Kennametal, Inc.
347 N. Taylor Street
Fallon, NV 89406-5730
Ph: (775) 428-6286 / F: (775) 423-8660
lon.bartoli@kennametal.com

KENNAMETAL

Paul Eckert
NDEP - Bureau of Waste Management
901 Stewart Street, Suite 4001
Carson City, NV 89701-5249

RECEIVED
ENVIRONMENTAL PROTECTION
SEP - 9 2014

35 SEP 2014

Re: Class III Landfill Permit

Paul,

It has been a pleasure to work with you and other waste management staff regarding our permitting needs. The enclosed package provides the required documentation necessary to perfect this process.

Pursuant to your email dated 15 MAY 2014, the following items are addressed:

1. For groundwater monitoring well data, please provide graphs of the constituents that have had detectable concentrations, plotted vs time over the entire period during which monitoring has been conducted.
* Well monitoring reports prepared by Shaw Engineering from May 2008 to present are attached.

2. Please include depth to water data from groundwater monitoring wells.
* Well monitoring reports prepared by Shaw Engineering from May 2008 to present are attached.

3. Please include an updated material characterization for the filter cake.
* There have been no relevant process changes since 2004.
* The characterization of the filter cakes is not significantly changed since the initial filing in 2004, and the submitted filter cake data applies.

4. Please provide a list of all solid waste streams from the process and then indicate which will be placed in the Class III landfill.
* The only solid waste present in landfill is the filter cakes identified on Permit Application.

5. Please provide a scale map showing that the waste disposal area will not be closer than 1000 feet from the nearby highway.
* Well monitoring reports prepared by Shaw Engineering in May 2014 are attached. Maps showing Current filter cake stockpiles and monitoring well locations are provided in section 2 page 3 of the report.

6. Please provide updated photos of the present configuration of the filter cake disposal area.
* Enclosed

Lon Bartoli
Senior Analyst, EHS

Enclosed:
15 MAY email / Cover letter
Updated permit Application
Copy of originally submitted application
2 Shaw Engineering reports (2008-2014)
Photos/map of present filter cake area

Class III INDUSTRIAL SOLID WASTE DISPOSAL SITE
PERMIT APPLICATION
Nevada Division of Environmental Protection
Solid Waste Branch

Instructions: Complete Sections I & II, attach the supporting information described in Section III, and sign Section IV.
[NAC 444.5715 "Class III site" defined. (NRS 444.560) "Class III site" means a disposal site which accepts only industrial solid waste]

Section I. Applicant Information

1. Land Owner

Name: Kennametal, Inc.
Address: 347 N. Taylor Street
City: Fallon State: NV Zip Code: 89406-5730
Phone: 775-428-6200

2. Facility Operator

Name: Mike Botsford
Address: 347 N. Taylor Street
City: Fallon State: NV Zip Code: 89406-5730
Phone: 775-428-6226

3. Owner/Operator name under which the Permit will be issued

Name: Kennametal, Inc.
Address: 347 N. Taylor Street
City: Fallon State: NV Zip Code: 89406-5730
Phone: 775-428-6200

Section II. Facility Information

1. **Location**

Name: Kennametal, Inc.

County:	Township/Range/Section:	Latitude & Longitude:
Churchill County	20 N / 28 E / Section 1	29 Deg 37'30" N / 118 Deg 47' 30"

Address: 10777 Lovelock Highway
City: Fallon State: NV Zip Code: 89406-9481
Phone: 775-428-6286

Section III Type of Facility

Sectors to be Served by the Facility

- ☐ Residential
- ☐ Commercial
- ☑ Industrial

Waste Types

Industrial Waste: "Industrial solid waste" means solid waste derived from industrial or manufacturing processes as defined at NAC 444.585:

List the types of waste(s) to be managed at the facility

Filter Cakes

Additional or Special Wastes to be Managed by the Facility

The special wastes listed below require a management plan specific to each, include as necessary and indicate those wastes by checking below.

- ☐ NAC 444.646 Disposal of special wastes: Sewage sludge, septic tank pumpings and medical wastes
- ☐ NAC 444.648 Disposal of special wastes: Waste tires.
- ☐ NAC 444.650 Disposal of special wastes: Waste oils.
- ☐ NAC 444.652 Disposal of special wastes: Construction and Demolition wastes.
- ☐ NAC 444.654 Disposal of special wastes: Septic tank pumping's and raw sewage.
- ☐ NAC 444.656 Disposal of special wastes: Untreated sewage sludge.
- ☐ NAC 444.976 Duties of operator who accepts asbestos. (NRS 618.775)

Section III. Supporting Information

All information required by NAC 444.733; 739, must be submitted as supporting information to this application.

1. Proof of ownership of the land on which the site is/or will be located
2. Facility Operating Plan [NAC 444.684] should contain at a minimum:
   - i. Site Overview
   - ii. Location Requirements NAC 444.735
   - iii. Personnel Requirements (with levels of Authority)/Training NAC 444.684
   - iv. Equipment Requirements with contingencies and descriptions NAC 444.684
   - v. Litter/Dust control program NAC 444.684
   - vi. Waste Characterization and Acceptance Criteria NAC 444.737
   - vii. Vector Control NAC 444.6678
   - viii. Cover Requirements (daily etc.) NAC 444.688
   - ix. Inspections & Operating Records NAC 444.7025
   - x. Contingency/Emergency Plan (Health & Safety) [Integrated Site Wide Contingency Plan] NAC 444.684
   - xi. Groundwater/Methane Monitoring [Control of Explosive Gasses] NAC 444.683/NAC 444.7483/NAC 444.667 [Sampling/QAQC/Statistical Analysis Plan(s)]
   - xii. Leachate Management NAC 444.684
   - xiii. Surface Water Management requirements (drainage from active areas) NAC 444.6885
   - xiv. Closure (Incremental where applicable) Post-Closure Procedures/Requirements With Financial Assurance NAC 444.6895
   - xv. Additional Requirements for Operating (CQA Plans, etc.)
   - xvi. Miscellaneous Requirements NAC 444.747
   - xvii. Additional Site Specific Requirements
   - xviii. Reserved
3. The Design Report must contain all those items in NAC 444.739
4. The Investigatory Report would contain the information necessary to support the design NAC 444.739(5)

Class III INDUSTRIAL SOLID WASTE DISPOSAL SITE
PERMIT APPLICATION
Nevada Division of Environmental Protection
Solid Waste Branch

Section IV. Certification

I certify that I am familiar with the information contained in the application and I believe that the information provided in this application is complete and accurate.

Printed Name of Owner Mike Botsford Title or Authority of Signatory Plant Manager

Legal Signature _____ Date of Signing 9/05/2014

Printed Name of Operator Lon Bartoli Title or Authority of Signatory Senior Analyst, EHS

Legal Signature _____ Date of Signing 9/05/2014

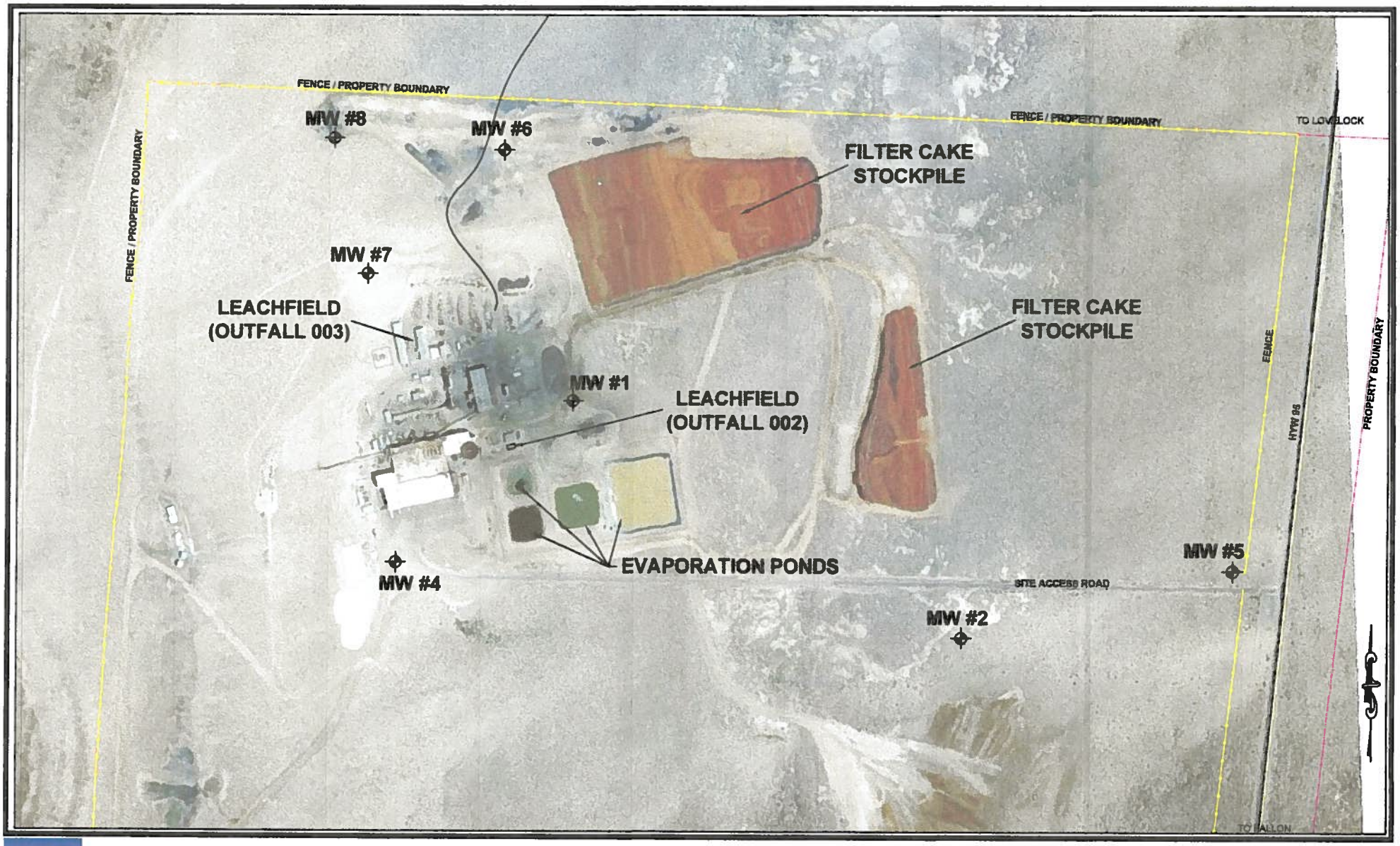
Send the completed application and supporting information to:

Supervisor
Nevada Division of Environmental Protection
Bureau of Solid Waste
901 So. Stewart Street, Suite 4001
Carson City, NV 89701-5249
(775) 687-9467 ph
(775) 687-5856 fax

For more information, please visit http://ndep.nv.gov/bwm/swpermit.htm or call (775) 687-9467

Attachment 1

Site Map



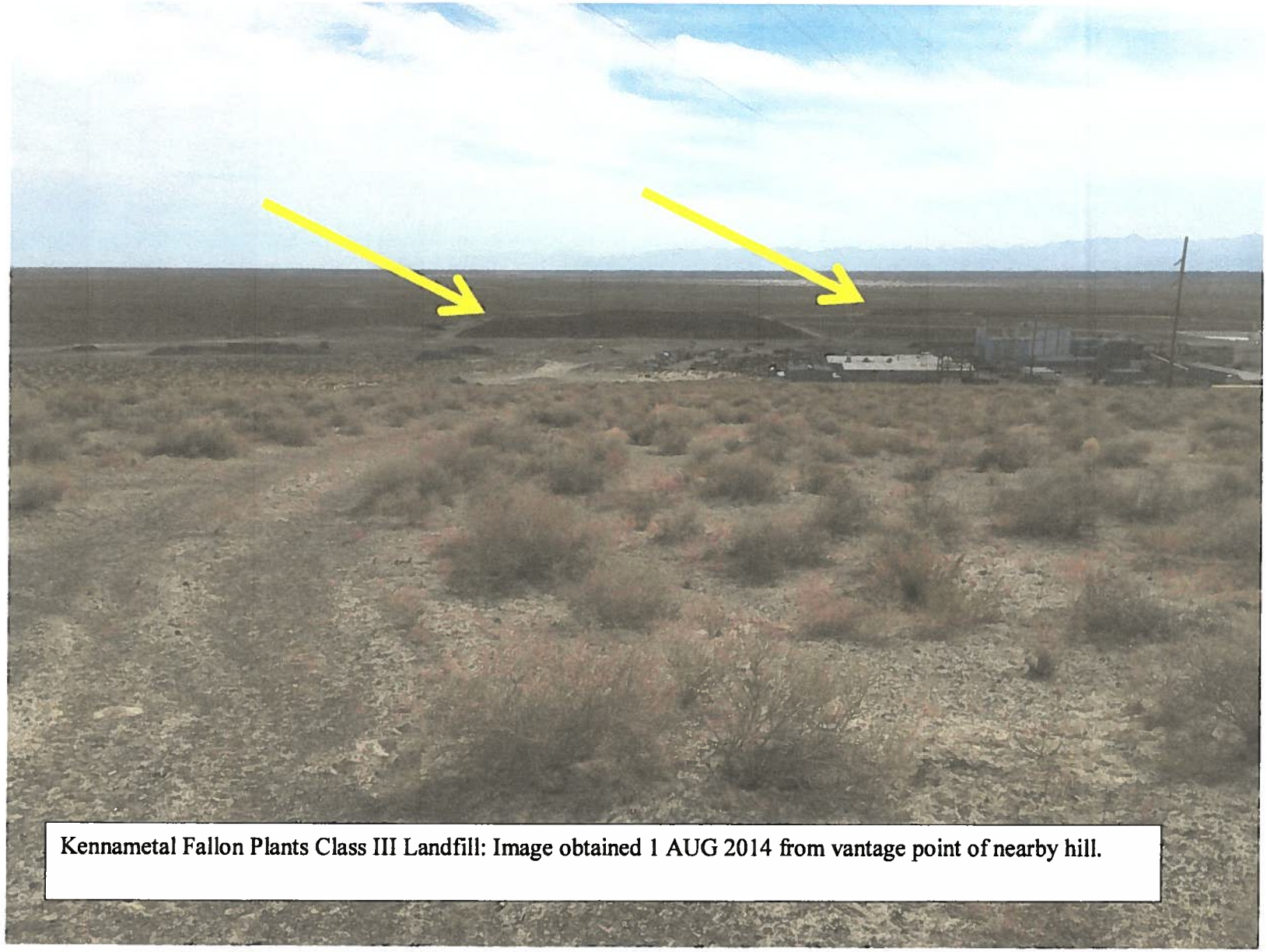
SHAW ENGINEERING

Figure 2.2
Site Map

Attachment 2

Current Site Photos

Kennametal Fallon Plants Class III Landfill: Image obtained 1 AUG 2014 from vantage point of nearby hill.



Kennametal Fallon Plants Class III Landfill: Image obtained 1 AUG 2014 from vantage point of nearby hill.

Kennametal Fallon Plants Class III Landfill: Image obtained 1 AUG 2014 from vantage point of ground north of area.

Attachment 4

Filter Cake Historic Graphs

Figure 11.1
Slag & Filter Cake
Tungsten

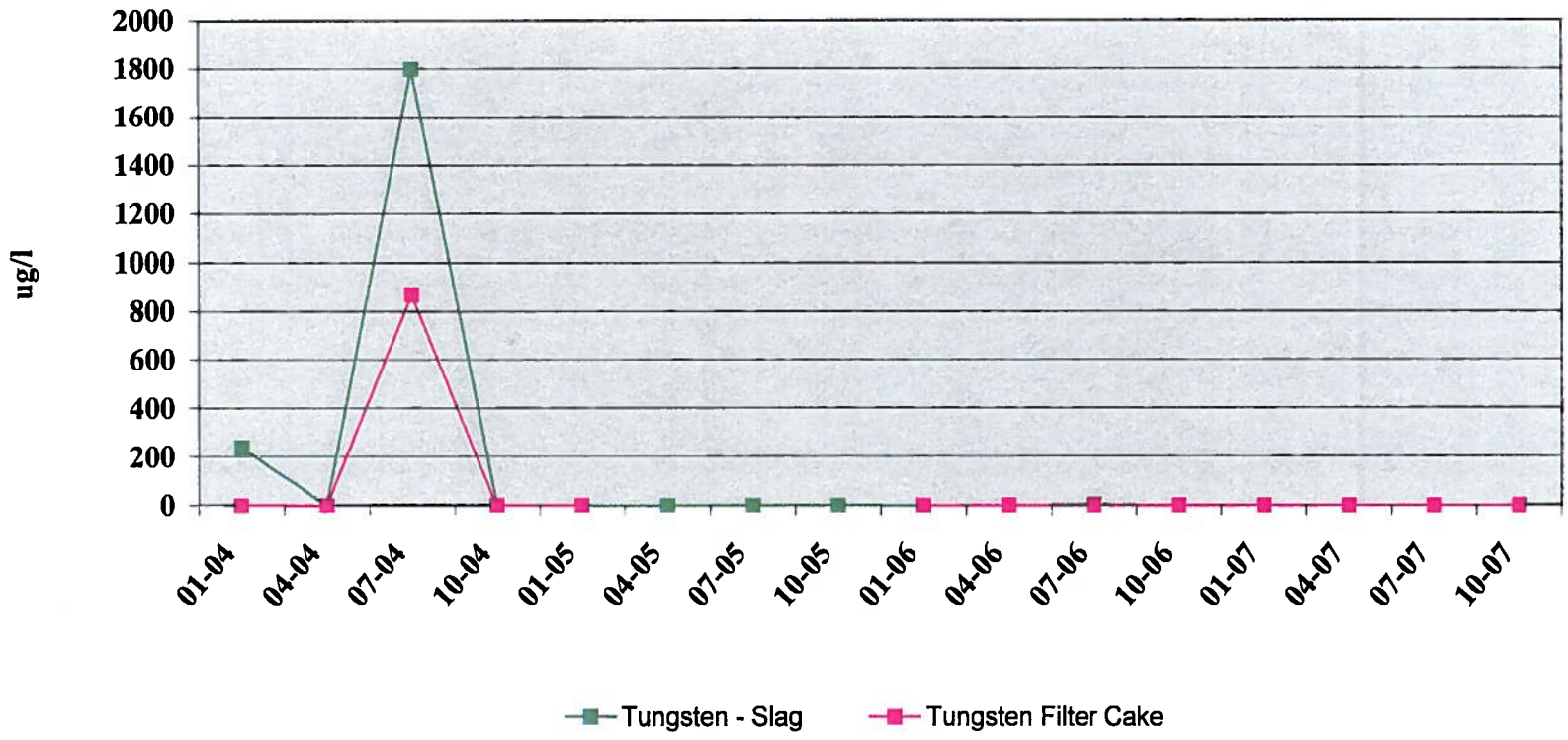


Figure 11.2
Slag & Filter Cake
Molybdenum

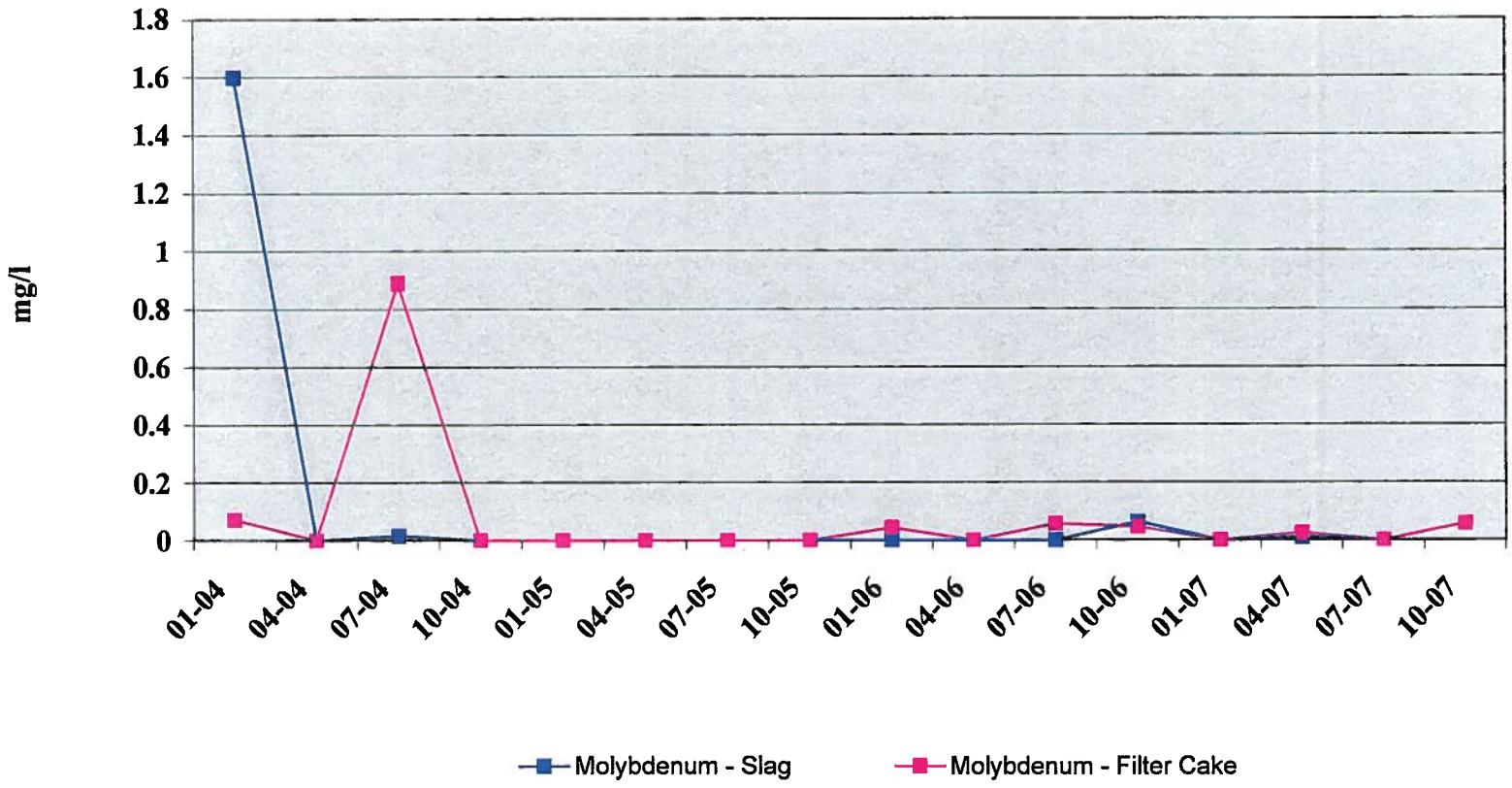


Figure 11.3A
Slag & Filter Cake
MWMP Profile II

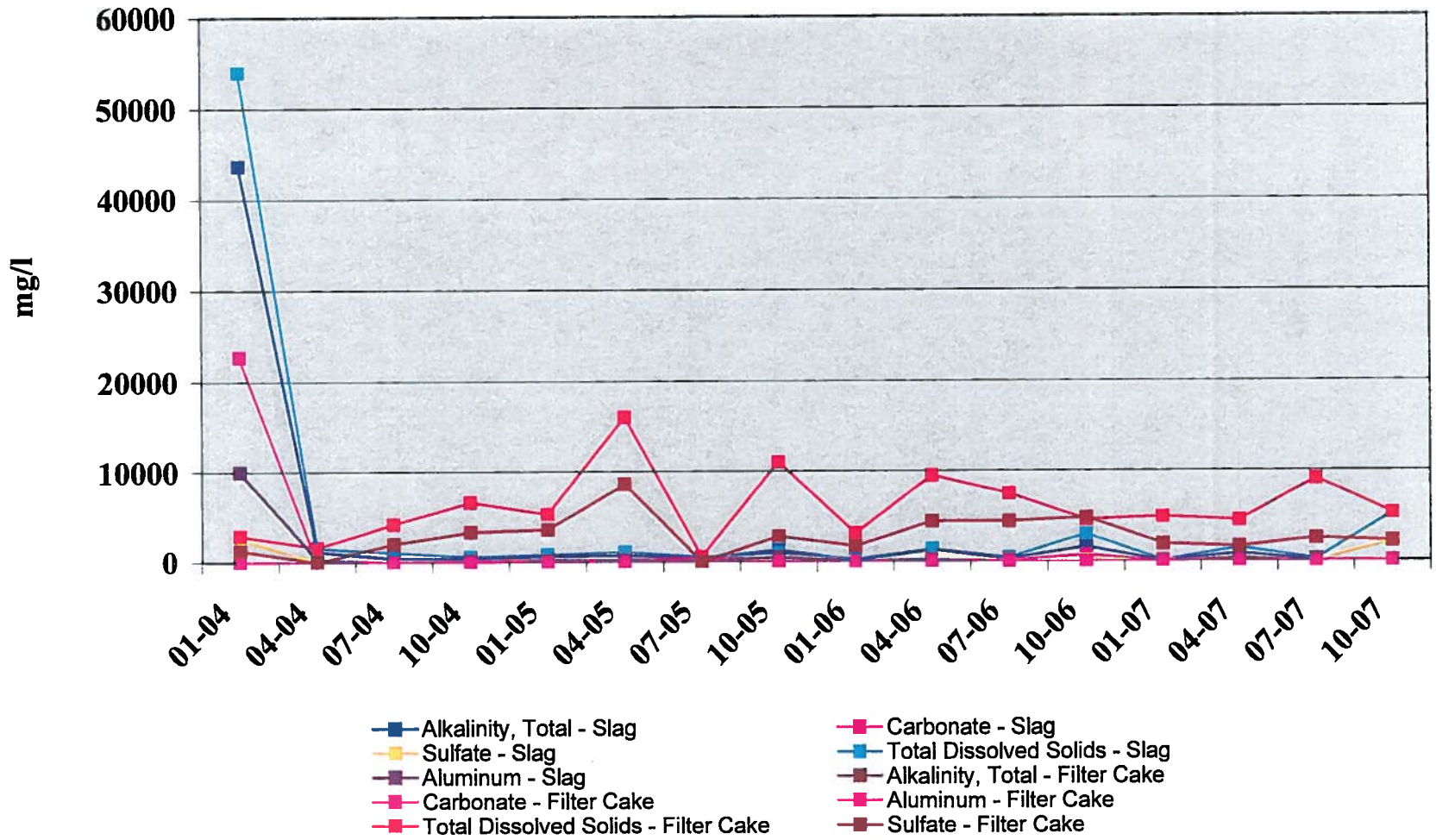


Figure 11.3B
Slag & Filter Cake
MWMP Profile II

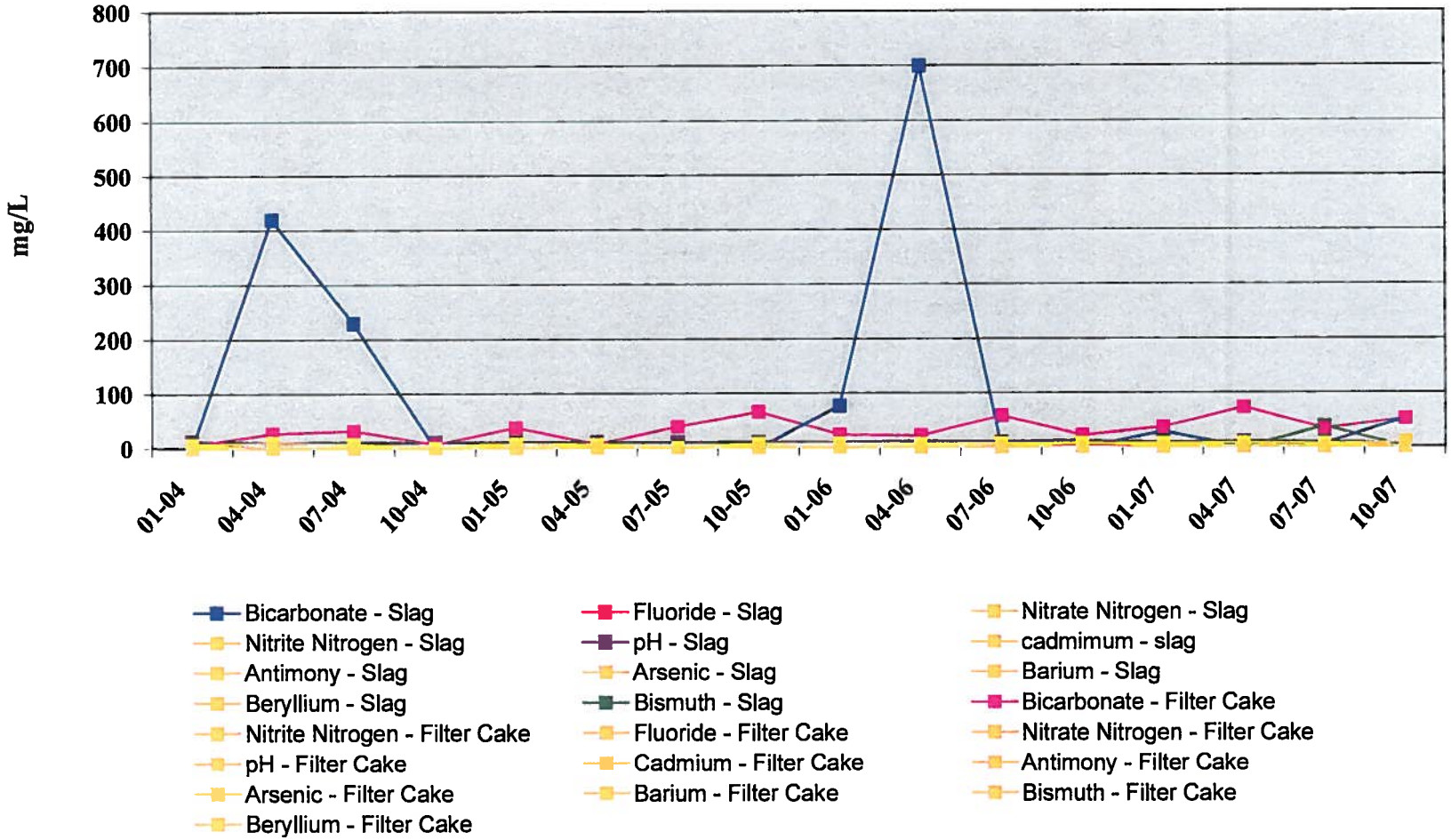


Figure 11.3C
Slag & Filter Cake
MWMP Profile II

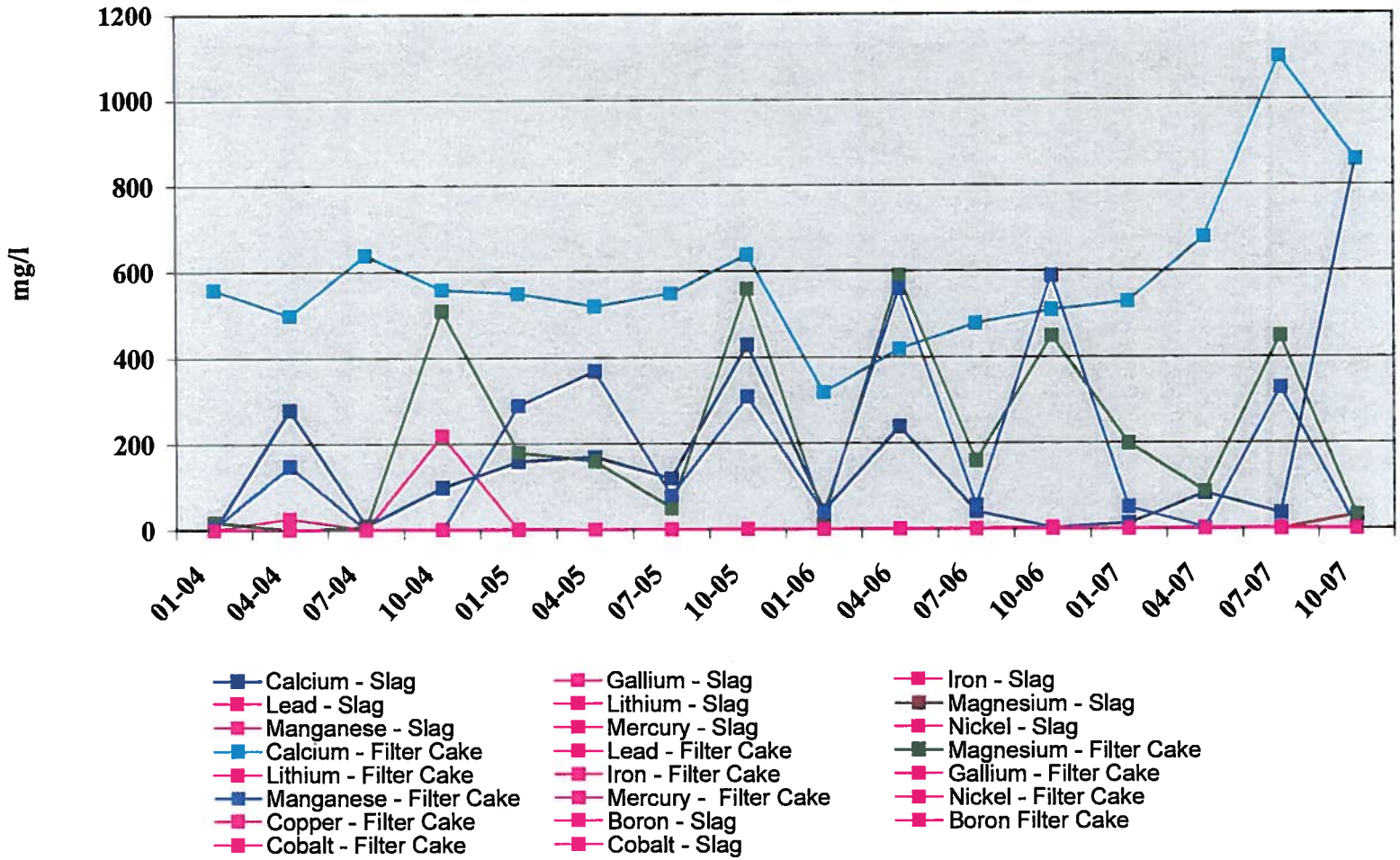
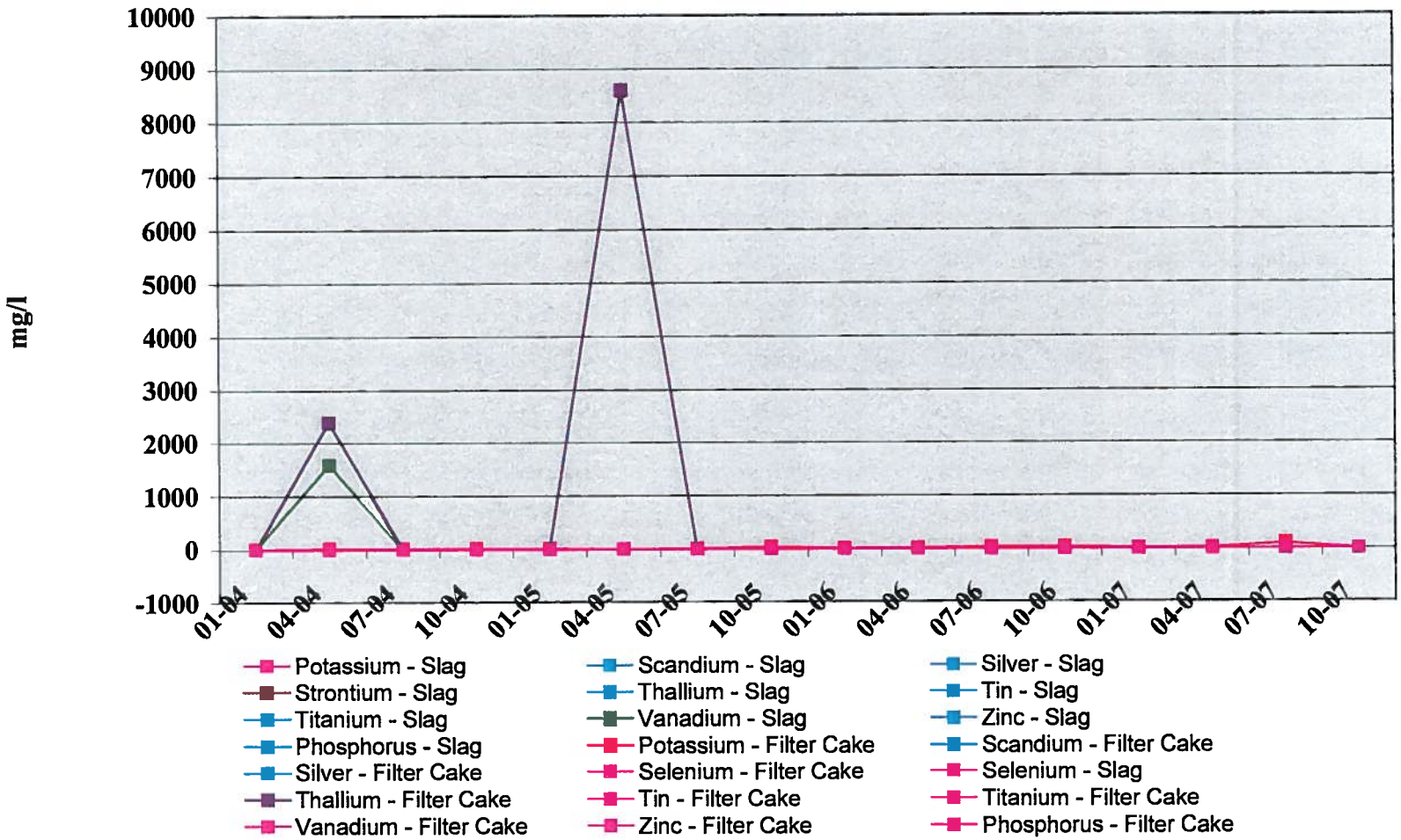
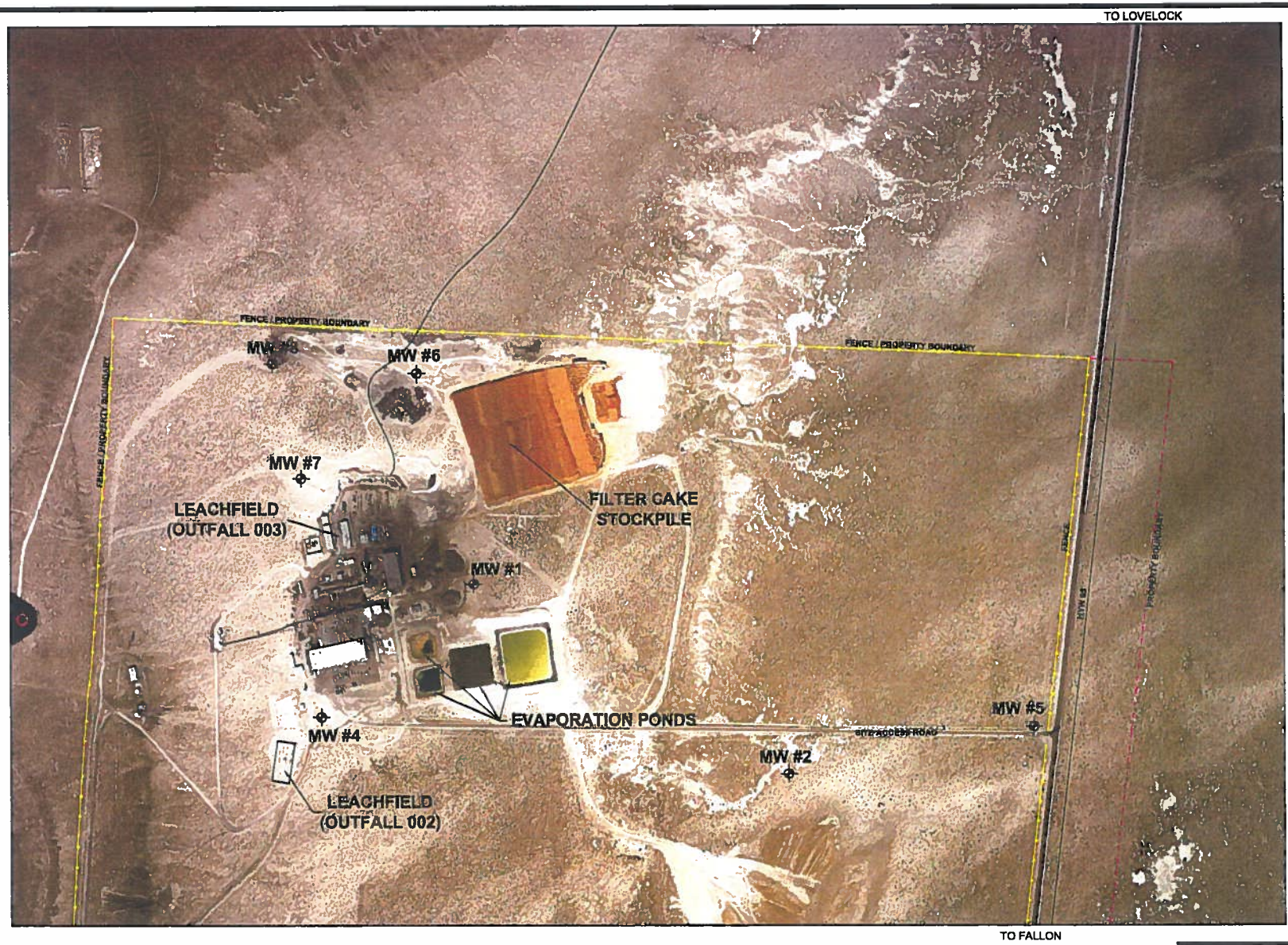


Figure 11.3D
Slag & Filter Cake
MWMP Profile II





SHAW
ENGINEERING

Figure 2.2
Site Map

Attachment 6

Monitor Well Historical Graphs

Figure 13.1
Kennametal, Inc.
Depth to Water

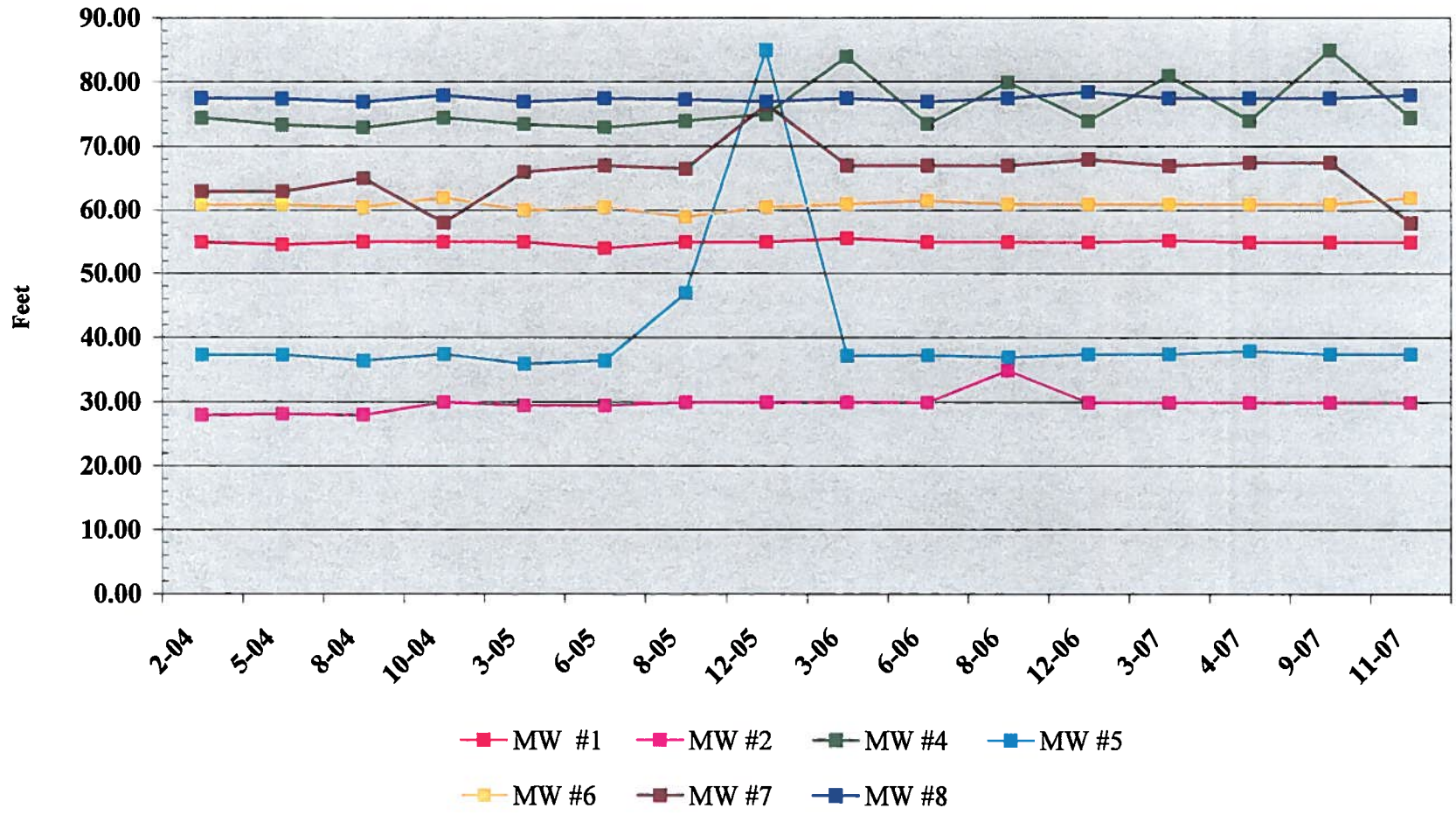


Figure 11.1
Kennametal, Inc.
Depth to Water

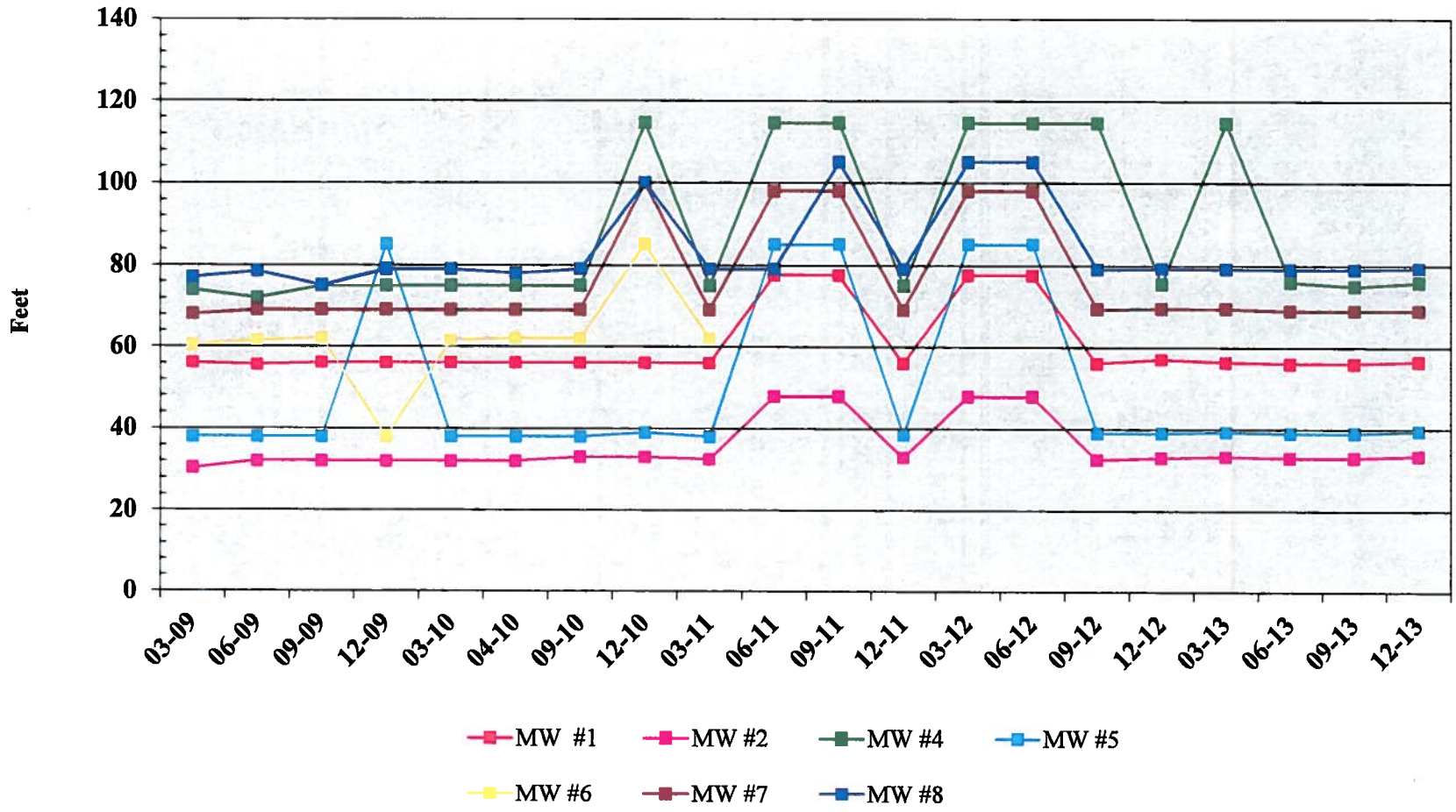


Figure 13.2
Kennametal, Inc.
Groundwater Elevations

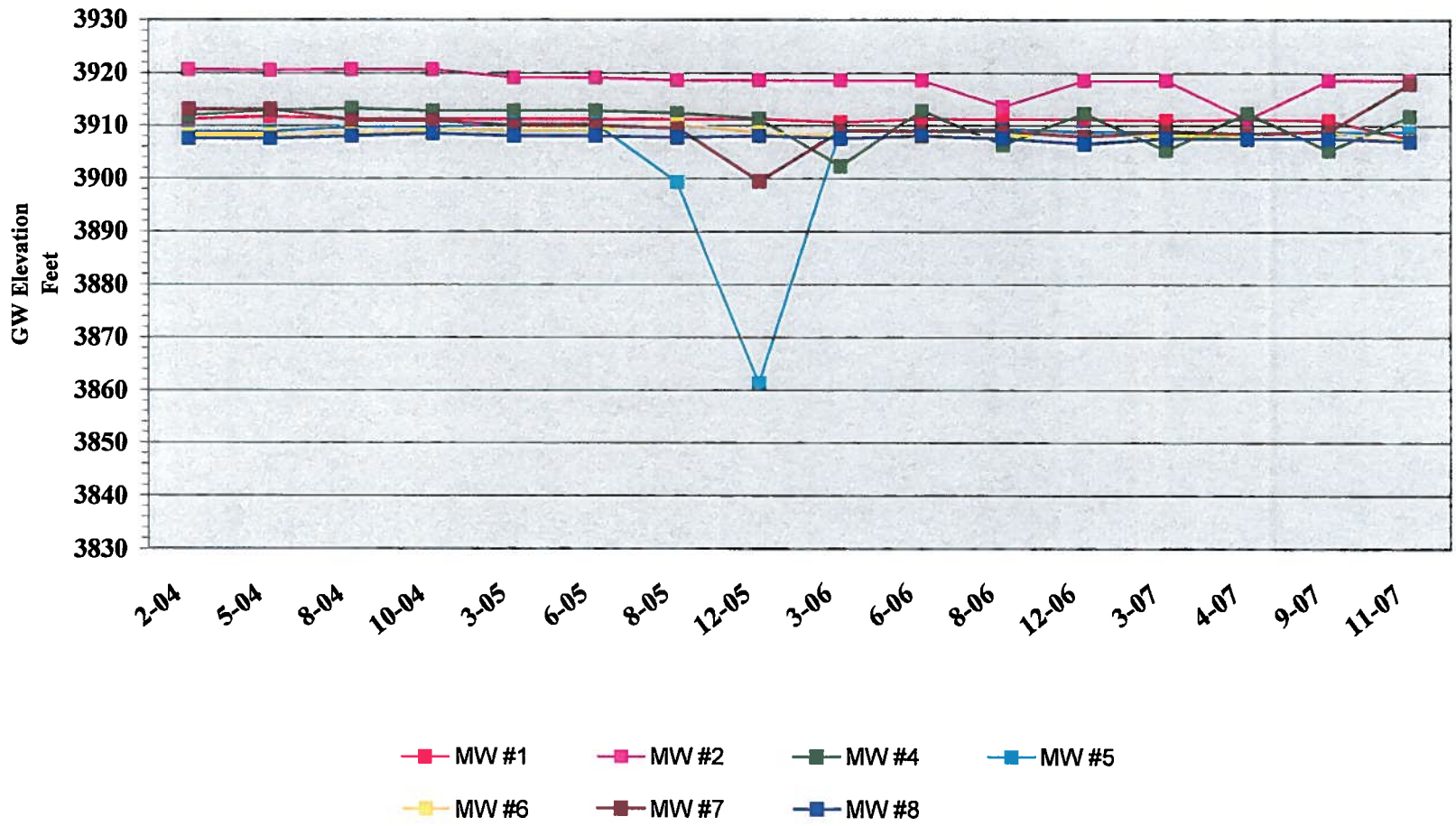


Figure 13.3
Kennametal, Inc.
PH

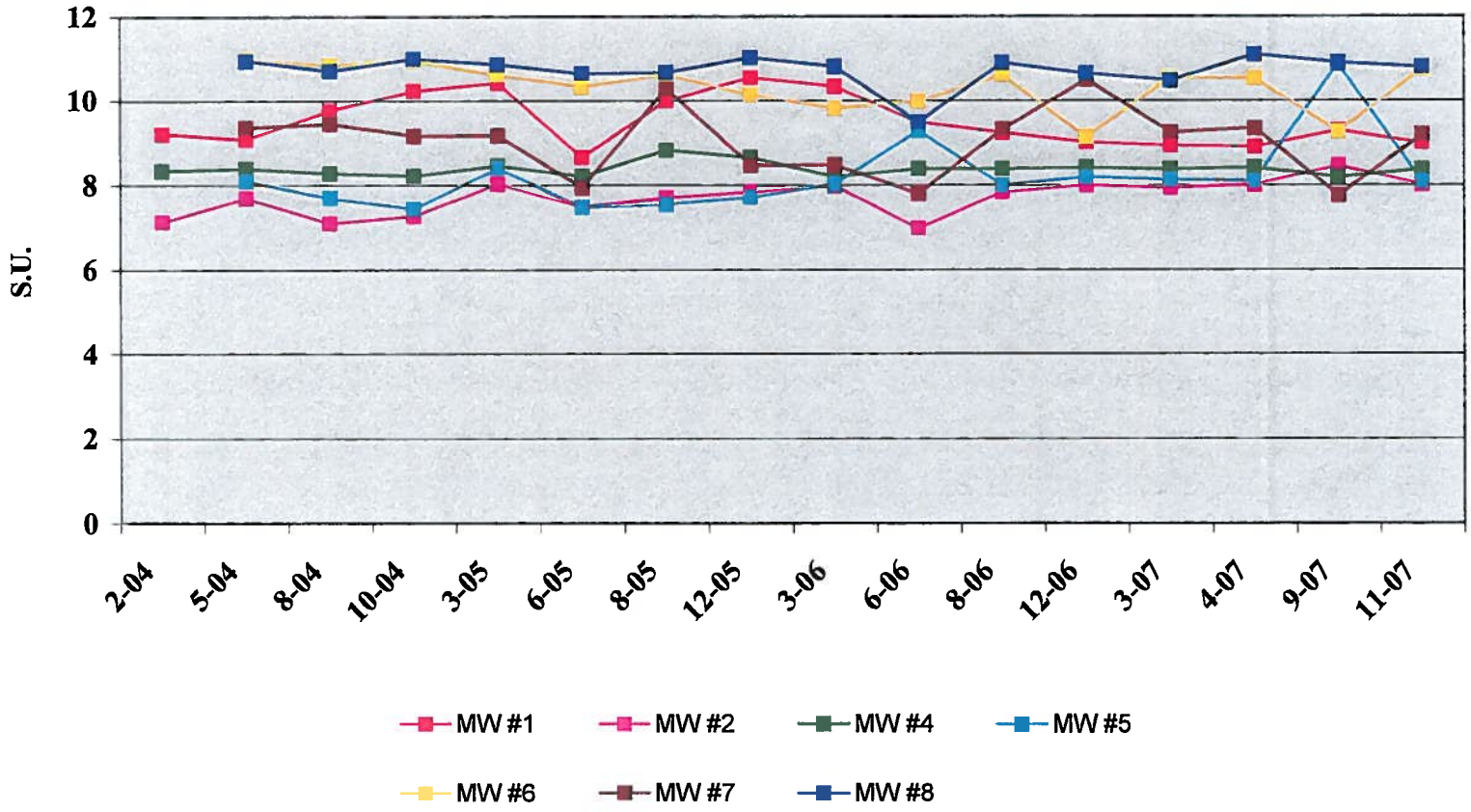


Figure 13.4
Kennametal, Inc.
Antimony

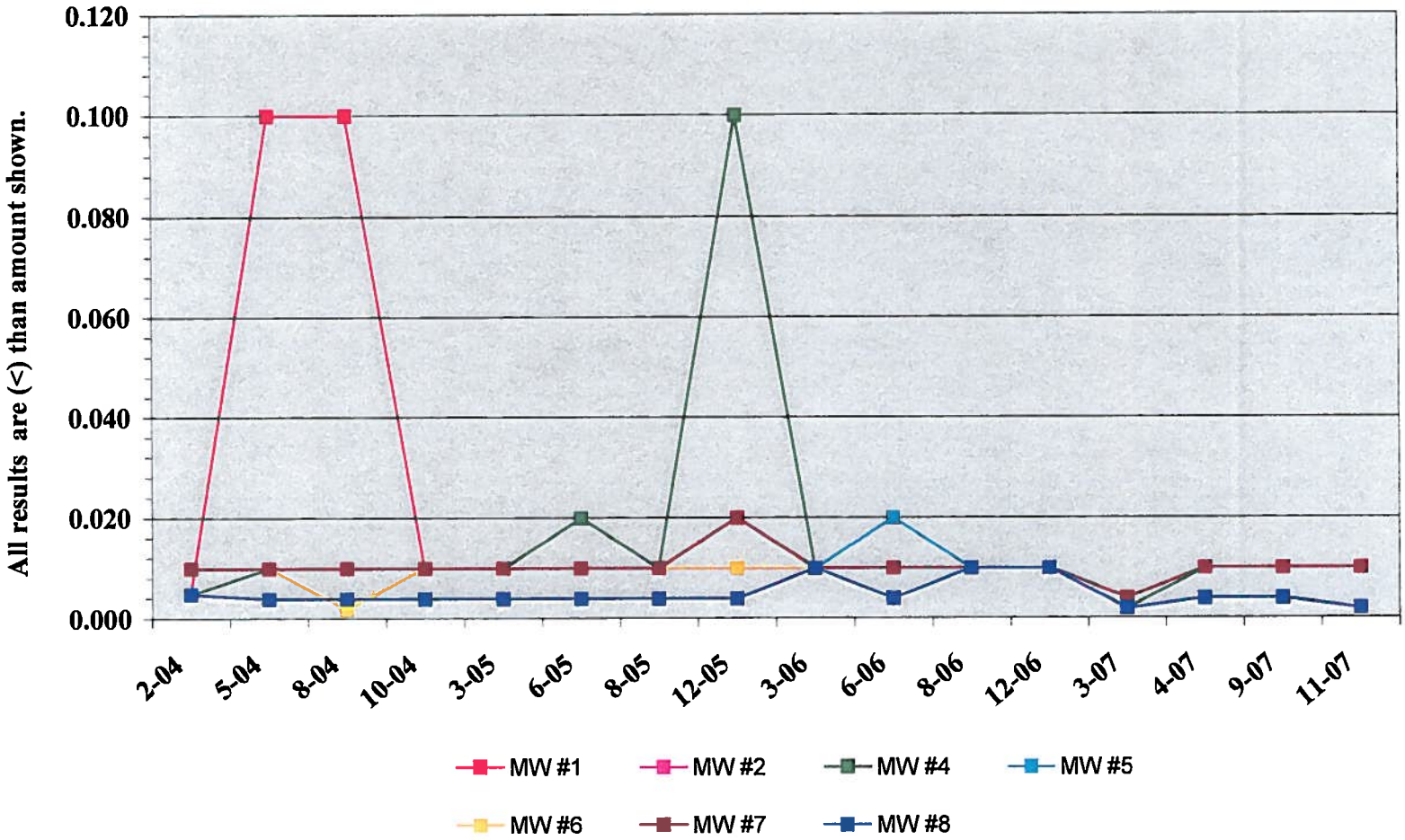


Figure 13.5
Kennametal, Inc.
Barium

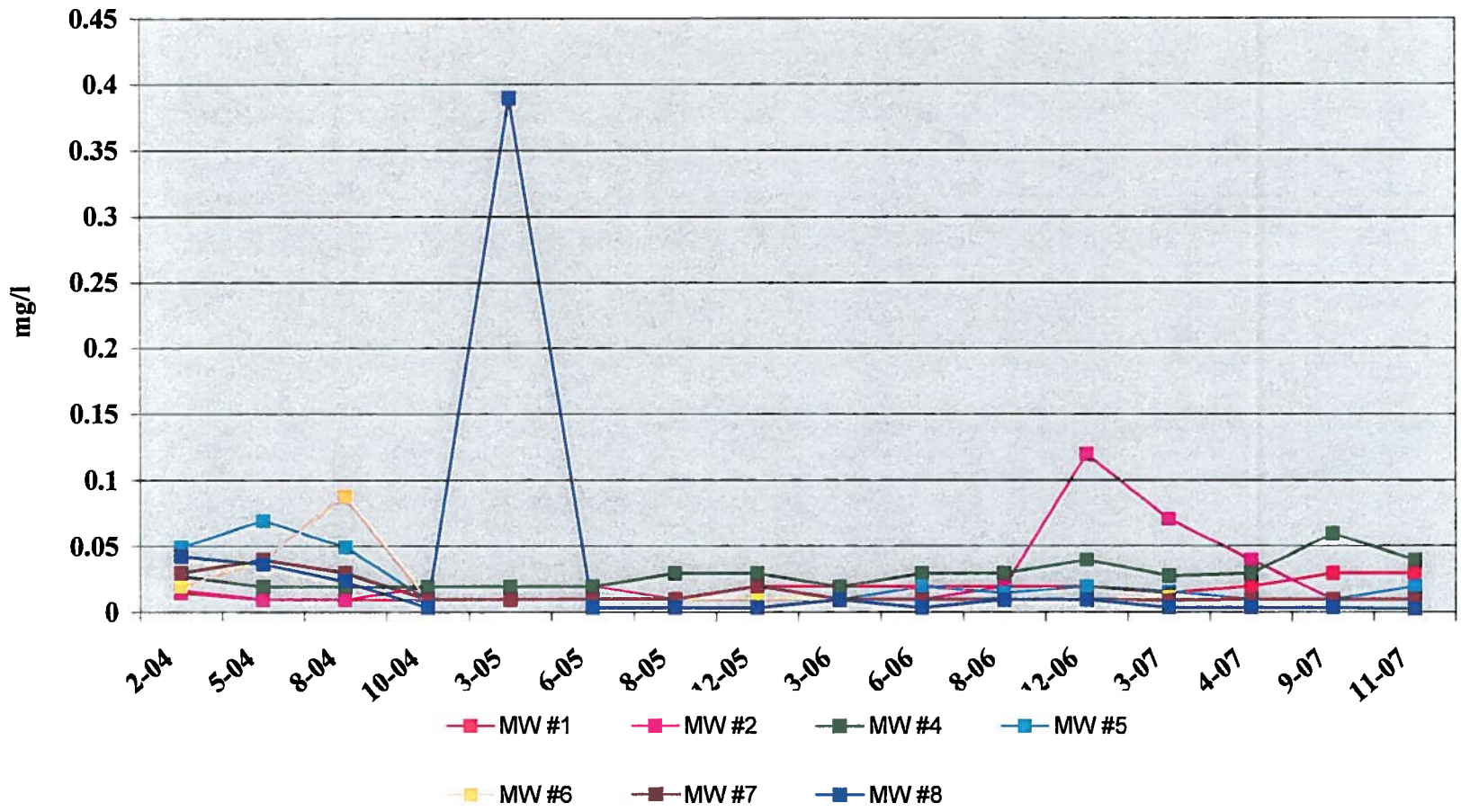


Figure 13.6
Kennametal, Inc.
Beryllium

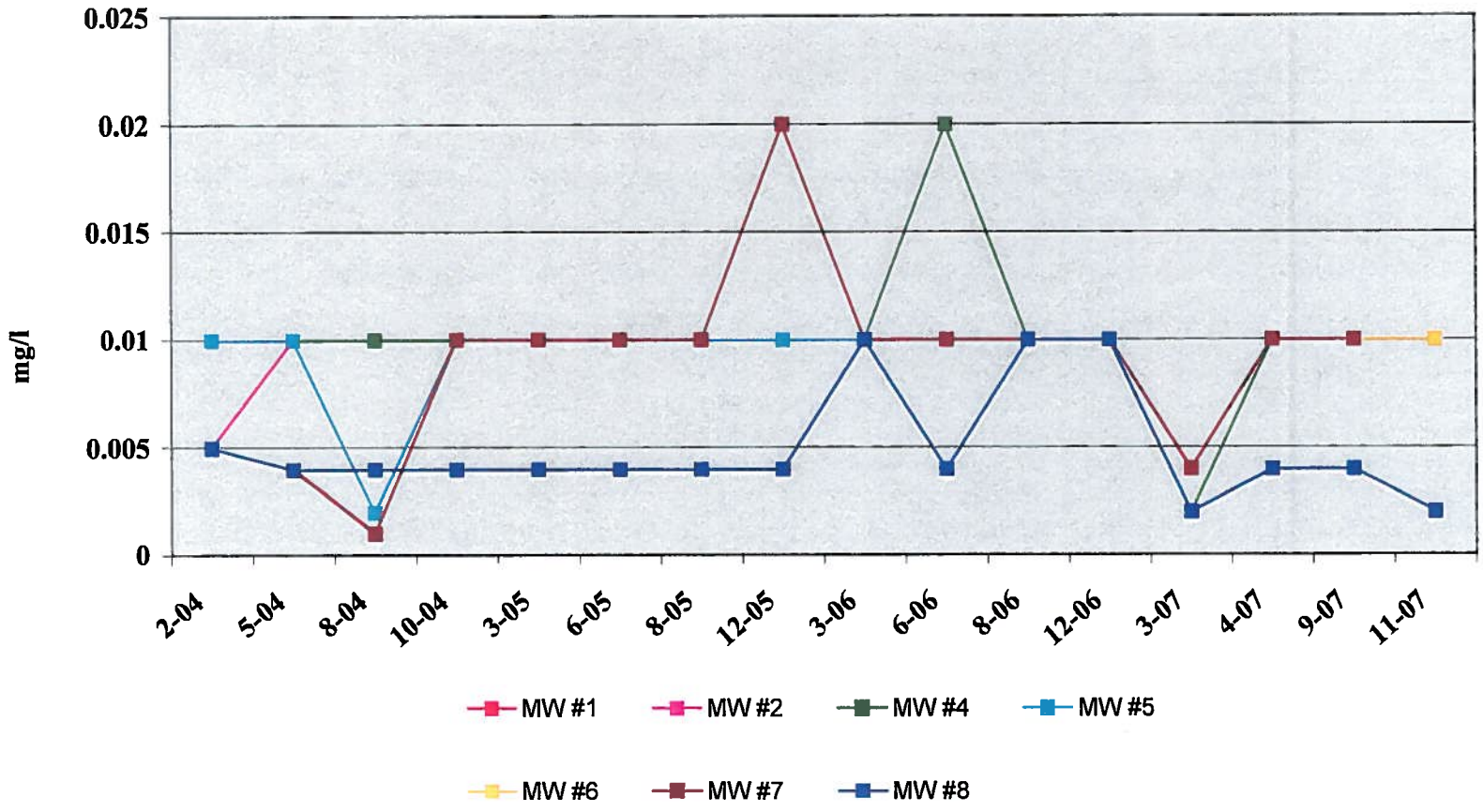


Figure 13.7
Kennametal, Inc.
Cadmium

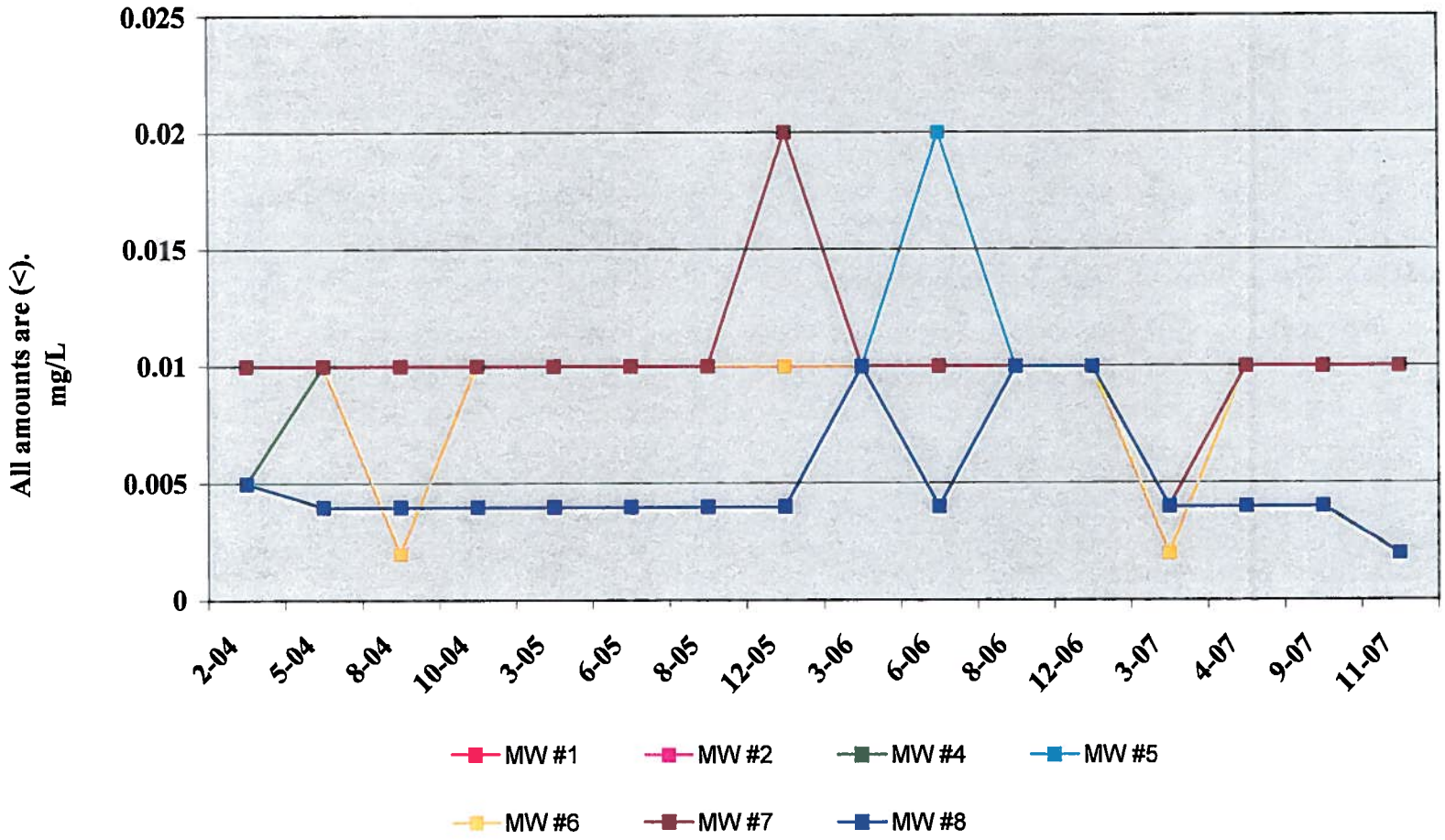


Figure 13.8
Kennametal Inc.
Lead

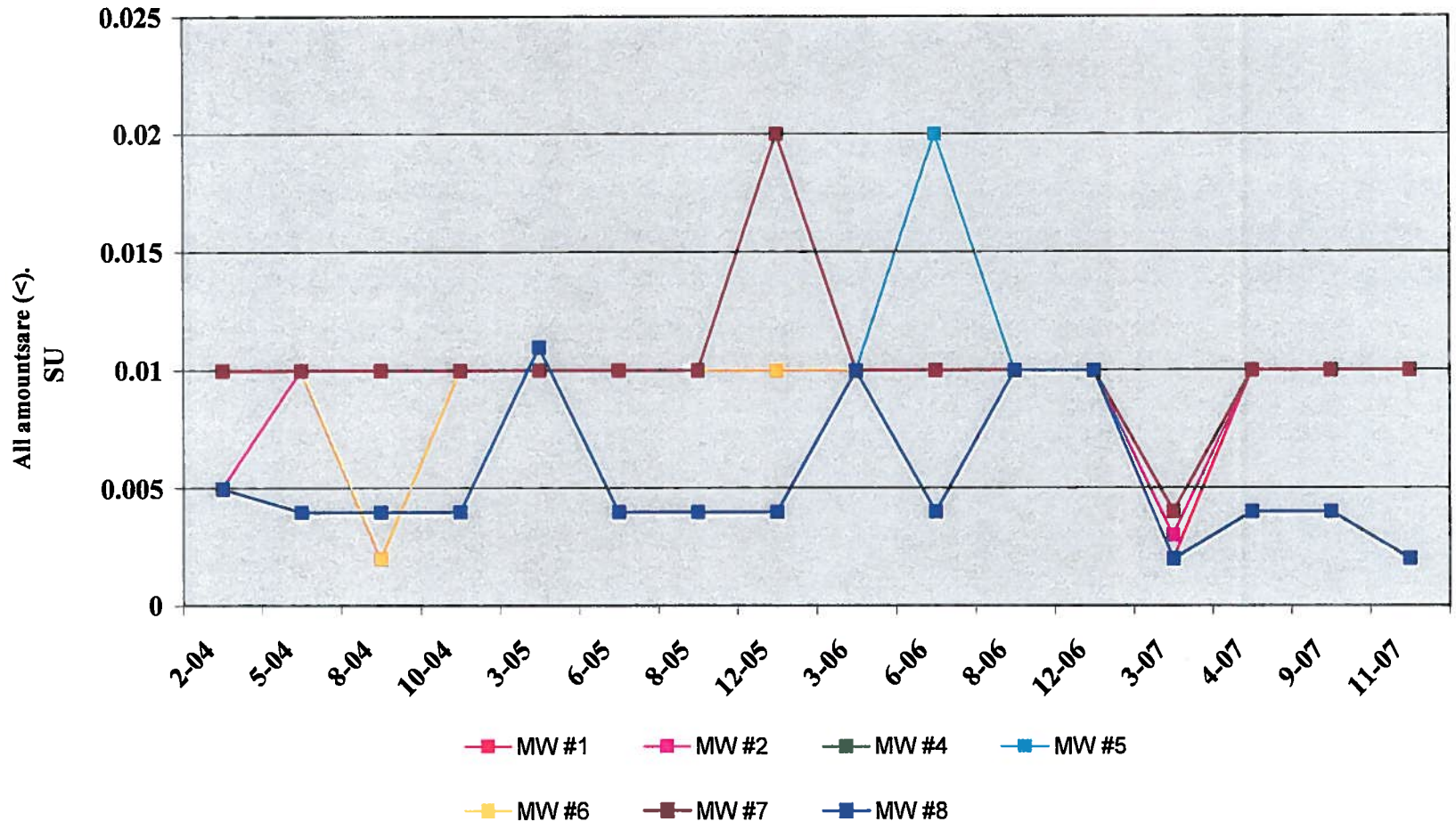


Figure 13.9
Kennametal, Inc.
Manganese

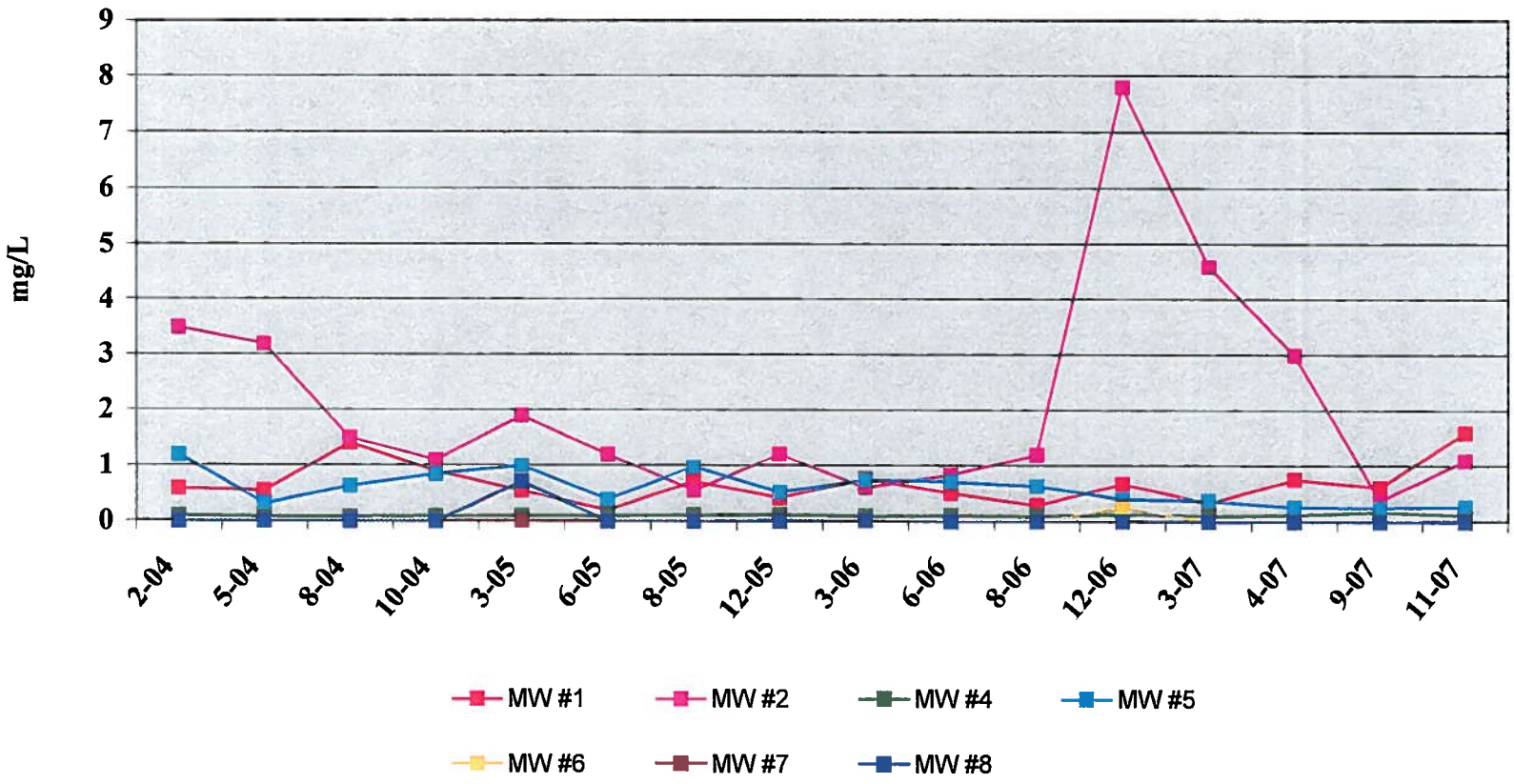


Figure 13.10
Kennametal, Inc.
Molybdenum

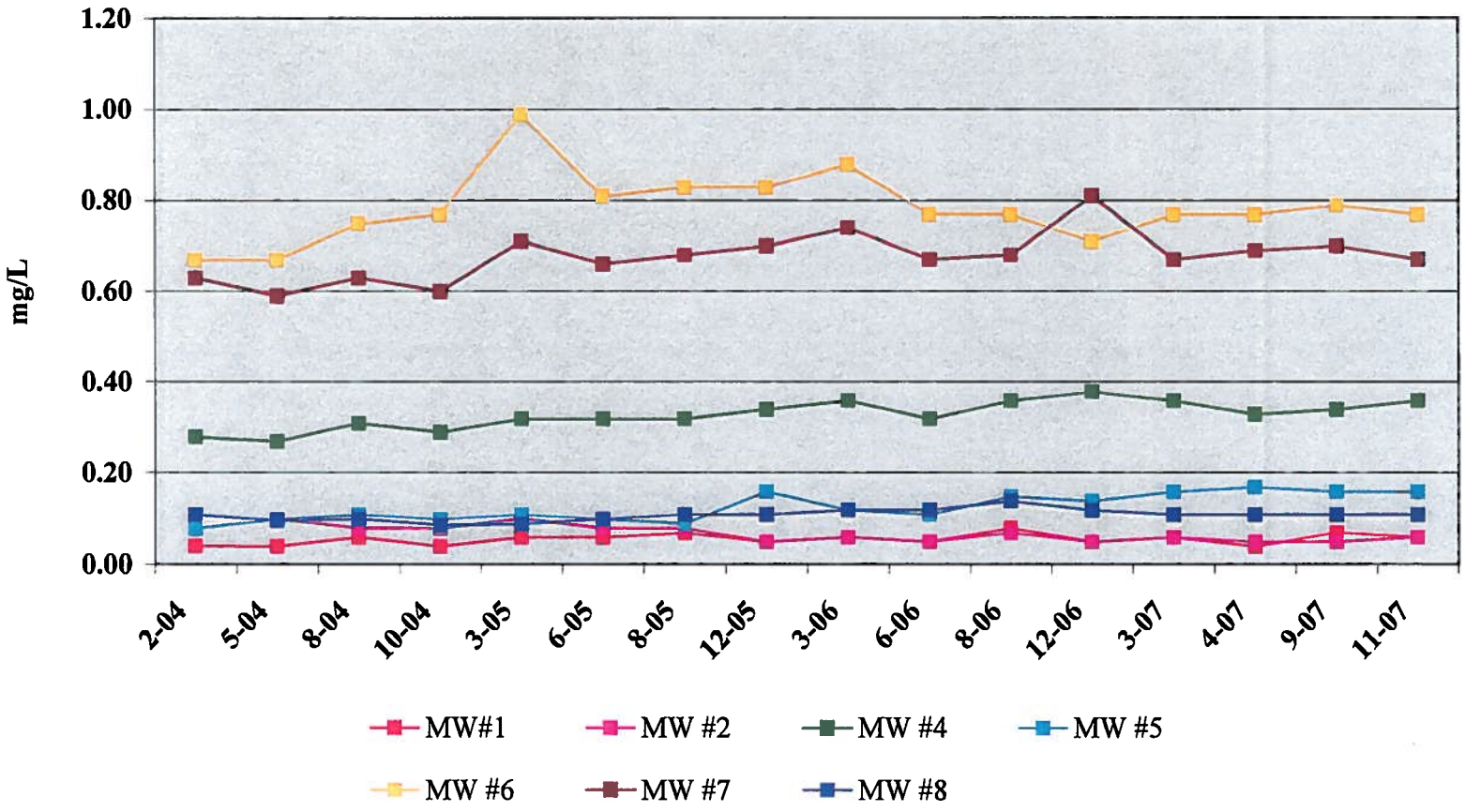


Figure 13. 11
Kennametal, Inc.
Tungsten

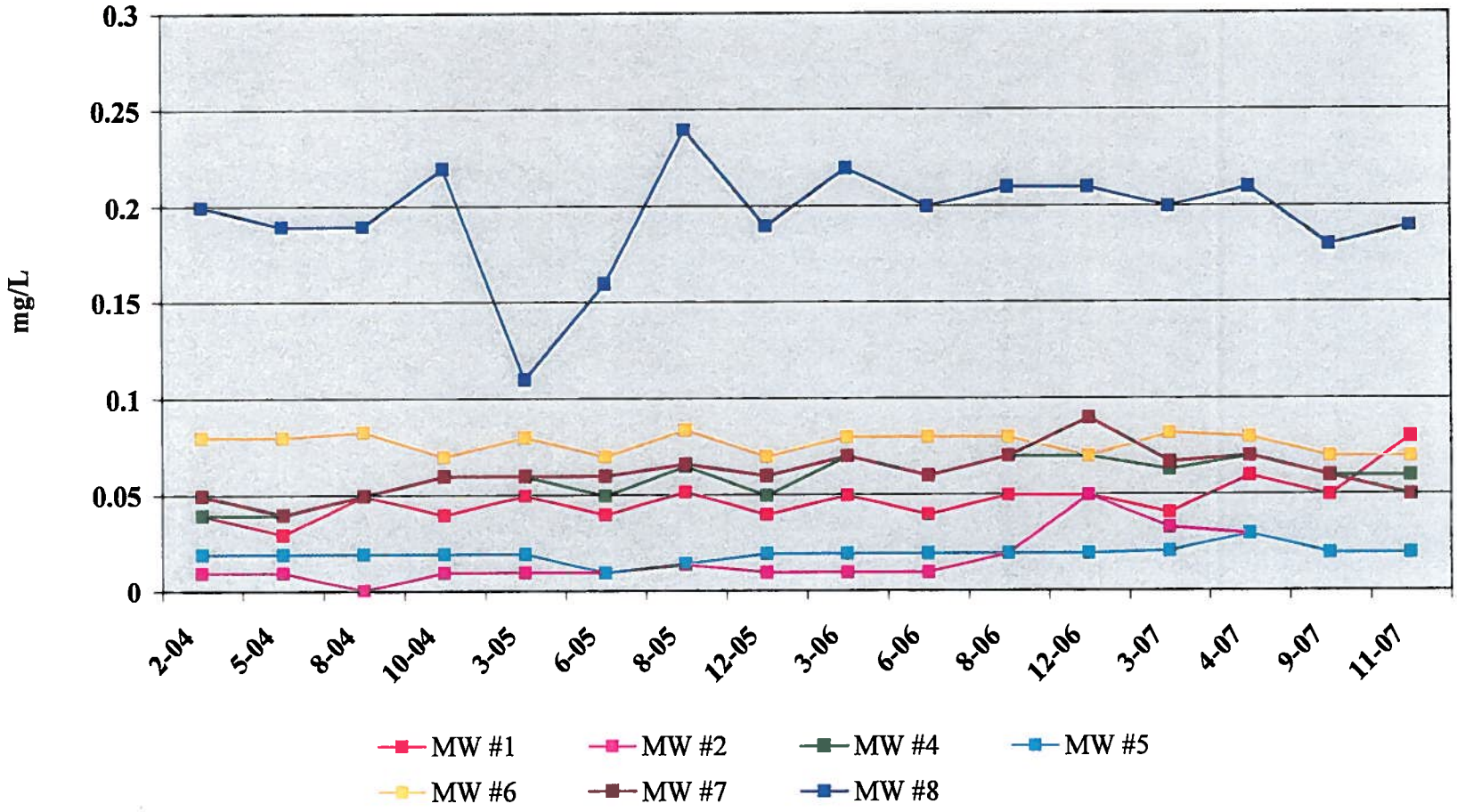


Figure 11. 2
Kennametal, Inc.
Tungsten

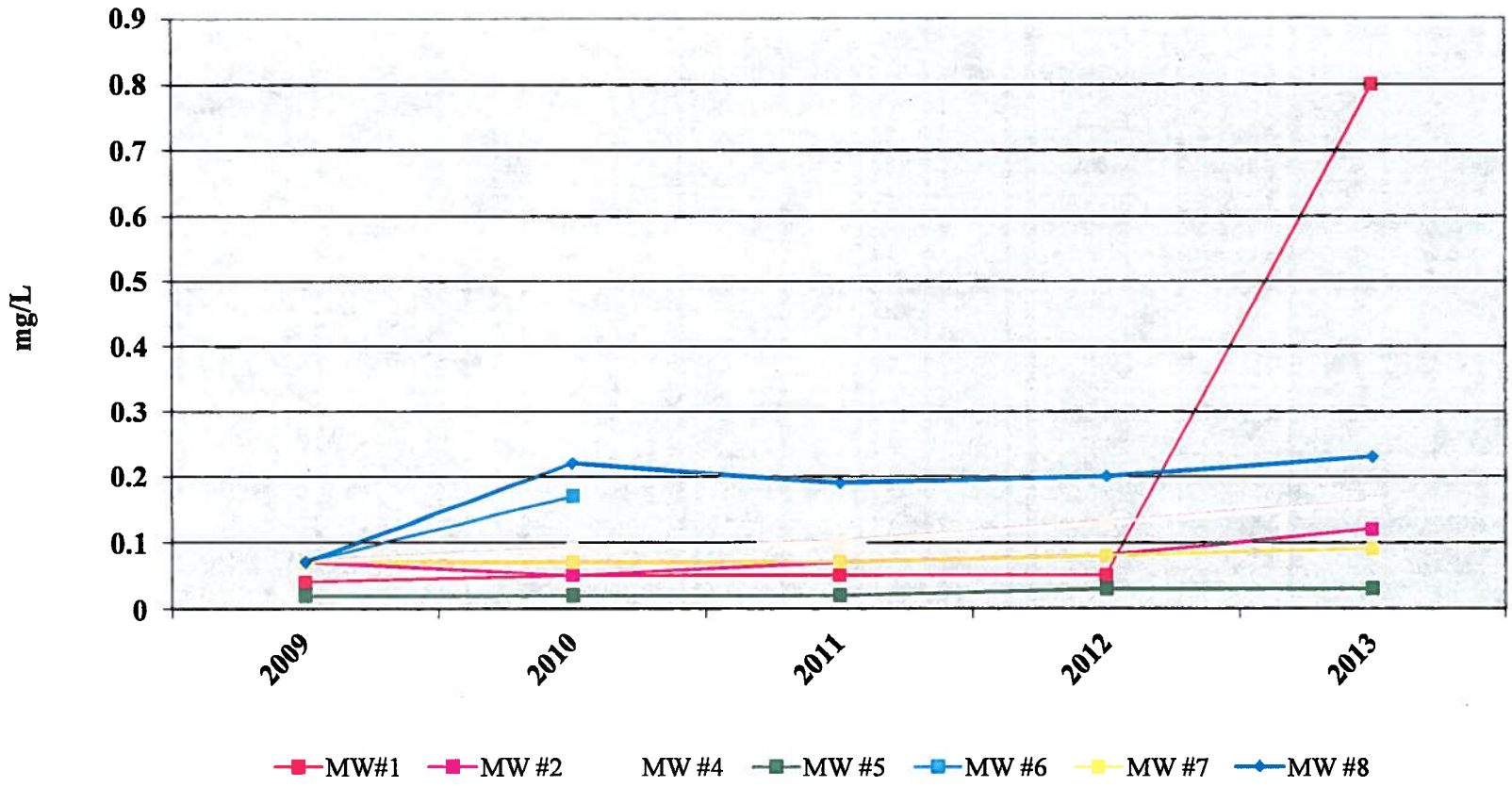


Figure 13.12
Kennametal, Inc.,
Total Disolved Solids

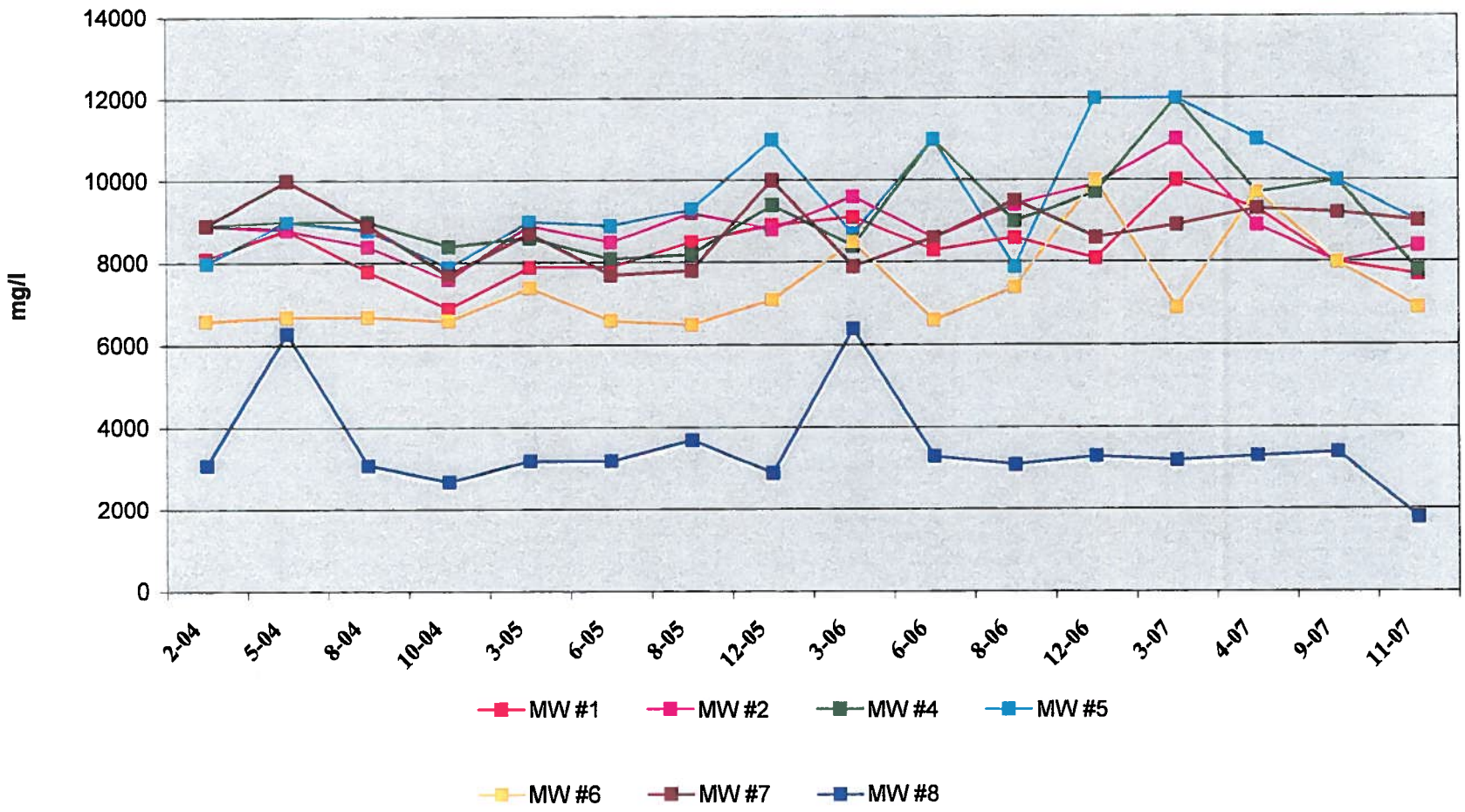


Figure 11.3
Kennametal, Inc.,
Total Disolved Solids

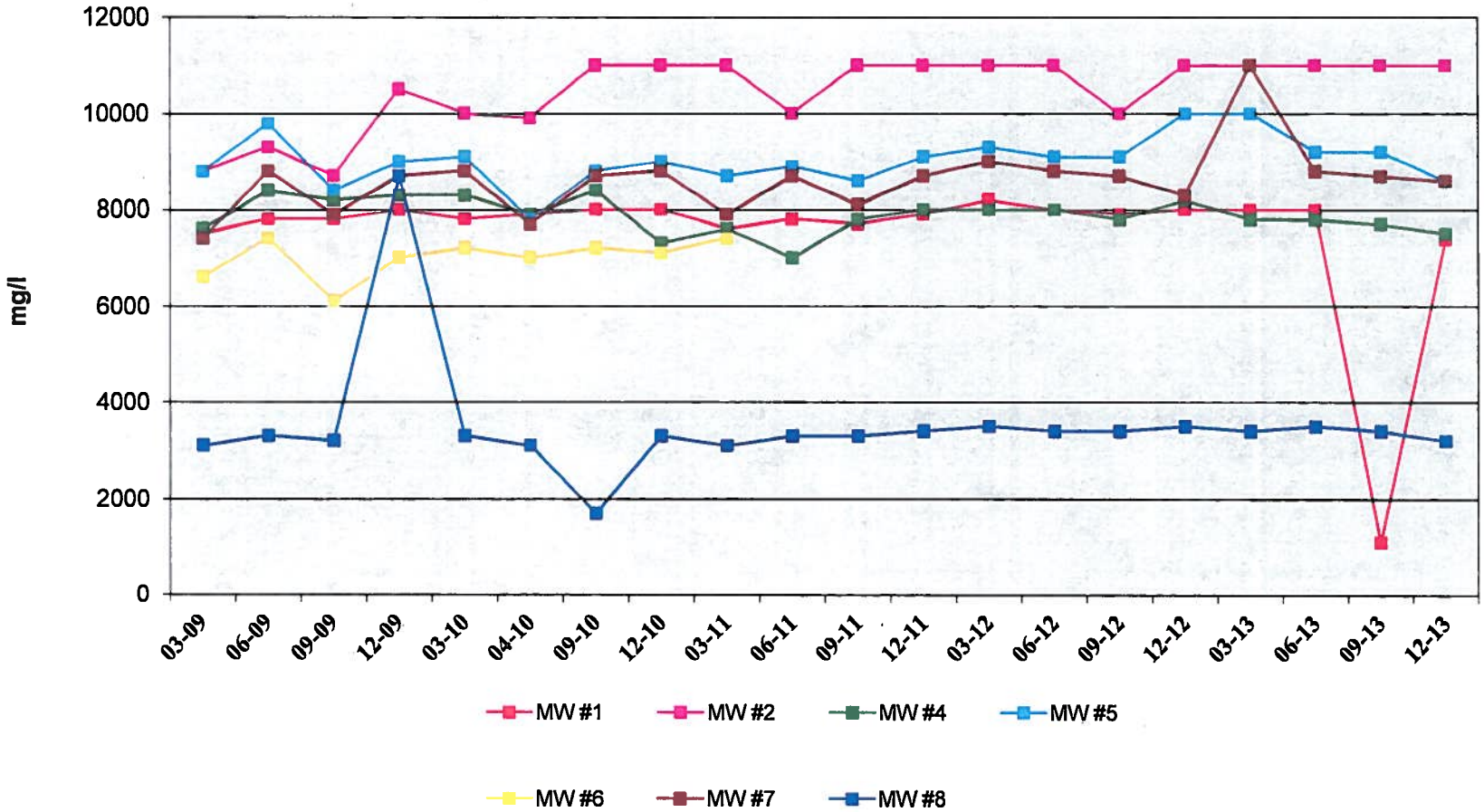


Figure 13.13
Kennametal, Inc.
Sulfates

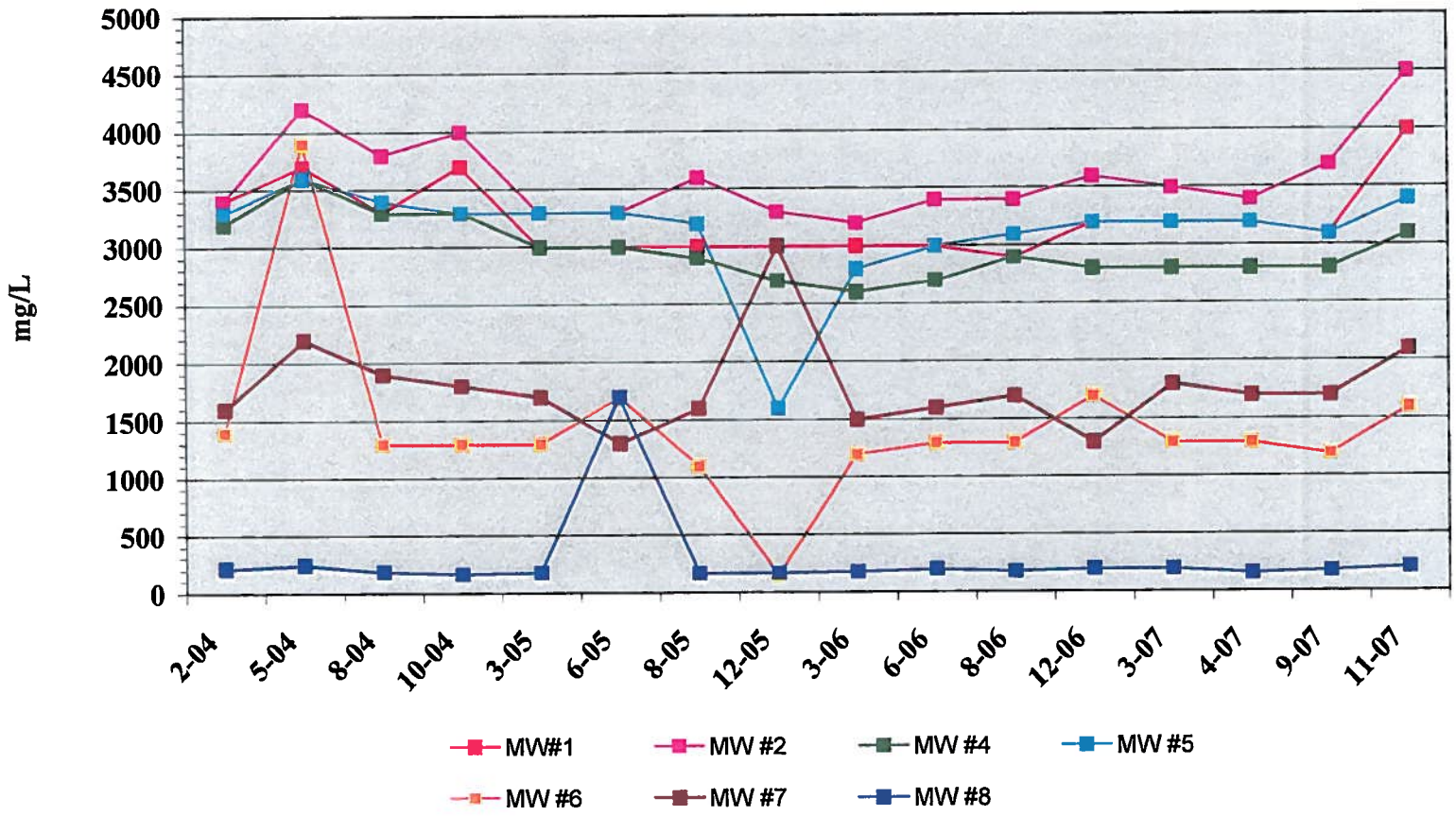


Figure 13.14
Kennametal, Inc.
Chlorides

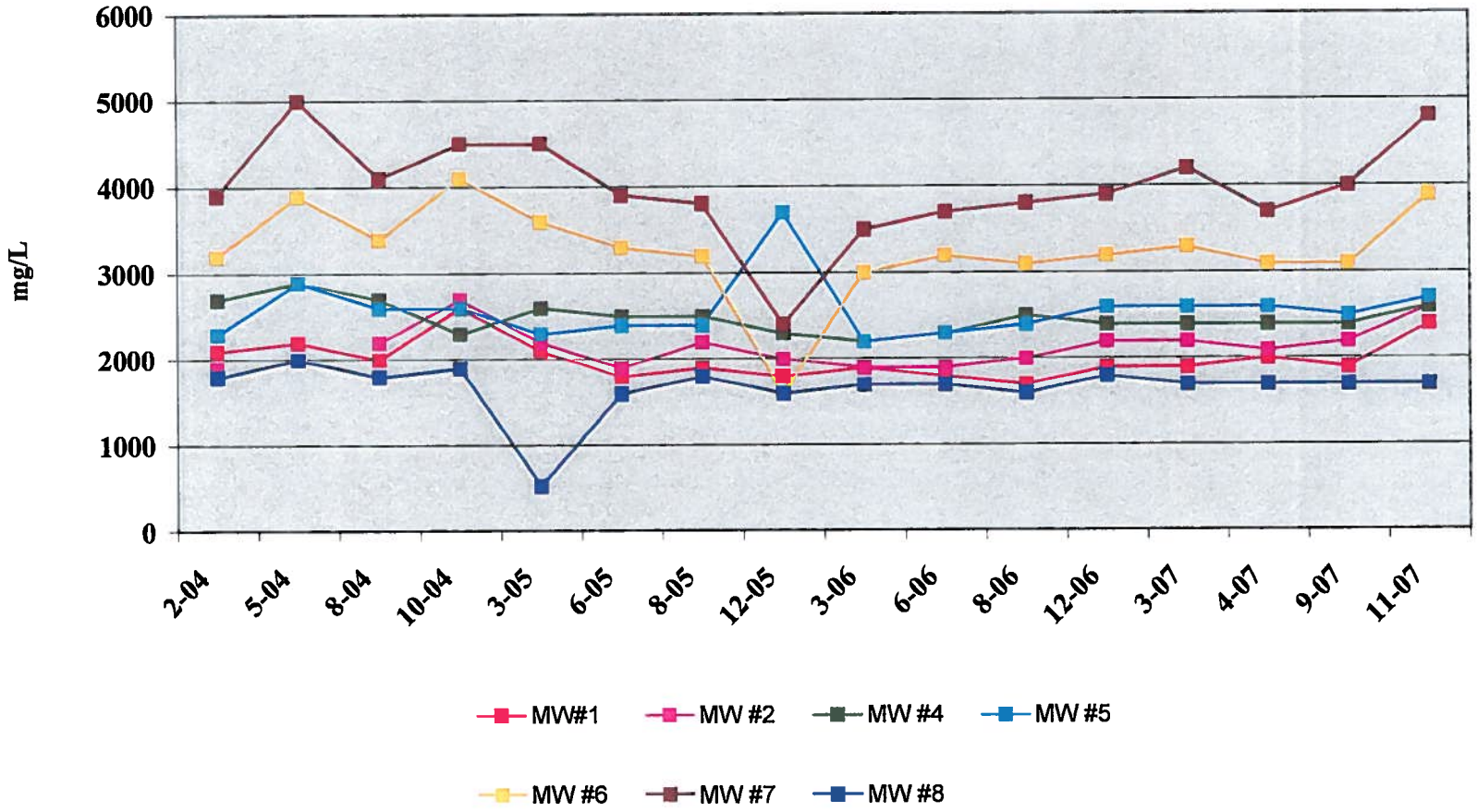


Figure 11.4
Kennametal, Inc.
Chlorides

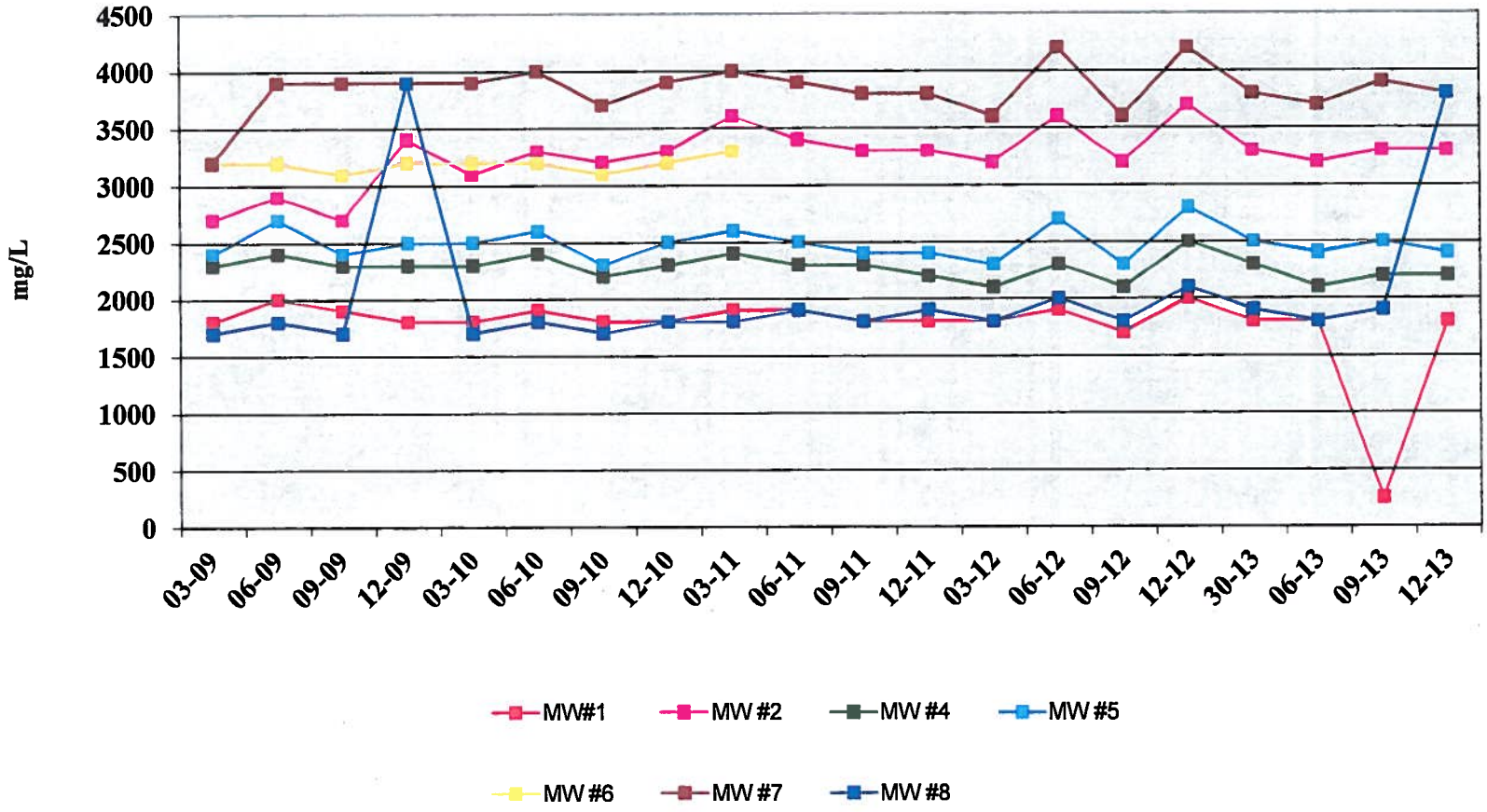


Figure 13.15
Kennametal, Inc.
Total Nitrogen

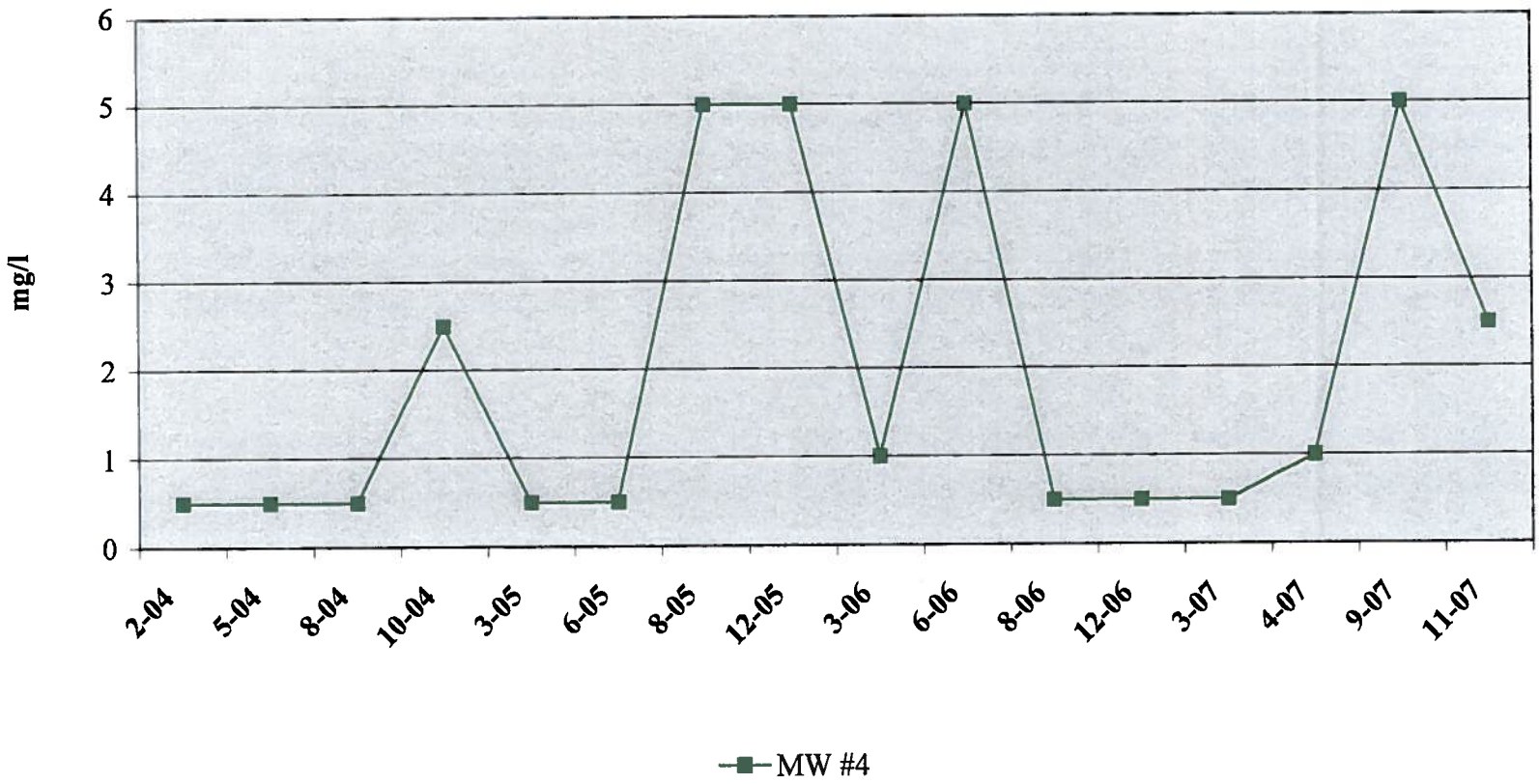
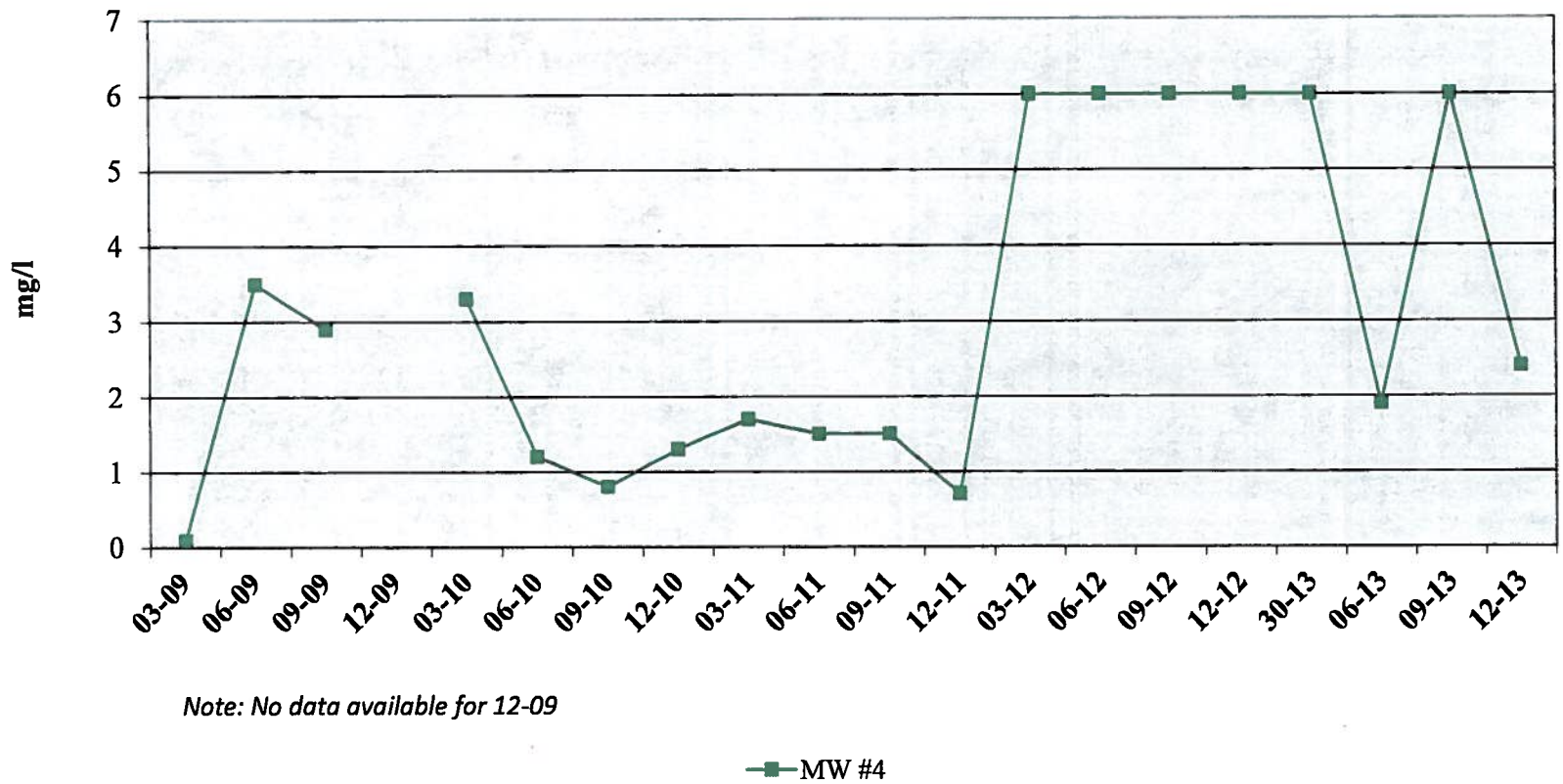


Figure 11.5
Kennametal, Inc.
Total Nitrogen



Note: No data available for 12-09

Figure 13.16
Kennametal Inc.
Nitrate

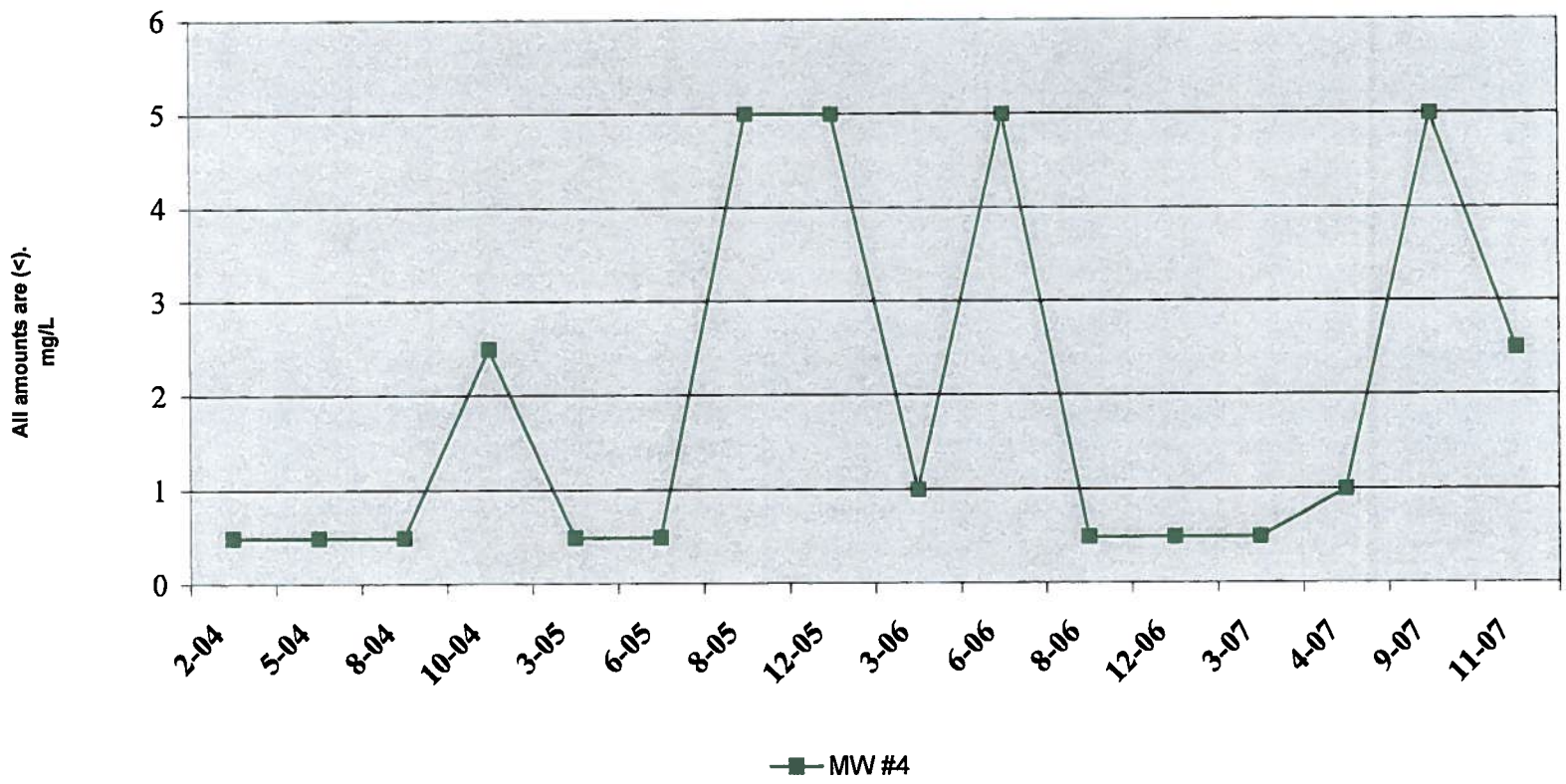


Figure 11.6
Kennametal Inc.
Nitrate

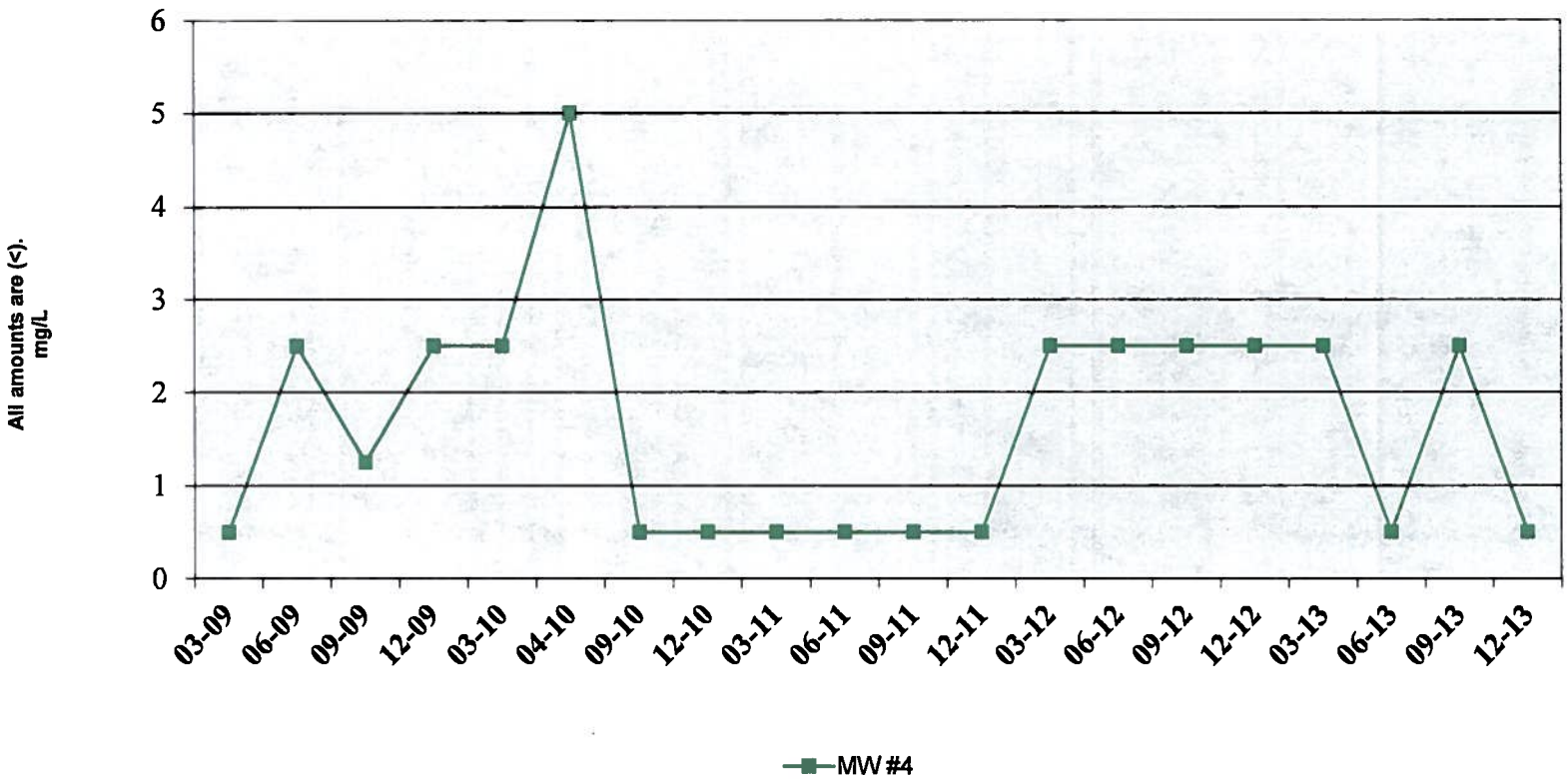


Figure 11.7A
MW 1
Profile I

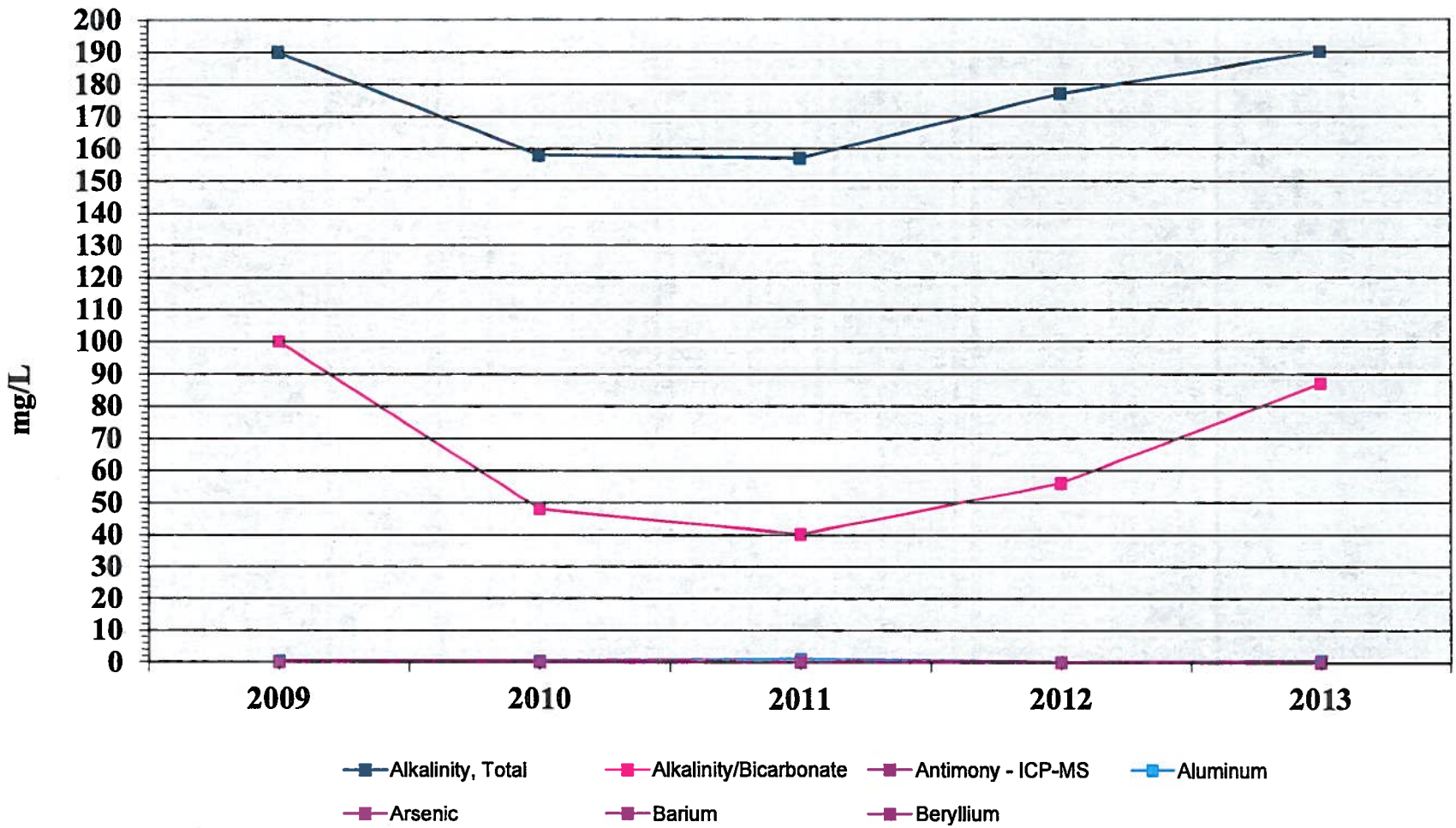


Figure 11.7B
MW 1
Profile I

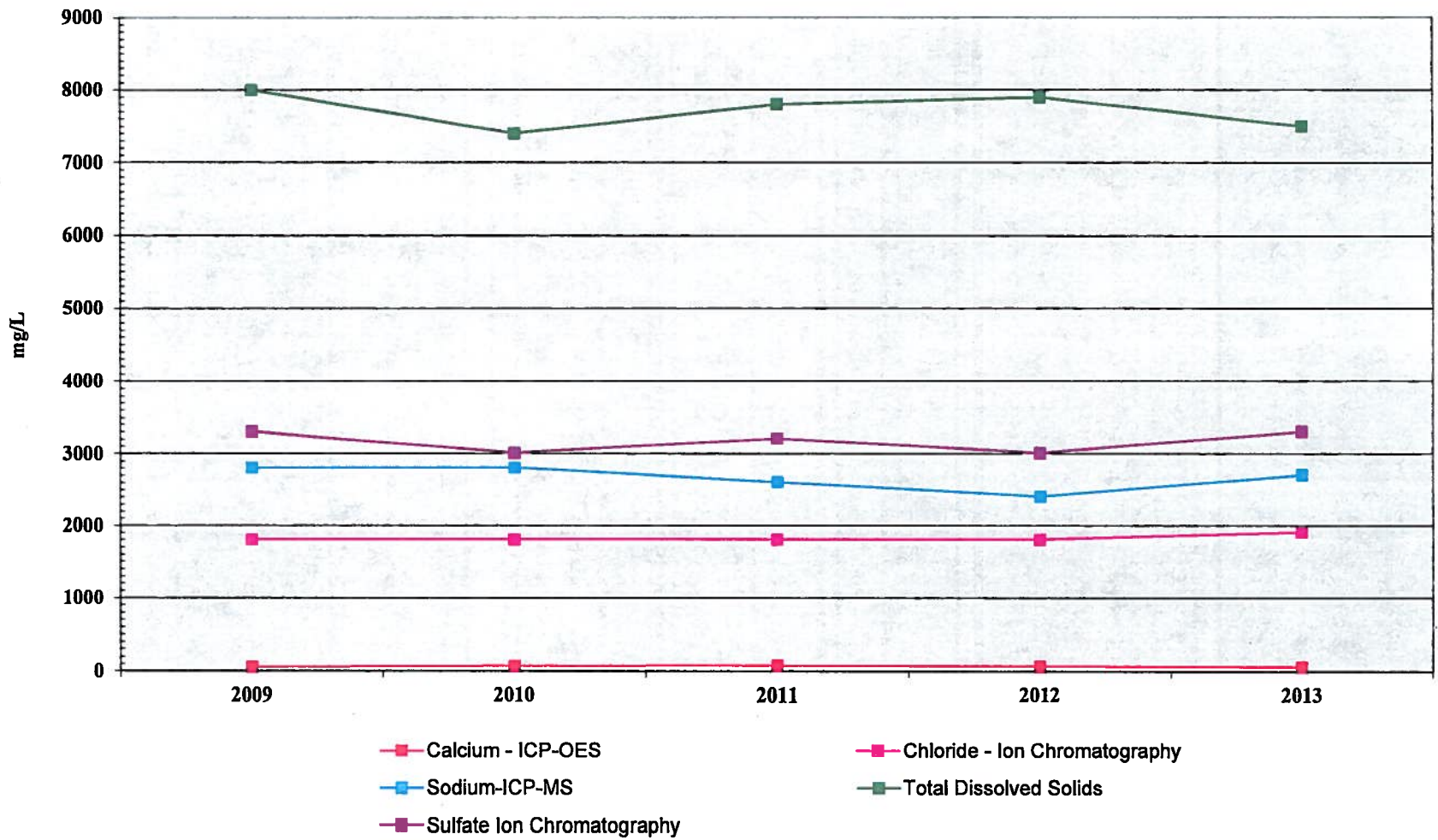


Figure 11.7C
MW 1
Profile I

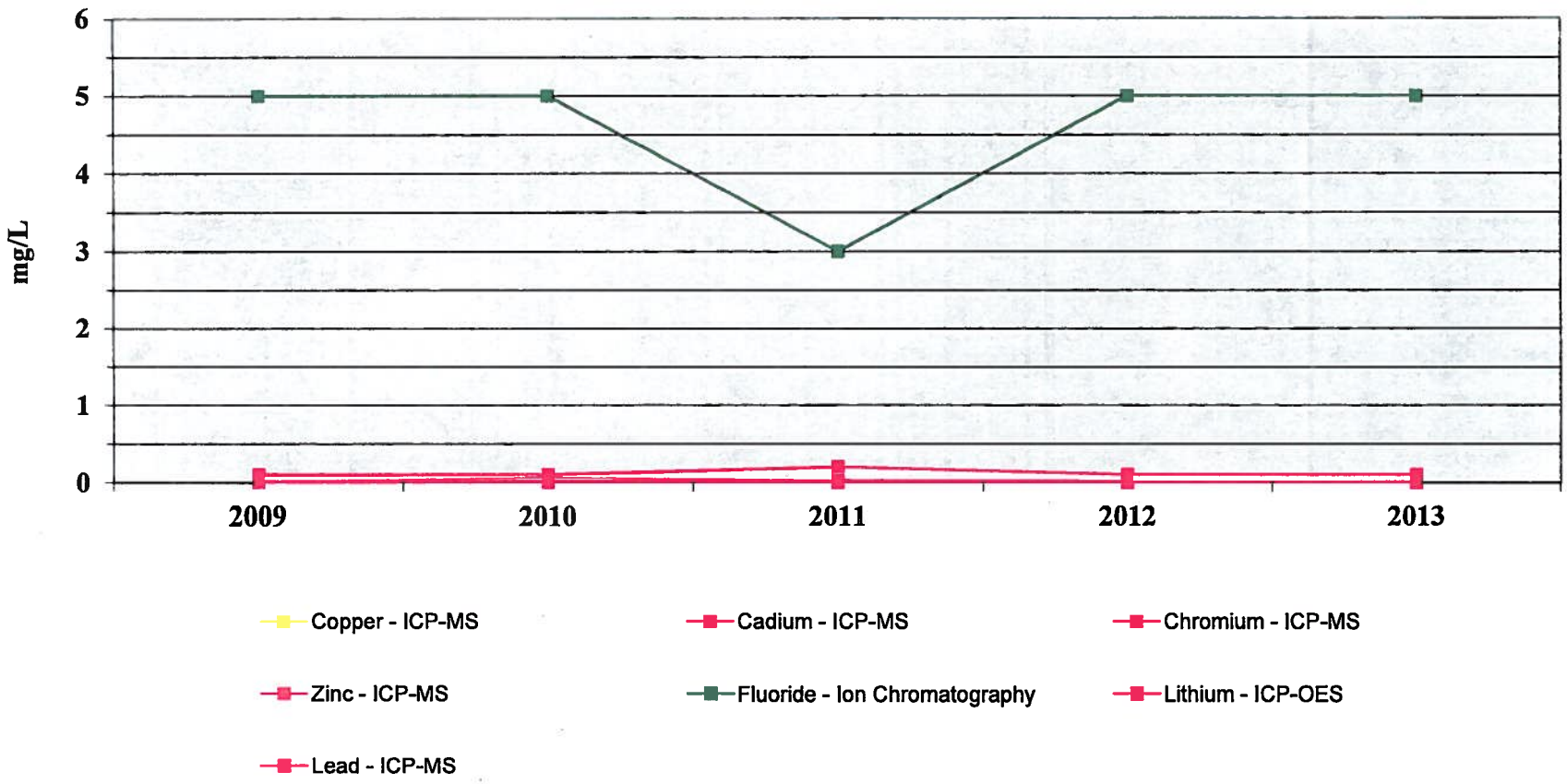


Figure 11.7D
MW 1
Profile I

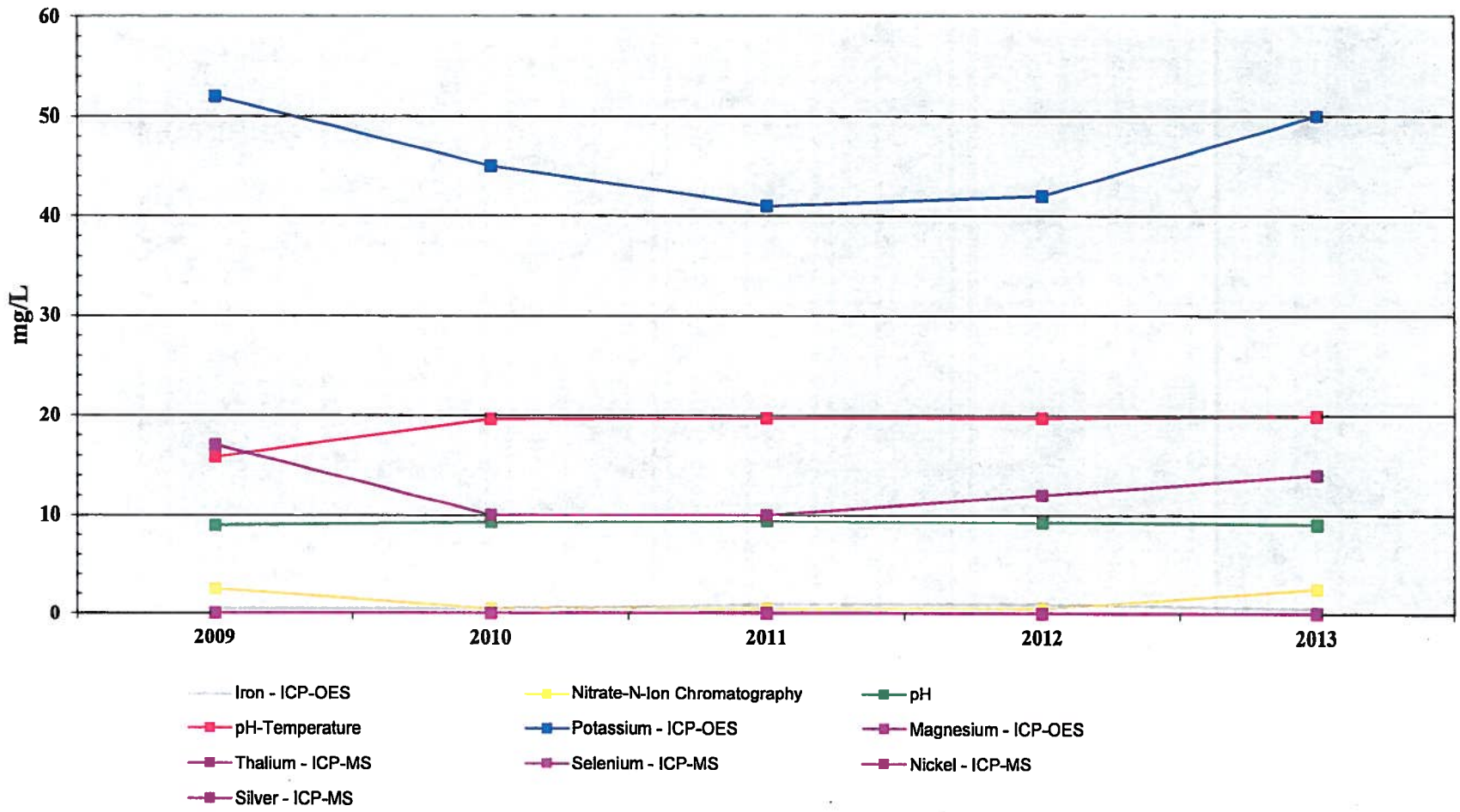


Figure 11.8A
MW 2
Profile I

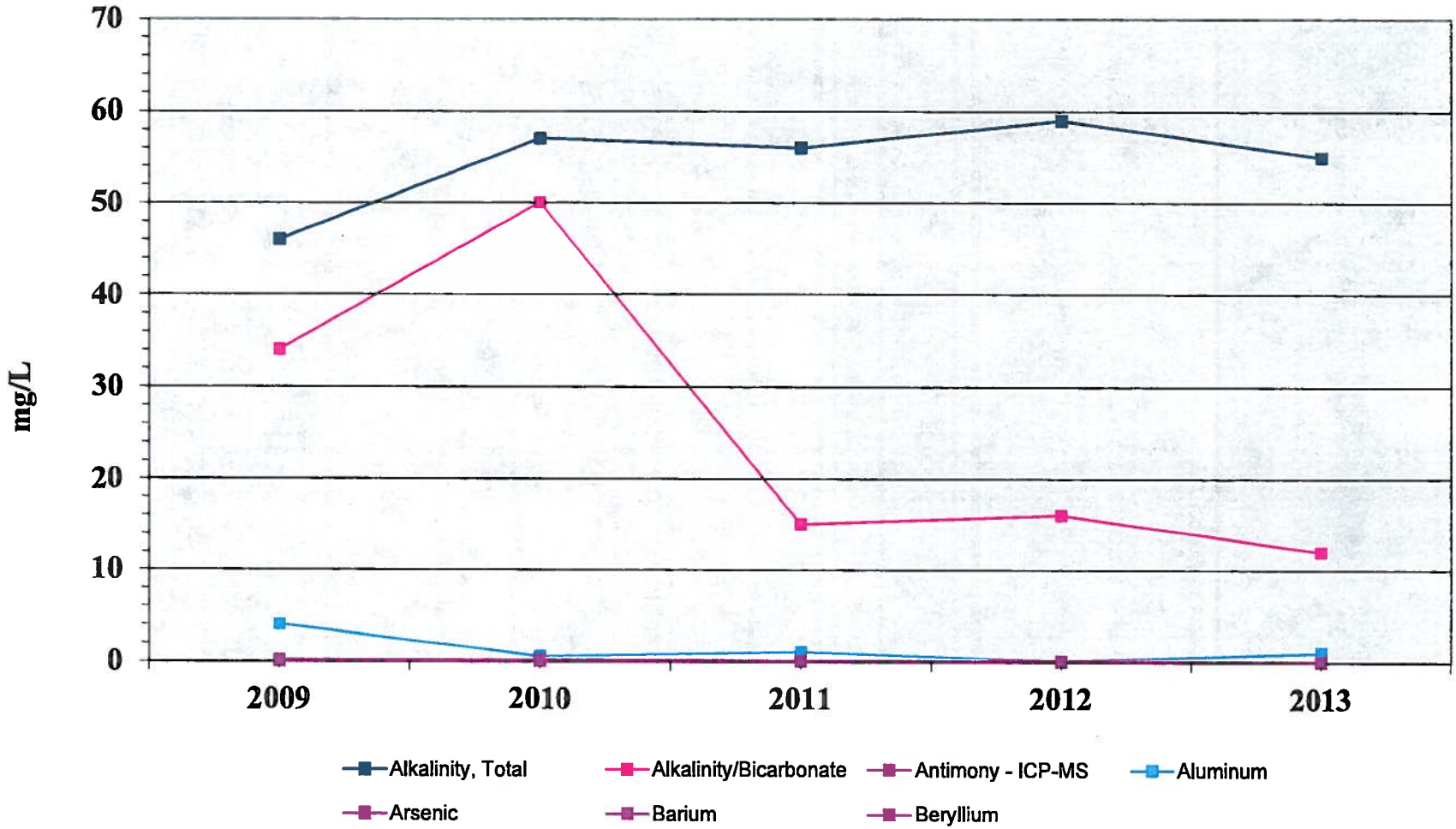
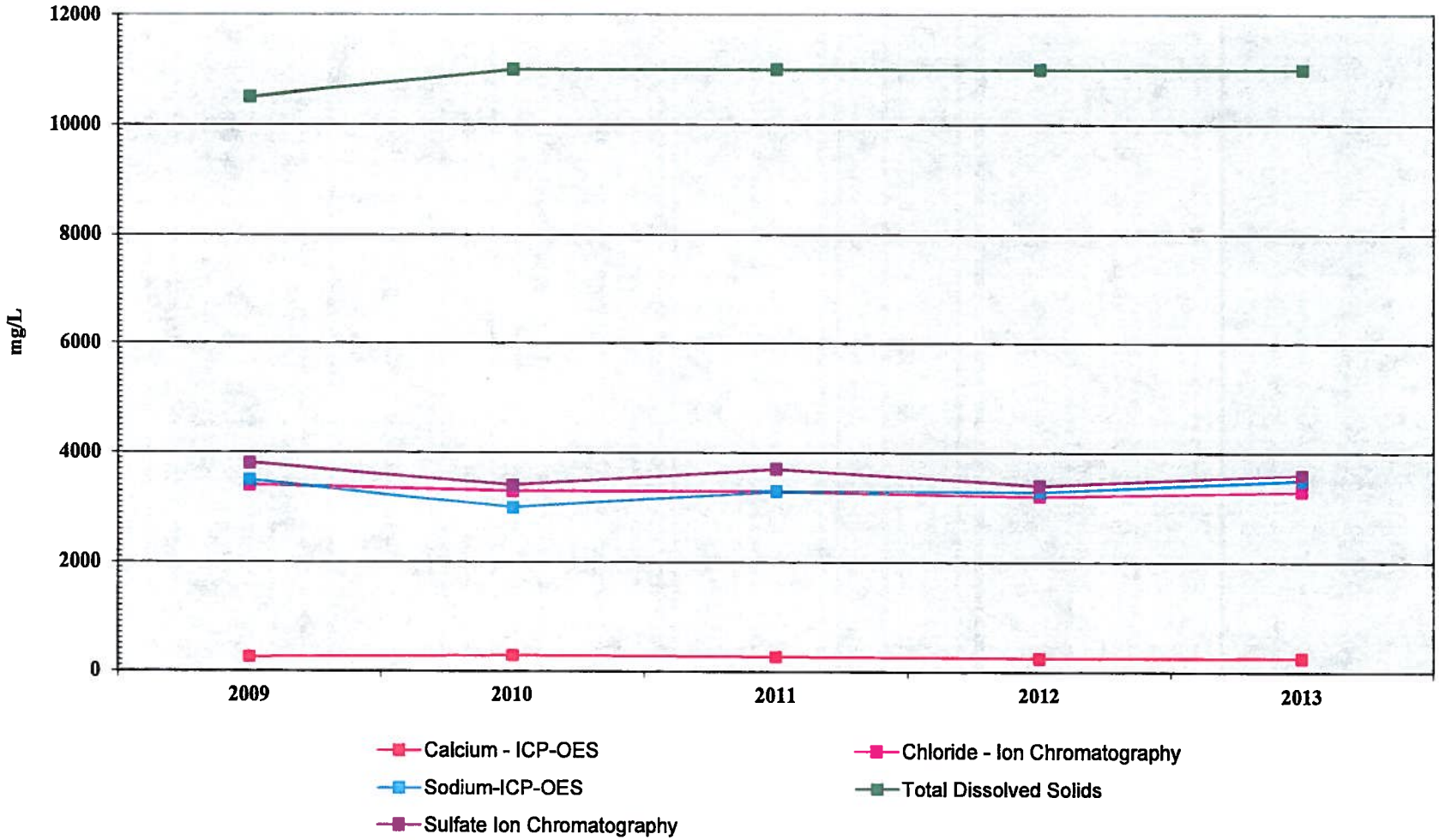


Figure 11.8B
MW 2
Profile I



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MW 2
Profile I

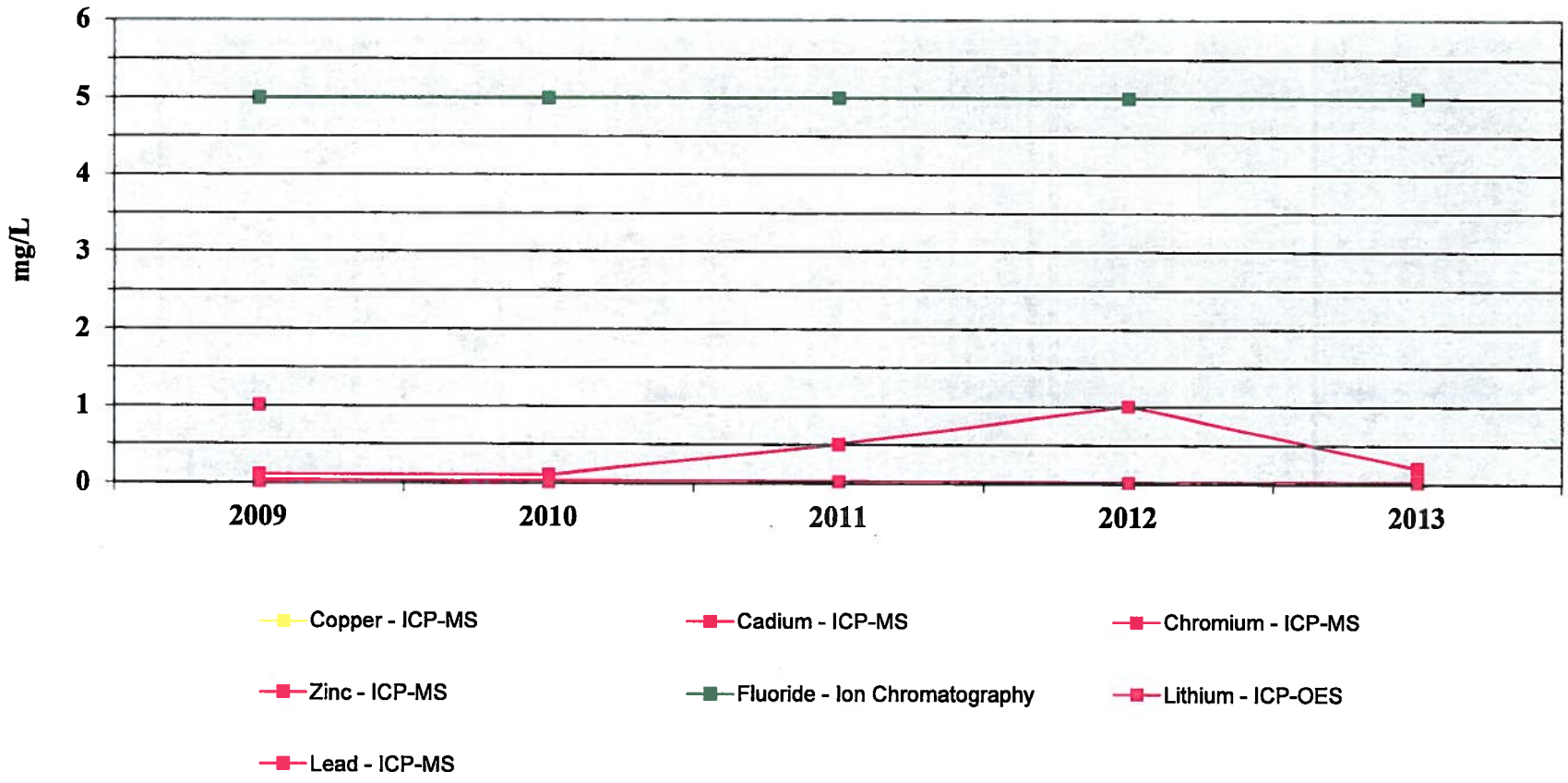

Figure 11.8D
MW 2
Profile I

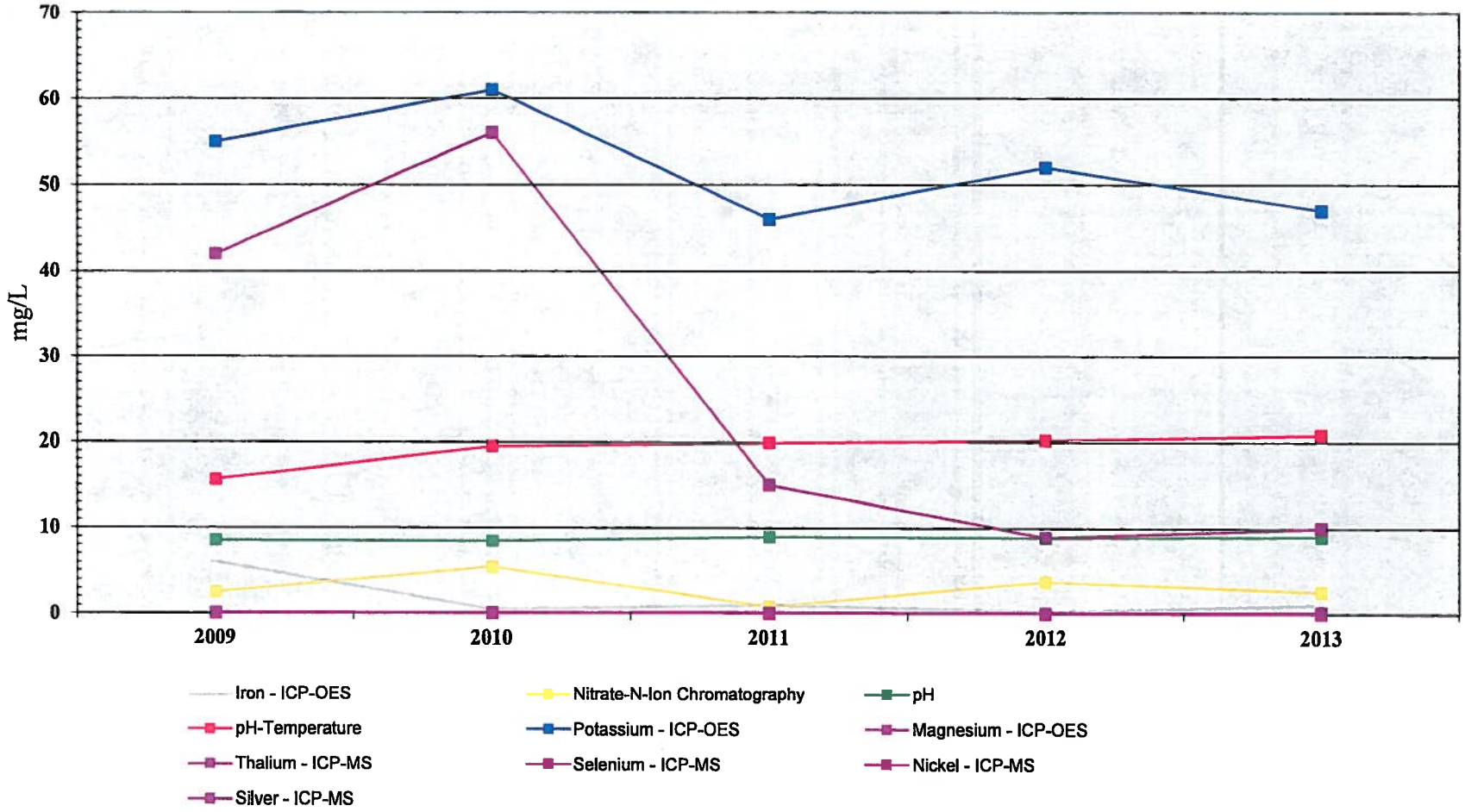

Figure 11.9A
MW 4
Profile I

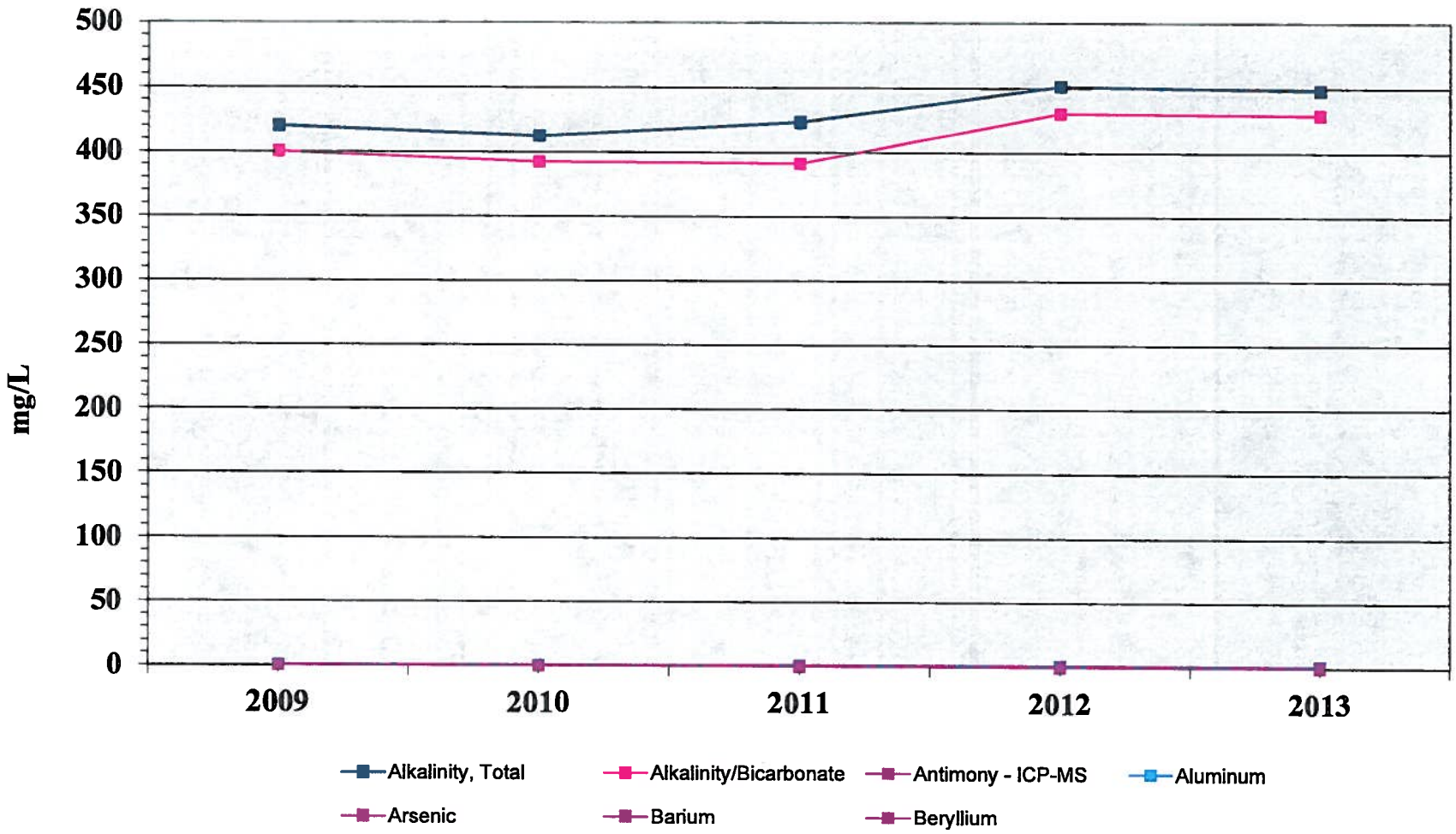

Figure 11.9B
MW 4
Profile I

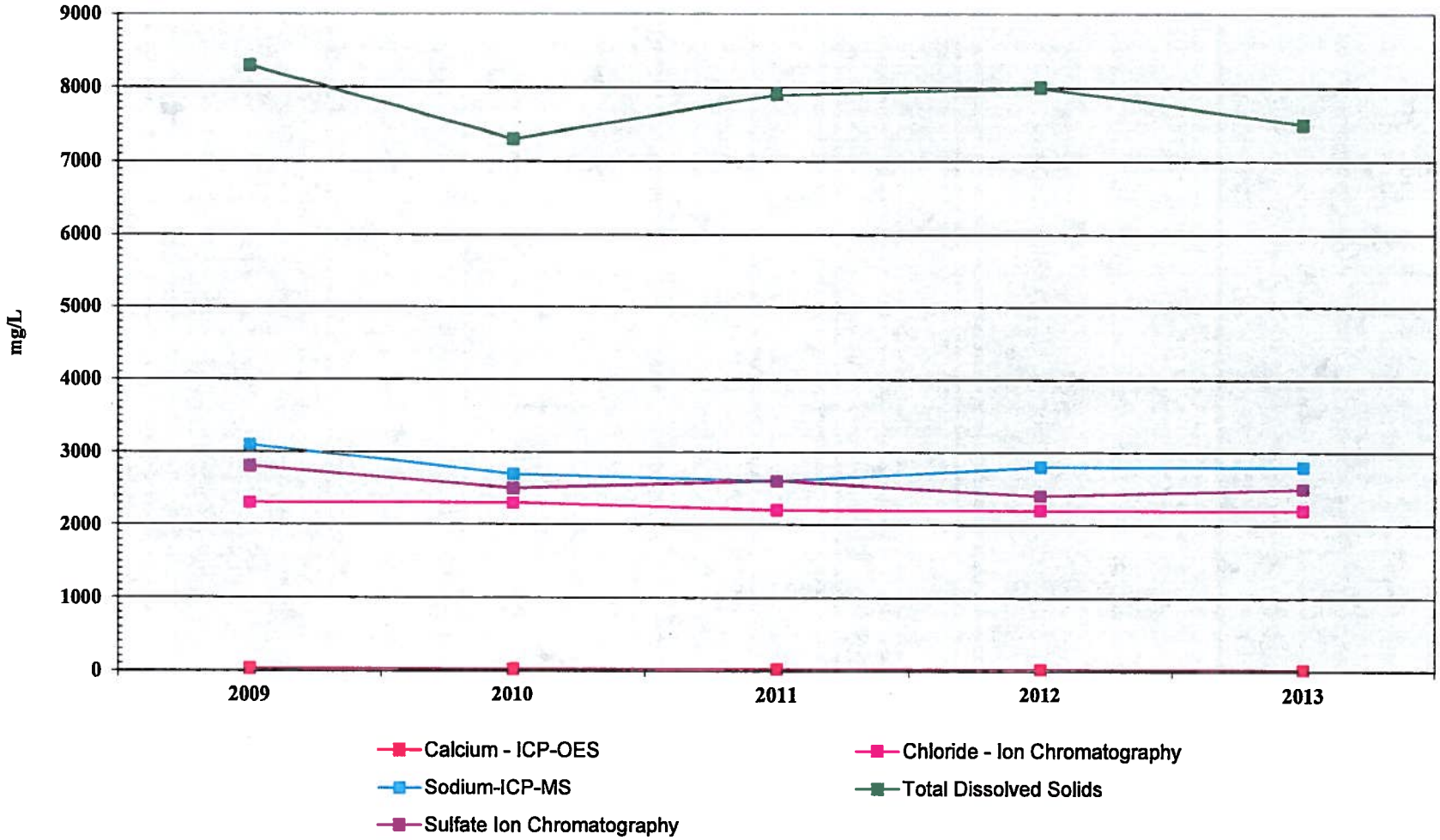

Figure 11.9C
MW 4
Profile I

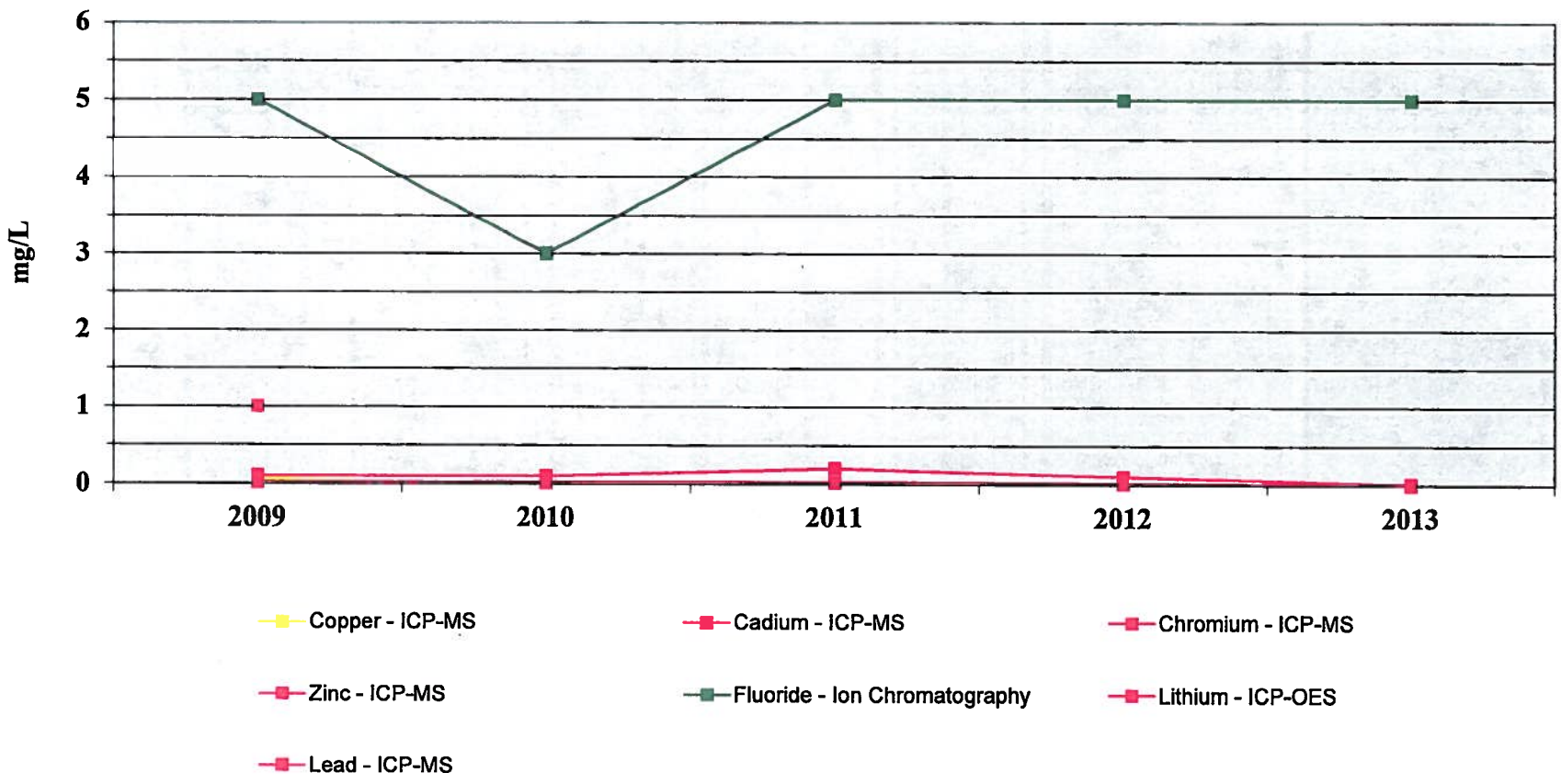

Figure 11.9D
MW 4
Profile I

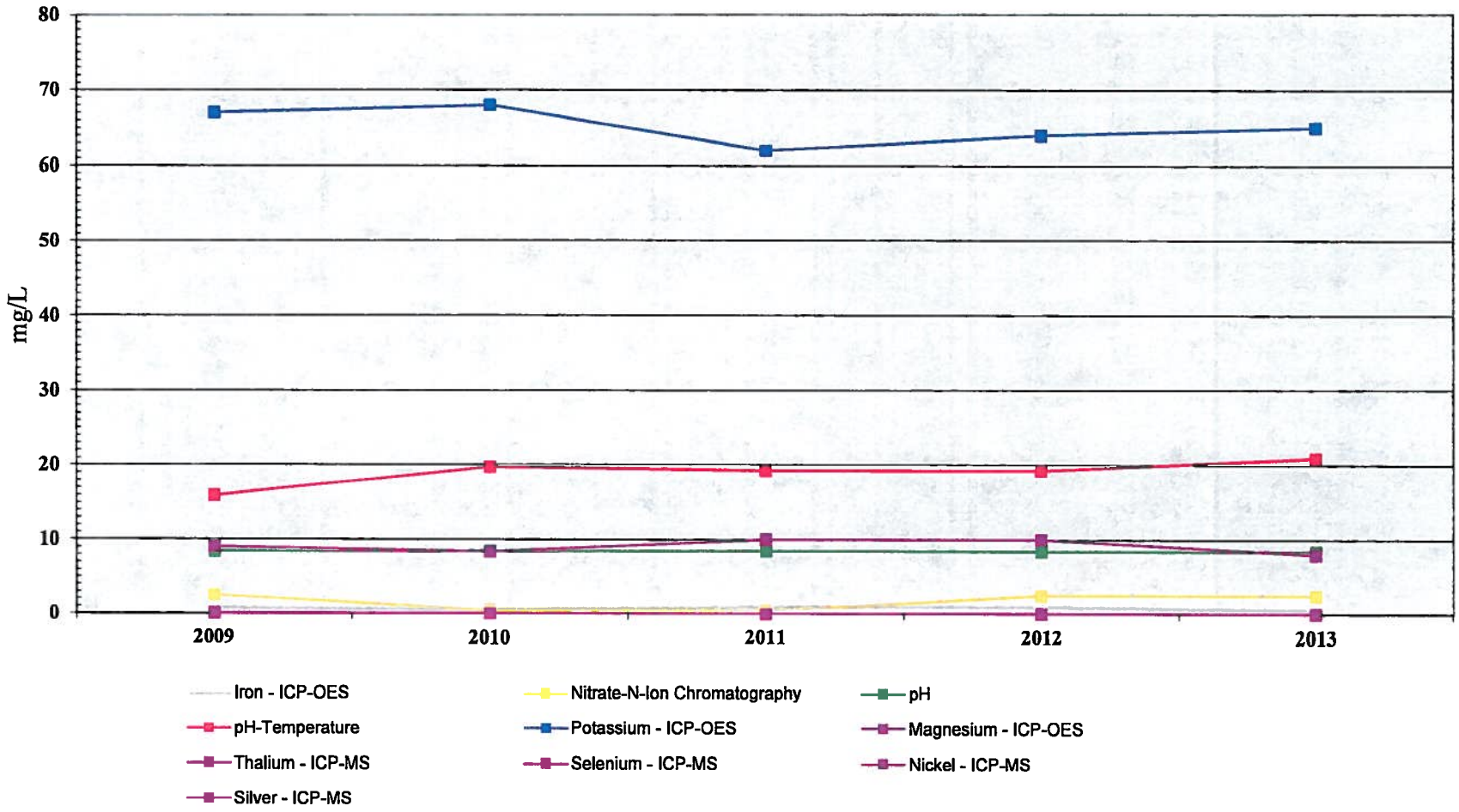

Figure 11.10A
MW 5
Profile I

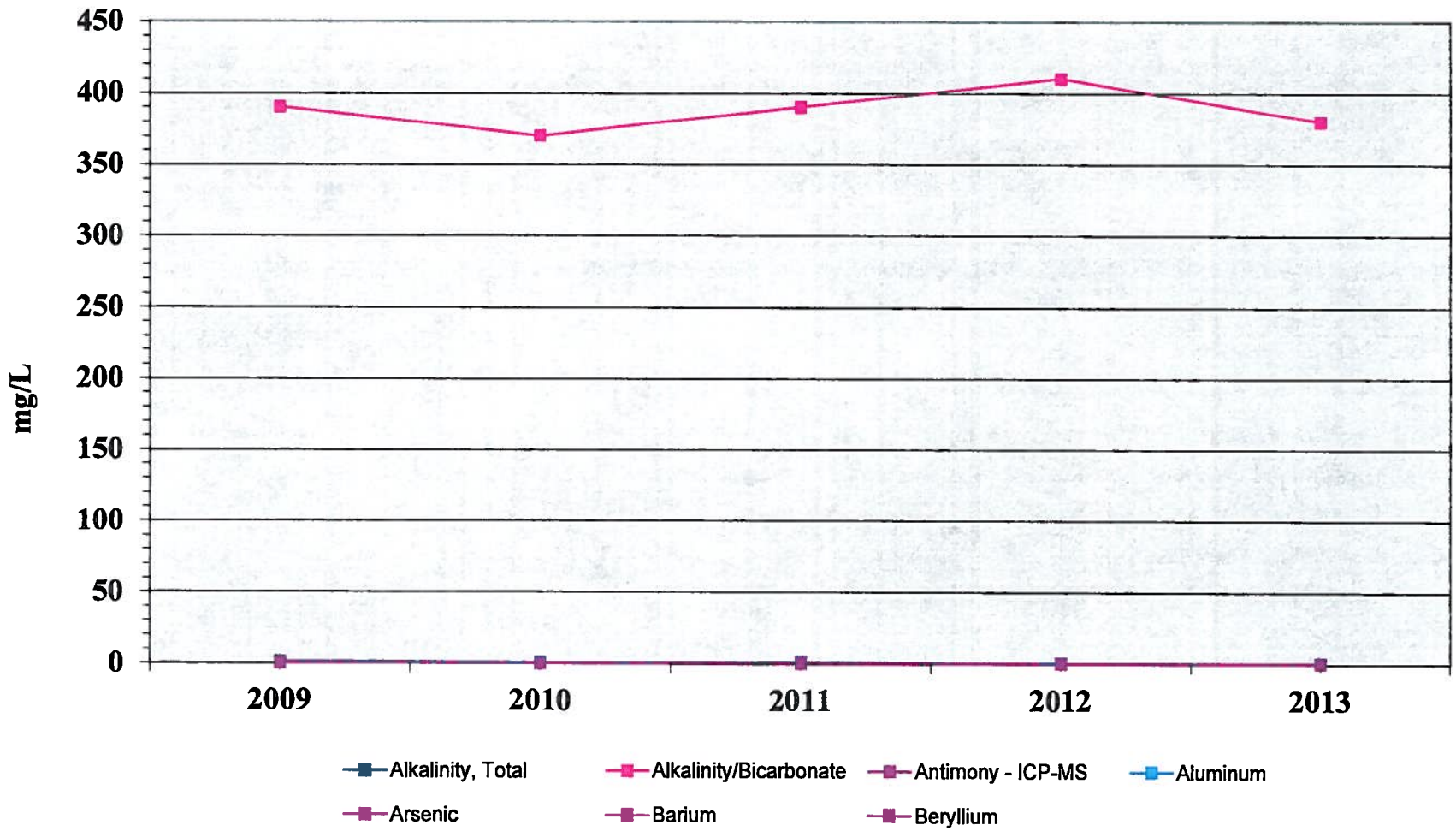

Figure 11.10B
MW 5
Profile I

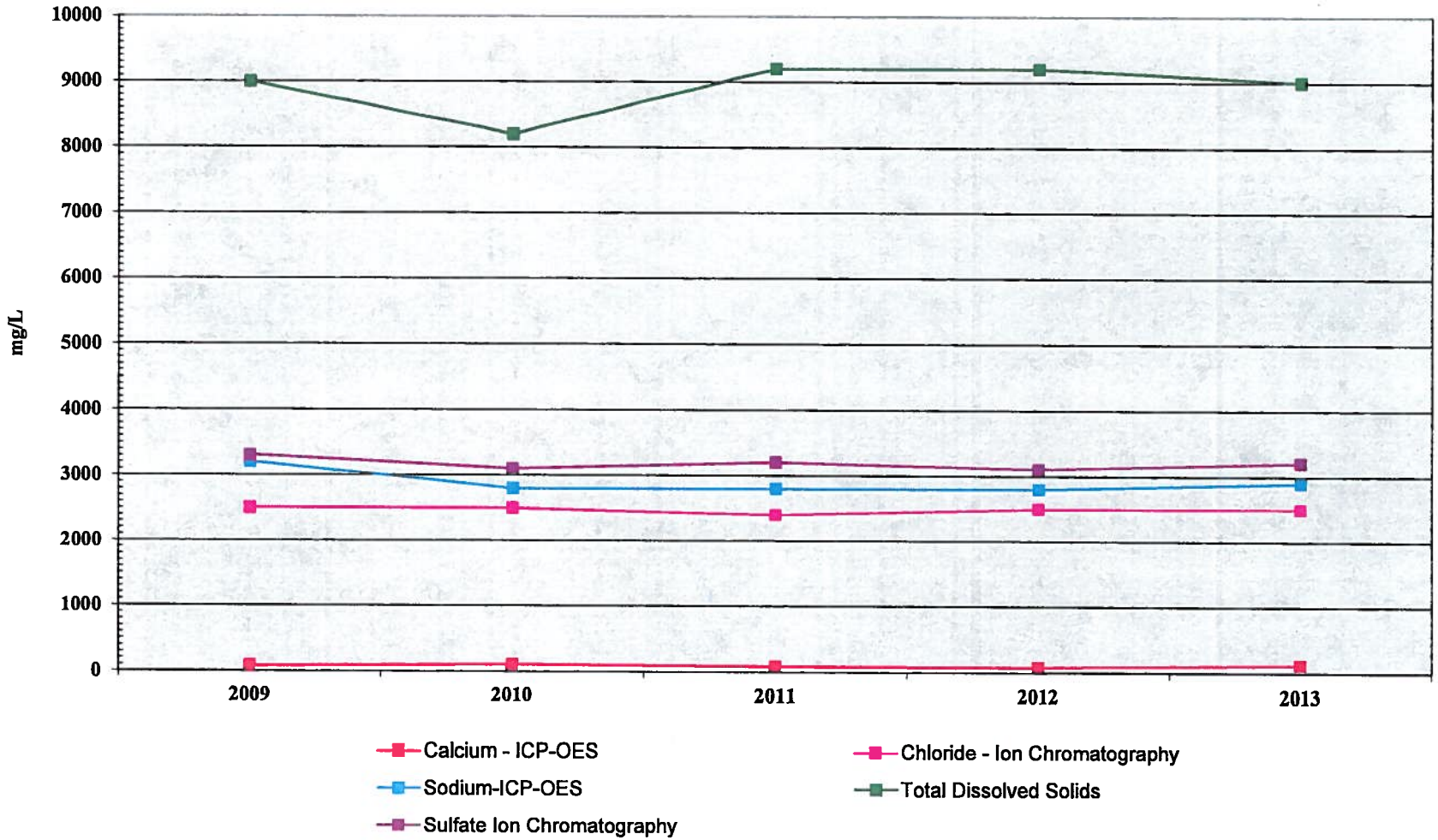

Figure 11.10 C
MW 5
Profile I

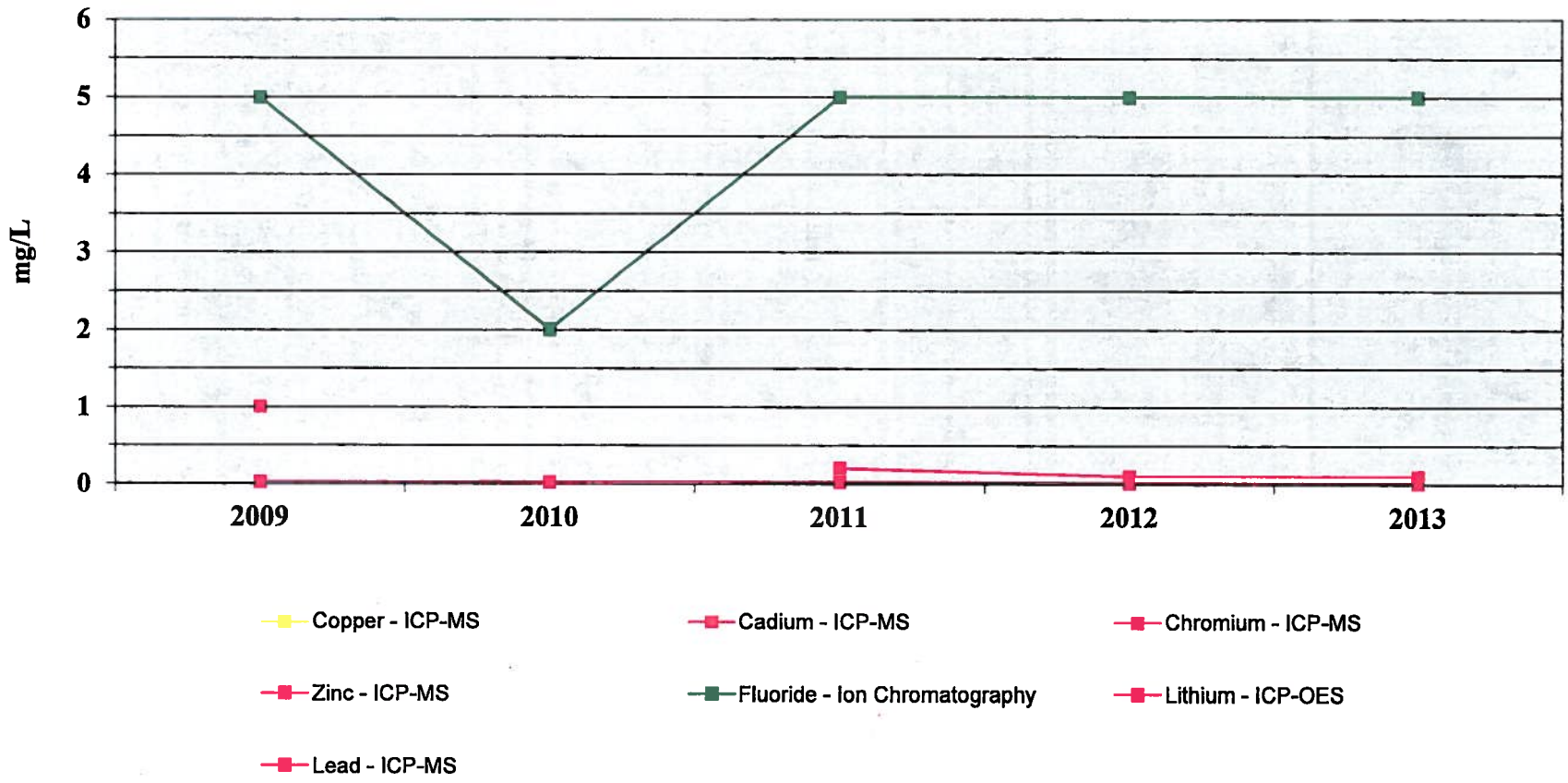

Figure 11.10 D
MW 5
Profile I

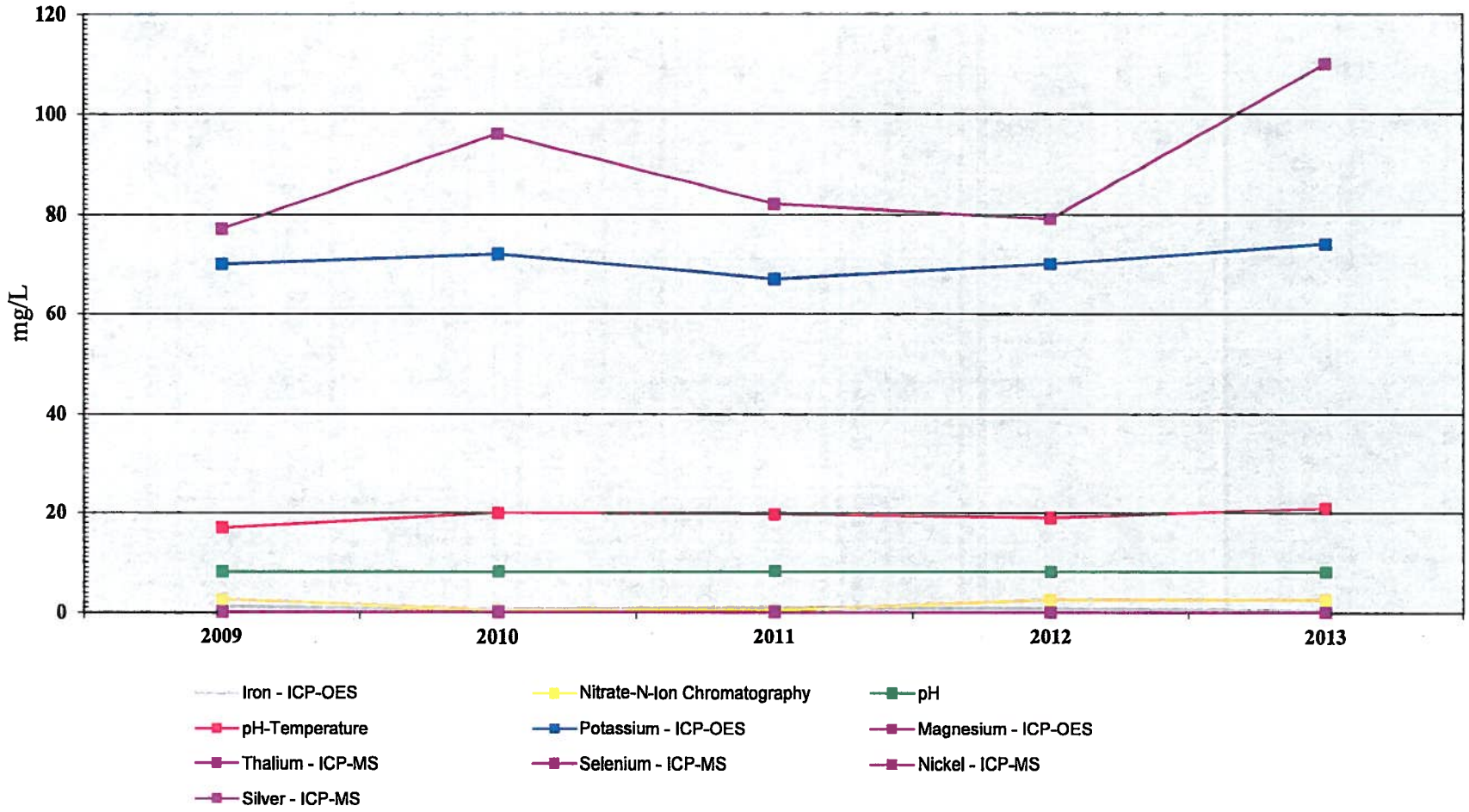

Figure 11.11A
MW 6
Profile I

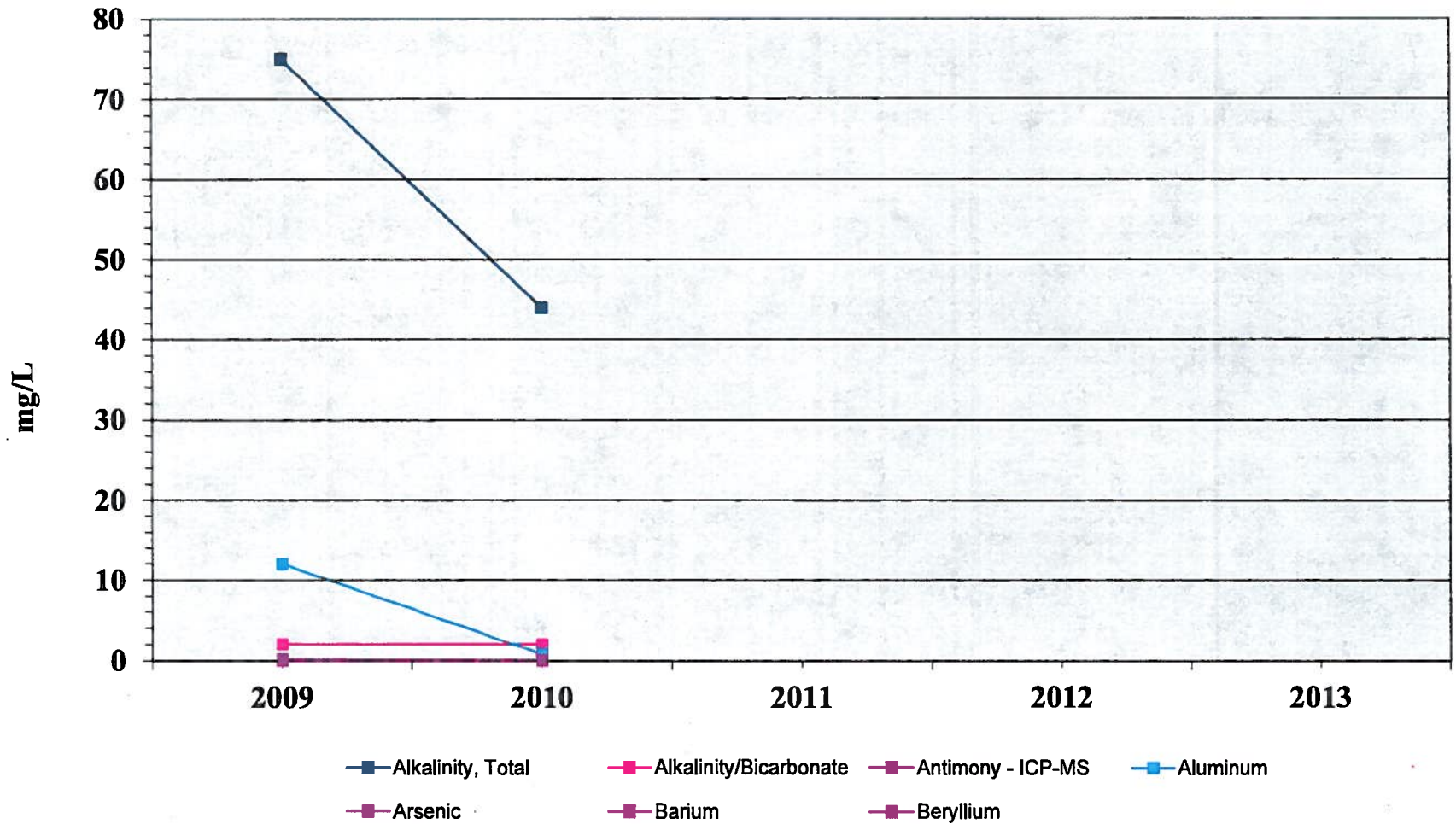

Figure 11.11B
MW 6
Profile I

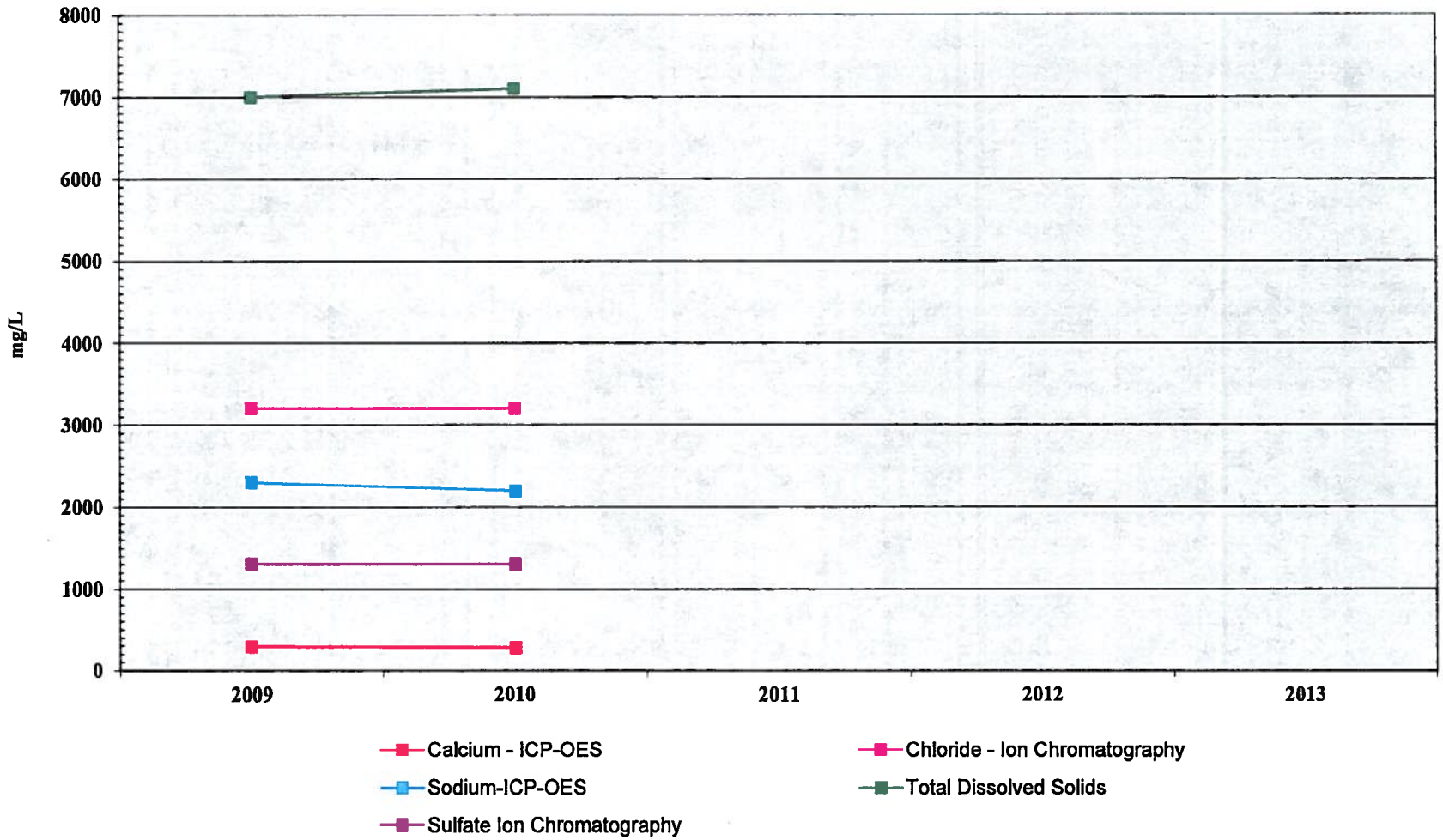

Figure 11.11C
MW 6
Profile I

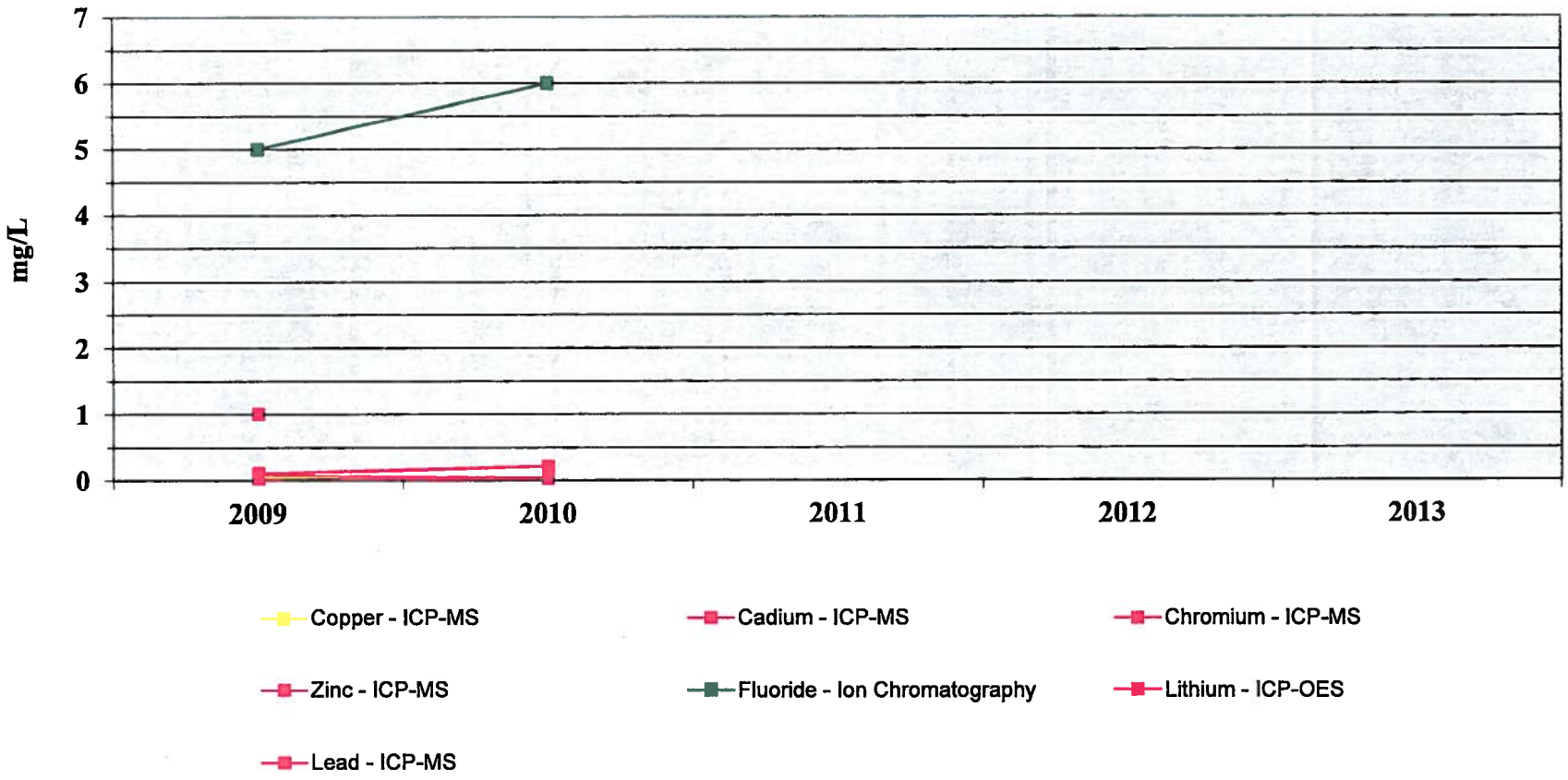

Figure 11.11 D
MW 6
Profile I

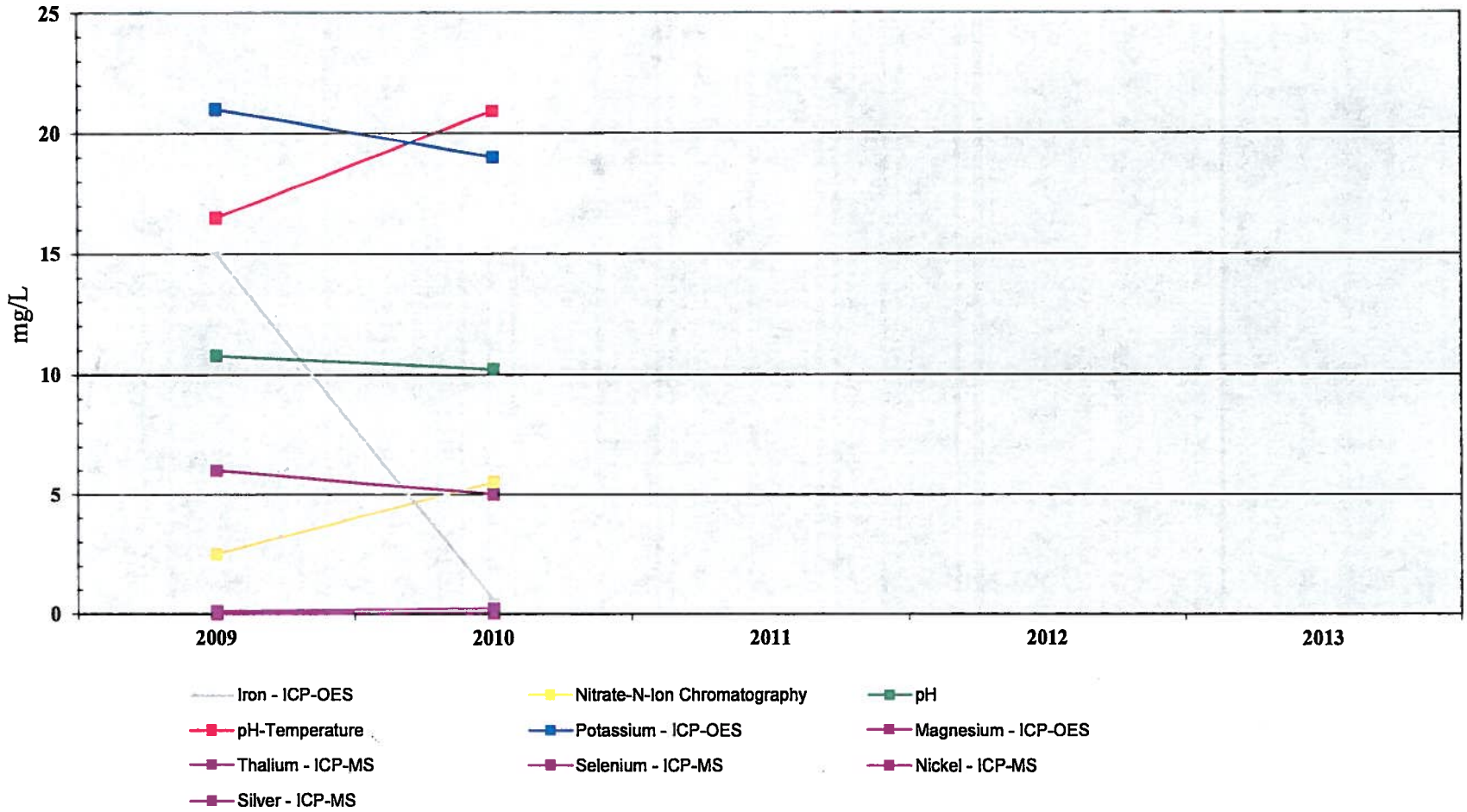

Figure 11.12A
MW 7
Profile I

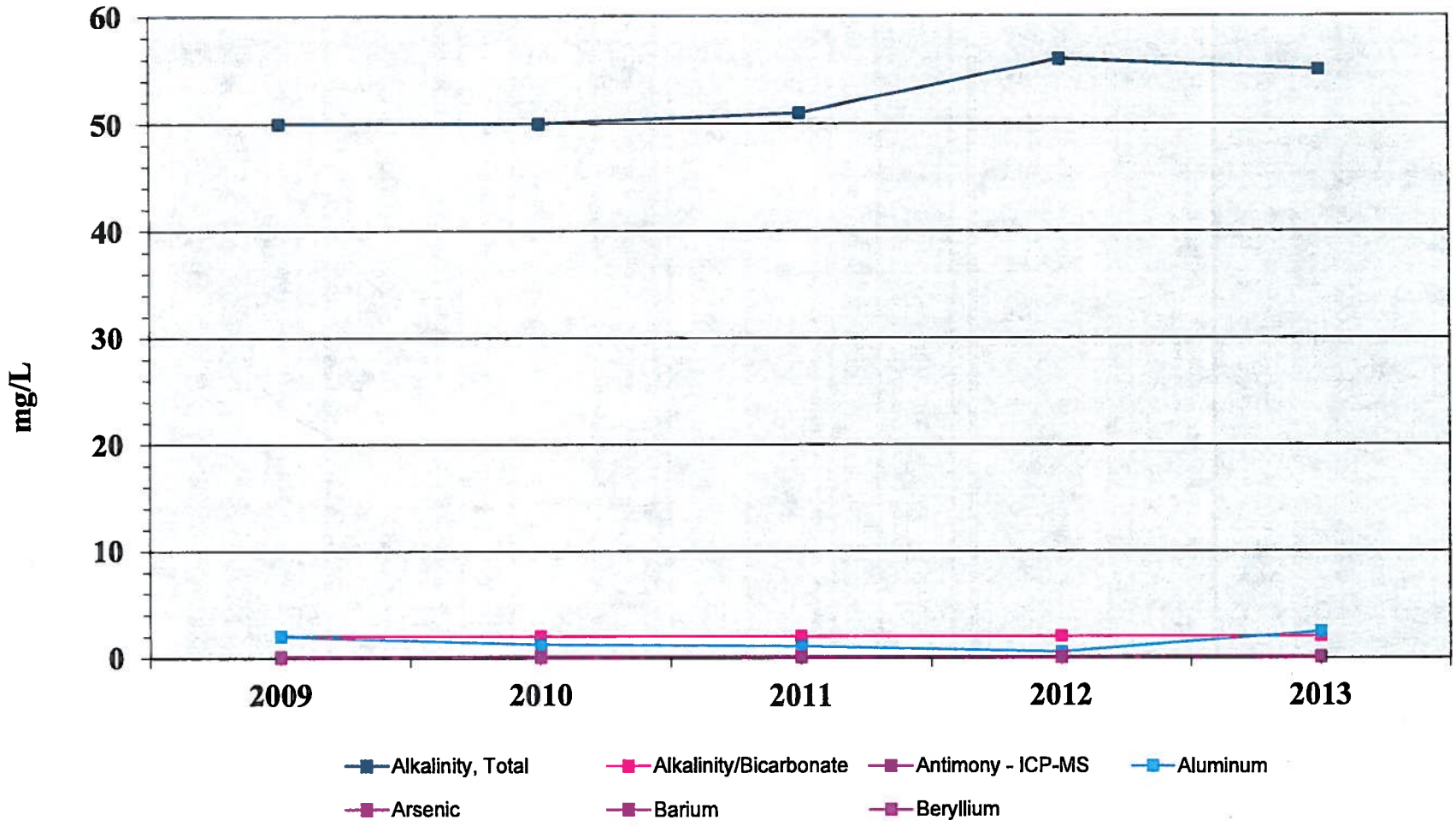

Figure 11.12B
MW 7
Profile I

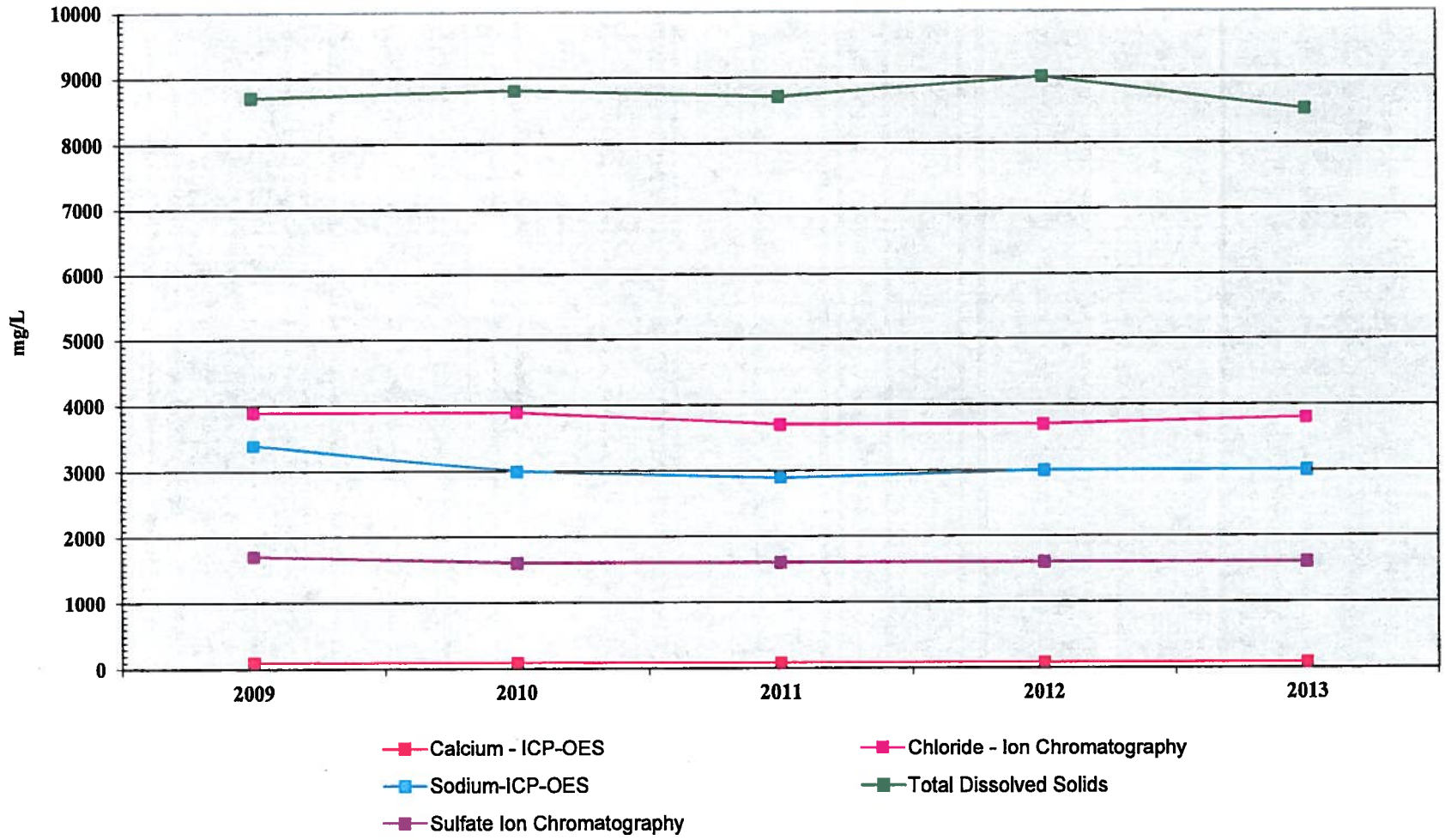

Figure 11.12C
MW 7
Profile I

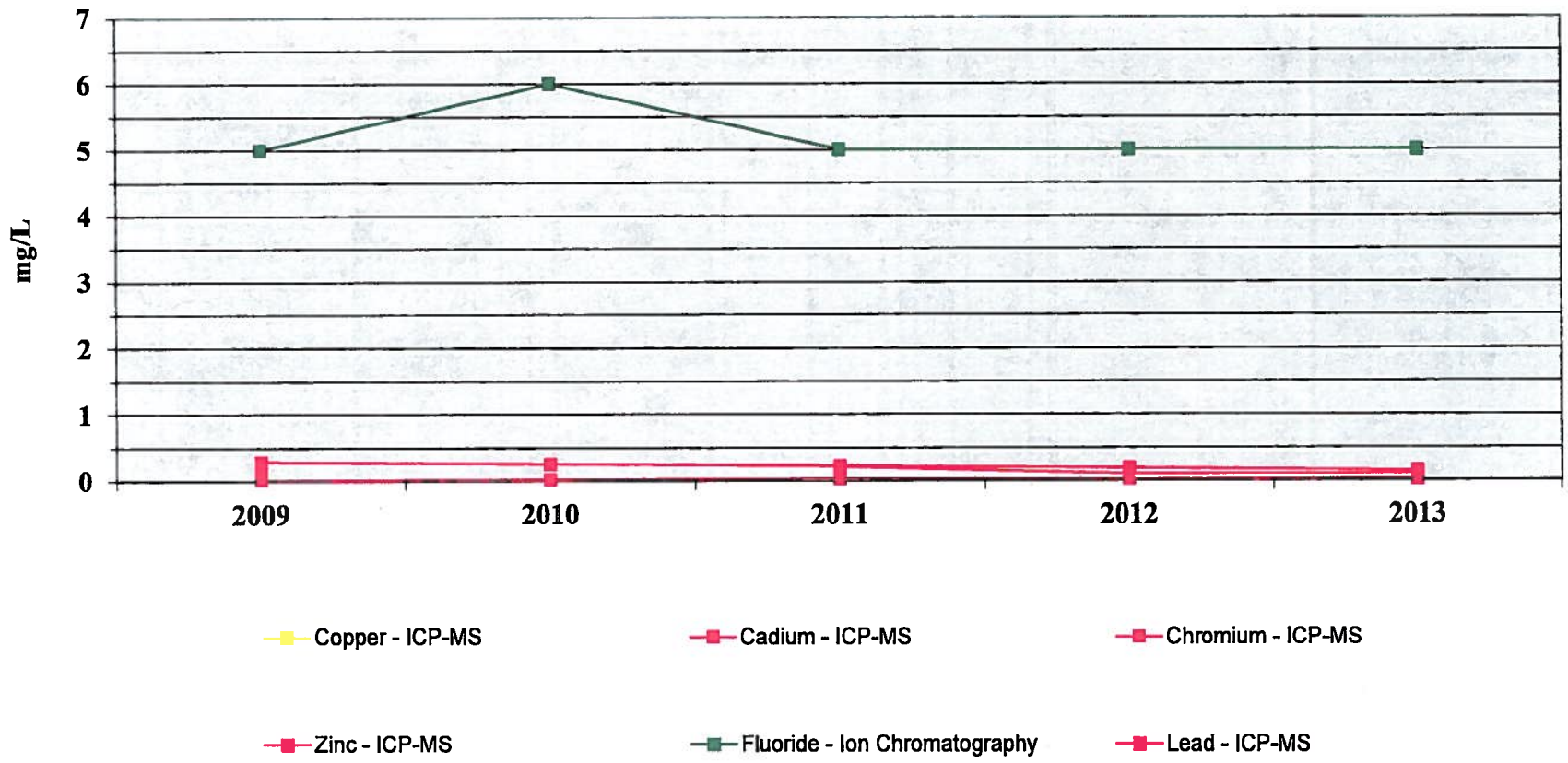

Figure 11.12D
MW 7
Profile I

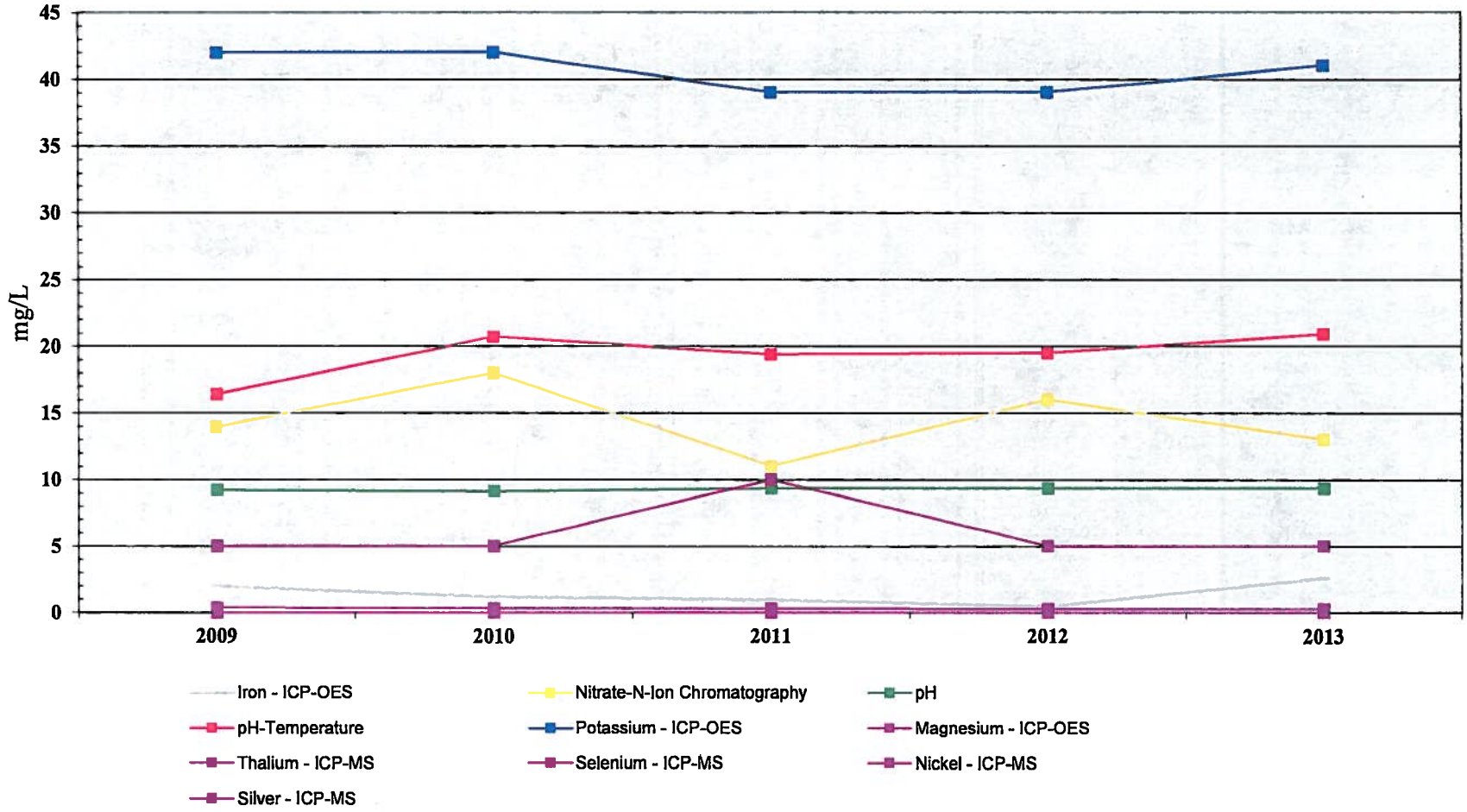

Figure 11.13A
MW 8
Profile I

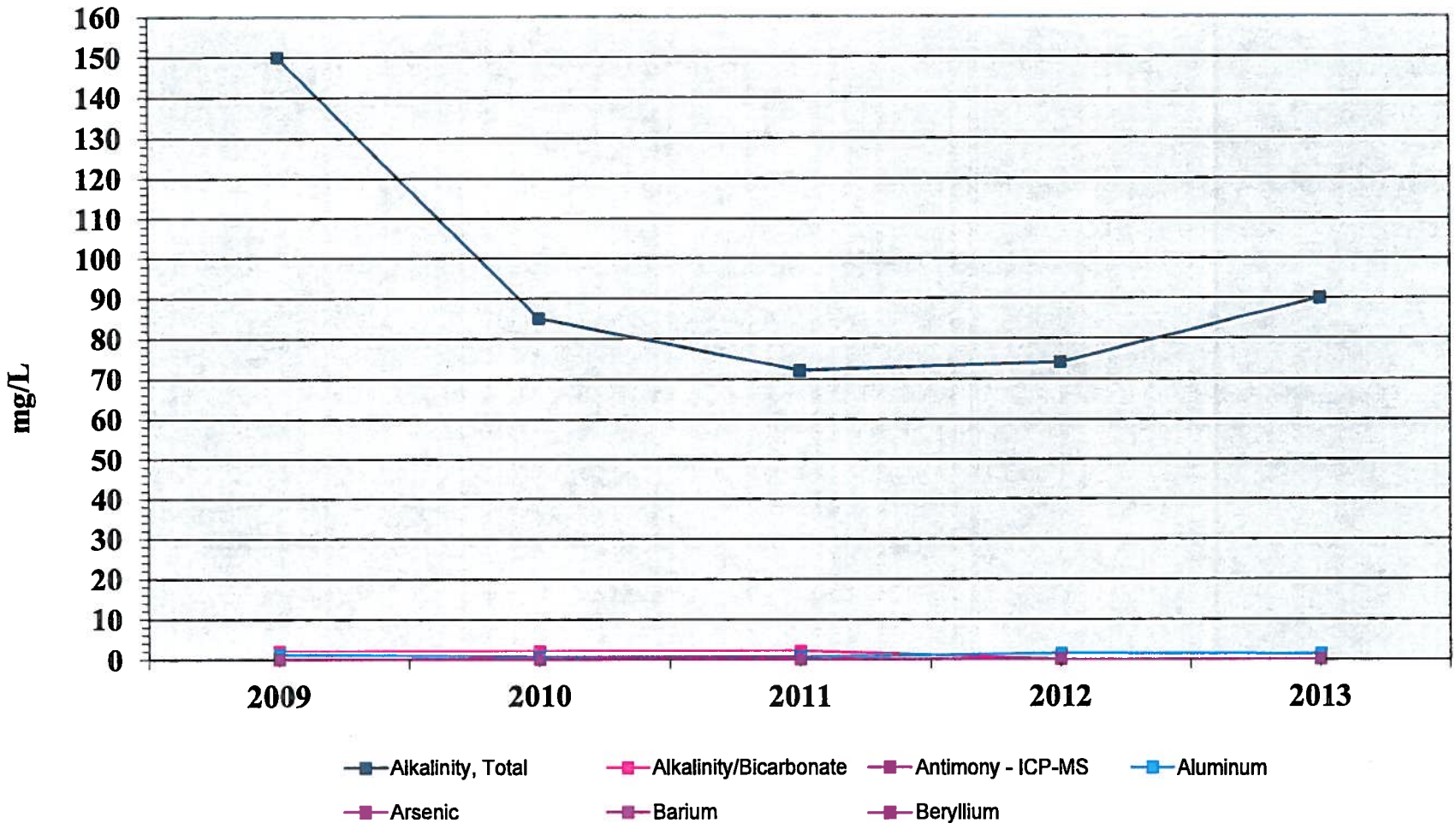

Figure 11.13B
MW 8
Profile I

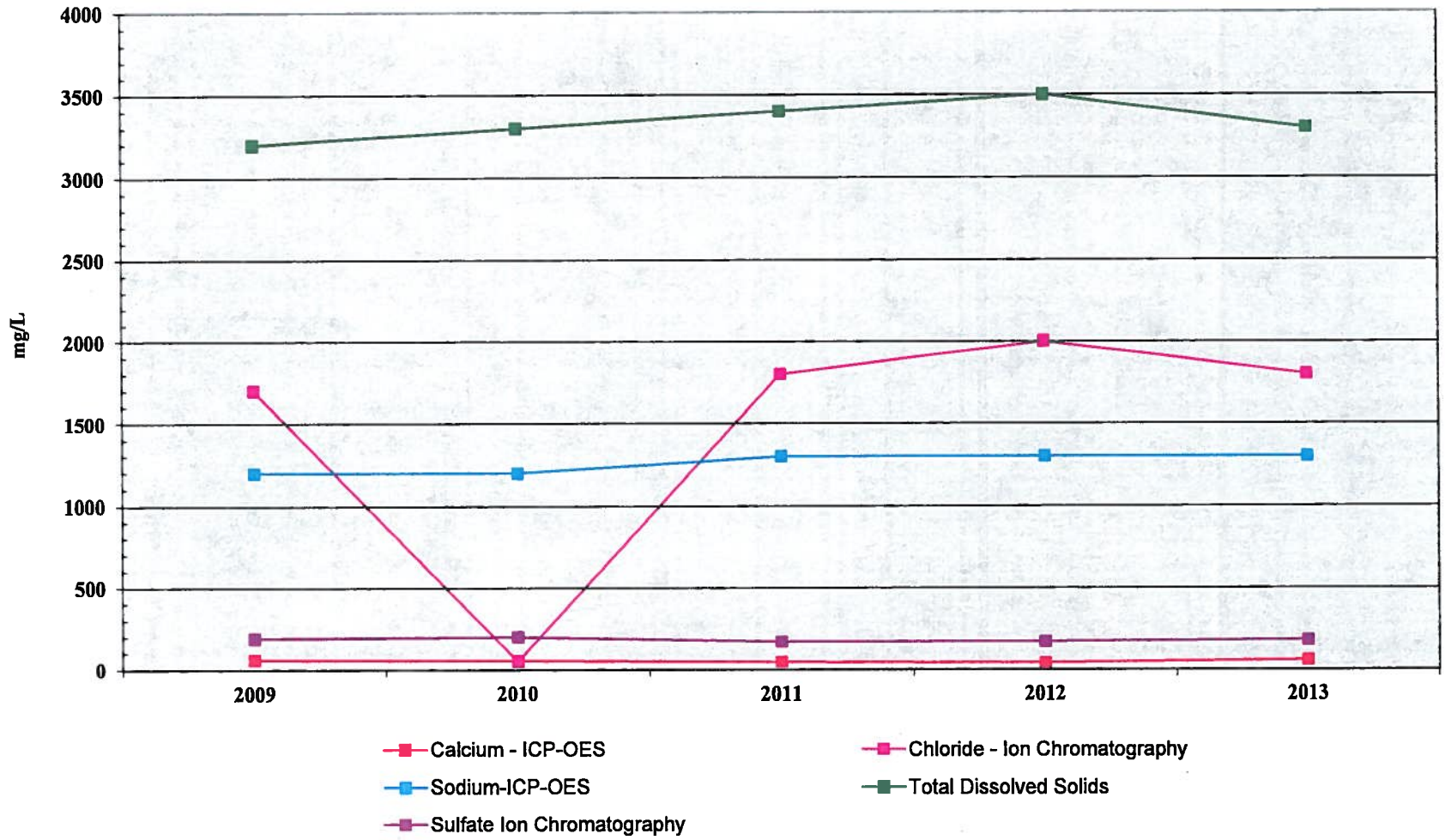

Figure 11.13C
MW 8
Profile I

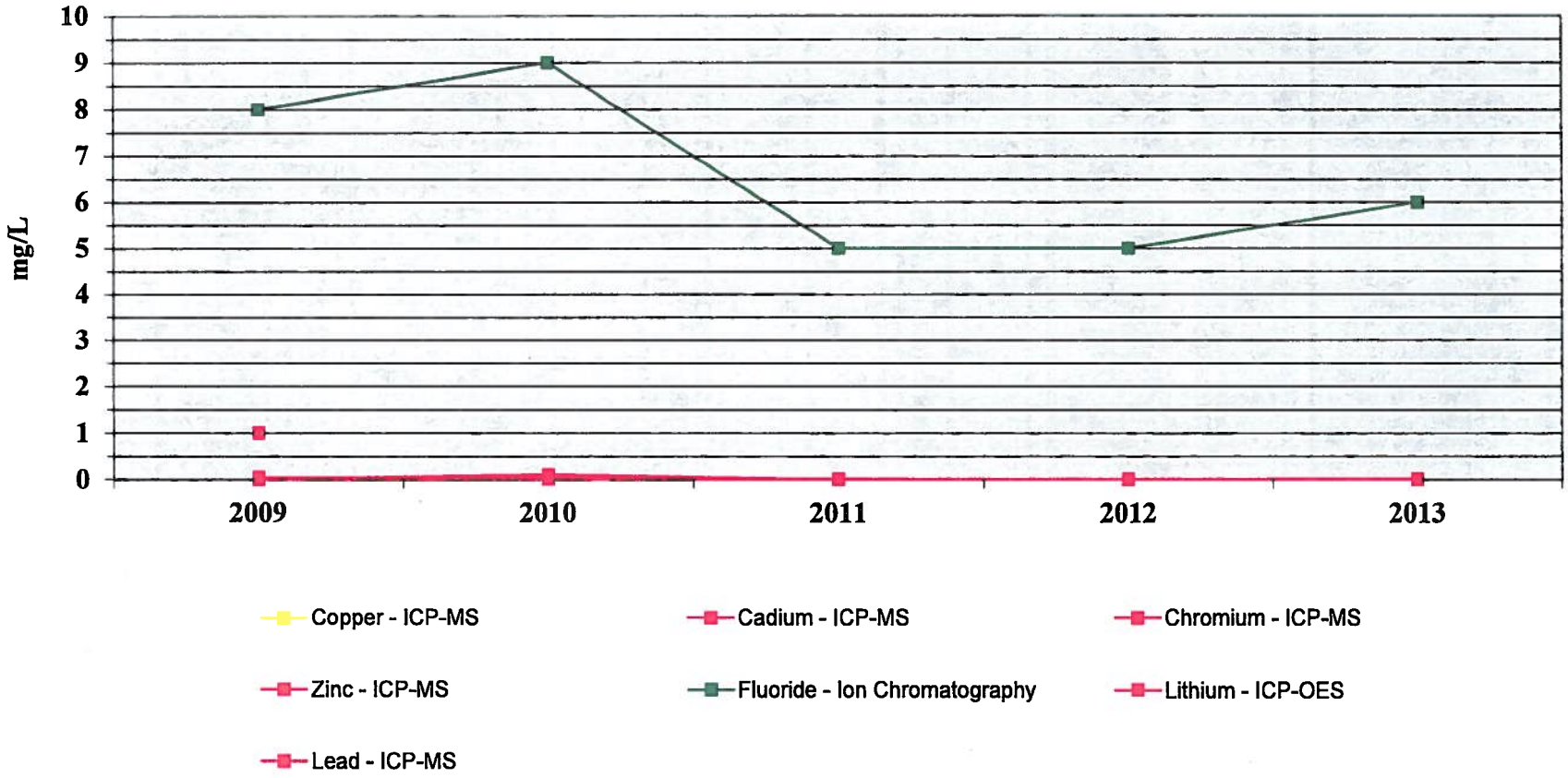
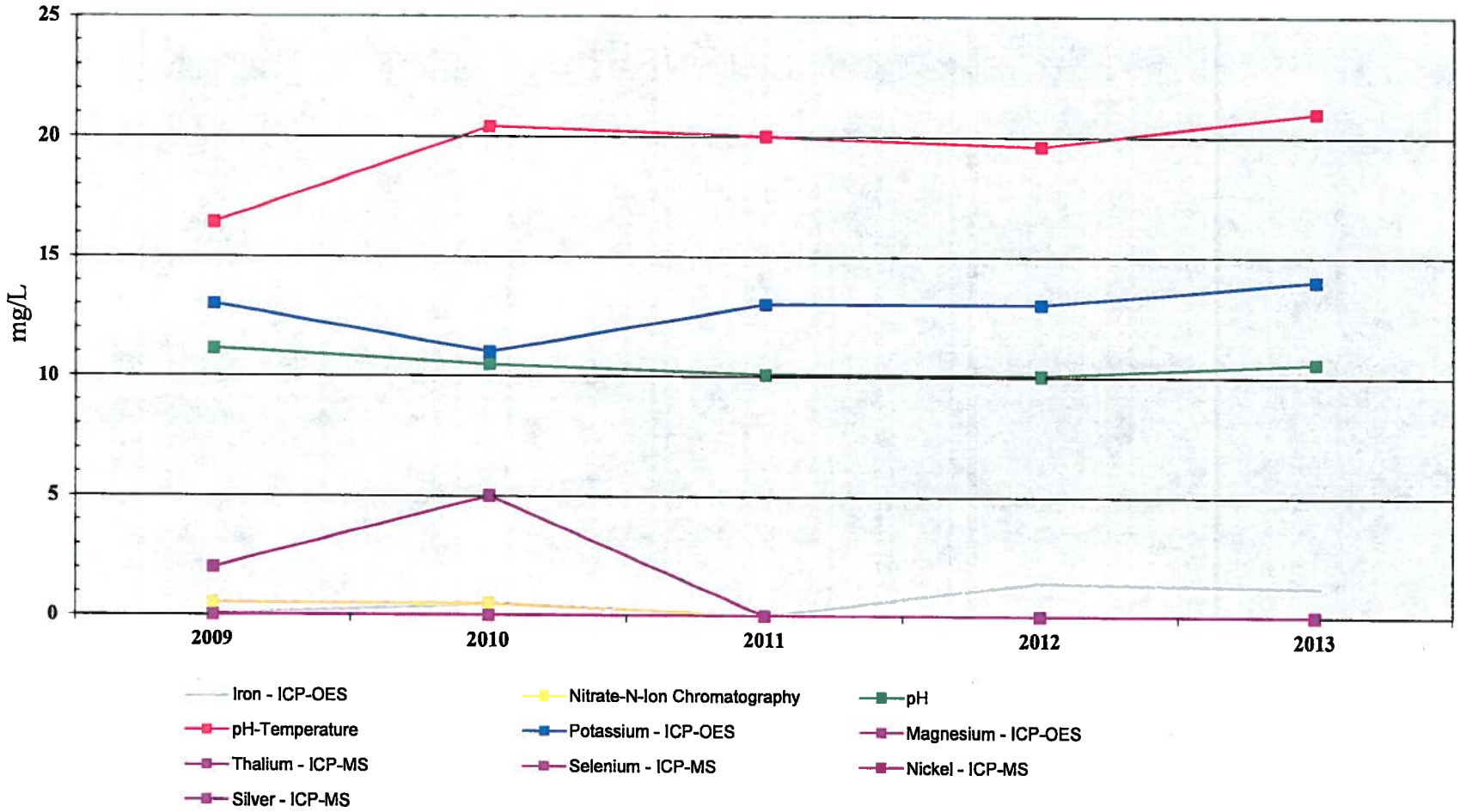
Figure 11.13D
MW 8
Profile I