Environmental Monitoring Report (Water Quality - January to June 2026)

Mt Piper Power Station Brine Conditioned Fly Ash Co-Placement Project - DA80/10060

PREPARED FOR
EnergyAustralia NSW Pty Ltd

DATE
24 September 2026

REFERENCE
0810778_R02



DOCUMENT DETAILS

DOCUMENT TITLE	Environmental Monitoring Report (Water Quality - January to June 2026)
DOCUMENT SUBTITLE	Mt Piper Power Station Brine Conditioned Fly Ash Co-Placement Project - DA80/10060
PROJECT NUMBER	0810778_R02
DATE	24 September 2026
VERSION	Final
AUTHOR	Lily Ashby, Noah George
CLIENT NAME	EnergyAustralia NSW Pty Ltd

DOCUMENT HISTORY

				ERM APPROVAL TO ISSUE		
VERSION	REVISION	AUTHOR	REVIEWED BY	NAME	DATE	COMMENTS
DRAFT	00	Lily Ashby, Noah George	Gavin Powell	Tamie Weaver	04.09.26	Draft for Client comment
Final	00	Lily Ashby, Noah George	Gavin Powell	Tamie Weaver	24.09.26	Final

SIGNATURE PAGE

Environmental Monitoring Report (Water Quality - January to June 2026)

Mt Piper Power Station Brine Conditioned Fly Ash Co-Placement Project - DA80/10060

0810778_R02



Gavin Powell
Associate Partner



Dr Tamie Weaver
Technical Fellow and Partner in Charge

CONTENTS

EXECUTIVE SUMMARY 1

1. INTRODUCTION 3

1.1 BACKGROUND 3
1.2 ENVIRONMENTAL MANAGEMENT FRAMEWORK 4
1.2.1 The MPAR Water Management Plan 4
1.2.2 The LNAR Operational Environmental Management Plan 4
1.2.3 Springvale Water Treatment Project 4
1.3 REGULATORY REQUIREMENTS 5
1.4 OBJECTIVES AND SCOPE OF WORK 6
1.5 CONTACT 7
1.6 REPORT STRUCTURE 7

2. INDEPENDENT GROUNDWATER INVESTIGATION 8

3. ANNUAL OPERATIONS SUMMARY 9

3.1 ASH PLACEMENT 9
3.1.1 MPAR Operations Summary 9
3.1.2 LNAR Operations Summary 10
3.2 BRINE COMPOSITION 11
3.3 SITE WATER DISCHARGES 12
3.4 INCIDENTS AND NON-COMPLIANCES 12
3.5 COMMUNITY ENGAGEMENT 12
3.6 ACTIONS AND ACTIVITIES PLANNED FOR 2026/2027 13

4. ENVIRONMENTAL SETTING 15

4.1 CLIMATE 15
4.2 HYDROLOGY 15
4.3 GEOLOGY 16
4.4 HYDROGEOLOGY 16

5. WATER CHARACTERISATION AND MONITORING PROGRAM 17

6. GROUNDWATER DATA ASSESSMENT 21

6.1 OBJECTIVE 21
6.2 GROUNDWATER MONITORING LOCATIONS AND FREQUENCY 21
6.3 GROUNDWATER MONITORING RESULTS AND DISCUSSION 23
6.3.1 Groundwater Elevation and Inferred Flow Directions 24
6.3.2 Hydrogeological Parameters 25
6.3.3 Groundwater Quality 25

7. SURFACE WATER DATA ASSESSMENT 43

7.1 OBJECTIVE 43
7.2 SURFACE WATER MONITORING LOCATIONS AND FREQUENCY 43
7.3 SURFACE WATER MONITORING RESULTS 44
7.3.1 Upstream Surface Water Monitoring Results 44
7.3.2 Midstream Surface Water Monitoring Results 46
7.3.3 Downstream Surface Water Monitoring Results 49

8. LEACHATE MANAGEMENT 52
8.1 OBJECTIVES 52
8.2 LEACHATE MANAGEMENT SYSTEM 52
8.3 LEACHATE MONITORING PLAN 52
8.4 LEACHATE MONITORING OUTCOMES 53
9. DEVIATIONS FROM THE MONITORING PROGRAM 54
10. GROUNDWATER MODEL VALIDATION 55
11. COMPARISON TO THE TARPS 57
11.1 LEACHATE AND BRINE WASTE POND MANAGEMENT TRIGGERS 57
11.2 COVER AND CAP INTEGRITY TRIGGERS 57
11.3 UNSUITABLE OR INSUFFICIENT VEGETATION TRIGGERS 57
11.4 ANALYTE CONCENTRATION TRIGGERS 57
11.4.1 Adopted Guideline Values Trigger 58
11.4.2 Historical Maximum Trigger 58
11.4.3 Statistically Significant Increasing Trend Trigger 59
11.5 TARP SUMMARY 59
12. SUMMARY AND RECOMMENDATIONS 60
13. REFERENCES 62
14. STATEMENT OF LIMITATIONS 64

APPENDIX A FIGURES
APPENDIX B REGULATORY REQUIREMENTS
APPENDIX C ASH REPOSITORY SURVEY
APPENDIX D BRINE COMPOSITION DATA
APPENDIX E STORMWATER FLOW VOLUME DATA
APPENDIX F NALCO
APPENDIX G HYDROGRAPHS
APPENDIX H TABULATED GROUNDWATER DATA
APPENDIX I TABULATED SURFACE WATER DATA
APPENDIX J GROUNDWATER TRENDS
APPENDIX K SURFACE WATER TRENDS
APPENDIX L MANN-KENDALL METHODOLOGY
APPENDIX M STATISTICAL ANALYSIS
APPENDIX N LNAR PONDS MONITORING
APPENDIX O TARP EVALUATION

LIST OF TABLES

TABLE 1-1 STATEMENT OF COMPLIANCE 5
TABLE 1-2 CONTACT DETAILS 7

TABLE 3-1 MPAR ASH PLACEMENT OPERATIONS SUMMARY 10
TABLE 3-2 LNAR ASH PLACEMENT OPERATIONS SUMMARY 10
TABLE 3-3 ASH REPOSITORIES CCC MEETING MINUTES 12
TABLE 4-1 LOCAL CLIMATE DATA FOR 2026 15
TABLE 5-1 WATER CHARACTERISATION AND MONITORING PROGRAM 17
TABLE 6-1 GROUNDWATER MONITORING NETWORK 21
TABLE 6-2 GROUNDWATER SEEPAGE VELOCITY CALCULATIONS 25
TABLE 7-1 SURFACE WATER MONITORING LOCATIONS 43
TABLE 8-1 LEACHATE MONITORING PLAN 52
TABLE B-1 SUMMARY OF MT PIPER CONSENT AND WMP REQUIREMENTS 1
TABLE B-2 SUMMARY EPL 13007 REQUIREMENTS 4
TABLE B-3 SUMMARY OF LAMBERTS NORTH PROJECT APPROVAL AND OEMP REQUIREMENTS 5

LIST OF FIGURES

FIGURE 10-1 MODELLED GROUNDWATER FLOW PATHS AND SURFACE WATER INTERACTION 55
FIGURE 10-2 SCENARIO 1 SIMULATED CHLORIDE CONCENTRATIONS 56

ACRONYMS AND ABBREVIATIONS

Acronym	Description
AHD	Australian Height Datum
ALS	ALS Global Pty Ltd
ANZECC	Australia and New Zealand Environment Conservation Council
ANZG	Australia and New Zealand Guidelines
AUSRIVAS	Australian River Assessment System
BCA	Brine conditioned ash
BRWMP	Brine and Residuals Management Plan
CCC	Community Consultative Committee
CSM	Conceptual Site Model
CSP	Coal Settling Pond
DA	Development Approval
DPE	Department of Planning and Environment
DPHI	Department of Planning, Housing and Infrastructure
EC	Electrical conductivity
Ecolab	Ecolab Pty Ltd
EMR	Environmental Monitoring Report
EMP	Ecological Monitoring Program
EnergyAustralia	EnergyAustralia NSW Pty Limited

Acronym	Description
EPA	Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979
EPL	Environment Protection Licence
ERM	Environmental Resources Management Australia Pty Ltd
FBA	Furnace Bottom Ash
FHP	Final Holding Pond
GCB	Groundwater Collection Basin
Ha	Hectares
HDPE	High-Density Polyethylene
K	Hydraulic Conductivity
km	kilometers
LBMS	Leachate Barrier Management System
LCC	Lithgow City Council
LDP	Licenced Discharge Point
LGA	Local Government Area
LLDPE	Linear Low-Density Polyethylene
LMBS	Leachate Management Barrier System
LMP	Licenced Monitoring Point
LNAR	Lamberts North Ash Repository
LOR	Limit of Reporting
m btoc	metres below top of casing
m AHD	metres Australia Height Datum
MF	Micro Filtration
mg/L	milligrams per litre
ML	megalitre
MPAR	Mt Piper Ash Repository
MPPS	Mt Piper Power Station
MW	Megawatts
Nalco	Nalco / Ecolab Pty Ltd
NATA	National Association of Testing Authorities
NGM	Numerical Groundwater Model
n_{eff}	Effective Porosity
NSW	New South Wales

Acronym	Description
OEMP	Operational Environmental Management Plan
PA	Project Approval
POEO Act	Protection of the Environment Operations Act (NSW) 1997
QA/QC	Quality Assurance and Quality Control
QC	Quality Control
RL	Relative Level
RO	Reverse Osmosis
SPR	Source Pathway Receptor Linkages
SSD	State Significant Development
SWTP	Springvale Water Treatment Project
t	tonnes
TARPs	Trigger Action Response Plans
TDS	Total Dissolved Solids
v	Seepage Velocity
WCA	Water Conditioned Ash
WMP	Water Management Plan
µg/L	micrograms per litre
µS/cm	microSiemens per centimetre

EXECUTIVE SUMMARY

EnergyAustralia NSW Pty Ltd (EnergyAustralia) has undertaken groundwater and surface water monitoring associated with the Mt Piper Ash Repository (MPAR) and Lamberts North Ash Repository (LNAR) in accordance with the requirements of Development Consent DA80/10060, Project Approval PA09_0186, Environment Protection Licence (EPL) 13007, the approved Water Management Plan (WMP), and the Operational Environmental Management Plan (OEMP). Monitoring undertaken during the reporting period of January to June 2026 continues to provide a representative assessment of surface water and groundwater conditions surrounding Mt Piper Power Station.

Monitoring results indicate that leachate generation from the MPAR continues to occur and remains evident in groundwater downgradient of the repository. This outcome is expected given the MPAR historically operated as an unlined ash repository and the movement of dissolved salts and indicator analytes associated with historical brine conditioned ash placement has been extensively characterised through previous investigations and monitoring programs. Elevated concentrations of electrical conductivity, total dissolved solids, sulfate, chloride, boron, manganese and nickel continue to be observed in groundwater surrounding the MPAR and remain generally consistent with the known groundwater plume identified by the Independent Groundwater Investigation and indicated by groundwater modelling.

Importantly, significant mitigation measures have now been implemented to address the source of leachate generation. Installation of the primary mitigation control, being the low permeability cap across the MPAR, has been substantially completed and is expected to significantly reduce rainfall infiltration and future leachate generation from the underlying ash. Additional works focused on batter slope improvement, drainage optimisation, topsoiling and revegetation are scheduled for completion during Q4 2026. While these source control measures are expected to reduce future recharge through the ash mass and ultimately decrease leachate generation, it is recognised that groundwater systems respond gradually and that measurable improvements in groundwater and surface water quality will take time to become evident due to the existing impacted groundwater already present within the surrounding hydrogeological system.

Water quality monitoring within Wangcol Creek continues to exhibit variability similar to that observed in previous years. Electrical conductivity and associated key indicator analytes typically increased during periods of lower rainfall and reduced creek flow and subsequently decreased following rainfall events and periods of higher flow. This pattern is consistent with the established understanding that groundwater affected by historical MPAR leachate contributes to creek water quality, particularly within former mining disturbance areas where groundwater and surface water are hydraulically connected. The lower concentrations observed during parts of the reporting period were attributed to above-average rainfall and increased streamflow, resulting in dilution of groundwater inputs. While variable water quality conditions are expected to continue in the short term, the implementation of the MPAR capping works is expected to progressively reduce leachate generation and contribute to long-term improvements in Wangcol Creek water quality.

The LNAR continues to perform as designed. Unlike the MPAR, the LNAR has been constructed as a lined and capped facility incorporating a Leachate Barrier Management System (LBMS) and associated leachate collection and management infrastructure. Monitoring data collected during the reporting period provides no evidence that operations at the LNAR are adversely

impacting groundwater or surface water resources, including Wangcol Creek. Water quality results near the LNAR remain consistent with the established conceptual site model, which attributes observed impacts primarily to historical MPAR operations rather than the currently operating lined LNAR facility. Monitoring of the LNAR leachate system confirmed that the containment and management systems continue to operate effectively and in accordance with design intent.

Groundwater monitoring adjacent to Brine Waste Ponds A and B continues to identify elevated electrical conductivity and associated indicator analytes within leak detection bores MPGM5/D5 and MPGM5/D6. The persistence of elevated concentrations and increasing trends in some parameters suggests that the integrity of one or both pond liners may be compromised. EnergyAustralia has recognised this issue and has scheduled replacement of the Brine Waste Pond A and B liners during the 2026/27 period. Ongoing monitoring will continue to assess groundwater conditions and confirm the effectiveness of the remedial works once completed.

Independent stream stability and ecological monitoring undertaken within Wangcol Creek identified no evidence of adverse impacts to stream stability or aquatic ecosystem health attributable to the MPAR or LNAR. The assessments concluded that creek conditions remain reflective of historical catchment and mining influences rather than current ash repository operations.

EnergyAustralia complied with the groundwater, surface water and leachate monitoring requirements prescribed by Development Consent DA80/10060, Project Approval PA09_0186, EPL 13007, the approved WMP and the approved OEMP during the reporting period. No water-related incidents or non-compliances were reported.

In summary, the monitoring results confirm that groundwater and surface water impacts associated with historical MPAR operations continue to be evident and are consistent with the long-established understanding of site conditions. Key mitigation measures, including installation of the MPAR impermeable cap, ongoing batter slope and drainage works, replacement of Brine Waste Pond liners, and consideration of additional future mitigation measures, are expected to progressively reduce leachate generation and improve long-term environmental outcomes. The monitoring network continues to provide a representative assessment of groundwater and surface water resources surrounding Mt Piper Power Station and demonstrates that current management controls are effectively identifying and managing environmental risks.

1. INTRODUCTION

EnergyAustralia NSW Pty Ltd (EnergyAustralia) engaged Environmental Resources Management Australia Pty Ltd (ERM) to prepare an Annual Environmental Monitoring Report for ash placement operations at the Mt Piper Power Station (MPPS), located at 350 Boulder Road, Portland, New South Wales (NSW) (the Site). Refer to Figure 1 showing the location of the Site. All figures are presented in Appendix A.

This report should be read in conjunction with the Statement of Limitations (Section 14).

1.1 BACKGROUND

EnergyAustralia owns and operates the MPPS, which is located within the Lithgow Local Government Area (LGA), approximately 110 kilometres (km) west of Sydney and five km east of Portland NSW. The location of the MPPS in a regional context is presented in Figure 1.

The MPPS is authorised by development consent Development Approval (DA) 80/10060 (Mt Piper Consent) granted under the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act) on 1 April 1982. The Mt Piper Consent has been modified on ten occasions, including Modification 9 as approved on 24 June 2025 (Mod 9) and Modification 10 as approved on 11 June 2026 (Mod 10). The Mt Piper Consent as modified authorises the MPPS and ancillary activities, including the Mt Piper Ash Repository (MPAR).

The MPPS was built between 1984 and 1993 and comprises two coal-fired steam turbine generating units. Each unit was originally constructed to generate up to 660 megawatts (MW), and they have since been upgraded to utilise improvements in turbine technology. The generating units now produce up to 700 MW and 730 MW respectively. The ash produced from coal combustion to generate electricity is beneficially reused where market opportunities permit or placed in purpose-built ash placement repositories. The MPPS has two approved and operating ash placement repositories:

- The MPAR, which was originally approved under development consent 230/89 granted by Lithgow City Council (LCC) on 21 March 1980. DA 230/89 was subsequently incorporated, via subsequent modifications, into the Mt Piper Consent. Most of the ash produced at MPPS to date has been placed within the MPAR; and
- The adjoining Lamberts North Ash Repository (LNAR), which was separately approved in February 2012 under Project Approval (PA) 09_0186 (LNAR Project Approval), is located immediately adjacent to the MPAR. In September 2021, PA 09_0186 was modified to authorise amendments to the design and operation of the LNAR (LNAR MOD 1). In November 2024, PA 09_0186 was modified a second time to authorise the extension of operational hours at the LNAR (LNAR MOD 2).

The MPAR and LNAR are collectively referred to as the 'Ash Repositories'. Figure 2 presents the location of the Ash Repositories, along with other relevant features of the MPPS.

1.2 ENVIRONMENTAL MANAGEMENT FRAMEWORK

Although the MPAR and the LNAR are adjoining landforms, sharing common infrastructure and the same surface and groundwater monitoring network, the 'Ash Repositories' are generally managed as separate operational facilities. Water, leachate, and other environmental aspects at each are managed through the LNAR Operational Environmental Management Plan (EnergyAustralia, 2025) (the OEMP) (for the LNAR) and the MPAR Water Management Plan (ERM, 2026c) (the WMP) (for the MPAR).

The MPPS (including the MPAR and the LNAR) is also regulated under Environment Protection Licence (EPL) 13007 granted under the Protection of the Environment Operations Act 1997 (NSW) (the POEO Act). The EPL regulates the materials authorised for placement in the Ash Repositories, along with water monitoring and reporting requirements.

1.2.1 THE MPAR WATER MANAGEMENT PLAN

Following the approval of Mod 9 to the Mt Piper Consent, the WMP was prepared, submitted to, and approved by the NSW Department of Planning, Housing and Infrastructure (DPHI) in accordance with Condition 43 of the Mt Piper Consent. The WMP includes monitoring of defined groundwater and surface water parameters to assess for changing conditions as a potential result of the approved activities. To demonstrate compliance with the WMP, reporting is required on an annual basis for the previous year and the results are presented to key regulatory stakeholders.

The WMP was updated on 28 July 2026 to acknowledge the approval of Mod 10, however this revision does not address any new water management requirements that are specific to the works authorised by Mod 10, which have not yet been implemented at the MPPS. As required by the Mt Piper Consent, a revised WMP will be prepared prior to the commencement of the works authorised by Mod 10.

1.2.2 THE LNAR OPERATIONAL ENVIRONMENTAL MANAGEMENT PLAN

Water quality monitoring for the LNAR is conducted in accordance with the OEMP (EnergyAustralia, 2025). The OEMP includes a surface water management plan, a groundwater management plan, and a leachate management plan that stipulate monitoring and reporting requirements for each, in general alignment with the WMP and the EPL.

1.2.3 SPRINGVALE WATER TREATMENT PROJECT

The Springvale Water Treatment Project (SWTP) is separately approved under State Significant Development (SSD) 7592 (the SWTP Consent) and operates adjacent to the MPPS (Figure 2). It treats mine water received from local mines (Springvale and Angus Place) for beneficial re-use at MPPS. The SWTP produces both liquid and solid waste brine streams which are placed in the Ash Repositories, as approved.

A Brine and Residuals Management Plan (GHD, 2019) (the BRWMP) was approved under the conditions of the SWTP Consent. The BRWMP includes, as an attachment, the Mt Piper Power Station Brine Conditioned Flyash Co-placement Extension Water Management and Monitoring Plan (Connell Wagner, 2008) previously approved under the Mt Piper Consent (2008 Water Management Plan). The 2008 Water Management Plan was subsequently updated and superseded by the 2020 Water Management Plan (ERM, 2020). The 2008 Water Management Plan and the 2020 Water Management Plan have been superseded by the WMP (ERM, 2026c).

1.3 REGULATORY REQUIREMENTS

There is general consistency between the groundwater and surface water monitoring analytical schedule required by the Mt Piper Consent (and the WMP), the LNAR Project Approval (and the OEMP) and the EPL. Hence this environmental monitoring report (EMR) has been developed to satisfy the water related reporting requirements of each.

This EMR documents the results of groundwater and surface water monitoring undertaken during the reporting period and addresses the relevant reporting obligations under:

- MPAR, Conditions 44 and 45 of the Mt Piper Consent, and the relevant reporting requirements of the approved Water Management and Monitoring Plan (the WMP);
- LNAR, to address Conditions A10, E15, and E16 of the LNAR Project Approval and the relevant reporting requirements of the approved the OEMP; and
- EPL, to address Conditions R5.8, R5.9 and R5.10.

This EMR has been prepared in general accordance with the post approval compliance reporting requirements (DPE, 2020) from the NSW Department of Planning, Housing and Infrastructure (DPHI), formerly known as Department of Planning and Environment (DPE).

Table B-1 (for the Mt Piper Consent and the WMP), Table B-2 (for the EPL) and Table B-3 (for the LNAR Project Approval and the OEMP), Appendix B present a summary of the regulatory compliance requirements for each of these regulatory instruments, and where they are addressed in this EMR. Consistent with feedback from the then DPE on the 2021/22 EMR, Table 1-1 provides a statement of compliance as at the end of the reporting period, and based on the information in this EMR.

As presented in Table 1-1, below, the EPL refers to a 'Surface Water and Groundwater Monitoring Report', the LNAR Project Approval refers to 'Water Management and Monitoring Report', and the Mt Piper Consent refers to an 'Environmental Monitoring Report (EMR)'. The title page of this report reflects the compliance report title as referenced in the relevant regulatory instruments. However, for consistency throughout this report, the term 'Environmental Monitoring Report' has been adopted as an overarching term that encompasses the water monitoring and compliance reporting requirements of all applicable approvals and licences.

TABLE 1-1 STATEMENT OF COMPLIANCE

Approval Instrument	Conditions	Compliance Report Title	Were the conditions of the relevant approval complied with?
DA80/10060 (Mt Piper Consent)	Conditions 44 and 45	'Environmental Monitoring Report' (Water Quality – January to June 2026)	YES
PA 09_0186 (LNAR Project Approval)	Conditions A10, E15 and E16	'Water Management and Monitoring Report' (Water Quality – January to June 2026)	YES
EPL 13007	Conditions R5.8, R5.9 and R5.10	'Surface Water and Groundwater Monitoring Report (Water Quality – January to June 2026)	YES

1.4 OBJECTIVES AND SCOPE OF WORK

The objectives of this EMR are to address the relevant reporting requirements of the Mt Piper Consent, the LNAR Project Approval and the EPL (Section 1.3) for the period 01 January 2026 to 30 June 2026 (i.e. the reporting period). This EMR has been prepared for the 6 month reporting period only to facilitate transition to a consistent reporting period of 1 July to 31 June from 2026/2027 on.

Considering the reporting period, it is acknowledged that, because of the revised LNAR reporting period (i.e. from September to August annually, to July to June annually), as approved by the DPHI on 24 February 2026 (reference: MP09_0186-PA-29), LNAR monitoring data collected between September and December 2025 will not be included in this EMR. However, as the WMP, OEMP and EPL monitoring programs are aligned, the September to December 2025 monitoring data is presented in previous EMR (ERM, 2026a). The exception to this is for ash placement volumes and leachate management outcomes for the LNAR, for which monitoring and management was conducted in compliance with the OEMP; this information can be shared separately upon request.

The following scope of work has been completed by ERM to meet the objectives of the EMR:

- Development of an annual review summary to include operational activities and actions taken from previous annual reporting, environmental performance, incidents and non-compliances, community engagement, and actions / activities planned to be undertaken;
- Import of environmental monitoring data provided by EnergyAustralia to the existing database maintained by ERM for the Site;
- Review of surface water and groundwater quality with comparison to the adopted guideline values as presented in the WMP and the OEMP, as applicable;
- Review of surface water and groundwater quality trends for the reporting period, to enable comparison between years;
- Interpretation and discussion of results, including potential interaction of groundwater from the vicinity of the Ash Repositories with Wangcol Creek water quality;
- Review of leachate monitoring data in accordance with the leachate monitoring plan set out in the OEMP;
- Groundwater model validation in accordance with the approach presented in the WMP;
- Update on the Trigger Action Response Plans (TARPS) and contingency measures currently being implemented in accordance with the WMP;
- An update on contingency and mitigation measures currently being implemented in accordance with the WMP and the OEMP;
- Assessment of the effectiveness of mitigation measures being implemented, being considered and/or recommendations for improvements where necessary, as required by the EPL;
- Preparation of a summary of the Wangcol Creek Ecological Monitoring Program (EMP) and Wangcol Creek Stream Stability Survey results (based on the outcomes of reports provided by others) in accordance with the WMP;
- Compilation of supporting appendices including figures, hydrographs for key bores, and concentration trend graphs (major ions and metals) for key groundwater and surface water monitoring locations; and
- Preparation of this report.

1.5 CONTACT

Contact details for the key personnel responsible for the environmental management of the MPPS are listed in Table 1-2 below.

TABLE 1-2 CONTACT DETAILS

Contact Person	Organisation	Position	Telephone
Mr Ben Eastwood	EnergyAustralia	NSW Environment Leader	(02) 6354 8111

1.6 REPORT STRUCTURE

The following outlines the general structure of this report:

- Section 2 presents an overview of the Independent Groundwater Investigation and its outcomes;
- Section 3 presents a summary of annual site operations at the Ash Repositories;
- Section 4 presents a review of the environmental setting, focusing on local climate, hydrology, geology and hydrogeology;
- Section 5 presents a summary of the groundwater and surface water characterisation and monitoring program;
- Section 6 presents an assessment of the groundwater data provided by EnergyAustralia;
- Section 7 presents an assessment of the surface water data provided by EnergyAustralia;
- Section 8 presents an assessment of the leachate monitoring data provided by EnergyAustralia for the operational leachate barrier management systems within the LNAR;
- Section 9 presents a summary of deviations from the monitoring program;
- Section 10 presents discussion of groundwater and surface water results in context of the numerical groundwater model (NGM) that was developed as part of the Independent Groundwater Investigation;
- Section 11 presents a comparison to the TARPs;
- Section 12presents the summary and recommendations of the report;
- Section 13 presents the references used in this report; and
- Section 14 presents the Statement of Limitations.

2. INDEPENDENT GROUNDWATER INVESTIGATION

In 2016, ERM was engaged to complete the Independent Groundwater Investigation (2016-2023) associated with the elevated concentrations of key indicator analytes (EC, sulfate, chloride, boron, manganese and nickel) in groundwater and surface water that have since been attributed to leaching and seepage associated with BCA placement within the MPAR.

As part of the Independent Groundwater Investigation, the Groundwater Flow Model Report (ERM, 2023a) presents a summary of the conceptual site model (CSM) and source-pathway-receptor (SPR) linkages related to BCA placement within the MPAR. The primary pathway for migration of solutes derived from BCA in the MPAR is by the vertical migration of leachate (water sourced from rainfall and irrigation across the MPAR) down through the BCA placed within the MPAR. Once the leachate reaches the base of the ash at the MPAR, the vertical migration of leachate is assumed to continue until it mixes with the regional water table that underlies the Site.

Groundwater that flows to the east from the MPAR is primarily received by DML Dam and Cooks Dam due to the higher hydraulic conductivity of mined out areas. A portion of the groundwater that flows to the north-east and east from the MPAR is received by Wangcol Creek at Areas D, E and G, as indicated by relative groundwater and creek elevations and water quality where former open cuts are present in the creek. Consequently, these sections of Wangcol Creek and their associated ecosystems and downstream waterways are receptors of groundwater, and have the potential to be impacted because of previous BCA placement in the MPAR.

Review of long-term analytical data at Wangcol Creek has also found a strong relationship between periods of lower streamflow and higher EC. Higher EC is correlated with elevated concentrations of key indicator analytes, particularly chloride and sulfate. These higher concentrations coincide with late spring to early autumn, a period which is characterised by lower rainfall and higher evaporation, resulting in a greater relative contribution of groundwater inputs to the surface water system when compared to conditions during winter. A complete SPR linkage is considered present for Wangcol Creek based on the general absence of groundwater users in the surrounding area (ERM, 2023a).

These findings have informed a number of operational changes to the MPAR as authorised as part of Mod 9 to the Mt Piper Consent, including the installation of a low-permeability cap and associated water management features on the MPAR (MPAR Phase 1 Capping and Drainage) and installation of a leachate barrier management system (LBMS) and capping in MPAR Zone 2 (MPAR Zone 2 LBMS and Capping). The MPAR Phase 1 Capping and Drainage is intended to mitigate the vertical leachate migration pathway. Following installation of the MPAR Zone 2 LBMS, future BCA placement in the MPAR will be limited to Zone 2.

As a result of the preliminary findings of the Independent Groundwater Investigation, in September 2021, the LNAR Project Approval was modified to authorise amendments to the design and operations of the LNAR (LNAR Mod 1), principally, the installation of a LBMS, with BCA placement approved within the lined areas. The approved final landform for the MPAR as authorised by Mod 9 to the Mt Piper Consent has also been designed to integrate with the separately approved final landform for the LNAR.

3. ANNUAL OPERATIONS SUMMARY

A summary of operations at the Ash Repositories over the reporting period, and actions taken since the previous reporting period, is provided in the following subsections.

3.1 ASH PLACEMENT

Ash produced at the MPPS includes Furnace Bottom Ash (FBA) (~10%) and fly ash (~90%). Bottom ash is placed directly onto the Ash Repositories. Prior to the placement of fly ash within the Ash Repositories, it is conditioned to increase its moisture content to manage dust, achieve required compaction and maintain geotechnical stability of the Ash Repositories. Fly ash is conditioned by the addition of either:

- Water, sourced in accordance with existing MPPS water licences and allocations including recycled process water and fresh (non-potable) water. Fly ash treated with water is referred to as Water Conditioned Ash (WCA). WCA is permitted to be placed within all areas of the MPAR and has been placed into the MPAR since 1993; or
- Brine, a by-product from:
    - Treatment of evaporative cooling water from the cooling towers of MPPS to remove salts and impurities. Treatment at the MPPS Brine Concentrators is approved under the Mt Piper Consent, and
    - The SWTP.

Fly ash treated with brine is referred to as brine conditioned ash (BCA).

Ash placement operations for MPPS, including within the Ash Repositories, are undertaken by specialist ash placement contractors. Service Stream and Ventia are the current service providers for EnergyAustralia in relation to aspects of ash placement and dust management at the MPPS. Figure 2 and Figure 3 provide the layout of the Site features and the ash placement plan, respectively.

During the reporting period, 0 tonnes (t) of ash was placed at the MPAR, consistent with implementation of MPAR Phase 1 Capping and Drainage. Between September 2025 and June 2026, 364,251 t of ash was placed at the LNAR. A summary of ash placement operations at the Ash Repositories is presented in the following subsections.

3.1.1 MPAR OPERATIONS SUMMARY

WCA was authorised to be placed in the MPAR since 1993, while BCA was authorised to be placed into the MPAR within the MPAR Stage 1 (from 2000) and Stage 2 (from 2008) BCA placement areas at elevations above 946 metres Australian Height Datum (m AHD) (Figure 3).

All placement of BCA in unlined areas of the MPAR ceased in September 2025, and no ash placement activities have occurred in the MPAR during the reporting period. A summary of ash placement operations at the MPAR for the reporting period and for the previous reporting period is presented in Table 3-1.

TABLE 3-1 MPAR ASH PLACEMENT OPERATIONS SUMMARY

Activity	July 2024 to December 2025	January 2026 to June 2026
Ash delivered to the MPAR (t)	61,920 (BCA) 22,080 (WCA)	0
Water co-placed at the MPAR (ML)	23	0
Brine co-placed at the MPAR (ML)	40	0
Solid Mixed Salts placed at the MPAR (t)	0	0
Total MPAR ash footprint at the end of the period (ha)	16.7	16.7
Area of MPAR capped during the period (ha)	1.3	5.4

t = tonnes, ha = hectares, ML = megalitres

The status of the Mod 9 works at the time this EMR was prepared (in July-August 2026) is presented in Section 3.6.

3.1.2 LNAR OPERATIONS SUMMARY

WCA was authorised to be placed into the LNAR from 2012 and, from September 2021, BCA was authorised to be placed in the lined cells within the LNAR.

During the 2021/22 reporting period, a leachate barrier system was installed in LNAR Stage 1a and Stage 1b. During the 2024/25 reporting period a leachate barrier system was installed in LNAR Stage 2a and installation of a leachate barrier system within LNAR Stage 2b was commenced (refer Figure 3). The leachate barrier system is supported by a leachate management system to capture, store and transfer leachate generated from the lined areas to ponds LNAR 2 – LNAR 5 as required based on operations at the Ash Repositories.

With reference to the Ash Repository Survey captured in April 2026 (Appendix C, and Figure 3), and Table 3-2 below, between September 2025 to June 2026 approximately 342,768 t of BCA and 21,483 t of WCA were placed in the LNAR Stage 1 and Stage 2 placement areas. A summary of ash placement operations at the LNAR for September 2024 to August 2025 and for September 2025 to June 2026 is presented in Table 3-2.

TABLE 3-2 LNAR ASH PLACEMENT OPERATIONS SUMMARY

Activity	September 2024 to August 2025	September 2025 to June 2026
Ash delivered to the LNAR (t)	451,110 (BCA) 101,912 (WCA)	342,768 (BCA) 21,483 (WCA)
Water co-placed at the LNAR (ML)	23	7.213
Brine co-placed at the LNAR (ML)	106	84.795
Solid Mixed Salts placed at the LNAR (t)	6,984.5 Lime Salts 1,997 Mixed Salts	12,860 Lime Salts 2,479.5 Mixed Salts

Activity	September 2024 to August 2025	September 2025 to June 2026
Total active LNAR ash placement footprint during the period (ha)	16.1	11.73
Area of LNAR capped at the end of the period (ha)	5.43	11

t = tonnes, ha = hectares, ML = megalitres

The status of the LNAR works at the time this EMR was prepared (in July-August 2026) is presented in Section 3.6.

3.2 BRINE COMPOSITION

Both the EnergyAustralia Reverse Osmosis (RO) brine concentrators and micro filtration (MF) infrastructure system, and the SWTP, transfer the brine stream to Brine Waste Pond A and Brine Waste Pond B for temporary storage (Figure 2). Brine from the EnergyAustralia brine concentrators is typically transferred to Brine Waste Pond A, while brine from the SWTP is typically transferred to Brine Waste Pond B. Brine in Waste Pond B can overtop to Brine Waste Pond A, in order to manage stored brine volumes between the ponds.

This brine is used to condition the ash that is placed in approved BCA placement areas and brine composition data has been used to inform the discussion of surface water and groundwater results in this report. During the reporting period the average concentrations of key indicator analytes and parameters in brine stored in Brine Waste Pond A and Brine Waste Pond B were reported as follows:

- Electrical conductivity reported from Brine Waste Pond A averaged 63,500 µS/cm while those in Brine Waste Pond B averaged 77,000 µS/cm;
- Chloride concentrations reported from Brine Waste Pond A averaged 6,590 mg/L while those in Brine Waste Pond B averaged 7,130 mg/L;
- Sulfate concentrations reported from Brine Waste Pond A averaged 22,600 mg/L while those in Brine Waste Pond B averaged 24,980 mg/L;
- Silver (total) concentrations reported from both Brine Waste Pond A and Brine Waste Pond B were consistently reported below the laboratory Limit of Reporting (LOR);
- Chromium (total) concentrations reported from Brine Waste Pond A averaged 164 µg/L while concentrations from Brine Waste Pond B averaged 120 µg/L;
- Iron (total) concentrations reported from Brine Waste Pond A averaged 110 µg/L while concentrations from Brine Waste Pond B averaged 138 µg/L;
- Barium (total) concentrations reported from Brine Waste Pond A averaged 95 µg/L while concentrations from Brine Waste Pond B averaged 23 µg/L;
- Boron (total) concentrations reported from Brine Waste Pond A averaged 24,750 µg/L while concentrations from Brine Waste Pond B averaged 12,710 µg/L;
- Manganese (total) concentrations reported from Brine Waste Pond A averaged 158 µg/L while concentrations from Brine Waste Pond B averaged 45 µg/L;
- Nickel (total) concentrations reported from Brine Waste Pond A averaged 642 µg/L while concentrations from Brine Waste Pond B averaged 606 µg/L; and
- Lead (total) concentrations reported from Brine Waste Pond A averaged 39 µg/L while concentrations from Brine Waste Pond B averaged 12 µg/L.

Averages of the historical brine composition reported from Brine Waste Pond A and Brine Waste Pond B are provided in Appendix D. The sample frequency for Brine Waste Pond A is monthly, and Brine Waste Pond B is weekly, when the system is in service. Note, where applicable, analytes are reported as total (unfiltered) concentrations.

3.3 SITE WATER DISCHARGES

The licensed discharge point (LDP12) for the MPPS under EPL 13007 is located at the Coal Settling Pond (CSP), which is a sediment basin for stormwater runoff from the coal stockpile area. During the reporting period, water discharged from the CSP via LDP12 was estimated to be 106.3 megalitres (ML). LDP12 was sampled on six occasions during the reporting period, and water quality at LDP12 complied with the discharge water quality criteria under EPL 13007 Condition L3.7 on all occasions. Records of discharge flows at LDP12 during the reporting period are provided in Appendix E, with associated water quality data presented in Appendix I.

Surface water flow from LDP12 (representative of discharge from the CSP) enters the Western Drain, which is part of the upstream Wangcol Creek catchment, before flowing into the Final Holding Pond (FHP). The FHP holds stormwater from the clean water diversions around the MPPS and has gates that can be closed in the event of an environmental incident to limit the likelihood of adverse impacts to the downstream surface water environment. The FHP was constructed within Wangcol Creek, and it operates as the final pollution control structure for surface water discharges associated with the MPPS. Figure 2 presents the locations of the CSP and the FHP.

Surface water monitoring location LMP01 is representative of instream Wangcol Creek conditions downstream of the CSP and the FHP, and upstream of the Ash Repositories. Figure 4a presents the locations of LDP12 and LMP01.

3.4 INCIDENTS AND NON-COMPLIANCES

Based on information provided by EnergyAustralia, no incidents or non-compliances occurred at the MPPS over the period from 1 January to 30 June 2026.

3.5 COMMUNITY ENGAGEMENT

Based on information provided by EnergyAustralia, no complaints were submitted over the period from 1 January to 30 June 2026. A summary of the Community Consultative Committee (CCC) meeting minutes related to the Ash Repositories is provided in Table 3-3, below.

TABLE 3-3 ASH REPOSITORIES CCC MEETING MINUTES

Meeting Month	Ash Repository	Relevant Details
February 2026	MPAR & LNAR	• CCC Members and EnergyAustralia staff took a 75-minute tour of the Ash Repositories noting progress on MPAR Phase 1 Capping and Drainage works, and the process for lining the LNAR and deposition of brine and water conditioned ash on the LNAR. • Excess ash and its uses were discussed. It was noted that there is currently a strong market for the use of ash in cementitious materials, and EnergyAustralia is actively working to increase the amount of ash that goes to this, or alternative, markets. Some ash is kept to facilitate co-placement of brine.

Meeting Month	Ash Repository	Relevant Details
		• Mt Piper Mod 10 will be focused on augmenting water management around the coal stockpile area through diversion and detention infrastructure. • EnergyAustralia anticipated that Mod 10 would likely be submitted to DPHI in March.
April 2026	N/A	Details related to operations at the Ash Repositories were not discussed during the April 2026 CCC meeting.
June 2026	MPAR	• The Wangcol Creek options assessment had been submitted to the EPA and further information was to be provided at the next CCC following discussion with the EPA on the preferred option. • EnergyAustralia's primary focus is on limiting leachate entering groundwater through MPAR Phase 1 Capping and Drainage works, as described in Mod 9. • It was noted that the final MPAR capping will include overburden supplied from within the EPL licenced premises area and topsoil that will be planted with grasses to stabilise the surface of the capping layers. • An overview of the Mod 10 application and consent conditions was requested to be presented at the next meeting.

3.6 ACTIONS AND ACTIVITIES PLANNED FOR 2026/2027

Progressive ash placement operations will continue at the Ash Repositories in 2026 and 2027. In addition to this, as detailed further in the WMP, EnergyAustralia plans to begin implementing or completing the following operational changes:

- Installation of the MPAR Phase 1 Capping is largely complete, including the seal bearing layer (consisting of placed ash material), the linear low-density polyethylene (LLDPE) geomembrane liner and the sub-soil layer. Topsoil placement and revegetation did not commence within the reporting period, though completion is anticipated in 2026 to achieve the approval final landform for the MPAR Stage 1 and Stage 2 areas;
- MPAR Phase 1 Drainage construction is progressing, with completion anticipated in 2026;
- MPAR Zone 2 LBMS and Capping is subject to detailed design, with installation of the LBMS anticipated to commence in approximately 2027 or 2028, following which BCA placement activities in the MPAR Zone 2 will commence;
- The elevation of WCA placement within MPAR Zone 2 is approximately 950 to 965 m AHD. This landform will be further altered as part of the MPAR Zone 2 installation and subsequent ash placement operations. As required by Condition 58 of the Mt Piper Consent the MPAR Zone 2 LBMS and Capping design will be submitted to the Secretary prior to installation, with the approved design to determine the base liner elevation;
- BCA placement in the LNAR lined placement areas commenced in accordance with LNAR Mod 1 from 13 May 2022;
- Installation of the LNAR Stage 1a and Stage 1b Capping has commenced, with completion anticipated in late 2026;

- Ash placement within the LNAR Stage 2b area has been underway since November 2025;
- The Brine Waste Pond A and Brine Waste Pond B liner replacement works are planned to be completed in 2026 / 2027;
- The SHG1 de-silting has been completed;
- Whole of life repository planning and design continued with Modification 3 for the LNAR extension anticipated to commence in late 2026;
- The Wangcol Creek Remediation Options Feasibility Study (ERM, 2026b) required by Condition U1 of the EPL (varied 10 December 2025) this condition was finalised and submitted to the EPA as required; and
- The MPAR Capping Strategy (ERM, 2026d) was completed separately to the satisfaction of the EPA (approved 05 March 2026) to address Condition 59 of the Mt Piper Consent.

4. ENVIRONMENTAL SETTING

4.1 CLIMATE

Climate data was provided by EnergyAustralia and is sourced from a weather station on site at MPPS (see Figure 2). A summary of the climate data is presented in Table 4-1. Rainfall data is graphed in the hydrographs included in Appendix G.

TABLE 4-1 LOCAL CLIMATE DATA FOR 2026

Month	Rainfall Total (mm)	Min. Temperature (°C)	Max. Temperature (°C)
January 2026	87.0	6.1	32.9
February 2026	107.2	8.3	27.7
March 2026	136.6	1.6	26.6
April 2026	3.0	-2.6	22.9
May 2026	58.2	-2.5	18.3
June 2026	55.8	-5.7	16.4
TOTAL / MIN / MAX (6 months)	**447.8**		

Data from MPPS Weather Station provided by EnergyAustralia

The total rainfall in the 2025 calendar year was 674.2 mm. This is lower than the total reported rainfall in three of the last five previous calendar years (797.2 mm in 2024, 1121.6 mm in 2022, and 938.7 mm in 2021), but higher than the 634.3 mm recorded for the 2023 calendar year and the 595 mm recorded for the 2020 calendar year. The higher-than-average periods of rain from December 2020 to March 2021 broke the period of relative drought experienced at the Site, and more broadly within NSW, between 2017 and 2020.

Overall, the six-month reporting period was characterised by above-average rainfall. The highest monthly rainfall occurred in March 2026 (136.6 mm), while the lowest was recorded in April 2026 (3.0 mm). Rainfall during the February to March 2026 period was substantially higher than during the corresponding period in previous years, with a combined total of 243.8 mm, approximately double that for the same period in 2025 and 2024.

4.2 HYDROLOGY

MPPS and the Ash Repositories are within the Wangcol Creek catchment, and Wangcol Creek is a tributary of the Coxs River. MPPS sits on the eastern edge of the Great Dividing Range and includes the headwaters of Wangcol Creek. Locally, Wangcol Creek is present to the north and north-east of the Ash Repositories. Wangcol Creek flows to the east and south-east and joins the Coxs River approximately 3.2 km east of the Site.

As introduced in Section 3.3 and presented in Figure 2, clean water diversions extend around the MPPS and are discharged into Wangcol Creek via the FHP. Clean water diversions are also present from the MPAR Phase 1 Capping and Drainage footprint (via the energy dissipator) and around the Ash Repositories, joining Wangcol Creek downstream of the FHP.

Real-time instream monitoring of upstream Wangcol Creek surface water flow, EC, and pH is undertaken at LMP01, while real-time monitoring of surface water flow and EC is conducted further downstream within Wangcol Creek at NSW stream gauge 212055, which is co-located with monitoring location WX22.

Further details regarding water management arrangements at the Ash Repositories are described in the WMP (for the MPAR) and the OEMP (for the LNAR).

4.3 GEOLOGY

The Site is located on the western margin of the Sydney Basin, and the geology is characterised by eastward dipping sedimentary deposits that extend approximately 130 km east towards the NSW coast. There are no significant faulting or folding structures in the region surrounding the Site (CDM Smith, 2012).

The Site is located at an outcrop of the Illawarra Coal Measures, which has been mined throughout the region. The Narrabeen Group, comprised of sandstones, overlies the Illawarra Coal Measures in the vicinity of the Site, forming the surrounding hillsides. The Illawarra Coal Measures host the coal seams that were previously mined out in the vicinity of the Site and overlie the Shoalhaven Group.

4.4 HYDROGEOLOGY

Groundwater beneath the Site is present within the Illawarra Coal Measures, with a regional groundwater flow direction generally to the east / south-east in the vicinity of the Site (Figure 5a and Figure 5b). The Groundwater Flow Model Report (ERM, 2023a) presents a summary of the natural stratigraphy of the Illawarra Coal Measures in the vicinity of the Site.

The area surrounding the Ash Repositories is characterised by former open cut and below ground coal mining. The below ground mined out areas are variably filled in with goaf, or in some areas remain as voids. Former open cut mines remain as ponds, including within the alignment of Wangcol Creek to the north of MPAR, or have been filled in. Long-term groundwater monitoring near the Ash Repositories indicates that the water table occurs variably in the former underground mining and open cut areas and, away from the Ash Repositories, predominantly in the overlying Bunnyong Sandstone. The water table elevation range is approximately 908 m AHD to 914 m AHD in the vicinity of the Ash Repositories. Groundwater elevation contours are presented in Figure 5a and Figure 5b. Groundwater elevation data and other hydrogeological parameters are presented in Section 6.3.

5. WATER CHARACTERISATION AND MONITORING PROGRAM

The water monitoring program for the Ash Repositories, as outlined in the WMP (ERM, 2026c), the OEMP (EnergyAustralia, 2025) and EPL 13007, includes monitoring locations, monitoring frequency, sampling methods, analytical schedule and reporting requirements. A summary of the water characterisation and monitoring program is presented in Table 5-1, below.

The associated data collected is suitable to inform reporting requirements for the MPAR under the Mt Piper Consent (Conditions 44 and 45), the LNAR under the LNAR Project Approval (Conditions A10, E15 and E16), and the MPPS under the EPL (Condition R5.8).

TABLE 5-1 WATER CHARACTERISATION AND MONITORING PROGRAM

Item	Details
Stream Health, Stream Flow, and Channel Stability Monitoring	As required by the WMP, stream health monitoring was completed as part of the existing Wangcol Creek EMP. The monitoring is undertaken on an annual basis, in spring, by suitably qualified independent consultants. The Wangcol Creek EMP consists of six Australian River Assessment System (AUSRIVAS) sample sites NCR1, NCR2, NCR3 and A16, with NCR4 and NCR5 being added in 2025 to satisfy Condition 43 of the Mt Piper Consent (Mod 9). As required by the WMP, stream stability monitoring was completed on a bi-annual basis by suitably qualified independent consultants as part of the existing Wangcol Creek Stream Stability Survey. The Wangcol Creek Stream Stability Survey is conducted at 11 sites SH1, SH2, SH3, SH3a, SH4, SH5, with SH6- SH10 being added in 2025 to satisfy Condition 43 of the Mt Piper Consent (Mod 9). The stream health and channel stability monitoring locations are presented in Figure 4b. The channel stability assessment completed in September 2025 (RCA, 2025) concluded that both the Pine Dale Mine (PDM) and MPPS drainage systems are in good geomorphic condition, with no significant impacts observed since the previous monitoring period. The results of the stream health survey completed in December 2025 (Stantec, 2026) indicated that ecological stream health within Wangcol Creek and the Coxs River has not been adversely affected by the LNAR or MPAR approved operations, with observed aquatic conditions reflecting long-standing, site-specific and catchment-scale disturbances rather than project-related impacts. As annual channel stability assessment and stream health survey were not undertaken during the 6-month reporting period, more detailed results of these studies are presented in the previous EMR (ERM, 2026a).
Site Inspections	Routine site inspections are undertaken by Service Stream and Ventia and their contractors to identify potential environmental hazards or areas that require corrective action. These may include, but are not limited to, additional sediment and soil erosion works, noise, dust or lighting controls etc. Visual inspections of the MPAR and LNAR infrastructure (pumps, pipe work, ponds) are conducted to ensure infrastructure remains in working order (e.g. no leaks). Maintenance of infrastructure is conducted as required.

Item	Details
Water Quality Monitoring	The locations and frequency for water quality monitoring are presented in the WMP (ERM, 2026c), the OEMP (EnergyAustralia, 2025), and EPL 13007. Deviations from this monitoring program, when they occurred, are presented in Section 9.
Water Quality Monitoring Methods	Groundwater sampling is conducted in accordance with the method described in Section 10.3 of the WMP. Field sampling and laboratory analysis is conducted in general accordance with the NSW EPA (2022), *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* guidance by trained personnel from Nalco / Ecolab Pty Ltd (Ecolab), with some laboratory analytical services subcontracted to ALS Global Pty Ltd (ALS). These analytical services are National Association of Testing Authorities (NATA) accredited for the services provided. Details regarding the Nalco sampling method and quality assurance and quality control (QA/QC) program are presented in Appendix F.
Water Quality Monitoring Zones	**Groundwater** Considering the groundwater flow direction, current and historical operations at the Ash Repositories, and their relative locations to MPAR, the groundwater dataset is assessed based on the following zones: • Upgradient of MPAR / background: MPGM4/D4, MPGM4/D5; • Cross-gradient of MPAR / adjacent to MPAR to the north and adjacent Wangcol Creek: MPGM4/D3, D106, D107, and D119; • Downgradient of MPAR, areas adjacent to Wangcol Creek: MPGM4/D1, MPGM4/D2, MPGM4/D8, MPGM4/D9 and D102 – D105; • Downgradient of MPAR, including LNAR (north) and historical mining disturbance (east): MPGM4/D10, MPGM4/D19, D110, D113, and D117; and • Cross-gradient of MPAR to the south, including LNAR (south) and historical mining disturbance: D15, D16A, D17, and D18. **Surface Water** Considering the surface water flow direction, current and historical operations at the Ash Repositories, and their relative locations to MPAR, the surface water data set for the Ash Repositories is assessed based on the following monitoring zones: • Upstream of the Ash Repositories: Coal Settling Pond, LDP12, LMP01; • Mid-stream / adjacent to the MPAR: NC01, SW_C, and SW_E; and • Downstream of the MPAR: SW_F / WX22 (which is co-located with NSW stream gauge 212055), SW_G.
Adopted Guideline Values	The WMP (ERM, 2026c), the OEMP (EnergyAustralia, 2025), and EPL 13007 present a summary of Environmental Goals and ANZG (2018) guideline values adopted for this report. The combined Environmental Goals and adopted ANZG (2018) guideline values will be referred to in this report as the 'adopted guideline values'. The adopted guideline values are presented in the header portion of the groundwater (Appendix H) and surface water (Appendix I) analytical data tables, respectively. The Environmental Goals utilise the Australia and New Zealand Environment Conservation Council (ANZECC) (2000) 95% ecosystem protection values, stock watering, irrigation water or drinking water values, in combination with

Item	Details
	90th percentile pre-brine placement local environmental (groundwater/surface water) data (whichever is greater). The local guideline values incorporated into the Environmental Goals are based upon the 90th percentile pre-ash placement water quality results, as measured at surface water quality point WX22 (for surface water) or at the former groundwater collection basin (GCB) (for groundwater). These Environmental Goals have been used to assess groundwater conditions in relation to the Ash Repositories for almost 30 years and are considered suitable to monitor changes in water quality that consider the sources of water pollutants and existing groundwater and surface water conditions. Where Environmental Goals are not provided for a specific analyte, relevant Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG, 2018) default guideline values that consider 95% freshwater species protection values have been adopted. For several analytes, the guideline value is hardness (as $CaCO_3$) dependent and, in these instances, location-specific, hardness corrected guidelines for the specific analytes in groundwater or surface water have been applied. Water quality results from the LNAR cannot be directly compared with the adopted guideline values for the purpose of determining compliance, as local water resources are known to be influenced by the legacy BCA related groundwater impacts associated with the MPAR (as described in Section 2). This is considered in the discussion of results throughout this EMR.
Trend Assessment Approach – Visual and Statistical Trends	In addition to comparing results from the reporting period with the adopted guideline values for surface water and groundwater, a trend assessment for concentrations of key indicator analytes in groundwater and surface water was conducted. For both groundwater and surface water, concentration data for key indicator analytes including the six years prior to the beginning of the reporting period (i.e. 01 January 2020 to 30 June 2026) was adopted for the trend assessment. Statistical (Mann Kendall for groundwater and regression analysis for surface water) and visual assessment of trends were undertaken. Trend assessment was not conducted for the entire historical dataset, as there have been significant changes in ash placement operations and footprints over the history of the Ash Repositories. The WMP (ERM, 2026c) presents longer-term trend graphs using data for the period 2014 to 2024. **Visual Trend Assessment** Visual trend assessments for groundwater and surface water were undertaken for key indicator analytes related to historical BCA placement in the MPAR. Due to the, at specific times, elevated concentrations of lead (total) and molybdenum (total) for surface water, visual trend assessment was also conducted for these analytes. Concentrations through time for these analytes in groundwater and surface water are presented in Appendix J and Appendix K, respectively. **Statistical Trend Assessment** The Mann-Kendall method (for groundwater) and linear regression (for surface water) were applied to evaluate trends in key indicator analyte concentrations in groundwater and surface water from each individual monitoring location.

Item	Details
	In addition to key indicator analyte concentrations, statistical trend assessments were undertaken for analytes with previous concentrations above adopted guideline values, including fluoride, arsenic (dissolved), copper (dissolved), and zinc (dissolved) in surface water. Where concentrations were reported below the laboratory LOR, half the laboratory LOR concentration was used for the assessment of trends. Furthermore, statistical trend assessments were only applied to filtered concentrations of metals. As detailed further in Section 9, on occasion, directly comparable historical datasets are not available to support long-term trend assessment or statistical analysis for certain analytes. Where required, trend assessment for these analytes will be undertaken in future reporting periods once a sufficient long-term dataset has been established. Further details of the trend assessment methodology are provided in previous EMRs, including (ERM, 2026a), with Mann-Kendall outputs for groundwater and linear regression outputs for surface water presented in Appendix M.

6. GROUNDWATER DATA ASSESSMENT

6.1 OBJECTIVE

The objective of the groundwater monitoring program is to identify water quality changes at an early stage so that potential causes can be investigated and, if necessary, effects mitigated. The groundwater data is compared between locations, to historical data, and to the adopted guideline values in order to assess changes in groundwater quality and the extent to which changes may be related to activities associated with the Ash Repositories, brine containment in Brine Waste Pond A and B, and multipurpose water storage which occurs at Settling Pond D.

6.2 GROUNDWATER MONITORING LOCATIONS AND FREQUENCY

A summary of the groundwater monitoring locations and their position relative to MPAR is presented in Table 6-1 and Figure 4a.

TABLE 6-1 GROUNDWATER MONITORING NETWORK

Bore ID	Location Description	Screened Material	Frequency	No. of Samples, Jan-June 2026
Upgradient of MPAR (background)				
MPGM4/D4	Background groundwater monitoring location, north-west (upgradient) of the MPAR	Fill	Quarterly	2
MPGM4/D5	Background groundwater monitoring location, north-west (upgradient) of the MPAR	Mudstone/ Sandstone and coal	Quarterly	2
Cross-gradient MPAR / adjacent MPAR to the north and adjacent Wangcol Creek				
MPGM4/D3	Background groundwater monitoring location, north (cross gradient) of the MPAR	Sandstone and/or siltstone	Quarterly	2
D106	North (cross gradient) of MPAR and adjacent Wangcol Creek	Weathered sandstone and/or Shale	Quarterly	2
D107	North (cross gradient) of MPAR and adjacent Wangcol Creek	Siltstone and/or shale	Quarterly	2
D119	Upgradient / adjacent MPAR	Bedrock (sedimentary)	Quarterly	2

Bore ID	Location Description	Screened Material	Frequency	No. of Samples, Jan-June 2026
Downgradient MPAR, areas adjacent Wangcol Creek				
MPGM4/D1	North-east (downgradient) of the MPAR	Mudstone, sandstone and coal	Quarterly	2
MPGM4/D2	East (downgradient) of the MPAR and adjacent Wangcol Creek	Not known	Quarterly	2
MPGM4/D8	East (downgradient) of the MPAR and adjacent to the northern side of Wangcol Creek	Alluvial deposits	Quarterly	2
MPGM4/D9	North-east (downgradient) of the MPAR and adjacent to Wangcol Creek	Alluvial deposits	Quarterly	2
D102	North-east (downgradient) of the MPAR and adjacent to Wangcol Creek. Nested (deeper) with D9	Siltstone	Quarterly	2
D103	East (downgradient) of the MPAR and adjacent Wangcol Creek	Coal and/or siltstone	Quarterly	2
D104	East (downgradient) of the MPAR and adjacent Wangcol Creek	Sandstone	Quarterly	2
D105	East (downgradient) of the MPAR and adjacent Wangcol Creek	Coal	Quarterly	2
Downgradient MPAR including LNAR (north) and historical mining disturbance (east)				
MPGM4/D10	East (downgradient) of the MPAR, and adjacent to LN Pond 2	Fill / mine spoil	Quarterly	2
MPGM4/D19	East (downgradient) of the Ash Repositories	Fill / mine spoil	Quarterly	2

Bore ID	Location Description	Screened Material	Frequency	No. of Samples, Jan-June 2026
D110	Within / immediately adjacent LNAR north	Bedrock (sedimentary)	Quarterly	2
D113	Cross- and downgradient of LNAR / adjacent Wangcol Creek	Bedrock (sedimentary)	Quarterly	2
D117	Within / immediately adjacent LNAR north	Fill (mine spoil)	Quarterly	2
Cross-gradient MPAR to the south, including LNAR (south) and historical mining disturbance				
MPGM4/D15	South of the Ash Repositories	Sandstone and/or shale	Quarterly	2
MPGM4/D16A[#]	South of the Ash Repositories (commissioned in October 2022 to replace D16)	Sandstone and/or shale	Quarterly	2
MPGM4/D17	South of the Ash Repositories	Sandstone and/or shale	Quarterly	2
MPGM4/D18	South of the Ash Repositories	Sandstone and/or shale	Quarterly	2
Brine Waste Pond Leak Detection Bores				
MPGM5/D5	Adjacent (downgradient) Brine Waste Pond A	Not known	Quarterly	2
MPGM5/D6	Adjacent (downgradient) Brine Waste Pond B	Not known	Quarterly	2
MPGM/24 and MPGM/25	Adjacent Settling Pond D (north-west)	Not known	Quarterly	0 (dry)
MPGM/26 and MPGM/27	Adjacent Settling Pond D (south-east)	Not known	Quarterly	0 (dry)

The number of samples in Table 6-1 indicates the number of occasions where a complete, or near complete suite of analysis was conducted during the reporting period.

6.3 GROUNDWATER MONITORING RESULTS AND DISCUSSION

Groundwater quality monitoring was undertaken by Nalco on behalf of EnergyAustralia. Details regarding the Nalco sampling method and QA/QC program are discussed in Section 5, with additional information provided in Appendix F.

6.3.1 GROUNDWATER ELEVATION AND INFERRED FLOW DIRECTIONS

Hydrographs showing groundwater elevations for each bore have been grouped by monitoring zone, as outlined in Section 6.2. The hydrographs show measured groundwater elevations overlaid by rainfall data from 01 January 2024 to 30 June 2026 and are presented in Appendix G. Throughout the reporting period, measured groundwater elevations remained stable (within a 1.1 m range) at all groundwater bores. Throughout the two-and-a-half-year period assessed within the hydrographs the following observations are noted.

- Groundwater elevations in upgradient / background bores were typically higher than those other monitoring zones, ranging between 915 to 919 m AHD;
- Groundwater elevations in bores located cross gradient of the MPAR / adjacent MPAR north and Wangcol Creek typically ranged between 909 and 913 m AHD, with elevations at D119 and MPGM4/D3 consistently higher than elevations at D106 and D107;
- Groundwater elevations in bores located downgradient of the MPAR and adjacent to Wangcol Creek were stable and ranged from 903 m AHD to 910 m AHD;
- Groundwater elevation in bores located downgradient MPAR, LNAR (north) and historical mining disturbance (east) were generally stable, ranging from 907 m AHD to 912 m AHD, with the exception of outlier values at D110 and D19 as addressed in the previous EMR (ERM, 2026a); and
- Groundwater elevations in bores located cross-gradient MPAR to the south, including LNAR (south) and historical mining disturbance areas, typically ranged from 908 m AHD to 916 m AHD, with the exception of outlier values at D17 and D18 as addressed in the previous EMR (ERM, 2026a). The highest groundwater elevation in this monitoring zone was consistently reported at D15.

Since groundwater levels were not all measured at the same time during each monitoring round, groundwater elevations from different bores may not be directly comparable in these instances.

While groundwater elevations in several bores varied during the reporting period, the groundwater elevation contours indicate groundwater flow to the east and south-east. Groundwater elevation contours are presented in Figure 5a and Figure 5b which present data from February to March 2026, and May to June 2026, respectively. The groundwater flow regime is inferred to be generally consistent across the seasons and is consistent with previously inferred groundwater flow directions.

Bores MPGM5/D5 and MPGM5/D6 are located adjacent and downgradient of Brine Waste Pond A and B, respectively. Survey data is not available for these bores; as such the water levels from these bores are reported as metres below a point of reference (metres below top of casing, m btoc), rather than as groundwater elevation. The presence of water in these bores is not inferred to reflect the regional water table as these bores are installed approximately 5 m above the water bearing zone targeted by other nearby monitoring bores. Over the reporting period, depth to water measurements in these bores remained stable and consistent with historical data. Depth to water measured in MPGM5/D5 was lower than that measured in MPGM5/D6, consistent with historical conditions.

6.3.2 HYDROGEOLOGICAL PARAMETERS

To provide an indication of groundwater flow rates as well as groundwater flow directions, hydrogeological parameters (measured and estimated) were used to estimate seepage velocities at the Site over the reporting period

Seepage velocities were estimated using groundwater levels from March 2026 and May 2026 for the following alignments:

- D110 to D105, which represents groundwater flow from MPAR towards Wangcol Creek to the east. This alignment transects the Bunnyong Sandstone (i.e. unmined host geology) that is generally present in the area north of the MPAR to the Wangcol Creek alignment; and
- D110 to D103, which represents groundwater flow from MPAR to the east. This alignment transects the highly disrupted fill / mine spoil geology that is generally present in the area to the east and south-east of the Ash Repositories.

Estimated seepage velocity values are summarised in Table 6-2 below. Details of these estimates and data inputs are provided in Appendix G. Estimated seepage velocities for the current reporting period are consistent with those derived from the 2024 and 2025 monitoring data (ERM, 2026a).

For the values estimated for fill/mine spoil, water in this area is actively taken from DML and Cooks Dam and likely recharges the system from other open voids in the area.

These estimated values are considered to be generally consistent with groundwater conditions, including areas of impacted groundwater from MPAR in the fill/mine spoil of highly disturbed areas and in areas where bedrock remains in place, such as between MPAR and Wangcol Creek.

TABLE 6-2 GROUNDWATER SEEPAGE VELOCITY CALCULATIONS

Time Period	Transect and Geological Unit	Estimated Seepage Velocity ($\bar{v}$) (m/year)
Feb – Mar 2026	Fill / Mine Spoil D110 – D103	340
May – Jun 2026		330
Feb – Mar 2026	Sandstone D110 – D105	36
May – Jun 2026		32

Note: Estimated seepage velocity is presented to two significant figures

6.3.3 GROUNDWATER QUALITY

Groundwater monitoring data for the reporting period is presented in Appendix H and is summarised in the following sections. Trend graphs of concentrations over time since January 2020 are provided in Appendix J, and statistical analysis is presented in Appendix M.

It is noted that all analysed concentrations of metals are reported as filtered for groundwater and brine bore results, with the exception of iron which is reported as total and filtered concentrations, as required by the EPL.

6.3.3.1 UPGRADIENT OF MPAR / BACKGROUND

Data obtained from bores MPGM4/D4 and MPGM4/D5, located to the north-west and hydraulically upgradient (background) of the MPAR, is summarised below and compared to the adopted guideline values for groundwater. Groundwater results for key indicator analytes relating to historical BCA placement in the MPAR are summarised in Figure 6a.

Field Parameters

Field parameters recorded at the groundwater bores in this monitoring zone for the reporting period are summarised as follows:

- pH values obtained from field measurements for groundwater from MPGM4/D4 and MPGM4/D5 ranged from 3.50 to 5.90. The pH values from bore MPGM4/D4 was consistently acidic (3.50 and 3.51 pH units) during the reporting period and pH values from both bores were within historical ranges. The measured pH values from these background bores were consistently more acidic than the adopted guideline value range for groundwater (6.5 to 8.0);
- EC values obtained from field measurements ranged from 610 µS/cm to 1,191 µS/cm and were stable for each bore throughout the reporting period. EC values did not exceed the adopted guideline value for groundwater (2,600 µS/cm); and
- Total dissolved solids (TDS) values ranged between 496 mg/L and 1,010 mg/L and were generally consistent throughout the reporting period. TDS values did not exceed the adopted guideline value (2,000 mg/L).

Graphs of concentrations over time since January 2020 (Appendix J) for up gradient (background) bores MPGM4/D4 and MPGM4/D5 show concentrations of TDS and EC in groundwater have remained stable and below the adopted guideline values.

Major and Minor Ions

Throughout the reporting period, concentrations of chloride, calcium (total and filtered), sodium (total and filtered), fluoride, and cyanide were reported below the adopted guideline values for groundwater from bores within this monitoring zone. Concentrations of sulfate in groundwater from MPGM4/D5 were reported above the adopted guideline value during the February 2026 monitoring round.

Hardness as $CaCO_3$ of groundwater within this monitoring zone ranged from 54.6 mg/L (Bore D4) to 533 mg/L (Bore D5) over the reporting period. The hardness of groundwater was consistently reported above the adopted guideline value at MPGM4/D5, but was consistently below the adopted guideline value at MPGM4/D4.

The highest concentrations of chloride and sulfate since January 2020 were reported in groundwater from both background bores during the February 2026 monitoring round, however concentrations returned to within historical ranges in the subsequent monitoring round. Comparison of the February 2026 results with the historical baseline dataset (WMP; ERM, 2026c) further indicates that these results are anomalous and are not representative of upgradient groundwater conditions.

This interpretation is supported by the absence of a corresponding increase in TDS and EC. As chloride and sulfate are major contributors to TDS, elevated concentrations of these major ions would typically result in an increase in TDS concentrations. However, TDS concentrations and EC values in groundwater from these bores were generally consistent, indicating that the reported increases in chloride and sulfate are likely anomalous and not indicative of groundwater quality in these bores.

Nutrients

Throughout the reporting period, concentrations of nutrients including ammonia, nitrate, nitrite, and 'nitrite and nitrate (as N)' were reported below the adopted guideline values at MPGM4/D4 and MPGM4/D5 for groundwater. Concentrations of total nitrogen were reported above the adopted guideline value, but within the same order of magnitude, during all sampling rounds at MPGM4/D4 and MPGM4/D5.

Metals

Throughout the reporting period, the following concentrations of metals in groundwater from bores MPGM4/D4 and MPGM4/D5 were reported above the adopted guideline values:

- Aluminium, cobalt, iron (total and filtered) on both occasions at MPGM4/D4 and MPGM4/D5;
- Arsenic and lead on both occasions at MPGM4/D4; and
- Manganese on both occasions at MPGM4/D5.

Concentrations of aluminium, arsenic (filtered, V, and III), iron (total and filtered), lead, zinc, and vanadium were higher in groundwater from bore MPGM4/D4 when compared to groundwater from bore MPGM4/D5, noting the lower pH in groundwater from MPGM4/D4 is likely to influence the dissolved metals concentrations.

Concentrations of boron and nickel have remained below the adopted guideline values in groundwater from these bores since January 2020. Concentrations of manganese in groundwater from MPGM4/D5, and iron (total and filtered) from MPGM4/D4 and MPGM4/D5 have generally remained above the adopted guideline value historically and during the reporting period.

Statistical Trend Summary

As shown in Appendix M, for the groundwater bores located in this monitoring zone, review of the data collected since January 2020 identified the following statistically significant trends:

Increasing trends were identified for:

- Chloride in groundwater from MPGM4/D4, however this is likely influenced by the February 2026 value, which is considered anomalous.

Decreasing trends were identified for:

- EC, iron (total), and sulfate from MPGM4/D4; and
- EC, iron (filtered), sulfate, manganese, and TDS from MPGM4/D5.

Discussion

The area surrounding the MPAR has been highly disturbed by historical mining activities, and the low pH in this area is reported to have resulted from the oxidation of iron sulfide (Connell Wagner, 2007). The elevated concentrations of metals are likely associated with the resulting acidification mobilising metals into groundwater. Concentrations of key indicator analytes since January 2020 have, overall, remained relatively stable in this area.

Given the hydraulic gradient observed, with an inferred local groundwater flow direction towards the east, concentrations recorded at MPGM4/D4 and MPGM4/D5 are considered to indicate background conditions and are not considered to be associated with the activities at the Ash Repositories.

6.3.3.2 CROSS GRADIENT MPAR / ADJACENT MPAR TO THE NORTH AND ADJACENT WANGCOL CREEK

Data obtained from groundwater bores situated cross gradient of the MPAR, adjacent to the north of the MPAR and adjacent to Wangcol Creek (MPGM4/D3, D106, D107) and to the south of MPAR (D119) is summarised below and compared to the relevant adopted guideline values for groundwater. Groundwater results for key indicator analytes relating to historical BCA placement in the MPAR are summarised in Figure 6b.

Field Parameters

Field parameters monitored at the groundwater bores in this monitoring zone for the reporting period are summarised as follows:

- Field measured pH values in groundwater in this area were slightly acidic but relatively stable, ranging from 5.99 to 6.34 over the reporting period. These values are more acidic than the adopted guideline value range (6.5 – 8) at groundwater bores within this monitoring zone, however remained within historical ranges during the reporting period;
- Field measured EC values ranged from 869 µS/cm to 11,040 µS/cm and were generally stable within each bore throughout the reporting period. EC values were consistently reported above the adopted guideline value for groundwater (2,600 µS/cm) in groundwater from bores D106 and D107; and
- TDS values were generally followed a similar trend to EC values in each bore over the reporting period, with TDS values consistently reported above the adopted guideline value for groundwater (2,000 mg/L) at D106 and D107. TDS values over the reporting period ranged between 572 mg/L and 9,800 mg/L and were generally stable to decreasing (D119) throughout the reporting period.

Whilst EC and TDS at D106 and D107 have consistently been reported above the adopted guideline values, they have declined steadily since 2022. EC and TDS at MPGM4/D3 and D119 have generally remained lower, with concentrations declining in groundwater from D119 to values below the adopted guideline value since January 2020.

Major and Minor Ions

During the reporting period, calcium (total and filtered), fluoride, and cyanide were consistently reported below the adopted guideline values in groundwater from bores in this monitoring zone. Concentrations of chloride and sulfate were consistently reported above the adopted guideline values at D106 and D107, and concentrations of sodium (total and filtered) were consistently reported above the adopted guideline values at D106, D107, and D119.

Hardness as $CaCO_3$ of groundwater from bores in this monitoring zone ranged from 354 mg/L to 2,590 mg/L over the reporting period. The hardness of groundwater was above the adopted guideline value on both occasions at all groundwater bores in this monitoring zone.

Graphs of concentrations of sulfate and chloride over time since January 2020 indicate similar trends to EC and TDS, with concentrations of sulfate and chloride at D106 and D107 consistently above the adopted guideline values but steadily declining since 2022. Concentrations of chloride and sulfate in groundwater from bore D119 have declined since 2020 to below the adopted guideline values, and at MPGM4/D3 have remained low and stable.

Nutrients

Throughout the reporting period, concentrations ammonia, nitrate, and nitrite were reported below the adopted guideline values in groundwater from each bores in this monitoring zone. Concentrations of 'nitrite and nitrate (as N)' were reported above the adopted guideline value on both occasions in groundwater from bores D106 and D119, and during the March 2025 monitoring round from bore MPGM4/D3. Concentrations of total nitrogen were reported above the adopted guideline value on both occasions in groundwater from each bore in this monitoring zone. Total phosphorus concentrations were reported above the adopted guideline value during the February 2026 monitoring round at D119.

Metals

Throughout the reporting period, concentrations of the following metals in groundwater from bores MPGM4/D3, D106, D107, and D119 were reported above the adopted guideline values:

- Aluminium during the April 2026 monitoring round at D119;
- Boron on both occasions at D106 and D107, and during the April 2026 monitoring round at D119;
- Cobalt on both occasions at D106, D107, and D119;
- Copper during the March 2026 monitoring round at D106 and D107;
- Iron (total and filtered) on both occasions at each bore within this monitoring zone;
- Lead on both occasions at D107; and
- Manganese and nickel on both occasions at D106 and D107.

Graphs of concentrations over time since January 2020 for groundwater bores in this monitoring zone indicate that concentrations of manganese and nickel in groundwater from D106 and D107 have fluctuated and remained above the adopted guideline value but have generally decreased in since 2022. Manganese and nickel have consistently remained stable and below the adopted guideline value at MPGM4/D3 and D119. Concentrations of iron (total and filtered) in groundwater from each bore in this have fluctuated but have generally remained above the adopted guideline value.

Boron concentrations have remained above the adopted guideline value at D106 and D107 but below the adopted guideline value at MPGM4/D3. Concentrations of boron at D119 have fluctuated both above and below the adopted guideline value but remained within historical ranges throughout the reporting period.

Statistical Trend Summary

As shown in Appendix M, for the groundwater bores located in this monitoring zone, review of the data collected since January 2020 identified the following statistically significant trends:

Increasing trends were identified for:

- Chloride in groundwater from MPGM4/D3, however concentrations remained below the adopted guideline value; and
- Boron in D106, with concentrations within historical ranges.

Decreasing trends were identified for:

- Chloride, iron (filtered), manganese, and nickel in bore D106;
- Chloride, EC, iron (total and filtered), manganese, nickel, sulfate, and TDS in bore D107; and
- Boron, chloride, EC, and sulfate in bore D119.

Discussion

Concentrations of key indicator analytes in groundwater from MPGM4/D3, located cross-gradient of the MPAR generally remained within a similar order of magnitude to the concentrations reported at background bores MPGM4/D4 and MPGM4/D5. Concentrations of the key indicator analytes chloride and sulfate in groundwater from D119, located to the south of the MPAR, have declined since 2020 and are below the adopted guideline values. Concentrations of key indicator analytes at D106 and D107, located to the north-east of the MPAR, were consistently reported above the adopted guideline values and at an order of magnitude higher than concentrations at background bores. During the reporting period concentrations of key indicator analytes remained within historical ranges at each bore within this monitoring zone.

Iron (total and filtered) and a component of manganese concentrations are considered to be related to background water quality in the area, based on concentrations in groundwater from the background bores MPGM4/D4 and MPGM4/D5. However, EC, TDS, chloride, sulfate, boron and nickel concentrations in groundwater from bores D106 and D107 are considered to be related to historical BCA placement activities at the MPAR. The seepage of constituents from the BCA placement area to underlying and adjacent groundwater has been assessed as part of the Independent Groundwater Investigation, detailed in Section 2. The decreasing concentrations of key indicator analytes at D106 and D107 is indicative of the plume migrating through this area, with these bores now intersecting groundwater with lower, although still above adopted guidelines, concentrations of sulfate, chloride, nickel, manganese, and iron concentrations in groundwater. Fluctuations of concentrations of key indicator analytes in groundwater may still occur in the future due to the variable BCA placement history at the MPAR over time, resulting in different seepage contributions to groundwater over time.

6.3.3.3 DOWNGRADIENT MPAR, AREAS ADJACENT WANGCOL CREEK

Data obtained from groundwater bores situated downgradient MPAR and adjacent to Wangcol Creek (MPGM4/D1, MPGM4/D2, MPGM4/D8, MPGM4/D9 and D102 to D105) is summarised below and compared to the adopted guideline values for groundwater. Groundwater results for key indicator analytes relating to historical BCA placement in the MPAR are summarised in Figure 6c.

Field Parameters

Field parameters recorded at the groundwater bores in this monitoring zone for the reporting period are summarised as follows:

- Field measured pH values in groundwater from bores located downgradient of MPAR and adjacent Wangcol Creek ranged from 5.37 to 6.54. pH values were generally more acidic than the adopted guideline value range (6.5 – 8), with the exception of D102 on one occasion. pH values remained within historical ranges during the reporting period for each groundwater bores in this monitoring zone;
- Field measured EC values ranged from 357 µS/cm to 9,520 µS/cm and, in groundwater from each bore, were generally stable throughout the reporting period. EC values were reported above the adopted guideline value in groundwater from MPGM4/D1, D102, D103, D105 and MPGM4/D9; and

- TDS generally followed a similar trend to EC over the reporting period, with TDS values consistently reported above the adopted guideline value for groundwater (2,000 mg/L) at MPGM4/D1, D102, D103, and MPGM4/D9. TDS values over the reporting period ranged between 225 mg/L and 8,980 mg/L and were generally stable throughout the reporting period.

Graphs of concentrations over time since January 2020 indicate that EC and TDS at MPGM4/D1, MPGM4/D9, D102, D103, and D105 are generally above the adopted guideline values. EC and TDS concentrations in groundwater from D104, MPGM4/D2, and MPGM4/D8 have generally remained stable and below the adopted guideline values since January 2020.

Major and Minor Ions

Throughout the reporting period, calcium (total and filtered), fluoride, and cyanide concentrations were consistently reported below the adopted guideline values in groundwater from each monitoring bore in this monitoring zone.

During the reporting period, concentrations of sodium (total and filtered) in groundwater from bores MPGM4/D1, D102, D103, D105 and MPGM4/D9 were reported above the adopted guideline value. Concentrations of sulphate were reported above the adopted guideline value on both occasions at MPGM4/D1, D102, and D103, and on one occasion at D105, MPGM4/D2, and MPGM4/D9. Chloride concentrations were reported above the adopted guideline value on both occasions at MPGM4/D1 and D102, and on one occasion at MPGM4/D9, noting that the other reported concentration is considered to be anomalously low based on EC and TDS values.

Hardness as $CaCO_3$ of groundwater within this monitoring zone ranged from 139 mg/L to 3,180 mg/L over the reporting period. The hardness of groundwater was reported above the adopted guideline value on both occasions at all groundwater bores within this monitoring zone, with the exception of MPGM4/D8.

Graphs of concentrations over time since January 2020 show concentrations of sulfate follow a similar pattern to EC and TDS. Concentrations of sulfate at MPGM4/D1, MPGM4/D9, D102, D103, and D105 have generally remained stable, above the adopted guideline value, noting the concentration of sulfate reported at MPGM4/D9 during the March 2026 monitoring round is considered to be anomalously low based on EC and TDS values. The sulfate concentration in groundwater from D105 during the May 2026 monitoring round was below the adopted guideline for the first time since 2020 (this location was installed in 2018). Sulfate concentrations in groundwater from D104 and MPGM4/D8 have remained below the adopted guideline value since at least 2020. Concentrations of sulfate at MPGM4/D2 have generally remained below the adopted guideline value with the exception of the January 2020, May 2025, and February 2026 monitoring rounds.

Graphs of chloride concentrations over time since January 2020 indicate that chloride in groundwater from MPGM4/D1, D102, and MPGM4/D9 have generally remained above the adopted guideline value. Similar to the sulfate concentration at MPGM4/D9, the low concentration of chloride reported at MPGM4/D9 during the March 2026 monitoring round is considered to be anomalous when TDS and EC values are considered. Concentrations of chloride in groundwater from the other bores in this monitoring zone have remained generally stable and below the adopted guideline value.

Nutrients

Throughout the reporting period, concentrations of ammonia, nitrate, and nitrite were reported below the adopted guideline values for groundwater at all groundwater bores within this monitoring zone. Concentrations of 'nitrite and nitrate (as N)' were reported above the adopted guideline value on both occasions in groundwater from MPGM4/D8, and on one occasion from D104. Concentrations of total nitrogen were reported above the adopted guideline value on both occasions for each groundwater bores in this monitoring zone, with the exception of MPGM4/D2 which only reported a detectable concentration of total nitrogen during the April 2026 monitoring round. Concentrations of total phosphorus in groundwater from D103 to D105, MPGM4/D2, MPGM4/D8, and MPGM4/D9 were reported above the adopted guideline value on one occasion during the reporting period. Concentrations of orthophosphate were reported above the adopted guideline value during the May 2026 monitoring round at D104.

Metals

Throughout the reporting period, the following concentrations of metals in groundwater from bores MPGM4/D1, MPGM4/D2, MPGM4/D8, MPGM4/D9 and D102 to D105 were reported above the adopted guideline values:

- Aluminium on both occasions at MPGM4/D2 and MPGM4/D8, and on one occasion at MPGM4/D1, D104, and MPGM4/D9;
- Boron in both monitoring rounds at MPGM4/D1, D102, D103, and MPGM4/D9, and on one occasion at MPGM4/D2 and D105;
- Cobalt and iron (total and filtered) on both occasions at MPGM4/D1, MPGM4/D2, MPGM4/D9 and D102 – D105;
- Copper on one occasion at MPGM4/D1, D102 and D103;
- Manganese on both occasions at MPGM4/D1, D102, D103, D105, and MPGM4/D9; and
- Nickel on both occasions at MPGM4/D1, D102, D103, and MPGM4/D9.

Graphs of concentrations over time since January 2020 indicate that concentrations of nickel, manganese, and, except for MPGM4/D2, boron have generally remained stable below the adopted guideline values in groundwater from MPGM4/D2, MPGM4/D8, and D104. Concentrations of boron at MPGM4/D2 have increased to values at or above the adopted guideline value since April 2023.

Concentrations of iron (total and filtered) have fluctuated but generally remained above the adopted guideline value in groundwater from each groundwater bores in this monitoring zone except for MPGM4/D8. Since April 2021, concentrations of iron (total) have generally remained stable and at or below the adopted guideline value at MPGM4/D8 with the exception of a short period between March and September 2025. Similarly, concentrations of iron (filtered) at MPGM4/D8 have generally remained stable and below the adopted guideline value since January 2020 with the exception of the November 2025 monitoring round. During the reporting period, concentrations of iron (total and filtered) at MPGM4/D2, D104, and MPGM4/D8 generally remained stable within historical ranges.

Similar to trends for other analytes at MPGM4/D1, MPGM4/D9, D102, and D103, concentrations of metals in groundwater from these bores have generally remained stable and above the adopted guideline values, however concentrations of nickel and manganese at D103 have increased since 2023 but remain within historical values.

Concentrations of metals in groundwater from bore D105 have historically fluctuated above and below the adopted guideline values (e.g. nickel and boron), or have been consistently reported above the adopted guideline values (manganese and iron (total and filtered)). Concentrations of metals at D105 have generally remained stable or have declined since January 2020.

Statistical Trend Summary

As shown in Appendix M, for the groundwater bores located in this monitoring zone, review of the data collected since January 2020 identified the following statistically significant trends:

Increasing trends were identified for:

- Boron and nickel in groundwater from MPGM4/D2, however concentrations remained within historical ranges;
- Nickel from MPGM4/D8, however concentrations remained within historical ranges; and
- Boron from MPGM4/D9, with the highest concentration over time reported during the June 2026 monitoring round.

Decreasing trends were identified for:

- Chloride, iron (total and filtered), manganese, and nickel from MPGM4/D1; and
- Boron, EC, manganese, nickel, and TDS from D102;
- Sulfate from D104; and
- Chloride, EC, iron (total and filtered), manganese, nickel, sulfate, and TDS from D105.

Discussion

pH values were generally more acidic than the adopted guideline value range at all groundwater bores within this area, except for D102. The lower pH values are consistent with background conditions in the area and may result from historical mine disturbance and/or represent regional groundwater quality.

The concentrations of EC and TDS, chloride, sulfate, boron and nickel that were above the adopted guideline values are considered to represent changes to water quality and are not primarily related to background and pre-ash placement conditions. These analytes are present at elevated concentrations in the brine used to condition the BCA, and in groundwater immediately downgradient of the MPAR. Concentrations of these analytes in groundwater from bores MPGM4/D1, MPGM4/D9, D102, D103 and D105 are considered to be related to BCA placement activities at MPAR. Statistical trend assessment undertaken for key indicator analyte concentrations since January 2020 identified more statistically significant decreasing trends, or stable trends when compared to previous reporting periods.

Whilst some concentrations of analytes in groundwater from MPGM4/D2, MPGM4/D8, and D104 were reported above the adopted guideline values, concentrations of key indicator analytes in these groundwater bores were consistently lower than the other groundwater bores located downgradient of the MPAR and adjacent Wangcol Creek and generally remained within the same order of magnitude as background bores MPGM4/D4 and MPGM4/D5.

6.3.3.4 DOWNGRADIENT MPAR, INCLUDING LNAR (NORTH) AND HISTORICAL MINING DISTURBANCE (EAST)

Data obtained from groundwater bores situated downgradient MPAR including LNAR (north) and historical mining disturbance (east) (MPGM4/D10, MPGM4/D19, D110, D113, D117) are

summarised below and compared to the adopted guideline values for groundwater. Groundwater results for key indicator analytes relating to historical BCA placement in the MPAR are summarised in Figure 6d.

Field Parameters

Field parameters recorded at the groundwater bores in this monitoring zone are summarised as follows:

- pH values for groundwater from bores located downgradient of MPAR and adjacent Wangcol Creek ranged from 5.90 to 6.15. pH values were consistently more acidic than the adopted guideline value range (6.5–8) and remained within historical ranges;
- Field EC values ranged from 4,118 µS/cm to 9,966 µS/cm and were generally stable throughout the reporting period. EC values were reported above the adopted guideline value for groundwater (2,600 µS/cm) in groundwater from each bore in this area; and
- TDS generally followed a similar trend to EC over the reporting period, with TDS values reported above the adopted guideline value for groundwater (2,000 mg/L) at each groundwater bore. TDS values over the reporting period ranged between 3,220 mg/L and 9,070 mg/L and were generally stable throughout the reporting period.

Graphs of concentrations over time since January 2020 indicate that EC and TDS at MPGM4/D10, MPGM4/D19, D110, D113 and D117 have generally remained above the adopted guideline values. Concentrations of EC and TDS in groundwater from D113, D117 and D19 have all followed a similar pattern, remaining generally stable since September 2020. D110 has remained stable since 2020 for EC and TDS, but has consistently reported higher concentrations than D113, D117 and D19. The highest TDS concentration at D110 since January 2020 was reported during the March 2026 monitoring round, however concentrations subsequently returned to within historical ranges. Similarly, the highest concentration of EC in groundwater from D110 was reported during the May 2026 monitoring round.

Major and Minor Ions

Throughout the reporting period, sulfate and sodium (total and filtered) were consistently reported above the adopted guideline values in groundwater from each bore in this monitoring zone.

Chloride was reported above the adopted guideline value on both occasions at D110 and MPGM4/D10. The fluoride concentration in groundwater from D117 was reported above the adopted guideline value in March 2026 but later returned to below the adopted guideline value.

Hardness as $CaCO_3$ of groundwater within this monitoring zone ranged from 867 mg/L to 3,180 mg/L over the reporting period. The hardness of groundwater was reported above the adopted guideline value on both occasions at each groundwater borein this monitoring zone.

Concentrations of calcium (total and filtered) and cyanide were below the above the adopted guideline values during the reporting period.

Graphs of concentrations over time since January 2020 show concentrations of sulfate generally follow the trends of EC and TDS, with concentrations from each bore in this monitoring zone generally remaining above the adopted guideline value since January 2020. The lowest concentration of sulfate in groundwater from D117 since January 2020 was reported during the April 2026 monitoring round.

Graphs of chloride concentrations over time since January 2020 indicate that D110 has remained generally stable, above the adopted guideline value. Similar to other analytes at MPGM4/D10, concentrations of chloride in groundwater have been increasing since 2022 but remained within historical ranges during the reporting period. Chloride concentrations in groundwater from D19, D113 and D117 have generally remained stable and below the adopted guideline value since 2020.

Nutrients

Throughout the reporting period, concentrations of ammonia and nitrite were reported below the adopted guideline values for groundwater from each bores in this monitoring zone. Concentrations of 'nitrite and nitrate (as N)' were reported above the adopted guideline value on both occasions at D117 and D110, and on one occasion at D113. Total nitrogen concentrations were reported above the adopted guideline value on both occasions at each groundwater bores in this monitoring zone. Concentrations of total phosphorus were reported above the adopted guideline value on one occasion at D113 and D117.

Metals

Throughout the reporting period, the following concentrations of metals in groundwater from bores MPGM4/D10, MPGM4/D19, D110, D113 and D117 were reported above the adopted guideline values:

- Aluminium on both occasions at MPGM4/D10, D117, and D19, and on one occasion at D113 and D110;
- Boron, cobalt, and iron (total) on both occasions at each groundwater bore in this monitoring zone;
- Iron (filtered) on both occasions at MPGM4/D10, D110, D113, and MPGM4/D19, and on one occasion at D117;
- Cadmium, molybdenum, and selenium on both occasions at D117;
- Copper on one occasion at D110;
- Lead on both occasions at MPGM4/D10;
- Manganese on both occasions at D110 and D117, and on one occasion at MPGM4/D10; and
- Nickel on both occasions at D110, and on one occasion at MPGM4/D10, D113, and MPGM4/D19.

Graphs of concentrations of metals over time since January 2020 indicate that concentrations of metals in groundwater from bores in this monitoring zone vary over time. Concentrations of nickel have generally remained stable and below the adopted guideline value in groundwater from D117 since 2022. Nickel concentrations in groundwater from MPGM4/D10 and D110 have fluctuated above the adopted guideline value since 2020 (D110) and 2022 (MPGM4/D10), but remained within historical ranges during the reporting period. Nickel concentrations in groundwater from D113 and D19 have remained at or above the adopted guideline value since approximately 2023, but within historical ranges during the reporting period.

Concentrations of manganese in groundwater have generally remained stable and either fluctuated above or below the adopted guideline value (MPGM4/D10, D113, and D19), or consistently remained above the adopted guideline value since at least 2022 (D110 and D117) over time since January 2020. Concentrations of manganese have typically been more elevated

at D110 than at other groundwater bores within this monitoring zone however concentrations at D110 have declined steadily since January 2020, with the lowest concentration reported during the May 2026 monitoring round. Concentrations of manganese in groundwater from D117 have increased since 2022, to the highest historical value during the April 2026 monitoring round.

Iron (total) concentrations in groundwater have generally remained stable, above the adopted guideline value for MPGM4/D10, D110, D113, and D19, but remained within historical ranges during the reporting period. Iron (total) concentrations in groundwater for D117 have fluctuated above and below the adopted guideline value but remained within historical ranges during the reporting period.

Concentrations of iron (filtered) in groundwater from MPGM4/D10, D110, D113, and D19 have generally remained stable above the adopted guideline value, however a steady increasing trend has been observed since 2022 at MPGM4/D10, D113, and D19. The lowest concentration of iron (filtered) at D110 since January 2020 was reported during the May 2026 monitoring round. Whilst iron (filtered) concentrations at D117 have generally remained stable below the adopted guideline value since October 2022, concentrations were reported slightly above the adopted guideline value during the April 2026 sampling event.

Concentrations of boron at D19, D110 and D113 have generally remained stable above the adopted guideline value over time since January 2020. Boron concentrations in MPGM4/D10 increased from 2022 to 2024, declining but remaining above the adopted guideline value since then. Boron concentrations in groundwater at D117 have consistently remained above the adopted guideline value at generally an order of magnitude higher than other groundwater bores within this area, however concentrations remained within historical ranges during the reporting period.

Statistical Trend Summary

As shown in Appendix M, for the groundwater bores located in this monitoring zone, review of the data collected since January 2020 identified the following statistically significant trends:

Increasing trends were identified for:

- Boron, EC, manganese, and nickel in groundwater from MPGM4/D10, however concentrations remained within historical ranges;
- Iron (total) and nickel at D19, however concentrations remained within historical ranges;
- Nickel at D113, however concentrations remained within historical ranges; and
- Manganese at D117, with the highest concentration over time reported during the April 2026 monitoring round.

Decreasing trends were identified for:

- Manganese from D110; and
- Nickel and sulfate from D117.

Discussion

pH values were consistently more acidic than the adopted guideline value range in groundwater from each bore in this monitoring zone, which is consistent with background conditions in the area and may result from historical mine disturbance and/or represent regional groundwater quality.

Concentrations of key indicator analytes were identified at concentrations equal to or above the adopted guideline values in groundwater from bores around the MPAR and in the mine disturbance area to the east. Concentrations of iron (total and filtered) and manganese in groundwater from the bores in this area were of a similar order of magnitude to those in groundwater from the background monitoring bores (MPGM4/D4 and MPGM4/D5). These concentrations are considered to be related to background groundwater conditions, except for potentially manganese concentrations at D110 and D117, which were reported at an order of magnitude above MPGM4/D4 and MPGM4/D5.

The TDS, EC, sulfate, chloride, boron, and nickel concentrations in groundwater from bores in this area are elevated relative to background locations. Connell Wagner (2007) reported elevated levels of sulfate, boron, nickel, zinc, manganese and iron previously in this area based on pre-ash placement data from bore B904 (operational between 1997 and 2000), which may have been influenced by underground mine workings to the south of this area. However, concentrations of sulfate, chloride, boron, nickel and zinc are also likely to indicate seepage from BCA in the MPAR.

6.3.3.5 CROSS GRADIENT MPAR TO THE SOUTH, INCLUDING LNAR (SOUTH) AND HISTORICAL MINING DISTURBANCE

Data from groundwater bores considered to be cross gradient from MPAR to the south, including LNAR (south) and historical mining disturbance areas are summarised below and compared to the adopted guideline values for groundwater. Bores in this area include D15, D16A, D17, and D18. Groundwater results for key indicator analytes relating to historical BCA placement in the MPAR are summarised in Figure 6e.

Field Parameters

Field parameters recorded at the groundwater bores in this monitoring zone are summarised as follows for the reporting period:

- Field pH values were, at times, more acidic than the adopted guideline value range in groundwater from D15 and D17 although values were generally stable during the reporting period, ranging between 6.05 and 7.14. pH values at D18 and D16A ranged between 6.68 and 7.57, and remained within the adopted guideline value range (6.5 to 8.0). pH values generally remained within historical ranges during the reporting period, with the exception of D16A and D17 which, during the March 2026 monitoring round, reported the highest pH values since monitoring of these bores commenced;
- Field EC values ranged from 650 µS/cm to 2,065 µS/cm and were generally stable throughout the reporting period. EC values were consistently reported below the adopted guideline value for groundwater (2,600 µS/cm) at each groundwater bore in this area; and
- TDS generally followed a similar trend to EC over the reporting period, with TDS values consistently being reported below the adopted guideline value for groundwater (2000 mg/L). TDS values over the reporting period ranged between 361 mg/L and 1,540 mg/L and were generally stable throughout the reporting period.

Since at least 2022 concentrations of EC and TDS in groundwater from bores D15, D16A, D17, and D18 have generally remained below the adopted guideline values. EC and TDS at D16A and D18 have consistently remained stable.

Major and Minor Ions

Throughout the reporting period, concentrations of chloride, sulfate, calcium (total and filtered), fluoride, and cyanide, were reported below the adopted guideline values in groundwater from bores D15, D16A, D17 and D18. Sodium (total and filtered) was reported above the adopted guideline value on both occasions at D15.

Hardness as $CaCO_3$ of groundwater within this monitoring zone ranged from 308 mg/L to 832 mg/L over the reporting period. The hardness of groundwater was reported above the adopted guideline value on both occasions at each groundwater bore in this monitoring zone.

Graphs of concentrations of sulfate and chloride over time since January 2020 for D15, D16A, D17, and D18 follow a similar trend to EC and TDS. Sulfate and chloride concentrations in groundwater at D16A and D18 and have consistently remained stable and below the adopted guideline values. Sulfate and chloride concentrations in bores D15 and D17 generally declined between 2020 and 2024, remaining below the adopted guideline since at least 2024 for sulfate, and since 2020 for chloride. Concentrations of sulfate and chloride at each groundwater bore in this monitoring zone remained within historical ranges during the reporting period.

Nutrients

Throughout the reporting period, concentrations of nitrate and nitrite were reported below the adopted guideline values for groundwater at D15, D16A, D17 and D18. Concentrations of ammonia were reported above the adopted guideline value during the March 2026 monitoring round at D17. Concentrations of 'nitrite and nitrate (as N)' were reported above the adopted guideline value on both occasions at D15, D16A, and D18, and on one occasion at D17. Concentrations of total nitrogen were reported above the adopted guideline value on both occasions at each groundwater bore in this monitoring zone. Concentrations of total phosphorus in groundwater from D15, D17, and D18 were reported above the adopted guideline value on one occasion during the reporting period.

Metals

Throughout the reporting period, the following concentrations of metals in groundwater from bores D15, D16A, D17 and D18 were reported above the adopted guideline values:

- Aluminium and arsenic during the June 2026 monitoring round at D15;
- Cobalt on both occasions at D15, and on one occasion at D16A, D17, and D18;
- Iron (total) on both occasions at D15, D17, and D18, and on one occasion at D16A;
- Iron (filtered) on both occasions at D15, and during the June 2026 monitoring round at D17 and D18; and
- Molybdenum during the March 2026 monitoring round at D17.

Graphs of concentrations over time since January 2020 indicate that concentrations of nickel, manganese, and boron have generally remained stable or declining, and below the adopted guideline values for D15, D16A, D17, and D18. Concentrations of iron (total and filtered) in groundwater from D16A and D18 have exhibited some fluctuation and have generally remained above the adopted guideline value since 2022. During the reporting period, concentrations of metals at D16A and D18 remained within historical ranges.

Concentrations of iron (total) in groundwater at D15 and D17 have varied since January 2020 and have generally remained above the adopted guideline value, however during the March 2026 monitoring round concentrations at D17 were reported at an order of magnitude above the previous historical maximum. Iron (total) concentrations at D17 returned to within historical ranges during the subsequent monitoring round. When comparing this result with the historical baseline dataset presented in the WMP (ERM, 2026c), the concentration of iron (total) at D17 during the March 2026 monitoring round is considered to be anomalous. Whilst iron (filtered) at D17 has demonstrated some variability since January 2020, concentrations remained within historical ranges during the reporting period.

Statistical Trend Summary

As shown in Appendix M, for the groundwater bores located in this monitoring zone, review of the data collected since January 2020 identified the following statistically significant trends:

Increasing trends were identified for:

- Iron (total) and manganese in groundwater from D18, however concentrations remained within historical ranges.

Decreasing trends were identified for:

- Chloride, EC, iron (total and filtered), manganese, nickel, sulfate, and TDS from D15;
- Chloride and sulfate at D16A; and
- Boron, chloride, EC, manganese, nickel, sulfate, and TDS at D17.

Discussion

With the exception of an outlier concentration of iron (total) reported at D17, concentrations of key indicator metals from groundwater bores within this area are generally lower than, or within the range of, those reported in groundwater from background bores MPGM4/D4 and MPGM4/D5.

Concentrations of sulfate, chloride, and EC in groundwater from D16A and D18 were generally consistent with the background bores MPGM4/D4 and MPGM4/D5, however concentrations in D15 and D17 were slightly higher than background bores. Metal concentrations above the adopted guideline values, apart from iron (total and filtered), were mostly reported in groundwater from bore D15.

Concentrations of key indicator analytes in groundwater from bore D15 that were reported above the adopted guideline values are considered likely to have been influenced by activities at the MPAR. Bore D15 is located cross-gradient, rather than directly down hydraulic gradient of the MPAR, however the presence of preferential flow paths associated with former mine workings and other water management activities are likely to be factors in the apparent distribution of the analytes in groundwater.

6.3.3.6 BRINE WASTE POND LEAK DETECTION BORES

Water quality results from monitoring bores MPGM5/D5 and MPGM5/D6, located adjacent to the Brine Waste Holding Ponds (A / B) and to the west and upgradient of the MPAR, are summarised with reference to the adopted guideline values for groundwater in the sections below. As discussed in the previous EMR (ERM, 2026a), water in these bores is not inferred to reflect the regional water table. Water quality results for key indicator analytes relating to historical BCA placement in the MPAR are summarised in Figure 6f.

Field Parameters

Field parameters recorded at bores adjacent to the Brine Waste Holding Ponds (A/B) for the reporting period are summarised as follows:

- Field pH values for bores MPGM5/D5 and MPGM5/D6 ranged from 6.69 to 6.8. pH values were consistently within the adopted guideline value range (6.5 – 8) and remained within historical ranges during the reporting period;
- Field EC values ranged from 6,297 µS/cm to 38,306 µS/cm. EC values were above the adopted guideline value for groundwater (2,600 µS/cm) at both leak detection bores, and were higher at MPGM5/D5 than at MPGM5/D6; and
- TDS generally followed a similar trend to EC over the reporting period, with TDS values above the adopted guideline value for groundwater (2,000 mg/L) on both occasions at both leak detection bores, but was consistently higher at MPGM5/D5 (up to 35,700 mg/L).

Concentrations of EC and TDS during the reporting period at the brine leak detection bores remained within the historical ranges since January 2020.

Major and Minor Ions

Concentrations of chloride, sulfate, and sodium (total and filtered) were reported above the adopted guideline values in water from bores MPGM5/D5 and MPGM5/D6 during the reporting period. Fluoride was reported above the adopted guideline value during the February 2026 monitoring round at both brine leak detection bores, however concentrations of calcium (total and filtered) and cyanide were reported below the adopted guideline value during the reporting period.

Hardness as $CaCO_3$ of water within this monitoring zone ranged from 677 mg/L to 3,630 mg/L over the reporting period. The hardness of water was reported above the adopted guideline value on both occasions at each bore within this monitoring zone.

Sulfate and chloride concentrations in leak detection bores MPGM5/D5 and MPGM5/D6 since January 2020 indicate trends consistent with those observed for EC and TDS, with concentrations generally increasing from 2022 onwards. However, during the February 2026 monitoring event, the highest concentrations of sulfate and chloride since January 2020 were reported in both bores. During the April 2026 monitoring event, sulfate and chloride concentrations returned to levels within the pre-2023 range. Comparison of the February 2026 sulfate and chloride concentrations with TDS (which was lower than the reported sulfate concentration alone) and EC from the same event, noting that neither EC nor TDS increased, the sulfate and chloride results are considered to be anomalous (see Section 6.3.3.1).

Nutrients

Concentrations of ammonia, total nitrogen, and total phosphorus were reported above the adopted guideline values on both occasions at MPGM5/D5 and MPGM5/D6 during the reporting period. Concentrations of 'nitrite and nitrate (as N)' were reported above the adopted guideline values on both occasions at MPGM5/D6.

Metals

The following concentrations of metals in water samples from the leak detection bores (MPGM5/D5 and MPGM5/D6) were reported above the adopted guideline values during the reporting period:

- Aluminium on both occasions at MPGM5/D5, and during the February 2026 monitoring round at MPGM5/D6;
- Cobalt, iron (total and filtered), molybdenum, and nickel on both occasions at both brine leak detection bores;
- Boron, cadmium, copper, lead, manganese, and mercury on both occasions at MPGM5/D5; and
- Chromium and zinc during the February 2026 monitoring round at MPGM5/D5.

Graphs of concentrations of metals over time since January 2020 indicate that nickel, manganese, and boron at MPGM5/D6 have generally remained stable at (in the case of nickel and manganese), or below (in the case of boron) the adopted guideline values. During the reporting period, concentrations of these metals at MPGM5/D6 remained within historical ranges.

Similar to the reported concentrations of chloride and sulfate in MPGM5/D5, elevated concentrations (the highest reported to date) of nickel, manganese and boron were reported for the February 2026 monitoring event. These may be related to the anomalous values of chloride and sulfate reported for this bore during the same event. If these points are excluded, a steady increasing trend in nickel concentrations at MPGM5/D5 has been observed since 2021. Concentrations of manganese at MPGM5/D5 have remained above the adopted guideline values. Concentrations of nickel, boron, and manganese at MPGM5/D5 subsequently returned to within historical ranges during the April 2026 monitoring round.

Iron (total and filtered) concentrations have generally declined (MPGM5/D6) or remained stable (MPGM5/D5) above the adopted guideline value over time since January 2020. The lowest concentration of iron (total) at MPGM5/D6 since January 2020 was reported during the April 2026 monitoring round. Concentrations of iron (filtered) remained within historical ranges during the reporting period at both bores.

Concentrations of nickel, manganese, and boron at MPGM5/D5 have typically been higher than concentrations from MPGM5/D6 over time since January 2020. However, concentrations of iron (total and filtered) at MPGM5/D6 have generally been higher and have fluctuated more than concentrations from MPGM5/D5.

Statistical Trend Summary

As shown in Appendix M, for the brine waste pond leak detection bores, the groundwater data collected over time since January 2020 identified the following statistically significant trends:

Increasing trends were identified for:

- Chloride, EC and nickel in water from both MPGM5/D5 and MPGM5/D6;
- Iron (total and filtered) in water from MPGM5/D5; and
- Sulfate and TDS in water from MPGM5/D6.

Decreasing trends were identified for:

- Manganese in water from MPGM5/D5; and
- Iron (total and filtered) in water from MPGM5/D6.

Discussion

Concentrations of key indicator analytes at MPGM5/D5 (excluding Feb 2026 data) were generally within the same order of magnitude or below those reported in Brine Waste Pond A and Brine Waste Pond B (Section 3.2 and Appendix D).

Based on the continued elevated concentrations at MPGM5/D5 and the increasing concentrations at MPGM5/D6, the integrity of the brine waste pond liner is likely to have been compromised. Accordingly, further investigation and implementation of appropriate mitigation measures are warranted.

The previous EMR (ERM, 2026a) presents further discussion of previous known or suspected Brine Waste Pond leaks. It is understood that the Brine Waste Pond A and Brine Waste Pond B liner replacement works are planned to be completed in 2026 / 2027.

7. SURFACE WATER DATA ASSESSMENT

7.1 OBJECTIVE

The objective of the surface water monitoring program is to identify water quality changes so that potential causes can be investigated and, if necessary, effects mitigated. The surface water data is compared between locations and to the established adopted guideline values to assess changes in water quality, the extent to which changes may be related to activities associated with the LNAR and/or MPAR, and to assess whether the TARPs or contingency measures should be considered and/or implemented.

7.2 SURFACE WATER MONITORING LOCATIONS AND FREQUENCY

A summary of the surface water monitoring locations is presented in Table 7-1 and the locations are presented on Figure 4a.

TABLE 7-1 SURFACE WATER MONITORING LOCATIONS

Site ID	Position	Location Description	Frequency	No. of Samples in 2026
CSP	Upstream	Samples from the CSP are routinely collected monthly prior to planned discharge events and at times during discharge. These samples are differentiated as LDP12 (when discharge is occurring) and CSP (not discharging). The data from LDP12 and CSP is not representative of instream surface water conditions. Data from LDP12 is not regulated by the adopted guideline values and is provided in this report for comparison only.	As required during discharge[1]	15
LDP12	Upstream			6
LMP01	Upstream	This monitoring point is located north-west of the MPAR and immediately downstream of the FHP. It is an upstream position relative to the Ash Repositories and is where water from the headwaters of Wangcol Creek flows out from the MPPS operational area, downstream of the FHP.	Monthly	6
NC01	Mid-stream	Located midstream in the monitored area of Wangcol Creek, upstream of the Ash Repositories.	Monthly	4
SW_C	Mid-stream	Located within Wangcol Creek, the monitoring location is located midstream of the monitored area of Wangcol Creek and near groundwater monitoring bore D107.	Monthly	6
SW_E	Mid-stream	Located within Wangcol Creek, downstream of former open cuts "Area D" and "Area E" between the locations of groundwater monitoring bores D9 and D105.	Monthly	6

WX22 / SW_F	Downstream	Located in Wangcol Creek at a stream gauge to the east/downstream of the Ash Repositories. Also serves as WaterNSW monitoring point 212055.	Monthly	6
SW_G	Downstream	Located within the downstream portion of Wangcol Creek, downstream of WX22 (SW_F), within a former open cut mine working and in the vicinity of groundwater monitoring bore D103.	Monthly	6

The number of samples in Table 7-1 indicates the number of occasions where a complete, or near complete suite of analysis was conducted. It is noted that NC01 was unable to be sampled on a monthly basis due to insufficient water.

7.3 SURFACE WATER MONITORING RESULTS

The surface water data for the reporting period is presented in Appendix I, where the surface water results are compared to the adopted guideline values. Graphs of concentrations of key indicator analytes over time since January 2020 are presented in Appendix K, and statistical analysis is presented in Appendix M. Figure 7, Appendix A summarises the surface water data for key indicator analytes during the reporting period.

7.3.1 UPSTREAM SURFACE WATER MONITORING RESULTS

LDP12 and LMP01 are located upstream of the ash repositories and water quality at these locations is not considered to be influenced by activities at the Ash Repositories. However, other aspects of the Mt Piper brine management infrastructure (e.g., brine transfer pipelines and brine waste holding ponds) are located within the catchment upstream of these sampling locations.

Data for LDP12 (i.e. when discharging) is presented in the following written sections of this report and in Table I-2, Appendix I and is discussed with respect to the discharge limits (EPL 13007). However, assessment of trends and statistical assessment of LDP12, and comparison with adopted guideline values has not been conducted as this location is not representative of in-stream conditions and the results are regulated in accordance with the EPL.

Concentrations and trends in surface water at LMP01, which receives flow from LDP12 and other upstream portions of the Wangcol Creek catchment, are assessed with respect to potential impacts from the Mt Piper brine management infrastructure on the upstream section of Wangcol Creek and are compared to the relevant adopted guidelines (Table I-1, Appendix I). Graphs showing the concentrations of key analytes at LMP01 over time are presented in Appendix K.

7.3.1.1 LDP12

As shown in Table I-2, Appendix I, EC, turbidity, lab pH, oil and grease and total suspended solids (for which discharge limits apply) in surface water from LDP12 were below the relevant discharge limits (within the range for pH) during each of the 6 monitoring events in this reporting period.

7.3.1.2 FIELD PARAMETERS

Field parameters monitored at LMP01 for the reporting period are summarised as follows:

- pH values obtained from laboratory analysis of surface water samples from LMP01 ranged from 7.86 to 8.01. The pH at LMP01 was outside of the range of the adopted guideline value (6.5 to 8.0) during the March 2026 monitoring round. pH values at LMP01 remained within historical ranges during the reporting period;
- EC values obtained from laboratory analysis of surface water from LMP01 were consistently reported below the adopted guideline value (2,200 µS/cm), and ranged from 346 µS/cm to 548 µS/cm;
- TDS values at LMP01 were consistently below the adopted guideline value for surface water (1,500 mg/L). TDS values over the reporting period at LMP01 ranged from 214 mg/L to 319 mg/L; and
- Turbidity was reported above the adopted guideline value range for surface water (2 to 25 mg/L) on three occasions at LMP01 and ranged between 5.98 mg/L and 292 mg/L.

Graphs of concentrations over time since January 2020 indicate that concentrations of EC and TDS at LMP01 have remained stable and consistently below the adopted guideline values.

7.3.1.3 MAJOR AND MINOR IONS

Concentrations of sulfate, chloride, fluoride, calcium (total and filtered), sodium (total and filtered), and cyanide at LMP01 were below the adopted guideline values for surface water during the reporting period, consistent with data since January 2020 and within the historical range.

Hardness as $CaCO_3$ of surface water at LMP01 ranged from 91.9 mg/L to 154 mg/L over the reporting period, and was consistently reported below the adopted guideline value.

7.3.1.4 NUTRIENTS

Concentrations of ammonia, nitrate, and nitrite were reported below the adopted guideline values for surface water at LMP01 during the reporting period. Concentrations of other nutrients in surface water reported above the adopted guideline values during the reporting period at LMP01 are as follows:

- ‘Nitrite and nitrate (as N)’ and total phosphorus on all occasions; and
- Total nitrogen on five occasions.

7.3.1.5 METALS

The following concentrations of metals in surface water from LMP01 were reported above the adopted guideline values during the reporting period:

- Aluminium (total) on five occasions;
- Chromium (total) and lead (total) during the January 2026 monitoring round;
- Copper (total) and iron (total) between January and March 2026 and during the June 2026 monitoring round; and
- Molybdenum (total) during the February 2026 monitoring round.

Graphs since January 2020 for LMP01 indicate concentrations of iron (total), lead (total), molybdenum (total), and nickel (total and filtered) have varied over time. The highest iron (total) concentration since July 2020 was reported during the January 2026 monitoring round at LMP01 as was the highest lead (total) concentration at LMP01 since December 2024. However, concentrations of both these metals subsequently declined to within historical ranges and filtered concentrations of these metals remained stable below the adopted guideline values. Concentrations of iron (filtered), manganese (total and filtered) and boron (total and filtered) have consistently remained stable and below the adopted guideline values at LMP01.

7.3.1.6 STATISTICAL ASSESSMENT OF TRENDS

No statistically significant trends were identified for key indicator analytes at LMP01 over time from January 2020.

7.3.1.7 DISCUSSION

Given that LMP01 is located upstream of the MPAR, and that the water table in this location is below the base of the stream bed, the water quality at LMP01 is considered to represent regional upgradient conditions and is not considered to have been impacted by seepage from the Ash Repositories.

7.3.2 MIDSTREAM SURFACE WATER MONITORING RESULTS

Locations NC01, SW_C and SW_E are considered to represent midstream conditions relative to the ash repositories in the monitored area of Wangcol Creek. Locations NC01 and SW_C are located north of the ash repositories, along an area of Wangcol Creek that is not known to have been subject to open cut mining operations. SW_E is located further downstream of NC01 and SW_C, to the east of the ash repositories and immediately downstream from an area of Wangcol Creek that was historically subject to open cut mining activities.

7.3.2.1 FIELD PARAMETERS

Field parameters monitored at NC01, SW_C, and SW_E for the reporting period are summarised as follows:

- Field pH values at midstream surface water monitoring locations ranged from 7.15 to 8.3. pH at the midstream surface water monitoring locations were generally reported within the adopted guideline value range (6.5 to 8.0), however pH at NC01 and SW_C during the May and June 2026 monitoring rounds, and SW_E during the April to June 2026 monitoring rounds were more alkaline than the adopted guideline value range. pH values at midstream surface water monitoring locations generally remained within historical ranges throughout the reporting period, however the highest pH value at SW_E since surface water monitoring commenced was reported during the June 2026 monitoring round;
- Field EC values for surface water from midstream monitoring locations were consistently reported below the adopted guideline value (2,200 µS/cm). EC at midstream surface water monitoring locations ranged from 192 µS/cm to 1,191 µS/cm;
- TDS generally followed a similar trend to EC over the reporting period, with TDS at midstream monitoring locations consistently reported below the adopted guideline value (1,500 mg/L). TDS concentrations ranged from 146 mg/L to 746 mg/L; and
- Turbidity was reported above the adopted guideline value range for surface water (2 to 25 mg/L) on three occasions at SW_C, at NC01 on two occasions, and on one occasion at SW_E. Turbidity at midstream surface water monitoring locations ranged from 2.1 mg/L to 134 mg/L.

Graphs of concentrations over time since January 2020 show EC and TDS concentrations at NC01 and SW_C have remained low and stable, below the adopted guideline values for surface water. EC and TDS concentrations at SW_E have varied, particularly since 2023, however concentrations returned to below the adopted guideline values throughout the current reporting period. The lower concentrations of EC and TDS observed for all midstream surface water monitoring locations during the reporting period are considered to be attributed to the higher than average rainfall experienced between January and March 2026 and are representative of the seasonal autumn to winter influences on surface water flow and water quality.

7.3.2.2 MAJOR AND MINOR IONS

Concentrations of chloride, sulfate, sodium (total and filtered), calcium (total and filtered), fluoride , and cyanide were reported below the adopted guideline values for surface water at all midstream monitoring locations during the reporting period. Hardness as $CaCO_3$ was reported above the adopted guideline value (200 mg/L) during the March and April 2026 monitoring rounds at SW_E.

Graphs of concentrations over time since January 2020 for chloride and sulfate are consistent with the trends identified for EC and TDS. Chloride and sulfate concentrations at NC01 and SW_C have consistently remained low and stable, below the adopted guideline values. Concentrations of sulfate and chloride at SW_E have fluctuated both above and below the adopted guideline value since 2023, but remained below the adopted guideline values and within historical ranges during the current reporting period.

7.3.2.3 NUTRIENTS

Concentrations of ammonia, nitrate, and nitrite were consistently reported below the adopted guideline values for all midstream surface water monitoring locations during the reporting period. Concentrations of nutrients in surface water reported above the adopted guideline values during the reporting period are as follows:

- ‘Nitrite and nitrate (as N)’ on three occasions at SW_C and on two occasions at NC01;
- Total nitrogen at SW_E and NC01 on all occasions, and SW_C on five occasions; and
- Total phosphorus at SW_C on three occasions, NC01 on two occasions, and SW_E one occasion.

7.3.2.4 METALS

The following concentrations of metals in surface water from midstream monitoring locations were reported above the adopted guideline values during the reporting period:

- Aluminium (total) on all occasions at SW_C and NC01, and on three occasions at SW_E;
- Aluminium (filtered) on two occasions at SW_C and on one occasion at NC01;
- Chromium (total) during the June 2026 monitoring round at SW_E;
- Cobalt (filtered) and nickel (total and filtered) between January and May 2026 at SW_E;
- Copper (total) on two occasions at SW_C and SW_E, and on one occasion at NC01;
- Iron (total) on all occasions at each midstream monitoring location;
- Iron (filtered) between March and May 2026 at SW_E; and

Concentrations over time since January 2020 for boron (total and filtered), iron (filtered), manganese (total and filtered), and nickel (total and filtered) are generally consistent with TDS at NC01 and SW_C have remained below the adopted guideline values. Whilst concentrations of boron (total) at NC01 have remained below the adopted guideline value, the highest concentration since January 2020 was reported during the March 2026 monitoring round. Concentrations of iron (total) have fluctuated above the adopted guideline value at SW_C and NC01, however remained within historical ranges throughout the reporting period.

Concentrations of iron (total and filtered), boron (total and filtered), and manganese (total and filtered) at SW_E have fluctuated above the adopted guideline value since 2023. However, during the reporting period, concentrations of these analytes had declined to below the respective adopted guideline values. Overall, concentrations of nickel (total and filtered) at SW_E declined during the reporting period, remaining above the adopted guideline value for all but the June 2026 monitoring event and within historic ranges. Concentrations of lead (total) and molybdenum (total) have generally remained at, or below, the adopted guideline value at each midstream surface water monitoring location.

7.3.2.5 STATISTICAL ASSESSMENT OF TRENDS

Linear regression analysis undertaken for concentrations of key indicator analytes in surface water from midstream monitoring locations identified statistically significant increasing trends at NC01 for fluoride (R = 0.528) and at SW_C for electrical conductivity (R = 0.54), fluoride (R = 0.63) and total dissolved solids (R = 0.60).

7.3.2.6 DISCUSSION

As is the case with LMP01, NC01 and SW_C are located upstream of the MPAR, and the water table in these locations is below the base of the stream bed. Therefore, the water quality at these locations is considered to represent regional upgradient conditions and is not considered to have been significantly impacted by seepage from the Ash Repositories.

However, due to historical open cut mining activities along the creek alignment at SW_E, the base of the creek bed intersects the water table allowing discharge of groundwater to surface water in this location. Furthermore, as described in Section 2 and presented by ERM (2026b), during periods of low rainfall, lower surface water flows in Wangcol Creek result in a greater relative contribution of groundwater to surface water in Wangcol Creek in the mine void areas. Consequently, groundwater conditions exert more influence on surface water quality in the mine disturbance areas, particularly during low flow period.

Iron concentrations are related to background conditions in the local environment, resulting from the long-term mining activities and disturbed geology. Nickel concentrations in surface water are considered to be influenced by interaction between groundwater and the surface water of Wangcol Creek.

When compared to previous reporting periods, concentrations of key indicator analytes in surface water at all midstream monitoring locations were generally lower than concentrations observed between 2023 and 2025 and, in the case of chloride, sulfate, EC and TDS, were consistently below the respective adopted guideline values. These lower concentrations are considered to reflect the influence of above-average rainfall that occurred between January and March 2026. Based on the historical baseline dataset presented in the WMP (ERM, 2026c), it is anticipated that concentrations of target analytes in surface water may increase again during future periods of lower rainfall and reduced stream flow, particularly since this reporting period encompasses the autumn to winter months.

7.3.3 DOWNSTREAM SURFACE WATER MONITORING RESULTS

Locations WX22 (SW_F) and SW_G are considered to represent downstream conditions relative to the Ash Repositories in the monitored area of Wangcol Creek. Both WX22 and SW_G are located east of the LNAR along an area of Wangcol Creek that, in the vicinity of SW_G, has been subject to open cut mining operations.

7.3.3.1 FIELD PARAMETERS

Field parameters monitored at WX_22 and SW_G for the reporting period are summarised as follows:

- Field pH values at downstream surface water monitoring locations ranged from 7.61 to 8.1. pH at SW_G and WX22, generally within the adopted guideline value range (6.5 to 8.0), however pH was more alkaline than the adopted guideline value range at SW_G during the May 2026 monitoring round, and at WX22 during the April and June 2026 monitoring rounds. pH values at downstream surface water monitoring locations remained within historical ranges throughout the reporting period;
- Field EC values at downstream surface water monitoring locations were reported below the adopted guideline value (2,200 µS/cm) on all occasions at SW_G and WX22. EC at downstream surface water monitoring locations ranged from 535 µS/cm to 1,420 µS/cm;
- TDS generally followed a similar trend to EC over the reporting period, with concentrations reported below the adopted guideline value (1,500 mg/L) on both occasions at downstream monitoring locations. TDS concentrations ranged from 364 mg/L to 972 mg/L; and
- Turbidity was reported outside the adopted guideline value range for surface water (2 to 25 mg/L) during all sampling events at SW_G and WX22, with the exception of the May 2026 monitoring round at both locations. Turbidity at downstream surface water monitoring locations ranged from 0.9 mg/L to 59 mg/L.

Graphs of concentrations over time since January 2020 for SW_G and WX22 show EC and TDS concentrations at these locations are very similar and have generally remained below the respective adopted guideline values, however, have increased and shown greater variability since 2022. During the reporting period, concentrations of EC and TDS remained stable within historical ranges and below the adopted guideline values.

7.3.3.2 MAJOR AND MINOR IONS

Concentrations of chloride, sulfate, sodium (total and filtered), calcium (total and filtered), fluoride, and cyanide were reported below the adopted guideline values for surface water at all downstream monitoring locations during the reporting period. Hardness as $CaCO_3$ was reported above the adopted guideline value during the January and May 2026 monitoring rounds at both downstream monitoring locations.

Graphs of concentrations over time since January 2020 for SW_G and WX22 indicate that chloride and sulfate concentrations are generally consistent with EC and TDS trends and have increased since 2022. During the reporting period, concentrations of chloride and sulfate remained stable within historical ranges and below the adopted guideline values.

7.3.3.3 NUTRIENTS

Concentrations of ammonia, nitrate, nitrite, and 'nitrite and nitrate (as N)' were reported below the adopted guideline values for surface water at WX22 and SW_G during the reporting period. Concentrations of other nutrients in surface water reported above the adopted guideline values for downstream monitoring locations during the reporting period are as follows:

- Total nitrogen at downstream monitoring locations on all occasions, except for the April 2026 monitoring round; and
- Total phosphorus at SW_G on three occasions, and at WX22 on two occasions.

7.3.3.4 METALS

The following concentrations of metals in surface water from downstream monitoring locations were reported above the adopted guideline values during the reporting period:

- Aluminium (total) at on three occasions at SW_G, and on two occasions at WX22;
- Boron (total) during the May 2026 monitoring round at WX22;
- Chromium (total) during the June 2026 monitoring round at SW_G;
- Copper (total) during the February 2026 monitoring rounds at both downstream monitoring locations;
- Iron (total) on three occasions at WX22 and on two occasions at SW_G; and
- Nickel (total and filtered) on all occasions at downstream monitoring locations.

Graphs of concentrations over time since January 2020 for boron (total and filtered) and nickel (total and filtered) are generally consistent with EC and TDS; specifically concentrations of these metals in surface water at downstream monitoring locations have, overall, increased since 2022, but remained within historical ranges during the reporting period. Concentrations of boron (filtered) remained below the adopted guideline value at SW_G and WX22 during the reporting period, however concentrations of nickel (total and filtered) consistently remained above the adopted guideline value but within historical ranges. Concentrations of boron (total) were reported above the adopted guideline value during the May 2026 monitoring round at WX22, but the concentration had declined in the subsequent monitoring round.

Concentrations of iron (total) in surface water from downstream monitoring locations have fluctuated above and below the adopted guideline value over time since January 2020. Whilst iron (filtered) has also demonstrated some variability, concentrations have generally remained below the adopted guideline value since 2022; iron (filtered) concentrations at these locations during this reporting period remained below the adopted guideline value. Lead (total), manganese (total and filtered), and molybdenum (total) concentrations in surface water from SW_G and WX22 were below the adopted guideline values and have generally remained stable and below the adopted guideline values throughout the historical dataset. Concentrations of lead (total), manganese (total and filtered), and molybdenum (total) remained within historical ranges and below the adopted guideline values throughout the reporting period.

7.3.3.5 STATISTICAL ASSESSMENT OF TRENDS

Linear regression analysis undertaken for concentrations of key indicator analytes in surface water from downstream monitoring locations identified a statistically significant increasing trend at SW_G for boron (filtered) ($R = 0.56$).

7.3.3.6 DISCUSSION

SW_G and WX22 are located to the east of the ash repositories and are considered to represent downstream conditions in Wangcol Creek. As is the case with SW_E, SW_G has been subject to open cut mining operations.

When compared to previous reporting periods, concentrations of key indicator analytes in surface water at downstream monitoring locations were generally lower than concentrations observed between 2023 and 2025. As observed at SW_E, concentrations of key indicator analytes at downstream monitoring locations generally declined and were less variable following increased rainfall and surface water flow between January and March 2026. As flow conditions began to decline towards the end of the monitoring period, key indicator analytes returned to within previously observed ranges at SW_G and WX22.

Based on the historical baseline dataset presented in the WMP (ERM, 2026c), it is anticipated that concentrations of target analytes in surface water may increase again during future periods of lower rainfall and reduced stream flow, particularly since this reporting period encompasses the autumn to winter months.

8. LEACHATE MANAGEMENT

8.1 OBJECTIVES

The objective of the leachate monitoring program is to assess the management of generated stormwater runoff from active ash placement areas and leachate at the LNAR and to minimise the potential for adverse impacts to the environment.

8.2 LEACHATE MANAGEMENT SYSTEM

To manage the risk of vertical and lateral movement of BCA leachate, a leachate barrier system was included as an integral component of the LNAR Mod 1. As described in the OEMP, the leachate barrier system comprises three primary components as summarised below:

- A liner comprising a geotechnical base layer and sidewall liner. The liner includes a leachate collection system through drainage aggregate, leachate sumps and connecting pipework;
- A capping liner welded to the sidewall liner overlain with fill material, growth medium and erosion protection measures as necessary; and
- Leachate storage ponds and ancillary multipurpose high-density polyethylene (HDPE) double lined storage ponds to manage BCA leachate and water intercepted from other areas of the LNAR:
  - Leachate storage ponds: LNAR 3, LNAR 4, LNAR 5[1]; and
  - Multipurpose storage ponds: Settling Pond D, and LNAR2 (referred to as LN Pond 2 in the OEMP).

The leachate management system includes internal drains that follow the general subgrade gradient to direct leachate to collection sumps. Leachate is then pumped out from the risers and transferred to leachate storage ponds.

The volume of stored leachate is managed via reuse for dust suppression within the lined BCA placement areas of the LNAR.

8.3 LEACHATE MONITORING PLAN

A summary of the leachate monitoring plan, as outlined in the OEMP (EnergyAustralia, 2025), is presented in Table 8-1.

TABLE 8-1 LEACHATE MONITORING PLAN

Location Description	Monitoring Parameters	Frequency	Target
Leachate storage	Storage volume / capacity. Available freeboard. Leachate quality as measured from leachate storage	Monthly for leachate quality monitoring for the first 24 months, then quarterly.	Suitable freeboard / pumping capacity available with account for seasonal weather and forecasting. To be defined by contractor.

[1] Referred to as Pond BWA, BWB, and BWC respectively in the OEMP.

Location Description	Monitoring Parameters	Frequency	Target
Leachate storage	Monitoring for leachate within the space between storage liners and within underlying sump.	Monthly as part of routine inspections.	No leaks.
Lined ash placement areas	Leachate level monitoring as measured from leachate collection sumps and leak detection system.	Monthly as part of routine inspections.	Level to be maintained no more than 300 millimetres (mm) above the upper surface of the base liner. No leaks.
Leachate transfer pipelines	Monitoring volume and operational integrity.	Weekly as part of routine inspections.	Visual inspection and documentation to assess the integrity of the transfer system. Record of volumes via flow totaliser meter.

8.4 LEACHATE MONITORING OUTCOMES

Evidence of leachate monitoring conducted in accordance with the OEMP's leachate monitoring plan is presented in Appendix N and includes the following:

- Monthly LNAR leachate system inspection and leachate collection sump pump out records (representative example);
- LNAR lined pond storage summary examples for January and June 2026, as extracted from the Service Stream Monthly Client Report – Mt Piper (Contract CW2228375). These storage records are presented in each monthly client report from Service Stream to EnergyAustralia;
- LNAR lined pond storage and transfer tracking spreadsheet, presenting January 2026 to July 2026 data, as provided by Service Stream via an email to EnergyAustralia NSW Pty Ltd (Service Stream, 2026);
- LNAR lined pond storage, leachate collection pipeline and leachate collection sump annual monitoring summary spreadsheet, as provided by Service Stream (Service Stream, 2026); and
- LNAR lined pond storage analytical data summary, with Surface Water Environmental Goals provided alongside for comparison purposes only as these Environmental Goals do not apply to leachate or water collected from this system.

In summary, based on the evidence of monitoring presented in Appendix N, leachate monitoring has been conducted in general accordance with the requirements of the OEMP. Operational management and monitoring of the leachate management system has been reported to be consistent with the design intent, successfully containing leachate generated from BCA within the LNAR. As such, implementation of contingency or mitigation measures has not been required.

9. DEVIATIONS FROM THE MONITORING PROGRAM

It is noted that during previous monitoring rounds, barium, beryllium, cobalt, cadmium, chromium, lead, manganese, mercury, molybdenum, antimony, selenium, and silver were analysed only for total (unfiltered) concentrations in groundwater and surface water. In accordance with the WMP and EPL 13007, these analytes were only analysed for filtered concentrations in groundwater during the reporting period. Whilst both total and filtered metal concentrations have been analysed in surface water samples, statistical trend assessment has only been undertaken using filtered metal concentrations. Filtered metal concentrations provide a more readily comparable indication of water quality because they capture only the dissolved fraction present in the aquifer and / or surface water system, excluding the suspended sediments and particulates that can be mobilised during sampling and, for groundwater, are unlikely to be transported in aquifer systems. As a result, limited directly comparable data was available to support long-term trend assessment or statistical analysis of these metals for surface water and groundwater. Where required, trend assessment for these analytes will be undertaken in future reporting periods once a sufficient filtered concentration dataset has been established.

Furthermore, where analysis of certain analytes has only been undertaken for the current monitoring period, no directly comparable historical dataset was available to support long-term trend assessment or statistical analysis. Where required, trend assessment for these analytes will be undertaken in future reporting periods once a sufficient filtered concentration dataset has been established.

For some samples, filtered metals were reported at concentrations that were higher than concentrations for the un-filtered samples from the same monitoring round. The differences between these total and filtered concentrations were confirmed by the laboratory to be within the laboratory’s acceptance criteria for experimental variation.

The laboratory LORs for fluoride, aluminium (filtered), antimony (filtered), chromium (filtered), hexavalent chromium, trivalent chromium, silver (dissolved), ‘nitrite and nitrate (as N)’, total nitrogen, and total phosphorus, were above the adopted guideline values for surface water and / or groundwater for one or more sampling events throughout the reporting period. This is consistent with previous reporting periods.

Evidence of the collection of field QA/QC samples (i.e. rinsate, trip blanks or trip spikes) during the field-based programs was not provided. Results of laboratory QC measures including laboratory duplicate, triplicate, method blanks or spike data were not presented for review and, as such, are not considered in this report.

10. GROUNDWATER MODEL VALIDATION

As presented on Figure 10-1, the groundwater flow paths and surface water interaction modelled by ERM (2023a) indicate that groundwater that flows to the east from the MPAR is primarily received by DML Dam and Cooks Dam, and a portion of the groundwater that flows to the north-east and east from the MPAR is received by Wangcol Creek at and near Areas D, E and G. The groundwater elevation contours developed using groundwater elevation data for the reporting period, presented in Figure 5a and 5b (Appendix A), are generally consistent with the modelled groundwater flow paths.

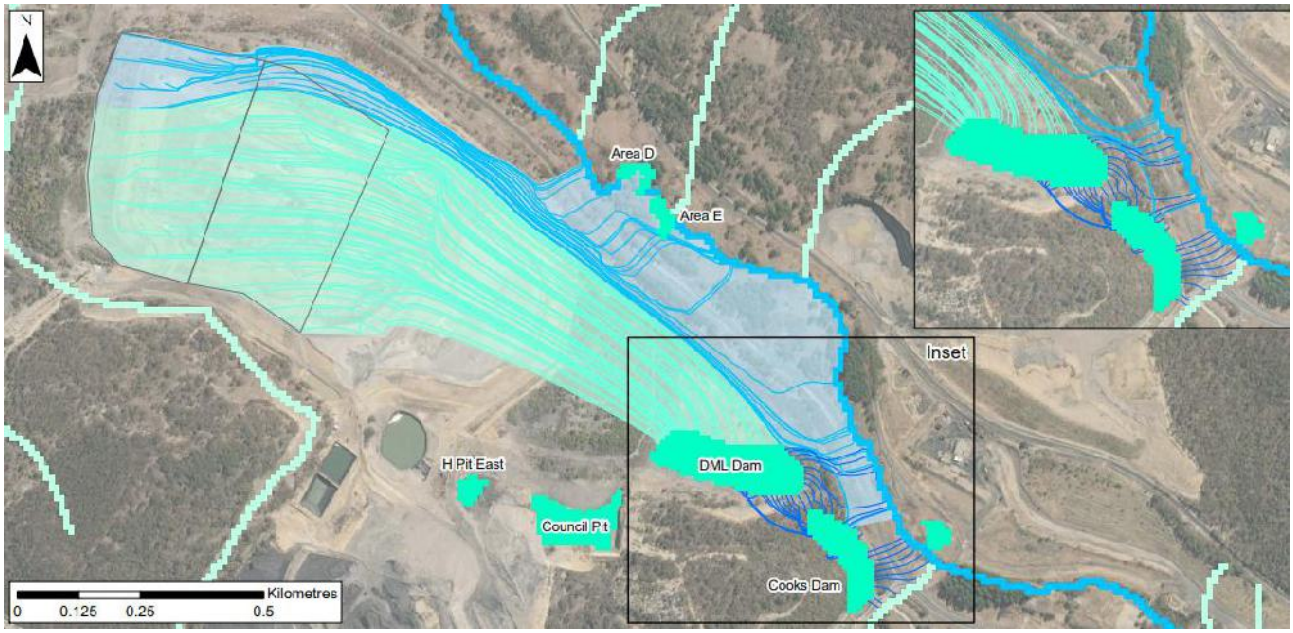


FIGURE 10-1 MODELLED GROUNDWATER FLOW PATHS AND SURFACE WATER INTERACTION

ERM (2023a) formed the basis for the Solute Transport Model (ERM, 2023b), which modelled chloride migration in groundwater based on the previously approved decommissioning scenario for the MPAR (i.e. Scenario 1). The simulated chloride outcomes for Layer 3 under Scenario 1 are presented in Figure 10-2 below, where Year 0 is 2019 and Year 6 is 2025. Chloride is used as a primary indicator of potential impacts associated with brine because the local area is highly mineralised and it is difficult to distinguish the origin of other solutes. Additionally, chloride is unlikely to undergo chemical alteration in groundwater or surface water at the Site.

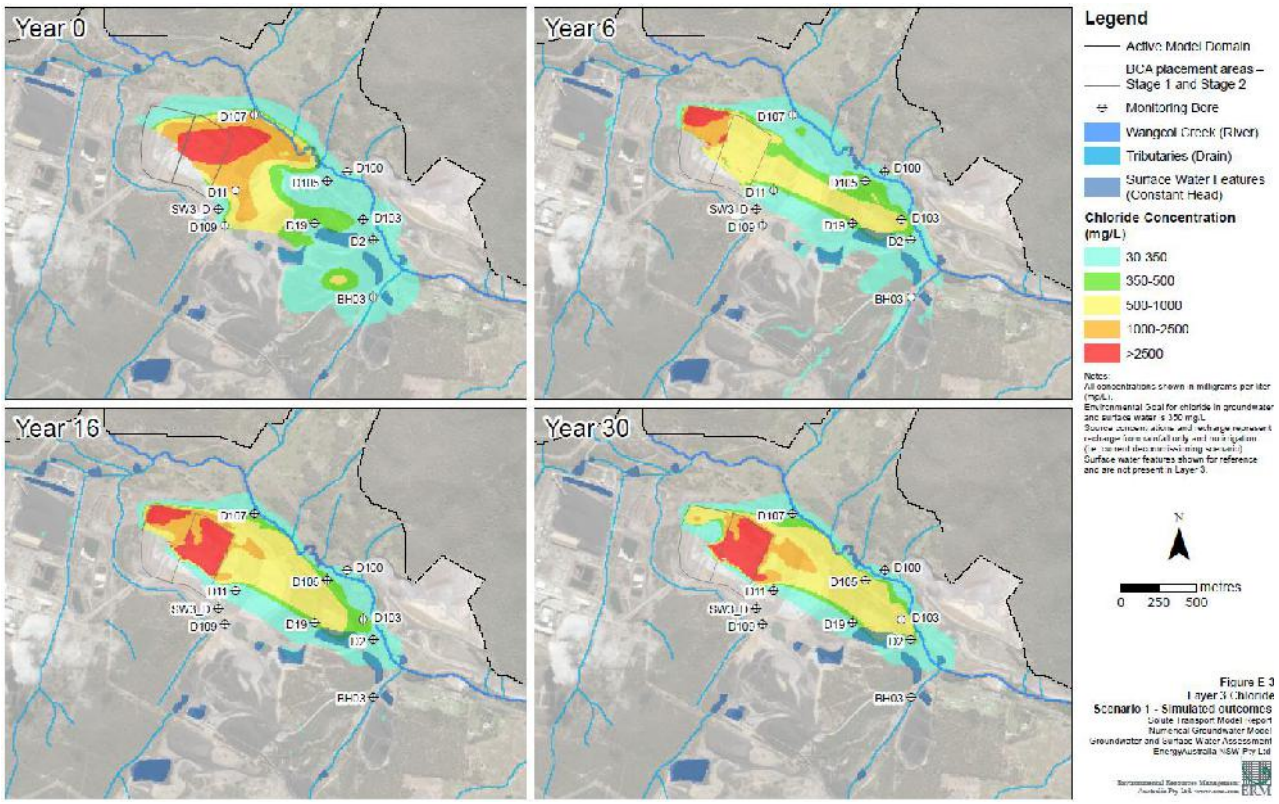


FIGURE 10-2 SCENARIO 1 SIMULATED CHLORIDE CONCENTRATIONS

The distribution of chloride concentrations in groundwater as described in this report is generally aligned with the modelled chloride plume under Scenario 1. However, as outlined in Section 3.1.1, the Stage 1 and Stage 2 BCA placement areas reached their approved final landform height in September 2025, and as authorised by Mod 9 to the Mt Piper Consent, recharge control measures for BCA placement areas in the MPAR are currently being implemented (see Section 2). As such, the nominal "start date" in the model is offset by approximately 6 years. In the future, as the source control measures are implemented at the MPAR, the groundwater model validation may consider Scenario 3a as described by ERM (2023b), which modelled a low permeability cap over a targeted area of the MPAR.

Overall, the conceptual basis of the NGM, i.e. the conceptual groundwater model, and the underpinning assumptions to the groundwater flow and solute transport model, remain valid. This report has not identified material unexpected changes to the local groundwater system that may be attributable to the Ash Repositories, and the CSM does not require an update at this time. Monitoring will continue in accordance with the WMP and EPL and groundwater model validation will continue to form part of the annual reporting as required.

11. COMPARISON TO THE TARPs

The TARPs, as presented in Section 11.2 of the WMP (ERM, 2026c), have been prepared in relation to reported results, including water quality monitoring and Site inspections to provide a means of detecting potential changes in risk profile relating to conditions at the MPAR.

11.1 LEACHATE AND BRINE WASTE POND MANAGEMENT TRIGGERS

Installation of the MPAR Zone 2 LBMS had not commenced during the reporting period. As the triggers are dependent on the implementation of the operational changes approved as part of Mod 9, assessment of MPAR leachate management will be documented and evaluated in future reports as construction progresses.

During the reporting period statistically significant increasing trends were apparent for chloride, EC, iron (total and filtered), and nickel at MPGM5/D5, and chloride, EC, nickel, sulfate and TDS at MPGM5/D6. However, statistically significant decreasing trends were apparent for manganese at MPGM5/D5 and iron (total and filtered) at MPGM5/D6. As discussed in Section 6.3.3.6, it is considered likely that the integrity of the brine waste pond liner may have been compromised, and it is understood that Brine Waste Pond A and Brine Waste Pond B liner replacement works are planned to be completed in 2026 / 2027.

11.2 COVER AND CAP INTEGRITY TRIGGERS

Installation of MPAR Phase 1 Capping is largely complete, including the seal bearing layer, the LLDPE geomembrane liner, and the sub-soil layer as well as drain construction; however, some further works remain. However, as detailed in Section 3.1.1, topsoiling and revegetation works for the MPAR Phase 1 Capping were ongoing to the end of the reporting period. As the triggers are dependent on the implementation of the operational changes approved as part of Mod 9, assessment of these TARPs will be documented and evaluated in future reports when the installation of MPAR Phase 1 Capping is completed.

11.3 UNSUITABLE OR INSUFFICIENT VEGETATION TRIGGERS

Whilst construction for the MPAR Phase 1 Capping and Drainage is largely complete, the vegetation of these areas had not been completed during the reporting period. As the triggers are dependent on the implementation of these operational changes approved as part of Mod 9, assessment of these TARPs will be documented and evaluated in future reports when construction is completed.

11.4 ANALYTE CONCENTRATION TRIGGERS

The WMP provides analyte concentration triggers, as listed below:

- Adopted Guideline Values Trigger: *Concentrations of a monitored parameter at a given location are reported above the Environmental Goal or adopted ANZG value for the first time;*
- Historical Maximums Trigger: *Concentrations at a given location reported an order of magnitude above the historical maximum; and*
- Statistically Significant Increasing Trend Trigger: *Concentrations at a given location indicate a statistically significant increasing trend.*

The following subsections present a summary of where these triggers have been met, and the associated actions and responses where required.

11.4.1 ADOPTED GUIDELINE VALUES TRIGGER

Triggers pertaining to a concentrations that, for the first time, are above the relevant adopted guideline value for surface water and groundwater samples collected over the reporting period are outlined in Table O-1, Appendix O.

Consistent with the approach described in Section 5, where Environmental Goals have not been established for a given analyte, the ANZG (2018) guidelines were applied. The application of the ANZG (2018) guidelines resulted in several analytic results where concentrations of specific analytes were above the adopted guideline value and had not, by definition, been reported previously. In these instances, concentrations relative to the new adopted value have been interpreted in the context of the historical dataset, where available, for these analytes.

As detailed in Section 9, analysis of certain analytes has been undertaken for the first time during the reporting period. As such, no directly comparable historical dataset was available. For the purposes of this TARP assessment, and consistent with above, where concentrations of specific analytes were above the adopted guideline value during the reporting period they have been included in Table O-1 to provide a benchmark for future trend evaluations. However, these values should be interpreted as the establishment of a new analytical baseline that has not been previously characterised due to the absence of historical data. Where filtered metal concentrations were above the adopted guideline value, but a directly comparable historical filtered metals dataset was not available, the results were considered alongside the historical baseline data for the corresponding total metal concentrations documented in the WMP (ERM, 2026c).

As detailed in Section 9, LORs for several key indicator analytes have consistently been above the adopted guideline values both historically and throughout the reporting period. For the purposes of this TARP assessment, results where concentrations are above these elevated LORs have not been interpreted as representing concentrations above the adopted guideline value.

11.4.2 HISTORICAL MAXIMUM TRIGGER

As detailed in Section 9, several target analytes have consistently been reported below the LOR. Where an analyte was reported above the LOR during the current monitoring round, but all corresponding historical results were below the LOR, the data has not been considered as a historical maximum trigger and has therefore been excluded from this TARP analysis.

As detailed in Section 11.4.1 above, although TARP triggers are present for total metal concentrations, the filtered (dissolved) fractions provide the appropriate basis for assessment and should be applied when interpreting groundwater and surface water quality.

As detailed in Section 9, where analysis of certain analytes has been undertaken for the first time during the reporting period, no directly comparable historical dataset was available and therefore these analytes have been excluded from this TARP analysis.

Concentrations of target analytes in the brine leak detection bores and at all surface water sampling locations did not meet the historical maximums trigger throughout during the reporting period.

As discussed in previous sections, Table O-2, Appendix O, presents the groundwater results for the reporting period that met the historical maximum trigger. The historical maximum for each analyte was calculated using all available data from 2003 to 30 June 2026.

11.4.3 STATISTICALLY SIGNIFICANT INCREASING TREND TRIGGER

Statistically significant increasing concentrations are discussed for groundwater in Section 6.3.3, and for surface water in Section 7.3. As statistically significant increasing trends were identified in surface water and groundwater, a review of the NGM and CSM was undertaken in Section 10, which identified that the conceptual basis of the NGM, i.e. the conceptual groundwater model, and the underpinning assumptions to the groundwater flow and solute transport model remain valid.

11.5 TARP SUMMARY

A summary of the comparison to the TARPs is as follows:

- Activities related to the implementation of Mod 9, including MPAR Phase 1 Capping and Drainage, had commenced at the time of this report. However, as the triggers are dependent on the implementation of these operational changes approved as part of Mod 9, assessment of triggers related to leachate management i.e. as related to MPAR Zone 2 LBMS), cover and cap integrity, and vegetation will be evaluated in future reports once construction has been completed;
- There was no reason to suspect the data provided for this reporting period needed clarification with the laboratory, beyond that presented, or that confirmatory re-sampling was required;
- The application of the ANZG (2018) guidelines as adopted guideline values for some analytes has resulted in concentrations of several analytes being reported above the adopted guideline value. In these instances, the triggers were interpreted with the additional lines of evidence to evaluate the relationship of these concentrations to Site conditions;
- Analysis of certain analytes has been undertaken for the first time during the reporting period. As such, no directly comparable historical dataset was available. Where concentrations of these analytes were above the adopted guideline value they have been included as part of this TARP assessment to provide a benchmark for future trend evaluations, however these concentrations should be interpreted as the establishment of a new analytical baseline that has not been previously characterised due to the absence of historical data.
- At all surface water sampling locations, in the cases where concentrations of key indicator analytes reported during the reporting period were above the historical maximums, they were similar concentrations to those previously reported;
- Increasing concentrations of key indicator analytes in the brine waste pond leak detection bores warrant further assessment; and
- A number of statistically significant increasing trends were identified for key indicator analytes in groundwater and surface water, however the results are consistent with modelled outcomes and were not considered to alter the previously assessed risk profile.

Overall, the trigger responses outlined by the WMP were generally completed as prescribed.

12. SUMMARY AND RECOMMENDATIONS

Based on the continued elevated concentrations at MPGM5/D5 and the increasing concentrations at MPGM5/D6, the integrity of the liner/s at Brine Waste Pond A and/or Brine Waste Pond B may have been compromised. ERM understands that liner repair / replacement activities are planned to be completed in 2026 / 2027.

The results of routine groundwater and surface water monitoring during this reporting period indicate that elevated concentrations of key indicator analytes are present in groundwater downgradient from the MPAR. This is consistent with the findings of previous annual monitoring reports, and with the findings of the Independent Groundwater Investigation, which have reported that the elevated concentrations of key indicator analytes are attributed to leaching and seepage associated with BCA placement within the MPAR. The distribution of key indicator analyte concentrations in groundwater as described in this report is generally consistent with the findings of previous annual monitoring reports, and with the modelled groundwater plume progression, including decreasing (although still above the adopted guideline values) concentrations at bores D106, D107 and D119, and slightly increasing concentrations at bore D3.

The solutes in groundwater at times impact on water quality within Wangcol Creek due to the discharge of impacted groundwater to surface water. The higher solute concentrations in surface water in Wangcol Creek occur predominantly in areas of former mine disturbance (Areas D, E, F and G) compared to upstream areas and are most apparent during and following extended periods of low rainfall. This is due to the lower surface water flows in Wangcol Creek resulting in lower surface water to groundwater volume ratios, and therefore groundwater conditions having a greater influence on surface water quality. The lower concentrations of target analytes observed at midstream and downstream surface water monitoring locations during the reporting period are considered to reflect the influence of above-average rainfall between January and March 2026; it is anticipated that concentrations of target analytes in surface water may increase again in periods of lower rainfall and reduced stream flow.

Consistent with these observations and with the CSM (see Section 2), a complete SPR linkage is present for Wangcol Creek; however, no other potentially complete SPR linkages have been identified in relation to groundwater that is impacted by BCA leachate from the MPAR.

Implementation of the MPAR Phase 1 Capping and Drainage and the MPAR Zone 2 LBMS will improve the design of surface water drainage from the MPAR and substantially reduce the amount of recharge in BCA areas of the MPAR. Reduced infiltration over areas where BCA was placed in the MPAR will reduce the rate of leachate production and seepage from these areas to the underlying groundwater system. The improved recharge control and drainage arrangements will also increase the volume of clean water flows from the MPAR to Wangcol Creek, ultimately resulting in improved water quality in Wangcol Creek in the medium to longer term. This source control approach is the primary means of mitigating the discharge of BCA impacted groundwater from MPAR to Wangcol Creek, and is currently being implemented.

Based on the above, water quality results from the LNAR cannot be directly compared with the adopted guideline values for the purpose of determining compliance. However, based on the demonstrated performance of the LBMS and management infrastructure throughout the reporting period, the LNAR has complied with the LNAR Project Approval and the objectives of the OEMP as related to groundwater, surface water and leachate management.

The effectiveness of the currently approved mitigation measures will continue to be assessed as part of the routine monitoring and reporting required by the WMP, the OEMP, and the EPL. Based on the review of the surface water and groundwater quality data obtained in accordance with the WMP, the OEMP, and the EPL, and the outcomes presented in this report, it is considered that the reporting requirements of the Mt Piper Consent (Conditions 44 and 45), the LNAR Project Approval (Conditions A10, E15 and E16), and the EPL (Condition R5.8) have been met. Appendix B presents a summary of the specific requirements of each of the Mt Piper Consent and the WMP, the LNAR Project Approval and the OEMP, and the EPL, and where they are addressed in this report.

13. REFERENCES

Australia and New Zealand Governments (ANZG), 2018. Australian and New Zealand Guidelines for Fresh and Marine Water Quality.

Australian and New Zealand Environment and Conservation Council (ANZECC), 2000. National Water Quality Management Strategy. Paper No. 4. Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Volume 1: The Guidelines (Chapter 1-7).

Aurecon, 2017. Mt Piper Brine Conditioned Fly Ash Co-Placement Environmental Monitoring Report, Annual Environmental Monitoring Report 2016/17, Revision 3, 25 September 2017.

Connell Wagner, 2007. Statement of Environmental Effects, Mount Piper Power Station, Extension of Brine Conditions Ash Placement Area. Prepared by Environmental Services, Pacific Power International for Delta Electricity, 21 June 2007.

Connell Wagner, 2008. Mt Piper Power Station Brine Conditioned Fly ash Co-placement Extension Water Management and Monitoring Plan, Delta Electricity Western, Revision 3, 26 September 2008.

CDM Smith, 2012. Lamberts North Ash Placement Project: Groundwater Modelling Report, prepared for Delta Electricity, 22 November 2012.

Danis, A., Danis, C., Lackie, M., O'Neil, C., & Twigg, L. (2011) Deep 3D structure of the Sydney Basin using gravity modelling, Australian Journal of Earth Sciences, 58:5, 517-542, DOI: 10.1080/08120099.2011.565802.

EnergyAustralia NSW Pty Ltd (EnergyAustralia). 2025. Lamberts North Ash Placement Project – Operational Environmental Management Plan (the LNAR OEMP), Revision 7.2, April 2025.

ERM, 2019. Mt Piper Ash Repository Groundwater and Surface Water Assessment, Data Logging and Hydraulic Testing, reference 0452475/R05, 5 June 2019.

ERM 2020. Water Management and Monitoring Plan – Update for 60 ML Dam, Mt Piper Power Station Brine Conditioned Flyash Co-placement Extension Water Management and Monitoring Plan, EnergyAustralia NSW Pty Ltd, Final, 28 February 2020.

ERM 2020. Annual Environmental Monitoring Report – Water Management and Monitoring, Mt Piper Power Station Brine Conditioned Fly Ash Co-Placement Project, 29 September 2020.

ERM, 2021. Annual Environmental Monitoring Report – Water Management and Monitoring 2020/21, Mt Piper Power Station Brine Conditioned Fly Ash Co-Placement Project, 28 September 2021.

ERM, 2022. Annual Environmental Monitoring Report – Water Management and Monitoring 2021/22, Mt Piper Power Station Brine Conditioned Fly Ash Co-Placement Project, 28 September 2022.

ERM, 2023a. Mt Piper Power Station, Ash Repositories Water Assessment, Numerical Groundwater Modelling – Groundwater Flow Model Report, July 2023.

ERM, 2023b. Mt Piper Power Station, Ash Repositories Water Assessment, Numerical Groundwater Modelling – Solute Transport Model Report, July 2023.

ERM, 2023c. Mt Piper Power Station: Coal Ash Repository Water Characterisation Report, EPL 13007, Pollution Reduction Study, August 2023.

ERM, 2023d. Environmental Monitoring Report – Water Management and Monitoring 2022/23, Mt Piper Power Station Brine Conditioned Fly Ash Co-Placement Project, 27 September 2023.

ERM, 2024. Annual Environmental Monitoring Report – Water Management and Monitoring, Mt Piper Power Station Brine Conditioned Fly Ash Co-Placement Project, 24 September 2024.

ERM, 2025. Lamberts North Ash Placement Project – Water Management and Monitoring 2024 – 2025. Environmental Monitoring Report, 18 November 2025

ERM, 2026a. 2024 – 2025 Annual Water Monitoring Report – Mt Piper Power Station Brine Conditioned Fly Ash Co-Placement Project and EPL 13007, 24 April 2026.

ERM, 2026b. Wangcol Creek Remediation Feasibility Study, Mt Piper Power Station, EPL 13007, 4 May 2026.

ERM, 2026c. Water Management Plan, Mt Piper Power Station, DA80/10060, Mt Piper Ash Repository, 28 July 2026.

ERM, 2026d. Capping Strategy – Mt Piper Power Station, DA80/10060, Mt Piper Ash Repository, for EnergyAustralia NSW Pty Ltd. Dated 17 April 2026. Reference: 0751844.

GHD, 2019. Springvale Water Treatment Project, Brine and Residual Waste Management Plan. Dated May 2019

GHD, 2025. Mount Piper and Lamberts North Ash Repositories – Capping Works – Surface Water Design Report. Dated 15 April 2025.

NSW EPA, 2022. Approved Methods for the Sampling and Analysis of Water Pollutants in NSW, January 2022.

RCA Australia, 2025. Streamhealth Monitoring Wangcol Creek and Coxs River Undertaken in September 2025, Prepared for Enhance Place Pty Ltd, December 2025.

Sinclair Knight Mertz (SKM), 2010. Mt Piper Power Station Ash Placement Project, Appendix D, Hydrology and Water Quality, 2010.

Stantec, 2026. Wangcol Creek Ecological Survey Report 2025. Prepared for EnergyAustralia, 10 April 2026.

14. STATEMENT OF LIMITATIONS

1. This report is based solely on the scope of work described in the ERM proposal P0740122 dated 3 June 2026 (**Scope of Work**) and performed by Environmental Resources Management Australia Pty Ltd (**ERM**) for EnergyAustralia Pty Ltd (EnergyAustralia) (the **Client**). The Scope of Work was governed by a contract between ERM and the Client (**Contract**);
2. No limitation, qualification or caveat set out below is intended to derogate from the rights and obligations of ERM and the Client under the Contract;
3. The findings of this report are solely based on, and the information provided in this report is strictly limited to that required by, the Scope of Work. Except to the extent stated otherwise, in preparing this report ERM has not considered any question, nor provides any information, beyond that required by the Scope of Work;
4. This report was prepared between July and 24 September 2026 and is based on conditions encountered and information reviewed at the time of preparation. The report does not, and cannot, take into account changes in law, factual circumstances, applicable regulatory instruments or any other future matter. ERM does not, and will not, provide any on-going advice on the impact of any future matters unless it has agreed with the Client to amend the Scope of Work or has entered into a new engagement to provide a further report;
5. Unless this report expressly states to the contrary, ERM's Scope of Work was limited strictly to identifying typical environmental conditions associated with the subject site(s) and does not evaluate the condition of any structure on the subject site nor any other issues. Although normal standards of professional practice have been applied, the absence of any identified hazardous or toxic materials or any identified impacted soil or groundwater on the Site(s) should not be interpreted as a guarantee that such materials or impacts do not exist;
6. This report is based on one or more site inspections conducted by ERM personnel, the sampling and analyses described in the report, and information provided by the Client or third parties (including regulatory agencies). All conclusions and recommendations made in the report are the professional opinions of the ERM personnel involved. Whilst normal checking of data accuracy was undertaken, except to the extent expressly set out in this report ERM:
   a) did not, nor was able to, make further enquiries to assess the reliability of the information or independently verify information provided by; and
   b) assumes no responsibility or liability for errors in data obtained from, the Client, any third parties or external sources (including regulatory agencies).
7. Although the data that has been used in compiling this report is generally based on actual circumstances, if the report refers to hypothetical examples those examples may, or may not, represent actual existing circumstances;
8. Only the environmental conditions and or potential contaminants specifically referred to in this report have been considered. To the extent permitted by law and except as is specifically stated in this report, ERM makes no warranty or representation about:
   a) the suitability of the Site(s) for any purpose or the permissibility of any use;

b) the presence, absence or otherwise of any environmental conditions or contaminants at the Site(s) or elsewhere; or

c) the presence, absence or otherwise of asbestos, asbestos containing materials or any hazardous materials on the Site(s).

9. Use of the Site for any purpose may require planning and other approvals and, in some cases, environmental regulator and accredited site auditor approvals. ERM offers no opinion as to the likelihood of obtaining any such approvals, or the conditions and obligations which such approvals may impose, which may include the requirement for additional environment works;

10. The ongoing use of the Site or use of the Site for a different purpose may require the management of or remediation of site conditions, such as contamination and other conditions, including but not limited to conditions referred to in this report;

11. This report should be read in full and no excerpts are to be taken as representative of the whole report. To ensure its contextual integrity, the report is not to be copied, distributed or referred to in part only. No responsibility or liability is accepted by ERM for use of any part of this report in any other context;

12. Except to the extent that ERM has agreed otherwise with the Client in the Scope of Work or the Contract, this report:

    a) has been prepared and is intended only for the exclusive use of the Client;

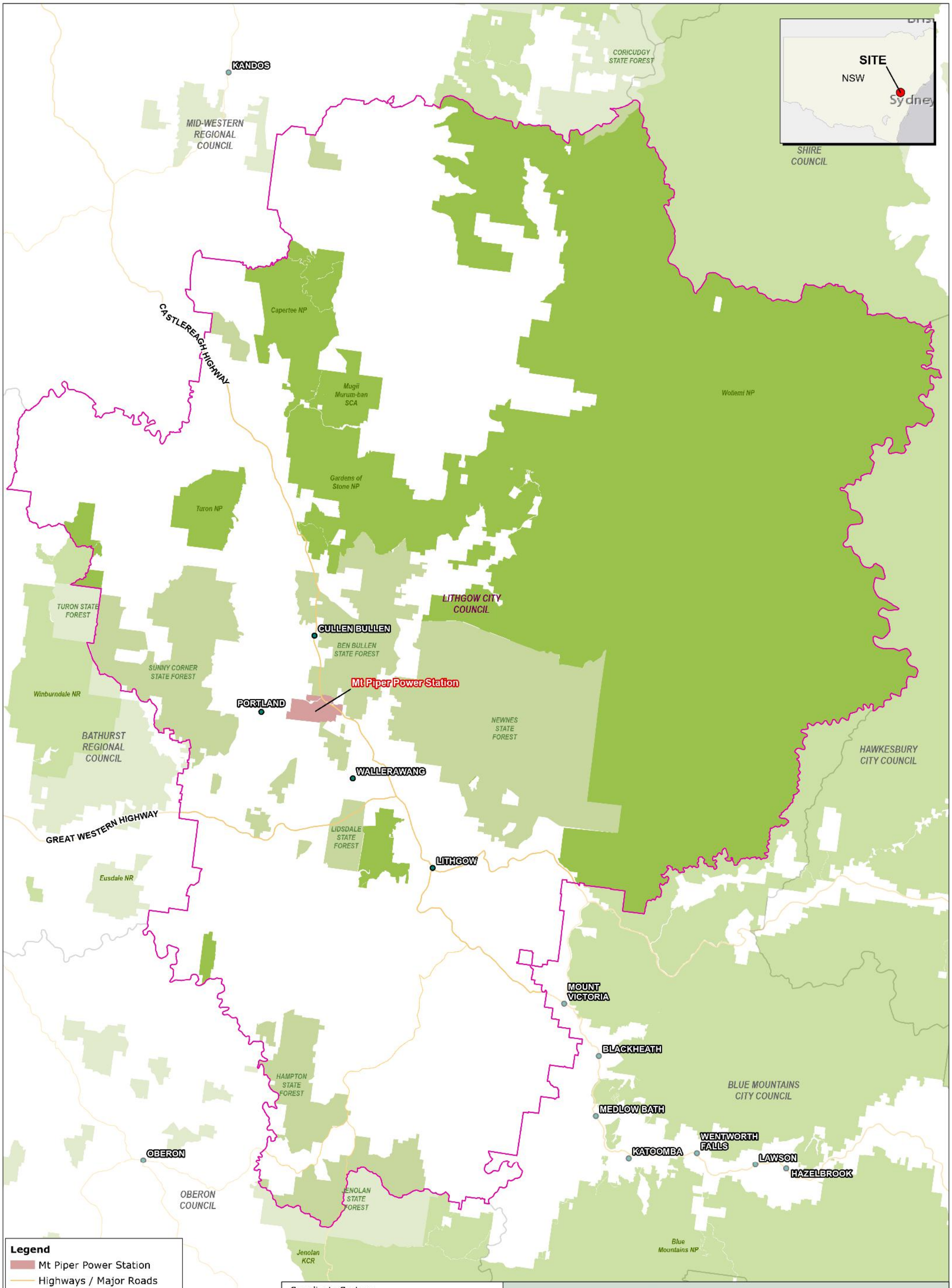
    b) must not to be relied upon or used by any other party;

    c) has not been prepared nor is intended for the purpose of advertising, sales, promoting or endorsing any Client interests including raising investment capital, recommending investment decisions, or other publicity purposes;

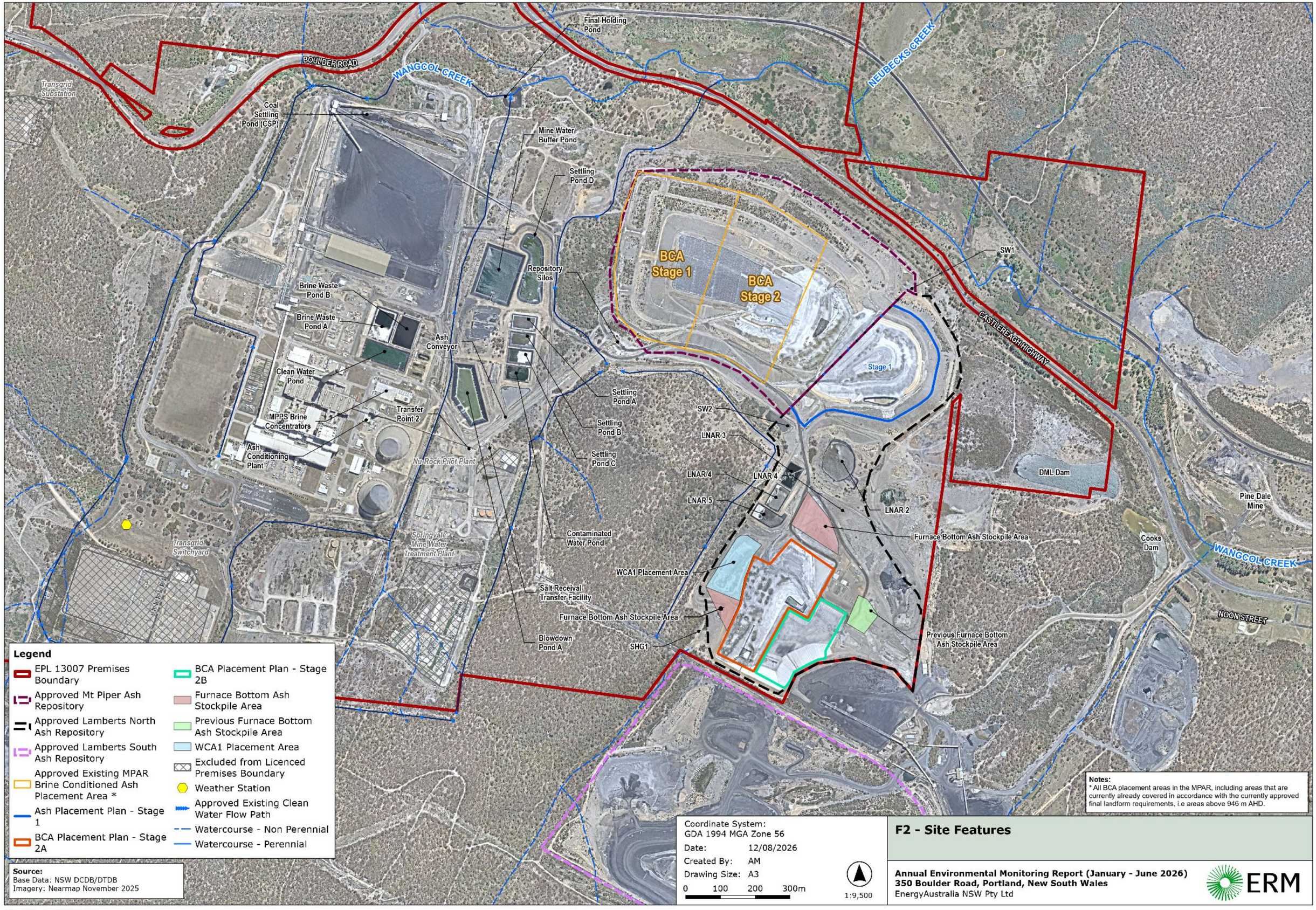
    d) does not purport to recommend or induce a decision to make (or not make) any purchase, disposal, investment, divestment, financial commitment or otherwise in or in relation to the Site(s); and

    e) does not purport to provide, nor should be construed as, legal advice.

APPENDIX A FIGURES



0810778 AEM 2026.aprx



Legend

- EPL 13007 Premises Boundary
- Approved Mt Piper Ash Repository
- Approved Lamberts North Ash Repository
- Approved Lamberts South Ash Repository
- Approved Existing MPAR Brine Conditioned Ash Placement Area *
- Ash Placement Plan - Stage 1
- BCA Placement Plan - Stage 2A
- BCA Placement Plan - Stage 2B
- Furnace Bottom Ash Stockpile Area
- Previous Furnace Bottom Ash Stockpile Area
- WCA1 Placement Area
- Excluded from Licenced Premises Boundary
- Weather Station
- Approved Existing Clean Water Flow Path
- Watercourse - Non Perennial
- Watercourse - Perennial

Source:
Base Data: NSW DCDB/DTDB
Imagery: Nearmap November 2025

Notes:
* All BCA placement areas in the MPAR, including areas that are currently already covered in accordance with the currently approved final landform requirements, i.e areas above 946 m AHD.

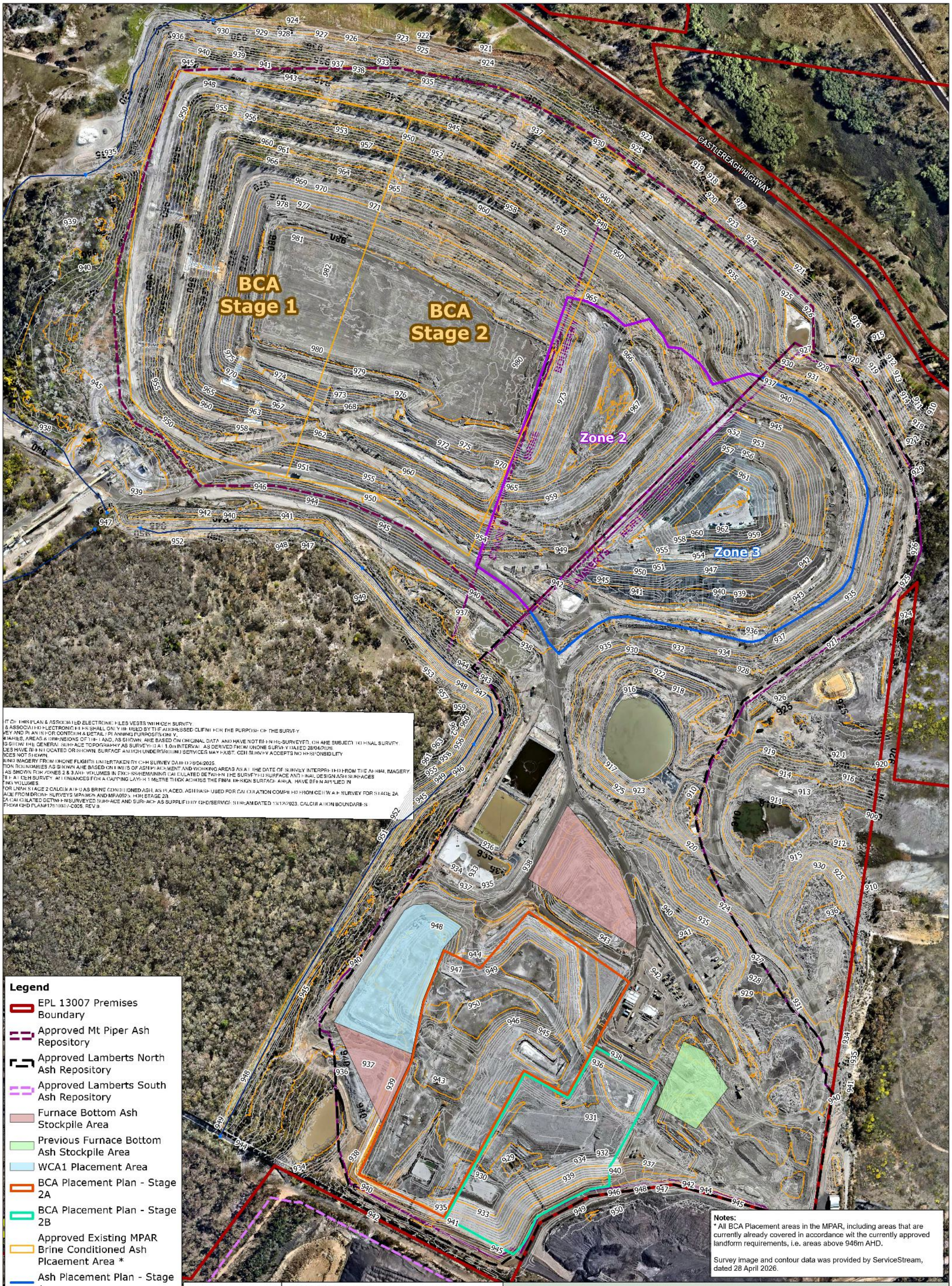
Coordinate System:
GDA 1994 MGA Zone 56
Date: 12/08/2026
Created By: AM
Drawing Size: A3
0 100 200 300m
1:9,500

F2 - Site Features

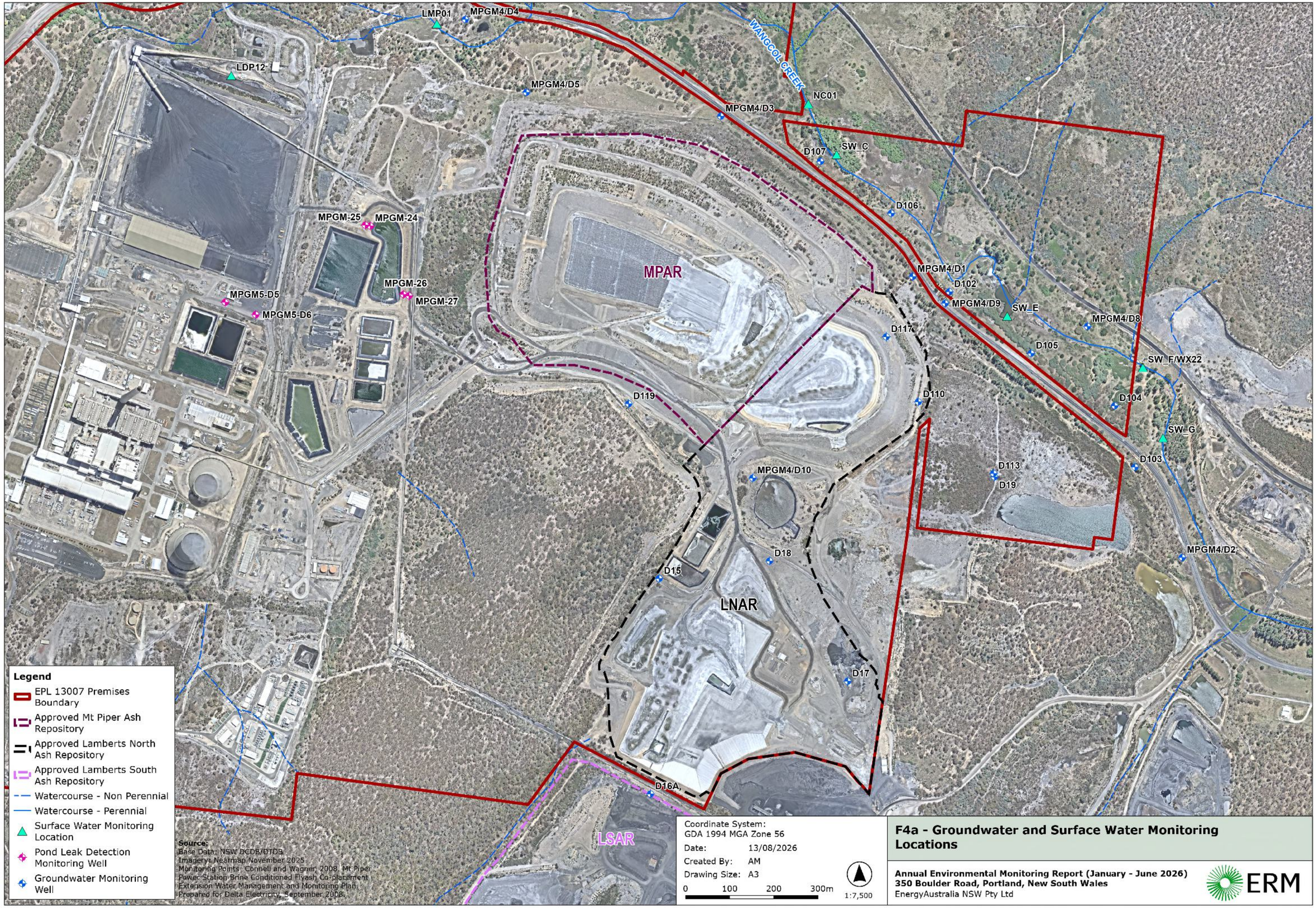
Annual Environmental Monitoring Report (January - June 2026)
350 Boulder Road, Portland, New South Wales
EnergyAustralia NSW Pty Ltd

ERM

0810778_AEM_2026.aprx



0810778 AEM 2026.aprx

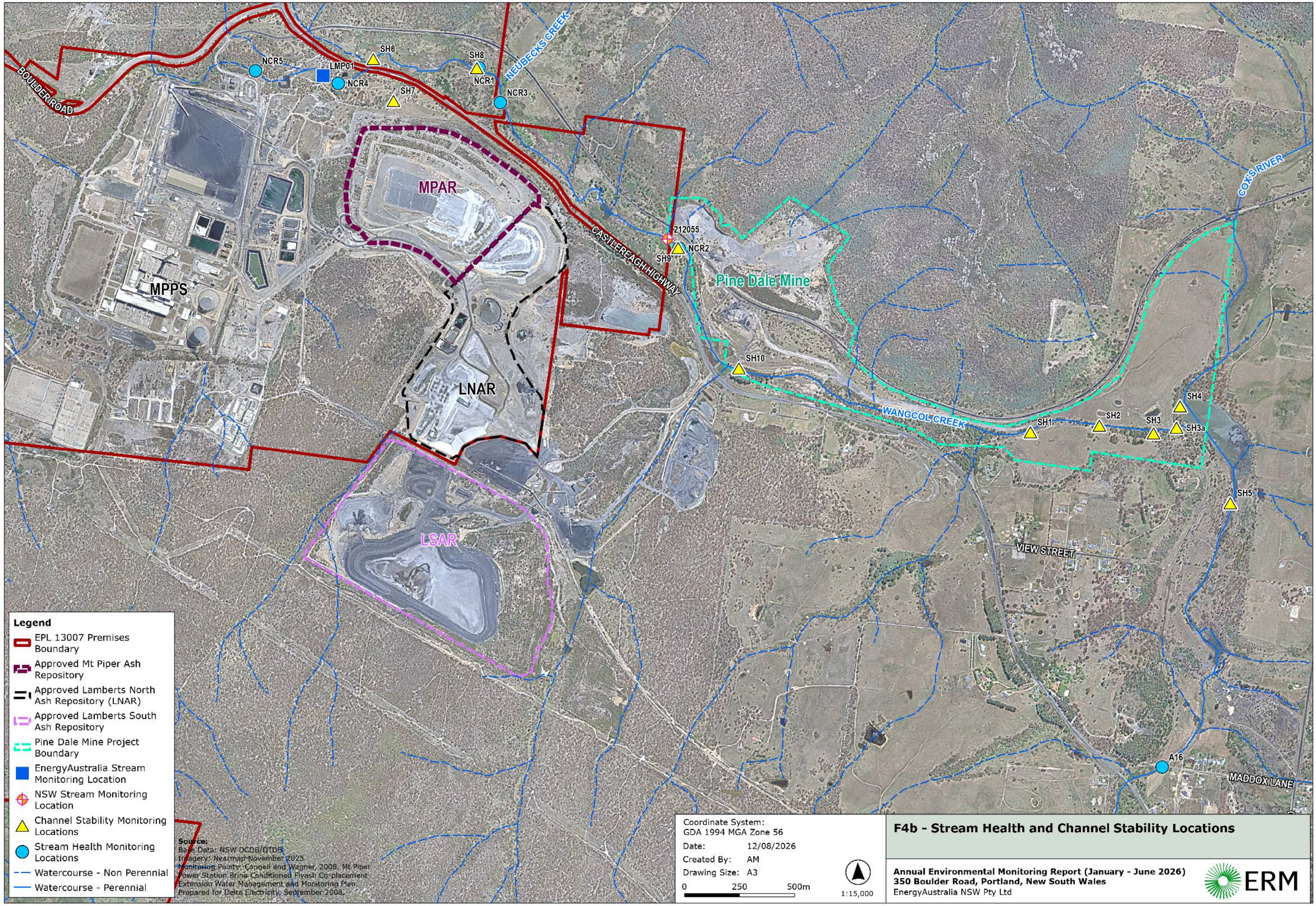


F4a - Groundwater and Surface Water Monitoring Locations

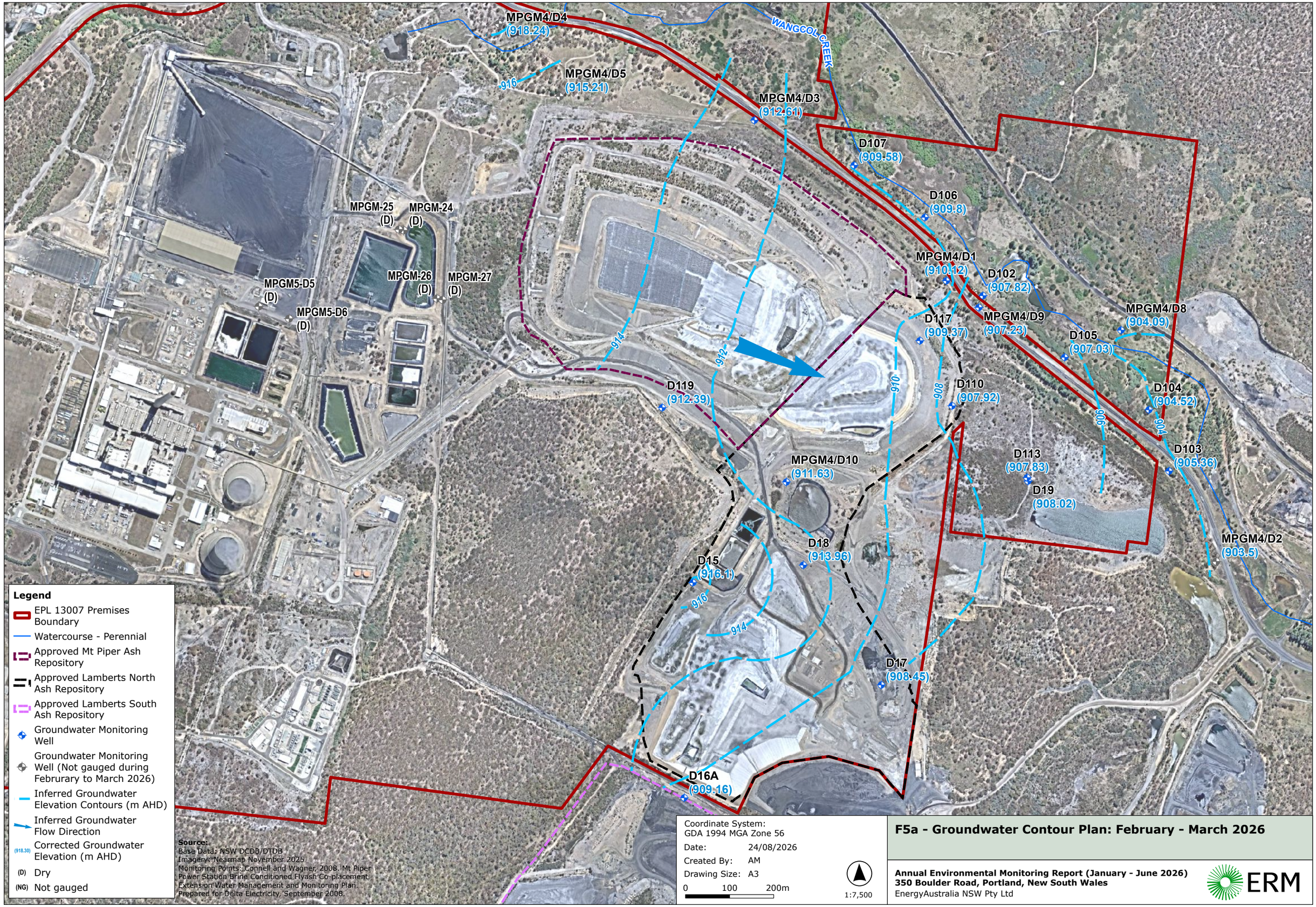
Annual Environmental Monitoring Report (January - June 2026)
350 Boulder Road, Portland, New South Wales
EnergyAustralia NSW Pty Ltd

ERM

0810778_AEM_2026.aprx



0810778_AEM_2026.aprx

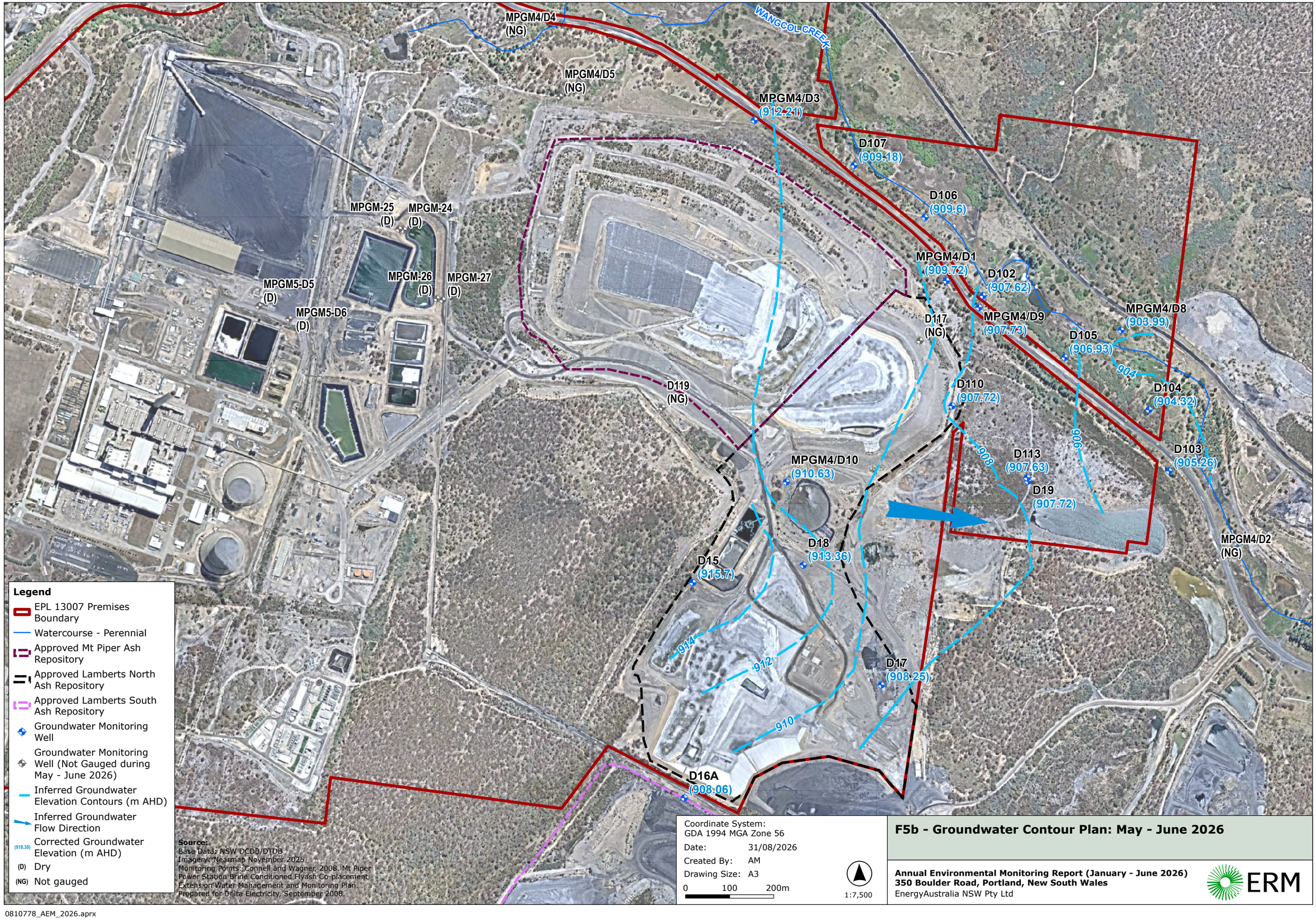


F5a - Groundwater Contour Plan: February - March 2026

Annual Environmental Monitoring Report (January - June 2026)
350 Boulder Road, Portland, New South Wales
EnergyAustralia NSW Pty Ltd

ERM

0810778_AEM_2026.aprx



0810778_AEM_2026.aprx

Environmental Goals	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc
Adopted Guideline Values - Groundwater	2600	6.5-8	350	1.5	1000	2000	24	700	370	2	5	5	664	664	5	5704	0.06	10	550.9	5	908

D5	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
18/02/2026	1191	5.89	86.3	0.473	1550	1010	2	19	70	< 0.1	< 1	< 1	36300	35800	< 1	7410	< 0.04	< 1	42	< 0.2	10	18/02/2026 - 23/04/2026	2
23/04/2026	1167	5.9	22.1	0.173	471	891	1	17	< 50	< 0.1	< 1	< 1	27000	23700	< 1	6800	< 0.04	< 1	42	0.2	5		

D4	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
18/02/2026	610	3.51	45.5	0.103	567	603	31	15	< 50	0.2	< 1	2	57900	56200	10	598	< 0.04	< 1	12	< 0.2	112	18/02/2026 - 23/04/2026	2
23/04/2026	624	3.5	17	0.074	245	496	31	15	< 50	0.2	< 1	1	55600	53200	14	608	< 0.04	< 1	12	0.2	116		

MPGM4/D4
MPGM4/D5
MPGM4/D3
D107
MPGM5-D5
MPGM5-D6
MPGM4/D1
D102
MPGM4/D9
MPGM4/D8
D117
D105
D119
D110
D104
D19
D18
D15
MPGM4/D2
WANGCOL CREEK
D17
D16A

Legend

- EPL 13007 Premises Boundary
- Approved Mt Piper Ash Repository
- Approved Lamberts North Ash Repository
- Approved Lamberts South Ash Repository
- Watercourse - Perennial
- Groundwater Monitoring Well
- Pond Leak Detection Monitoring Well

Source:
Base Data: NSW DCDB/DTDB
Imagery: Nearmap November 2025
Monitoring Points: Connell and Wagner, 2008. Mt Piper Power Station Brine Conditioned Flyash Co-placement Extension Water Management and Monitoring Plan. Prepared for Delta Electricity, September 2008.

Coordinate System:
GDA 1994 MGA Zone 56
Date: 20/08/2026
Created By: AM
Drawing Size: A3
0 100 200m
1:8,000

F6a - Groundwater Results Summary - Upgradient MPAR/ Background

Annual Environmental Monitoring Report (January - June 2026)
350 Boulder Road, Portland, New South Wales
EnergyAustralia NSW Pty Ltd

ERM

0810778_AEM_2026.aprx

Environmental Goals	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc
Adopted Guideline Values - Groundwater	2600	6.5-8	350	1.5	1000	2000	24	700	370	2	5	5	664	664	5	5704	0.06	10	550.9	5	908

D107	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
25/03/2026	10212	6.08	808	< 0.5	4770	9800	6	15	5780	0.8	< 1	21	18800	18600	10	9270	< 0.04	< 1	1390	< 0.2	301	25/03/2026 - 20/05/2026	2
20/05/2026	11040	6.12	687	< 0.5	4210	8620	6	17	4750	1	< 1	< 1	30200	18800	10	9310	< 0.04	< 1	1380	0.5	305		

D106	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
25/03/2026	9150	6.04	864	< 0.5	4390	8760	< 1	17	2970	0.4	< 1	6	12300	9720	< 1	8740	< 0.04	< 1	1330	1.8	236	25/03/2026 - 20/05/2026	2
20/05/2026	10044	6.02	734	< 0.2	3860	8090	2	20	2710	0.2	< 1	< 1	25800	17500	< 1	10800	< 0.04	< 1	1530	2.2	179		

D3	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/03/2026	1044	6.34	95.7	0.088	188	714	< 1	106	< 50	< 0.1	< 1	< 1	8480	6000	< 1	455	< 0.04	< 1	6	< 0.2	11	26/03/2026 - 10/06/2026	2
10/06/2026	869	6.14	42.7	< 0.5	231	572	< 1	31	< 50	< 0.1	< 1	< 1	9280	7550	< 1	689	< 0.04	< 1	6	< 0.2	< 5		

D119	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/02/2026	2112	6.17	98.9	0.245	803	1430	8	18	320	< 0.1	< 1	3	19200	15200	2	1640	< 0.04	6	181	0.8	389	26/02/2026 - 30/04/2026	2
30/04/2026	2089	5.99	73.8	0.105	667	1550	5	14	440	< 0.1	< 1	< 1	20100	14600	< 1	1740	< 0.04	3	166	0.4	141		

MPGM4/D5
MPGM4/D3
D107
D106
MPGM4/D9
D119
D110
D104
D18
D15
MPGM4/D2
WANGCOL CREEK
D17
D16A

Legend
- EPL 13007 Premises Boundary
- Approved Mt Piper Ash Repository
- Approved Lamberts North Ash Repository
- Approved Lamberts South Ash Repository
- Watercourse - Perennial
- Groundwater Monitoring Well
- Pond Leak Detection Monitoring Well

Source:
Base Data: NSW DCDB/DTDB
Imagery: Nearmap November 2025
Monitoring Points: Connell and Wagner, 2008. Mt Piper Power Station Brine Conditioned Flyash Co-placement Extension Water Management and Monitoring Plan. Prepared for Delta Electricity, September 2008.

Coordinate System: GDA 1994 MGA Zone 56
Date: 20/08/2026
Created By: AM
Drawing Size: A3
0 100 200m
1:8,000

F6b - Groundwater Results Summary - Cross-gradient MPAR / adjacent MPAR to the North and Adjacent Wangcol Creek

Annual Environmental Monitoring Report (January - June 2026)
350 Boulder Road, Portland, New South Wales
EnergyAustralia NSW Pty Ltd

ERM

0810778_AEM_2026.aprx

Environmental Goals	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc
Adopted Guideline Values - Groundwater	2600	6.5-8	350	1.5	1000	2000	24	700	370	2	5	5	664	664	5	5704	0.06	10	550.9	5	908

D102	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/03/2026	8751	6.54	904	< 0.5	3780	8660	< 1	18	1660	< 0.1	< 1	< 1	47200	37700	< 1	12600	< 0.04	< 1	1500	< 0.2	52	26/03/2026 - 21/05/2026	2
21/05/2026	9520	6.13	896	< 0.5	3690	7530	< 1	21	1170	0.2	< 1	30	67700	45600	< 1	12900	< 0.04	< 1	1530	0.3	133		

D1	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
25/03/2026	8759	5.99	707	< 0.5	4100	8590	6	19	3230	< 0.1	< 1	7	34100	31800	< 1	14600	< 0.04	< 1	1540	< 0.2	121	25/03/2026 - 11/06/2026	2
11/06/2026	8640	6.02	734	0.105	4100	7390	3	21	3280	< 0.1	< 1	< 1	37600	24300	< 1	15900	< 0.04	< 1	1570	< 0.2	112		

D9	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
25/03/2026	9326	6.17	83.7	< 0.05	417	8980	4	20	2520	< 0.1	< 1	< 1	46900	41300	< 1	12300	< 0.04	< 1	1580	0.3	54	25/03/2026 - 10/06/2026	2
10/06/2026	9259	6.14	879	0.119	4230	8000	3	30	2580	< 0.1	< 1	< 1	48100	32200	< 1	12500	< 0.04	< 1	1540	< 0.2	42		

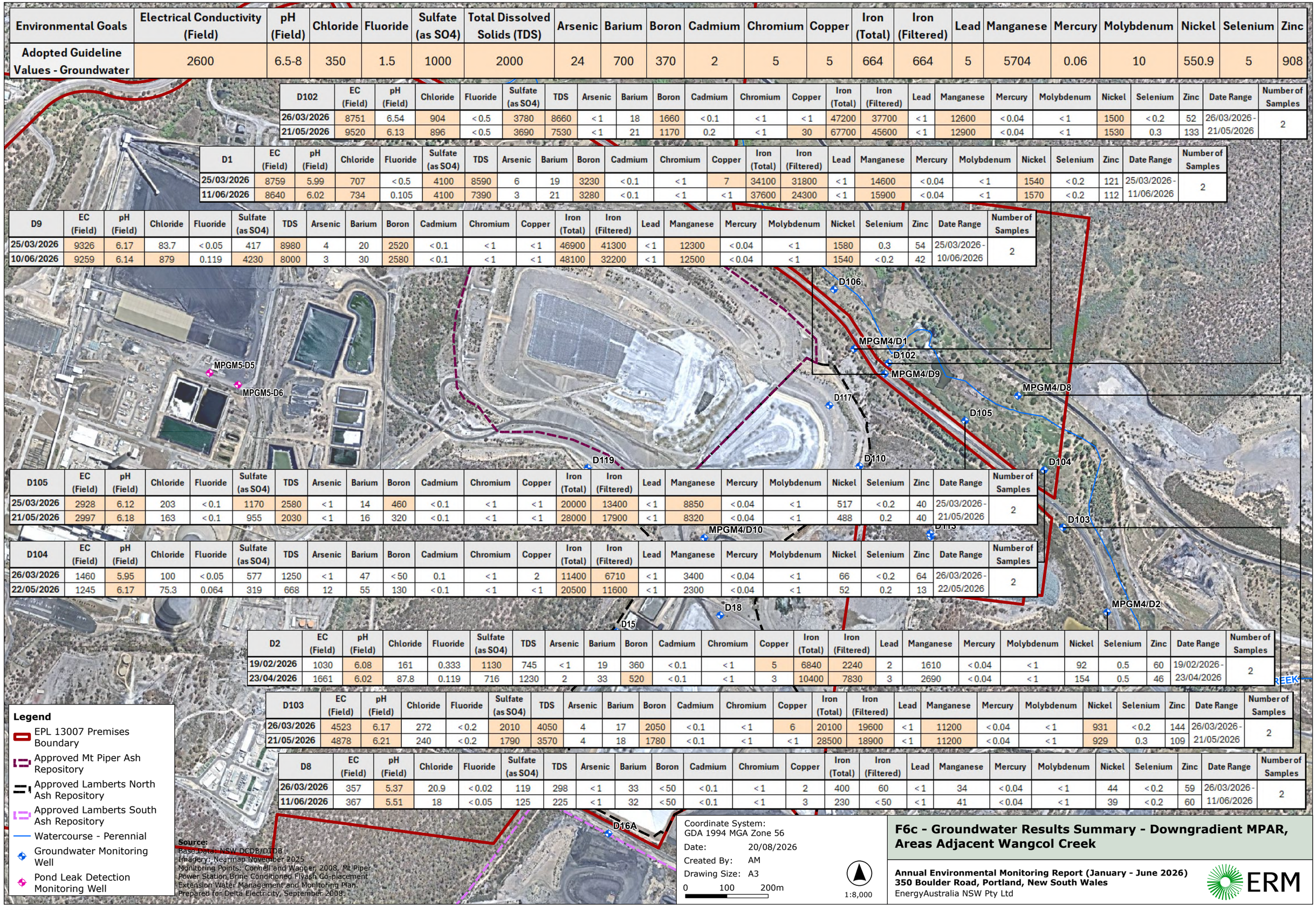
D105	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
25/03/2026	2928	6.12	203	< 0.1	1170	2580	< 1	14	460	< 0.1	< 1	< 1	20000	13400	< 1	8850	< 0.04	< 1	517	< 0.2	40	25/03/2026 - 21/05/2026	2
21/05/2026	2997	6.18	163	< 0.1	955	2030	< 1	16	320	< 0.1	< 1	< 1	28000	17900	< 1	8320	< 0.04	< 1	488	0.2	40		

D104	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/03/2026	1460	5.95	100	< 0.05	577	1250	< 1	47	< 50	0.1	< 1	2	11400	6710	< 1	3400	< 0.04	< 1	66	< 0.2	64	26/03/2026 - 22/05/2026	2
22/05/2026	1245	6.17	75.3	0.064	319	668	12	55	130	< 0.1	< 1	< 1	20500	11600	< 1	2300	< 0.04	< 1	52	0.2	13		

D2	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
19/02/2026	1030	6.08	161	0.333	1130	745	< 1	19	360	< 0.1	< 1	5	6840	2240	2	1610	< 0.04	< 1	92	0.5	60	19/02/2026 - 23/04/2026	2
23/04/2026	1661	6.02	87.8	0.119	716	1230	2	33	520	< 0.1	< 1	3	10400	7830	3	2690	< 0.04	< 1	154	0.5	46		

D103	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/03/2026	4523	6.17	272	< 0.2	2010	4050	4	17	2050	< 0.1	< 1	6	20100	19600	< 1	11200	< 0.04	< 1	931	< 0.2	144	26/03/2026 - 21/05/2026	2
21/05/2026	4878	6.21	240	< 0.2	1790	3570	4	18	1780	< 0.1	< 1	< 1	28500	18900	< 1	11200	< 0.04	< 1	929	0.3	109		

D8	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/03/2026	357	5.37	20.9	< 0.02	119	298	< 1	33	< 50	< 0.1	< 1	2	400	60	< 1	34	< 0.04	< 1	44	< 0.2	59	26/03/2026 - 11/06/2026	2
11/06/2026	367	5.51	18	< 0.05	125	225	< 1	32	< 50	< 0.1	< 1	3	230	< 50	< 1	41	< 0.04	< 1	39	< 0.2	60		



Source:
Base Data: NSW DCDB/DTDB
Imagery: Nearmap November 2025
Monitoring Points: Connell and Wagner, 2008. Mt Piper Power Station Brine Conditioned Flyash Co-placement Extension Water Management and Monitoring Plan. Prepared for Delta Electricity, September 2008.

Coordinate System:
GDA 1994 MGA Zone 56
Date: 20/08/2026
Created By: AM
Drawing Size: A3
0 100 200m
1:8,000

F6c - Groundwater Results Summary - Downgradient MPAR, Areas Adjacent Wangcol Creek

Annual Environmental Monitoring Report (January - June 2026)
350 Boulder Road, Portland, New South Wales
EnergyAustralia NSW Pty Ltd

ERM

0810778_AEM_2026.aprx

Environmental Goals	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc
Adopted Guideline Values - Groundwater	2600	6.5-8	350	1.5	1000	2000	24	700	370	2	5	5	664	664	5	5704	0.06	10	550.9	5	908

D117	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
18/03/2026	4671	6.12	125	1.74	2240	4580	1	11	13700	25.1	< 1	5	19500	< 50	1	8160	< 0.04	288	301	123	762	24/03/2026 - 11/06/2026	2
30/04/2026	4118	6.15	82.5	0.553	1350	3600	< 1	12	10600	8.1	< 1	< 1	1770	1230	< 1	17800	< 0.04	97	368	50.2	315		

D110	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/03/2026	9213	6.11	943	< 0.5	4270	9070	4	10	2320	< 0.1	2	36	55000	39600	2	13600	< 0.04	7	1690	0.4	189	26/03/2026 - 21/05/2026	2
21/05/2026	9966	6.07	884	< 0.5	4110	7870	2	14	2090	< 0.1	< 1	< 1	66300	11700	< 1	13100	< 0.04	3	1690	0.9	167		

D10	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/03/2026	5709	5.91	354	0.335	2510	4890	6	15	2300	0.8	< 1	< 1	8600	8650	6	4020	< 0.04	4	550	0.2	388	26/03/2026 - 11/06/2026	2
11/06/2026	7530	5.9	498	0.731	3410	6090	3	17	3210	1.5	< 1	< 1	9000	7570	6	5800	< 0.04	6	763	0.5	532		

D19	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
24/03/2026	4552	6.02	267	< 0.2	1950	3560	1	16	1830	< 0.1	< 1	< 1	15200	12900	3	5270	< 0.04	< 1	573	< 0.2	205	24/03/2026 - 11/06/2026	2
11/06/2026	4183	6.11	246	0.32	1740	3220	1	15	1690	< 0.1	1	< 1	18200	15200	3	5250	< 0.04	< 1	537	0.8	177		

D113	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/03/2026	4656	6.01	262	< 0.2	1920	3850	1	27	2000	0.3	< 1	< 1	13500	12700	4	5320	< 0.04	< 1	566	< 0.2	254	18/03/2026 - 30/04/2026	2
21/05/2026	4808	6.13	212	0.256	1600	3290	< 1	20	1700	0.2	< 1	1	17100	8860	< 1	4940	< 0.04	1	519	0.7	301		

MPGM4/D5
D106
MPGM4/D1
D102
MPGM4/D9
D20
D117
MPGM4/D8
D105
D104
MPGM5-D5
MPGM5-D6
D119
D110
D103
D113
D19
MPGM4/D10
D15
M4/D2
D17
D16A
REEK

Legend

- EPL 13007 Premises Boundary
- Approved Mt Piper Ash Repository
- Approved Lamberts North Ash Repository
- Approved Lamberts South Ash Repository
- Watercourse - Perennial
- Groundwater Monitoring Well
- Pond Leak Detection Monitoring Well

Source:
Base Data: NSW DCDB/DTDB
Imagery: Nearmap November 2025
Monitoring Points: Connell and Wagner, 2008. Mt Piper Power Station Brine Conditioned Flyash Co-placement Extension Water Management and Monitoring Plan. Prepared for Delta Electricity, September 2008.

Coordinate System:
GDA 1994 MGA Zone 56
Date: 20/08/2026
Created By: AM
Drawing Size: A3
0 100 200m
1:8,000

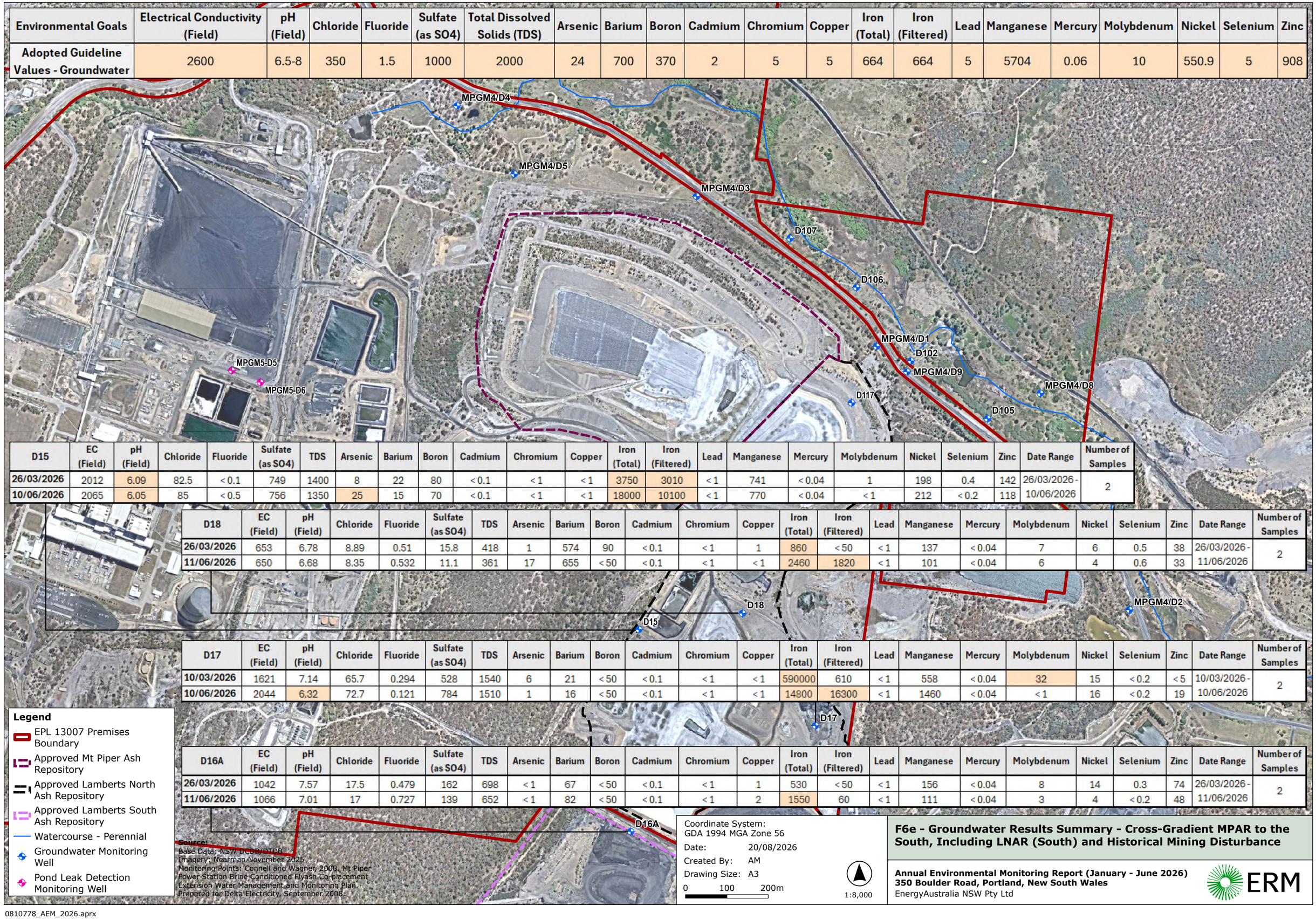
F6d - Groundwater Results Summary - Downgradient MPAR, Including LNAR (North) and Historical Mining Disturbance (East)

Annual Environmental Monitoring Report (January - June 2026)
350 Boulder Road, Portland, New South Wales
EnergyAustralia NSW Pty Ltd

ERM

0810778_AEM_2026.aprx

Environmental Goals	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc
Adopted Guideline Values - Groundwater	2600	6.5-8	350	1.5	1000	2000	24	700	370	2	5	5	664	664	5	5704	0.06	10	550.9	5	908



D15	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/03/2026	2012	6.09	82.5	< 0.1	749	1400	8	22	80	< 0.1	< 1	< 1	3750	3010	< 1	741	< 0.04	1	198	0.4	142	26/03/2026 - 10/06/2026	2
10/06/2026	2065	6.05	85	< 0.5	756	1350	25	15	70	< 0.1	< 1	< 1	18000	10100	< 1	770	< 0.04	< 1	212	< 0.2	118		

D18	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/03/2026	653	6.78	8.89	0.51	15.8	418	1	574	90	< 0.1	< 1	1	860	< 50	< 1	137	< 0.04	7	6	0.5	38	26/03/2026 - 11/06/2026	2
11/06/2026	650	6.68	8.35	0.532	11.1	361	17	655	< 50	< 0.1	< 1	< 1	2460	1820	< 1	101	< 0.04	6	4	0.6	33		

D17	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
10/03/2026	1621	7.14	65.7	0.294	528	1540	6	21	< 50	< 0.1	< 1	< 1	590000	610	< 1	558	< 0.04	32	15	< 0.2	< 5	10/03/2026 - 10/06/2026	2
10/06/2026	2044	6.32	72.7	0.121	784	1510	1	16	< 50	< 0.1	< 1	< 1	14800	16300	< 1	1460	< 0.04	< 1	16	< 0.2	19		

D16A	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
26/03/2026	1042	7.57	17.5	0.479	162	698	< 1	67	< 50	< 0.1	< 1	1	530	< 50	< 1	156	< 0.04	8	14	0.3	74	26/03/2026 - 11/06/2026	2
11/06/2026	1066	7.01	17	0.727	139	652	< 1	82	< 50	< 0.1	< 1	2	1550	60	< 1	111	< 0.04	3	4	< 0.2	48		

F6e - Groundwater Results Summary - Cross-Gradient MPAR to the South, Including LNAR (South) and Historical Mining Disturbance

Annual Environmental Monitoring Report (January - June 2026)
350 Boulder Road, Portland, New South Wales
EnergyAustralia NSW Pty Ltd

ERM

0810778_AEM_2026.aprx

Environmental Goals	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc
Adopted Guideline Values - Groundwater	2600	6.5-8	350	1.5	1000	2000	24	700	370	2	5	5	664	664	5	5704	0.06	10	550.9	5	908

MPGM5/D5	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
19/02/2026	38306	6.77	17100	5.7	59200	35700	21	95	3910	21.2	7	47	3720	4050	113	100000	0.08	1070	20900	3.8	2140	19/02/2026 - 23/04/2026	2
23/04/2026	34539	6.8	3460	< 2	16300	32000	< 10	60	1790	5.3	< 10	11	2890	3050	45	44300	0.11	272	8310	4	872		

MPGM5/D6	EC (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
19/02/2026	9550	6.71	8940	2	16300	7160	3	64	< 50	0.2	< 1	2	9880	6810	1	4620	< 0.04	39	948	0.6	47	19/02/2026 - 23/04/2026	2
23/04/2026	6297	6.69	636	< 0.5	1510	4230	1	57	< 50	< 0.1	< 1	1	3310	1420	< 1	3300	< 0.04	31	580	0.5	48		

MPGM4/D4
MPGM4/D5
MPGM4/D3
D107
NEUBEC
MPGM5-D5
MPGM5-D6
MPGM4/D1
D102
MPGM4/D9
MPGM4/D8
D117
D105
creek
MPGM4/D10
D113
D19
D103
D18
D15
MPGM4/D2
D17
WANGCOL CREEK
D16A

Legend

- EPL 13007 Premises Boundary
- Approved Mt Piper Ash Repository
- Approved Lamberts North Ash Repository
- Approved Lamberts South Ash Repository
- Watercourse - Non Perennial
- Watercourse - Perennial
- Groundwater Monitoring Well
- Pond Leak Detection Monitoring Well

Source:
Base Data: NSW DCDB/DTDB
Imagery: Nearmap November 2025
Monitoring Points: Connell and Wagner, 2008. Mt Piper Power Station Brine Conditioned Flyash Co-placement Extension Water Management and Monitoring Plan. Prepared for Delta Electricity, September 2008.

Coordinate System:
GDA 1994 MGA Zone 56
Date: 20/08/2026
Created By: AM
Drawing Size: A3
0 100 200m
1:8,000

F6f - Water Results Summary - Brine Leak Detection Bores

Annual Environmental Monitoring Report (January - June 2026)
350 Boulder Road, Portland, New South Wales
EnergyAustralia NSW Pty Ltd

ERM

0810778_AEM_2026.aprx

Environmental Goals	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc
Adopted Guideline Values - Surface Water	2200	6.5-8	350	1.5	1000	1500	24	700	370	0.85	2	3.5	300	300	5	1900	0.06	10	17	5	116

LMP01

LMP01	Electrical Conductivity (Lab)	pH (Lab)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
Min	346	7.86	5.68	0.173	55	214	<1	16	<50	<0.1	<1	<1	190	<50	<1	<1	<0.04	5	3	0.3	<5	5/01/2026 - 1/06/2026	6
Max	548	8.01	18.2	0.413	111	319	<1	24	<50	<0.1	<1	2	2430	<50	<1	91	<0.04	9	4	1.1	7		
Mean	412.17	7.93	10.37	0.25	76.73	264.17	0.50	18.33	25.00	0.05	0.50	1.25	771.67	25.00	0.50	54.58	0.02	7.00	3.50	0.60	3.67		

NC01

SW_C

SW_C	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
Min	192	7.26	5.71	0.17	29.7	146	<1	12	<50	<0.1	<1	<1	410	<50	<1	43	<0.04	3	2	0.2	<5	22/01/2026 - 3/06/2026	6
Max	488	8.3	16.8	0.299	103	344	<1	20	50	<0.1	<1	2	990	220	<1	172	<0.04	4	3	0.6	<5		
Mean	332.00	7.76	10.25	0.22	65.57	224.67	0.50	17.00	29.17	0.05	0.50	1.33	566.67	125.83	0.50	123.67	0.02	3.33	2.83	0.37	2.50		

SW_E	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
Min	391	7.15	15.3	0.079	70.9	240	<1	13	<50	<0.1	<1	<1	730	110	<1	166	<0.04	<1	9	<0.2	<5	22/01/2026 - 3/06/2026	6
Max	1191	8.28	65.6	0.222	334	746	<1	27	230	<0.1	<1	2	1730	730	<1	1400	<0.04	2	107	0.4	12		
Mean	736.17	7.71	35.97	0.17	215.32	479.83	0.50	19.83	119.17	0.05	0.05	0.75	1120.00	343.33	0.50	756.83	0.02	1.17	45.33	0.22	4.08		

SW_E

SW_F/WX22

SW_G

SW_G	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
Min	536	7.65	29.6	0.081	171	364	<1	10	80	<0.1	<1	<1	160	<50	<1	205	<0.04	<1	23	<0.2	<5	22/01/2026 - 3/06/2026	6
Max	1420	8.1	90.8	0.248	440	968	<1	21	270	<0.1	<1	2	1120	110	<1	419	<0.04	2	90	0.3	<5		
Mean	890.83	7.82	48.20	0.17	254.17	585.50	0.50	14.33	160.00	0.05	0.50	0.83	468.33	70.83	0.50	295.33	0.02	1.17	48.17	0.13	2.50		

WX22	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
Min	535	7.61	33.4	0.121	171	382	<1	10	110	<0.1	<1	<1	180	<50	<1	212	<0.04	<1	24	<0.2	<5	22/01/2026 - 3/06/2026	6
Max	1409	8.1	92.2	0.225	443	972	<1	22	270	<0.1	<1	1	1030	100	<1	448	<0.04	2	91	0.3	6		
Mean	892.50	7.83	50.28	0.17	267.67	592.67	0.50	14.83	161.67	0.05	0.50	0.67	451.67	69.17	0.50	308.83	0.02	1.25	47.83	0.15	3.08		

NC01	Electrical Conductivity (Field)	pH (Field)	Chloride	Fluoride	Sulfate (as SO4)	Total Dissolved Solids (TDS)	Arsenic	Barium	Boron	Cadmium	Chromium	Copper	Iron (Total)	Iron (Filtered)	Lead	Manganese	Mercury	Molybdenum	Nickel	Selenium	Zinc	Date Range	Number of Samples
Min	249	7.22	5.86	0.174	31.1	150	<1	11	<50	<0.1	<1	<1	630	<50	<1	<1	<0.04	2	2	0.3	<5	25/03/2026 - 3/06/2026	4
Max	497	8.17	18.2	0.31	103	350	<1	22	<50	<0.1	<1	2	1030	160	<1	298	<0.04	4	3	0.3	6		
Mean	363.75	7.83	11.42	0.23	63.05	234.50	0.50	16.25	25.00	0.05	0.50	1.00	792.50	116.25	0.50	124.13	0.02	3.00	2.75	0.30	3.38		

Legend

- Approved Mt Piper Ash Repository
- Approved Lamberts North Ash Repository
- Approved Lamberts South Ash Repository
- EPL 13007 Premises Boundary
- Watercourse - Non Perennial
- Watercourse - Perennial
- Surface Water Monitoring Location

Source:
Base Data: NSW SCDB/DTDB
Imagery: Nearmap November 2025
Monitoring Points: Connell and Wagner, 2008. Mt Piper Power Station Brine Conditioned Flyash Coplacement Extension Water Management and Monitoring Plan. Prepared for Delta Electricity, September 2008.

Coordinate System:
GDA 1994 MGA Zone 56
Date: 13/08/2026
Created By: AM
Drawing Size: A3
0 100 200m
1:8,000

F7 - Surface Water Results Summary

Annual Environmental Monitoring Report (January - June 2026)
350 Boulder Road, Portland, New South Wales
EnergyAustralia NSW Pty Ltd

ERM

0810778_AEM_2026.aprx

APPENDIX B REGULATORY REQUIREMENTS

TABLE B-1 SUMMARY OF MT PIPER CONSENT AND WMP REQUIREMENTS

Project Approval Doc	Condition	Consent Requirements	How addressed by the EMR	Compliance Status
Mt Piper Consent (Modification 9, dated 24 June 2025)	38A	*38A. The brine and ash co-placement area may be extended and shall be undertaken generally in accordance with the Statement of Environmental Effects: Mount Piper Power Station Extension of Brine Conditioned Ash Placement Area, prepared by Connell Wagner Pty Ltd and dated June 2007. This includes:* *(i) The extended area must lie within the existing ash placement area;* *(ii) Co-placement activities in the proposed extended area must use existing facilities and methods;* *(iii) The placement of brine conditioned ash may only occur between the levels of RL 946 metres (the endpoint of the water conditioned ash layer) and RL 980 metres.*	Refer to Appendix A, Appendix C and Section 3 of the EMR.	Compliant
	43	*43. Prior to commencing the works as described in Modification 9, or as otherwise agreed by the Secretary, the Applicant must prepare a Water Management Plan for the MPAR to the satisfaction of the Secretary. The Water Management Plan must be prepared by a suitably qualified and experienced person/s, and in consultation with DCCEEW Water, WaterNSW and the EPA. The Water Management Plan must include, and not be limited to: (a) details of the monitoring programs for surface water and groundwater:* *(a) details of the monitoring programs for surface water and groundwater:* *• detailed baseline data and monitoring programs presented in the Statement of Environmental Effects of Modification 5 (as updated by subsequent modifications), including baseline data on surface water flows and quality in creeks and waterbodies that could be affected by the MPAR (including Wangcol Creek);* *• monitoring of surface water flows and quality, stream health and channel stability in Wangcol Creek, and downstream of the energy dissipater as described in Modification 9; and* *• water quality testing at a minimum frequency of every three months, including details of water quality management criteria and measures to manage surface water and groundwater impacts, including trigger action response plans.* *(b) a site water balance, including details of:* *• water management on site, including measures to be employed to control and/or capture surface water run-off from the site; and* *• off-site water discharges.* *(c) contingency plans for the mitigation of environmental impacts should run-off or leachate from the site be found to be negatively impacting on natural surface water or groundwater.* *(d) brine management objectives and strategies, with specific reference to measures aimed at reducing the volume of brine produced at the Mount Piper Power Station.* *(e) a program for the ongoing verification and refinement of the groundwater model for the MPAR.* *(f) Identification of activities that could cause soil erosion and generate sediment and describe measures to minimise soil erosion and the potential for the transport of sediment to downstream waters.*	Condition is met by the WMP dated 28 July 2026 (*Water Management Plan, Mt Piper Power Station, DA80/10060, Mt Piper Ash Repository*, 28 July 2026, ERM; the WMP), as outlined in Section 1.2.1 of the EMR.	Compliant
	43A	*43A. The Applicant must implement the approved Water Management Plan.*	Condition is met by the WMP dated 28 July 2026 and the EMR from Section 3 onwards.	Compliant
	43B	*The Applicant must provide a copy of the approved Water Management Plan to the EPA, WaterNSW, DCCEEW Water and Council.*	Condition was met as evidenced by the regulatory stakeholder communications included as Appendix C of the WMP, following DPHI approval	Compliant
	43C	*Prior to the approval of the revised Water Management Plan as detailed in condition 43, the project's Water Management Plan, as approved following Modification 9, must continue to be implemented, to the satisfaction of the Secretary.*	Condition is met by the development of this report in its entirety.	Compliant
	44	*44. The Applicant must provide to the Secretary, EPA, DCCEEW Water, WaterNSW and Council, an Environmental Monitoring Report for the MPAR on a yearly basis, to the satisfaction of the Secretary. The Environmental Monitoring Report must be prepared by a suitably qualified and experienced person/s approved by the Secretary.*	Condition is met by the development of this report in its entirety, along with the regulatory stakeholder communications dated 08 December 2025 endorsing the signatories of this report as suitably qualified and experienced persons.	Compliant

Project Approval Doc	Condition	Consent Requirements	How addressed by the EMR	Compliance Status
	45	*45. The Environmental Monitoring Report shall include, but not be limited to:* *(a) a comprehensive review of the monitoring results from the Water Management Plan over the previous calendar year and identify any trends in the water monitoring data over the life of the project;* *(b) a discussion of the aims of the Water Management Plan and to what degree these aims have been attained in the context of results and analyses of the Water Monitoring Program, as part of the Water Management Plan;* *(c) actions taken, or intended to be taken, if any, to mitigate any adverse environmental impacts and to meet the reasonable requirements of the Secretary, EPA, DCCEEW Water, WaterNSW or Council;* *(d) a revised groundwater modelling report to include any potential and/ or the progressive improvements to the existing batters and benches that may contribute towards reducing the impacts from MPAR to the surrounding environment;* *(e) identification of any non-compliance or incident which occurred in the previous calendar year, and describe what actions were (or are being) taken to rectify the non-compliance and avoid reoccurrence; and* *(f) complaints record of the project's water related impacts (quality and quantity) over the previous calendar year.*	Refer to Section 5 to Section 11, along with Appendix G through to Appendix O of the EMR. Note that (d) is addressed by Section 10 of the EMR, in accordance with the approach detailed in the WMP.	Compliant
	58	*58.Prior to the commencement of construction of the leachate barrier management system in Zone 2 of the MPAR, as detailed in Modification 9, the Applicant must demonstrate to the satisfaction of the EPA that the design of the leachate management system is generally consistent with the relevant requirements of the Environmental Guidelines, Solid Waste Landfills (EPA, 2016), including:* *(a) the leachate barrier system, including liner and leachate collection system; and* *(b)the leachate storage dam/s including freeboard, appropriate sizing based on site water balance modelling and liner.*	Not addressed in the EMR. EnergyAustralia will prepare separate documentation to demonstrate that the design of MPAR Zone 2 LBMS is generally consistent with the relevant requirements of the Environmental Guidelines, Solid Waste Landfills (EPA, 2016). This will be completed manner as required to align with the planned installation timelines.	Compliant
	59	*59. Within six months of approval of Modification 9, or other timeframe agreed by the Secretary, the Applicant must develop a capping strategy for the entire MPAR to the satisfaction of the EPA. The design for the MPAR capping strategy must provide details of:* *(a) short, medium and long-term solutions for control of migration of the solutes from the entire MPAR and into the receiving environment, including consideration of post-closure measures; and* *(b) additional works required and assessment of measures to reduce water infiltration on the batter slopes of the MPAR.*	The Capping Strategy was initially provided to the DPHI on 12 March 2026. The Capping Strategy was endorsed by the NSW EPA on 05 March 2026. A final version of the Capping Strategy was provided to the Department on 17 April 2026.	Compliant
	60	*60. Within three months of approval of the capping strategy in condition 59, the Applicant must review and revise the Water Management Plan in condition 43 and condition 43A, incorporating any outcomes.*	The WMP was updated on 29 May 2026 following EPA endorsement of The Capping Strategy.	Compliant
	64	*64. Within three months, unless the Secretary agrees otherwise of:* *(a) the submission of the Environmental Monitoring Report under condition 44 above;* *(b) the submission of an incident report under condition 66 or 67 below;* *(c) any modification of this consent; or* *(e) a direction of the Secretary under condition 61 above;* *the Applicant must review and, if necessary, revise the studies, strategies or plans required under the conditions of consent to the satisfaction of the Secretary.* *Where this review leads to revisions in any such document, then within 4 weeks of the review the revised document must be submitted to the Secretary for approval, unless otherwise agreed with the Secretary.*	Condition 64 is not addressed by this EMR, which is separately required to be prepared under Condition 45.	Compliant
	66	*66. The Applicant must notify the Department within 24 hours of becoming aware of an incident. The notification must be made via the NSW planning portal (Major Projects) and address details of the incident including:* *(a) date, time and location;* *(b) a brief description of what occurred and why it has been classified as an incident;* *(c) a description of what immediate steps were taken in relation to the incident; and* *(d) identifying a contact person for further communication regarding the incident.*	This is addressed by Section 3.4 of the EMR.	Compliant

Project Approval Doc	Condition	Consent Requirements	How addressed by the EMR	Compliance Status
	67	*67. The Applicant must provide the Department with a subsequent incident report in accordance with Appendix 1 (Incident Notification and Reporting Requirements).*	Not applicable.	Compliant
	68	*68. Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing and must be submitted via the NSW planning portal (Major Projects). The notification must identify the development (including the development application number and name), set out the condition of this consent that the development is noncompliant with, why it does not comply, the reasons for the non-compliance (if known), and what actions have been undertaken, or will be undertaken, and when, to address the non-compliance.*	Not applicable.	Compliant
	69	*69. Within three months of approval of Modification 9 and until the completion of all rehabilitation required under this consent, the applicant must:* *(a) make the following information and documents (as they are obtained, approved or as otherwise stipulated within the conditions of this consent) publicly available on its website:* • *the Environmental Impact Statement;* • *all current statutory approvals for the project;* • *all approved strategies, plans and programs required under the conditions of this consent;* • *contact details to enquire about the project or to make a complaint;* • *a complaints register, updated monthly;* • *the Environmental Monitoring Reports of the project and the Applicant's response to the recommendations in any Environmental Monitoring Report;* • *any other matter required by the Secretary; and* *(b) keep such information up to date.*	Condition 64 is not addressed by this EMR, though the required information is available on EnergyAustralia's website. Mt Piper Power Station | EnergyAustralia.	Compliant
The WMP (ERM, 2026)	N/A	Section 10.8 of the WMP outlines the following approach to preparation of the EMR to address Condition 45 (a): • Review of surface water and groundwater quality data, including the spatial distribution of water quality parameters; • Review of long-term water quality concentration trends, with reference to statistical assessment of concentration trends and triggers; • Assessment of the data to evaluate potential interactions with Wangcol Creek and potential changes to water quality; • Reporting when the Environmental Goals have not been achieved; • Interpretation and discussion of results; • A summary of the Wangcol Creek EMP and Wangcol Creek Stream Stability Survey results; • Update on the TARPs and contingency measures currently being implemented in accordance with this WMP; and • Provision of the final report to the Planning Secretary, EPA, DCCEEW Water, WaterNSW and Council. *Commentary regarding any exceedances of the Environmental Goals will form a part of the EMR. The data assessment and reporting will also consider where changes in water quality are attributable to seepage from the MPAR, and particularly where changes in water quality may differ to those anticipated based on the current understanding of the CSM.* *Noting the management mitigation measures and the TARPs (Section 11), the EMR will also include a review of the water quality monitoring program every 3 years to confirm whether, based on the data review, any updates are required to monitoring locations (added or removed), frequency, and/or analytes so that the monitoring program* continues to meet the overall purpose of this WMP.	• Requirement is met by Sections 6 and 7 of the EMR. • Requirement is met by Sections 6 and 7 of the EMR. • Requirement is met by Sections 6, 7 and 10 of the EMR. • Requirement is met by Sections 6 and 7 of the EMR. • Requirement is met by Sections 6 and 7 of the EMR. • The Wangcol Creek EMP and Stream Stability Survey results are presented in ERM (2026a). • Requirement is met by Section 11 of the EMR. • A copy of the final EMR will be distributed accordingly. • Requirement is met by the EMR from Section 6 onwards. Data review and continuous improvement forms part of the approach to preparing the EMR. This will be formally addressed in 2028 in accordance with the 3-year timeframe. Deviations from the WMP monitoring program are described in Section 9 of the EMR.	Compliant

TABLE B-2 SUMMARY EPL 13007 REQUIREMENTS

Project Approval Doc	Consent Requirements	How addressed by the EMR	Compliance Status
EPL 13007	Surface Water and Groundwater Monitoring Reporting R5.8 The licensee must prepare an annual report detailing the results of all surface water and groundwater monitoring required by the licence (the Water Monitoring Report), including condition M2.6, condition M8.1 and Special Condition E10. The Water Monitoring Report must include, but is not limited to the following: 1. An executive summary that summarises the monitoring results, any potential water pollution risks, and where relevant, includes recommended actions to address these risks. 2. All monitoring data collected during the reporting period. 3. Analysis and graphical representation of temporal trends and patterns in monitoring data collected during the reporting period and over the entire historical dataset, including concentrations and discharge frequencies and volumes. 4. Comparison of data against current guideline values to identify potential water pollution risks. 5. Identification of any potential water pollution risks. 6. Identification of relevant hydrogeological parameters, i.e., groundwater levels, flow direction, gradient, seepage velocity. 7. Assessment of the effectiveness of measures to reduce water discharges and associated water pollution impacts, and recommendations for improvements where necessary to address these; and *Assessment of the effectiveness of measures to mitigate potential off-site impacts and identification of any associated recommendations.*	• Requirement is met by the Executive Summary of the Report. • Requirement is met by the Report in its entirety. • Requirement is met by Appendix G of the report onwards. Historical baseline data is presented and discussed in the WMP. • Requirement is met by Appendix H and Appendix I of the Report. • Requirement is met by Sections 11 and 12 of the Report. • Requirement is met by Sections 6.3.1 and 6.3.2 of the Report. • Requirement is met by Sections 11 and 12 of the Report. • A copy of the final Report will be distributed accordingly. • Requirement is met by the Report from Section 6 onwards. Deviations from the EPL monitoring program are described in Section 9 of the Report.	Compliant
	Condition R5.9 The licensee must provide a copy of the Water Monitoring Report as required by condition R5.8 to the EPA at info@epa.nsw.gov.au by no later than 1 May of each year.	Pending confirmation of EPL variation.	Compliant
	Condition 5.10 The licensee must notify the EPA in the event the leak detection system surrounding the leachate ponds has been triggered. The notification must include the location of any potential leak along with an analysis of dispersion and any potential impacts.	Not applicable.	Compliant

TABLE B-3 SUMMARY OF LAMBERTS NORTH PROJECT APPROVAL AND OEMP REQUIREMENTS

Project Approval Doc	Condition	Consent Requirements	How addressed by the EMR	Compliance Status
Project Approval 09_0186	A10	Compliance Reports of the project must be carried out in accordance with the Compliance Reporting Requirements outlined in the Compliance Reporting Post Approval Requirements (2020).	Condition is met by the development of this report in its entirety.	Compliant
	E15 (During Operations).	The Proponent shall prepare and implement a Groundwater Monitoring Program to monitor the impacts of ash placement activities on local groundwater quality and hydrology. The Program shall be developed in consultation with WaterNSW, and shall describe the location, frequency, rationale and procedures and protocols for collecting groundwater samples as well as the parameters analysed and methods of analysis. The monitoring program shall be ongoing for the operation of the project and for a minimum of 5 years following project completion and include, but not be limited to:	Refer to Section 5.5 of OEMP	Compliant Observation of laboratory LORs were reported for fluoride, aluminium (filtered), antimony (filtered), chromium (filtered), hexavalent chromium, trivalent chromium, silver (dissolved), 'nitrite and nitrate (as N)', total nitrogen, and total phosphorus as described in Section 9 of this report. These laboratory LORs do not impact upon the conclusions of this report, as these are not considered to represent primary constituents of concern for groundwater monitoring in accordance with the OEMP.
		a) monitoring at established bore sites (or replacement bore sites in the event that existing sites are damaged or lost) as described in the Groundwater Management Plan as per condition D3(b); and	Refer to Section 6 of this report	Compliant
		b) a schedule for periodic monitoring of groundwater quality, depth and flow at all monitoring sites, at an initial frequency of no less than once every month for the first 12 months of operation. The monitoring program shall form part of the Groundwater Management Plan referred to in condition D3(b) of this approval.	Refer to Section 6 of this report	Compliant
	E16 (During Operations).	The Proponent shall prepare and implement a surface water quality monitoring program to monitor the impacts of the ash placement activities on Wangcol Creek and Lamberts Gully. The Program shall be developed in consultation with WaterNSW, and shall describe the location, frequency, rationale and the procedures and protocols for collecting water samples as well as the parameters analysed and methods of analysis. The program shall include, but not necessarily be limited to:	Refer to Section 5.6 of OEMP	Compliant Laboratory LORs above the adopted guideline value were reported consistently for silver, as described in Section 9 of this report. These laboratory LORs do not impact upon the conclusions of this report, as these are not considered to represent primary constituents of concern for groundwater monitoring in accordance with the OEMP.
		a) monitoring at the existing water quality monitoring sites as described in the document referred to under condition A1c);	Refer to Section 7 of this report	Compliant
		b) monitoring at surface water discharge points from Lamberts Gully Creek;	Refer to Section 7 of this report	Compliant

Project Approval Doc	Condition	Consent Requirements	How addressed by the EMR	Compliance Status
		c) monitoring at surface water discharge points into Wangcol Creek;	Refer to Section 7 of this report	Compliant
		d) wet weather monitoring with a minimum of two events recorded within the first 12 months operation of the project; and	Not relevant, completed as required at the time.	Compliant
		e) a schedule for periodic monitoring of surface quality at all sites throughout the life of the project, at an initial frequency of no less than once every month for the first 12 months and must include, but not be limited to, monitoring of dissolved oxygen, turbidity, sulfate, salinity, boron, manganese, iron chloride, total phosphorus and total nitrogen.	Refer to Section 7 of this report	Compliant
Operational Environmental Management Plan	Not applicable	Section 5.5.3 Groundwater Monitoring Program - Guidelines	Refer to Section 6 of this report	Compliant
	Not applicable	Section 5.5.3.1 Groundwater Monitoring Program – Water Quality Criteria	Refer to Appendix H and Section 6 of this report	Compliant
	Not applicable	Section 5.5.4 Monitoring (Table 5-12 – Groundwater Monitoring Schedule)	Refer to Section 6.2 of this report	Compliant
	Not applicable	Section 5.5.4 Monitoring (Table 5-13 – Procedures and Protocols for Monitoring)	Refer to Appendix H and Sections 5, 6.2, and 9 of this report	Compliant. Laboratory LORs above the adopted guideline values were reported for fluoride, aluminium (filtered), antimony (filtered), chromium (filtered), hexavalent chromium, trivalent chromium, silver (dissolved), 'nitrite and nitrate (as N)', total nitrogen, and total phosphorus as described in Section 9 of this report. These laboratory LORs do not impact upon the conclusions of this report, as these are not considered to represent primary constituents of concern for groundwater monitoring in accordance with the OEMP.
	Not applicable	Section 5.5.4 Monitoring (Table 5-14 – Groundwater contamination contingency plan for Lamberts North)	Refer to Sections 2, 6.3.3, 10, and 11 of this report	Compliant
	Not applicable	Section 5.5.4 Monitoring (Table 5-15 – Investigation protocol)	Refer to Sections 2, 6.3.3, 10, and 11 of this report	Compliant
	Not applicable	Section 5.5.4 Monitoring (Table 5-16 Reporting Requirements, Item 2)	This report	Compliant
	Not applicable	Section 5.6.5 (Table 5-20 Soil and Surface Water Monitoring Measures – Items 3 to 5)	Refer to Appendix I and Section 7 of this report	Compliant

APPENDIX C ASH REPOSITORY SURVEY



SERVICESTREAM

MOUNT PIPER - ASH PLACEMENT

SURVEY : 28th APRIL 2026

SCALE - 1:5000 (A3 SHEET) DATUM: MGA (ZONE56)

GRID NORTH

CEH SURVEY
CONSULTING AND CIVIL ENGINEERING AND MINING SURVEYORS
"Astrolabe" 1 Hubbard Lane,
L NSW 2290
ABN: 68 058 544 661 Office: (02) 4951 2281
Email: surveyor@ceh.com.au Website: www.ceh.com.au

PROFESSIONAL STANDARDS SCHEME Liability limited by a scheme approved under Professional Standards Legislation.

DATE	28-04-2026
AMENDED	14-05-2026
SURVEYOR	TH/BN
DRAWN	GM/TH
CHECKED	

DRAWING No:

MPA0426
(as surveyed)

CCAD6 JOB & DWG:
MPA0426_gm - MPA0426 as survey

APPENDIX D BRINE COMPOSITION DATA

Parameter	Values from 1999 SEE Average[b]	2003 – 2006 Average[b]	July 2017 - Dec 2017 Average[a]	July 2019 – June 2020 Average[c]	July 2020 – June 2021 Average[d]	July 2021 – June 2022 Average Waste Pond A[e]	July 2021 – June 2022 Average Waste Pond B[e]	July 2022 – June 2023 Average Waste Pond A[f]	July 2022 – June 2023 Average Waste Pond B[f]	July 2023 – June 2024 Average Waste Pond A[g]	July 2023 – June 2024 Average Waste Pond B[g]	July 2024 – December 2025 Average Waste Pond A[h]	July 2024 – December 2025 Average Waste Pond B[h]	January 2026 – June 2026 Average Waste Pond A[i]	January 2026 – June 2026 Average Waste Pond B[i]
pH	7.9	8.1	7.9	9.3	8.75	10	10	10	9.82	11	11	10.5	10.7	10.31	10.66
Cond (us/cm)	63,664	127,982	88,556	61,320	73,196	58,797	51,302	68,118	67,757	69,253	64,596	68,330	66,702	63,460	76,967
Cl (mg/L)	19,864	23,889	10,390	7,776	8,270	10,298	7,905	9,700	8,887	7567	4927	7,452	4,763	6,590	7,125
F	21.178*	125.66	65	55	73	38	48	46	72.00	62	62	71	79	128	106
SO_4 (mg/L)	49,670	66,767	67,378	28,302	47,395	19,172	7,943	12,934	10,602	22,171	16,308	22,949	17,208	22,603	24,981
Na (mg/L)	25,678	30,103	37,400	23,475	28,694	19,797	17,305	26,418	28,685	28,456	26,724	26,470	27,659	20,900	30,800
K (mg/L)	4,258	7,362	3,460	1,721	2,518	1,738	1,498	2,380	2,045	1938	1580	1683	1750	1,315	2,155
Ca (mg/L)	645	606	780	696	458	146	29	164	22	25	26	43	26	21	31
Mg (mg/L)	5,480	9,010	4,010	1,540	2,541	88	57	194	71	43	50	76	34	18	22
ug/L															
As	409^^^	143	438	522	199	209	209	225	255	663	310	2688	449	11,800	3631
Ag	1.4^^	<50	10	<1	<1	4.7	6.6	5.5	5.7	5.7	4.9	<10	<10	< 10	< 10
Ba	272*	30	1,000	6.43	116	95	5.9	136	11	14	5.3	37.6	14	95	23
Be	17^	5.8	-	<10	<10	5	5	5.5	5.7	5.7	5	<10	<10	< 10	< 10
B	73,560*	115,000	35,800	41,500	9,570	4,738	2,847	6,897	3,612	4841	3152	9022	4178	24,750	12,710
Cd	19+	42	5.3	2.3	3.58	4	2.7	4.5	4.1	4	2.5	12.5	1.7	42	13
Cr ***	49+	<50	1,050	50	40.4	34	48	26	53	79	97	146.5	209.5	164	120
Cu	7,858*	7,197	12,400	5,991	4,626	764	237	1,746	245	422	365	698.7	448	1,285	576
Fe	833*	-	1,580	151	340	884	201	172	234	160	113	380	876	110	138
Hg	1.35^^	-	0.04	0.11	0.23	0.23	0.23	0.19	0.14	0.14	0.4	< 0.4	0.7	0.14	< 0.4
Mn	17,530*	34,000	7,210	5,170	231	427	17	639	20	59	16	275	60.8	158	45
Mo	2,600^^	-	-	2,625	2,490	5,146	4,877	8,505	8,602	7096	6317	9413	7355	17,500	12,090
Ni	4,187*	4,017	3,880	348	1,570	492	309	808	455	367	307	553	276.7	642	606
Pb	6^^	-	10	<10	11.6	7.2	5	25	6.1	7.4	5.3	24	13	39	12
Se	245*	-	130	115	114	99	50	166	68	564	119	2789	264.5	9,425	2578
Zn	2,020*	-	1,050	2,180	1,373	1,477	223	3,679	336	493	377	779	288	782.5	311.5

a. Brine composition data provided by EnergyAustralia on 01 August 2018;
b. Connell Wagner (2007). Statement of Environmental Effects, Mount Piper Power Station, Extension of Brine Conditions Ash Placement Area. Prepared by Environmental Services, Pacific Power International for Delta Electricity, 21 June 2007.
c. data based on Nalco monitoring point reference 1050, EA BC Waste Pond
Notations relate to Average Trace element values, from 1999 Statement of Environmental Effects including:
* mostly 10 – 15 analyses (sources Hodgson, 1999) – AWT, 1996
** EPA (1999a) ^ one analysis ^^ 3 analyses ^^^ 5 analyses + 6 analyses
*** Total chromium reported (CrVI <25ug/l)
d. Brine composition data provided by EnergyAustralia in July 2021 – combined data of BC Waste Pond A & B.
e. Brine composition data provided by EnergyAustralia in August 2022 – averages of data for BC Waste Pond A & BC Pond B.
f. Brine composition data provided by EnergyAustralia on July 2023 – averages of data for BC Waste Pond A & BC Pond B.
g. Brine composition data provided by EnergyAustralia on July 2024 - averages of data for BC Waste Pond A & BC Pond B.
h. Brine composition data provided by EnergyAustralia on January 2026 - averages of data for BC Waste Pond A & BC Pond B.
i. Brine composition data provided by EnergyAustralia on July 2026 - averages of data for BC Waste Pond A & BC Pond B.

APPENDIX E STORMWATER FLOW VOLUME DATA

Mt Piper Power Station - LDP12 (formerly LDP01) discharge volumes

Date	Kilolitres / day	Start Pump (hh.mm)	Cease Pumping (hh.mm)	Pump Duration (hrs)	Pump Rate (L/sec)
7/01/2026	995.31	1449	1700	2.050	134.87
8/01/2026	2354.42	745	1407	5.317	123.01
21/01/2026	2055.04	1245	1704	4.333	131.73
22/01/2026	1229.01	733	1027	2.917	117.05
13/03/2026	3044.10	1047	1651	6.083	139.00
25/03/2026	1652.22	1346	1701	3.267	140.50
26/03/2026	2576.05	905	1426	5.367	133.34
9/06/2026	2520.48	1145	1701	4.880	143.37
10/06/2026	4329.30	803	1640	8.633	139.30
25/06/2026	1605.57	1255	1637	3.267	136.53
26/06/2026	659.86	752	912	1.350	135.77
TOTAL	**23021**	**-**	**-**	**-**	**-**



APPENDIX F NALCO

6 Giffnock Avenue
Macquarie Park 2113
Phone: +61 (0) 2 8870 8433

ABN: 41 000 424 788

Ecolab | Nalco Water - Global Analytical & Microbiology

Quality assurance/quality control program (2026)

The laboratory's Quality assurance/quality control program ensures that sampling activities and analytical data is accurate, reliable and acceptable.

The Quality assurance/quality control program consists of both internal and external measures.

Internal

- Laboratory instrumentation and field equipment are calibrated at the correct intervals, as prescribed in the relevant NATA 'General equipment table'.
- Regular preventative maintenance is carried out on all key laboratory instrumentation and field equipment.
- Trip blanks (where appropriate) are supplied to monitor contamination.
- Certified reference materials are analysed routinely.
- Duplicate analysis is conducted to check precision.
- Laboratory blanks are analysed to monitor contamination.
- Quality control checks on media are performed.
- All records and subsequent reports are systematically checked.
- Quality control charts are used to statistically monitor trends in data.
- The laboratory is regularly internally audited.

External

- Ecolab Global Analytical & Microbiology laboratory participates in regular chemical and microbiological external proficiency testing programs as well as NATA audits as per their surveillance program.

Sampling and Data Collection

- All sampling is performed by trained personnel in accordance with procedure A-2.18 and relevant parts of Australian Standard 5667, for which NATA accreditation is held.
- Site measurements (Dissolved Oxygen, pH, Turbidity, Temperature and Conductivity) and sampling observations (water depth) are recorded and reported in accordance with procedure CA12125.

Sample Bottles

- Pre-labeled sample containers are used for routine sampling and testing.
- The sample bottles are prepared so that samples are preserved in accordance with Australian Standard 5667.1:1998 and Standard Methods for the Examination of Water and Wastewater, 22nd Edition (APHA).

Delivery of Samples

- Eskies and freezer packs are used to maintain the integrity of the samples during transport from the sampling sites to our preferred 3rd party lab ALS (Smithfield) and Sydney Water (West Ryde).

National Association of Testing Authorities, Australia

Scope of Accreditation

Ecolab Pty Ltd

Site

Global Analytical & Microbiology (GAM) – Mount Piper

Accreditation No.	Site No.	Date of Accreditation
1099	15339	22 Jul 2003

Address

350 Boulder Road
Portland, NSW 2847
Australia

ecolab.com/nalco-water

Contact

Mr Hoang Le
P: +61 0421158995
thle@ecolab.com

Availability

Services conditionally available to external clients

Global Analytical & Microbiology (GAM) – Mount Piper

ISO/IEC 17025 (2017)

Environment

SERVICE	PRODUCT	DETERMINANT	TECHNIQUE	PROCEDURE
Analysis for nutrients	Bore waters; Industrial waters - Treated; Potable waters; Surface waters	Silica - Molybdate reactive	UV-vis spectrophotometry	in-house method CA13430
Analysis for physical and chemical characteristics	Bore waters; Industrial waters - Treated; Potable waters; Surface waters	Hardness - Calcium	Titration	in-house method CA11046
		Hardness - Total	Titration	in-house method CA11046
		Alkalinity	Titration	in-house method CA11113
	Industrial waters - Treated; Potable waters	Chloride	Titration	in-house method CA11047

SERVICE	PRODUCT	DETERMINANT	TECHNIQUE	PROCEDURE
		Conductivity	Electrometric	APHA 2510 B in-house method CA11116
		pH	Electrometric	APHA 4500 H^+ B in-house method CA10004
		Sulfate	UV-vis spectrophotometry	in-house method CA11120
		Fluoride	Ion selective electrode (ISE)	APHA 4500 F^- C in-house method CA11145
		Solids - Suspended	Gravimetric	APHA 2540 D in-house method CA12119
		Turbidity	Nephelometry	APHA 2130 B in-house method CA10002
Analysis for physical and chemical characteristics Field analysis; In-situ analysis	Industrial waters - Treated; Potable waters	pH	Electrometric	APHA 4500 H^+ B in-house method CA12125
Analysis for physical and chemical characteristics Field analysis; In-situ analysis	Industrial waters - Treated; Potable waters	Conductivity - In situ	Electrometric	APHA 2510 B in-house method CA12125
		Temperature	Manual	APHA 2550 B in-house method CA12125
Sample collection	Bore waters; Surface waters	Not applicable	Grab	AS/NZS 5667.1 AS/NZS 5667.4 AS/NZS 5567.6 AS/NZS 5667.11 in-house method A-2.18

The only data displayed is that deemed relevant and necessary for the clear description of the activities and services covered by the scope of accreditation.

Grey text appearing in a SoA is additional freetext providing further refinement or information on the data in the preceding line entry.

Accreditation No.	Site No.	Print date
1099	15339	06 Jul 2026

END OF SCOPE

APPENDIX G HYDROGRAPHS

Figure G-1. Water Levels Over Time - Upgradient / Background Wells
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



Figure G-2. Water Levels Over Time - Cross-gradient MPAR / Adjacent MPAR North and Adjacent Wangcol Creek
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778

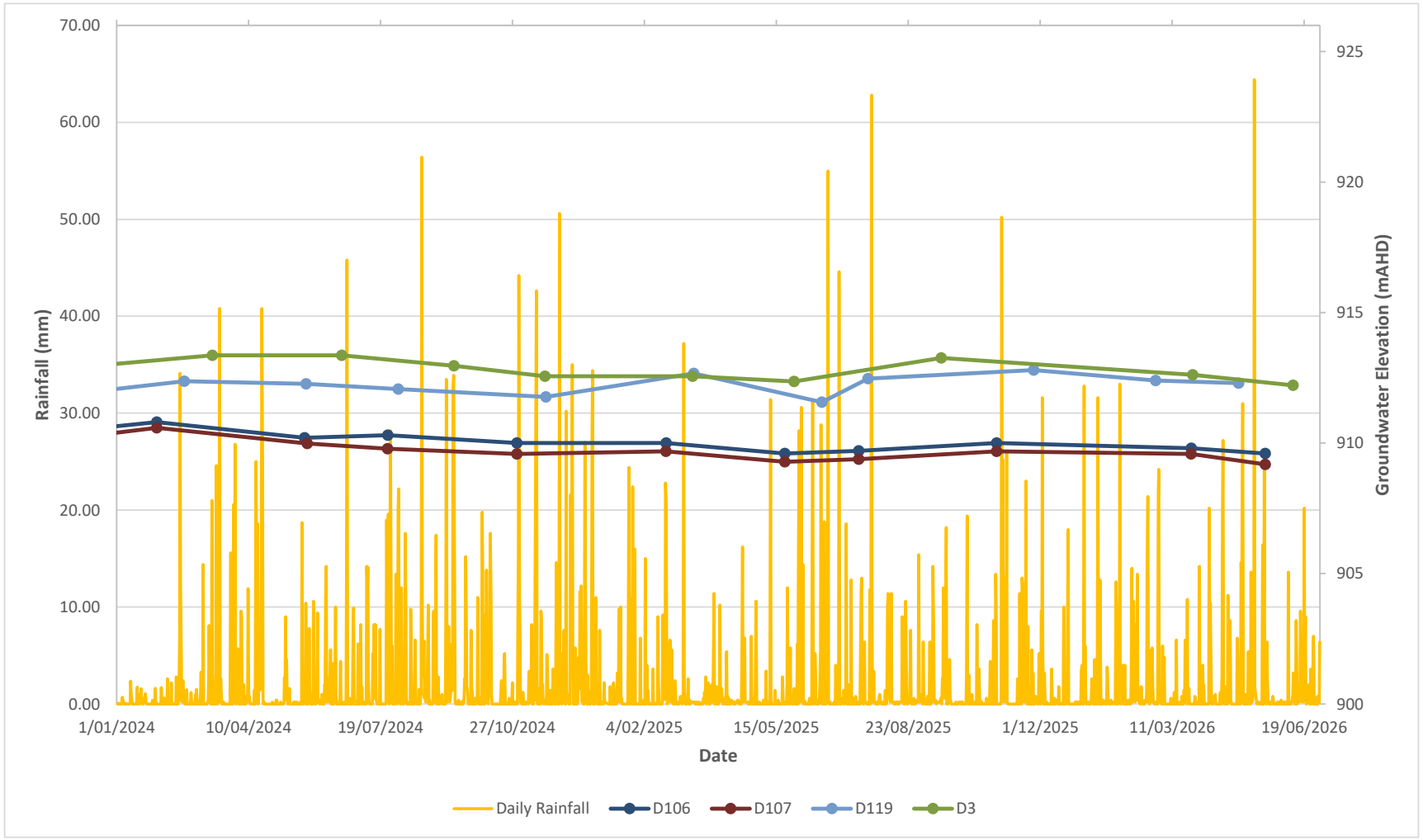
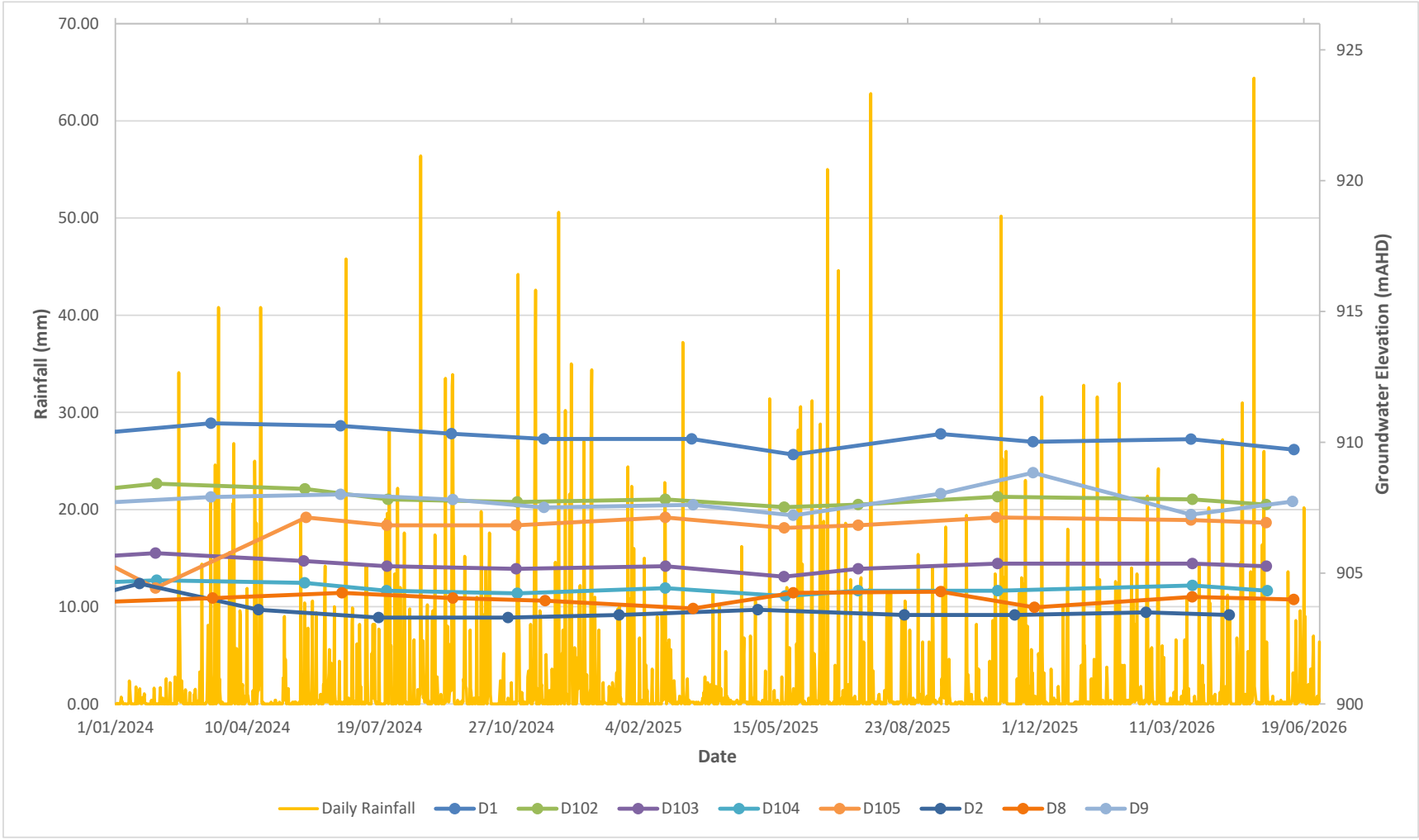


Figure G-3. Water Levels Over Time - Downgradient MPAR, areas Adjacent to Wangcol Creek
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



*

Figure G-4. Water Levels Over Time - Downgradient MPAR, LNAR (North) and Historical Mining Disturbance (East)
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778

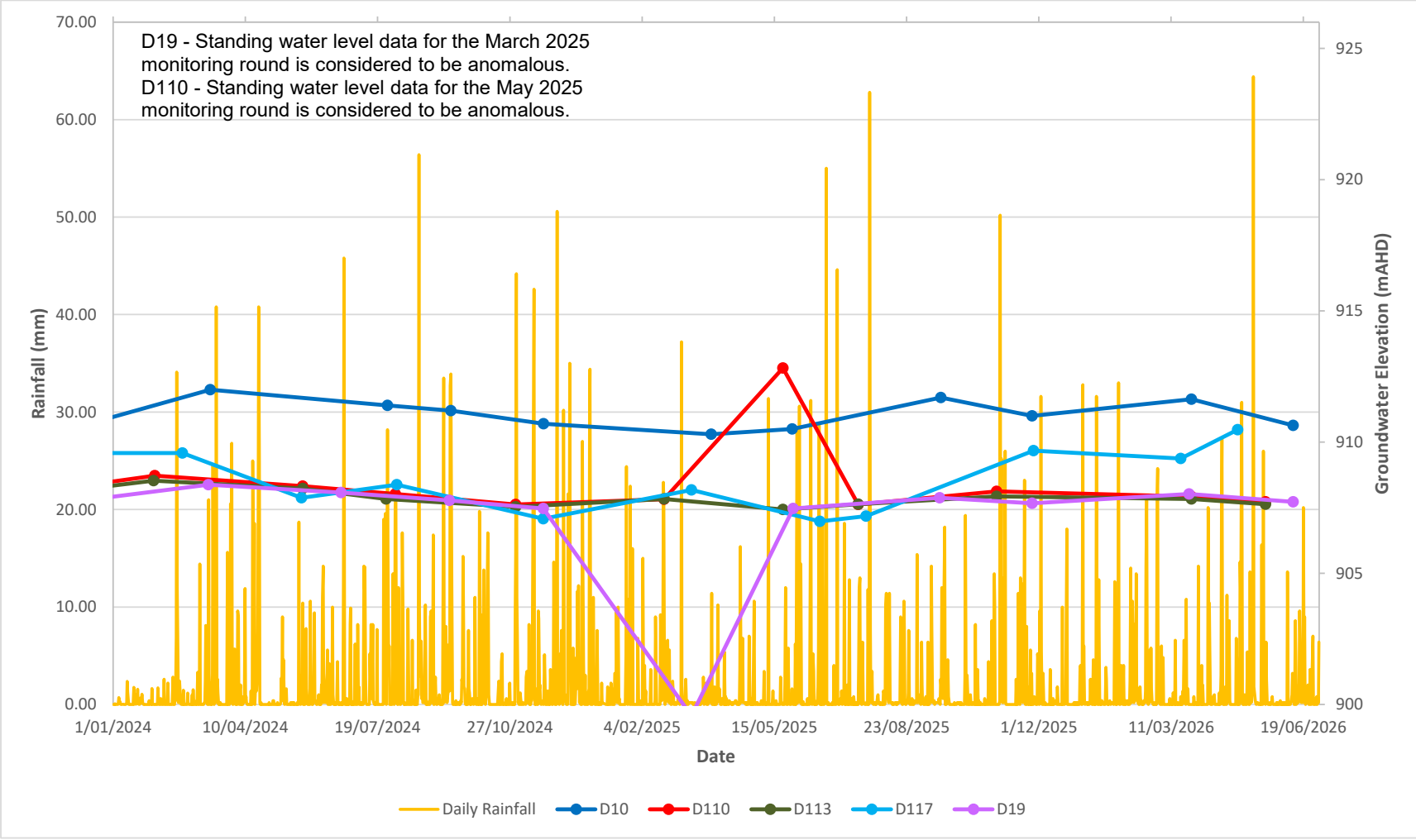


Figure G-5. Water Levels Over Time - Cross-gradient MPAR to the South, LNAR (South) and Historical Mining Disturbance
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778

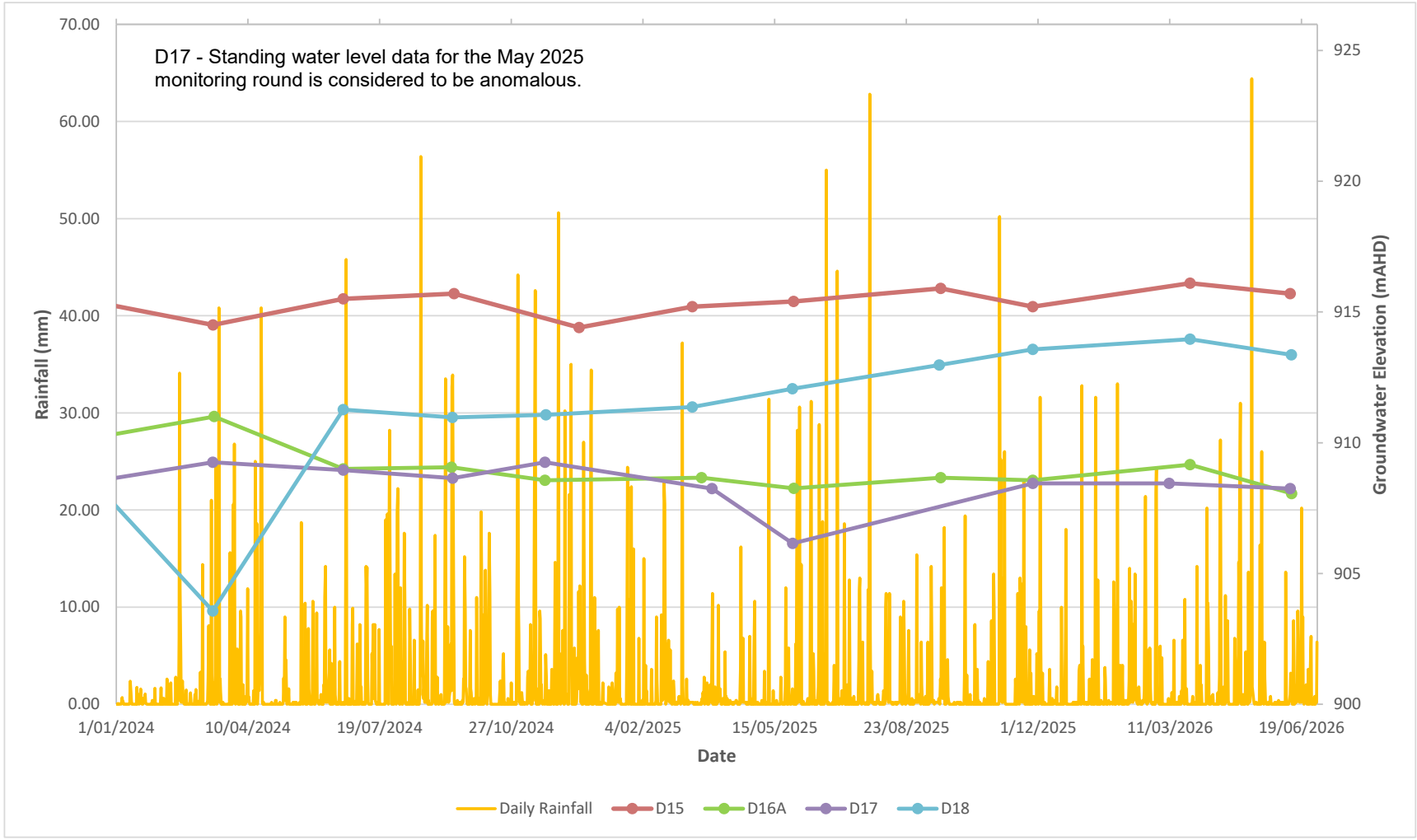
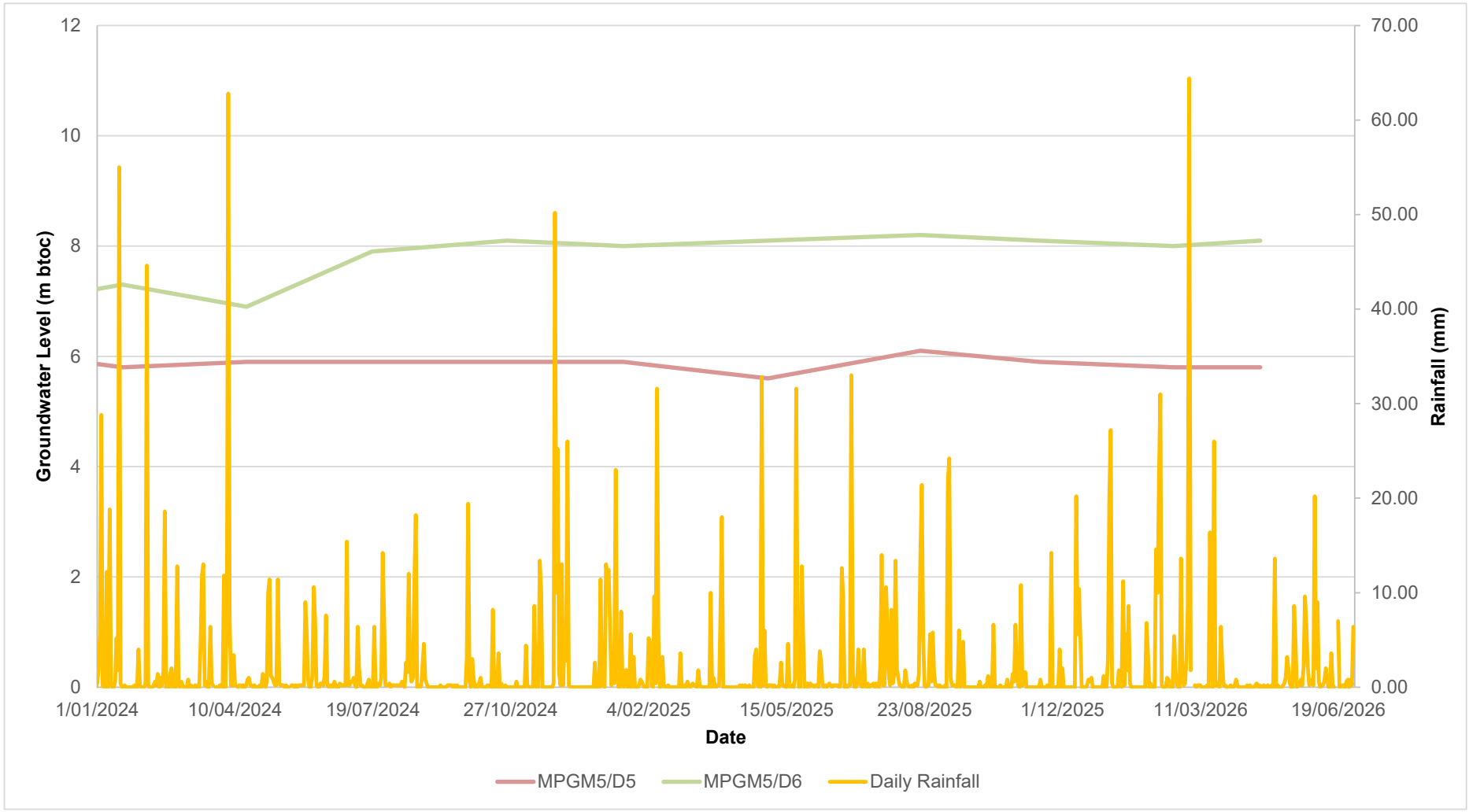


Figure G-6. Water Levels Over Time - Brine Waste Pond Leak Detection Bores
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



APPENDIX G – HYDROGEOLOGICAL PARAMETERS

Seepage velocities were estimated based on Darcy flux using the following equation.

$$\bar{v} = (K\ dh/dl)/n_{eff}$$

where:
- $\bar{v}$ is the seepage velocity (m/d);
- K is hydraulic conductivity (m/d) (ERM, 2023a);
- dh/dl is hydraulic gradient along the water table during the reporting period (m/m) (see below); and
- n_{eff} is the effective porosity (assumed based on the host geology and derived from the calibrated groundwater model).

Data for this assessment and its sources include:

- Groundwater elevation data, as presented in Figure 5a and Figure 5b;
- For the fill / mine spoil geological units, representative porosity (n_{eff}) and horizontal hydraulic conductivity (K, m/day) values were taken from the calibrated groundwater flow model in ERM (2023a). Although hydraulic conductivity values estimated from slug testing previously conducted at individual wells in this area indicated higher and lower values respectively (ERM, 2019), the field values likely represent localised conditions around each bore. By contrast, the K value from the calibrated model is likely to be more representative of conditions throughout the highly heterogeneous fill / mine spoil geological units; and
- For the host geological unit (overburden / Bunnyong sandstone), representative porosity (n_{eff}) and hydraulic conductivity values based on the calibrated groundwater flow model in ERM (2023a). The hydraulic conductivity value derived from slug testing of bore D102 (ERM, 2019) was similar to the model-based values.

The seepage velocity calculations are presented in Table G-1 and Table G-2, below.

INPUTS										
				K (m/day)						
Time Period	*Groundwater Wells*	*Transect (m)*	*Gological Unit*	*Upper*	*Lower*	*K (m/day)*	*Porosity*	*Groundwater Elevation D110 (mAHD)*	*Groundwater Elevation D103 (mAHD)*	*Comment*
Mar-26	D110-D103	550	Fill (mine spoil)	-	-	40	0.2	907.92	905.364	The most likely K value and porosity value obtained from the calibrated groundwater flow model (ERM, 2023).
May-26								907.72	905.264	

Mar-26				
Parameter	Unit	Upper	Lower	Model based
Hydraulic Conductivity (K)				
Calibrated Model Value	m/day	-	-	40
Effective Porosity (n_{eff})				
Calibrated Model Value	(0-1)	0.2		
Hydraulic Gradient (dh/dl)				
Calculated along inferred groundwater flow line from groundwater elevation data	m/m	-	-	0.0046

Seepage Velocity (v)		
Derived from $v=K((dh/dl)/n_{eff})$	Unit	**Seepage Velocity**
Upper	m/year	-
Lower		-
Estimated seepage velocity		339

May-26				
Parameter	Unit	Upper	Lower	Model based
Hydraulic Conductivity (K)				
Calibrated Model Value	m/day	-	-	40
Effective Porosity (n_{eff})				
Calibrated Model Value	(0-1)	0.2		
Hydraulic Gradient (dh/dl)				
Calculated along inferred groundwater flow line from groundwater elevation data	m/m	-	-	0.0045

Seepage Velocity (v)		
Derived from $v=K((dh/dl)/n_{eff})$	Unit	**Seepage Velocity**
Upper	m/year	-
Lower		-
Estimated seepage velocity		326

INPUTS										
				K (m/day)						
Time Period	*Groundwater Wells*	*Transect (m)*	*Gological Unit*	*Upper*	*Lower*	*K (m/day)*	*Porosity*	*Groundwater Elevation D110 (mAHD)*	*Groundwater Elevation D105 (mAHD)*	*Comment*
Mar-26	D110-D105	240	Bunnyong Sandston / Overburden	-	-	4	0.15	907.92	907.031	K and porosity values obtained from the calibrated groundwater flow model (ERM, 2023).
May-26								907.72	906.931	

Mar-26				
Parameter	Unit	Upper	Lower	Model based
Hydraulic Conductivity (K)				
Calibrated Model Value	m/day	-	-	4
Effective Porosity (n_{eff})				
Calibrated Model Value	(0-1)	0.15		
Hydraulic Gradient (dh/dl)				
Calculated along inferred groundwater flow line from groundwater elevation data	m/m	-	-	0.0037
Seepage Velocity (v)				
Derived from $v=K((dh/dl)/n_{eff})$	Unit	**Seepage Velocity**		
Upper	m/year	-		
Lower		-		
Estimated seepage velocity		36		

May-26				
Parameter	Unit	Upper	Lower	Model based
Hydraulic Conductivity (K)				
Calibrated Model Value	m/day	-	-	4
Effective Porosity (n_{eff})				
Calibrated Model Value	(0-1)	0.15		
Hydraulic Gradient (dh/dl)				
Calculated along inferred groundwater flow line from groundwater elevation data	m/m	-	-	0.0033
Seepage Velocity (v)				
Derived from $v=K((dh/dl)/n_{eff})$	Unit	**Seepage Velocity**		
Upper	m/year	-		
Lower		-		
Estimated seepage velocity		32		

APPENDIX H TABULATED GROUNDWATER DATA

				ANZ-Field Water Quality Parameters					Z-General Chemis		ANZ-Alkalinity					ANZ-Cations and Anions											
				pH - Field	Redox - Field	Dissolved Oxygen - Field	Volume Purged	Electrical Conductivity Field (non-compensated)	Dissolved Organic Carbon	Hardness as CaCO3	Alkalinity - P	Alkalinity - Total as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Sulphate as SO4 2-	Chloride	Fluoride	Total Dissolved Solids	Magnesium - Dissolved	Magnesium - Total	Potassium - Dissolved	Potassium - Total	Sodium - Dissolved	Sodium - Total	Calcium - Total	Calcium - Dissolved
			LOR	0	0	0.1	0	1	0.001	0.01	1	1	1	1	1	1	0.01	0.02	0.01	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
			Units	pH units	mV	mg/L	l	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			Action Levels																							
			MOUNT-PIPER-ANZECC/LOCAL SSTL-WG[1]	6.5 - 8				2600		200						1000	350	1.5	2000					180	180	1000	1000
Sample Location	**Date Sampled**	**Sample ID**	**Sample Type**																							
D1	25/03/2026	D1_20260325	N	**5.99**	**52.9**	**1.6**	**123**	**8759**	**23**	**2520**	< 1	**195**	**195**	< 1	< 1	**4100**	**707**	< 0.5	**8590**	**373**	**388**	**126**	**126**	**1380**	**1320**	**408**	**396**
	11/06/2026	D1_20260611	N	**6.02**	**244.1**	**2.5**	**117**	**8640**	**6**	**2350**	< 1	**190**	**190**	< 1	< 1	**4100**	**734**	**0.105**	**7390**	**351**	**375**	**114**	**122**	**1250**	**1350**	**391**	**364**
D10	26/03/2026	D10_20260326	N	**5.91**	**171.6**	**1**	**164**	**5709**	**2**	**1150**	< 1	**146**	**146**	< 1	< 1	**2510**	**354**	**0.335**	**4890**	**170**	**171**	**120**	**117**	**976**	**901**	**182**	**182**
	11/06/2026	D10_20260611	N	**5.9**	**319.2**	**1.3**	**149**	**7530**	**4**	**1460**	< 1	**155**	**155**	< 1	< 1	**3410**	**498**	**0.731**	**6090**	**219**	**227**	**150**	**153**	**1190**	**1270**	**232**	**224**
D102	26/03/2026	D102_20260326	N	**6.54**	**-45.7**	**5.9**	**15**	**8751**	**6**	**3180**	< 1	**83**	**83**	< 1	< 1	**3780**	**904**	< 0.5	**8660**	**453**	**462**	**75.4**	**72.4**	**1210**	**1140**	**535**	**528**
	21/05/2026	D102_20260521	N	**6.13**	**27.6**	**2.5**	**10**	**9520**	**9**	**3000**	< 1	**76**	**76**	< 1	< 1	**3690**	**896**	< 0.5	**7530**	**439**	**434**	**71.6**	**65.6**	**1150**	**1130**	**476**	**479**
D103	26/03/2026	D103_20260326	N	**6.17**	**92.9**	**2.6**	**36**	**4523**	**1**	**1400**	< 1	**178**	**178**	< 1	< 1	**2010**	**272**	< 0.2	**4050**	**203**	**211**	**39.8**	**39.6**	**597**	**564**	**228**	**227**
	21/05/2026	D103_20260521	N	**6.21**	**99.8**	**3.1**	**35**	**4878**	**3**	**1290**	< 1	**189**	**189**	< 1	< 1	**1790**	**240**	< 0.2	**3570**	**193**	**184**	**38.7**	**34.5**	**570**	**532**	**194**	**200**
D104	26/03/2026	D104_20260326	N	**5.95**	**28.9**	**3.6**	**7**	**1460**	< 1	**589**	< 1	**61**	**61**	< 1	< 1	**577**	**100**	< 0.05	**1250**	**75**	**73.7**	**10.9**	**10.5**	**102**	**93.5**	**107**	**112**
	22/05/2026	D104_20260522	N	**6.17**	**15.7**	**2.5**	**5**	**1245**	**4**	**372**	< 1	**84**	**84**	< 1	< 1	**319**	**75.3**	**0.064**	**668**	**49**	**46.4**	**10.3**	**8.97**	**79.5**	**75.5**	**64.7**	**68.1**
D105	25/03/2026	D105_20260325	N	**6.12**	**10.2**	**1.7**	**30**	**2928**	< 1	**1050**	< 1	**170**	**170**	< 1	< 1	**1170**	**203**	< 0.1	**2580**	**153**	**153**	**20.7**	**19.9**	**288**	**263**	**164**	**167**
	21/05/2026	D105_20260521	N	**6.18**	**18.5**	**1.2**	**29**	**2997**	**3**	**909**	< 1	**174**	**174**	< 1	< 1	**955**	**163**	< 0.1	**2030**	**137**	**133**	**19.3**	**17.7**	**259**	**247**	**133**	**138**
D106	25/03/2026	D106_20260325	N	**6.04**	**50.4**	**3.1**	**19**	**9150**	**6**	**2590**	< 1	**132**	**132**	< 1	< 1	**4390**	**864**	< 0.5	**8760**	**392**	**402**	**113**	**114**	**1530**	**1440**	**393**	**389**
	20/05/2026	D106_20260520	N	**6.02**	**47.2**	**2.4**	**17**	**10044**	**6**	**2410**	< 1	**171**	**171**	< 1	< 1	**3860**	**734**	< 0.2	**8090**	**374**	**370**	**118**	**111**	**1480**	**1430**	**342**	**348**
D107	25/03/2026	D107_20260325	N	**6.08**	**120.9**	**1.9**	**40**	**10212**	**5**	**2470**	< 1	**248**	**248**	< 1	< 1	**4770**	**808**	< 0.5	**9800**	**385**	**393**	**261**	**260**	**1780**	**1650**	**352**	**354**
	20/05/2026	D107_20260520	N	**6.12**	**1.9**	**2.3**	**39**	**11040**	**8**	**2300**	< 1	**249**	**249**	< 1	< 1	**4210**	**687**	< 0.5	**8620**	**364**	**361**	**248**	**232**	**1670**	**1630**	**318**	**321**
D110	26/03/2026	D110_20260326	N	**6.11**	**26.4**	**2.3**	**48**	**9213**	**8**	**3180**	< 1	**119**	**119**	< 1	< 1	**4270**	**943**	< 0.5	**9070**	**446**	**449**	**96**	**88.2**	**1380**	**1270**	**533**	**536**
	21/05/2026	D110_20260521	N	**6.07**	**16.6**	**2.3**	**47**	**9966**	**6**	**2920**	< 1	**149**	**149**	< 1	< 1	**4110**	**884**	< 0.5	**7870**	**419**	**407**	**88.1**	**78.6**	**1310**	**1260**	**467**	**479**
D113	26/03/2026	D113_20260326	N	**6.01**	**4.4**	**0.9**	**50**	**4656**	**2**	**1020**	< 1	**162**	**162**	< 1	< 1	**1920**	**262**	< 0.2	**3850**	**145**	**146**	**92.2**	**85.2**	**732**	**672**	**169**	**171**
	21/05/2026	D113_20260521	N	**6.13**	**22.3**	**2.5**	**49**	**4808**	**6**	**898**	< 1	**170**	**170**	< 1	< 1	**1600**	**212**	**0.256**	**3290**	**129**	**126**	**84.1**	**78.4**	**670**	**654**	**147**	**147**
D117	18/03/2026	D117_20260318	N	**6.12**	**294.7**	**5.2**	**132**	**4671**	< 1	**1570**	< 1	**116**	**116**	< 1	< 1	**2240**	**125**	**1.74**	**4580**	**132**	**130**	**141**	**140**	**497**	**487**	**412**	**413**
	30/04/2026	D117_20260430	N	**6.15**	**86.9**	**3.5**	**232**	**4118**	**1**	**1570**	< 1	**191**	**191**	< 1	< 1	**1350**	**82.5**	**0.553**	**3600**	**186**	**194**	**88.5**	**89.5**	**427**	**446**	**338**	**324**
D119	26/02/2026	D119_20260226	N	**6.17**	**-18.2**	**2.4**	**28**	**2112**	**6**	**444**	< 1	**124**	**124**	< 1	< 1	**803**	**98.9**	**0.245**	**1430**	**52.1**	**52.2**	**32.3**	**31.1**	**261**	**255**	**92.8**	**91.7**
	30/04/2026	D119_20260430	N	**5.99**	**80.7**	**2**	**27**	**2089**	**2**	**457**	< 1	**127**	**127**	< 1	< 1	**667**	**73.8**	**0.105**	**1550**	**60.9**	**63.3**	**36.3**	**37**	**260**	**270**	**85.5**	**82.4**
D15	26/03/2026	D15_20260326	N	**6.09**	**216.8**	**1.8**	**35**	**2012**	< 1	**348**	< 1	**160**	**160**	< 1	< 1	**749**	**82.5**	< 0.1	**1400**	**35.8**	**36.3**	**27**	**27.1**	**303**	**285**	**79.7**	**80.3**
	10/06/2026	D15_20260610	N	**6.05**	**92.1**	**1.9**	**32**	**2065**	**2**	**348**	< 1	**145**	**145**	< 1	< 1	**756**	**85**	< 0.5	**1350**	**35.9**	**36.7**	**26**	**29.6**	**281**	**292**	**81.2**	**80**
D16a	26/03/2026	D16A_20260326	N	**7.57**	**53.8**	**6.3**	**130**	**1042**	< 1	**459**	< 1	**421**	**421**	< 1	< 1	**162**	**17.5**	**0.479**	**698**	**40.5**	**40.7**	**23.5**	**23**	**67.7**	**61.5**	**117**	**117**
	11/06/2026	D16A_20260611	N	**7.01**	**235.7**	**2.6**	**123**	**1066**	**1**	**411**	< 1	**453**	**453**	< 1	< 1	**139**	**17**	**0.727**	**652**	**36.2**	**36**	**21.1**	**22.5**	**74.9**	**75.3**	**104**	**105**
D17	10/03/2026	D17_20260310	N	**7.14**	**196.9**	**4.8**	**1**	**1621**	**3**	**669**	< 1	**398**	**398**	< 1	< 1	**528**	**65.7**	**0.294**	**1540**	**77**	**143**	**16.6**	**43**	**101**	**113**	**245**	**141**
	10/06/2026	D17_20260610	N	**6.32**	**58.4**	**2.3**	**31**	**2044**	**1**	**832**	< 1	**242**	**242**	< 1	< 1	**784**	**72.7**	**0.121**	**1510**	**99.5**	**96.9**	**18**	**19.2**	**140**	**136**	**166**	**169**
D18	26/03/2026	D18_20260326	N	**6.78**	**139.8**	**2.1**	**5**	**653**	< 1	**321**	< 1	**343**	**343**	< 1	< 1	**15.8**	**8.89**	**0.51**	**418**	**29.1**	**29.3**	**18.7**	**18.4**	**19.2**	**18.3**	**80.2**	**80.4**
	11/06/2026	D18_20260611	N	**6.68**	**289.1**	**3**	**35**	**650**	**1**	**308**	< 1	**354**	**354**	< 1	< 1	**11.1**	**8.35**	**0.532**	**361**	**28.1**	**28.1**	**17.8**	**19.1**	**15.8**	**16.8**	**76.6**	**77**
D19	24/03/2026	D19_20260324	N	**6.02**	**-24**	**1.9**	**14**	**4552**	**2**	**992**	< 1	**165**	**165**	< 1	< 1	**1950**	**267**	< 0.2	**3560**	**142**	**145**	**83.7**	**80.3**	**701**	**656**	**165**	**163**
	11/06/2026	D19_20260611	N	**6.11**	**194.2**	**2.6**	**12.6**	**4183**	**3**	**867**	< 1	**171**	**171**	< 1	< 1	**1740**	**246**	**0.32**	**3220**	**125**	**125**	**70.7**	**70.6**	**606**	**636**	**140**	**141**
D2	19/02/2026	D2_20260219	N	**6.08**	**-61.3**	**1.7**		**1030**	**45**	**256**	< 1	**36**	**36**	< 1	< 1	**1130**	**161**	**0.333**	**745**	**35**	**32.1**	**11.4**	**9.89**	**118**	**107**	**42.5**	**45**
	23/04/2026	D2_20260423	N	**6.02**	**106.8**	**2.6**	**57**	**1661**	**31**	**400**	< 1	**35**	**35**	< 1	< 1	**716**	**87.8**	**0.119**	**1230**	**54.7**	**57.2**	**16.7**	**15.6**	**177**	**180**	**72.1**	**70.1**
D3	26/03/2026	D3_20260326	N	**6.34**	**-3.5**	**2.2**	**208**	**1044**	**3**	**398**	< 1	**215**	**215**	< 1	< 1	**188**	**95.7**	**0.088**	**714**	**51**	**52.6**	**9.48**	**9.15**	**71.2**	**69.6**	**77.7**	**75.2**
	10/06/2026	D3_20260610	N	**6.14**	**196.5**	**2.3**	**199**	**869**	**2**	**354**	< 1	**157**	**157**	< 1	< 1	**231**	**42.7**	< 0.5	**572**	**41.1**	**40.8**	**9.86**	**11.1**	**39.8**	**38.2**	**72.5**	**73.8**
D4	18/02/2026	D4_20260218	N	**3.51**	**260.8**	**3.9**	**81**	**610**	**6**	**61.1**	< 1	< 1	< 1	< 1	< 1	**567**	**45.5**	**0.103**	**603**	**7.38**	**6.7**	**8.88**	**7.98**	**19.5**	**18.5**	**11.4**	**12.3**
	23/04/2026	D4_20260423	N	**3.5**	**509.1**	**0.8**	**126**	**624**	**2**	**54.6**	< 1	< 1	< 1	< 1	< 1	**245**	**17**	**0.074**	**496**	**6.53**	**7.12**	**9.51**	**9.21**	**18.5**	**20.2**	**11.8**	**11.1**
D5	18/02/2026	D5_20260218	N	**5.89**	**-94.8**	**1.1**	**267**	**1191**	**2**	**533**	< 1	**69**	**69**	< 1	< 1	**1550**	**86.3**	**0.473**	**1010**	**67.6**	**61.1**	**10.6**	**9.31**	**33.6**	**30.8**	**93.2**	**102**
	23/04/2026	D5_20260423	N	**5.9**	**92.9**	**1.7**	**262**	**1167**	**2**	**479**	< 1	**88**	**88**	< 1	< 1	**471**	**22.1**	**0.173**	**891**	**60.4**	**63.2**	**11**	**10.3**	**31.9**	**33.4**	**94.4**	**92.4**
D8	26/03/2026	D8_20260326	N	**5.37**	**94.3**	**5.5**	**50**	**357**	**2**	**139**	< 1	**8**	**8**	< 1	< 1	**119**	**20.9**	< 0.02	**298**	**18.5**	**18.6**	**2.86**	**2.79**	**14.1**	**12.9**	**25.5**	**25.3**
	11/06/2026	D8_20260611	N	**5.51**	**245.7**	**6.7**	**40**	**367**	**2**	**140**	< 1	**9**	**9**	< 1	< 1	**125**	**18**	< 0.05	**225**	**18.9**	**18.2**	**2.69**	**3.13**	**15.4**	**13.7**	**24.5**	**24.9**
D9	25/03/2026	D9_20260325	N	**6.17**	**8.4**	**1.8**	**12**	**9326**	**6**	**3040**	< 1	**148**	**148**	< 1	< 1	**417**	**83.7**	< 0.05	**8980**	**426**	**424**	**97.2**	**99.7**	**1420**	**1300**	**511**	**515**
	10/06/2026	D9_20260610	N	**6.14**	**114.4**	**2.6**	**15**	**9259**	**6**	**2710**	< 1	**156**	**156**	< 1	< 1	**4230**	**879**	**0.119**	**8000**	**387**	**411**	**95.1**	**101**	**1290**	**1390**	**477**	**446**
MPGM5-D5	19/02/2026	MPGM5-D5_20260219	N	**6.77**	**-23.1**	**1.1**	**32**	**38306**	**160**	**3530**	< 1	**3040**	**3040**	< 1	< 1	**59200**	**17100**	**5.7**	**35700**	**651**	**685**	**426**	**442**	**11200**	**11200**	**364**	**342**
	23/04/2026	MPGM5-D5_20260423	N	**6.8**	**62.6**	**1.5**	**15**	**34539**	**59**	**3630**	< 1	**2790**	**2790**	< 1	< 1	**16300**	**3460**	**< 2**	**32000**	**670**	**677**	**397**	**397**	**9900**	**9830**	**356**	**350**
MPGM5-D6	19/02/2026	MPGM5-D6_20260219	N	**6.71**	**-102**	**1.7**	**10**	**9550**	**31**	**1110**	< 1	**1680**	**1680**	< 1	< 1	**16300**	**8940**	**2**	**7160**	**222**	**207**	**29.2**	**25.8**	**2180**	**2060**	**72.3**	**77.1**
	23/04/2026	MPGM5-D6_20260423	N	**6.69**	**69.8**	**2.6**	**5**	**6297**	**21**	**677**	< 1	**1140**	**1140**	< 1	< 1	**1510**	**636**	< 0.5	**4230**	**134**	**142**	**22.2**	**21.5**	**1220**	**1310**	**52.3**	**50.1**

				ANZ-Field Wate		ANZ-Metals																								ANZ-Nutrients								Cyanide
				pH - Field	Redox - Field	Aluminium - Dissolved	Antimony - Dissolved	Arsenic - Dissolved	Barium - Dissolved	Beryllium - Dissolved	Boron - Dissolved	Cadmium - Dissolved	Chromium - Dissolved	Cobalt - Dissolved	Copper - Dissolved	Iron - Dissolved	Lead - Dissolved	Manganese - Dissolved	Mercury - Dissolved	Molybdenum - Dissolved	Nickel - Dissolved	Selenium - Dissolved	Silver - Dissolved	Vanadium - Dissolved	Zinc - Dissolved	Arsenic (V) - Total	Chromium (III) - Total	Chromium (VI) - Total	Iron - Total	Arsenic (III) - Total	Ammonia as N	Nitrate as N	Nitrite as N	Nitrite + Nitrate as N	Total Kjeldahl Nitrogen as N	Total Nitrogen	Total Phosphorus	Orthophosphate as P	Cyanide CN-
			LOR	0	0	5	1	1	1	1	50	0.1	1	1	1	50	1	1	0.04	1	1	0.2	0.1	0.2	5	1	1	1	50	1	0.01	0.01	0.01	0.01	0.0001	0.0001	0.01	0.01	0.002
			Units	pH units	mV	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			Action Levels																																				
			MOUNT-PIPER-ANZECC/LOCAL SSTL-WG[1]	6.5 - 8		0.8	9	24	700	100	370	2	5	1.4	5	664	5	5704	0.06	10	550.9	5	0.05	6	908	13	3.3	1	664	24	0.9	2.6 | 29	10	0.015		0.25	0.02	0.015	0.007
Sample Location	Date Sampled	Sample ID	Sample Type																																				
D1	25/03/2026	D1_20260325	N	6.12	10.2	< 5	< 1	< 1	14	< 1	3230	< 0.1	< 1	248	7	31800	< 1	14600	< 0.04	< 1	1540	< 0.2	< 0.1	1.1	121	1.1	< 1	< 1	34100	6.7	0.64	< 0.01	< 0.01	< 0.01	1.2	1.2	< 0.01	< 0.01	< 0.002
	11/06/2026	D1_20260611	N	6.02	244.1	7	5	3	21	< 1	3280	< 0.1	< 1	254	< 1	24300	< 1	15900	< 0.04	< 1	1570	< 0.2	< 0.1	1	112				37600		0.47	< 0.01	< 0.01	< 0.01	1.2	1.2	< 0.01	< 0.01	< 0.002
D10	26/03/2026	D10_20260326	N	5.91	171.6	79	< 1	6	15	1	2300	0.8	< 1	138	< 1	8650	6	4020	< 0.04	4	550	0.2	< 0.1	0.4	388	1.5	< 1	< 1	8600	3.9	0.47	< 0.01	< 0.01	< 0.01	1.1	1.1	0.02	< 0.01	< 0.002
	11/06/2026	D10_20260611	N	5.9	319.2	74	< 1	3	17	< 1	3210	1.5	< 1	192	< 1	7570	6	5800	< 0.04	6	763	0.5	< 0.1	0.3	532				9000		0.38	< 0.01	< 0.01	< 0.01	1	1	0.01	0.01	< 0.002
D102	26/03/2026	D102_20260326	N	6.54	-45.7	< 5	< 1	< 1	18	< 1	1660	< 0.1	< 1	177	< 1	37700	< 1	12600	< 0.04	< 1	1500	< 0.2	< 0.1	0.8	52	< 1	< 1	< 1	47200	< 1	0.47	< 0.01	< 0.01	< 0.01	1.4	1.4	< 0.01	< 0.01	< 0.002
	21/05/2026	D102_20260521	N	6.13	27.6	< 5	< 1	< 1	21	< 1	1170	0.2	< 1	185	30	45600	< 1	12900	< 0.04	< 1	1530	0.3	< 0.1	0.5	133				67700		0.39	< 0.01	< 0.01	< 0.01	1.6	1.6	< 0.01	< 0.01	< 0.002
D103	26/03/2026	D103_20260326	N	6.17	92.9	< 5	2	4	17	< 1	2050	< 0.1	< 1	219	6	19600	< 1	11200	< 0.04	< 1	931	< 0.2	< 0.1	< 0.2	144	< 1	< 1	< 1	20100	3.2	0.21	< 0.01	< 0.01	< 0.01	0.5	0.5	< 0.01	< 0.01	< 0.002
	21/05/2026	D103_20260521	N	6.21	99.8	< 5	< 1	4	18	< 1	1780	< 0.1	< 1	222	< 1	18900	< 1	11200	< 0.04	< 1	929	0.3	< 0.1	< 0.2	109				28500		0.23	< 0.01	< 0.01	< 0.01	0.6	0.6	0.03	< 0.01	< 0.002
D104	26/03/2026	D104_20260326	N	5.95	28.9	< 5	< 1	< 1	47	< 1	< 50	0.1	< 1	16	2	6710	< 1	3400	< 0.04	< 1	66	< 0.2	< 0.1	< 0.2	64	< 1	< 1	< 1	11400	< 1	0.11	0.02	< 0.01	0.02	0.3	0.3	< 0.01	< 0.01	< 0.002
	22/05/2026	D104_20260522	N	6.17	15.7	6	< 1	12	55	< 1	130	< 0.1	< 1	10	< 1	11600	< 1	2300	< 0.04	< 1	52	0.2	< 0.1	< 0.2	13				20500		0.14	< 0.01	< 0.01	< 0.01	0.6	0.6	0.06	0.02	< 0.002
D105	25/03/2026	D105_20260325	N	6.12	10.2	< 5	< 1	< 1	14	< 1	460	< 0.1	< 1	121	< 1	13400	< 1	8850	< 0.04	< 1	517	< 0.2	< 0.1	< 0.2	40	< 1	< 1	< 1	20000	< 1	0.12	< 0.01	< 0.01	< 0.01	0.3	0.3	0.05	< 0.01	< 0.002
	21/05/2026	D105_20260521	N	6.18	18.5	< 5	< 1	< 1	16	< 1	320	< 0.1	< 1	113	< 1	17900	< 1	8320	< 0.04	< 1	488	0.2	< 0.1	< 0.2	40				28000		0.12	0.01	< 0.01	0.01	0.3	0.3	0.01	< 0.01	< 0.002
D106	25/03/2026	D106_20260325	N	6.04	50.4	< 5	< 1	< 1	17	< 1	2970	0.4	< 1	161	6	9720	< 1	8740	< 0.04	< 1	1330	1.8	< 0.1	0.5	236	< 1	< 1	< 1	12300	< 1	0.29	1.51	0.04	1.55	1.2	2.8	< 0.01	< 0.01	< 0.002
	20/05/2026	D106_20260520	N	6.02	47.2	< 5	< 1	2	20	< 1	2710	0.2	< 1	222	< 1	17500	< 1	10800	< 0.04	< 1	1530	2.2	< 0.1	0.8	179				25800		0.32	0.5	< 0.01	0.5	1.1	1.6	< 0.01	< 0.01	< 0.002
D107	25/03/2026	D107_20260325	N	6.08	120.9	< 5	< 1	6	15	< 1	5780	0.8	< 1	226	21	18600	10	9270	< 0.04	< 1	1390	< 0.2	< 0.1	0.9	301	1.2	< 1	< 1	18800	4.1	0.32	< 0.01	< 0.01	< 0.01	1.3	1.3	0.01	< 0.01	< 0.002
	20/05/2026	D107_20260520	N	6.12	1.9	< 5	< 1	6	17	< 1	4750	1	< 1	228	< 1	18800	10	9310	< 0.04	< 1	1380	0.5	< 0.1	1	305				30200		0.34	< 0.01	< 0.01	< 0.01	1.2	1.2	< 0.01	< 0.01	< 0.002
D110	26/03/2026	D110_20260326	N	6.11	26.4	6	< 1	4	16	< 1	2320	< 0.1	2	226	36	39600	2	13600	< 0.04	7	1690	0.4	< 0.1	1.5	189	1.3	2	< 1	55000	5.6	0.41	0.04	< 0.01	0.04	1.5	1.5	0.01	< 0.01	< 0.002
	21/05/2026	D110_20260521	N	6.07	16.6	< 5	< 1	2	15	< 1	2090	< 0.1	< 1	229	< 1	11700	< 1	13100	< 0.04	3	1690	0.9	< 0.1	1.3	167				66300		0.43	0.03	< 0.01	0.03	1.4	1.4	0.02	< 0.01	< 0.002
D113	26/03/2026	D113_20260326	N	6.01	4.4	8	< 1	1	10	< 1	2000	0.3	< 1	144	< 1	12700	4	5320	< 0.04	< 1	566	< 0.2	< 0.1	0.4	254	< 1	< 1	< 1	13500	< 1	0.23	< 0.01	< 0.01	< 0.01	0.6	0.6	0.01	< 0.01	< 0.002
	21/05/2026	D113_20260521	N	6.13	22.3	< 5	< 1	< 1	14	< 1	1700	0.2	< 1	131	1	8860	< 1	4940	< 0.04	1	519	0.7	< 0.1	0.4	301				17100		0.31	0.05	< 0.01	0.05	1.1	1.2	0.04	< 0.01	0.003
D117	18/03/2026	D117_20260318	N	6.12	294.7	897	4	1	27	2	13700	25.1	< 1	96	5	< 50	1	8160	< 0.04	288	301	123	< 0.1	1.4	762	1.1	< 1	< 1	19500	< 1	0.28	2.74	< 0.01	2.74	1.4	4.1	0.06	< 0.01	< 0.002
	30/04/2026	D117_20260430	N	6.15	86.9	432	2	< 1	20	1	10600	8.1	< 1	142	< 1	1230	< 1	17800	< 0.04	97	368	50.2	< 0.1	0.3	315				1770		0.27	0.72	< 0.01	0.72	0.6	1.3	< 0.01	< 0.01	< 0.002
D119	26/02/2026	D119_20260226	N	6.17	-18.2	< 5	< 1	8	18	< 1	320	< 0.1	< 1	87	3	15200	2	1640	< 0.04	6	181	0.8	< 0.1	0.3	389	< 1	< 1	< 1	19200	< 1	0.67	0.35	< 0.01	0.35	50.5	50.8	2.45	< 0.01	< 0.002
	30/04/2026	D119_20260430	N	5.99	80.7	13	< 1	5	14	< 1	440	< 0.1	< 1	83	< 1	14600	< 1	1740	< 0.04	3	166	0.4	< 0.1	0.2	141				20100		0.43	0.04	< 0.01	0.04	1	1	< 0.01	< 0.01	< 0.002
D15	26/03/2026	D15_20260326	N	6.09	216.8	< 5	< 1	8	22	< 1	80	< 0.1	< 1	136	< 1	3010	< 1	741	< 0.04	1	198	0.4	< 0.1	< 0.2	142	1.6	< 1	< 1	3750	6	0.53	0.05	< 0.01	0.05	0.8	0.8	< 0.01	< 0.01	< 0.002
	10/06/2026	D15_20260610	N	6.05	92.1	7	< 1	25	15	< 1	70	< 0.1	< 1	149	< 1	10100	< 1	770	< 0.04	< 1	212	< 0.2	< 0.1	< 0.2	118				18000		0.4	0.06	< 0.01	0.06	12.3	12.4	0.61	< 0.01	< 0.002
D16a	26/03/2026	D16A_20260326	N	7.57	53.8	< 5	< 1	< 1	67	< 1	< 50	< 0.1	< 1	3	1	< 50	< 1	156	< 0.04	8	14	0.3	< 0.1	< 0.2	74	< 1	< 1	< 1	530	< 1	0.4	0.25	< 0.01	0.25	0.7	1	0.02	< 0.01	< 0.002
	11/06/2026	D16A_20260611	N	7.01	235.7	< 5	< 1	< 1	82	< 1	< 50	< 0.1	< 1	< 1	2	60	< 1	111	< 0.04	3	4	< 0.2	< 0.1	< 0.2	48				1550		0.32	0.02	< 0.01	0.02	0.5	0.5	< 0.01	< 0.01	< 0.002
D17	10/03/2026	D17_20260310	N	7.14	196.9	< 5	9	6	21	< 1	< 50	< 0.1	< 1	< 1	< 1	610	< 1	558	< 0.04	32	15	< 0.2	< 0.1	0.5	< 5	< 1	< 1	< 1	590000	6	1.25	0.04	< 0.01	0.04	32.6	32.6	7.65	< 0.01	< 0.002
	10/06/2026	D17_20260610	N	6.32	58.4	< 5	< 1	1	16	< 1	< 50	< 0.1	< 1	3	< 1	16300	< 1	1460	< 0.04	< 1	16	< 0.2	< 0.1	0.5	19				14800		0.12	< 0.01	< 0.01	< 0.01	0.3	0.3	< 0.01	< 0.01	< 0.002
D18	26/03/2026	D18_20260326	N	6.78	139.8	< 5	< 1	1	574	< 1	90	< 0.1	< 1	2	1	< 50	< 1	137	< 0.04	7	6	0.5	< 0.1	< 0.2	38	< 1	< 1	< 1	860	1.6	0.24	0.18	< 0.01	0.18	0.6	0.8	0.01	< 0.01	< 0.002
	11/06/2026	D18_20260611	N	6.68	289.1	< 5	8	17	655	< 1	< 50	< 0.1	< 1	< 1	< 1	1820	< 1	101	< 0.04	6	4	0.6	< 0.1	< 0.2	33				2460		0.25	0.04	< 0.01	0.04	0.4	0.4	0.03	< 0.01	< 0.002
D19	24/03/2026	D19_20260324	N	6.02	-24	5	< 1	1	11	< 1	1830	< 0.1	< 1	145	< 1	12900	3	5270	< 0.04	< 1	573	< 0.2	< 0.1	0.3	205	< 1	< 1	< 1	15200	1	0.25	< 0.01	< 0.01	< 0.01	0.8	0.8	0.02	< 0.01	< 0.002
	11/06/2026	D19_20260611	N	6.11	194.2	6	< 1	1	12	< 1	1690	< 0.1	1	134	< 1	15200	3	5250	< 0.04	< 1	537	0.8	< 0.1	0.3	177				18200		0.25	< 0.01	< 0.01	< 0.01	0.7	0.7	< 0.01	< 0.01	< 0.002
D2	19/02/2026	D2_20260219	N	6.08	-61.3	1180	< 1	< 1	19	< 1	360	< 0.1	< 1	27	5	2240	2	1610	< 0.04	< 1	92	0.5	< 0.1	2.2	60		< 10	< 10	6840		0.16	< 0.1	< 0.1	< 0.1	< 2	< 2	< 0.1	< 0.1	< 0.002
	23/04/2026	D2_20260423	N	6.02	106.8	815	< 1	2	33	< 1	520	< 0.1	< 1	44	3	7830	3	2690	< 0.04	< 1	154	0.5	< 0.1	1.4	46	< 1	< 10	< 10	10400	< 1	0.1	< 0.01	< 0.01	< 0.01	1.4	1.4	0.04	< 0.01	< 0.002
D3	26/03/2026	D3_20260326	N	6.34	-3.5	< 5	< 1	< 1	106	< 1	< 50	< 0.1	< 1	< 1	< 1	6000	< 1	455	< 0.04	< 1	6	< 0.2	< 0.1	< 0.2	11	< 1	< 1	< 1	8480	< 1	0.05	0.05	< 0.01	0.05	0.3	0.4	0.01	< 0.01	< 0.002
	10/06/2026	D3_20260610	N	6.14	196.5	< 5	2	< 1	31	< 1	< 50	< 0.1	< 1	1	< 1	7550	< 1	689	< 0.04	< 1	6	< 0.2	< 0.1	< 0.2	< 5				9280		0.09	< 0.01	< 0.01	< 0.01	0.3	0.3	< 0.01	< 0.01	< 0.002
D4	18/02/2026	D4_20260218	N	3.51	260.8	7260	< 1	31	15	2	< 50	0.2	< 1	3	2	56200	10	598	< 0.04	< 1	12	< 0.2	< 0.1	4	112		< 10	< 10	57900		0.33	< 0.01	< 0.01	< 0.01	0.7	0.7	< 0.01	< 0.01	< 0.002
	23/04/2026	D4_20260423	N	3.5	509.1	7300	< 1	31	15	2	< 50	0.2	< 1	3	1	53200	14	608	< 0.04	< 1	12	0.2	< 0.1	3.8	116	11	< 1	< 1	55600	18.9	0.19	< 0.01	< 0.01	< 0.01	0.8	0.8	< 0.01	< 0.01	< 0.002
D5	18/02/2026	D5_20260218	N	5.89	-94.8	15	< 1	2	19	2	70	< 0.1	< 1	19	< 1	35800	< 1	7410	< 0.04	< 1	42	< 0.2	< 0.1	< 0.2	10		< 1	< 1	36300		0.3	< 0.01	0.01	0.01	0.5	0.5	< 0.01	< 0.01	< 0.002
	23/04/2026	D5_20260423	N	5.9	92.9	25	< 1	1	17	2	< 50	< 0.1	< 1	19	< 1	23700	< 1	6800	< 0.04	< 1	42	0.2	< 0.1	< 0.2	5	1.4	< 1	< 1	27000	< 1	0.1	< 0.01	< 0.01	< 0.01	0.5	0.5	< 0.01	< 0.01	< 0.002
D8	26/03/2026	D8_20260326	N	5.37	94.3	62	< 1	< 1	33	< 1	< 50	< 0.1	< 1	< 1	2	60	< 1	34	< 0.04	< 1	44	< 0.2	< 0.1	< 0.2	59	< 1	< 1	< 1	400	< 1	0.01	0.11	< 0.01	0.11	0.3	0.4	0.03	< 0.01	< 0.002
	11/06/2026	D8_20260611	N	5.51	245.7	79	< 1	< 1	32	< 1	< 50	< 0.1	< 1	< 1	3	< 50	< 1	41	< 0.04	< 1	39	< 0.2	< 0.1	< 0.2	60				230		< 0.01	0.15	< 0.01	0.15	0.3	0.4	0.01	0.01	< 0.002
D9	25/03/2026	D9_20260325	N	6.17	8.4	< 5	< 1	4	20	< 1	2520	< 0.1	< 1	198	< 1	41300	< 1	12300	< 0.04	< 1	1580	0.3	< 0.1	2.9	54	< 1	< 1	< 1	46900	4	0.37	< 0.01	< 0.01	< 0.01	1.9	1.9	0.08	< 0.01	< 0.002
	10/06/2026	D9_20260610	N	6.14	114.4	7	< 1	3	30	< 1	2580	< 0.1	< 1	197	< 1	32200	< 1	12500	< 0.04	< 1	1540	< 0.2	< 0.1	2.9	42				48100		0.46	< 0.01	< 0.01	< 0.01	1.4	1.4	0.02	< 0.01	< 0.002
MPGM5-D5	19/02/2026	MPGM5-D5_20260219	N	6.77	-23.1	18	2	21	95	< 1	3910	21.2	7	5250	47	4050	113	100000	0.08	1070	20900	3.8	< 0.1	1.4	2140		< 10	< 10	3720		5.11	< 0.1	< 0.1	< 0.1	17.5	17.5	0.47	< 0.1	< 0.002
	23/04/2026	MPGM5-D5_20260423	N	6.8	62.6	11	< 10	< 10	60	< 10	1790	5.3	< 10	1980	11	3050	45	44300	0.11	272	8310	4	< 0.1	1.2	872	< 1	< 10	< 1	2890	< 1	4.33	< 0.1	< 0.1	< 0.1	18.4	18.4	0.2	< 0.1	< 0.002
MPGM5-D6	19/02/2026	MPGM5-D6_20260219	N	6.71	-102	6	< 1	3	64	< 1	< 50	0.2	< 1	45	2	6810	1	4620	< 0.04	39	948	0.6	< 0.1	0.4	47		< 1	< 1	9880		2.1	0.34	0.07	0.41	4.5	4.9	0.46	< 0.01	< 0.002
	23/04/2026	MPGM5-D6_20260423	N	6.69	69.8	< 5	< 1	1	57	< 1	< 50	< 0.1	< 1	28	1	1420	< 1	3300	< 0.04	31	580	0.5	< 0.1	0.2	48	< 1	< 1	< 1	3310	< 1	1.23	0.35	0.02	0.37	2.4	2.8	0.04	< 0.01	< 0.002

APPENDIX I TABULATED SURFACE WATER DATA

				ANZ-Field Water Quality Parameters				ANZ-Laboratory Parameters				ANZ-General Chemistr		ANZ-Alkalinity					ANZ-Cations and Anions											
				pH - Field	Redox - Field	Dissolved Oxygen - Field	Temperature - Field	Electrical Conductivity - Lab	Turbidity	pH - Lab	Electrical Conductivity Field (non-compensated)	Dissolved Organic Carbon	Hardness as CaCO3	Alkalinity - P	Alkalinity - Total as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Sulphate as SO4 2-	Chloride	Fluoride	Total Dissolved Solids	Total suspended solids	Calcium - Total	Calcium - Dissolved	Magnesium - Total	Magnesium - Dissolved	Sodium - Total	Sodium - Dissolved	Potassium - Total	Potassium - Dissolved
			LOR	0	0	0.1	0	1	0.01	0	1	0.0000001	0.01	1	1	1	1	1	1	0.01	0.001	0.01	0.01	0.001	0.001	0.001	0.001	0.001	0.001	0.001
			Units	pH units	mV	mg/L	deg C	uS/cm	NTU	pH units	uS/cm	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			Action Levels																											
			MOUNT-PIPER-ANZECC/LOCAL SSTL-WS[1]	6.5 - 8				2200	2 - 25	6.5 - 8	2200		200						1000	350	1.5	1500		1000	1000			180	180		
Sample Location	**Date Sampled**	**Sample ID**	**Sample Type**																											
C	22/01/2026	C_20260122	N	**7.4**	**141.3**	**5.6**	**20.4**		**5.2**		**316**	**0.0004**	**90.1**	< 1	**82**	**82**	< 1	< 1	**97.9**	**8.92**	**0.299**	**207**	< 5	**22.3**	**19.6**	**11.2**	**10**	**30.9**	**29.3**	**3.99**	**3.79**
	12/02/2026	C_20260212	N	**7.26**	**249.8**	**5.3**	**22**		**73.3**		**192**	**0.0005**	**61.7**	< 1	**61**	**61**	< 1	< 1	**29.7**	**5.71**	**0.191**	**146**	**28**	**15.2**	**14.5**	**6.41**	**6.19**	**18.6**	**17.2**	**5.15**	**4.1**
	18/03/2026	C_20260318	N	**7.43**	**227.6**	**5.4**	**19.4**		**4.4**		**338**	**0.0005**	**79**	< 1	**103**	**103**	< 1	< 1	**52.6**	**11.1**	**0.186**	**226**	< 5	**18.6**	**17.7**	**8.76**	**8.46**	**40.7**	**39.5**	**4.14**	**4.32**
	8/04/2026	C_20260408	N	**7.98**	**108.6**	**7.1**	**18.4**	**376**	**2.4**		**376**	**0.0003**	**101**	< 1	**103**	**103**	< 1	< 1	**61.2**	**10.5**	**0.271**	**225**	< 5	**21.6**	**21.9**	**11.5**	**11.2**	**40.6**	**38.2**	**4.72**	**5.15**
	5/05/2026	C_20260505	N	**8.3**	**61.4**	**10.3**	**10.2**	**488**	**31.3**		**488**	**0.0006**	**138**	< 1	**118**	**118**	< 1	< 1	**103**	**16.8**	**0.17**	**344**	**16**	**28.7**	**28.1**	**16.6**	**16.4**	**50.2**	**48**	**9.39**	**9.21**
	3/06/2026	C_20260603	N	**8.18**	**214.8**	**10.6**	**8.9**		**134**		**282**	**0.0006**	**73.9**	< 1	**75**	**75**	< 1	< 1	**49**	**8.47**	**0.194**	**200**	**58**	**20.5**	**16.2**	**10.3**	**8.12**	**35.1**	**29.8**	**6.69**	**5.91**
E	22/01/2026	E_20260122	N	**7.15**	**50.4**	**6.9**	**19.9**		**2.1**		**657**	**0.0004**	**183**	< 1	**43**	**43**	< 1	< 1	**181**	**17.4**	**0.079**	**460**	< 5	**38.1**	**35.4**	**24.7**	**23**	**61.2**	**61.5**	**6.32**	**5.99**
	12/02/2026	E_20260212	N	**7.43**	**219.6**	**7.7**	**21.4**		**6.1**		**481**	**0.0003**	**122**	< 1	**45**	**45**	< 1	< 1	**227**	**26.2**	**0.202**	**341**	< 5	**24.2**	**23.6**	**15.6**	**15.4**	**50.9**	**50.2**	**6.95**	**6.56**
	18/03/2026	E_20260318	N	**7.2**	**37.8**	**8.2**	**19.6**		**5.9**		**1078**	**0.0005**	**236**	< 1	**120**	**120**	< 1	< 1	**331**	**60.7**	**0.149**	**676**	< 5	**41.2**	**39.8**	**33.5**	**33.1**	**122**	**122**	**12.7**	**13**
	8/04/2026	E_20260408	N	**8.13**	**116.2**	**9.2**	**17.8**	**1191**	**6.9**		**1191**	**0.0008**	**256**	< 1	**115**	**115**	< 1	< 1	**334**	**65.6**	**0.222**	**746**	< 5	**44.4**	**43.3**	**37.1**	**35.8**	**137**	**136**	**13.9**	**15**
	5/05/2026	E_20260505	N	**8.05**	**74.2**	**12.1**	**10.5**	**619**	**8.1**		**619**	**0.0005**	**152**	< 1	**114**	**114**	< 1	< 1	**148**	**30.6**	**0.159**	**416**	**11**	**30.7**	**29**	**20.3**	**19.4**	**71.5**	**66.8**	**11.1**	**10.9**
	3/06/2026	E_20260603	N	**8.28**	**179.8**	**10.8**	**8.9**		**45.1**		**391**	**0.0005**	**86.4**	< 1	**81**	**81**	< 1	< 1	**70.9**	**15.3**	**0.193**	**240**	**15**	**18**	**17.6**	**10.6**	**10.3**	**39.2**	**39.5**	**6.74**	**7.36**
G	22/01/2026	G_20260122	N	**7.65**	**127.5**	**7.3**	**19.8**		**1**		**1274**	**0.0004**	**316**	< 1	**59**	**59**	< 1	< 1	**356**	**54.6**	**0.081**	**876**	< 5	**64.4**	**55.7**	**48.9**	**43**	**145**	**134**	**13.7**	**13.4**
	12/02/2026	G_20260212	N	**7.65**	**163.5**	**6.6**	**21.5**		**59**		**536**	**0.0005**	**134**	< 1	**57**	**57**	< 1	< 1	**188**	**29.6**	**0.248**	**364**	**10**	**25**	**25**	**17.1**	**17.3**	**56.9**	**57.4**	**7.82**	**7.75**
	19/03/2026	G_20260319	N	**7.79**	**212.4**	**7.1**	**18.3**		**1.8**		**713**	**0.0004**	**165**	< 1	**100**	**100**	< 1	< 1	**191**	**39.1**	**0.152**	**450**	< 5	**31.1**	**29.9**	**22.3**	**22**	**79.8**	**79.8**	**8.69**	**8.87**
	8/04/2026	G_20260408	N	**7.92**	**108.5**	**9.7**	**18.2**	**729**	**1.2**		**729**	**0.0004**	**163**	< 1	**105**	**105**	< 1	< 1	**171**	**38.4**	**0.223**	**432**	< 5	**30.9**	**29.5**	**22.7**	**21.7**	**80.3**	**77.1**	**8.75**	**9.34**
	5/05/2026	G_20260505	N	**8.1**	**89.3**	**9.8**	**12.6**	**1420**	**4**		**1420**	**0.0005**	**326**	< 1	**123**	**123**	< 1	< 1	**440**	**90.8**	**0.129**	**968**	< 5	**57.2**	**55.4**	**46.7**	**45.5**	**172**	**168**	**18.5**	**18**
	3/06/2026	G_20260603	N	**7.83**	**252.7**	**11**	**9**		**35**		**673**	**0.0006**	**151**	< 1	**88**	**88**	< 1	< 1	**179**	**36.7**	**0.175**	**423**	**13**	**28.6**	**27.6**	**20.4**	**19.9**	**75.9**	**73.9**	**10.3**	**11.1**
LMP01	5/01/2026	LMP01_20260105	N		**232.6**	**6.8**	**21**	**346**	**292**	**7.87**		**0.001**	**100**	< 1	**76**	**76**	< 1	< 1	**71.5**	**5.68**	**0.173**	**214**	**92**	**25.8**	**23.4**	**10.8**	**10.2**	**27.3**	**28.2**	**5.16**	**4.83**
	2/02/2026	LMP01_20260202	N		**267.6**	**6.6**	**20.6**	**410**	**36.3**	**7.97**		**0.0003**	**109**	< 1	**113**	**113**	< 1	< 1	**67.3**	**9.45**	**0.413**	**276**	**23**	**26.6**	**25.5**	**13.4**	**11.1**	**47.6**	**47.5**	**6.17**	**5.82**
	2/03/2026	LMP01_20260302	N		**163.2**	**6.4**	**20.4**	**352**	**11.9**	**8.01**		**0.0007**	**91.9**	< 1	**113**	**113**	< 1	< 1	**55**	**8.13**	**0.275**	**254**	**22.67**	**21.1**	**21.4**	**9.18**	**9.35**	**36.7**	**36.8**	**4.62**	**5.22**
	7/04/2026	LMP01_20260407	N		**135.7**	**5.4**	**18.7**	**443**	**7.6**	**7.86**		**0.0008**	**112**	< 1	**111**	**111**	< 1	< 1	**88.5**	**11.1**	**0.183**	**280**	**0.33**	**22.9**	**22.3**	**13.7**	**13.6**	**38.9**	**40**	**5.69**	**6.12**
	4/05/2026	LMP01_20260504	N		**109**	**9.9**	**16.2**	**548**	**5.98**	**7.93**		**0.0004**	**154**	< 1	**145**	**145**	< 1	< 1	**111**	**18.2**	**0.221**	**319**	**8**	**30.6**	**29.1**	**20.3**	**19.8**	**55**	**52.9**	**9.66**	**10.2**
	1/06/2026	LMP01_20260601	N		**378.3**	**8.3**	**15.4**	**374**	**38.6**	**7.96**		**0.0005**	**95.5**	< 1	**98**	**98**	< 1	< 1	**67.1**	**9.64**	**0.233**	**242**	**12**	**21.4**	**20.6**	**11.3**	**10.7**	**44.6**	**40.6**	**6.47**	**6.4**
NC01	25/03/2026	NC01_20260325	N	**7.22**	**92.5**	**4.4**	**18.7**		**34.6**		**249**	**0.0006**	**78.6**	< 1	**88**	**88**	< 1	< 1	**31.1**	**5.86**	**0.174**	**150**	**40**	**17.6**	**18**	**8.05**	**8.17**	**22**	**24.3**	**3.93**	**4.02**
	8/04/2026	NC01_20260408	N	**7.81**	**101.2**	**6**	**17.9**	**382**	**6.4**		**382**	**0.0004**	**99.6**	< 1	**101**	**101**	< 1	< 1	**66.2**	**10.8**	**0.31**	**226**	**13**	**21.8**	**21.4**	**11.6**	**11.2**	**40.7**	**37.8**	**4.77**	**5.25**
	5/05/2026	NC01_20260505	N	**8.11**	**82.4**	**8.3**	**10.7**	**497**	**20.1**		**497**	**0.001**	**136**	< 1	**126**	**126**	< 1	< 1	**103**	**18.2**	**0.234**	**350**	**16**	**29.1**	**27.6**	**17.4**	**16.4**	**53.5**	**47.2**	**11.1**	**10.2**
	3/06/2026	NC01_20260603	N	**8.17**	**232.4**	**6.6**	**8.8**		**103**		**327**	**0.0009**	**87.9**	< 1	**88**	**88**	< 1	< 1	**51.9**	**10.8**	**0.202**	**212**	**56**	**18.7**	**18.4**	**10.2**	**10.2**	**32.5**	**34.3**	**6.76**	**7.31**
WX22	22/01/2026	WX22_20260122	N	**7.61**	**130.5**	**7.3**	**20.3**		**0.9**		**1277**	**0.0004**	**320**	< 1	**62**	**62**	< 1	< 1	**393**	**60.8**	**0.121**	**902**	< 5	**62.6**	**55.9**	**47.1**	**43.7**	**142**	**136**	**14.2**	**13.6**
	12/02/2026	WX22_20260212	N	**7.66**	**172.5**	**6.7**	**21.7**		**57.4**		**535**	**0.0007**	**129**	< 1	**57**	**57**	< 1	< 1	**221**	**33.4**	**0.22**	**382**	**12**	**25.2**	**24**	**17.2**	**16.7**	**57.7**	**55.7**	**8.24**	**7.73**
	19/03/2026	WX22_20260319	N	**7.77**	**222.4**	**6.8**	**18.2**		**1.7**		**722**	**0.0007**	**161**	< 1	**101**	**101**	< 1	< 1	**199**	**40.1**	**0.156**	**472**	< 5	**31.6**	**29**	**22.4**	**21.4**	**79.9**	**78.5**	**8.88**	**9.05**
	8/04/2026	WX22_20260408	N	**8.02**	**104.5**	**10.9**	**18.2**	**735**	**1.2**		**735**	**0.0003**	**168**	< 1	**105**	**105**	< 1	< 1	**171**	**38.2**	**0.225**	**440**	< 5	**30.9**	**30.6**	**22.8**	**22.3**	**80.7**	**79.1**	**8.72**	**9.51**
	5/05/2026	WX22_20260505	N	**7.84**	**106.5**	**9.3**	**12.9**	**1409**	**3.5**		**1409**	**0.0004**	**324**	< 1	**123**	**123**	< 1	< 1	**443**	**92.2**	**0.131**	**972**	< 5	**57.4**	**55.2**	**46.9**	**45.1**	**175**	**167**	**18.8**	**17.9**
	3/06/2026	WX22_20260603	N	**8.1**	**230.5**	**10.6**	**9**		**33.2**		**677**	**0.0006**	**154**	< 1	**89**	**89**	< 1	< 1	**179**	**37**	**0.183**	**388**	**15**	**28.3**	**28.1**	**20.2**	**20.4**	**76.4**	**76.3**	**10.4**	**11.7**

				ANZ-Field Water Qu																				ANZ-Me
				pH - Field	Redox - Field	Aluminium - Dissolved	Antimony - Dissolved	Arsenic - Dissolved	Barium - Dissolved	Beryllium - Dissolved	Boron - Dissolved	Cadmium - Dissolved	Chromium - Dissolved	Cobalt - Dissolved	Copper - Dissolved	Iron - Dissolved	Lead - Dissolved	Manganese - Dissolved	Mercury - Dissolved	Molybdenum - Dissolved	Nickel - Dissolved	Selenium - Dissolved	Silver - Dissolved	Vanadium - Dissolved	Zinc - Dissolved
			LOR	0	0	5	1	1	1	1	1	0.1	1	1	1	50	1	1	0.04	1	1	1	0.1	0.2	5
			Units	pH units	mV	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Action Levels																						
MOUNT-PIPER-ANZECC/LOCAL SSTL-WS[1]				6.5 - 8		0.8 | 55	9	24	700	100	370	0.85	2	1.4	3.5	300	5	1900	0.06	10	17	5	0.05	6	116
Sample Location	Date Sampled	Sample ID	Sample Type																						
C	22/01/2026	C_20260122	N	**7.4**	**141.3**	**24**	< 1	< 1	**20**	< 1	**50**	< 0.1	< 1	< 1	**1**	**100**	< 1	**119**	< 0.04	**4**	**3**	**0.4**	**< 0.1**	< 0.2	< 5
	12/02/2026	C_20260212	N	**7.26**	**249.8**	**117**	< 1	< 1	**15**	< 1	< 50	< 0.1	< 1	< 1	**2**	**220**	< 1	**143**	< 0.04	**3**	**3**	**0.2**	**< 0.1**	**0.4**	< 5
	18/03/2026	C_20260318	N	**7.43**	**227.6**	**12**	< 1	< 1	**16**	< 1	< 50	< 0.1	< 1	< 1	**2**	**130**	< 1	**172**	< 0.04	**3**	**3**	**0.6**	**< 0.1**	< 0.2	< 5
	8/04/2026	C_20260408	N	**7.98**	**108.6**	**7**	< 1	< 1	**19**	< 1	< 50	< 0.1	< 1	< 1	< 1	**170**	< 1	**158**	< 0.04	**3**	**3**	**0.3**	**< 0.1**	< 0.2	< 5
	5/05/2026	C_20260505	N	**8.3**	**61.4**	**8**	< 1	< 1	**20**	< 1	< 50	< 0.1	< 1	< 1	< 1	< 50	< 1	**107**	< 0.04	**4**	**3**	**0.4**	**< 0.1**	< 0.2	< 5
	3/06/2026	C_20260603	N	**8.18**	**214.8**	**60**	< 1	< 1	**12**	< 1	< 50	< 0.1	< 1	< 1	**2**	**110**	< 1	**43**	< 0.04	**3**	**2**	**0.3**	**< 0.1**	**0.3**	< 5
E	22/01/2026	E_20260122	N	**7.15**	**50.4**	**< 5**	< 1	< 1	**27**	< 1	**110**	< 0.1	< 1	**4**	< 1	**210**	< 1	**840**	< 0.04	< 1	**29**	< 0.2	**< 0.1**	< 0.2	**12**
	12/02/2026	E_20260212	N	**7.43**	**219.6**	**11**	< 1	< 1	**18**	< 1	**90**	< 0.1	< 1	**2**	< 1	**210**	< 1	**298**	< 0.04	< 1	**22**	< 0.2	**< 0.1**	< 0.2	< 5
	18/03/2026	E_20260318	N	**7.2**	**37.8**	**6**	< 1	< 1	**20**	< 1	**200**	< 0.1	< 1	**8**	< 1	**480**	< 1	**1220**	< 0.04	**1**	**83**	**0.3**	**< 0.1**	< 0.2	< 5
	8/04/2026	E_20260408	N	**8.13**	**116.2**	**< 5**	< 1	< 1	**22**	< 1	**230**	< 0.1	< 1	**10**	< 1	**730**	< 1	**1400**	< 0.04	**1**	**107**	< 0.2	**< 0.1**	< 0.2	< 5
	5/05/2026	E_20260505	N	**8.05**	**74.2**	**5**	< 1	< 1	**19**	< 1	**60**	< 0.1	< 1	**3**	< 1	**320**	< 1	**617**	< 0.04	**2**	**22**	**0.4**	**< 0.1**	**0.3**	< 5
	3/06/2026	E_20260603	N	**8.28**	**179.8**	**21**	< 1	< 1	**13**	< 1	< 50	< 0.1	< 1	< 1	**2**	**110**	< 1	**166**	< 0.04	**2**	**9**	**0.3**	**< 0.1**	< 0.2	< 5
G	22/01/2026	G_20260122	N	**7.65**	**127.5**	**< 5**	< 1	< 1	**21**	< 1	**270**	< 0.1	< 1	< 1	< 1	**60**	< 1	**326**	< 0.04	< 1	**64**	< 0.2	**< 0.1**	< 0.2	< 5
	12/02/2026	G_20260212	N	**7.65**	**163.5**	**33**	< 1	< 1	**10**	< 1	**110**	< 0.1	< 1	< 1	**2**	**90**	< 1	**205**	< 0.04	< 1	**23**	< 0.2	**< 0.1**	< 0.2	< 5
	19/03/2026	G_20260319	N	**7.79**	**212.4**	**7**	< 1	< 1	**10**	< 1	**130**	< 0.1	< 1	< 1	< 1	**110**	< 1	**207**	< 0.04	**2**	**38**	**0.3**	**< 0.1**	< 0.2	< 5
	8/04/2026	G_20260408	N	**7.92**	**108.5**	**< 5**	< 1	< 1	**13**	< 1	**130**	< 0.1	< 1	< 1	< 1	**70**	< 1	**410**	< 0.04	**2**	**41**	< 0.2	**< 0.1**	< 0.2	< 5
	5/05/2026	G_20260505	N	**8.1**	**89.3**	**< 5**	< 1	< 1	**21**	< 1	**240**	< 0.1	< 1	< 1	< 1	< 50	< 1	**419**	< 0.04	**1**	**90**	< 0.2	**< 0.1**	< 0.2	< 5
	3/06/2026	G_20260603	N	**7.83**	**252.7**	**16**	< 1	< 1	**11**	< 1	**80**	< 0.1	< 1	< 1	**1**	**70**	< 1	**205**	< 0.04	**1**	**33**	< 0.2	**< 0.1**	< 0.2	< 5
LMP01	5/01/2026	LMP01_20260105	N		**232.6**	**16**	< 1	< 1	**16**	< 1	< 50	< 0.1	< 1	< 1	**2**	< 50	< 1	**63**	< 0.04	**8**	**4**	**0.6**	**< 0.1**	**0.3**	< 5
	2/02/2026	LMP01_20260202	N		**267.6**	**16**	< 1	< 1	**16**	< 1	< 50	< 0.1	< 1	< 1	< 1	< 50	< 1	**66**	< 0.04	**9**	**3**	**1.1**	**< 0.1**	**0.3**	**5**
	2/03/2026	LMP01_20260302	N		**163.2**	**20**	< 1	< 1	**16**	< 1	< 50	< 0.1	< 1	< 1	**2**	< 50	< 1	**76**	< 0.04	**5**	**4**	**0.5**	**< 0.1**	**0.2**	< 5
	7/04/2026	LMP01_20260407	N		**135.7**	**5**	< 1	< 1	**21**	< 1	< 50	< 0.1	< 1	< 1	< 1	< 50	< 1	< 1	< 0.04	**6**	**4**	**0.6**	**< 0.1**	< 0.2	< 5
	4/05/2026	LMP01_20260504	N		**109**	**6**	< 1	< 1	**24**	< 1	< 50	< 0.1	< 1	< 1	< 1	< 50	< 1	**91**	< 0.04	**8**	**3**	**0.3**	**< 0.1**	< 0.2	< 5
	1/06/2026	LMP01_20260601	N		**378.3**	**23**	< 1	< 1	**17**	< 1	< 50	< 0.1	< 1	< 1	**2**	< 50	< 1	**31**	< 0.04	**6**	**3**	**0.5**	**< 0.1**	< 0.2	**7**
NC01	25/03/2026	NC01_20260325	N	**7.22**	**92.5**	**26**	< 1	< 1	**14**	< 1	< 50	< 0.1	< 1	< 1	**1**	< 50	< 1	< 1	< 0.04	**3**	**2**	**0.3**	**< 0.1**	< 0.2	< 5
	8/04/2026	NC01_20260408	N	**7.81**	**101.2**	**5**	< 1	< 1	**18**	< 1	< 50	< 0.1	< 1	< 1	< 1	**140**	< 1	**178**	< 0.04	**3**	**3**	**0.3**	**< 0.1**	< 0.2	< 5
	5/05/2026	NC01_20260505	N	**8.11**	**82.4**	**8**	< 1	< 1	**22**	< 1	< 50	< 0.1	< 1	< 1	< 1	**160**	< 1	**298**	< 0.04	**4**	**3**	**0.3**	**< 0.1**	< 0.2	< 5
	3/06/2026	NC01_20260603	N	**8.17**	**232.4**	**91**	< 1	< 1	**11**	< 1	< 50	< 0.1	< 1	< 1	**2**	**140**	< 1	**20**	< 0.04	**2**	**3**	**0.3**	**< 0.1**	**0.3**	**6**
WX22	22/01/2026	WX22_20260122	N	**7.61**	**130.5**	**< 5**	< 1	< 1	**20**	< 1	**270**	< 0.1	< 1	< 1	< 1	**60**	< 1	**318**	< 0.04	< 1	**61**	< 0.2	**< 0.1**	< 0.2	< 5
	12/02/2026	WX22_20260212	N	**7.66**	**172.5**	**28**	< 1	< 1	**10**	< 1	**110**	< 0.1	< 1	< 1	**1**	**80**	< 1	**220**	< 0.04	< 1	**24**	< 0.2	**< 0.1**	< 0.2	< 5
	19/03/2026	WX22_20260319	N	**7.77**	**222.4**	**11**	< 1	< 1	**12**	< 1	**130**	< 0.1	< 1	< 1	< 1	**100**	< 1	**219**	< 0.04	**2**	**38**	**0.3**	**< 0.1**	< 0.2	**6**
	8/04/2026	WX22_20260408	N	**8.02**	**104.5**	**< 5**	**1**	< 1	**13**	< 1	**110**	< 0.1	< 1	< 1	< 1	**70**	< 1	**448**	< 0.04	**2**	**41**	< 0.2	**< 0.1**	< 0.2	< 5
	5/05/2026	WX22_20260505	N	**7.84**	**106.5**	**< 5**	< 1	< 1	**22**	< 1	**240**	< 0.1	< 1	< 1	< 1	< 50	< 1	**436**	< 0.04	< 1	**91**	< 0.2	**< 0.1**	< 0.2	< 5
	3/06/2026	WX22_20260603	N	**8.1**	**230.5**	**29**	< 1	< 1	**12**	< 1	**110**	< 0.1	< 1	< 1	**1**	**80**	< 1	**212**	< 0.04	**2**	**32**	**0.2**	**< 0.1**	< 0.2	< 5

				ANZ-Field Water Quitals																				ANZ-Nutrients											Cyanide Species
				pH - Field	Redox - Field	Aluminium - Total	Arsenic - Total	Arsenic (V) - Total	Barium - Total	Boron - Total	Cadmium - Total	Chromium - Total	Chromium (III) - Total	Chromium (VI) - Total	Copper - Total	Iron - Total	Lead - Total	Manganese - Total	Mercury - Total	Molybdenum - Total	Nickel - Total	Selenium - Total	Silver - Total	Zinc - Total	Arsenic (III) - Total	Ammonia as N	Nitrate as N	Nitrite as N	Nitrite + Nitrate as N	Total Kjeldahl Nitrogen as N	Total Nitrogen	Total Phosphorus	Phosphorus	Orthophosphate as P	Phosphate as PO4 - Total	Phosphate as PO4 - Dissolved	Cyanide CN-
			LOR	0	0	5	1	1	1	1	0.1	1	1	1	1	50	1	1	0.04	1	1	1	0.1	5	1	0.01	0.0001	0.01	0.0001	0.1	0.1	0.0001	0.01	0.01	0.1	0.1	0.002
			Units	pH units	mV	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			Action Levels																																	
		MOUNT-PIPER-ANZECC/LOCAL SSTL-WS[1]		6.5 - 8		0.8 | 55	24	13	700	370	0.85	2	3.3	1	3.5	300	5	1900	0.06	10	17	5	0.05	116	24	0.72	2.6 | 29	10	0.015		0.25	0.02		0.015			0.007
Sample Location	Date Sampled	Sample ID	Sample Type																																	
C	22/01/2026	C_20260122	N	**7.4**	**141.3**	**169**	< 1	< 1	**20**	< 50	< 0.1	< 1	< 1	< 1	**2**	**410**	< 1	**118**	< 0.04	**5**	**4**	**0.5**	**< 0.1**	**10**	< 1	< 0.01	**0.01**	< 0.01	**0.01**	**0.9**	**0.9**	**0.01**	**0.02**	< 0.01	< 0.01	< 0.01	< 0.002
	12/02/2026	C_20260212	N	**7.26**	**249.8**	**585**	**1**		**23**	< 50	**0.1**	< 1			**13**	**990**	**2**	**206**	< 0.04	**4**	**6**	**0.3**	**< 0.1**	**43**		**0.04**	**0.04**	< 0.01	**0.04**	**1.1**	**1.1**	**0.09**	< 0.01	< 0.01	**0.29**	< 0.1	< 0.002
	18/03/2026	C_20260318	N	**7.43**	**227.6**	**85**	< 1		**18**	< 50	< 0.1	< 1			**2**	**570**	< 1	**189**	< 0.04	**4**	**3**	**0.6**	**< 0.1**	**8**		**0.01**	< 0.01	< 0.01	< 0.01	**0.3**	**0.3**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	8/04/2026	C_20260408	N	**7.98**	**108.6**	**65**	< 1		**25**	< 50	< 0.1	< 1			< 1	**430**	< 1	**159**	< 0.04	**3**	**3**	**0.4**	**< 0.1**	< 5		**0.01**	**0.01**	< 0.01	**0.01**	**0.2**	**0.2**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	5/05/2026	C_20260505	N	**8.3**	**61.4**	**699**	< 1		**23**	**100**	< 0.1	< 1			**2**	**550**	< 1	**131**	< 0.04	**6**	**4**	**0.4**	**< 0.1**	**9**		< 0.01	**0.01**	**0.01**	**0.02**	**0.4**	**0.4**	**0.06**	**0.02**	< 0.01	**0.18**	< 0.1	< 0.002
	3/06/2026	C_20260603	N	**8.18**	**214.8**	**3030**	< 1		**18**	< 50	< 0.1	**2**			**5**	**450**	**1**	**80**	< 0.04	**5**	**4**	**0.7**	**< 0.1**	**18**		**0.05**	**0.05**	< 0.01	**0.05**	**0.8**	**0.8**	**0.07**	< 0.01	< 0.01	**0.21**	< 0.1	< 0.002
E	22/01/2026	E_20260122	N	**7.15**	**50.4**	**14**	< 1	< 1	**29**	**120**	< 0.1	< 1	< 1	< 1	**2**	**780**	< 1	**846**	< 0.04	< 1	**32**	< 0.2	**< 0.1**	**22**	< 1	**0.03**	**0.01**	< 0.01	**0.01**	**0.6**	**0.6**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	12/02/2026	E_20260212	N	**7.43**	**219.6**	**143**	< 1		**20**	**90**	< 0.1	< 1			**5**	**730**	< 1	**254**	< 0.04	< 1	**26**	< 0.2	**< 0.1**	**16**		**0.02**	< 0.01	< 0.01	< 0.01	**0.6**	**0.6**	**0.02**	< 0.01	**0.01**	< 0.1	< 0.1	< 0.002
	18/03/2026	E_20260318	N	**7.2**	**37.8**	**29**	< 1		**20**	**180**	< 0.1	< 1			**5**	**1560**	< 1	**1150**	< 0.04	**2**	**81**	**0.3**	**< 0.1**	**25**		**0.04**	**0.01**	< 0.01	**0.01**	**0.4**	**0.4**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	8/04/2026	E_20260408	N	**8.13**	**116.2**	**28**	< 1		**23**	**220**	< 0.1	< 1			< 1	**1730**	< 1	**1440**	< 0.04	**1**	**102**	< 0.2	**< 0.1**	**26**		**0.03**	**0.01**	< 0.01	**0.01**	**0.5**	**0.5**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	5/05/2026	E_20260505	N	**8.05**	**74.2**	**135**	< 1		**23**	**130**	< 0.1	< 1			**3**	**1190**	< 1	**730**	< 0.04	**3**	**27**	**0.5**	**< 0.1**	**26**		< 0.01	< 0.01	< 0.01	< 0.01	**0.5**	**0.5**	**0.08**	**0.01**	< 0.01	**0.23**	< 0.1	< 0.002
	3/06/2026	E_20260603	N	**8.28**	**179.8**	**1380**	< 1		**16**	< 50	< 0.1	**3**			**3**	**730**	< 1	**178**	< 0.04	**3**	**9**	**0.5**	**< 0.1**	**10**		**0.03**	**0.01**	< 0.01	**0.01**	**0.6**	**0.6**	**0.02**	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
G	22/01/2026	G_20260122	N	**7.65**	**127.5**	**14**	< 1	< 1	**23**	**240**	< 0.1	< 1	< 1	< 1	**1**	**190**	< 1	**352**	< 0.04	< 1	**69**	< 0.2	**< 0.1**	**9**	< 1	**0.04**	< 0.01	< 0.01	< 0.01	**0.5**	**0.5**	< 0.01	**0.01**	< 0.01	< 0.1	< 0.1	< 0.002
	12/02/2026	G_20260212	N	**7.65**	**163.5**	**616**	**1**		**14**	**120**	< 0.1	< 1			**4**	**1120**	**1**	**271**	< 0.04	**1**	**28**	**0.2**	**< 0.1**	**13**		**0.02**	< 0.01	< 0.01	< 0.01	**0.5**	**0.5**	**0.04**	< 0.01	< 0.01	**0.13**	< 0.1	< 0.002
	19/03/2026	G_20260319	N	**7.79**	**212.4**	**23**	< 1		**12**	**90**	< 0.1	< 1			< 1	**270**	< 1	**235**	< 0.04	**2**	**36**	**0.3**	**< 0.1**	< 5		**0.02**	< 0.01	< 0.01	< 0.01	**0.3**	**0.3**	**0.03**	**0.01**	< 0.01	< 0.1	< 0.1	< 0.002
	8/04/2026	G_20260408	N	**7.92**	**108.5**	**49**	< 1		**13**	**100**	< 0.1	< 1			< 1	**160**	< 1	**408**	< 0.04	**2**	**40**	**0.4**	**< 0.1**	< 5		< 0.01	< 0.01	< 0.01	< 0.01	**0.2**	**0.2**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	5/05/2026	G_20260505	N	**8.1**	**89.3**	**84**	< 1		**23**	**340**	< 0.1	< 1			**1**	**290**	< 1	**430**	< 0.04	**1**	**108**	**0.2**	**< 0.1**	< 5		< 0.01	< 0.01	< 0.01	< 0.01	**0.4**	**0.4**	**0.03**	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	3/06/2026	G_20260603	N	**7.83**	**252.7**	**701**	< 1		**13**	**90**	< 0.1	**3**			**1**	**780**	< 1	**214**	< 0.04	**2**	**32**	**0.4**	**< 0.1**	< 5		**0.02**	< 0.01	< 0.01	< 0.01	**0.3**	**0.3**	**0.02**	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
LMP01	5/01/2026	LMP01_20260105	N		**232.6**	**1270**	**4**	< 1	**35**	**60**	**0.2**	**3**	< 1	< 1	**15**	**2430**	**6**	**194**	< 0.04	**8**	**13**	**0.8**	**< 0.1**	**88**	< 1	**0.01**	**0.14**	**0.01**	**0.15**	**0.4**	**0.6**	**0.06**	< 0.01	< 0.01	**0.2**	< 0.1	< 0.002
	2/02/2026	LMP01_20260202	N		**267.6**	**308**	**1**		**21**	< 50	< 0.1	< 1			**4**	**690**	< 1	**201**	< 0.04	**13**	**6**	**1.3**	**< 0.1**	**21**		< 0.01	**0.08**	**0.01**	**0.09**	**0.4**	**0.5**	**0.04**	< 0.01	< 0.01	**0.12**	< 0.1	< 0.002
	2/03/2026	LMP01_20260302	N		**163.2**	**575**	**1**		**22**	< 50	< 0.1	< 1			**6**	**510**	< 1	**151**	< 0.04	**9**	**4**	**0.7**	**< 0.1**	**17**		**0.04**	**0.16**	< 0.01	**0.16**	**0.3**	**0.5**	**0.05**	< 0.01	< 0.01	**0.14**	< 0.1	< 0.002
	7/04/2026	LMP01_20260407	N		**135.7**	**37**	< 1		**23**	< 50	< 0.1	< 1			< 1	**190**	< 1	**151**	< 0.04	**7**	**4**	**0.8**	**< 0.1**	**10**		**0.02**	**0.09**	< 0.01	**0.09**	< 0.1	< 0.1	**0.05**	**0.04**	< 0.01	**0.14**	**0.11**	< 0.002
	4/05/2026	LMP01_20260504	N		**109**	**67**	< 1		**28**	< 50	< 0.1	< 1			**2**	**220**	< 1	**205**	< 0.04	**9**	**4**	**0.3**	**< 0.1**	**8**		**0.02**	**0.1**	< 0.01	**0.1**	**0.2**	**0.3**	**0.06**	**0.02**	< 0.01	**0.19**	< 0.1	< 0.002
	1/06/2026	LMP01_20260601	N		**378.3**	**1010**	< 1		**26**	< 50	< 0.1	< 1			**4**	**590**	< 1	**263**	< 0.04	**8**	**4**	**0.7**	**< 0.1**	**28**		**0.04**	**0.08**	< 0.01	**0.08**	**0.4**	**0.5**	**0.03**	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
NC01	25/03/2026	NC01_20260325	N	**7.22**	**92.5**	**399**	< 1	< 1	**17**	**260**	< 0.1	< 1	< 1	< 1	**2**	**880**	< 1	**201**	< 0.04	**4**	**3**	**0.4**	**< 0.1**	**8**	< 1	**0.05**	< 0.01	< 0.01	< 0.01	**0.5**	**0.5**	**0.02**	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	8/04/2026	NC01_20260408	N	**7.81**	**101.2**	**109**	< 1		**23**	< 50	< 0.1	< 1			< 1	**630**	< 1	**276**	< 0.04	**3**	**3**	**0.4**	**< 0.1**	**8**		**0.01**	**0.02**	< 0.01	**0.02**	**0.4**	**0.4**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	5/05/2026	NC01_20260505	N	**8.11**	**82.4**	**255**	**4**		**25**	**160**	< 0.1	< 1			**3**	**630**	< 1	**426**	< 0.04	**8**	**5**	**0.4**	**< 0.1**	**21**		< 0.01	**0.02**	< 0.01	**0.02**	**0.6**	**0.6**	**0.08**	< 0.01	< 0.01	**0.24**	< 0.1	< 0.002
	3/06/2026	NC01_20260603	N	**8.17**	**232.4**	**1890**	**2**		**17**	< 50	< 0.1	**2**			**4**	**1030**	**2**	**88**	< 0.04	**4**	**4**	**0.6**	**< 0.1**	**18**		**0.07**	**0.01**	< 0.01	**0.01**	**0.9**	**0.9**	**0.06**	**0.02**	< 0.01	**0.17**	< 0.1	< 0.002
WX22	22/01/2026	WX22_20260122	N	**7.61**	**130.5**	**13**	< 1	< 1	**23**	**250**	< 0.1	< 1	< 1	< 1	**2**	**180**	< 1	**336**	< 0.04	< 1	**72**	< 0.2	**< 0.1**	**17**	< 1	**0.04**	< 0.01	< 0.01	< 0.01	**0.7**	**0.7**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	12/02/2026	WX22_20260212	N	**7.66**	**172.5**	**499**	< 1		**14**	**110**	< 0.1	< 1			**6**	**1030**	**1**	**300**	< 0.04	**1**	**28**	**0.2**	**< 0.1**	**23**		**0.04**	< 0.01	< 0.01	< 0.01	**1**	**1**	**0.07**	< 0.01	**0.01**	**0.23**	< 0.1	< 0.002
	19/03/2026	WX22_20260319	N	**7.77**	**222.4**	**20**	< 1		**11**	**80**	< 0.1	< 1			**2**	**250**	< 1	**184**	< 0.04	**5**	**37**	**0.3**	**< 0.1**	**10**		**0.02**	< 0.01	< 0.01	< 0.01	**0.3**	**0.3**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	8/04/2026	WX22_20260408	N	**8.02**	**104.5**	**24**	< 1		**14**	**120**	< 0.1	< 1			**2**	**200**	< 1	**496**	< 0.04	**2**	**42**	**0.2**	**< 0.1**	< 5		< 0.01	< 0.01	< 0.01	< 0.01	**0.2**	**0.2**	< 0.01	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002
	5/05/2026	WX22_20260505	N	**7.84**	**106.5**	**32**	**2**		**24**	**390**	< 0.1	< 1			**3**	**420**	< 1	**1110**	< 0.04	**2**	**106**	**0.3**	**< 0.1**	**11**		< 0.01	< 0.01	< 0.01	< 0.01	**0.6**	**0.6**	**0.04**	**0.02**	< 0.01	**0.11**	< 0.1	< 0.002
	3/06/2026	WX22_20260603	N	**8.1**	**230.5**	**765**	< 1		**11**	**80**	< 0.1	**1**			**3**	**630**	< 1	**183**	< 0.04	**2**	**32**	**0.4**	**< 0.1**	**14**		**0.03**	< 0.01	< 0.01	< 0.01	**0.5**	**0.5**	**0.02**	< 0.01	< 0.01	< 0.1	< 0.1	< 0.002

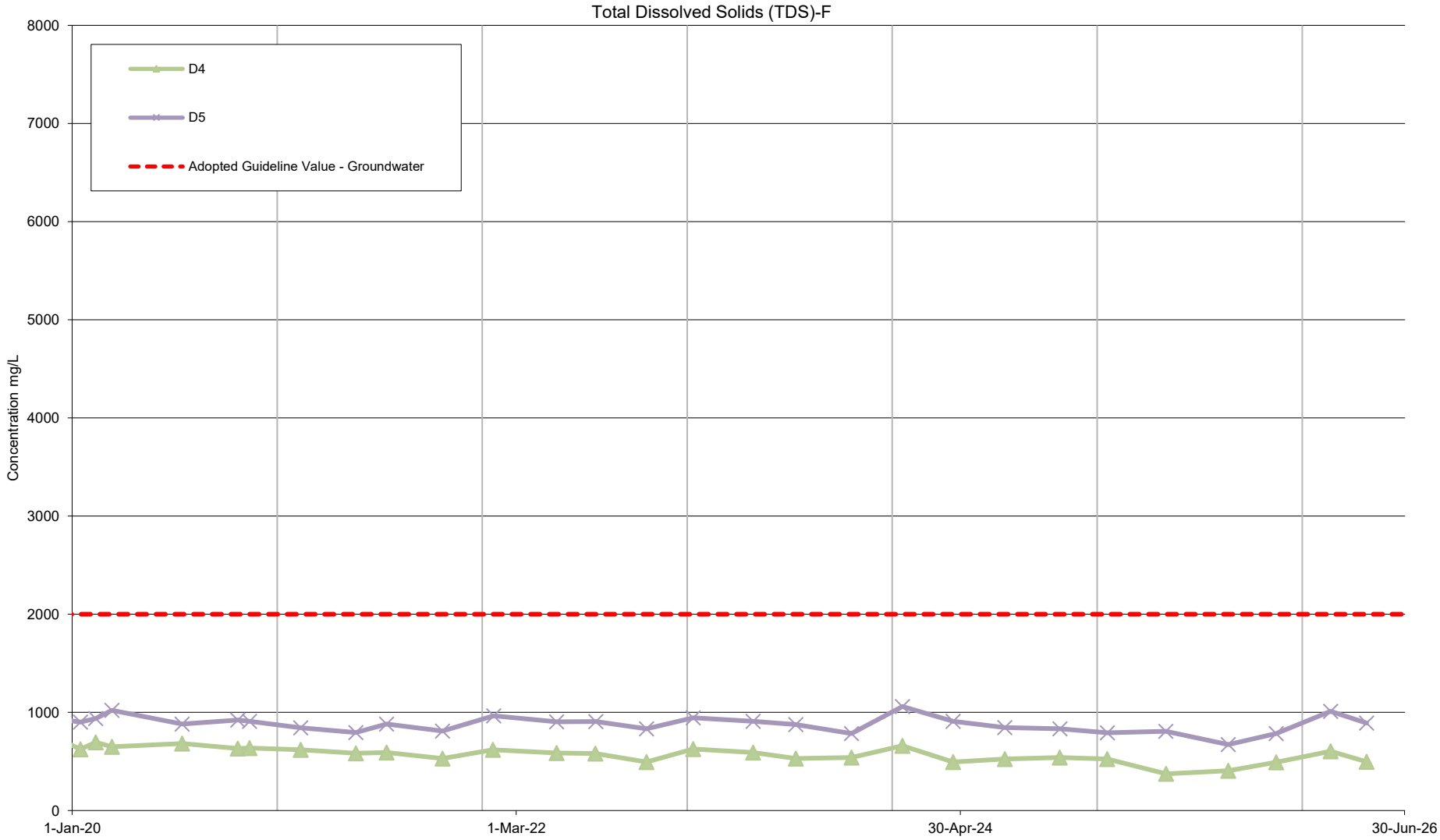
				Field Water Quality Para			ANZ-Laboratory Parameters			NZ-General Chemist		ANZ-Alkalinity					ANZ-Cations and Anions												
				Redox - Field	Dissolved Oxygen - Field	Temperature - Field	Conductivity	Turbidity	pH - Lab	Dissolved Organic Carbon	Hardness as CaCO3	Oil & Grease	Alkalinity - P	Alkalinity - Total as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Hydroxide Alkalinity as CaCO3	Sulphate as SO4 2-	Chloride	Fluoride	Total Dissolved Solids	Total suspended solids	Calcium - Total	Calcium - Dissolved	Magnesium - Total	Magnesium - Dissolved	Sodium - Total	Sodium - Dissolved	Potassium - Total	Potassium - Dissolved
LOR				0	0.1	0	1	0.01	0	0.001	0.01	5	1	1	1	1	1	1	0.01	0.001	0.01	0.01	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Units				mV	mg/L	deg C	uS/cm	NTU	pH units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Action Levels																														
MOUNT-PIPER-EPL-13007-DISCHARGE[1]							500	2 - 25	6.5 - 8.5			10										50								
Sample Location	**Date Sampled**	**Sample ID**	**Sample Type**																											
LDP12	7/01/2026	LDP12_20260107	N	**220**	**6.8**	**21.3**	**343**	**9.7**	**7.66**	**3**	**34.5**	< 5	< 1	**43**	**43**	< 1	< 1	**76.4**	**12.4**	**0.16**	**198**	**9.67**	**9.35**	**8.8**	**3.12**	**3.04**	**48.3**	**48.6**	**4.71**	**4.92**
	21/01/2026	LDP12_20260121	N	**212**	**8.7**	**19.7**	**369**	**2.2**	**7.46**	**2**	**37.7**	< 5	< 1	**44**	**44**	< 1	< 1	**137**	**28.5**	**0.187**	**227**	**10.33**	**10.6**	**9.43**	**3.72**	**3.43**	**55**	**52.6**	**4.99**	**5.13**
	13/03/2026	LDP12_20260313	N	**160.9**	**6.8**	**21.7**	**313**	**6.15**	**7.92**	**2**	**13.4**	< 5	< 1	**38**	**38**	< 1	< 1	**71.4**	**18.9**	**0.15**	**182**	**4.6**	**3.1**	**3.17**	**1.26**	**1.32**	**53.6**	**55.2**	**4.55**	**4.96**
	25/03/2026	LDP12_20260325	N	**202.9**	**8**	**20.4**	**341**	**13.4**	**7.84**	**3**	**18.1**	< 5	< 1	**39**	**39**	< 1	< 1	**75.4**	**22**	**0.108**	**210**	**21.67**	**4.51**	**4.56**	**1.57**	**1.63**	**52.7**	**57.7**	**5.06**	**5.09**
	9/06/2026	LDP12_20260609	N	**258.6**	**8.6**	**15.7**	**365**	**4.18**	**7.87**	**1**	**25.1**	< 5	< 1	**63**	**63**	< 1	< 1	**78.7**	**23.2**	**0.123**	**212**	**3**	**6.1**	**6.12**	**2.35**	**2.38**	**58.9**	**63.8**	**5.66**	**6.1**
	25/06/2026	LDP12_20260625	N	**123.6**	**8.7**	**16.8**	**384**	**3.23**	**7.93**	**2**	**31.9**	< 5	< 1	**59**	**59**	< 1	< 1	**89.3**	**26.7**	**0.121**	**232**	**4.4**	**7.02**	**7.41**	**2.96**	**3.26**	**61.3**	**68.2**	**5.11**	**5.67**

				Field Water Quality		ANZ-Metals																																										
				Redox - Field	Dissolved Oxygen - Field	Aluminium - Dissolved	Antimony - Dissolved	Arsenic - Dissolved	Barium - Dissolved	Beryllium - Dissolved	Boron - Dissolved	Cadmium - Dissolved	Chromium - Dissolved	Cobalt - Dissolved	Copper - Dissolved	Iron - Dissolved	Lead - Dissolved	Manganese - Dissolved	Mercury - Dissolved	Molybdenum - Dissolved	Nickel - Dissolved	Selenium - Dissolved	Silver - Dissolved	Vanadium - Dissolved	Zinc - Dissolved	Aluminium - Total	Arsenic - Total	Arsenic (V) - Total	Barium - Total	Boron - Total	Cadmium - Total	Chromium - Total	Chromium (III) - Total	Chromium (VI) - Total	Copper - Total	Iron - Total	Lead - Total	Manganese - Total	Mercury - Total	Molybdenum - Total	Nickel - Total	Selenium - Total	Silver - Total	Zinc - Total	Arsenic (III) - Total
			LOR	0	0.1	1	1	1	1	1	50	0.1	1	1	1	50	1	1	0.04	1	1	1	0.1	0.2	5	1	1	1	1	50	0.1	1	1	1	1	50	1	1	0.04	1	1	1	0.1	5	1
			Units	mV	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
			Action Levels																																												
			MOUNT-PIPER-EPL-13007-DISCHARGE[1]																																											
Sample Location	**Date Sampled**	**Sample ID**	**Sample Type**																																											
LDP12	7/01/2026	LDP12_20260107	N	**220**	**6.8**	**15**	< 1	< 1	**9**	< 1	< 50	< 0.1	< 1	< 1	< 1	< 50	< 1	**43**	< 0.04	**6**	**2**	**5.6**	< 0.1	< 0.2	< 5	**1100**	< 1	< 1	**9**	< 50	< 0.1	< 1	< 1	< 1	< 1	< 50	< 1	**42**	< 0.04	**7**	**2**	**5.5**	< 0.1	< 5	< 1
	21/01/2026	LDP12_20260121	N	**212**	**8.7**	**86**	< 1	< 1	**10**	< 1	< 50	< 0.1	< 1	< 1	< 1	< 50	< 1	**37**	< 0.04	**4**	**2**	**5.7**	< 0.1	< 0.2	< 5	**4620**	< 1	< 1	**10**	< 50	< 0.1	< 1	< 1	< 1	< 1	< 50	< 1	**42**	< 0.04	**8**	**2**	**6.4**	< 0.1	< 5	< 1
	13/03/2026	LDP12_20260313	N	**160.9**	**6.8**	**23**	< 1	< 1	**6**	< 1	< 50	< 0.1	< 1	< 1	< 1	< 50	< 1	**22**	< 0.04	**3**	**2**	**5.7**	< 0.1	< 0.2	< 5	**163**	< 1	< 1	**5**	< 50	< 0.1	< 1	< 1	< 1	< 1	< 50	< 1	**21**	< 0.04	**3**	**2**	**5.7**	< 0.1	< 5	< 1
	25/03/2026	LDP12_20260325	N	**202.9**	**8**	**24**	< 1	< 1	**6**	< 1	< 50	< 0.1	< 1	< 1	< 1	< 50	< 1	**28**	< 0.04	**2**	**2**	**4.3**	< 0.1	< 0.2	< 5	**3020**	< 1	< 1	**8**	**80**	< 0.1	< 1	< 1	< 1	< 1	**120**	< 1	**33**	< 0.04	**3**	**2**	**4.8**	< 0.1	< 5	< 1
	9/06/2026	LDP12_20260609	N	**258.6**	**8.6**	**8**	< 1	< 1	**7**	< 1	< 50	< 0.1	< 1	< 1	< 1	< 50	< 1	**37**	< 0.04	**3**	**3**	**5.4**	< 0.1	< 0.2	< 5	**395**	< 1	< 1	**7**	< 50	< 0.1	< 1	< 1	< 1	< 1	< 50	< 1	**41**	< 0.04	**4**	**3**	**5.7**	< 0.1	< 5	< 1
	25/06/2026	LDP12_20260625	N	**123.6**	**8.7**	**25**	< 1	< 1	**10**	< 1	< 50	< 0.1	< 1	< 1	< 1	< 50	< 1	**74**	< 0.04	**3**	**2**	**4.2**	< 0.1	< 0.2	< 5	**1150**	< 1	< 1	**10**	< 50	< 0.1	< 1	< 1	< 1	< 1	< 50	< 1	**76**	< 0.04	**4**	**3**	**4.4**	< 0.1	< 5	< 1

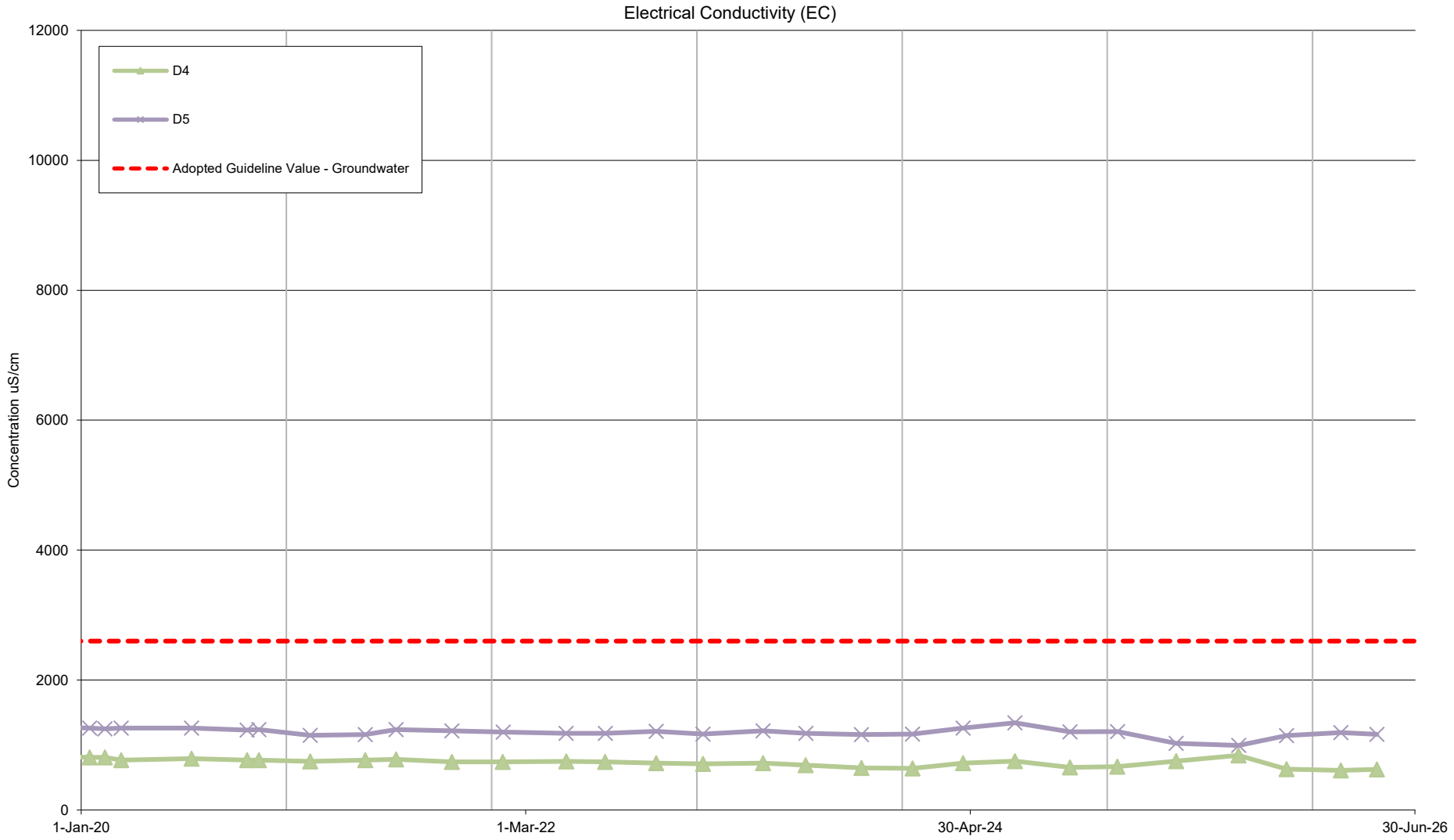
				ield Water Qual		ANZ-Nutrients												ANZ-Cyanide Species
				Redox - Field	Dissolved Oxygen - Field	Ammonia as N	Nitrate as N	Nitrite as N	Nitrite + Nitrate as N	Total Kjeldahl Nitrogen as N	Total Nitrogen	Total Phosphorus	Phosphorus	Phosphate as PO4	Orthophosphate as P	Phosphate as PO4 - Total	Phosphate as PO4 - Dissolved	Cyanide CN-
LOR				0	0.1	0.01	0.0001	0.01	0.0001	0.0001	0.0001	0.01	0.01	0.1	0.01	0.1	0.1	0.002
Units				mV	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Action Levels																		
MOUNT-PIPER-EPL-13007-DISCHARGE[1]																		
Sample Location	**Date Sampled**	**Sample ID**	**Sample Type**															
LDP12	7/01/2026	LDP12_20260107	N	**220**	**6.8**	< 0.01	**0.5**	< 0.01	**0.5**	**0.2**	**0.7**	**0.03**	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.002
	21/01/2026	LDP12_20260121	N	**212**	**8.7**	< 0.01	**0.56**	< 0.01	**0.56**	**0.4**	**1**	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.002
	13/03/2026	LDP12_20260313	N	**160.9**	**6.8**	**0.04**	**0.49**	< 0.01	**0.49**	**0.3**	**0.8**	< 0.01	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.002
	25/03/2026	LDP12_20260325	N	**202.9**	**8**	**0.08**	**0.59**	< 0.01	**0.59**	**0.4**	**1**	**0.02**	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.002
	9/06/2026	LDP12_20260609	N	**258.6**	**8.6**	**0.03**	**0.45**	< 0.01	**0.45**	**0.3**	**0.8**	**0.02**	< 0.01	< 0.1	< 0.01	< 0.1	< 0.1	< 0.002
	25/06/2026	LDP12_20260625	N	**123.6**	**8.7**	**0.08**	**0.4**	< 0.01	**0.4**	**0.4**	**0.8**	**0.03**	**0.02**	< 0.1	< 0.01	< 0.1	< 0.1	< 0.002

APPENDIX J GROUNDWATER TRENDS

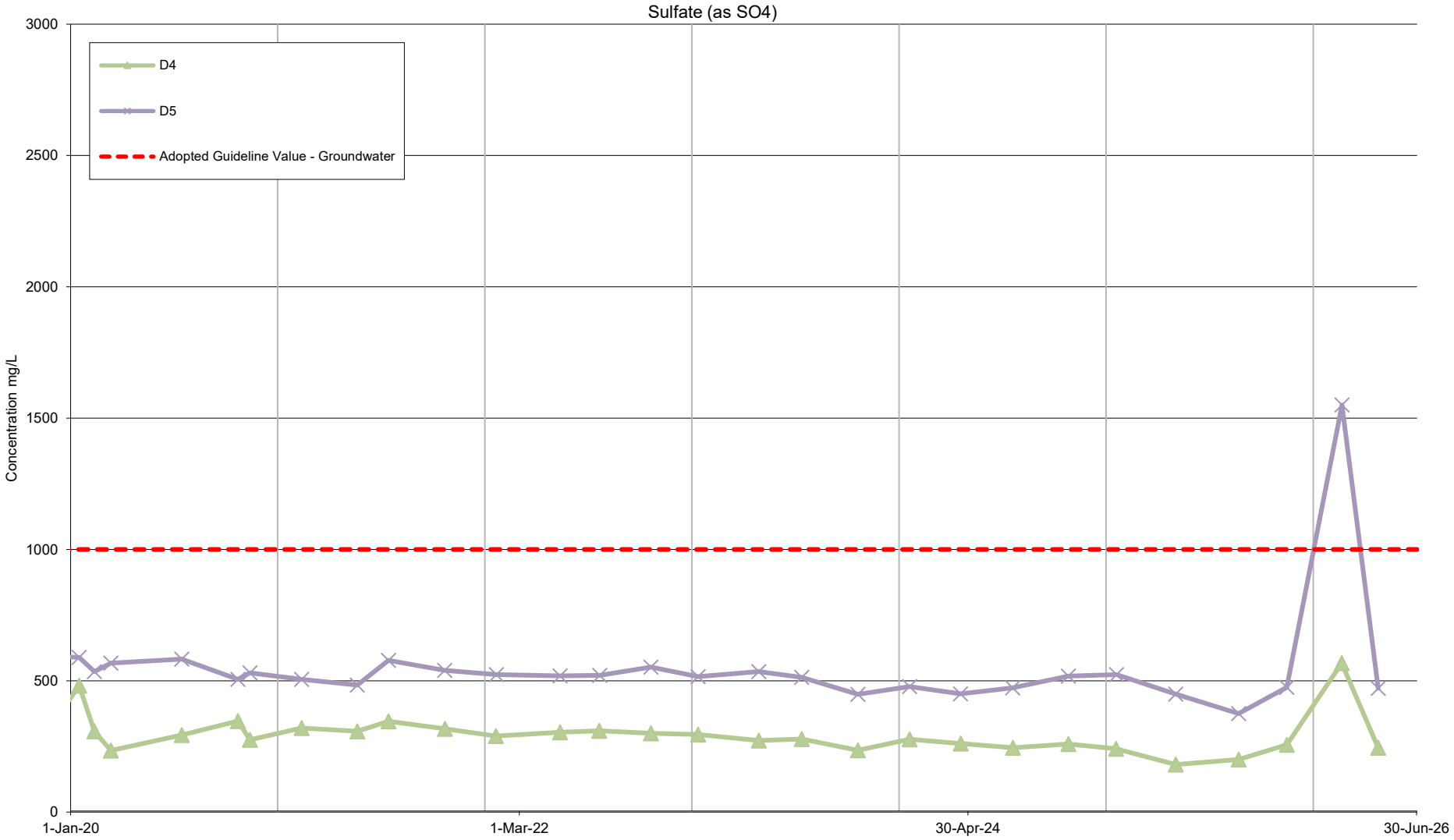
Appendix J. Upgradient MPAR / Background Wells - TDS Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



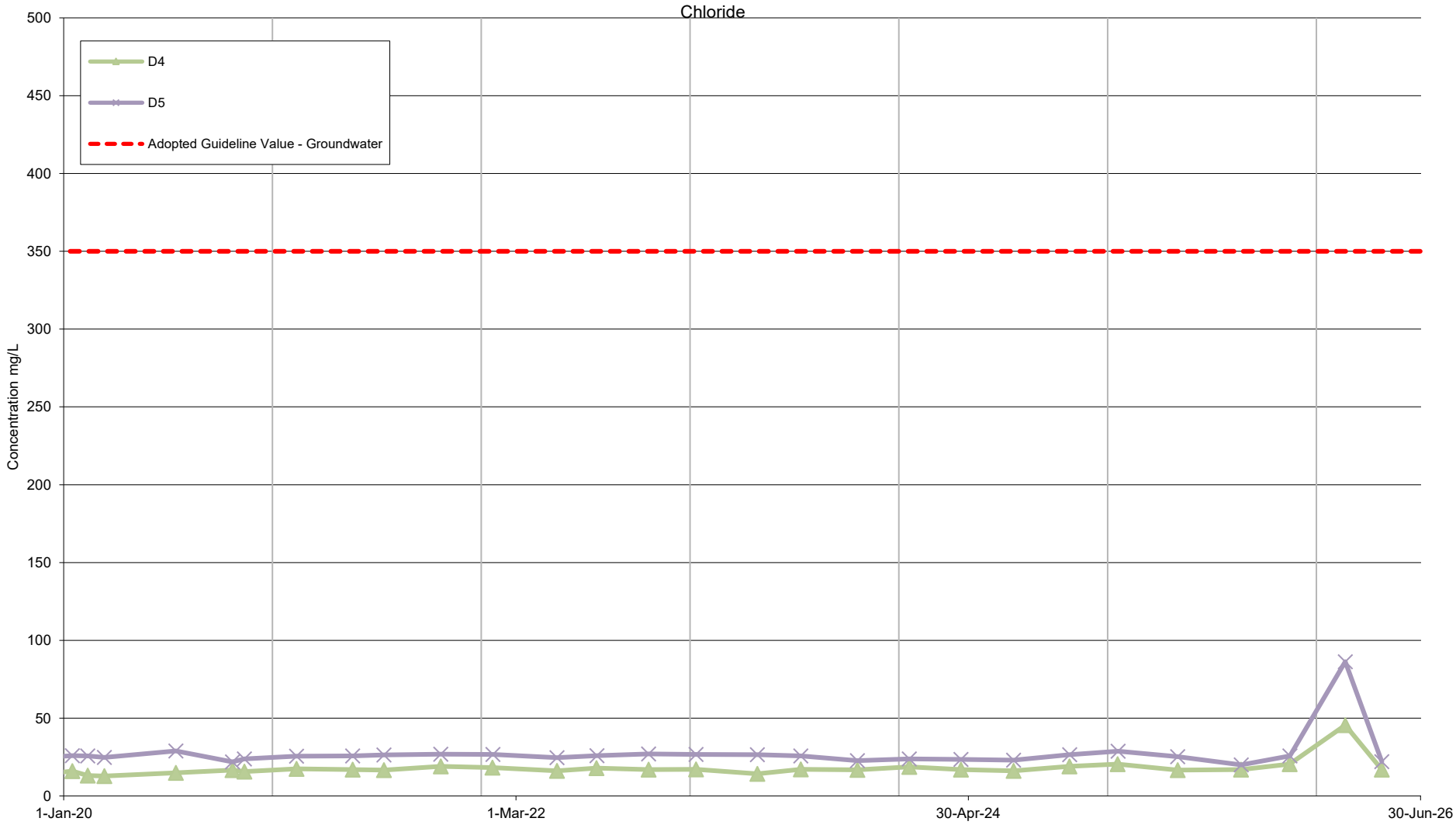
Appendix J. Upgradient / Background Wells - EC Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



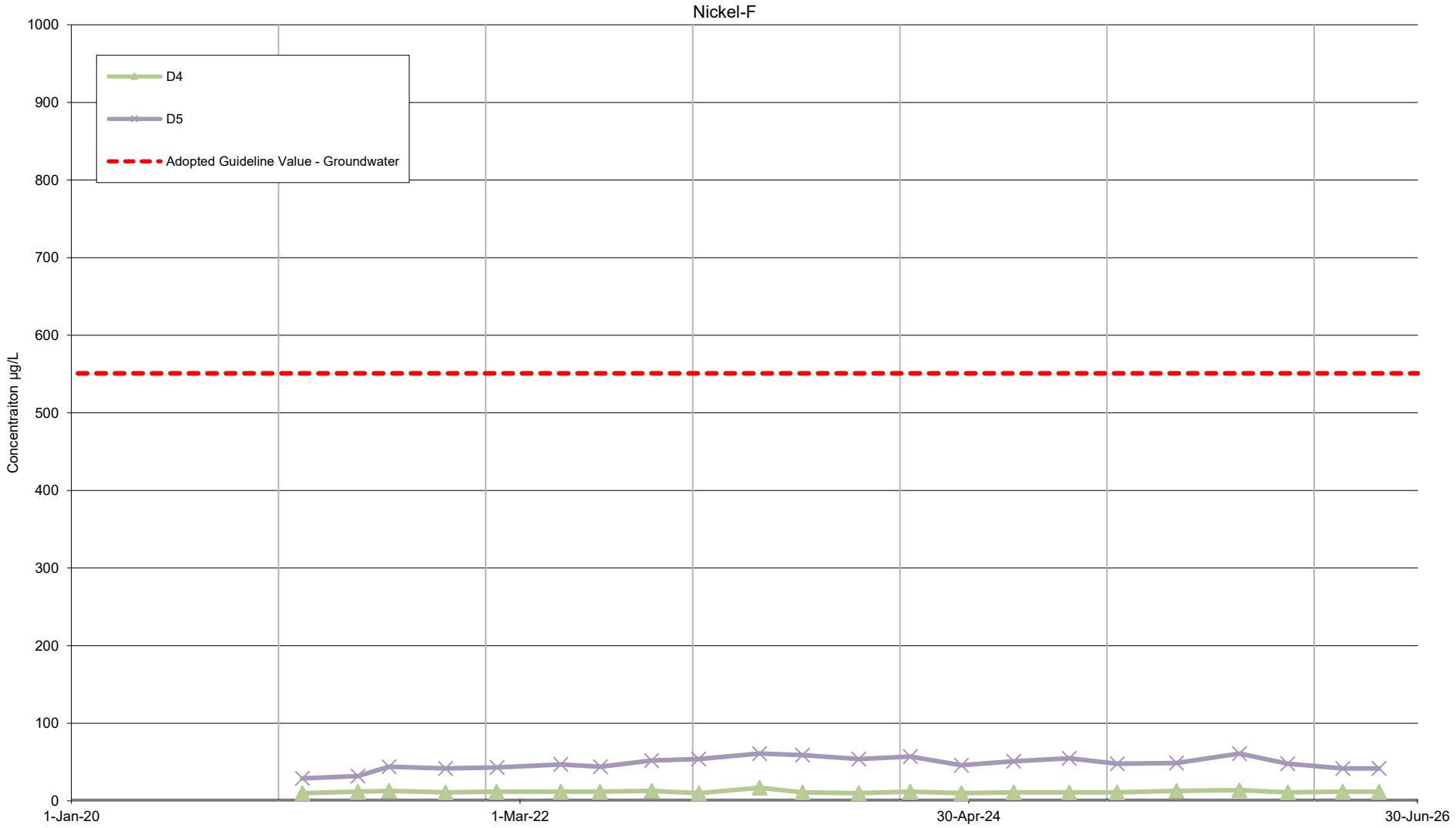
Appendix J. Upgradient / Background Wells - Sulfate (as SO4) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



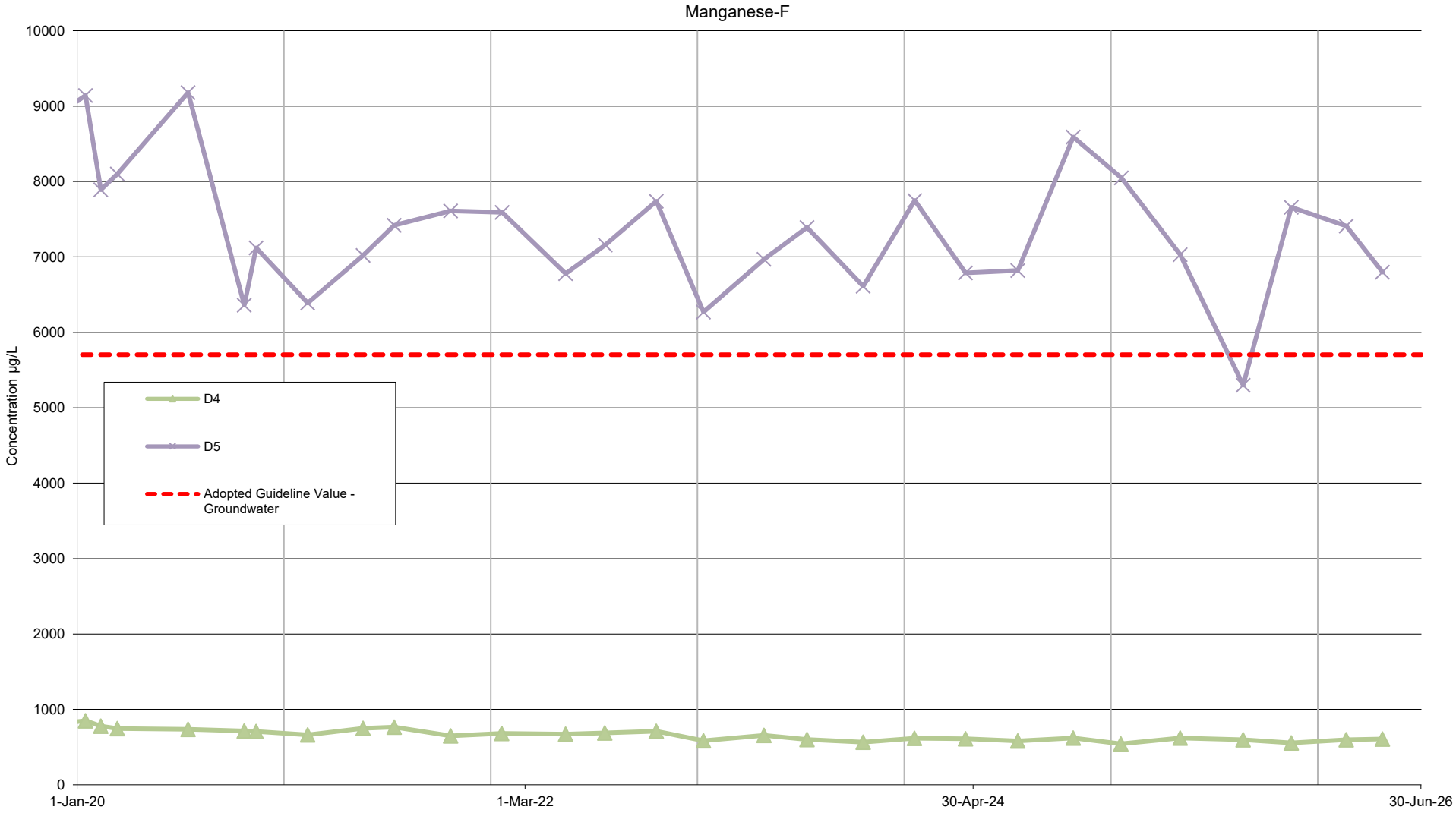
Appendix J. Upgradient / Background Wells - Chloride Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



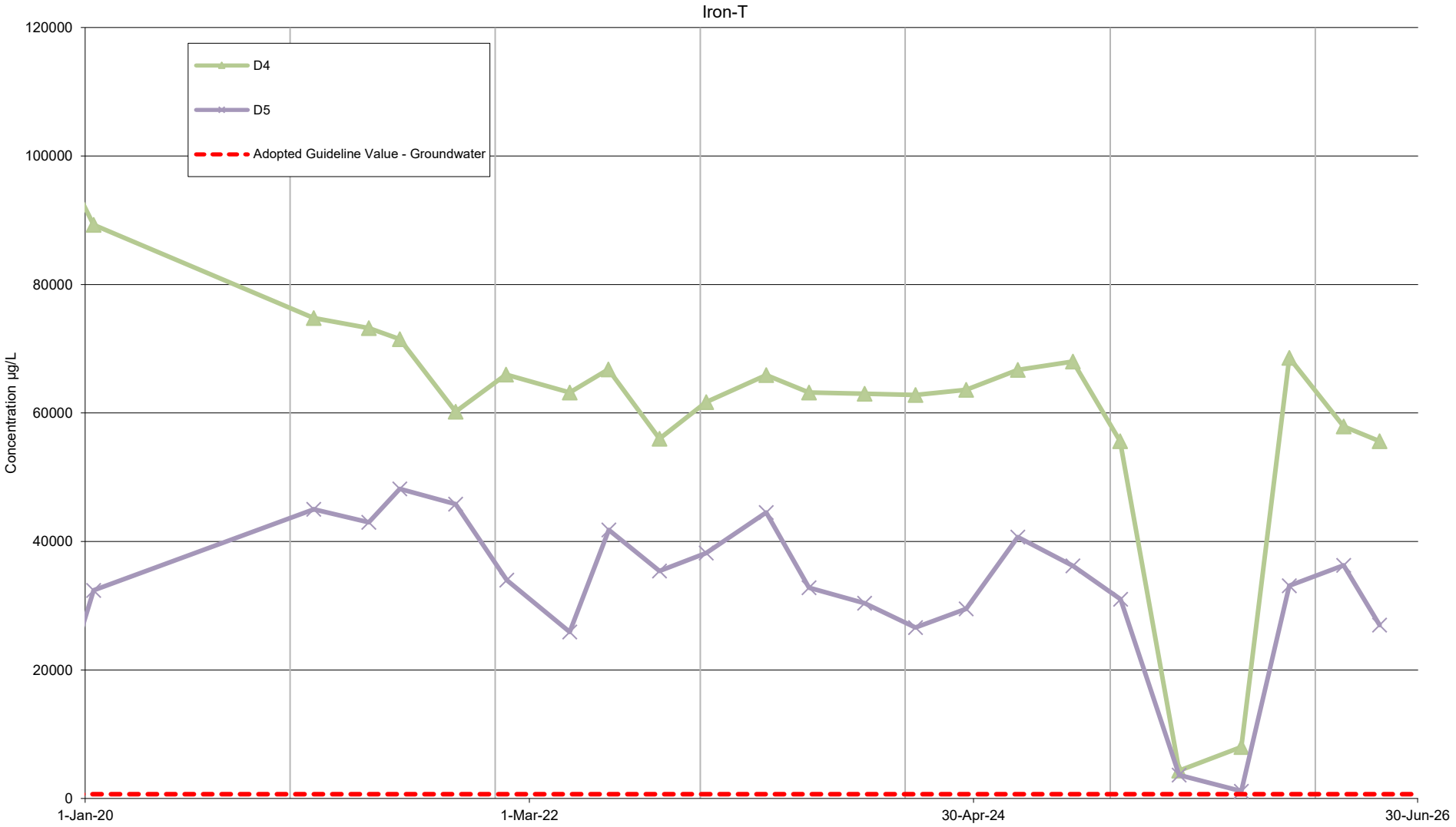
Appendix J. Upgradient / Background Wells - Nickel (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



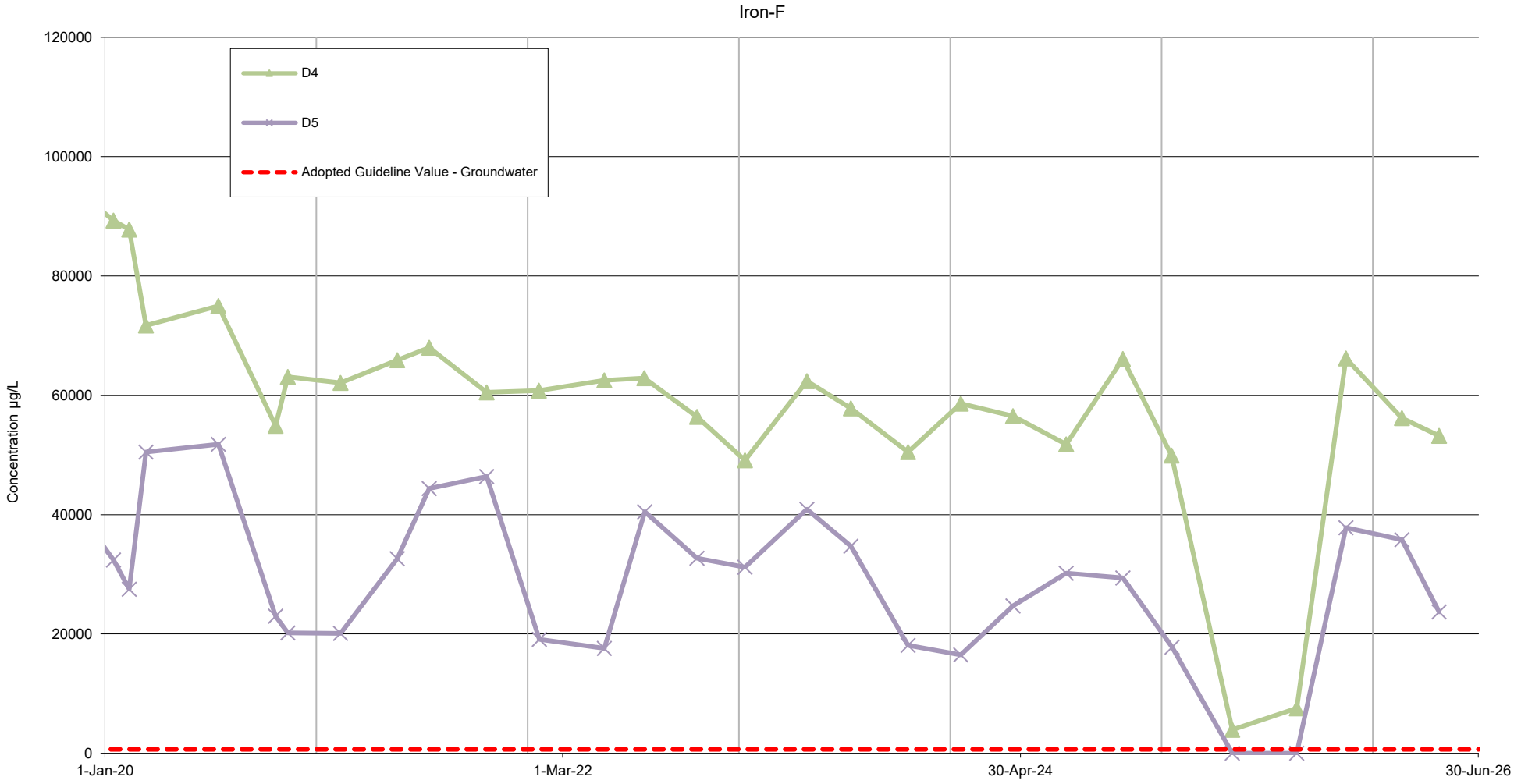
Appendix J. Upgradient / Background Wells - Manganese (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



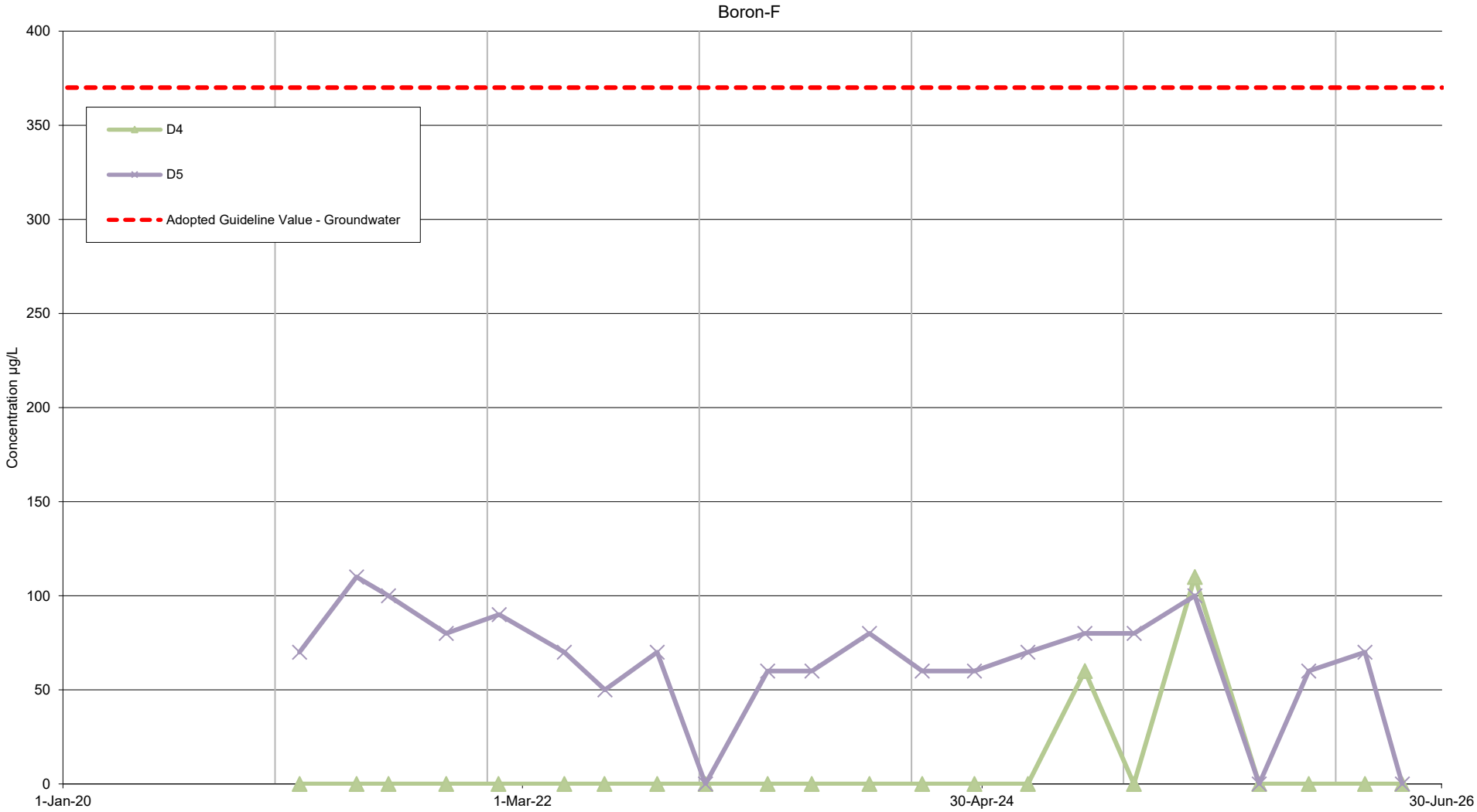
Appendix J.. Upgradient / Background Wells - Iron (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



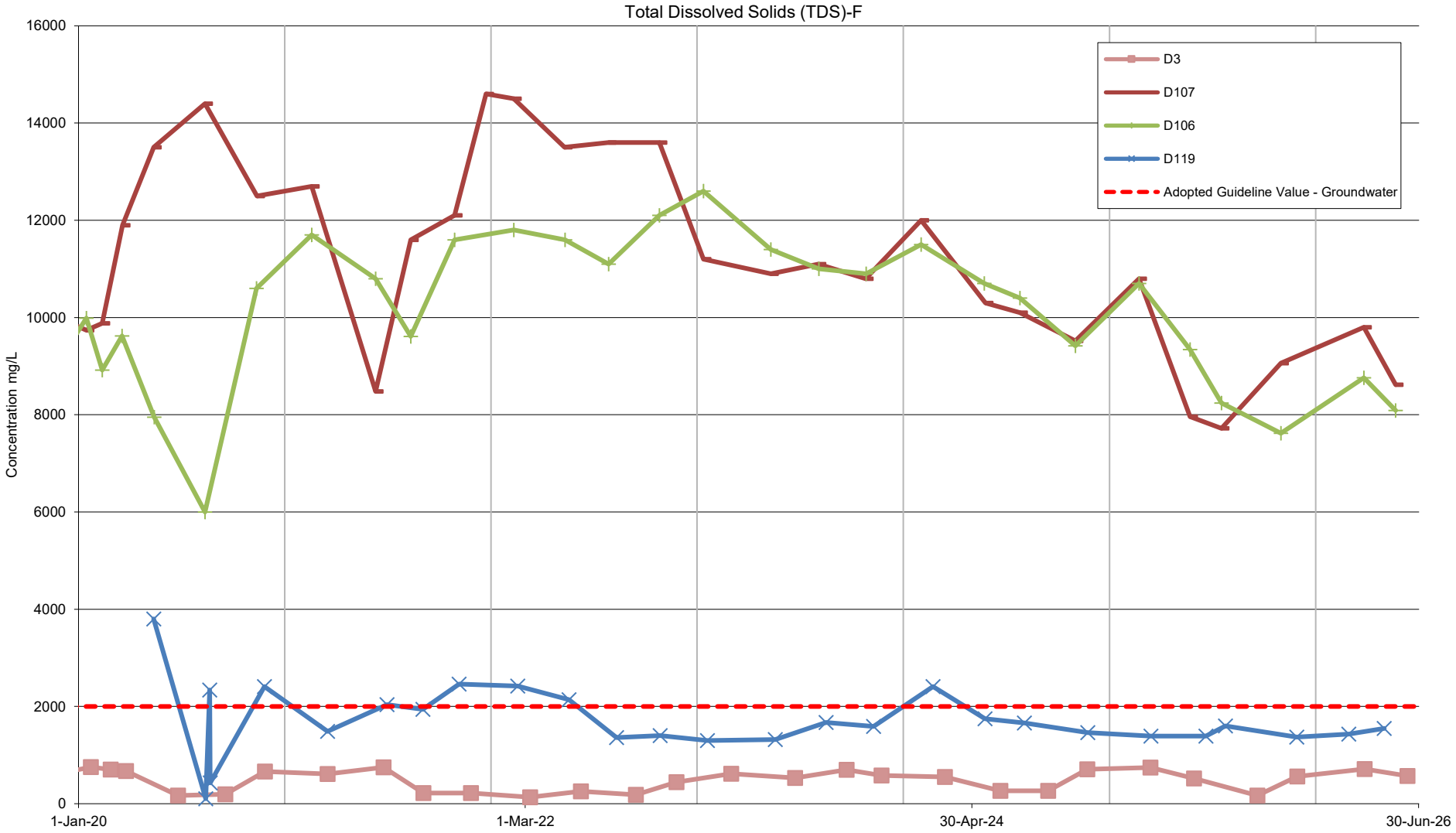
Appendix J. Upgradient / Background Wells - Iron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



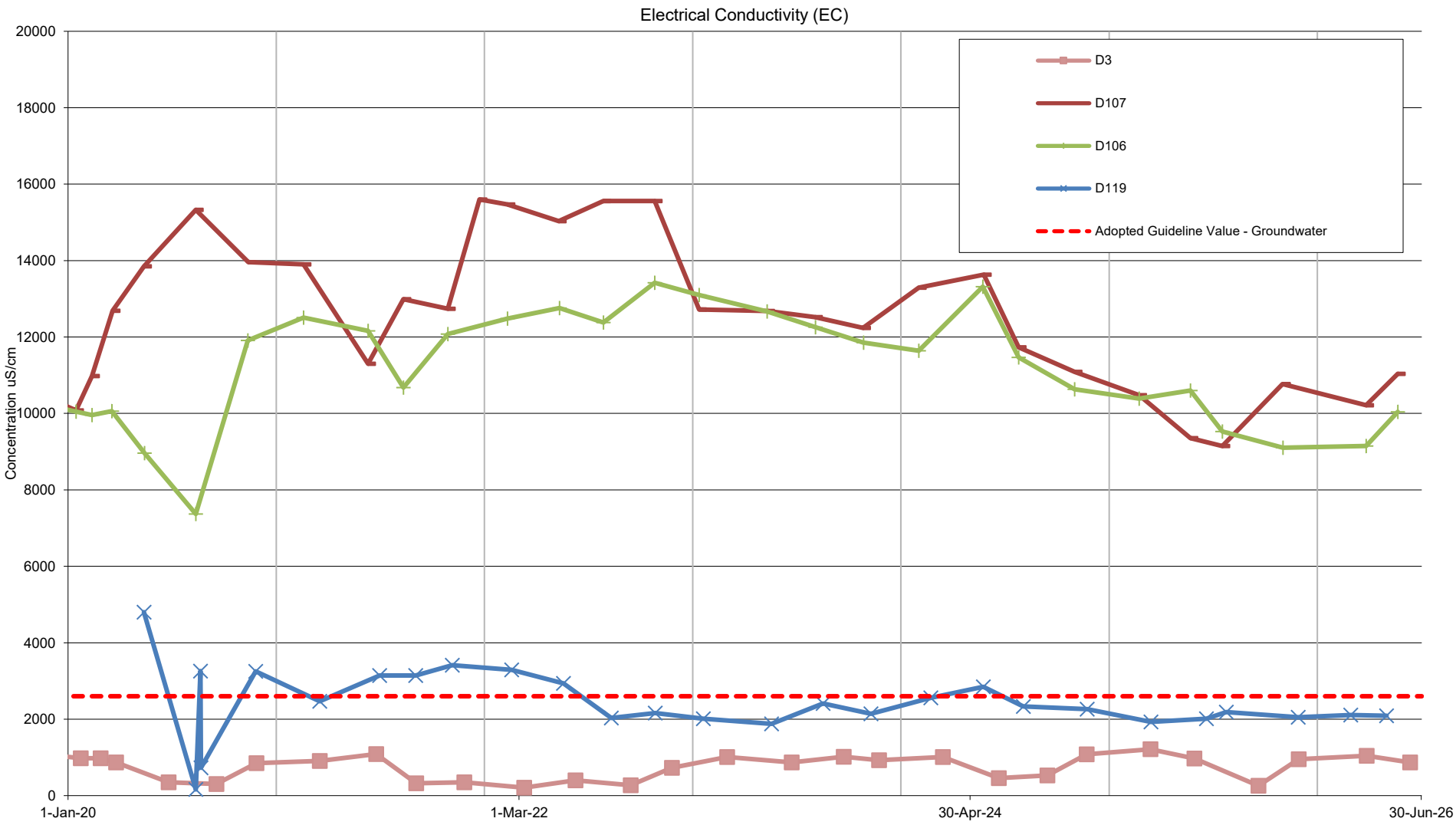
Appendix J. Upgradient / Background Wells - Boron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



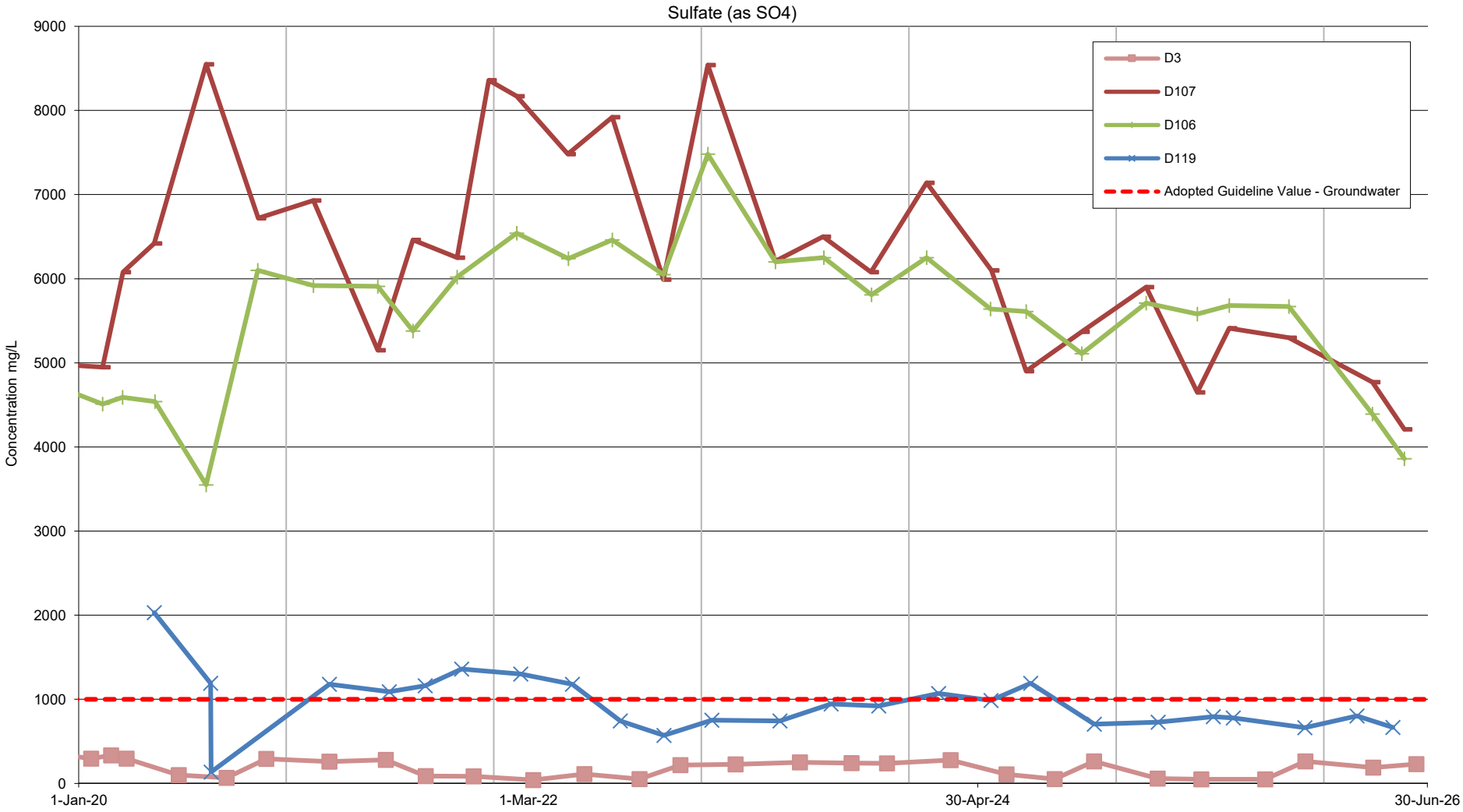
Appendix J. Cross-gradient MPAR / Adjacent MPAR North and Adjacent Wangcol Creek - TDS Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



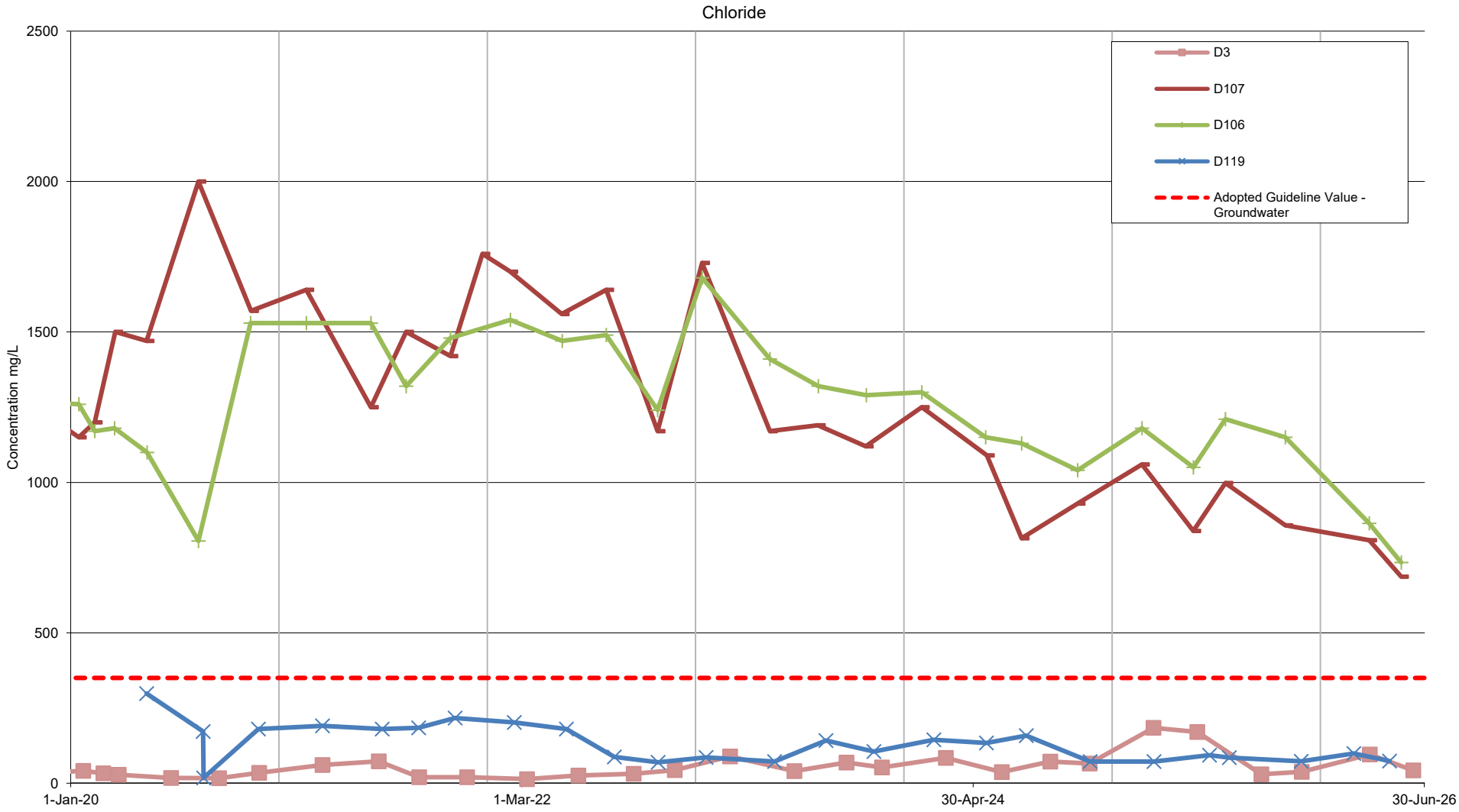
Appendix J. Cross-gradient MPAR / Adjacent MPAR North and Adjacent Wangcol Creek - EC Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



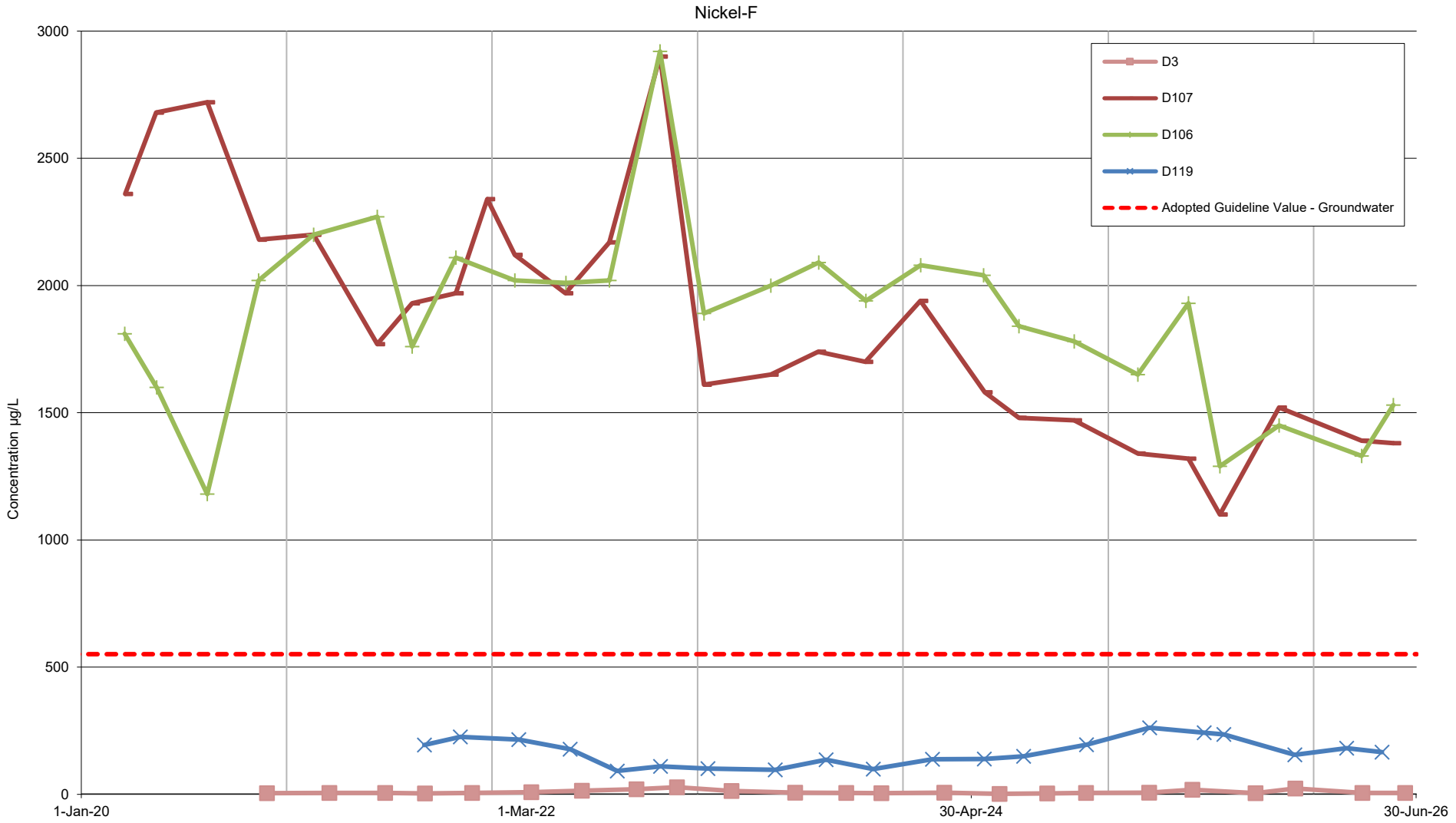
Appendix J. Cross-gradient MPAR / Adjacent MPAR North and Adjacent Wangcol Creek - Sulfate (as SO4) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



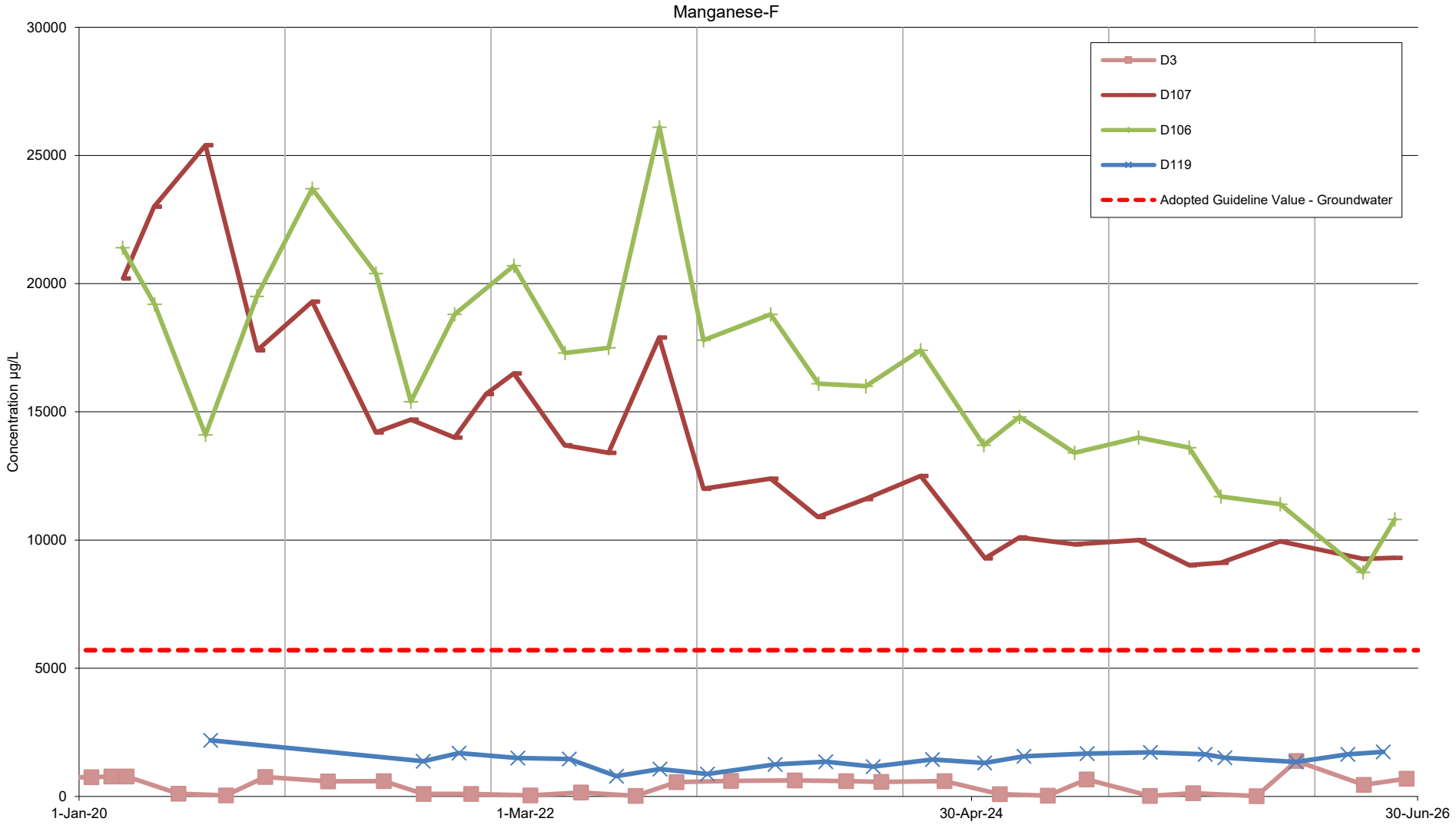
Appendix J. Cross-gradient MPAR / Adjacent MPAR North and Adjacent Wangcol Creek - Chloride Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



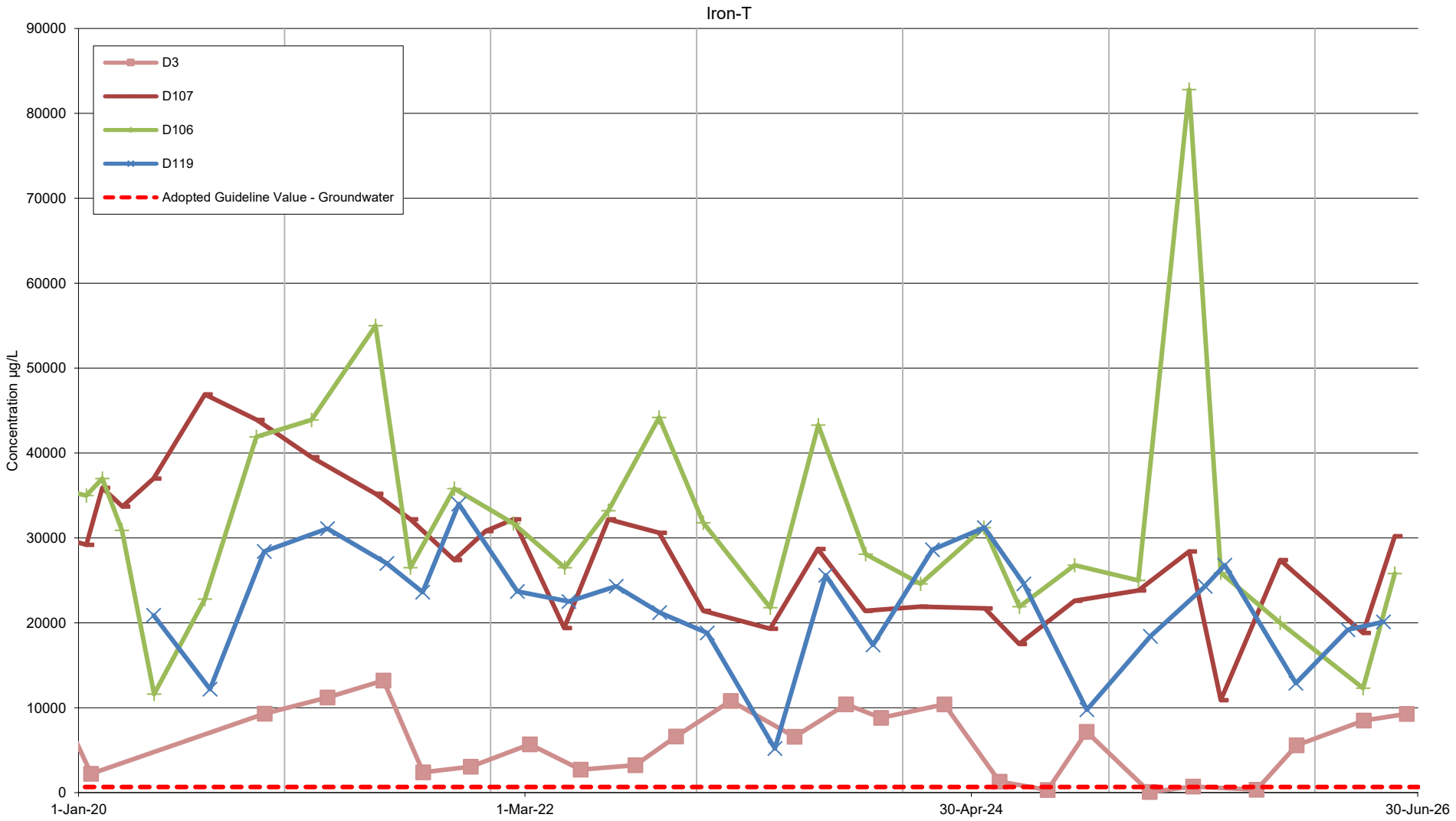
Appendix J. Cross-gradient MPAR / Adjacent MPAR North and Adjacent Wangcol Creek - Nickel (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



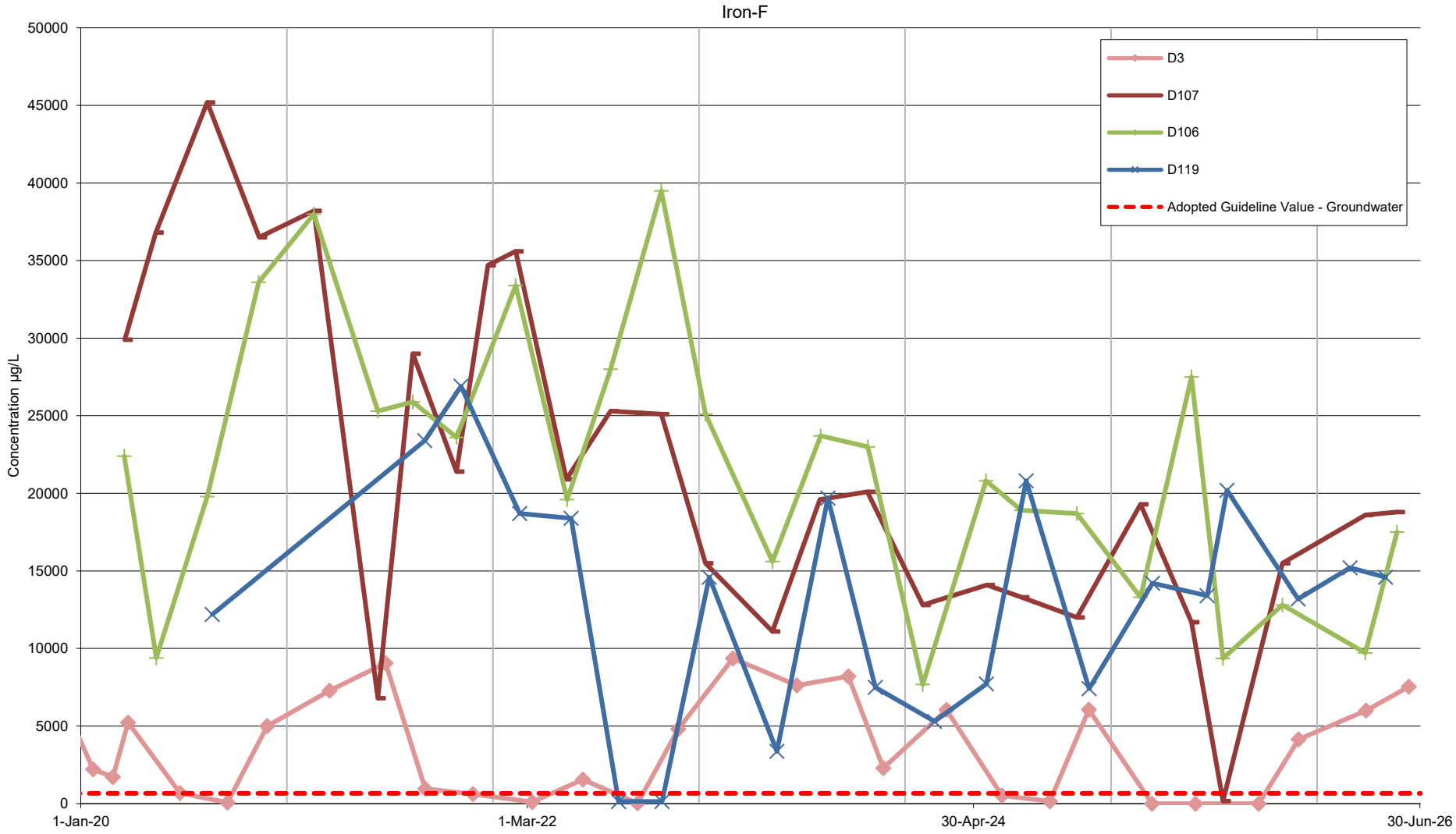
Appendix J. Cross-gradient MPAR / Adjacent MPAR North and Adjacent Wangcol Creek - Manganese (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



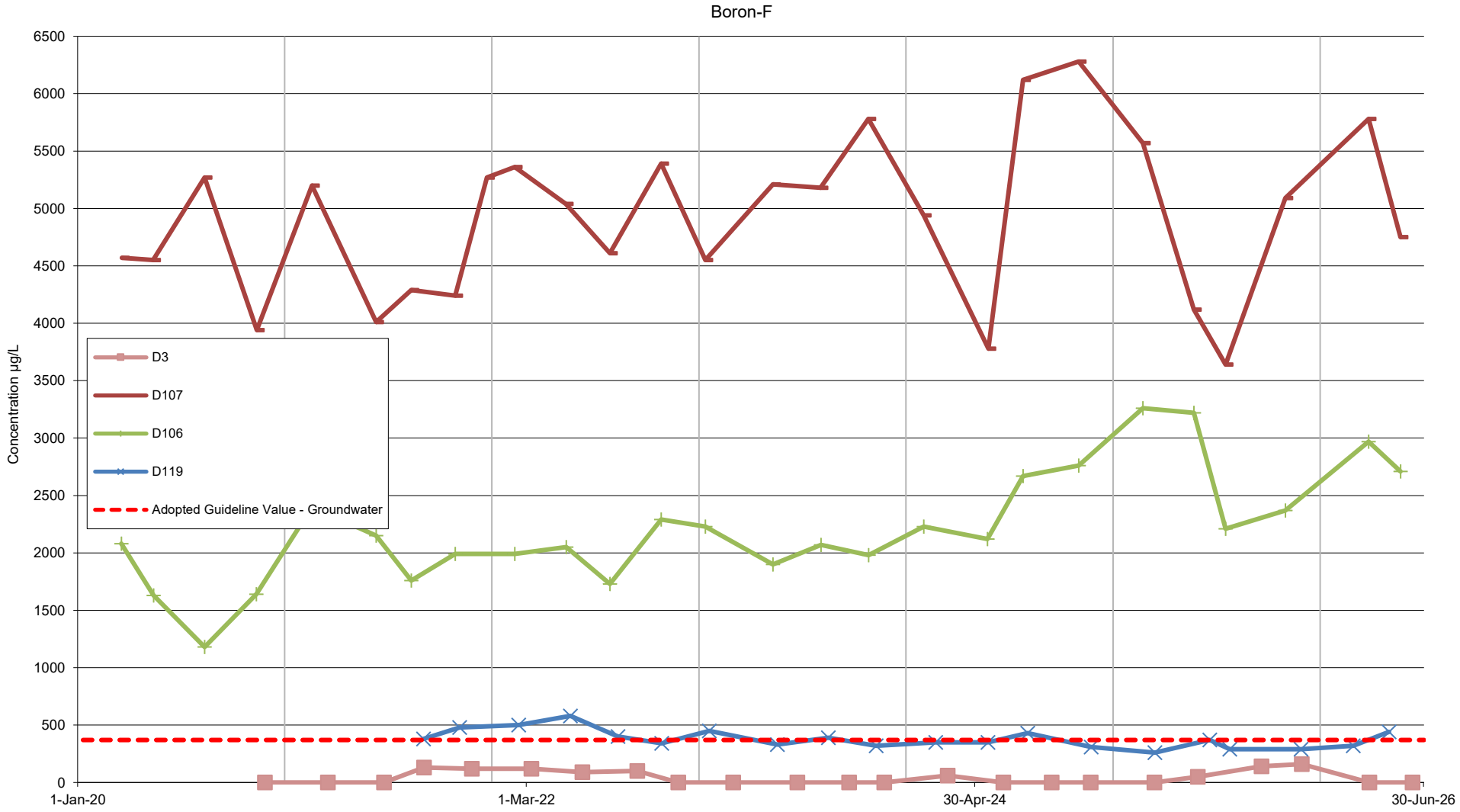
Appendix J. Cross-gradient MPAR / Adjacent MPAR North and Adjacent Wangcol Creek - Iron (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



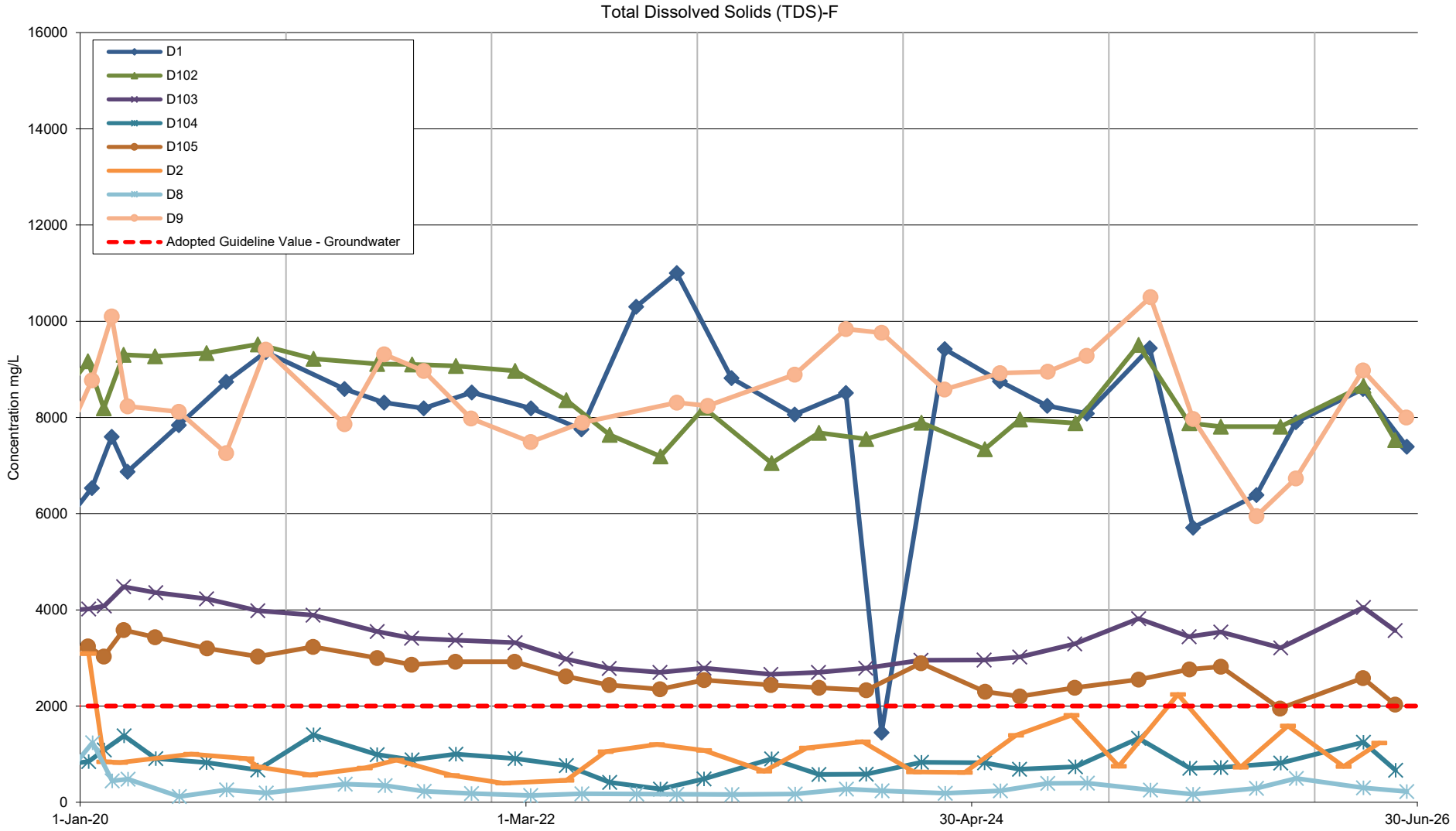
Appendix J. Cross-gradient MPAR / Adjacent MPAR North and Adjacent Wangcol Creek - Iron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



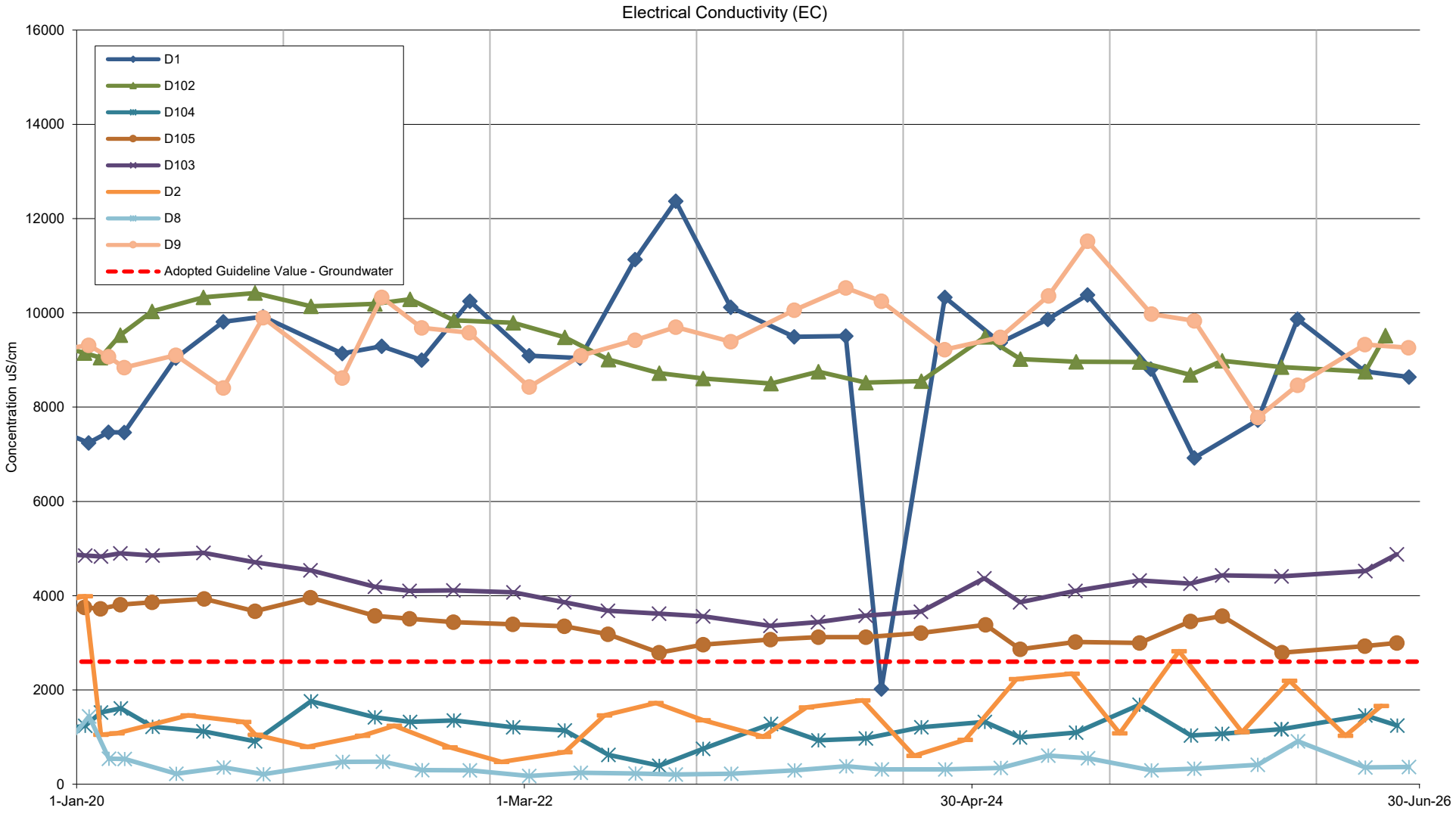
Appendix J. Cross-gradient MPAR / Adjacent MPAR North and Adjacent Wangcol Creek - Boron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



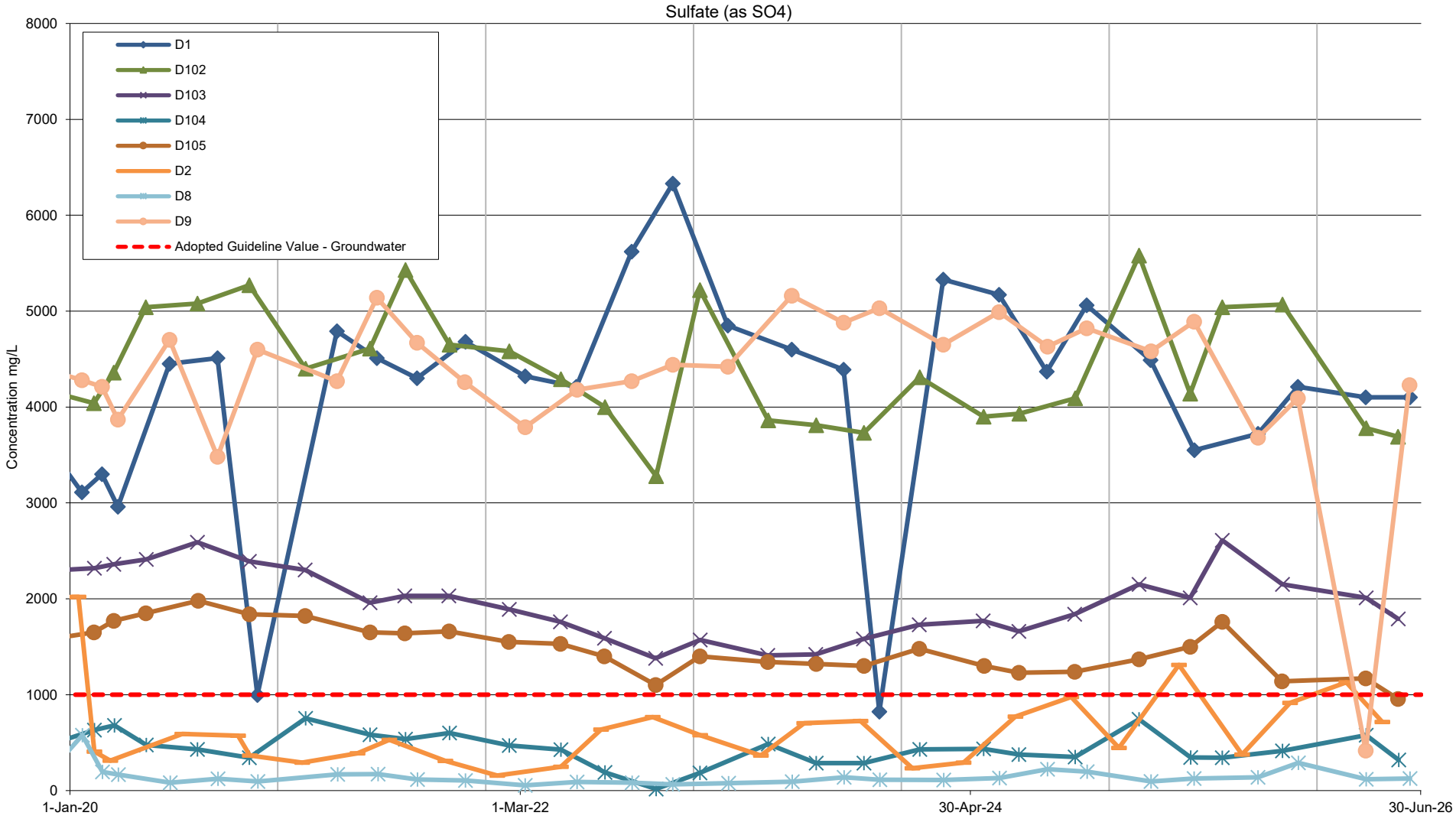
Appendix J. Downgradient MPAR, areas Adjacent to Wangcol Creek - TDS Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



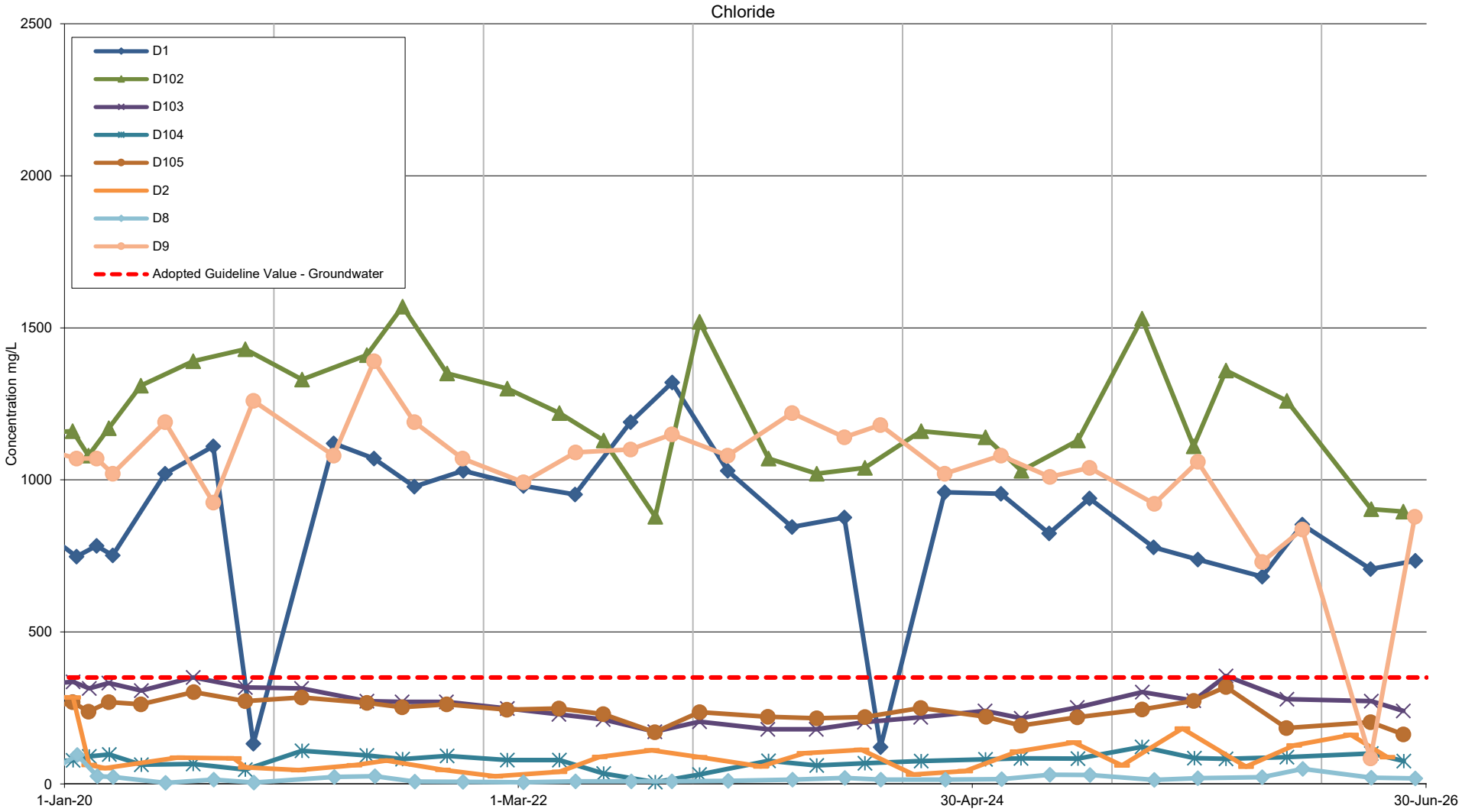
Appendix J. Downgradient MPAR, areas Adjacent to Wangcol Creek - EC Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



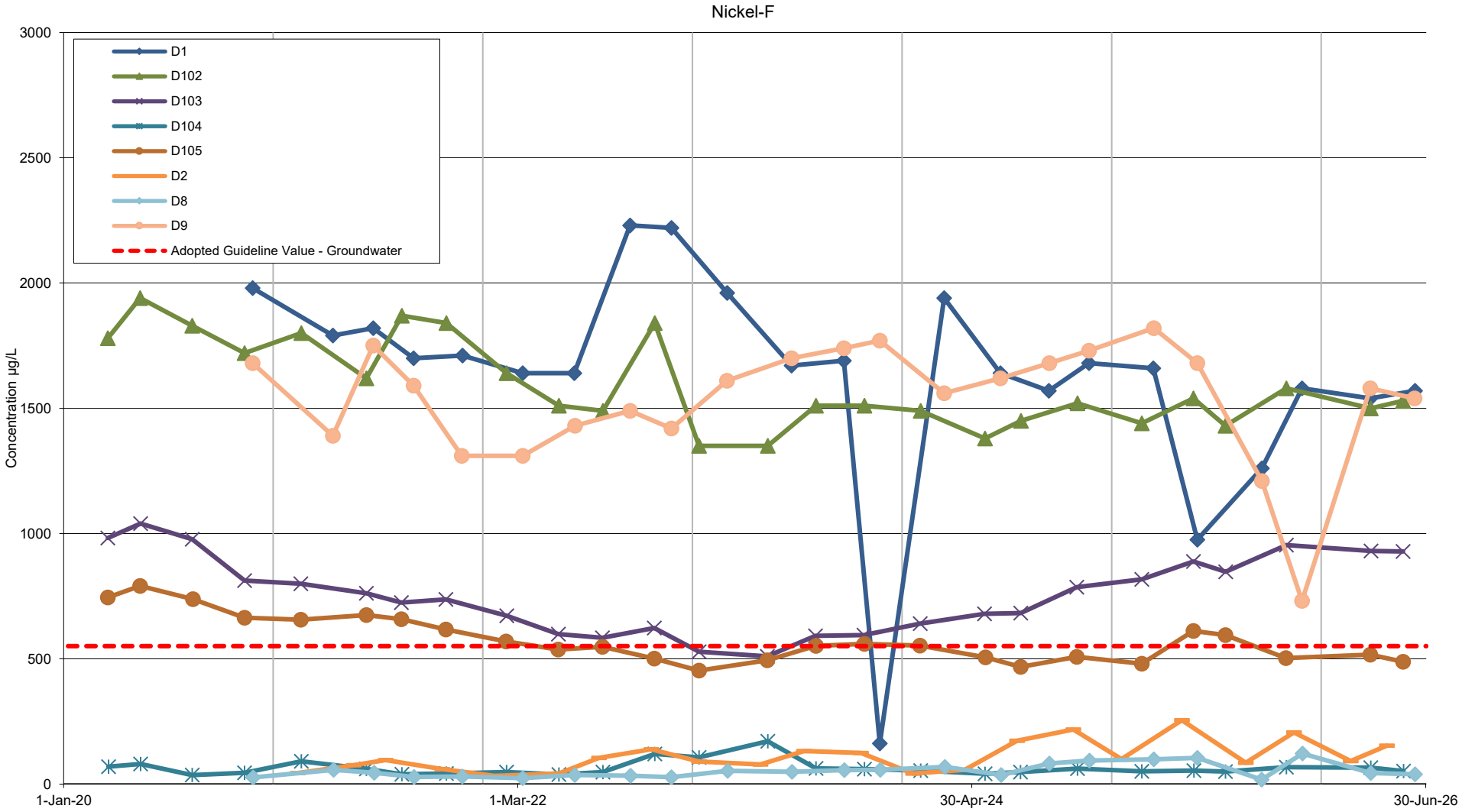
Appendix J. Downgradient MPAR, areas Adjacent to Wangcol Creek - Sulfate (as SO4) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



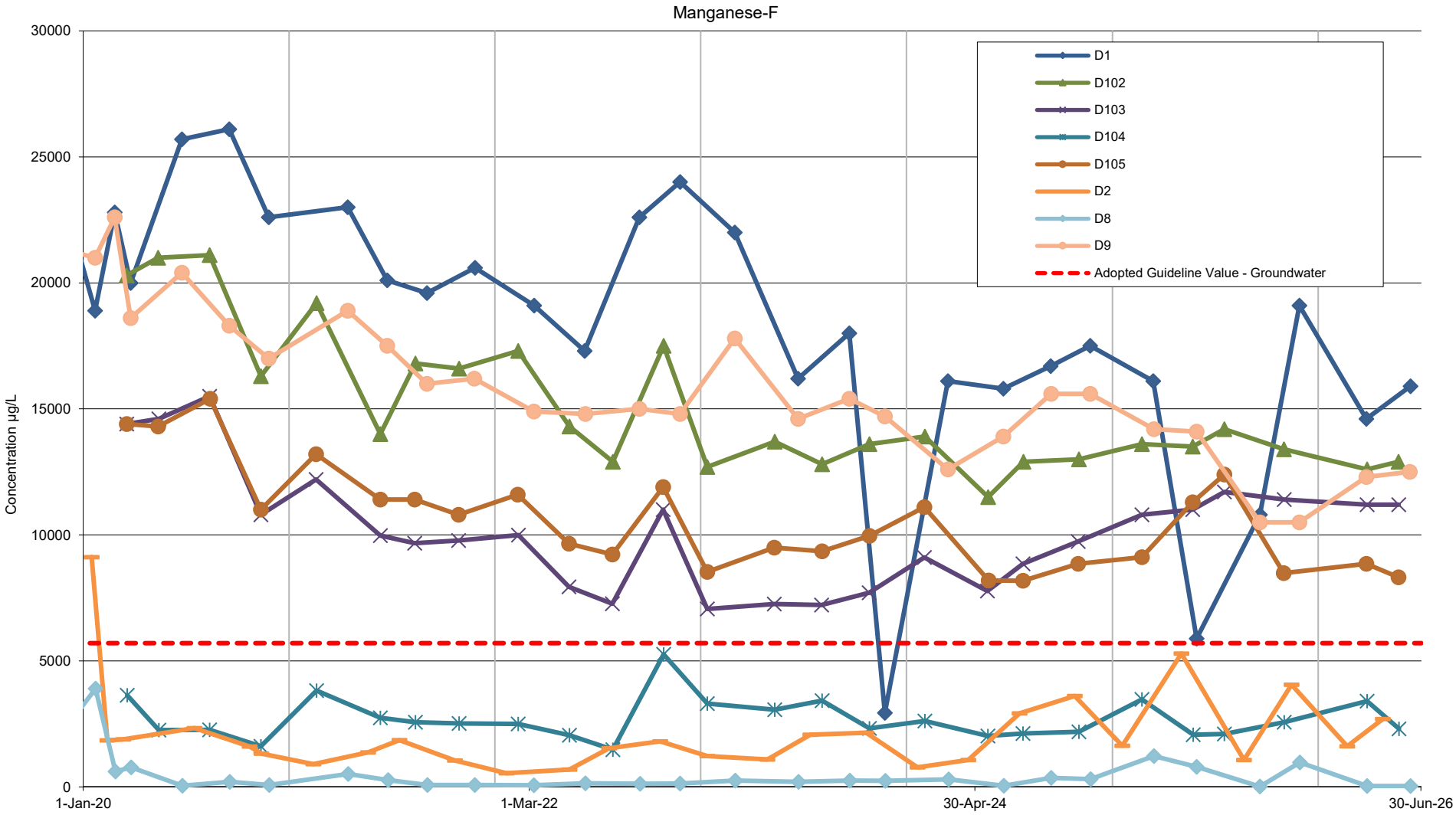
Appendix J. Downgradient MPAR, areas Adjacent to Wangcol Creek - Chloride Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



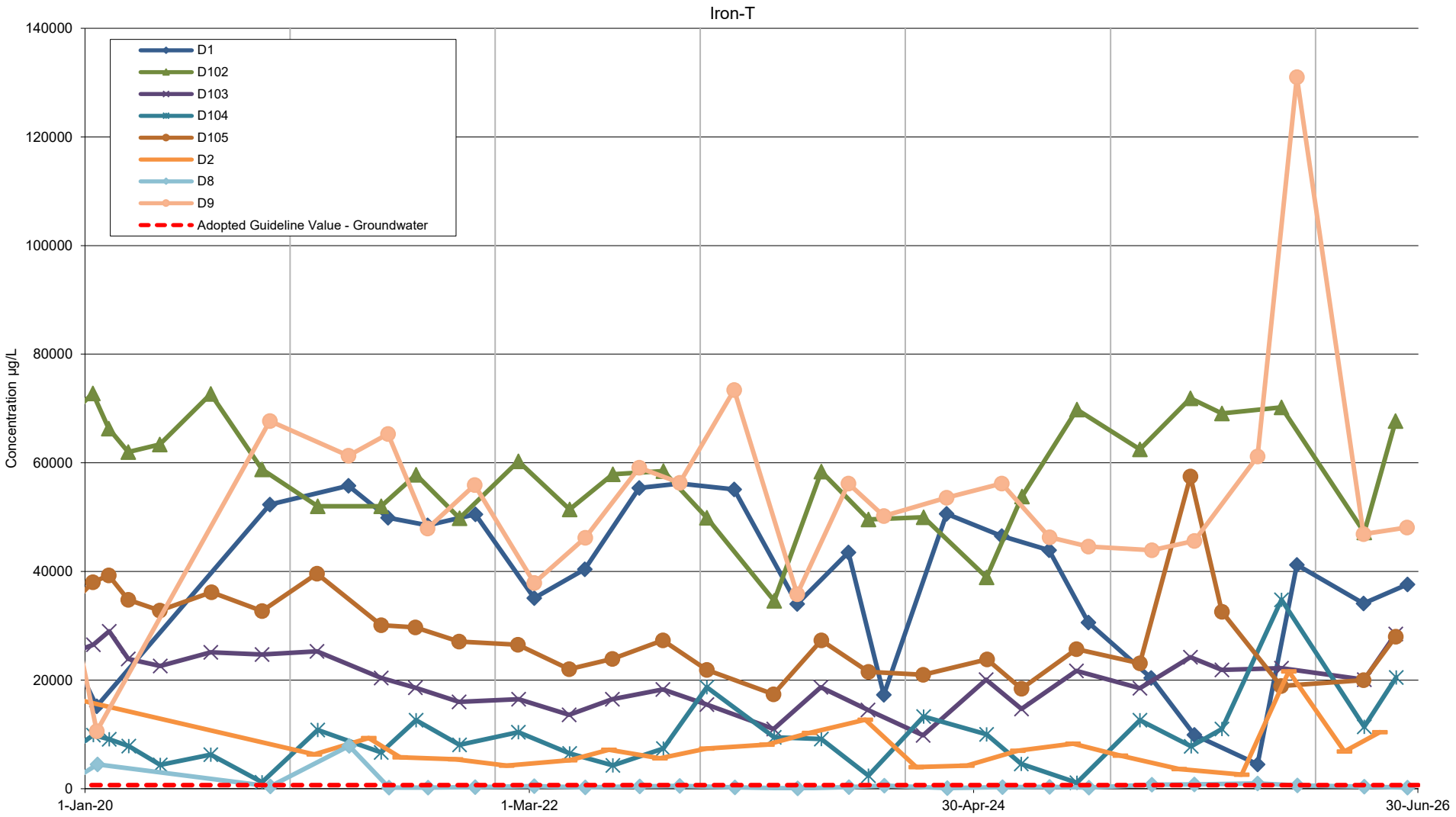
Appendix J. Downgradient MPAR, areas Adjacent to Wangcol Creek - Nickel (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



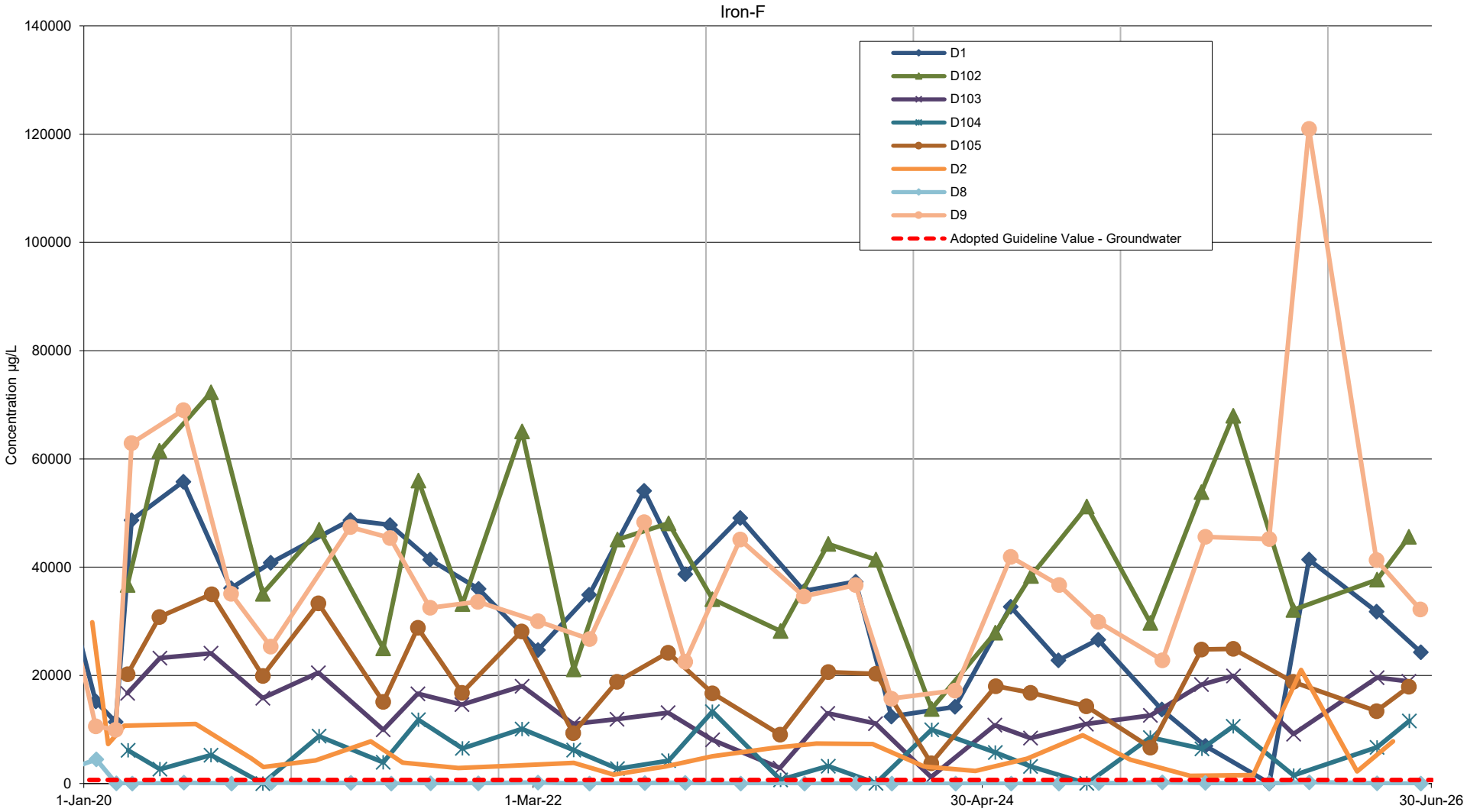
Appendix J. Downgradient MPAR, areas Adjacent to Wangcol Creek - Manganese (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



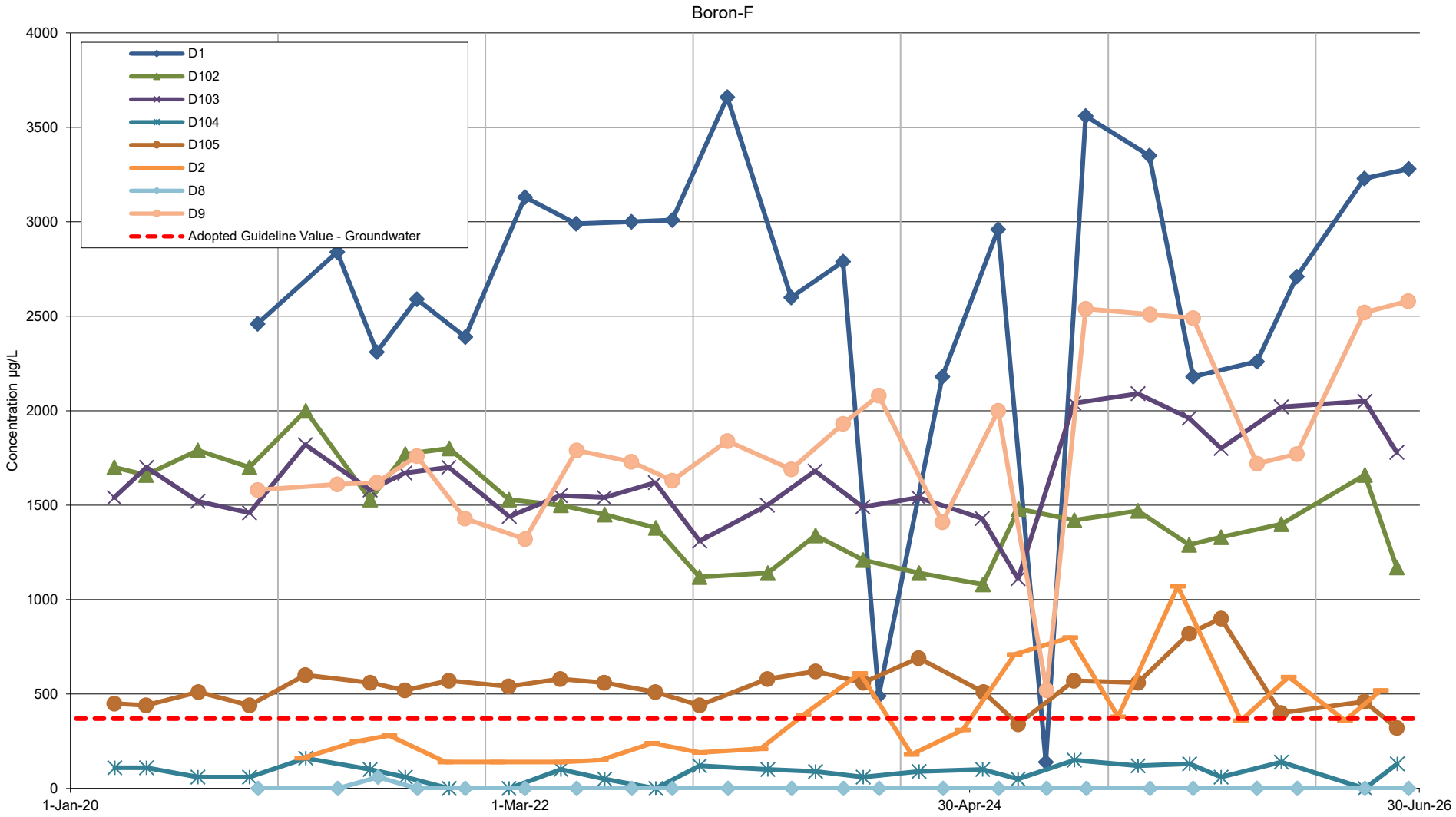
Appendix J. Downgradient MPAR, areas Adjacent to Wangcol Creek - Iron (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



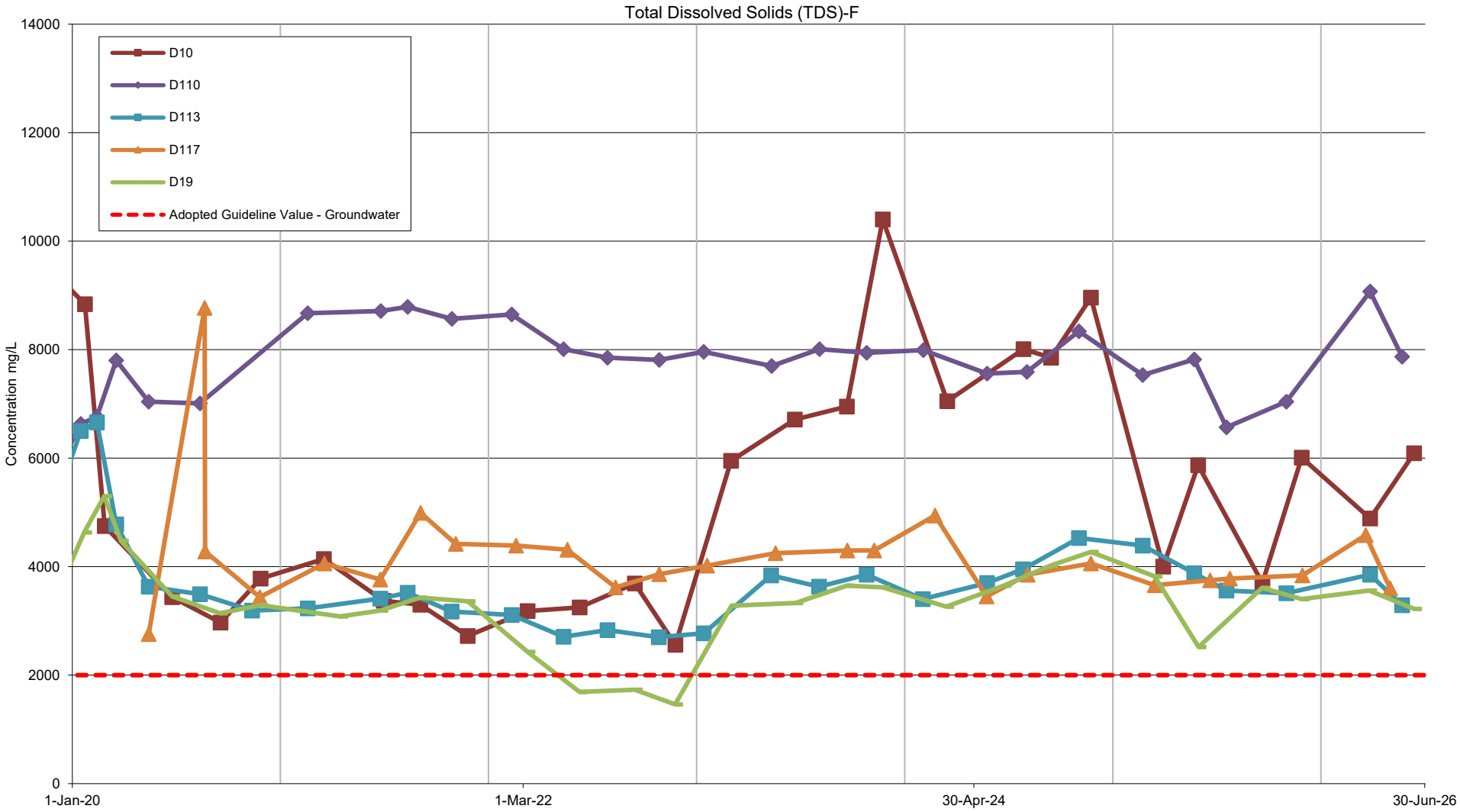
Appendix J. Downgradient MPAR, areas Adjacent to Wangcol Creek - Iron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



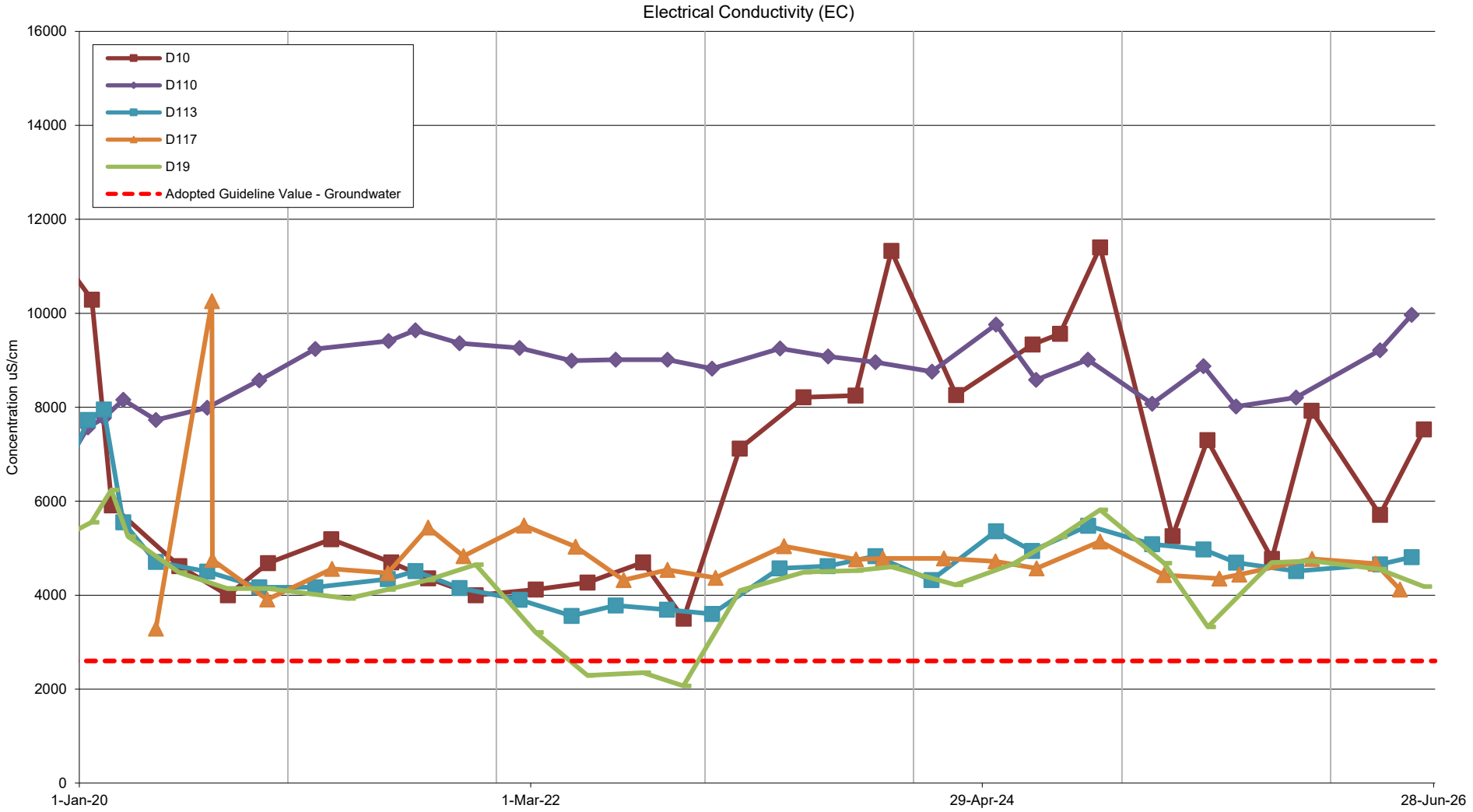
Appendix J. Downgradient MPAR, areas Adjacent to Wangcol Creek - Boron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



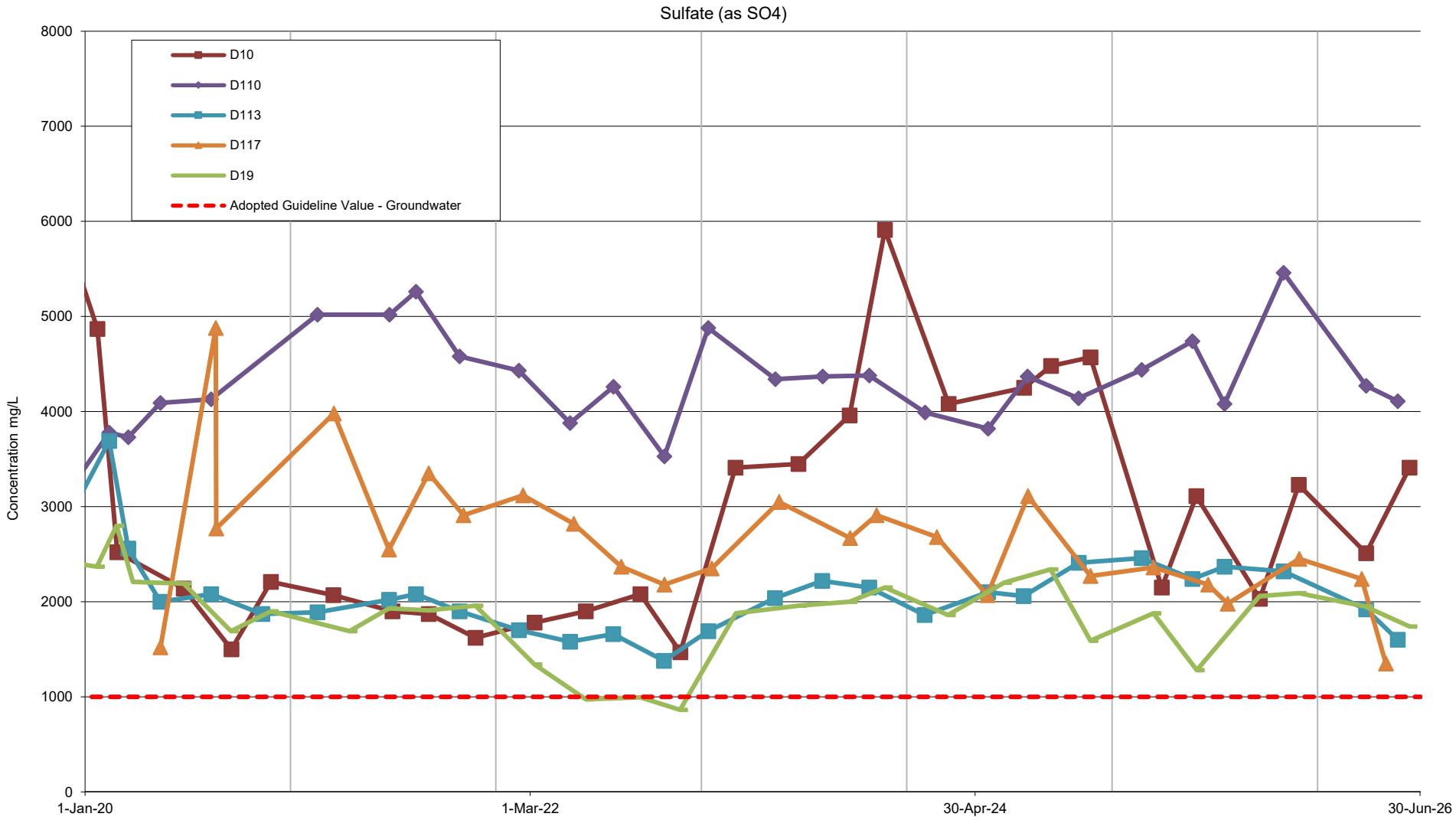
Appendix J. Downgradient MPAR, LNAR (North) and Historical Mining Disturbance (East) - TDS Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



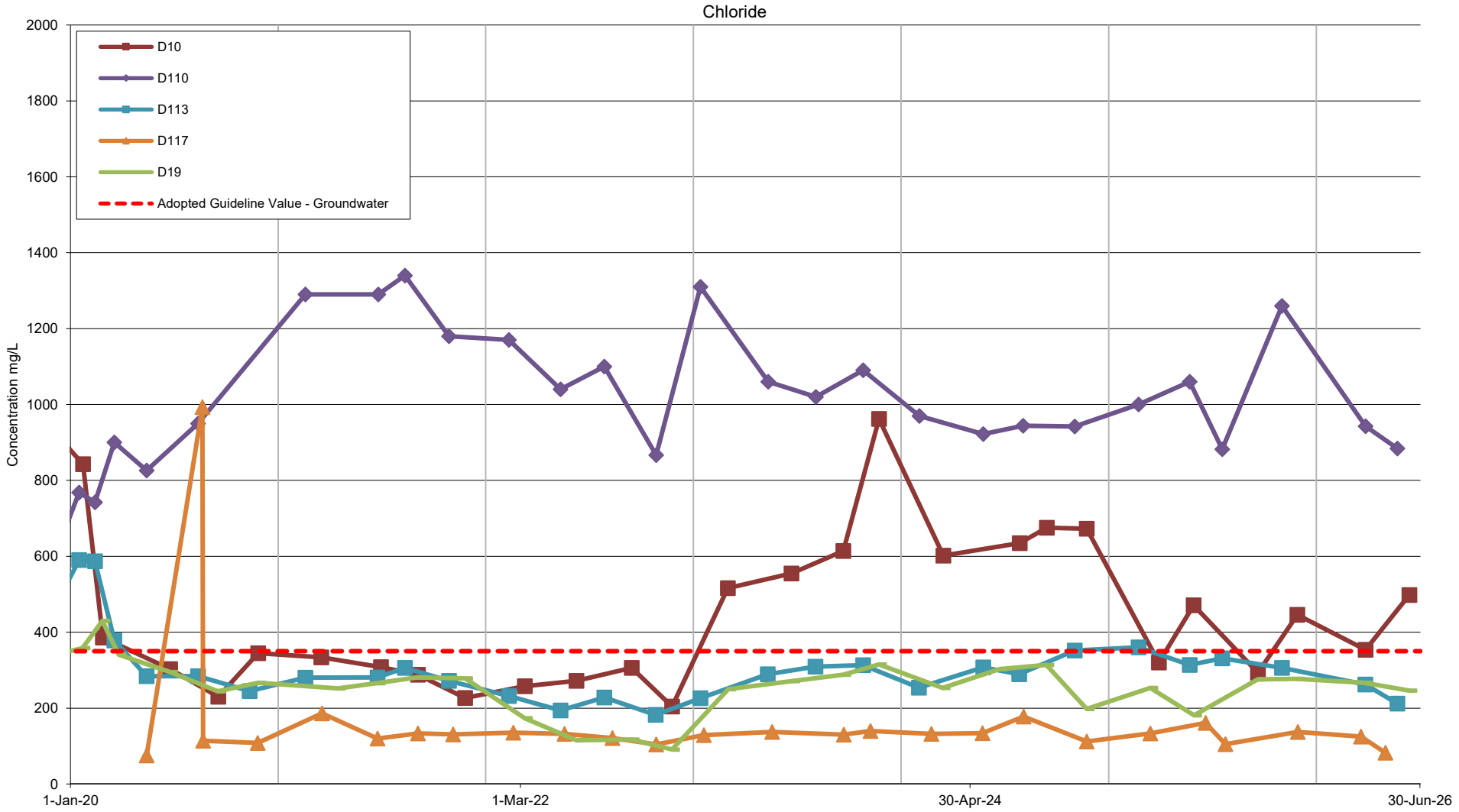
Appendix J. Downgradient MPAR, LNAR (North) and Historical Mining Disturbance (East) - EC Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



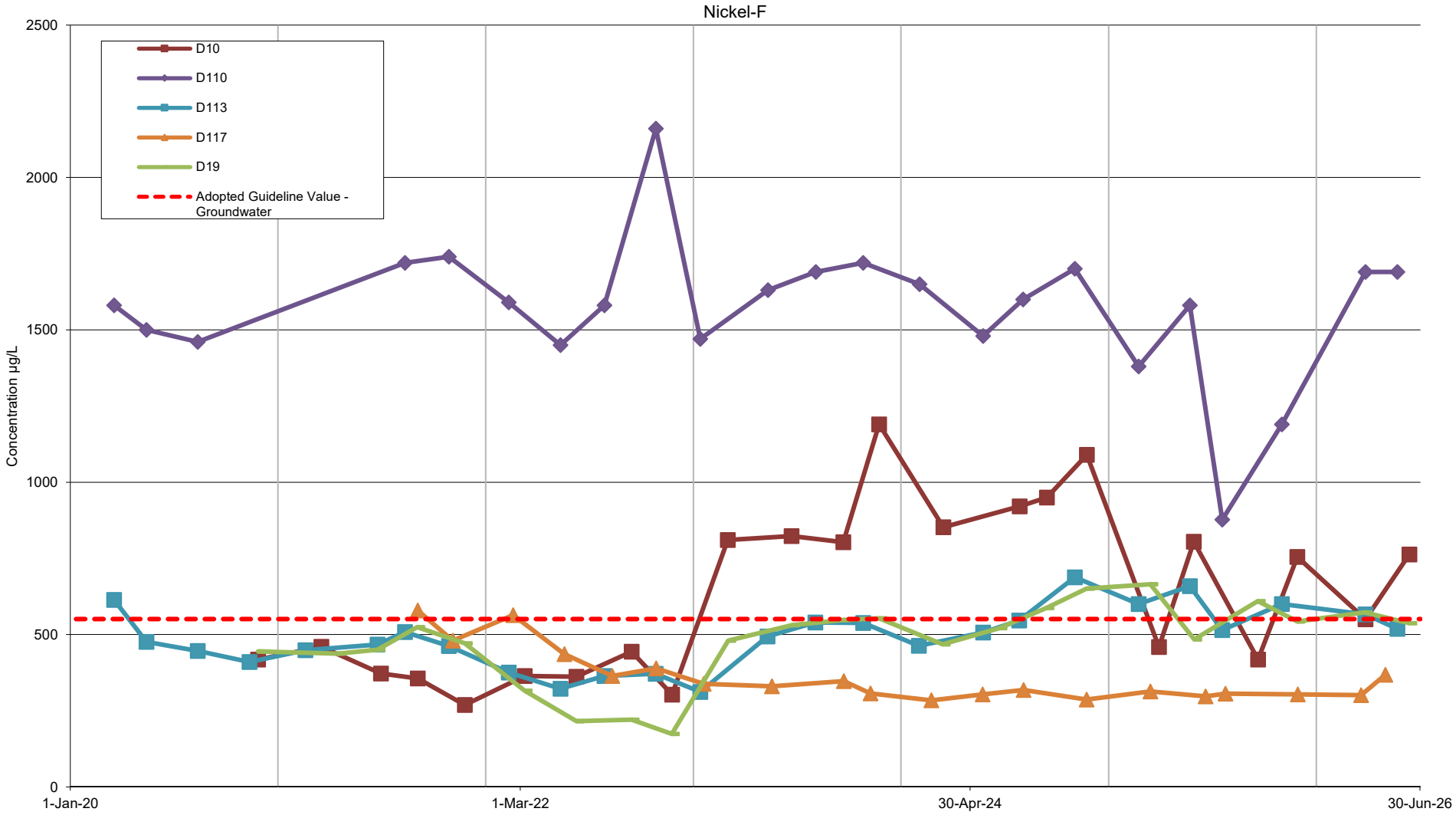
Appendix J. Downgradient MPAR, LNAR (North) and Historical Mining Disturbance (East) - Sulfate (as SO4) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



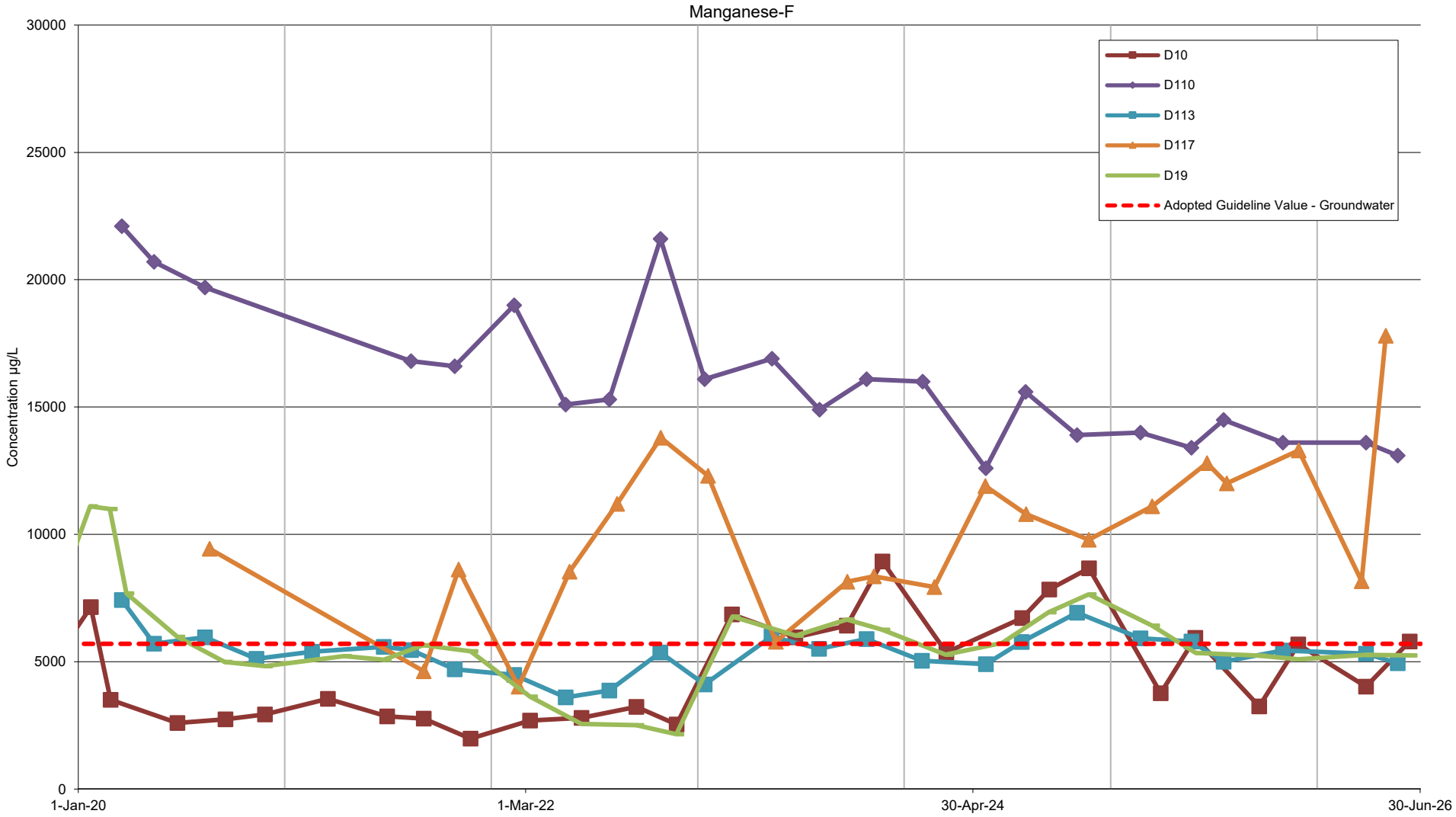
Appendix J. Downgradient MPAR, LNAR (North) and Historical Mining Disturbance (East) - Chloride Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



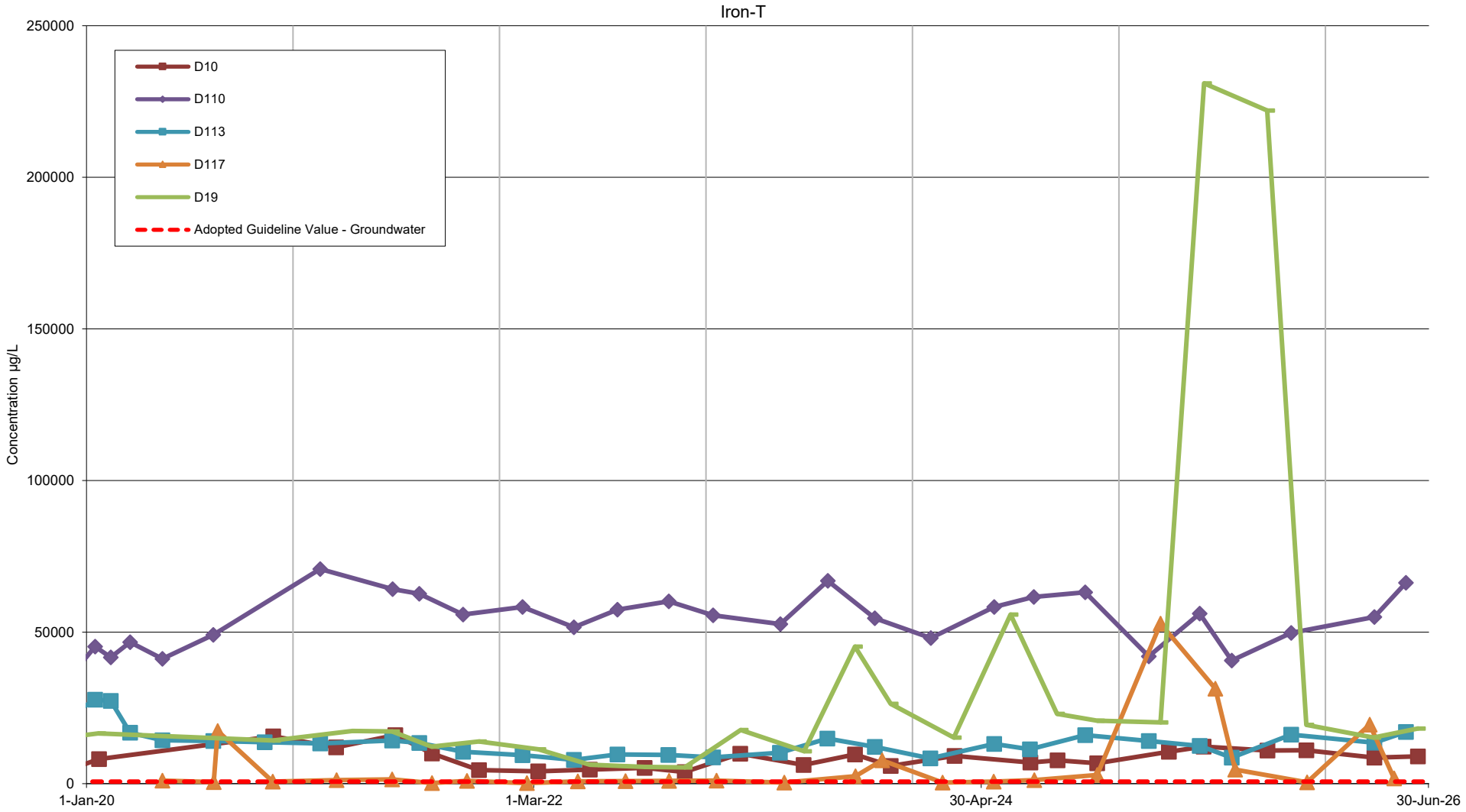
Appendix J. Downgradient MPAR, LNAR (North) and Historical Mining Disturbance (East) - Nickel (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



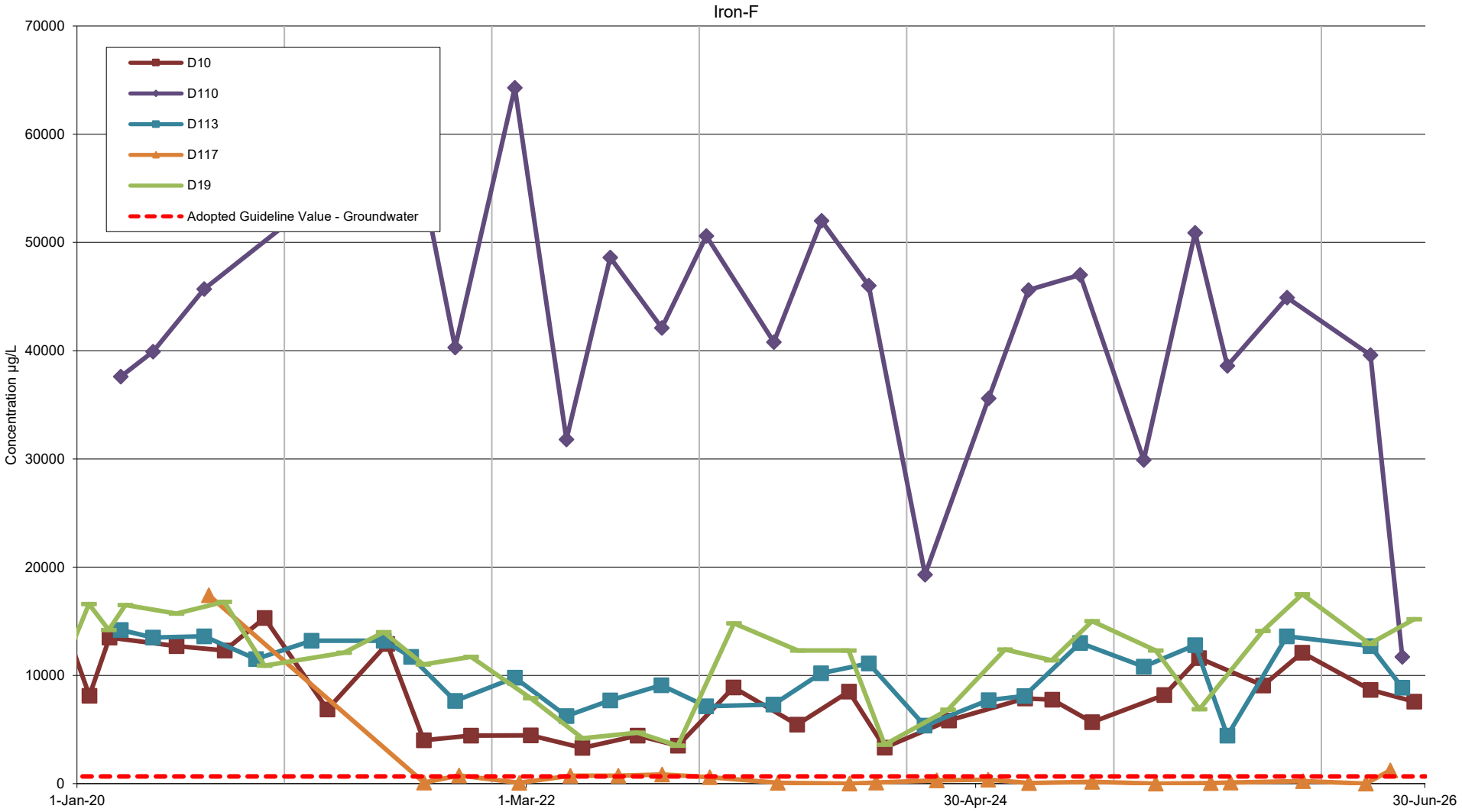
Appendix J. Downgradient MPAR, LNAR (North) and Historical Mining Disturbance (East) - Manganese (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



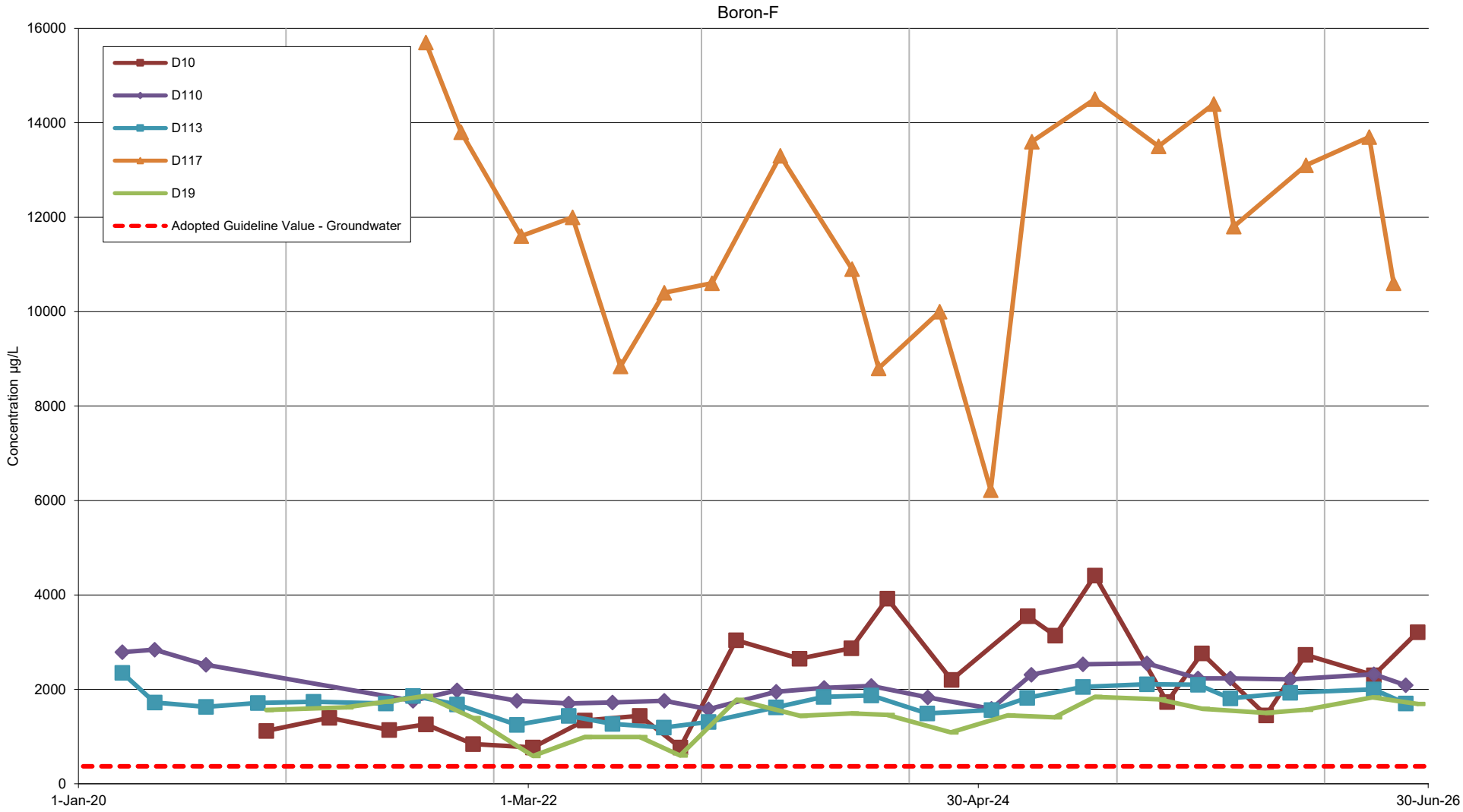
Appendix J. Downgradient MPAR, LNAR (North) and Historical Mining Disturbance (East) - Iron (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



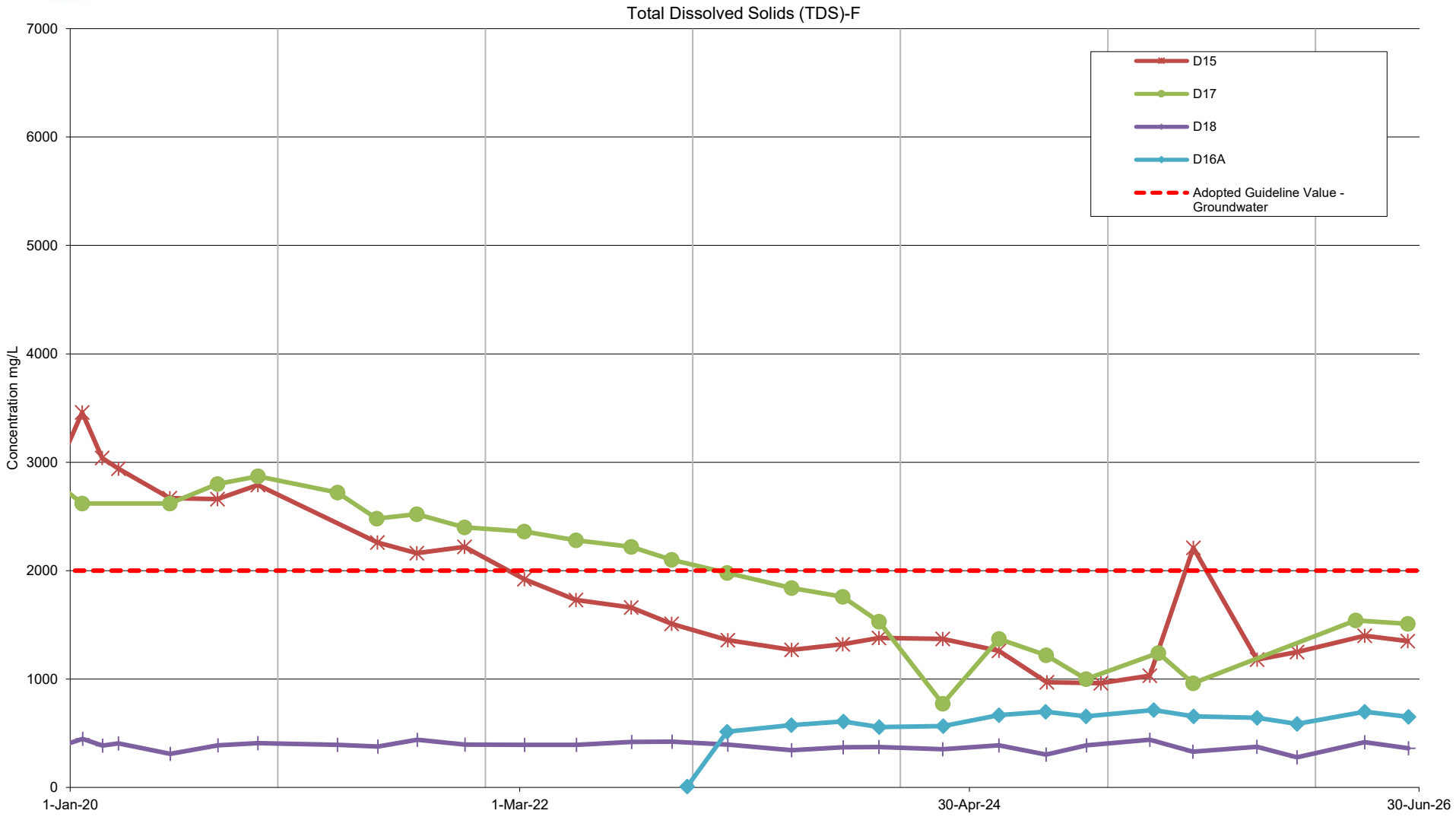
Appendix J. Downgradient MPAR, LNAR (North) and Historical Mining Disturbance (East) - Iron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



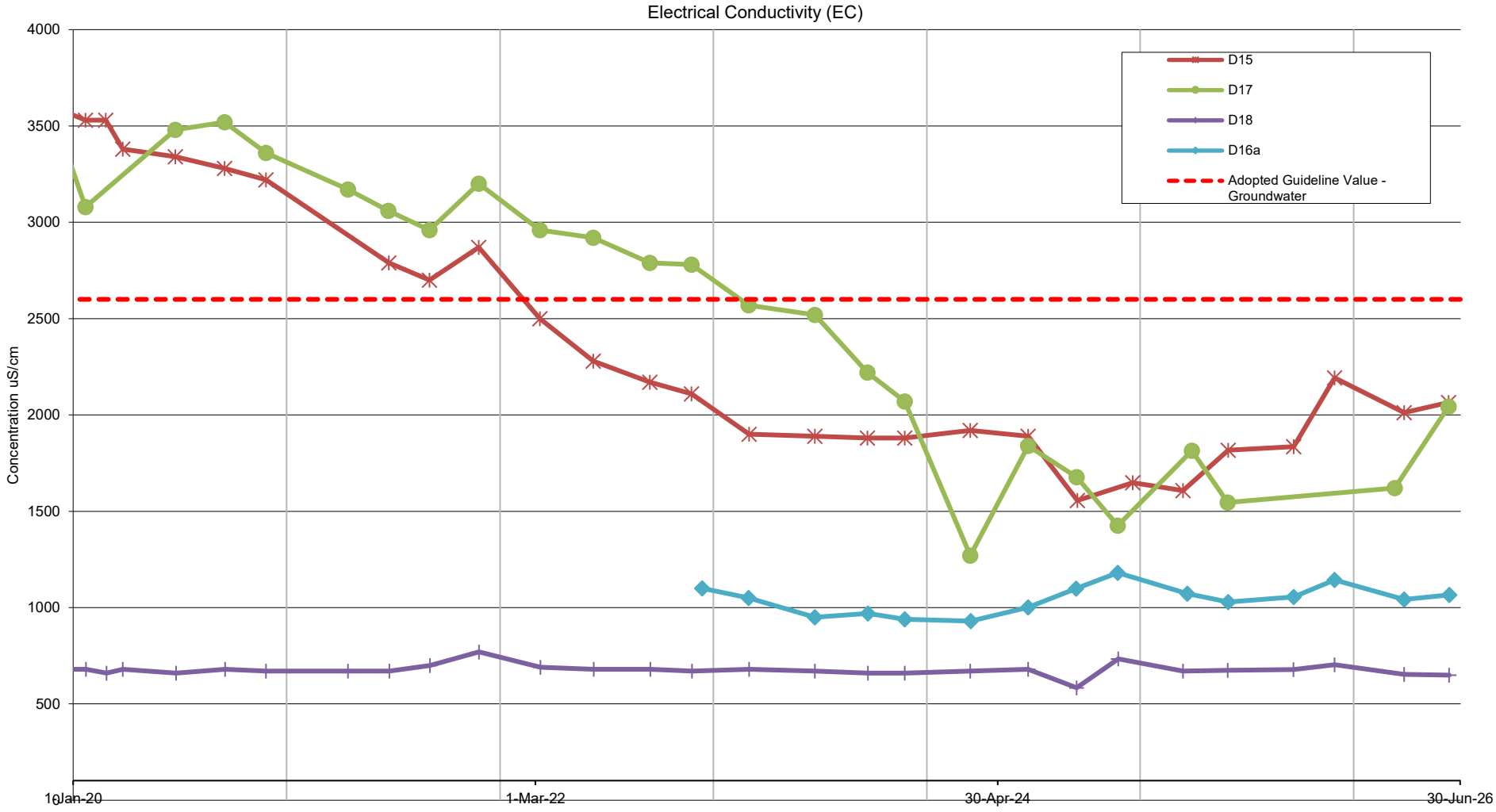
Appendix J. Downgradient MPAR, LNAR (North) and Historical Mining Disturbance (East) - Boron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



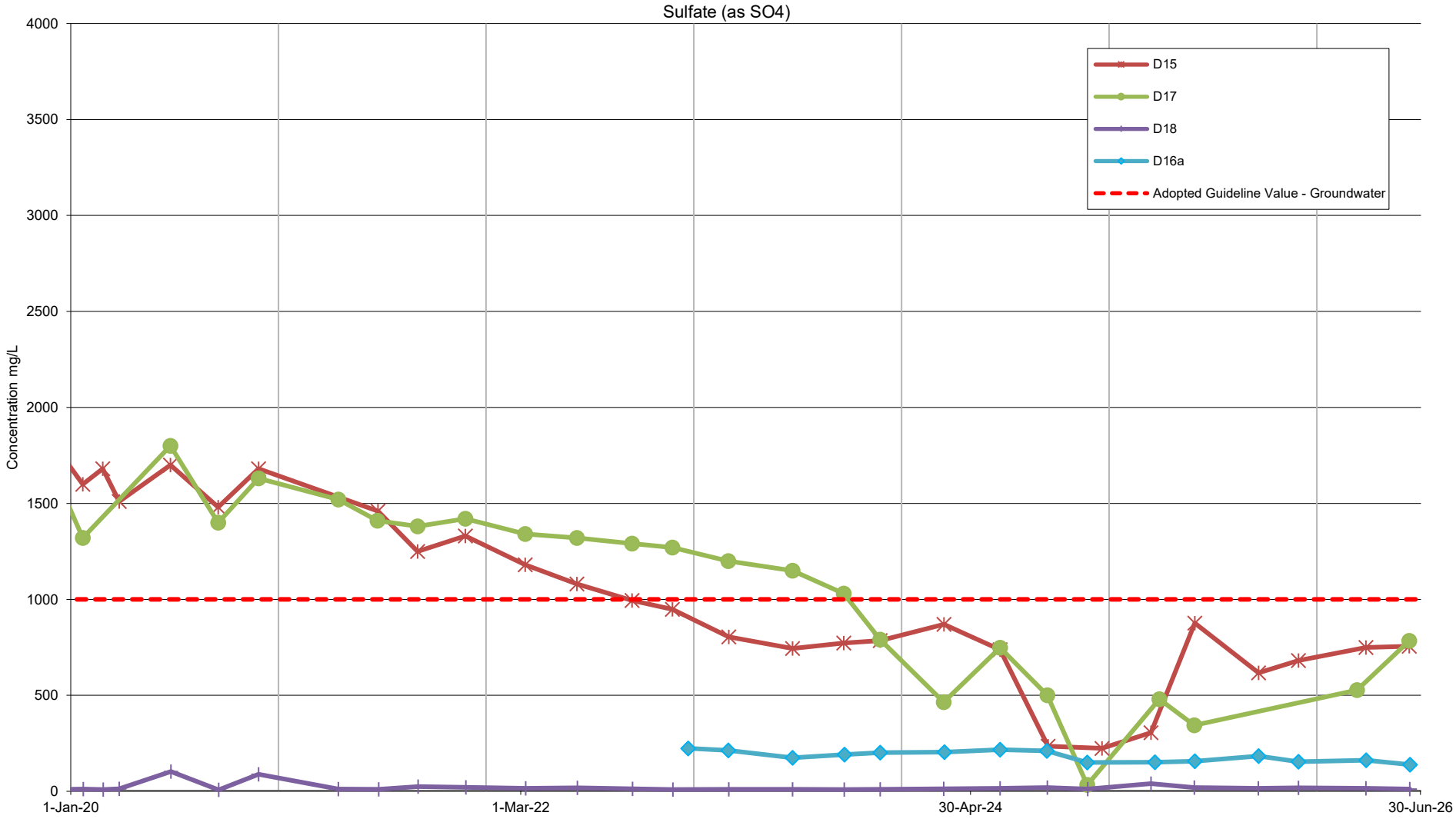
Appendix J. Cross-gradient MPAR to the South, LNAR (South) and Historical Mining Disturbance - TDS Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



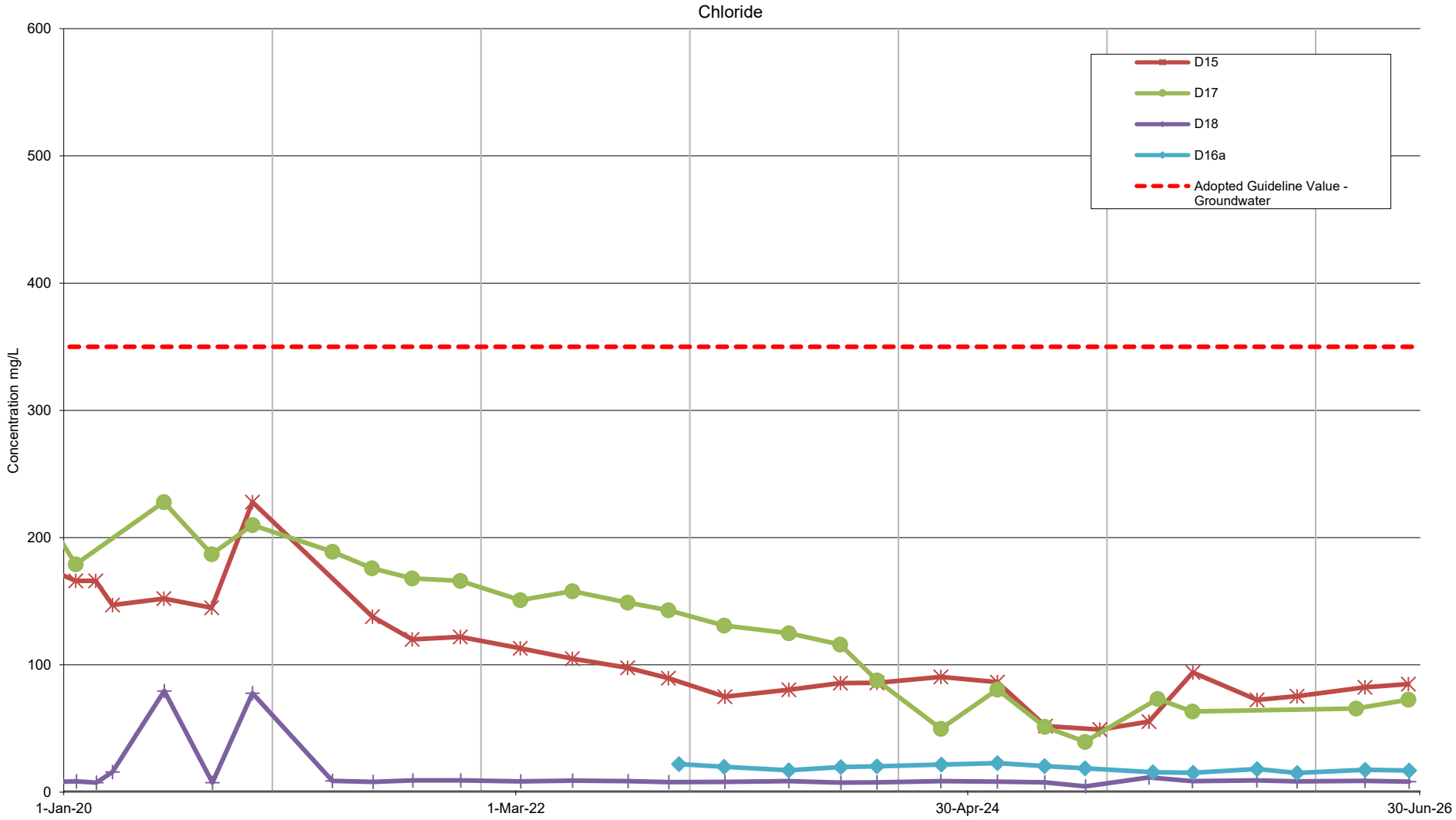
Appendix J. Cross-gradient MPAR to the South, LNAR (South) and Historical Mining Disturbance - EC Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



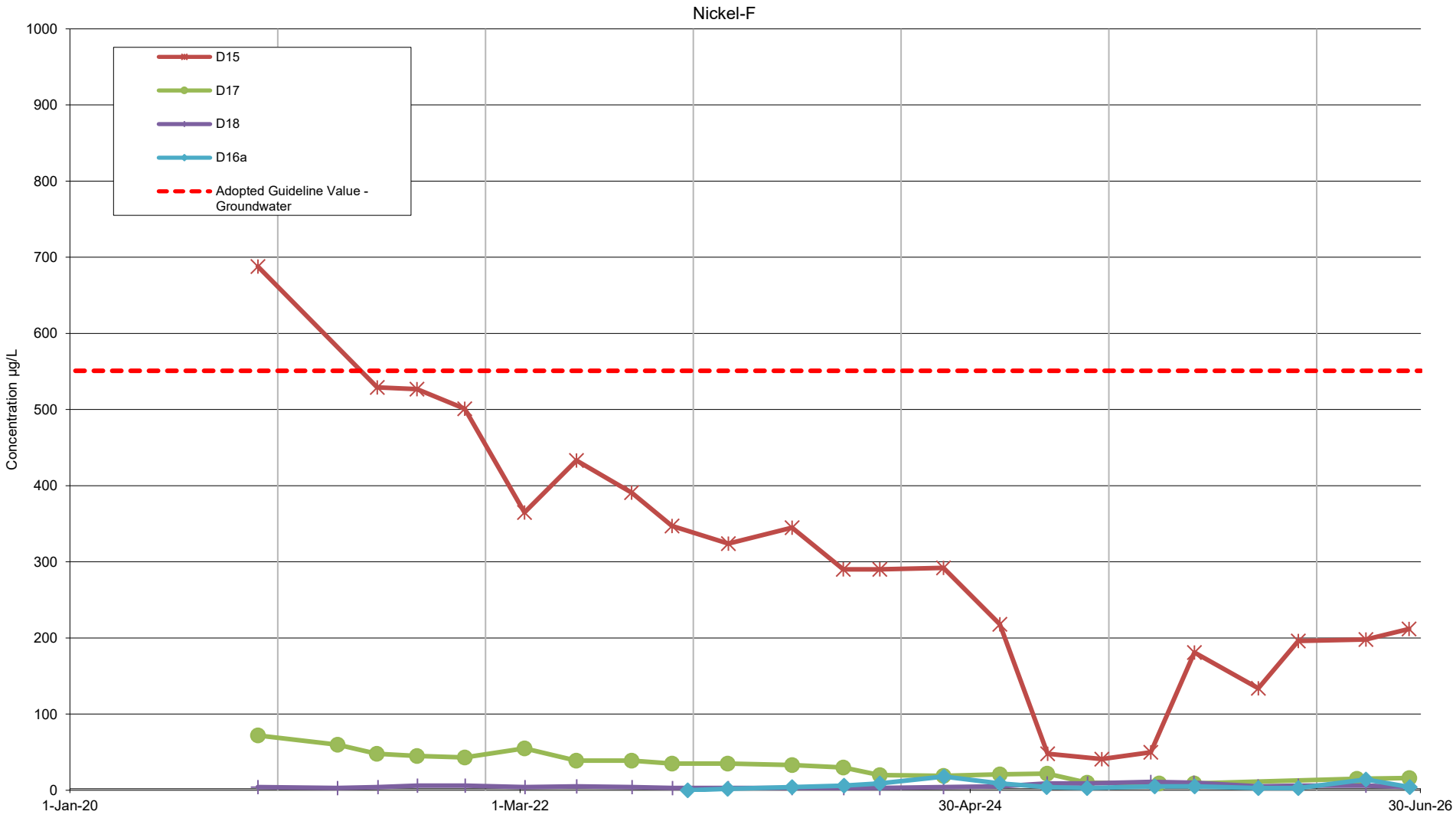
Appendix J. Cross-gradient MPAR to the South, LNAR (South) and Historical Mining Disturbance - Sulfate (as SO4) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



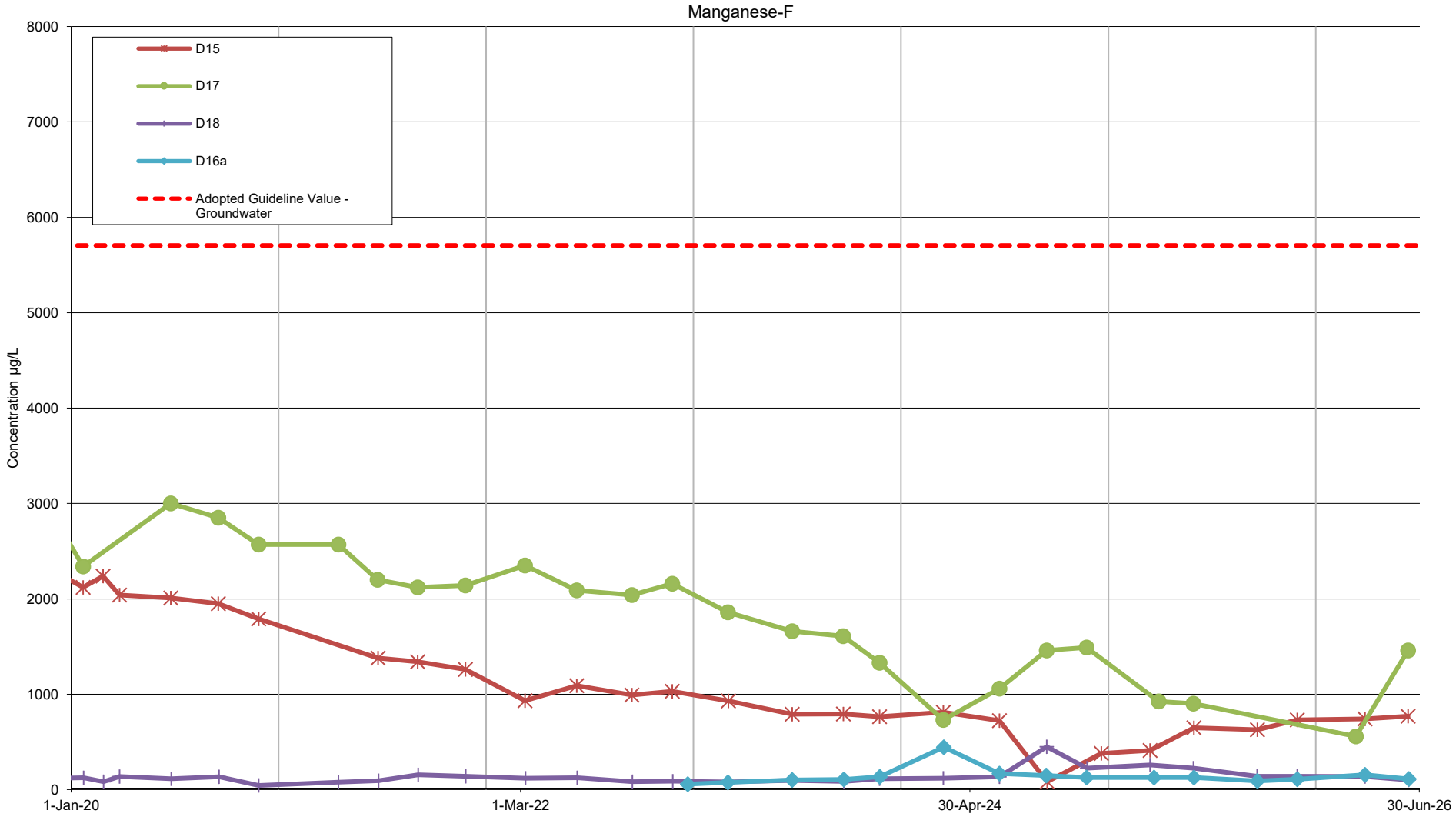
Appendix J. Cross-gradient MPAR to the South, LNAR (South) and Historical Mining Disturbance - Chloride Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



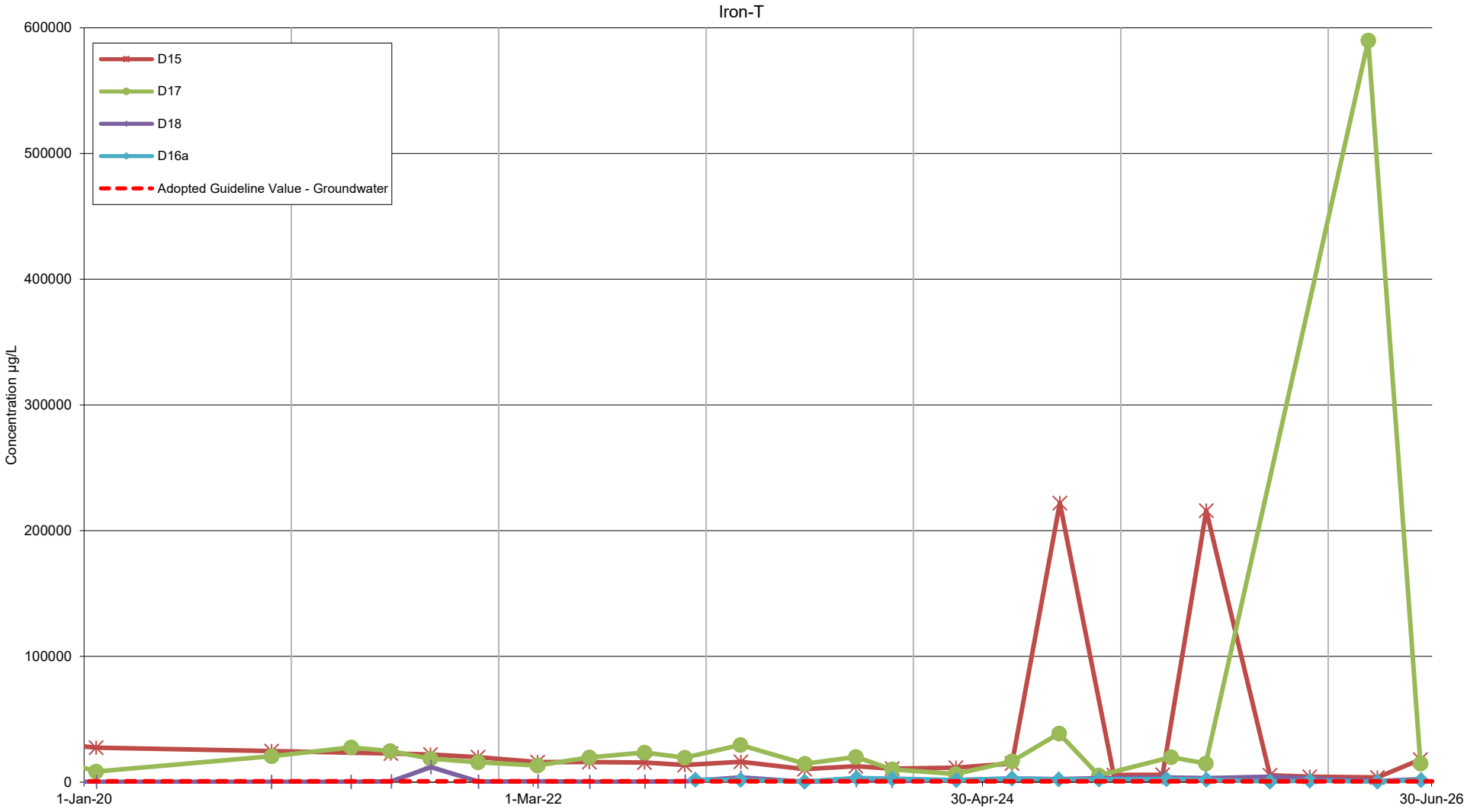
Appendix J. Cross-gradient MPAR to the South, LNAR (South) and Historical Mining Disturbance - Nickel (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



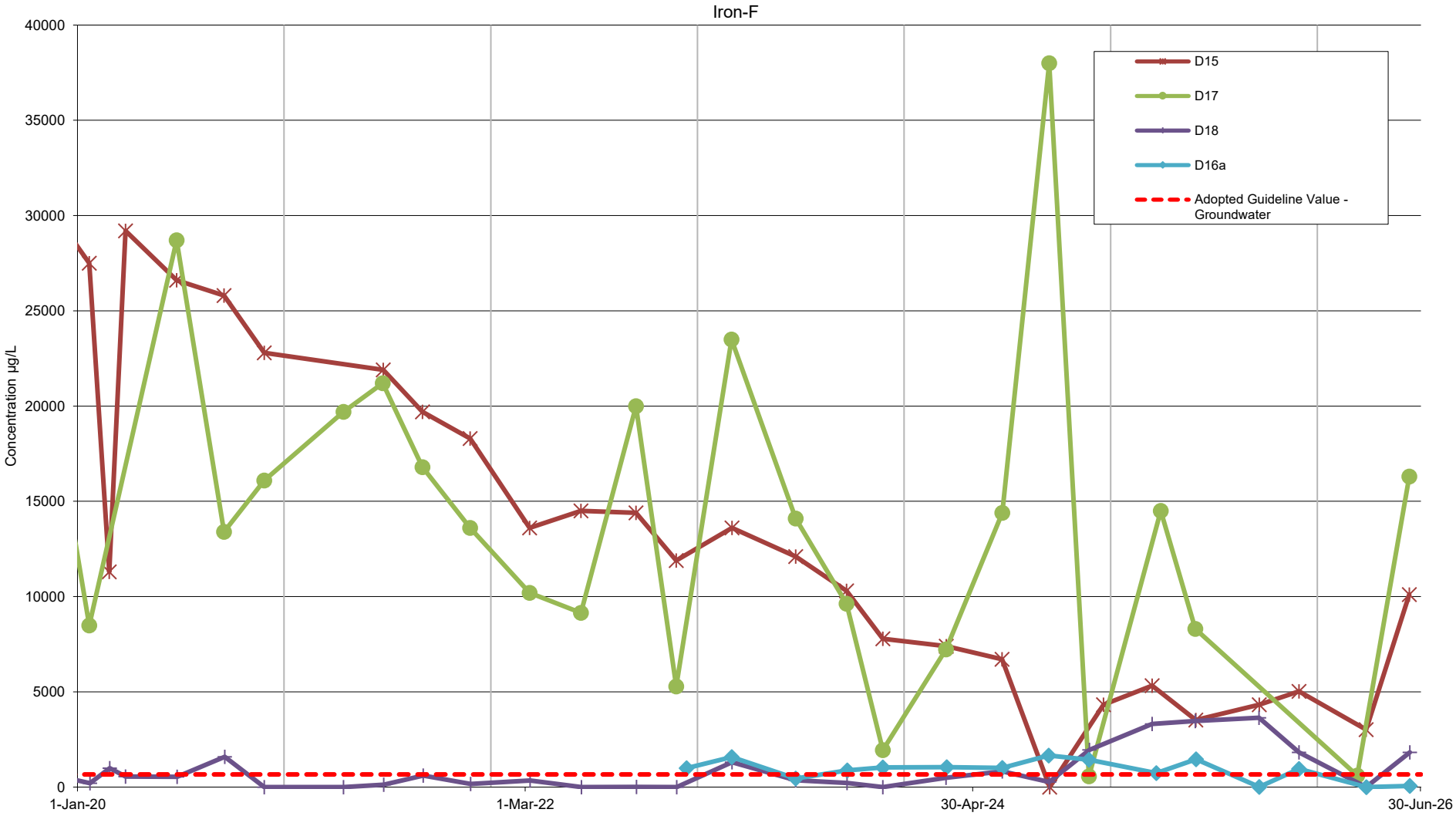
Appendix J. Cross-gradient MPAR to the South, LNAR (South) and Historical Mining Disturbance - Manganese (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



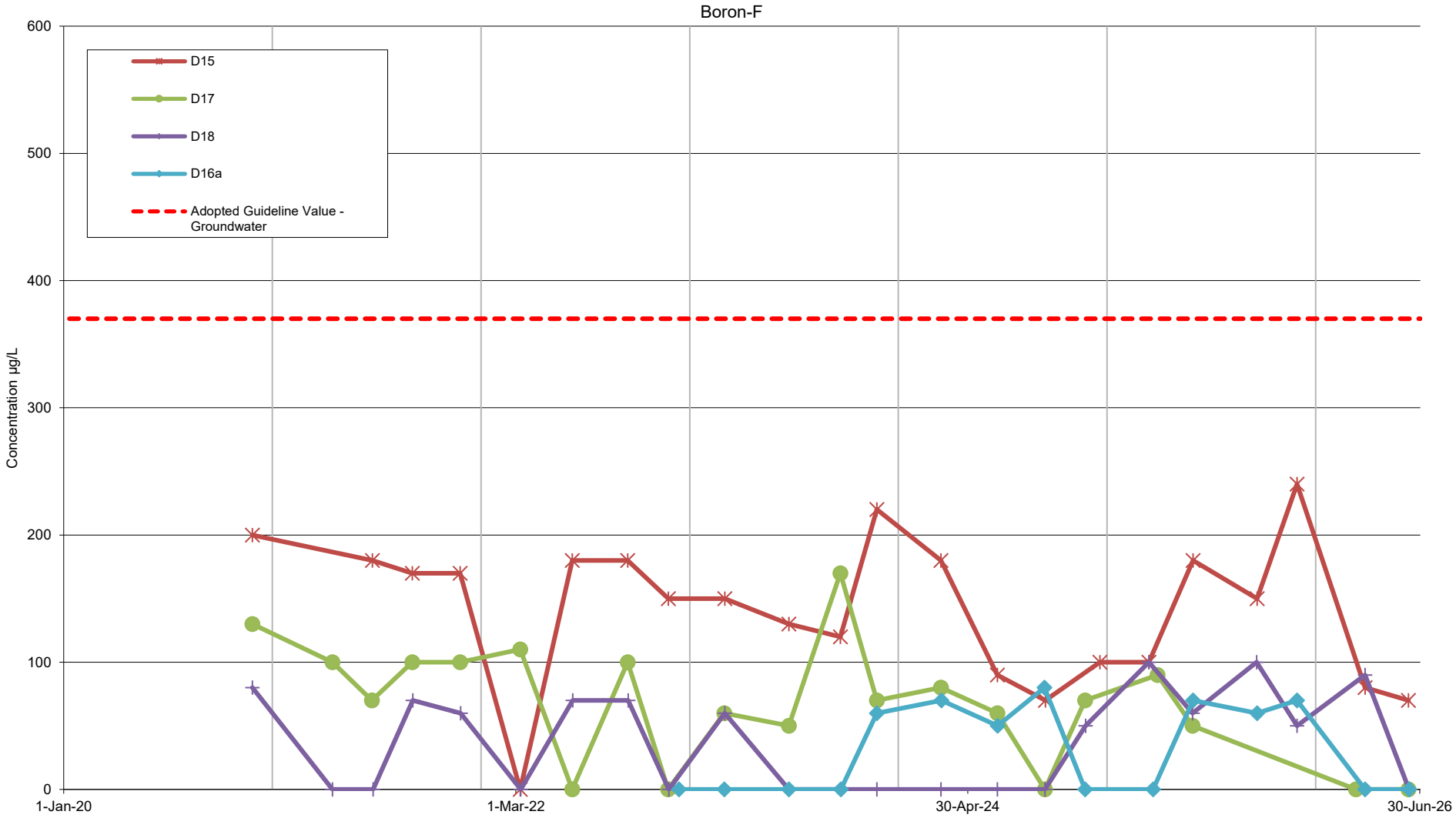
Appendix J. Cross-gradient MPAR to the South, LNAR (South) and Historical Mining Disturbance - Iron (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



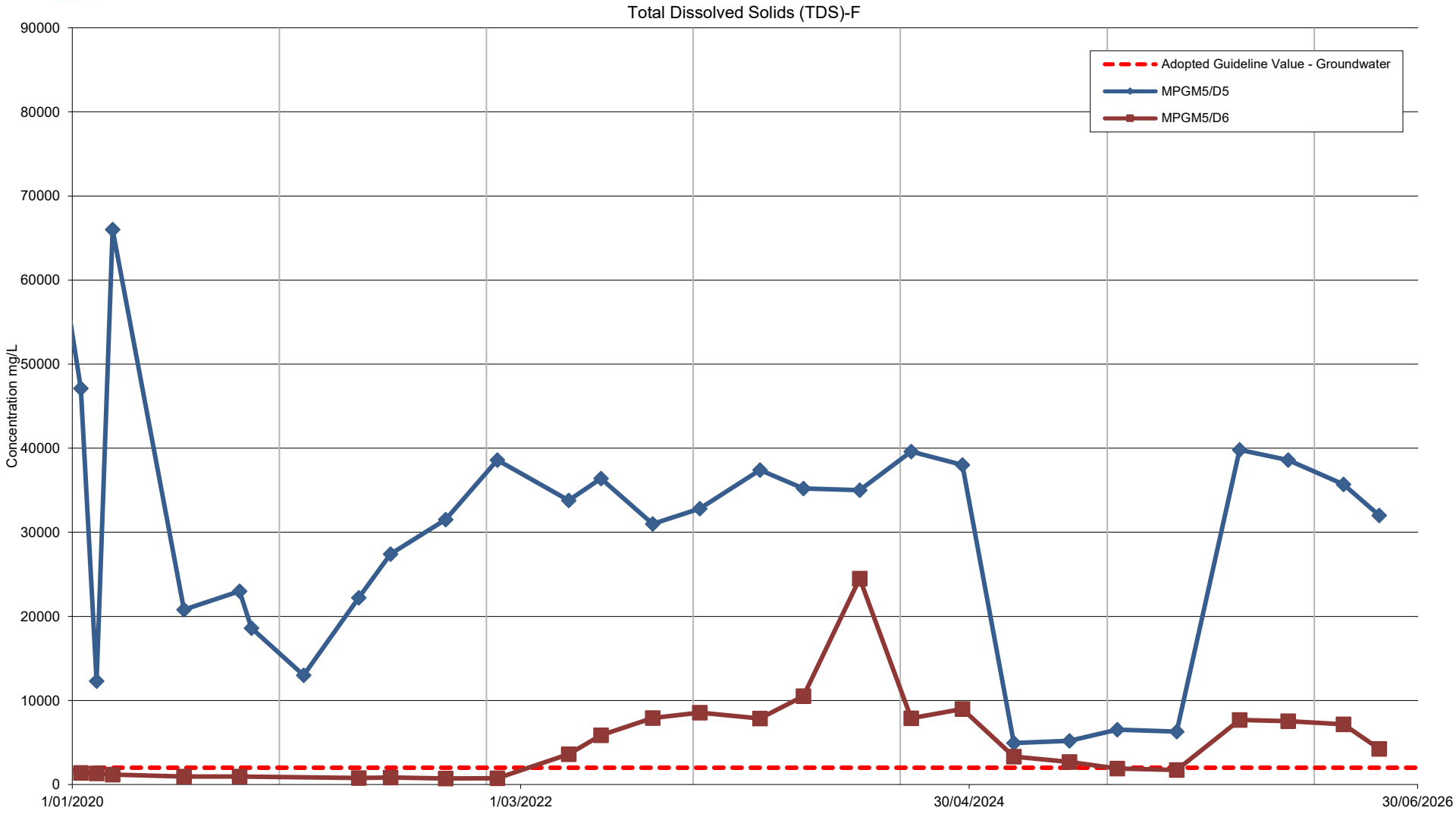
Appendix J. Cross-gradient MPAR to the South, LNAR (South) and Historical Mining Disturbance - Iron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



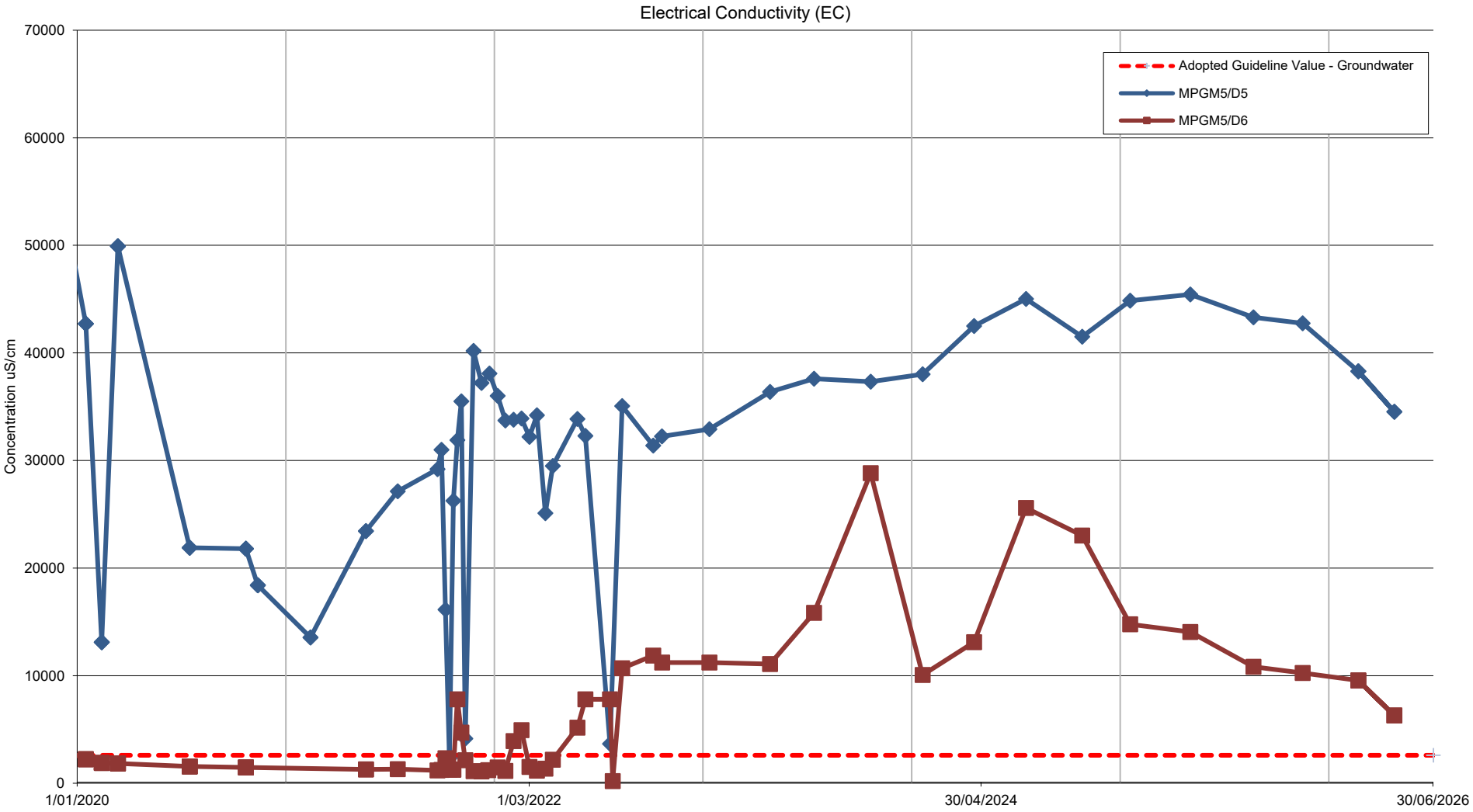
Appendix J. Cross-gradient MPAR to the South, LNAR (South) and Historical Mining Disturbance - Boron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



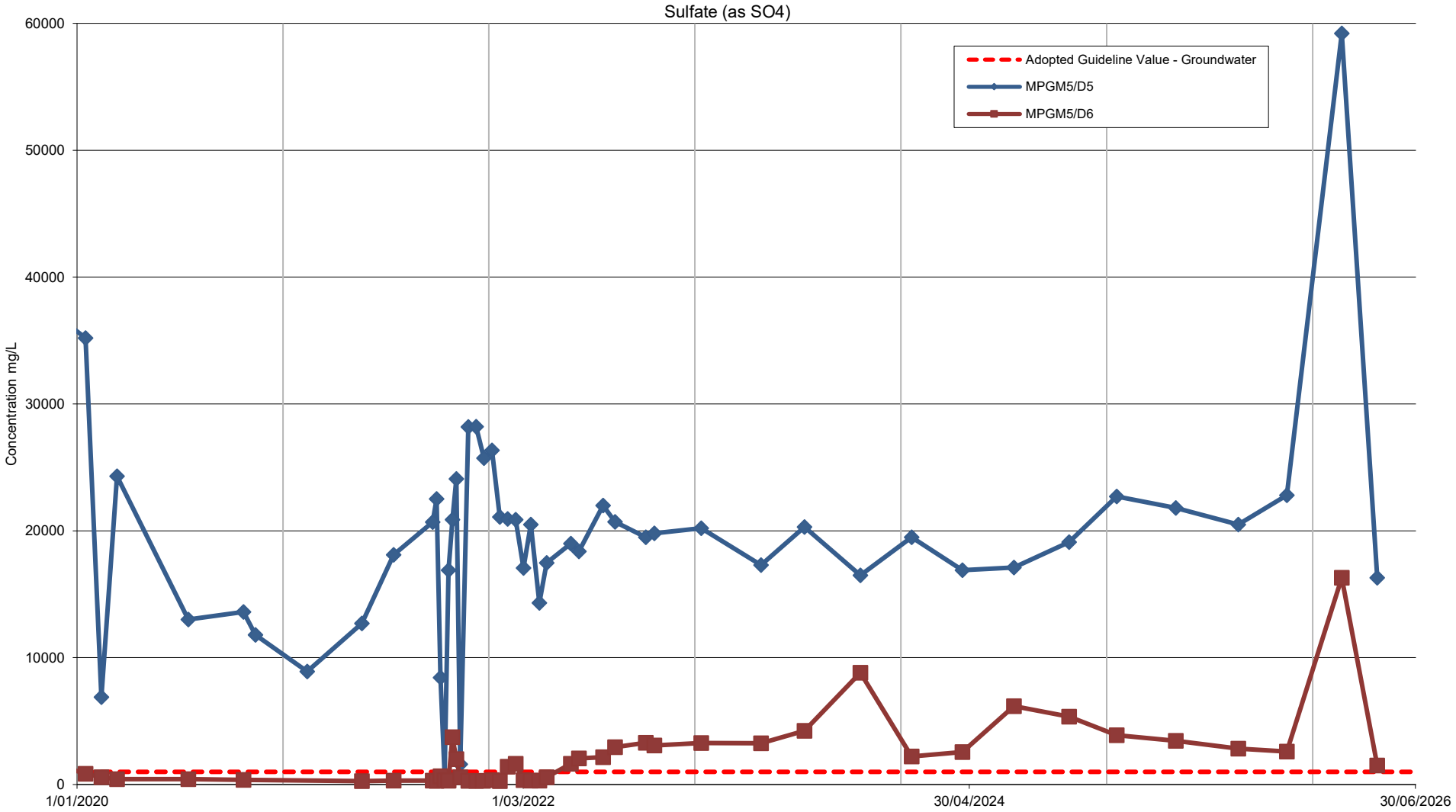
Appendix J. Brine Leak Detection Bores - TDS Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



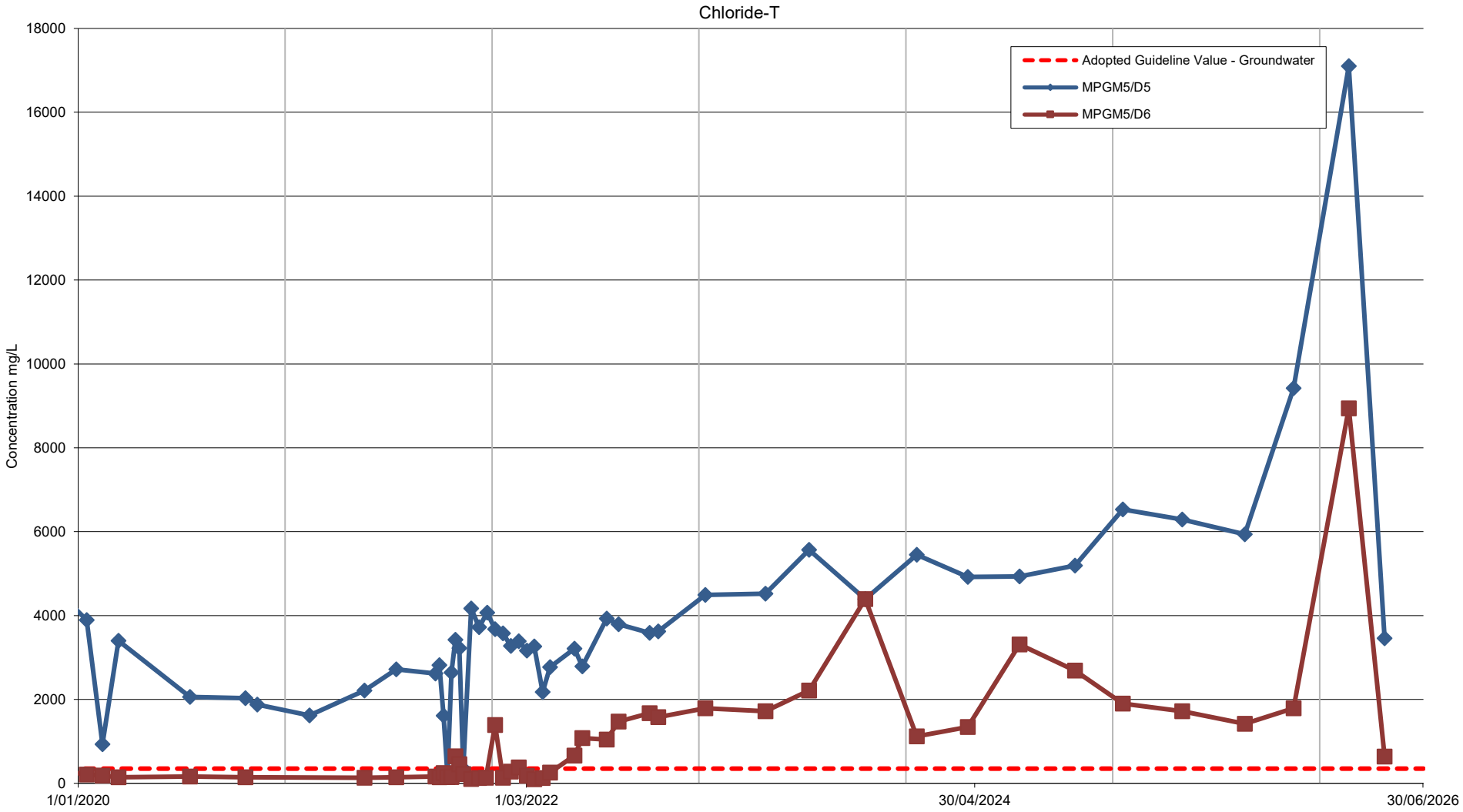
Appendix J. Brine Leak Detection Bores - EC Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



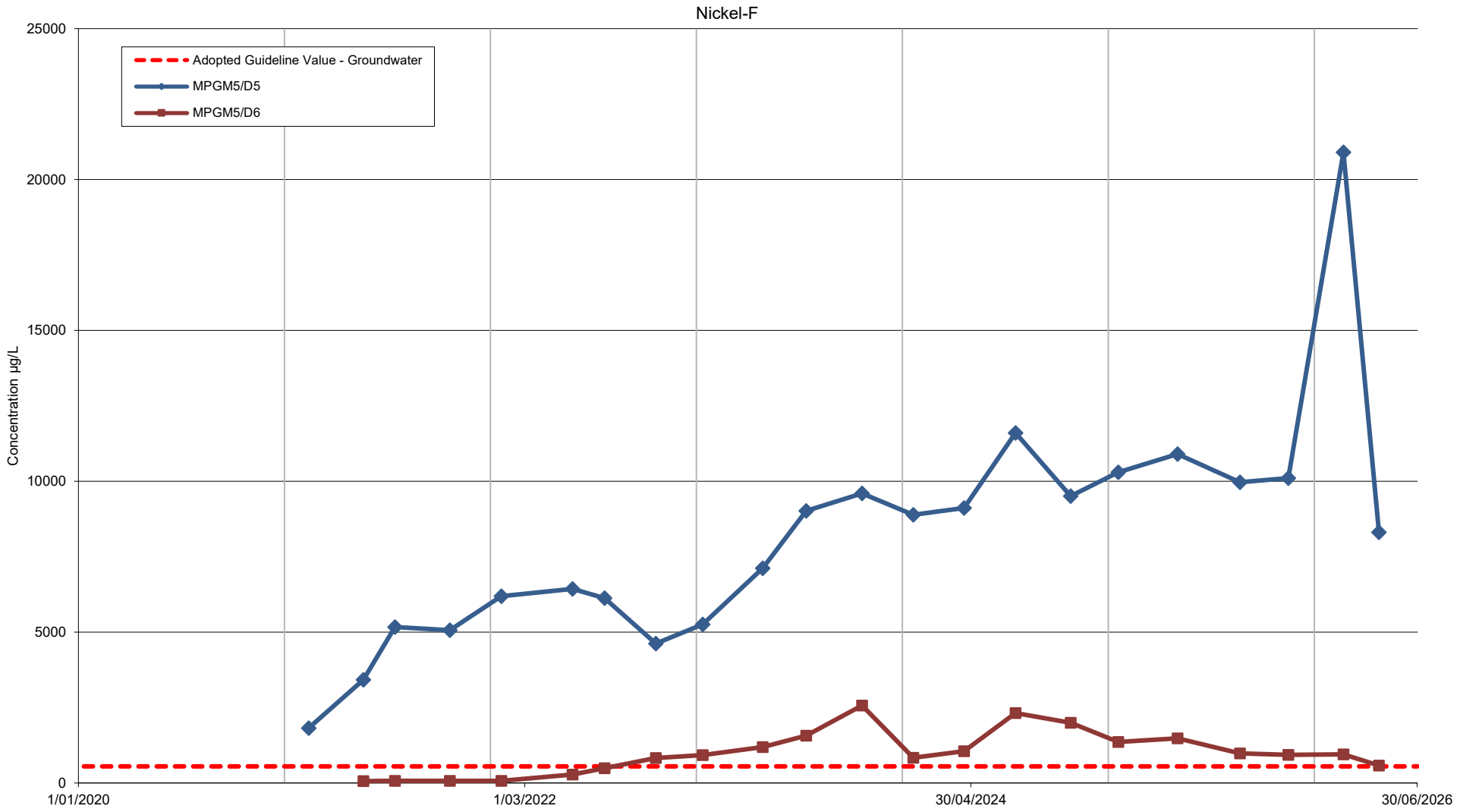
Appendix J. Brine Leak Detection Bores - Sulfate (as SO4) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



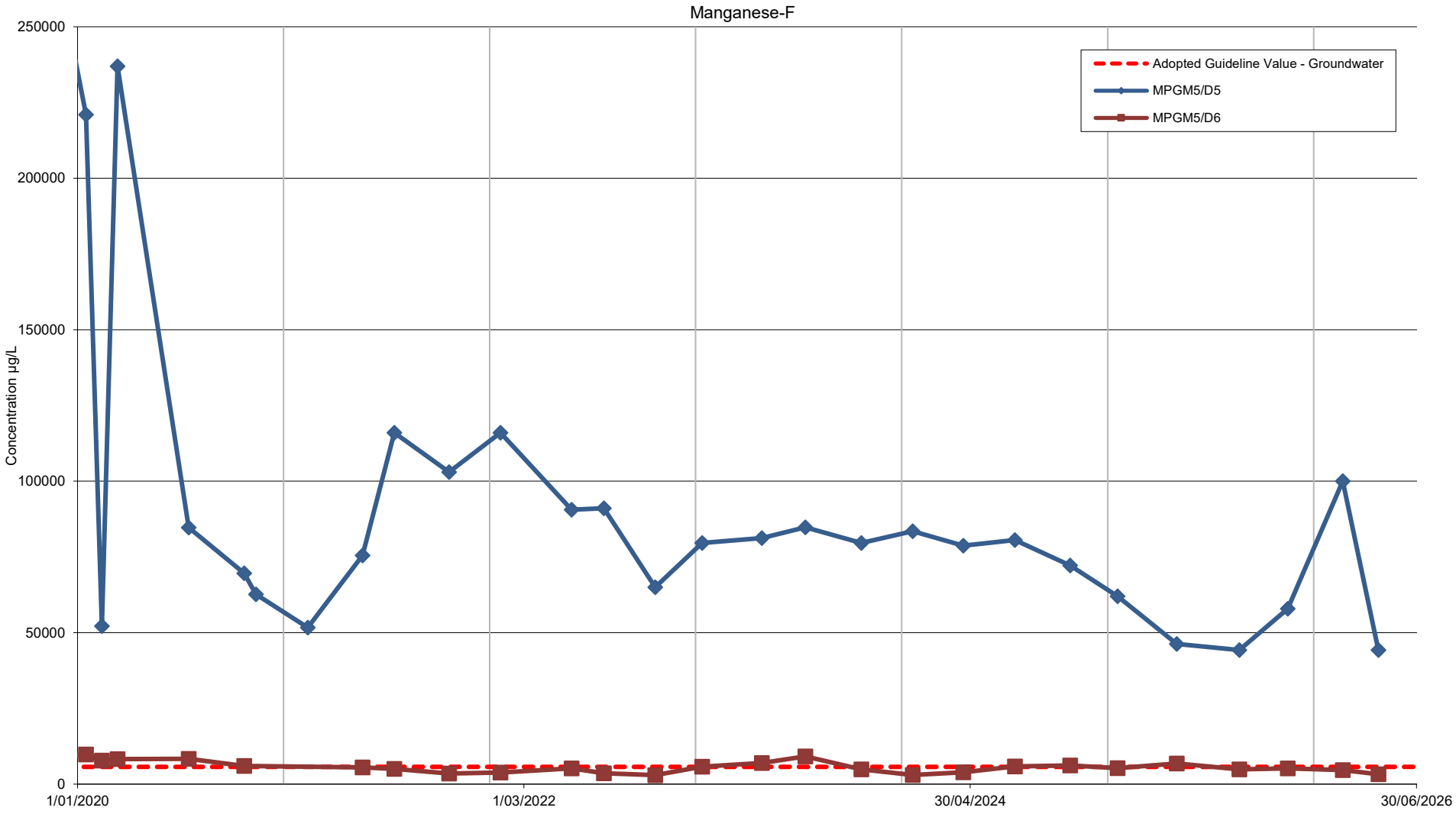
Appendix J. Brine Leak Detection Bores - Chloride Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



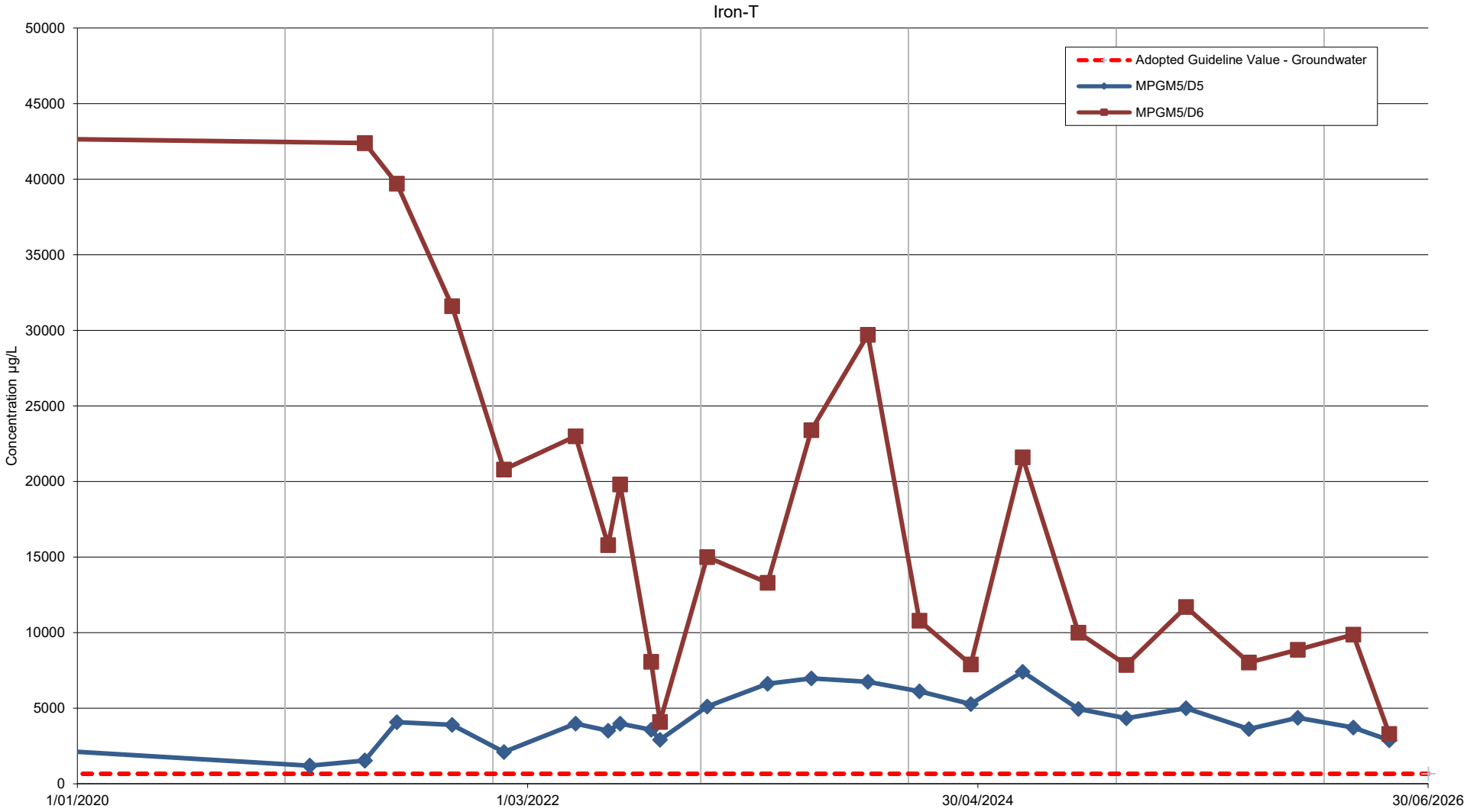
Appendix J. Brine Leak Detection Bores - Nickel (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



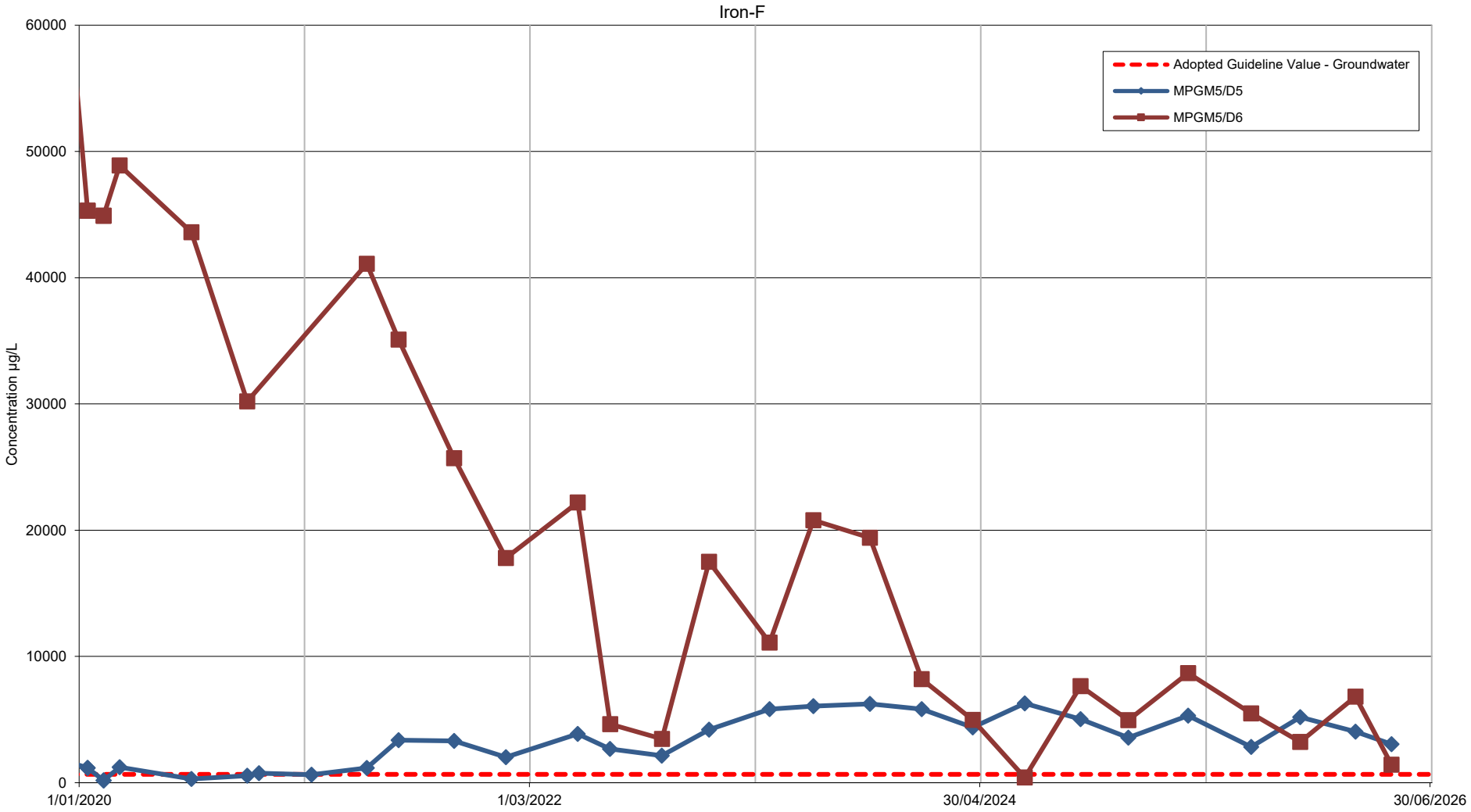
Appendix J. Brine Leak Detection Bores - Manganese (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



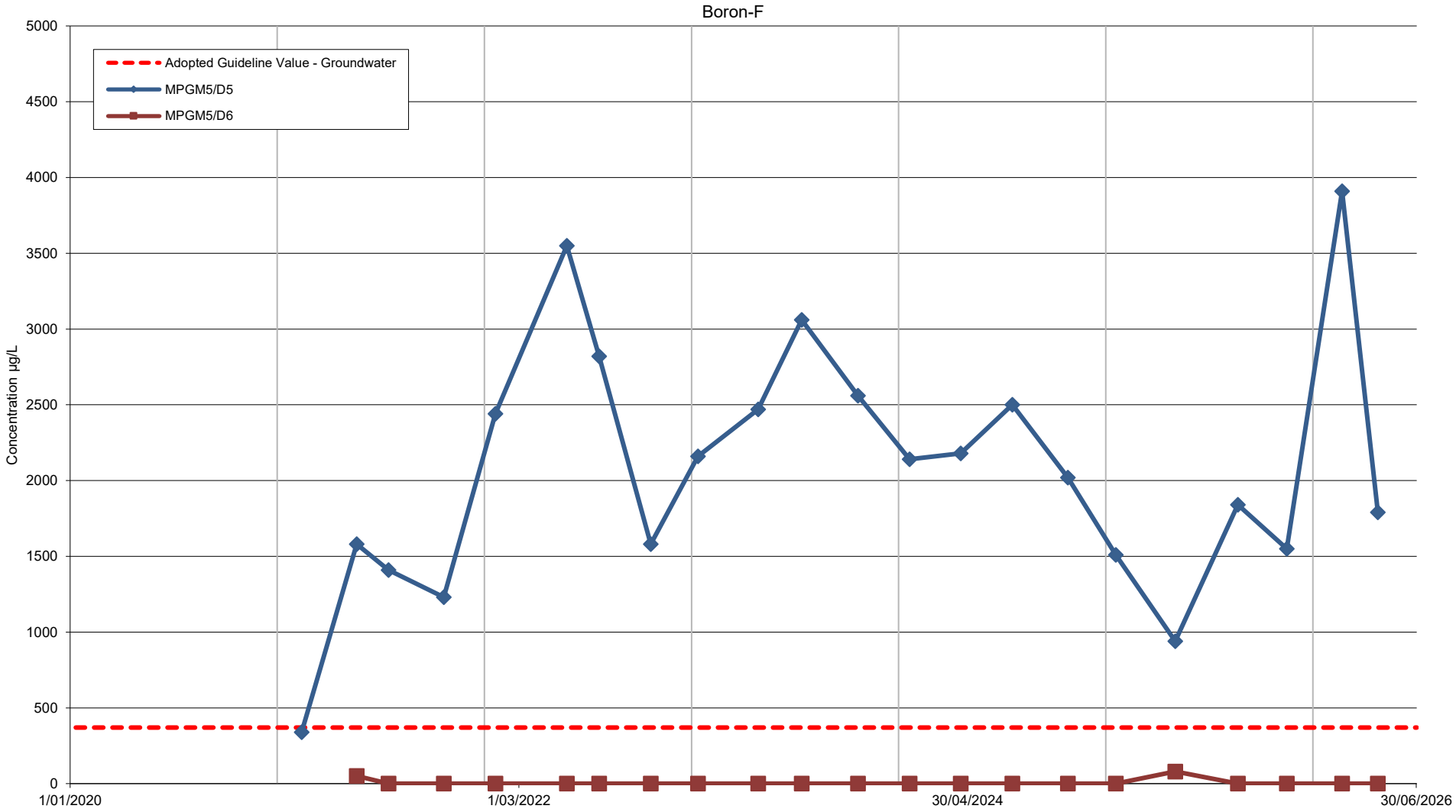
Appendix J. Brine Leak Detection Bores - Iron (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



Appendix J. Brine Leak Detection Bores - Iron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778

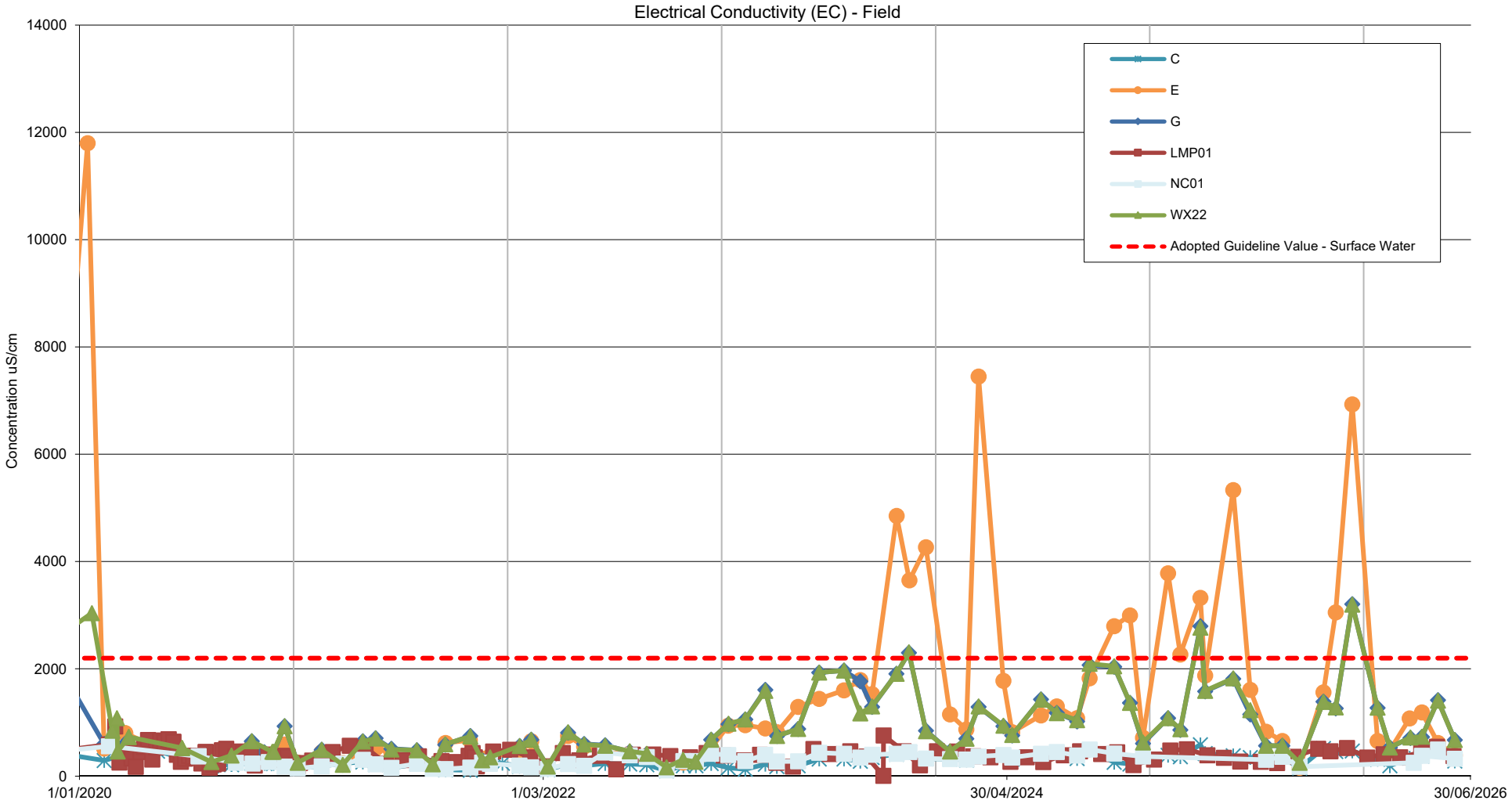


Appendix J. Brine Leak Detection Bores - Boron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778

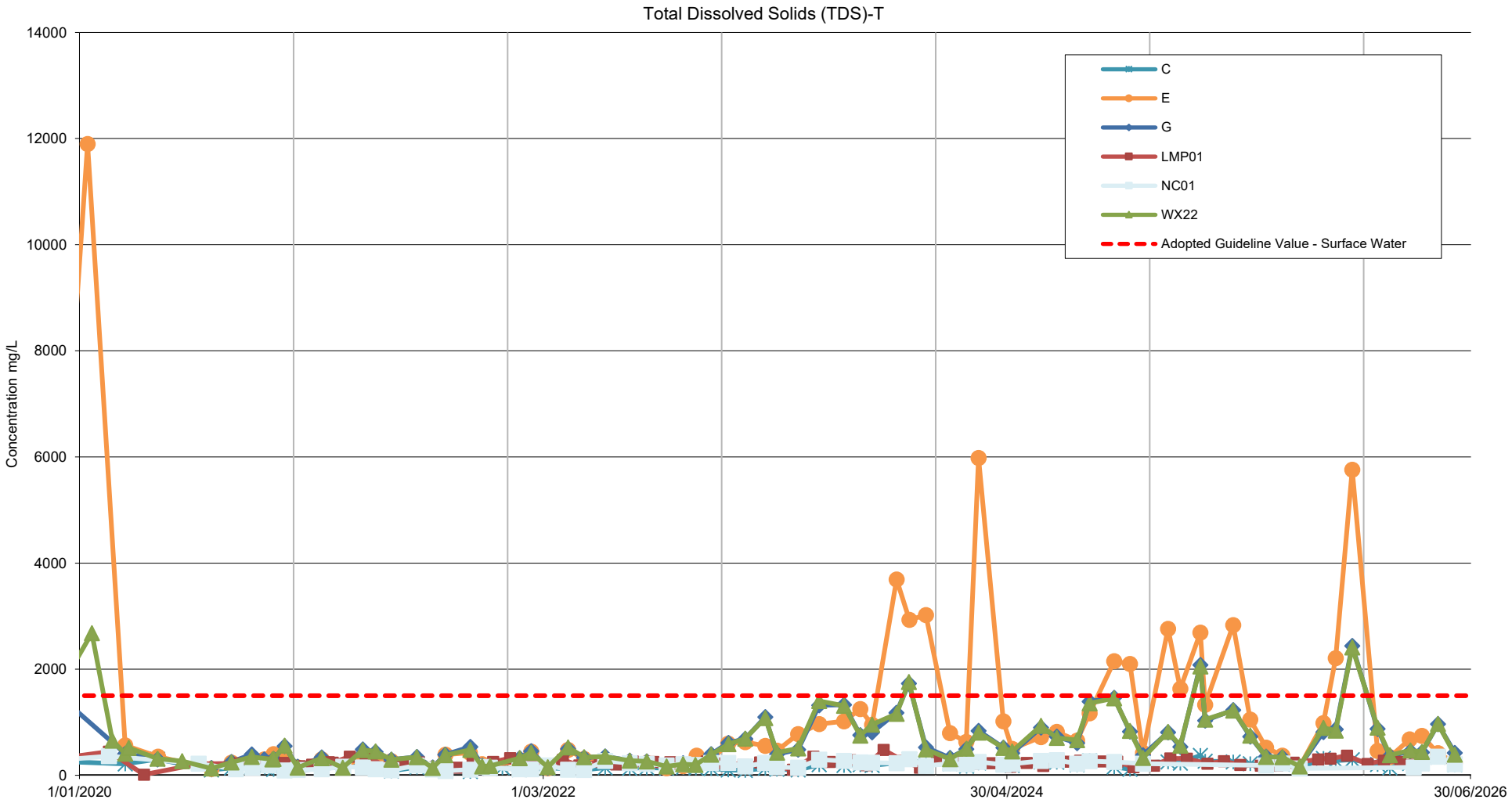


APPENDIX K SURFACE WATER TRENDS

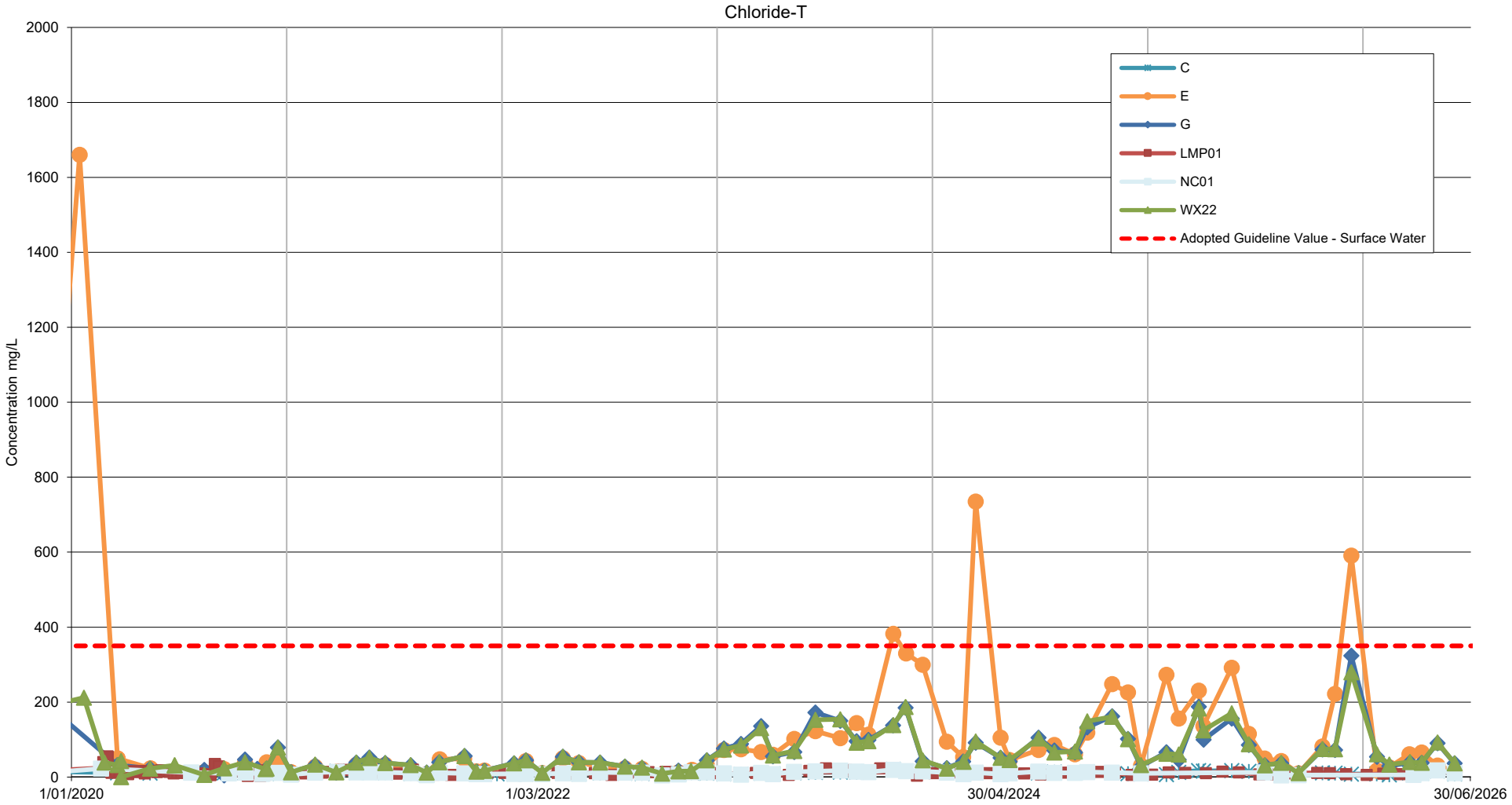
Appendix K. Electrical Conductivity Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



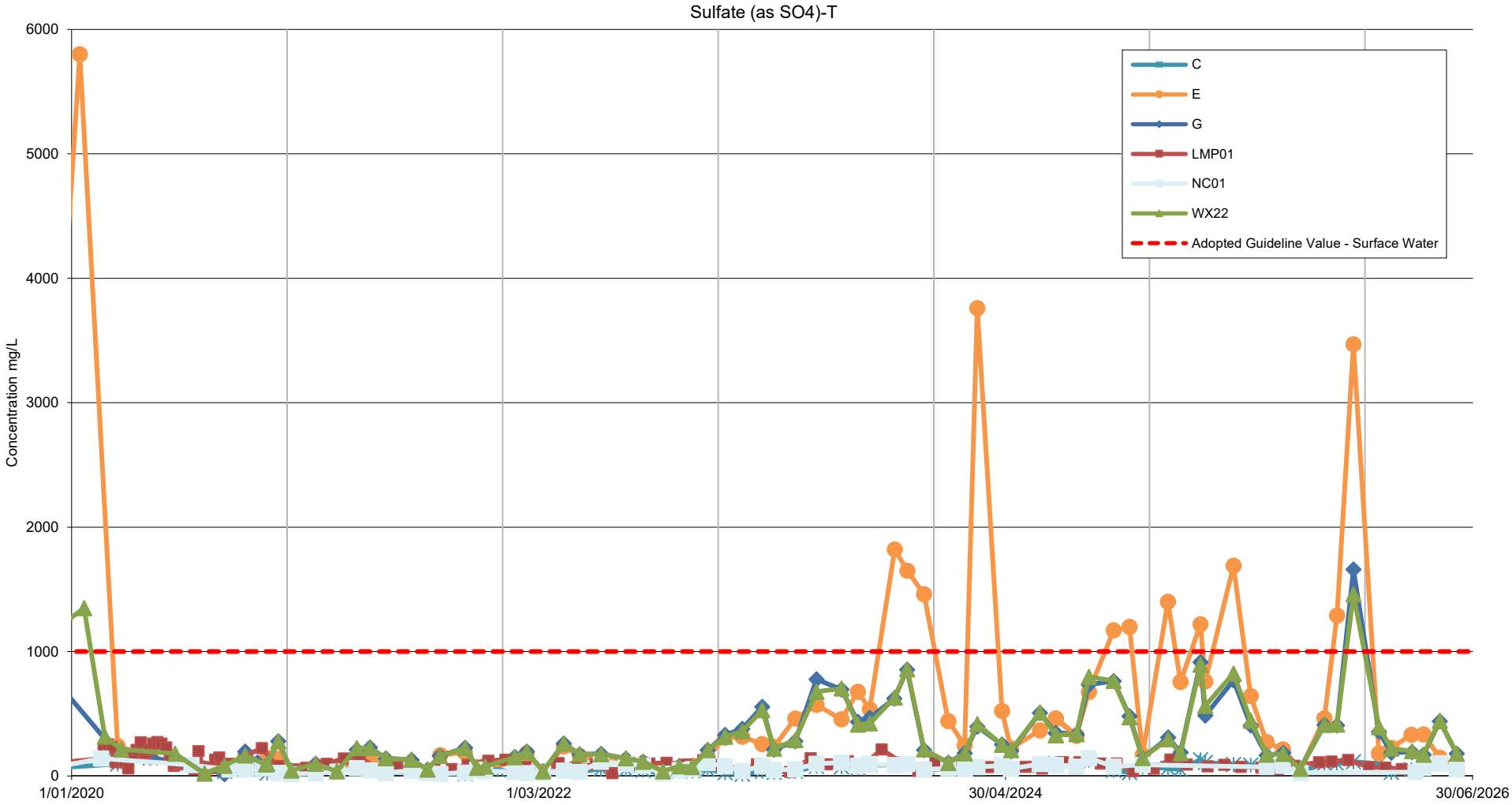
Appendix K. Total Dissolved Solids Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



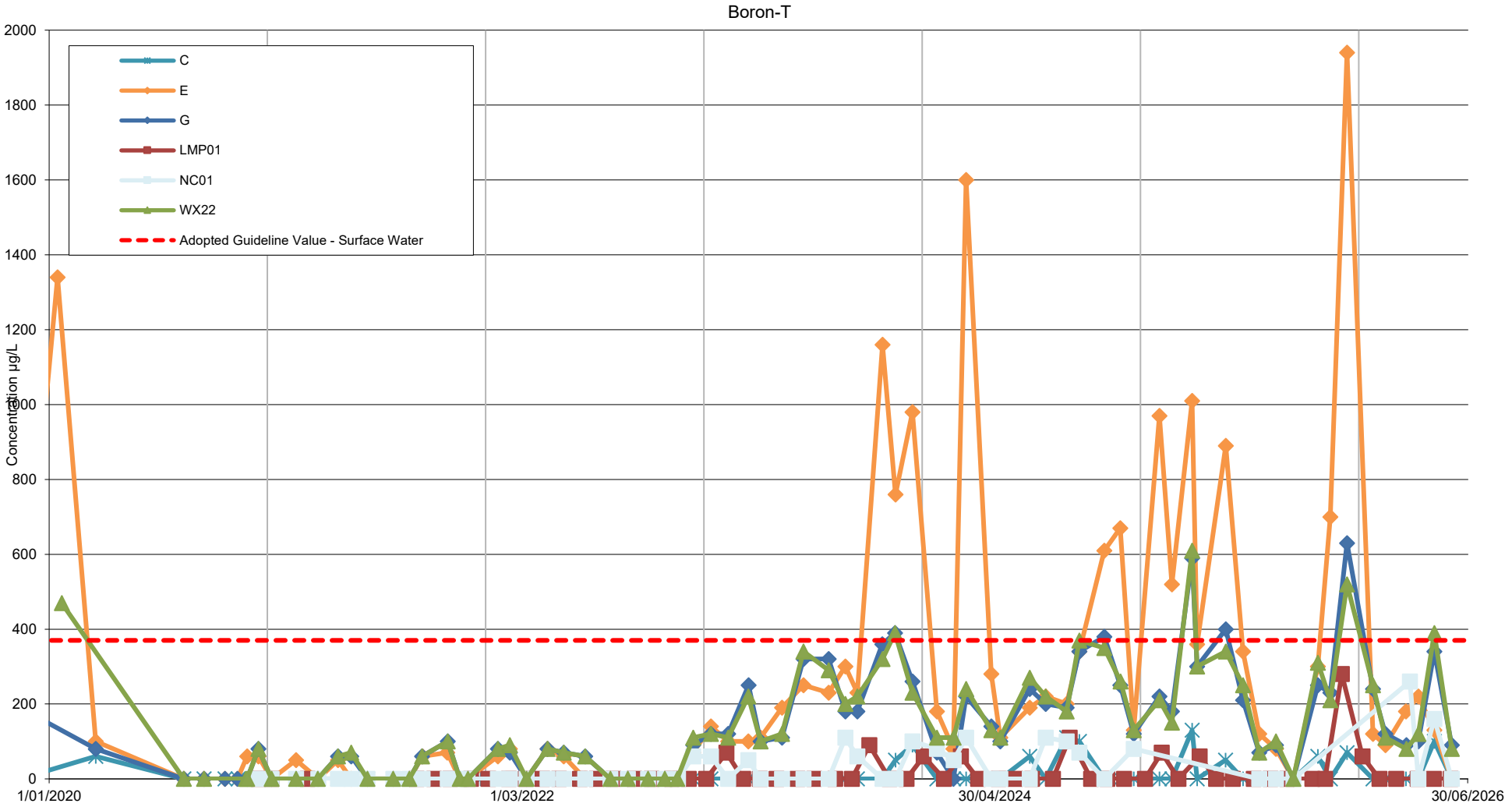
Appendix K. Chloride Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



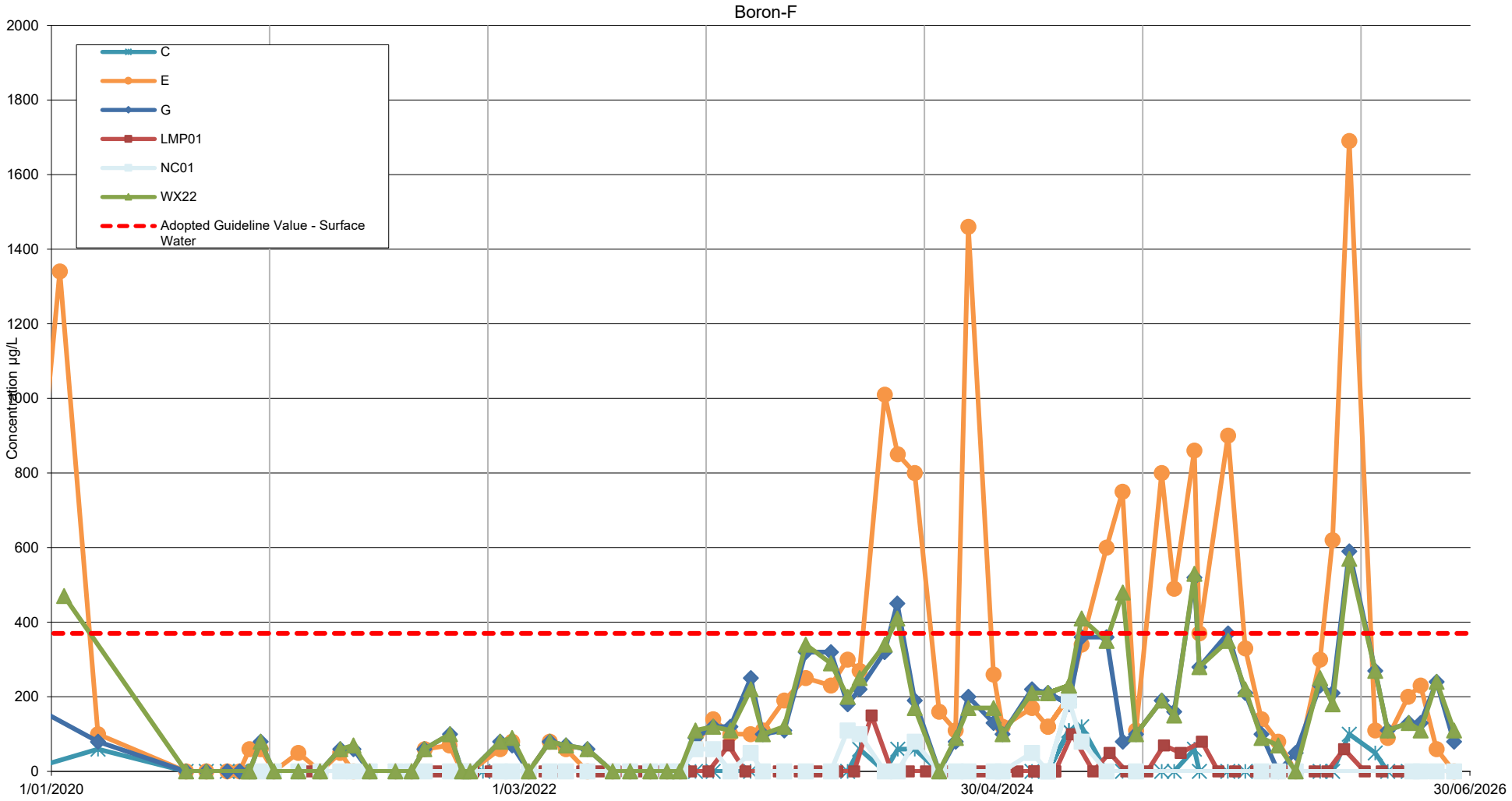
Appendix K. Sulfate as S04 Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



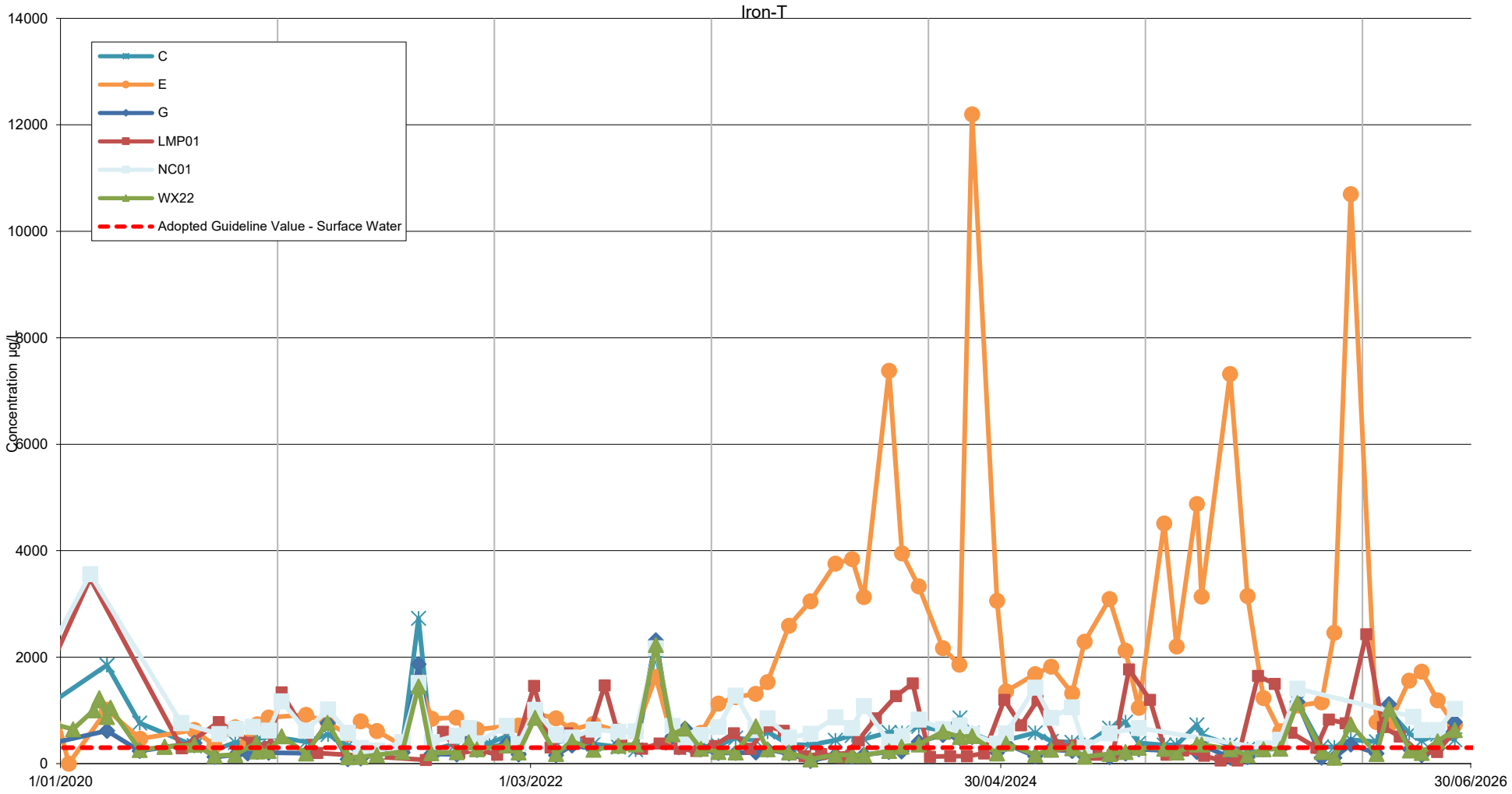
Appendix K. Boron (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



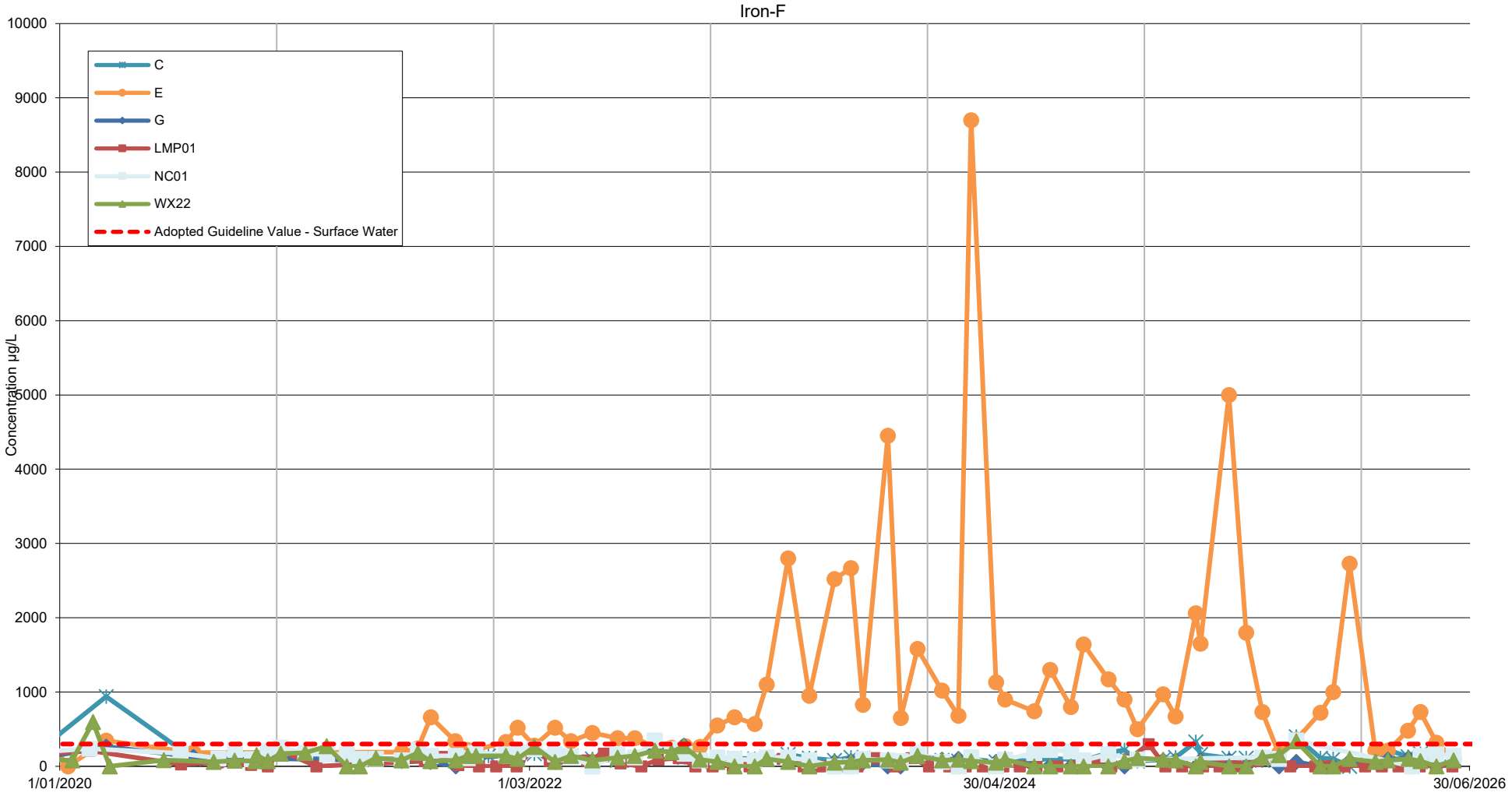
Appendix K. Boron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



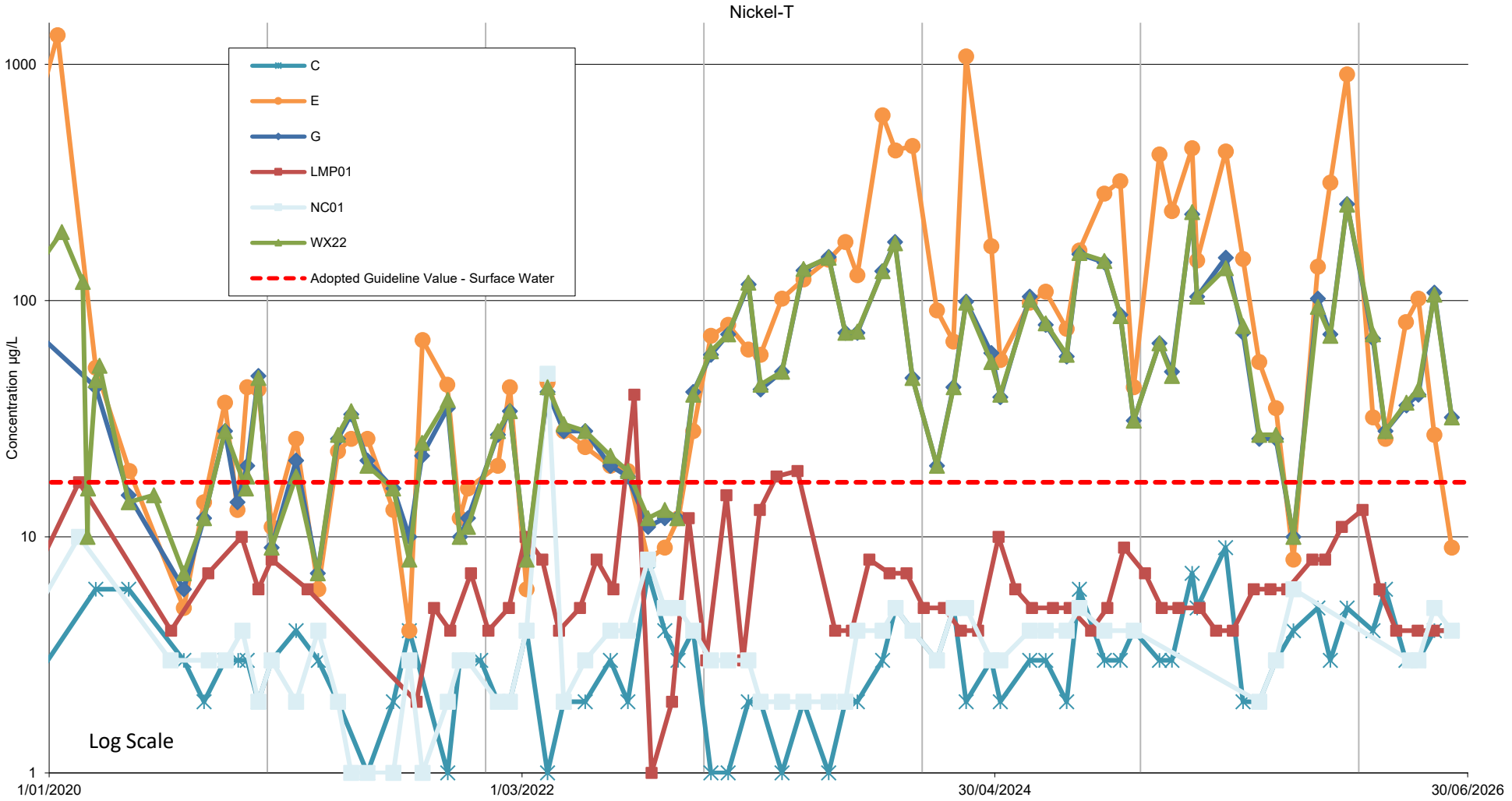
Appendix K. Iron (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



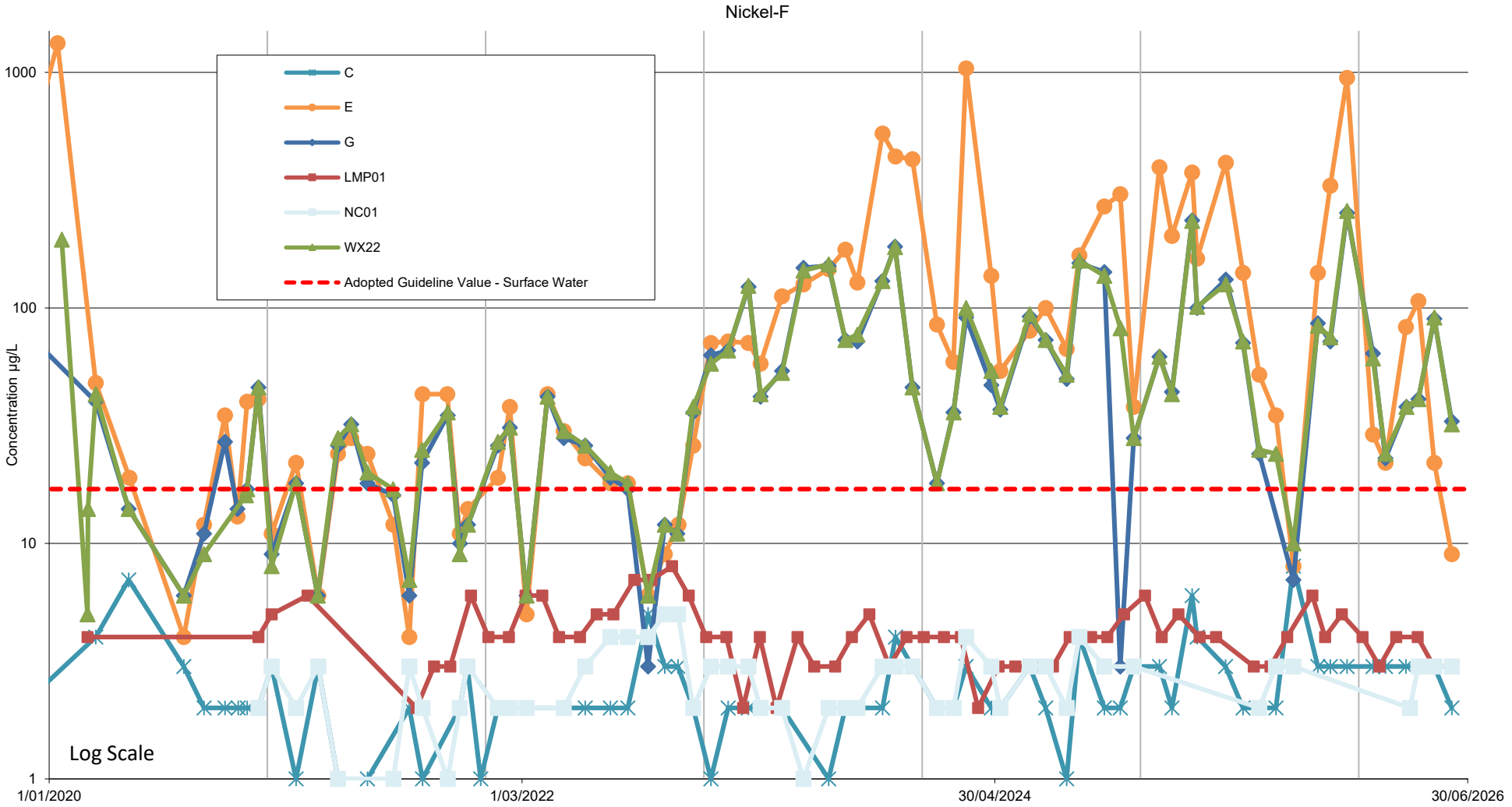
Appendix K. Iron (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



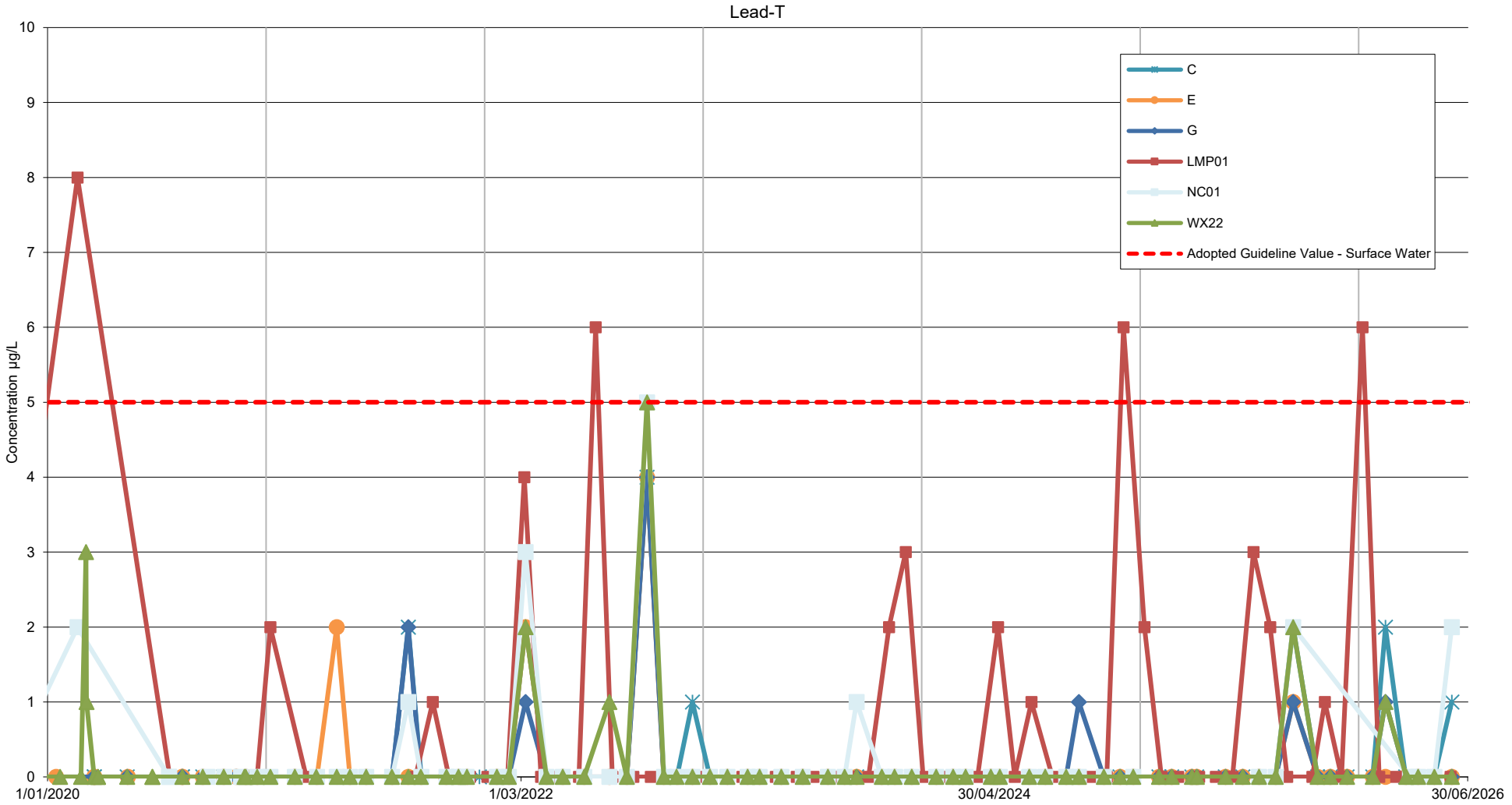
Appendix K. Nickel (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



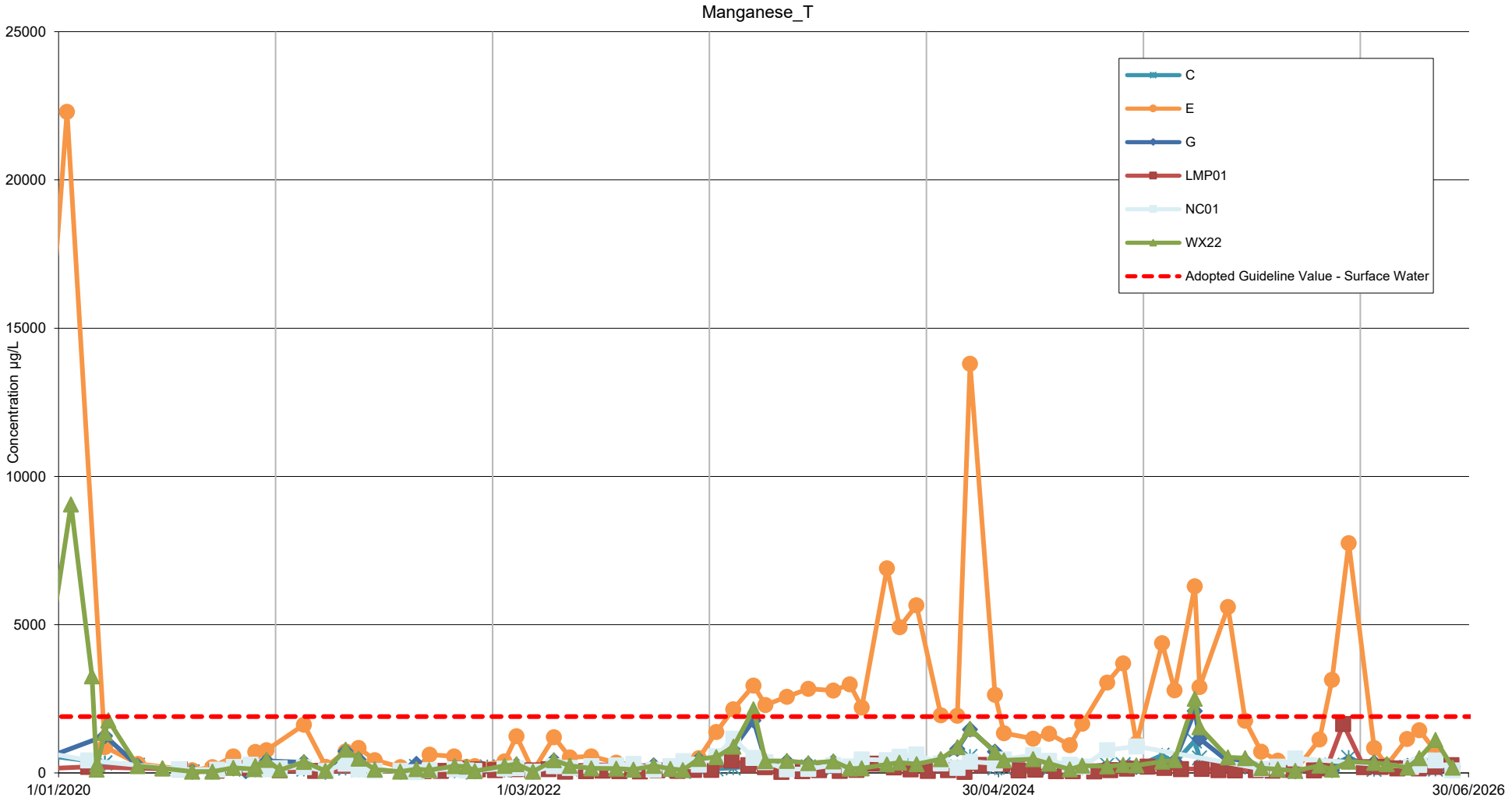
Appendix K. Nickel (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



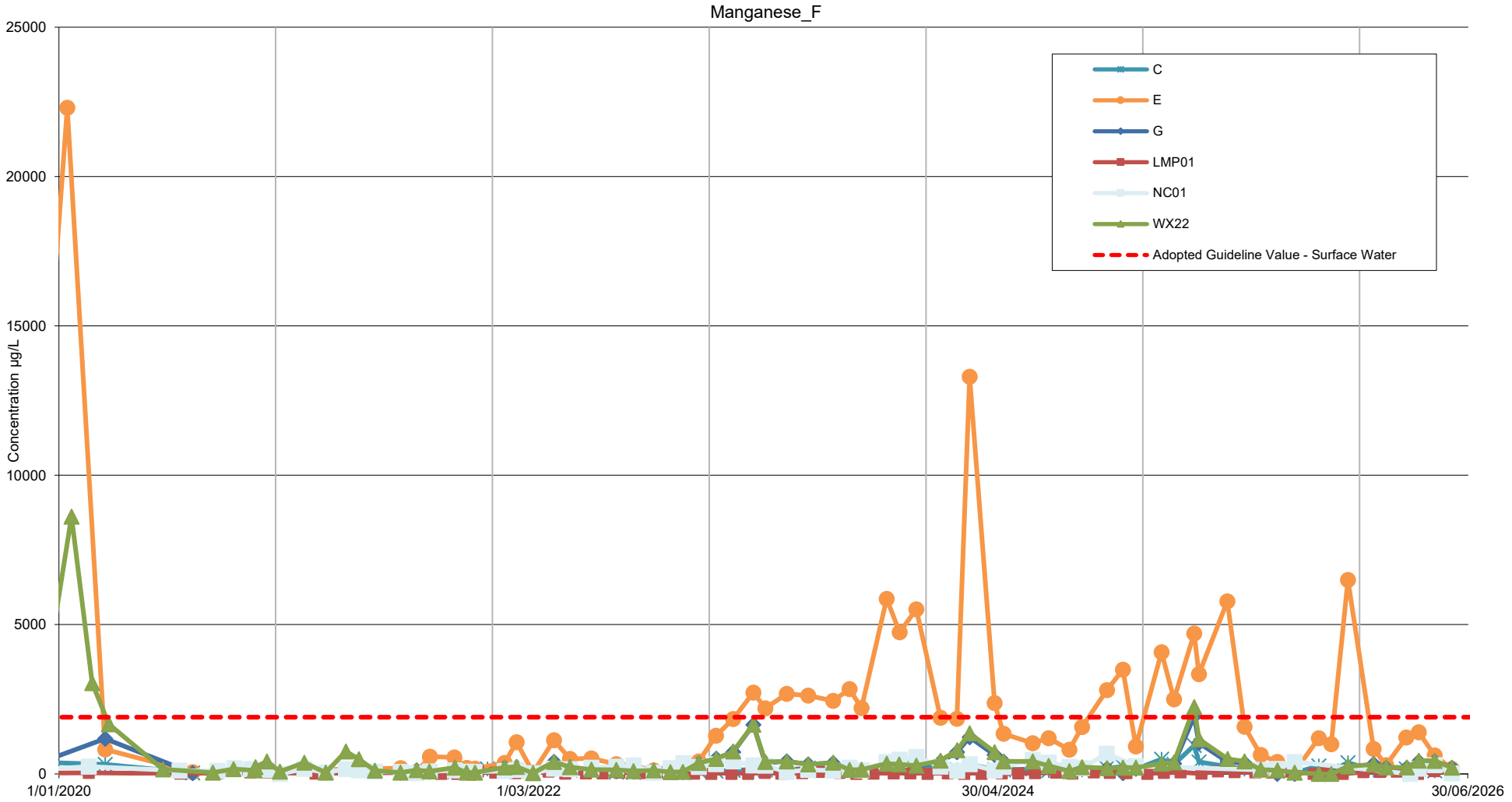
Appendix K. Lead (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



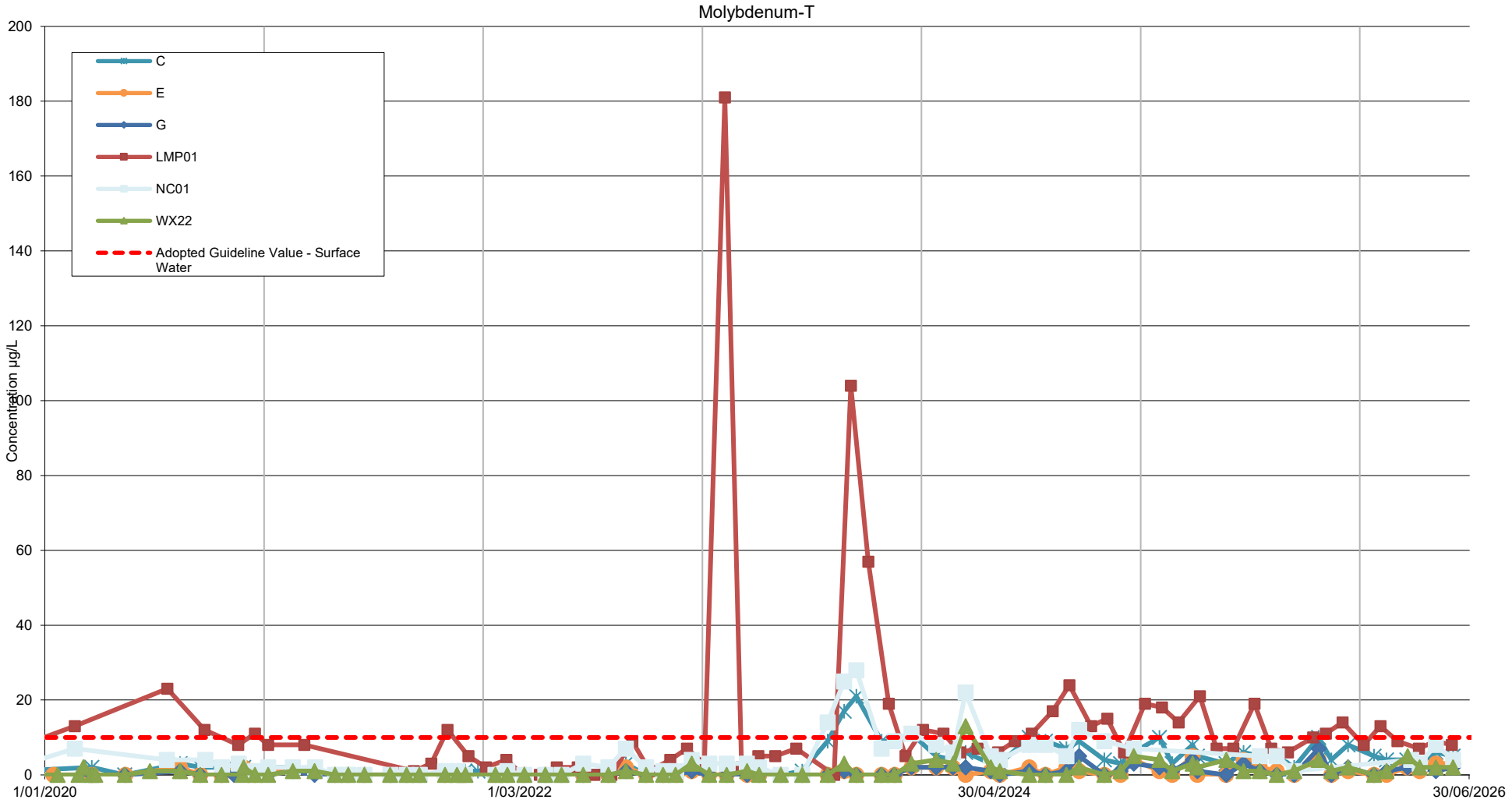
Appendix K. Manganese (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



Appendix K. Manganese (Filtered) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



Appendix K. Molybdenum (Total) Concentrations Over Time
Annual Environmental Monitoring Report (January - June 2026)
Mt Piper Power Station
0810778



APPENDIX L MANN-KENDALL METHODOLOGY

Address 1
Address 2
Address 3
City, State, Postcode

T +0 000 000 0000
F +0 000 000 0000

erm.com

Trend Analysis Report

August 18, 2026

1. USER WARNINGS

Trend analysis is a commonly used statistical tool for assessing changes in concentration over time. Like most statistical analyses, trend tests involve some assumptions about the data being analyzed. If these assumptions are not met, the results of the test may be wrong or misleading. The final section of this memo discusses scenarios that will likely require the input of a qualified statistician to ensure that the results of the trend test are appropriate for your data. A careful review of the results tables and figures can help identify any anomalies in the data that merit further assessment.

Selection of an appropriate significance level (α): Statistical convention typically uses an α equal to 0.05 which sets the probability of drawing a false positive conclusion (saying there is a trend when one does not exist) in the statistical analysis at 5 percent. The significance level can be adjusted up or down to meet specific programmatic needs or to meet data quality objectives, but changes in α should be made a priori and should not be changed in an attempt to obtain a more 'favorable' result. Often decreasing α will result in a reduction in the probability of finding a false negative result (saying there is no trend when one actually exists).

2. INTRODUCTION

This report addresses data quality, descriptive statistics, and trend analysis for the Mt Piper project.

- The data file used in this report (4. MK_Input_14082026.xlsx) consists of samples from January 2020 to June 2026.
- The analysis includes 25 unique wells and 9 analytes.
- Descriptive statistics and trend analysis are run for every unique combination of: sys_loc_code, chemical_name (referred to as *Group* from hereon). There are 225 unique Groups.
- Trend tests were conducted at 95% confidence with minimum data requirements of at least 4 detected values and 50% detection frequency for each Group.

3. DATA HANDLING

This section describes the data included in this evaluation, the handling of field duplicates, data qualifiers, censored values, and handling of anomalous data points.

© Copyright 2026 by The ERM International Group Limited and/or its affiliates ('ERM'). All Rights Reserved.
No part of this work may be reproduced or transmitted in any form or by any means, without prior written permission of ERM.

3.1 FIELD DUPLICATES

Only one set of primary and field duplicate measurements are generally retained for statistical evaluation. While field duplicates can provide useful information on the sampling methodology, the duplicates are almost always statistically dependent on the parent sample (USEPA 2009, Page 6-27). Although complicated methods can be used to allow the inclusion of both values in statistical tests, simpler strategies involve keeping the maximum value between the two samples, randomly selecting one of the two samples, or removing the duplicates altogether (USEPA 2009, Page 6-28).

Field duplicates were omitted from this analysis. Only the parent samples were retained.

3.2 DATA QUALIFIERS

Data was qualified by a data validator to ensure the quality of the reported results. Consistent with lab conventions, J-flagged values were estimated quantities. Guidance allows for J-flagged values to be used with reported concentrations but cautions against making regulatory decision based on these values (USEPA 2014).

Measurements that have an R-flag had their concentration rejected; the result is rejected due to serious deficiencies in meeting quality control criteria and the analyte may or may not be present in the sample (USEPA 2014). The data quality review found the results to be valid, reliable and usable for decision making purposes with the listed qualifiers. Any records with validator_qualifiers containing "R" or reportable_result = "N" or "No" in the dataset were removed prior to analysis.

3.3 NON-DETECTS

Non-detects (NDs) commonly reported in water monitoring are statistically known as "left censored" measurements because the concentration of any ND can only be estimated. NDs are assumed to fall between zero and the reporting limit (USEPA 2009). USEPA (2015) offers a number of options for handling non-detected values, including Kaplan-Meier estimators, Regression on Order Statistics, and replacement with surrogate values. The appropriate handling of NDs depends on the statistical test being used and will be discussed in the following sections as appropriate.

Consistent with USEPA guidance, in cases where frequency of detection (FOD) was greater than 50 percent, NDs were substituted with a constant that is below the lowest detected value (Helsel and Hirsch 2002). This ensures that all NDs are "tied" in the analysis and that changing reporting limits have limited influence on whether trends are detected (USEPA 2009, Helsel and Hirsch 2002). NDs were substituted with a value of zero for the trend analysis.

4. DESCRIPTIVE STATISTICS

Descriptive statistics were calculated for all Groups and can be found in Table 1. Non-detects were substituted with a value of half the reporting limit for calculations. The descriptive statistics highlight a number of relevant characteristics about the datasets, including:

- There are a total of 225 Groups.
- 220 Groups have detection rates greater than or equal to 50 percent.
- 0 Groups have 100 percent non-detects.
- 206 Groups have 100 percent detects.
- 104 Groups follow a normal distribution (using Shapiro-Wilks Normality Test) and 38 Groups follow a log-normal distribution. 0 Groups follow a gamma distribution (using Anderson-Darling Normality Test). The remaining 83 Groups have no discernible distribution.

5. TESTING FOR TRENDS

Trend tests are a commonly used tool to assess the effectiveness of remediation efforts. By examining whether concentrations are increasing, decreasing, or not statistically significant, trend tests provide one line of evidence about the directional change in concentrations over time.

5.1 TREND TESTING APPROACH

A Mann-Kendall test was used to detect changes in concentrations over time. The Mann-Kendall test is a non-parametric method that tests the following null hypothesis (USEPA 2009):

- Null Hypothesis (Ho): No monotonic trend exists.
- Alternative Hypothesis (Ha): A monotonic trend exists.

A monotonic upward (downward) trend means that the variable consistently increases (decreases) through time, but the trend may or may not be linear. The Mann-Kendall test is based on the premise that the lack of monotonic trend should correspond to a time series plot fluctuating randomly about a constant median with no visually apparent upward or downward pattern (Helsel and Hirsch 2002). Significantly increasing or decreasing trends (τ) are identified at a significance level (α) of less than or equal to 0.05. τ^2 can be used like an R^2 value to estimate how much variance in y is explained by x (i.e., what proportion of the variability in concentration is explained by time). USEPA 2009 guidance and/or Helsel and Hirsch (2002) may be consulted for further details about trend analysis. With the specified 95% confidence, significantly increasing or decreasing trends are identified with p-values as follows:

Tau	p-value	Conclusion	Trend
Positive	p <= 0.05	Ho Rejected	Increasing
Negative	p <= 0.05	Ho Rejected	Decreasing
Positive or Negative	p > 0.05	Ho Accepted	Not Significant

The Mann-Kendall was run in R v4.5.1 using a two.sided test with the stats::cor.test() function, with 95% confidence.

5.2 DATA CONSTRAINTS

Guidance recommends that trend tests be performed with at least eight detected data points to ensure a reasonable amount of confidence in results (USEPA 2009, p. 17-24). However, it is mathematically possible to carry out the test with five detected samples. The consequences of using the minimum sample size is that there is a greater chance of concluding that there is no trend when, in fact there is a trend (USEPA 2009). If a dataset is comprised of more than 50 percent ND values, the loss of information is considered too great to support a reliable analysis of trends, so no trend test was performed.

5.3 RESULTS

Trend tests were calculated with 95% confidence for all Groups that met the minimum data requirements of at least 4 detected values and 50% detection frequency. A full report of the trend test results and time series plots can be found in Table 2. The following summarize the results of the trend analysis:

- There are a total of 225 Groups in the dataset.
- 220 Groups meet the data requirements of the trend test. Of those:
  - 27 Groups had a significant increasing trend,
  - 69 Groups had a significant decreasing trend,
  - 124 Groups had no significant trend.

Time series scatterplots are provided in Figure 1 for each Group. Detection limits for each sample are also plotted for an easy visual assessment of changing detection limits over time. A Theil-Sen regression line is shown on each figure to provide a visual guide for temporal trends.

6. SPECIAL CONSIDERATIONS

Like most statistical analyses, these trend tests involve some assumptions about the data being analyzed including:

- Observations or data obtained over time are independent.
- The observations obtained over time are representative of the true conditions at sampling times.
- The sample collection, handling, and measurement methods provide unbiased and representative observations of the underlying populations over time.
- There is no requirement that the measurements be normally distributed. The Mann-Kendall test can be computed if there are missing values and varying detection limits, but the performance of the test will be adversely affected by such events. The assumption of independence requires that the time between samples be sufficiently large so that there is no correlation between measurements collected at different times.

The Mann-Kendall test does not assume that the underlying relationship is linear. However, in cases where the data are clearly curvilinear, it may be more appropriate to consult with a statistician to employ different statistical techniques that more accurately characterize the changes in concentration over time.

Special consideration should be given to dataset with clear seasonality and/or NDs. These are considered in the following sections.

6.1 SEASONALITY

Seasonal changes in precipitation and temperature can cause cyclical fluctuations in groundwater concentrations. These seasonal fluctuations functionally add 'noise' to the data. This type of noise is called serial dependence and can make it difficult to determine trends in the data because of a long-term persistent pattern (like seasonality) or whether it represents a true, underlying change. USEPA Guidance (2009) strongly recommends accounting for seasonality when performing linear trends in hydrologic data. Seasonality has not been explicitly handled in the data described herein.

6.2 NON-DETECTS AND DETECTION LIMITS

Non-detects (NDs) commonly reported in water monitoring are statistically known as "left censored" measurements because the concentration of any non-detect either cannot be estimated or is not reported directly. Rather, it is known or assumed only to fall within a certain range of concentration values (USEPA 2009 p. 15-1). With higher detection limits, that uncertainty is greater because the true value lies somewhere in a larger range of possible values.

USEPA (2006) notes that no general procedures exist for the statistical analyses of censored datasets. If a dataset is comprised of more than 50 percent non-detected (ND) values, guidance cautions the user when interpreting the results of statistical tests, especially for relatively small datasets (USEPA 2009). In the context of the trend tests described herein, there is general agreement that substituting a constant below the lowest detected value is the best solution for handling non-detected values.

When detection rates are below 85 percent, however, this simple substitution method may lead to bias in the trend tests. Visually reviewing the data is a key step in interpreting the appropriateness of the statistical results. The time series plots have been generated using the detection limit for non-detects so that detection rates and multiple detection limits can be visualized. Additional statistical testing may be needed to address datasets with low detection rates or elevated detection limits.

7. REFERENCES

Helsel and Hirsch. 2002. *Statistical Methods in Water Resources.* Chapter A3. U.S. Department of the Interior, U.S. Geological Survey.

USEPA. 2006. *Data Quality Assessment: Statistical Methods for Practitioners.* EPA QA/G-9S. Office of Environmental Information. Washington, DC.

USEPA. 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities.* Unified Guidance. EPA/530/R/09/007. Office of Resource Conservation and Recovery. Washington, D.C.

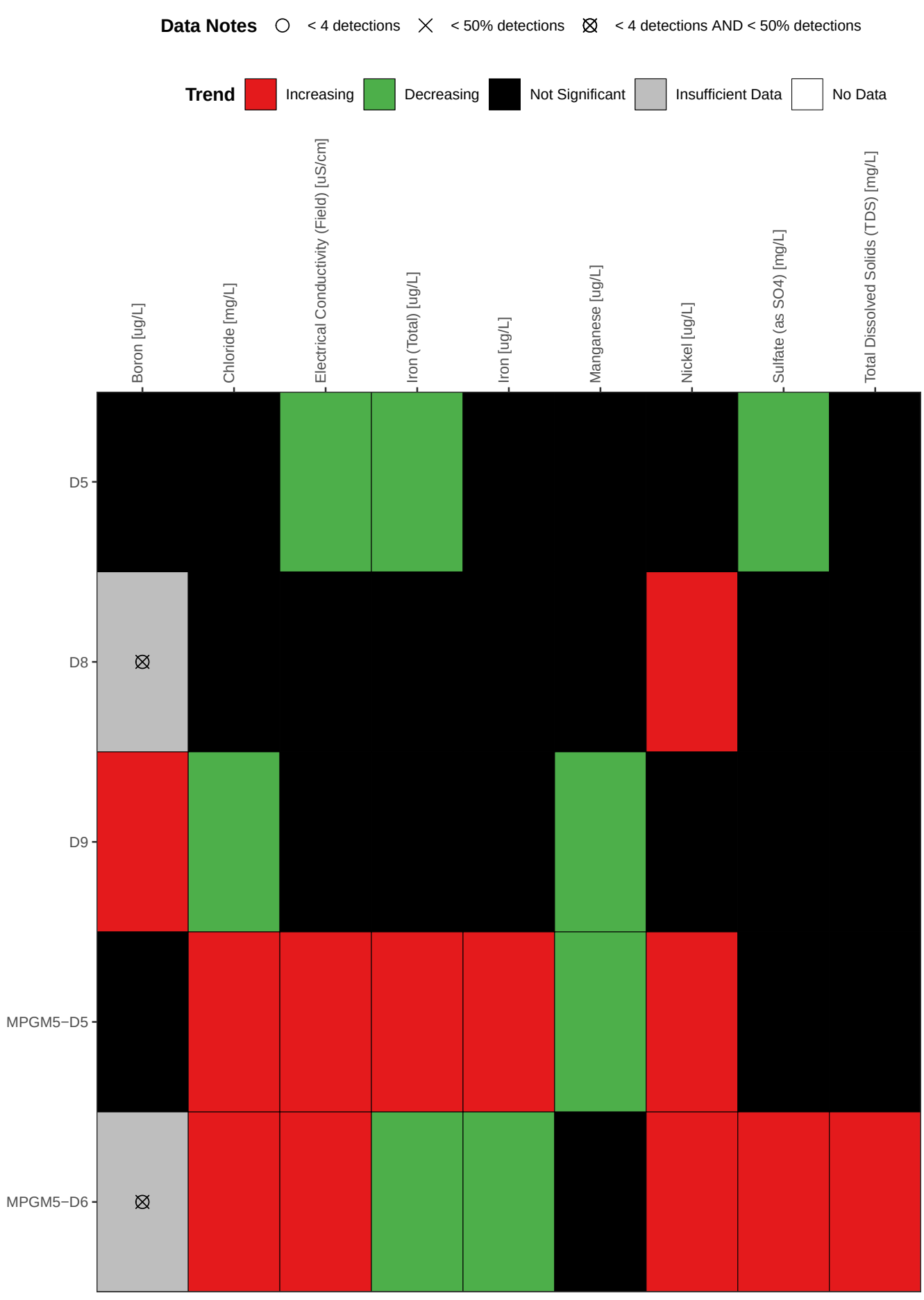
USEPA. 2014. *National Functional Guidelines for Superfund Organic Methods Data Review.* USEPA 540-R-014-002. OSWER 9355.0-132. August.

USEPA. 2022. *ProUCL Version 5.2.0 Technical Guide.* V.04-08-2022_508

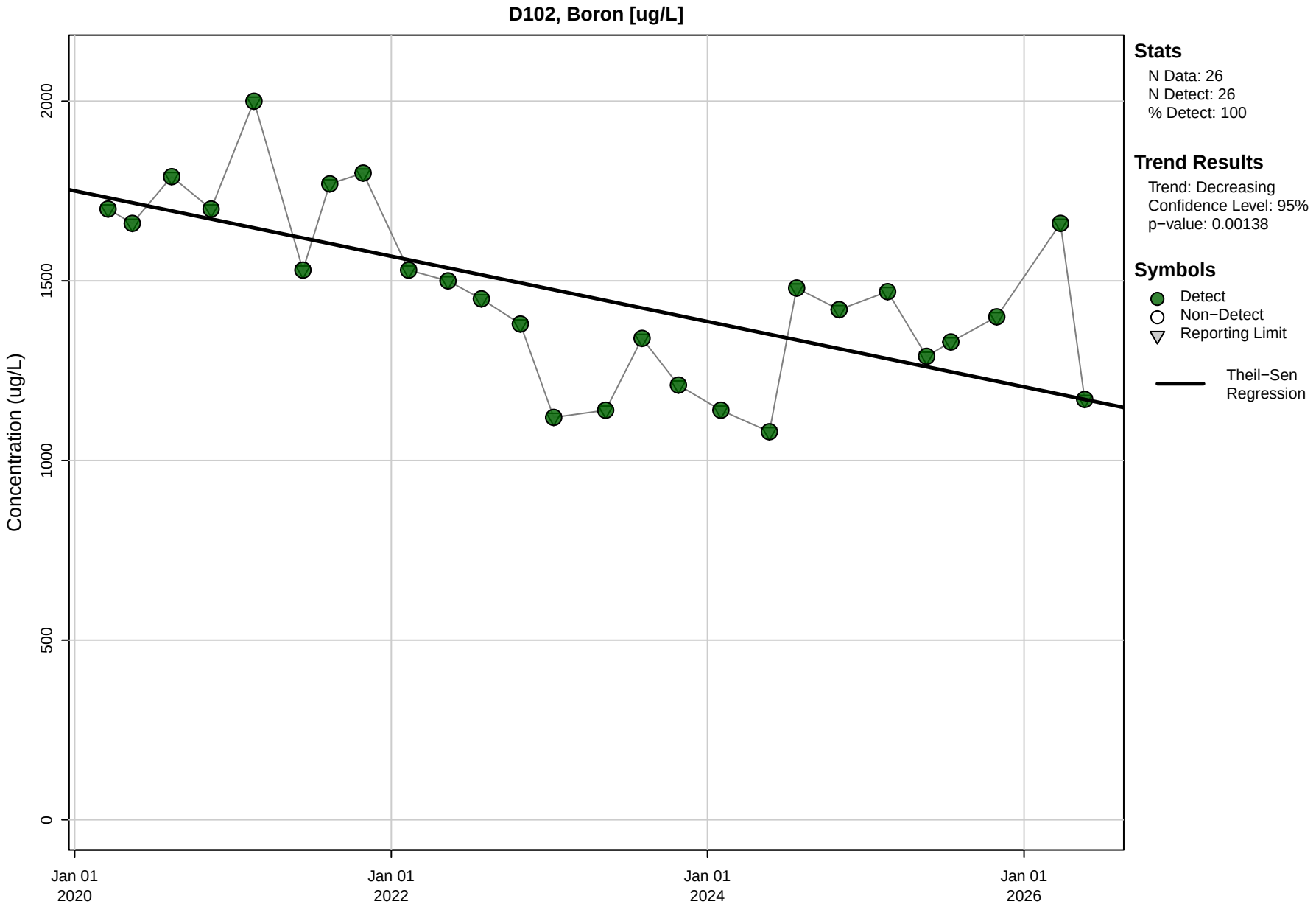
APPENDIX M STATISTICAL ANALYSIS

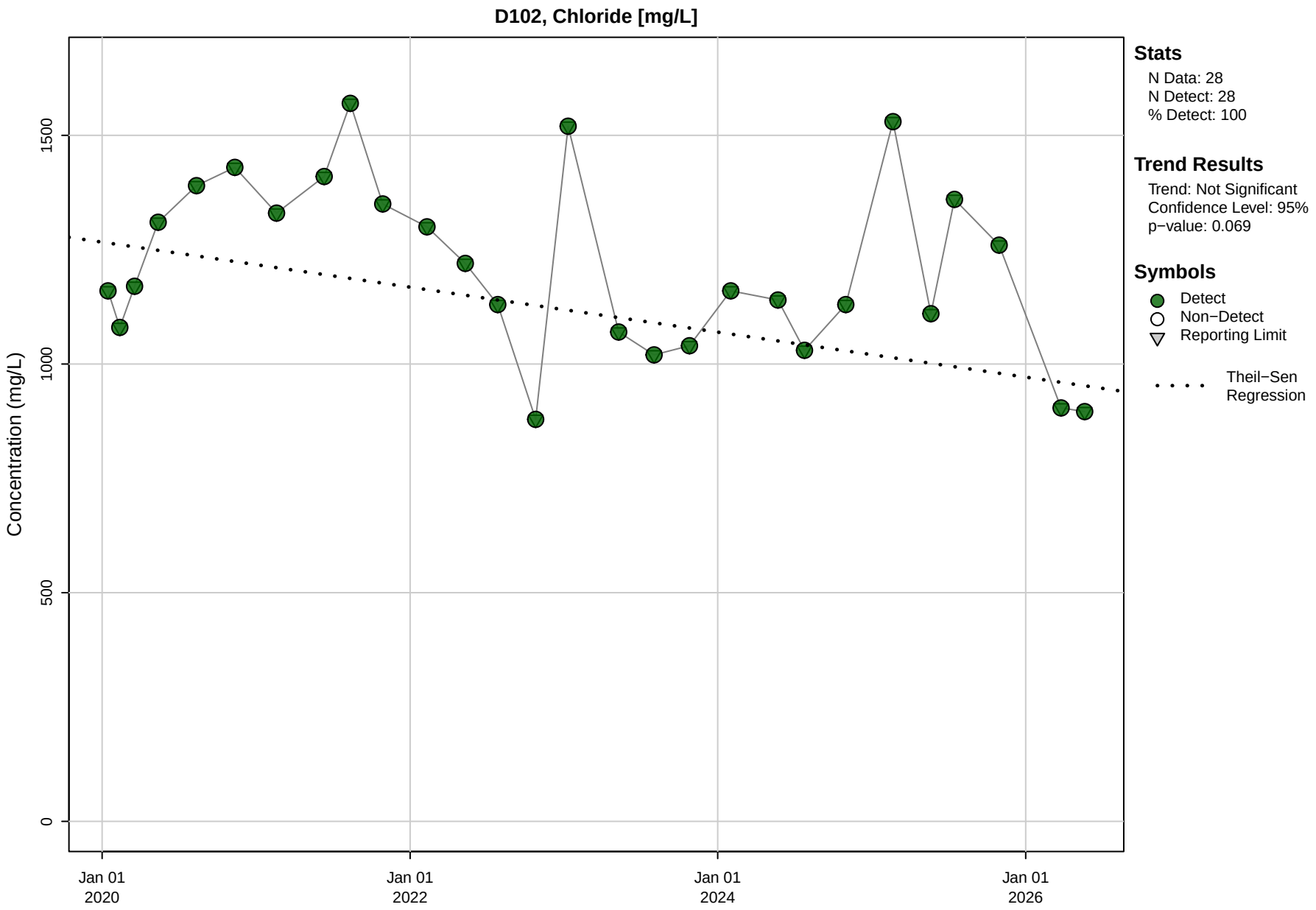
Trend Analysis Summary

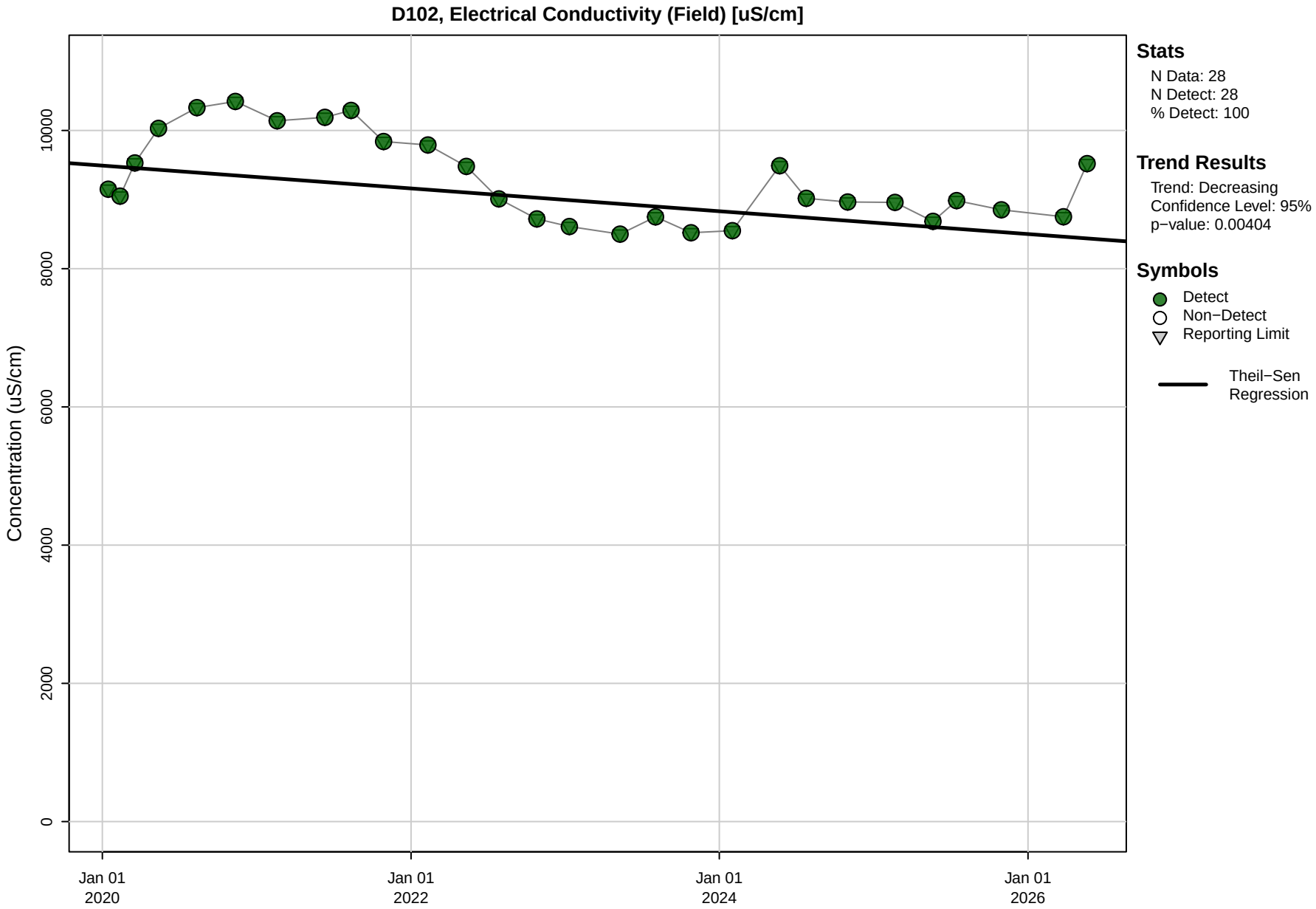

Data Notes
< 4 detections
< 50% detections
< 4 detections AND < 50% detections
Trend
Increasing
Decreasing
Not Significant
Insufficient Data
No Data
Boron [ug/L]
Chloride [mg/L]
Electrical Conductivity (Field) [uS/cm]
Iron (Total) [ug/L]
Iron [ug/L]
Manganese [ug/L]
Nickel [ug/L]
Sulfate (as SO4) [mg/L]
Total Dissolved Solids (TDS) [mg/L]
D1
D10
D102
D103
D104
D105
D106
D107
D110
D113
D117
D119
D15
D16A
D17
D18
D19
D2
D3
D4

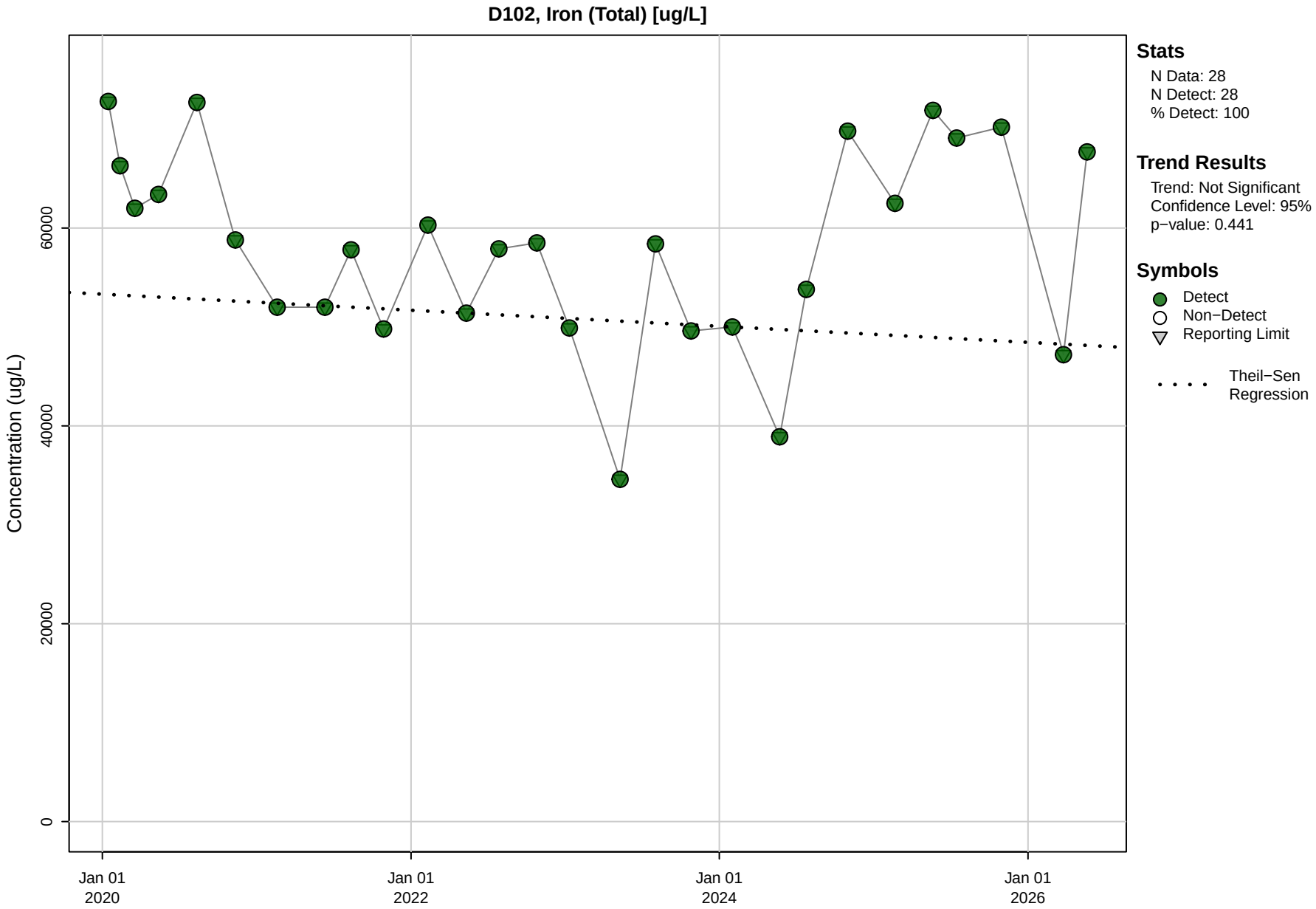

Data Notes
< 4 detections
< 50% detections
< 4 detections AND < 50% detections
Trend
Increasing
Decreasing
Not Significant
Insufficient Data
No Data
Boron [ug/L]
Chloride [mg/L]
Electrical Conductivity (Field) [uS/cm]
Iron (Total) [ug/L]
Iron [ug/L]
Manganese [ug/L]
Nickel [ug/L]
Sulfate (as SO4) [mg/L]
Total Dissolved Solids (TDS) [mg/L]
D5
D8
D9
MPGM5−D5
MPGM5−D6

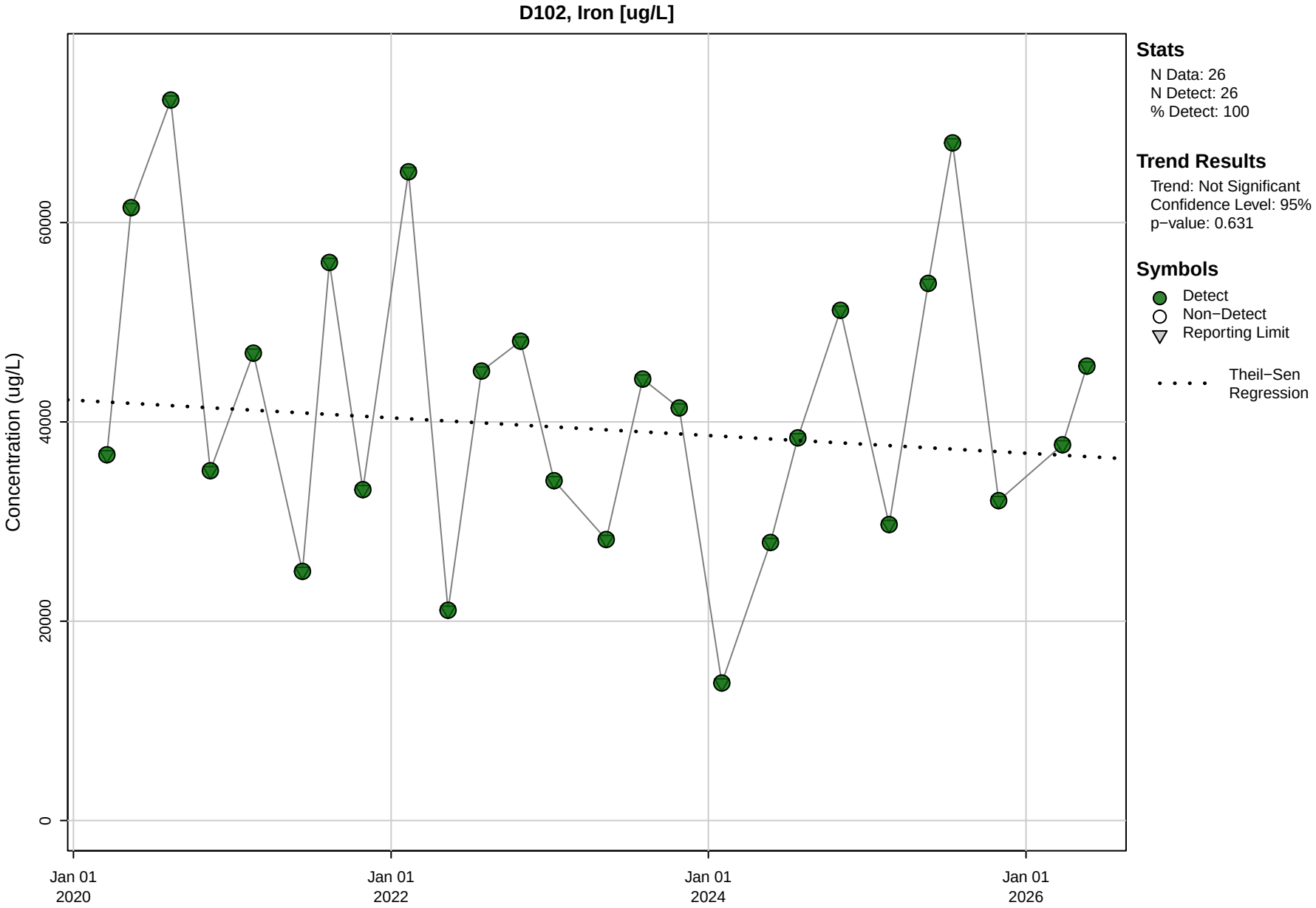
Time Series Figures

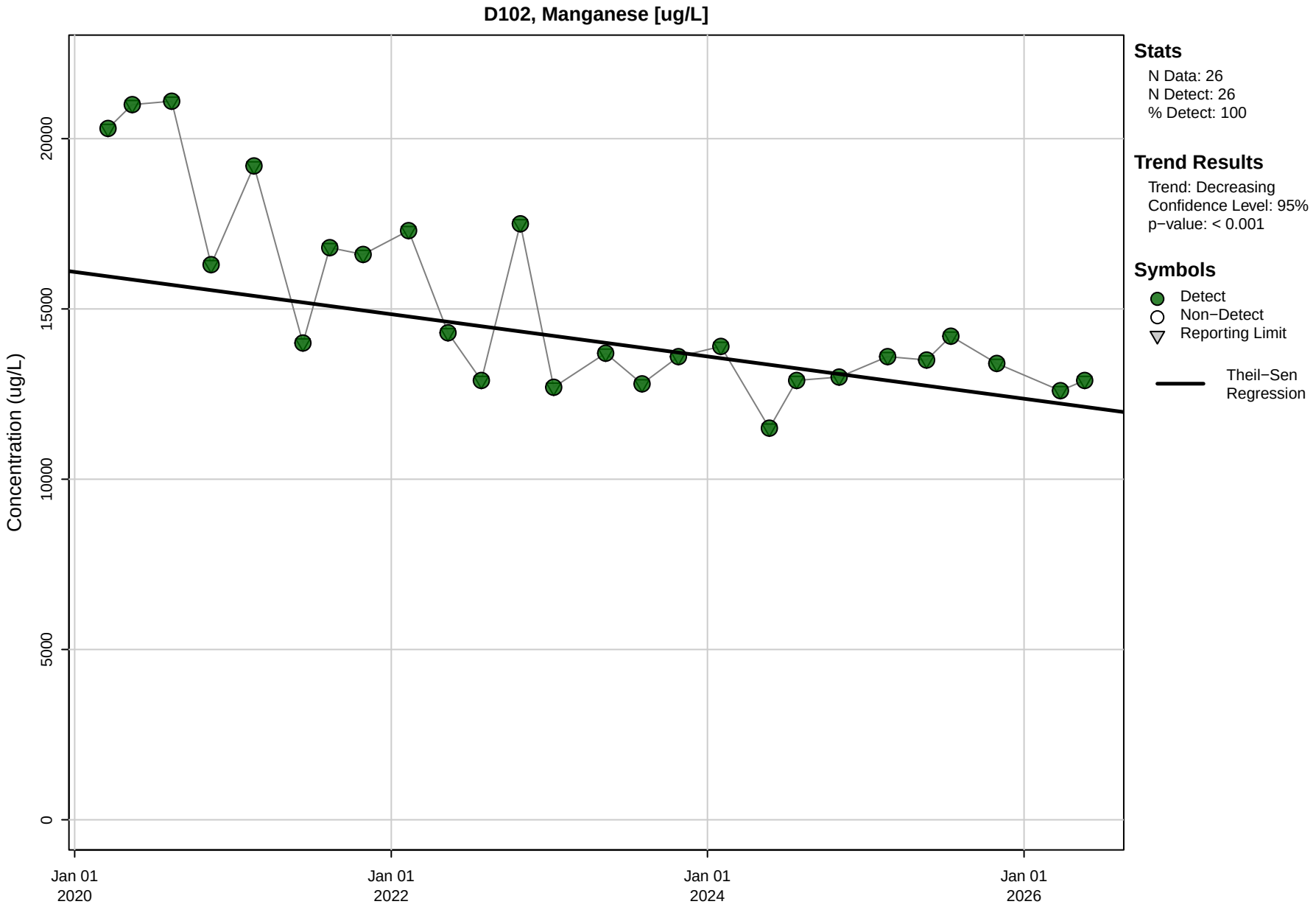

D102, Boron [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00138
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

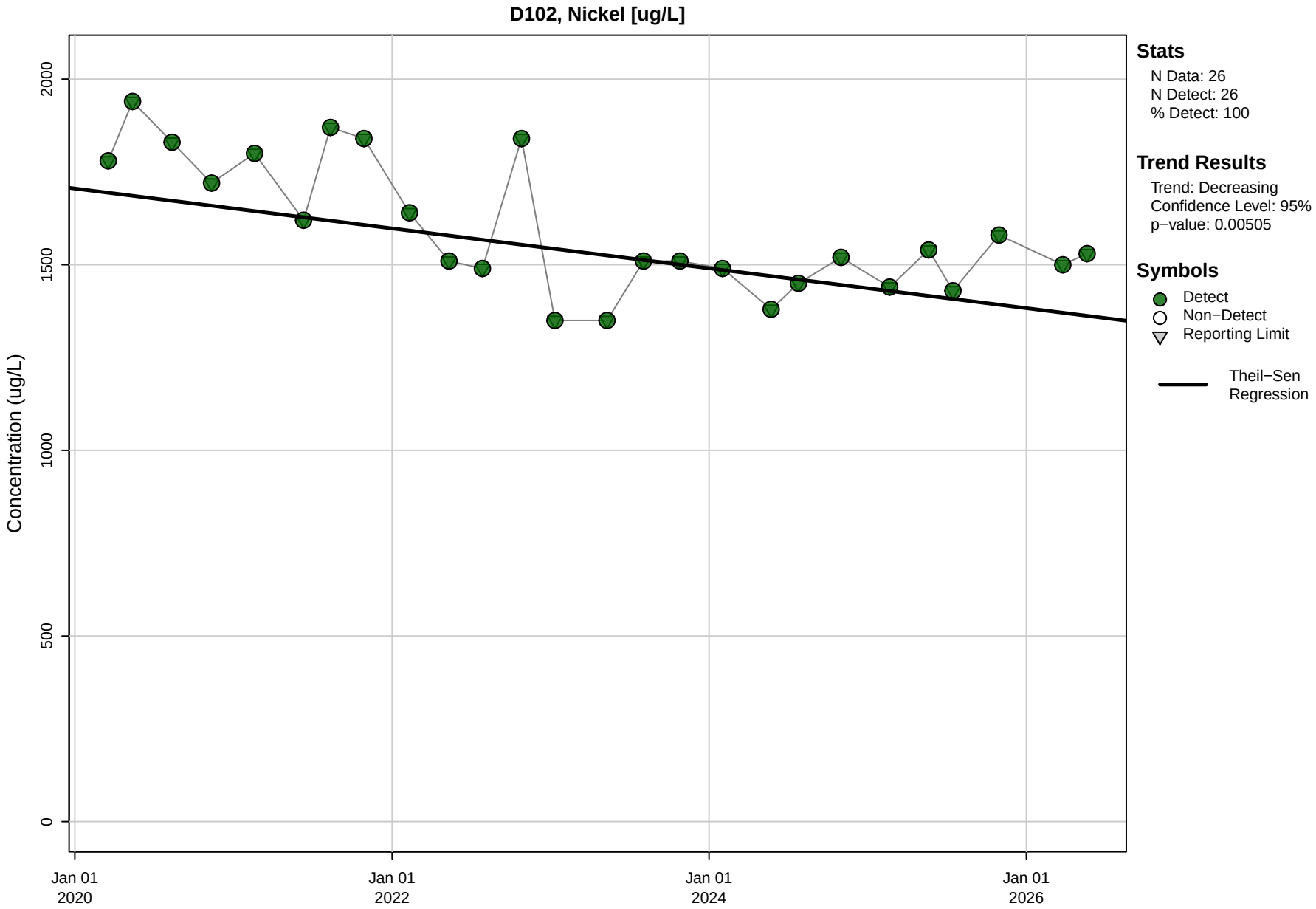

D102, Chloride [mg/L]
Concentration (mg/L)
0
500
1000
1500
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.069
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

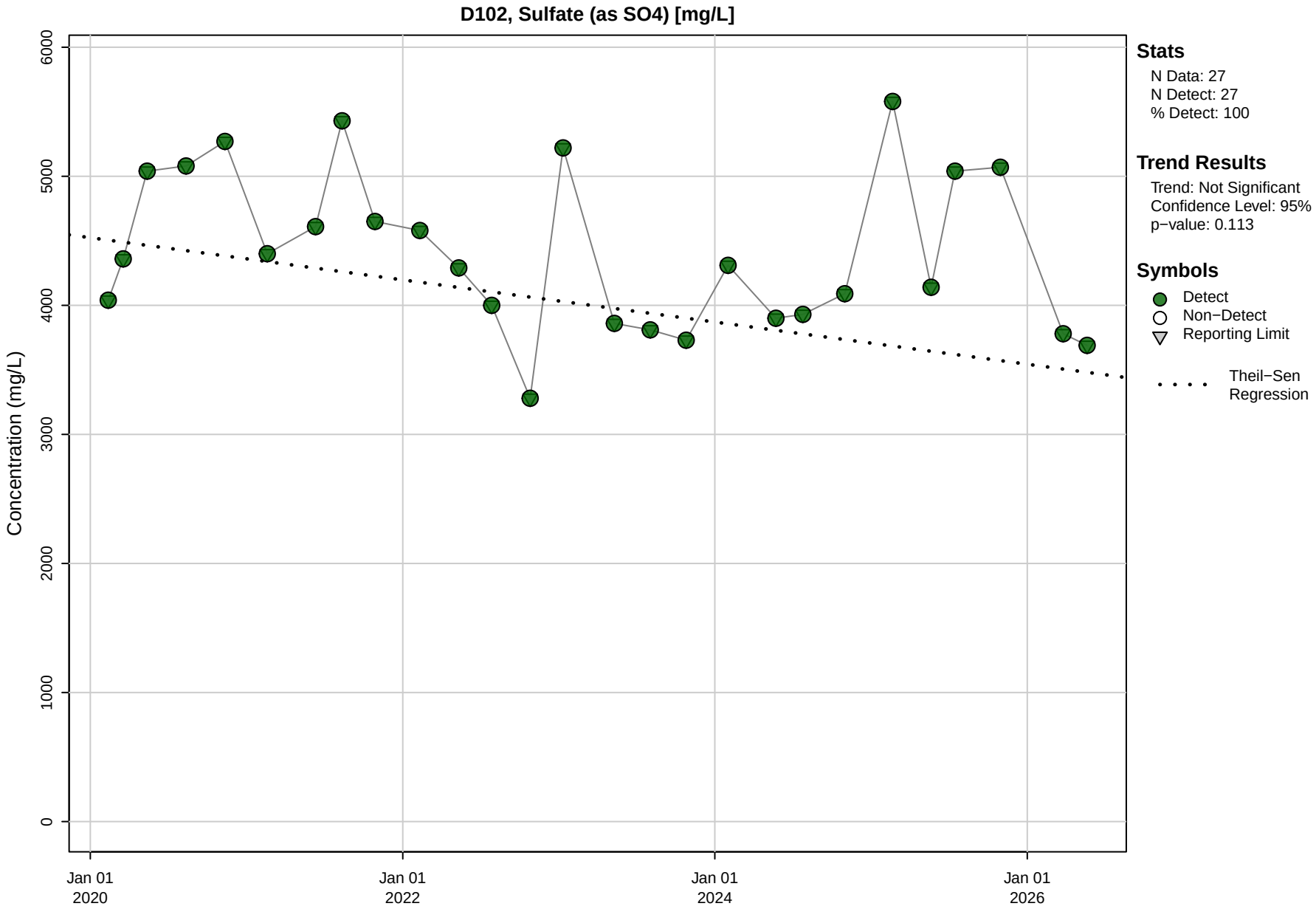

D102, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
2000
4000
6000
8000
10000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00404
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

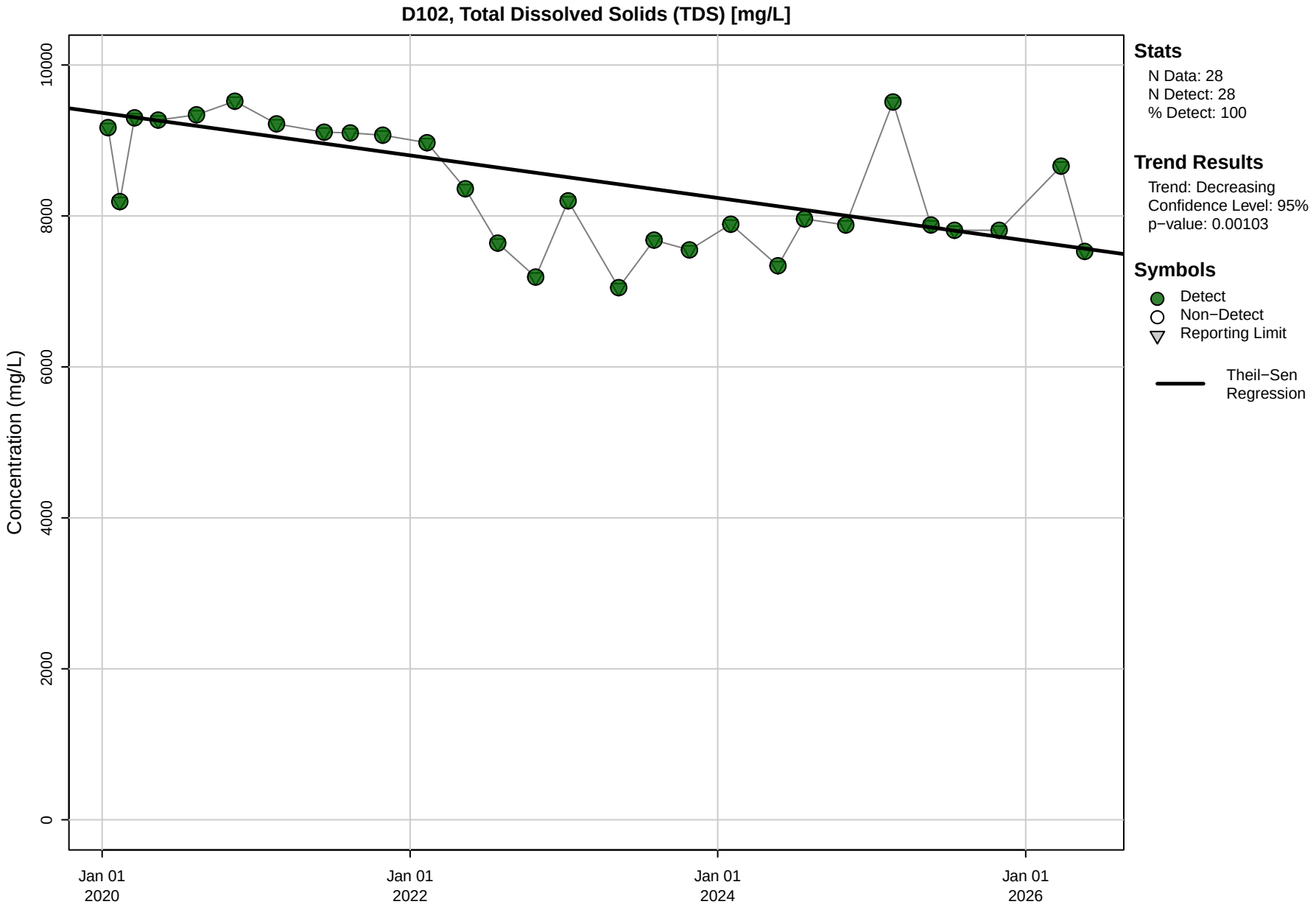

D102, Iron (Total) [ugL]
Concentration (ug/L)
0
20000
40000
60000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.441
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

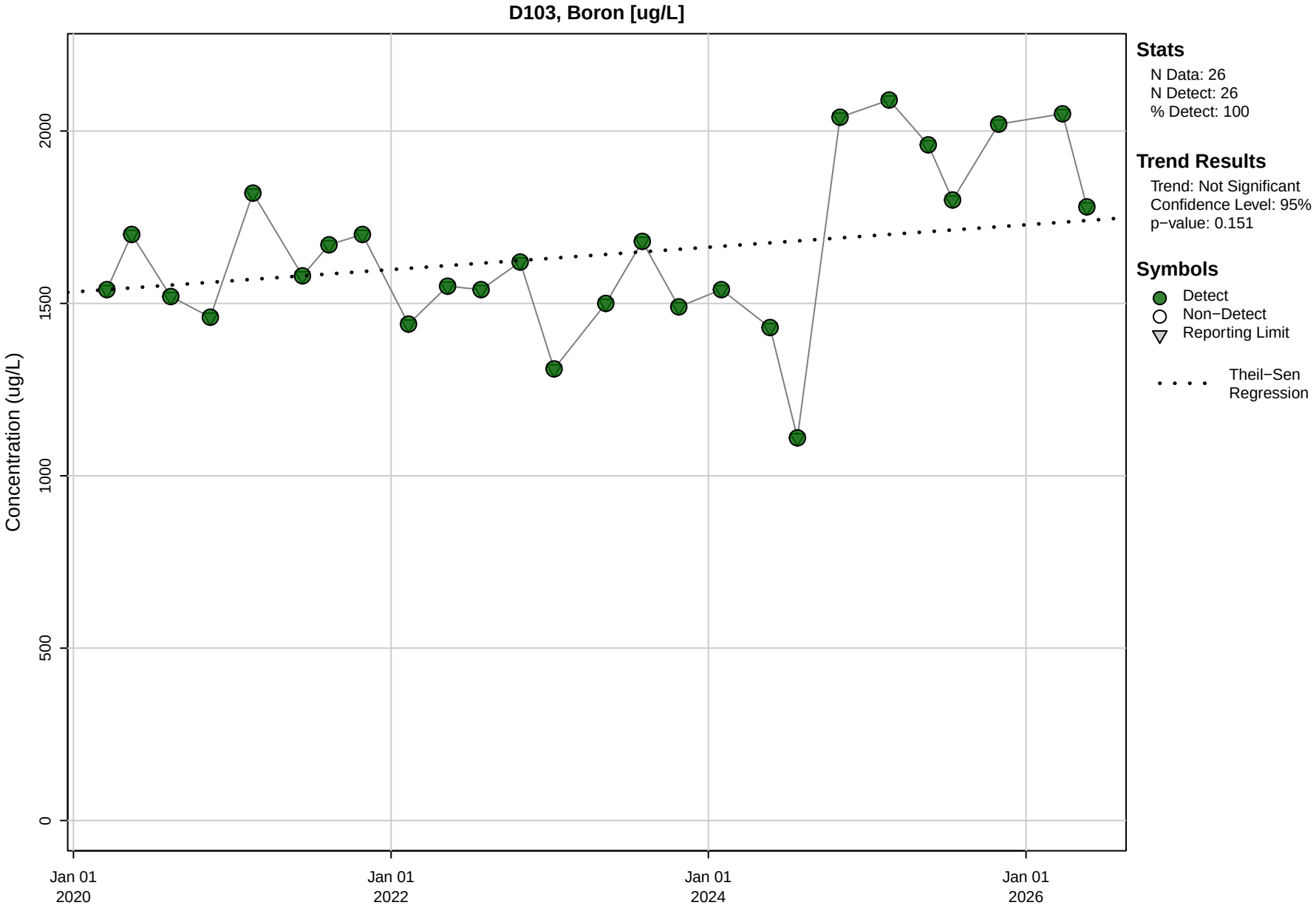

D102, Iron [ug/L]
Concentration (ug/L)
0
20000
40000
60000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.631
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

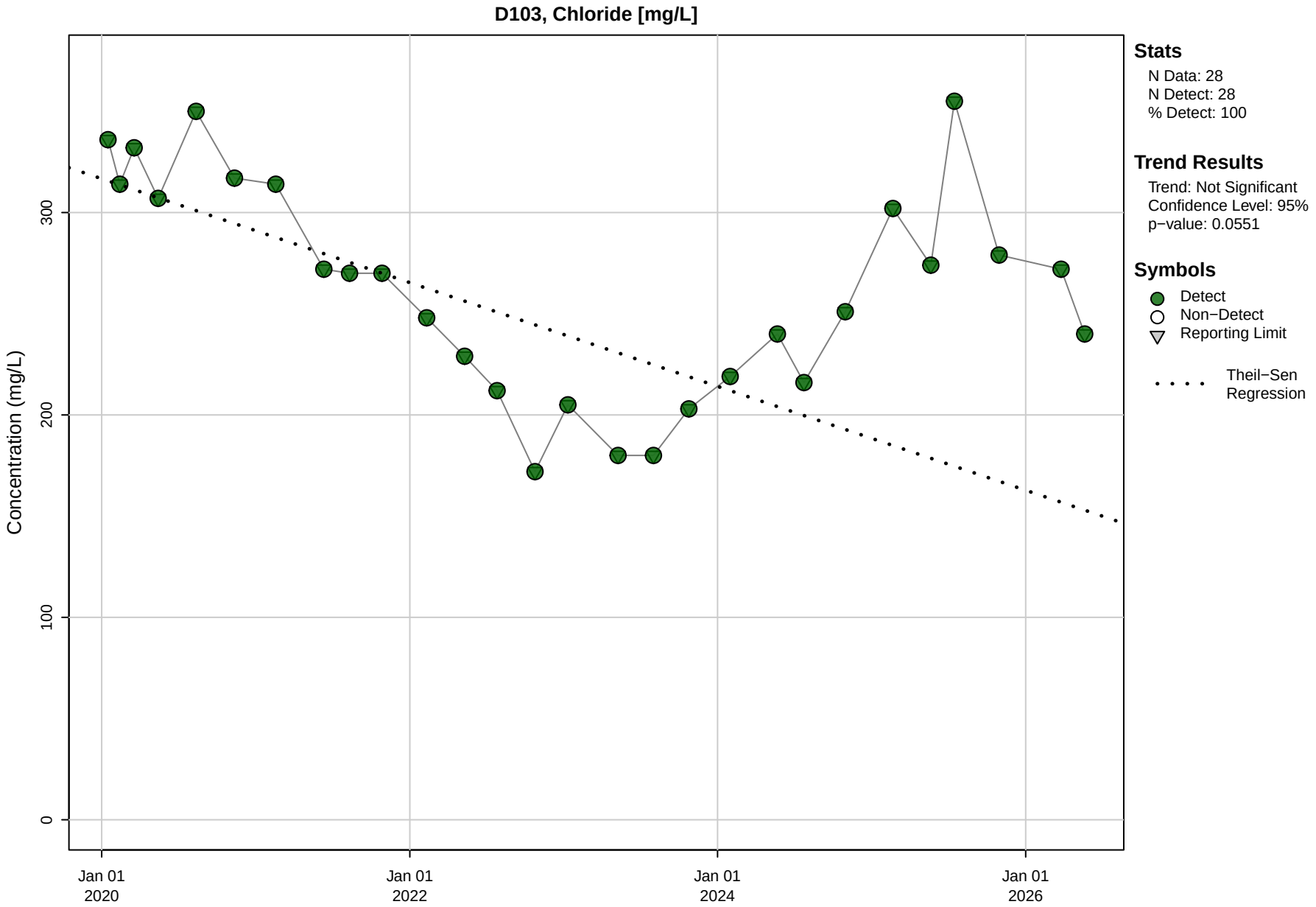

D102, Manganese [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

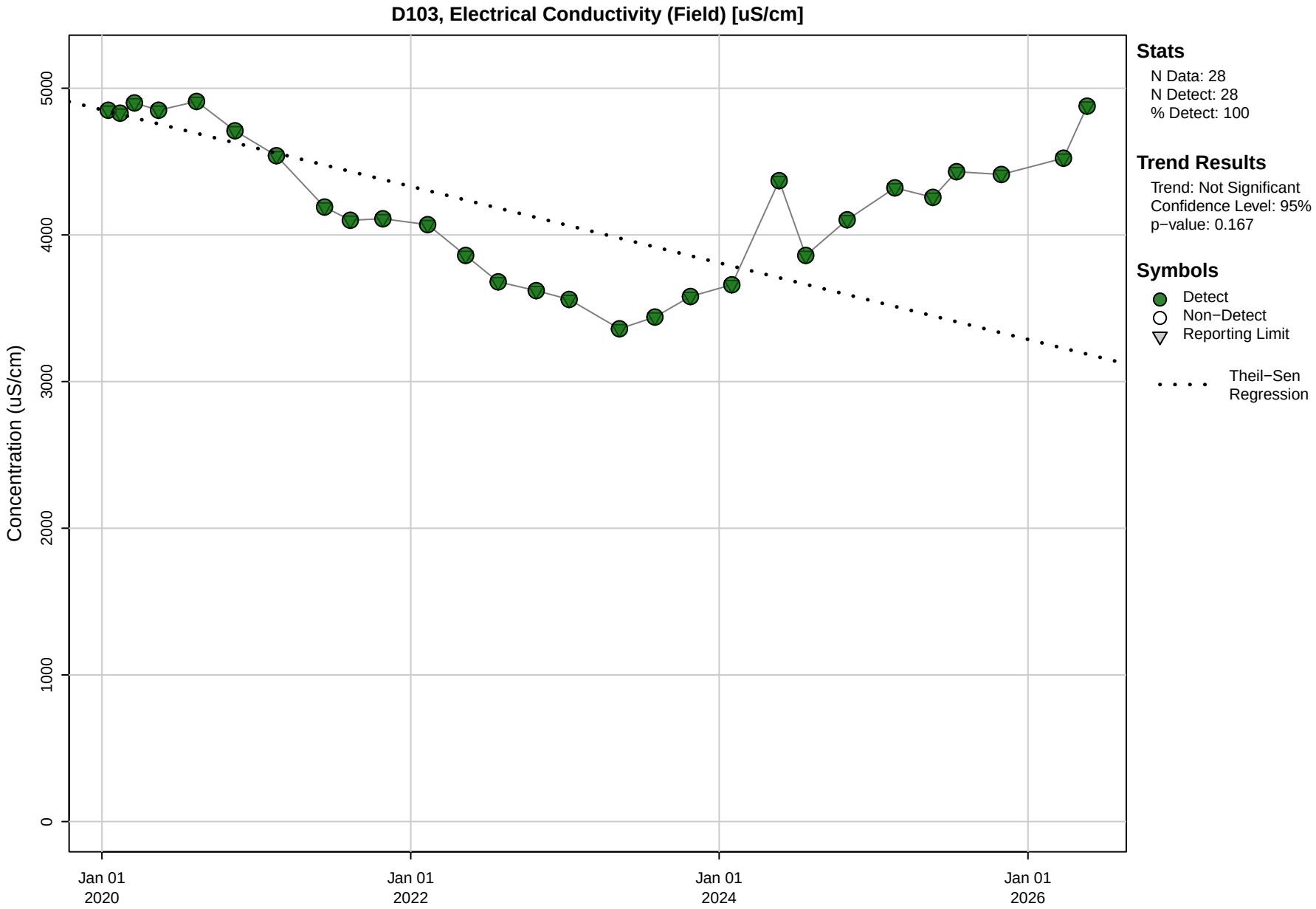

D102, Nickel [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00505
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

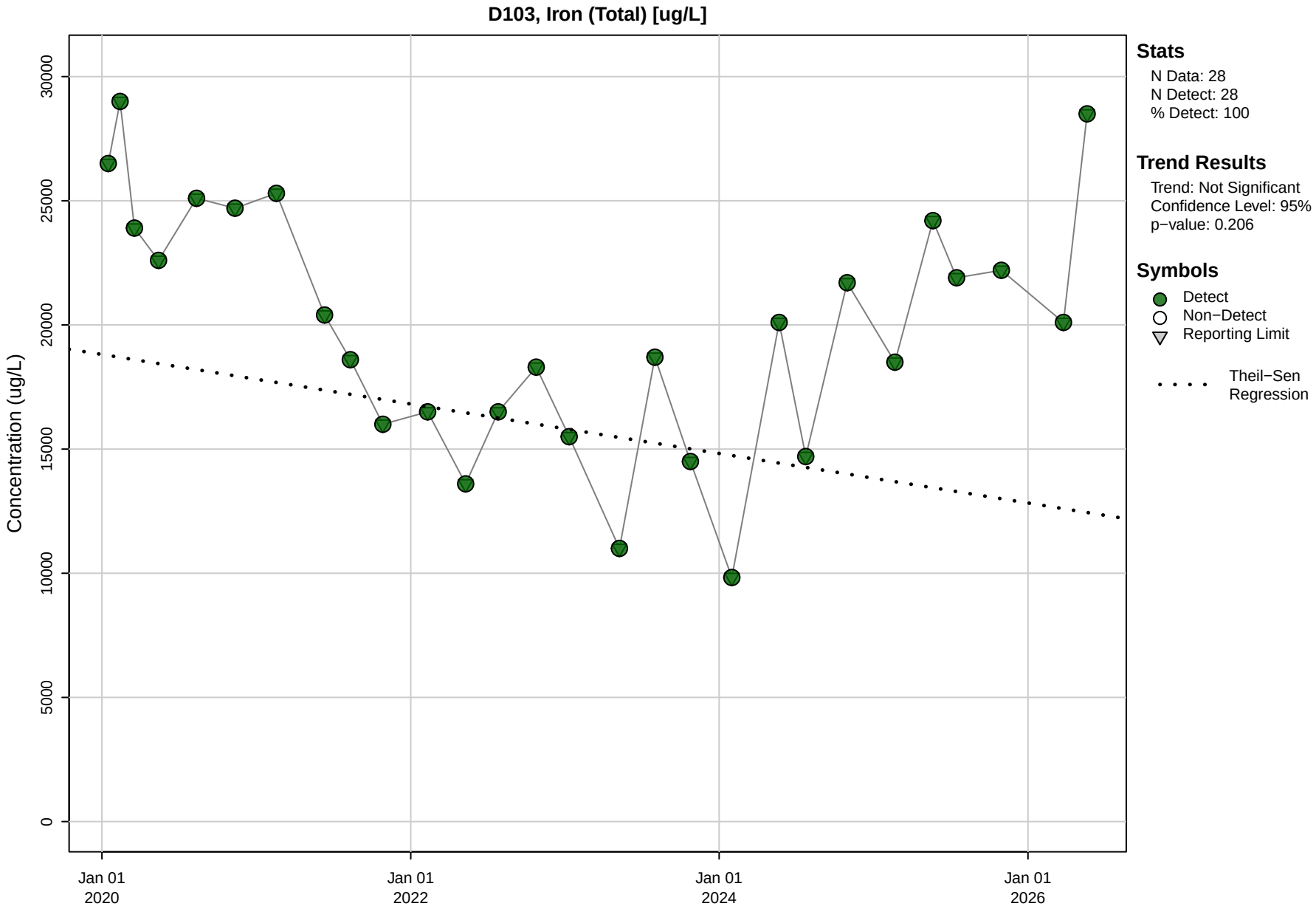

D102, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
4000
5000
6000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.113
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

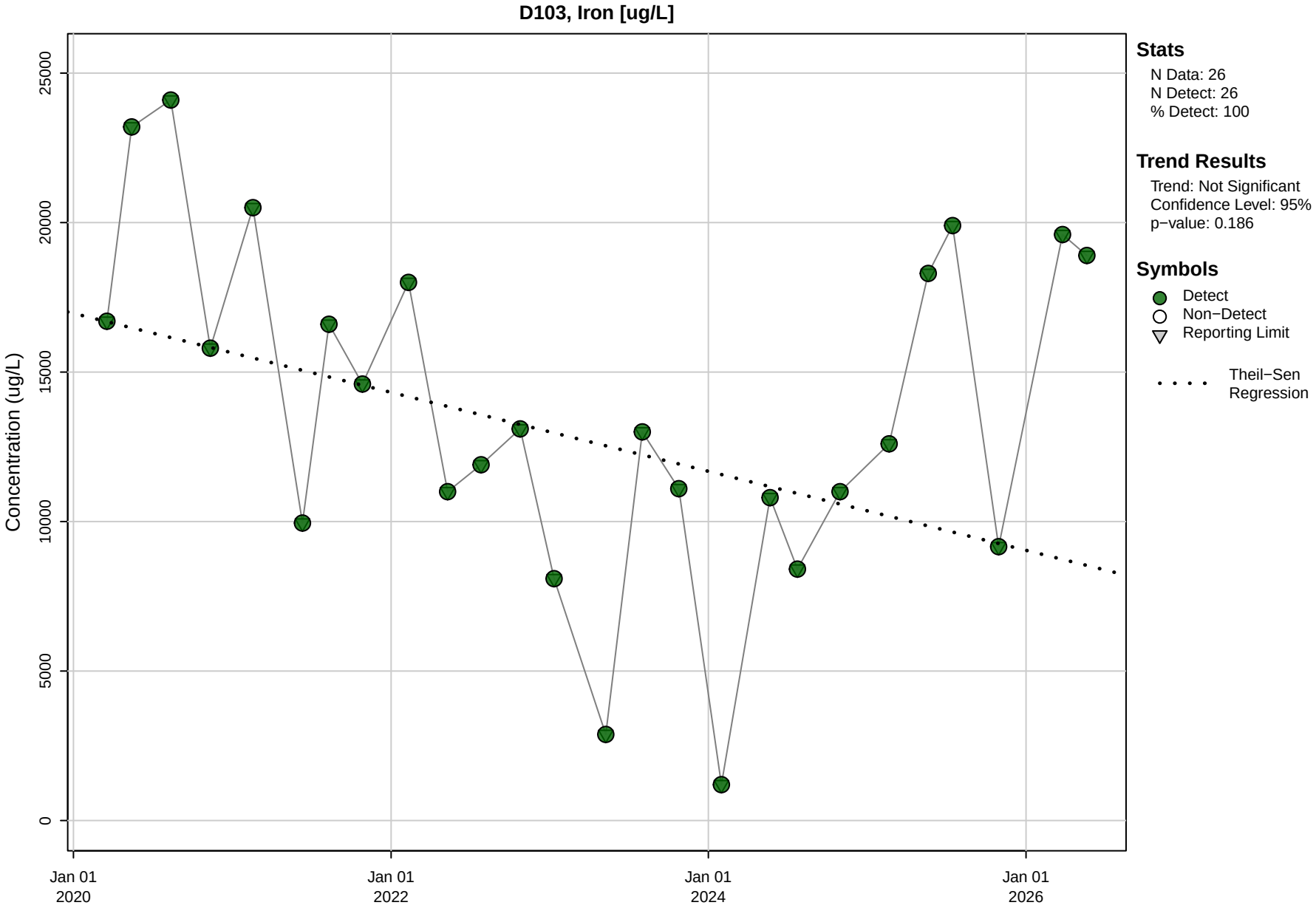

D102, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
2000
4000
6000
8000
10000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00103
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

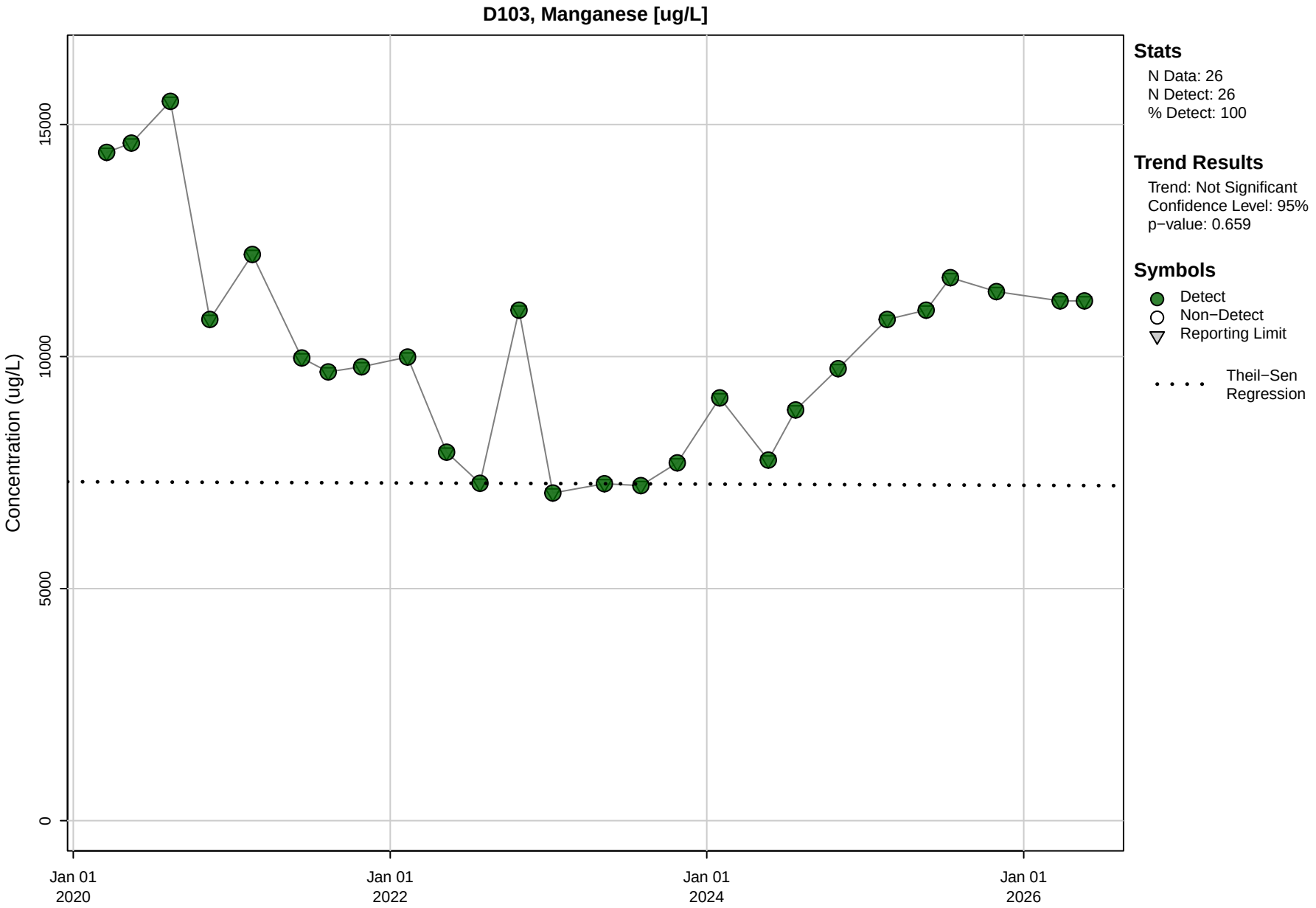

D103, Boron [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.151
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

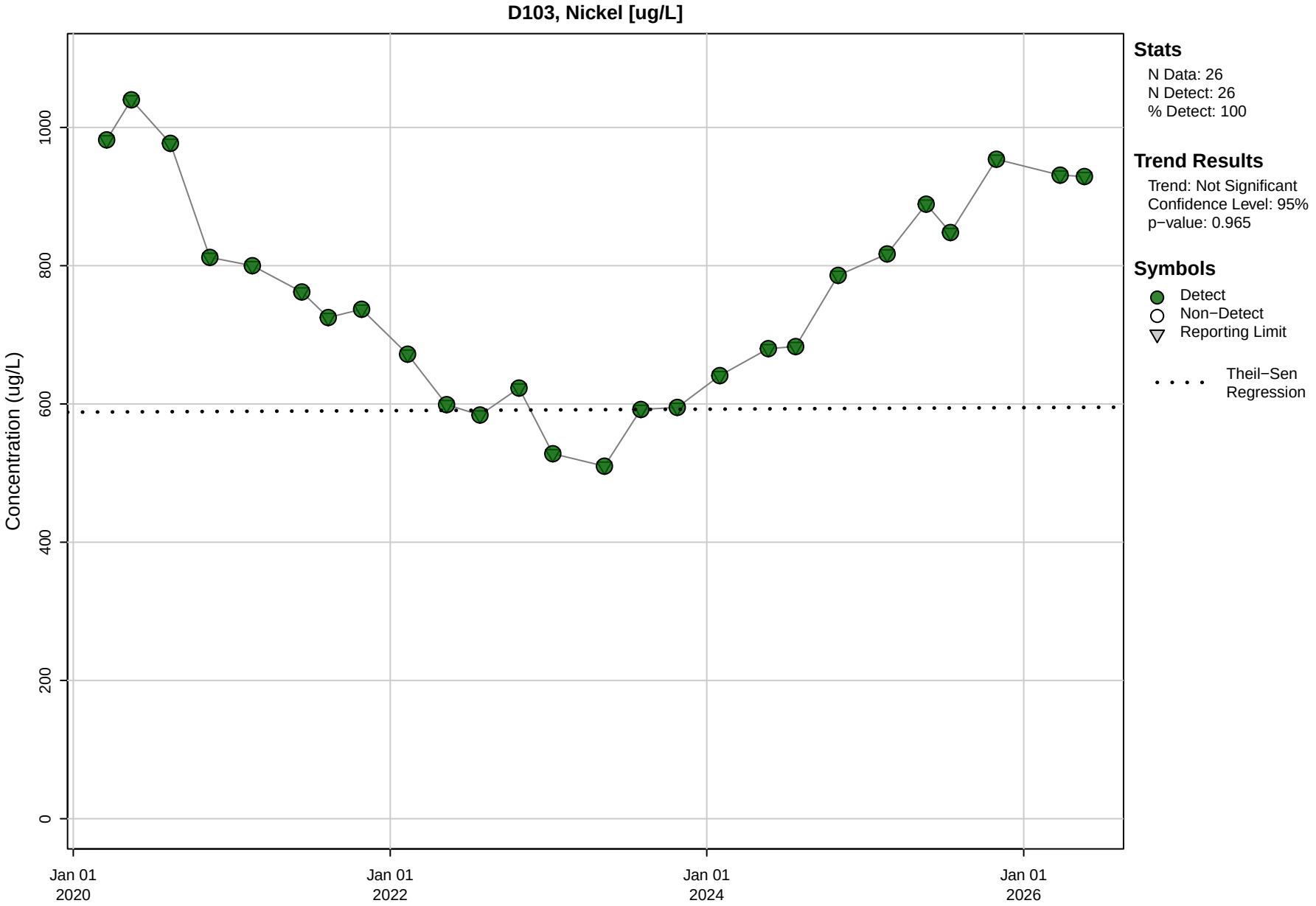

D103, Chloride [mg/L]
Concentration (mg/L)
0
100
200
300
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0551
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

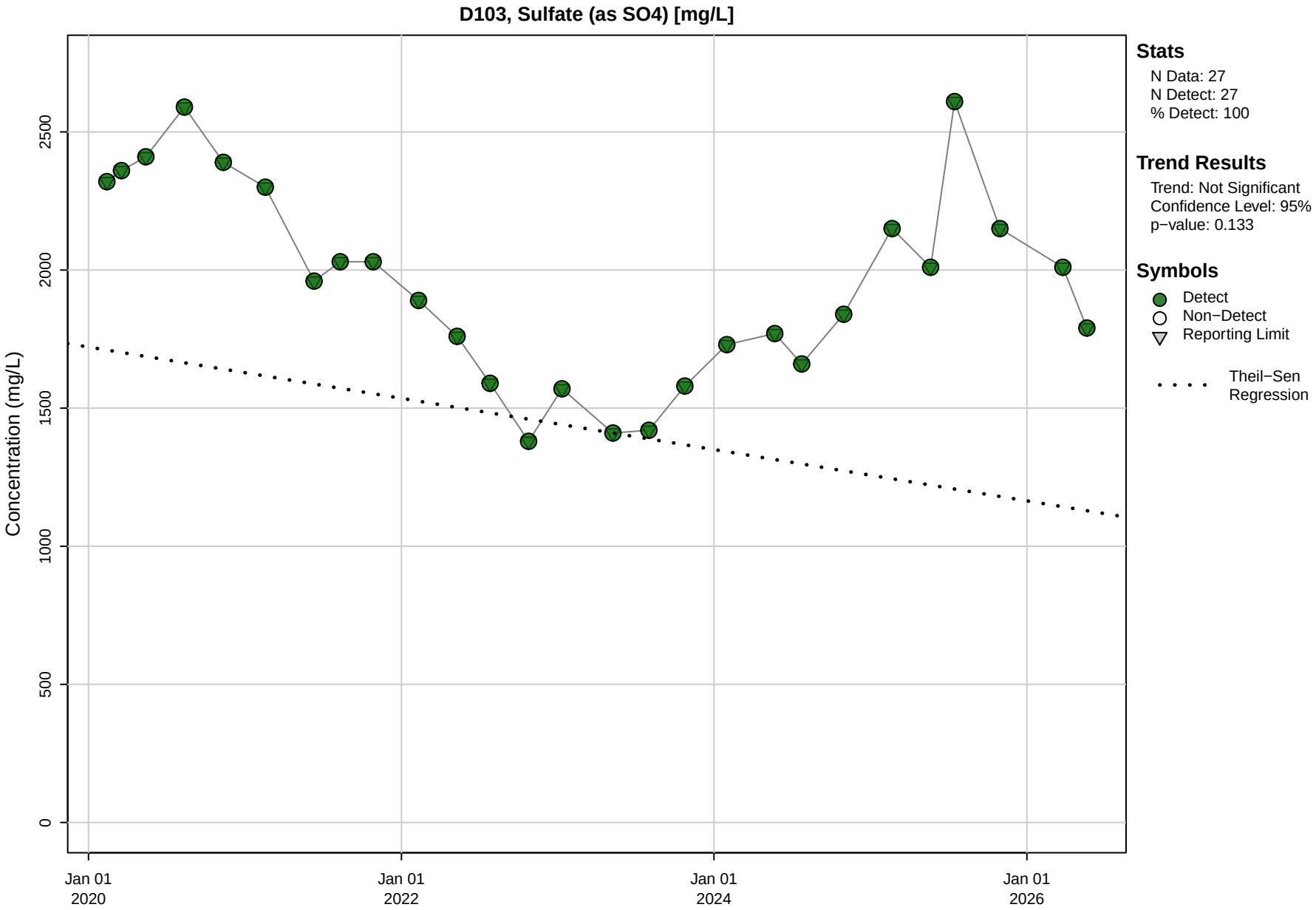

D103, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
1000
2000
3000
4000
5000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.167
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

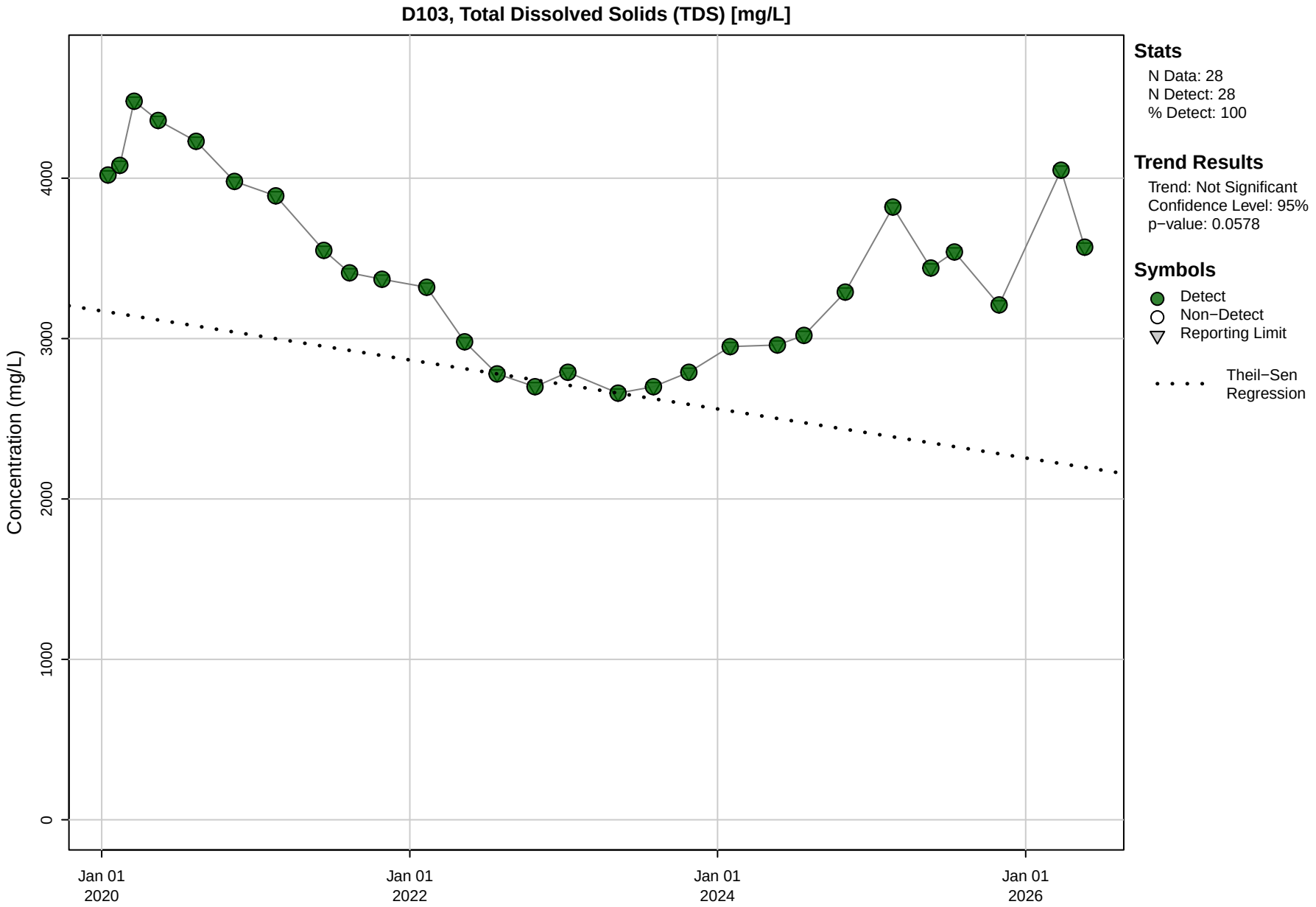

D103, Iron (Total) [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
25000
30000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.206
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

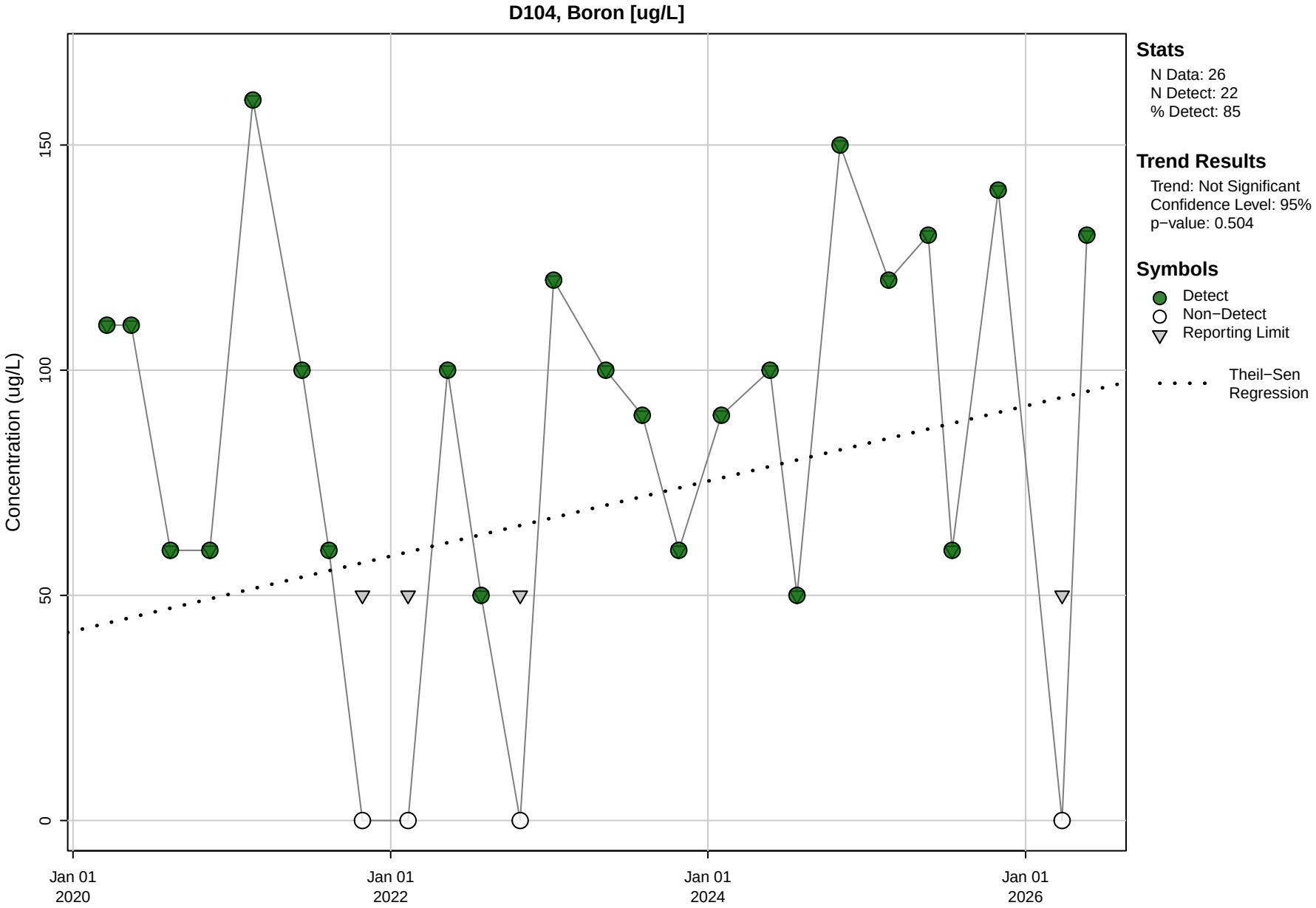

D103, Iron [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
25000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.186
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

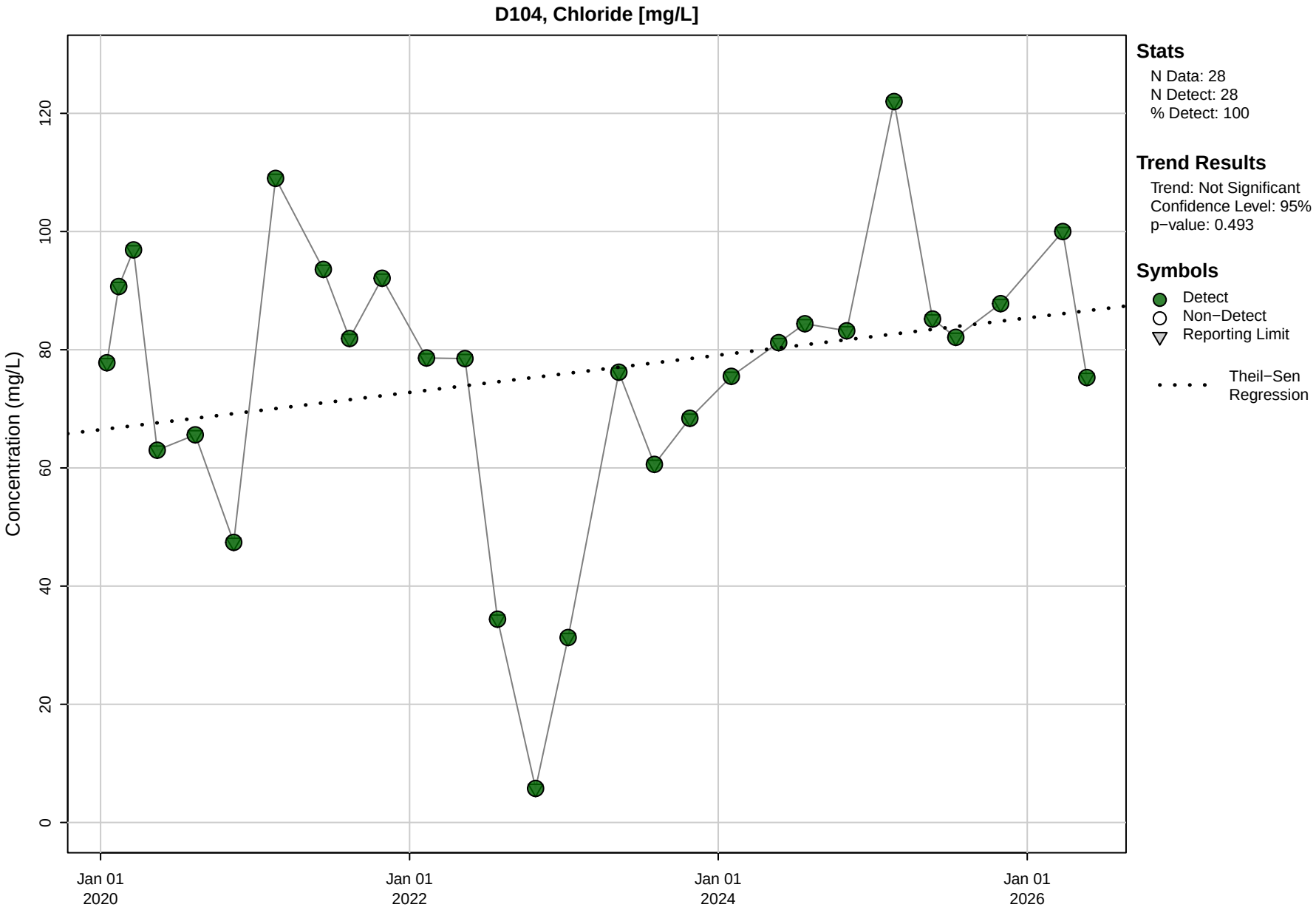

D103, Manganese [ug/L]
Concentration (ug/L)
0
5000
10000
15000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.659
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

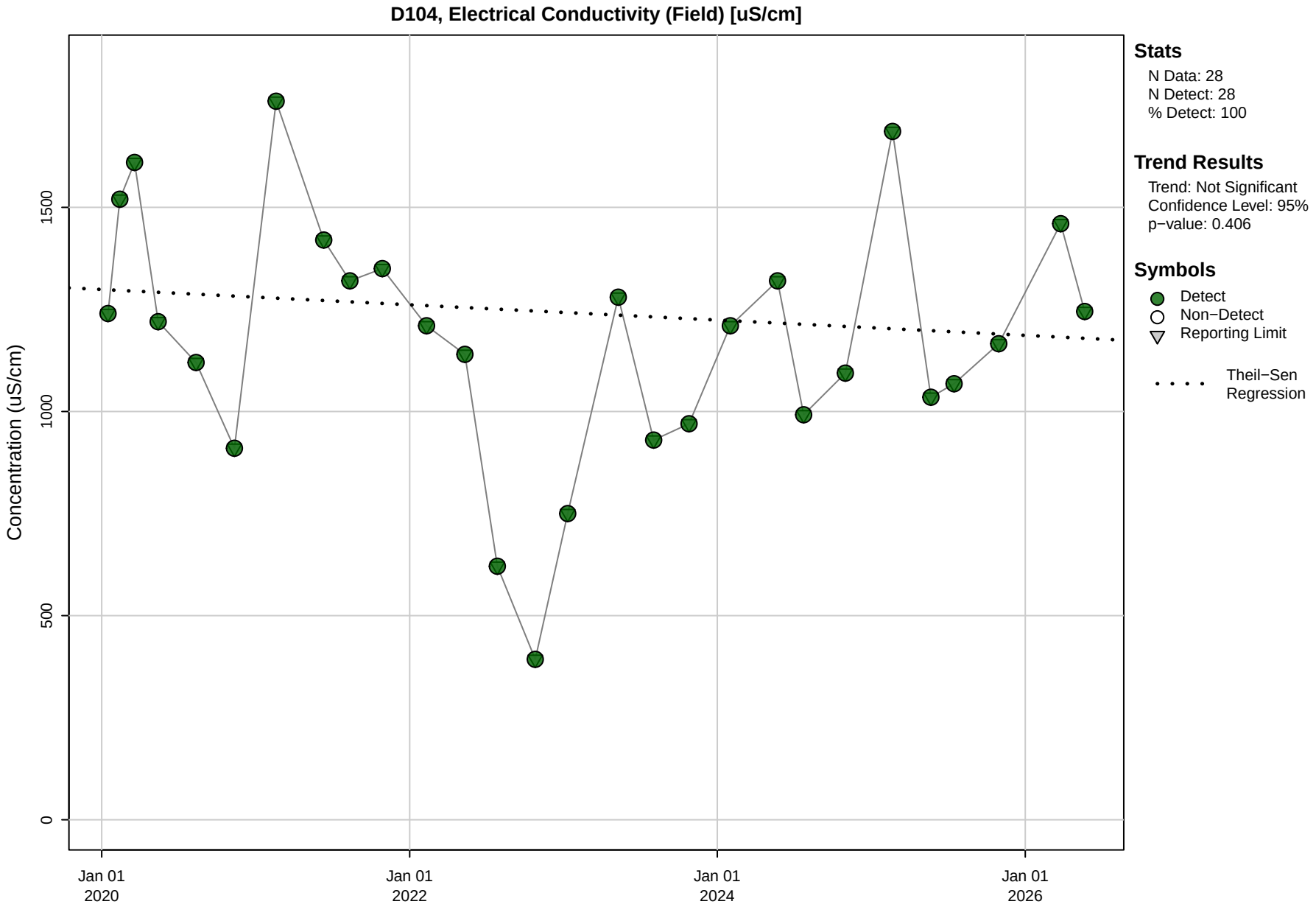

D103, Nickel [ug/L]
Concentration (ug/L)
0
200
400
600
800
1000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.965
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

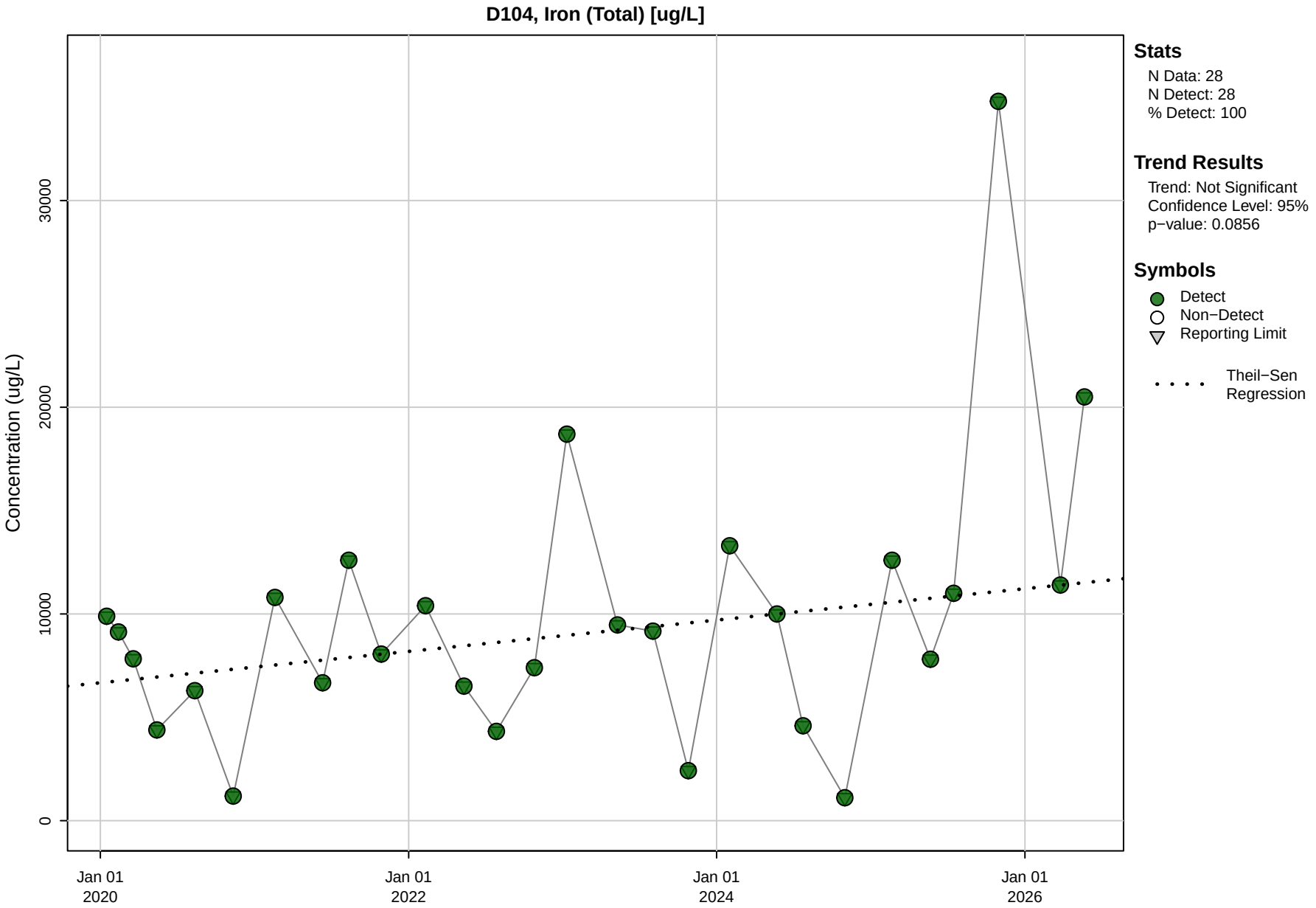

D103, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
500
1000
1500
2000
2500
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.133
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

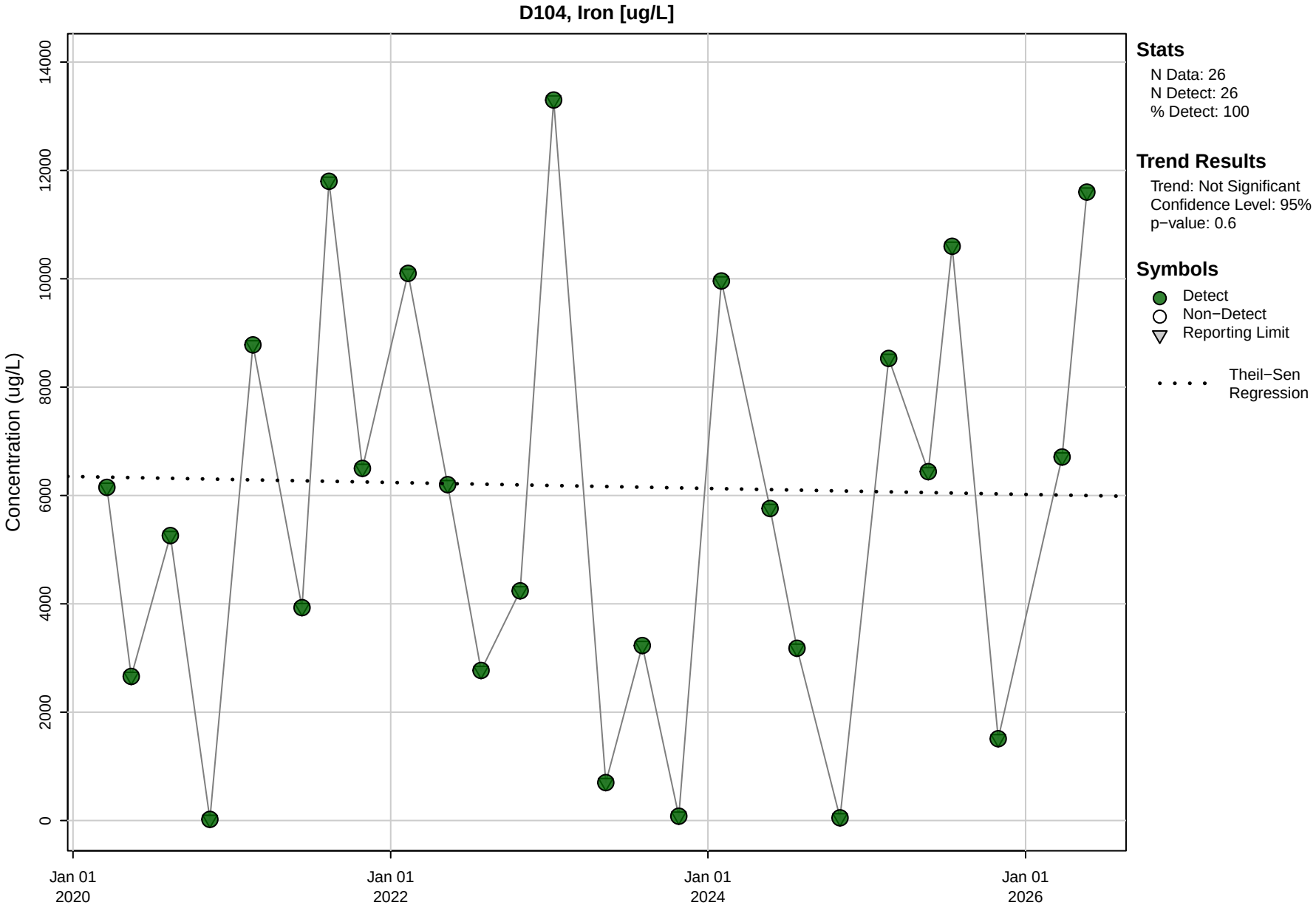

D103, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
4000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0578
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

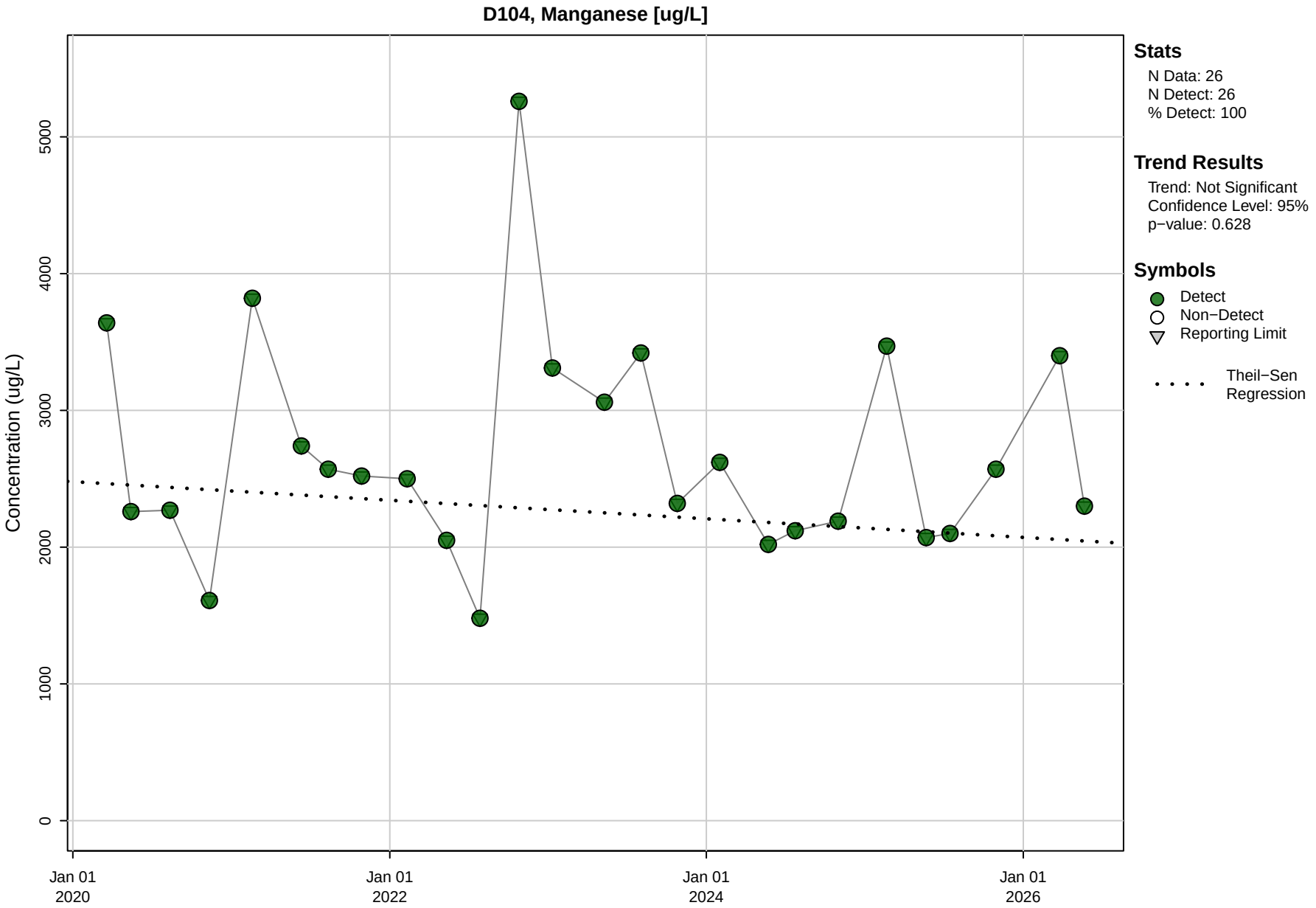

D104, Boron [ug/L]
Concentration (ug/L)
0
50
100
150
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 22
% Detect: 85
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.504
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

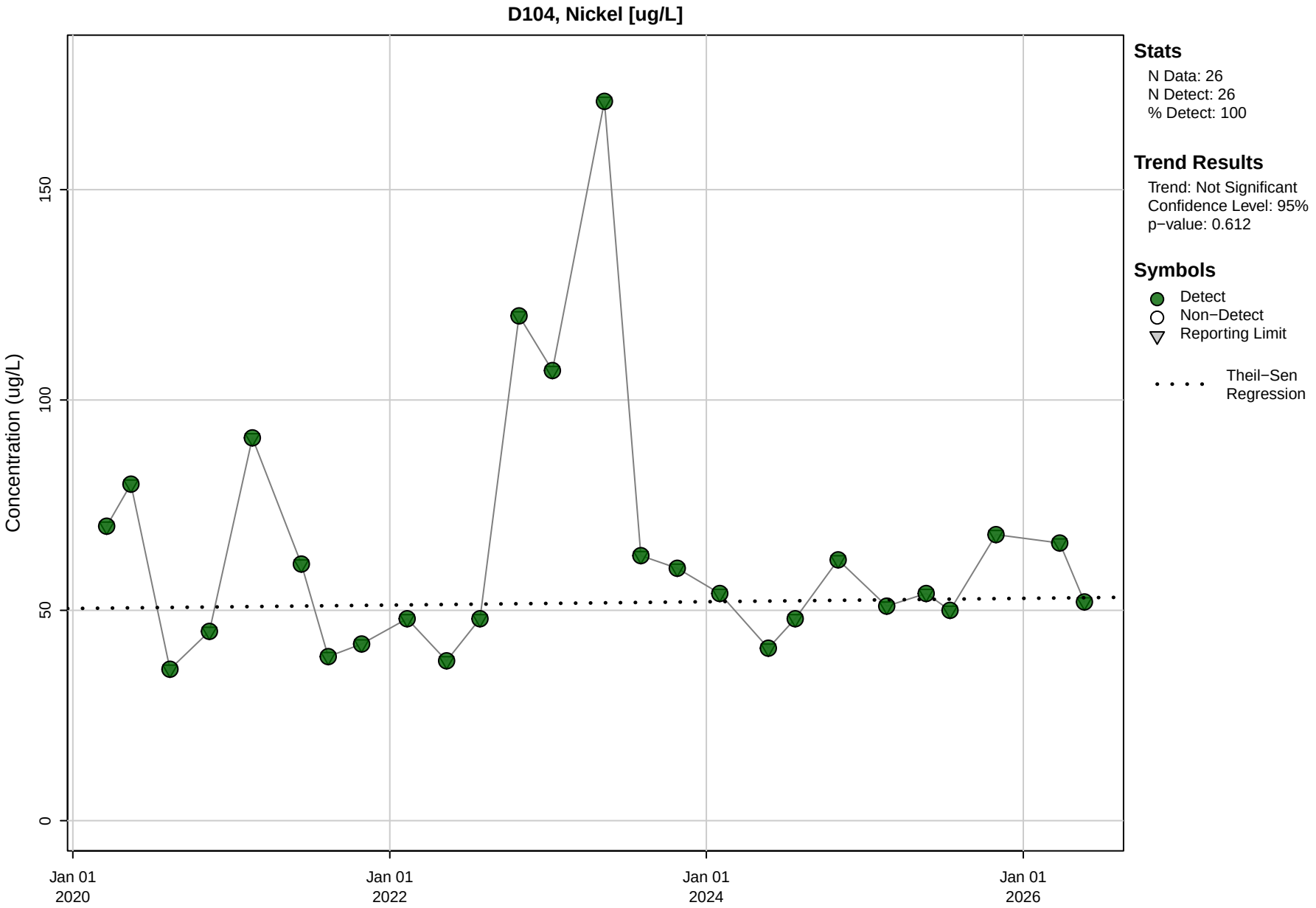

D104, Chloride [mg/L]
Concentration (mg/L)
0
20
40
60
80
100
120
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.493
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

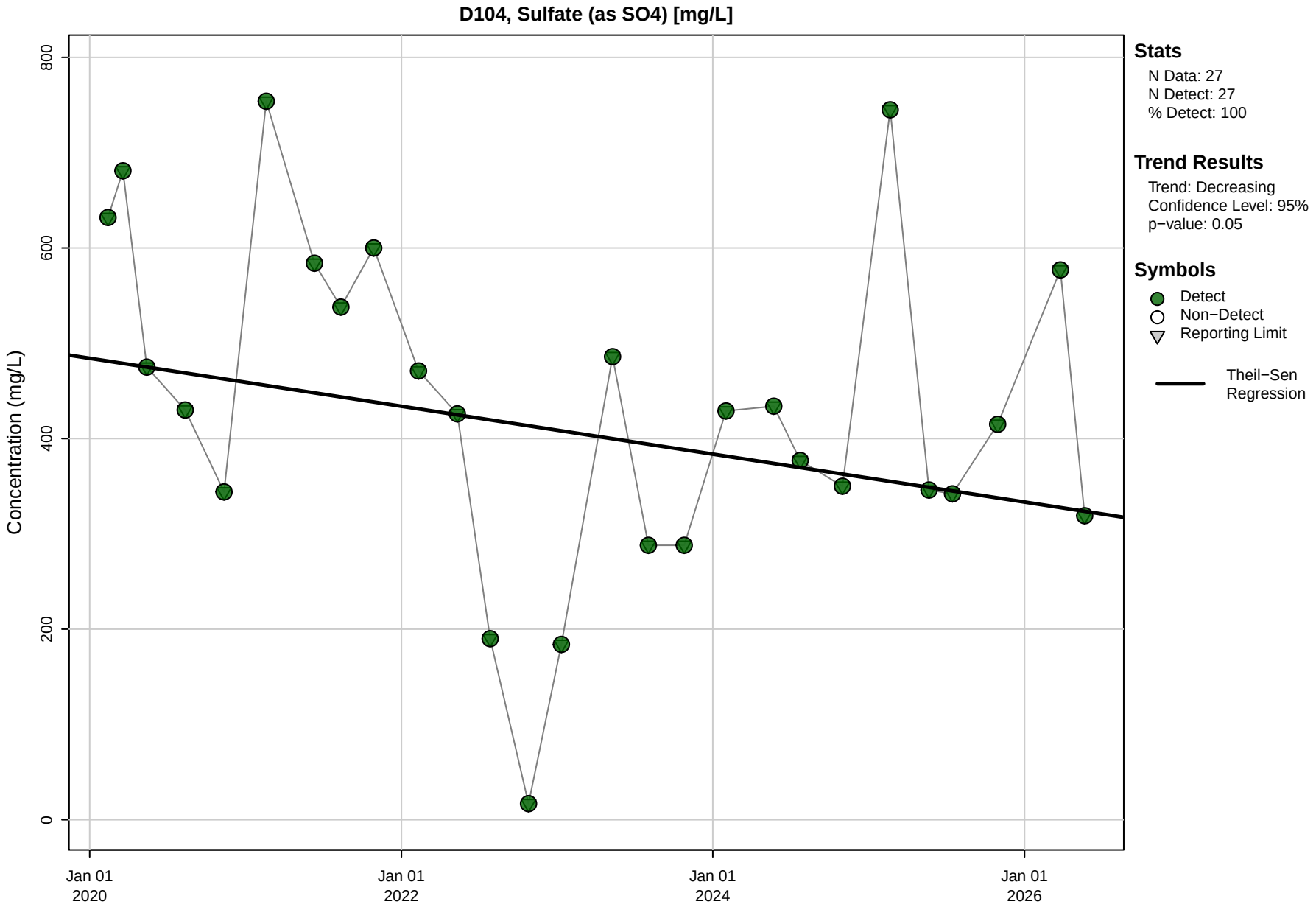

D104, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
500
1000
1500
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.406
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

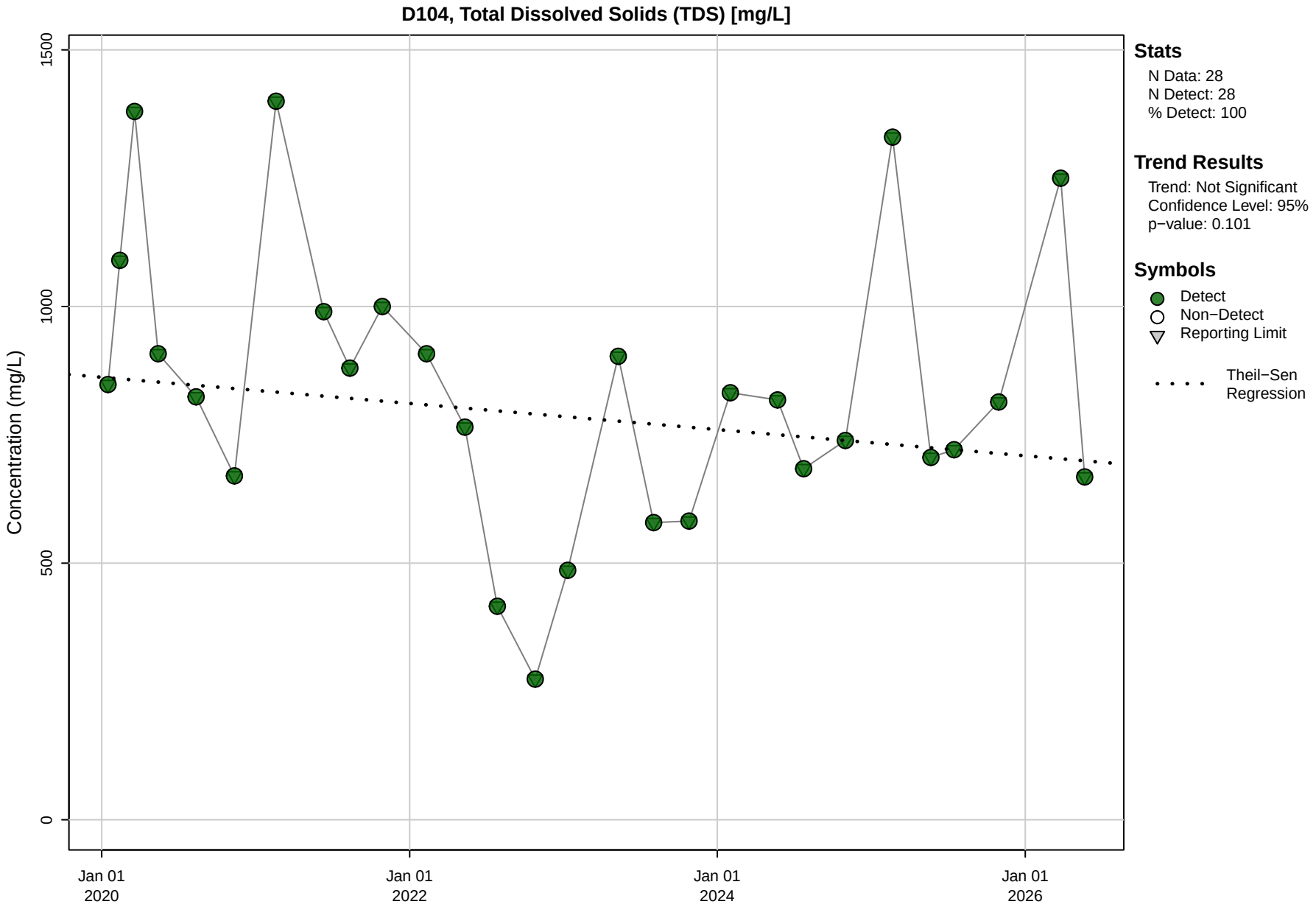

D104, Iron (Total) [ug/L]
Concentration (ug/L)
0
10000
20000
30000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0856
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

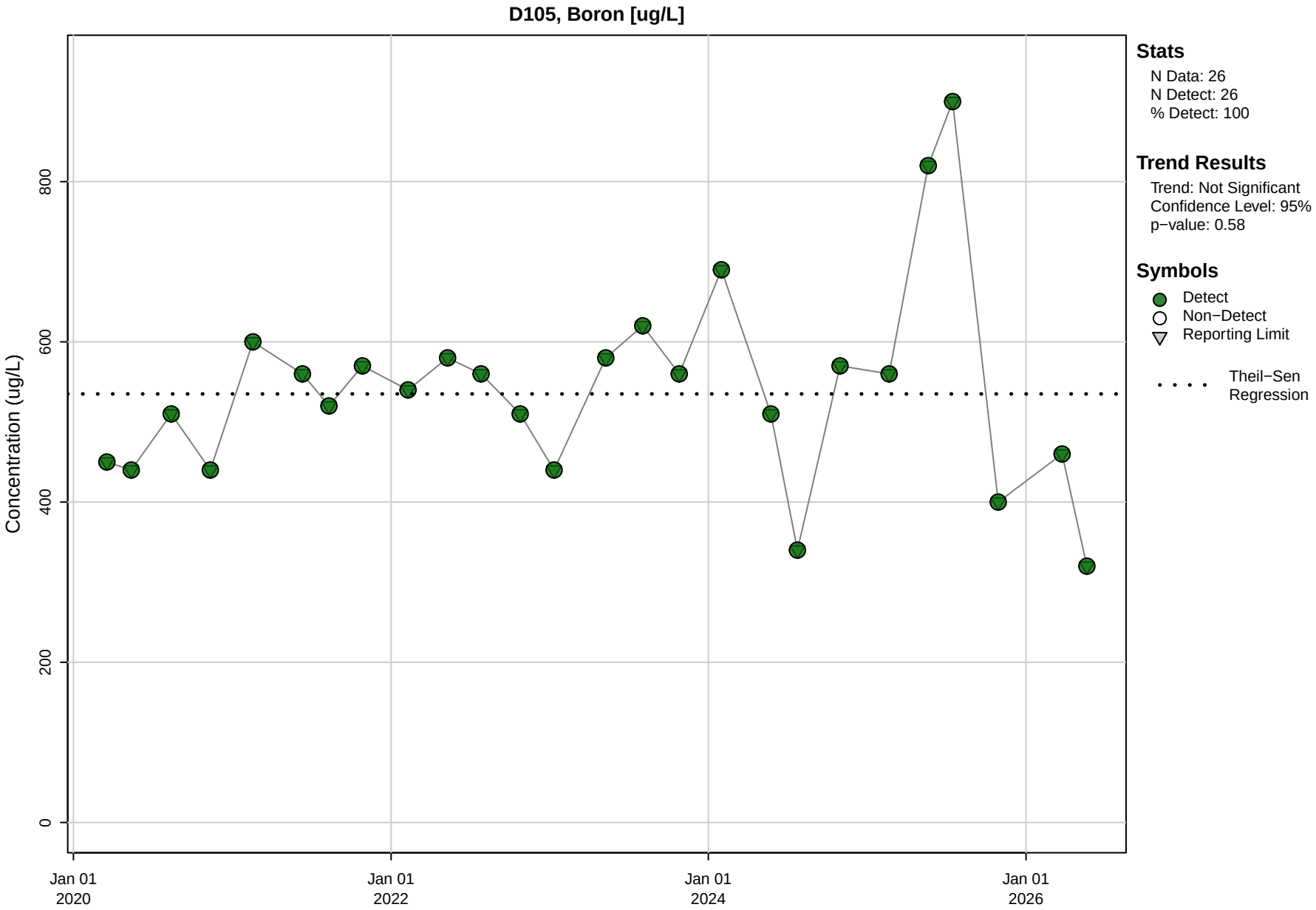

D104, Iron [ug/L]
Concentration (ug/L)
0
2000
4000
6000
8000
10000
12000
14000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.6
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

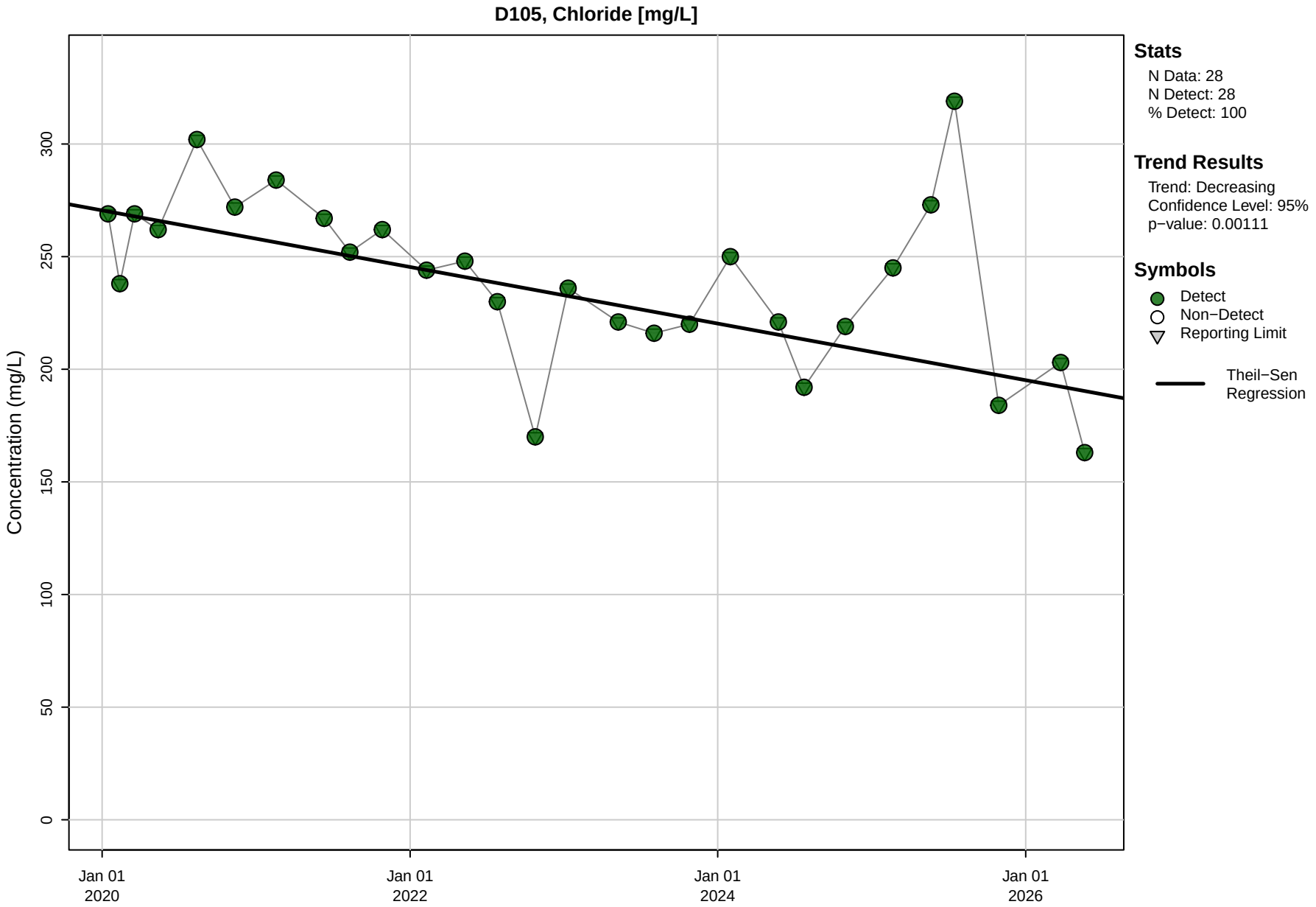

D104, Manganese [ug/L]
Concentration (ug/L)
0
1000
2000
3000
4000
5000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.628
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

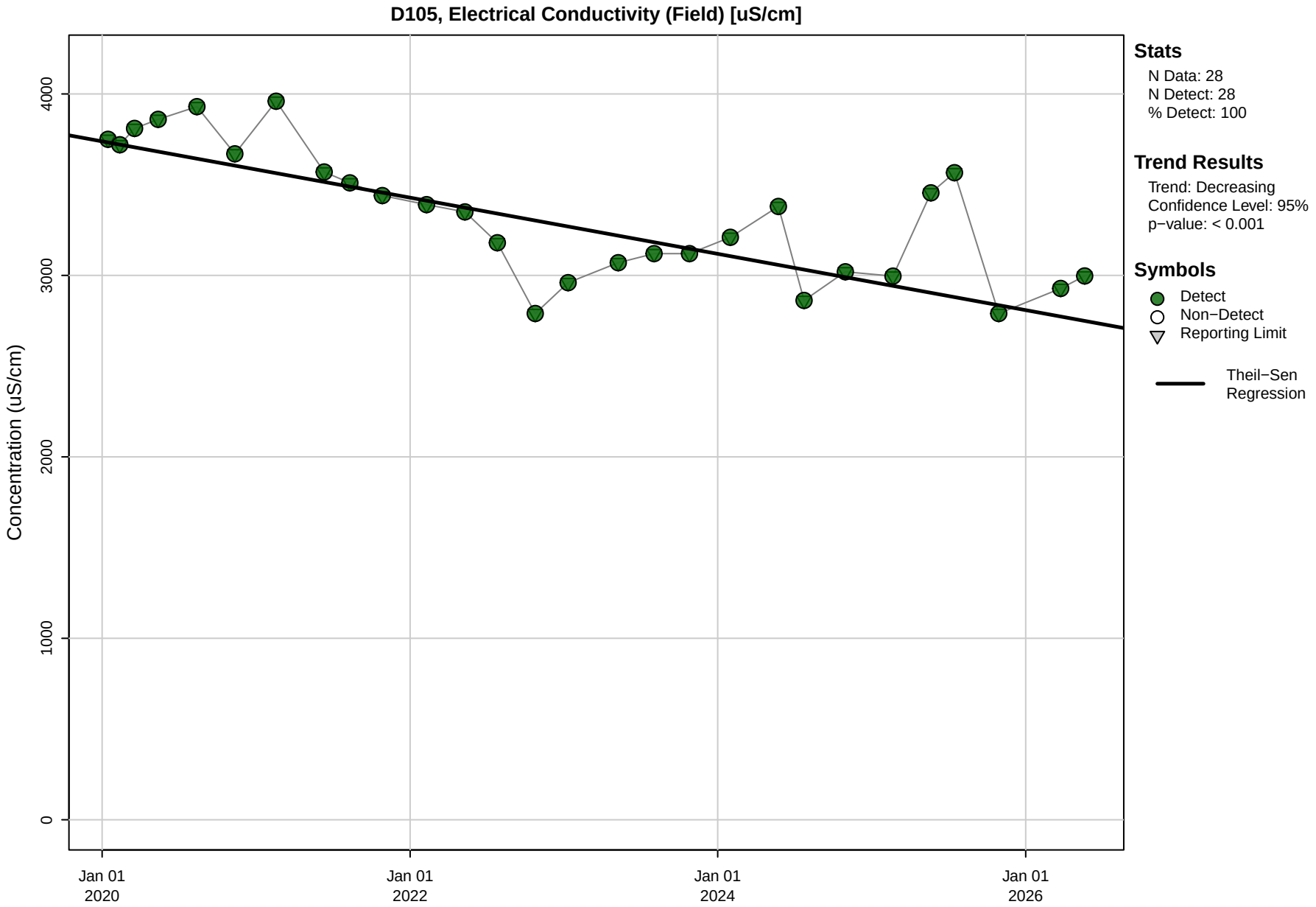

D104, Nickel [ug/L]
Concentration (ug/L)
0
50
100
150
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.612
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

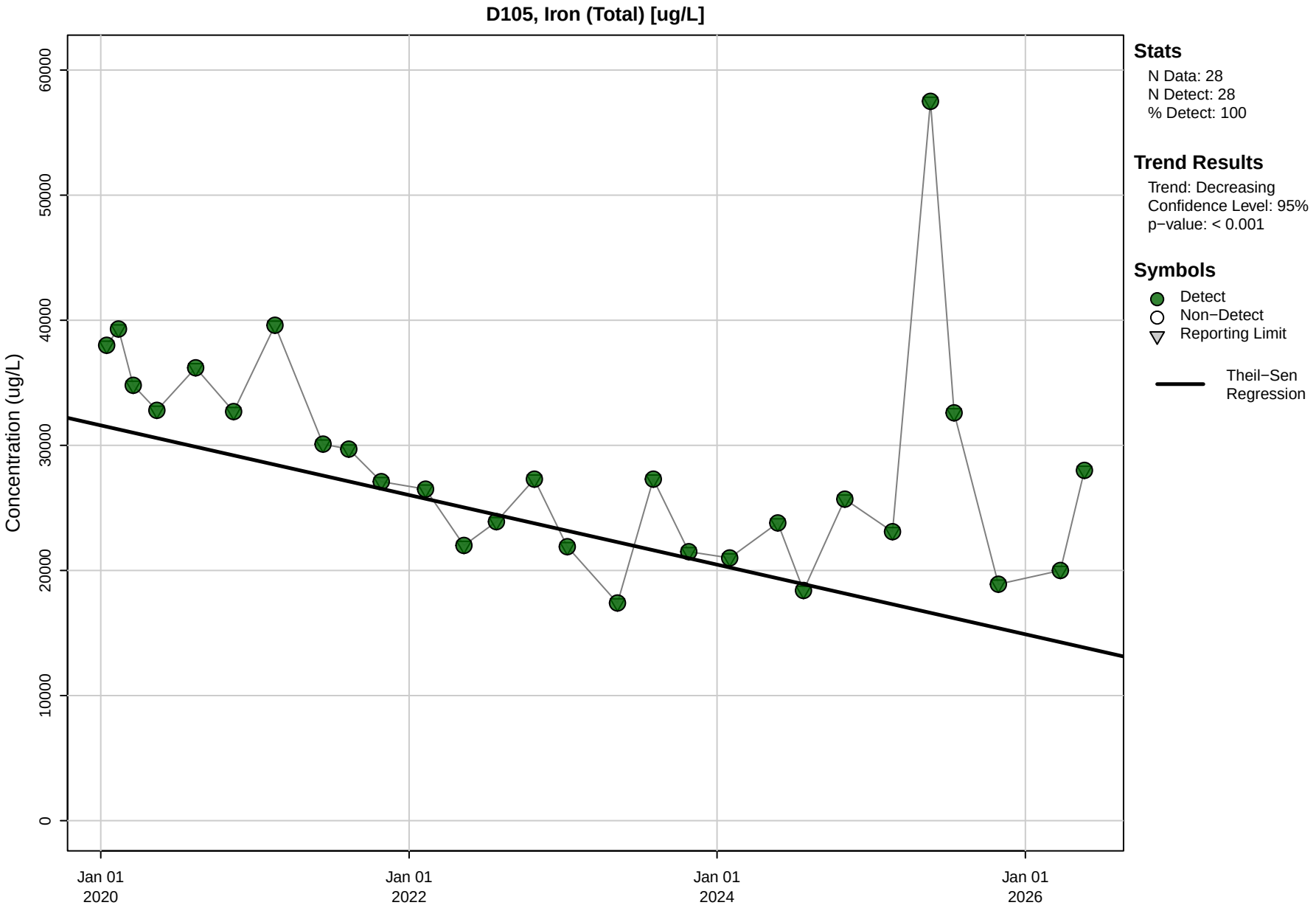

D104, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
200
400
600
800
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.05
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

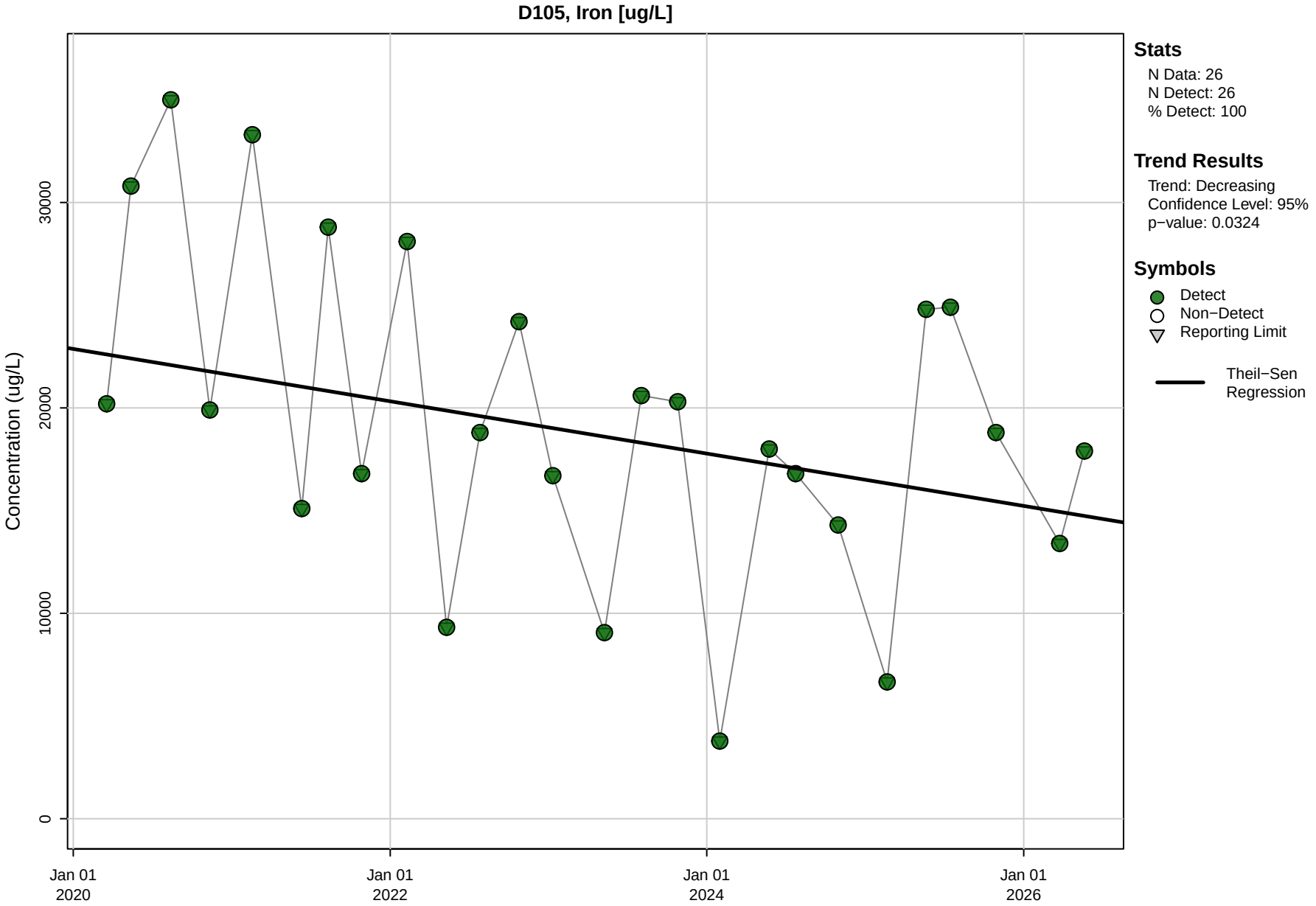

D104, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
1500
1000
500
0
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.101
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

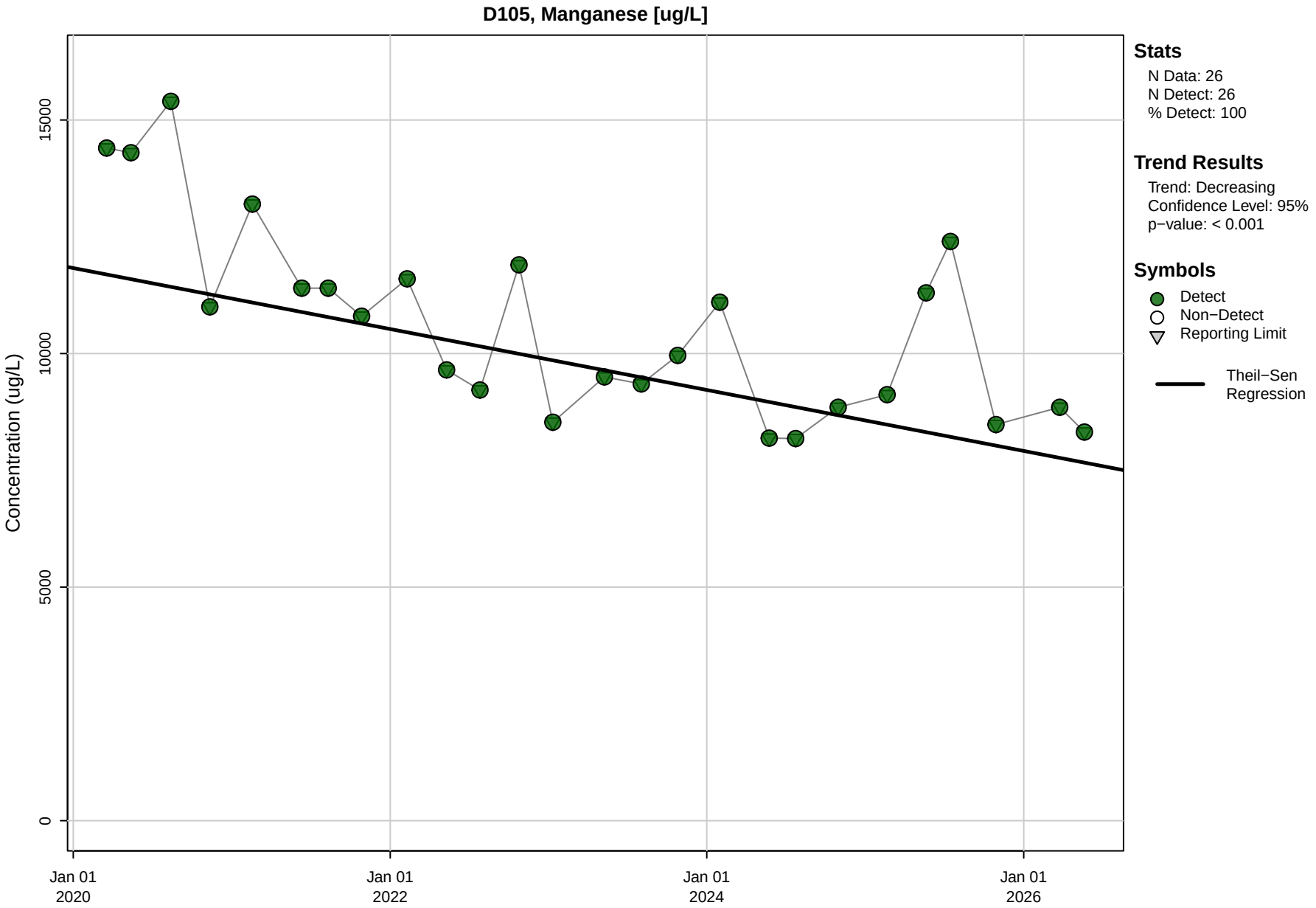

D105, Boron [ug/L]
Concentration (ug/L)
0
200
400
600
800
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.58
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

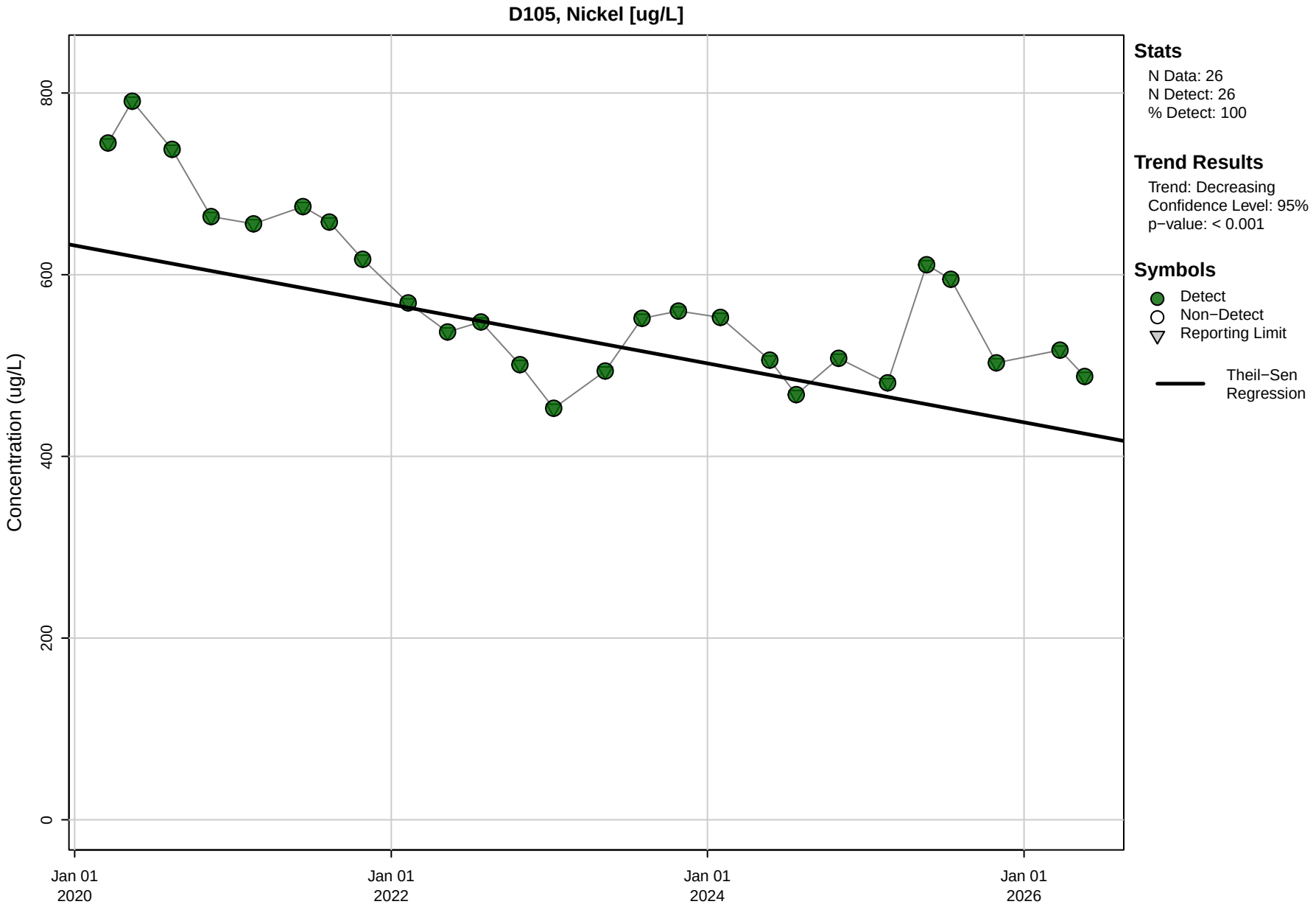

D105, Chloride [mg/L]
Concentration (mg/L)
0
50
100
150
200
250
300
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00111
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

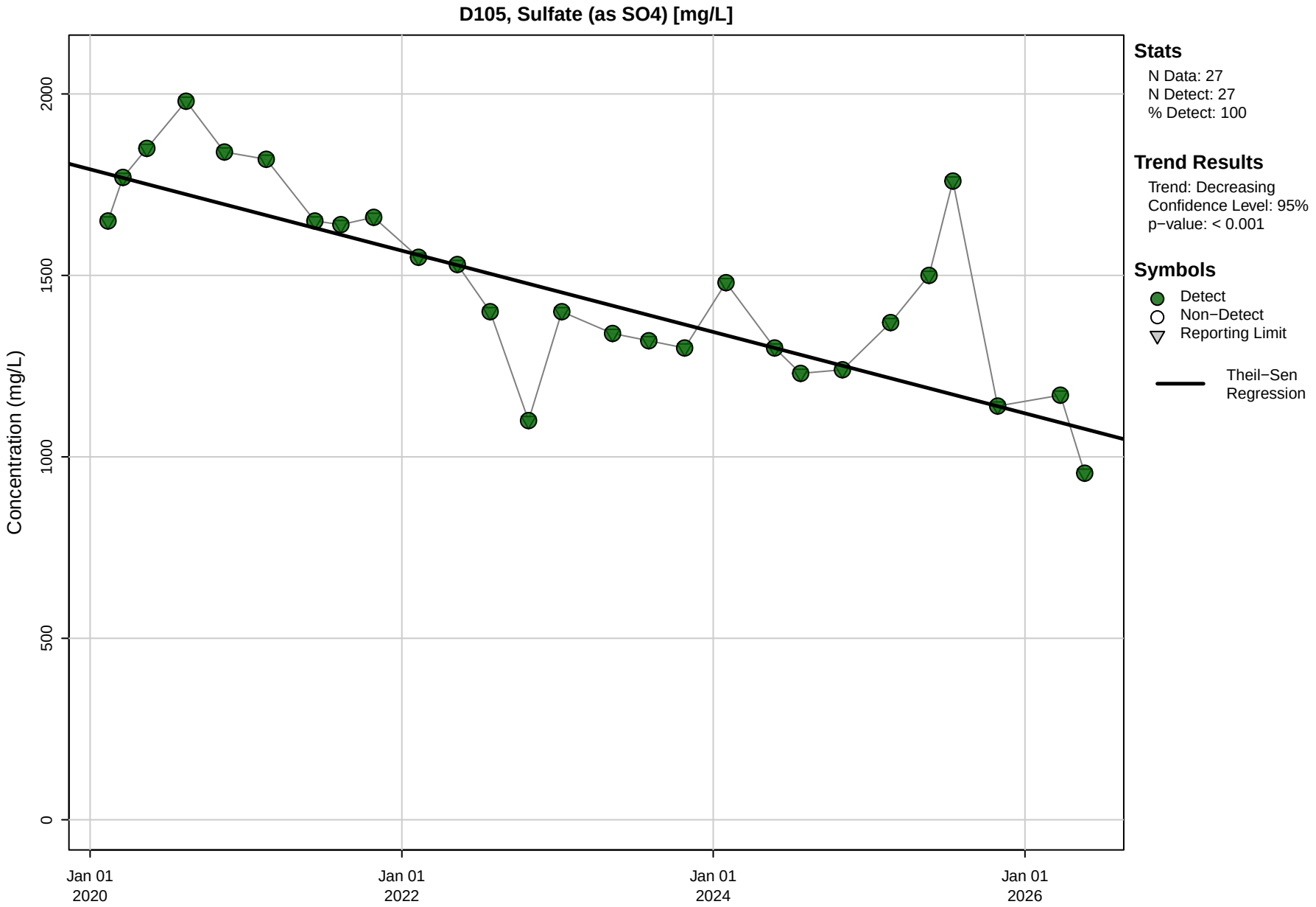

D105, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
1000
2000
3000
4000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

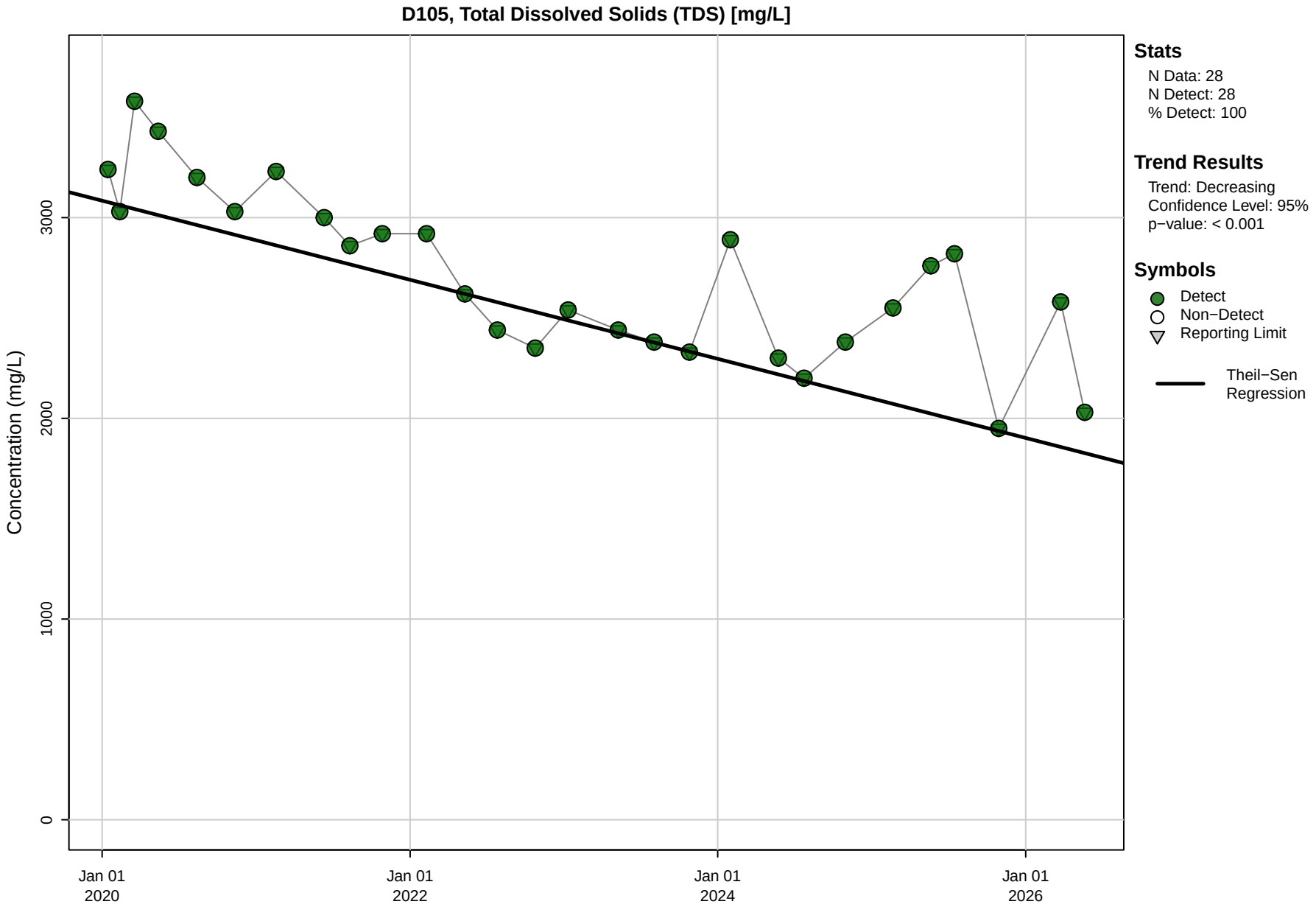

D105, Iron (Total) [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
50000
60000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

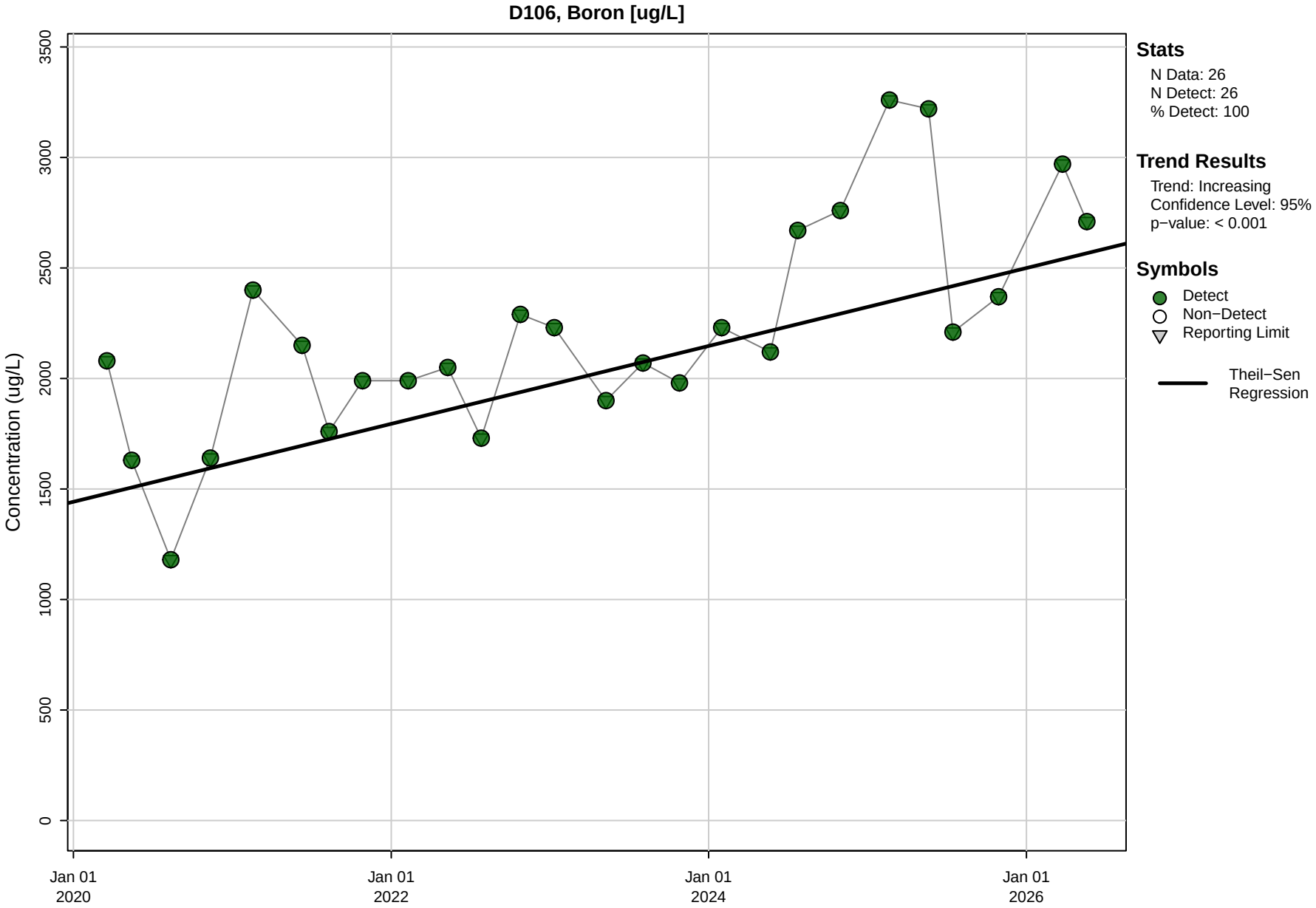

D105, Iron [ug/L]
Concentration (ug/L)
0
10000
20000
30000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0324
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

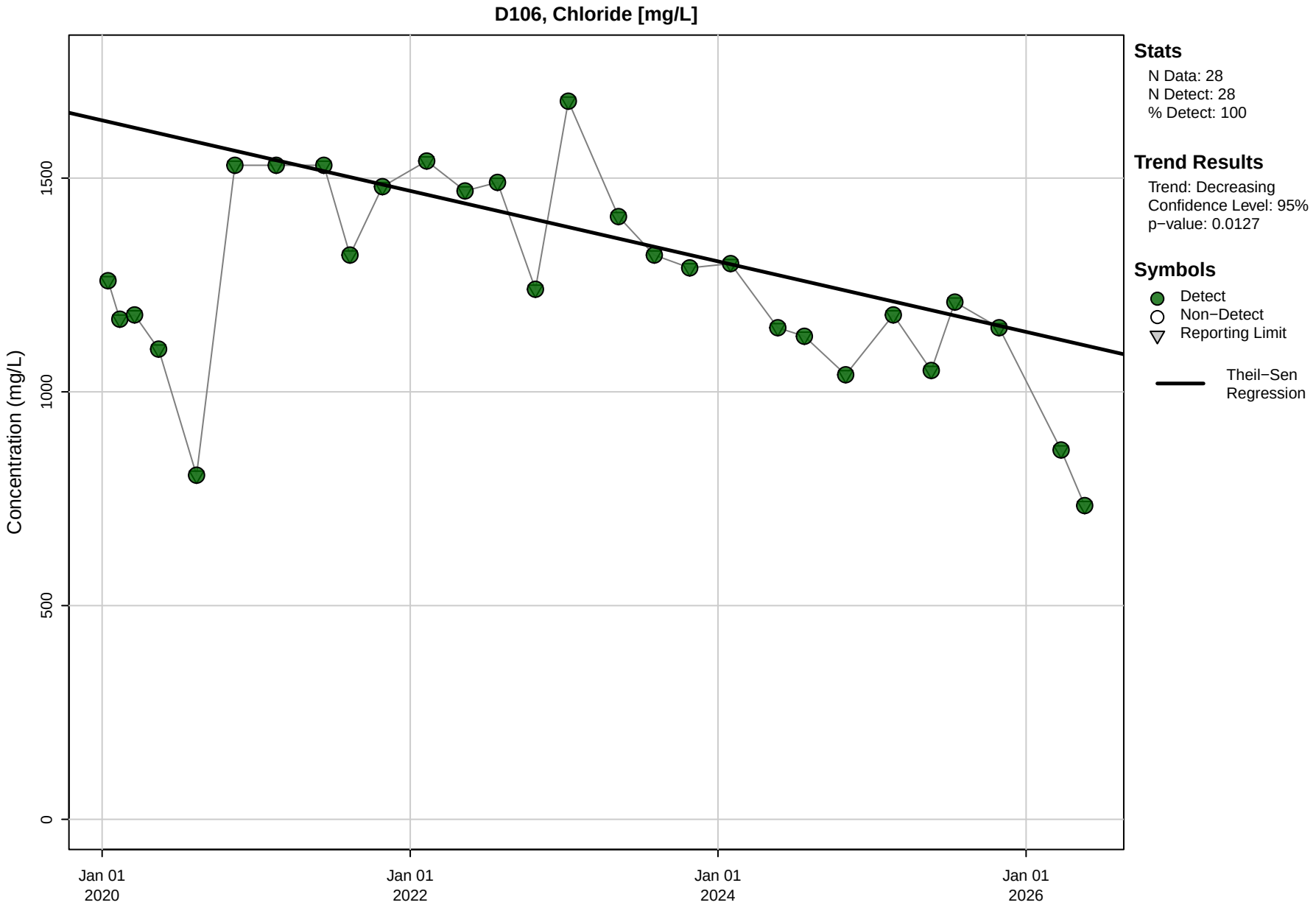

D105, Manganese [ug/L]
Concentration (ug/L)
0
5000
10000
15000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

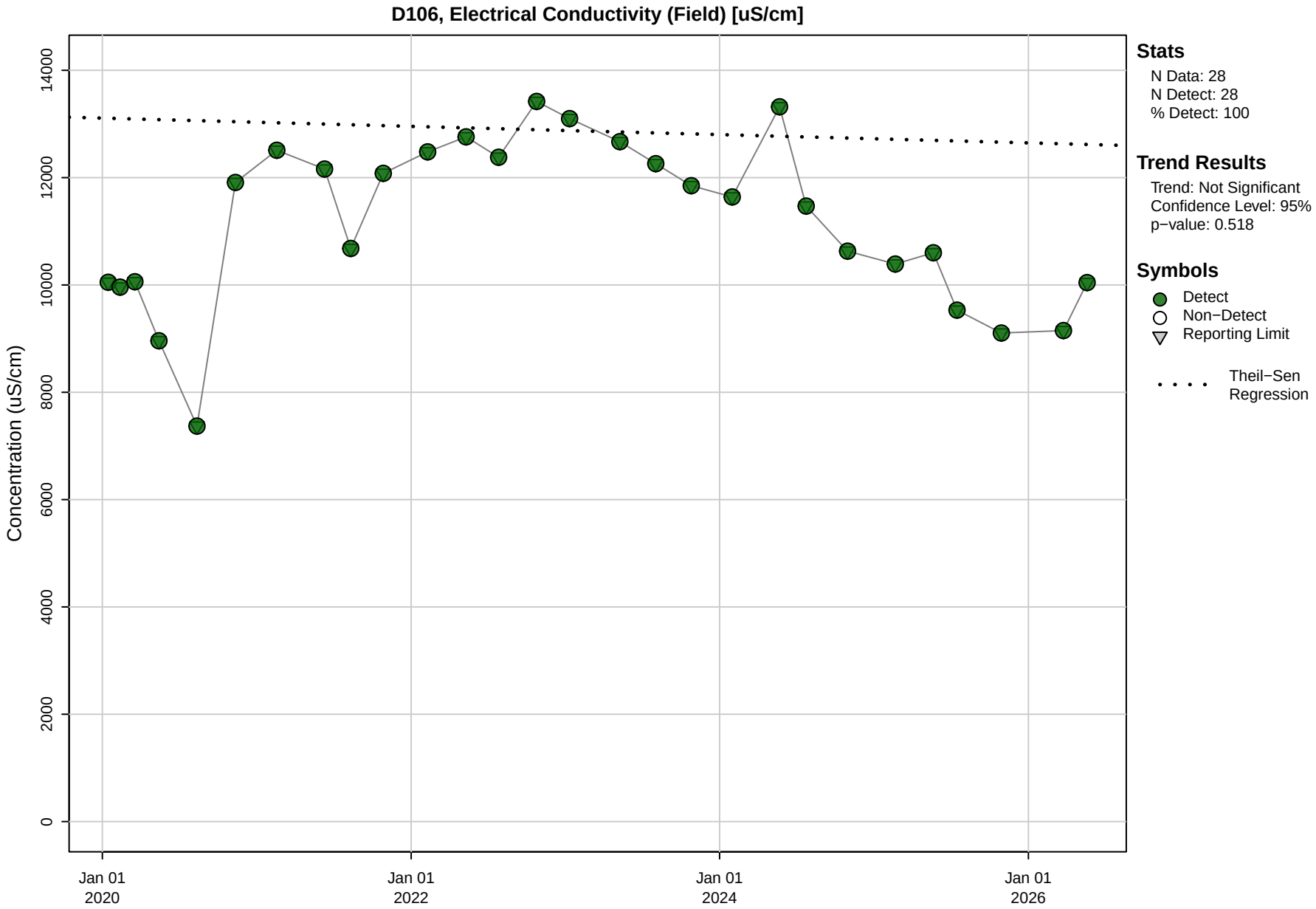

D105, Nickel [ug/L]
Concentration (ug/L)
0
200
400
600
800
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

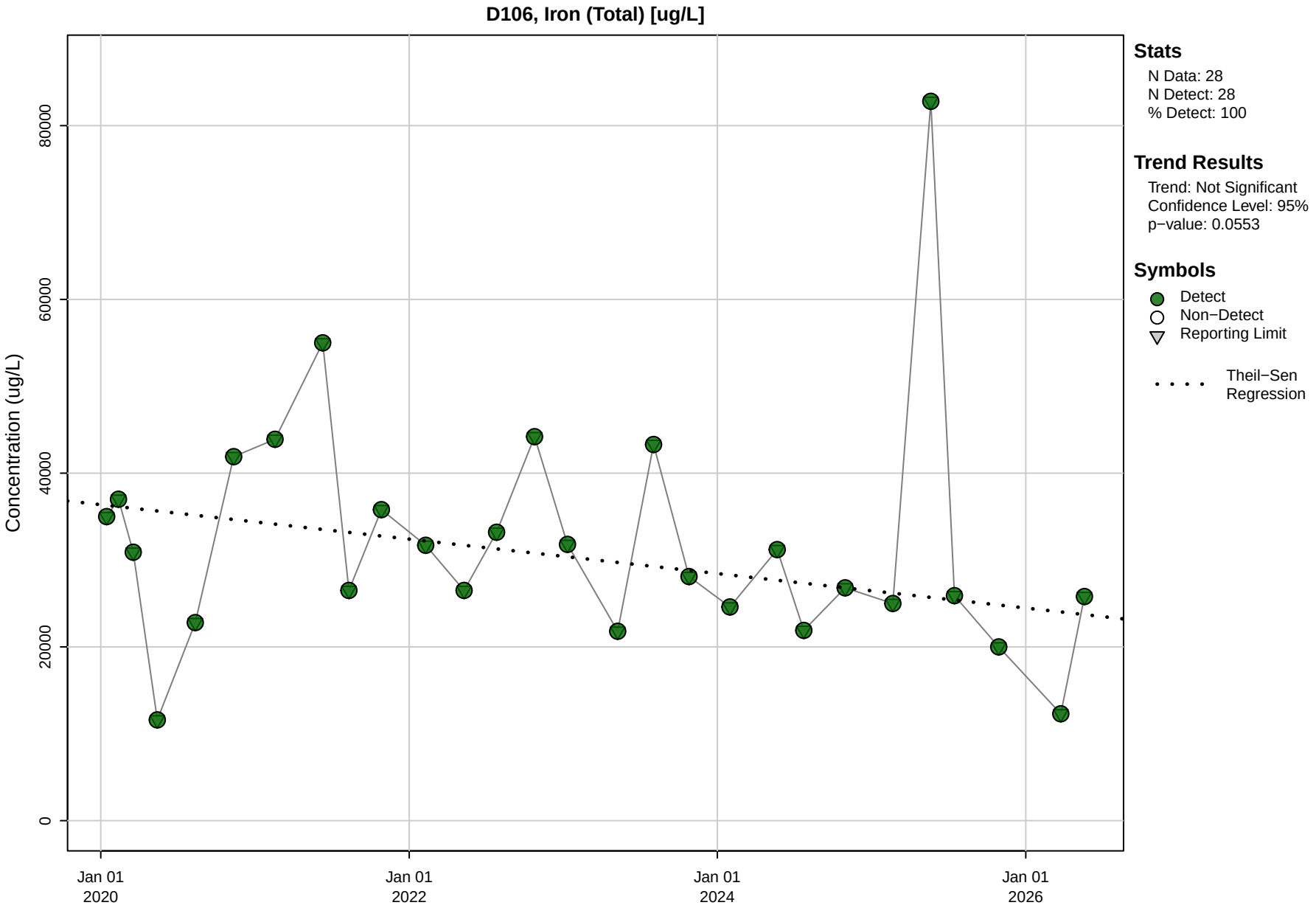

D105, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
500
1000
1500
2000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

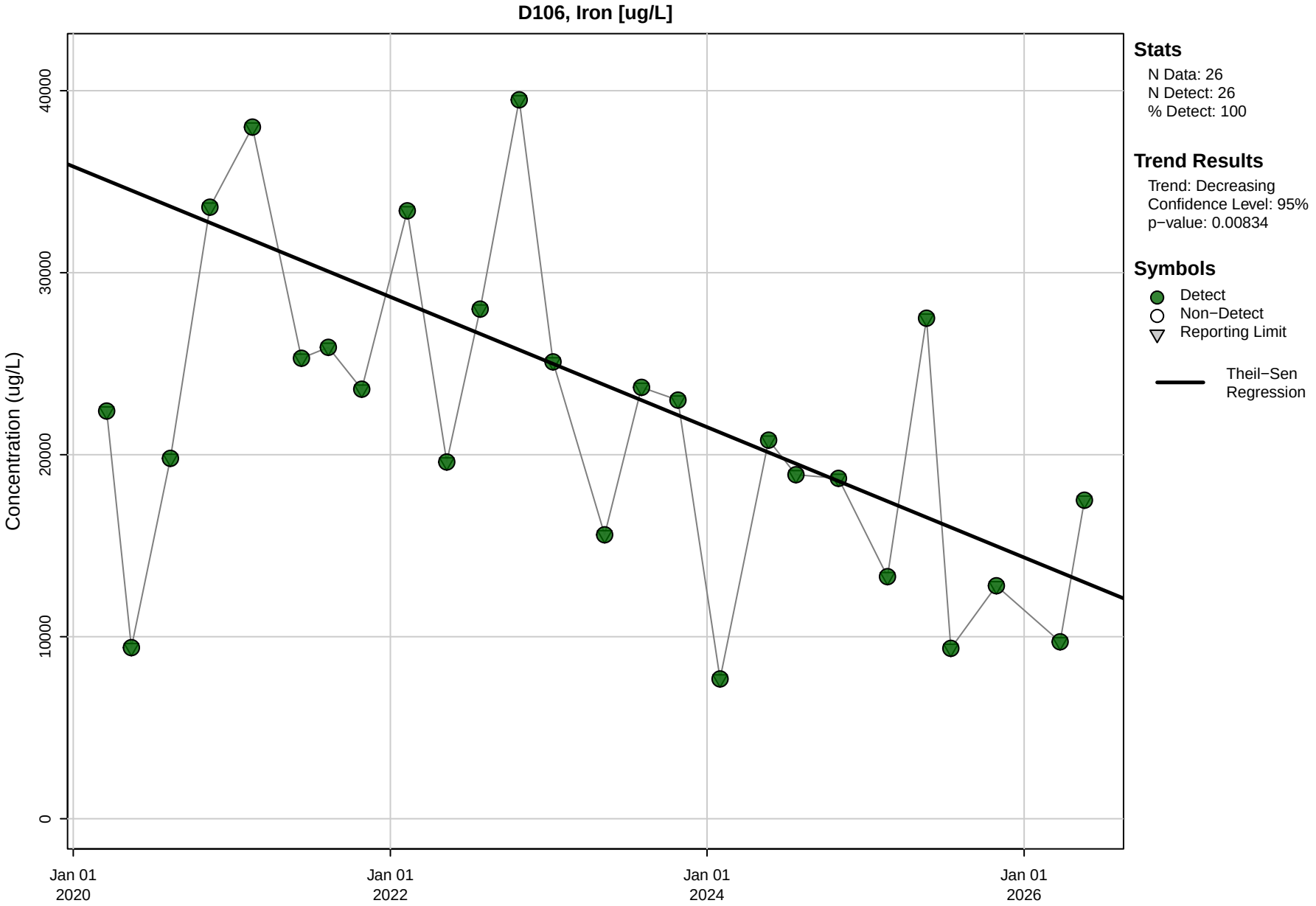

D105, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

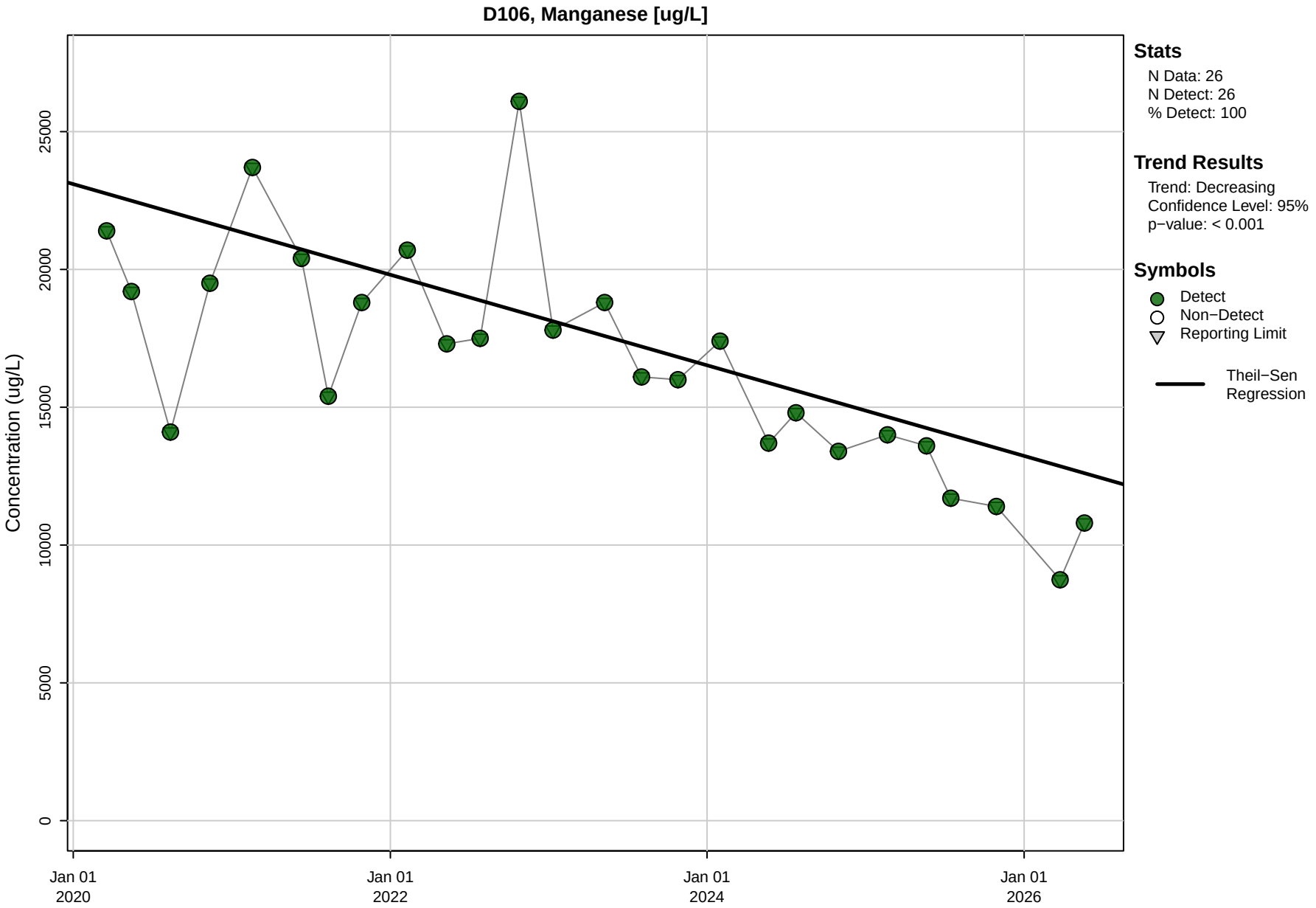

D106, Boron [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
2500
3000
3500
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

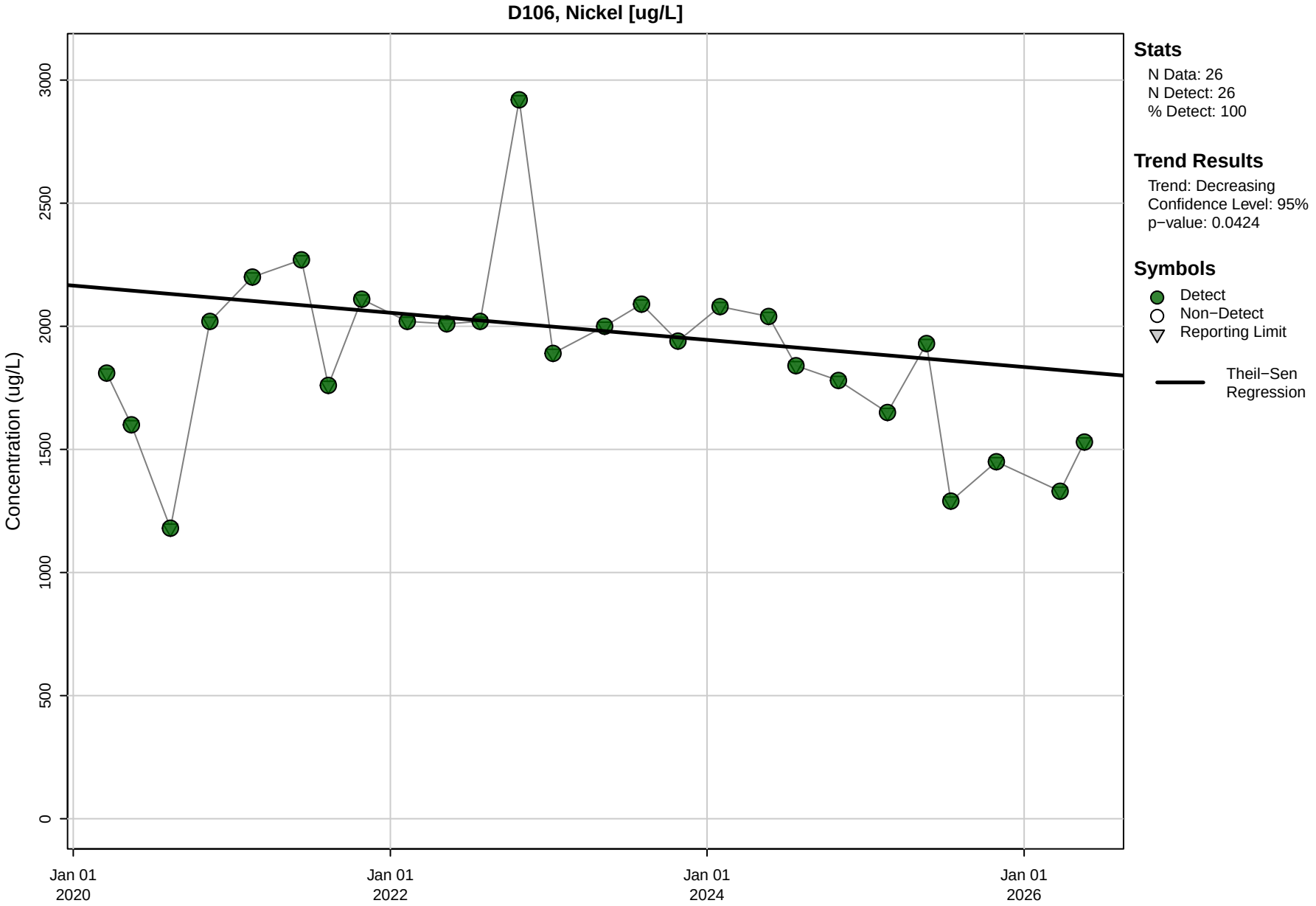

D106, Chloride [mg/L]
Concentration (mg/L)
0
500
1000
1500
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0127
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

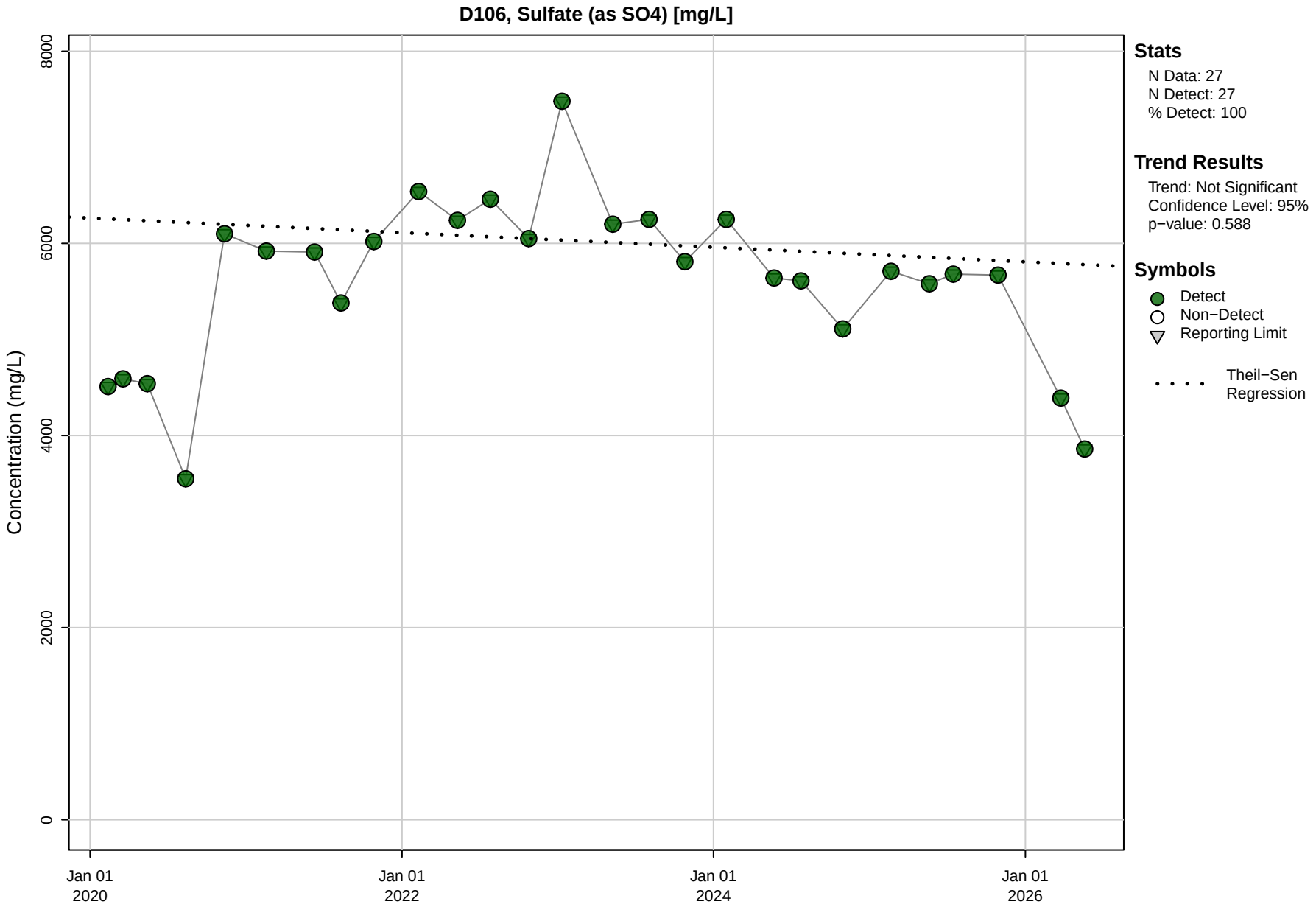

D106, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
2000
4000
6000
8000
10000
12000
14000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.518
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

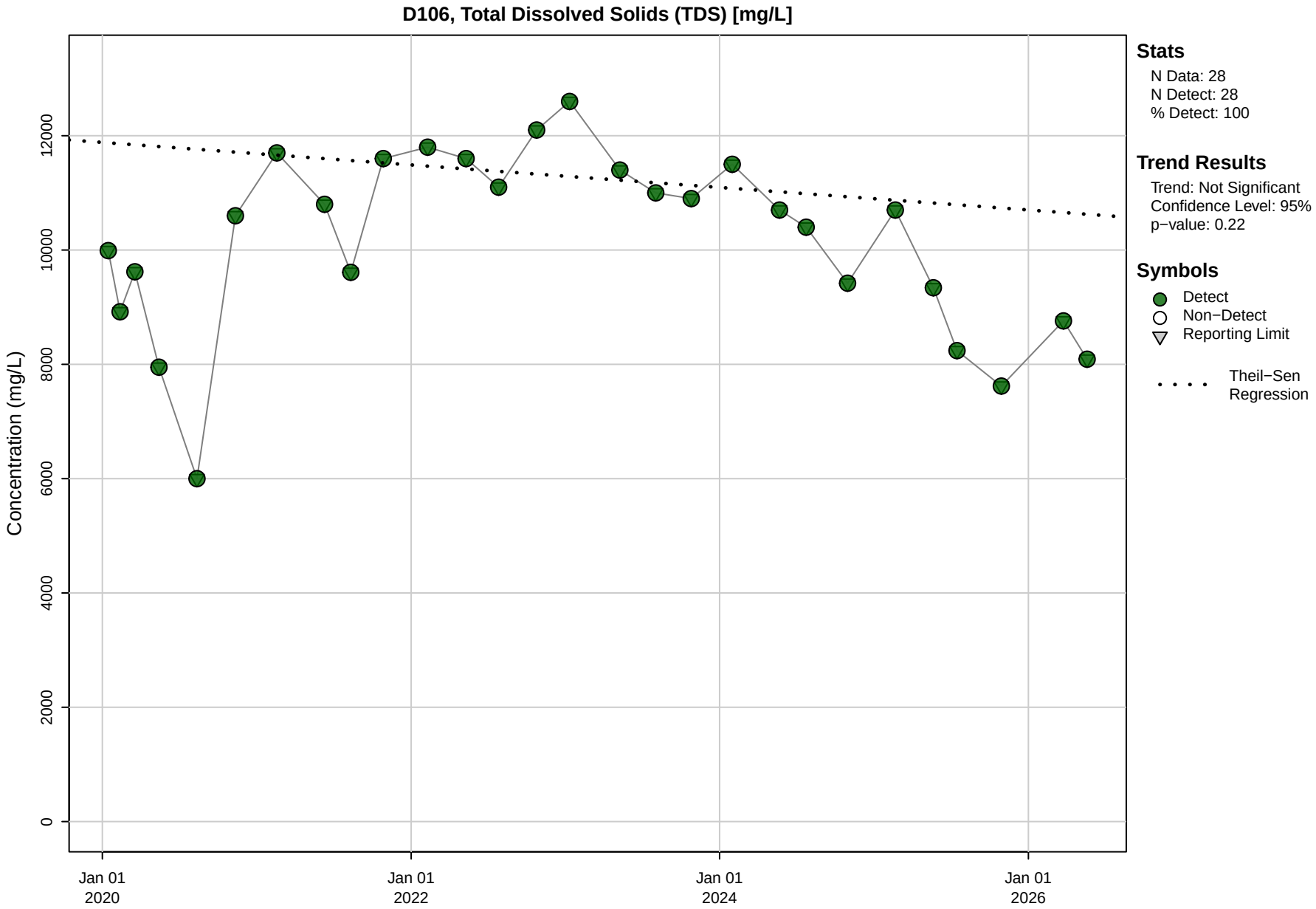

D106, Iron (Total) [ug/L]
Concentration (ug/L)
0
20000
40000
60000
80000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0553
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

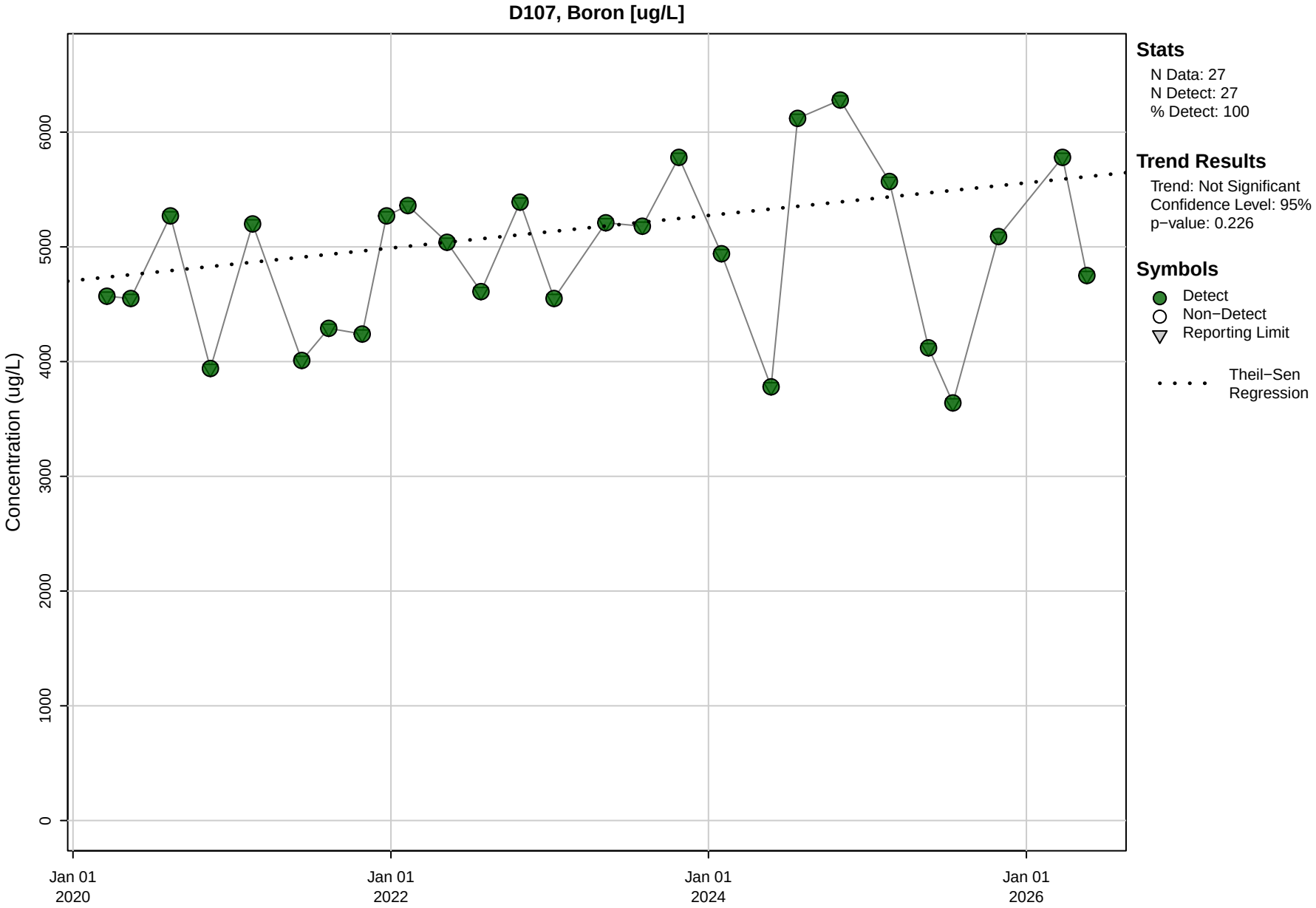

D106, Iron [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00834
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

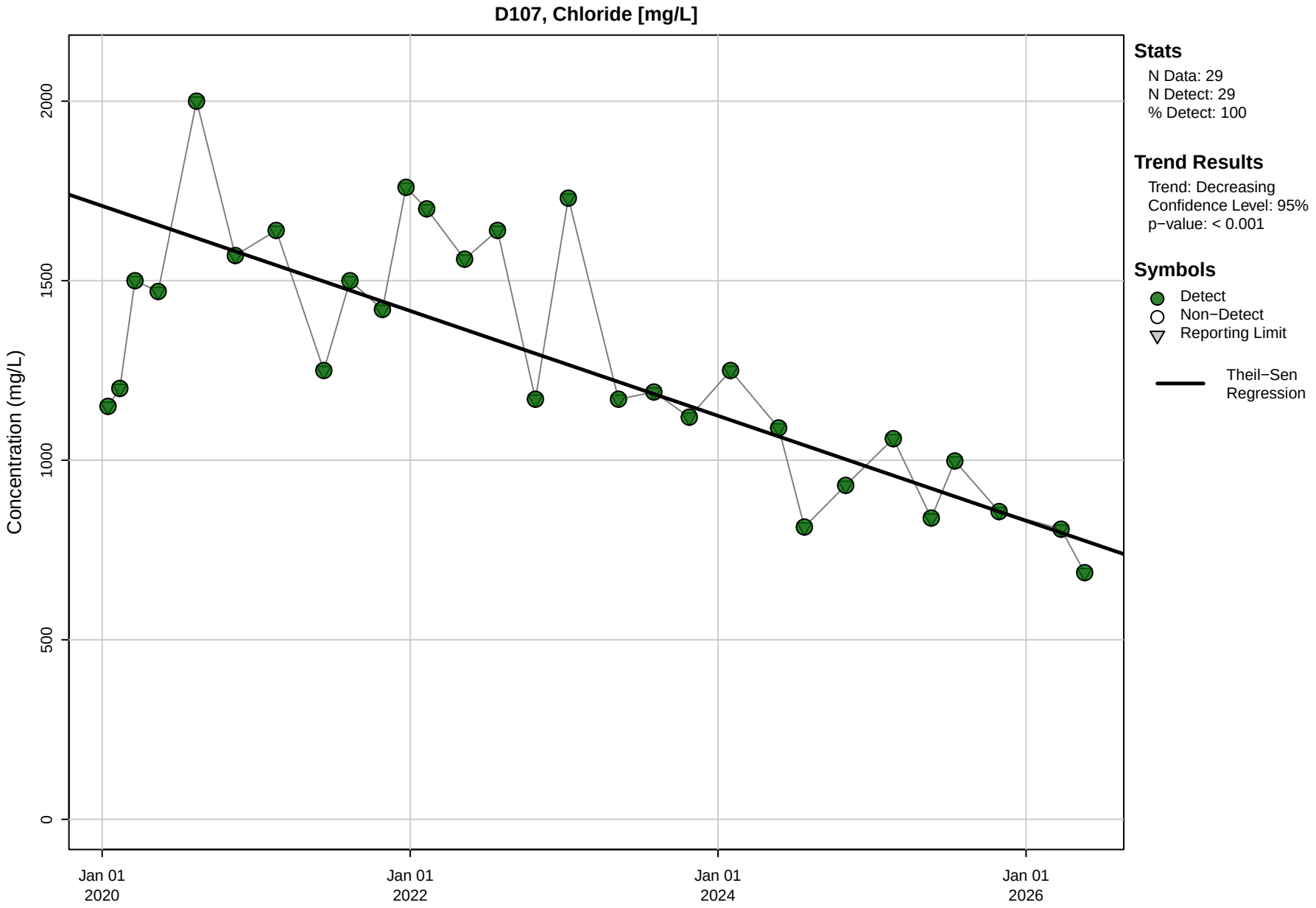

D106, Manganese [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
25000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

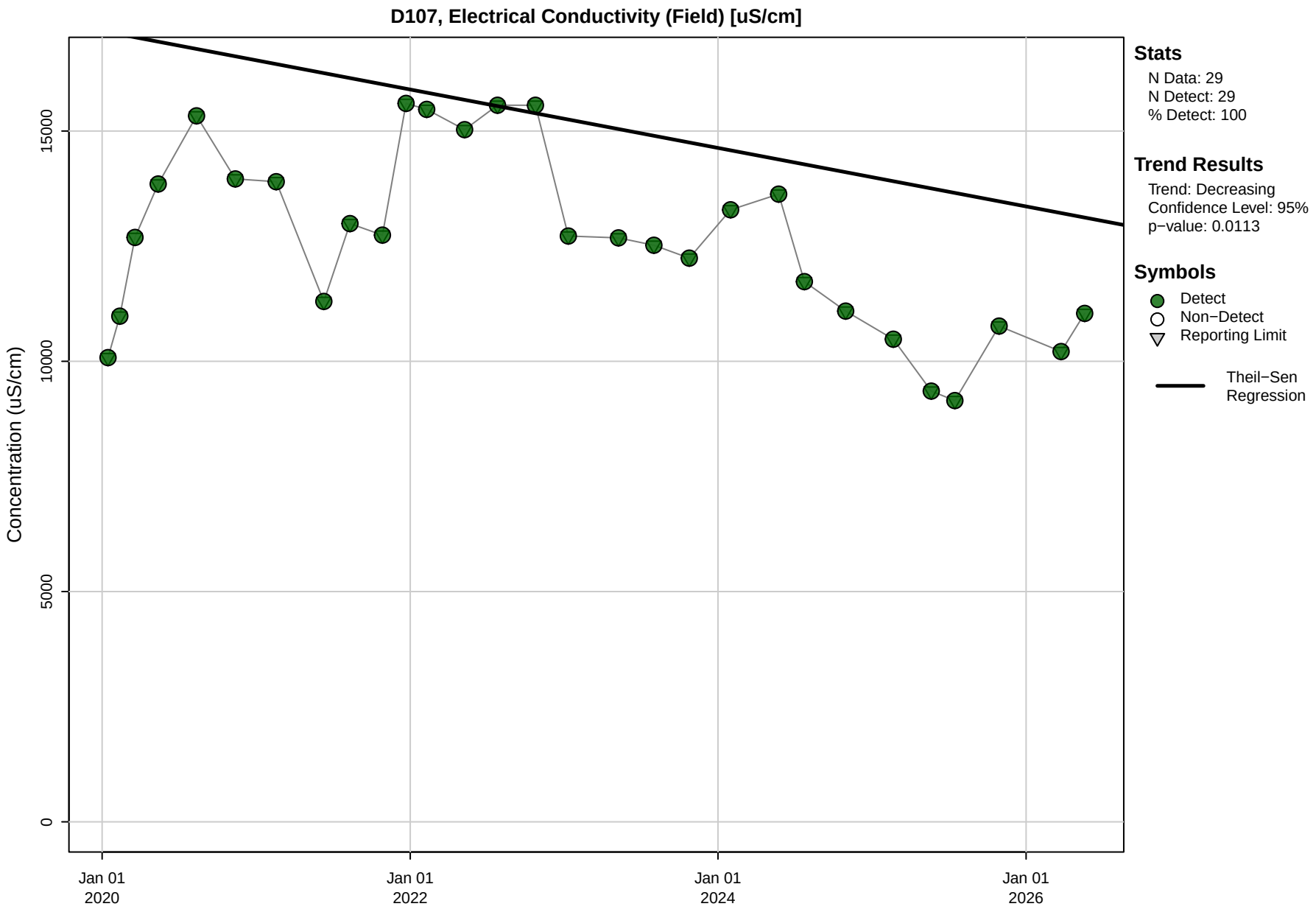

D106, Nickel [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
2500
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0424
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

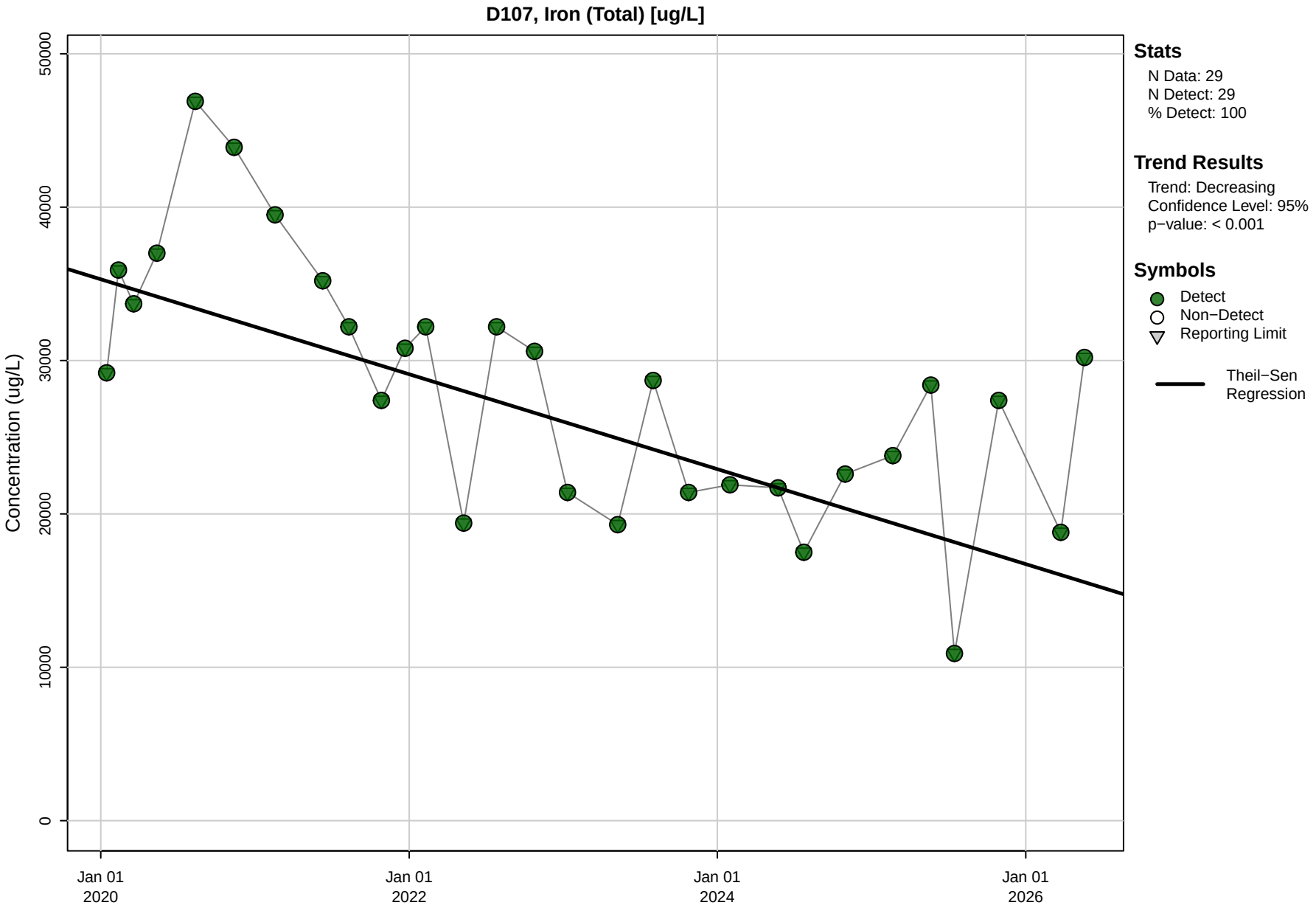

D106, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
2000
4000
6000
8000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.588
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

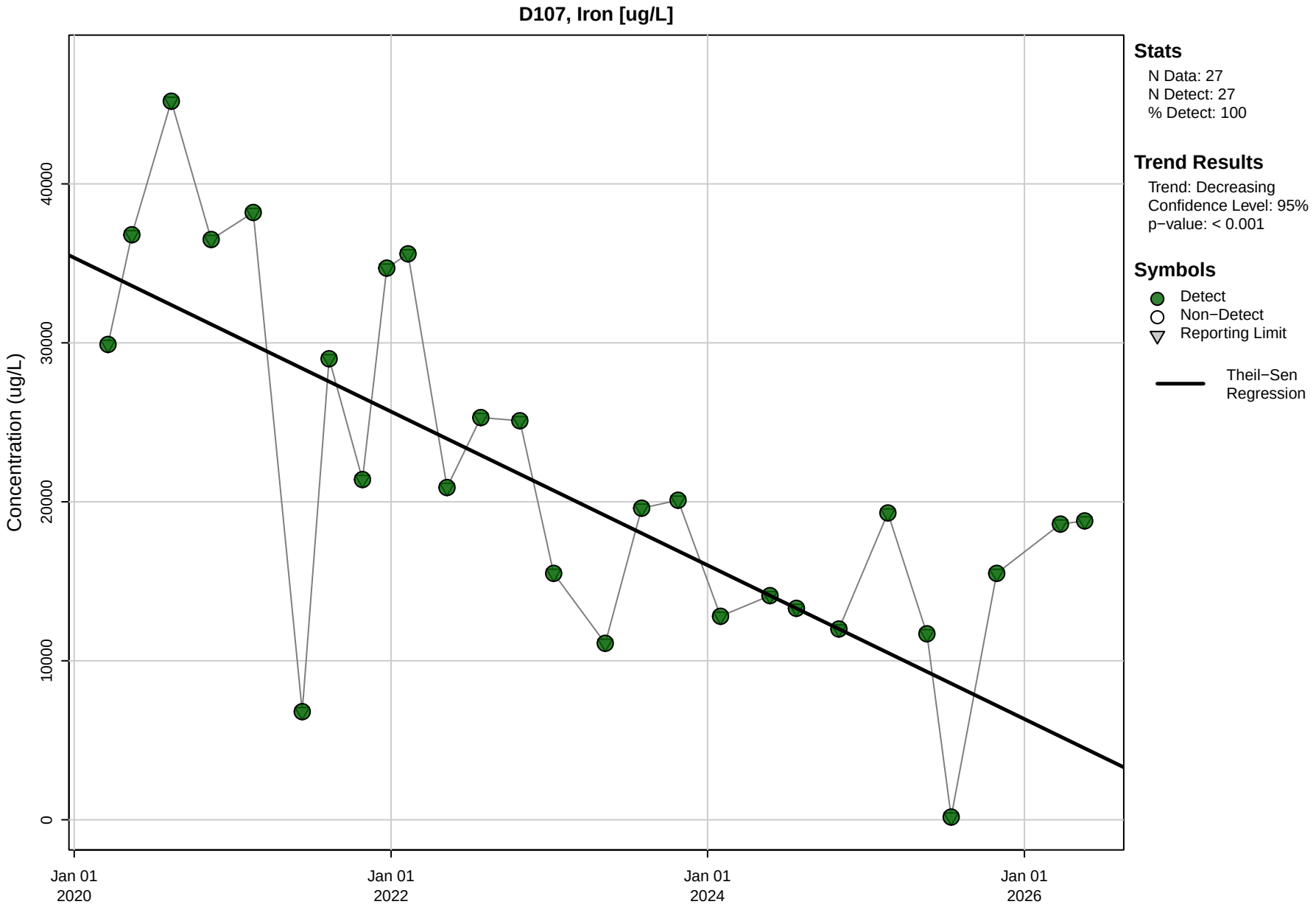

D106, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
2000
4000
6000
8000
10000
12000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.22
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

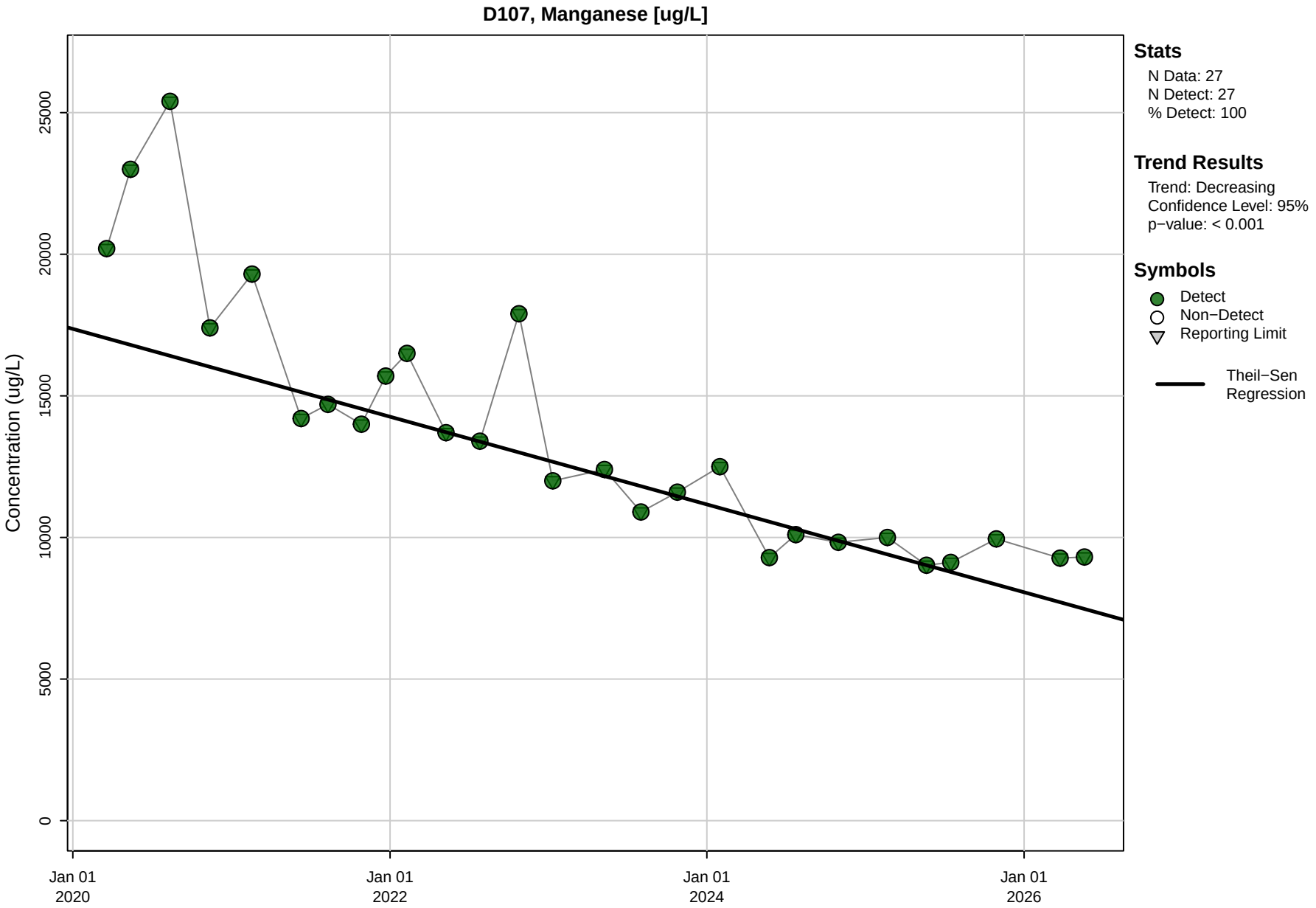

D107, Boron [ug/L]
Concentration (ug/L)
0
1000
2000
3000
4000
5000
6000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.226
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

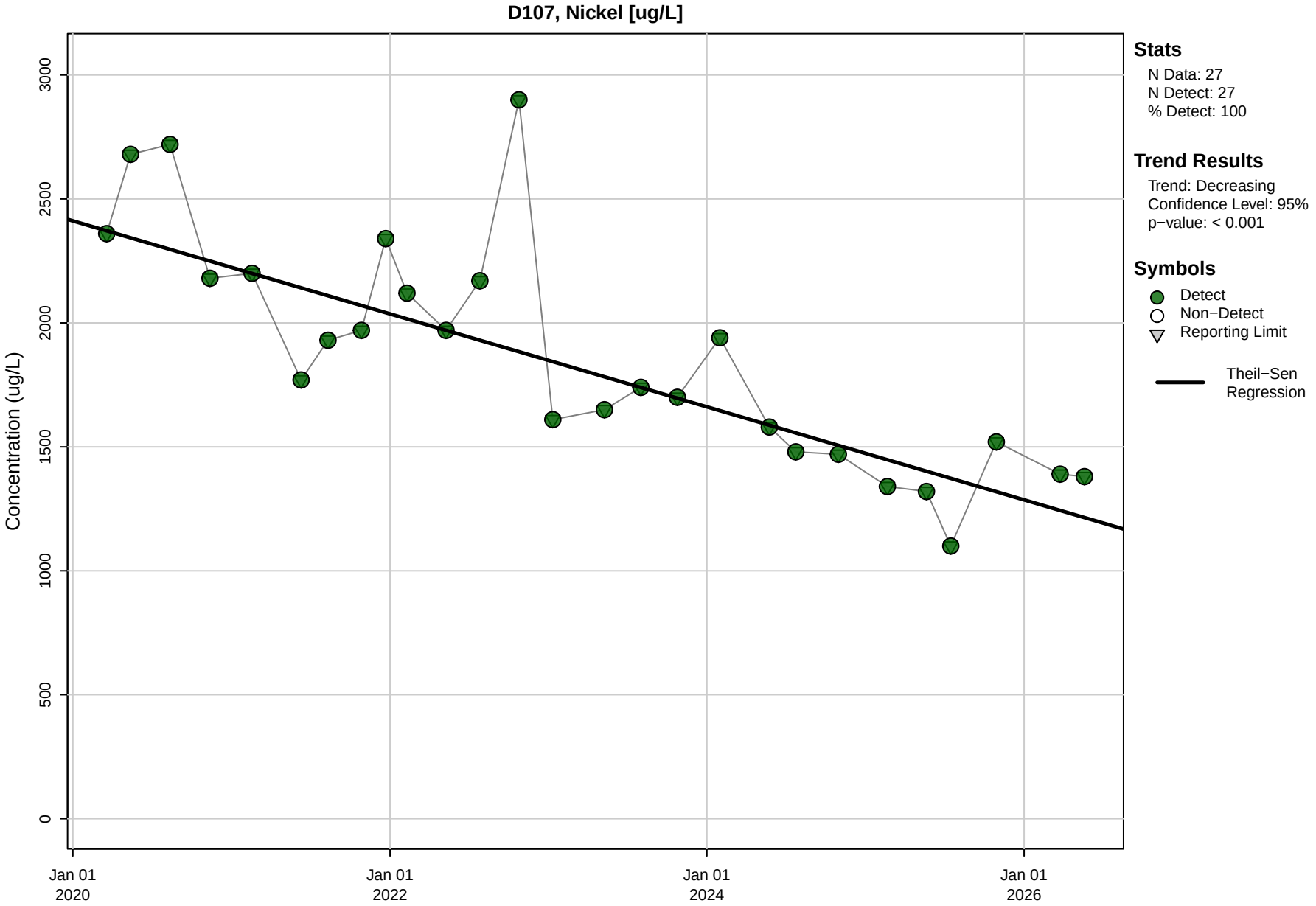

D107, Chloride [mg/L]
Concentration (mg/L)
0
500
1000
1500
2000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 29
N Detect: 29
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

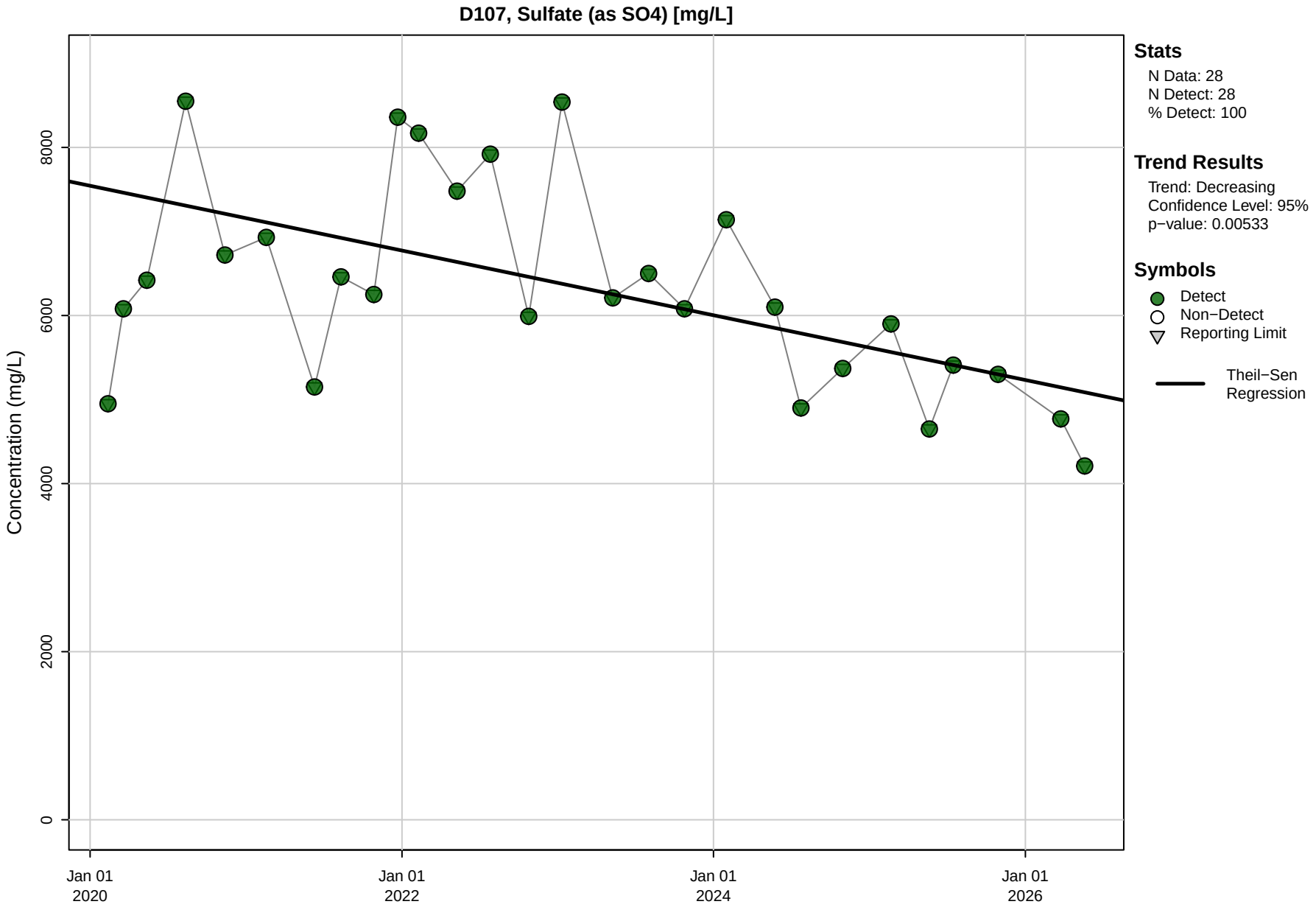

D107, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
5000
10000
15000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 29
N Detect: 29
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0113
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

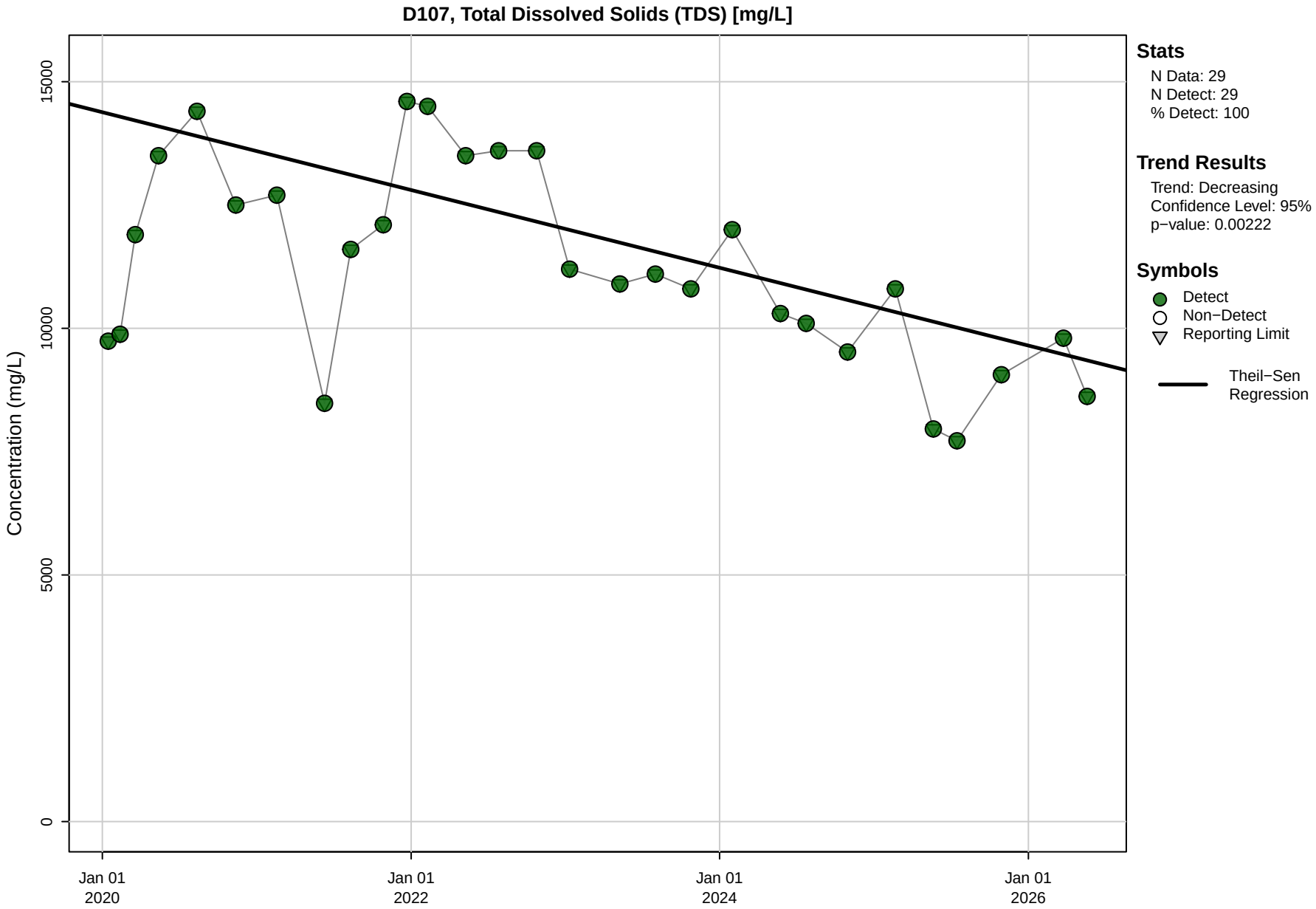

D107, Iron (Total) [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
50000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 29
N Detect: 29
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

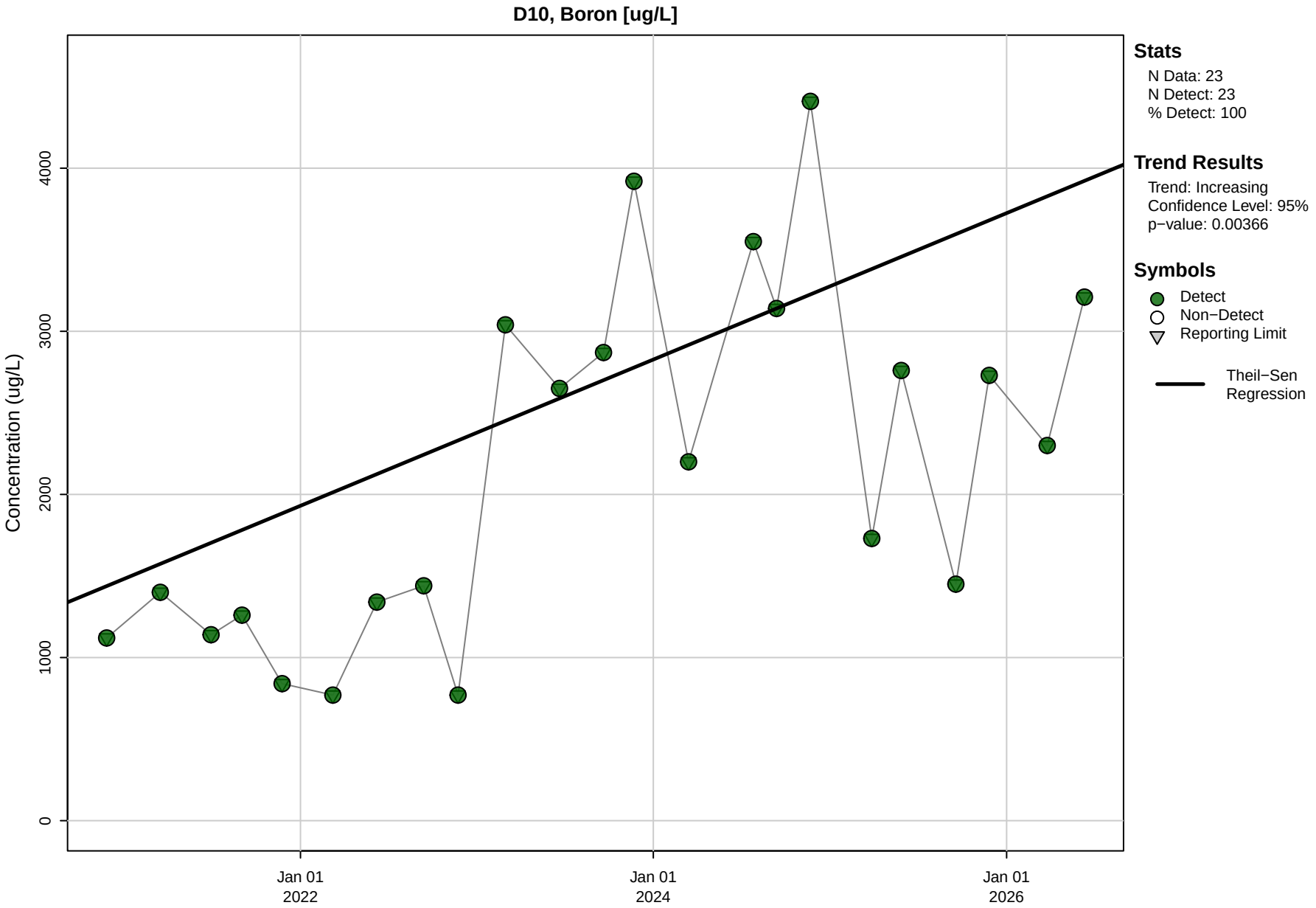

D107, Iron [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

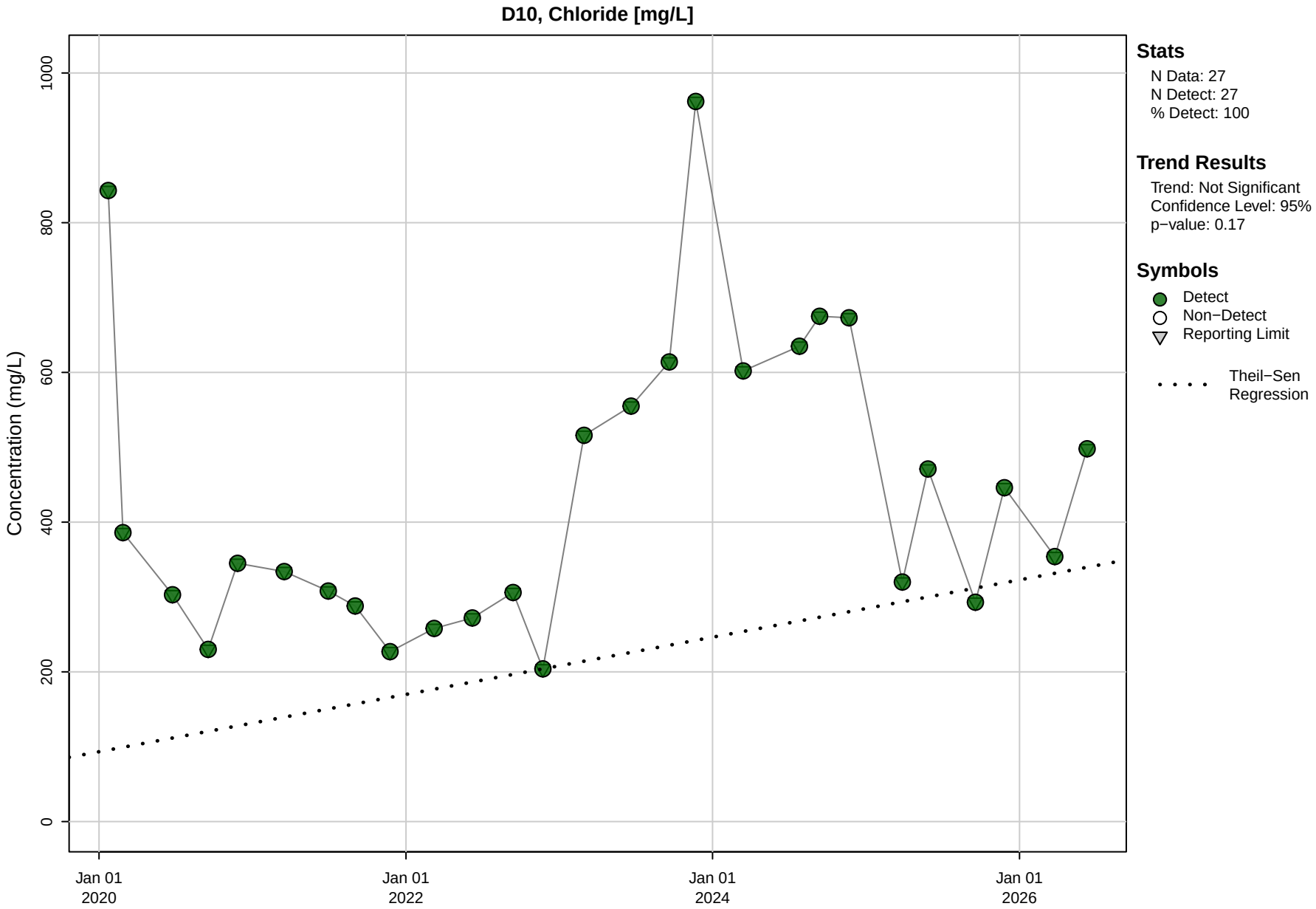

D107, Manganese [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
25000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

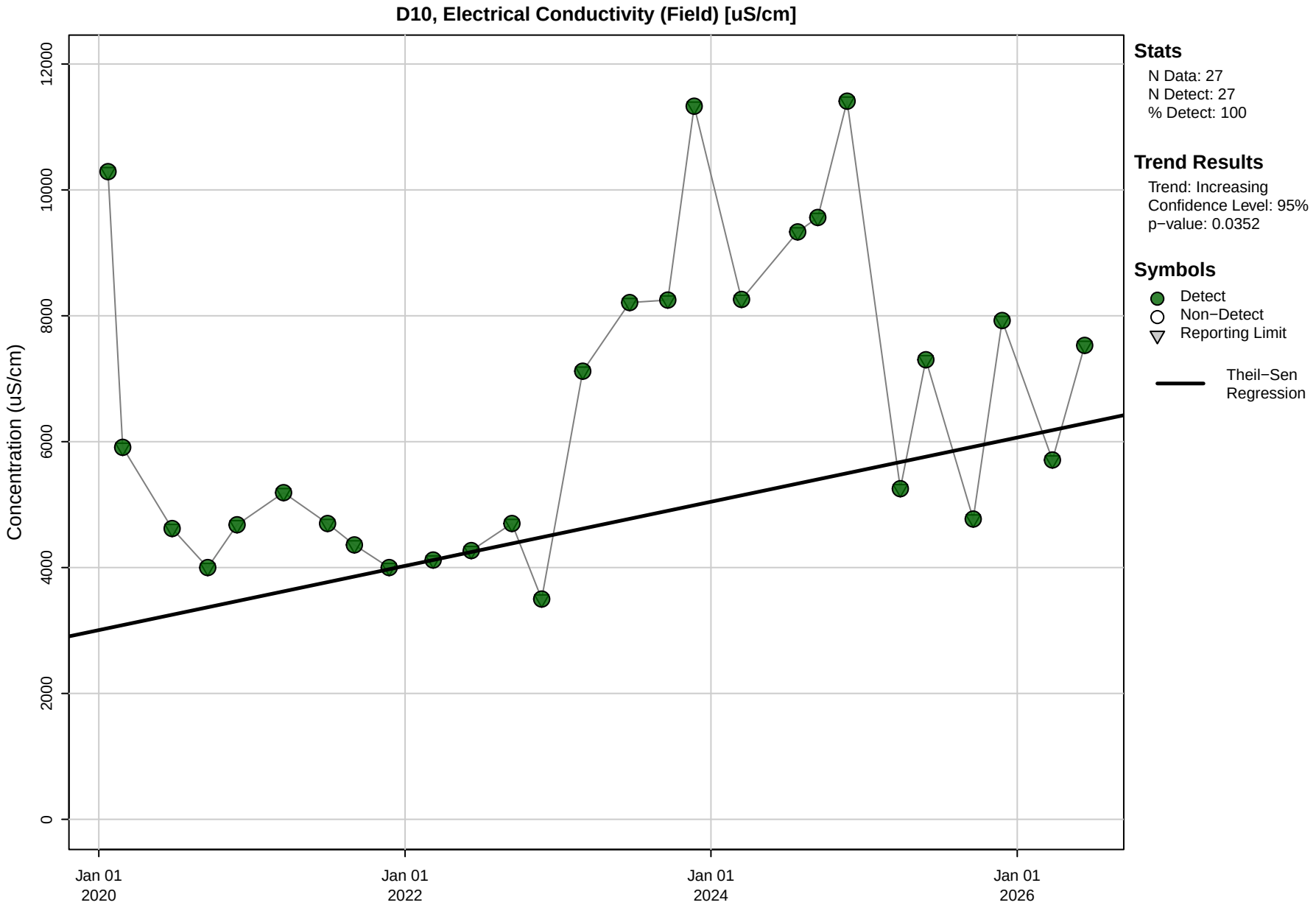

D107, Nickel [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
2500
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

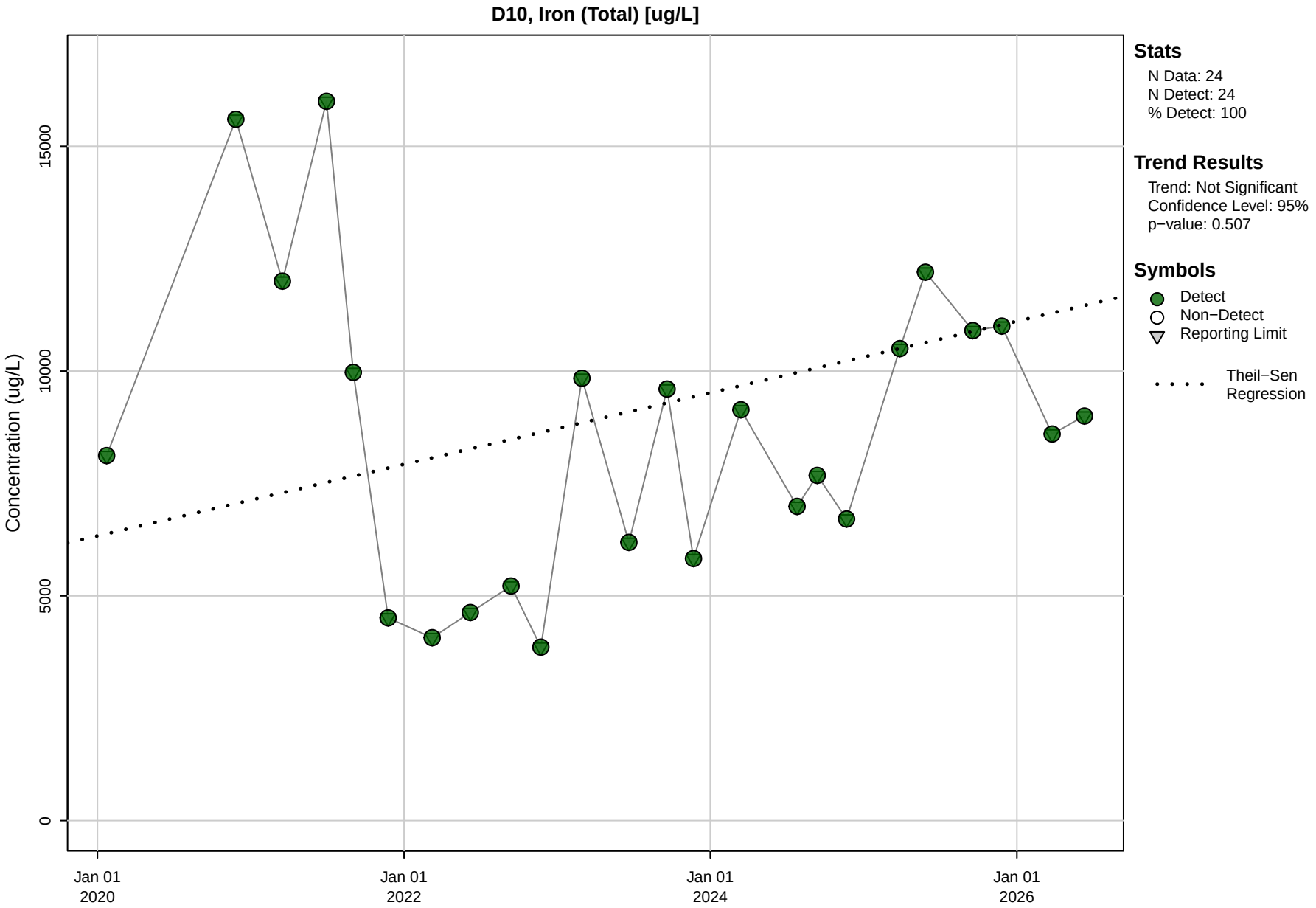

D107, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
2000
4000
6000
8000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00533
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

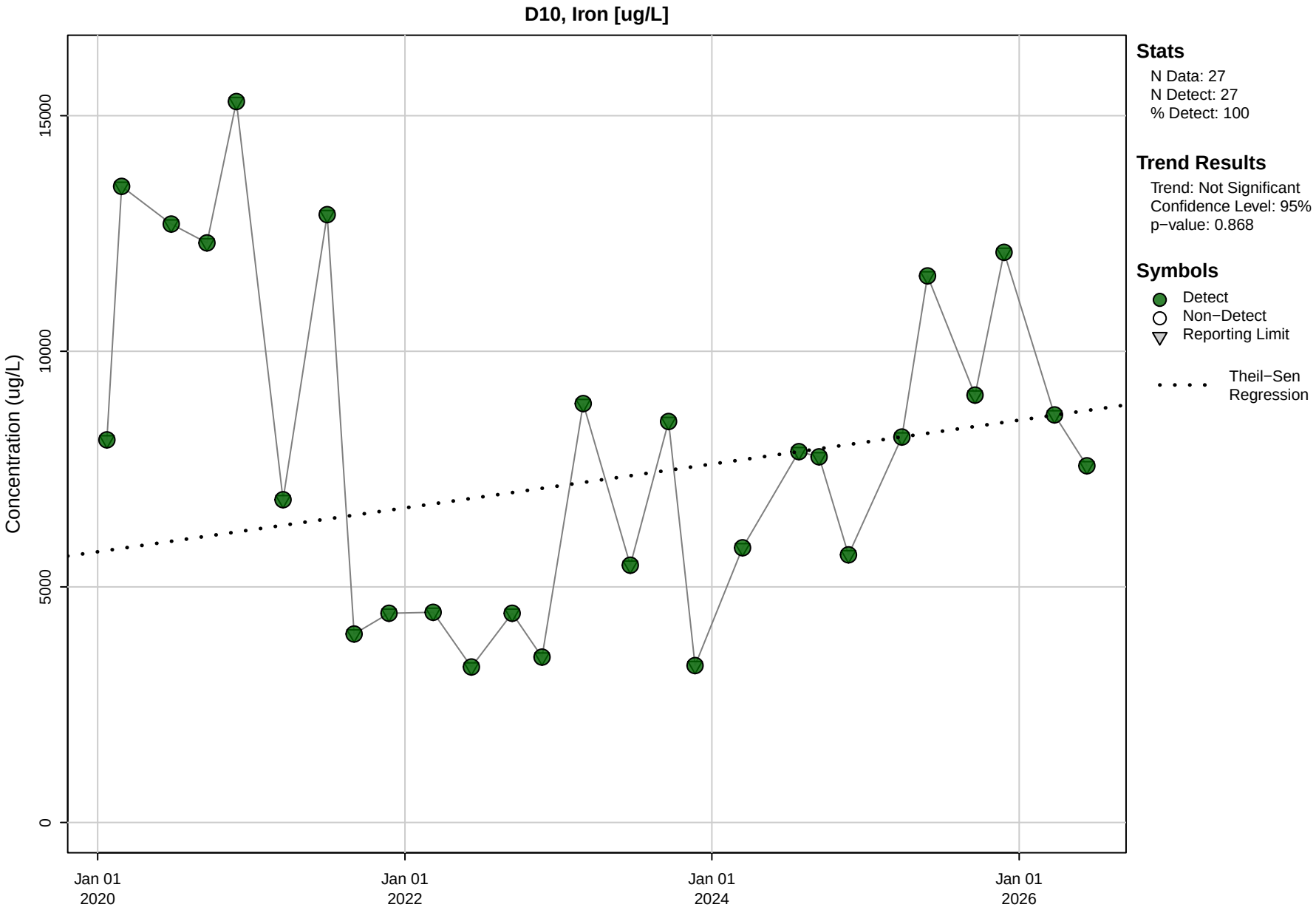

D107, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
15000
10000
5000
0
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 29
N Detect: 29
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00222
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

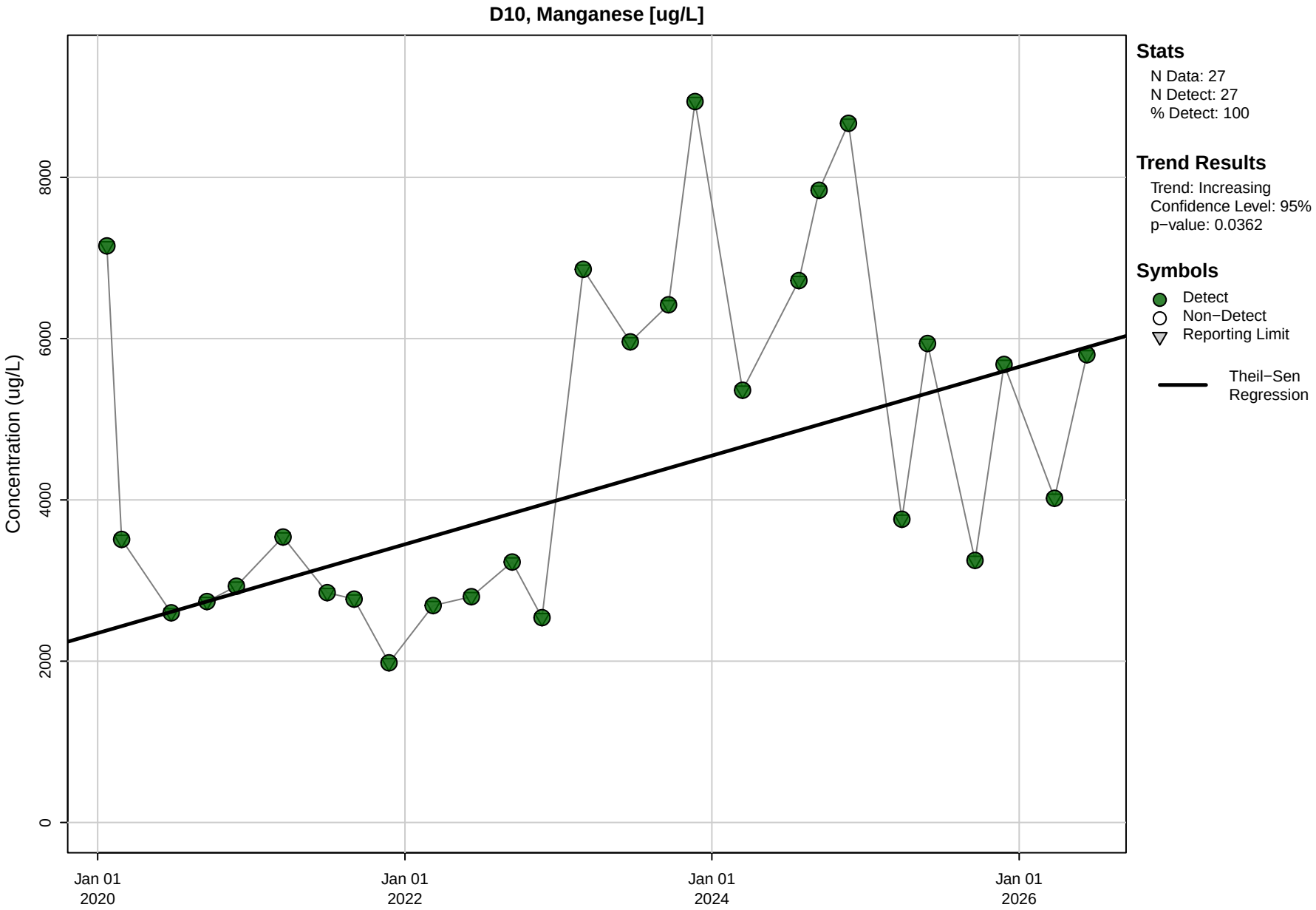

D10, Boron [ug/L]
Concentration (ug/L)
0
1000
2000
3000
4000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.00366
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

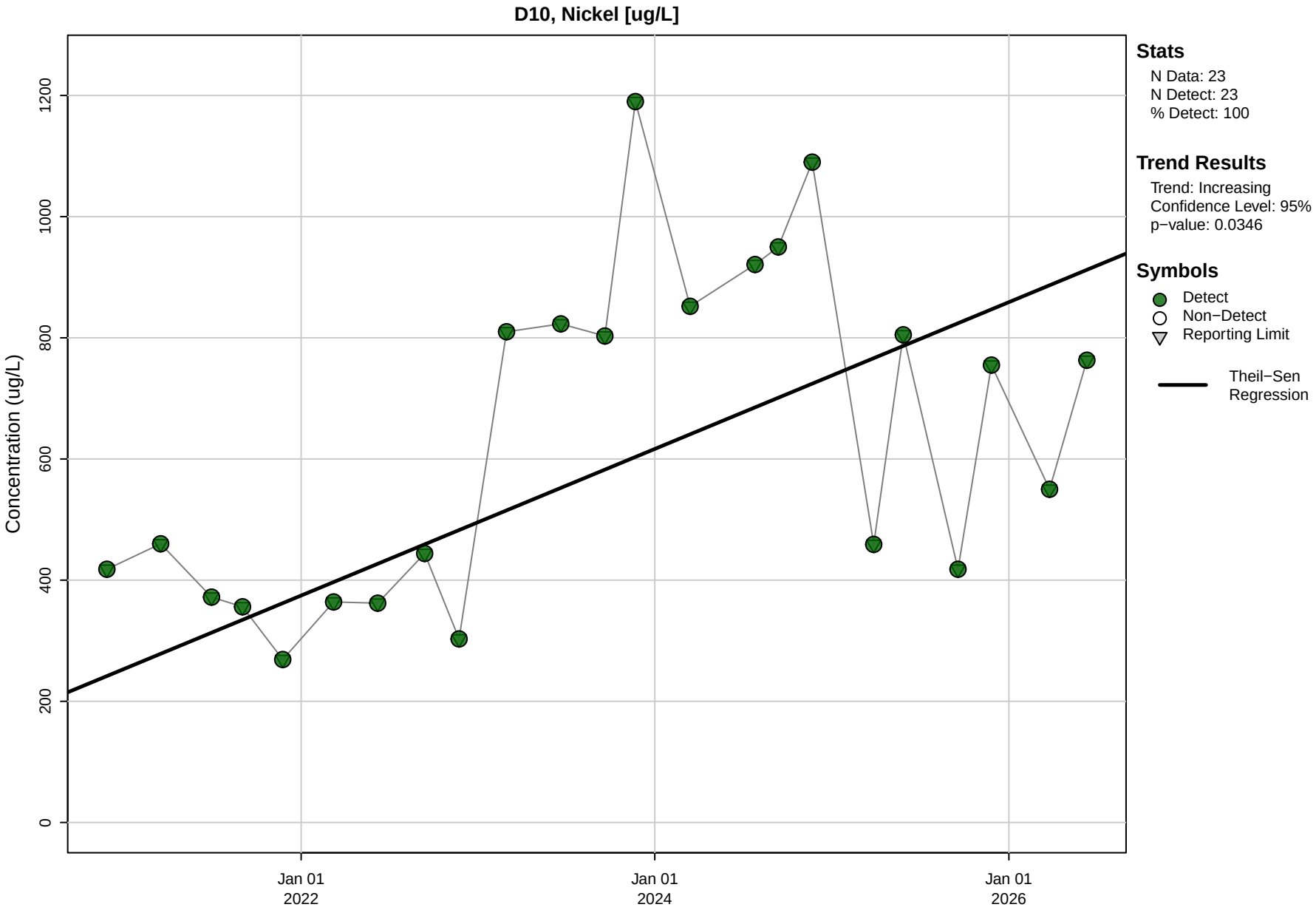

D10, Chloride [mg/L]
Concentration (mg/L)
0
200
400
600
800
1000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.17
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

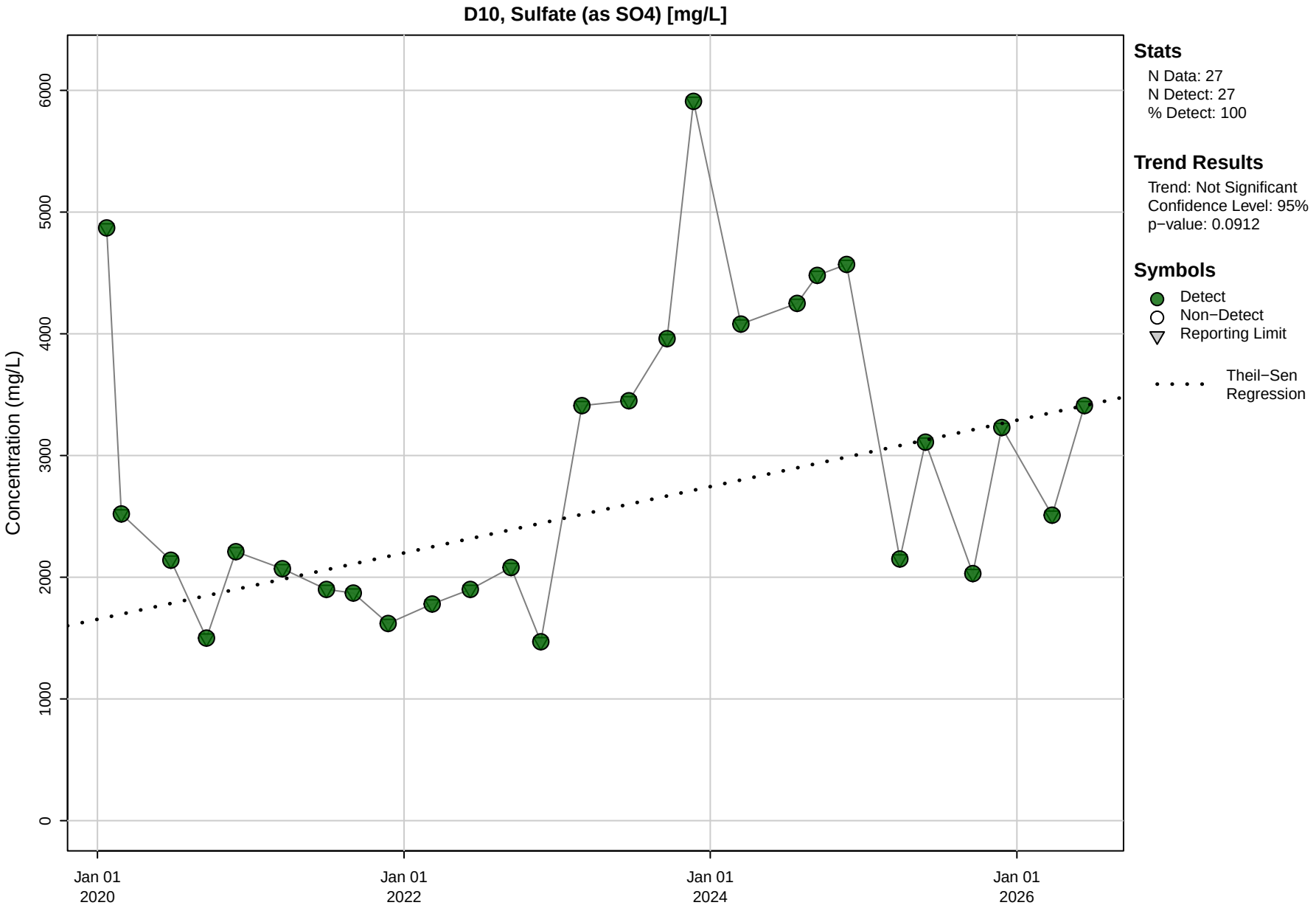

D10, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
2000
4000
6000
8000
10000
12000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.0352
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

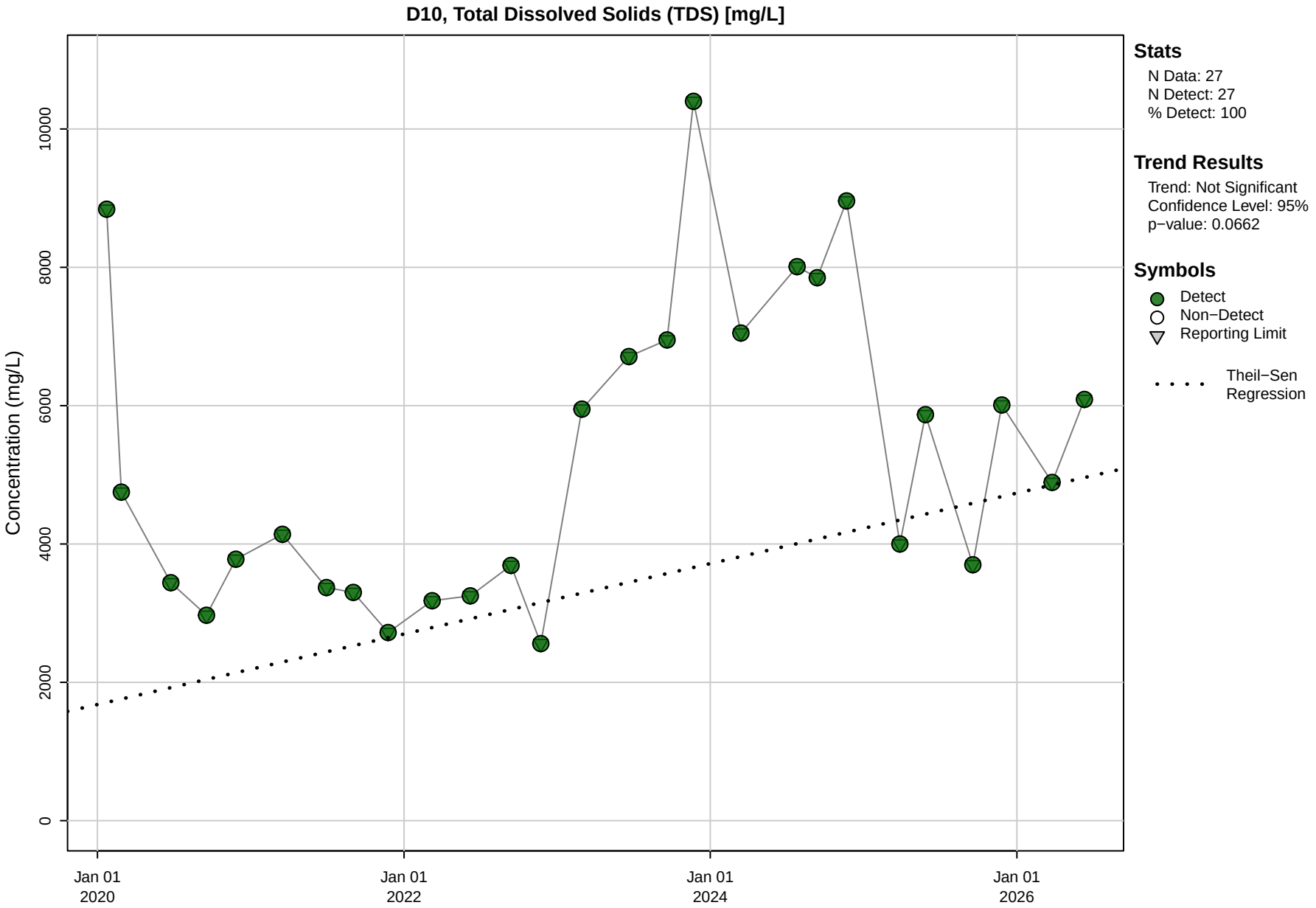

D10, Iron (Total) [ug/L]
Concentration (ug/L)
0
5000
10000
15000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.507
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

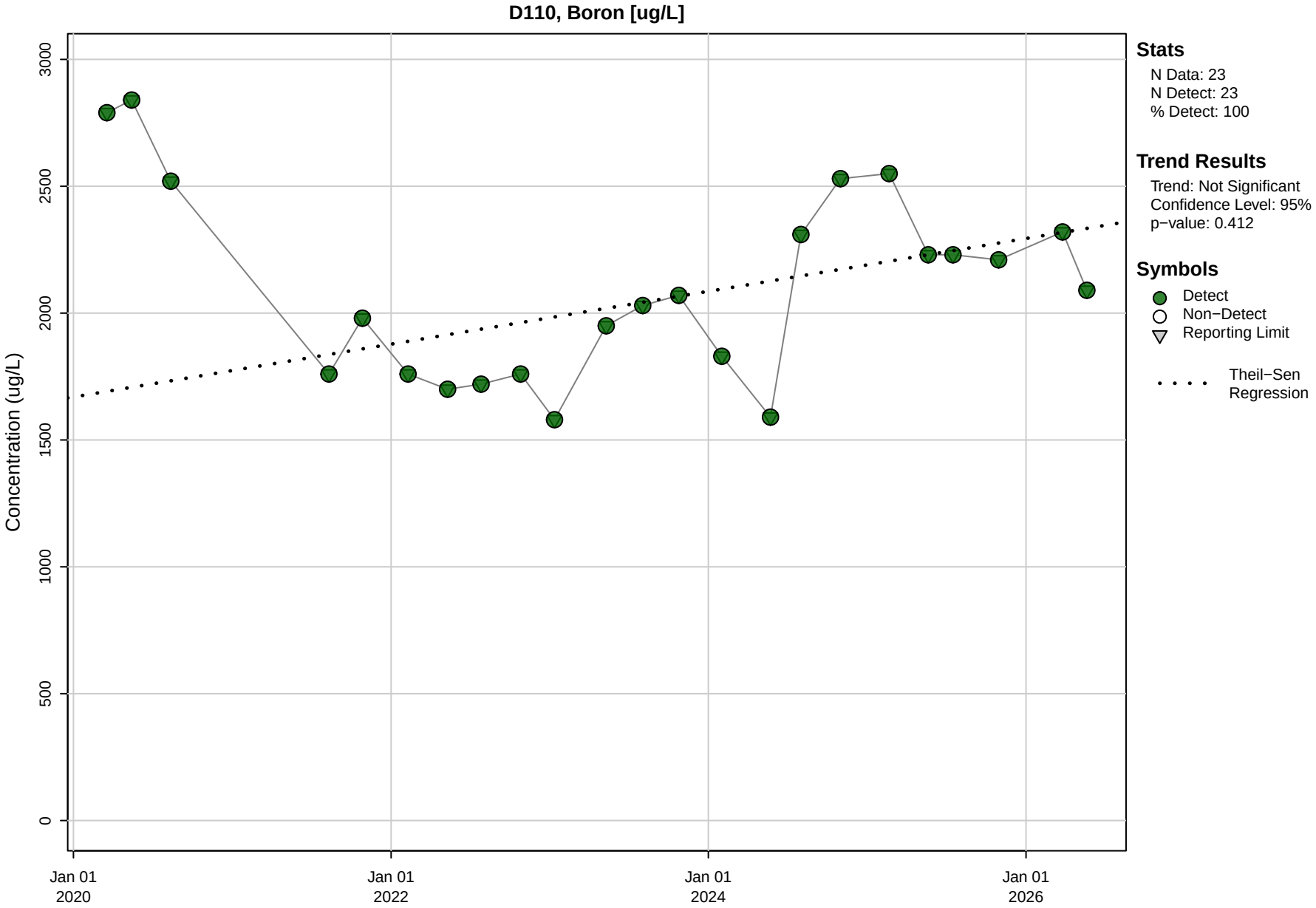

D10, Iron [ug/L]
Concentration (ug/L)
0
5000
10000
15000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.868
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

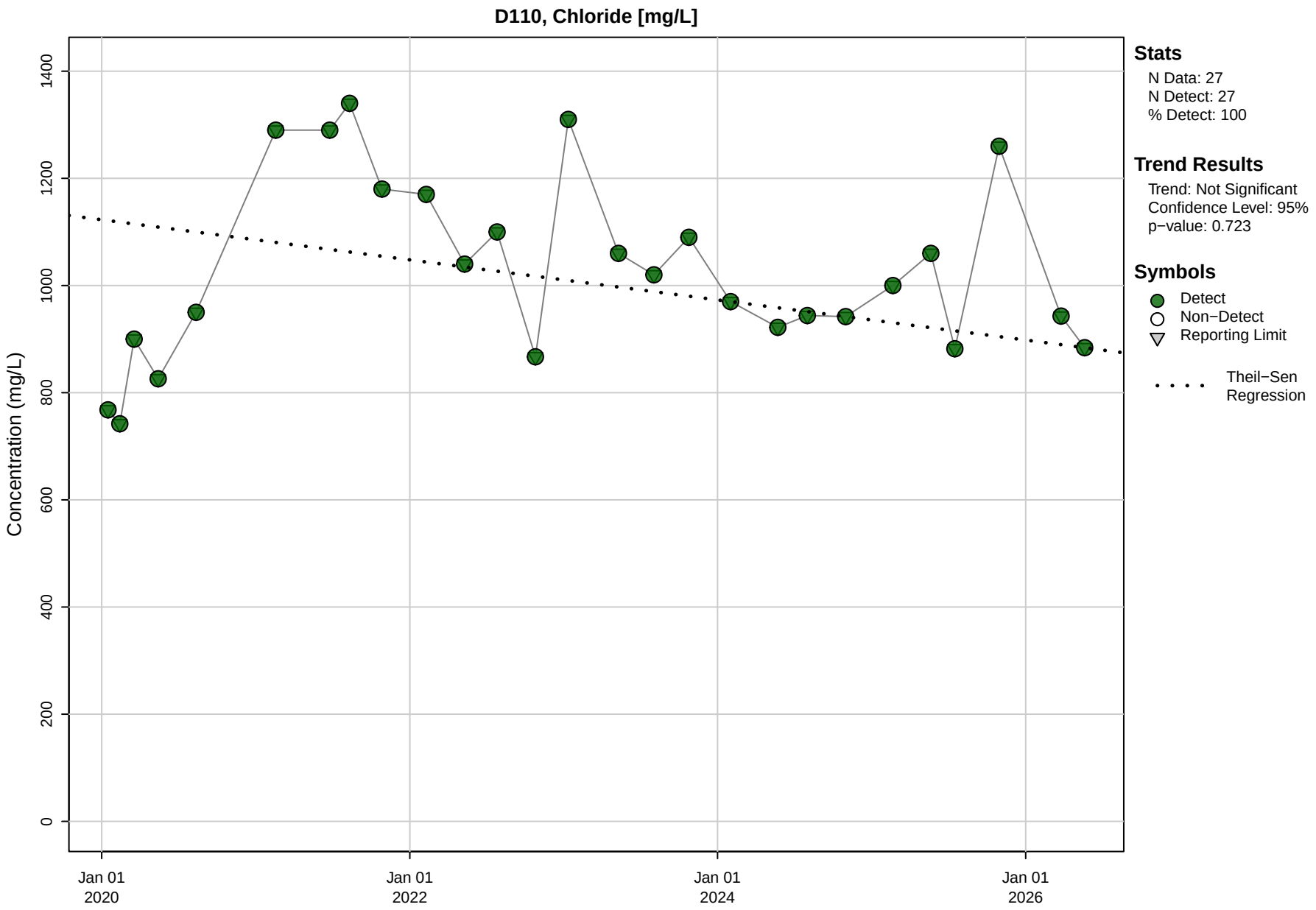

D10, Manganese [ug/L]
Concentration (ug/L)
0
2000
4000
6000
8000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.0362
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

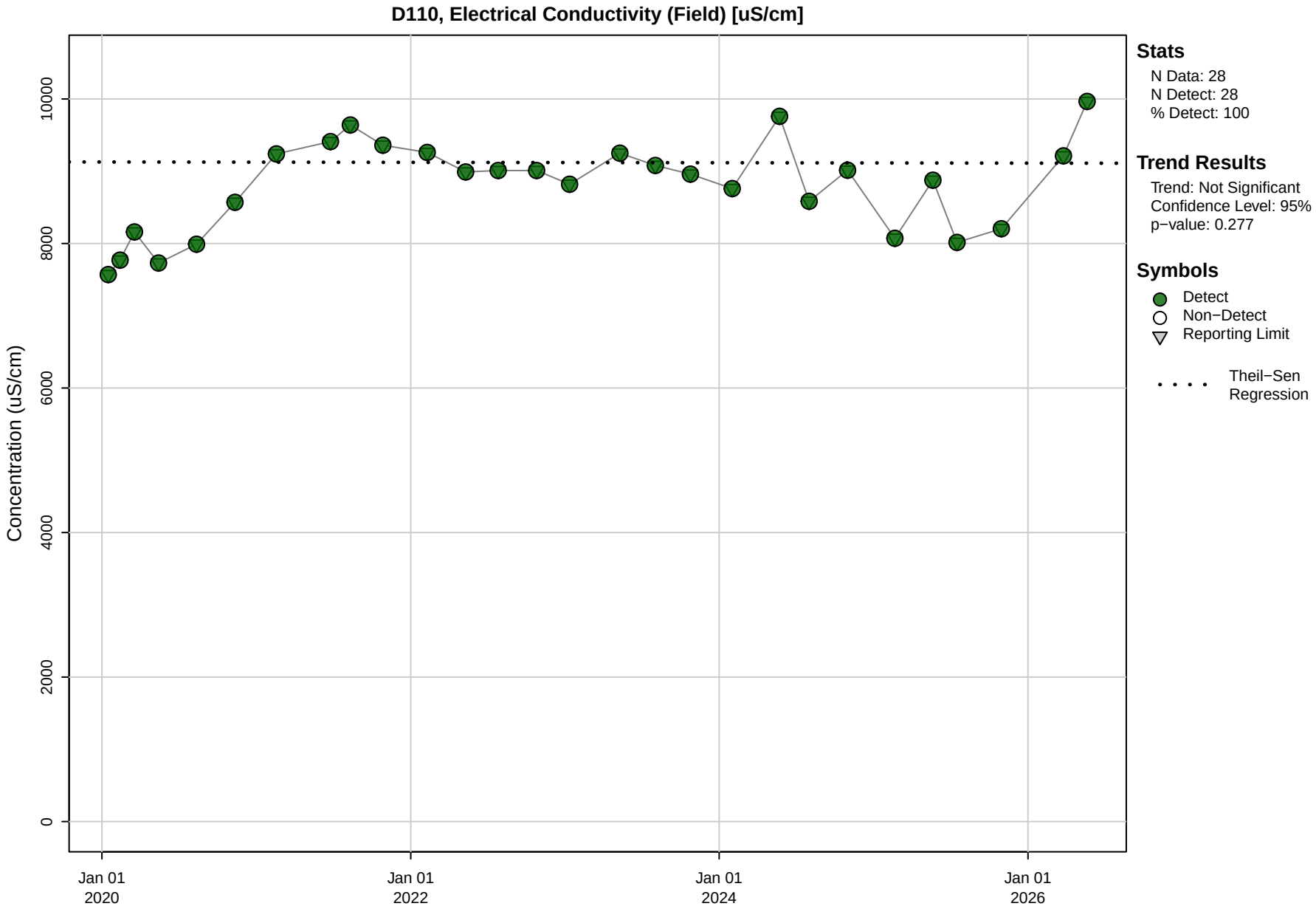

D10, Nickel [ug/L]
Concentration (ug/L)
0
200
400
600
800
1000
1200
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.0346
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

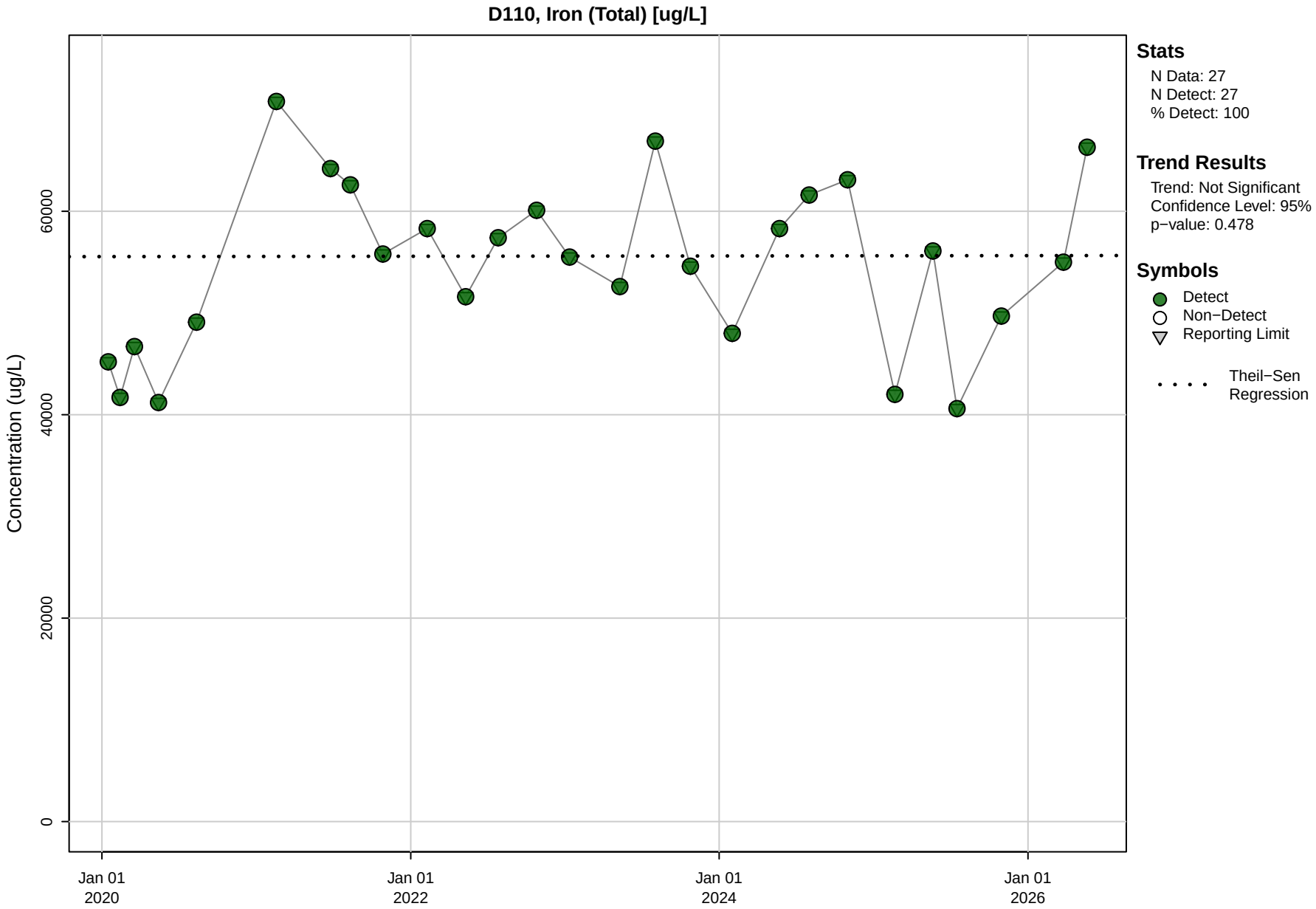

D10, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
4000
5000
6000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0912
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

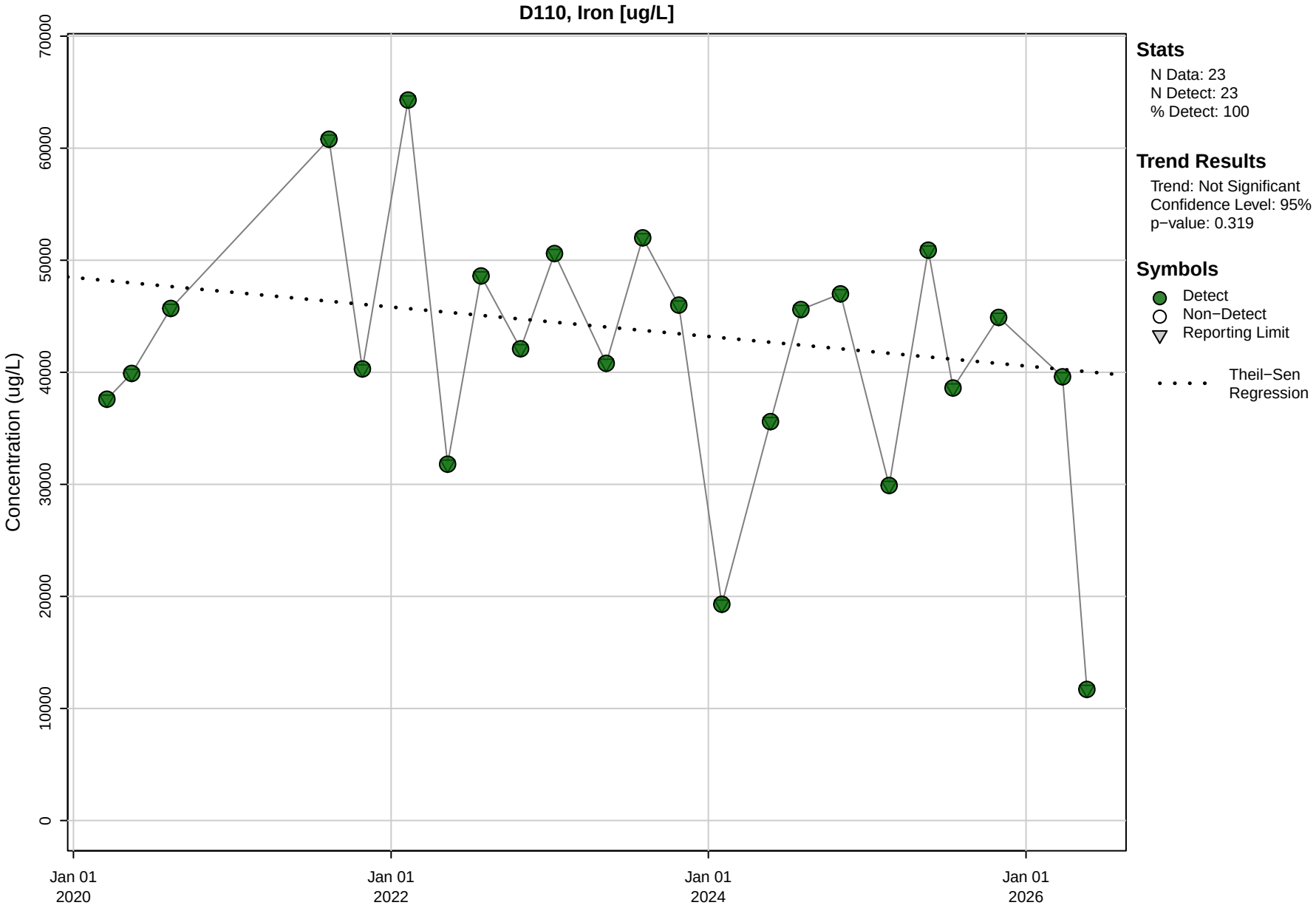

D10, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
2000
4000
6000
8000
10000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0662
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

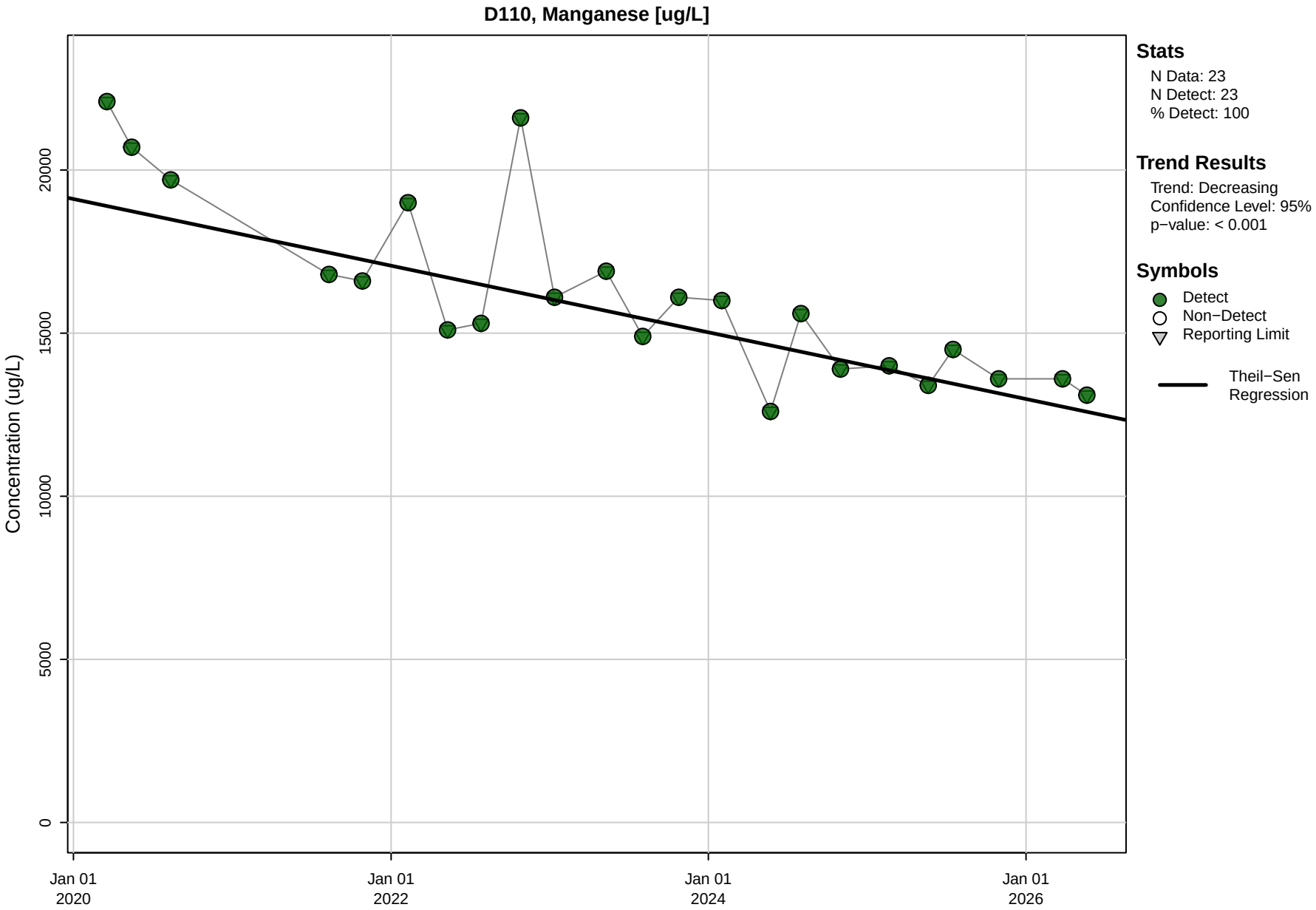

D110, Boron [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
2500
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.412
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

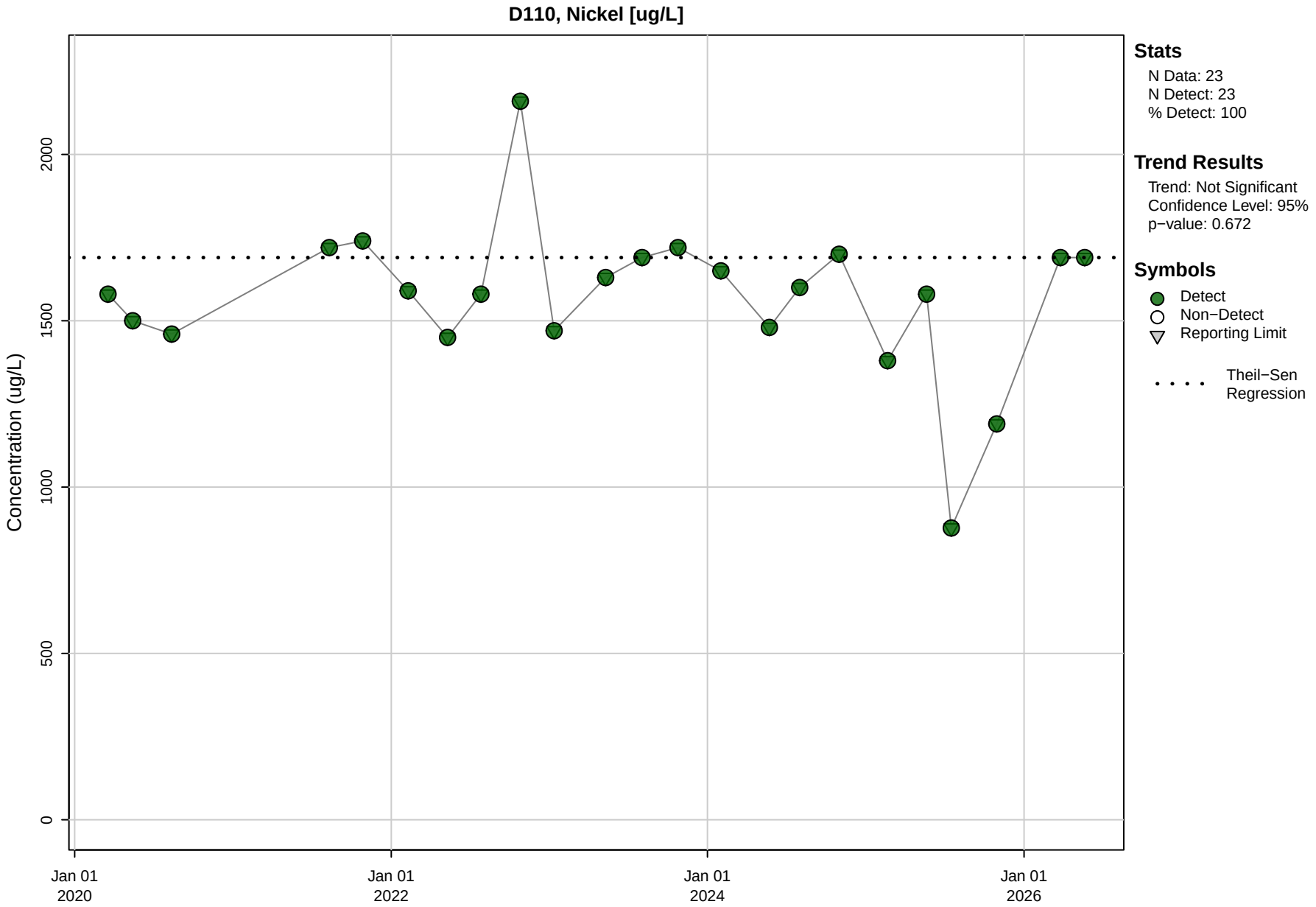

D110, Chloride [mg/L]
Concentration (mg/L)
0
200
400
600
800
1000
1200
1400
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.723
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

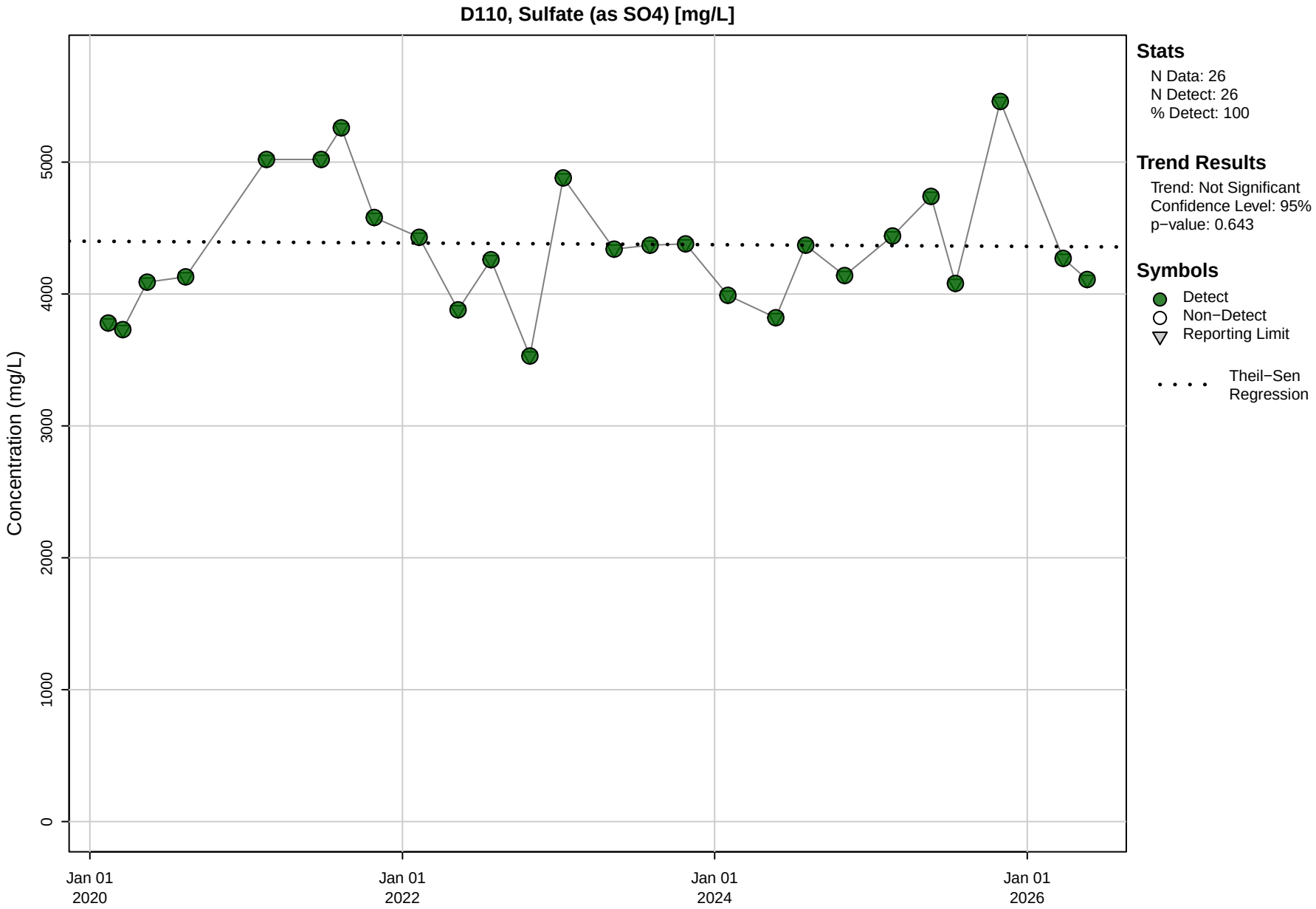

D110, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
2000
4000
6000
8000
10000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.277
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

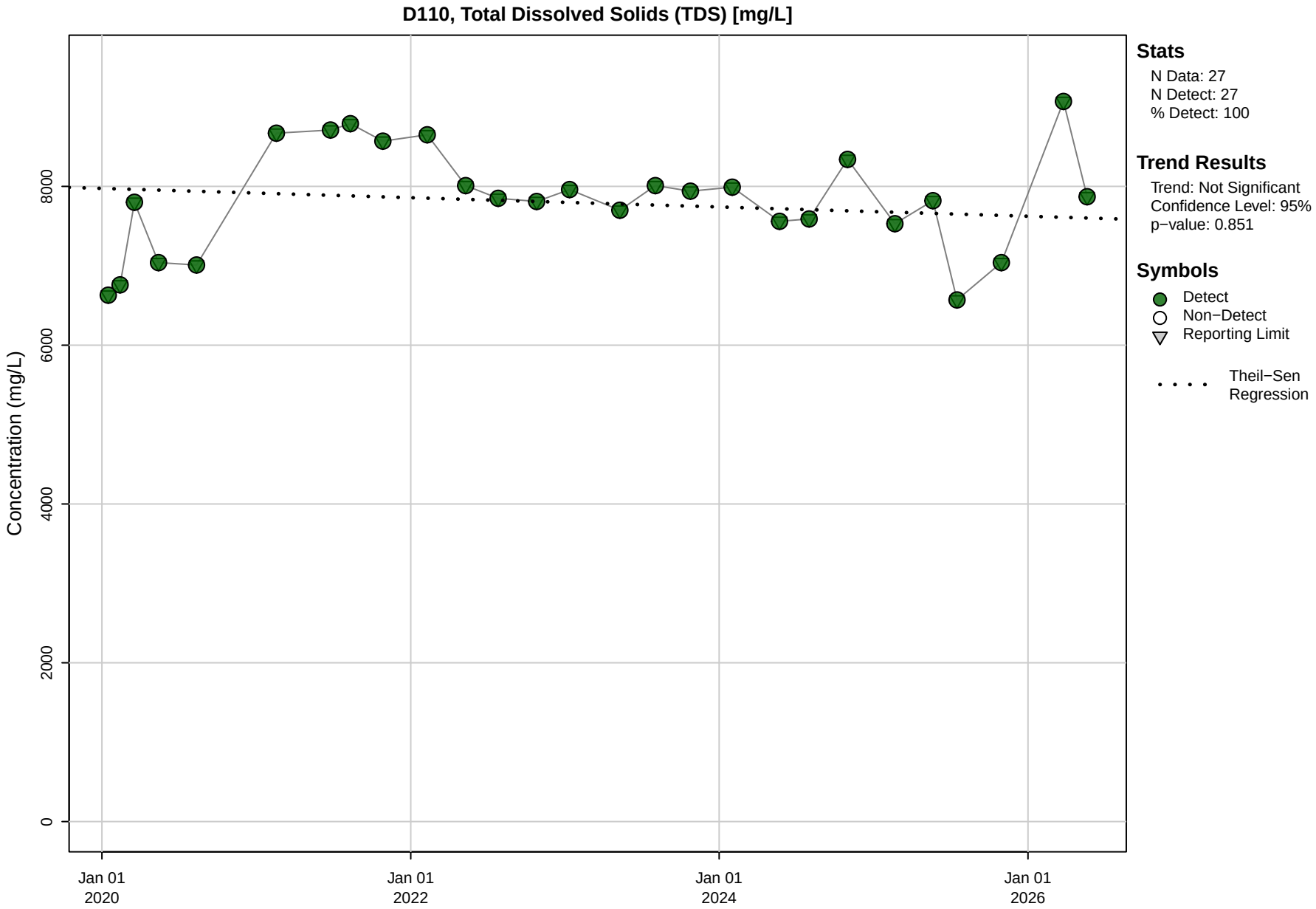

D110, Iron (Total) [ug/L]
Concentration (ug/L)
0
20000
40000
60000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.478
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

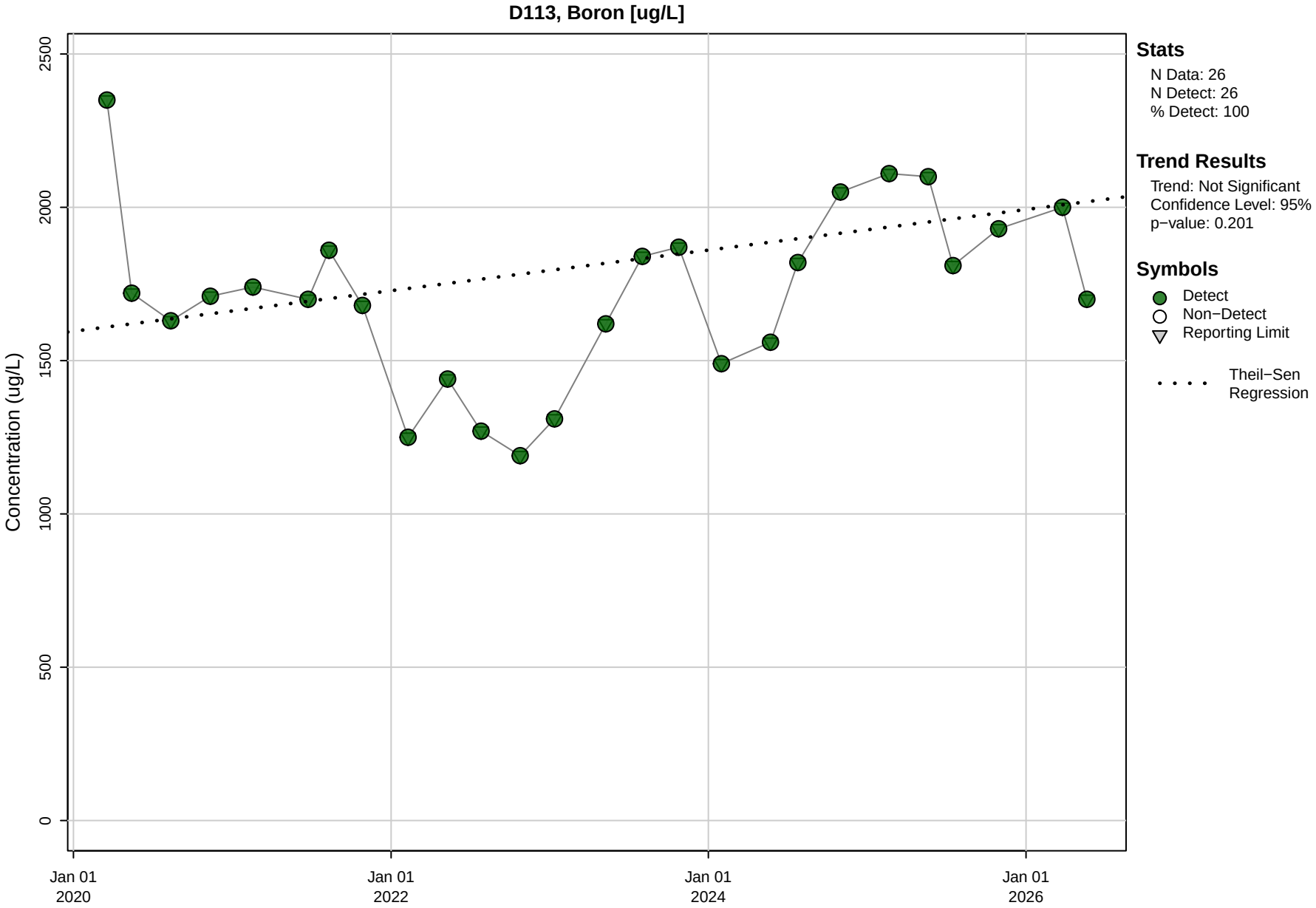

D110, Iron [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
50000
60000
70000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.319
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

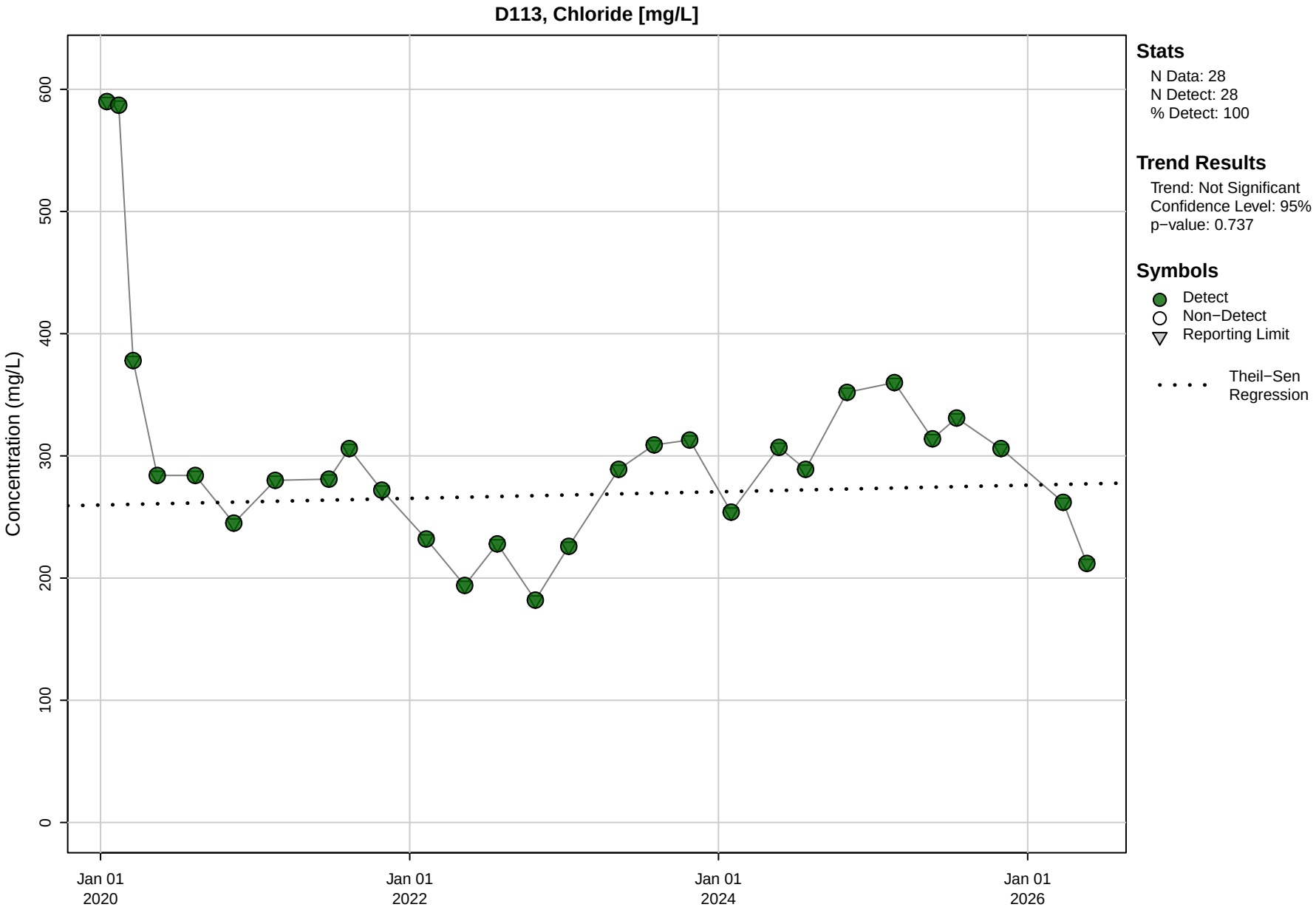

D110, Manganese [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

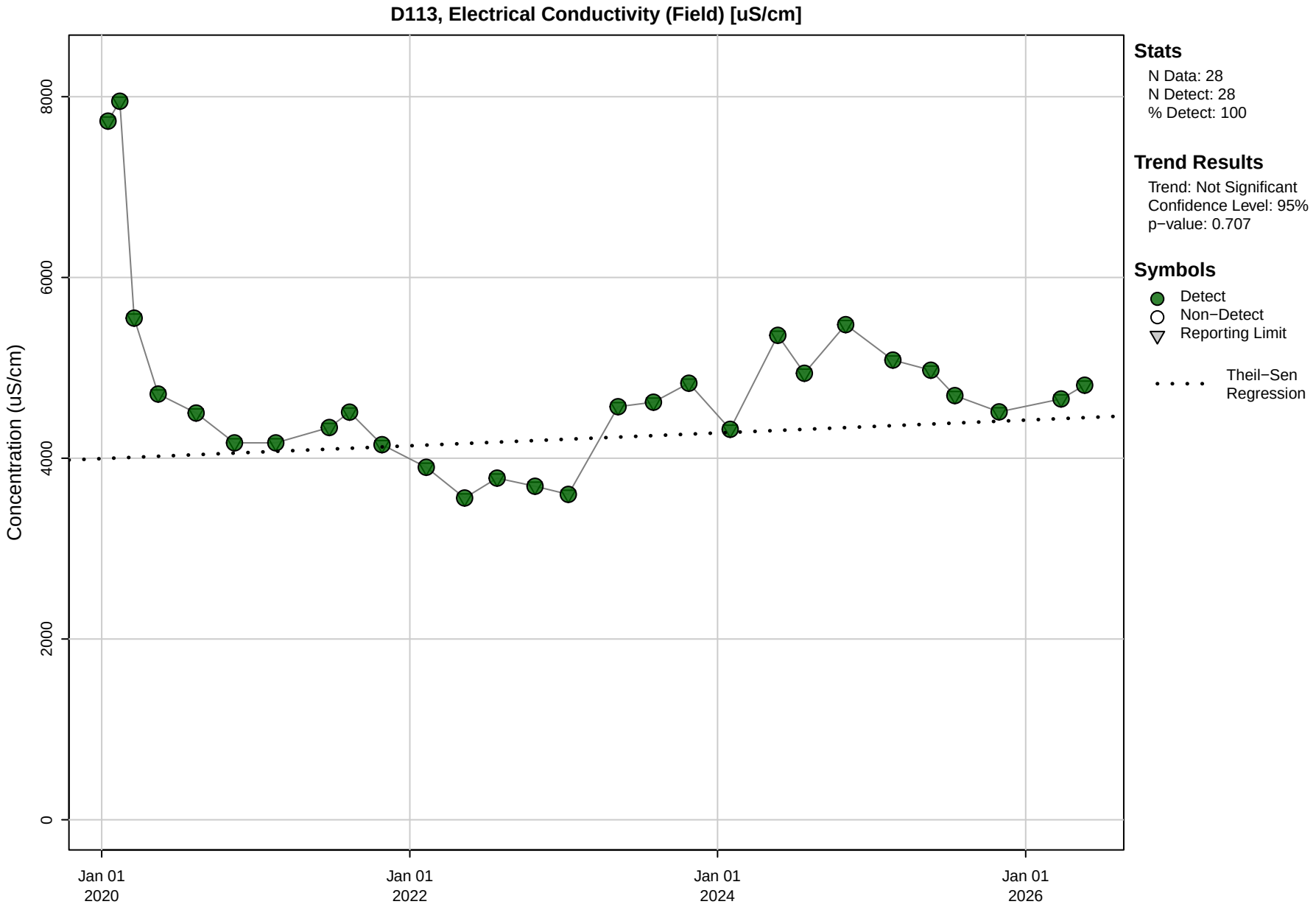

D110, Nickel [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.672
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

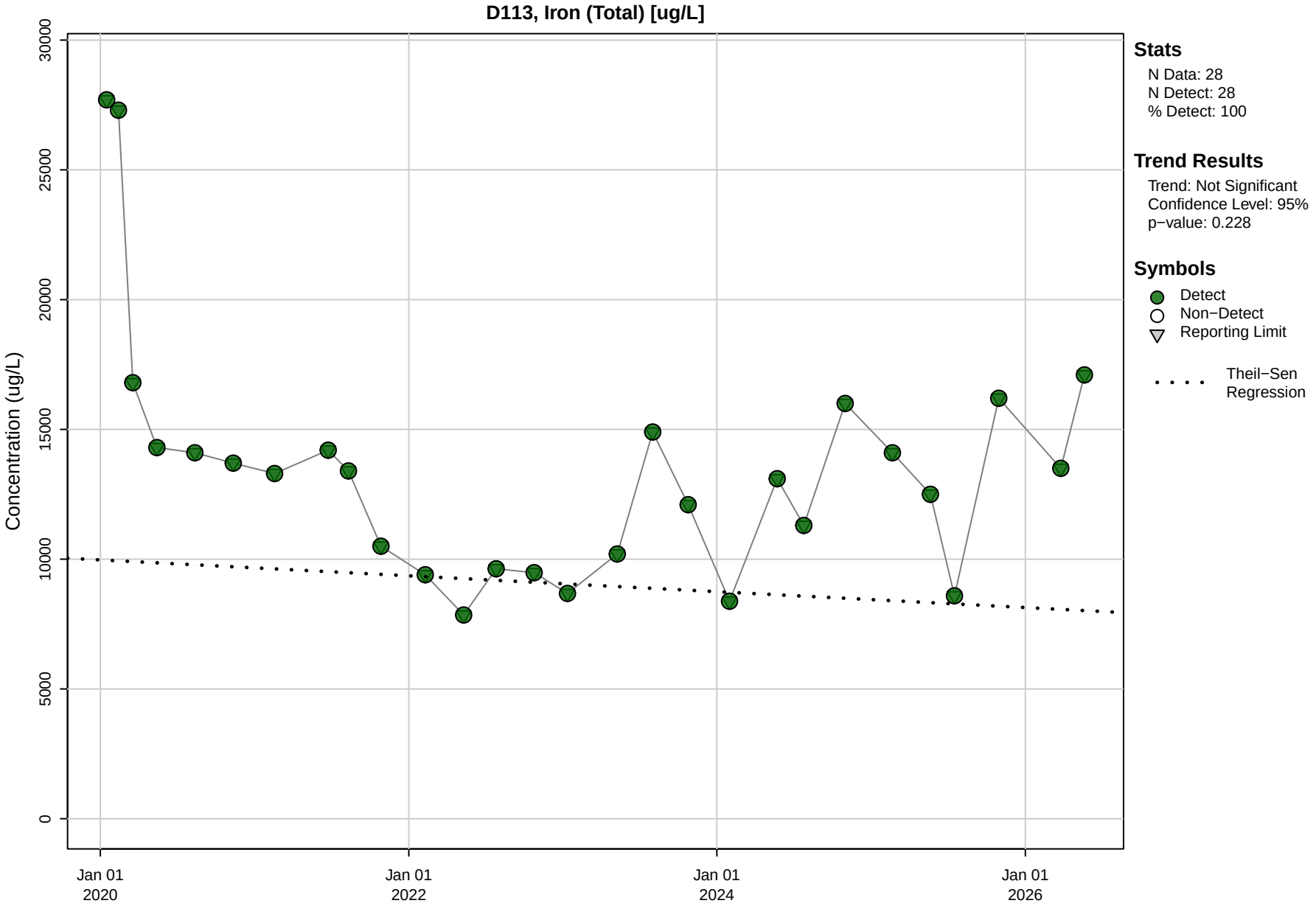

D110, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
4000
5000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.643
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

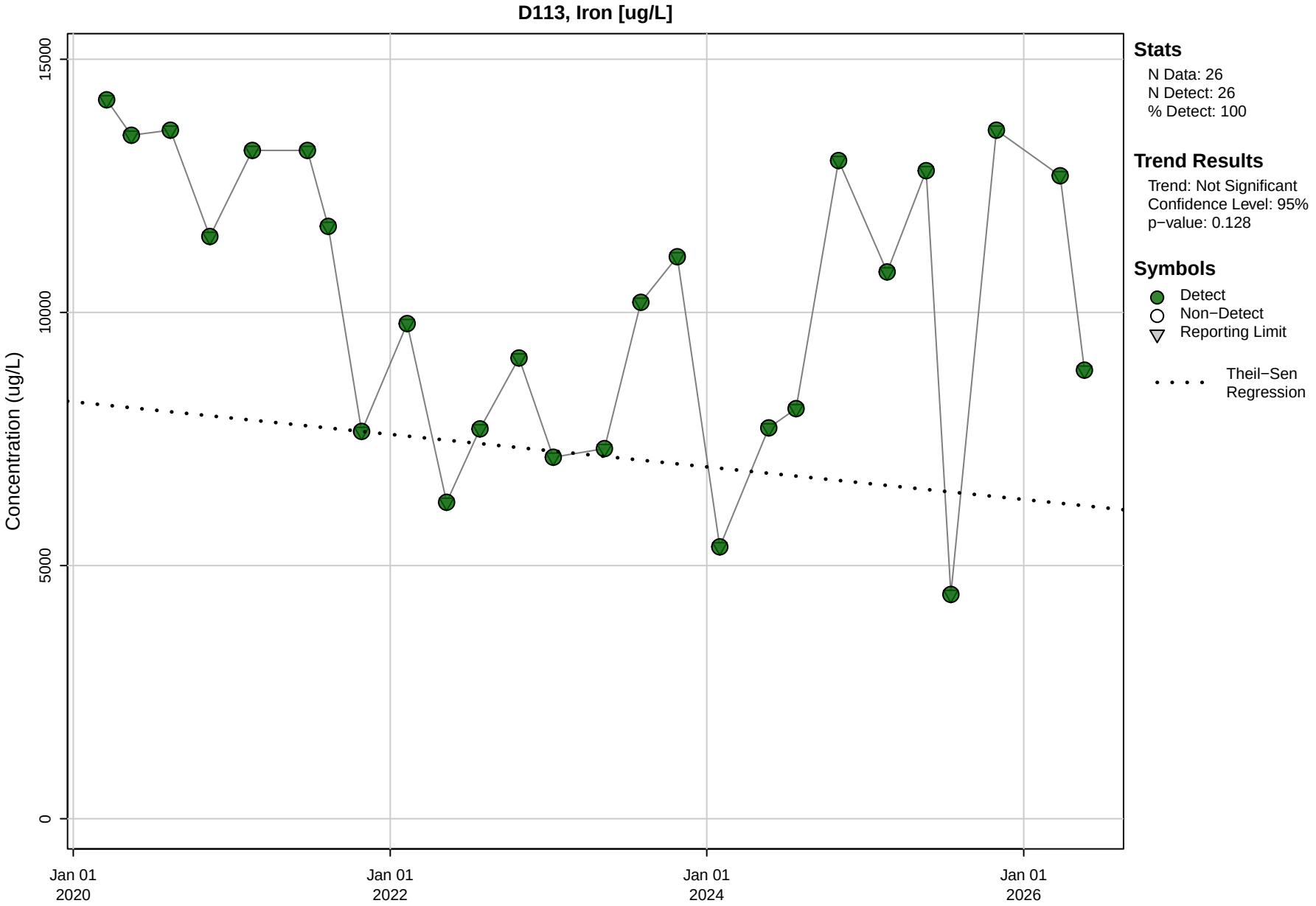

D110, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
2000
4000
6000
8000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.851
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

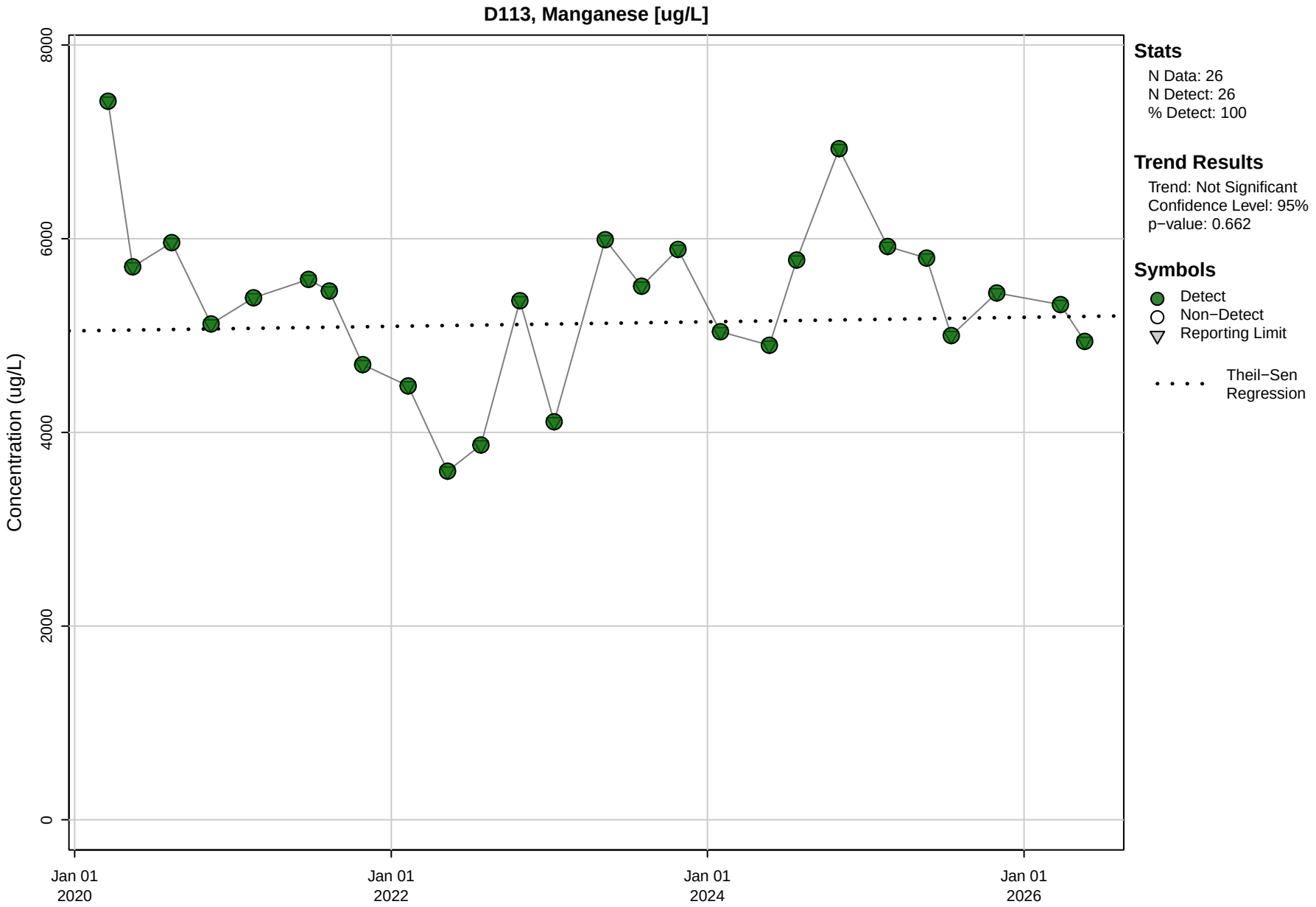

D113, Boron [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
2500
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.201
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

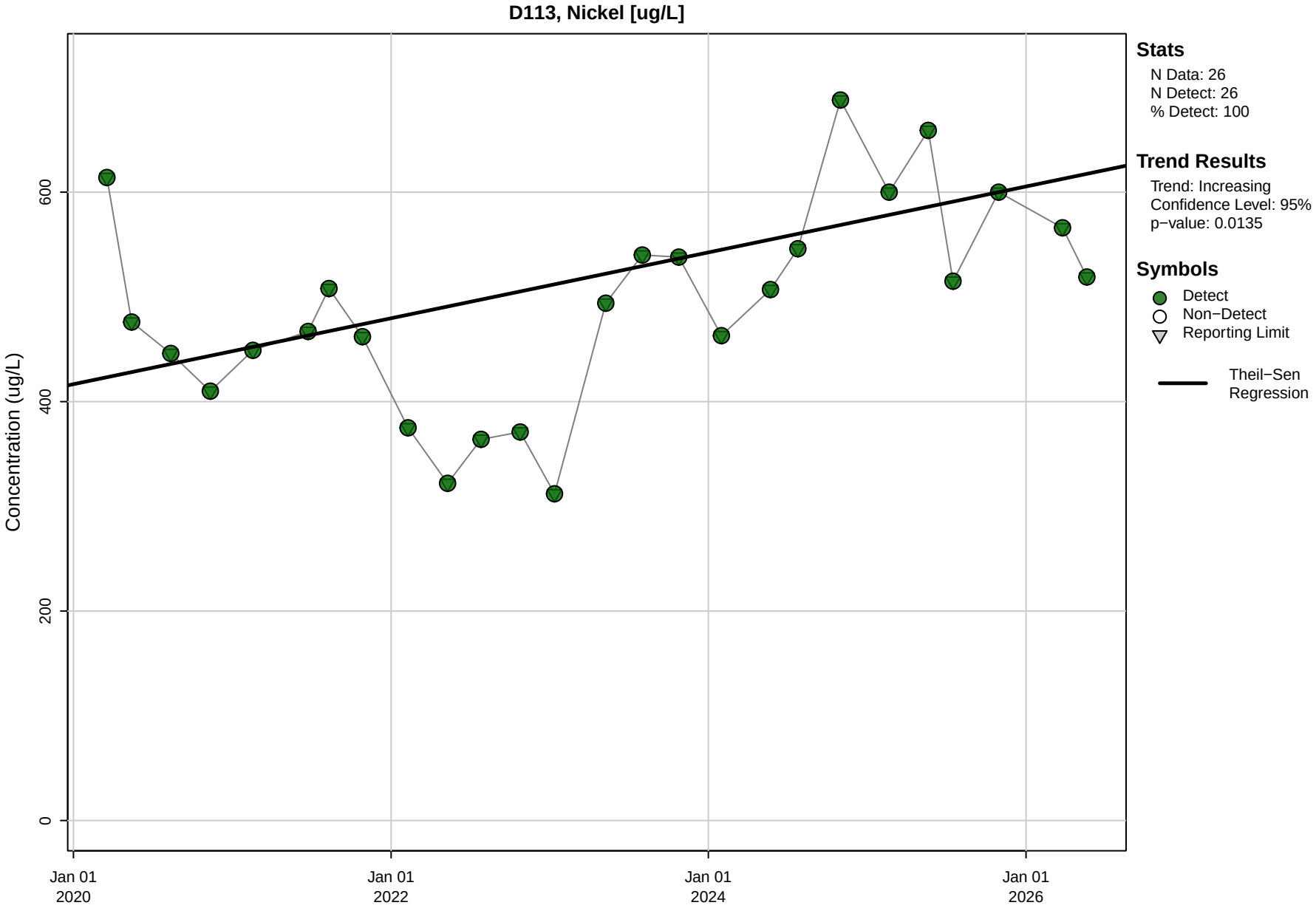

D113, Chloride [mg/L]
Concentration (mg/L)
0
100
200
300
400
500
600
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.737
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

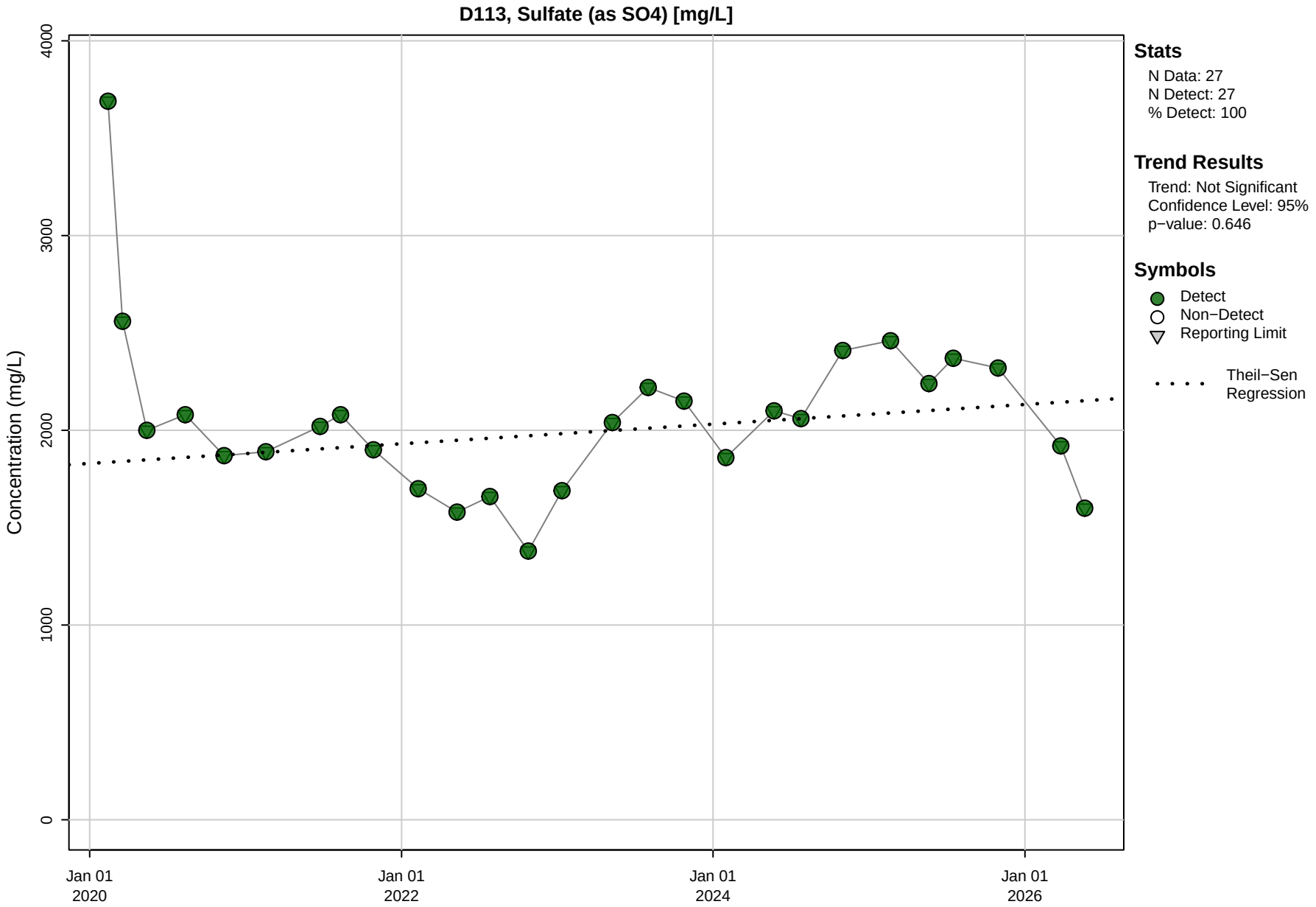

D113, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
2000
4000
6000
8000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.707
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

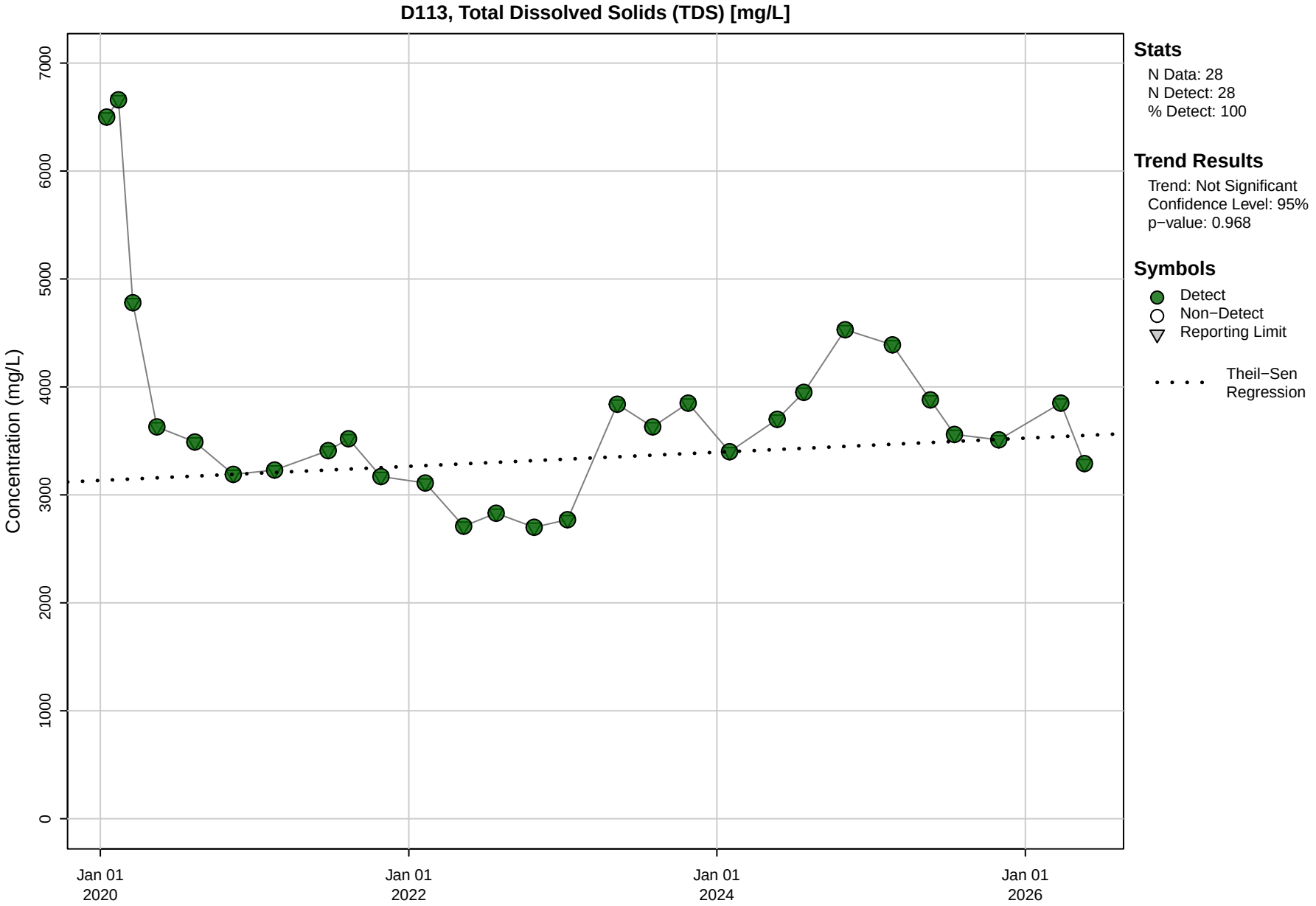

D113, Iron (Total) [ug/L]
Concentration (ug/L)
30000
25000
20000
15000
10000
5000
0
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.228
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

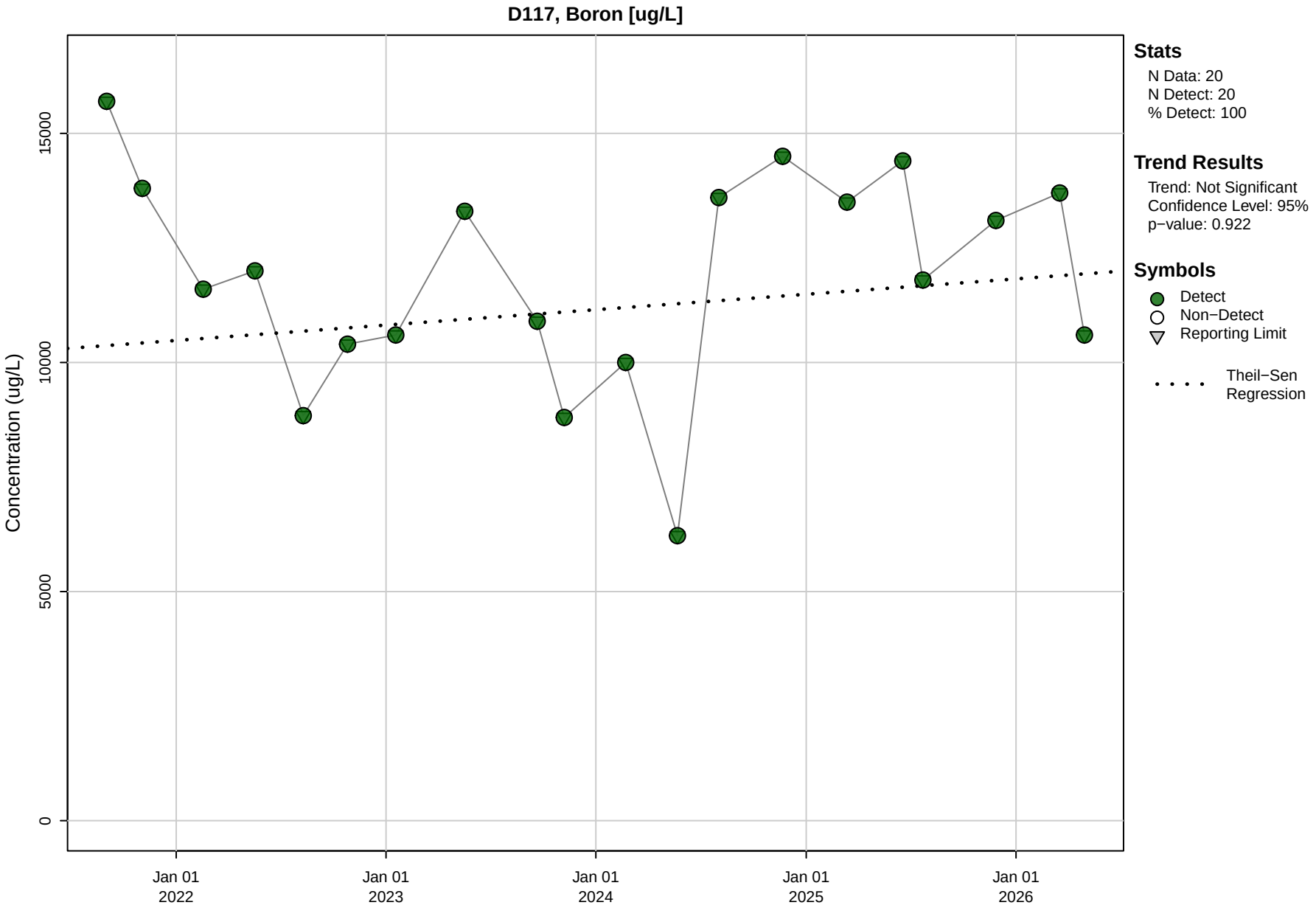

D113, Iron [ug/L]
Concentration (ug/L)
15000
10000
5000
0
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.128
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

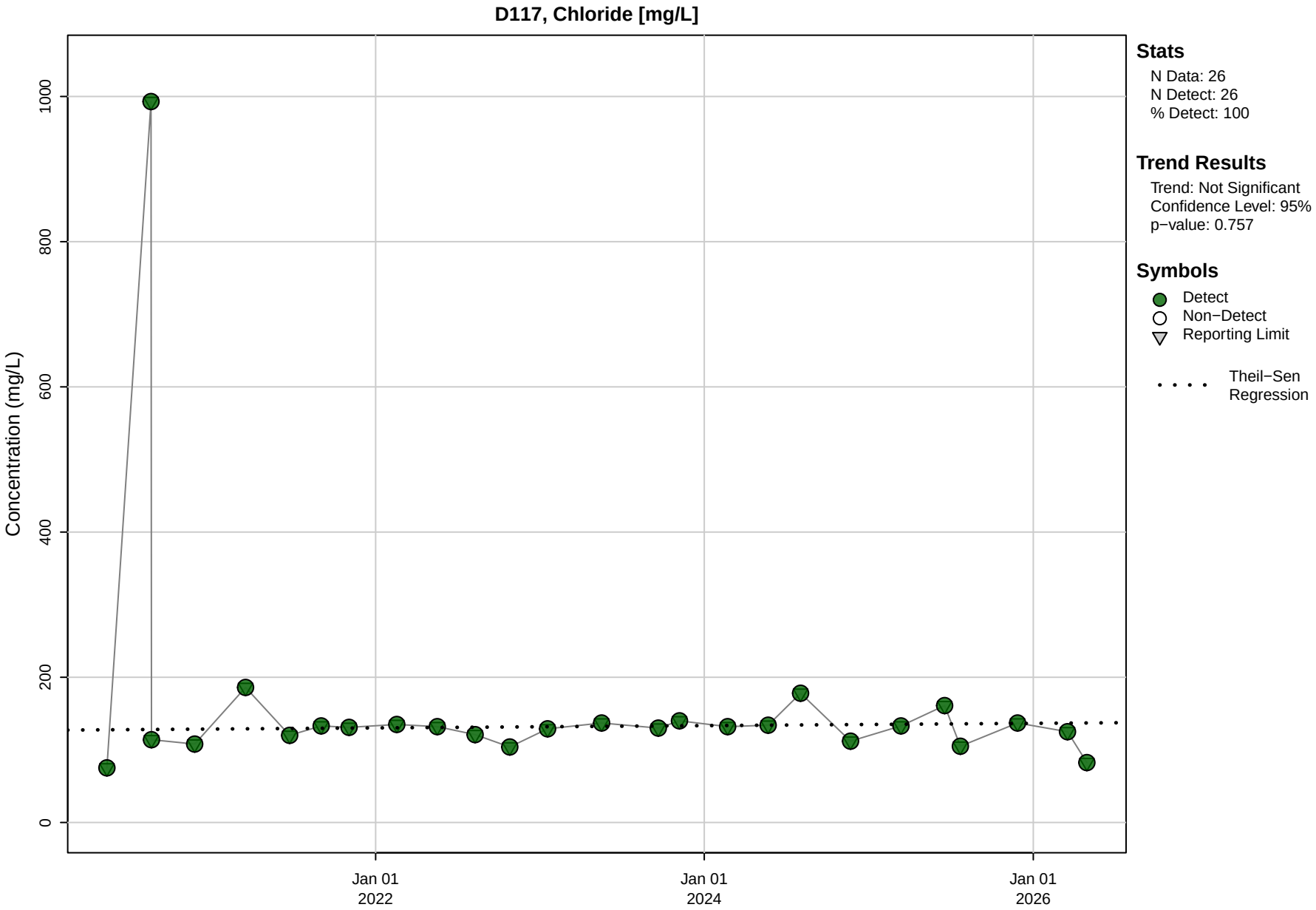

D113, Manganese [ug/L]
Concentration (ug/L)
8000
6000
4000
2000
0
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.662
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

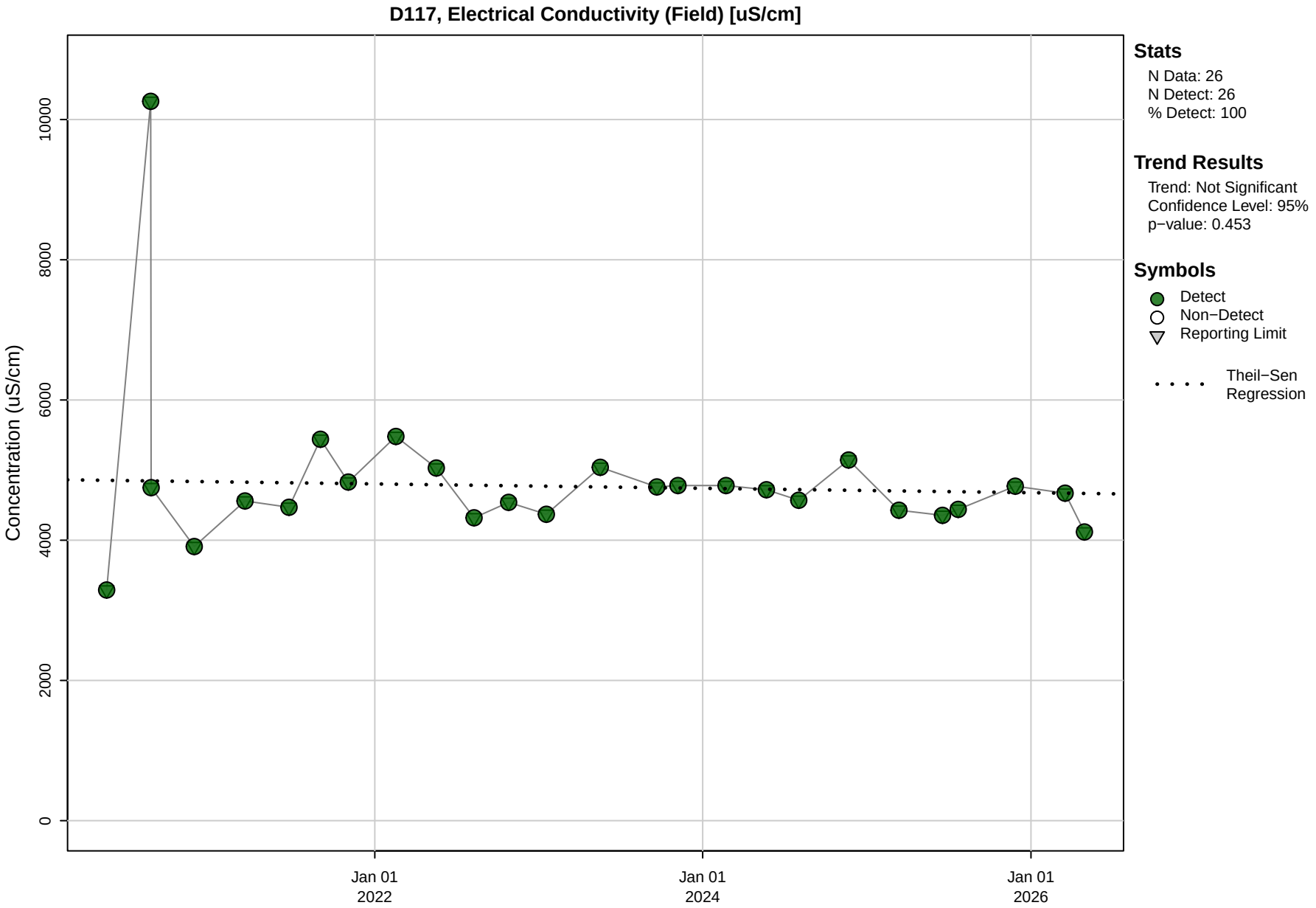

D113, Nickel [ug/L]
Concentration (ug/L)
0
200
400
600
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.0135
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

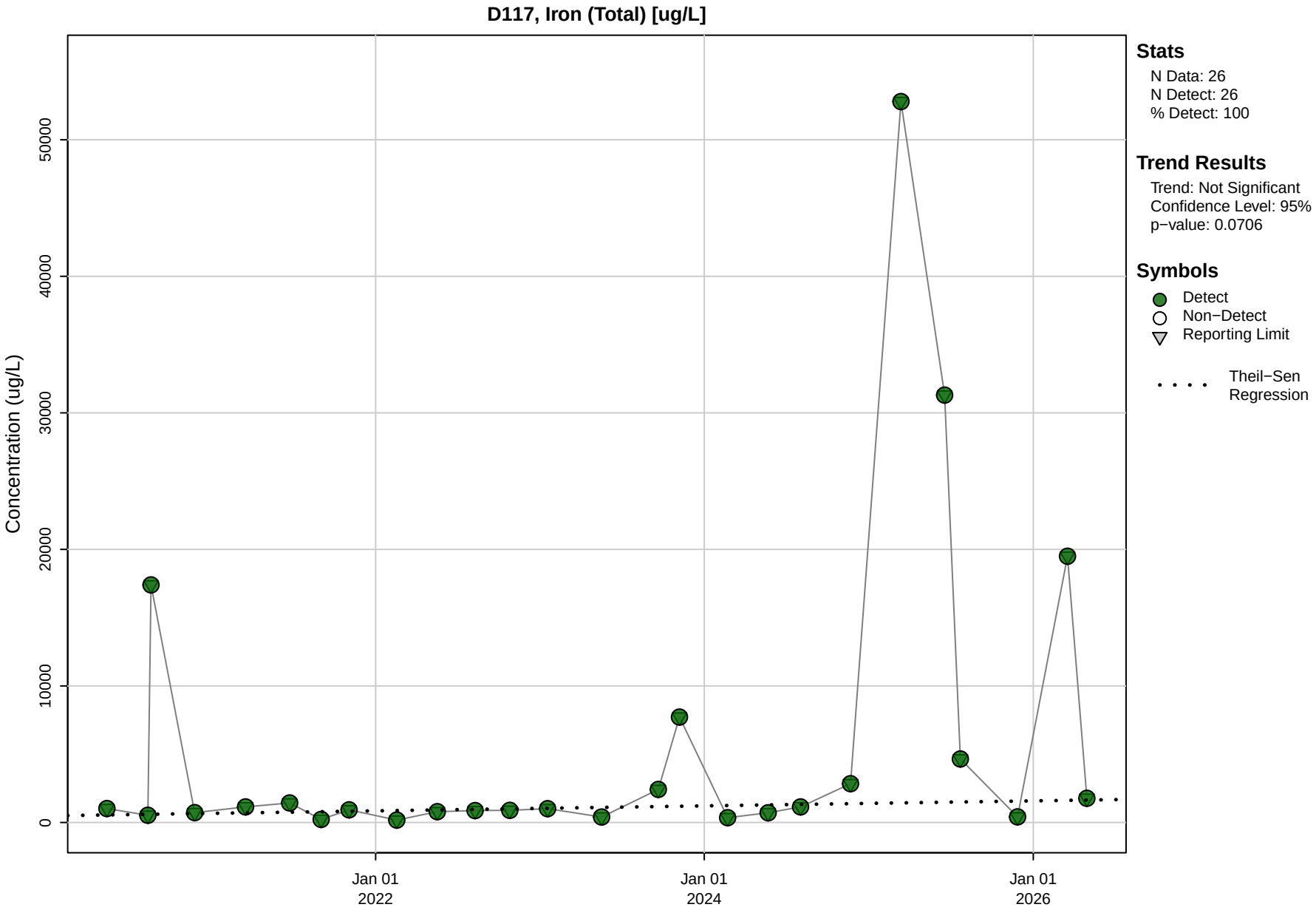

D113, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
4000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.646
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

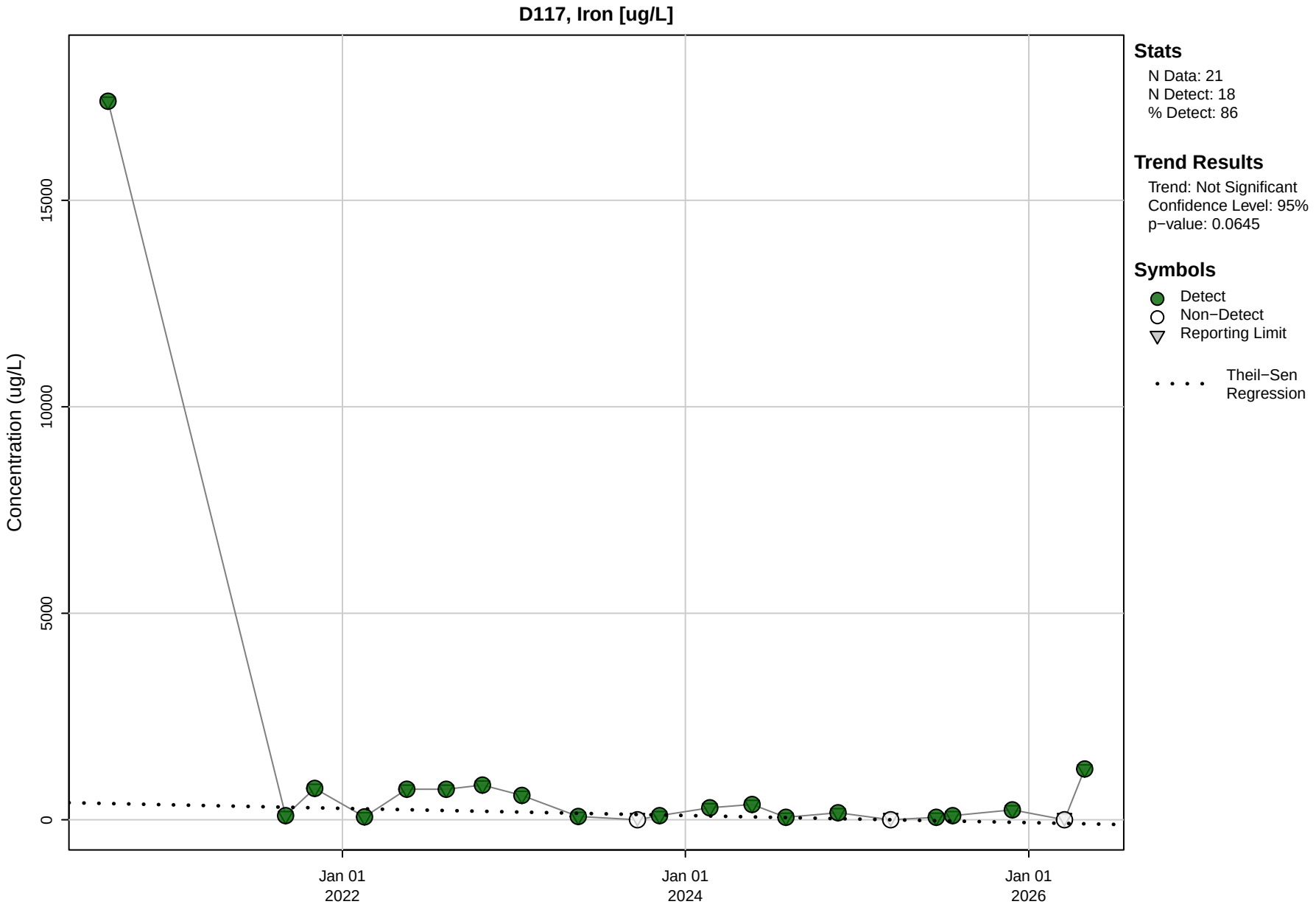

D113, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
4000
5000
6000
7000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.968
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

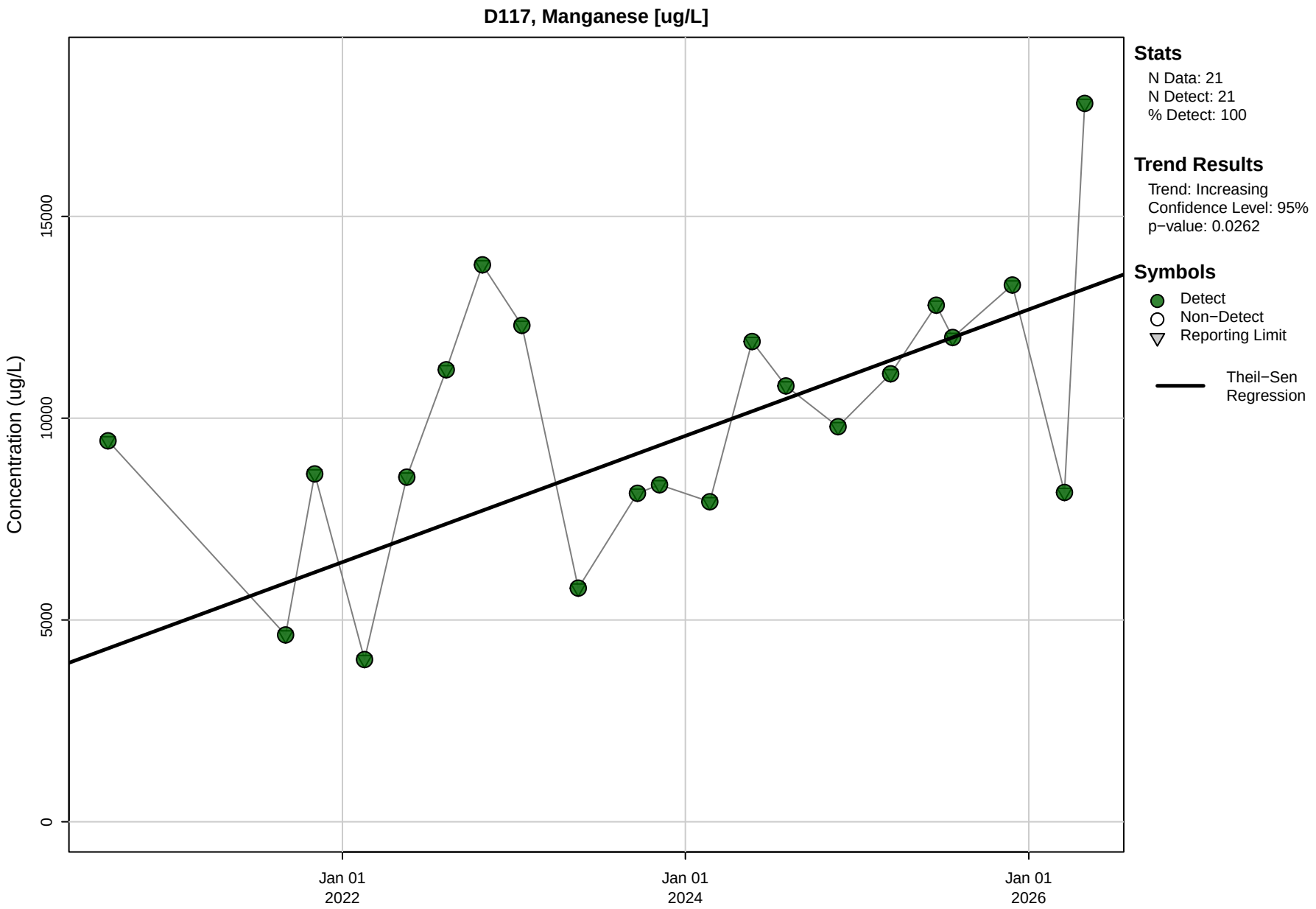

D117, Boron [ug/L]
Concentration (ug/L)
0
5000
10000
15000
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 20
N Detect: 20
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.922
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

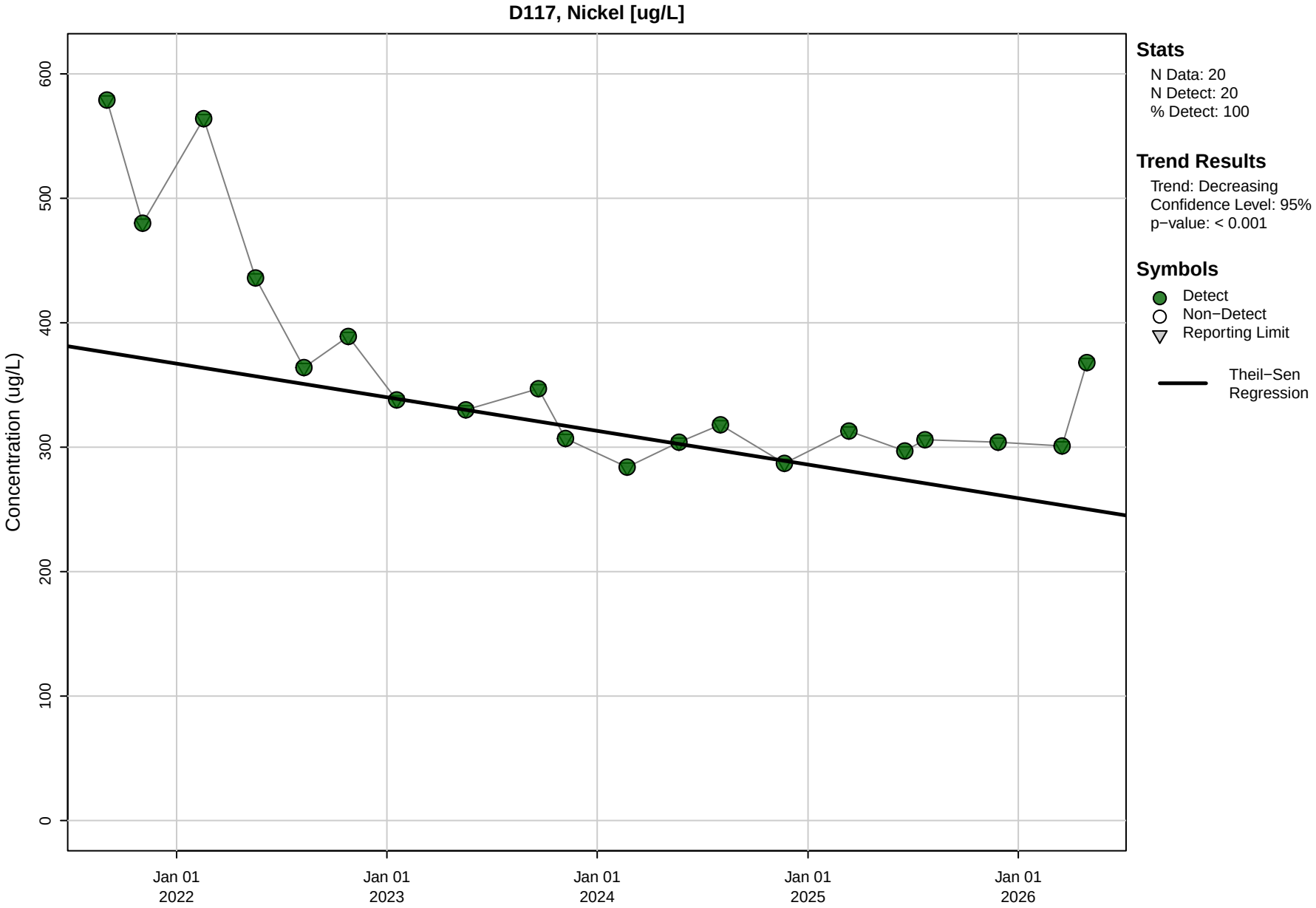

D117, Chloride [mg/L]
Concentration (mg/L)
0
200
400
600
800
1000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.757
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

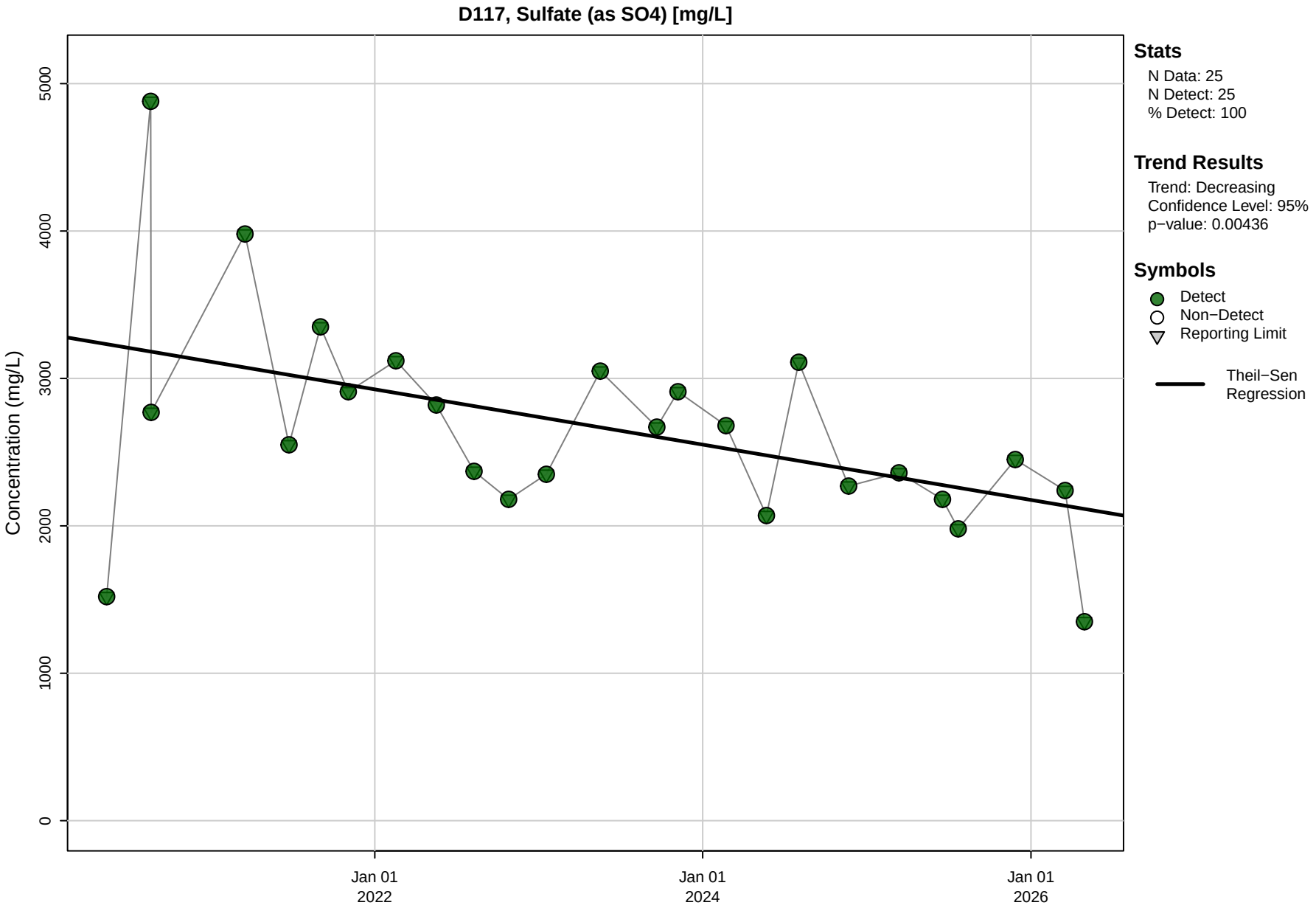

D117, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
2000
4000
6000
8000
10000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.453
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

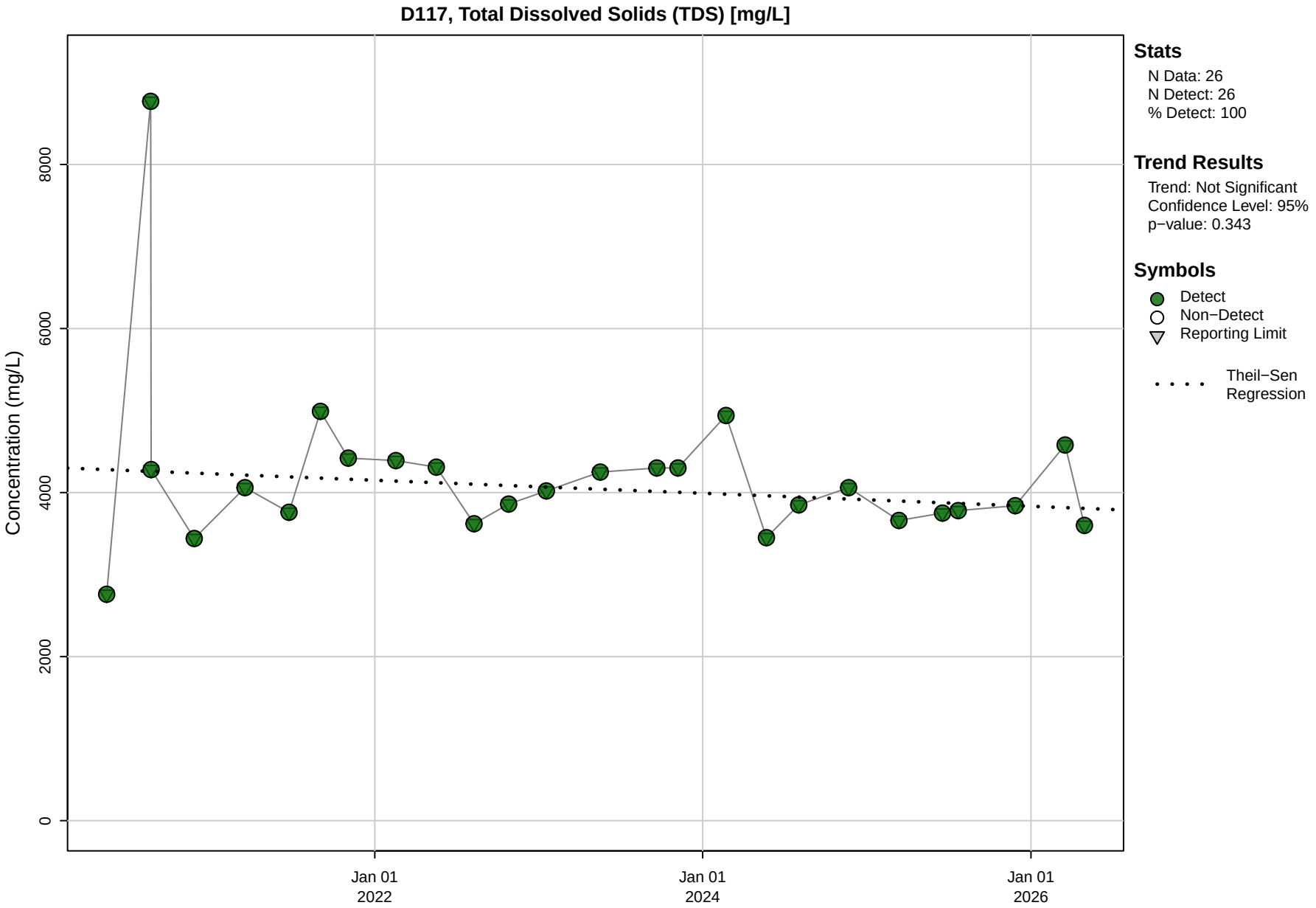

D117, Iron (Total) [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
50000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0706
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

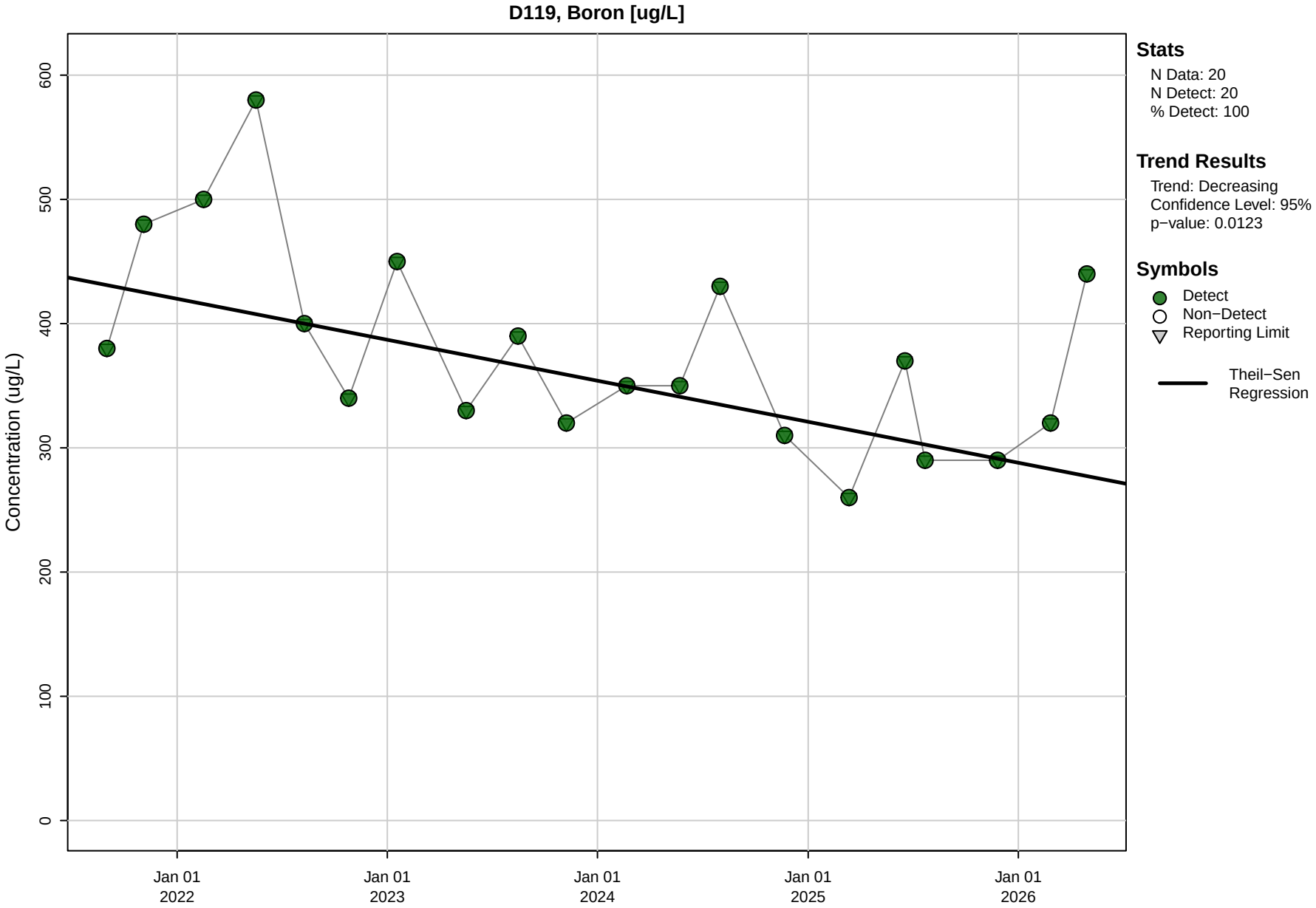

D117, Iron [ug/L]
Concentration (ug/L)
0
5000
10000
15000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 21
N Detect: 18
% Detect: 86
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0645
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

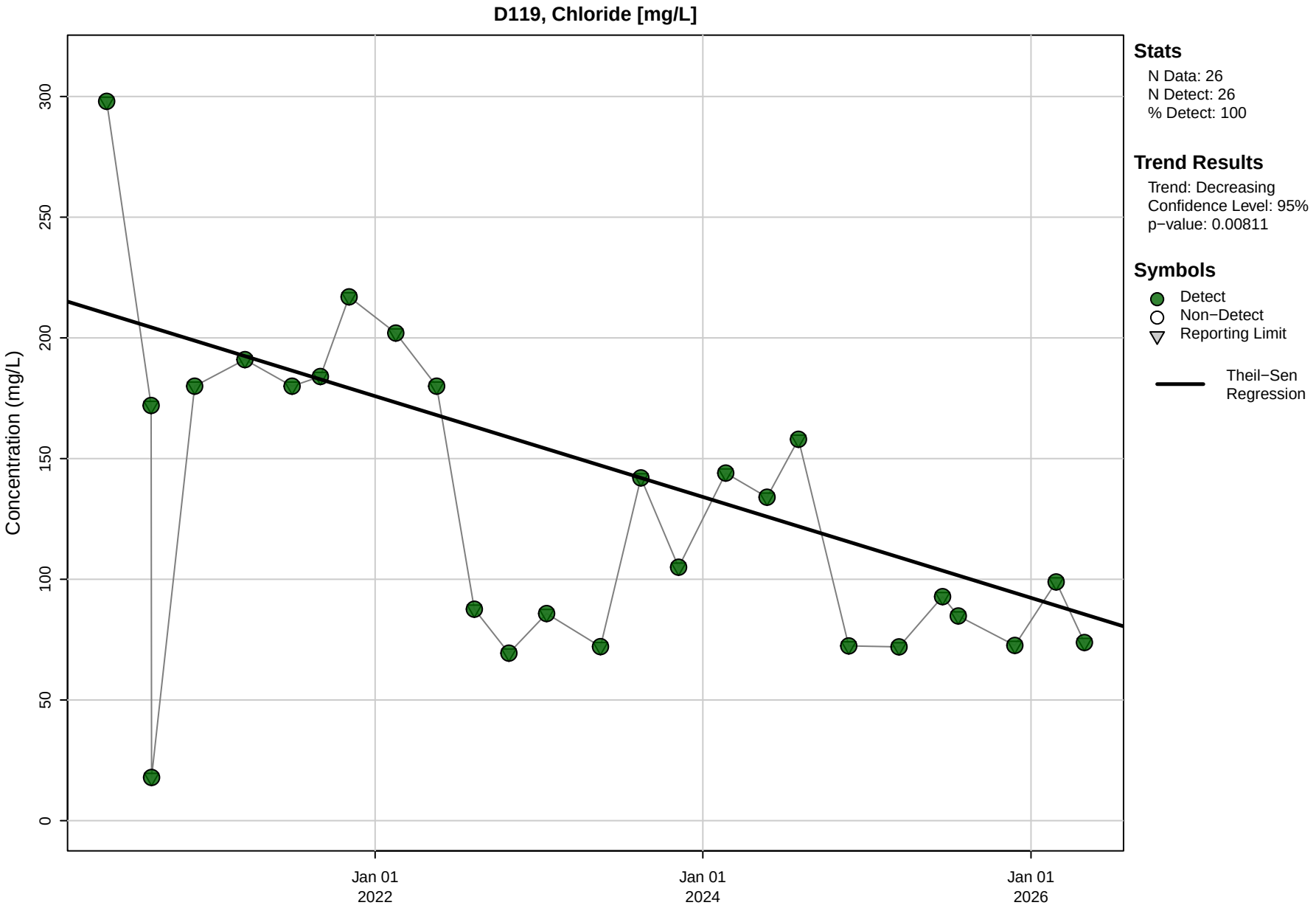

D117, Manganese [ug/L]
Concentration (ug/L)
0
5000
10000
15000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 21
N Detect: 21
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.0262
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

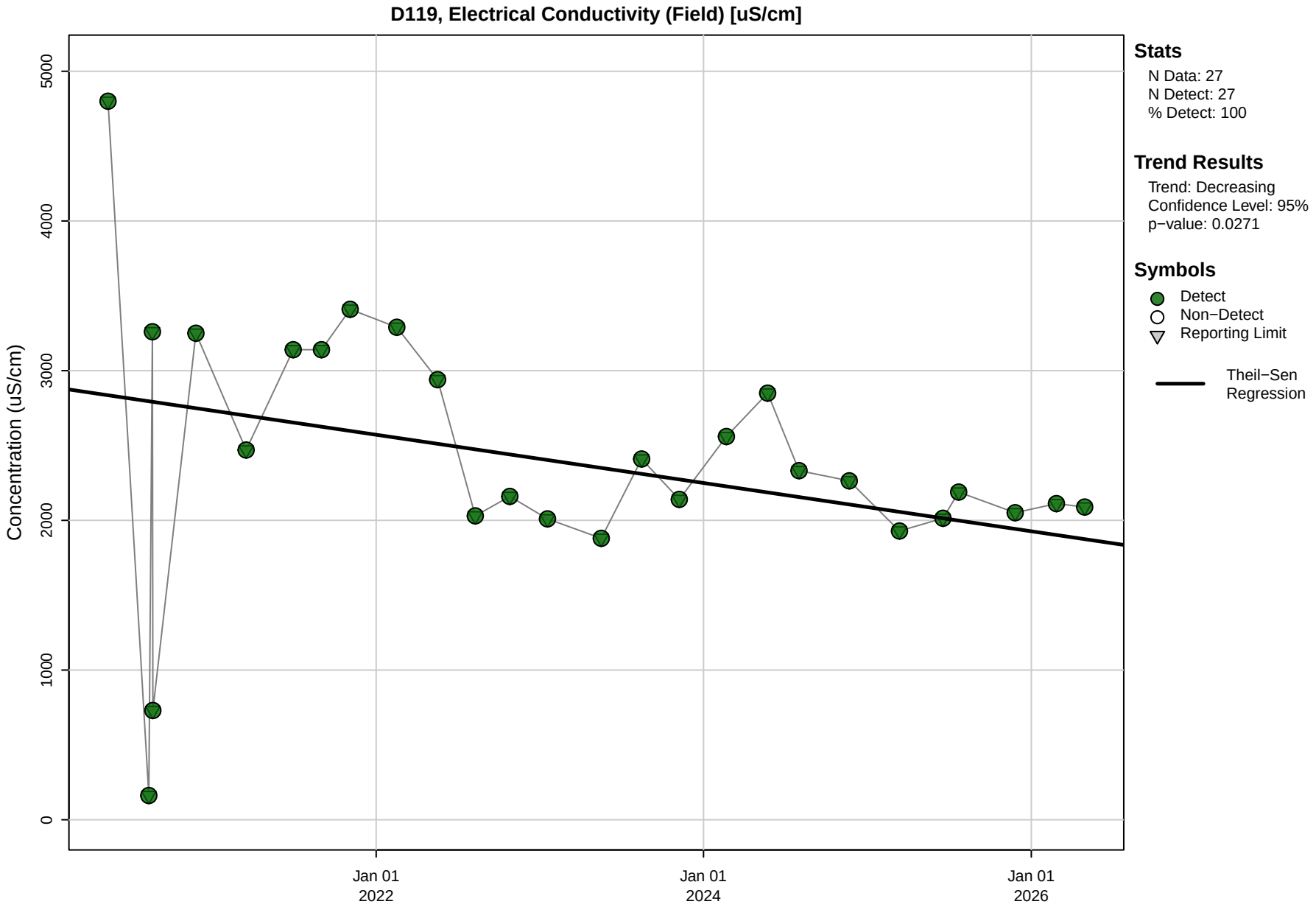

D117, Nickel [ug/L]
Concentration (ug/L)
0
100
200
300
400
500
600
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 20
N Detect: 20
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

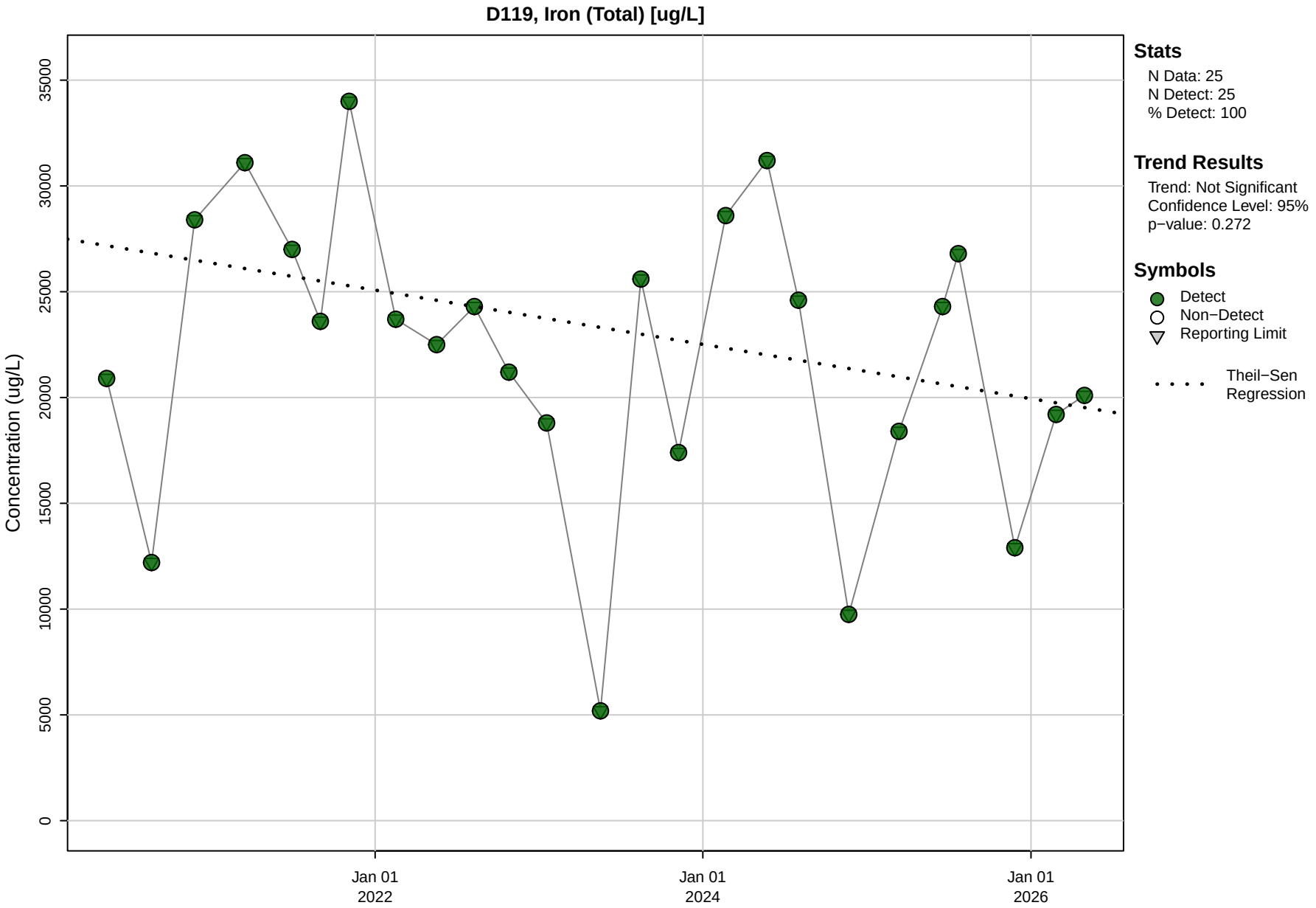

D117, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
4000
5000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 25
N Detect: 25
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00436
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

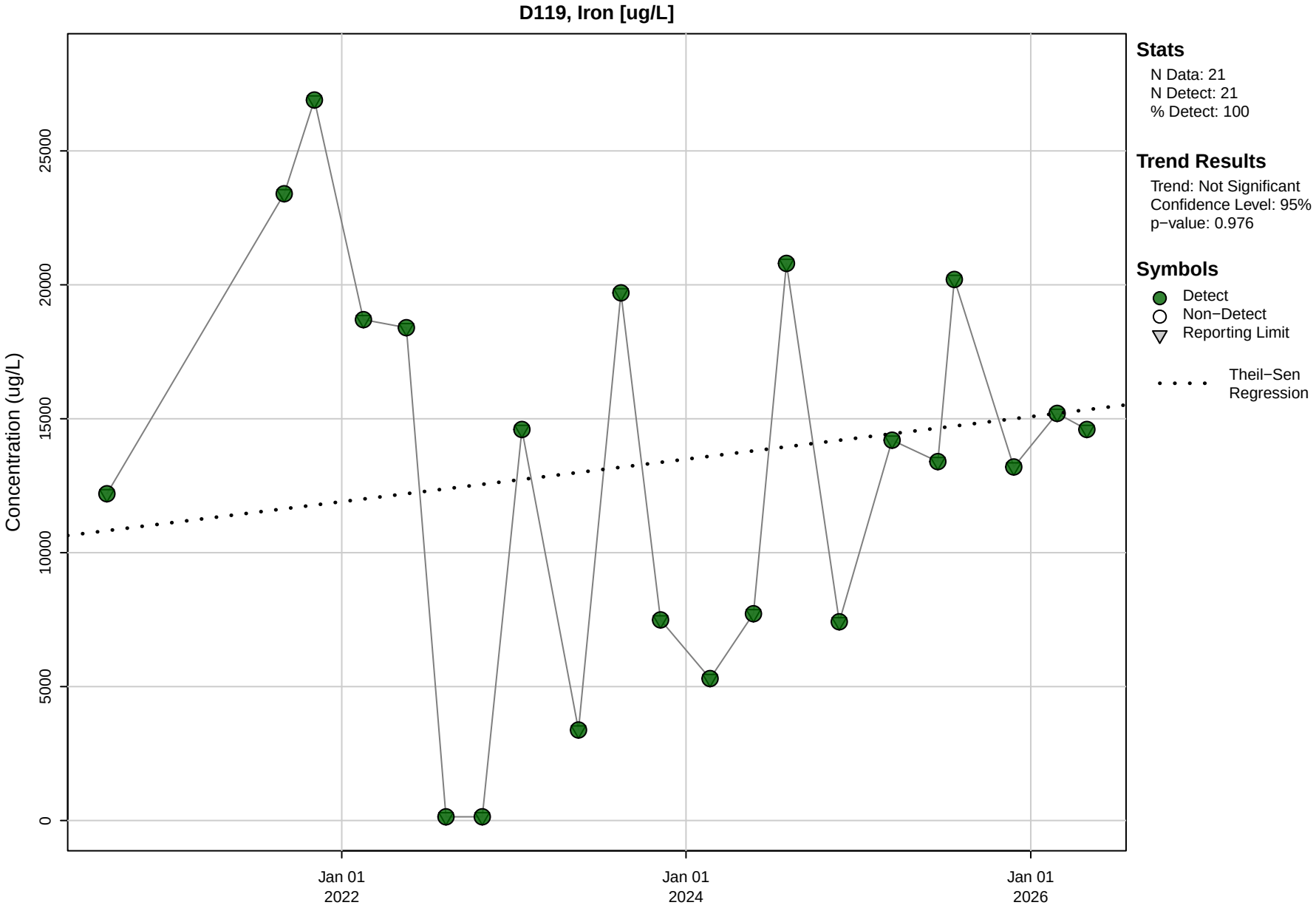

D117, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
2000
4000
6000
8000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.343
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

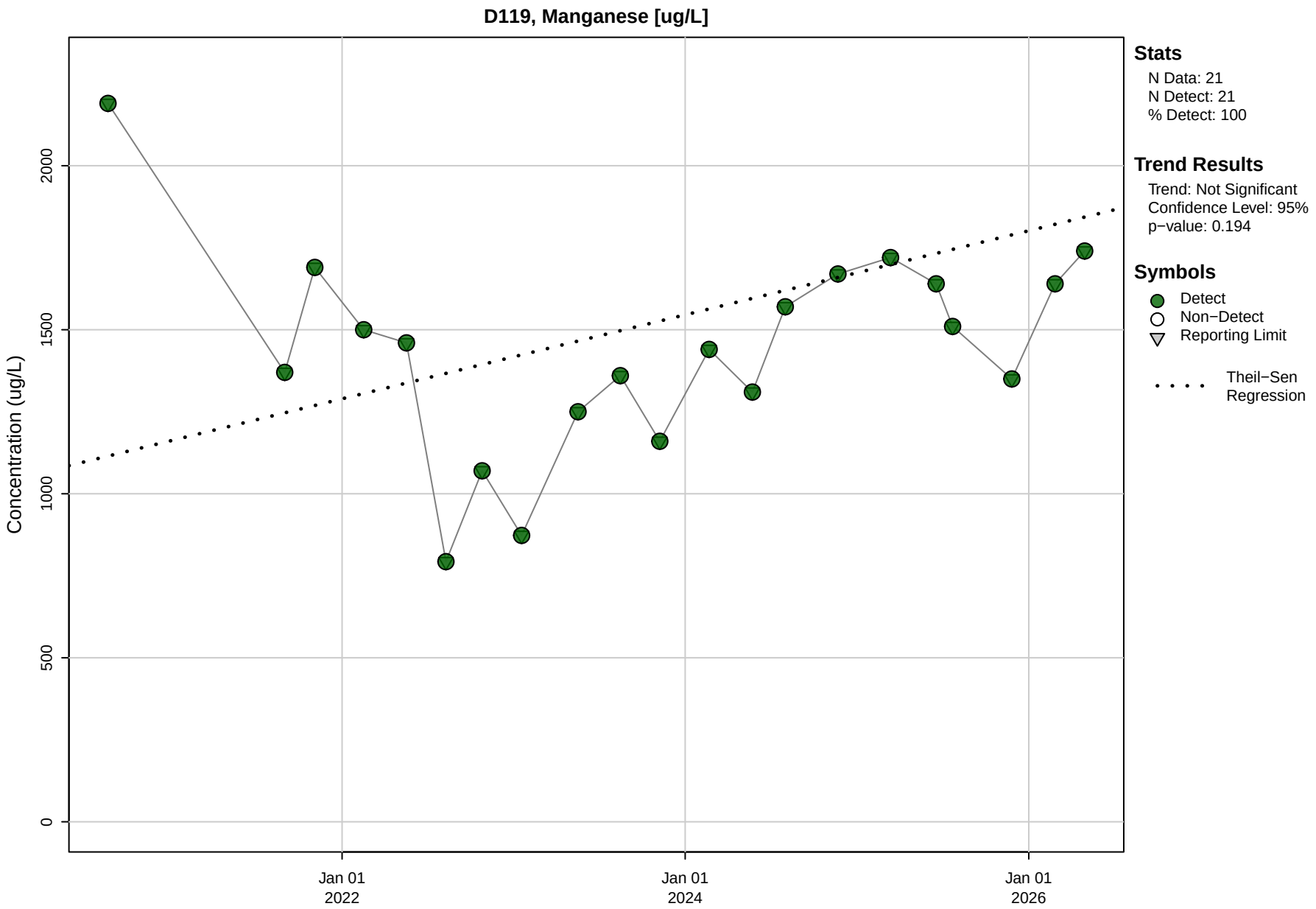

D119, Boron [ug/L]
Concentration (ug/L)
0
100
200
300
400
500
600
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 20
N Detect: 20
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0123
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

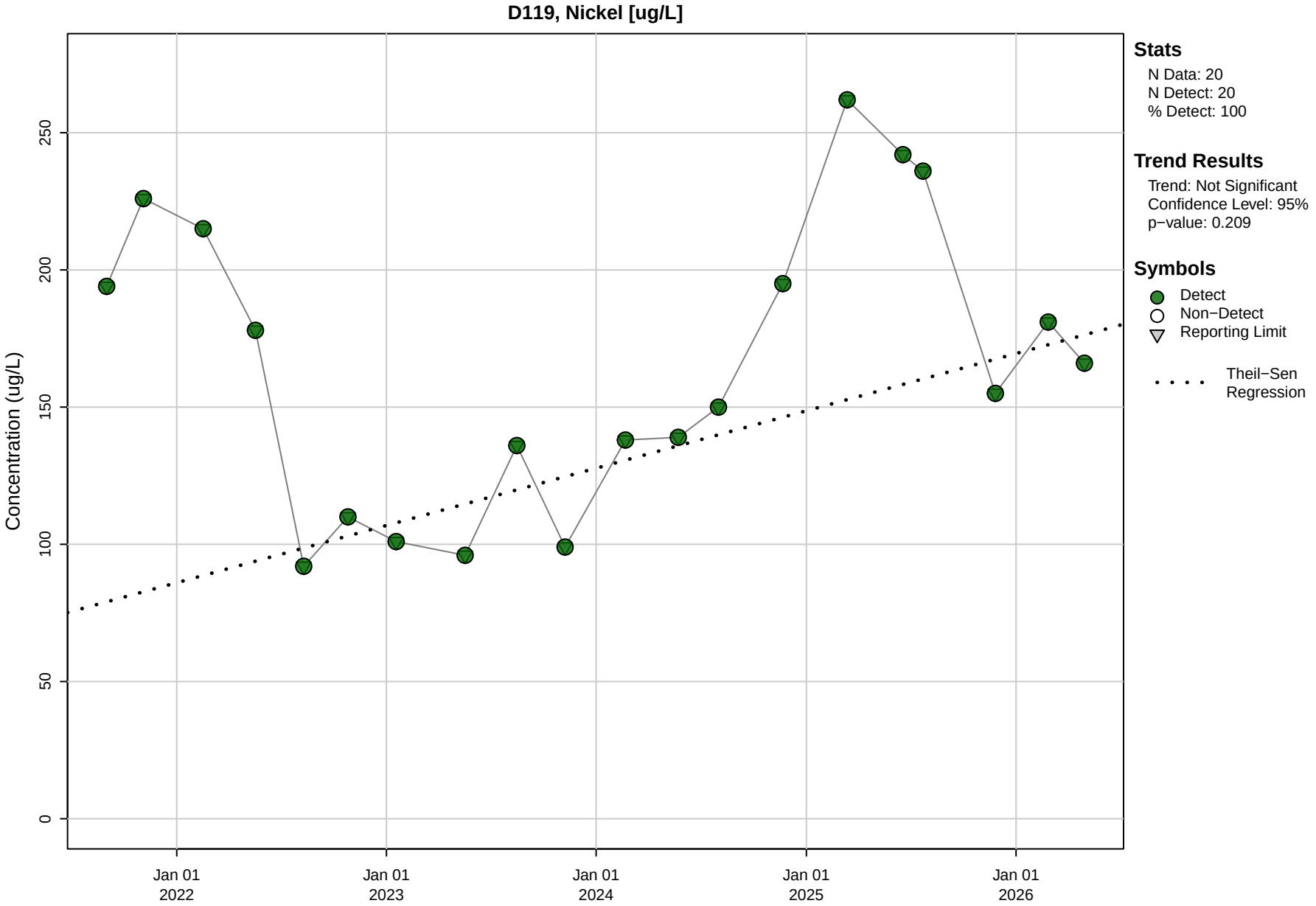

D119, Chloride [mg/L]
Concentration (mg/L)
0
50
100
150
200
250
300
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 26
N Detect: 26
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00811
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

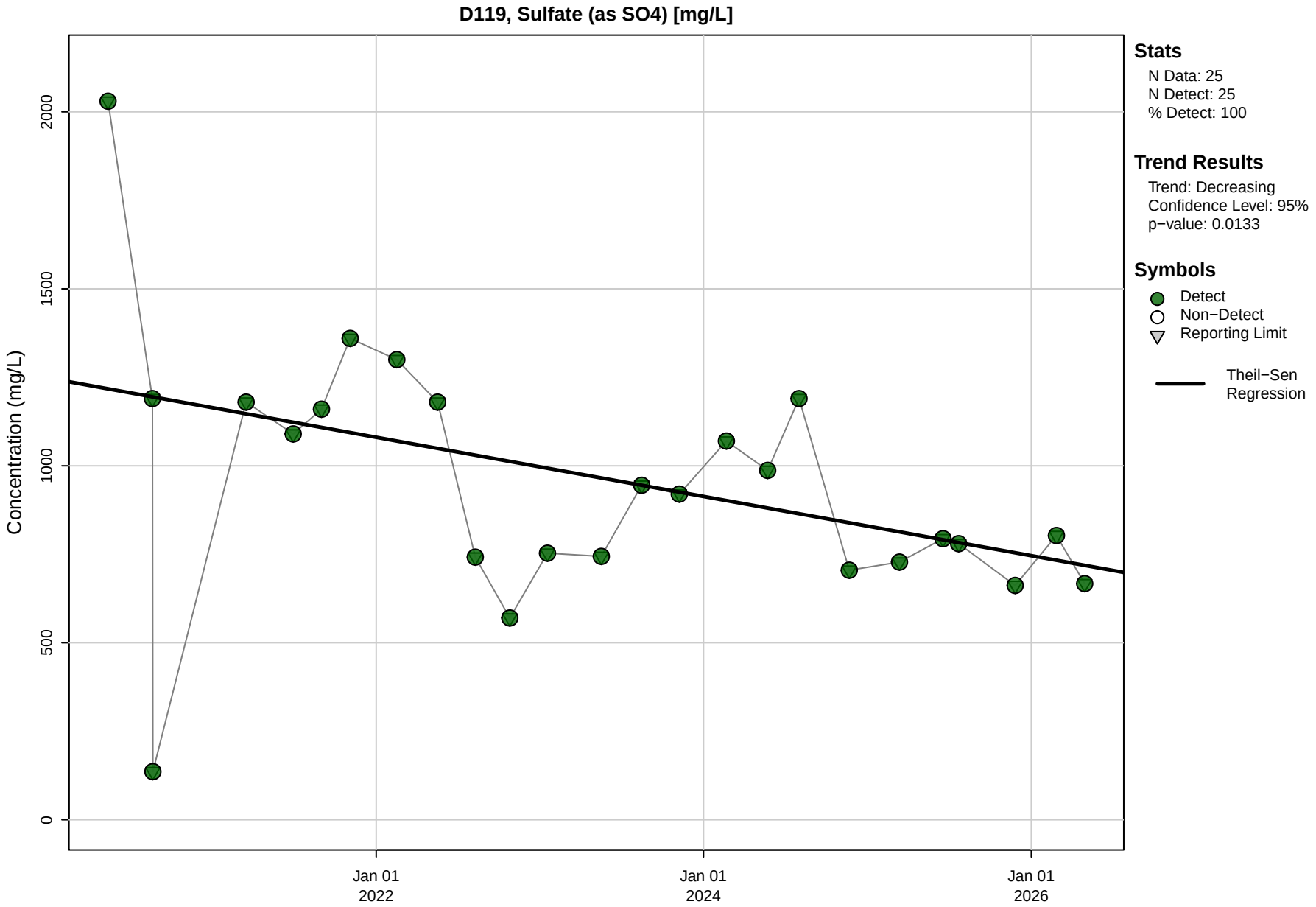

D119, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
1000
2000
3000
4000
5000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0271
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

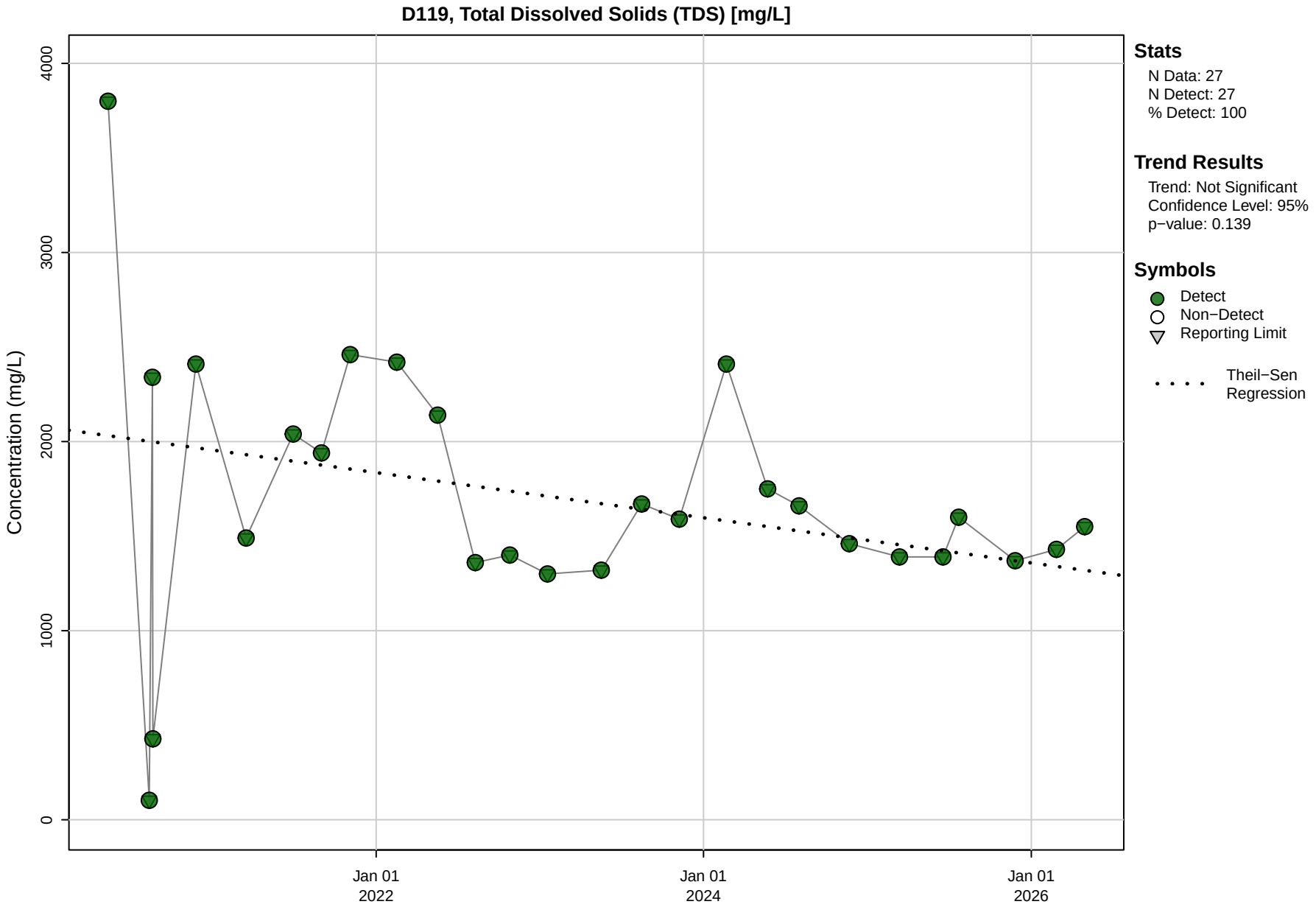

D119, Iron (Total) [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
25000
30000
35000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 25
N Detect: 25
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.272
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

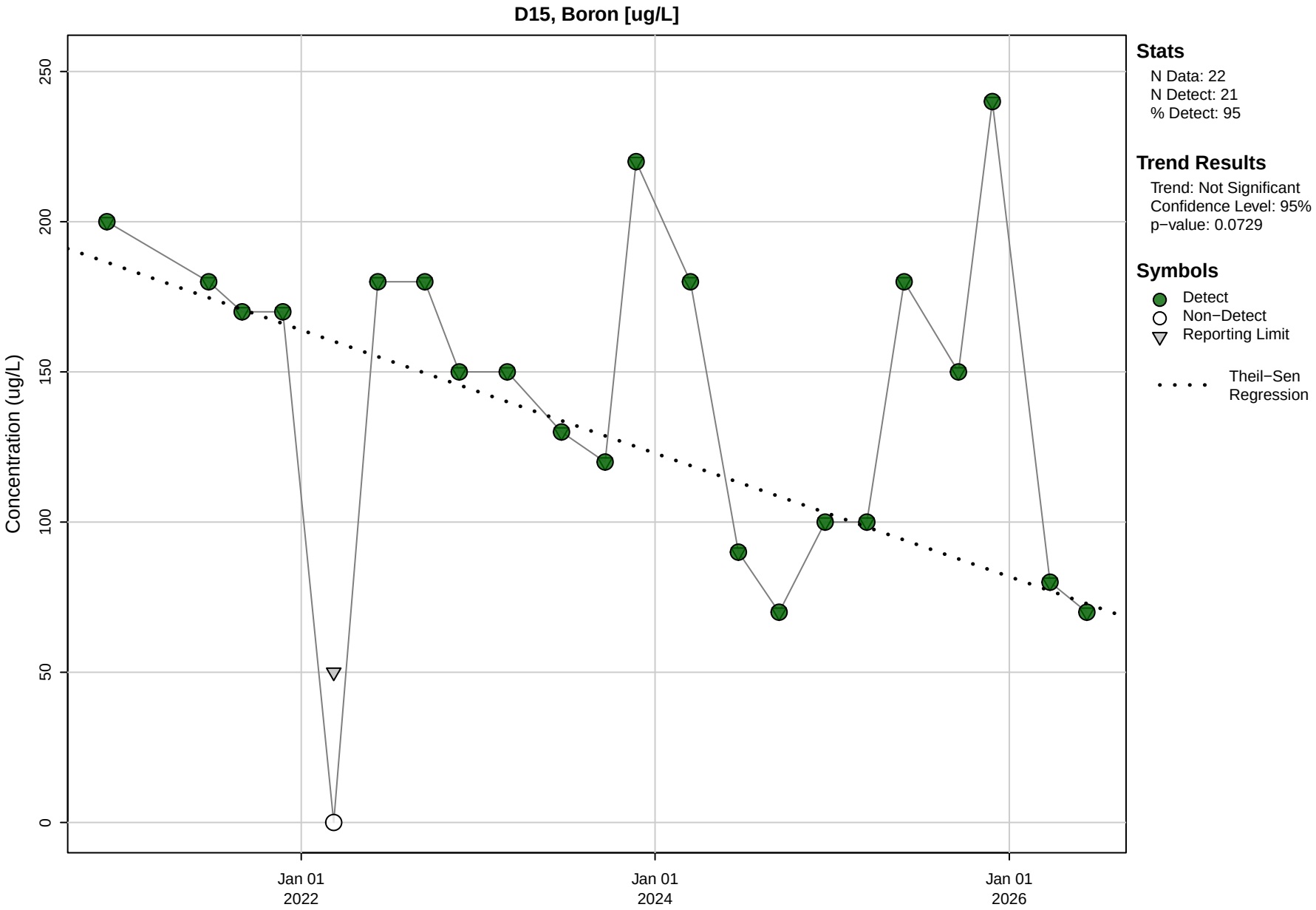

D119, Iron [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
25000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 21
N Detect: 21
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.976
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

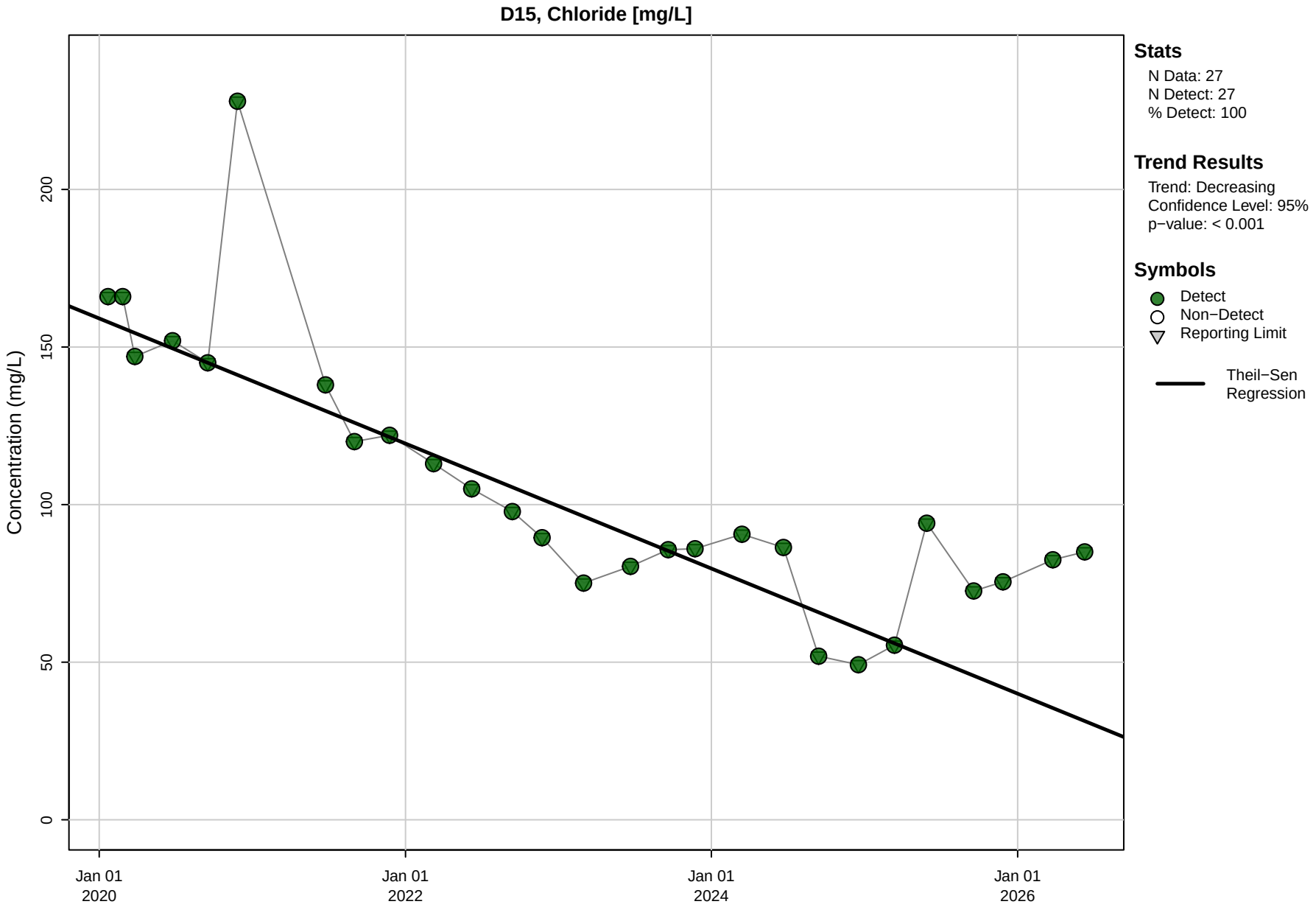

D119, Manganese [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 21
N Detect: 21
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.194
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

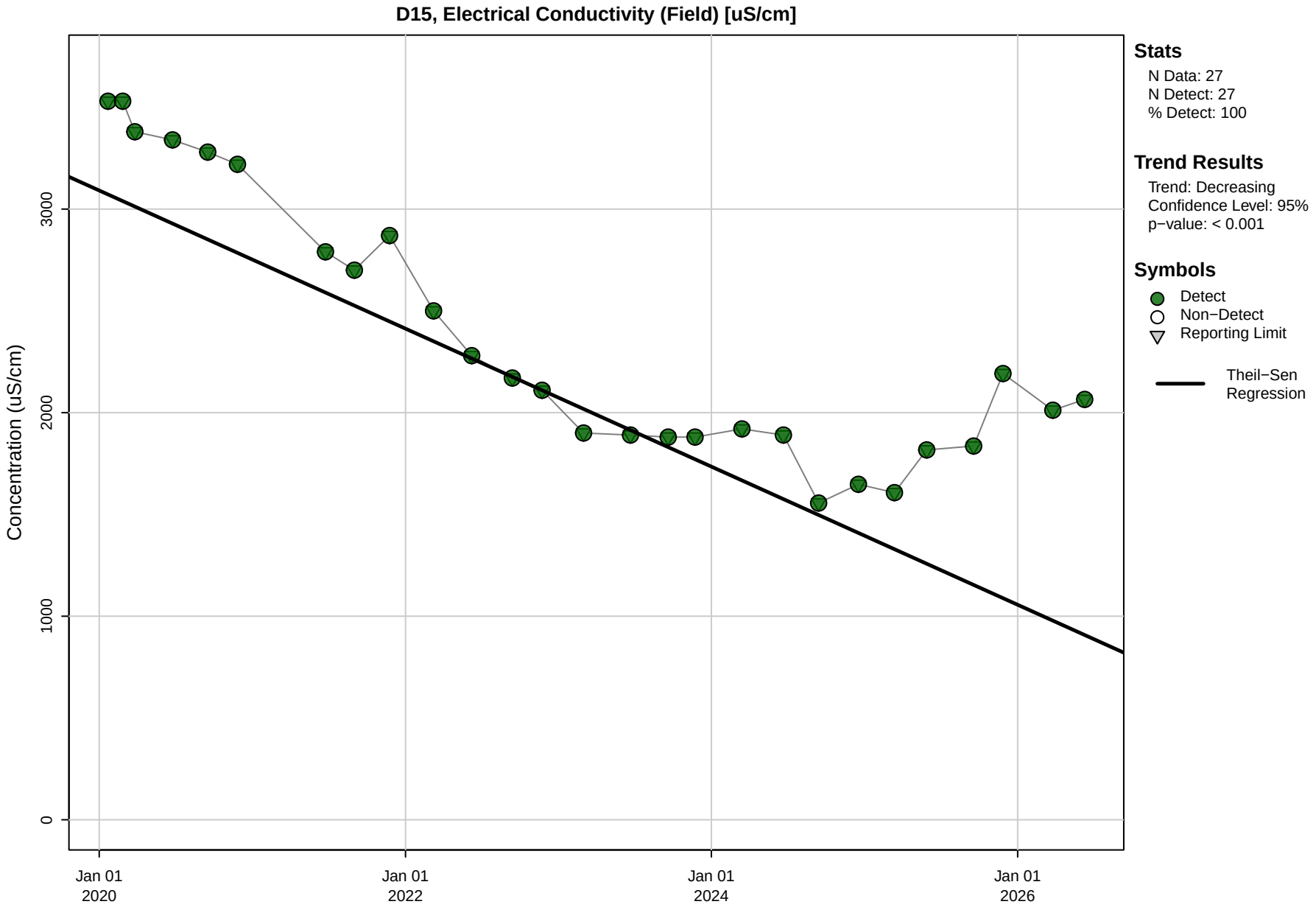

D119, Nickel [ug/L]
Concentration (ug/L)
0
50
100
150
200
250
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 20
N Detect: 20
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.209
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

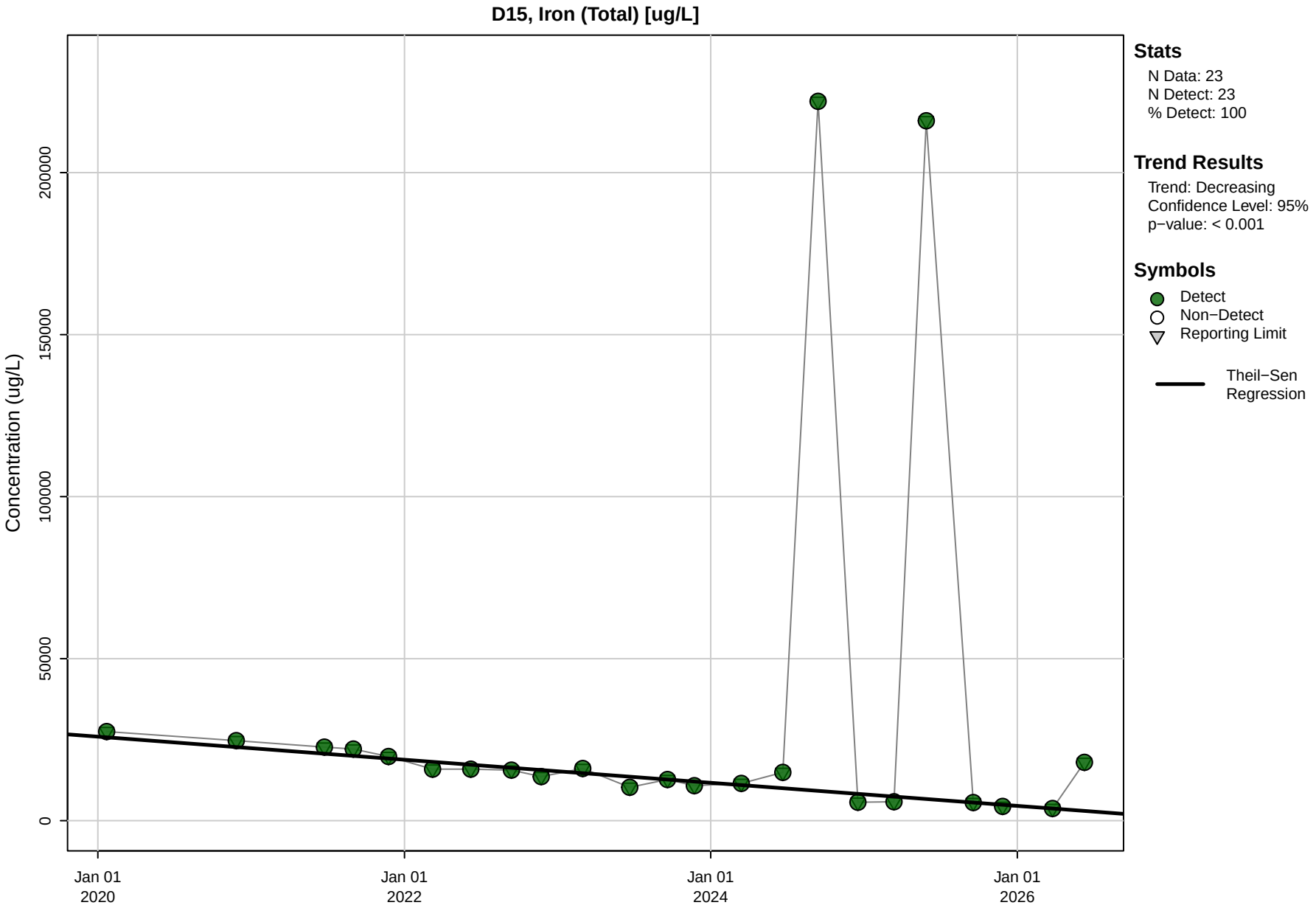

D119, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
500
1000
1500
2000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 25
N Detect: 25
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0133
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

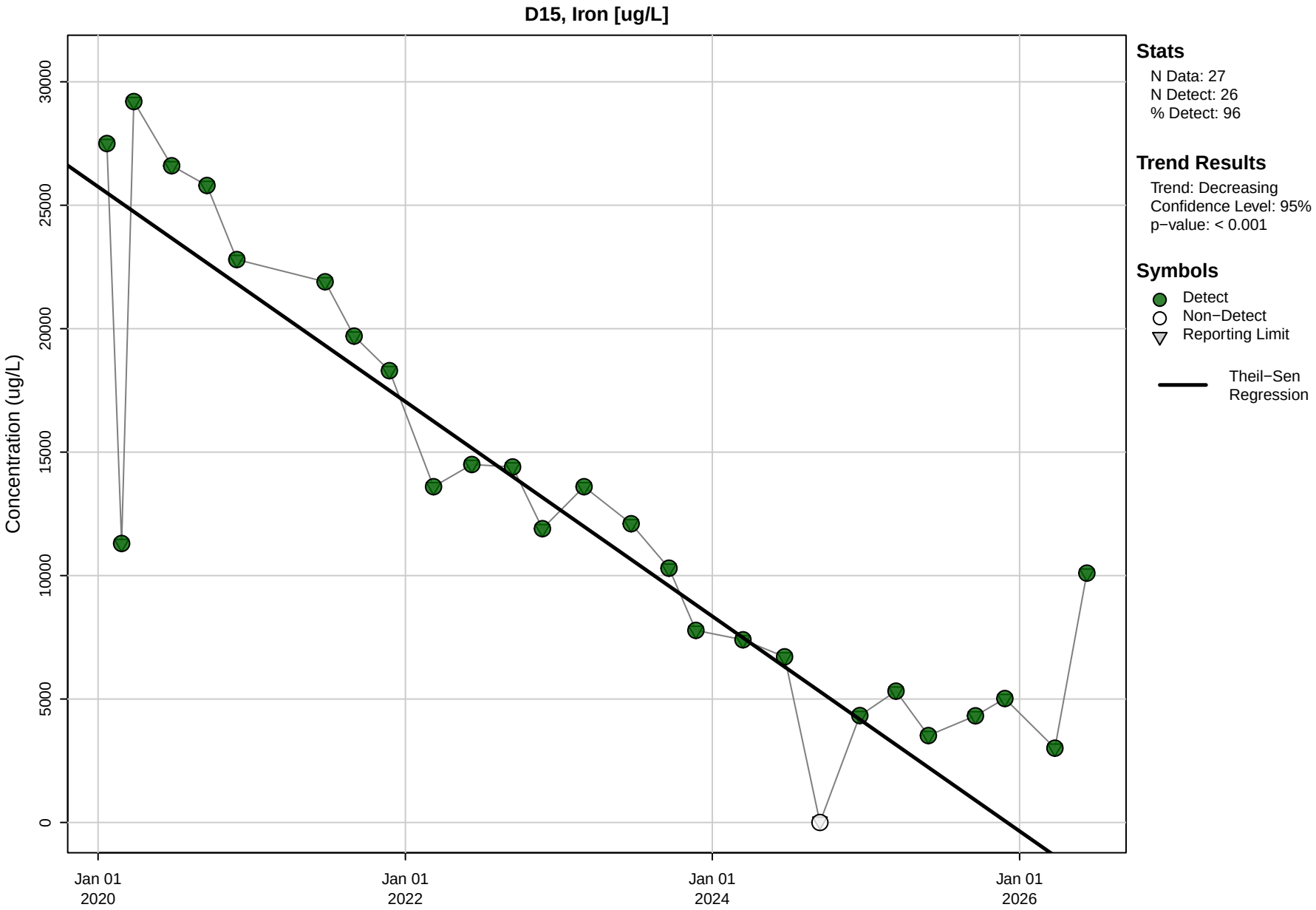

D119, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
4000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.139
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

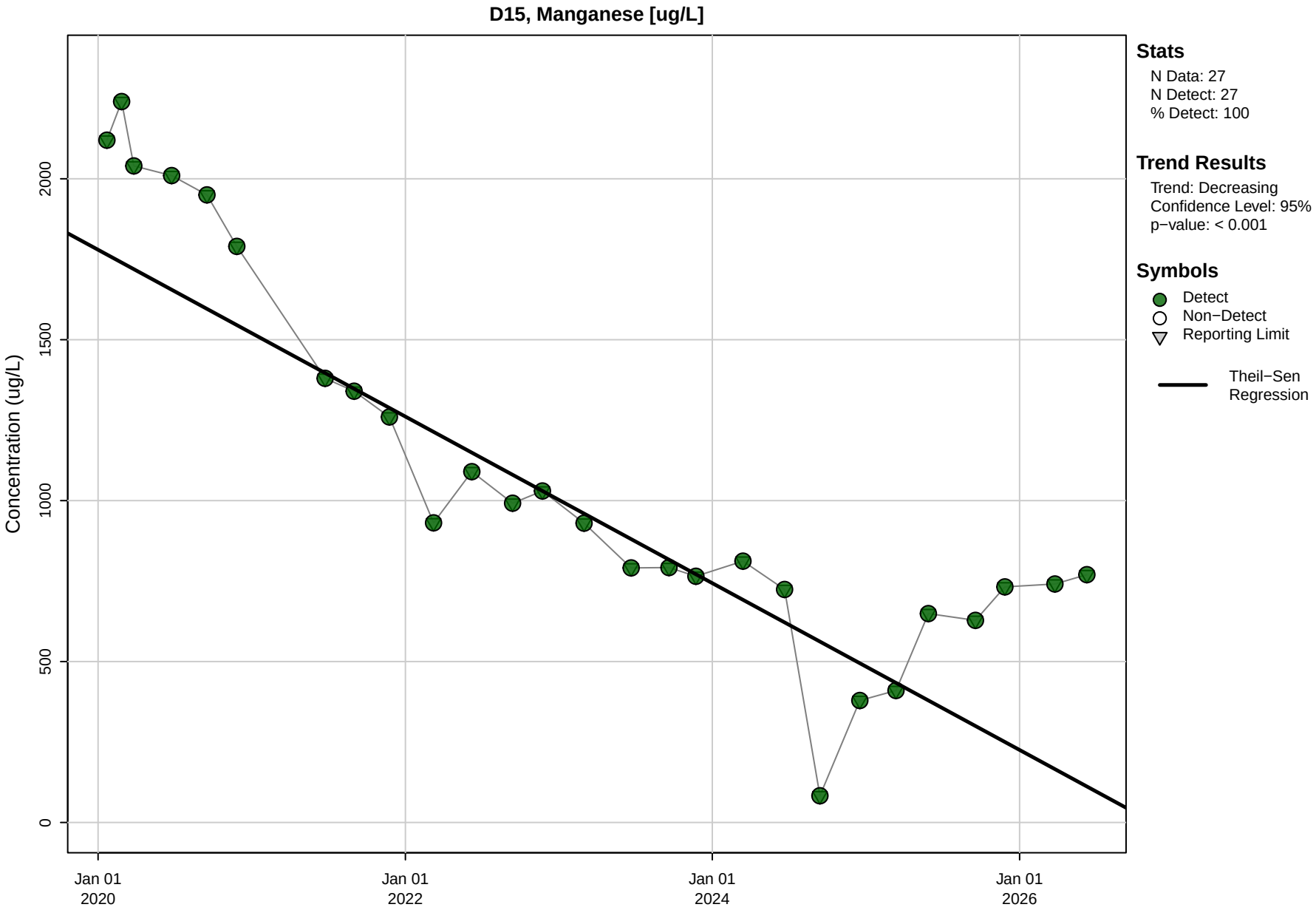

D15, Boron [ug/L]
Concentration (ug/L)
0
50
100
150
200
250
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 22
N Detect: 21
% Detect: 95
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0729
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

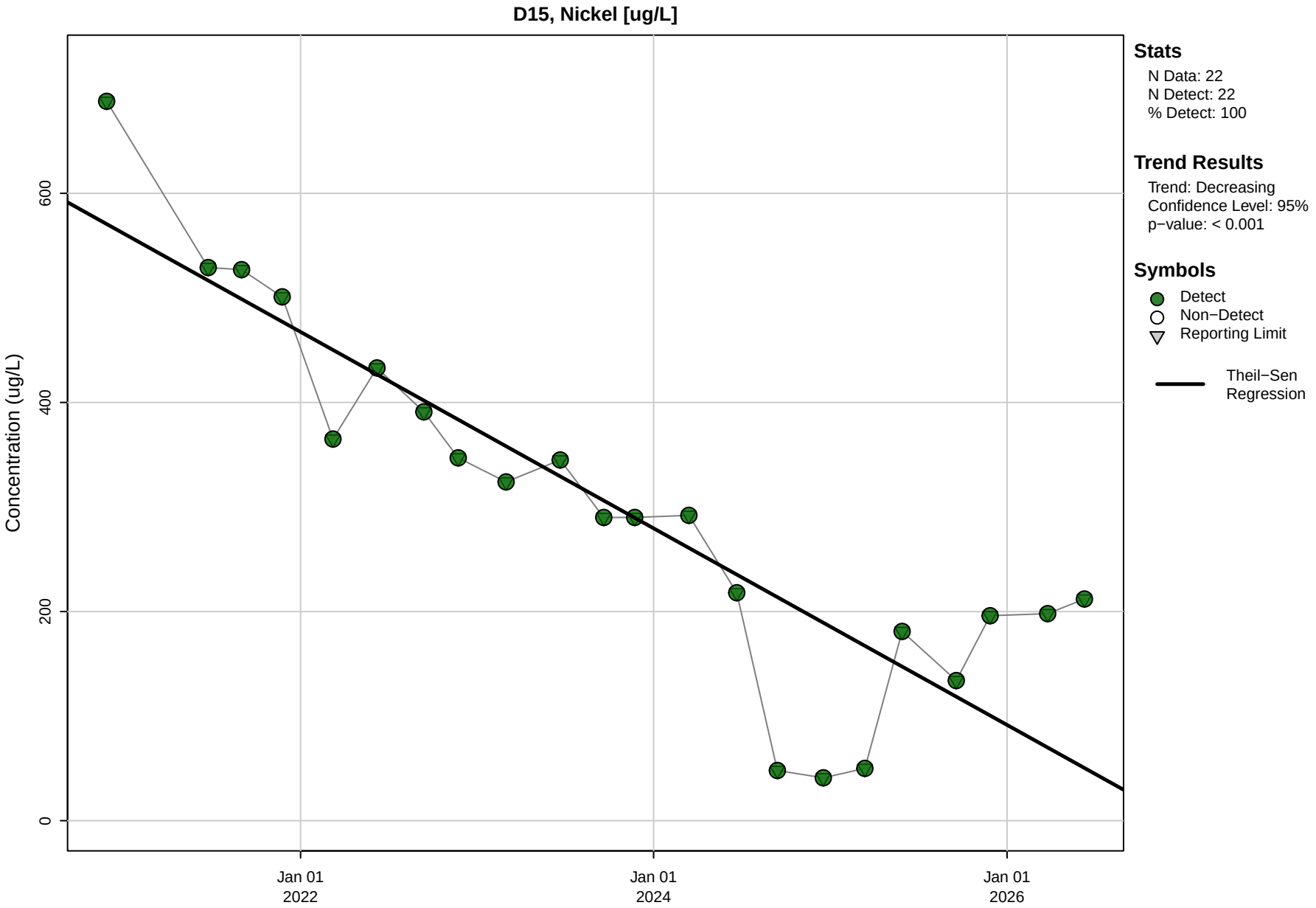

D15, Chloride [mg/L]
Concentration (mg/L)
0
50
100
150
200
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

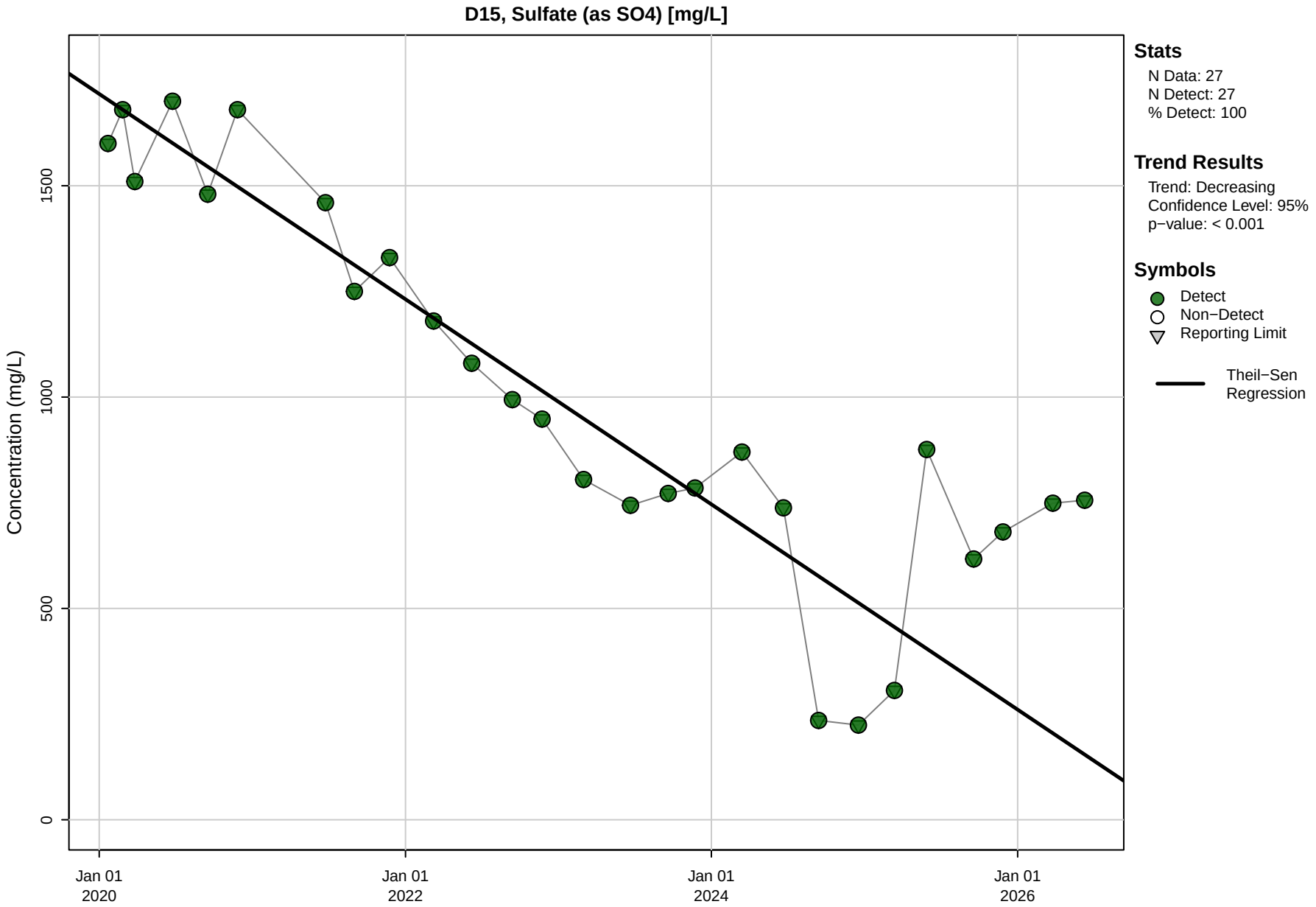

D15, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
1000
2000
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

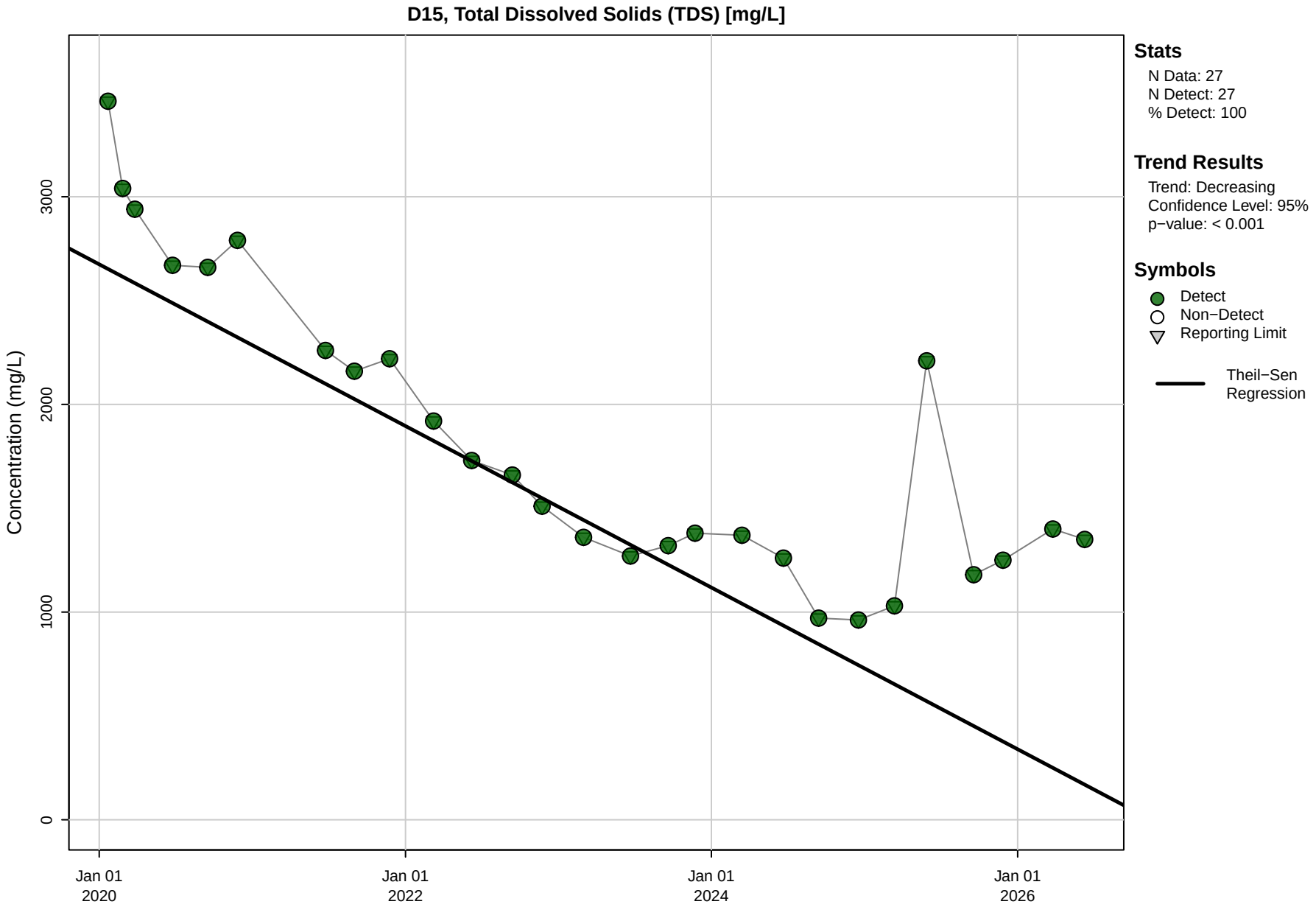

D15, Iron (Total) [ug/L]
Concentration (ug/L)
0
50000
100000
150000
200000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

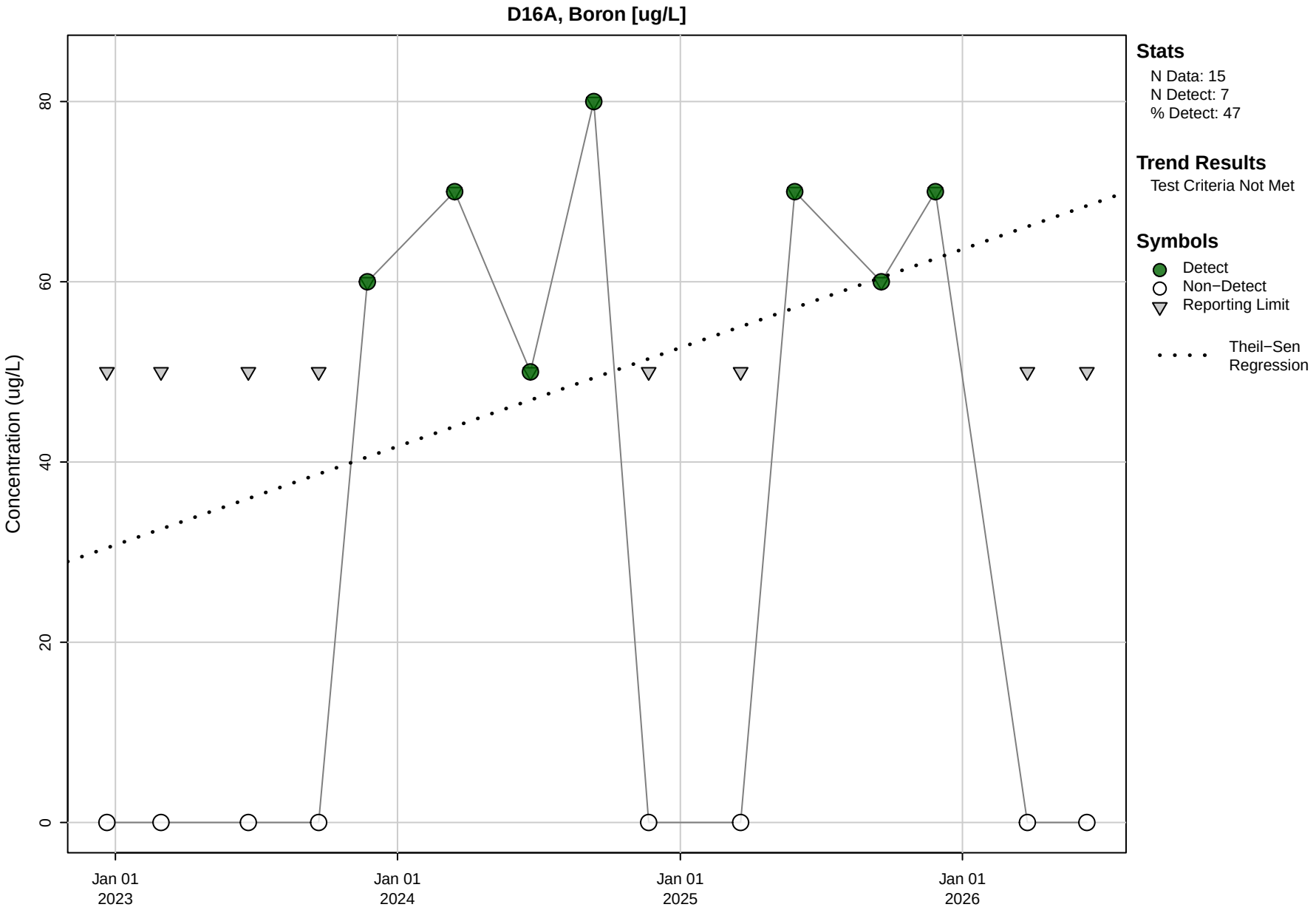

D15, Iron [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
25000
30000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 26
% Detect: 96
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

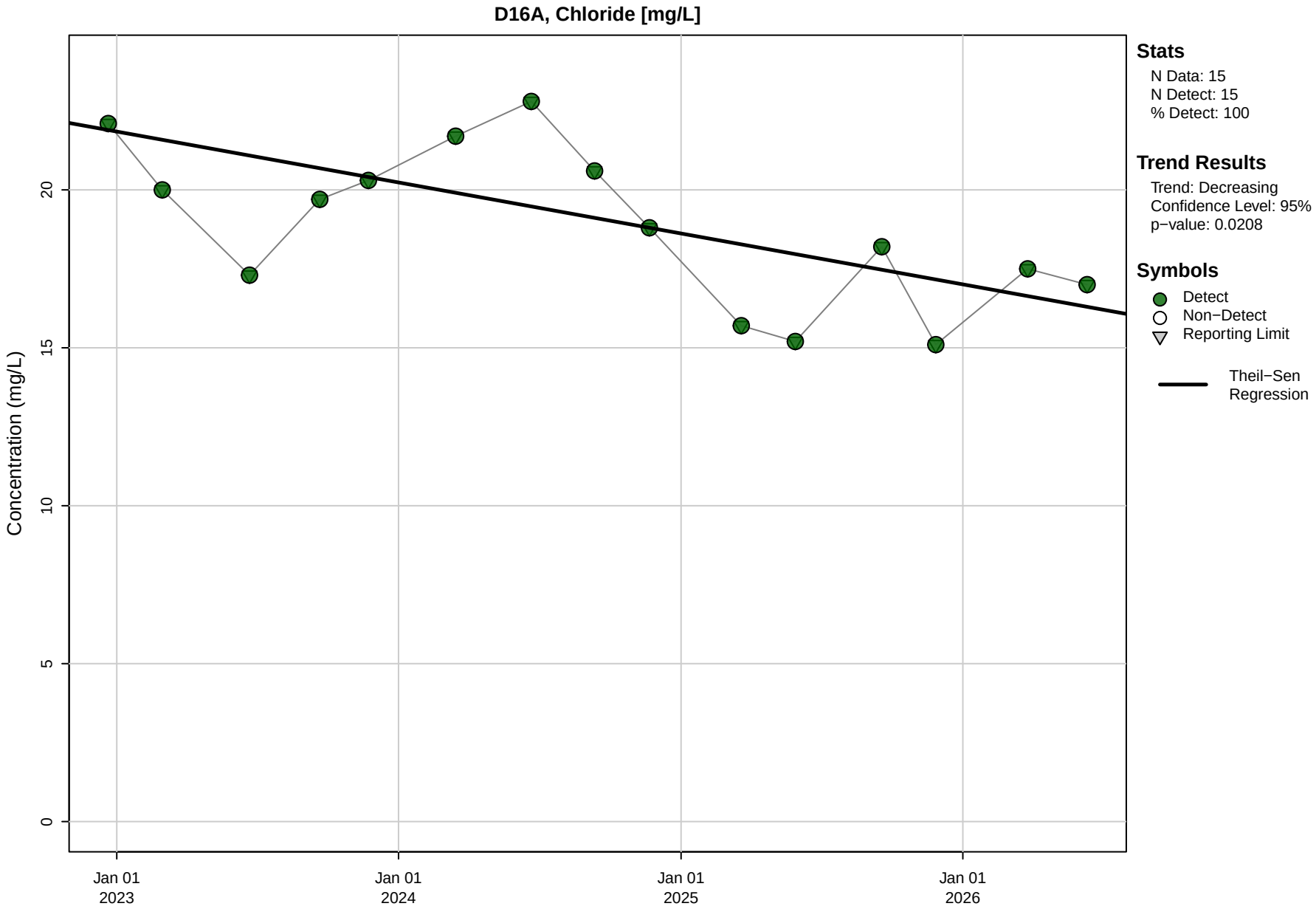

D15, Manganese [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

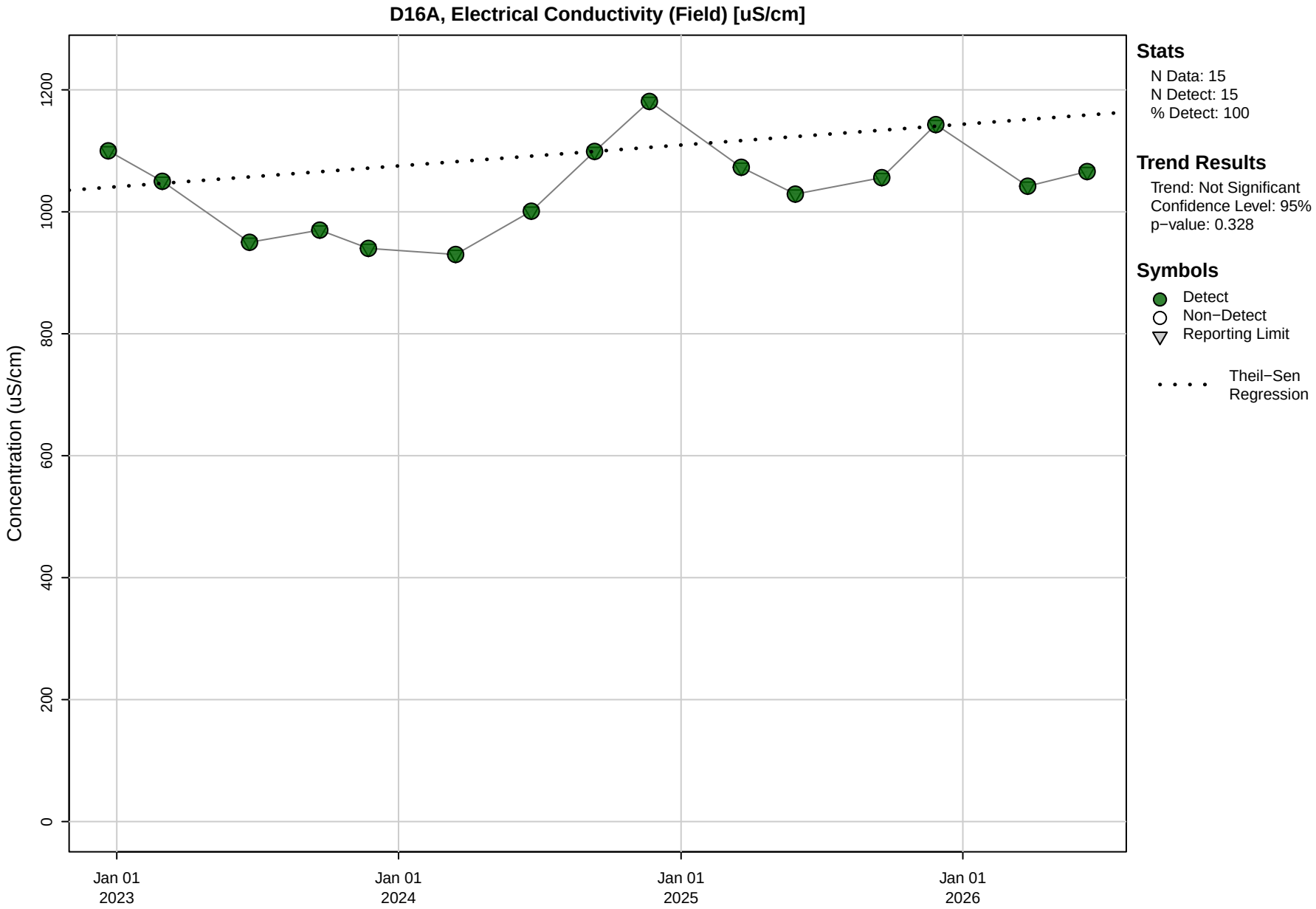

D15, Nickel [ug/L]
Concentration (ug/L)
0
200
400
600
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 22
N Detect: 22
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

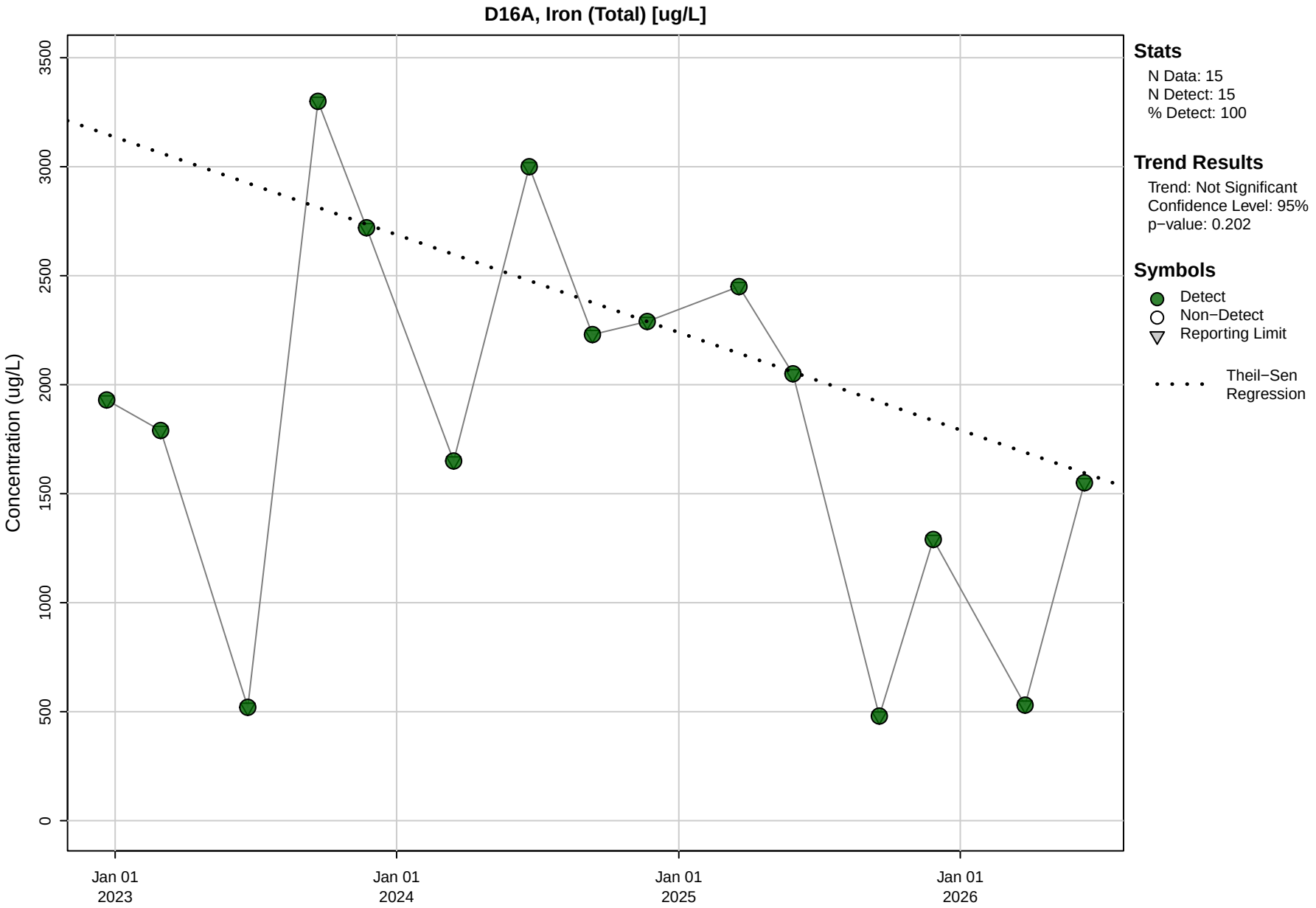

D15, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
500
1000
1500
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

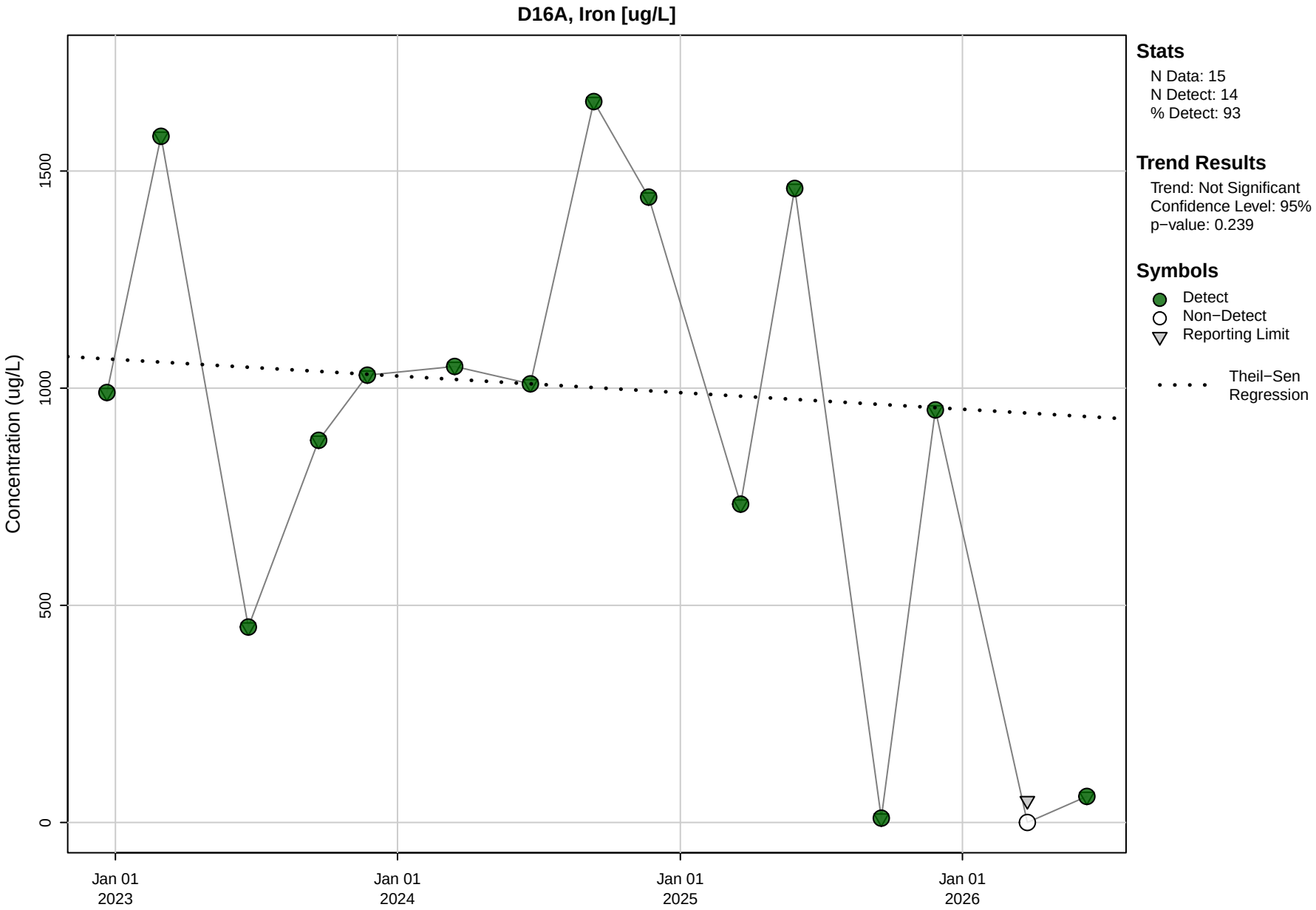

D15, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

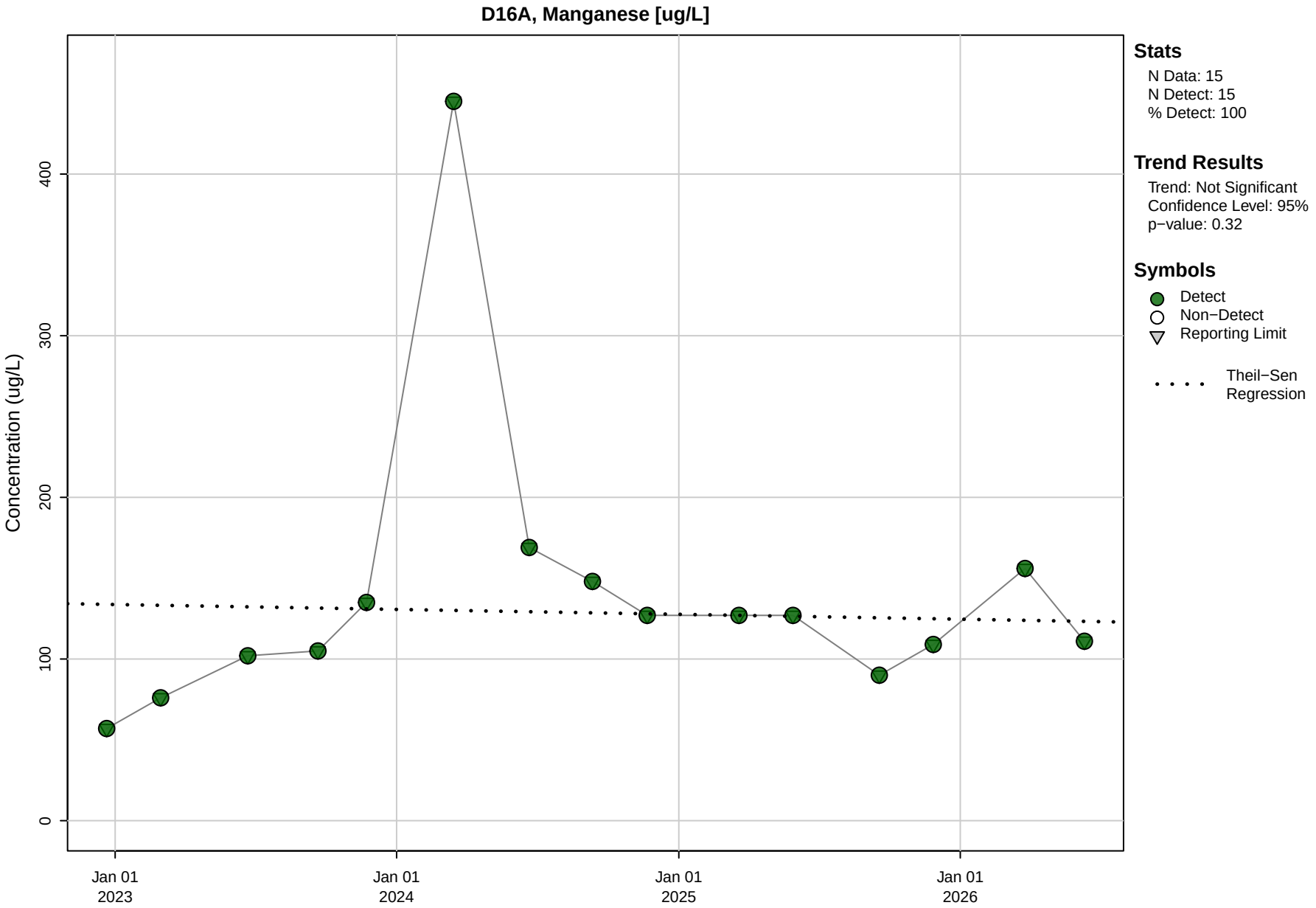

D16A, Boron [ug/L]
Concentration (ug/L)
0
20
40
60
80
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 15
N Detect: 7
% Detect: 47
Trend Results
Test Criteria Not Met
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

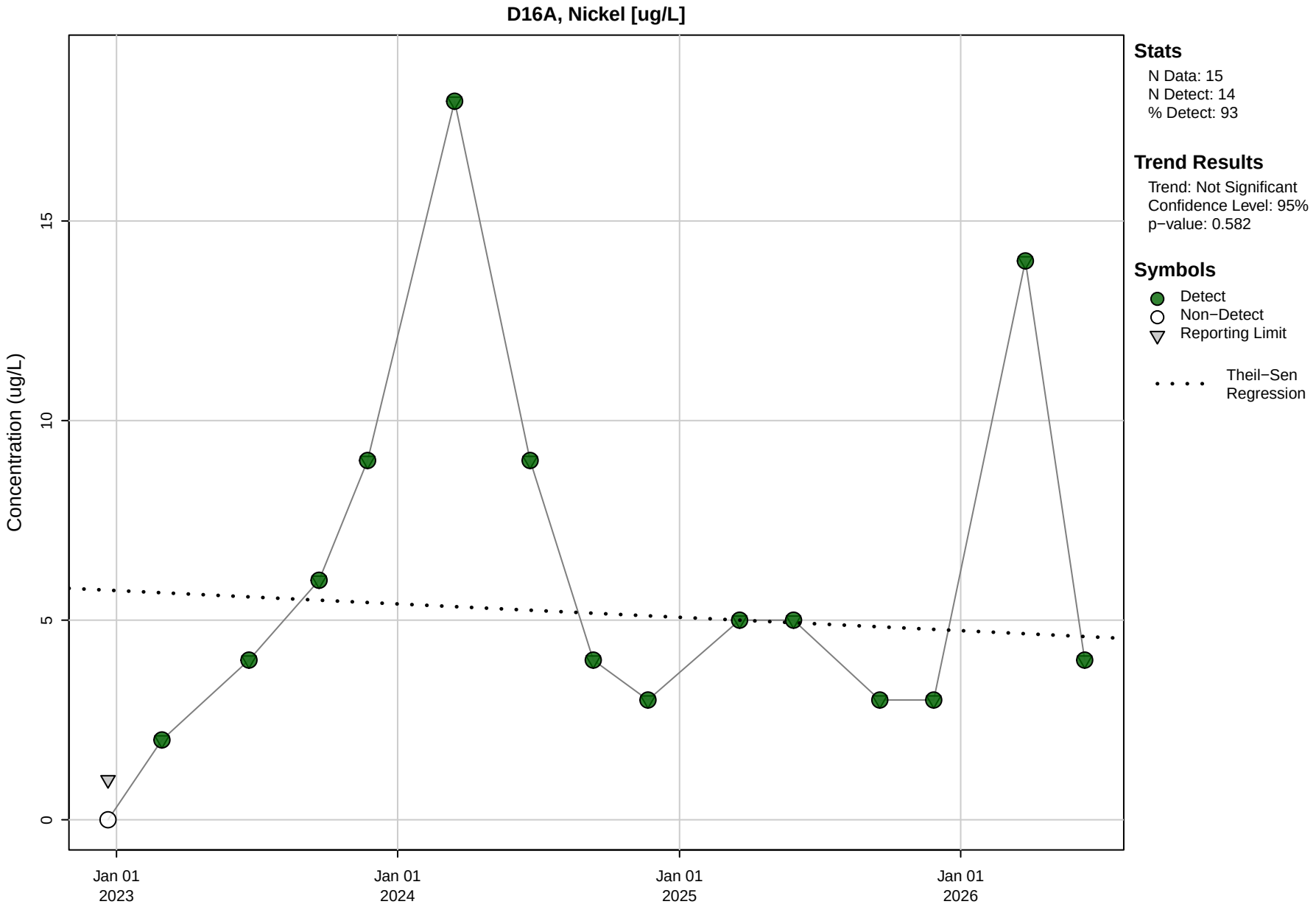

D16A, Chloride [mg/L]
Concentration (mg/L)
0
5
10
15
20
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 15
N Detect: 15
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0208
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

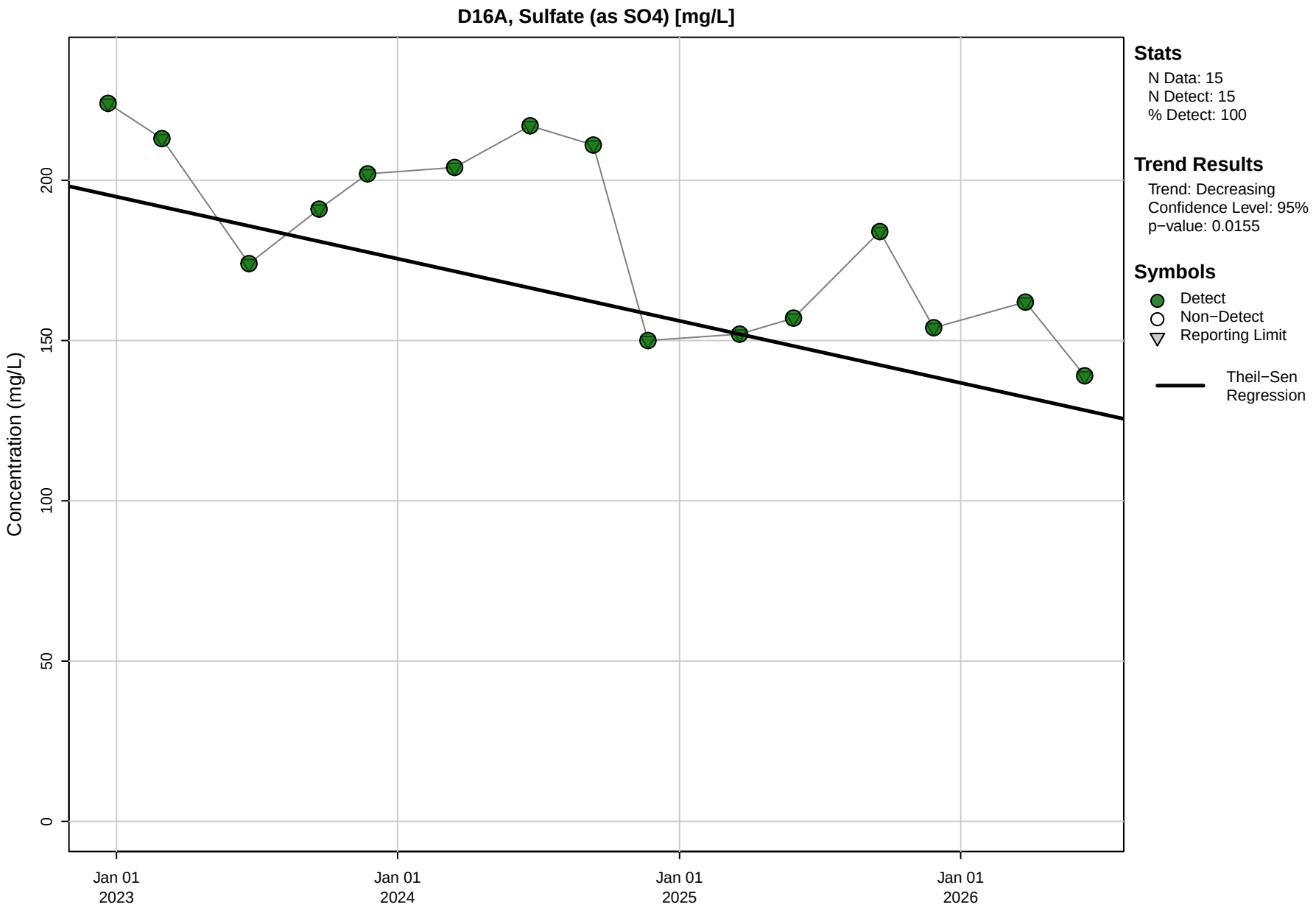

D16A, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
200
400
600
800
1000
1200
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 15
N Detect: 15
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.328
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

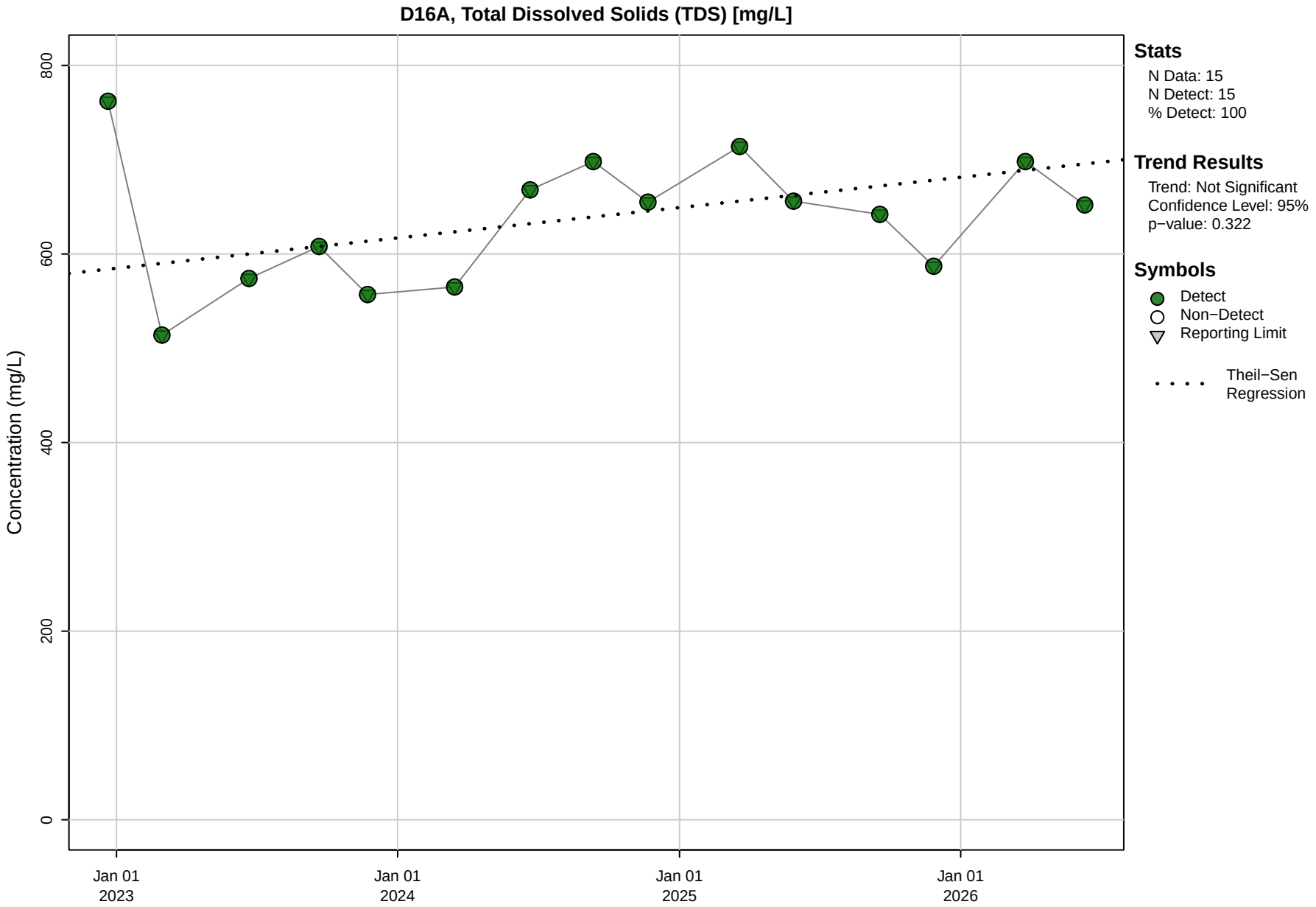

D16A, Iron (Total) [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
2500
3000
3500
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 15
N Detect: 15
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.202
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

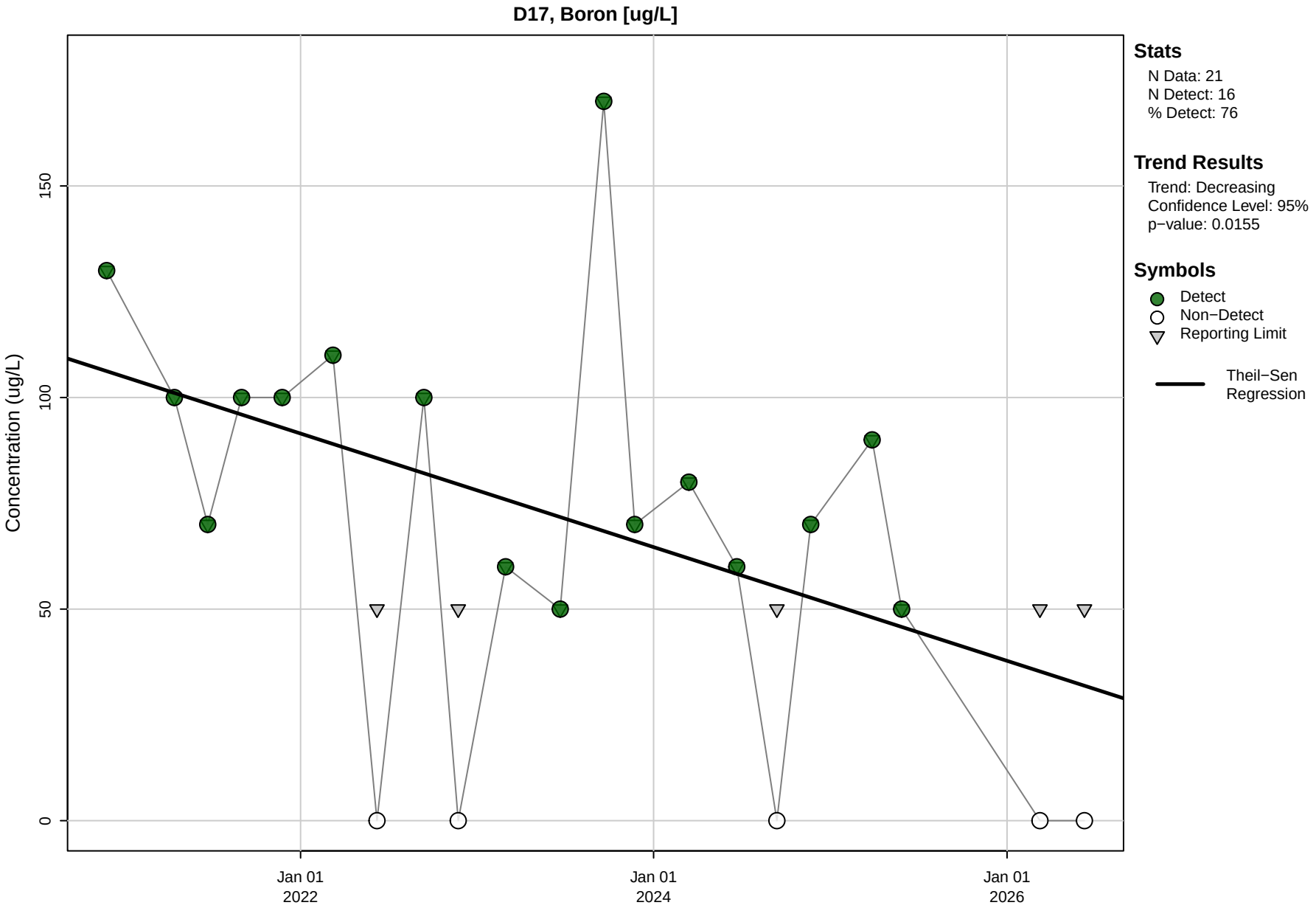

D16A, Iron [ug/L]
Concentration (ug/L)
0
500
1000
1500
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 15
N Detect: 14
% Detect: 93
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.239
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

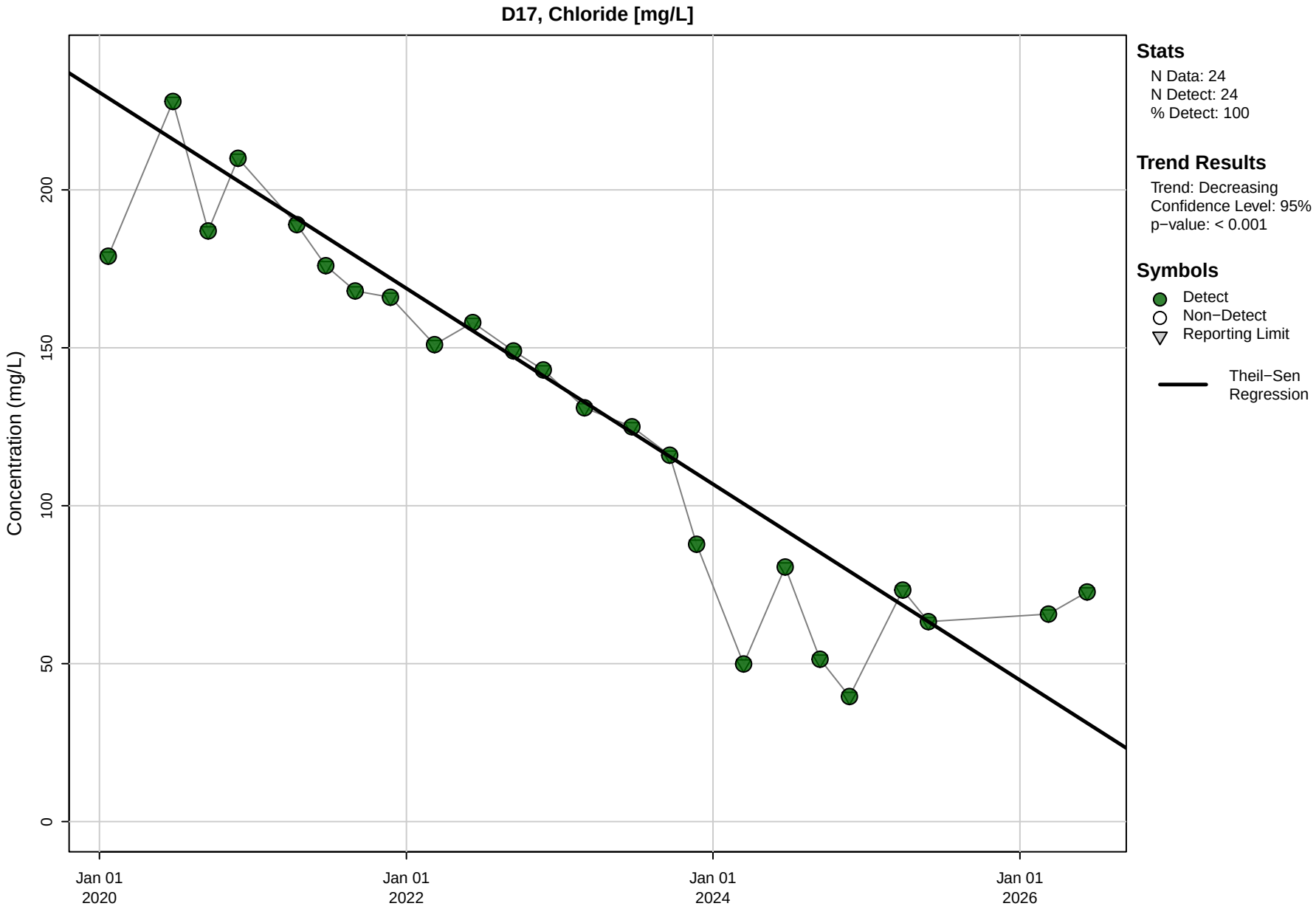

D16A, Manganese [ug/L]
Concentration (ug/L)
0
100
200
300
400
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 15
N Detect: 15
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.32
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

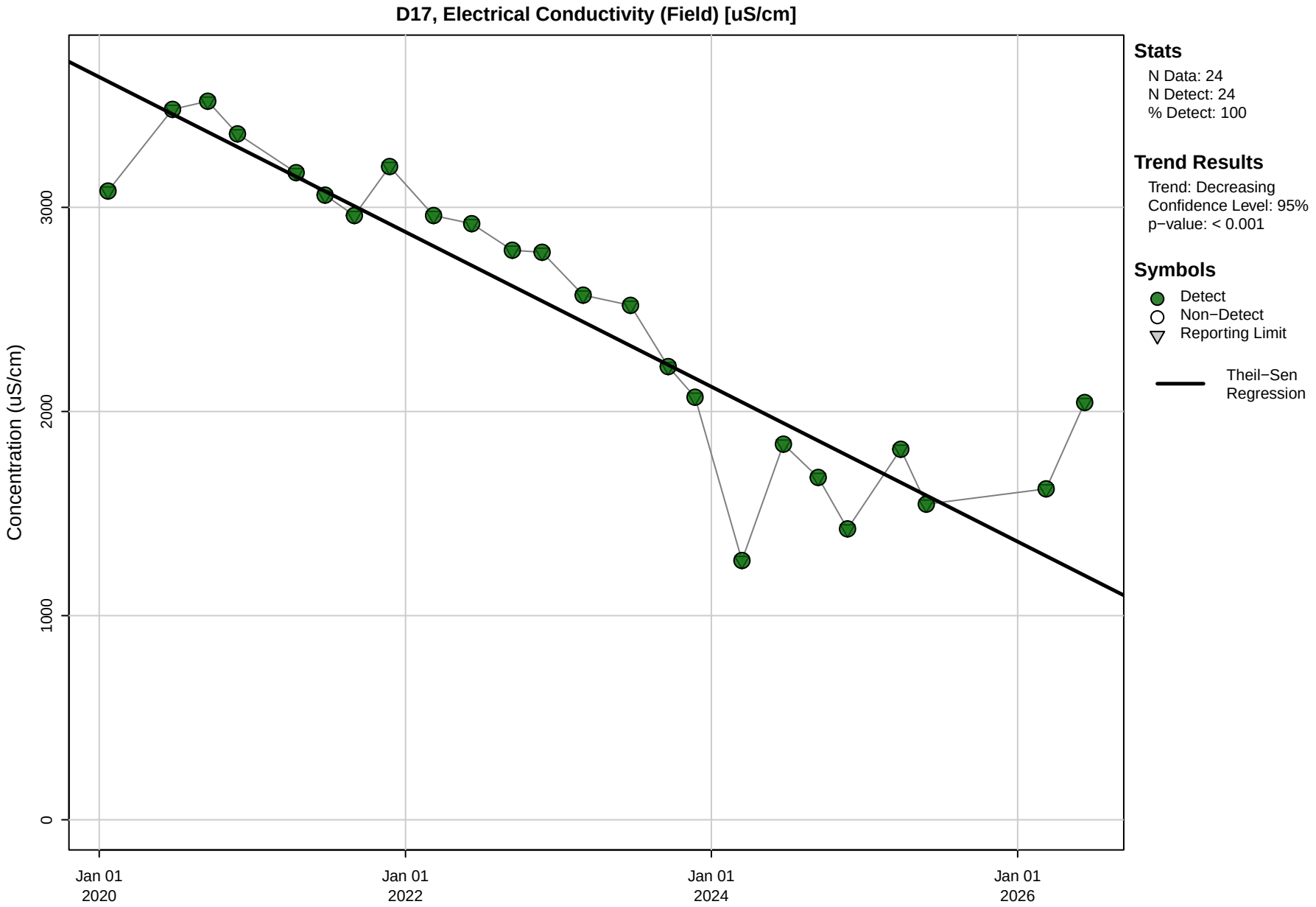

D16A, Nickel [ug/L]
Concentration (ug/L)
0
5
10
15
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 15
N Detect: 14
% Detect: 93
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.582
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

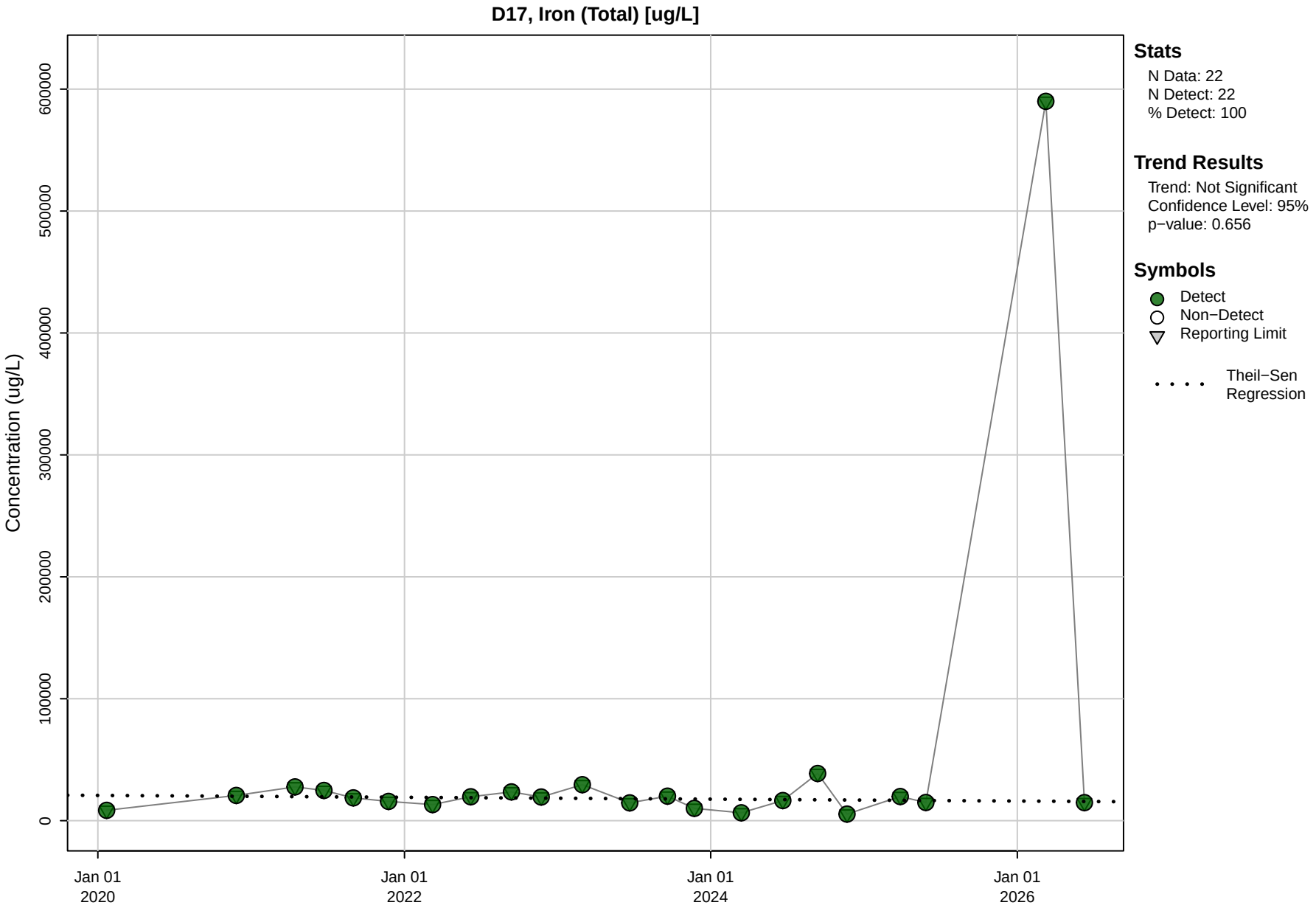

D16A, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
50
100
150
200
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 15
N Detect: 15
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0155
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

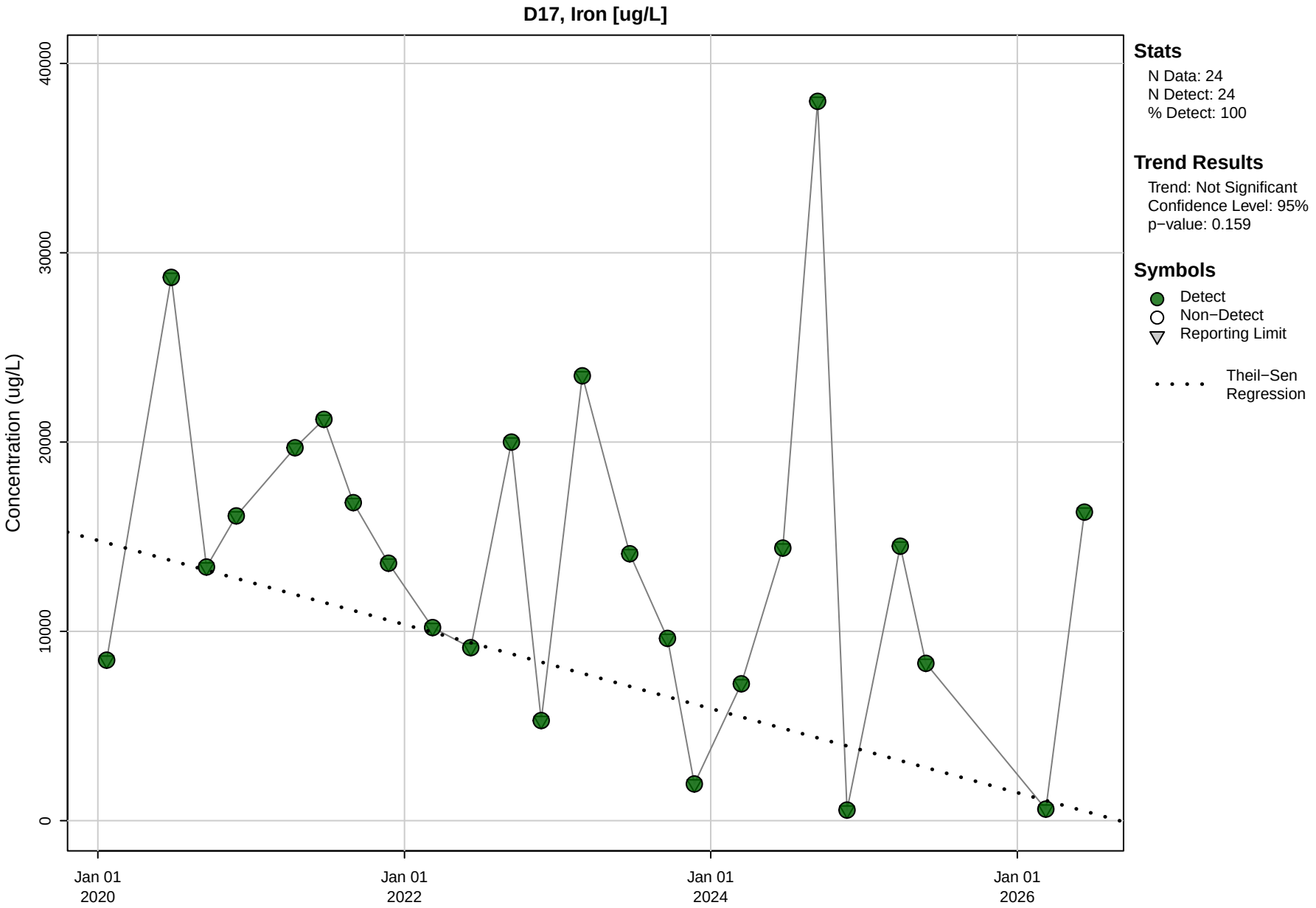

D16A, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
200
400
600
800
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 15
N Detect: 15
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.322
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

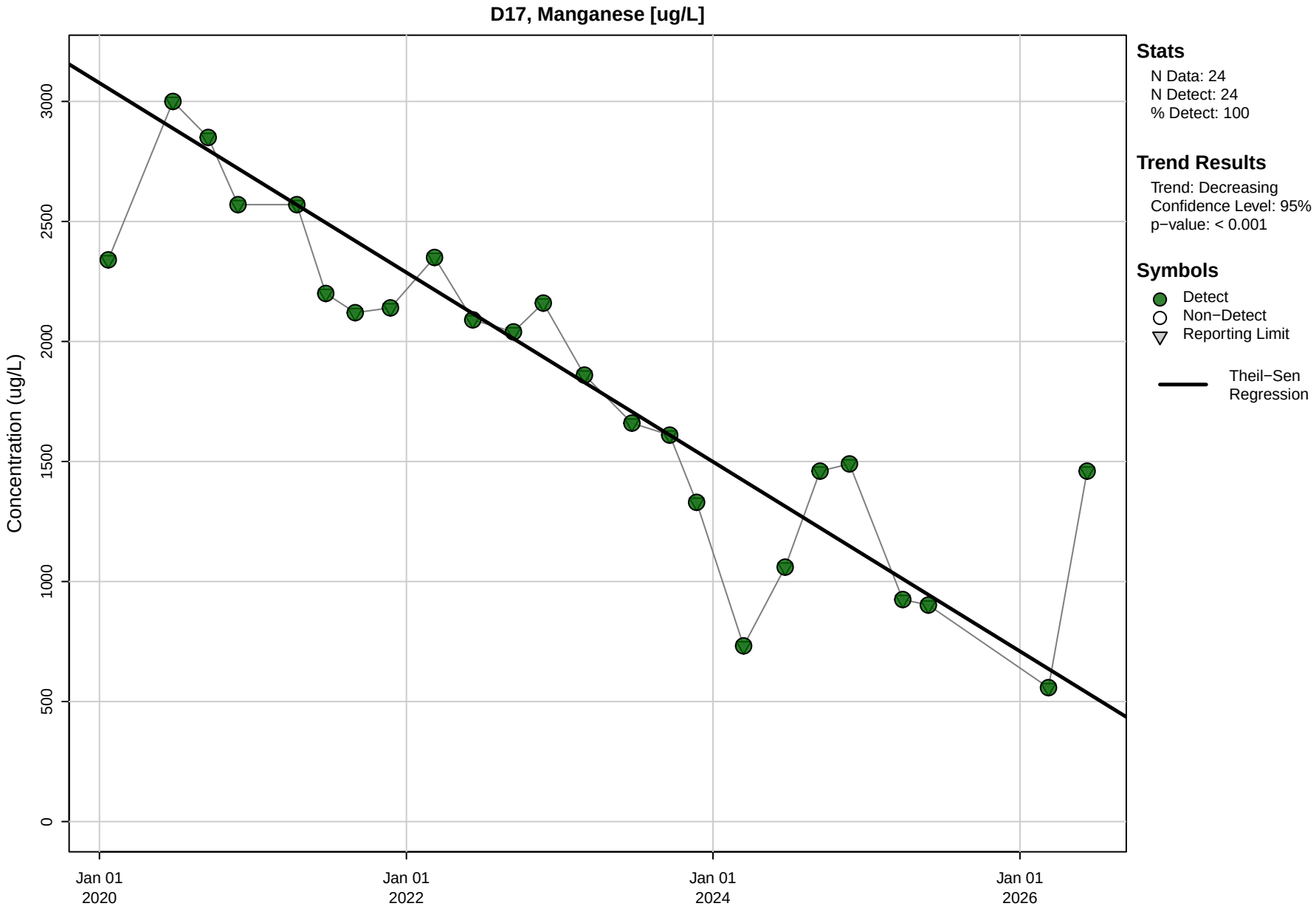

D17, Boron [ug/L]
Concentration (ug/L)
0
50
100
150
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 21
N Detect: 16
% Detect: 76
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0155
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

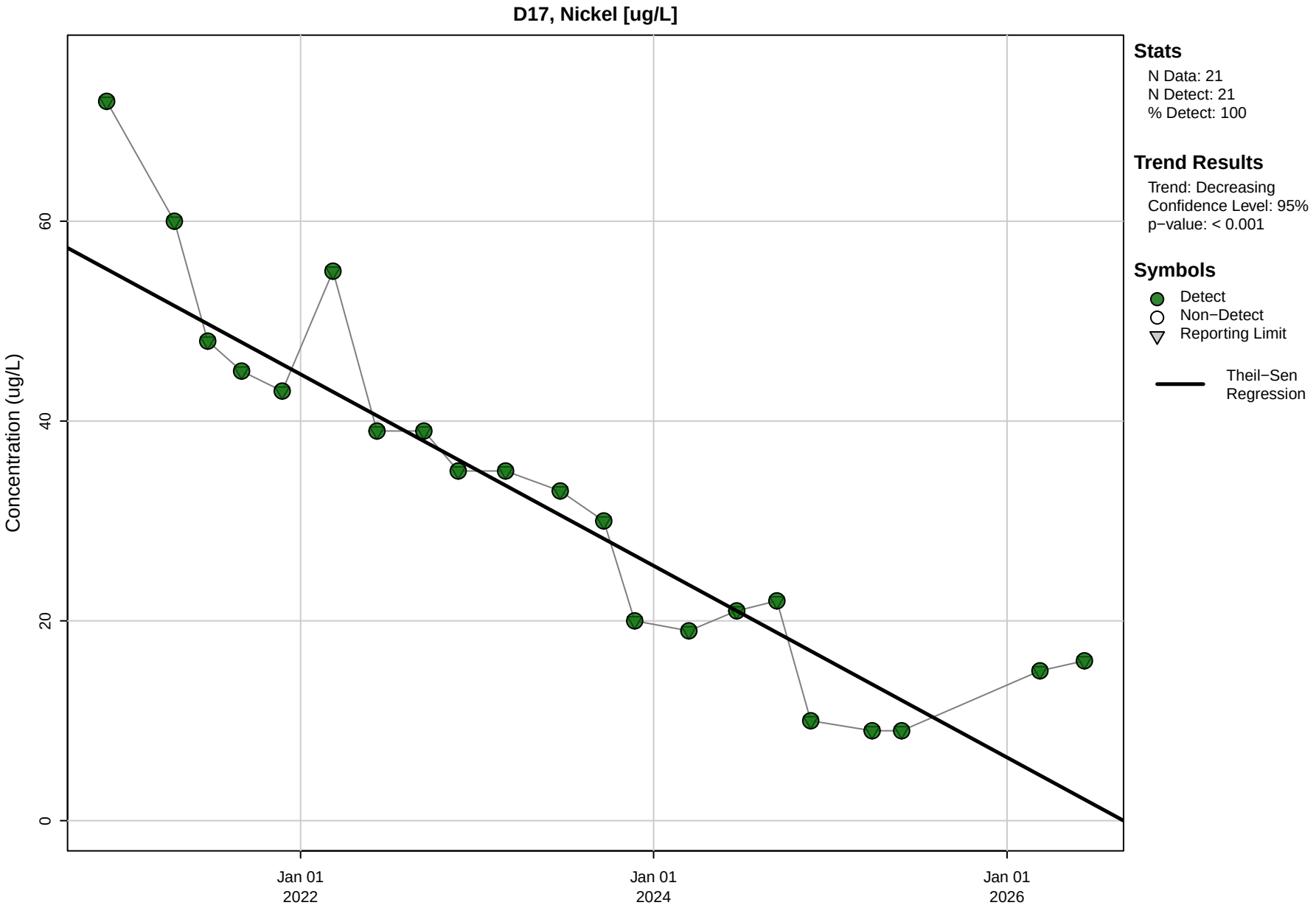

D17, Chloride [mg/L]
Concentration (mg/L)
0
50
100
150
200
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

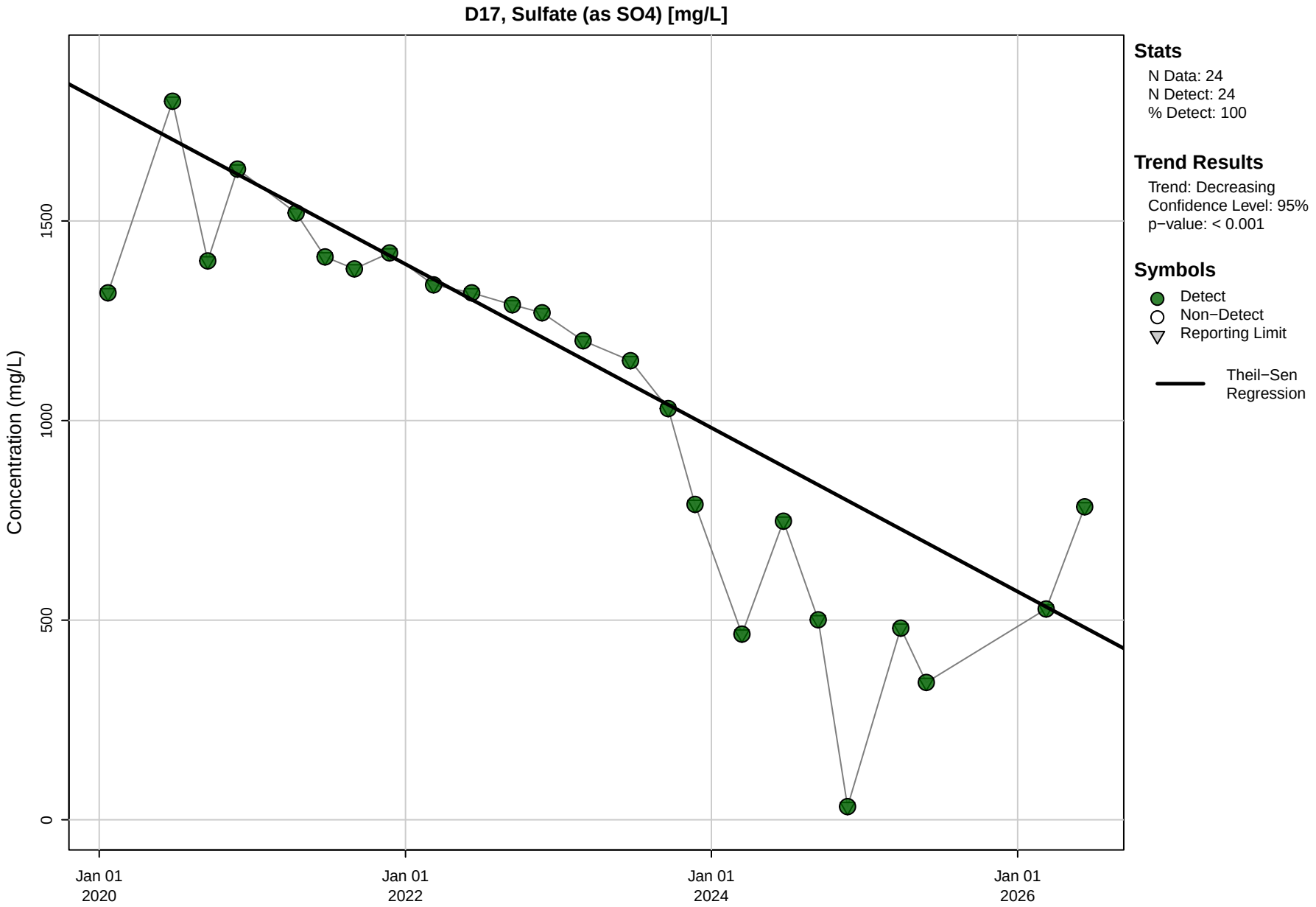

D17, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
1000
2000
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

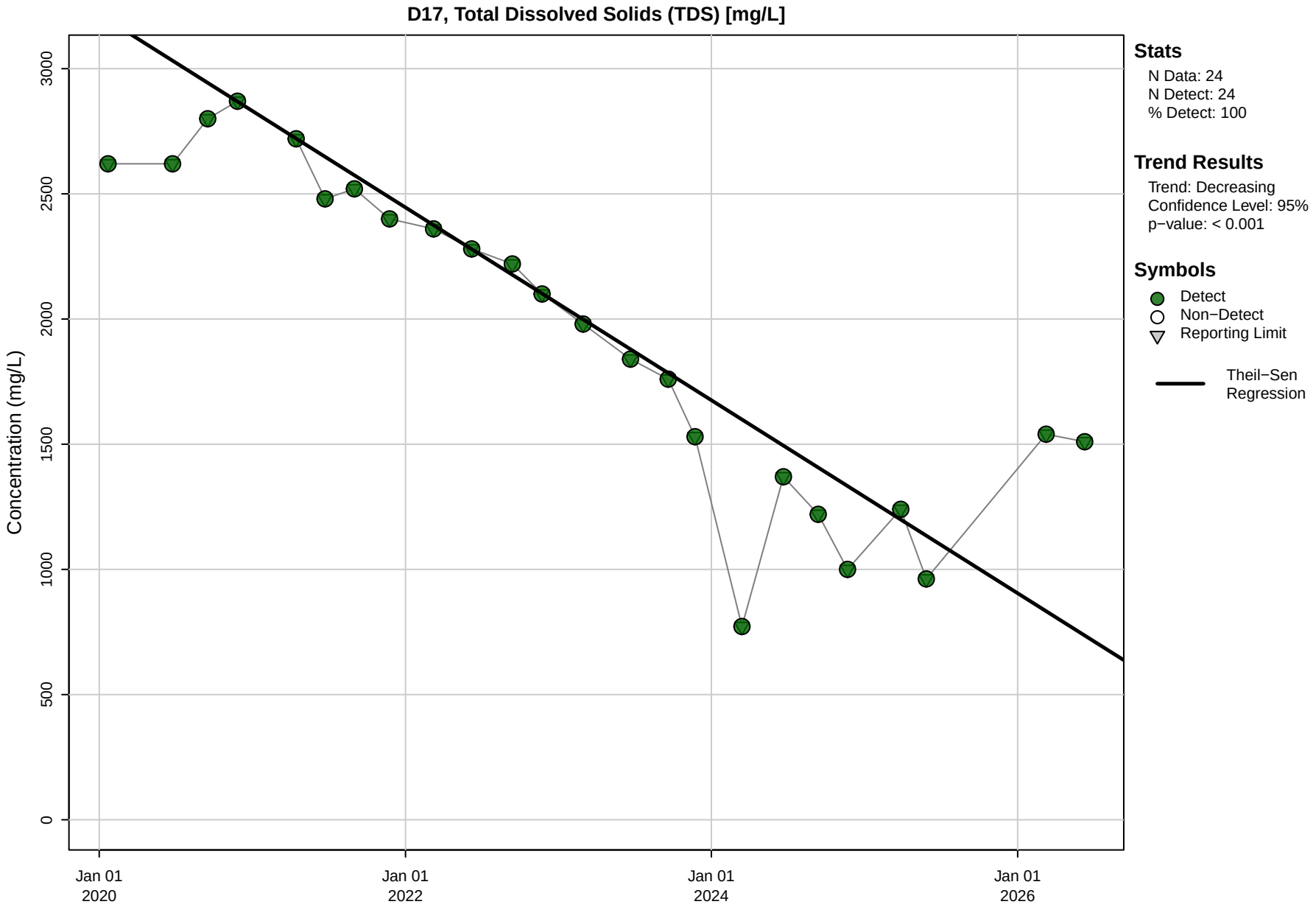

D17, Iron (Total) [ug/L]
Concentration (ug/L)
0
100000
200000
300000
400000
500000
600000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 22
N Detect: 22
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.656
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

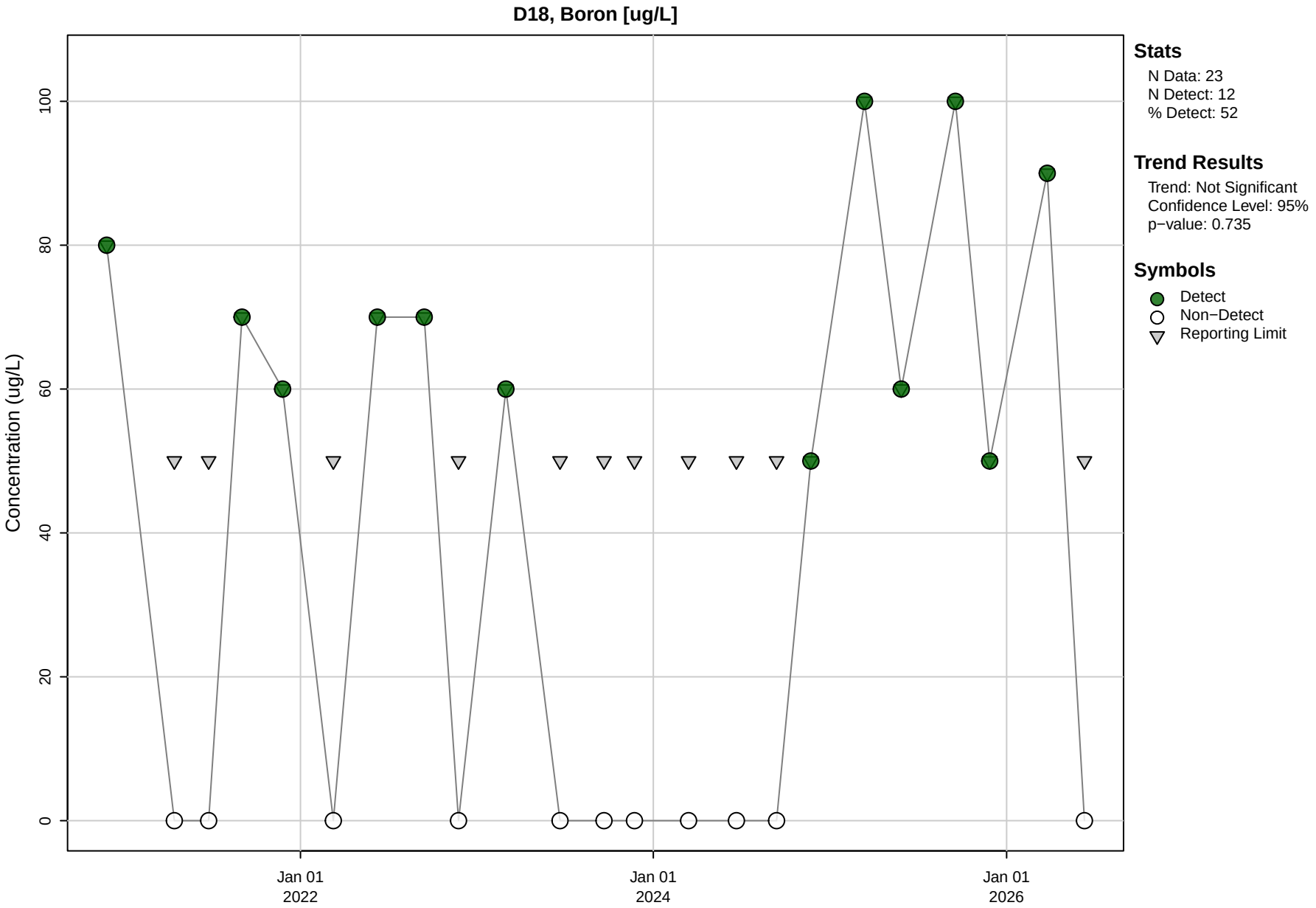

D17, Iron [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.159
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

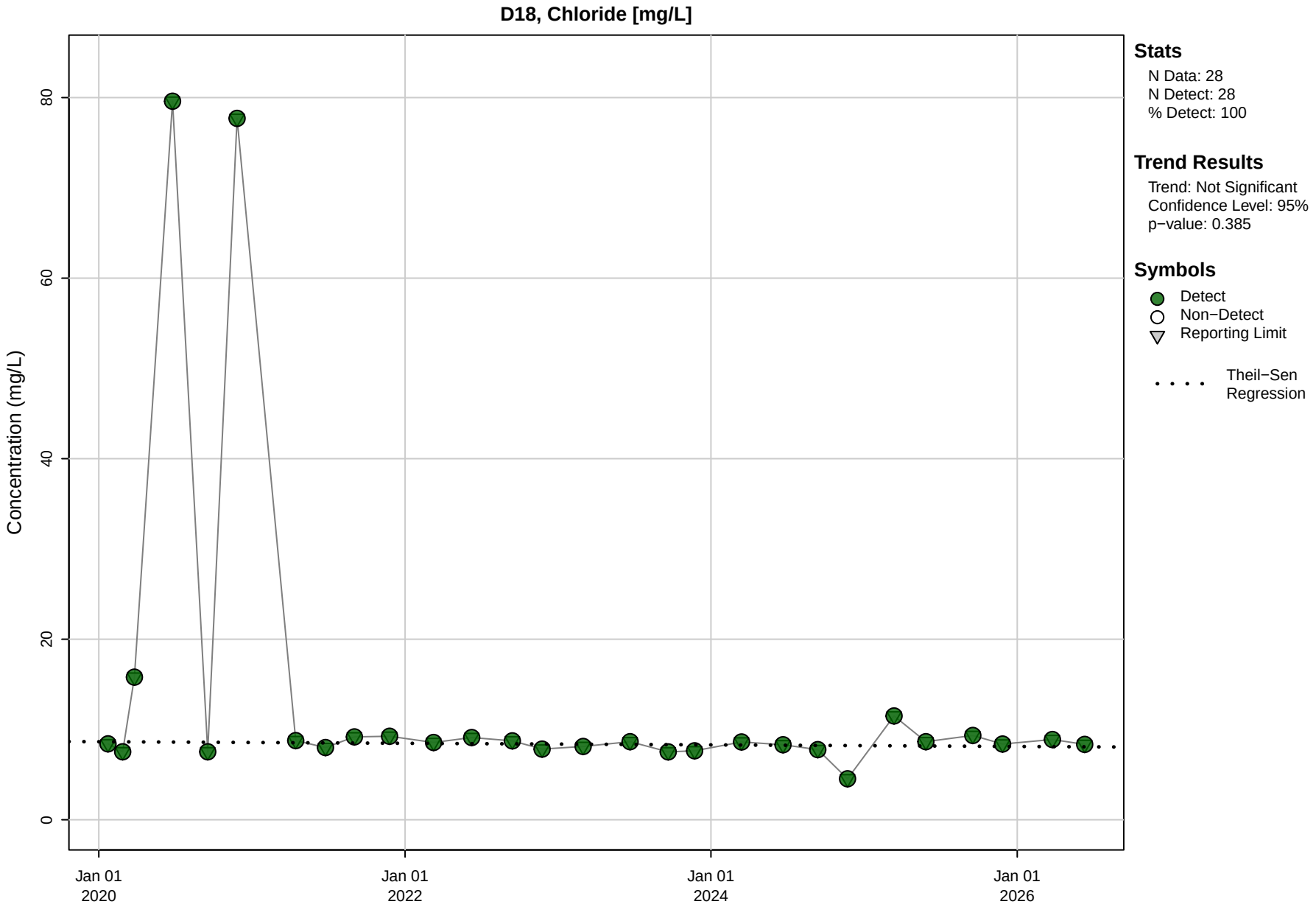

D17, Manganese [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
2500
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

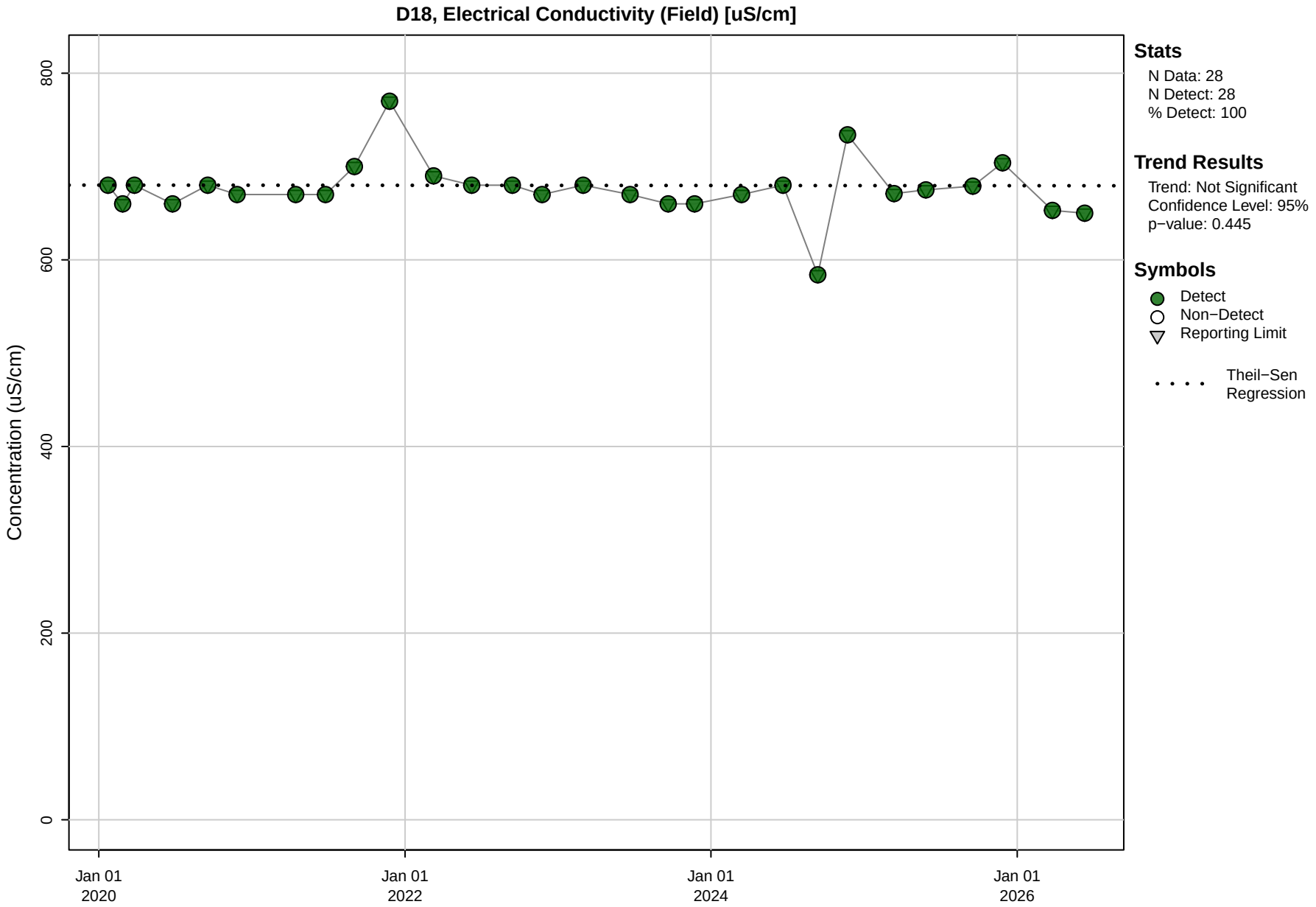

D17, Nickel [ug/L]
Concentration (ug/L)
0
20
40
60
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 21
N Detect: 21
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

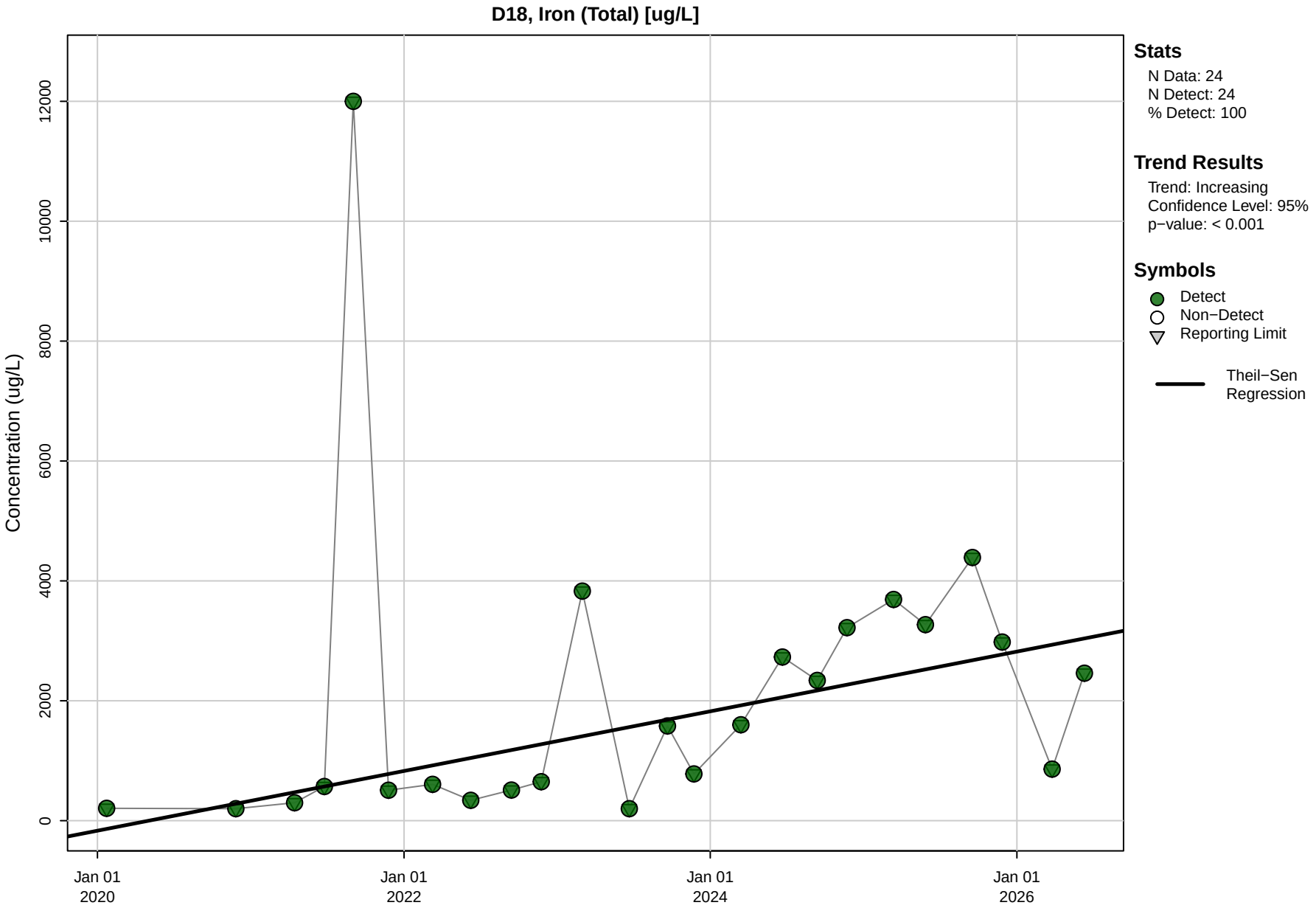

D17, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
500
1000
1500
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

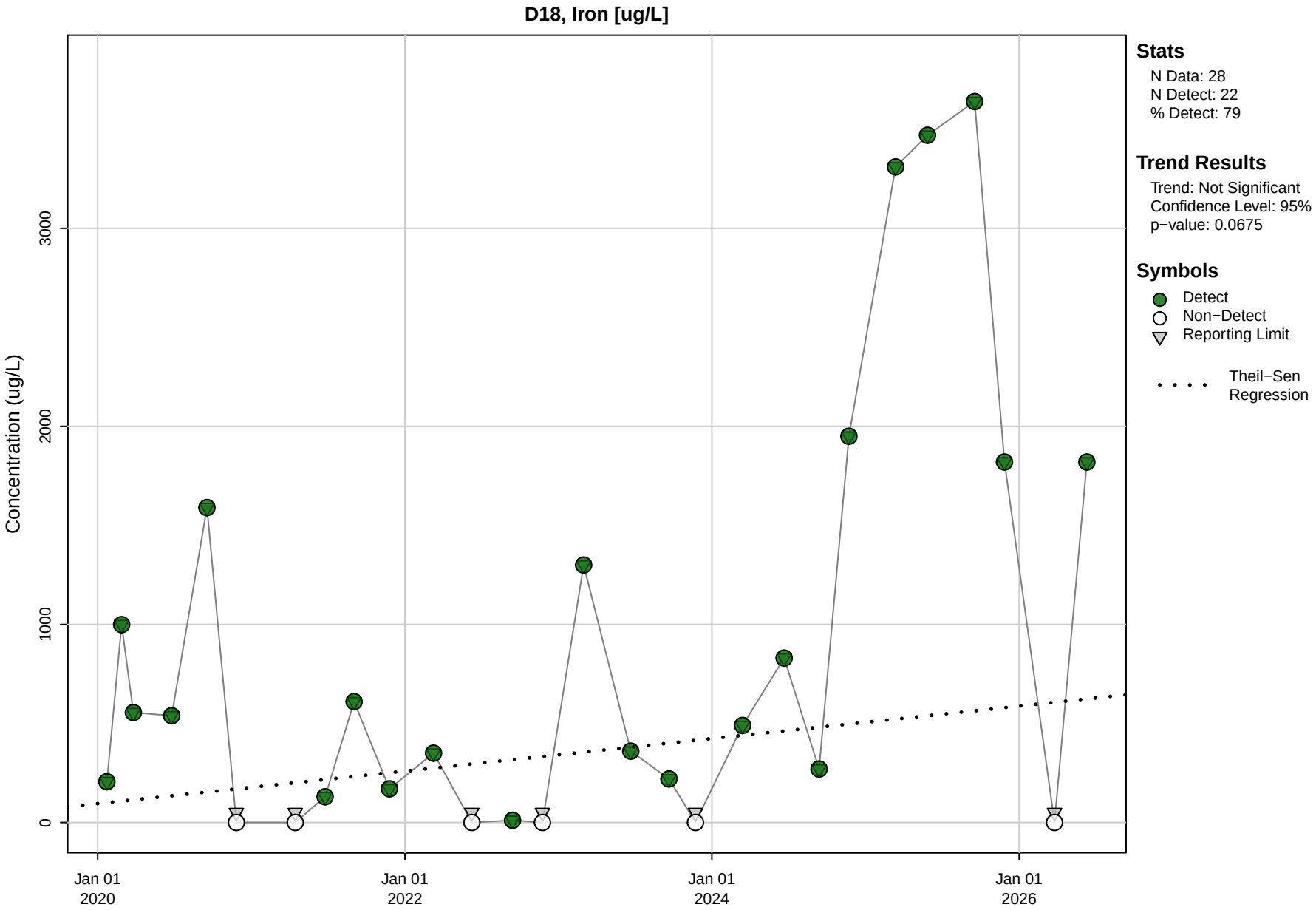

D17, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
500
1000
1500
2000
2500
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

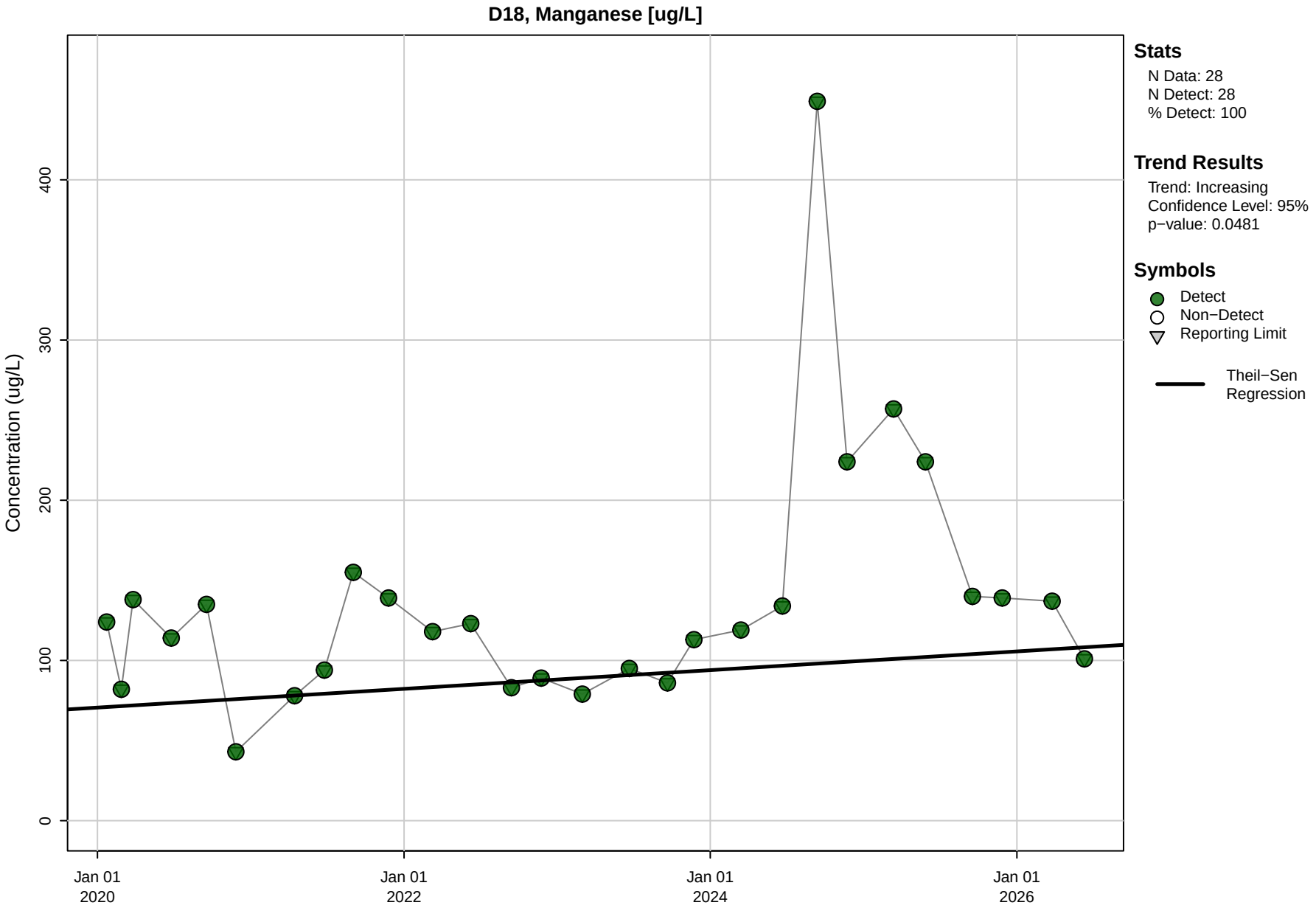

D18, Boron [ug/L]
Concentration (ug/L)
0
20
40
60
80
100
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 12
% Detect: 52
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.735
Symbols
Detect
Non−Detect
Reporting Limit

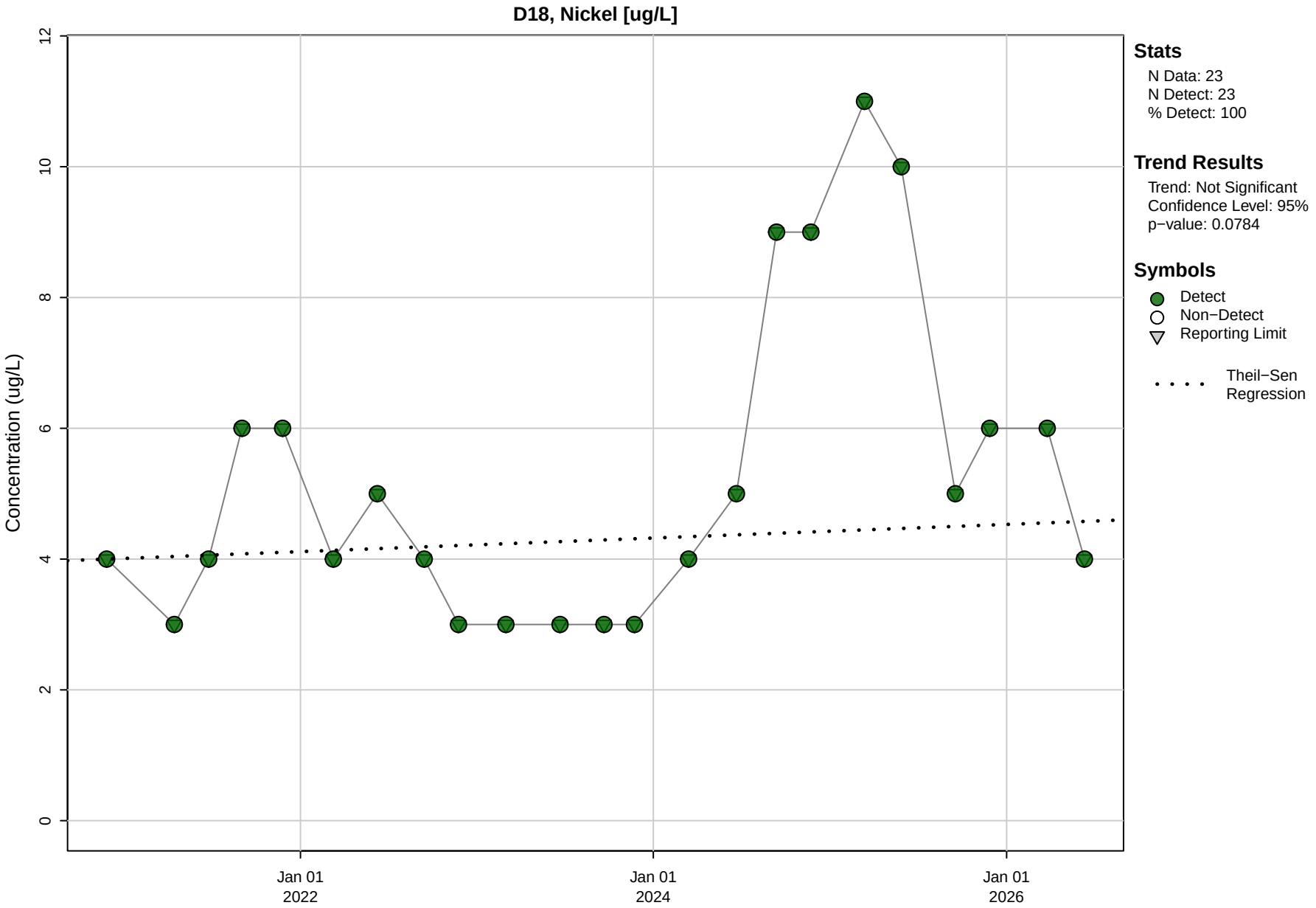

D18, Chloride [mg/L]
Concentration (mg/L)
0
20
40
60
80
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.385
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

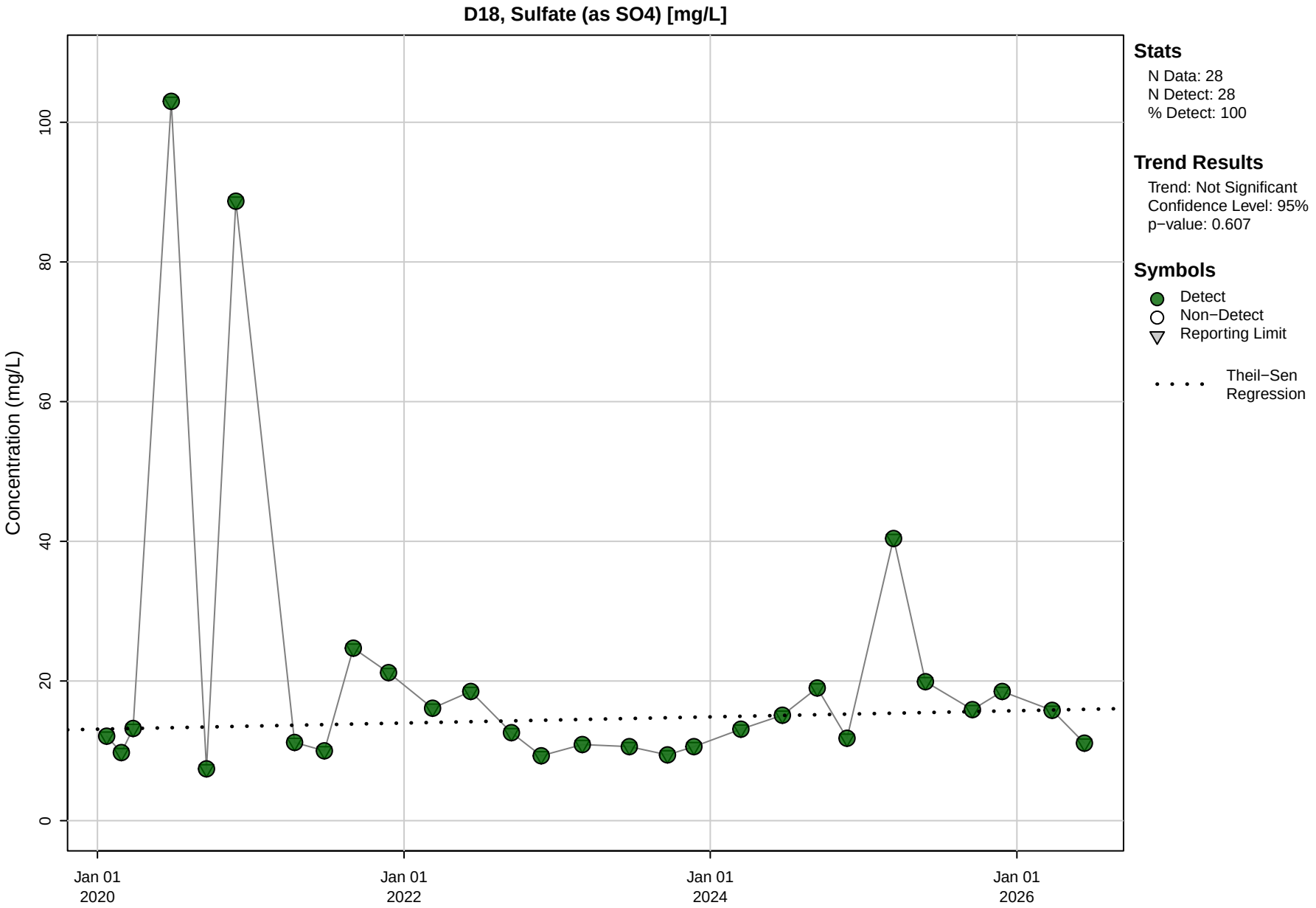

D18, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
200
400
600
800
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.445
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

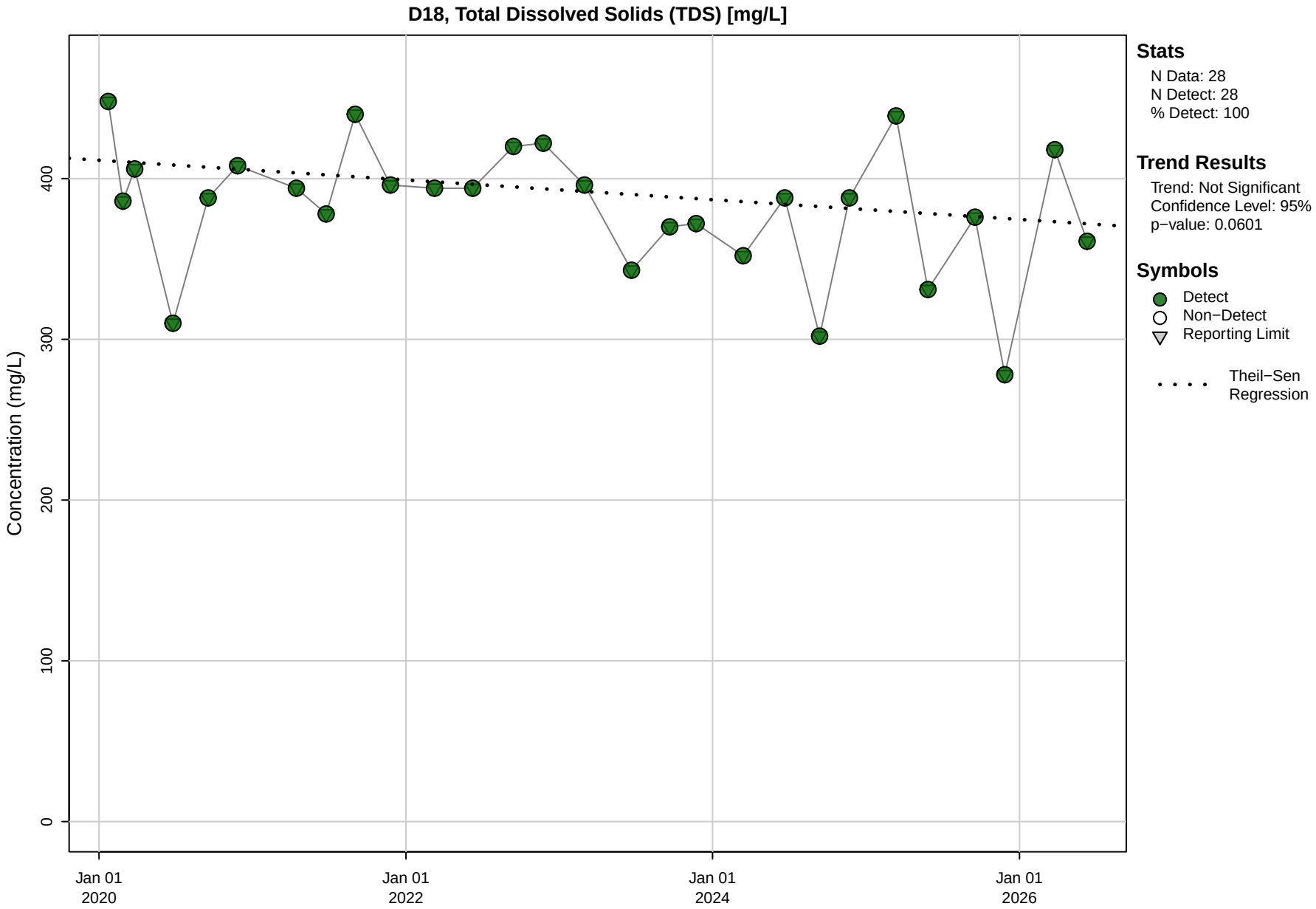

D18, Iron (Total) [ug/L]
Concentration (ug/L)
0
2000
4000
6000
8000
10000
12000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

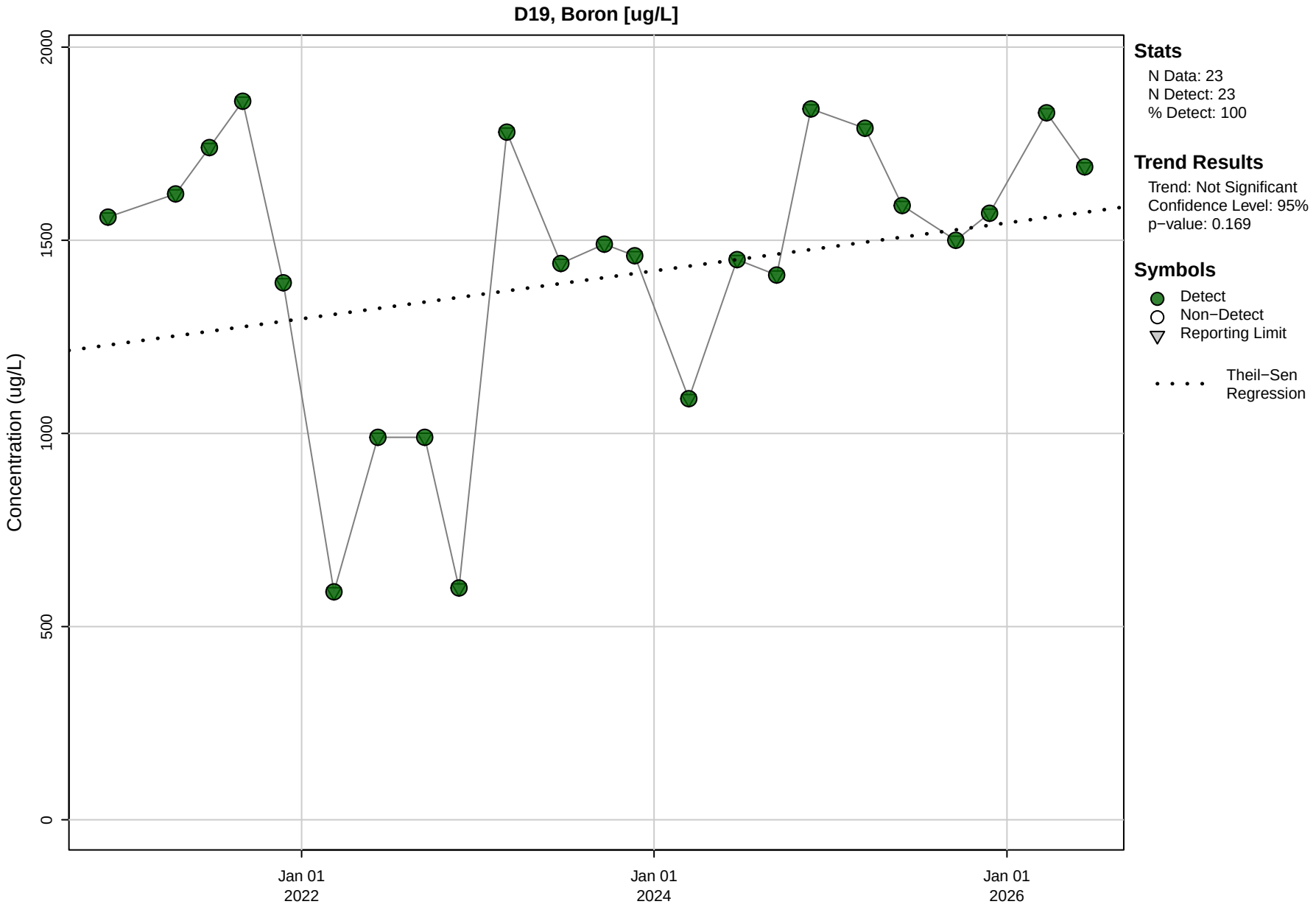

D18, Iron [ug/L]
Concentration (ug/L)
0
1000
2000
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 22
% Detect: 79
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0675
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

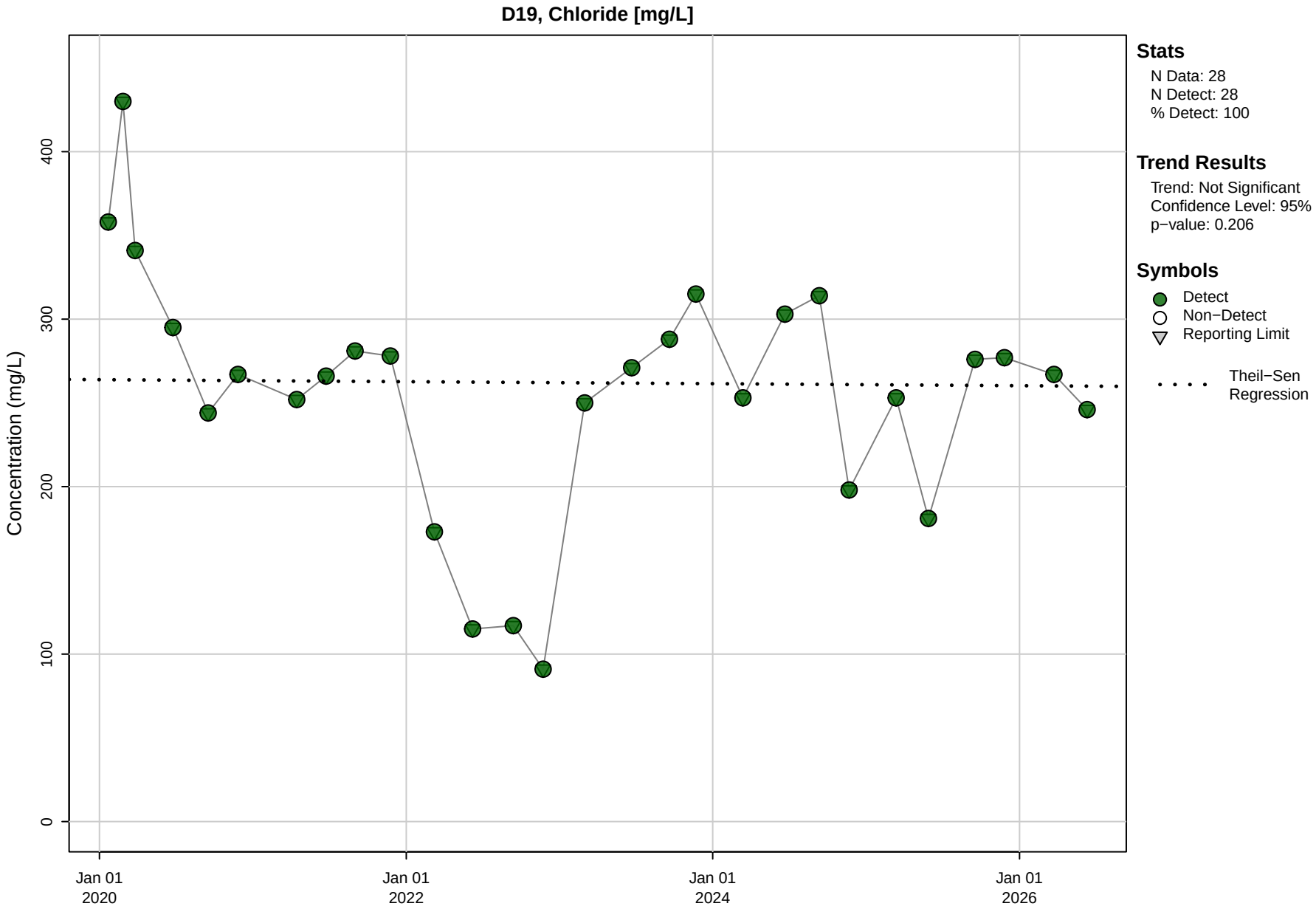

D18, Manganese [ug/L]
Concentration (ug/L)
0
100
200
300
400
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.0481
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

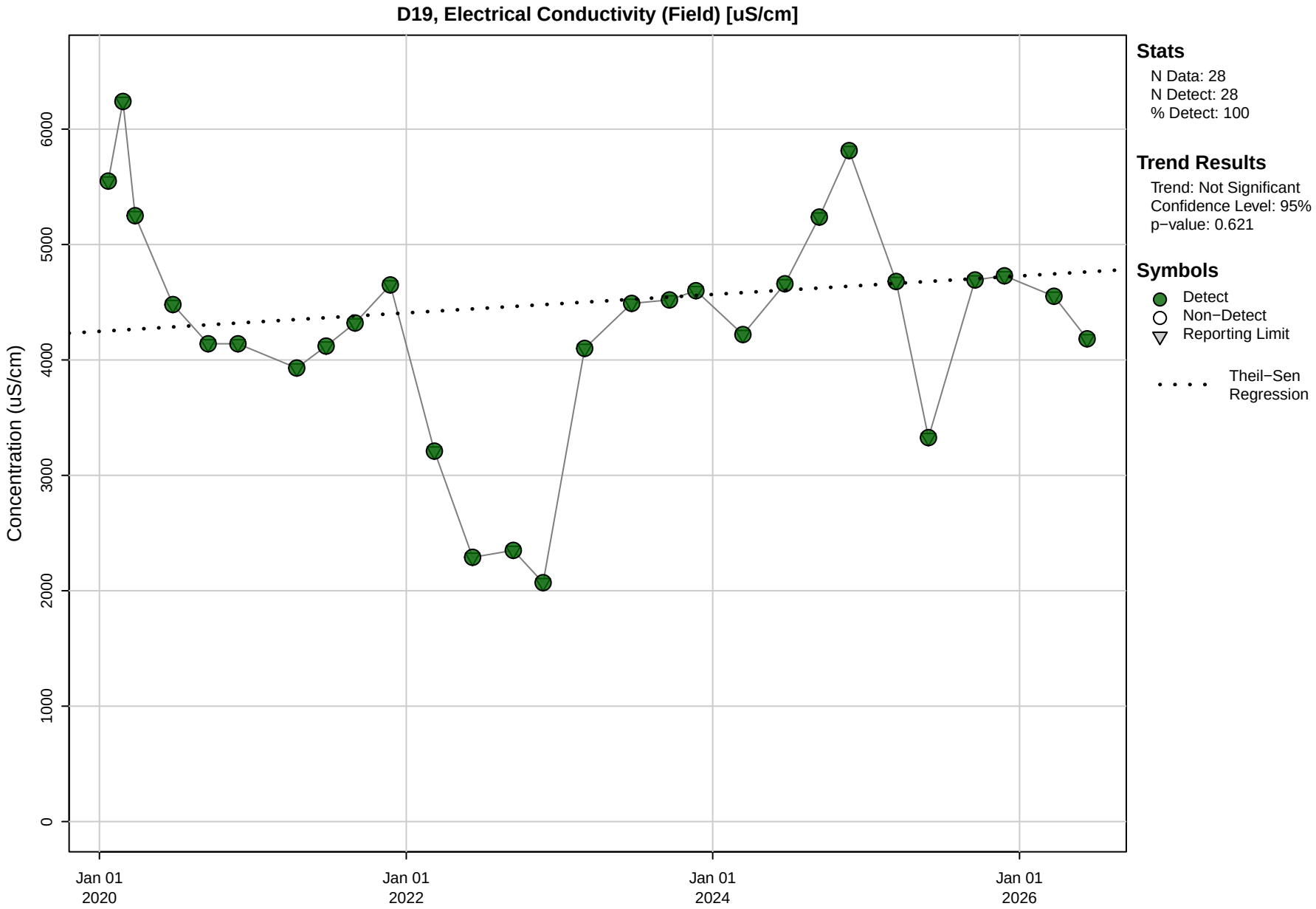

D18, Nickel [ug/L]
Concentration (ug/L)
0
2
4
6
8
10
12
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0784
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

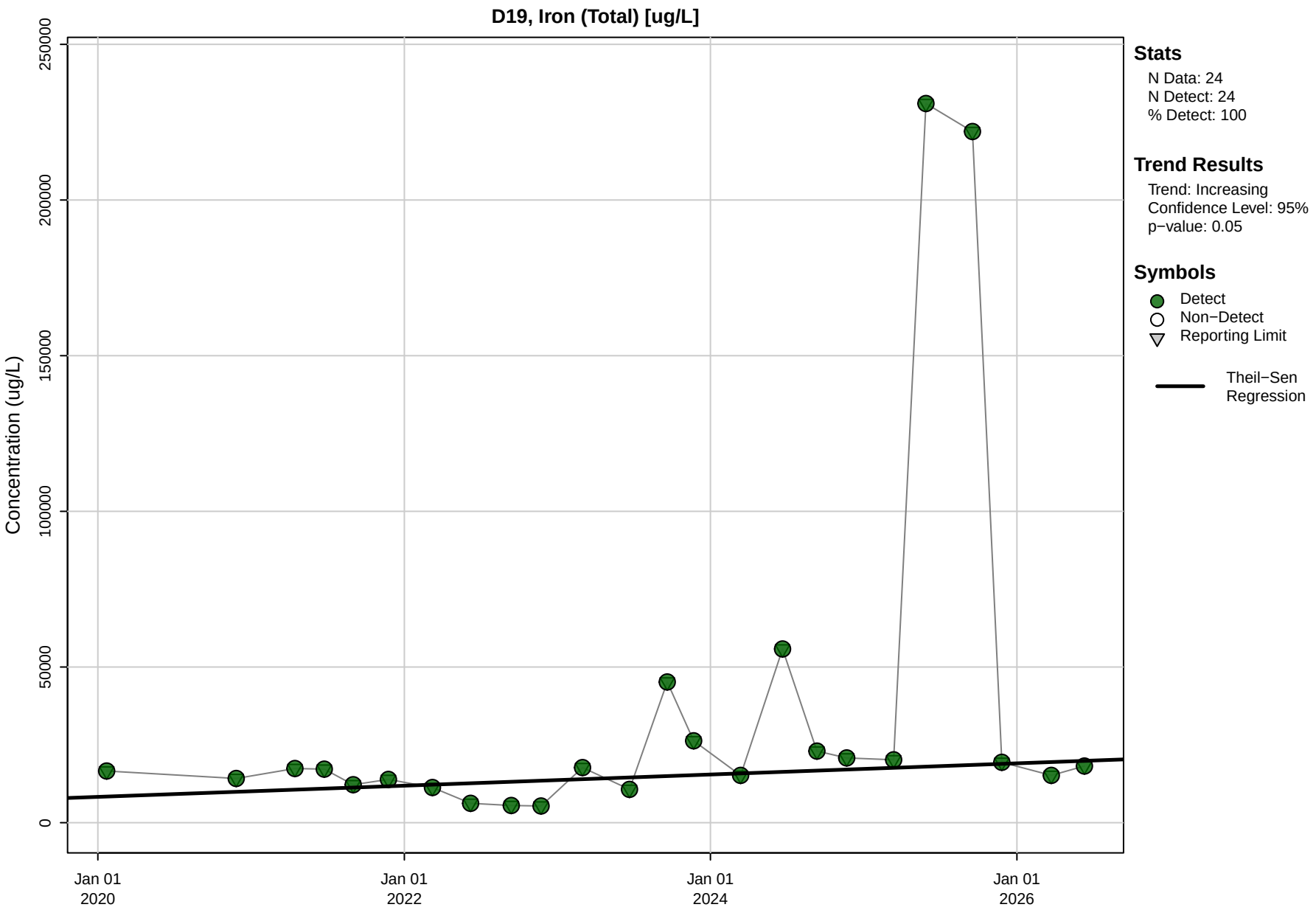

D18, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
20
40
60
80
100
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.607
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

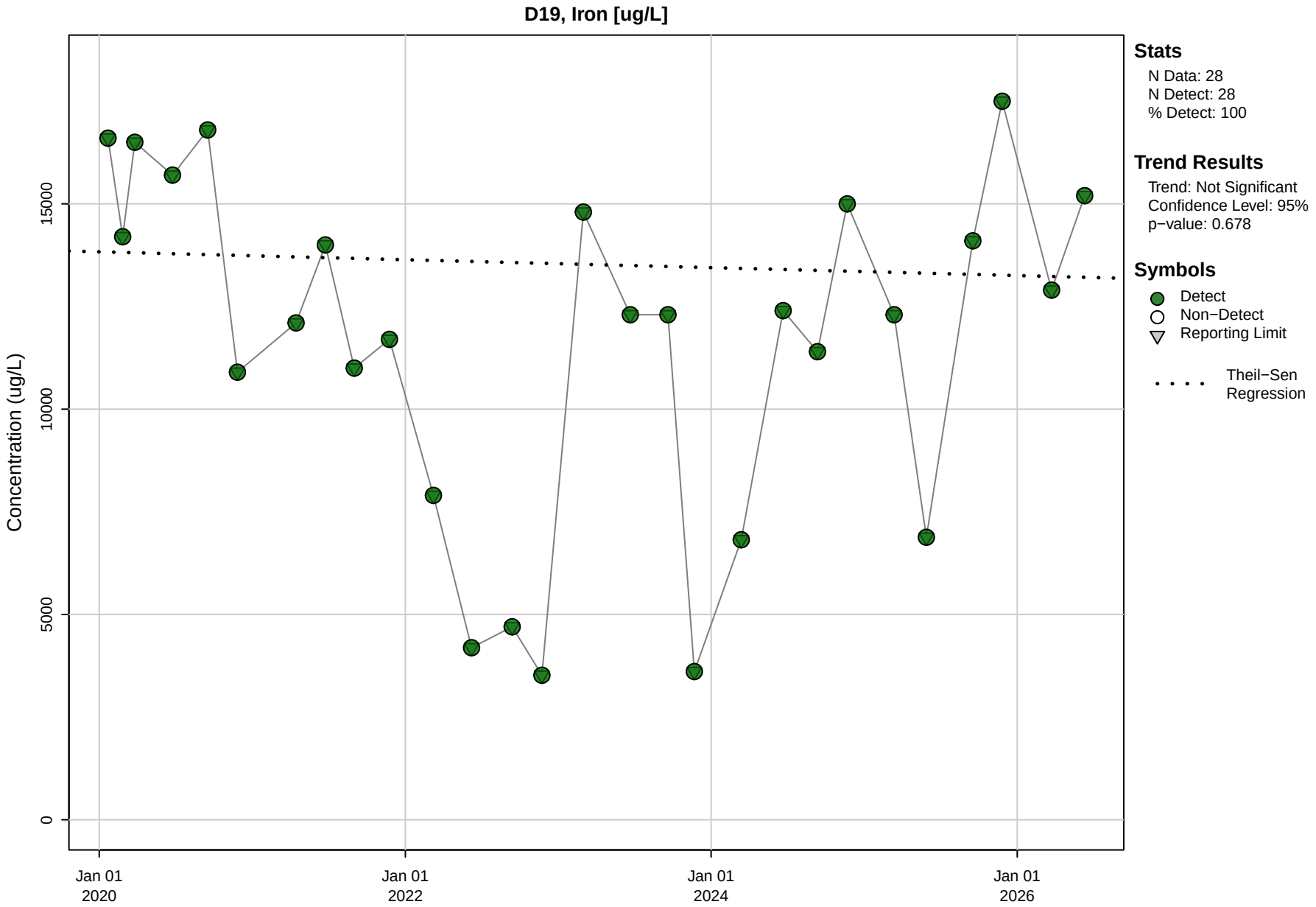

D18, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
100
200
300
400
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0601
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

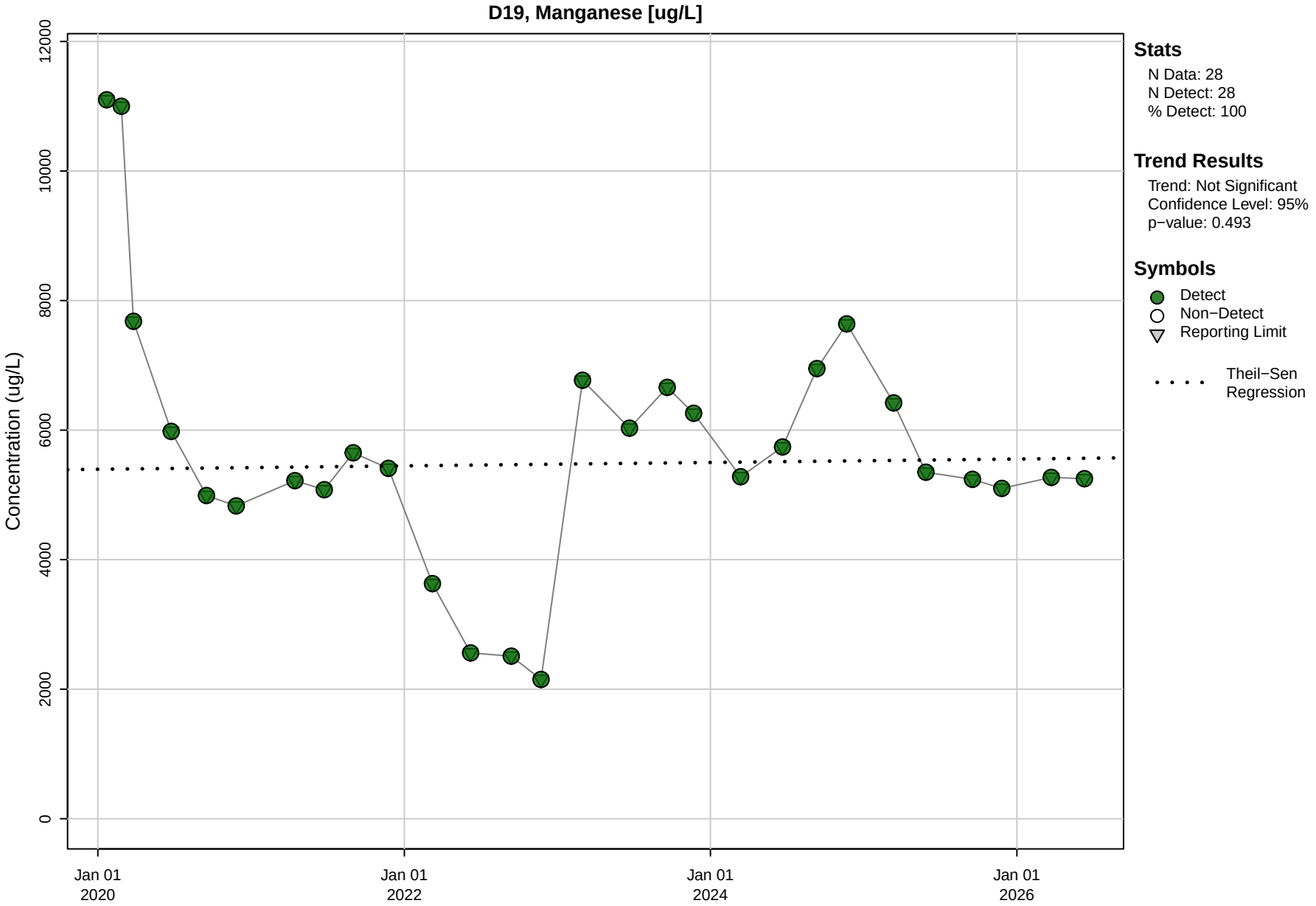

D19, Boron [ug/L]
Concentration (ug/L)
2000
1500
1000
500
0
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.169
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

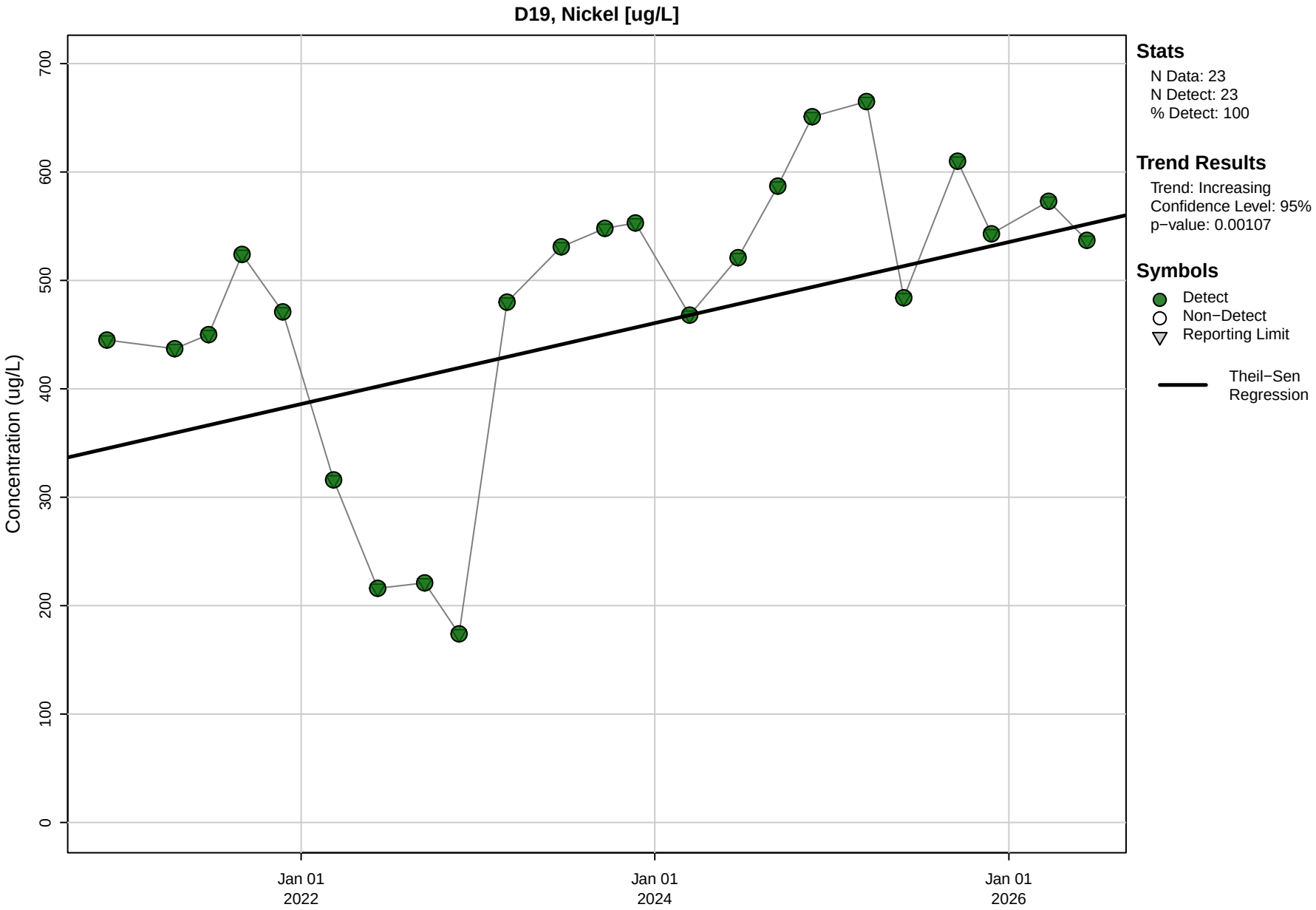

D19, Chloride [mg/L]
Concentration (mg/L)
0
100
200
300
400
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.206
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

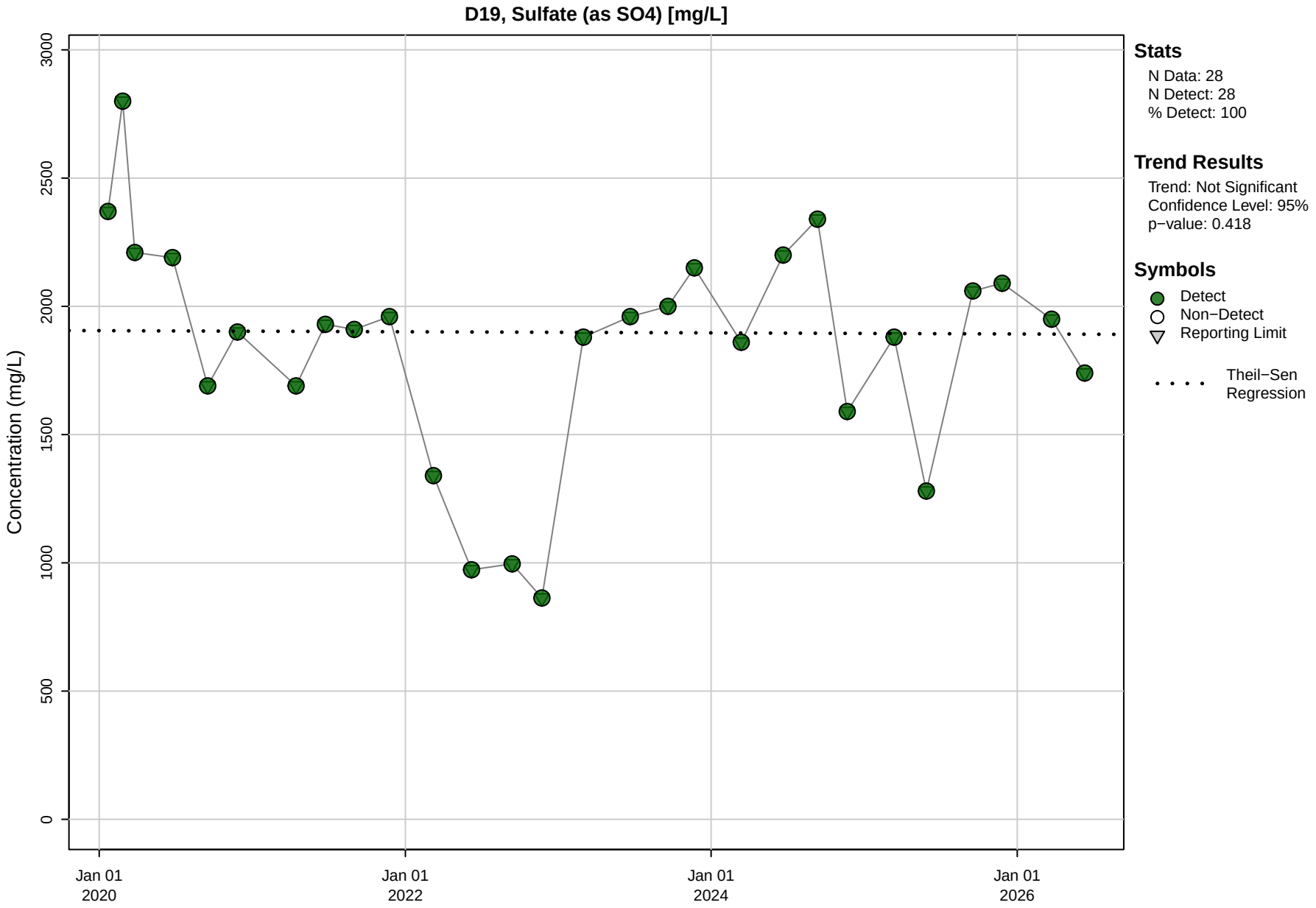

D19, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
1000
2000
3000
4000
5000
6000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.621
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

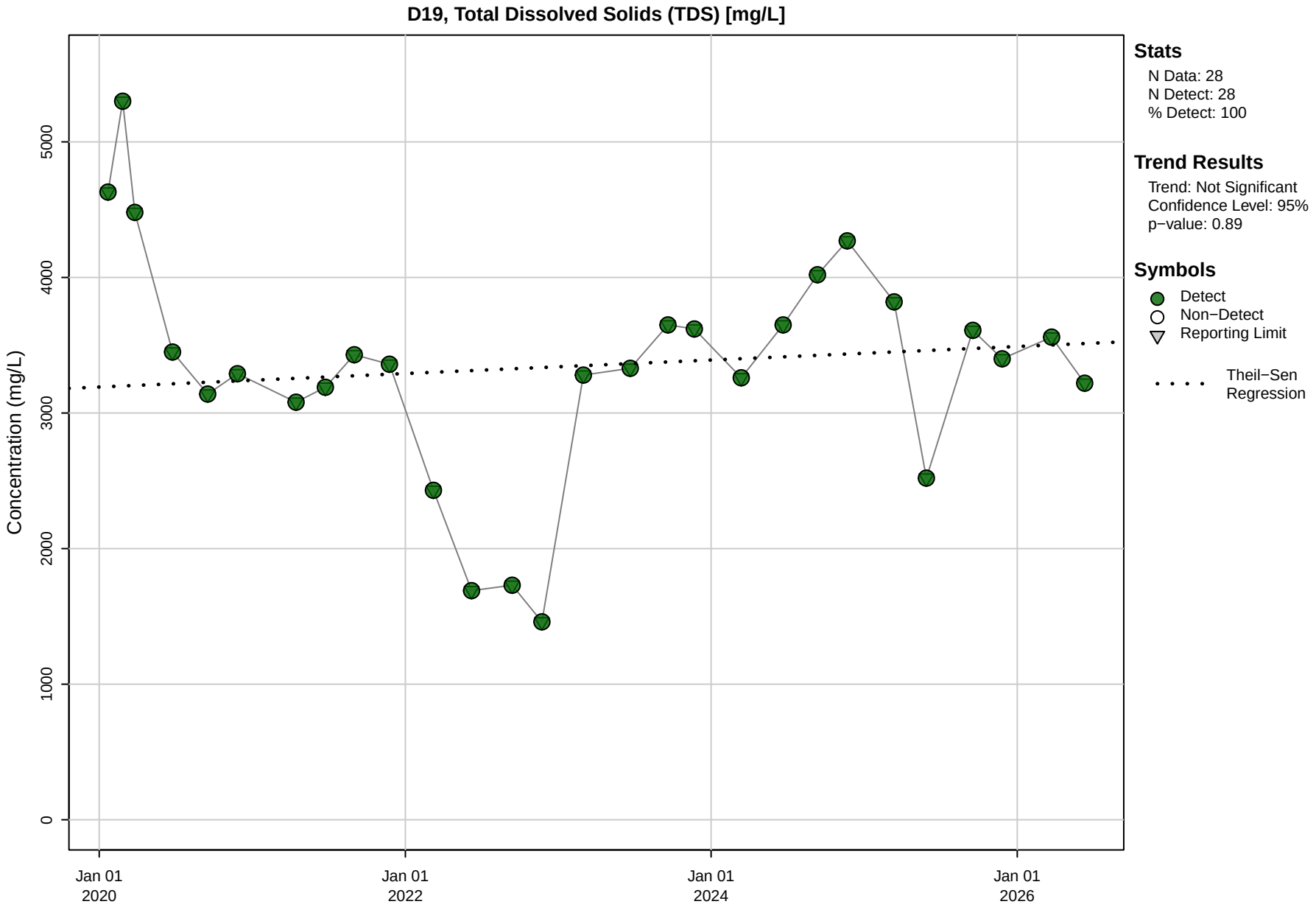

D19, Iron (Total) [ug/L]
Concentration (ug/L)
250000
200000
150000
100000
50000
0
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.05
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

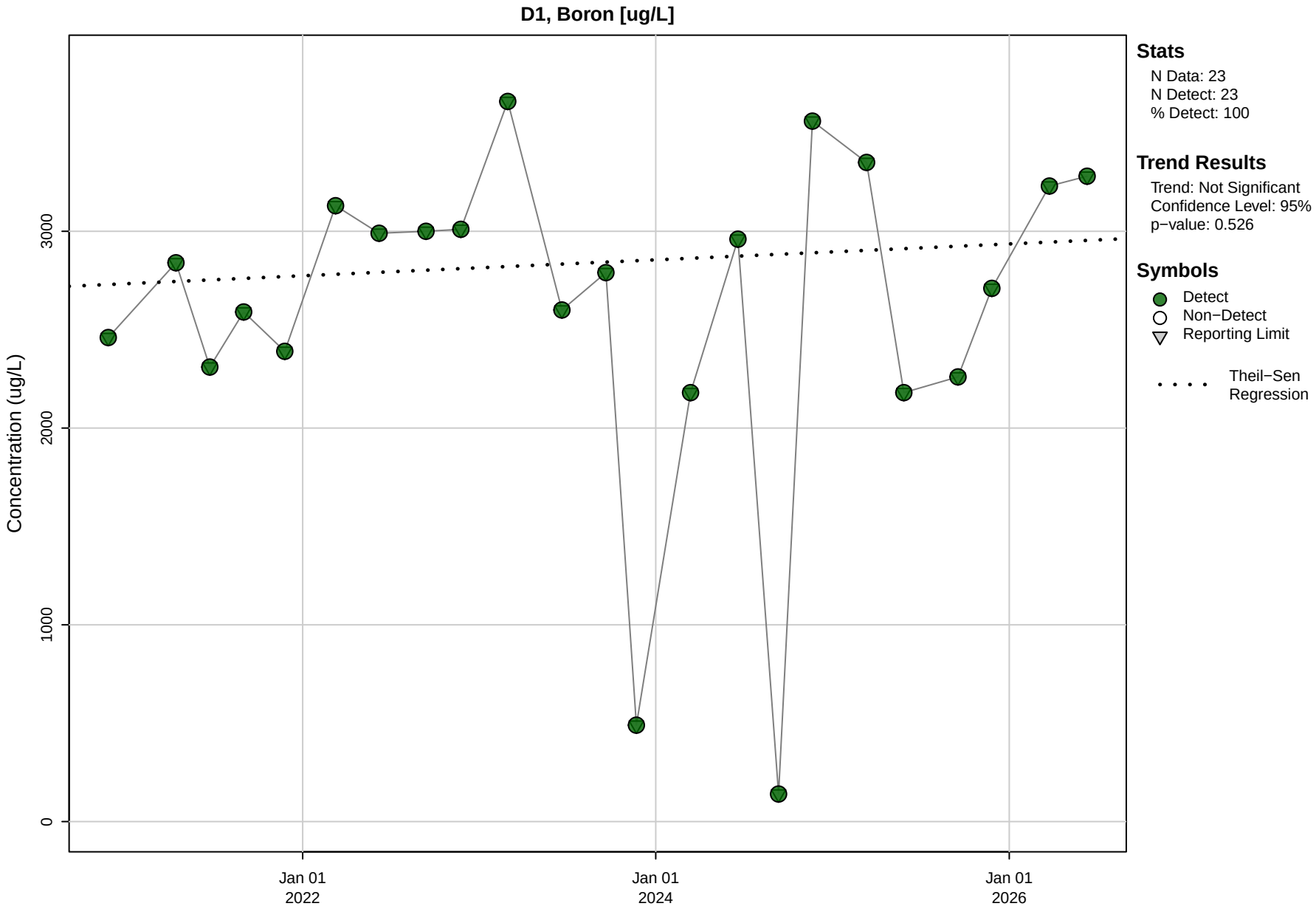

D19, Iron [ug/L]
Concentration (ug/L)
0
5000
10000
15000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.678
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

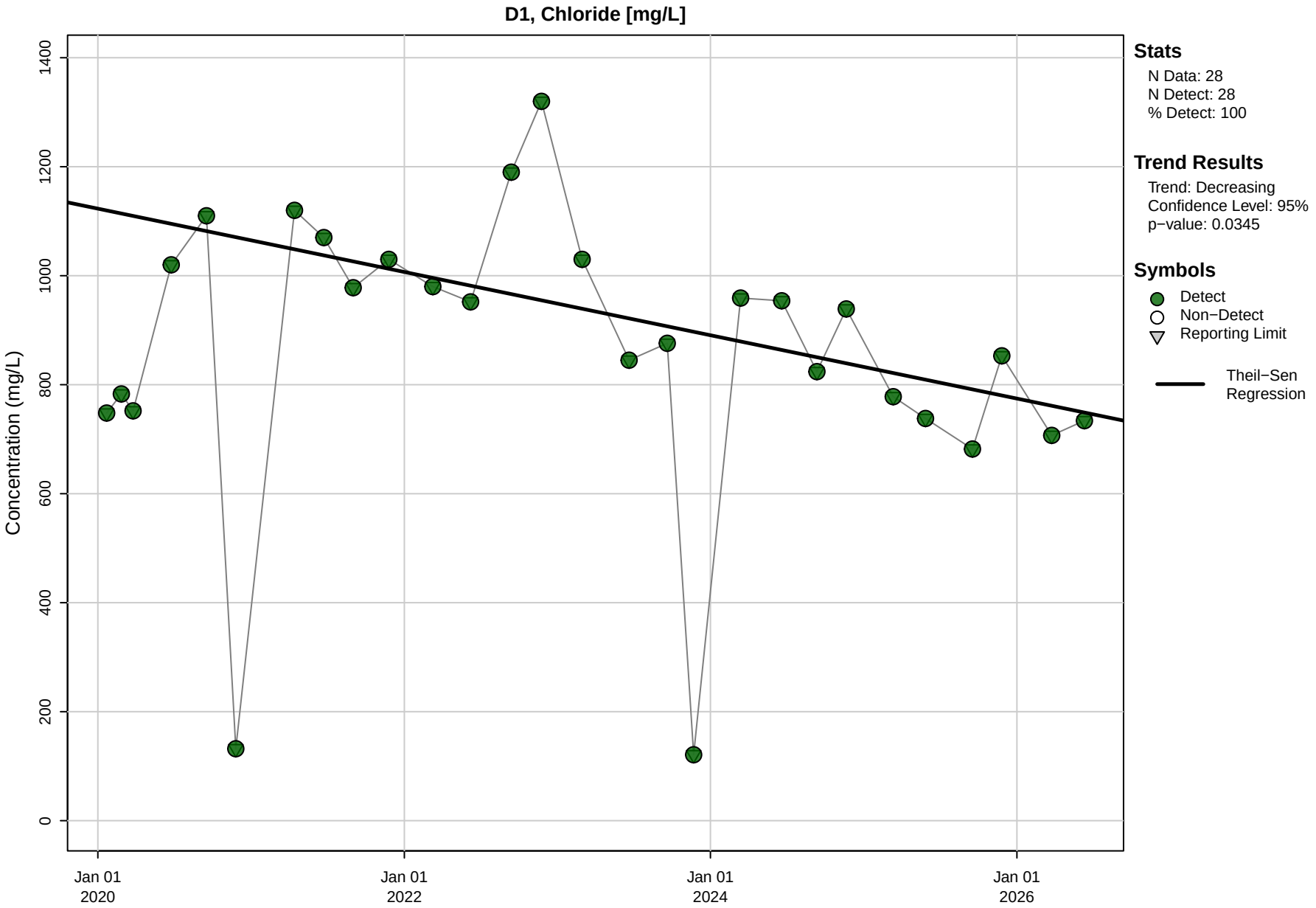

D19, Manganese [ug/L]
Concentration (ug/L)
0
2000
4000
6000
8000
10000
12000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.493
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

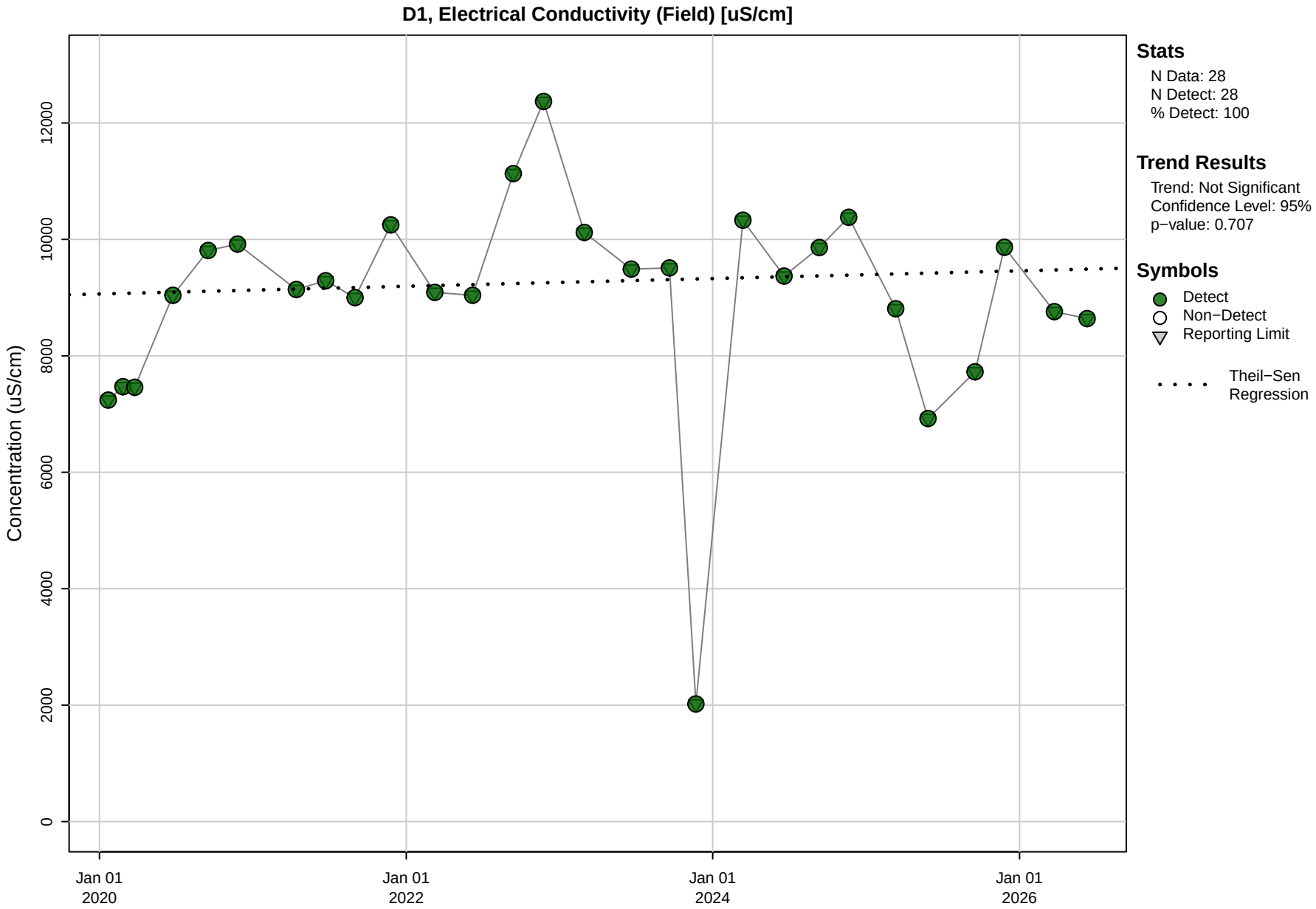

D19, Nickel [ug/L]
Concentration (ug/L)
0
100
200
300
400
500
600
700
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.00107
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

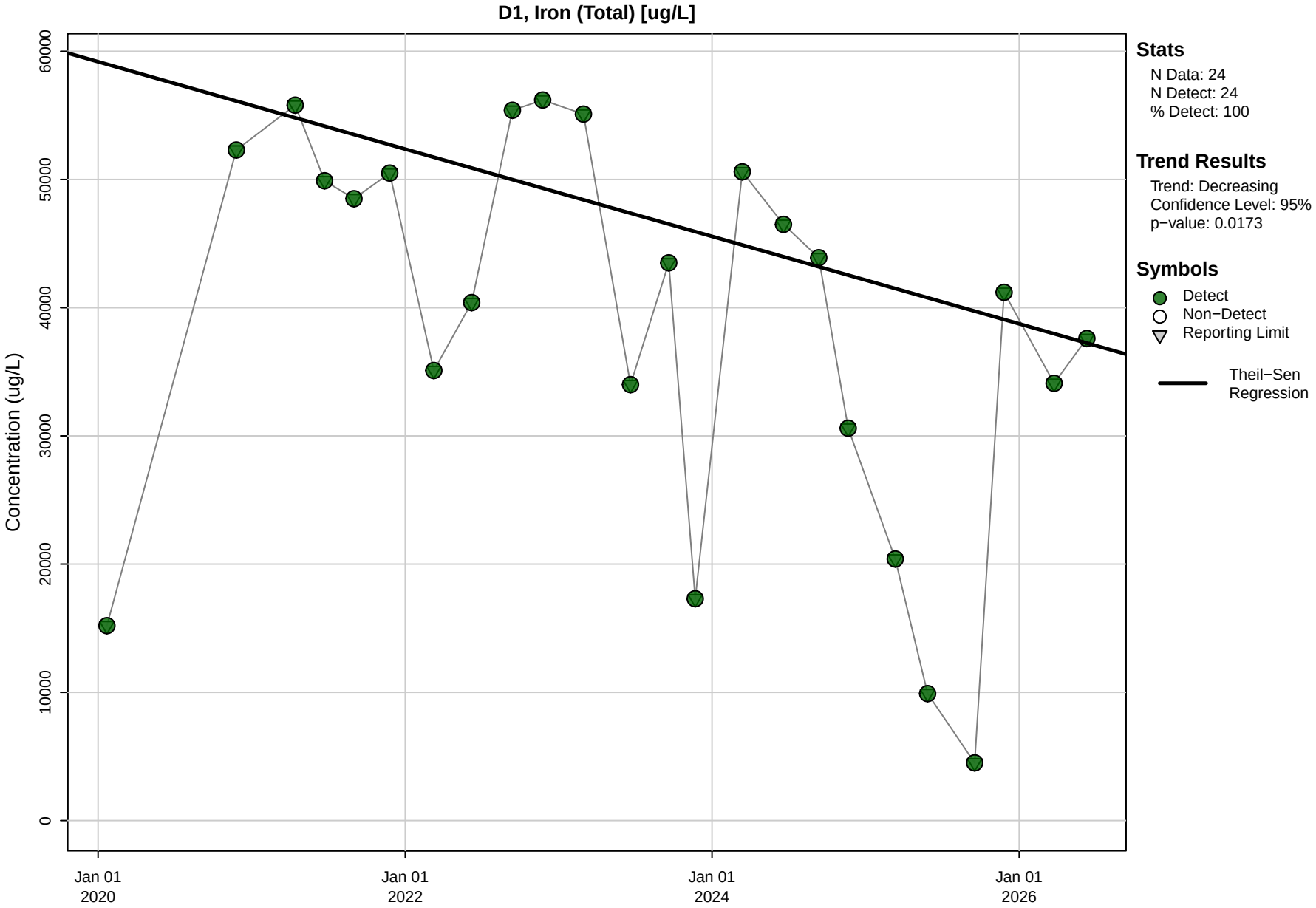

D19, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
500
1000
1500
2000
2500
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.418
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

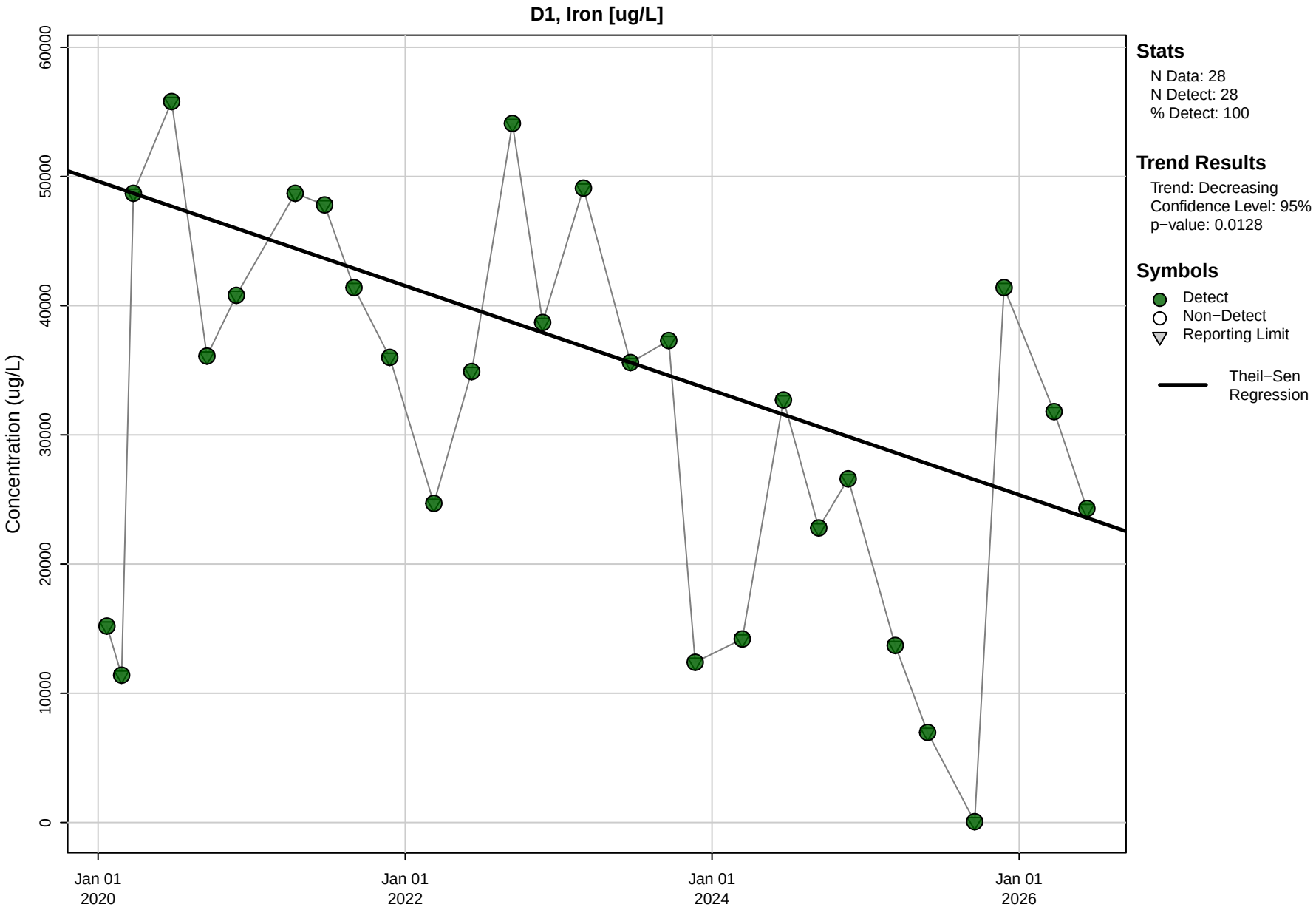

D19, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
4000
5000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.89
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

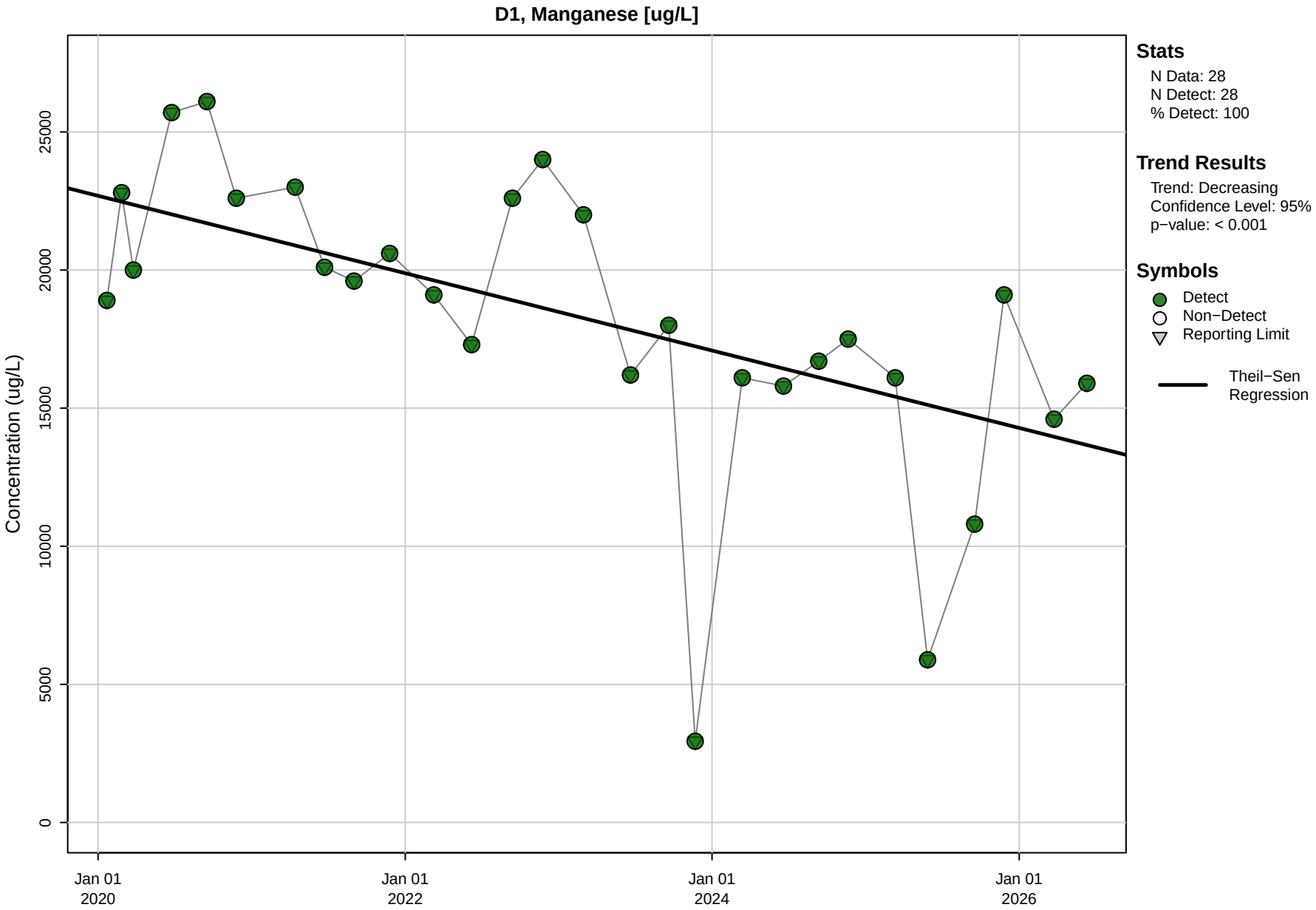

D1, Boron [ug/L]
Concentration (ug/L)
0
1000
2000
3000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.526
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

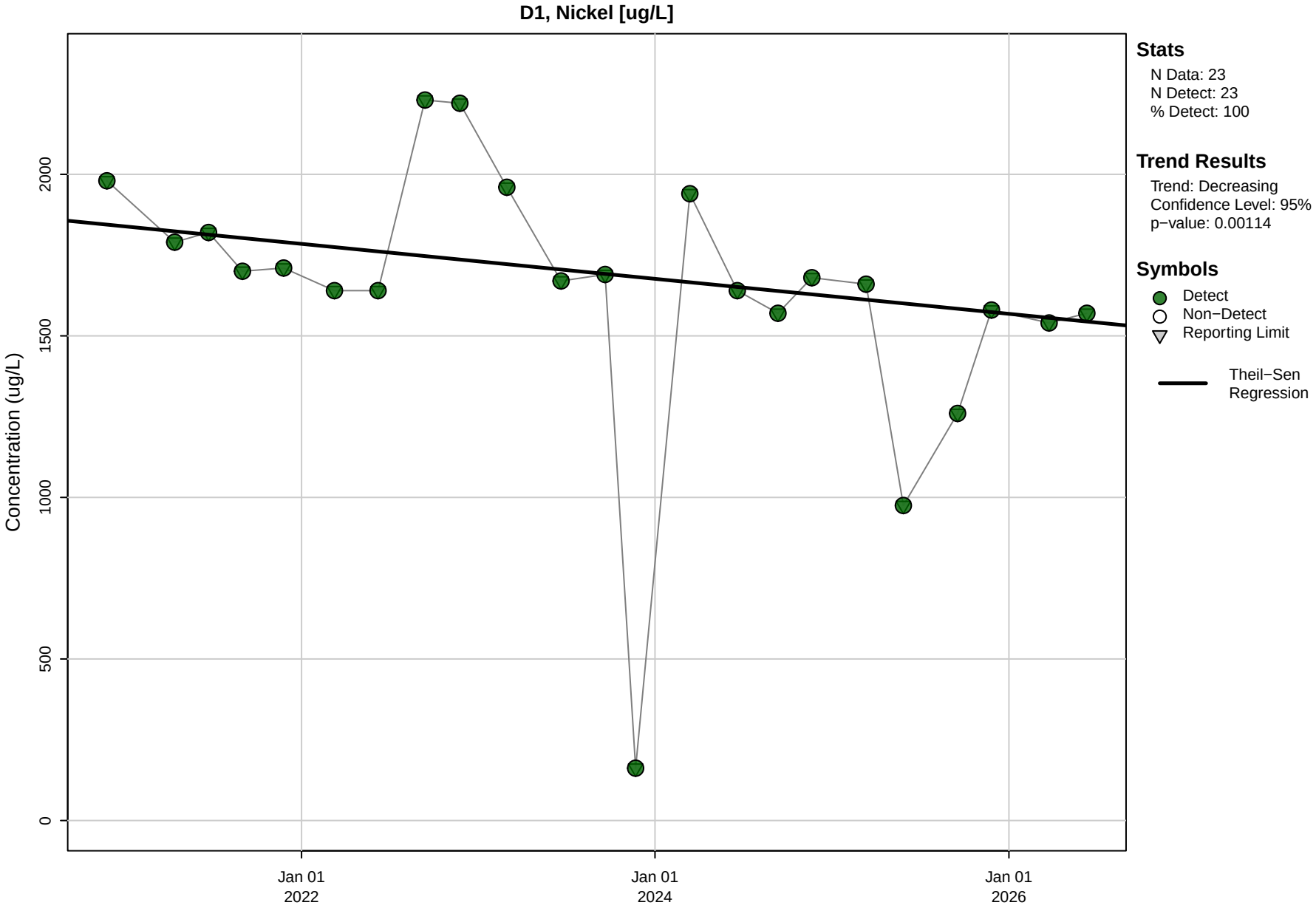

D1, Chloride [mg/L]
Concentration (mg/L)
0
200
400
600
800
1000
1200
1400
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0345
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

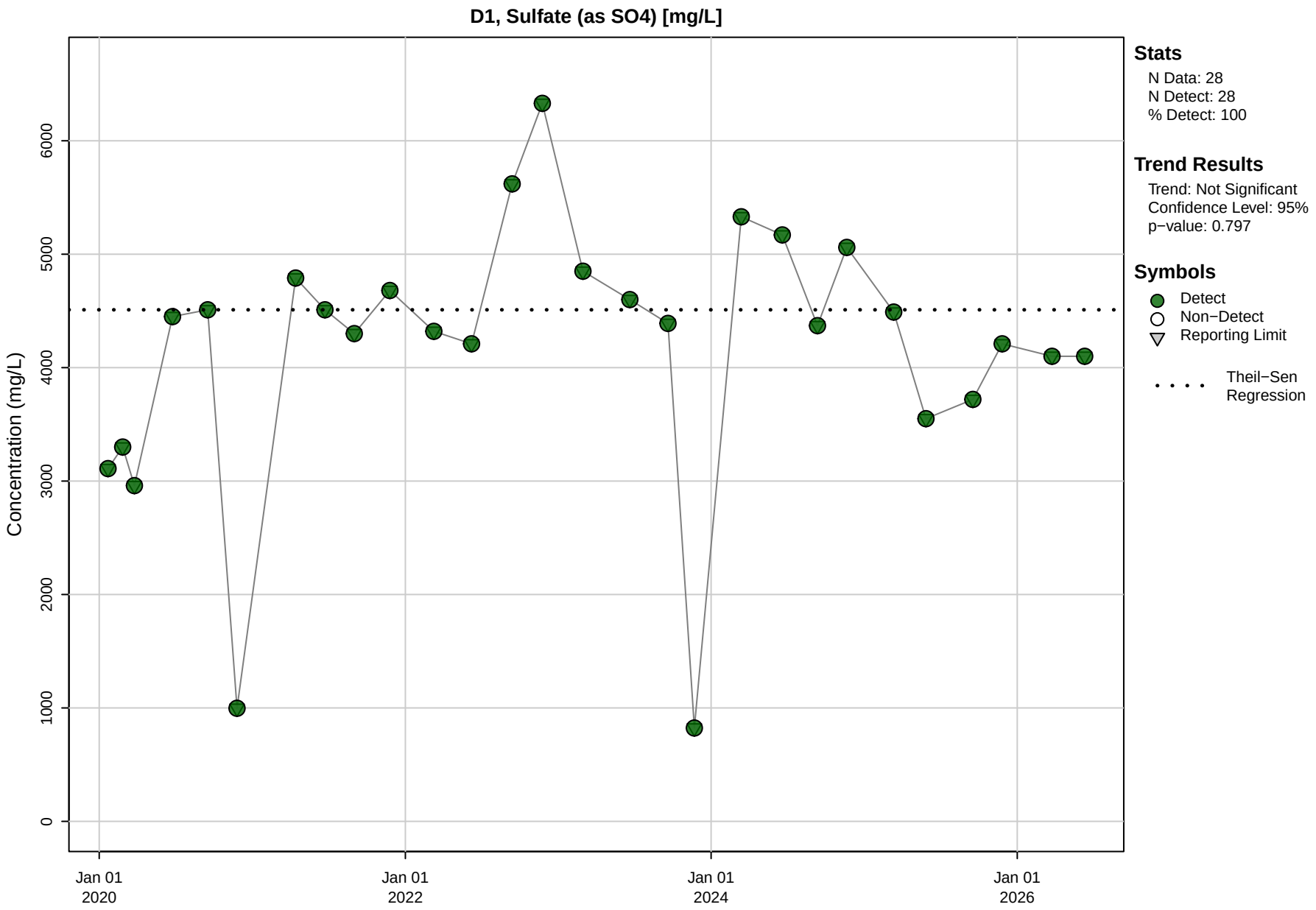

D1, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
2000
4000
6000
8000
10000
12000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.707
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

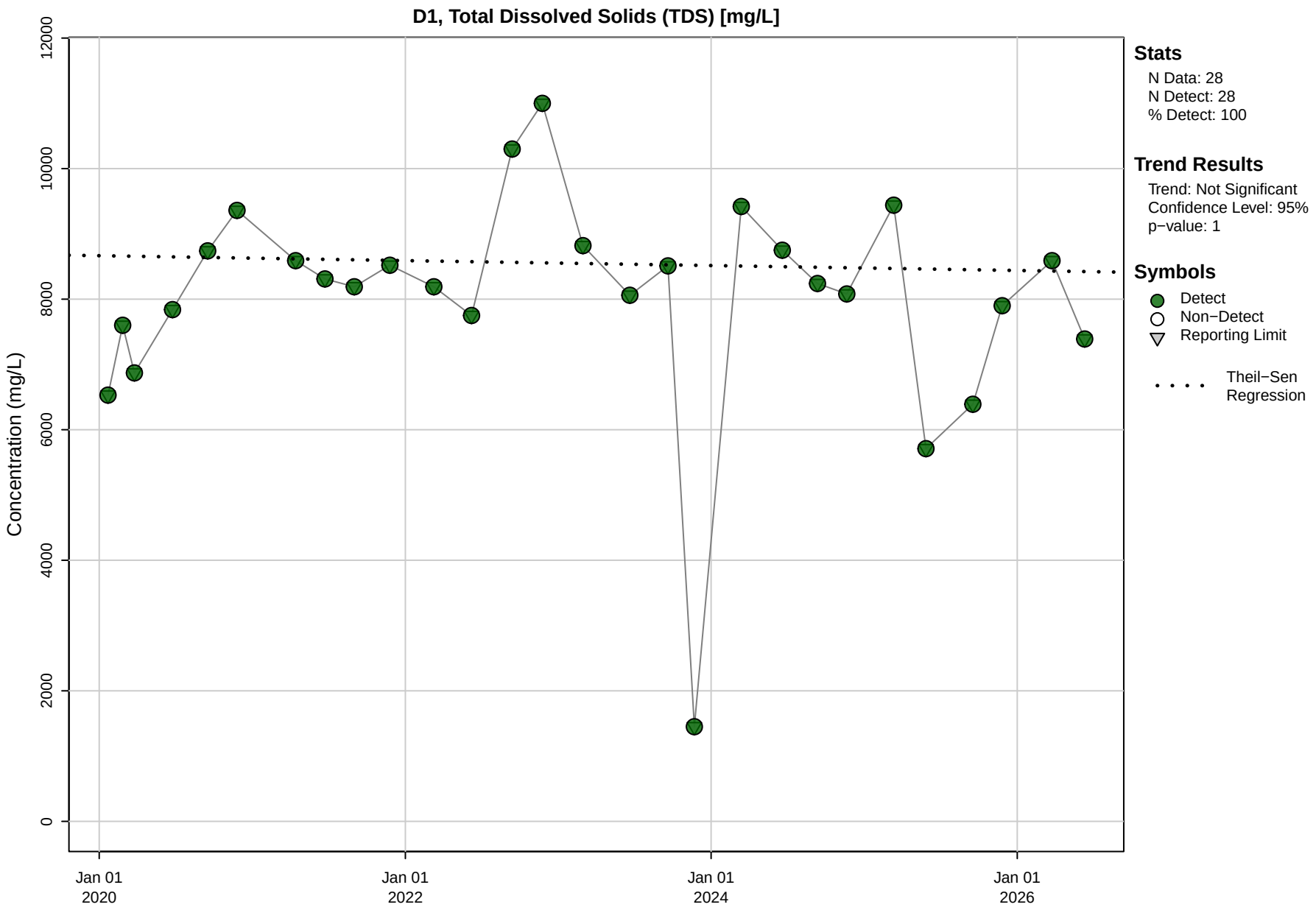

D1, Iron (Total) [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
50000
60000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0173
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

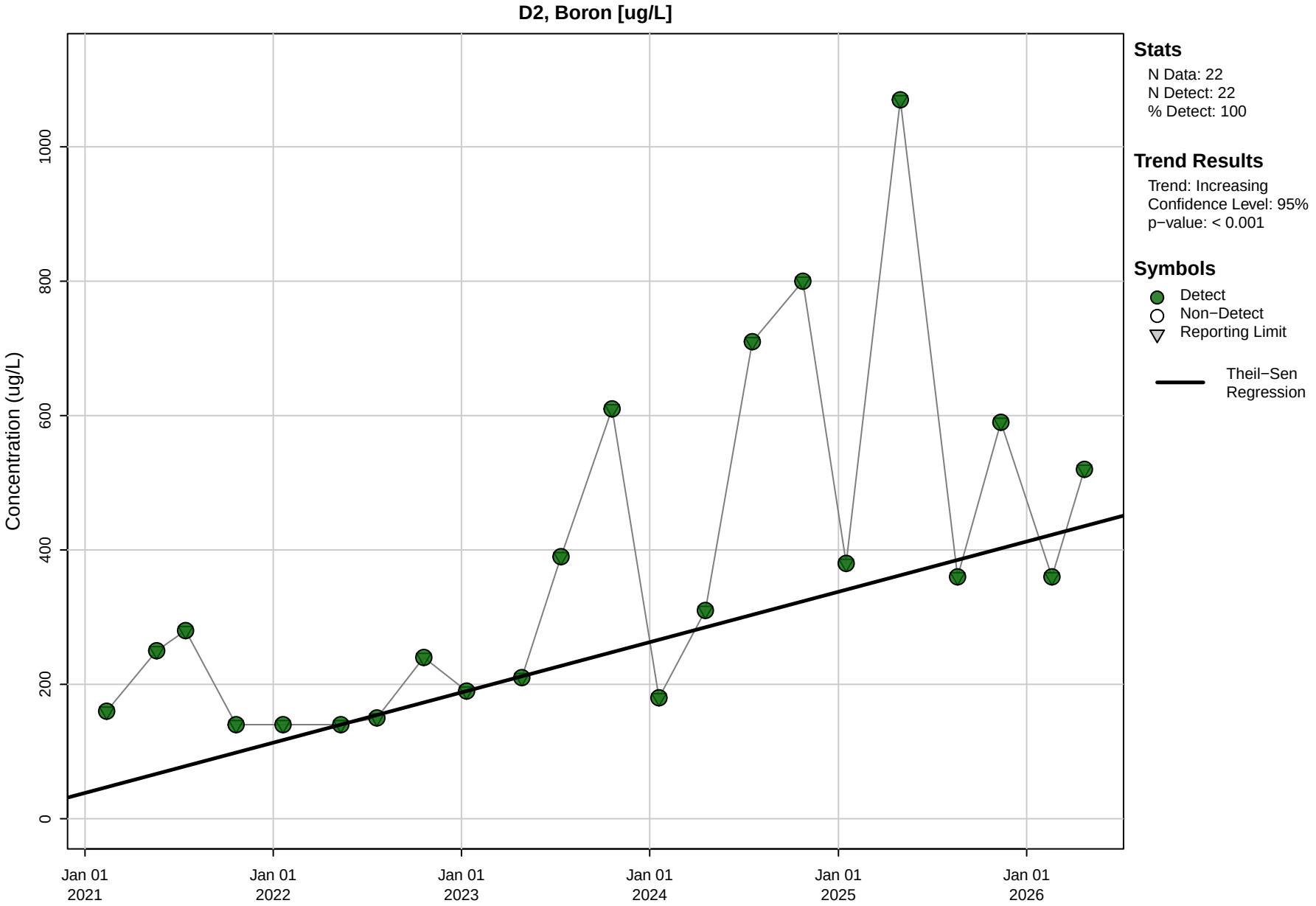

D1, Iron [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
50000
60000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0128
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

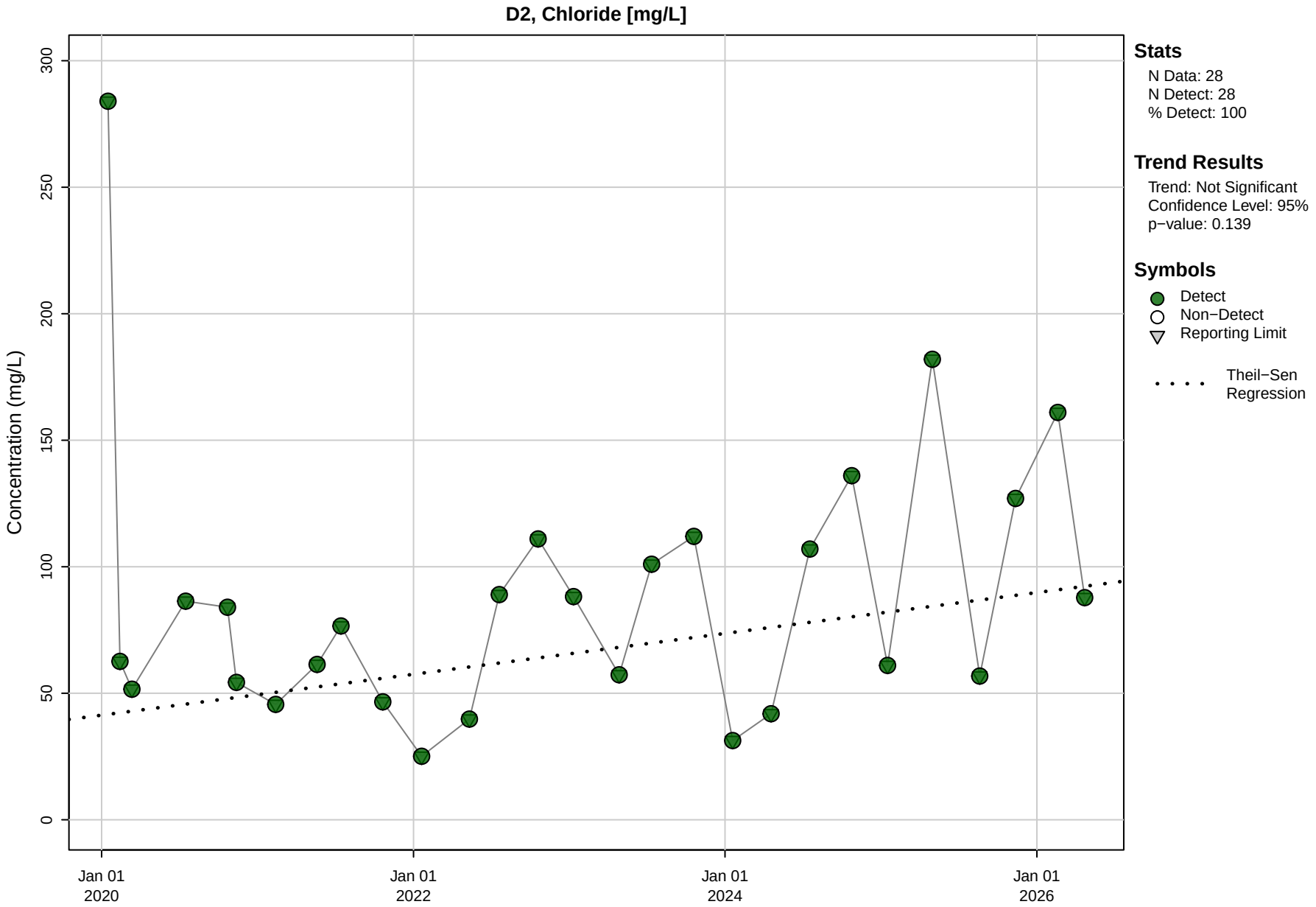

D1, Manganese [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
25000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

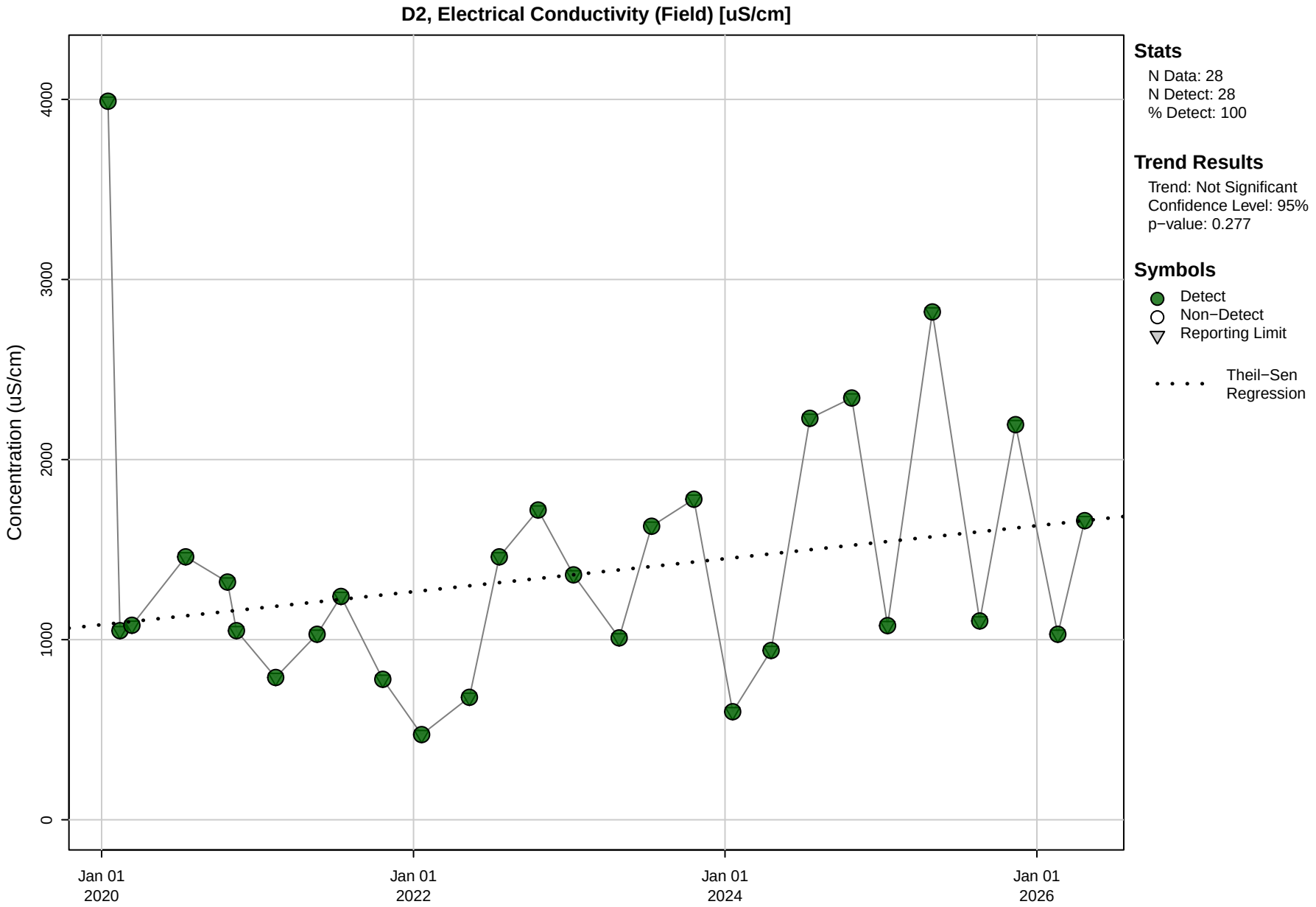

D1, Nickel [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00114
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

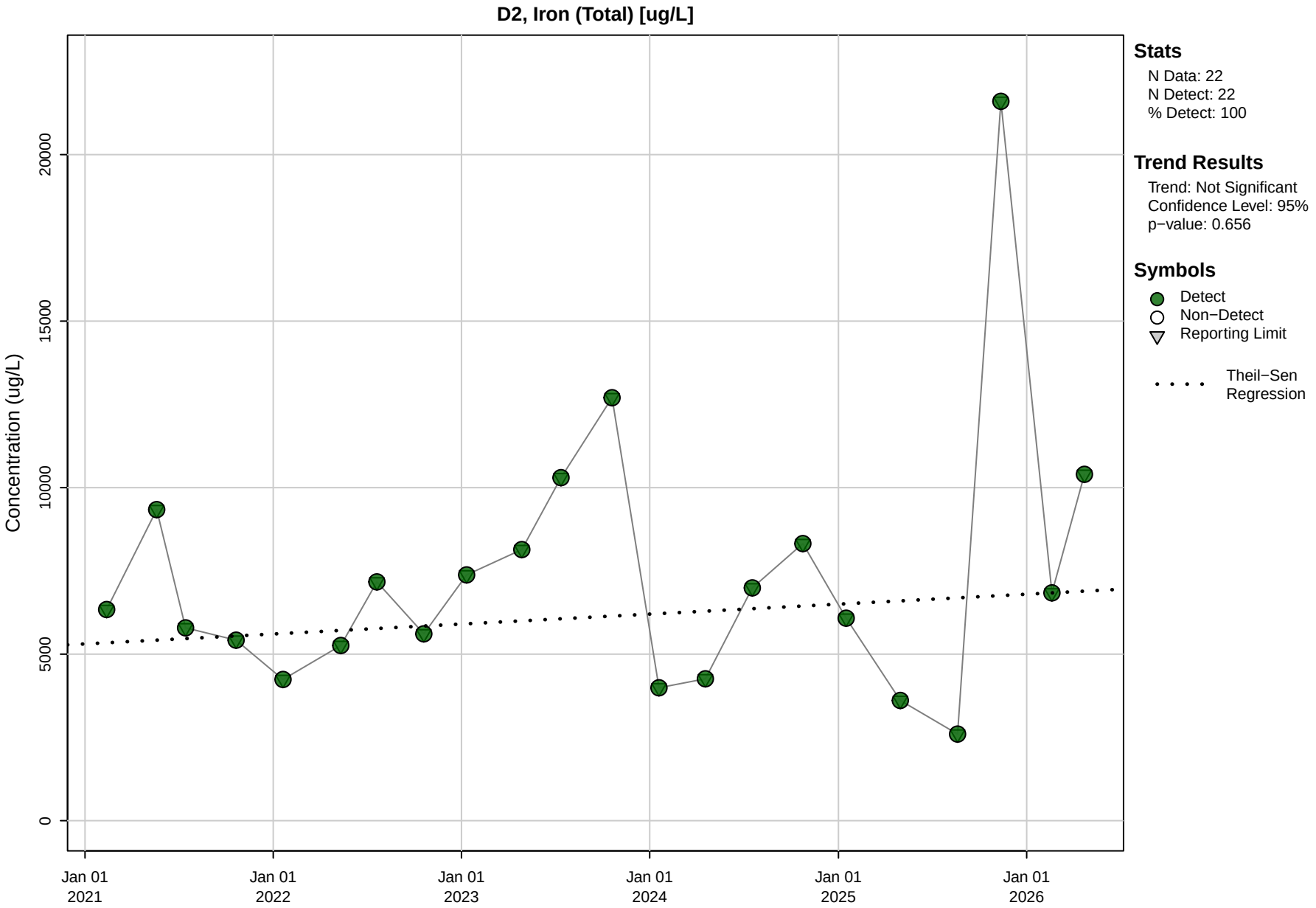

D1, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
4000
5000
6000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.797
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

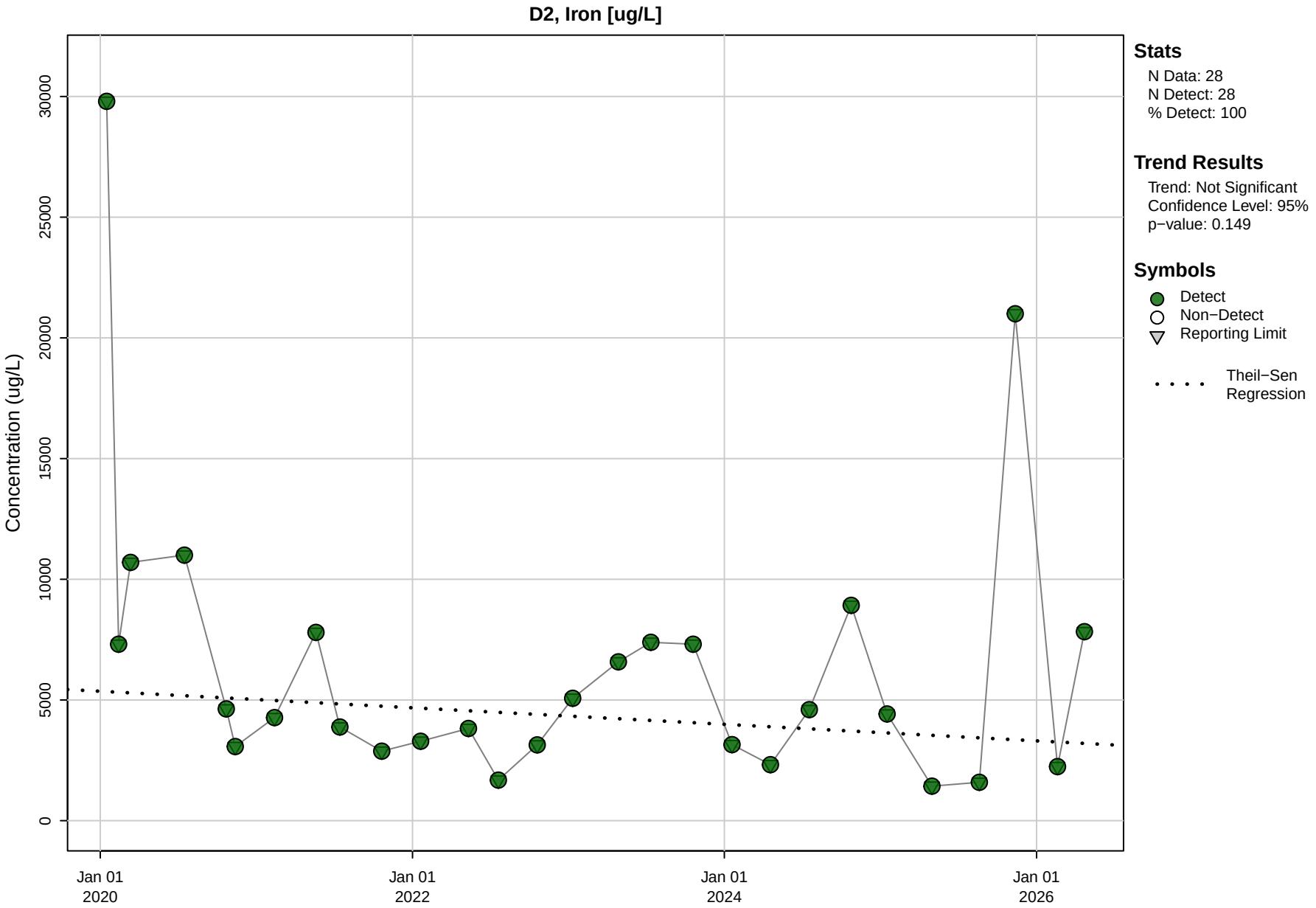

D1, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
2000
4000
6000
8000
10000
12000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 1
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

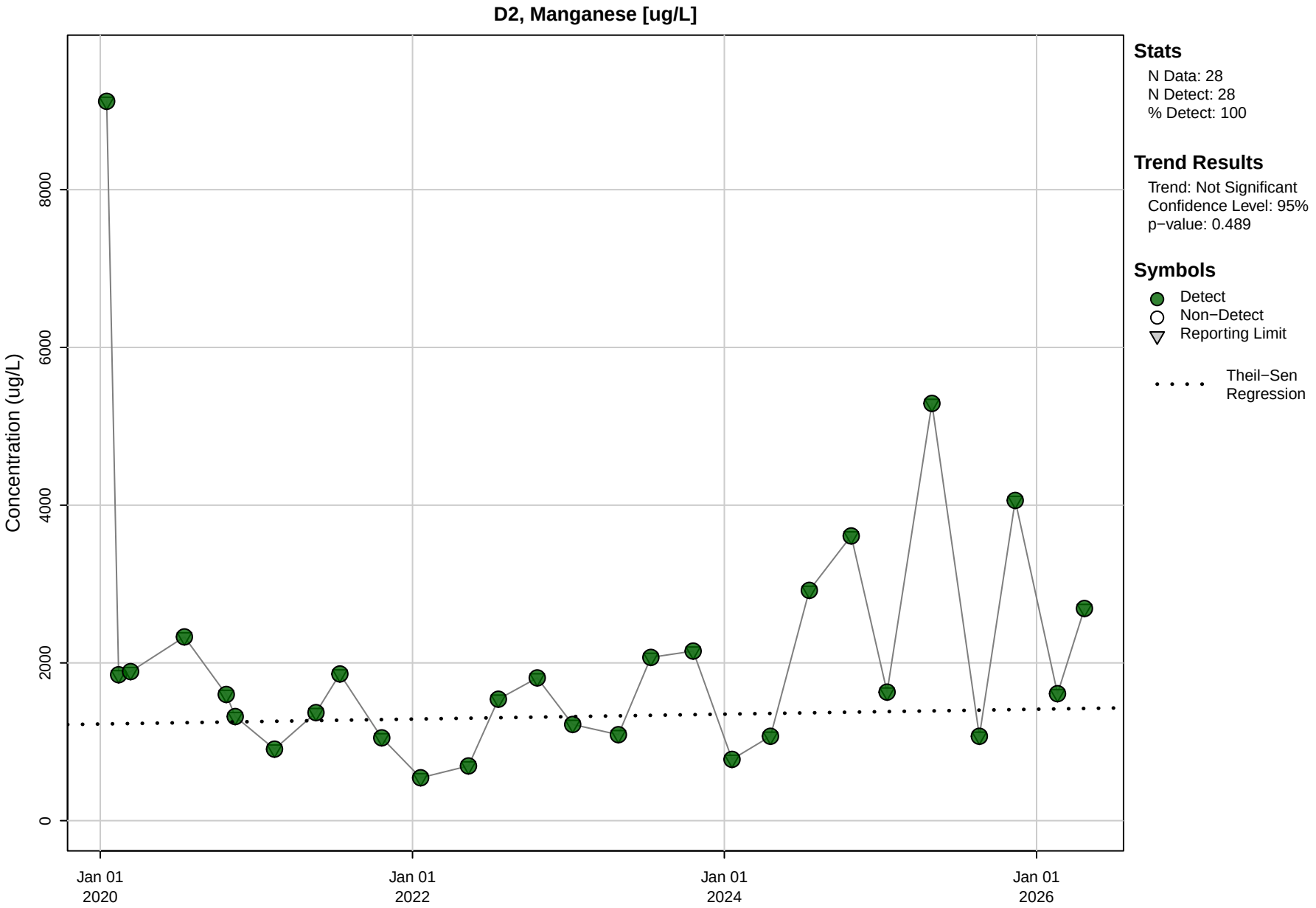

D2, Boron [ug/L]
Concentration (ug/L)
0
200
400
600
800
1000
Jan 01
2021
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 22
N Detect: 22
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

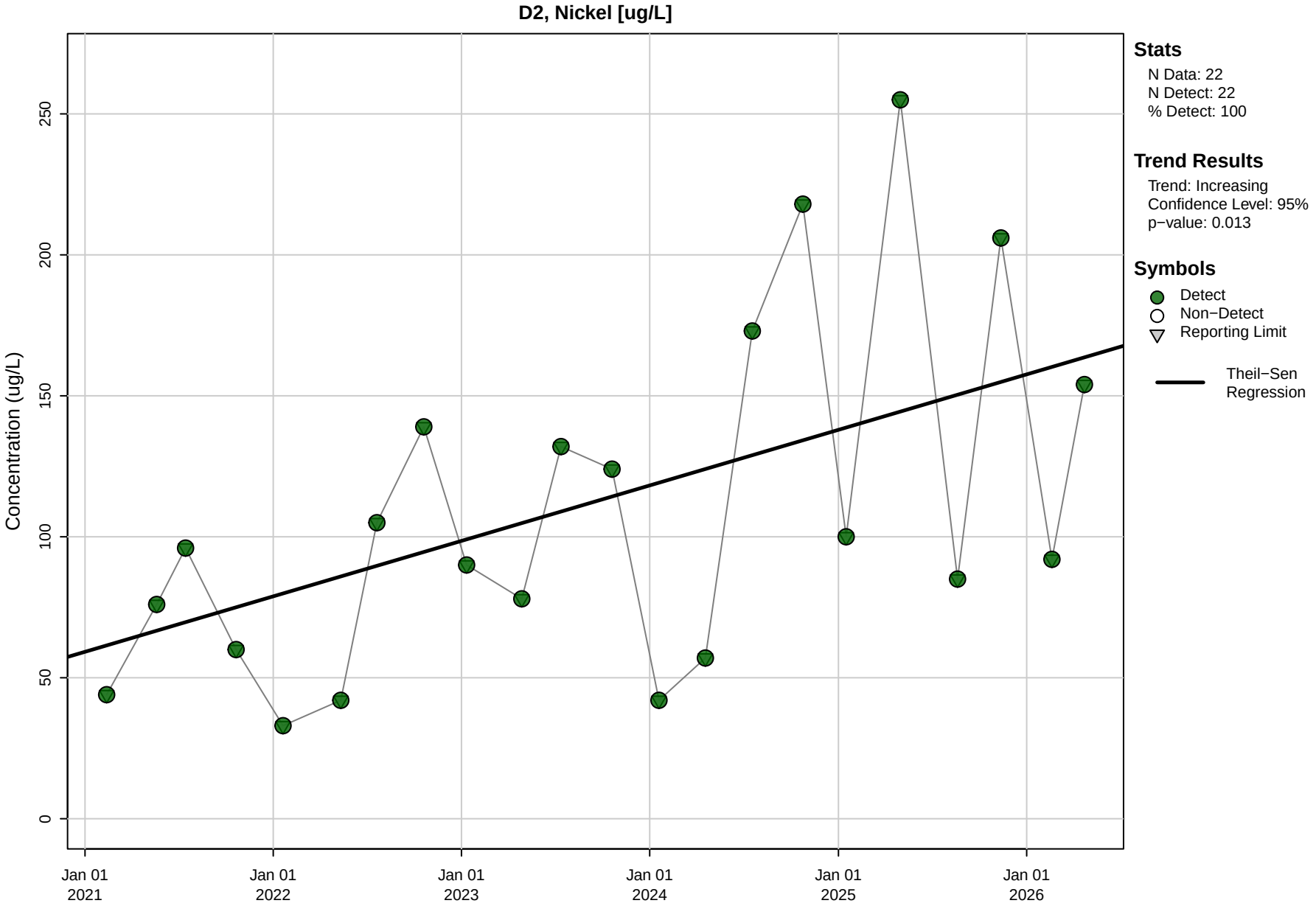

D2, Chloride [mg/L]
Concentration (mg/L)
0
50
100
150
200
250
300
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.139
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

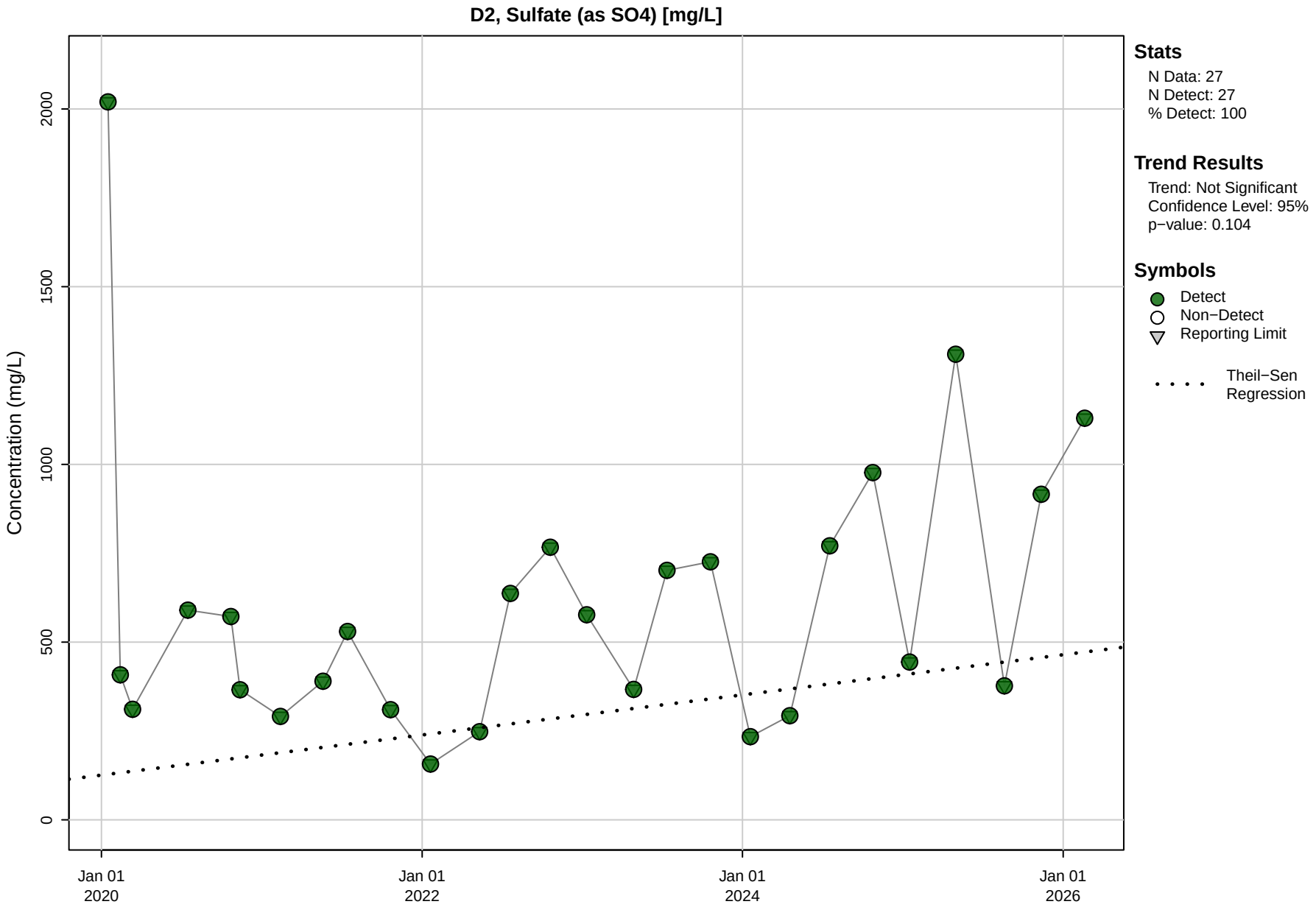

D2, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
1000
2000
3000
4000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.277
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

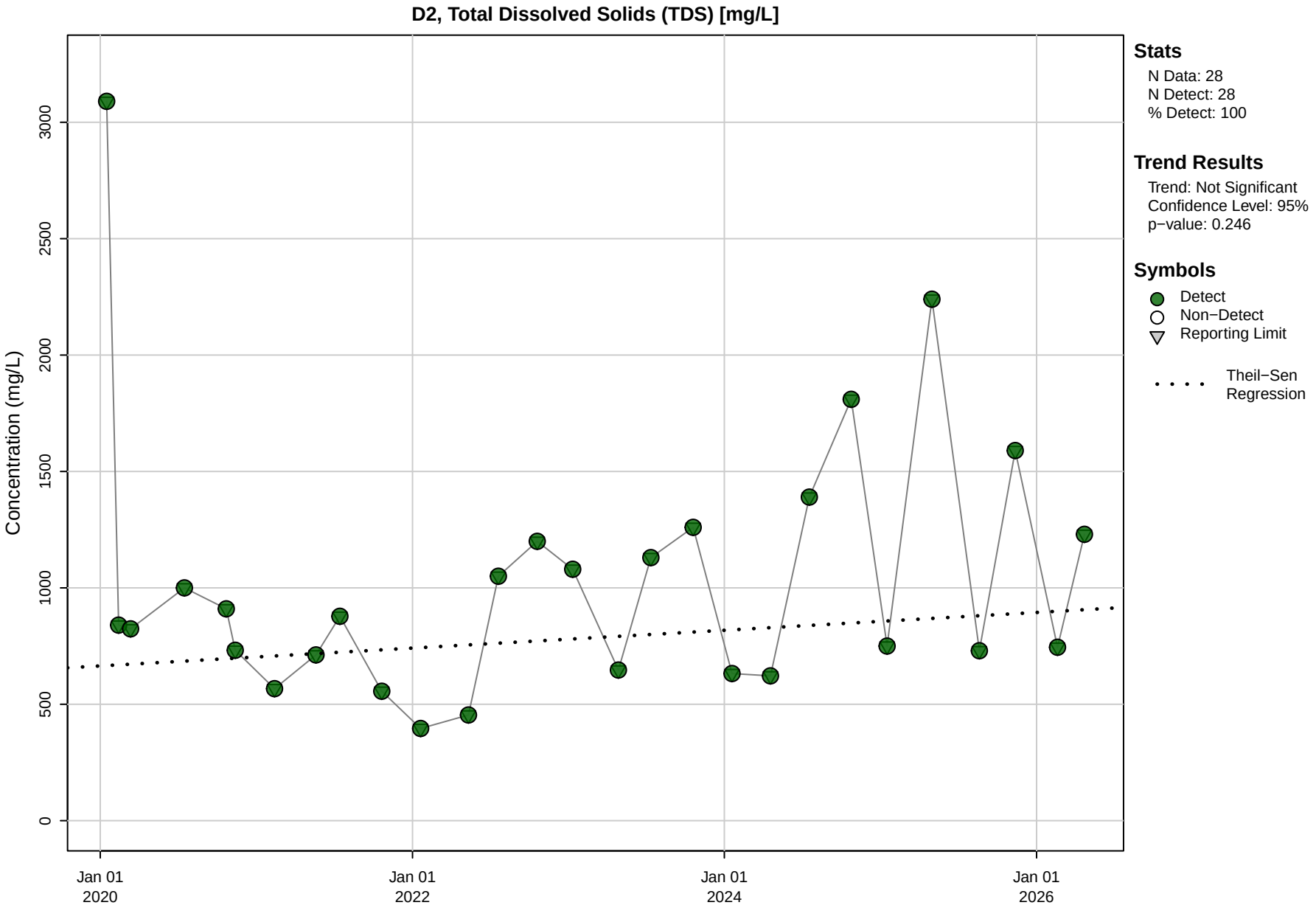

D2, Iron (Total) [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
Jan 01
2021
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 22
N Detect: 22
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.656
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

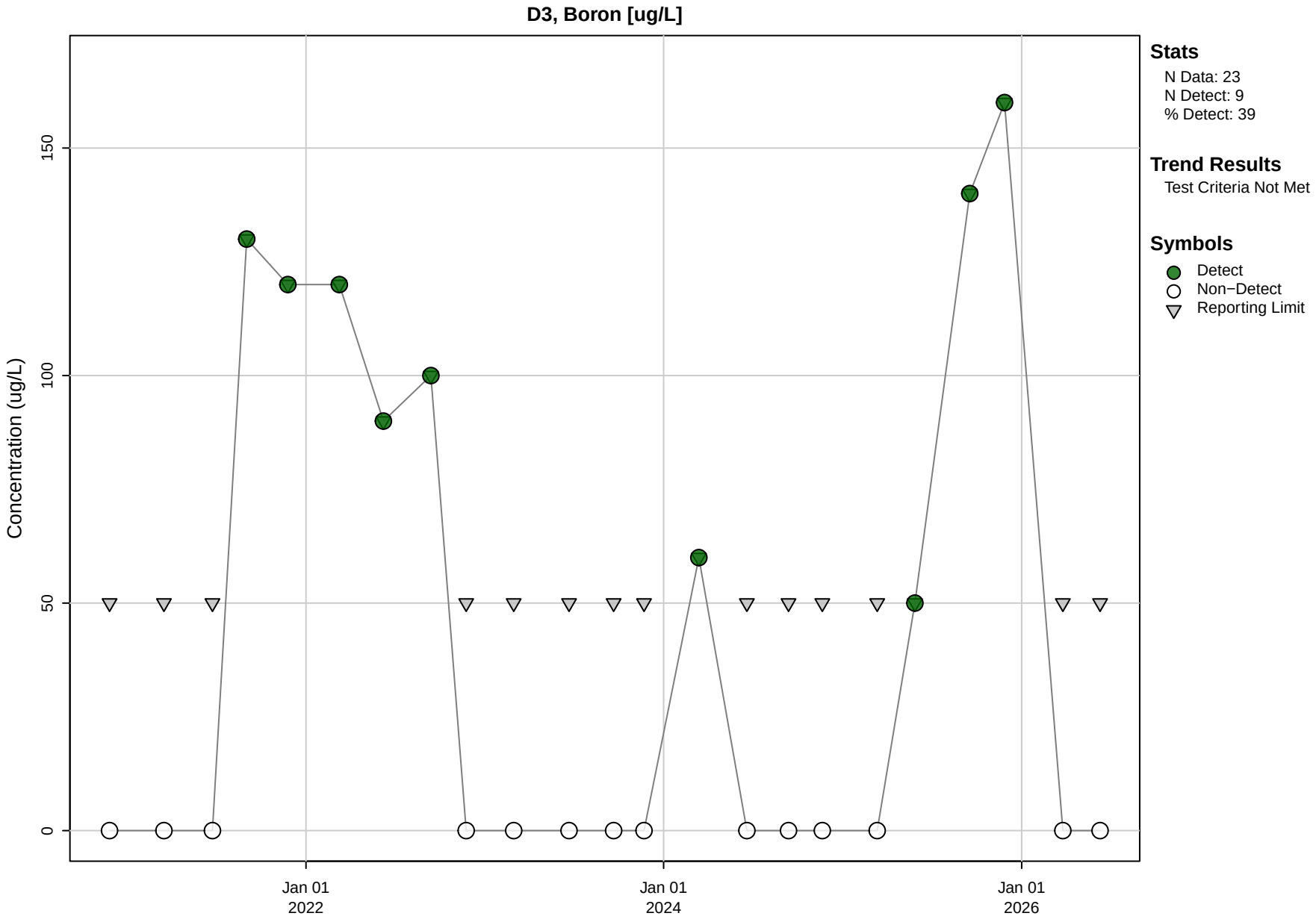

D2, Iron [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
25000
30000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.149
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

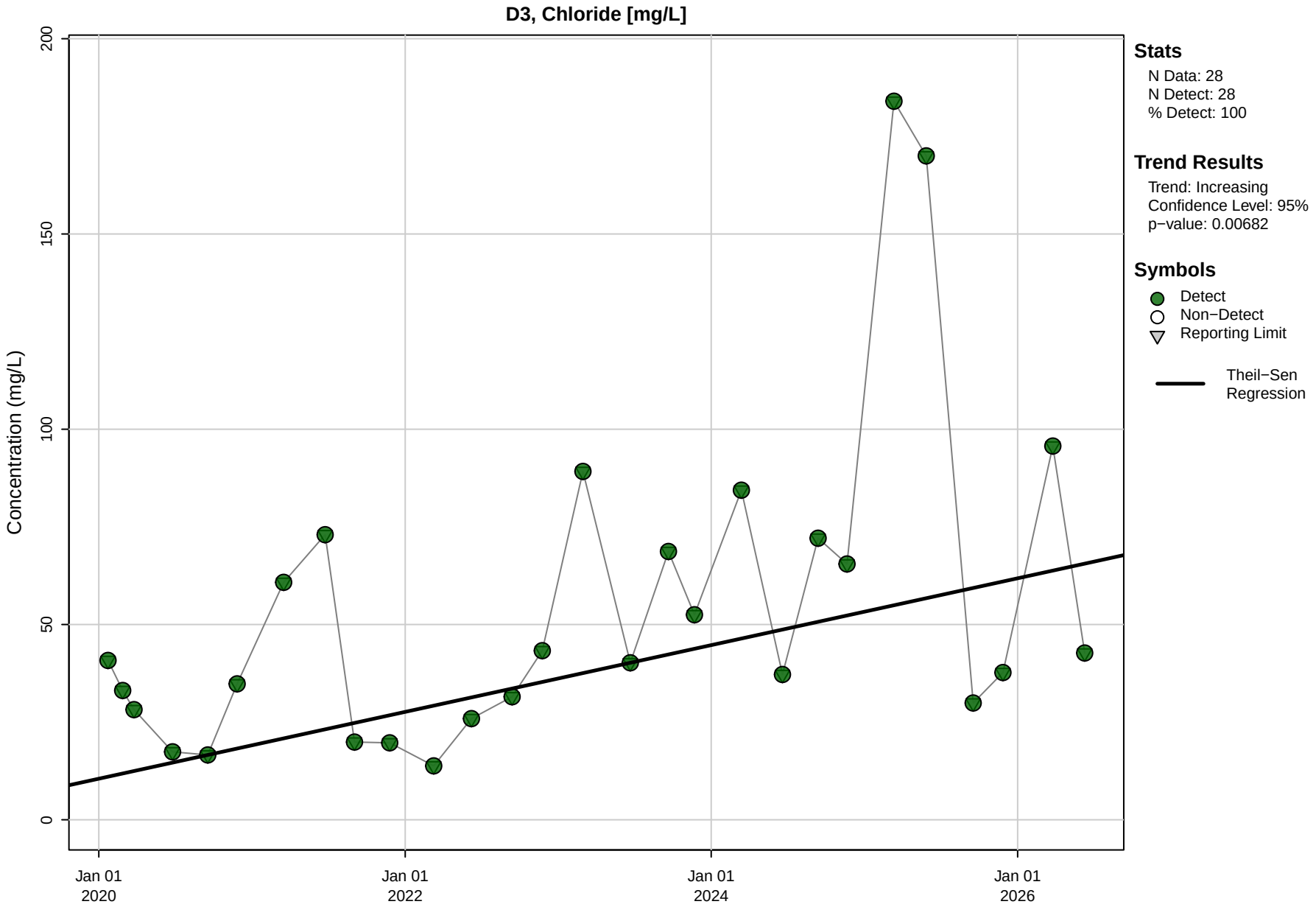

D2, Manganese [ug/L]
Concentration (ug/L)
0
2000
4000
6000
8000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.489
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

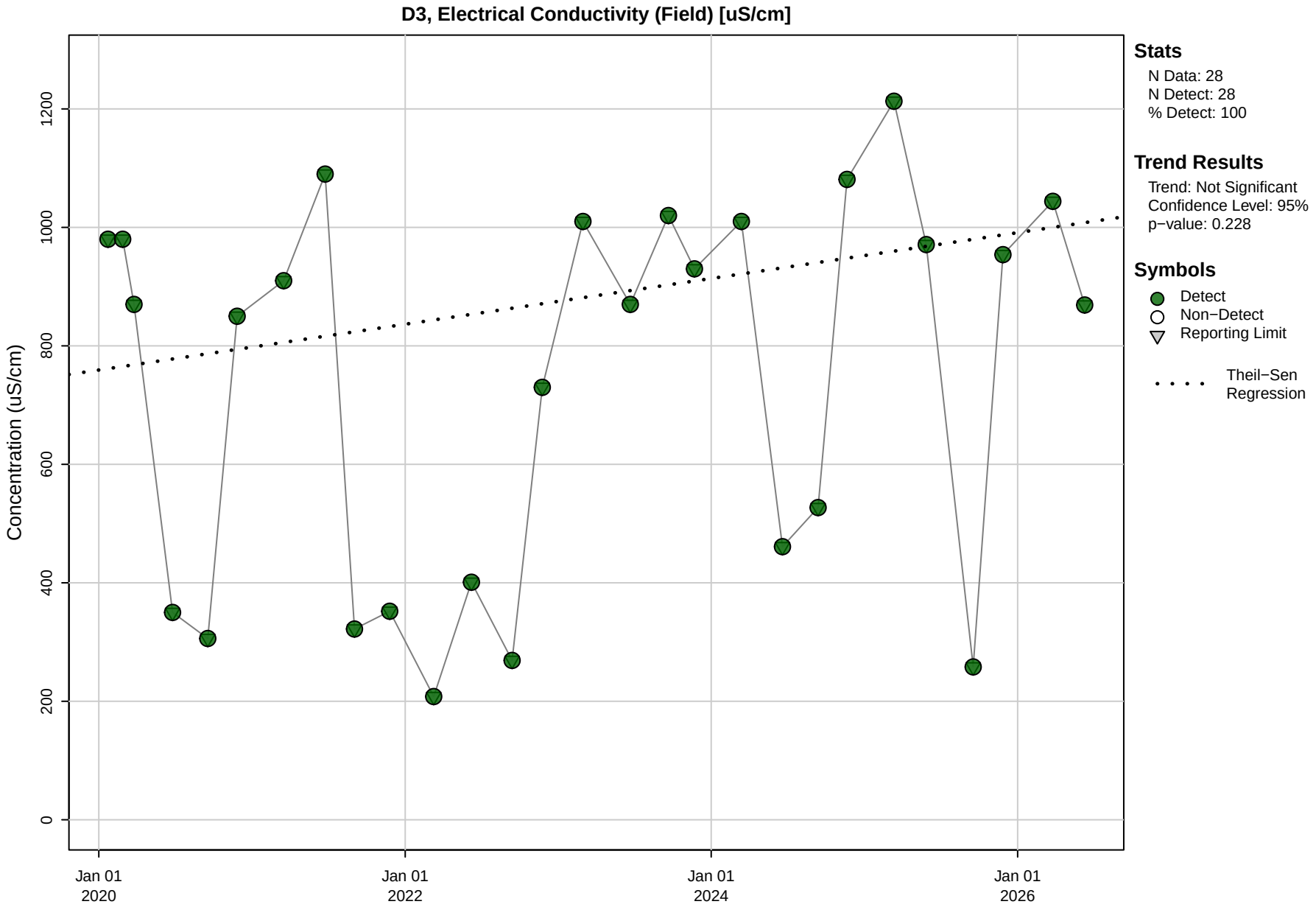

D2, Nickel [ug/L]
Concentration (ug/L)
0
50
100
150
200
250
Jan 01
2021
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 22
N Detect: 22
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.013
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

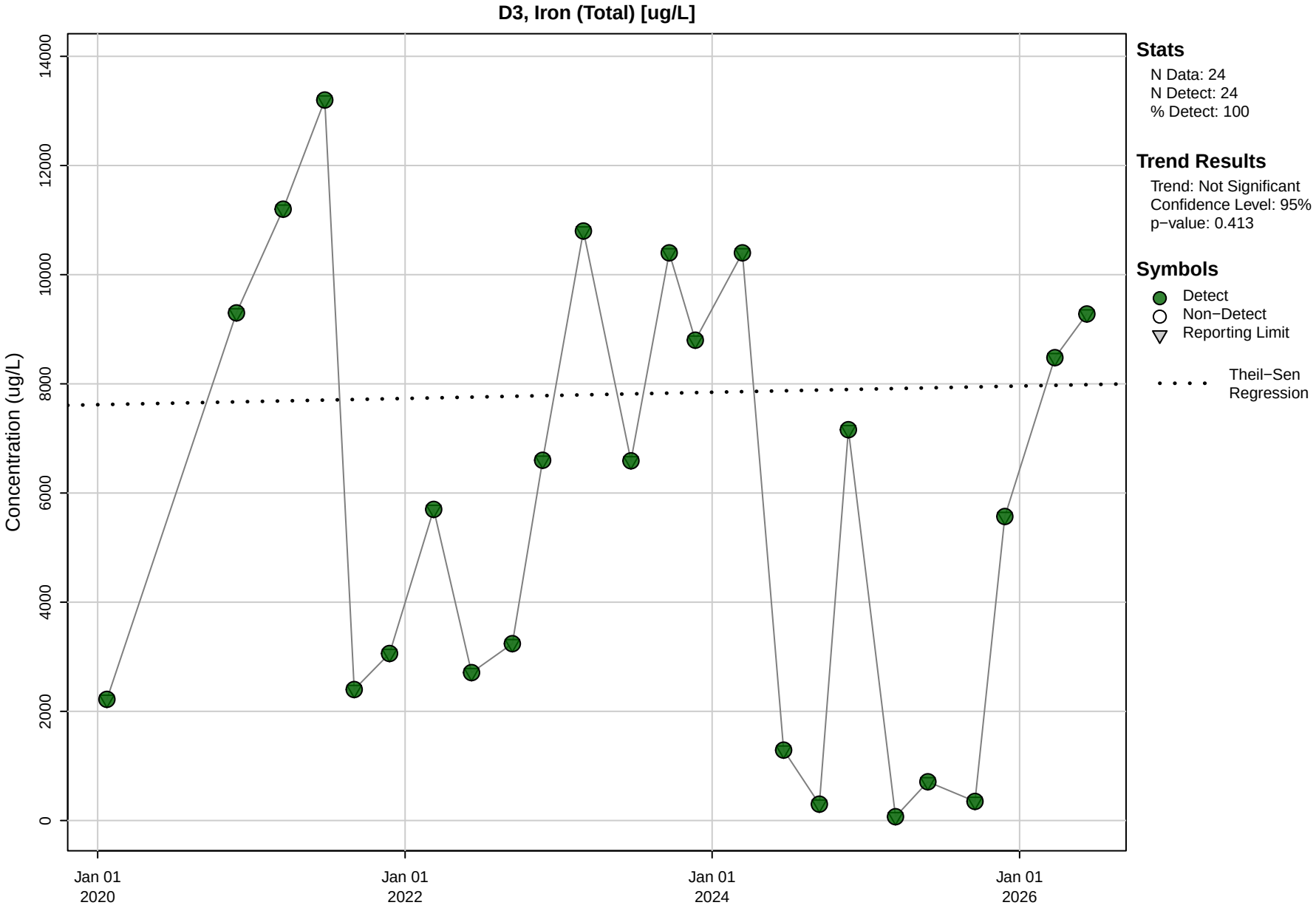

D2, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
500
1000
1500
2000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.104
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

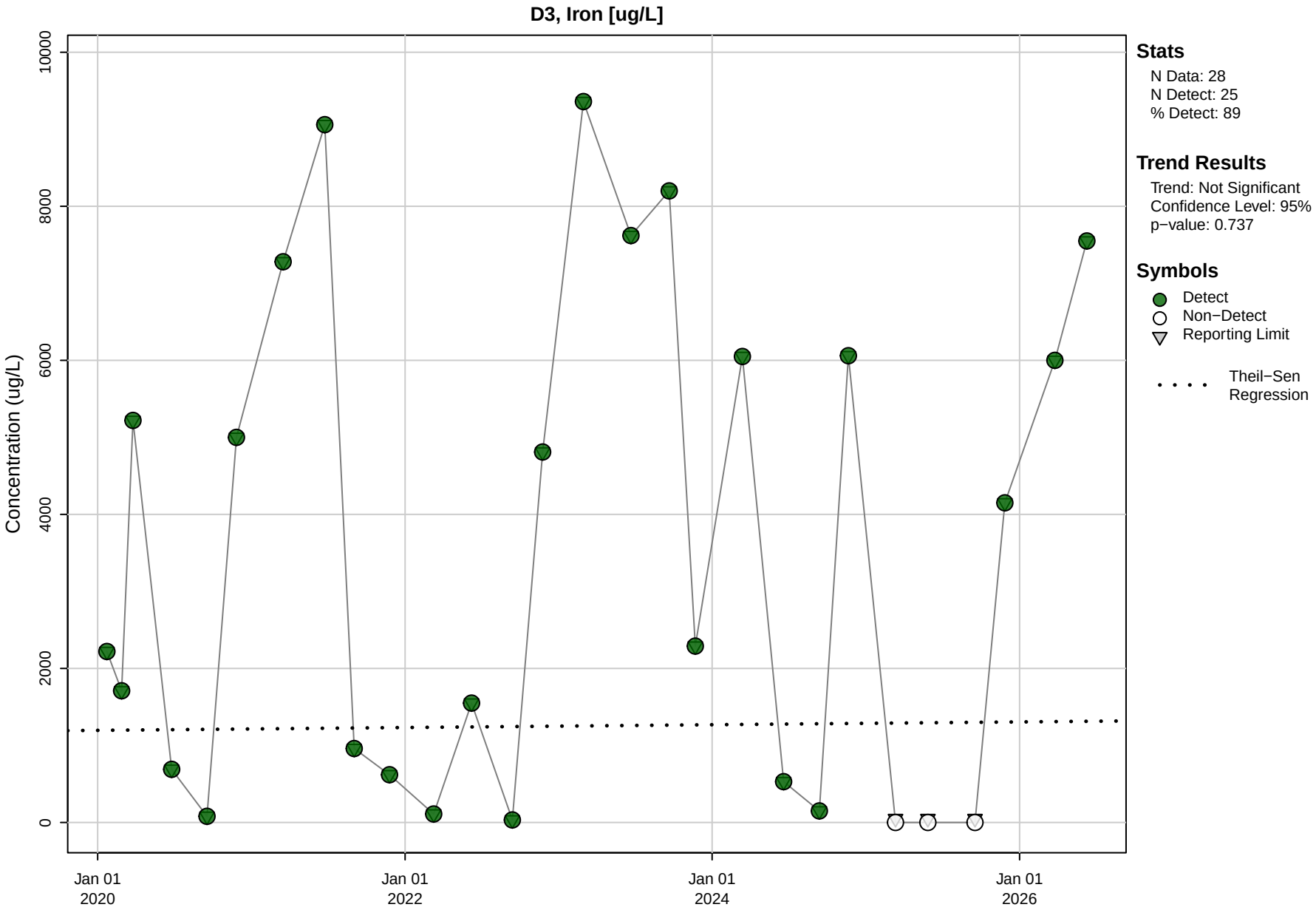

D2, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
500
1000
1500
2000
2500
3000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.246
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

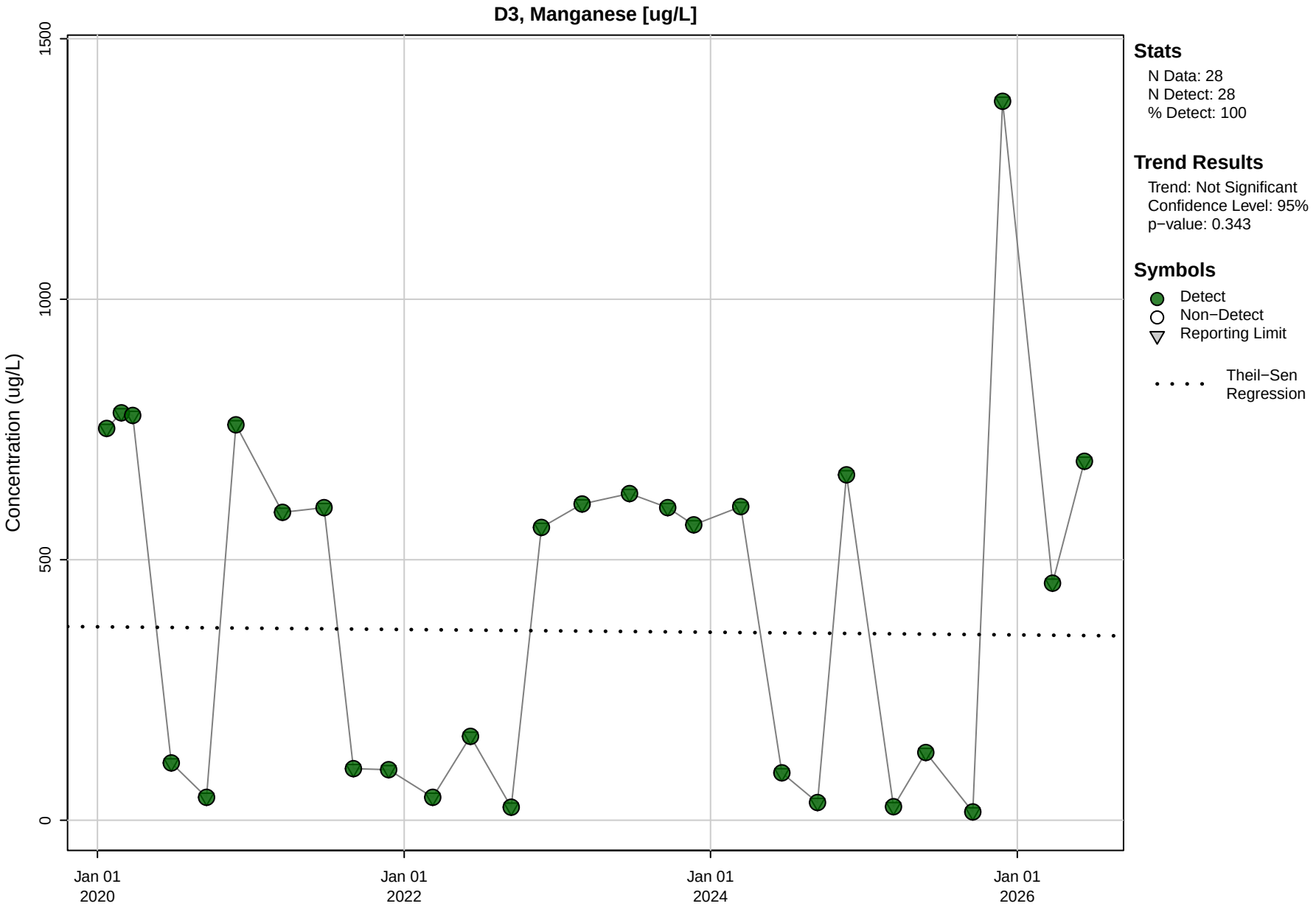

D3, Boron [ug/L]
Concentration (ug/L)
0
50
100
150
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 9
% Detect: 39
Trend Results
Test Criteria Not Met
Symbols
Detect
Non−Detect
Reporting Limit

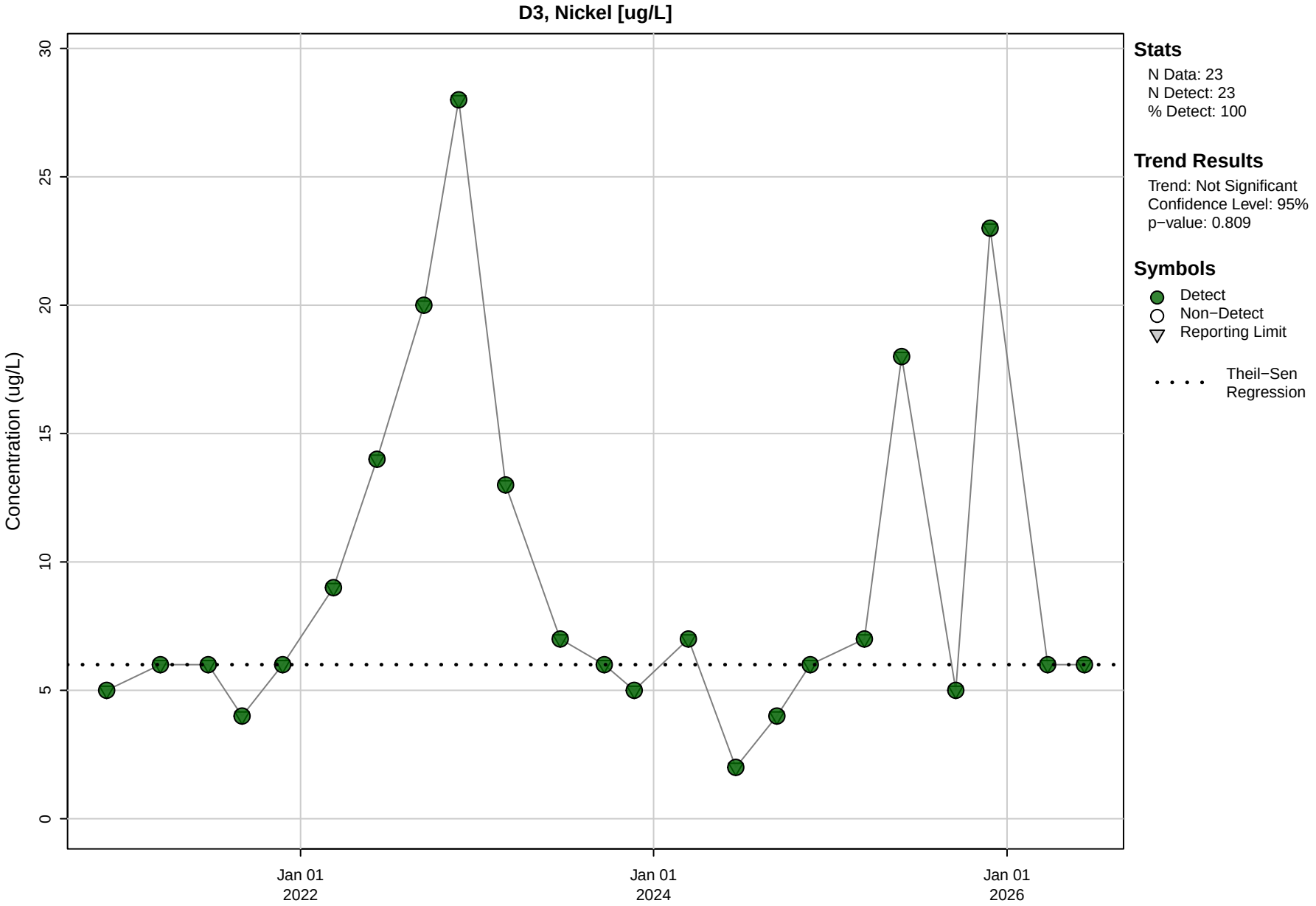

D3, Chloride [mg/L]
Concentration (mg/L)
0
50
100
150
200
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.00682
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

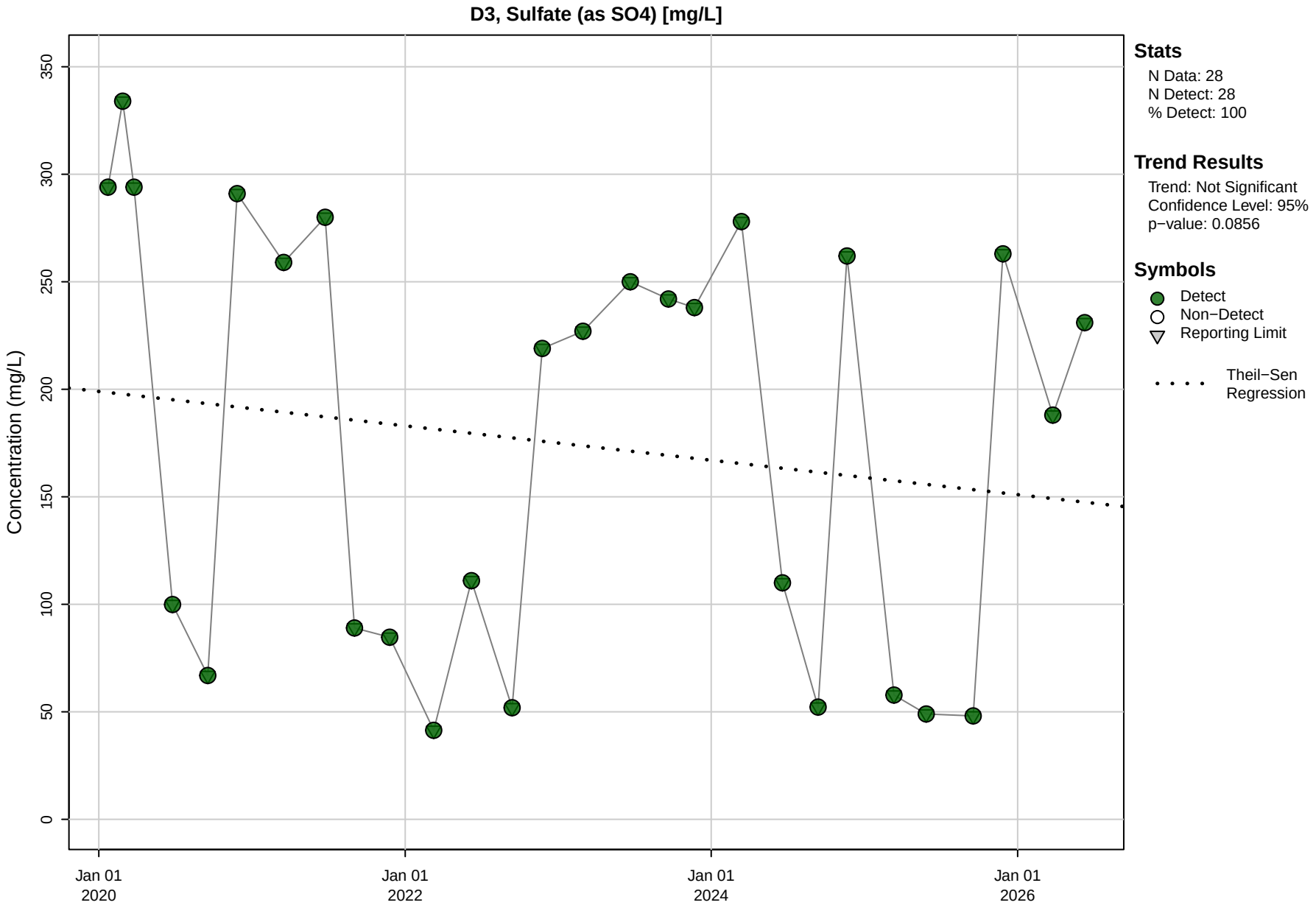

D3, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
200
400
600
800
1000
1200
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.228
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

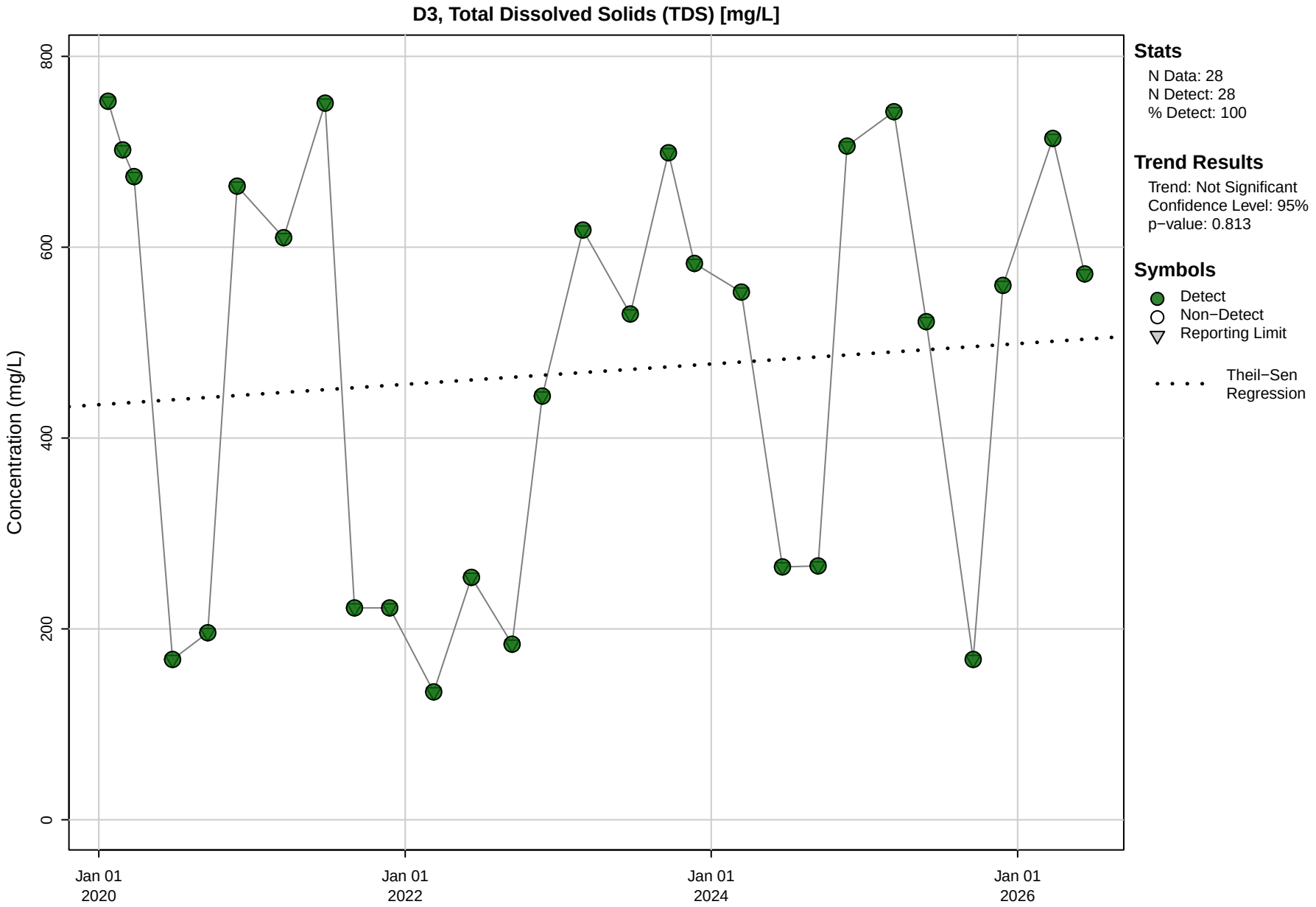

D3, Iron (Total) [ug/L]
Concentration (ug/L)
0
2000
4000
6000
8000
10000
12000
14000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.413
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

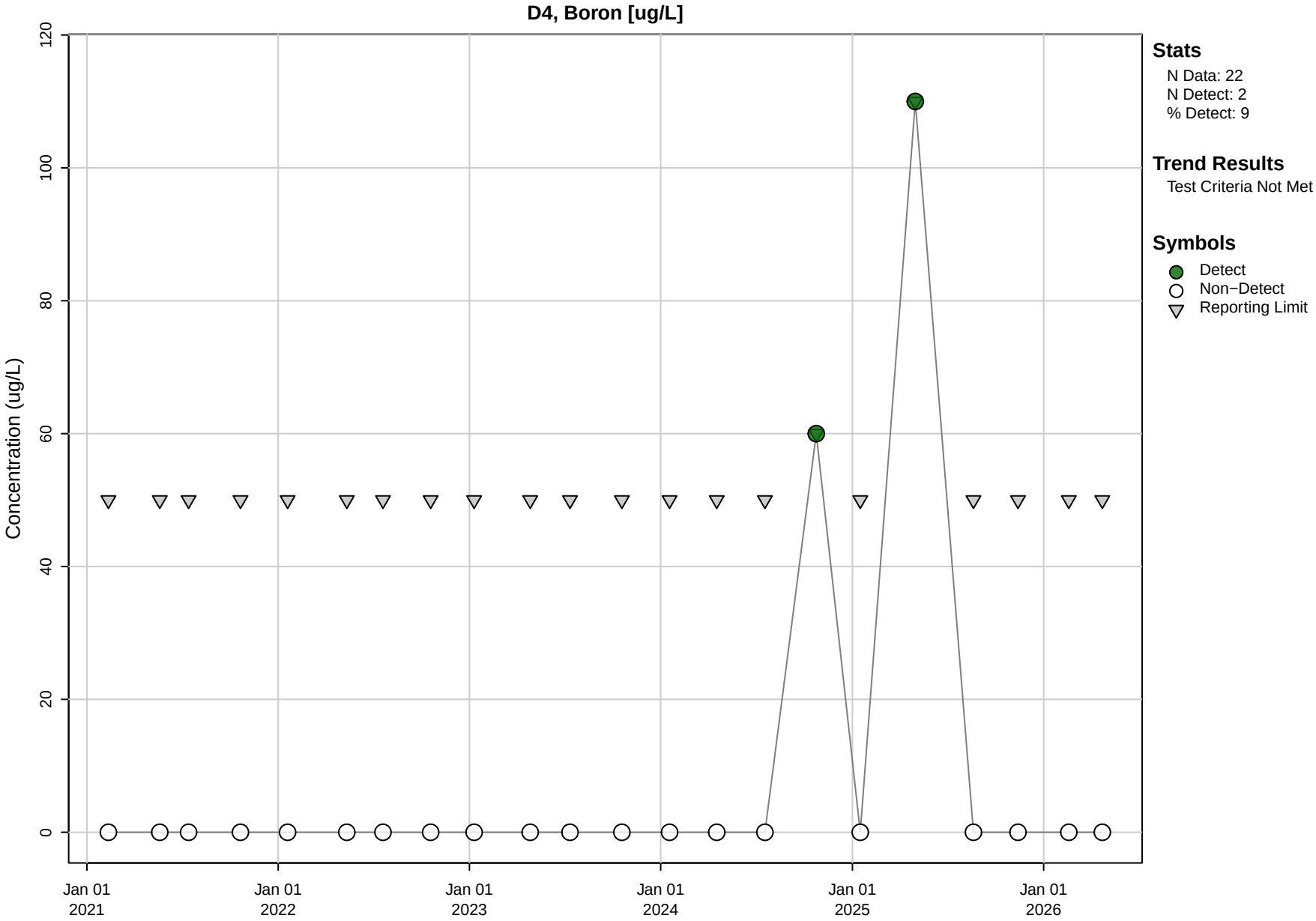

D3, Iron [ug/L]
Concentration (ug/L)
0
2000
4000
6000
8000
10000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 25
% Detect: 89
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.737
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

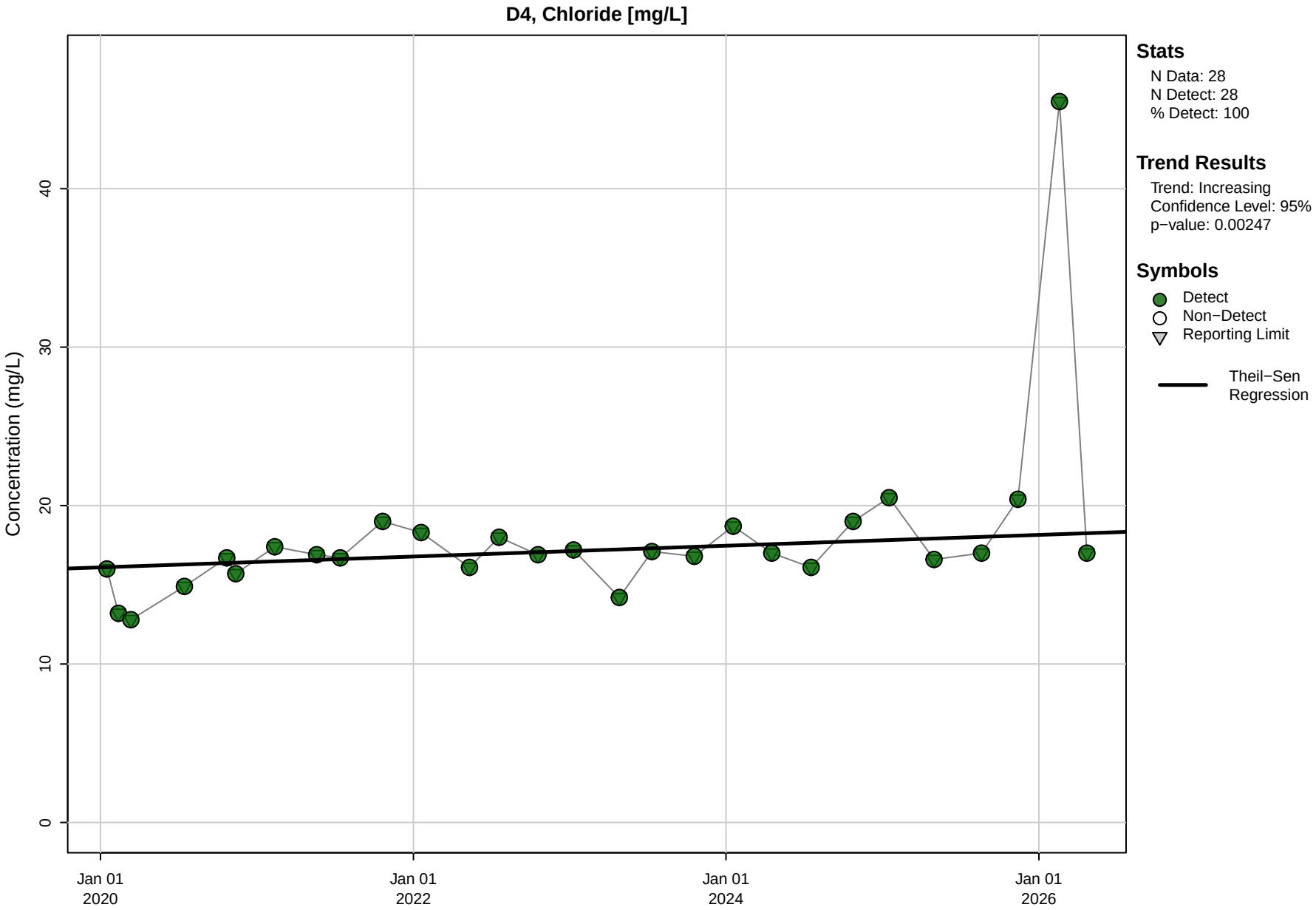

D3, Manganese [ug/L]
Concentration (ug/L)
1500
1000
500
0
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.343
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

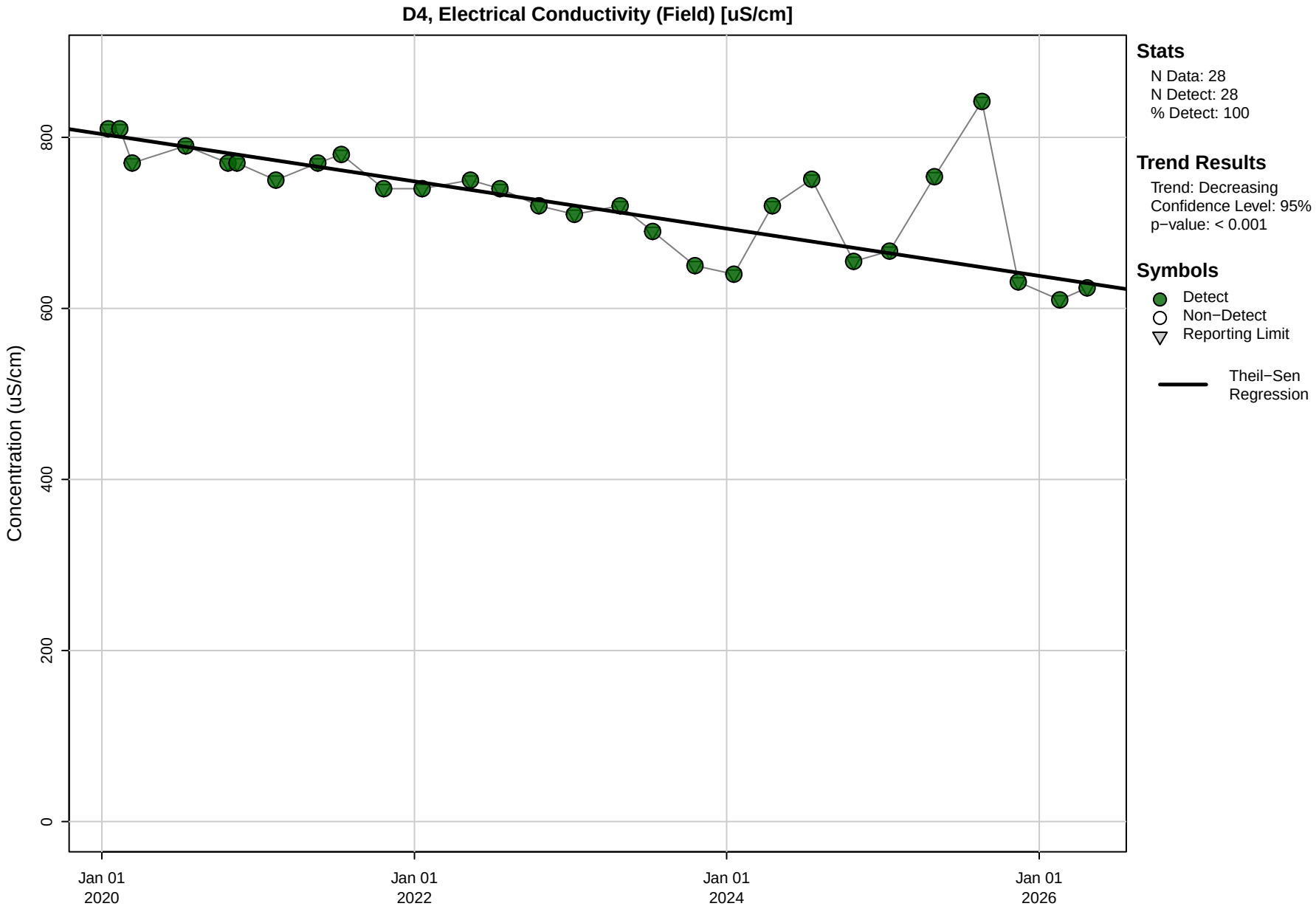

D3, Nickel [ug/L]
Concentration (ug/L)
0
5
10
15
20
25
30
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.809
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

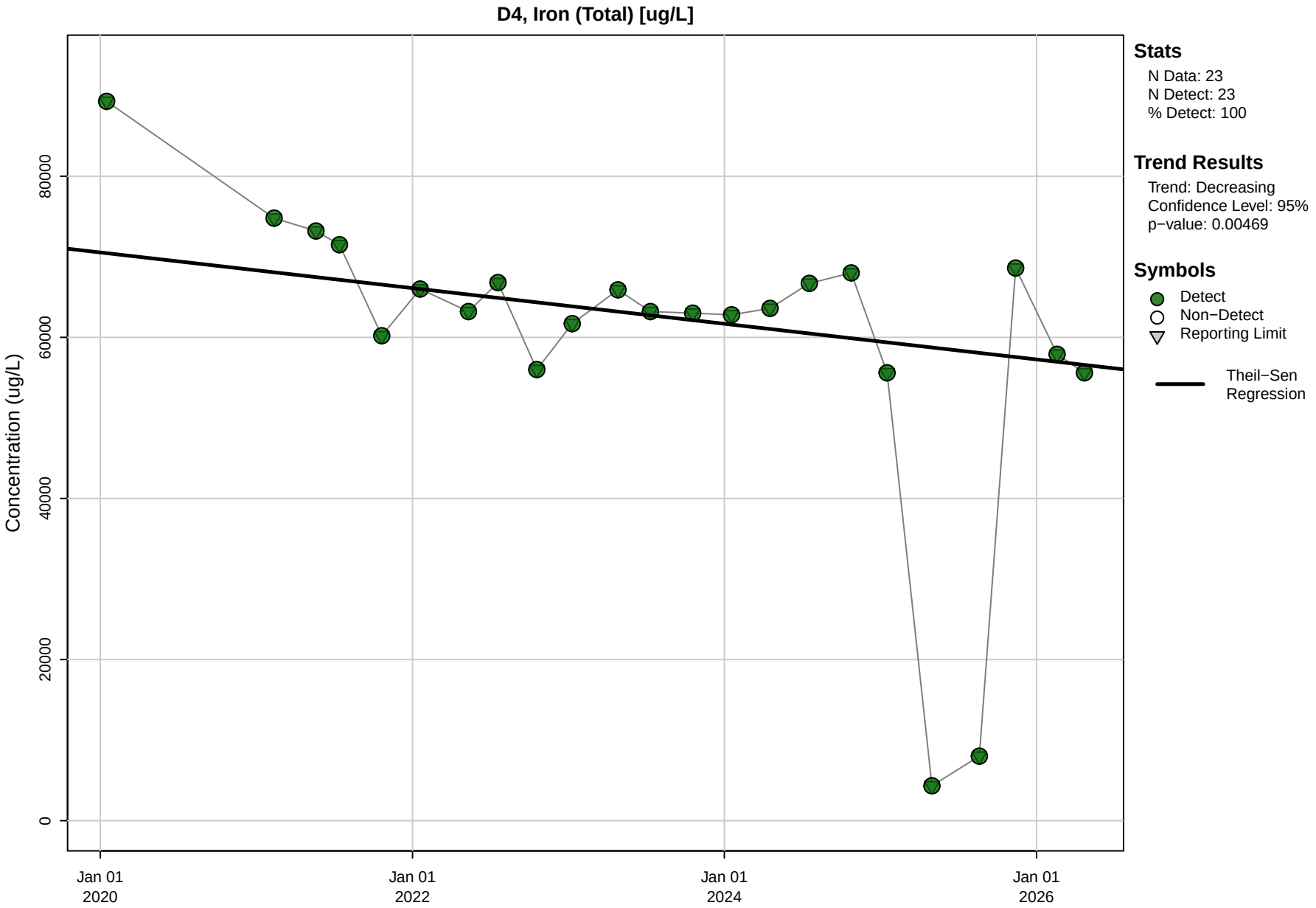

D3, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
50
100
150
200
250
300
350
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0856
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

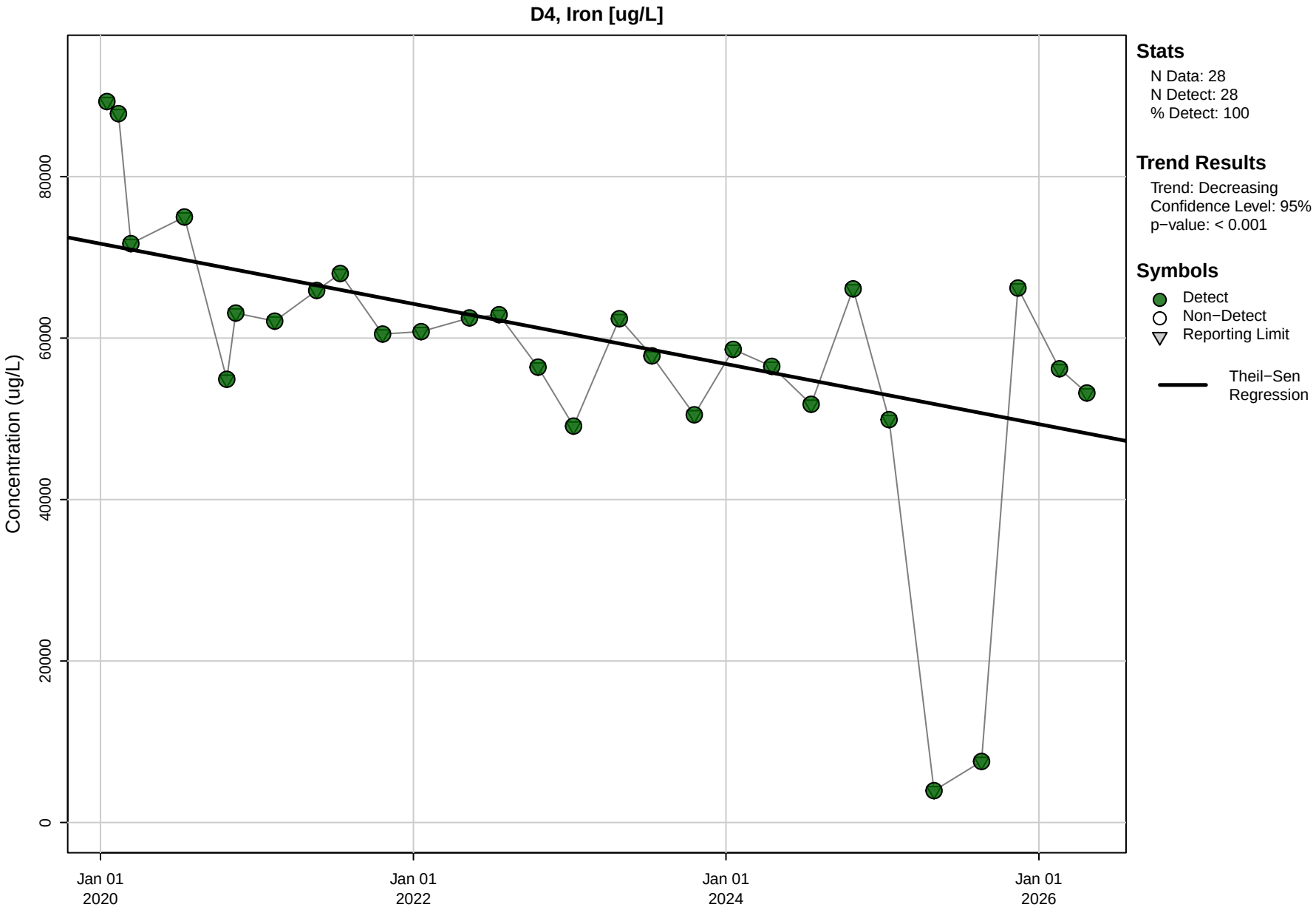

D3, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
200
400
600
800
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.813
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

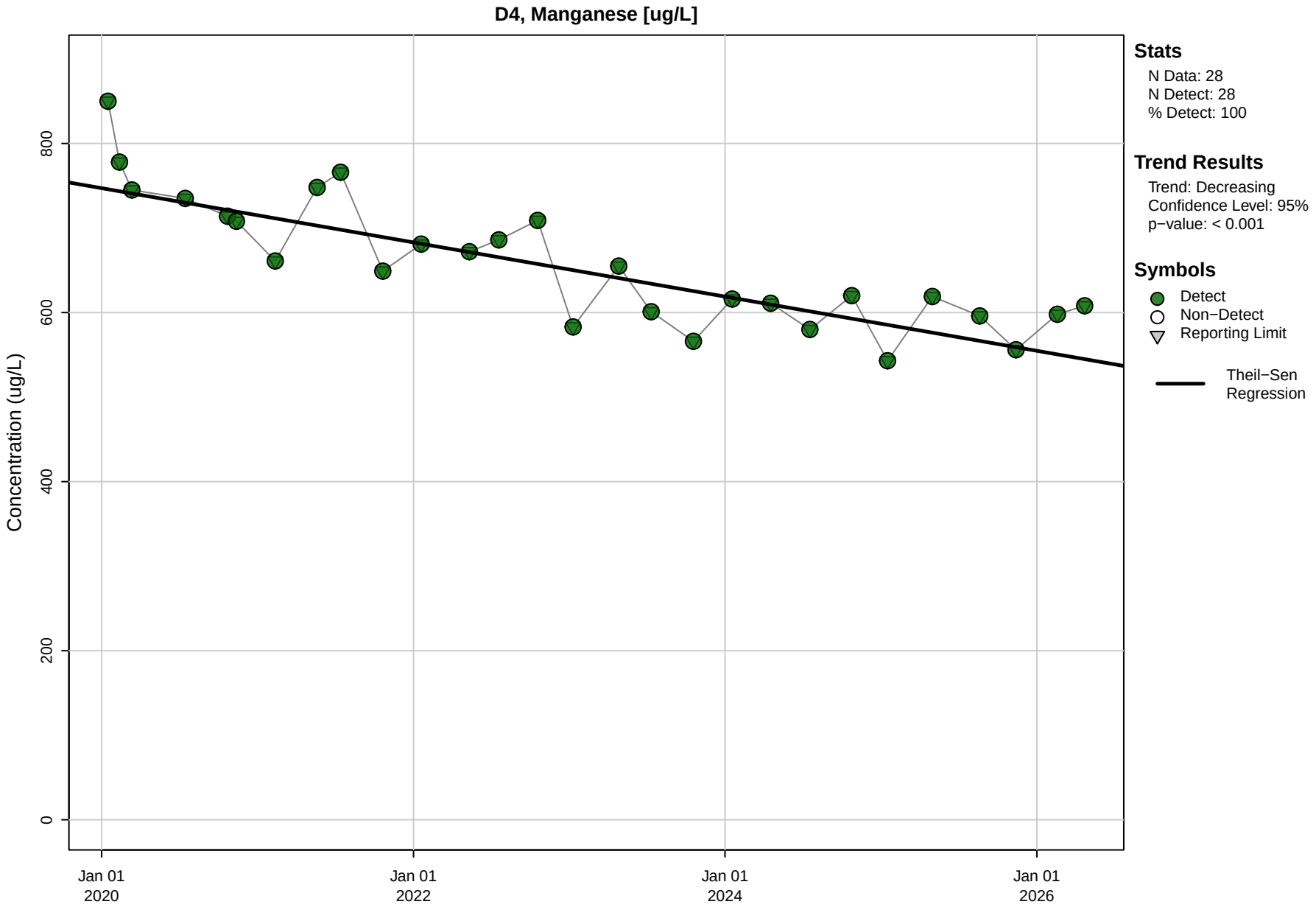

D4, Boron [ug/L]
Concentration (ug/L)
0
20
40
60
80
100
120
Jan 01
2021
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 22
N Detect: 2
% Detect: 9
Trend Results
Test Criteria Not Met
Symbols
Detect
Non−Detect
Reporting Limit

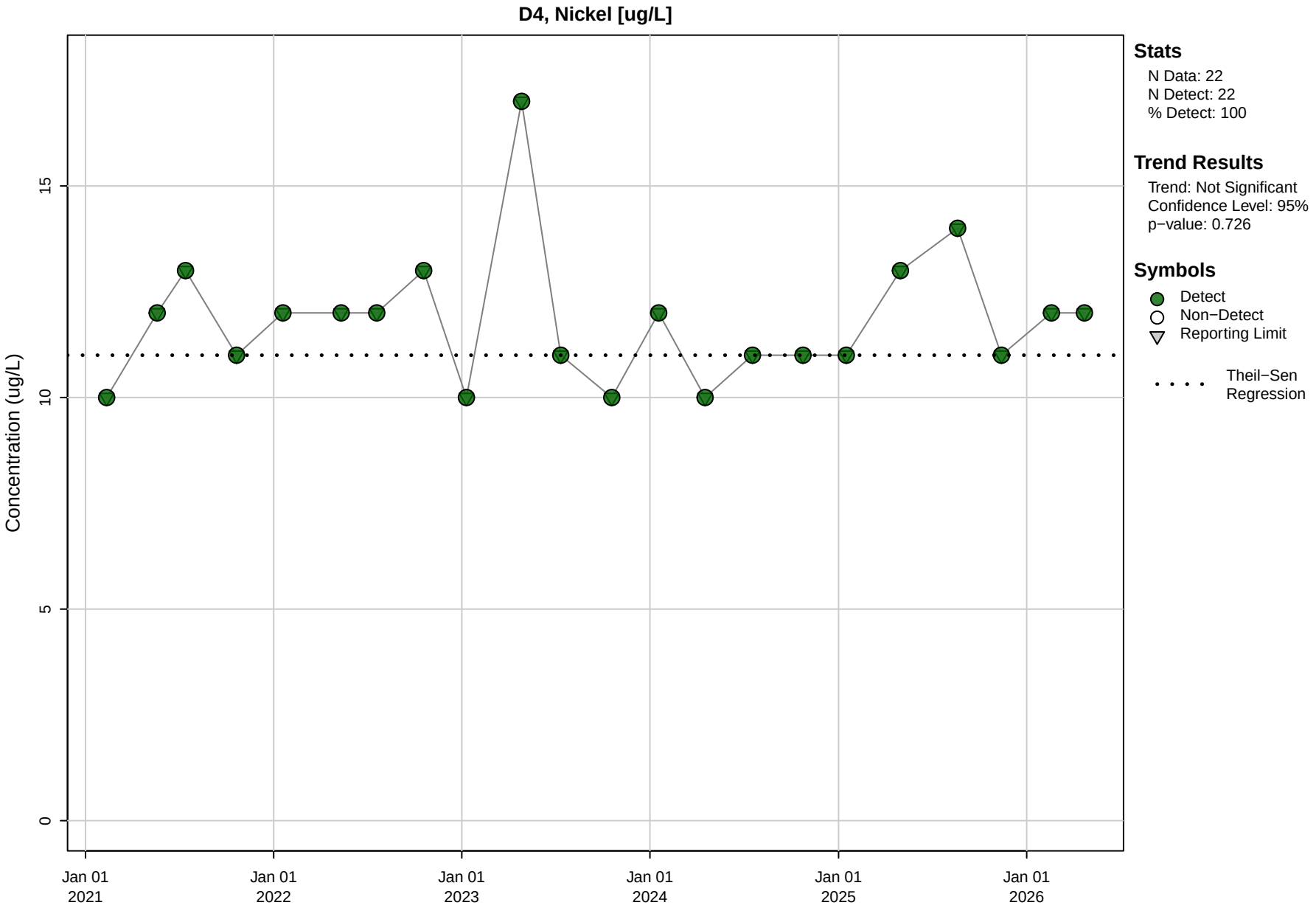

D4, Chloride [mg/L]
Concentration (mg/L)
0
10
20
30
40
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.00247
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

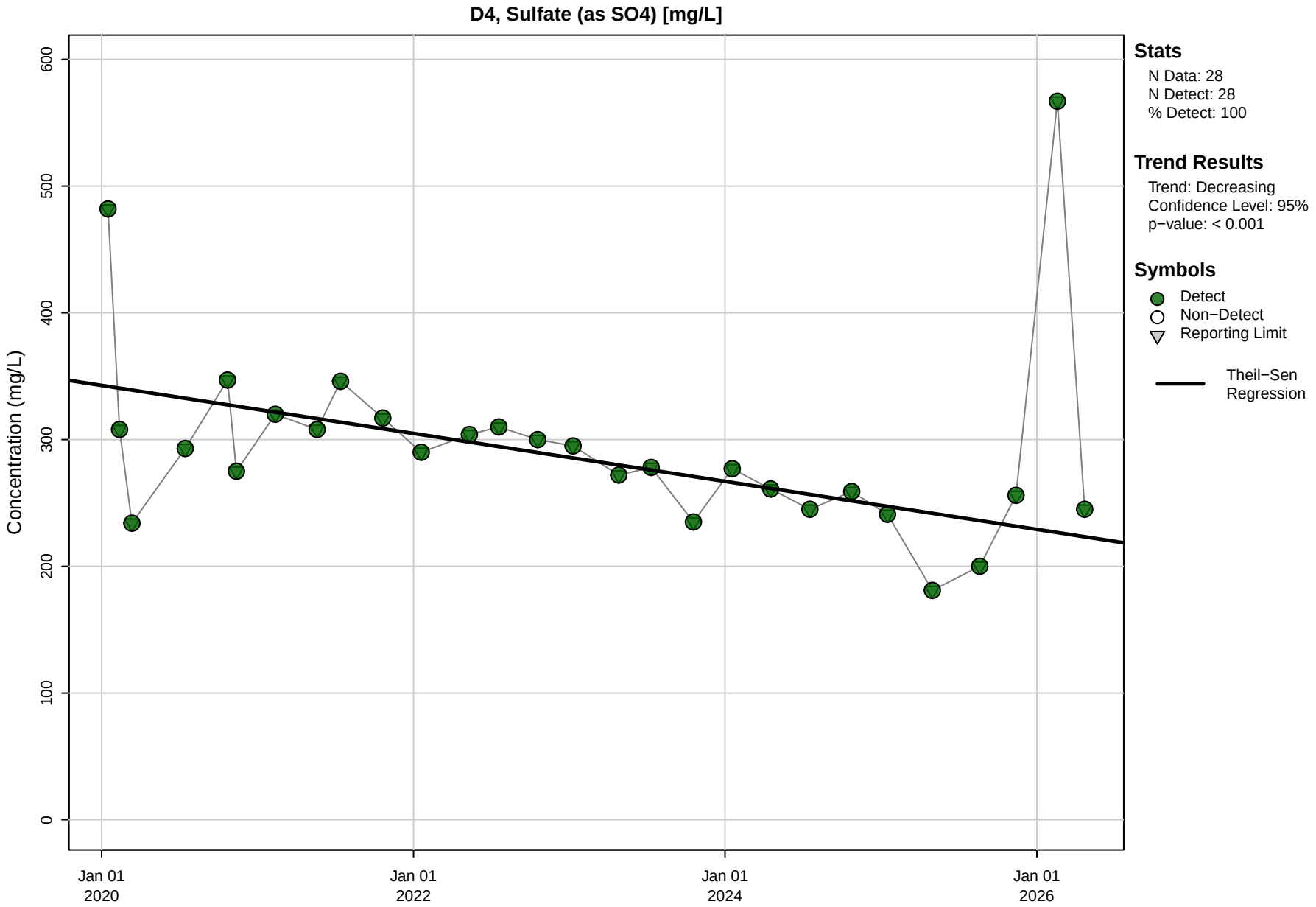

D4, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
200
400
600
800
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

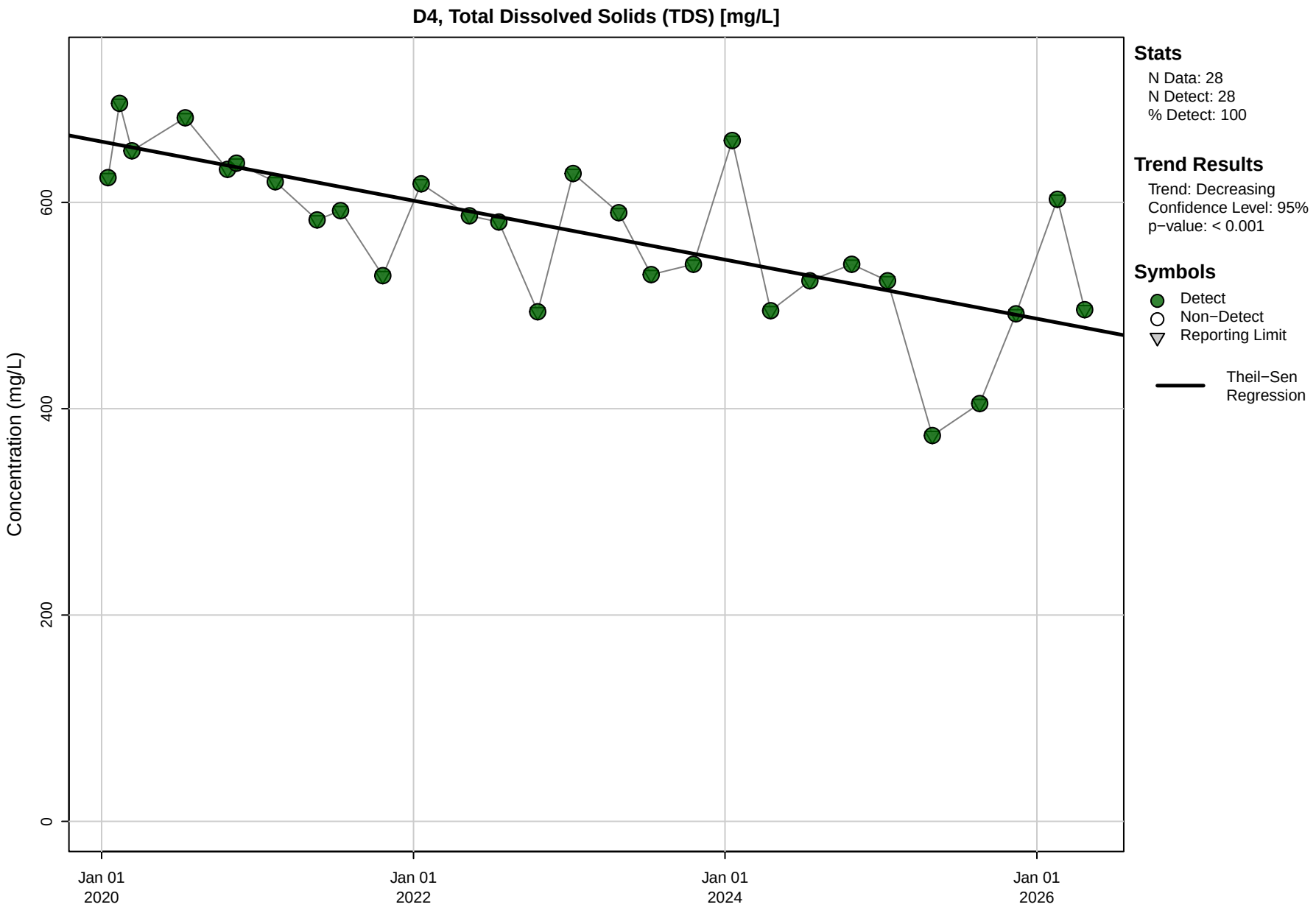

D4, Iron (Total) [ug/L]
Concentration (ug/L)
0
20000
40000
60000
80000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00469
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

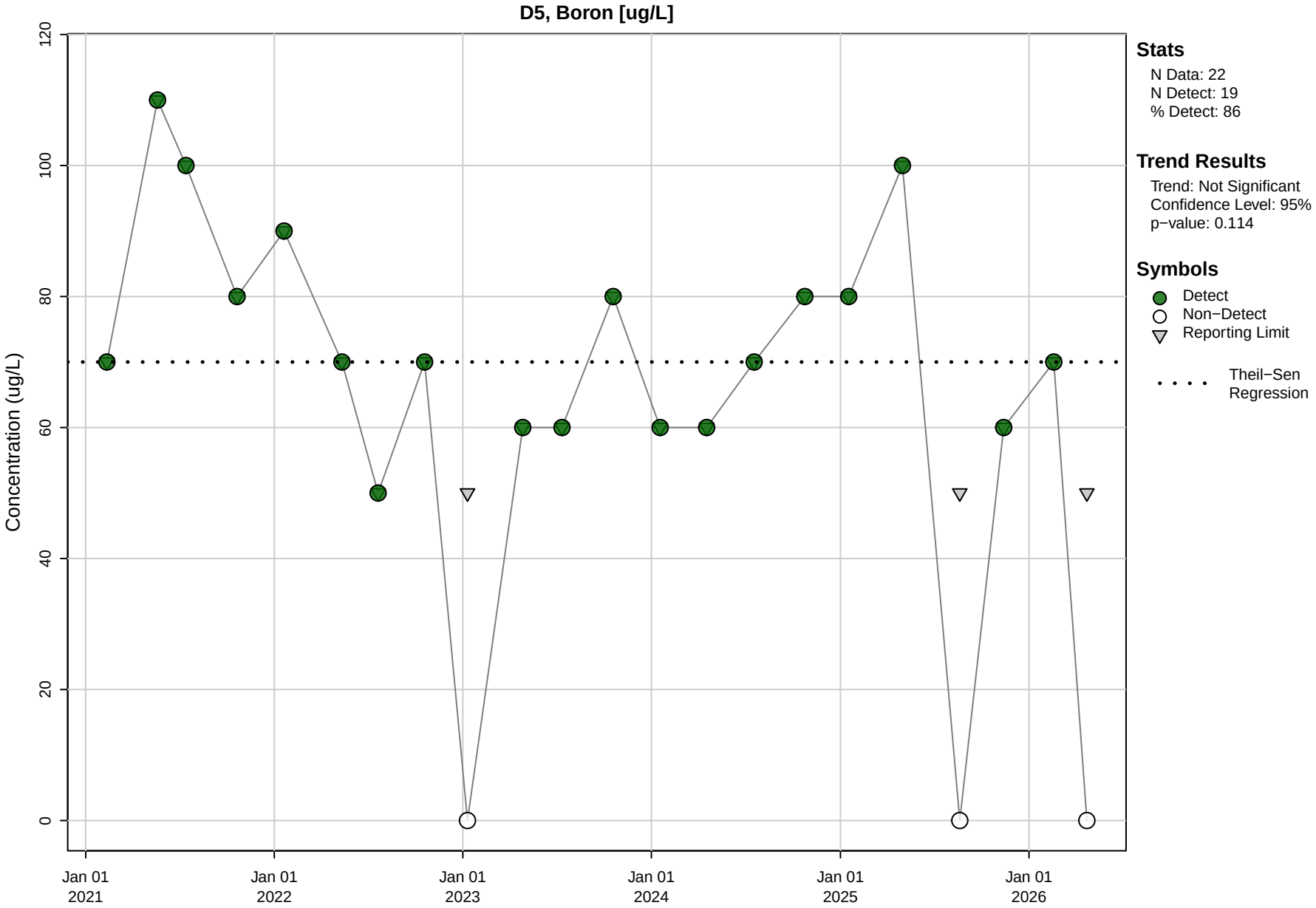

D4, Iron [ug/L]
Concentration (ug/L)
0
20000
40000
60000
80000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

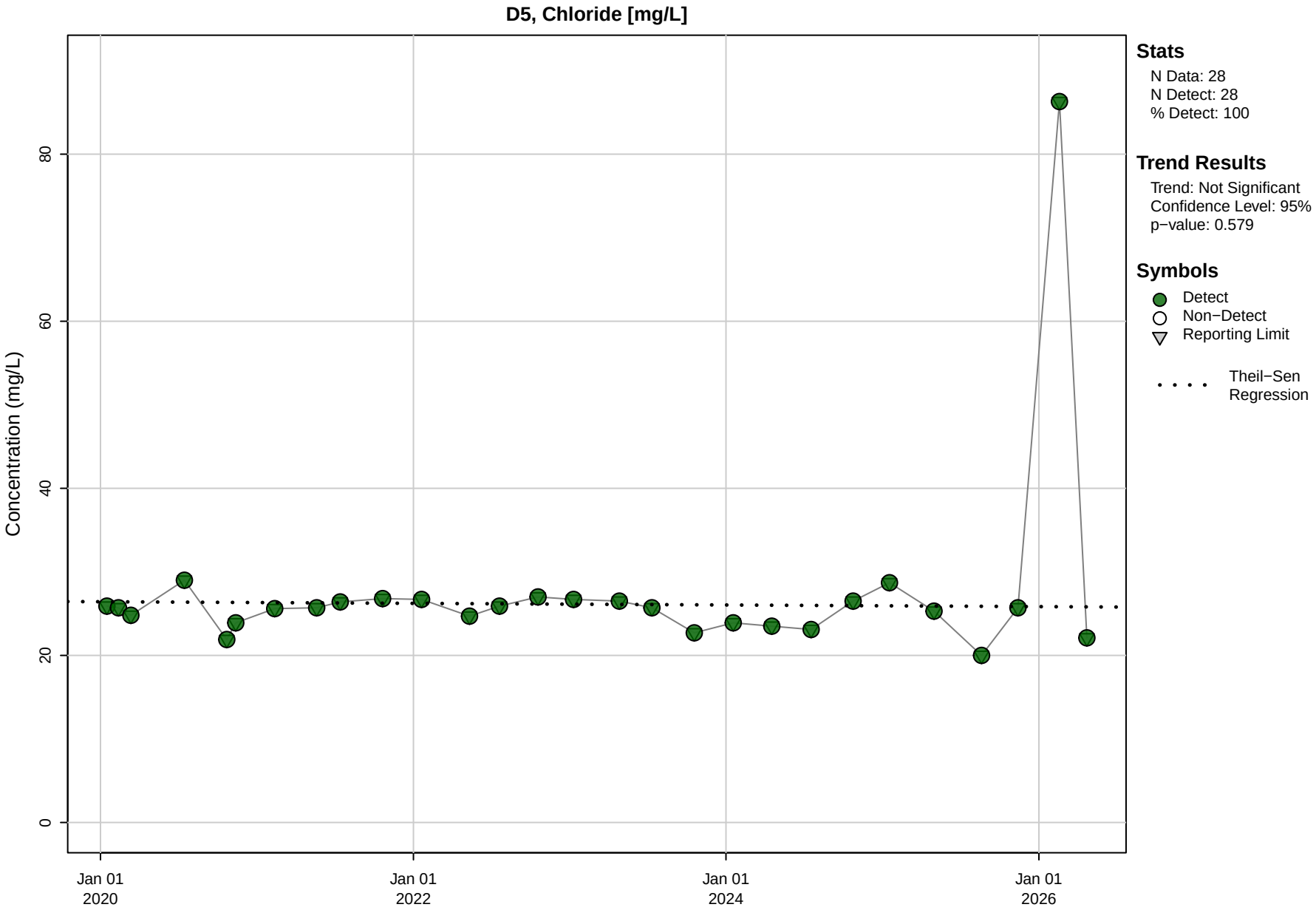

D4, Manganese [ug/L]
Concentration (ug/L)
0
200
400
600
800
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

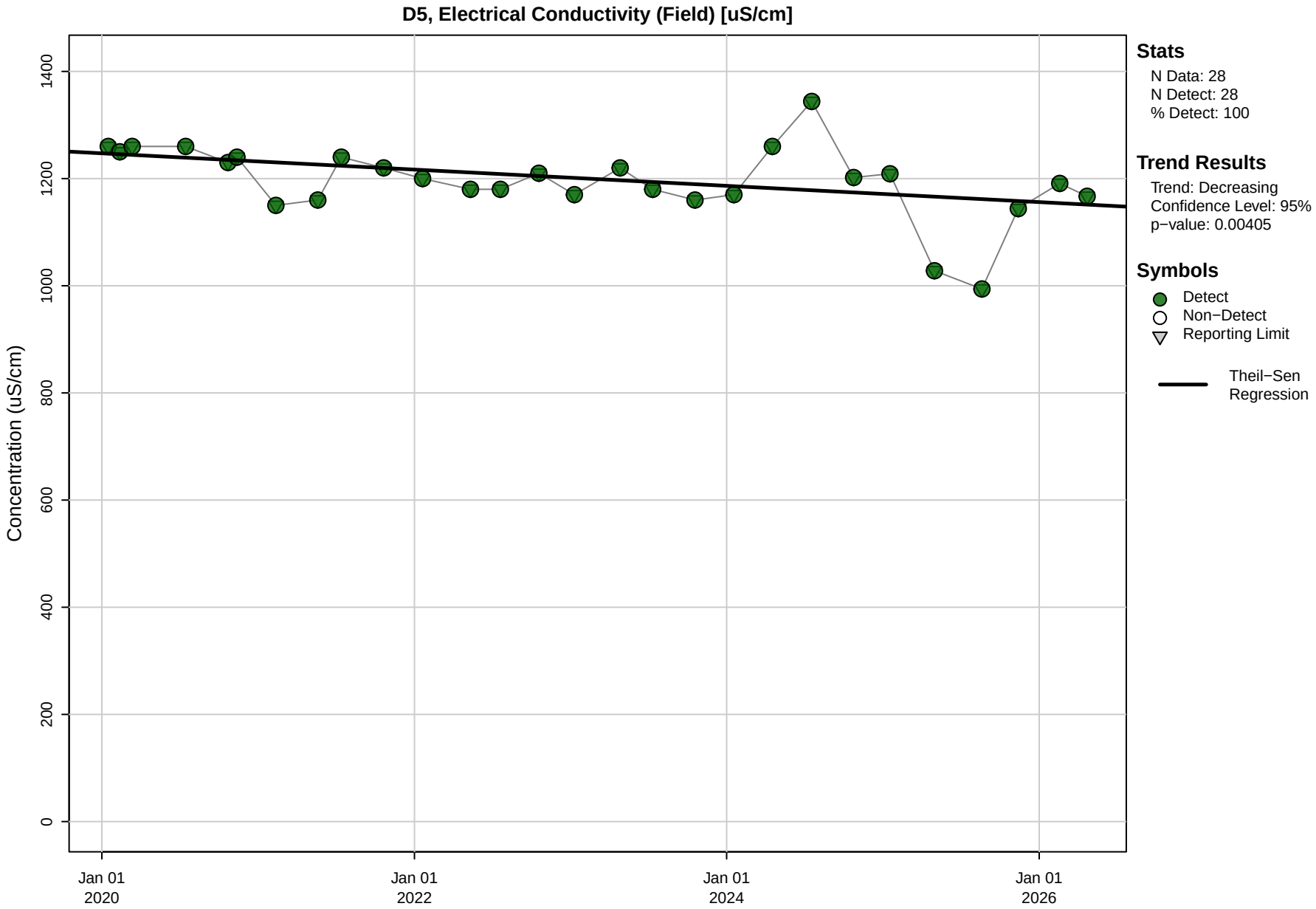

D4, Nickel [ug/L]
Concentration (ug/L)
0
5
10
15
Jan 01
2021
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 22
N Detect: 22
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.726
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

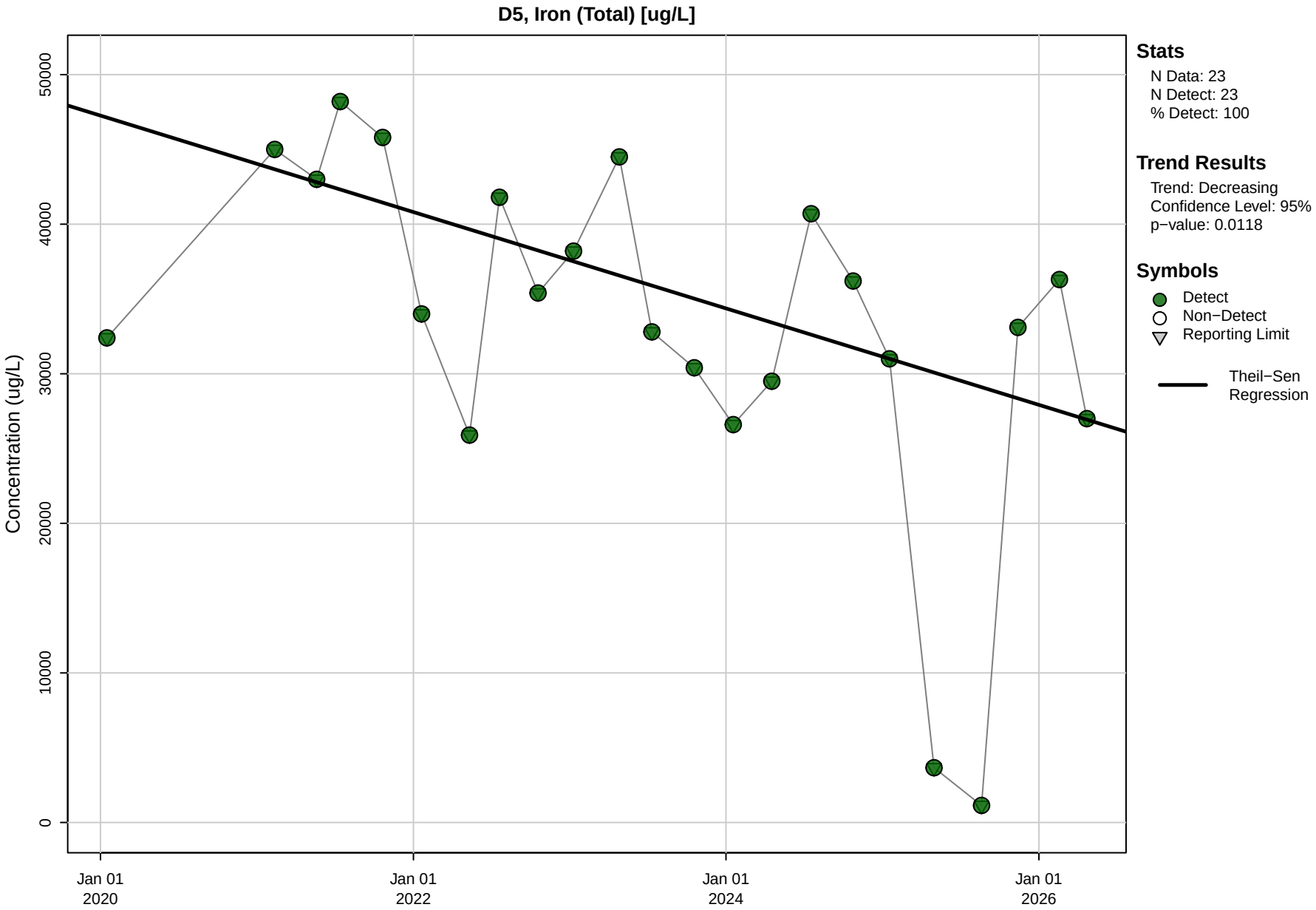

D4, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
100
200
300
400
500
600
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

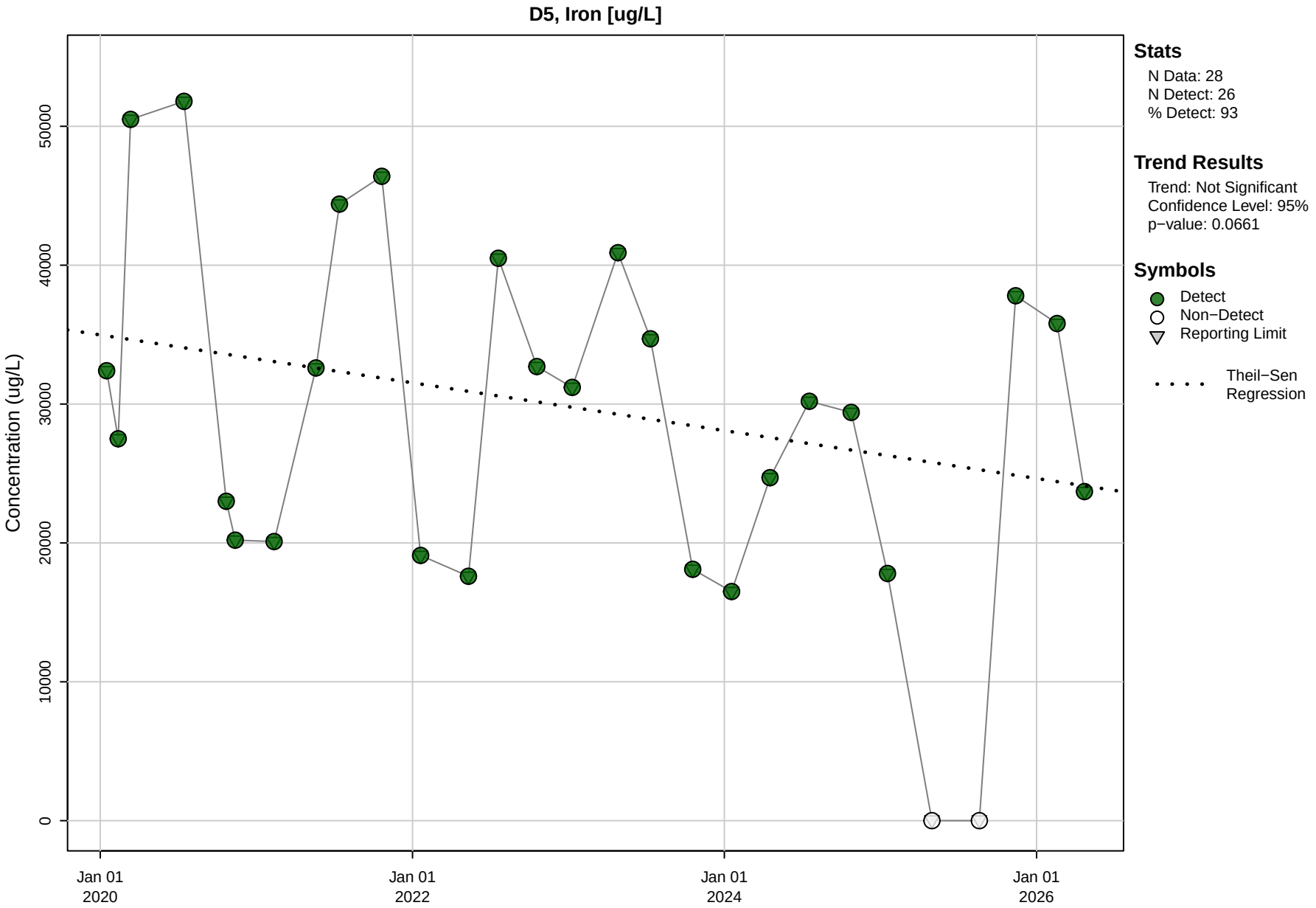

D4, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
200
400
600
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression


D5, Boron [ug/L]
Concentration (ug/L)
0
20
40
60
80
100
120
Jan 01
2021
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 22
N Detect: 19
% Detect: 86
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.114
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

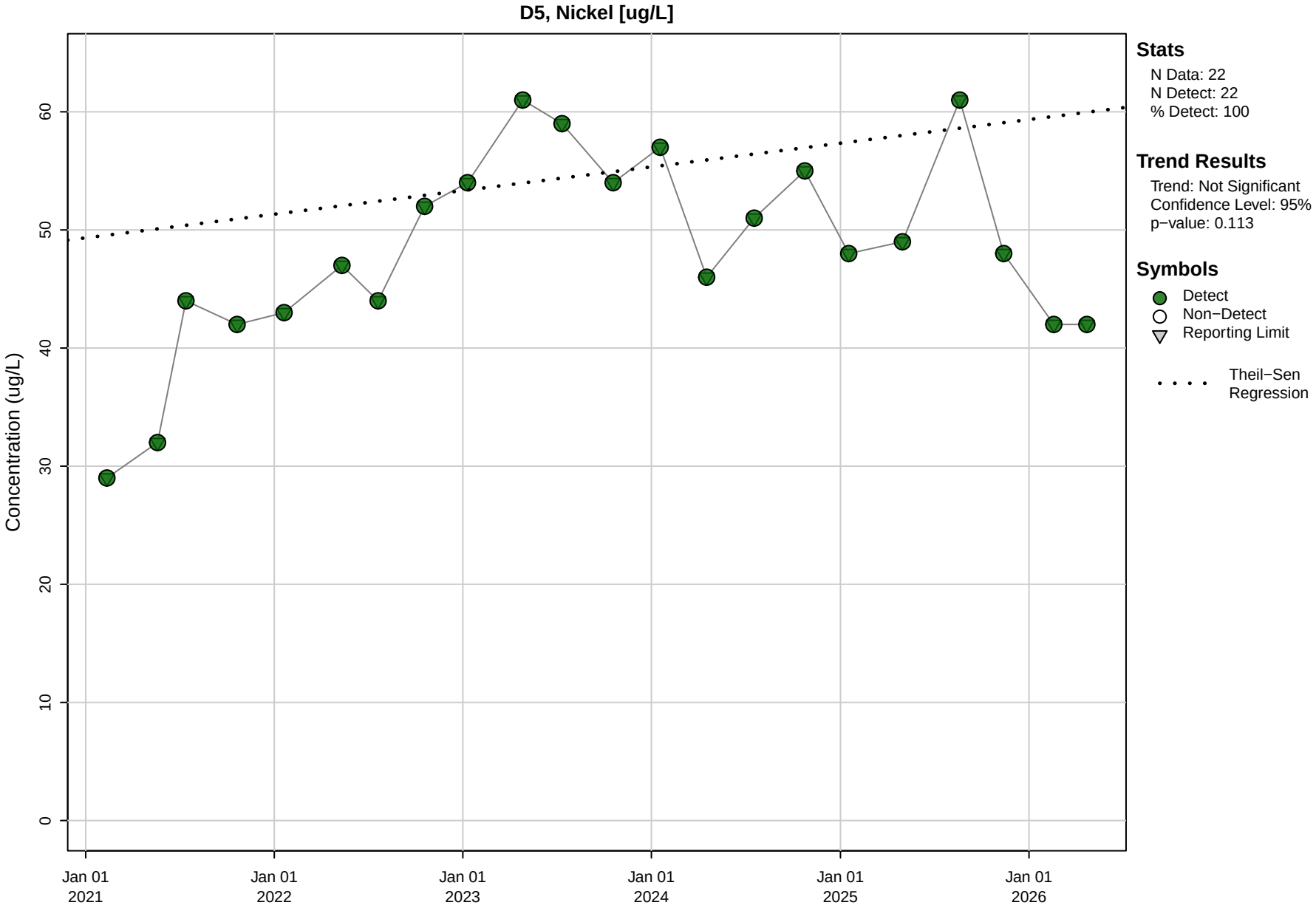

D5, Chloride [mg/L]
Concentration (mg/L)
0
20
40
60
80
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.579
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

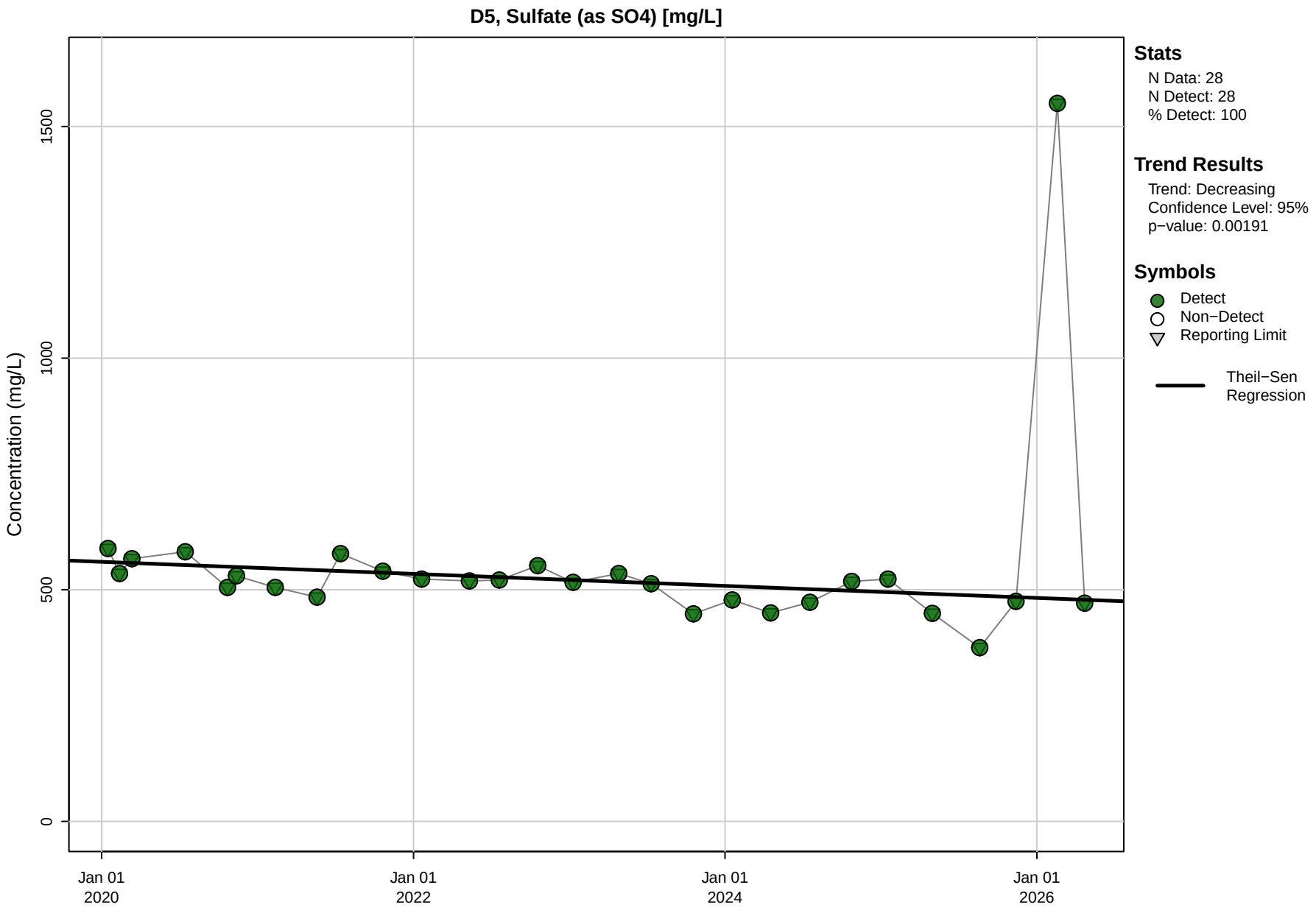

D5, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
200
400
600
800
1000
1200
1400
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00405
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

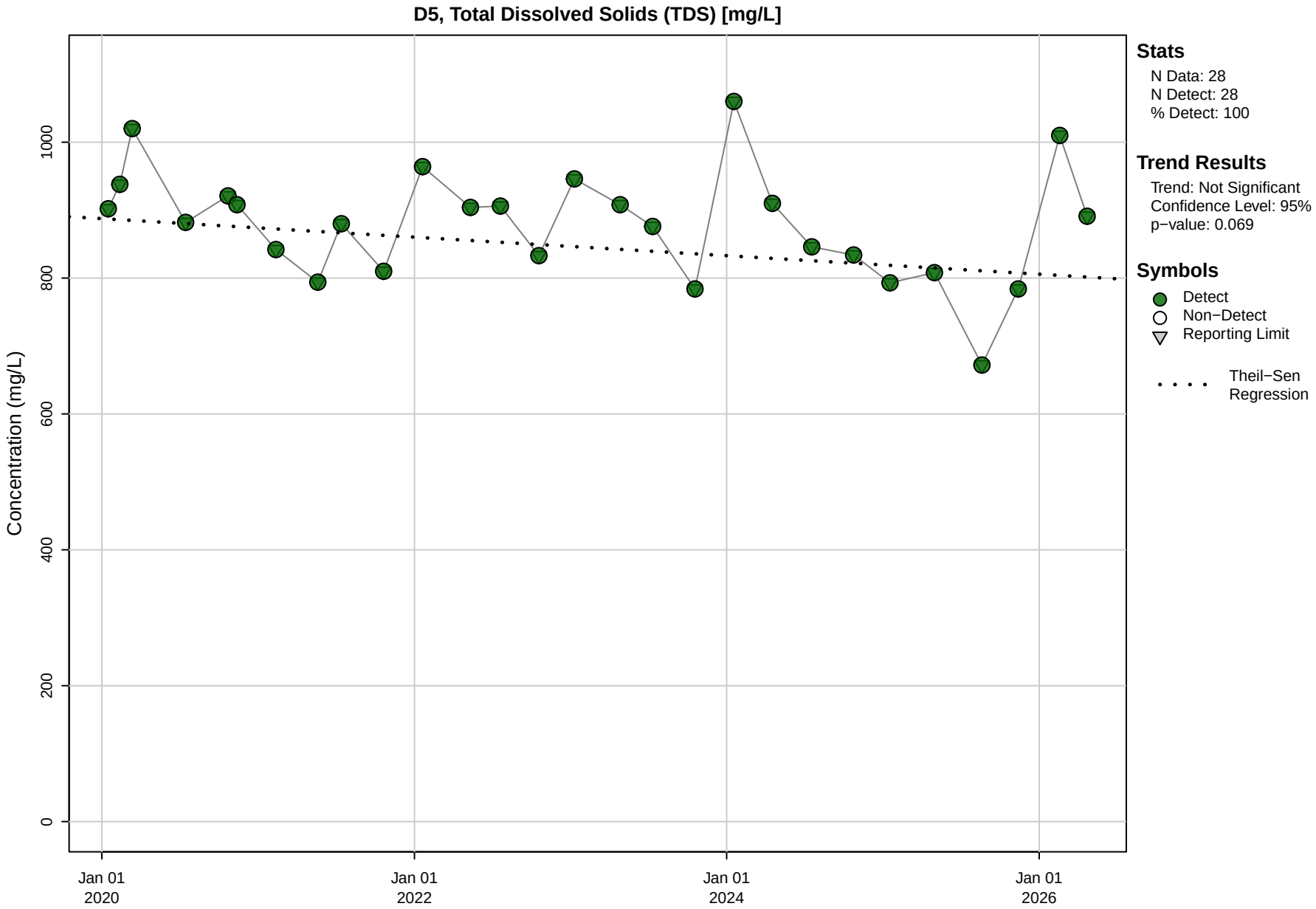

D5, Iron (Total) [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
50000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0118
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

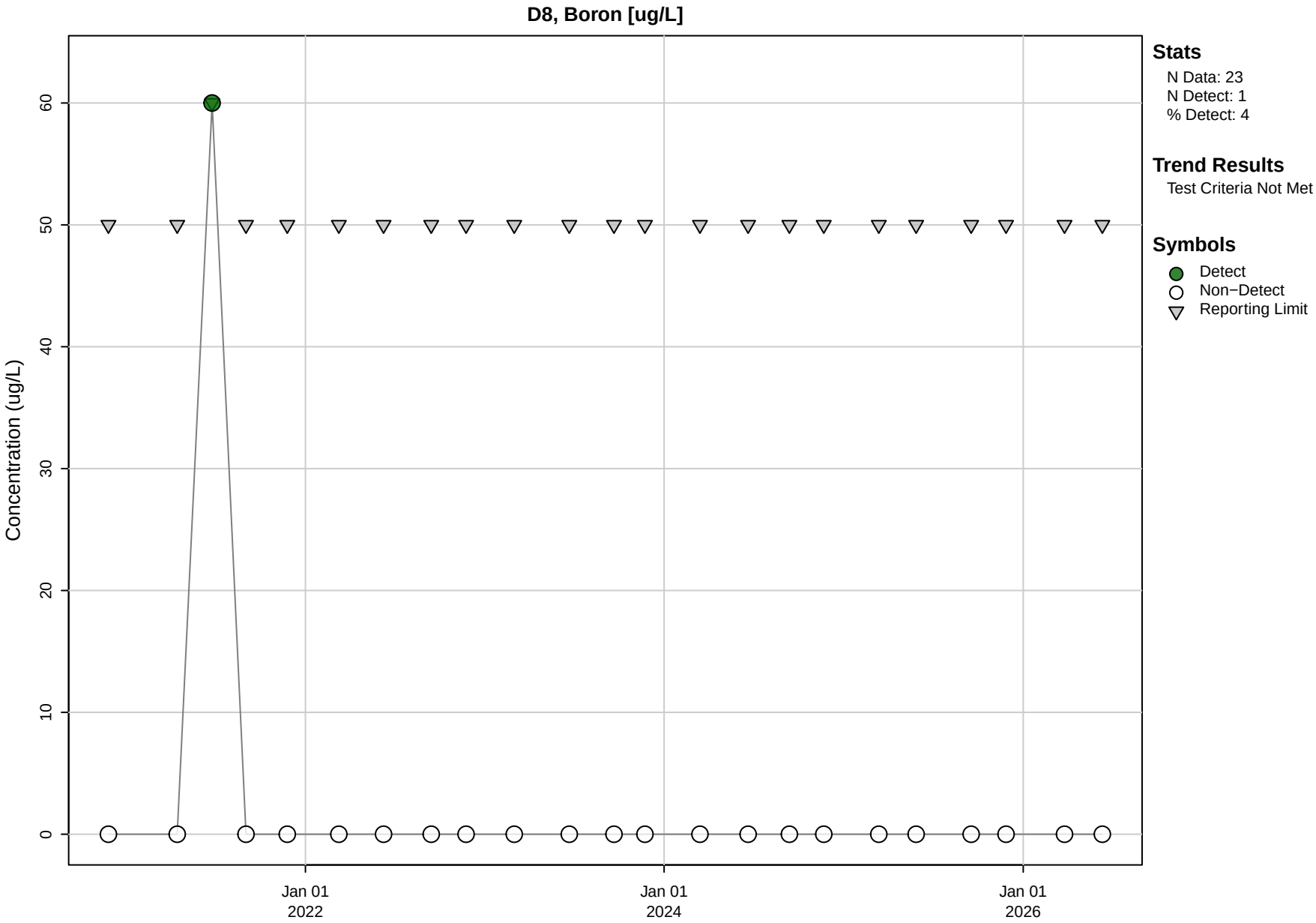

D5, Iron [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
50000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 26
% Detect: 93
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0661
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

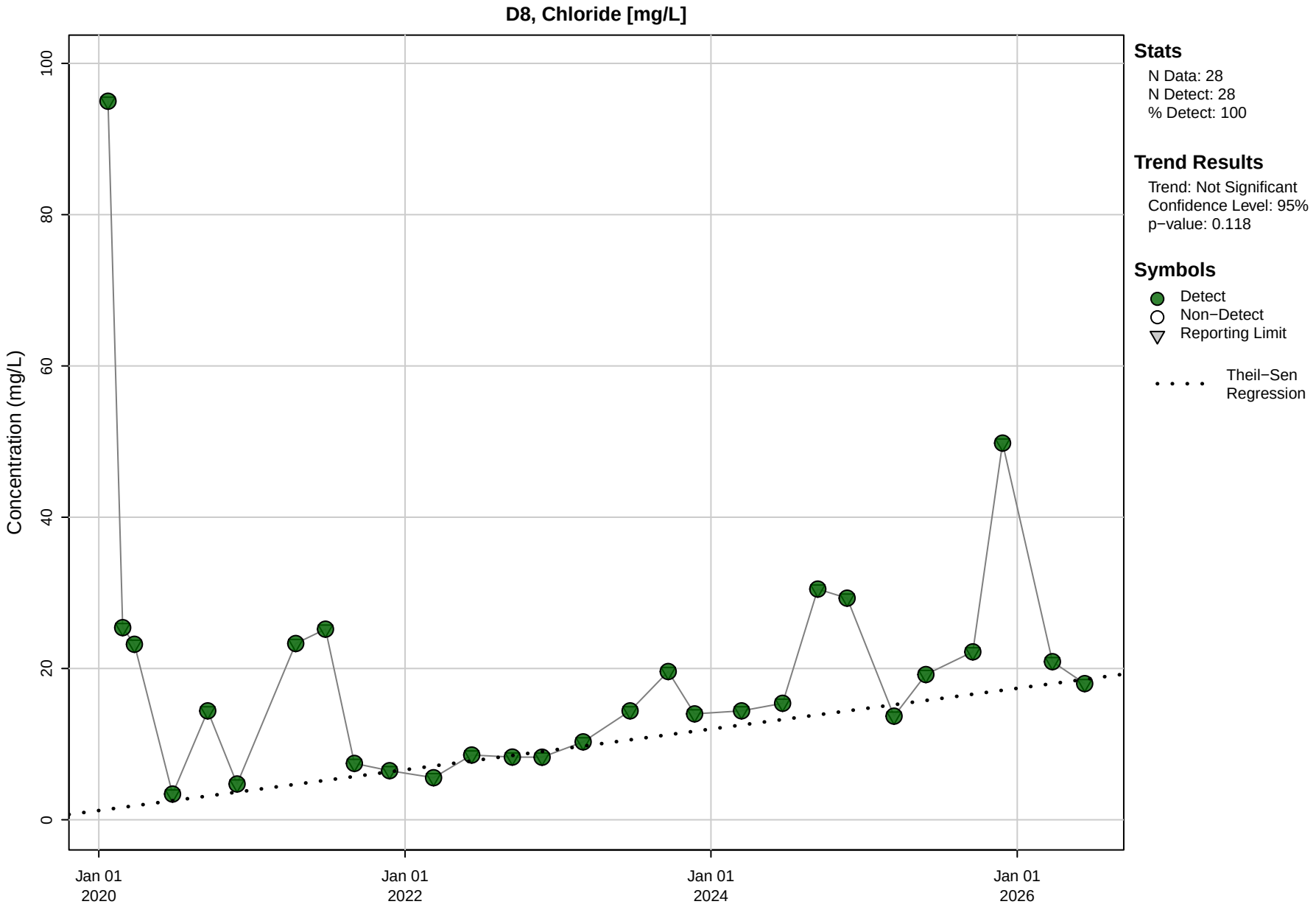

D5, Manganese [ug/L]
Concentration (ug/L)
0
2000
4000
6000
8000
10000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.298
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

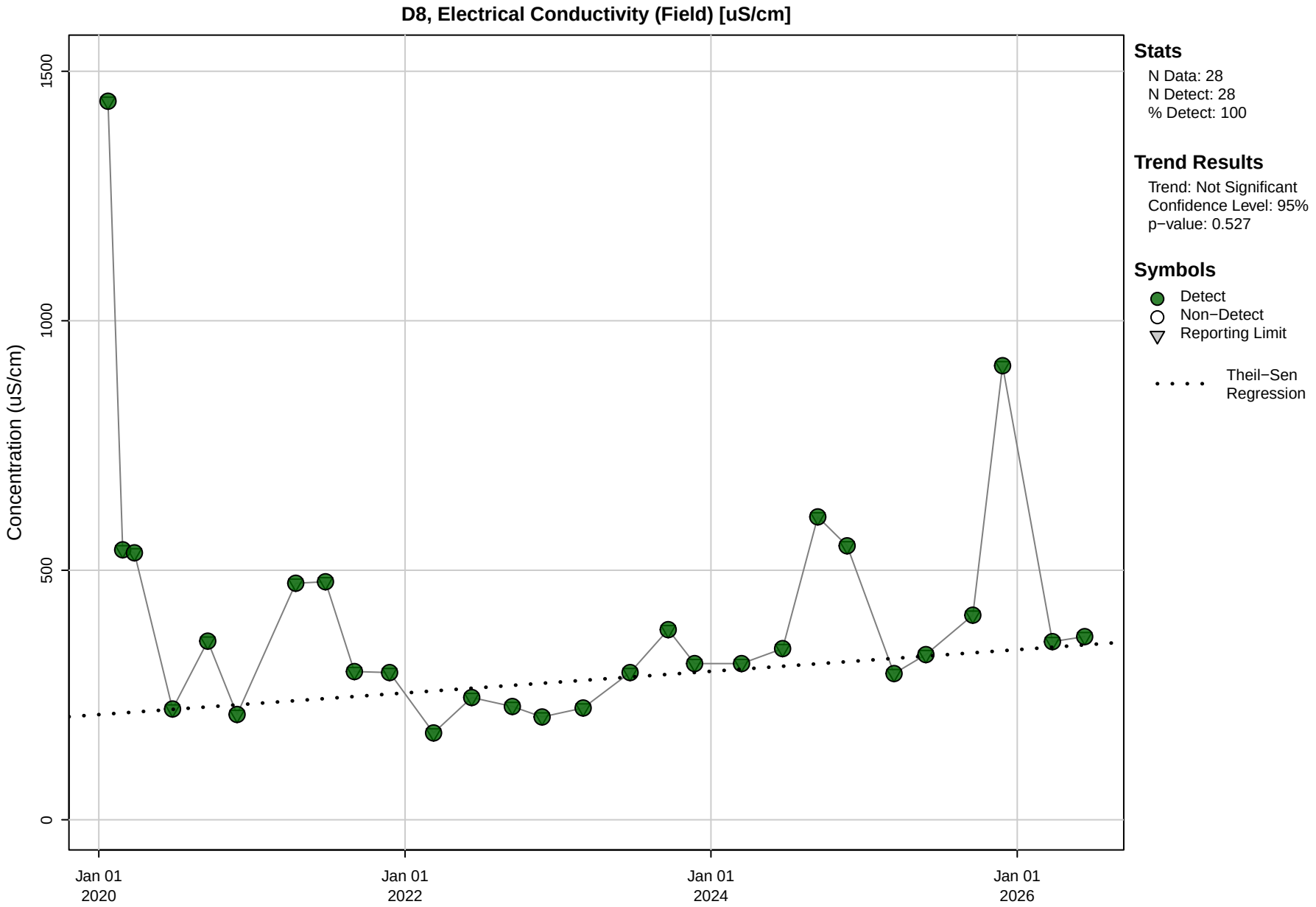

D5, Nickel [ug/L]
Concentration (ug/L)
0
10
20
30
40
50
60
Jan 01
2021
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 22
N Detect: 22
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.113
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

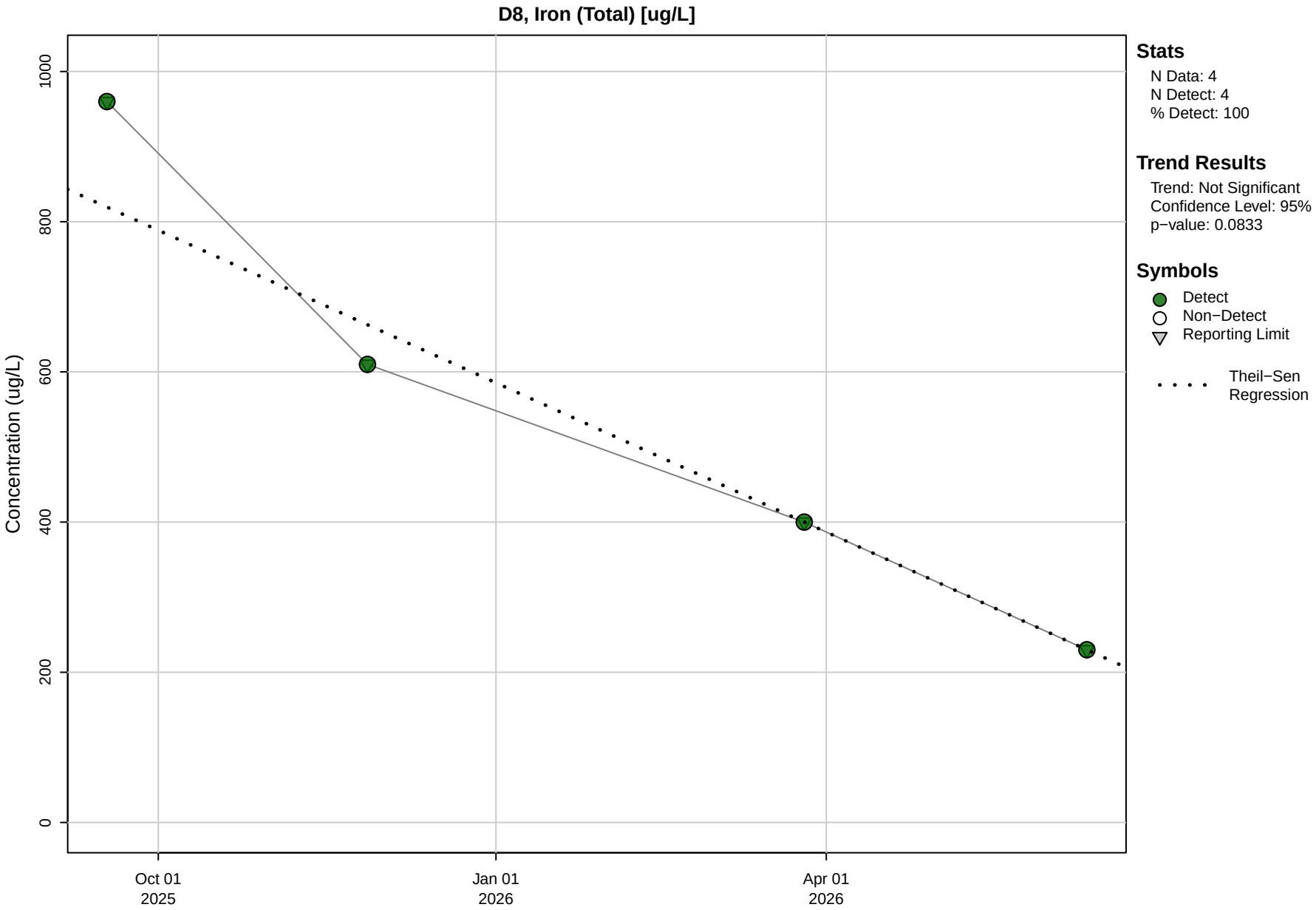

D5, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
500
1000
1500
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00191
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

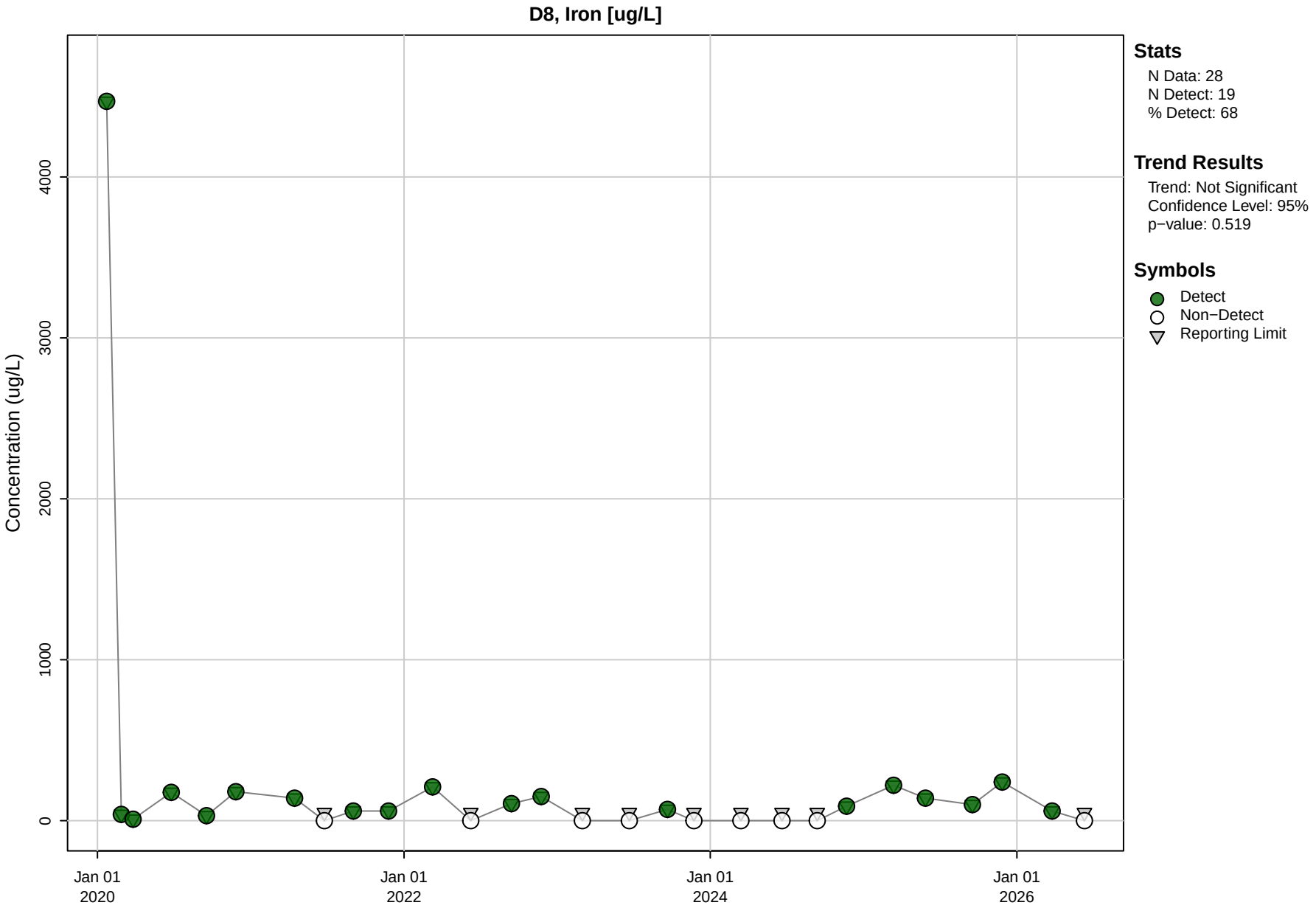

D5, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
200
400
600
800
1000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.069
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

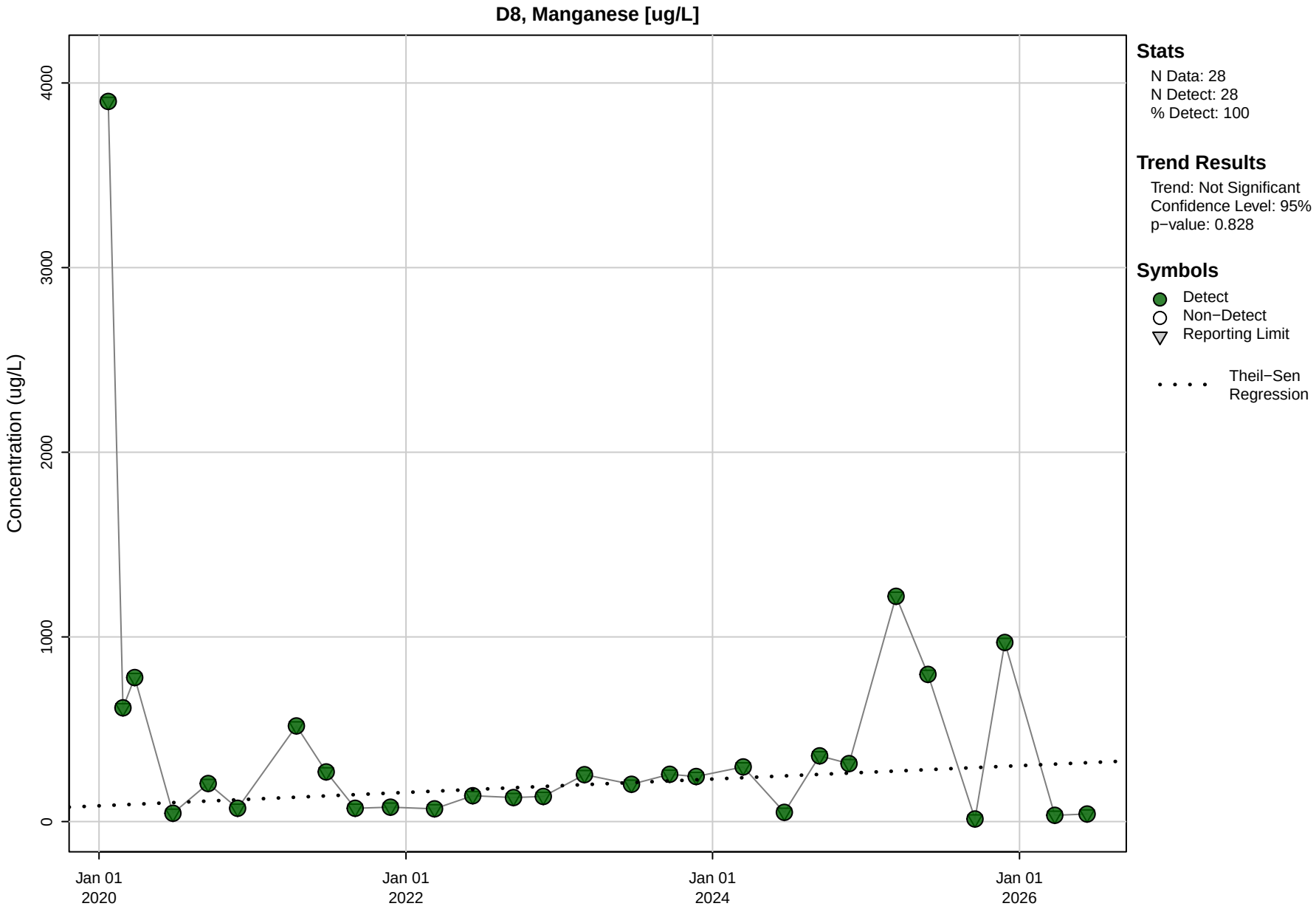

D8, Boron [ug/L]
Concentration (ug/L)
0
10
20
30
40
50
60
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 1
% Detect: 4
Trend Results
Test Criteria Not Met
Symbols
Detect
Non−Detect
Reporting Limit

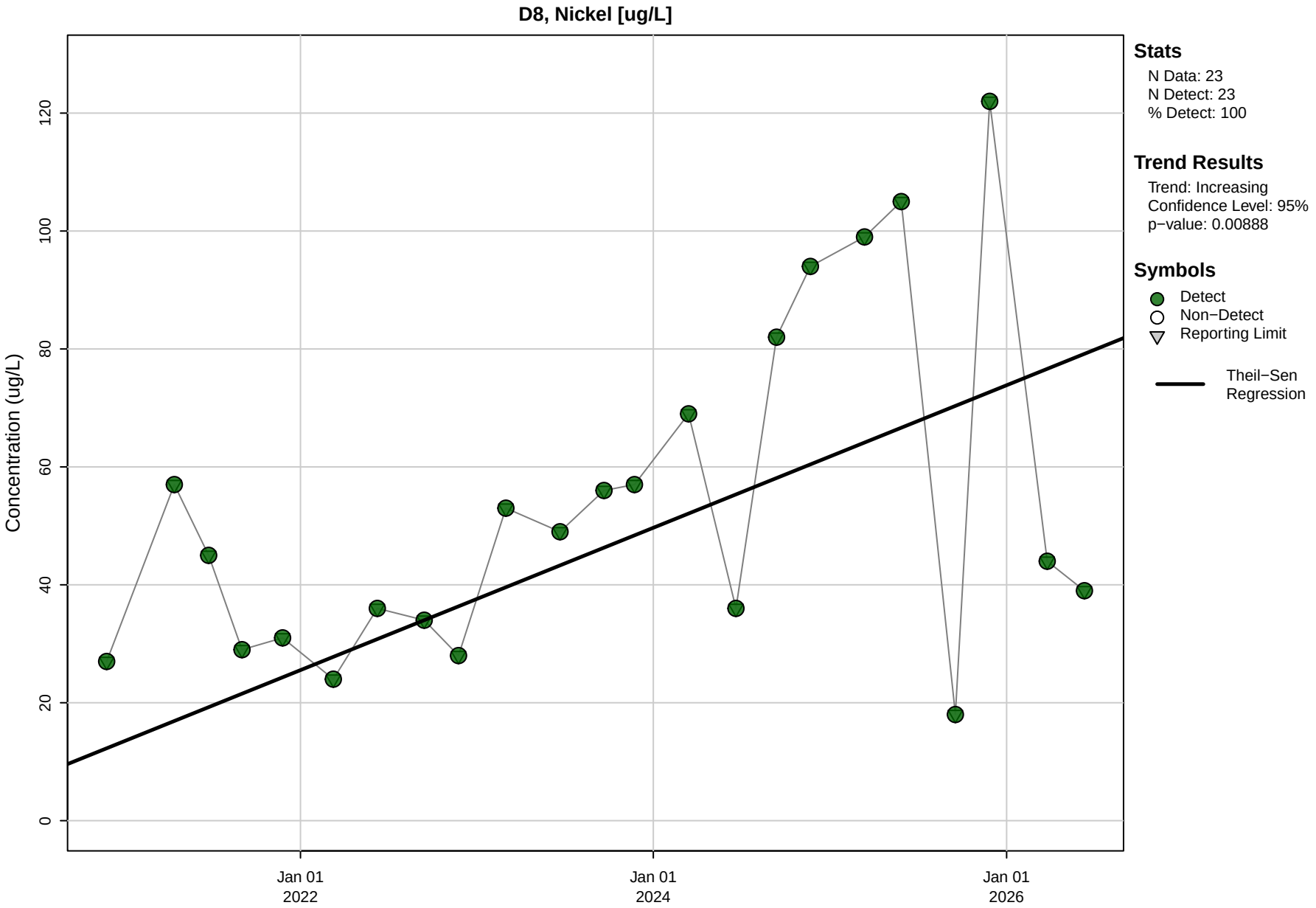

D8, Chloride [mg/L]
Concentration (mg/L)
0
20
40
60
80
100
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.118
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

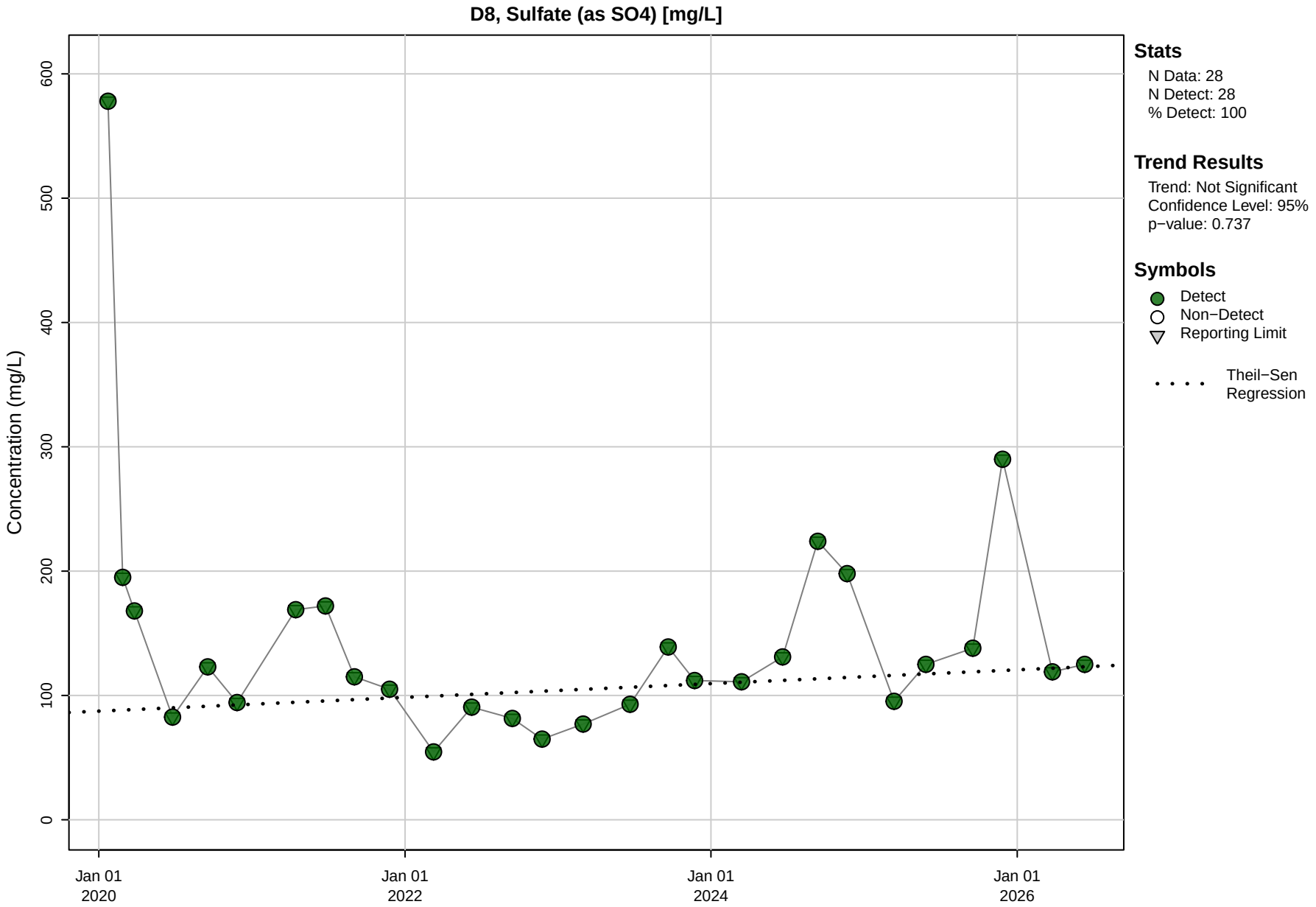

D8, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
500
1000
1500
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.527
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

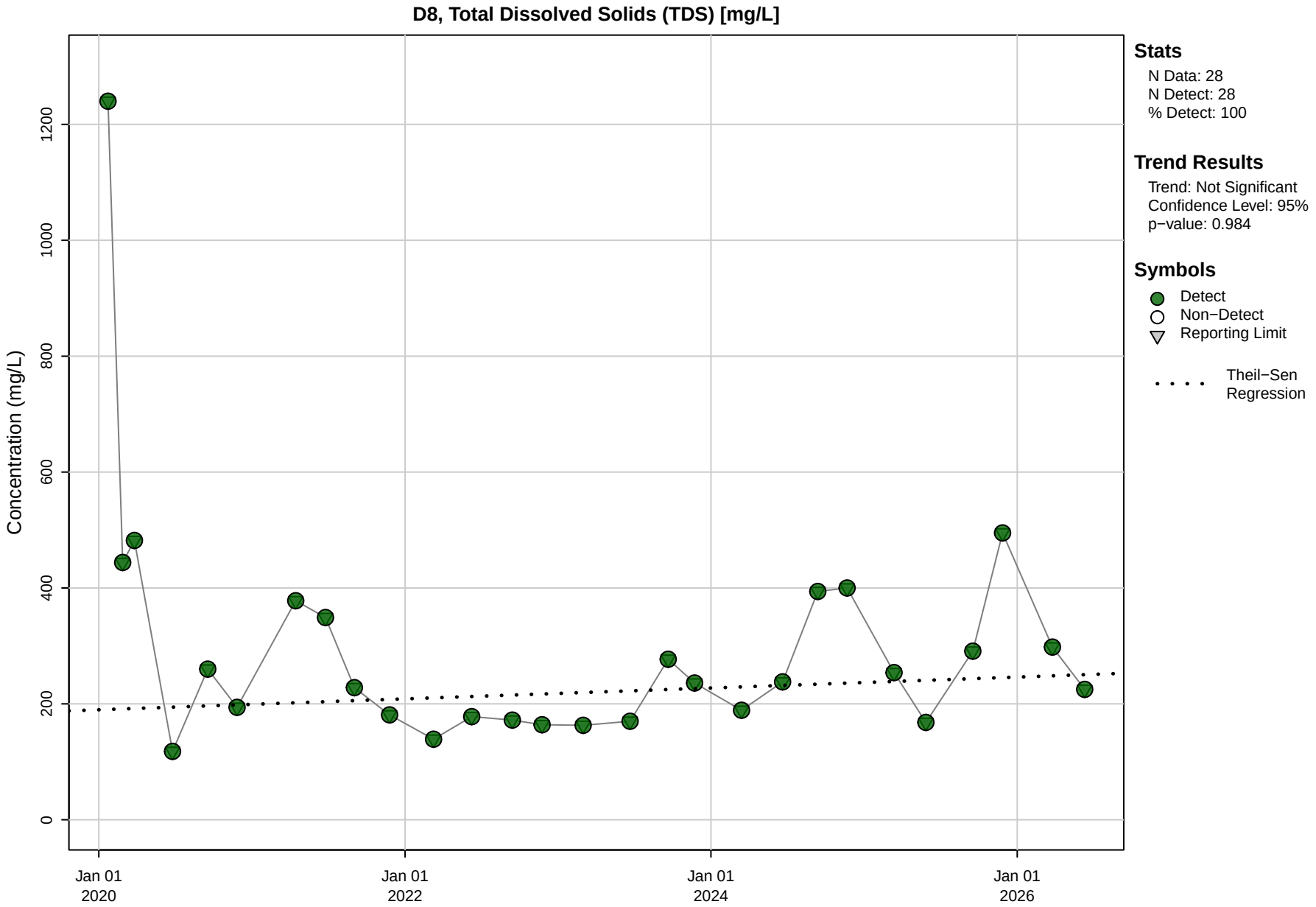

D8, Iron (Total) [ug/L]
Concentration (ug/L)
0
200
400
600
800
1000
Oct 01
2025
Jan 01
2026
Apr 01
2026
Stats
N Data: 4
N Detect: 4
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.0833
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

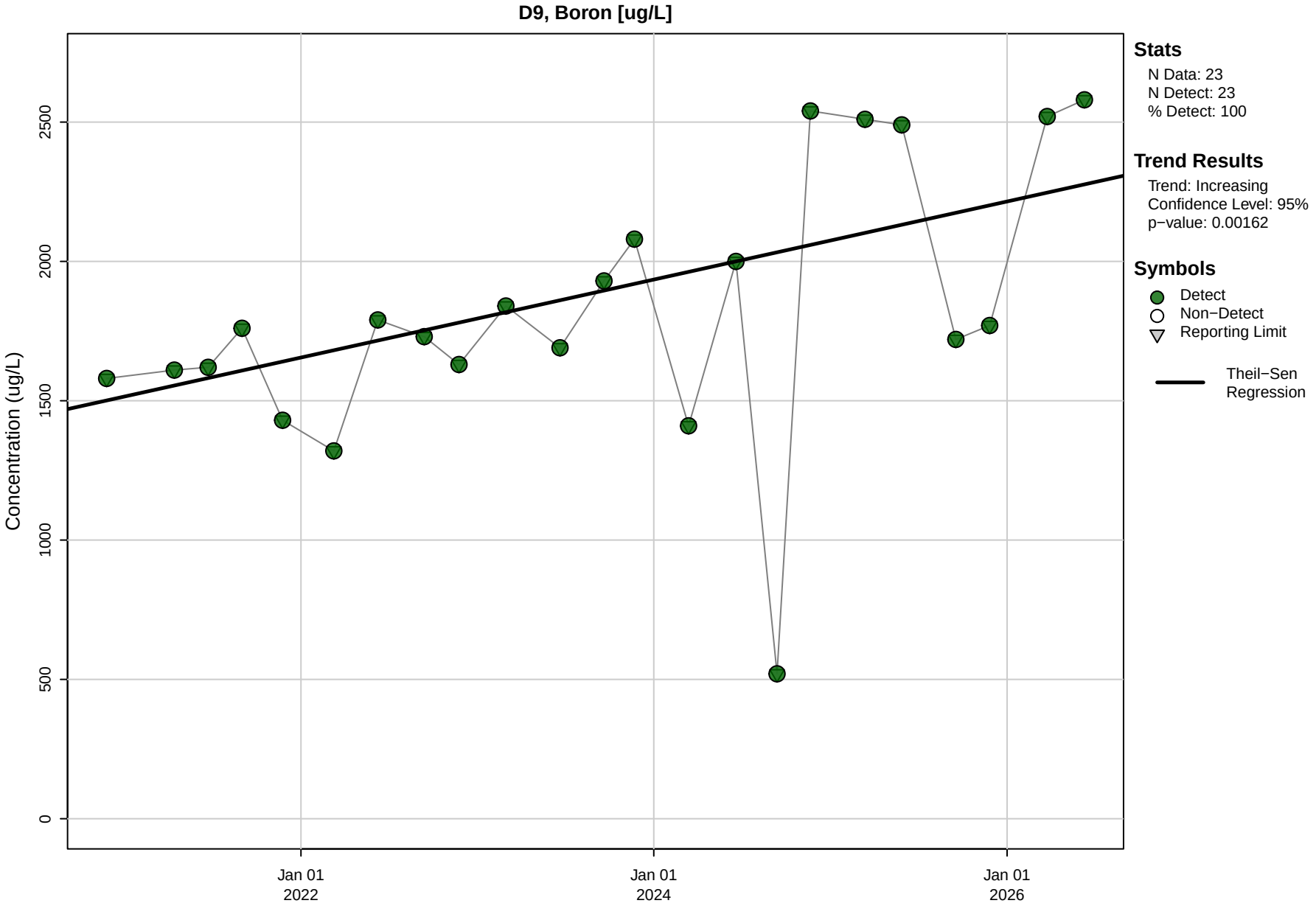

D8, Iron [ug/L]
Concentration (ug/L)
0
1000
2000
3000
4000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 19
% Detect: 68
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.519
Symbols
Detect
Non−Detect
Reporting Limit

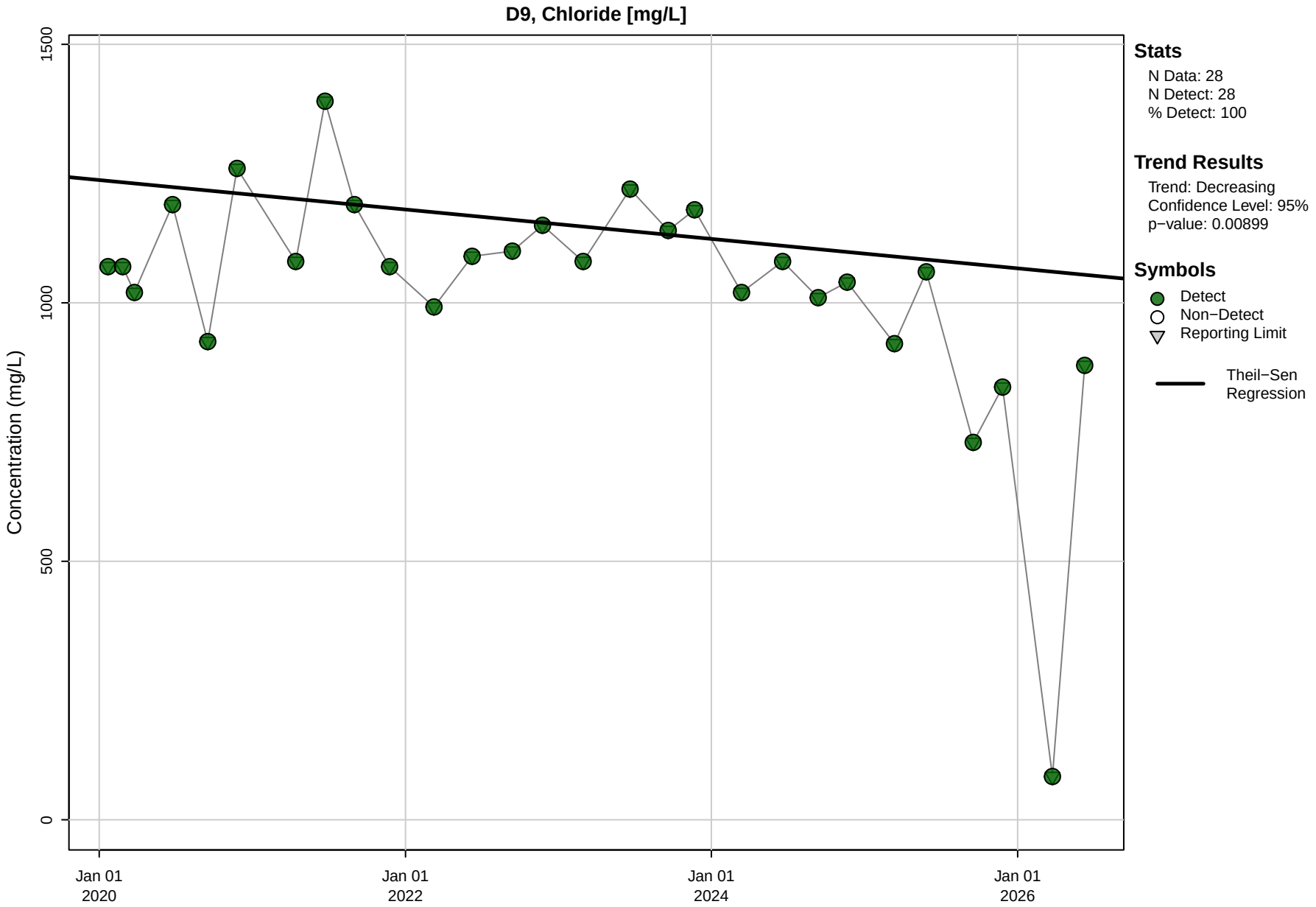

D8, Manganese [ug/L]
Concentration (ug/L)
0
1000
2000
3000
4000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.828
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

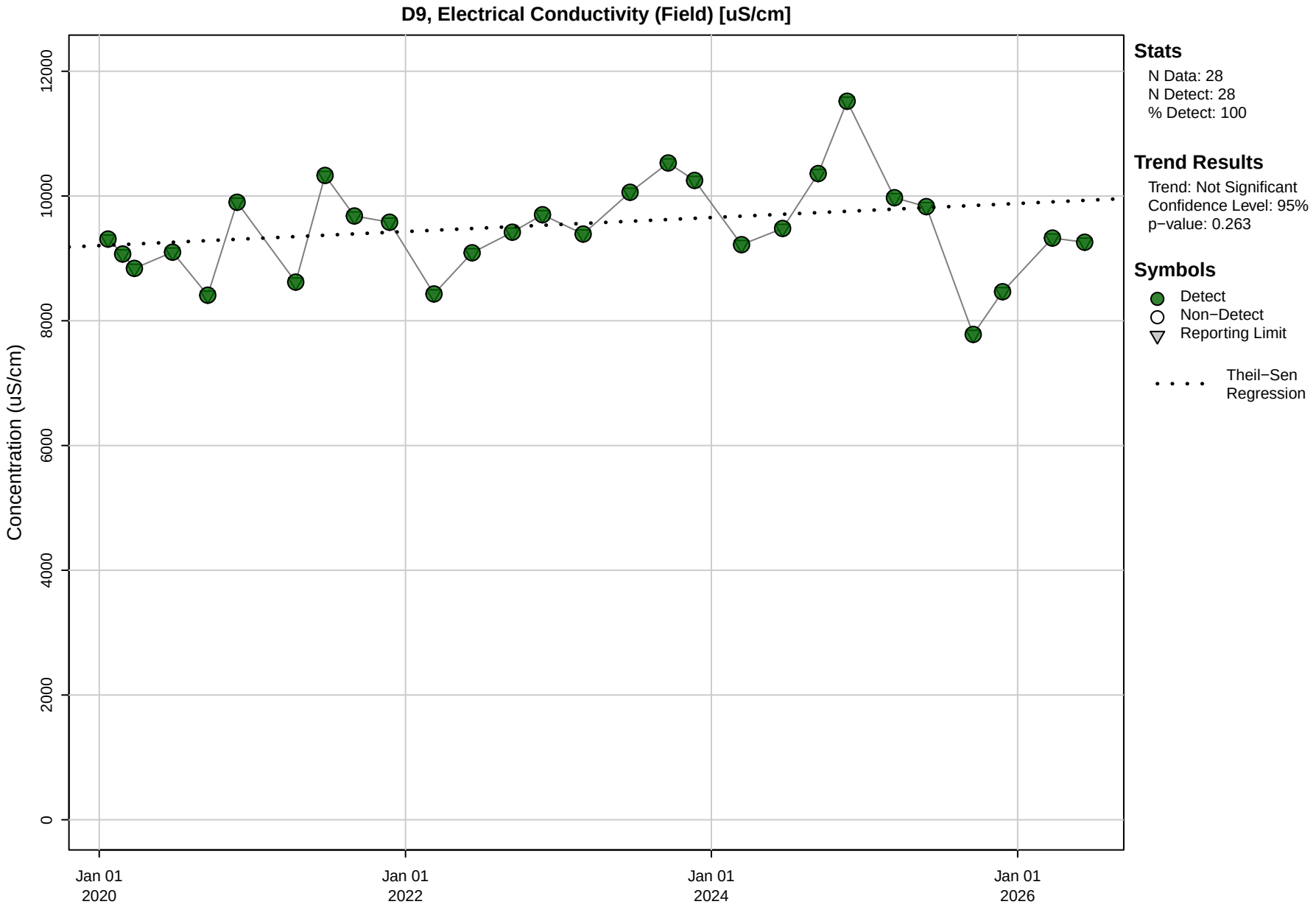

D8, Nickel [ug/L]
Concentration (ug/L)
0
20
40
60
80
100
120
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.00888
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

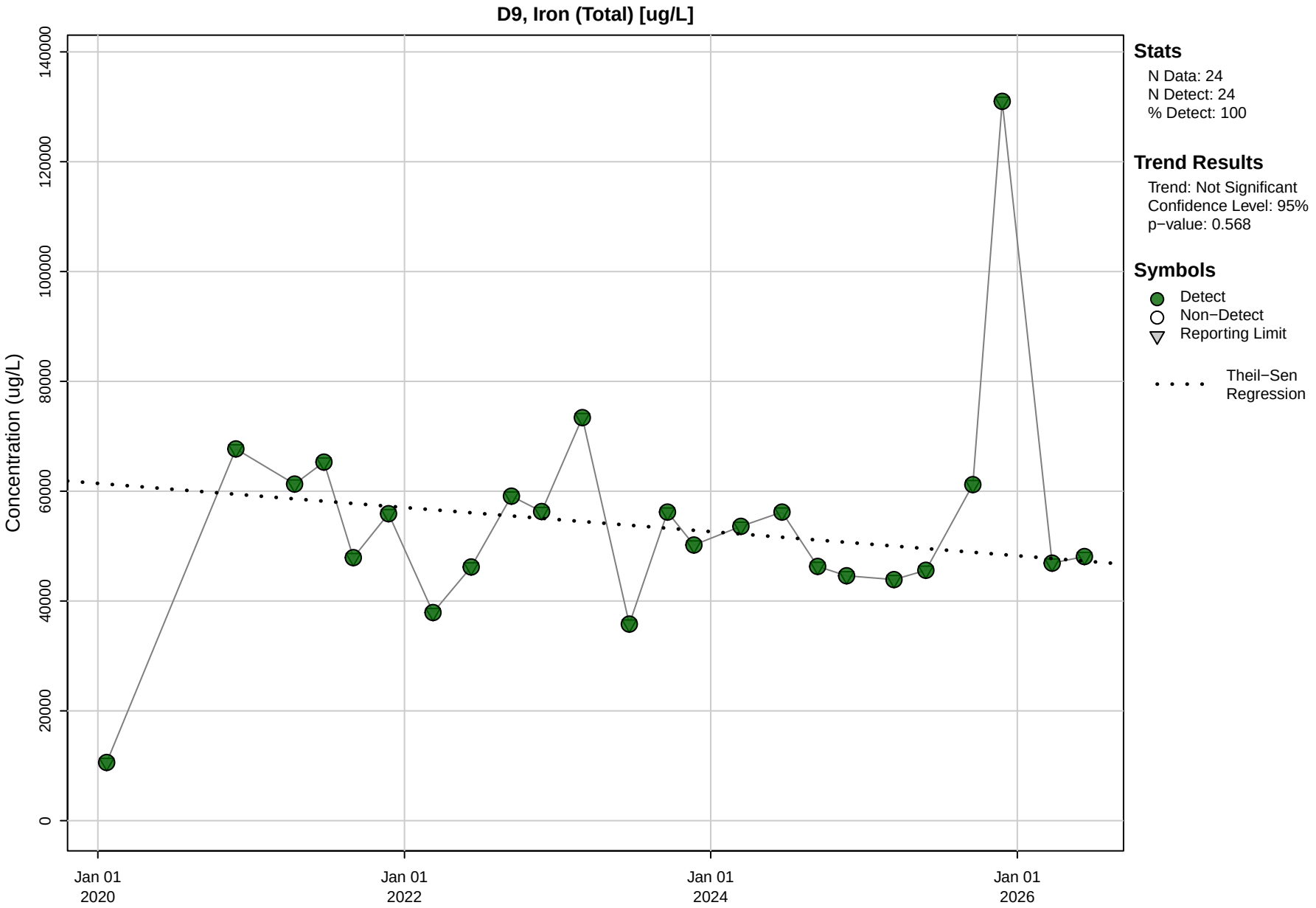

D8, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
100
200
300
400
500
600
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.737
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

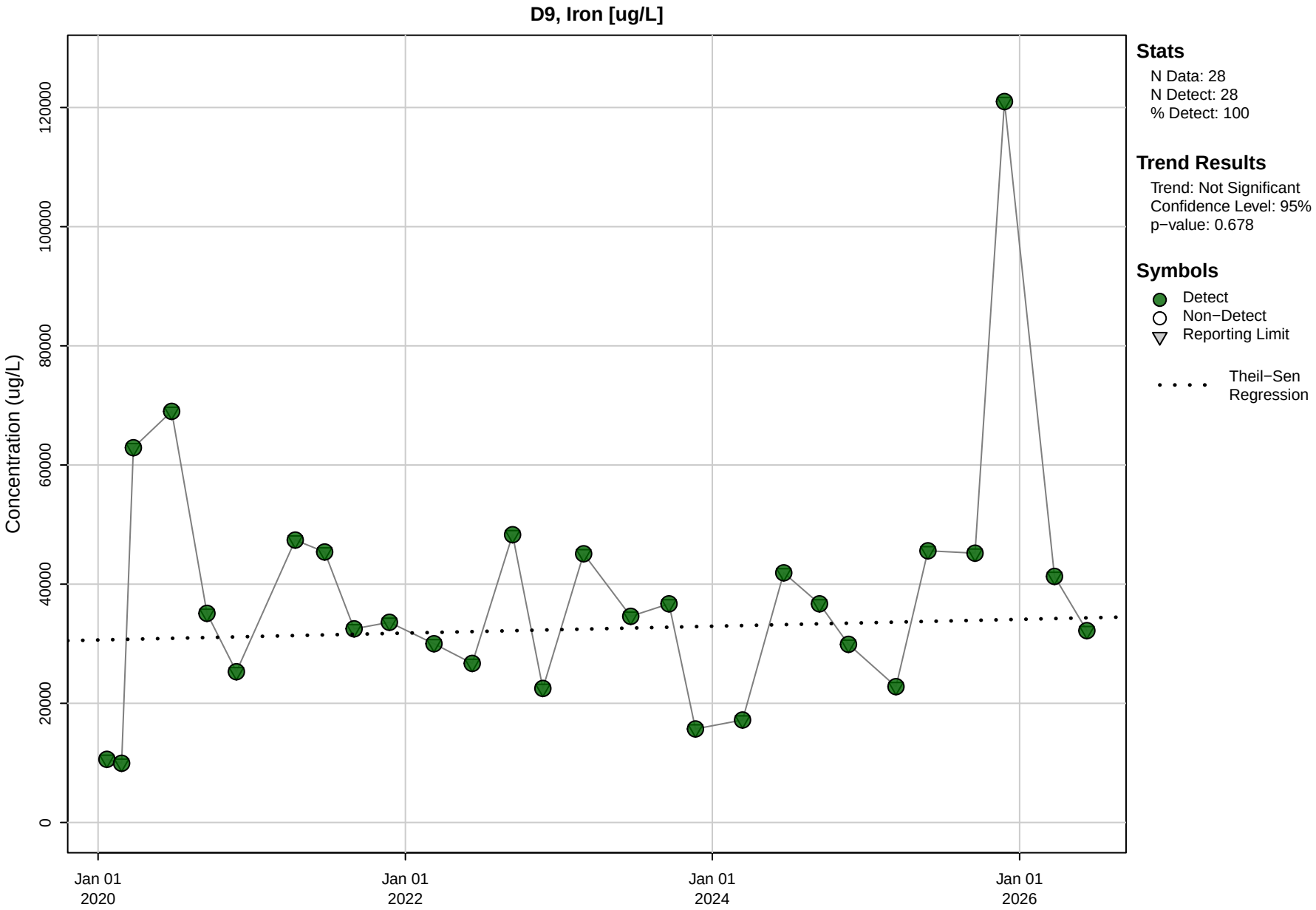

D8, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
200
400
600
800
1000
1200
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.984
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

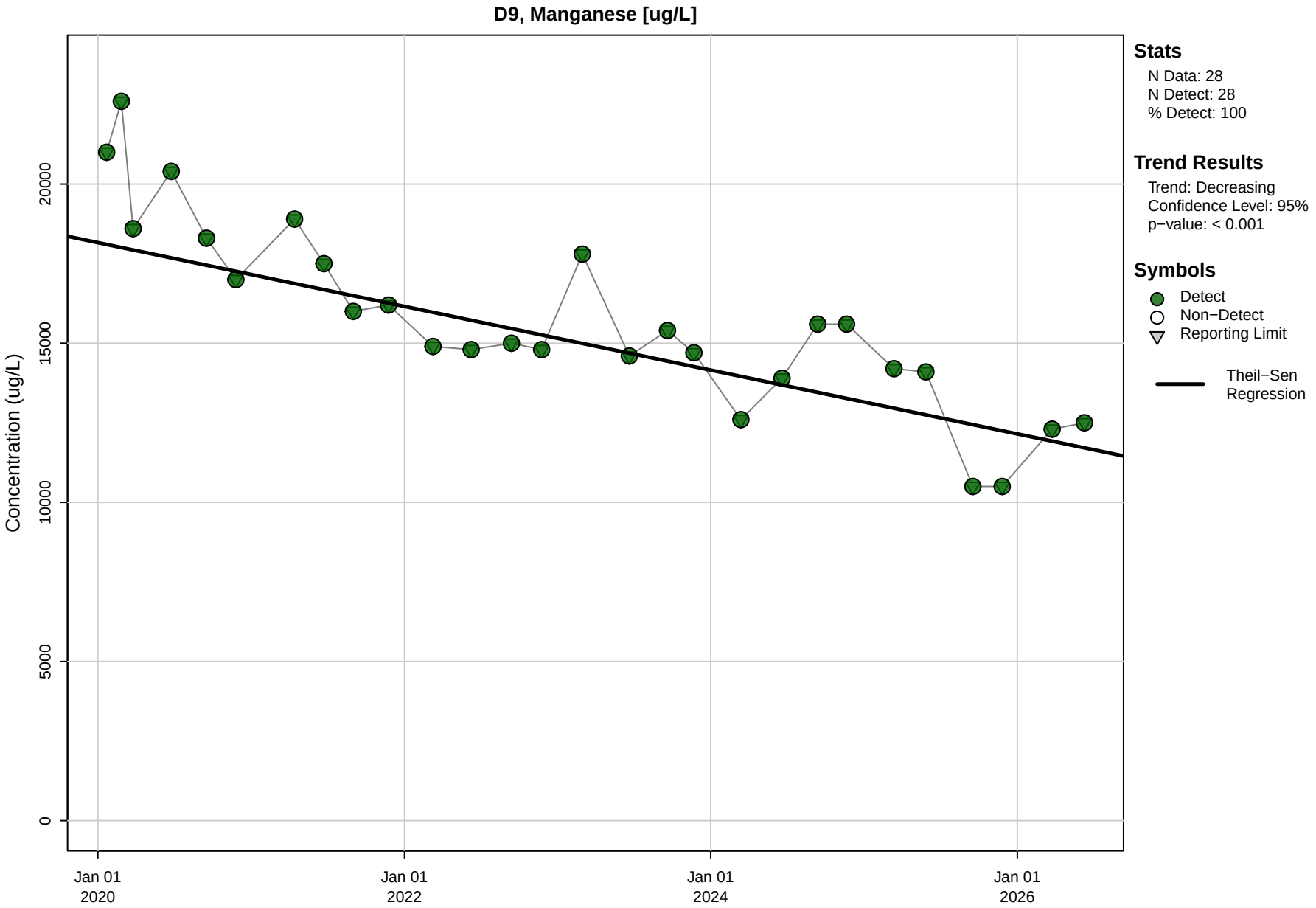

D9, Boron [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
2500
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.00162
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

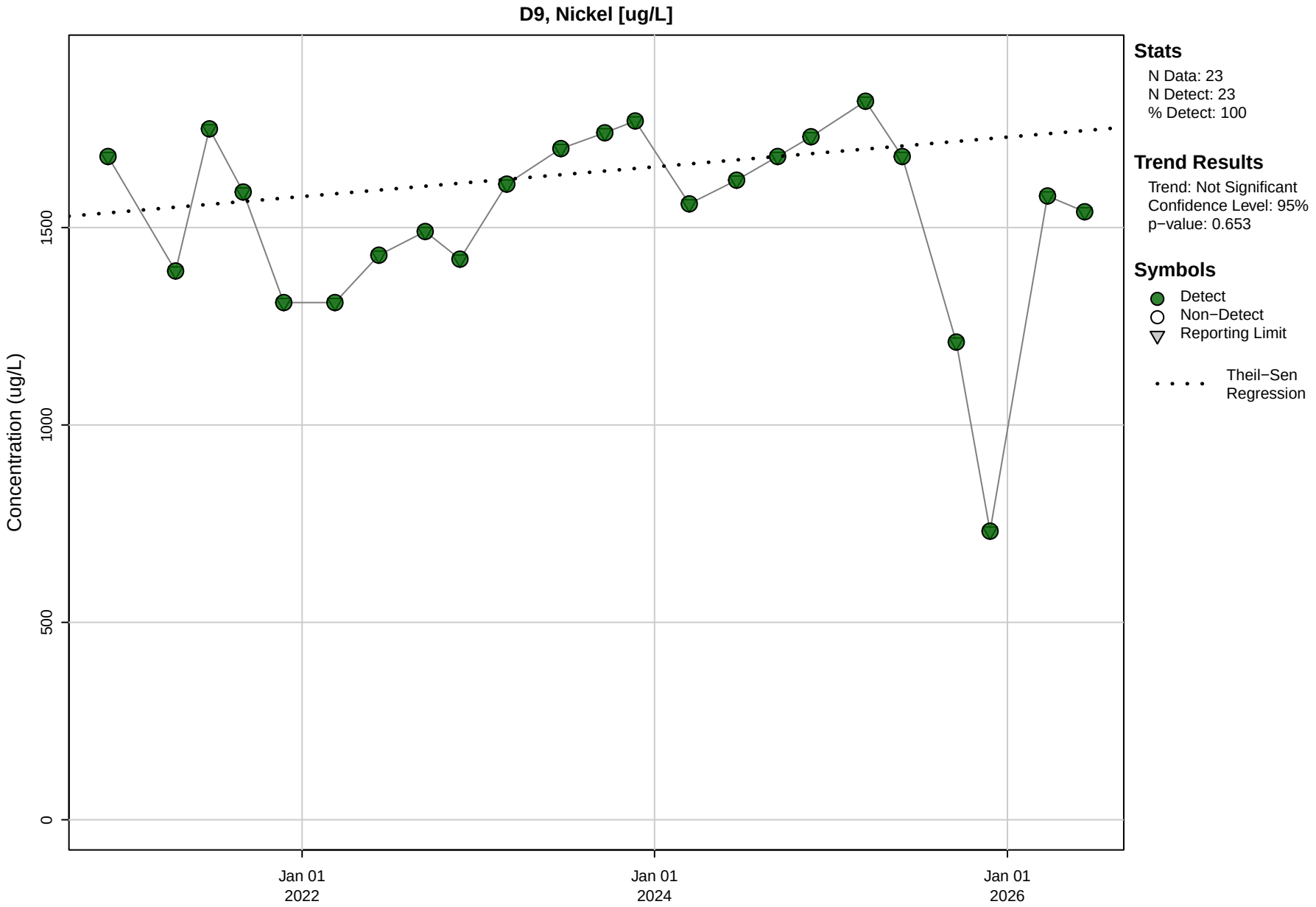

D9, Chloride [mg/L]
Concentration (mg/L)
1500
1000
500
0
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.00899
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

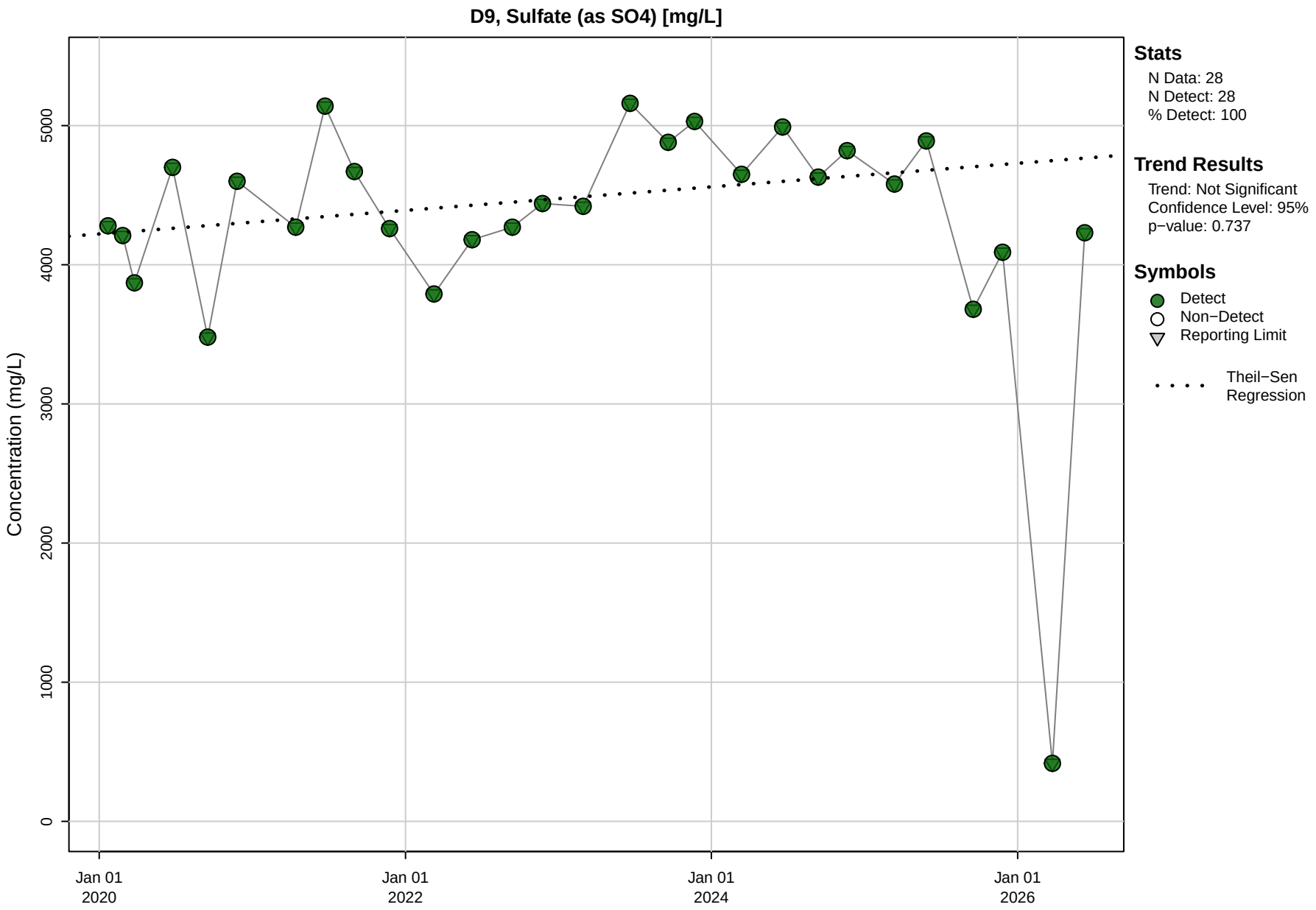

D9, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
2000
4000
6000
8000
10000
12000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.263
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

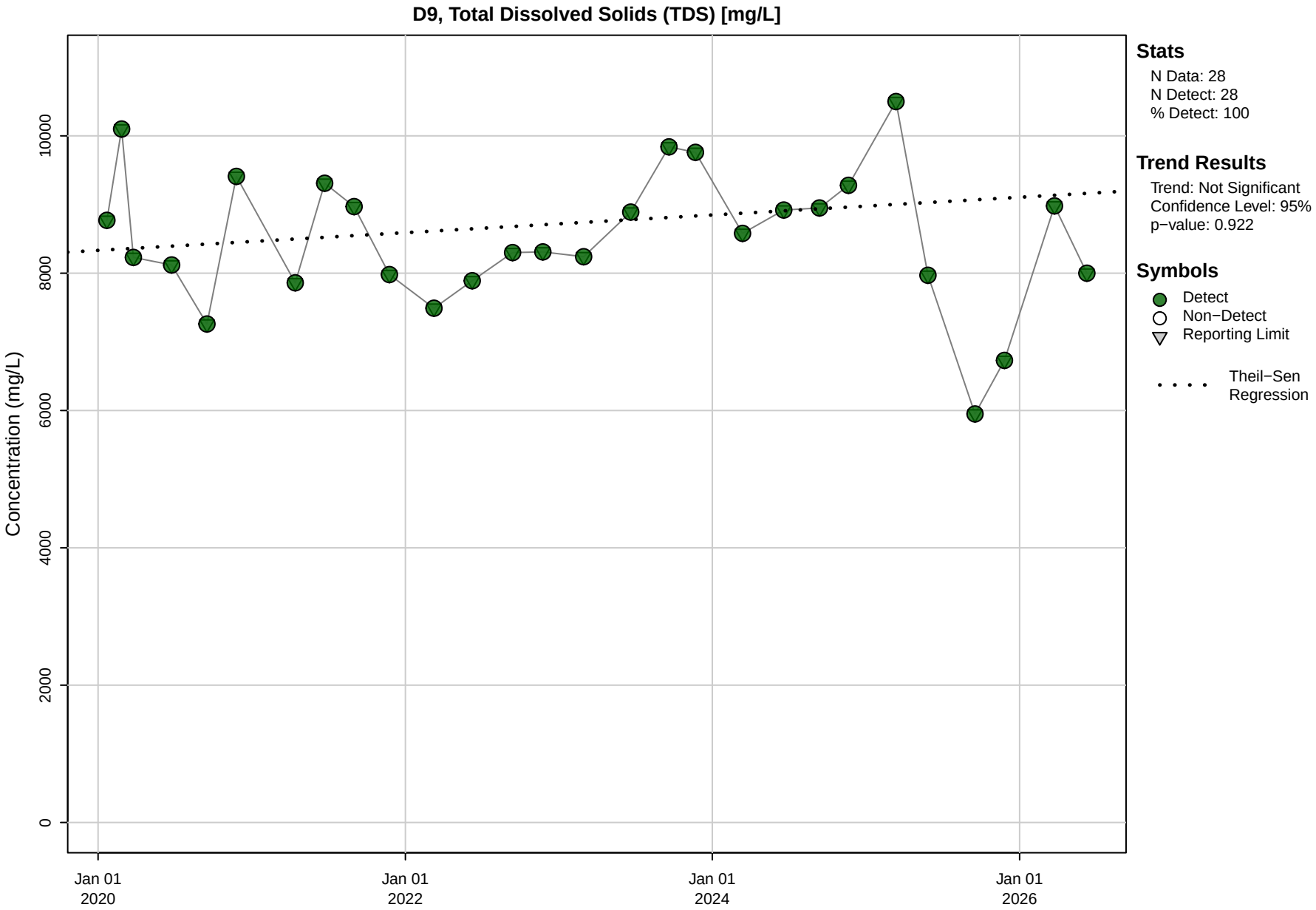

D9, Iron (Total) [ug/L]
Concentration (ug/L)
0
20000
40000
60000
80000
100000
120000
140000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 24
N Detect: 24
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.568
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

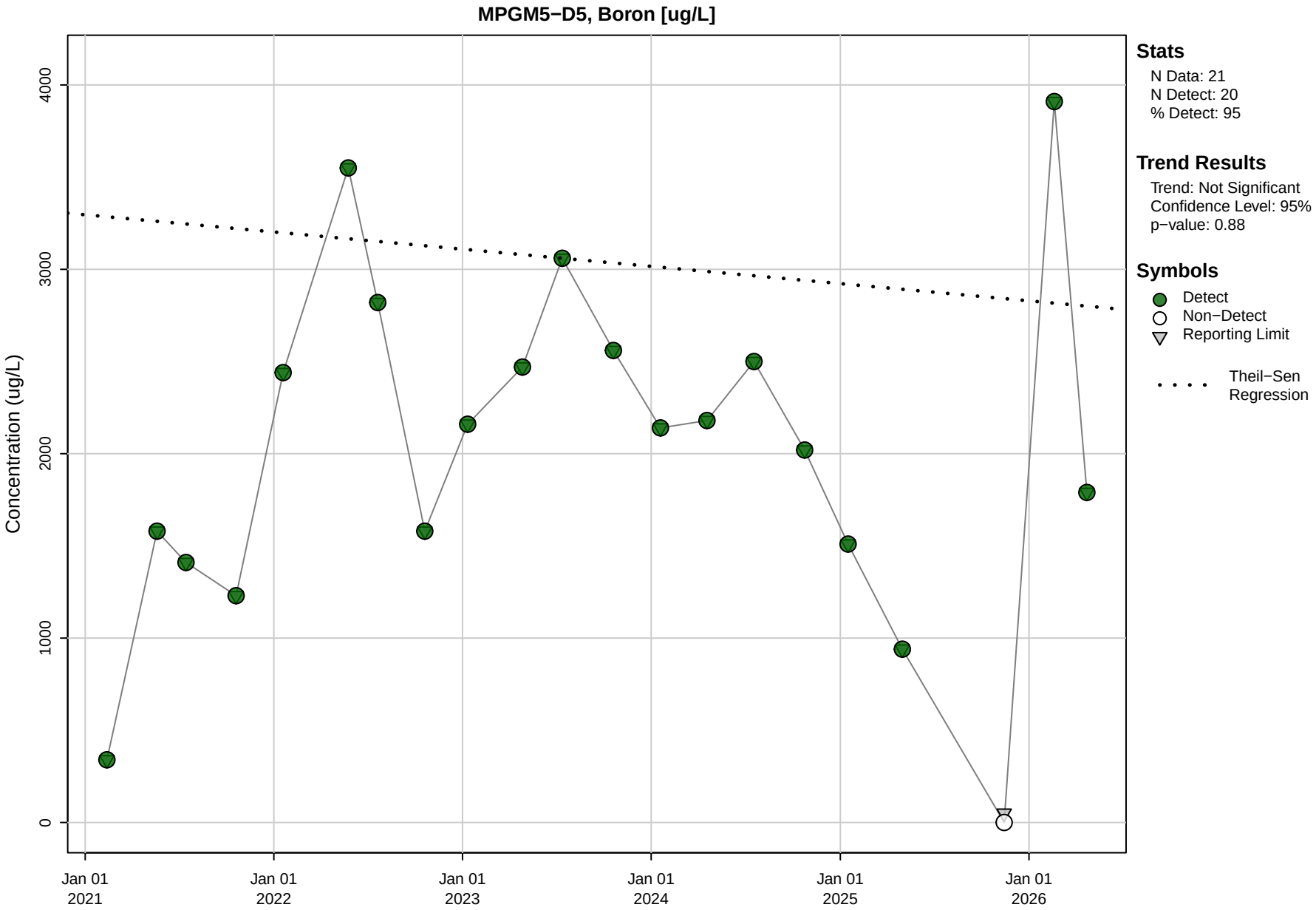

D9, Iron [ug/L]
Concentration (ug/L)
0
20000
40000
60000
80000
100000
120000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.678
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

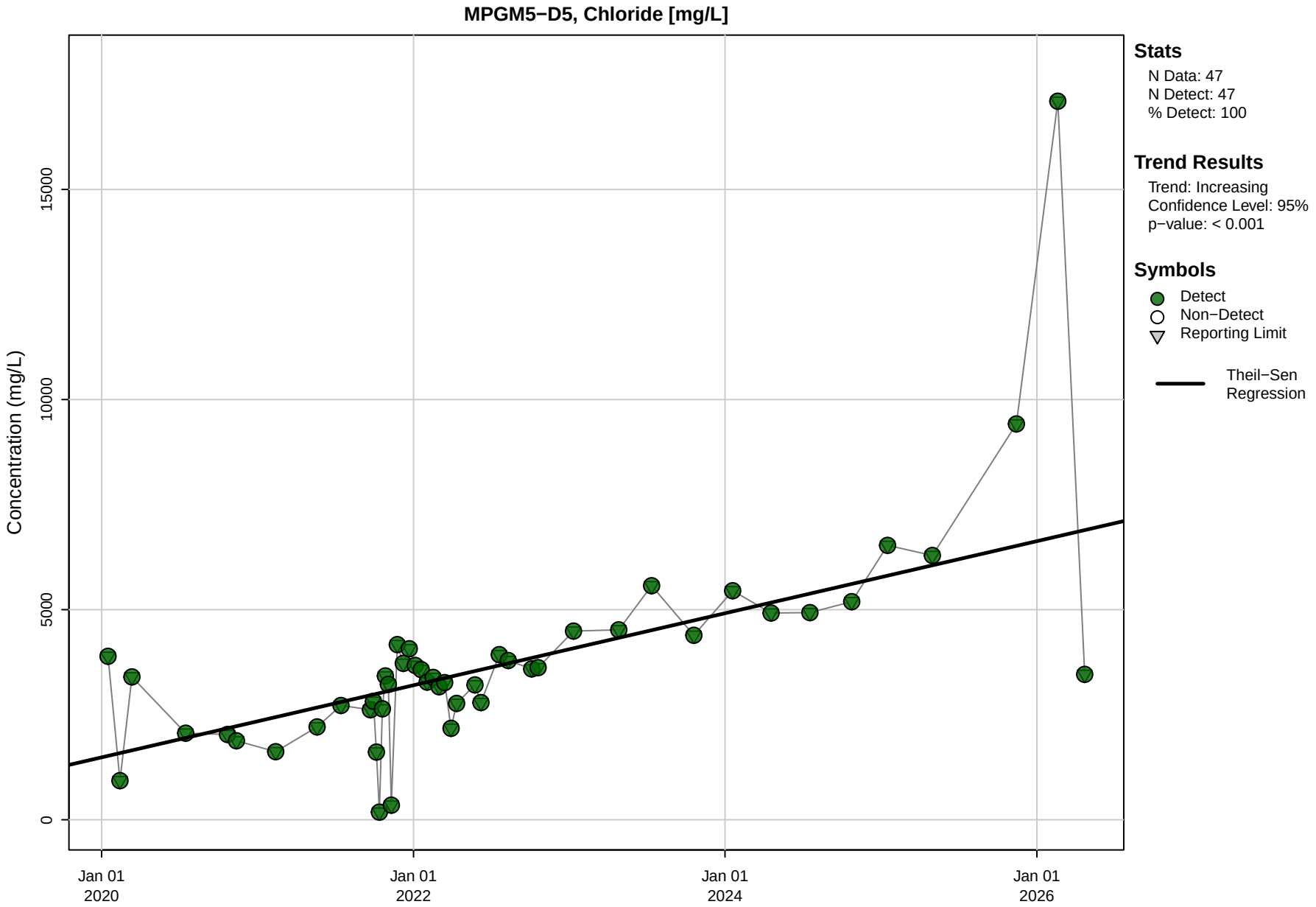

D9, Manganese [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

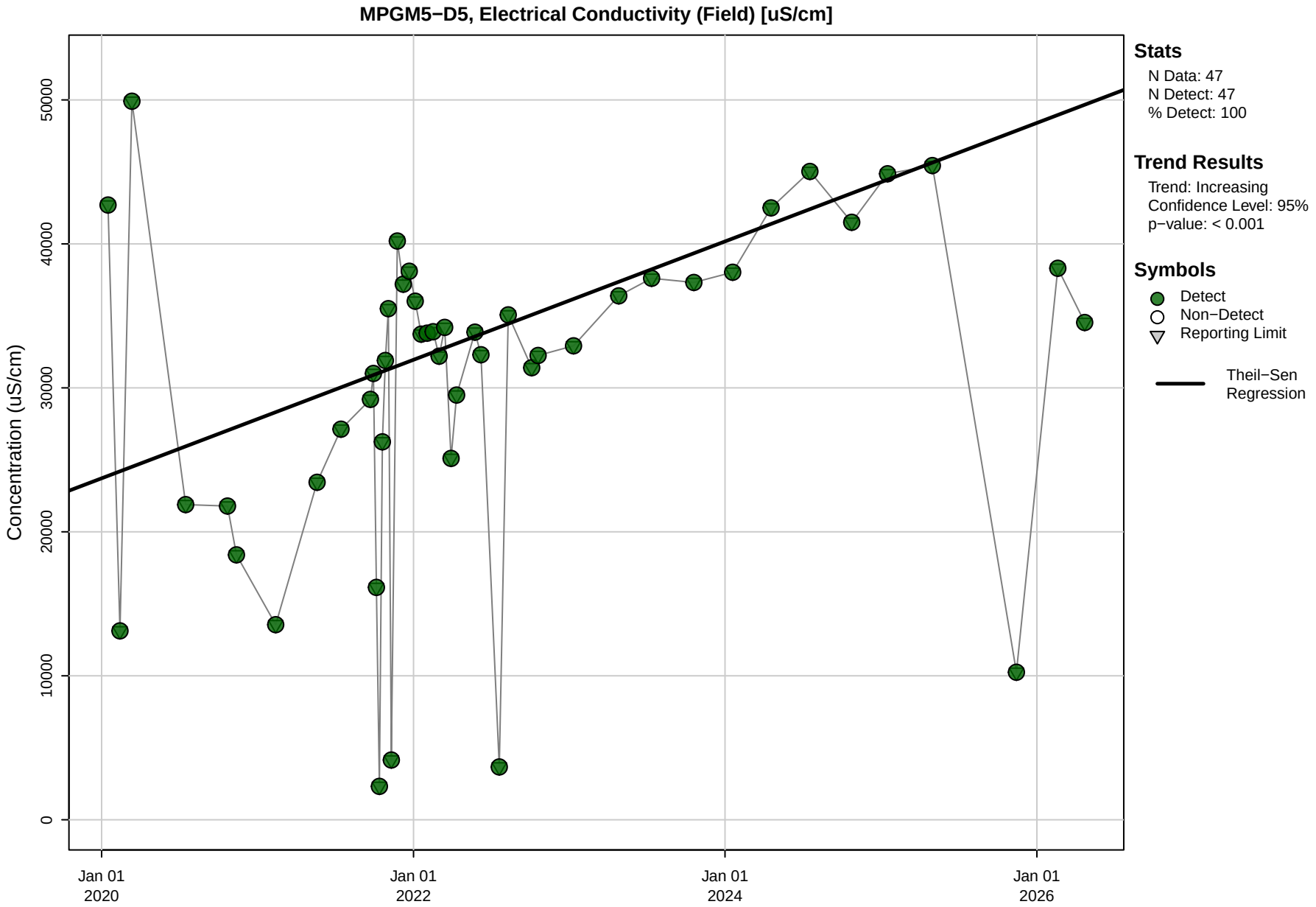

D9, Nickel [ug/L]
Concentration (ug/L)
0
500
1000
1500
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.653
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

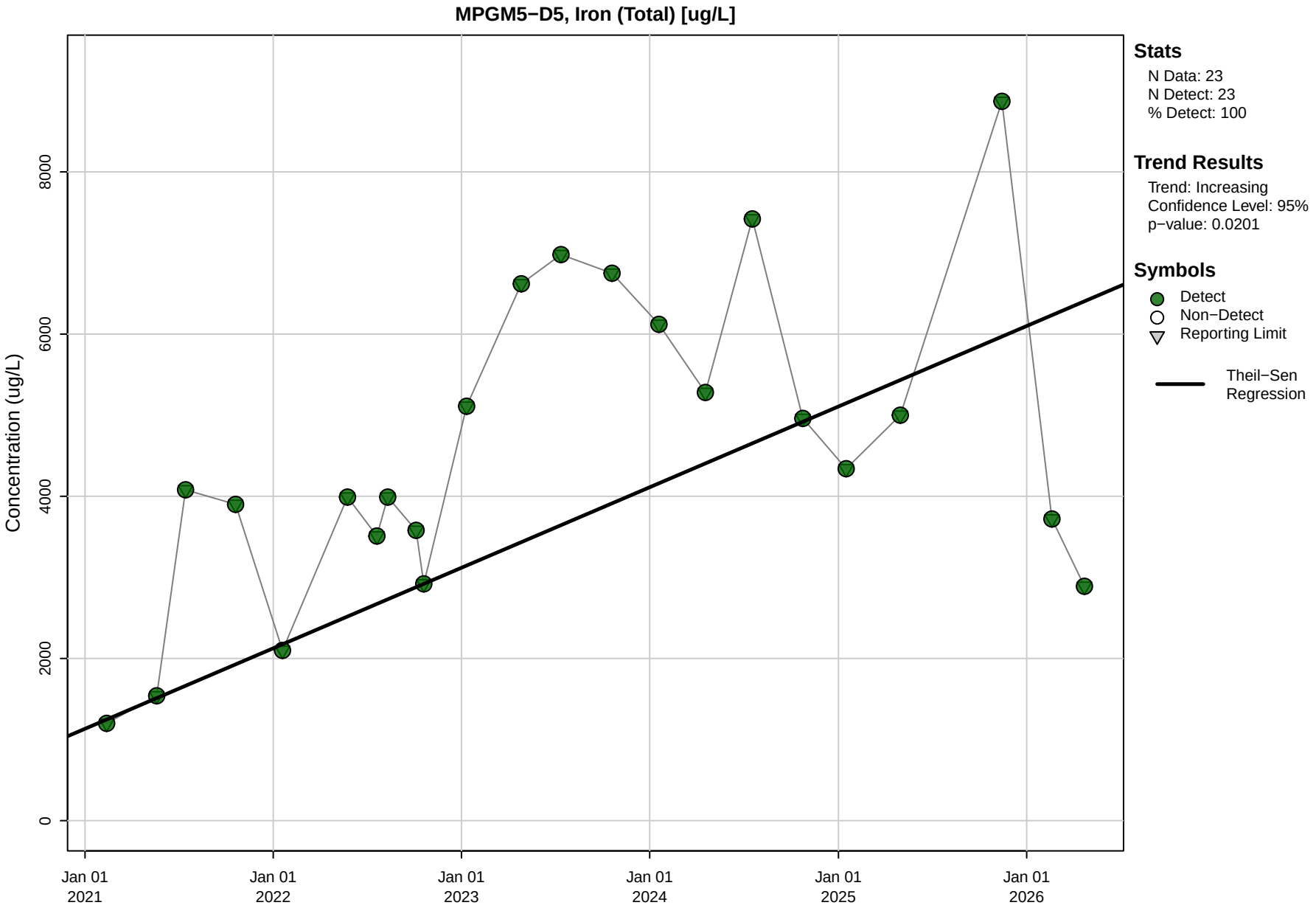

D9, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
1000
2000
3000
4000
5000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.737
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

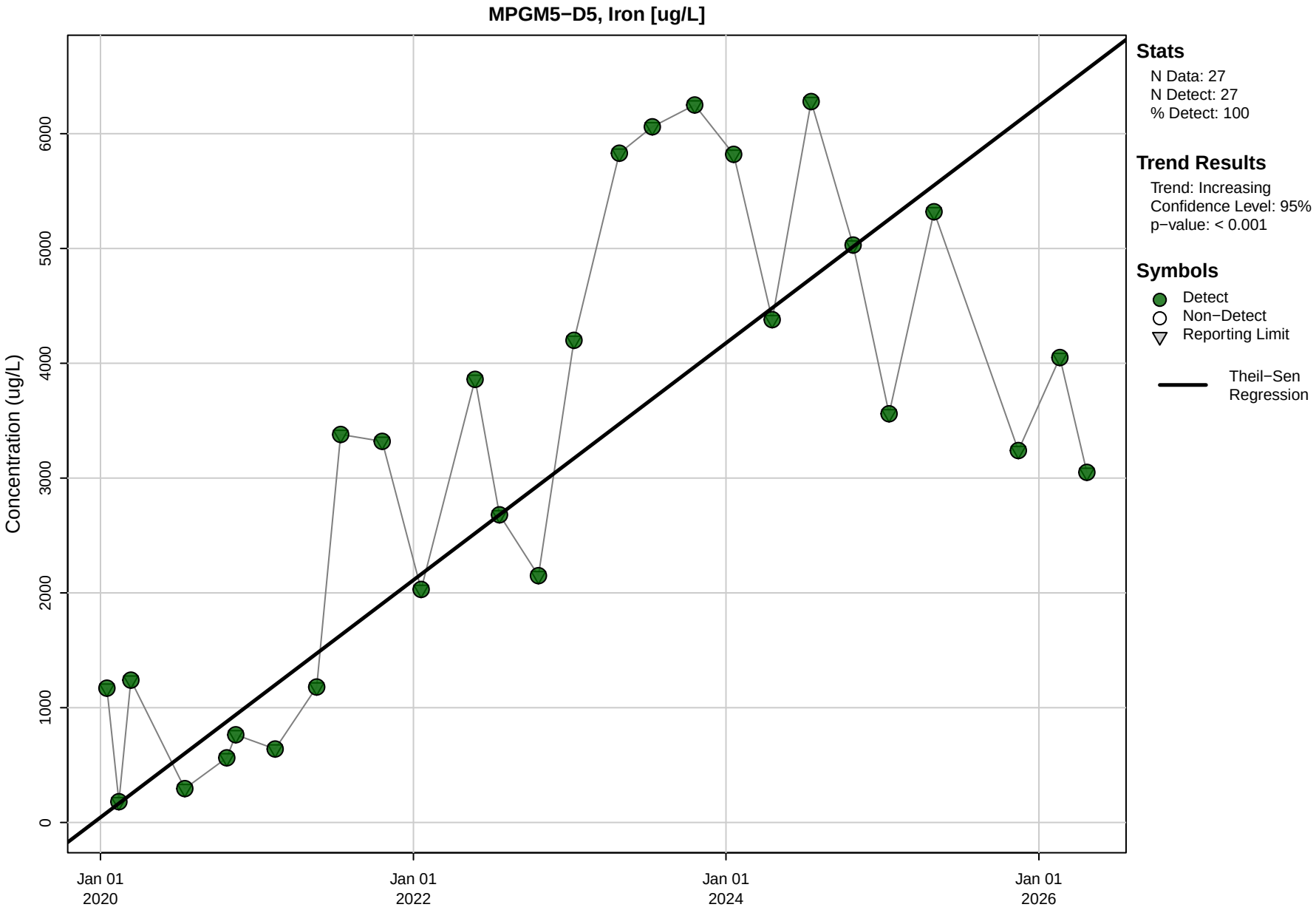

D9, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
2000
4000
6000
8000
10000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 28
N Detect: 28
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.922
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

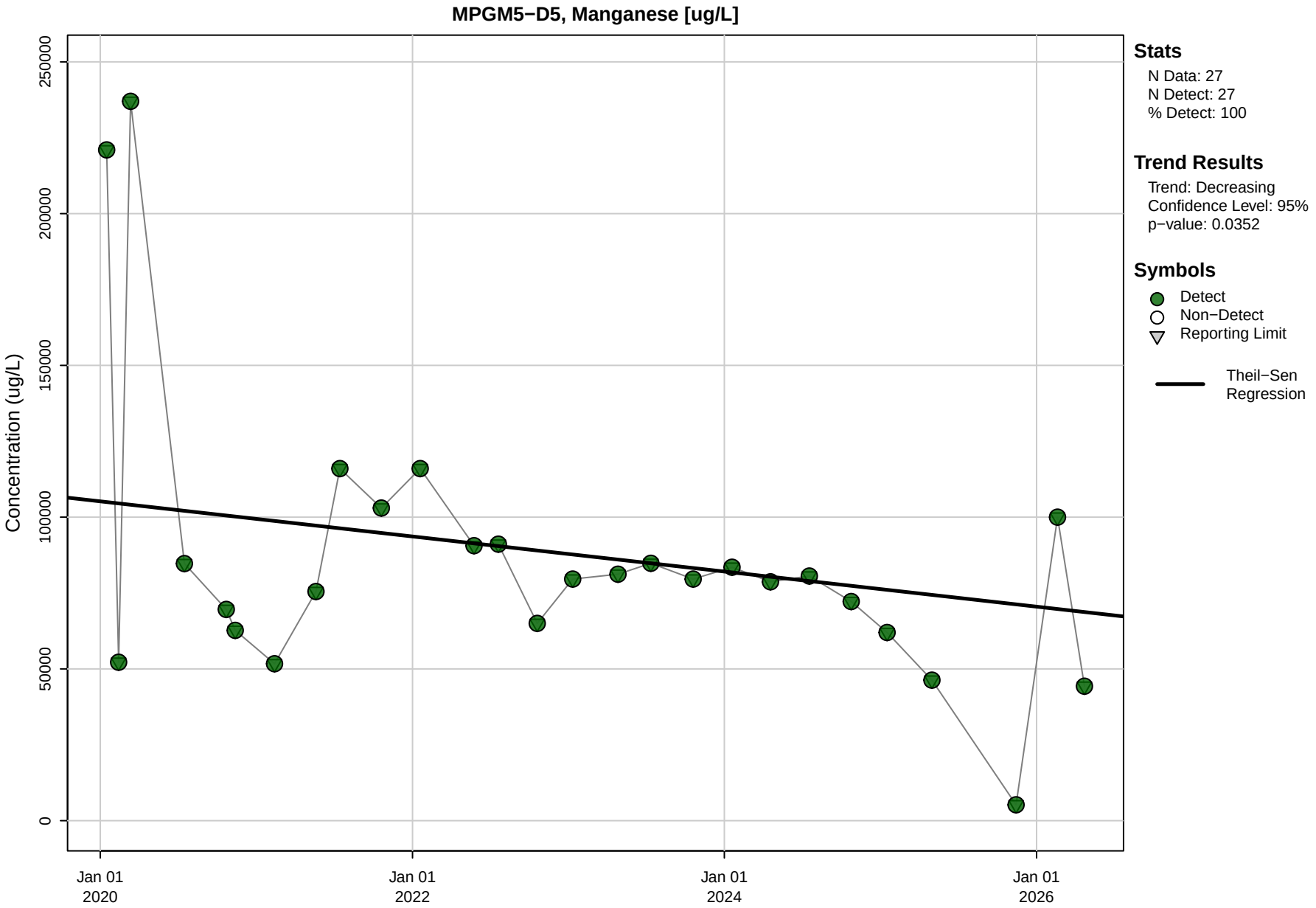

MPGM5−D5, Boron [ug/L]
Concentration (ug/L)
0
1000
2000
3000
4000
Jan 01
2021
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 21
N Detect: 20
% Detect: 95
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.88
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

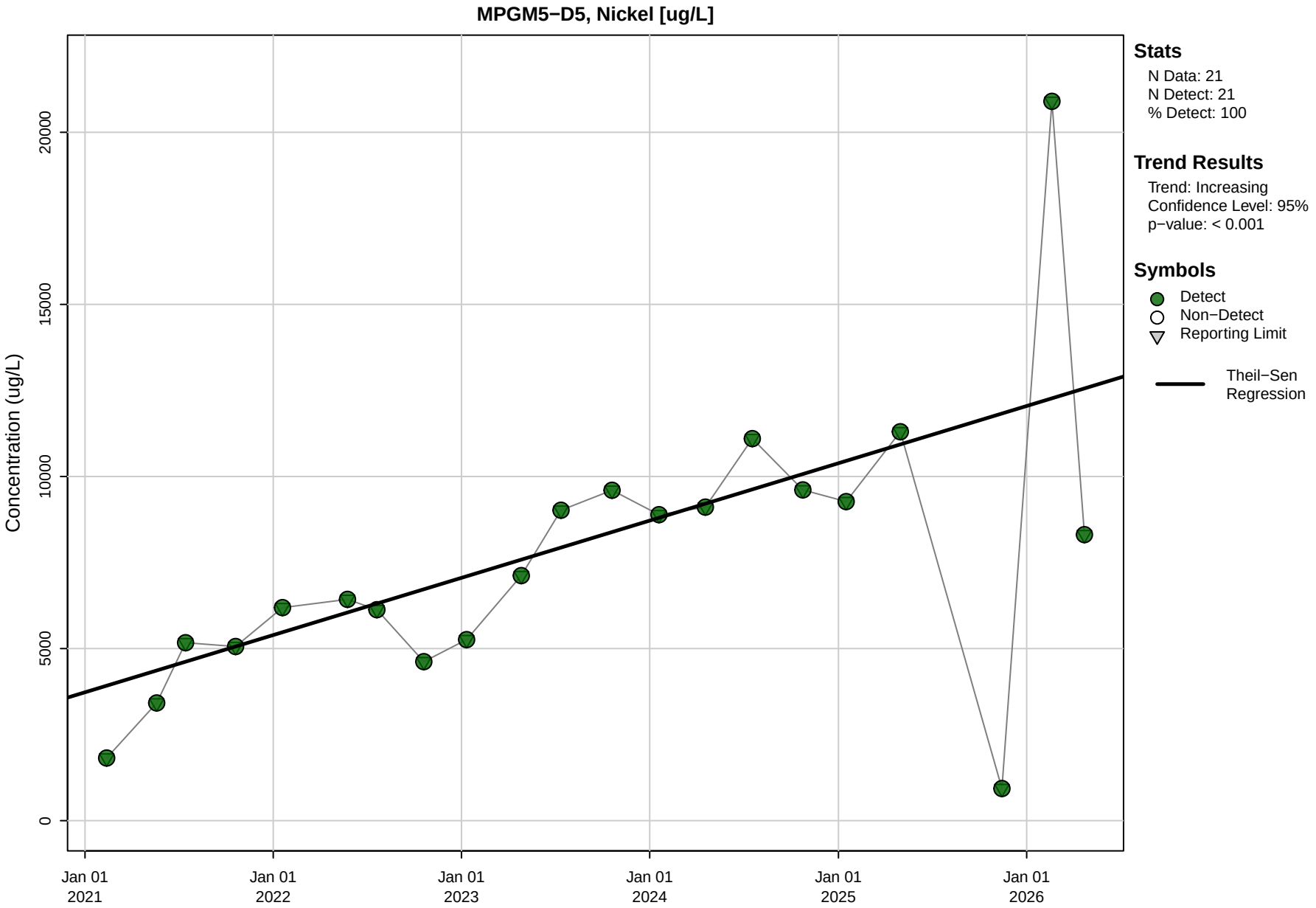

MPGM5−D5, Chloride [mg/L]
Concentration (mg/L)
0
5000
10000
15000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 47
N Detect: 47
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

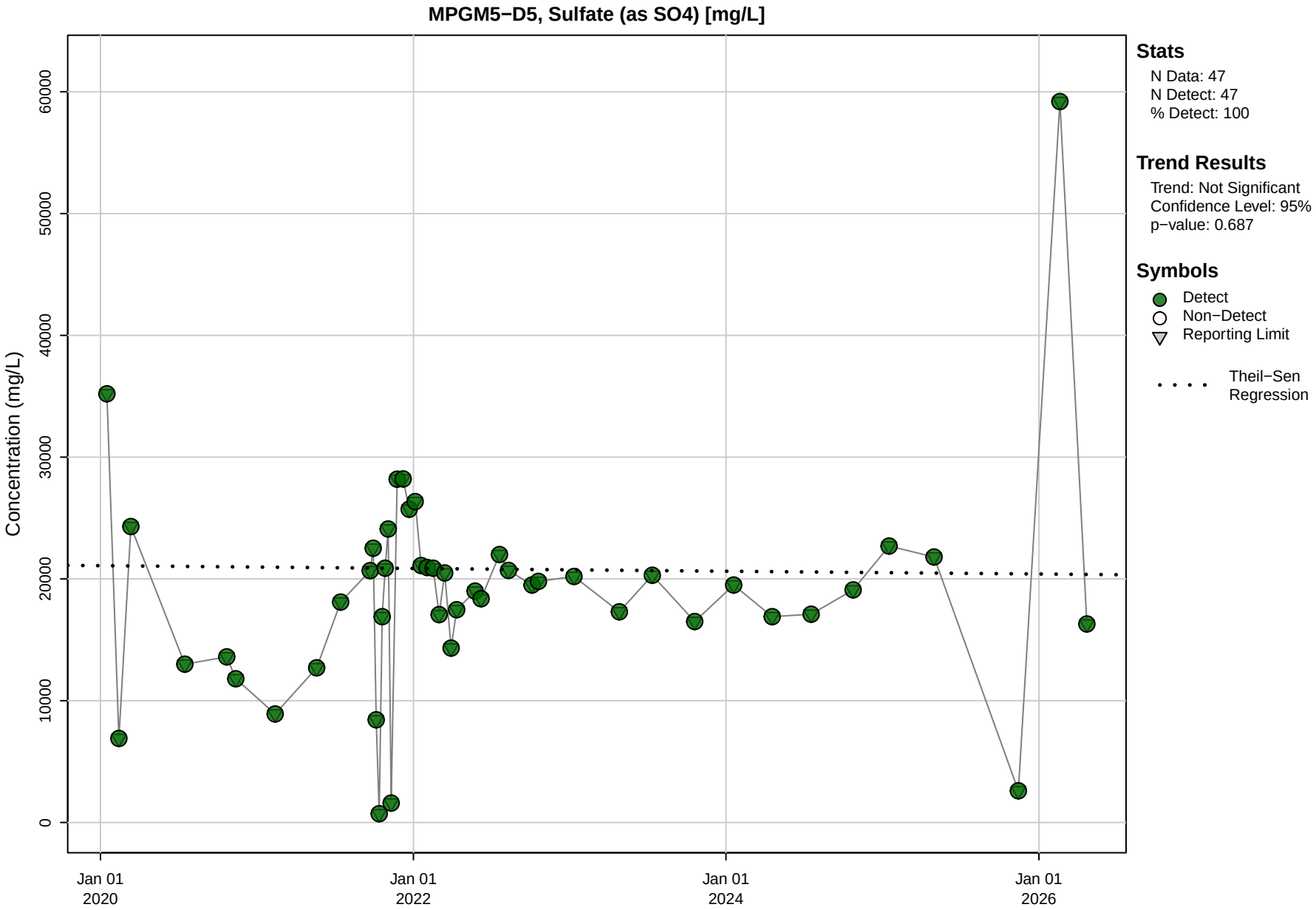

MPGM5−D5, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
10000
20000
30000
40000
50000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 47
N Detect: 47
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

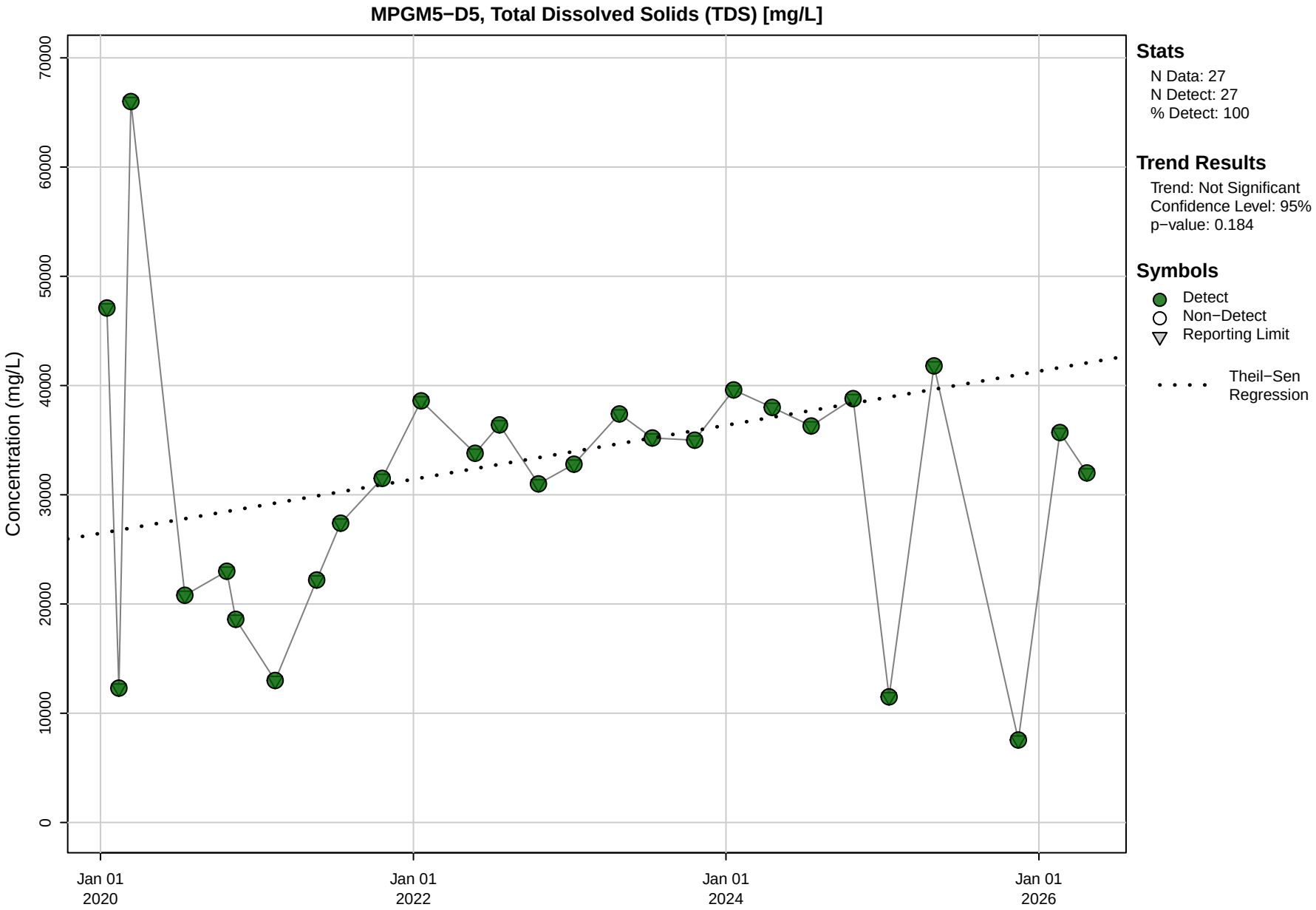

MPGM5−D5, Iron (Total) [ug/L]
Concentration (ug/L)
0
2000
4000
6000
8000
Jan 01
2021
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 23
N Detect: 23
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.0201
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

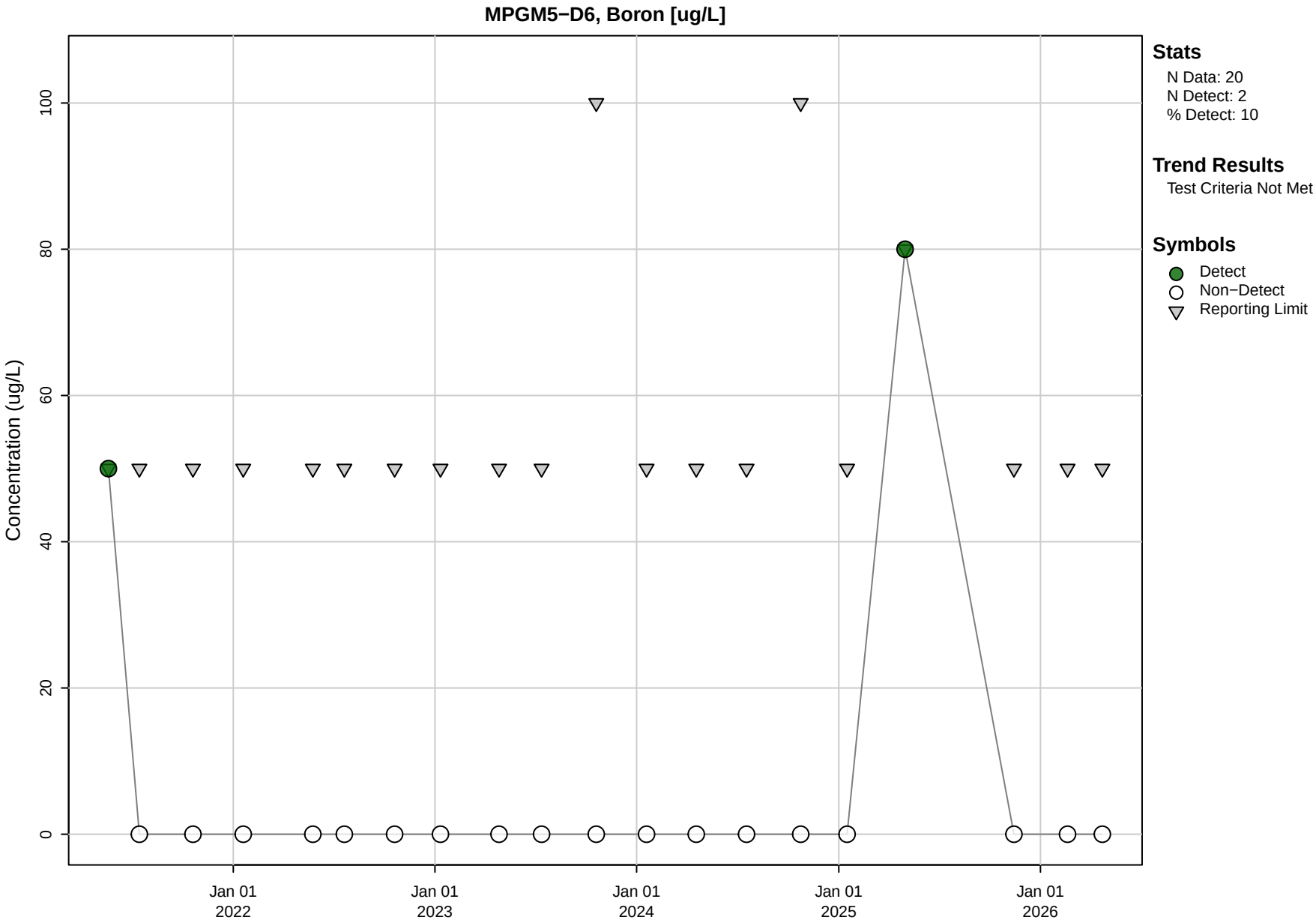

MPGM5−D5, Iron [ug/L]
Concentration (ug/L)
0
1000
2000
3000
4000
5000
6000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

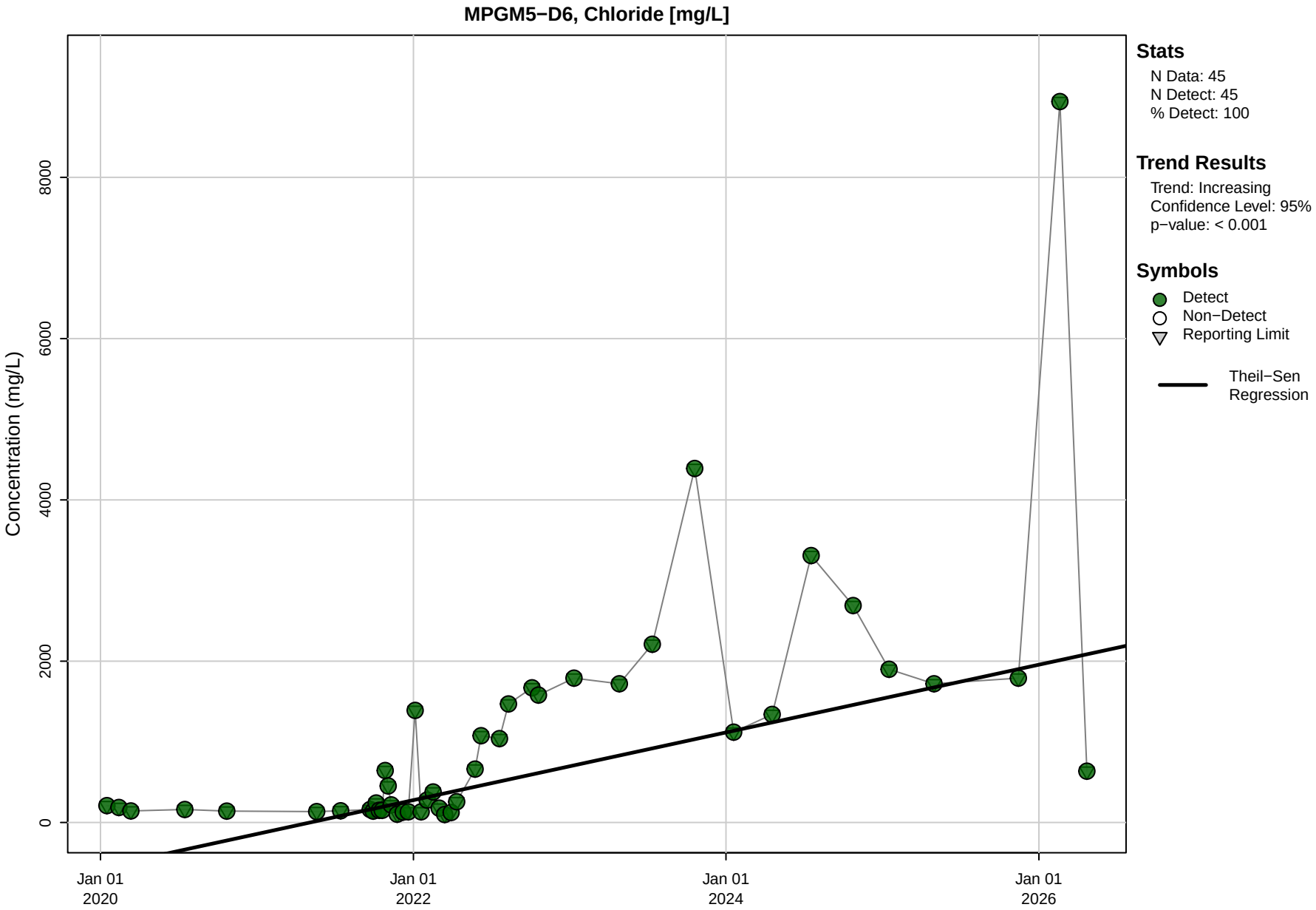

MPGM5−D5, Manganese [ug/L]
Concentration (ug/L)
250000
200000
150000
100000
50000
0
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: 0.0352
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

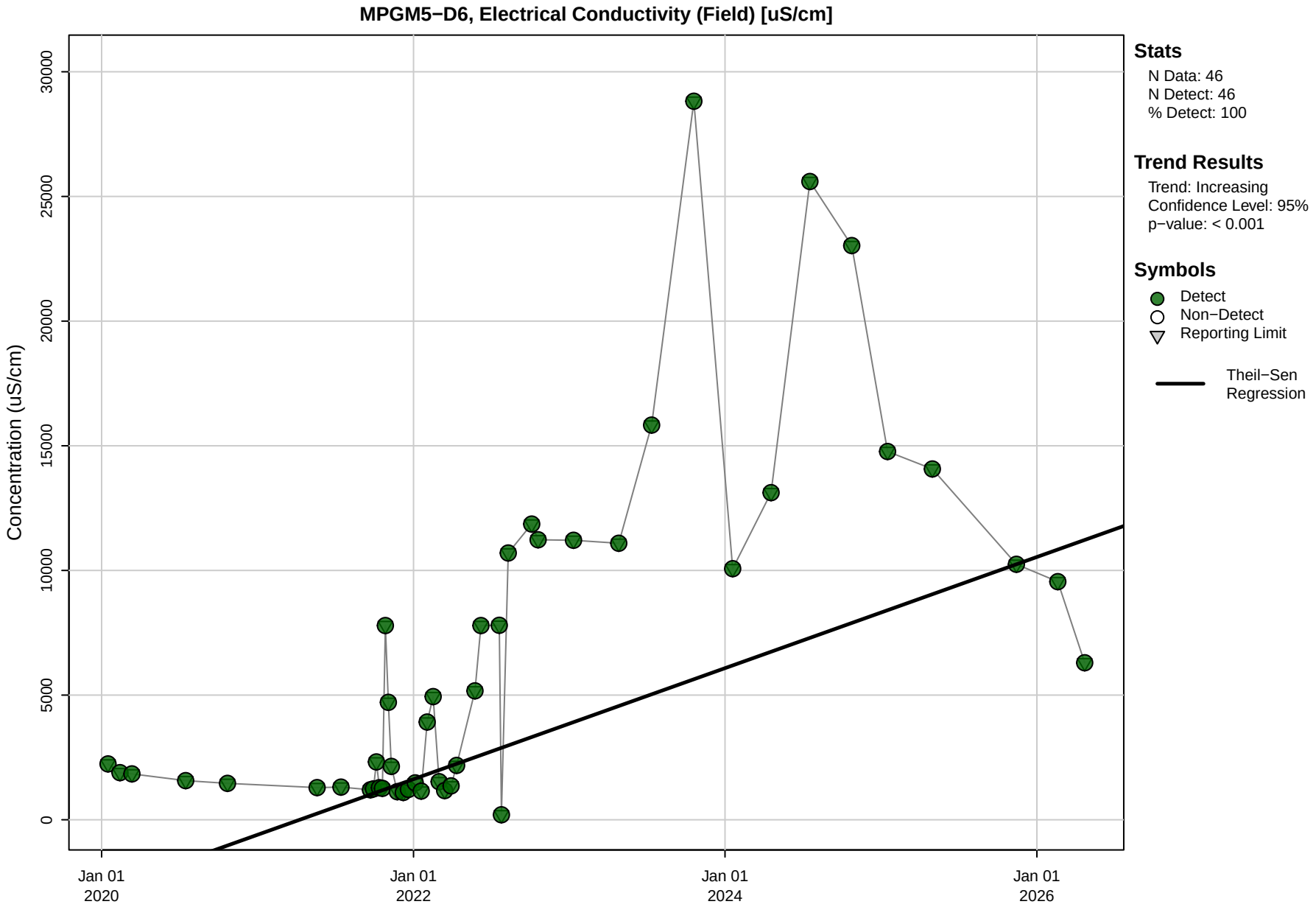

MPGM5−D5, Nickel [ug/L]
Concentration (ug/L)
0
5000
10000
15000
20000
Jan 01
2021
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 21
N Detect: 21
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

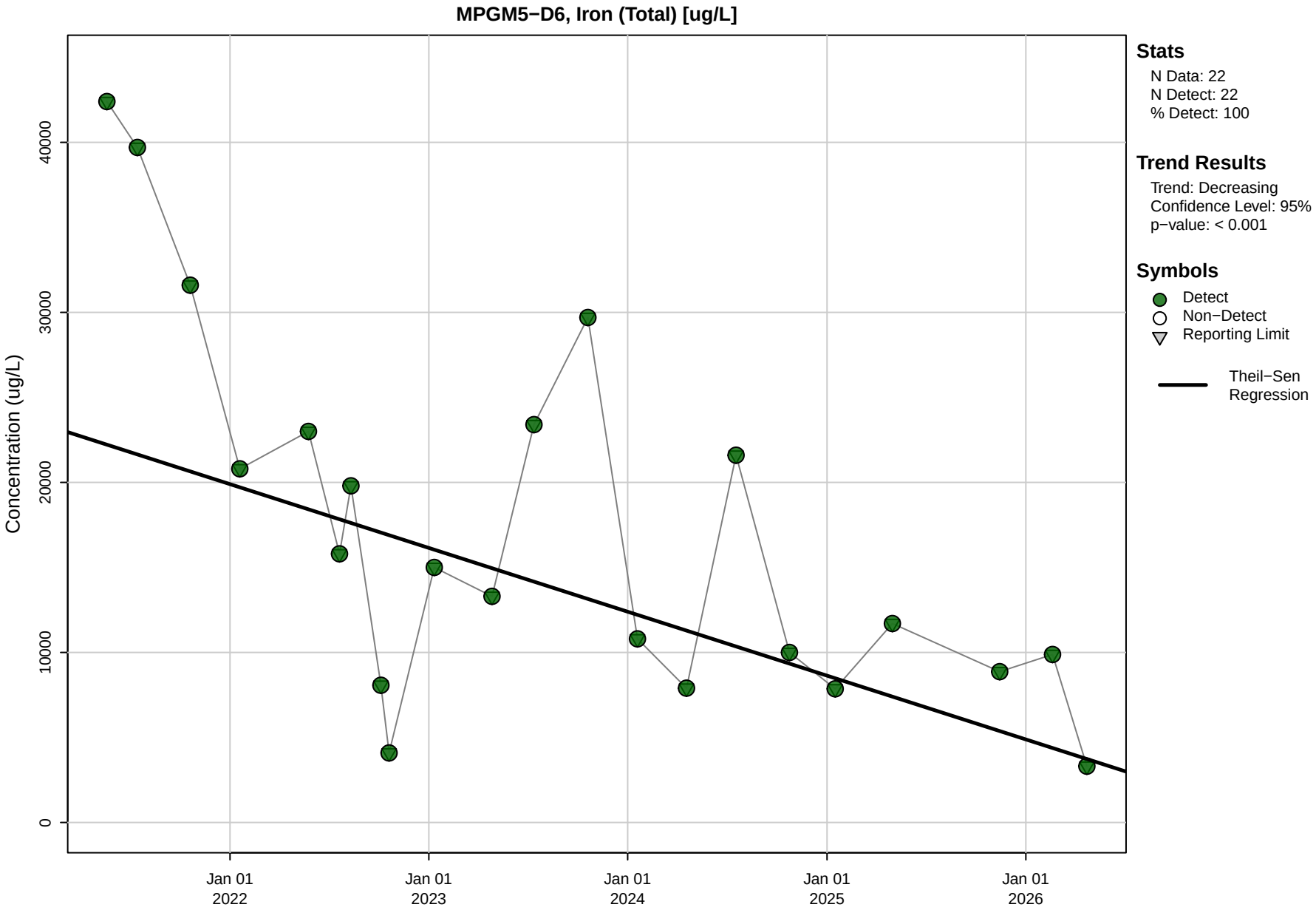

MPGM5−D5, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
10000
20000
30000
40000
50000
60000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 47
N Detect: 47
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.687
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

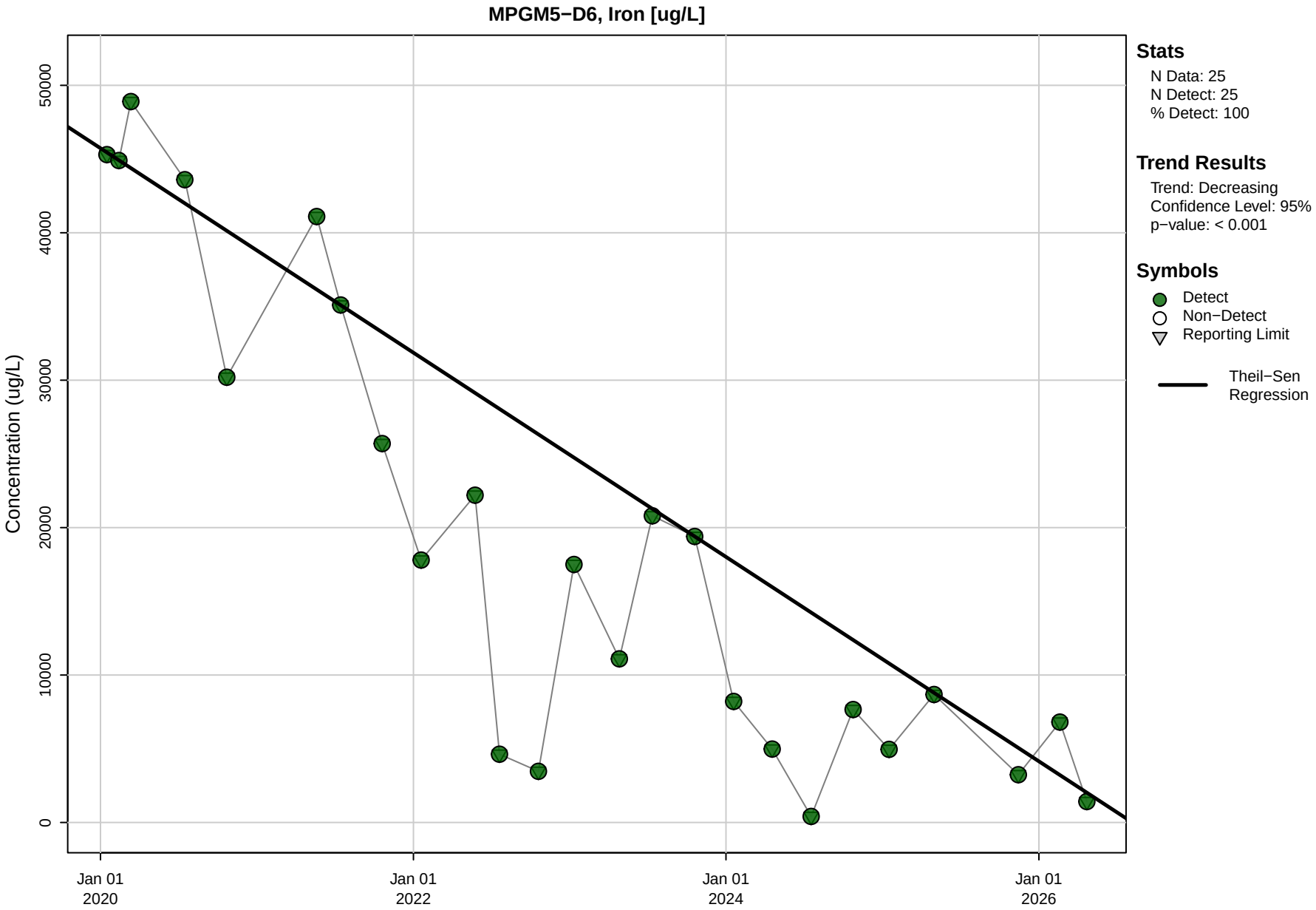

MPGM5−D5, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
10000
20000
30000
40000
50000
60000
70000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 27
N Detect: 27
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.184
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

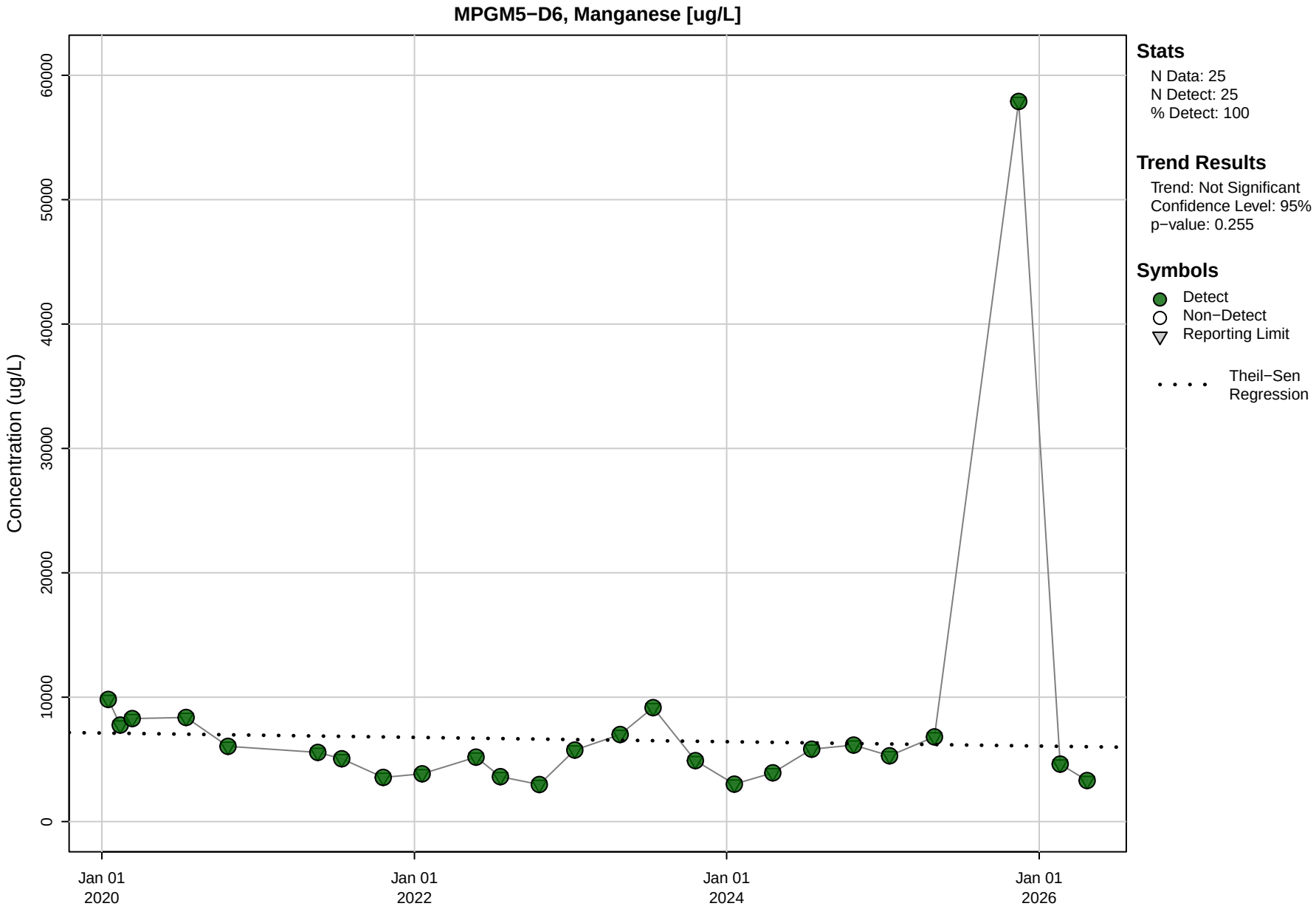

MPGM5−D6, Boron [ug/L]
Concentration (ug/L)
0
20
40
60
80
100
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 20
N Detect: 2
% Detect: 10
Trend Results
Test Criteria Not Met
Symbols
Detect
Non−Detect
Reporting Limit

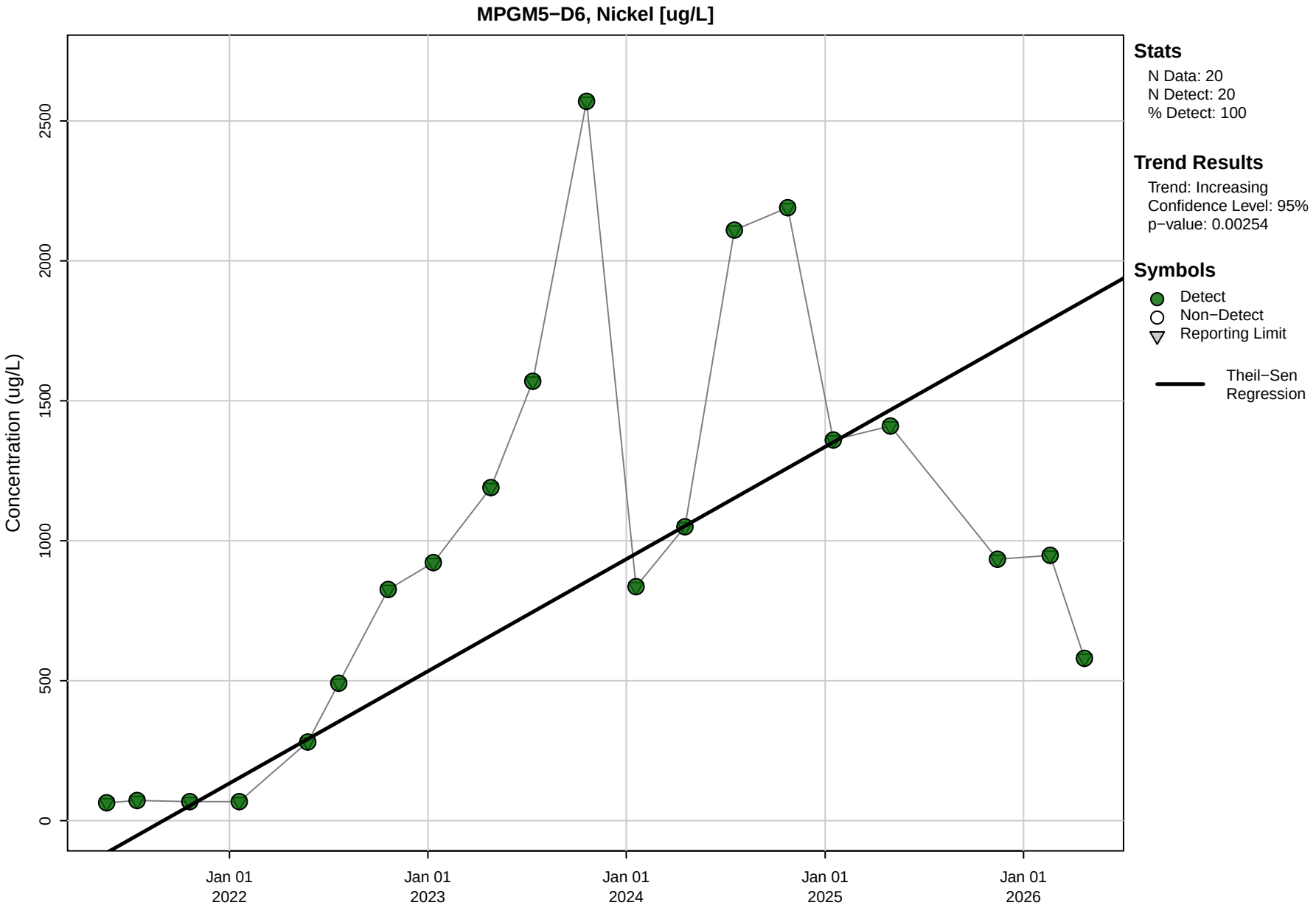

MPGM5−D6, Chloride [mg/L]
Concentration (mg/L)
0
2000
4000
6000
8000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 45
N Detect: 45
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

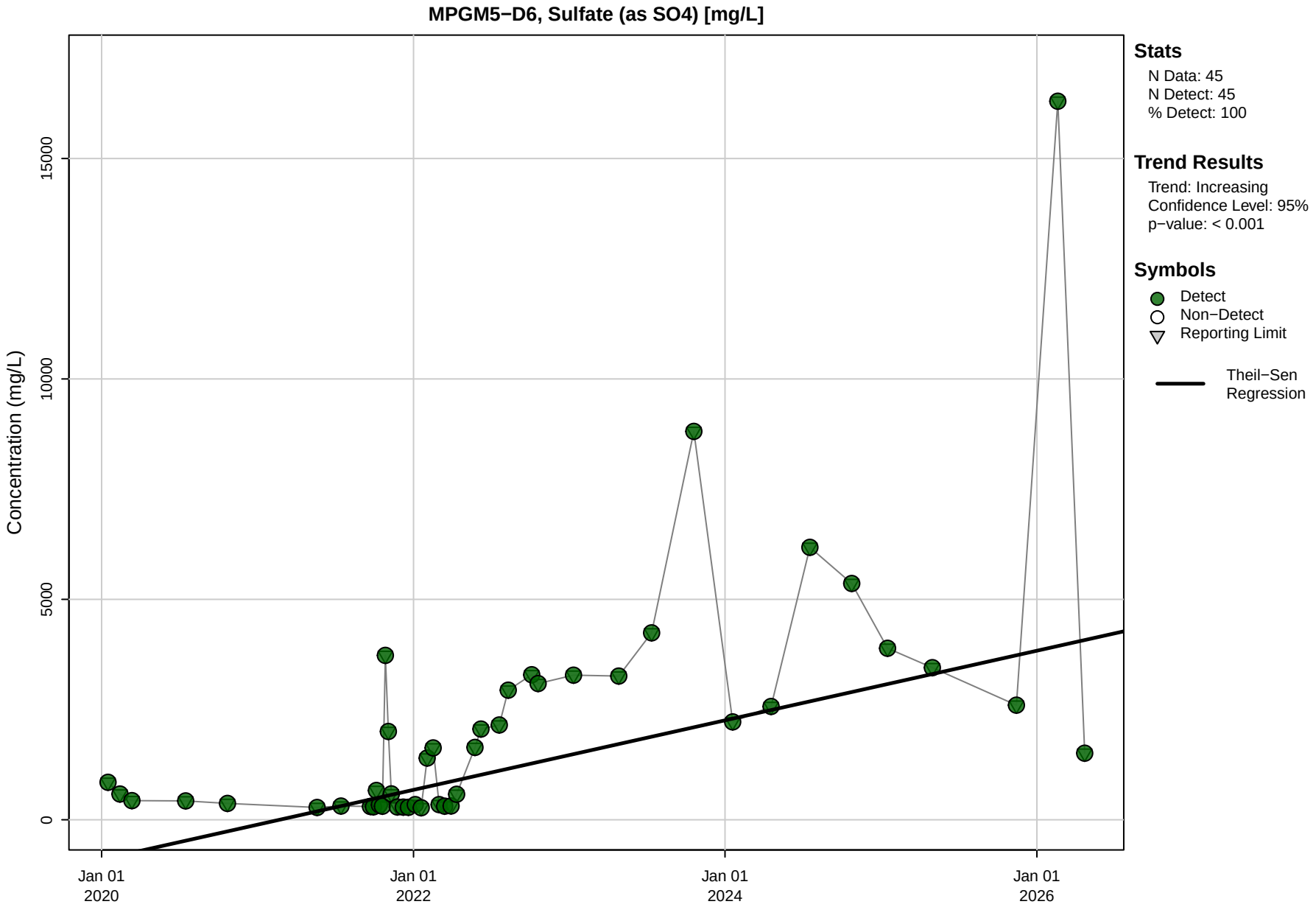

MPGM5−D6, Electrical Conductivity (Field) [uS/cm]
Concentration (uS/cm)
0
5000
10000
15000
20000
25000
30000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 46
N Detect: 46
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

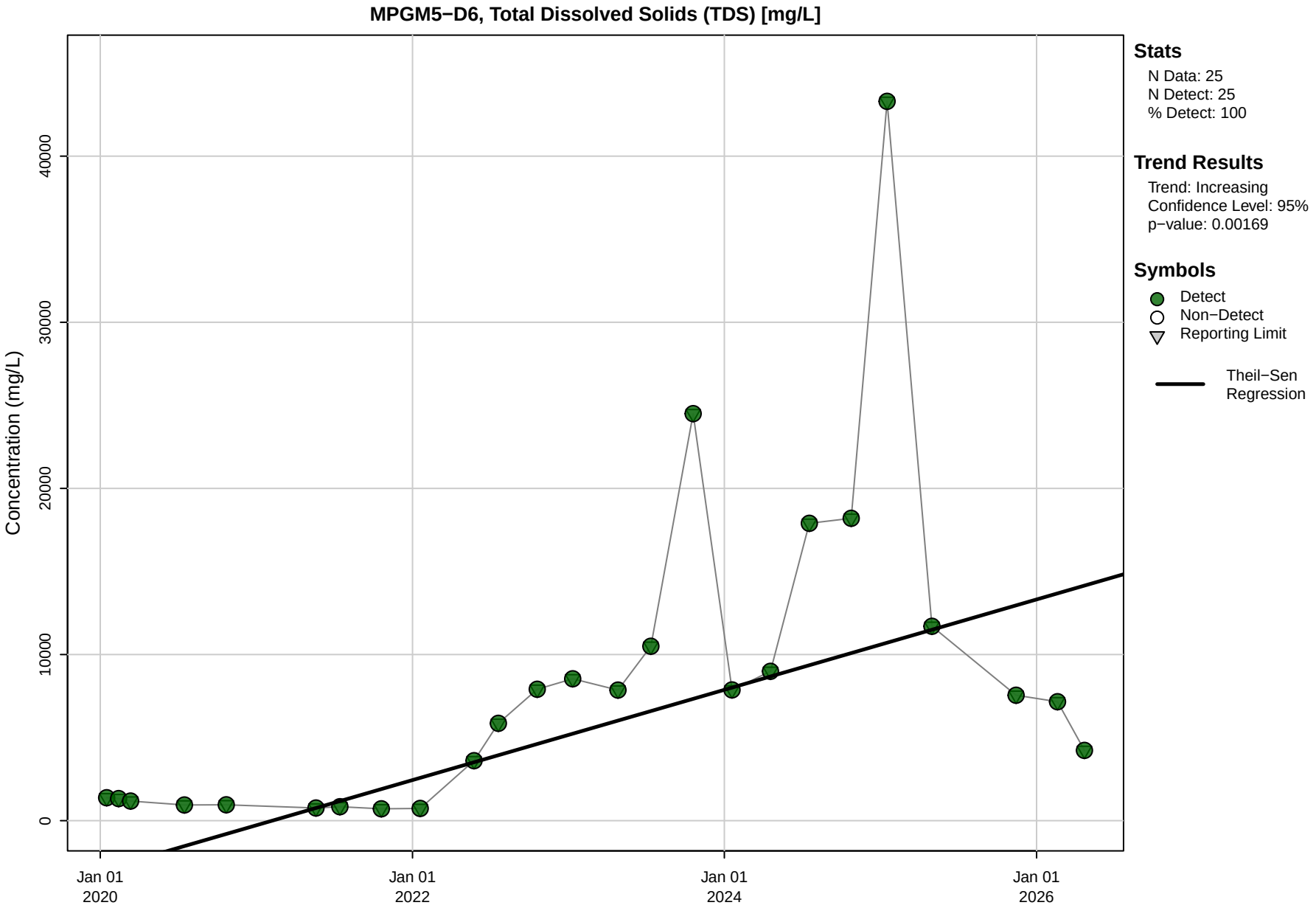

MPGM5−D6, Iron (Total) [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 22
N Detect: 22
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression


MPGM5−D6, Iron [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
50000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 25
N Detect: 25
% Detect: 100
Trend Results
Trend: Decreasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression


MPGM5−D6, Manganese [ug/L]
Concentration (ug/L)
0
10000
20000
30000
40000
50000
60000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 25
N Detect: 25
% Detect: 100
Trend Results
Trend: Not Significant
Confidence Level: 95%
p−value: 0.255
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

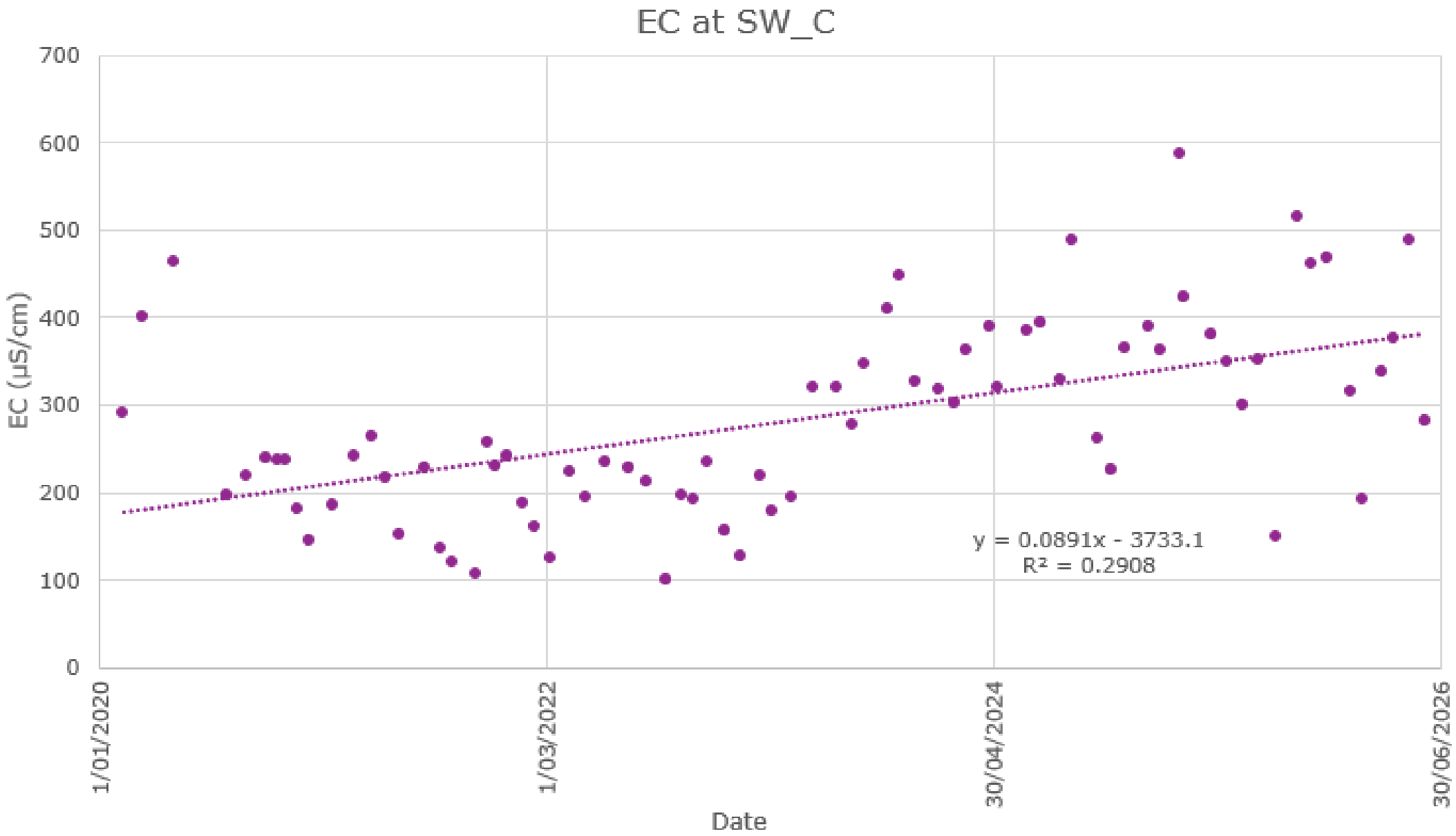

MPGM5−D6, Nickel [ug/L]
Concentration (ug/L)
0
500
1000
1500
2000
2500
Jan 01
2022
Jan 01
2023
Jan 01
2024
Jan 01
2025
Jan 01
2026
Stats
N Data: 20
N Detect: 20
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.00254
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

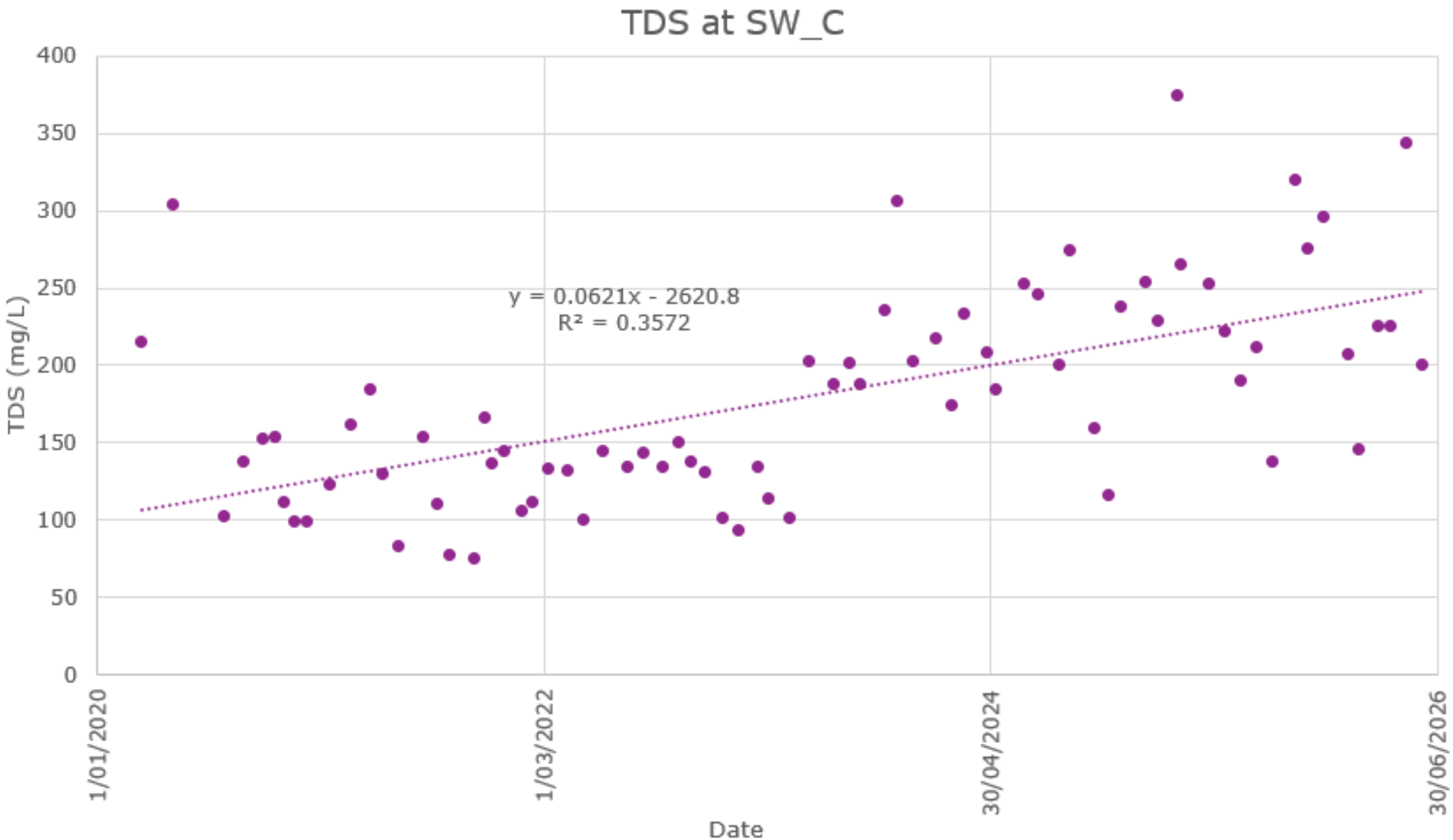

MPGM5−D6, Sulfate (as SO4) [mg/L]
Concentration (mg/L)
0
5000
10000
15000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 45
N Detect: 45
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: < 0.001
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression


MPGM5−D6, Total Dissolved Solids (TDS) [mg/L]
Concentration (mg/L)
0
10000
20000
30000
40000
Jan 01
2020
Jan 01
2022
Jan 01
2024
Jan 01
2026
Stats
N Data: 25
N Detect: 25
% Detect: 100
Trend Results
Trend: Increasing
Confidence Level: 95%
p−value: 0.00169
Symbols
Detect
Non−Detect
Reporting Limit
Theil−Sen
Regression

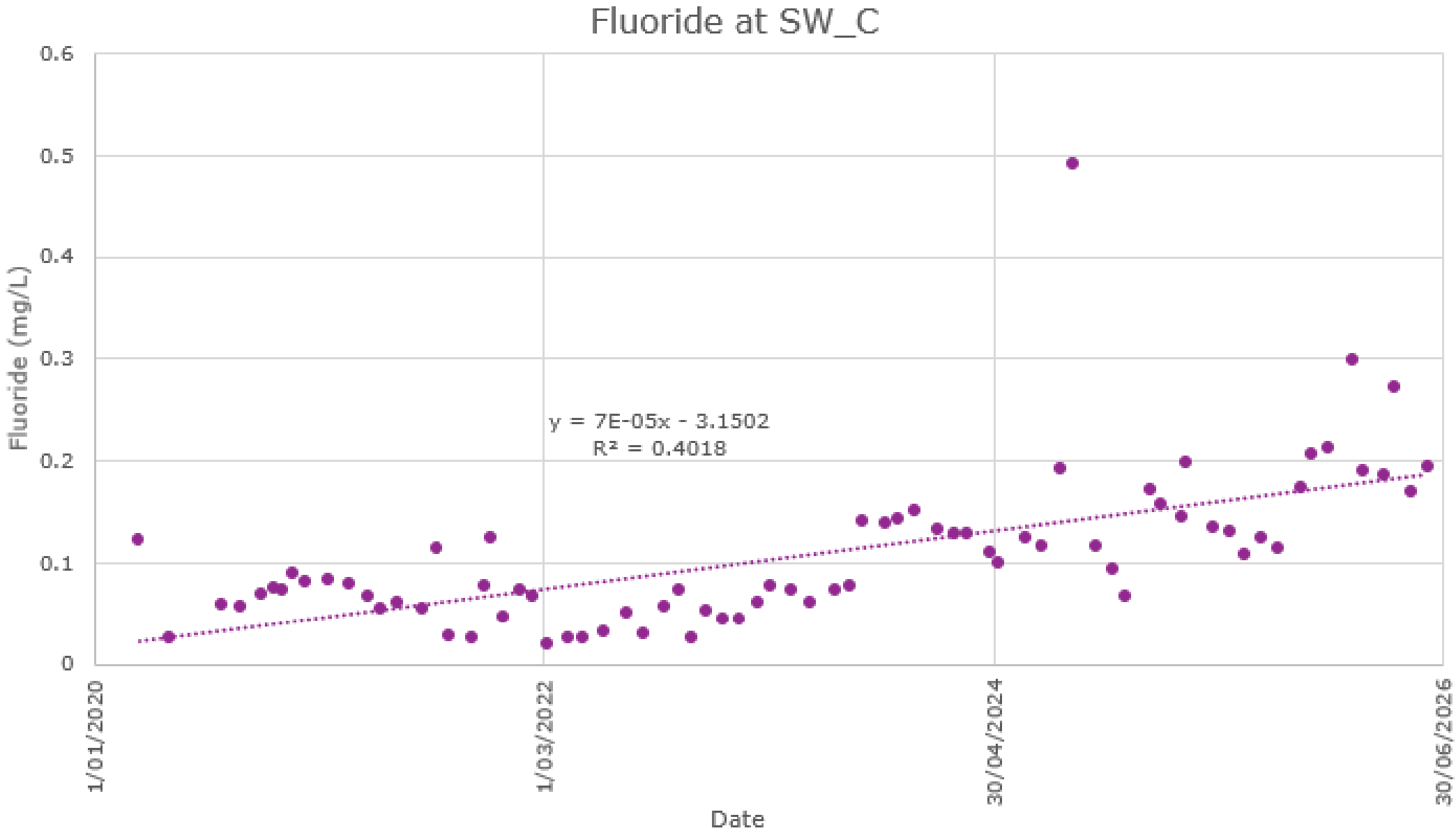
Purpose	Monitoring Location	Stats	EC (Field)	Chloride	Fluoride	Sulfate (as SO4)	TDS	Arsenic - Dissolved	Boron - Dissolved	Copper - Dissolved	Iron	Iron - Dissolved	Manganese - Dissolved	Nickel - Dissolved	Zinc - Dissolved
Upstream	LMP01	R	-0.09	-0.23	0.19	-0.40	0.15	0.14	0.13	-0.32	-0.03	-0.26	0.16	-0.13	-0.20
		R2	0.01	0.05	0.04	0.16	0.02	0.02	0.02	0.10	0.00	0.07	0.03	0.02	0.04
Midstream	NC01	R	0.43	-0.02	0.53	0.30	0.44	0.00	0.18	0.08	-0.12	-0.22	0.36	0.29	0.05
		R2	0.19	0.00	0.28	0.09	0.19	0.00	0.03	0.01	0.01	0.05	0.13	0.08	0.00
	SW_C	R	0.54	0.18	0.63	0.45	0.60	0.00	-0.37	0.18	-0.11	-0.22	0.37	0.25	-0.25
		R2	0.29	0.03	0.40	0.20	0.36	0.00	0.14	0.03	0.01	0.05	0.14	0.06	0.06
	SW_E	R	0.20	0.03	0.07	0.14	0.10	0.14	0.33	0.16	0.36	0.28	0.06	0.15	0.33
		R2	0.04	0.00	0.00	0.02	0.01	0.02	0.11	0.02	0.13	0.08	0.00	0.02	0.11
Downstream	WX22	R	0.37	0.34	0.16	0.31	0.31	0.00	0.48	0.20	-0.17	-0.37	-0.19	0.42	-0.25
		R2	0.14	0.12	0.03	0.09	0.10	0.00	0.23	0.04	0.03	0.14	0.04	0.18	0.06
	SW_G	R	0.49	0.40	0.12	0.45	0.47	0.09	0.56	-0.03	-0.04	-0.39	0.12	0.43	-0.23
		R2	0.24	0.16	0.02	0.20	0.22	0.01	0.31	0.00	0.00	0.15	0.02	0.19	0.05

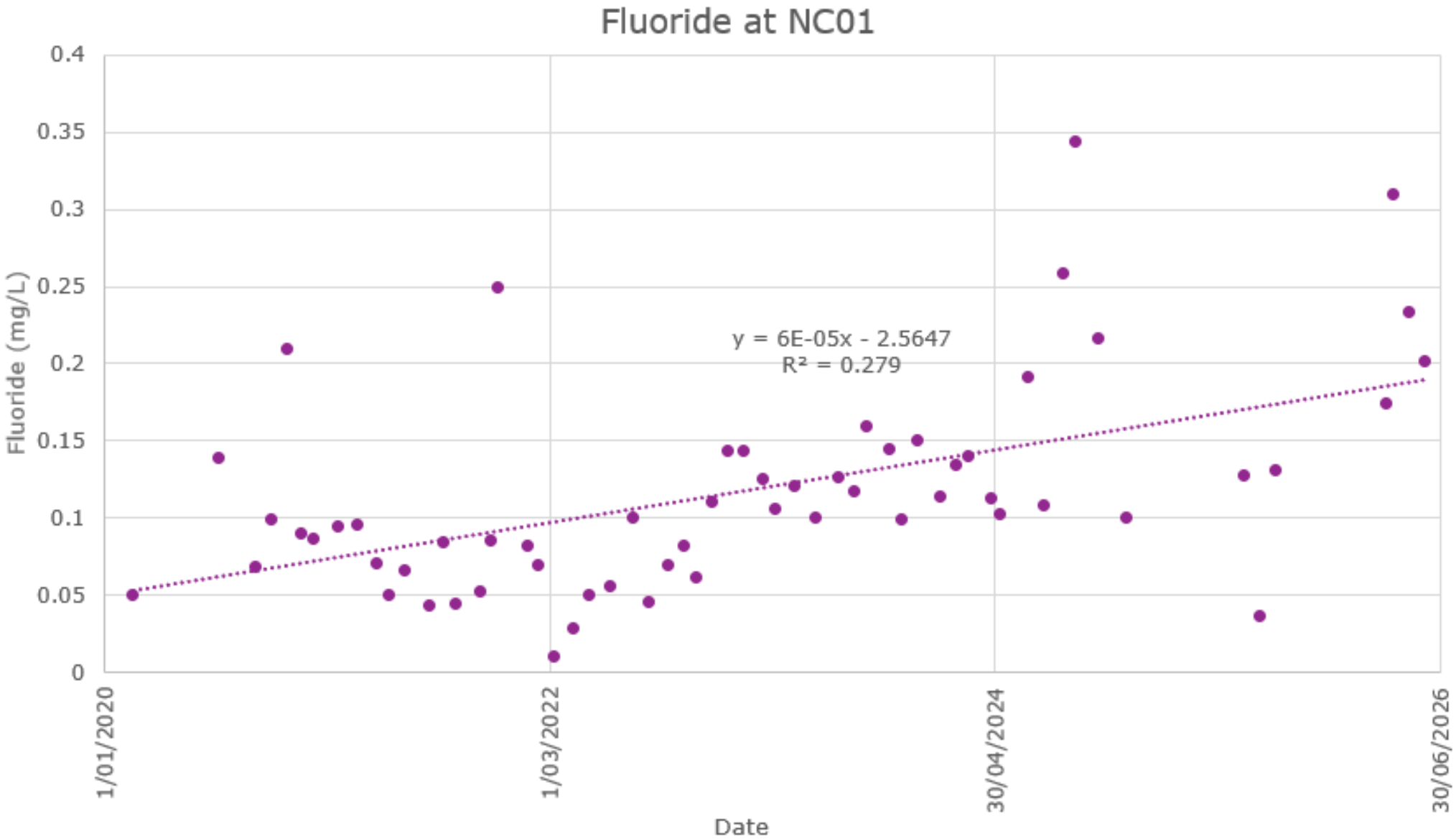
Increasing Trend

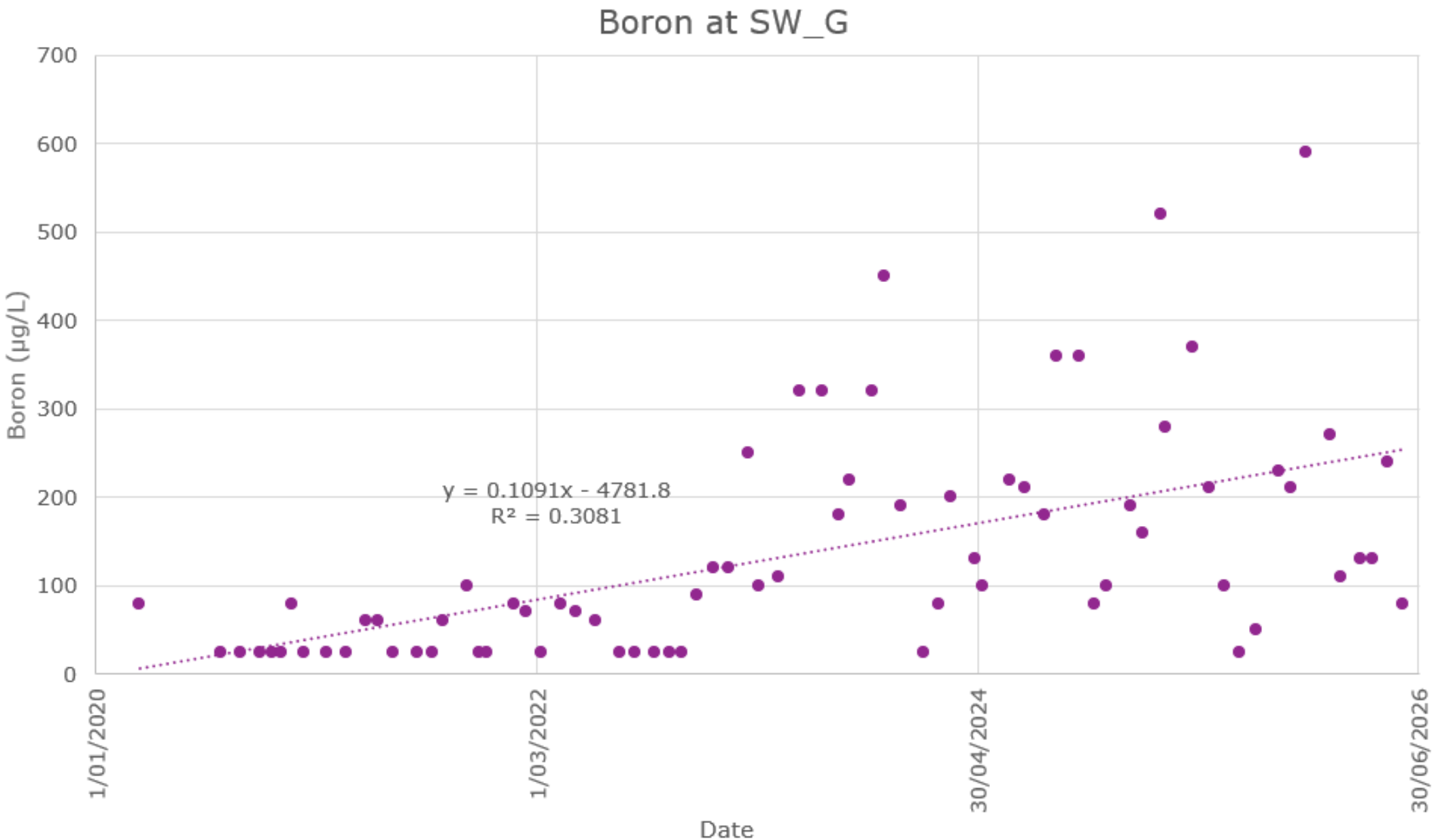

EC at SW_C
700
600
500
400
300
200
100
0
EC (µS/cm)
1/01/2020
1/03/2022
30/04/2024
30/06/2026
Date
y = 0.0891x - 3733.1
R² = 0.2908


TDS at SW_C
TDS (mg/L)
400
350
300
250
200
150
100
50
0
y = 0.0621x - 2620.8
R² = 0.3572
1/01/2020
1/03/2022
30/04/2024
30/06/2026
Date

ERM


Fluoride at SW_C
Fluoride (mg/L)
0.6
0.5
0.4
0.3
0.2
0.1
0
y = 7E-05x - 3.1502
R² = 0.4018
1/01/2020
1/03/2022
30/04/2024
30/06/2026
Date


Fluoride at NC01
Fluoride (mg/L)
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
y = 6E-05x - 2.5647
R² = 0.279
1/01/2020
1/03/2022
30/04/2024
30/06/2026
Date


Boron at SW_G
Boron (µg/L)
700
600
500
400
300
200
100
0
y = 0.1091x - 4781.8
R² = 0.3081
1/01/2020
1/03/2022
30/04/2024
30/06/2026
Date

ERM

APPENDIX N LNAR PONDS MONITORING

Work Order

ServiceStream

Work Order No
157302

Asset Information

Asset No: MPSAHPPG00 Ponds - Ash Placement Area

Asset No	Asset Description
MPS	CEM Mt Piper Site
MPSADP	Common Ash & Dust Plant
MPSADPWRS	Ash & Dust Water Reticulati on System
MPSAHPPG00	Ponds - Ash Placement Area

Comments:

Last Reading: **Date:**

Work Details

Job Description: ITP-MP0-SV16 - Monthly Inspection of Service Stream APA Ponds and Infrastructure.
Instructions:
Safety Notes:
Priority: 3 Within 1-2 Weeks **Job Type:** PM04
Status: 5 - Closed
Account Code: 8R1326-B10011-L **Policy No:** 4638 **Frequency:** 1 Months
Department: MP-SUPPORT

Raised: 30/03/2026 **Due Start:** 6/05/2026 **Start:** 09/05/2026 **Due Finish** 6/05/2026 **Finish :** 09/05/2026

Contractor Information

Contractor: **Contact:**
Ph No: **Warranty Start:** **Warranty Finish:**

Completion Details

Trades Name	Date Started	Date Finished	Hours Worked	Signature
N Walsh	9.5.26	9.5.26	2	

Work History Comments

ServiceStream

Document Type: **Inspection Test Plan**

Number: **ITP-MP0-SV16**

Title: **Monthly Inspection of LNAR Ponds Infrastructure**

1 Maintenance Period

Monthly

2 Purpose and Scope

Leachate Monitoring Plan LNAR

3 Personnel Safety & Equipment Precautions

Job Safety Assessment		
Environment	**Hazard**	**Action**
Plant Environment	Minimum personal protection	Wear Helmet, glasses and use ear plugs in noisy environments
Pond Structures	Slip / Trip	Ensure Controls are Applied as per SWMS
	Working Near Water	Ensure Controls are Applied as per SWMS

Note: Review SWMS before carrying out work. Enter any other hazards that are observed.

4 Tools, Supplies & Equipment

5 Initial Conditions

Operational Infrastructure

6 Maintenance Procedure

Carry out the following inspection per Pond.

Estimated Man Hours: 2.5

Whilst performing this routine maintenance, please keep an eye out for anything unusual and record in the defect report. This procedure and the defect report is to be returned to the planner immediately after the tasks are completed for further actioning.

Equipment Number	Equipment Description	Component	Inspection	Criteria	Completed Y / N
LNAR2	LNAR 2 13.8ML Storage Pond	Liner	Report any Damage	Liner is free from damage	Y
			Subgrade Integrity	Subgrade is free from damage / subsidence / water pooling	Y
		Pond General	Tyres	In Place in Pond Corners	Y
			Life Rings	One per Pond	Y
			Foreign Objects	Report Anything Foreign within pond	Nothing in pond

Monthly Inspection of Service Stream APA Ponds and Infrastructure

Equipment Number	Equipment Description	Component	Inspection	Criteria	Completed Y / N
LNAR3	LNAR 3 20ML Storage Pond	Liner	Report any Damage	Liner is free from damage	Y
			Subgrade Integrity	Subgrade is free from damage / subsidence / water pooling	Y
			Liner Leak Detection	Measure Leak Detection Bore With Dip Meter and Record Status Dry / Liquid Detected	Nothing Detected
				If Liquid is detected, record level of liquid from the detection riser	Nil
				Report liquid immediately to Supervisor	N/A
		Pond General	Tyres	In Place in Pond Corners	Y
			Life Rings	One per Pond	Y
			Foreign Objects	Report Anything Foreign within pond	Nothing in Pond.

Monthly Inspection of Service Stream APA Ponds and Infrastructure

Equipment Number	Equipment Description	Component	Inspection	Criteria	Completed Y / N
LNAR4	LNAR 4 20ML Storage Pond	Liner	Report any Damage	Liner is free from damage	Y
			Subgrade Integrity	Subgrade is free from damage / subsidence / water pooling	Maintenance Work Undertaken
			Liner Leak Detection	Measure Leak Detection Bore With Dip Meter and Record Status Dry / Liquid Detected	Nothing Detected
				If Liquid is detected, record level of liquid from the detection riser	Nil
				Report liquid immediately to Supervisor	N/A
		Pond General	Tyres	In Place in Pond Corners	Y
			Life Rings	One per Pond	Y
			Foreign Objects	Report Anything Foreign within pond	Y

Monthly Inspection of Service Stream APA Ponds and Infrastructure

Equipment Number	Equipment Description	Component	Inspection	Criteria	Completed Y / N
LNAR5	LNAR 5 20ML Storage Pond	Liner	Report any Damage	Liner is free from damage	Y
			Subgrade Integrity	Subgrade is free from damage / subsidence / water pooling	Y
			Liner Leak Detection	Measure Leak Detection Bore With Dip Meter and Record Status Dry / Liquid Detected	Nothing Detected
				If Liquid is detected, record level of liquid from the detection riser	Nil
				Report liquid immediately to Supervisor	N/A
		Pond General	Tyres	In Place in Pond Corners	Y
			Life Rings	One per Pond	Y
			Foreign Objects	Report Anything Foreign within pond	Nothing Found

Name of Inspector: Nigel Wakel **Date:** 9.5.26

Monthly Inspection of Service Stream APA Ponds and Infrastructure

MAINTENANCE DEFECT REPORT

Carry out repairs to defects that are judged to be less that 1 hour in duration. Time and materials can be booked to this routine maintenance work order.

Name: Nigel Walsh **Date:** 9.5.26

Number & Equipment Description	Defect	Repair Action Required	Spares Required	Urgency 1-5 (1 = High Priority)
LNAR 4	North Wall	Monitoring N/W wall	N	1

7 Data Review & Operational Verification

Equipment is Operating.

8 References

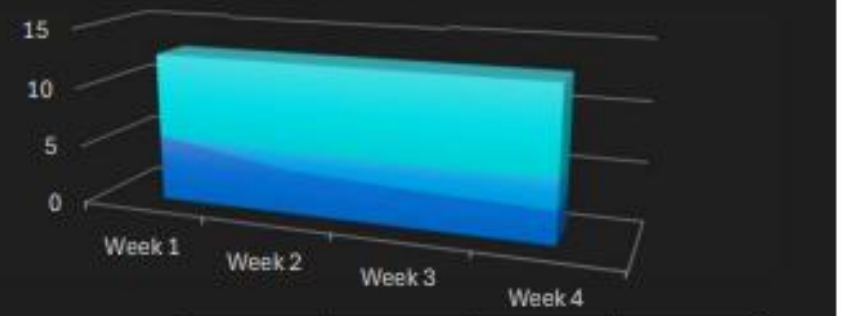
9 Attachments

10 Version History

V2 04/11/2025 – Review Only

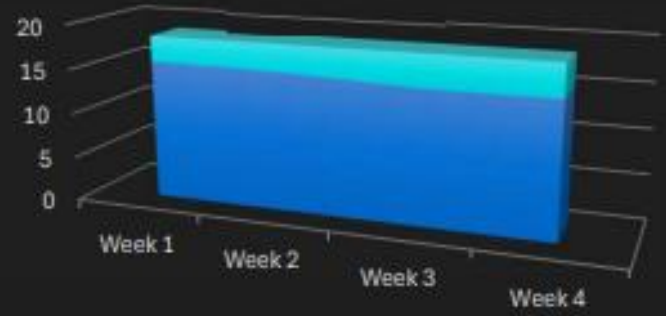
LNAR Lined Ponds – Storage Summary Example (January 2026)

LNAR 2



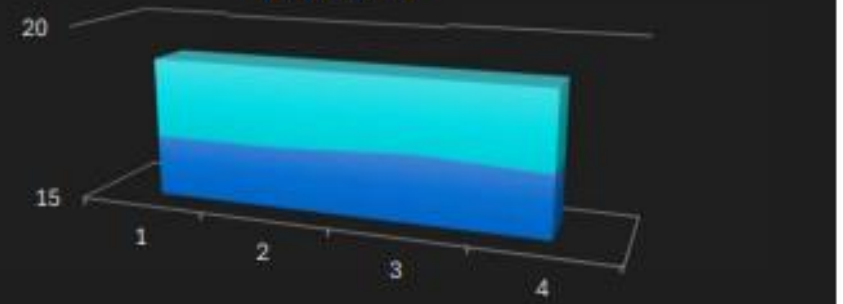
	Week 1	Week 2	Week 3	Week 4
Stormwater Buffer	7.04	7.5	7.5	7.5
Operating Freeboard	0	1.38	1.98	2.38
Pond Level	5.61	3.77	3.17	2.77

LNAR 3



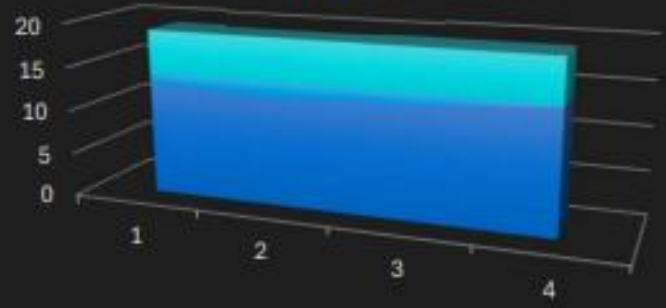
	Week 1	Week 2	Week 3	Week 4
Stormwater Buffer	2.86	3.03	3.65	3.64
Operating Freeboard	0	0	0	0
Pond Level	15.64	15.47	14.85	14.86

LNAR 4



	1	2	3	4
Stormwater Buffer	2.26	2.26	2.07	2.23
Operating Freeboard	0	0	0	0
Pond Level	16.74	16.74	16.93	16.77

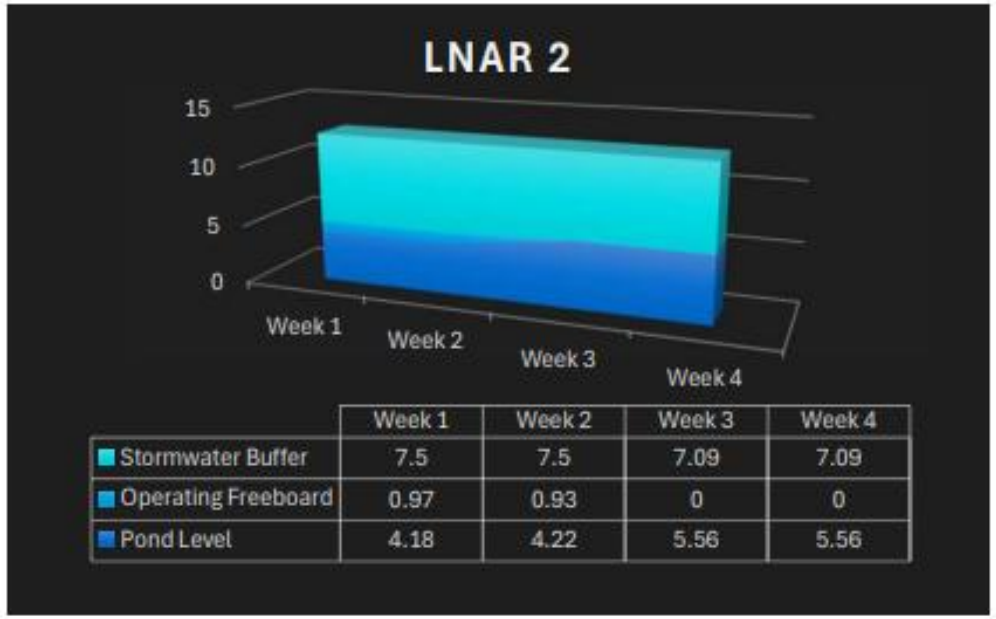
LNAR 5



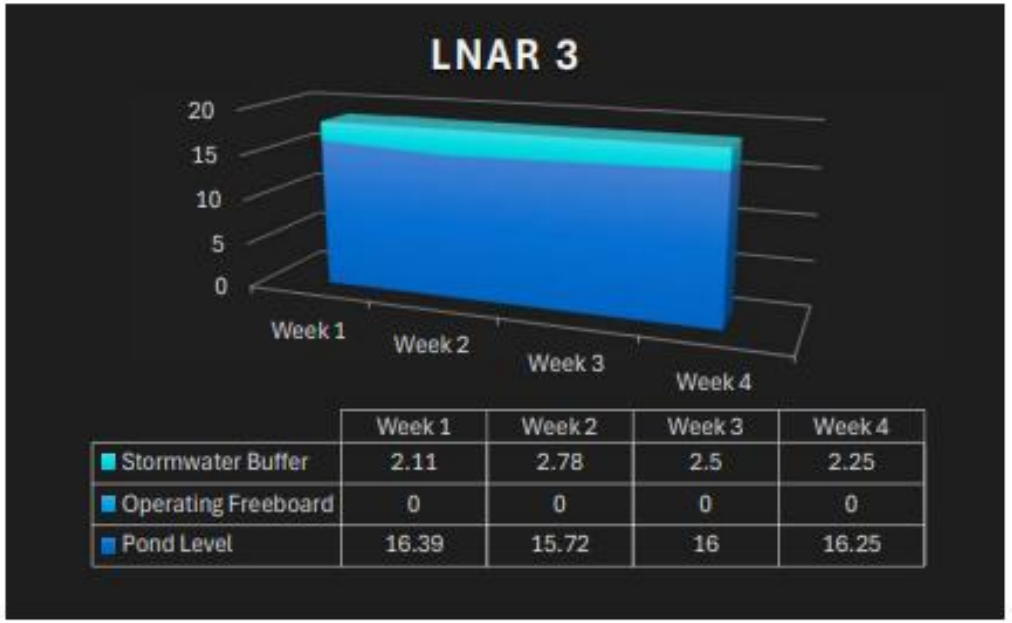
	1	2	3	4
Stormwater Buffer	5	5	5	5
Operating Freeboard	1.08	1.7	1.1	0.17
Pond Level	12.92	12.3	12.9	13.83

ERM

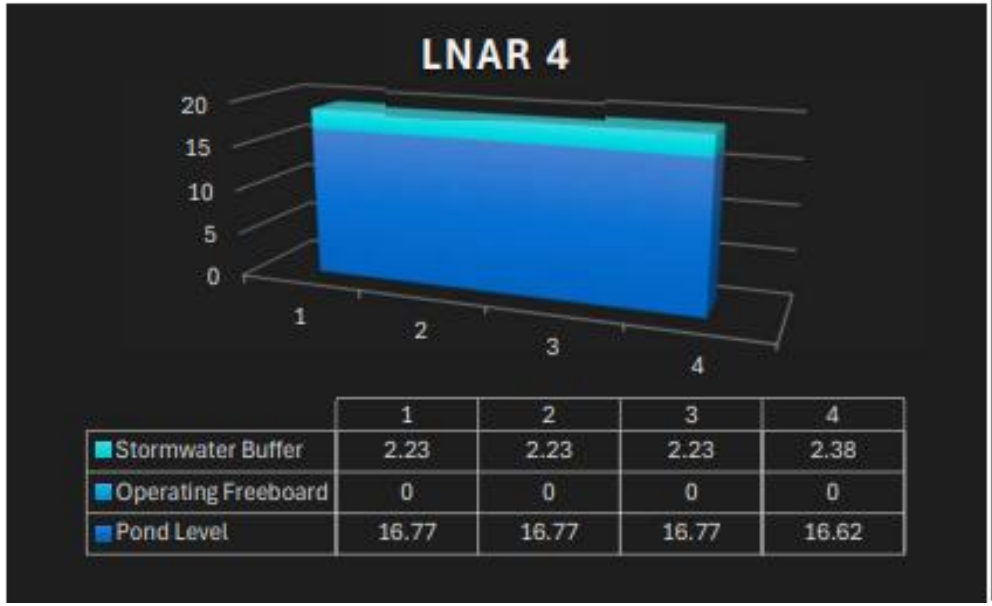
LNAR Lined Ponds – Storage Summary Example (June 2026)



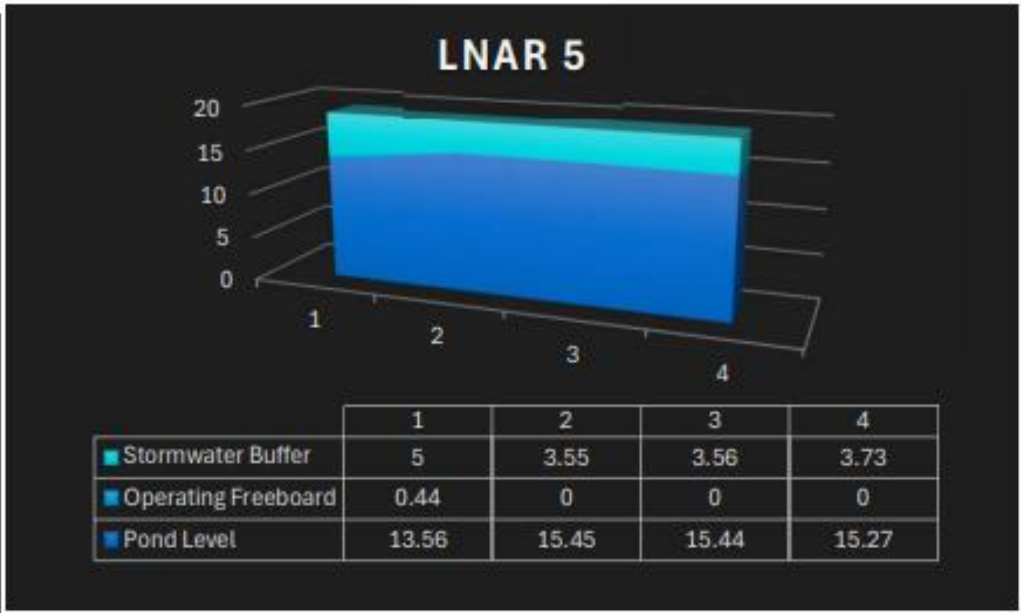
	Week 1	Week 2	Week 3	Week 4
Stormwater Buffer	7.5	7.5	7.09	7.09
Operating Freeboard	0.97	0.93	0	0
Pond Level	4.18	4.22	5.56	5.56



	Week 1	Week 2	Week 3	Week 4
Stormwater Buffer	2.11	2.78	2.5	2.25
Operating Freeboard	0	0	0	0
Pond Level	16.39	15.72	16	16.25



	1	2	3	4
Stormwater Buffer	2.23	2.23	2.23	2.38
Operating Freeboard	0	0	0	0
Pond Level	16.77	16.77	16.77	16.62



	1	2	3	4
Stormwater Buffer	5	3.55	3.56	3.73
Operating Freeboard	0.44	0	0	0
Pond Level	13.56	15.45	15.44	15.27

ERM

LNAR2 Operating Level - 12.6 ML

Purpose: catchment for runoff from unlined areas

Colour Legend Instructions | Copy Formula | Enter Data | Enter Data

Date	FREEBOARD	INFLOWS			OUTFLOWS					Comments
	Calculated (ML)	Transfers from SW1 (ML)	Other (ML)	Adjustment (MONTHLY)	Dust Suppression (ML)	Volume to Evaps / Atomisers (ML)	Transfers to LNAR5 (ML)	Transfers to LNAR4 (ML)	Other Transfers (e.g. to SW2)	
1/01/2026	8.62								0.2	
2/01/2026	7.15		1.67						0.2	
3/01/2026	7.35								0.2	
4/01/2026	7.45								0.1	
5/01/2026	7.44			0.11					0.1	
6/01/2026	7.54								0.1	
7/01/2026	7.04		0.50							
8/01/2026	7.44								0.4	
9/01/2026	7.84								0.4	
10/01/2026	8.24								0.4	
11/01/2026	8.64								0.4	
12/01/2026	8.68		0.36						0.4	Stage 1 RSW
13/01/2026	8.78								0.1	
14/01/2026	8.88								0.1	
15/01/2026	8.88									
16/01/2026	9.13								0.25	
17/01/2026	9.33								0.2	
18/01/2026	9.08		0.45						0.2	0.45 Received SPC
19/01/2026	9.28								0.2	
20/01/2026	9.48								0.2	
21/01/2026	9.48									
22/01/2026	9.48									
23/01/2026	9.48									
24/01/2026	9.48									
25/01/2026	9.68								0.2	
26/01/2026	9.88								0.2	
27/01/2026	9.88									
28/01/2026	9.88									
29/01/2026	9.70		0.38						0.2	
30/01/2026	9.90								0.2	
31/01/2026	10.05								0.15	
1/02/2026	9.17		1.28						0.4	
2/02/2026	8.26		1.31						0.4	
3/02/2026	8.26									
4/02/2026	8.26									
5/02/2026	8.57								0.31	
6/02/2026	8.77								0.2	
7/02/2026	8.77									
8/02/2026	8.77									
9/02/2026	8.27			0.50						
10/02/2026	7.65		0.62							Received Inflows LNAR Stage 1
11/02/2026	7.65									Received Inflows LNAR Stage 1
12/02/2026	5.53		2.12							Received Inflows LNAR Stage 1 (scheduled to receive SW1)
13/02/2026	5.13	0.400								
14/02/2026	5.13									
15/02/2026	4.63	0.500								Receiving SW1
16/02/2026	4.11	0.520								Receiving SW1
17/02/2026	3.49	0.620								Receiving SW1
18/02/2026	3.04	0.450								Receiving SW1
19/02/2026	2.54	0.500								Receiving SW1- High Level Ventia required to re-use or internal transfer to be scheduled
20/02/2026	2.25			0.29						Receiving Flows From Unknown Source (running off roads)
21/02/2026	2.45								0.2	
22/02/2026	2.65								0.2	
23/02/2026	2.85								0.2	
24/02/2026	3.85						0.800		0.2	
25/02/2026	6.06				0.230		1.780		0.2	
26/02/2026	8.26				0.300				1.9	
27/02/2026	8.31	1.500					1.550			
28/02/2026	8.31									

Date	FREEBOARD	INFLOWS			OUTFLOWS					Comments
	Calculated (ML)	Transfers from SW1 (ML)	Other (ML)	Adjustment (MONTHLY)	Dust Suppression (ML)	Volume to Evaps / Atomisers (ML)	Transfers to LNAR5 (ML)	Transfers to LNAR4 (ML)	Other Transfers (e.g. to SW2)	
1/03/2026	8.31									
2/03/2026	8.08	0.230								
3/03/2026	7.24	0.840								
4/03/2026	2.22		6.00						0.98	Receiving Heavy Umetered Flows - Expected to Continue - Return Transfers to SPC
5/03/2026	4.37		0.35						2.5	
6/03/2026	4.97	1.000			0.400				1.2	0.7 SW2- 0.5 SPC
7/03/2026	7.49					0.12		2.200	0.2	W/C
8/03/2026	7.81					0.12			0.2	W/C
9/03/2026	8.08					0.12			0.15	W/C
10/03/2026	7.08	1.000								
11/03/2026	6.39	0.690								
12/03/2026	5.56	0.830								
13/03/2026	4.50	0.800		0.46					0.2	
14/03/2026	5.98				0.180			1.100	0.2	
15/03/2026	6.80	0.660			0.180			1.100	0.2	
16/03/2026	6.48	0.750			0.230				0.2	
17/03/2026	6.27	0.660							0.45	0.25 to SW2
18/03/2026	6.92								0.65	0.45 to SW2
19/03/2026	6.92									Expected to receive Unetered Flows
20/03/2026	6.92									
21/03/2026	6.92									
22/03/2026	6.92									
23/03/2026	4.69			2.23						2.23 unmetered flow received SW1 still to report to pond post rain event
24/03/2026	5.76								1.07	1.07 Return Transfer SPC
25/03/2026	6.44								0.68	0.68 Return Transfer SPC
26/03/2026	8.00	0.770			0.320	0.26			1.75	1.5 Return Transfer SPC
27/03/2026	9.21					0.20			1.01	1.01 Return Transfer SPC
28/03/2026	9.21									
29/03/2026	9.41								0.2	
30/03/2026	9.21	0.350							0.15	
31/03/2026	9.02	0.390							0.2	
1/04/2026	9.52								0.5	
2/04/2026	9.78								0.26	
3/04/2026	9.98								0.2	
4/04/2026	10.18								0.2	
5/04/2026	10.38								0.2	
6/04/2026	10.58								0.2	
7/04/2026	10.58									
8/04/2026	10.78								0.2	
9/04/2026	10.96								0.18	
10/04/2026	11.11								0.15	
11/04/2026	11.30								0.19	
12/04/2026	11.40								0.1	
13/04/2026	11.55								0.15	
14/04/2026	11.75								0.2	
15/04/2026	11.85								0.1	
16/04/2026	11.61		0.34						0.1	
17/04/2026	11.71								0.1	
18/04/2026	11.81								0.1	
19/04/2026	11.81									
20/04/2026	11.81									
21/04/2026	11.91								0.1	
22/04/2026	12.01								0.1	
23/04/2026	12.11								0.1	
24/04/2026	11.65		0.56						0.1	0.16 SPC - 0.40 SW2
25/04/2026	11.85								0.2	
26/04/2026	12.05								0.2	
27/04/2026	12.25								0.2	
28/04/2026	11.60		0.85						0.2	
29/04/2026	11.80								0.2	
30/04/2026	11.47		0.51						0.18	

Date	FREEBOARD	INFLOWS			OUTFLOWS					Comments
	Calculated (ML)	Transfers from SW1 (ML)	Other (ML)	Adjustment (MONTHLY)	Dust Suppression (ML)	Volume to Evaps / Atomisers (ML)	Transfers to LNAR5 (ML)	Transfers to LNAR4 (ML)	Other Transfers (e.g. to SW2)	
1/05/2026	11.67								0.2	
2/05/2026	11.77								0.1	
3/05/2026	11.87								0.1	
4/05/2026	12.07								0.2	
5/05/2026	10.75		1.42						0.1	
6/05/2026	10.75									
7/05/2026	10.25		0.50							0.5 Unmetered Inflow
8/05/2026	10.45								0.2	
9/05/2026	10.65								0.2	
10/05/2026	10.85								0.2	
11/05/2026	11.05								0.2	
12/05/2026	11.05									
13/05/2026	11.05									Scheduled to Receive 1ML SPC Today
14/05/2026	10.03		1.02							
15/05/2026	10.03									
16/05/2026	10.03									
17/05/2026	10.03									
18/05/2026	10.03									
19/05/2026	10.03									
20/05/2026	10.03									
21/05/2026	10.03									
22/05/2026	10.03									
23/05/2026	10.03									
24/05/2026	10.03									
25/05/2026	10.03									
26/05/2026	9.76	0.270								
27/05/2026	9.76									
28/05/2026	9.26	0.500								
29/05/2026	9.26									
30/05/2026	9.26									
31/05/2026	9.26									
1/06/2026	9.26									
2/06/2026	9.26									
3/06/2026	8.72			0.54						
4/06/2026	8.47	0.250								
5/06/2026	8.47									
6/06/2026	8.47									
7/06/2026	8.47									
8/06/2026	8.47									
9/06/2026	8.44			0.03						
10/06/2026	8.44									
11/06/2026	8.33	0.110								
12/06/2026	8.33									
13/06/2026	8.33									
14/06/2026	8.43								0.1	
15/06/2026	8.43									
16/06/2026	8.23	0.200								
17/06/2026	7.86	0.370								
18/06/2026	7.49	0.372								
19/06/2026	7.49									
20/06/2026	7.09	0.400								
21/06/2026	7.09									
22/06/2026	7.09									
23/06/2026	7.09									
24/06/2026	7.09									
25/06/2026	7.09									
26/06/2026	7.09									
27/06/2026	7.09									
28/06/2026	7.09									
29/06/2026	7.09									
30/06/2026	7.09									
1/07/2026	7.09									
2/07/2026	7.09									Expected to Receive Unmetered Flows
3/07/2026	6.03	0.600		0.46						0.46 Unmetered Flow
4/07/2026	6.03									
5/07/2026	5.80	0.230								
6/07/2026	5.57			0.23						0.23 Unmetered Flows
7/07/2026	5.57									
8/07/2026	5.57									
9/07/2026	5.57									
10/07/2026	5.57									
11/07/2026	5.57									
12/07/2026	5.57									
13/07/2026	5.57									
14/07/2026	5.57									
15/07/2026	5.57									
16/07/2026	5.57									
17/07/2026	5.57									
18/07/2026	5.57									
19/07/2026	5.57									

Date	FREEBOARD	INFLOWS			OUTFLOWS					Comments
	Calculated (ML)	Transfers from SW1 (ML)	Other (ML)	Adjustment (MONTHLY)	Dust Suppression (ML)	Volume to Evaps / Atomisers (ML)	Transfers to LNAR5 (ML)	Transfers to LNAR4 (ML)	Other Transfers (e.g. to SW2)	
20/07/2026	5.57									
21/07/2026	6.04								0.47	
22/07/2026	6.04									
23/07/2026	6.04									

LNAR3 **Operating Level - 19 ML**

Purpose: Staging pond for irrigation of lined repository areas and leachate collection

Colour Legend Instructions Copy Formula | Enter Data | Enter Data

Date	FREEBOARD	INFLOWS																Adjustment	OUTFLOWS					Comments
	Calculated (ML)	Surface Water Runoff LNAR 1A/1B (ML)	LNAR 1A/1B Leachate (Total, ML)	Sump 1	Sump 2	Sump 3	Sump 4	Sump 5	Surface Water Runoff LNAR 2A (ML)	LNAR 2A Leachate (Total, ML)	Sump 1	Sump 2	Surface Water Runoff LNAR 2B (ML)	LNAR 2B Leachate (Total, ML)	Sump 1	Sump 2	Transfers from Waste Ponds (ML)	(MONTHLY)	LNAR Irrigation (ML)	LNAR Tanker (ML)	Transfers to LNAR5 (ML)	Transfers to Pond D (ML)	Transfers to Waste Pond A (ML)	
1/01/2026	3.47		0.043			0.023	0.020			0.022	0.012	0.010		0.016	0.016										
2/01/2026	3.38		0.043			0.023	0.020			0.022	0.012	0.010		0.031	0.016	0.015									
3/01/2026	3.28		0.042			0.022	0.020			0.022	0.012	0.010		0.031	0.016	0.015									
4/01/2026	3.20		0.043			0.022	0.021			0.022	0.012	0.010		0.016	0.016										
5/01/2026	2.94		0.042			0.022	0.020		0.290	0.022	0.012	0.010	0.310	0.000					0.097						
6/01/2026	2.90		0.047			0.025	0.022			0.022	0.010	0.012	0.120	0.027	0.014	0.013			0.058						
7/01/2026	2.86		0.036			0.019	0.017			0.022	0.010	0.012		0.028	0.015	0.013			0.039						
8/01/2026	2.88		0.039			0.020	0.019			0.023	0.011	0.012		0.029	0.015	0.014			0.113						
9/01/2026	2.92		0.039			0.020	0.019			0.023	0.011	0.012		0.014		0.014			0.121						
10/01/2026	2.96		0.041			0.021	0.020			0.023	0.011	0.012		0.029	0.015	0.014			0.130						
11/01/2026	3.06		0.039			0.020	0.019			0.021	0.010	0.011		0.000					0.163						
12/01/2026	3.02		0.038			0.020	0.018			0.023	0.011	0.012		0.029	0.015	0.014			0.049						
13/01/2026	2.99		0.034			0.018	0.016			0.021	0.010	0.011		0.000					0.025						
14/01/2026	3.03		0.031			0.015	0.016			0.021	0.010	0.011		0.024	0.015	0.009			0.110						
15/01/2026	3.05		0.028			0.013	0.015			0.023	0.010	0.013		0.029	0.015	0.014			0.102						
16/01/2026	3.02		0.030			0.015	0.015			0.022	0.011	0.011		0.026	0.012	0.014			0.049						
17/01/2026	2.94		0.030			0.015	0.015			0.022	0.011	0.011		0.026	0.012	0.014									
18/01/2026	2.92		0.031			0.016	0.015			0.021	0.010	0.011		0.029	0.015	0.014			0.060						
19/01/2026	2.84		0.030			0.015	0.015			0.022	0.011	0.011		0.026	0.012	0.014									Nil Evaporation for Evap Ring
20/01/2026	2.80		0.029			0.014	0.015			0.011		0.011		0.000											Nil Evaporation for Evap Rine
21/01/2026	3.65		0.031			0.016	0.015			0.000				0.018	0.018				0.098					0.8	
22/01/2026	3.63		0.032			0.016	0.016			0.022	0.010	0.012		0.016		0.016			0.051						
23/01/2026	3.63		0.000							0.000				0.000											
24/01/2026	3.63		0.000							0.000				0.000											
25/01/2026	3.63		0.000							0.000				0.000											
26/01/2026	3.63		0.000							0.000				0.000											
27/01/2026	3.64		0.035			0.018	0.017			0.017		0.017		0.000					0.054						
28/01/2026	3.64		0.033			0.016	0.017			0.016		0.016		0.000					0.051						
29/01/2026	3.59		0.033			0.016	0.017			0.015		0.015		0.000											
30/01/2026	3.59		0.000							0.000				0.000											
31/01/2026	3.66		0.018				0.018			0.000				0.000					0.089						
1/02/2026	3.74		0.017				0.017			0.000				0.000					0.097						
2/02/2026	3.85		0.018				0.018			0.013		0.013		0.000					0.140						
3/02/2026	3.85		0.018				0.018			0.000				0.000					0.023						
4/02/2026	3.85		0.010				0.010			0.014	0.014			0.000					0.021						
5/02/2026	3.67		0.016				0.016		0.200	0.015	0.015			0.000					0.045						
6/02/2026	3.65		0.000							0.017		0.017		0.015	0.015				0.019						
7/02/2026	3.68		0.018				0.018			0.000				0.016		0.016			0.058						
8/02/2026	3.63		0.018				0.018			0.015	0.015			0.015	0.015										
9/02/2026	3.45		0.019				0.019		0.140	0.017		0.017		0.000											
10/02/2026	3.40		0.020				0.020			0.018		0.018		0.016	0.016										
11/02/2026	3.35		0.019				0.019			0.018		0.018		0.015		0.015									
12/02/2026	2.88		0.037				0.037			0.015	0.015			0.016	0.016			0.40							
13/02/2026	2.82		0.025				0.025			0.015	0.015			0.016		0.016									
14/02/2026	2.77		0.020				0.020			0.015	0.015			0.016		0.016									
15/02/2026	2.72		0.019				0.019			0.015	0.015			0.016		0.016									
16/02/2026	2.68		0.025				0.025			0.016		0.016		0.017		0.017			0.020						
17/02/2026	2.66		0.025				0.025			0.018		0.018		0.016		0.016			0.039						
18/02/2026	2.81		0.000							0.017	0.017			0.000					0.160						
19/02/2026	2.98		0.020				0.020			0.000				0.015	0.015				0.210						
20/02/2026	3.11		0.020				0.020			0.017		0.017		0.015	0.015				0.180						
21/02/2026	3.14		0.020				0.020			0.017		0.017		0.015	0.015				0.087						
22/02/2026	3.20		0.021				0.021			0.016		0.016		0.013	0.013				0.110						
23/02/2026	3.25		0.020				0.020			0.017		0.017		0.015	0.015				0.098						
24/02/2026	3.27		0.020				0.020			0.015		0.015		0.000					0.055						
25/02/2026	3.23		0.021				0.021			0.029	0.014	0.015		0.044	0.014	0.030			0.049						
26/02/2026	3.15		0.020				0.020			0.029	0.014	0.015		0.044	0.014	0.030			0.020						
27/02/2026	3.08		0.022				0.022			0.024	0.011	0.013		0.026	0.014	0.012									
28/02/2026	3.01		0.023				0.023			0.024	0.011	0.013		0.027	0.015	0.012									

Date	FREEBOARD	INFLOWS																OUTFLOWS					
	Calculated (ML)	Surface Water Runoff LNAR 1A/1B (ML)	LNAR 1A/1B Leachate (Total, ML)	Sump 1	Sump 2	Sump 3	Sump 4	Sump 5	Surface Water Runoff LNAR 2A (ML)	LNAR 2A Leachate (Total, ML)	Sump 1	Sump 2	Surface Water Runoff LNAR 2B (ML)	LNAR 2B Leachate (Total, ML)	Sump 1	Sump 2	Transfers from Waste Ponds (ML)	Adjustment (MONTHLY)	LNAR Irrigation (ML)	LNAR Tanker (ML)	Transfers to LNAR5 (ML)	Transfers to Pond D (ML)	Transfers to Waste Pond A (ML)	Comments
1/03/2026	2.93		0.019				0.019			0.025	0.012	0.013		0.029	0.015	0.014								
2/03/2026	2.86		0.023				0.023			0.024	0.011	0.013		0.026	0.014	0.012								
3/03/2026	2.76		0.021				0.021			0.025	0.011	0.014		0.059	0.029	0.030								
4/03/2026	3.08		0.050				0.050			0.034	0.020	0.014	0.350	0.061	0.031	0.030		0.85					1.67	
5/03/2026	2.94		0.048				0.048			0.035	0.020	0.015		0.062	0.031	0.031								
6/03/2026	2.80		0.036				0.036			0.036	0.021	0.015		0.061	0.029	0.032								
7/03/2026	2.67		0.041				0.041			0.035	0.021	0.014		0.061	0.029	0.032								
8/03/2026	2.53		0.033				0.033			0.037	0.022	0.015		0.065	0.033	0.032								
9/03/2026	2.40		0.035				0.035			0.036	0.021	0.015		0.061	0.029	0.032								Return Transfer To Be scheduled
10/03/2026	2.27		0.036				0.036			0.036	0.020	0.016		0.060	0.030	0.030								Return Transfer To Be scheduled
11/03/2026	2.13		0.039				0.039			0.037	0.022	0.015		0.059	0.029	0.030								Return Transfer To Be scheduled
12/03/2026	2.00		0.037				0.037			0.039	0.023	0.016		0.059	0.029	0.030								Return Transfer To Be scheduled
13/03/2026	1.86		0.040				0.040			0.038	0.023	0.015		0.058	0.030	0.028								Return Transfer To Be scheduled
14/03/2026	1.76		0.034				0.034			0.036	0.020	0.016		0.035	0.019	0.016								
15/03/2026	2.95		0.030				0.030			0.038	0.022	0.016		0.058	0.030	0.028			0.019				1.3	
16/03/2026	2.85		0.030				0.030			0.038	0.023	0.015		0.058	0.030	0.028			0.023					
17/03/2026	2.79		0.025				0.025			0.035	0.020	0.015		0.041	0.026	0.015			0.041					
18/03/2026	2.72		0.022				0.022			0.035	0.019	0.016		0.037	0.018	0.019			0.025					
19/03/2026	2.69		0.015				0.015			0.024	0.013	0.011		0.023	0.011	0.012			0.031					
20/03/2026	2.62		0.016				0.016			0.026	0.014	0.012		0.023	0.011	0.012								
21/03/2026	2.56		0.016				0.016			0.024	0.012	0.012		0.022	0.010	0.012								
22/03/2026	2.49		0.022				0.022			0.027	0.015	0.012		0.024	0.012	0.012								
23/03/2026	2.41		0.023				0.023			0.026	0.015	0.011		0.023	0.011	0.012								
24/03/2026	2.33		0.028				0.028			0.022	0.011	0.011		0.036	0.018	0.018								Return Transfer To Be scheduled
25/03/2026	2.22		0.021				0.021			0.026	0.014	0.012	0.550	0.036	0.018	0.018							0.53	Return Transfer To BWPA Overnight
26/03/2026	2.10		0.044				0.044			0.026	0.014	0.012		0.055	0.040	0.015								
27/03/2026	1.59		0.053				0.053			0.026	0.014	0.012	0.350	0.080	0.065	0.015								
28/03/2026	1.55		0.041				0.041			0.014	0.014	0.000		0.075	0.060	0.015			0.087					
29/03/2026	2.48		0.039				0.039			0.016	0.016	0.000		0.070	0.055	0.015			0.035				1.02	
30/03/2026	2.41		0.032				0.032			0.015	0.015	0.000		0.070	0.055	0.015			0.045					
31/03/2026	2.10		0.044				0.044			0.014	0.014	0.000	0.210	0.075	0.060	0.015			0.035					
1/04/2026	1.91		0.039				0.039			0.016	0.016	0.000	0.110	0.066	0.055	0.011			0.041					Return Transfer To Be scheduled
2/04/2026	1.58		0.039				0.039			0.012	0.000	0.012	0.230	0.079	0.068	0.011			0.035					Out of Hrs Transfer Scheduled Tonight
3/04/2026	1.47		0.037				0.037			0.014	0.014	0.000		0.066	0.055	0.011								
4/04/2026	3.13		0.039				0.039			0.016	0.016	0.000		0.049	0.049								1.77	
5/04/2026	3.05		0.041				0.041			0.016	0.016	0.000		0.065	0.065				0.040					
6/04/2026	2.96		0.037				0.037			0.013	0.000	0.013		0.074	0.064	0.010			0.035					
7/04/2026	2.85		0.040				0.040			0.012	0.000	0.012		0.079	0.068	0.011			0.024					
8/04/2026	2.74		0.038				0.038			0.011	0.011	0.000		0.098	0.088	0.010			0.038					
9/04/2026	2.64		0.041				0.041			0.013	0.000	0.013		0.086	0.075	0.011			0.032					
10/04/2026	2.54		0.039				0.039			0.014	0.000	0.014		0.077	0.066	0.011			0.032					
11/04/2026	2.34		0.040				0.040			0.015	0.015	0.000	0.110	0.068	0.058	0.010			0.036					
12/04/2026	2.02		0.038				0.038			0.013	0.013	0.000	0.230	0.073	0.062	0.011			0.031					
13/04/2026	1.93		0.033				0.033			0.012	0.000	0.012		0.073	0.062	0.011			0.028					
14/04/2026	1.83		0.039				0.039			0.010	0.010	0.000		0.069	0.059	0.010			0.015					
15/04/2026	1.74		0.040				0.040			0.010	0.010	0.000		0.046	0.037	0.009			0.013					Return Transfer Scheduled overnight 15/4
16/04/2026	3.12		0.038				0.038			0.012	0.000	0.012		0.064	0.053	0.011			0.035				1.46	
17/04/2026	3.03		0.038				0.038			0.010	0.010	0.000		0.078	0.067	0.011			0.028					
18/04/2026	2.95		0.038				0.038			0.010	0.010	0.000		0.054	0.043	0.011			0.030					
19/04/2026	2.88		0.040				0.040			0.010	0.000	0.010		0.047	0.038	0.009			0.028					
20/04/2026	2.79		0.041				0.041			0.010	0.010	0.000		0.080	0.070	0.010			0.035					
21/04/2026	2.73		0.040				0.040			0.011	0.011	0.000		0.054	0.054	0.000			0.042					
22/04/2026	2.66		0.038				0.038			0.009	0.000	0.009		0.063	0.063	0.000			0.046					
23/04/2026	2.59		0.037				0.037			0.010	0.010	0.000		0.071	0.071	0.000			0.049					
24/04/2026	2.51		0.043				0.043			0.011	0.000	0.011		0.065	0.065	0.000			0.038					
25/04/2026	2.44		0.039				0.039			0.012	0.012	0.000		0.059	0.059	0.000			0.040					
26/04/2026	2.37		0.040				0.040			0.011	0.011	0.000		0.060	0.060	0.000			0.041					
27/04/2026	2.32		0.041				0.041			0.011	0.000	0.011		0.039	0.039	0.000			0.035					
28/04/2026	2.25		0.039				0.039			0.011	0.000	0.011		0.054	0.054	0.000			0.042					
29/04/2026	2.17		0.038				0.038			0.012	0.012	0.000		0.060	0.060	0.000			0.025					
30/04/2026	2.09		0.039				0.039			0.012	0.012	0.000		0.054	0.054	0.000			0.031					

Date	FREEBOARD	INFLOWS																	OUTFLOWS					
	Calculated (ML)	Surface Water Runoff LNAR 1A/1B (ML)	LNAR 1A/1B Leachate (Total, ML)	Sump 1	Sump 2	Sump 3	Sump 4	Sump 5	Surface Water Runoff LNAR 2A (ML)	LNAR 2A Leachate (Total, ML)	Sump 1	Sump 2	Surface Water Runoff LNAR 2B (ML)	LNAR 2B Leachate (Total, ML)	Sump 1	Sump 2	Transfers from Waste Ponds (ML)	Adjustment (MONTHLY)	LNAR Irrigation (ML)	LNAR Tanker (ML)	Transfers to LNAR5 (ML)	Transfers to Pond D (ML)	Transfers to Waste Pond A (ML)	Comments
1/05/2026	2.03		0.038				0.038			0.000	0.000	0.000		0.050	0.050	0.000			0.027					
2/05/2026	1.95		0.040				0.040			0.011	0.011	0.000		0.054	0.054	0.000			0.026					
3/05/2026	1.88		0.037				0.037			0.010	0.010	0.000		0.058	0.058	0.000			0.030					
4/05/2026	1.81		0.039				0.039			0.011	0.000	0.011		0.050	0.050	0.000			0.027					
5/05/2026	1.75		0.025				0.025			0.010	0.010	0.000		0.043	0.000	0.043			0.018					
6/05/2026	1.66		0.035				0.035			0.010	0.010	0.000		0.043	0.000	0.043			0.000					
7/05/2026	3.02		0.037				0.037			0.011	0.000	0.011		0.060	0.000	0.060			0.021				1.45	1.45ML Return Transfer BWPA
8/05/2026	2.95		0.041				0.041			0.010	0.010	0.000		0.049	0.000	0.049			0.025					Suspended Due to Wind Drift
9/05/2026	2.87		0.039				0.039			0.010	0.010	0.000		0.050	0.000	0.050			0.025					
10/05/2026	2.83		0.032				0.032			0.010	0.000	0.010		0.037	0.000	0.037			0.033					
11/05/2026	2.78		0.012				0.012			0.012	0.000	0.012		0.041	0.000	0.041			0.018					
12/05/2026	2.70		0.018			0.018	0.000			0.010	0.010	0.000		0.048	0.000	0.048			0.000					
13/05/2026	2.63		0.015			0.015	0.000			0.011	0.011	0.000		0.049	0.000	0.049			0.000					
14/05/2026	2.55		0.030			0.030	0.000			0.012	0.012	0.000		0.039	0.000	0.039			0.000					
15/05/2026	2.47		0.030			0.030	0.000			0.011	0.011	0.000		0.040	0.000	0.040			0.000					
16/05/2026	2.39		0.025			0.025	0.000			0.015	0.015	0.000		0.035	0.000	0.035			0.000					
17/05/2026	2.34		0.029			0.029	0.000			0.014	0.014	0.000		0.028	0.000	0.028			0.018					
18/05/2026	2.26		0.031			0.031	0.000			0.012	0.012	0.000		0.039	0.000	0.039			0.000					
19/05/2026	1.93		0.029			0.029	0.000			0.015	0.015	0.000	0.250	0.031	0.000	0.031			0.000					Return Transfer to be Scheduled
20/05/2026	1.86		0.032			0.032	0.000			0.016	0.016	0.000		0.025	0.000	0.025			0.000					Return Transfer to be Scheduled
21/05/2026	1.79		0.028			0.028	0.000			0.014	0.014	0.000		0.022	0.000	0.022			0.000					Return Transfer Scheduled 21/5
22/05/2026	2.83		0.028			0.028	0.000			0.014	0.014	0.000		0.022	0.000	0.022			0.000				1.1	
23/05/2026	2.27		0.030			0.030	0.000			0.016	0.016	0.000		0.018	0.000	0.018			0.000					
24/05/2026	2.70		0.025			0.025	0.000			0.016	0.016	0.000		0.025	0.000	0.025			0.000					
25/05/2026	2.64		0.028			0.028	0.000			0.014	0.014	0.000		0.022	0.000	0.022			0.000					
26/05/2026	2.60		0.013			0.013	0.000			0.012	0.012	0.000		0.011	0.000	0.011			0.000					
27/05/2026	2.56		0.015			0.015	0.000			0.011	0.011	0.000		0.014	0.000	0.014			0.000					
28/05/2026	2.52		0.014			0.014	0.000			0.013	0.013	0.000		0.014	0.000	0.014			0.000					
29/05/2026	2.48		0.014			0.014	0.000			0.013	0.013	0.000		0.014	0.000	0.014			0.000					
30/05/2026	2.43		0.016			0.016	0.000			0.016	0.016	0.000		0.016	0.000	0.016			0.000					
31/05/2026	2.39		0.011			0.011	0.000			0.015	0.015	0.000		0.015	0.000	0.015			0.000					
1/06/2026	2.35		0.014			0.014	0.000			0.013	0.013	0.000		0.014	0.000	0.014			0.000					
2/06/2026	2.32		0.014			0.014	0.000			0.014	0.014	0.000		0.017	0.000	0.017			0.019					
3/06/2026	2.27		0.016			0.016	0.000			0.015	0.015	0.000		0.020	0.000	0.020			0.000					
4/06/2026	2.22		0.014			0.014	0.000			0.017	0.017	0.000		0.019	0.000	0.019			0.000					
5/06/2026	2.18		0.012			0.012	0.000			0.015	0.015	0.000		0.015	0.000	0.015			0.000					
6/06/2026	2.15		0.015			0.015	0.000			0.012	0.012	0.000		0.015	0.000	0.015			0.016					
7/06/2026	2.11		0.016			0.016	0.000			0.012	0.012	0.000		0.011	0.000	0.011			0.000					
8/06/2026	2.11		0.011			0.011	0.000			0.016	0.016	0.000		0.020	0.000	0.020			0.038					
9/06/2026	2.08		0.011			0.011	0.000			0.016	0.016	0.000		0.019	0.000	0.019			0.025					
10/06/2026	2.04		0.010			0.010	0.000			0.014	0.014	0.000		0.016	0.000	0.016			0.000					
11/06/2026	2.00		0.012			0.012	0.000			0.015	0.015	0.000		0.016	0.000	0.016			0.000					
12/06/2026	2.87		0.014			0.014	0.000			0.016	0.016	0.000		0.015	0.000	0.015			0.000				0.91	
13/06/2026	2.82		0.017			0.017	0.000			0.016	0.016	0.000		0.013	0.000	0.013			0.000					
14/06/2026	2.78		0.013			0.013	0.000			0.015	0.015	0.000		0.013	0.000	0.013			0.000					
15/06/2026	2.73		0.015			0.015	0.000			0.015	0.015	0.000		0.015	0.000	0.015			0.000					
16/06/2026	2.69		0.016			0.016	0.000			0.017	0.017	0.000		0.012	0.000	0.012			0.000					
17/06/2026	2.66		0.014			0.014	0.000			0.016	0.016	0.000		0.012	0.000	0.012			0.016					
18/06/2026	2.64		0.015			0.015	0.000			0.014	0.014	0.000		0.015	0.000	0.015			0.019					
19/06/2026	2.59		0.016			0.016	0.000			0.016	0.016	0.000		0.015	0.000	0.015			0.000					
20/06/2026	2.55		0.012			0.012	0.000			0.015	0.015	0.000		0.015	0.000	0.015			0.000					
21/06/2026	2.50		0.015			0.015	0.000			0.015	0.015	0.000		0.015	0.000	0.015			0.000					
22/06/2026	2.46		0.016			0.016	0.000			0.015	0.015	0.000		0.015	0.000	0.015			0.000					
23/06/2026	2.42		0.014			0.014	0.000			0.016	0.016	0.000		0.013	0.000	0.013			0.000					
24/06/2026	2.38		0.011			0.011	0.000			0.012	0.012	0.000		0.014	0.000	0.014			0.000					
25/06/2026	2.34		0.013			0.013	0.000			0.015	0.015	0.000		0.012	0.000	0.012			0.000					
26/06/2026	2.30		0.014			0.014	0.000			0.014	0.014	0.000		0.011	0.000	0.011			0.000					
27/06/2026	2.26		0.011			0.011	0.000			0.014	0.014	0.000		0.011	0.000	0.011			0.000					
28/06/2026	2.25		0.011			0.011	0.000			0.011	0.011	0.000		0.011	0.000	0.011			0.022					
29/06/2026	2.21		0.013			0.013	0.000			0.015	0.015	0.000		0.013	0.000	0.013			0.000					
30/06/2026	2.19		0.012			0.012	0.000			0.015	0.015	0.000		0.014	0.000	0.014			0.015					
1/07/2026	2.14		0.014			0.014	0.000			0.015	0.015	0.000		0.012	0.000	0.012			0.000					
2/07/2026	2.61		0.011			0.011	0.000			0.013	0.013	0.000		0.010	0.000	0.010			0.000				0.5	
3/07/2026	2.59		0.012			0.012	0.000			0.014	0.014	0.000		0.015	0.000	0.015			0.020					
4/07/2026	2.55		0.014			0.014	0.000			0.014	0.014	0.000		0.014	0.000	0.014			0.000					
5/07/2026	2.51		0.011			0.011	0.000			0.014	0.014	0.000		0.015	0.000	0.015			0.000					
6/07/2026	2.47		0.012			0.012	0.000			0.016	0.016	0.000		0.013	0.000	0.013			0.000					
7/07/2026	2.42		0.010			0.010	0.000			0.016	0.016	0.000		0.017	0.000	0.017			0.000					
8/07/2026	2.41		0.011			0.011	0.000			0.014	0.014	0.000		0.018	0.000	0.018			0.030					
9/07/2026	2.37		0.010			0.010	0.000			0.012	0.012	0.000		0.015	0.000	0.015			0.000					
10/07/2026	2.34		0.012			0.012	0.000			0.014	0.014	0.000		0.012	0.000	0.012			0.000					
11/07/2026	2.30		0.012			0.012	0.000			0.011	0.011	0.000		0.011	0.000	0.011			0.000					
12/07/2026	2.27		0.011			0.011	0.000			0.012	0.012	0.000		0.010	0.000	0.010			0.000					
13/07/2026	2.23		0.010			0.010	0.000			0.014	0.014	0.000		0.010	0.000	0.010			0.000					
14/07/2026	2.21		0.000			0.000	0.000			0.014	0.014	0.000		0.012	0.000	0.012			0.000					
15/07/2026	2.19		0.010			0.010	0.000			0.011	0.011	0.000		0.012	0.000	0.012			0.015					
16/07/2026	2.17		0.011			0.011	0.000			0.013	0.013	0.000		0.010	0.000	0.010			0.014					
17/07/2026	2.13		0.011			0.011	0.000			0.011	0.011	0.000		0.015	0.000	0.015			0.000					
18/07/2026	2.12		0.010			0.010	0.000			0.012	0.012	0.000		0.013	0.000	0.013			0.018					
19/07/2026	2.09		0.000			0.000	0.000			0.014	0.014	0.000		0.014	0.000	0.014			0.000					
20/07/2026	2.07		0.011			0.011	0.000			0.012	0.012	0.000		0.014	0.000	0.014			0.018					
21/07/2026	2.05		0.010			0.010	0.000			0.012	0.012	0.000		0.015	0.000	0.015			0.016					
22/07/2026	2.01		0.013			0.013	0.000			0.012	0.012	0.000		0.011	0.000	0.011			0.000					Heavy Frost
23/07/2026	1.98		0.011			0.011	0.000			0.010	0.010	0.000		0.010	0.000	0.010			0.000					

LNAR4 Operating Level - 18.5 ML

Purpose: Staging pond for WCA, irrigation and storage for runoff from unlined areas

Colour Legend Instructions	Copy Formula	Enter Data	Enter Data

Date	FREEBOARD	INFLOWS						OUTFLOWS						Comments
	Calculated (ML)	Transfers from LNAR5 (ML)	Transfers from LNAR2 (ML)	Transfers from Settling Ponds (ML)	Transfers from SW2 (ML)	Transfers from SHG1 (ML)	Adjustment (MONTHLY)	Volume to Evaps / Atomisers (ML)	Volume for Dust Suppression (incl Tanker) (ML)	Volume for WCA Ash Conditioning (ML)	Daily Total Volume Used at the Repository (ML)	Transfers to LNAR5 (ML)	Transfers to SW2 (ML)	
1/01/2026	3.47										0.00			
2/01/2026	3.61						0.09		0.23		0.23			Received APA Bin Sump
3/01/2026	3.61										0.00			
4/01/2026	3.61										0.00			
5/01/2026	3.72								0.11		0.11			
6/01/2026	3.63						0.09				0.00			Received APA Bin Sump
7/01/2026	2.26				1.44		0.09		0.16		0.16			Received APA Bin Sump
8/01/2026	2.05				0.45				0.24		0.24			
9/01/2026	2.05										0.00			
10/01/2026	2.05										0.00			
11/01/2026	2.26										0.21			
12/01/2026	2.26										0.00			
13/01/2026	2.26										0.00			
14/01/2026	2.26										0.00			
15/01/2026	2.19						0.08				0.00			Receiving APA Sump
16/01/2026	2.09						0.10				0.00			Receiving APA Sump
17/01/2026	2.09										0.00			
18/01/2026	1.96						0.13				0.00			Receiving APA Sump
19/01/2026	1.96										0.00			
20/01/2026	1.96										0.00			
21/01/2026	2.07								0.11		0.11			
22/01/2026	2.23								0.16		0.16			
23/01/2026	2.23										0.00			
24/01/2026	2.23										0.00			
25/01/2026	2.23										0.00			
26/01/2026	2.23										0.00			
27/01/2026	2.23										0.00			
28/01/2026	2.23										0.00			
29/01/2026	2.23										0.00			
30/01/2026	2.23										0.00			
31/01/2026	2.23										0.00			
1/02/2026	2.23										0.00			
2/02/2026	2.23										0.00			
3/02/2026	2.23										0.00			
4/02/2026	2.23										0.00			
5/02/2026	2.23										0.00			
6/02/2026	2.33								0.10		0.10			
7/02/2026	2.33										0.00			
8/02/2026	2.23						0.10				0.00			
9/02/2026	2.23										0.00			
10/02/2026	2.03						0.20				0.00			0.2ML Received APA Sump
11/02/2026	0.76				1.27						0.00			
12/02/2026	0.80						0.14		0.18		0.18			0.14ML Received APA Sump
13/02/2026	1.50						0.11		0.31		0.31		0.50	0.11ML Received APA Sump
14/02/2026	1.50										0.00			
15/02/2026	1.93								0.43		0.43			
16/02/2026	1.93				0.40				0.40		0.40			
17/02/2026	2.27				0.37				0.71		0.71			
18/02/2026	2.28				0.20				0.21		0.21			
19/02/2026	2.27				0.20				0.19		0.19			
20/02/2026	2.27										0.00			
21/02/2026	2.27										0.00			
22/02/2026	2.25						0.02				0.00			APA Bin Sump
23/02/2026	2.25										0.00			
24/02/2026	2.25										0.00			
25/02/2026	2.25										0.00			
26/02/2026	2.25										0.00			
27/02/2026	2.25										0.00			
28/02/2026	2.25										0.00			

Date	FREEBOARD	INFLOWS						OUTFLOWS						Comments
	Calculated (ML)	Transfers from LNAR5 (ML)	Transfers from LNAR2 (ML)	Transfers from Settling Ponds (ML)	Transfers from SW2 (ML)	Transfers from SHG1 (ML)	Adjustment (MONTHLY)	Volume to Evaps / Atomisers (ML)	Volume for Dust Suppression (incl Tanker) (ML)	Volume for WCA Ash Conditioning (ML)	Daily Total Volume Used at the Repository (ML)	Transfers to LNAR5 (ML)	Transfers to SW2 (ML)	
1/03/2026	2.23						0.02				0.00			
2/03/2026	2.23										0.00			
3/03/2026	2.23										0.00			
4/03/2026	1.50				0.52		0.21				0.00			Received Inflows APA Sump/SW2
5/03/2026	1.48						0.02				0.00			
6/03/2026	4.08				0.30				0.40		0.40	2.50		2.5 ML Transferred to SPC
7/03/2026	0.98	1.00	2.20		0.20				0.30		0.30			
8/03/2026	1.23								0.25		0.25			
9/03/2026	1.48								0.25		0.25			
10/03/2026	1.48										0.00			
11/03/2026	1.48										0.00			
12/03/2026	1.48										0.00			
13/03/2026	1.48										0.00			
14/03/2026	0.38		1.10								0.00			
15/03/2026	0.38		1.10								0.00		1.10	SPC
16/03/2026	1.53										0.00		1.15	SPC
17/03/2026	1.53										0.00			
18/03/2026	1.53										0.00			
19/03/2026	1.53										0.00			
20/03/2026	1.53										0.00			
21/03/2026	1.53										0.00			
22/03/2026	1.53										0.00			
23/03/2026	1.48						0.05				0.00			
24/03/2026	1.48										0.00			
25/03/2026	1.48										0.00			
26/03/2026	1.48										0.00			
27/03/2026	1.48										0.00			
28/03/2026	1.48										0.00			
29/03/2026	1.48										0.00			
30/03/2026	1.48										0.00			
31/03/2026	1.48										0.00			
1/04/2026	1.48										0.00			
2/04/2026	2.23				0.45				0.43		0.43		0.77	0.75 Transfer to SPC
3/04/2026	2.23										0.00			
4/04/2026	2.23										0.00			
5/04/2026	2.75								0.15		0.15		0.37	SPC
6/04/2026	2.75										0.00			
7/04/2026	2.89								0.14		0.14			
8/04/2026	2.89										0.00			
9/04/2026	2.99								0.10		0.10			
10/04/2026	2.99										0.00			
11/04/2026	2.99										0.00			
12/04/2026	2.99										0.00			
13/04/2026	2.99										0.00			
14/04/2026	3.34								0.35		0.35			
15/04/2026	3.50								0.16		0.16			
16/04/2026	3.73								0.23		0.23			
17/04/2026	3.83								0.10		0.10			
18/04/2026	3.93								0.10		0.10			
19/04/2026	4.05								0.12		0.12			
20/04/2026	4.20								0.15		0.15			
21/04/2026	3.60			0.60							0.00			
22/04/2026	3.60										0.00			
23/04/2026	3.60										0.00			
24/04/2026	3.60										0.00			
25/04/2026	3.60										0.00			
26/04/2026	3.60										0.00			
27/04/2026	4.08										0.00		0.48	
28/04/2026	4.08										0.00			
29/04/2026	4.08										0.00			
30/04/2026	2.90			1.98							0.00		0.80	

Date	FREEBOARD	INFLOWS						OUTFLOWS						Comments
	Calculated (ML)	Transfers from LNAR5 (ML)	Transfers from LNAR2 (ML)	Transfers from Settling Ponds (ML)	Transfers from SW2 (ML)	Transfers from SHG1 (ML)	Adjustment (MONTHLY)	Volume to Evaps / Atomisers (ML)	Volume for Dust Suppression (incl Tanker) (ML)	Volume for WCA Ash Conditioning (ML)	Daily Total Volume Used at the Repository (ML)	Transfers to LNAR5 (ML)	Transfers to SW2 (ML)	
1/05/2026	2.90										0.00			
2/05/2026	3.11								0.21		0.21			
3/05/2026	2.02			1.80					0.25		0.25		0.46	
4/05/2026	2.37								0.35		0.35			
5/05/2026	2.37										0.00			
6/05/2026	2.37										0.00			
7/05/2026	2.37										0.00			
8/05/2026	2.37										0.00			
9/05/2026	2.37										0.00			
10/05/2026	2.37										0.00			
11/05/2026	2.37										0.00			
12/05/2026	2.37										0.00			
13/05/2026	2.27						0.10				0.00			Inflows APA Bin Sump
14/05/2026	1.59			0.68							0.00			
15/05/2026	1.71								0.12		0.12			
16/05/2026	1.98										0.00		0.27	
17/05/2026	2.09								0.11		0.11			
18/05/2026	2.23						0.09		0.23		0.23			Inflows APA Bin Sump
19/05/2026	2.23										0.00			
20/05/2026	2.23										0.00			
21/05/2026	2.23										0.00			
22/05/2026	2.23										0.00			
23/05/2026	2.23										0.00			
24/05/2026	2.23										0.00			
25/05/2026	2.23										0.00			
26/05/2026	2.23										0.00			
27/05/2026	2.23										0.00			
28/05/2026	2.23										0.00			
29/05/2026	2.23										0.00			
30/05/2026	2.23										0.00			
31/05/2026	2.23										0.00			
1/06/2026	2.23										0.00			
2/06/2026	2.23										0.00			
3/06/2026	2.23										0.00			
4/06/2026	2.23										0.00			
5/06/2026	2.23										0.00			
6/06/2026	2.23										0.00			
7/06/2026	2.23										0.00			
8/06/2026	2.23										0.00			
9/06/2026	2.23										0.00			
10/06/2026	2.23										0.00			
11/06/2026	2.23										0.00			
12/06/2026	2.23										0.00			
13/06/2026	2.23										0.00			
14/06/2026	2.23										0.00			
15/06/2026	2.23										0.00			
16/06/2026	2.23										0.00			
17/06/2026	2.23										0.00			
18/06/2026	2.23										0.00			
19/06/2026	2.23										0.00			
20/06/2026	2.23										0.00			
21/06/2026	2.23										0.00			
22/06/2026	2.23										0.00			
23/06/2026	2.23										0.00			
24/06/2026	2.23										0.00			
25/06/2026	2.23										0.00			
26/06/2026	2.23										0.00			
27/06/2026	2.23										0.00			
28/06/2026	2.38							0.15			0.15			
29/06/2026	2.53							0.15			0.15			
30/06/2026	2.73								0.20		0.20			
1/07/2026	2.73										0.00			
2/07/2026	2.63						0.10				0.00			0.1 Received APA Bin Sump
3/07/2026	2.22				0.41						0.00			
4/07/2026	2.22										0.00			
5/07/2026	2.22										0.00			
6/07/2026	2.22										0.00			
7/07/2026	2.22										0.00			
8/07/2026	2.22										0.00			
9/07/2026	2.22										0.00			
10/07/2026	2.22										0.00			
11/07/2026	2.22										0.00			
12/07/2026	2.22										0.00			
13/07/2026	2.22										0.00			
14/07/2026	2.22										0.00			
15/07/2026	2.22										0.00			
16/07/2026	2.22										0.00			
17/07/2026	2.22										0.00			
18/07/2026	2.22										0.00			

Date	FREEBOARD	INFLOWS						OUTFLOWS						Comments
	Calculated (ML)	Transfers from LNAR5 (ML)	Transfers from LNAR2 (ML)	Transfers from Settling Ponds (ML)	Transfers from SW2 (ML)	Transfers from SHG1 (ML)	Adjustment (MONTHLY)	Volume to Evaps / Atomisers (ML)	Volume for Dust Suppression (incl Tanker) (ML)	Volume for WCA Ash Conditioning (ML)	Daily Total Volume Used at the Repository (ML)	Transfers to LNAR5 (ML)	Transfers to SW2 (ML)	
19/07/2026	2.22										0.00			
20/07/2026	2.22										0.00			
21/07/2026	2.22										0.00			
22/07/2026	2.83										0.00		0.61	
23/07/2026	3.04								0.21		0.21			

LNAR5 Operating Level - 19ML

Purpose: Holds runoff from lined LNAR areas (salty runoff)

Colour Legend Instructions: Copy Formula | Enter Data | | Enter Data

	FREEBOARD	INFLOWS									OUTFLOWS								
Date	Calculated (ML)	Transfers from LNAR2 (ML)	Transfers from LNAR3 (ML)	Transfers from LNAR4 (ML)	Transfers from SW2 (ML)	Transfers from CT Basin (ML)	Transfers from Settling Ponds (ML)	Runoff/RSW from LNAR 1A/1B	Runoff from LNAR Stage 2A	Adjustment (MONTHLY)	Volume to Evaps / Atomisers (ML)	Volume for Dust Suppression (incl Tanker) (ML)	Evaporation Ring (ML)	LNAR Irrigation (ML)	Daily Total Volume Used at the Repository (ML)	Transfers to LNAR4 (ML)	Transfers to SW2 (ML)	Transfers to Settling Ponds (ML)	Comments
1/01/2026	5.01											0.73			0.73				
2/01/2026	4.41						1.27					0.67			0.67				
3/01/2026	5.00				0.18							0.77			0.77				
4/01/2026	5.93											0.93			0.93				
5/01/2026	5.40				0.20		1.43					1.10			1.10				
6/01/2026	5.39				0.38							0.37			0.37				
7/01/2026	6.08											0.69			0.69				
8/01/2026	6.14								0.10			0.16			0.16				
9/01/2026	6.14						0.83					0.83			0.83				
10/01/2026	7.00											0.86			0.86				
11/01/2026	6.16				0.28		1.23					0.67			0.67				
12/01/2026	6.12				0.18							0.14			0.14				
13/01/2026	6.13				0.10							0.11			0.11				
14/01/2026	6.70											0.57			0.57				
15/01/2026	6.70														0.00				
16/01/2026	6.80				0.11							0.21			0.21				
17/01/2026	6.80														0.00				
18/01/2026	7.25											0.45			0.45				
19/01/2026	7.25														0.00				
20/01/2026	5.77						1.48								0.00				
21/01/2026	6.10						1.28					0.36			0.36		1.25		
22/01/2026	6.24				0.25							0.39			0.39				
23/01/2026	6.24														0.00				
24/01/2026	6.49											0.25			0.25				
25/01/2026	5.54						1.23					0.28			0.28				
26/01/2026	5.87											0.33			0.33				
27/01/2026	6.20											0.33			0.33				
28/01/2026	5.17						1.36					0.33			0.33				
29/01/2026	5.55														0.00	0.38			
30/01/2026	5.55														0.00				
31/01/2026	4.87						0.97					0.29			0.29				
1/02/2026	5.36						1.18					0.39			0.39	1.28			LNAR2
2/02/2026	5.57				0.18		1.33					0.41			0.41	1.31			LNAR2
3/02/2026	5.78											0.21			0.21				
4/02/2026	5.91											0.13			0.13				
5/02/2026	6.12						0.85			0.10		0.41			0.41		0.75		Received 0.1 APA Sump
6/02/2026	6.60											0.48			0.48				
7/02/2026	6.15						0.78					0.33			0.33				
8/02/2026	5.52						0.75					0.12			0.12				
9/02/2026	5.52														0.00				
10/02/2026	5.52														0.00				
11/02/2026	5.66											0.14			0.14				
12/02/2026	4.83								0.83						0.00				Receivine Inflows 2A lined
13/02/2026	4.95											0.12			0.12				
14/02/2026	4.95														0.00				
15/02/2026	4.72								0.23						0.00				
16/02/2026	4.72														0.00				
17/02/2026	3.59				0.75				0.38						0.00				
18/02/2026	4.24											0.65			0.65				
19/02/2026	4.86											0.62			0.62				
20/02/2026	5.53						0.10					0.50			0.50		0.27		
21/02/2026	5.74											0.21			0.21				
22/02/2026	6.37											0.63			0.63				
23/02/2026	5.49						1.46					0.58			0.58				
24/02/2026	5.47	0.80										0.38			0.38		0.40		
25/02/2026	4.69	1.78										0.12			0.12		0.88		
26/02/2026	4.69														0.00				
27/02/2026	2.89	1.55							0.25						0.00				
28/02/2026	2.89														0.00				

	FREEBOARD	INFLOWS									OUTFLOWS								
Date	Calculated (ML)	Transfers from LNAR2 (ML)	Transfers from LNAR3 (ML)	Transfers from LNAR4 (ML)	Transfers from SW2 (ML)	Transfers from CT Basin (ML)	Transfers from Settling Ponds (ML)	Runoff/RSW from LNAR 1A/1B	Runoff from LNAR Stage 2A	Adjustment (MONTHLY)	Volume to Evaps / Atomisers (ML)	Volume for Dust Suppression (incl Tanker) (ML)	Evaporation Ring (ML)	LNAR Irrigation (ML)	Daily Total Volume Used at the Repository (ML)	Transfers to LNAR4 (ML)	Transfers to SW2 (ML)	Transfers to Settling Ponds (ML)	Comments
1/03/2026	2.89														0.00				
2/03/2026	2.89														0.00				
3/03/2026	3.10											0.21			0.21				
4/03/2026	2.19	0.10						0.81							0.00				
5/03/2026	0.54				0.09			0.65		1.00		0.09			0.09				Received 1ML APA Sumo
6/03/2026	0.54														0.00				
7/03/2026	1.54														0.00	1.00			
8/03/2026	1.54														0.00				
9/03/2026	1.44				0.10										0.00				
10/03/2026	2.16										0.22	0.50			0.72				
11/03/2026	2.79				0.25						0.25	0.63			0.88				
12/03/2026	3.45				0.32						0.35	0.63			0.98				
13/03/2026	3.95										0.20	0.30			0.50				
14/03/2026	3.95														0.00				
15/03/2026	4.05										0.10				0.10				
16/03/2026	4.18										0.13				0.13				
17/03/2026	4.32										0.14				0.14				
18/03/2026	4.18								0.14						0.00				
19/03/2026	4.83										0.15	0.50			0.65				
20/03/2026	4.83														0.00				
21/03/2026	4.83														0.00				
22/03/2026	4.83														0.00				
23/03/2026	4.83														0.00				
24/03/2026	3.54				0.31			0.98							0.00				
25/03/2026	3.54														0.00				
26/03/2026	3.54														0.00				
27/03/2026	3.85											0.31			0.31				
28/03/2026	4.23											0.38			0.38				
29/03/2026	4.66											0.43			0.43				
30/03/2026	5.07											0.41			0.41				
31/03/2026	5.39											0.32			0.32				
1/04/2026	5.47				0.35							0.43			0.43				
2/04/2026	5.47														0.00				
3/04/2026	5.68														0.21				
4/04/2026	5.87														0.19				
5/04/2026	5.87														0.00				
6/04/2026	6.81														0.00			0.94	SPC
7/04/2026	6.81														0.00				
8/04/2026	6.97											0.16			0.16				
9/04/2026	7.09											0.12			0.12				
10/04/2026	7.26											0.17			0.17				
11/04/2026	7.44											0.18			0.18				
12/04/2026	7.62											0.18			0.18				
13/04/2026	7.78											0.16			0.16				
14/04/2026	7.92				0.15						0.11	0.18			0.29				
15/04/2026	7.90				0.14						0.12				0.12				
16/04/2026	8.68										0.15	0.28			0.43		0.35		
17/04/2026	8.52						0.78				0.15	0.25			0.40		0.22		
18/04/2026	8.62										0.10				0.10				
19/04/2026	8.87										0.10	0.15			0.25				
20/04/2026	8.97										0.10				0.10				
21/04/2026	7.79						1.55				0.10	0.27			0.37				
22/04/2026	6.94						1.90				0.15	0.39			0.54		0.51		
23/04/2026	5.50						2.20				0.15	0.41			0.56		0.20		
24/04/2026	4.20						1.86				0.14	0.32			0.46		0.10		
25/04/2026	4.72										0.14	0.38			0.52				
26/04/2026	4.64						0.58				0.15	0.35			0.50				
27/04/2026	4.49						0.50				0.16	0.39			0.55				
28/04/2026	5.25										0.16	0.40			0.56				
29/04/2026	5.27				0.30						0.11	0.21			0.32				
30/04/2026	5.56										0.12	0.17			0.29				

	FREEBOARD	INFLOWS									OUTFLOWS								
Date	Calculated (ML)	Transfers from LNAR2 (ML)	Transfers from LNAR3 (ML)	Transfers from LNAR4 (ML)	Transfers from SW2 (ML)	Transfers from CT Basin (ML)	Transfers from Settling Ponds (ML)	Runoff/RSW from LNAR 1A/1B	Runoff from LNAR Stage 2A	Adjustment (MONTHLY)	Volume to Evaps / Atomisers (ML)	Volume for Dust Suppression (incl Tanker) (ML)	Evaporation Ring (ML)	LNAR Irrigation (ML)	Daily Total Volume Used at the Repository (ML)	Transfers to LNAR4 (ML)	Transfers to SW2 (ML)	Transfers to Settling Ponds (ML)	Comments
1/05/2026	5.87										0.10	0.21			0.31				
2/05/2026	5.87														0.00				
3/05/2026	5.07						0.80								0.00				
4/05/2026	5.07														0.00				
5/05/2026	5.29				0.25						0.10	0.37			0.47				
6/05/2026	5.44											0.15			0.15				
7/05/2026	5.44				0.27						0.10	0.17			0.27				
8/05/2026	5.26						1.38				0.10	0.26			0.36		0.84		
9/05/2026	5.63										0.11	0.26			0.37				
10/05/2026	5.93										0.09	0.21			0.30				
11/05/2026	6.15											0.22			0.22				
12/05/2026	5.05				1.10										0.00				
13/05/2026	5.51										0.10	0.36			0.46				
14/05/2026	5.77										0.10	0.16			0.26				
15/05/2026	5.77														0.00				
16/05/2026	5.90											0.13			0.13				
17/05/2026	5.90														0.00				
18/05/2026	5.47						0.76				0.10	0.12			0.22		0.11		
19/05/2026	5.47														0.00				
20/05/2026	5.47														0.00				
21/05/2026	5.47				0.11							0.11			0.11				
22/05/2026	5.47														0.00				
23/05/2026	5.59											0.12			0.12				
24/05/2026	5.67										0.08				0.08				
25/05/2026	6.27											0.10			0.10		0.50		
26/05/2026	6.12				0.15										0.00				
27/05/2026	6.12														0.00				
28/05/2026	6.02									0.10					0.00				Inflows APA Bin Sump
29/05/2026	6.02														0.00				
30/05/2026	6.02														0.00				
31/05/2026	5.89									0.13					0.00				Inflows APA Bin Sump
1/06/2026	5.49				0.40										0.00				
2/06/2026	5.59										0.10				0.10				
3/06/2026	5.49				0.10										0.00				
4/06/2026	5.49														0.00				
5/06/2026	5.49														0.00				
6/06/2026	5.34				0.15										0.00				
7/06/2026	5.44										0.10				0.10				
8/06/2026	5.21				0.45						0.10	0.12			0.22				
9/06/2026	4.76				0.56							0.11			0.11				
10/06/2026	4.76														0.00				
11/06/2026	4.76														0.00				
12/06/2026	4.16									0.70		0.10			0.10				0.7ML Received SHG1
13/06/2026	3.55									0.61					0.00				0.61ML Received SHG1
14/06/2026	3.55														0.00				
15/06/2026	3.55														0.00				
16/06/2026	3.95										0.10				0.10		0.30		
17/06/2026	4.05										0.10				0.10				
18/06/2026	4.16										0.11				0.11				
19/06/2026	4.16														0.00				
20/06/2026	4.16														0.00				
21/06/2026	3.56				0.60										0.00				
22/06/2026	3.56														0.00				
23/06/2026	3.68										0.12				0.12				
24/06/2026	3.93										0.10	0.15			0.25				
25/06/2026	3.52				0.61						0.10	0.10			0.20				
26/06/2026	3.52														0.00				
27/06/2026	3.62										0.10				0.10				
28/06/2026	3.73											0.11			0.11				
29/06/2026	3.86										0.13				0.13				
30/06/2026	3.56				0.40							0.10			0.10				
1/07/2026	3.56														0.00				
2/07/2026	3.56														0.00				
3/07/2026	2.86						0.70								0.00				
4/07/2026	2.86														0.00				
5/07/2026	2.86														0.00				
6/07/2026	2.86														0.00				
7/07/2026	2.86														0.00				
8/07/2026	2.86														0.00				
9/07/2026	3.06										0.10	0.10			0.20				
10/07/2026	2.92				0.38						0.10	0.14			0.24				
11/07/2026	3.03										0.11				0.11				
12/07/2026	3.03														0.00				
13/07/2026	3.29										0.11	0.15			0.26				
14/07/2026	3.45											0.16			0.16				
15/07/2026	3.58											0.13			0.13				
16/07/2026	3.43				0.41						0.10	0.16			0.26				
17/07/2026	3.69										0.10	0.16			0.26				
18/07/2026	3.69														0.00				
19/07/2026	3.83											0.14			0.14				
20/07/2026	4.08										0.10	0.15			0.25				
21/07/2026	4.18										0.10				0.10				
22/07/2026	4.41										0.11	0.12			0.23				
23/07/2026	4.67										0.12	0.14			0.26				

ASH CONDITIONING SUMMARY

Colour Legend Instructions	Copy Formula	Enter Data	Enter Data

	WCA				BCA			
Date	From LNARS (ML)	From Settling Ponds (ML)	CT Basin (ML)	WCA Total (kL)	From LNAR3 (ML)	From Waste Pond A (ML)	From Waste Pond B (ML)	BCA TOTAL (kL)
1/01/2026				0			0.216	216
2/01/2026				0			0.186	186
3/01/2026				0			0.223	223
4/01/2026				0			0.197	197
5/01/2026				0			0.234	234
6/01/2026				0			0.197	197
7/01/2026				0			0.177	177
8/01/2026				0			0.276	276
9/01/2026				0			0.404	404
10/01/2026				0			0.424	424
11/01/2026				0			0.400	400
12/01/2026				0			0.404	404
13/01/2026				0			0.151	151
14/01/2026				0			0.202	202
15/01/2026				0			0.290	290
16/01/2026				0			0.259	259
17/01/2026				0			0.176	176
18/01/2026				0			0.198	198
19/01/2026				0			0.205	205
20/01/2026				0			0.179	179
21/01/2026				0			0.139	139
22/01/2026				0		0.040		40
23/01/2026				0		0.061		61
24/01/2026				0		0.010		10
25/01/2026				0		0.209		209
26/01/2026				0		0.348		348
27/01/2026				0		0.390		390
28/01/2026				0			0.263	263
29/01/2026				0			0.246	246
30/01/2026				0			0.209	209
31/01/2026				0			0.275	275
1/02/2026				0			0.402	402
2/02/2026				0			0.380	380
3/02/2026				0			0.128	128
4/02/2026				0			0.109	109
5/02/2026				0			0.377	377
6/02/2026				0			0.459	459
7/02/2026				0			0.287	287
8/02/2026				0			0.413	413
9/02/2026				0			0.343	343
10/02/2026				0			0.389	389
11/02/2026				0			0.300	300
12/02/2026				0			0.310	310
13/02/2026				0			0.403	403
14/02/2026				0			0.231	231
15/02/2026				0			0.230	230
16/02/2026				0			0.170	170
17/02/2026				0			0.221	221
18/02/2026				0		0.120		120
19/02/2026				0		0.264		264
20/02/2026				0		0.150		150
21/02/2026				0		0.347		347
22/02/2026				0		0.263		263
23/02/2026				0		0.308		308
24/02/2026				0		0.186		186
25/02/2026				0		0.360		360
26/02/2026				0		0.252		252
27/02/2026				0		0.216		216
28/02/2026				0		0.284		284
1/03/2026				0		0.231		231
2/03/2026				0		0.334		334
3/03/2026				0		0.231		231
4/03/2026			0.190	190				0
5/03/2026				0		0.191		191
6/03/2026				0		0.214		214
7/03/2026				0		0.423		423
8/03/2026				0		0.465		465
9/03/2026				0		0.291		291
10/03/2026				0		0.271		271
11/03/2026				0		0.203		203
12/03/2026				0		0.189		189
13/03/2026				0		0.251		251
14/03/2026				0		0.326		326
15/03/2026				0		0.221		221
16/03/2026		0.110		110		0.256		256
17/03/2026		0.050		50				0
18/03/2026				0		0.207		207
19/03/2026				0		0.329		329
20/03/2026				0		0.347		347
21/03/2026				0		0.168		168
22/03/2026				0		0.250		250
23/03/2026				0		0.253		253
24/03/2026				0		0.218		218
25/03/2026				0		0.162		162
26/03/2026				0		0.179		179
27/03/2026				0		0.169		169
28/03/2026				0		0.133		133
29/03/2026				0		0.212		212
30/03/2026				0		0.239		239
31/03/2026				0		0.162		162

	WCA				BCA			
Date	From LNAR5 (ML)	From Settling Ponds (ML)	CT Basin (ML)	WCA Total (kL)	From LNAR3 (ML)	From Waste Pond A (ML)	From Waste Pond B (ML)	BCA TOTAL (kL)
1/04/2026				0		0.149		149
2/04/2026				0		0.165		165
3/04/2026				0		0.301		301
4/04/2026				0		0.258		258
5/04/2026				0		0.123		123
6/04/2026				0		0.146		146
7/04/2026				0		0.192		192
8/04/2026				0		0.150		150
9/04/2026				0		0.000		0
10/04/2026				0		0.000		0
11/04/2026				0		0.299		299
12/04/2026				0		0.155		155
13/04/2026				0		0.186		186
14/04/2026				0		0.148		148
15/04/2026				0		0.277		277
16/04/2026				0		0.240		240
17/04/2026				0		0.289		289
18/04/2026				0		0.179		179
19/04/2026				0		0.260		260
20/04/2026				0		0.284		284
21/04/2026				0		0.270		270
22/04/2026				0		0.195		195
23/04/2026				0		0.187		187
24/04/2026				0		0.200		200
25/04/2026				0		0.105		105
26/04/2026				0		0.219		219
27/04/2026				0		0.256		256
28/04/2026				0		0.322		322
29/04/2026				0		0.271		271
30/04/2026				0		0.274		274
1/05/2026				0		0.000		0
2/05/2026				0		0.315		315
3/05/2026				0		0.050		50
4/05/2026				0		0.218		218
5/05/2026				0		0.361		361
6/05/2026				0		0.342		342
7/05/2026				0		0.307		307
8/05/2026				0		0.217		217
9/05/2026				0		0.245		245
10/05/2026				0		0.281		281
11/05/2026				0		0.313		313
12/05/2026				0		0.287		287
13/05/2026				0		0.244		244
14/05/2026				0		0.219		219
15/05/2026				0		0.166		166
16/05/2026				0		0.305		305
17/05/2026				0		0.234		234
18/05/2026				0		0.347		347
19/05/2026				0		0.345		345
20/05/2026				0		0.166		166
21/05/2026				0		0.401		401
22/05/2026				0		0.246		246
23/05/2026				0		0.241		241
24/05/2026				0		0.346		346
25/05/2026				0		0.375		375
26/05/2026				0		0.214		214
27/05/2026				0		0.339		339
28/05/2026				0		0.316		316
29/05/2026				0		0.268		268
30/05/2026				0		0.315		315
31/05/2026				0		0.146		146
1/06/2026				0		0.212		212
2/06/2026				0		0.216		216
3/06/2026				0		0.028		28
4/06/2026				0		0.169		169
5/06/2026				0		0.112		112
6/06/2026				0		0.302		302
7/06/2026				0		0.185		185
8/06/2026				0		0.211		211
9/06/2026				0		0.226		226
10/06/2026				0		0.213		213
11/06/2026				0		0.254		254
12/06/2026				0		0.183		183
13/06/2026				0		0.315		315
14/06/2026				0		0.144		144
15/06/2026				0		0.314		314
16/06/2026				0		0.319		319
17/06/2026				0		0.378		378
18/06/2026				0		0.353		353
19/06/2026				0		0.313		313
20/06/2026				0		0.354		354
21/06/2026				0		0.349		349
22/06/2026				0		0.395		395
23/06/2026				0		0.366		366
24/06/2026				0		0.330		330
25/06/2026				0		0.353		353
26/06/2026				0		0.331		331
27/06/2026				0		0.385		385
28/06/2026				0		0.367		367
29/06/2026				0		0.384		384
30/06/2026				0		0.248		248
1/07/2026				0		0.505		505
2/07/2026				0		0.363		363
3/07/2026				0		0.202		202
4/07/2026				0		0.314		314
5/07/2026				0		0.257		257
6/07/2026				0		0.297		297
7/07/2026				0		0.328		328
8/07/2026				0		0.301		301
9/07/2026				0		0.180		180
10/07/2026				0		0.390		390
11/07/2026				0		0.486		486
12/07/2026				0		0.495		495
13/07/2026				0		0.349		349
14/07/2026				0		0.324		324
15/07/2026				0		0.280		280
16/07/2026				0		0.275		275
17/07/2026				0		0.345		345
18/07/2026				0		0.347		347
19/07/2026				0		0.350		350
20/07/2026				0		0.291		291
21/07/2026				0			0.213	213
22/07/2026				0			0.273	273
23/07/2026				0			0.314	314

Rainfall

Date	Daily Rainfall (MM)
1/01/2026	
2/01/2026	
3/01/2026	
4/01/2026	0.2
5/01/2026	17.8
6/01/2026	18.8
7/01/2026	
8/01/2026	
9/01/2026	
10/01/2026	
11/01/2026	
12/01/2026	2.0
13/01/2026	0.2
14/01/2026	
15/01/2026	12.8
16/01/2026	
17/01/2026	8.8
18/01/2026	1.2
19/01/2026	10.8
20/01/2026	0.6
21/01/2026	0.2
22/01/2026	
23/01/2026	
24/01/2026	
25/01/2026	
26/01/2026	
27/01/2026	
28/01/2026	
29/01/2026	
30/01/2026	
31/01/2026	
1/02/2026	4.2
2/02/2026	8.0
3/02/2026	0.2
4/02/2026	
5/02/2026	
6/02/2026	1.0
7/02/2026	
8/02/2026	12.4
9/02/2026	13.8
10/02/2026	23.0
11/02/2026	27.2
12/02/2026	
13/02/2026	
14/02/2026	
15/02/2026	
16/02/2026	0.2
17/02/2026	
18/02/2026	
19/02/2026	
20/02/2026	
21/02/2026	12.6
22/02/2026	1.0
23/02/2026	
24/02/2026	
25/02/2026	
26/02/2026	7.4
27/02/2026	2.0
28/02/2026	0.2

Date	Daily Rainfall (MM)
1/03/2026	0.2
2/03/2026	1.6
3/03/2026	40.0
4/03/2026	41.0
5/03/2026	0.2
6/03/2026	
7/03/2026	5.0
8/03/2026	0.2
9/03/2026	
10/03/2026	0.4
11/03/2026	
12/03/2026	
13/03/2026	
14/03/2026	
15/03/2026	
16/03/2026	
17/03/2026	
18/03/2026	0.8
19/03/2026	6.5
20/03/2026	
21/03/2026	0.2
22/03/2026	20.6
23/03/2026	0.6
24/03/2026	0.5
25/03/2026	
26/03/2026	
27/03/2026	9.0
28/03/2026	
29/03/2026	0.2
30/03/2026	
31/03/2026	
1/04/2026	
2/04/2026	
3/04/2026	
4/04/2026	0.2
5/04/2026	
6/04/2026	
7/04/2026	0.3
8/04/2026	
9/04/2026	
10/04/2026	
11/04/2026	
12/04/2026	
13/04/2026	
14/04/2026	
15/04/2026	
16/04/2026	
17/04/2026	
18/04/2026	
19/04/2026	
20/04/2026	
21/04/2026	
22/04/2026	0.2
23/04/2026	
24/04/2026	
25/04/2026	
26/04/2026	
27/04/2026	
28/04/2026	
29/04/2026	
30/04/2026	

Date	Daily Rainfall (MM)
1/05/2026	
2/05/2026	
3/05/2026	
4/05/2026	
5/05/2026	15.8
6/05/2026	0.4
7/05/2026	
8/05/2026	
9/05/2026	
10/05/2026	
11/05/2026	
12/05/2026	0.4
13/05/2026	
14/05/2026	4.0
15/05/2026	
16/05/2026	0.4
17/05/2026	
18/05/2026	0.3
19/05/2026	8.0
20/05/2026	10.2
21/05/2026	
22/05/2026	
23/05/2026	
24/05/2026	0.2
25/05/2026	
26/05/2026	0.4
27/05/2026	9.8
28/05/2026	
29/05/2026	
30/05/2026	8.0
31/05/2026	
1/06/2026	2.5
2/06/2026	1.5
3/06/2026	18.5
4/06/2026	4.6
5/06/2026	
6/06/2026	0.4
7/06/2026	0.2
8/06/2026	
9/06/2026	
10/06/2026	
11/06/2026	3.0
12/06/2026	
13/06/2026	0.7
14/06/2026	1.0
15/06/2026	4.5
16/06/2026	
17/06/2026	
18/06/2026	
19/06/2026	
20/06/2026	6.6
21/06/2026	
22/06/2026	
23/06/2026	
24/06/2026	
25/06/2026	
26/06/2026	
27/06/2026	0.2
28/06/2026	
29/06/2026	0.1
30/06/2026	
1/07/2026	7.4
2/07/2026	25.0
3/07/2026	1.0
4/07/2026	
5/07/2026	0.2
6/07/2026	0.5
7/07/2026	0.6
8/07/2026	
9/07/2026	
10/07/2026	0.2
11/07/2026	
12/07/2026	5.2
13/07/2026	0.2
14/07/2026	
15/07/2026	
16/07/2026	
17/07/2026	0.2
18/07/2026	
19/07/2026	
20/07/2026	
21/07/2026	

Date	Daily Rainfall (MM)
22/07/2026	
23/07/2026	

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
1/01/2026	8:00	8	
1/01/2026	8:30	8	
1/01/2026	9:00	8	
1/01/2026	13:00		6
1/01/2026	13:30		6
1/01/2026	13:40	8	
1/01/2026	13:50	8	
1/01/2026	15:10	8	
1/01/2026	15:30	8	
2/01/2026	7:25		6
2/01/2026	7:40	8	
2/01/2026	8:00	8	
2/01/2026	11:00	8	
2/01/2026	11:20	8	
3/01/2026	7:15		6
3/01/2026	7:30		4
3/01/2026	7:40	8	
3/01/2026	7:55	8	
3/01/2026	8:10	8	
3/01/2026	8:25	8	
3/01/2026	10:40	8	
3/01/2026	11:00	8	
4/01/2026	7:20		4
4/01/2026	7:30		6
4/01/2026	7:40	8	
4/01/2026	7:55	8	
4/01/2026	8:10	8	
4/01/2026	11:15	8	
4/01/2026	11:30	8	
5/01/2026	10:10	8	
5/01/2026	10:30	8	
5/01/2026	10:50		7
5/01/2026	11:10		7
5/01/2026	11:20	8	
5/01/2026	13:45	8	
5/01/2026	14:15	8	
6/01/2026	8:00	8	
6/01/2026	8:20		2
6/01/2026	8:30		7
6/01/2026	8:50	8	
7/01/2026	7:30		7
7/01/2026	8:30	8	
7/01/2026	8:45	8	
7/01/2026	9:00	8	
7/01/2026	9:30	8	
7/01/2026	10:00	8	
7/01/2026	10:30	8	
7/01/2026	11:05	8	
7/01/2026	11:30	8	
7/01/2026	13:20	8	
8/01/2026	7:30		4
8/01/2026	8:30	8	
8/01/2026	9:00	8	
8/01/2026	9:15		6
8/01/2026	11:40	8	
8/01/2026	12:00	8	
9/01/2026	7:25		6
9/01/2026	7:40		6
9/01/2026	7:50	8	
9/01/2026	8:10	8	
9/01/2026	8:30	8	
9/01/2026	10:55	8	
9/01/2026	11:05	8	
10/01/2026	7:40		6
10/01/2026	7:50		6
10/01/2026	8:01	8	
10/01/2026	8:10	8	
10/01/2026	8:46	8	
10/01/2026	10:40	8	
10/01/2026	11:40	8	
11/01/2026	7:20		6
11/01/2026	7:40		4
11/01/2026	7:50	8	
11/01/2026	8:10	8	
11/01/2026	8:20	8	
11/01/2026	10:20	8	
11/01/2026	10:35	8	
11/01/2026	12:15	8	
12/01/2026	8:00	8	
12/01/2026	8:30	8	
13/01/2026	7:35	8	
13/01/2026	7:50		7
13/01/2026	8:10	8	
13/01/2026	8:20	8	
13/01/2026	8:50		7
13/01/2026	9:10	8	
14/01/2026	7:25		6
14/01/2026	7:40	8	
14/01/2026	7:55	8	
14/01/2026	8:15	8	
14/01/2026	8:30	8	
14/01/2026	9:00	8	
14/01/2026	9:35	8	
14/01/2026	10:40	8	
14/01/2026	11:50	8	
14/01/2026	13:20	8	
14/01/2026	13:40		4
15/01/2026	7:20		6
15/01/2026	7:55	8	
15/01/2026	8:05	8	

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)
1/01/2026	56	12
2/01/2026	32	6
3/01/2026	48	10
4/01/2026	40	10
5/01/2026	40	14
6/01/2026	16	9
7/01/2026	72	7
8/01/2026	32	10
9/01/2026	40	12
10/01/2026	40	12
11/01/2026	48	10
12/01/2026	16	
13/01/2026	32	14
14/01/2026	72	10
15/01/2026	32	6
16/01/2026	16	12
17/01/2026	40	6
18/01/2026	56	10
19/01/2026	24	
20/01/2026	40	0.5
21/01/2026	16	
22/01/2026	16	
23/01/2026		
24/01/2026	72	10
25/01/2026	70	12
26/01/2026	24	10
27/01/2026	24	7
28/01/2026	48	10
29/01/2026	32	10
30/01/2026	24	6
31/01/2026	48	10
1/02/2026	32	10
2/02/2026	24	9
3/02/2026	24	8
4/02/2026	72	6
5/02/2026	40	12
6/02/2026	40	8
7/02/2026	48	8
8/02/2026	40	8
9/02/2026	40	7
10/02/2026	48	14
11/02/2026	16	
12/02/2026	72	10
13/02/2026	32	10
14/02/2026	56	10
15/02/2026	24	6
16/02/2026	40	14
17/02/2026	16	7
18/02/2026	80	7
19/02/2026	40	13
20/02/2026	72	8
21/02/2026	32	4
22/02/2026	48	3
23/02/2026	16	
24/02/2026	40	18
25/02/2026	32	
26/02/2026	48	7
27/02/2026	48	7
28/02/2026	32	3
1/03/2026	48	5
2/03/2026	24	7
3/03/2026		
4/03/2026	72	
5/03/2026	8	7
6/03/2026	8	7
7/03/2026	88	19
8/03/2026	32	
9/03/2026	72	10
10/03/2026	24	5
11/03/2026		
12/03/2026		
13/03/2026	56	15
14/03/2026	72	
15/03/2026	88	10
16/03/2026		
17/03/2026	48	12
18/03/2026	24	
19/03/2026	32	4
20/03/2026	24	
21/03/2026	72	8
22/03/2026	44	
23/03/2026	64	12
24/03/2026	32	5
25/03/2026	40	
26/03/2026	32	12
27/03/2026	12	
28/03/2026	64	5
29/03/2026	32	
30/03/2026	56	5
31/03/2026	32	5
1/04/2026	32	10
2/04/2026	32	5
3/04/2026	40	6
4/04/2026	16	6
5/04/2026	16	6
6/04/2026	40	12
7/04/2026	32	
8/04/2026		
9/04/2026		
10/04/2026	88	12

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)
1/01/2026	100		56.50470219
2/01/2026	100		
3/01/2026	100		
4/01/2026	100		
5/01/2026	100		
6/01/2026	100		
7/01/2026	100		
8/01/2026	100		
9/01/2026	100		
10/01/2026	100		
11/01/2026	100		
12/01/2026	100		
13/01/2026	100		
14/01/2026	100		
15/01/2026	100		
16/01/2026	100		
17/01/2026	100		
18/01/2026	100		
19/01/2026	100		
20/01/2026	100		
21/01/2026	100	SRTF 100% Available no Ash due to Unit 2 tube leak & FAA take- Loads Received Repository as Directed	
22/01/2026	100		
23/01/2026	100		
24/01/2026	100		
25/01/2026	100		
26/01/2026	100		
27/01/2026	100		
28/01/2026	100		
29/01/2026	100		
30/01/2026	100		
31/01/2026	100		
1/02/2026	100		
2/02/2026	100		
3/02/2026	100	Low Ash	
4/02/2026	100		
5/02/2026	100		
6/02/2026	100		
7/02/2026	100		
8/02/2026	100		
9/02/2026	100		
10/02/2026	100		
11/02/2026	20	Ashing Stopped For APA Power Pack Maintenance	
12/02/2026	100		
13/02/2026	100		
14/02/2026	100		
15/02/2026	100		
16/02/2026	100		
17/02/2026	100		
18/02/2026	100		
19/02/2026	100		
20/02/2026	100		
21/02/2026	100		
22/02/2026	100		
23/02/2026	100		
24/02/2026	100		
25/02/2026	50	Conveyor works	
26/02/2026	100		
27/02/2026	100		
28/02/2026	100		
1/03/2026	100		
2/03/2026	100		
3/03/2026	0	WCA Due To Inclement weather	
4/03/2026	75	Late Start Due To Repository Repairs Post Rain Event - Loads Rejected Due To Excessive Moisture	
5/03/2026	25	2 Loads accepted during clean up post salt spill	
6/03/2026	100		
7/03/2026	100		
8/03/2026	100		
9/03/2026	100		
10/03/2026	100	Deliveries Suspended Until After 9 AM	
11/03/2026	100	NIL Deliveries Received	
12/03/2026	100	NIL Deliveries Received	
13/03/2026	100		
14/03/2026	100		
15/03/2026	100		
16/03/2026	100	SRTF Available but no ash in silo due to FAA valve chanae	
17/03/2026	100		
18/03/2026	100		
19/03/2026	100		
20/03/2026	100		
21/03/2026	100		
22/03/2026	100		
23/03/2026	100		
24/03/2026	100		
25/03/2026	100		
26/03/2026	100		
27/03/2026	100		
28/03/2026	100		
29/03/2026	100		
30/03/2026	100		
31/03/2026	100		
1/04/2026	100		
2/04/2026	100		
3/04/2026	100		
4/04/2026	100		
5/04/2026	100		
6/04/2026	100		
7/04/2026	100		
8/04/2026	0	No Deliveries Due to No Ash	
9/04/2026	0	No Deliveries Due to No Ash	
10/04/2026	100		

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
15/01/2026	10:30	8	
15/01/2026	14:40	8	
16/01/2026	10:00		6
16/01/2026	10:10		6
16/01/2026	10:20	8	
16/01/2026	11:40	8	
17/01/2026	7:40		6
17/01/2026	7:55	8	
17/01/2026	8:10	8	
17/01/2026	8:20	8	
17/01/2026	9:15	8	
17/01/2026	9:30	8	
18/01/2026	7:20	8	
18/01/2026	7:35	8	
18/01/2026	7:45		6
18/01/2026	7:50		4
18/01/2026	8:10	8	
18/01/2026	8:20	8	
18/01/2026	8:40	8	
18/01/2026	11:20	8	
18/01/2026	11:35	8	
19/01/2026	8:45	8	
19/01/2026	9:05	8	
19/01/2026	9:30	8	
20/01/2026	8:30	8	
20/01/2026	8:45	8	
20/01/2026	9:00	8	
20/01/2026	10:15	8	
20/01/2026	10:50		0.5
20/01/2026	11:30	8	
21/01/2026	11:00	8	
21/01/2026	11:20	8	
22/01/2026	7:45	8	
22/01/2026	8:20	8	
23/01/2026			
24/01/2026	7:20		4
24/01/2026	7:30		6
24/01/2026	7:45	8	
24/01/2026	8:01	8	
24/01/2026	8:18	8	
24/01/2026	8:30	8	
24/01/2026	9:05	4	
24/01/2026	9:20	4	
24/01/2026	9:40	8	
24/01/2026	11:20	8	
24/01/2026	11:45	8	
24/01/2026	11:55	8	
25/01/2026	7:20		6
25/01/2026	7:32		6
25/01/2026	7:45	8	
25/01/2026	8:00	8	
25/01/2026	8:25	8	
25/01/2026	8:35	8	
25/01/2026	8:50	6	
25/01/2026	10:25	8	
25/01/2026	10:40	8	
25/01/2026	13:30	8	
25/01/2026	14:00	8	
26/01/2026	7:40		4
26/01/2026	8:00		6
26/01/2026	8:30	8	
26/01/2026	9:00	8	
26/01/2026	9:30	8	
27/01/2026	7:30	8	
27/01/2026	8:00		7
27/01/2026	8:40	8	
27/01/2026	10:15	8	
28/01/2026	7:30		6
28/01/2026	8:05		4
28/01/2026	8:15	8	
28/01/2026	8:35	8	
28/01/2026	8:50	8	
28/01/2026	9:10	8	
28/01/2026	11:40	8	
28/01/2026	12:10	8	
29/01/2026	7:30		6
29/01/2026	8:00	8	
29/01/2026	8:15	8	
29/01/2026	10:40	8	
29/01/2026	10:50	8	
29/01/2026	11:00		4
30/01/2026	7:15		6
30/01/2026	7:40	8	
30/01/2026	8:00	8	
30/01/2026	8:10	8	
31/01/2026	7:00		4
31/01/2026	7:15		6
31/01/2026	7:35	8	
31/01/2026	8:00	8	
31/01/2026	8:30	8	
31/01/2026	9:00	8	
31/01/2026	13:30	8	
31/01/2026	14:00	8	
1/02/2026	7:20		4
1/02/2026	7:40		6
1/02/2026	8:00	8	
1/02/2026	8:15	8	
1/02/2026	13:30	8	
1/02/2026	13:45	8	
2/02/2026	7:45	8	
2/02/2026	8:00	8	
2/02/2026	8:15		2
2/02/2026	8:30		7
2/02/2026	11:30	8	

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)
11/04/2026	32	6
12/04/2026	16	10
13/04/2026		
14/04/2026	64	5
15/04/2026	48	5
16/04/2026	48	6
17/04/2026	32	10
18/04/2026	48	10
19/04/2026	56	6
20/04/2026	24	
21/04/2026	24	17
22/04/2026	32	
23/04/2026	32	12
24/04/2026	24	6
25/04/2026	48	12
26/04/2026	56	6
27/04/2026	52	10
28/04/2026	56	7
29/04/2026	64	6
30/04/2026		
1/05/2026	64	12
2/05/2026		
3/05/2026		12
4/05/2026	104	12
5/05/2026	40	
6/05/2026	48	12
7/05/2026	16	6
8/05/2026	40	6
9/05/2026	16	
10/05/2026	56	
11/05/2026	16	8
12/05/2026	24	
13/05/2026	56	12
14/05/2026	48	6
15/05/2026	56	6
16/05/2026	40	8
17/05/2026	40	6
18/05/2026	32	8
19/05/2026		
20/05/2026	80	12
21/05/2026	32	6
22/05/2026	48	16
23/05/2026	48	6
24/05/2026	48	7
25/05/2026	32	7
26/05/2026	32	
27/05/2026	40	14
28/05/2026	48	6
29/05/2026	24	10
30/05/2026	40	
31/05/2026	56	10
1/06/2026	32	6
2/06/2026		
3/06/2026	64	15
4/06/2026	24	6
5/06/2026	40	6
6/06/2026	24	6
7/06/2026	40	10
8/06/2026	48	6
9/06/2026	16	
10/06/2026	64	12
11/06/2026		
12/06/2026	48	12
13/06/2026	40	6
14/06/2026	40	8
15/06/2026	40	6
16/06/2026	40	6
17/06/2026	48	6
18/06/2026	24	6
19/06/2026	32	6
20/06/2026	40	6
21/06/2026	32	6
22/06/2026	32	6
23/06/2026	32	6
24/06/2026	40	6
25/06/2026	40	6
26/06/2026	40	6
27/06/2026	32	6
28/06/2026	40	6
29/06/2026	48	6
30/06/2026	32	6
1/07/2026	32	6
2/07/2026	32	
3/07/2026	48	
4/07/2026	32	6
5/07/2026	40	6
6/07/2026	48	6
7/07/2026	40	6
8/07/2026	24	6
9/07/2026	48	6
10/07/2026	40	7
11/07/2026	39	6
12/07/2026	32	12
13/07/2026	32	6
14/07/2026	40	
15/07/2026	32	2
16/07/2026	32	
17/07/2026	32	8
18/07/2026	32	4
19/07/2026	32	8
20/07/2026	24	8
21/07/2026	48	8
22/07/2026	32	7
Grand Total	**7657**	**1321.5**

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)
11/04/2026	100		
12/04/2026	100		
13/04/2026	100	No Deliveries Truck Down	
14/04/2026	100		
15/04/2026	100		
16/04/2026	100		
17/04/2026	100		
18/04/2026	100		
19/04/2026	100		
20/04/2026	100		
21/04/2026	100		
22/04/2026	100		
23/04/2026	100		
24/04/2026	100		
25/04/2026	100		
26/04/2026	100		
27/04/2026	100		
28/04/2026	100		
29/04/2026	100		
30/04/2026	100	No deliveries due to Conveyor Replacement	
1/05/2026	100		
2/05/2026	100	Limited Deliveries Due to Belt Commissioning	
3/05/2026	100	Limited Deliveries Due to Belt Commissioning	
4/05/2026	100	Limited Deliveries Due to Belt Commissioning	
5/05/2026	100	Limited Deliveries Due to Belt Commissionine	
6/05/2026	100		
7/05/2026	100		
8/05/2026	100		
9/05/2026	100		
10/05/2026	100		
11/05/2026	100		
12/05/2026	100		
13/05/2026	100		
14/05/2026	100		
15/05/2026	100		
16/05/2026	100		
17/05/2026	100		
18/05/2026	100		
19/05/2026	100	SRTF 100% Available Loads Held Due to No Ashing	
20/05/2026	100		
21/05/2026	100		
22/05/2026	100		
23/05/2026	100		
24/05/2026	100		
25/05/2026	100		
26/05/2026	100		
27/05/2026	100		
28/05/2026	100		
29/05/2026	100		
30/05/2026	100		
31/05/2026	100		
1/06/2026	100		
2/06/2026	100	NIL deliveries Received Due to no Ashing	
3/06/2026	100		
4/06/2026	100		
5/06/2026	100		
6/06/2026	100		
7/06/2026	100		
8/06/2026	100		
9/06/2026	100		
10/06/2026	100		
11/06/2026	100	No Deliveries Received Due to Ash Placement	
12/06/2026	100		
13/06/2026	100		
14/06/2026	100		
15/06/2026	100		
16/06/2026	100		
17/06/2026	100		
18/06/2026	100		
19/06/2026	100		
20/06/2026	100		
21/06/2026	100		
22/06/2026	100		
23/06/2026	100		
24/06/2026	100		
25/06/2026	100		
26/06/2026	100		
27/06/2026	100		
28/06/2026	100		
29/06/2026	100		
30/06/2026	100		
1/07/2026	100		
2/07/2026	100		
3/07/2026	100		
4/07/2026	100		
5/07/2026	100		
6/07/2026	100		
7/07/2026	100		
8/07/2026	100		
9/07/2026	100		
10/07/2026	100		
11/07/2026	100		
12/07/2026	100		
13/07/2026	100		
14/07/2026	100		
15/07/2026	100		
16/07/2026	100		
17/07/2026	100		
18/07/2026	100		
19/07/2026	100		
20/07/2026	100		
21/07/2026	100		
22/07/2026	100		

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
3/02/2026	8:10	8	
3/02/2026	8:25	8	
3/02/2026	8:50	8	
3/02/2026	9:10		8
4/02/2026	7:20		6
4/02/2026	7:35	8	
4/02/2026	7:55	8	
4/02/2026	8:35	8	
4/02/2026	9:00	8	
4/02/2026	10:15	8	
4/02/2026	10:50	8	
4/02/2026	11:15	8	
4/02/2026	11:40	8	
4/02/2026	12:00	8	
5/02/2026	7:30		6
5/02/2026	7:45		6
5/02/2026	8:00	8	
5/02/2026	8:30	8	
5/02/2026	10:30	8	
5/02/2026	11:15	8	
5/02/2026	13:50	8	
6/02/2026	7:20		2
6/02/2026	7:40		6
6/02/2026	8:00	8	
6/02/2026	8:20	8	
6/02/2026	11:15	8	
6/02/2026	11:50	8	
6/02/2026	14:00	8	
7/02/2026	7:20		2
7/02/2026	7:30		6
7/02/2026	7:45	8	
7/02/2026	8:00	8	
7/02/2026	8:20	8	
7/02/2026	10:50	8	
7/02/2026	11:20	8	
7/02/2026	13:30	8	
8/02/2026	7:20	8	
8/02/2026	7:40	8	
8/02/2026	7:50		2
8/02/2026	8:00		6
8/02/2026	10:10	8	
8/02/2026	10:35	8	
8/02/2026	12:20	8	
9/02/2026	8:00	8	
9/02/2026	8:20	8	
9/02/2026	8:35	8	
9/02/2026	9:00		7
9/02/2026	10:45	8	
9/02/2026	11:10	8	
10/02/2026	7:30	8	
10/02/2026	7:50	8	
10/02/2026	8:10	8	
10/02/2026	8:30		7
10/02/2026	10:30	8	
10/02/2026	11:50	8	
10/02/2026	13:40		7
10/02/2026	14:00	8	
11/02/2026	7:41	8	
11/02/2026	7:50	8	
12/02/2026	7:20		4
12/02/2026	7:40		6
12/02/2026	8:00	8	
12/02/2026	8:20	8	
12/02/2026	8:40	8	
12/02/2026	9:00	8	
12/02/2026	10:00	8	
12/02/2026	10:30	8	
12/02/2026	11:00	8	
12/02/2026	11:20	8	
12/02/2026	15:10	8	
13/02/2026	7:20		4
13/02/2026	7:40		6
13/02/2026	8:15	8	
13/02/2026	8:40	8	
13/02/2026	9:50	8	
13/02/2026	11:50	8	
14/02/2026	7:20		4
14/02/2026	7:40		6
14/02/2026	7:50	8	
14/02/2026	8:10	8	
14/02/2026	8:25	8	
14/02/2026	8:50	8	
14/02/2026	9:10	8	
14/02/2026	11:30	8	
14/02/2026	11:45	8	
15/02/2026	7:50	8	
15/02/2026	8:05	8	
15/02/2026	8:20		6
15/02/2026	8:30	8	
16/02/2026	7:40	8	
16/02/2026	8:00	8	
16/02/2026	8:30	8	
16/02/2026	8:40	8	
16/02/2026	13:20		7
16/02/2026	13:50	8	
16/02/2026	14:20		7

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
17/02/2026	11:00		7
17/02/2026	11:20	8	
17/02/2026	11:50	8	
18/02/2026	7:30	8	
18/02/2026	7:40	8	
18/02/2026	8:00	8	
18/02/2026	8:20	8	
18/02/2026	8:45		7
18/02/2026	9:00	8	
18/02/2026	9:20	8	
18/02/2026	10:40	8	
18/02/2026	11:15	8	
18/02/2026	13:10	8	
18/02/2026	13:40	8	
19/02/2026	7:40	8	
19/02/2026	8:00	8	
19/02/2026	8:20	8	
19/02/2026	8:40		6
19/02/2026	9:10		7
19/02/2026	10:40	8	
19/02/2026	11:10	8	
20/02/2026	8:00	8	
20/02/2026	8:40	8	
20/02/2026	9:25	8	
20/02/2026	9:30		6
20/02/2026	10:00	8	
20/02/2026	11:15	8	
20/02/2026	11:25	8	
20/02/2026	12:15	8	
20/02/2026	13:50	8	
20/02/2026	14:20	8	
20/02/2026	14:40		2
21/02/2026	7:30	8	
21/02/2026	8:00	8	
21/02/2026	8:40		3
21/02/2026	10:30	8	
21/02/2026	10:50	8	
21/02/2026	13:50		1
22/02/2026	7:35	8	
22/02/2026	8:14	8	
22/02/2026	8:30	8	
22/02/2026	8:50		3
22/02/2026	9:35	8	
22/02/2026	10:50	8	
22/02/2026	13:45	8	
23/02/2026	7:40	8	
23/02/2026	11:00	8	
24/02/2026	8:00	8	
24/02/2026	9:00		8
24/02/2026	9:30		2
24/02/2026	10:00	8	
24/02/2026	12:00	8	
24/02/2026	12:30	8	
24/02/2026	14:00		8
24/02/2026	14:30	8	
25/02/2026	7:40	8	
25/02/2026	8:00	8	
25/02/2026	8:20	8	
25/02/2026	8:50	8	
26/02/2026	7:30	8	
26/02/2026	7:50	8	
26/02/2026	8:05		7
26/02/2026	8:30	8	
26/02/2026	8:50	8	
26/02/2026	10:30	8	
26/02/2026	11:20	8	
27/02/2026	7:30	8	
27/02/2026	7:55	8	
27/02/2026	8:15		7
27/02/2026	9:00	8	
27/02/2026	10:40	8	
27/02/2026	11:00	8	
27/02/2026	13:50	8	
28/02/2026	7:30	8	
28/02/2026	8:00	8	
28/02/2026	8:50		3
28/02/2026	11:20	8	
28/02/2026	12:00	8	
1/03/2026	7:40		4
1/03/2026	8:00	8	
1/03/2026	8:15	8	
1/03/2026	11:10	8	
1/03/2026	11:35	8	
1/03/2026	13:30	8	
1/03/2026	14:00	8	
1/03/2026	14:20		1
2/03/2026	7:40	8	
2/03/2026	8:15	8	
2/03/2026	8:40	8	
2/03/2026	10:30		7
3/03/2026			
4/03/2026	9:30	8	
4/03/2026	11:30	8	
4/03/2026	11:50	8	
4/03/2026	12:15	8	
4/03/2026	13:00	8	
4/03/2026	13:15	8	
4/03/2026	13:35	8	
4/03/2026	14:00	8	
4/03/2026	14:30	8	

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
5/03/2026	14:30	8	
5/03/2026	14:45		7
6/03/2026	13:20	8	
6/03/2026	13:40		7
7/03/2026	7:40	8	
7/03/2026	7:50	8	
7/03/2026	8:05		7
7/03/2026	8:30	8	
7/03/2026	8:50	8	
7/03/2026	9:50	8	
7/03/2026	10:20	8	
7/03/2026	11:10	8	
7/03/2026	11:35	8	
7/03/2026	12:00	8	
7/03/2026	12:20		7
7/03/2026	13:20	8	
7/03/2026	14:40	8	
7/03/2026	15:05		5
8/03/2026	9:20	8	
8/03/2026	9:40	8	
8/03/2026	11:05	8	
8/03/2026	11:40	8	
9/03/2026	7:40	8	
9/03/2026	8:05	8	
9/03/2026	8:40	8	
9/03/2026	9:05	8	
9/03/2026	9:20		6
9/03/2026	9:30		4
9/03/2026	10:50	8	
9/03/2026	11:25	8	
9/03/2026	11:40	8	
9/03/2026	12:00	8	
9/03/2026	12:20	8	
10/03/2026	9:15	8	
10/03/2026	9:45	8	
10/03/2026	10:55	8	
10/03/2026	11:25		5
11/03/2026			
12/03/2026			
13/03/2026	8:45	8	
13/03/2026	8:55	8	
13/03/2026	9:10	8	
13/03/2026	10:00	8	
13/03/2026	10:15		7
13/03/2026	11:10		8
13/03/2026	11:30	8	
13/03/2026	11:40	8	
13/03/2026	12:05	8	
14/03/2026	8:30	8	
14/03/2026	8:45	8	
14/03/2026	9:10	8	
14/03/2026	10:10	8	
14/03/2026	10:30	8	
14/03/2026	11:20	8	
14/03/2026	12:10	8	
14/03/2026	14:00	8	
14/03/2026	14:20	8	
15/03/2026	7:50	8	
15/03/2026	8:10	8	
15/03/2026	8:20		5
15/03/2026	8:35	8	
15/03/2026	9:00		5
15/03/2026	9:15	8	
15/03/2026	9:25	8	
15/03/2026	9:40	8	
15/03/2026	9:50	8	
15/03/2026	10:10	8	
15/03/2026	12:30	8	
15/03/2026	12:45	8	
15/03/2026	13:40	8	
16/03/2026			
17/03/2026	7:40	8	
17/03/2026	8:00	8	
17/03/2026	8:35	8	
17/03/2026	9:00		6
17/03/2026	9:15		6
17/03/2026	9:30	8	
17/03/2026	9:50	8	
17/03/2026	10:05	8	
18/03/2026	7:35	8	
18/03/2026	11:32	8	
18/03/2026	11:05	8	
19/03/2026	7:35	8	
19/03/2026	7:52	8	
19/03/2026	8:30	8	
19/03/2026	11:00	8	
19/03/2026	11:15		2
19/03/2026	11:45		2
20/03/2026	11:45	8	
20/03/2026	12:00	8	
20/03/2026	12:25	8	
21/03/2026	7:33	8	
21/03/2026	7:47	8	
21/03/2026	8:02	8	
21/03/2026	8:55		5
21/03/2026	9:40		3
21/03/2026	9:53	8	
21/03/2026	10:09	8	
21/03/2026	12:00	8	
21/03/2026	12:15	8	

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
21/03/2026	12:40	8	
21/03/2026	13:35	8	
22/03/2026	9:00	8	
22/03/2026	9:20	8	
22/03/2026	9:45	8	
22/03/2026	10:50	4	
22/03/2026	11:45	8	
22/03/2026	12:30	8	
23/03/2026	8:00	8	
23/03/2026	8:20	8	
23/03/2026	8:40		6
23/03/2026	9:00		6
23/03/2026	11:00	8	
23/03/2026	11:25	8	
23/03/2026	11:40	8	
23/03/2026	12:10	8	
23/03/2026	12:20	8	
23/03/2026	12:35	8	
24/03/2026	7:40	8	
24/03/2026	8:00		5
24/03/2026	8:15	8	
24/03/2026	9:05	8	
24/03/2026	12:00	8	
25/03/2026	7:20	8	
25/03/2026	8:10	8	
25/03/2026	8:30	8	
25/03/2026	13:10	8	
25/03/2026	13:30	8	
26/03/2026	8:00	8	
26/03/2026	8:35		7
26/03/2026	9:00	8	
26/03/2026	11:00	8	
26/03/2026	11:20	8	
26/03/2026	13:00		5
27/03/2026	7:50	8	
27/03/2026	8:10	4	
28/03/2026	7:50	8	
28/03/2026	8:00		5
28/03/2026	8:20	8	
28/03/2026	8:40	8	
28/03/2026	9:00	8	
28/03/2026	9:10	8	
28/03/2026	10:00	8	
28/03/2026	11:00	8	
28/03/2026	11:40	8	
29/03/2026	7:30	8	
29/03/2026	10:50	8	
29/03/2026	11:00	8	
29/03/2026	11:20	8	
30/03/2026	7:40	8	
30/03/2026	8:00	8	
30/03/2026	8:20	8	
30/03/2026	8:35		5
30/03/2026	9:00	8	
30/03/2026	10:40	8	
30/03/2026	11:15	8	
30/03/2026	16:30	8	
31/03/2026	8:10	8	
31/03/2026	8:30	8	
31/03/2026	9:00		5
31/03/2026	11:20	8	
31/03/2026	12:45	8	
1/04/2026	8:45		6
1/04/2026	9:00		4
1/04/2026	9:30	8	
1/04/2026	9:45	8	
1/04/2026	10:00	8	
1/04/2026	11:30	8	
2/04/2026	8:00	8	
2/04/2026	8:30	8	
2/04/2026	9:00	8	
2/04/2026	9:30		5
2/04/2026	13:30	8	
3/04/2026	8:00		6
3/04/2026	8:30	8	
3/04/2026	8:45	8	
3/04/2026	9:00	8	
3/04/2026	11:30	8	
3/04/2026	11:50	8	
4/04/2026	8:00		6
4/04/2026	8:30	8	
4/04/2026	9:00	8	
5/04/2026	9:45		6
5/04/2026	10:00	8	
5/04/2026	10:30	8	
6/04/2026	7:45		6
6/04/2026	8:00		6
6/04/2026	8:15	8	
6/04/2026	8:30	8	
6/04/2026	8:45	8	
6/04/2026	9:00	8	
6/04/2026	9:20	8	
7/04/2026	7:30	8	
7/04/2026	7:45	8	
7/04/2026	8:00	8	
7/04/2026	9:20	8	
8/04/2026			
9/04/2026			
10/04/2026	7:30		6
10/04/2026	7:45		6

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
10/04/2026	8:00	8	
10/04/2026	8:30	8	
10/04/2026	8:45	8	
10/04/2026	9:00	8	
10/04/2026	9:30	8	
10/04/2026	9:45	8	
10/04/2026	10:30	8	
10/04/2026	10:40	8	
10/04/2026	1:50	8	
10/04/2026	11:00	8	
10/04/2026	14:00	8	
11/04/2026	7:30		6
11/04/2026	7:45	8	
11/04/2026	8:00	8	
11/04/2026	8:30	8	
11/04/2026	9:00	8	
12/04/2026	7:30		6
12/04/2026	7:45		4
12/04/2026	8:00	8	
12/04/2026	10:00	8	
13/04/2026			
14/04/2026	7:30	8	
14/04/2026	7:45	8	
14/04/2026	8:00	8	
14/04/2026	8:30		5
14/04/2026	8:50	8	
14/04/2026	10:40	8	
14/04/2026	11:00	8	
14/04/2026	11:20	8	
14/04/2026	11:50	8	
15/04/2026	7:30	8	
15/04/2026	7:45	8	
15/04/2026	7:55	8	
15/04/2026	8:10	8	
15/04/2026	8:40		5
15/04/2026	9:00	8	
15/04/2026	11:40	8	
16/04/2026	7:30		6
16/04/2026	8:00	8	
16/04/2026	8:30	8	
16/04/2026	9:00	8	
16/04/2026	9:20	8	
16/04/2026	9:55	8	
16/04/2026	11:20	8	
17/04/2026	7:30		4
17/04/2026	7:45		6
17/04/2026	8:00	8	
17/04/2026	8:30	8	
17/04/2026	9:00	8	
17/04/2026	9:30	8	
18/04/2026	7:00		6
18/04/2026	7:45		4
18/04/2026	8:00	8	
18/04/2026	8:30	8	
18/04/2026	9:00	8	
18/04/2026	9:30	8	
18/04/2026	9:45	8	
18/04/2026	10:30	8	
19/04/2026	7:30		6
19/04/2026	7:45	8	
19/04/2026	8:00	8	
19/04/2026	8:30	8	
19/04/2026	9:00	8	
19/04/2026	11:50	8	
19/04/2026	12:30	8	
19/04/2026	14:00	8	
20/04/2026	7:30	8	
20/04/2026	8:00	8	
20/04/2026	11:00	8	
21/04/2026	10:00	8	
21/04/2026	10:20		6
21/04/2026	10:40		3
21/04/2026	11:15	8	
21/04/2026	11:30		8
21/04/2026	11:50	8	
22/04/2026	10:05	8	
22/04/2026	10:20	8	
22/04/2026	11:05	8	
22/04/2026	11:35	8	
23/04/2026	12:05		6
23/04/2026	12:25		6
23/04/2026	12:40	8	
23/04/2026	13:00	8	
23/04/2026	13:20	8	
23/04/2026	14:00	8	
24/04/2026	7:30		6
24/04/2026	7:45	8	
24/04/2026	8:15	8	
24/04/2026	11:00	8	
25/04/2026	7:15		6
25/04/2026	7:30	8	
25/04/2026	7:50	8	
25/04/2026	8:05		6
25/04/2026	8:15	8	
25/04/2026	8:30	8	
25/04/2026	10:25	8	
25/04/2026	10:45	8	
26/04/2026	7:20	8	
26/04/2026	7:40	8	
26/04/2026	7:55		6

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
26/04/2026	8:10	8	
26/04/2026	8:25	8	
26/04/2026	8:45	8	
26/04/2026	10:10	8	
26/04/2026	12:10	8	
27/04/2026	7:40	8	
27/04/2026	8:00	8	
27/04/2026	8:15	8	
27/04/2026	8:30		4
27/04/2026	8:50		6
27/04/2026	9:10	4	
27/04/2026	9:20	8	
27/04/2026	10:40	8	
27/04/2026	11:50	8	
28/04/2026	7:30	8	
28/04/2026	7:45	8	
28/04/2026	8:00	8	
28/04/2026	8:30	8	
28/04/2026	9:00	8	
28/04/2026	10:50		7
28/04/2026	11:30	8	
28/04/2026	11:40	8	
29/04/2026	9:40		6
29/04/2026	9:50	8	
29/04/2026	10:10	8	
29/04/2026	10:50	8	
29/04/2026	11:10	8	
29/04/2026	11:40	8	
29/04/2026	11:50	8	
29/04/2026	13:50	8	
29/04/2026	14:15	8	
30/04/2026			
1/05/2026	10:15		6
1/05/2026	10:35		6
1/05/2026	10:50	8	
1/05/2026	11:05	8	
1/05/2026	11:30	8	
1/05/2026	11:50	8	
1/05/2026	12:50	8	
1/05/2026	13:10	8	
1/05/2026	15:00	8	
1/05/2026	15:20	8	
2/05/2026			
3/05/2026	12:30		6
3/05/2026	13:00		6
4/05/2026	7:35		6
4/05/2026	10:00	8	
4/05/2026	10:15	8	
4/05/2026	10:35	8	
4/05/2026	11:00	8	
4/05/2026	11:30	8	
4/05/2026	14:35	8	
4/05/2026	14:50	8	
4/05/2026	APA	8	
4/05/2026	APA	8	
4/05/2026	APA	8	
4/05/2026	APA	8	
4/05/2026	APA	8	
4/05/2026	APA	8	
4/05/2026	APA		6
5/05/2026	8:40	8	
5/05/2026	9:10	8	
5/05/2026	11:30	8	
5/05/2026	11:50	8	
5/05/2026	14:05	8	
6/05/2026	7:30		6
6/05/2026	8:00		6
6/05/2026	8:30	8	
6/05/2026	9:00	8	
6/05/2026	11:26	8	
6/05/2026	12:00	8	
6/05/2026	14:00	8	
6/05/2026	14:30	8	
7/05/2026	8:30	8	
7/05/2026	11:00		6
7/05/2026	14:10	8	
8/05/2026	7:50	8	
8/05/2026	8:20	8	
8/05/2026	8:40	8	
8/05/2026	10:50	8	
8/05/2026	11:10	8	
8/05/2026	9:30		6
9/05/2026	10:15	8	
9/05/2026	10:45	8	
10/05/2026	9:50	8	
10/05/2026	10:10	8	
10/05/2026	10:20	8	
10/05/2026	11:50	8	
10/05/2026	12:20	8	
10/05/2026	14:15	8	
10/05/2026	14:40	8	
11/05/2026	8:30		8
11/05/2026	10:15	8	
11/05/2026	10:40	8	
12/05/2026	10:00	8	
12/05/2026	10:20	8	
12/05/2026	10:35	8	
13/05/2026	7:50	8	
13/05/2026	8:10	8	
13/05/2026	8:30		6

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
13/05/2026	8:45		6
13/05/2026	9:00	8	
13/05/2026	9:25	8	
13/05/2026	9:50	8	
13/05/2026	11:20	8	
13/05/2026	11:40	8	
14/05/2026	7:00	8	
14/05/2026	13:00	8	
14/05/2026	13:30		6
14/05/2026	13:45	8	
14/05/2026	14:05	8	
14/05/2026	15:30	8	
14/05/2026	15:45	8	
15/05/2026	10:00	8	
15/05/2026	10:20	8	
15/05/2026	11:30	8	
15/05/2026	11:38	8	
15/05/2026	11:00		6
15/05/2026	11:20	8	
15/05/2026	12:05	8	
15/05/2026	13:55	8	
16/05/2026	9:10		4
16/05/2026	9:35		4
16/05/2026	9:55	8	
16/05/2026	10:10	8	
16/05/2026	10:20	8	
16/05/2026	10:55	8	
16/05/2026	12:30	8	
17/05/2026	8:10		6
17/05/2026	8:40	8	
17/05/2026	9:05	8	
17/05/2026	10:05	8	
17/05/2026	10:30	8	
17/05/2026	12:45	8	
18/05/2026	12:20	8	
18/05/2026	12:40	8	
18/05/2026	13:00	8	
18/05/2026	13:30		8
18/05/2026	14:00	8	
19/05/2026			
20/05/2026	8:00		6
20/05/2026	8:50		6
20/05/2026	9:30	8	
20/05/2026	9:50	8	
20/05/2026	10:30	8	
20/05/2026	10:50	8	
20/05/2026	11:30	8	
20/05/2026	12:00	8	
20/05/2026	12:40	8	
20/05/2026	13:20	8	
20/05/2026	13:45	8	
20/05/2026	14:40	8	
21/05/2026	8:00		6
21/05/2026	8:15	8	
21/05/2026	8:30	8	
21/05/2026	11:30	8	
21/05/2026	11:50	8	
22/05/2026	8:00		6
22/05/2026	10:30		6
22/05/2026	10:40	8	
22/05/2026	11:00	8	
22/05/2026	11:20	8	
22/05/2026	11:45	8	
22/05/2026	13:00	8	
22/05/2026	15:00	8	
22/05/2026	15:30		4
23/05/2026	7:50	8	
23/05/2026	8:10	8	
23/05/2026	8:30		6
23/05/2026	8:35	8	
23/05/2026	11:00	8	
23/05/2026	11:15	8	
23/05/2026	13:20	8	
24/05/2026	7:30	8	
24/05/2026	7:45	8	
24/05/2026	8:10		7
24/05/2026	10:50	8	
24/05/2026	11:10	8	
24/05/2026	13:20	8	
24/05/2026	14:00	8	
25/05/2026	7:30	8	
25/05/2026	8:00	8	
25/05/2026	10:40	8	
25/05/2026	11:00		7
25/05/2026	11:25	8	
26/05/2026	7:50	8	
26/05/2026	8:10	8	
26/05/2026	8:40	8	
26/05/2026	13:30	8	
27/05/2026	8:15		6
27/05/2026	8:30		8
27/05/2026	9:10	8	
27/05/2026	9:35	8	
27/05/2026	11:25	8	
27/05/2026	11:45	8	
27/05/2026	14:40	8	
28/05/2026	8:30		6
28/05/2026	9:00	8	
28/05/2026	9:30	8	
28/05/2026	10:00	8	

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
28/05/2026	12:40	8	
28/05/2026	14:40	8	
28/05/2026	15:10	8	
29/05/2026	7:30		6
29/05/2026	7:45		4
29/05/2026	8:00	8	
29/05/2026	10:45	8	
29/05/2026	11:10	8	
30/05/2026	8:10	8	
30/05/2026	8:30	8	
30/05/2026	8:40	8	
30/05/2026	9:15	8	
30/05/2026	9:30	8	
31/05/2026	7:40		6
31/05/2026	8:00	8	
31/05/2026	8:15		4
31/05/2026	8:30	8	
31/05/2026	8:40	8	
31/05/2026	8:55	8	
31/05/2026	9:10	8	
31/05/2026	11:00	8	
31/05/2026	12:00	8	
1/06/2026	8:00	8	
1/06/2026	8:30	8	
1/06/2026	10:50		6
1/06/2026	11:15	8	
1/06/2026	11:45	8	
2/06/2026			
3/06/2026	9:10	8	
3/06/2026	9:30	8	
3/06/2026	10:30	8	
3/06/2026	11:00	8	
3/06/2026	11:50		7
3/06/2026	12:35		8
3/06/2026	12:55	8	
3/06/2026	13:45	8	
3/06/2026	14:10	8	
3/06/2026	14:40	8	
4/06/2026	7:20	8	
4/06/2026	7:55	8	
4/06/2026	8:21	8	
4/06/2026	9:27		6
5/06/2026	9:30	8	
5/06/2026	9:45		6
5/06/2026	10:10	8	
5/06/2026	10:30	8	
5/06/2026	10:50	8	
5/06/2026	13:20	8	
6/06/2026	7:50		6
6/06/2026	8:00	8	
6/06/2026	8:30	8	
6/06/2026	9:00	8	
7/06/2026	7:45		4
7/06/2026	8:05		6
7/06/2026	8:20	8	
7/06/2026	8:44	8	
7/06/2026	10:15	8	
7/06/2026	10:30	8	
7/06/2026	11:35	8	
8/06/2026	7:40	8	
8/06/2026	7:55	8	
8/06/2026	8:10	8	
8/06/2026	8:25		6
8/06/2026	8:50	8	
8/06/2026	11:00	8	
8/06/2026	11:35	8	
9/06/2026	8:00	8	
9/06/2026	10:40	8	
10/06/2026	7:20		6
10/06/2026	7:30		6
10/06/2026	7:45	8	
10/06/2026	8:10	8	
10/06/2026	8:30	8	
10/06/2026	9:00	8	
10/06/2026	10:00	8	
10/06/2026	10:30	8	
10/06/2026	10:45	8	
10/06/2026	12:00	8	
11/06/2026			
12/06/2026	7:17		6
12/06/2026	7:30		6
12/06/2026	8:00	8	
12/06/2026	8:40	8	
12/06/2026	9:00	8	
12/06/2026	9:15	8	
12/06/2026	9:40	8	
12/06/2026	10:30	8	
13/06/2026	8:30		6
13/06/2026	9:00	8	
13/06/2026	9:15	8	
13/06/2026	9:30	8	
13/06/2026	9:45	8	
13/06/2026	10:45	8	
14/06/2026	7:30	8	
14/06/2026	7:45	8	
14/06/2026	8:00	8	
14/06/2026	8:30	8	
14/06/2026	8:45		8
14/06/2026	11:45	8	
15/06/2026	7:30		6

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
15/06/2026	7:45	8	
15/06/2026	8:00	8	
15/06/2026	8:30	8	
15/06/2026	10:50	8	
15/06/2026	11:15	8	
16/06/2026	7:35	8	
16/06/2026	8:00	8	
16/06/2026	8:25		6
16/06/2026	8:50	8	
16/06/2026	10:40	8	
16/06/2026	11:00	8	
17/06/2026	7:30	8	
17/06/2026	8:35		6
17/06/2026	9:20	8	
17/06/2026	10:55	8	
17/06/2026	11:20	8	
17/06/2026	14:10	8	
17/06/2026	14:30	8	
18/06/2026	7:30	8	
18/06/2026	7:50	8	
18/06/2026	8:15		6
18/06/2026	10:50	8	
19/06/2026	7:20		6
19/06/2026	7:45	8	
19/06/2026	8:05	8	
19/06/2026	11:10	8	
19/06/2026	11:30	8	
20/06/2026	7:40		6
20/06/2026	7:55	8	
20/06/2026	8:15	8	
20/06/2026	8:40	8	
20/06/2026	12:05	8	
20/06/2026	12:25	8	
21/06/2026	7:30	8	
21/06/2026	7:50		6
21/06/2026	8:10	8	
21/06/2026	11:40	8	
21/06/2026	12:00	8	
22/06/2026	7:30	8	
22/06/2026	7:45	8	
22/06/2026	8:15		6
22/06/2026	12:40	8	
22/06/2026	13:00	8	
23/06/2026	7:30	8	
23/06/2026	7:45	8	
23/06/2026	8:15		6
23/06/2026	12:30	8	
23/06/2026	13:00	8	
24/06/2026	7:30	8	
24/06/2026	7:45	8	
24/06/2026	8:15		6
24/06/2026	11:30	8	
24/06/2026	12:00	8	
24/06/2026	14:40	8	
25/06/2026	7:30	8	
25/06/2026	7:45	8	
25/06/2026	8:20		6
25/06/2026	10:30	8	
25/06/2026	11:00	8	
25/06/2026	13:20	8	
26/06/2026	7:30		6
26/06/2026	7:50	8	
26/06/2026	8:15	8	
26/06/2026	10:30	8	
26/06/2026	11:00	8	
26/06/2026	14:30	8	
27/06/2026	7:50		6
27/06/2026	8:00	8	
27/06/2026	8:20	8	
27/06/2026	11:10	8	
27/06/2026	11:30	8	
28/06/2026	8:00	8	
28/06/2026	8:15	8	
28/06/2026	8:40	8	
28/06/2026	9:50		6
28/06/2026	11:30	8	
28/06/2026	11:50	8	
29/06/2026	7:20	8	
29/06/2026	7:50	8	
29/06/2026	8:10		6
29/06/2026	10:00	8	
29/06/2026	10:40	8	
29/06/2026	12:55	8	
29/06/2026	13:40	8	
30/06/2026	8:00	8	
30/06/2026	8:30	8	
30/06/2026	8:50		6
30/06/2026	10:30	8	
30/06/2026	13:10	8	
1/07/2026	7:35		6
1/07/2026	7:50	8	
1/07/2026	8:10	8	
1/07/2026	11:00	8	
1/07/2026	11:30	8	
2/07/2026	7:30	8	
2/07/2026	7:45	8	
2/07/2026	11:00	8	
2/07/2026	11:30	8	
3/07/2026	7:45	8	
3/07/2026	8:00	8	

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
3/07/2026	8:20	8	
3/07/2026	9:00	8	
3/07/2026	11:15	8	
3/07/2026	11:40	8	
4/07/2026	7:50	8	
4/07/2026	8:00	8	
4/07/2026	8:20		6
4/07/2026	12:50	8	
4/07/2026	13:00	8	
5/07/2026	9:10		6
5/07/2026	9:20	8	
5/07/2026	9:30	8	
5/07/2026	10:00	8	
5/07/2026	13:00	8	
5/07/2026	13:20	8	
6/07/2026	7:25	8	
6/07/2026	7:45	8	
6/07/2026	8:05	8	
6/07/2026	9:50	8	
6/07/2026	10:10	8	
6/07/2026	10:45		6
6/07/2026	14:40	8	
7/07/2026	7:30	8	
7/07/2026	7:50	8	
7/07/2026	8:20		6
7/07/2026	10:15	8	
7/07/2026	10:35	8	
7/07/2026	14:00	8	
8/07/2026	7:40	8	
8/07/2026	8:00	8	
8/07/2026	14:10		6
8/07/2026	14:50	8	
9/07/2026	7:25	8	
9/07/2026	7:50	8	
9/07/2026	8:15	8	
9/07/2026	9:00		6
9/07/2026	10:20	8	
9/07/2026	10:45	8	
9/07/2026	13:35	8	
10/07/2026	7:50	8	
10/07/2026	8:15	8	
10/07/2026	10:15		7
10/07/2026	10:50	8	
10/07/2026	11:10	8	
10/07/2026	13:30	8	
11/07/2026	7:50		6
11/07/2026	8:20	8	
11/07/2026	9:00	8	
11/07/2026	11:30	8	
11/07/2026	12:00	8	
11/07/2026	14:40	7	
12/07/2026	7:50	8	
12/07/2026	8:10	8	
12/07/2026	8:20		6
12/07/2026	11:45		6
12/07/2026	12:30	8	
12/07/2026	13:00	8	
13/07/2026	7:30	8	
13/07/2026	7:50	8	
13/07/2026	8:10		6
13/07/2026	12:20	8	
13/07/2026	12:45	8	
14/07/2026	7:30	8	
14/07/2026	8:00	8	
14/07/2026	8:30	8	
14/07/2026	11:00	8	
14/07/2026	11:30	8	
15/07/2026	7:30	8	
15/07/2026	8:00	8	
15/07/2026	11:10		2
15/07/2026	13:10	8	
15/07/2026	13:30	8	
16/07/2026	7:30	8	
16/07/2026	7:50	8	
16/07/2026	11:10	8	
16/07/2026	11:40	8	
17/07/2026	7:30		6
17/07/2026	7:50	8	
17/07/2026	8:20	8	
17/07/2026	12:00		2
17/07/2026	12:40	8	
17/07/2026	13:10	8	
18/07/2026	7:50		4
18/07/2026	8:20	8	
18/07/2026	8:45	8	
18/07/2026	12:00	8	
18/07/2026	12:30	8	
19/07/2026	7:40	8	
19/07/2026	8:00	8	
19/07/2026	8:20		6
19/07/2026	11:20	8	
19/07/2026	11:40	8	
19/07/2026	14:10		2
20/07/2026	8:30	8	
20/07/2026	9:00	8	
20/07/2026	9:20		8
20/07/2026	13:20	8	
21/07/2026	11:15	8	
21/07/2026	11:30	8	
21/07/2026	11:50	8	

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)

Date	Time	Lime Solids (tonnes)	Mixed Salts (tonnes)
21/07/2026	12:15		8
21/07/2026	12:30	8	
21/07/2026	13:25	8	
21/07/2026	14:40	8	
22/07/2026	7:50	8	
22/07/2026	8:15	8	
22/07/2026	8:45		6
22/07/2026	11:00	8	
22/07/2026	11:20	8	
22/07/2026	13:50		1

Row Labels	Sum of Lime Solids	Sum of Mixed Salts(tonnes)

Date	SRTF Availability (%)	Comments	Average of SRTF Availability (%)

APA Receival Bin Sump

Date	Flow to SPB/SPC (ML)	Flowing into SPB/SPC
1/01/2026		
2/01/2026	0.085	LNAR4
3/01/2026		
4/01/2026		
5/01/2026	0.094	LNAR4
6/01/2026	0.086	LNAR4
7/01/2026		
8/01/2026		
9/01/2026		
10/01/2026		
11/01/2026		
12/01/2026		
13/01/2026		
14/01/2026		
15/01/2026	0.075	LNAR4
16/01/2026	0.100	LNAR4
17/01/2026		
18/01/2026	0.130	LNAR4
19/01/2026		
20/01/2026		
21/01/2026		
22/01/2026		
23/01/2026		
24/01/2026		
25/01/2026		
26/01/2026		
27/01/2026		
28/01/2026		
29/01/2026		
30/01/2026		
31/01/2026		
1/02/2026		
2/02/2026		
3/02/2026		
4/02/2026		
5/02/2026	0.100	LNAR5
6/02/2026		
7/02/2026		
8/02/2026	0.150	LNAR5
9/02/2026		
10/02/2026	0.200	LNAR4
11/02/2026	0.250	LNAR4
12/02/2026	0.180	LNAR4
13/02/2026	0.110	LNAR4
14/02/2026		
15/02/2026		
16/02/2026		
17/02/2026		
18/02/2026		
19/02/2026		
20/02/2026		
21/02/2026		
22/02/2026	0.020	LNAR4
23/02/2026		
24/02/2026		
25/02/2026		
26/02/2026		
27/02/2026		
28/02/2026		

1/03/2026	0.021	LNAR4
2/03/2026		
3/03/2026		
4/03/2026	0.130	LNAR4
5/03/2026	1.000	LNAR5
6/03/2026		
7/03/2026		
8/03/2026		
9/03/2026		
10/03/2026		
11/03/2026		
12/03/2026		
13/03/2026		
14/03/2026		
15/03/2026		
16/03/2026		
17/03/2026		
18/03/2026		
19/03/2026		
20/03/2026		
21/03/2026		
22/03/2026	0.200	LNAR4
23/03/2026		
24/03/2026		
25/03/2026		
26/03/2026		
27/03/2026		
28/03/2026		
29/03/2026		
30/03/2026		
31/03/2026		
1/04/2026		
2/04/2026		
3/04/2026		
4/04/2026		
5/04/2026		
6/04/2026		
7/04/2026		
8/04/2026		
9/04/2026		
10/04/2026		
11/04/2026		
12/04/2026		
13/04/2026		
14/04/2026		
15/04/2026		
16/04/2026		
17/04/2026		
18/04/2026		
19/04/2026		
20/04/2026		
21/04/2026		
22/04/2026		
23/04/2026		
24/04/2026		
25/04/2026		
26/04/2026		
27/04/2026		
28/04/2026		
29/04/2026		
30/04/2026		

1/05/2026		
2/05/2026		
3/05/2026		
4/05/2026		
5/05/2026		
6/05/2026	0.075	LNAR4
7/05/2026		
8/05/2026		
9/05/2026		
10/05/2026		
11/05/2026		
12/05/2026		
13/05/2026	0.096	LNAR4
14/05/2026		
15/05/2026		
16/05/2026		
17/05/2026		
18/05/2026	0.094	LNAR4
19/05/2026		
20/05/2026		
21/05/2026		
22/05/2026		
23/05/2026		
24/05/2026		
25/05/2026		
26/05/2026		
27/05/2026		
28/05/2026		
29/05/2026		
30/05/2026		
31/05/2026		
1/06/2026		
2/06/2026		
3/06/2026		
4/06/2026		
5/06/2026		
6/06/2026		
7/06/2026		
8/06/2026		
9/06/2026		
10/06/2026		
11/06/2026		
12/06/2026		
13/06/2026		
14/06/2026		
15/06/2026		
16/06/2026		
17/06/2026		
18/06/2026		
19/06/2026		
20/06/2026		
21/06/2026		
22/06/2026		
23/06/2026		
24/06/2026		
25/06/2026		
26/06/2026		
27/06/2026		
28/06/2026		
29/06/2026		
30/06/2026		
1/07/2026		
2/07/2026	0.100	LNAR4
3/07/2026		
4/07/2026		
5/07/2026		
6/07/2026		
7/07/2026		
8/07/2026		
9/07/2026		
10/07/2026		
11/07/2026		
12/07/2026		
13/07/2026		
14/07/2026		
15/07/2026		
16/07/2026		
17/07/2026		
18/07/2026		
19/07/2026		
20/07/2026		
21/07/2026		
22/07/2026		
23/07/2026		

Annual Summary - 2025-2026

LNAR Lined Storage Ponds	Inter Liner Leak Detection Sump											
	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26
LNAR 3 (Formerly BWA)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry		
LNAR 4 (Formerly BWB)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry		
LNAR 5 (Formerly BWC)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry		

12 Monthly Summary - 2025-2026

LNAR Stage 1 A/B

Liner Leachate Collection Sumps	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Totals
LNAR Stage 1 Liner Leachate Pipeline Sump 1	-												-
LNAR Stage 1 Liner Leachate Pipeline Sump 2													-
LNAR Stage 1 Liner Leachate Pipeline Sump 3	608,000	626,000	623,000	667,000	460,000				461,000	407,000			3,852,000
LNAR Stage 1 Liner Leachate Pipeline Sump 4	1,164,000	912,000	694,000	616,000	457,000	531,000	993,000	1,169,000	375,000				6,911,000
LNAR Stage 1 Liner Leachate Pipeline Sump 5													-

LNAR Stage 2 A/B

Liner Leachate Collection Sumps	Sep-25	Oct-25	Nov-25	Dec-25	Jan-26	Feb-26	Mar-26	Apr-26	May-26	Jun-26	Jul-26	Aug-26	Totals
LNAR Stage 2A Liner Leachate Pipeline Sump 1	1,206,000	1,202,000	1,016,000	928,000	500,000	426,000	905,000	359,000	375,000	441,000			7,358,000
LNAR Stage 2B Liner Leachate Pipeline Sump 1				380,000	444,000	388,000	1,562,000	1,970,000	1,062,000	436,000			6,242,000

				ater Qualit	boratory Par	ANZ-General Chemistry			ANZ-Alkalinity				ANZ-Cations and Anions											
				pH - Field	Electrical Conductivity Field (non-compensated)	Hardness as CaCO3	Hardness as Calcium	Oil & Grease	Alkalinity - P	Alkalinity - Total as CaCO3	Bicarbonate Alkalinity as CaCO3	Carbonate Alkalinity as CaCO3	Sulphate as SO4 2-	Chloride	Fluoride	Total suspended solids	Calcium - Total	Calcium - Dissolved	Magnesium - Total	Magnesium - Dissolved	Sodium - Total	Sodium - Dissolved	Potassium - Total	Potassium - Dissolved
			LOR	0	1	0.01	0.1	5	1	1	1	1	1	0.01	0.001	0.01	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
			Units	pH units	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
			Action Levels																					
			MOUNT-PIPER-ANZECC/LOCAL SSTL-WS[1]	6.5 - 8	2200	200							1000	350	1.5		1000	1000			180	180		
Sample Location	**Date Sampled**	**Sample ID**	**Sample Type**																					
LN Pond 2	7/01/2026	LN POND 2_20260107	N	**8.57**	**3667**	**127**	**68.7**	< 5	**4.825**	**153.435**	**143.785**	**9.65**	**1850**	**114**	**2.76**	**123**	**29.7**	**27.5**	**15.2**	**14.1**	**758**	**733**	**43.1**	**41**
	17/02/2026	LN POND 2_20260217	N	**7.62**	**2353**	**121**	**62.7**	< 5	**0**	**99.07**	**99.07**		**737**	**45.7**	**1.3**	**58**	**25.1**	**25.1**	**14.3**	**14.2**	**418**	**437**	**25.3**	**25.3**
	4/03/2026	LN POND 2_20260304	N	**8.43**	**1542**	**113**	**53.9**	< 5	**0**	**82.35**	**82.35**		**530**	**40.4**	**1.36**	**38**	**21.8**	**21.6**	**14.3**	**14.3**	**266**	**275**	**18.3**	**18.2**
	8/04/2026	LN POND 2_20260408	N	**8.6**	**963**	**90.1**	**41.9**	< 5	**0**	**67.87**	**67.87**		**306**	**24.6**	**0.757**	**91.33**	**16.9**	**16.8**	**11.6**	**11.7**	**146**	**149**	**11.6**	**11.9**
	4/05/2026	LN POND 2_20260504	N	**9.1**	**1680**	**74.8**	**38.7**	< 5	**18.335**	**152.9525**	**116.2825**	**36.67**	**590**	**33.8**	**1.08**	**49**	**16**	**15.5**	**8.91**	**8.76**	**308**	**307**	**15.7**	**15.3**
	2/06/2026	LN POND 2_20260602	N	**8.06**	**604**	**77.3**	**40**	< 5	**21.965**	**238.75**	**194.82**	**43.93**	**740**	**85.8**	**2.09**	**10.33**	**15.6**	**16**	**9.04**	**9.06**	**413**	**444**	**21.4**	**22.9**
LNAR 3	7/01/2026	LNAR3_20260107	N	**9.92**	**86723**	**46.8**	**31.2**	**9**	**7623.5**	**19589.5**	**4342.5**	**15247**	**23500**	**7560**	**173**	**271**	**18.6**	**12.5**	**6.94**	**3.79**	**23900**	**22500**	**1530**	**1460**
	17/02/2026	LNAR3_20260217	N	**10.01**	**47147**	**39.5**	**25.7**	< 5	**5461.9**	**12834.5**	**1910.7**	**10923.8**	**8180**	**2500**	**45.7**	**61**	**16.2**	**10.3**	**5.55**	**3.34**	**15200**	**14200**	**1150**	**1060**
	4/03/2026	LNAR3_20260304	N	**10.1**	**43715**	**36.2**	**20.9**	**8**	**4815.35**	**11174.7**	**1544**	**9630.7**	**13300**	**4420**	**96.6**	**78**	**14.2**	**8.38**	**6.85**	**3.72**	**14300**	**13400**	**1020**	**928**
	8/04/2026	LNAR3_20260408	N	**9.97**	**66323**	**41.7**	**25.5**	**5**	**8781.5**	**21905.5**	**4342.5**	**17563**	**24200**	**6780**	**157**	**25.67**	**16.5**	**10.2**	**6.38**	**3.93**	**24700**	**23100**	**1430**	**1350**
	4/05/2026	LNAR3_20260504	N	**10.05**	**71346**	**50.1**	**30**	< 5	**10808**	**24511**	**2895**	**21616**	**27700**	**8020**	**182**	**28**	**17.4**	**12**	**7.29**	**4.9**	**28900**	**26600**	**2050**	**1910**
	2/06/2026	LNAR3_20260602	N	**9.88**	**70374**	**47**	**29**	< 5	**10027.5**	**23206.5**	**3151.5**	**20055**	**25500**	**7840**	**167**	**86.67**	**19.3**	**11.6**	**8.53**	**4.38**	**28100**	**24300**	**1730**	**1500**
LNAR 4	7/01/2026	LNAR4_20260107	N	**8.67**	**3205**	**105**	**61.4**	< 5	**10.29**	**224.2**	**203.615**	**20.59**	**1100**	**105**	**2.31**	**151**	**27**	**24.6**	**11.2**	**10.6**	**666**	**665**	**39.8**	**39.7**
	17/02/2026	LNAR4_20260217	N	**8.3**	**3290**	**94.1**	**54.4**	< 5	**0**	**224.845**	**224.845**		**951**	**91.1**	**1.95**	**106**	**24.1**	**21.8**	**10.5**	**9.64**	**667**	**672**	**41.2**	**40.9**
	4/03/2026	LNAR4_20260304	N	**9.04**	**3023**	**87.4**	**50.9**	< 5	**15.12**	**200.72**	**170.48**	**30.24**	**1010**	**101**	**2.72**	**57**	**21.7**	**20.4**	**9.28**	**8.85**	**621**	**627**	**39.3**	**39.4**
	8/04/2026	LNAR4_20260408	N	**8.88**	**3036**	**82.9**	**47.2**	< 5	**14.15**	**237.71**	**209.405**	**28.31**	**1040**	**118**	**3.07**	**61.33**	**20.5**	**18.9**	**9.34**	**8.68**	**593**	**573**	**35.2**	**34.8**
	4/05/2026	LNAR4_20260504	N	**9.25**	**2788**	**70**	**39.2**	< 5	**36.1875**	**264.8925**	**192.5175**	**72.375**	**944**	**101**	**2.57**	**37.5**	**17.5**	**15.7**	**8.09**	**7.49**	**569**	**558**	**34.2**	**32.9**
	2/06/2026	LNAR4_20260602	N	**9.34**	**3970**	**81.6**	**47.2**	< 5	**29.605**	**271.22**	**212.01**	**59.21**	**969**	**111**	**2.77**	**21.67**	**18.7**	**18.9**	**8.45**	**8.36**	**572**	**605**	**35.9**	**36.6**
LNAR 5	7/01/2026	LNAR5_20260107	N	**7.59**	**3596**	**92.7**	**50.7**	< 5	**0**	**144.11**	**144.11**		**1470**	**72.7**	**2.09**	**74**	**20.7**	**20.3**	**10.3**	**10.2**	**719**	**723**	**37.1**	**37.4**
	17/02/2026	LNAR5_20260217	N	**8.83**	**3564**	**83.6**	**48.9**	< 5	**5.47**	**239**	**228.06**	**10.94**	**1020**	**88.4**	**2.13**	**124.67**	**21.1**	**19.6**	**9.1**	**8.41**	**734**	**722**	**41.4**	**39.9**
	4/03/2026	LNAR5_20260304	N	**9.15**	**3382**	**92.7**	**54.7**	< 5	**33.13**	**269.56**	**203.29**	**66.26**	**1130**	**130**	**3.3**	**456**	**23**	**21.9**	**9.95**	**9.23**	**695**	**707**	**43.9**	**43.1**
	8/04/2026	LNAR5_20260408	N	**9.03**	**963**	**86.1**	**52.4**	< 5	**21.87**	**293.68**	**249.935**	**43.75**	**1130**	**162**	**3.74**	**59**	**21.9**	**21**	**8.56**	**8.18**	**702**	**719**	**41.3**	**42.5**
	4/05/2026	LNAR5_20260504	N	**9.65**	**4274**	**64.9**	**40.5**	< 5	**121.12**	**501.8**	**259.585**	**242.215**	**1350**	**203**	**4.19**	**2145**	**18**	**16.2**	**7.05**	**5.93**	**926**	**917**	**55.2**	**53.3**
	2/06/2026	LNAR5_20260602	N	**8.99**	**2895**	**65.6**	**41.7**	< 5	**69.715**	**447.895**	**308.465**	**139.43**	**1180**	**185**	**3.72**	**90**	**17.3**	**16.7**	**6.11**	**5.8**	**818**	**851**	**50.7**	**50**

				ater Quality	ANZ-Metals																								
				pH - Field	Aluminium - Dissolved	Antimony - Dissolved	Arsenic - Dissolved	Barium - Dissolved	Beryllium - Dissolved	Boron - Dissolved	Cadmium - Dissolved	Chromium - Dissolved	Cobalt - Dissolved	Copper - Dissolved	Iron - Dissolved	Lead - Dissolved	Manganese - Dissolved	Molybdenum - Dissolved	Nickel - Dissolved	Selenium - Dissolved	Silver - Dissolved	Strontium - Dissolved	Vanadium - Dissolved	Zinc - Dissolved	Aluminium - Total	Antimony - Total	Arsenic - Total	Barium - Total	Beryllium - Total
LOR				0	10	1	1	1	1	1	1	1	1	1	50	1	1	1	1	1	1	1	1	1	10	1	1	1	1
Units				pH units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Action Levels																													
MOUNT-PIPER-ANZECC/LOCAL SSTL-WS[1]				6.5 - 8	0.8	9	24	700	100	370	0.85	2	1.4	3.5	300	5	1900	10	17	5	0.05	0	6	116	0.8	9	24	700	100
Sample Location	**Date Sampled**	**Sample ID**	**Sample Type**																										
LN Pond 2	7/01/2026	LN POND 2_20260107	N	**8.57**	**60**	**11**	**87**	**46**	< 1	**600**	**1.2**	**2**	**2**	**19**	**110**	< 1	**11**	**155**	**14**	**66**	**< 1**	**159**	**50**	**77**	**2630**	**9**	**117**	**76**	< 1
	17/02/2026	LN POND 2_20260217	N	**7.62**	**< 10**	**5**	**36**	**49**	< 1	**400**	**0.6**	< 1	**1**	**10**	< 50	< 1	**41**	**96**	**14**	**30**	**< 1**	**141**	**10**	**41**	**3900**	**4**	**48**	**82**	< 1
	4/03/2026	LN POND 2_20260304	N	**8.43**	**20**	**3**	**12**	**28**	< 1	**230**	**0.3**	< 1	**1**	**4**	< 50	< 1	**21**	**71**	**10**	**17**	**< 1**	**102**	**< 10**	**16**	**2040**	**4**	**16**	**43**	< 1
	8/04/2026	LN POND 2_20260408	N	**8.6**	**10**	**2**	**2**	**29**	< 1	**200**	**0.2**	< 1	**1**	**2**	< 50	< 1	**3**	**46**	**7**	**10**	**< 1**	**91**	**< 10**	**6**	**1080**	**2**	**7**	**41**	< 1
	4/05/2026	LN POND 2_20260504	N	**9.1**	**110**	**7**	**26**	**23**	< 1	**350**	**0.2**	< 1	< 1	**19**	< 50	< 1	**1**	**90**	**8**	**25**	**< 1**	**98**	**20**	**51**	**940**	**7**	**33**	**32**	< 1
	2/06/2026	LN POND 2_20260602	N	**8.06**	**90**	**14**	**82**	**26**	< 1	**370**	**0.6**	**1**	**2**	**21**	< 50	< 1	**11**	**176**	**14**	**81**	**< 1**	**119**	**60**	**45**	**1540**	**15**	**84**	**31**	< 1
LNAR 3	7/01/2026	LNAR3_20260107	N	**9.92**	**110**	**1200**	**14500**	**133**	< 10	**31600**	**54**	**253**	**46**	**1600**	**350**	**62**	**218**	**22100**	**841**	**12100**	**< 10**	**2010**	**9310**	**1150**	**1600**	**1200**	**14400**	**137**	< 10
	17/02/2026	LNAR3_20260217	N	**10.01**	**290**	**696**	**10200**	**95**	< 10	**13800**	**37.7**	**174**	**29**	**1100**	**280**	**49**	**147**	**13300**	**476**	**6300**	**< 10**	**1200**	**5540**	**610**	**1010**	**755**	**8530**	**99**	< 10
	4/03/2026	LNAR3_20260304	N	**10.1**	**140**	**638**	**6880**	**70**	< 10	**12300**	**33.3**	**162**	**20**	**829**	**200**	**30**	**116**	**10700**	**400**	**5820**	**< 10**	**876**	**4380**	**513**	**3730**	**757**	**7590**	**94**	< 10
	8/04/2026	LNAR3_20260408	N	**9.97**	**120**	**1390**	**14800**	**110**	< 10	**21500**	**49.2**	**330**	**42**	**1620**	**180**	**47**	**147**	**23100**	**720**	**12500**	**< 10**	**1140**	**7260**	**822**	**400**	**2630**	**17200**	**146**	< 1
	4/05/2026	LNAR3_20260504	N	**10.05**	**< 100**	**1900**	**17000**	**162**	< 10	**28600**	**55.8**	**324**	**39**	**1800**	**250**	**48**	**165**	**24900**	**773**	**13700**	**< 10**	**1680**	**8910**	**938**	**670**	**1810**	**15900**	**150**	< 10
	2/06/2026	LNAR3_20260602	N	**9.88**	**< 100**	**1970**	**14800**	**26**	< 10	**30600**	**53.7**	**280**	**43**	**1380**	**220**	**47**	**211**	**24200**	**749**	**11700**	**< 10**	**796**	**8800**	**1000**	**280**	**1830**	**14900**	**147**	< 10
LNAR 4	7/01/2026	LNAR4_20260107	N	**8.67**	**110**	**11**	**105**	**41**	< 1	**640**	**2.8**	**2**	**2**	**30**	**60**	< 1	**14**	**204**	**20**	**90**	**< 1**	**112**	**70**	**114**	**7190**	**9**	**114**	**90**	< 1
	17/02/2026	LNAR4_20260217	N	**8.3**	**70**	**12**	**122**	**42**	< 1	**730**	**2.1**	**1**	**2**	**29**	**100**	< 1	**32**	**261**	**15**	**85**	**< 1**	**111**	**80**	**110**	**2990**	**12**	**135**	**76**	< 1
	4/03/2026	LNAR4_20260304	N	**9.04**	**90**	**12**	**118**	**38**	< 1	**510**	**2.4**	**3**	**2**	**24**	**70**	< 1	**3**	**239**	**20**	**93**	**< 1**	**106**	**70**	**90**	**2530**	**18**	**112**	**57**	< 1
	8/04/2026	LNAR4_20260408	N	**8.88**	**70**	**16**	**125**	**38**	< 1	**560**	**1.4**	**2**	**2**	**18**	**80**	< 1	**4**	**287**	**20**	**95**	**< 1**	**120**	**80**	**42**	**2200**	**14**	**120**	**55**	< 1
	4/05/2026	LNAR4_20260504	N	**9.25**	**100**	**17**	**105**	**29**	< 1	**500**	**1.2**	**1**	**2**	**17**	< 50	< 1	< 1	**244**	**17**	**88**	**< 1**	**99**	**70**	**33**	**3090**	**17**	**110**	**47**	< 1
	2/06/2026	LNAR4_20260602	N	**9.34**	**90**	**19**	**112**	**34**	< 1	**490**	**1.2**	**1**	**2**	**16**	**90**	< 1	**2**	**184**	**20**	**82**	**< 1**	**111**	**70**	**37**	**1200**	**17**	**120**	**45**	< 1
LNAR 5	7/01/2026	LNAR5_20260107	N	**7.59**	**120**	**9**	**75**	**60**	< 1	**590**	**6.4**	**2**	**1**	**45**	**80**	< 1	**77**	**129**	**19**	**48**	**< 1**	**89**	**50**	**402**	**1140**	**9**	**97**	**80**	< 1
	17/02/2026	LNAR5_20260217	N	**8.83**	**100**	**13**	**135**	**45**	< 1	**620**	**2.2**	**2**	**2**	**28**	**80**	< 1	**84**	**199**	**19**	**91**	**< 1**	**114**	**80**	**149**	**1870**	**14**	**153**	**72**	< 1
	4/03/2026	LNAR5_20260304	N	**9.15**	**80**	**11**	**130**	**38**	< 1	**580**	**1.7**	**1**	**3**	**21**	< 50	< 1	**64**	**297**	**23**	**76**	**< 1**	**129**	**70**	**126**	**7870**	**14**	**134**	**91**	**1**
	8/04/2026	LNAR5_20260408	N	**9.03**	**70**	**15**	**148**	**36**	< 1	**670**	**1.4**	**2**	**4**	**19**	< 50	< 1	**37**	**362**	**26**	**79**	**< 1**	**156**	**80**	**109**	**5040**	**13**	**144**	**68**	< 1
	4/05/2026	LNAR5_20260504	N	**9.65**	**150**	**23**	**232**	**30**	< 1	**950**	**1.1**	**3**	**5**	**47**	< 50	< 1	**21**	**470**	**31**	**135**	**< 1**	**133**	**110**	**118**	**8540**	**22**	**258**	**69**	< 1
	2/06/2026	LNAR5_20260602	N	**8.99**	**100**	**22**	**204**	**32**	< 1	**630**	**1.1**	**3**	**4**	**31**	< 50	< 1	**19**	**352**	**27**	**121**	**< 1**	**140**	**110**	**64**	**4950**	**21**	**207**	**60**	**1**

				Water Quality																		NZ-Nutrient	ANZ-TPH					
				pH - Field	Boron - Total	Cadmium - Total	Chromium - Total	Chromium (III) - Total	Chromium (VI) - Total	Cobalt - Total	Copper - Total	Iron - Total	Lead - Total	Manganese - Total	Mercury - Total	Molybdenum - Total	Nickel - Total	Selenium - Total	Silver - Total	Strontium - Total	Vanadium - Total	Zinc - Total	Sulfur	C6 - C9 Fraction	C10 - C14 Fraction	C15 - C28 Fraction	C29 - C36 Fraction	C10 - C36 Fraction - Sum
LOR				0	1	1	1	1	1	1	1	50	1	1	0.04	1	1	1	1	1	1	1	1	0.02	0.05	0.1	0.05	0.05
Units				pH units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Action Levels																												
MOUNT-PIPER-ANZECC/LOCAL SSTL-WS[1]				6.5 - 8	370	0.85	2	3.3	1	1.4	3.5	300	5	1900	0.06	10	17	5	0.05	0	6	116						
Sample Location	**Date Sampled**	**Sample ID**	**Sample Type**																									
LN Pond 2	7/01/2026	LN POND 2_20260107	N	**8.57**	**730**	**1.8**	**6**	< 1	**4**	**6**	**43**	**2510**	**6**	**200**	**0.08**	**257**	**31**	**77**	**< 1**	**206**	**80**	**237**	**509**	< 0.02	< 0.05	**0.31**	**0.37**	**0.68**
	17/02/2026	LN POND 2_20260217	N	**7.62**	**400**	**0.9**	**6**	< 1	< 1	**6**	**25**	**3840**	**10**	**198**	< 0.04	**125**	**30**	**32**	**< 1**	**158**	**30**	**119**	**282**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	4/03/2026	LN POND 2_20260304	N	**8.43**	**200**	**0.5**	**4**	< 1	**1**	**3**	**9**	**2210**	**4**	**76**	< 0.04	**80**	**16**	**17**	**< 1**	**105**	**< 10**	**32**	**188**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	8/04/2026	LN POND 2_20260408	N	**8.6**	**150**	**0.2**	**1**	< 1	< 1	**3**	**6**	**1090**	**3**	**70**	< 0.04	**39**	**13**	**10**	**< 1**	**98**	**< 10**	**26**	**109**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	4/05/2026	LN POND 2_20260504	N	**9.1**	**440**	**0.2**	**2**	< 1	**4**	**2**	**27**	**750**	**1**	**33**	< 0.04	**113**	**12**	**29**	**< 1**	**108**	**30**	**78**	**217**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	2/06/2026	LN POND 2_20260602	N	**8.06**	**500**	**0.6**	**3**	< 1	**4**	**3**	**25**	**1130**	**2**	**51**	< 0.04	**229**	**18**	**83**	**< 1**	**114**	**70**	**61**	**282**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
LNAR 3	7/01/2026	LNAR3_20260107	N	**9.92**	**29600**	**56.9**	**264**	**63**	**190**	**45**	**1630**	**960**	**66**	**232**	< 0.04	**23900**	**839**	**11900**	**< 10**	**2060**	**9380**	**1160**	**7800**	< 0.02	**0.06**	**3.39**	**0.33**	**3.78**
	17/02/2026	LNAR3_20260217	N	**10.01**	**17100**	**32.7**	**169**	**20**	**154**	**25**	**933**	**270**	**33**	**126**	< 0.04	**12600**	**454**	**7420**	**< 10**	**1180**	**5300**	**596**	**5000**	**0.07**	< 0.05	**0.67**	**0.3**	**0.97**
	4/03/2026	LNAR3_20260304	N	**10.1**	**13300**	**32.4**	**150**	**< 100**	**98**	**23**	**979**	**1290**	**32**	**108**	< 0.04	**11700**	**428**	**6270**	**< 10**	**929**	**4770**	**549**	**4810**	**0.03**	< 0.05	**0.28**	**0.18**	**0.46**
	8/04/2026	LNAR3_20260408	N	**9.97**	**29300**	**44.6**	**297**	**57**	**273**	**39**	**1540**	**270**	**45**	**133**	< 0.04	**28400**	**684**	**13400**	**< 1**	**1470**	**7820**	**787**	**8230**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	4/05/2026	LNAR3_20260504	N	**10.05**	**29600**	**56.9**	**337**	**70**	**254**	**36**	**1730**	**410**	**45**	**161**	< 0.04	**24900**	**718**	**12600**	**< 10**	**1590**	**8080**	**918**	**9210**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	2/06/2026	LNAR3_20260602	N	**9.88**	**31400**	**48.2**	**277**	**280**	**< 20**	**44**	**1450**	**< 500**	**46**	**203**	< 0.04	**21500**	**757**	**12000**	**< 10**	**1720**	**8260**	**1010**	**9750**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
LNAR 4	7/01/2026	LNAR4_20260107	N	**8.67**	**610**	**3.6**	**10**	< 1	**5**	**6**	**63**	**5300**	**12**	**143**	**0.11**	**273**	**36**	**89**	**< 1**	**135**	**90**	**379**	**398**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	17/02/2026	LNAR4_20260217	N	**8.3**	**650**	**3.2**	**7**	**1**	< 1	**4**	**56**	**2310**	**6**	**133**	< 0.04	**278**	**31**	**106**	**< 1**	**139**	**100**	**332**	**393**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	4/03/2026	LNAR4_20260304	N	**9.04**	**430**	**2.5**	**6**	< 1	**3**	**4**	**36**	**2310**	**5**	**70**	< 0.04	**260**	**24**	**89**	**< 1**	**108**	**90**	**178**	**369**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	8/04/2026	LNAR4_20260408	N	**8.88**	**560**	**2.2**	**5**	**2**	< 1	**4**	**36**	**1810**	**3**	**69**	**0.05**	**264**	**29**	**89**	**< 1**	**135**	**100**	**168**	**375**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	4/05/2026	LNAR4_20260504	N	**9.25**	**540**	**1.4**	**5**	< 1	**2**	**3**	**31**	**2110**	**4**	**67**	< 0.04	**271**	**24**	**88**	**< 1**	**109**	**80**	**134**	**313**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	2/06/2026	LNAR4_20260602	N	**9.34**	**620**	**1.5**	**2**	< 1	**1**	**3**	**22**	**930**	**2**	**27**	< 0.04	**292**	**22**	**88**	**< 1**	**121**	**80**	**72**	**359**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
LNAR 5	7/01/2026	LNAR5_20260107	N	**7.59**	**680**	**8.9**	**4**	< 1	**5**	**2**	**93**	**930**	**3**	**144**	**0.13**	**217**	**29**	**64**	**< 1**	**109**	**60**	**776**	**498**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	17/02/2026	LNAR5_20260217	N	**8.83**	**670**	**2.9**	**5**	**2**	< 1	**4**	**57**	**1510**	**5**	**175**	< 0.04	**312**	**29**	**100**	**< 1**	**136**	**100**	**331**	**437**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	4/03/2026	LNAR5_20260304	N	**9.15**	**500**	**1.9**	**11**	< 1	**3**	**8**	**46**	**5390**	**14**	**231**	< 0.04	**325**	**39**	**76**	**< 1**	**148**	**100**	**252**	**399**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	8/04/2026	LNAR5_20260408	N	**9.03**	**630**	**1.6**	**7**	**2**	< 1	**7**	**34**	**3770**	**7**	**183**	**0.05**	**364**	**40**	**78**	**< 1**	**182**	**100**	**179**	**416**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	4/05/2026	LNAR5_20260504	N	**9.65**	**1070**	**1.4**	**9**	< 1	**6**	**8**	**74**	**2410**	**8**	**206**	**0.09**	**580**	**43**	**150**	**< 1**	**168**	**130**	**270**	**513**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05
	2/06/2026	LNAR5_20260602	N	**8.99**	**820**	**1.3**	**9**	**< 10**	**< 10**	**7**	**52**	**3890**	**6**	**172**	< 0.04	**510**	**38**	**121**	**< 1**	**157**	**120**	**159**	**437**	< 0.02	< 0.05	< 0.1	< 0.05	< 0.05

APPENDIX O TARP EVALUATION

TABLE O-1: CONCENTRATIONS ABOVE THE ADOPTED GUIDELINE VALUES FOR THE FIRST TIME

Analyte	Screening Criteria	Location	Exceedance and Maximum Concentration
Groundwater Monitoring Locations			
Sulphate	1000 mg/L	MPGM4/D5	1/2 monitoring rounds – 1550 mg/L
** Hardness as $CaCO_3$	200 mg/L	MPGM4/D1	2/2 monitoring rounds – 2520 mg/L
		MPGM4/D10	2/2 monitoring rounds – 1460 mg/L
		D102	2/2 monitoring rounds – 3180 mg/L
		D103	2/2 monitoring rounds – 1400 mg/L
		D104	2/2 monitoring rounds – 589 mg/L
		D105	2/2 monitoring rounds – 1050 mg/L
		D106	2/2 monitoring rounds – 2590 mg/L
		D107	2/2 monitoring rounds – 2470 mg/L
		D110	2/2 monitoring rounds – 3180 mg/L
		D113	2/2 monitoring rounds – 1020 mg/L
		D117	2/2 monitoring rounds – 1570 mg/L
		D119	2/2 monitoring rounds – 457 mg/L
		D15	2/2 monitoring rounds – 348 mg/L
		D16A	2/2 monitoring rounds – 459 mg/L
		D17	2/2 monitoring rounds – 832 mg/L
		D18	2/2 monitoring rounds – 321 mg/L
		D19	2/2 monitoring rounds – 992 mg/L
		MPGM4/D2	2/2 monitoring rounds – 400 mg/L
		MPGM4/D3	2/2 monitoring rounds – 398 mg/L
		MPGM4/D5	2/2 monitoring rounds – 533 mg/L
		MPGM4/D9	2/2 monitoring rounds – 3040 mg/L
		MPGM5/D5	2/2 monitoring rounds – 3630 mg/L
		MPGM5/D6	2/2 monitoring rounds – 1110 mg/L
* Copper (filtered)	5 µg/L	D102	1/2 monitoring rounds – 30 µg/L
		D103	1/2 monitoring rounds – 6 µg/L
		D106	1/2 monitoring rounds – 6 µg/L
		D107	1/2 monitoring rounds – 21 µg/L
		D110	1/2 monitoring rounds – 36 µg/L

Analyte	Screening Criteria	Location	Exceedance and Maximum Concentration
** Molybdenum (filtered)	10 µg/L	D17	1/2 monitoring rounds – 32 µg/L
Ammonia	0.9 mg/L	D17	1/2 monitoring rounds – 1.25 mg/L
** Total Nitrogen	0.25 mg/L	MPGM4/D4	2/2 monitoring rounds – 0.8 mg/L
		MPGM4/D5	2/2 monitoring rounds – 0.5 mg/L
		MPGM4/D3	2/2 monitoring rounds – 0.4 mg/L
		MPGM4/D2	1/2 monitoring rounds – 1.4 mg/L
		D106	2/2 monitoring rounds – 2.8 mg/L
		D107	2/2 monitoring rounds – 1.3 mg/L
		D119	2/2 monitoring rounds – 50.8 mg/L
		MPGM4/D1	2/2 monitoring rounds – 1.2 mg/L
		D102	2/2 monitoring rounds – 1.6 mg/L
		D103	2/2 monitoring rounds – 0.6 mg/L
		D104	2/2 monitoring rounds – 0.6 mg/L
		D105	2/2 monitoring rounds – 0.3 mg/L
		MPGM4/D8	2/2 monitoring rounds – 0.4 mg/L
		MPGM4/D9	2/2 monitoring rounds – 1.9 mg/L
		MPGM4/D10	2/2 monitoring rounds – 1.1 mg/L
		D110	2/2 monitoring rounds – 1.5 mg/L
		D113	2/2 monitoring rounds – 1.2 mg/L
		D117	2/2 monitoring rounds – 4.1 mg/L
		MPGM4/D19	2/2 monitoring rounds – 0.8 mg/L
		D15	2/2 monitoring rounds – 12.4 mg/L
		D16A	2/2 monitoring rounds – 1 mg/L
		D17	2/2 monitoring rounds – 32.6 mg/L
		D18	2/2 monitoring rounds – 0.8 mg/L
		MPGM5/D5	2/2 monitoring rounds – 18.4 mg/L
		MPGM5/D6	2/2 monitoring rounds – 4.9 mg/L
Surface Water Monitoring Locations			
** Hardness as $CaCO_3$	200 mg/L	SW_E	2/6 monitoring rounds – 256 mg/L
		SW_G	2/6 monitoring rounds – 326 mg/L
		WX22	2/6 monitoring rounds – 324 mg/L
** Cobalt (filtered)	1.4 µg/L	SW_E	4/6 monitoring rounds - 10 µg/L

Analyte	Screening Criteria	Location	Exceedance and Maximum Concentration

Notes:
** First time application of ANZG (2018) guideline values.*
*** First time analysis of this analyte during the current reporting period. In the case of filtered metals, concentrations of total metals have exceeded the adopted guideline value during previous monitoring rounds.*

TABLE O-2: HISTORICAL MAXIMUM EXCEEDANCES

Bore ID	Analyte	Historical Maximum	The Reporting Period
Cross-gradient MPAR / adjacent MPAR to the north and adjacent Wangcol Creek			
D119	Total Nitrogen	1.9 mg/L– August 2020	50.8 mg/L – February 2026
	Total Kjeldahl Nitrogen as N	0.4 mg/L – August 2020	50.5 mg/L – February 2026
	Total Phosphorus	0.01 mg/L – August 2020	2.45 mg/L – February 2026
Downgradient MPAR, areas adjacent Wangcol Creek			
D102	Copper (filtered)	2 µg/L – May 2024	30 µg/L – May 2026
Downgradient MPAR, including LNAR (north) and historical mining disturbance (east)			
D117	Selenium (filtered)	0.9 µg/L – August 2020	288 µg/L – March 2026
Cross-gradient MPAR to the south, including LNAR (south) and historical mining disturbance			
D17	Iron (total)	38,700 µg/L – September 2024	590,000 µg/L – March 2026

ERM HAS OVER 140 OFFICES ACROSS THE FOLLOWING COUNTRIES AND TERRITORIES WORLDWIDE

Argentina
Australia
Belgium
Brazil
Canada
China
Colombia
Denmark
France
Germany
Hong Kong
India
Indonesia
Ireland
Italy
Japan
Kazakhstan
Kenya
Malaysia
Mexico
Mozambique
The Netherlands
Peru
Poland
Portugal
Romania
Singapore
South Africa
South Korea
Spain
Switzerland
Taiwan
Thailand
UAE
UK
US
Vietnam

ERM's Sydney office

Level 14
207 Kent Street
Sydney, NSW 2000

T +61 (2) 8584 8888

www.erm.com