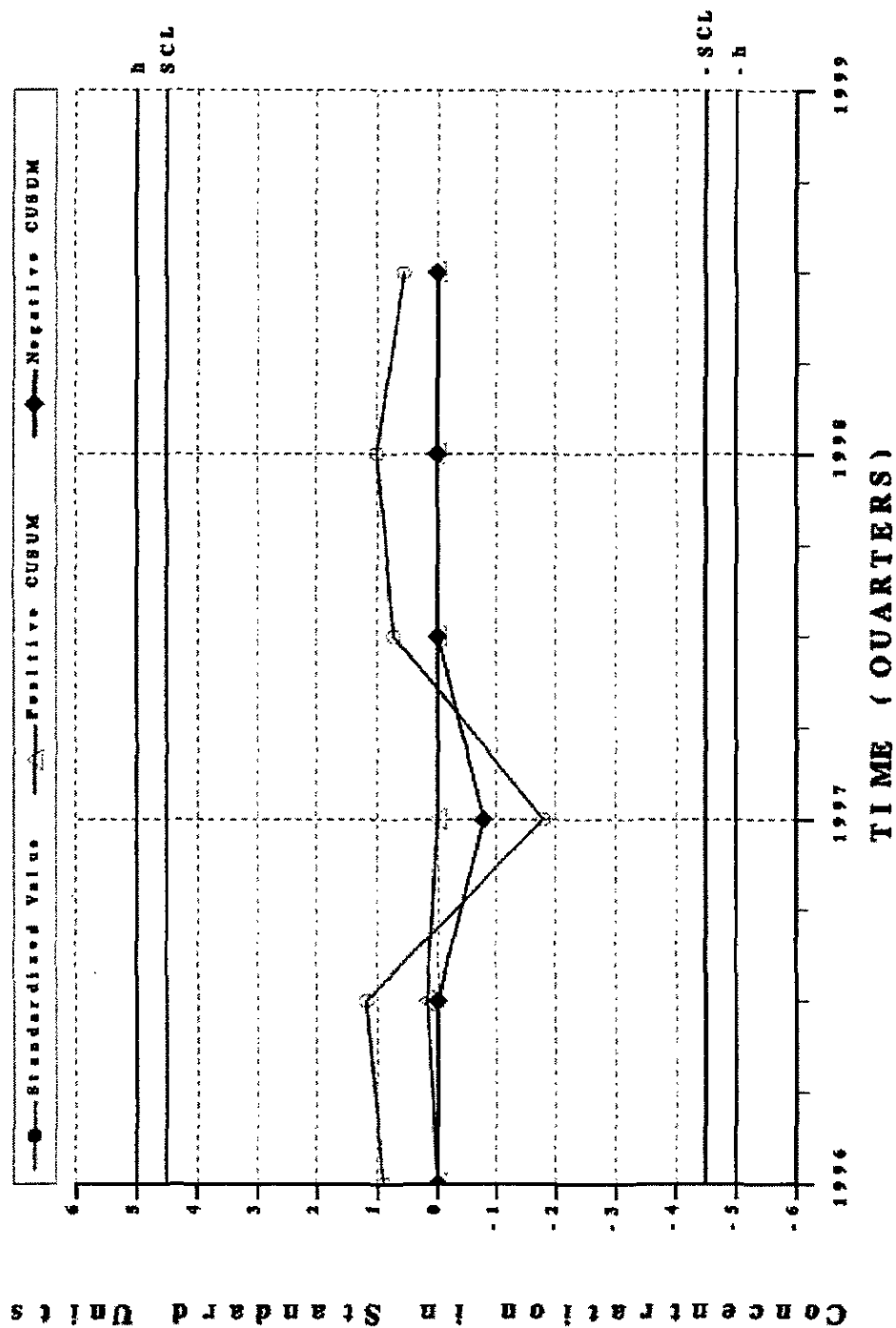
Combined Shewhart-CUSUM Control Chart WELL HSB121A - Nonvolatile beta



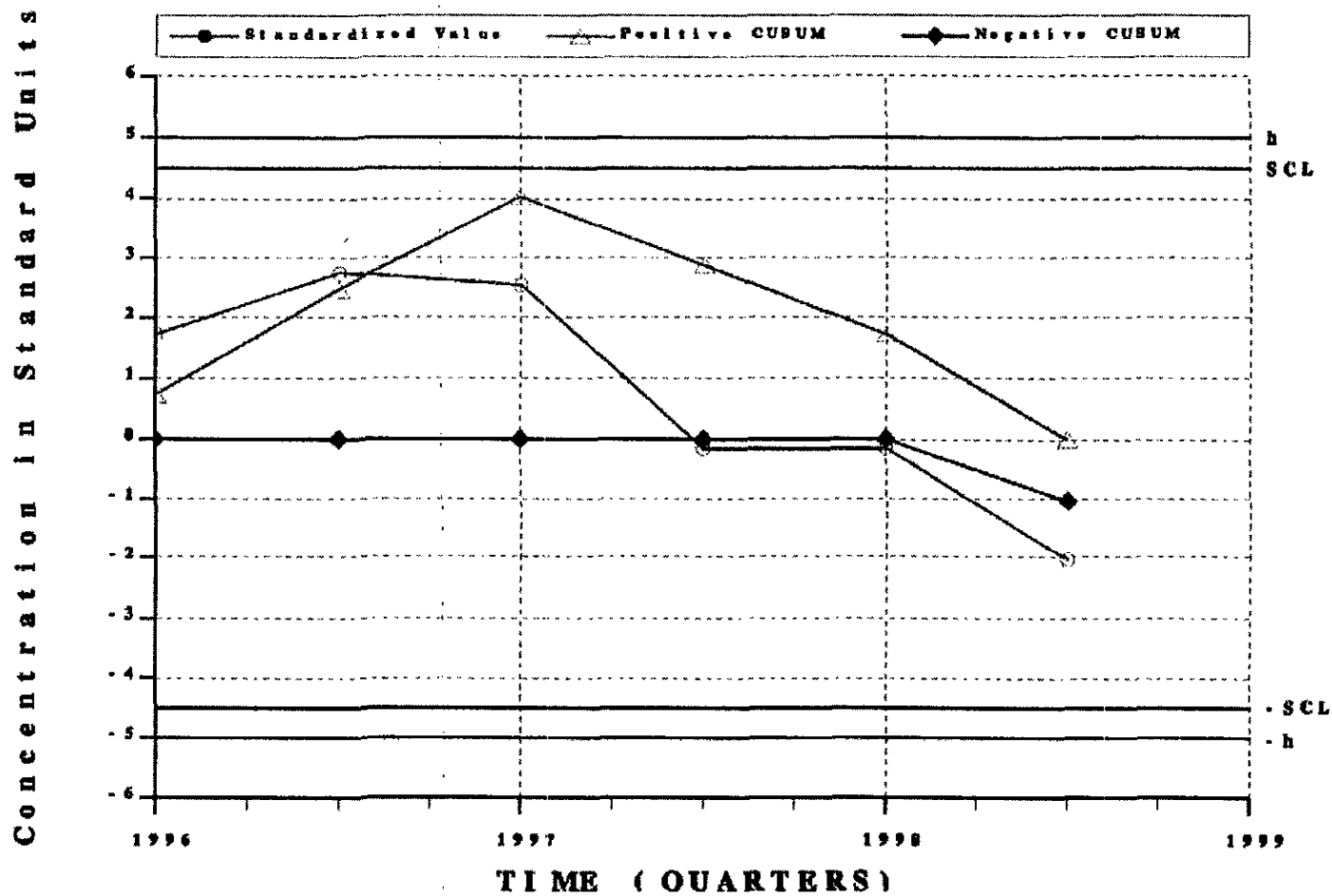
Combined Shewhart - CUSUM Control Chart WELL HSB121A - Radium-228

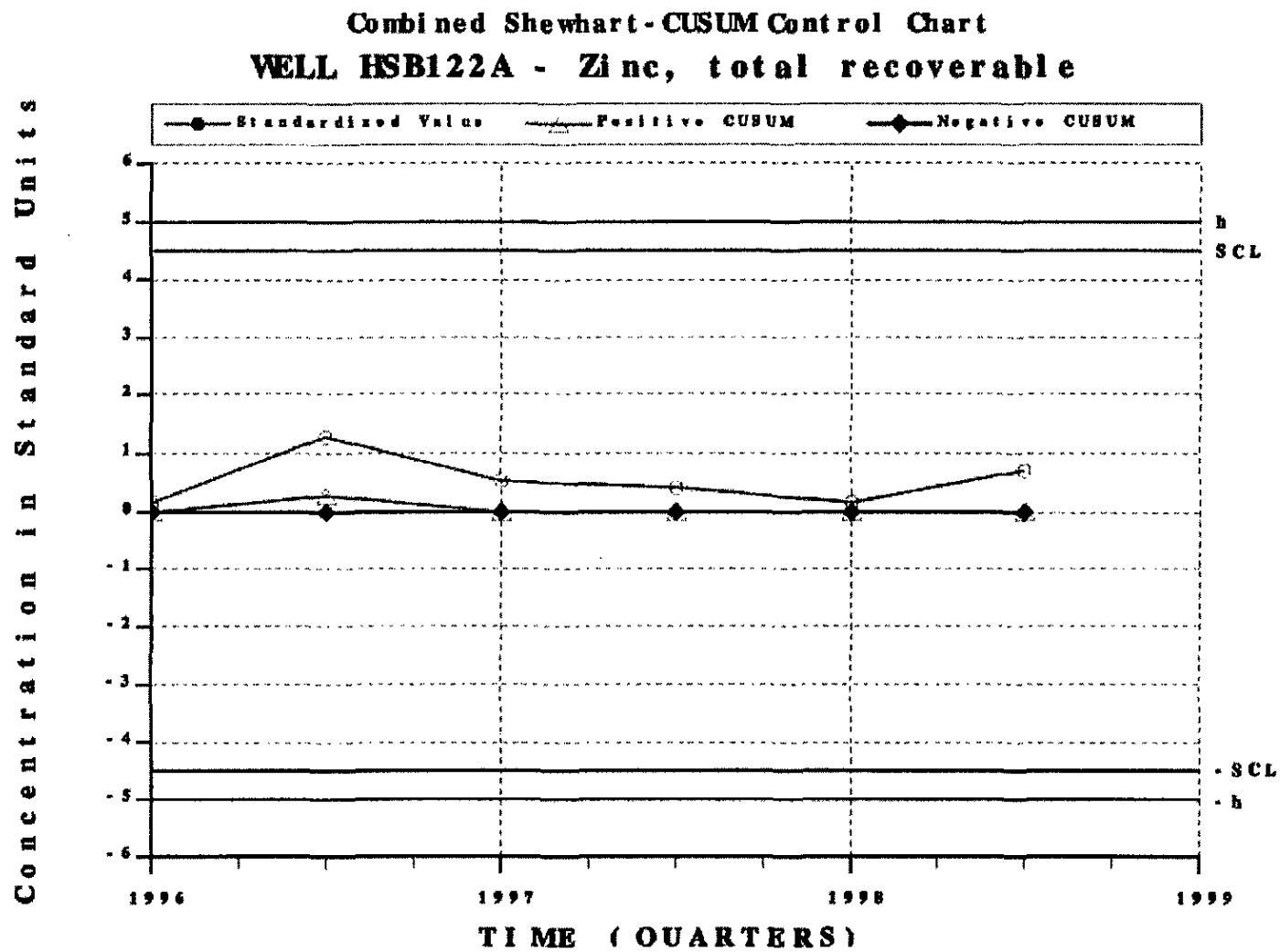


Combined Shewhart-CUSUM Control Chart
WELL HSB122A - Barium, total recoverable

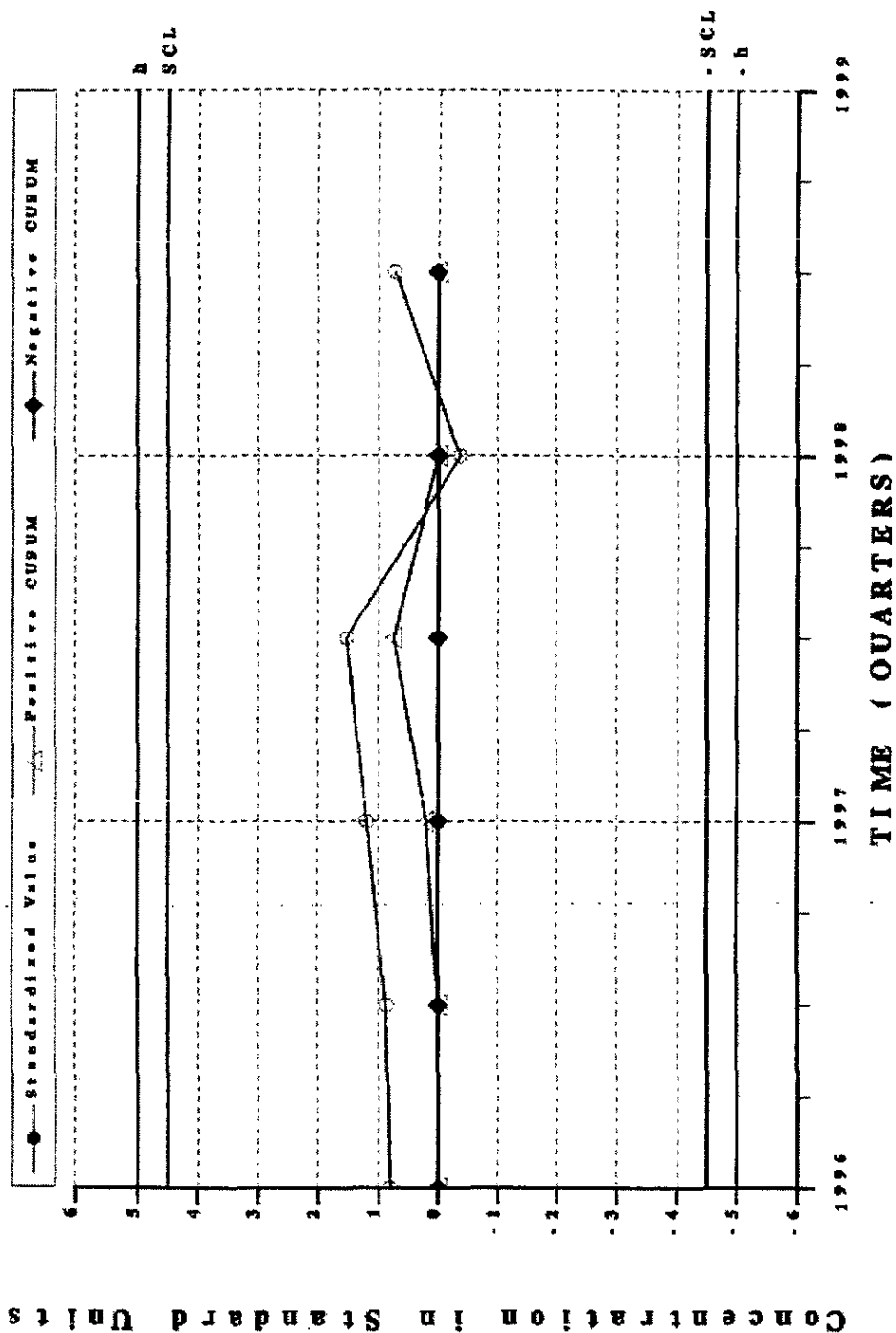


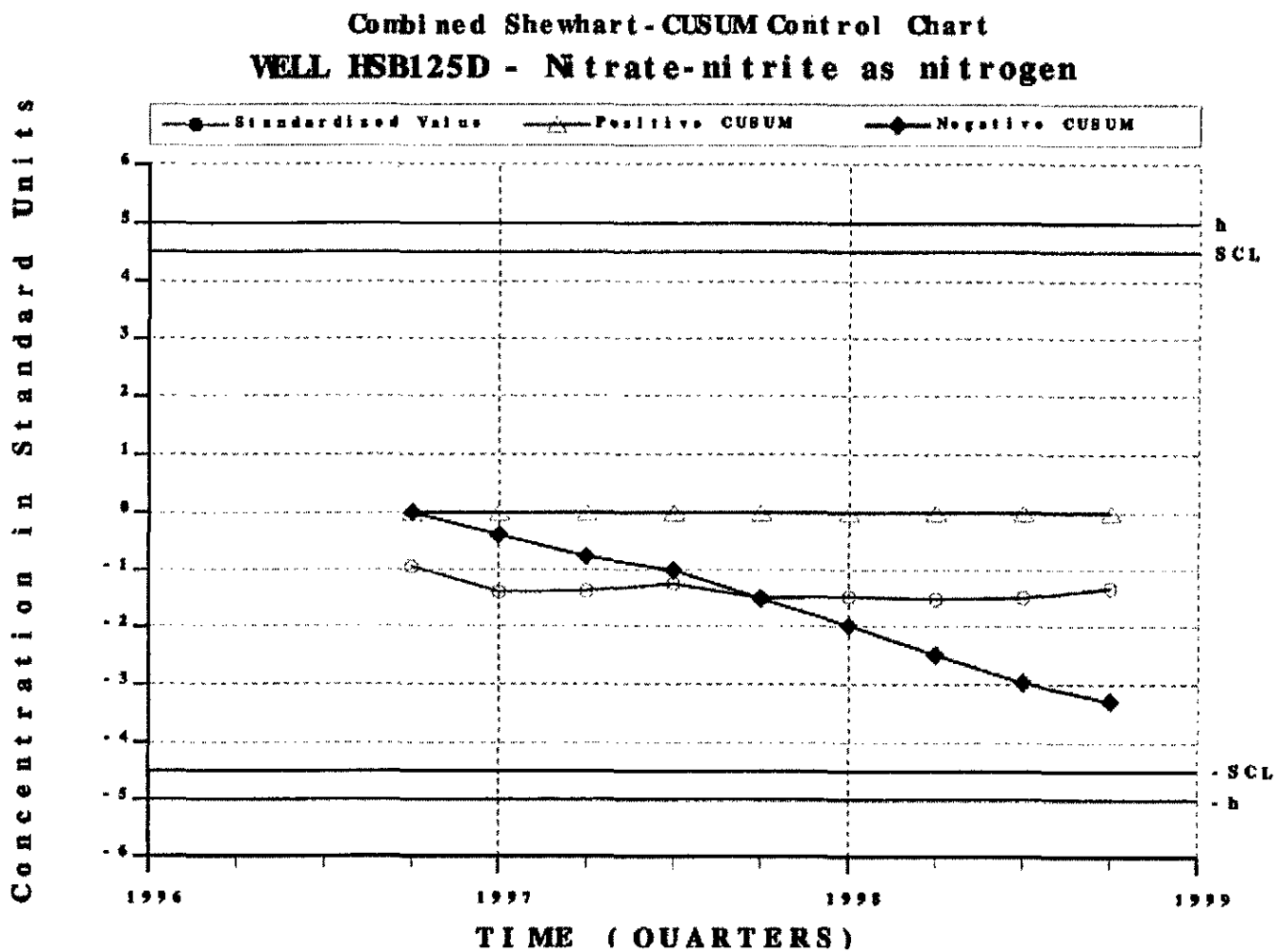
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WELL HSB122A - Tin, total recoverable



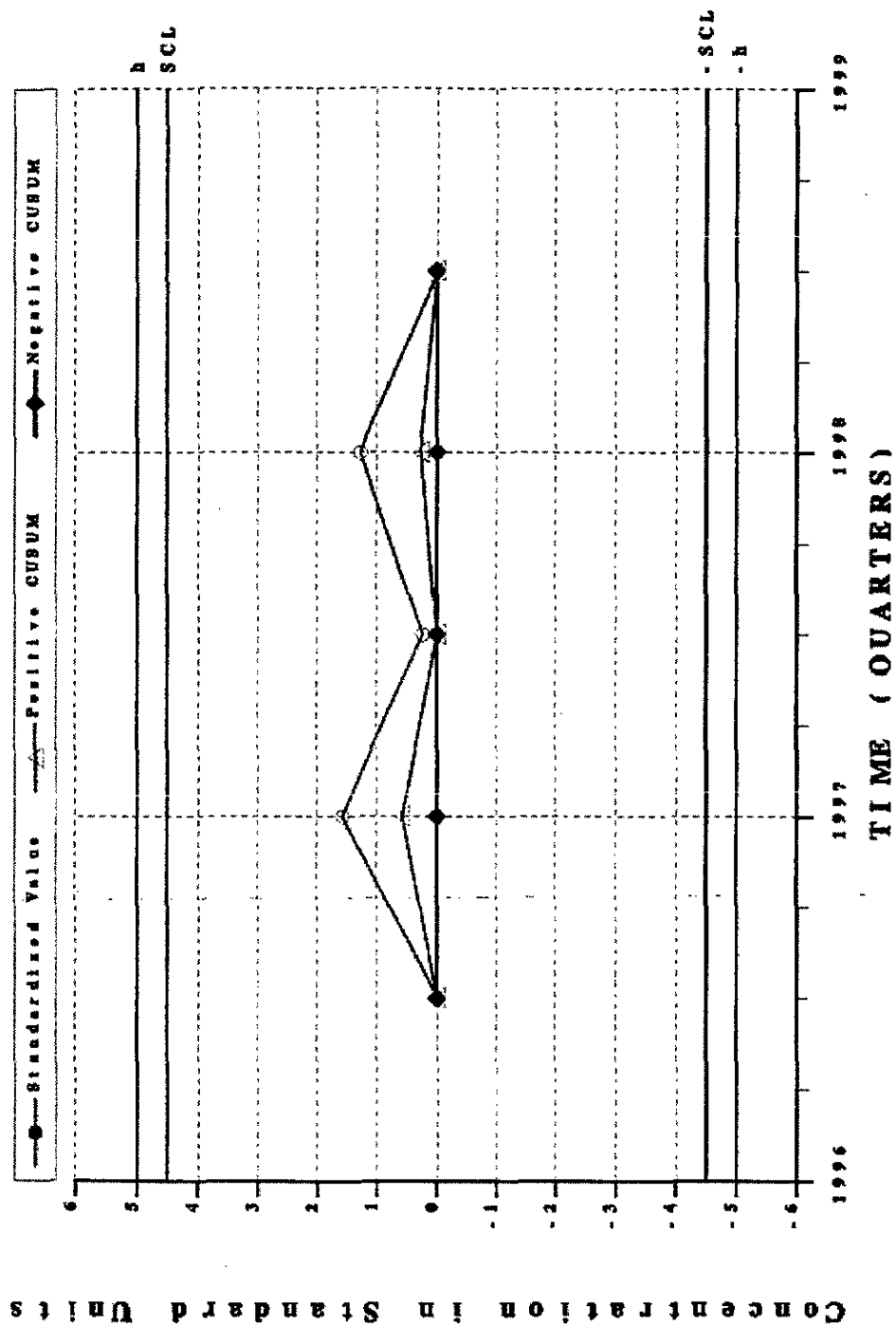


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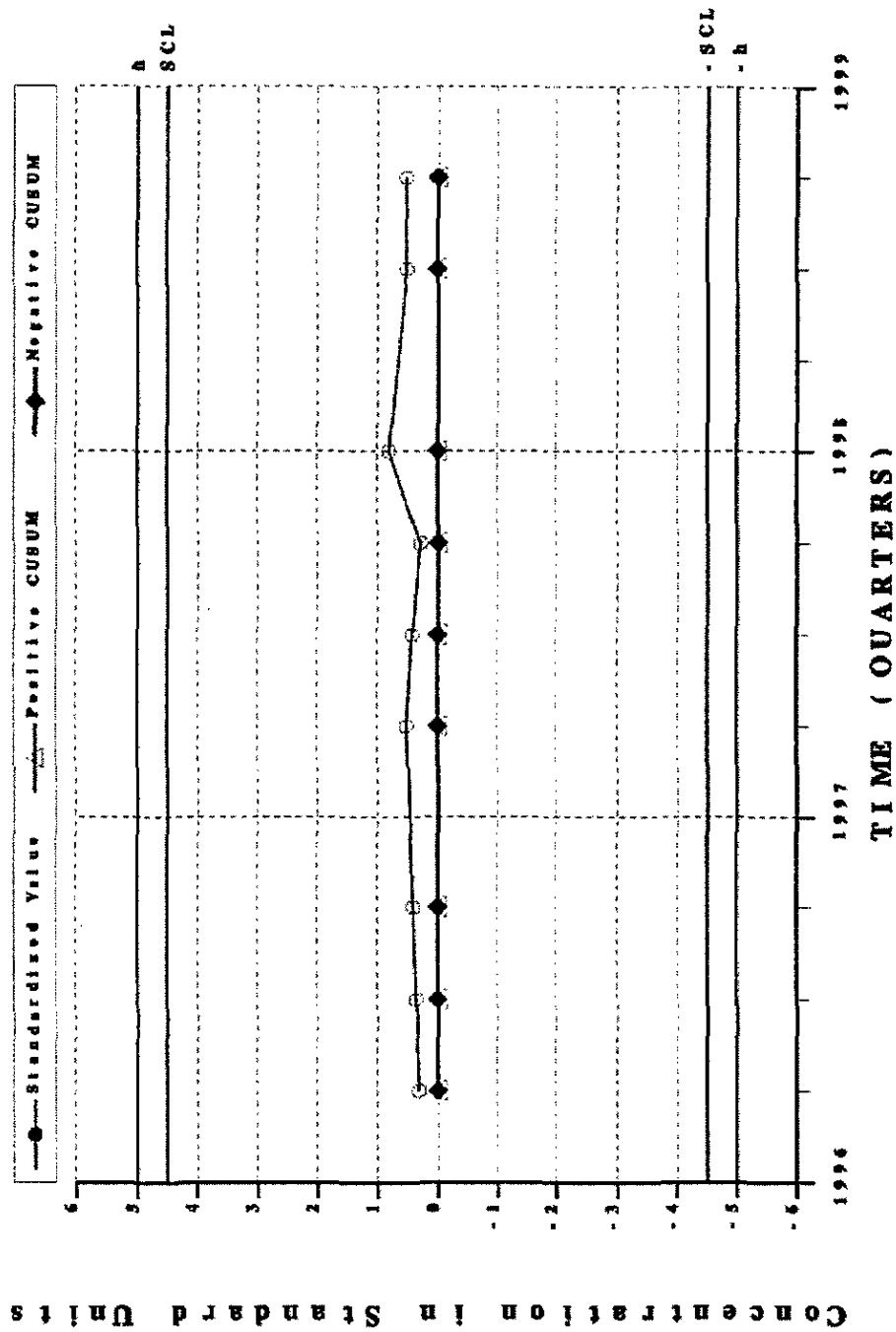




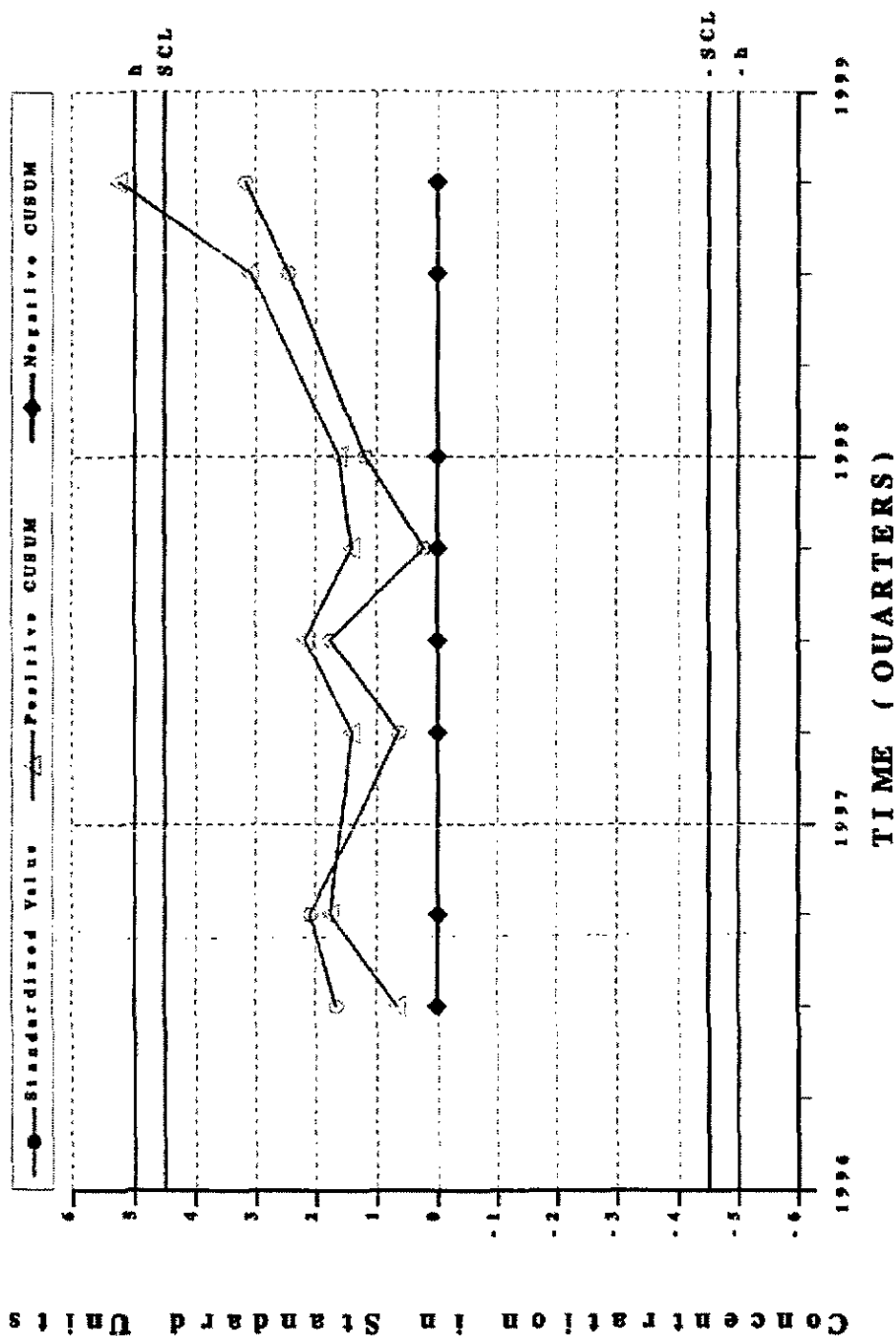
Combined Shewhart-CUSUM Control Chart
WELL HSB125D - Zinc, total recoverable



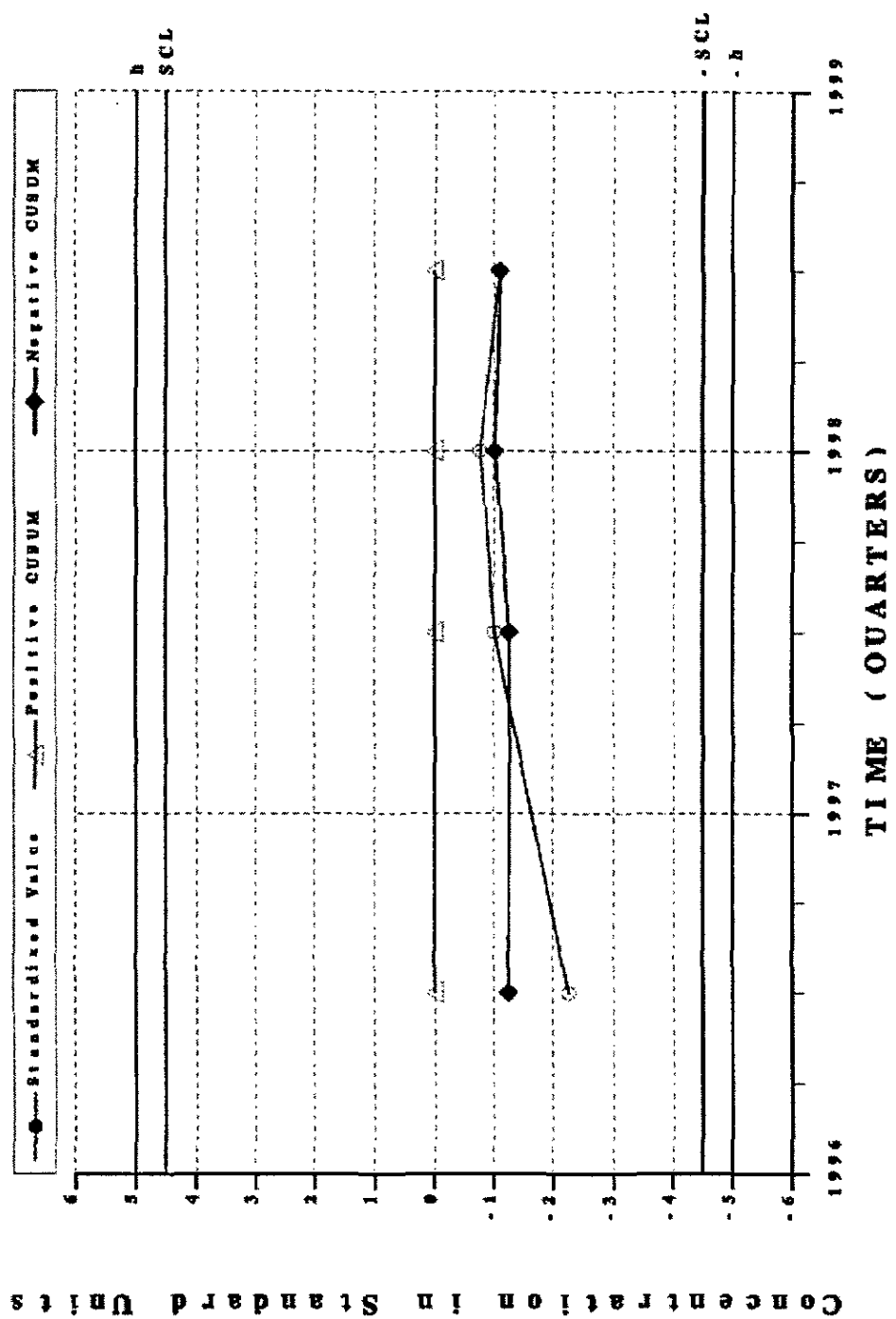
Combined Shewhart-CUSUM Control Chart
WELL HSB126C - Nitrate-nitrite as nitrogen



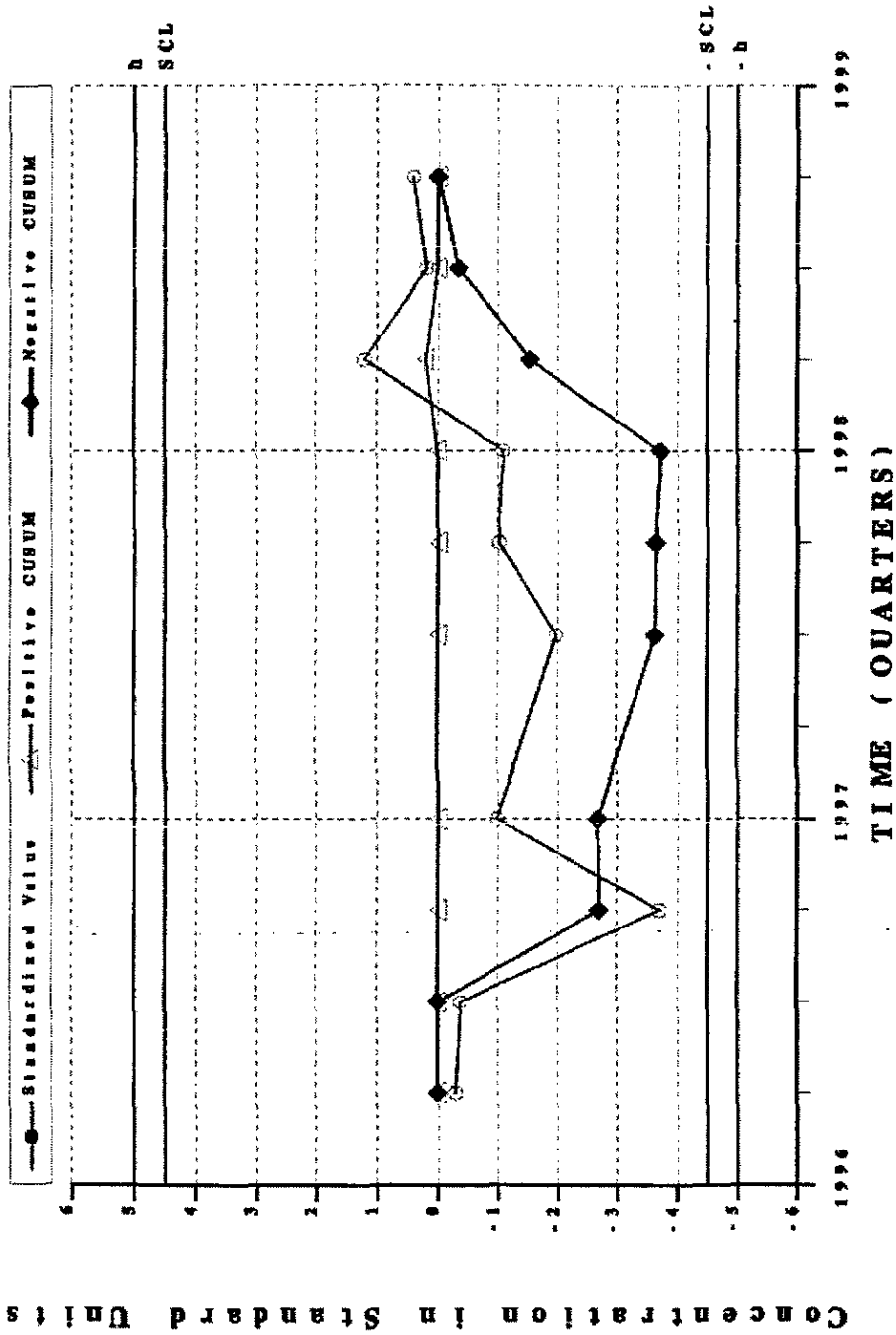
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WELL HSB126D - Nitrate-nitrite as nitrogen

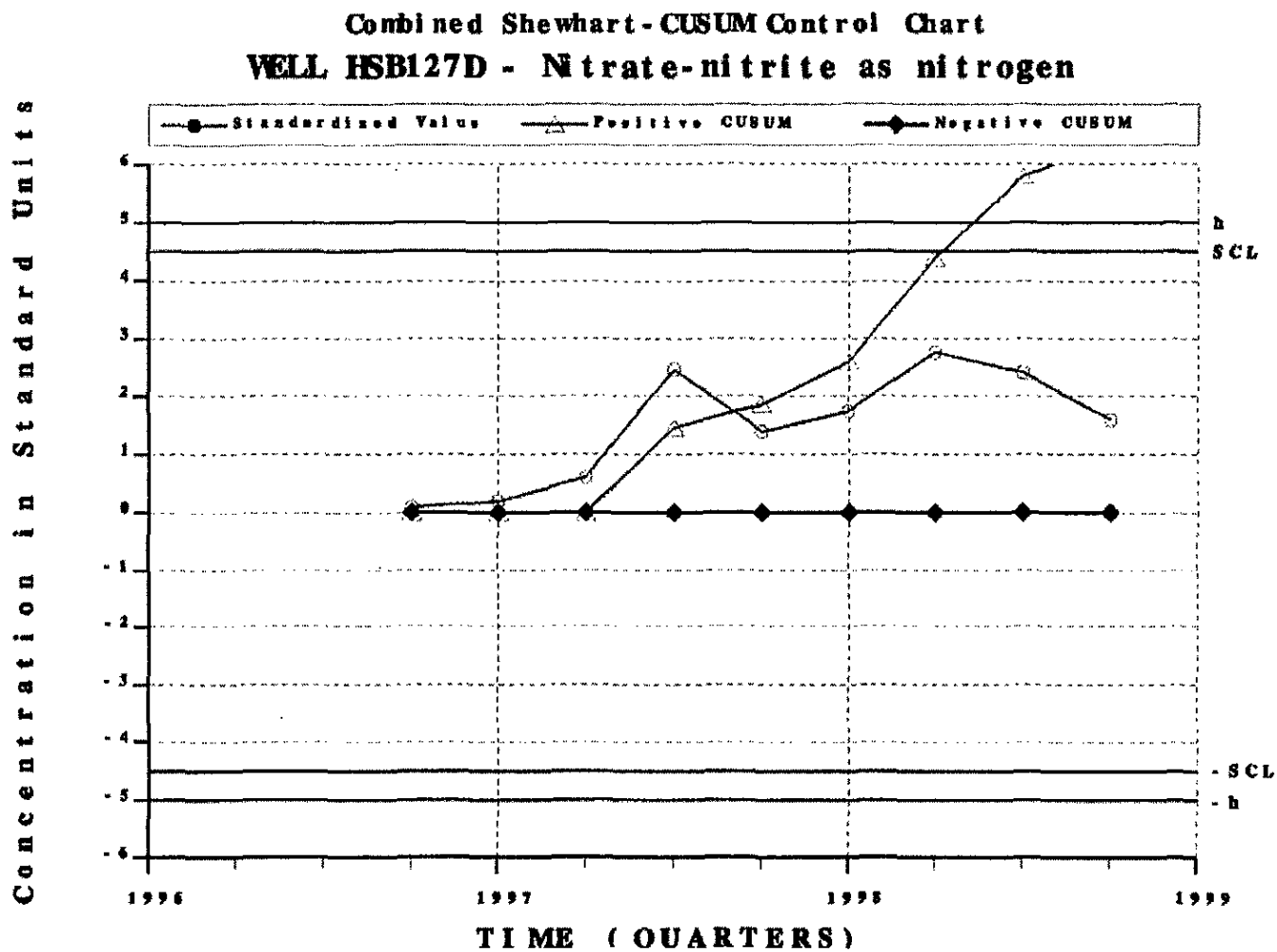


Combined Shewhart-CUSUM Control Chart
WELL HSB126D - Zinc, total recoverable

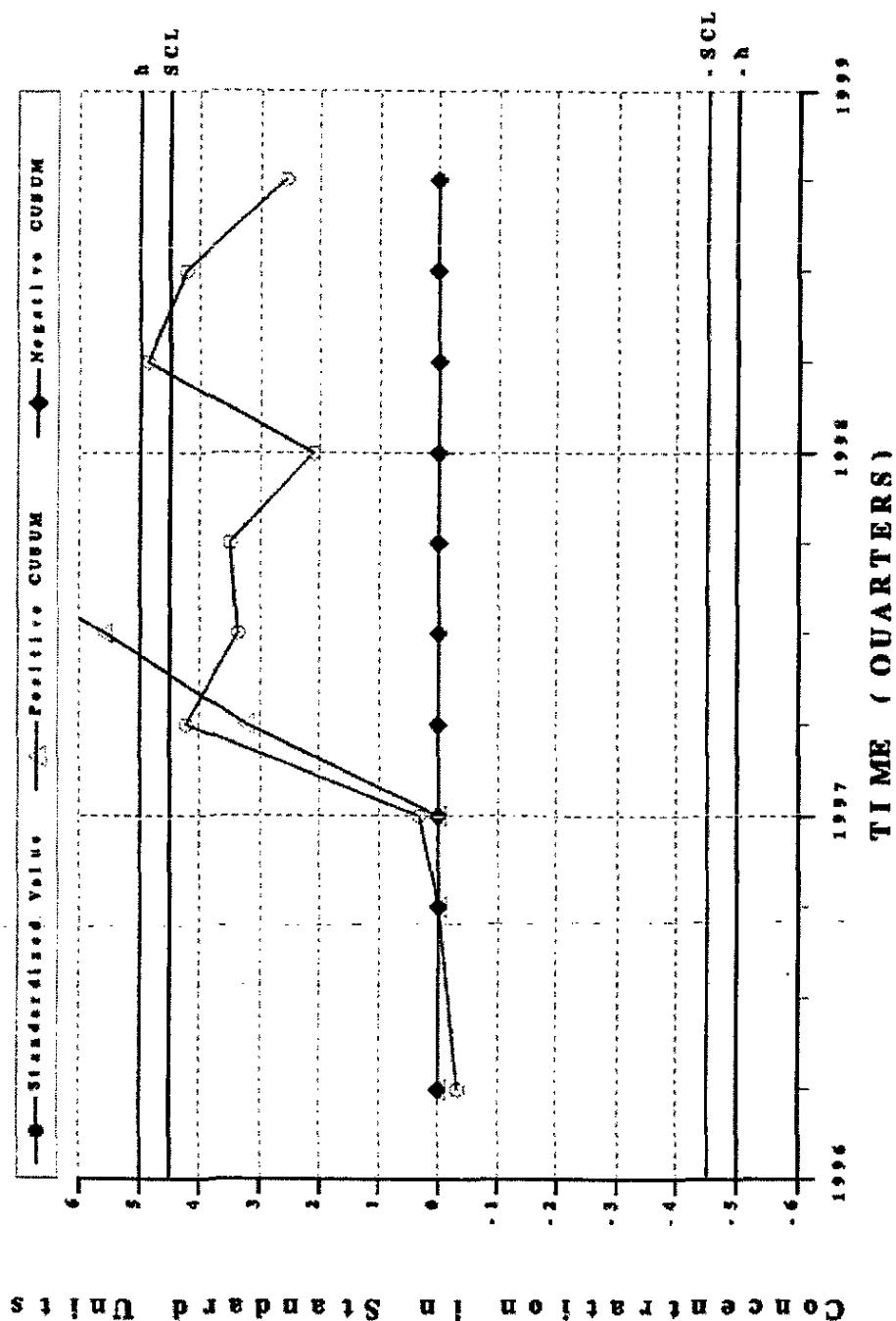


Combined Shewhart-CUSUM Control Chart
WELL HSB127C - Nitrate-nitrite as nitrogen

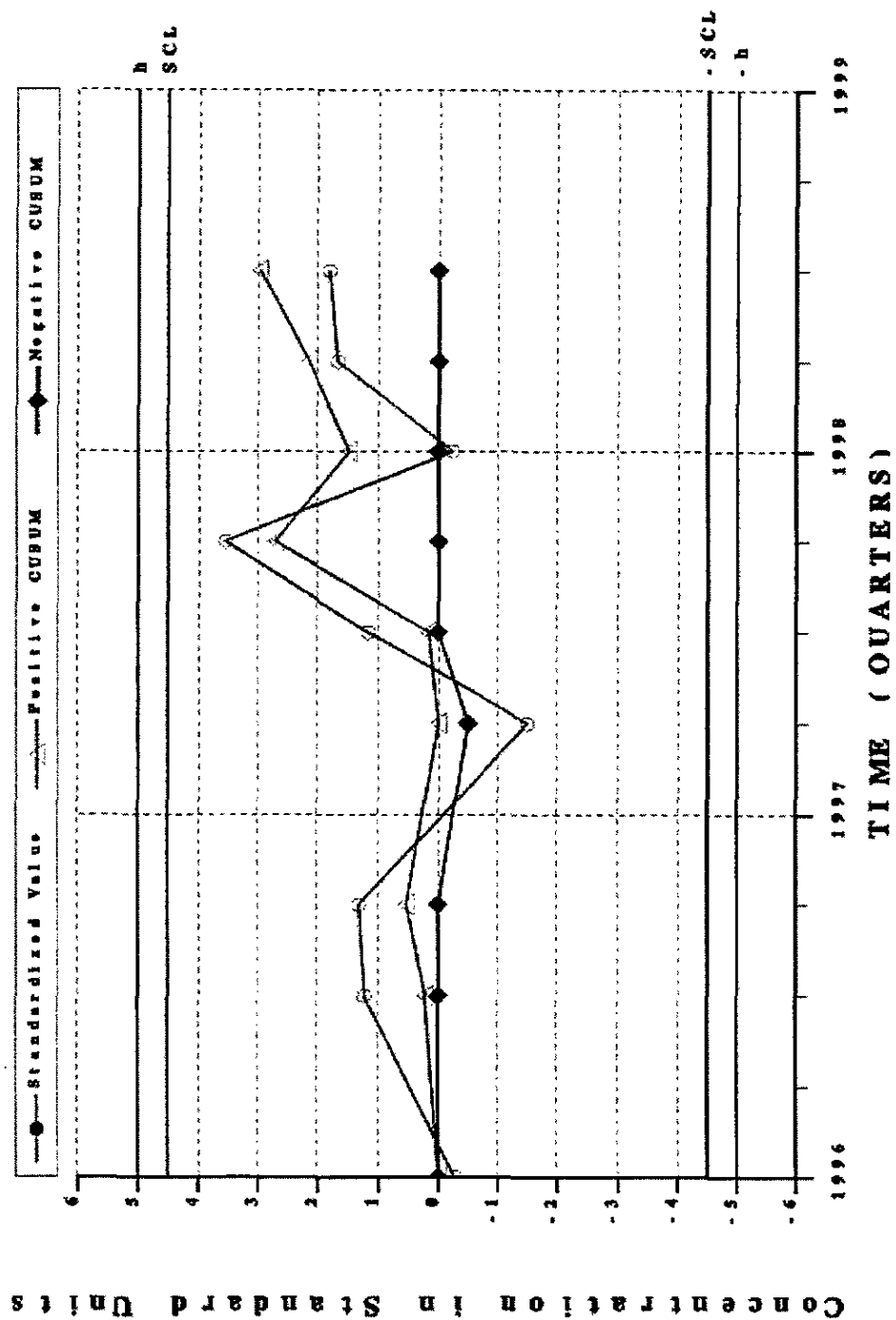




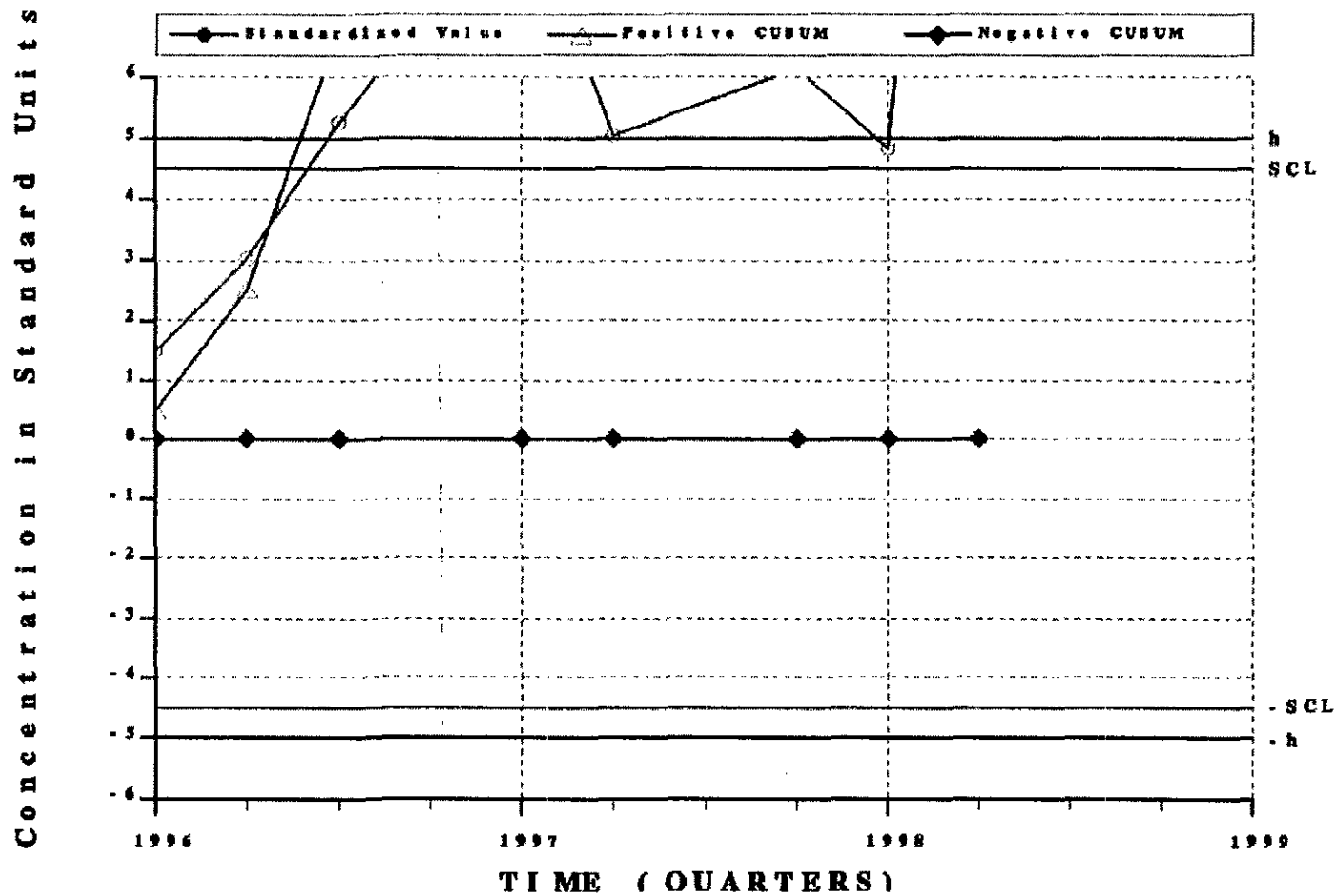
Combined Shewhart - CUSUM Control Chart
WELL HSB129C - Nitrate-nitrite as nitrogen

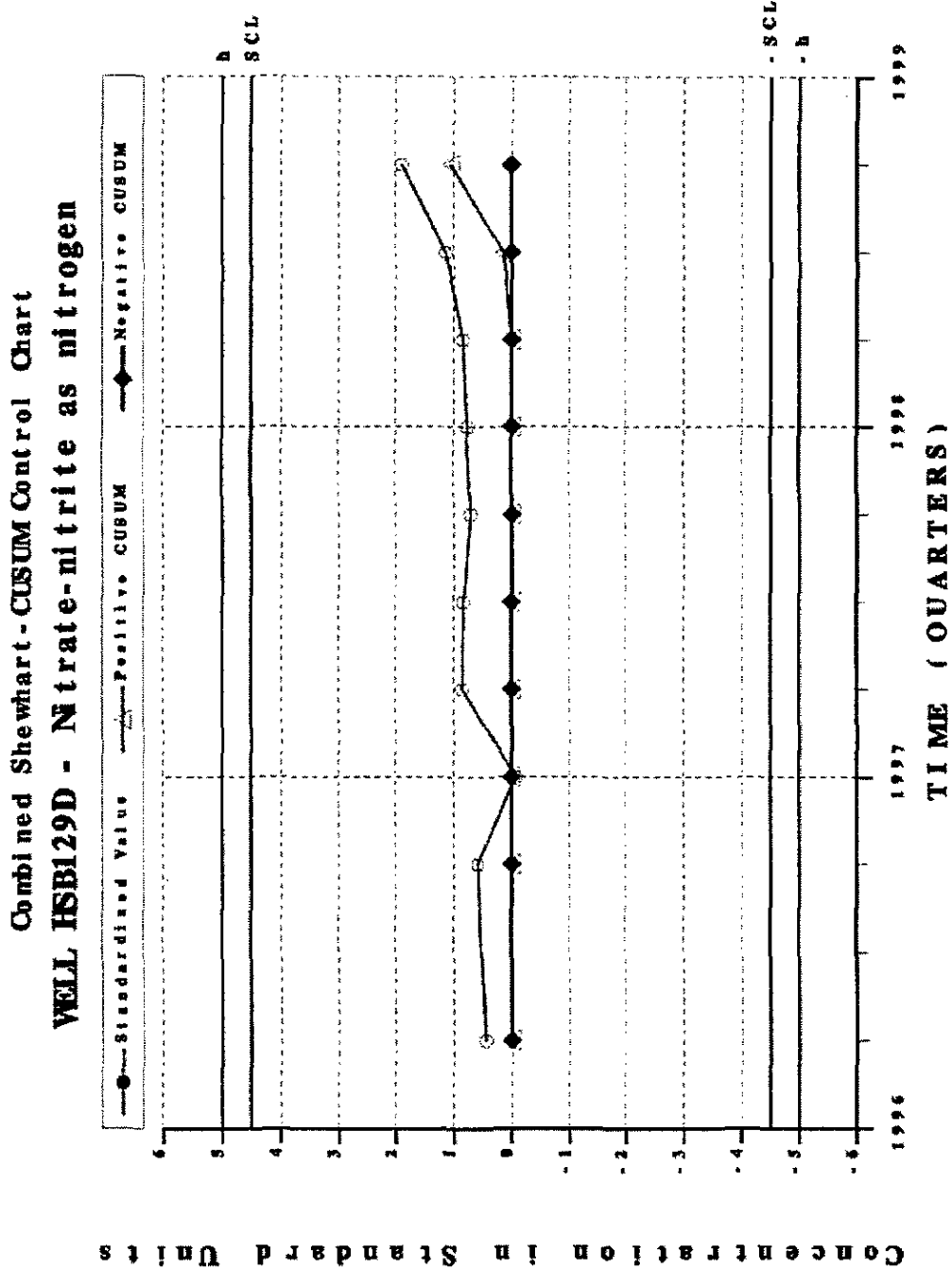


Combined Shewhart-CUSUM Control Chart WELL HSB129D - Gross alpha

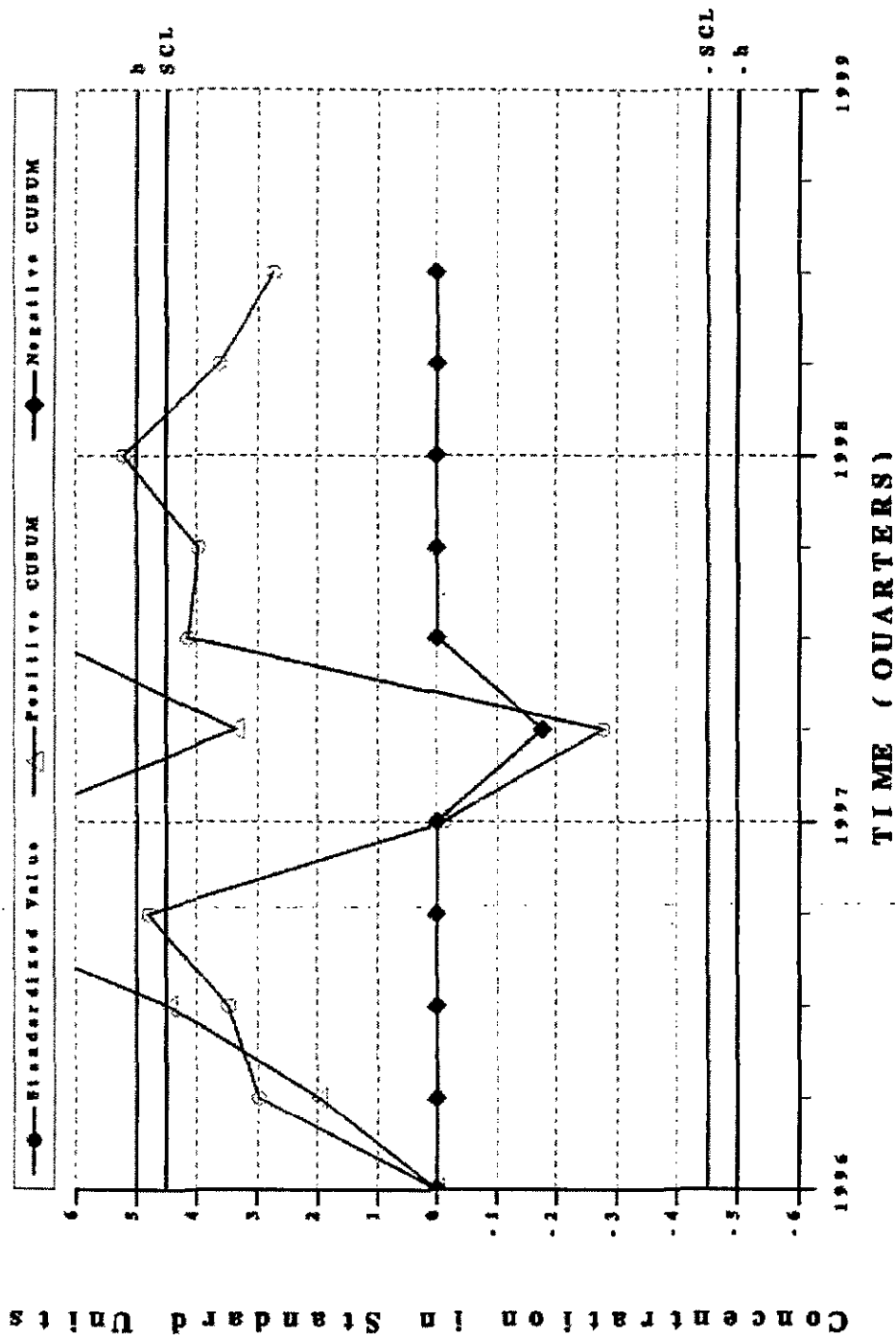


Combined Shewhart-CUSUM Control Chart
WELL HSB129D - Mercury, total recoverable

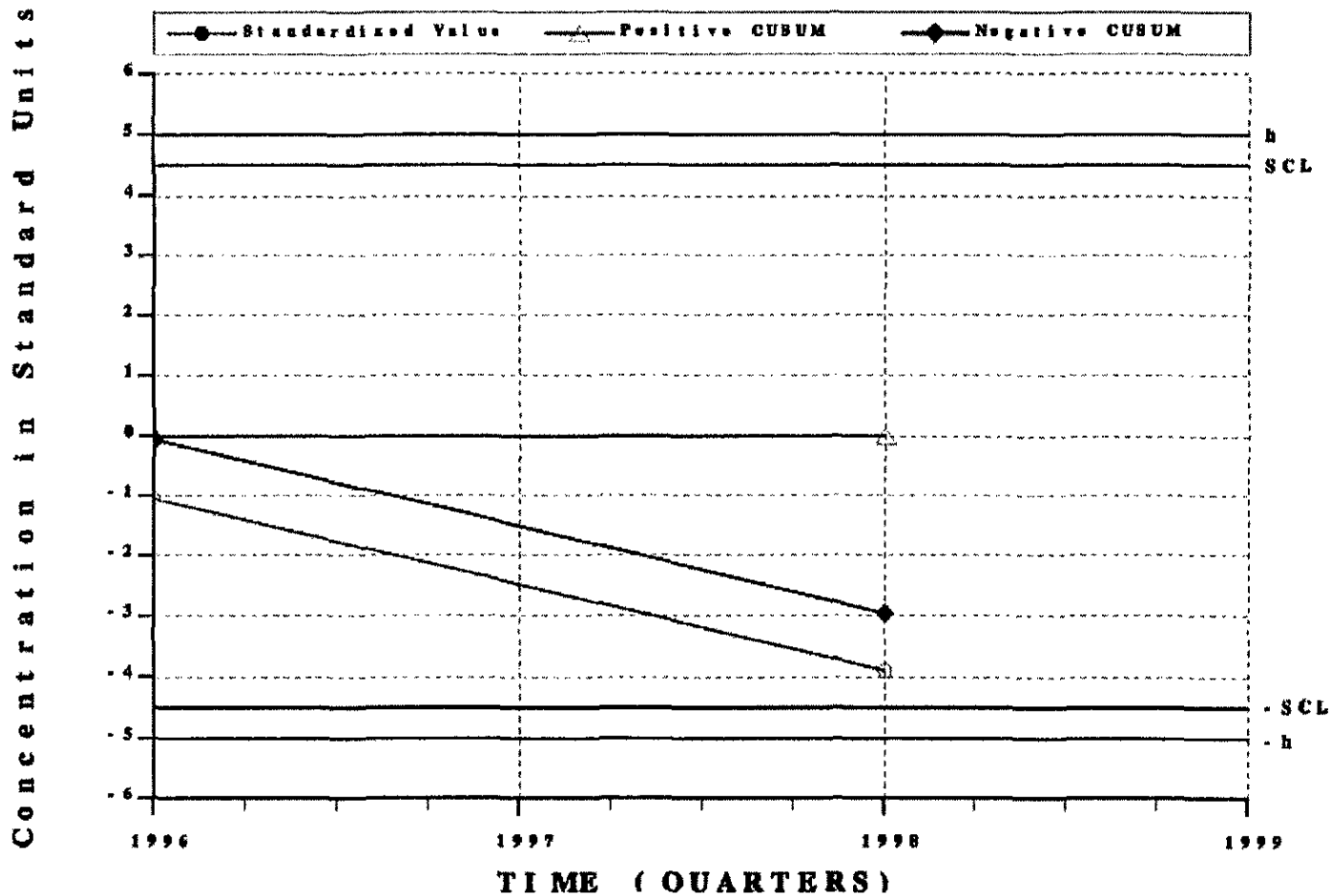




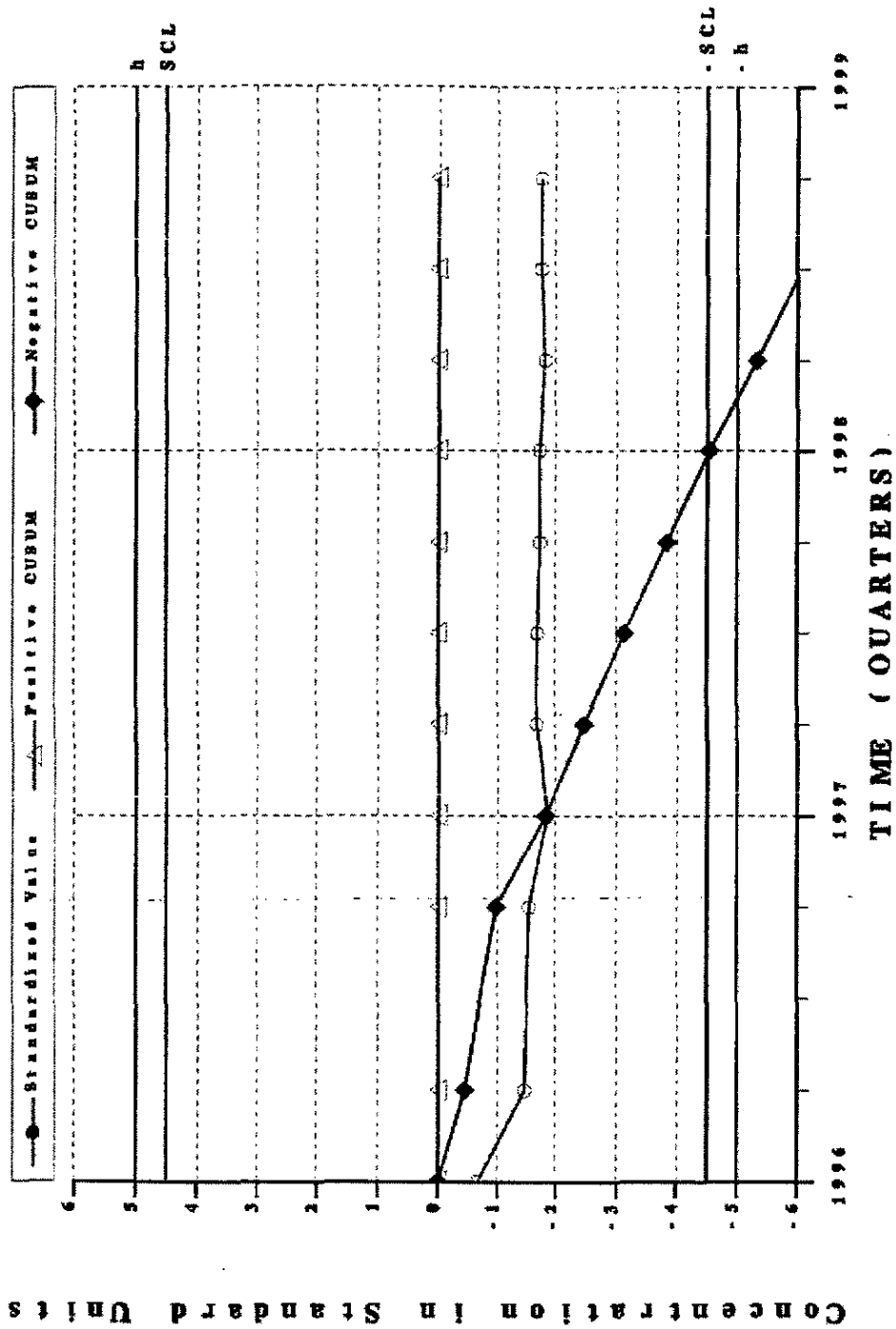
Combined Shewhart-CUSUM Control Chart WELL HSB129D - Nonvolatile beta

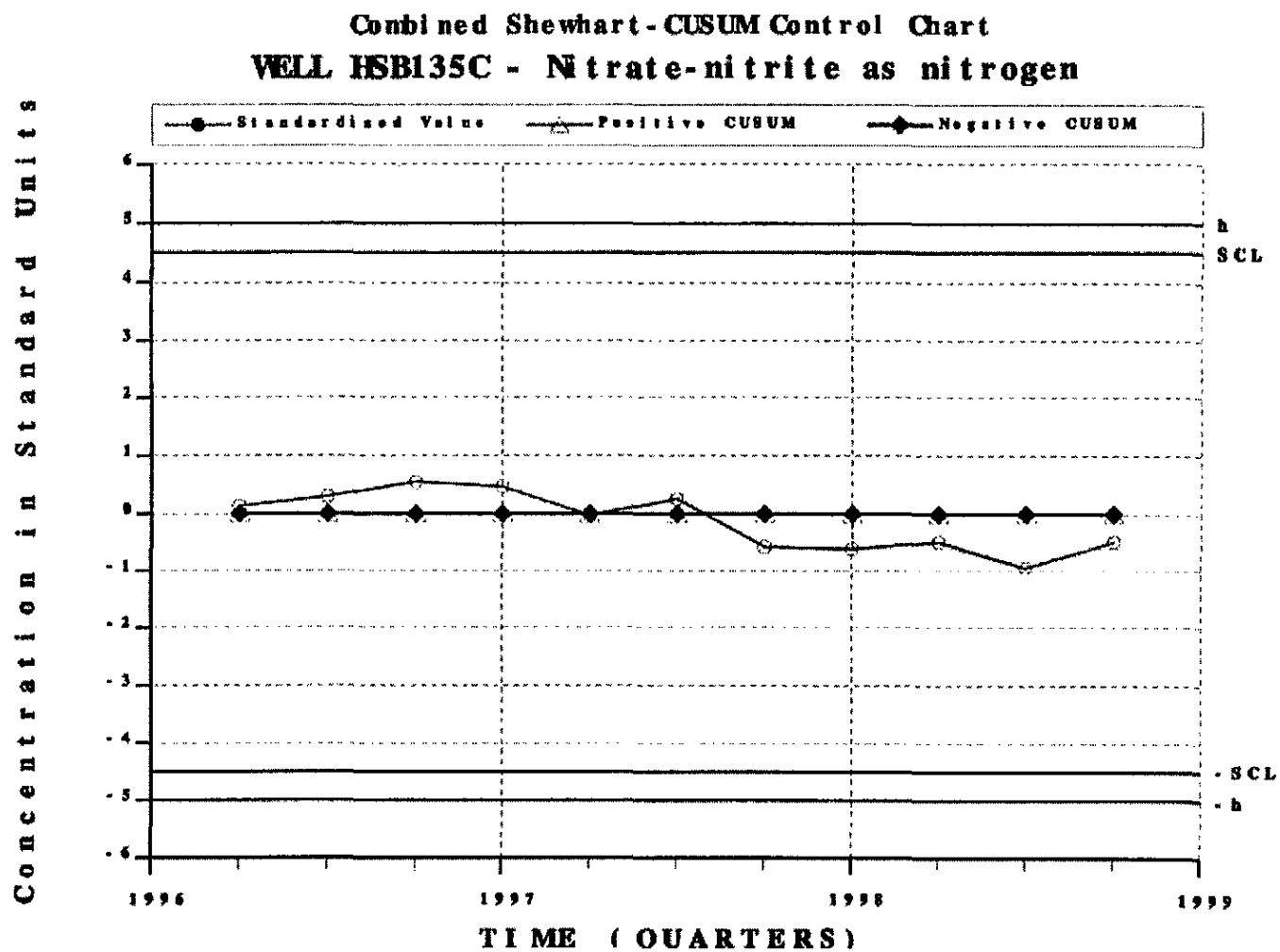


Combined Shewhart - CUSUM Control Chart
WELL HSB129D - Radium-226

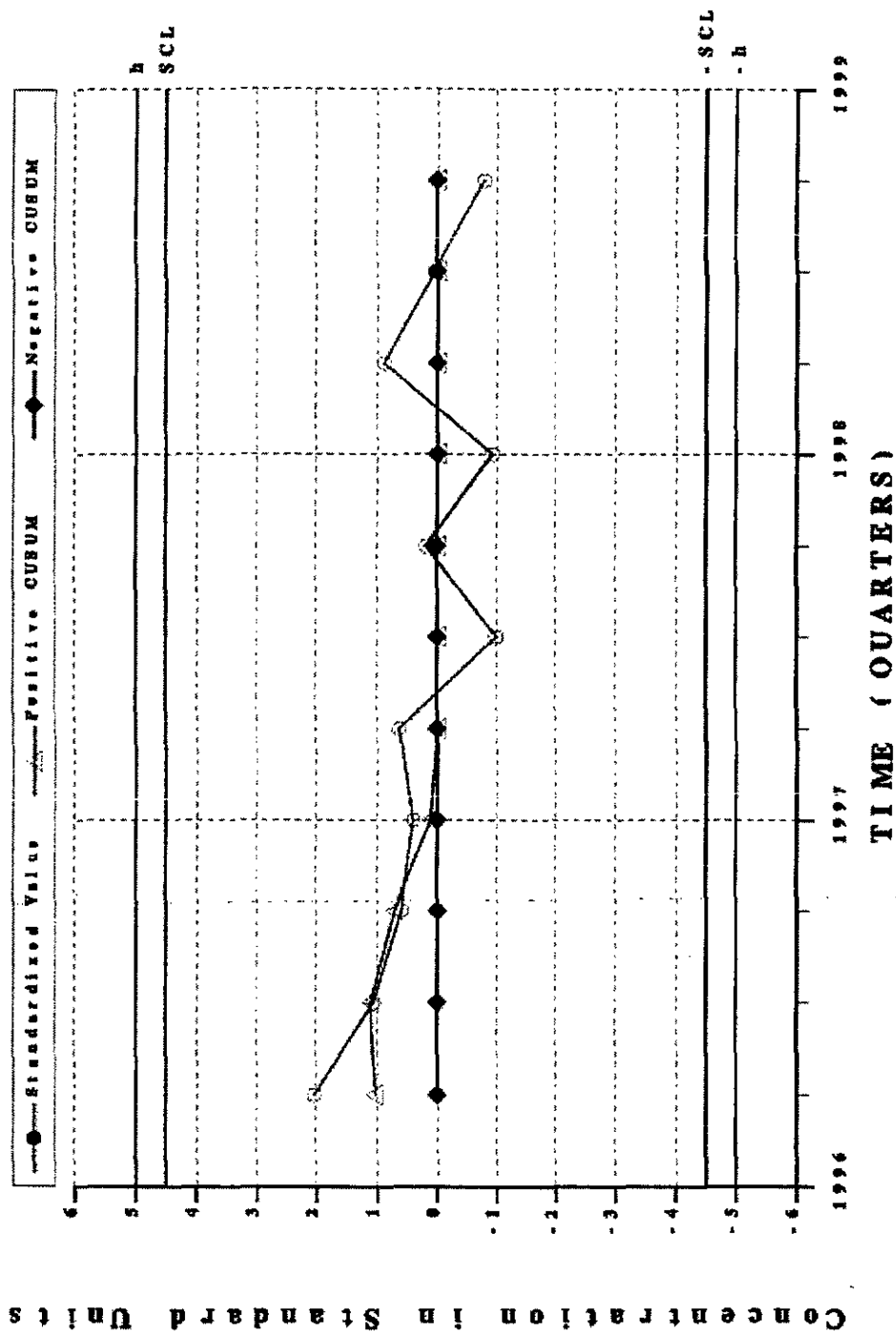


Combined Shewhart-CUSUM Control Chart WEL HSB129D - Tritium

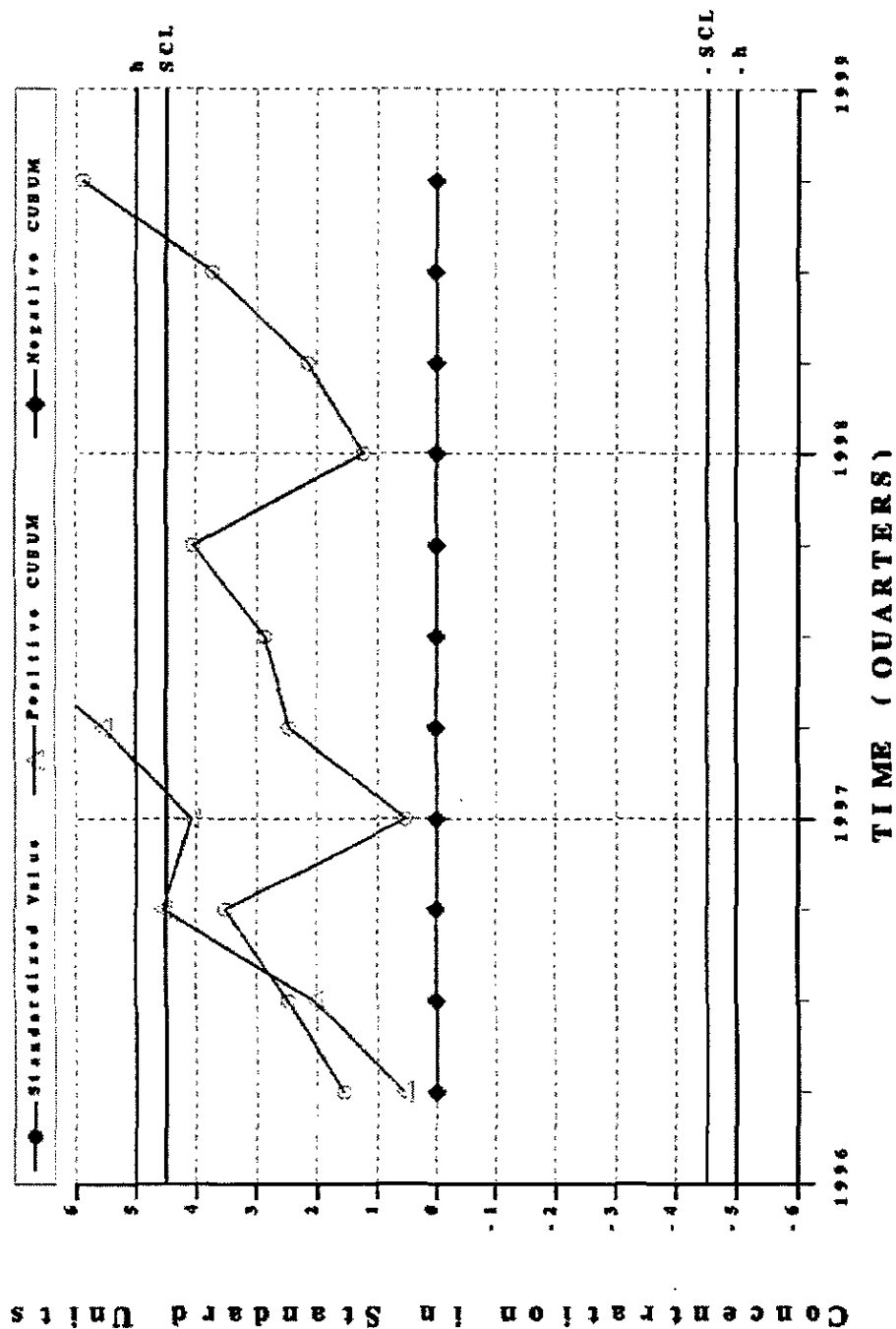




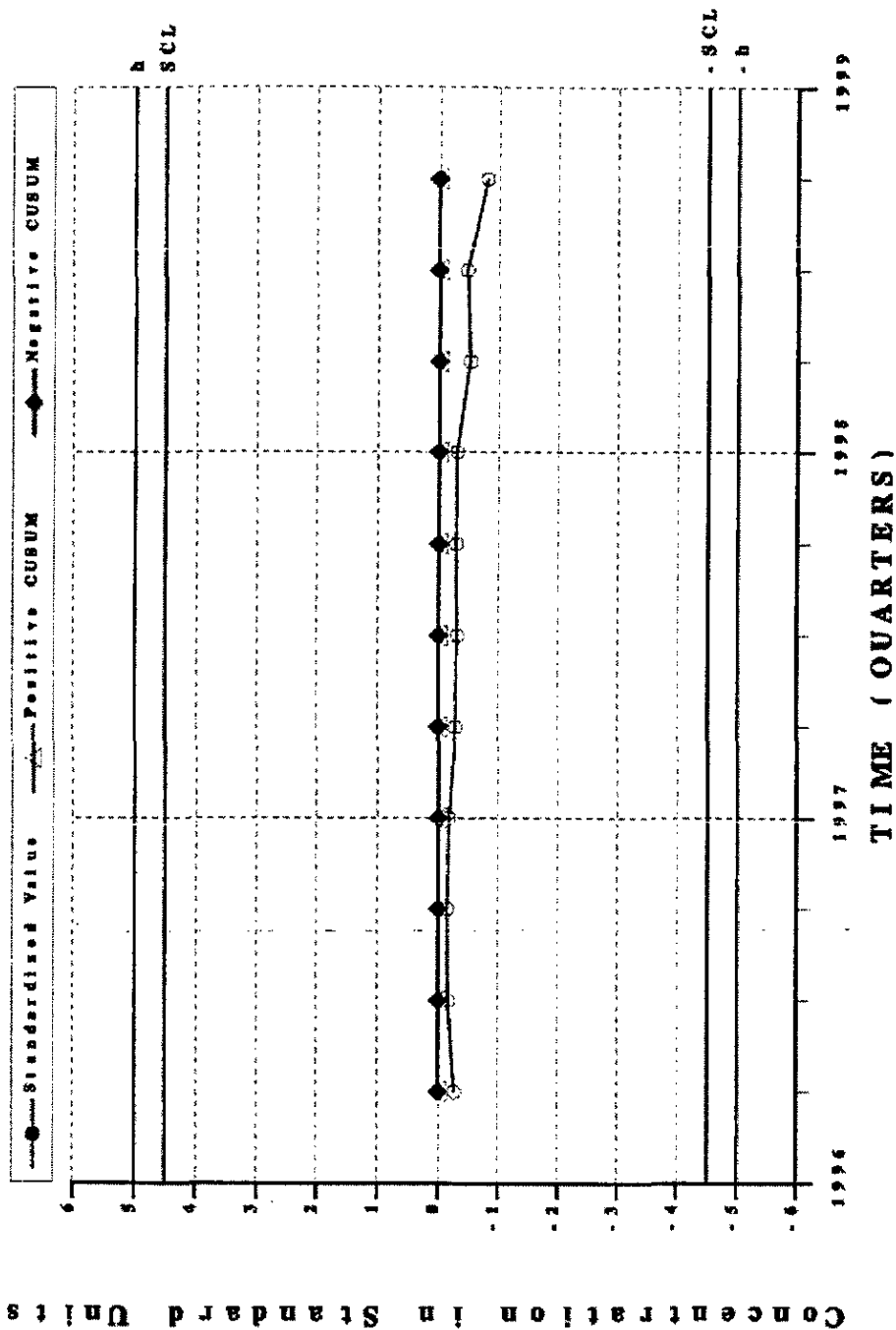
Combined Shewhart-CUSUM Control Chart
WELL HSB135C - Nonvolatile beta



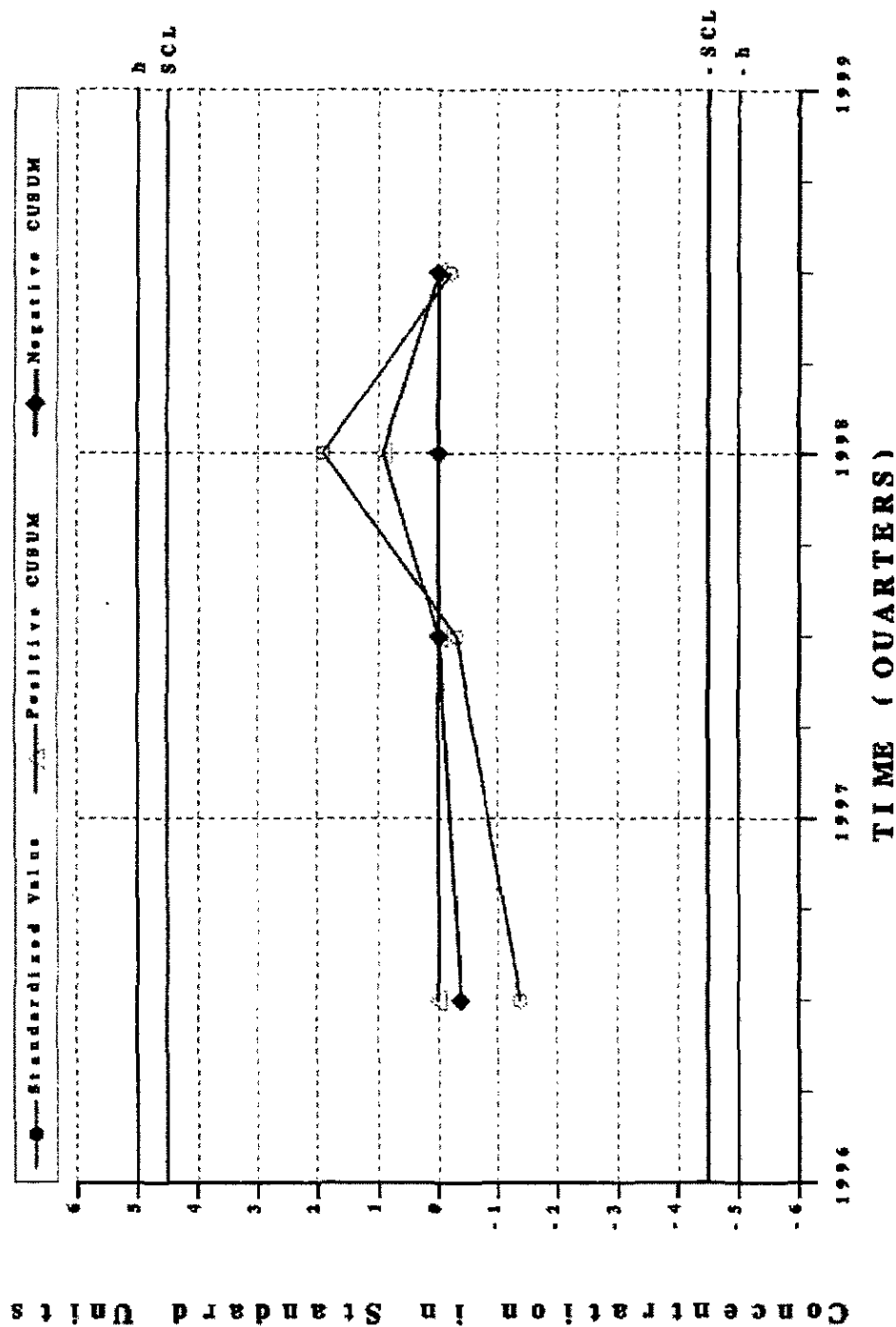
Combined Shewhart - CUSUM Control Chart
WELL HSB135D - Nitrate-nitrite as nitrogen



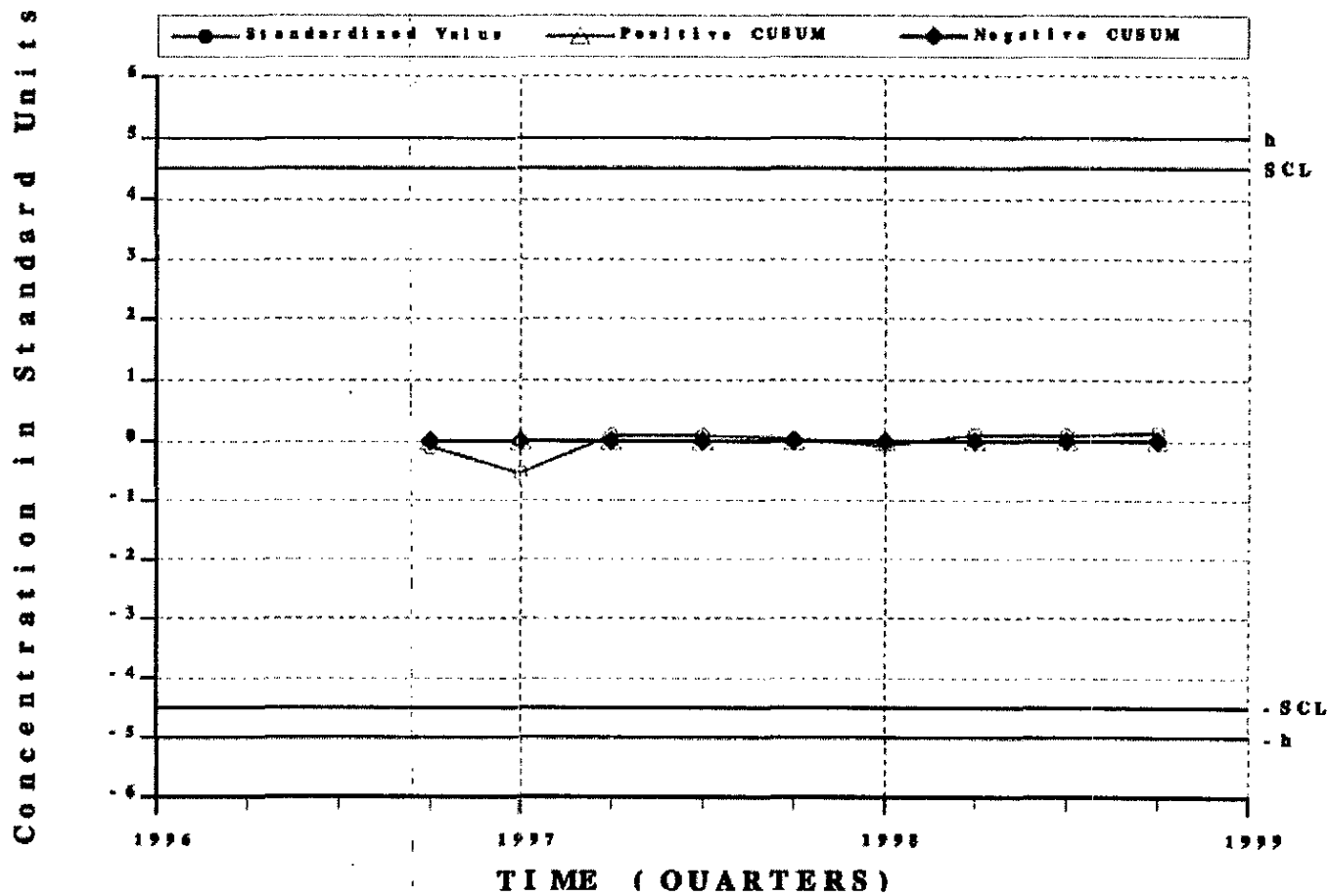
Combined Shewhart-CUSUM Control Chart
WELL HSB136C - Nitrate-nitrite as nitrogen



Combined Shewhart-CUSUM Control Chart
WELL HSB136C - Zinc, total recoverable

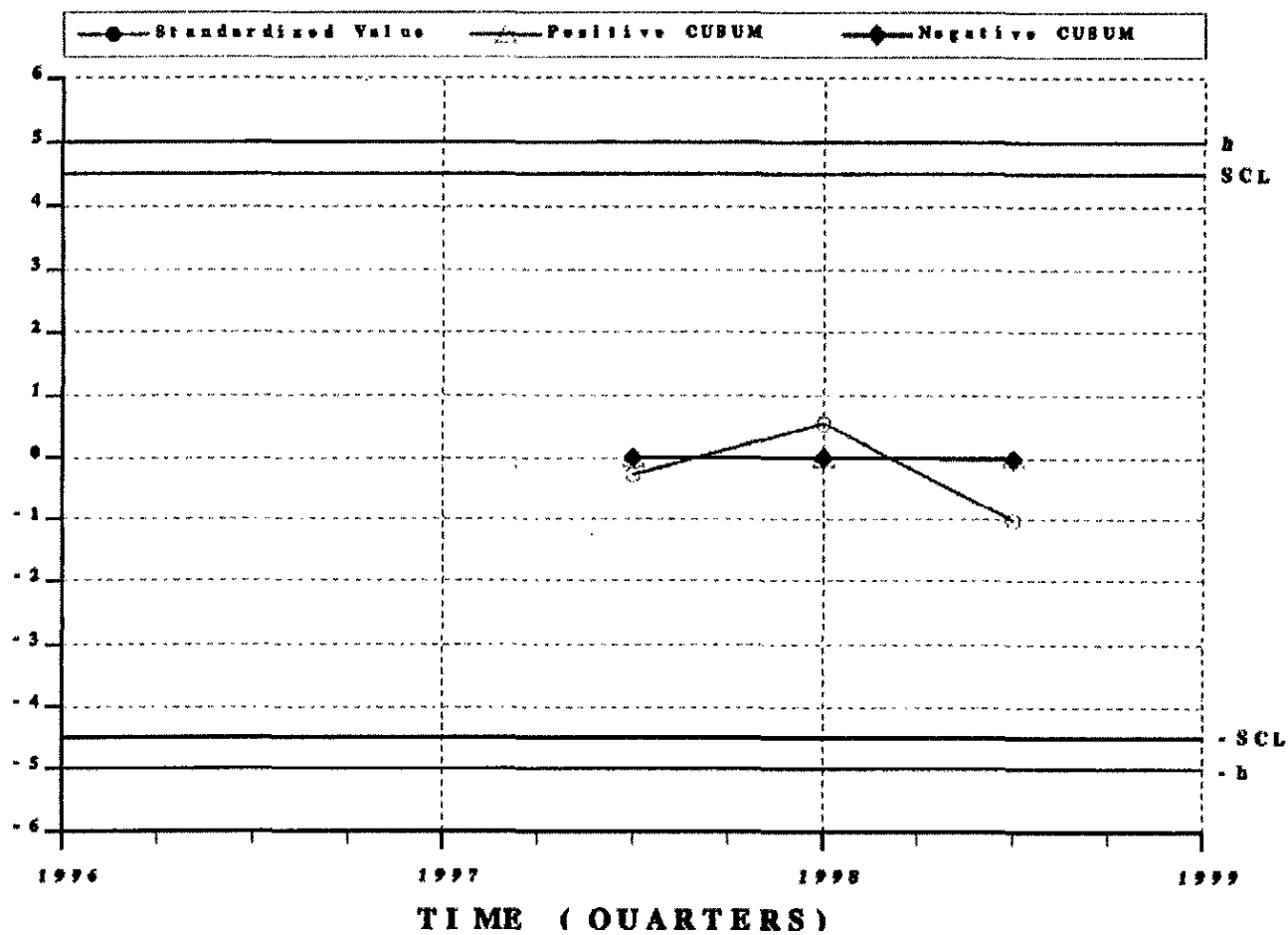


Combined Shewhart-CUSUM Control Chart
WELL HSB136D - Nitrate-nitrite as nitrogen

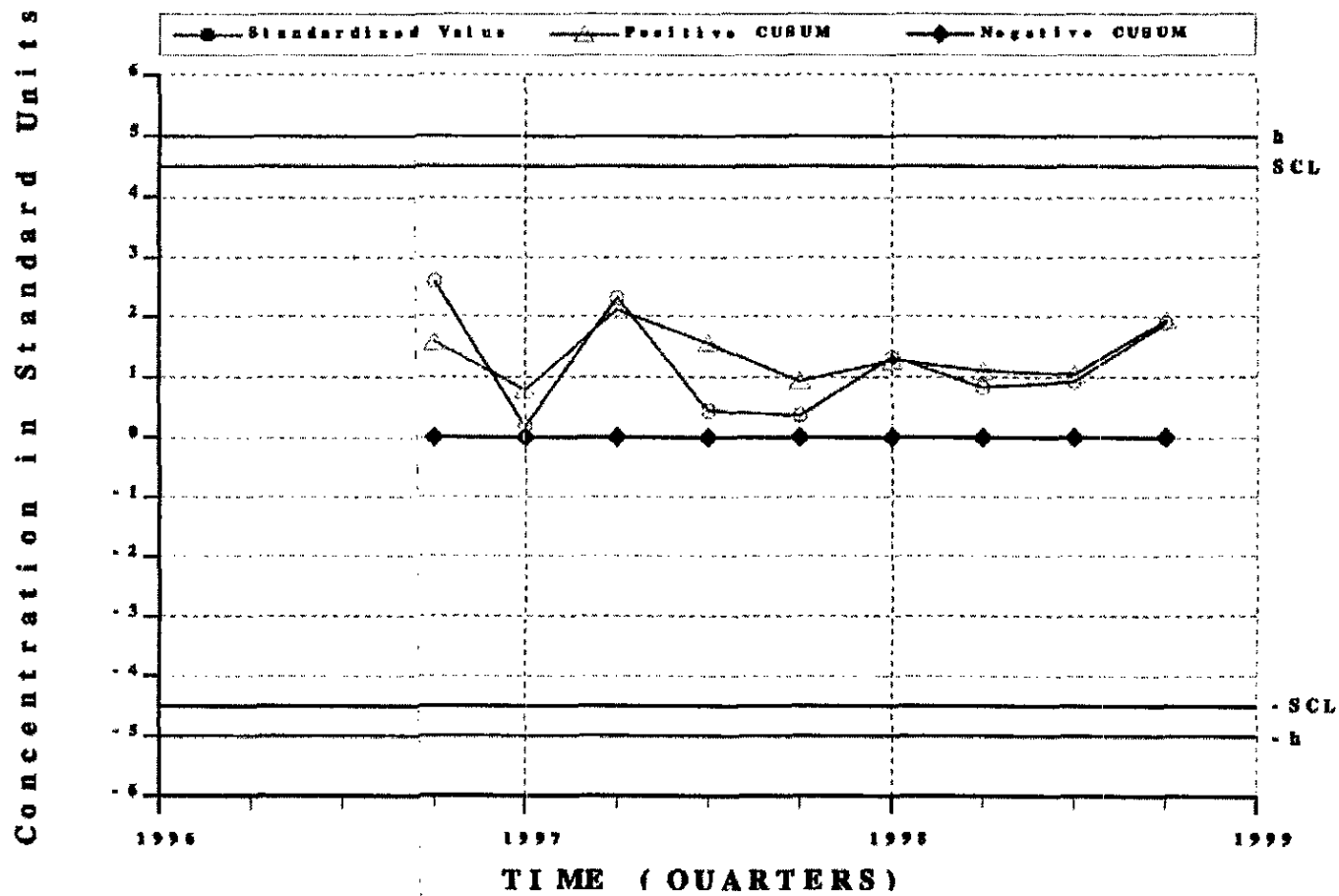


Concentration in Standard Units

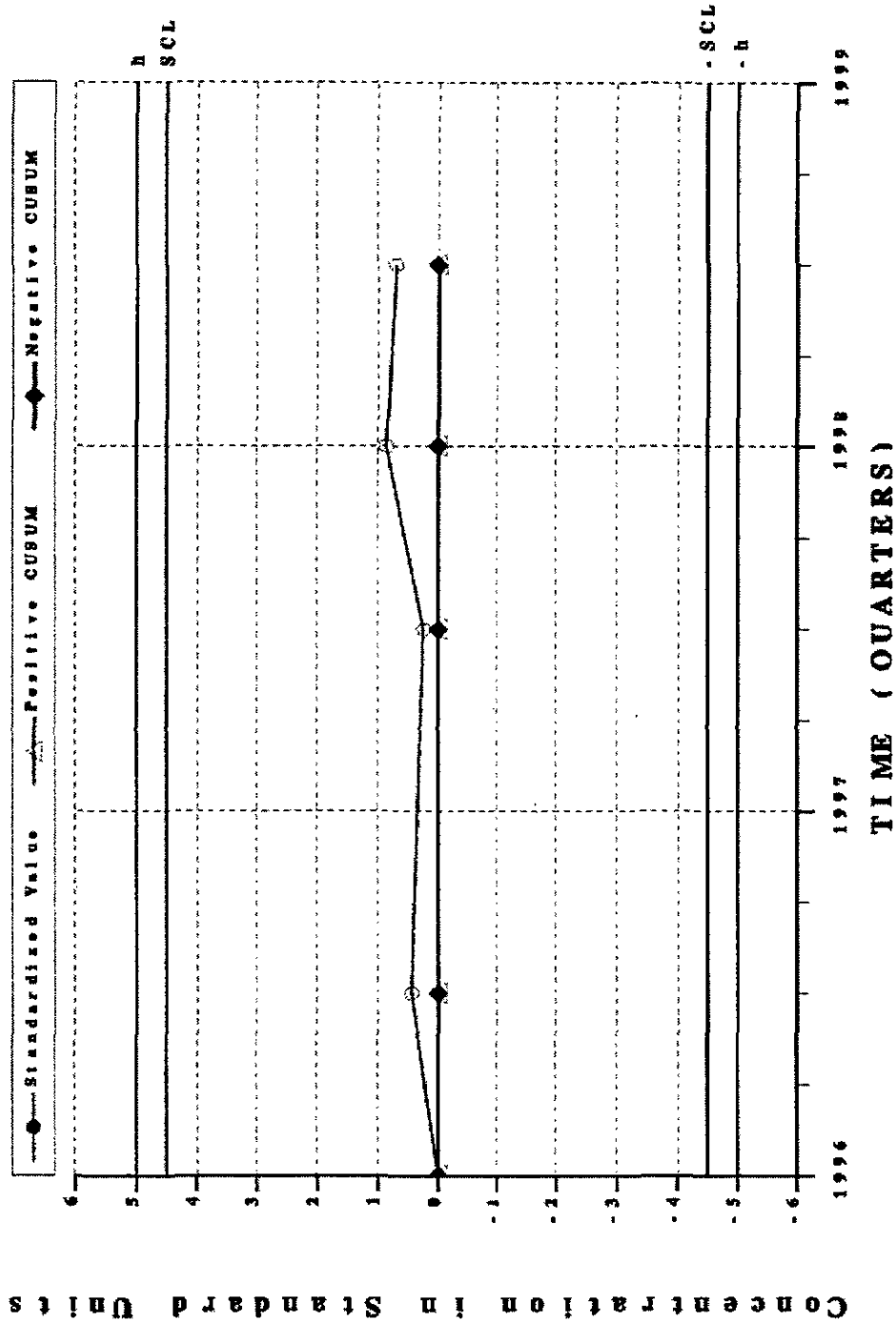
Combined Shewhart-CUSUM Control Chart
WELL HSB136D - Zinc, total recoverable



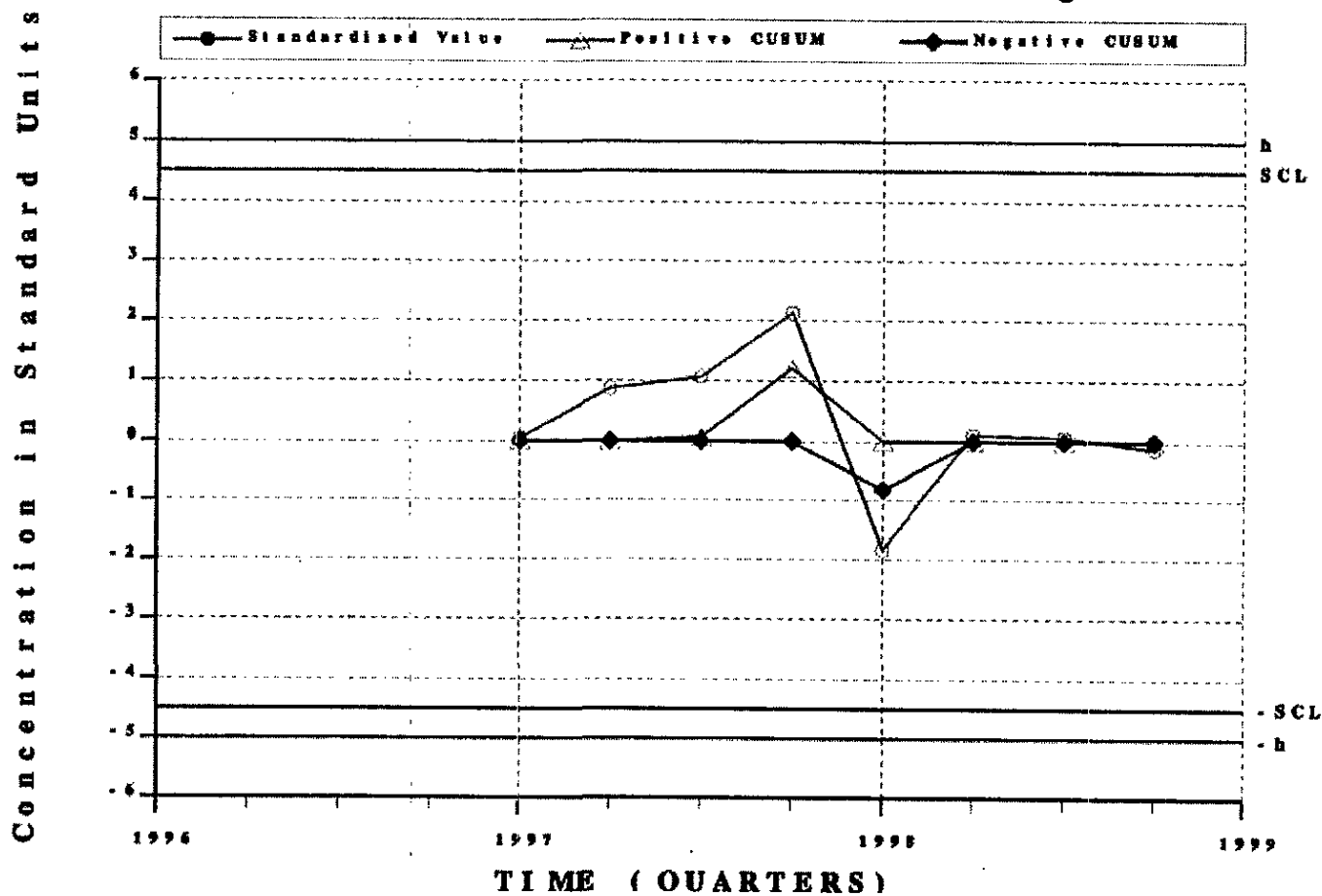
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WELL HSB137C - Nitrate-nitrite as nitrogen

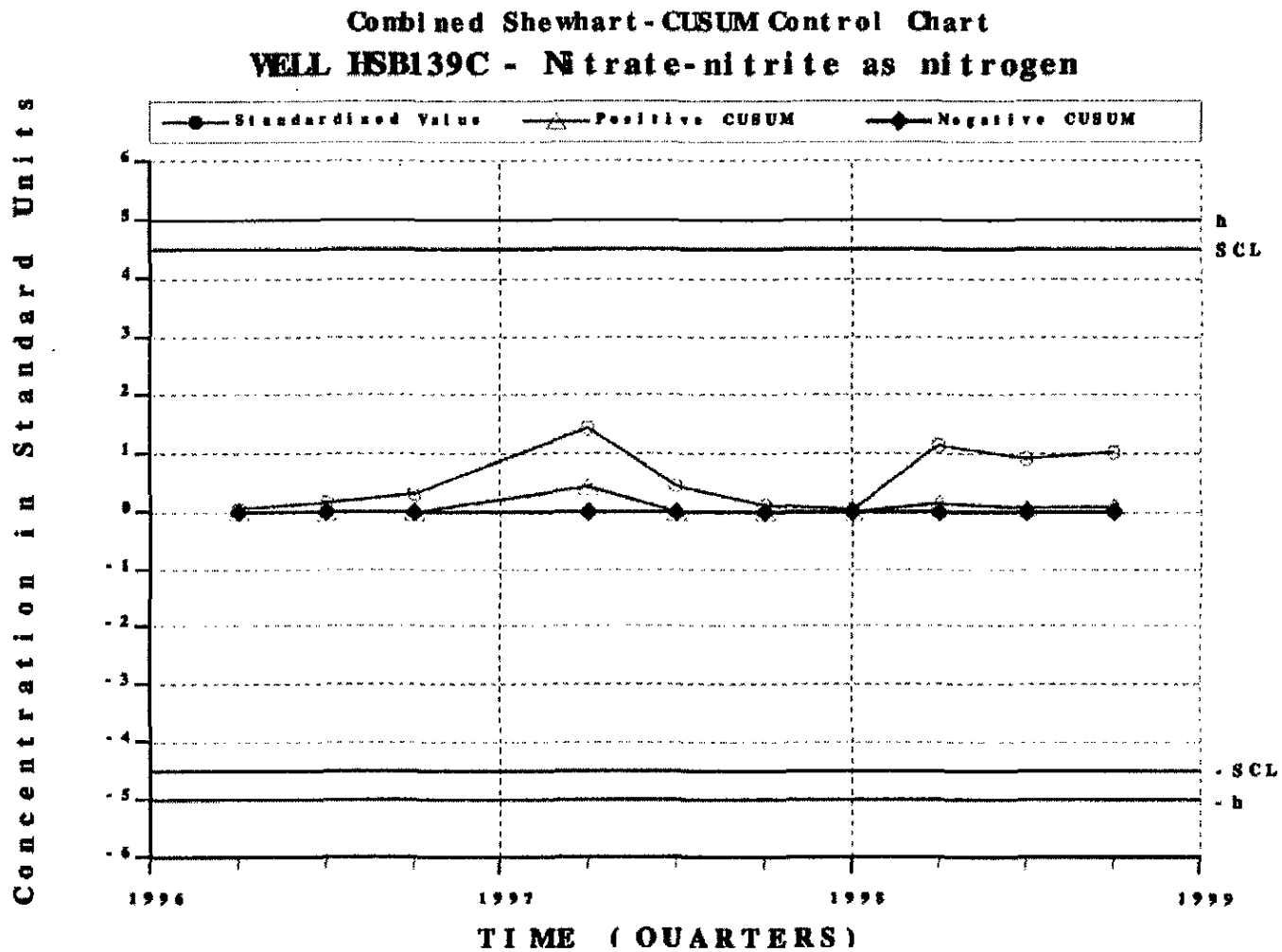


Combined Shewhart-CUSUM Control Chart
WELL HSB137C - Zinc, total recoverable

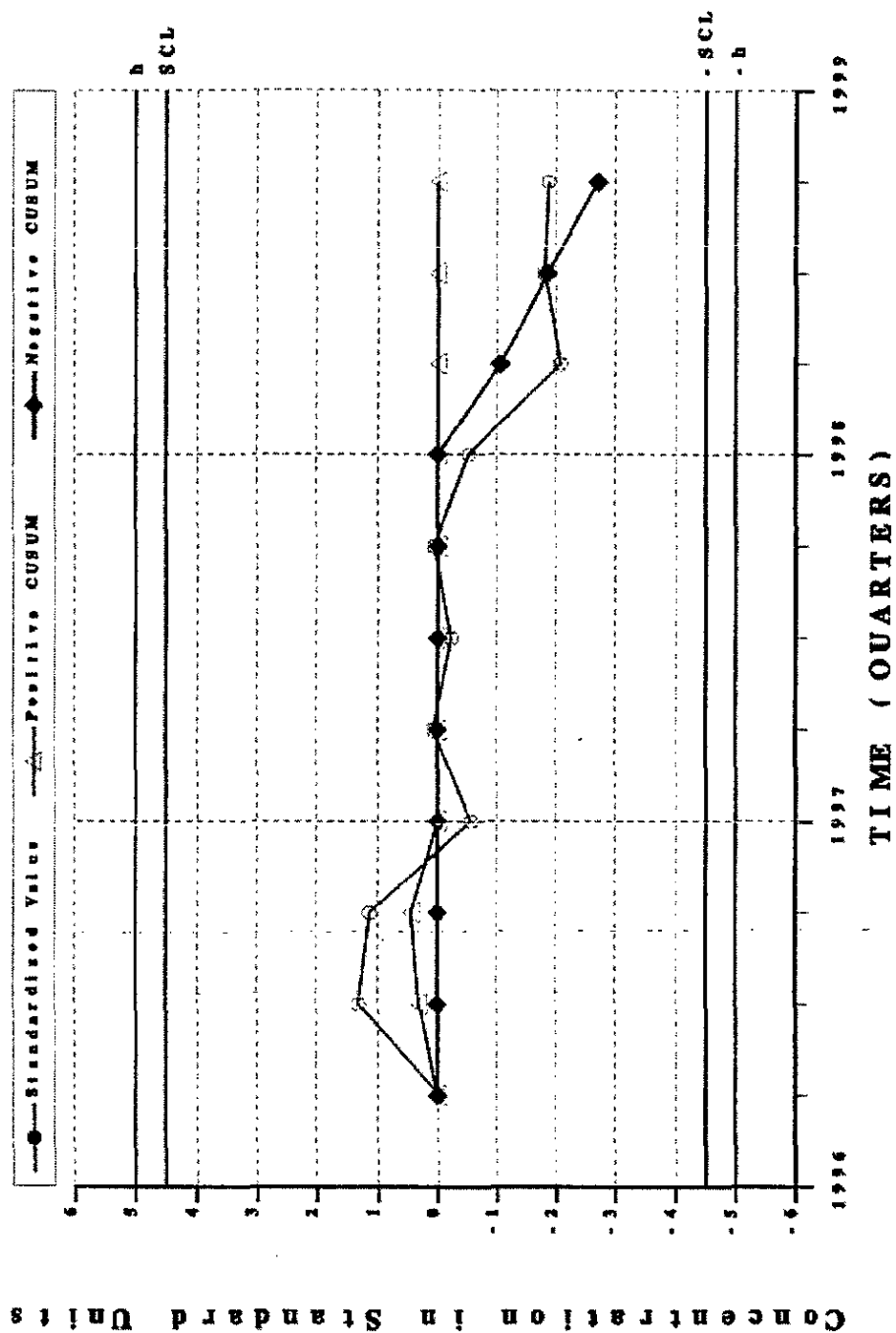


Combined Shewhart-CUSUM Control Chart
WELL HSB137D - Nitrate-nitrite as nitrogen

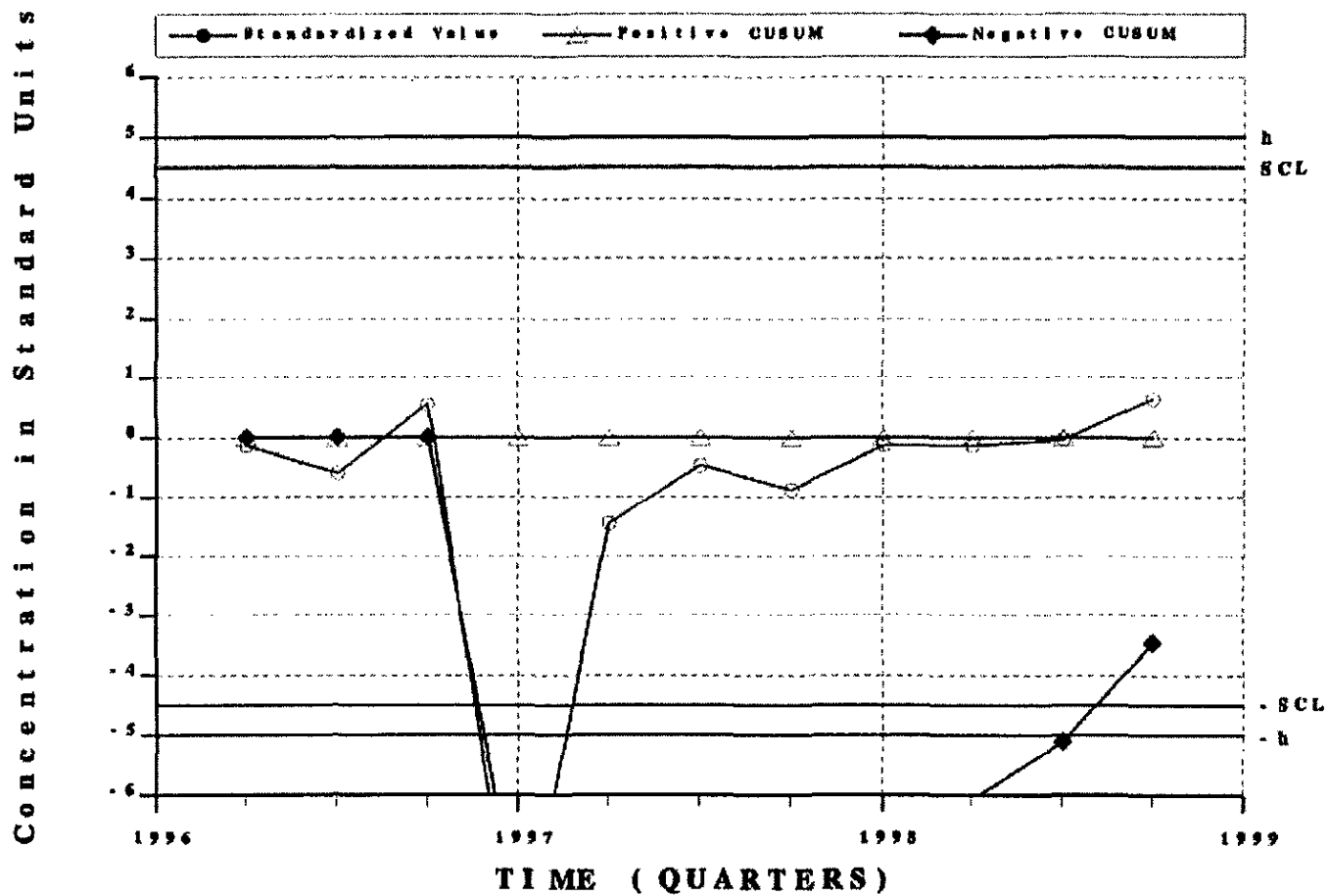




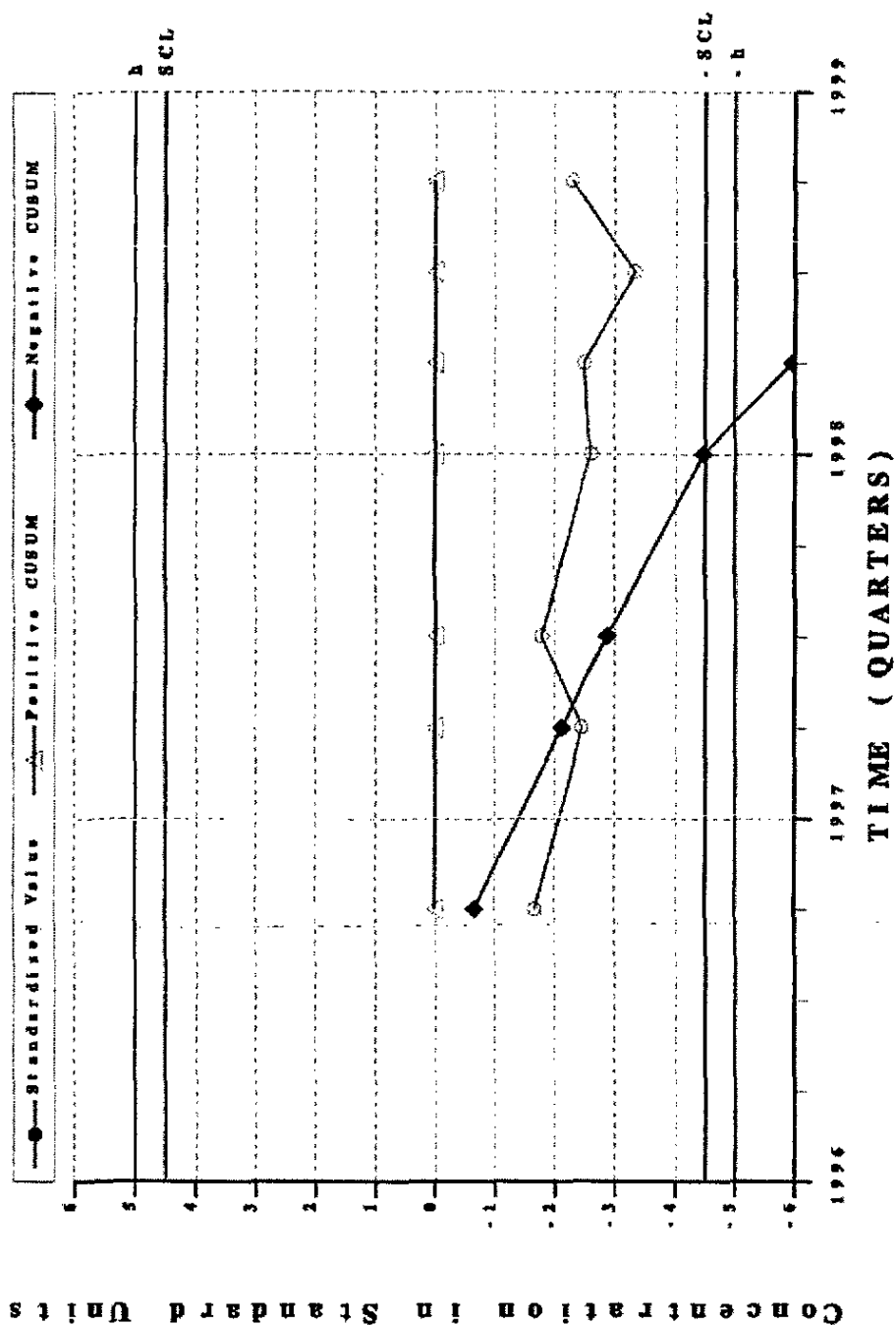
Combined Shewhart - CUSUM Control Chart
WELL HSB139D - Nitrate-nitrite as nitrogen



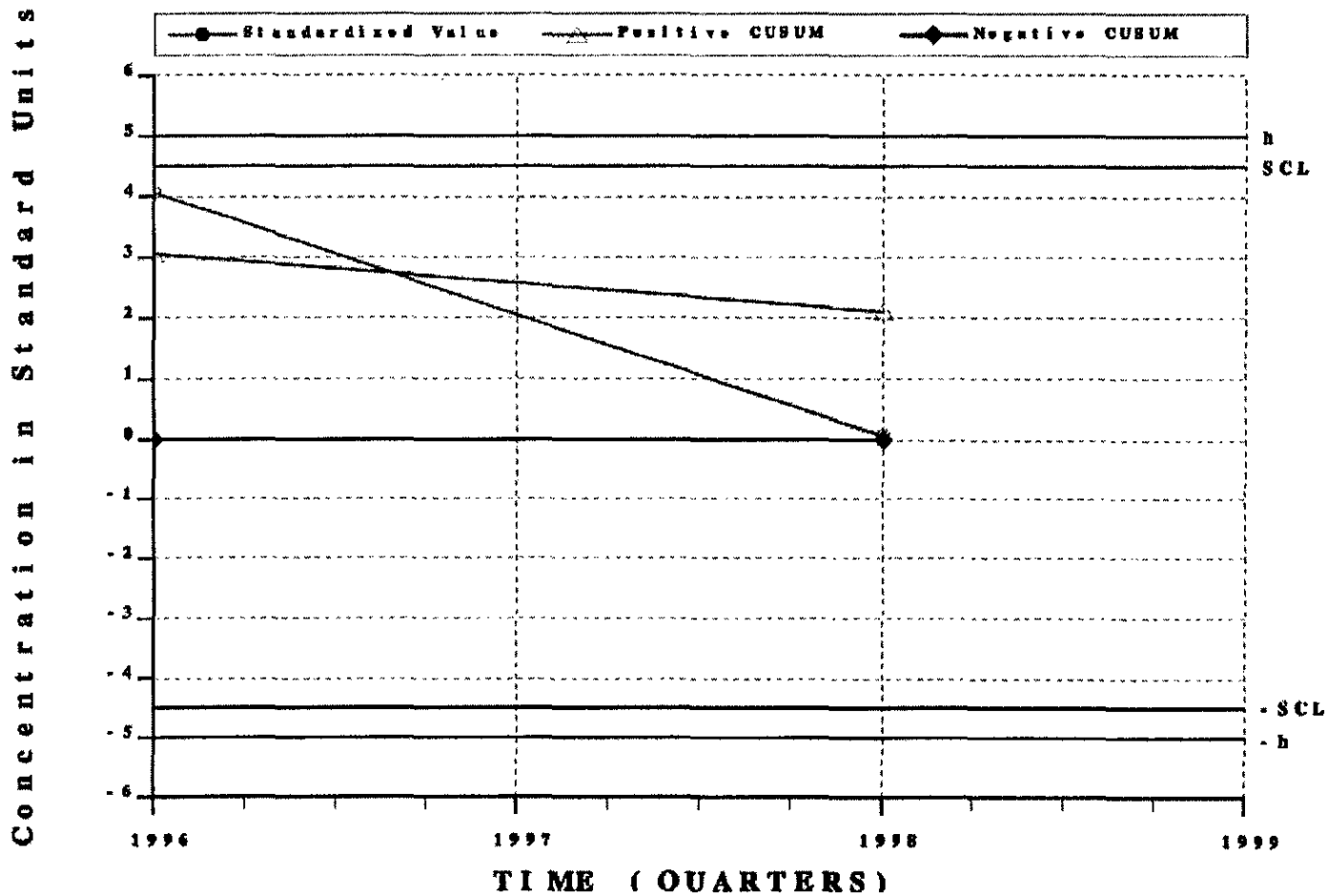
Combined Shewhart-CUSUM Control Chart
WELL HSB145C - Nitrate-nitrite as nitrogen



Combined Shewhart - CUSUM Control Chart
WELL HSB145D - Nitrate-nitrite as nitrogen



Combined Shewhart-CUSUM Control Chart
WELL HSB145D - Zinc, total recoverable



Appendix G

Operational Activities and Downtime

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Operations Activities and Downtime during the Second Half of 1998

Month	Run Percent	Hours Up	Hours Down	Dates	Explanation
July	100	24	0	1	WTU operated for 24 hours with no downtime.
	58	14	10	2	WTU 100-hour test complete as of 1930. WTU shut down for system desludging and completion of minor maintenance items.
	0	0	24	3	WTU down for minor modifications including replacement of filter press sequence switch.
	79	19	5	4	WTU operated for 19 hours after completion of maintenance items.
	100	24	0	5	WTU operated for 24 hours with no downtime.
	100	24	0	6	WTU operated for 24 hours with no downtime.
	73	17.5	6.5	7	WTU down due to caustic motor pump failure.
	96	23	1	8	WTU down to make final electric tie-ins to new injection wells and repair the injection and extraction tank.
	40	9.5	14.5	9	WTU down for injection well tie-ins.
	94	22.5	1.5	10	WTU down due to flow transmitter problems on RO trains A&B.
	100	48	0	11-12	WTU operated for 24 hours with no downtime.
	88	21	3	13	WTU down to repair leak on RO train B pressure transmitter and to calibrate and clean pH probe.
	100	24	0	14	WTU operated for 24 hours with no downtime.
	63	15	9	15	WTU down due to bag filter change out and partial sluicing of roughing filters. A lightning strike disabled the extraction and injection wells.
	35	8.5	15.5	16	WTU down due to lightning strikes disabling the extraction and injection wells.
	67	16	8	17	WTU down due to maintenance troubleshooting extraction and injection wells.
	71	17	7	18	WTU down to backflush temporary roughing filter A.

Month	Run Percent	Hours Up	Hours Down	Dates	Explanation
July, cont.	0	0	24	19	WTU down to modify the temporary roughing filters and to replace clearwater control valve.
	0	0	24	20	WTU down to modify the temporary roughing filters.
	23	5.5	18.5	21	WTU down to modify the temporary roughing filters.
	96	23	1	22	WTU down to change out post filter.
	83	20	4	23	WTU down due to lightning strikes disabling the injection and extraction wells.
	71	17	7	24	WTU down to repair damage caused by lightning strikes and change out bag filter.
	100	24	0	25	WTU operated for 24 hours with no downtime.
	67	16	8	26	WTU down due to a clog in the Polyblend system.
	98	23.5	.5	27	WTU down due to power interruption.
	0	0	24	28	WTU down due to pluggage in the temporary roughing filters.
	0	0	24	29	WTU down to remove and replace zeolite in temporary roughing filters.
	0	0	24	30	WTU down to remove scum from the top of the zeolite column and charge the column with an additional 20 cu ft of zeolite.
	0	0	24	31	WTU down due to pluggage in the temporary roughing filters encountered on the attempted restart of the system.
July Totals	61	456	288		
August	11	2.75	21.25	1	WTU down to remove pluggage of the temporary roughing filters and a Polyblend pump malfunction.
	4	1	23	2	WTU down due to Polyblend pump malfunction.
	8	2	22	3	WTU down due to problems with the Polyblend injection.
	39	9.3	14.7	4	WTU down due to problems with the Polyblend injection.

Month	Run Percent	Hours Up	Hours Down	Dates	Explanation
August, cont.	6	1.5	22.5	5	WTU down due to Polyblend overdose requiring desludging of the flocculation tank and clarifier.
	0	0	24	6	WTU down to desludge the flocculation tank.
	0	0	24	7	WTU down to clean the filter press and desludge the filter press and clarifier.
	65	15.5	8.5	8	WTU down due to lightning strikes disabling the extraction and injection wells, and polymer flow problems.
	100	96	0	9-12	WTU operated for 24 hours with no downtime.
	92	22	2	13	WTU down to backwash the zeolite, dowex, and carbon columns.
	100	24	0	14	WTU operated for 24 hours with no downtime.
	52	12.5	11.5	15	WTU down due to high sludge level in flocculation tank.
	0	0	24	16	WTU down due to complete desludging, to repair leak at turbidity meter, and to prepare for change out of zeolite in the main column.
	6	1.5	22.5	17	WTU down due to change out of zeolite in the main columns and system flush.
	71	17	7	18	WTU down due to lightning strikes disabling the extraction and injection wells.
	96	23	1	19	WTU down due to repairs on extraction and injection wells.
	94	22.5	1.5	20	WTU down due to low level in the injection tank while changing out the bag filter.
	85	20.5	3.5	21	WTU down due to sludge carryover in the clarifier.
	50	12	12	22	WTU down to desludge.
	0	0	24	23	WTU down to desludge.
	13	3.2	20.8	24	WTU down to desludge.
	100	48	0	25-26	WTU operated for 24 hours with no downtime.
	88	21	3	27	WTU down due to pH control on inline mixer.
	100	24	0	28	WTU operated for 24 hours with no downtime.

Month	Run Percent	Hours Up	Hours Down	Dates	Explanation
August, cont.	50	12	12	29	WTU down due to desludging the clarifier and flocculation tank.
	54	13	11	30	WTU down due to desludging the clarifier and flocculation tank.
	58	14	10	31	WTU down due to lightning strikes disabling the extraction and injection wells.
August Totals	56	418.25	325.75		
September	60	14.5	9.5	1	WTU down to repair extraction and injection wells.
	100	24	0	2	WTU operated for 24 hours.
	60	14.5	9.5	3	WTU down for scheduled maintenance outage to clean inline mixers and to complete tie-ins of the flocculation tank pH probe to the PLC.
	100	24	0	4	WTU operated for 24 hours.
	88	21	3	5	WTU down due to excessive air bubbles in flocculation tank and carryover to clearwell.
	100	48	0	6-7	WTU operated for 24 hours.
	94	22.5	1.5	8	WTU down due to lightning strikes disabling the extraction and injection wells.
	100	24	0	9	WTU operated for 24 hours.
	63	15	9	10	WTU outage to repair transformer grounding.
	100	72	0	11-13	WTU operated for 24 hours.
	63	15	9	14	WTU down for maintenance to clean the screens on the temporary roughing filters.
	100	48	0	15-16	WTU operated for 24 hours.
	98	23.5	.5	17	WTU down to backwash the zeolite column and temporary roughing filters.
	100	48	0	18-19	WTU operated for 24 hours.
	45	10.7	13.3	20	WTU down due to the leaking flange on the flocculation tank and leak on acid pump.
	58	14	10	21	WTU down to resolve the acid pump leak.
	100	48	0	22-23	WTU operated for 24 hours.
	96	23	1	24	WTU down due to acid pump failure.

Month	Run Percent	Hours Up	Hours Down	Dates	Explanation
September, cont.	100	144	0	25-30	WTU operated for 24 hours.
September Totals	91	653.7	66.3		
October	100	24	0	1	WTU operated for 24 hours.
	50	12	12	2	WTU down to change out zeolite in the main column and to clean the strainer on the ferric chloride addition.
	100	72	0	3-5	WTU operated for 24 hours.
	96	23	1	6	WTU down due to malfunction of acid drum pump.
	100	72	0	7-9	WTU operated for 24 hours.
	83	19.8	4.2	10	WTU down due to cracked fitting on the discharge line from the caustic tank.
	83	20	4	11	WTU down to repair leak on the discharge line from the caustic tank.
	94	22.5	1.5	12	WTU down to repair a gasket leak on the carbon column manway.
	92	22	2	13	WTU down to repair a leak on the suction line to caustic pump.
	72	17.3	6.7	14	WTU down to change zeolite in temporary roughing filter A
	100	120	0	15-19	WTU operated for 24 hours.
	90	21.5	2.5	20	WTU down to repair leak on the carbon column vent line and a leak in temporary roughing filter B.
	100	192	0	21-28	WTU operated for 24 hours.
	85	20.5	3.5	29	WTU down due to high sludge levels in the flocculation tank.
	100	48	0	30-31	WTU operated for 24 hours.
October Totals	95	706.6	37.4		
November	0	0	48	1-2	WTU down due to high differential pressure on temporary roughing filters A & B.
	0	0	24	3	WTU down to replace zeolite in the temporary roughing filters.

Month	Run Percent	Hours Up	Hours Down	Dates	Explanation
November, cont.	0	0	24	4	WTU down to replace zeolite and dowex in the main columns.
	0	0	24	5	WTU down to desludge the flocculation tank for inspection of the dispersal ring. Maintenance clearing out the effluent tank lines. Repair of RO piping continues.
	0	0	72	6-8	WTU down to soak dispersal ring in low pH water.
	0	0	24	9	WTU down to desludge the flocculation tank and clarifier.
	0	0	24	10	WTU down to soak the dispersal ring in low pH water and desludge the flocculation tank.
	0	0	24	11	WTU down to install RO B piping.
	0	0	24	12	WTU down due to pluggage in the charcoal, dowex, and zeolite backwash piping.
	4	1	23	13	WTU down due to pluggage in the dowex and zeolite backwash piping.
	0	0	24	14	WTU down due to pluggage in the zeolite dowex backwash piping.
	0	0	24	15	WTU down due to pluggage in the dowex zeolite backwash piping.
	69	16.5	7.5	16	WTU down due to pluggage in the dowex zeolite backwash piping.
	46	11	13	17	WTU down due to carryover in the clarifier and flocculation tank.
	0	0	168	18-24	WTU down due to pluggage in the acid addition line on the effluent tank and failed diaphragm in sludge pump A. Lockout of equipment required to repair the system not possible due to a contract dispute between WSRC and the subcontractor.
			144	25-30	WTU down due to pluggage in the acid addition line on the effluent tank and failed diaphragm in sludge pump A.
November Totals	4	28.5	691.5		

Month	Run Percent	Hours Up	Hours Down	Dates	Explanation
December	0	0	24	1	WTU down for maintenance to unplug the acid addition line on the effluent tank.
	0	0	24	2	WTU down for maintenance to charge RO pump accumulator. Completed valve line-up.
	27	6.5	17.5	3	WTU down for maintenance on RO pump accumulator.
	85	20.5	3.5	4	WTU down due to a leak on the RO Train B.
	75	18	6	5	WTU down to repair the RO Train B.
	100	360	0	6-20	WTU operated for 24 hours.
	14	26.5	165.5	21-28	WTU down to install a platform at the flocculation tank.
	100	72	0	29-31	WTU operated for 24 hours.
December Totals	68	503.5	240.5		
Grand Totals, July-December 1998	63	2766.55	1649.45		

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