

**Biennial Water Quality Monitoring Plan Evaluation
First Half 2004 through Second Half 2006
Manatee County Solid Waste Division
Lena Road Landfill
GMS ID No: 4041C02025
Permit No: 39884-001-SO**

May 2007

Prepared For:



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Executive Summary

This Biennial Water Quality Monitoring Report presents the results of an evaluation of the water quality monitoring program at Manatee County's Lena Road Landfill (LRL) (GMS No. 4041C02025), using the water quality and water level elevation data from the sampling events conducted during the period between 2004 and 2006.

The analytical results from the review period indicate that the water quality in the immediate vicinity of the LRL has had minimal effect on the water quality. There were numerous analytes detected in the leachate, groundwater, and surface water throughout the review period, but the only exceedances of the regulatory standards occurred with the groundwater and surface water. The following parameters were detected at concentrations in excess of the regulatory standards:

- In the groundwater, there were numerous inorganic detections, and no organic detections. The only analytes that were detected at concentrations in excess of the regulatory criteria were iron, pH, arsenic and TDS. The detection pattern with all of these analytes was very consistent throughout the review period in that, in general, the exceedances occurred at the same well locations.
- Three analytes, iron, fecal coliform, and DO, were detected at both surface water sampling points at concentrations in excess of the regulatory criteria during the review period. Iron was detected at an elevated concentration at both sampling points throughout the review period, whereas the detection patterns for the other two analytes were more scattered.

With regard to the hydrological data from the review period, the direction and rate of groundwater flow in the surficial aquifer beneath the LRL was flowing generally in a north-northwesterly direction at a relatively shallow gradient at all of the sampling events during the review period. Rainfall was lower than normal during the first year of the review period and higher than normal during the last two years. There was an inward gradient across the LRL's slurry wall throughout the review period.

Based on the findings of this evaluation, the water quality and elevation monitoring network at the LRL appears to be adequate in meeting the objectives of the monitoring program. The most significant detection in the water quality monitoring network was arsenic in the groundwater. The results of the statistical evaluation performed as part of this study do not indicate an obvious source for the arsenic detections. Therefore, PBS&J recommends that the County proceed with the field investigation designed to further evaluate this issue.

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1.0 Introduction

1.1 Background

This biennial water quality report presents an evaluation of the water quality and elevation monitoring network at Manatee County's Lena Road Landfill (LRL) (GMS No. 4041C02025), as based on the monitoring data collected during 2004 through 2006. The LRL facility operates under Permit Number 39884-001-SO, which is on file with the Florida Department of Environmental Protection (FDEP).

1.1.1 Water Quality Monitoring Network and Program

The LRL is constructed with a perimeter slurry wall in three stages that are designated Stages I, II and III. Landfill leachate is collected by a leachate collection system. Specific Condition Numbers 31, 32, and 35 of the facility's permit stipulates that the water quality program involves monitoring of the leachate, surface water, and the groundwater in the surficial (or shallow) aquifer. The monitoring network consists of the following components:

- The leachate samples are taken at the lift stations.
- Currently, groundwater samples are collected from a network of 17 monitoring wells along the perimeter of the slurry wall. The wells are designated GW-1 through GW-17. There is also a background well, which is designated BGW-1. All of these wells monitor groundwater in the surficial aquifer. This well network was installed in 2005, and replaced the old network. The old network consisted of 19 surficial aquifer wells, and 7 deep (Floridan) aquifer wells. Wells MW-1, GC-6 and SMR-1 are the designated background wells for the surficial aquifer. Well CW-4 is designated a compliance well and the rest of the shallow wells are designated detection/compliance wells. Well SMR-2 is the designated background well for the deep aquifer and the rest of the deep wells are designated detection/compliance wells.
- The surface water samples are collected from two points (one upstream and one downstream) along the Cypress Strand.

A summary of the components that comprise the water quality network is presented in Table 1-1. The layout of the LRL, including the well locations, is illustrated in Figure 1-1.

The facility's operating permit calls for groundwater and surface water samples to be collected from the facility's water quality network on a semiannual basis, and for leachate samples to be collected annually. The leachate samples are analyzed for the parameters listed in the State guidelines for Solid Waste Management Facilities, Rule 62-701.510 (8)-62-701.510 (9) of the Florida Administrative Code (FAC). During one of the semiannual events, the groundwater and surface

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water samples are analyzed for the parameters listed in Appendix I of 40 Code of Federal Regulations (CFR) Part 258, and for Appendices I and II during the other sampling event.

The analytical services for all four sampling events during the review period were provided by Manatee County Utility Operation's Central Wastewater Laboratory, as well as by P.A. La Moreaux and Associates, Inc. (PELA), and Southern Analytical Services. PELA representatives also collected the samples. Copies of the certificates of laboratory reports for all of the sampling events are on file with the FDEP.

1.1.2 Water Elevation Monitoring Network

The 17 monitoring wells along the perimeter of the slurry wall at the LRL are used in conjunction with 17 piezometers, designated PZ-1 through PZ-17, to monitor the water level elevation on either side of the slurry wall. Water level elevations are also monitored at the East Lake and South Lake #2, which are immediately south of the LRL site. Currently, the elevations are measured manually from the wet wells located at these lakes, but Manatee County is planning on installing electronic water level measuring devices in the near future.

A summary of the components that comprise the water elevation network is presented in Table 1-2, and their locations are illustrated on Figure 1-1.

1.2 Objectives

This report was prepared in accordance with Rule 62-701.510(9)(b) of the FAC. This statute stipulates that the following issues be addressed in a biennial report:

- A trend analyses of any parameters that were consistently detected in the monitoring network
- A comparison of the detection trends between the shallow and deep aquifers
- A comparison between the detection trends in the background wells and compliance wells
- A correlation between related parameters
- An interpretation of the groundwater flow conditions
- An evaluation of the adequacy of the water quality monitoring program

2.0 Water Quality Analytical and Elevation Data Summary

A description of the leachate, groundwater, and surface water analytical results, as well as the water elevation information, for the four sampling events during the period of review is presented in this section.

2.1 Water Quality Data Summary

2.1.1 Leachate Analytical Data Summary

Leachate samples were collected during the following semiannual events during the review period:

- Second Half 2004
- First Half 2005
- Second Half 2005
- First Half 2006

Summaries of the leachate analytical results for each event are presented in Tables 2-1 through 2-4.

The only parameters that were consistently detected in the leachate samples during the period of review were inorganic constituents, including arsenic, barium, bicarbonate alkalinity, chloride, chromium, cobalt, copper, iron, lead, nickel, nitrate, selenium, sodium, total phenols, total ammonia-N, total dissolved solids (TDS) and zinc. Several organic constituents, including 1, 1-dichloroethane, 1, 4-dichlorobenzene, benzene, ethylbenzene, toluene, xylene, vinyl chloride, sulfide, and chlorobenzene were detected in the leachate during the review period on a somewhat less frequent basis.

The concentration of every parameter that was detected in the leachate throughout the review period was compared to the regulatory levels listed in 40 CFR Part 261.24, as promulgated by the Florida solid waste regulations. A standard has not been established for every parameter. None of the parameter concentrations detected in the leachate during the review period exceeded their respective regulatory level.

2.1.2 Groundwater Analytical Data Summary

The old well network was still in place and used for the semiannual monitoring event during the first three sampling events of this review period (e.g. first and second halves of 2004, and the first half of 2005). There was not a sampling event in the second half of 2005 because the well network was in the process of being installed when the regular sampling event was scheduled. The new network was used for the first and second half 2006 sampling events. A summary of the groundwater analytical results for each sampling event during the review period is presented in Tables 2-4 through 2-7.

Water Quality Analytical and Elevation Data Summary

There were no organic parameters detected in the monitoring network during the review period. There were, however, numerous inorganic constituents detected in the network. All of the parameters detected in the network were compared to their Maximum Contaminant Levels (MCLs) or Secondary Drinking Water Standards (SDWSs) in accordance with the Florida statutes. Chapter 62-550 of the Florida Administrative Code (FAC) promulgates the MCLs and SDWSs for Drinking Water Standards, Monitoring, and Reporting. Not every parameter has an MCL or SDWS. The parameters that were detected at concentrations in excess of the regulatory criteria are shaded in the tables. A description of the parameters that were detected at concentrations in excess of the regulatory criteria is presented below.

Four parameters, pH, iron, arsenic and TDS, were detected at least once during the review period in the surficial aquifer at concentrations in excess of the regulatory criteria. The detection patterns for these parameters were very consistent throughout the review period.

pH – With the old network during the first three sampling events of the review period, the pH was consistently lower than the prescribed SDWS range of 6.5 to 8.5 at every shallow well except MW-5A and GC-1A. That included the background well, SMR-1. With the new network, during the 2006 sampling events, the pH generally increased into the preferred range at most well locations, but was consistently relatively low at several wells, including the background well, BGW-1.

Iron - Iron was detected at concentrations in excess of the SDWS at every shallow well in the old network during all three sampling events. The SDWS for iron is 0.3 milligram per liter (mg/L), and the iron concentration at these wells ranged from slightly over the standard to concentrations in the 20 mg/L range. With the new network, the iron concentration was consistently higher than the standard at all of the wells except GW-7. The iron concentration was consistently higher than the standard at both background wells in the two networks throughout the review period.

Arsenic – Arsenic has an MCL of 0.1 mg/L. The standard was lowered from 0.5 mg/L in 2006. The concentration of arsenic consistently exceeded the standard at wells CW-4, GC-2, and MW-2, and less frequently at approximately half of the other wells in the network. In the new network, the arsenic consistently exceeded the MCL at wells GW-1, GW-2, GW-9, GW-12, GW-14, and GW-15. Arsenic was detected once at the background wells during the review period, and was not at a concentration that exceeded the MCL.

TDS – TDS has an SDWS of 500 mg/L. The TDS concentrations at CW-4, MW-2 and MW-3 in the old well network consistently exceeded the standard. In the new network, the TDS concentration consistently exceeded the standard at well GW-10, GW-13, and GW-14. The TDS concentrations at the background wells were very consistent throughout the review period. For example, in the old network, the TDS concentrations at SMR-1 was well below the SDWS, whereas in the new network, at BGW-1, the TDS concentration was relatively high, at just below the standard, during both sampling events.

Water Quality Analytical and Elevation Data Summary

2.1.3 Surface Water Analytical Data Summary

Surface water samples were collected from both surface water sampling points in the network during every semiannual sampling event during the review period. A summary of the surface water analytical results for each sampling event is presented in Tables 2-10 through 2-15.

There were no organic constituents detected in any of the surface water samples collected during the review period. There were, however, numerous inorganic constituents detected at both surface water sampling points throughout the review period. The concentrations of the inorganic constituents were compared to their respective Surface Water Cleanup Target Levels (SWCTLs) as a relative measure of the water quality. The SWCTLs are promulgated in Chapter 62- 777, FAC.

The only parameter that was consistently detected in the surface water at concentrations in excess of its SWCTL was iron. Other parameters, including arsenic, dissolved oxygen (DO), and fecal coliform, were detected at concentrations in excess of the State standards but on a less frequent basis.

2.2 Water Elevation Data Summary

The groundwater elevation measurements were made at each monitoring well during every sampling event of the review period and were used to generate groundwater elevation contour maps for the surficial aquifer beneath the LRL. The maps were used to evaluate the groundwater flow direction and the water table gradient in the aquifer during the review period. A description of the findings is presented in Section 4.1 of this report.

3.0 Water Quality Evaluation

3.1 Water Quality Trends

3.1.1 General Detection Pattern

Descriptions of the detection patterns of the parameters that were consistently detected at elevated concentrations in the leachate, groundwater and surface water during the period of review are presented below. A summary of the detection patterns is also presented in Table 3-1.

Leachate

There were no parameters detected in the leachate at concentrations in excess of the regulatory criteria during the review period. The detection patterns of most of the parameters that were detected in the leachate were present at the same general concentration range during every sampling event of the review period. There were several volatile organics compounds detected during the earlier sampling events of the review period, but not during the last event.

Groundwater

The detection patterns with the four parameters were regularly detected in the groundwater at concentrations in excess of their MCLs or SDWSs – pH, iron, arsenic and TDS – were very consistent throughout the review period. They were detected at the same locations in the monitoring network at comparable concentrations. The concentrations of these four analytes at all of the wells in the old and new well networks were plotted on graphs to demonstrate the changes in concentration over time. The graphs are presented in Appendix A. A summary of the findings is presented below.

pH – With exception to several wells in both the old and new well networks, the pH readings were very consistent throughout the review period. The wells that did show relatively significant changes were GC-4, GC-2, MW-3, MW-6, and MW-1 in the old network, and GW-9, GW-6, GW-7, and GW-9 in the new network. The pH increased during the period at GC, MW-3, and the three wells in the new network, and decreased at the other locations. The pH at the two background wells remained very steady throughout the review period.

Iron – As with pH, the iron concentrations at most of the old and new wells were very consistent throughout the period. The exceptions were GC-1A, GC-2, GC-3, and MW-3 in the old network, and GW-1, GW-2 and GW-4 in the new network. The concentration increased at GC-1A, GC-3 and GW-2, and decreased at the other wells.

Arsenic – None of the wells in the old network where arsenic was detected showed any significant changes in concentration during the review period. In the new network, the arsenic concentration increased at GW-2, GW-10, and GW-11, and was steady throughout the review period at the other wells where it was detected.

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TDS – TDS displayed a pattern similar to the other parameters, in that the concentrations were very consistent at most well locations throughout the review period. The only exceptions were in the new network at wells GW-14, GW-8, and GW-6, where the concentrations increased between the two 2006 sampling events.

Surface Water

The analytes which were detected at sampling point SW-1 at concentrations in excess of the State standards during the review period were DO and iron. The detection pattern with DO was such that the concentration was relatively high during the first half sampling events of the review period, and at relatively low concentrations during the second half sampling events. The iron concentration was lower than the standards during the first and last sampling events and higher during all of the other events.

At SW-2, DO, fecal coliform, and iron were detected outside the prescribed State standard. The detection pattern with the DO was very similar to that of SW-1, where it was generally elevated during the first half of the year sampling events, and relatively low during the second half sampling events. The fecal coliform reading exceeded the state standard during the first half sampling events in 2004 and 2005, and was lower than the standard during the rest of the review period. Conversely, iron exceeded the standard during all but the first half of 2005 sampling events.

3.1.2 Related Parameter Correlation

The concentrations of the parameters that were consistently detected in the monitoring network at concentrations in excess of the regulatory standards, and/or that have a natural affinity to one another, were graphed together to evaluate whether an obvious correlation exists. The evaluation was limited to the groundwater and included the following correlations:

- pH versus Iron
- pH versus Arsenic
- Turbidity versus Iron
- Turbidity versus Arsenic
- DO versus Iron
- DO versus Arsenic
- Conductivity versus TDS

A description of the evaluation results is presented below. The concentration graphs are provided in Appendix B.

pH versus Iron

In general, the correlation between pH and iron varied drastically between the old and the new well networks. In the old network, there was very good correlation between the two parameters at most of the well locations, whereas at most of the wells in the new network the opposite effect was

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observed.

pH versus Arsenic

It is difficult to discern a trend in the data with these two parameters because arsenic was not detected at most of the wells during the period. Where it was detected, however, there does not appear to be a very good correlation between the two parameters except at one or two wells.

Iron versus Turbidity

There was relatively good correlation between the concentrations of iron versus turbidity at most of the wells in both networks throughout the review period. Even though the turbidity concentrations were relatively low and the iron concentrations were relatively high at all of the well locations, there was a definite pattern at most wells in that with every change in the turbidity there was a corresponding change in the iron concentration. The same relationship was evident in the background wells.

Arsenic versus Turbidity

As with pH, the turbidity did not seem to affect the arsenic concentration. This was true for the majority of the wells in both networks throughout the review period.

Iron versus DO

The correlation pattern with these two parameters is similar to that of pH and iron, with a relatively strong correlation between the two, particularly with the wells on the old network. The same relationship was evident in the background wells.

Arsenic versus DO

Arsenic also displayed a strong correlation with DO throughout the review period, particularly with the wells in the old network.

TDS versus Conductivity

The correlation between TDS and conductivity was very good at most of the well locations throughout the review period, in that both exhibited a relatively parallel detection pattern at most wells.

3.1.3 Upgradient Versus Downgradient Correlation

In order to evaluate any changes in groundwater quality on the downgradient side of the LRL, the concentrations of the parameters that were consistently detected in the well network at concentrations in excess of the regulatory criteria, as well as several other important parameters, were graphed. The parameters that were included in the evaluation were pH, iron, arsenic, and

Water Quality Elevation

TDS. The graphs were prepared using the data from both the old well network and the new well network. The graphs were constructed by plotting the data from the wells located on the upgradient side of the landfill on the left side of the graph, and plotting those on the downgradient side of the landfill on the right. The graphs are presented in Appendix C. A summary of the observations for each parameter is presented below.

- *pH* – The pH concentration detection pattern in both well networks exhibited definite patterns on opposite sides of the landfill. With the old network, the pH decreased by 10 to 20 per cent at the wells located on the downgradient side of the LRL. This phenomenon occurred during every sampling event of the review period. The lowest pH levels were found in the wells located downgradient of Stage II. In the new network, the pH actually increased on the downgradient side of the landfill.
- *Iron* – There was no obvious change in the concentration pattern with iron in crossing the landfill. There were areas on both sides of the landfill where the iron was unusually high, and that occurred with both well networks.
- *TDS* – The detection pattern with TDS suggests that the concentration was relatively high on either side of the landfill and lower in the wells near the middle.
- *Arsenic* – There is some suggestion in the data that the arsenic concentrations increased in the areas around the landfill. The concentrations were lowest in the upgradient and downgradient wells. This pattern was observed in the graphs for both well networks.

4.0 Water Elevation Data Evaluation

4.1 Groundwater Flow Patterns

The groundwater elevation data was plotted and contoured to generate contour maps for the surficial aquifer. The contour plots are presented as Figures 4-1 through 4-5. The groundwater elevation contour maps indicate that the groundwater within the surficial aquifer around the LRL facility was flowing in a north-northwesterly direction at the time of each sampling event during the review period.

The average horizontal gradient of the water table during the five sampling events of the review period was 0.001 feet per foot (ft/ft). Using the results of hydraulic conductivity tests conducted by another firm during the preliminary hydrogeological evaluation of the LRL site (Ardaman and Associates, Inc., 1982), PBS&J was able to calculate the horizontal groundwater flow rates for the surficial aquifer during the period of review. The hydraulic conductivity test results produced an average value of 8.2 feet per day (ft/day) for the sediments that store groundwater of the surficial aquifer.

The groundwater flow velocity was calculated with the following formula:

$$V = Ki/p, \text{ where:}$$

V = groundwater flow velocity (ft/day),
K = hydraulic conductivity (8.2 ft/day),
i = hydraulic gradient (0.001 ft/ft), and
p = porosity (.30 for silty sand (unitless)).

The groundwater flow velocity for the site was calculated at 0.03 ft/day, or approximately 11 feet per year

4.2 Groundwater Fluctuations and Gradient Conditions

PBS&J collected water level elevation data at all of the shallow monitoring wells, piezometers and staff gauges at the LRL on a monthly basis during the period of review. These data are presented in Appendix D. The water level elevation data for the monitoring wells in the new network were plotted on line graphs to illustrate the fluctuations in the water table during the period of review. The hydrographs are presented in Appendix E. The groundwater elevation at the monitoring wells in the new well network fluctuated by an approximate average of 4 to 5 feet between the two sampling events in 2006.

The monthly rainfall data at the LRL during the period of review is presented in Table 4-1 along with the monthly average rainfall for the Sarasota area. These data are presented in graph form in Appendix E. The rainfall data indicates that 2004 was relatively dry year, and that 2005 and 2006 were relatively wet years.

Water Elevation Data Evaluation

4.2.1 Groundwater Gradient Conditions

PBS&J monitors the gradient conditions across the LRL's slurry wall on a monthly basis. The monthly data from the review period is provided in Appendix F. Only the data for monitoring points around Stages I and III of the LRL were analyzed because Stage II did not have any solid waste during the period of review. The data indicated that inward gradient conditions existed at both stages during every measuring event of the period.

5.0 Summary, Conclusions and Recommendations

The analytical results from the review period indicate that the LRL had minimal effect on the water quality in the immediate area. A summary of the detection patterns in the water quality network is as follows:

- No analytes were detected in the leachate at concentrations in excess of the regulatory criteria, but there were numerous inorganic analyte detections and several volatile organic detections.
- In the groundwater, there were numerous inorganics detections, and no organic detections. The only analytes that were detected at concentrations in excess of the regulatory criteria were iron, pH, arsenic and TDS. The detection pattern with all of these analytes was very consistent throughout the review period in that, in general, the exceedances occurred at the same well locations.
- Three analytes, iron, fecal coliform, and DO, were detected at both surface water sampling points at concentrations in excess of the regulatory criteria during the review period. Iron was detected at an elevated concentration at both sampling points throughout the review period, whereas the detection patterns with the other two analytes was more scattered.

With regard to the hydrological data from the review period, the direction and rate of groundwater in the surficial aquifer beneath the LRL was flowing generally in a north-northwesterly direction at a relatively shallow gradient at all of the sampling events during the review period. Rainfall was lower than normal during the first year of the review period and higher than normal during the last two years. There was an inward gradient across the LRL's slurry wall throughout the review period.

Based on the findings of this evaluation, the water quality and elevation monitoring network at the LRL appears to be adequate in meeting the objectives of the monitoring program. The most significant detection in the water quality monitoring network was arsenic. Arsenic was detected in the leachate during the review period at concentrations between 0.007 mg/l and 0.014 milligrams per liter (mg/L), which was significantly lower than the concentrations detected in the groundwater. Like some of the other parameters, arsenic was also detected at the background wells in the well network, albeit not concentrations in excess of the regulatory standards.

PBS&J conducted a statistical analysis of the arsenic concentrations in the well network during the review period; including comparisons to the DO, pH, and turbidity readings. There were no obvious trends that would indicate a source for the arsenic, although there was some correlation between arsenic and DO. PBS&J reviewed recent technical literature regarding the matter, and found that elevated arsenic levels can be found in areas with elevated DO and pH, but the field data collected during the sampling events suggest that these conditions do not exist at the LRL.

Summary, Conclusions and Recommendations

Given that the statistical analysis did not point to an obvious source of the arsenic, PBS&J recommends that a field investigation designed to further evaluate a potential source of the arsenic detections be implemented in accordance with the work plan presented in a letter addressed to the Southwest District Office of the FDEP and dated March 22, 2007.

6.0 Environmental Professional Qualifications and Signatures

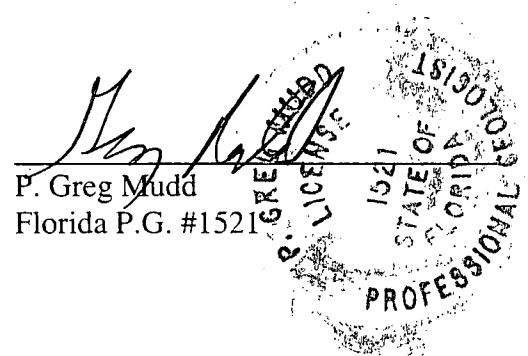
The following environmental professional was responsible for the preparation of this biennial water quality monitoring report.

Mr. P. Greg Mudd, P.G.
Senior Geologist, PBS&J

Mr. Mudd is a Florida-registered professional geologist with over 15 years of experience in the planning and performance of environmental projects.

Date

3/11/07



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TABLES

TABLE 1-1
WATER QUALITY MONITORING NETWORK
LENA ROAD LANDFILL

Leachate Sampling Points			
Location	WACS Testsite Identification Number		
Lift Station No. 1	21611		
Lift Station No. 2	21612		
Lift Station No. 3	21613		
Groundwater Sampling Points (Monitoring Wells)			
Location/Well Identifier	Aquifer Monitored	Designation	WACS Testsite ID No.
GW-1	Surficial	Detection	21593
GW-2	Surficial	Detection	21594
GW-3	Surficial	Detection	21595
GW-4	Surficial	Detection	21596
GW-5	Surficial	Detection	21597
GW-6	Surficial	Detection	21598
GW-7	Surficial	Detection	21599
GW-8	Surficial	Detection	21600
GW-9	Surficial	Detection	21601
GW-10	Surficial	Detection	21602
GW-11	Surficial	Detection	21603
GW-12	Surficial	Detection	21604
GW-13	Surficial	Detection	21605
GW-14	Surficial	Detection	21606
GW-15	Surficial	Detection	21607
GW-16	Surficial	Detection	21608
GW-17	Surficial	Detection	21609
BGW-1	Surficial	Background	21610
Surface Water Sampling Points			
Identifier	Location	WACS Testsite ID No.	
SW-1	Cypress Strand – Upstream	1663	
SW-2	Cypress Strand - Downstream	1665	

TABLE 1-2
WATER ELEVATION MONITORING NETWORK
LENA ROAD LANDFILL

Well Identifier	Top-of-Casing Elevation (Ft-NGVD)	Total Depth (Ft-TOC)	Screen Interval Elevation (Ft-NGVD)
Surficial Aquifer (Outside of Slurry Wall)			
GW-1	38.68	19.42	19.76-34.76
GW-2	40.92	19.41	22.01-37.01
GW-3	39.40	19.56	20.34-35.34
GW-4	40.53	19.63	21.4-36.4
GW-5	39.90	19.66	20.74-35.74
GW-6	38.95	19.54	19.91-34.91
GW-7	39.49	20.54	19.45-34.45
GW-8	39.75	20.32	19.93-34.93
GW-9	39.65	20.56	19.59-34.59
GW-10	38.34	20.15	18.82-33.82
GW-11	38.26	21.61	13.76-28.76
GW-12	42.09	20.27	22.32-37.32
GW-13	44.79	20.22	25.07-40.07
GW-14	39.63	20.15	19.98-34.98
GW-15	42.33	20.00	22.83-37.83
GW-16	44.41	20.15	24.76-39.76
GW-17	42.19	20.80	21.89-36.89
BGW-1	47.57	20.30	27.77-42.77
Surficial Aquifer (Inside of Slurry Wall)			
PZ-1	42.68	25.5	14.5-24.5
PZ-2	42.32	27.84	11.6-21.6
PZ-3	40.36	31.29	6.1-16.1
PZ-4	40.78	31.14	6.6-16.8
PZ-5	40.73	31.7	6.0-16.0
PZ-6	40.74	31.88	5.7-15.7
PZ-7	40.60	31.75	5.9-15.9
PZ-8	40.21	22.79	15.0-25.0
PZ-9	39.97	24.53	13.4-23.4
PZ-10	39.86	24.53	12.7-22.7
PZ-11	40.52	31.71	5.7-15.7
PZ-12	43.28	24.14	16.8-26.8
PZ-13	44.78	26.17	17.1-27.1
PZ-14	45.09	20.25	23.1-33.1
PZ-15	45.57	19.7	23.4-33.4
PZ-16	44.67	20	23.5-33.5
PZ-17	44.28	20.37	22.9-32.9

Lake Staff Gauges

Lake	Elevation (Ft NGVD)
South 1	37.50
South 2	46.40
East Lake	46.50

**Table 2-1 - Lena Road Leachate Analytical Summary
Second Half 2004**

Analyte	Location:	Lift Station #1	Lift Station #2
	Sample Identifier:	Leachate I	Leachate II
	Date of Test:	08/11/04	08/11/04
	Standard(1)	Units	
<i>Field Measurements</i>			
pH		STD	6.7
Temperature		Degrees C	29.08
Turbidity		NTUs	91.5
Conductivity		umhos/cm	3871
Dissolved Oxygen (DO)		mg/l	1.14
<i>Inorganics</i>			
Antimony		mg/l	<0.003
Arsenic	5.0	mg/l	0.013
Barium	100	mg/l	0.15
Beryllium		mg/l	<0.003
Bicarbonate alkalinity		mg/l	1545
Cadmium	1.0	mg/l	<0.005
Chloride		mg/l	183
Chromium		mg/l	<0.001
Cobalt		mg/l	<0.05
Copper		mg/l	0.03
Cyanide		mg/l	<0.005
Iron		mg/l	17
Lead	5,000	mg/l	0.004
Mercury	200	mg/l	<0.0001
Nickel		mg/l	<0.02
Nitrate		mg/l	0.012
Selenium	1.0	mg/l	<0.002
Silver	5.0	mg/l	<0.0002
Sodium		mg/l	443
Total Ammonia - N		mg/l	185
Total phenols		mg/l	0.025
Thallium		mg/l	<0.001
Tin as SN		mg/l	<0.1
Total Dissolved Solids (TDS)		mg/l	2220
Vanadium		mg/l	<0.01
Zinc		mg/l	0.067
<i>Pesticides & Herbicides</i>			
2,4-D	10,000	ug/l	<0.2
2,4,5-T		ug/l	<0.2
A-BHC		ug/l	<0.003
Aldrin		ug/l	<0.004
B-BHC		ug/l	<0.006
Chlordane	30	ug/l	<0.02
D-BHC		ug/l	<0.009
Dinoseb		ug/l	<0.2
Endosulfan Sulfate		ug/l	<0.03
Endosulfan-I		ug/l	<0.014
Endosulfan-II		ug/l	<0.004
Endrin	20	ug/l	<0.006
Endrin Aldehyde		ug/l	<0.023
G-BHC(Lindane)	400	ug/l	<0.004
Heptachlor	8	ug/l	<0.003
Heptachlor Epoxide		ug/l	<0.01
Methoxychlor	10,000	ug/l	<0.05

Analyte	Location:	Lift Station #1	Lift Station #2
	Sample Identifier:	Leachate I	Leachate II
	Date of Test:	08/11/04	08/11/04
	Standard(1)	Units	
PP-DDD		ug/l	<0.011
PP-DDE/Dieldrin		ug/l	<0.004
PP-DDT		ug/l	<0.012
Silvex	1,000	ug/l	<0.1
Toxaphene	500	ug/l	<0.2
PCB-1016		ug/l	<0.04
PCB-1221		ug/l	<0.07
PCB-1232		ug/l	<0.09
PCB-1242		ug/l	<0.06
PCB-1248		ug/l	<0.04
PCB-1254		ug/l	<0.04
PCB-1260		ug/l	<0.07
Organics: Acid Extractables			
2,4,6-Trichlorophenol	2,000	ug/l	<2.7
2,4,5-Trichlorophenol	400,000	ug/l	<3.9
2,4-Dinitrophenol		ug/l	<5.0
4-Nitrophenol		ug/l	<2.4
2,3,4,6-Tetrachlorophenol		ug/l	<5.0
Pentachlorophenol	100,000	ug/l	<1.5
2,4-Dichlorophenol		ug/l	<2.7
4,6-Dinitro-2-methylphenol		ug/l	<9.5
(3+4)-Methylphenol		ug/l	<3.5
2-Methyphenol		ug/l	<3.5
2,4-Dimethylphenol		ug/l	<2.7
2-Nitrophenol		ug/l	<3.6
Phenol		ug/l	<1.5
2-Chlorophenol		ug/l	<3.3
2,6-Dichlorophenol		ug/l	<5.0
4-Chloro-3-methylphenol		ug/l	<3.0
Base/Neutrals			
1,3,5-Trinitrobenzene		ug/l	<10.0
1,3-Dinitrobenzene		ug/l	<10.0
1,4-Naphthoquinone		ug/l	<7.5
2-Acetylaminoflourene		ug/l	<7.5
3,3-Dimethylbenzidine		ug/l	<5.0
5-Nitro-o-tolidine		ug/l	<10.0
Chlorobenzilate		ug/l	<10.0
Diallate		ug/l	<5.0
Dimethoate		ug/l	<5.0
Disulfoton		ug/l	<5.0
Famphur		ug/l	<20.0
Hexylchloropropene		ug/l	<5.0
Isodrin		ug/l	<6.0
Iisosafrole		ug/l	<5.0
Kepone		ug/l	<30.0
Methapyrilene		ug/l	<30.0
Methyl parathion		ug/l	<15.0
N-Nitrosoethylmethylamine		ug/l	<10.0
N-Nitrosopyrrolidine		ug/l	<15.0
N-Nitrosodiethylamine		ug/l	<10.0
OOO-Triethylphosphorothioate		ug/l	<30.0

Analyte	Location:	Lift Station #1	Lift Station #2
	Sample Identifier:	Leachate I	Leachate II
	Date of Test:	08/11/04	08/11/04
	Standard(I)	Units	
Ortho-toluidine		ug/l	<10.0
Para-Phenylenediamine		ug/l	<10.0
Parathion		ug/l	<15.0
Phorate		ug/l	<3.0
Safrole		ug/l	<7.5
Thionazin		ug/l	<10.0
1,2,4,5-Tetrachlorobenzene		ug/l	<5.0
1,2,4-Trichlorobenzene		ug/l	<1.9
1-Naphthylamine		ug/l	<10.0
2,4-Dinitrotoluene	13,000	ug/l	<2.2
2,6-Dinitrotoluene		ug/l	<1.9
2-Chloronaphthalene		ug/l	<1.9
2-Methylnaphthalene		ug/l	<2.0
2-Naphthylamine		ug/l	<10.0
2-Nitroaniline		ug/l	<20.0
3,3-Dichlorobenzidine		ug/l	<3.2
3-Methylcholanthrene		ug/l	<5.0
3-Nitroaniline		ug/l	<20.0
4-Aminobiphenyl		ug/l	<5.0
4-Bromophenyl-phenylether		ug/l	<1.9
4-Chloroaniline		ug/l	<6.0
4-Chlorophenylphenylether		ug/l	<4.2
4-Nitronaline		ug/l	<20.0
7,12-Dimethylbenz(a)anthracene		ug/l	<5.0
Acenaphthene		ug/l	<1.9
Acenaphthylene		ug/l	<2.5
Acetone		ug/l	<2.5
Acetophenone		ug/l	<5.0
Anthracene		ug/l	<1.9
Benzo(a)anthracene		ug/l	<3.1
Benzo(a)pyrene		ug/l	<0.1
Benzo(b)flouranthene		ug/l	<2.5
Benzo(g,h,i)perylene		ug/l	<4.1
Benzo(k)flouranthene		ug/l	<2.5
Benzyl alcohol		ug/l	<5.0
Bis(2-chloroethoxy)methane		ug/l	<2.5
Bis(2-chloroethyl)ether		ug/l	<2.5
Bis(2-chloroisopropyl)ether		ug/l	<5.7
Bis(2-ethylhexyl)phthalate		ug/l	<2.5
Butylbenzylphthalate		ug/l	<2.5
Chrysene		ug/l	<2.5
Dibenz(a,h)anthracene		ug/l	<2.5
Dibenzo furan		ug/l	<5.0
Diethylphthalate		ug/l	<1.9
Dimethylphthalate		ug/l	<1.6
Di-N-butylphthalate		ug/l	<2.5
Di-N-octylphthalate		ug/l	<2.5
Diphenylamine		ug/l	<5.0
Ethylmethanesulfonate		ug/l	<10.0
Flouranthene		ug/l	<2.2
Flourene		ug/l	<1.9

Analyte	Location:	Lift Station #1	Lift Station #2
	Sample Identifier:	Leachate I	Leachate II
	Date of Test:	08/11/04	08/11/04
	Standard(1)	Units	
Hexachlorobenzene	130	ug/l	<1.0
Hexachlorobutadiene	500	ug/l	<0.9
Hexachlorocyclopentadiene		ug/l	<5.0
Hexachloroethane	3,000	ug/l	<1.6
Indeno(1,2,3-cd)pyrene		ug/l	<3.7
Isophorone		ug/l	<2.2
Methylmethanesulfonate		ug/l	<10.0
Naphthalene		ug/l	<1.6
N-Nitrosodi-n-butylamine		ug/l	<10.0
Nitrobenzene	2,000	ug/l	<1.9
N-Nitrosodimethylamine		ug/l	<10.0
N-Nitroso-di-n-propylamine		ug/l	<10.0
N-Nitrosodiphenylamine		ug/l	<1.9
N-Nitrosopiperidine		ug/l	<10.0
P-Dimethylaminoazobenzene		ug/l	<6.0
Pentachlorobenzene		ug/l	<5.0
Pentachloronitrobenzene		ug/l	<10.0
Phenacetin		ug/l	<10.0
Phenanathrene		ug/l	<2.5
Pronamide		ug/l	<10.0
Pyrene		ug/l	<1.9
Volatile Organics			
1,1,1,2-Tetrachloroethane		ug/l	<1.0
1,1,1-Trichloroethane		ug/l	<0.04
1,1,2,2-Tetrachloroethane		ug/l	<0.04
1,1,2-Trichloroethane		ug/l	<0.10
1,1-Dichloroethane		ug/l	0.16
1,1-Dichloroethene	700	ug/l	<0.12
1,1-Dichloropropene		ug/l	<1.0
1,2,3-Trichloropropane		ug/l	<0.3
1,2-Dichlorobenzene		ug/l	<0.03
1,2-Dichloroethane	500	ug/l	<0.02
1,2-Dichloropropane		ug/l	<0.04
1,3-Dichlorobenzene		ug/l	<0.12
1,3-Dichloropropane		ug/l	<1.0
1,4-Dichlorobenzene	7,500	ug/l	4.27
2,2-Dichloropropane		ug/l	<1.0
2-Butanone		ug/l	<2.5
2-Hexanone		ug/l	<2.5
4-Methyl-2-pentanone		ug/l	<2.5
Acetonitrile		ug/l	<10.0
Acrolein		ug/l	<1.7
Acrylonitrile		ug/l	<1.5
Allyl chloride		ug/l	<0.5
Benzene	500	ug/l	1.23
Bromomethane		ug/l	<0.11
Bromoform		ug/l	<0.5
Bromodichloromethane		ug/l	<0.08
Carbon Disulfide		ug/l	<4.1
Carbon tetrachloride	500	ug/l	<0.21
Chlorobenzene	100,000	ug/l	6.43

Analyte	Location:	Lift Station #1	Lift Station #2
	Sample Identifier:	Leachate I	Leachate II
	Date of Test:	08/11/04	08/11/04
	Standard(1)	Units	
Chloroethane		ug/l	<0.10
Chloromethane		ug/l	<013
Chloroprene		ug/l	<0.03
cis-1,2-Dichloroethene		ug/l	<0.10
cis-1,3-Dichloropropene		ug/l	<0.05
Dibromochloromethane		ug/l	<0.05
Dibromomethane		ug/l	<0.3
Dichlorodifluoromethane		ug/l	<0.10
Dichloromethane		ug/l	<0.03
Ethyl methacrylate		ug/l	<0.5
Ethylbenzene		ug/l	0.77
Iodomethane		ug/l	<0.5
Isobutyl Alcohol		ug/l	<10.0
Methacrylonitrile		ug/l	<10.0
Methyl methacrylate		ug/l	<0.5
Propionitrile		ug/l	<10.0
Styrene		ug/l	<1.0
t-1,4-Dichloro-2-butene		ug/l	<10.0
Tetrachloroethene	700	ug/l	<0.14
Toluene		ug/l	<0.11
trans-1,2-Dichloroethene		ug/l	<0.06
trans-1,3-Dichloropropene		ug/l	<0.04
Tribromomethane		ug/l	<0.12
Trichloroethene	500	ug/l	<0.19
Trichlorofluoromethane		ug/l	<0.08
Trichloromethane		ug/l	<0.03
Vinyl acetate		ug/l	<10.0
Vinyl chloride	200	ug/l	<0.17
o-Xylene		ug/l	1.55
m,p-Xylenes		ug/l	2.64
Ethylene dibromide		ug/l	<0.01
Dibromochloropropane		ug/l	<0.01
Total sulfide		mg/l	<1.0

Notes: (1) - Regulatory standard listed in 40 CFR Part 261.24. Analyte concentrations shown with shading represent an exceedance of the regulatory level.

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units.

Table 2-2
Leachate Analytical Summary
Lena Road Landfill
First Half 2005

Analyte	Location:	Lift Station #1	Lift Station #2	
	Sample Identifier:	Phase I	Phase II	
	Date of Test:	02/18/05	02/18/05	
Standard(I)	Units			
Field Measurements				
pH		STD	6.42	6.55
Temperature		Degrees C	22.39	20.79
Turbidity		NTUs	141	5.5
Conductivity		umhos/cm	2231	5259
Dissolved Oxygen (DO)		mg/l	0.72	0.6
Inorganics				
Antimony		mg/l	BDL	BDL
Arsenic	5.0	mg/l	BDL	BDL
Barium	100	mg/l	BDL	BDL
Beryllium		mg/l	BDL	BDL
Bicarbonate alkalinity		mg/l	BDL	BDL
Cadmium	1.0	mg/l	BDL	BDL
Chloride		mg/l	BDL	BDL
Chromium		mg/l	BDL	BDL
Cobalt		mg/l	BDL	BDL
Copper		mg/l	BDL	BDL
Cyanide		mg/l	BDL	0.005
Iron		mg/l	15.7	9.84
Lead	5,000	mg/l	BDL	BDL
Mercury	200	mg/l	BDL	BDL
Nickel		mg/l	BDL	BDL
Nitrate		mg/l	BDL	BDL
Selenium	1.0	mg/l	BDL	BDL
Silver	5.0	mg/l	BDL	BDL
Sodium		mg/l	122	415
Total Ammonia - N		mg/l	BDL	BDL
Total phenols		mg/l	0.019	0.026
Thallium		mg/l	BDL	BDL
Tin as SN		mg/l	BDL	BDL
Total Dissolved Solids (TDS)		mg/l	BDL	BDL
Total Sulfide		mg/l	BDL	BDL
Vanadium		mg/l	BDL	BDL
Zinc		mg/l	BDL	BDL
Pesticides & Herbicides				
2,4-D	10,000	ug/l	BDL	BDL
2,4,5-T		ug/l	BDL	BDL
A-BHC		ug/l	BDL	BDL
Aldrin		ug/l	BDL	BDL
B-BHC		ug/l	BDL	BDL
Chlordane	30	ug/l	BDL	BDL
D-BHC		ug/l	BDL	BDL
Dinoseb		ug/l	BDL	BDL
Endosulfan Sulfate		ug/l	BDL	BDL
Endosulfan-I		ug/l	BDL	BDL
Endosulfan-II		ug/l	BDL	BDL
Endrin	20	ug/l	BDL	BDL
Endrin Aldehyde		ug/l	BDL	BDL
G-BHC(Lindane)	400	ug/l	BDL	BDL
Heptachlor	8	ug/l	BDL	BDL
Heptachlor Epoxide		ug/l	BDL	BDL
Methoxychlor	10,000	ug/l	BDL	BDL

Analyte	Location:	Lift Station #1	Lift Station #2
	Sample Identifier:	Phase I	Phase II
	Date of Test:	02/18/05	02/18/05
	Standard(1)	Units	
PP-DDD		ug/l	BDL
PP-DDE/Dieldrin		ug/l	BDL
PP-DDT		ug/l	BDL
Silvex	1,000	ug/l	BDL
Toxaphene	500	ug/l	BDL
PCB-1016		ug/l	BDL
PCB-1221		ug/l	BDL
PCB-1232		ug/l	BDL
PCB-1242		ug/l	BDL
PCB-1248		ug/l	BDL
PCB-1254		ug/l	BDL
PCB-1260		ug/l	BDL
Organics, Acid Extractables			
2,4,6-Trichlorophenol	2,000	ug/l	BDL
2,4,5-Trichlorophenol	400,000	ug/l	BDL
2,4-Dinitrophenol		ug/l	BDL
4-Nitrophenol		ug/l	BDL
2,3,4,6-Tetrachlorophenol		ug/l	BDL
Pentachlorophenol	100,000	ug/l	BDL
2,4-Dichlorophenol		ug/l	BDL
4,6-Dinitro-2-methylphenol		ug/l	BDL
(3+4)-Methylphenol		ug/l	BDL
2-Methyphenol		ug/l	BDL
2,4-Dimethylphenol		ug/l	BDL
2-Nitrophenol		ug/l	BDL
Phenol		ug/l	BDL
2-Chlorophenol		ug/l	BDL
2,6-Dichlorophenol		ug/l	BDL
4-Chloro-3-methylphenol		ug/l	BDL
Base Neutrals			
1,3,5-Trinitrobenzene		ug/l	BDL
1,3-Dinitrobenzene		ug/l	BDL
1,4-Naphthoquinone		ug/l	BDL
2-Acetylaminoflourene		ug/l	BDL
3,3-Dimethylbenzidine		ug/l	BDL
5-Nitro-o-toluidine		ug/l	BDL
Acetonitrile		ug/l	BDL
Chlorobenzilate		ug/l	BDL
cis-Diallate		ug/l	BDL
trans-Diallate		ug/l	BDL
Dimethoate		ug/l	BDL
Disulfoton		ug/l	BDL
Famfur		ug/l	BDL
Hexylchloropropene		ug/l	BDL
Isodrin		ug/l	BDL
Isosafrole		ug/l	BDL
Kepone		ug/l	BDL
Methapyrilene		ug/l	BDL
Methyl parathion		ug/l	BDL
N-Nitrosoethylmethylamine		ug/l	BDL
N-Nitrosopyrrolidine		ug/l	BDL
N-Nitrosodiethylamine		ug/l	BDL
OOO-Triethylphosphorothioate		ug/l	BDL

Analyte	Location:	Lift Station #1	Lift Station #2
	Sample Identifier:	Phase I	Phase II
	Date of Test:	02/18/05	02/18/05
	Standard(1)	Units	
Ortho-toluidine		ug/l	BDL
Para-Phenylenediamine		ug/l	BDL
Parathion		ug/l	BDL
Phorate		ug/l	BDL
Safrole		ug/l	BDL
Thionazin		ug/l	BDL
1,2,4,5-Tetrachlorobenzene		ug/l	BDL
1,2,4-Trichlorobenzene		ug/l	BDL
1-Naphthylamine		ug/l	BDL
2,4-Dinitrotoluene	13,000	ug/l	BDL
2,6-Dinitrotoluene		ug/l	BDL
2-Chloronaphthalene		ug/l	BDL
2-Methylnaphthalene		ug/l	BDL
2-Naphthylamine		ug/l	BDL
2-Nitroaniline		ug/l	BDL
3,3-Dichlorobenzidine		ug/l	BDL
3-Methylcholanthrene		ug/l	BDL
3-Nitroaniline		ug/l	BDL
4-Aminobiphenyl		ug/l	BDL
4-Bromophenyl-phenylether		ug/l	BDL
4-Chloroaniline		ug/l	BDL
4-Chlorophenylphenylether		ug/l	BDL
4-Nitronaline		ug/l	BDL
7,12-Dimethylbenz(a)anthracene		ug/l	BDL
Acenaphthene		ug/l	BDL
Acenaphthylene		ug/l	BDL
Acetone		ug/l	BDL
Acetophenone		ug/l	BDL
Anthracene		ug/l	BDL
Benzo(a)anthracene		ug/l	BDL
Benzo(a)pyrene		ug/l	BDL
Benzo(b)flouranthene		ug/l	BDL
Benzo(g,h,i)perylene		ug/l	BDL
Benzo(k)flouranthene		ug/l	BDL
Benzyl alcohol		ug/l	BDL
Bis(2-chloroethoxy)methane		ug/l	BDL
Bis(2-chloroethyl)ether		ug/l	BDL
Bis(2-chloroisopropyl)ether		ug/l	BDL
Bis(2-ethylhexyl)phthalate		ug/l	BDL
Butylbenzylphthalate		ug/l	BDL
Chrysene		ug/l	BDL
Dibenz(a,h)anthracene		ug/l	BDL
Dibenzofuran		ug/l	BDL
Diethylphthalate		ug/l	BDL
Dimethylphthalate		ug/l	BDL
Di-N-butylphthalate		ug/l	BDL
Di-N-octylphthalate		ug/l	BDL
Diphenylamine		ug/l	BDL
Ethylmethanesulfonate		ug/l	BDL
Flouranthene		ug/l	BDL
Flourene		ug/l	BDL

Analyte	Location:	Lift Station #1	Lift Station #2
	Sample Identifier:	Phase I	Phase II
	Date of Test:	02/18/05	02/18/05
	Standard(1)	Units	
Hexachlorobenzene	130	ug/l	BDL
Hexachlorobutadiene	500	ug/l	BDL
Hexachlorocyclopentadiene		ug/l	BDL
Hexachloroethane	3,000	ug/l	BDL
Indeno(1,2,3-cd)pyrene		ug/l	BDL
Isophorone		ug/l	BDL
Methylmethanesulfonate		ug/l	BDL
Naphthalene		ug/l	BDL
N-Nitrosodi-n-butylamine		ug/l	BDL
Nitrobenzene	2,000	ug/l	BDL
N-Nitrosodimethylamine		ug/l	BDL
N-Nitroso-di-n-propylamine		ug/l	BDL
N-Nitrosodiphenylamine		ug/l	BDL
N-Nitrosopiperidine		ug/l	BDL
P-Dimethylaminooazobenzene		ug/l	BDL
Pentachlorobenzene		ug/l	BDL
Pentachloronitrobenzene		ug/l	BDL
Phenacetin		ug/l	BDL
Phenanathrene		ug/l	BDL
Pronamide		ug/l	BDL
Pyrene		ug/l	BDL
Volatile Organics			
1,1,1,2-Tetrachloroethane		ug/l	BDL
1,1,1-Trichloroethane		ug/l	BDL
1,1,2,2-Tetrachloroethane		ug/l	BDL
1,1,2-Trichloroethane		ug/l	BDL
1,1-Dichloroethane		ug/l	BDL
1,1-Dichloroethene	700	ug/l	BDL
1,1-Dichloropropene		ug/l	BDL
1,2,3-Trichloropropane		ug/l	BDL
1,2-Dichlorobenzene		ug/l	BDL
1,2-Dichloroethane	500	ug/l	BDL
1,2-Dichloropropane		ug/l	BDL
1,3-Dichlorobenzene		ug/l	BDL
1,3-Dichloropropane		ug/l	BDL
1,4-Dichlorobenzene	7,500	ug/l	BDL
2,2-Dichloropropane		ug/l	BDL
2-Butanone		ug/l	BDL
2-Hexanone		ug/l	BDL
4-Methyl-2-pentanone		ug/l	BDL
Acetonitrile		ug/l	BDL
Acrolein		ug/l	BDL
Acrylonitrile		ug/l	BDL
Allyl chloride		ug/l	BDL
Benzene	500	ug/l	BDL
Bromomethane		ug/l	BDL
Bromo(chloro)methane		ug/l	BDL
Bromodichloromethane		ug/l	BDL
Carbon disulfide		ug/l	BDL
Carbon tetrachloride	500	ug/l	BDL
Chlorobenzene	100,000	ug/l	BDL

Analyte	Location:	Lift Station #1	Lift Station #2
	Sample Identifier:	Phase I	Phase II
	Date of Test:	02/18/05	02/18/03
	Standard(1)	Units	
Chloroethane		ug/l	BDL
Chloromethane		ug/l	BDL
Chloroprene		ug/l	BDL
cis-1,2-Dichloroethene		ug/l	BDL
cis-1,3-Dichloropropene		ug/l	BDL
Dibromochloromethane		ug/l	BDL
Dibromomethane		ug/l	BDL
Dichlorodifluoromethane		ug/l	BDL
Dichloromethane		ug/l	BDL
Ethyl methacrylate		ug/l	BDL
Ethylbenzene		ug/l	BDL
Iodomethane		ug/l	BDL
Isobutyl Alcohol		ug/l	BDL
Methacrylonitrile		ug/l	BDL
Methyl methacrylate		ug/l	BDL
Propionitrile		ug/l	BDL
Styrene		ug/l	BDL
t-1,4-Dichloro-2-butene		ug/l	BDL
Tetrachloroethene	700	ug/l	BDL
Toluene		ug/l	BDL
trans-1,2-Dichloroethene		ug/l	BDL
trans-1,3-Dichloropropene		ug/l	BDL
Tribromomethane		ug/l	BDL
Trichloroethene	500	ug/l	BDL
Trichlorofluoromethane		ug/l	BDL
Trichloromethane		ug/l	BDL
Vinyl acetate		ug/l	BDL
Vinyl chloride	200	ug/l	BDL
o-Xylene		ug/l	BDL
m,p-Xylenes		ug/l	BDL
Ethylene dibromide		ug/l	BDL
Dibromochloropropane		ug/l	BDL

Notes: (1) - Regulatory standard listed in 40 CFR Part 261.24. Analyte concentrations shown with shading represent an exceedance of the regulatory level.

Abbreviations: BDL = below detection limits; mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units.

Table 2-3 - Lena Road Leachate Analytical Summary
Second Half 2005

Analyte	Location:	Leachate I	Leachate II	Leachate III
	Sample Identifier:	08/10/05	08/10/05	8/10/2005
	Date of Test:	Standard(I)	Units	
Field Measurements				
pH		STD	6.8	6.7
Temperature		Degrees C	30.6	34.4
Conductivity		umhos/cm	4150	2878
Dissolved Oxygen (DO)		mg/l	2	1.8
Inorganics				
Antimony		mg/l	<0.0015	<0.0015
Arsenic	5.0	mg/l	0.01	<0.007
Barium	100	mg/l	0.08	0.066
Beryllium		mg/l	<0.0002	<0.0002
Bicarbonate alkalinity		mg/l	1720	1020
Cadmium	1.0	mg/l	<0.0005	<0.0005
Chloride		mg/l	608	342
Chromium		mg/l	0.005	0.003
Cobalt		mg/l	0.008	0.007
Copper		mg/l	0.3	0.044
Iron		mg/l	11.4	1.28
Lead	5,000	mg/l	0.013	<0.005
Mercury	2	ug/l	<0.100	<0.100
Nickel		mg/l	0.045	0.012
Nitrate		mg/l	<0.006	<0.006
Selenium	1.0	mg/l	0.002	0.002
Silver	5.0	mg/l	<0.002	<0.002
Sodium		mg/l	192	181
Total Ammonia - N		mg/l	180	109
Thallium		mg/l	<0.0004	<0.0004
Tin as SN		mg/l	<0.1	<0.1
Total Dissolved Solids (TDS)		mg/l	1300	1440
Vanadium		mg/l	0.017	0.002
Zinc		mg/l	0.154	0.048
Pesticides & Herbicides				
2,4-D	10,000	ug/l	<0.36	<0.36
2,4,5-T		ug/l	<0.046	<0.046
A-BHC		ug/l	<0.00051	<0.00051
Aldrin		ug/l	<0.00065	<0.00065
B-BHC		ug/l	<0.0063	<0.0063
Chlordane	30	ug/l	<0.057	<0.057
D-BHC		ug/l	<0.0074	<0.0074
Dinoseb		ug/l	<0.42	<0.42
Endosulfan Sulfate		ug/l	<0.0070	<0.0070
Endosulfan-I		ug/l	<0.0063	<0.0063
Endosulfan-II		ug/l	<0.0078	<0.0078
Endrin	20	ug/l	<0.0035	<0.0035
Endrin Aldehyde		ug/l	<0.0050	<0.0050
G-BHC(Lindane)	400	ug/l	<0.011	<0.011
Heptachlor	8	ug/l	<0.011	<0.011
Heptachlor Epoxide		ug/l	<0.0060	<0.0060
Methoxychlor	10,000	ug/l	<0.0082	<0.0082

Analyte	Location:	Lift Station #1	Lift Station #2	Lift Station #3	
	Sample Identifier:	Leachate I	Leachate II	Leachate III	
	Date of Test:	08/10/05	08/10/05	8/10/2005	
Standard(1)	Units				
PP-DDD		ug/l	<0.0047	<0.0047	<0.0047
PP-DDE/Dieldrin		ug/l	<0.0031	<0.0031	<0.0031
PP-DDT		ug/l	<0.0042	<0.0042	<0.0042
Silvex	1,000	ug/l	<0.036	<0.036	<0.036
Toxaphene	500	ug/l	<0.72	<0.72	<0.72
PCB-1016		ug/l	<0.26	<0.26	<0.26
PCB-1221		ug/l	<0.15	<0.15	<0.15
PCB-1232		ug/l	<0.38	<0.38	<0.38
PCB-1242		ug/l	<0.077	<0.077	<0.077
PCB-1248		ug/l	<0.070	<0.070	<0.070
PCB-1254		ug/l	<0.12	<0.12	<0.12
PCB-1260		ug/l	<0.10	<0.10	<0.10
Organics: Acid Extractables					
2,4,6-Trichlorophenol	2,000	ug/l	<1.9	<1.9	<1.9
2,4,5-Trichlorophenol	400,000	ug/l	<2.1	<2.1	<2.1
2,4-Dinitrophenol		ug/l	<6.2	<6.2	<6.2
4-Nitrophenol		ug/l	<6.2	<6.2	<6.2
2,3,4,6-Tetrachlorophenol		ug/l	<2.1	<0.65	<0.65
Pentachlorophenol	100,000	ug/l	<1.5	<1.5	<1.5
2,4-Dichlorophenol		ug/l	<1.8	<1.8	<1.8
4,6-Dinitro-2-methylphenol		ug/l	<1.5	<1.5	<1.5
(3+4)-Methylphenol		ug/l	<2.4	<2.4	<2.4
2-Methyphenol		ug/l	<2.3	<2.3	<2.3
2,4-Dimethylphenol		ug/l	<1.8	<1.8	<1.8
2-Nitrophenol		ug/l	<1.2	<1.2	<1.2
Phenol		ug/l	<2.4	<2.4	<2.4
2-Chlorophenol		ug/l	<2.1	<2.1	<2.1
2,6-Dichlorophenol		ug/l	<1.6	<1.6	<1.6
4-Chloro-3-methylphenol		ug/l	<1.7	<1.7	<1.7
Base/Neutrals					
1,3,5-Trinitrobenzene		ug/l	<0.61	<0.61	<0.61
1,3-Dinitrobenzene		ug/l	<0.99	<0.99	<0.99
1,4-Naphthoquinone		ug/l	<0.54	<0.54	<0.54
2-Acetylaminoflourene		ug/l	<0.77	<0.77	<0.77
3,3-Dimethylbenzidine		ug/l	<14	<14	<14
5-Nitro-o-toluidine		ug/l	<0.90	<0.90	<0.90
Chlorobenzilate		ug/l	<0.075	<0.075	<0.075
Diallate		ug/l	<1.4	<1.4	<1.4
Dimethoate		ug/l	<0.12	<0.12	<0.12
Disulfoton		ug/l	<0.18	<0.18	<0.18
Famphur		ug/l	<0.17	<0.17	<0.17
Hexylchloropropene		ug/l	<3800	<3800	<3800
Isodrin		ug/l	<0.0061	<0.0061	<0.0061
Iisosafrole		ug/l	<1.6	<1.6	<1.6
Kepone		ug/l	<0.083	<0.083	<0.083
Methapyrilene		ug/l	<1.1	<1.1	<1.1
Methyl parathion		ug/l	<0.11	<0.11	<0.11
N-Nitrosoethylmethylamine		ug/l	<2.4	<2.4	<2.4
N-Nitrosopyrrolidine		ug/l	<1.2	<1.2	<1.2
N-Nitrosodiethylamine		ug/l	<1.5	<1.5	<1.5
OOO-Triethylphosphorothioate		ug/l	<1.8	<1.8	<1.8

Analyte	Location:	Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:	Leachate I	Leachate II	Leachate III
	Date of Test:	08/10/05	08/10/05	8/10/2005
Standard(1)	Units			
Ortho-toluidine	ug/l	<1.2	<1.2	<1.2
Para-Phenylenediamine	ug/l	<3.1	<3.1	<3.1
Parathion	ug/l	<0.085	<0.085	<0.085
Phorate	ug/l	<0.086	<0.086	<0.086
Safrole	ug/l	<1.2	<1.2	<1.2
Thionazin	ug/l	<0.080	<0.080	<0.080
1,2,4,5-Tetrachlorobenzene	ug/l	<1.1	<1.1	<1.1
1,2,4-Trichlorobenzene	ug/l	<1.2	<1.2	<1.2
1-Naphthylamine	ug/l	<0.84	<0.84	<0.84
2,4-Dinitrotoluene	13,000 ug/l	<0.91	<0.91	<0.91
2,6-Dinitrotoluene	ug/l	<0.72	<0.72	<0.72
2-Chloronaphthalene	ug/l	<1.6	<1.6	<1.6
2-Methylnaphthalene	ug/l	<1.6	<1.6	<1.6
2-Naphthylamine	ug/l	<1.0	<1.0	<1.0
2-Nitroaniline	ug/l	<1.4	<1.4	<1.4
3,3-Dichlorobenzidine	ug/l	<1.6	<1.6	<1.6
3-Methylcholanthrene	ug/l	<0.56	<0.56	<0.56
3-Nitroaniline	ug/l	<1.2	<1.2	<1.2
4-Aminobiphenyl	ug/l	<0.81	<0.81	<0.81
4-Bromophenyl-phenylether	ug/l	<1.7	<1.7	<1.7
4-Chloroaniline	ug/l	<2.1	<2.1	<2.1
4-Chlorophenylphenylether	ug/l	<1.8	<1.8	<1.8
4-Nitronaline	ug/l	<1.4	<1.4	<1.4
7,12-Dimethylbenz(a)anthracene	ug/l	<0.92	<0.92	<0.92
Acenaphthene	ug/l	<1.5	2.9	<1.5
Acenaphthylene	ug/l	<1.8	<1.8	<1.8
Acetone	ug/l	12	13	<9.9
Acetophenone	ug/l	<1.5	<1.5	<1.5
Anthracene	ug/l	<1.0	<1.0	<1.0
Benzo(a)anthracene	ug/l	<1.6	<1.6	<1.6
Benzo(a)pyrene	ug/l	<0.99	<0.99	<0.99
Benzo(b)flouranthene	ug/l	<1.6	<1.6	<1.6
Benzo(g,h,i)perylene	ug/l	<1.1	<1.1	<1.1
Benzo(k)flouranthene	ug/l	<1.3	<1.3	<1.3
Benzyl alcohol	ug/l	<2.9	<2.9	<2.9
Bis(2-chloroethoxy)methane	ug/l	<2.0	<2.0	<2.0
Bis(2-chloroethyl)ether	ug/l	<2.6	<2.6	<2.6
Bis(2-chloroisopropyl)ether	ug/l	<2.1	<2.1	<2.1
Bis(2-ethylhexyl)phthalate	ug/l	<1.3	<1.3	<1.3
Butylbenzylphthalate	ug/l	<1.2	<1.2	<1.2
Chrysene	ug/l	<1.2	<1.2	<1.2
Dibenz(a,h)anthracene	ug/l	<1.0	<1.0	<1.0
Dibenzofuran	ug/l	<1.6	2.2	<1.6
Diethylphthalate	ug/l	<1.6	<1.6	<1.6
Dimethylphthalate	ug/l	<2.1	<2.1	<2.1
Di-N-butylphthalate	ug/l	<1.8	<1.8	<1.8
Di-N-octylphthalate	ug/l	<1.2	<1.2	<1.2
Diphenylamine	ug/l	<1.1	<1.1	<1.1
Ethylmethanesulfonate	ug/l	<1.3	<1.3	<1.3
Flouranthene	ug/l	<1.2	<1.2	<1.2
Flourene	ug/l	<1.7	2.6	<1.7

Analyte	Location:	Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:	Leachate I	Leachate II	Leachate III
	Date of Test:	08/10/05	08/10/05	8/10/2005
Standard(t)	Units			
Hexachlorobenzene	130	ug/l	<1.7	<1.7
Hexachlorobutadiene	500	ug/l	<1.0	<1.0
Hexachlorocyclopentadiene		ug/l	<1.2	<1.2
Hexachloroethane	3,000	ug/l	<0.85	<0.85
Indeno(1,2,3-cd)pyrene		ug/l	<1.2	<1.2
Isophorone		ug/l	<1.4	<1.4
Methylmethanesulfonate		ug/l	<1.2	<1.2
Naphthalene		ug/l	<1.3	2.3
N-Nitrosodi-n-butylamine		ug/l	<1.5	<1.5
Nitrobenzene	2,000	ug/l	<1.9	<1.9
N-Nitrosodimethylamine		ug/l	<2.4	<2.4
N-Nitroso-di-n-propylamine		ug/l	<1.9	<1.9
N-Nitrosodiphenylamine		ug/l	<1.6	<1.6
N-Nitrosopiperidine		ug/l	<0.87	<0.87
P-Dimethylaminoazobenzene		ug/l	<0.67	<0.67
Pentachlorobenzene		ug/l	<0.99	<0.99
Pentachloronitrobenzene		ug/l	<1.5	<1.5
Phenacetin		ug/l	<0.84	<0.84
Phenanathrene		ug/l	<1.3	1.5
Pronamide		ug/l	<0.70	<0.70
Pyrene		ug/l	<1.2	<1.2
<i>Volatile Organics</i>				
1,1,1,2-Tetrachloroethane		ug/l	<0.63	<0.63
1,1,1-Trichloroethane		ug/l	<0.46	<0.46
1,1,2,2-Tetrachloroethane		ug/l	<0.14	<0.14
1,1,2-Trichloroethane		ug/l	<0.47	<0.47
1,1-Dichloroethane		ug/l	<0.52	<0.52
1,1-Dichloroethene	700	ug/l	<0.45	<0.45
1,1-Dichloropropene		ug/l	<0.31	<0.31
1,2,3-Trichloropropane		ug/l	<0.15	<0.15
1,2-Dichlorobenzene		ug/l	<0.44	<0.44
1,2-Dichloroethane	500	ug/l	<0.57	<0.57
1,2-Dichloropropane		ug/l	<0.52	<0.52
1,3-Dichlorobenzene		ug/l	<0.64	<0.64
1,3-Dichloropropane		ug/l	<0.39	<0.39
1,4-Dichlorobenzene	7,500	ug/l	5.4	3.6
2,2-Dichloropropane		ug/l	<0.36	<0.36
2-Butanone		ug/l	<8.4	<8.4
2-Hexanone		ug/l	<4.4	<4.4
4-Methyl-2-pentanone		ug/l	<3.8	<3.8
Acetonitrile		ug/l	<75	<75
Acrolein		ug/l	<3.8	<3.8
Acrylonitrile		ug/l	<1.2	<1.2
Allyl chloride		ug/l	<1.1	<1.1
Benzene	500	ug/l	1.9	1.1
Bromomethane		ug/l	<0.66	<0.66
Bromoform		ug/l	<0.58	<0.58
Bromodichloromethane		ug/l	<0.35	<0.35
Carbon Disulfide		ug/l	<0.85	<0.85
Carbon tetrachloride	500	ug/l	<0.42	<0.42
Chlorobenzene	100,000	ug/l	8.7	6.3
				4.6

Analyte	Location:	Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:	Leachate I	Leachate II	Leachate III
	Date of Test:	08/10/05	08/10/05	8/10/2005
Standard(1)	Units			
Chloroethane	ug/l	<0.80	<0.80	<0.80
Chloromethane	ug/l	<0.64	<0.64	<0.64
Chloroprene	ug/l	<0.89	<0.89	<0.89
cis-1,2-Dichloroethene	ug/l	<0.65	<0.65	<0.65
cis-1,3-Dichloropropene	ug/l	<0.14	<0.14	<0.14
Dibromochloromethane	ug/l	<0.34	<0.34	<0.34
Dibromomethane	ug/l	<0.41	<0.41	<0.41
Dichlorodifluoromethane	ug/l	<0.40	<0.40	<0.40
Dichloromethane	ug/l	<4.0	<4.0	<4.0
Ethyl methacrylate	ug/l	<0.53	<0.53	<0.53
Ethylbenzene	ug/l	1.2	1.2	<0.53
Iodomethane	ug/l	<0.67	<0.67	<0.67
Isobutyl Alcohol	ug/l	<31	<31	<31
Methacrylonitrile	ug/l	<1.8	<1.8	<1.8
Methyl methacrylate	ug/l	<0.66	<0.66	<0.66
Propionitrile	ug/l	<7.2	<7.2	<7.2
Styrene	ug/l	<0.98	<0.98	<0.98
t-1,4-Dichloro-2-butene	ug/l	<2.5	<2.5	<2.5
Tetrachloroethylene	700	ug/l	<0.34	<0.34
Toluene		ug/l	<0.51	<0.51
trans-1,2-Dichloroethene		ug/l	<0.44	<0.44
trans-1,3-Dichloropropene		ug/l	<0.14	<0.14
Tribromomethane		ug/l	<0.58	<0.58
Trichloroethene	500	ug/l	<0.28	<0.28
Trichlorofluoromethane		ug/l	<0.98	<0.98
Trichloromethane		ug/l	<0.90	<0.90
Vinyl acetate		ug/l	<1.5	<1.5
Vinyl chloride	200	ug/l	<0.50	0.54
o-Xylene		ug/l	NA	NA
m,p-Xylenes		ug/l	NA	NA
Total xylenes		ug/l	3.8	4.1
Ethylene dibromide		ug/l	<0.50	<0.50
Dibromochloropropane		ug/l	<0.74	<0.74
Total sulfide ⁽²⁾	mg/l	3.2	2	0.6

Notes: (1) - Regulatory standard listed in 40 CFR Part 261.24. Analyte concentrations shown with shading represent an exceedance of the regulatory level.

⁽²⁾ Sulfide data collected 12/23/2005

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units.

Table 2-4
Leachate Analytical Summary
Lena Road Landfill
First Half 2006

Analyte	Location:	Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:	Phase I	Phase II	
	Date of Test:	02/27/06	02/27/06	02/27/06
Standard(1)	Units			
Field Measurements				
pH		STD	6.5	6.4
Conductivity		umhos/cm	1520	1459
Dissolved Oxygen (DO)		mg/l	0.9	0.6
Inorganics				
Antimony		mg/l	0.004	0.003
Arsenic	5.0	mg/l	0.011	0.014
Barium	100	mg/l	0.109	0.031
Beryllium		mg/l	≤0.0002	≤0.0002
Bicarbonate alkalinity		mg/l	1650	551
Cadmium	1.0	mg/l	≤0.0005	≤0.0005
Chloride		mg/l	604	65.8
Chromium		mg/l	0.007	0.002
Cobalt		mg/l	0.014	0.002
Copper		mg/l	0.008	0.005
Cyanide		mg/l	<0.0005	<0.0005
Iron		mg/l	15	4.97
Lead	5,000	mg/l	≤0.005	≤0.005
Mercury	200	mg/l	≤0.100	≤0.100
Nickel		mg/l	0.015	0.007
Nitrate		mg/l	≤0.006	0.284
Selenium	1.0	mg/l	0.005	0.002
Silver	5.0	mg/l	≤0.002	≤0.002
Sodium		mg/l	356	48.2
Total Ammonia - N		mg/l	210	37.9
Thallium		mg/l	≤0.0004	0.001
Tin as SN		mg/l	<0.1	<0.1
Total Dissolved Solids (TDS)		mg/l	2330	693
Total Sulfide		mg/l	3	3.5
Vanadium		mg/l	0.028	0.004
Zinc		mg/l	0.025	0.02
Pesticides & Herbicides				
2,4-D	10,000	ug/l	<0.36	<0.36
2,4,5-T		ug/l	<0.046	<0.046
3 & 4 methylphenol		ug/l	<0.72	3.7
A-BHC		ug/l	<0.0025	<0.0026
Aldrin		ug/l	<0.0028	<0.0029
B-BHC		ug/l	<0.0040	<0.0041
Chlordane	30	ug/l	<0.0038	<0.0039
D-BHC		ug/l	<0.003	<0.0031
Dieldrin		ug/l	<0.0018	<0.0019
Dinoseb		ug/l	<0.42	<0.42
Endosulfan Sulfate		ug/l	<0.0019	<0.0021
Endosulfan-I		ug/l	<0.0017	<0.008
Endosulfan-II		ug/l	<0.0018	<0.0019
Endrin	20	ug/l	<0.002	<0.0021
Endrin Aldehyde		ug/l	<0.0025	<0.0026
G-BHC(Lindane)	400	ug/l	<0.002	<0.0021
Heptachlor	8	ug/l	<0.002	<0.0021
Heptachlor Epoxide		ug/l	<0.002	<0.0021
Methoxychlor	10,000	ug/l	<0.0031	<0.0032

Analyte	Location:	Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:	Phase I	Phase II	
	Date of Test:	02/27/06	02/27/06	02/27/06
Standard(l)	Units			
PCB-1016	ug/l	<0.32	<0.33	<0.30
PCB-1221	ug/l	<0.46	<0.47	<0.43
PCB-1232	ug/l	<0.19	<0.20	<0.18
PCB-1242	ug/l	<0.34	<0.35	<0.32
PCB-1248	ug/l	<0.12	<0.12	<0.11
PCB-1254	ug/l	<0.079	<0.80	<0.074
PCB-1260	ug/l	<0.064	<0.065	<0.059
PP-DDD	ug/l	<0.0016	<0.0016	<0.0015
PP-DDE	ug/l	<0.0021	<0.0022	<0.0020
PP-DDT	ug/l	<0.0026	<0.0027	<0.0025
Silvex	1,000	ug/l	<0.036	<0.036
Toxaphene	500	ug/l	<0.31	<0.29
<i>Organics: Acid Extractables</i>				
2,4,6-Trichlorophenol	2,000	ug/l	<1.3	<1.3
2,3,4,6-Tetrachlorophenol		ug/l	<3.6	<3.6
2,4,5-Trichlorophenol	400,000	ug/l	<1.6	<1.6
2,4-Dichlorophenol		ug/l	<1.0	<1.0
2,4-Dimethylphenol		ug/l	<2.5	<2.5
2,4-Dinitrophenol		ug/l	<1.3	<1.3
2,6-Dichlorophenol		ug/l	<0.68	<0.68
2-Chlorophenol		ug/l	<0.78	<0.78
2-Methyphenol		ug/l	<0.94	<0.94
2-Nitrophenol		ug/l	<1.0	<1.0
4,6-Dinitro-2-methylphenol		ug/l	<1.3	<1.3
4-Chloro-3-methylphenol		ug/l	<1.6	<1.6
4-Nitrophenol		ug/l	<2.4	<2.4
Pentachlorophenol	100,000	ug/l	<2.1	<2.1
Phenol		ug/l	<0.66	<0.66
<i>Base Neutrals</i>				
1,2,4,5-Tetrachlorobenzene		ug/l	<0.85	<0.85
1,2,4-Trichlorobenzene		ug/l	<1.4	<1.4
1,3,5-Trinitrobenzene		ug/l	<0.55	<0.55
1,3-Dinitrobenzene		ug/l	<1.6	<1.6
1,4-Naphthoquinone		ug/l	<0.32	<0.32
1-Naphthylamine		ug/l	<0.58	<0.58
2,4-Dinitrotoluene	13,000	ug/l	<1.1	<1.1
2,6-Dinitrotoluene		ug/l	<1.0	<1.0
2-Acetylaminoflourene		ug/l	<0.94	<0.94
2-Chloronaphthalene		ug/l	<0.78	<0.78
2-Methylnaphthalene		ug/l	<1.0	<1.0
2-Naphthylamine		ug/l	<0.59	<0.59
2-Nitroaniline		ug/l	<1.0	<1.0
3,3-Dichlorobenzidine		ug/l	<0.51	<0.51
3,3-Dimethylbenzidine		ug/l	<2.8	<2.8
3-Methylcholanthrene		ug/l	<0.58	<0.58
3-Nitroaniline		ug/l	<1.9	<1.9
4-Aminobiphenyl		ug/l	<0.55	<0.55
4-Bromophenyl-phenylether		ug/l	<0.77	<0.77
4-Chloroaniline		ug/l	<0.57	<0.57
4-Chlorophenylphenylether		ug/l	<0.60	<0.60
4-Nitronaline		ug/l	<1.0	<1.0
5-Nitro-o-toluidine		ug/l	<0.70	<0.70
7,12-Dimethylbenz(a)anthracene		ug/l	<0.32	<0.32
Acenaphthene		ug/l	<0.94	<0.94
Acenaphthylene		ug/l	<0.64	<0.64

Analyte	Location:	Lift Station #1	Lift Station #2	Lift Station #3	
	Sample Identifier:	Phase I	Phase II		
	Date of Test:	02/27/06	02/27/06	02/27/06	
	Standard(1)	Units			
Acetophenone		ug/l	<0.76	<0.76	<0.76
Anthracene		ug/l	<0.58	<0.58	<0.58
Benzo(a)anthracene		ug/l	<0.94	<0.94	<0.94
Benzo(a)pyrene		ug/l	<0.53	<0.53	<0.53
Benzo(b)flouranthene		ug/l	<1.9	<1.9	<1.9
Benzo(g,h,i)perylene		ug/l	<0.59	<0.59	<0.59
Benzo(k)flouranthene		ug/l	<0.51	<0.51	<0.51
Benzyl alcohol		ug/l	<0.84	<0.84	<0.84
Bis(2-chloroethoxy)methane		ug/l	<0.75	<0.75	<0.75
Bis(2-chloroethyl)ether		ug/l	<0.92	<0.92	<0.92
Bis(2-chloro-1-methylethyl)ether		ug/l	<0.75	<0.75	<0.75
Bis(2-ethylhexyl)phthalate		ug/l	<1.8	<1.8	<1.8
Butylbenzylphthalate		ug/l	<1.4	<1.4	<1.4
Chlorobenzilate		ug/l	<0.019	<0.02	<0.018
Chrysene		ug/l	<0.29	<0.29	<0.29
Diallate		ug/l	<0.43	<0.43	<0.43
Dibenz(a,h)anthracene		ug/l	<0.54	<0.54	<0.54
Dibenzo-furan		ug/l	<1.1	<1.1	<1.1
Diethylphthalate		ug/l	<1.3	<1.3	<1.3
Dimethoate		ug/l	<0.32	<0.27	<0.23
Dimethylphthalate		ug/l	<0.94	<0.94	<0.94
Di-N-butylphthalate		ug/l	<1.2	<1.2	<1.2
Di-N-octylphthalate		ug/l	<2.0	<2.0	<2.0
Diphenylamine		ug/l	<1.0	<1.0	<1.0
Disulfoton		ug/l	<0.42	<0.42	<0.42
Ethylmethanesulfonate		ug/l	<0.87	<0.87	<0.87
Famfur		ug/l	<0.17	<0.17	<0.17
Flouranthene		ug/l	<0.28	<0.28	<0.28
Flourene		ug/l	<0.58	<0.58	<0.58
Hexachlorobenzene	130	ug/l	<0.57	<0.57	<0.57
Hexachlorobutadiene	500	ug/l	<1.0	<1.0	<1.0
Hexachlorocyclopentadiene		ug/l	<0.46	<0.46	<0.46
Hexachloroethane	3,000	ug/l	<1.3	<1.3	<1.3
Hexylchloropropene		ug/l	<0.59	<0.59	<0.59
Indeno(1,2,3-cd)pyrene		ug/l	<0.81	<0.81	<0.81
Isodrin		ug/l	<0.0043	<0.0044	<0.0041
Isophorone		ug/l	<0.77	<0.77	<0.77
Iosafrole		ug/l	<0.85	<0.85	<0.85
Kepone		ug/l	<1.4	<1.4	<1.4
Methapyrilene		ug/l	<0.94	<0.94	<0.94
Methyl parathion		ug/l	<0.32	<0.32	<0.32
Methylmethanesulfonate		ug/l	<0.58	<0.58	<0.58
Naphthalene		ug/l	<0.94	<0.94	<0.94
Nitrobenzene	2,000	ug/l	<0.75	<0.75	<0.75
N-Nitrosodiethylamine		ug/l	<0.94	<0.94	<0.94
N-Nitrosodimethylamine		ug/l	<1.3	<1.3	<1.3
N-Nitrosodi-n-butylamine		ug/l	<0.62	<0.62	<0.62
N-Nitroso-di-n-propylamine		ug/l	<1.5	<1.5	<1.5
N-Nitrosodiphenylamine		ug/l	<1.0	<1.0	<1.0
N-Nitrosoethylmethylamine		ug/l	<1.1	<1.1	<1.1
N-Nitrosopiperidine		ug/l	<0.94	<0.94	<0.94
N-Nitrosopyrrolidine		ug/l	<0.66	<0.66	<0.66
0,0,0-Triethylphosphorothioate		ug/l	<0.75	<0.75	<0.75
Ortho-toluidine		ug/l	<0.60	<0.60	<0.60
Para-Phenylenediamine		ug/l	<470	<470	<470
Parathion		ug/l	<0.22	<0.22	<0.22

Analyte	Location:	Lift Station #1	Lift Station #2	Lift Station #3
	Sample Identifier:	Phase I	Phase II	
	Date of Test:	02/27/06	02/27/06	02/27/06
Standard(l)	Units			
P-Dimethylaminoazobenzene	ug/l	<0.37	<0.37	<0.37
Pentachlorobenzene	ug/l	<0.94	<0.94	<0.94
Pentachloronitrobenzene	ug/l	<0.51	<0.51	<0.51
Phenacetin	ug/l	<0.50	<0.50	<0.50
Phenanathrene	ug/l	<0.47	<0.47	<0.47
Phorate	ug/l	<0.28	<0.28	<0.28
Pronamide	ug/l	<0.33	<0.33	<0.33
Pyrene	ug/l	<0.34	<0.34	<0.34
Safrole	ug/l	<1.0	<1.0	<1.0
Thionazin	ug/l	<0.11	<0.11	<0.11
<i>Volatile Organics</i>				
1,1,1,2-Tetrachloroethane	ug/l	<0.63	<0.63	<0.63
1,1,1-Trichloroethane	ug/l	<0.46	<0.46	<0.46
1,1,2,2-Tetrachloroethane	ug/l	<0.14	<0.14	<0.14
1,1,2-Trichloroethane	ug/l	<0.47	<0.47	<0.47
1,1-Dichloroethane	ug/l	<0.52	<0.52	<0.52
1,1-Dichloroethene	700 ug/l	<0.45	<0.45	<0.45
1,1-Dichloropropene	ug/l	<0.31	<0.31	<0.31
1,2,3-Trichloropropane	ug/l	<0.15	<0.15	<0.15
1,2-Dichlorobenzene	ug/l	<0.44	<0.44	<0.44
1,2-Dichloroethane	500 ug/l	<0.57	<0.57	<0.57
1,2-Dichloropropane	ug/l	<0.52	<0.52	<0.52
1,3-Dichlorobenzene	ug/l	<0.64	<0.64	<0.64
1,3-Dichloropropane	ug/l	<0.39	<0.39	<0.39
1,4-Dichlorobenzene	7,500 ug/l	<1.8	<1.7	<1.2
2,2-Dichloropropane	ug/l	<0.36	<0.36	<0.36
2-Butanone	ug/l	<8.4	<8.4	<8.4
2-Hexanone	ug/l	<4.4	<4.4	<4.4
4-Methyl-2-pentanone	ug/l	<3.8	<3.8	<3.8
Acetone	ug/l	<9.9	<9.9	<9.9
Acetonitrile	ug/l	<75	<75	<75
Acrolein	ug/l	<3.8	<3.8	<3.8
Acrylonitrile	ug/l	<1.2	<1.2	<1.2
Allyl chloride	ug/l	<1.1	<1.1	<1.1
Benzene	500 ug/l	<0.90	<0.87	<0.82
Bromochloromethane	ug/l	<0.58	<0.58	<0.58
Bromodichloromethane	ug/l	<0.35	<0.35	<0.35
Bromomethane	ug/l	<0.66	<0.66	<0.66
Carbon disulfide	ug/l	<0.85	<0.85	<0.85
Carbon tetrachloride	500 ug/l	<0.42	<0.42	<0.42
Chlorobenzene	100,000 ug/l	<5.0	<4.7	<4.8
Chloroethane	ug/l	<0.80	<0.80	<0.80
Chloromethane	ug/l	<0.64	<0.64	<0.64
Chloroprene	ug/l	<0.89	<0.89	<0.89
cis-1,2-Dichloroethene	ug/l	<0.65	<0.65	<0.65
cis-1,3-Dichloropropene	ug/l	<0.14	<0.14	<0.14
Dibromochloromethane	ug/l	<0.34	<0.34	<0.34
Dibromochloropropane	ug/l	<0.74	<0.74	<0.74
Dibromomethane	ug/l	<0.41	<0.41	<0.41
Dichlorodifluoromethane	ug/l	<0.40	<0.48	<0.48
Dichloromethane	ug/l	<4.0	<4.0	<4.0
Ethyl methacrylate	ug/l	<0.53	<0.53	<0.53
Ethylbenzene	ug/l	<0.44	<0.44	<0.44
Ethylene dibromide	ug/l	<0.50	<0.50	<0.50
Iodomethane	ug/l	<0.67	<0.67	<0.67
Isobutyl Alcohol	ug/l	<31	<31	<31
Methacrylonitrile	ug/l	<1.8	<1.8	<1.8
Methyl methacrylate	ug/l	<0.66	<0.66	<0.66
Propionitrile	ug/l	<7.2	<7.2	<7.2
Styrene	ug/l	<0.98	<0.98	<0.98
t-1,4-Dichloro-2-butene	ug/l	<2.5	<2.5	<2.5
Tetrachloroethene	700 ug/l	<0.34	<0.34	<0.34
Toluene	ug/l	<0.51	<0.53	<0.53
Total Xylenes	ug/l	<0.30	<0.30	<0.30

Table 1, Page 4

 SOUTHWEST DISTRICT
TAMPA

MAY 17 2007

Analyte	Location:	Lift Station #1:	Lift Station #2:	Lift Station #3:
	Sample Identifier:	Phase I:	Phase II:	
	Date of Test:	02/27/06	02/27/06	02/27/06
Standard(1)	Units			
trans-1,2-Dichloroethene	ug/l	<0.44	<0.44	<0.44
trans-1,3-Dichloropropene	ug/l	<0.14	<0.14	<0.14
Tribromomethane	ug/l	<0.58	<0.58	<0.58
Trichloroethene	500	ug/l	<0.28	<0.28
Trichlorofluoromethane		ug/l	<0.98	<0.98
Trichloromethane		ug/l	<0.90	<0.90
Vinyl acetate		ug/l	<1.5	<1.5
Vinyl chloride	200	ug/l	<2..1	<0.50
				<2.8

Notes: (1) - Regulatory standard listed in 40 CFR Part 261.24. Analyte concentrations shown with shading represent an exceedance of the regulatory level.

Abbreviations: BDL = below detection limits; mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units.

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
MAY 17 2007
SOUTHWEST DISTRICT
TAMPA

Analyte	Well:	Surficial Wells																				Artesian Wells												
		CW-4	CW-5A	GC-1A	GC-2	GC-3	GC-4A	GC-5	GC-6	LRH-1	LRH-2	LRH-3	LRH-4	LRH-5	MW-1	MW-2	MW-3	MW-5	MW-6	SMR-1	SA-2	SA-3	SA-4	SA-5	SA-6	SA-7	SA-8	SMR-2						
		Date of Test:	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004			
	Standard ⁽³⁾	Units																																
Antimony	0.006	mg/l	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002			
Arsenic	0.01	mg/l	0.023	<0.007	0.015	0.08	0.012	0.008	0.01	0.012	0.007	<0.007	0.011	<0.007	0.037	<0.007	<0.007	0.01	0.007	<0.007	0.007	<0.007	0.007	<0.007	0.008	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007			
Barium	2	mg/l	0.219	0.024	0.015	0.006	0.014	0.022	0.035	0.03	0.009	0.006	0.052	0.012	0.008	0.024	0.039	0.021	0.049	0.008	0.008	0.006	0.007	0.014	0.015	0.021	0.015	0.027	0.014	0.014	0.014	0.014		
Beryllium	0.004	mg/l	<0.0002	0.0002	<0.002	<0.0002	<0.0002	<0.0002	<0.0002	0.002	<0.0002	0.001	0.0002	<0.0002	0.002	0.0003	<0.0002	<0.0002	0.0003	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Cadmium	0.005	mg/l	<0.0005	<0.0005	<0.0005	0.001	<0.0005	<0.0005	<0.0005	0.001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Chloride	250	mg/l	222	101	6.08	16.1	21.3	8.15	26.0	0.024	19.5	8.2	45.5	27.7	18.4	47.0	51.0	38.8	8.13	14.6	14.9	39.6	18.0	60.1	65.7	51.7	56.8	52.1	95.8	52.1	95.8	52.1	95.8	
Chromium	0.1	mg/l	0.002	0.001	<0.005	0.001	0.001	0.003	0.002	0.004	0.002	0.002	<0.0005	0.001	<0.003	0.004	0.005	0.004	0.003	0.008	0.005	0.004	0.002	0.002	0.002	<0.0005	0.003	0.002	0.002	<0.0005	0.002	0.002		
Cobalt		mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
Copper	1*	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
Iron	0.3*	mg/l	10.3	3.16	12.3	16.5	6.07	0.73	8.35	0.529	27.1	3.33	2.06	8.25	4.49	3.99	4.32	0.622	2.44	8.09	5.73	0.078	0.444	0.119	0.094	0.021	0.015	0.017	0.021	0.021	0.021	0.021		
Lead	0.015	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
Mercury	0.002	mg/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.423	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
Nickel	0.1	mg/l	0.009	0.003	<0.001	0.003	0.001	0.002	0.0017	<0.001	0.003	<0.001	<0.001	0.004	0.0014	0.003	0.005	<0.001	0.001	0.002	<0.001	0.002	<0.001	0.003	0.002	<0.002	0.002	<0.002	0.002	0.002	<0.002	0.002	0.002	0.002
Nitrate	10	mg/l	0.019	0.025	0.019	0.023	0.023	0.023	0.022	0.021	0.022	0.023	0.023	0.027	0.026	0.025	0.058	0.025	0.025	0.043	0.021	0.02	0.023	9.025	0.031	0.024	0.024	0.023	0.025	0.025	0.025	0.025	0.025	0.025
Selenium	0.05	mg/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Silver	0.1*	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
Sodium	160	mg/l	83.5	53.7	17.4	13.3	12.1	5.42	19.7	3.15	14.6	3.93																						

**Table 2-5 - Groundwater Analytical and Elevation Summary
First Half 2004**

Analyte	Surficial Aquifer Wells																			Artesian Aquifer Wells									
	Well:		CW-4	CW-5A	GC-1A	GC-2	GC-3	GC-4A	GC-5	GC-6	LRH-1	LRH-2	LRH-3	LRH-4	LRH-5	MW-1	MW-2	MW-3	MW-5	MW-6	SMR-1	SA-2	SA-3	SA-4	SA-5	SA-6	SA-7	SA-8	SMR-1
	Sample Identifier:		CW-4	CW-5A	GC-1A	GC-2	GC-3	GC-4A	GC-5	GC-6	LRH-1	LRH-2	LRH-3	LRH-4	LRH-5	MW-1	MW-2	MW-3	MW-5	MW-6	SMR-1	SA-2	SA-3	SA-4	SA-5	SA-6	SA-7	SA-8	SMR-2
	Date of Test:	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	3/17/2004	
Standard ⁽¹⁾	Units																												
Field Measurements:																													
Depth-to-Groundwater ⁽²⁾	feet	2.45	2.63	4.6	6.43	8.12	6.80	7.38	8.24	5.07	6.87	7	6.97	6.65	9.71	7.03	10	6.88	5.92	5.55	18.26	21.5	15.45	18.65	18.05	18.25	19.64	19.95	
Temperature	degrees C	20.69	20.89	19.56	23.37	23.89	21.54	23.42	23.11	22.91	23.06	23.3	23.74	22.25	22.56	22.31	24.12	23.21	21.84	21.95	24.67	24.57	22.84	24.63	24.39	24.27	24.58	24.08	
pH	6.5-8.5*	STD	6.54	6.63	6.87	4.97	6.33	6.06	6.48	5.49	6.06	5.34	4.36	5.6	5.43	4.20	5.68	3.87	5.72	4.39	5.30	5.43	7.06	7.02	6.24	6.41	7.21	9.55	6.68
Conductivity	umhos/cm	1893	751	504	534	737	526	721	177	462	164	292	536	397	268	546	334	359	190	207	670	788	825	750	933	547	530	754	
Dissolved Oxygen (DO)	mg/l	0.97	0.97	0.92	0.99	0.94	0.93	0.97	0.97	0.96	0.96	0.98	0.94	1.00	0.98	0.99	0.96	0.95	0.97	0.99	0.94	1.01	0.96	0.99	0.98	0.95	0.99	0.98	
Turbidity	NTU	1.84	1.03	4.86	2.04	3.39	21.4	0.78	1.74	6.04	5.04	0.64	1.6	0.84	6.91	2.18	18.4	4.62	2.16	2.19	1.62	0.46	6.35	0.86	3.62	1.38	6.77	0.91	
Organics:																													
Acetone	ug/l	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
Acrylonitrile	ug/l	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	
Benzene	1 ug/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	
Bromochloromethane	ug/l	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Bromodichloromethane	ug/l	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	
Bromomethane	ug/l	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	
2-Butanone	ug/l	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	
Carbon disulfide	ug/l	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	<4.1	
Carbon tetrachloride	3 ug/l	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	
Chlorobenzene	ug/l	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	
Chloroethane	ug/l	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Chloromethane	ug/l	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	
Dib – Bromochloromethane	ug/l	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Dibromochloropropane	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Dibromomethane	ug/l	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	
Dichloromethane	ug/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
1,2-Dibromo-3-chloropropane	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Ethylene dibromide	ug/l	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
1,2-Dichlorobenzene	ug/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
1,4-Dichlorobenzene	ug/l	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	
1,1-Dichloroethane	ug/l	<0.03	<0.03																										

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
MAY 17 2007
SOUTHWEST DISTRICT
TAMPA

Analyte		Surficial Aquifer Wells																		Artesian Aquifer Wells									
		Well:	CW-4	CW-5A	GC-1A	GC-2	GC-3	GC-4	GC-5	GC-6	LRH-1	LRH-2	LRH-3	LRH-4	LRH-5	MW-1	MW-2	MW-3	MW-5	MW-6	SMR-1	SA-2	SA-3	SA-4	SA-5	SA-6	SA-7	SA-8	SMR-2
		Sample Identifier:	CW-4	CW-5A	GC-1A	GC-2	GC-3	GC-4A	GC-5	GC-6	LRH-1	LRH-2	LRH-3	LRH-4	LRH-5	MW-1	MW-2	MW-3	MW-5	MW-6	SMR-1	SA-2	SA-3	SA-4	SA-5	SA-6	SA-7	SA-8	SMR-2
		Date of Test:	8/9/04	8/9/04	8/18/04	8/18/04	8/18/04	8/11/04	8/10/04	8/10/04	8/18/04	8/12/04	8/12/04	8/12/04	8/10/04	8/9/04	8/10/04	8/10/04	8/11/04	8/12/04	8/15/04	8/18/04	8/18/04	8/18/04	8/18/04	8/12/04	8/12/04	8/12/04	
	Standard ⁽¹⁾	Units																											
Chromium	0.005	mg/l	<0.0005	<0.0005	0.001	0.001	<0.0005	<0.0005	<0.0005	0.002	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Chromium	0.1	mg/l	0.001	0.001	<0.0005	0.001	0.002	0.003	0.002	0.004	0.002	0.002	0.001	0.004	0.004	0.004	0.004	0.002	0.007	0.006	0.001	0.001	<0.0005	0.001	0.001	0.001	0.001	0.001	
Cobalt		mg/l	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Copper	1*	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Iron	0.3*	mg/l	8.46	2.79	20.7	11	9.34	1.25	3.69	0.429	25.3	4.12	1.07	8.67	4.79	4.01	1.11	0.97	2.79	6.32	5.64	0.064	0.652	0.135	0.057	0.022	<0.01	0.014	0.027
Lead	0.015	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Mercury ⁽³⁾	0.002	mg/l	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	
Nickel	0.1	mg/l	0.008	0.003	<0.001	0.003	0.001	0.002	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.003	0.004	<0.001	<0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	
Nitrate	10	mg/l	0.033	0.03	0.076	0.011	0.012	0.333	0.02	0.018	0.009	0.172	0.011	0.008	0.018	0.032	2.53	2.18	0.021	0.01	0.009	0.008	0.009	0.008	0.056	0.013	0.021	0.01	0.012
Selenium	0.05	mg/l	0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Silver	0.1*	mg/l	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002		
Sodium	160	mg/l	77.9	56.8	23.3	12.6	16.3	2.18	29.5	2.86	12.7	4.47	9.18	13.7	12.8	16.3	35.8	39.3	7.14	3.36	14.8	26.8	21.5	60	49.8	41	31.4	24.1	53.6
Thallium	0.002	mg/l	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	
Total Ammonia-N		mg/l	0.137	0.211	7.95	0.119	0.166	0.213	2.17	0.588	0.009	0.043	1.07	2.77	0.411	1.05	0.121	0.729	1.63	0.26	0.172	0.177	0.139	0.172	0.164	0.16	0.112	0.06	0.226
Total Dissolved Solids (TDS)	500*	mg/l	1100	384	247	290	384	436	388	200	247	70	119	311	182	166	450	631	158	116	148	339	385	465	402	597	278	672	414
Vanadium		mg/l	0.002	0.009	0.001	0.003	0.006	0.003	0.006	0.021	0.007	0.009	0.003	0.002	0.007	0.013	0.035	0.011	0.014	0.042	0.016	<0.0005	0.001	0.001	<0.0005	<0.0005	0.001	<0.0005	
Zinc	5*	mg/l	0.064	0.03	0.055	0.058	0.038	0.037	0.069	0.116	0.074	0.135	0.082	0.019	0.026	0.055	0.138	0.048	0.048	0.02	0.032	0.039	0.067	0.044	0.061	0.043	0.12	0.02	0.049

⁽¹⁾ Maximum Contaminant Level (MCL), as established in Chapter 62-550.

⁽²⁾ As measured from the top of well casing.

⁽³⁾ Mercury exceedence due to MDL exceeding MCL.

⁽⁴⁾ Standard for arsenic at that time was actually 0.05 mg/L.

* Secondary Drinking Water Standards (SDWSs)

Shaded data indicates an excedeance of either the MCL or SDWS

SOUTHWEST DISTRICT
TAMPA

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FLORIDA DEPARTMENT OF
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**Table 2-6 - Lena Road Groundwater Analytical and Elevation Summary
Second Half 2004**

FLORIDA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
MAY 17 2007
SOUTHWEST DISTRICT
TAMPA

Table 2-7 - Groundwater Analytical Summary
First Half 2005

Analyte		Surficial Aquifer Wells																				Artesian Aquifer Wells									
		Well:		CW-4	CW-5A	GC-1A	GC-2	GC-3	GC-4A	GC-5	GC-6	LRII-1	LRII-2	LRII-3	LRII-4	LRII-5	MW-1	MW-2	MW-3	MW-5	MW-6	SMR-1	SA-2	SA-3	SA-4	SA-5	SA-6	SA-7	SA-8	SMR-2	
		Sample Identifier:		CW-4	CW-5A	GC-1A	GC-2	GC-3	GC-4A	GC-5	GC-6	LRII-1	LRII-2	LRII-3	LRII-4	LRII-5	MW-1	MW-2	MW-3	MW-5	MW-6	SMR-1	SA-2	SA-3	SA-4	SA-5	SA-6	SA-7	SA-8	SMR-2	
		Date of Test:	2/14/2005	2/14/2005	2/22/2005	2/22/2005	2/15/2005	2/15/2005	2/15/2005	2/17/2005	2/16/2005	2/16/2005	2/16/2005	2/16/2005	2/14/2005	2/14/2005	2/14/2005	2/14/2005	2/14/2005	2/15/2005	2/16/2005	2/22/2005	2/22/2005	2/17/2005	2/22/2005	2/17/2005	2/22/2005	2/17/2005	2/17/2005		
	Standard ⁽¹⁾	Units																													
Field Measurements																															
Temperature		degrees C	20.4	20.82	19.66	22.52	22.86	20.93	23.89	23.59	22.45	22.7	23.32	23.68	23.24	22.54	23.23	23.75	24.08	23.32	22.37	24.45	24.6	23.25	24.23	24.14	24.46	24.53	24.19		
pH	6.5-8.5*	STD	5.34	4.62	6.6	6.24	6.68	6.39	6.36	5.94	6.12	5.49	4.53	5.79	5.85	4.09	6.08	6.71	5.62	5.24	5.43	7.07	6.95	7.26	7.23	7.11	10.9	11.64	7.21		
Conductivity		umhos/cm	1818	763	445	510	6.09	790	713	392	467	178	168	397	358	233	841	530	260	175	233	624	662	779	704	935	804	3460	738		
Dissolved Oxygen (DO)		mg/l	0.5	0.19	0.11	1.16	0.12	0.16	0.13	0.14	0.23	0.12	0.11	0.14	0.13	0.1	0.43	0.1	0.14	0.22	0.15	0.1	0.08	0.21	0.38	0.18	0.14	0.34	0.17		
Turbidity		NTU	4.67	2.4	15.2	10.4	7.89	36.4	6.58	6.46	21.6	4.67	0.74	3.47	2.39	3.16	3.19	4.15	4.15	2.62	11.9	2.1	8.28	9.17	2.09	1.46	3.82	1.72			
Organics																															
Acetone		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Acrylonitrile		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Benzene	1	ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Bromochloromethane		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Bromodichloromethane		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Bromomethane		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
2-Butanone		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Carbon disulfide		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Carbon tetrachloride	3	ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Chlorobenzene		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Chloroethane		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Chloromethane		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Dibromochloromethane		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Dibromochloropropane		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Dibromomethane		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Dichloromethane		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
1,2-Dibromo-3-chloropropane		ug/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																					
Ethylene dibromide		ug/l	BDL	BDL	BDL	BDL	BDL																								

Analyte			Surficial Wells																		Artesian Wells											
	Well:		CW-4	CW-5A	GC-1A	GC-2	GC-3	GC-4A	GC-5	GC-6	LRII-1	LRII-2	LRII-3	LRII-4	LRII-5	MW-1	MW-2	MW-3	MW-5	MW-6	SMR-1	SA-2	SA-3	SA-4	SA-5	SA-6	SA-7	SA-8	SMR-2			
	Sample Identifier:		CW-4	CW-5A	GC-1A	GC-2	GC-3	GC-4A	GC-5	GC-6	LRII-1	LRII-2	LRII-3	LRII-4	LRII-5	MW-1	MW-2	MW-3	MW-5	MW-6	SMR-1	SA-2	SA-3	SA-4	SA-5	SA-6	SA-7	SA-8	SMR-2			
	Date of Test:		2/14/2005	2/14/2005	2/22/2005	2/22/2005	2/15/2005	2/15/2005	2/15/2005	2/17/2005	2/16/2005	2/16/2005	2/16/2005	2/15/2005	2/14/2005	2/14/2005	2/14/2005	2/16/2005	2/15/2005	2/16/2005	2/22/2005	2/22/2005	2/17/2005	2/22/2005	2/17/2005	2/17/2005	2/17/2005	2/17/2005				
	Standard ⁽¹⁾	Units																														
<i>Inorganics</i>																																
Antimony	0.006	mg/l	0.002	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																			
Arsenic	0.01	mg/l	0.021	BDL	0.009	0.062	0.008	0.007	BDL	BDL	0.008	BDL	BDL	BDL	BDL	0.016	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		
Barium	2	mg/l	0.167	0.018	0.01	0.008	0.011	0.024	0.028	0.021	0.007	0.003	0.024	0.007	0.005	0.016	0.049	0.008	0.039	0.004	0.005	0.005	BDL	0.011	0.014	0.021	0.143	0.215	0.015			
Beryllium	0.004	mg/l	BDL	0.0002	BDL	BDL	0.0002	BDL	BDL	BDL	0.0005	0.0003	BDL	0.0003	0.0003	BDL	BDL	0.0003	0.0002	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Calcium		mg/l	NA	NA	NA	NA	NA	NA	NA	NA	41.1	NA	NA	NA	NA	NA	NA	NA	NA	NA												
Cadmium	0.005	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Chloride	250	mg/l	54.5	95.7	34.2	23	29.7	26.8	26.6	4.66	13.7	14.4	13.1	27.3	15	40.6	58.4	15.9	6.12	3.55	19.7	32.9	23.5	66.2	64.6	54	62.1	54.7	48.6			
Chromium	0.1	mg/l	0.001	0.001	BDL	BDL	0.001	0.008	BDL	0.002	0.002	BDL	BDL	BDL	BDL	0.002	0.003	0.004	0.004	0.0029	0.006	0.003	0.001	BDL	BDL	0.001	BDL	BDL	BDL	BDL		
Cobalt		mg/l	0.002	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL																				
Copper	1*	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Iron	0.3*	mg/l	6.56	2.73	18.7	15.1	9.6	0.584	4.13	3.33	23.5	7.29	1.33	6.54	3.5	3.67	2.4	0.469	1.41	6.51	5.55	BDL	0.422	0.188	0.055	0.032	0.013	0.02	0.024			
Lead	0.015	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Magnesium		mg/l	NA	NA	NA	NA	NA	NA	NA	NA	15.5	NA	NA	NA	NA	NA	NA	NA	NA	NA												
Mercury	0.002	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Nickel	0.1	mg/l	0.009	0.002	BDL	0.003	BDL	0.02	BDL	0.001	0.002	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL										
Nitrate	10	mg/l	0.04	0.036	0.036	0.034	0.017	0.027	0.016	0.014	0.024	0.022	0.019	0.021	0.02	0.069	0.063	0.068	0.142	0.02	0.024	0.015	0.035	0.042	0.023	0.034	0.027	0.028	0.039			
Selenium	0.05	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Silver	0.1*	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Sodium	160	mg/l	71.1	57.9	21.5	15.2	17.6	11.2	31.9	5.7	14	4.69	8.78	12.9	14.2	15.3	42	35.1	4.53	7.01	17.2	28.7	23.8	61.7	51.4	44.1	33.6	24.5	58.1			
Thallium	0.002	mg/l	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL			
Total Ammonia-N		mg/l	0.175	0.368	6.22	0.069	0.257	1.42	2.11	0.815	1.01	BDL	1.02	1.59	0.475	1.18	0.209	0.762	0.713	0.195	0.156	0.18	0.208	0.175	0.204	0.181	0.298	0.403	0.266			
Total Dissolved Solids (TDS)	500*	mg/l	1180	391	203	276	375	463	407	256	257	96	85	226	229	174	518	430	166	149	158	349	364	454	396	601	268	792	404			
Vanadium		mg/l	0.001	0.008	0.001	0.003	0.005	0.021	0.005	0.012	0.008	0.003	0.001	0.0																		

Table 2-8 - Groundwater Analytical Summary
First Half 2006

Analyte	Surficial Aquifer Wells																		
	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Date of Test:		2/27/2006	2/27/2006	2/27/2006	2/27/2006	2/27/2006	2/27/2006	2/27/2006	2/28/2006	2/28/2006	2/28/2006	2/28/2006	2/28/2006	2/28/2006	2/28/2006	2/27/2006	2/27/2006	
	Standard ⁽¹⁾	Units																	
Field Measurements																			
Temperature		degrees C	20.6	21.8	21.3	20.6	21.8	21.9	22.4	20.6	21.1	20.6	22.5	22.8	20.3	19.7	22.5	21.8	23.3
pH	6.5-8.5*	STD	6.5	6.5	6.2	5.9	6.1	6.5	6.4	5.8	6.7	6.5	6	6.4	6.6	6.4	6.5	5.5	6.1
Conductivity		umhos/cm	709	655	690	344	480	330	304	407	586	932	669	2022	2271	692	580	130	635
Dissolved Oxygen (DO)		mg/l	0.3	0.2	0.2	0.2	0.1	0.3	0.1	0.3	0.4	0.6	0.2	0.2	2	0.2	0.1	0.3	0.3
Turbidity		NTU	3.3	50	4.1	5.4	2	2.4	5.8	16	0.9	11	4.4	4.6	0.7	1.2	14	13	8.7
Inorganics																			
Antimony	0.006	mg/l	0.002	0.003	0.002	≤0.0015	0.0015	≤0.0015	≤0.0015	≤0.0015	0.0015	0.003	0.008	0.006	≤0.0015	≤0.0015	≤0.0015	0.0015	
Arsenic	0.01	mg/l	0.045	0.025	≤0.007	≤0.007	0.018	0.01	≤0.007	≤0.007	0.021	0.01	0.012	0.007	0.016	0.011	≤0.007	≤0.007	≤0.007
Barium	2	mg/l	0.004	0.007	0.004	0.005	0.014	0.004	0.008	0.018	0.016	0.052	0.057	0.033	0.053	0.04	0.019	0.005	0.013
Beryllium	0.004	mg/l	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	≤0.0002	
Cadmium	0.005	mg/l	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	≤0.0005	
Chloride	250*	mg/l	48.1	23.3	40.2	11.2	24	10.8	10.9	31.1	22.5	18	6.49	32	429	89.4	79	5.79	83.1
Chromium	0.1	mg/l	0.001	0.002	0.002	0.002	0.002	≤0.001	0.002	0.004	≤0.001	≤0.001	0.001	0.001	0.001	0.002	0.001	0.006	≤0.001
Cobalt		mg/l	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	
Copper	1*	mg/l	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	
Iron	0.3*	mg/l	7.41	12.3	8.28	10	16.8	5.64	0.113	0.256	6.8	8.09	3.42	8.45	23.576	.8	1.89	3.75	0.209
Lead	0.015	mg/l	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	≤0.005	
Mercury	0.002	mg/l	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
Nickel	0.1	mg/l	0.001	≤0.001	≤0.001	≤0.001	0.002	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	≤0.001	0.001	
Nitrate	10	mg/l	0.006	≤0.006	≤0.006	≤0.006	≤0.006	≤0.006	≤0.006	≤0.006	≤0.006	≤0.006	≤0.006	≤0.006	≤0.006	0.043	≤0.006	≤0.006	
Selenium	0.05	mg/l	0.001	0.003	0.002	0.001	0.001	≤0.0002	0.001	0.001	0.001	0.002	0.004	0.001	0.001	0.001	0.001	0.001	
Silver	0.1*	mg/l	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	≤0.002	
Sodium	160	mg/l	19.7	13.9	32.2	6.43	21.6	15.3	10.8	17.6	16.1	17.2	5.57	27.7	141	57.8	62.9	5.37	66.4
Thallium	0.002	mg/l	0.001	0.001	≤0.0004	0.0004	≤0.0004	0.001	≤0.0004	0.001	≤0.0004	0.001	≤0.0004	≤0.0004	≤0.0004	≤0.0004	≤0.0004	≤0.0004	
Total Ammonia-N		mg/l	0.732	0.843	0.591	0.592	1.08	0.454	0.715	1.05	0.856	2.06	1.24	5.32	0.487	0.98	0.784	1.65	0.997
Total Dissolved Solids (TDS)	500*	mg/l	430	393	463	225	302	207	264	320	326	518	434	1390	1640	403	376	116	374
Vanadium		mg/l	0.005	0.012	0.013	0.009	0.007	0.005	0.016	0.001	0.002	0.007	0.005	0.005	0.008	0.004	0.026	0.004	
Zinc	5*	mg/l	0.01	0.012	≤0.010	≤0.010	≤0.010	≤0.010	0.012	≤0.010	0.011	0.011	0.01	≤0.010	0.016	≤0.010	0.013	0.01	
Organics																			
Acetone		ug/l	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	<9.9	
Acrylonitrile		ug/l	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	<1.2	
Benzene	1	ug/l	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	
Bromochloromethane		ug																	

**Table 2-8 - Groundwater Analytical Summary
First Half 2006**

Notes: (1) - Maximum Contaminant Level, as established in Chapter 62-550. Those marked by an * are Secondary Drinking Water Standards (SDWSs). Analyte concentrations shown with shading represent an exceedance of its MCL or SDW.

Abbreviations: BDL = below detection limits; umhos/cm = microohms per centimeter; mg/l = milligrams per liter; NTU = nephelometric turbidity units; $\mu\text{g/l}$ = micrograms per liter; NA = Not analyzed.

FLORIDA DEPARTMENT OF
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**SOUTHWEST DISTRICT
TAMPA**

**Table 2-9 - Lena Road Groundwater Analytical Summary
Second Half 2006**

	Well:		GW-1	GW-2	GW-3	GW-4	GW-5	GW-6	GW-7	GW-8	GW-9	GW-10	GW-11 ⁽³⁾	GW-12	GW-13	GW-14	GW-15	GW-16	GW-17	BGW-1
	Sample Identifier:		21593	21594	21595	21596	21597	21598	21599	21600	21601	21602	21603	21604	21605	21606	21607	21608	21609	21610
	Date of Test:		8/21/06	8/21/06	8/21/06	8/21/06	8/21/06	8/21/06	8/21/06	8/21/06	8/22/06	8/22/06	8/22/06	8/22/06	8/22/06	8/22/06	8/22/06	8/22/06	8/22/06	8/22/06
	Standard ⁽¹⁾	Units																		
Field Measurements																				
Depth-to-Groundwater ⁽²⁾		ft	4.89	7.27	3.54	6.27	6.64	6.36	7.83	9.16	9.53	7.32	6.19	9.62	10.94	4.73	6.46	8.33	6.89	7.54
Temperature		deg. C	25.4	27	26.2	26.8	27.1	27.1	27.7	27.7	29.2	27.7	26.3	26.3	26.3	27.1	25.8	25.6	26.7	25.4
pH	6.5-8.5	STD	6	6.2	7	6.9	7	7.3	7.2	7.3	7.7	6.7	5.9	5.9	6.5	6.4	6.5	6.5	5.3	5.9
Conductivity		umhos/cm	834	576	839	524	698	1,204	674	1,471	766	990	621	938	1,796	3,817	923	685	147	870
Dissolved Oxygen (DO)		mg/l	0.3	0.3	0.2	0.5	0.3	0.4	0.2	0.2	0.2	1	0.2	0.2	0.2	0.6	0.2	0.1	0.1	0.2
Turbidity		NTU	7.7	19	3.9	12	9.3	1.2	12	5	2.1	4	3.2	4.3	24	12	1	12	5.7	3.3
Inorganics																				
Antimony	0.006	mg/l	<0.0015	<0.0015	0.002	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	0.002	<0.0015	<0.0015	<0.0015	
Arsenic	0.01	mg/l	0.06	0.06	<0.007	0.01	0.01	0.01	0.01	0.01	0.02	0.04	0.06	0.02	0.01	0.02	0.02	0.01	<0.007	<0.007
Barium	2	mg/l	0.01	0.007	0.013	0.011	0.016	0.013	0.015	0.049	0.023	0.021	0.013	0.077	0.034	0.092	0.056	0.026	0.006	0.022
Beryllium	0.004	mg/l	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	
Cadmium	0.005	mg/l	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
Chloride	250	mg/l	29.3	9.73	24.4	7.82	18.2	44.2	15.1	4.74	9.07	6.18	25	9.19	37	484	100	91.9	7.93	106
Chromium	0.1	mg/l	0.003	0.004	0.003	0.003	0.003	<0.001	0.002	0.001	0.002	0.001	0.007	0.002	0.002	<0.001	0.002	0.003	0.007	0.001
Cobalt	0.14	mg/l	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
Copper	1	mg/l	<0.005	<0.005	<0.005	0.006	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Iron	0.3	mg/l	8.58	21.3	0.522	0.509	2.03	11	0.198	0.408	6.5	3.65	40.3	9.03	4.28	25.8	20.7	1.82	4.48	0.615
Lead	0.015	mg/l	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Mercury	2	ug/l	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	
Nickel	0.1	mg/l	0.006	0.002	0.002	0.002	0.003	<0.001	0.001	0.001	<0.001	<0.001	0.001	0.002	<0.001	0.002	<0.001	0.002	0.001	0.002
Nitrate	10	mg/l	<0.006	0.032	2.56	0.45	4.15	0.028	0.061	0.97	0.019	<0.006	0.191	<0.006	<0.006	0.014	0.022	0.039		
Selenium	0.05	mg/l	0.003	0.003	0.004	0.008	0.008	0.003	0.005	0.007	0.002	0.003	0.003	0.002	0.001	0.003	0.001	0.001	0.001	
Silver	0.1	mg/l	0.002	<0.002	0.002	<0.002	0.002	<0.002	0.002	<0.002	0.003	0.002	<0.002	0.004	0.005	<0.002	<0.002	<0.002	<0.002	
Sodium	160	mg/l	28.3	10.2	27.1	5.43	17.8	22.5	14.5	19.1	13.4	11.5	16	6.79	25.5	201	84	68.8	6.32	81.5
Total Ammonia - N		mg/l	1.15	1.63	0.042	0.151	0.569	0.811	0.641	1.35	0.762	0.432	0.699	0.845	5.67	0.645	0.922	0.746	1.65	0.986
Thallium	0.002	mg/l	0.001	0.001	<0.0004	<0.0004	<0.0004	0.0004	<0.0004	0.001	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004	
Total Dissolved Solids (TDS)	500	mg/l	586	365	613	340	433	826	440	1070	484	631	567	648	1130	2730	558	419	121	493
Vanadium	0.049	mg/l	0.008	0.014	0.028	0.045	0.03	0.052	0.008	0.005	<0.0005	0.002	0.019	0.009	0.006	0.004	0.008	0.007	0.025	0.006
Zinc	5	mg/l	0.016	<0.010	0.011	0.012	0.015	0.013	0.014	<0.010	0.012	0.011	0.015	<0.010	<0.010	<0.010	<0.010	<0.010	0.012	0.019
Volatile Organics																				
1,1,1,2-Tetrachloroethane	5	ug/l	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	<0.63	
1,1,1-Trichloroethane	200	ug/l	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	<0.46	
1,1,2,2-Tetrachloroethane		ug/l	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	
1,1,2-Trichloroethane	5	ug/l	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	<0.47	
1,1-Dichloroethane		ug/l	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	<0.52	
1,1-Dichloroethene	7	ug/l	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	<0.45	
1,2,3-Trichloropropane		ug/l	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	
1,2-Dichlorobenzene	600	ug/l	<0.44	<0.44	<0.44	<														

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⁽¹⁾ Maximum Contaminant Level (MCL) or Secondary Drinking Water Standard (SDWS), as established in Chapter 62-550.

⁽²⁾ As measured from the top of well casing.

⁽³⁾ Monitoring well GW 11 has not been installed and therefore, no data is available.

⁽⁴⁾ Monitoring well GC-6 was sampled for data purposes due to its proximity to the GW-11 well location.

⁽⁵⁾ Sulfide data collected on 12/22-23/05.

Shaded data indicates an exceedence of either the MCL or SDWS

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Table 2-10 - Surface Water Analytical Summary
First Half 2004

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		03/17/04	03/17/04
	Standard(1)	Units		
Field Measurements				
Temperatrue		deg. C	21.33	25.49
pH		STD	6.56	6.72
Conductivity		umhos/cm	708	850
Dissolved Oxygen (DO)	<5	mg/l	6.02	10.27
Turbidity	29	NTU	6.53	3.23
Inorganics				
Antimony	4.3	mg/l	<0.002	<0.002
Arsenic	0.05	mg/l	<0.007	0.0009
Barium		mg/l	0.011	0.042
Beryllium	0.13	mg/l	<0.0002	0.0004
Biochemical Oxygen Demand (BOD)		mg/l	<2.0	5.8
Cadmium	Note 2	mg/l	<0.0005	<0.0005
Calcium		mg/l	51.1	114
Chemical Oxygen Demand (COD)		mg/l	18.8	17.3
Chlorophyll A		mg/m3	8.05	1.45
Chromium	Note 3	mg/l	0.001	0.031
Cobalt		mg/l	<0.001	<0.001
Copper	Note 4	mg/l	<0.005	0.008
Fecal coliform	800	cfu/100ml	300	900
Iron	1	mg/l	0.23	3.29
Lead	Note 5	mg/l	<0.005	0.012
Magnesium		mg/l	8.49	11.3
Mercury	0.012	ug/l	<0.100	0.123
Nickel	Note 6	mg/l	0.002	0.01
Nitrate		mg/l	0.025	0.581
Selenium	0.005	mg/l	<0.01	<0.01
Silver	0.00007	mg/l	<0.002	<0.002
Thallium	0.0063	mg/l	<0.0004	<0.0004
Total Dissolved Solids (TDS)		mg/l	246	423
Total phosphorous		mg/l	0.149	1.26
Total Suspended Solids (TSS)		mg/l	2	494
Unionized ammonia	0.02	mg/l	<0.009	<0.009
Vanadium		mg/l	0.004	0.035
Zinc	Note 7	mg/l	<0.01	0.036
Organics				
Acetone		ug/l	<2.5	<2.5
Acrylonitrile		ug/l	<1.5	<1.5
Benzene		ug/l	<0.04	<0.04
Bromochloromethane		ug/l	<0.5	<0.5
Bromodichloromethane		ug/l	<0.08	<0.08
Bromomethane		ug/l	<0.11	<0.11
Carbon disulfide		ug/l	<4.1	<4.1
Carbon tetrachloride	4.42	ug/l	<0.21	<0.21
Chlorobenzene		ug/l	<0.04	FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

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Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		03/17/04	03/17/04
	Standard(1)	Units		
Chloroethane		ug/l	<0.1	<0.1
Dibromomethane		ug/l	<0.3	<0.3
Dibromochloromethane		ug/l	<0.05	<0.05
Dibromochloropropane		ug/l	<0.01	<0.01
1,2-Dichlorobenzene		ug/l	<0.03	<0.03
1,4-Dichlorobenzene		ug/l	<0.03	<0.03
Dichloromethane	1580	ug/l	<0.03	<0.03
1,2-Dibromo-3-chloropropane		ug/l	<0.01	<0.01
Ethylene dibromide		ug/l	<0.01	<0.01
o-Dichlorobenzene		ug/l	<1.0	<1.0
1,1-Dichloroethane		ug/l	<0.03	<0.03
1,2-Dichloroethane		ug/l	<0.02	<0.02
1,1-Dichloroethene		ug/l	<0.12	<0.12
cis-1,2-Dichloroethene	3.2	ug/l	<0.1	<0.1
trans-1,2-Dichloroethene		ug/l	<0.06	<0.06
1,2-Dichloropropane		ug/l	<0.04	<0.04
cis-1,3-Dichloropropene		ug/l	<0.05	<0.05
trans-1,3-Dichloropropene		ug/l	<0.04	<0.04
Ethylbenzene		ug/l	<0.06	<0.06
Ethylene Dibromide		ug/l	<0.3	<0.3
2-Hexanone		ug/l	<2.5	<2.5
Iodomethane		ug/l	<0.5	<0.5
Methyl bromide		ug/l	<0.11	<0.11
Chloromethane		ug/l	<0.13	<0.13
2-Butanone		ug/l	<2.5	<2.5
Methyl iodide		ug/l	<0.5	<0.5
4-Methyl-2-pentanone		ug/l	<2.5	<2.5
Styrene		ug/l	<1.0	<1.0
1,1,1,2-Tetrachloroethane		ug/l	<0.1	<0.1
1,1,2,2-Tetrachloroethane	10.8	ug/l	<0.04	<0.04
t-1,4-Dichloro-2-butene		ug/l	<10	<10
Tetrachloroethene		ug/l	<0.14	<0.14
Toluene		ug/l	<0.11	<0.11
1,1,1-Trichloroethane		ug/l	<0.04	<0.04
1,1,2-Trichloroethane		ug/l	<0.1	<0.1
Tribromomethane		ug/l	<0.12	<0.12
Trichloroethene	80.7	ug/l	<0.19	<0.19
Trichloromethane		ug/l	<0.03	<0.03
Trichlorofluoromethane		ug/l	<0.08	<0.08
1,2,3-Trichloropropane		ug/l	<0.3	<0.3
Vinyl acetate		ug/l	<10	<10
Vinyl chloride		ug/l	<0.17	<0.17
Total xylenes		ug/l	<0.22	<0.22

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units..

Notes:

(1) Surface water standards presented in Chapter 62-302, FAC. Analyte concentrations shown with shading represent an exceedance of the regulatory level.

(3) Cr less than or equal to $e(0.819(\ln H)+0.6848)$

(4) Cu less than or equal to $e(0.845(\ln H)-1.702)$

(5) Pb less than or equal to $e(1.273(\ln H)-4.705)$

(6) Ni less than or equal to $e(0.846(\ln H)+0.0584)$

(7) Zn less than or equal to $e(0.8473(\ln H)+0.884)$

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**Table 2-11 - Surface Water Analytical Summary
Second Half 2004**

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		08/11/04	08/11/04
	Standard(1)	Units		
Field Measurements				
Temperatruue		deg. C	28.36	32.16
pH		STD	6.93	6.42
Conductivity		umhos/cm	358	274
Dissolved Oxygen (DO)	>5	mg/l	2.65	2.69
Turbidity	29	NTU	8.79	5.41
Inorganics				
Antimony	4.3	mg/l	<0.002	<0.002
Arsenic	0.05	mg/l	0.009	<0.007
Barium		mg/l	0.017	0.014
Beryllium	0.13	mg/l	<0.0002	0.0002
Biochemical Oxygen Demand (BOD)		mg/l	<2	4.53
Cadmium	Note 2	mg/l	<0.0005	<0.0005
Chemical Oxygen Demand (COD)		mg/l	79	158
Chlorophyll A		mg/m3	1.62	1.65
Chromium	Note 3	mg/l	0.01	0.003
Cobalt		mg/l	<0.001	<0.001
Copper	Note 4	mg/l	0.013	0.007
Fecal coliform	800	cfu/100ml	290	6800
Iron	1	mg/l	2.36	1.58
Lead	Note 5	mg/l	0.0079	0.008
Mercury	12	ug/l	<0.1	<0.1
Nickel	Note 6	mg/l	0.01	0.004
Nitrate		mg/l	0.038	0.014
Selenium	0.005	mg/l	<0.0002	<0.0002
Silver	0.07	mg/l	<0.002	<0.002
Thallium	0.0063	mg/l	<0.0004	<0.0004
Total Dissolved Solids (TDS)		mg/l	270	251
Total Hardness		mg/l	136	78.9
Total Nitrogen		mg/l	1.63	0.684
Total Organic Carbon (TOC)		mg/l	28.2	54.8
Total phosphorous		mg/l	0.741	0.204
Total Suspended Solids (TSS)		mg/l	5.2	8.4
Unionized ammonia	0.02	mg/l	0.0004	0.0008
Vanadium		mg/l	0.009	0.003
Zinc	Note 7	mg/l	0.257	0.103
Organics				
Acetone		ug/l	< 2.5	< 2.5
Acrylonitrile		ug/l	< 1.5	< 1.5
Benzene		ug/l	< 0.04	< 0.04

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		08/11/04	08/11/04
	Standard(1)	Units		
Bromochloromethane		ug/l	< 0.03	< 0.5
Bromodichloromethane		ug/l	< 0.08	< 0.05
Carbon disulfide		ug/l	< 4.1	< 4.1
Carbon tetrachloride	4.42	ug/l	< 0.21	< 0.21
Chlorobenzene		ug/l	< 0.04	< 0.04
Chloroethane		ug/l	< 0.10	< 0.10
Dibromomethane		ug/l	< 0.3	< 0.3
Dibromochloromethane		ug/l	< 0.05	< 0.05
1,2-Dichlorobenzene		ug/l	< 0.03	< 0.03
1,4-Dichlorobenzene		ug/l	< 0.03	< 0.03
Dichloromethane	1580	ug/l	< 0.03	< 0.03
1,2-Dibromo-3-chloropropane		ug/l	< 0.01	< 0.01
1,1-Dichloroethane		ug/l	< 0.03	< 0.03
1,2-Dichloroethane		ug/l	< 0.02	< 0.02
1,1-Dichloroethene		ug/l	< 0.12	< 0.12
cis-1,2-Dichloroethene	3.2	ug/l	< 0.10	< 0.10
trans-1,2-Dichloroethene		ug/l	< 0.06	< 0.06
1,2-Dichloropropane		ug/l	< 0.04	< 0.04
cis-1,3-Dichloropropene		ug/l	< 0.05	< 0.05
trans-1,3-Dichloropropene		ug/l	< 0.04	< 0.05
Ethylbenzene		ug/l	< 0.06	< 0.06
Ethylene Dibromide		ug/l	< 0.01	< 0.01
2-Hexanone		ug/l	< 2.5	< 2.5
Iodomethane		ug/l	< 0.5	< 0.5
Methyl bromide		ug/l	< 0.11	< 0.11
Chloromethane		ug/l	< 0.13	< 0.13
2-Butanone		ug/l	< 2.5	< 2.5
4-Methyl-2-pentanone		ug/l	< 2.5	< 2.5
Styrene		ug/l	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane		ug/l	< 0.1	< 0.1
1,1,2,2-Tetrachloroethane	10.8	ug/l	< 0.04	< 0.04
t-1,4-Dichloro-2-butene		ug/l	< 10.0	< 10.0
Tetrachloroethene		ug/l	< 0.14	< 0.14
Toluene		ug/l	< 0.11	< 0.11
1,1,1-Trichloroethane		ug/l	< 0.04	< 0.04
1,1,2-Trichloroethane		ug/l	< 0.10	< 0.10
Tribromomethane		ug/l	< 0.12	< 0.12
Trichloroethene	80.7	ug/l	< 0.19	< 0.19
Trichloromethane		ug/l	< 0.03	< 0.03
Trichlorofluoromethane		ug/l	< 0.08	< 0.08
1,2,3-Trichloropropane		ug/l	< 0.3	< 0.3
Vinyl acetate		ug/l	< 10.0	< 10.0

Analyte	Location:	SW-1	SW-2
	Sample Identifier:	SW-1	SW-2
	Date of Test:	08/11/04	08/11/04
	Standard(1)	Units	
Vinyl chloride		ug/l	< 0.17
Total xylenes		ug/l	< 0.11

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units.

Notes:

(1) Surface water standards presented in Chapter 62-302, FAC. Analyte concentrations shown with shading represent an exceedance of the regulatory level.

(3) Cr less than or equal to $e(0.819(\ln H)+0.6848)$

(4) Cu less than or equal to $e(0.845(\ln H)-1.702)$

(5) Pb less than or equal to $e(1.273(\ln H)-4.705)$

(6) Ni less than or equal to $e(0.846(\ln H)+0.0584)$

(7) Zn less than or equal to $e(0.8473(\ln H)+0.884)$

**Table 2-12 - Surface Water Analytical Summary
First Half 2005**

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		02/18/05	02/18/05
	Standard(1)	Units		
Field Measurements				
Temperatrue		deg. C	16.92	17.47
pH		STD	6.87	6.9
Conductivity		umhos/cm	733	885
Dissolved Oxygen (DO)	<5	mg/l	6.55	6.78
Turbidity	29	NTU	8.36	3.15
Inorganics				
Ammonia		mg/l	0.19	0.013
Antimony	4.3	mg/l	BDL	BDL
Arsenic	0.01	mg/l	0.007	BDL
Barium		mg/l	0.013	0.008
Beryllium	0.13	mg/l	BDL	BDL
Biochemical Oxygen Demand (BOD)		mg/l	BDL	BDL
Cadmium	Note 2	mg/l	BDL	BDL
Calcium		mg/l	38	64.3
Chemical Oxygen Demand (COD)		mg/l	48.5	51.2
Chlorophyll A		mg/m3	2.71	5.02
Chromium	Note 3	mg/l	BDL	BDL
Cobalt		mg/l	BDL	BDL
Copper	Note 4	mg/l	BDL	BDL
Fecal coliforms	800	cfu/100ml	680	130
Iron	1	mg/l	1.55	0.203
Lead	Note 5	mg/l	BDL	BDL
Magnesium		mg/l	12.8	12.3
Mercury	0.012	ug/l	BDL	BDL
Nickel	Note 6	mg/l	0.003	0.003
Nitrate		mg/l	0.127	0.011
Nitrite		mg/l	0.029	BDL
Selenium	0.005	mg/l	BDL	BDL
Silver	0.00007	mg/l	BDL	BDL
Thallium	0.0063	mg/l	BDL	BDL
Total Dissolved Solids (TDS)		mg/l	415	510
Total Hardness		mg/l	148	211
Total Kjedahl Nitrogen (TKN)		mg/l	1.06	1.05
Total Nitrogen		mg/l	1.22	1.06
Total Organic Carbon (TOC)		mg/l	16.4	14.9
Total Phosphate		mg/l	0.326	0.038
Total Suspended Solids (TSS)		mg/l	4.6	3.9
Unionized ammonia	0.02	mg/l	0.0005	0.00004
Vanadium		mg/l	0.002	0.002
Zinc	Note 7	mg/l	BDL	BDL
Organics				
Acetone		ug/l	BDL	BDL
Acrylonitrile		ug/l	BDL	BDL
Benzene		ug/l	BDL	BDL

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		02/18/05	02/18/05
	Standard(1)	Units		
Bromochloromethane		ug/l	BDL	BDL
Bromodichloromethane		ug/l	BDL	BDL
Bromomethane		ug/l	BDL	BDL
Carbon disulfide		ug/l	BDL	BDL
Carbon tetrachloride	4.42	ug/l	BDL	BDL
Chlorobenzene		ug/l	BDL	BDL
Chloroethane		ug/l	BDL	BDL
Dibromomethane		ug/l	BDL	BDL
Dibromochloromethane		ug/l	BDL	BDL
Dibromochloropropane		ug/l	BDL	BDL
1,2-Dichlorobenzene		ug/l	BDL	BDL
1,4-Dichlorobenzene		ug/l	BDL	BDL
Dichloromethane	1580	ug/l	BDL	BDL
1,2-Dibromo-3-chloropropane		ug/l	BDL	BDL
Ethylenedibromide		ug/l	BDL	BDL
o-Dichlorobenzene		ug/l	BDL	BDL
1,1-Dichloroethane		ug/l	BDL	BDL
1,2-Dichloroethane		ug/l	BDL	BDL
1,1-Dichloroethene		ug/l	BDL	BDL
cis-1,2-Dichloroethene	3.2	ug/l	BDL	BDL
trans-1,2-Dichloroethene		ug/l	BDL	BDL
1,2-Dichloropropane		ug/l	BDL	BDL
cis-1,3-Dichloropropene		ug/l	BDL	BDL
trans-1,3-Dichloropropene		ug/l	BDL	BDL
Ethylbenzene		ug/l	BDL	BDL
Ethylenedibromide		ug/l	BDL	BDL
2-Hexanone		ug/l	BDL	BDL
Iodomethane		ug/l	BDL	BDL
Methyl bromide		ug/l	BDL	BDL
Chloromethane		ug/l	BDL	BDL
2-Butanone		ug/l	BDL	BDL
Methyl iodide		ug/l	BDL	BDL
4-Methyl-2-pentanone		ug/l	BDL	BDL
Styrene		ug/l	BDL	BDL
1,1,1,2-Tetrachloroethane		ug/l	BDL	BDL
1,1,2,2-Tetrachloroethane	10.8	ug/l	BDL	BDL
t-1,4-Dichloro-2-butene		ug/l	BDL	BDL
Tetrachloroethene		ug/l	BDL	BDL
Toluene		ug/l	BDL	BDL
1,1,1-Trichloroethane		ug/l	BDL	BDL
1,1,2-Trichloroethane		ug/l	BDL	BDL
Tribromomethane		ug/l	BDL	BDL
Trichloroethene	80.7	ug/l	BDL	BDL
Trichloromethane		ug/l	BDL	BDL
Trichlorofluoromethane		ug/l	BDL	BDL
1,2,3-Trichloropropane		ug/l	BDL	BDL
Vinyl acetate		ug/l	BDL	BDL
Vinyl chloride		ug/l	BDL	BDL

Analyte	Location:	SW-1	SW-2
	Sample Identifier:	SW-1	SW-2
	Date of Test:	02/18/05	02/18/05
	Standard(1)	Units	
Total xylenes		ug/l	BDL

Abbreviations: BDL = below detection limits; mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units.

Notes:

(1) Surface water standards presented in Chapter 62-302, FAC. Analyte concentrations shown with shading represent an exceedance of the regulatory level.

(3) Cr less than or equal to $e(0.819(\ln H)+0.6848)$

(4) Cu less than or equal to $e(0.845(\ln H)-1.702)$

(5) Pb less than or equal to $e(1.273(\ln H)-4.705)$

(6) Ni less than or equal to $e(0.846(\ln H)+0.0584)$

(7) Zn less than or equal to $e(0.8473(\ln H)+0.884)$

**Table 2-13 - Surface Water Analytical Summary
Second Half 2005**

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		8/10/2005	8/10/2005
	Standard(1)	Units		
Field Measurements				
Temperature		deg. C	28.1	28.4
pH		STD	7.2	7.2
Conductivity		umhos/cm	450	501
Dissolved Oxygen (DO)	>5	mg/l	4.0	3.4
Turbidity	29	NTU	6.4	6.9
Inorganics				
Antimony	4.3	mg/l	<0.0015	<0.0015
Arsenic	0.05	mg/l	<0.007	0.034
Barium		mg/l	0.011	0.022
Beryllium	0.13	mg/l	<0.0002	<0.0002
Carbonaceous BOD		mg/l	3.75	<2.00
Cadmium	Note 2	mg/l	<0.0005	<0.0005
Chemical Oxygen Demand (COD)		mg/l	56.1	72.0
Chlorophyll A		mg/m3	2	46
Chromium	Note 3	mg/l	<0.001	<0.001
Cobalt		mg/l	<0.001	<0.001
Copper	Note 4	mg/l	<0.005	<0.005
Fecal coliform	800	cfu/100ml	1800	380
Iron	1	mg/l	1.19	5.49
Lead	Note 5	mg/l	<0.005	<0.005
Mercury	12	ug/l	<0.100	<0.100
Nickel	Note 6	mg/l	0.002	0.001
Nitrate		mg/l	0.104	<0.006
Selenium	0.005	mg/l	0.0004	0.0004
Silver	0.07	mg/l	<0.002	<0.002
Thallium	0.0063	mg/l	<0.0004	<0.0004
Total Dissolved Solids (TDS)		mg/l	330	373
Total Hardness		mg/l	110	134
Total Nitrogen		mg/l	1.3	1.3
Total Organic Carbon (TOC)		mg/l	19.3	19.7
Total phosphorous		mg/l	0.432	0.706
Total Suspended Solids (TSS)		mg/l	6.00	280
Unionized ammonia	0.02	mg/l	0.0018	0.0008
Vanadium		mg/l	0.002	0.001
Zinc	Note 7	mg/l	0.019	0.019
Organics				
Acetone		ug/l	<9.9	<9.9
Acrylonitrile		ug/l	<1.2	<1.2
Benzene		ug/l	<0.27	<0.27

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		8/10/2005	8/10/2005
	Standard(1)	Units		
Bromochloromethane		ug/l	<0.58	<0.58
Bromodichloromethane		ug/l	<0.35	<0.35
Carbon disulfide		ug/l	<0.85	<0.85
Carbon tetrachloride	4.42	ug/l	<0.42	<0.42
Chlorobenzene		ug/l	<0.63	<0.63
Chloroethane		ug/l	<0.8	<0.8
Dibromomethane		ug/l	<0.41	<0.41
Dibromochloromethane		ug/l	<0.34	<0.34
1,2-Dichlorobenzene		ug/l	<0.44	<0.44
1,4-Dichlorobenzene		ug/l	<0.52	<0.52
Dichloromethane	1580	ug/l	<4.0	<4.0
1,2-Dibromo-3-chloropropane		ug/l	<0.74	<0.74
1,1-Dichloroethane		ug/l	<0.52	<0.52
1,2-Dichloroethane		ug/l	<0.50	<0.50
1,1-Dichloroethene		ug/l	<0.45	<0.45
cis-1,2-Dichloroethene	3.2	ug/l	<0.65	<0.65
trans-1,2-Dichloroethene		ug/l	<0.44	<0.44
1,2-Dichloropropane		ug/l	<0.52	<0.52
cis-1,3-Dichloropropene		ug/l	<0.14	<0.14
trans-1,3-Dichloropropene		ug/l	<0.14	<0.14
Ethylbenzene		ug/l	<0.44	<0.44
Ethylene Dibromide		ug/l	<0.57	<0.57
2-Hexanone		ug/l	<4.4	<4.4
Iodomethane		ug/l	<0.67	<0.67
Methyl bromide		ug/l	<0.66	<0.66
Chloromethane		ug/l	<0.64	<0.64
2-Butanone		ug/l	<8.4	<8.4
4-Methyl-2-pentanone		ug/l	<3.8	<3.8
Styrene		ug/l	<0.98	<0.98
1,1,1,2-Tetrachloroethane		ug/l	<0.63	<0.63
1,1,2,2-Tetrachloroethane	10.8	ug/l	<0.14	<0.14
t-1,4-Dichloro-2-butene		ug/l	<2.5	<2.5
Tetrachloroethene		ug/l	<0.34	<0.34
Toluene		ug/l	<0.51	<0.51
1,1,1-Trichloroethane		ug/l	<0.46	<0.46
1,1,2-Trichloroethane		ug/l	<0.47	<0.47
Tribromomethane		ug/l	<0.58	<0.58
Trichloroethene	80.7	ug/l	<0.28	<0.28
Trichloromethane		ug/l	<0.90	<0.90
Trichlorofluoromethane		ug/l	<0.98	<0.98
1,2,3-Trichloropropane		ug/l	<0.15	<0.15
Vinyl acetate		ug/l	<1.5	<1.5

Analyte	Location:	SW-1	SW-2
	Sample Identifier:	SW-1	SW-2
	Date of Test:	8/10/2005	8/10/2005
	Standard(1)	Units	
Vinyl chloride		ug/l	<0.50
Total xylenes		ug/l	<0.30

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units.

Notes:

(1) Surface water standards presented in Chapter 62-302, FAC. Analyte concentrations shown with shading represent an exceedance of the regulatory level.

(2) Ca less than or equal to $e(0.7852(\ln H)-3.49)$

(3) Cr less than or equal to $e(0.819(\ln H)+0.6848)$

(4) Cu less than or equal to $e(0.845(\ln H)-1.702)$

(5) Pb less than or equal to $e(1.273(\ln H)-4.705)$

(6) Ni less than or equal to $e(0.846(\ln H)+0.0584)$

(7) Zn less than or equal to $e(0.8473(\ln H)+0.884)$

**Table 2-14 - Surface Water Analytical Summary
First Half 2006**

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		02/27/06	02/27/06
	Standard(1)	Units		
Field Measurements				
Temperature		deg. C	16.5	16.5
pH		STD	7.5	6.6
Conductivity		umhos/cm	580	390
Dissolved Oxygen (DO)	<5	mg/l	6.5	4
Turbidity	29	NTU	6.8	45
Inorganics				
Ammonia		mg/l	0.047	0.067
Antimony	4.3	mg/l	≤0.0015	≤0.0015
Arsenic	0.01	mg/l	≤0.007	0.027
Barium		mg/l	0.012	0.016
Beryllium	0.13	mg/l	≤0.0002	≤0.0002
Biochemical Oxygen Demand (BOD)		mg/l	≤2.00	2.03
Cadmium	Note 2	mg/l	≤0.0005	≤0.0005
Calcium		mg/l	45	28
Chemical Oxygen Demand (COD)		mg/l	37.4	117
Chlorophyll A		mg/m3	9.3	11
Chromium	Note 3	mg/l	≤0.001	≤0.001
Cobalt		mg/l	≤0.001	≤0.001
Copper	Note 4	mg/l	≤0.005	≤0.005
Fecal coliforms	800	cfu/100ml	1050	5000
Iron	1	mg/l	0.374	7.06
Lead	Note 5	mg/l	≤0.005	≤0.005
Magnesium		mg/l	12.3	8.91
Mercury	0.012	ug/l	≤0.0001	≤0.0001
Nickel	Note 6	mg/l	0.002	0.002
Nitrate as N		mg/l	0.024	≤0.006
Selenium	0.005	mg/l	0.001	0.001
Silver	0.00007	mg/l	≤0.002	≤0.002
Thallium	0.0063	mg/l	0.001	≤0.0004
Total Dissolved Solids (TDS)		mg/l	358	315
Total Hardness		mg/l	163	107
Total Kjeldahl Nitrogen (TKN)		mg/l	0.833	1.85
Total Nitrogen		mg/l	0.879	1.85
Total Organic Carbon (TOC)		mg/l	15.4	18.3
Total Phosphate		mg/l	0.199	0.252
Total Suspended Solids (TSS)		mg/l	4.2	88
Unionized ammonia	0.02	mg/l	0.0005	0.0001
Vanadium		mg/l	0.003	0.001
Zinc	Note 7	mg/l	0.01	0.012
Organics				
1,1,1,2-Tetrachloroethane		ug/l	<0.63	<0.63
1,1,1-Trichloroethane		ug/l	<0.46	<0.46
1,1,2,2-Tetrachloroethane	10.8	ug/l	<0.14	<0.14

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		02/27/06	02/27/06
	Standard(l)	Units		
1,1,2-Trichloroethane		ug/l	<0.47	<0.47
1,1-Dichloroethane		ug/l	<0.52	<0.52
1,1-Dichloroethene		ug/l	<0.45	<0.45
1,2,3-Trichloropropane		ug/l	<0.15	<0.15
1,2-Dichlorobenzene		ug/l	<0.44	<0.44
1,2-Dichloroethane		ug/l	<0.57	<0.57
1,2-Dichloropropane		ug/l	<0.52	<0.52
1,4-Dichlorobenzene		ug/l	<0.52	<0.52
2-Butanone		ug/l	<8.4	<8.4
2-Hexanone		ug/l	<4.4	<4.4
4-Methyl-2-pentanone		ug/l	<2.8	<2.8
Acetone		ug/l	<9.9	<9.9
Acrylonitrile		ug/l	<1.2	<1.2
Benzene		ug/l	<0.27	<0.27
Bromochloromethane		ug/l	<0.58	<0.58
Bromodichloromethane		ug/l	<0.35	<0.35
Bromoform		ug/l	<0.66	<0.66
Carbon disulfide		ug/l	<0.85	<0.85
Carbon tetrachloride	4.42	ug/l	<0.42	<0.42
Chlorobenzene		ug/l	<0.63	<0.63
Chloroethane		ug/l	<0.80	<0.80
Chloromethane		ug/l	<0.64	<0.64
cis-1,2-Dichloroethene	3.2	ug/l	<0.65	<0.65
cis-1,3-Dichloropropene		ug/l	<0.14	<0.14
Dibromochloromethane		ug/l	<0.34	<0.34
Dibromochloropropane		ug/l	<0.74	<0.74
Dibromomethane		ug/l	<0.41	<0.41
Dichloromethane	1580	ug/l	<4.0	<4.0
Ethylbenzene		ug/l	<0.44	<0.44
Ethylene dibromide		ug/l	<0.50	<0.50
Iodomethane		ug/l	<0.67	<0.67
Styrene		ug/l	<0.98	<0.98
t-1,4-Dichloro-2-butene		ug/l	<2.5	<2.5
Tetrachloroethylene		ug/l	<0.34	<0.34
Toluene		ug/l	<0.51	<0.51
Total xylenes		ug/l	<0.30	<0.30
trans-1,2-Dichloroethene		ug/l	<0.44	<0.44
trans-1,3-Dichloropropene		ug/l	<0.14	<0.14
Tribromomethane		ug/l	<0.58	<0.58
Trichloroethylene	80.7	ug/l	<0.28	<0.28
Trichlorofluoromethane		ug/l	<0.98	<0.98
Trichloromethane		ug/l	<0.90	<0.90
Vinyl acetate		ug/l	<1.5	<1.5
Vinyl chloride		ug/l	<0.50	<0.50

Abbreviations: BDL = below detection limits; mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units.

Note (1) Surface water standards presented in Chapter 62-302, FAC. Analyte concentrations shown with shading represent an exceedance of the regulatory level.

Note (3) Cr less than or equal to $e(0.819(\ln H)+0.6848)$

Note (4) Cu less than or equal to $e(0.845(\ln H)-1.702)$

Note (5) Pb less than or equal to $e(1.273(\ln H)-4.705)$

Note (6) Ni less than or equal to $e(0.846(\ln H)+0.0584)$

Note (7) Zn less than or equal to $e(0.8473(\ln H)+0.884)$

**Table -15 - Surface Water Analytical Summary
Second Half 2006**

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		8/23/2006	8/23/2006
	Standard(1)	Units		
<i>Field Measurements</i>				
Temperatruue		deg. C	25.6	27.3
pH	6-8.5	STD	6.6	6.6
Conductivity	1275	umhos/cm	305	212
Dissolved Oxygen (DO)	>5	mg/l	4.4	4.3
Turbidity	29+	NTU	12	6.5
<i>Inorganics</i>				
Antimony	4300	ug/l	<1.5	<1.5
Arsenic	50	ug/l	<7.0	10
Barium		ug/l	10	14
Beryllium	0.13	ug/l	<0.2	<0.2
Carbonaceous BOD		ug/l	<2000	3850
Cadmium	0.836 ⁽²⁾	ug/l	<0.5	<0.5
Chemical Oxygen Demand (COD)		ug/l	84300	182000
Chlorophyll A		mg/m3	6.9	29
Chromium	62.688 ⁽³⁾	ug/l	2.0	2.0
Cobalt		ug/l	<1.0	<1.0
Copper	6.693 ⁽⁴⁾	ug/l	<5.0	6
Fecal coliform	800	cfu/ml	480	300
Iron	1000	ug/l	2480	4870
Lead	1.94 ⁽⁵⁾	ug/l	<5.0	<5.0
Mercury	0.012	ug/l	<100	<100
Nickel	37.548 ⁽⁶⁾	ug/l	<1.0	<1.0
Nitrate		ug/l	32	19
Selenium	5	ug/l	1	1
Silver	0.07	ug/l	<2.0	<2.0
Thallium	6.3	ug/l	<0.4	<0.4
Total Dissolved Solids (TDS)		ug/l	241000	183000
Total Hardness		mg/l	92.7	67.8
Total Nitrogen		ug/l	1450	3660
Total Organic Carbon (TOC)		ug/l	30800	38700
Total phosphate		ug/l	859	1970
Total Suspended Solids (TSS)		mg/l	7.17	6.13
Unionized ammonia	20	ug/l	0.3	0.2
Vanadium		ug/l	2.0	3.0
Zinc	86.202 ⁽⁷⁾	ug/l	14	27
<i>Organics</i>				
Acetone		ug/l	<9.9	<9.9
Acrylonitrile		ug/l	<1.2	<1.2
Benzene	71.28	ug/l	<0.50	<0.50

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		8/23/2006	8/23/2006
	Standard(1)	Units		
Bromochloromethane		ug/l	<0.58	<0.58
Bromodichloromethane	22	ug/l	<0.35	<0.35
Carbon disulfide		ug/l	<0.85	<0.85
Carbon tetrachloride	4.42	ug/l	<0.42	<0.42
Chlorobenzene		ug/l	<0.63	<0.63
Chloroethane		ug/l	<2.5	<2.5
Dibromomethane		ug/l	<0.41	<0.41
Dibromochloromethane	34	ug/l	<0.34	<.34
1,2-Dichlorobenzene		ug/l	<0.44	<0.44
1,4-Dichlorobenzene		ug/l	<0.52	<0.52
Dichloromethane	1580	ug/l	<4.0	<4.0
1,2-Dibromo-3-chloropropane		ug/l	<2.5	<2.5
1,1-Dichloroethane		ug/l	<0.52	<0.52
1,2-Dichloroethane		ug/l	<0.57	<0.57
1,1-Dichloroethene	3.2	ug/l	<0.45	<0.45
cis-1,2-Dichloroethene		ug/l	<0.65	<0.65
trans-1,2-Dichloroethene		ug/l	<0.44	<0.44
1,2-Dichloropropane		ug/l	<0.52	<0.52
cis-1,3-Dichloropropene		ug/l	<0.14	<0.14
trans-1,3-Dichloropropene		ug/l	<0.14	<0.14
Ethylbenzene		ug/l	<0.44	<0.44
2-Hexanone		ug/l	<4.4	<4.4
Iodomethane		ug/l	<2.5	<2.5
Methyl bromide		ug/l	<2.5	<2.5
Chloromethane	470.8	ug/l	<1.0	<1.0
2-Butanone		ug/l	<8.4	<8.4
4-Methyl-2-pentanone		ug/l	<3.8	<3.8
Styrene		ug/l	<0.98	<0.98
1,1,1,2-Tetrachloroethane		ug/l	<0.63	<0.63
1,1,2,2-Tetrachloroethane	10.8	ug/l	<0.14	<0.14
t-1,4-Dichloro-2-butene		ug/l	<2.5	<2.5
Tetrachloroethene		ug/l	<0.50	<0.50
Toluene		ug/l	<0.51	<0.51
1,1,1-Trichloroethane		ug/l	<0.46	<0.46
1,1,2-Trichloroethane		ug/l	<0.47	<0.47
Tribromomethane	360	ug/l	0.58	0.58
Trichloroethene	80.7	ug/l	<0.50	<0.50
Trichloromethane	470.8	ug/l	<0.90	<0.90
Trichlorofluoromethane		ug/l	<2.5	<2.5
1,2,3-Trichloropropane		ug/l	<0.15	<0.15
Vinyl acetate		ug/l	<1.5	<1.5

Analyte	Location:		SW-1	SW-2
	Sample Identifier:		SW-1	SW-2
	Date of Test:		8/23/2006	8/23/2006
	Standard(1)	Units		
Vinyl chloride		ug/l	<0.50	<0.50
Total xylenes		ug/l	<0.50	<0.50

Abbreviations: mg/l = milligrams per liter; ug/l = micrograms per liter; NTU = nephelometric turbidity units.

(1) Surface water standards presented in Chapter 62-302, FAC. Analyte concentrations shown with shading represent an exceedance of the regulatory level. The lowest hardness value was used to calculate standards below.

(2) Cd less than or equal to $e(0.7852(\ln H)-3.49)$

(3) Cr less than or equal to $e(0.819(\ln H)+0.6848)$

(4) Cu less than or equal to $e(0.845(\ln H)-1.702)$

(5) Pb less than or equal to $e(1.273(\ln H)-4.705)$

(6) Ni less than or equal to $e(0.846(\ln H)+0.0584)$

(7) Zn less than or equal to $e(0.8473(\ln H)+0.884)$

TABLE 3-1
SUMMARY OF WATER QUALITY DATA TRENDS
LENA ROAD LANDFILL
May 2007 Biennial Report

Parameter	Trend in Concentration	Comments
Leachate		
Inorganics	Steady	Various detected during every sampling event.
1,1-dichloroethane, 1,4-dichlorobenzene, benzene, ethylbenzene, toluene, xylene, vinyl chloride, sulfide, and chlorobenzene	Decreasing	Number of detections decreased during latter part of review period.
Groundwater		
PH	Steady	PH was lower than SDWS at most wells in both networks throughout review period.
Iron	Steady	Concentration of iron was higher than SDWS at most wells in both networks throughout review period.
Arsenic	Steady	Arsenic concentration exceeded the MCL in several wells of both networks.
TDS	Steady	TDS concentration was consistently higher than the MCL at several wells in both networks during review period, and occasionally exceeded MCL at several other wells.
Surface Water		
Iron	Steady	Concentration exceeded the SWCTL at both sampling events during the most of the sampling events during the review period.
Fecal coliform	Erratic	Detected at SW-2 at concentrations in excess of SWCTL during most sampling events; exceeded the SWCTL at SW-1 during two sampling events.
Dissolved oxygen (DO)	Erratic	Generally lower than the prescribed range at point sampling points during second half of the year sampling events.

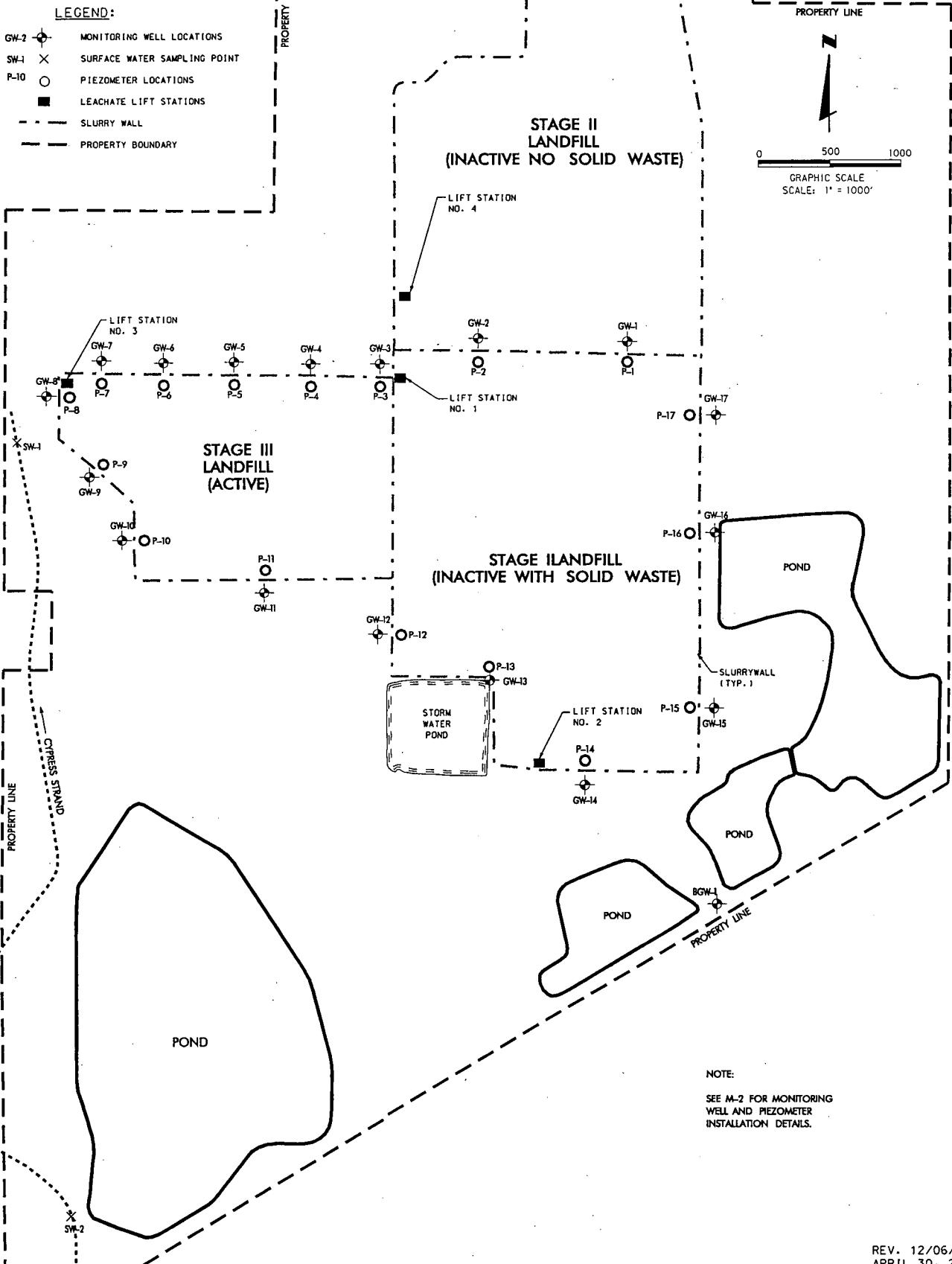
MCL = Maximum Contaminant Level. SWCTL = Surface Water Cleanup Target Level.

SDWS = Secondary Drinking Water Standard.

TABLE 4-1
RAINFALL DURING REVIEW PERIOD
LENA ROAD LANDFILL

MONTH	AVERAGE RAINFALL (inches)	2004 RAINFALL (inches)	2005 RAINFALL (inches)	2006 RAINFALL (inches)
JANUARY	2.09	1.72	1.51	1.78
FEBRUARY	2.91	4.48	4.89	2.09
MARCH	3.15	0.61	5.34	1.07
APRIL	2.31	3.30	4.57	0.21
MAY	2.81	0.55	3.92	1.51
JUNE	6.67	8.08	10.15	8.15
JULY	7.30	9.14	8.35	9.49
AUGUST	8.70	10.25	4.47	9.79
SEPTEMBER	8.50	13.04	1.38	11.62
OCTOBER	3.20	0.90	4.00	1.80
NOVEMBER	1.80	3.07	2.81	1.06
DECEMBER	2.30	3.36	0.87	1.82
TOTAL	51.74	58.50	52.26	50.39

FIGURES



PBS&

LENA ROAD LANDFILL
MANATEE COUNTY, FLORIDA

WATER QUALITY AND
ELEVATION MONITORING
NETWORK

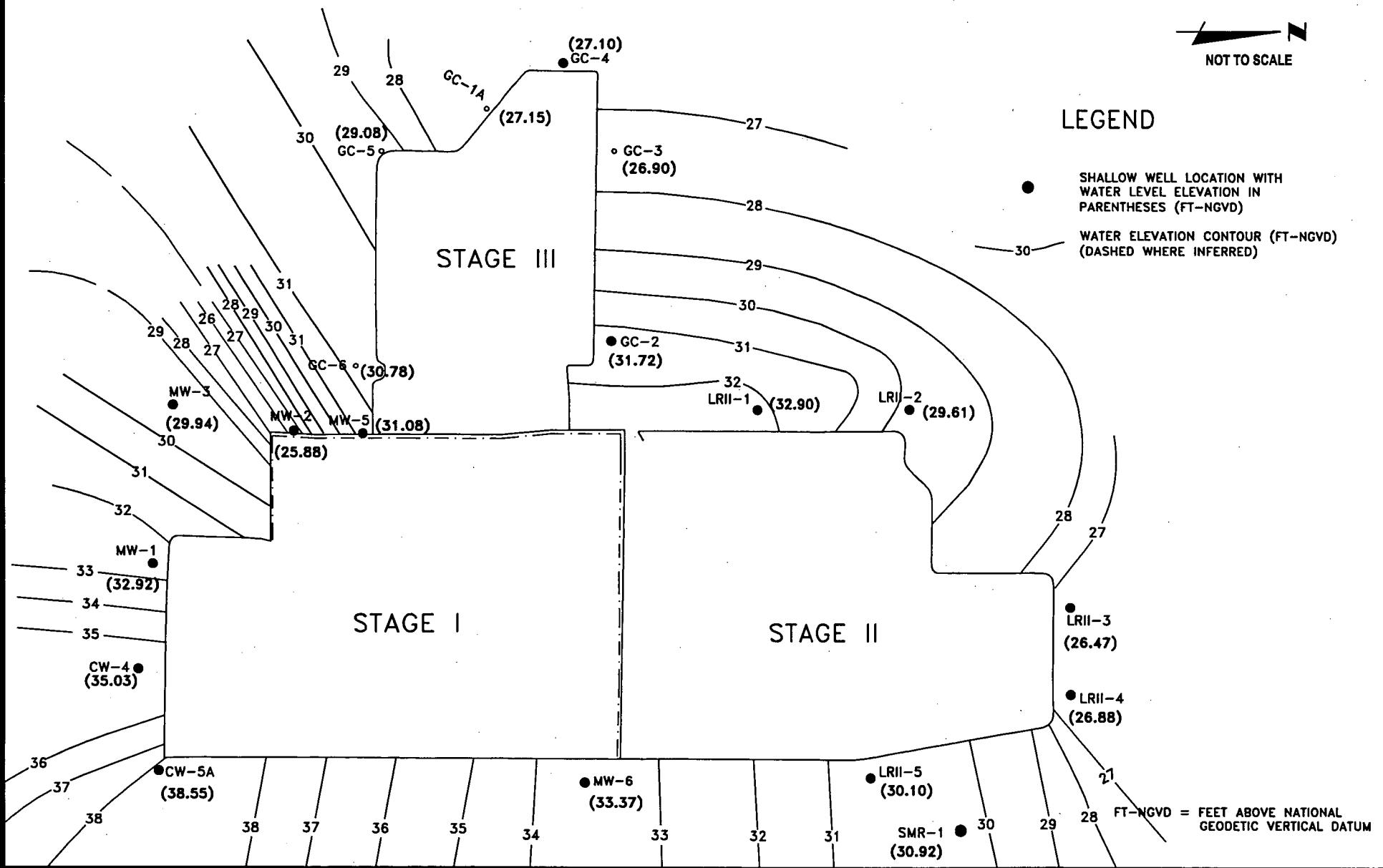
FIG. 1-1

N
NOT TO SCALE

LEGEND

● SHALLOW WELL LOCATION WITH
WATER LEVEL ELEVATION IN
PARENTHESES (FT-NGVD)

— WATER ELEVATION CONTOUR (FT-NGVD)
(DASHED WHERE INFERRED)

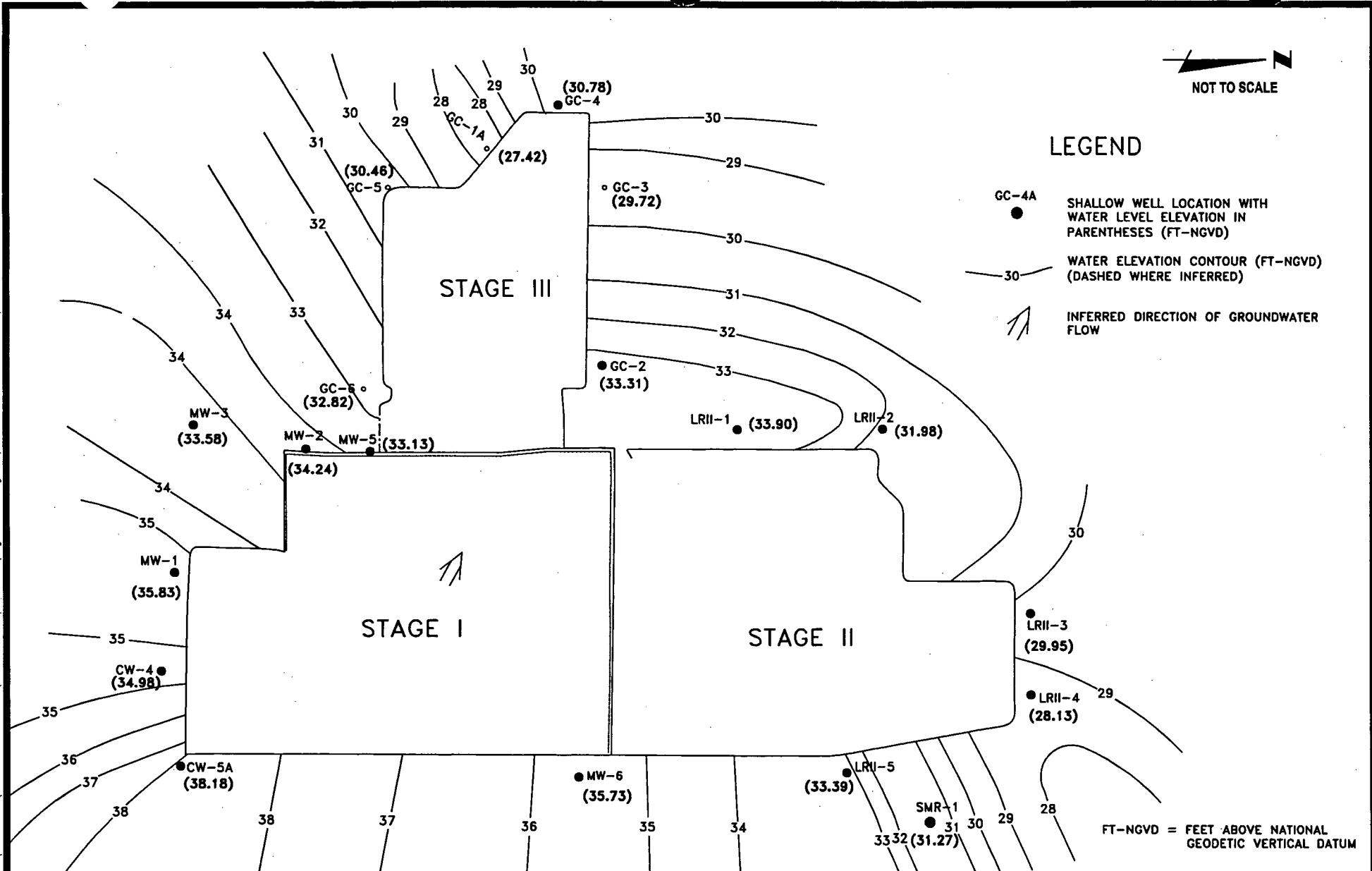


PBS&J

LENA ROAD LANDFILL
3333 LENA ROAD
BRADENTON, MANATEE COUNTY, FLORIDA

GROUNDWATER ELEVATION CONTOUR MAP,
SURFICIAL AQUIFER - FIRST HALF, 2004

FIG. 4-1

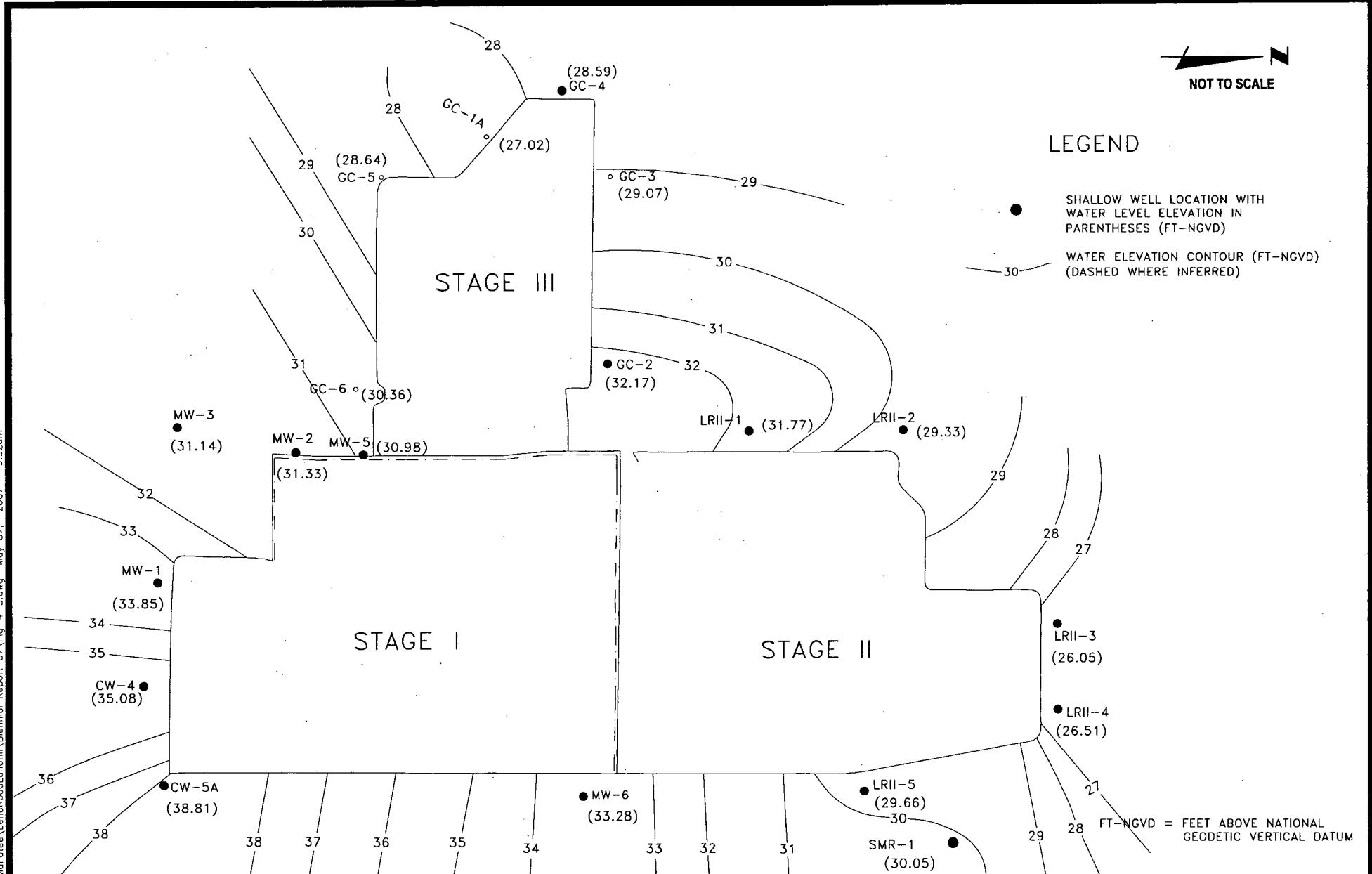


PBS&J

LENA ROAD LANDFILL
3333 LENA ROAD
BRADENTON, MANATEE COUNTY, FLORIDA

GROUNDWATER ELEVATION CONTOUR MAP,
SURFICIAL AQUIFER - SECOND HALF, 2004

FIG. 4-2

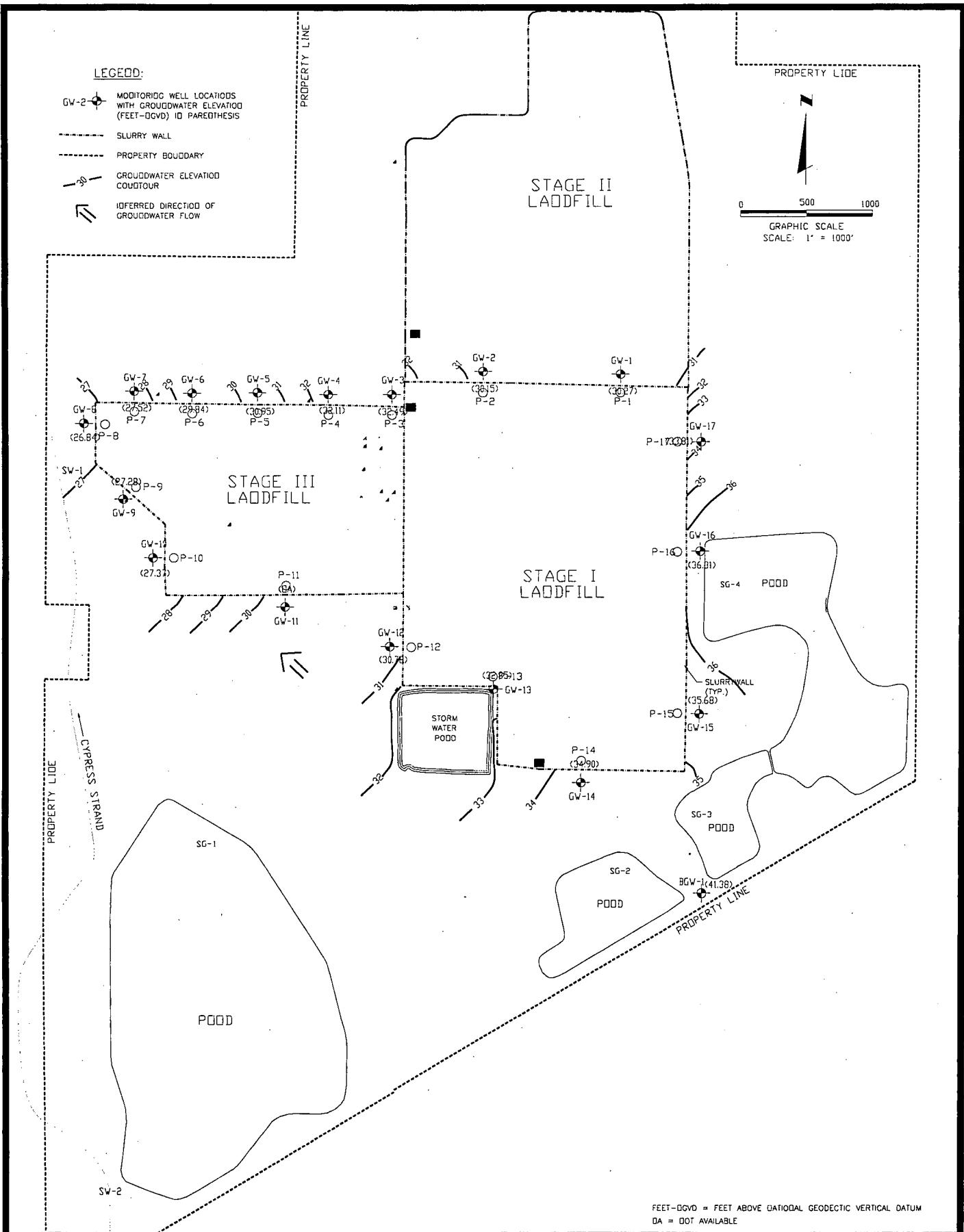


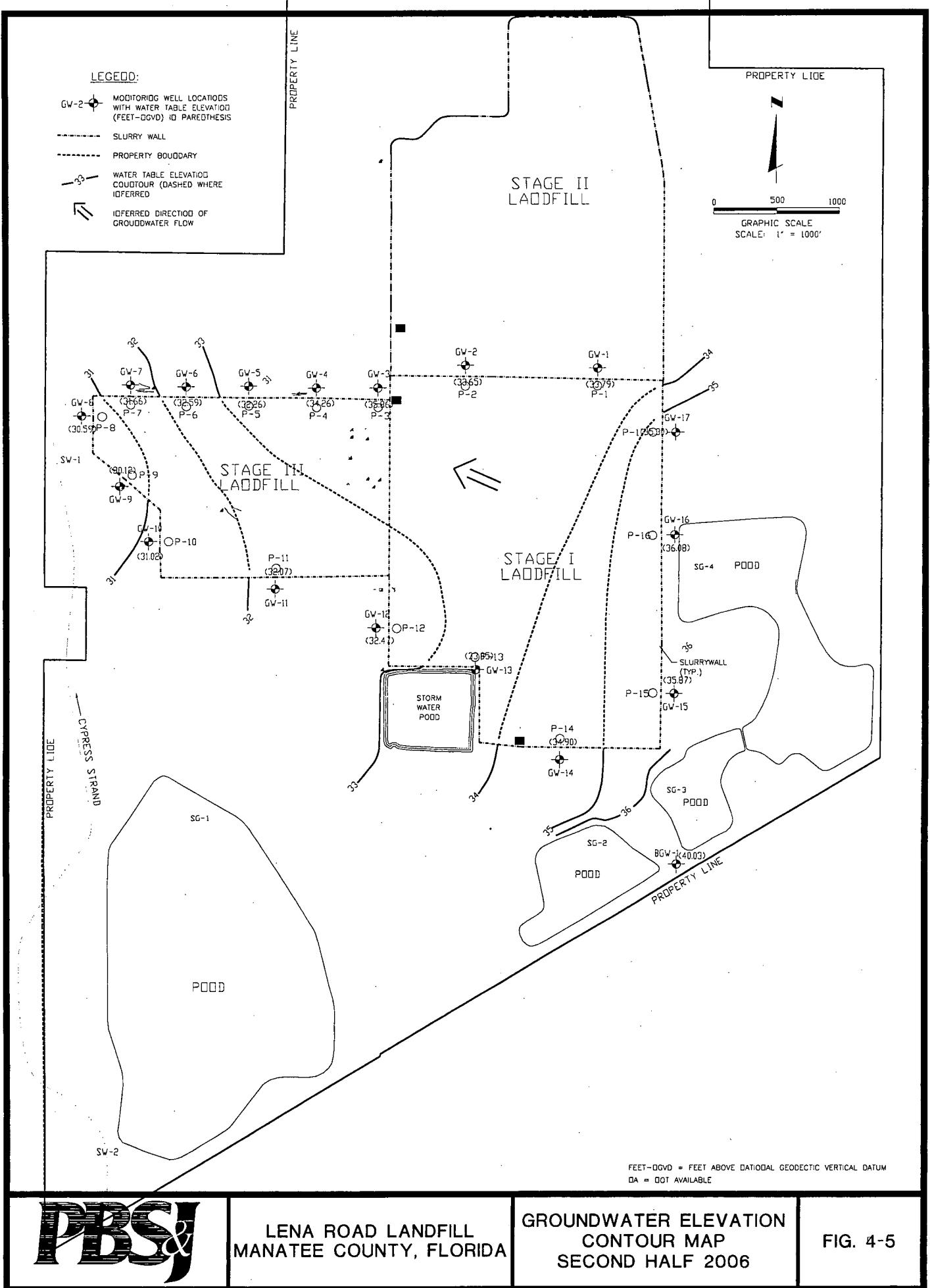
PBS&J

LENA ROAD LANDFILL
3333 LENA ROAD
BRADENTON, MANATEE COUNTY, FLORIDA

**GROUNDWATER ELEVATION CONTOUR MAP,
SURFICIAL AQUIFER - FIRST HALF, 2005**

FIG. 4-3

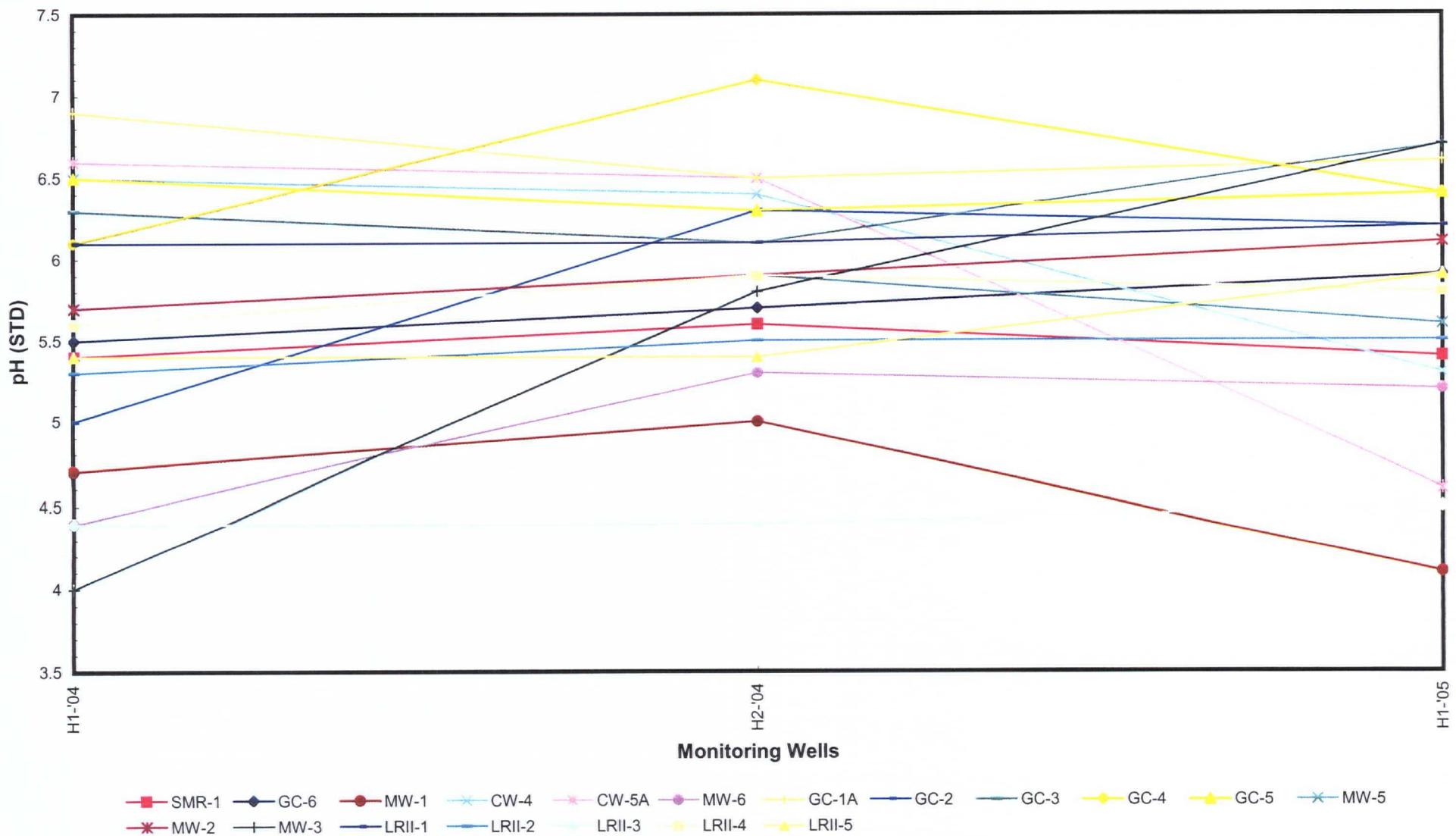




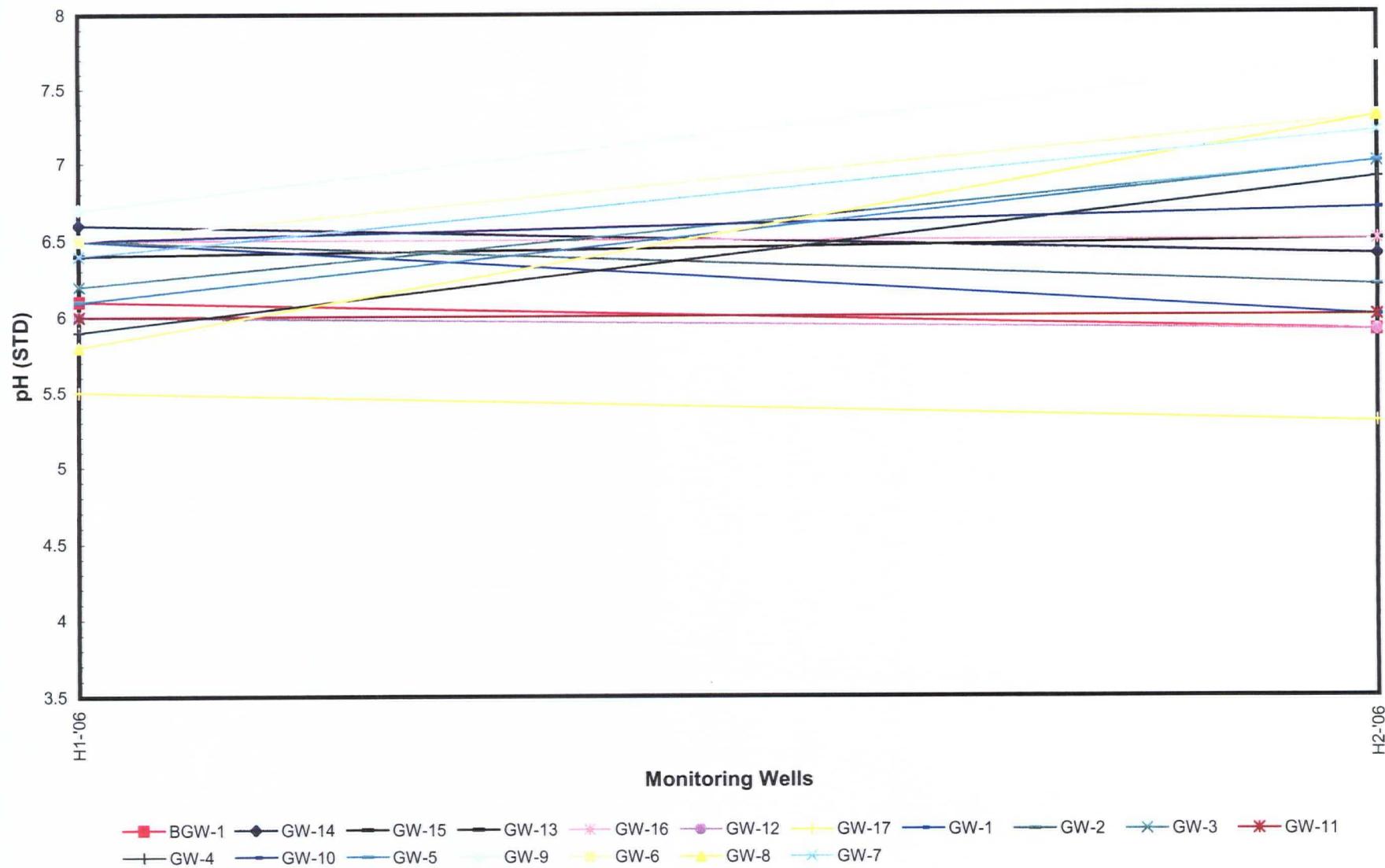
APPENDIX A

Parameter Concentration Graphs

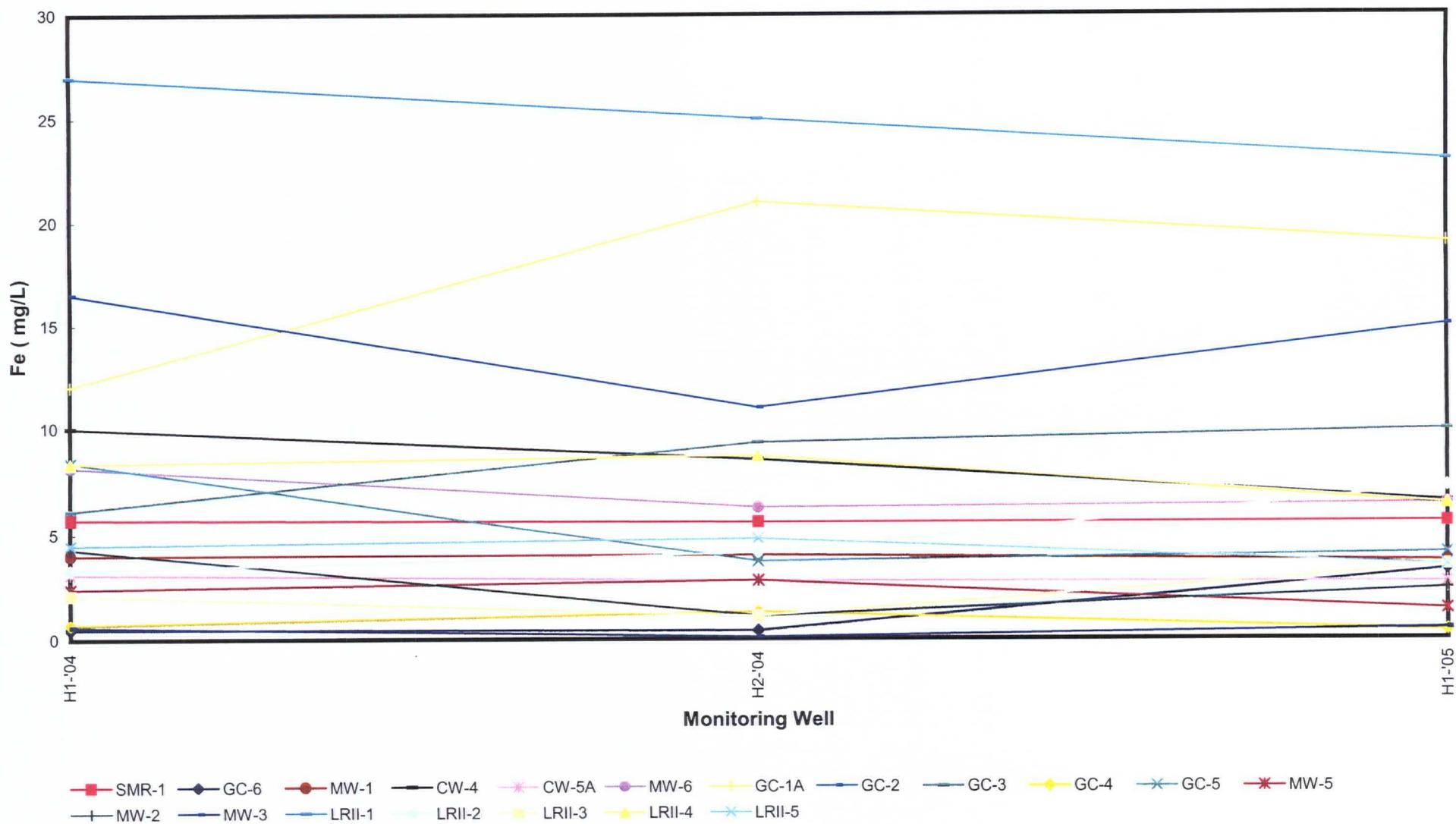
pH Concentration Trend Graph, Old Network



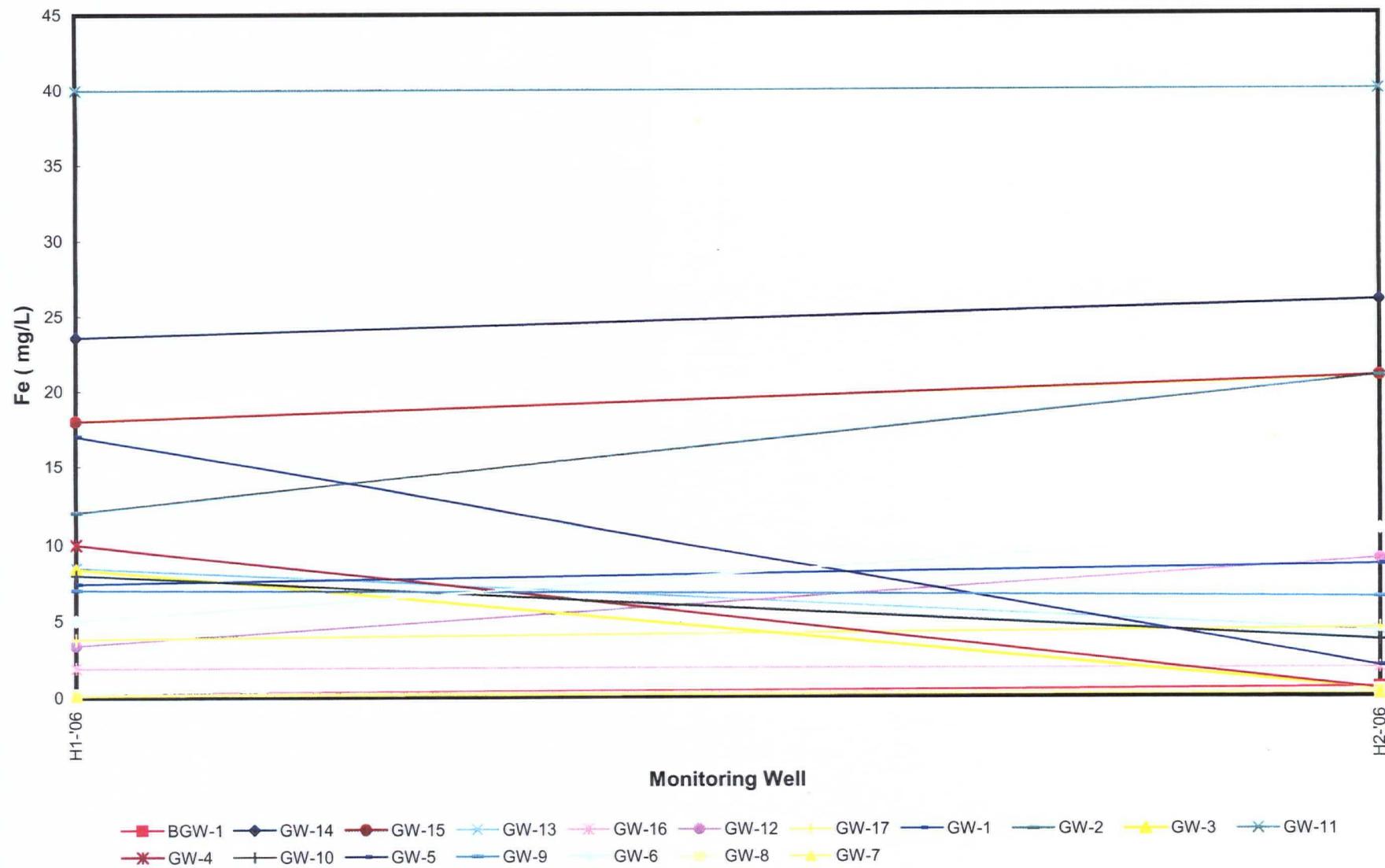
pH Concentration Trend Graph, New Network



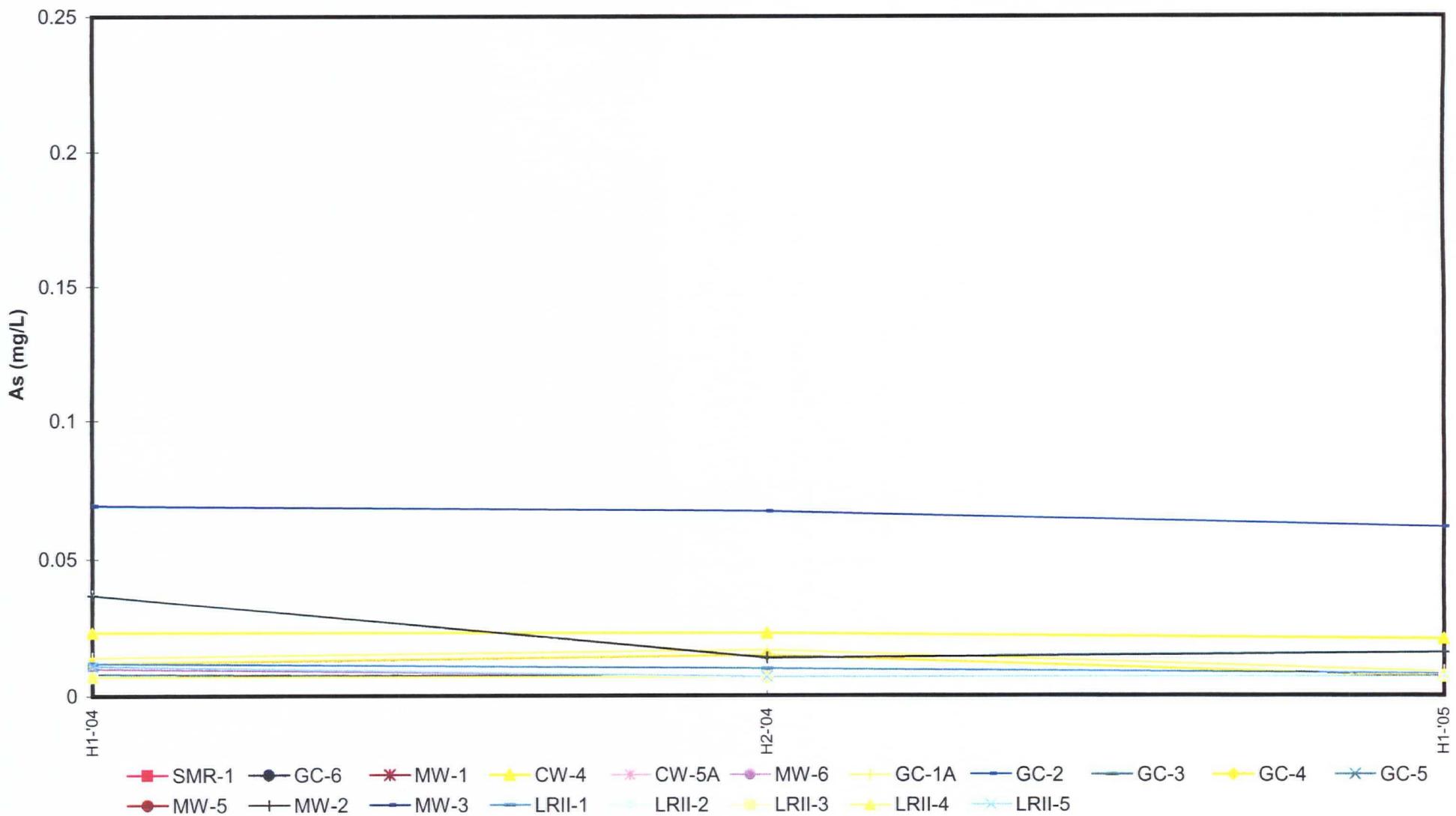
Iron Concentration Trend Graph, Old Network



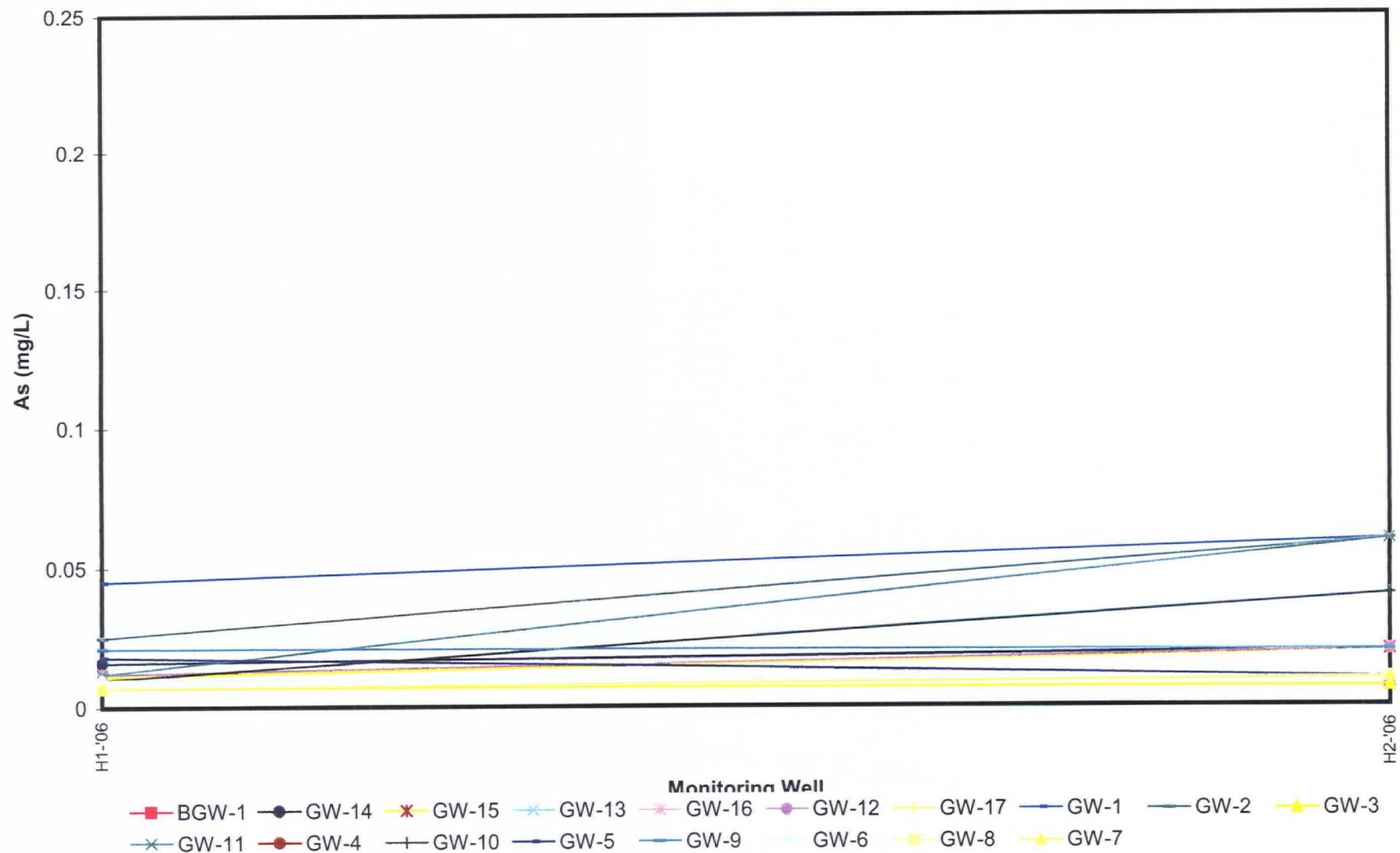
Iron Concentration Trend Graph, New Network



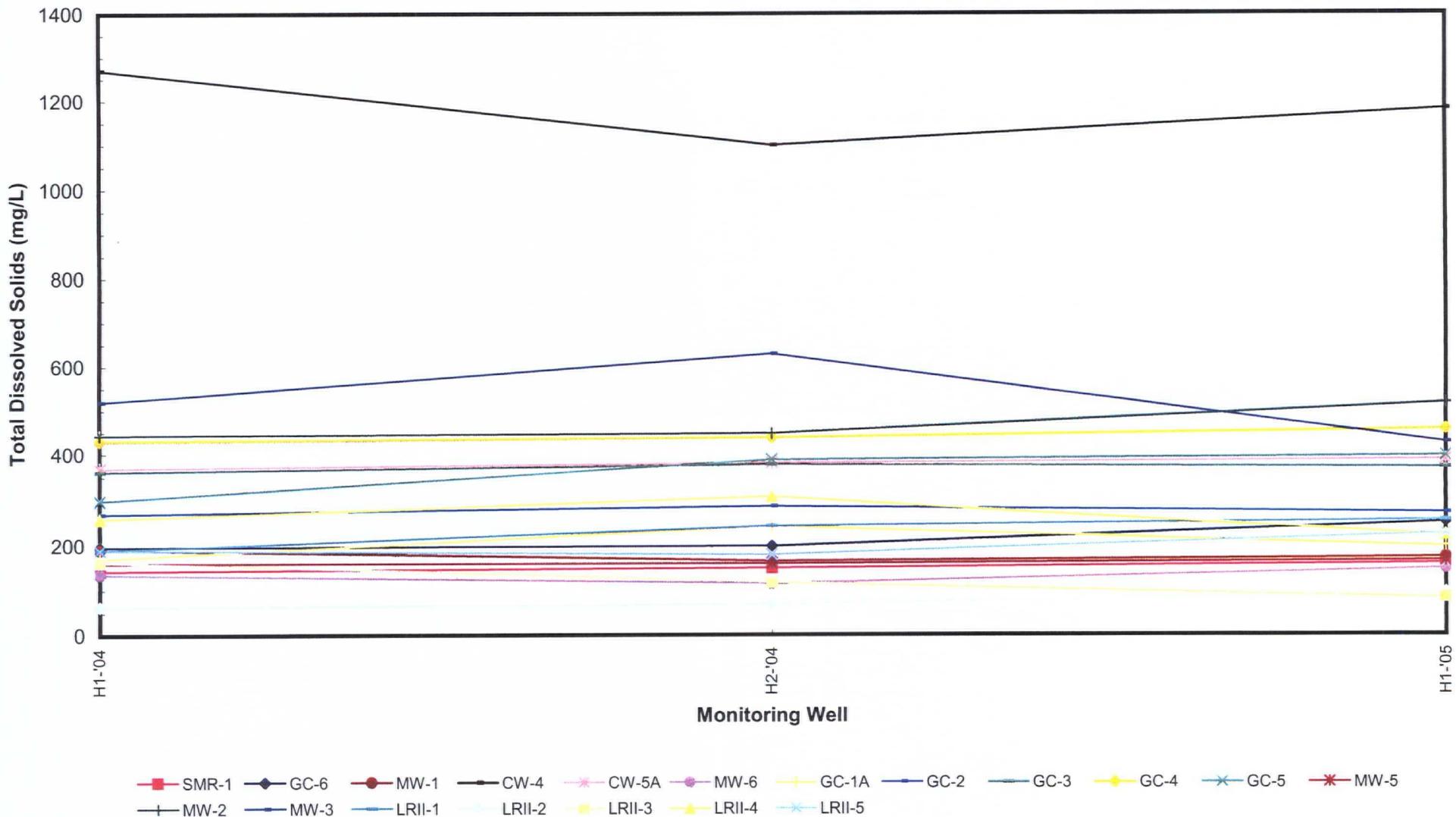
Arsenic Concentration Trend Graph, Old Network



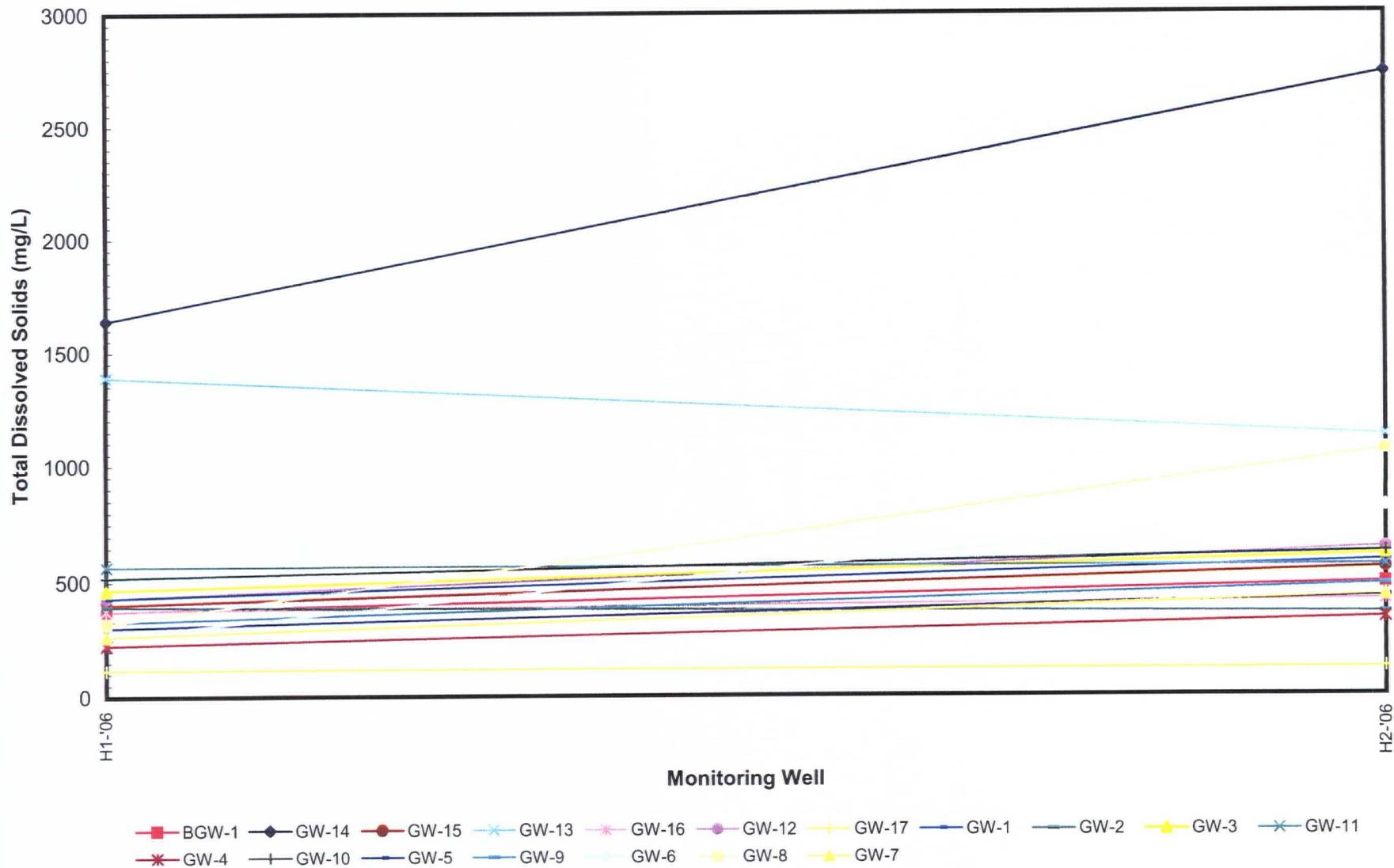
Arsenic Concentration Trend Graph, New Network



TDS Concentration Trend Graph, Old Network



TDS Concentration Trend Graph, New Network

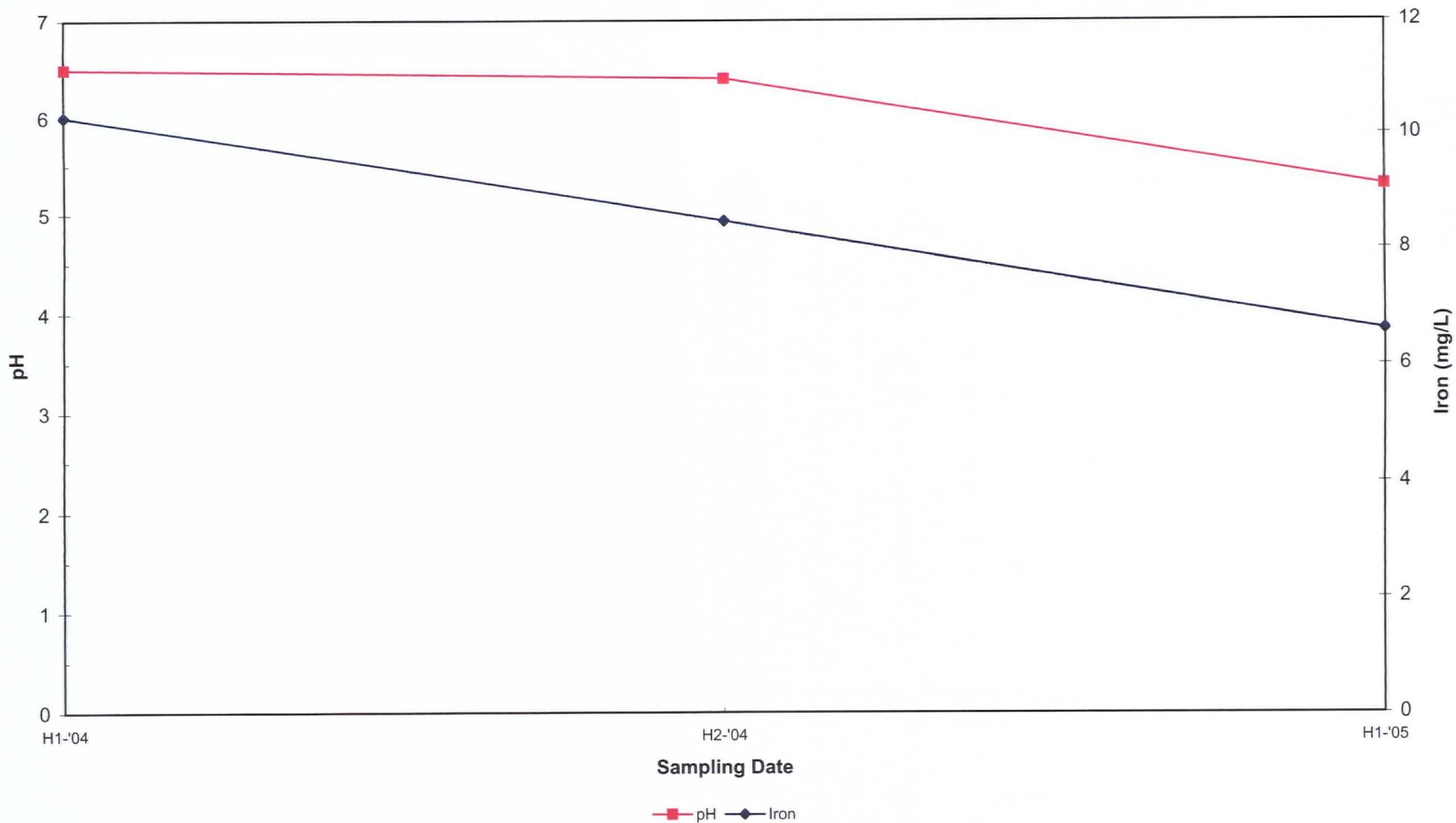


APPENDIX B

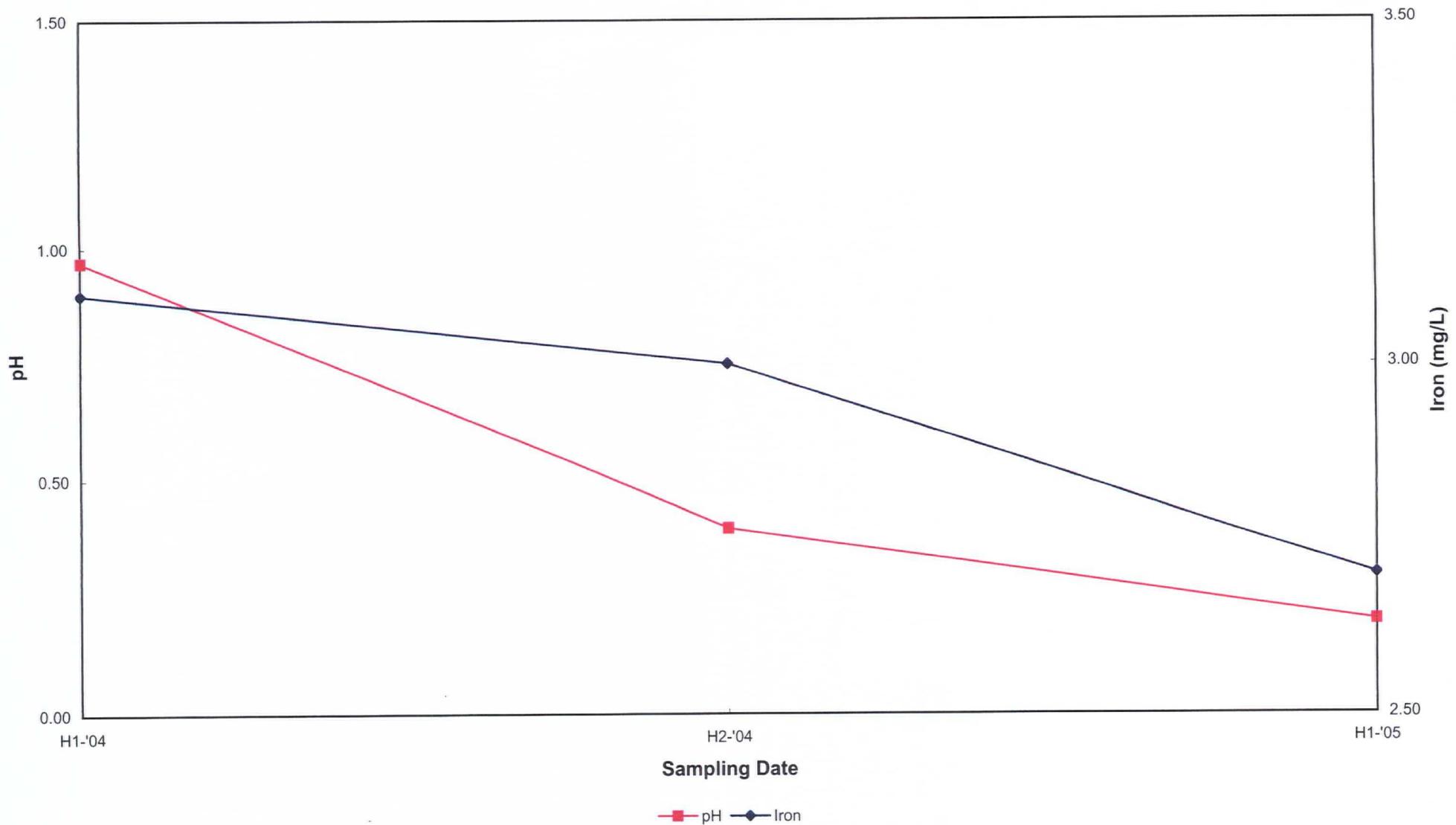
Related Parameter Correlation Graphs

B-1 – pH versus Iron

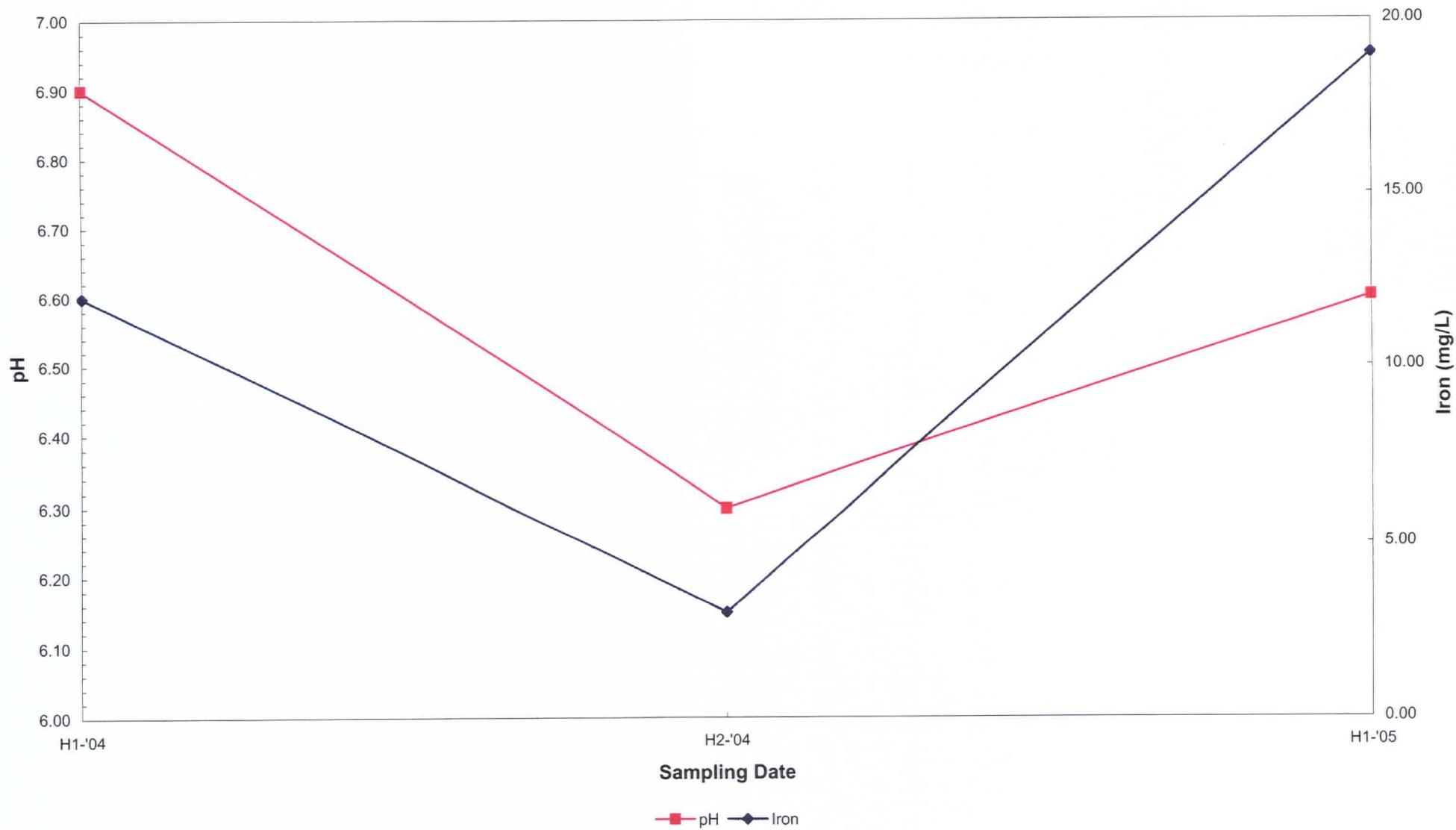
Monitoring Well CW- 4



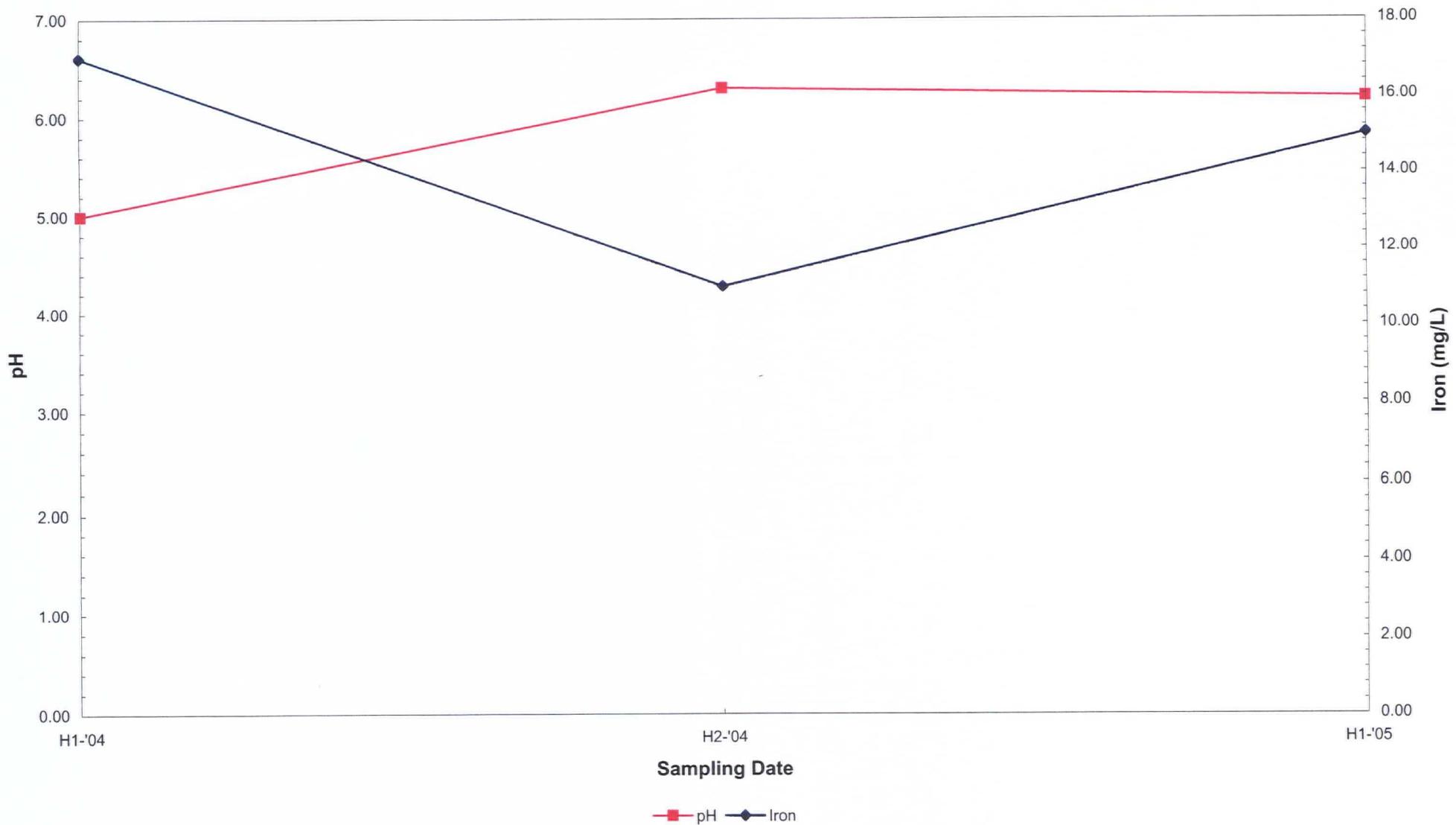
Monitoring Well CW- 5A



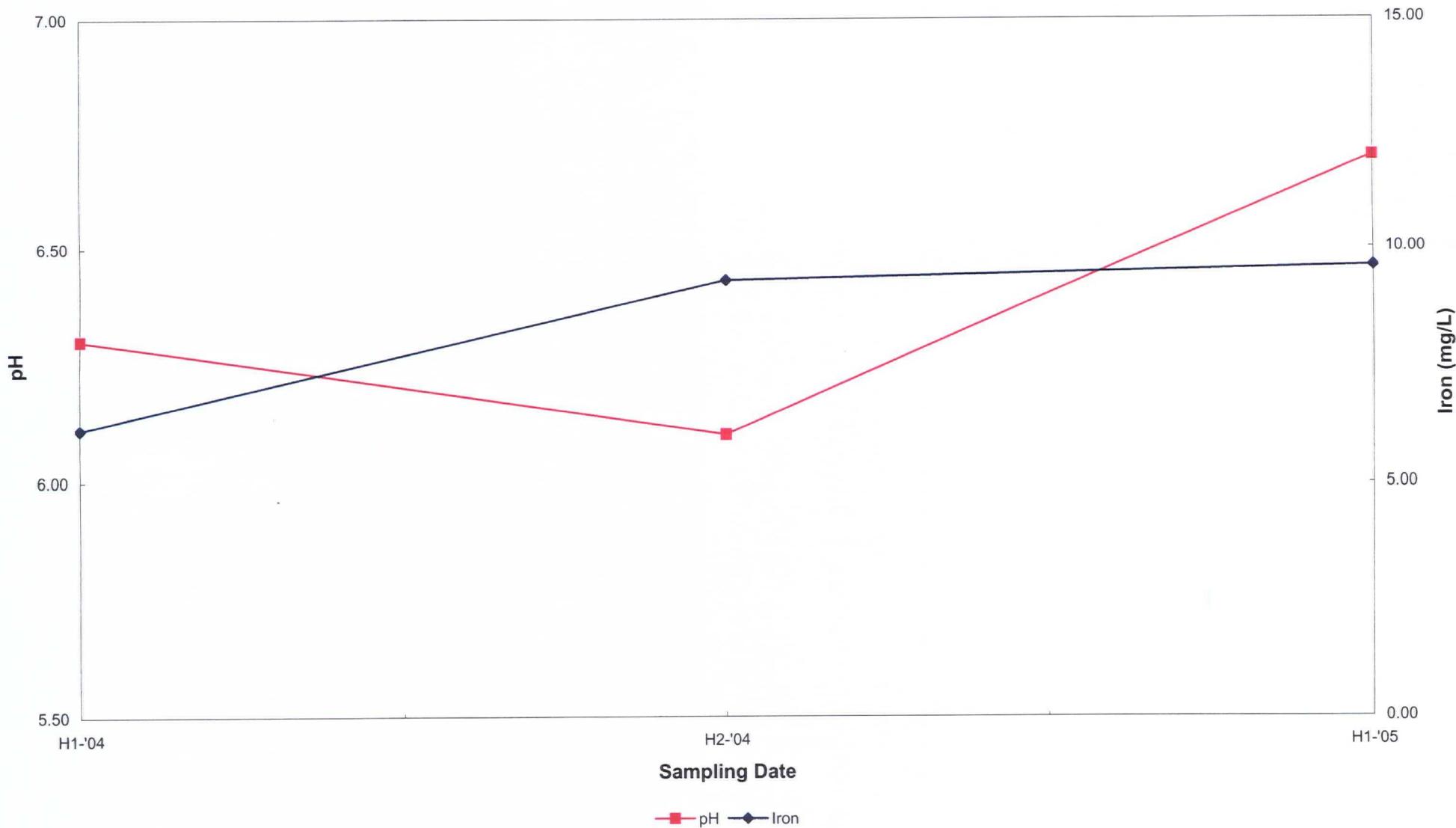
Monitoring Well GC-1A



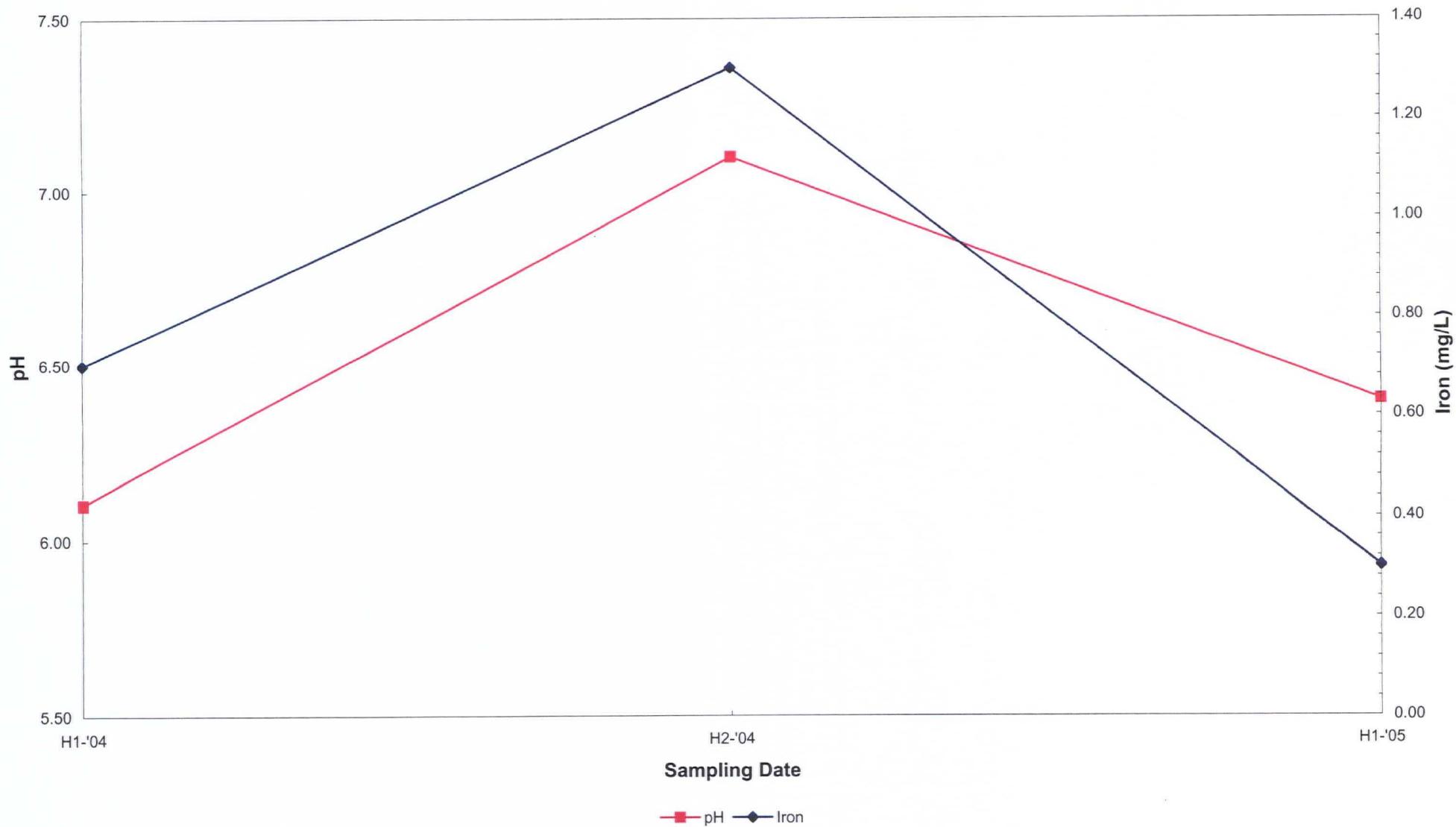
Monitoring Well GC-2



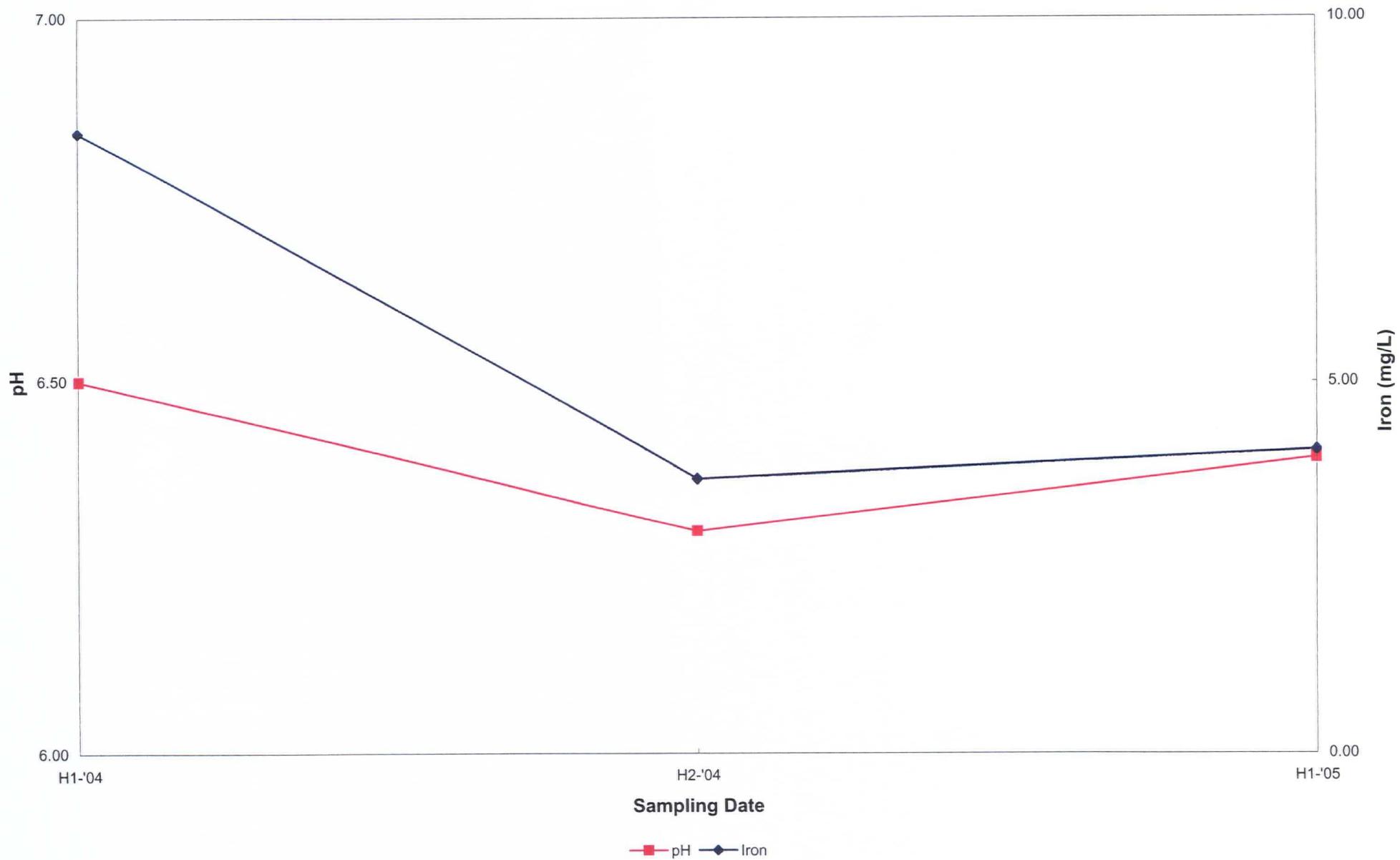
Monitoring Well GC-3



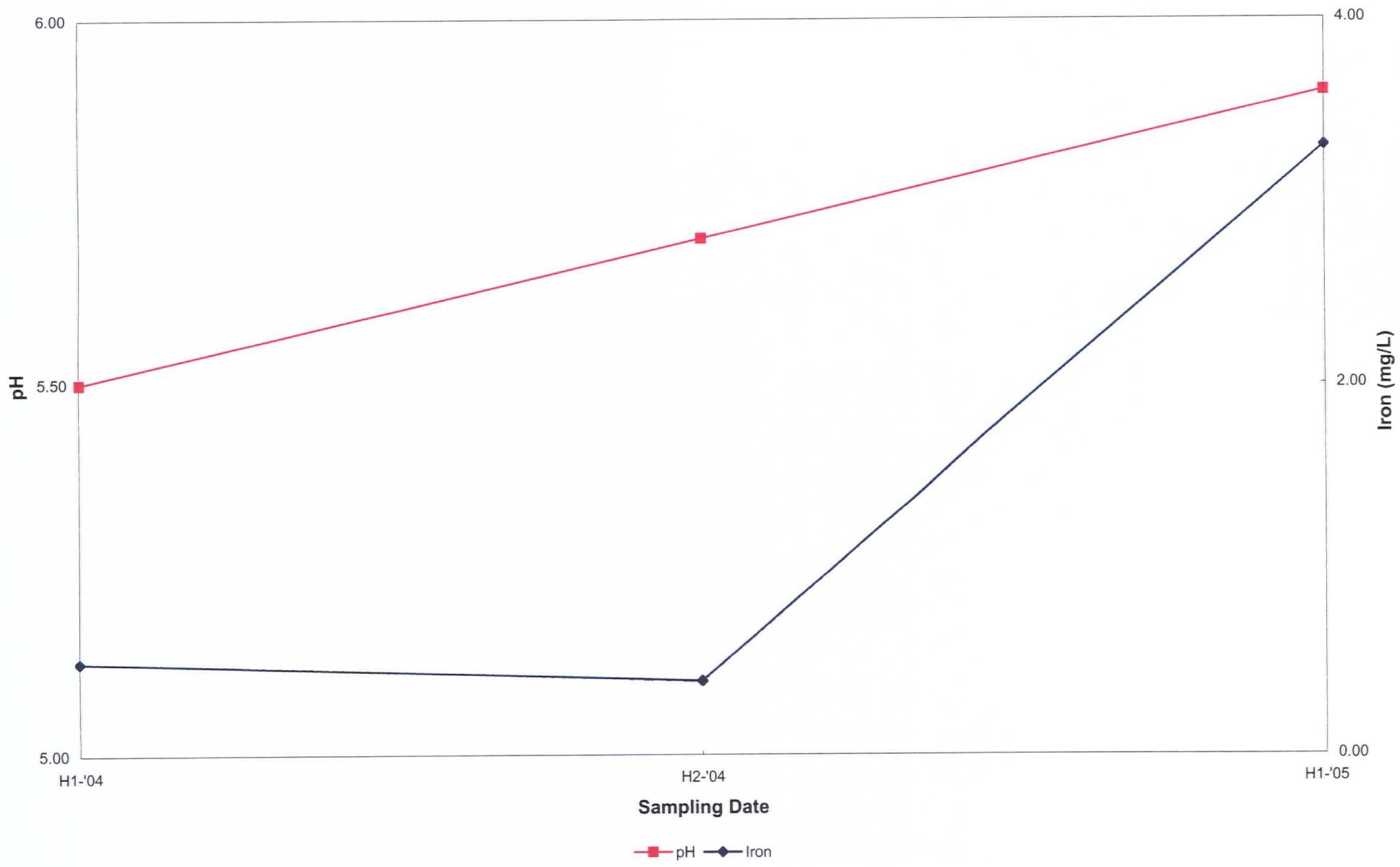
Monitoring Well GC-4



Monitoring Well GC- 5

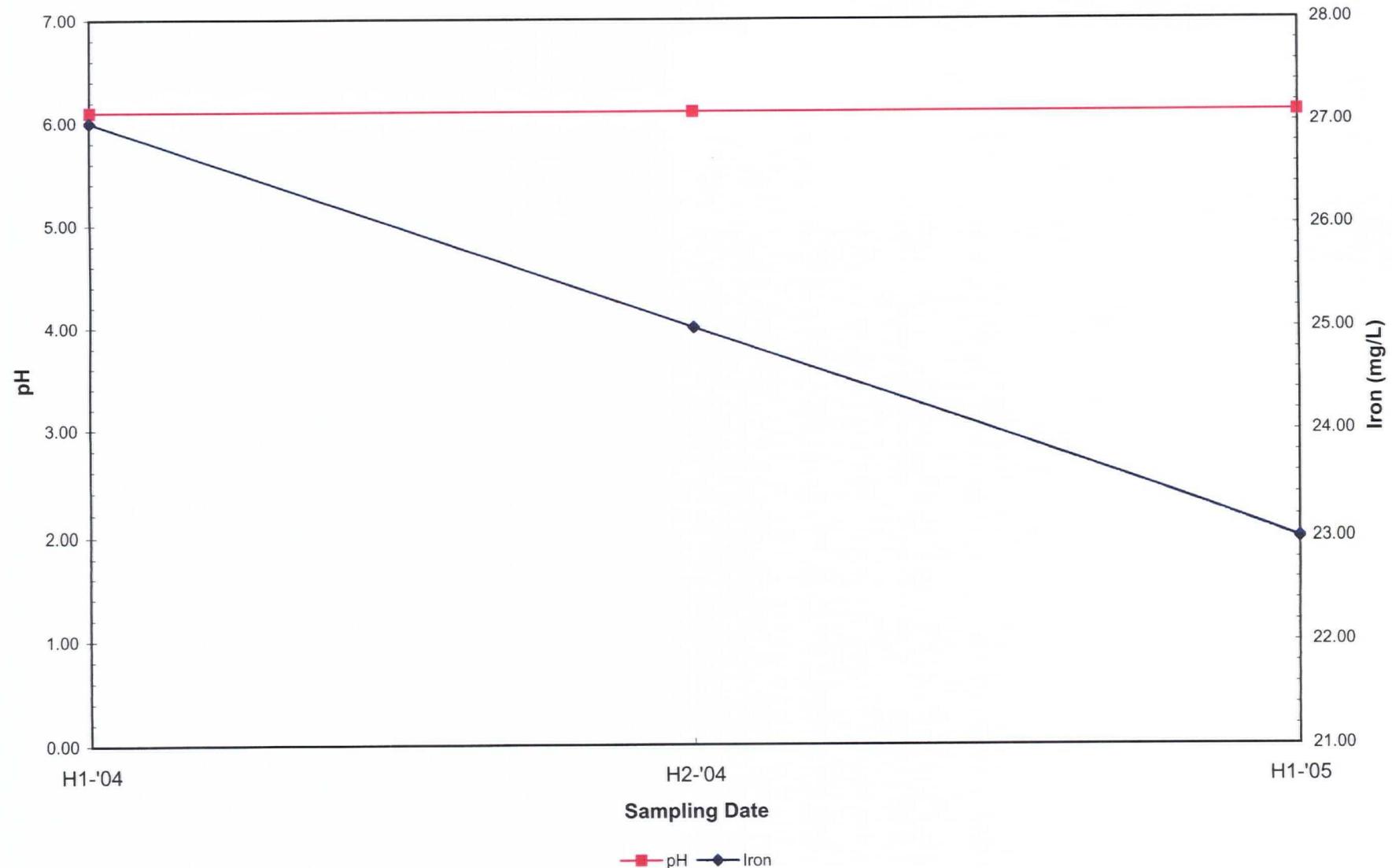


Monitoring Well GC-6



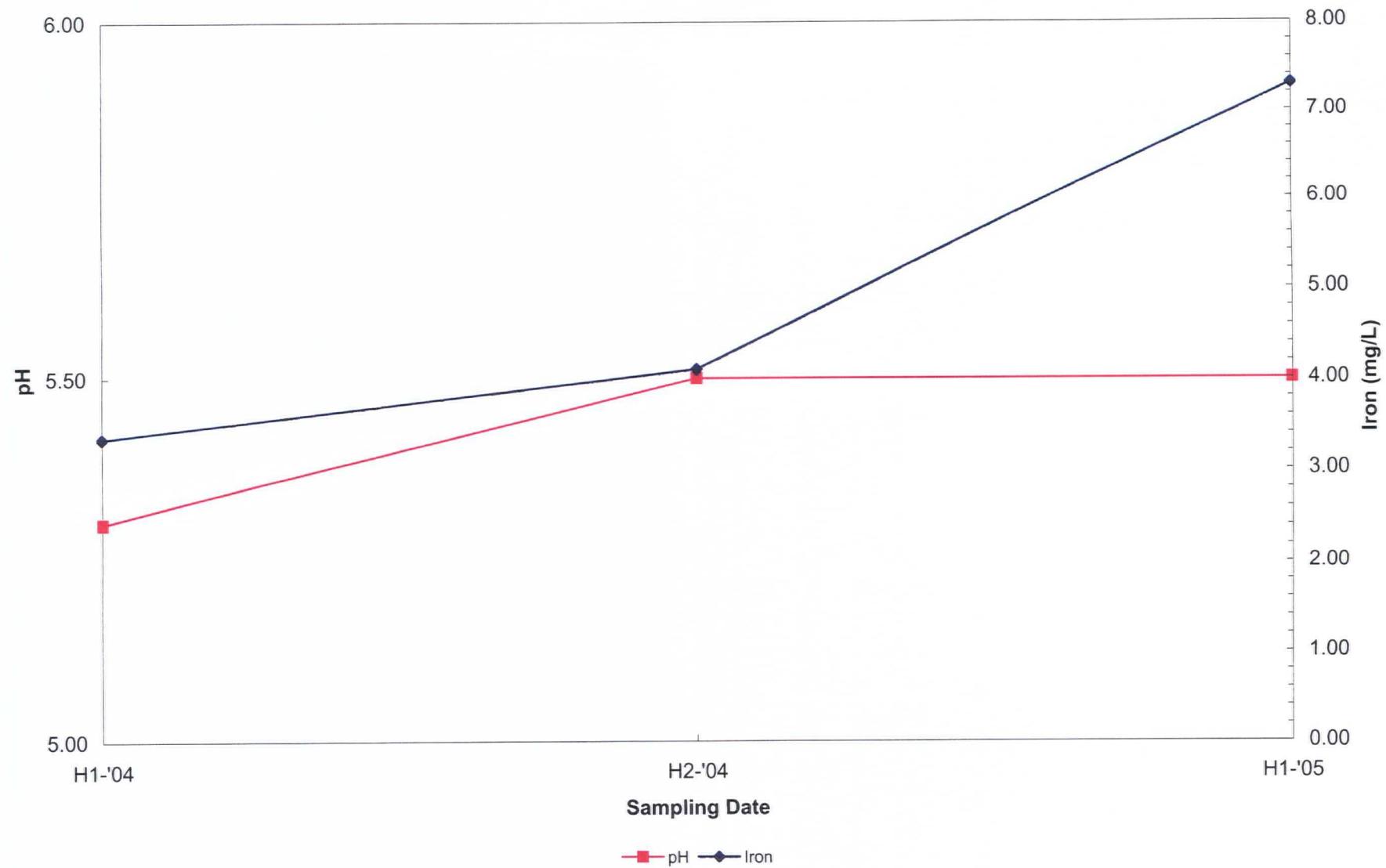


Monitoring Well LRII-1

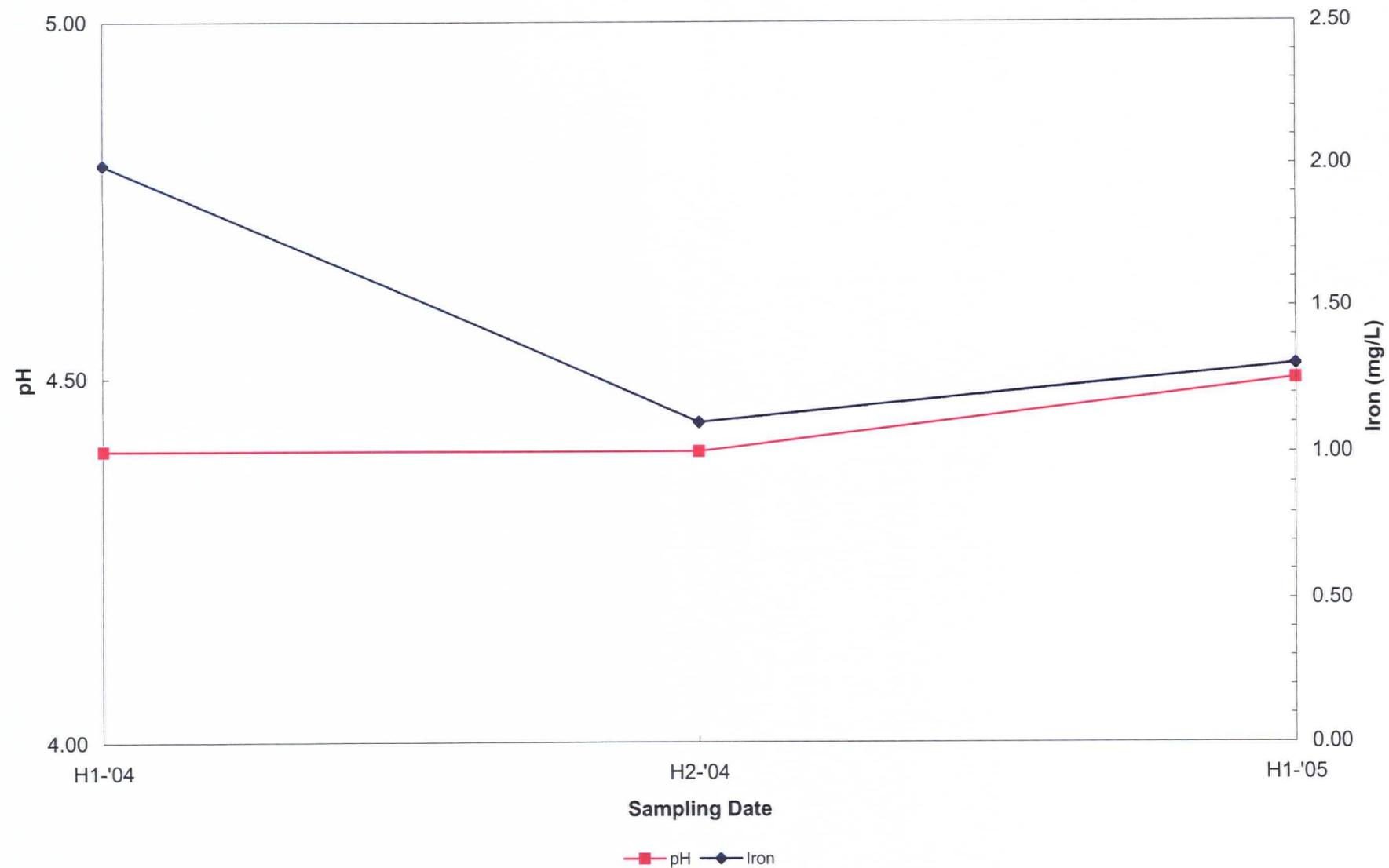


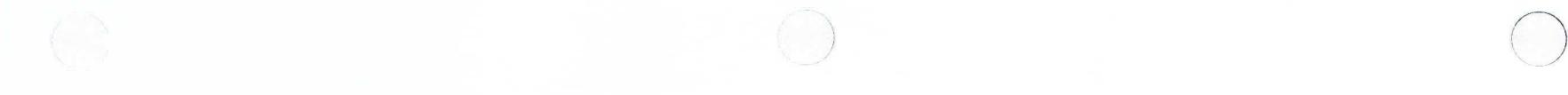


Monitoring Well LRII-2

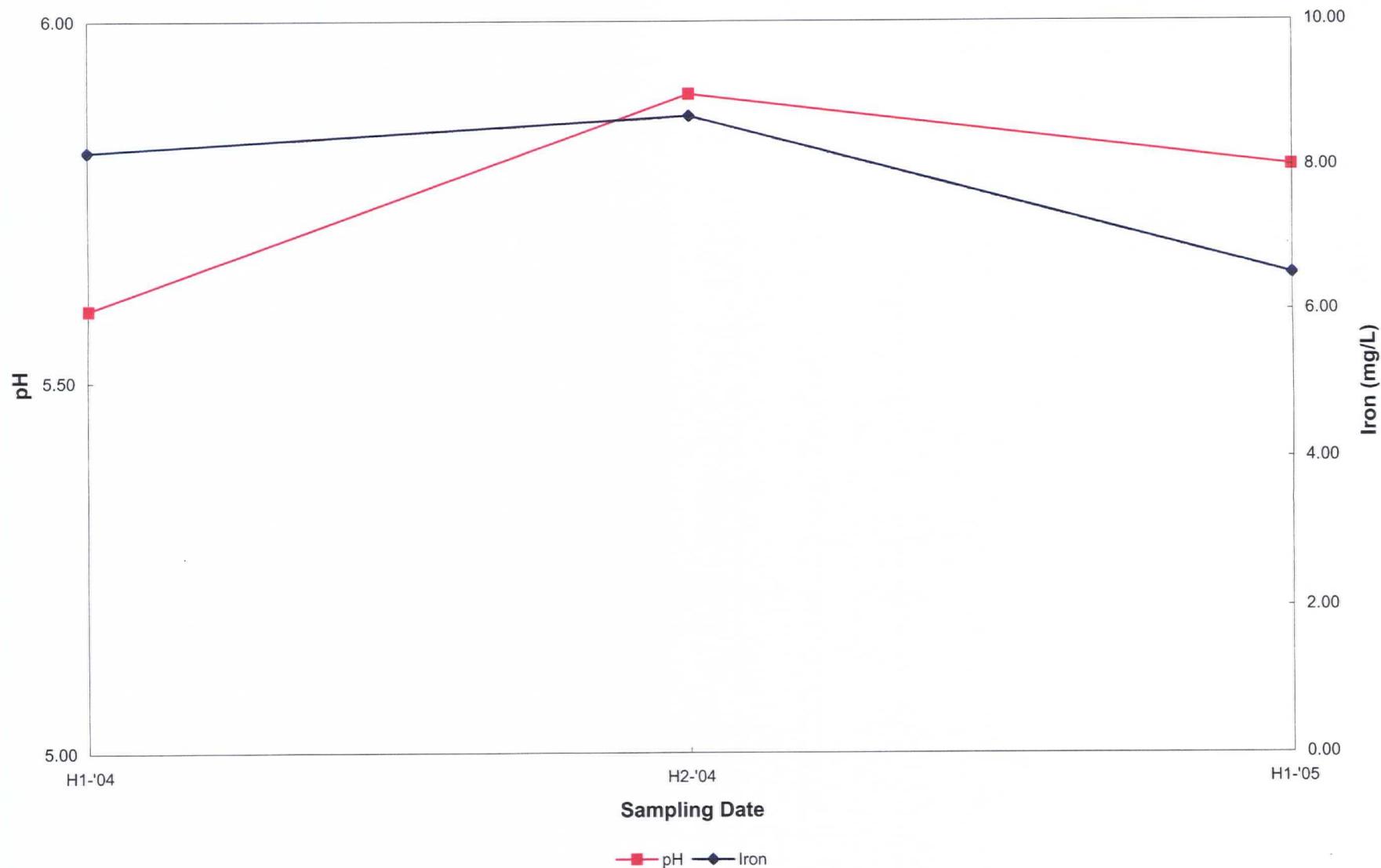


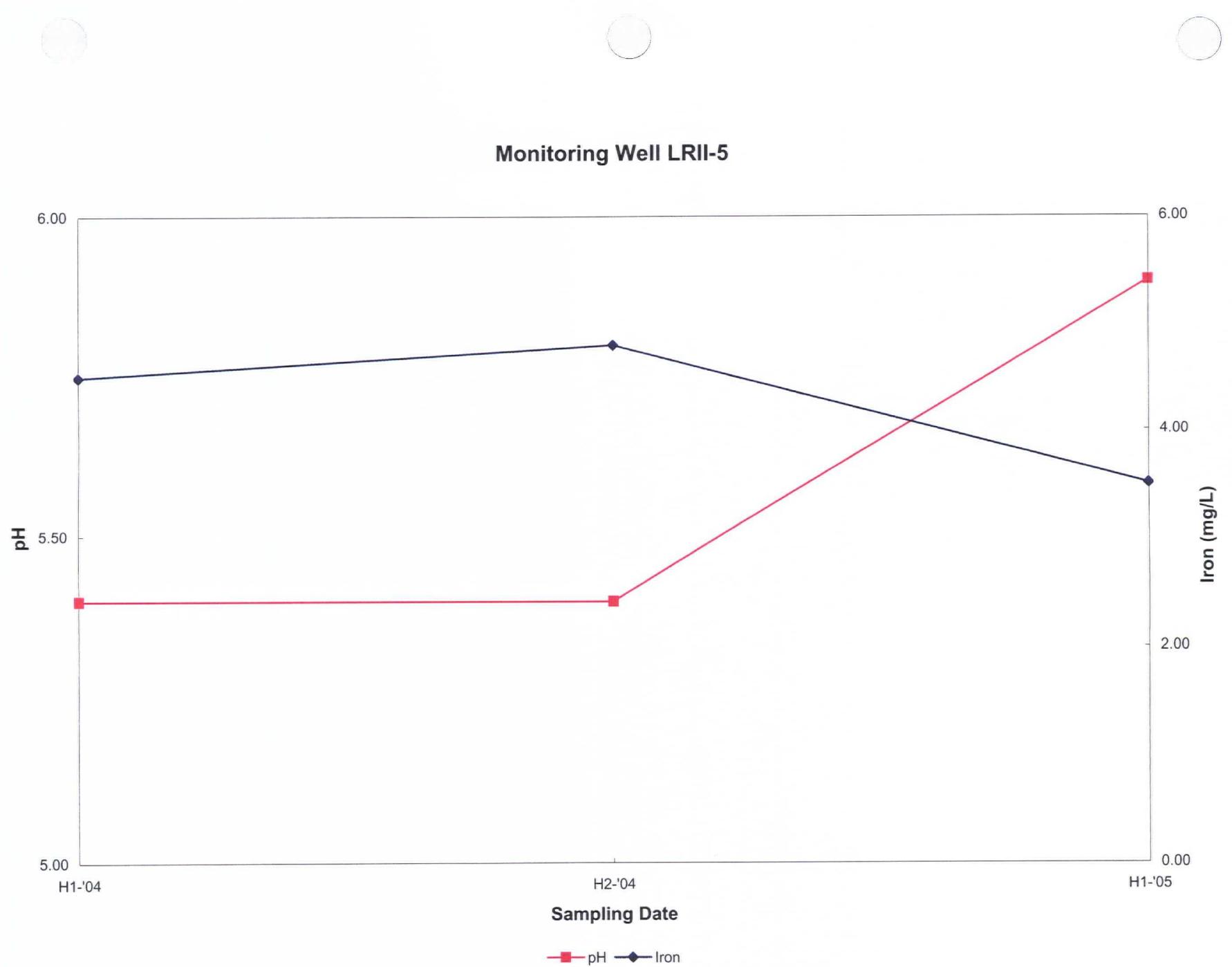
Monitoring Well LRII-3



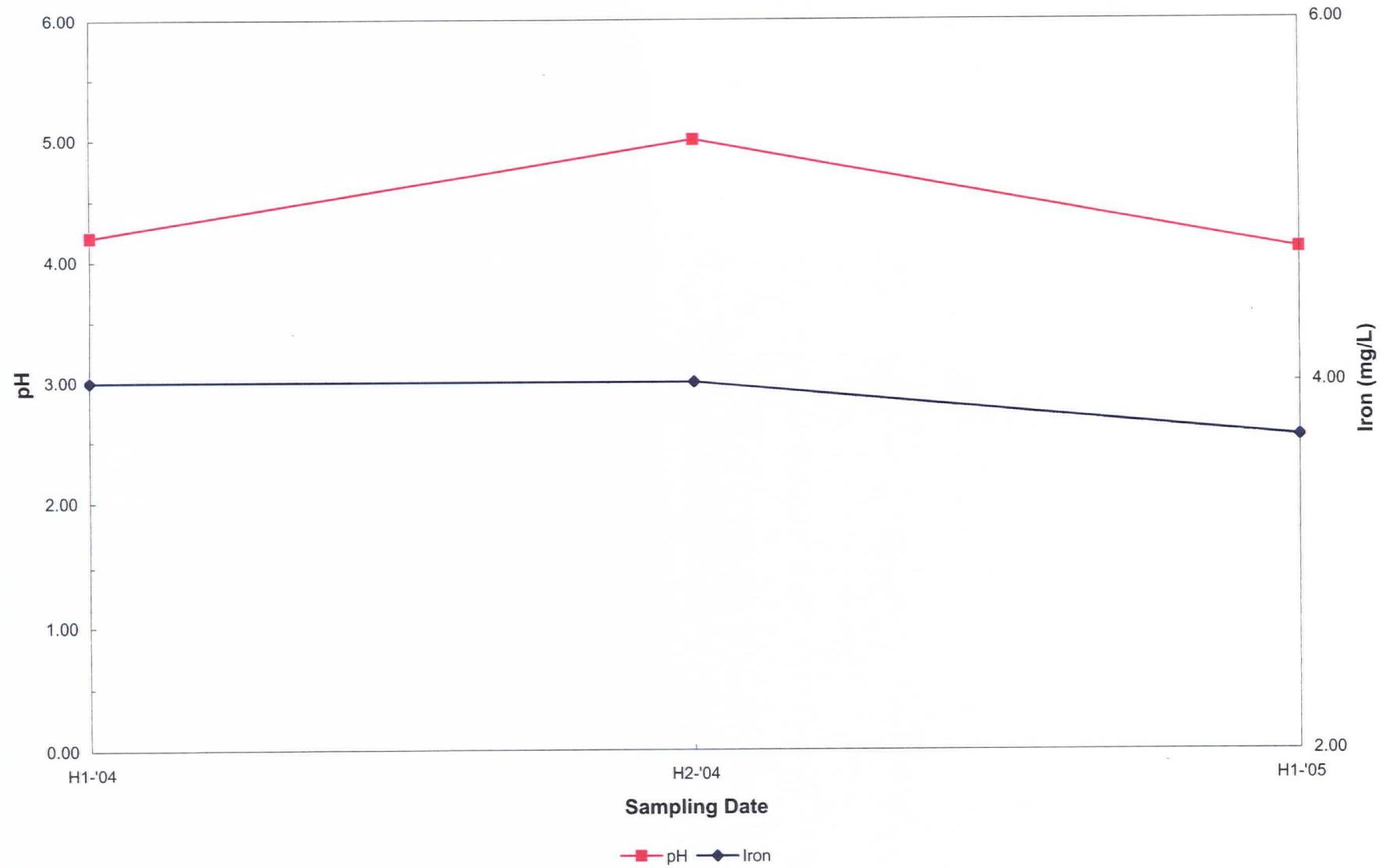


Monitoring Well LRII-4

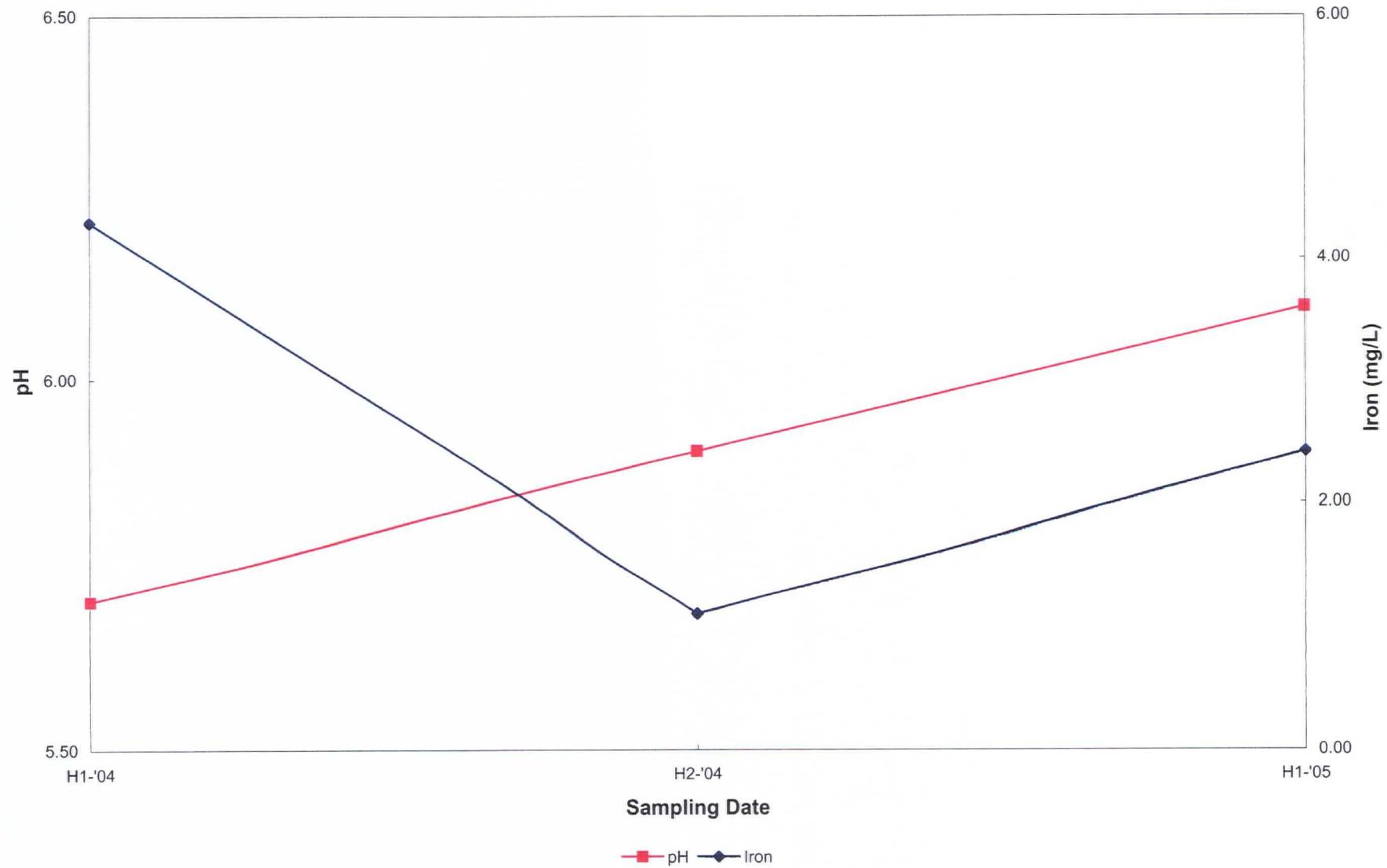


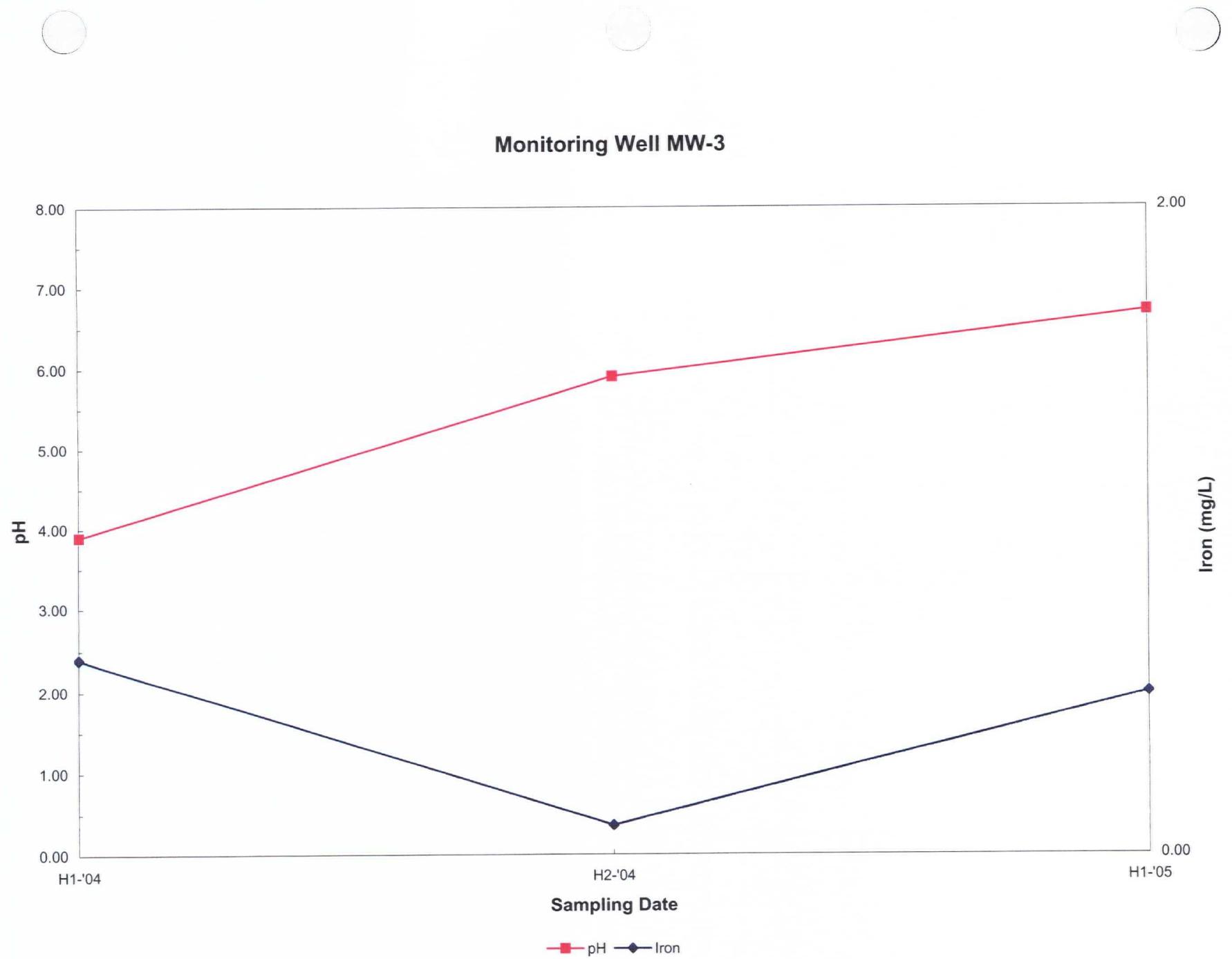


Monitoring Well MW-1

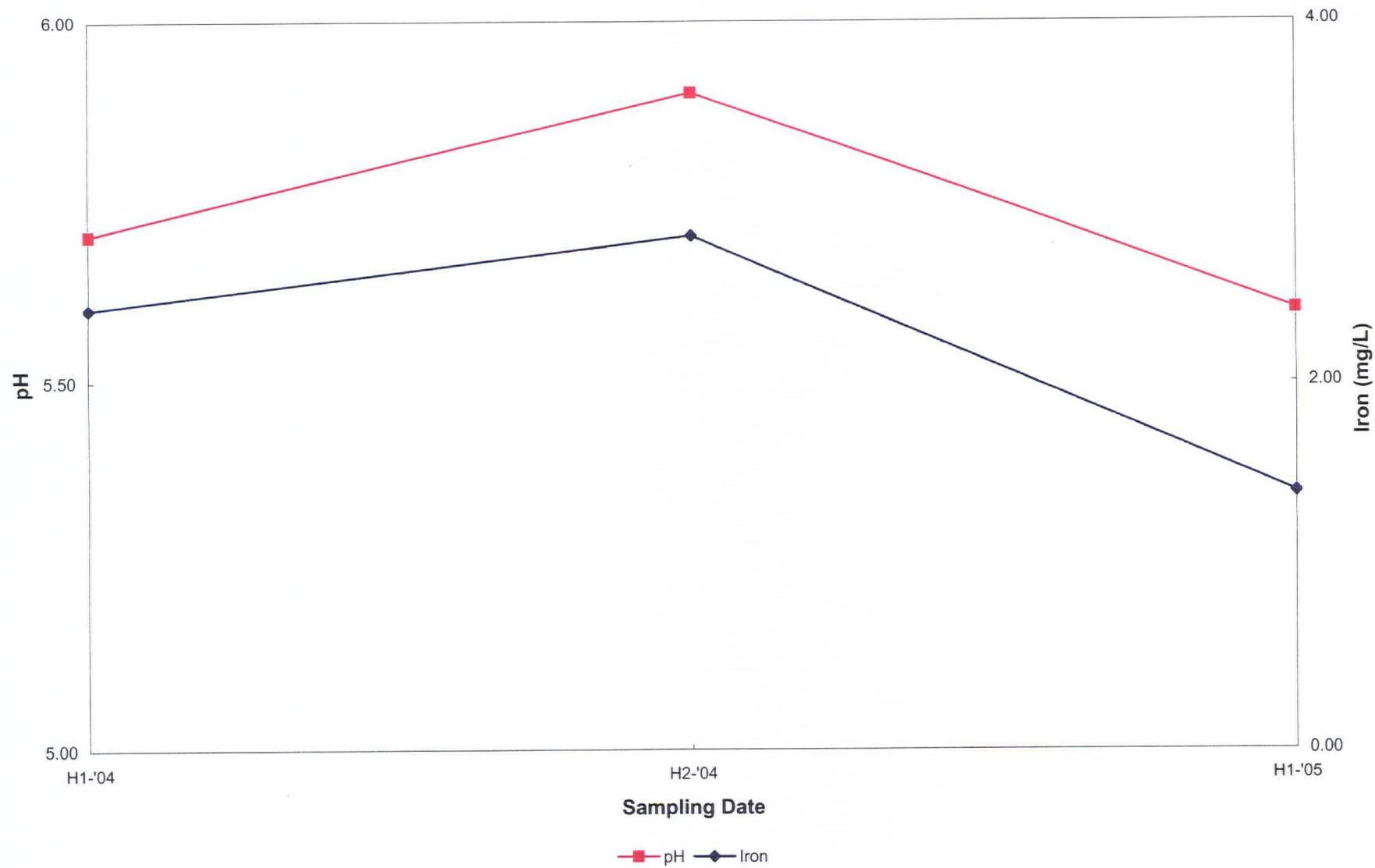


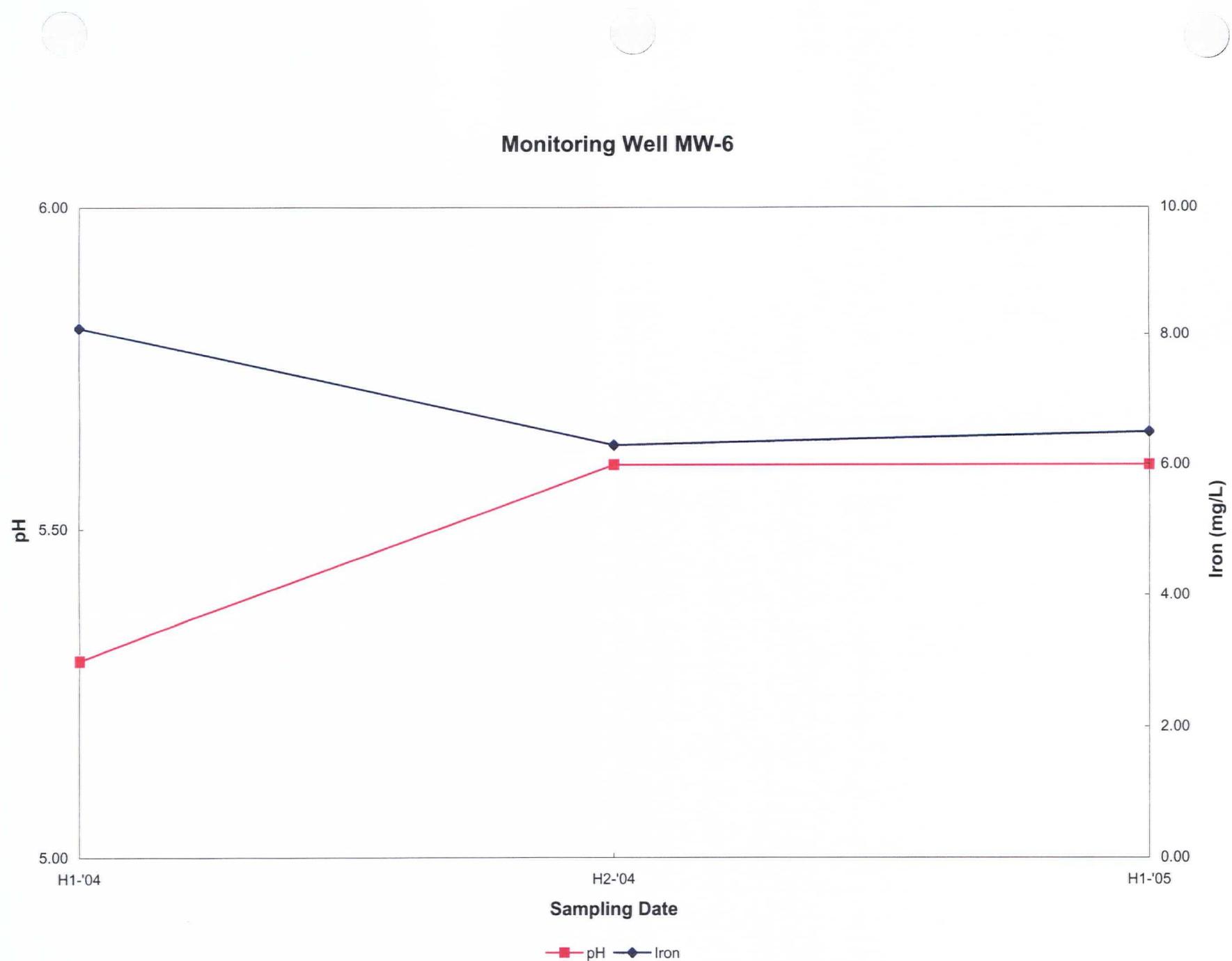
Monitoring Well MW-2



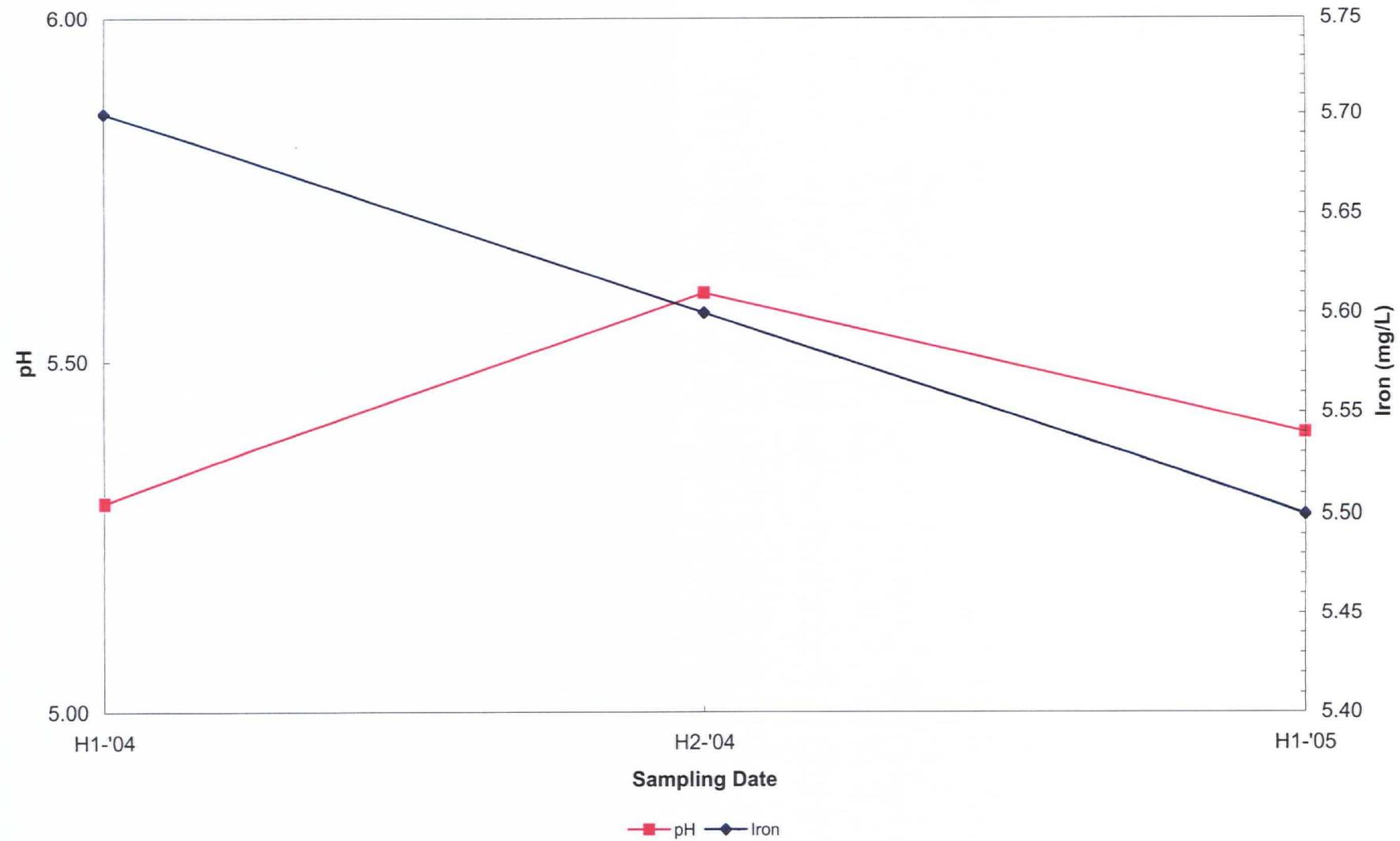


Monitoring Well MW-5

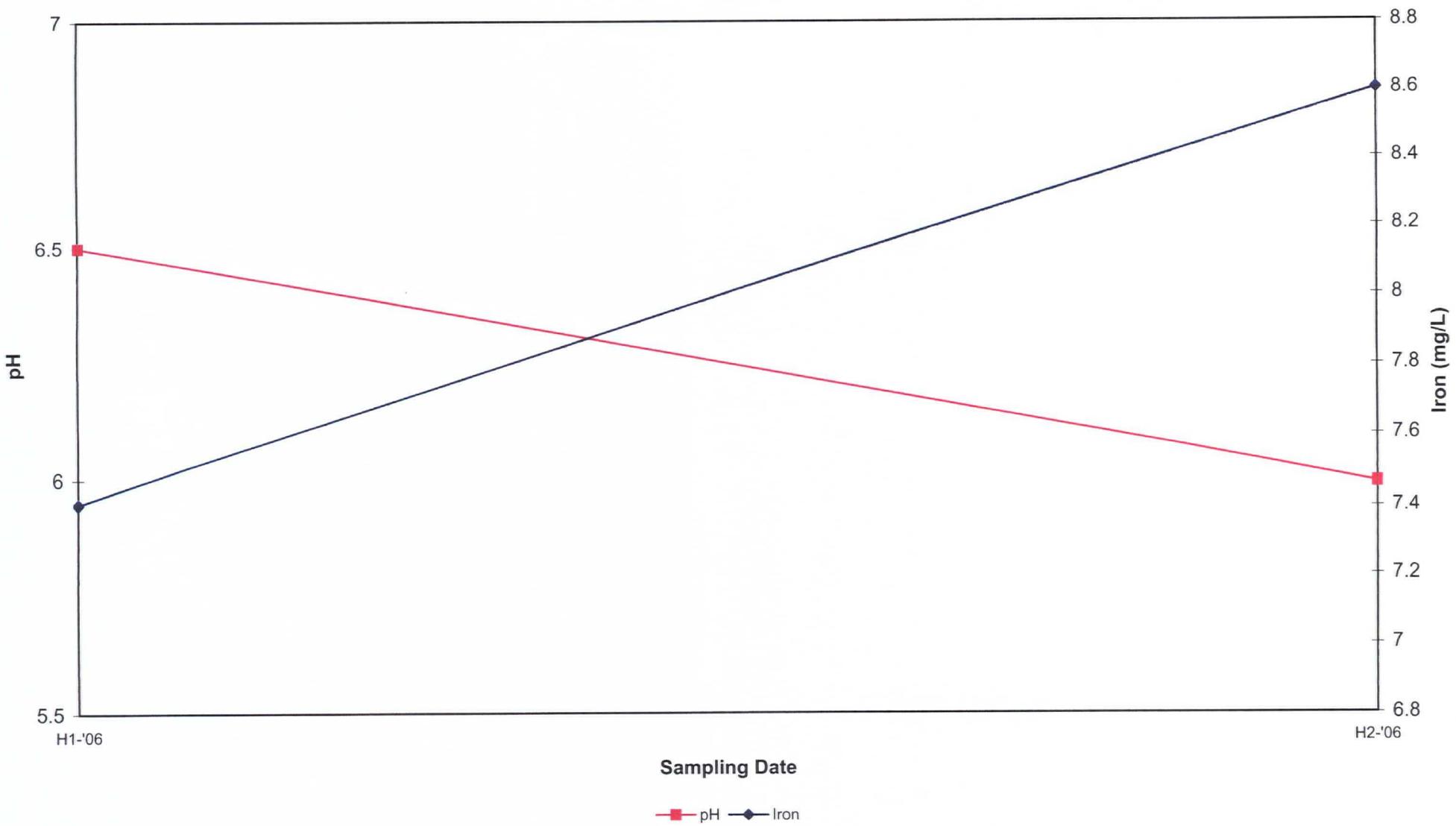




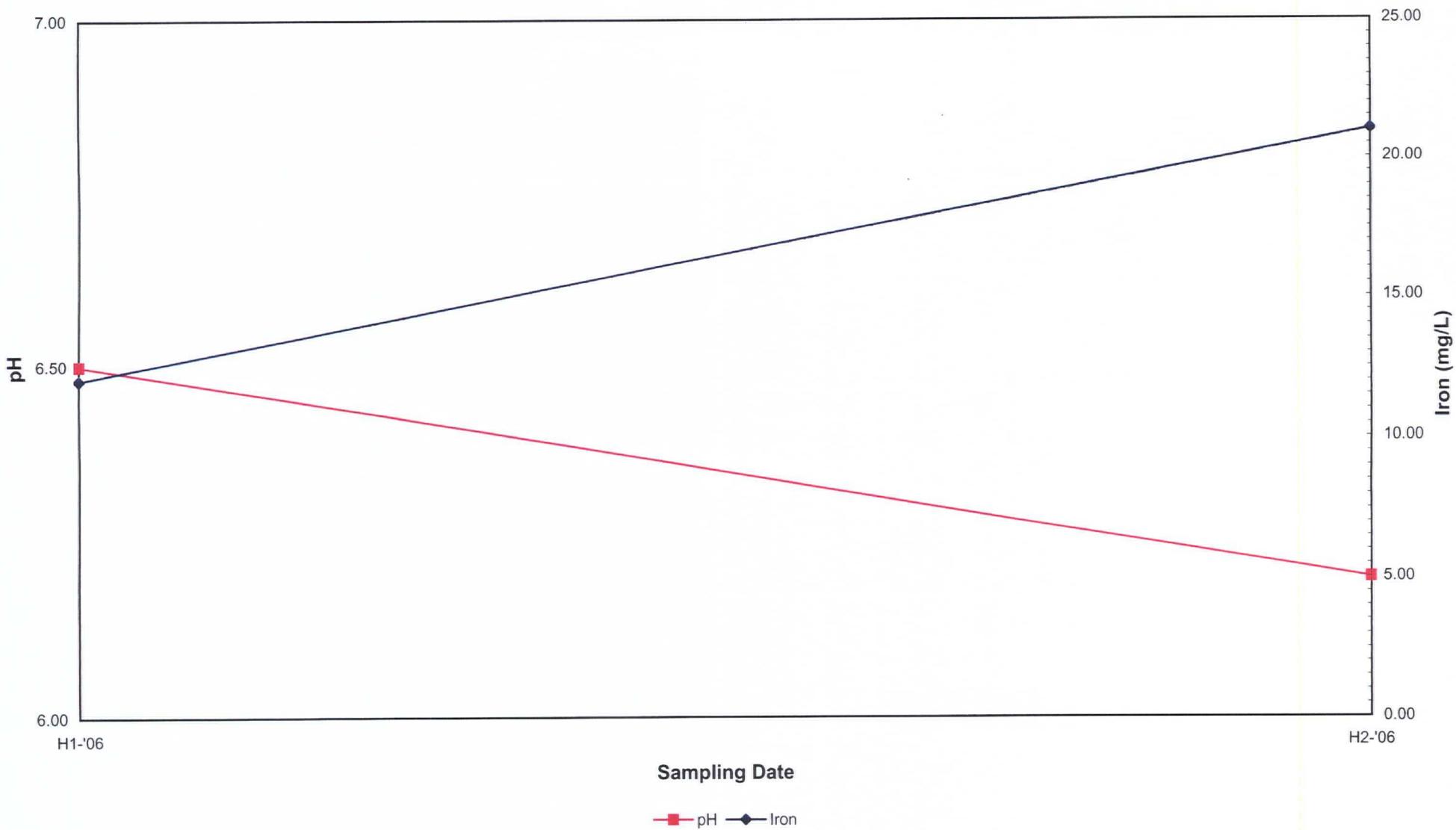
Monitoring Well SMR-1



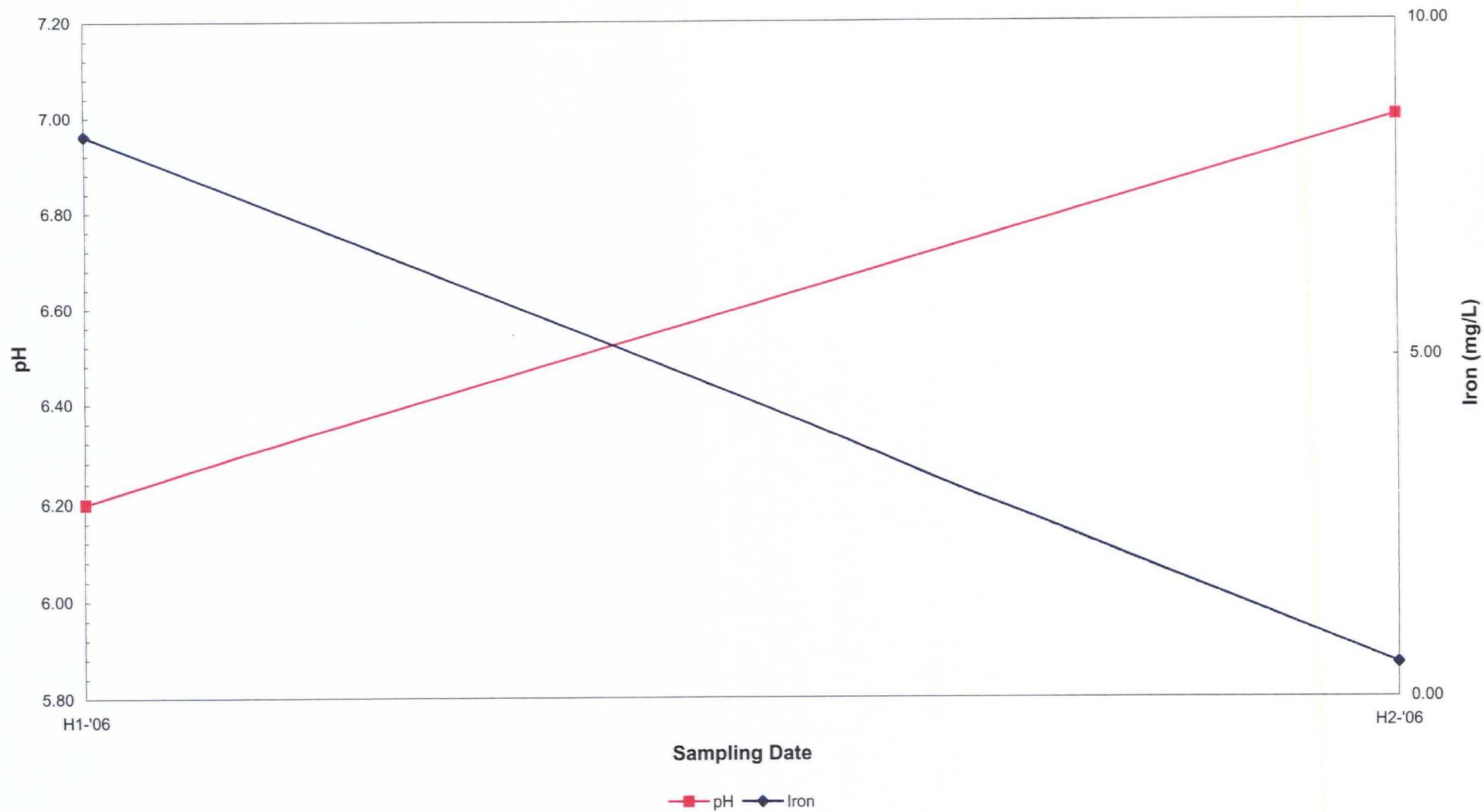
Monitoring Well GW- 1



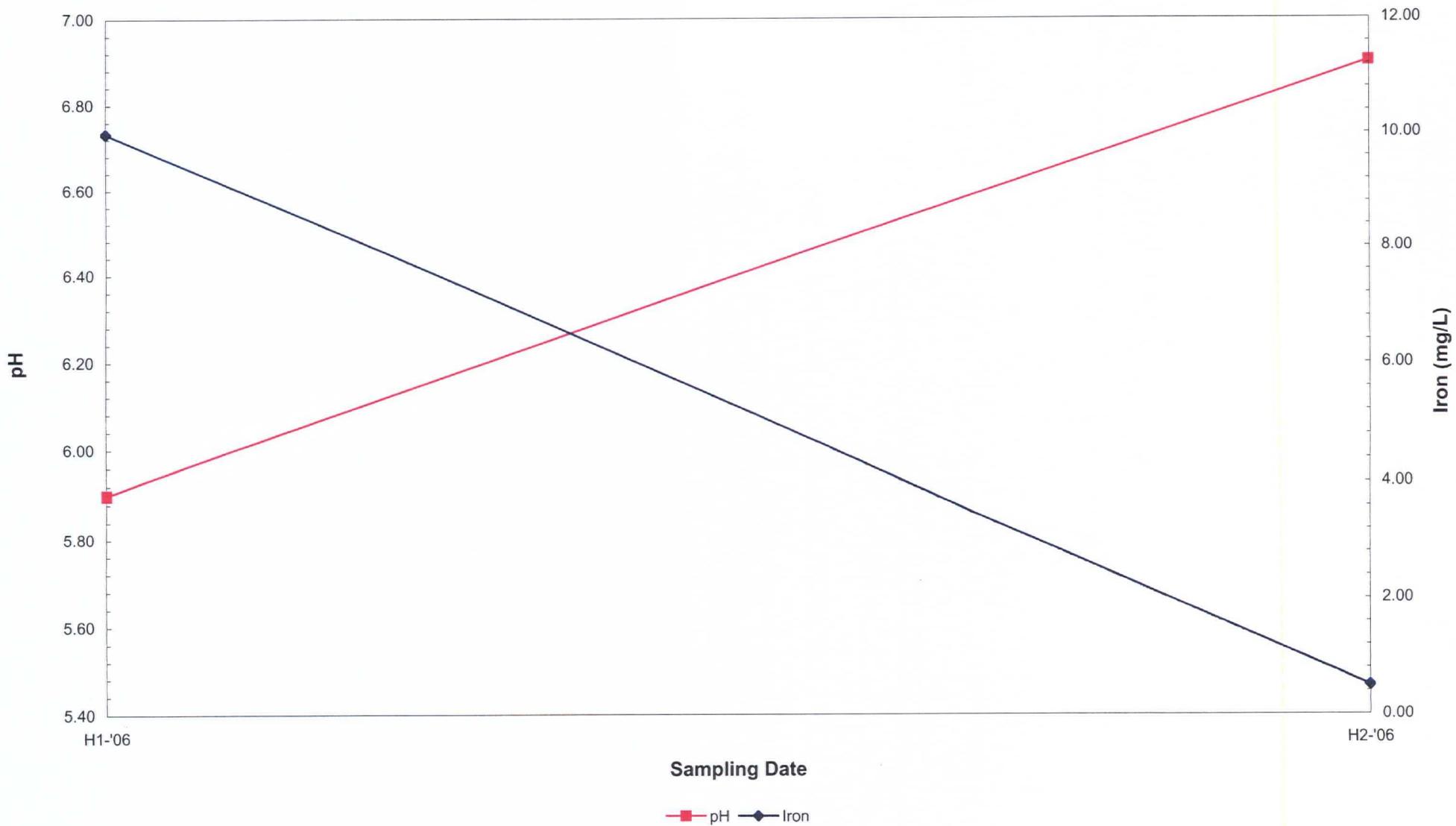
Monitoring Well GW- 2



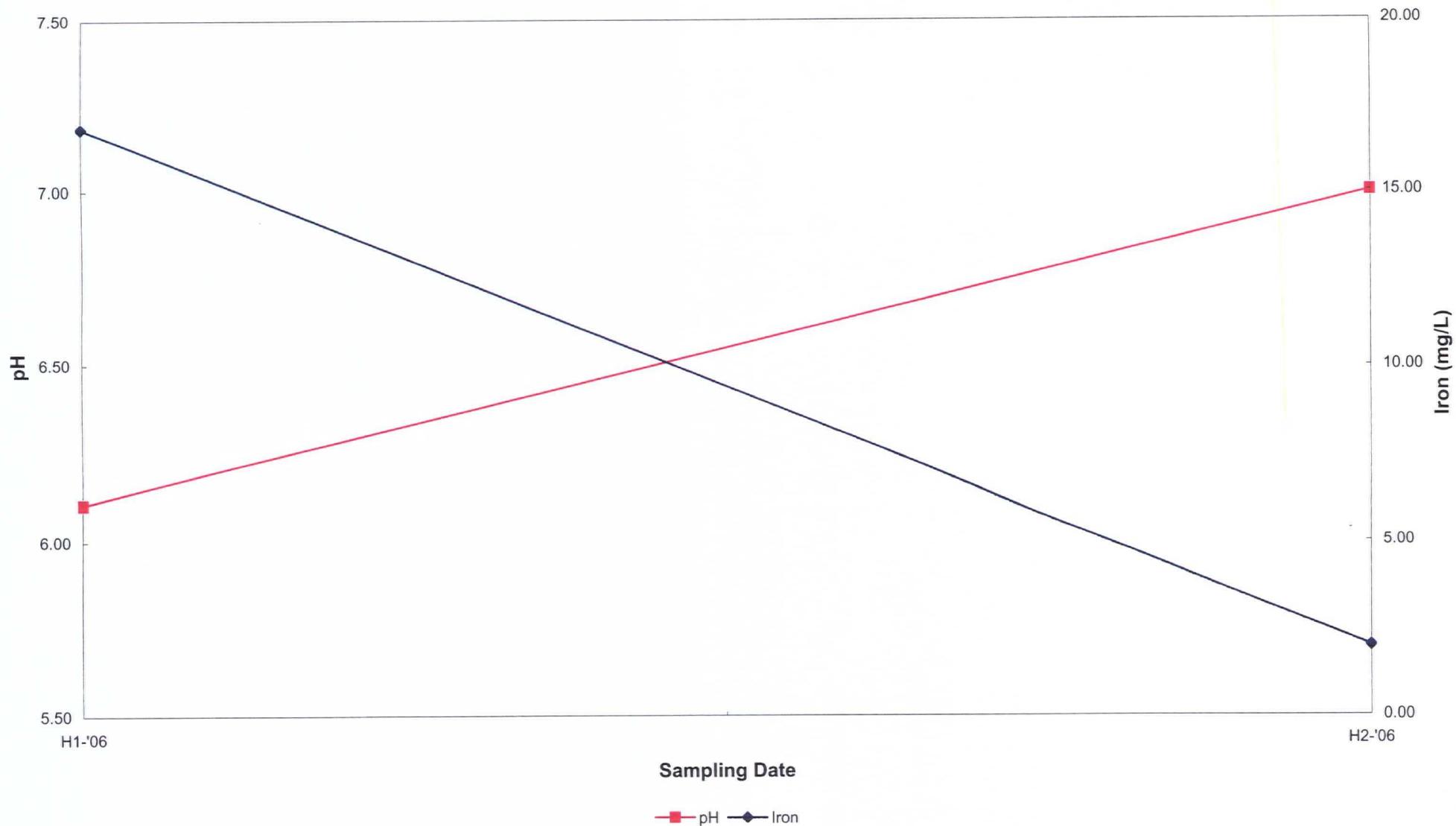
Monitoring Well GW-3



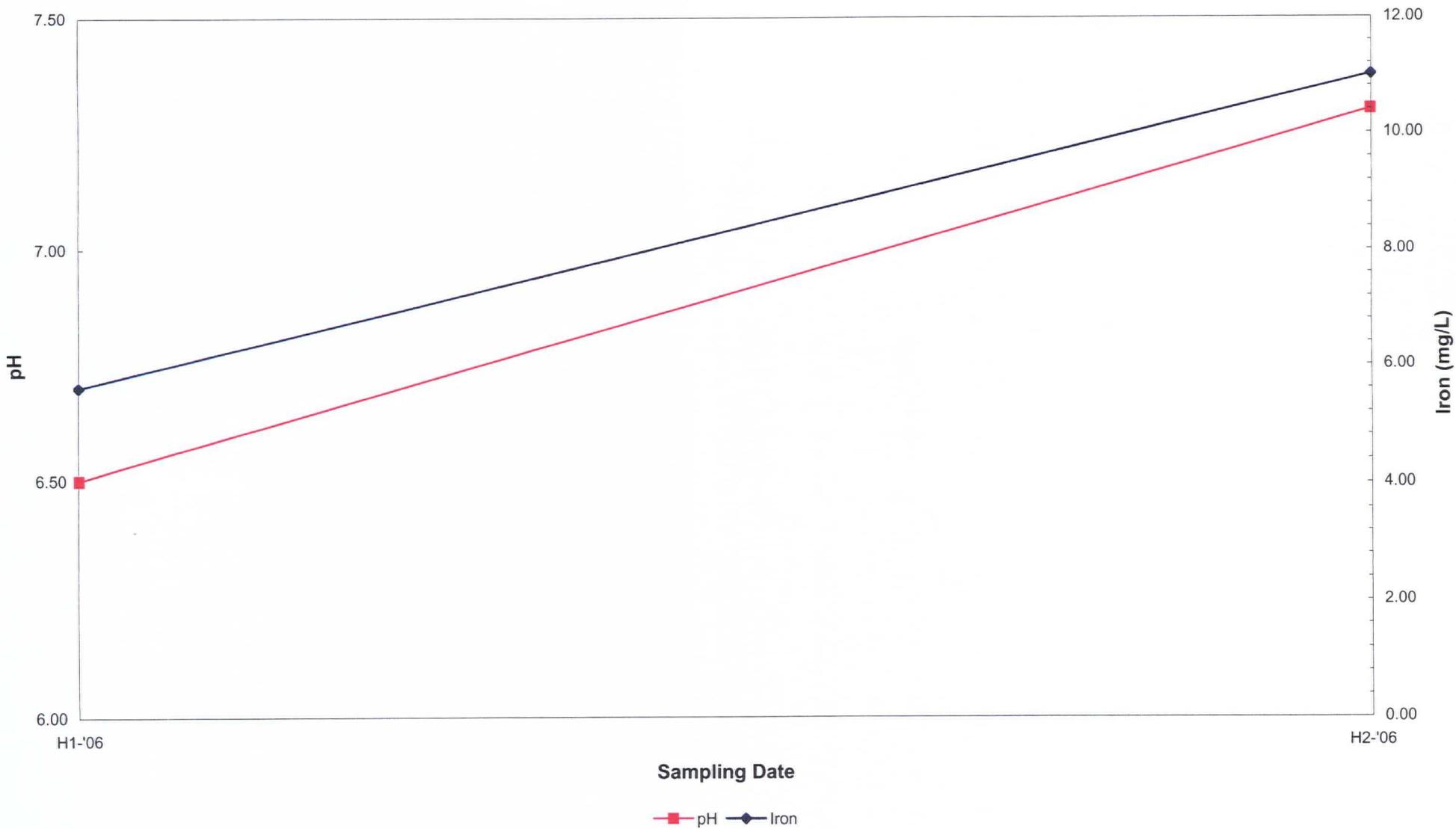
Monitoring Well GW-4



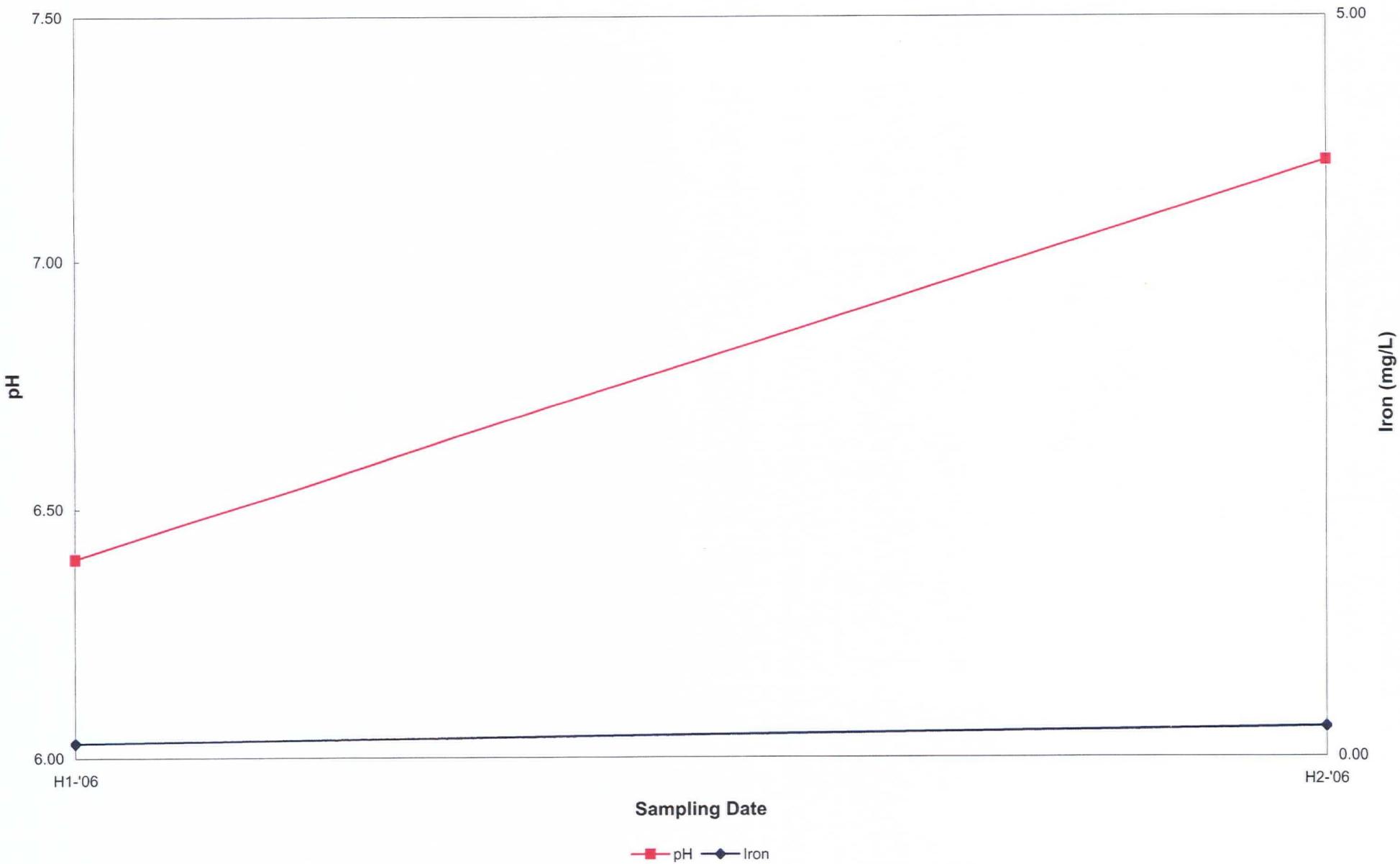
Monitoring Well GW-5



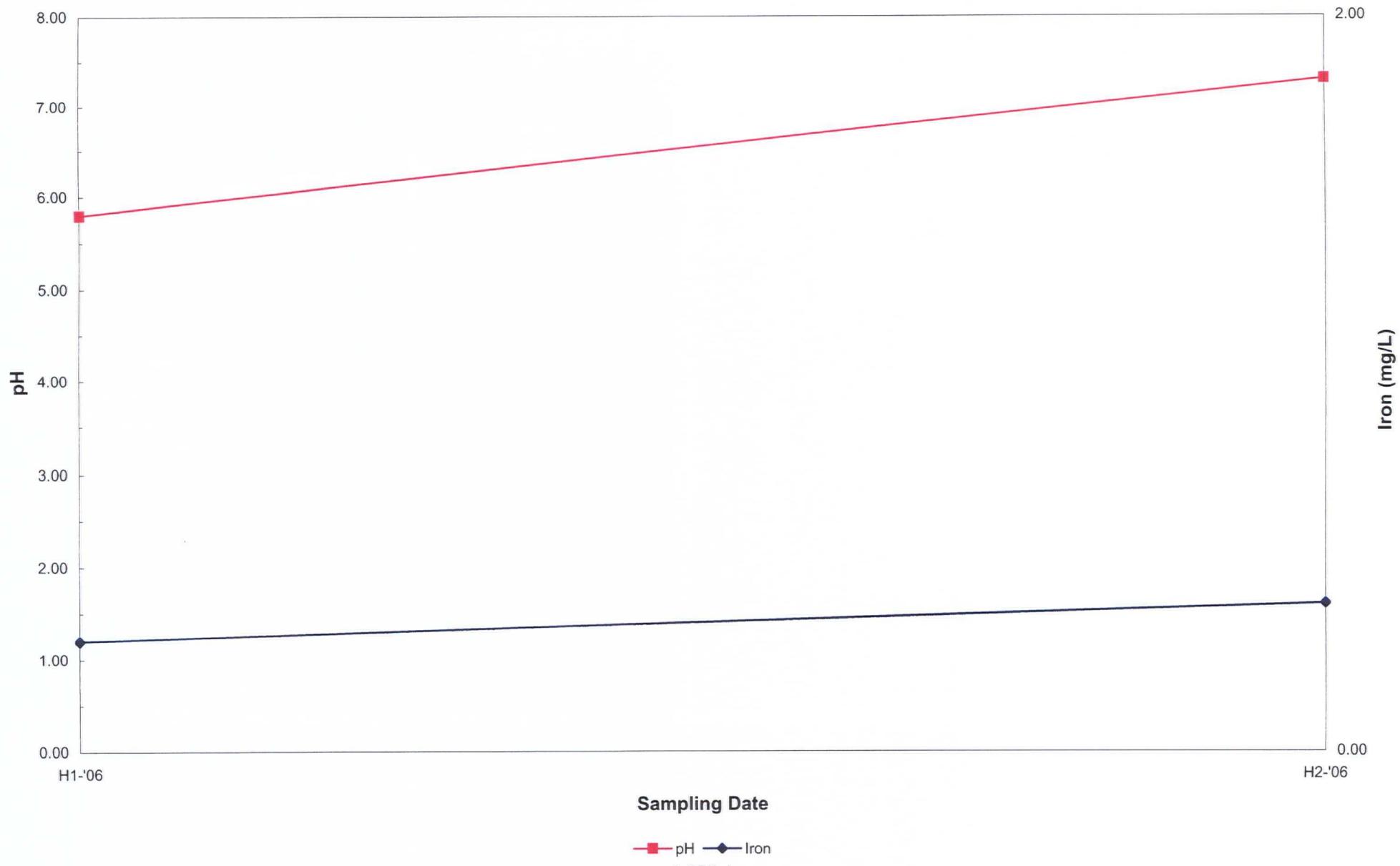
Monitoring Well GW-6



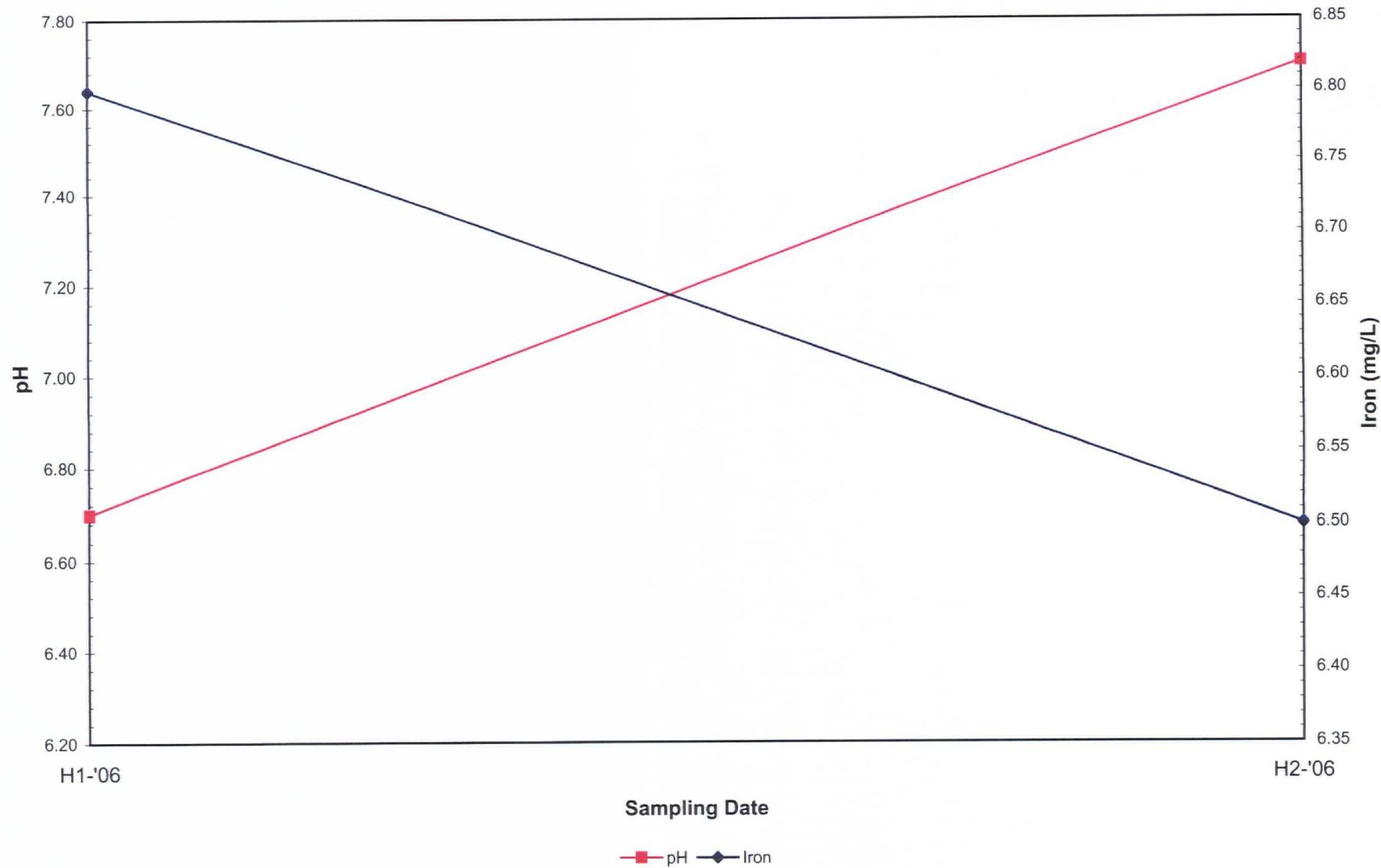
Monitoring Well GW-7



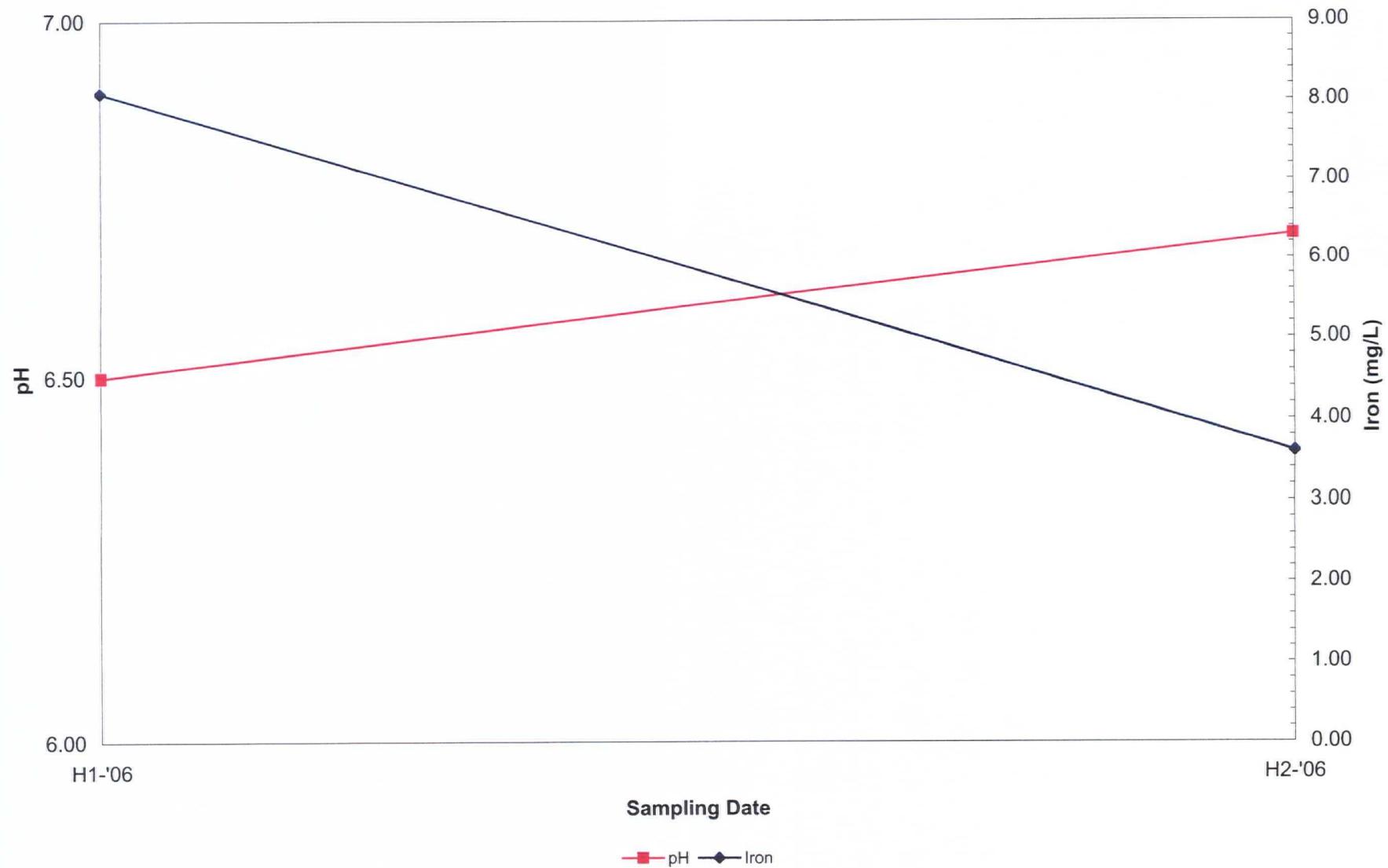
Monitoring Well GW-8



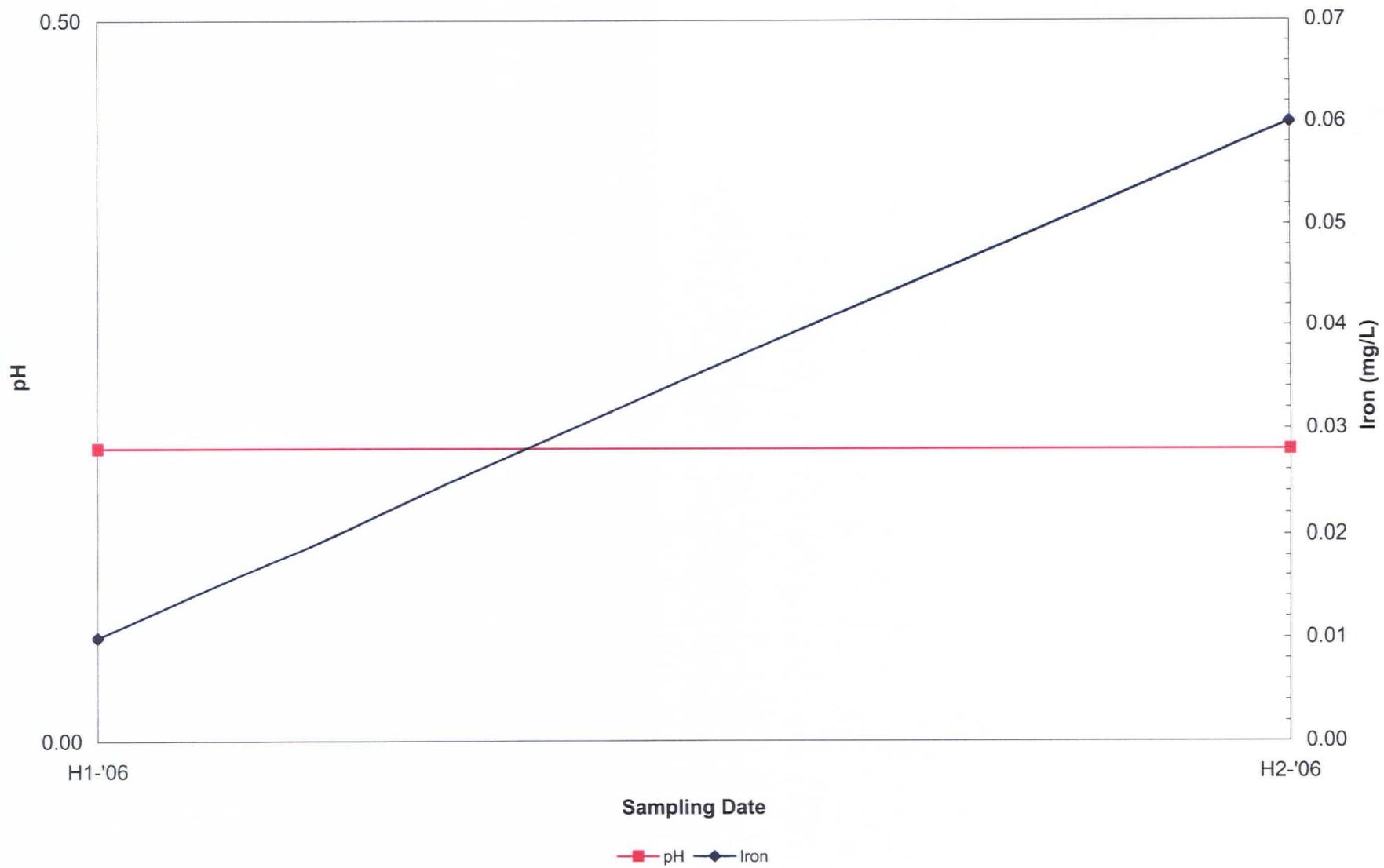
Monitoring Well GW-9



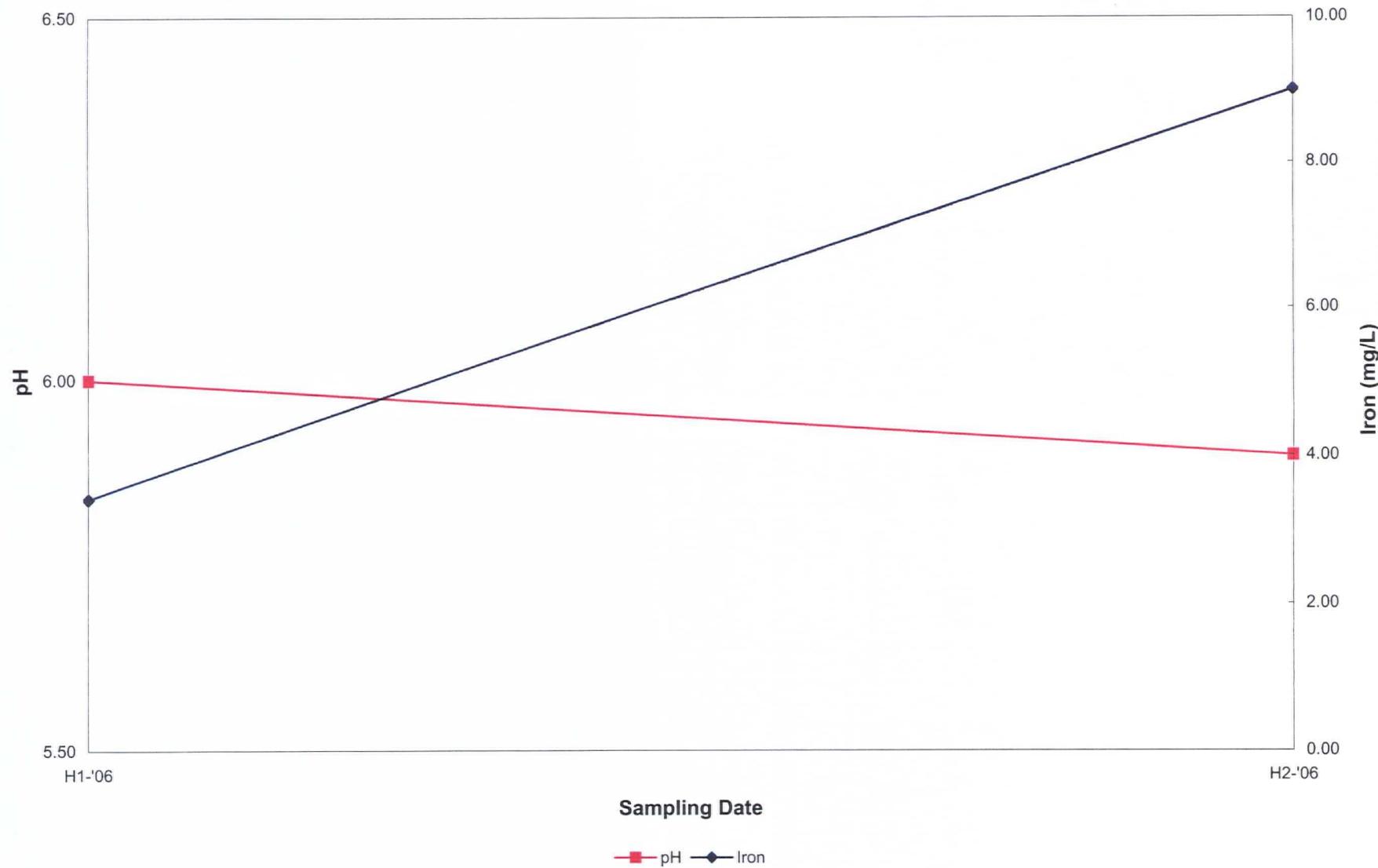
Monitoring Well GW-10



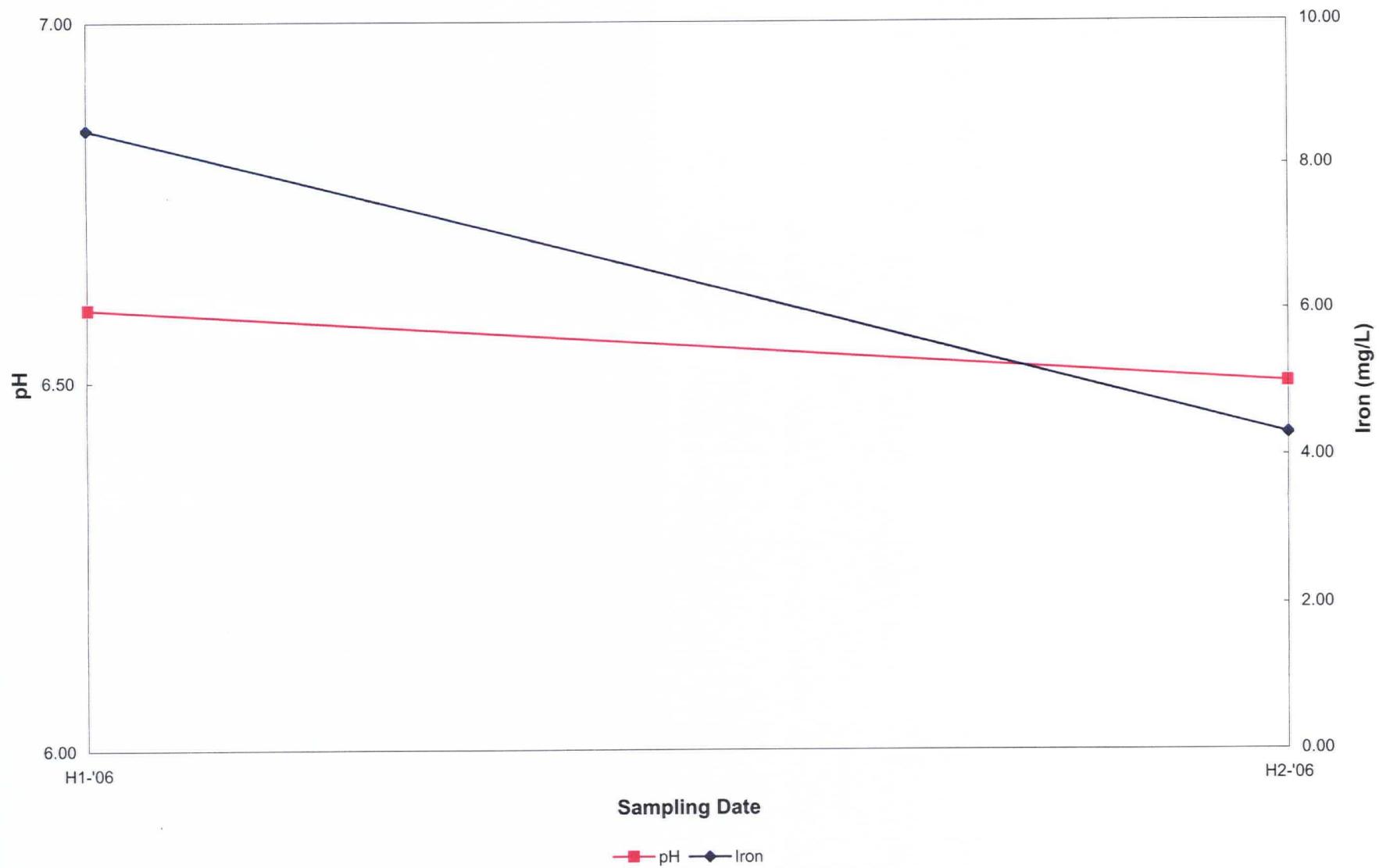
Monitoring Well GW-11



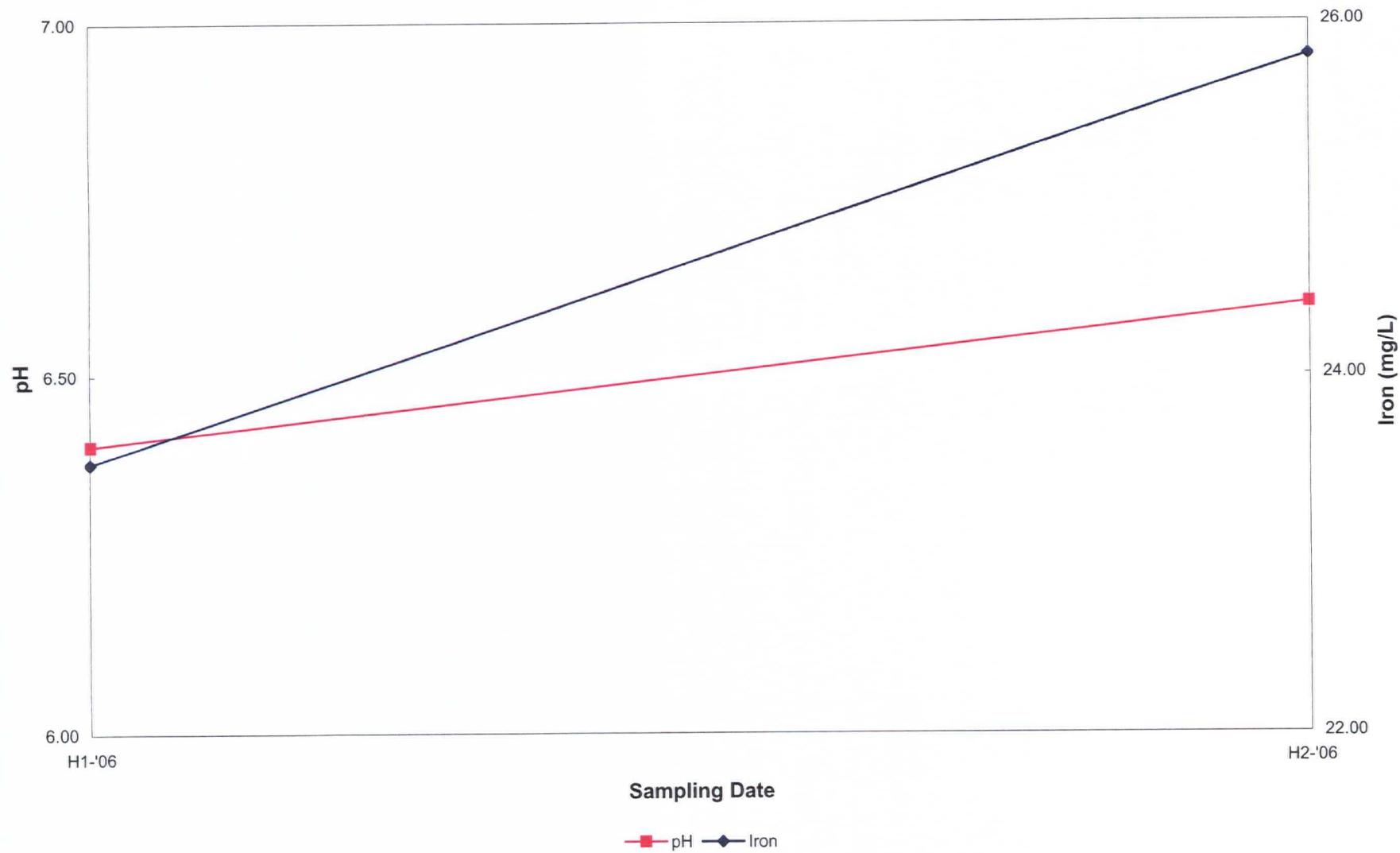
Monitoring Well GW-12



Monitoring Well GW-13

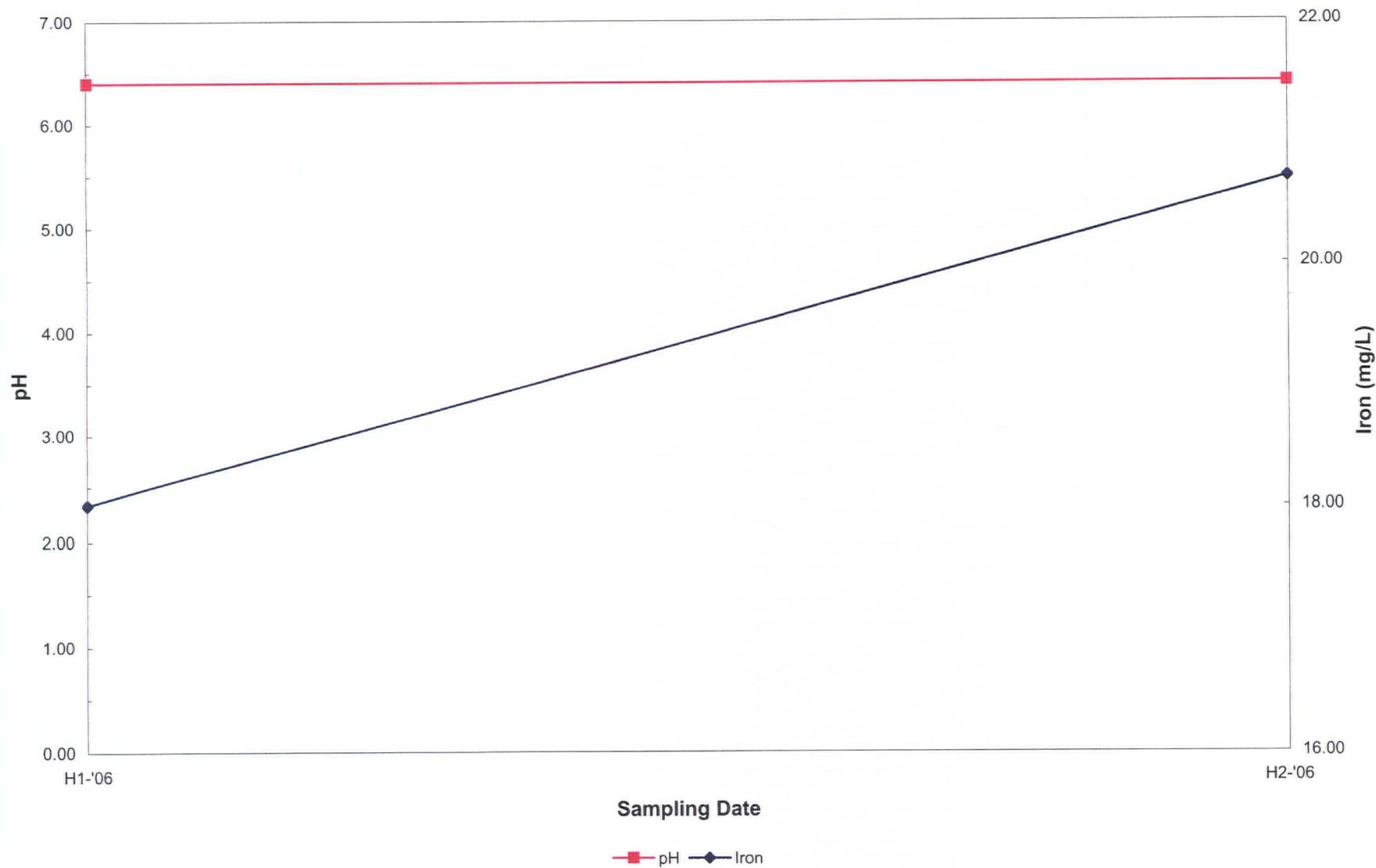


Monitoring Well GW-14



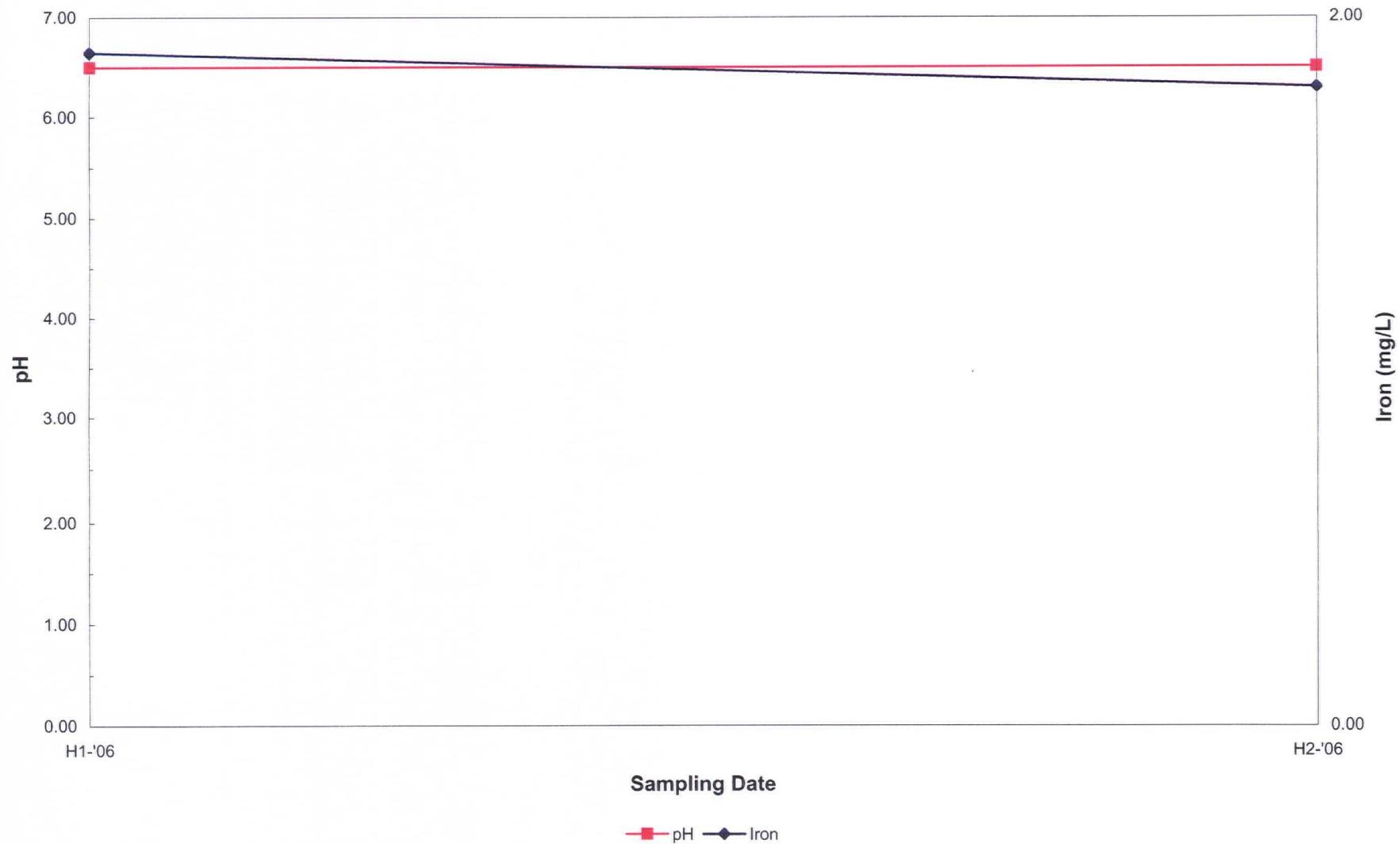


Monitoring Well GW-15

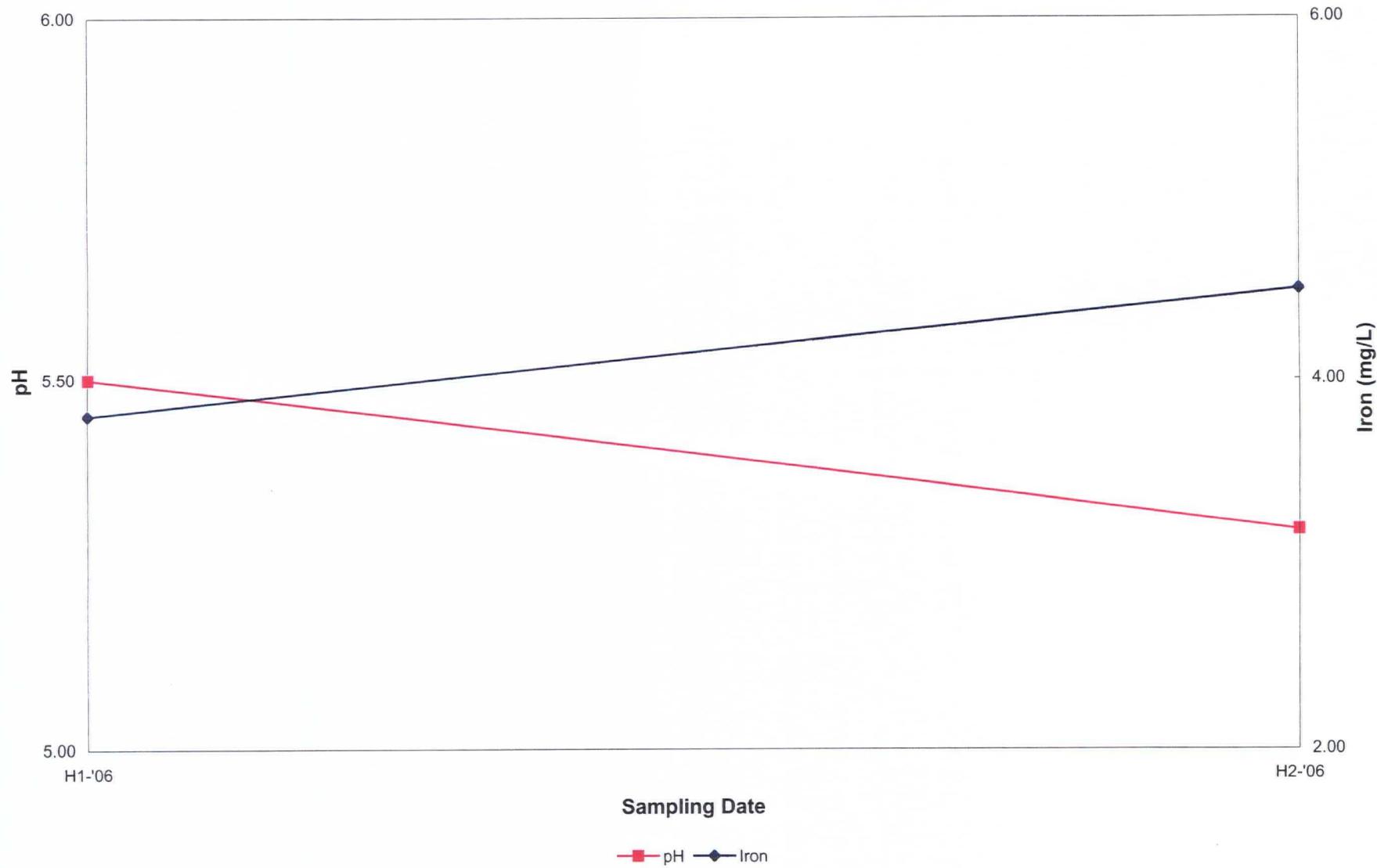




Monitoring Well GW-16

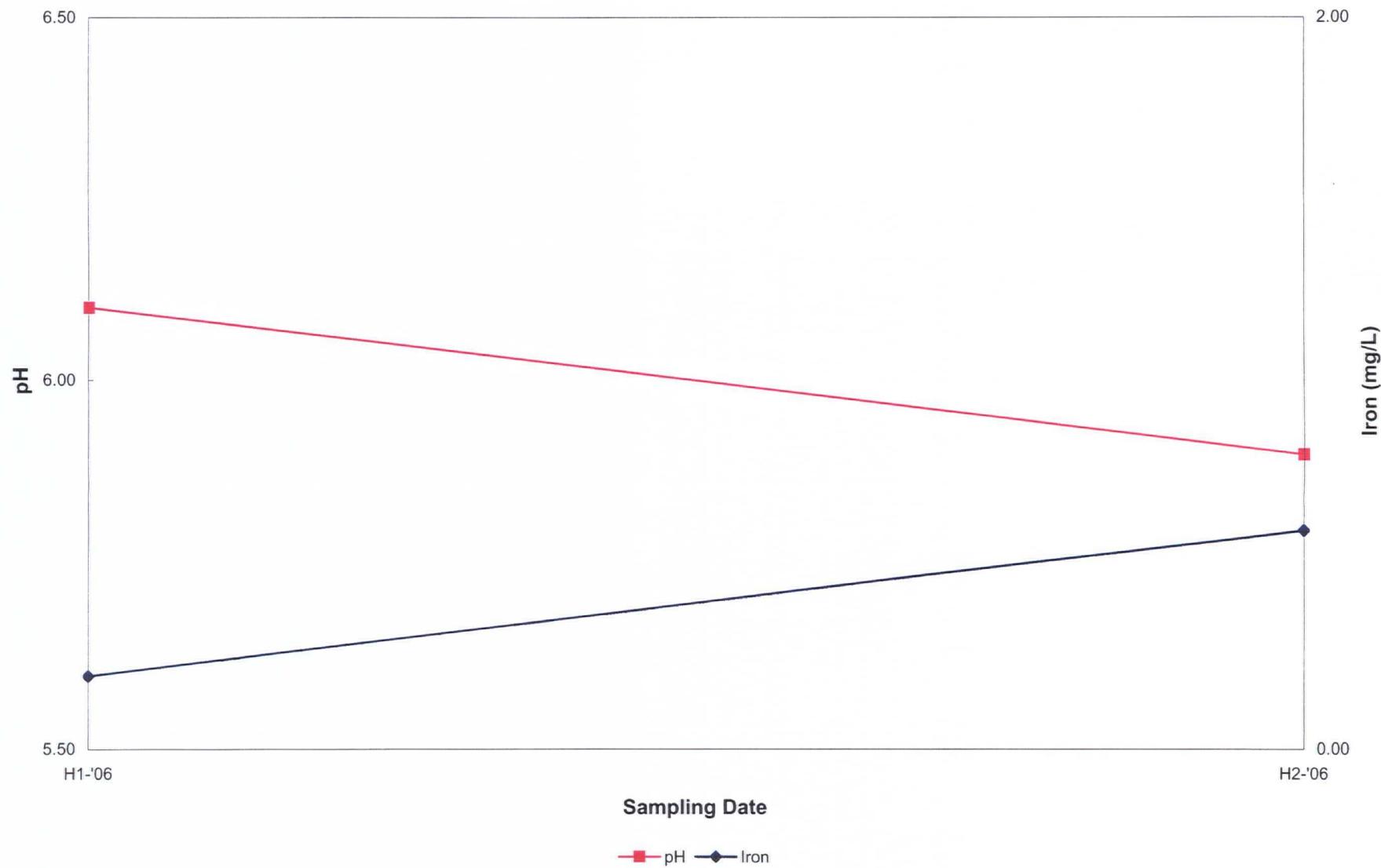


Monitoring Well GW-17



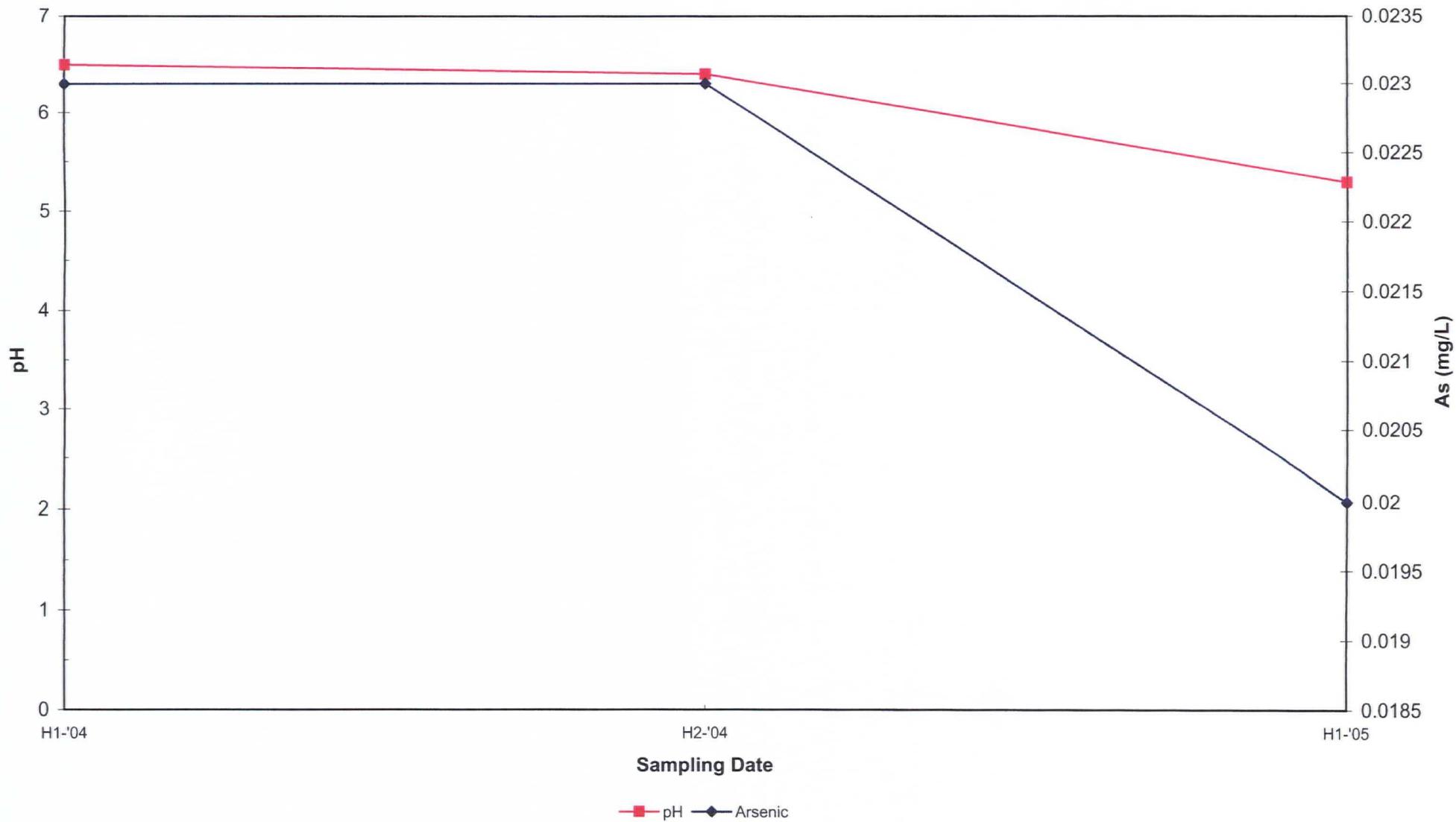


Monitoring Well BGW-1

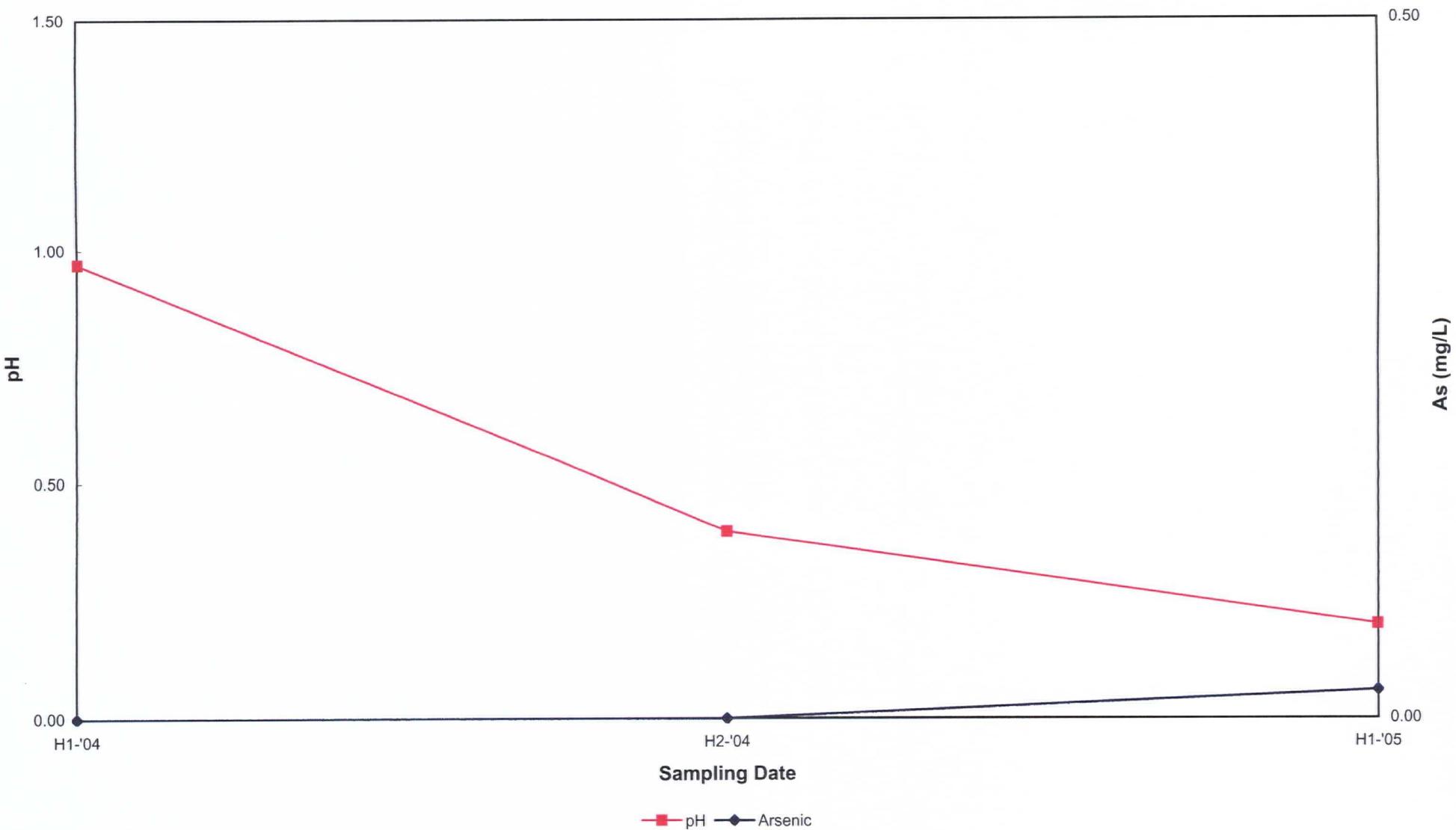


B-2 – pH versus Arsenic

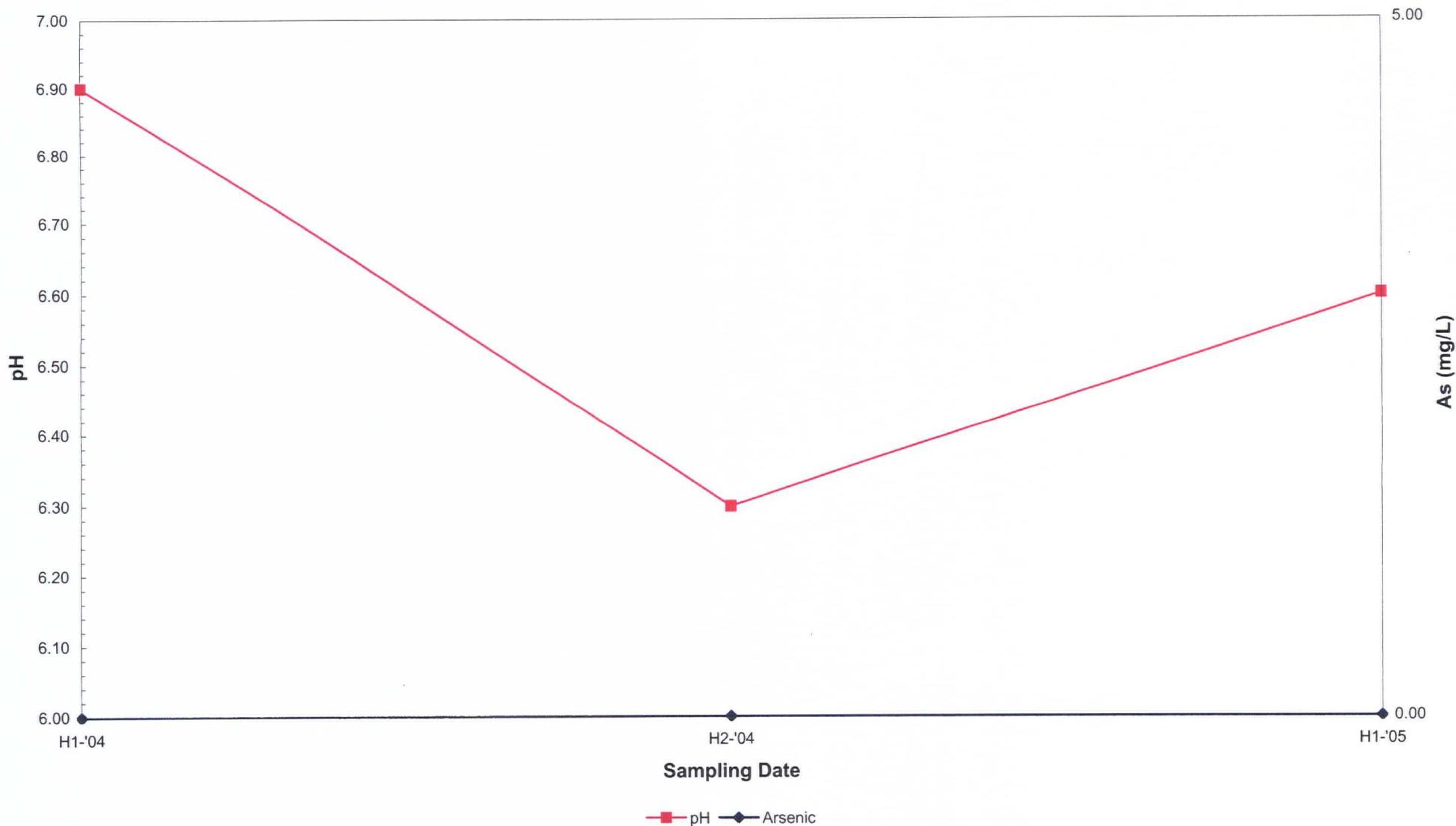
Monitoring Well CW- 4



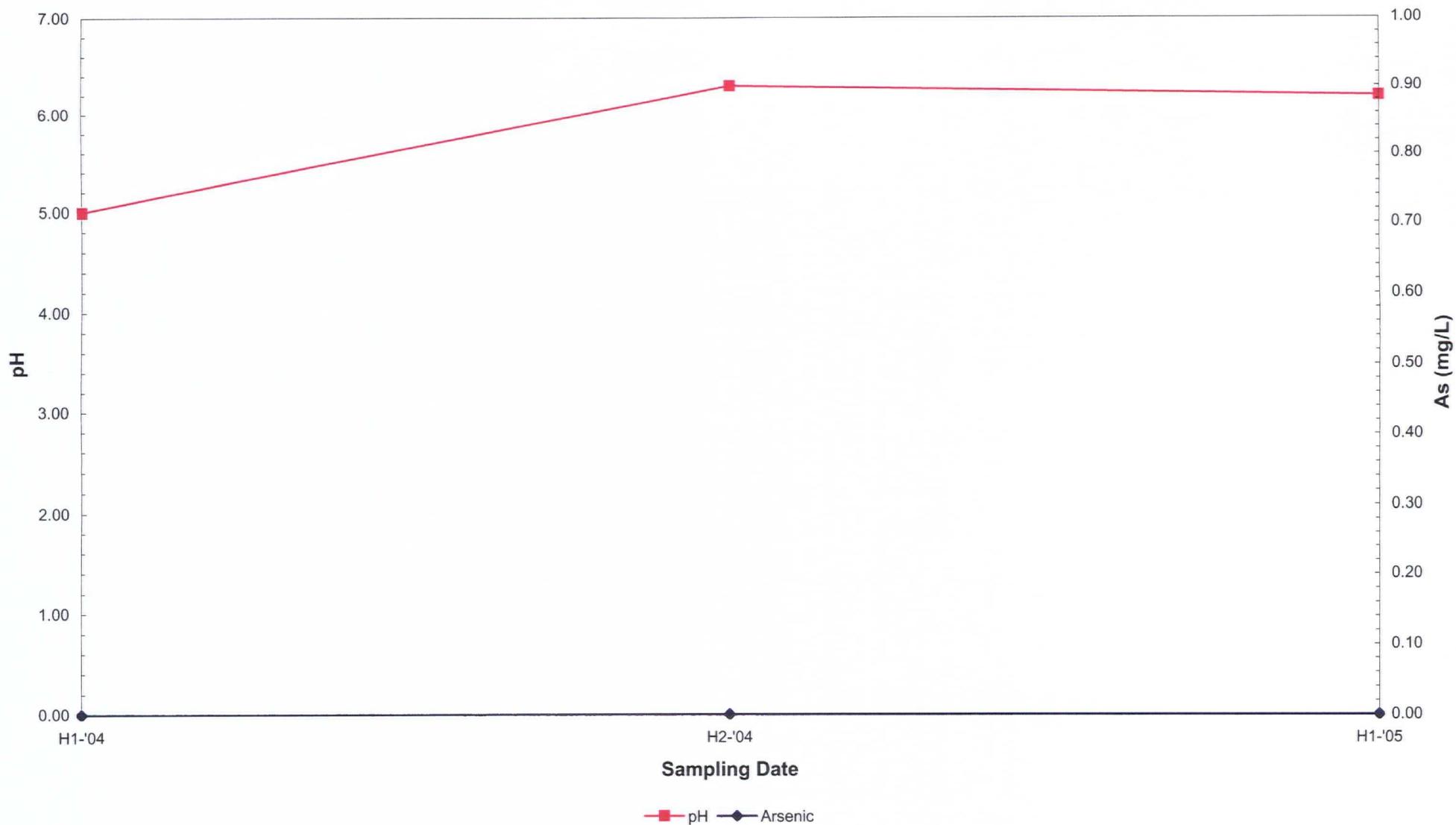
Monitoring Well CW- 5A



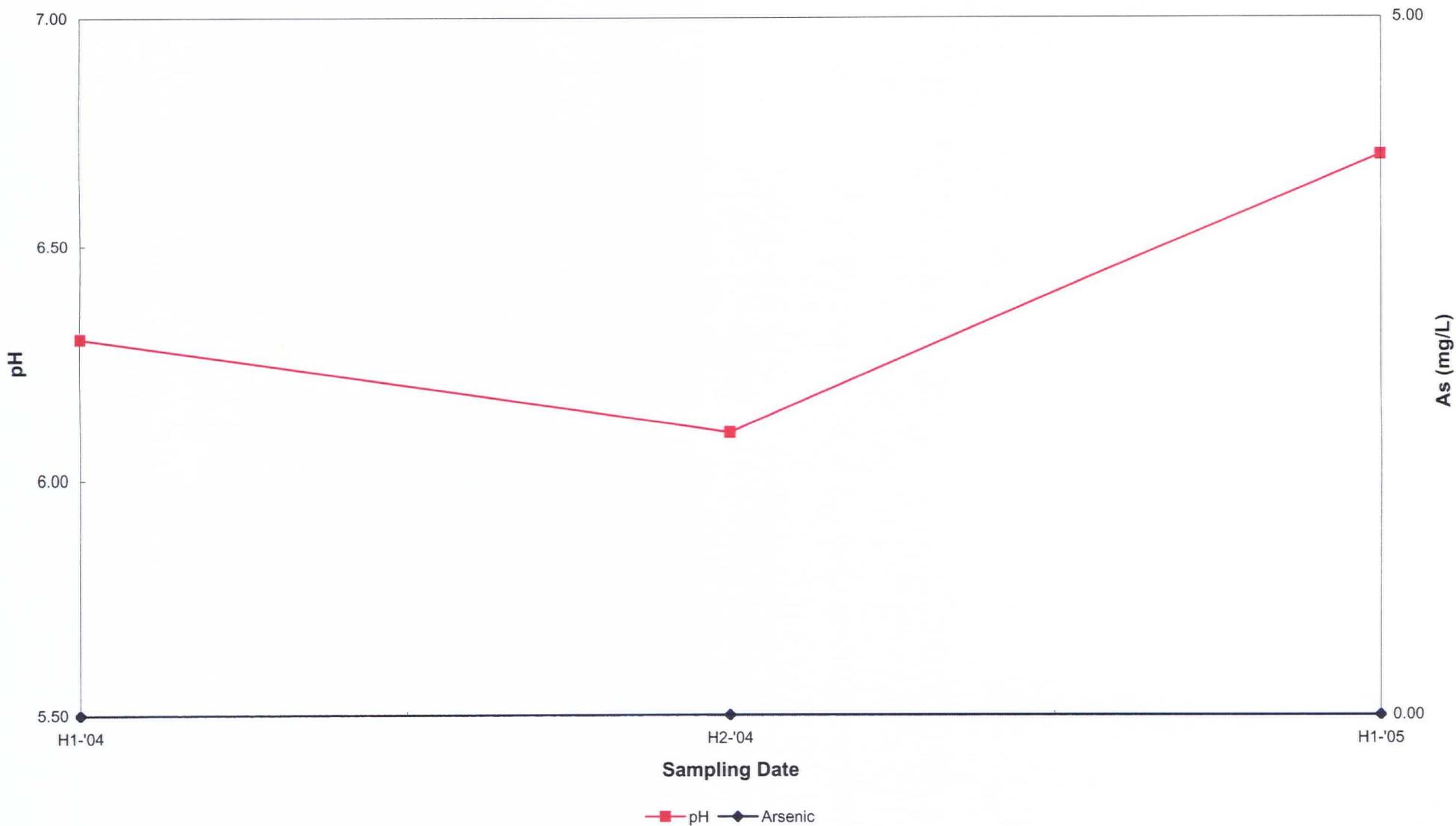
Monitoring Well GC-1A



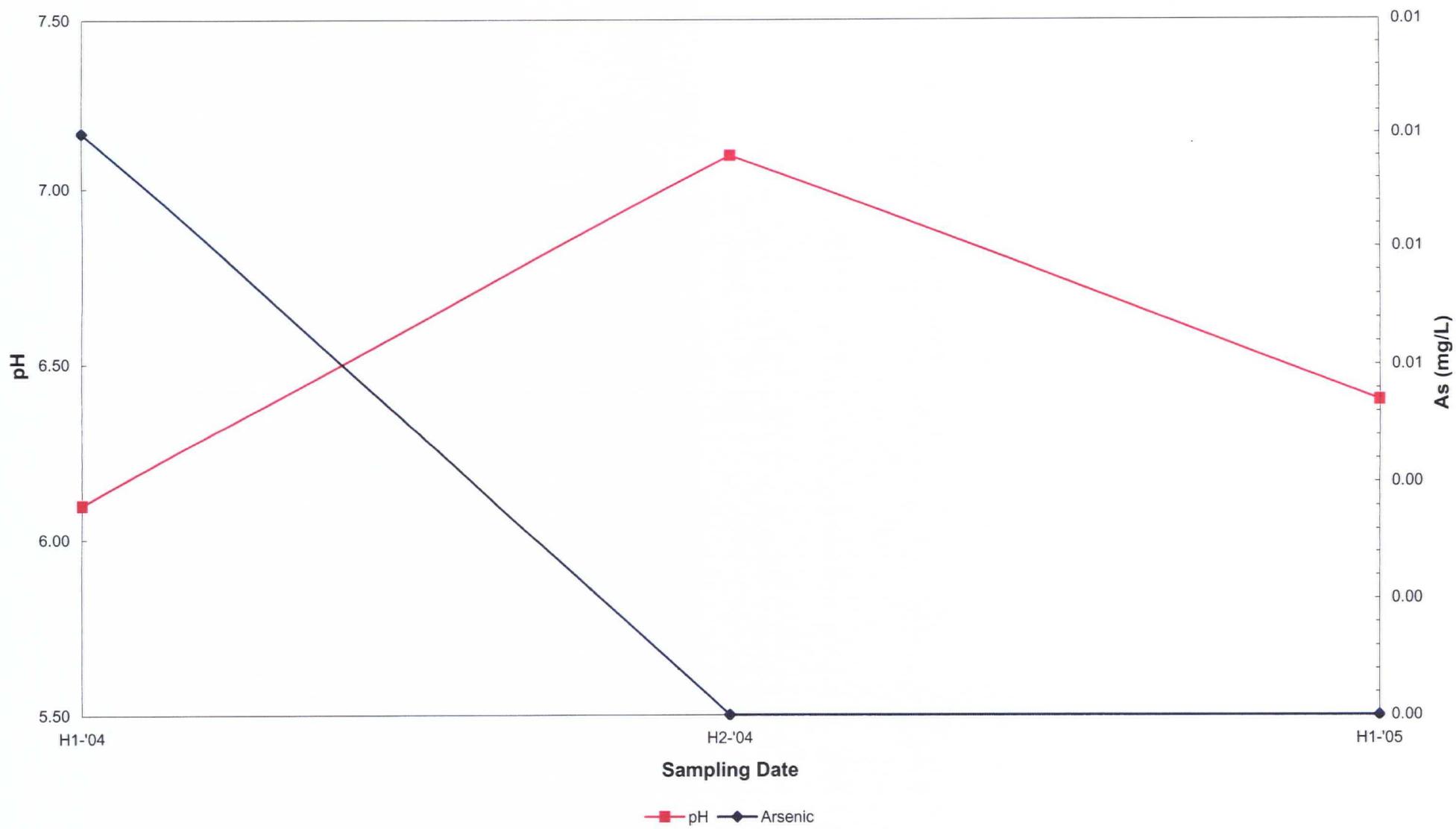
Monitoring Well GC-2



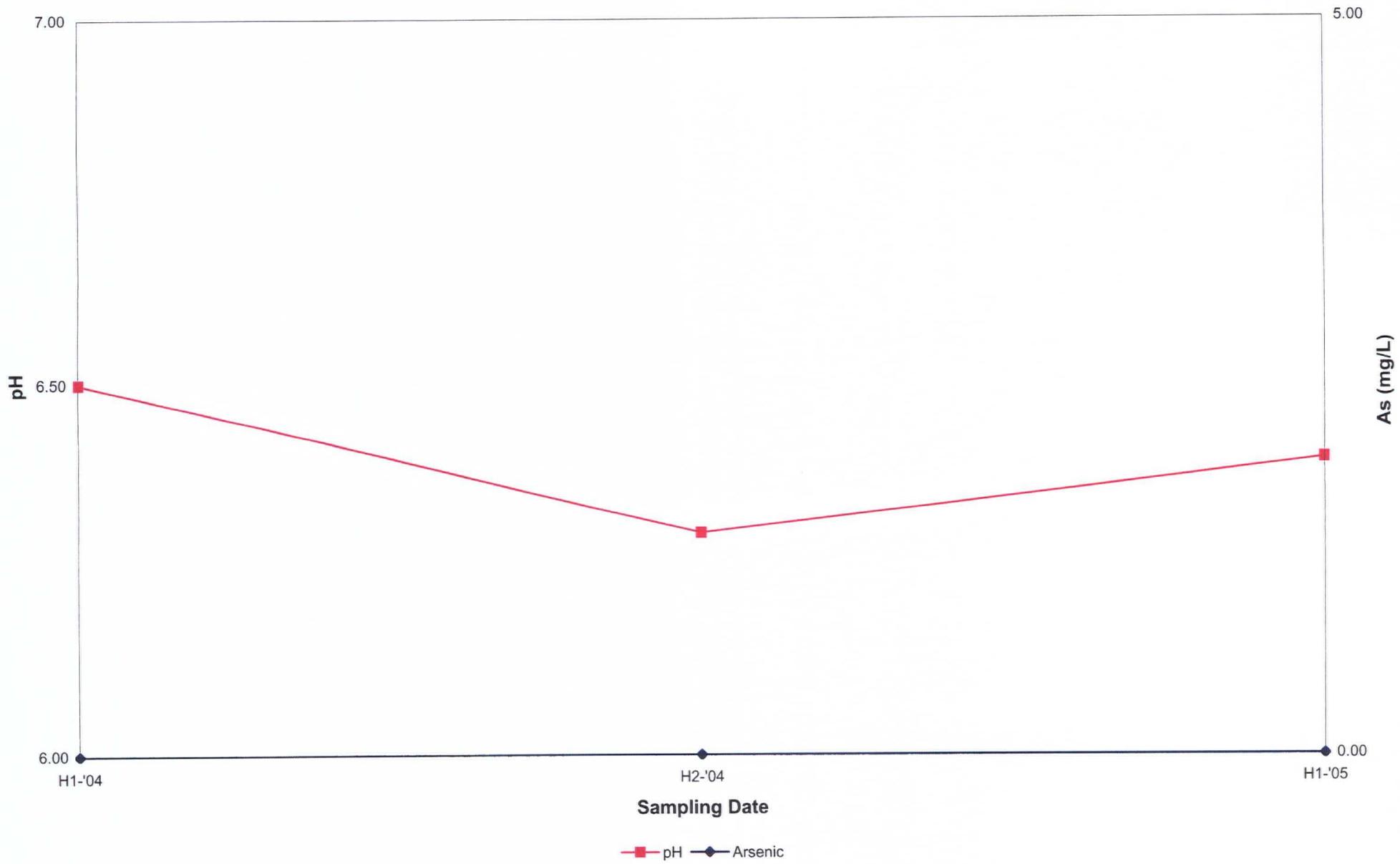
Monitoring Well GC-3



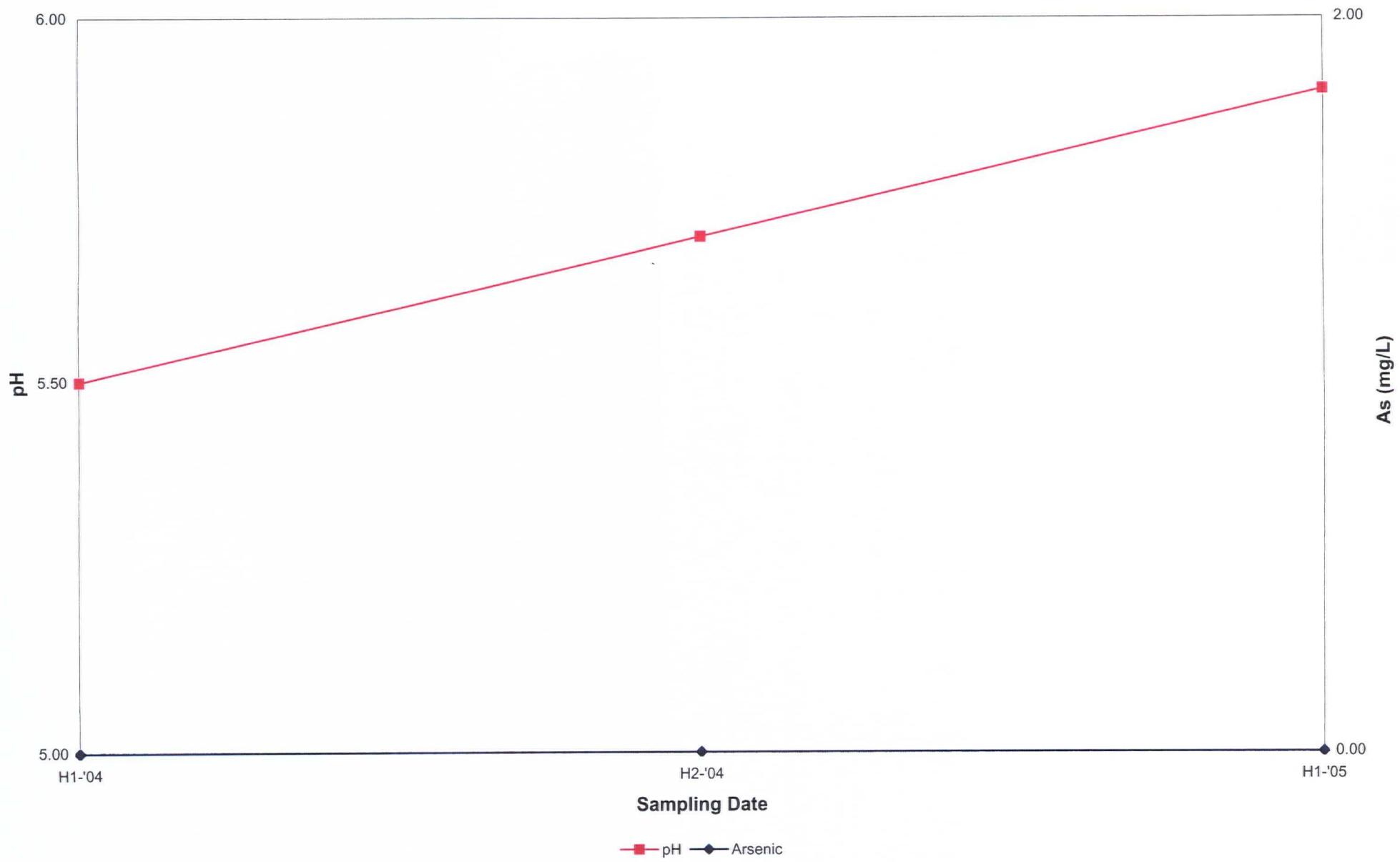
Monitoring Well GC-4



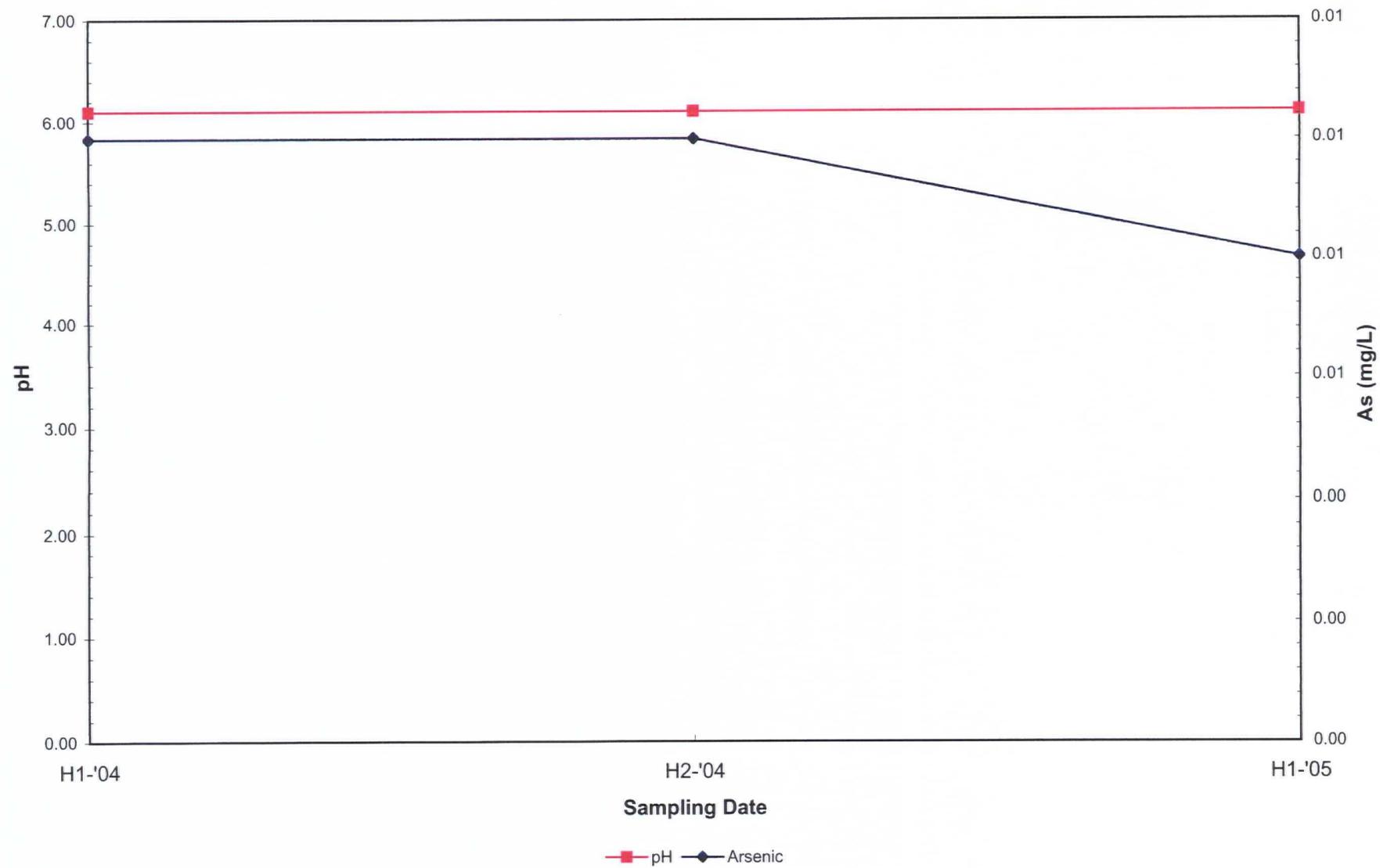
Monitoring Well GC- 5



Monitoring Well GC-6

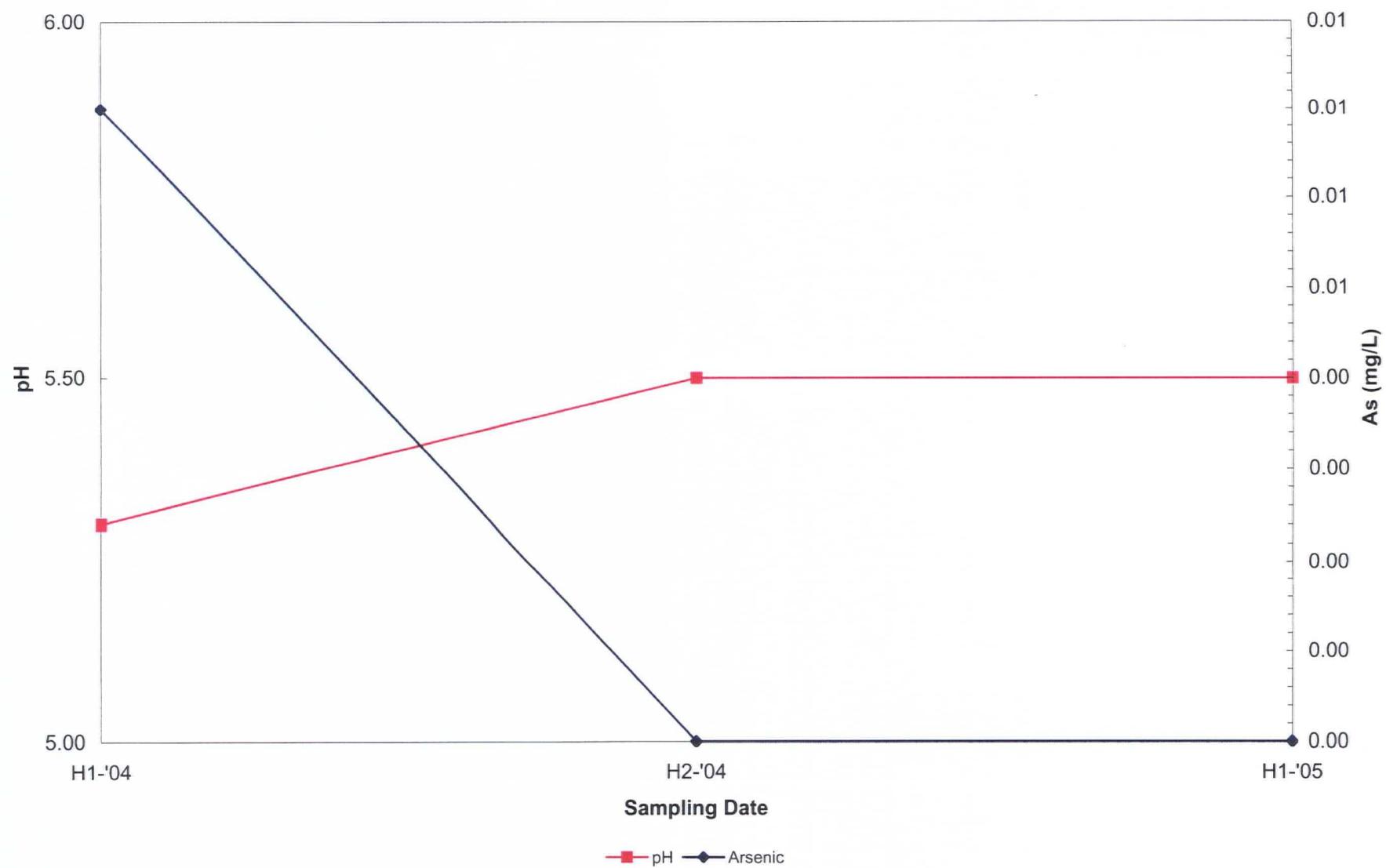


Monitoring Well LRII-1

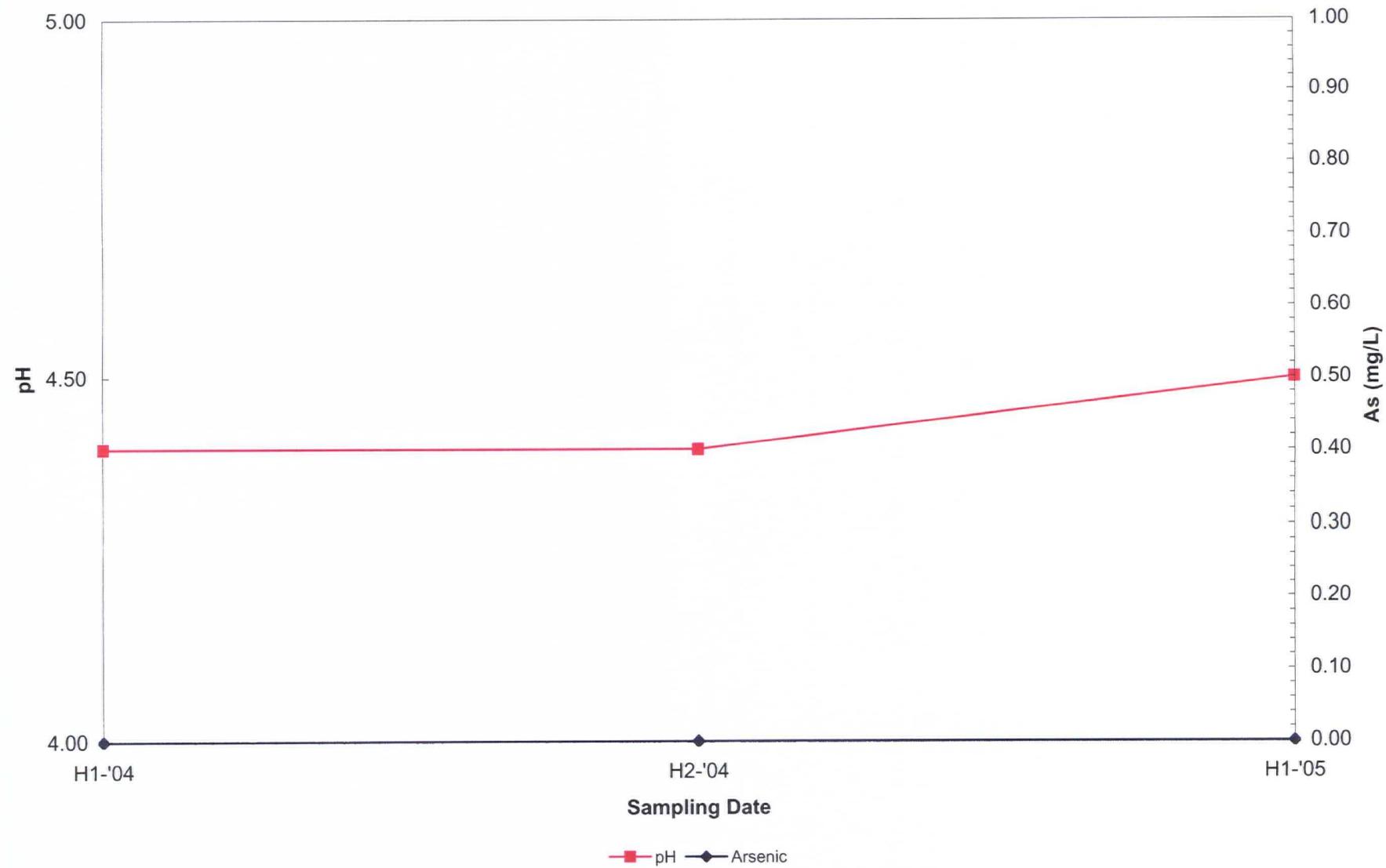




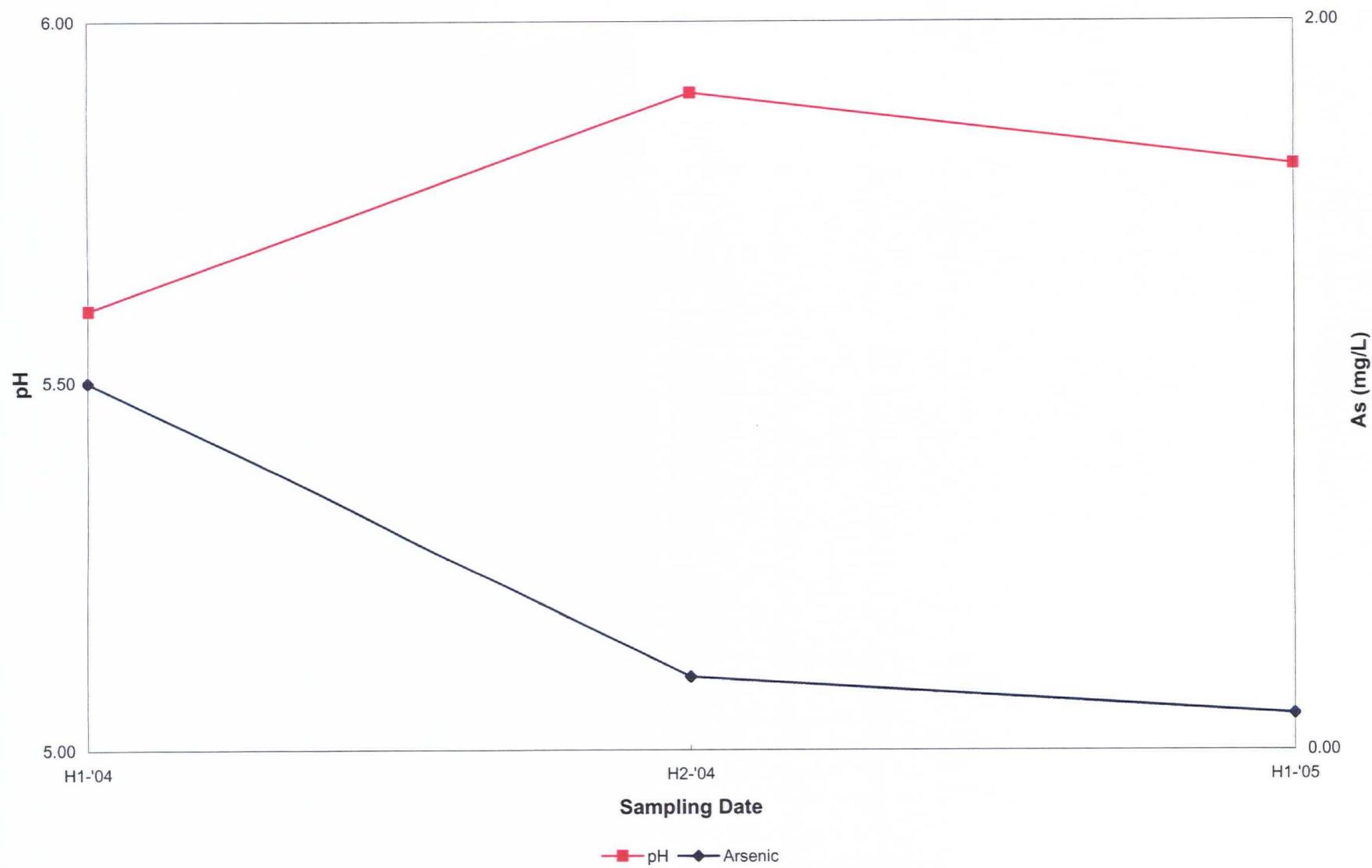
Monitoring Well LRII-2



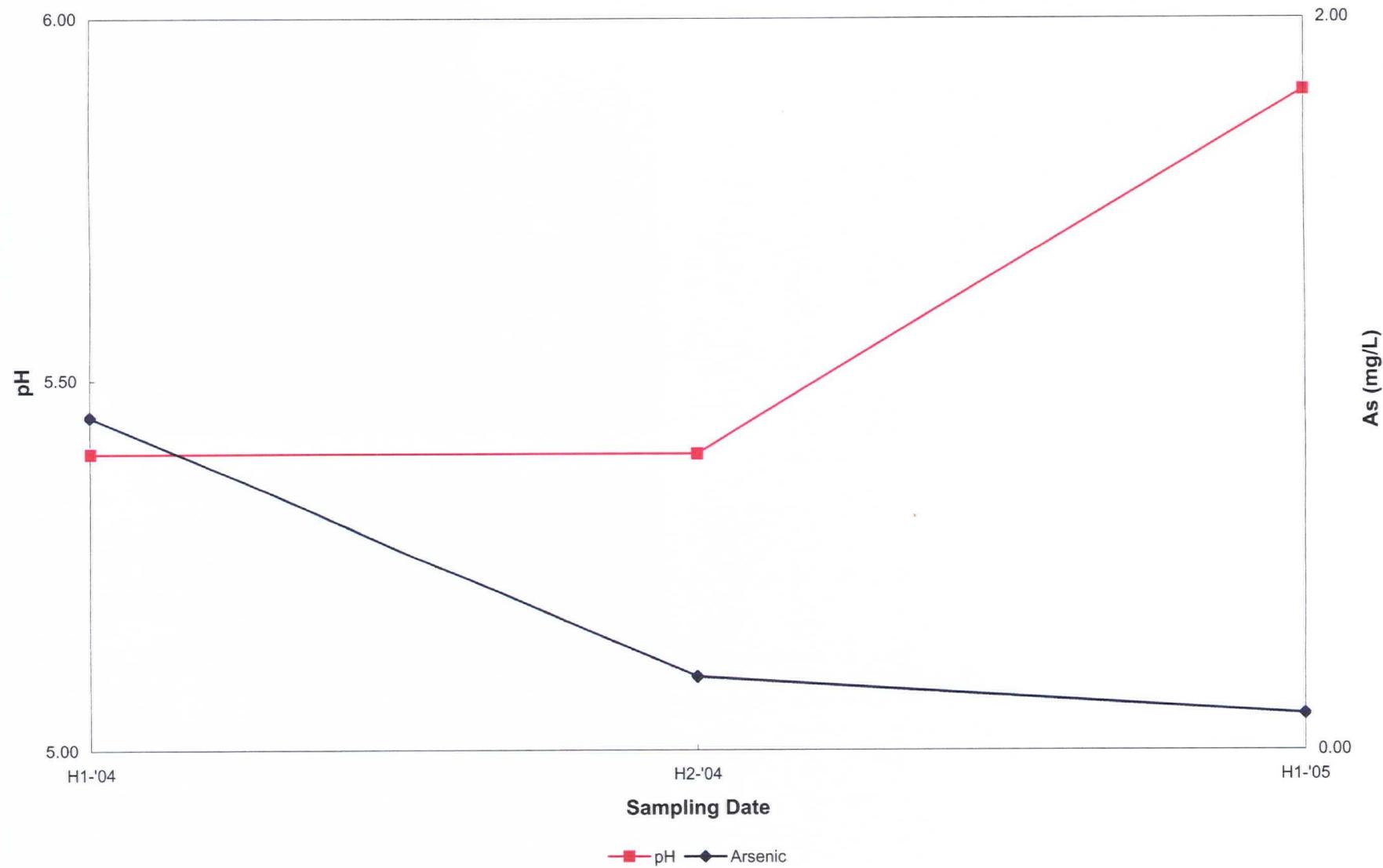
Monitoring Well LRII-3

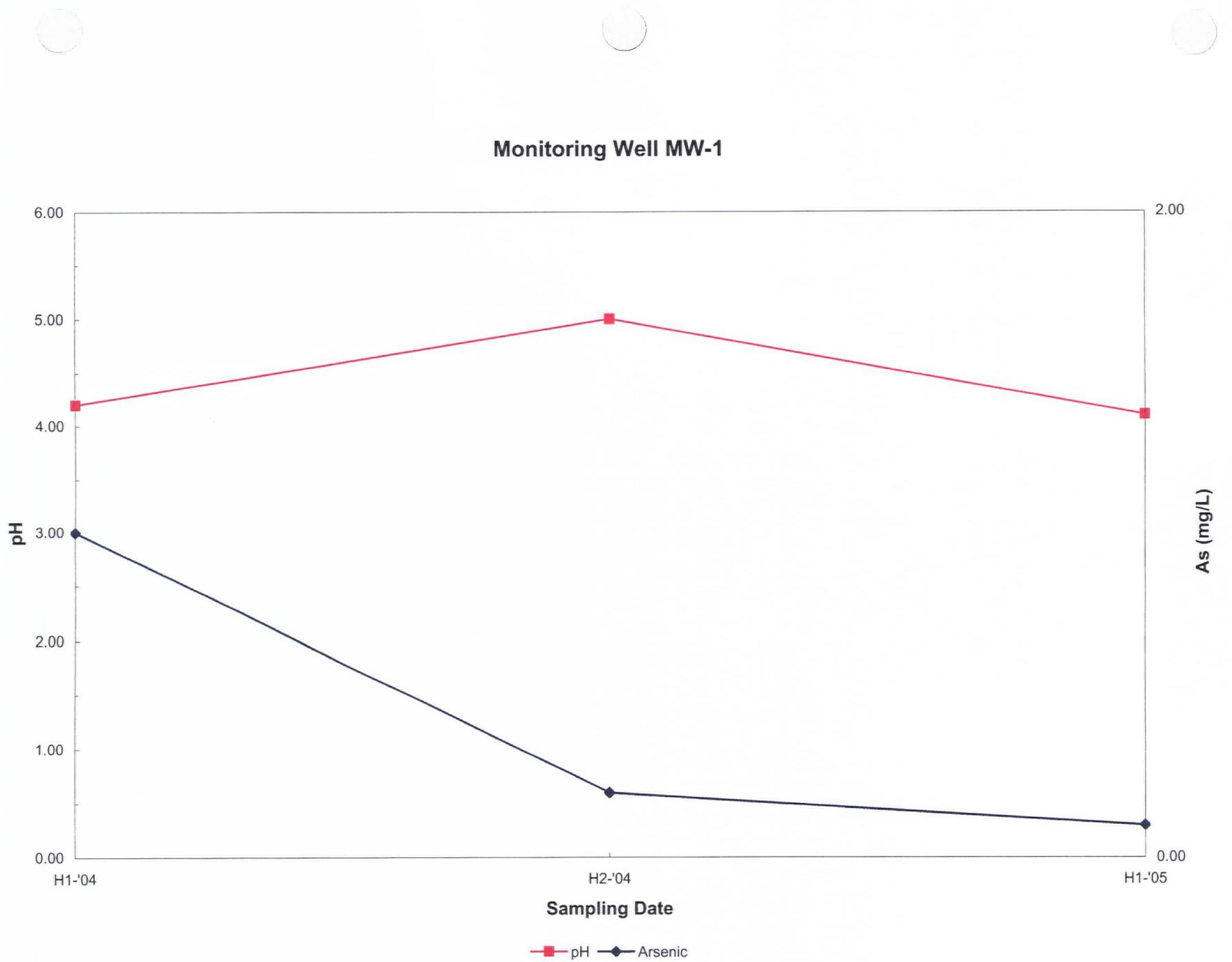


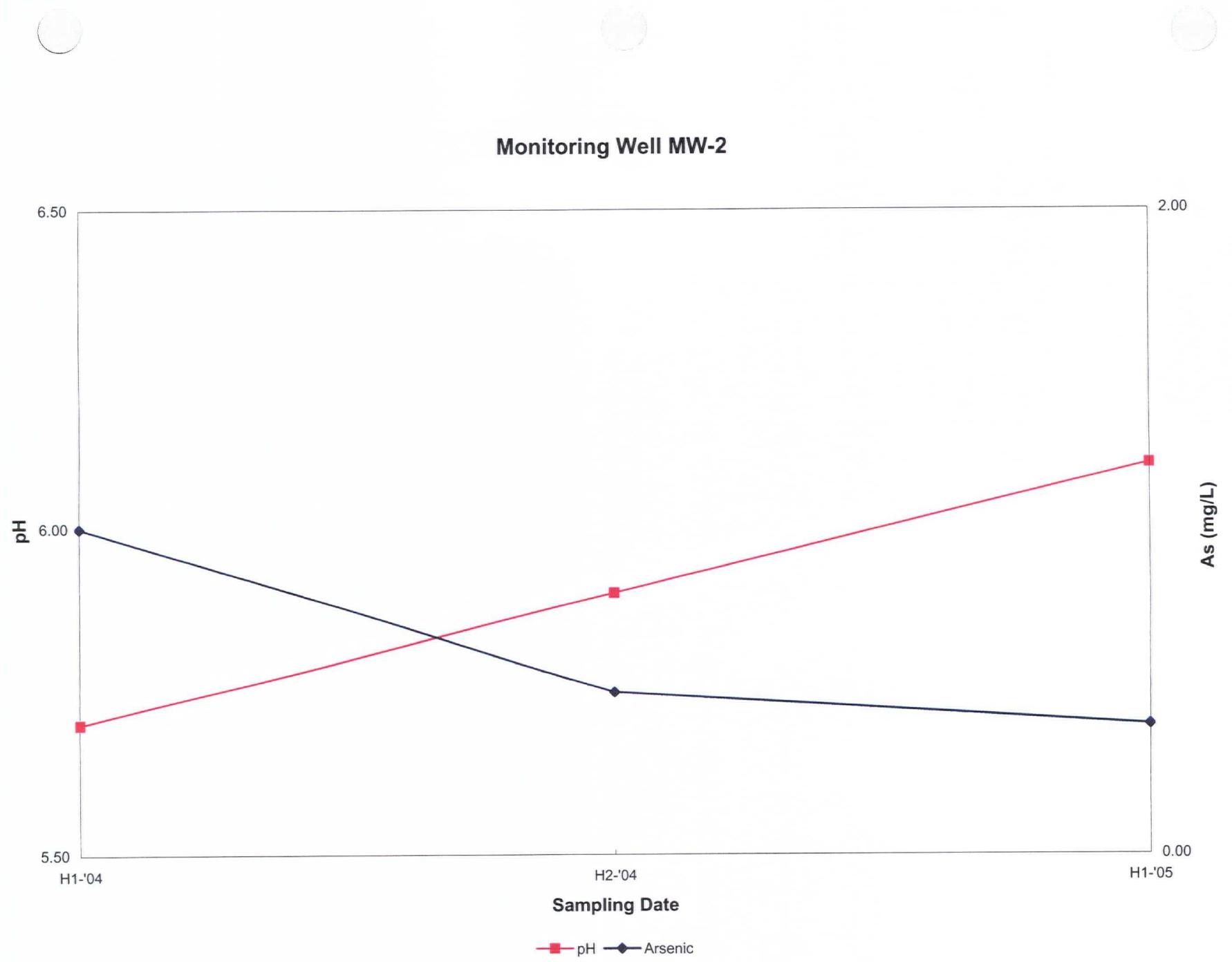
Monitoring Well LRII-4



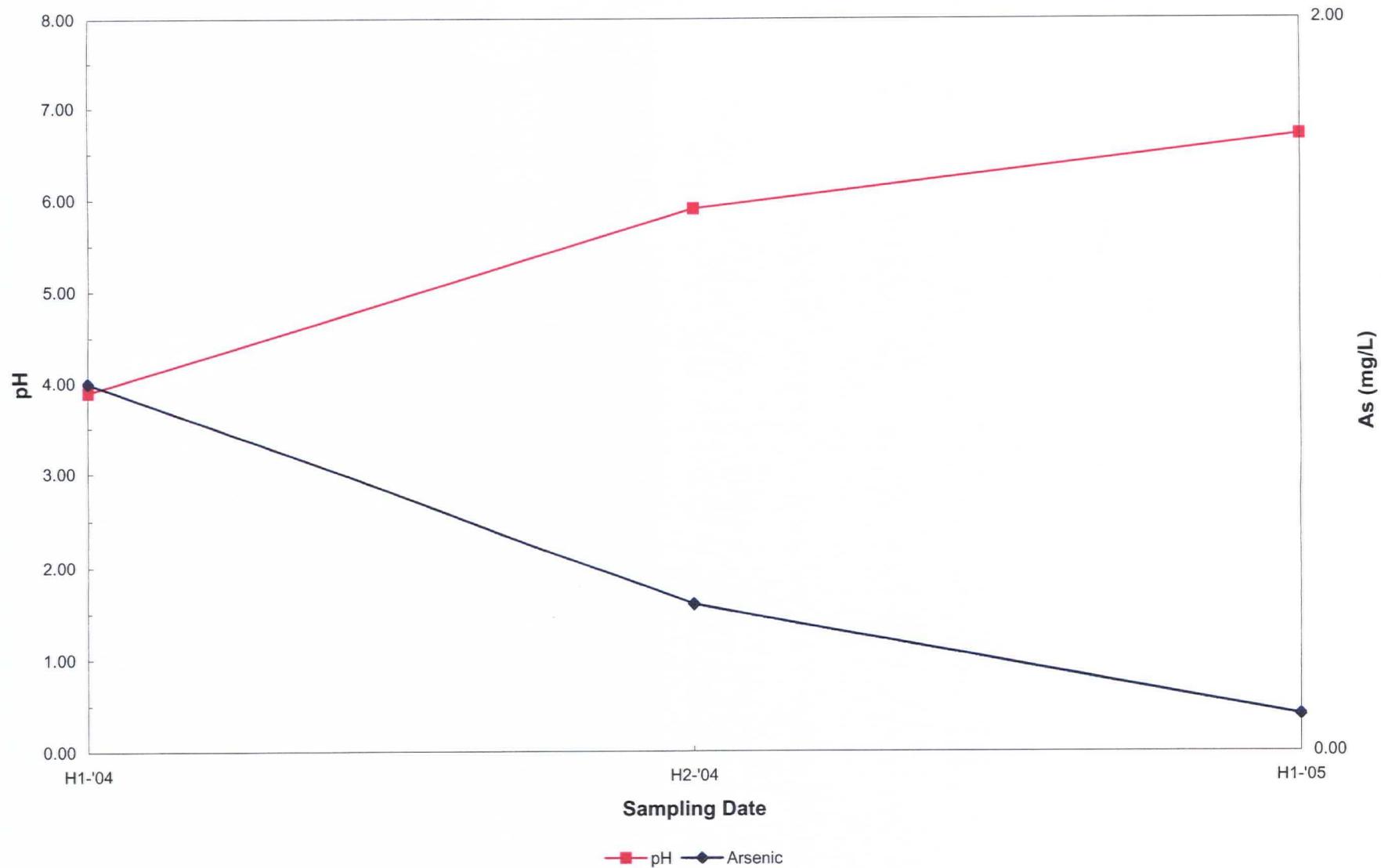
Monitoring Well LRII-5



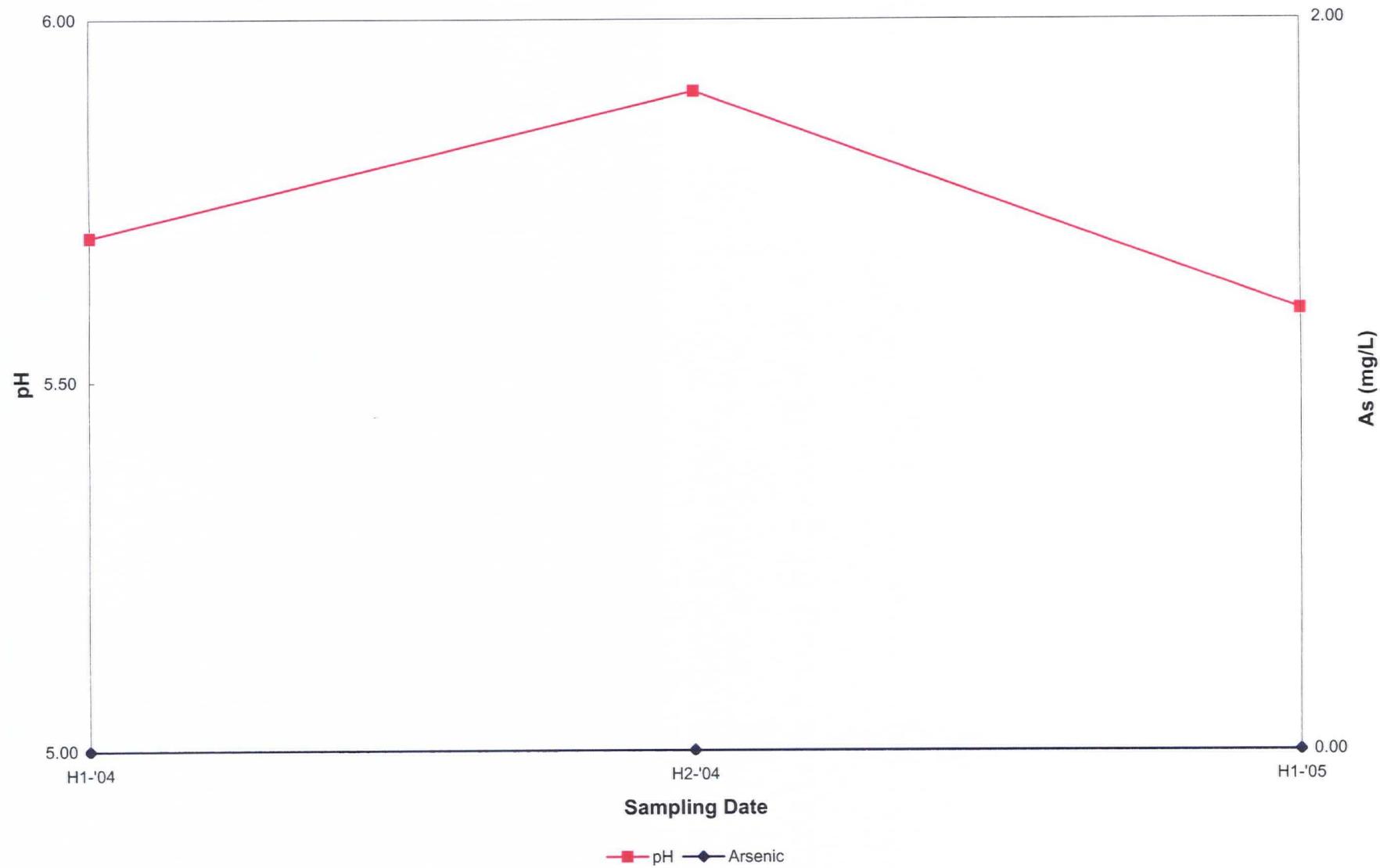




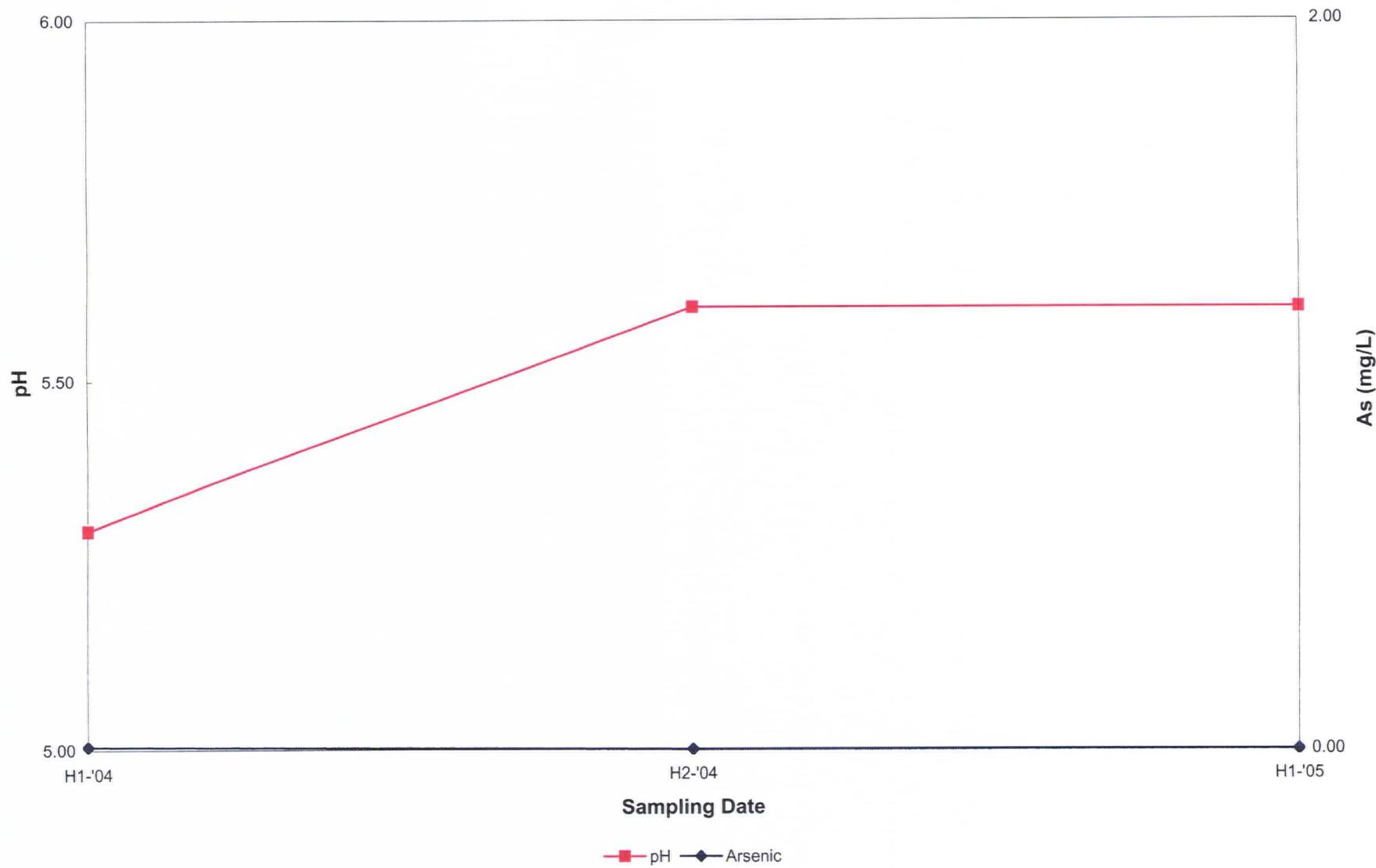
Monitoring Well MW-3



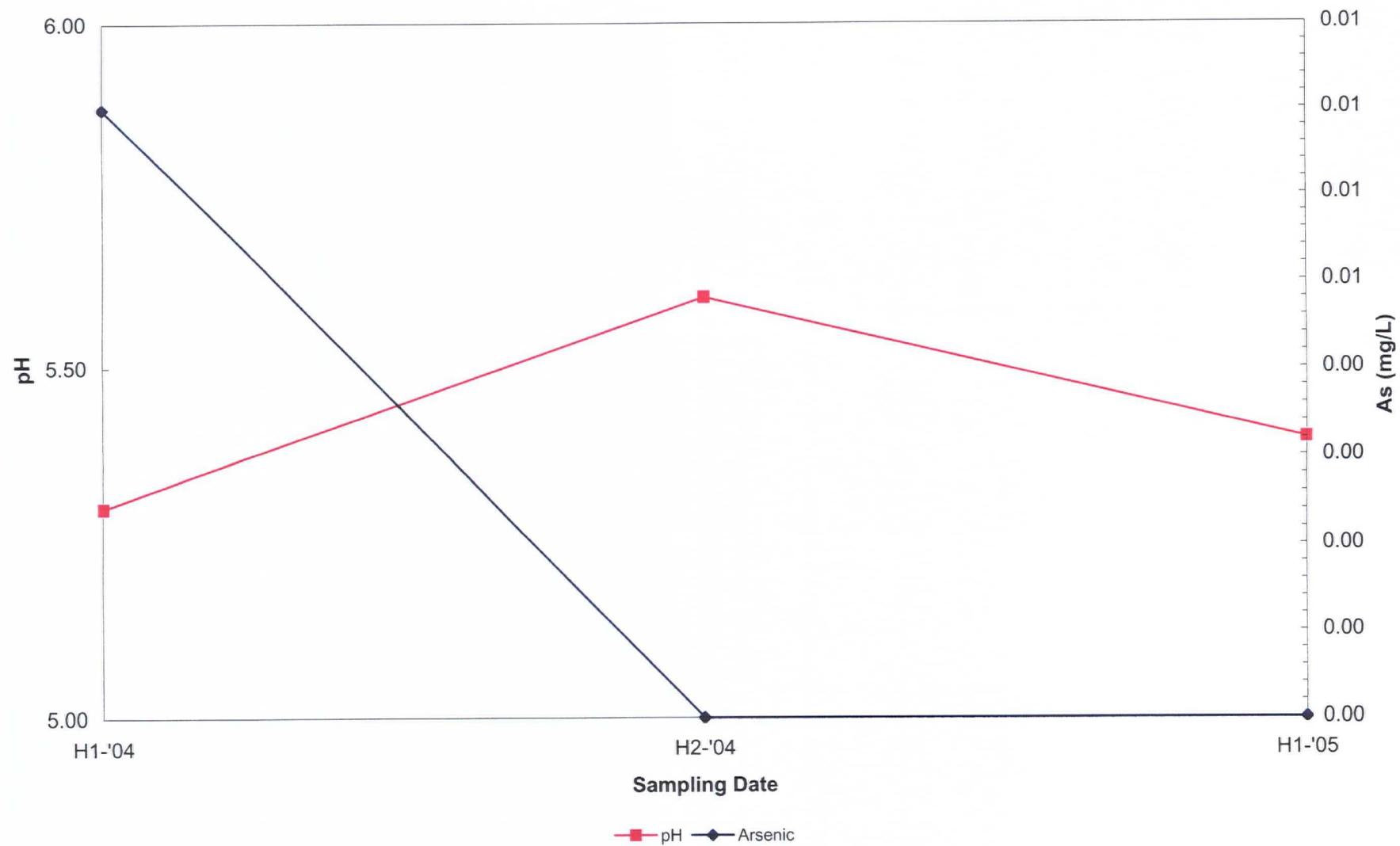
Monitoring Well MW-5



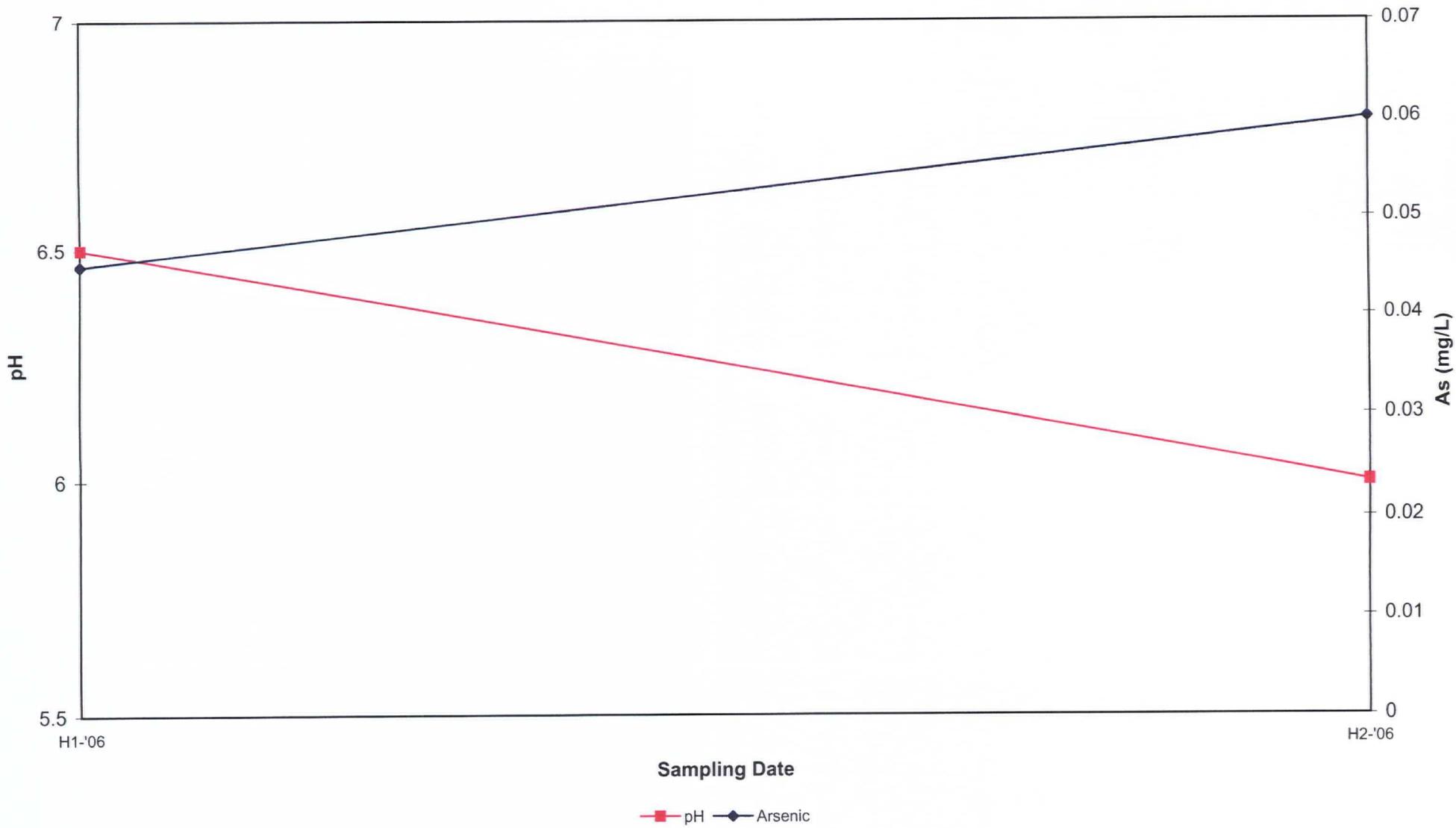
Monitoring Well MW-6



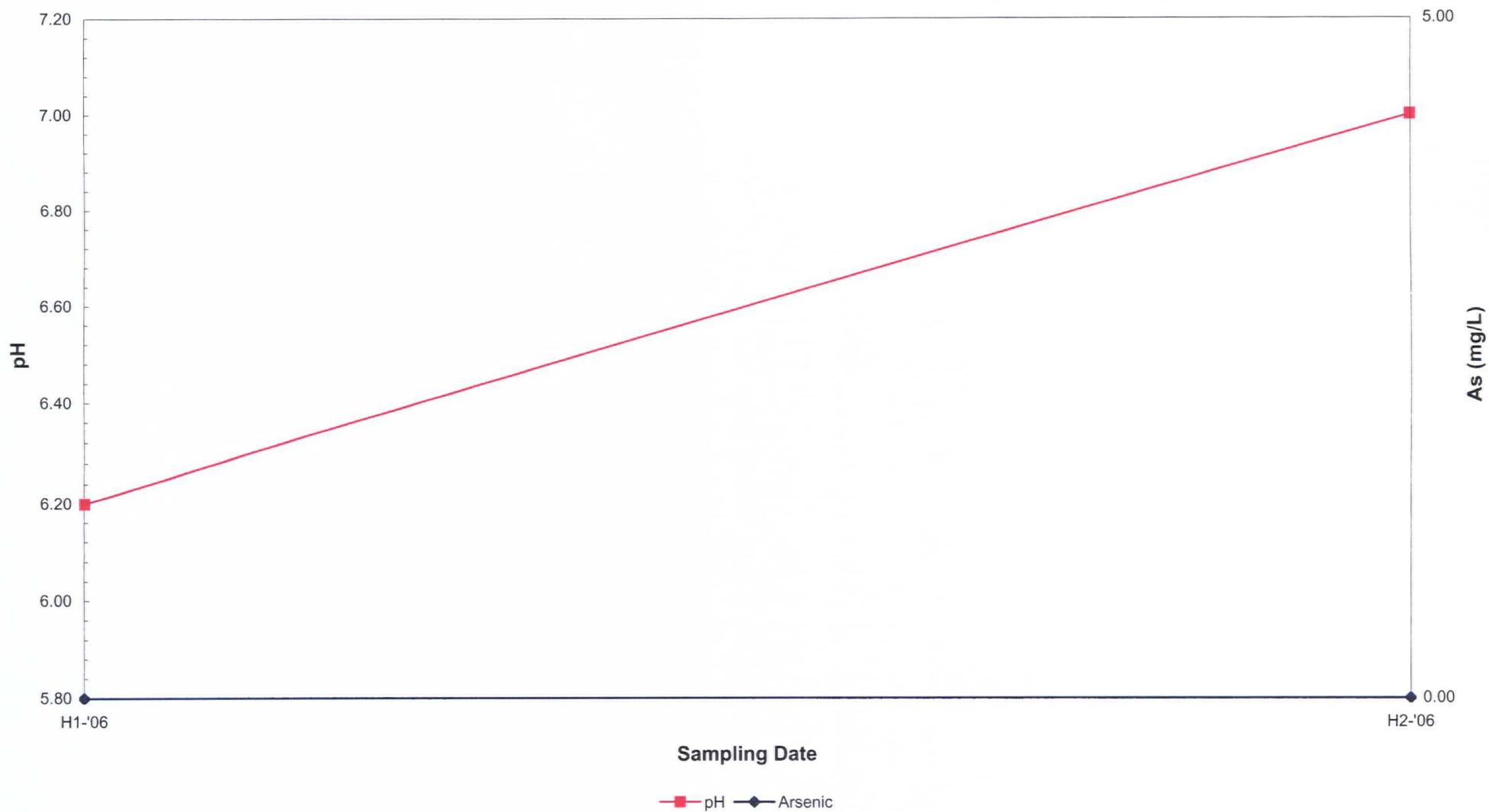
Monitoring Well SMR-1



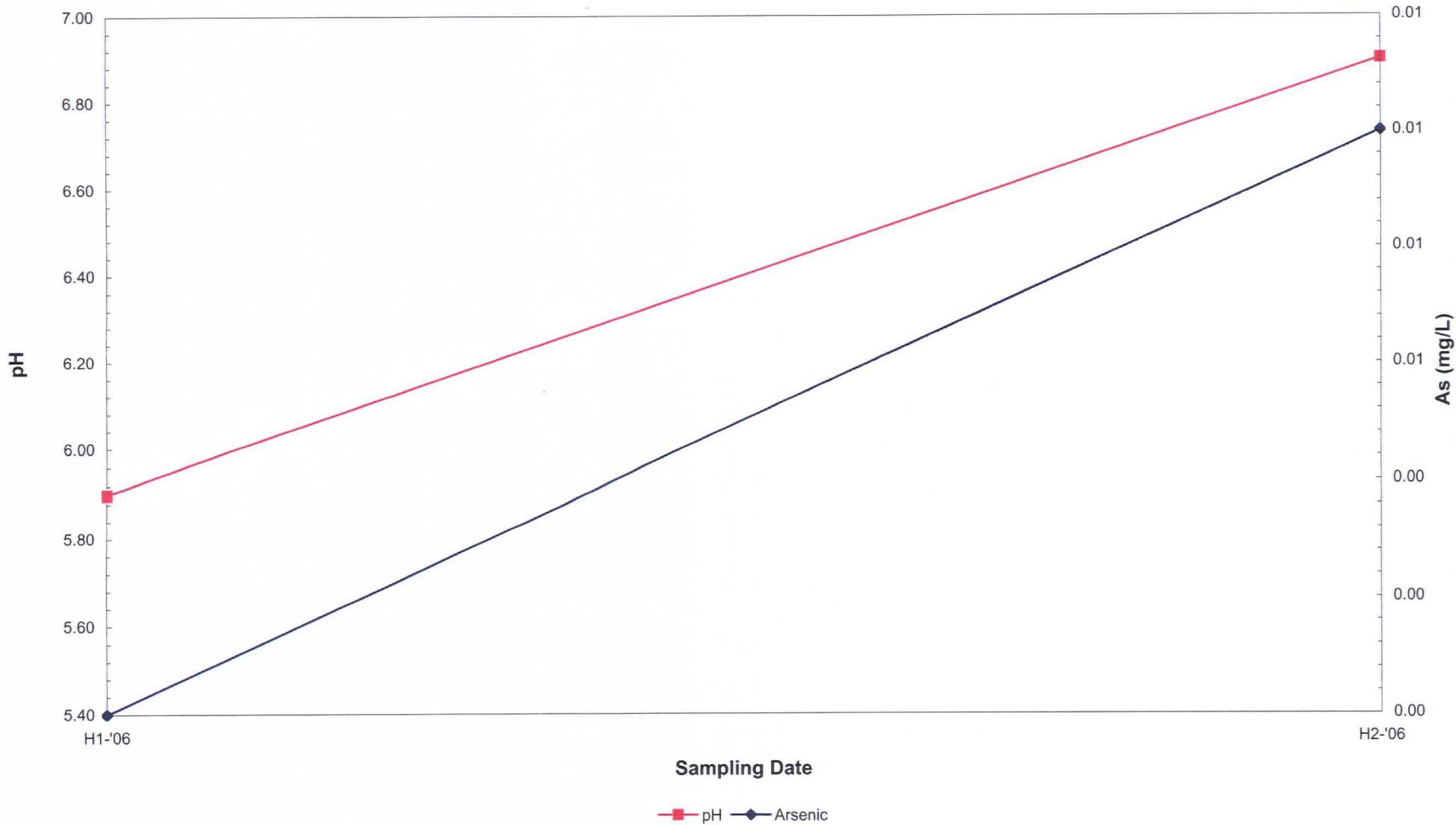
Monitoring Well GW- 1



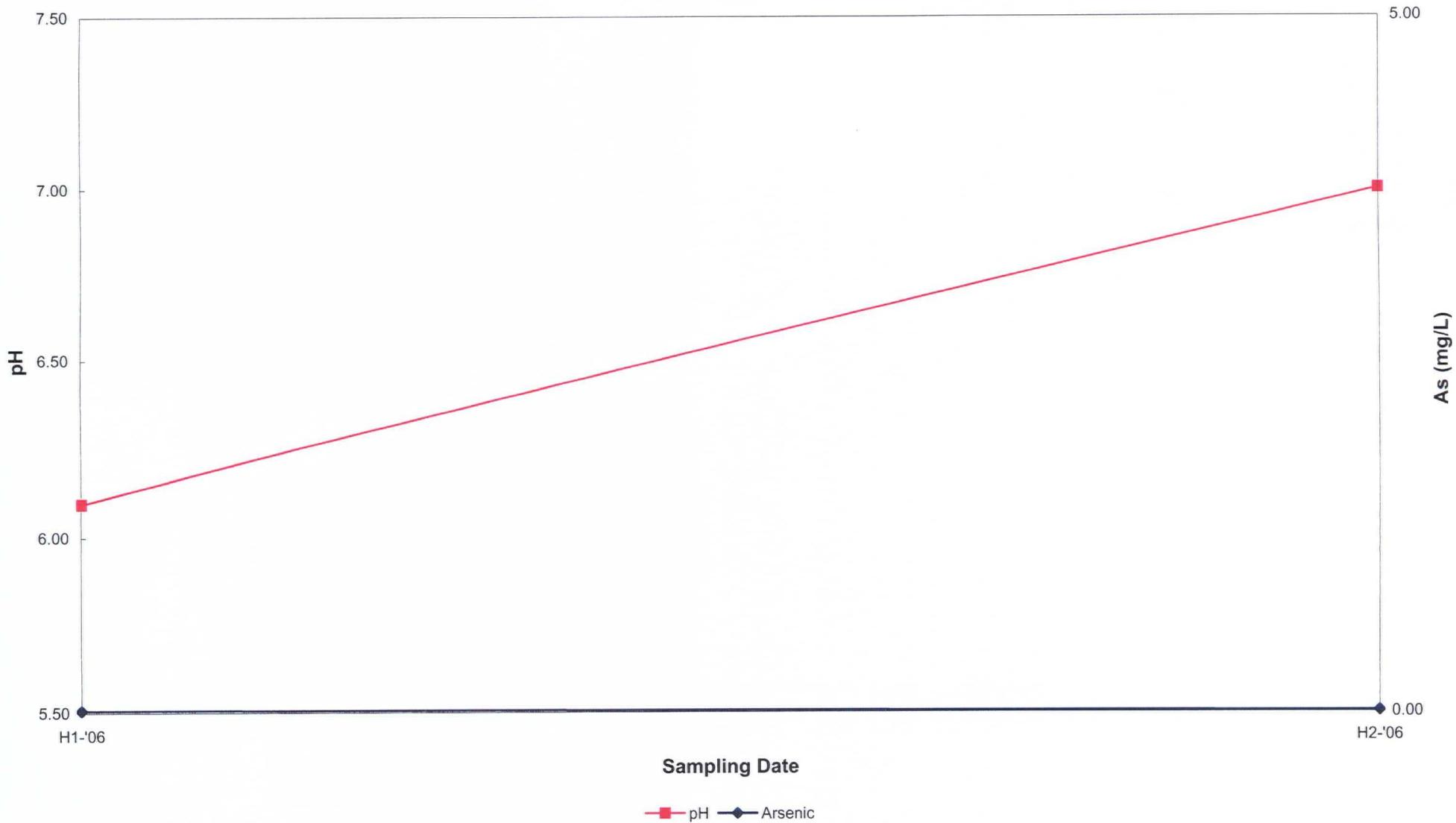
Monitoring Well GW-3



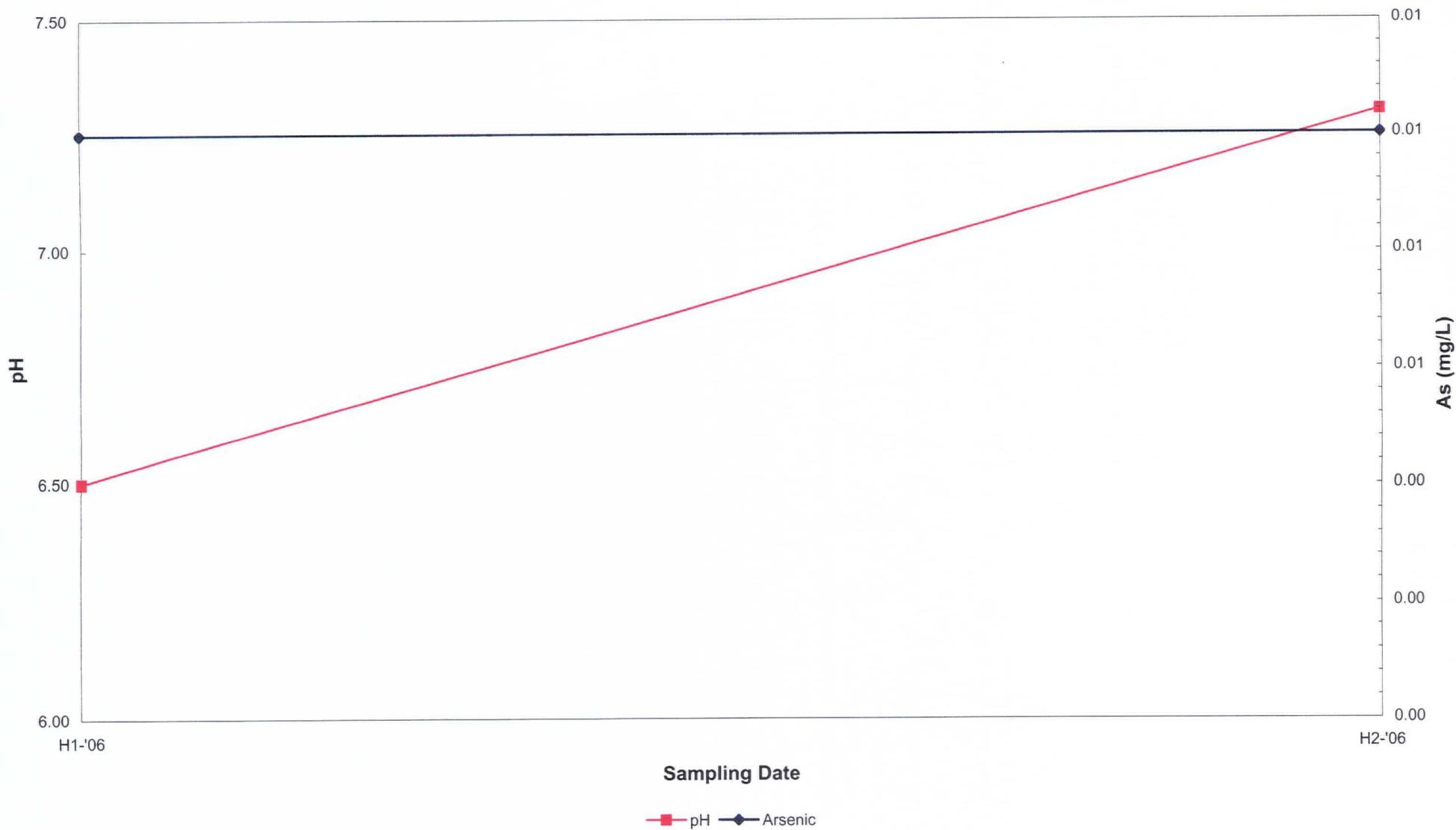
Monitoring Well GW-4



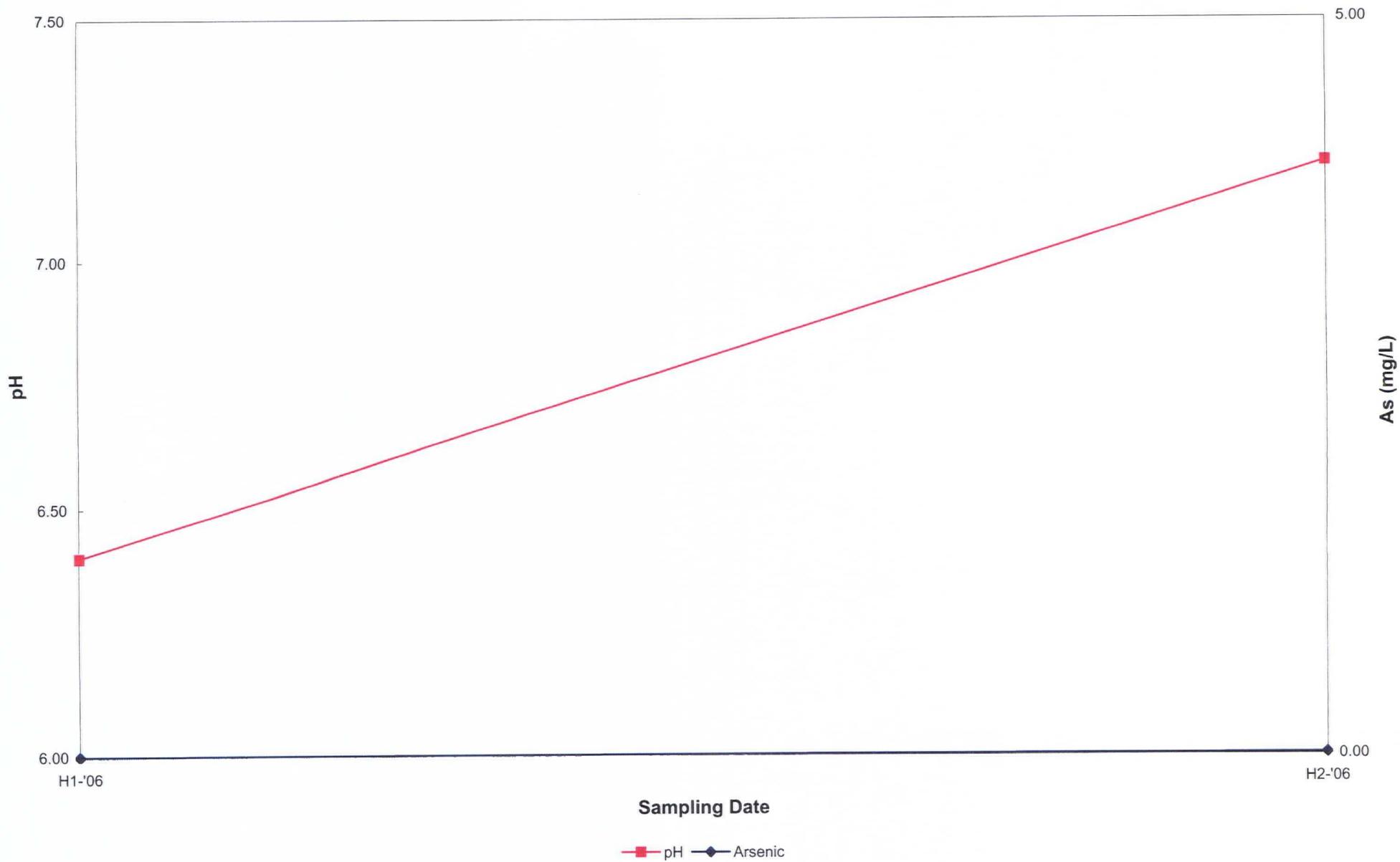
Monitoring Well GW-5



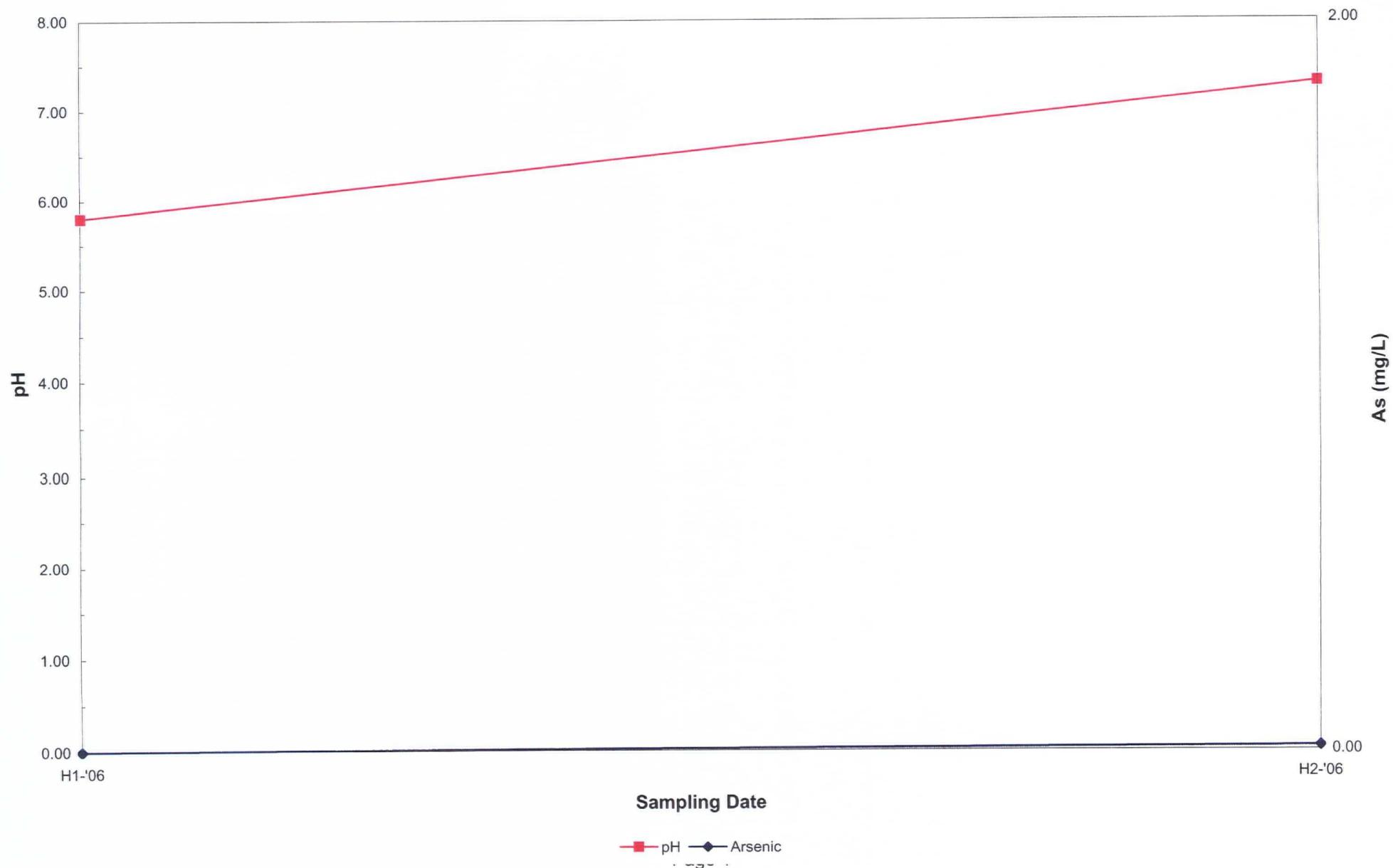
Monitoring Well GW-6



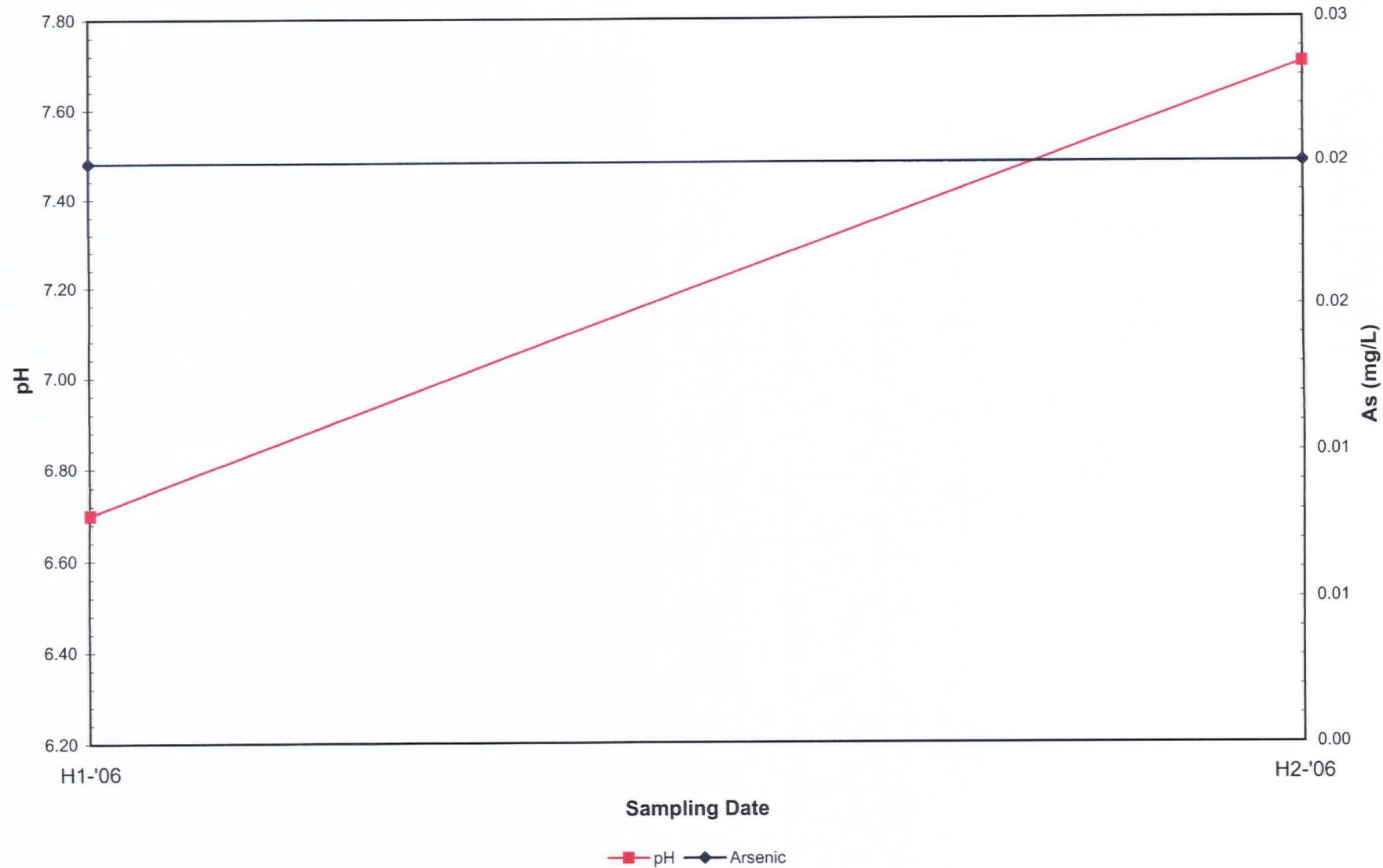
Monitoring Well GW-7



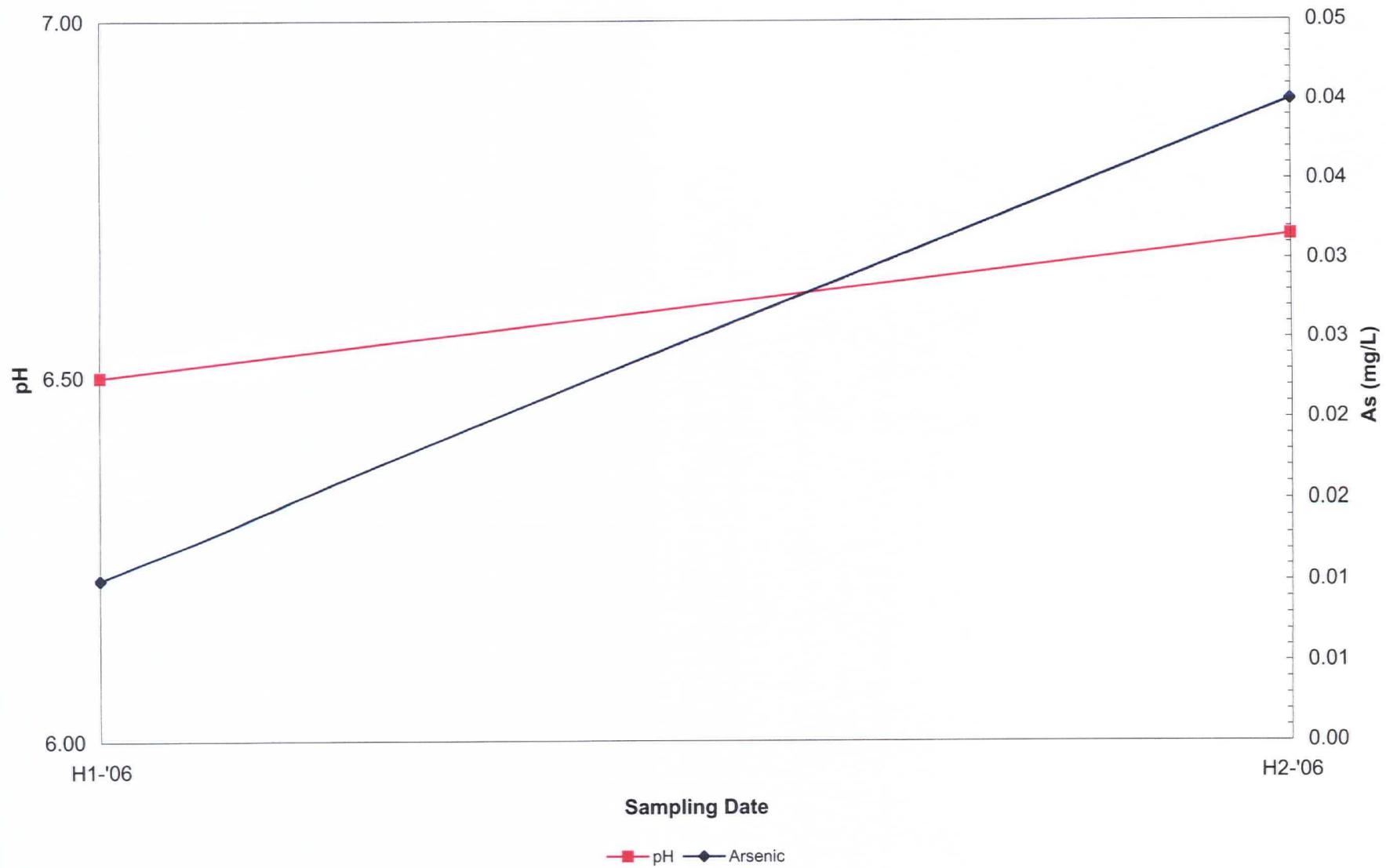
Monitoring Well GW-8



Monitoring Well GW-9

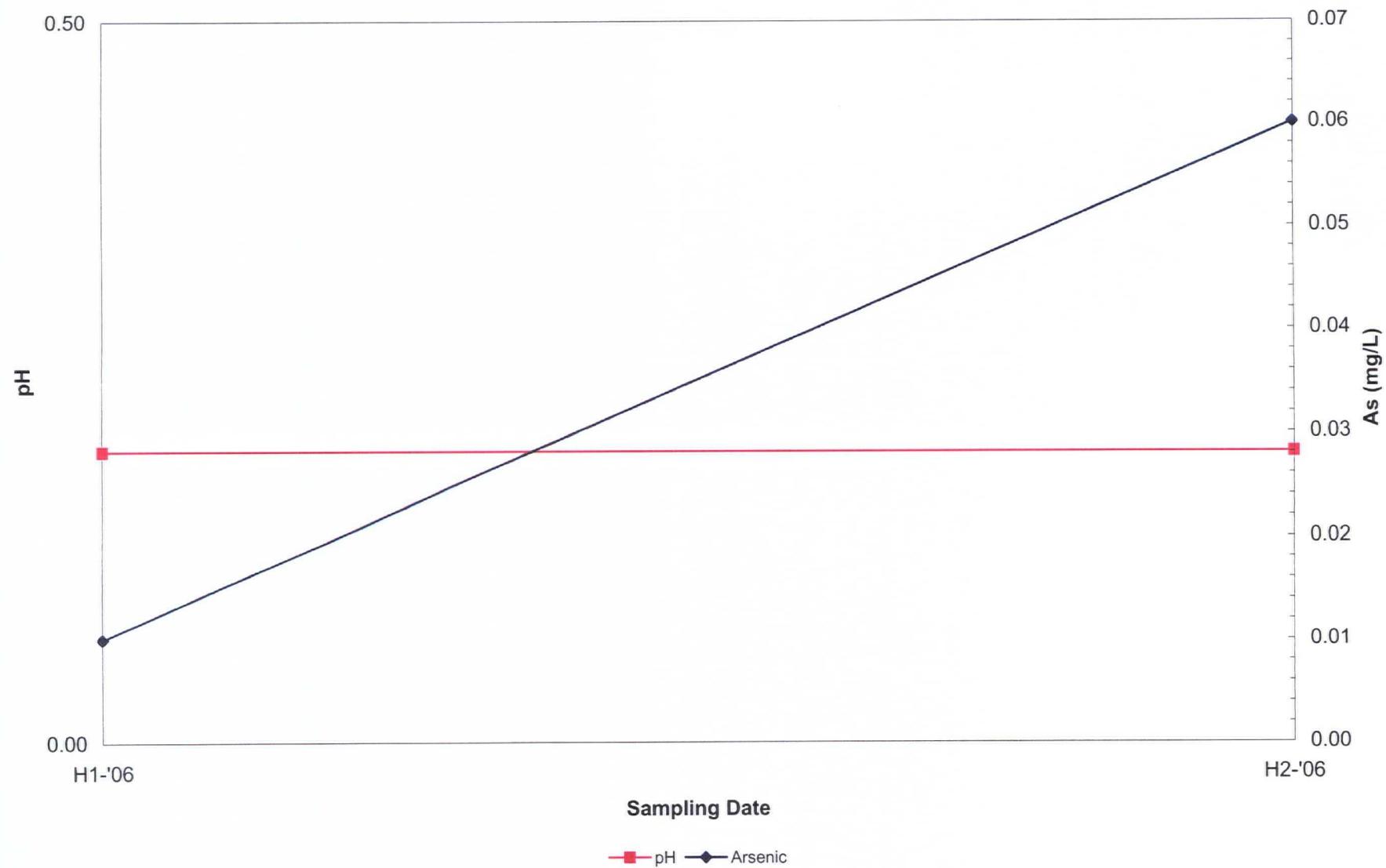


Monitoring Well GW-10

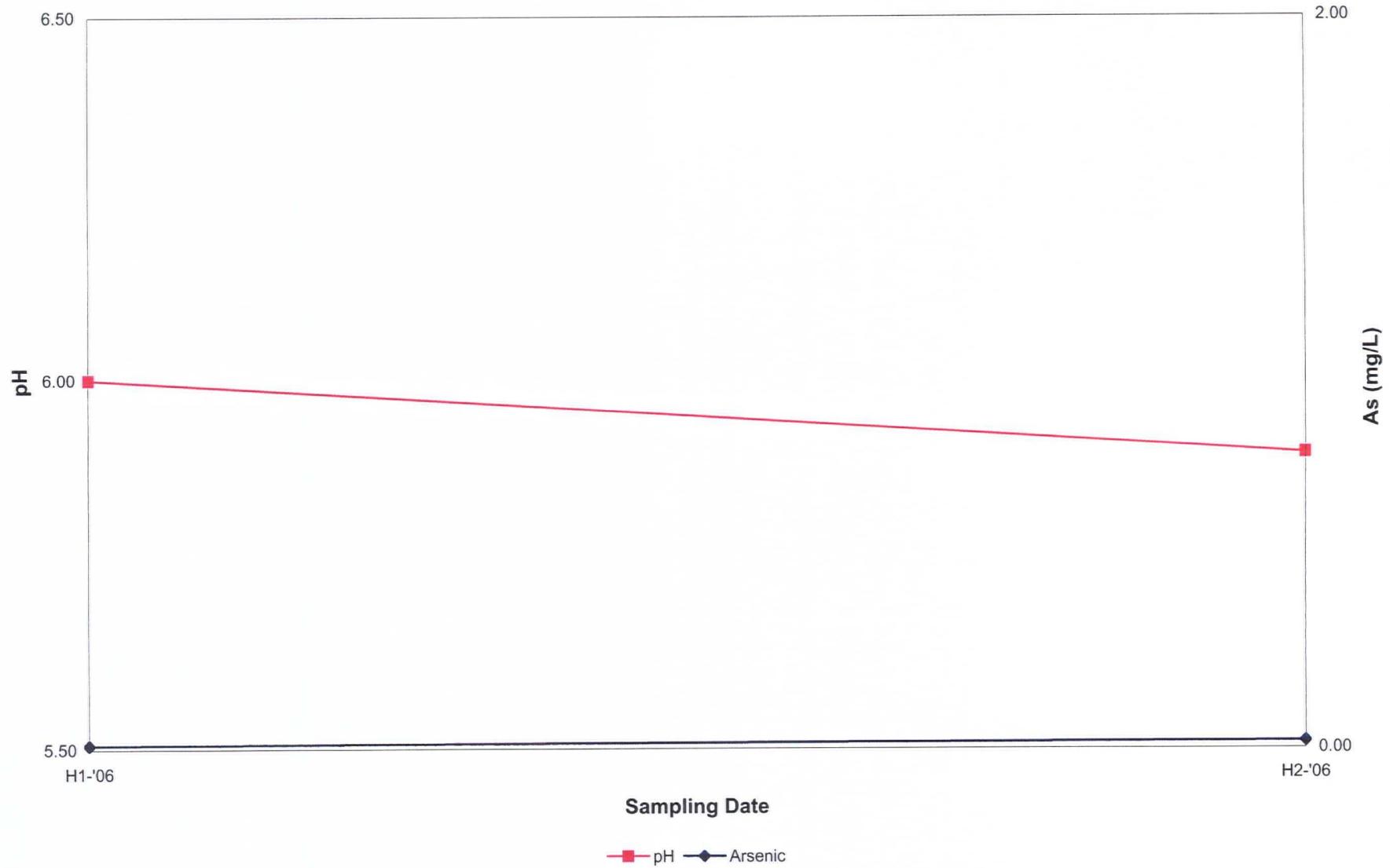




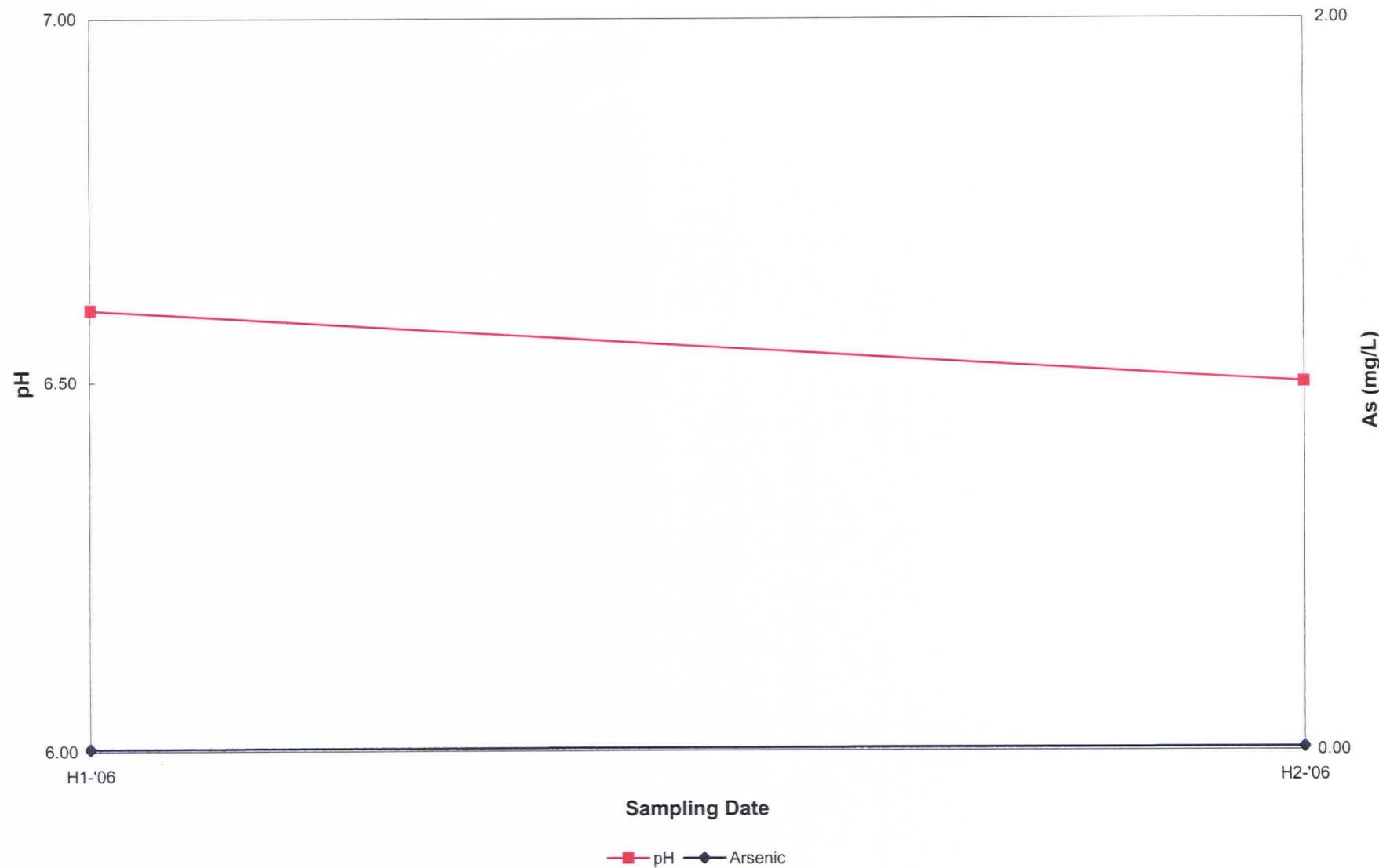
Monitoring Well GW-11



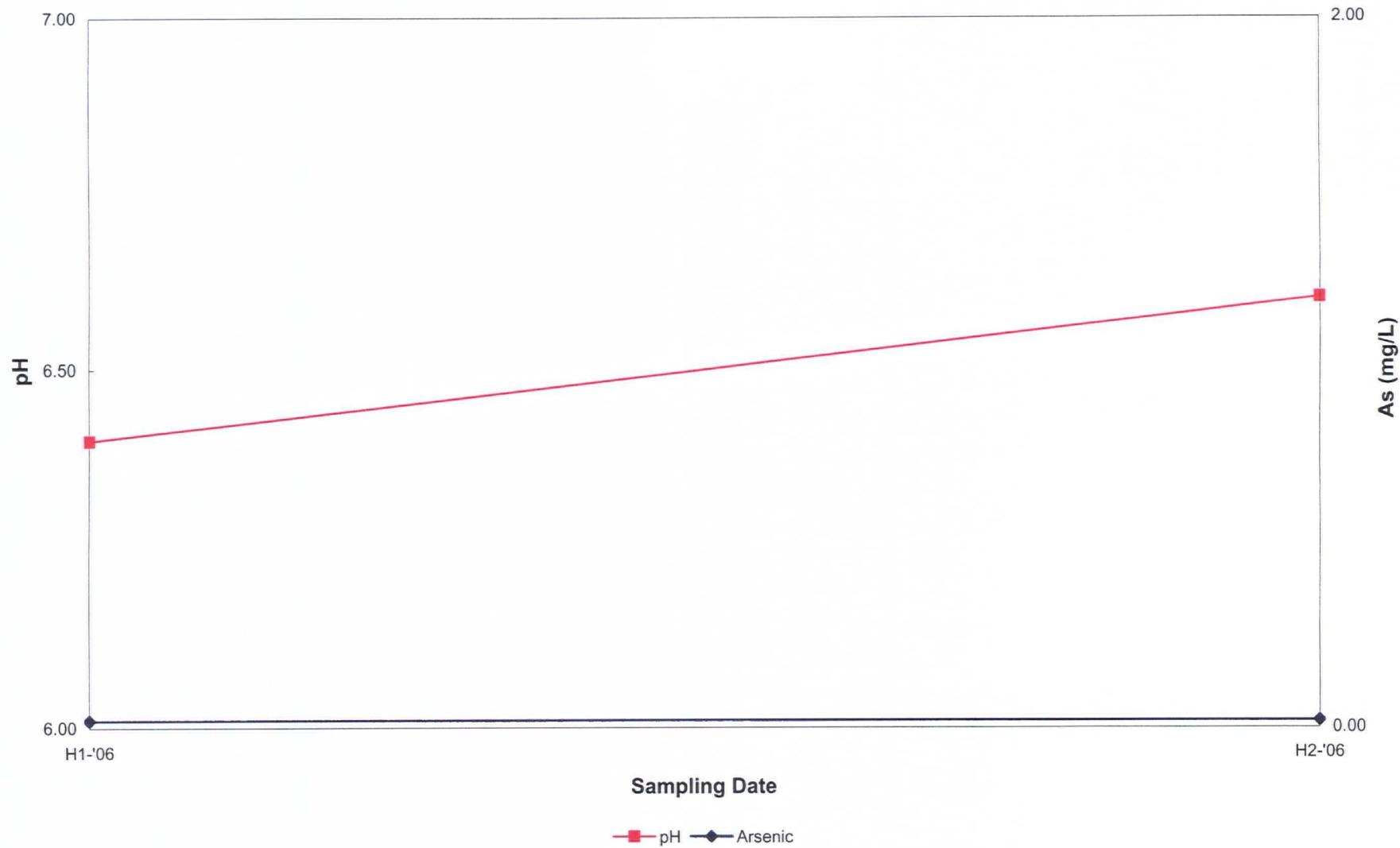
Monitoring Well GW-12



Monitoring Well GW-13

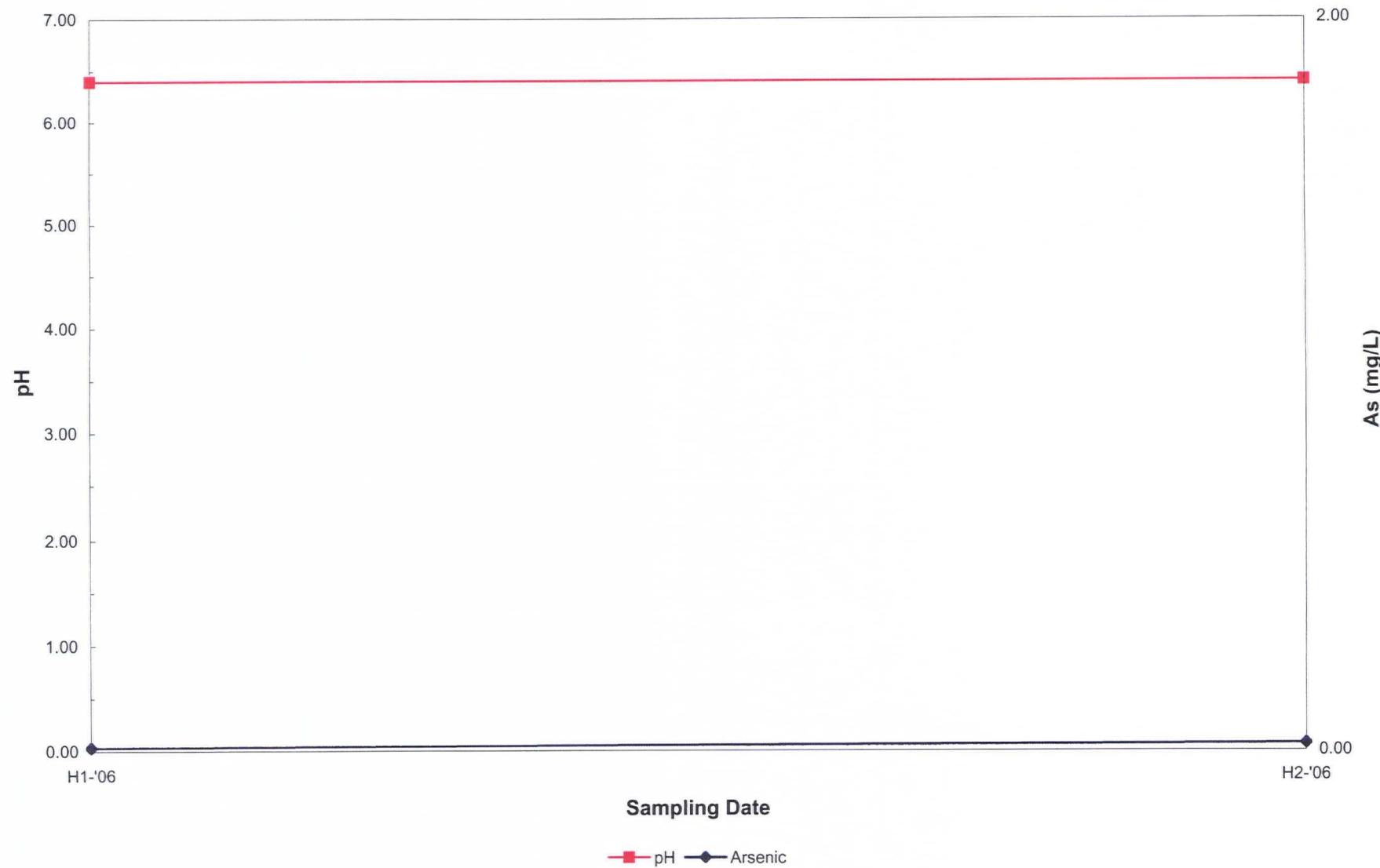


Monitoring Well GW-14

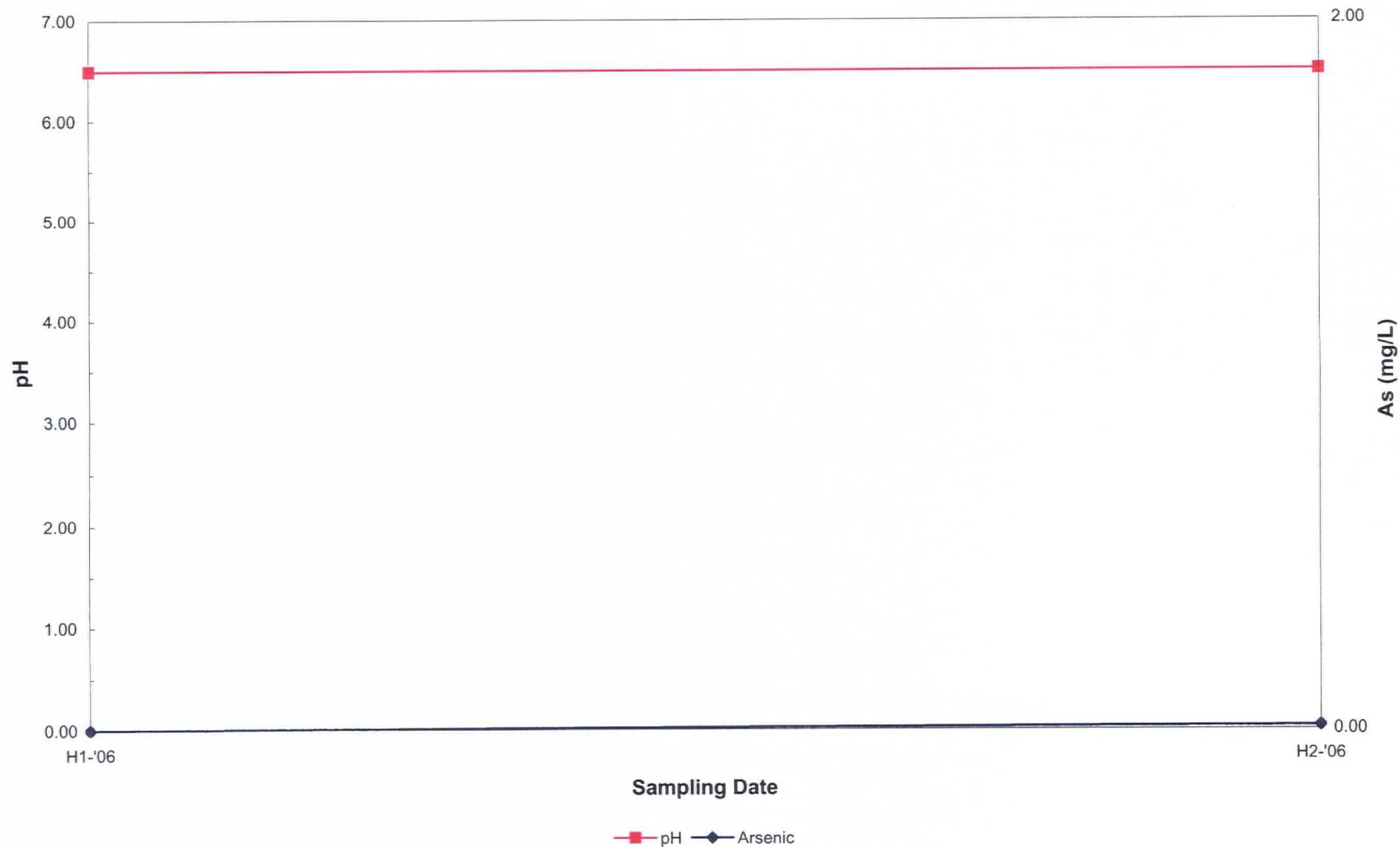




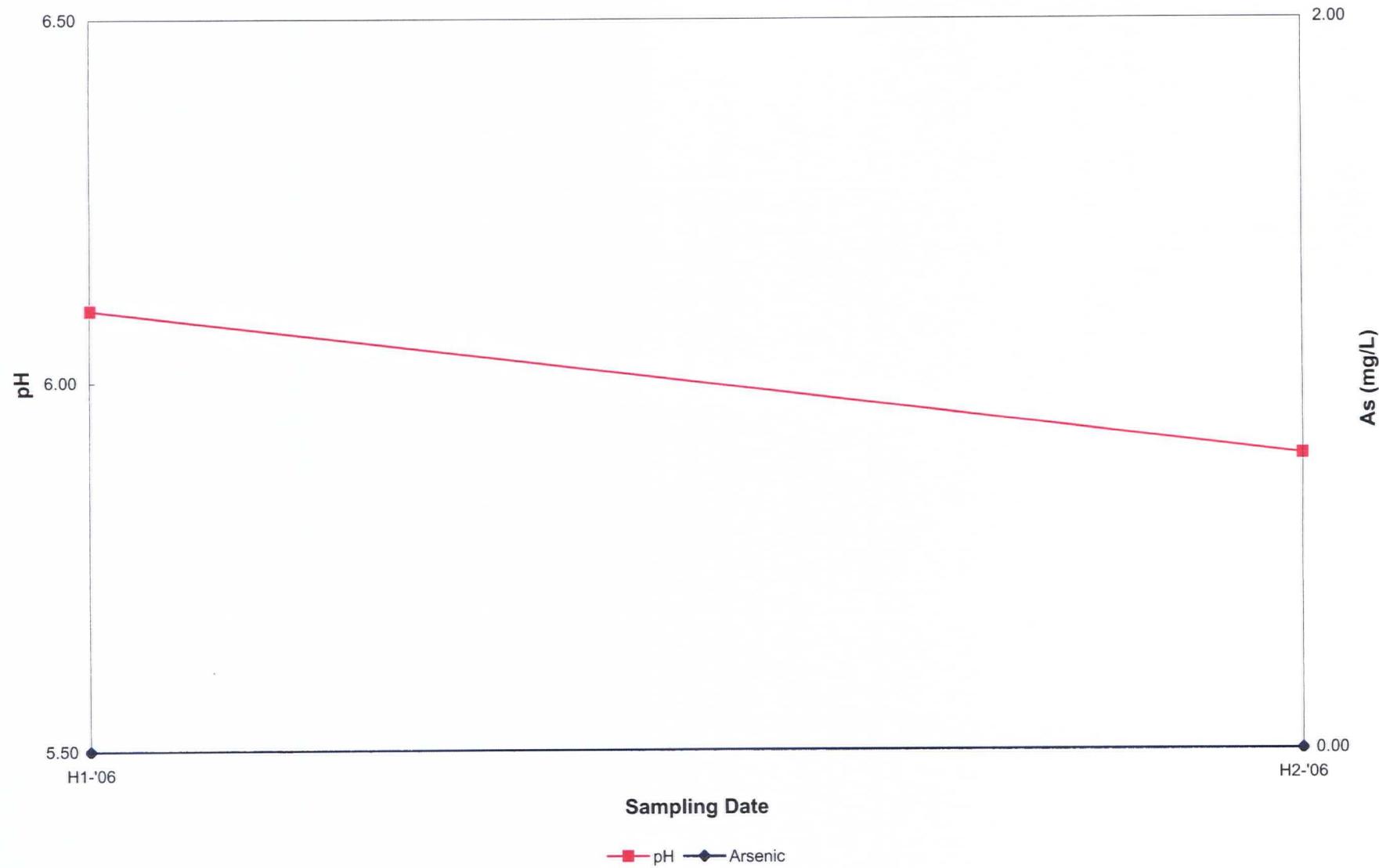
Monitoring Well GW-15



Monitoring Well GW-16

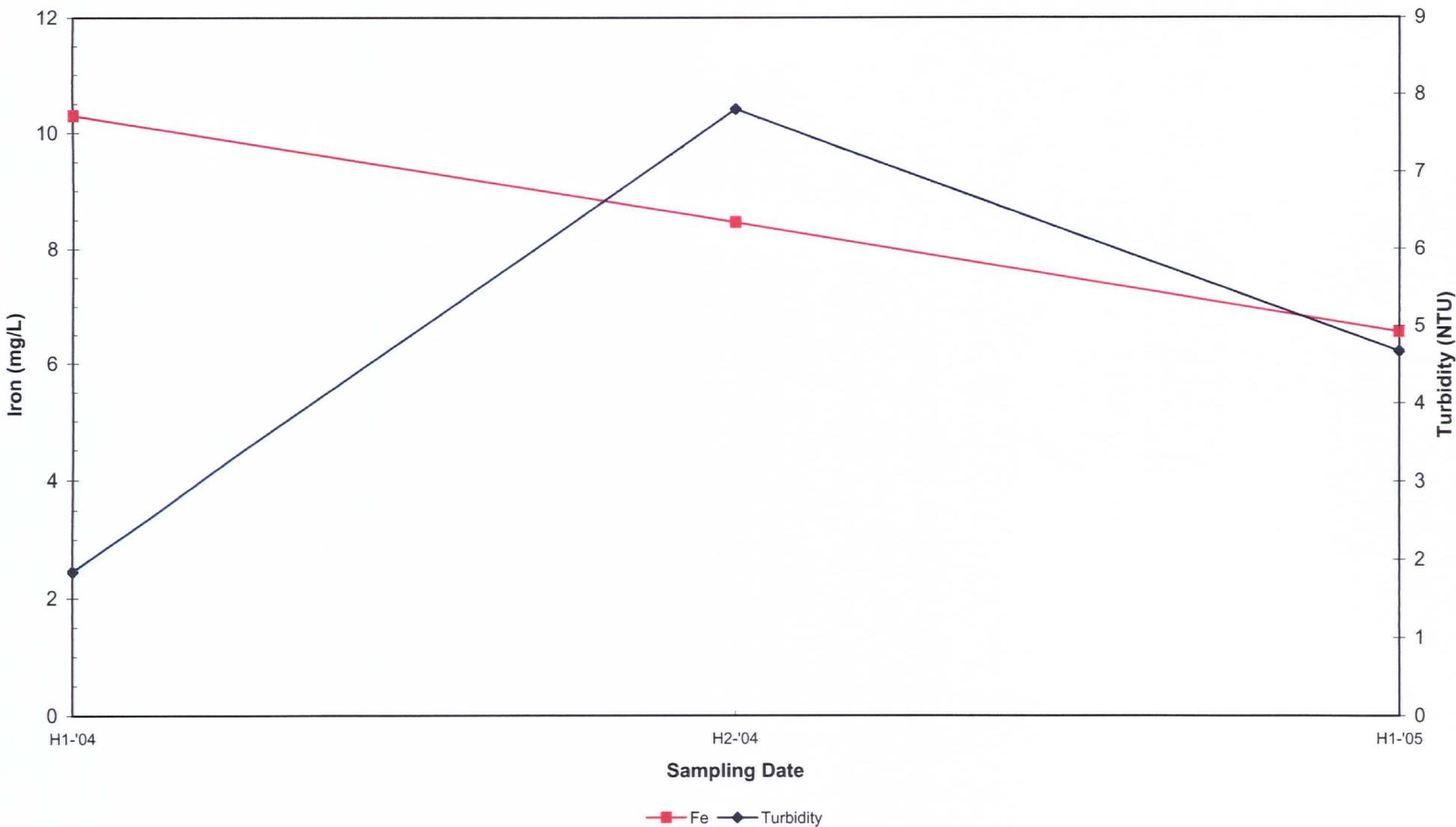


Monitoring Well BGW-1

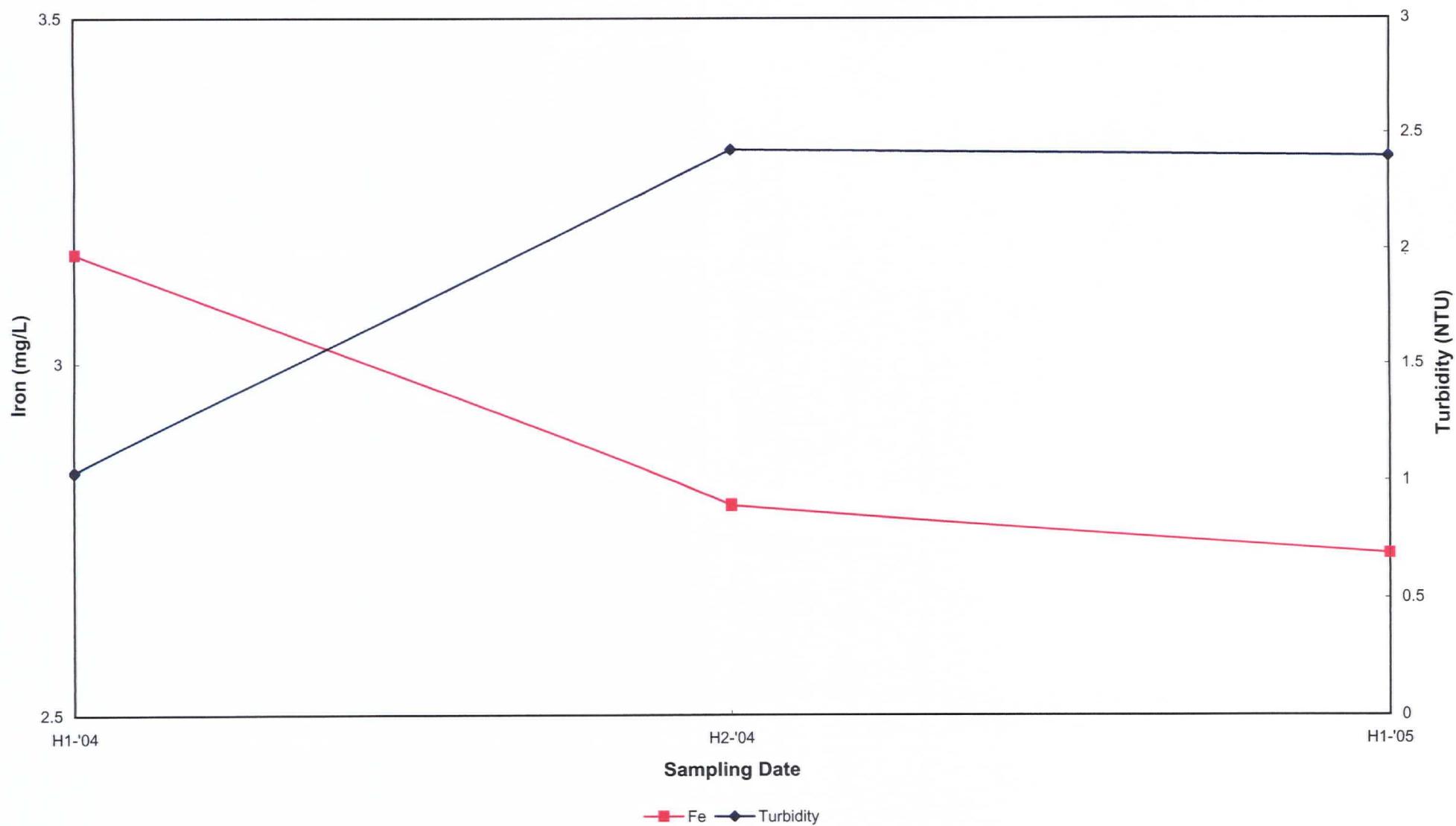


B-3 – Turbidity versus Iron

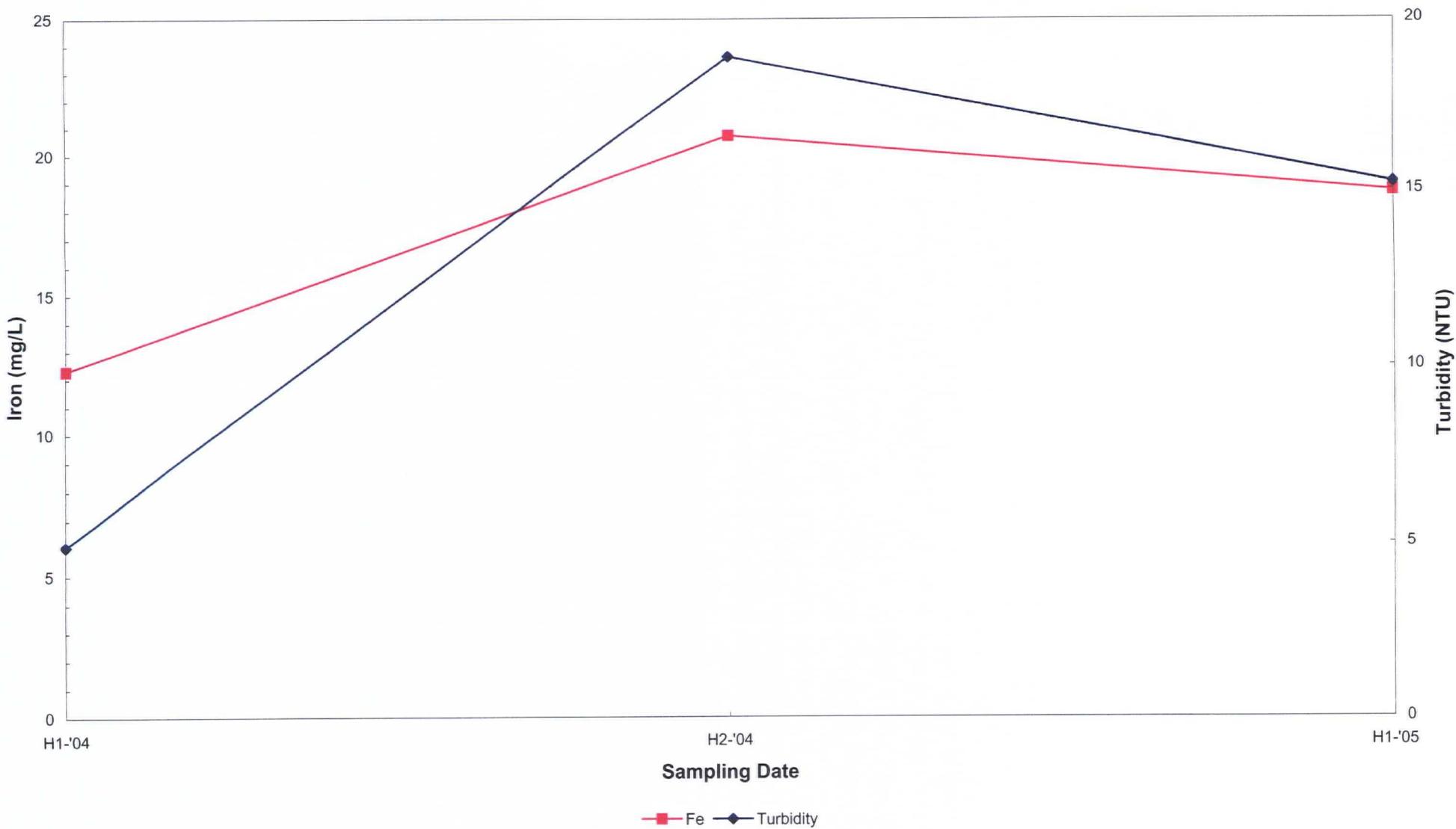
Monitoring Well CW- 4



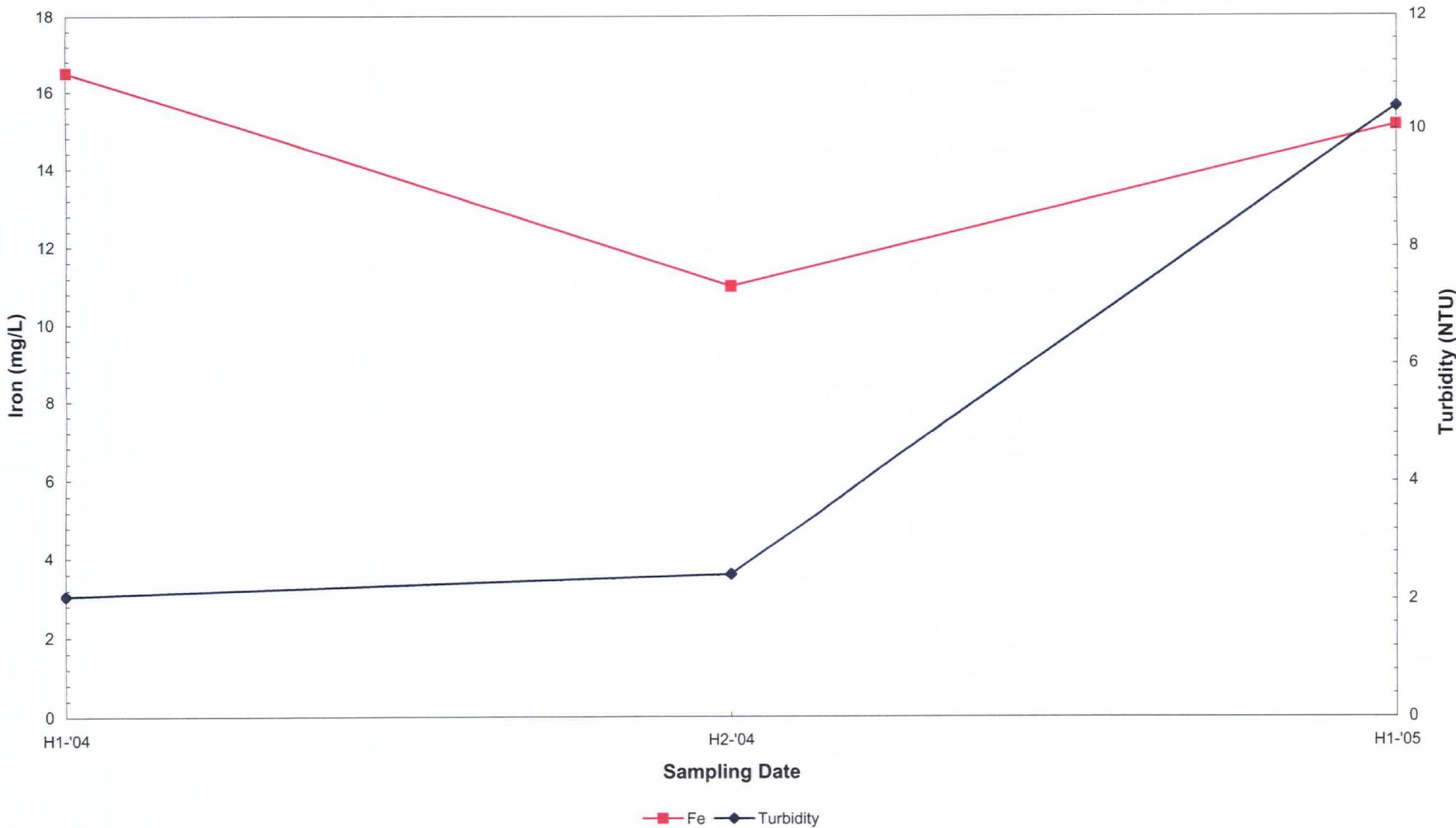
Monitoring Well CW- 5A



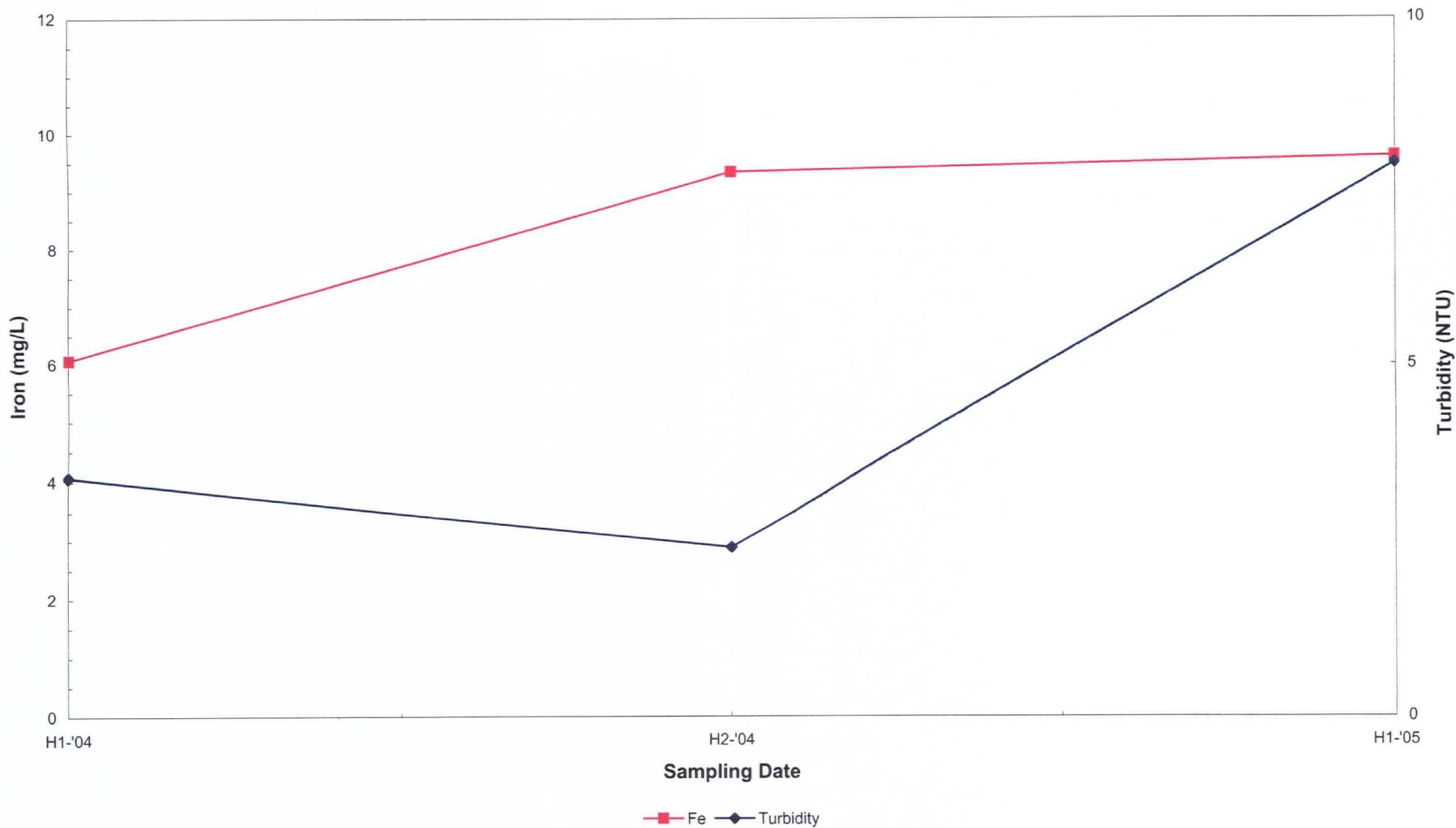
Monitoring Well GC-1A



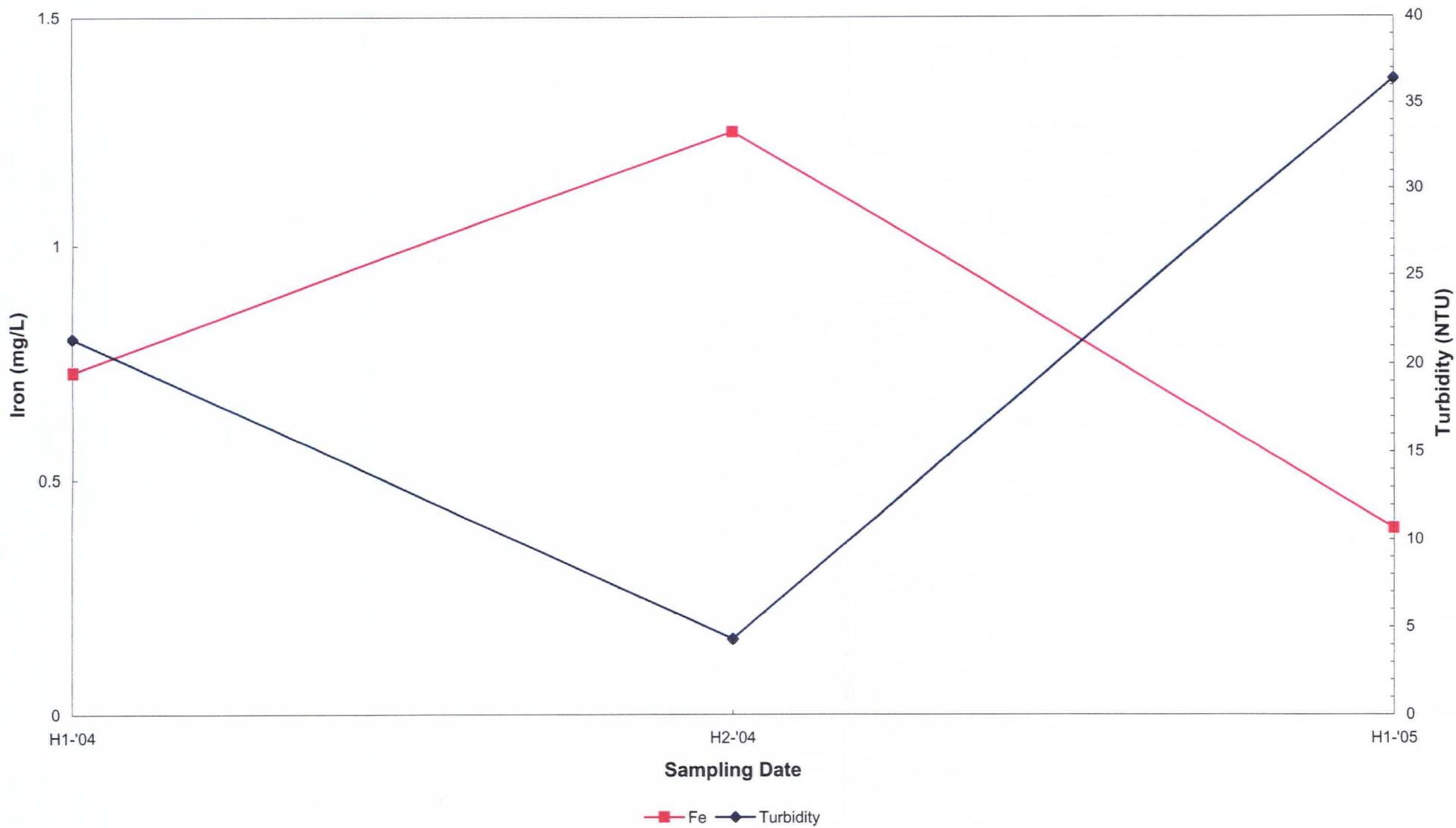
Monitoring Well GC-2



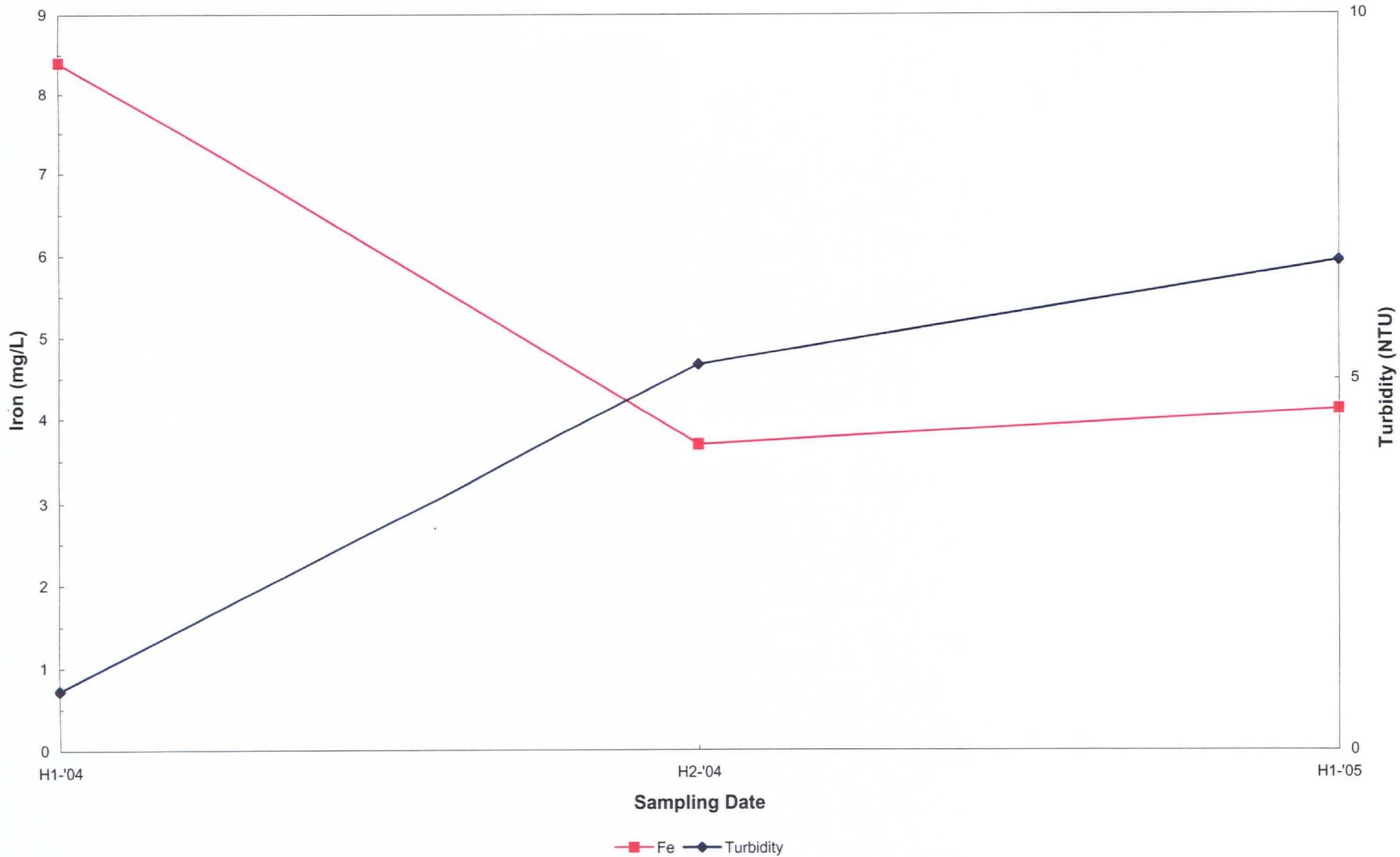
Monitoring Well GC-3



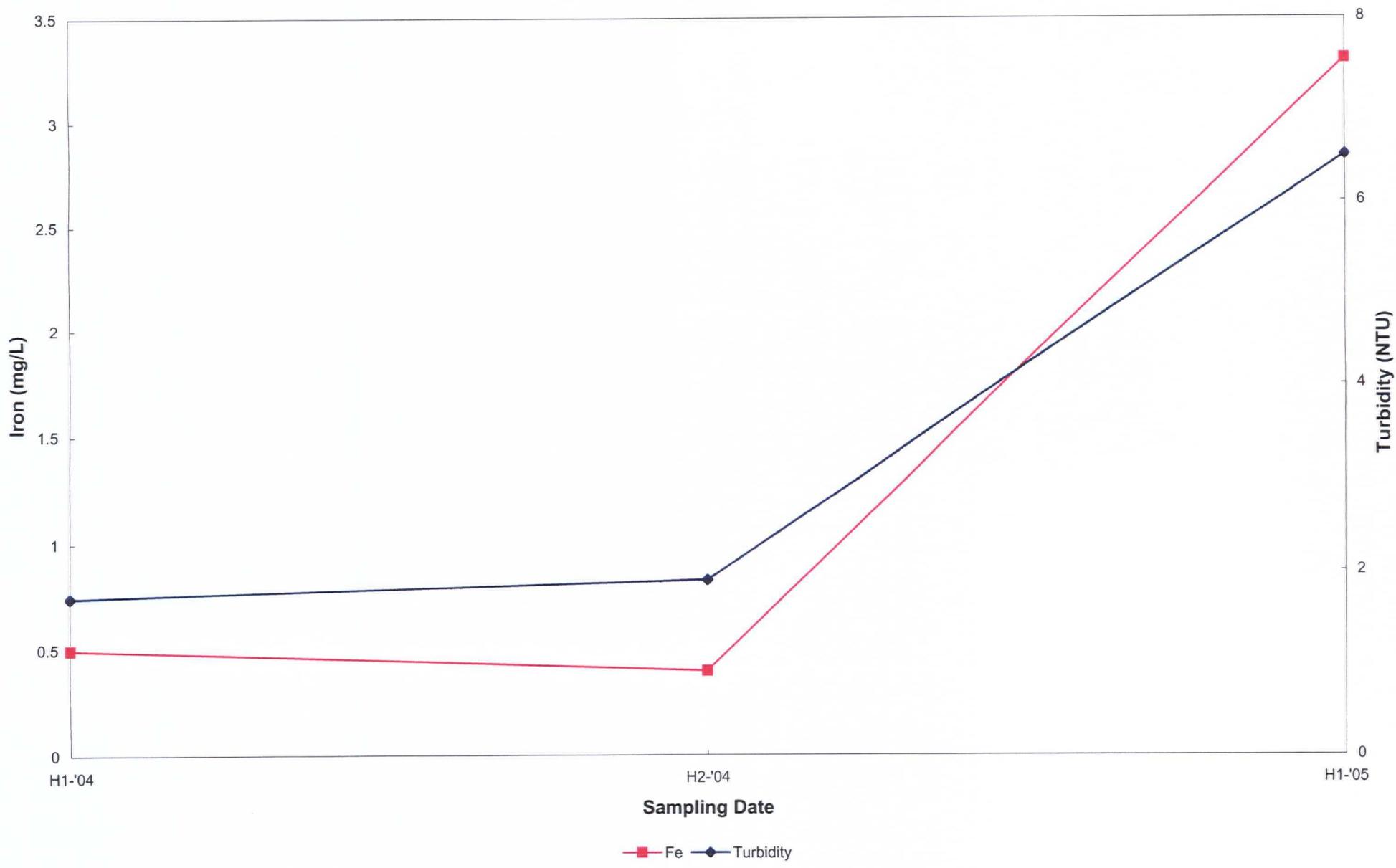
Monitoring Well GC-4



Monitoring Well GC- 5

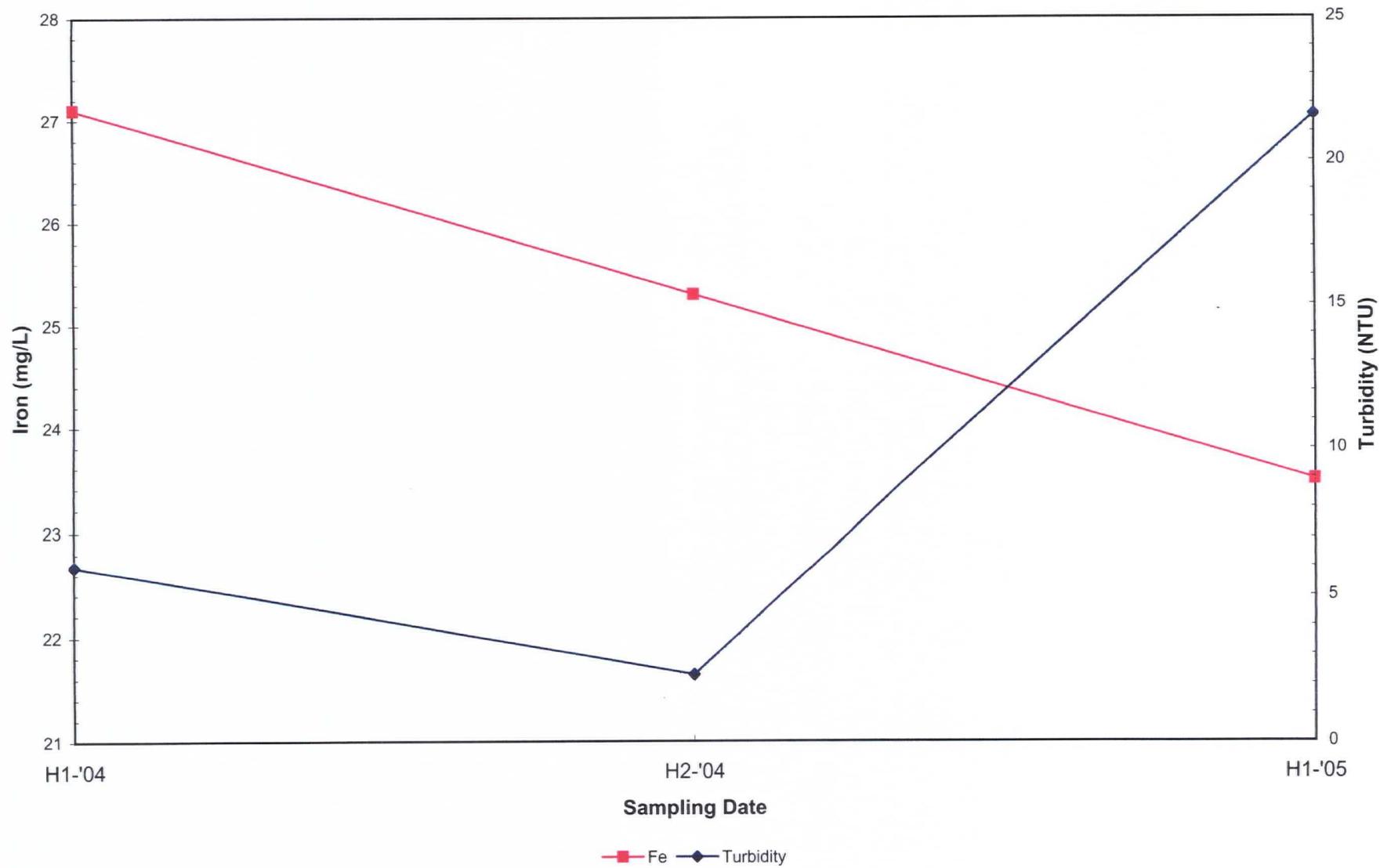


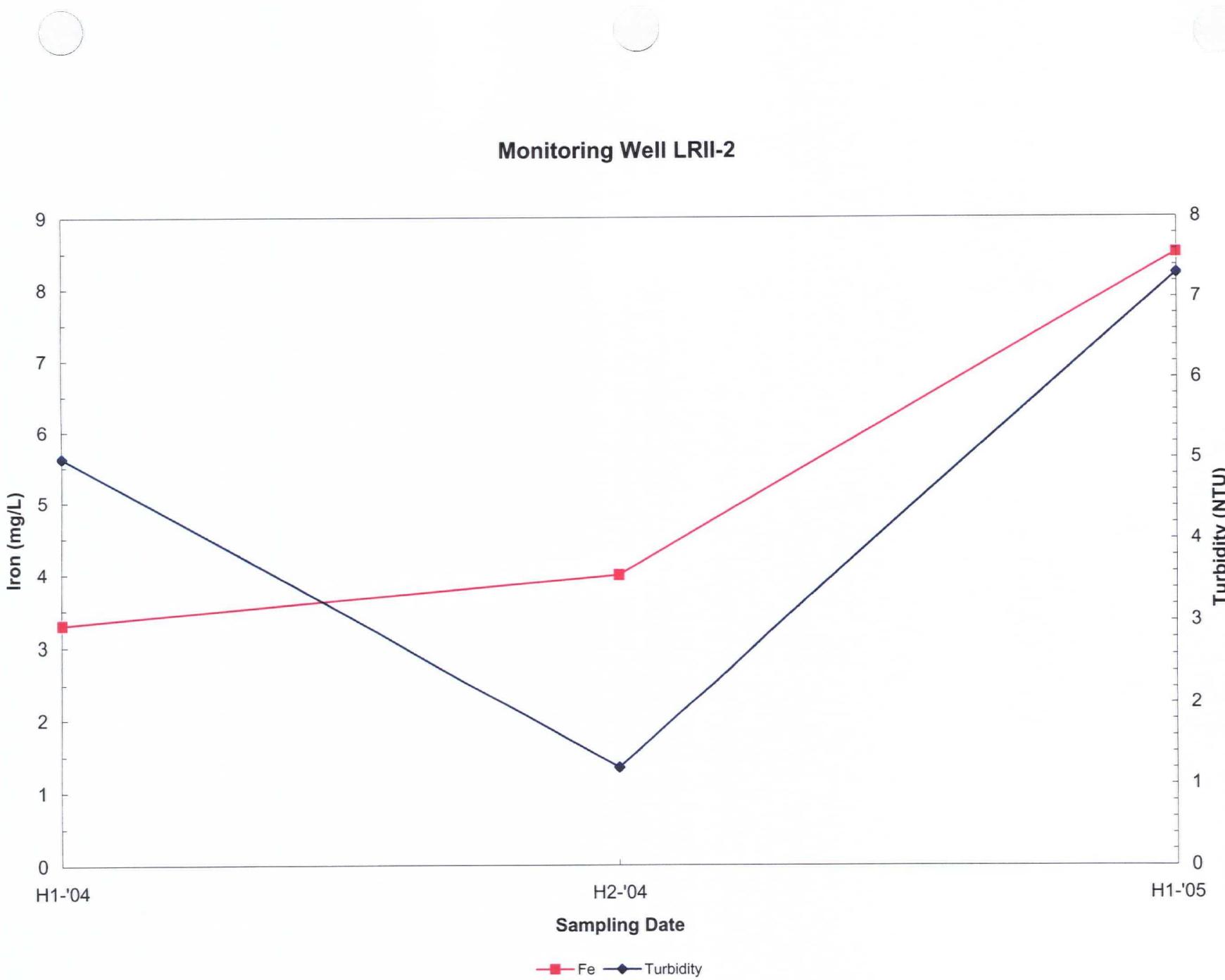
Monitoring Well GC-6

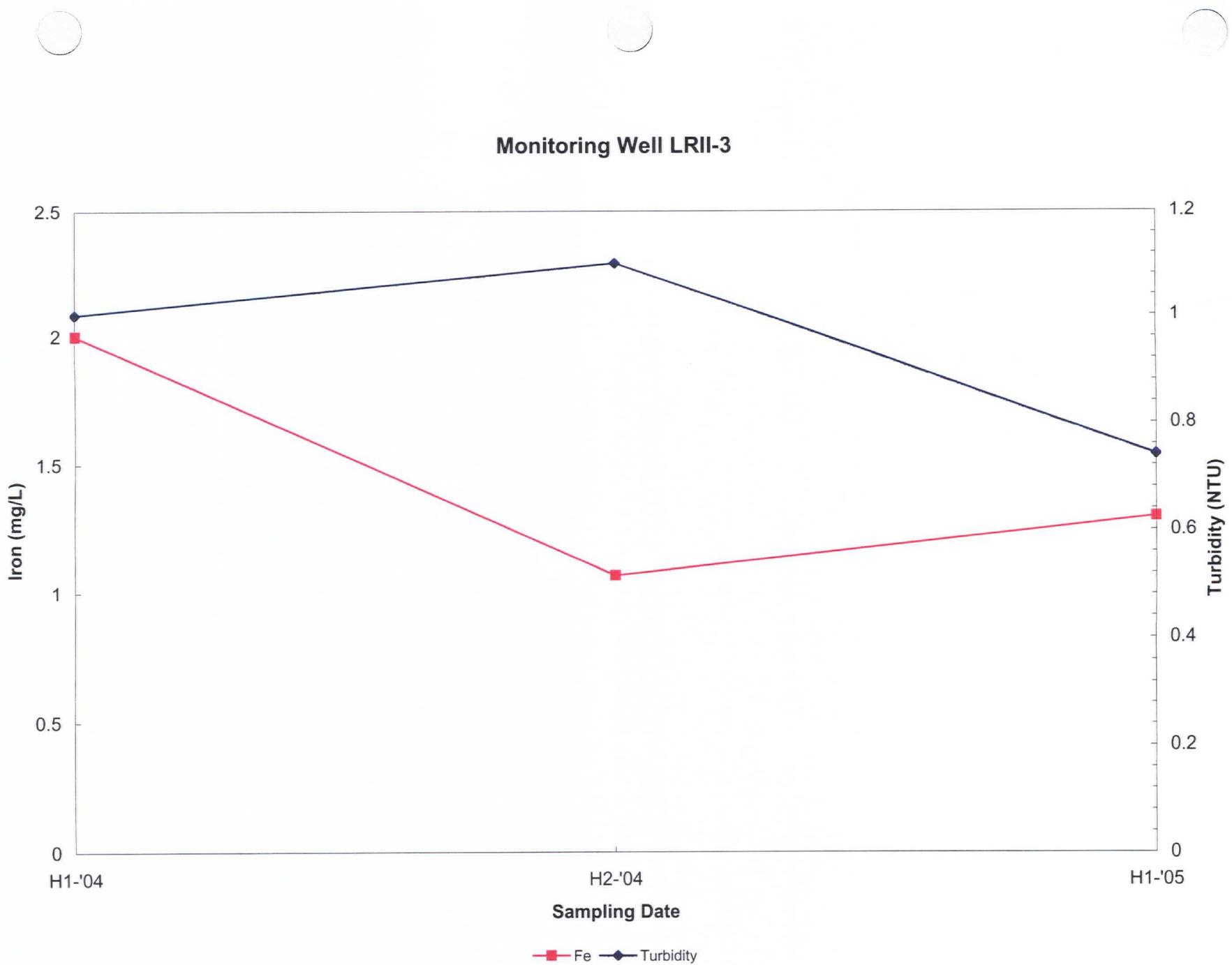




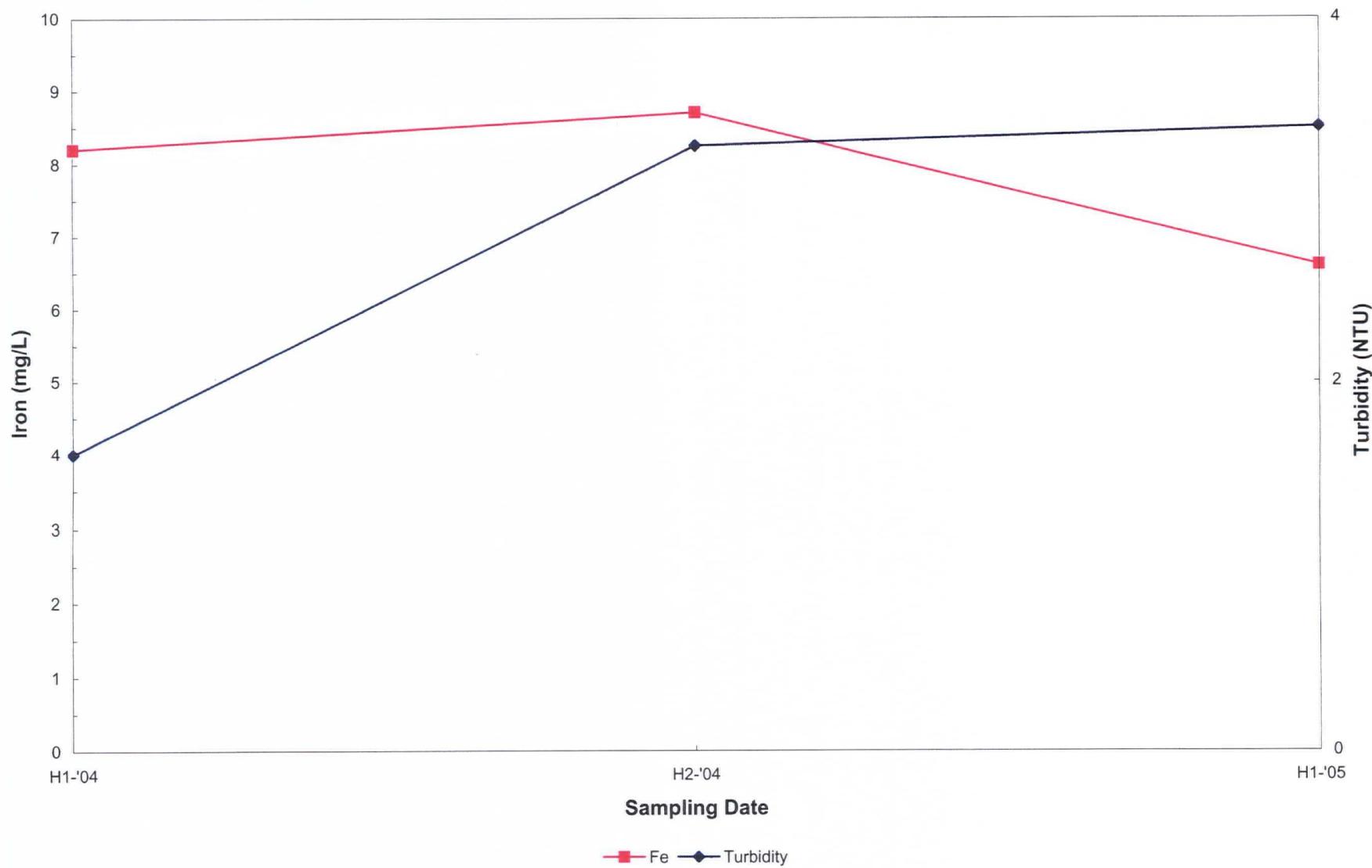
Monitoring Well LRII-1

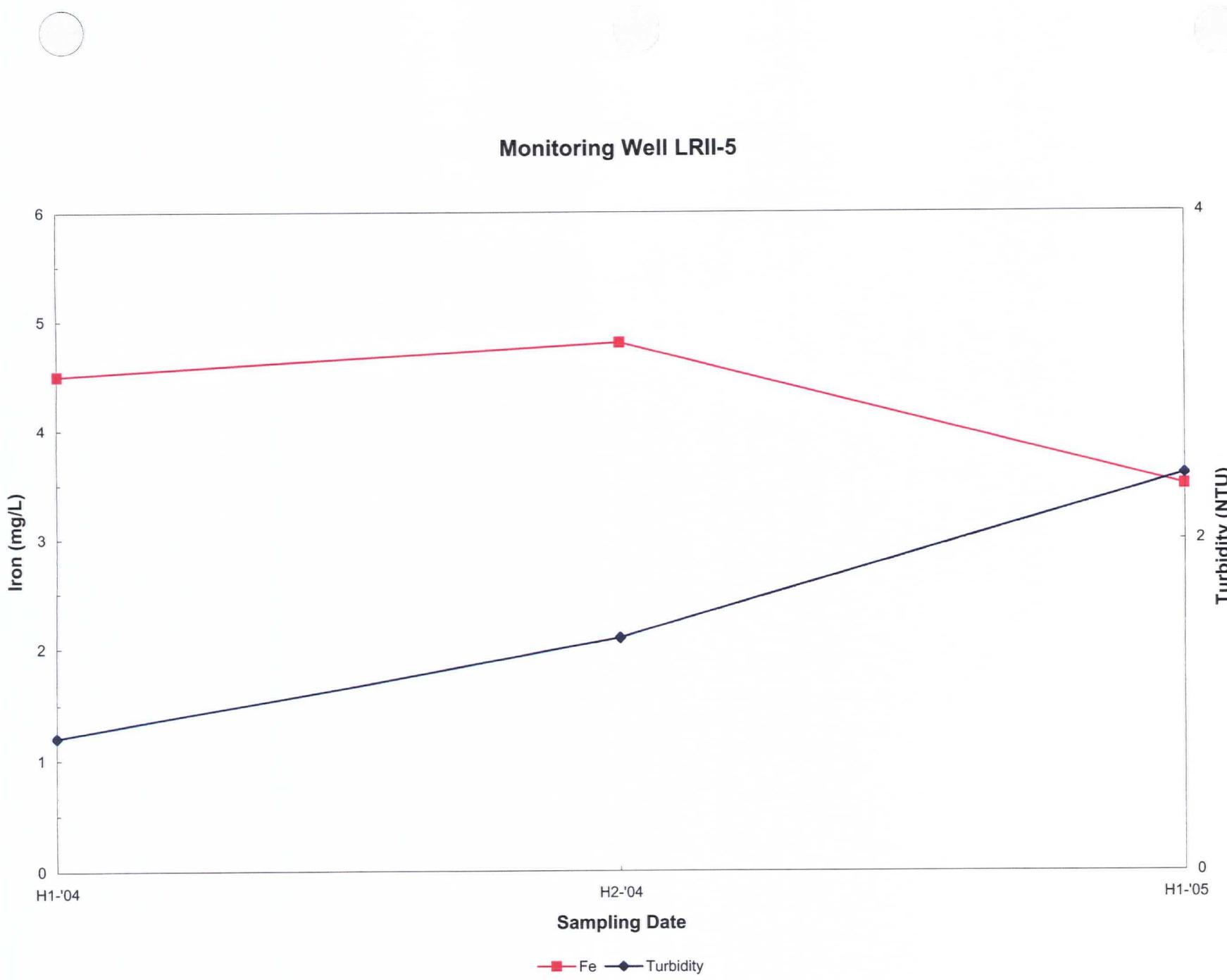


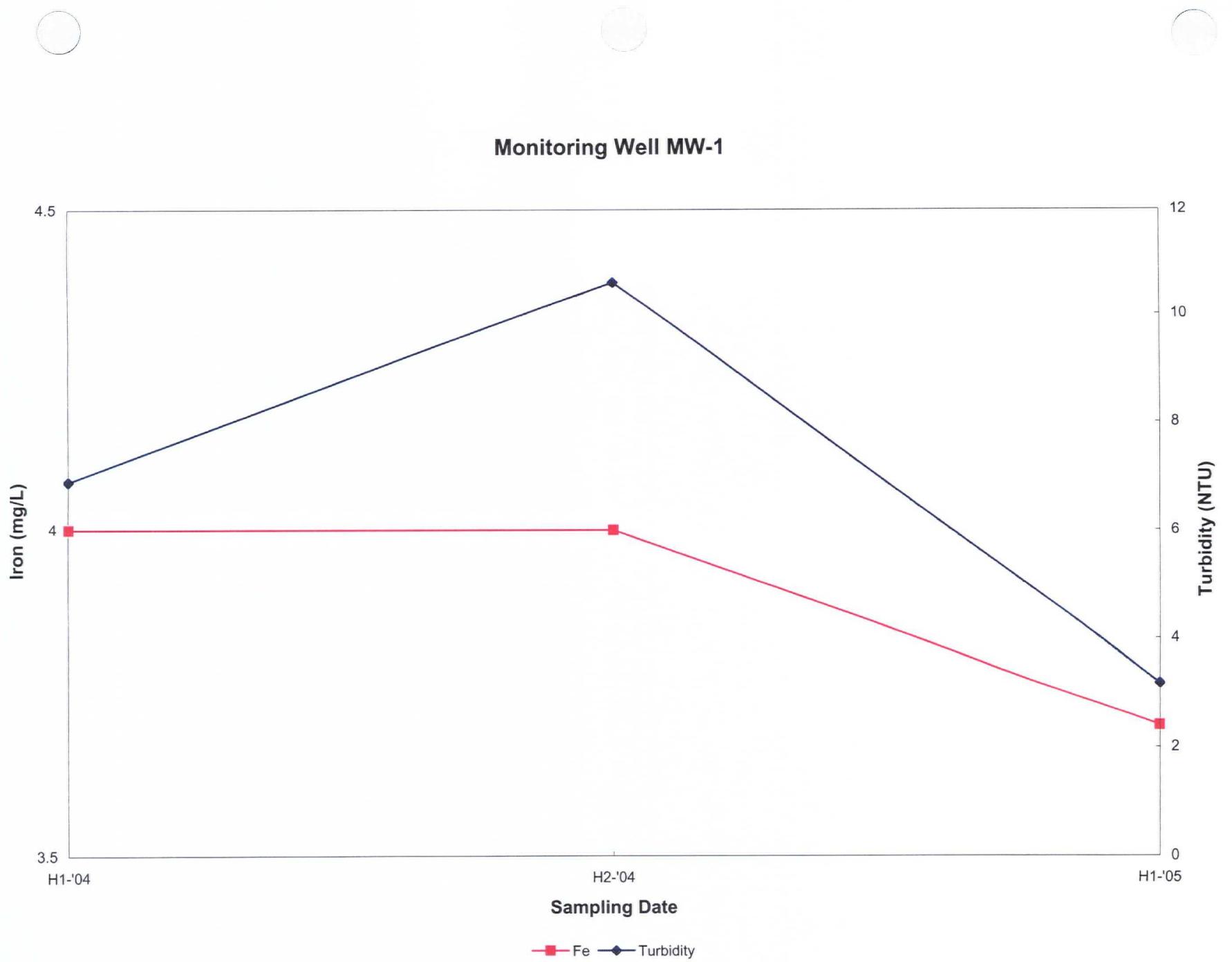




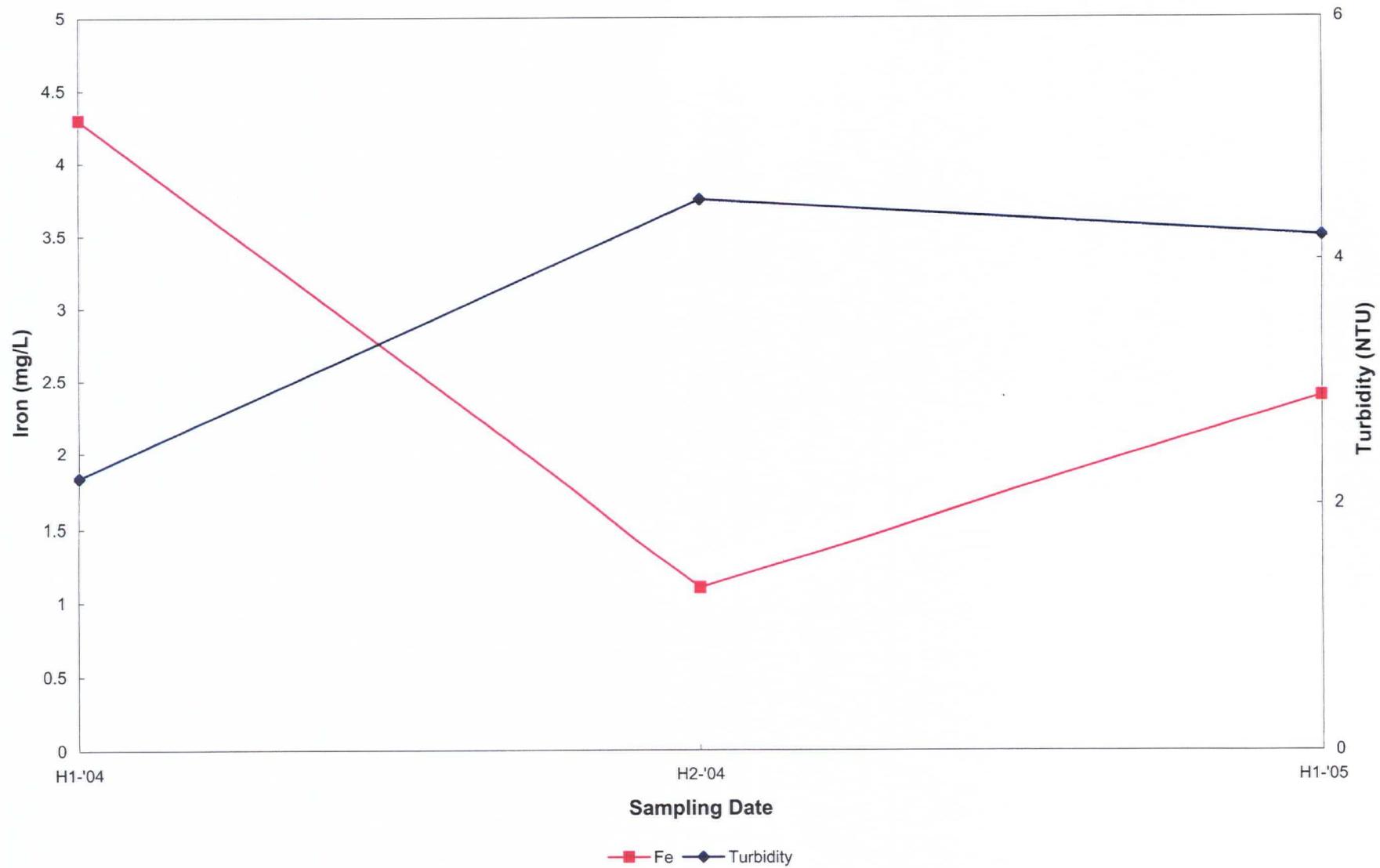
Monitoring Well LRII-4



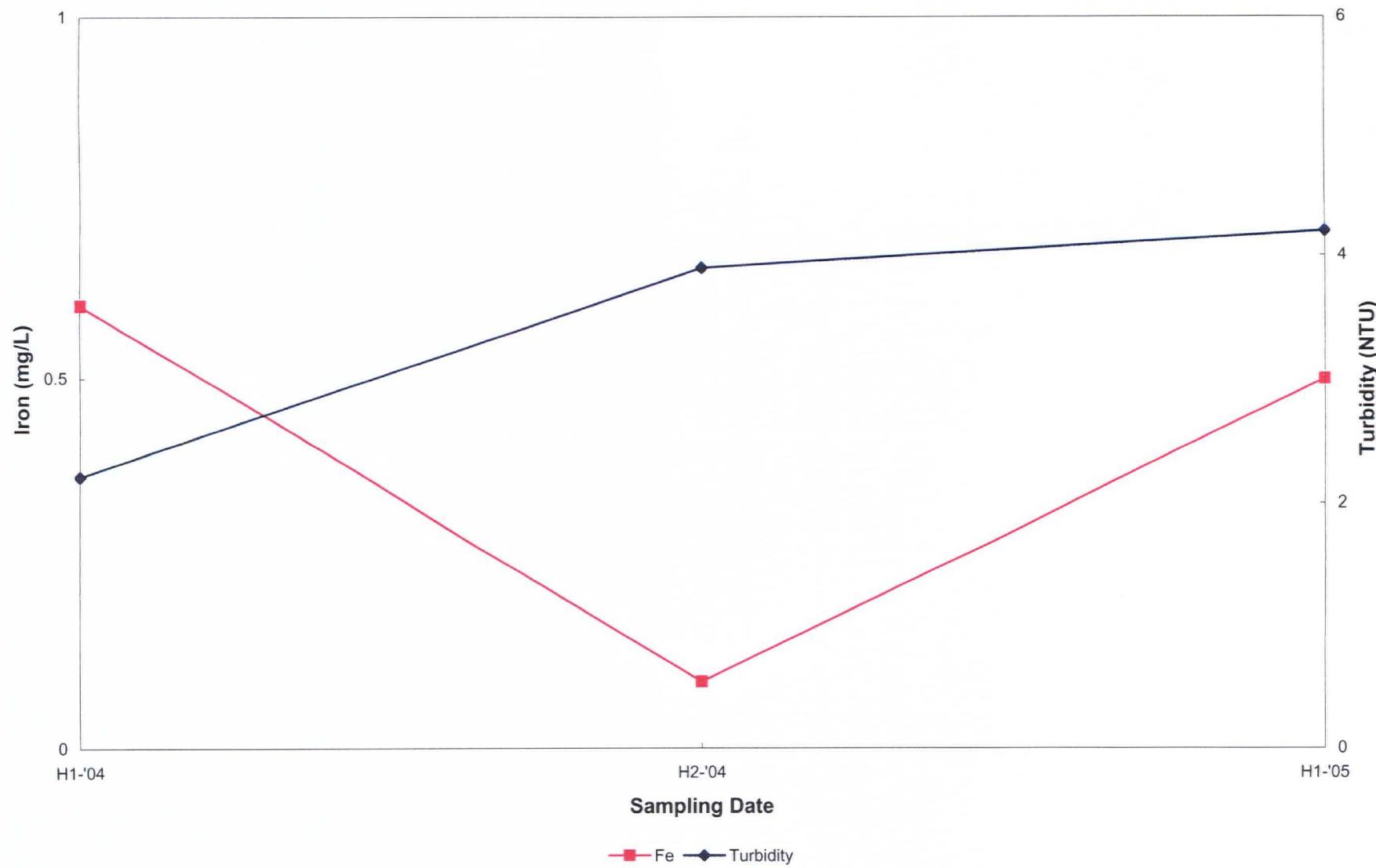




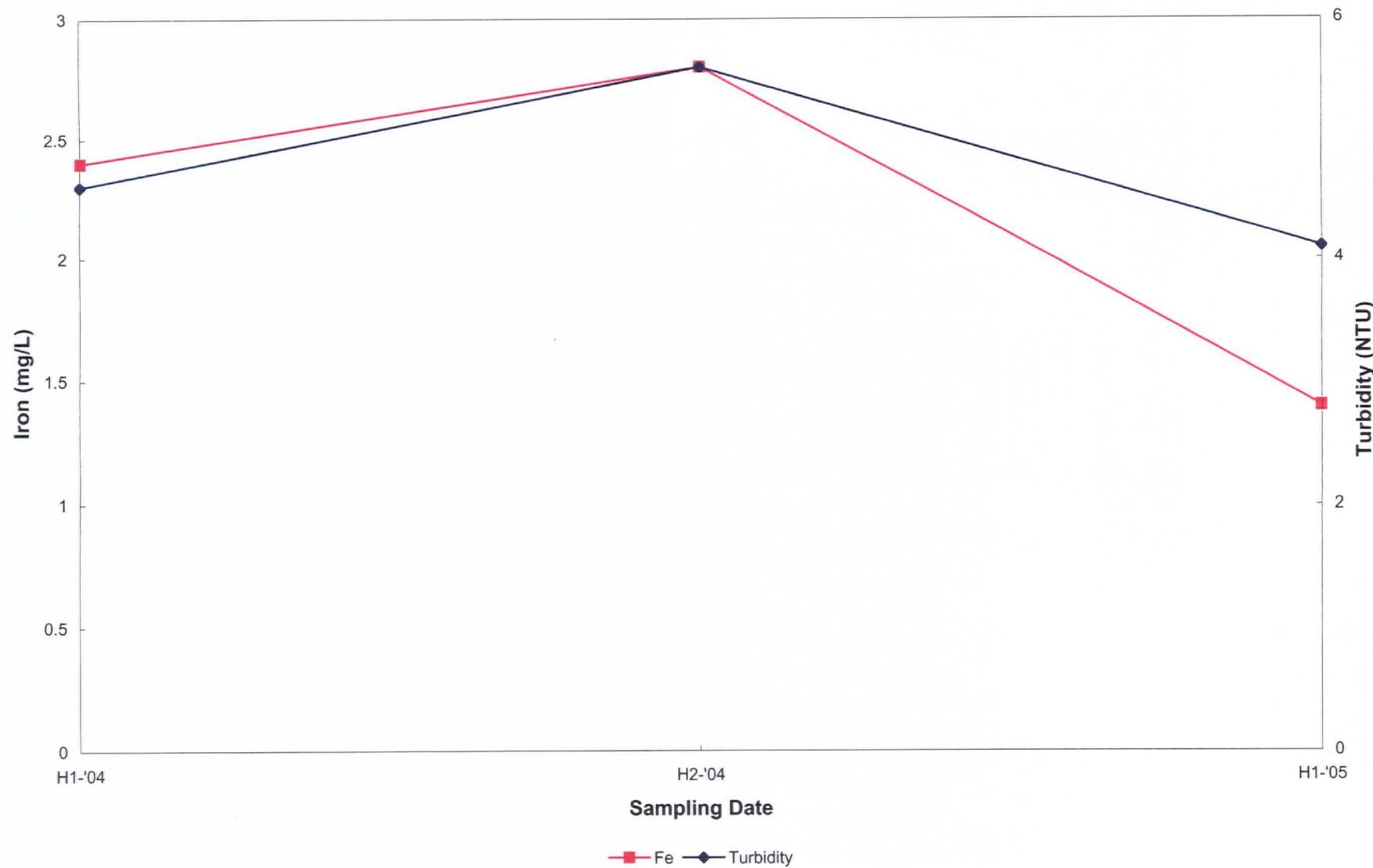
Monitoring Well MW-2



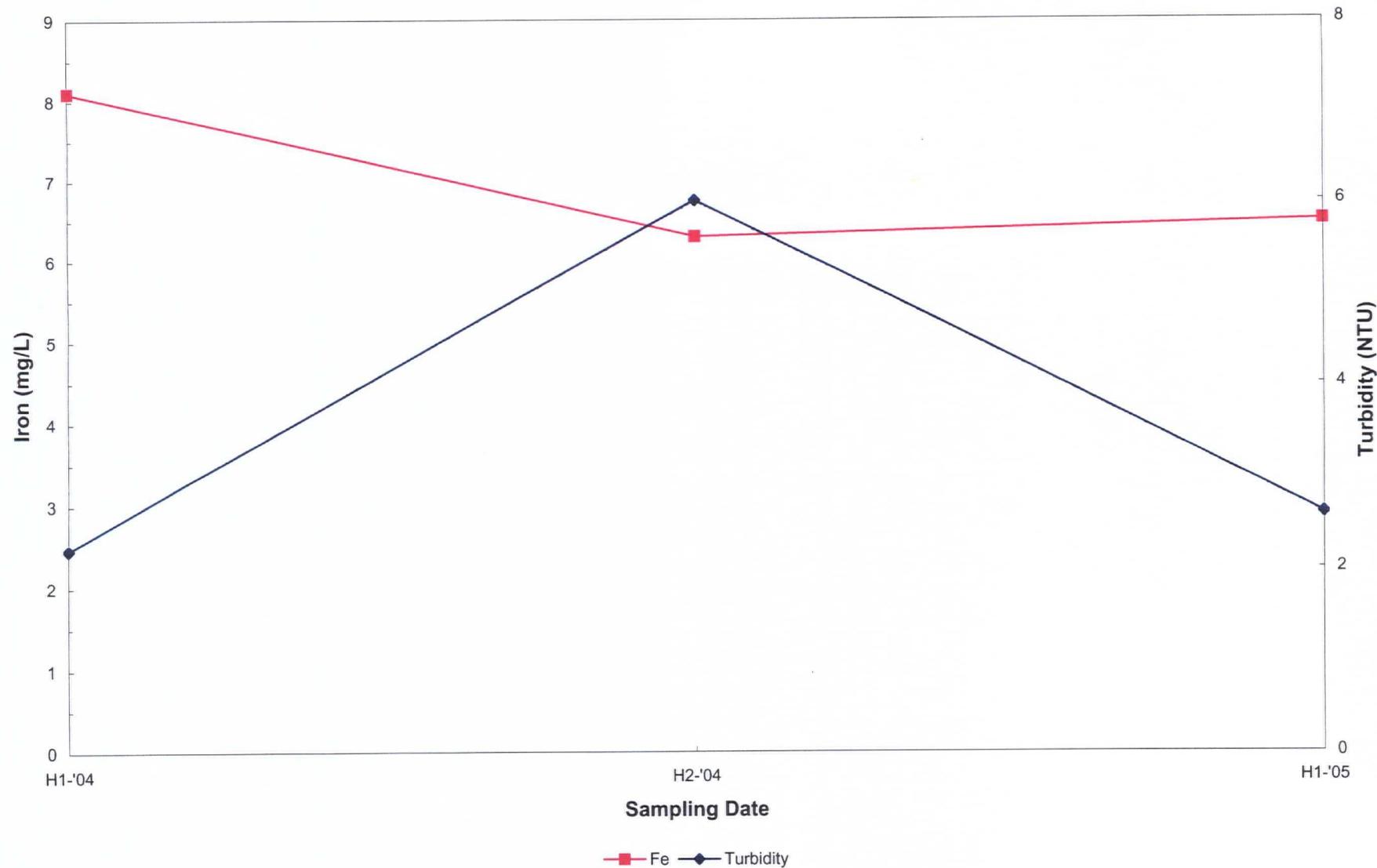
Monitoring Well MW-3



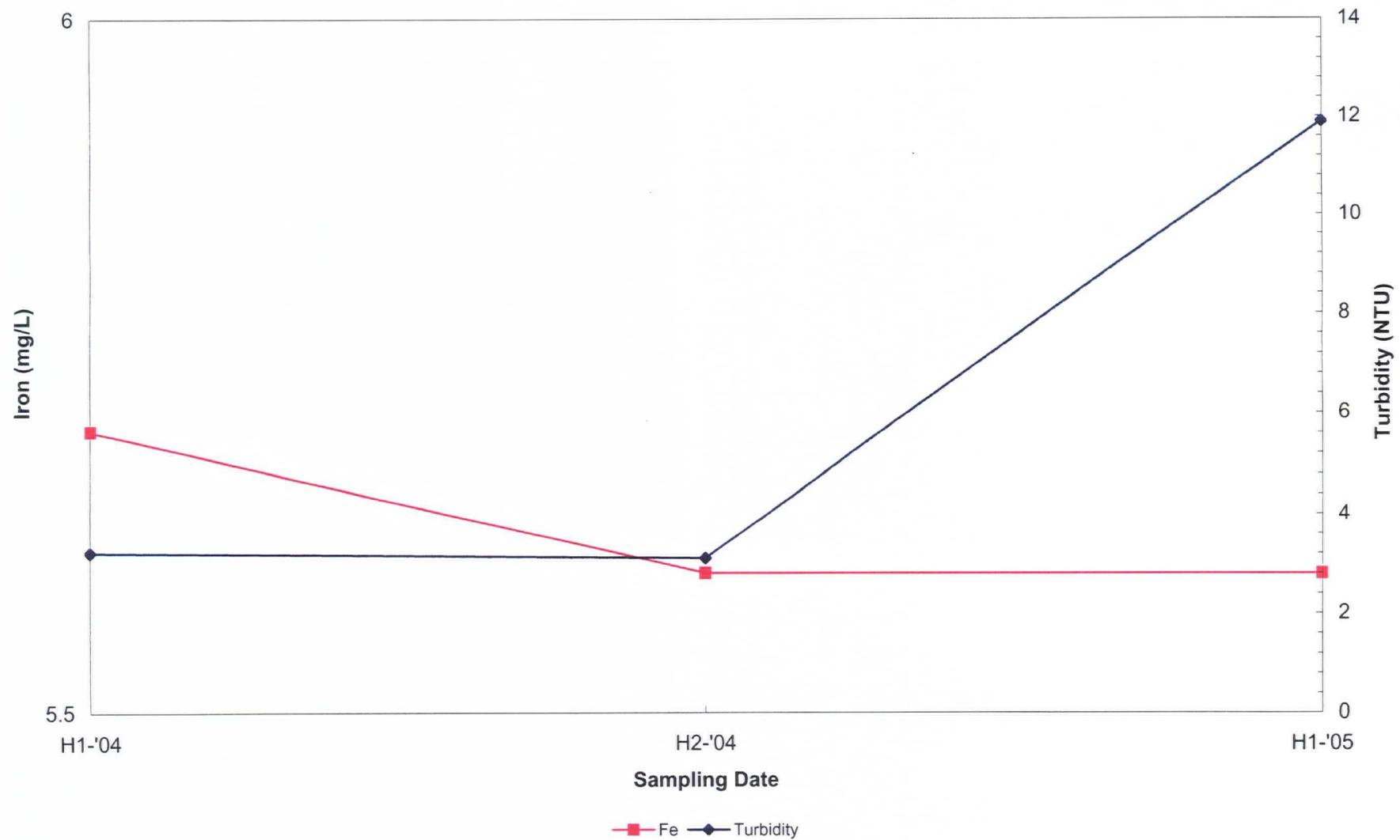
Monitoring Well MW-5



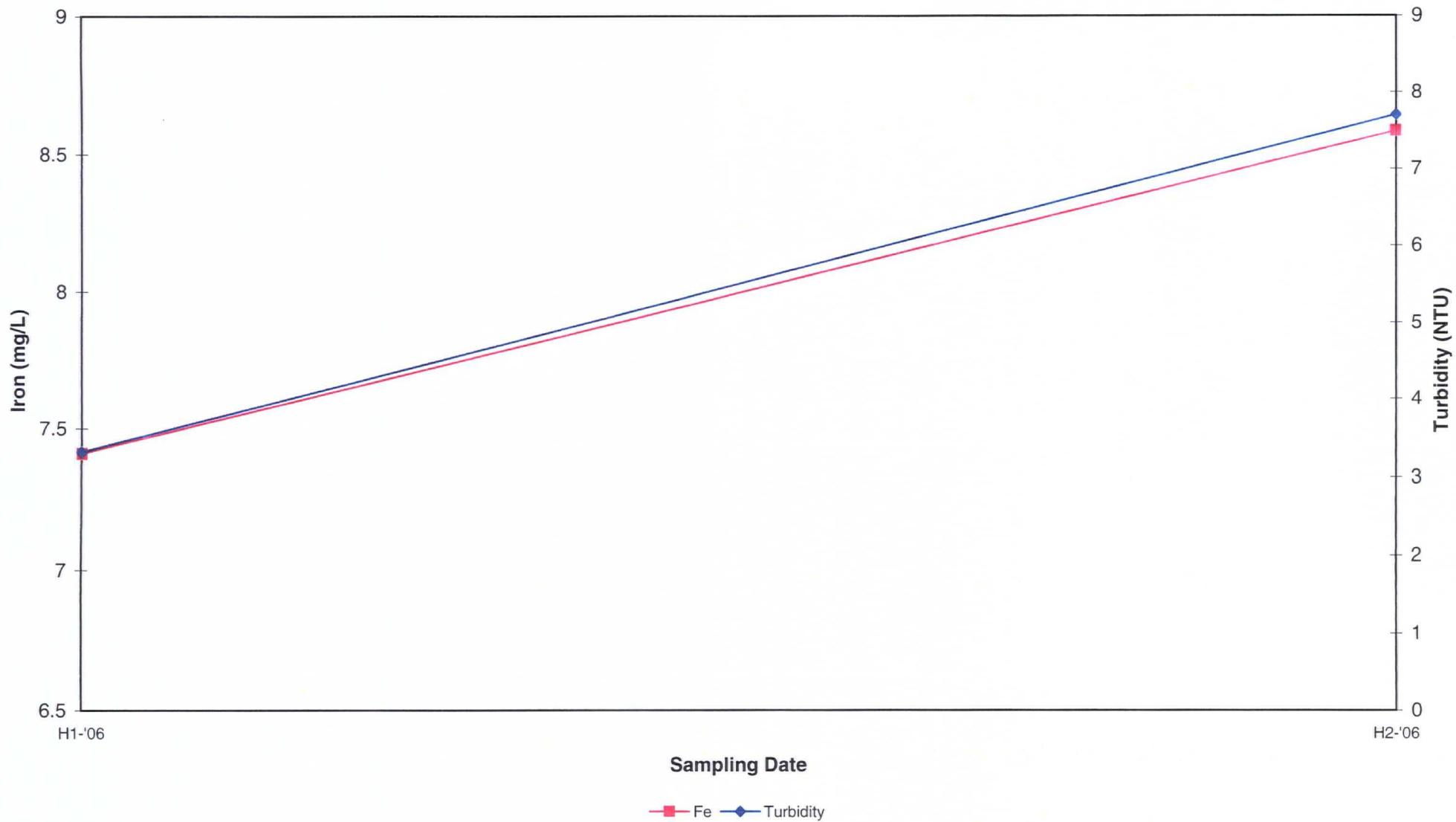
Monitoring Well MW-6



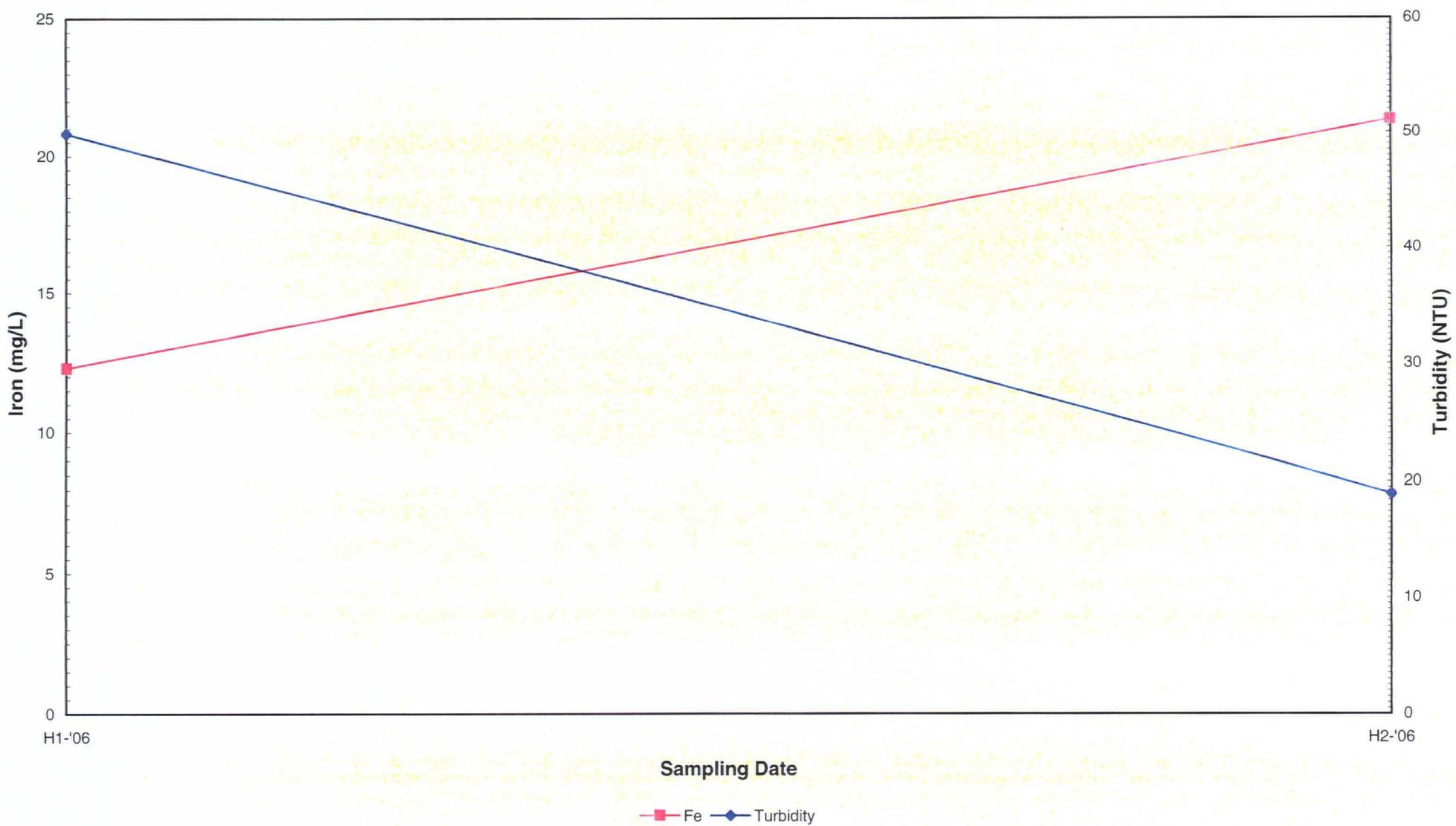
Monitoring Well SMR-1



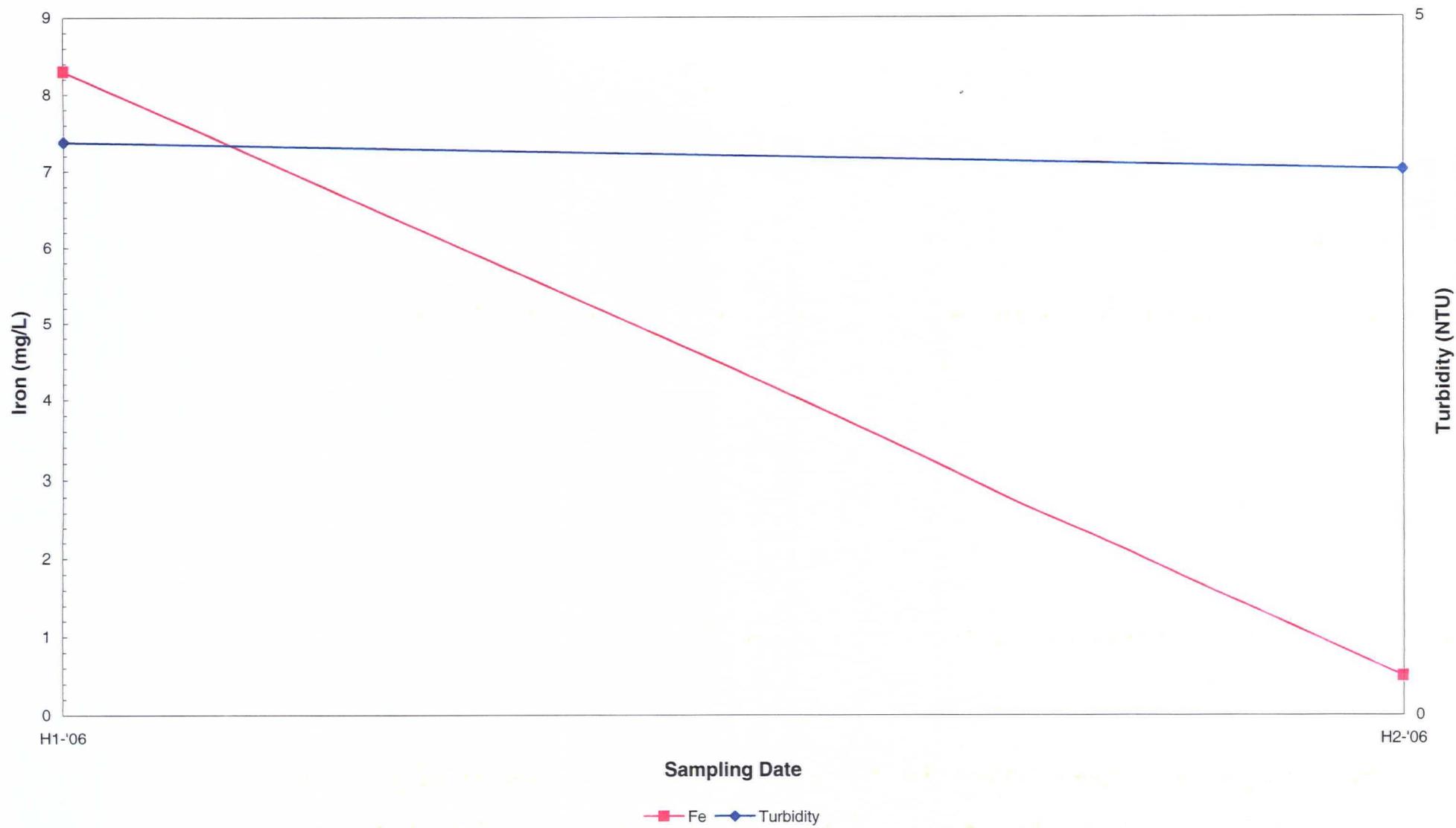
Monitoring Well GW-1



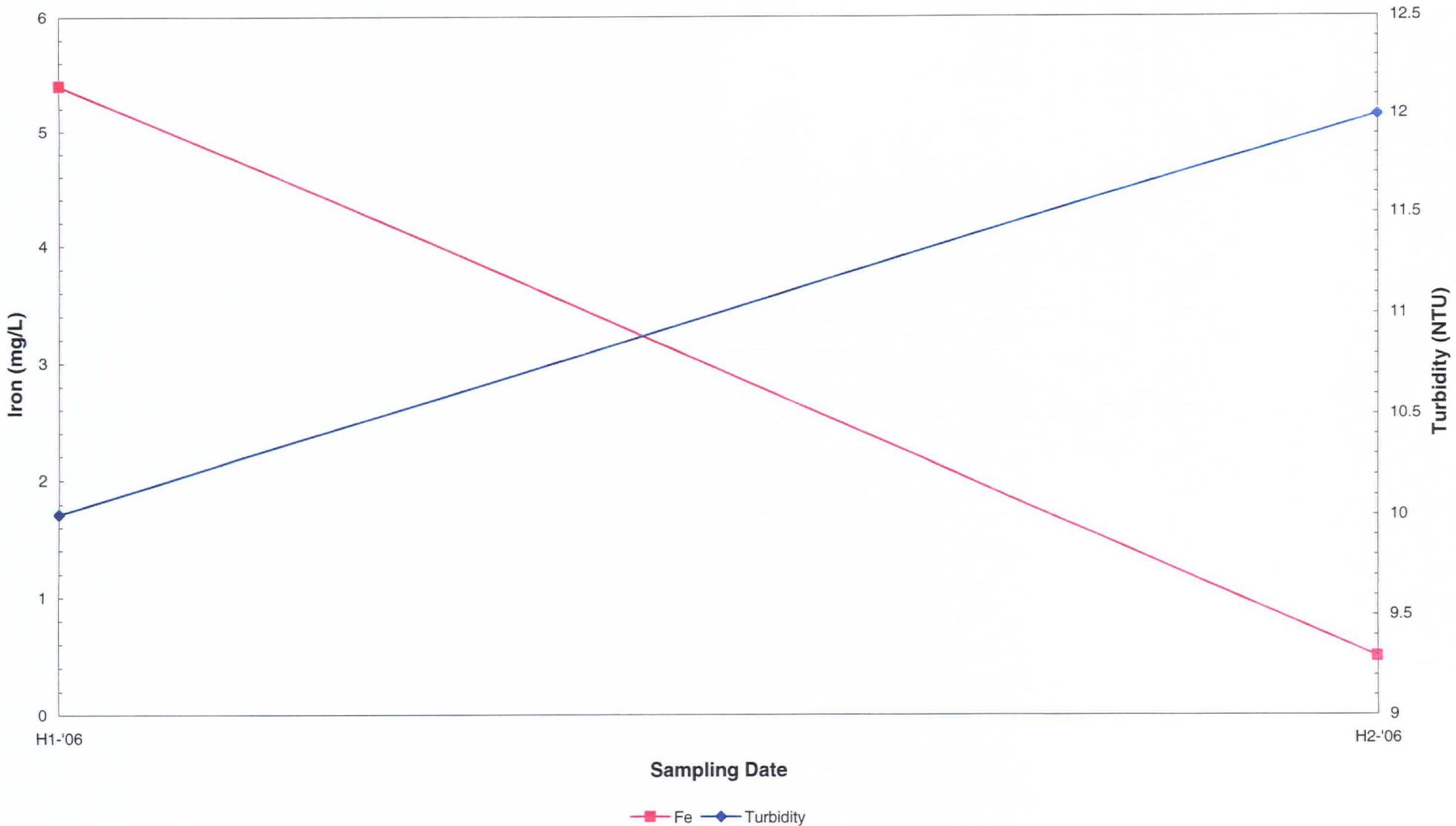
Monitoring Well GW-2



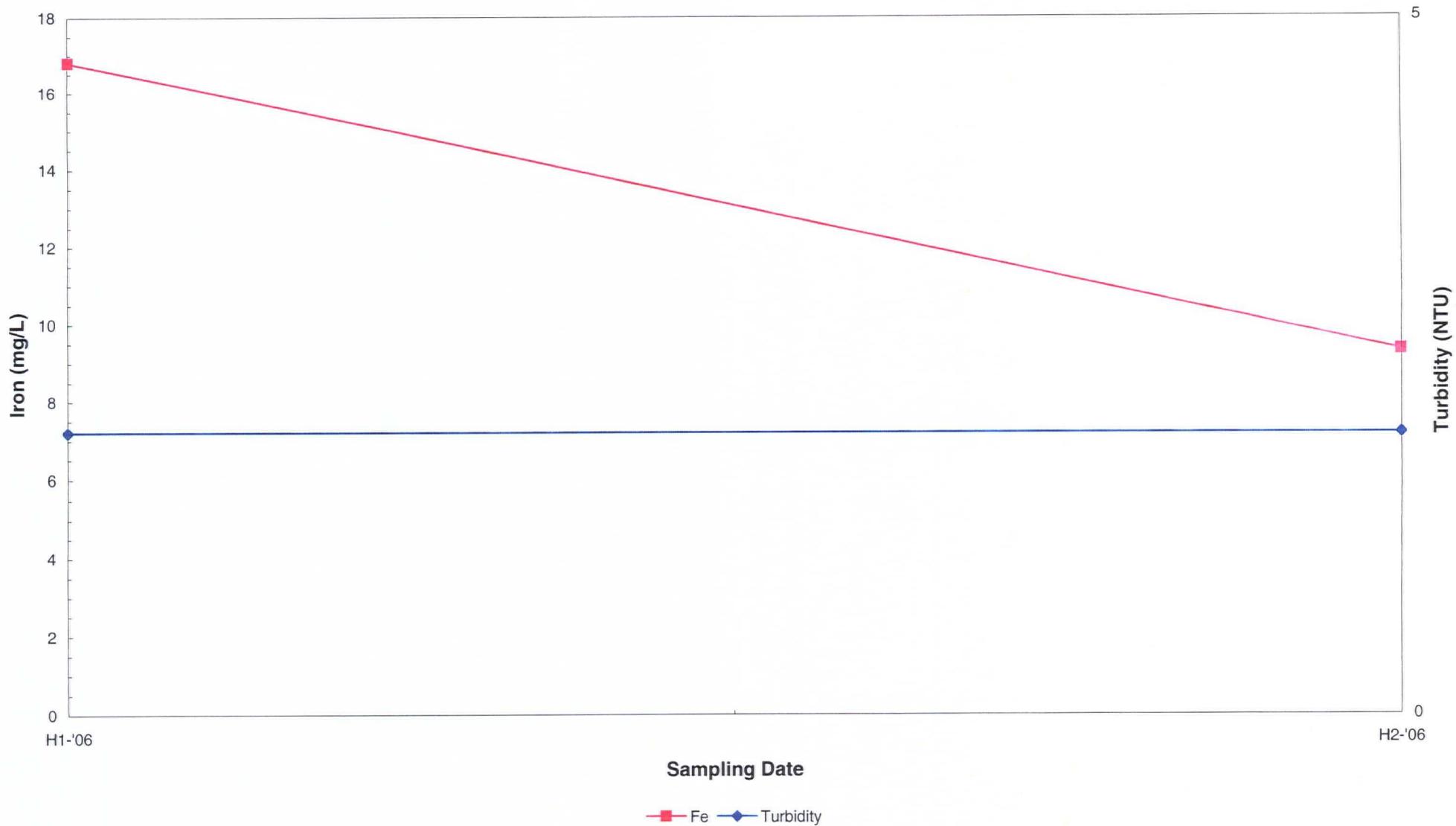
Monitoring Well GW-3



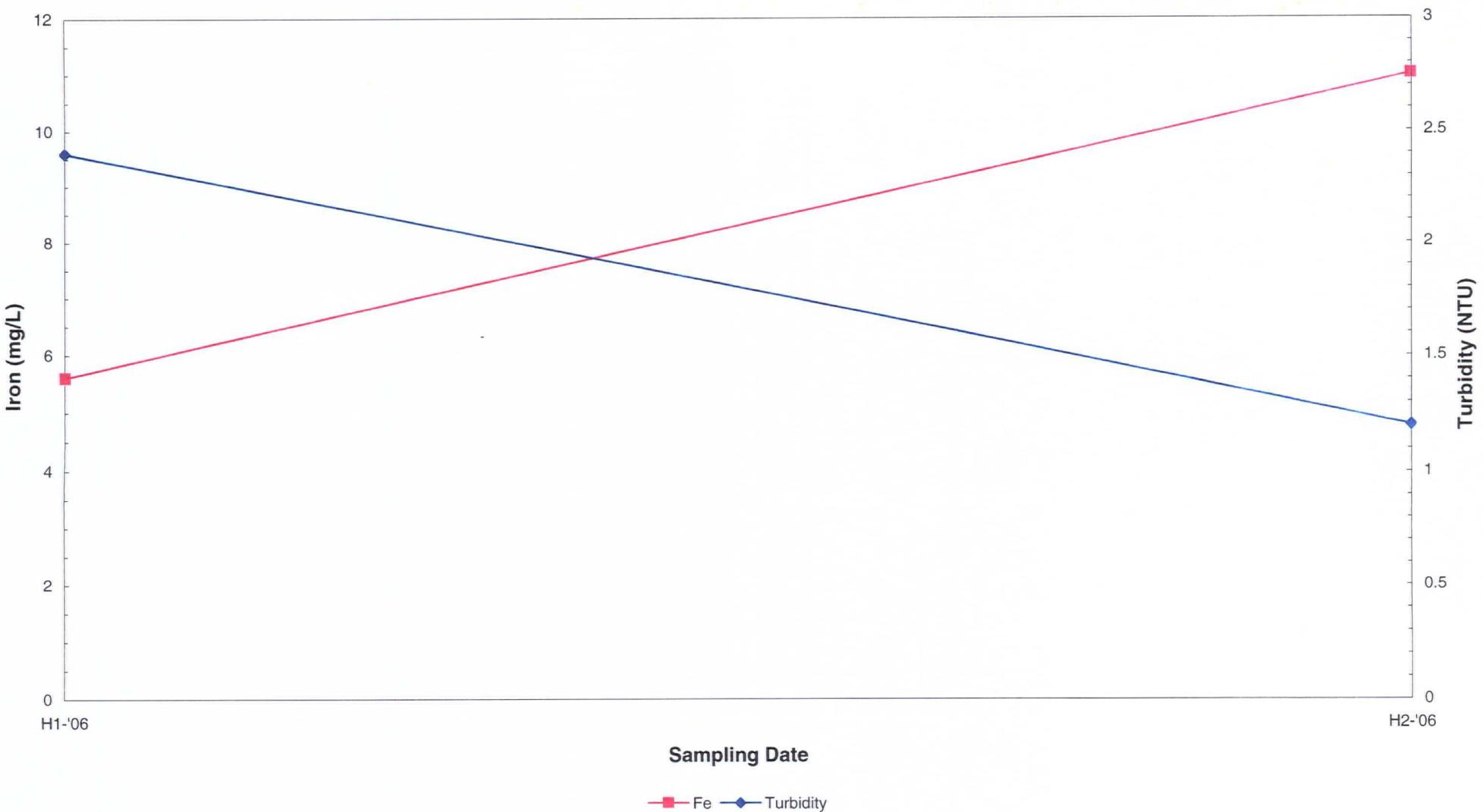
Monitoring Well GW-4



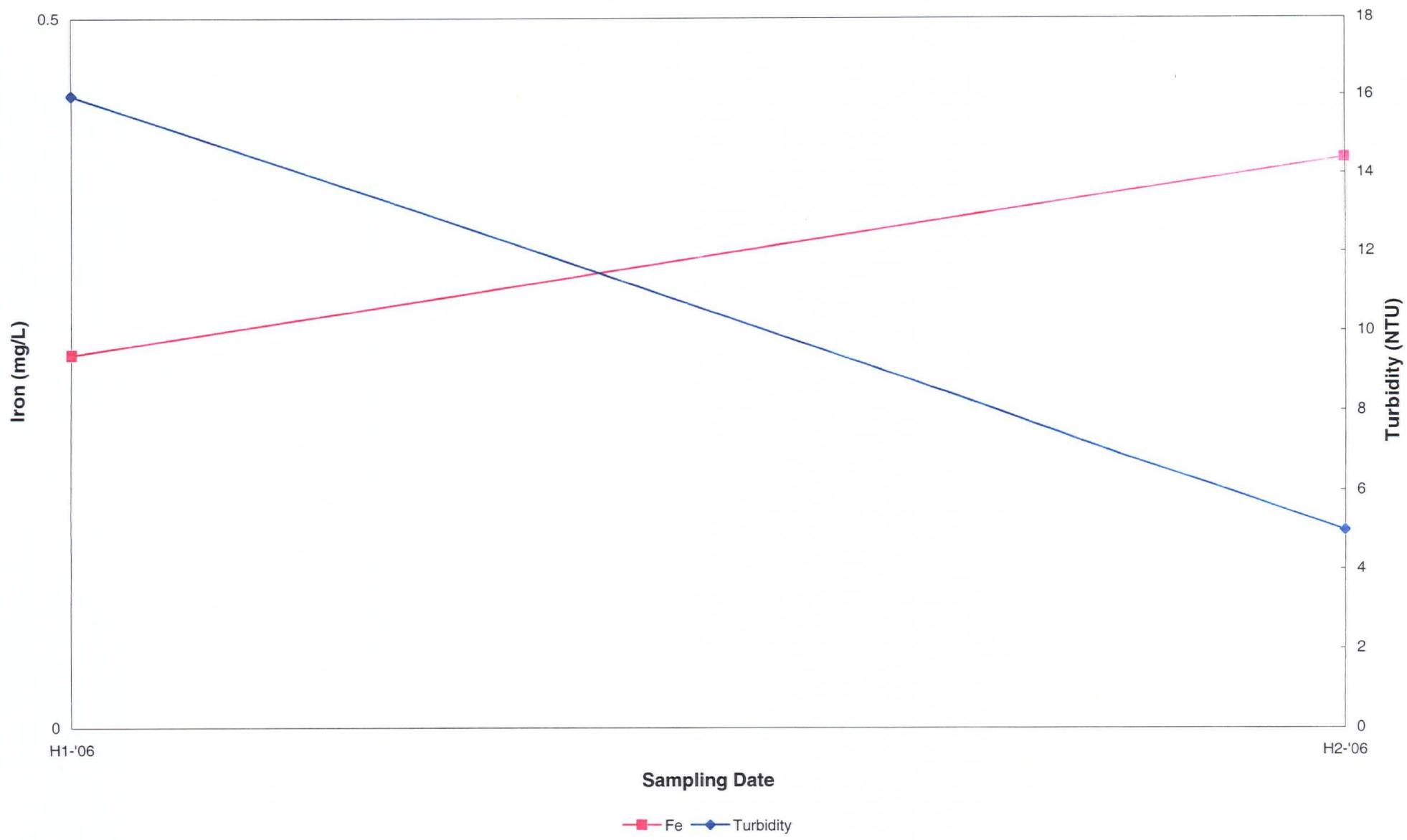
Monitoring Well GW-5



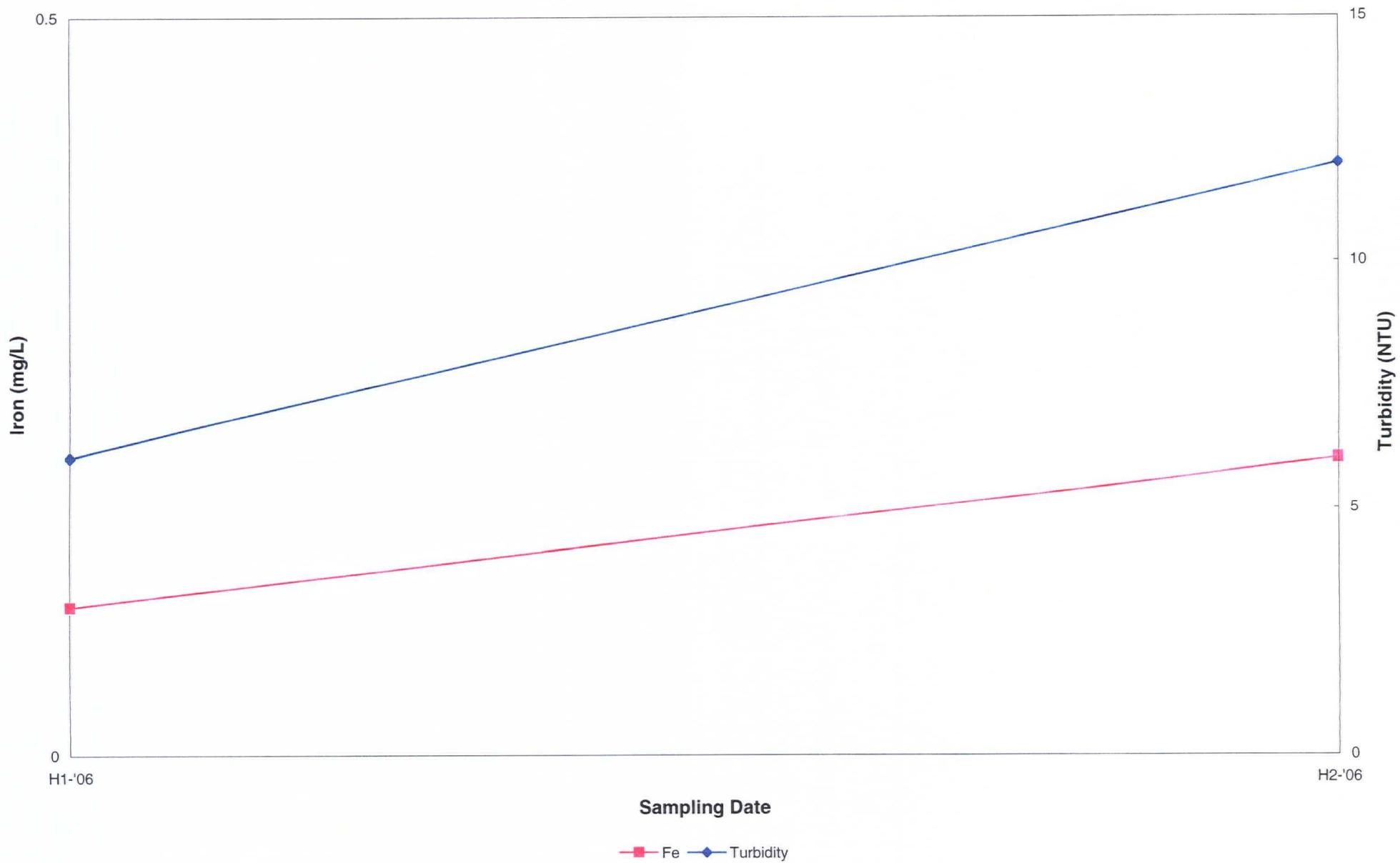
Monitoring Well GW-6

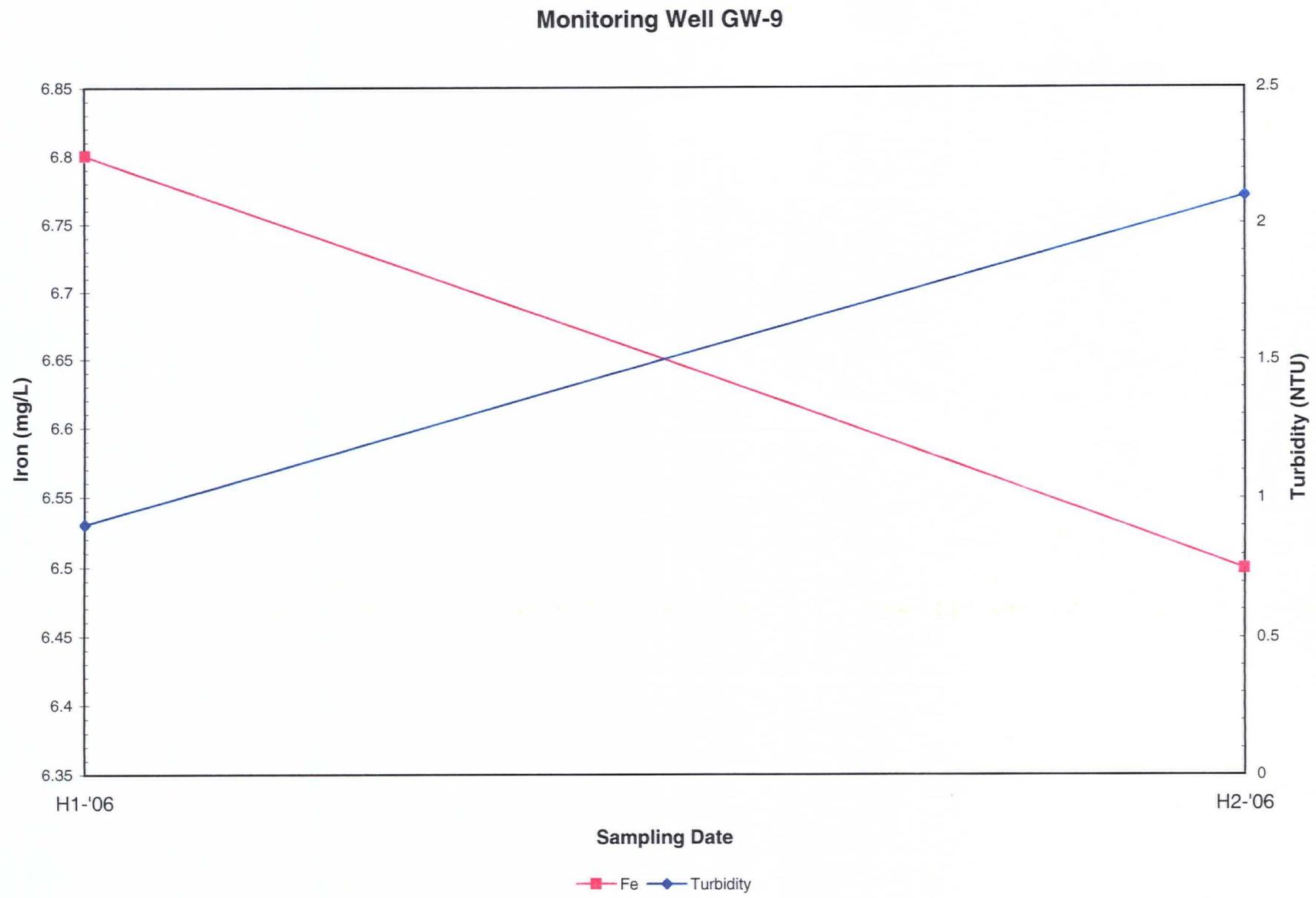


Monitoring Well GW-8

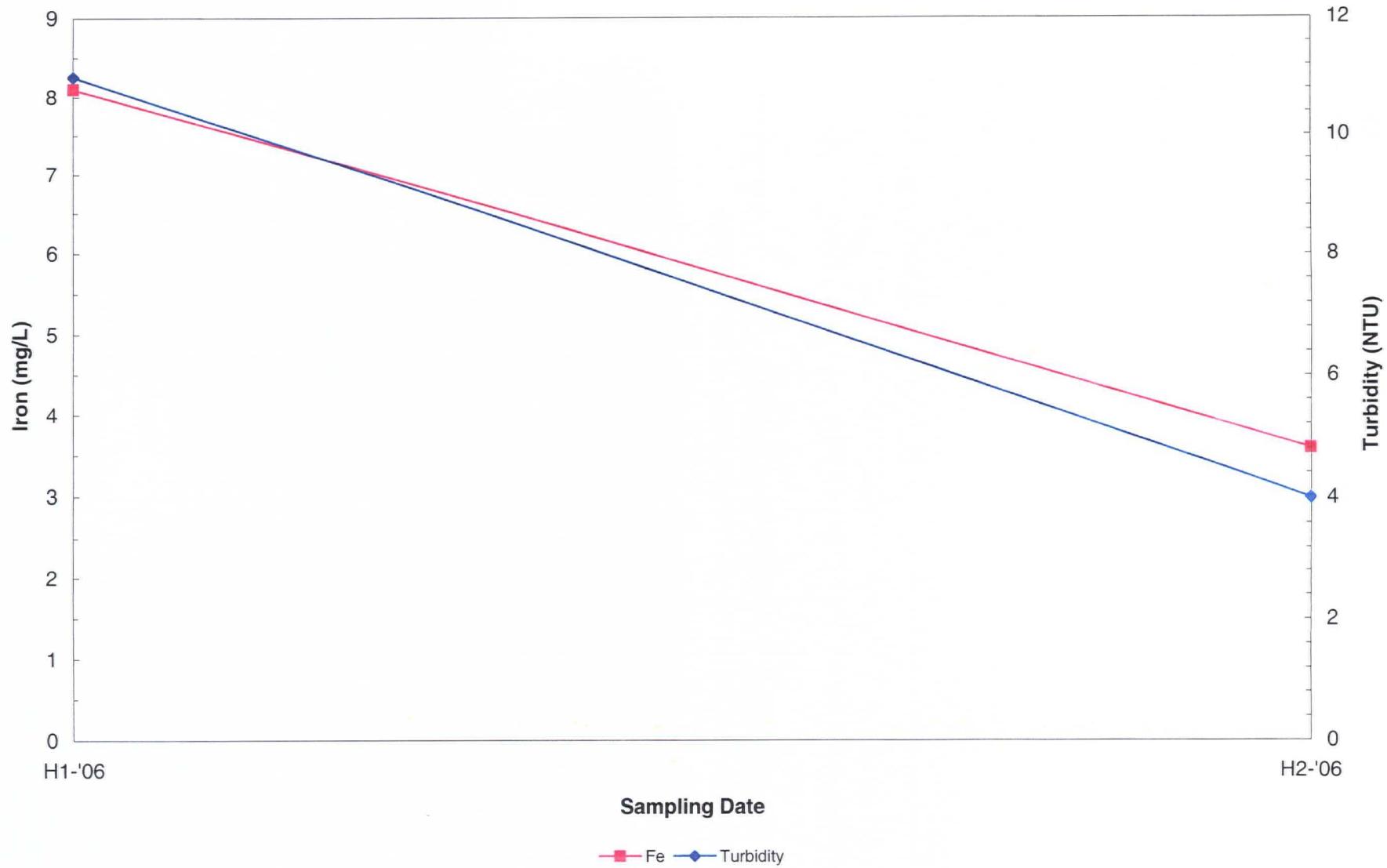


Monitoring Well GW-7

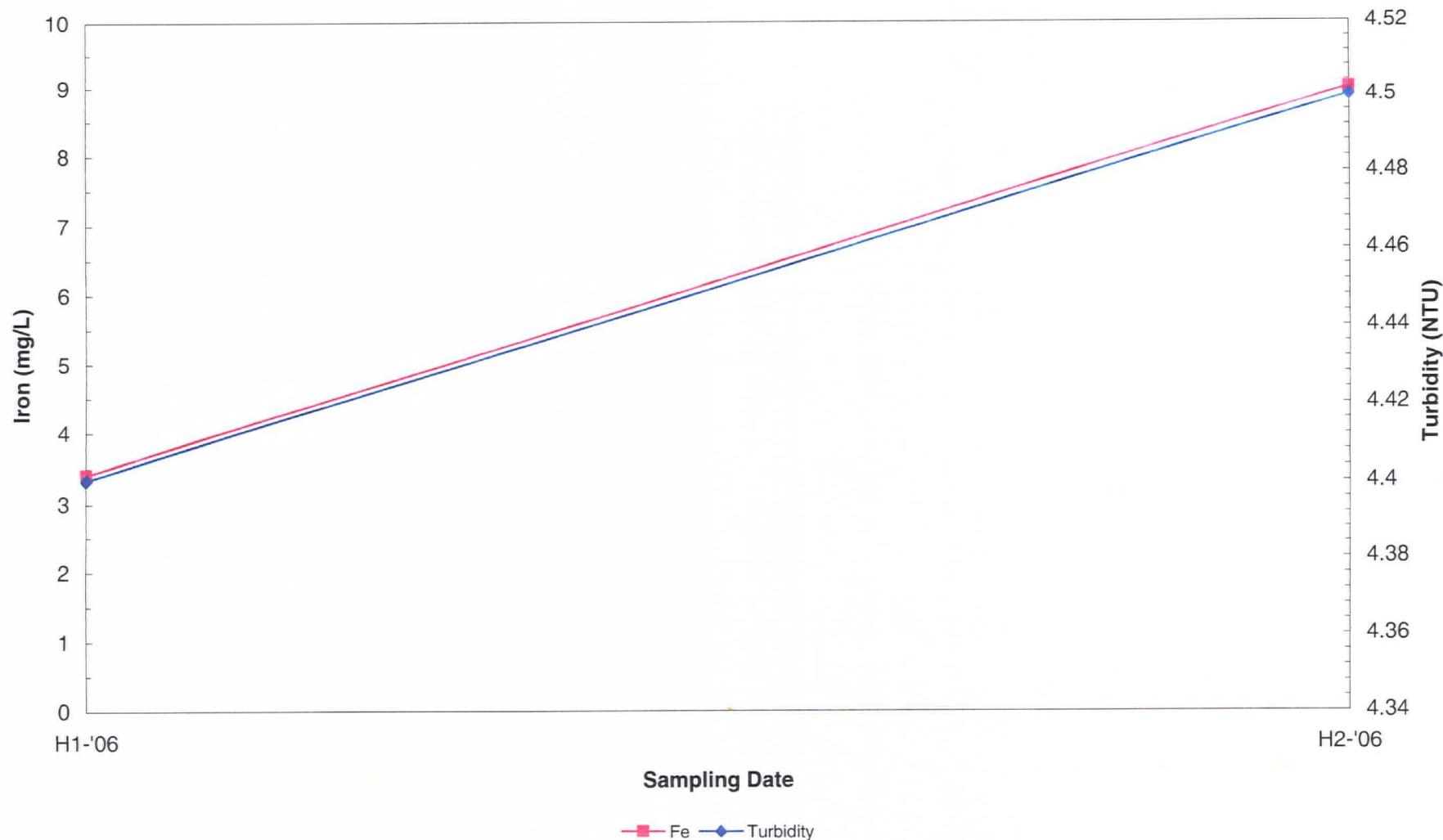




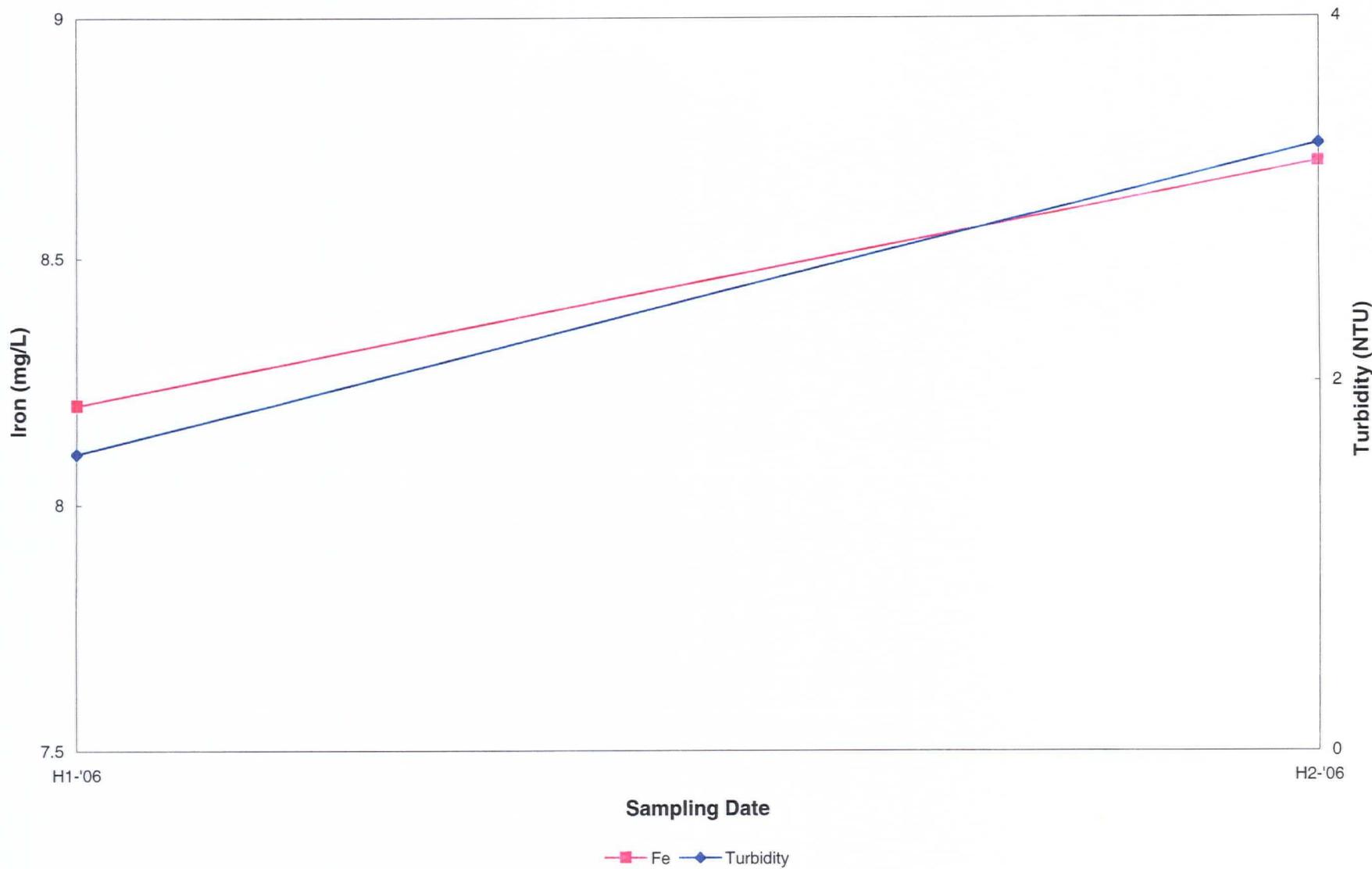
Monitoring Well GW-10



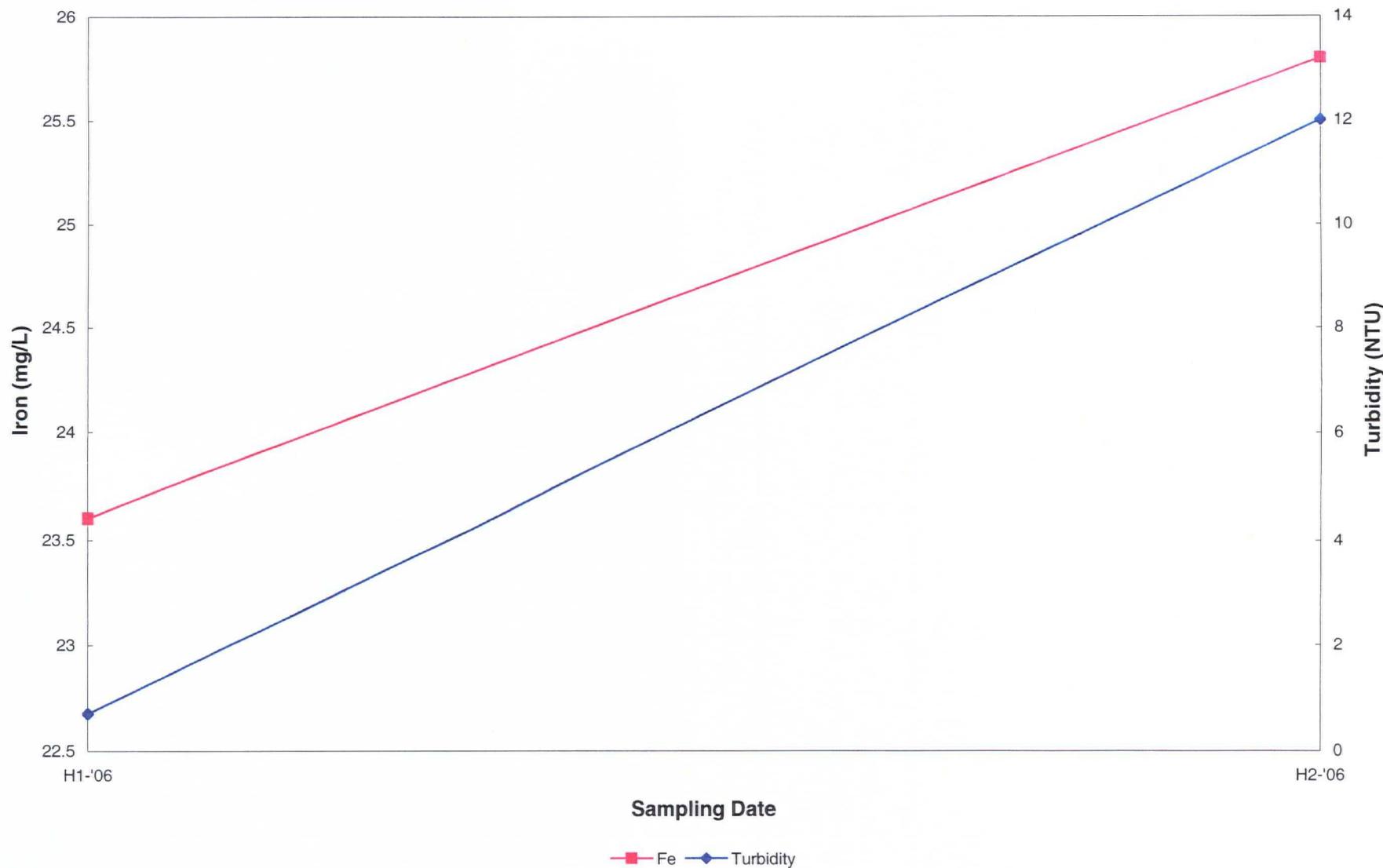
Monitoring Well GW-12

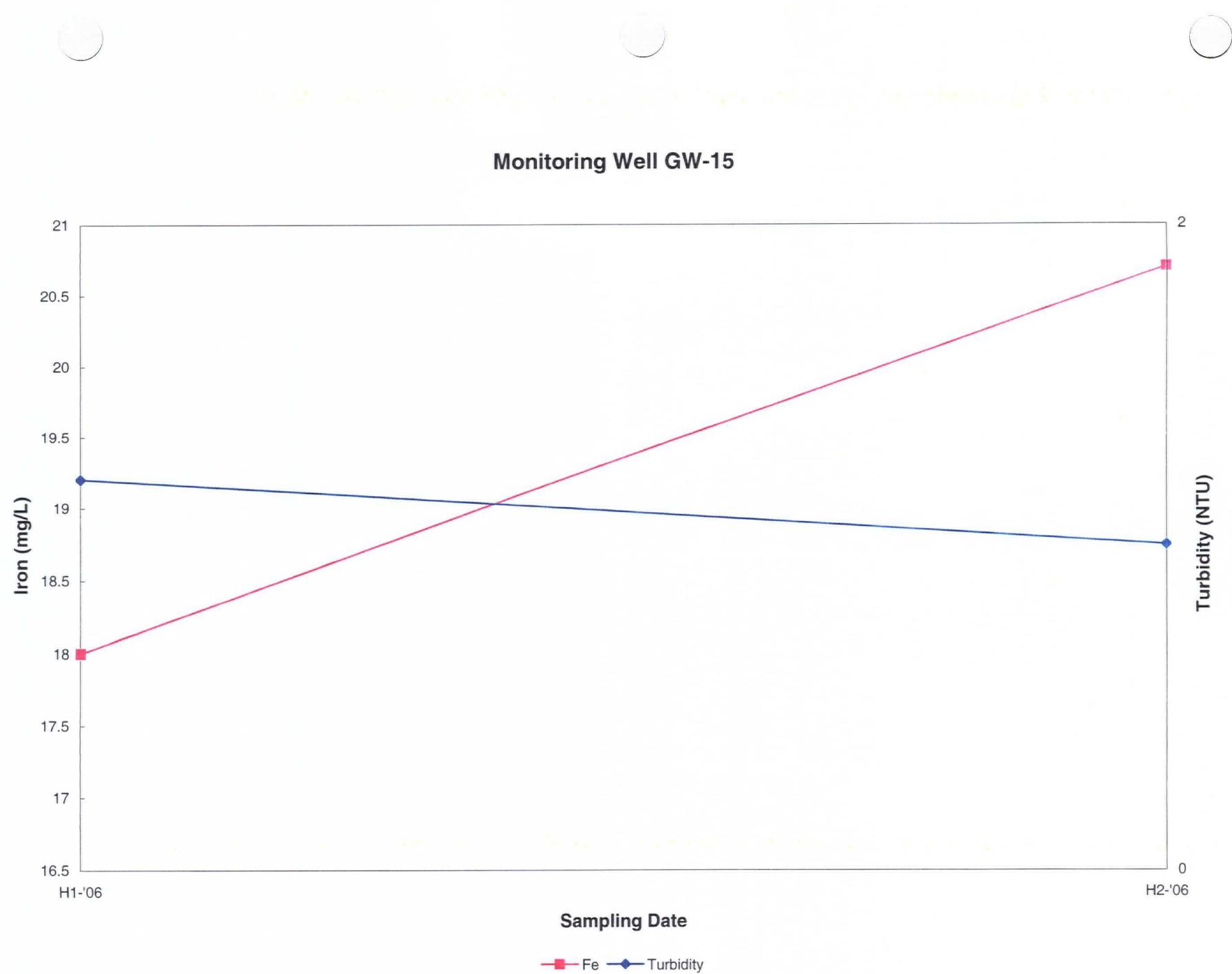


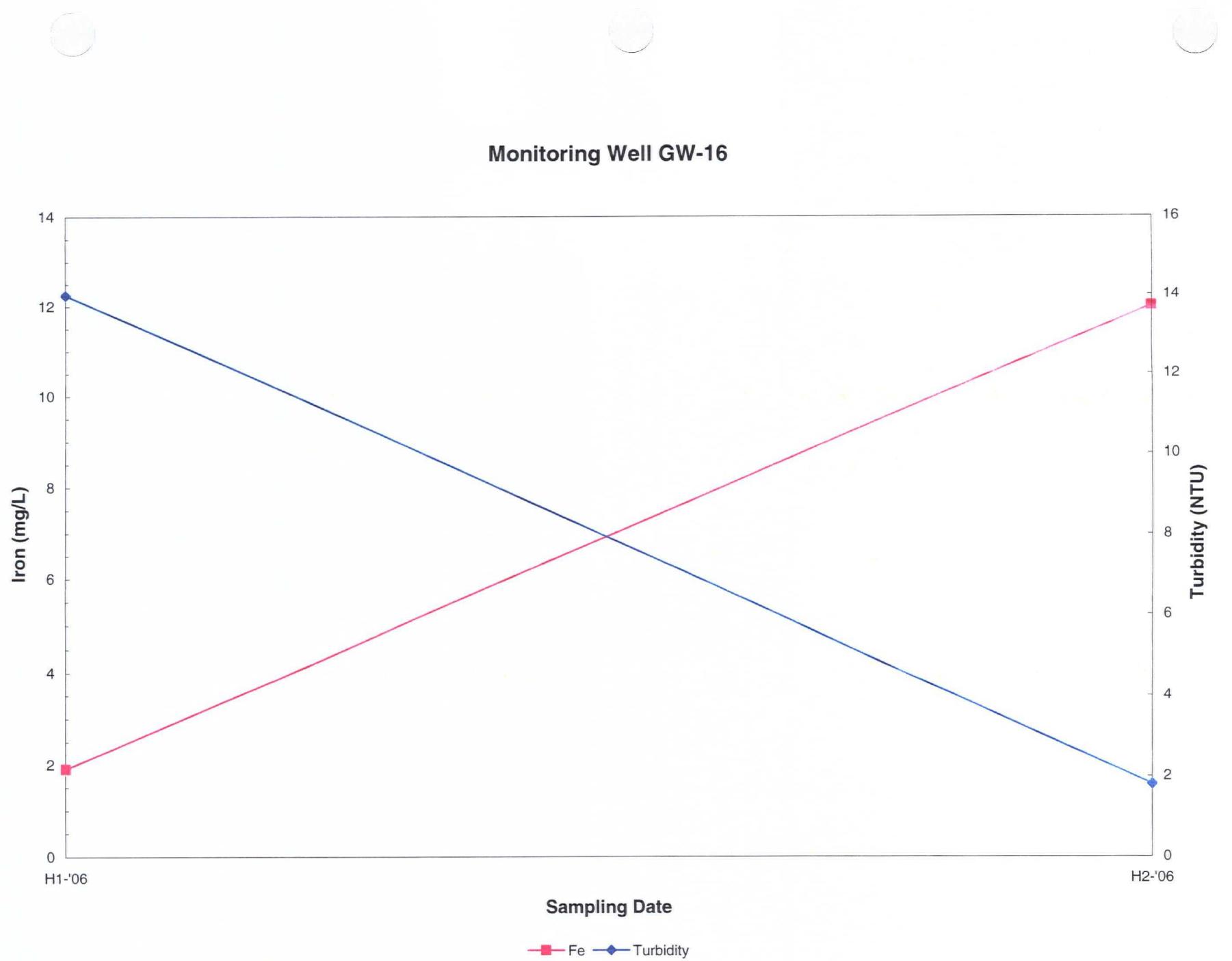
Monitoring Well GW-13



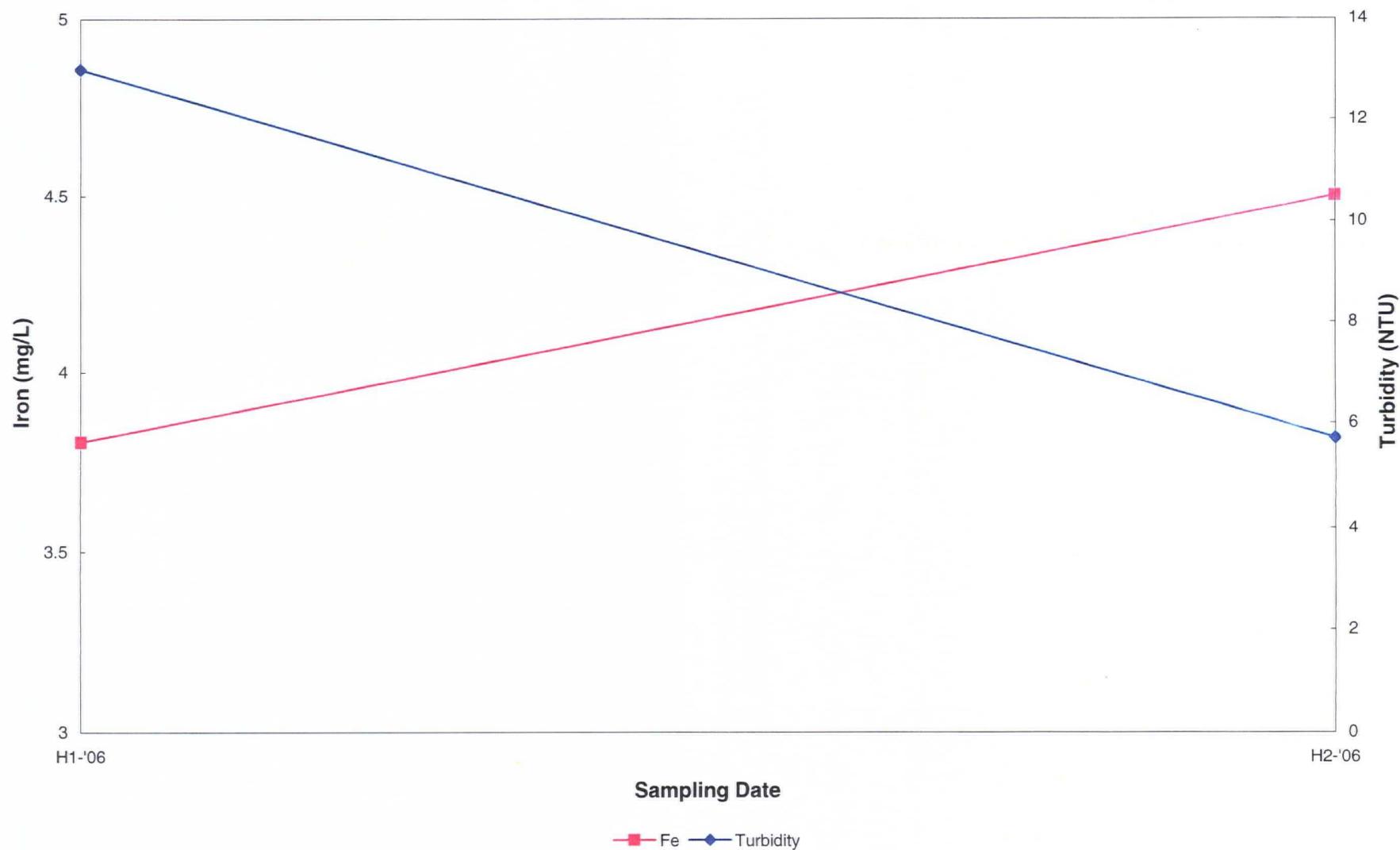
Monitoring Well GW-14



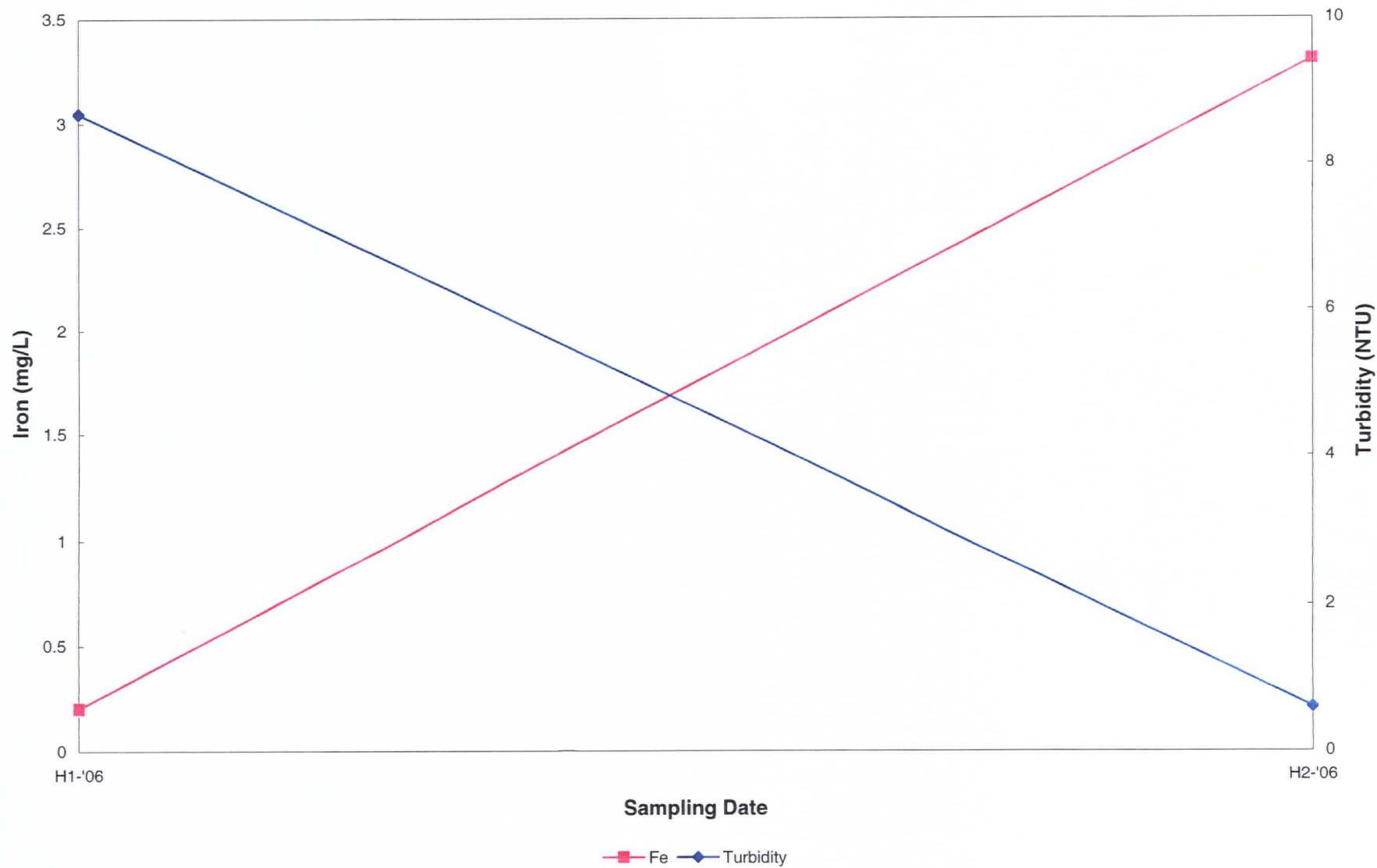




Monitoring Well GW-17

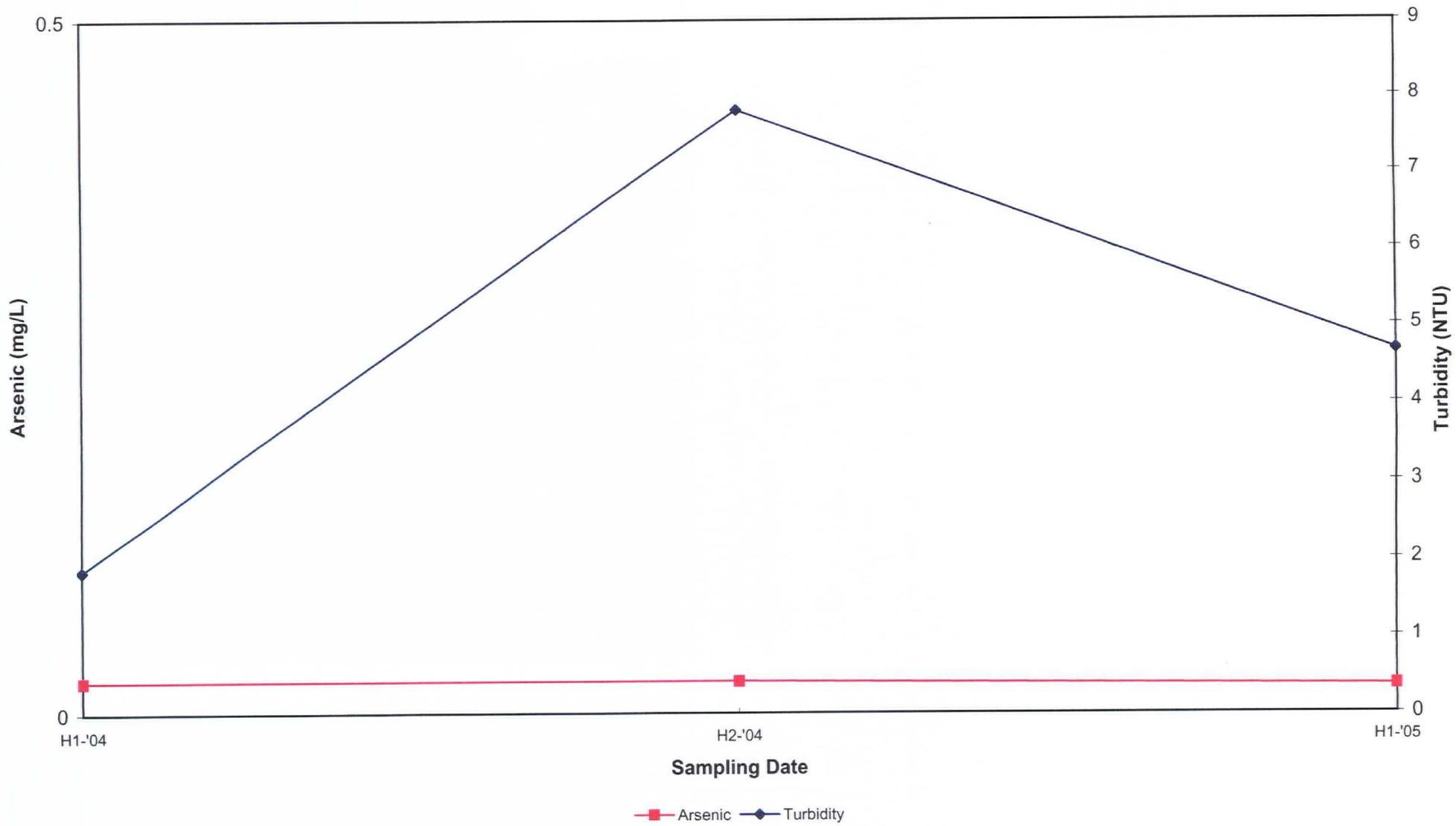


Monitoring Well BGW-1

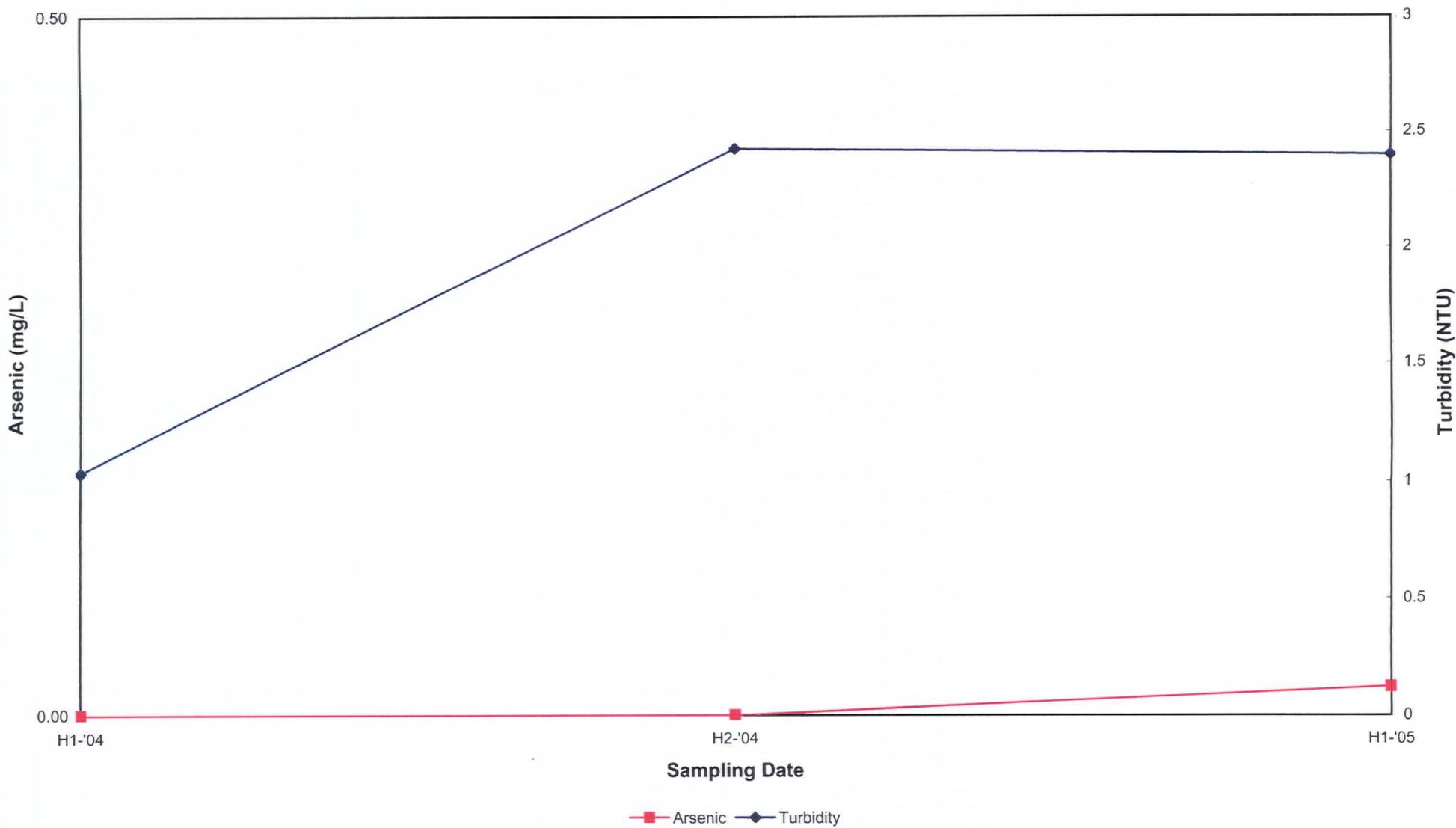


B-4 – Turbidity versus Arsenic

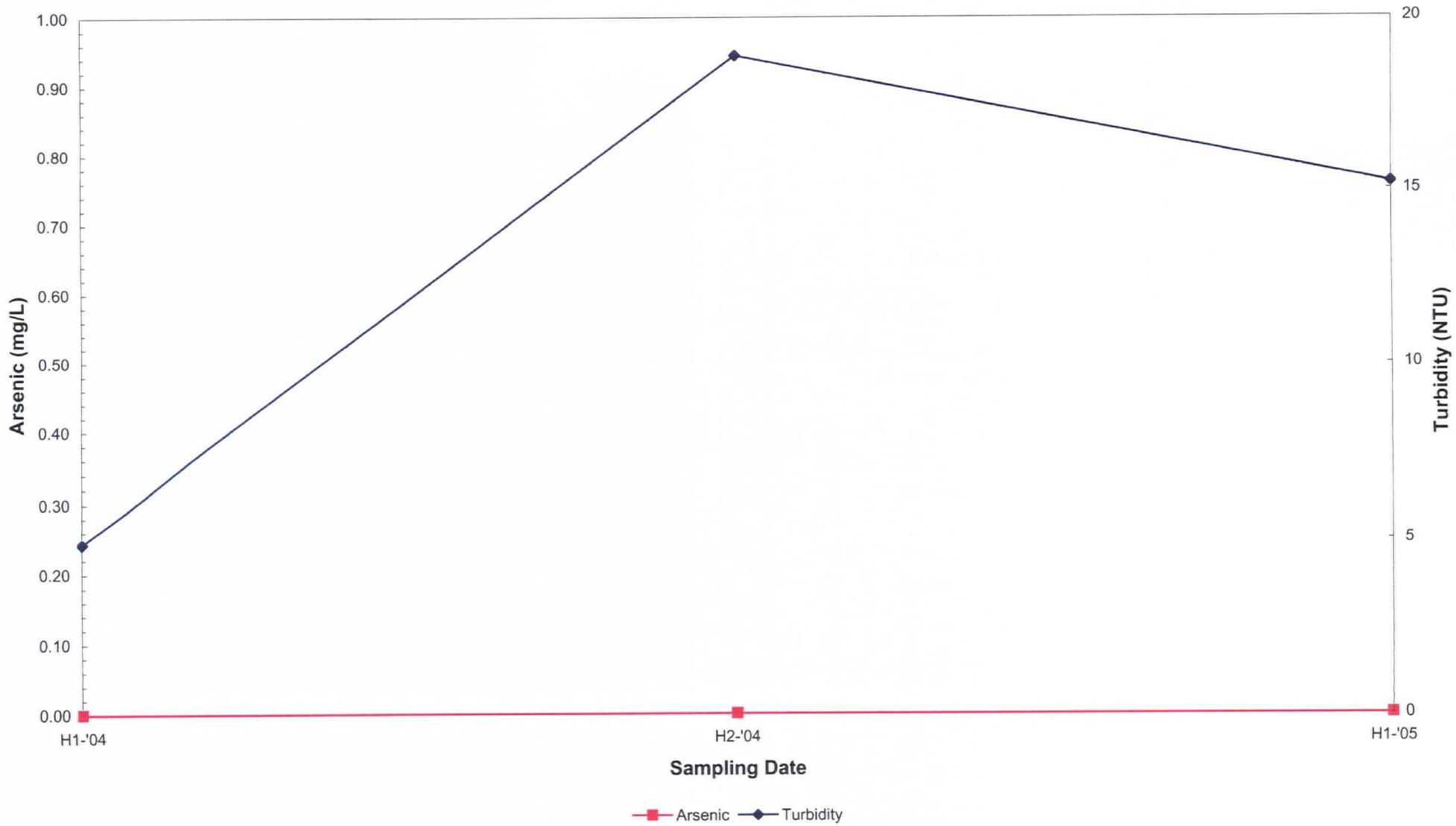
Monitoring Well CW- 4



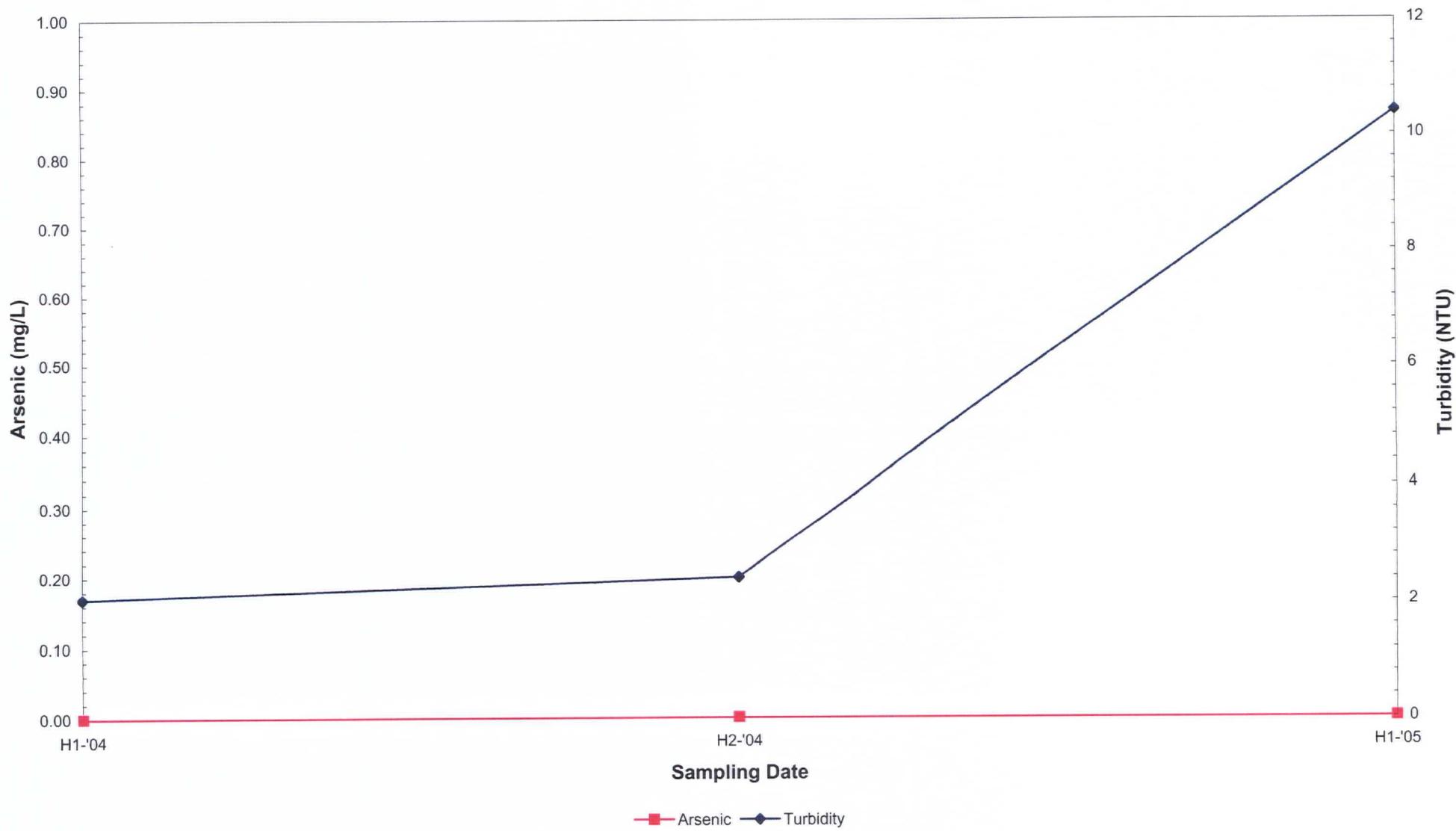
Monitoring Well CW- 5A



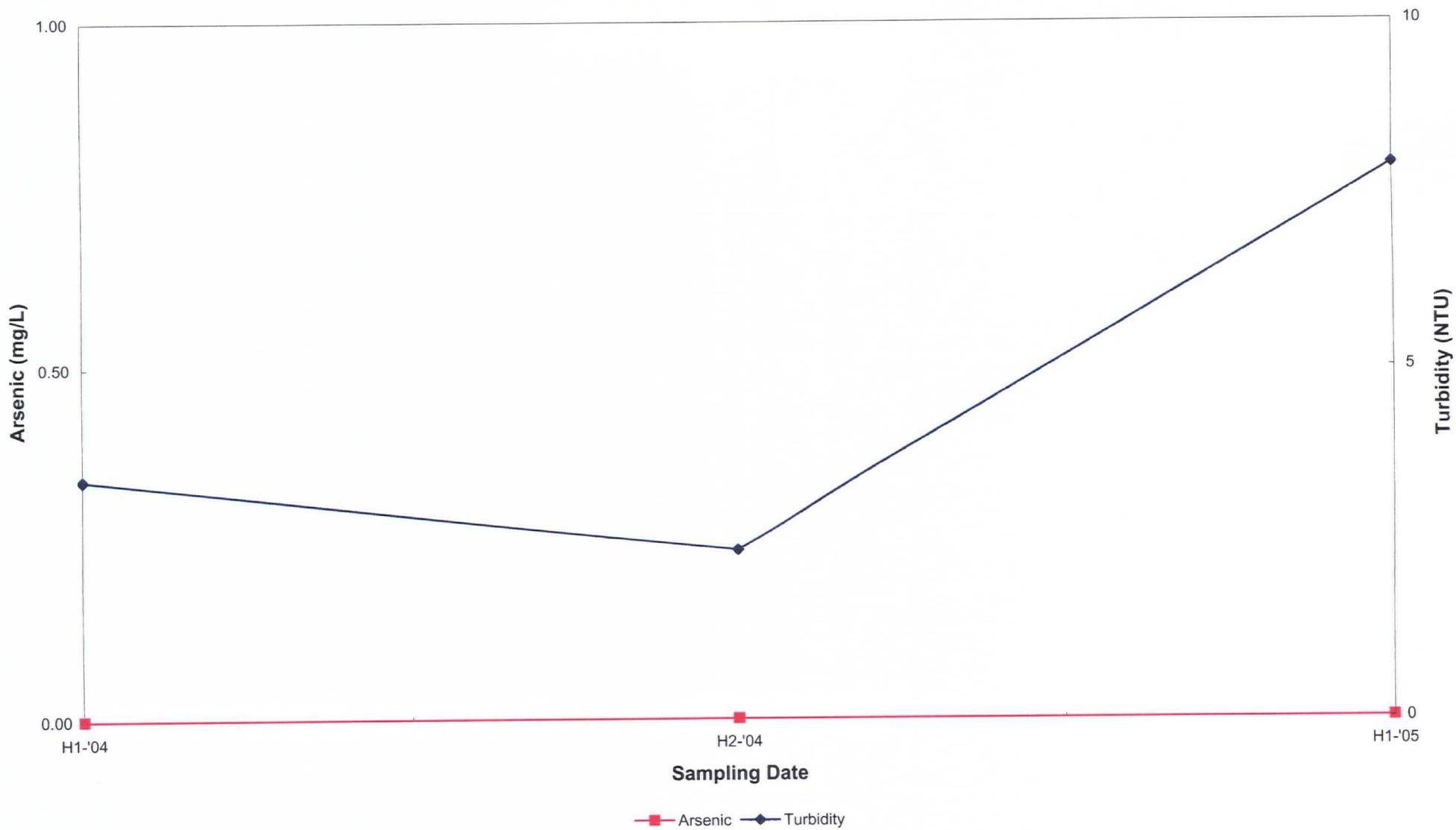
Monitoring Well GC-1A



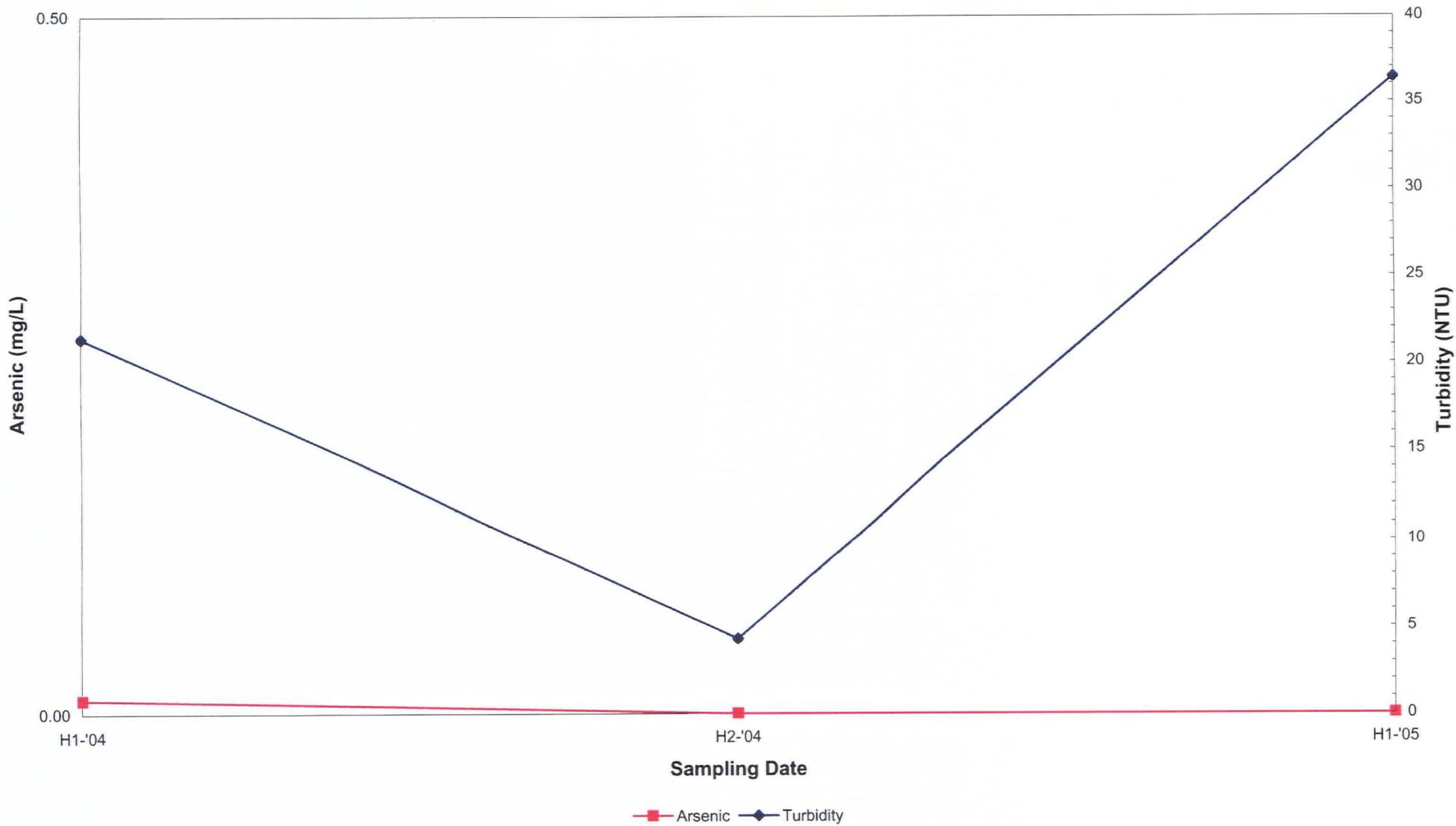
Monitoring Well GC-2



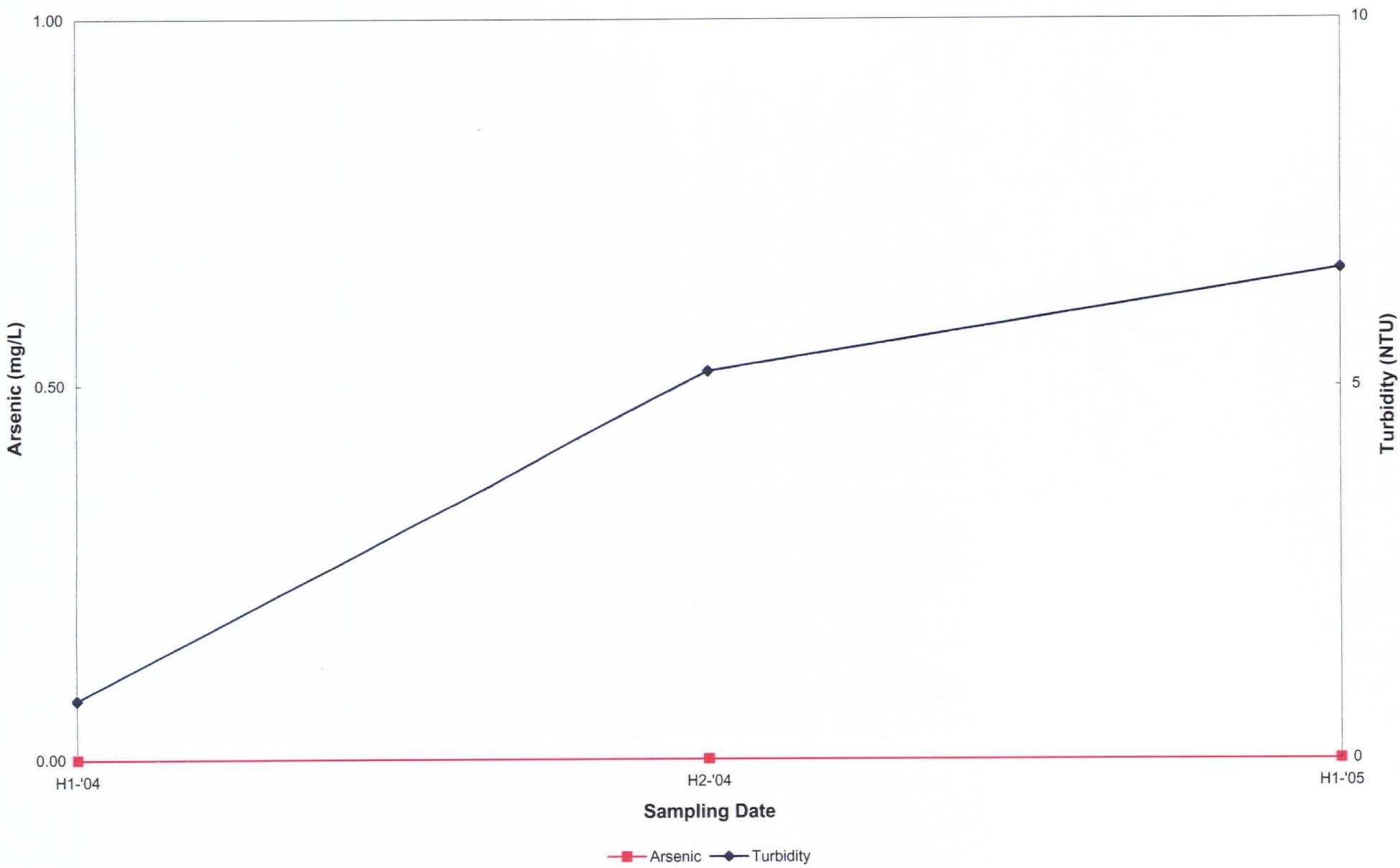
Monitoring Well GC-3



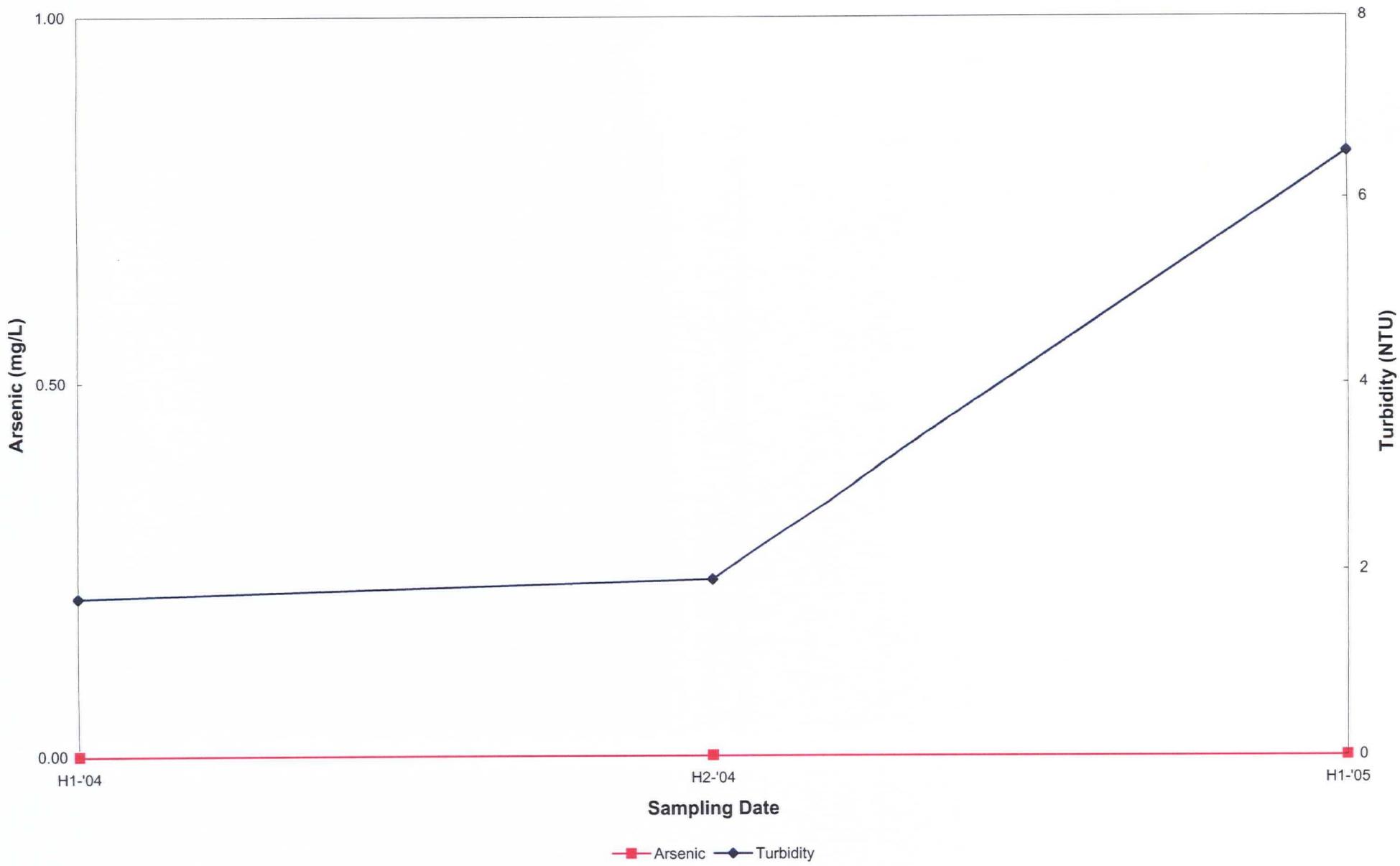
Monitoring Well GC-4



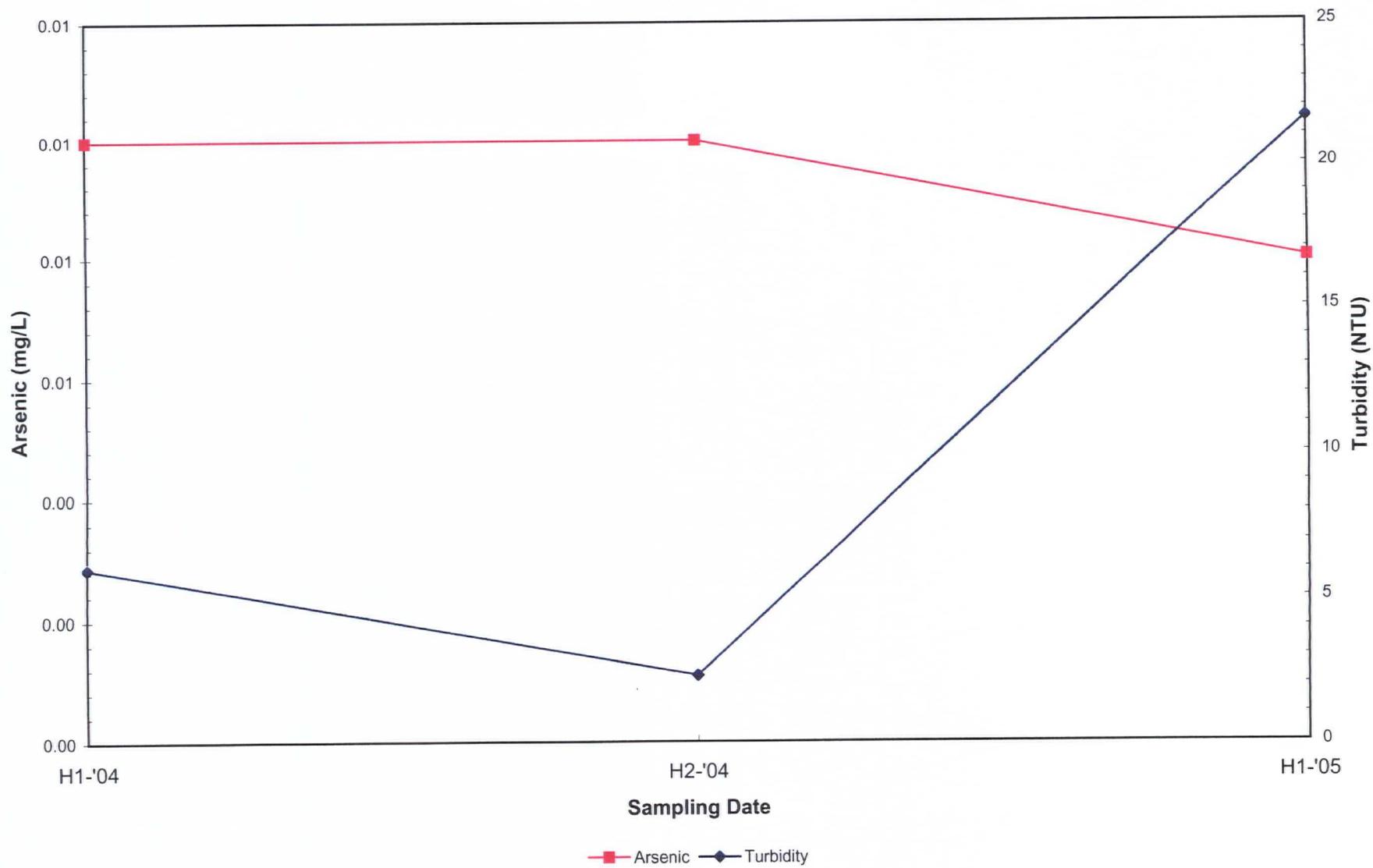
Monitoring Well GC- 5



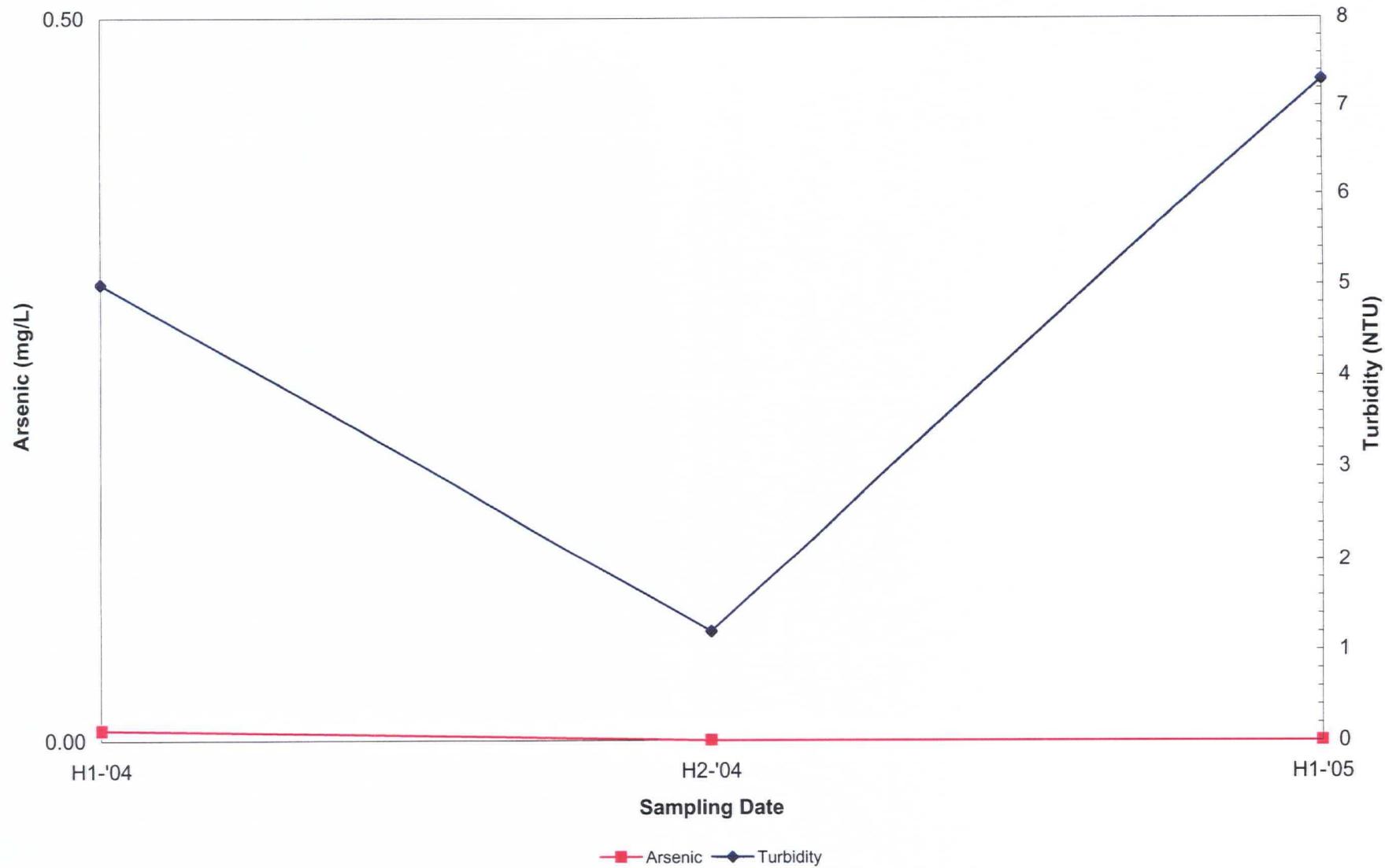
Monitoring Well GC-6



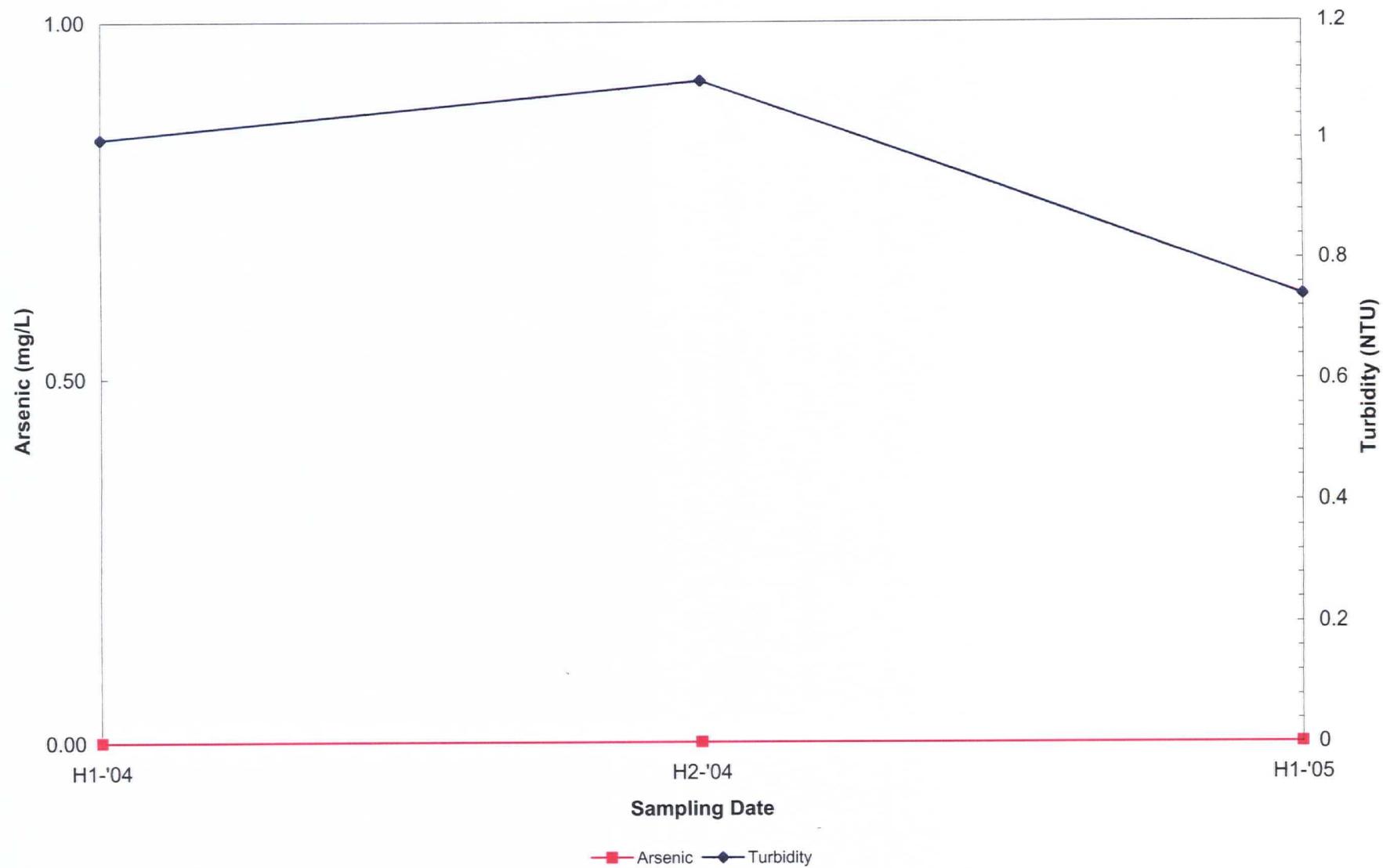
Monitoring Well LRII-1



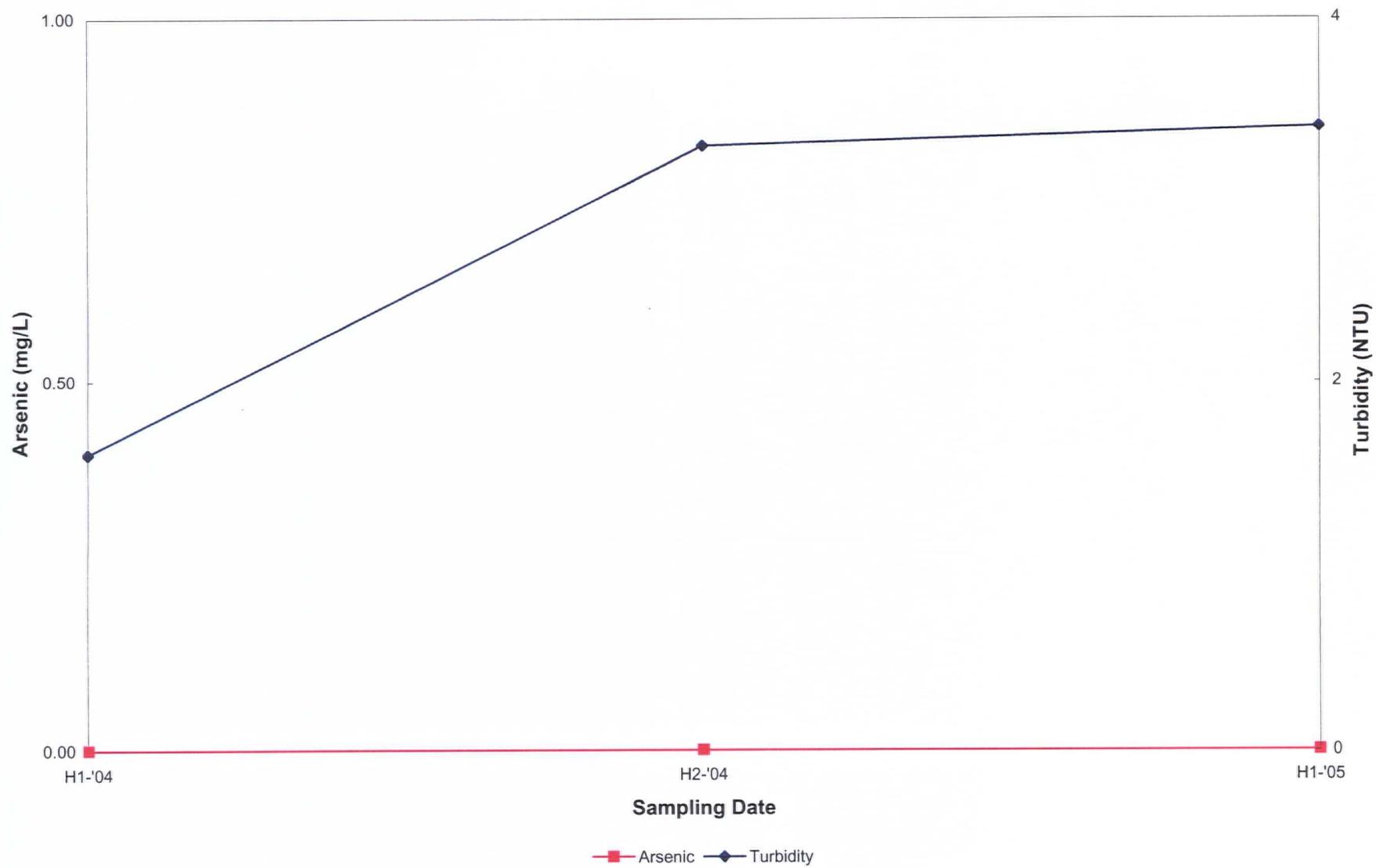
Monitoring Well LRII-2



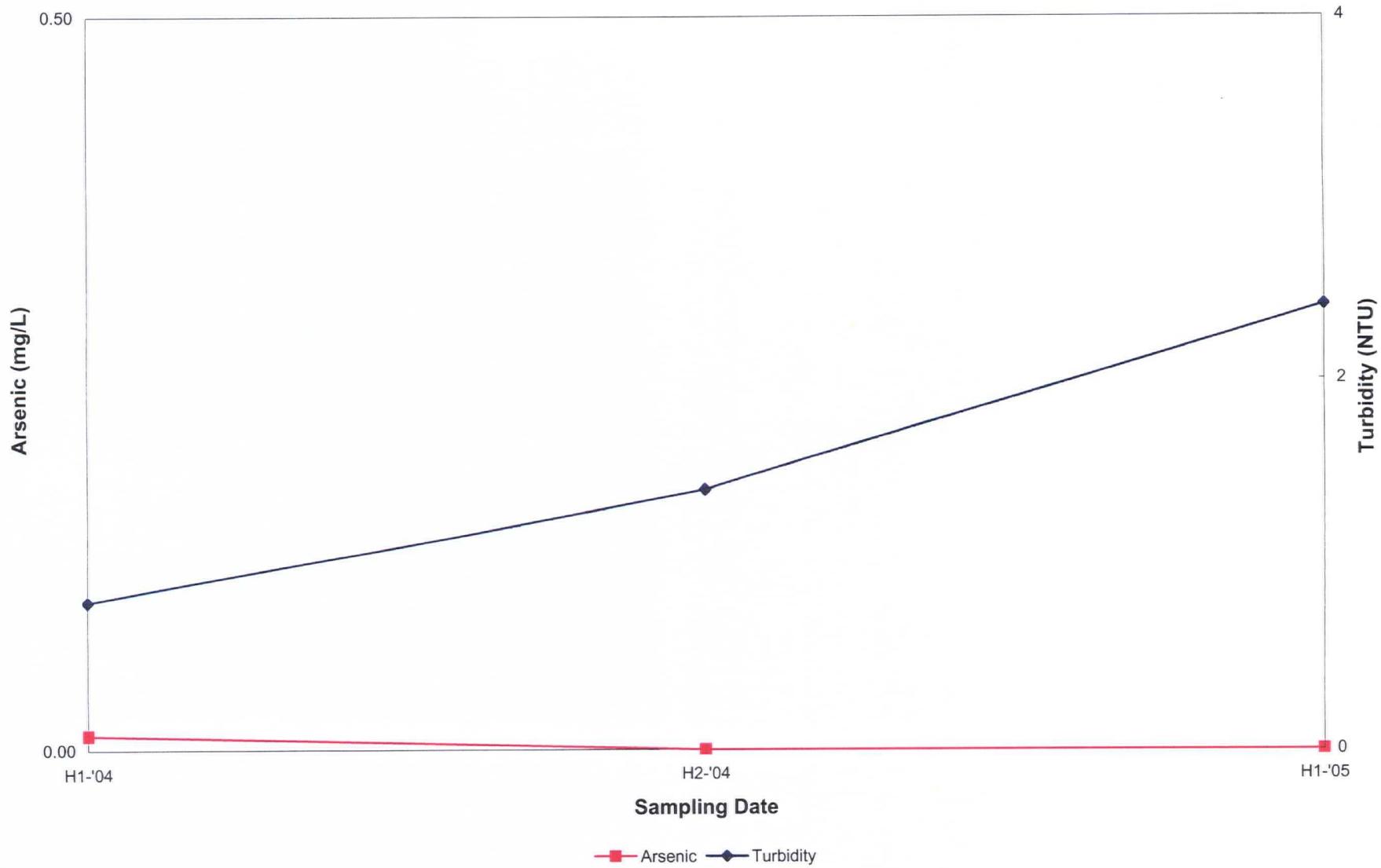
Monitoring Well LRII-3



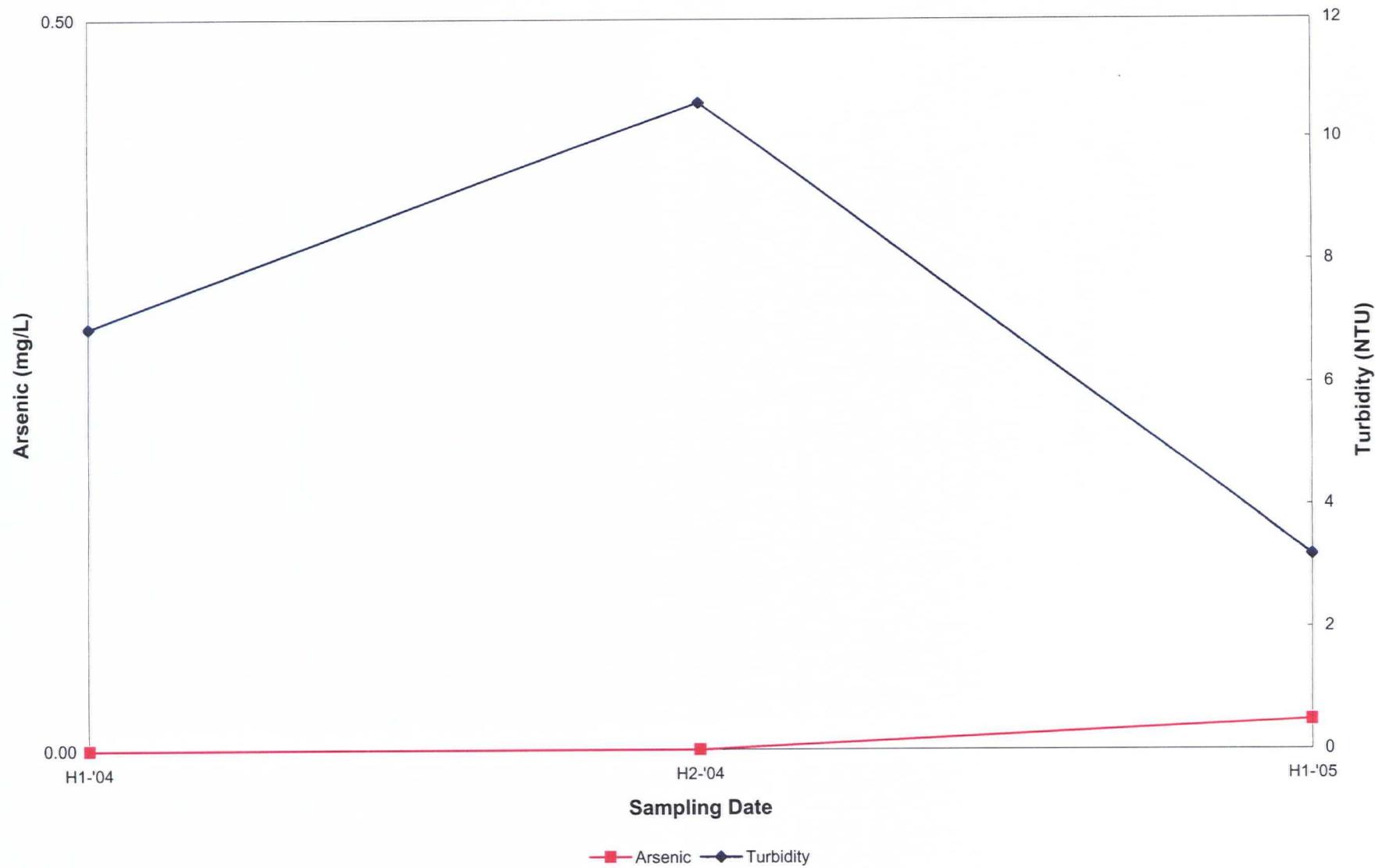
Monitoring Well LRII-4



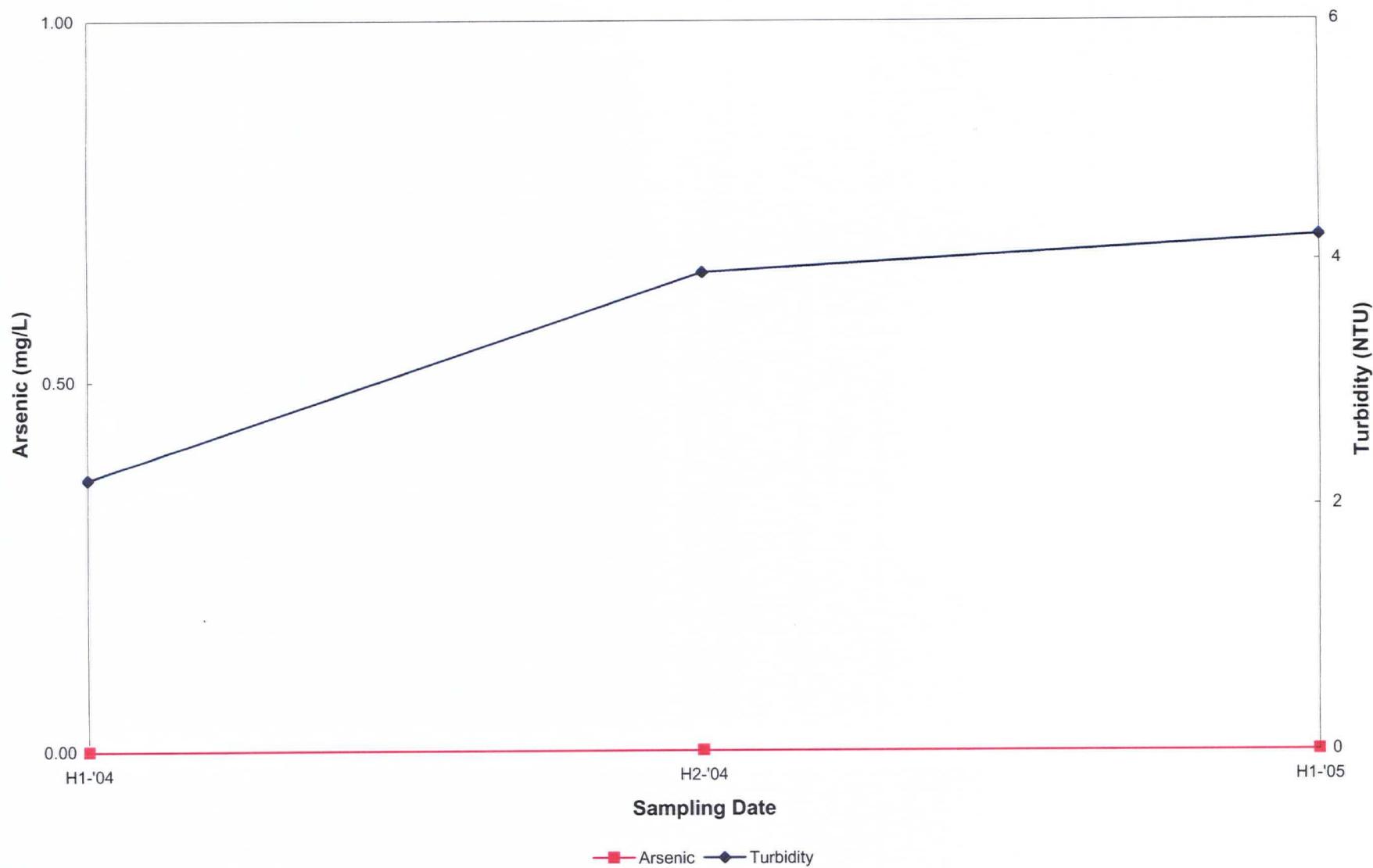
Monitoring Well LRII-5



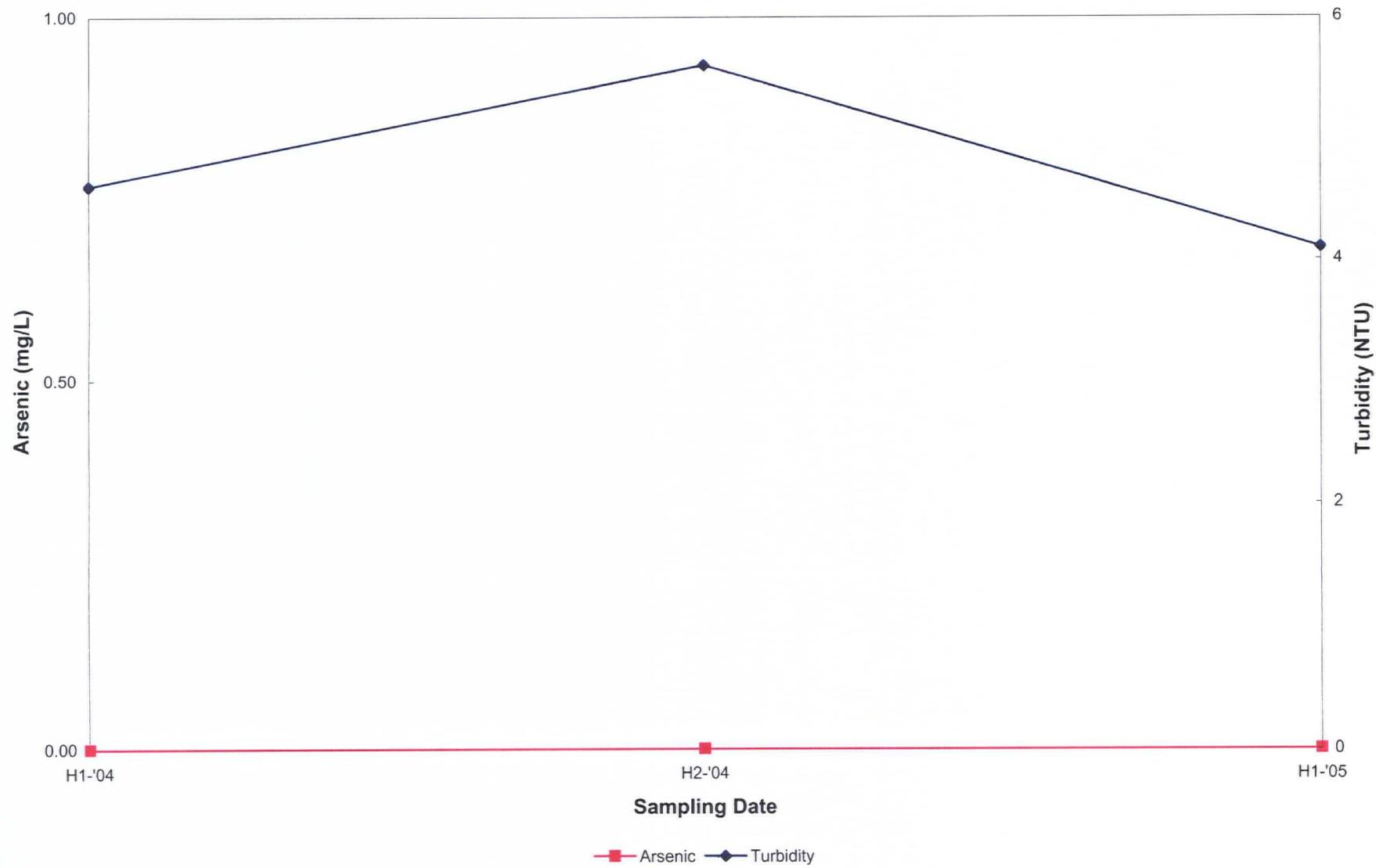
Monitoring Well MW-1

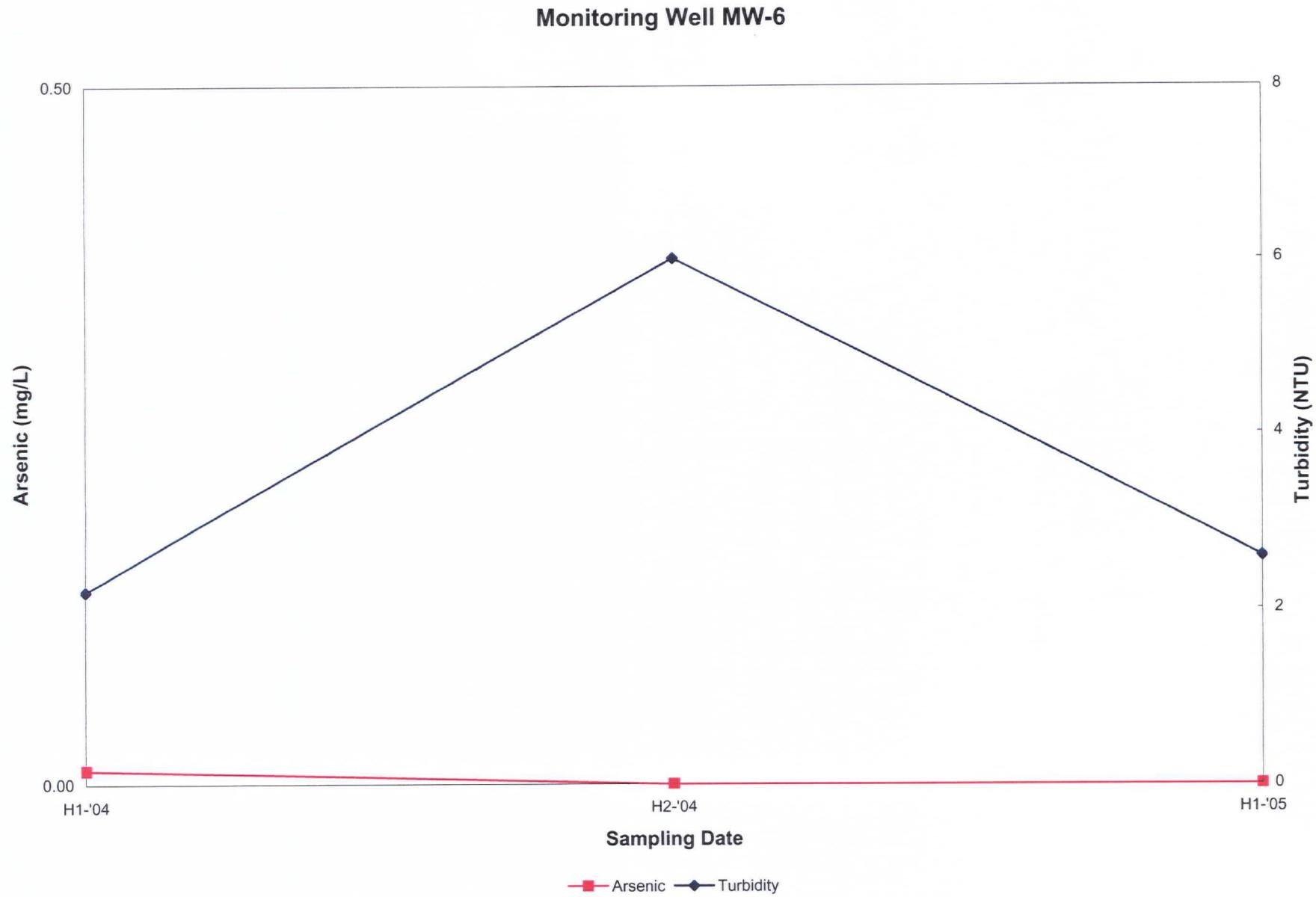


Monitoring Well MW-3

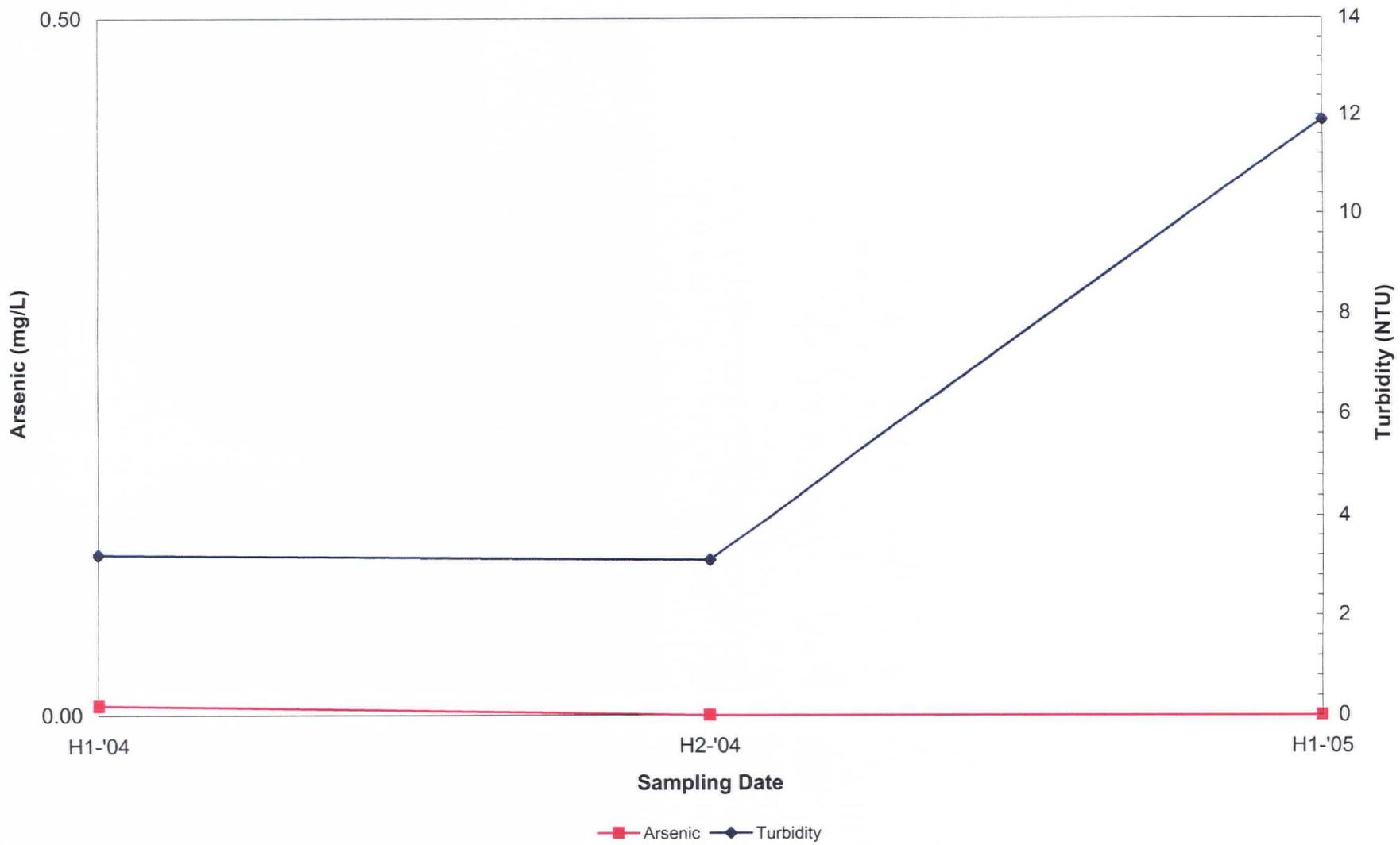


Monitoring Well MW-5

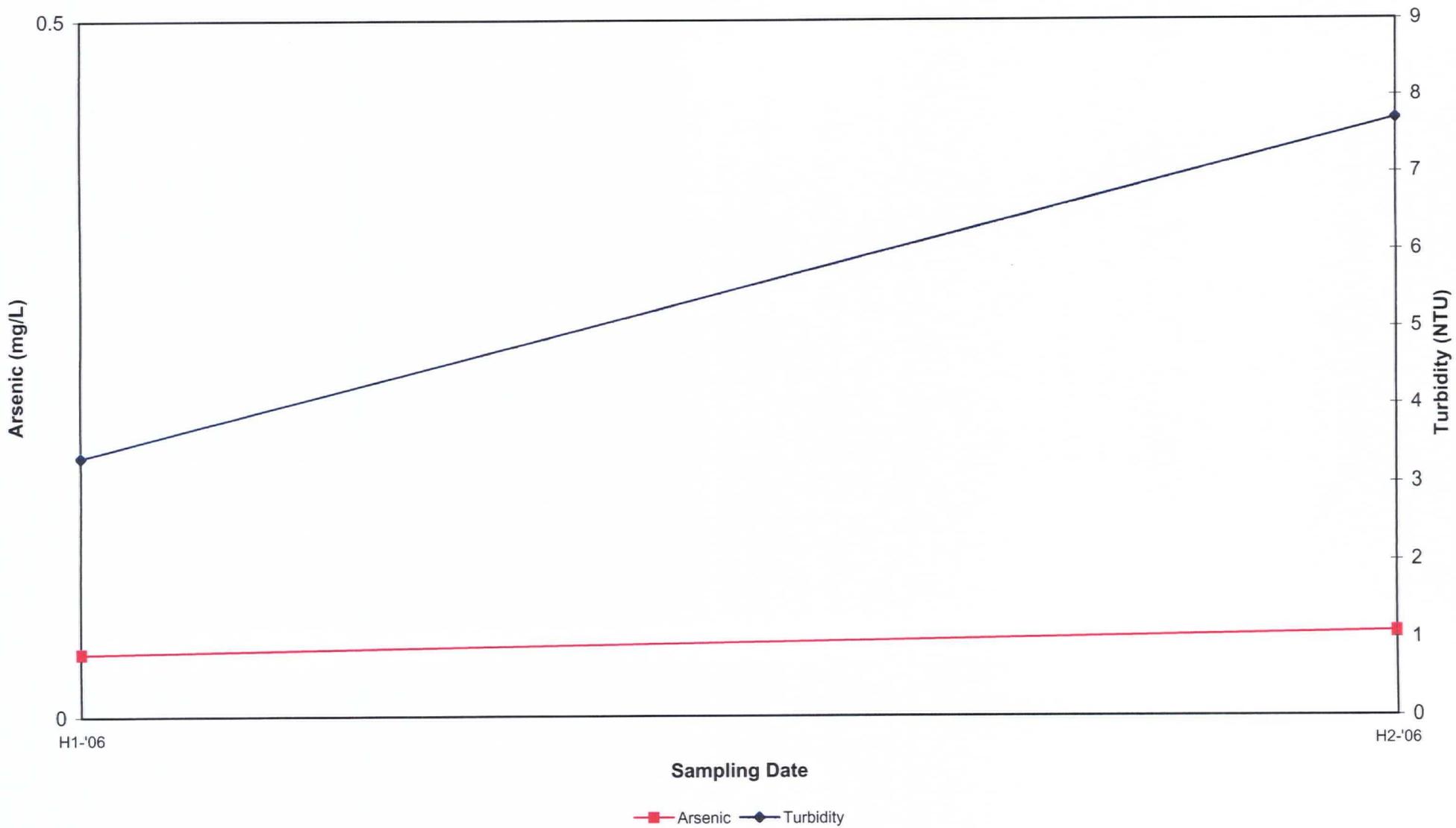




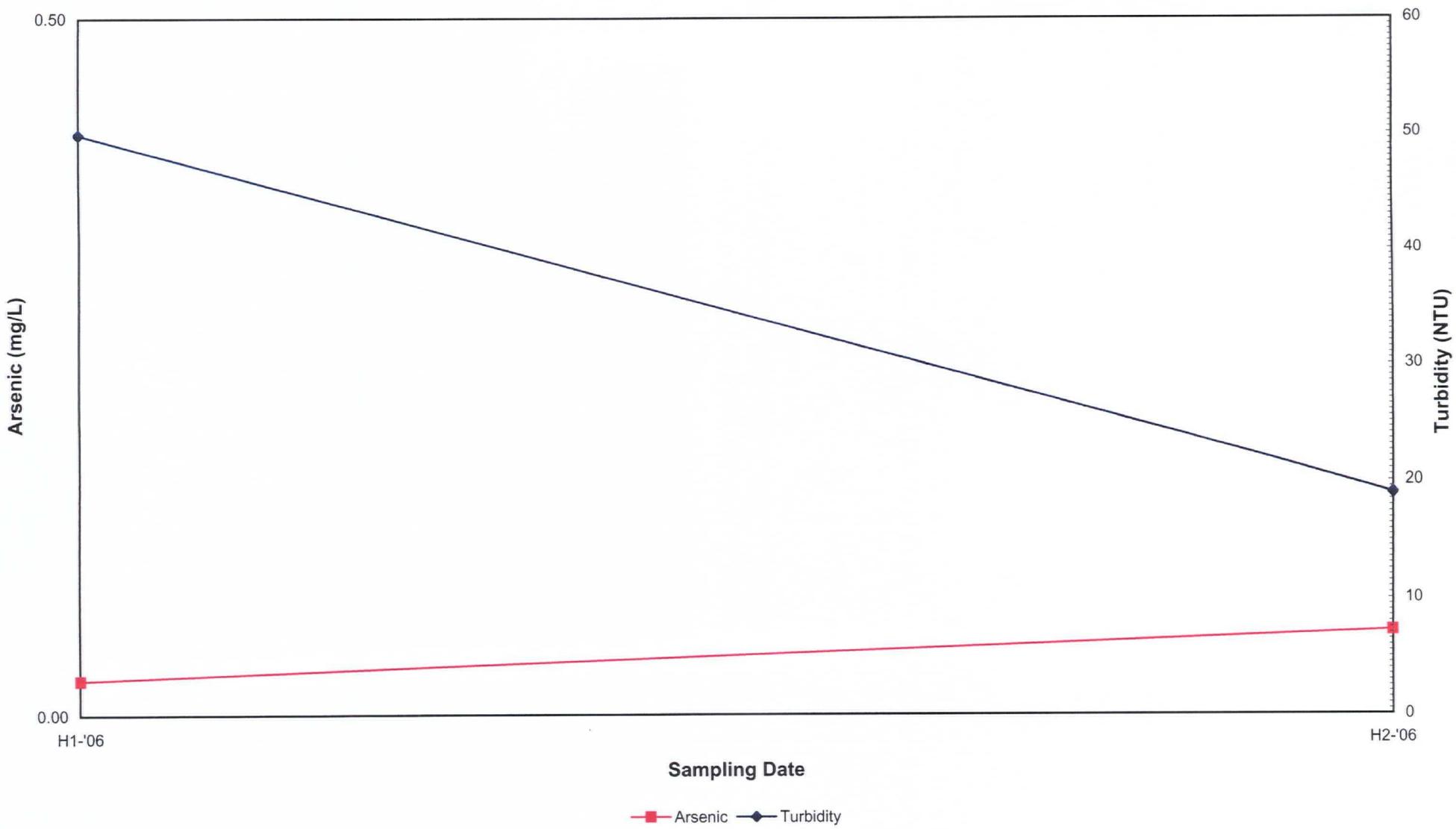
Monitoring Well SMR-1



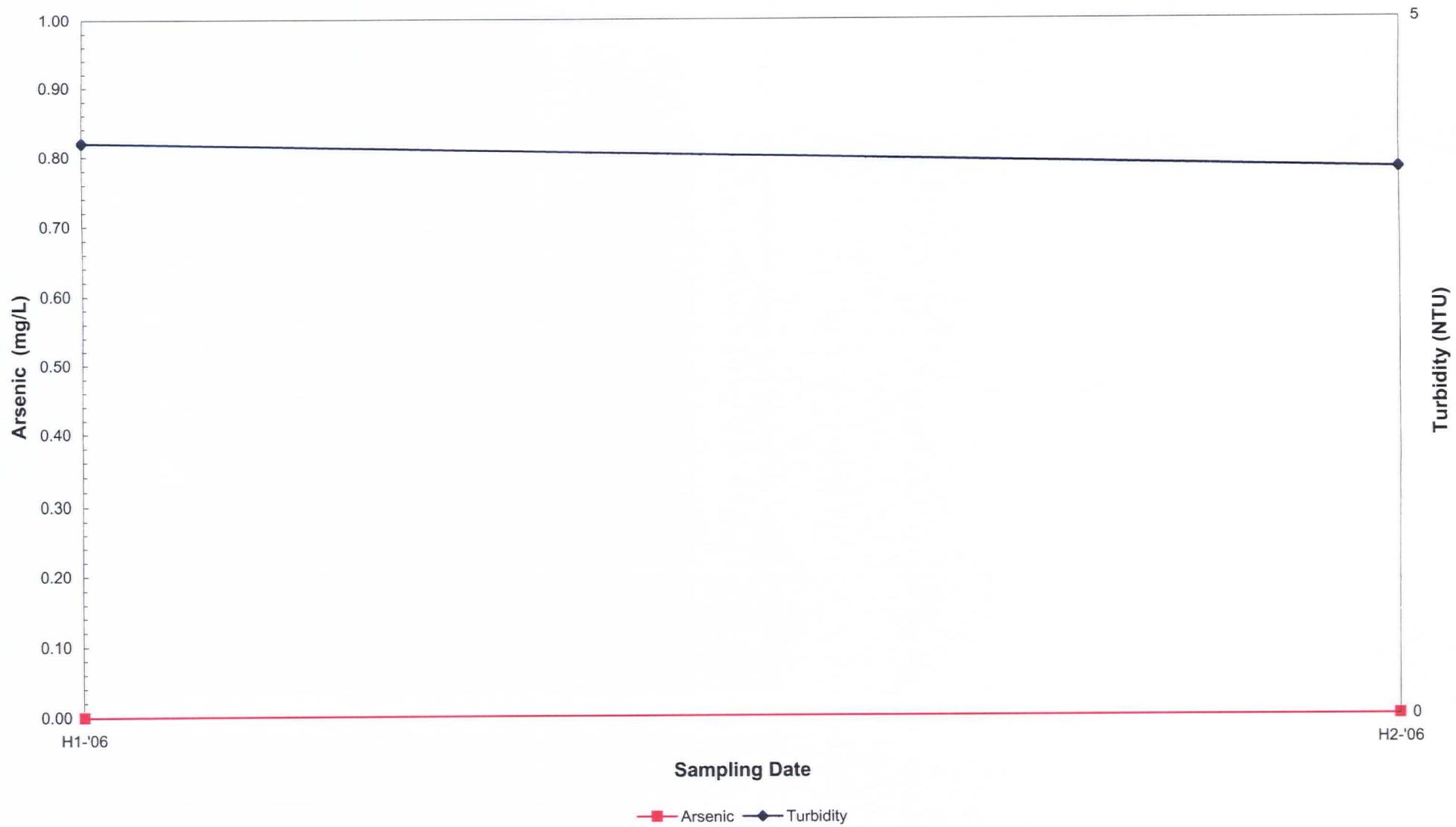
Monitoring Well GW-1



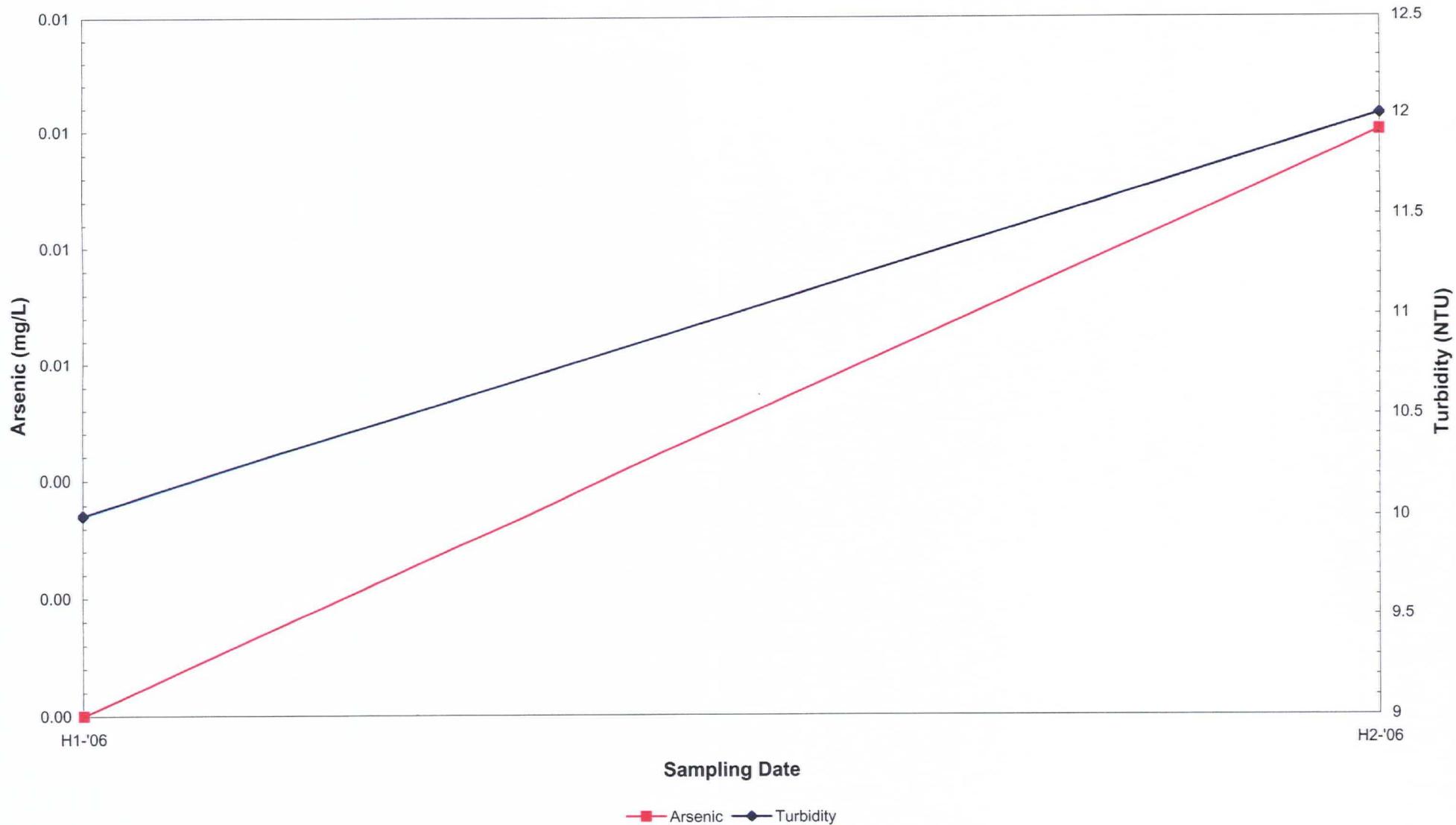
Monitoring Well GW-2



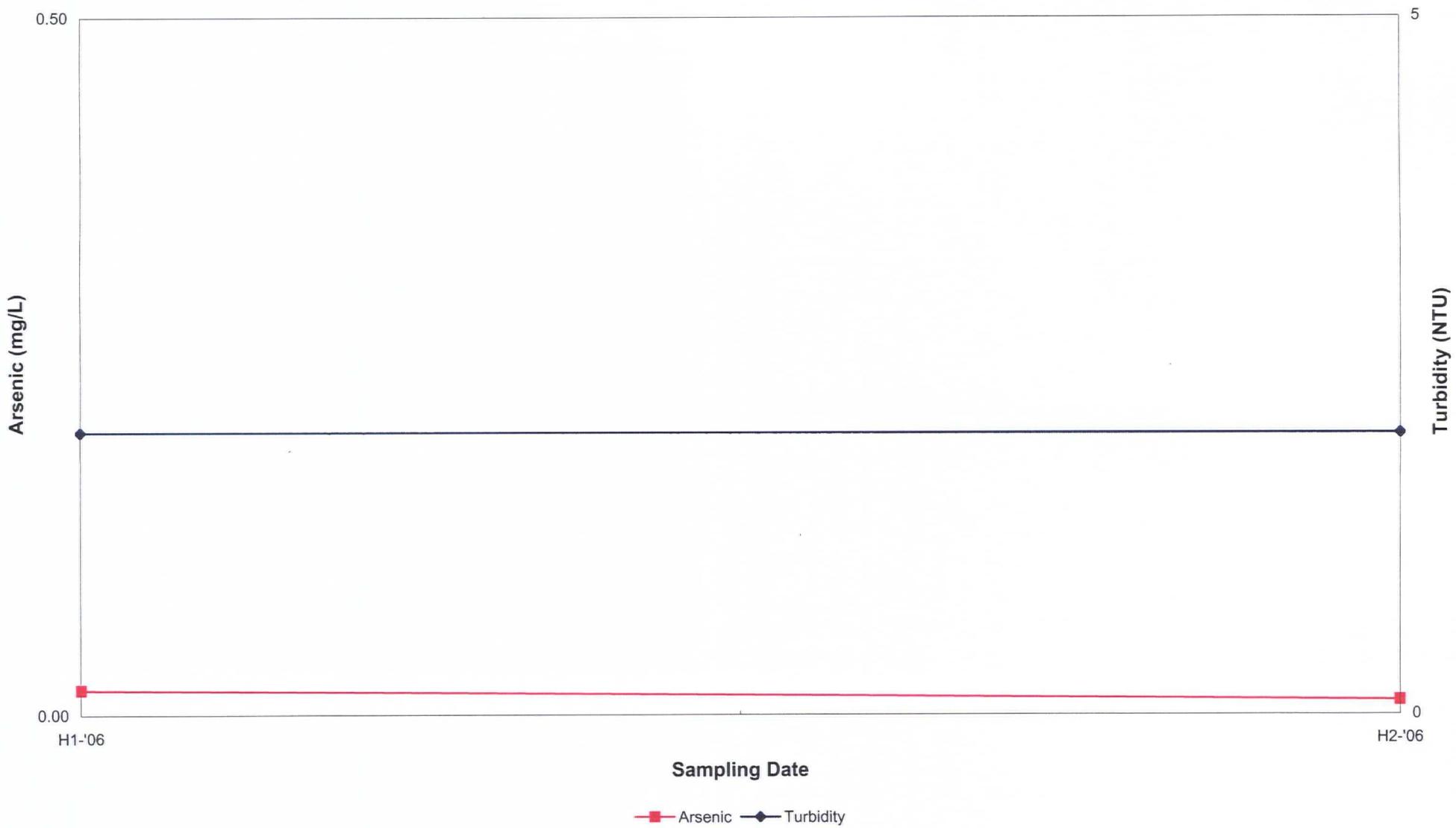
Monitoring Well GW-3



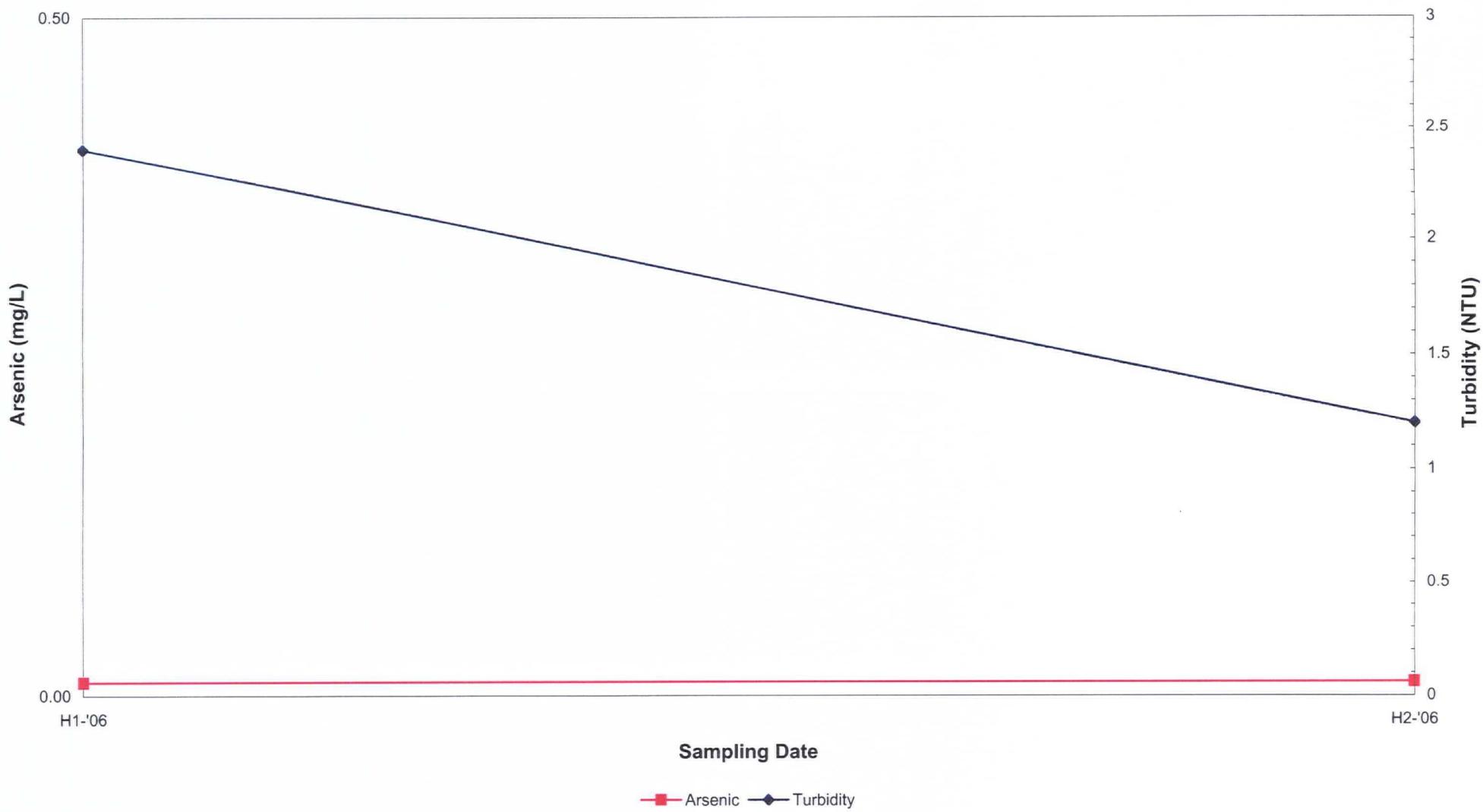
Monitoring Well GW-4



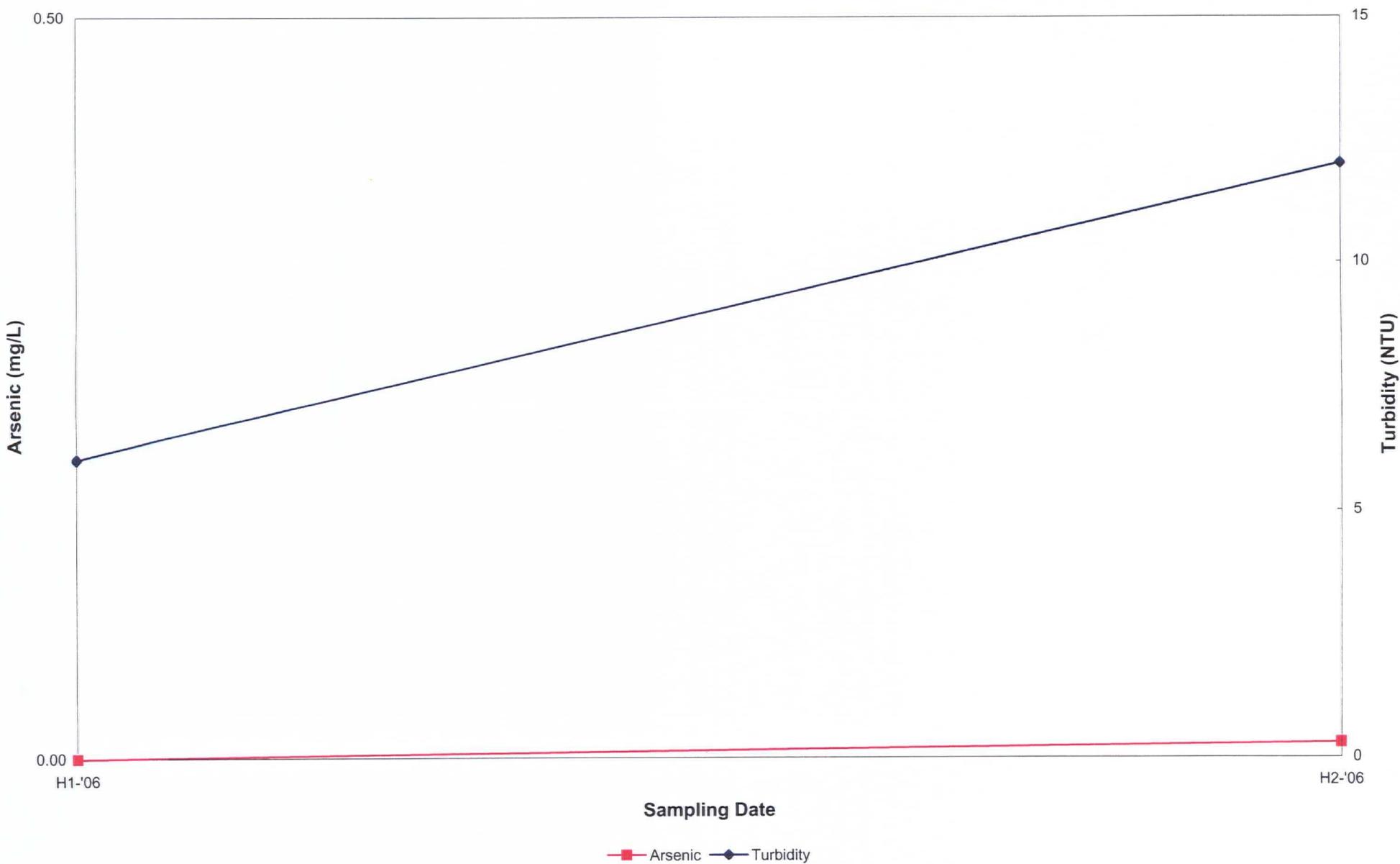
Monitoring Well GW-5



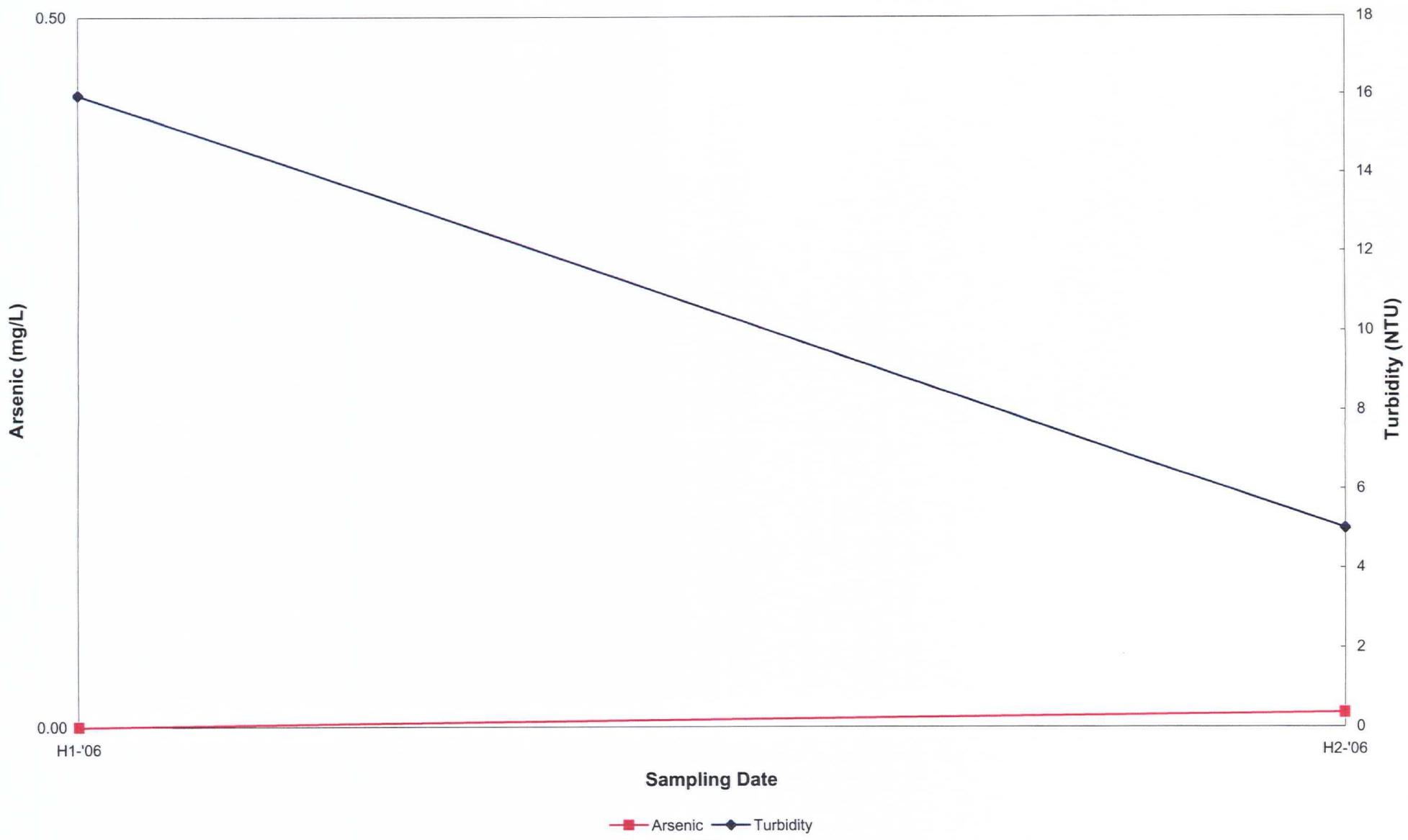
Monitoring Well GW-6



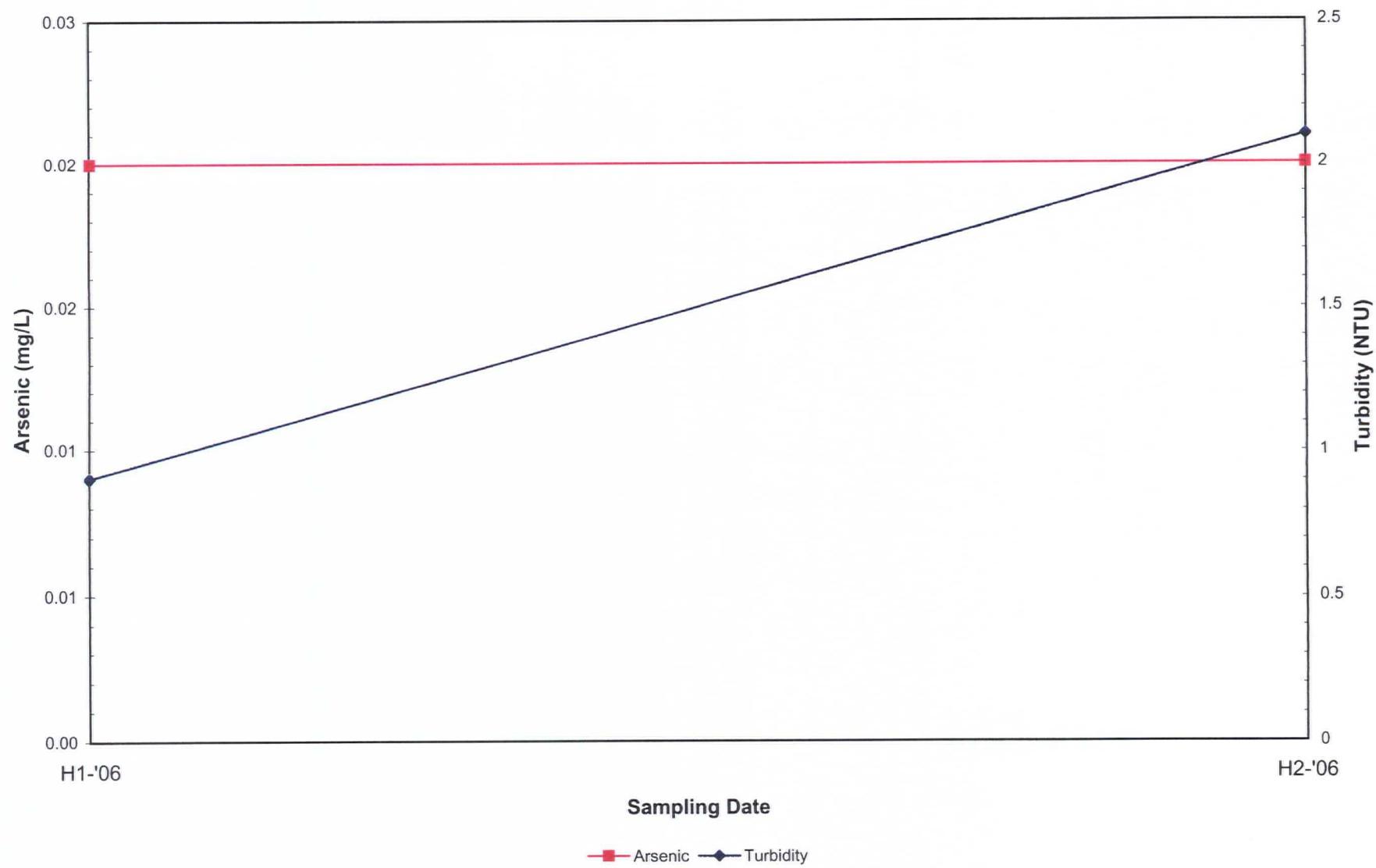
Monitoring Well GW-7



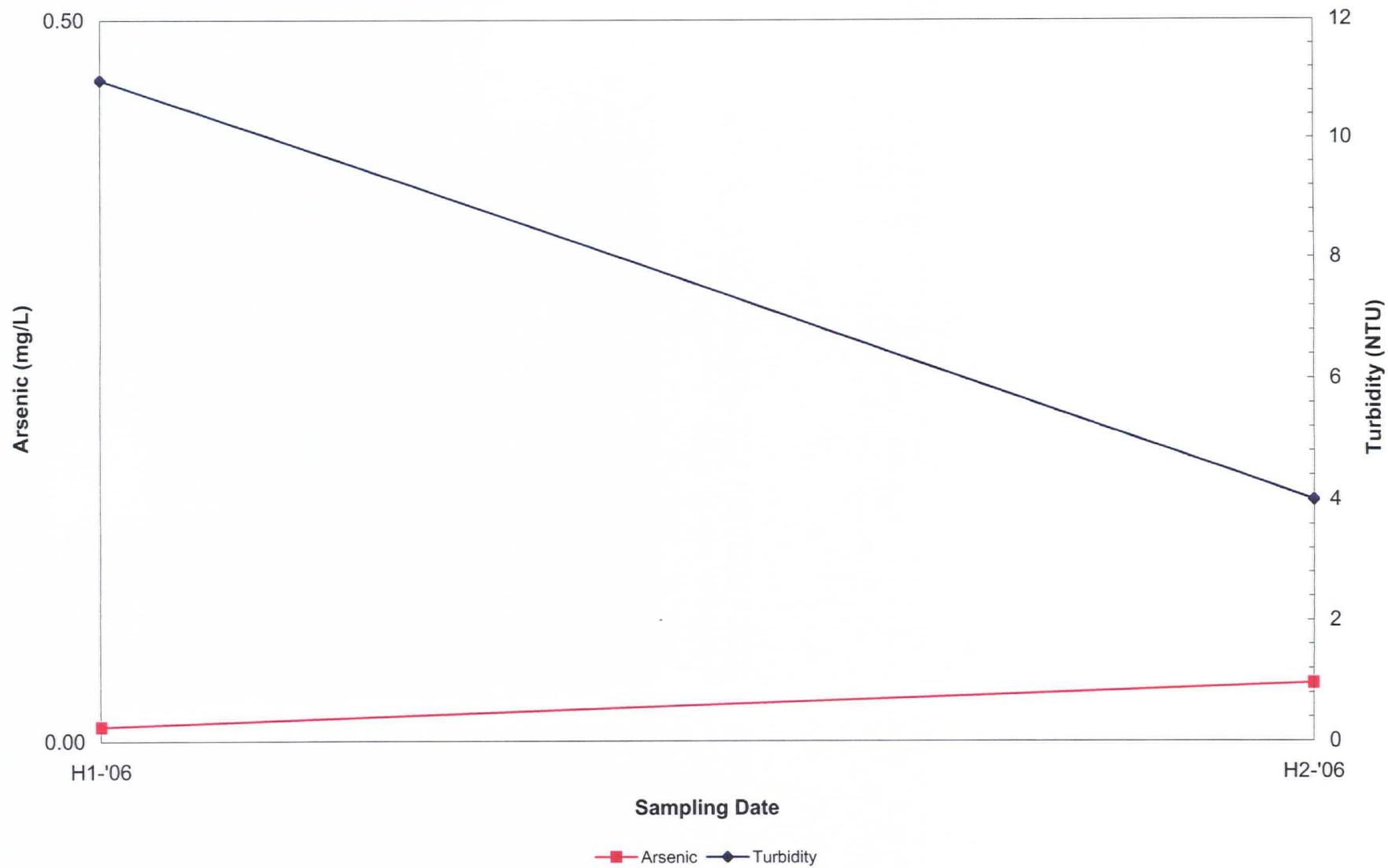
Monitoring Well GW-8



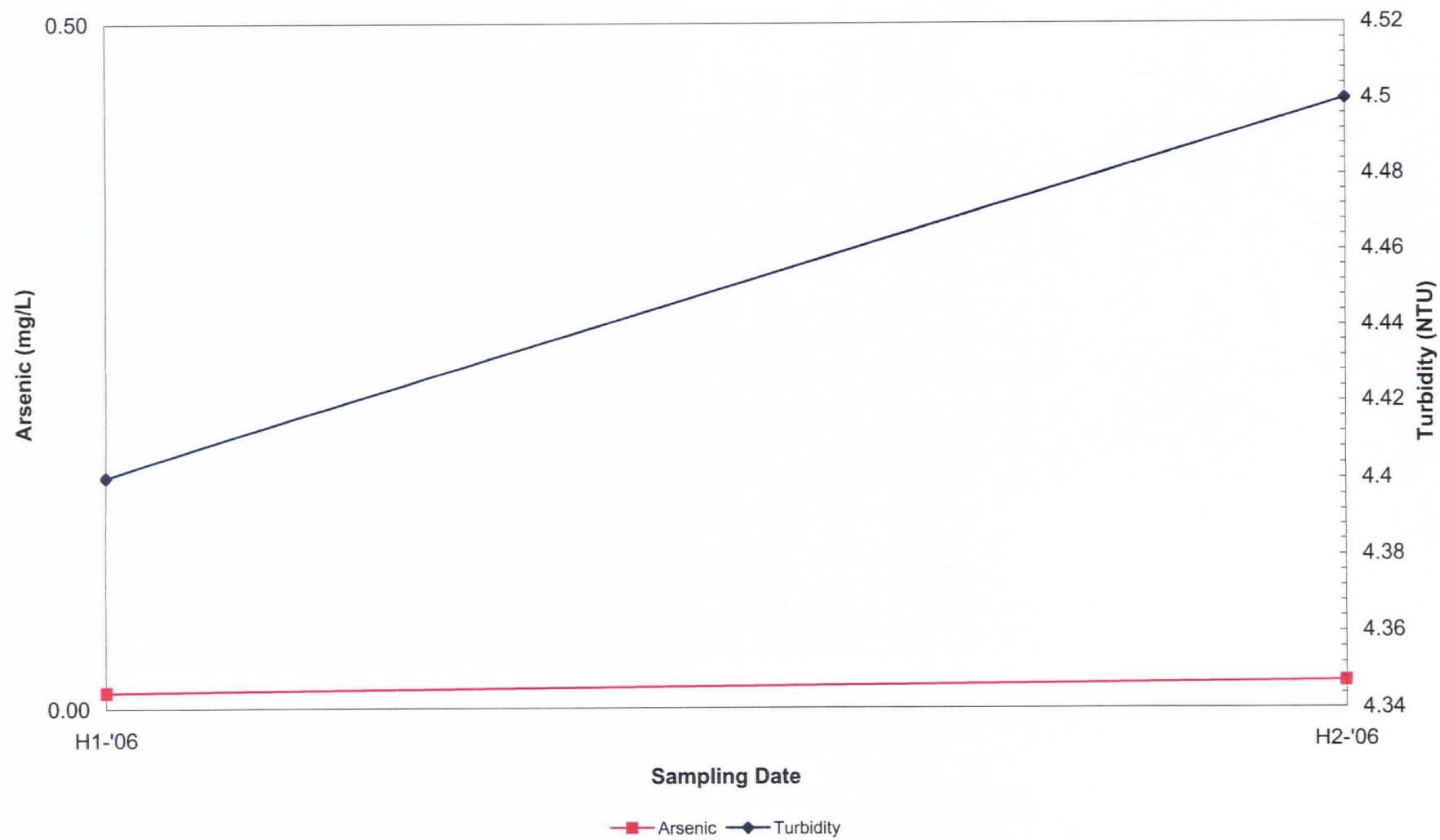
Monitoring Well GW-9



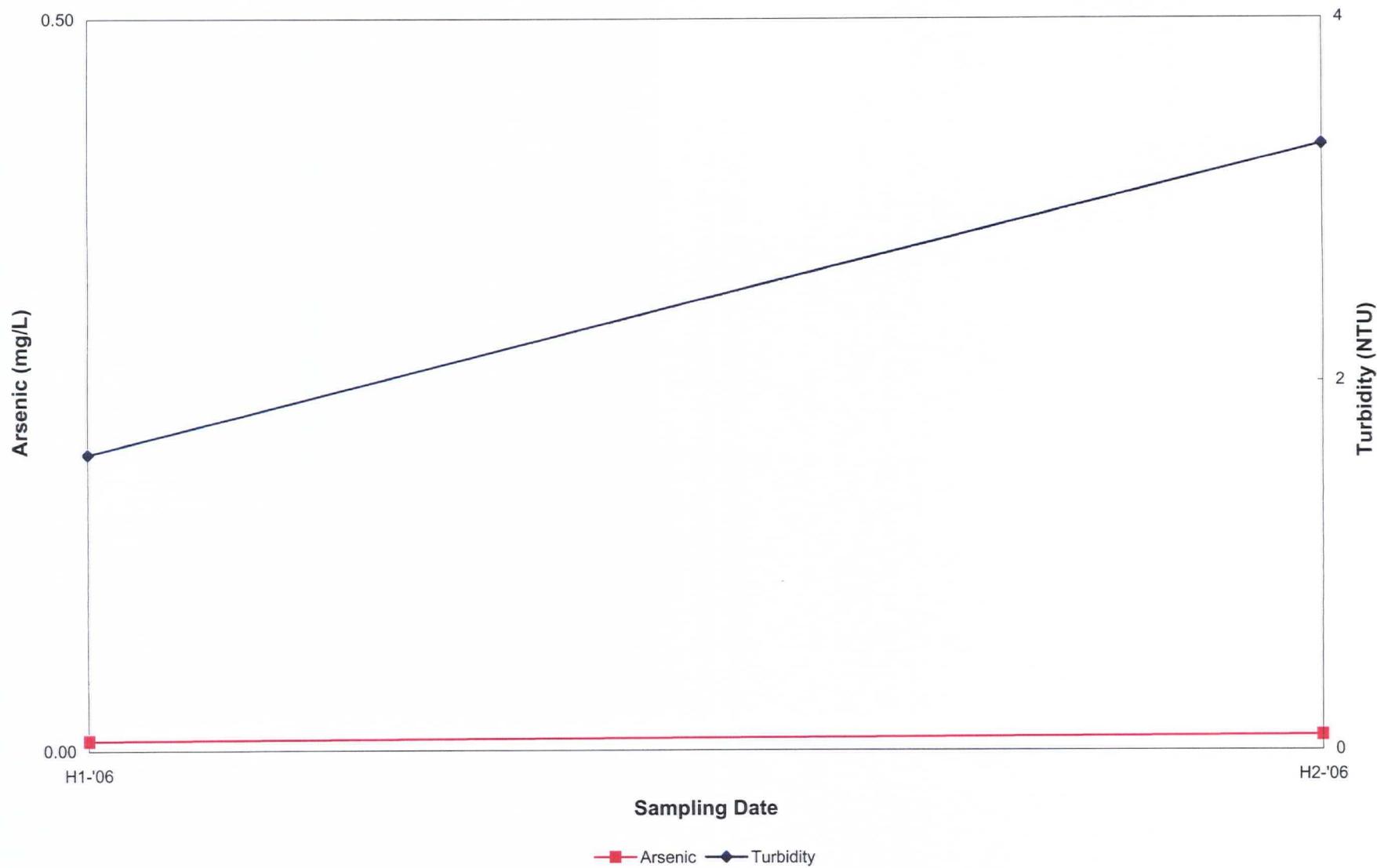
Monitoring Well GW-10



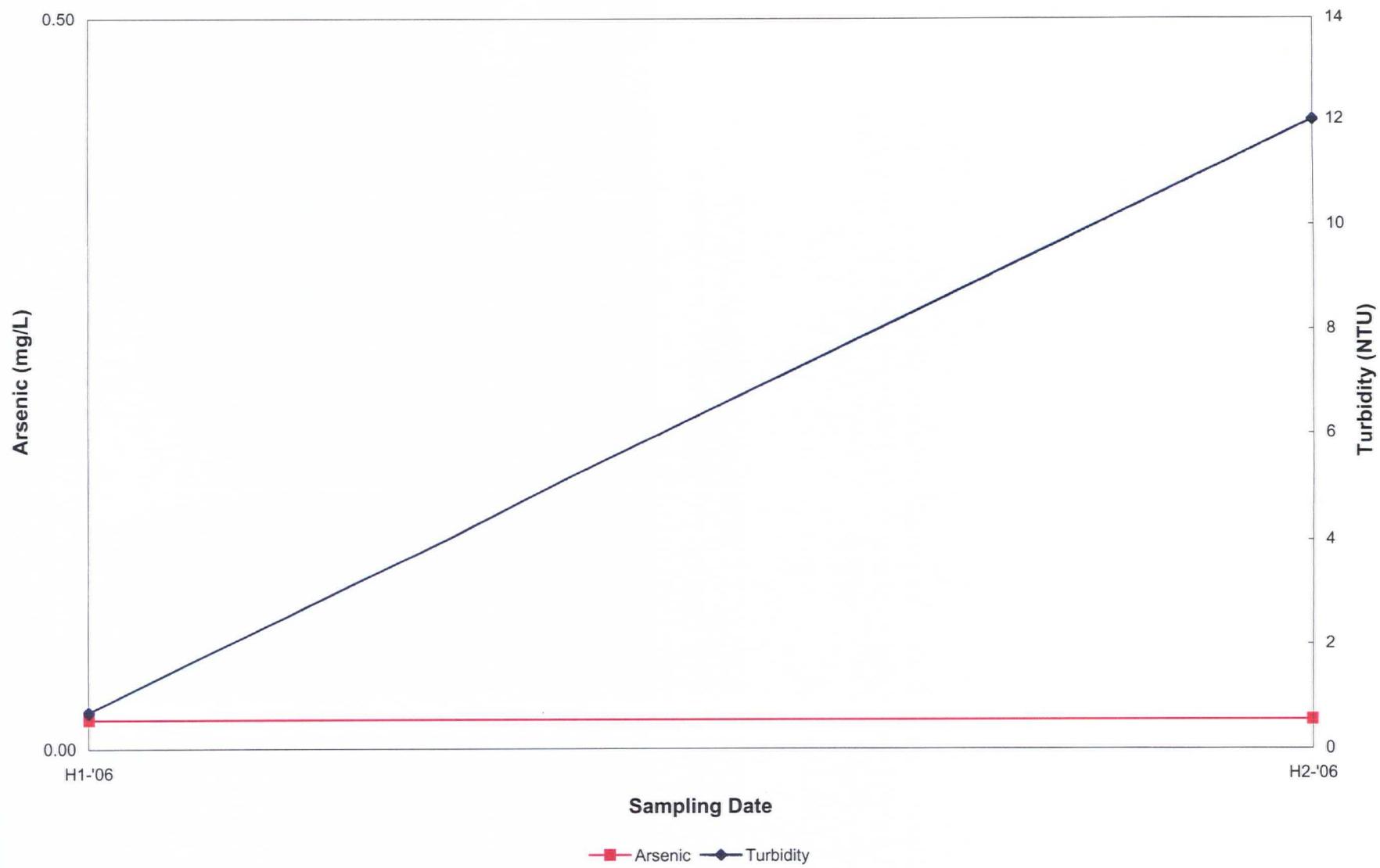
Monitoring Well GW-12



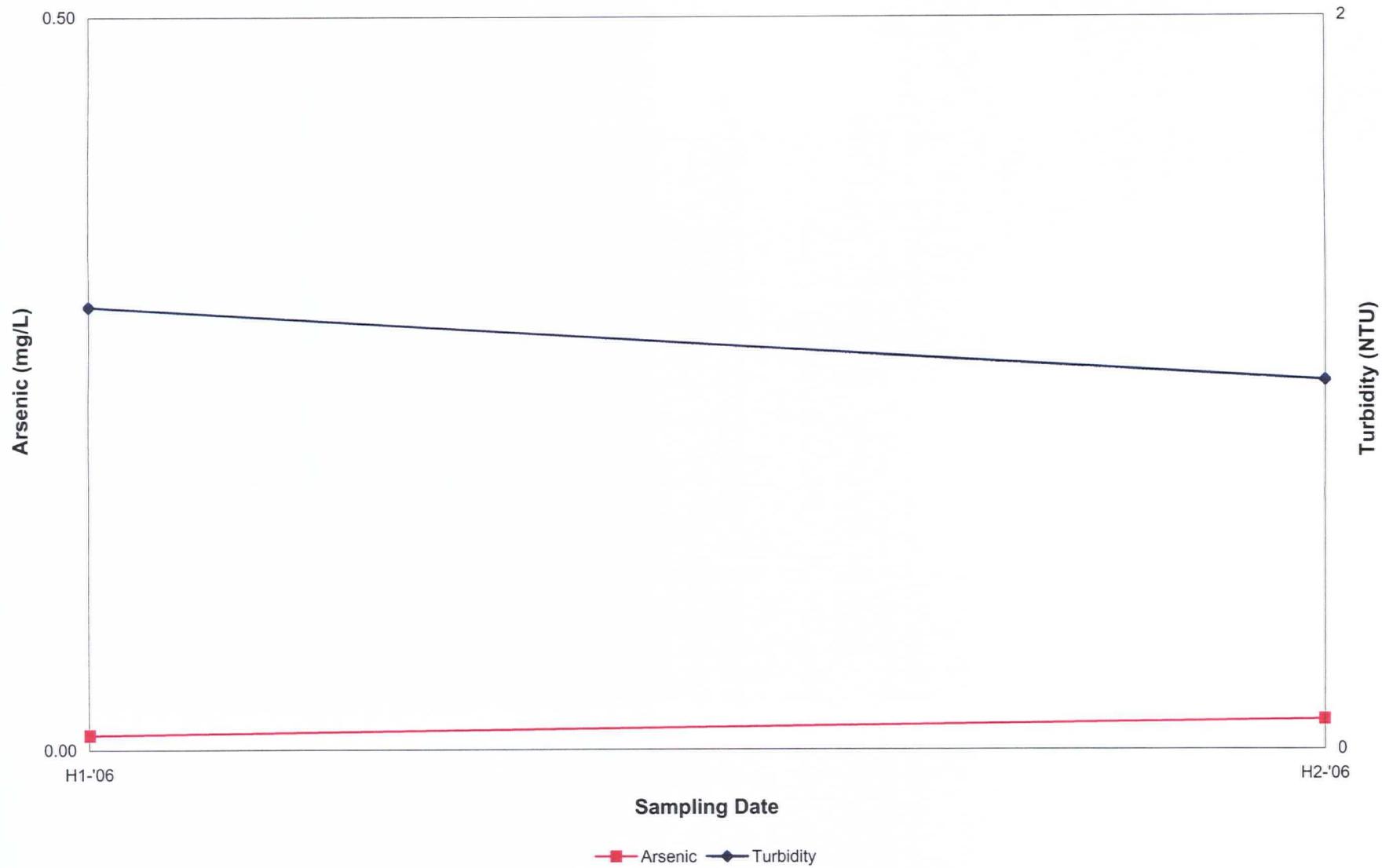
Monitoring Well GW-13



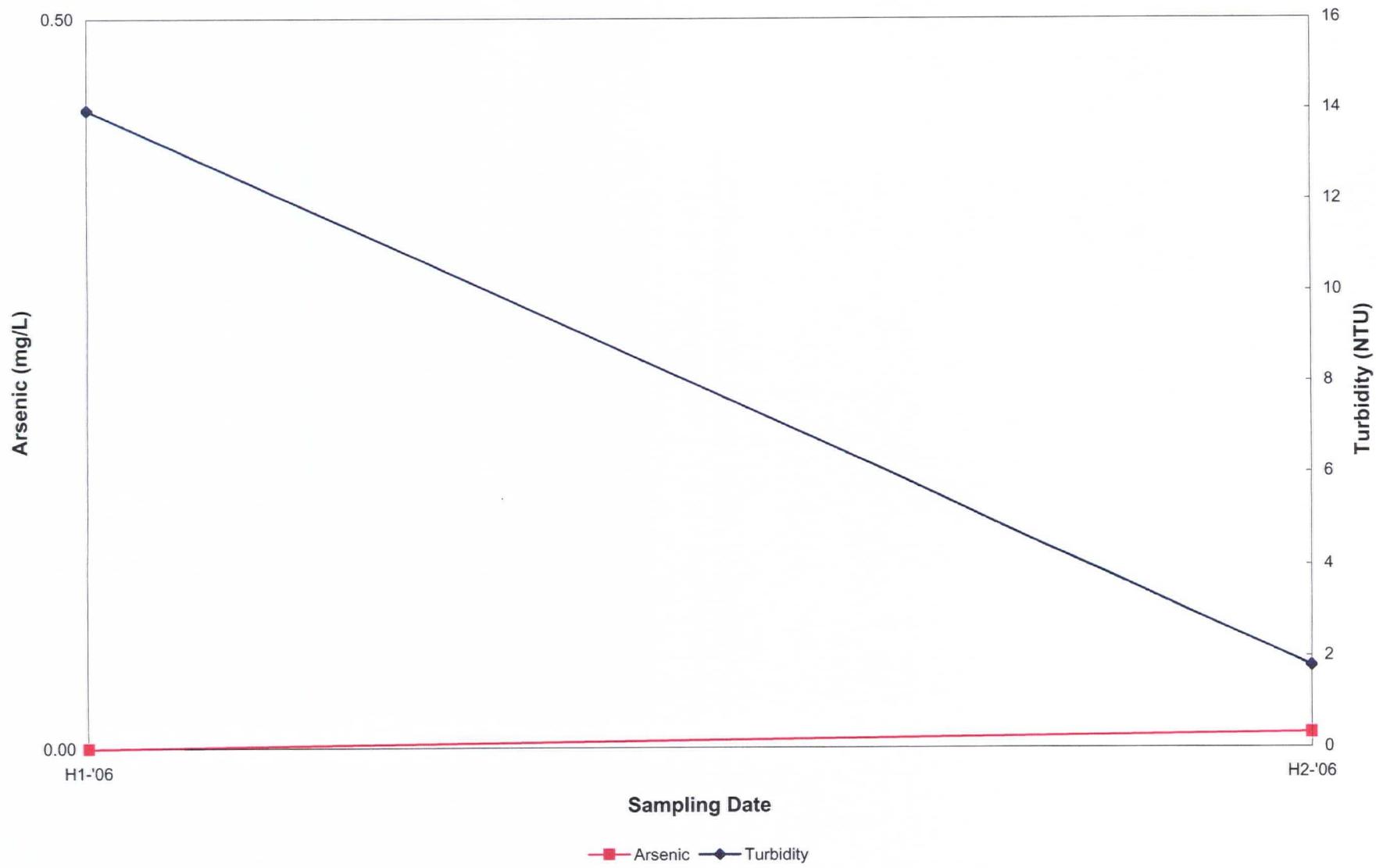
Monitoring Well GW-14



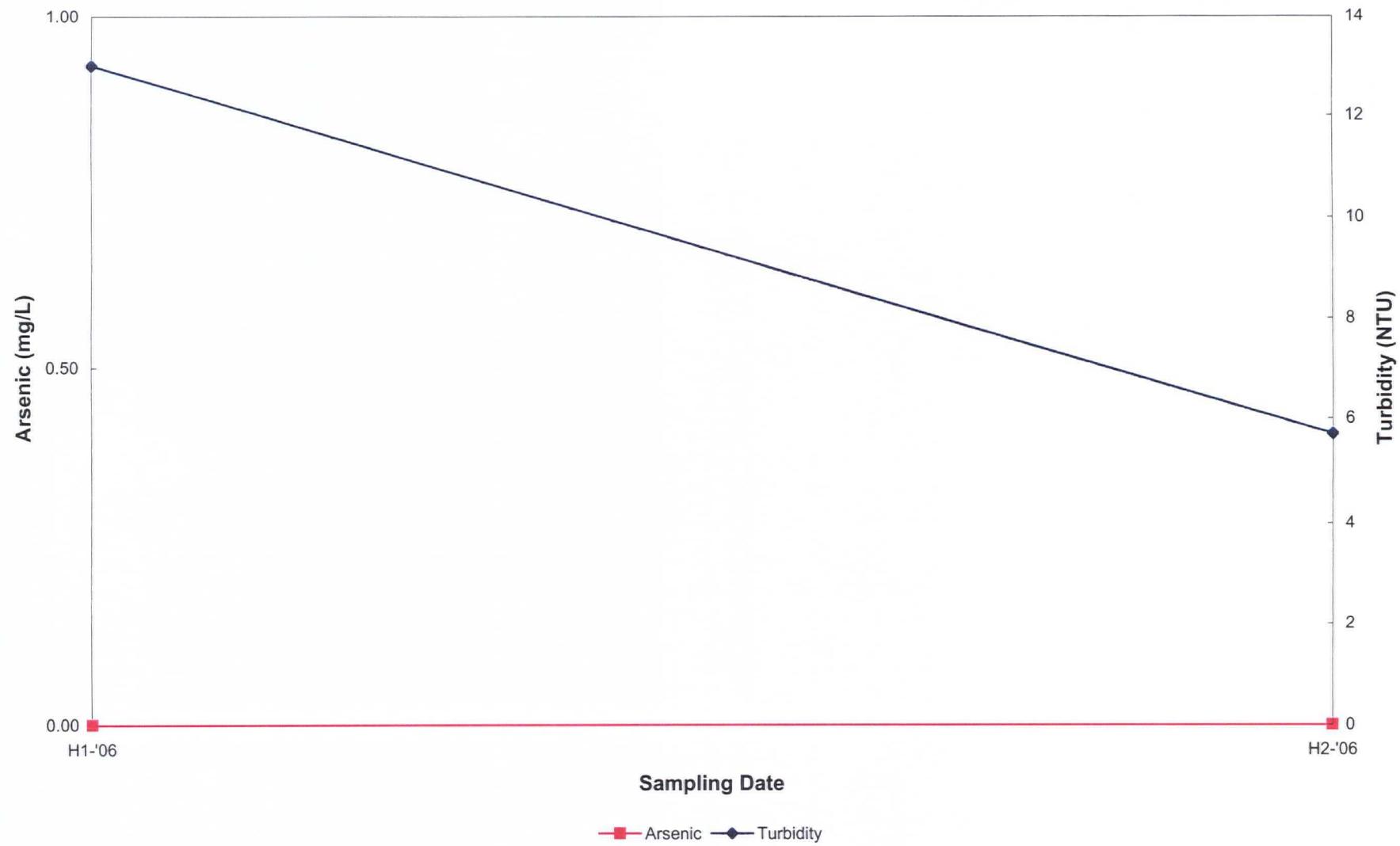
Monitoring Well GW-15



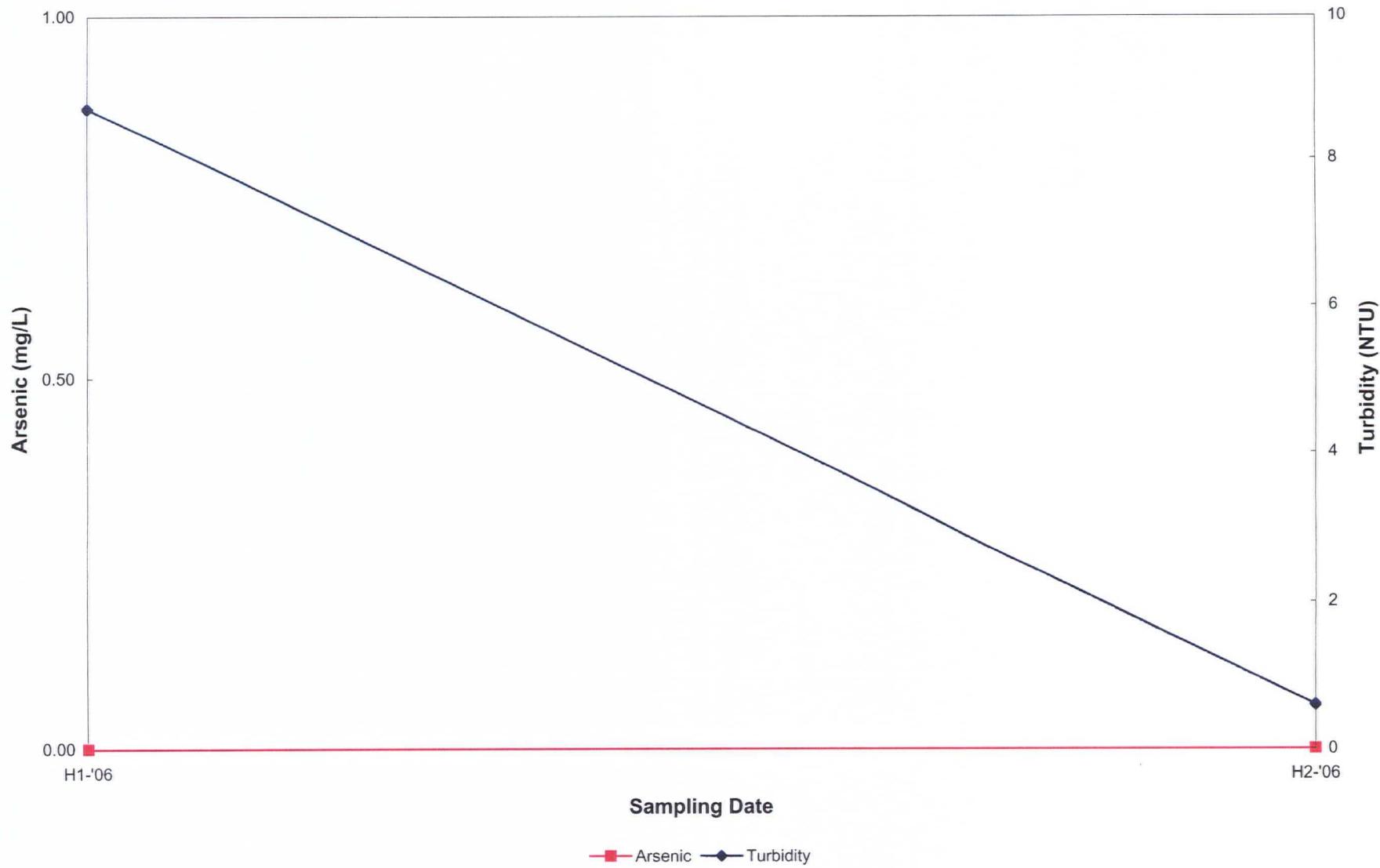
Monitoring Well GW-16



Monitoring Well GW-17

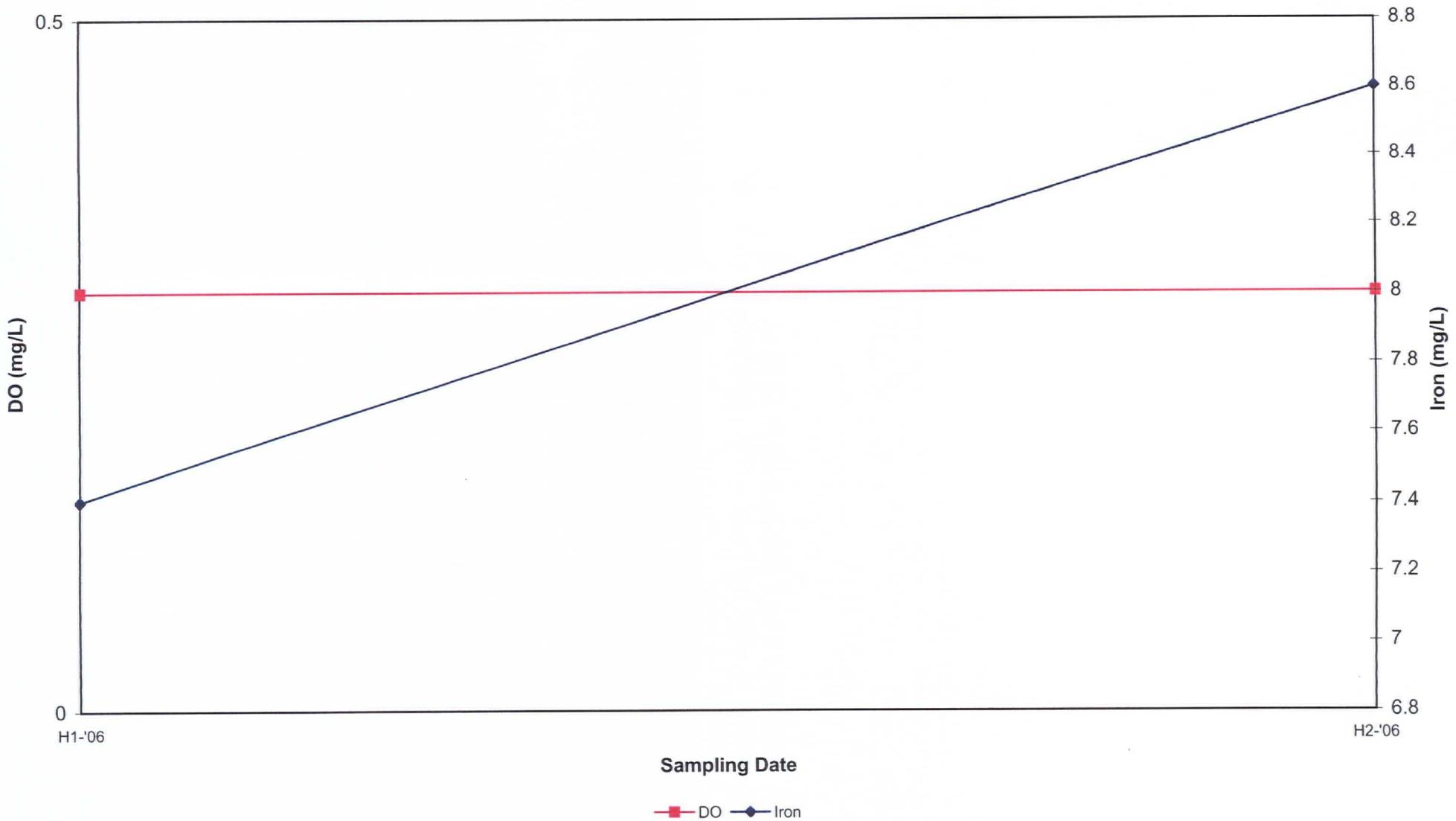


Monitoring Well BGW-1

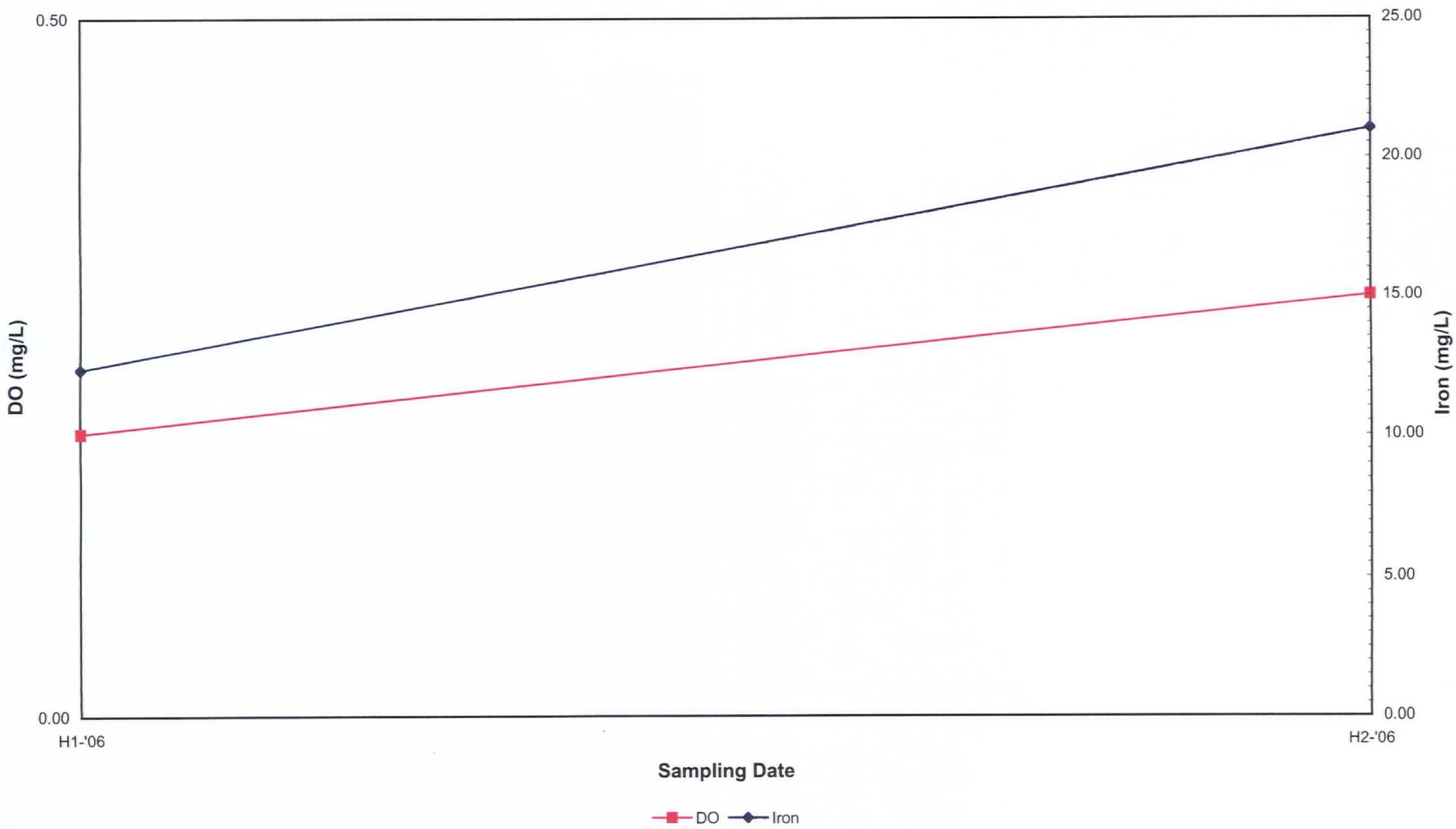


B-5 – DO versus Iron

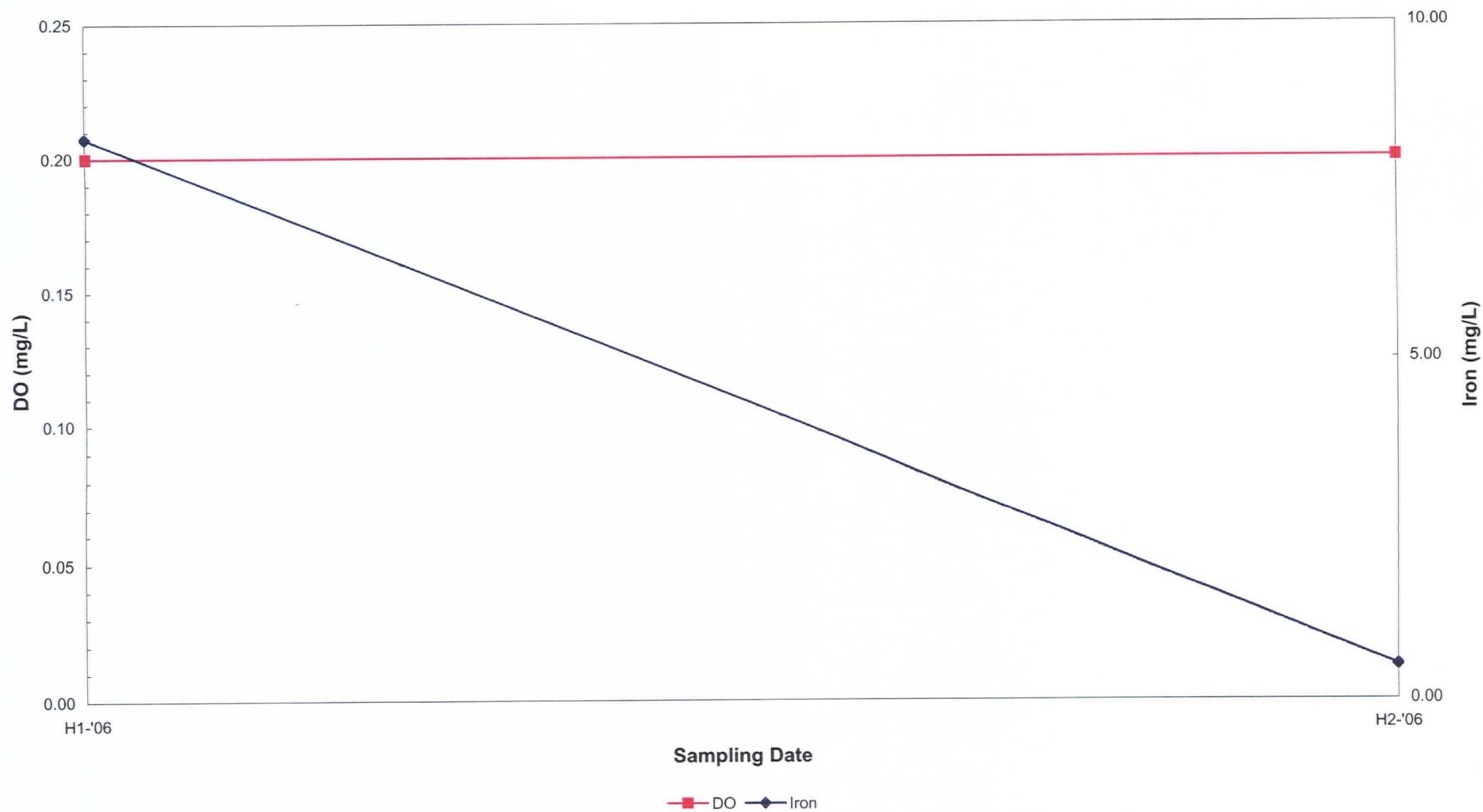
Monitoring Well GW- 1



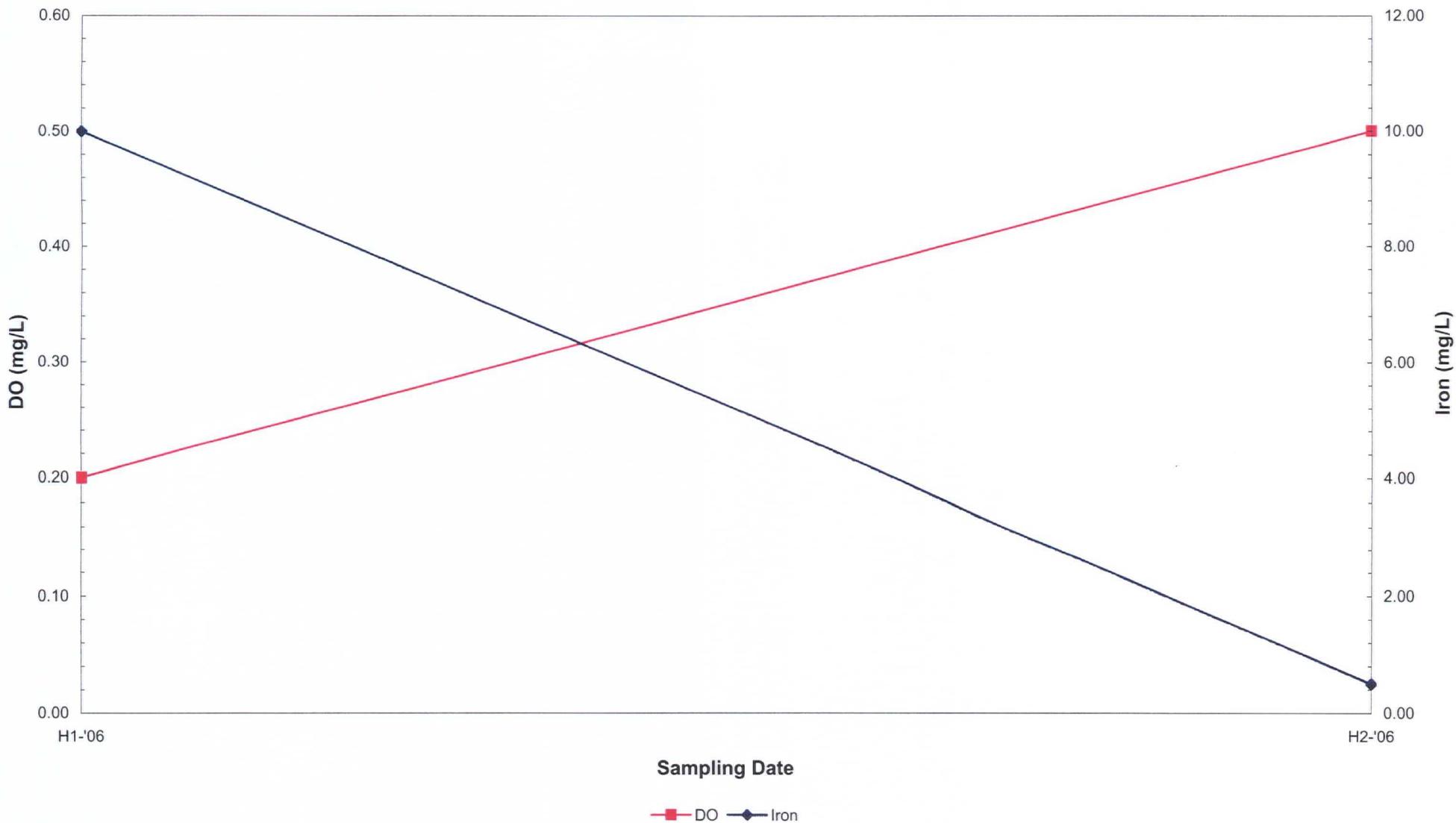
Monitoring Well GW- 2



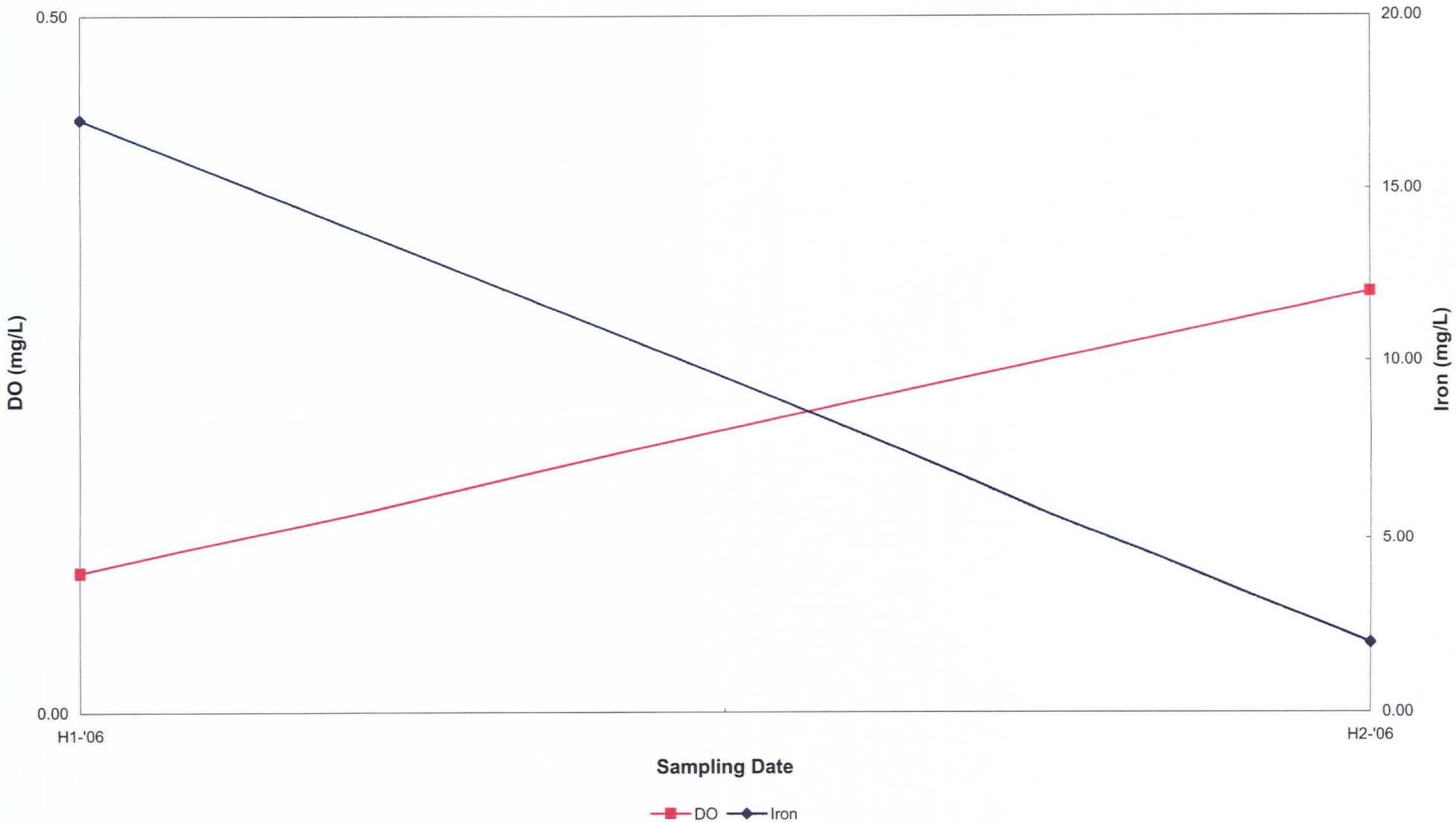
Monitoring Well GW-3



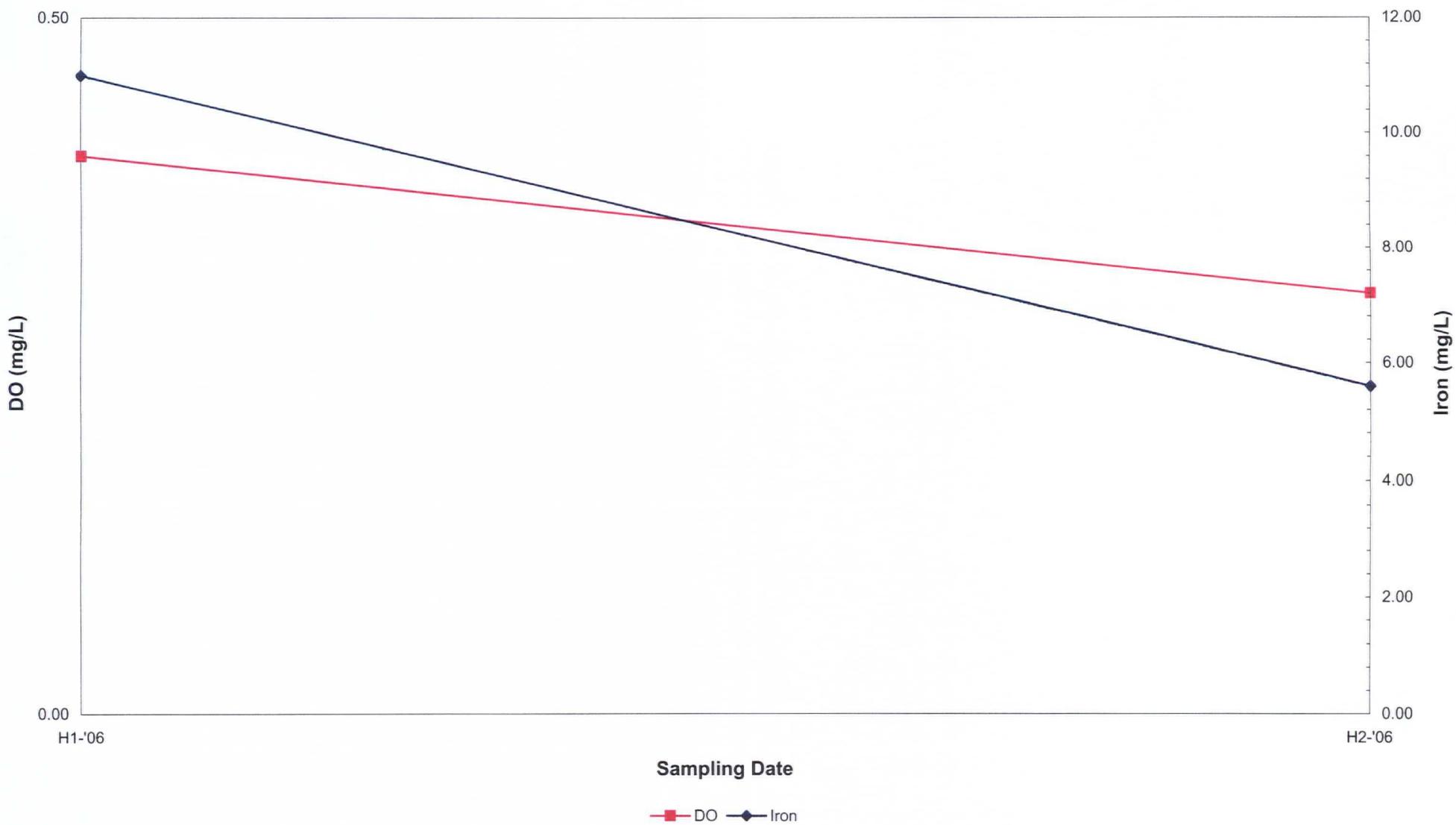
Monitoring Well GW-4



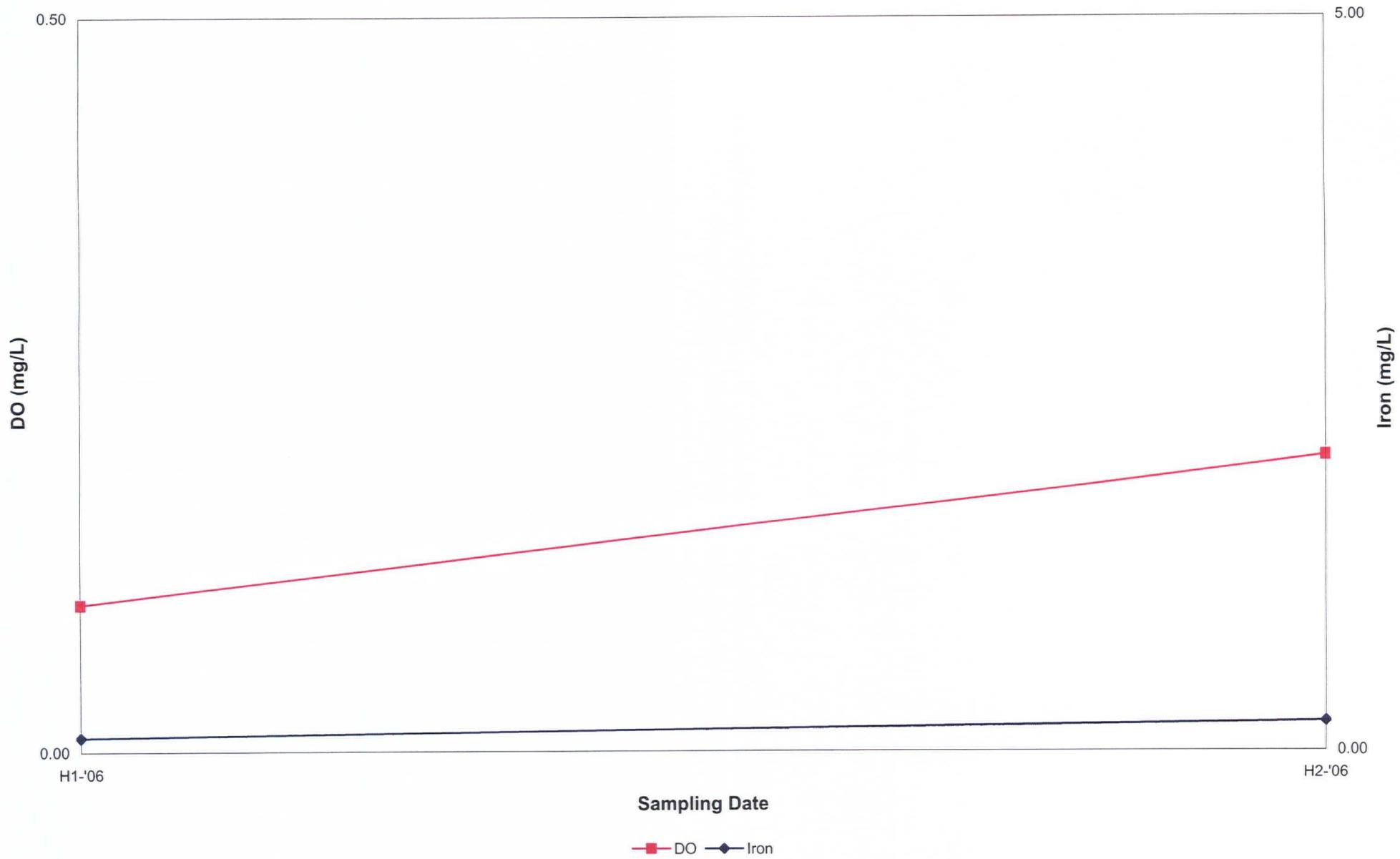
Monitoring Well GW-5



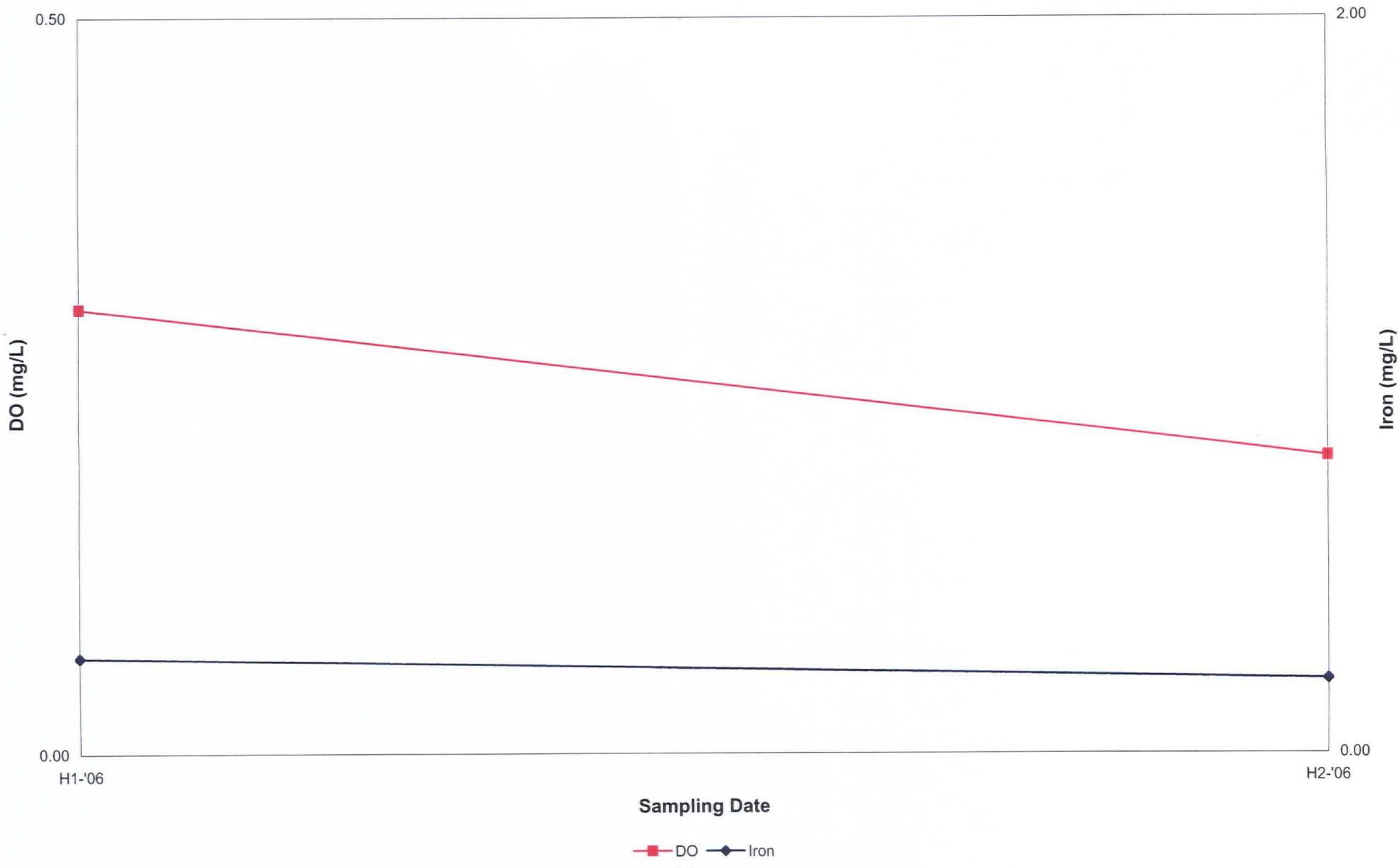
Monitoring Well GW-6

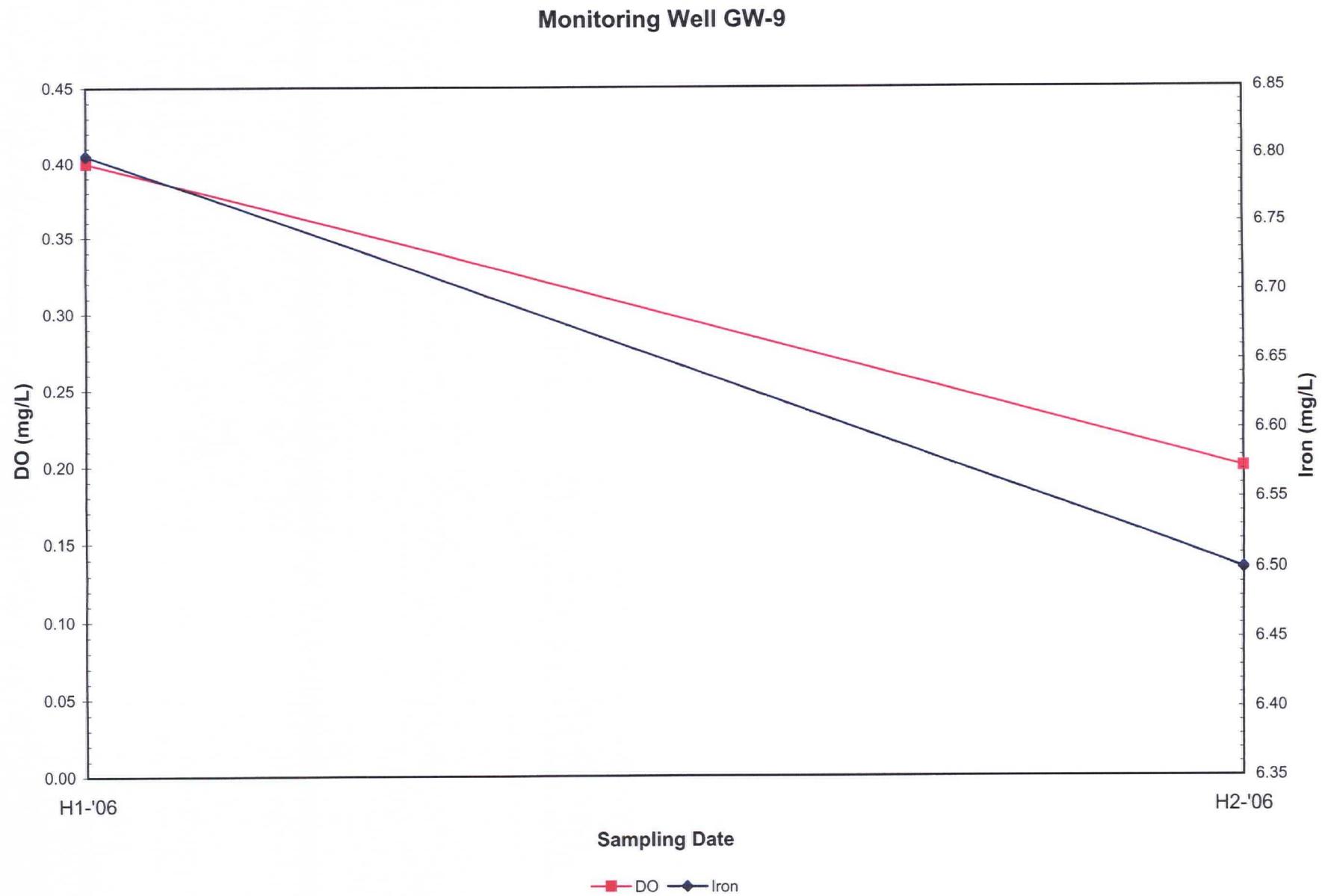


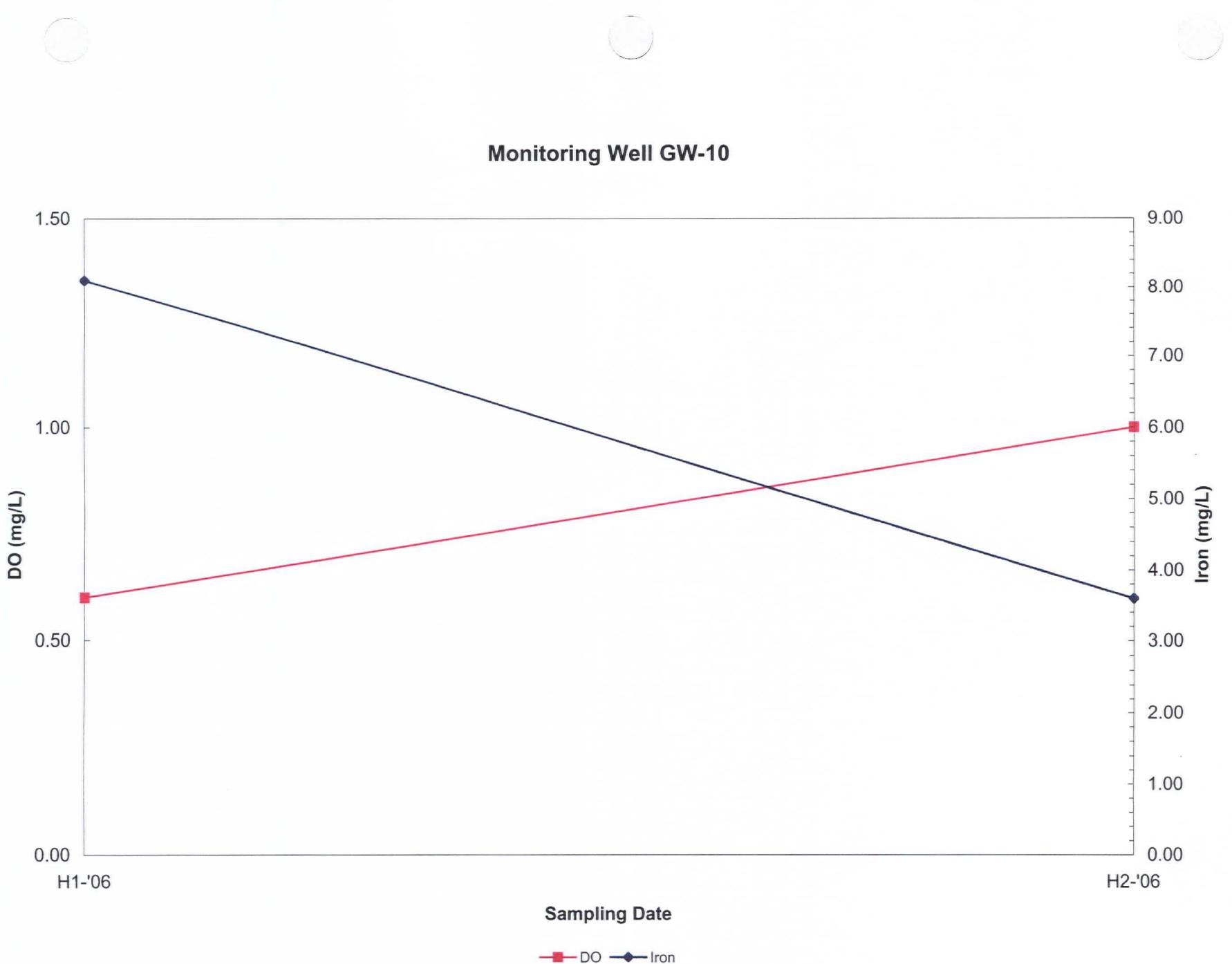
Monitoring Well GW-7



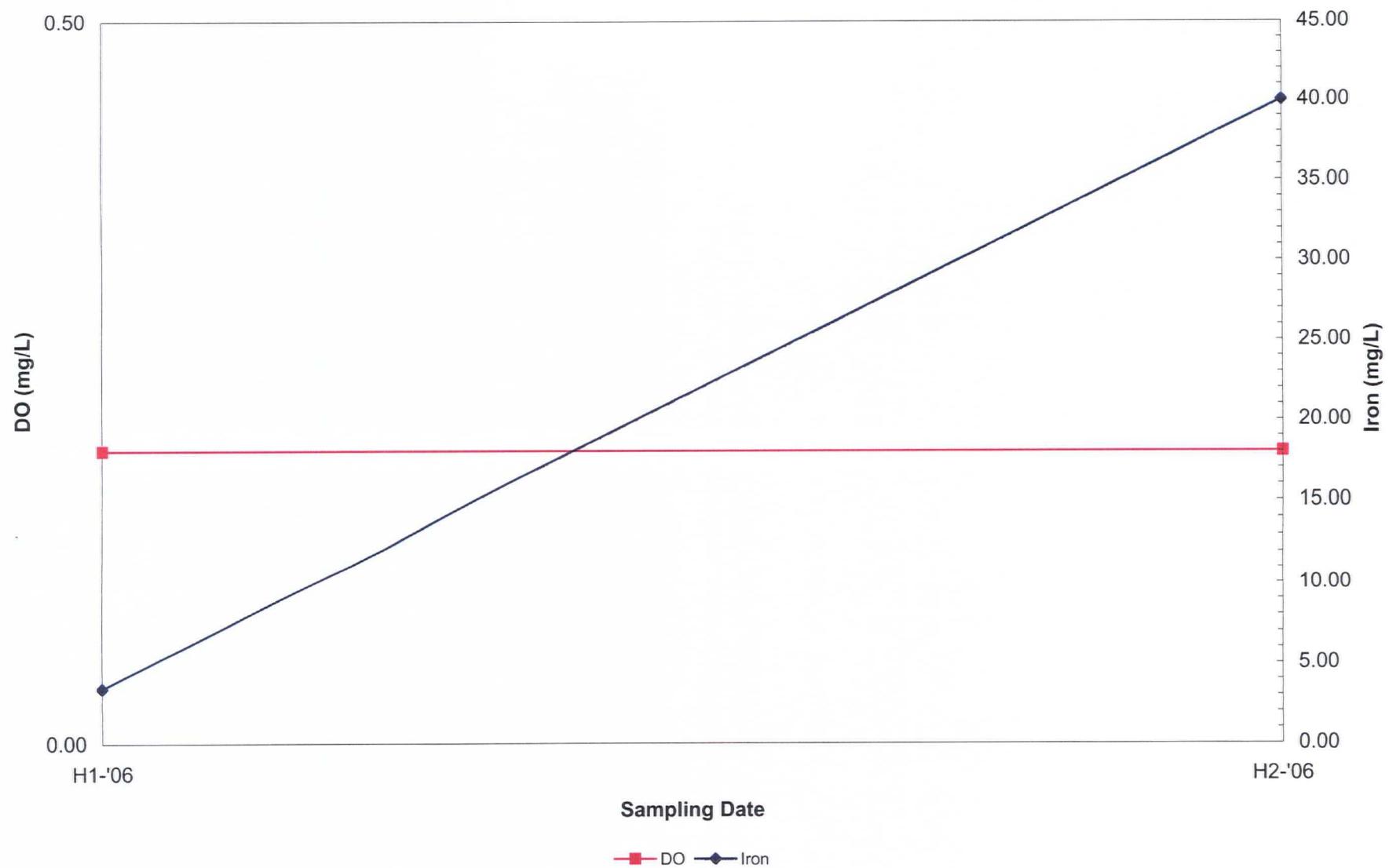
Monitoring Well GW-8



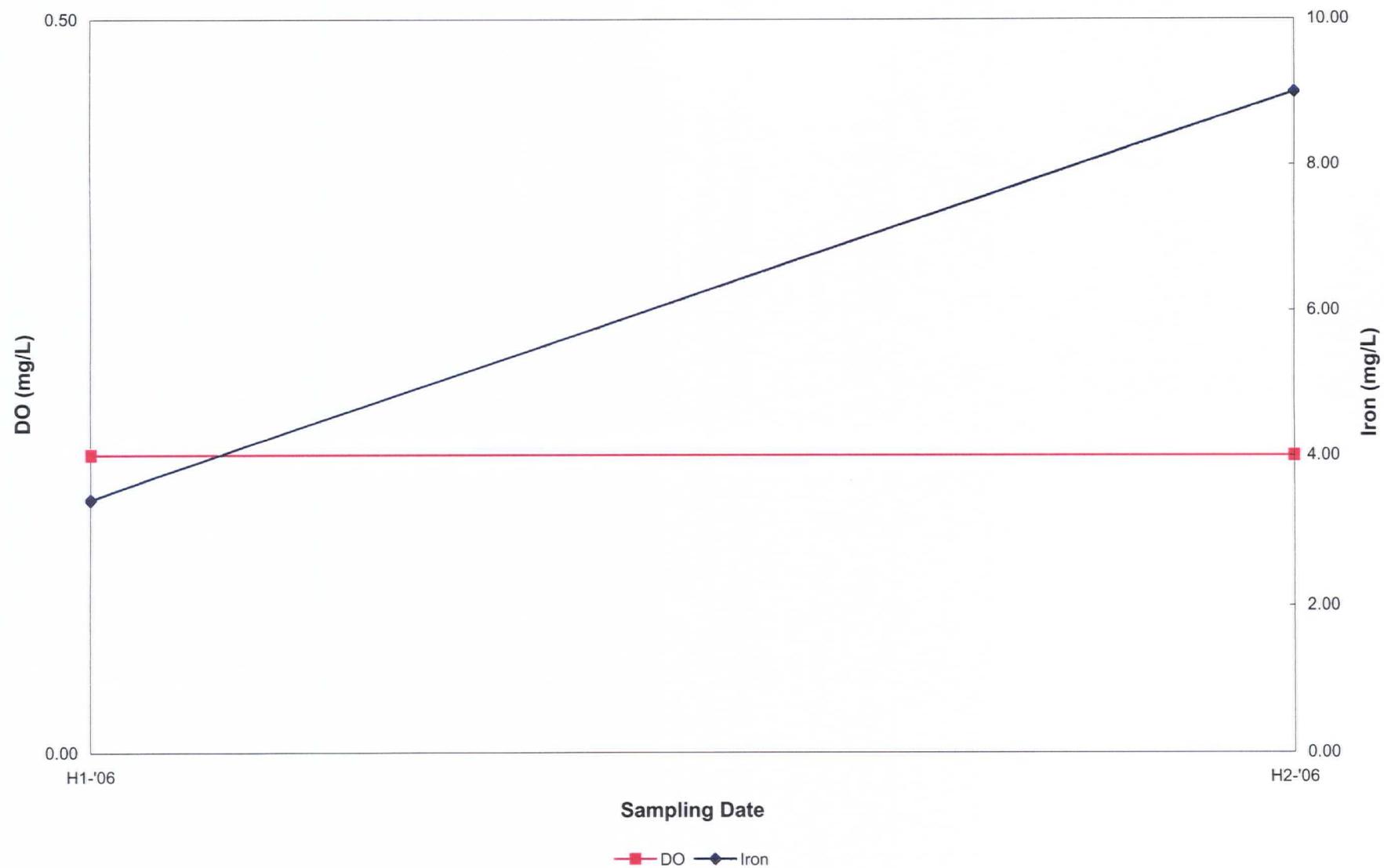




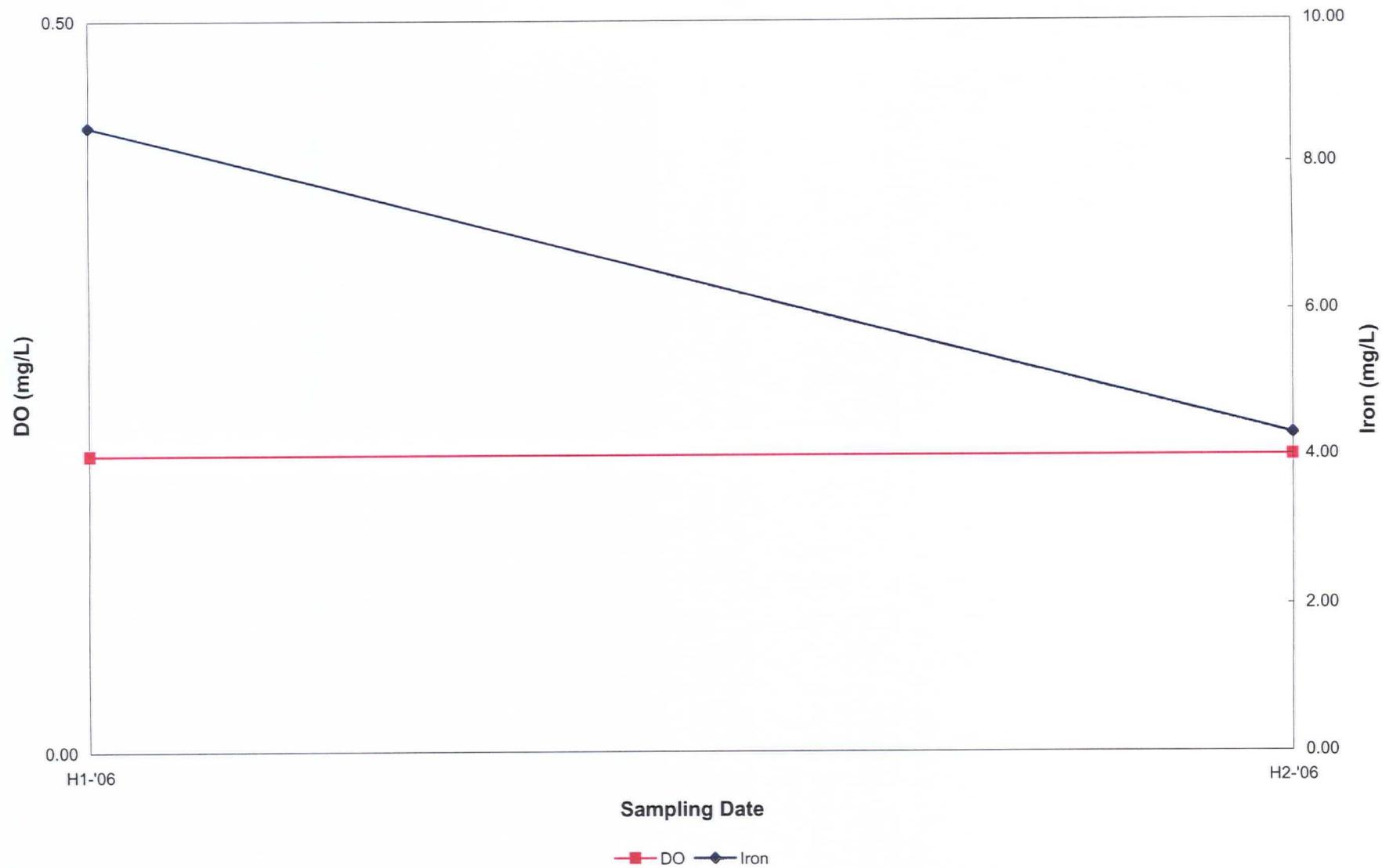
Monitoring Well GW-11



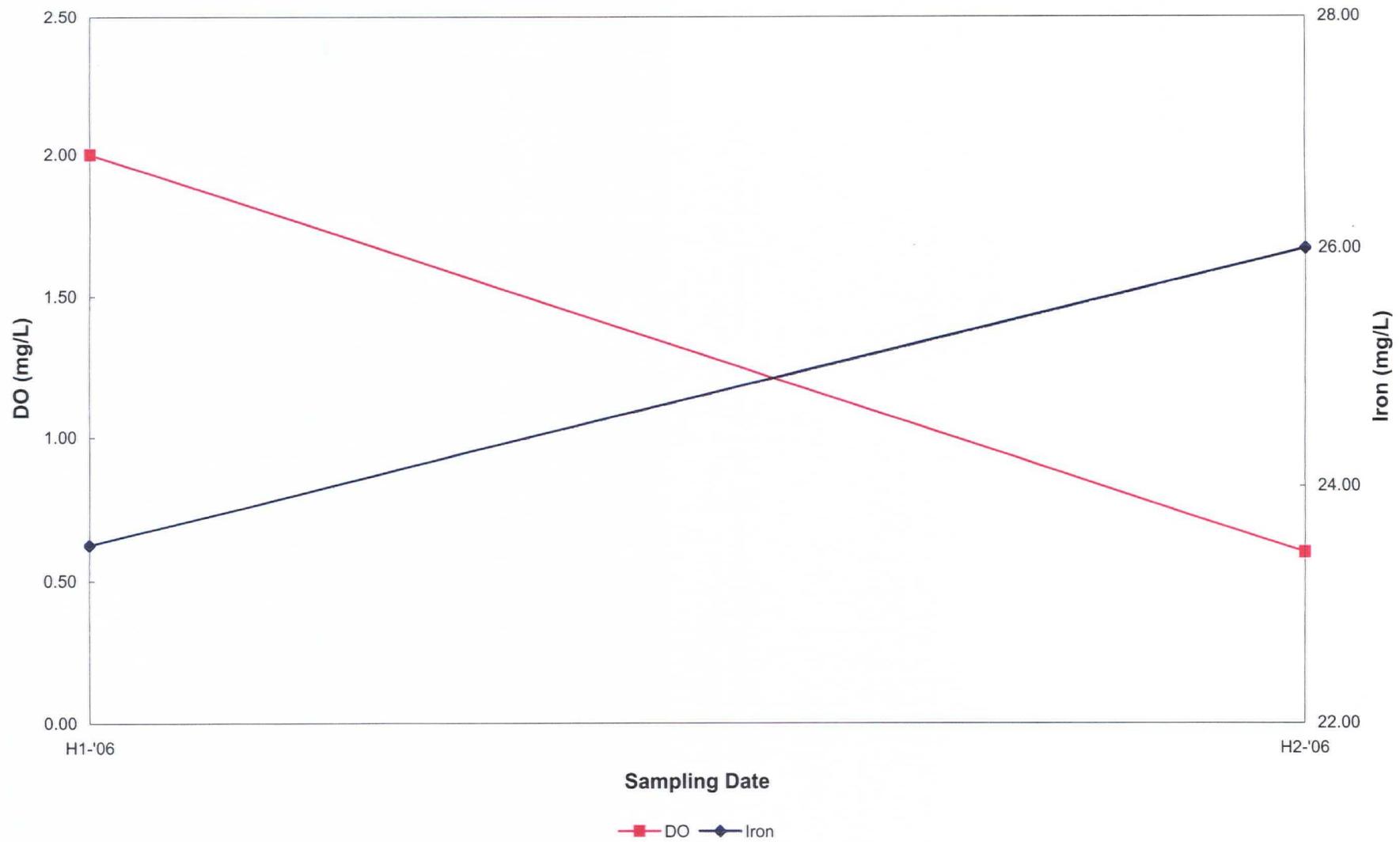
Monitoring Well GW-12



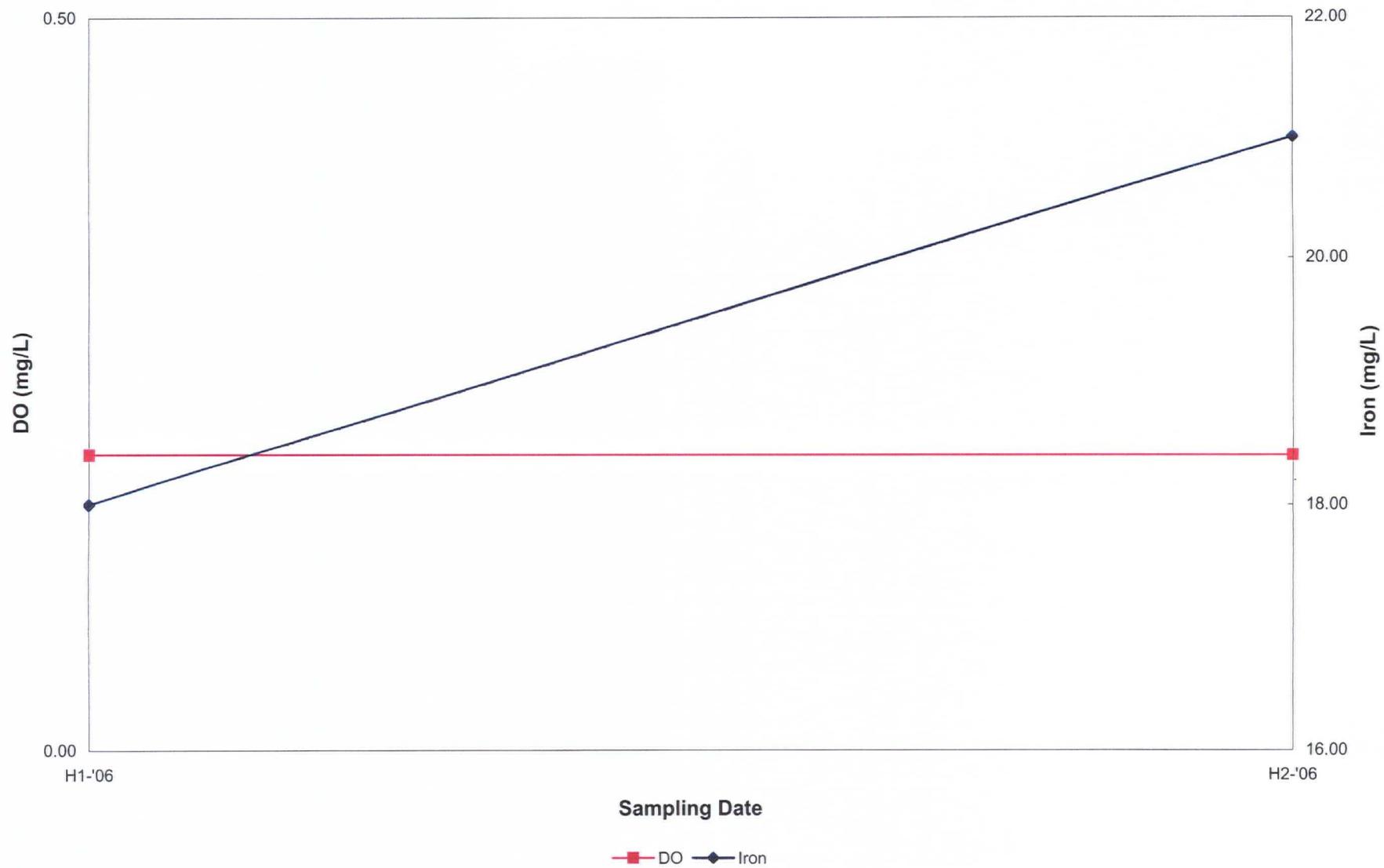
Monitoring Well GW-13



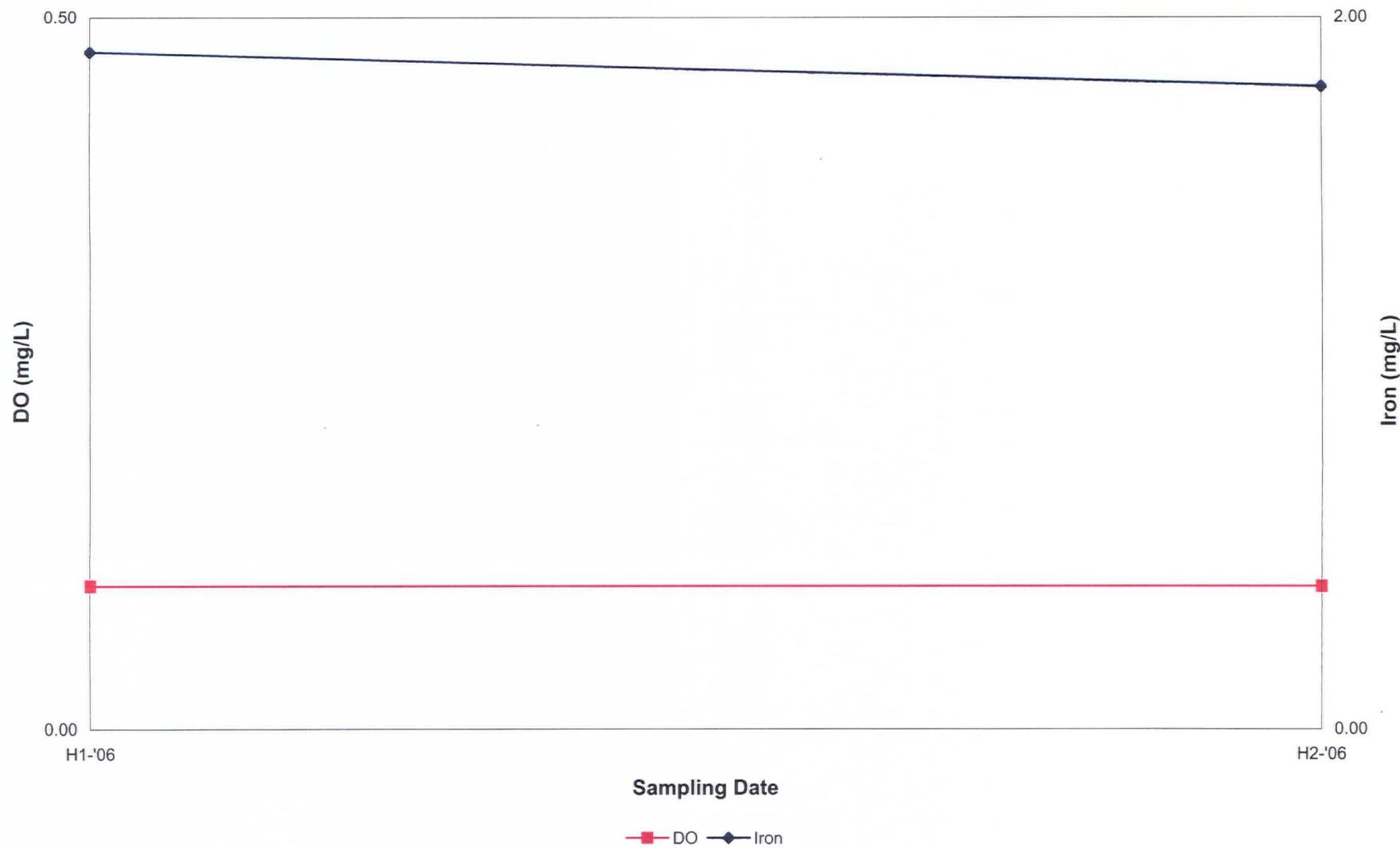
Monitoring Well GW-14



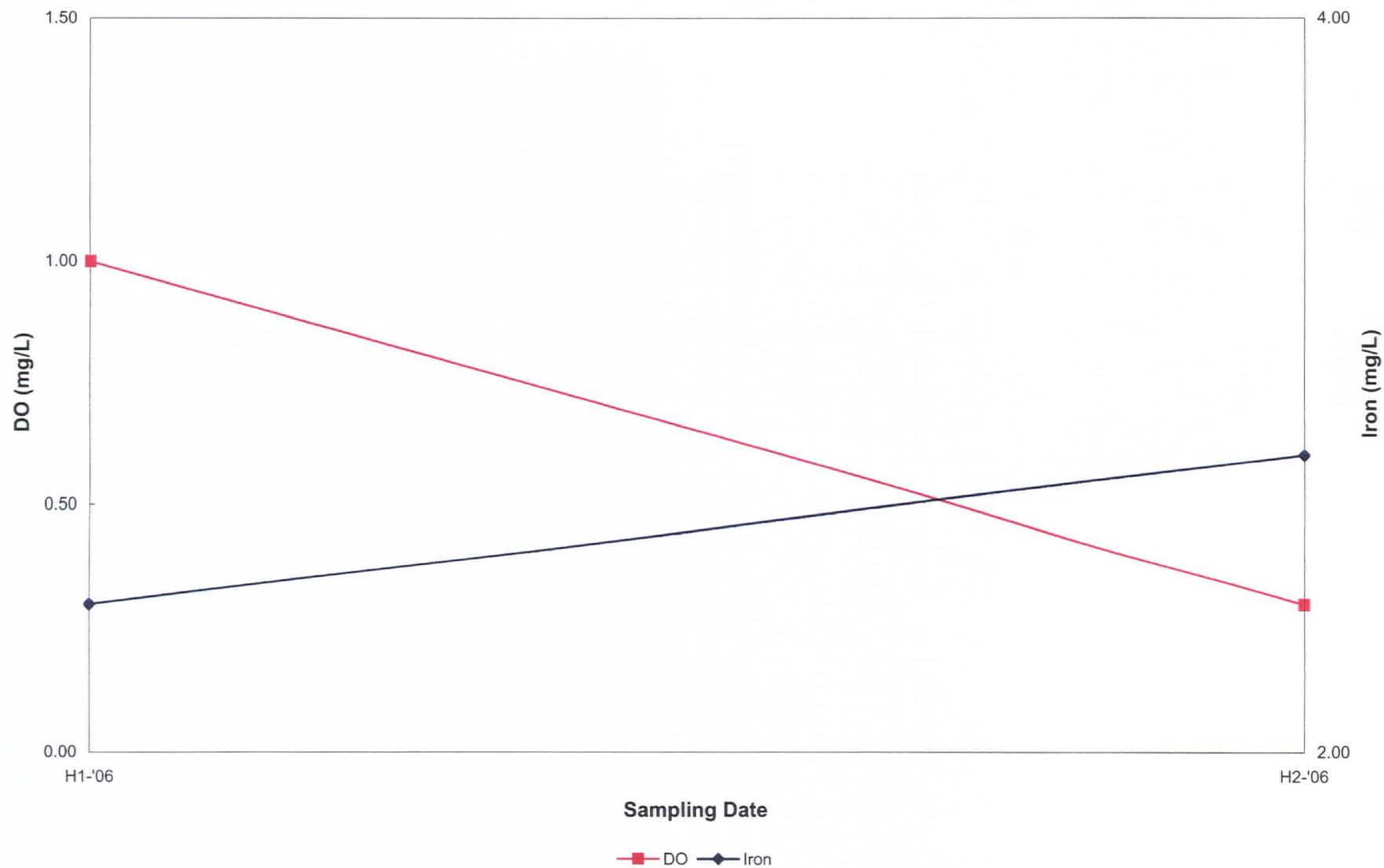
Monitoring Well GW-15



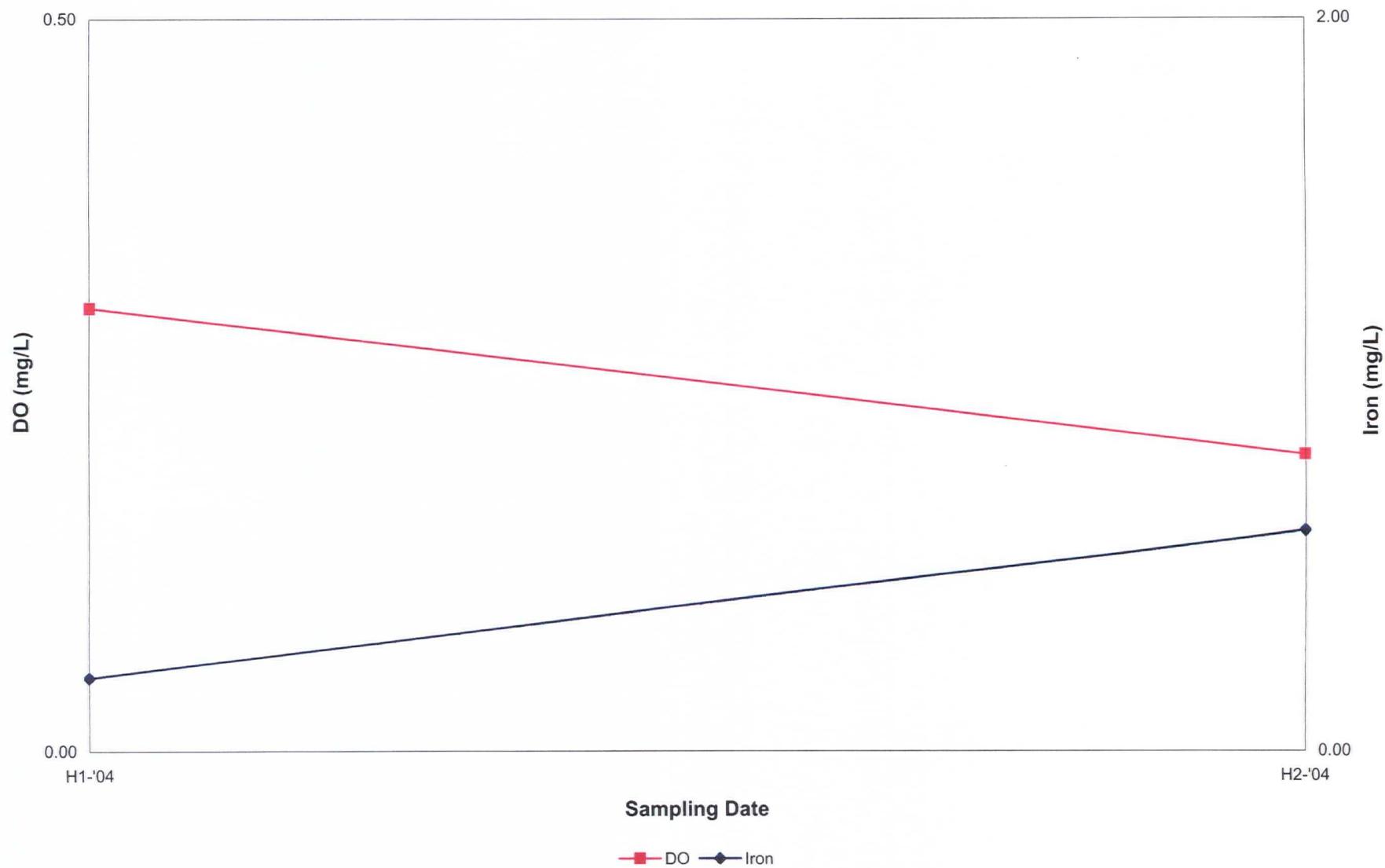
Monitoring Well GW-16



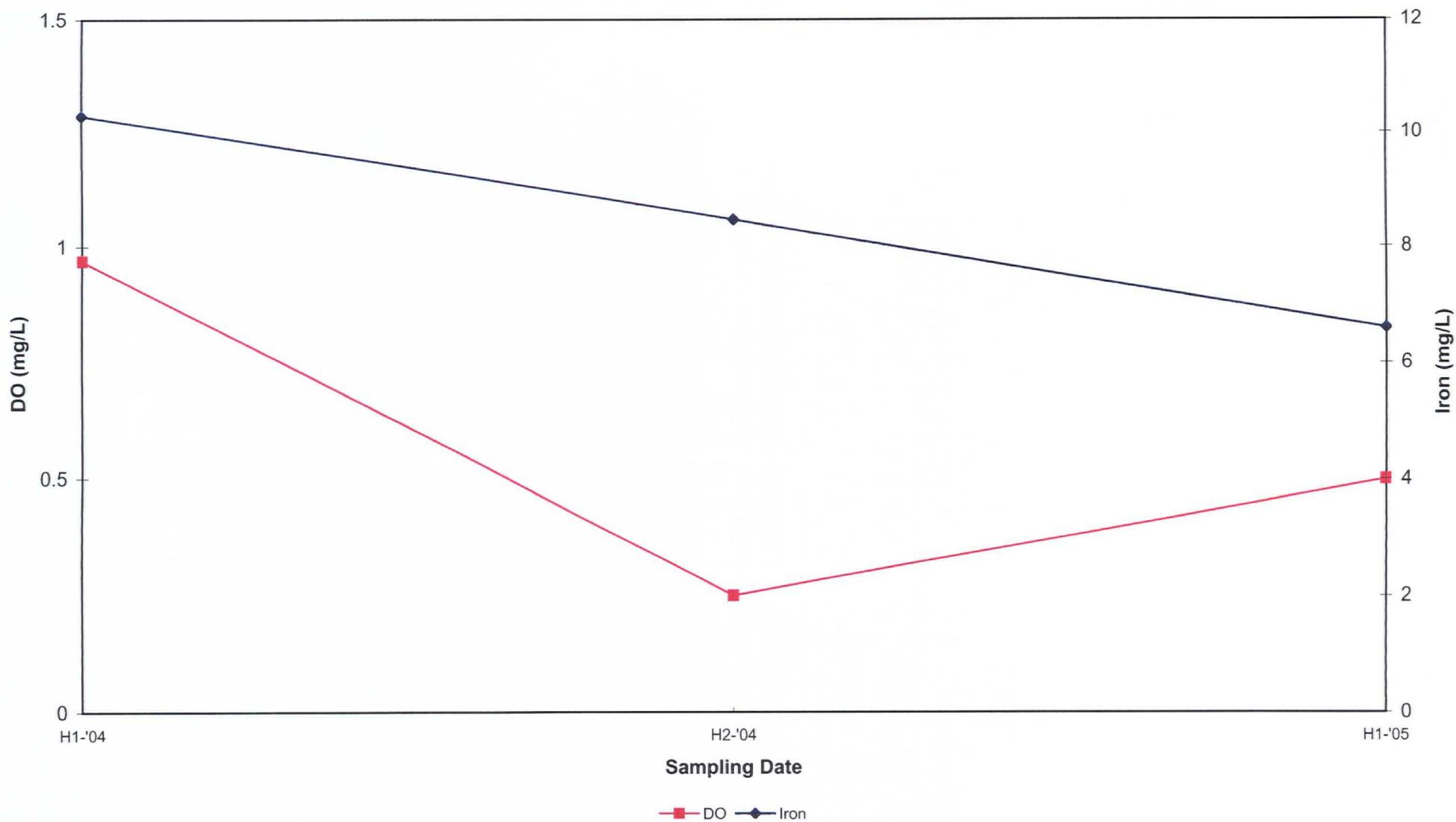
Monitoring Well GW-17



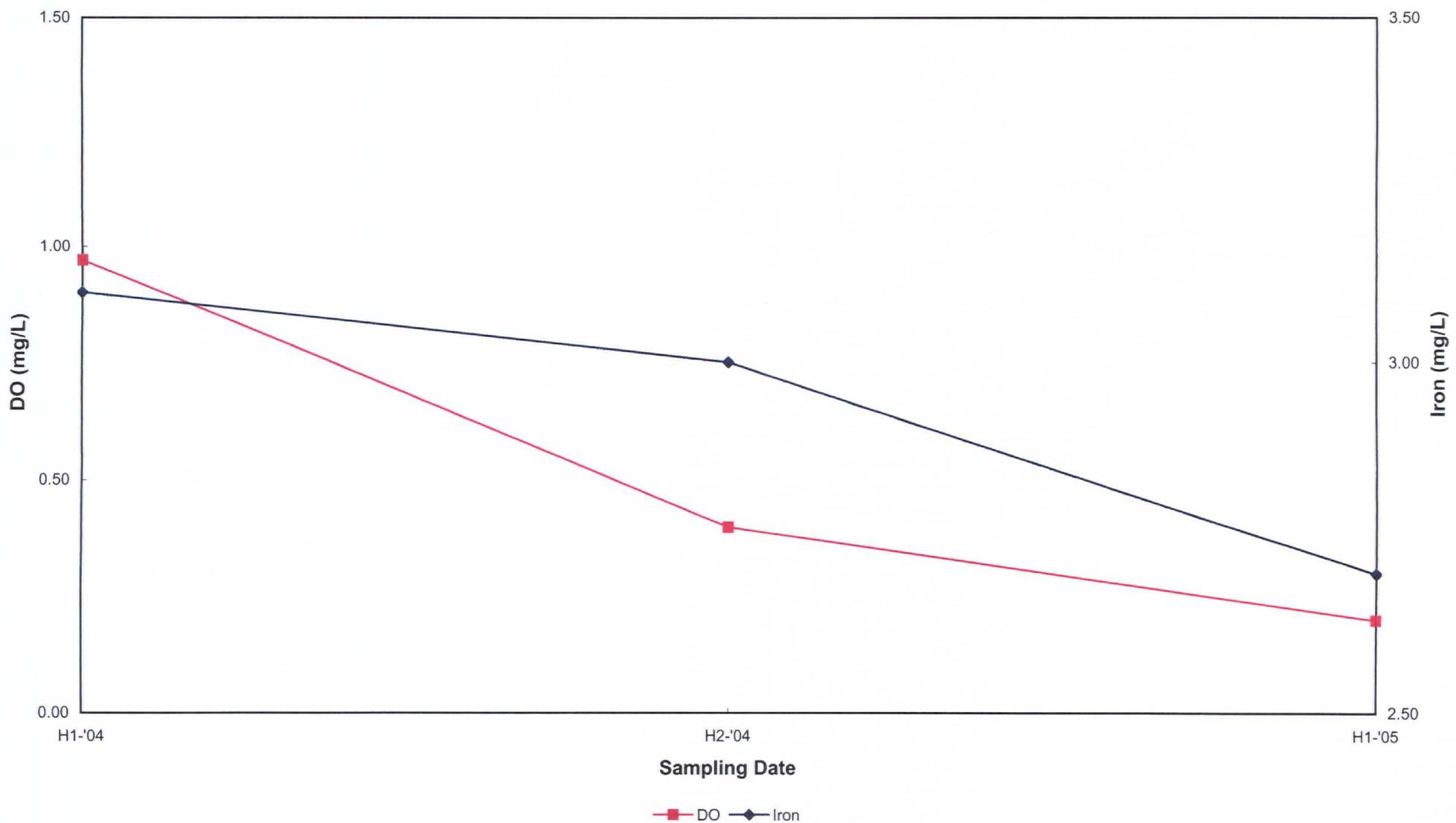
Monitoring Well BGW-1



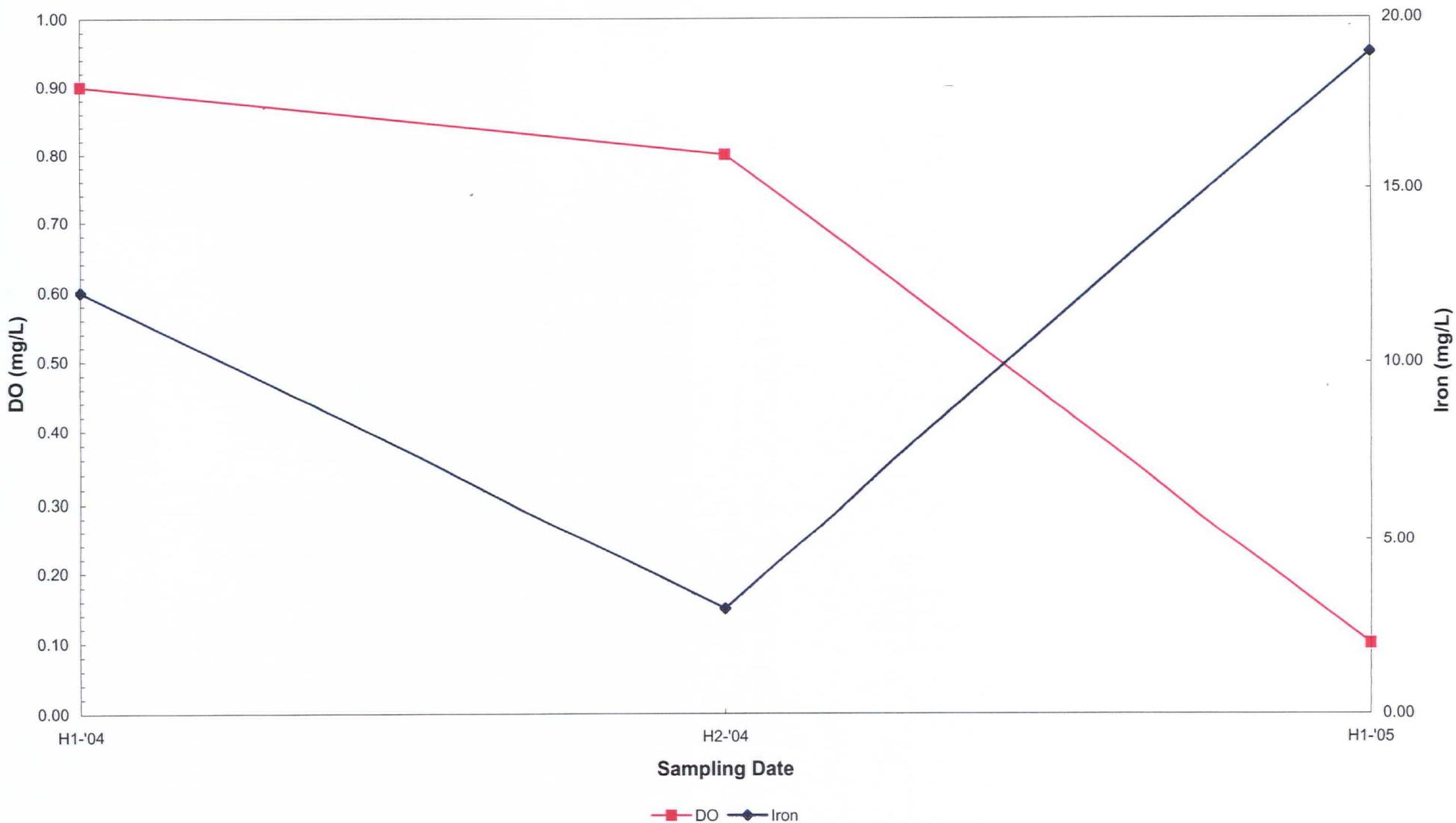
Monitoring Well CW- 4



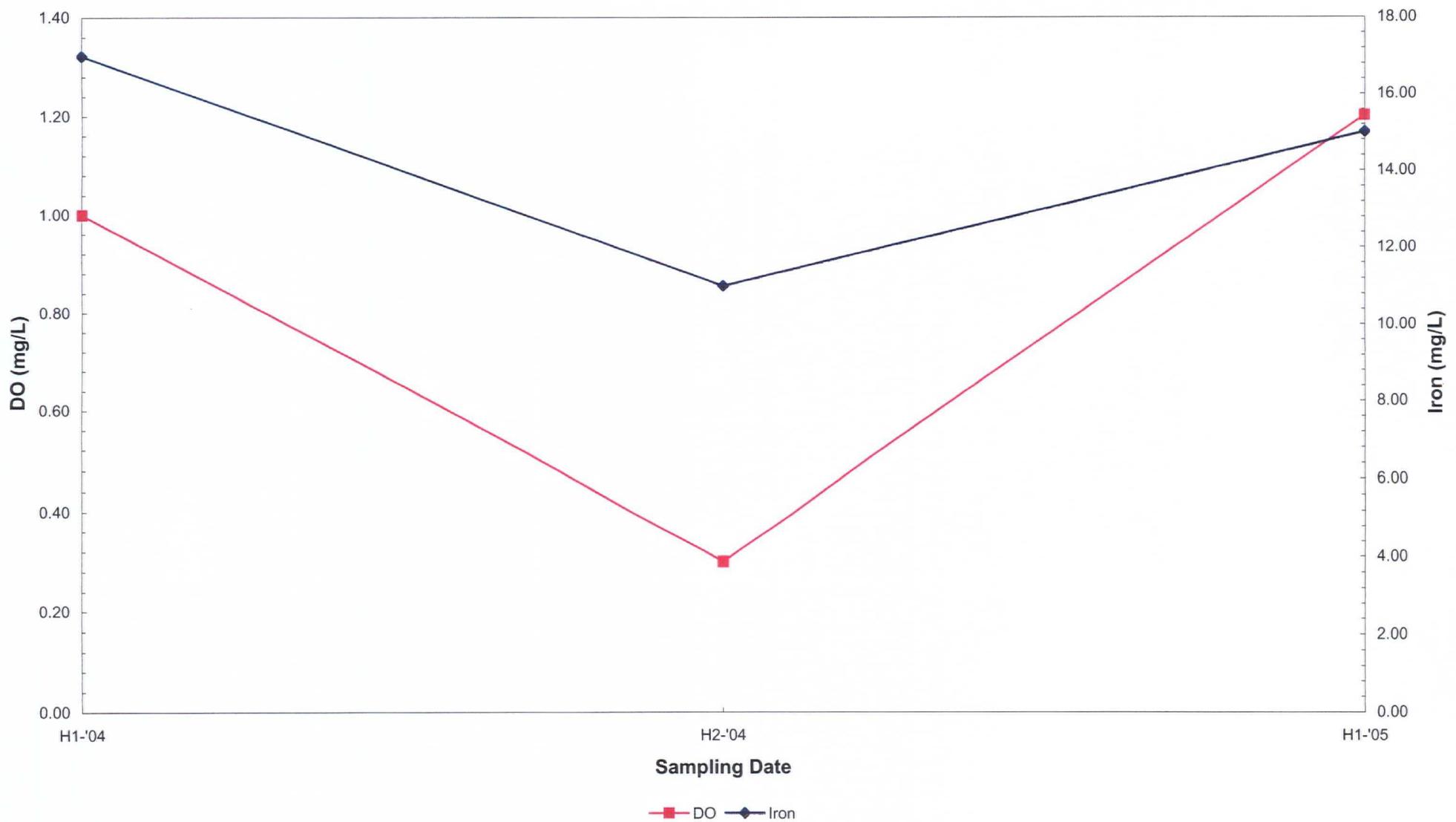
Monitoring Well CW- 5A



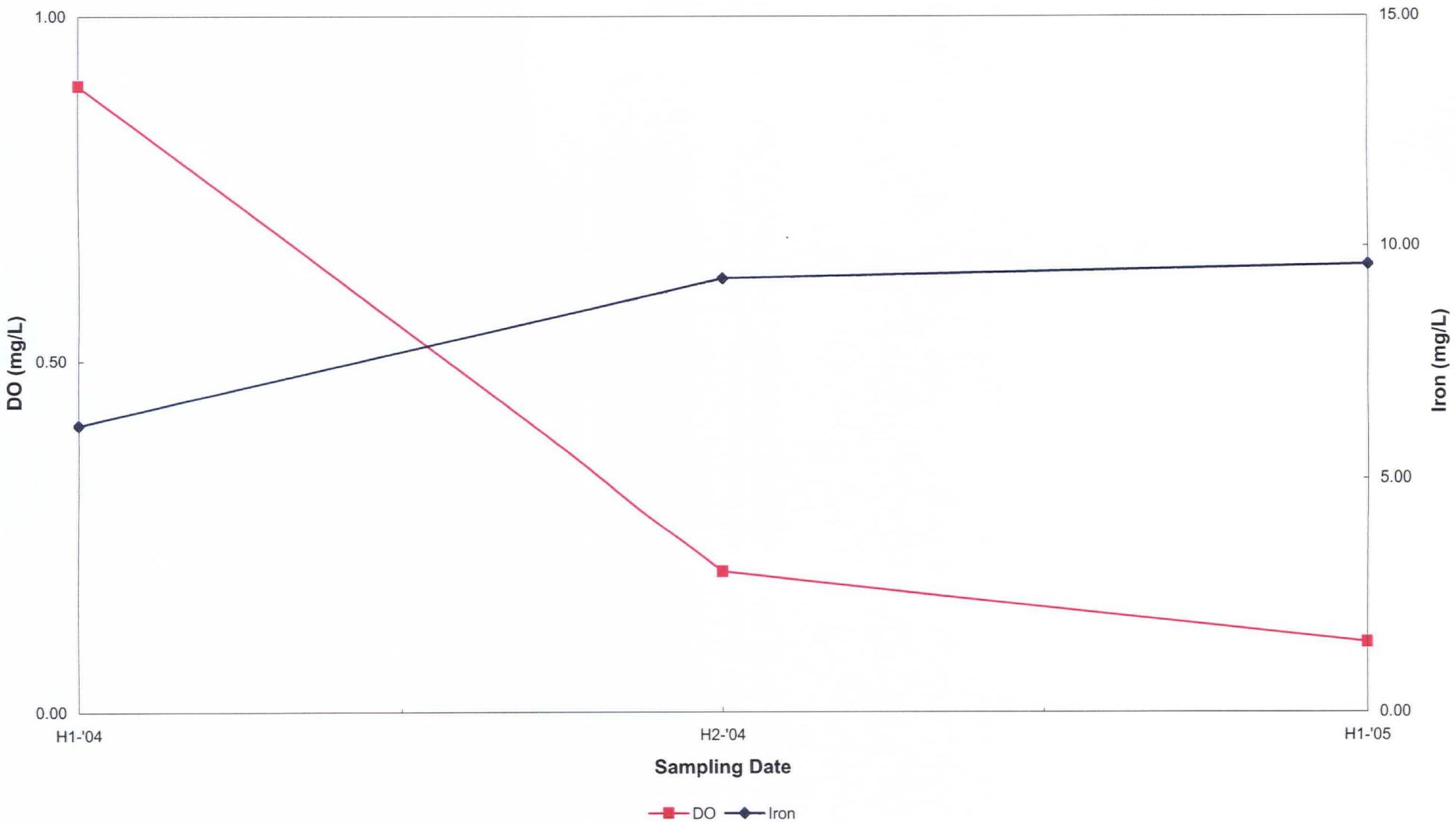
Monitoring Well GC-1A



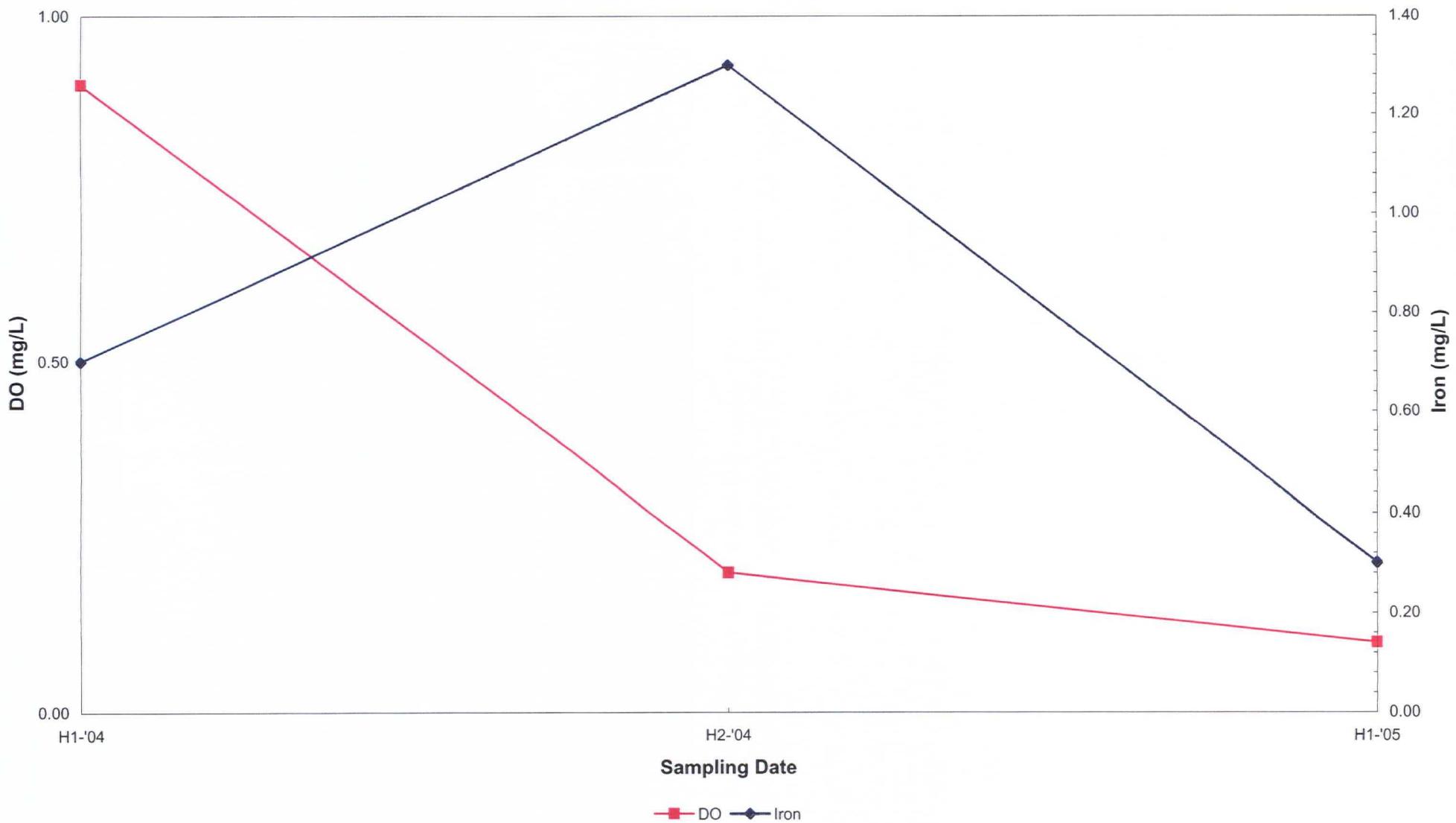
Monitoring Well GC-2



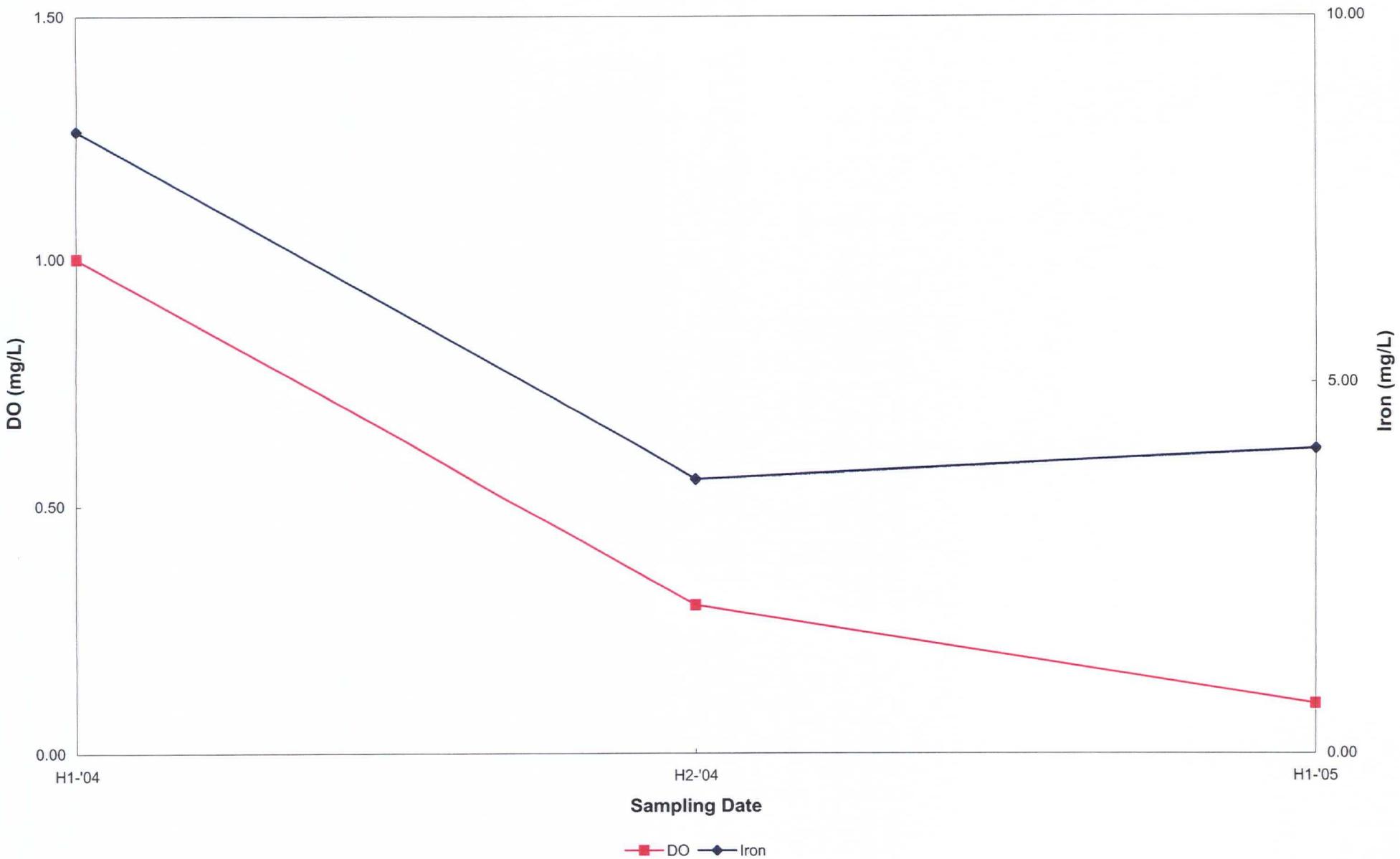
Monitoring Well GC-3



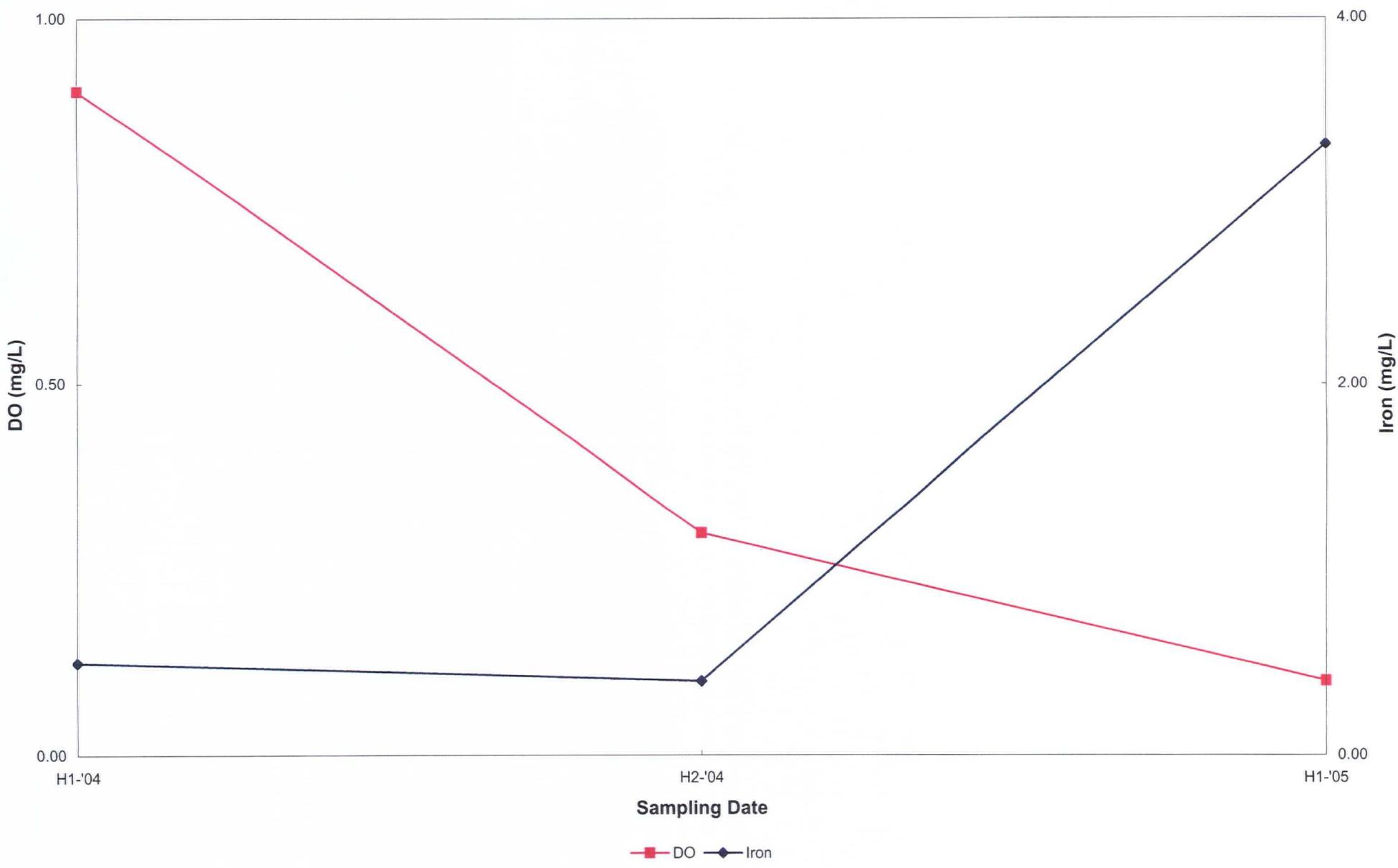
Monitoring Well GC-4



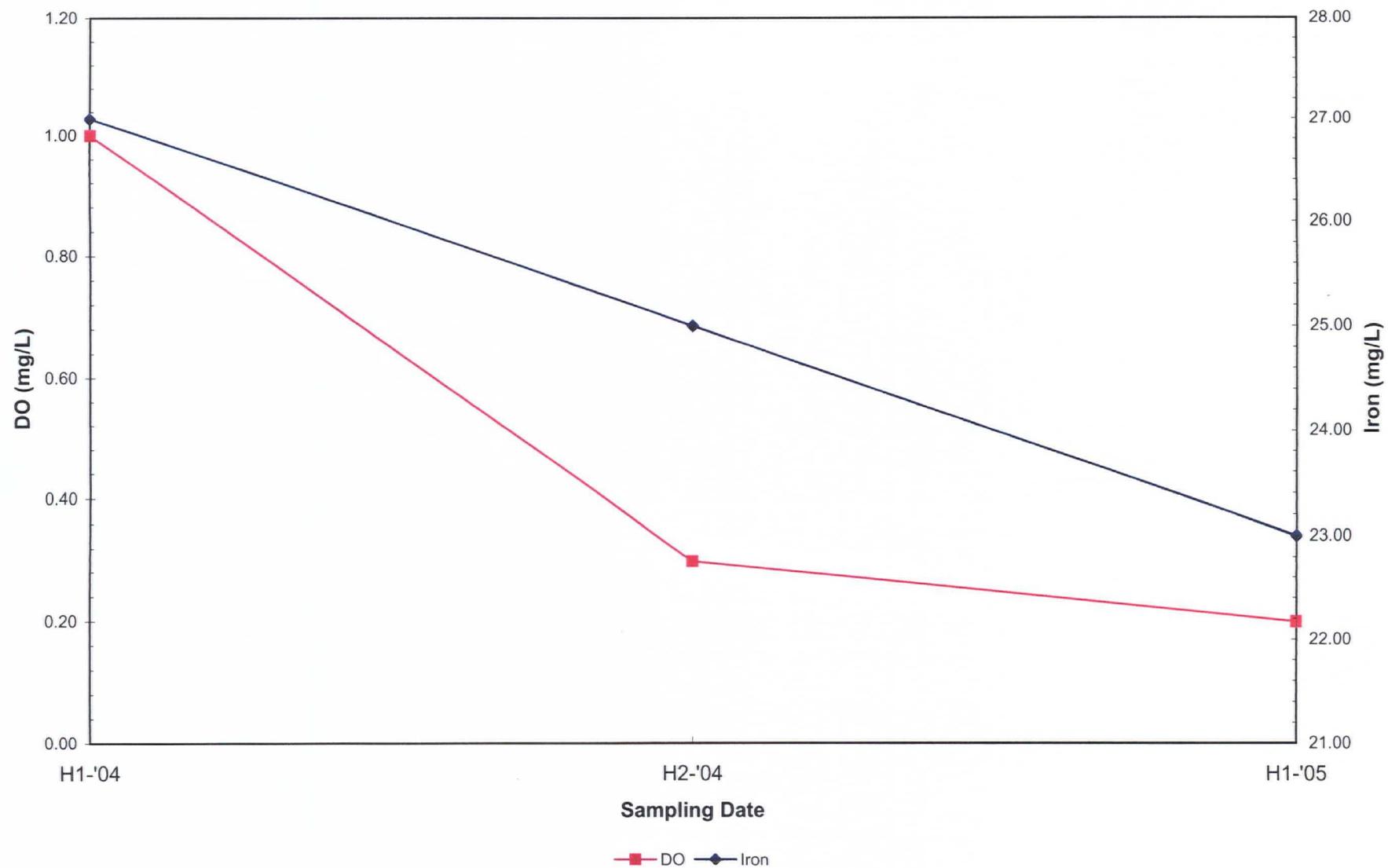
Monitoring Well GC- 5



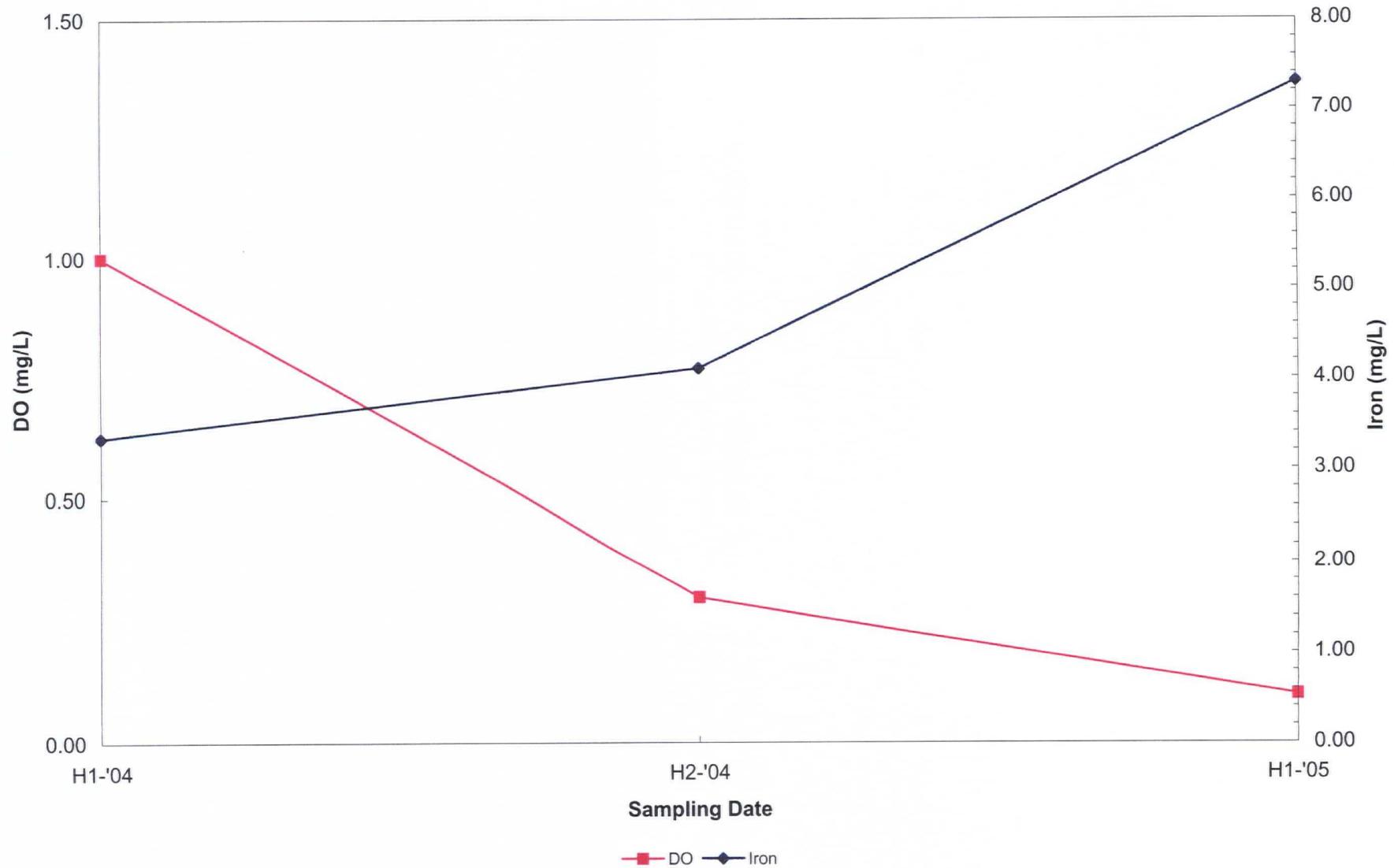
Monitoring Well GC-6



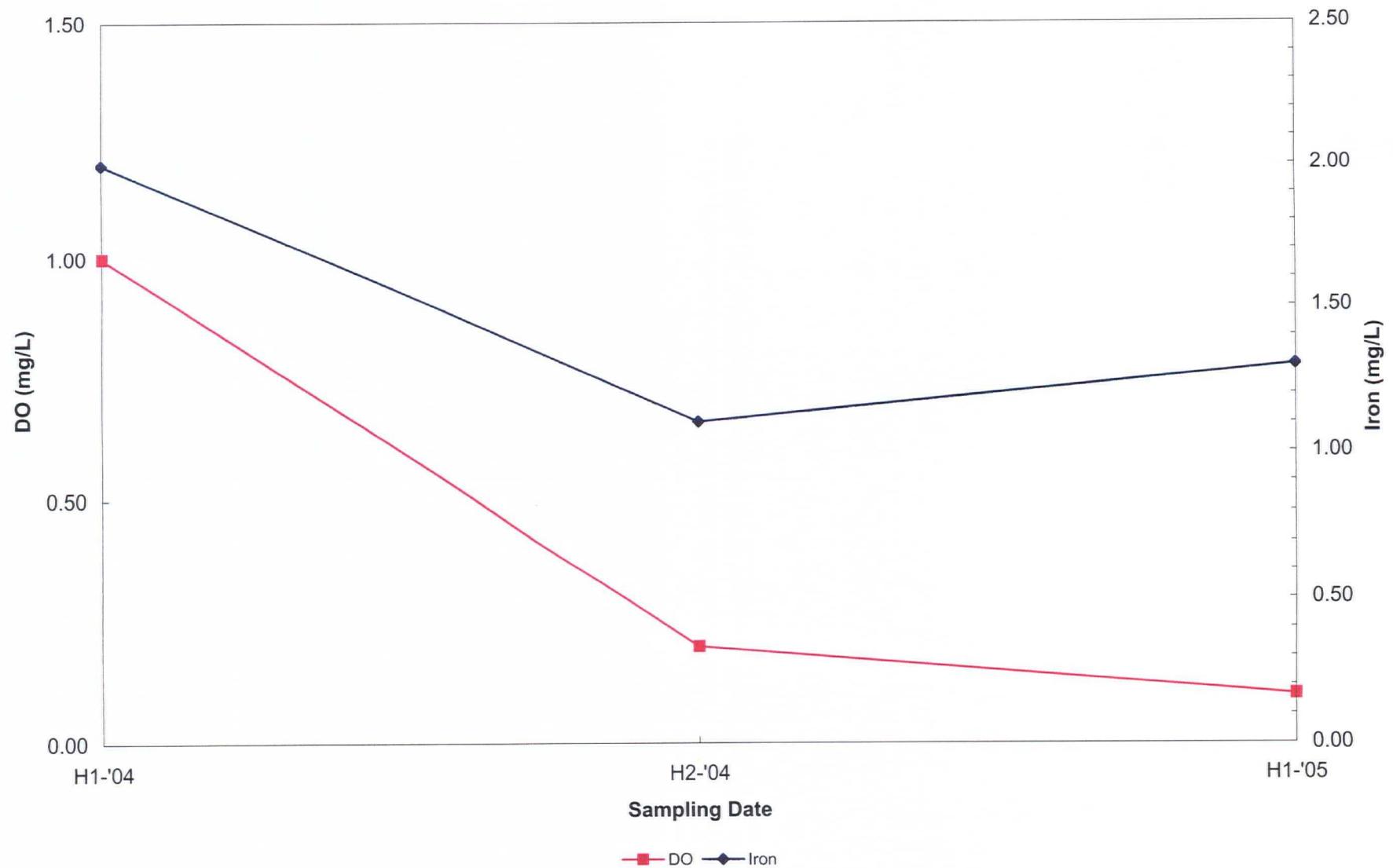
Monitoring Well LRII-1



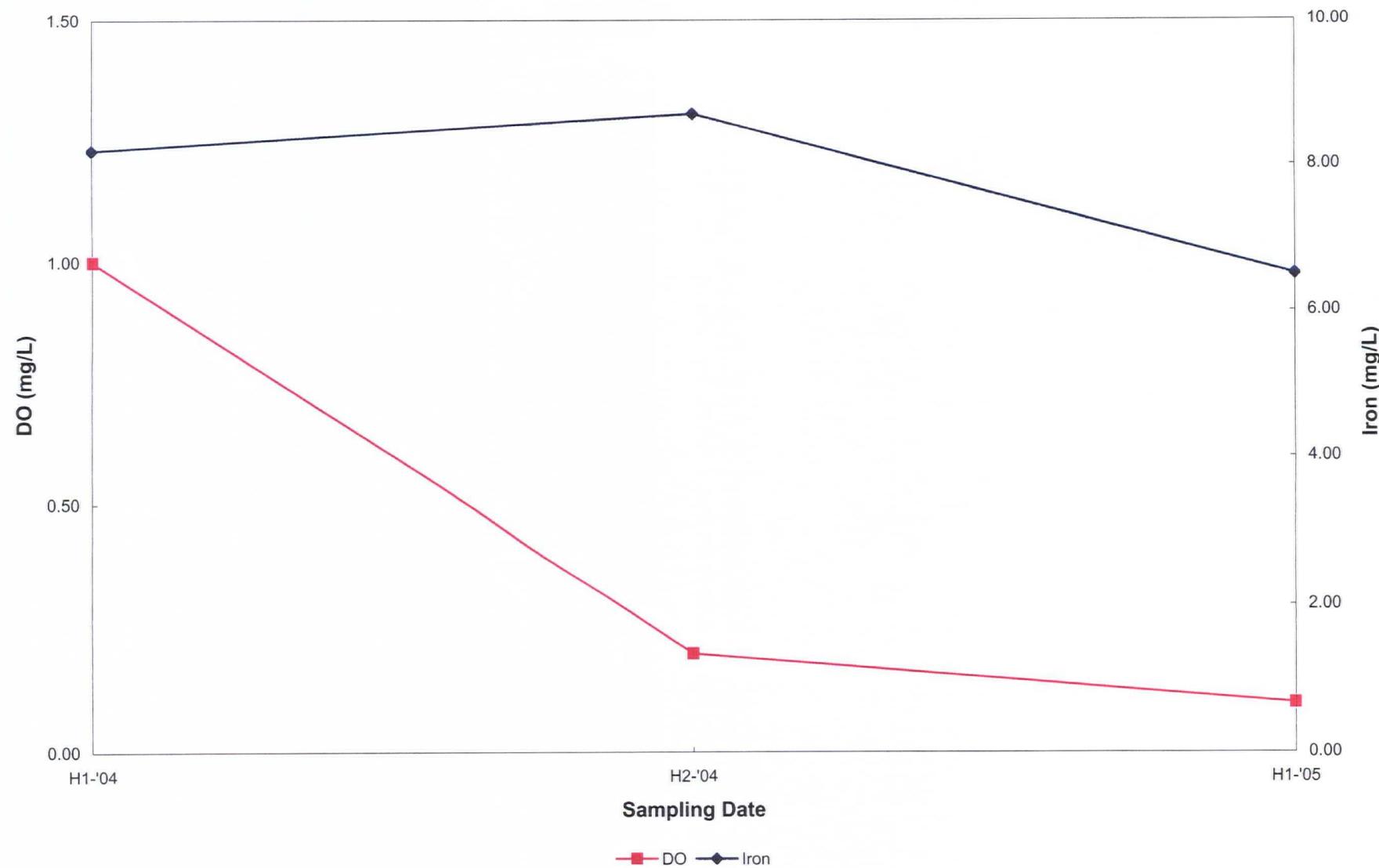
Monitoring Well LRII-2



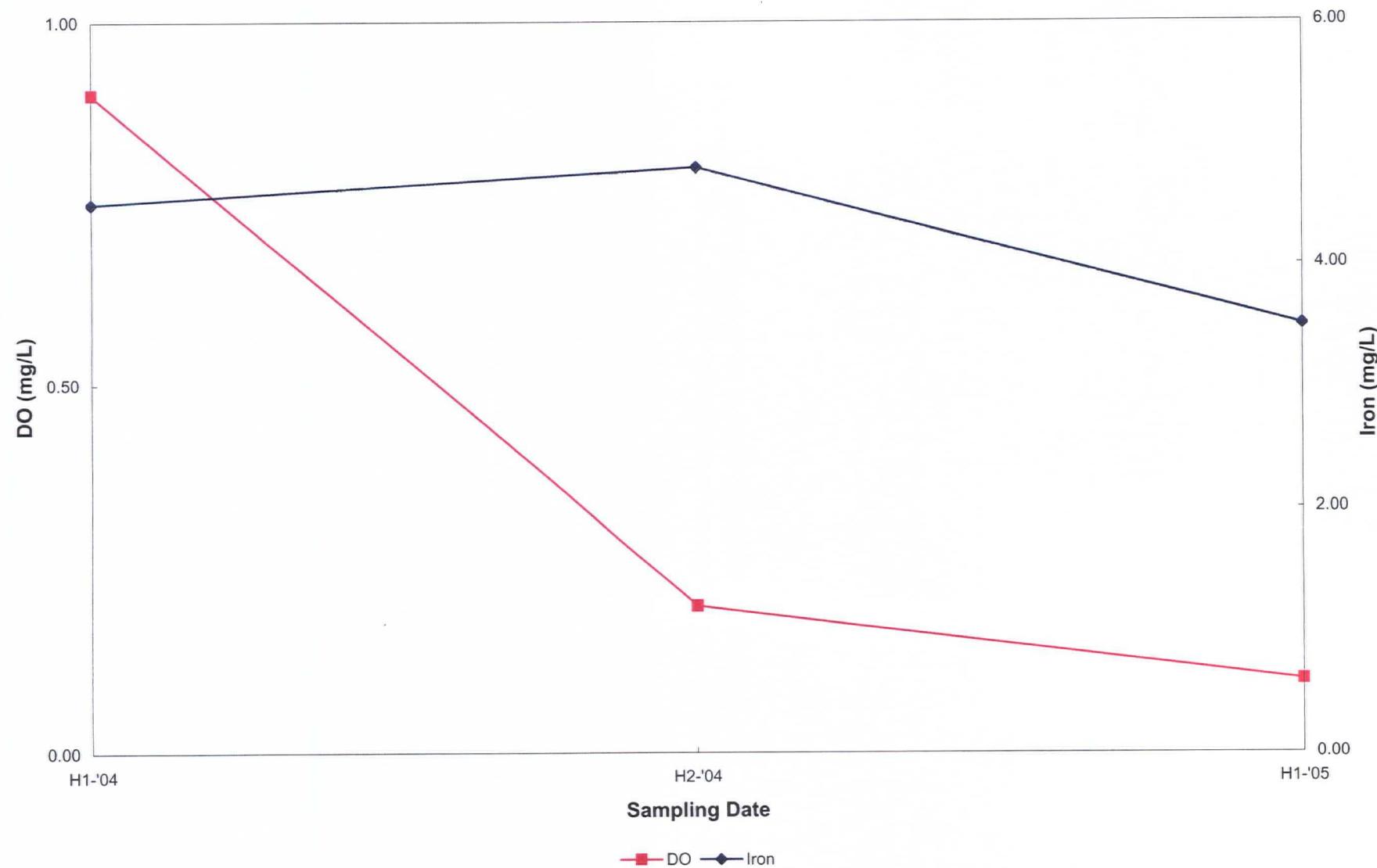
Monitoring Well LRII-3



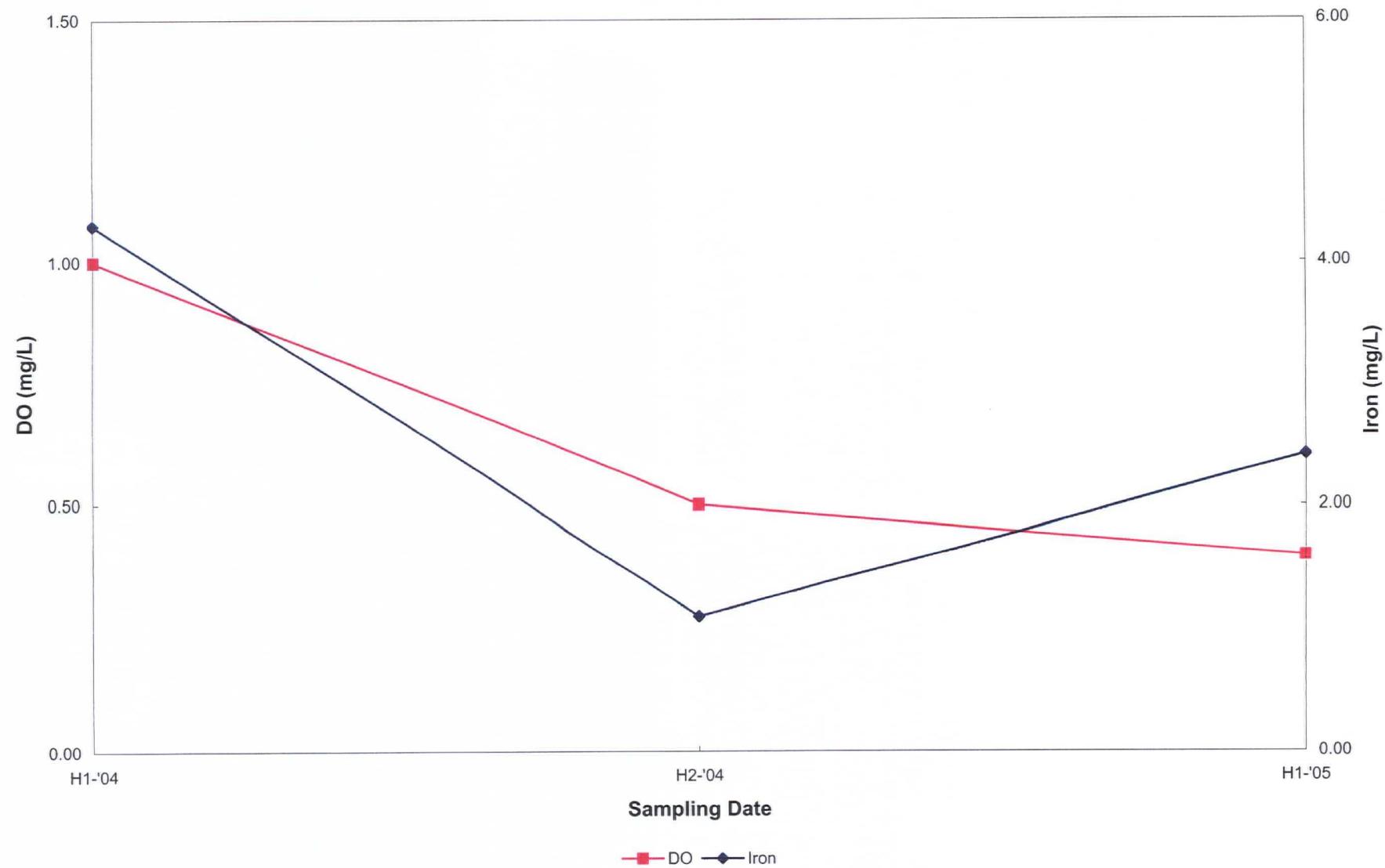
Monitoring Well LRII-4



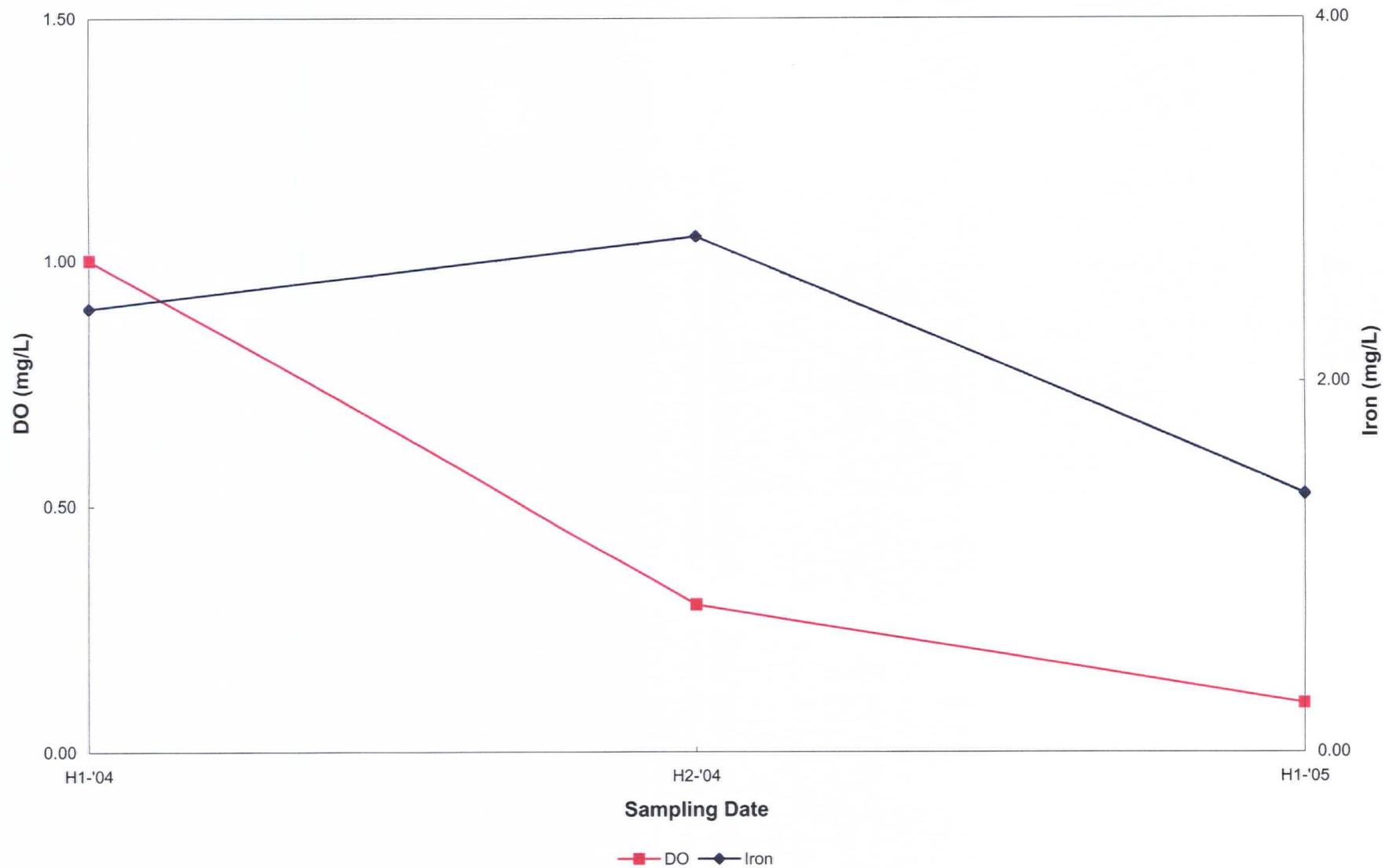
Monitoring Well LRII-5



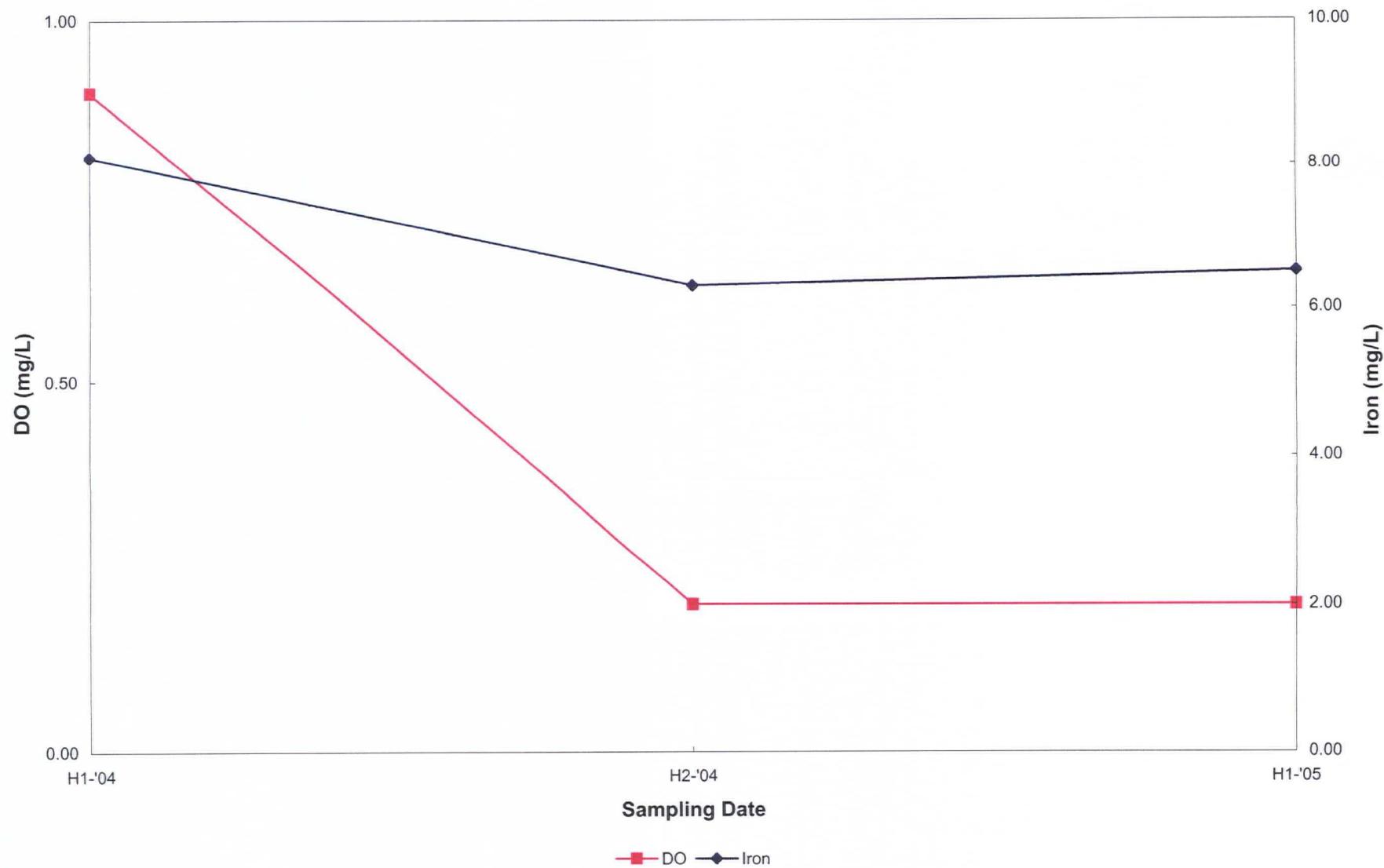
Monitoring Well MW-2



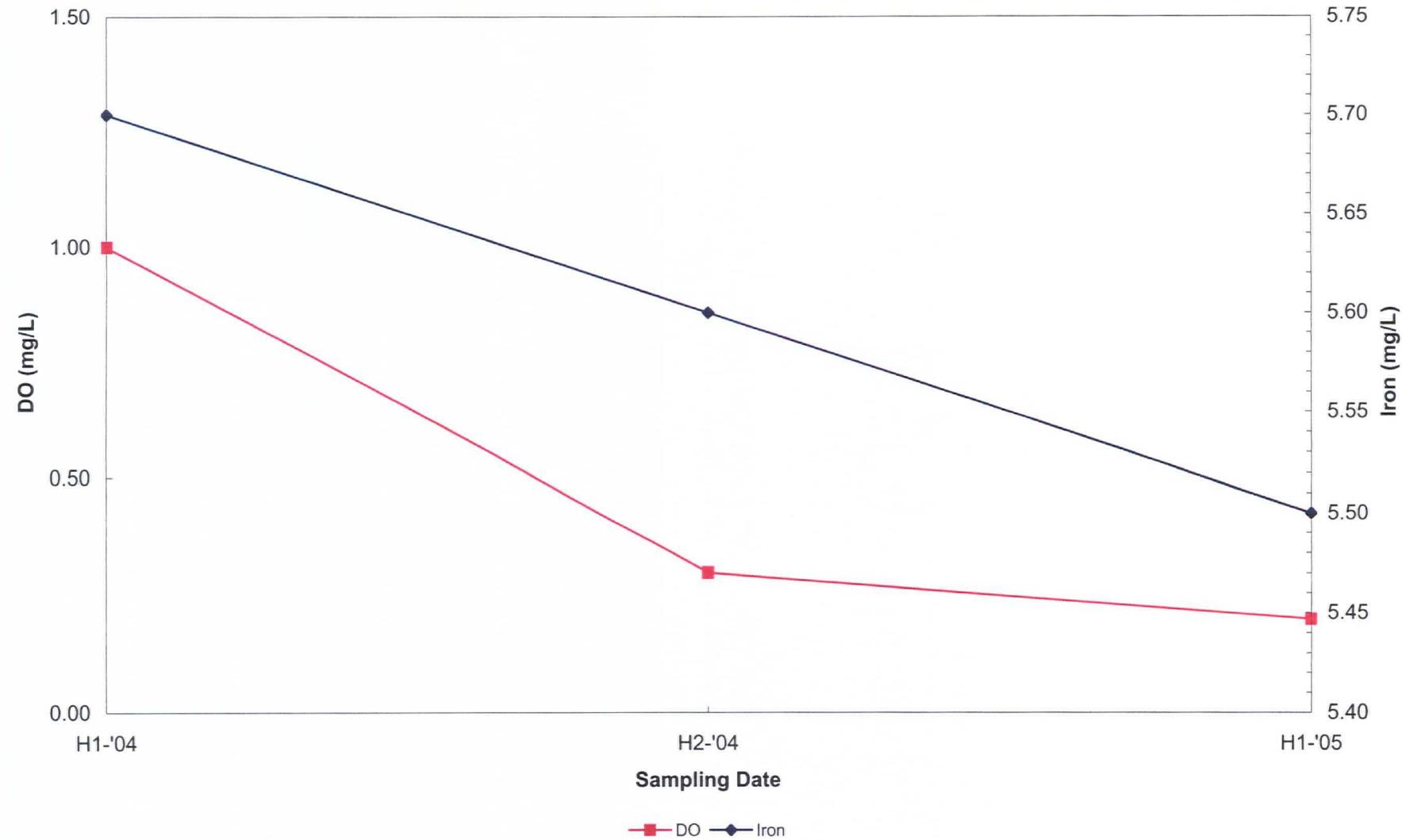
Monitoring Well MW-5



Monitoring Well MW-6

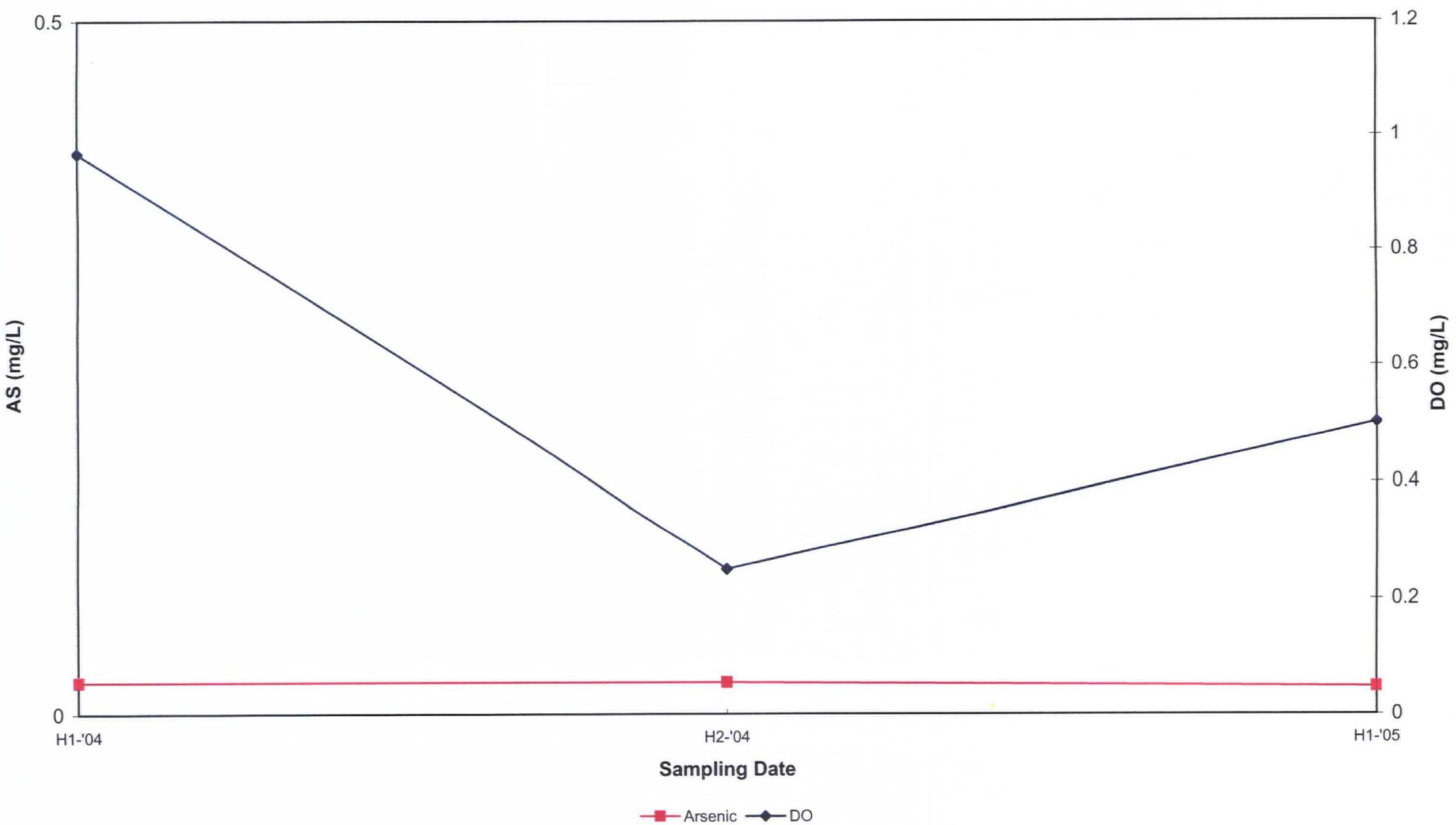


Monitoring Well SMR-1

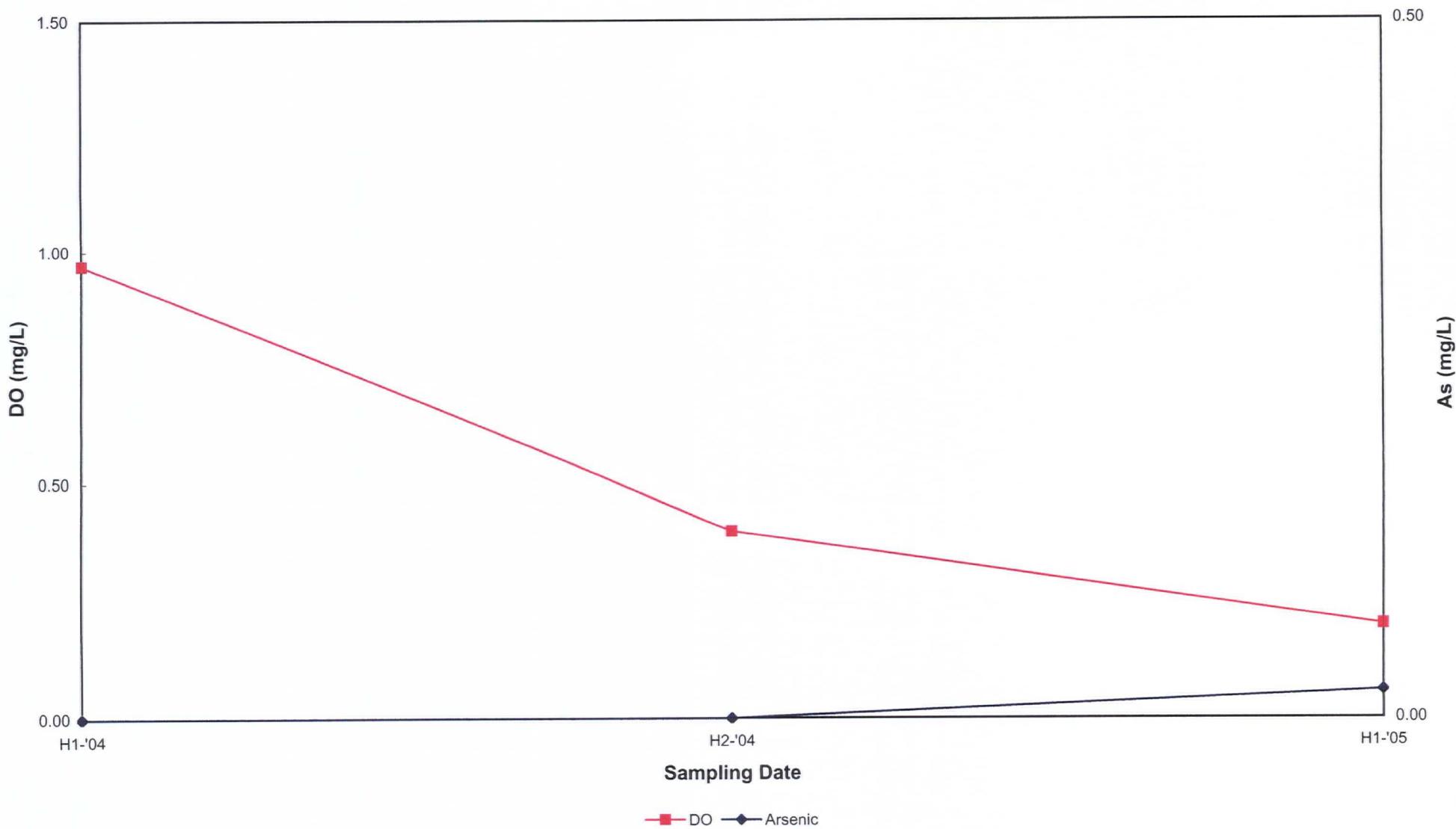


B-6 – DO versus Arsenic

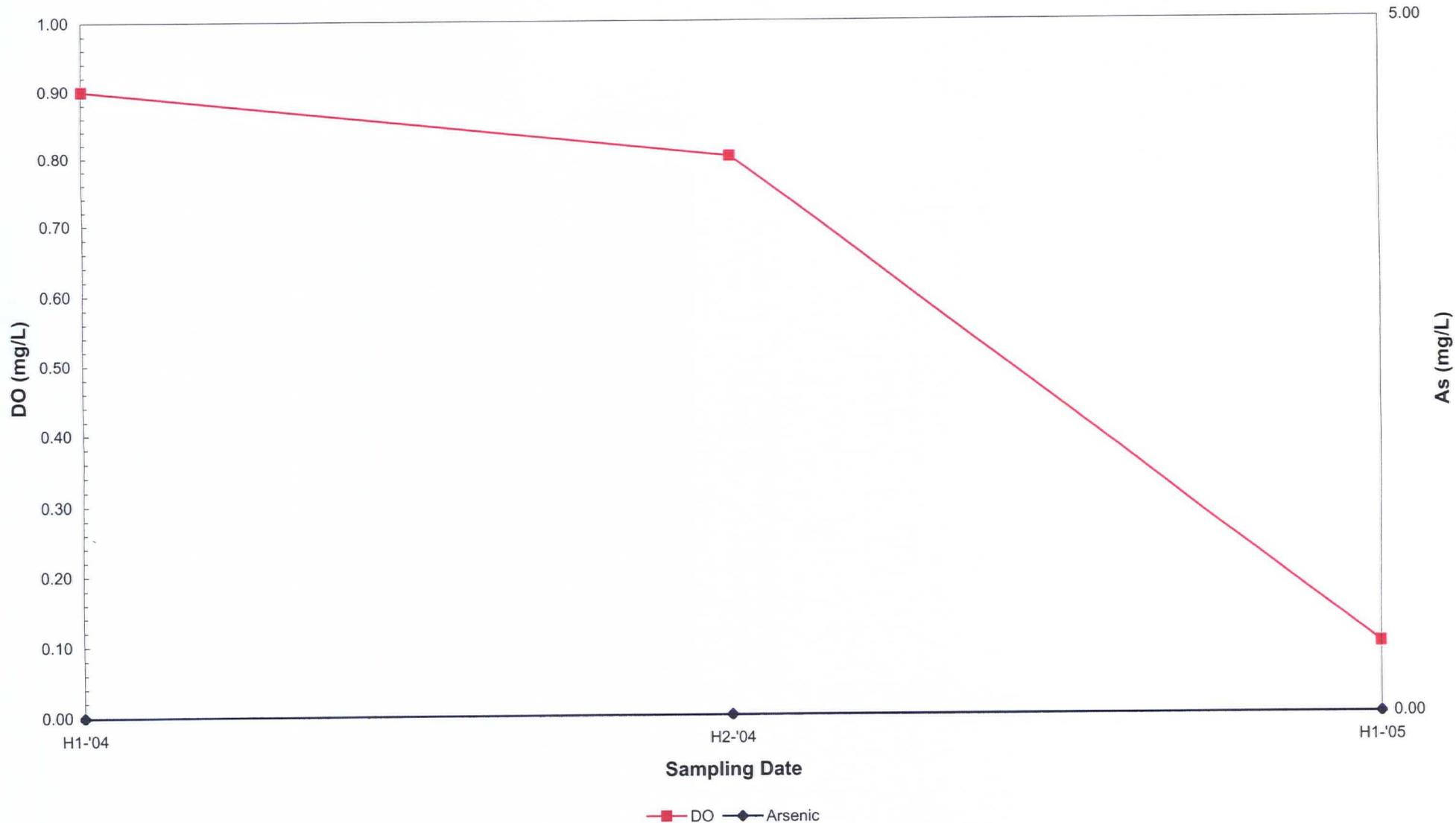
Monitoring Well CW- 4



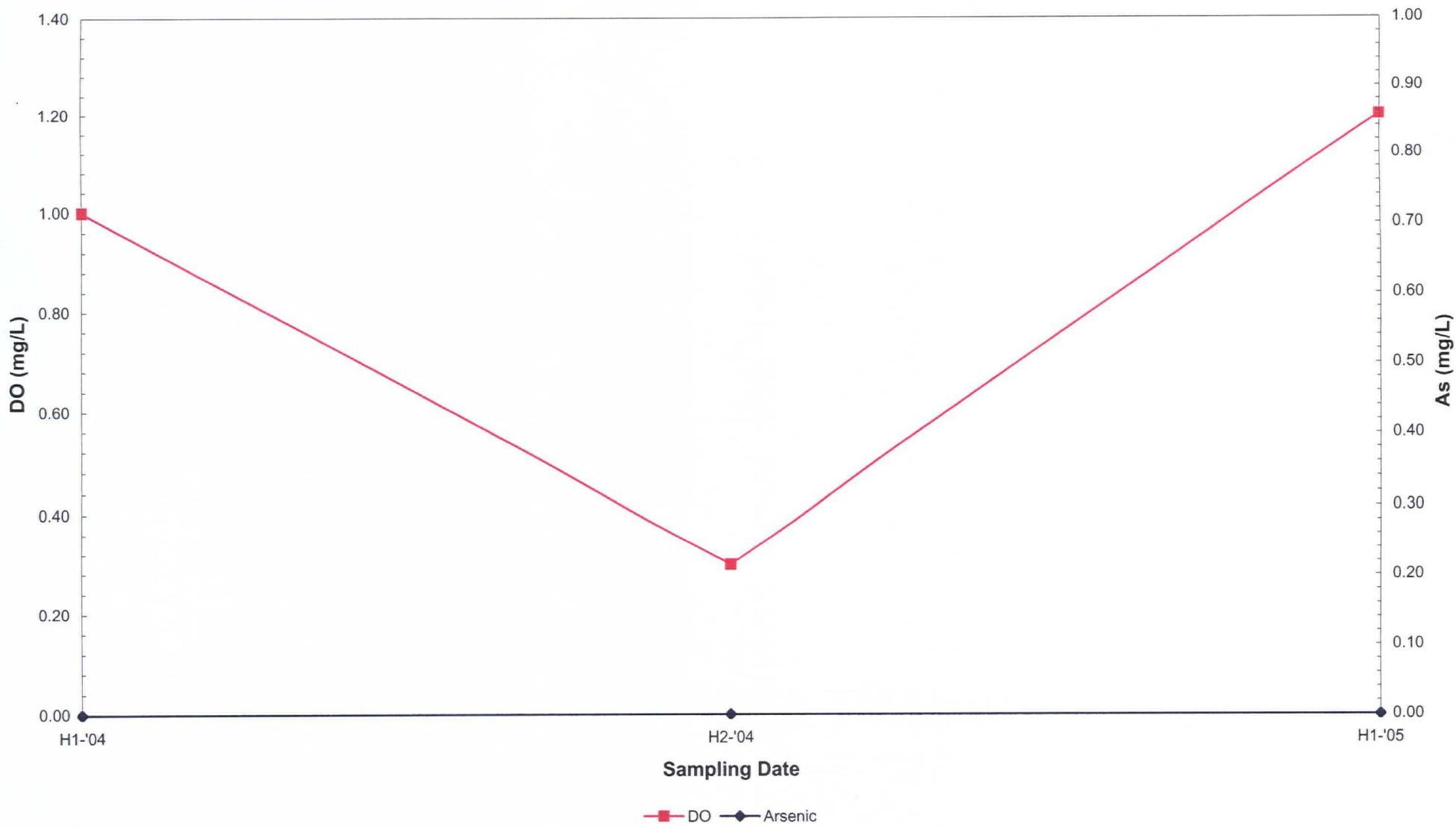
Monitoring Well CW- 5A



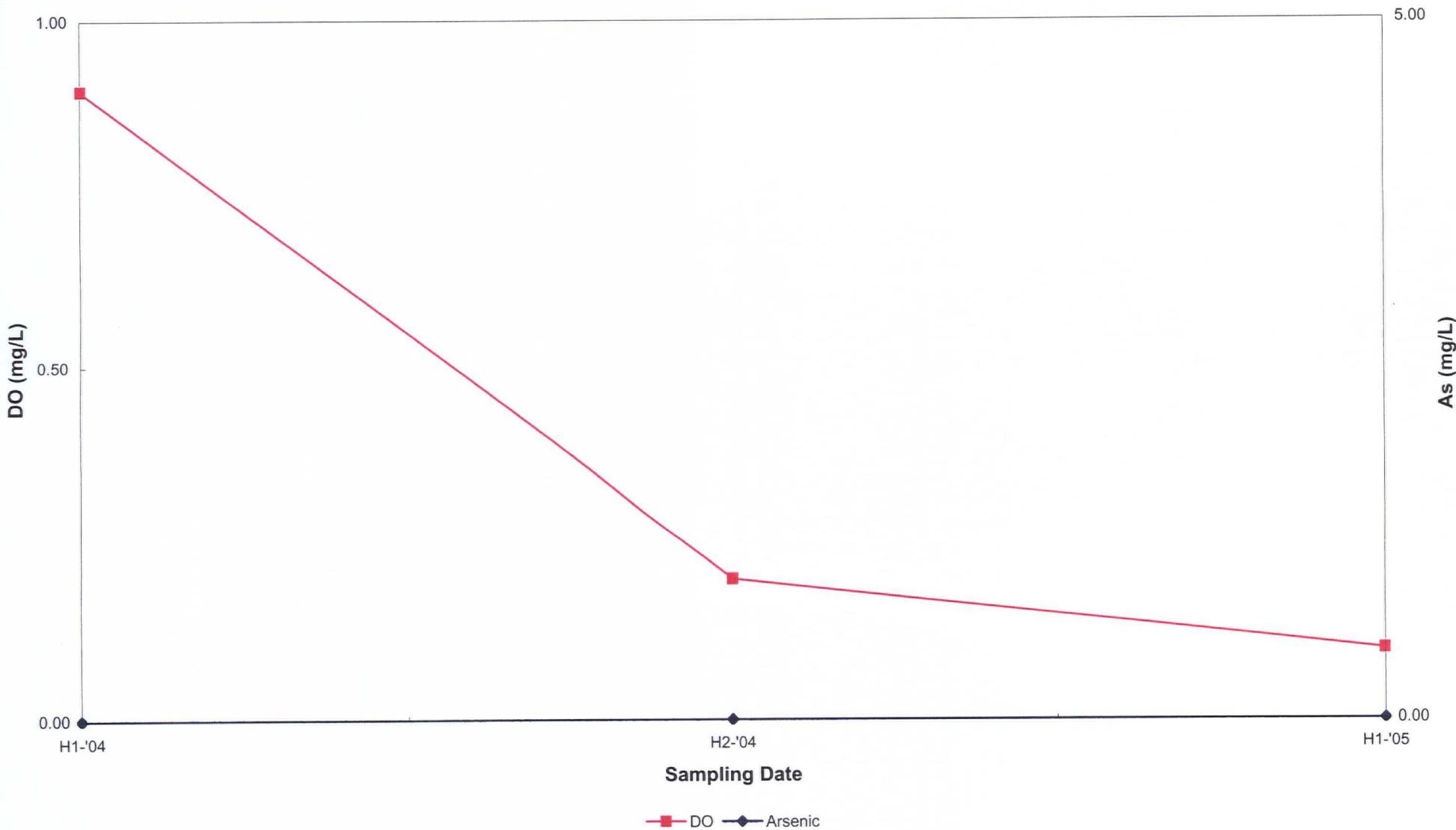
Monitoring Well GC-1A



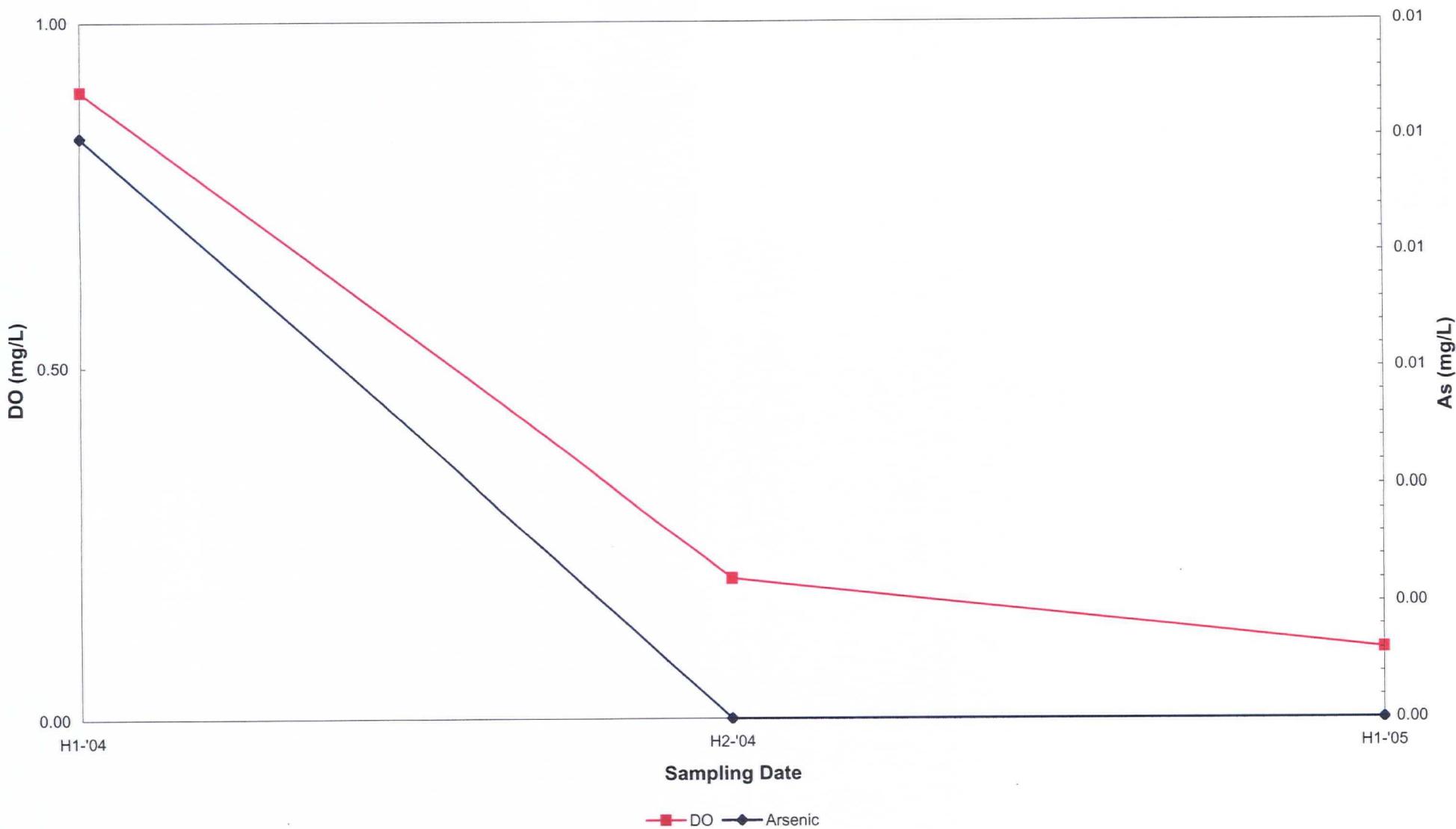
Monitoring Well GC-2



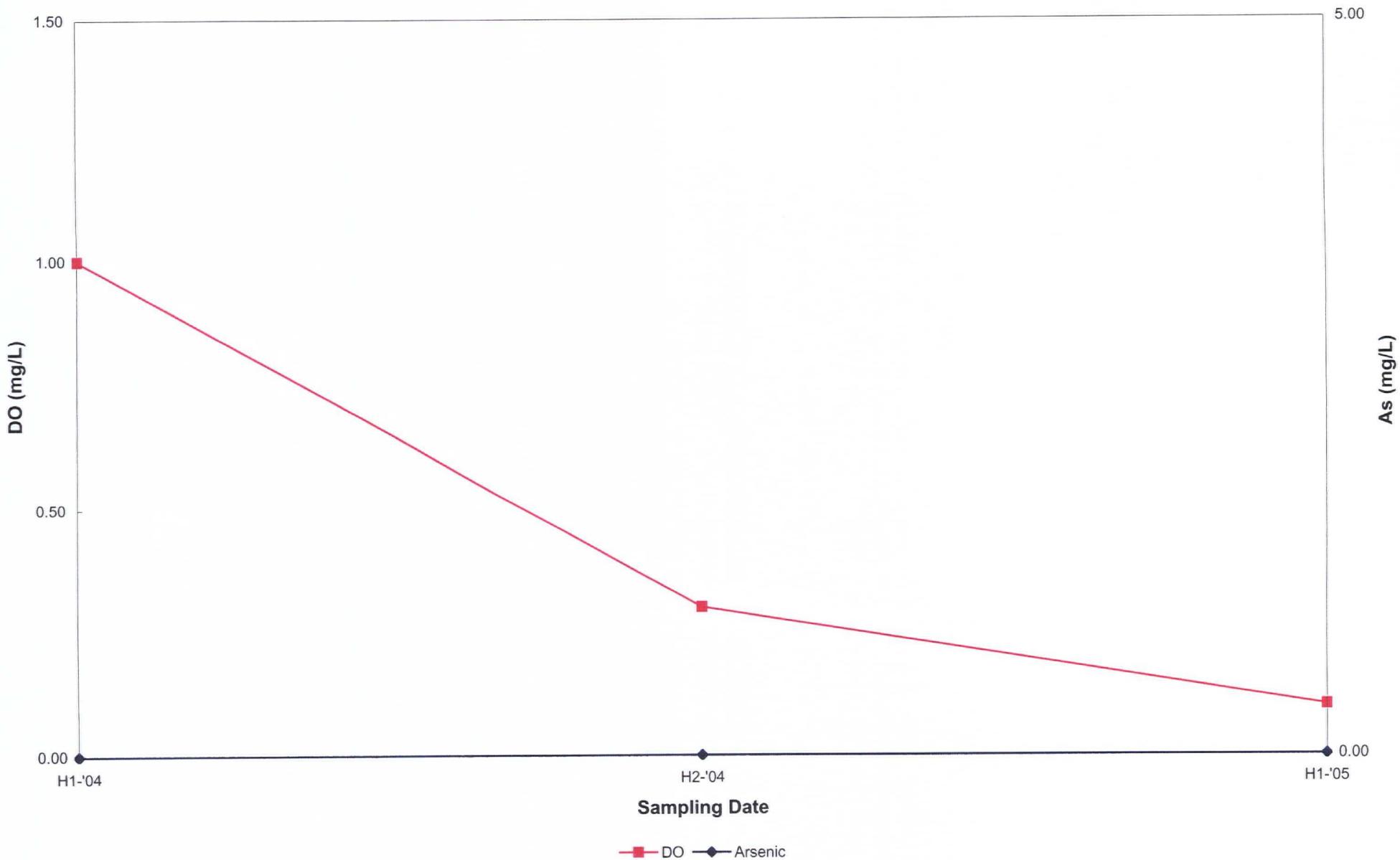
Monitoring Well GC-3



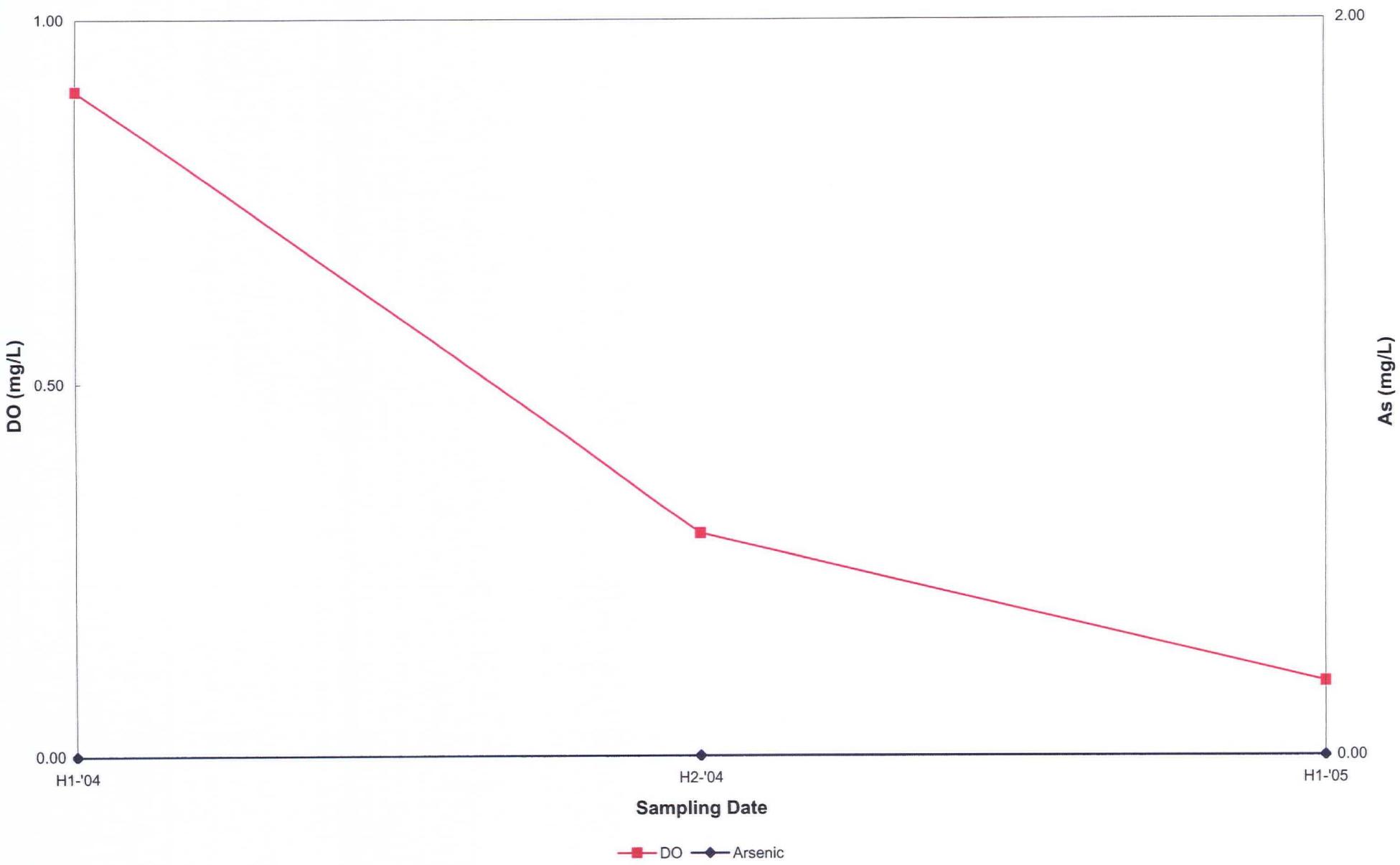
Monitoring Well GC-4



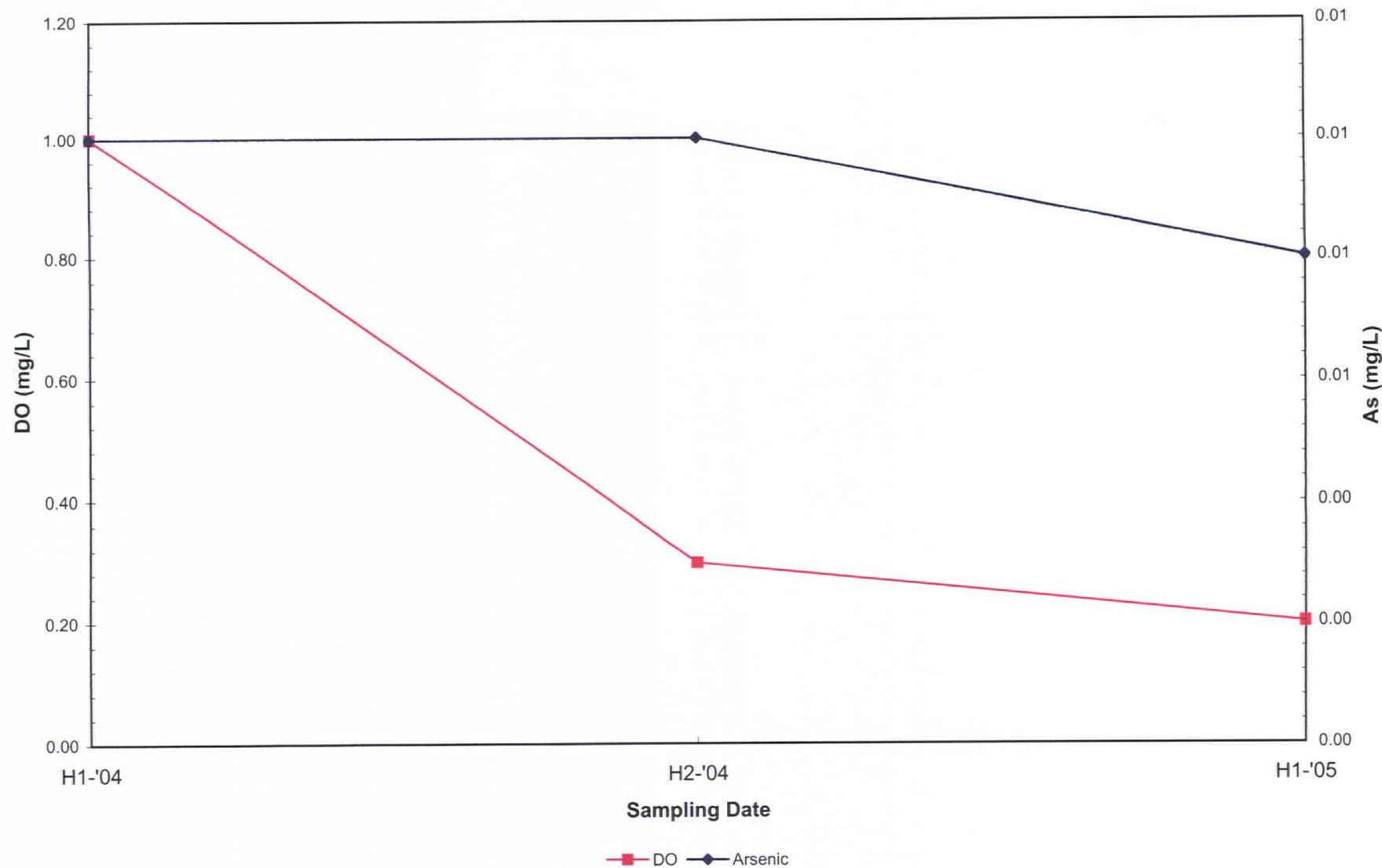
Monitoring Well GC- 5



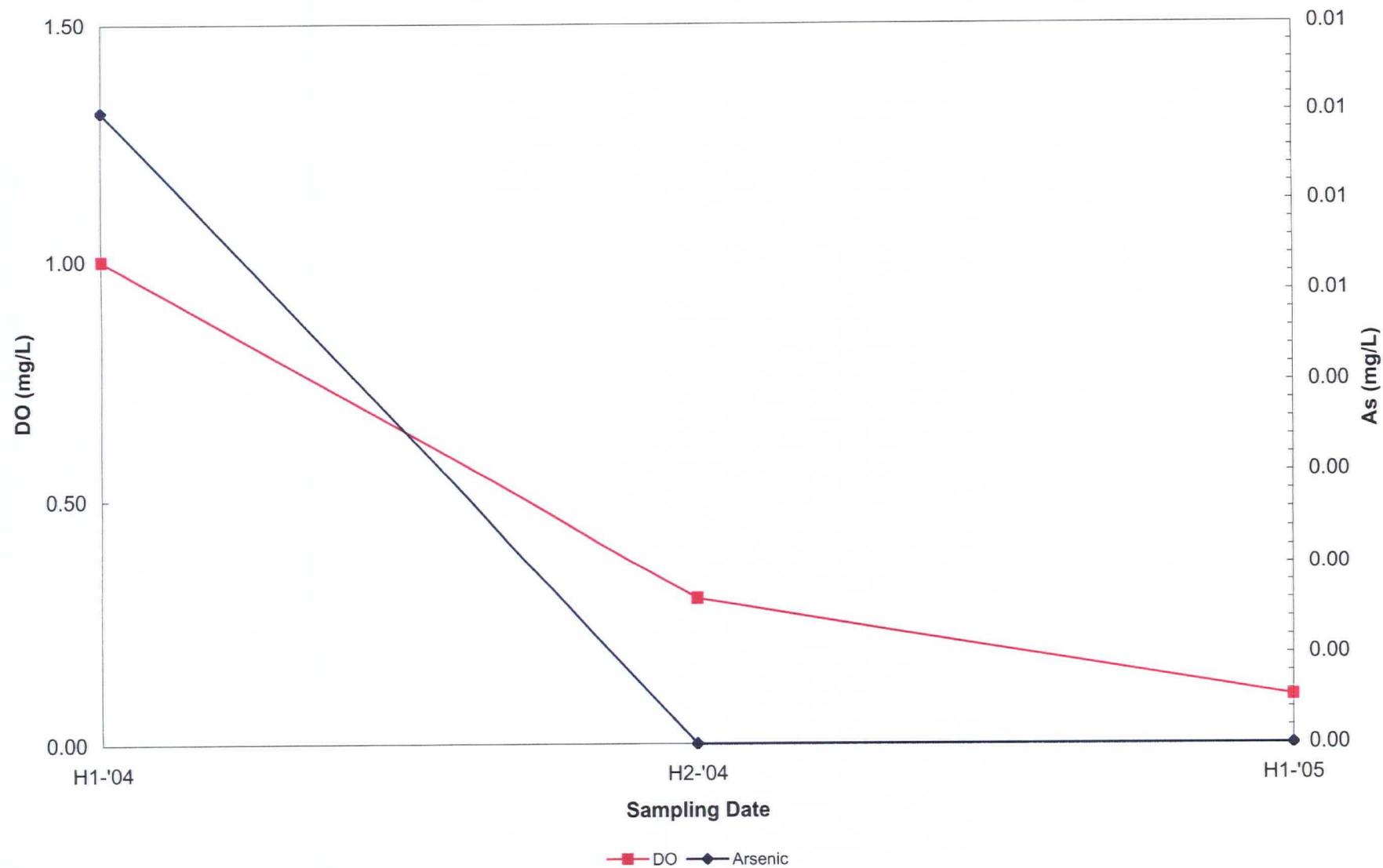
Monitoring Well GC-6



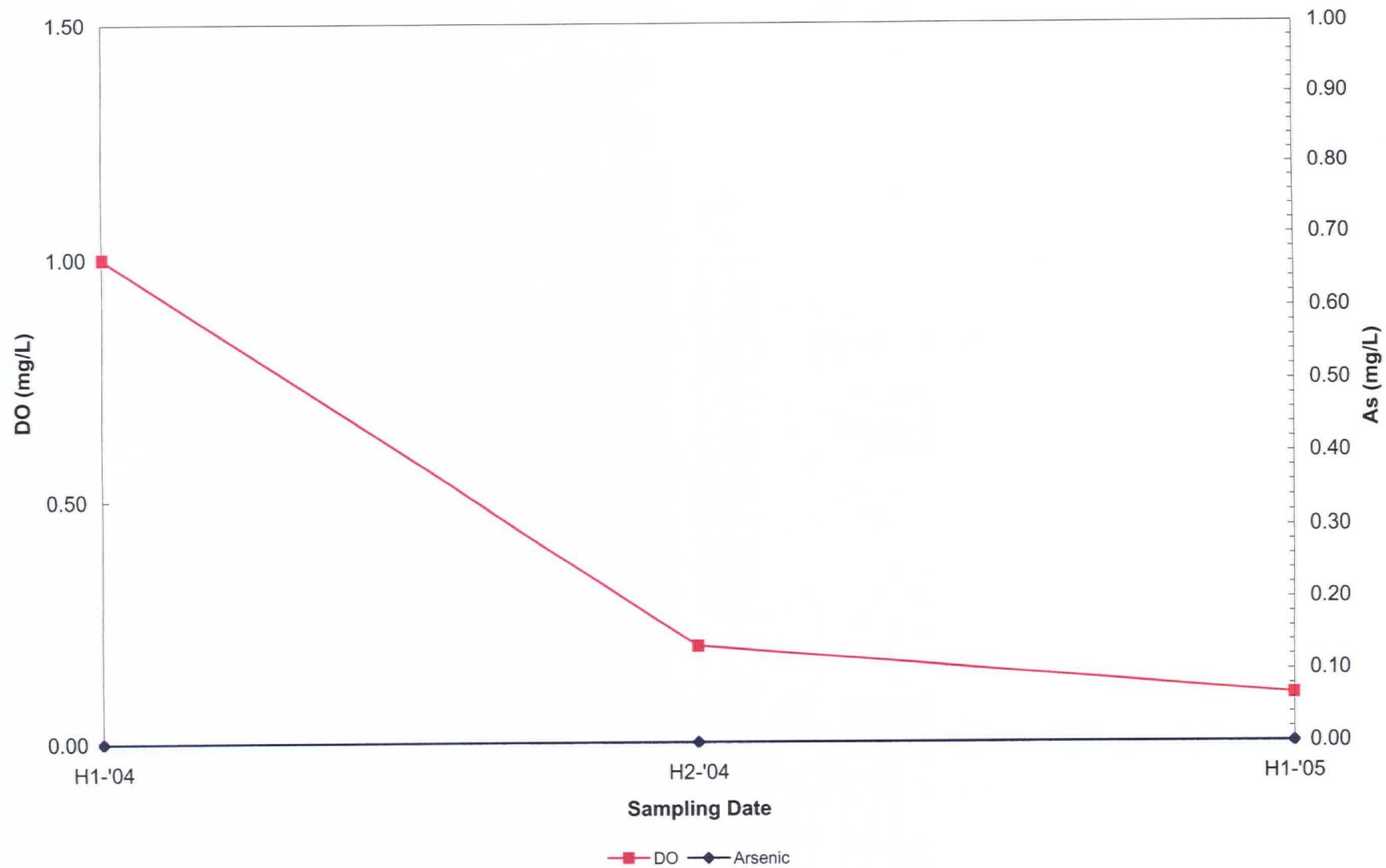
Monitoring Well LRII-1



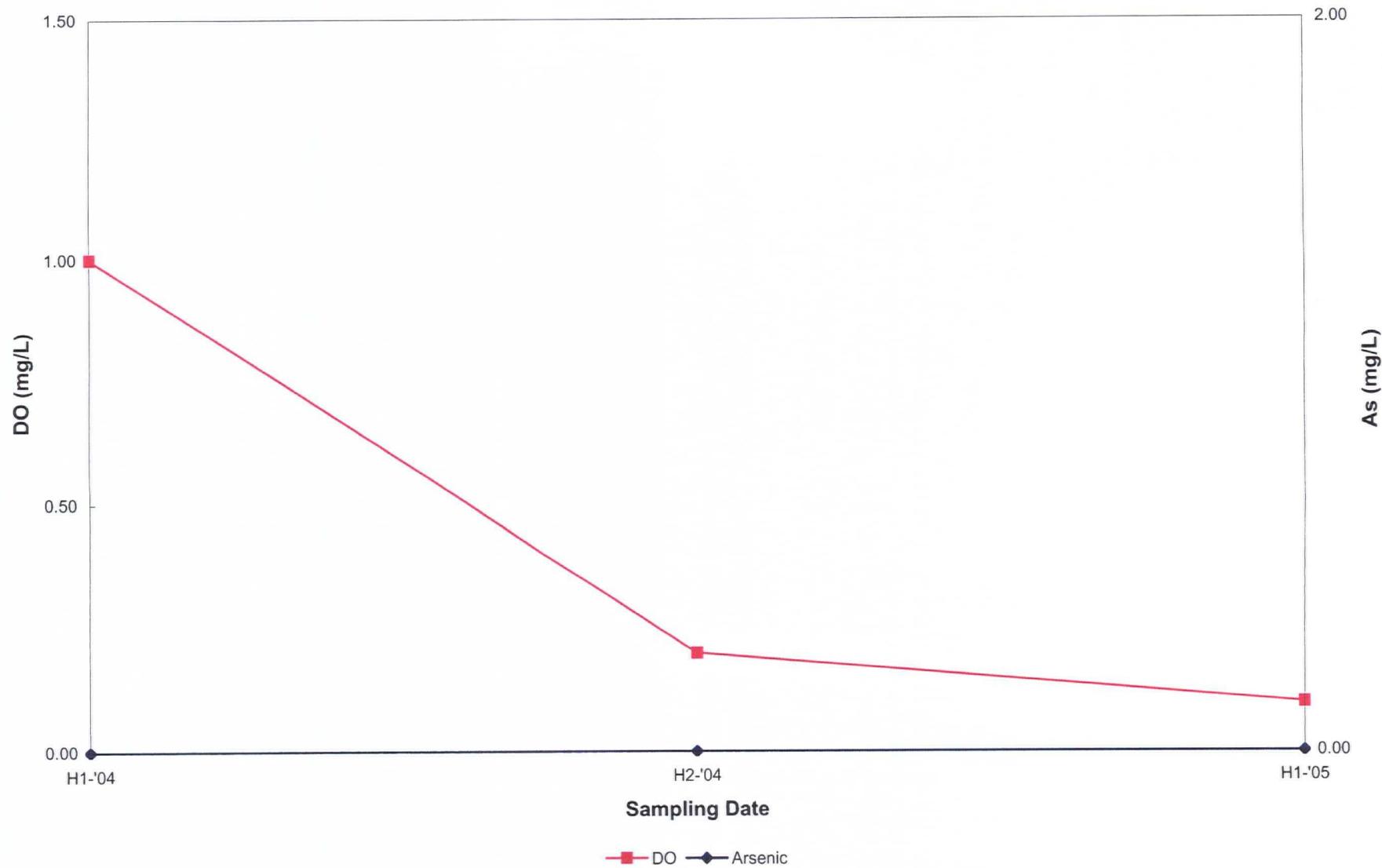
Monitoring Well LRII-2



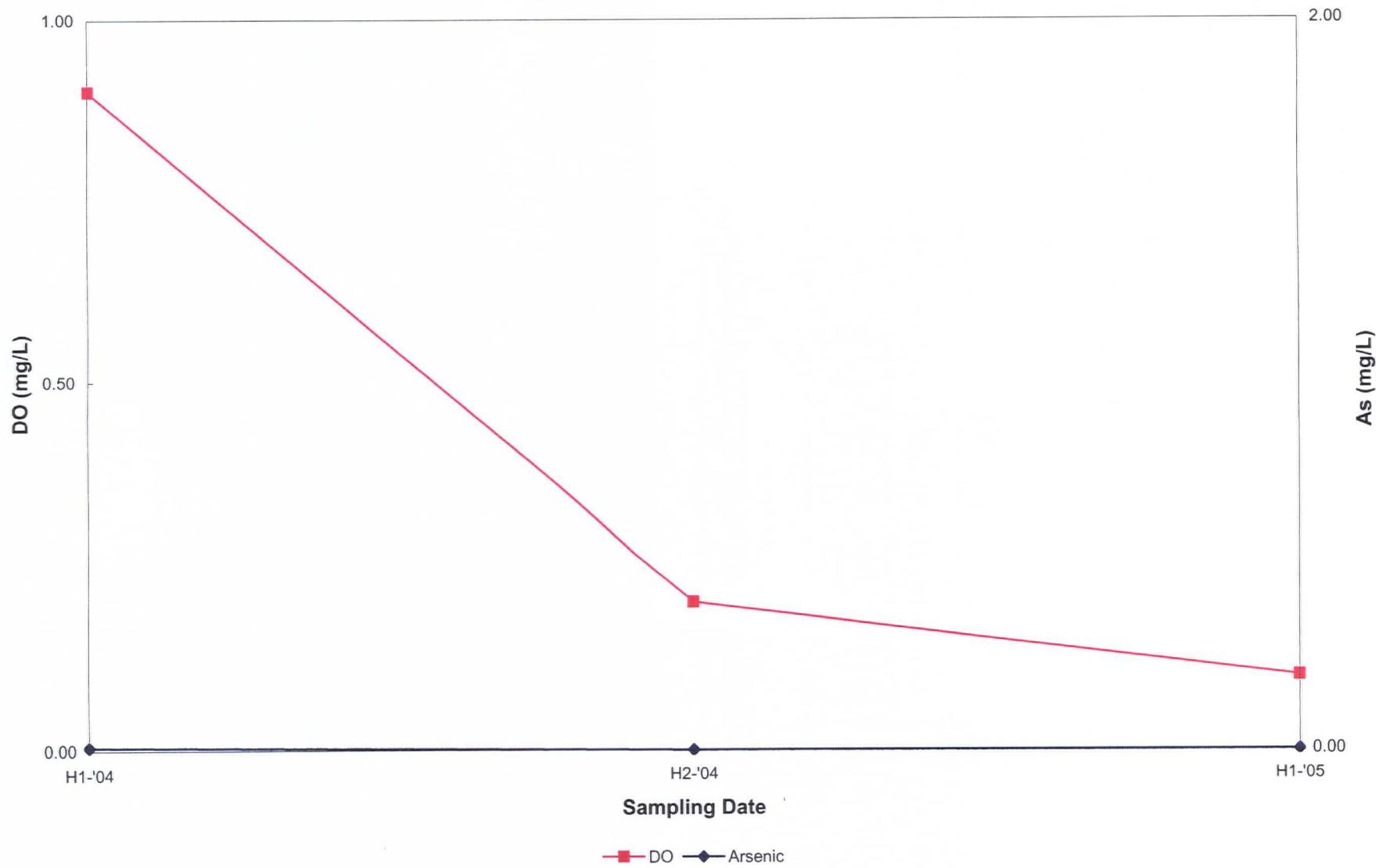
Monitoring Well LRII-3



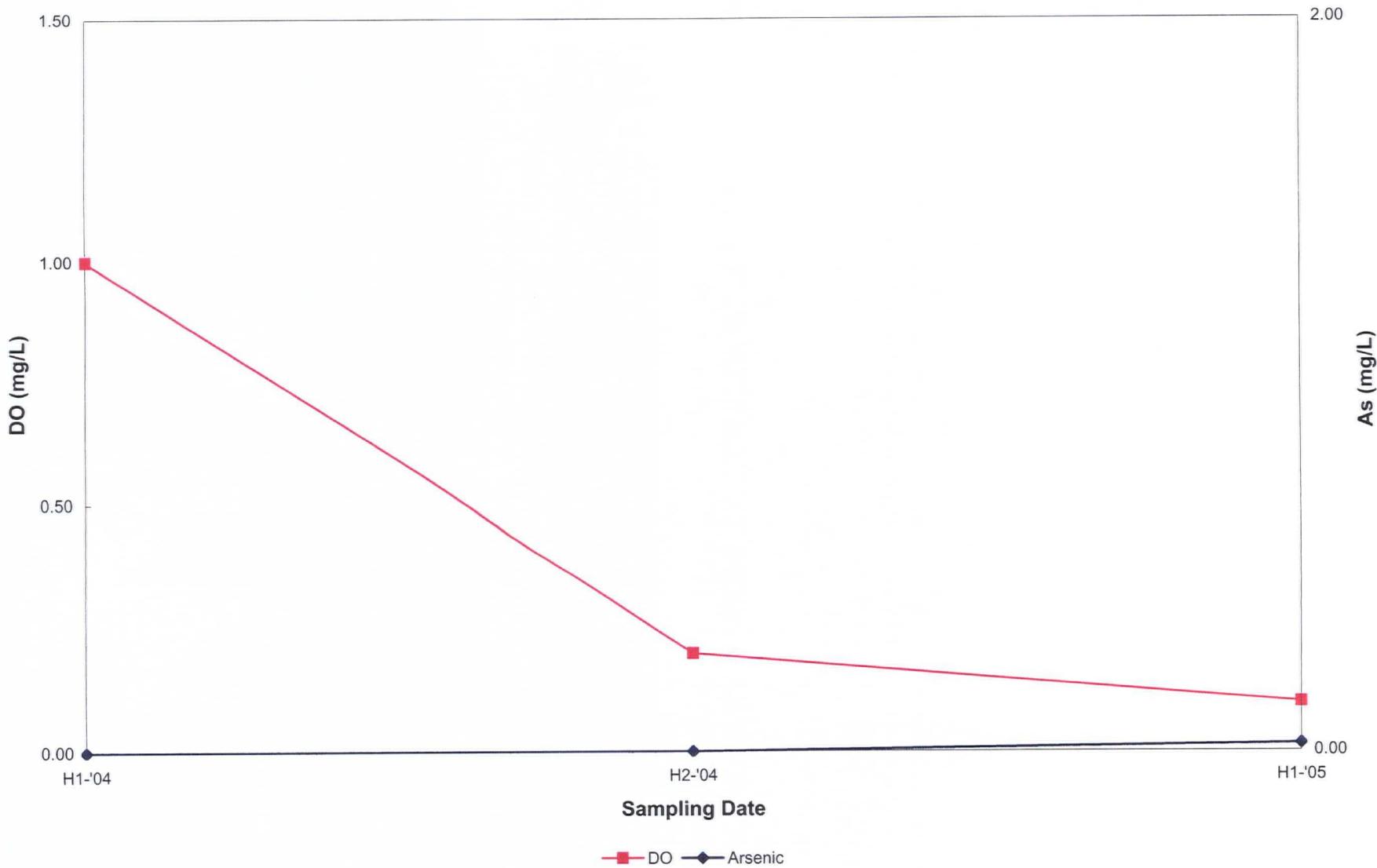
Monitoring Well LRII-4



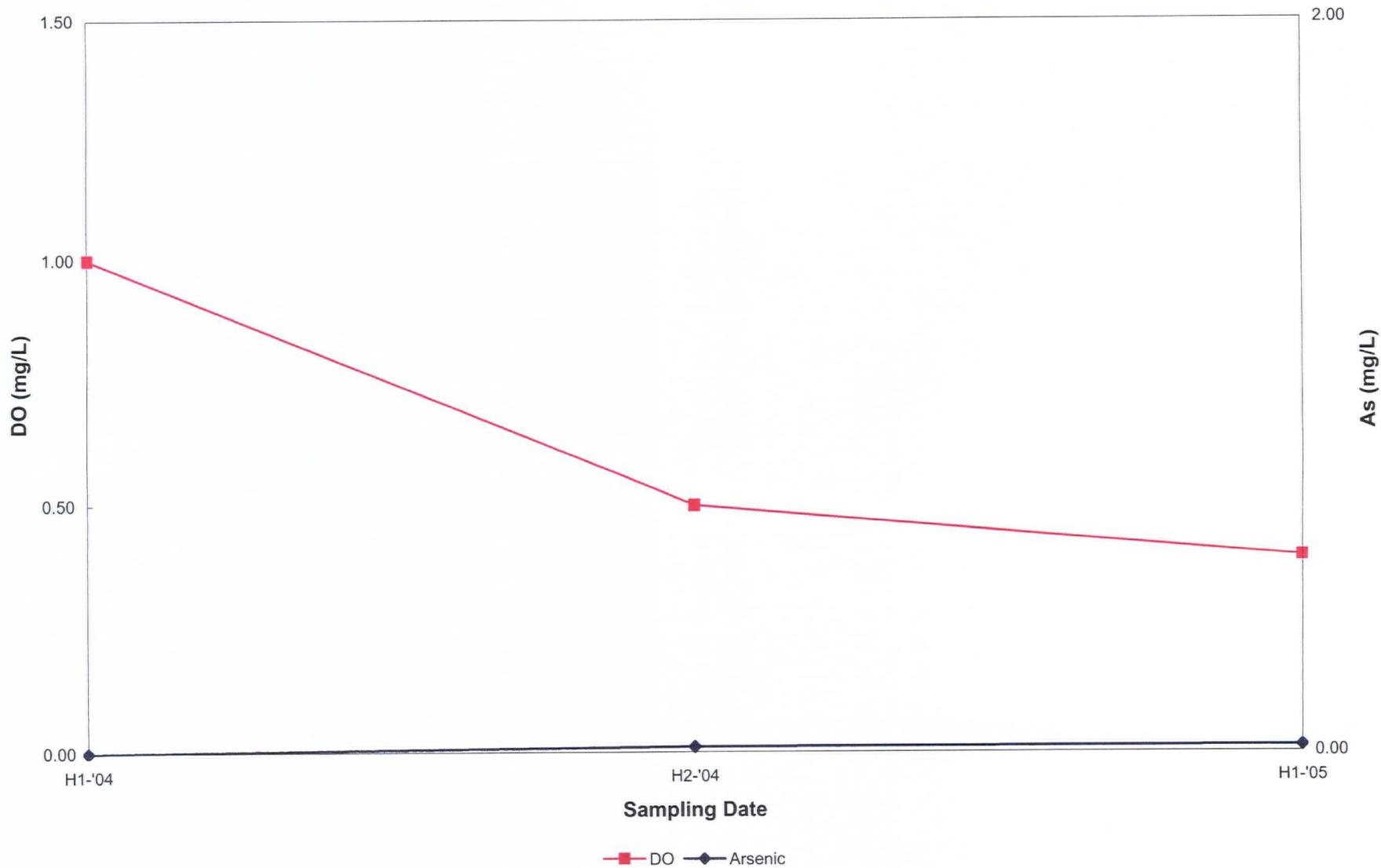
Monitoring Well LRII-5



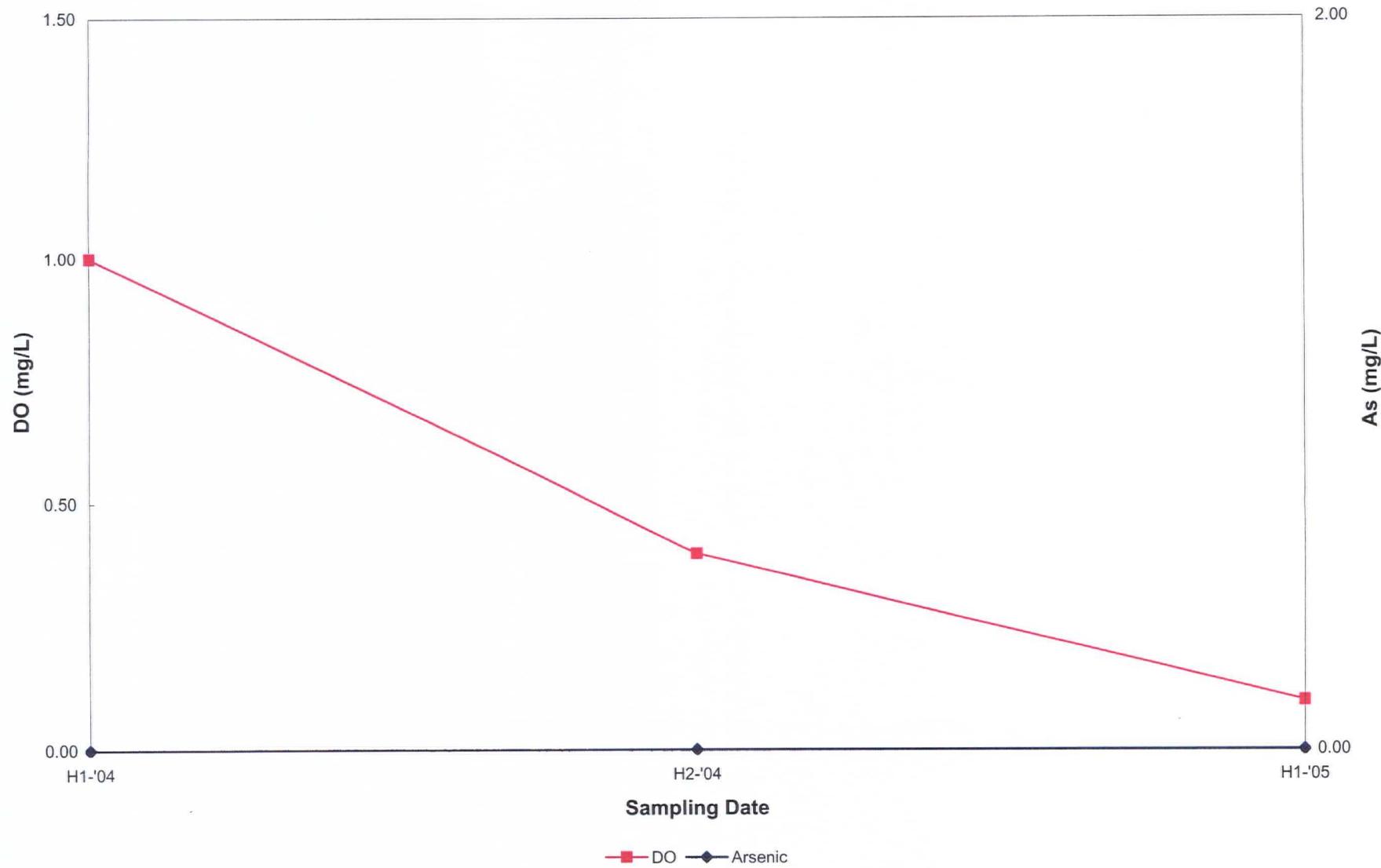
Monitoring Well MW-1



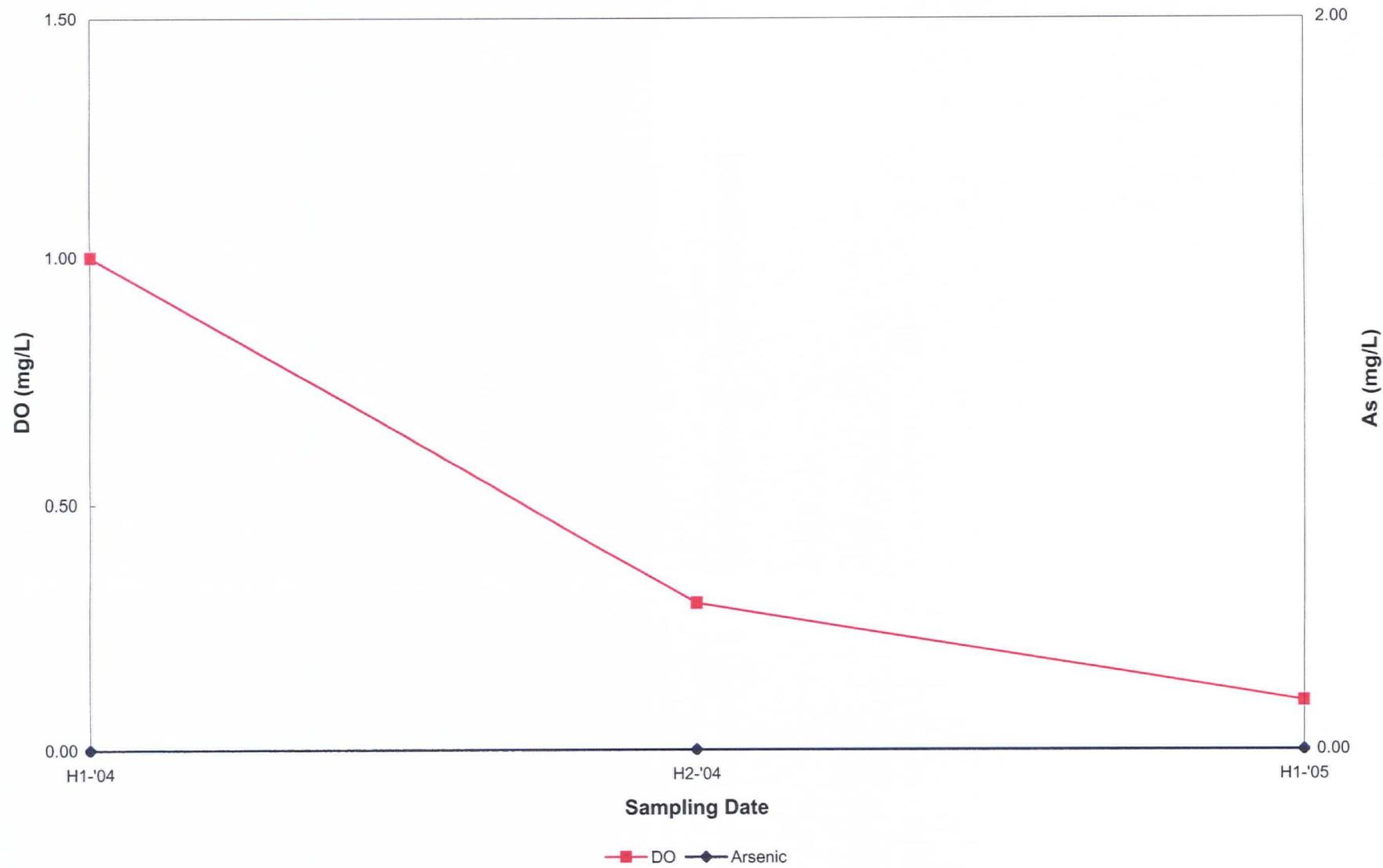
Monitoring Well MW-2



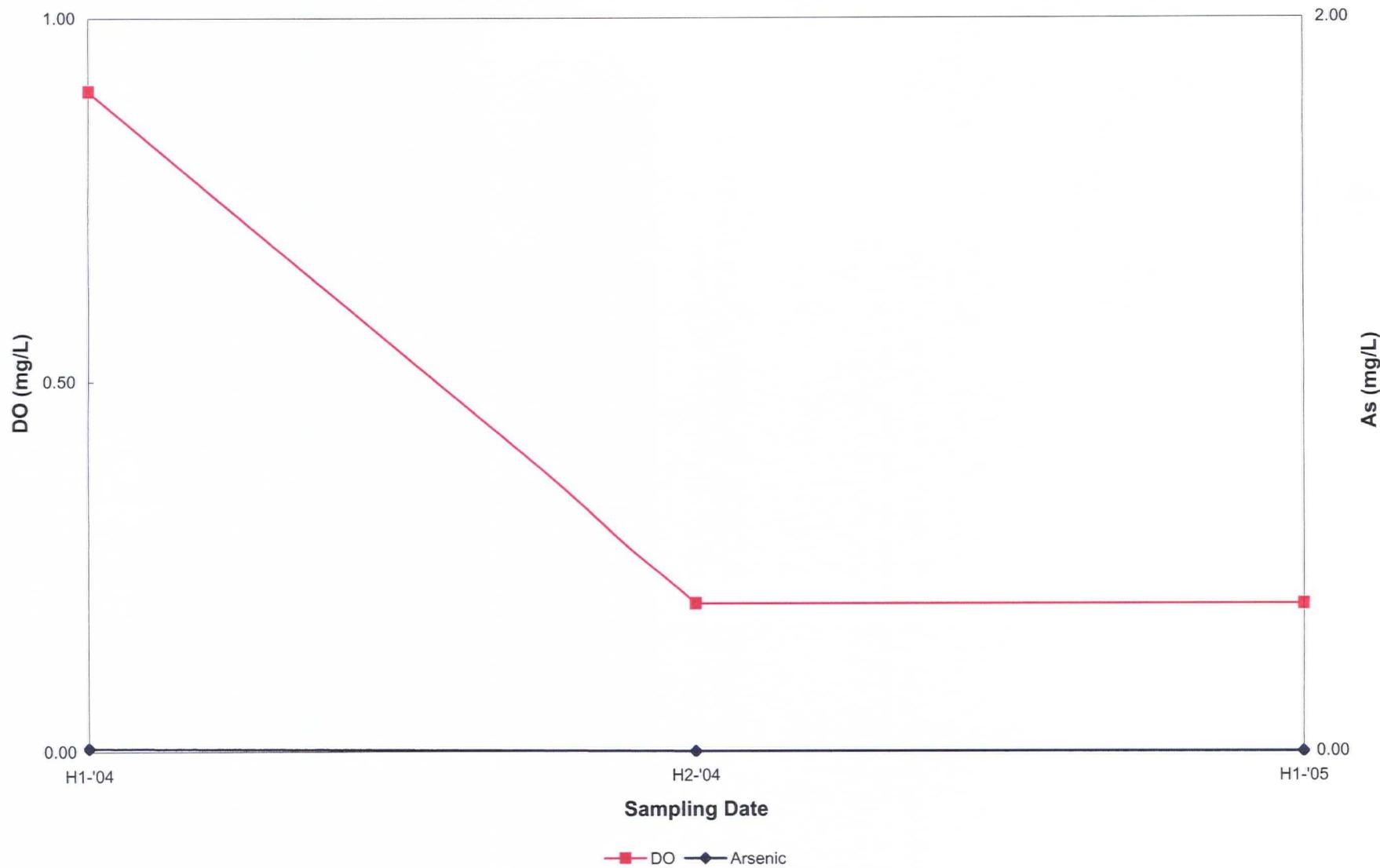
Monitoring Well MW-3



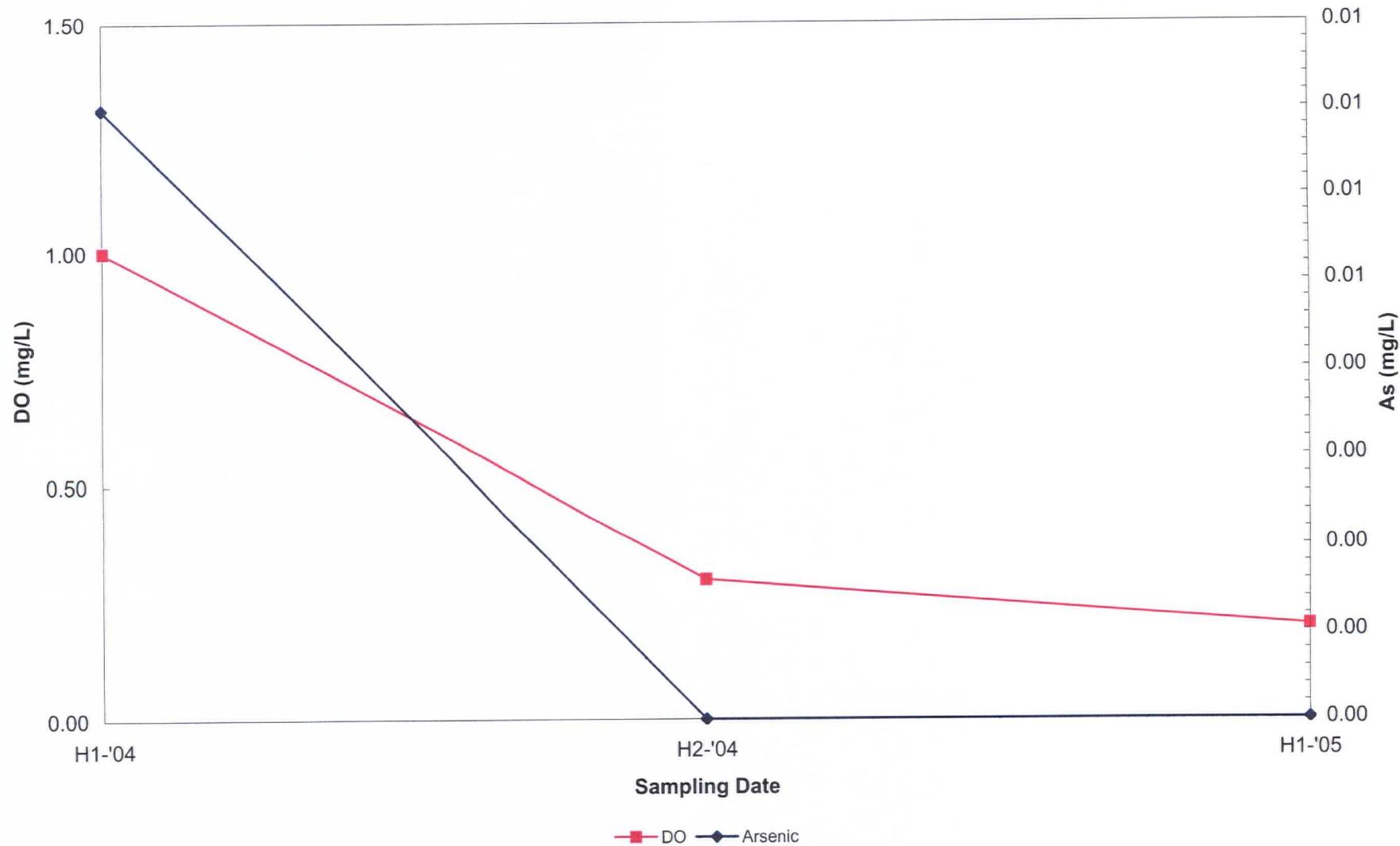
Monitoring Well MW-5



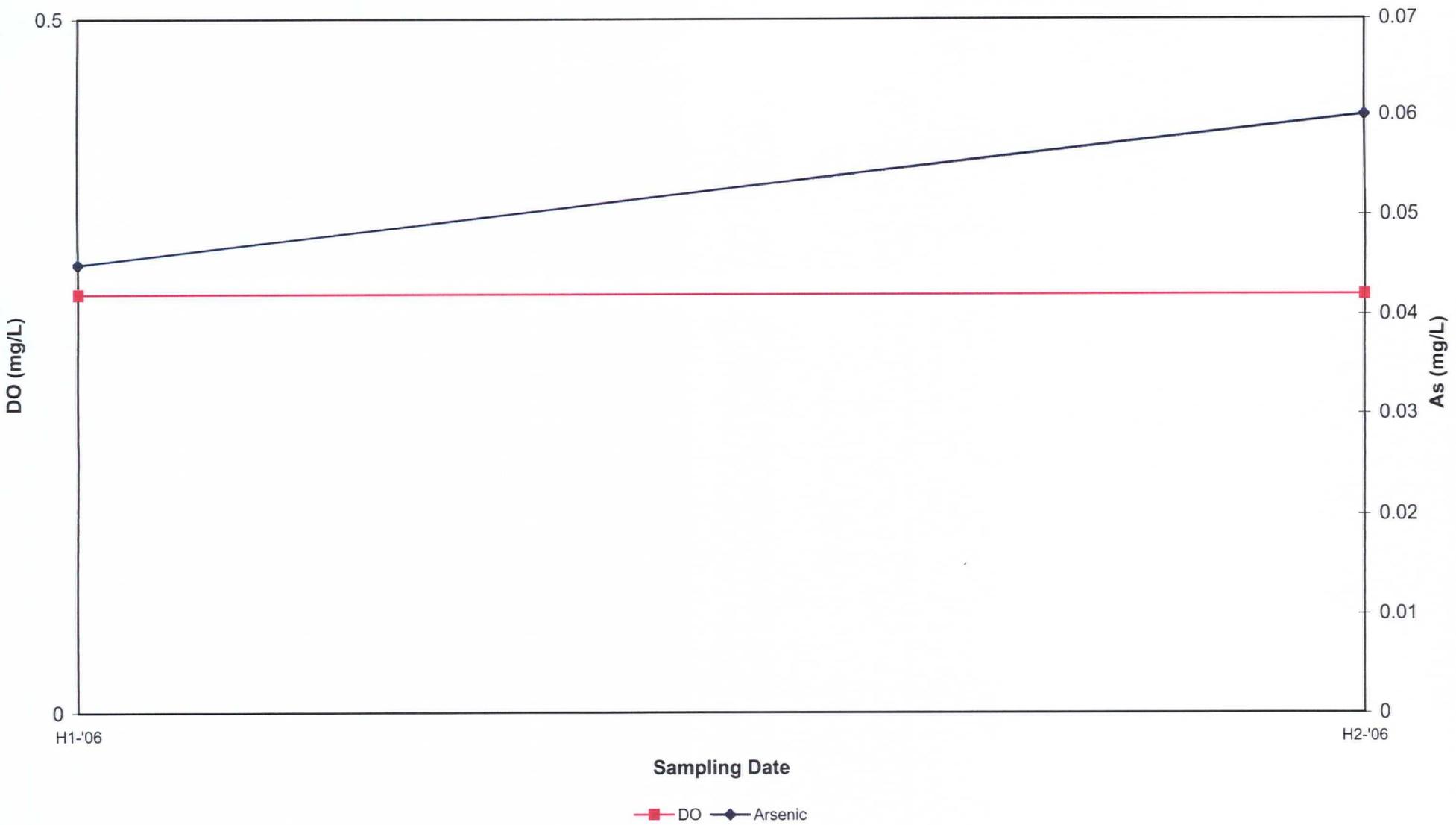
Monitoring Well MW-6



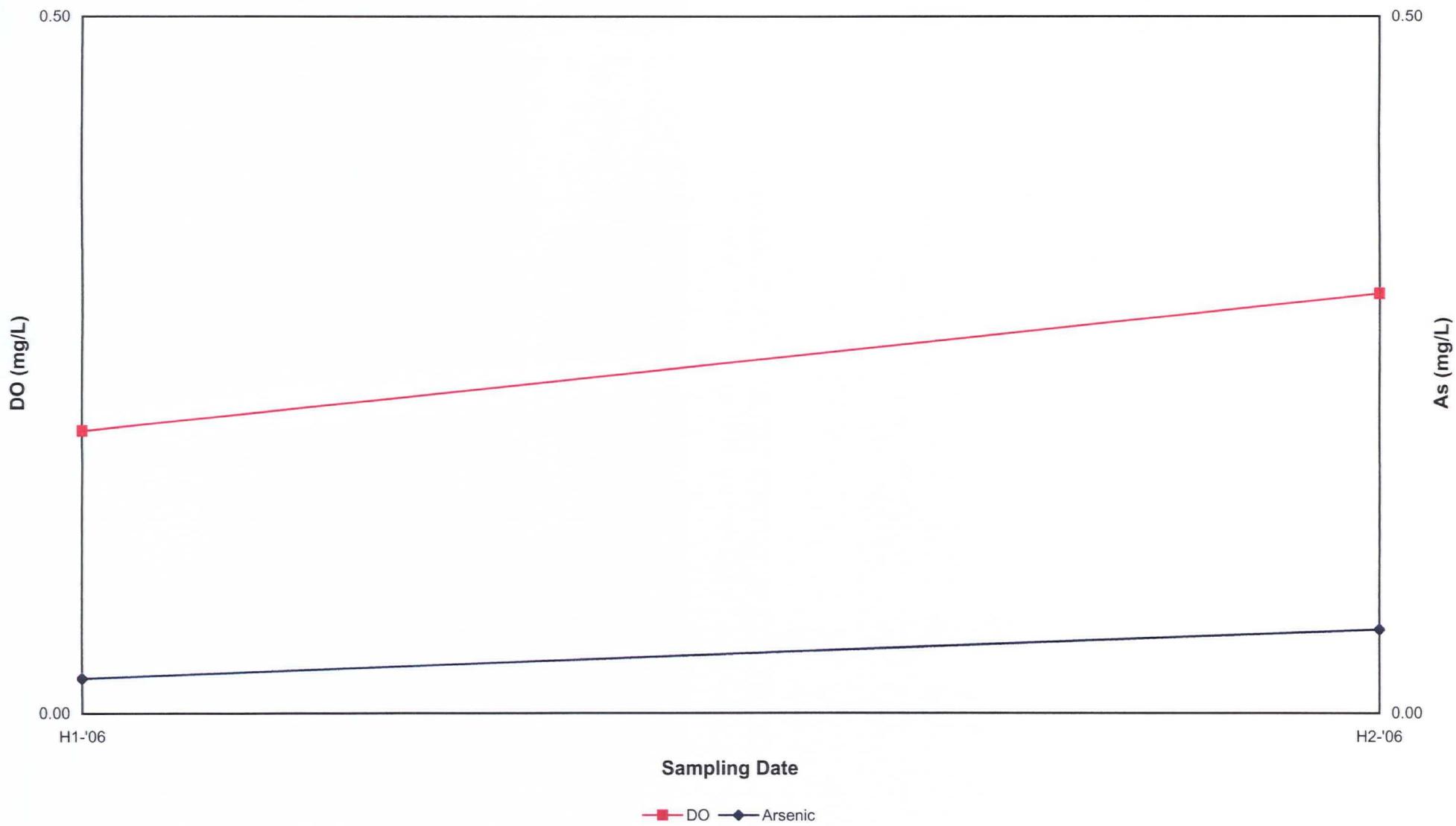
Monitoring Well SMR-1



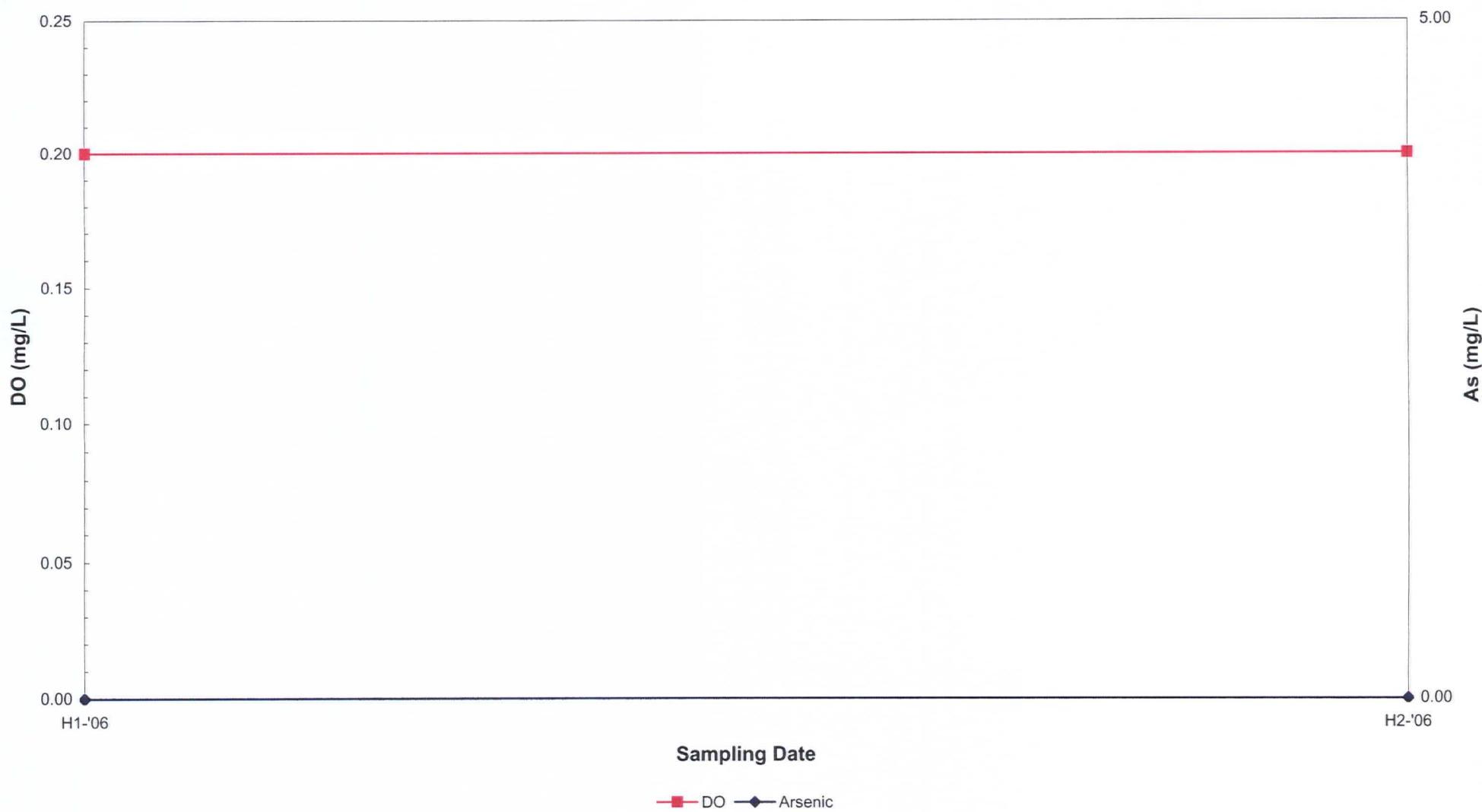
Monitoring Well GW- 1



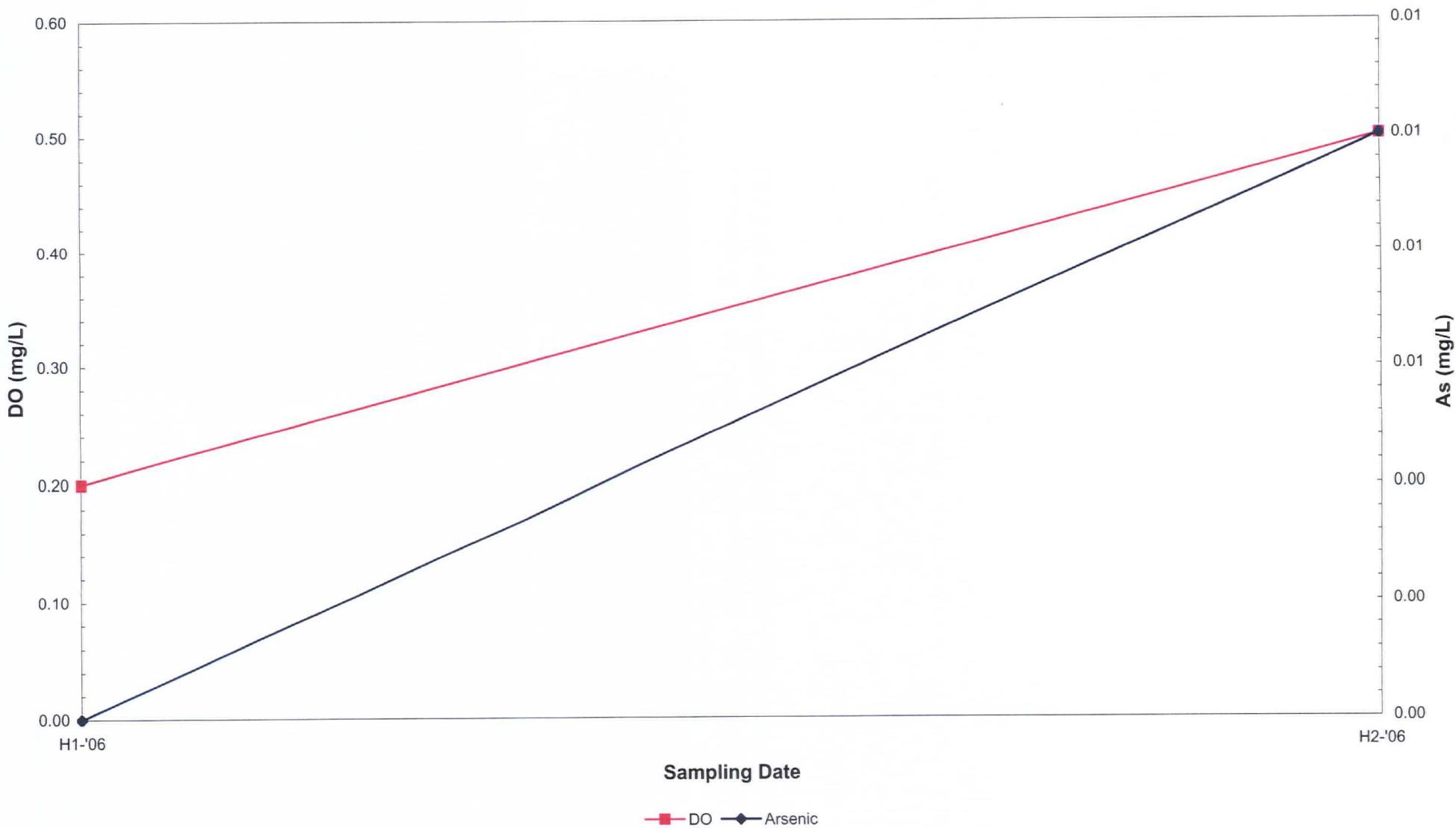
Monitoring Well GW- 2



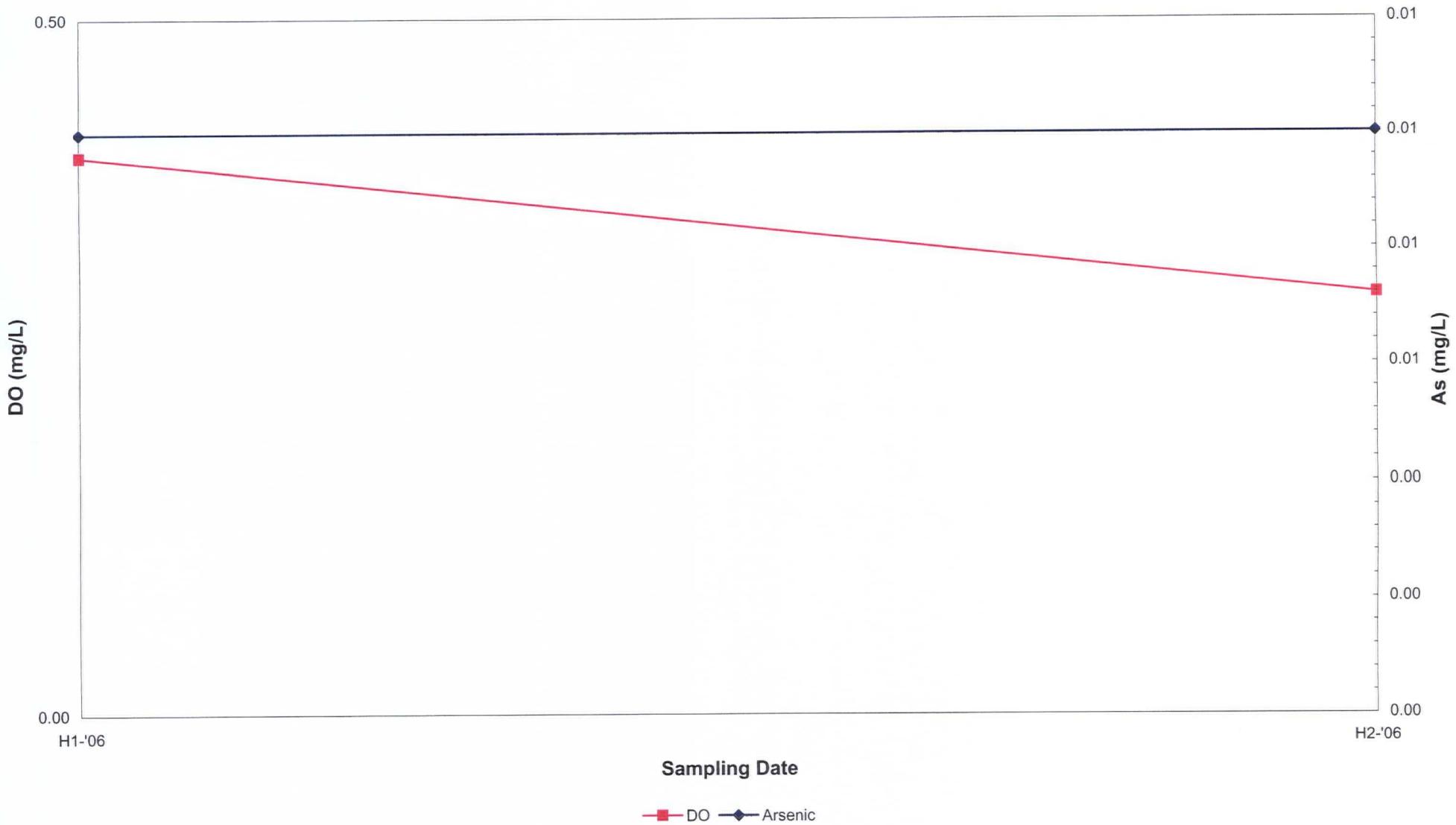
Monitoring Well GW-3



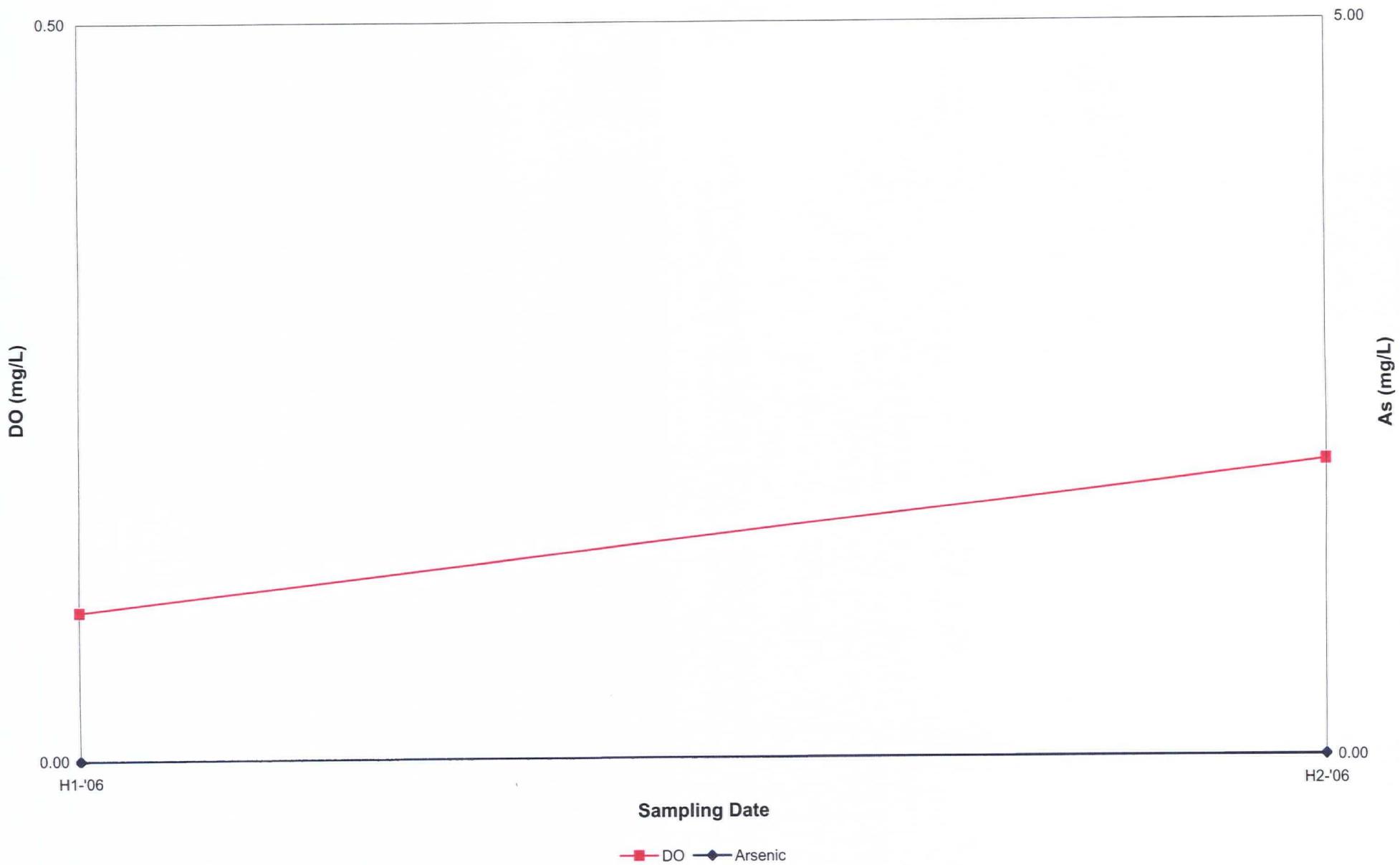
Monitoring Well GW-4



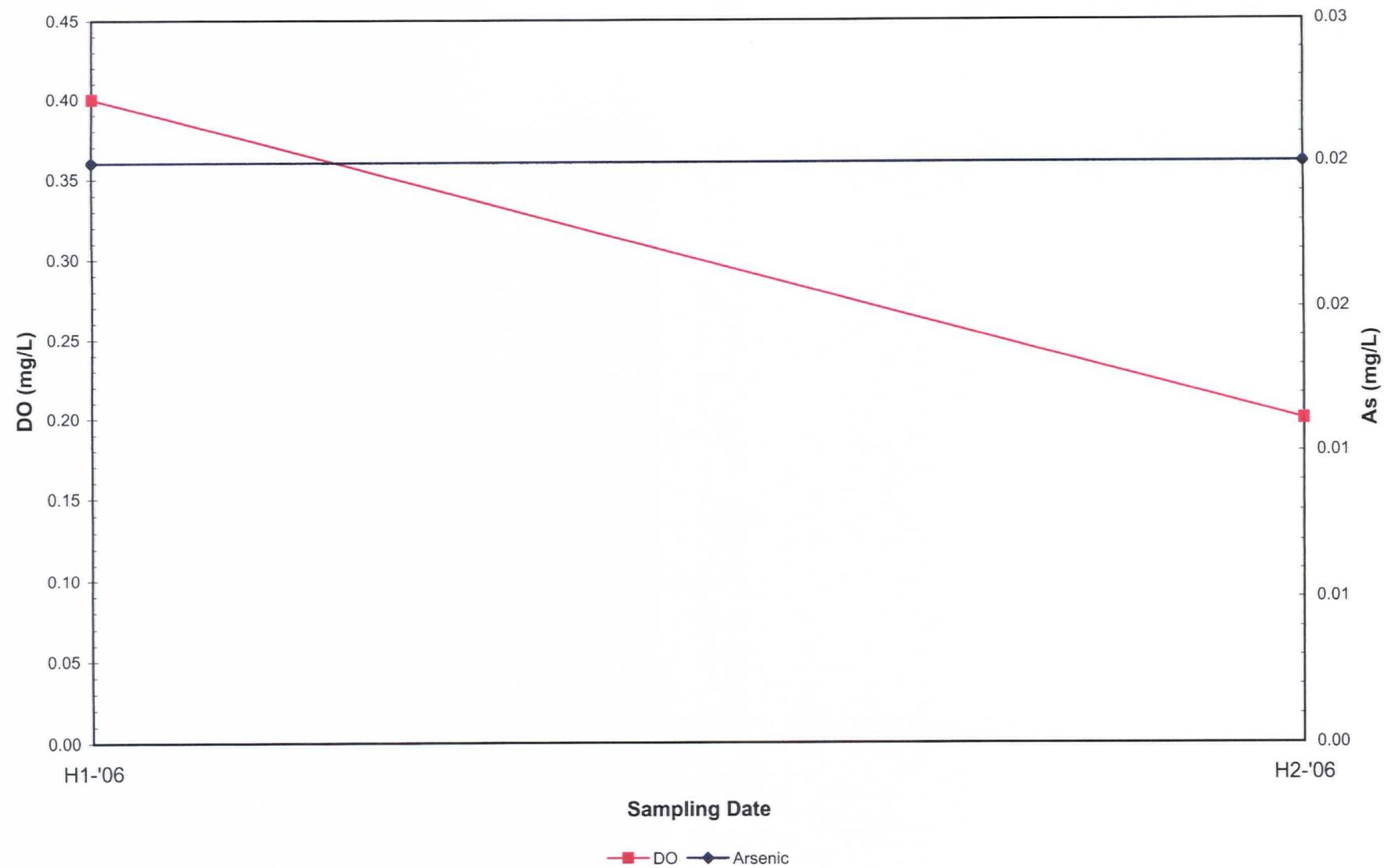
Monitoring Well GW-6



Monitoring Well GW-7

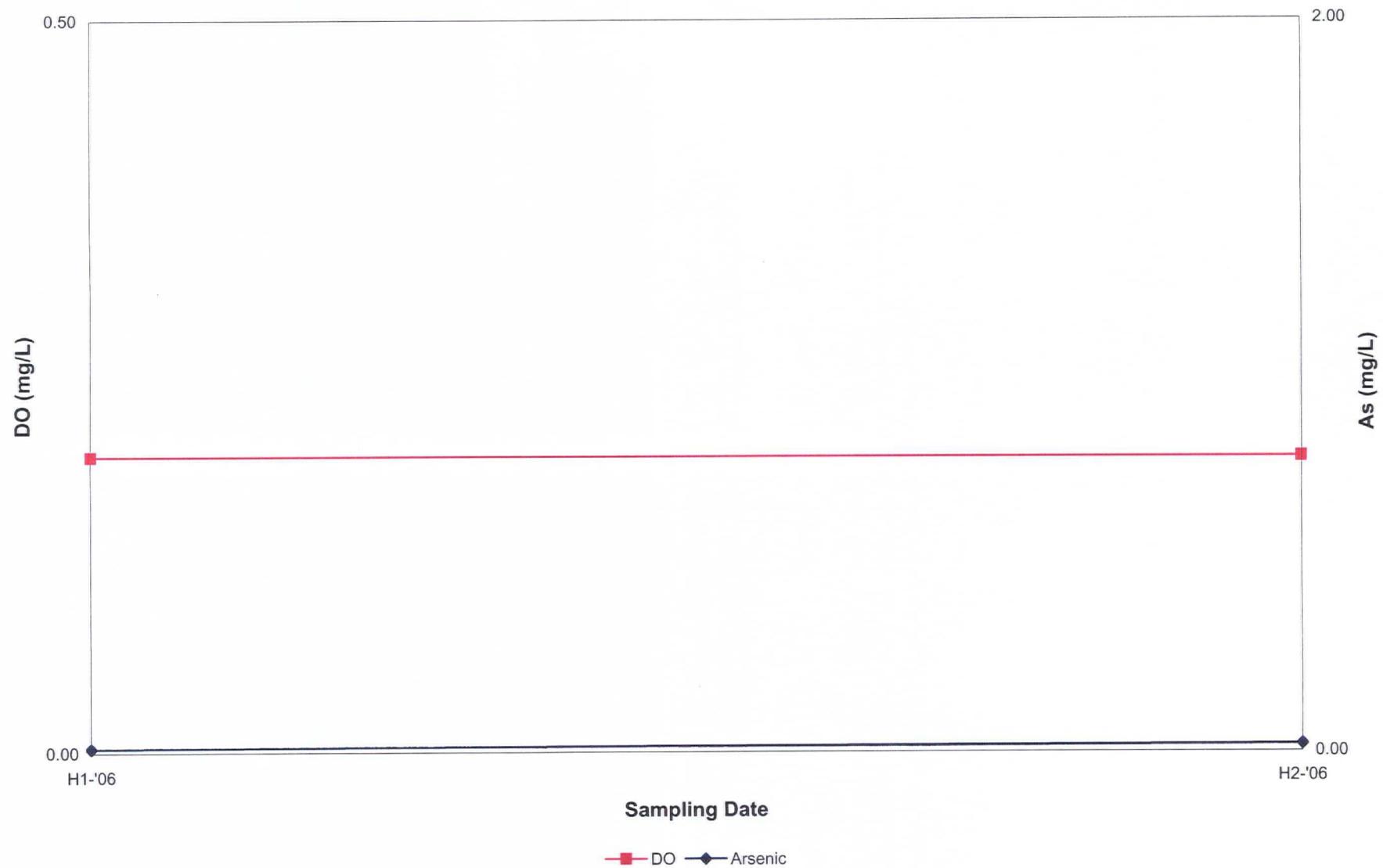


Monitoring Well GW-9

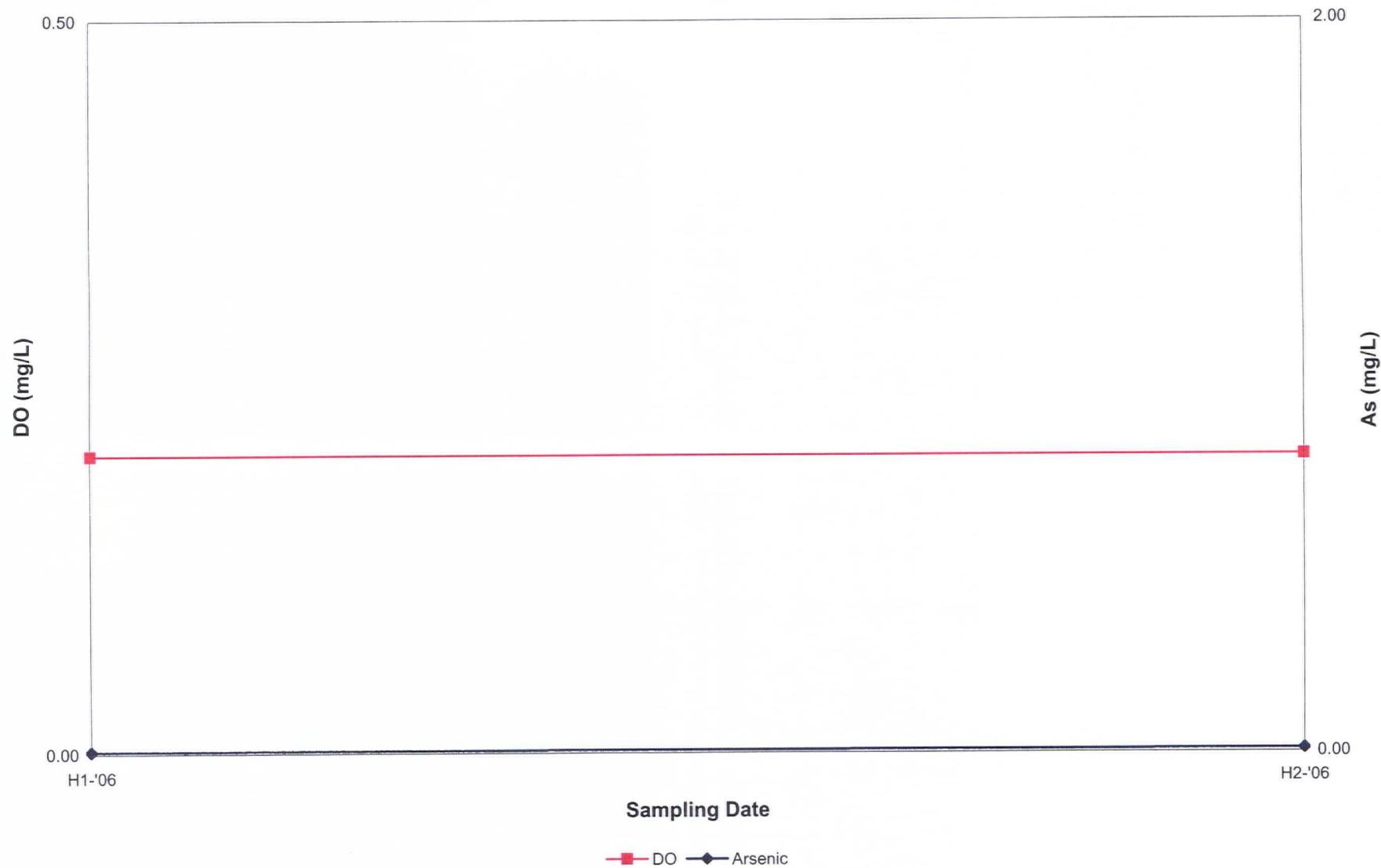




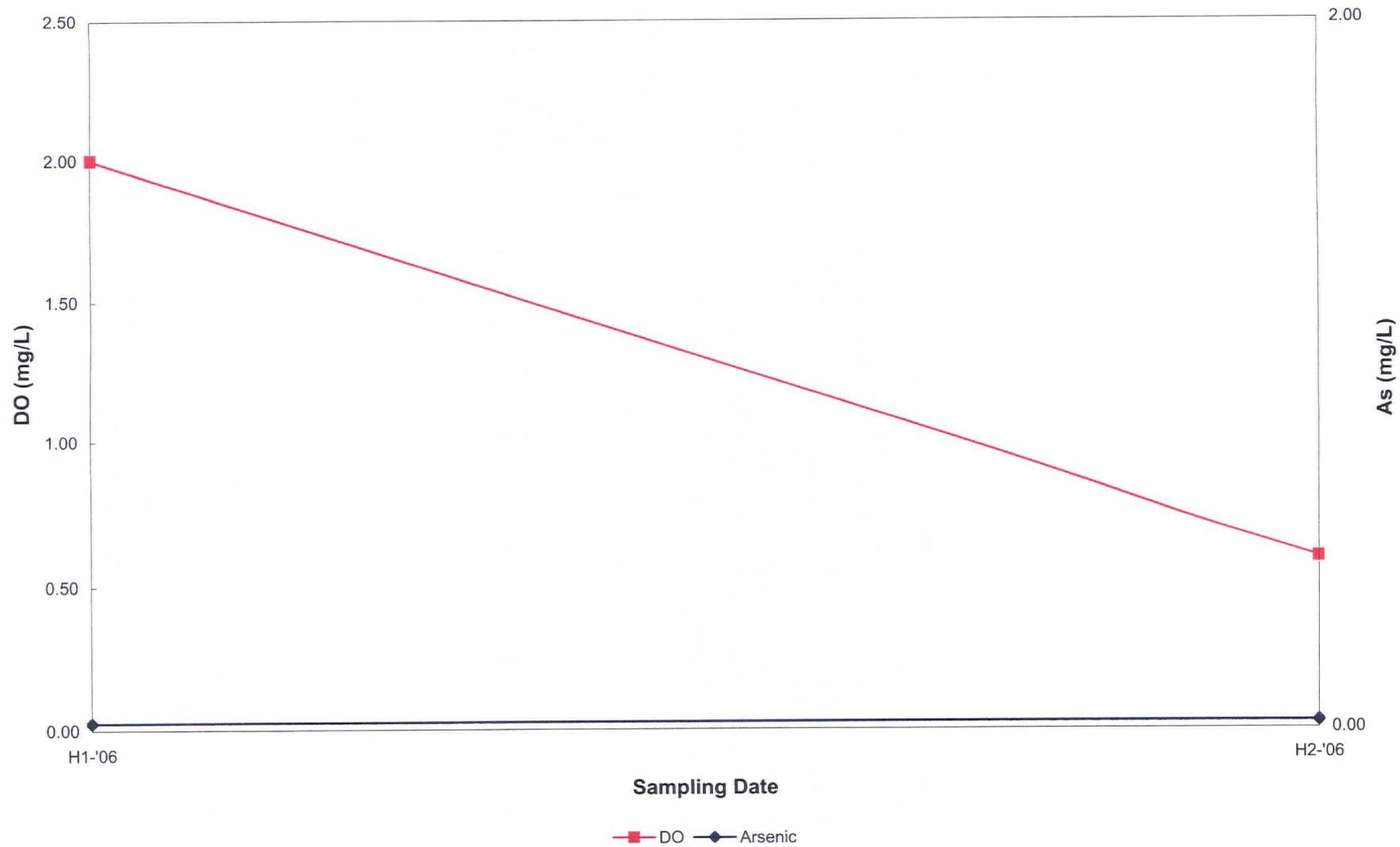
Monitoring Well GW-12



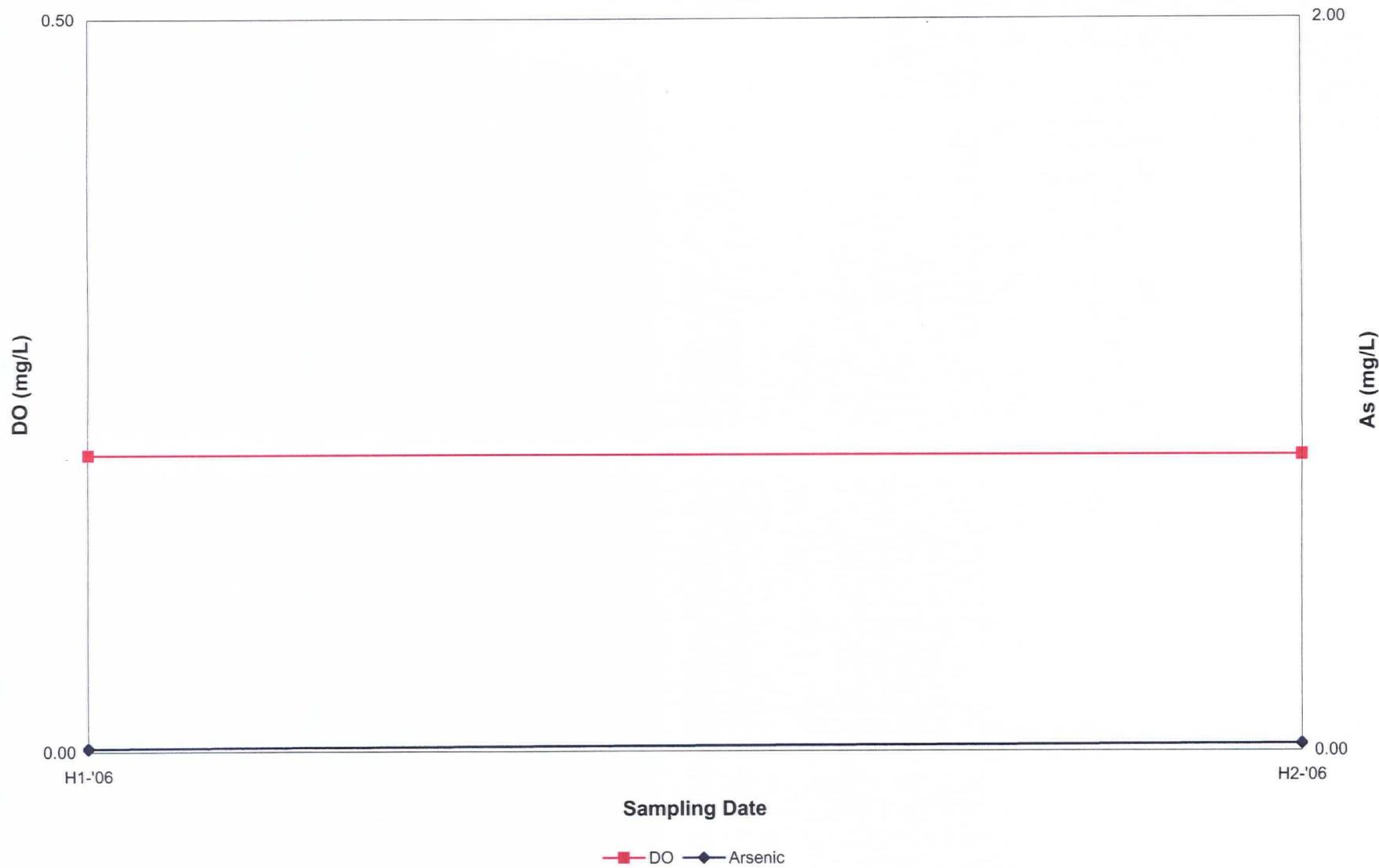
Monitoring Well GW-13



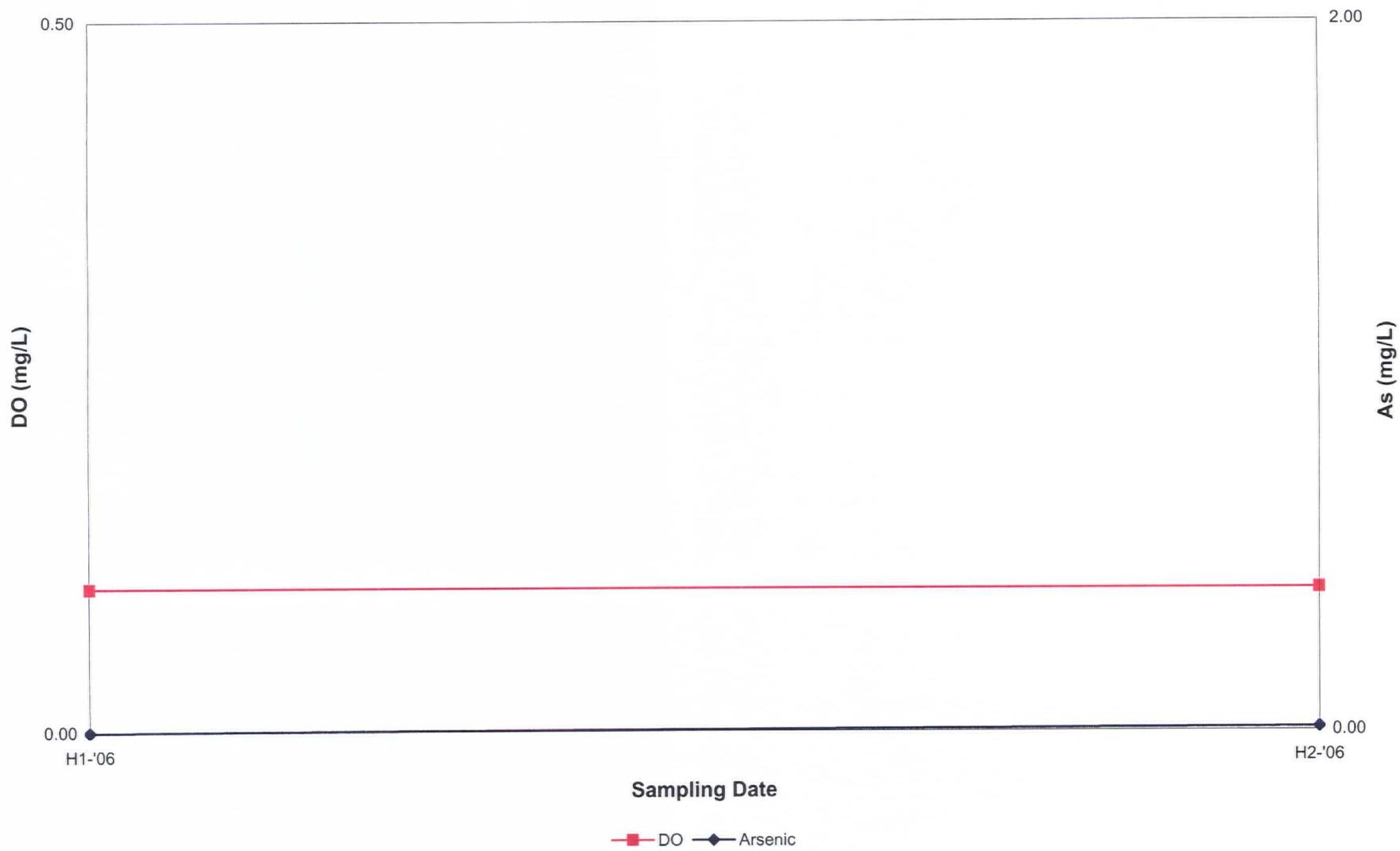
Monitoring Well GW-14



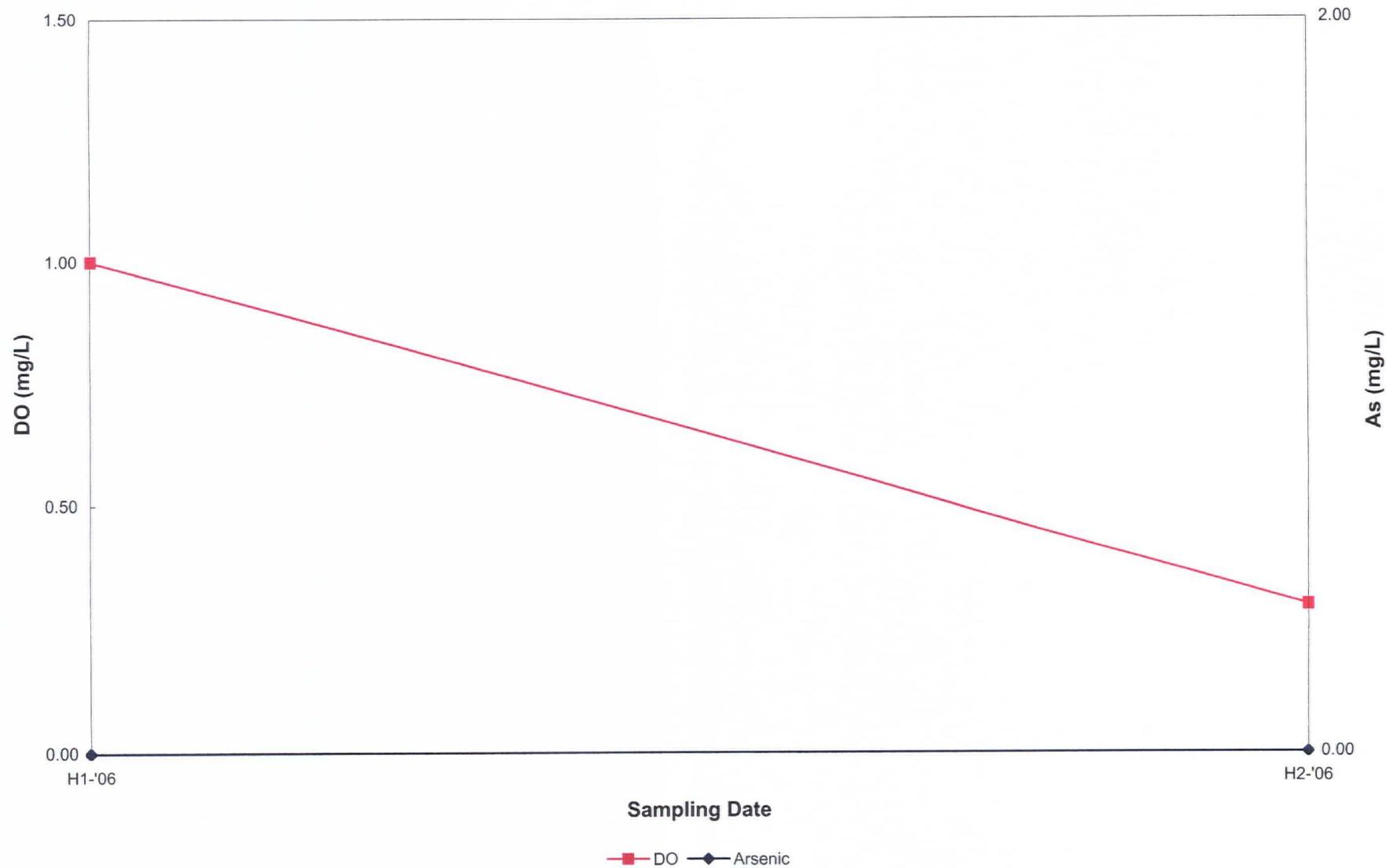
Monitoring Well GW-15



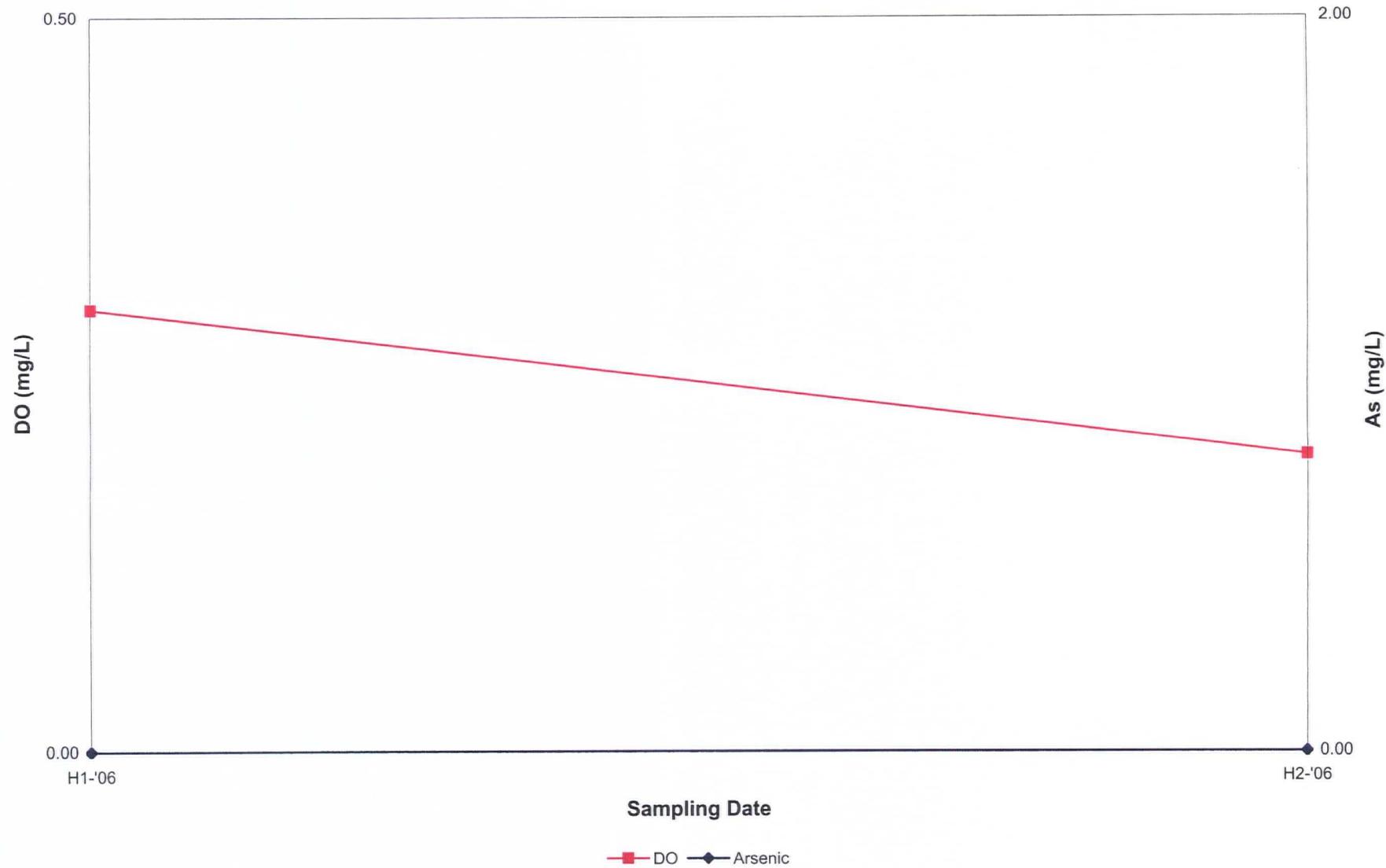
Monitoring Well GW-16



Monitoring Well GW-17

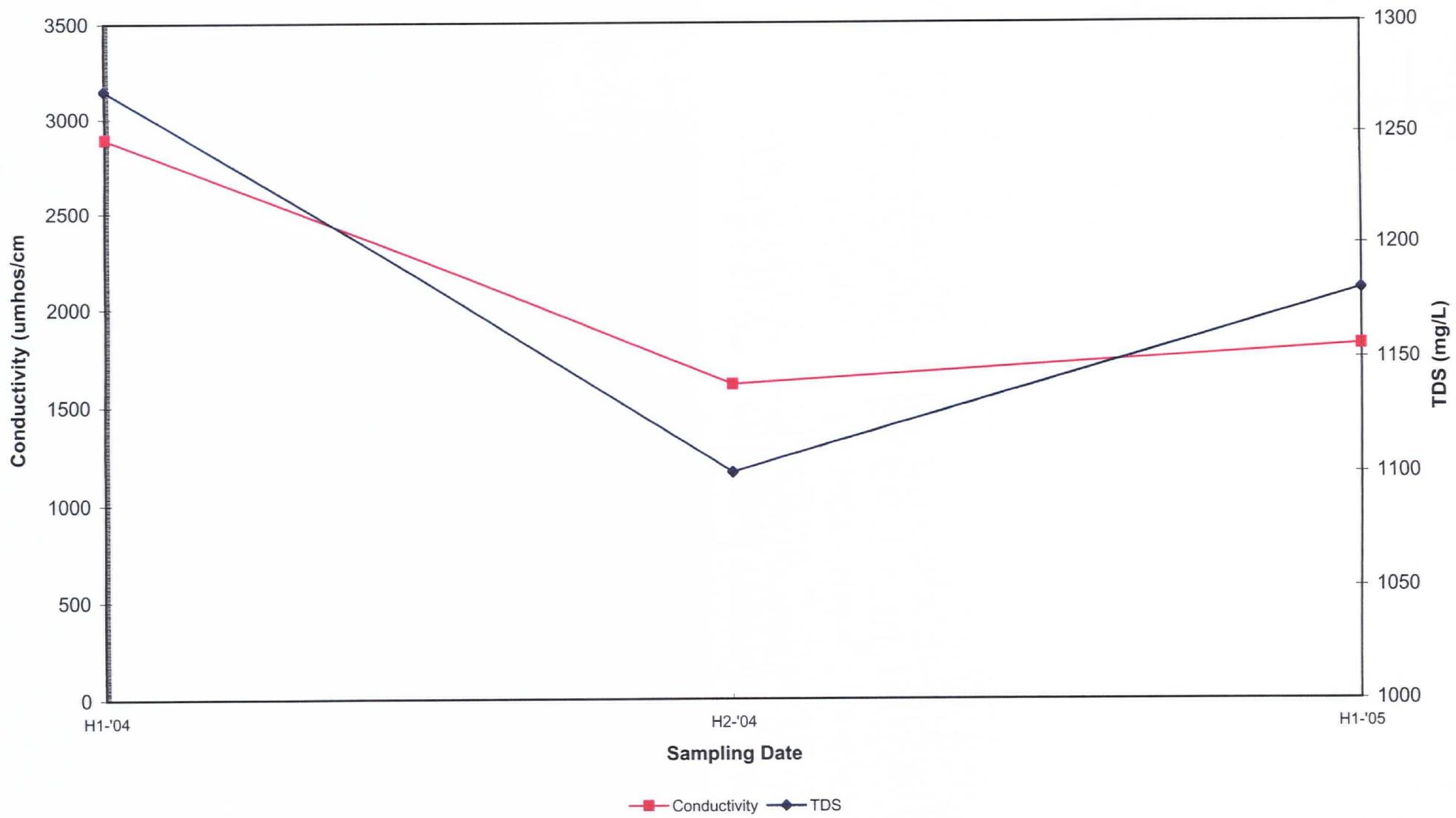


Monitoring Well BGW-1

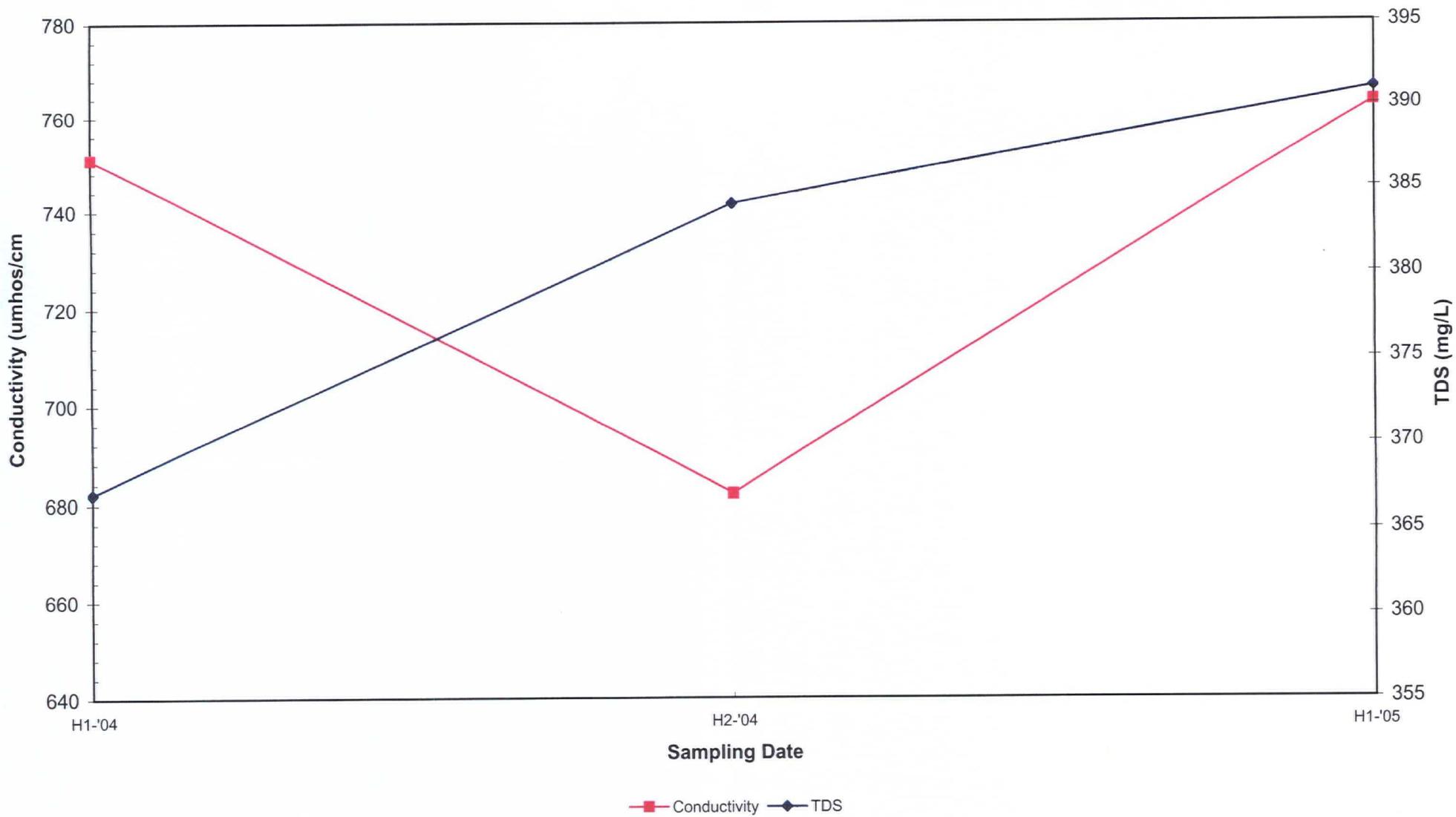


B-7 – Conductivity versus TDS

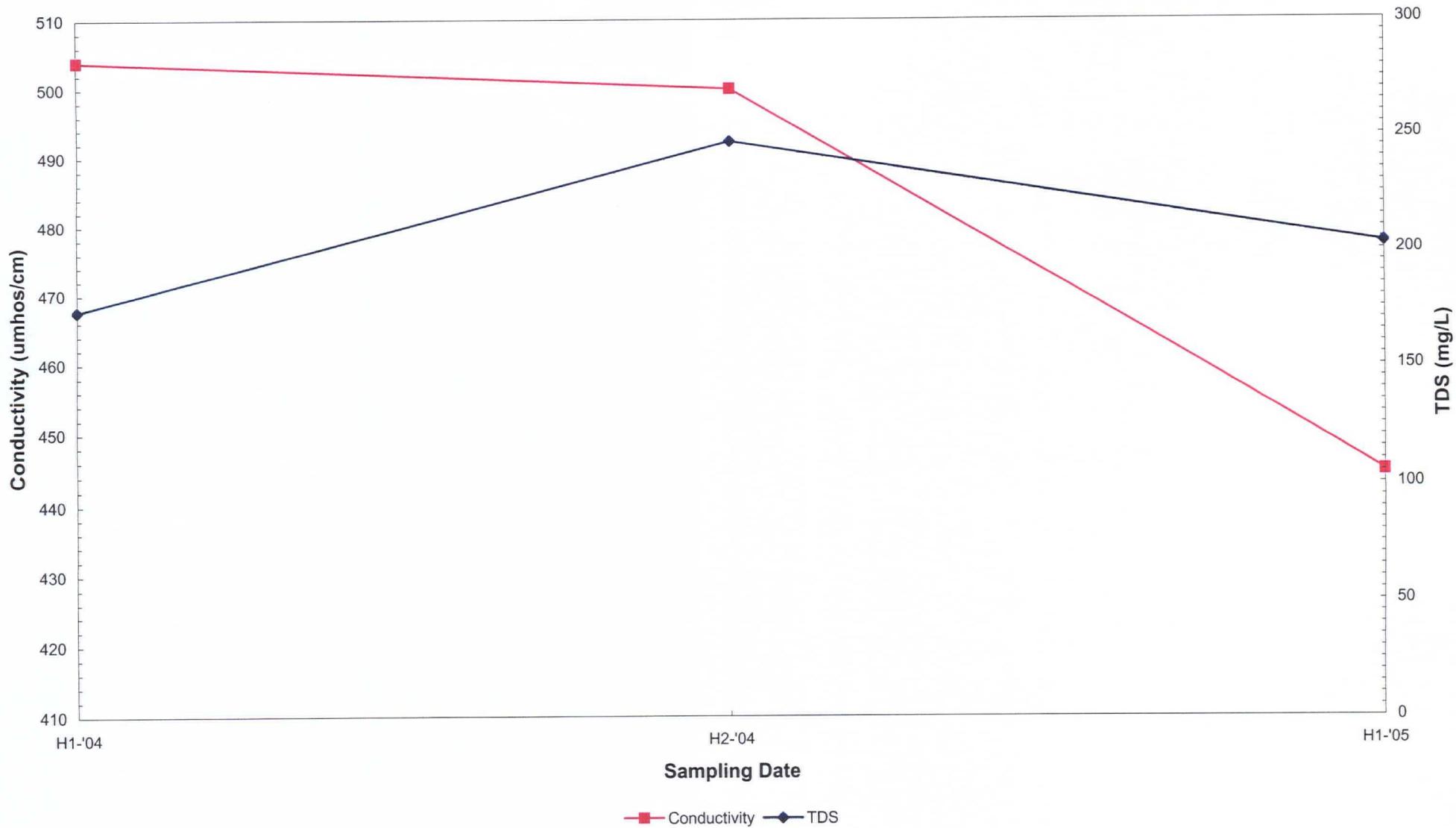
Monitoring Well CW- 4



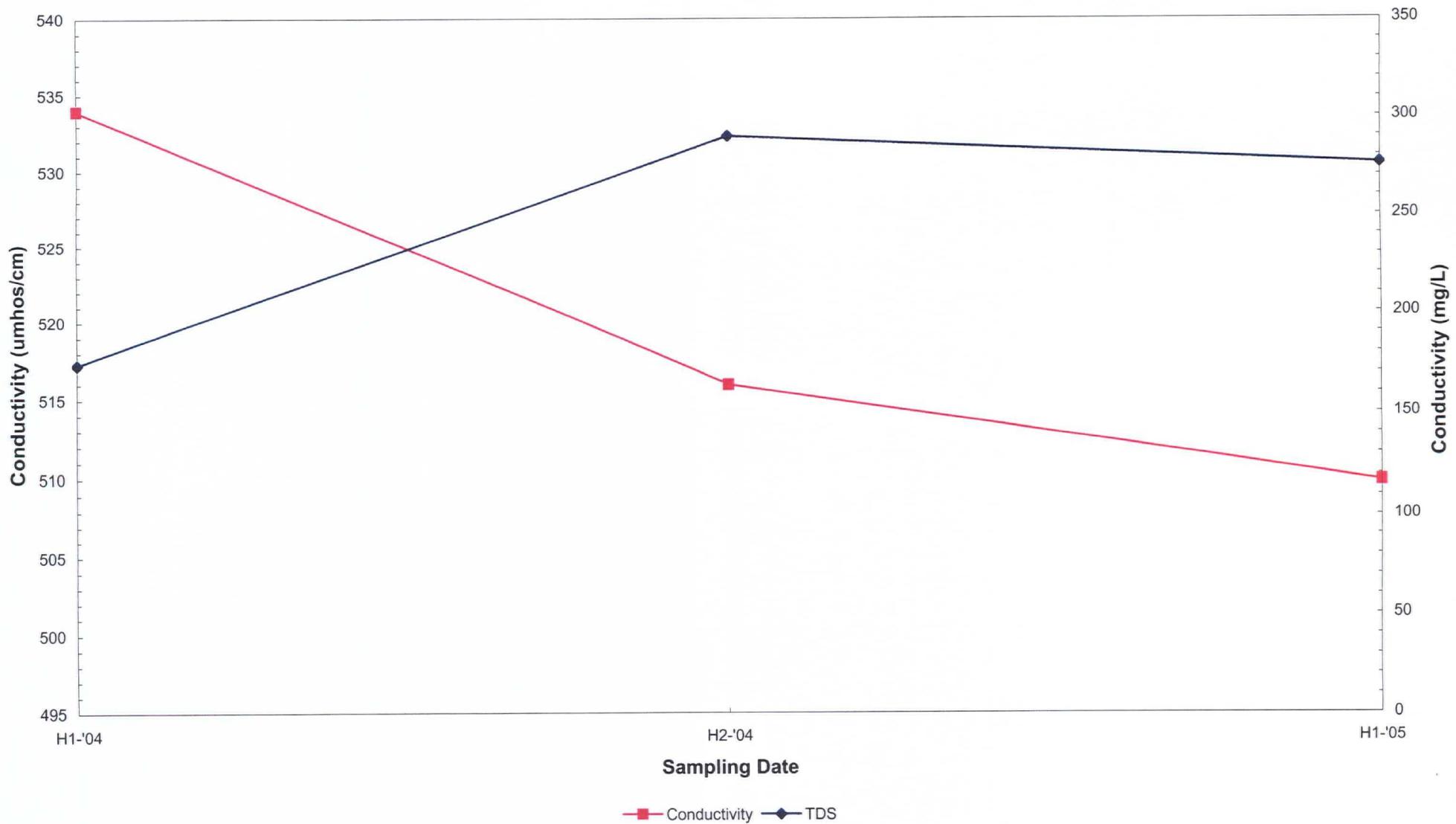
Monitoring Well CW- 5



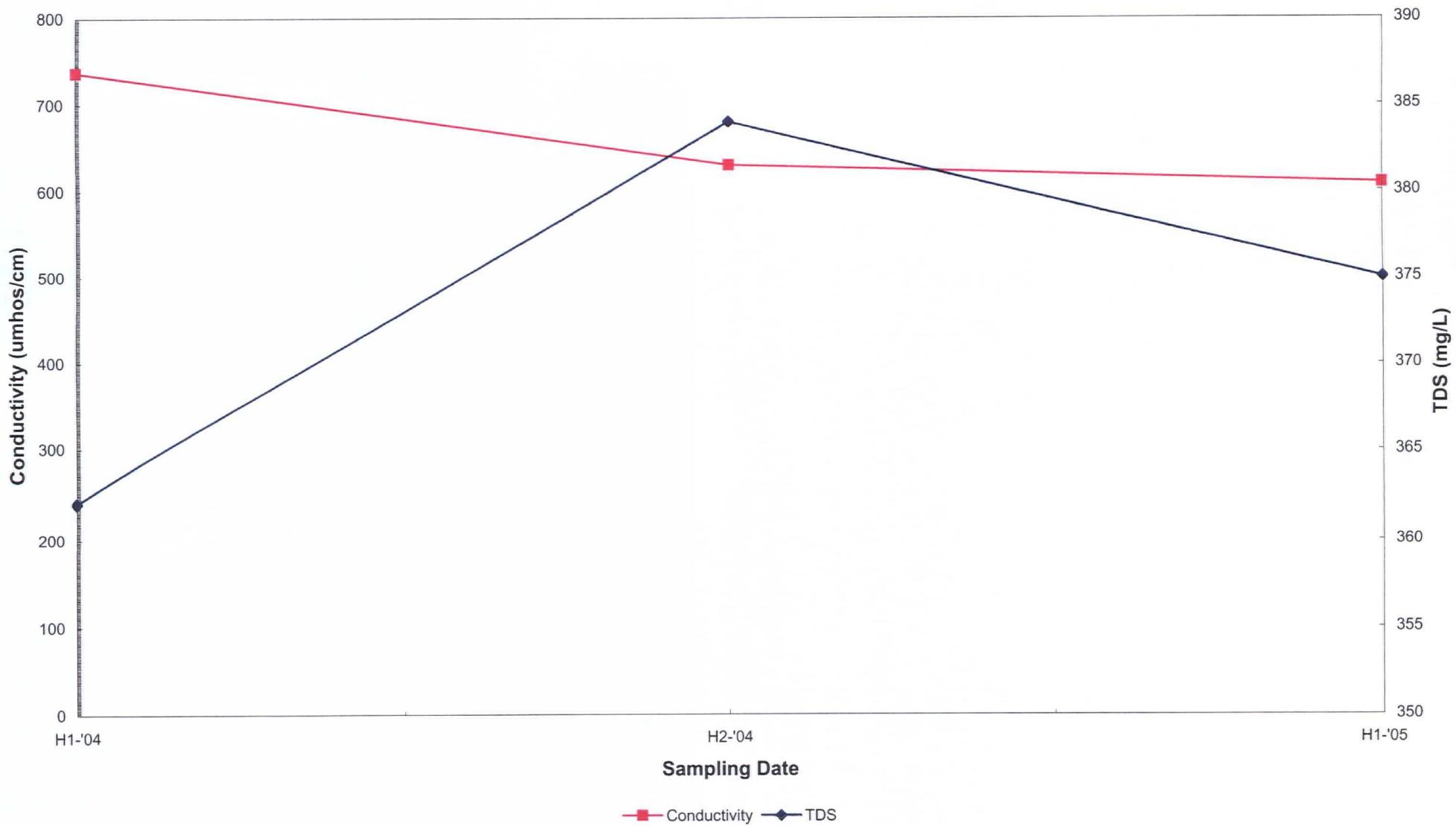
Monitoring Well GC-1A



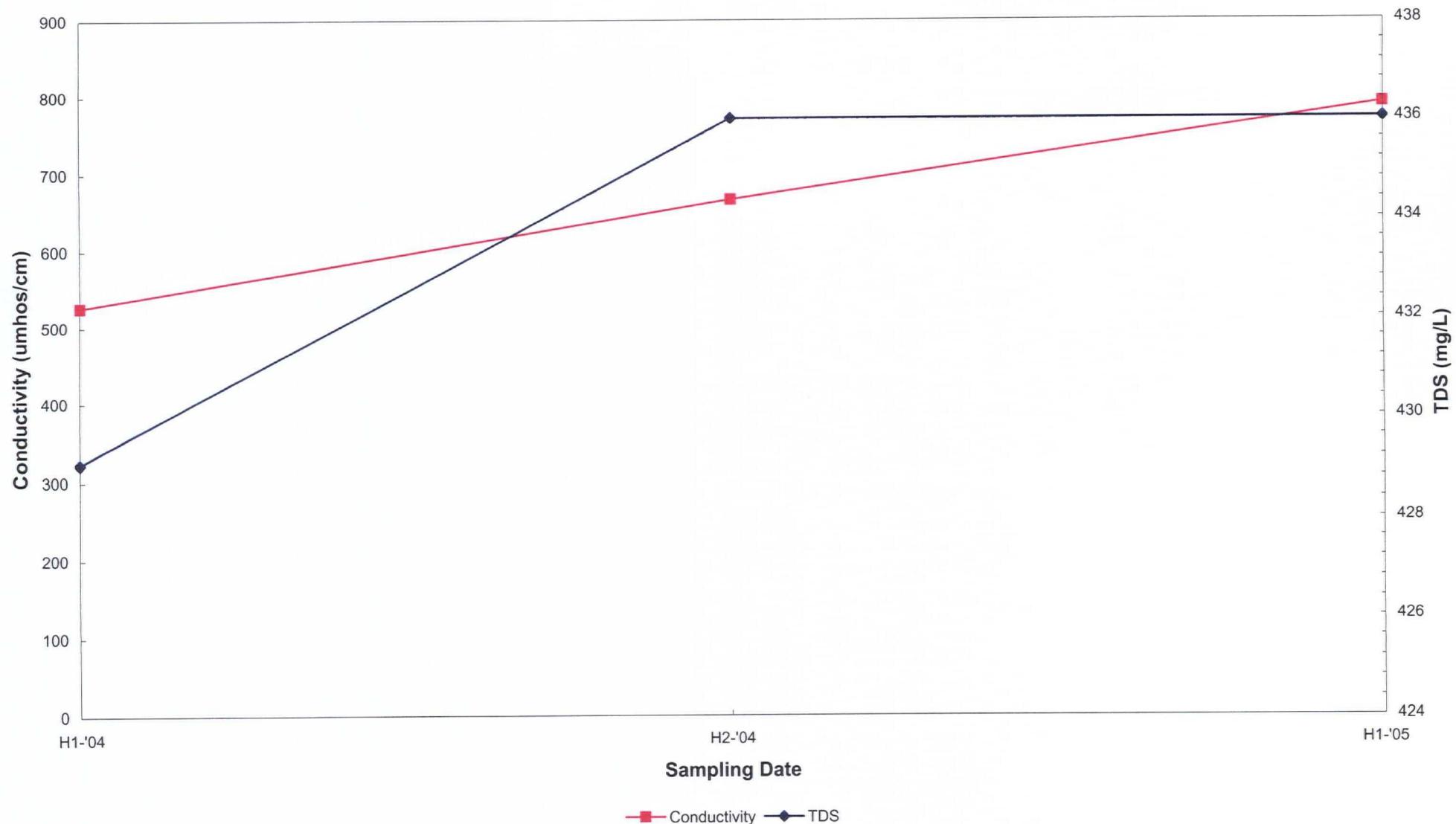
Monitoring Well GC-2



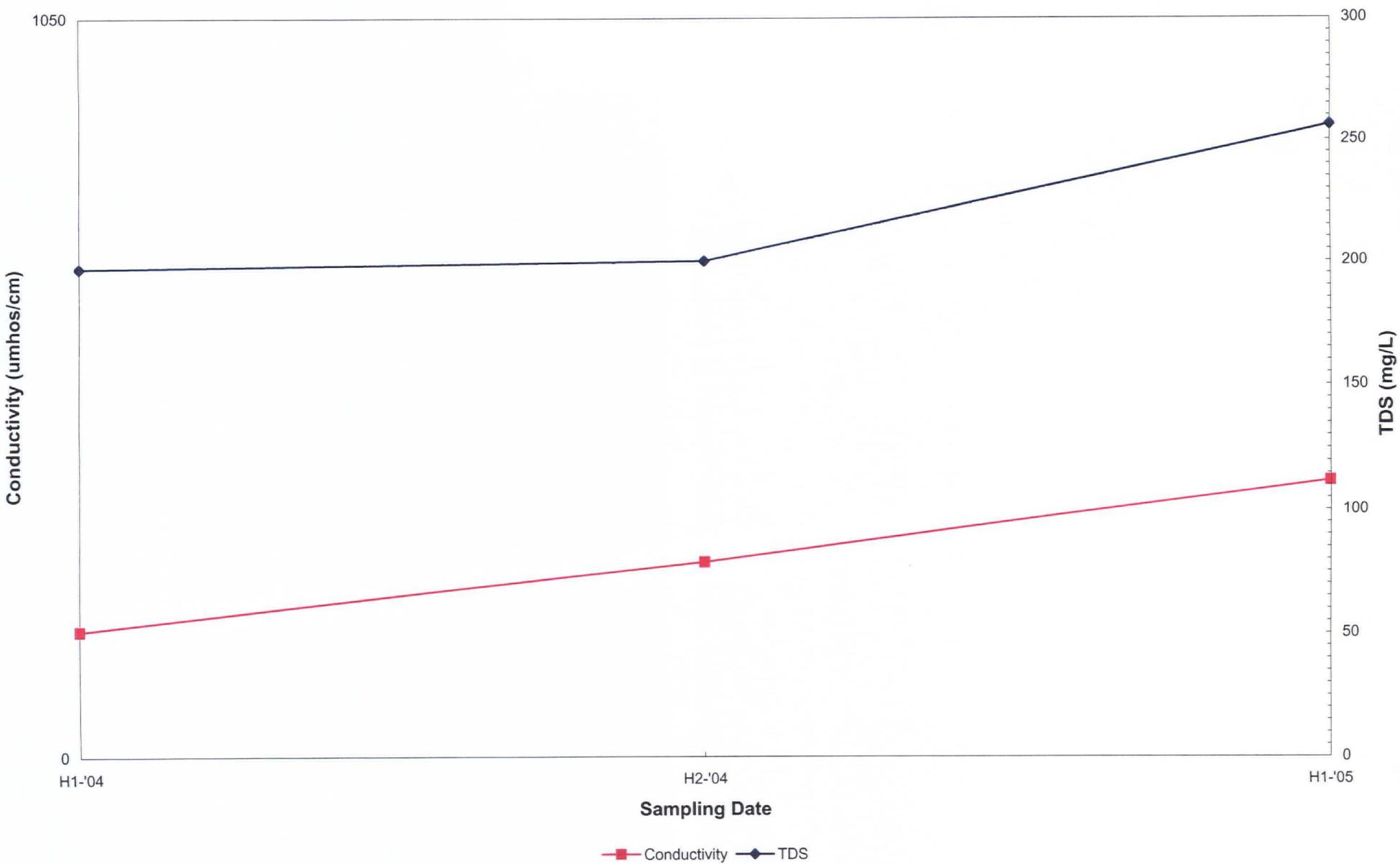
Monitoring Well GC-3



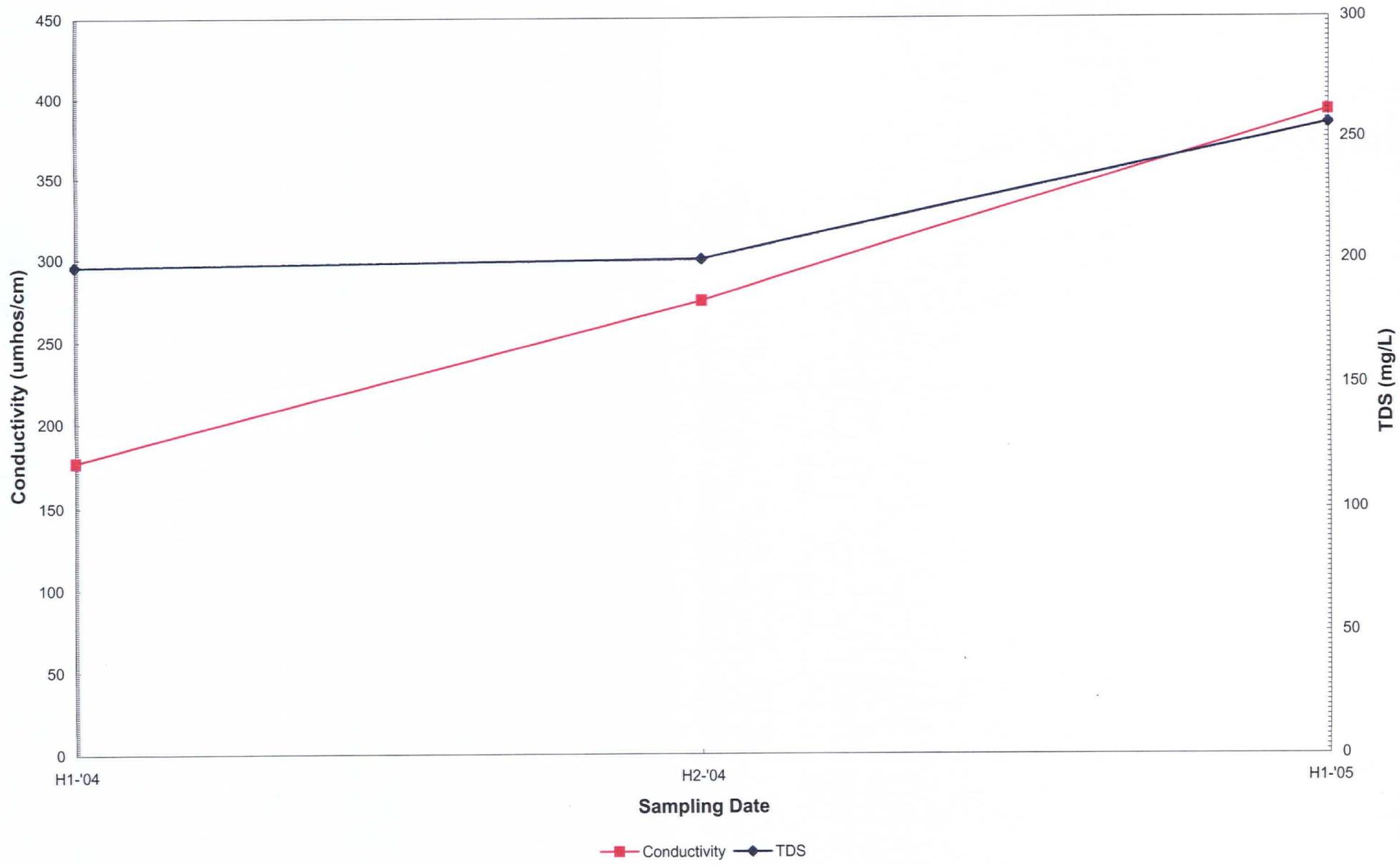
Monitoring Well GC-4



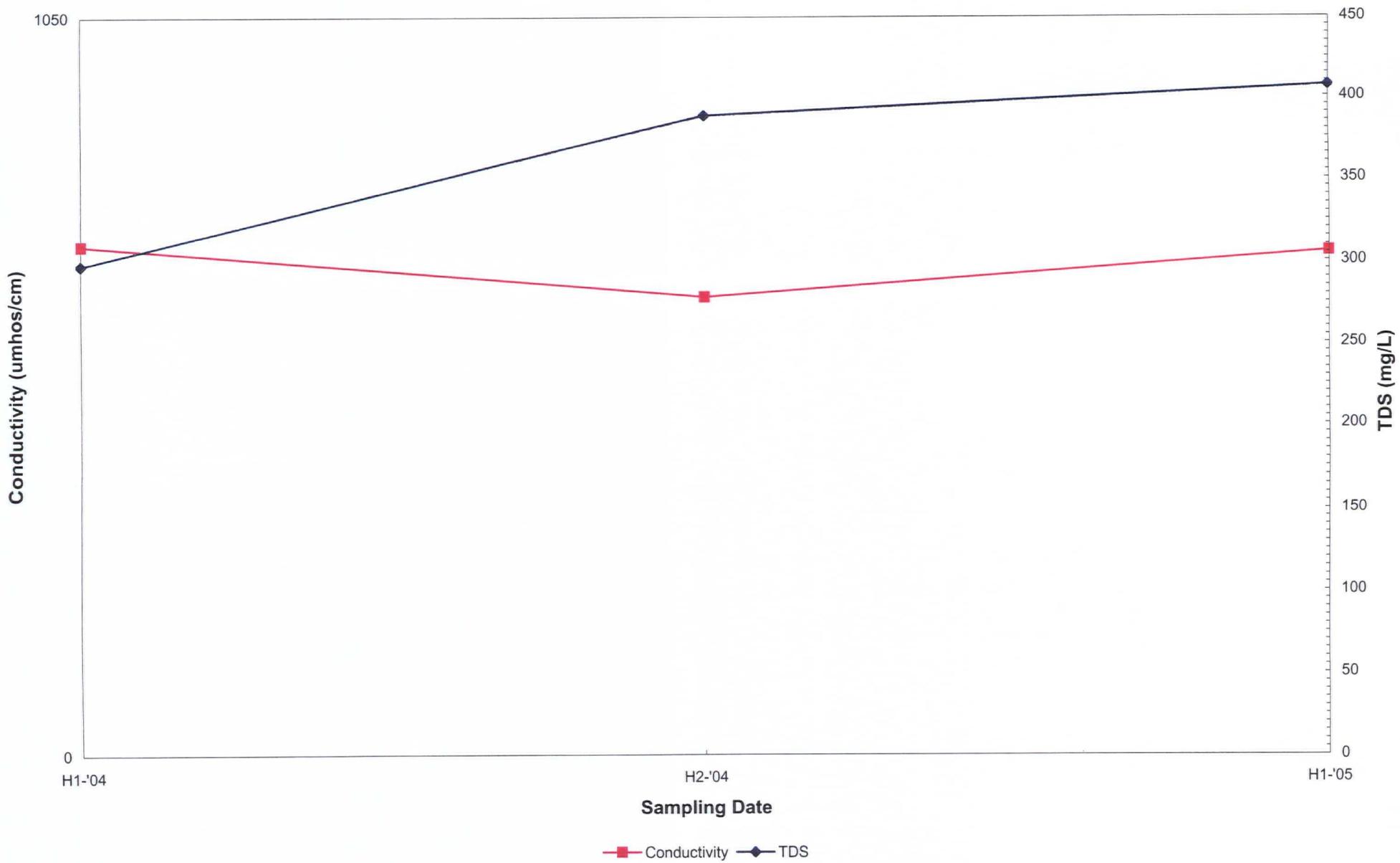
Monitoring Well GC- 5



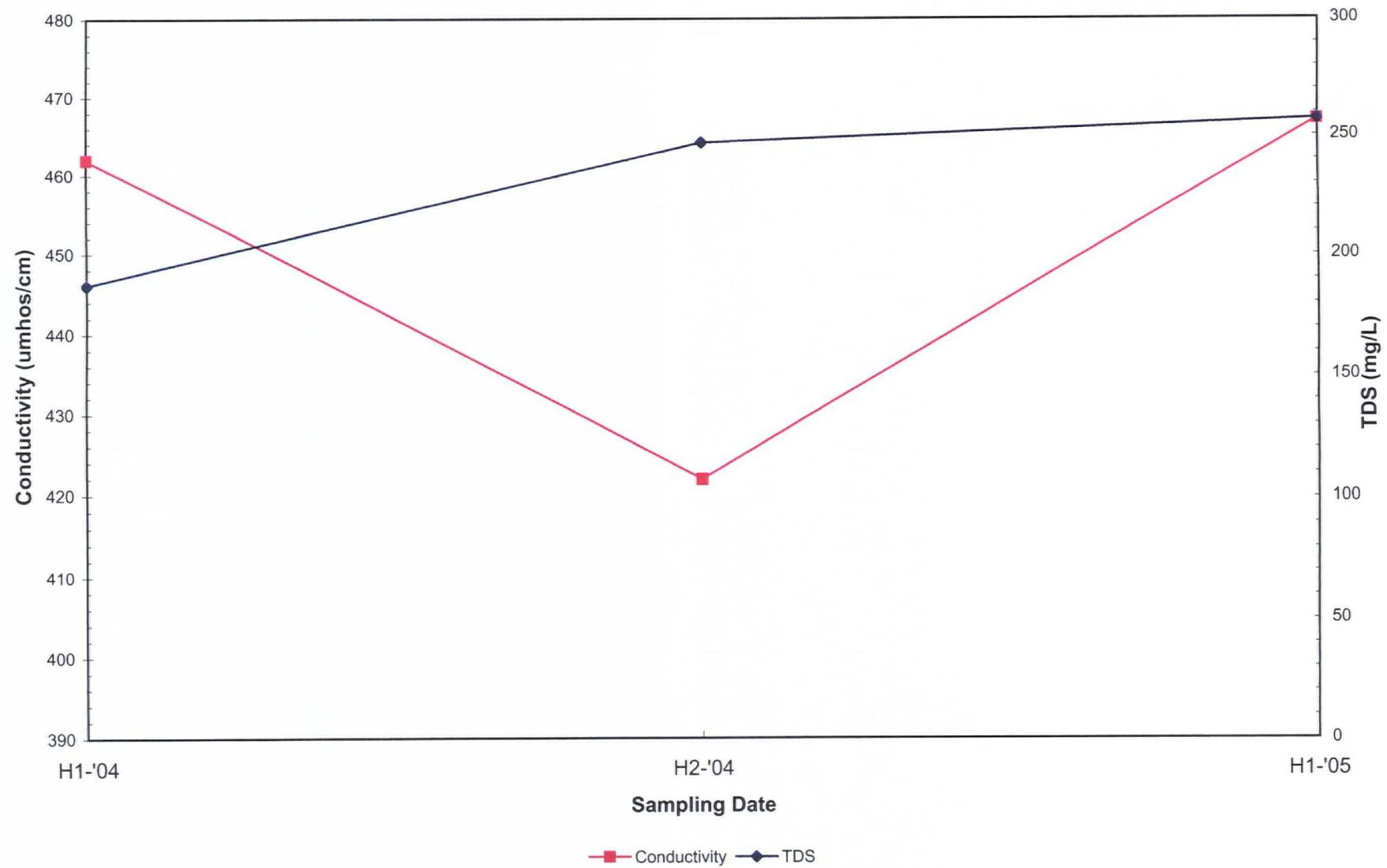
Monitoring Well GC-6



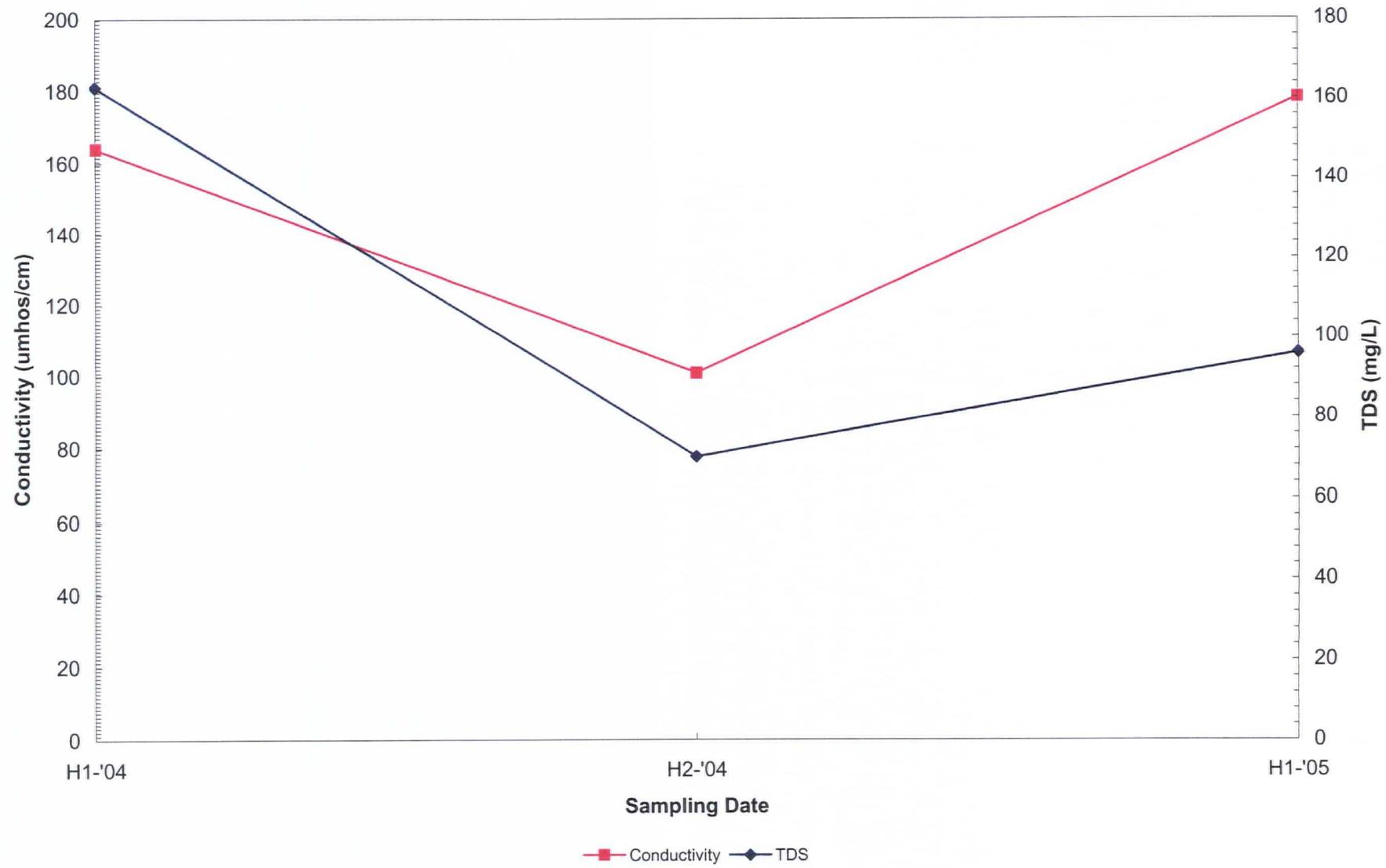
Monitoring Well GC- 5



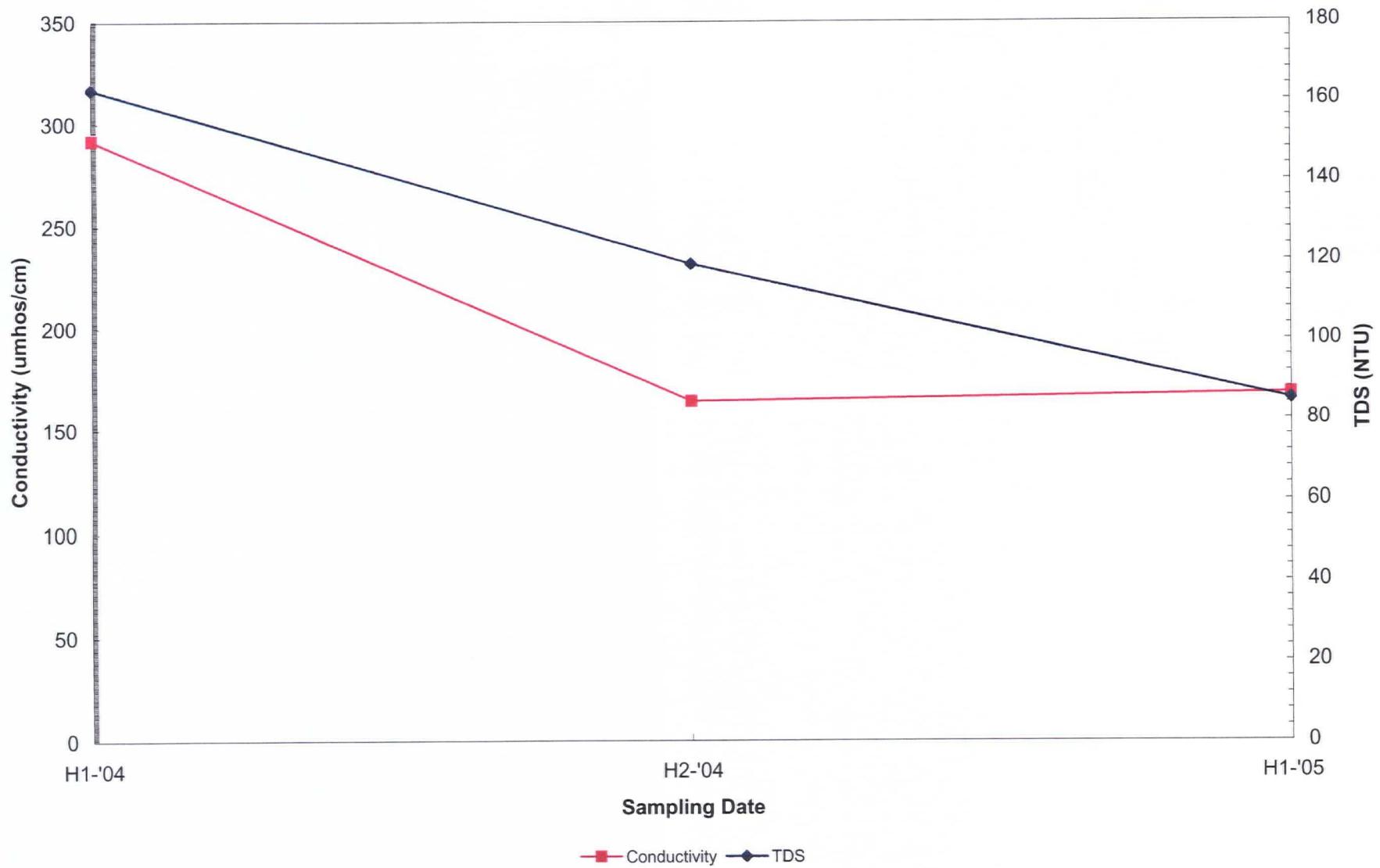
Monitoring Well LRII-1



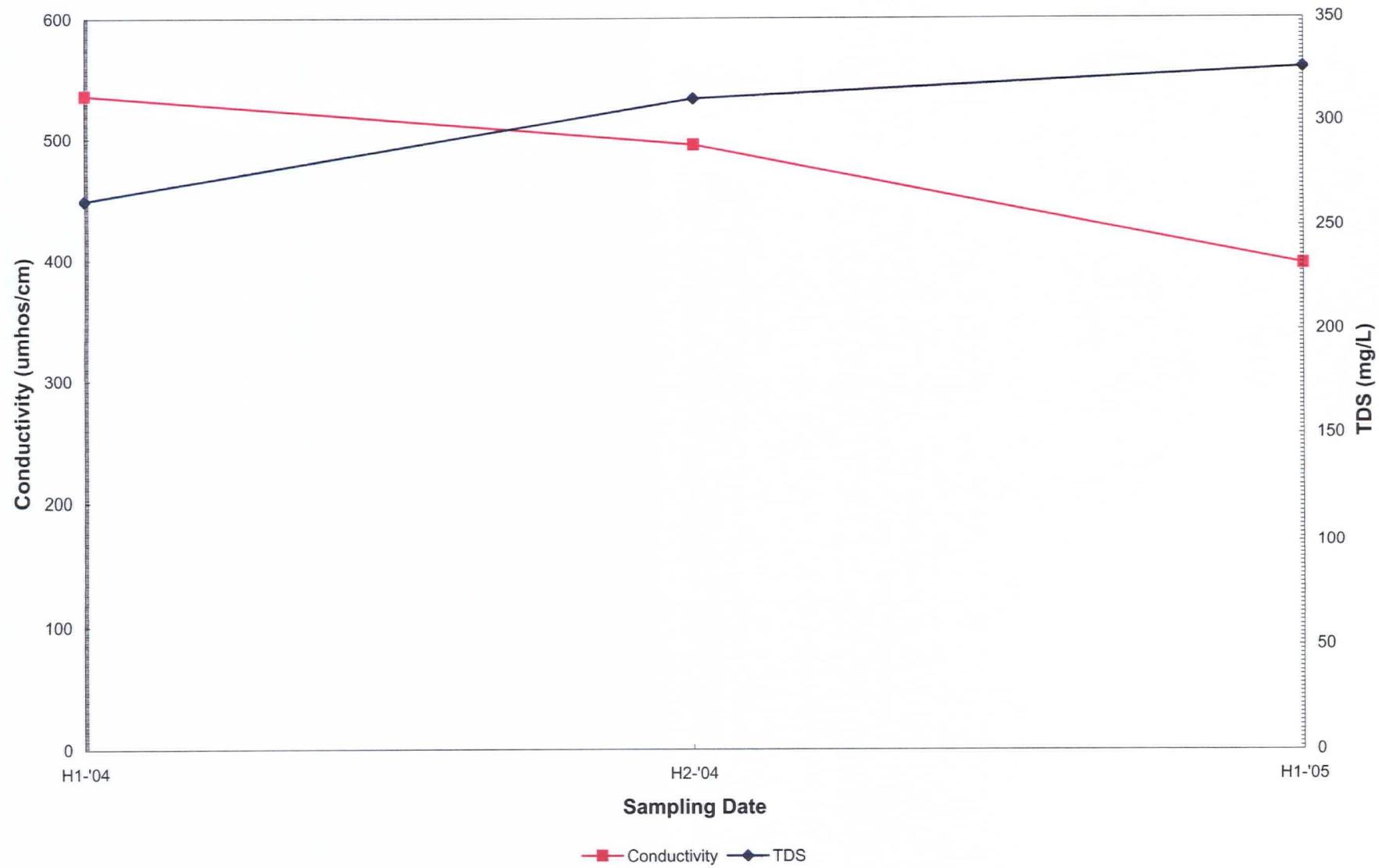
Monitoring Well LRII-2

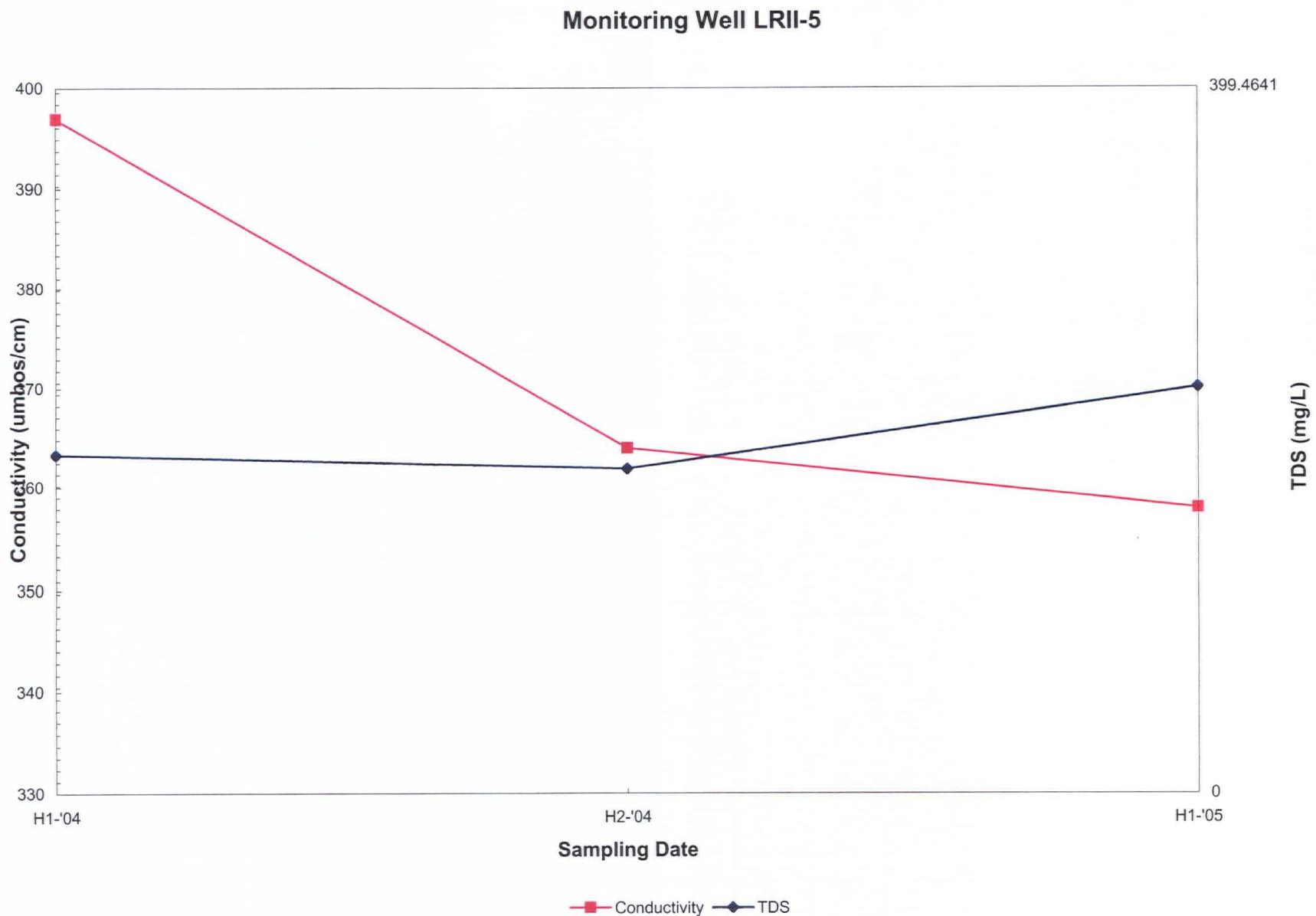


Monitoring Well LRII-3

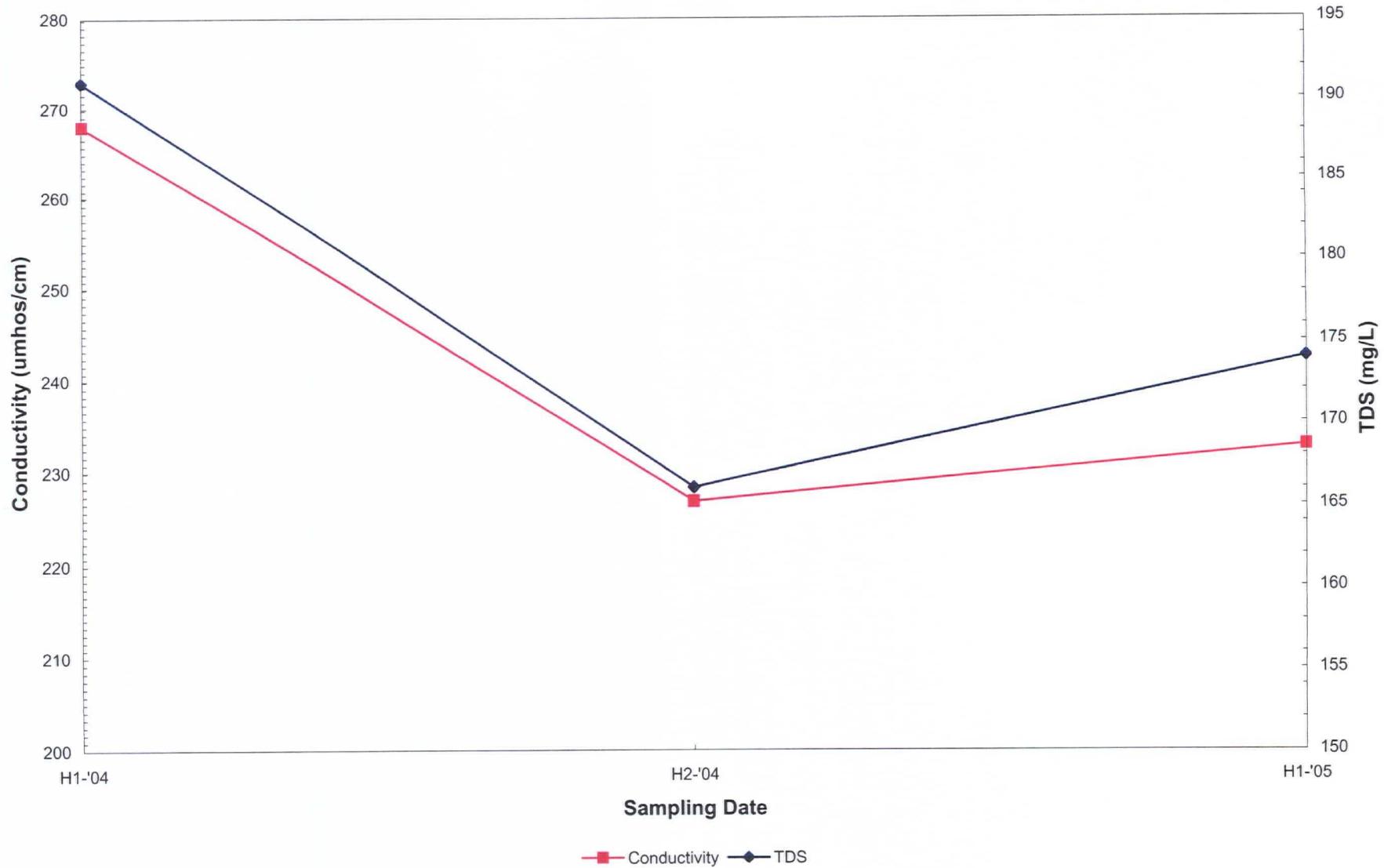


Monitoring Well LRII-4

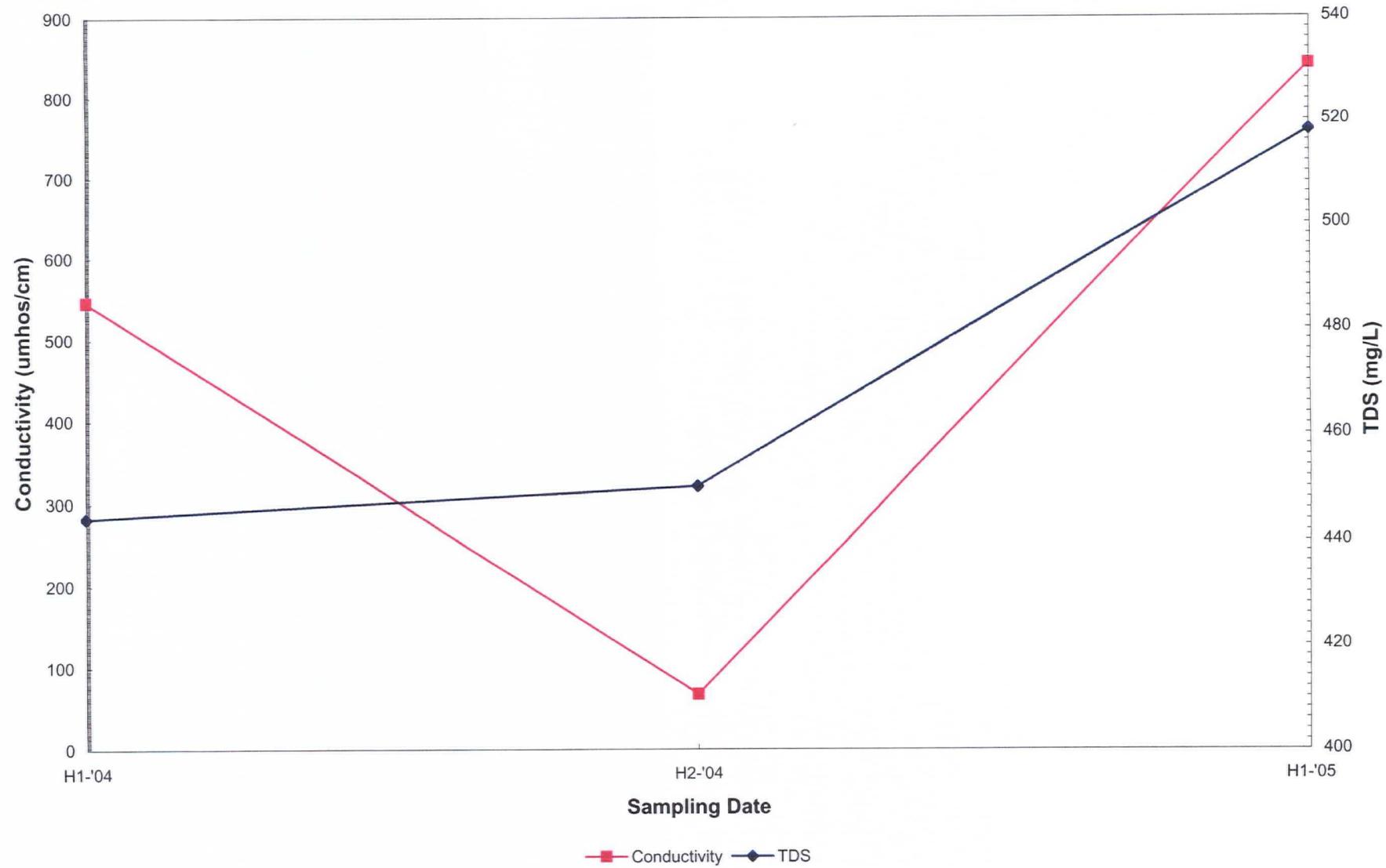




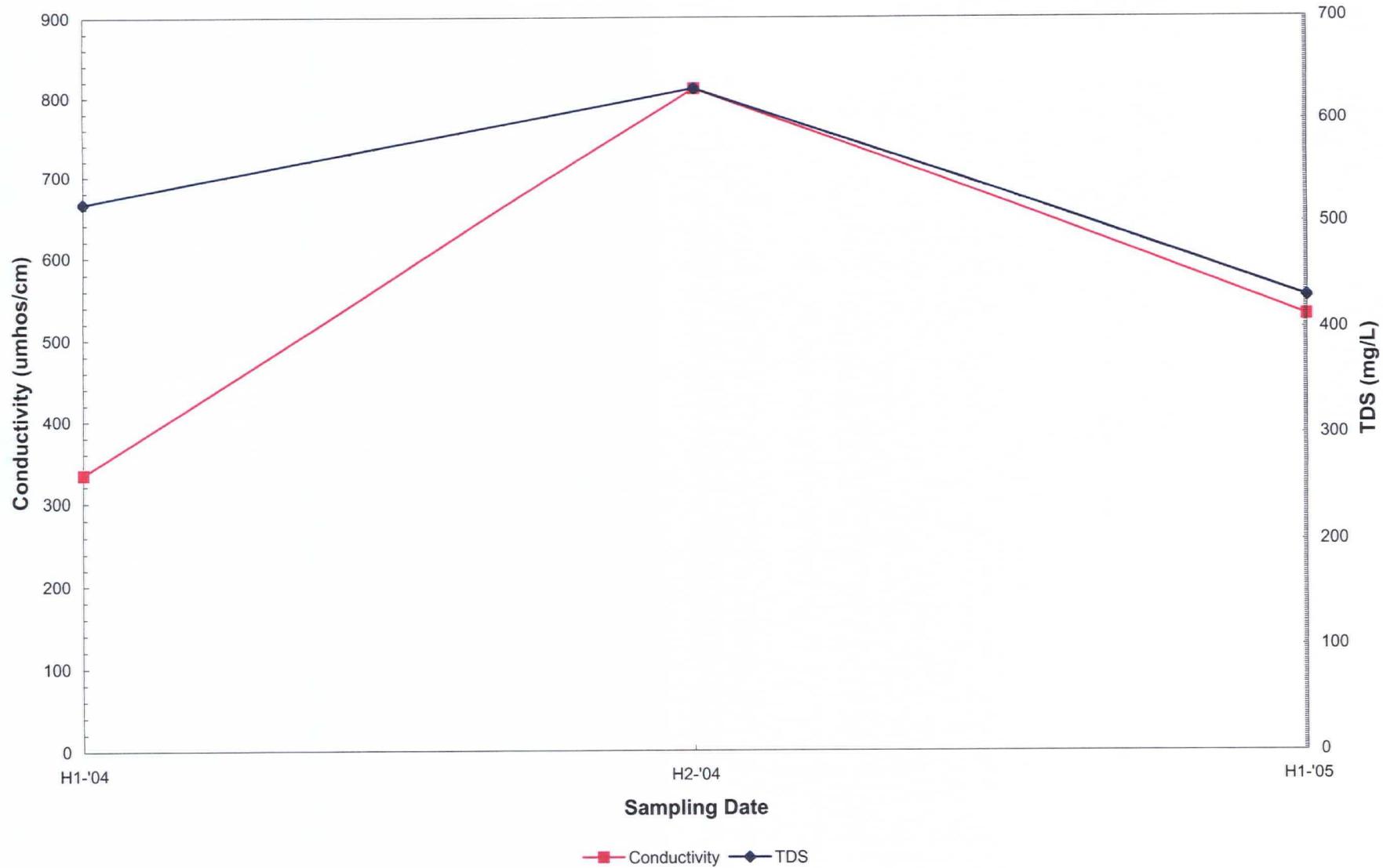
Monitoring Well MW-1



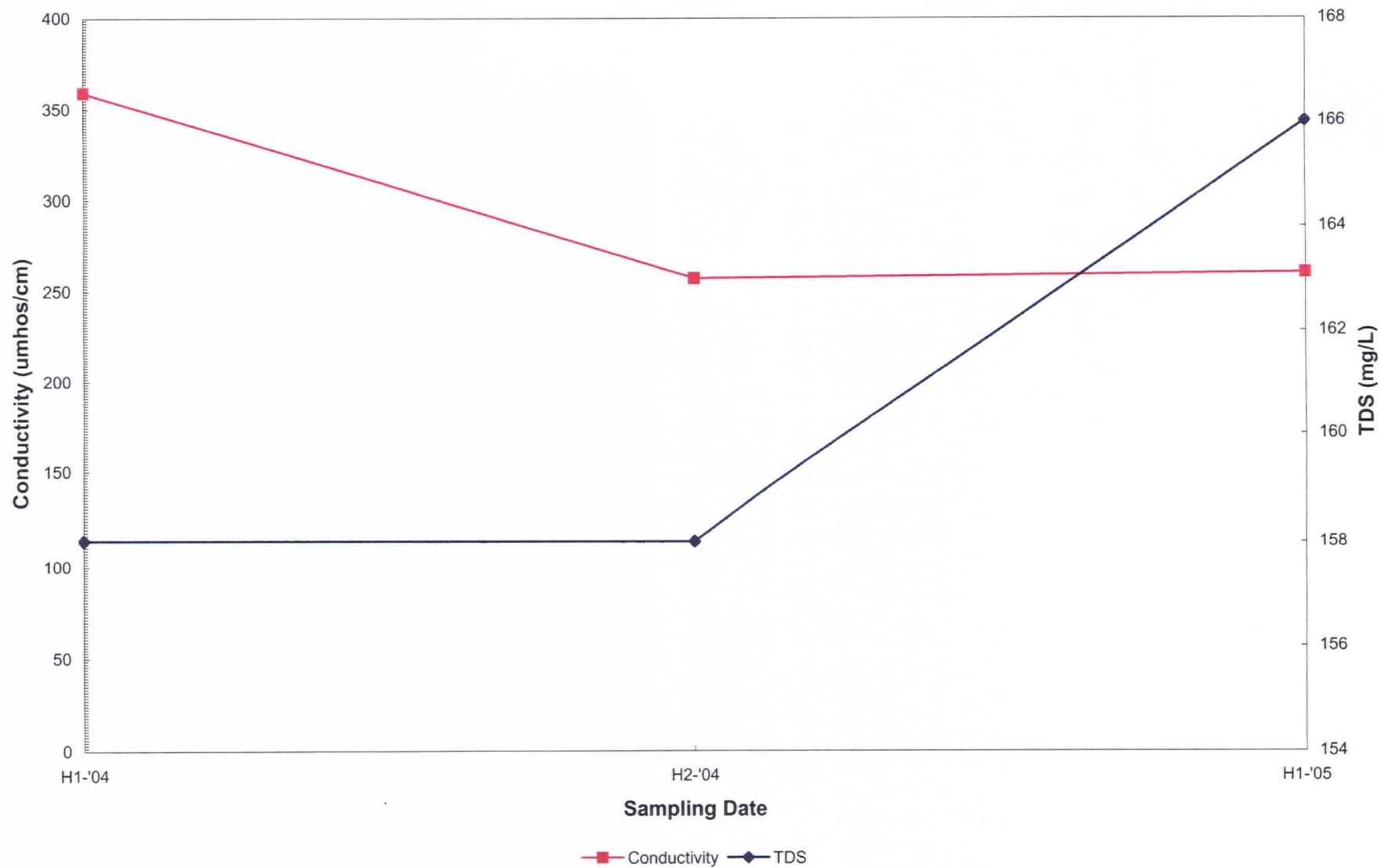
Monitoring Well MW-2



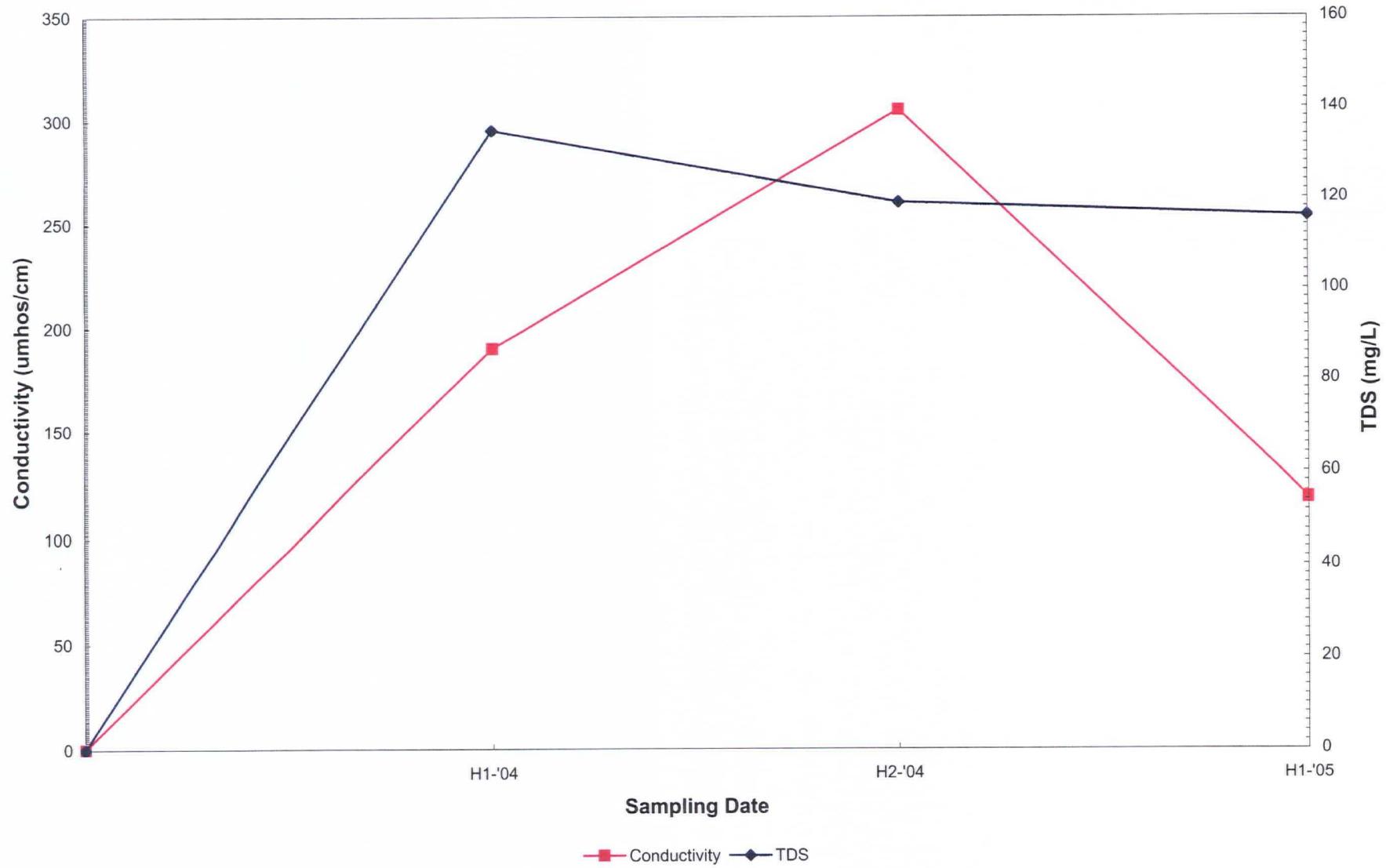
Monitoring Well MW-3



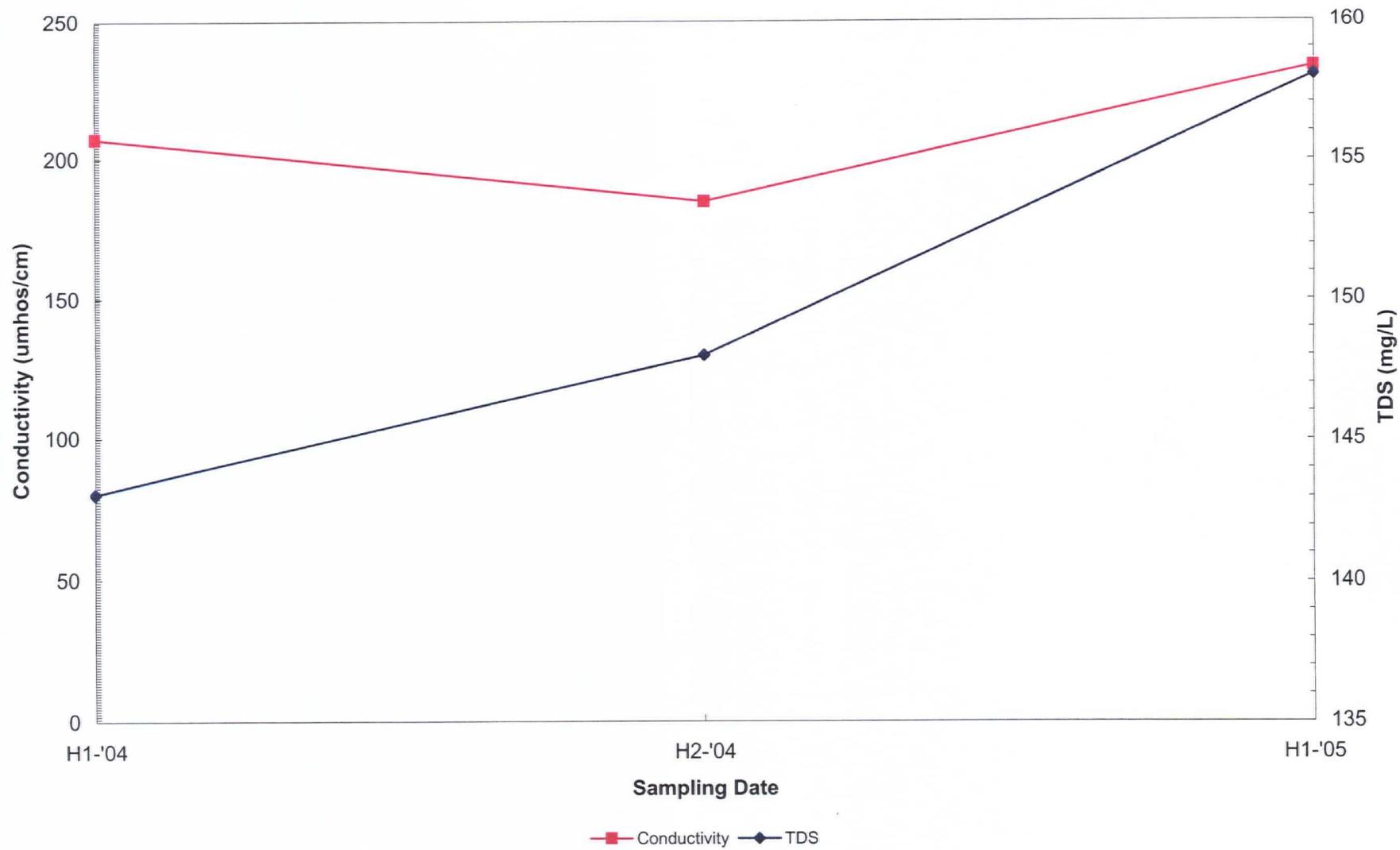
Monitoring Well MW-5



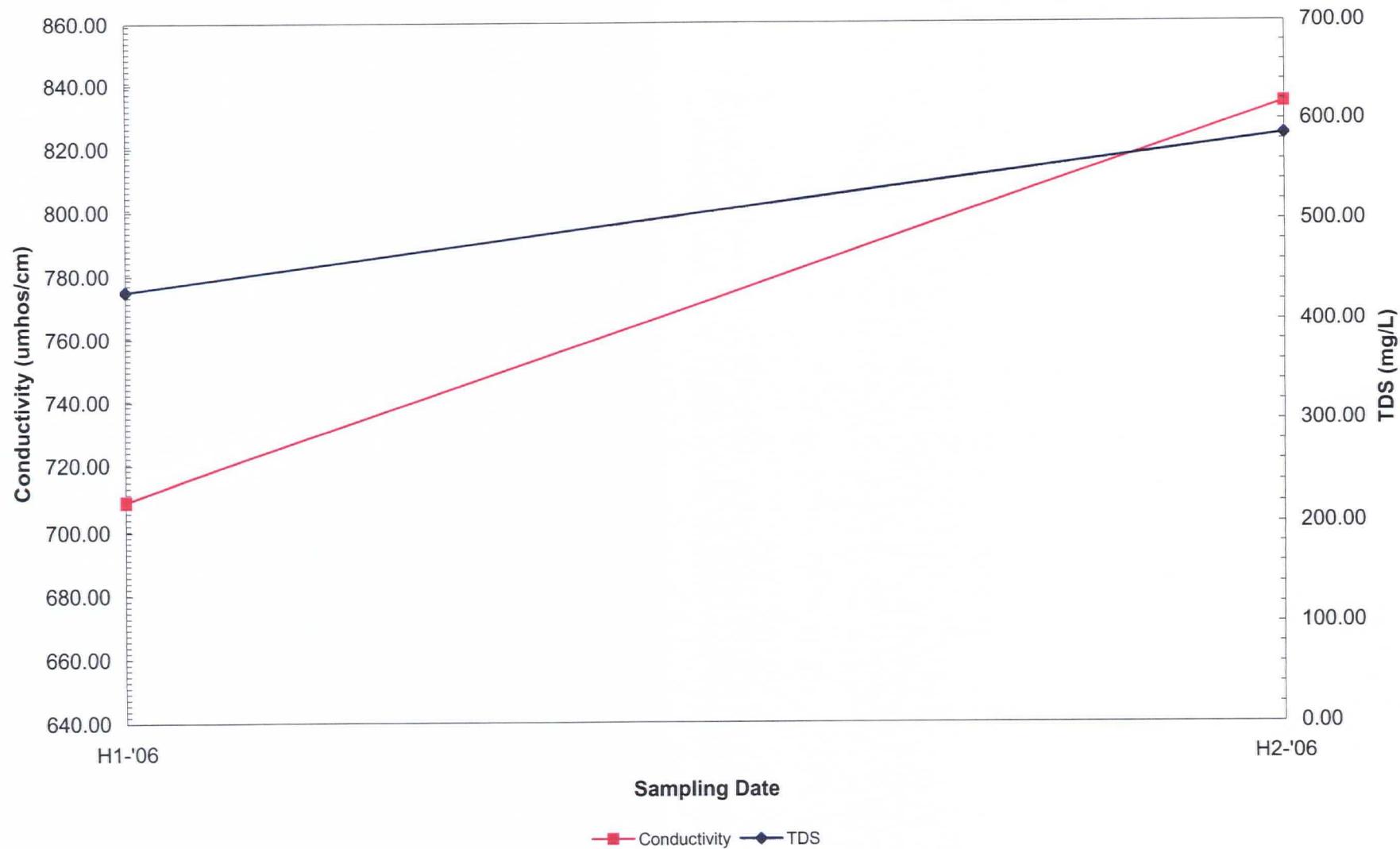
Monitoring Well MW-6



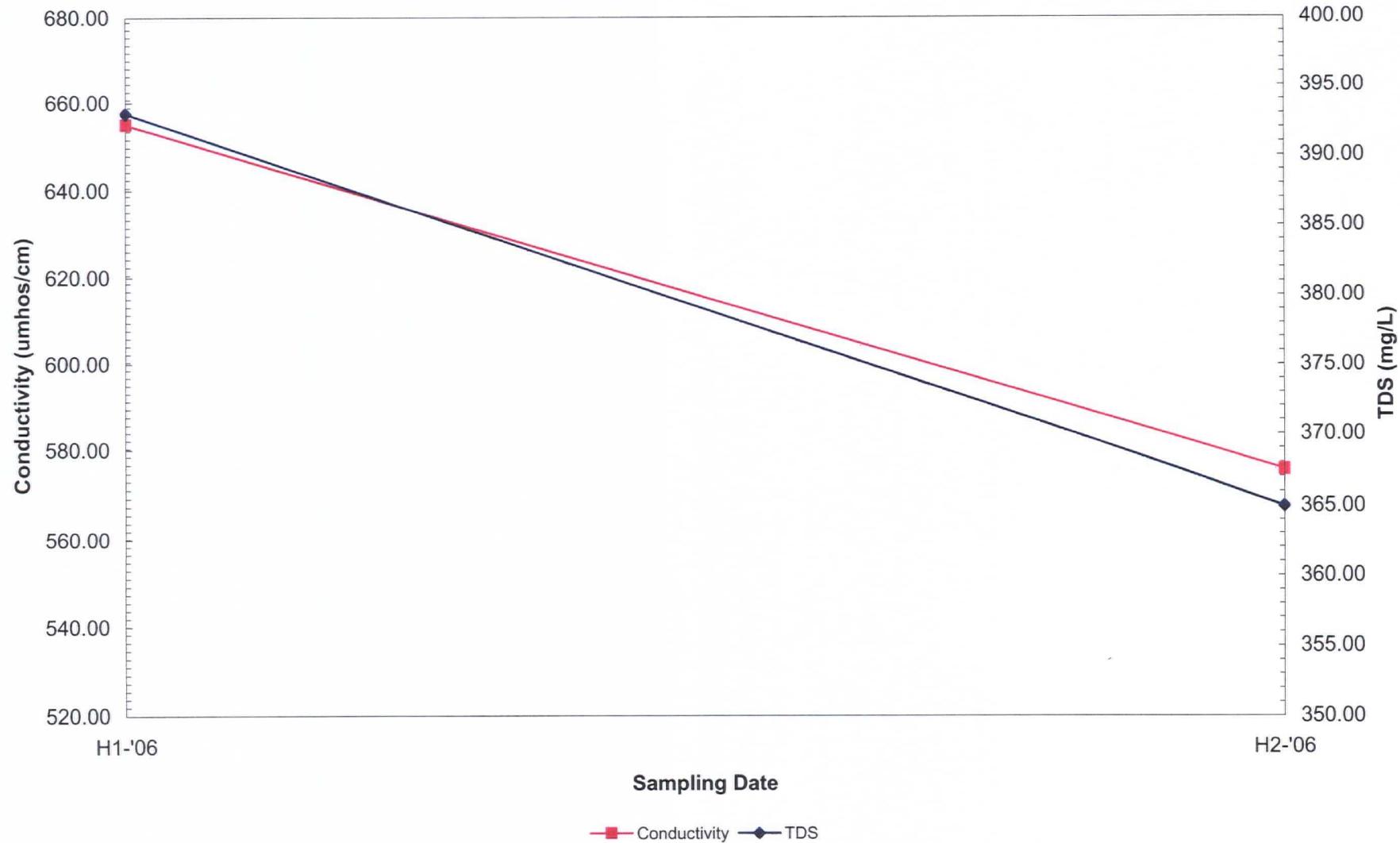
Monitoring Well SMR-1



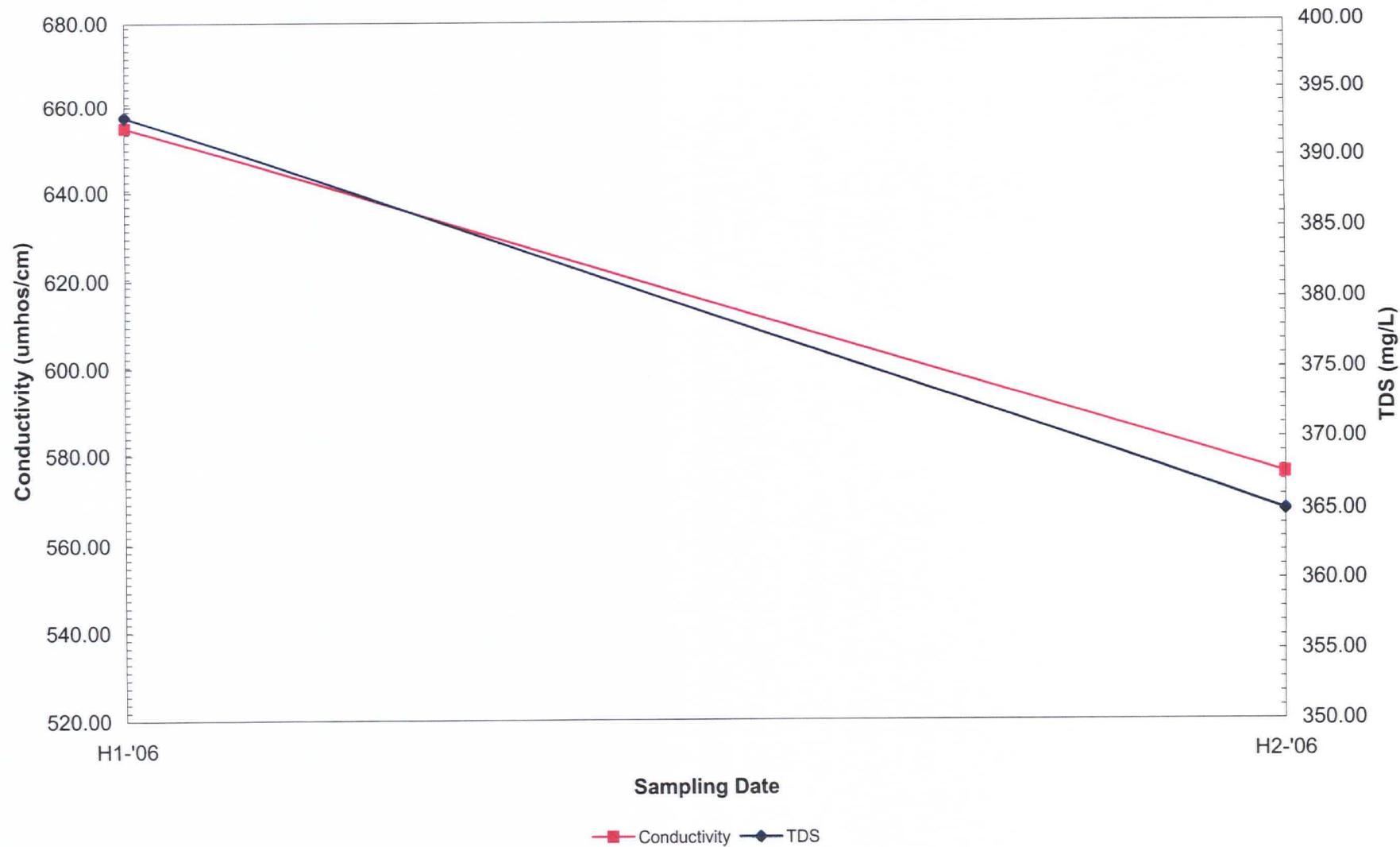
Monitoring Well GW-1



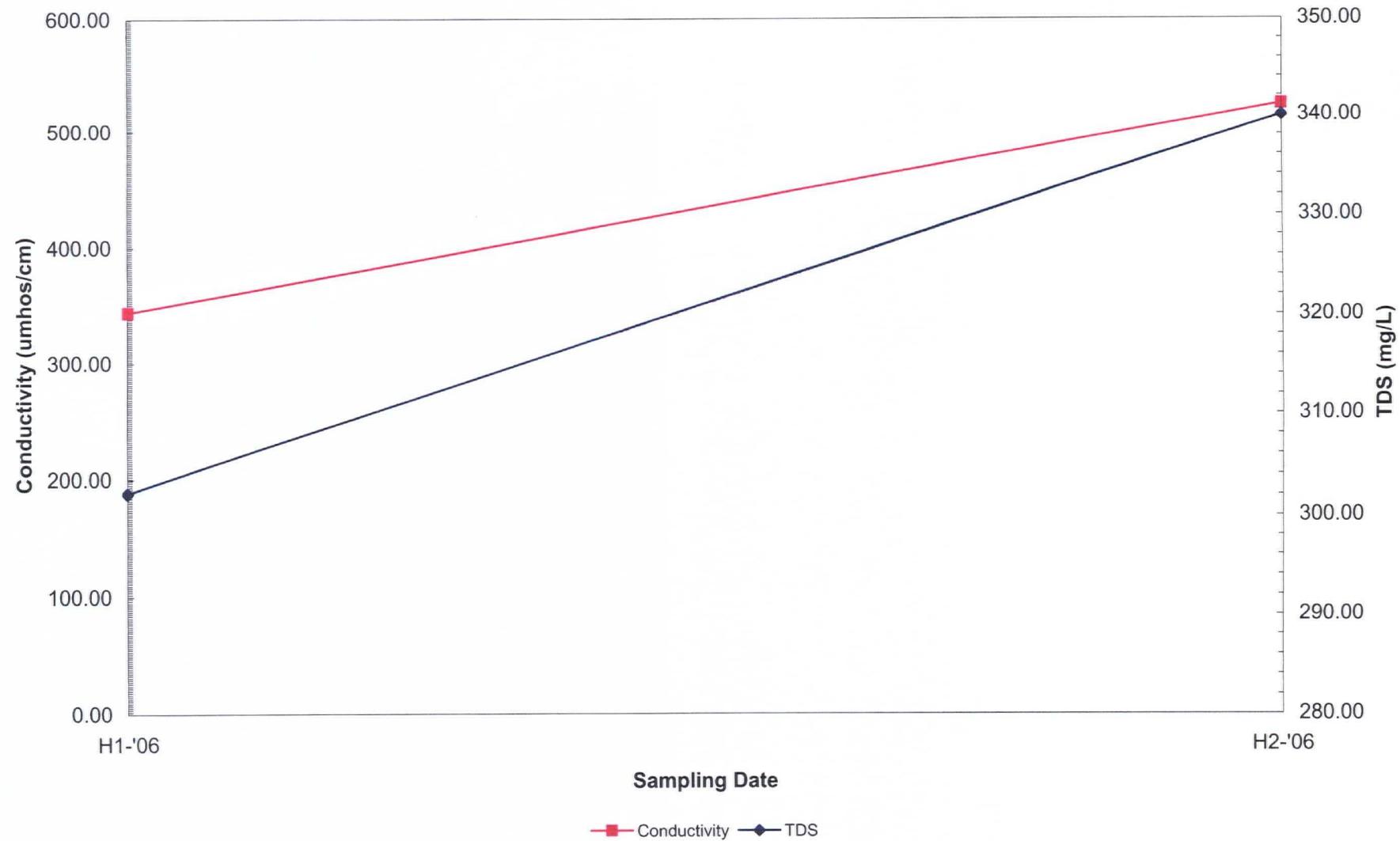
Monitoring Well GW-2



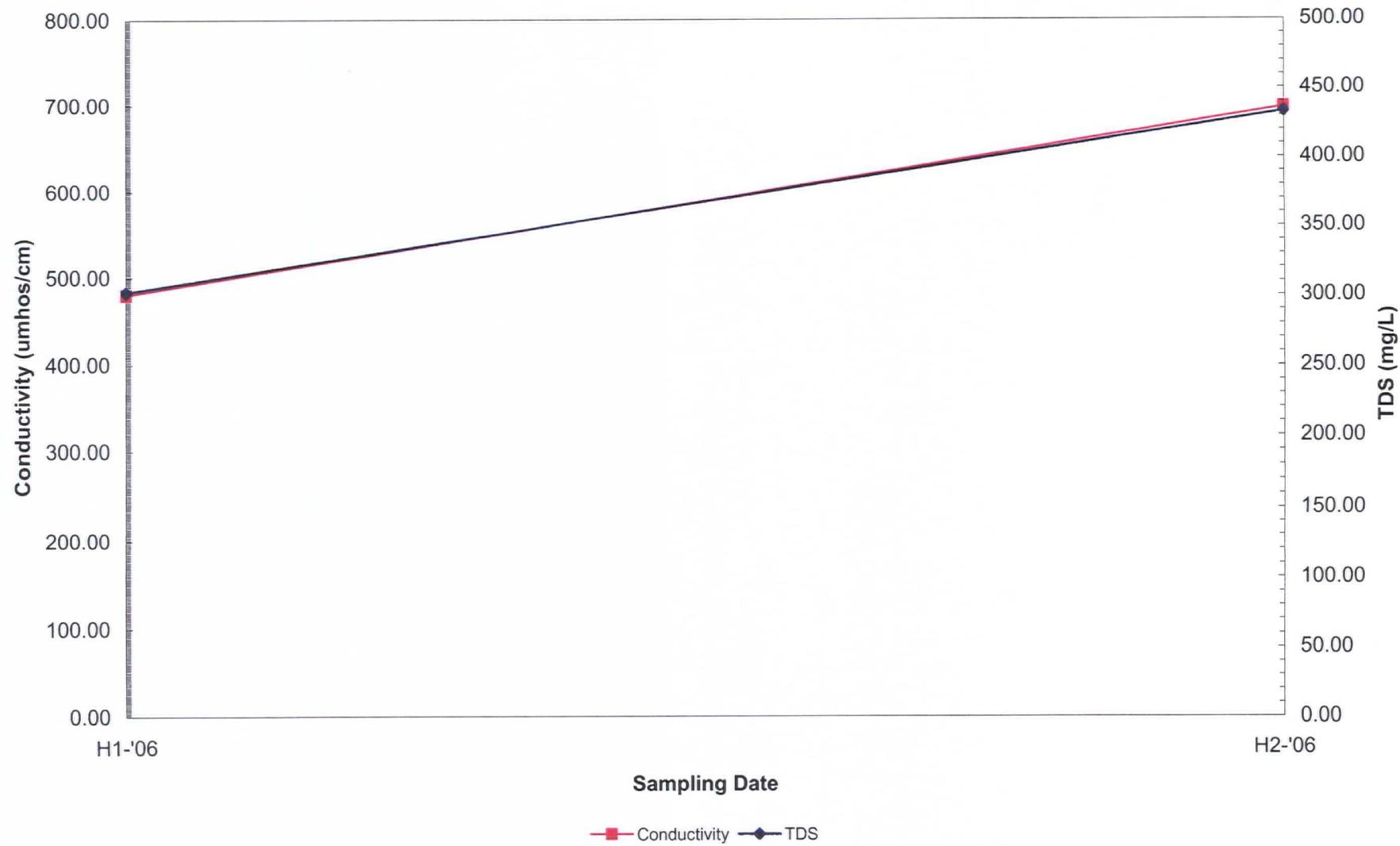
Monitoring Well GW-3



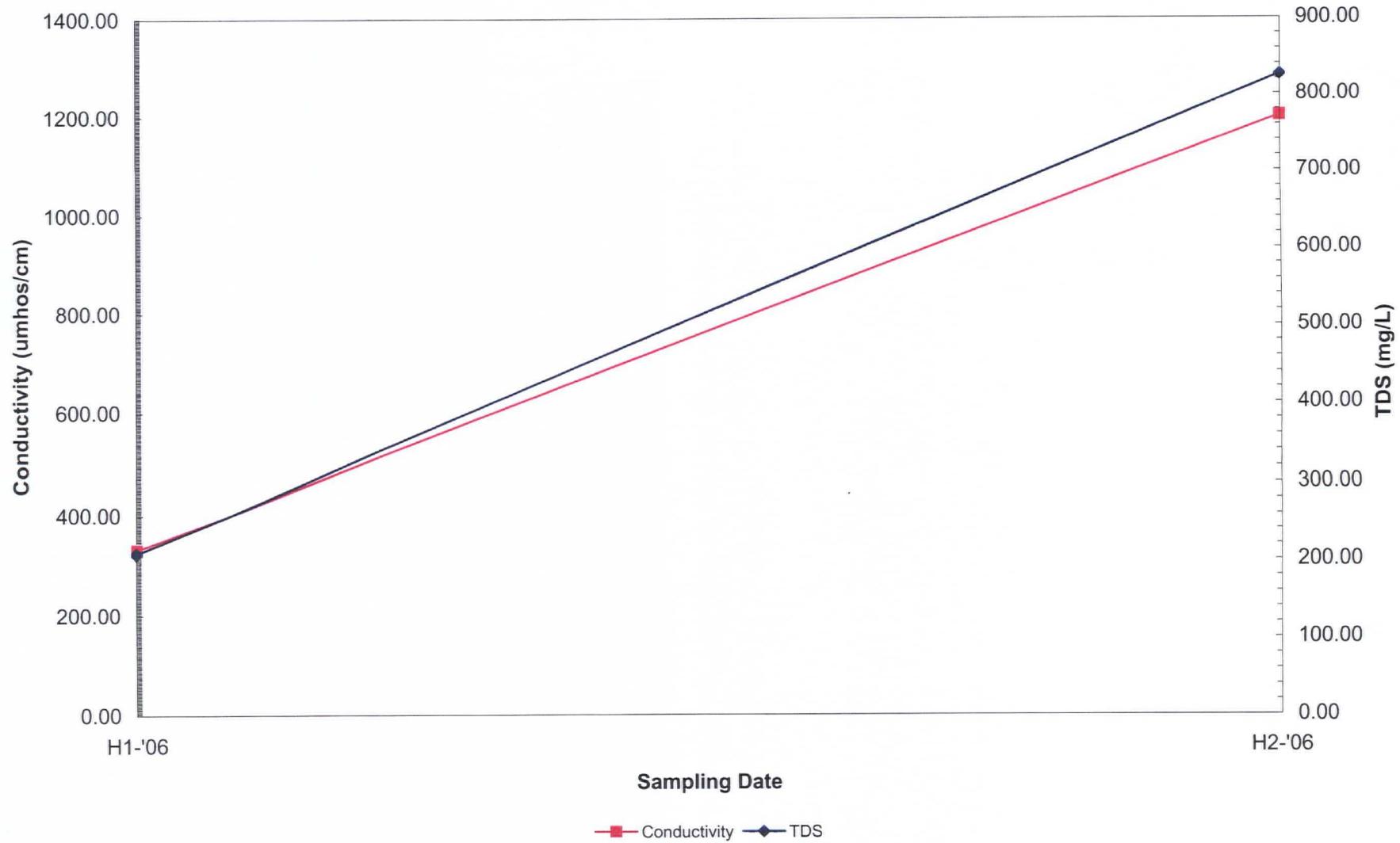
Monitoring Well GW-4



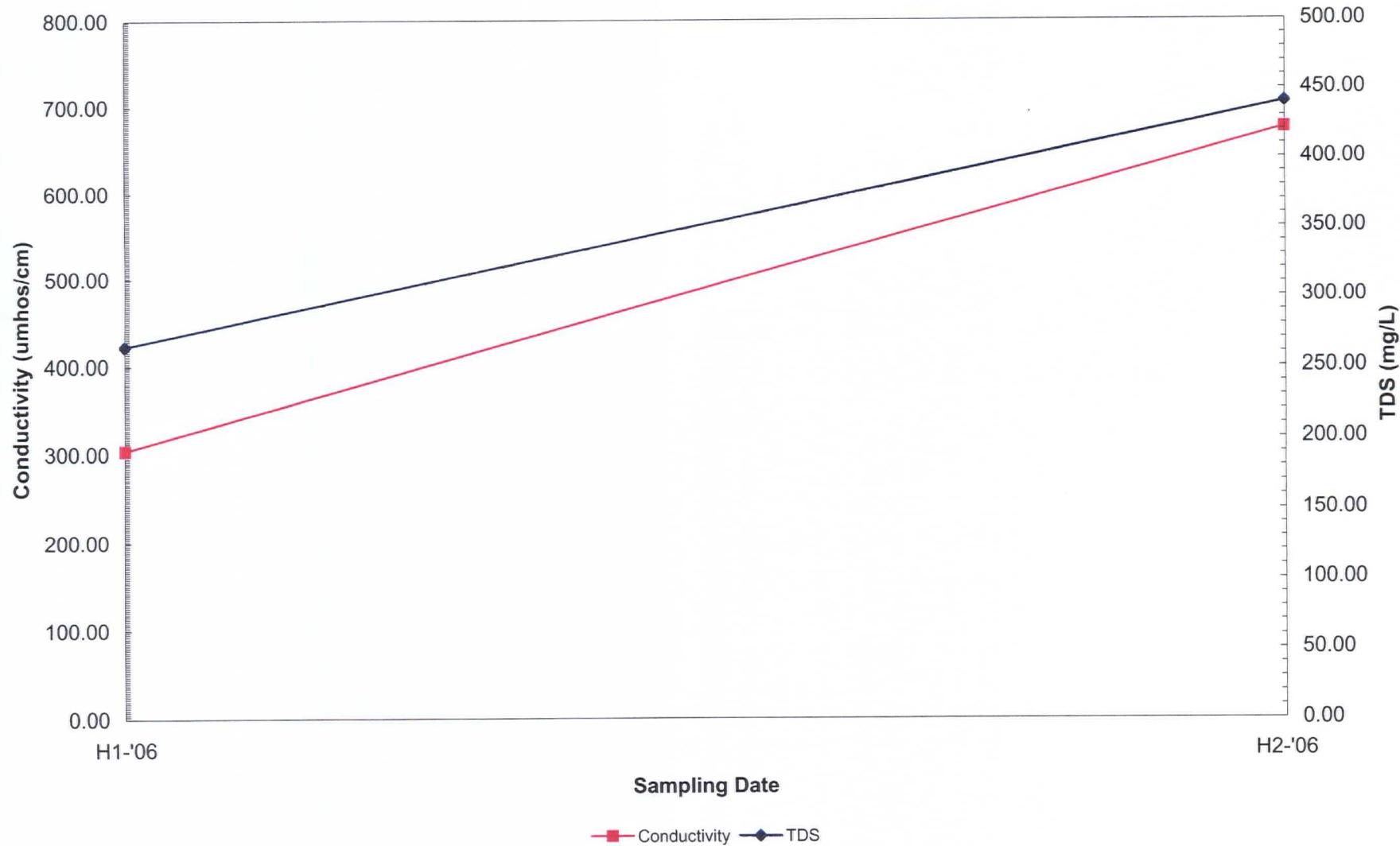
Monitoring Well GW-5



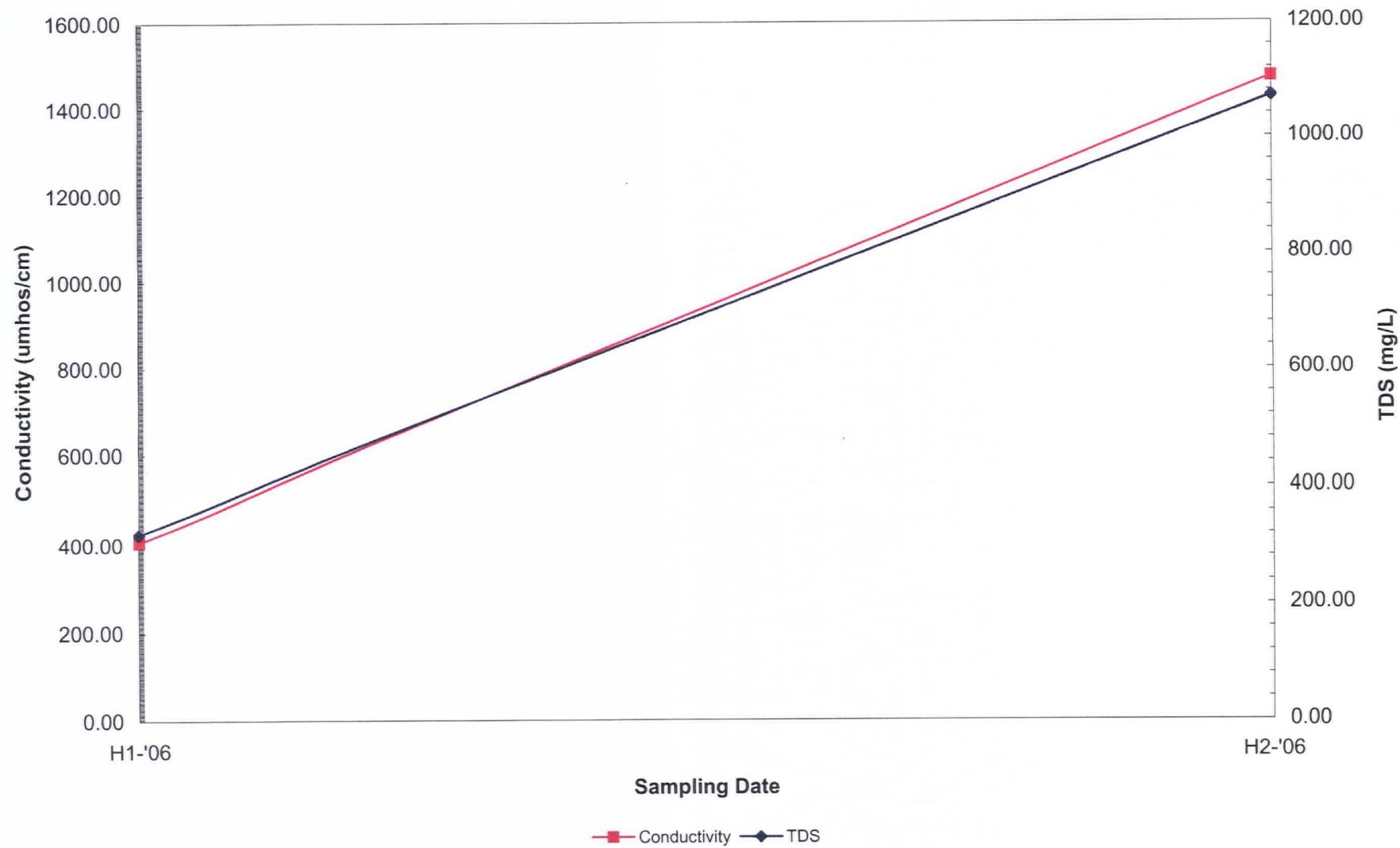
Monitoring Well GW-6



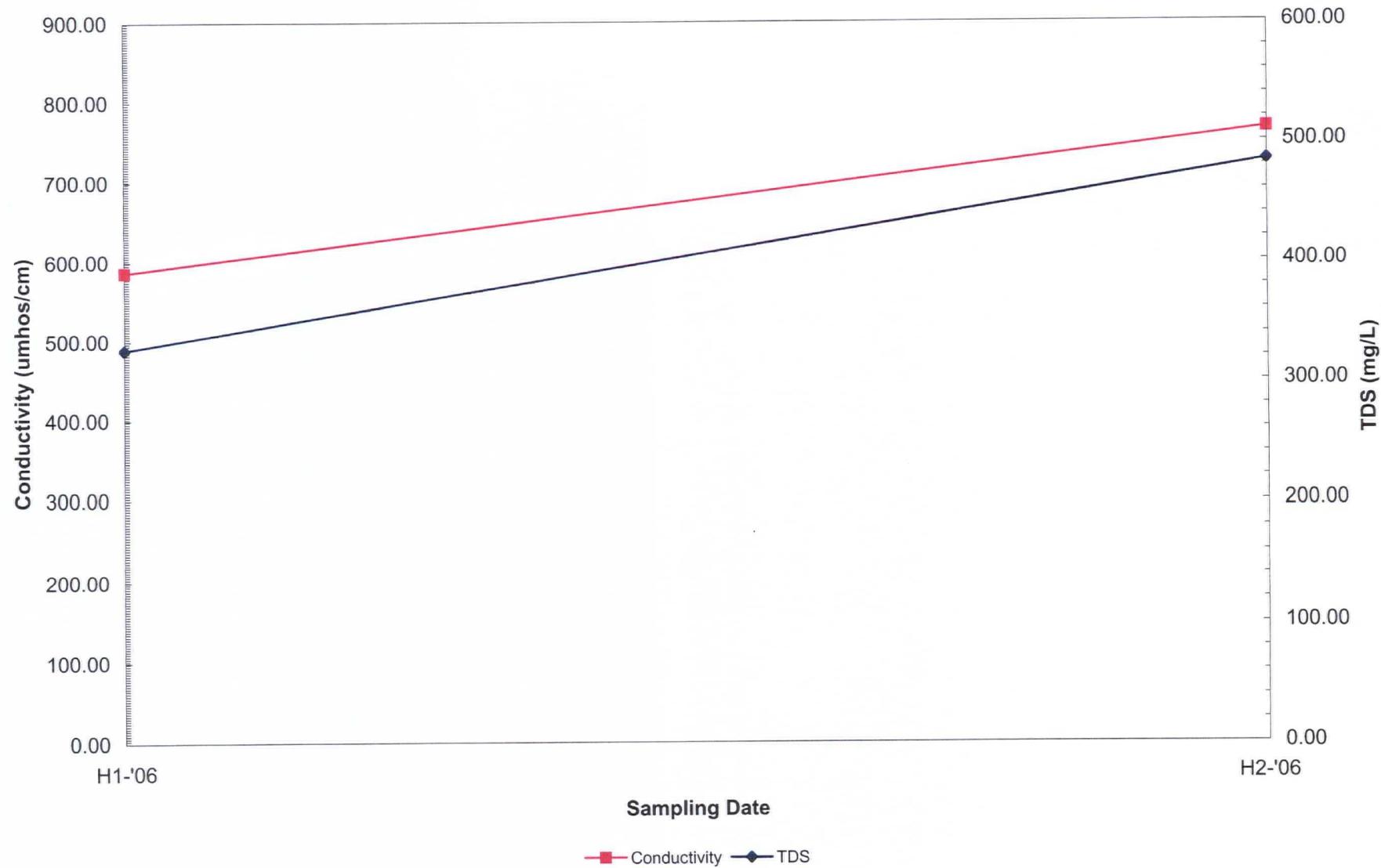
Monitoring Well GW-7



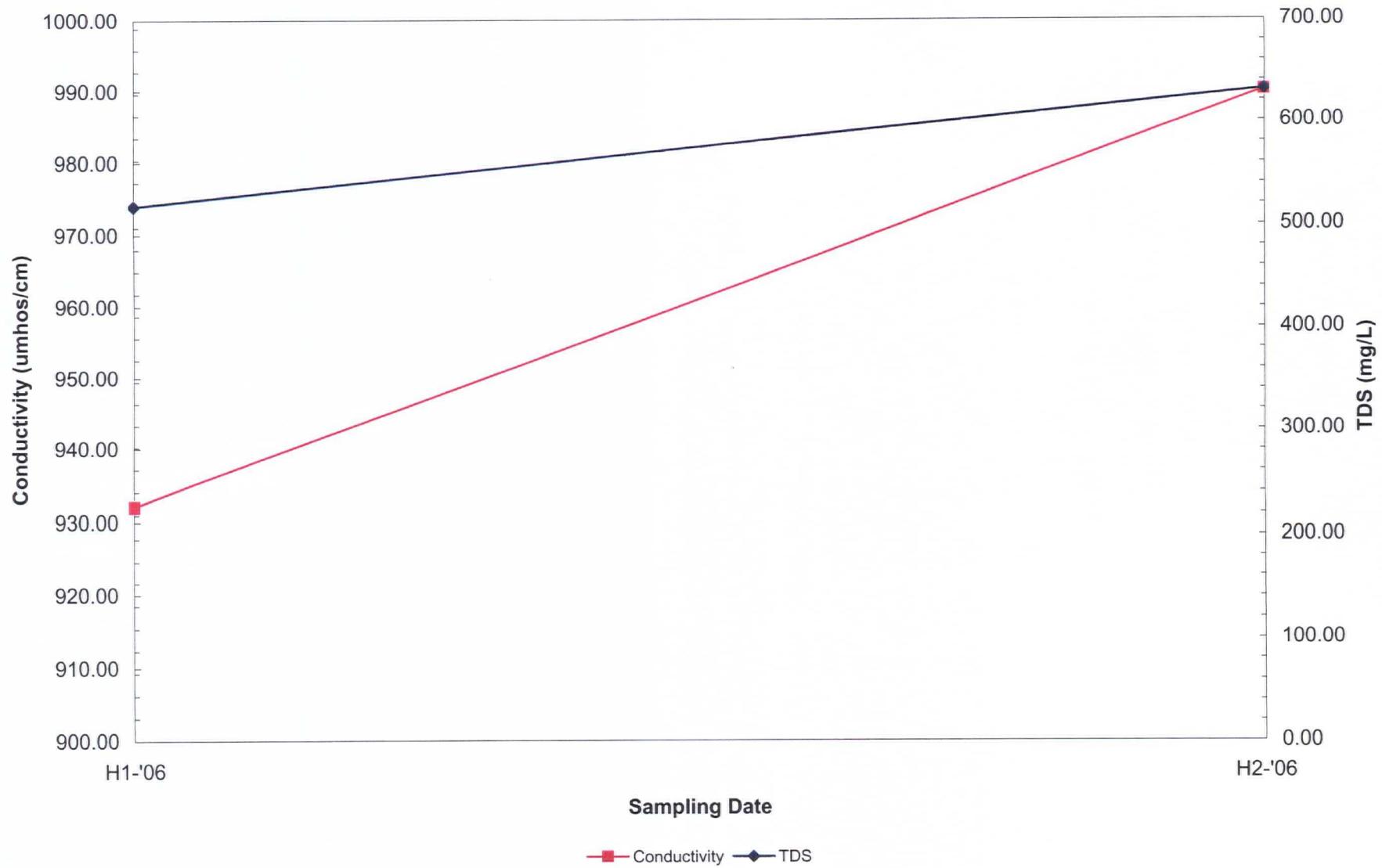
Monitoring Well GW-8



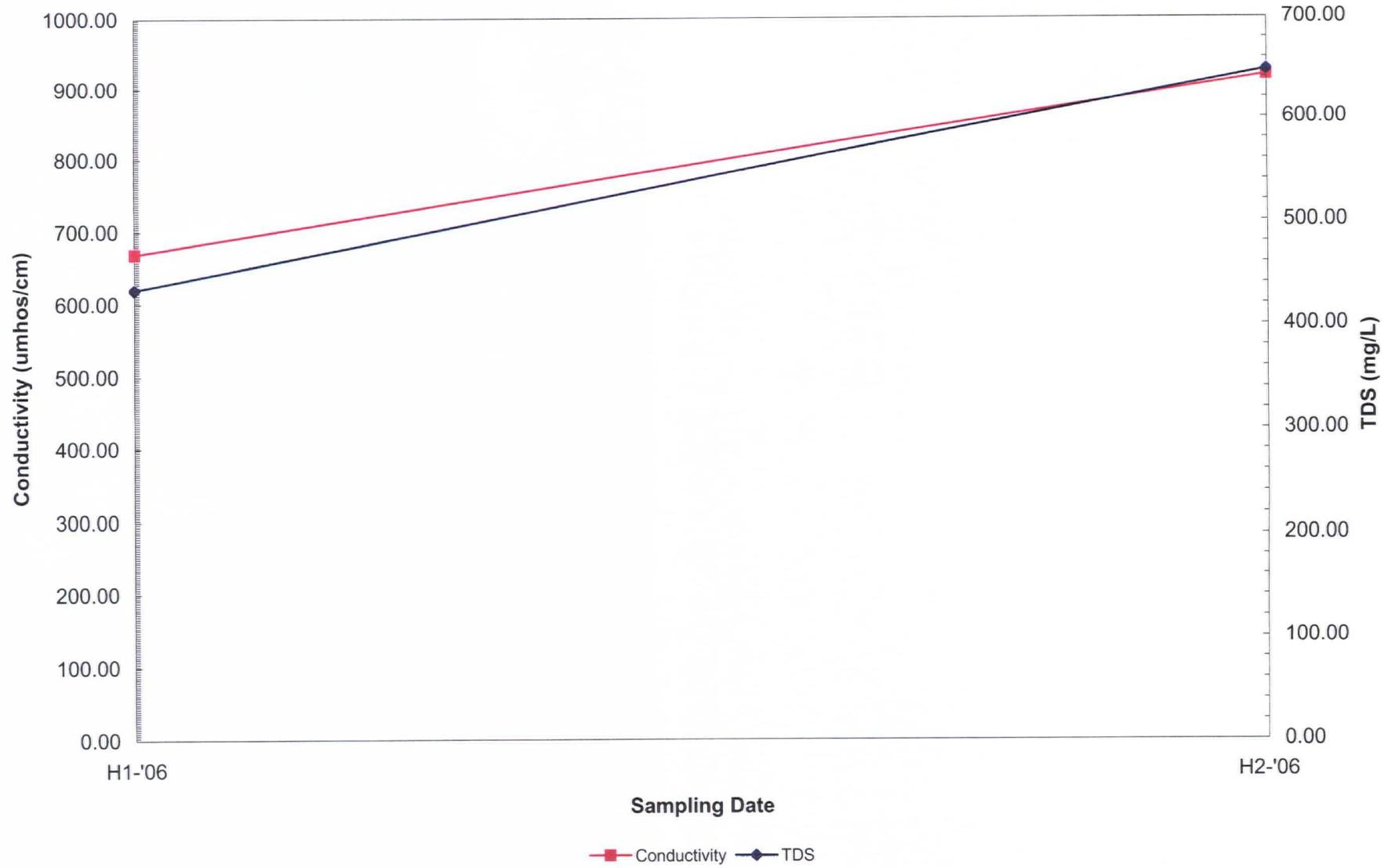
Monitoring Well GW-9



Monitoring Well GW-10

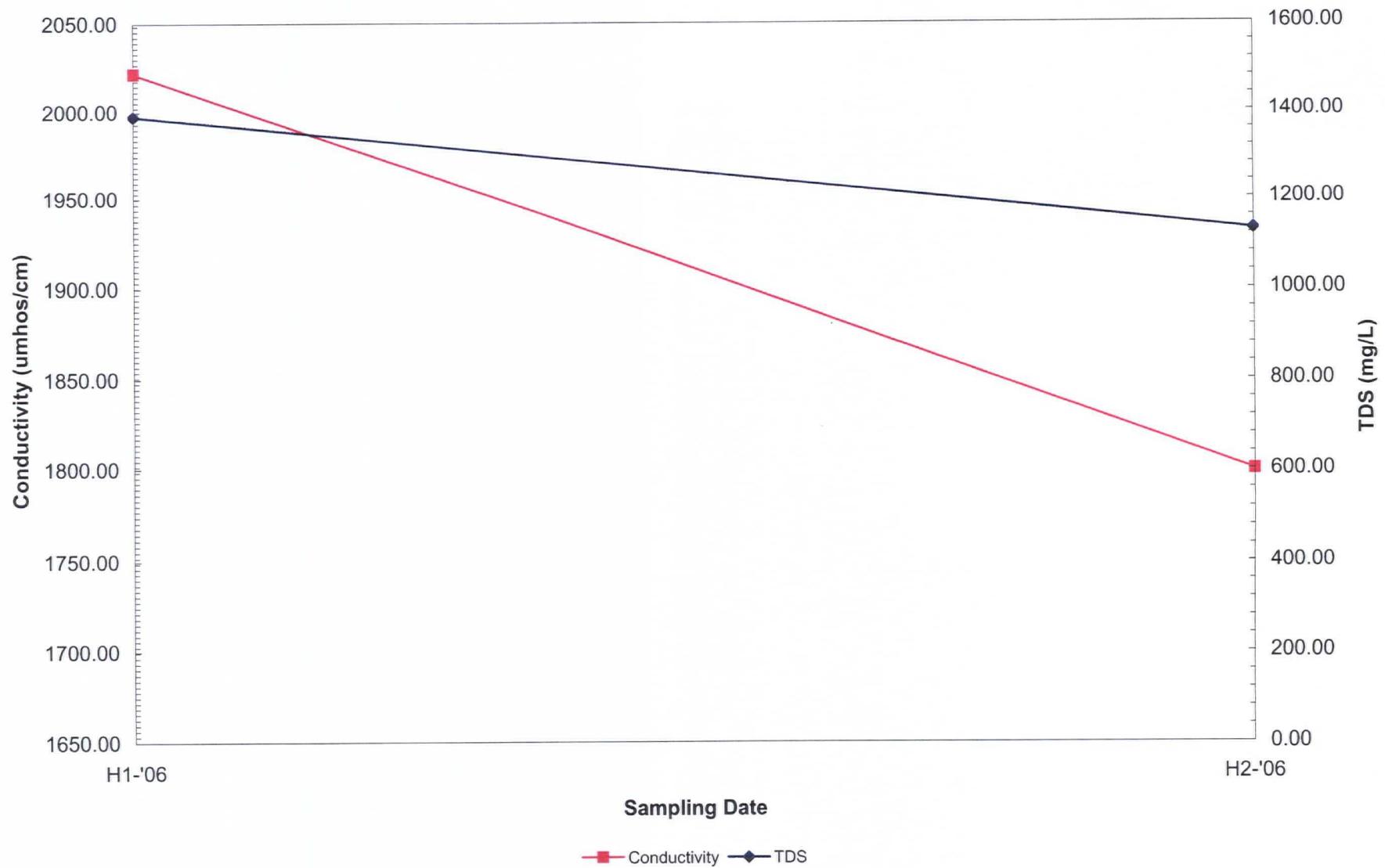


Monitoring Well GW-12

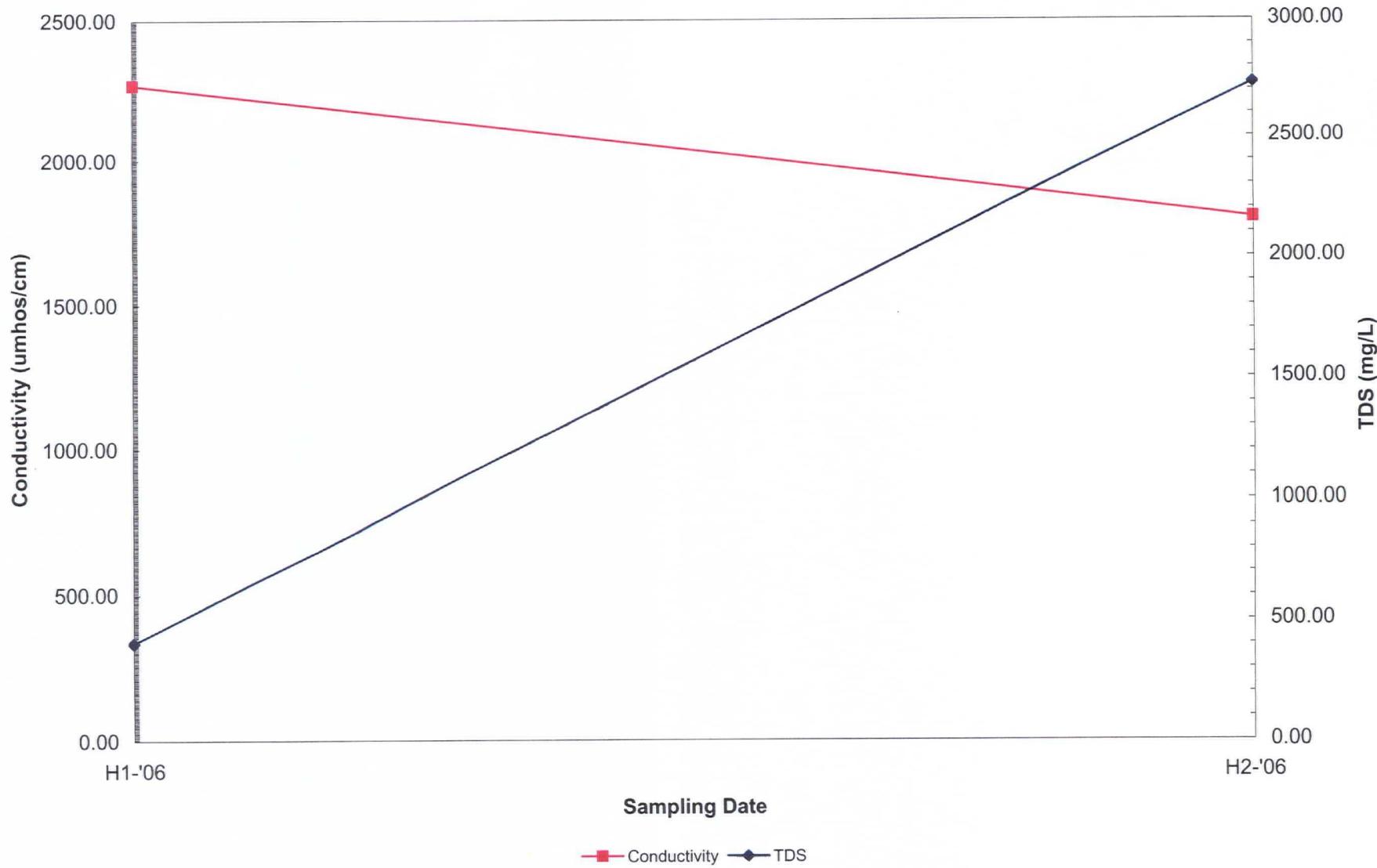




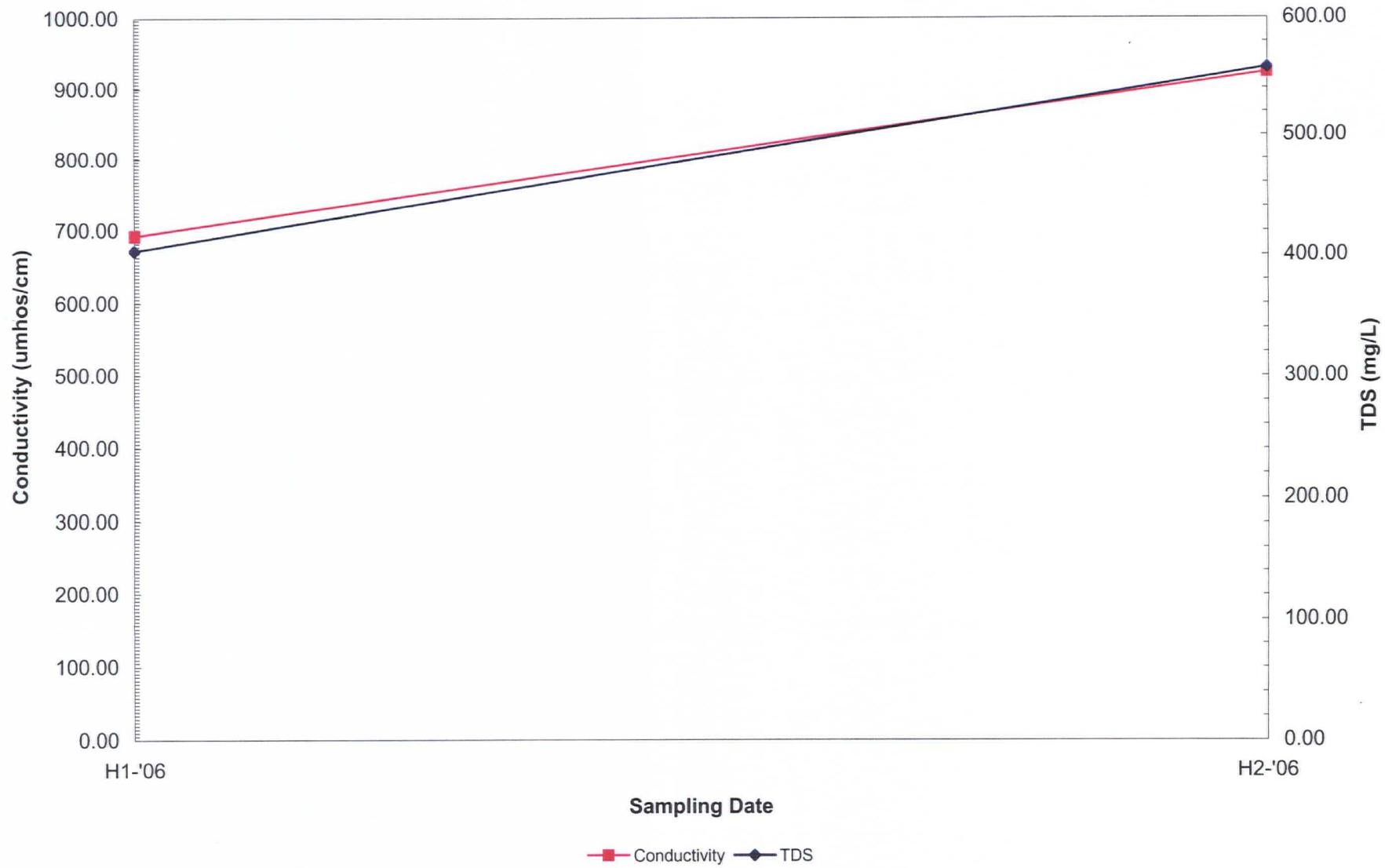
Monitoring Well GW-13



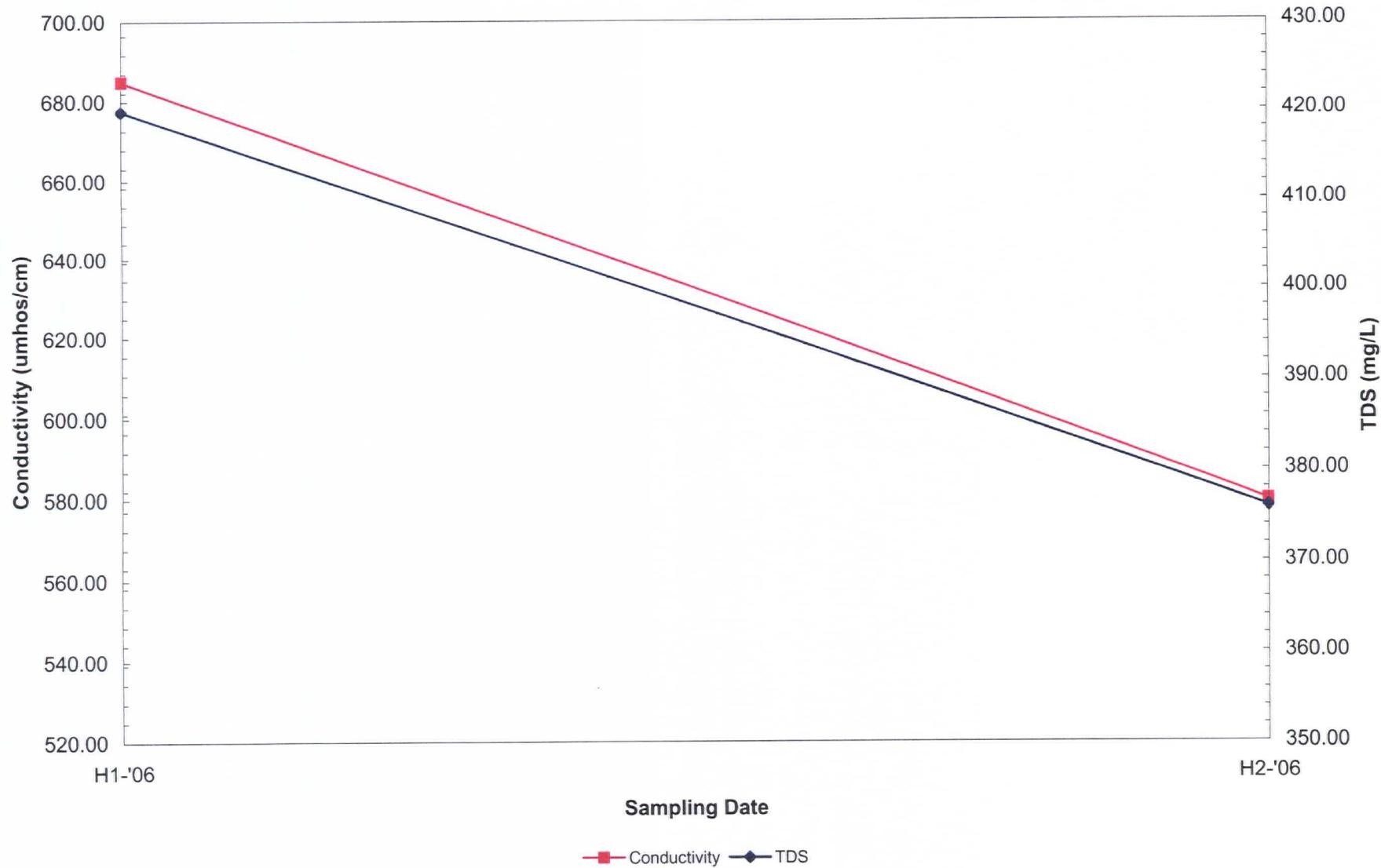
Monitoring Well GW-14



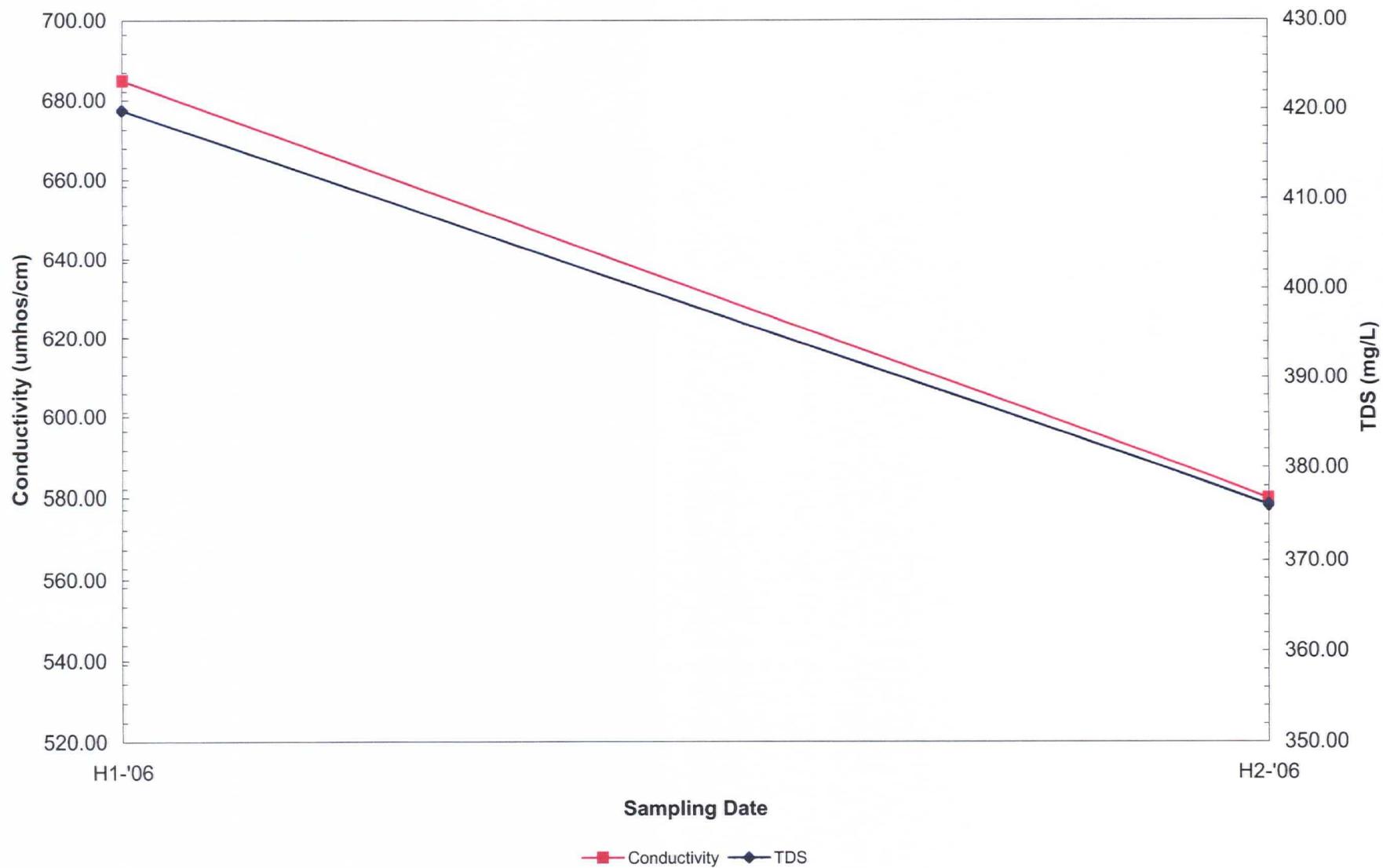
Monitoring Well GW-15



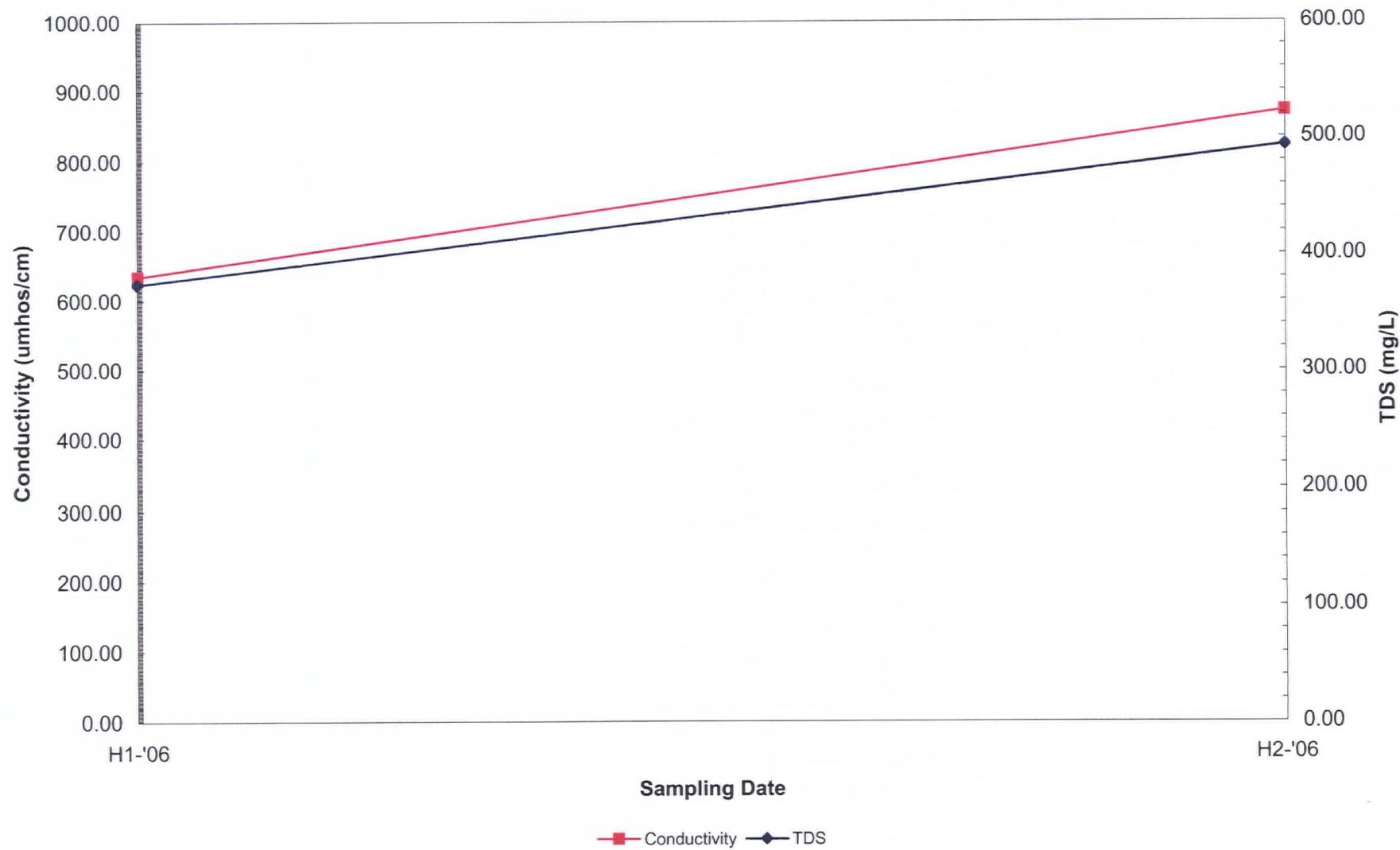
Monitoring Well GW-16



Monitoring Well GW-17



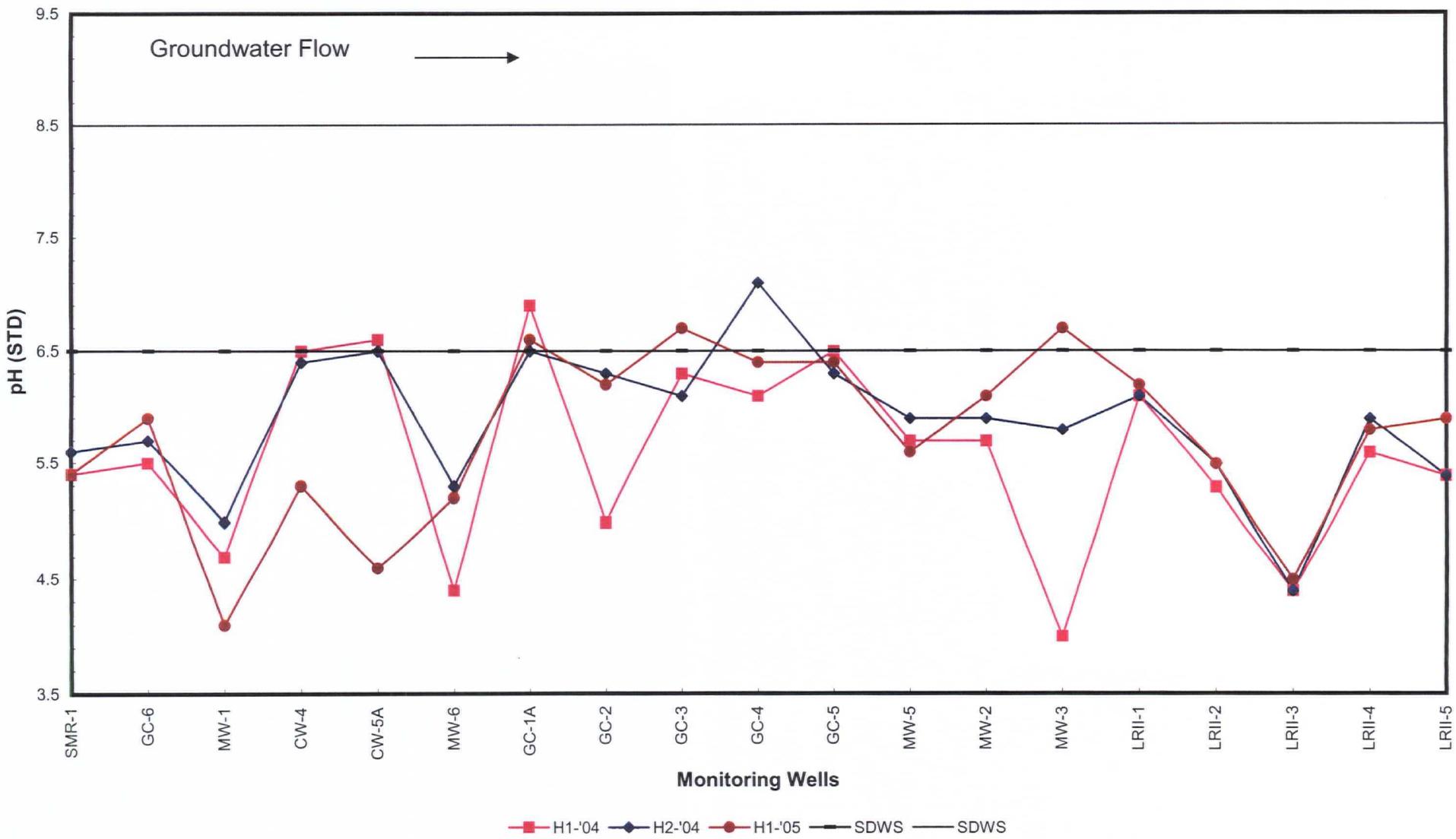
Monitoring Well BGW-1



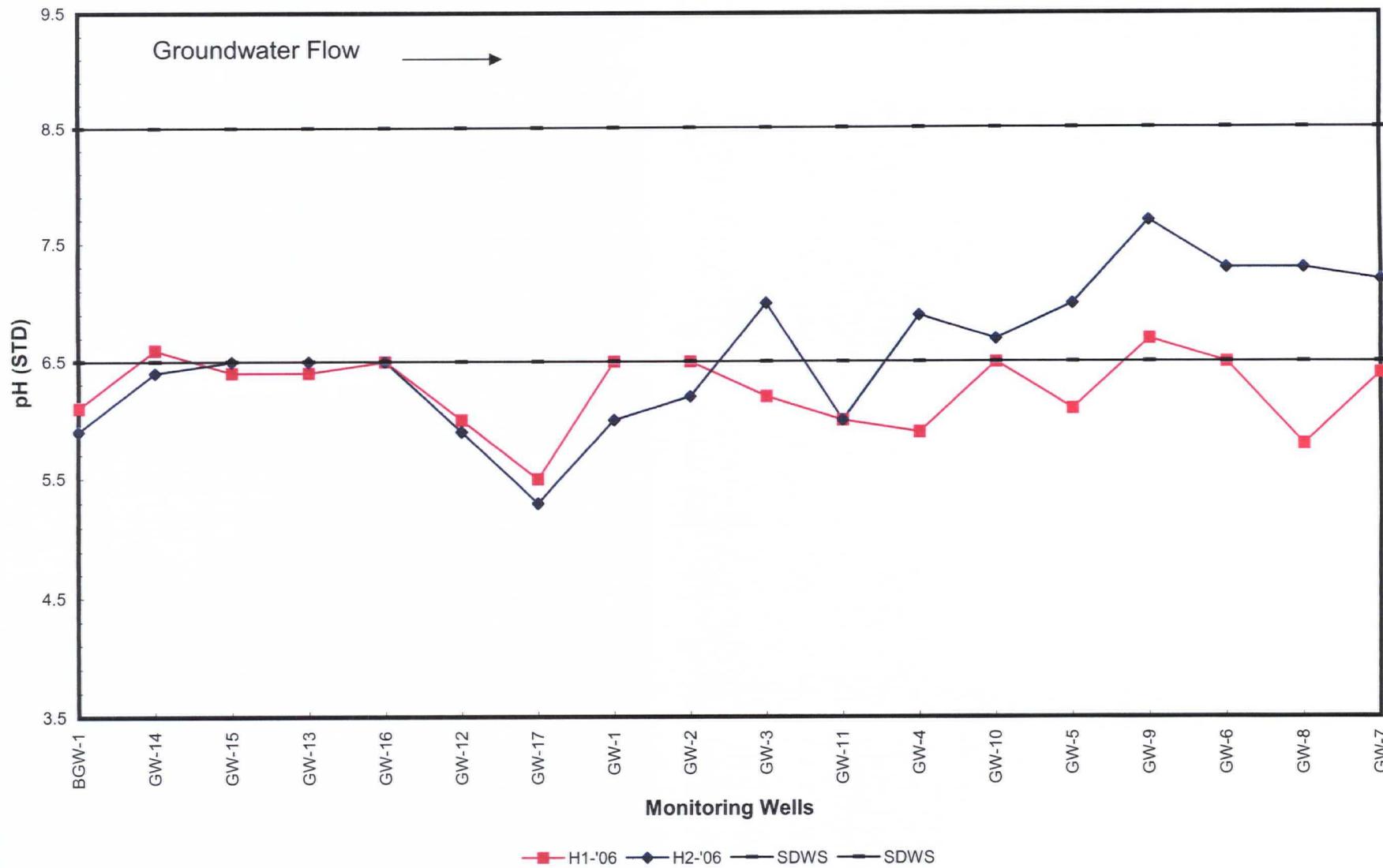
APPENDIX C

Cross-Gradient Graphs

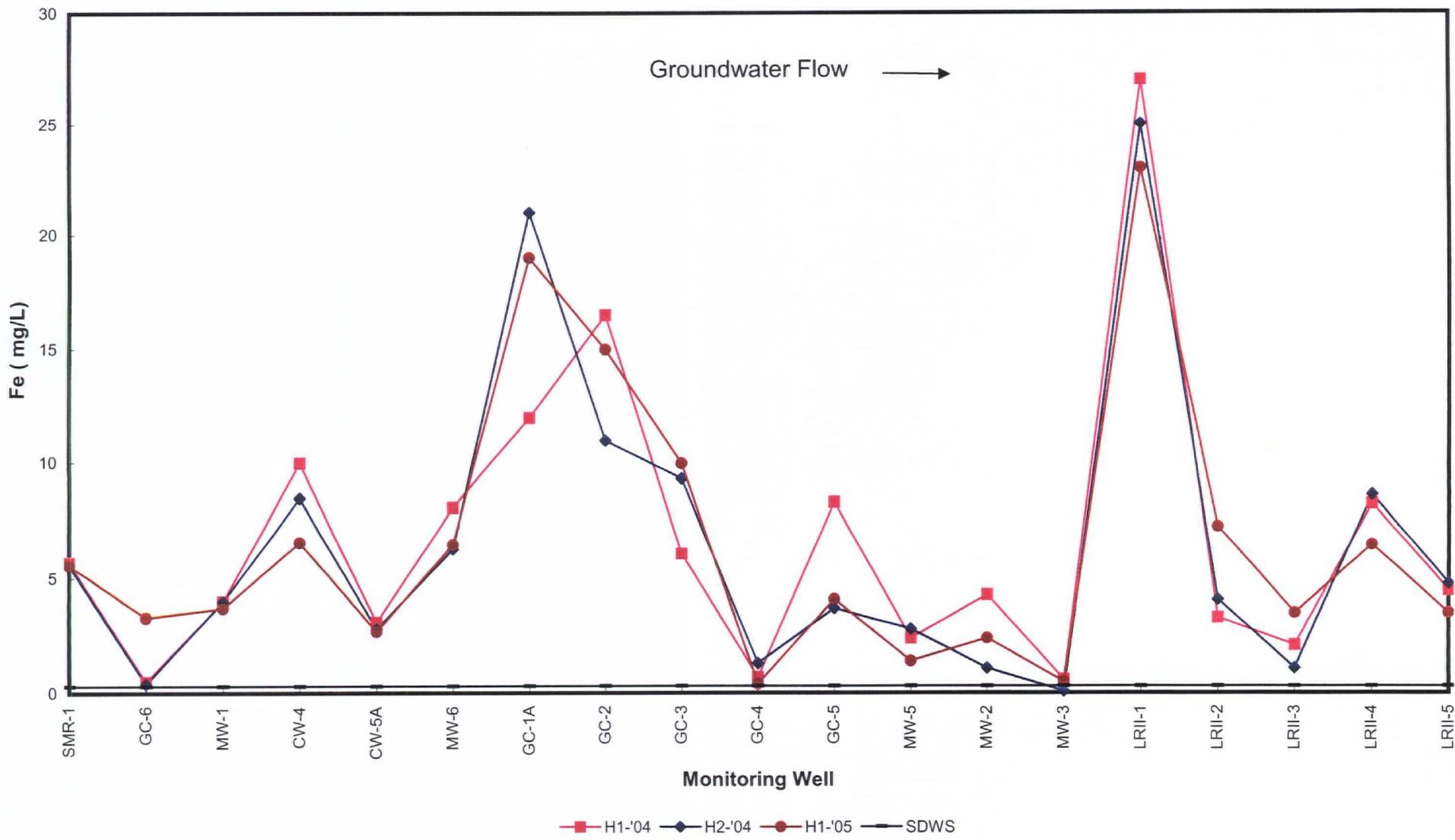
pH Concentration Graph, Old Network



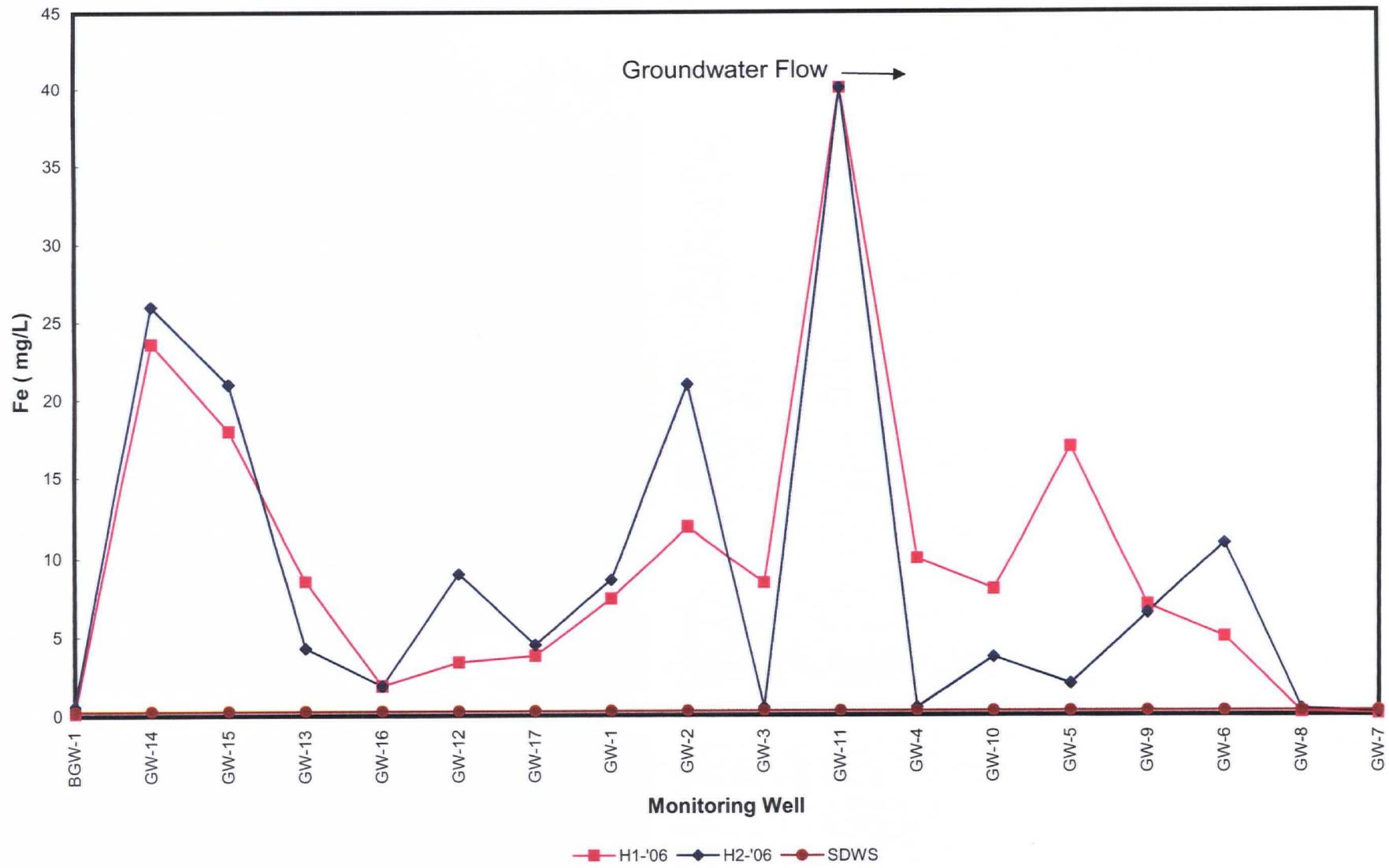
pH Concentration Graph, New Network



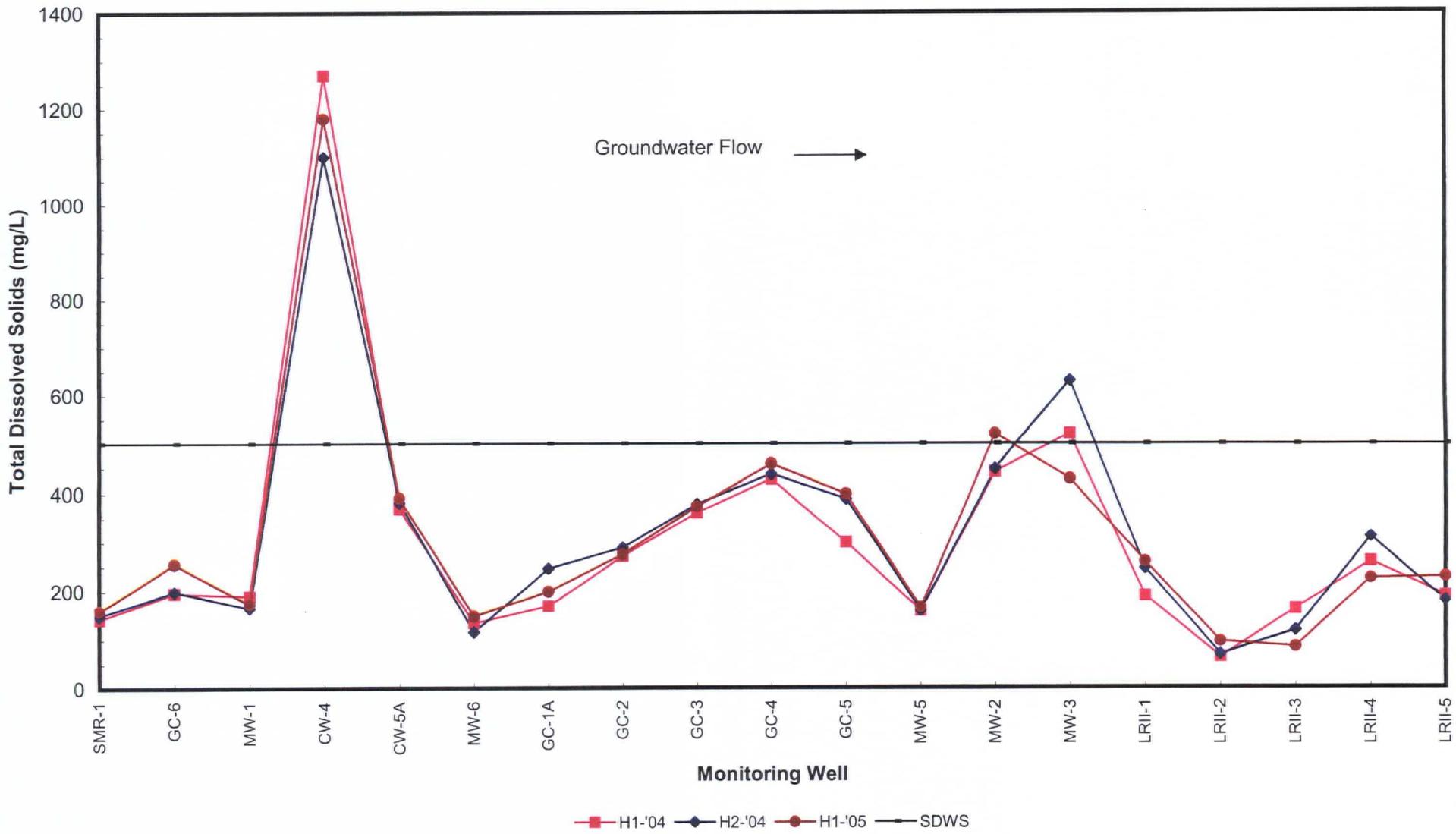
Iron Concentration Graph, Old Network



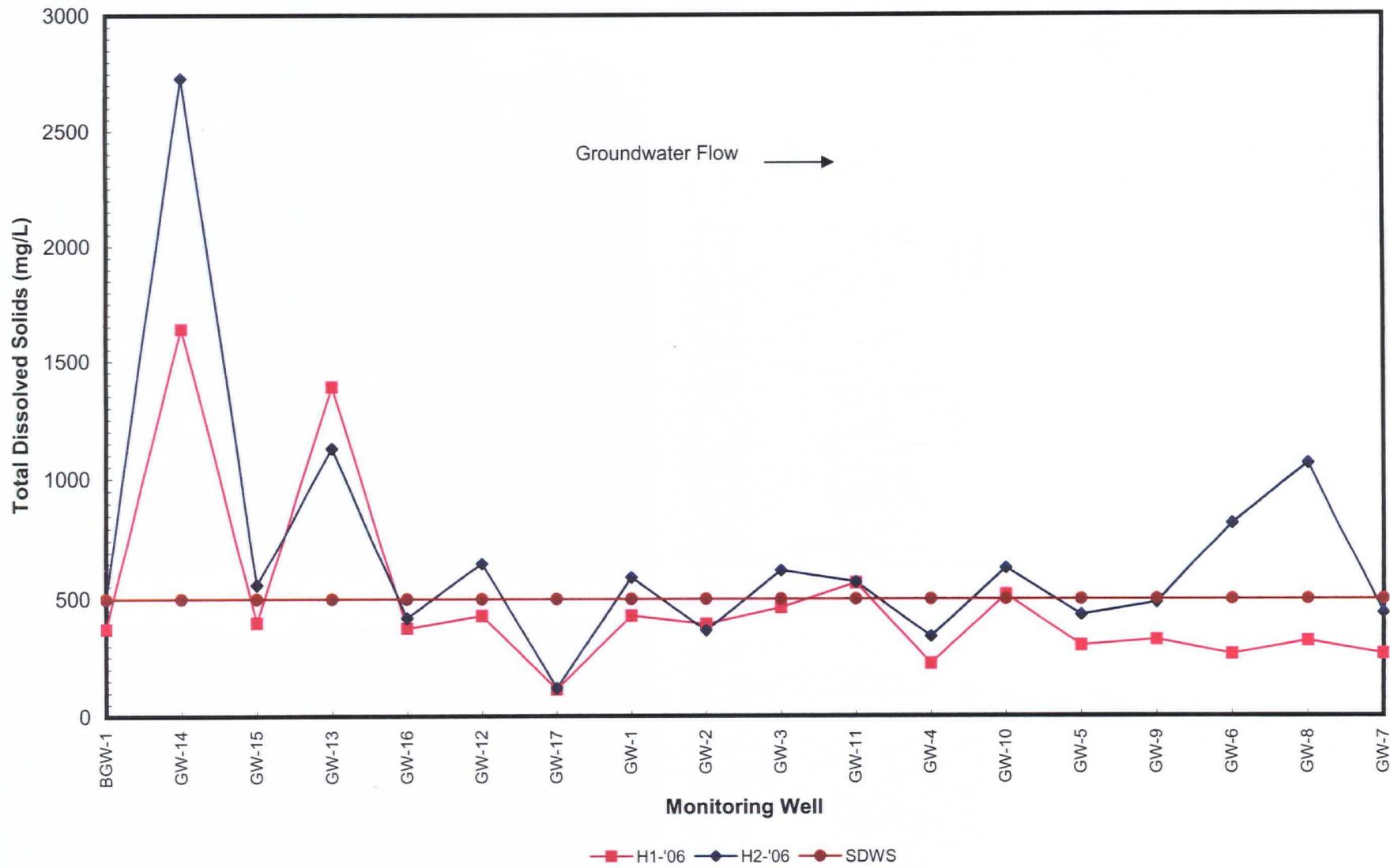
Iron Concentration Graph, New Network



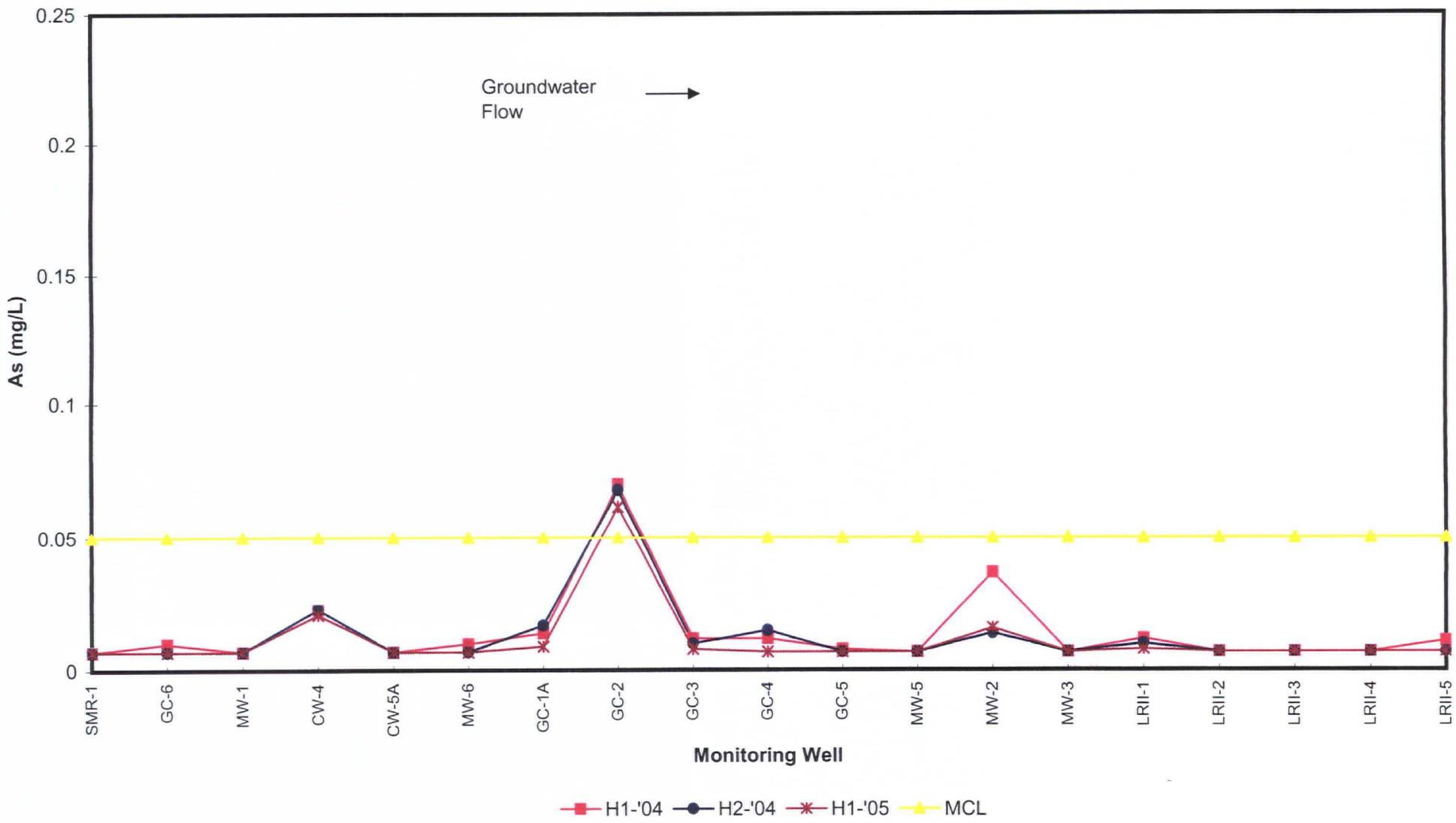
TDS Concentration Graph, Old Network



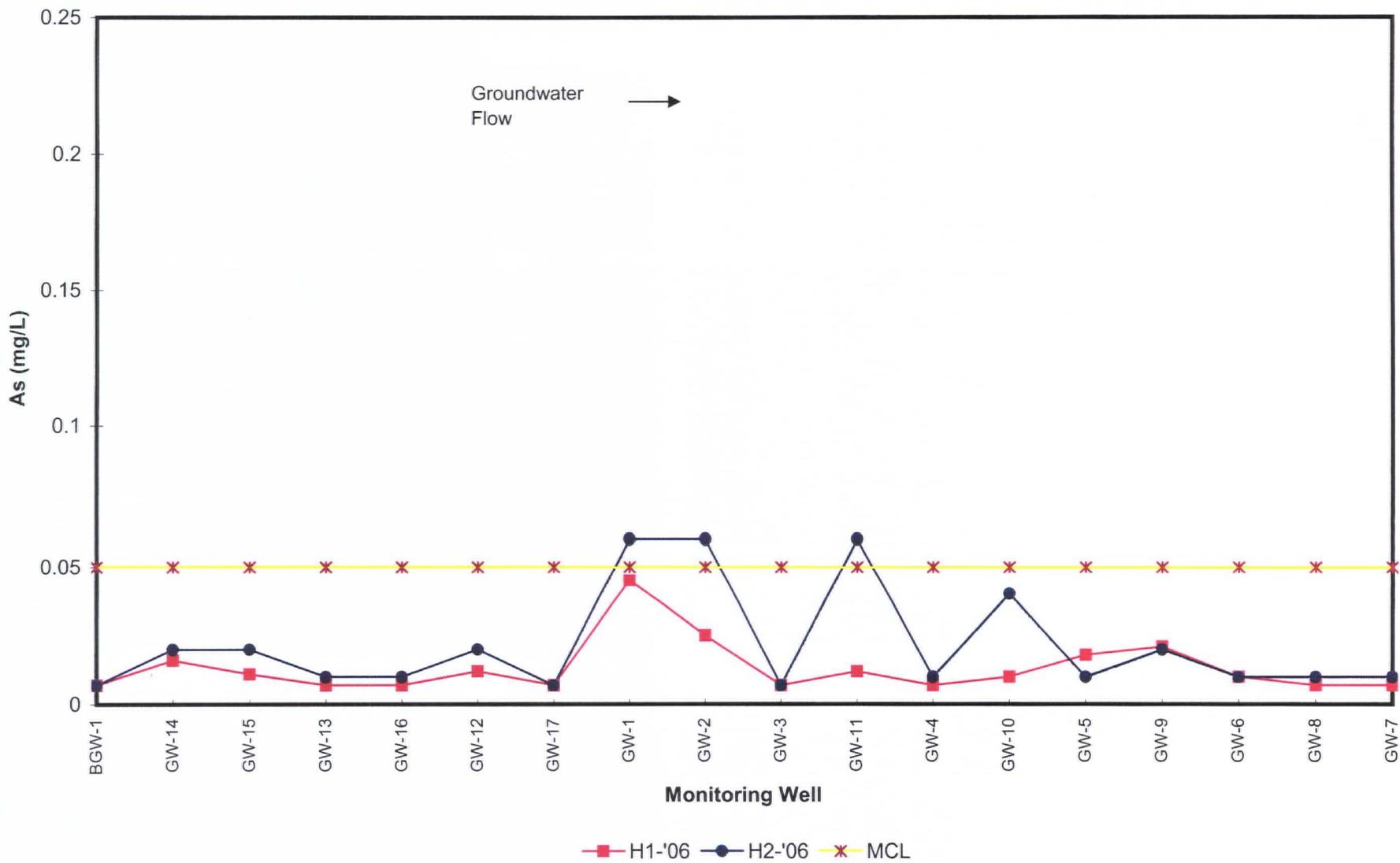
TDS Concentration Graph, New Network



Arsenic Concentration Graph, Old Network



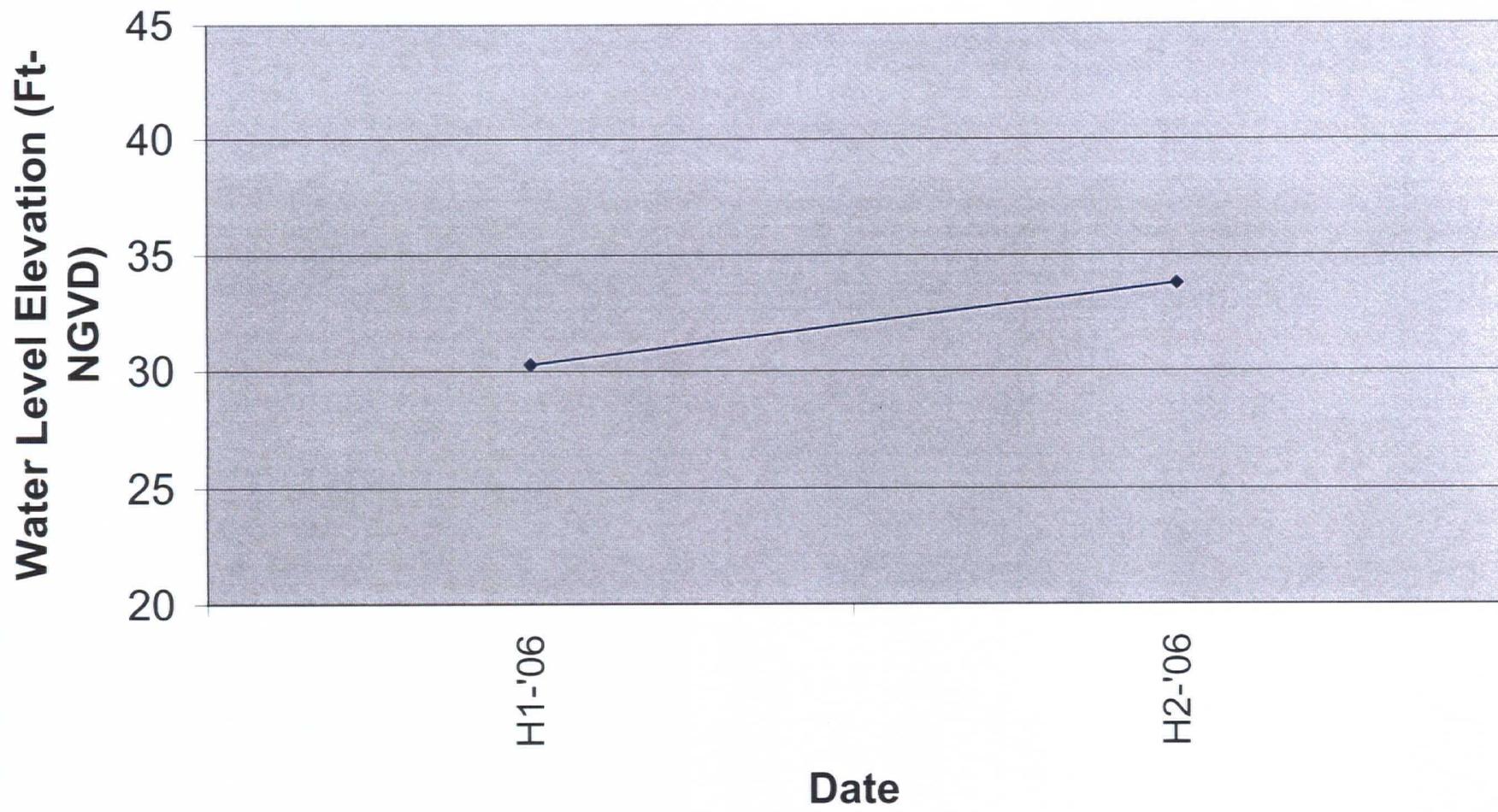
Arsenic Concentration Graph, New Network



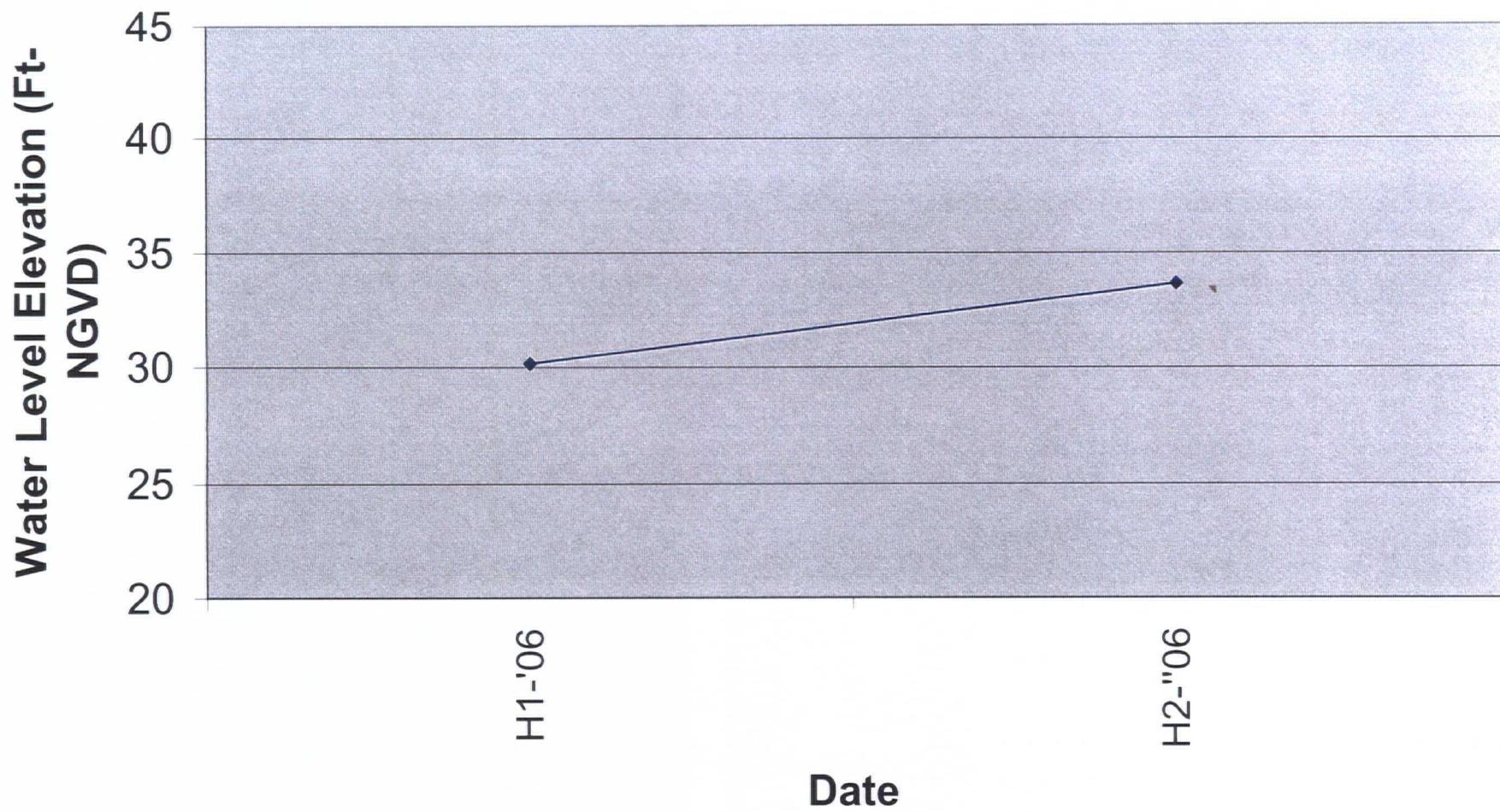
APPENDIX D

Monitoring Well Hydrographs

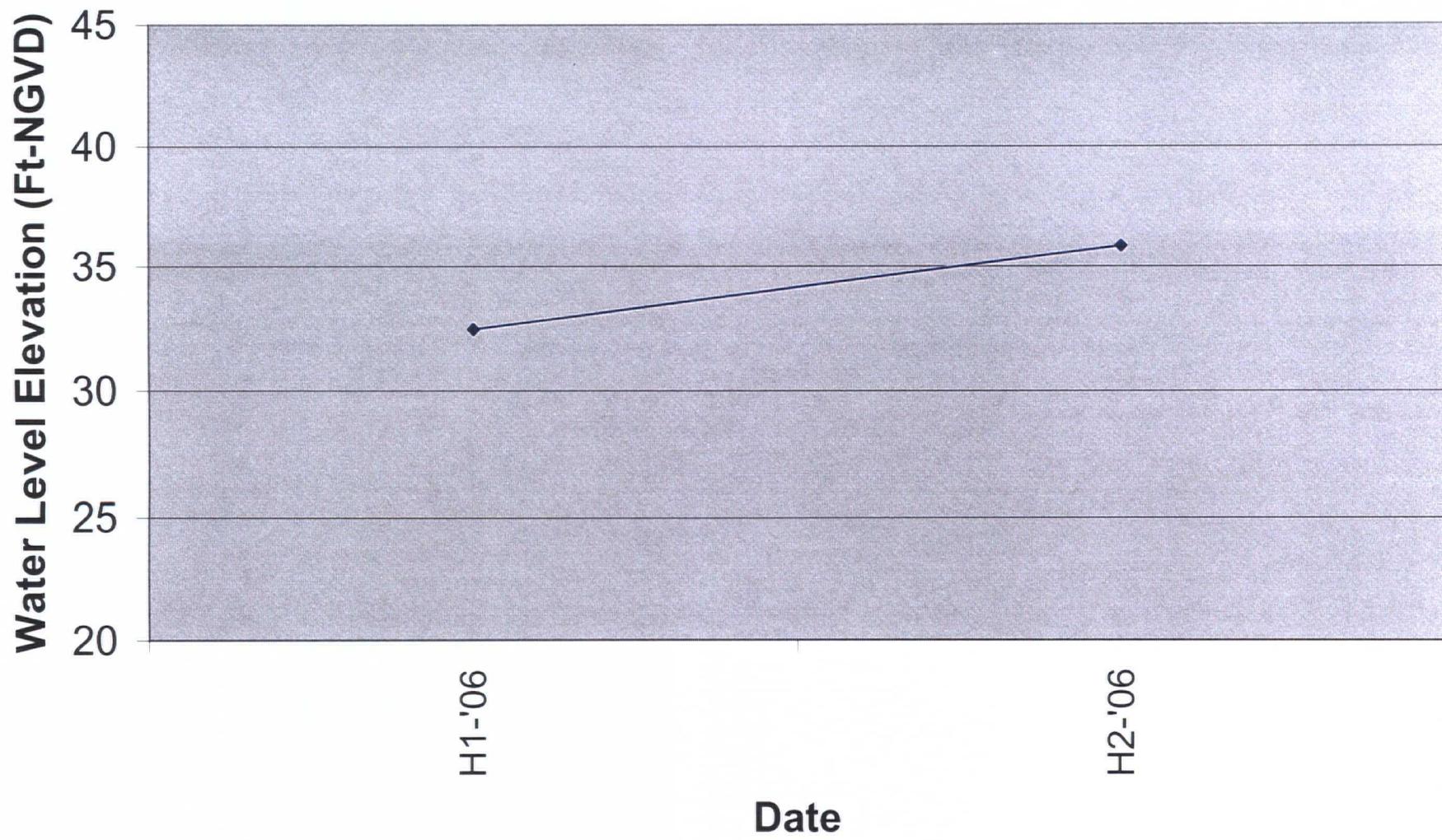
Hydrograph - GW-1



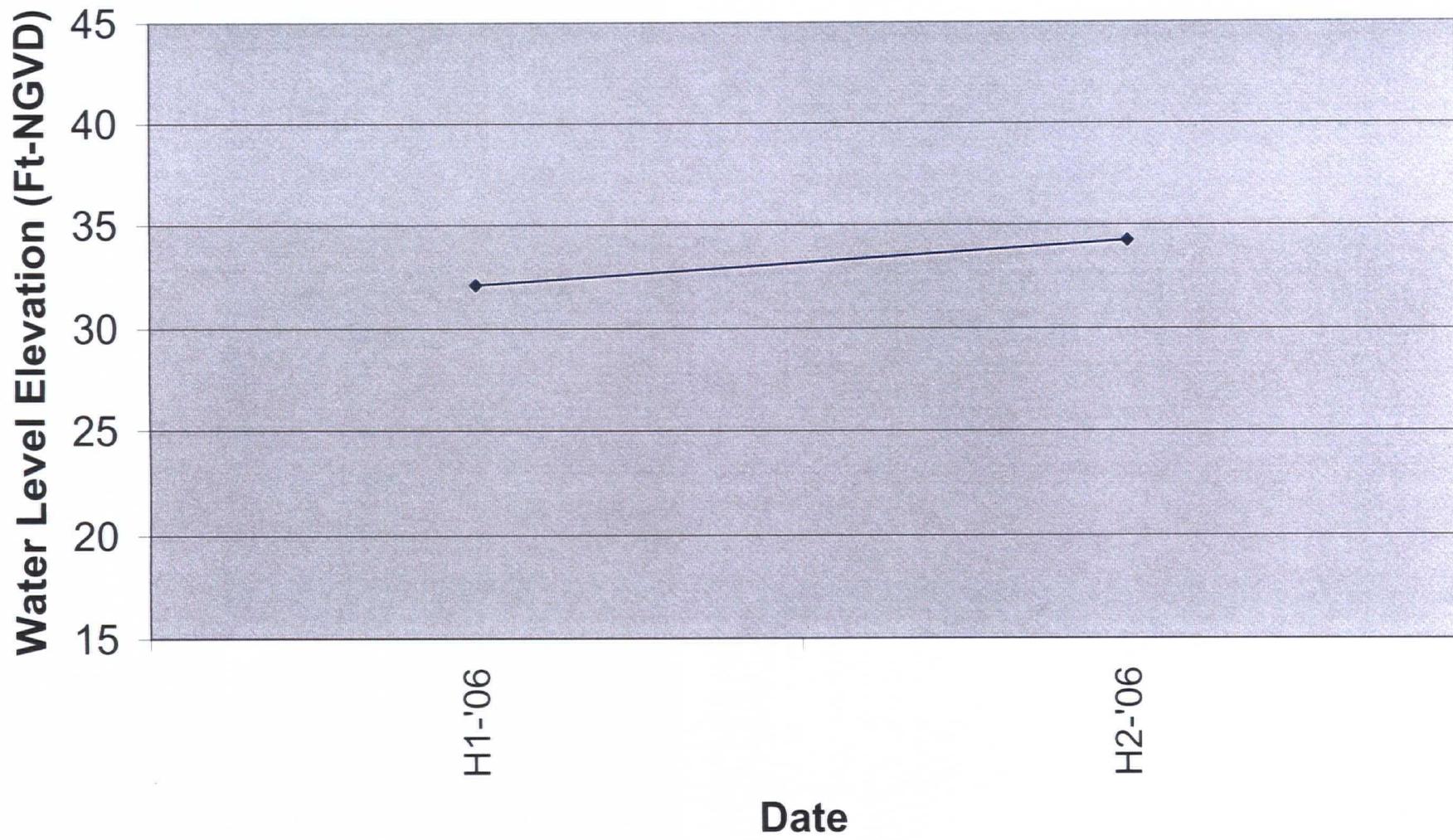
Hydrograph - GW-2



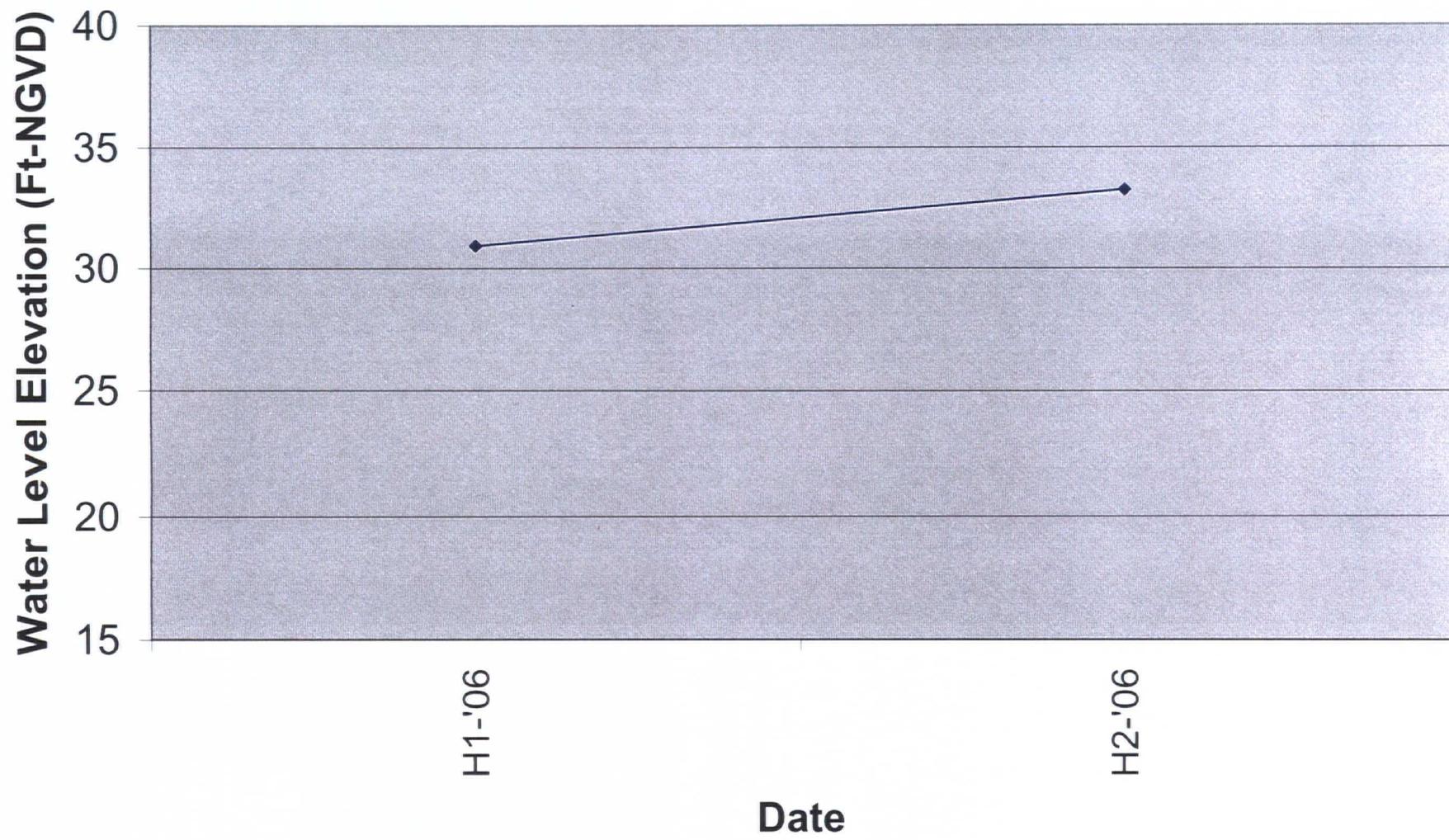
Hydrograph - GW-3



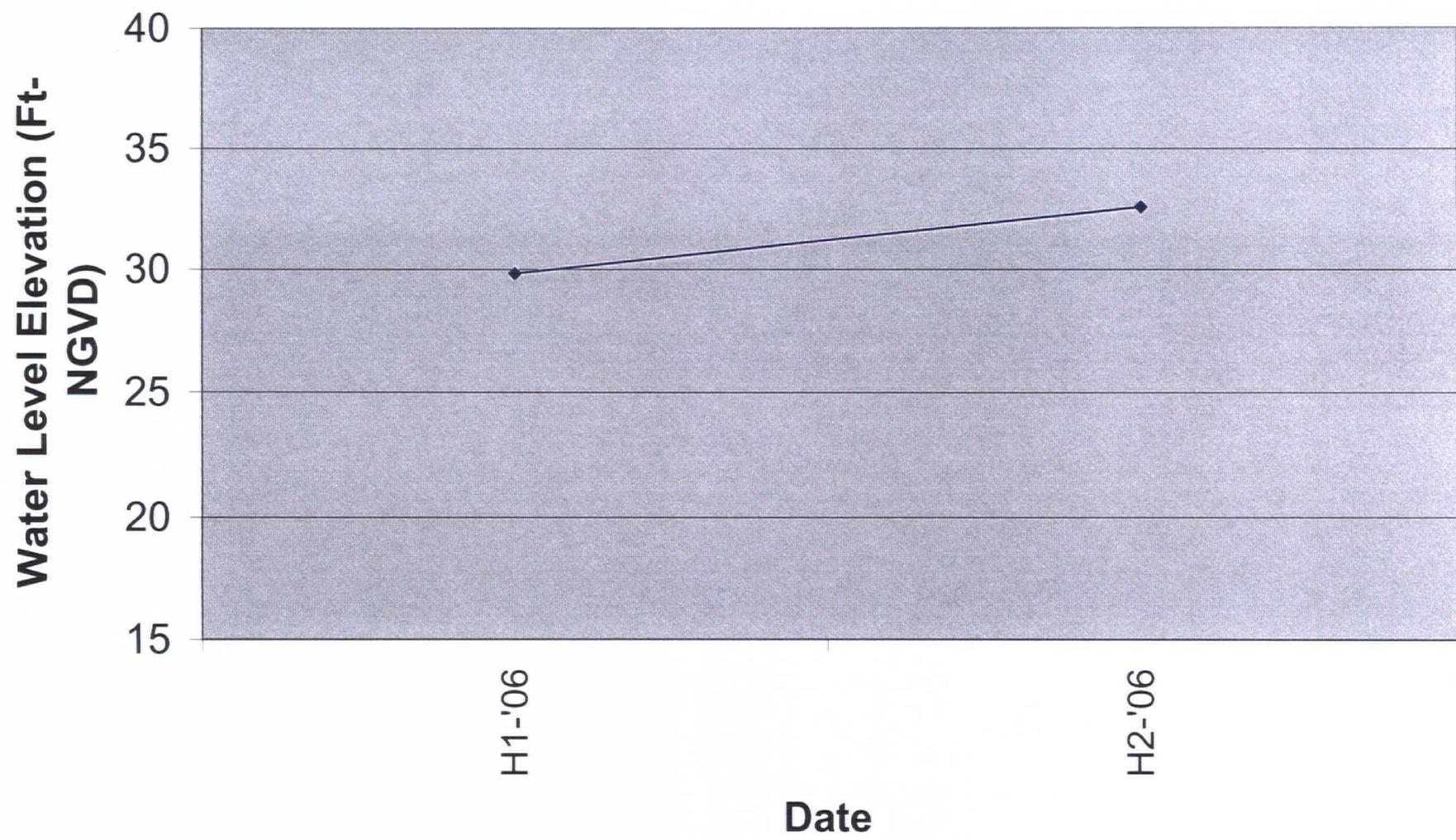
Hydrograph - GW-4



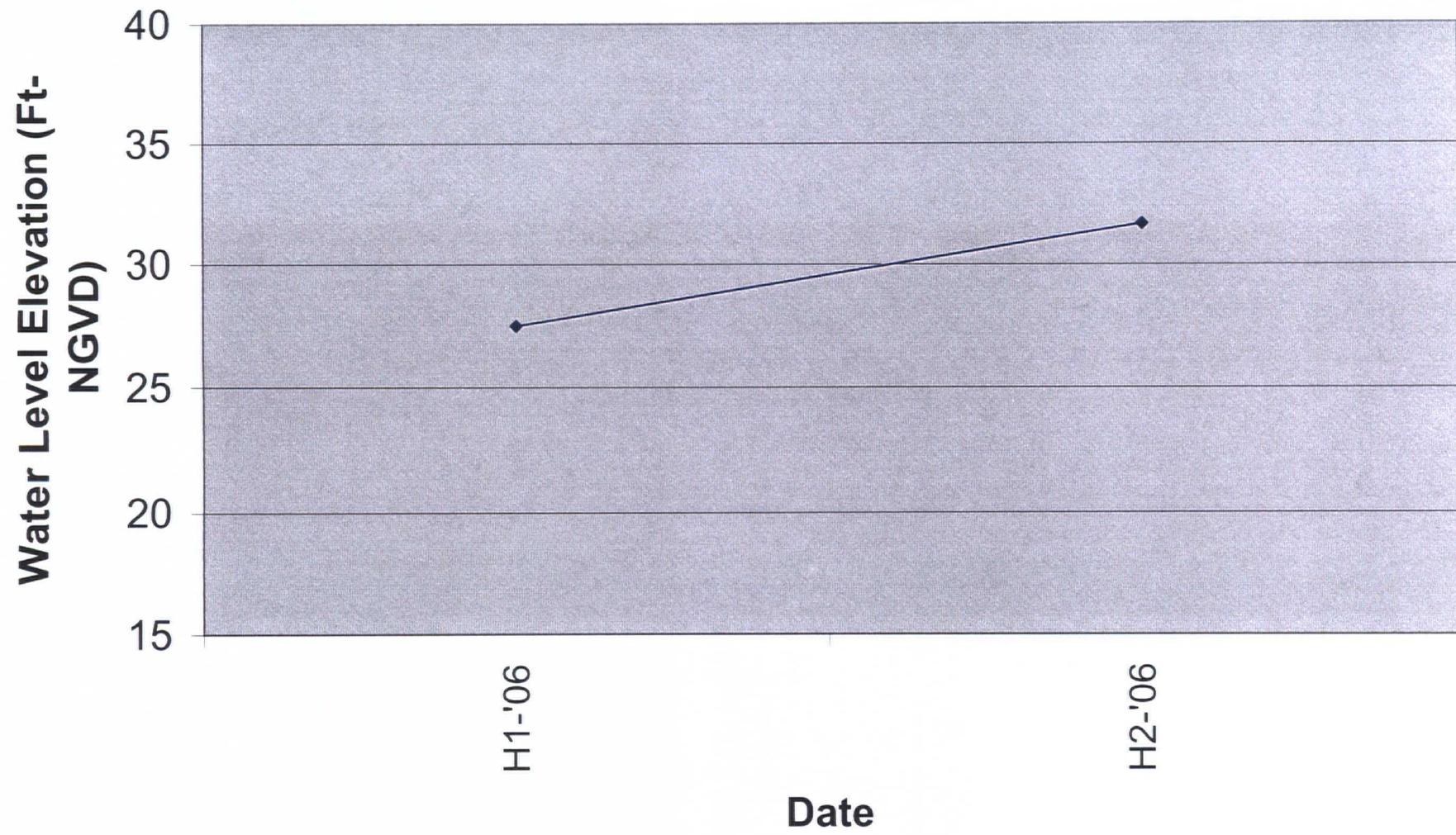
Hydrograph - GC-4



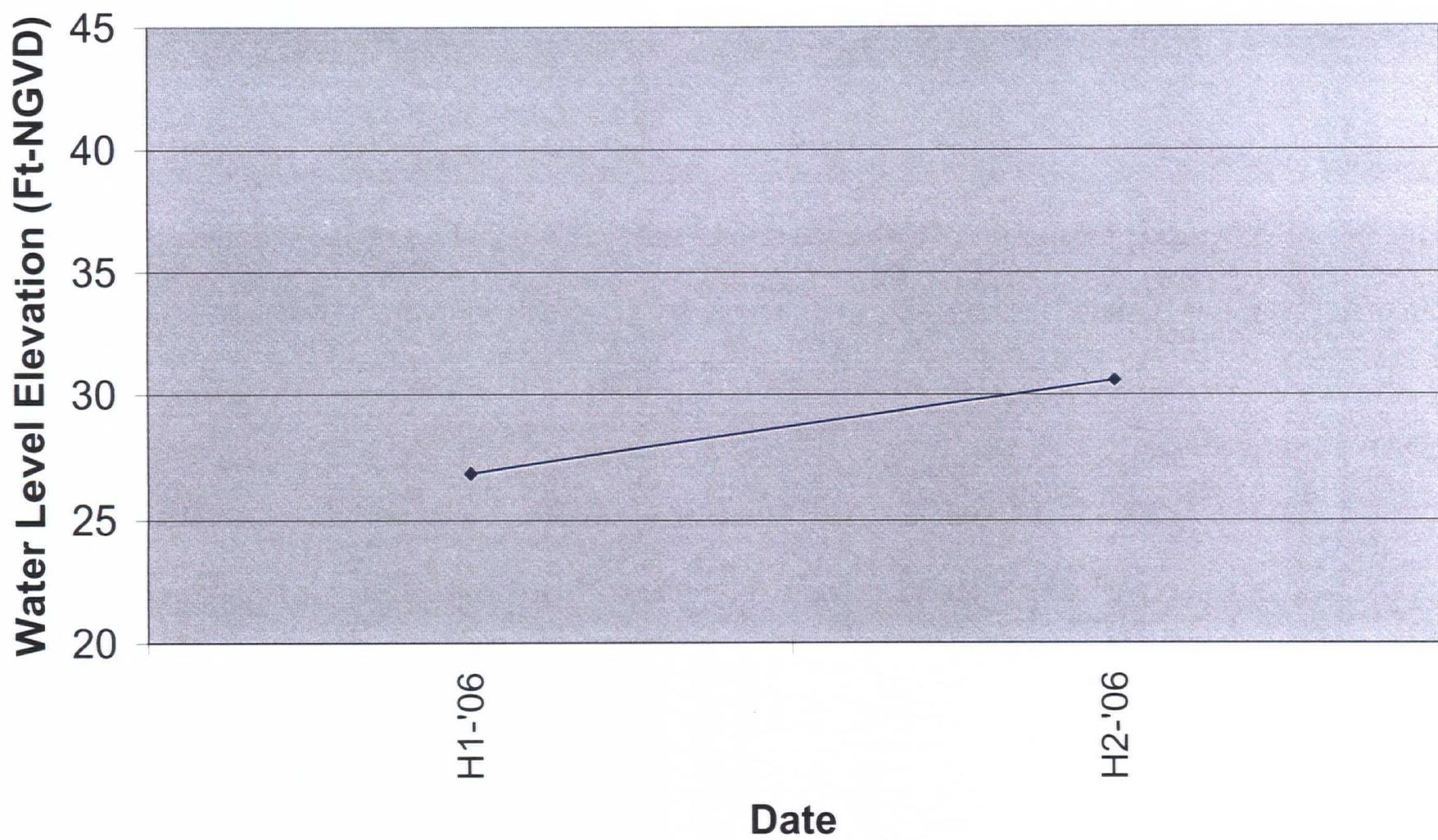
Hydrograph - GW-6



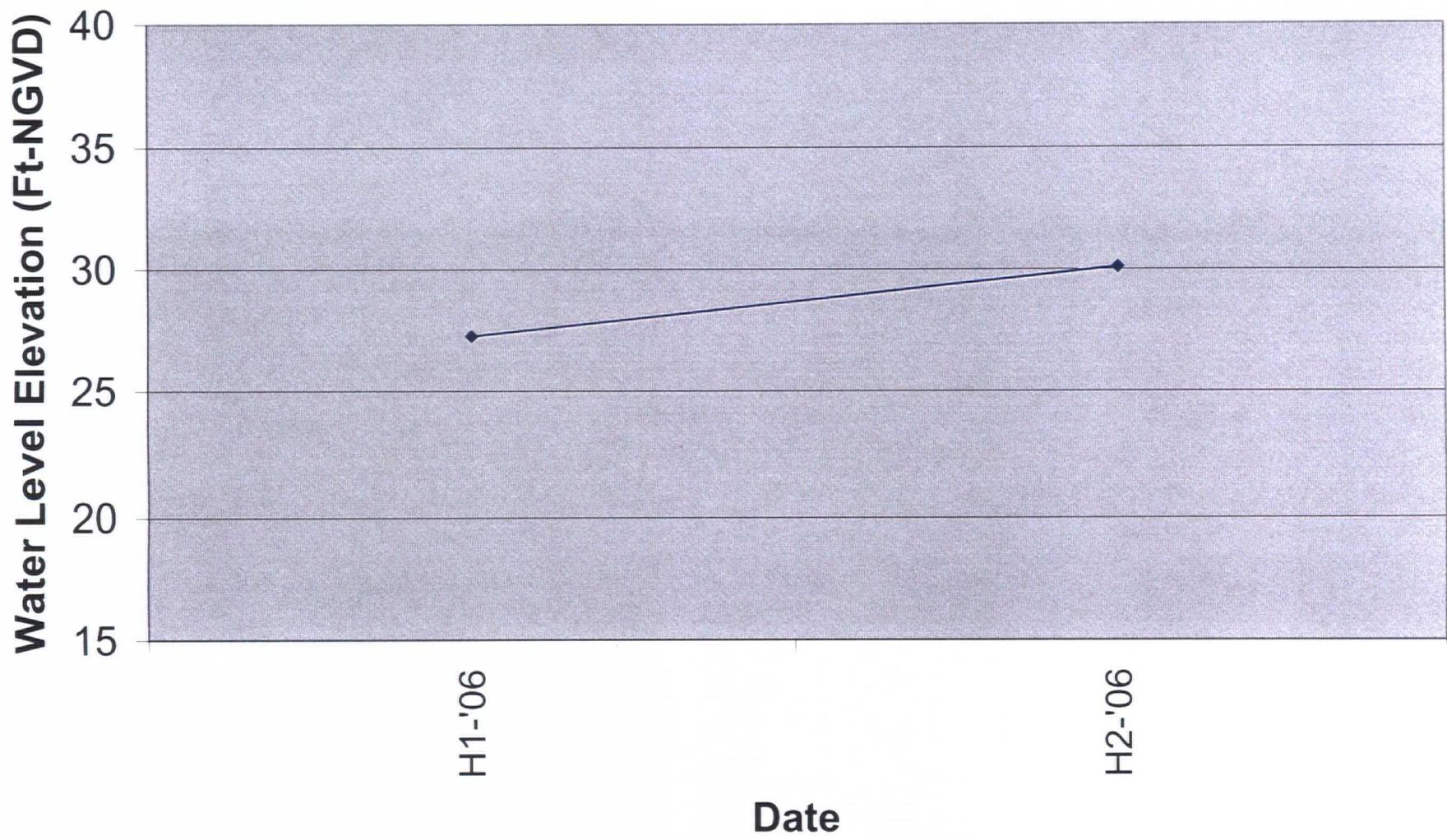
Hydrograph - GW-7



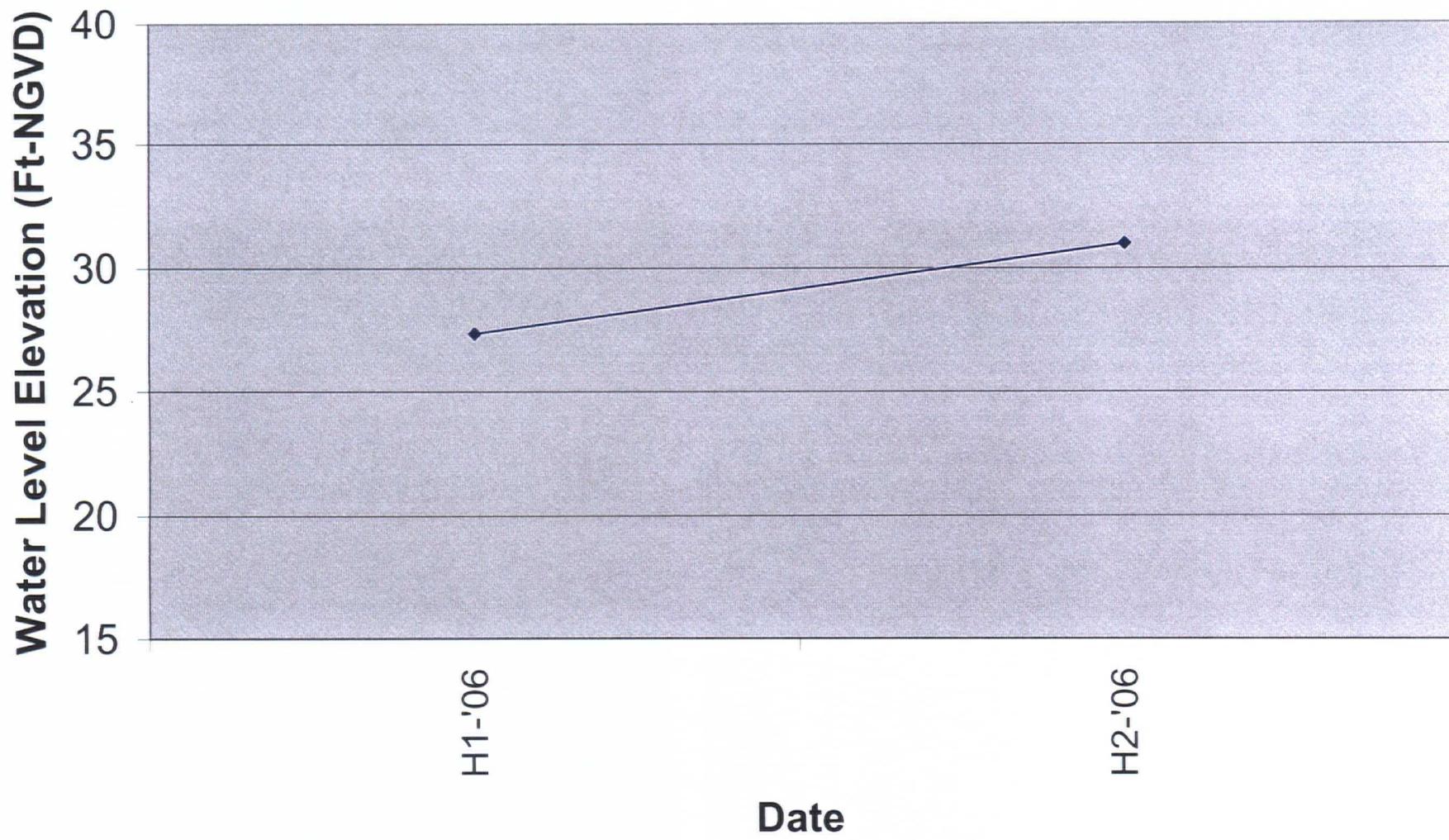
Hydrograph - GW-8



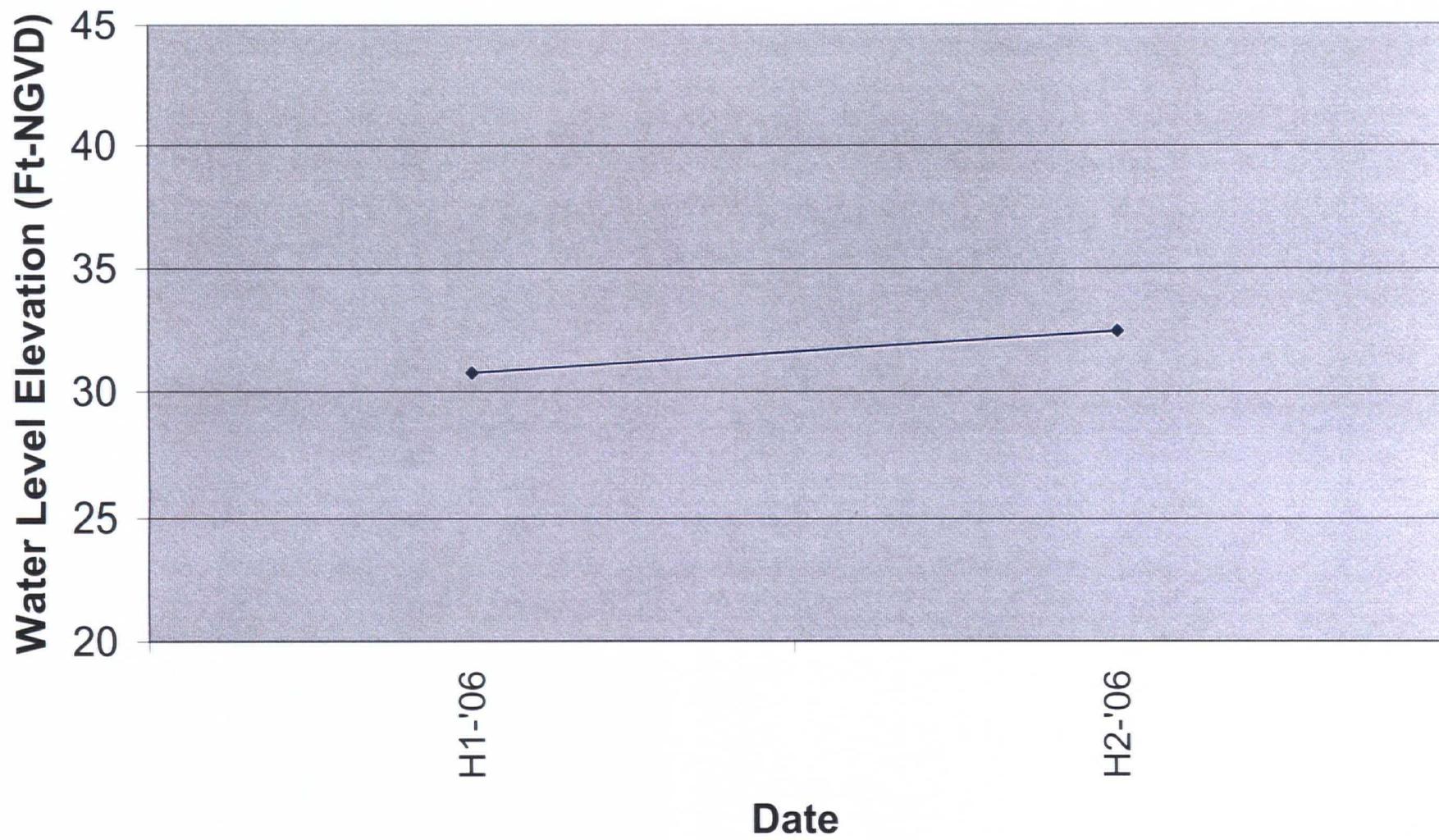
Hydrograph - GW-9



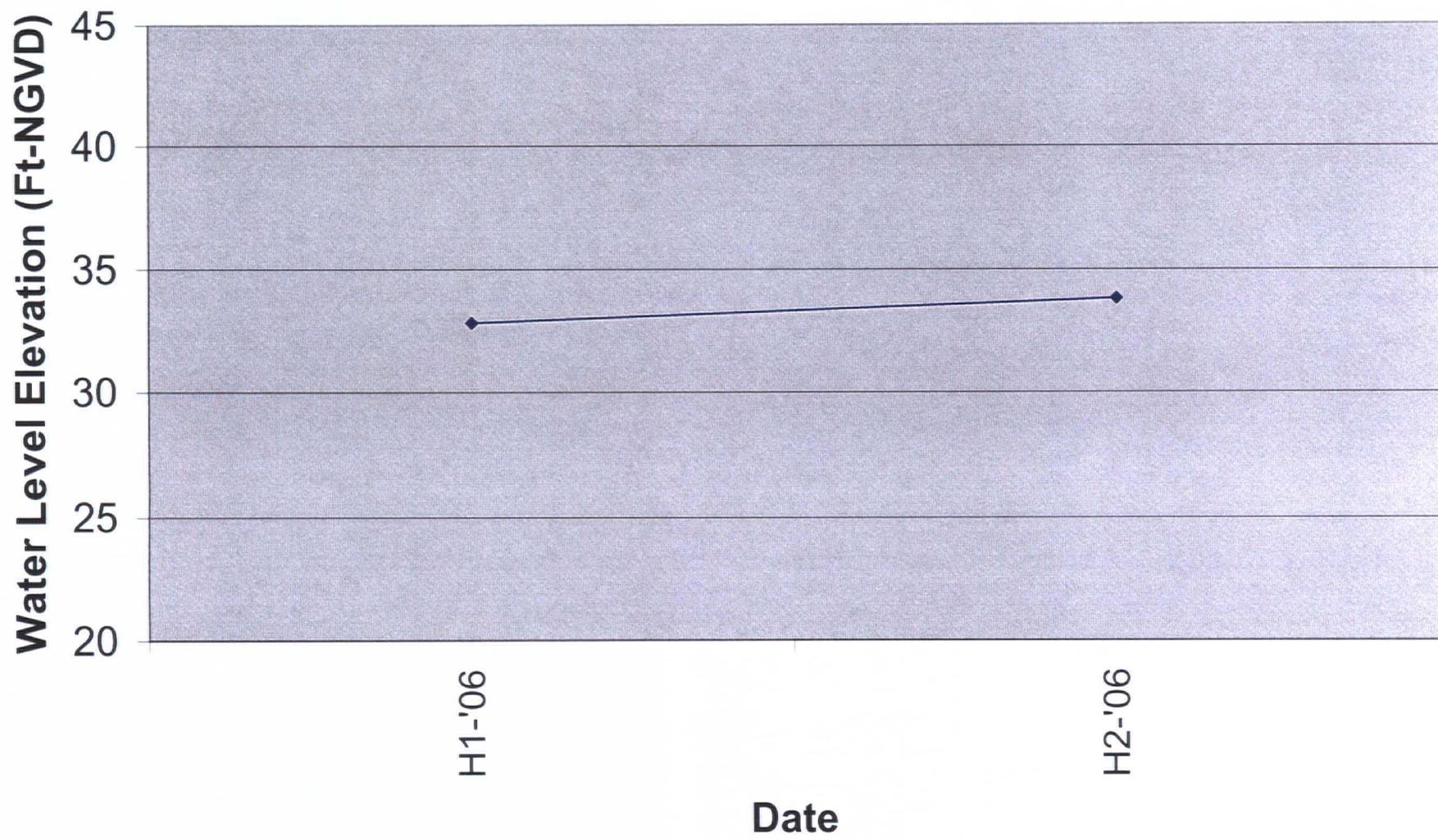
Hydrograph - GW-10



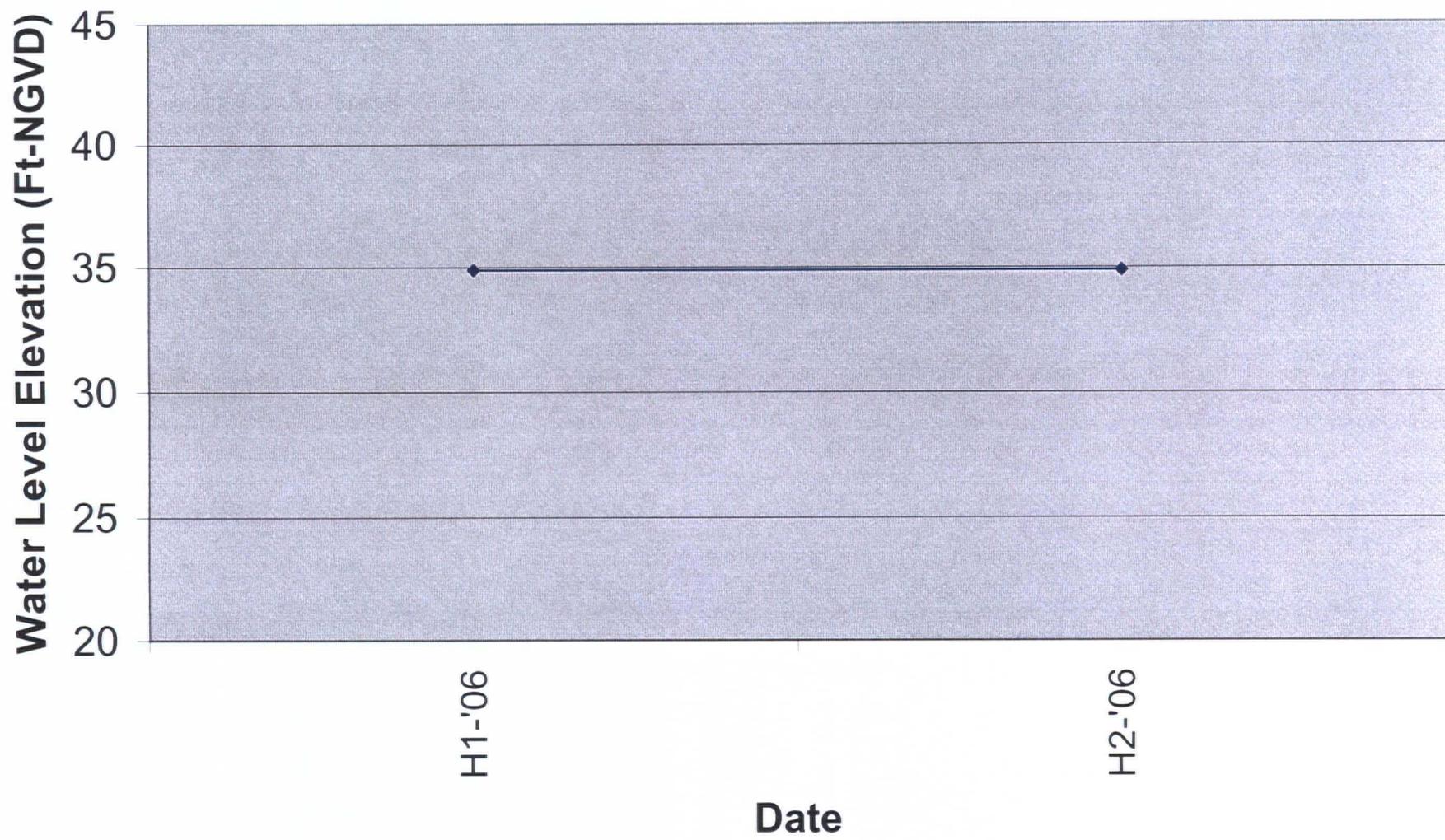
Hydrograph - GW-12



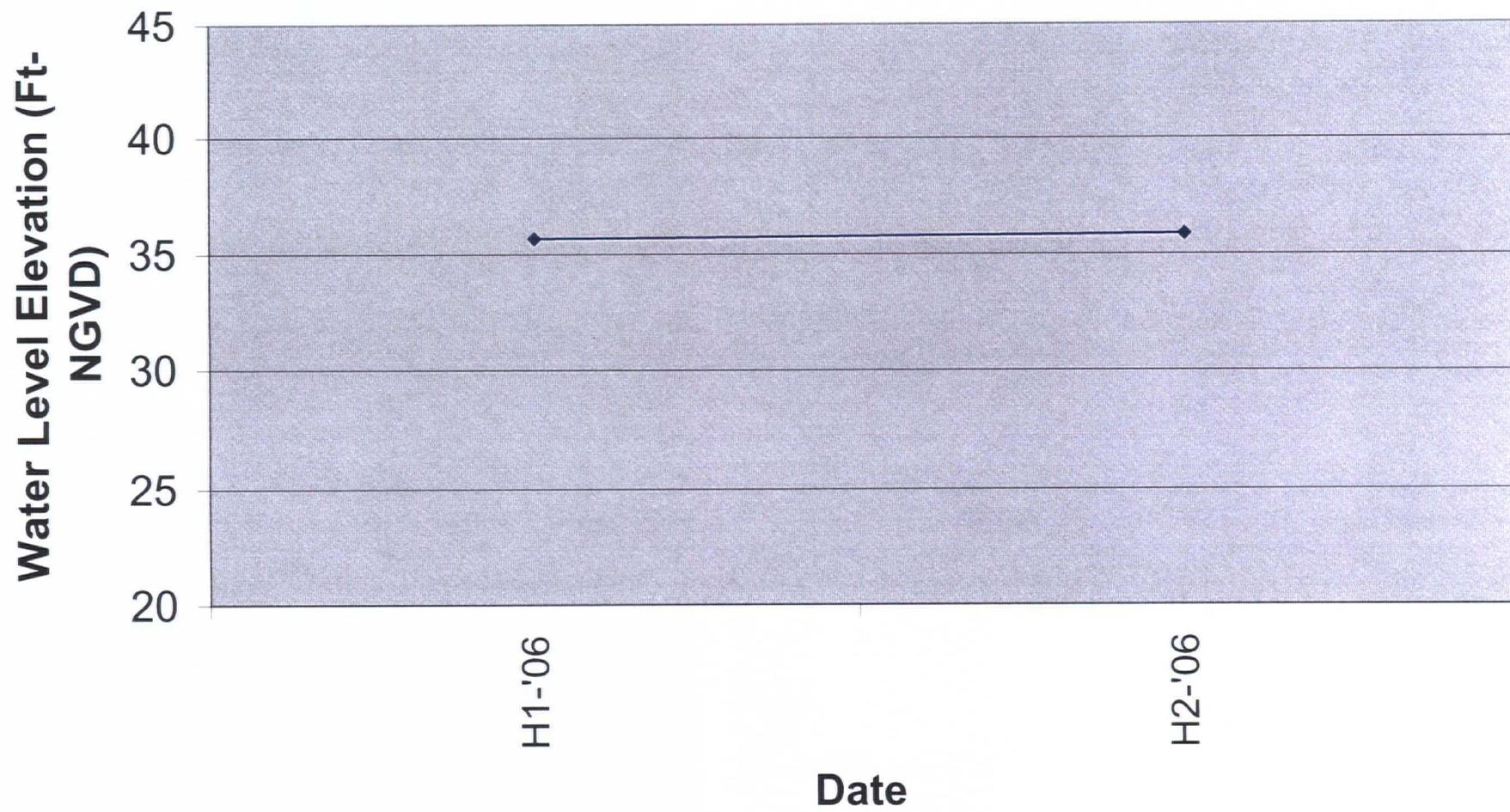
Hydrograph - GW-13



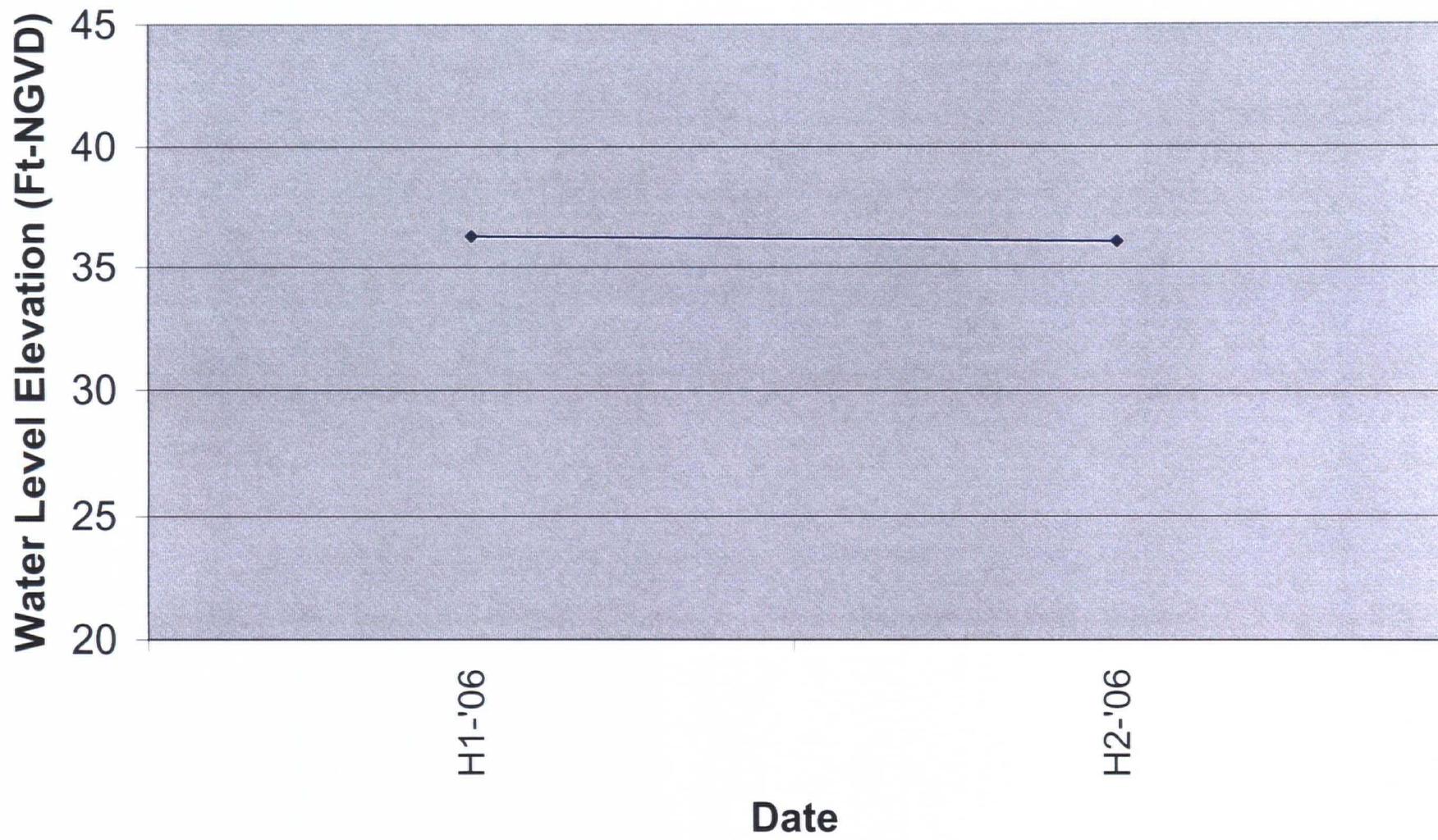
Hydrograph - GW-14



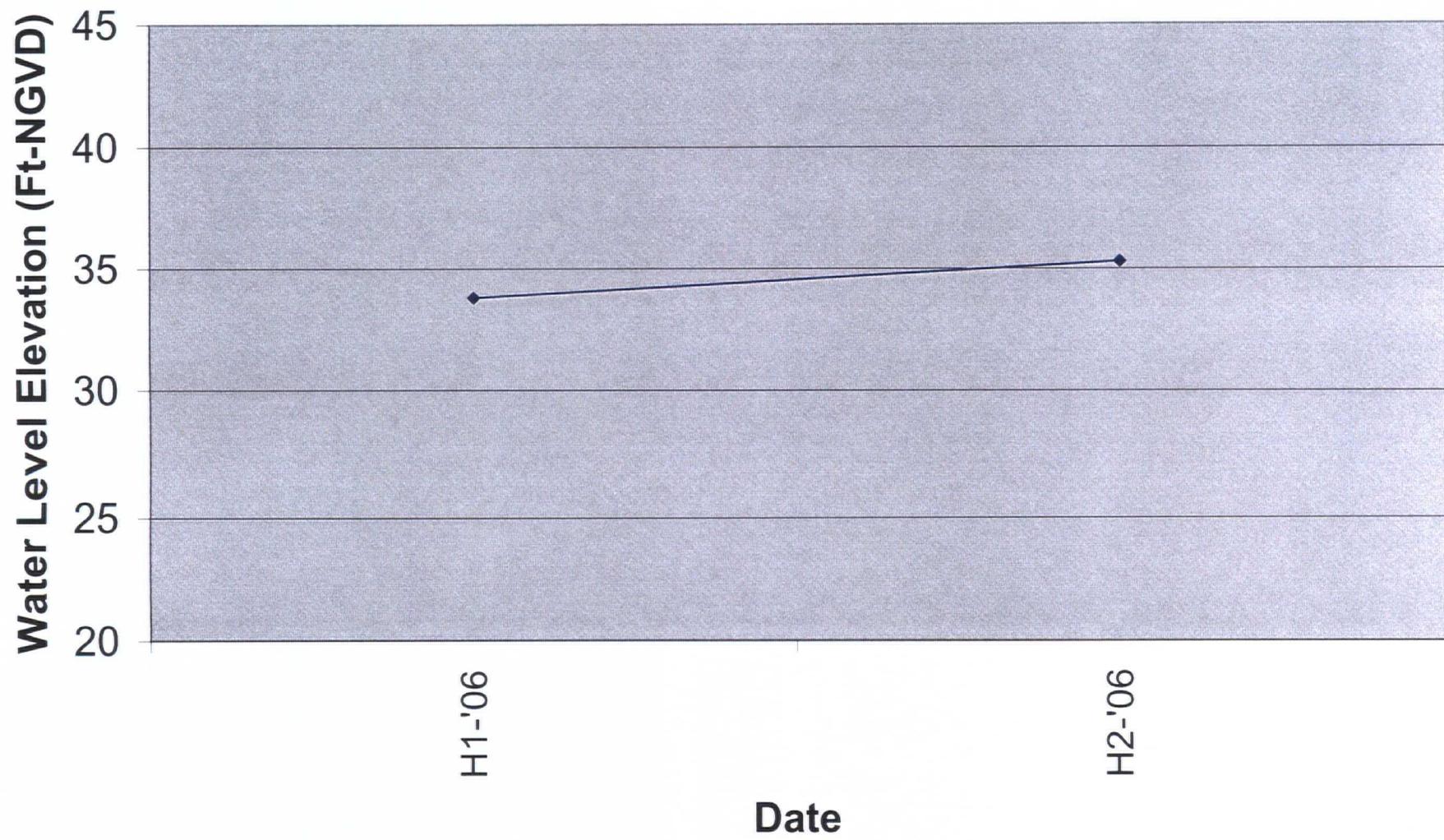
Hydrograph - GW-15



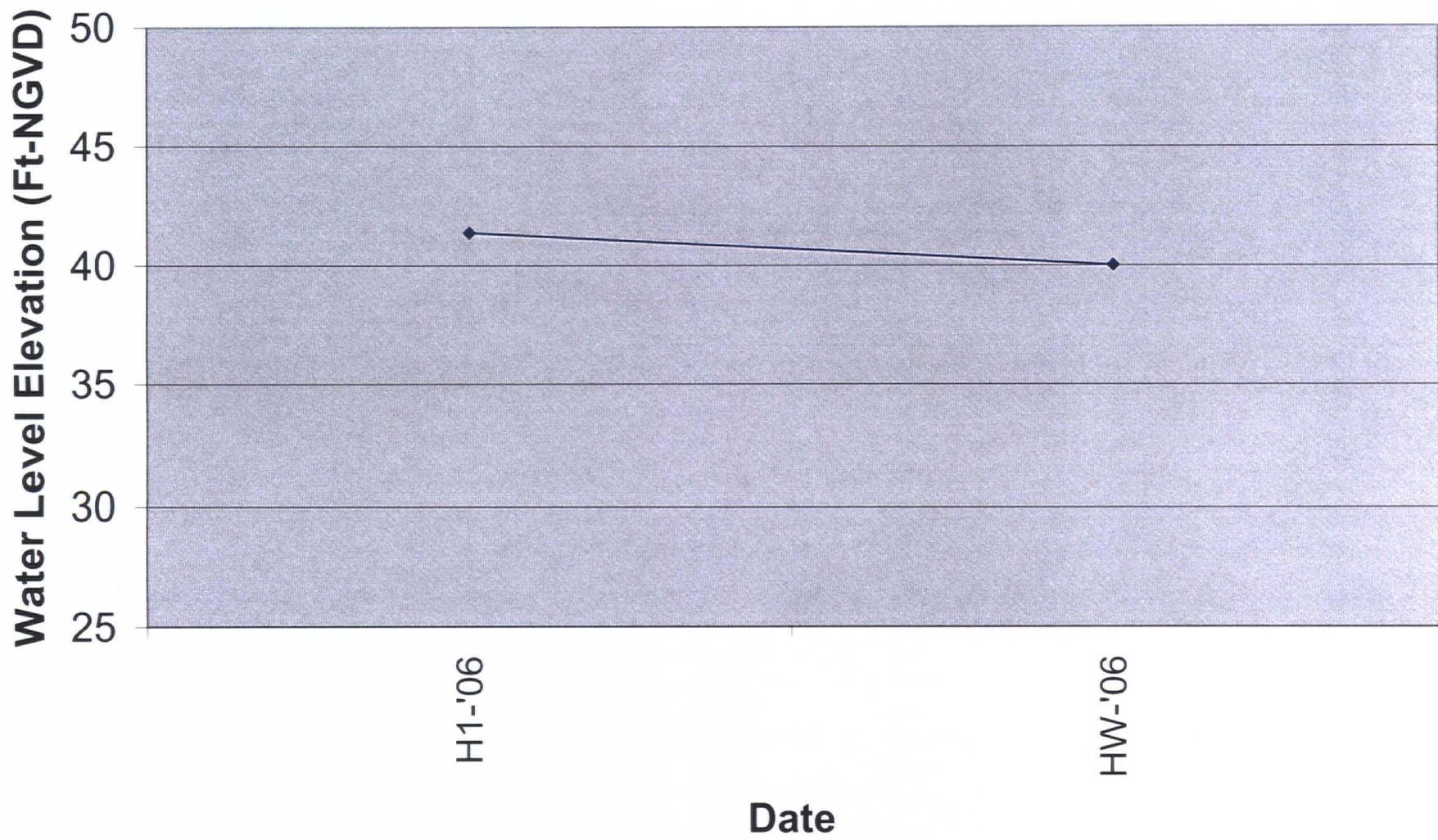
Hydrograph - GW-16



Hydrograph - GW-17

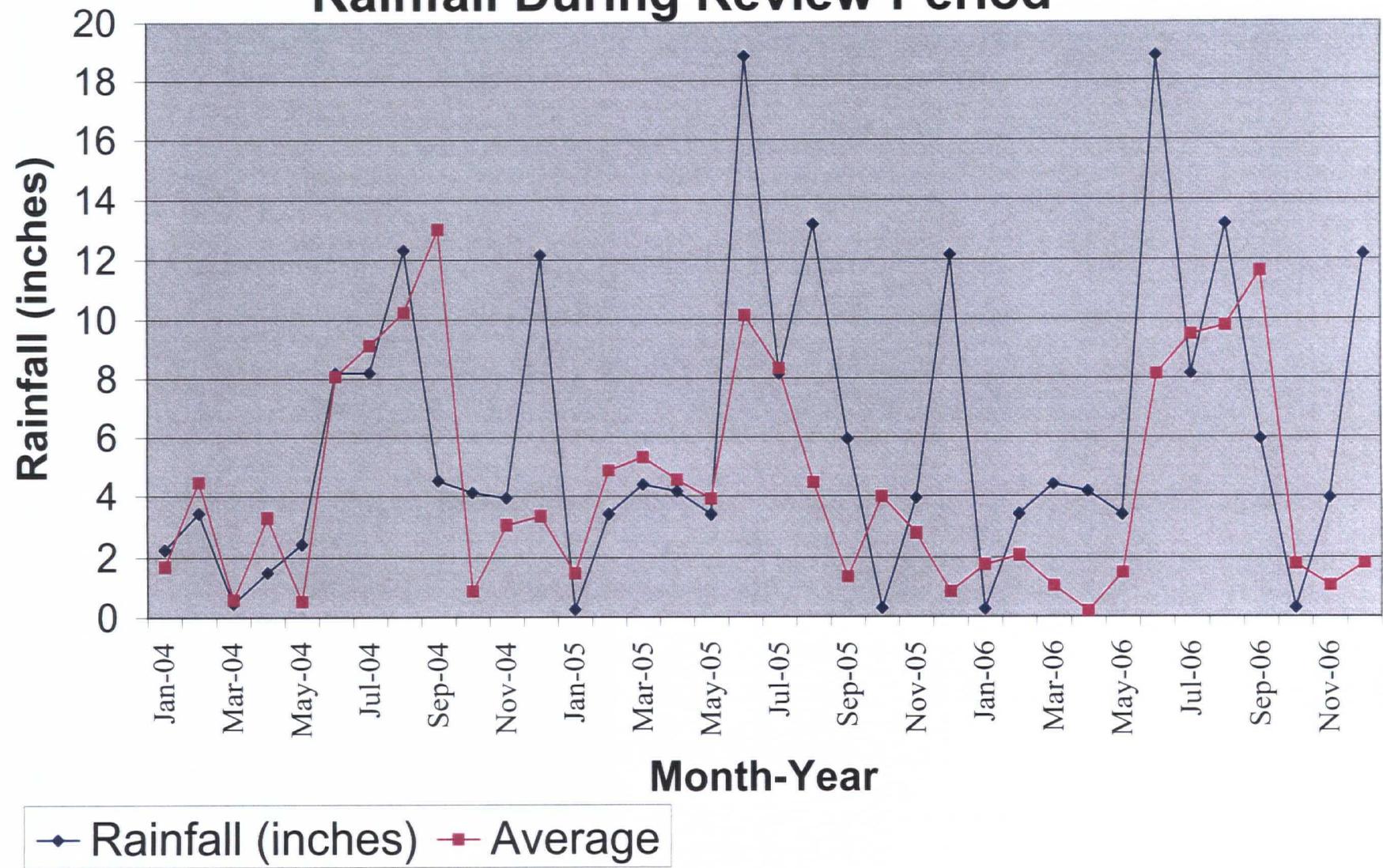


Hydrograph - BGW-1



APPENDIX E
Rainfall Graph

Rainfall During Review Period



Source: Manatee County and Southeast Regional Climate Center.

APPENDIX F

Groundwater Gradient Data

Manatee County Lena Road Landfill
Groundwater Gradient
January 2004

Inside Slurry Wall				Outside Slurry Wall		
Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
STAGE I						
PZ-1	42.55	29.11	inward	MW-5	39.88	31.00
PZ-2	42.47	30.17	inward	MW-2	41.13	31.11
PZ-3A	44.90	29.11	inward	MW-1	42.58	32.28
PZ-4A	47.73	30.48	inward	CW-4	37.48	34.57
PZ-5	43.94	30.25	inward	CW-5A	41.18	37.15
PZ-6	44.73	31.23	inward	SG-1		33.40
PZ-7	47.76	29.98	inward	MW-6	39.29	33.05
PZ-19	45.87	28.71	inward	PZ-11	38.94	33.40
STAGE II						
PZ-8	37.63	33.83	outward	LRII-5	36.75	29.45
PZ-9	39.20	33.82	outward	LRII-4	33.85	26.45
PZ-10	37.05	33.82	outward	LRII-2	36.48	29.34
PZ-11	38.94	33.71	outward	LRII-1	37.97	31.85
STAGE III						
PZ-12A	38.48	28.45	inward	GC-2	38.15	31.22
PZ-13	35.36	25.31	inward	GC-3	35.02	26.99
PZ-14A	34.58	19.89	inward	GC-4A	34.96	28.99
PZ-15C	40.46	19.98	inward	PZ-15A	39.79	30.34
PZ-16B	40.22	20.92	inward	PZ-16A	39.05	29.25
PZ-17	40.57	28.51	inward	SG-2		29.74
PZ-18	40.16	27.93	inward	SG-3		33.84

Additional In-House Monitoring Data						
<u>Stage I</u>						
PZ-2	42.47	30.17	inward	MW-3	42.32	31.86
<u>Stage II</u>						
PZ-9	39.20	33.82	outward	LRII-3	33.47	26.04
<u>Stage III</u>						
PZ-15C	40.46	19.98	inward	GC-1A	31.75	26.95
PZ-16B	40.22	20.92	inward	GC-5	36.46	29.86
PZ-17	40.57	28.51	inward	GC-6	39.02	30.46

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (dated Aug. 10, 19 Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Stage I Landfill - 132 acres (Closed - 30 ac., Intermediate - 92 ac., Open - 10 ac.) *

Stage II Landfill - 118 acres (Closed - 0 ac., Intermediate - 0 ac., Open - 0 ac. No waste in Stage II.) *

Stage III Landfill - 66 acres (Closed - 0 ac., Intermediate - 66 ac., Open - 0 ac.) *

* Revised August 25, 2004

Data Collection: January 6, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
February 2004

Inside Slurry Wall				Outside Slurry Wall			
Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation	
PZ-1 PZ-2 PZ-3A PZ-4A PZ-5 PZ-6 PZ-7 PZ-19	42.55 42.47 44.90 47.73 43.94 44.73 47.76 45.87	29.12 30.17 29.10 29.95 30.27 31.30 30.01 28.67	<i>inward</i>	STAGE I	MW-5 MW-2 MW-1 CW-4 CW-5A SG-1 MW-6 PZ-11	39.88 41.13 42.58 37.48 41.18 33.54 39.29 38.94	30.14 31.34 32.18 34.93 38.08 33.54 33.14 33.89
				STAGE II	LRII-5 LRII-4 LRII-2 LRII-1	36.75 33.85 36.48 37.97	29.36 26.17 28.96 31.97
				STAGE III	GC-2 GC-3 GC-4A PZ-15A PZ-16A SG-2 SG-3	38.15 35.02 34.96 39.79 39.05 30.48 33.86	31.43 27.03 29.14 30.89 29.38 30.48 33.64

Additional In-House Monitoring Data						
<u>Stage I</u> PZ-2	42.47	30.17	<i>inward</i>	MW-3	42.32	31.21
<u>Stage II</u> PZ-9	39.20	33.73	<i>outward</i>	LRII-3	33.47	25.86
<u>Stage III</u> PZ-15C PZ-16B PZ-17	40.46 40.22 40.57	19.95 20.86 28.53	<i>inward</i> <i>inward</i> <i>inward</i>	GC-1A GC-5 GC-6	31.75 36.46 39.02	27.08 28.91 30.76

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (dated Aug. 10, 19 Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

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Stage III Landfill - 66 acres (Closed - 0 ac., Intermediate - 66 ac., Open - 0 ac.) *

* Revised August 25, 2004

Data Collection: February 11, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
March 2004

Inside Slurry Wall				Outside Slurry Wall			
Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation	
			STAGE I				
PZ-1	42.55	29.11	inward	MW-5	39.88	31.23	
PZ-2	42.47	30.07	inward	MW-2	41.13	31.61	
PZ-3A	44.90	28.99	inward	MW-1	42.58	32.83	
PZ-4A	47.73	29.83	inward	CW-4	37.48	35.06	
PZ-5	43.94	30.14	inward	CW-5A	41.18	38.58	
PZ-6	44.73	31.26	inward	SG-1		33.84	Dry 32.80
PZ-7	47.76	29.95	inward	MW-6	39.29	33.48	
PZ-19	45.87	28.58	inward	PZ-11	38.94	33.89	
			STAGE II				
PZ-8	37.63	33.91	outward	LRII-5	36.75	30.41	
PZ-9	39.20	33.86	outward	LRII-4	33.85	27.08	
PZ-10	37.05	34.00	outward	LRII-2	36.48	29.91	
PZ-11	38.94	33.89	outward	LRII-1	37.97	33.32	
			STAGE III				
PZ-12A	38.48	28.65	inward	GC-2	38.15	31.77	
PZ-13	35.36	25.93	inward	GC-3	35.02	27.72	
PZ-14A	34.58	20.03	inward	GC-4A	34.96	29.37	
PZ-15C	40.46	20.05	inward	PZ-15A	39.79	31.38	
PZ-16B	40.22	20.96	inward	PZ-16A	39.05	29.38	
PZ-17	40.57	28.57	inward	SG-2		30.72	Dry 28.90
PZ-18	40.16	29.06	inward	SG-3		33.90	Dry 33.64
Additional In-House Monitoring Data							
<u>Stage I</u>							
PZ-2	42.47	30.07	inward	MW-3	42.32	32.34	
<u>Stage II</u>							
PZ-9	39.20	33.86	outward	LRII-3	33.47	26.78	
<u>Stage III</u>							
PZ-15C	40.46	20.05	inward	GC-1A	31.75	27.15	
PZ-16B	40.22	20.96	inward	GC-5	36.46	29.05	
PZ-17	40.57	28.57	inward	GC-6	39.02	31.06	

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

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Stage I Landfill - 132 acres (Closed - 30 ac., Intermediate - 92 ac., Open - 10 ac.) *

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Stage III Landfill - 66 acres (Closed - 0 ac., Intermediate - 66 ac., Open - 0 ac.) *

* Revised August 25, 2004

Data Collection: March 10, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
April 2004

Inside Slurry Wall				Outside Slurry Wall			
Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation	
STAGE I							
PZ-1	42.55	29.15	inward	MW-5	39.88	31.18	
PZ-2	42.47	29.95	inward	MW-2	41.13	31.55	
PZ-3A	44.90	29.09	inward	MW-1	42.58	32.52	
PZ-4A	47.73	29.88	inward	CW-4	37.48	34.81	
PZ-5	43.94	30.19	inward	CW-5A	41.18	38.38	
PZ-6	44.73	30.92	inward	SG-1		33.28	Dry 32.80
PZ-7	47.76	30.00	inward	MW-6	39.29	32.93	
PZ-19	45.87	28.59	inward	PZ-11	38.94	33.48	
STAGE II							
PZ-8	37.63	33.49	outward	LRII-5	36.75	29.60	
PZ-9	39.20	33.59	outward	LRII-4	33.85	26.28	
PZ-10	37.05	33.47	outward	LRII-2	36.48	28.93	
PZ-11	38.94	33.48	outward	LRII-1	37.97	31.92	
STAGE III							
PZ-12A	38.48	28.45	inward	GC-2	38.15	30.86	
PZ-13	35.36	25.40	inward	GC-3	35.02	27.70	
PZ-14A	34.58	19.93	inward	GC-4A	34.96	29.18	
PZ-15C	40.46	20.03	inward	PZ-15A	39.79	31.49	
PZ-16B	40.22	20.84	inward	PZ-16A	39.05	29.33	
PZ-17	40.57	28.62	inward	SG-2		30.40	Dry 28.90
PZ-18	40.16	28.89	inward	SG-3		33.50	Dry 33.50
Additional In-House Monitoring Data							
<u>Stage I</u> PZ-2	42.47	29.95	inward	MW-3	42.32	32.02	
<u>Stage II</u> PZ-9	39.20	33.59	outward	LRII-3	33.47	25.84	
<u>Stage III</u> PZ-15C PZ-16B PZ-17	40.46 40.22 40.57	20.03 20.84 28.62	inward inward inward	GC-1A GC-5 GC-6	31.75 36.46 39.02	26.65 28.88 30.50	

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Stage I Landfill - 132 acres (Closed - 30 ac., Intermediate - 92 ac., Open - 10 ac.) *

Stage II Landfill - 118 acres (Closed - 0 ac., Intermediate - 0 ac., Open - 0 ac. No waste in Stage II.) *

Stage III Landfill - 66 acres (Closed - 0 ac., Intermediate - 66 ac., Open - 0 ac.) *

* Revised August 25, 2004

Data Collection: April 1, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
May 2004

Inside Slurry Wall				Outside Slurry Wall			
Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation	
STAGE I							
PZ-1	42.55	29.08	inward	MW-5	39.88	31.12	
PZ-2	42.47	30.12	inward	MW-2	41.13	31.69	
PZ-3A	44.90	29.08	inward	MW-1	42.58	32.39	
PZ-4A	47.73	29.88	inward	CW-4	37.48	34.18	
PZ-5	43.94	30.16	inward	CW-5A	41.18	37.58	
PZ-6	44.73	30.88	inward	SG-1		33.25	Dry 32.80
PZ-7	47.76	29.86	inward	MW-6	39.29	32.91	
PZ-19	45.87	28.50	inward	PZ-11	38.94	33.45	
STAGE II							
PZ-8	37.63	33.38	outward	LRII-5	36.75	29.13	
PZ-9	39.20	33.49	outward	LRII-4	33.85	25.90	
PZ-10	37.05	33.49	outward	LRII-2	36.48	28.48	
PZ-11	38.94	33.45	outward	LRII-1	37.97	32.13	
STAGE III							
PZ-12A	38.48	28.29	inward	GC-2	38.15	31.15	
PZ-13	35.36	25.06	inward	GC-3	35.02	26.29	
PZ-14A	34.58	19.85	inward	GC-4A	34.96	28.60	
PZ-15C	40.46	19.99	inward	PZ-15A	39.79	31.29	
PZ-16B	40.22	20.80	inward	PZ-16A	39.05	29.27	
PZ-17	40.57	28.46	inward	SG-2		30.35	Dry 28.90
PZ-18	40.16	28.76	inward	SG-3		33.50	Dry 33.50

Additional In-House Monitoring Data						
<u>Stage I</u>						
PZ-2	42.47	30.12	inward	MW-3	42.32	32.49
<u>Stage II</u>						
PZ-9	39.20	33.49	outward	LRII-3	33.47	25.52
<u>Stage III</u>						
PZ-15C	40.46	19.99	inward	GC-1A	31.75	26.57
PZ-16B	40.22	20.80	inward	GC-5	36.46	28.76
PZ-17	40.57	28.46	inward	GC-6	39.02	30.79

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Stage I Landfill - 132 acres (Closed - 30 ac., Intermediate - 102 ac., Open - 0 ac.)

Stage II Landfill - 118 acres (Closed - 0 ac., Intermediate - 0 ac., Open - 0 ac. No waste in Stage II.) *

Stage III Landfill - 66 acres (Closed - 0 ac., Intermediate - 39 ac., Open - 27 ac.) *

* Revised August 25, 2004

Data Collection: May 6, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
June 2004

Inside Slurry Wall				Outside Slurry Wall			
Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation	
STAGE I				Dry 32.80	MW-5	39.88	31.36
PZ-1	42.55	29.15	inward		MW-2	41.13	31.18
PZ-2	42.47	30.23	inward		MW-1	42.58	32.04
PZ-3A	44.90	29.09	inward		CW-4	37.48	33.66
PZ-4A	47.73	29.88	inward		CW-5A	41.18	34.55
PZ-5	43.94	31.14	inward		SG-1		34.58
PZ-6	44.73	31.02	inward		MW-6	39.29	33.11
PZ-7	47.76	29.92	inward		PZ-11	38.94	33.09
STAGE II				Dry 28.90	LRII-5	36.75	28.01
PZ-8	37.63	33.48	outward		LRII-4	33.85	24.97
PZ-9	39.20	33.20	outward		LRII-2	36.48	28.00
PZ-10	37.05	33.74	outward		LRII-1	37.97	32.66
STAGE III				Dry 33.50	GC-2	38.15	32.22
PZ-12A	38.48	28.65	inward		GC-3	35.02	26.49
PZ-13	35.36	25.01	inward		GC-4A	34.96	28.89
PZ-14A	34.58	21.48	inward		PZ-15A	39.79	32.23
PZ-15C	40.46	20.45	inward		PZ-16A	39.05	29.52
PZ-16B	40.22	21.67	inward		SG-2		30.10
PZ-17	40.57	28.47	inward		SG-3		34.30
PZ-18	40.16	29.12	inward				

Additional In-House Monitoring Data						
<u>Stage I</u>						
PZ-2	42.47	30.23	inward	MW-3	42.32	31.59
<u>Stage II</u>						
PZ-9	39.20	33.20	outward	LRII-3	33.47	24.65
<u>Stage III</u>						
PZ-15C	40.46	20.45	inward	GC-1A	31.75	28.03
PZ-16B	40.22	21.67	inward	GC-5	36.46	29.78
PZ-17	40.57	28.47	inward	GC-6	39.02	32.07

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Stage I Landfill - 132 acres (Closed - 30 ac., Intermediate - 102 ac., Open - 0 ac.)

Stage II Landfill - 118 acres (Closed - 0 ac., Intermediate - 0 ac., Open - 0 ac. No waste in Stage II.) *

Stage III Landfill - 66 acres (Closed - 0 ac., Intermediate - 39 ac., Open - 27 ac.) *

* Revised August 25, 2004

Data Collection: June 14, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
July 2004

Inside Slurry Wall				Outside Slurry Wall			
Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation	
STAGE I							
PZ-1	42.55	29.50	inward	MW-5	39.88	31.38	
PZ-2	42.47	30.07	inward	MW-2	41.13	31.53	
PZ-3A	44.90	29.20	inward	MW-1	42.58	33.52	
PZ-4A	47.73	29.94	inward	CW-4	37.48	34.20	
PZ-5	43.94	31.20	inward	CW-5A	41.18	35.92	
PZ-6	44.73	30.98	inward	SG-1		33.64	
PZ-7	47.76	30.06	inward	MW-6	39.29	32.32	
PZ-19	45.87	29.51	inward	PZ-11	38.94	33.54	
Dry 32.80							
STAGE II							
PZ-8	37.63	33.58	outward	LRII-5	36.75	29.28	
PZ-9	39.20	33.62	outward	LRII-4	33.85	26.35	
PZ-10	37.05	33.76	outward	LRII-2	36.48	29.03	
PZ-11	38.94	33.54	outward	LRII-1	37.97	33.41	
STAGE III							
PZ-12A	38.48	28.75	inward	GC-2	38.15	32.57	
PZ-13	35.36	25.84	inward	GC-3	35.02	27.30	
PZ-14A	34.58	20.42	inward	GC-4A	34.96	28.79	
PZ-15C	40.46	20.39	inward	PZ-15A	39.79	31.52	
PZ-16B	40.22	21.25	inward	PZ-16A	39.05	29.18	
PZ-17	40.57	28.69	inward	SG-2		29.26	
PZ-18	40.16	29.04	inward	SG-3		33.60	
Dry 28.90 Dry 33.50							

Additional In-House Monitoring Data						
<u>Stage I</u>						
PZ-2	42.47	30.07	inward	MW-3	42.32	33.43
<u>Stage II</u>						
PZ-9	39.20	33.62	outward	LRII-3	33.47	25.79
<u>Stage III</u>						
PZ-15C	40.46	20.39	inward	GC-1A	31.75	27.12
PZ-16B	40.22	21.25	inward	GC-5	36.46	29.51
PZ-17	40.57	28.69	inward	GC-6	39.02	30.81

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: July 7, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
August 2004

Inside Slurry Wall				Outside Slurry Wall			
Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation	
PZ-1	42.55	29.36	<u>STAGE I</u> <i>inward</i>	MW-5	39.88	32.82	
PZ-2	42.47	29.95	<i>inward</i>	MW-2	41.13	33.71	
PZ-3A	44.90	29.17	<i>inward</i>	MW-1	42.58	34.68	
PZ-4A	47.73	29.84	<i>inward</i>	CW-4	37.48	35.14	
PZ-5	43.94	30.26	<i>inward</i>	CW-5A	41.18	38.11	
PZ-6	44.73	31.65	<i>inward</i>	SG-1		34.08	Dry 32.80
PZ-7	47.76	30.25	<i>inward</i>	MW-6	39.29	35.98	
PZ-19	45.87	28.69	<i>inward</i>	PZ-11	38.94	34.54	
				<u>STAGE II</u>			
PZ-8	37.63	34.63	<i>outward</i>	LRII-5	36.75	32.56	
PZ-9	39.20	34.37	<i>outward</i>	LRII-4	33.85	28.70	
PZ-10	37.05	34.34	<i>outward</i>	LRII-2	36.48	32.10	
PZ-11	38.94	34.54	<i>outward</i>	LRII-1	37.97	34.35	
				<u>STAGE III</u>			
PZ-12A	38.48	30.14	<i>inward</i>	GC-2	38.15	34.00	
PZ-13	35.36	28.34	<i>inward</i>	GC-3	35.02	30.52	
PZ-14A	34.58	25.95	<i>inward</i>	GC-4A	34.96	31.96	
PZ-15C	40.46	24.75	<i>inward</i>	PZ-15A	39.79	33.01	
PZ-16B	40.22	26.97	<i>inward</i>	PZ-16A	39.05	29.86	
PZ-17	40.57	29.15	<i>inward</i>	SG-2		30.60	Dry 28.90
PZ-18	40.16	29.66	<i>inward</i>	SG-3		34.00	Dry 33.50

Additional In-House Monitoring Data						
<u>Stage I</u>						
PZ-2	42.47	29.95	<i>inward</i>	MW-3	42.32	35.32
<u>Stage II</u>						
PZ-9	39.20	34.37	<i>outward</i>	LRII-3	33.47	28.52
<u>Stage III</u>						
PZ-15C	40.46	24.75	<i>inward</i>	GC-1A	31.75	28.31
PZ-16B	40.22	26.97	<i>inward</i>	GC-5	36.46	31.21
PZ-17	40.57	29.15	<i>inward</i>	GC-6	39.02	32.55

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: August 6, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
September 2004

Inside Slurry Wall

Outside Slurry Wall

Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
STAGE I						
PZ-1	42.55	29.15	inward	MW-5	39.88	31.57
PZ-2	42.47	29.95	inward	MW-2	41.13	32.13
PZ-3A	44.90	29.15	inward	MW-1	42.58	33.78
PZ-4A	47.73	29.88	inward	CW-4	37.48	34.48
PZ-5	43.94	30.19	inward	CW-5A	41.18	37.68
PZ-6	44.73	30.95	inward	SG-1		33.60
PZ-7	47.76	30.76	inward	MW-6	39.29	33.44
PZ-19	45.87	28.67	inward	PZ-11	38.94	33.06
STAGE II						
PZ-8	37.63	32.93	outward	LRII-5	36.75	31.41
PZ-9	39.20	33.30	outward	LRII-4	33.85	28.37
PZ-10	37.05	32.91	outward	LRII-2	36.48	31.07
PZ-11	38.94	33.06	outward	LRII-1	37.97	32.95
STAGE III						
PZ-12A	38.48	29.09	inward	GC-2	38.15	32.66
PZ-13	35.36	28.05	inward	GC-3	35.02	29.38
PZ-14A	34.58	21.28	inward	GC-4A	34.96	29.91
PZ-15C	40.46	20.74	inward	PZ-15A	39.79	31.48
PZ-16B	40.22	21.32	inward	PZ-16A	39.05	28.85
PZ-17	40.57	28.78	inward	SG-2		30.24
PZ-18	40.16	28.90	inward	SG-3		33.50

Additional In-House Monitoring Data

<u>Stage I</u>						
PZ-2	42.47	29.95	inward	MW-3	42.32	33.72
<u>Stage II</u>						
PZ-9	39.20	33.30	outward	LRII-3	33.47	28.05
<u>Stage III</u>						
PZ-15C	40.46	20.74	inward	GC-1A	31.75	26.95
PZ-16B	40.22	21.32	inward	GC-5	36.46	29.28
PZ-17	40.57	28.78	inward	GC-6	39.02	31.12

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: September 1, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
October 2004

Inside Slurry Wall

Outside Slurry Wall

Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation	
			STAGE I				
PZ-1	42.55	29.11	inward	MW-5	39.88	31.63	
PZ-2	42.47	30.06	inward	MW-2	41.13	32.20	
PZ-3A	44.90	29.81	inward	MW-1	42.58	33.95	
PZ-4A	47.73	29.97	inward	CW-4	37.48	35.10	
PZ-5	43.94	30.21	inward	CW-5A	41.18	38.68	
PZ-6	44.73	30.98	inward	SG-1		33.41	Dry 32.80
PZ-7	47.76	30.06	inward	MW-6	39.29	33.63	
PZ-19	45.87	28.65	inward	PZ-11	38.94	33.74	
			STAGE II				
PZ-8	37.63	33.78	outward	LRII-5	36.75	31.66	
PZ-9	39.20	33.84	outward	LRII-4	33.85	28.88	
PZ-10	37.05	33.85	outward	LRII-2	36.48	31.31	
PZ-11	38.94	33.74	outward	LRII-1	37.97	32.77	
			STAGE III				
PZ-12A	38.48	29.35	inward	GC-2	38.15	32.30	
PZ-13	35.36	28.34	inward	GC-3	35.02	29.26	
PZ-14A	34.58	24.99	inward	GC-4A	34.96	29.74	
PZ-15C	40.46	24.22	inward	PZ-15A	39.79	32.03	
PZ-16B	40.22	25.03	inward	PZ-16A	39.05	28.63	
PZ-17	40.57	28.85	inward	SG-2		29.48	Dry 28.90
PZ-18	40.16	28.92	inward	SG-3		33.50	Dry 33.50

Additional In-House Monitoring Data

<u>Stage I</u>						
PZ-2	42.47	30.06	inward	MW-3	42.32	33.74
<u>Stage II</u>						
PZ-9	39.20	33.84	outward	LRII-3	33.47	28.22
<u>Stage III</u>						
PZ-15C	40.46	24.22	inward	GC-1A	31.75	27.18
PZ-16B	40.22	25.03	inward	GC-5	36.46	28.99
PZ-17	40.57	28.85	inward	GC-6	39.02	31.27

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999).

Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002.

PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: October 7 and 14, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
November 2004

Inside Slurry Wall

Outside Slurry Wall

Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
STAGE I						
PZ-1	42.55	29.15	inward	MW-5	39.88	31.32
PZ-2	42.47	29.97	inward	MW-2	41.13	31.80
PZ-3A	44.90	29.40	inward	MW-1	42.58	33.33
PZ-4A	47.73	29.95	inward	CW-4	37.48	35.08
PZ-5	43.94	30.30	inward	CW-5A	41.18	38.59
PZ-6	44.73	30.97	inward	SG-1		32.80
PZ-7	47.76	30.10	inward	MW-6	39.29	32.98
PZ-19	45.87	28.64	inward	PZ-11	38.94	33.44
STAGE II						
PZ-8	37.63	33.36	outward	LRII-5	36.75	30.39
PZ-9	39.20	33.45	outward	LRII-4	33.85	27.63
PZ-10	37.05	33.34	outward	LRII-2	36.48	30.21
PZ-11	38.94	33.44	outward	LRII-1	37.97	31.97
STAGE III						
PZ-12A	38.48	28.69	inward	GC-2	38.15	32.55
PZ-13	35.36	27.35	inward	GC-3	35.02	29.32
PZ-14A	34.58	21.18	inward	GC-4A	34.96	29.75
PZ-15C	40.46	20.82	inward	PZ-15A	39.79	32.06
PZ-16B	40.22	21.21	inward	PZ-16A	39.05	28.83
PZ-17	40.57	28.54	inward	SG-2		29.53
PZ-18	40.16	28.82	inward	SG-3		33.32
Dry 32.80						
Dry 28.90						
Dry 33.50						

Additional In-House Monitoring Data

<u>Stage I</u>						
PZ-2	42.47	29.97	inward	MW-3	42.32	32.98
Stage II						
PZ-9	39.20	33.45	outward	LRII-3	33.47	26.97
Stage III						
PZ-15C	40.46	20.82	inward	GC-1A	31.75	27.04
PZ-16B	40.22	21.21	inward	GC-5	36.46	28.88
PZ-17	40.57	28.54	inward	GC-6	39.02	30.61

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: November 5, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
December 2004

Inside Slurry Wall

Outside Slurry Wall

Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
STAGE I						
PZ-1	42.55	29.17	inward	MW-5	39.88	31.24
PZ-2	42.47	29.98	inward	MW-2	41.13	31.65
PZ-3A	44.90	29.82	inward	MW-1	42.58	32.97
PZ-4A	47.73	30.07	inward	CW-4	37.48	35.02
PZ-5	43.94	30.25	inward	CW-5A	41.18	38.65
PZ-6	44.73	30.99	inward	SG-1		33.41
PZ-7	47.76	30.02	inward	MW-6	39.29	33.10
PZ-19	45.87	28.72	inward	PZ-11	38.94	33.43

Dry 32.80

			STAGE II			
PZ-8	37.63	33.40	outward	LRII-5	36.75	29.87
PZ-9	39.20	33.40	outward	LRII-4	33.85	27.10
PZ-10	37.05	33.40	outward	LRII-2	36.48	29.95
PZ-11	38.94	33.43	outward	LRII-1	37.97	32.01

			STAGE III			
PZ-12A	38.48	28.50	inward	GC-2	38.15	32.23
PZ-13	35.36	26.85	inward	GC-3	35.02	29.18
PZ-14A	34.58	20.86	inward	GC-4A	34.96	29.94
PZ-15C	40.46	20.62	inward	PZ-15A	39.79	31.57
PZ-16B	40.22	21.10	inward	PZ-16A	39.05	28.82
PZ-17	40.57	28.43	inward	SG-2		29.35
PZ-18	40.16	28.81	inward	SG-3		33.50

Dry 28.90
Dry 33.50

Additional In-House Monitoring Data						
<u>Stage I</u>						
PZ-2	42.47	29.98	inward	MW-3	42.32	32.68
<u>Stage II</u>						
PZ-9	39.20	33.40	outward	LRII-3	33.47	26.44
<u>Stage III</u>						
PZ-15C	40.46	20.62	inward	GC-1A	31.75	27.91
PZ-16B	40.22	21.10	inward	GC-5	36.46	29.13
PZ-17	40.57	28.43	inward	GC-6	39.02	30.50

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: December 1, 2004

Manatee County Lena Road Landfill
Groundwater Gradient
January 2005

Inside Slurry Wall

Outside Slurry Wall

Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
			STAGE I			
PZ-1	42.55	29.07	inward	MW-5	39.88	31.50
PZ-2	42.47	29.95	inward	MW-2	41.13	31.80
PZ-3A	44.90	29.13	inward	MW-1	42.58	33.56
PZ-4A	47.73	29.93	inward	CW-4	37.48	35.16
PZ-5	43.94	30.23	inward	CW-5A	41.18	38.83
PZ-6	44.73	30.98	inward	SG-1		33.60
PZ-7	47.76	30.00	inward	MW-6	39.29	33.48
PZ-19	45.87	28.62	inward	PZ-11	38.94	33.53
			STAGE II			
PZ-8	37.63	33.45	outward	LRII-5	36.75	30.15
PZ-9	39.20	33.51	outward	LRII-4	33.85	27.09
PZ-10	37.05	33.48	outward	LRII-2	36.48	30.18
PZ-11	38.94	33.53	outward	LRII-1	37.97	32.47
			STAGE III			
PZ-12A	38.48	28.60	inward	GC-2	38.15	32.87
PZ-13	35.36	26.27	inward	GC-3	35.02	29.43
PZ-14A	34.58	21.09	inward	GC-4A	34.96	30.16
PZ-15C	40.46	20.78	inward	PZ-15A	39.79	31.03
PZ-16B	40.22	21.16	inward	PZ-16A	39.05	28.95
PZ-17	40.57	28.47	inward	SG-2		29.10
PZ-18	40.16	28.97	inward	SG-3		33.50

Dry 32.80

Dry 28.90

Dry 33.50

Additional In-House Monitoring Data

<u>Stage I</u>						
PZ-2	42.47	29.95	inward	MW-3	42.32	33.58
<u>Stage II</u>						
PZ-9	39.20	33.51	outward	LRII-3	33.47	26.62
<u>Stage III</u>						
PZ-15C	40.46	20.78	inward	GC-1A	31.75	28.12
PZ-16B	40.22	21.16	inward	GC-5	36.46	29.22
PZ-17	40.57	28.47	inward	GC-6	39.02	30.72

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999).

Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002.

PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: January 7, 2005

Manatee County Lena Road Landfill
Groundwater Gradient
February 2005

Inside Slurry Wall

Outside Slurry Wall

Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
STAGE I						
PZ-1	42.55	29.16	inward	MW-5	39.88	31.35
PZ-2	42.47	29.96	inward	MW-2	41.13	31.78
PZ-3A	44.90	29.15	inward	MW-1	42.58	33.79
PZ-4A	47.73	29.95	inward	CW-4	37.48	35.22
PZ-5	43.94	30.24	inward	CW-5A	41.18	38.84
PZ-6	44.73	31.10	inward	SG-1		33.83
PZ-7	47.76	30.01	inward	MW-6	39.29	33.30
PZ-19	45.87	28.71	inward	PZ-11	38.94	33.22
Dry 32.80						
STAGE II						
PZ-8	37.63	33.20	outward	LRII-5	36.75	29.70
PZ-9	39.20	33.26	outward	LRII-4	33.85	26.55
PZ-10	37.05	33.13	outward	LRII-2	36.48	29.33
PZ-11	38.94	33.22	outward	LRII-1	37.97	31.85
Dry 28.90						
STAGE III						
PZ-12A	38.48	28.44	inward	GC-2	38.15	31.98
PZ-13	35.36	26.00	inward	GC-3	35.02	29.23
PZ-14A	34.58	20.79	inward	GC-4A	34.96	29.88
PZ-15C	40.46	20.66	inward	PZ-15A	39.79	31.77
PZ-16B	40.22	21.13	inward	PZ-16A	39.05	28.94
PZ-17	40.57	28.38	inward	SG-2		29.40
PZ-18	40.16	28.79	inward	SG-3		33.50
Dry 33.50						

Additional In-House Monitoring Data

<u>Stage I</u>						
PZ-2	42.47	29.96	inward	MW-3	42.32	33.55
<u>Stage II</u>						
PZ-9	39.20	33.26	outward	LRII-3	33.47	26.10
<u>Stage III</u>						
PZ-15C	40.46	20.66	inward	GC-1A	31.75	27.96
PZ-16B	40.22	21.13	inward	GC-5	36.46	28.77
PZ-17	40.57	28.38	inward	GC-6	39.02	30.57

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: February 17, 2005

Manatee County Lena Road Landfill
Groundwater Gradient
March 2005

Inside Slurry Wall

Outside Slurry Wall

Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
			STAGE I			
PZ-1	42.55	29.21	inward	MW-5	39.88	32.20
PZ-2	42.47	29.92	inward	MW-2	41.13	33.00
PZ-3A	44.90	29.17	inward	MW-1	42.58	35.07
PZ-4A	47.73	29.98	inward	CW-4	37.48	35.84
PZ-5	43.94	31.29	inward	CW-5A	41.18	39.46
PZ-6	44.73	31.03	inward	SG-1		36.14
PZ-7	47.76	30.11	inward	MW-6	39.29	36.63
PZ-19	45.87	28.73	inward	PZ-11	38.94	34.35
			STAGE II			
PZ-8	37.63	34.55	outward	LRII-5	36.75	33.24
PZ-9	39.20	34.45	outward	LRII-4	33.85	29.04
PZ-10	37.05	34.44	outward	LRII-2	36.48	33.17
PZ-11	38.94	34.35	inward	LRII-1	37.97	34.78
			STAGE III			
PZ-12A	38.48	29.45	inward	GC-2	38.15	34.30
PZ-13	35.36	26.94	inward	GC-3	35.02	30.78
PZ-14A	34.58	24.39	inward	GC-4A	34.96	31.99
PZ-15C	40.46	24.94	inward	PZ-15A	39.79	32.41
PZ-16B	40.22	25.52	inward	PZ-16A	39.05	30.15
PZ-17	40.57	28.62	inward	SG-2		30.50
PZ-18	40.16	29.43	inward	SG-3		33.90
						Dry 32.80
						Dry 28.90
						Dry 33.50

Additional In-House Monitoring Data

<u>Stage I</u>						
PZ-2	42.47	29.92	inward	MW-3	42.32	34.73
<u>Stage II</u>						
PZ-9	39.20	34.45	outward	LRII-3	33.47	28.86
<u>Stage III</u>						
PZ-15C	40.46	24.94	inward	GC-1A	31.75	29.58
PZ-16B	40.22	25.52	inward	GC-5	36.46	30.54
PZ-17	40.57	28.62	inward	GC-6	39.02	33.21

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: March 17, 2005

Manatee County Lena Road Landfill
Groundwater Gradient
April 2005

Inside Slurry Wall **Outside Slurry Wall**

Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
			STAGE I			
PZ-1	42.55	29.07	inward	MW-5	39.88	31.72
PZ-2	42.47	29.93	inward	MW-2	41.13	32.53
PZ-3A	44.90	29.10	inward	MW-1	42.58	34.43
PZ-4A	47.73	29.85	inward	CW-4	37.48	35.24
PZ-5	43.94	30.20	inward	CW-5A	41.18	38.68
PZ-6	44.73	30.96	inward	SG-1		34.06
PZ-7	47.76	30.00	inward	MW-6	39.29	34.15
PZ-19	45.87	28.64	inward	PZ-11	38.94	32.49
						Dry 32.80
			STAGE II			
PZ-8	37.63	32.39	outward	LRII-5	36.75	32.24
PZ-9	39.20	32.70	outward	LRII-4	33.85	28.51
PZ-10	37.05	32.69	outward	LRII-2	36.48	31.55
PZ-11	38.94	32.49	inward	LRII-1	37.97	33.68
			STAGE III			
PZ-12A	38.48	28.59	inward	GC-2	38.15	33.34
PZ-13	35.36	27.19	inward	GC-3	35.02	29.85
PZ-14A	34.58	21.57	inward	GC-4A	34.96	30.83
PZ-15C	40.46	21.04	inward	PZ-15A	39.79	32.04
PZ-16B	40.22	21.06	inward	PZ-16A	39.05	28.97
PZ-17	40.57	28.53	inward	SG-2		30.82
PZ-18	40.16	28.87	inward	SG-3		33.80
						Dry 28.90
						Dry 33.50

Additional In-House Monitoring Data						
<u>Stage I</u>						
PZ-2	42.47	29.93	inward	MW-3	42.32	34.21
<u>Stage II</u>						
PZ-9	39.20	32.70	outward	LRII-3	33.47	27.98
<u>Stage III</u>						
PZ-15C	40.46	21.04	inward	GC-1A	31.75	27.65
PZ-16B	40.22	21.06	inward	GC-5	36.46	29.36
PZ-17	40.57	28.53	inward	GC-6	39.02	31.09

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: April 15, 2005

Manatee County Lena Road Landfill
Groundwater Gradient
May 2005

Inside Slurry Wall

Outside Slurry Wall

Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
			STAGE I			
PZ-1	42.55	29.07	inward	MW-5	39.88	31.72
PZ-2	42.47	29.93	inward	MW-2	41.13	32.53
PZ-3A	44.90	29.10	inward	MW-1	42.58	34.43
PZ-4A	47.73	29.85	inward	CW-4	37.48	35.24
PZ-5	43.94	30.20	inward	CW-5A	41.18	38.68
PZ-6	44.73	30.96	inward	SG-1		34.06
PZ-7	47.76	30.00	inward	MW-6	39.29	34.15
PZ-19	45.87	28.64	inward	PZ-11	38.94	32.49
			STAGE II			
PZ-8	37.63	32.39	outward	LRII-5	36.75	32.24
PZ-9	39.20	32.70	outward	LRII-4	33.85	28.51
PZ-10	37.05	32.69	outward	LRII-2	36.48	31.55
PZ-11	38.94	32.49	inward	LRII-1	37.97	33.68
			STAGE III			
PZ-12A	38.48	28.59	inward	GC-2	38.15	33.34
PZ-13	35.36	27.19	inward	GC-3	35.02	29.85
PZ-14A	34.58	21.57	inward	GC-4A	34.96	30.83
PZ-15C	40.46	21.04	inward	PZ-15A	39.79	32.04
PZ-16B	40.22	21.06	inward	PZ-16A	39.05	28.97
PZ-17	40.57	28.53	inward	SG-2		30.82
PZ-18	40.16	28.87	inward	SG-3		33.80
						Dry 32.80
						Dry 28.90
						Dry 33.50

Additional In-House Monitoring Data

<u>Stage I</u>						
PZ-2	42.47	29.93	inward	MW-3	42.32	34.21
<u>Stage II</u>						
PZ-9	39.20	32.70	outward	LRII-3	33.47	27.98
<u>Stage III</u>						
PZ-15C	40.46	21.04	inward	GC-1A	31.75	27.65
PZ-16B	40.22	21.06	inward	GC-5	36.46	29.36
PZ-17	40.57	28.53	inward	GC-6	39.02	31.09

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: May 5, 2005

Manatee County Lena Road Landfill
Groundwater Gradient
June 2005

Inside Slurry Wall

Outside Slurry Wall

Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
			STAGE I			
PZ-1	42.55	29.23	<i>inward</i>	MW-5	39.88	32.45
PZ-2	42.47	29.02	<i>inward</i>	MW-2	41.13	33.23
PZ-3A	44.90	29.20	<i>inward</i>	MW-1	42.58	34.68
PZ-4A	47.73	29.97	<i>inward</i>	CW-4	37.48	35.30
PZ-5	43.94	26.24	<i>inward</i>	CW-5A	41.18	38.79
PZ-6	44.73	31.20	<i>inward</i>	SG-1		34.05
PZ-7	47.76	30.08	<i>inward</i>	MW-6	39.29	34.91
PZ-19	45.87	28.73	<i>inward</i>	PZ-11	38.94	33.29
			STAGE II			Dry 32.80
PZ-8	37.63	33.25	<i>outward</i>	LRII-5	36.75	32.81
PZ-9	39.20	33.48	<i>outward</i>	LRII-4	33.85	29.36
PZ-10	37.05	33.42	<i>outward</i>	LRII-2	36.48	32.08
PZ-11	38.94	33.29	<i>inward</i>	LRII-1	37.97	33.95
			STAGE III			
PZ-12A	38.48	28.95	<i>inward</i>	GC-2	38.15	32.36
PZ-13	35.36	29.18	<i>inward</i>	GC-3	35.02	29.93
PZ-14A	34.58	22.93	<i>inward</i>	GC-4A	34.96	30.80
PZ-15C	40.46	21.38	<i>inward</i>	PZ-15A	39.79	32.17
PZ-16B	40.22	21.20	<i>inward</i>	PZ-16A	39.05	28.93
PZ-17	40.57	29.01	<i>inward</i>	SG-2		29.40
PZ-18	40.16	29.23	<i>inward</i>	SG-3		33.36
						Dry 28.90
						Dry 33.50

Additional In-House Monitoring Data

<u>Stage I</u>						
PZ-2	42.47	30.02	<i>inward</i>	MW-3	42.32	34.64
<u>Stage II</u>						
PZ-9	39.20	33.48	<i>outward</i>	LRII-3	33.47	27.67
<u>Stage III</u>						
PZ-15C	40.46	21.38	<i>inward</i>	GC-1A	31.75	28.73
PZ-16B	40.22	21.20	<i>inward</i>	GC-5	36.46	29.27
PZ-17	40.57	29.01	<i>inward</i>	GC-6	39.02	31.43

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: June 16, 2005

Manatee County Lena Road Landfill
Groundwater Gradient
July 2005

Inside Slurry Wall

Outside Slurry Wall

Piezometer	Riser Elevation	Groundwater Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
STAGE I						
PZ-1	42.55	29.09	<i>inward</i>	MW-5	39.88	29.16
PZ-2	42.47	29.98	<i>inward</i>	MW-2	41.13	32.30
PZ-3A	44.90	29.15	<i>inward</i>	MW-1	42.58	34.30
PZ-4A	47.73	29.90	<i>inward</i>	CW-4	37.48	35.49
PZ-5	43.94	30.15	<i>inward</i>	CW-5A	41.18	38.80
PZ-6	44.73	31.06	<i>inward</i>	SG-1		34.15
PZ-7	47.76	30.17	<i>inward</i>	MW-6	39.29	34.96
PZ-19	45.87	28.72	<i>inward</i>	PZ-11	38.94	33.31
STAGE II						
PZ-8	37.63	33.35	<i>outward</i>	LRII-5	36.75	33.08
PZ-9	39.20	33.49	<i>outward</i>	LRII-4	33.85	29.62
PZ-10	37.05	33.50	<i>outward</i>	LRII-2	36.48	32.17
PZ-11	38.94	33.31	<i>inward</i>	LRII-1	37.97	33.55
STAGE III						
PZ-12A	38.48	28.98	<i>inward</i>	GC-2	38.15	33.76
PZ-13	35.36	29.39	<i>inward</i>	GC-3	35.02	30.08
PZ-14A	34.58	23.02	<i>inward</i>	GC-4A	34.96	31.18
PZ-15C	40.46	21.37	<i>inward</i>	PZ-15A	39.79	32.58
PZ-16B	40.22	21.12	<i>inward</i>	PZ-16A	39.05	28.95
PZ-17	40.57	28.97	<i>inward</i>	SG-2		29.50
PZ-18	40.16	29.35	<i>inward</i>	SG-3		33.70
Dry 32.80						
Dry 28.90						
Dry 33.50						

Additional In-House Monitoring Data

<u>Stage I</u>						
PZ-2	42.47	29.98	<i>inward</i>	MW-3	42.32	34.19
<u>Stage II</u>						
PZ-9	39.20	33.49	<i>outward</i>	LRII-3	33.47	30.27
<u>Stage III</u>						
PZ-15C	40.46	21.37	<i>inward</i>	GC-1A	31.75	27.85
PZ-16B	40.22	21.12	<i>inward</i>	GC-5	36.46	29.56
PZ-17	40.57	28.97	<i>inward</i>	GC-6	39.02	32.04

Notes: The table is arranged so any piezometer can be compared to its corresponding monitoring point. For example, PZ-1 is located on the opposite side of the slurry wall from MW-5. Thus data from PZ-1 are compared to data from MW-5.

Report includes riser elevations determined by certified survey conducted by County Staff (Aug. 10, 1999). Riser elevations for MW-1, MW-3, PZ-9, PZ-11 and PZ-19 were resurveyed on November 13, 2002. PZ-12A and GC-4A were resurveyed in April 2003.

Data Collection: July 18, 2005

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: SEPTEMBER 2005

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.43	inward	GW-1	38.68	31.65
P-2	42.32	28.46	inward	GW-2	40.92	31.10
P-3 *	42.32	28.46	inward	GW-3	39.40	32.39
P-4 *	42.32	28.46	inward	GW-4	40.53	31.47
P-5 *	42.32	28.46	inward	GW-5	39.90	31.10
P-6 *	42.32	28.46	inward	GW-6	38.95	30.26
P-7 (PZ-13) *	35.36	24.51	inward	GW-7	39.49	28.21
P-8	40.21	21.92	inward	GW-8	39.75	26.98
P-9	39.97	20.22	inward	GW-9	39.65	27.38
P-10	39.86	20.55	inward	GW-10	38.34	28.78
P-11(PZ-17) **	40.57	28.32	inward	GW-11 (GC-6)**	39.02	30.17
P-12	43.28	29.37	inward	GW-12	42.09	30.50
P-13	44.78	30.23	inward	GW-13	44.79	34.61
P-14	45.09	29.78	inward	GW-14	39.63	34.64
P-15	45.57	30.87	inward	GW-15	42.33	36.23
P-16	44.67	31.02	inward	GW-16	44.41	37.00
P-17	44.28	29.83	inward	GW-17	42.19	34.28

Comments:

* Piezometers P-3, P-4, P-5, P-6 and P-7 could not be installed due to construction in this area.

The reading from P-2 was used to compare water levels to GW-3, GW-4, GW-5 and GW-6, and PZ-13 for GW-7.

** P-11 and GW-11 could not be installed due to construction in this area.

PZ-17 and GC-6 were left in-place and used to measure the gradient in this area.

Date Data Collected: September 14, 2005

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: OCTOBER 2005

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.37	inward	GW-1	38.68	31.00
P-2	42.32	28.40	inward	GW-2	40.92	30.44
P-3 *	42.32	28.40	inward	GW-3	39.40	31.72
P-4 (PZ-12A)	38.48	28.19	inward	GW-4	40.53	30.91
P-5 *	38.48	28.19	inward	GW-5	39.90	30.42
P-6 *	35.36	25.69	inward	GW-6	38.95	29.58
P-7 (PZ-13)	35.36	25.69	inward	GW-7	39.49	27.45
P-8	40.21	21.37	inward	GW-8	39.75	26.39
P-9	39.97	20.19	inward	GW-9	39.65	26.53
P-10	39.86	20.52	inward	GW-10	38.34	26.73
P-11(PZ_17) **	40.57	28.21	inward	GW-11 (GC-6)**	39.02	30.14
P-12	43.28	29.36	inward	GW-12	42.09	30.57
P-13	44.78	30.21	inward	GW-13	44.79	34.37
P-14	45.09	29.76	inward	GW-14	39.63	34.61
P-15	45.57	30.88	inward	GW-15	42.33	36.11
P-16	44.67	31.07	inward	GW-16	44.41	36.87
P-17	44.28	29.79	inward	GW-17	42.19	34.17

Comments:

* Piezometers P-3, P-4, P-5, P-6 and P-7 could not be installed due to construction in this area.

The reading from P-2 was used to compare water levels to GW-2 & GW-3; PZ-12A for GW-4 & GW-5; and PZ-13 for GW-6 & GW-7.

** P-11 and GW-11 could not be installed due to construction in this area.

PZ-17 and GC-6 were left in-place and used to measure the gradient in this area.

Date Data Collected: October 17, 2005

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: NOVEMBER 2005

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.45	inward	GW-1	38.68	31.53
P-2	42.32	28.50	inward	GW-2	40.92	31.15
P-3 *	42.32	30.36	inward	GW-3	39.40	32.95
P-4 (PZ-12A)	38.48	26.52	inward	GW-4	40.53	32.24
P-5 *	38.48	26.52	inward	GW-5	39.90	31.46
P-6 *	35.36	21.91	inward	GW-6	38.95	31.34
P-7 (PZ-13)	35.36	21.91	inward	GW-7	39.49	28.28
P-8	40.21	17.92	inward	GW-8	39.75	27.28
P-9	39.97	19.84	inward	GW-9	39.65	26.99
P-10	39.86	20.58	inward	GW-10	38.34	27.27
P-11(PZ-17) **	40.57	28.44	inward	GW-11 (GC-6)**	39.02	30.55
P-12	43.28	29.39	inward	GW-12	42.09	30.73
P-13	44.78	30.18	inward	GW-13	44.79	34.47
P-14	45.09	29.79	inward	GW-14	39.63	34.80
P-15	45.57	30.93	inward	GW-15	42.33	36.17
P-16	44.67	31.02	inward	GW-16	44.41	36.94
P-17	44.28	29.85	inward	GW-17	42.19	34.46

Comments:

* Piezometers P-3, P-4, P-5, P-6 and P-7 could not be installed due to construction in this area.

The reading from P-2 was used to compare water levels to GW-2 & GW-3; PZ-12A for GW-4 & GW-5; and PZ-13 for GW-6 & GW-7.

** P-11 and GW-11 could not be installed due to construction in this area.

PZ-17 and GC-6 were left in-place and used to measure the gradient in this area.

Date Data Collected: November 18, 2005

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: DECEMBER 2005

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.36	inward	GW-1	38.68	30.53
P-2	42.32	28.41	inward	GW-2	40.92	30.50
P-3 *	42.32	28.84	inward	GW-3	39.40	32.43
P-4 (PZ-12A) #	38.48	25.00	inward	GW-4	40.53	31.96
P-5 *	38.48	25.00	inward	GW-5	39.90	31.09
P-6 *	35.36	21.88	inward	GW-6	38.95	30.05
P-7 (PZ-13)	35.36	21.57	inward	GW-7	39.49	27.76
P-8	40.21	18.93	inward	GW-8	39.75	26.83
P-9	39.97	19.78	inward	GW-9	39.65	26.86
P-10	39.86	20.60	inward	GW-10	38.34	27.05
P-11(PZ-17) **	40.57	28.17	inward	GW-11 (GC-6)**	39.02	30.35
P-12	43.28	29.34	inward	GW-12	42.09	30.67
P-13	44.78	30.22	inward	GW-13	44.79	33.64
P-14	45.09	29.76	inward	GW-14	39.63	34.49
P-15	45.57	30.89	inward	GW-15	42.33	35.77
P-16	44.67	31.09	inward	GW-16	44.41	36.22
P-17	44.28	29.83	inward	GW-17	42.19	33.81

Comments:

* Piezometers P-3, P-4, P-5, P-6 and P-7 could not be installed due to construction in this area.

The reading from P-2 was used to compare water levels to GW-2 & GW-3; PZ-12A for GW-4 & GW-5; and PZ-13 for GW-6 & GW-7.

** P-11 and GW-11 could not be installed due to construction in this area.

PZ-17 and GC-6 were left in-place and used to measure the gradient in this area.

= Obstruction in well; could not get water reading; thick mud on probe which required cleaning.

Date Data Collected: December 21, 2005

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: JANUARY 2006

Piezometers Inside Slurry Wall				Groundwater Monitoring Wells Outside Slurry Wall		
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.42	inward	GW-1	38.68	30.46
P-2	42.32	28.44	inward	GW-2	40.92	30.45
P-3*	42.32	28.44	inward	GW-3	39.40	32.29
P-4*	42.32	28.44	inward	GW-4	40.53	31.66
P-5 *	42.32	28.44	inward	GW-5	39.90	30.89
P-6 *	35.36	20.71	inward	GW-6	38.95	29.83
P-7 (PZ-13)	35.36	20.71	inward	GW-7	39.49	27.60
P-8	40.21	18.79	inward	GW-8	39.75	26.79
P-9	39.97	19.71	inward	GW-9	39.65	26.82
P-10	39.86	20.53	inward	GW-10	38.34	27.10
P-11(PZ_17) **	40.57	24.90	inward	GW-11 (GC-6)**	39.02	30.35
P-12	43.28	29.36	inward	GW-12	42.09	30.85
P-13	44.78	30.21	inward	GW-13	44.79	33.71
P-14	45.09	29.77	inward	GW-14	39.63	34.47
P-15	45.57	30.93	inward	GW-15	42.33	35.74
P-16	44.67	31.09	inward	GW-16	44.41	36.06
P-17	44.28	29.89	inward	GW-17	42.19	33.82

Comments:

* Piezometers P-3, P-4, P-5, P-6 and P-7 could not be installed due to construction in this area.

The reading from P-2 was used to compare water levels to GW-2, GW-3, GW-4 & GW-5; and PZ-13 for GW-6 & GW-7.

** P-11 and GW-11 could not be installed due to construction in this area.

PZ-17 and GC-6 were left in-place and used to measure the gradient in this area.

Date Data Collected: January 17, 2006

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: FEBRUARY 2006

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.34	inward	GW-1	38.68	30.11
P-2	42.32	28.40	inward	GW-2	40.92	30.10
P-3*	42.32	28.40	inward	GW-3	39.40	32.01
P-4*	42.32	28.40	inward	GW-4	40.53	31.51
P-5 *	42.32	28.40	inward	GW-5	39.90	30.66
P-6 *	35.36	20.35	inward	GW-6	38.95	29.62
P-7 (PZ-13)	35.36	20.35	inward	GW-7	39.49	27.40
P-8	40.21	18.68	inward	GW-8	39.75	26.66
P-9	39.97	19.60	inward	GW-9	39.65	26.91
P-10	39.86	20.45	inward	GW-10	38.34	27.03
P-11(PZ_17) **	40.57	24.60	inward	GW-11 (GC-6)**	39.02	30.22
P-12	43.28	29.36	inward	GW-12	42.09	30.77
P-13	44.78	30.22	inward	GW-13	44.79	33.39
P-14	45.09	29.80	inward	GW-14	39.63	34.46
P-15	45.57	30.89	inward	GW-15	42.33	35.70
P-16	44.67	31.09	inward	GW-16	44.41	36.38
P-17	44.28	29.83	inward	GW-17	42.19	33.64

Comments:

* Piezometers P-3, P-4, P-5, P-6 and P-7 could not be installed due to construction in this area.

The reading from P-2 was used to compare water levels to GW-2, GW-3, GW-4 & GW-5; and PZ-13 for GW-6 & GW-7.

** P-11 and GW-11 could not be installed due to construction in this area.

PZ-17 and GC-6 were left in-place and used to measure the gradient in this area.

Date Data Collected: February 21, 2006

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: MARCH 2006

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.38	inward	GW-1	38.68	29.83
P-2	42.32	28.44	inward	GW-2	40.92	29.81
P-3 (P-2)*	42.32	28.44	inward	GW-3	39.40	31.46
P-4 (P-2)*	42.32	28.44	inward	GW-4	40.53	30.79
P-5 (P-2)*	42.32	28.44	inward	GW-5	39.90	30.10
P-6 (P-2) *	42.32	28.44	inward	GW-6	38.95	29.17
P-7 (P-8)*	40.21	18.65	inward	GW-7	39.49	27.06
P-8	40.21	18.65	inward	GW-8	39.75	26.30
P-9	39.97	19.56	inward	GW-9	39.65	26.54
P-10	39.86	20.44	inward	GW-10	38.34	26.53
P-11(PZ-17) **	40.57	24.42	inward	GW-11 (GC-6)**	39.02	29.94
P-12	43.28	29.36	inward	GW-12	42.09	30.50
P-13	44.78	30.18	inward	GW-13	44.79	31.94
P-14	45.09	29.78	inward	GW-14	39.63	34.10
P-15	45.57	30.90	inward	GW-15	42.33	35.68
P-16	44.67	31.07	inward	GW-16	44.41	36.18
P-17	44.28	29.90	inward	GW-17	42.19	33.52

Comments:

* Piezometers P-3, P-4, P-5, P-6 and P-7 could not be installed due to construction in this area.

The reading from P-2 was used to compare water levels to GW-2, GW-3, GW-4, GW-5 & GW-6; and P-8 for GW-7.

** P-11 and GW-11 could not be installed due to construction in this area.

PZ-17 and GC-6 were left in-place and used to measure the gradient in this area.

Date Data Collected: March 20, 2006

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: April 2006

Piezometers Inside Slurry Wall				Groundwater Monitoring Wells Outside Slurry Wall		
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.27	inward	GW-1	38.68	29.38
P-2	42.32	28.31	inward	GW-2	40.92	29.35
P-3 *	42.32	28.24	inward	GW-3	39.40	30.89
P-4 *	42.32	23.95	inward	GW-4	40.53	30.22
P-5 *	42.32	22.93	inward	GW-5	39.90	29.53
P-6 *	42.32	21.45	inward	GW-6	38.95	28.64
P-7*	42.32	20.62	inward	GW-7	39.49	26.54
P-8	40.21	18.62	inward	GW-8	39.75	25.78
P-9	39.97	19.48	inward	GW-9	39.65	26.25
P-10	39.86	19.33	inward	GW-10	38.34	26.15
P-11**	40.57	23.02	inward	GW-11 **	39.02	30.22
P-12	43.28	29.29	inward	GW-12	42.09	29.67
P-13	44.78	30.20	inward	GW-13	44.79	31.88
P-14	45.09	29.79	inward	GW-14	39.63	33.91
P-15	45.57	30.89	inward	GW-15	42.33	35.42
P-16	44.67	30.99	inward	GW-16	44.41	35.15
P-17	44.28	29.81	inward	GW-17	42.19	33.00

Comments:

* Piezometers P-3, P-4, P-5, P-6 and P-7 were installed but not surveyed. Riser elevations estimated based on P-2.

** P-11 and GW-11 were installed, but not surveyed. Riser elevations were estimated based on dike elevations.

Date Data Collected: April 21, 2006

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: May 2006

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.27	inward	GW-1	38.68	29.28
P-2	42.32	28.49	inward	GW-2	40.92	30.02
P-3 *	42.32	27.95	inward	GW-3	39.40	30.49
P-4 *	42.32	23.97	inward	GW-4	40.53	30.83
P-5 *	42.32	22.90	inward	GW-5	39.90	29.15
P-6 *	42.32	20.46	inward	GW-6	38.95	28.29
P-7*	42.32	20.64	inward	GW-7	39.49	26.13
P-8	40.21	18.62	inward	GW-8	39.75	25.45
P-9	39.97	19.54	inward	GW-9	39.65	26.05
P-10	39.86	19.32	inward	GW-10	38.34	25.80
P-11**	40.57	23.07	inward	GW-11 **	39.02	30.00
P-12	43.28	29.29	inward	GW-12	42.09	29.67
P-13	44.78	30.17	inward	GW-13	44.79	31.97
P-14	45.09	29.90	inward	GW-14	39.63	33.59
P-15	45.57	30.97	inward	GW-15	42.33	35.19
P-16	44.67	31.18	inward	GW-16	44.41	34.41
P-17	44.28	29.94	inward	GW-17	42.19	32.81

Comments:

* Piezometers P-3, P-4, P-5, P-6 and P-7 were installed but not surveyed. Riser elevations estimated based on P-2.

** P-11 and GW-11 were installed, but not surveyed. Riser elevations were estimated based on dike elevations.

Date Data Collected: May 11, 2006

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: June 2006

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.23	inward	GW-1	38.68	30.61
P-2	42.32	28.26	inward	GW-2	40.92	30.19
P-3	40.36	27.67	inward	GW-3	39.40	32.23
P-4	40.78	22.56	inward	GW-4	40.53	33.01
P-5	40.73	21.42	inward	GW-5	39.90	31.24
P-6	40.74	19.99	inward	GW-6	38.95	31.04
P-7	40.60	19.03	inward	GW-7	39.49	29.36
P-8	40.21	18.74	inward	GW-8	39.75	29.57
P-9	39.97	19.82	inward	GW-9	39.65	28.91
P-10	39.86	19.42	inward	GW-10	38.34	30.12
P-11	40.52	22.95	inward	GW-11	38.26	31.05
P-12	43.28	29.34	inward	GW-12	42.09	31.61
P-13	44.78	30.24	inward	GW-13	44.79	32.92
P-14	45.09	29.84	inward	GW-14	39.63	34.54
P-15	45.57	30.90	inward	GW-15	42.33	35.46
P-16	44.67	31.01	inward	GW-16	44.41	34.11
P-17	44.28	29.85	inward	GW-17	42.19	34.19

Comments:

Date Data Collected: June 15, 2006

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: July 2006

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.34	inward	GW-1	38.68	31.33
P-2	42.32	28.49	inward	GW-2	40.92	31.20
P-3	40.36	28.02	inward	GW-3	39.40	33.22
P-4	40.78	22.52	inward	GW-4	40.53	32.85
P-5	40.73	21.32	inward	GW-5	39.90	31.68
P-6	40.74	20.00	inward	GW-6	38.95	31.03
P-7	40.60	19.03	inward	GW-7	39.49	30.22
P-8	40.21	18.77	inward	GW-8	39.75	29.79
P-9	39.97	19.49	inward	GW-9	39.65	28.79
P-10	39.86	19.36	inward	GW-10	38.34	29.96
P-11	40.52	22.90	inward	GW-11	38.26	31.30
P-12	43.28	29.38	inward	GW-12	42.09	31.75
P-13	44.78	30.22	inward	GW-13	44.79	33.46
P-14	45.09	29.78	inward	GW-14	39.63	34.14
P-15	45.57	30.89	inward	GW-15	42.33	35.13
P-16	44.67	31.18	inward	GW-16	44.41	34.47
P-17	44.28	29.91	inward	GW-17	42.19	34.11

Comments:

Date Data Collected: July 18, 2006

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: August 2006

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.44	inward	GW-1	38.68	33.50
P-2	42.32	28.53	inward	GW-2	40.92	33.28
P-3	40.36	28.18	inward	GW-3	39.40	35.38
P-4	40.78	22.67	inward	GW-4	40.53	33.89
P-5	40.73	21.46	inward	GW-5	39.90	33.05
P-6	40.74	20.07	inward	GW-6	38.95	32.41
P-7	40.60	19.11	inward	GW-7	39.49	31.46
P-8	40.21	18.89	inward	GW-8	39.75	30.41
P-9	39.97	19.65	inward	GW-9	39.65	29.95
P-10	39.86	19.38	inward	GW-10	38.34	30.81
P-11	40.52	22.93	inward	GW-11	38.26	32.07
P-12	43.28	29.42	inward	GW-12	42.09	32.44
P-13	44.78	30.21	inward	GW-13	44.79	33.74
P-14	45.09	29.81	inward	GW-14	39.63	34.85
P-15	45.57	30.92	inward	GW-15	42.33	35.81
P-16	44.67	30.97	inward	GW-16	44.41	35.96
P-17	44.28	29.92	inward	GW-17	42.19	35.23

Comments:

Date Data Collected: August 22, 2006

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: September 2006

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.70	inward	GW-1	38.68	30.43
P-2	42.32	28.81	inward	GW-2	40.92	30.37
P-3	40.36	28.15	inward	GW-3	39.40	35.25
P-4	40.78	22.75	inward	GW-4	40.53	33.94
P-5	40.73	21.70	inward	GW-5	39.90	33.03
P-6	40.74	20.19	inward	GW-6	38.95	32.39
P-7	40.60	19.45	inward	GW-7	39.49	30.59
P-8	40.21	19.56	inward	GW-8	39.75	28.93
P-9	39.97	20.35	inward	GW-9	39.65	29.50
P-10	39.86	19.74	inward	GW-10	38.34	30.15
P-11	40.52	23.01	inward	GW-11	38.26	31.98
P-12	43.28	29.60	inward	GW-12	42.09	31.66
P-13	44.78	30.36	inward	GW-13	44.79	33.60
P-14	45.09	30.30	inward	GW-14	39.63	34.72
P-15	45.57	31.02	inward	GW-15	42.33	35.14
P-16	44.67	31.09	inward	GW-16	44.41	36.62
P-17	44.28	29.94	inward	GW-17	42.19	35.52

Comments:

Date Data Collected: September 19, 2006

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: October 2006

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.54	inward	GW-1	38.68	31.10
P-2	42.32	28.55	inward	GW-2	40.92	31.11
P-3	40.36	27.94	inward	GW-3	39.40	32.83
P-4	40.78	22.41	inward	GW-4	40.53	31.94
P-5	40.73	21.21	inward	GW-5	39.90	31.57
P-6	40.74	19.85	inward	GW-6	38.95	30.73
P-7	40.60	18.91	inward	GW-7	39.49	28.70
P-8	40.21	18.70	inward	GW-8	39.75	27.69
P-9	39.97	19.42	inward	GW-9	39.65	28.27
P-10	39.86	19.25	inward	GW-10	38.34	28.71
P-11	40.52	22.84	inward	GW-11	38.26	30.55
P-12	43.28	29.39	inward	GW-12	42.09	30.89
P-13	44.78	30.24	inward	GW-13	44.79	32.13
P-14	45.09	29.76	inward	GW-14	39.63	33.98
P-15	45.57	30.92	inward	GW-15	42.33	35.25
P-16	44.67	30.93	inward	GW-16	44.41	36.24
P-17	44.28	29.89	inward	GW-17	42.19	33.65

Comments:

Date Data Collected: October 12, 2006

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: November 2006

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.47	inward	GW-1	38.68	30.44
P-2	42.32	28.58	inward	GW-2	40.92	30.43
P-3	40.36	27.50	inward	GW-3	39.40	32.19
P-4	40.78	22.91	inward	GW-4	40.53	31.56
P-5	40.73	22.48	inward	GW-5	39.90	31.01
P-6	40.74	22.35	inward	GW-6	38.95	30.29
P-7	40.60	22.09	inward	GW-7	39.49	28.20
P-8	40.21	22.13	inward	GW-8	39.75	27.30
P-9	39.97	21.62	inward	GW-9	39.65	26.83
P-10	39.86	21.37	inward	GW-10	38.34	26.87
P-11	40.52	23.06	inward	GW-11	38.26	30.17
P-12	43.28	29.47	inward	GW-12	42.09	30.76
P-13	44.78	30.38	inward	GW-13	44.79	32.27
P-14	45.09	29.83	inward	GW-14	39.63	34.04
P-15	45.57	30.94	inward	GW-15	42.33	35.24
P-16	44.67	30.99	inward	GW-16	44.41	35.68
P-17	44.28	29.97	inward	GW-17	42.19	33.52

Comments:

Date Data Collected: November 9, 2006

Form Revised December 6, 2004

FIGURE L-7

Manatee County Lena Road Landfill

Monthly Groundwater Gradient Report

Month and Year: December 2006

Piezometers Inside Slurry Wall			Groundwater Monitoring Wells Outside Slurry Wall			
Piezometer	Riser Elevation	Leachate Elevation	Gradient Flow	Monitoring Well	Riser Elevation	Groundwater Elevation
P-1	42.68	29.41	inward	GW-1	38.68	30.03
P-2	42.32	28.50	inward	GW-2	40.92	29.98
P-3	40.36	26.13	inward	GW-3	39.40	31.30
P-4	40.78	22.19	inward	GW-4	40.53	30.70
P-5	40.73	21.11	inward	GW-5	39.90	30.15
P-6	40.74	19.85	inward	GW-6	38.95	29.33
P-7	40.60	18.92	inward	GW-7	39.49	27.26
P-8	40.21	18.62	inward	GW-8	39.75	26.26
P-9	39.97	19.54	inward	GW-9	39.65	26.56
P-10	39.86	19.37	inward	GW-10	38.34	26.57
P-11	40.52	22.80	inward	GW-11	38.26	29.57
P-12	43.28	29.45	inward	GW-12	42.09	29.50
P-13	44.78	30.37	inward	GW-13	44.79	32.22
P-14	45.09	29.85	inward	GW-14	39.63	34.03
P-15	45.57	30.97	inward	GW-15	42.33	35.33
P-16	44.67	31.05	inward	GW-16	44.41	35.10
P-17	44.28	29.93	inward	GW-17	42.19	33.46

Comments:

Date Data Collected: December 20, 2006

Form Revised December 20, 2004