FINAL

FACILITY-WIDE GROUNDWATER MONITORING ADDENDUM FOR 2017

Former Ravenna Army Ammunition Plant

Portage and Trumbull Counties, Ohio

April 27, 2017

Contract Number: W9133L-14-D-0008

Task Order Number: 0003

Prepared for:

National Guard Bureau

NGB-ZC-AQ
111 South George Mason Drive
Building 2, 4th Floor
Arlington, VA 22204-1373

Prepared by:

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REPORT DOCUMENTATION PAGE

Form Approved
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1. REPORT DATE *(DD-MM-YYYY)*	2. REPORT TYPE	3. DATES COVERED *(From - To)*
4-27-2017	Technical	NA

4. TITLE AND SUBTITLE

Final Facility-Wide Groundwater Monitoring Addendum for 2017

5a. CONTRACT NUMBER

W9133L-14-D-0008

5b. GRANT NUMBER

NA

5c. PROGRAM ELEMENT NUMBER

NA

6. AUTHOR(S)

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5d. PROJECT NUMBER

NA

5e. TASK NUMBER

0003

5f. WORK UNIT NUMBER

NA

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

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8. PERFORMING ORGANIZATION REPORT NUMBER

NA

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

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Arlington, VA 22204-1373

10. SPONSOR/MONITOR'S ACRONYM(S)

NGB-ZC-AQ

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

NA

12. DISTRIBUTION/AVAILABILITY STATEMENT

Reference distribution page

13. SUPPLEMENTARY NOTES

None

14. ABSTRACT

The TEC-Weston Joint Venture (JV) is submitting this Final Facility-Wide Groundwater Monitoring Addendum for 2017 in accordance with Contract Number W9133L-14-D-0008, Task Order Number 0003, to provide Groundwater and Environmental Investigation Services for the RVAAP-66 Facility-Wide Groundwater Area of Concern (AOC) at the Former Ravenna Army Ammunition Plant (RVAAP); now known as Camp Ravenna Joint Military Training Center (Camp Ravenna) in Portage and Trumbull Counties, Ohio.

15. SUBJECT TERMS

RVAAP-66, Groundwater Monitoring

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			Brent Ferry
U	U	U	SAR	214	19b. TELEPHONE NUMBER *(Include area code)* 512-651-7108

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Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

May 8, 2017

Mr. Mark Leeper
Army National Guard Directorate
ARNGD-ILE Clean Up
111 South George Mason Drive
Arlington, VA 22204

Re: US Army Ammunition Plt RVAAP
Remediation Response
Project Records
Remedial Response
Portage County
267000859036

Subject: Ravenna Army Ammunition Plant, Portage/Trumbull Counties. Approval of the "Final Facility-Wide Groundwater Monitoring Program Plan, RVAAP-66 Facility-Wide Groundwater, Groundwater Monitoring Addendum for 2017" at the Former Ravenna Army Ammunition Plant, Ravenna, Ohio, Dated April 27, 2017, Ohio EPA ID # 267-000859-036

Dear Mr. Leeper:

The Ohio Environmental Protection Agency (Ohio EPA) has received and reviewed the "Final Facility-Wide Groundwater Monitoring Program Plan, RVAAP-66 Facility-Wide Groundwater, Groundwater Monitoring Addendum for 2017" at the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio. The final document was received at Ohio EPA's Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR) on April 27, 2017. The report was prepared for the Army National Guard Directorate by TEC-Weston Joint Venture under Contract Number W9133L-14-D-0008.

The final document was reviewed by personnel from Ohio EPA's DERR and DDAGW. Pursuant to the Director's Findings and Orders paragraph 39 (b), Ohio EPA considers the document final and approved.

If you have any questions, please call me at (330) 963-1292.

Sincerely,

Kevin M. Palombo
Environmental Specialist
Division of Environmental Response and Revitalization

KP/nvr

cc: Rebecca Shreffler/Gail Harris, VISTA Sciences Corp.
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Carrie Rasik, Ohio EPA, CO DERR
Kevin Sedlak/Katie Tait, OHARNG RTLS

Received
10 MAY 2017

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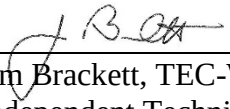
CONTRACTOR STATEMENT OF INDEPENDENT TECHNICAL REVIEW

TEC-Weston Joint Venture (TEC-Weston JV) has completed the Final Facility-Wide Groundwater Monitoring Addendum for 2017. Notice is hereby given that an independent technical review has been conducted that is appropriate to the level of risk and complexity inherent in the project. During the independent technical review, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of data quality objectives; technical assumption; methods, procedures, and materials to be used; the appropriateness of data used and level of data obtained; and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing National Guard Bureau policy.

04/25/2017

E. Michael Chapa, TEC-Weston JV — Date
Study/Design Team Leader



04/26/2017

Jim Brackett, TEC-Weston JV — Date
Independent Technical Review Team Leader

Significant concerns and the explanation of the resolutions are as follows:

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Final

FACILITY-WIDE GROUNDWATER MONITORING ADDENDUM FOR 2017

Former Ravenna Army Ammunition Plant

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for the

Facility-Wide Groundwater Monitoring Addendum for 2017

Former Ravenna Army Ammunition Plant

Portage and Trumbull Counties, Ohio

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ARNG = Army National Guard
NGB = National Guard Bureau
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LIST OF ACRONYMS AND ABBREVIATIONS

AOC	Area of Concern
ARNG	Army National Guard
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DFFO	Director's Final Findings and Orders
DoD	Department of Defense
EQM	Environmental Quality Management, Inc.
FS	Feasibility Study
FWGWMPP	Facility-Wide Groundwater Monitoring Program Plan
IRP	Installation Restoration Program
Ohio EPA	Ohio Environmental Protection Agency
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation
RSL	Regional Screening Level
RVAAP	Ravenna Army Ammunition Plant
s.u.	standard units
SAP	Sampling and Analysis Plan
SRC	site related compound
TEC-Weston JV	TEC-Weston Joint Venture
USEPA	United States Environmental Protection Agency

EXECUTIVE SUMMARY

The Facility-Wide Groundwater Monitoring (FWGWM) Addendum for 2017 is a supplement to the Facility-Wide Groundwater Monitoring Program Plan (FWGWMPP) and discusses the subset of currently existing monitoring wells at the former Ravenna Army Ammunition Plant (RVAAP) in Portage and Trumbull Counties, Ohio, that will be monitored in the Spring and Fall of 2017 and the contaminants of potential concern that will be evaluated at each selected well. This document supersedes the Semiannual Monitoring Addendum for 2016 that was submitted in the Draft Remedial Investigation (RI) Work Plan for RVAAP-66 Facility-Wide Groundwater, dated February 1, 2016, for the groundwater sampling that began with the Spring 2016 event, conducted in May 2016, and continued through the Fall 2016 sampling event, conducted in October and November 2016.

A total of 96 previously existing wells and new wells that were installed in 2016 at the former RVAAP have been identified for FWGMP semiannual or continued RI sampling in 2017 to evaluate potential offsite migration and potential source area attenuation and temporal fluctuations. Under this addendum, the following changes to the FWGWMP will be conducted in 2017:

- Existing wells added to the FWGWMP semiannual sampling: CPBmw-008, CBPmw-009, EBGmw-125, EBGmw-131, FBQmw-171, FBQmw-172, FBQmw-175, FBQmw-176, FWGmw-010, FWGmw-013, LL1mw-080, LL1mw-081, LL2mw-264, LL3mw-234, LL3mw-237, LL4mw-193, LL7mw-006, LL10mw-005, LL11mw-005, LL12mw-183, NTAmw-117, NTAmw-118, RQLmw-014, and RQLmw-016.
- Newly installed wells added to the FWGWMP semiannual sampling: FWGmw-017, FWGmw-018, FWGmw-019, FWGmw-020, FWGmw-021, FWGmw-022, FWGmw-023, FWGmw-024, LL1mw-089, LL2mw-272, and NTAmw-120.
- Wells sampled as part of the 2016 FWGWMP that will not be sampled in 2017: SCFmw-002 (replaced by new well FWGmw-018), LL2mw-060, LL2mw-271 (replaced by new well FWG-mw024), LL3mw-238, and LL3mw-241.
- Wells to be sampled in Spring 2017 for the purposes of the continuing Facility-Wide Groundwater RI: BKGmw-008, B12mw-011, B12mw-012, LL1mw-063, LL2mw-270, LL3mw-236, LL4mw-194, LL4mw-200, LL5mw-001, LL6mw-001, LL6mw-002,

LL6mw-006, FBQmw-166, LNWmw-026, NTAmw-116, MBSmw-004, MBSmw-006, RQLmw-017, and WBGmw-015.

1.0 BACKGROUND

The Army National Guard (ARNG) is performing Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigation and cleanup at the former Ravenna Army Ammunition Plant (RVAAP) located in Portage and Trumbull Counties near Ravenna, Ohio. CERCLA investigation and closure is occurring under the United States Department of Defense (DoD) Installation Restoration Program (IRP). Activities include monitoring of an extensive network of groundwater monitoring wells to determine nature and extent of groundwater impacts, to provide additional information in support of hydrogeologic and fate-and- transport models, to evaluate potential exit pathways, and to evaluate vertical contaminant distribution and/or particle inflow/outflow through the central portion of the facility. The June 2004 Ohio Environmental Protection Agency (Ohio EPA) Director's Final Findings and Orders for the former RVAAP established a Facility-Wide Groundwater Monitoring Program Plan (FWGWMPP). This addendum to the FWGWMPP has been prepared by TEC-Weston Joint Venture (TEC-Weston JV) under Contract Number W9133L-14-D-0008 Task Order Number 0003, Groundwater and Environmental Investigation Services for the RVAAP-66 Facility-Wide Groundwater Area of Concern (AOC) at the Former Ravenna Army Ammunition Plant (RVAAP).

During the time period of 2005 through 2007, the USACE developed a database of groundwater quality information based on the sampling of approximately 36 monitoring wells. Beginning in fiscal year 2008, the Facility-Wide Groundwater Monitoring Program (FWGWMP) was expanded to include the characterization of groundwater from 243 existing monitoring wells at the facility.

An additional 41 wells were installed during 2012-2013 necessary to supplement the hydrogeologic system modeling and to conduct contaminant fate-and-transport modeling for a Facility-Wide groundwater approach in support of completion of a Remedial Investigation/Feasibility Study (RI/FS). The approach for installing these wells was described in the approved Final Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Addendum dated January 6, 2012 and supplemented by the Final Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Additional Well Installation Addendum dated September 4, 2013 (EQM, 2015). A description of the installation of the initial 38 wells is presented in the approved Final Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater Monitoring Well Installation Report

dated December 18, 2012 (EQM, 2012). Information regarding installation of the three additional RI wells is included in Appendix B of the Draft Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater Monitoring Report on the January 2014 Sampling Event dated May 9, 2014 (EQM, 2014). The January 2012 Facility-Wide Groundwater Monitoring Program Plan RVAAP-66 Facility-Wide Groundwater Semiannual Monitoring Addendum (EQM, 2012) modified the FWGWMP from quarterly to a semiannual basis.

The Semiannual Monitoring Addendum was revised in 2013 to address semiannual monitoring beginning with the July 2013 event and continuing through the July 2014 sampling event. Forty-two (42) wells (including the five Resource Conservation and Recovery Act [RCRA] wells) were selected for sampling during the semiannual events in 2013 and 2014. The 2015 and 2016 FWGWMP included semiannual monitoring for a total 46 wells, four of which were monitored for pH only (the total number of wells evaluated for pH and associated secondary geochemical parameters was expanded for RI sampling conducted during the Fall 2016 event).

Facility-wide Groundwater RI activities in 2016 included sampling of 124 previously existing wells and the installation of 11 new monitoring wells for evaluation of the current nature and extent of groundwater contamination at the former RVAAP (see the Final Facility-Wide Groundwater RI Work Plan, dated December 2016, for details on locations selected for the newly installed wells). The RI field activities included installation of four wells for the purposes of completing a background study for metals. Sampling results for these wells and evaluation of background conditions for inorganic constituents will be provided in the pending RVAAP-66 Facility-Wide Groundwater RI report, currently scheduled for submittal to Ohio EPA for review in November 2017.

2.0 PURPOSE OF ADDENDUM

The Addendum provides an update to the FWGWMPP for 2017, including the identification of wells to be sampled as part of the FWGWMP, as well as describing sampling to be conducted as part of the continuing RVAAP-66 Facility-Wide Groundwater RI. Newly installed wells from the 2016 RI activities will be sampled for four consecutive quarters prior to being considered for addition to the 2018 FWGWMP.

The primary objectives of the facility-wide monitoring well network are to assess potential exit pathways and to monitor contaminant levels tied to historical RVAAP activities (e.g., explosives/propellants, volatile organic compounds, semivolatile organic compounds, pesticides, and polychlorinated biphenyls) at selected source area wells for trend analysis. Metals concentrations will also be determined in groundwater, but the evaluation of the nature and extent of metals constituents representing a release requiring a corrective action response will be deferred pending Ohio EPA approval of the background study being conducted as part of the Facility-Wide Groundwater RI.

Wells selected for characterization during the RI generally represent the locations of AOC-specific historical maximum site related compound (SRC) concentrations (details on the RI well selection process can be found in the Final Facility-Wide Groundwater RI Work Plan, dated December 2016 [TEC-Weston JV, 2016]). Additional sampling of these wells in 2017 will be conducted where necessary to confirm the current nature and extent of SRCs in groundwater and to support development constituent-specific exposure point concentrations to be utilized for the baseline risk assessment portion of the RI.

Results of the 2016 FWGWMP and Facility-Wide Groundwater RI sampling were reviewed to determine the presence of SRCs and to evaluate contaminant concentration trends within individual wells. Wells were selected for inclusion in the 2017 Semiannual FWGWMP based on the following criteria:

- FWGWMP Criterion 1: Wells representing critical exit pathway monitoring points (generally a carryover from the 2016 program).

- FWGWMP Criterion 2: Wells representing primary AOC-specific contaminant source area conditions indicated to be potentially increasing or otherwise potentially unstable plume conditions.
- FWGWMP Criterion 3: Wells with 2016 sampling results representing a historical maximum concentration above regulatory screening levels for one or more SRCs in groundwater (based on AOC-specific sampling histories).
- FWGWMP Criterion 4: Co-located wells used to establish the vertical distribution of contaminants within the stratigraphic sequence.
- FWGWMP Criterion 5: New wells installed during 2016 and to be sampled for four consecutive quarters prior to consideration for adding to the 2018 FWGWMP (the first quarterly sampling event for nine of the 15 new wells was conducted in Fall 2016).

Wells will be sampled for purposes of the Facility-Wide Groundwater RI (to be sampled at least once in 2017) based on the following criteria:

- RI Criterion 1: Wells with results indicating potentially increasing concentration trends for one or more constituents reported above current United States Environmental Protection Agency (USEPA) screening levels (the lower of maximum contaminant level or the most recent Tapwater Regional Screening Levels (RSLs); excess lifetime cancer risk of 10E-06, target non-carcinogenic hazard quotient of 0.1).
- RI Criterion 2: Wells with insufficient data to support a concentration trend analysis for one or more constituents reported over current USEPA screening levels.

Groundwater monitoring wells sampled in 2016 that do not meet the FWGWMP or RI sampling criteria listed above will not be recommended for sampling in 2017. Contaminant trend analysis was conducted by review of well specific sampling histories, using statistical methods where necessary (wells with historically high non-metals SRC concentrations in 2016 were added to the 2017 FWGWMP without further review). Constituents with insufficient historical sampling results to support a statistical review were evaluated through visual analysis of data plot graphics. Trend analysis summary worksheets and data outputs are provided as **Appendix A**. A complete summary and evaluation of 2017 RI sampling results will be provided in the pending Facility-Wide

Groundwater RI report, currently scheduled for submittal to Ohio EPA for review in November 2017.

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3.0 SCOPE OF WORK UNDER THE ADDENDUM

The proposed 2017 FWGWMP and RI monitoring well network is intended to further address AOC-specific nature and extent data gaps in the historical sampling dataset, supporting a transition to a Facility-Wide 'plume group' approach which considers AOC source area composite contributions to overall groundwater quality in the unconsolidated and bedrock aquifers. Since there are numerous wells at the site, the approach used was to select wells that have exhibited contaminants of potential concern and eliminate wells that provide redundancy or provide minimal information on groundwater quality or fate-and-transport migration. To this end, 96 wells (including five RCRA wells) have been selected for sampling during the semiannual events in 2017. Monitoring well sampling and analytical testing will be conducted in accordance with the Sampling and Analysis Plan (SAP) and Quality Assurance Project Plan (QAPP) updates provided with the Final Facility-Wide Groundwater RI Work Plan.

Evaluation of 2016 FWGWMP and RI sampling results included the review of data validation reports and determining the effects, if any, of applied data qualifiers on data usability. Wells and constituents requiring resampling based on the results of data validation effort are discussed in the constituent-specific trend analysis descriptions provided in **Appendix A**. Constituent results discussed in the Site Related Compound Trend Analysis Summary table in **Appendix A** without a reference to data usability issues were determined to meet the most recent QAPP addendum (TEC-WESTON JV, 2106) requirements for method detection/quantitation limits and general usability. Data validation reports for all samples collected in 2016 will be provided with the Draft Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater Annual Report for 2016 (TEC-WESTON JV, 2017).

Wells selected for additional characterization during the RI generally represent the locations of AOC-specific historical maximum SRC concentrations (details on the RI well selection process can be found in the Final Facility-Wide Groundwater RI Work Plan, dated December 2016 [TEC-Weston JV, 2016]). Additional sampling of these wells in the Spring of 2017 will be conducted to establish the current nature and extent of SRCs in groundwater and to support development of constituent-specific exposure point concentrations to be utilized for the baseline risk assessment portion of the RI.

3.1 pH Monitored Wells

Selection of existing wells for semiannual pH monitoring was made based on anomalous pH values outside the typical range of natural groundwater (i.e., 5 to 9 standard units [s.u.]). A total of 12 wells will be tested for alkalinity, sulfate/sulfide, nitrate/nitrite, and/or hexavalent chromium:

- Homewood Aquifer: FBQmw-171; FBQmw-174; FBQmw-175;
- Unconsolidated Aquifer: FWGmw-002 (alkalinity only); LL1mw-086 (alkalinity only); LL1mw-088 (alkalinity only)
- Upper Sharon Sandstone: LL1mw-083; LL1wmw-084; RQLmw-011; RQLmw-012; RQLmw-013, RQLmw-014

The annual FWGWMP reporting for these wells will include time-series graphs for pH values. An evaluation of secondary geochemical parameters potentially associated with the anomalous pH conditions will be provided in the pending Facility-Wide Groundwater RI report.

3.2 New Wells

Fifteen new monitoring wells were installed at the facility in August-December 2016 to further characterize the nature and extent of facility-wide groundwater impacts. A summary of monitored aquifers, new well identification numbers, and general locations is a follows (four of the new wells were installed for the background study and are not included in the summary below):

- Basal Sharon Conglomerate Aquifer: FWGmw-017 (post-boundary southeast of Load Line 2); FWG-mw-018 (post-boundary south of Load Line 12); FWGmw-019 (between Load Line 9 and Load Line 10)
- Upper Sharon Sandstone Aquifer: FWGmw-020 (post-boundary south of Load Line 12); FWGmw-021 (post-boundary southwest of Load Line 3); FWGmw-022 (between Load Line 9 and Load Line 10); FWGmw-023 (east of Fuze and Booster Quarry); FWGmw-024 (post-boundary southeast of Load Line 2); LL1mw-089 (eastern interior Load Line 1 area); LL2mw-272 (southwest interior Load Line 2 area); NTAmw-120 (central NACA Test Area)

The new wells will ultimately be sampled for four consecutive quarters for all potential RVAAP SRCs. Five of the nine newly installed wells were initially sampled during the Fall 2016 sampling event, the remaining six wells were sampled in early January 2017. The last quarterly sampling event for the new wells is scheduled for September-October 2017.

3.3 RCRA Wells

The former RCRA/solid waste wells specified by the Director's Final Findings and Orders (DFFOs) will be sampled semiannually in conjunction with the proposed semiannual sampling events for the FWGWMP wells (i.e., March-April and September-October). The RCRA wells include the Ramsdell Quarry Landfill wells (RQLmw-007, RQLmw-008, and RQLmw-009) and the Demolition Area #2 wells (DET-3 and DET-4).

3.4 CERCLA Wells

Selection of existing wells for semiannual FWGWMP was made based on consideration of the following criteria. Wells in the below bulleted list denoted with an asterisk (*) indicate wells that meet more than one of the criteria for additional sampling.

- FWGWMP Criterion 1: wells representing critical exit pathway monitoring points
    - Basal Sharon Conglomerate Aquifer: SCFmw-004*, FWGmw-017, FWGmw-018, FWGmw-020
    - Upper Sharon Sandstone Aquifer: LL2mw-059*, LL3mw-237, LL3mw-244, LL3mw-246*, FWGmw-012*, FWGmw-016*, FWGmw-021, FWGmw-024
    - Unconsolidated Aquifer: LL1mw-064*, LL1mw-065, LL1mw-086*, LL1mw-087*, LL1mw-088*, LL12mw-247, FWGmw-004, FWGmw-007*, FWGmw-011*, FWGmw-015
- FWGWMP Criterion 2: Wells representing primary AOC-specific contaminant source area conditions routinely monitored or indicated to be potentially increasing or otherwise potentially unstable plume conditions.
    - Homewood Aquifer: FBQmw-175*, LL7mw-006, LL10mw-003
    - Upper Sharon Sandstone Aquifer: EBGmw-125, LL1mw-081, LL1mw-083*, LL1mw-084*, LL2mw-059*, LL2mw-264, RQLmw-007*, RQLmw-008*, RQLmw-011*, RQLmw-014*, WBGmw-021*

- Sharon Shale Aquifer: none currently proposed
- Unconsolidated Aquifer: CPBmw-008, CPBmw-009, EBGmw-125, LL1mw-064*, LL1mw-086*, LL4mw-193, FBQmw-176, NTAmw-119*, WBGmw-006*, WBGmw-009*

- FWGWMP Criterion 3: wells with 2016 sampling results representing a historical maximum concentration for one or more SRCs in groundwater (based on AOC-specific sampling histories).

  - Homewood Aquifer: FBQmw-171*, FBQmw-172, LL7mw-001
  - Upper Sharon Sandstone Aquifer: DA2mw-115*, FWGmw-012*, FWGmw-013, FWGmw-016*, LL1mw-080, LL1mw-081, LL1mw-083*, LL1mw-084, LL1mw-086*, LL2mw-059*, LL2mw-261, LL2mw-267, LL2mw-269, LL2mw-271, LL3mw-234, LL3mw-246*, LL12mw-183, RQLmw-007*, RQLmw-008*, RQLmw-009*, RQLmw-011*, RQLmw-012*, RQLmw-013*, RQLmw-014, RQLmw-016, WBGmw-020, WBGmw-021*
  - Basal Sharon Conglomerate Aquifer: None
  - Unconsolidated Aquifer: DET-3*, EBG mw-125, FWGmw-007*, FWGmw-010, FWGmw-011*, FWGmw-015*, LL1mw-086*, LL1mw-087*, LL1mw-088, LL11mw-005, LL12mw-185, LL12mw-187, LL12mw-242, LL12mw-245, LL12mw-247, NTAmw-117, NTAmw-118, NTAmw-119*, WBGmw-009*

- FWGWMP Criterion 4: collocated wells used to evaluate the vertical distribution of contaminants within the stratigraphic sequence.

  - Homewood Aquifer: LL10mw-005 (paired with FWGmw-019)
  - Basal Sharon Conglomerate Aquifer: FWGmw-018, FWGmw-017
  - Upper Sharon Sandstone Aquifer: DA2mw-115, WBGmw-020*, WBGmw-021*, FWGmw-024 (paired with FWGmw-017), NTAmw-120, FWGmw-016, FWGmw-024
  - Unconsolidated Aquifer: DETmw-3*, WBGmw-006*, WBGmw-009*, FWGmw-015.

Wells to be sampled during 2017 for the purposes of the Facility-Wide Groundwater RI include:

- RI Criterion 1 Wells with insufficient data to support a concentration trend analysis for one or more constituents reported over current USEPA screening levels in 2016, or to support nature and determination for contaminants observed at other wells.
    - Homewood Aquifer: LL5mw-001
    - Upper Sharon Aquifer: BKGmw-008, LL2mw-270
    - Unconsolidated Aquifer: LL4mw-193* (explosives), LL4mw-194, LL4mw-200, FBQmw-166, LNWmw-026, NTAmw-116

- RI Criterion 2: Wells planned for sampling in the Fall of 2016 but not addressed due to dry monitoring well groundwater conditions.
    - Upper Sharon Aquifer: B12mw-011, B12mw-012, LL3mw-236
    - Unconsolidated Aquifer: LL1mw-063, LL6mw-001, LL6mw-002, LL6mw-006, MBSmw-004, MBSmw-006, RQLmw-017, WBGmw-015

Results for all 2016 metals constituent testing other than at LL1mw-084 and LL1mw-086 were within the reported range of historical AOC-specific concentrations or, in the case of FWG wells not associated with an individual AOC, within the currently anticipated expected range of naturally occurring background conditions. Although certain FWGWMP wells will continue to be sampled for metals in 2017 (as indicated on **Table 3-3**, to include LL1mw-084 and LL1mw-086), evaluation of the nature and extent of inorganic constituents representing a potential release to groundwater from historical site activities will be deferred until obtaining Ohio EPA approval of the pending background study for metals.

Review of comprehensive historical results for cyanide testing indicates a number of locations with individual monitoring well historical high concentrations in 2016 were likely related to lower laboratory method detection limits achieved in 2016 testing as compared to prior years. Individual monitoring well results from 2016 were evaluated with respect to the historical range of cyanide concentrations at their respective AOCs to determine wells proposed for additional sampling in 2017. Wells with individual well cyanide results in 2016 that were within the range of historically

detected AOC wide conditions were generally not recommended for additional sampling of that constituent in 2017. The presence of bioavailable cyanide will be characterized in 2017 through the collection of "free" and "total" cyanide sample pairs at 10 AOCs identified with elevated total cyanide concentrations in 2016 (see **Table 3-3**).

Wells and constituents sampled in 2016 were generally dropped for further consideration of sampling in 2017 for the purposes of the RI if all potential SRCs were non-detect for four or more successive monitoring events at the individual monitoring well or for the last four events conducted for the AOC as a whole. A detailed analysis of specific well results pursuant to determining exposure point concentrations for each constituent plume at Camp Ravenna will be provided in the pending Facility-Wide Groundwater RI, currently planned for submittal to Ohio EPA for review in November 2017.

Wells in the 2016 FWGWMP* and RI program sampling not proposed for 2017 sampling include:

- Exit pathway wells being replaced by new well installations: SCFmw-002, SCFmw-003
- Non-exit pathway locations with 4 or more events with all SRCs below screening levels, or being replaced by new well installations:
    - Homewood Aquifer: CBLmw-001, CBLmw-002, CBLmw-003, CBLmw-004, FBQmw-168, FBQmw-173, LL5mw-002, LL5mw-006, LL6mw-003, LL6mw-007
    - Basal Sharon Conglomerate Aquifer: SCFmw-002, SCFmw-003
    - Upper Sharon Sandstone Aquifer: ASYmw-004, ASYmw-005, ASYmw-010, LL2mw-060*, LL2mw-261, LL2mw-268, LL2mw-269, LL2mw-271*, LL3mw-241*, LL3mw-243, LL4mw-201, LL7mw-005, LL9mw-003, LL9mw-004, LL9mw-005, LL9mw-007, RQLmw-015, WBGmw-019
    - Sharon Shale Aquifer: LL12mw-186
    - Unconsolidated Aquifer: BKGmw-004, CPBmw-001, CBPmw-002, CBPmw-004, CBPmw-006, DA2mw-104, DA2mw-105, DA2mw-107, DA2mw-108, EBGmw-123, EBGmw-126, EBGmw-128, FBQmw-167, LL4mw-197, LL4mw-199, LL6mw-008, LL8mw-001, LL10mw-006, LL11mw-006, LL11mw-010, LL12mw-107, LL12mw-153, LL12mw-154, LL12mw-182, LL12mw-188,

LL12mw-243, LL12mw-244, NTAmw-109, NTAmw-113, NTAmw-114, NTAmw-115, ULCPmw-001, ULCPmw-003, ULCPmw-006, WBGmw-007, WBGmw-008, WBGmw-014, WBGmw-018

- Non-exit pathway locations determined through trend analysis to exhibit stable or decreasing SRC concentrations
    - LL3mw-238*, LL3mw-239, LL10mw-001, LL11mw-001, LL11mw-002, LL11mw-003, LNWmw-025

Tables 3-1 and **3-2** provide a comprehensive summary of the proposed wells and rationale for their inclusion in the FWGW RI and semiannual monitoring programs. **Figures 3-1** through **3-3** show the wells to be sampled during the semiannual monitoring events and new wells subject to quarterly sampling.

For the selected FWGWMP and RI wells, the list of analytes reflects the primary constituents of concern within certain areas of the site or immediately downgradient of potential source areas, as appropriate. The refined analyte list for the semiannual wells is presented in **Table 3-3**. The analytical methods for these analytes are provided in **Table 3-4**. Evaluation of data collected during 2017 will be conducted in accordance with the Final Facility-Wide Groundwater RI Work Plan, including the supporting SAP and QAPP updates (TEC-Weston JV, 2016).

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4.0 SCHEDULE

A schedule for field sampling and reporting associated with the 2017 FWGWMP is provided as **Figure 4-1**.

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5.0 REFERENCES

EQM (Environmental Quality Management, Inc.). 2012. *Final Facility-Wide Groundwater Monitoring Program Plan, RVAAP-66 Facility-Wide Groundwater Addendum*. 6 January 2012.

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TEC-Weston Joint Venture (TEC-Weston JV). 2016. *Final Remedial Investigation Work Plan for Groundwater and Environmental Investigations Services for RVAAP-66 Facility-Wide Groundwater*. 21 December 2016.

TEC-Weston JV. 2017. *Draft Facility-Wide Groundwater Monitoring Program RVAAP-66 Facility-Wide Groundwater Annual Report for 2016*. February 2017.

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FIGURES

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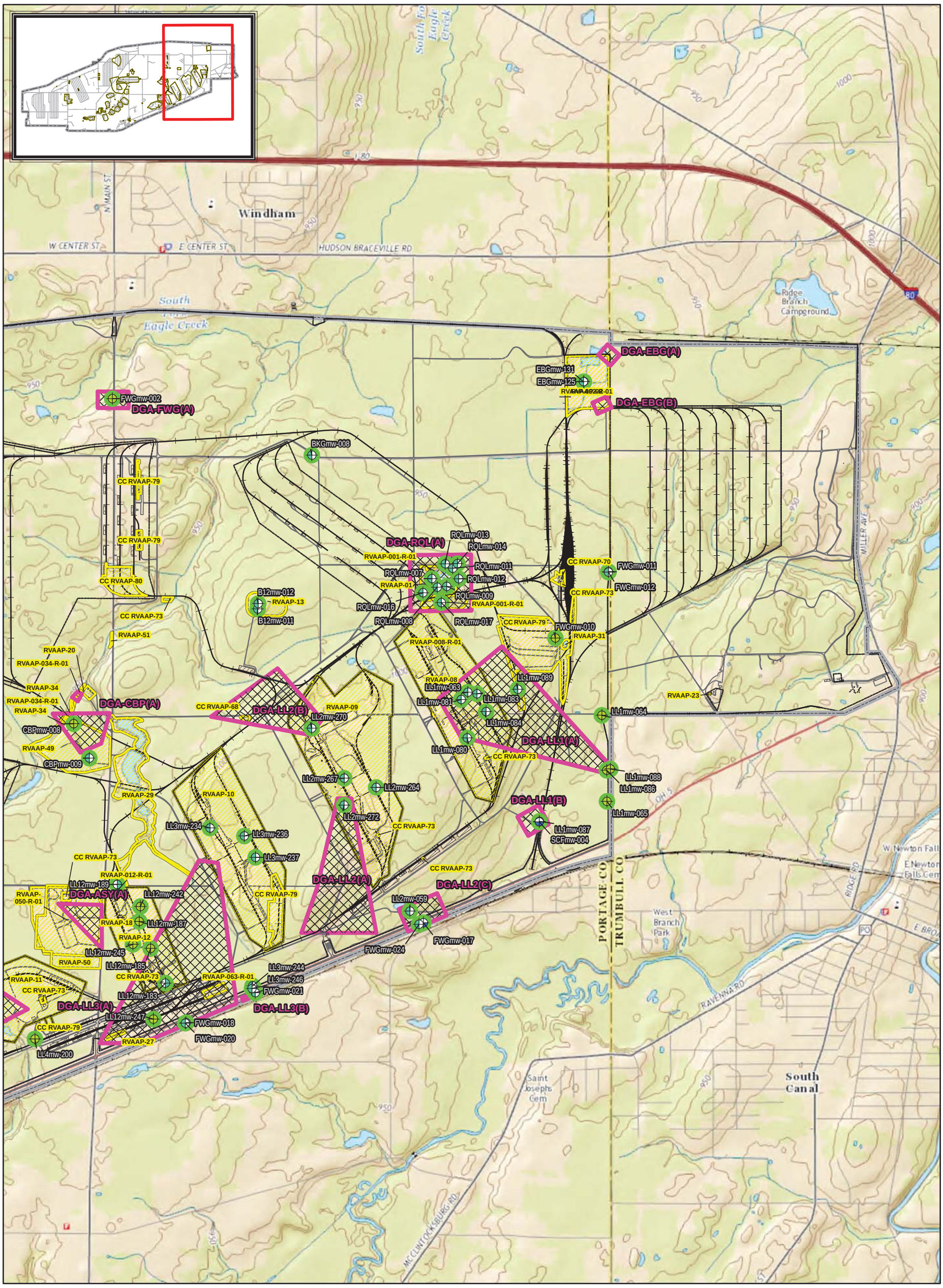


Existing Groundwater Monitoring Wells to be Sampled During the 2017 RI

- Groundwater Station (Unconsolidated Unit)
- Groundwater Station (Homewood)
- Groundwater Station (Sharon Sandstone)
- Groundwater Station (Sharon Shale)
- Groundwater Station (Sharon Cong.)
- 2017 FWGWMP or RI Sampling Well Location

- Camp Ravenna Boundary
- AOCs
- Horizontal and Vertical Delineation Gap Area

N

0 1,300 2,600 3,900 5,200 Feet

1 " = 2,500 ft
NAD83 UTM Zone 17N

TEC-Weston Joint Venture

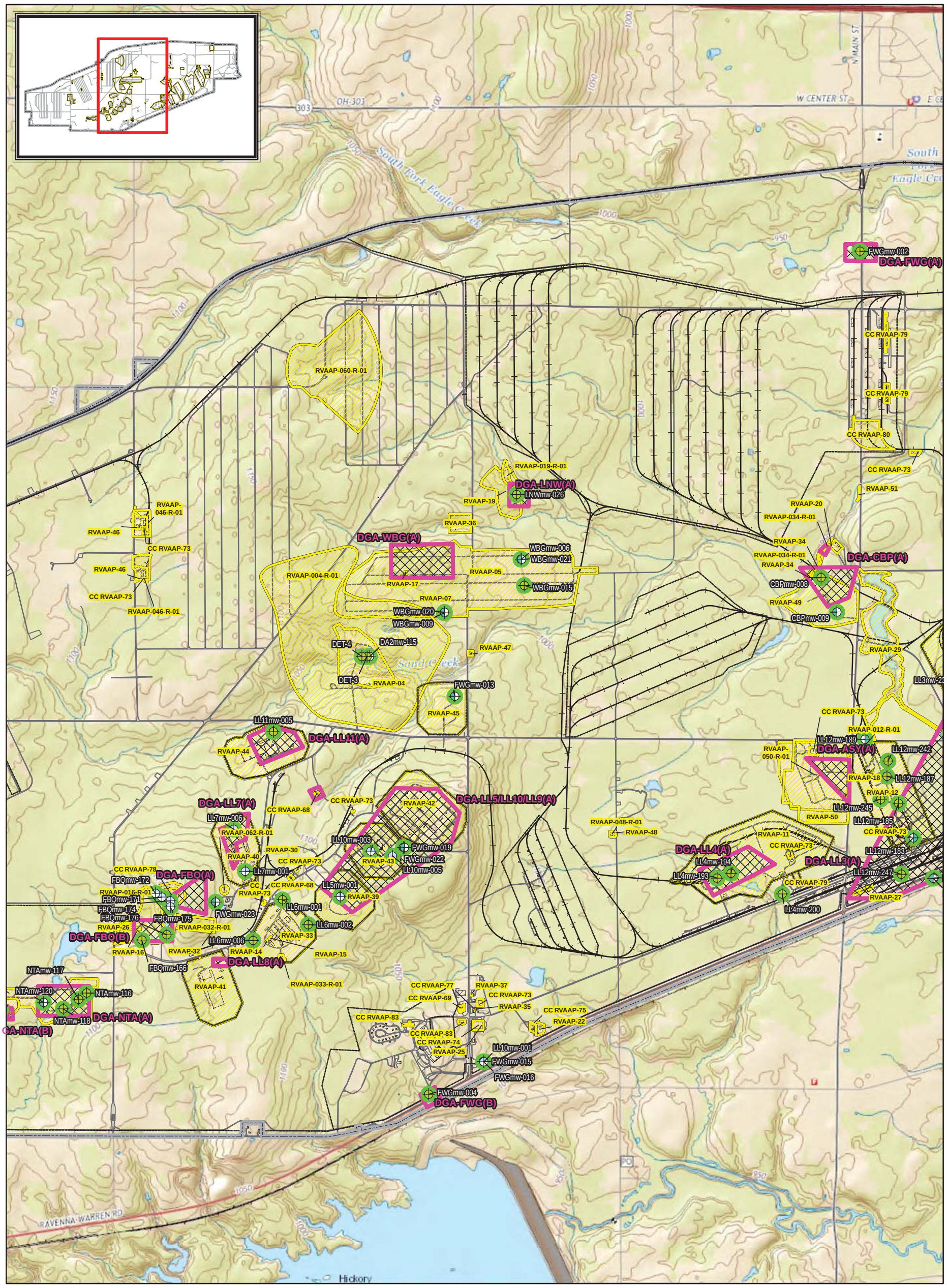
PROPOSED 2017 FWGWMP AND RI WELLS - EAST RVAAP

Groundwater and Environmental Investigation Services for RVAAP-66 Facility-wide Groundwater
Former Ravenna Army Ammunition Plant
Ravenna, Ohio

Figure: 3-1

FINAL

Path: \\GIS Project Files\15363_Cardno Weston Services\Ravenna\GIS\MXDs\Work_Plans\RI_WP_FINAL\Fig_1_1-3-3_2017_RI_Sample_Locations_v20170127.mxd, 2/15/2017 11:55:36 AM, wilderi



Existing Groundwater Monitoring Wells to be Sampled During the 2017 RI

- Groundwater Station (Unconsolidated Unit)
- Groundwater Station (Homewood)
- Groundwater Station (Sharon Sandstone)
- Groundwater Station (Sharon Shale)
- Groundwater Station (Sharon Cong.)
- 2017 FWGWMP or RI Sampling Well Location

- Camp Ravenna Boundary
- AOCs
- Horizontal and Vertical Delineation Gap Area

N

0 1,300 2,600 3,900 5,200 Feet

1 " = 2,490 ft
NAD83 UTM Zone 17N

TEC-Weston Joint Venture

PROPOSED 2017 FWGWMP AND RI WELLS - CENTRAL RVAAP

Groundwater and Environmental Investigation Services for RVAAP-66 Facility-wide Groundwater
Former Ravenna Army Ammunition Plant
Ravenna, Ohio

Figure: 3-2

FINAL

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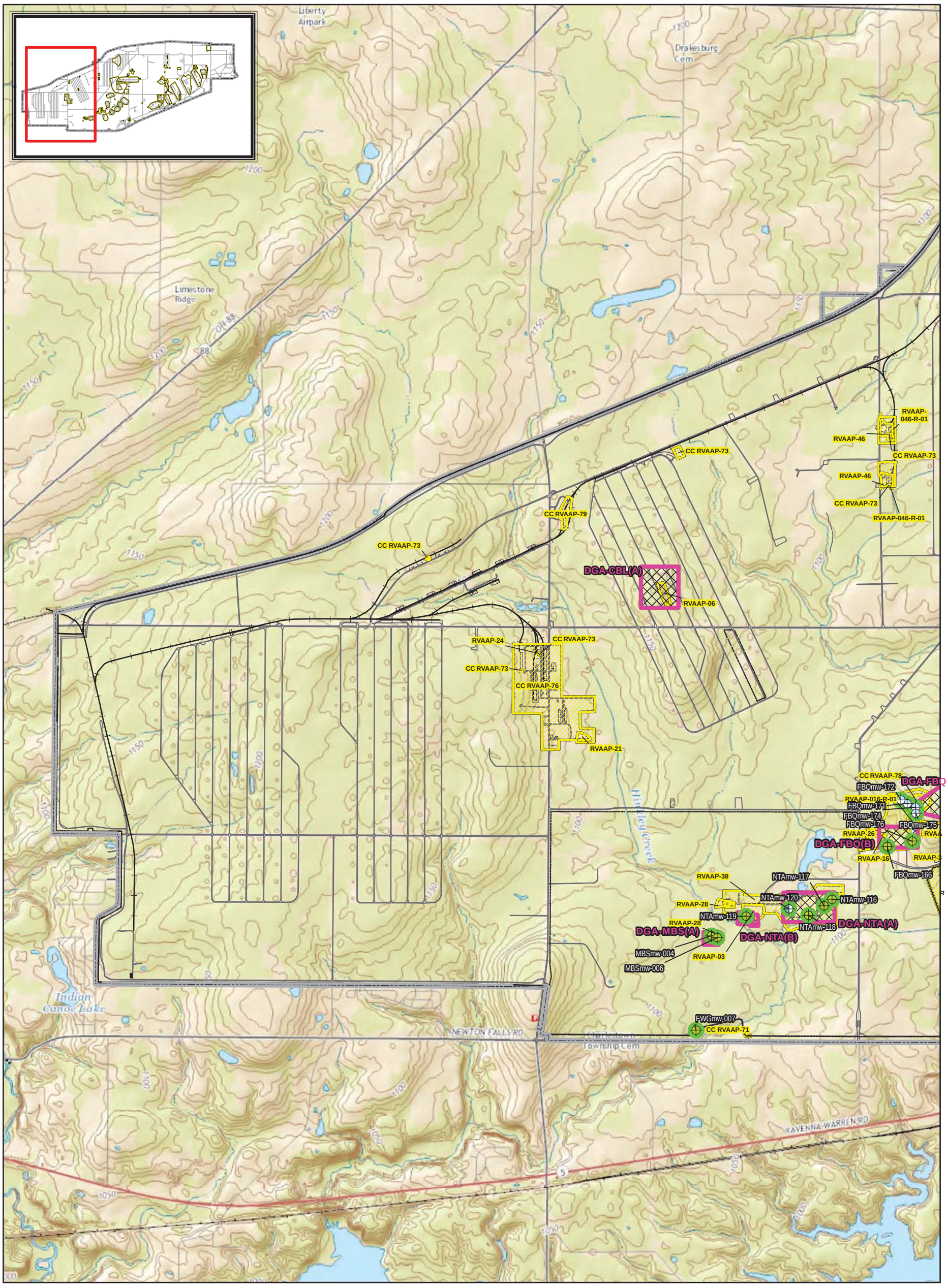

Existing Groundwater Monitoring Wells to be Sampled During the 2017 RI

- Groundwater Station (Unconsolidated Unit)
- Groundwater Station (Homewood)
- Groundwater Station (Sharon Sandstone)
- Groundwater Station (Sharon Shale)
- Groundwater Station (Sharon Cong.)
- 2017 FWGWMP or RI Sampling Well Location

- Camp Ravenna Boundary
- AOCs
- Horizontal and Vertical Delineation Gap Area

N

0 1,300 2,600 3,900 5,200 Feet

1 " = 2,490 ft
NAD83 UTM Zone 17N

TEC-Weston Joint Venture

PROPOSED 2017 FWGWMP AND RI WELLS - WEST RVAAP

Groundwater and Environmental Investigation Services for RVAAP-66 Facility-wide Groundwater
Former Ravenna Army Ammunition Plant
Ravenna, Ohio

Figure: 3-3

FINAL

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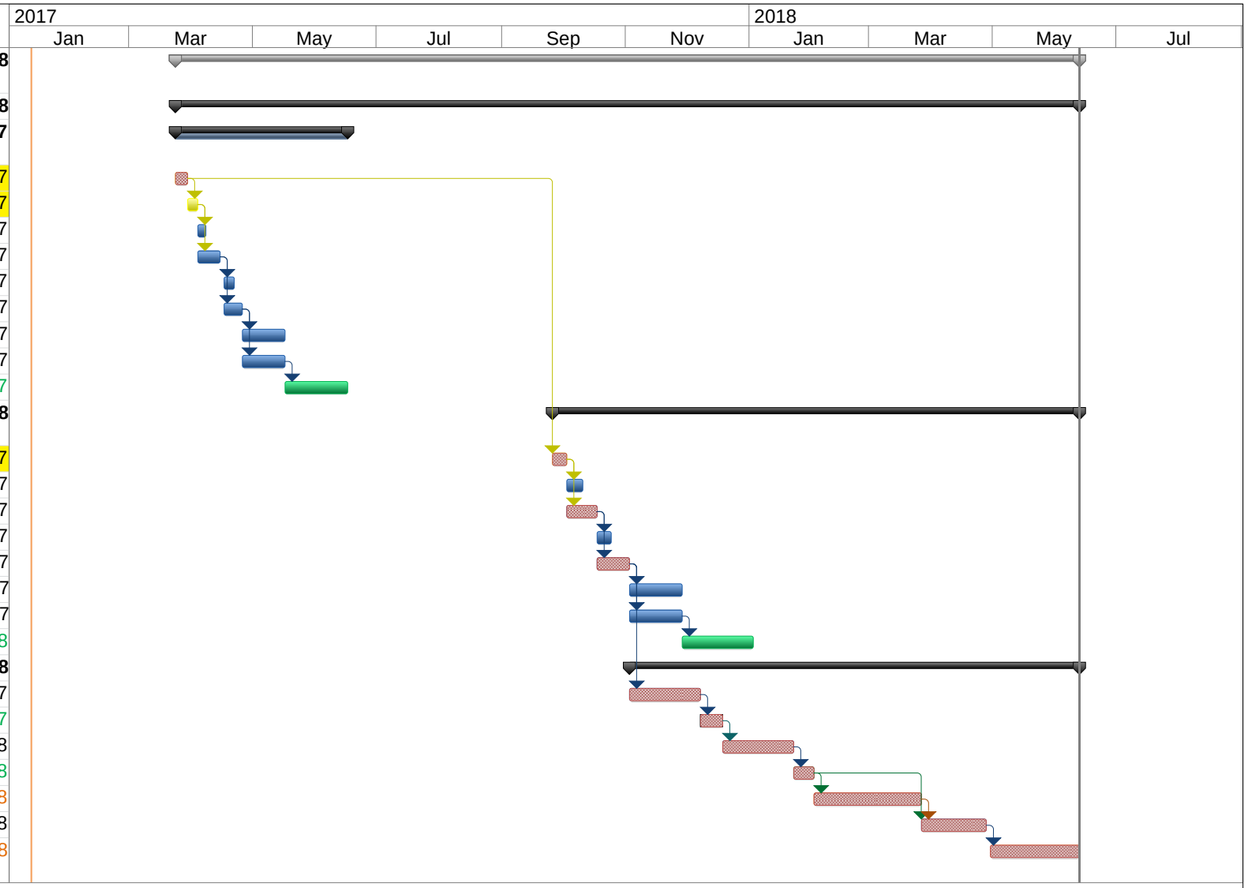
ID	Task	Task Name	Calendar Days	Start	Finish
0		**Groundwater and Environmental Investigation Services at the Former Ravenna Army Ammunition Plant/Camp Ravenna for 2017**	**446 days**	**Fri 3/24/17**	**Tue 6/12/18**
1	**9**	**Routine Groundwater Sampling**	**446 days**	**Fri 3/24/17**	**Tue 6/12/18**
2	**9.04**	**Semi-Annual Groundwater Sampling #3**	**85 days**	**Fri 3/24/17**	**Fri 6/16/17**
3	9.04/9.07	Semi-Annual Groundwater Sampling #3	6 days	Fri 3/24/17	Wed 3/29/17
4	9.04/9.07	Additional RI Sampling	5 days	Thu 3/30/17	Mon 4/3/17
5	9.04/9.07	Field Work Completion Notice	4 days	Tue 4/4/17	Fri 4/7/17
6	9.04/9.07	Sample Analysis	11 days	Tue 4/4/17	Fri 4/14/17
7	9.04/9.07	Analytical Raw Data Submission	5 days	Mon 4/17/17	Fri 4/21/17
8	9.04/9.07	Data Validation	9 days	Mon 4/17/17	Tue 4/25/17
9	9.04/9.07	Database Upload	21 days	Wed 4/26/17	Tue 5/16/17
10	9.04/9.07	Prepare Sampling Event Tech Memo	21 days	Wed 4/26/17	Tue 5/16/17
11	9.04/9.07	ARNG Review and Approve Sampling Event Tech Memo	31 days	Wed 5/17/17	Fri 6/16/17
12	**9.09**	**Semi-Annual Groundwater Sampling #4**	**260 days**	**Tue 9/26/17**	**Tue 6/12/18**
13	9.09	Semi-Annual Groundwater Sampling #4	7 days	Tue 9/26/17	Mon 10/2/17
14	9.09	Field Work Completion Notice	8 days	Tue 10/3/17	Tue 10/10/17
15	9.09	Sample Analysis	15 days	Tue 10/3/17	Tue 10/17/17
16	9.09	Analytical Raw Data Submission	7 days	Wed 10/18/17	Tue 10/24/17
17	9.09	Data Validation	16 days	Wed 10/18/17	Thu 11/2/17
18	9.09	Database Upload	26 days	Fri 11/3/17	Tue 11/28/17
19	9.09	Prepare Sampling Event Tech Memo	26 days	Fri 11/3/17	Tue 11/28/17
20	9.09	ARNG Review and Approve Sampling Event Tech Memo	35 days	Wed 11/29/17	Tue 1/2/18
21	**9.05**	**2017 Annual Groundwater Sampling Report**	**222 days**	**Fri 11/3/17**	**Tue 6/12/18**
22	9.05	Prepare Preliminary Draft Report and IDW Report	35 days	Fri 11/3/17	Thu 12/7/17
23	9.05	ARNG Review and Comment	11 days	Fri 12/8/17	Mon 12/18/17
24	9.05	Prepare RTCs and Draft Report and IDW Report	35 days	Tue 12/19/17	Mon 1/22/18
25	9.05	ARNG Review and Comment	10 days	Tue 1/23/18	Thu 2/1/18
26	9.05	Regulator Review Draft Report	53 days	Fri 2/2/18	Mon 3/26/18
27	9.05	Prepare RTCs and Final Report and IDW Report	32 days	Tue 3/27/18	Fri 4/27/18
28	9.05	Receive ARNG and Regulatory Approval of Groundwater Sampling Report #1 and IDW Report	44 days	Mon 4/30/18	Tue 6/12/18



Groundwater and Environmental Investigation Services at the Former Ravenna Army Ammunition Plant/Camp Ravenna
Date: Thu 1/12/17

Task
Summary
Field Work Activities (Yellow)
Milestone
Critical
Progress

Figure 4-1 2017 FWGWMP Schedule

TABLES

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Table 3-1 FWGWMP Wells and Rationale

No	RVAAP-66 Area	Well Location	Rationale/Comments
1	Central Burn Pits	CBPmw-008	**Unconsolidated** monitoring well to be sampled in 2017 for cyanide.
2	Central Burn Pits	CBPmw-009	**Upper Sharon** monitoring well to be sampled in 2017 for cyanide. CBPmw-009 will be sampled in Spring 2017 only to confirm current SVOC conditions.
3	Erie Burning Grounds	EBGmw-125	**Unconsolidated** monitoring well with historical maximum cyanide concentrations reported in 2016.
4	Erie Burning Grounds	EBGmw-131	**Upper Sharon** monitoring well with historical maximum cyanide concentrations reported in 2016.
5	SE/Load Line 1	LL1mw-064	**Unconsolidated** monitoring well located downgradient from Load Line 1 and serves to monitor potential GW exit pathway off of former RVAAP.
6	SE/Load Line 1	LL1mw-065	**Unconsolidated** monitoring well located downgradient from Load Line 1 and serves to monitor potential GW exit pathway off of former RVAAP.
7	Load Line 1	LL1mw-080	**Upper Sharon** well to be characterized for explosives.
8	Load Line 1	LL1mw-081	**Upper Sharon** well with historical maximum cyanide concentration reported in 2016. Semi-annual sampling in 2017 will include characterization of explosives.
9	Load Line 1	LL1mw-083	**Upper Sharon** source area well that has consistently been found to contain explosive constituents (2,4,6-TNT, 2,4-DNT, and 4-amino-2,6-DNT).
10	Load Line 1	LL1mw-084	**Upper Sharon** source area well that has consistently been found to contain explosive constituents (2,4,6-TNT, 2,4-DNT, 4-amino-2,6-DNT, and RDX). Cobalt sampling results in 2016 represented a new AOC maximum.
11	SE/Load Line 1	LL1mw-086	Second water-bearing zone well (**deep unconsolidated**) downgradient of Load Line 1 for monitoring potential GW exit pathway; pesticide beta-BHC identified in groundwater at this location. Semi-annual sampling will include characterization of groundwater pH conditions outside the range of naturally occurring conditions. Cobalt sampling results in 2016 represented a new AOC maximum.
12	SE	LL1mw-087	**Unconsolidated** well located approximately downgradient of Load Lines 1, 2, 3, 4, and 12, which have been found to contain elevated concentrations of metals, explosives, pesticides, nitrate, and/or PCBs. Monitors potential GW exit pathway.
13	Load Line 1	LL1mw-088	**Unconsolidated** well located downgradient of Load Line 1 and LL1mw-086, which has had pesticides. Sentinel well for monitoring GW exit pathway outside perimeter fence.
14	S/Load Line 2	LL2mw-059	**Upper Sharon** well located downgradient of Load Lines 2 and 3 and serves as potential GW exit pathway off of former RVAAP; consistently found to contain the explosive 2,4-DNT.

No	RVAAP-66 Area	Well Location	Rationale/Comments
15	Load Line 2	LL2mw-264	**Upper Sharon** monitoring well to be sampled for cyanide due to a well-specific historical maximum result in 2016.
16	Load Line 2	LL2mw-267	**Upper Sharon** source area well that has consistently been found to contain explosive constituents (2,4-DNT and RDX).
17	Load Line 3	LL3mw-234	**Upper Sharon** well with historical maximum cyanide concentration observed in 2016.
18	Load Line 3	LL3mw-237	**Upper Sharon** well to be sampled for potentially increasing explosives concentrations.
19	Load Line 3	LL3mw-244	**Upper Sharon** well located downgradient of Load Lines 3 and 12; consistently found to contain low level explosive constituents (2-amino-4,6-DNT, 4-amino-2,6- DNT, and RDX) and hexavalent chromium.
20	Load Line 3	LL3mw-246	**Upper Sharon** well located downgradient of Load Lines 3 and 12 and affected well LL3mw-244; serves as potential GW exit pathway off of former RVAAP; low levels of explosives consistently identified in well.
21	Load Line 4	LL4mw-193	**Unconsolidated** well to be sampled for cyanide due to well-specific historical high concentrations in 2016. Explosives will be sampled in Spring 2017 only to confirm current conditions.
22	Load Line 7	LL7mw-001	**Homewood** source area well that has historically been found to contain chlorinated solvents (specifically 1,1- dichloroethane, 1,1-dichloroethene, and 1,1,1- trichloroethane).
23	Load Line 7	LL7mw-006	**Homewood** source area well representing primary contaminant (RDX) source area conditions at LL7.
24	Load Line 10	LL10mw-003	**Homewood** well that has had historically consistent occurrence of VOCs (specifically carbon tetrachloride).
25	Load Line 10	LL10mw-005	**Homewood** well paired with FWGmw-022; serves to assess potential vertical contaminant migration in this area of the site.
26	Load Line 11	LL11mw-005	**Unconsolidated** well with AOC historical maximum concentration for cyanide in 2016 results.
27	Load Line 12	LL12mw-183	**Upper Sharon** monitoring well with well-specific historical maximum cyanide and SVOC concentrations reported in 2016.
28	Load Line 12	LL12mw-185	**Unconsolidated** well that has been found to contain elevated levels of nitrate and is downgradient of potential arsenic source.
29	Load Line 12	LL12mw-187	**Unconsolidated** well that has been found to contain elevated levels of nitrate.
30	Load Line 12	LL12mw-242	**Unconsolidated** well located downgradient of LL12mw- 113, a potential arsenic source.
31	Load Line 12	LL12mw-245	**Unconsolidated** well located downgradient of potential nitrate source well LL12mw-185.

No	RVAAP-66 Area	Well Location	Rationale/Comments
32	SE	LL12mw-247	**Unconsolidated** well located approximately downgradient of Load Lines 1, 2, 3, 4, and 12, which have been found to contain elevated concentrations of metals, explosives, pesticides, nitrate, and/or PCBs. Monitors potential GW exit pathway.
33	Fuze and Booster	FBQmw-171	**Homewood** monitoring well with historical maximum cyanide concentration reported in 2016 and anomalous pH values outside the typical range of natural groundwater.
34	Fuze and Booster	FBQmw-172	**Homewood** monitoring well with historical maximum cyanide concentration reported in 2016.
35	Fuze and Booster	FBQmw-174	**Homewood** source area well that has consistently been found to contain explosive constituents (2,4-DNT, 2,4,6- TNT, and 4-amino-2,6-DNT).
36	Fuze and Booster	FBQmw-175	**Homewood** source area well with anomalous pH values outside the typical range of natural groundwater.
37	Fuze and Booster	FBQmw-176	**Unconsolidated** source area well representing primary contaminant (cyanide) source area conditions at AOC monitored as part of the 2016 FWGWMP
38	Facility-Wide	FWGmw-002	**Unconsolidated** well with anomalous pH values outside the typical range of natural groundwater.
39	Admin/George Road	FWGmw-004	**Unconsolidated** exit pathway well located near the south property line and downgradient of several Compliance Restoration sites.
40	SW	FWGmw-007	**Unconsolidated** well located in the western portion of former RVAAP. Potential exit pathway well near Hinkley Creek.
41	Northeast of LL1	FWGmw-010	**Unconsolidated** monitoring well with new well-specific historical high cyanide concentrations in 2016.
42	East Classification Yard	FWGmw-011	**Unconsolidated** well located east of Ramsdell Quarry and former East Classification Yard. Serves as exit pathway well.
43	East Classification Yard	FWGmw-012	**Upper Sharon** formation well paired with FWGmw-011; serves as exit pathway well for the Sharon aquifer.
44	Facility-Wide	FWGmw-013	**Upper Sharon** well with historical maximum cyanide concentration reported in 2016.
45	Admin/George Road	FWGmw-015	**Unconsolidated** well. Located near the south property line and downgradient of several Compliance Restoration sites. Serves as first-water unconsolidated exit pathway well.
46	Admin/George Road	FWGmw-016	**Upper Sharon** well paired with FWGmw-015. Located near the south property line and downgradient of several Compliance Restoration sites. Serves as upper Sharon formation exit pathway well.
47	NACA Test	NTAmw-117	**Unconsolidated** monitoring well with well-specific historical maximum cyanide concentrations reported in 2016.
48	NACA Test	NTAmw-118	**Unconsolidated** monitoring well with AOC historical maximum cyanide concentrations reported in 2016.

No	RVAAP-66 Area	Well Location	Rationale/Comments
49	NACA Test	NTAmw-119	**Deep unconsolidated** well that has been found to contain trace amounts of tetrachloroethene, naphthalene, as well as metals. Monitors second water-bearing zone in buried valley unconsolidated.
50	Demo. Area 2	DA2mw-115	**Upper Sharon** well paired with well DETmw-003; serves to monitor potential vertical migration in this area of the site.
51	Demo. Area 2	DETmw-003	**Unconsolidated** RCRA well.
52	Demo. Area 2	DETmw-004	**Unconsolidated** RCRA well.
53	Ramsdell Quarry	RQLmw-007	**Upper Sharon** RCRA well.
54	Ramsdell Quarry	RQLmw-008	**Upper Sharon** RCRA well.
55	Ramsdell Quarry	RQLmw-009	**Upper Sharon** RCRA well.
56	Ramsdell Quarry	RQLmw-011	**Upper Sharon** source area well with anomalous pH values outside the typical range of natural groundwater and representing primary contaminant (DEHP,) source area conditions at AOC.
57	Ramsdell Quarry	RQLmw-012	**Upper Sharon** source area well with anomalous pH values outside the typical range of natural groundwater and well-specific historical maximum cyanide concentrations reported in 2016.
58	Ramsdell Quarry	RQLmw-013	**Upper Sharon** source area well with anomalous pH values outside the typical range of natural groundwater.
59	Ramsdell Quarry	RQLmw-014	**Upper Sharon** source area well with anomalous pH values outside the typical range of natural groundwater and representing primary contaminant (2,Nitrotoluene) source area conditions at AOC monitored as part of the 2016 FWGWMP.
60	Ramsdell Quarry	RQLmw-016	**Upper Sharon** monitoring well with historical maximum cyanide concentrations reported in 2016.
61	SE	SCFmw-004	**Sharon Conglomerate Member** well located downgradient of Load Lines 1 and 2, paired with LL1mw- 087, and selected for monitoring the potential GW exit pathway off of former RVAAP in the deeper aquifer.
62	Winklepeck	WBGmw-006	**Unconsolidated** well paired with WBGmw-021; source area well has been found to contain explosives (RDX).
63	Winklepeck	WBGmw-009	**Unconsolidated** well paired with WBGmw-020; source area well has been found to contain explosive constituents (RDX).
64	Winklepeck	WBGmw-020	**Upper Sharon** well paired with WBGmw-009; source area well for monitoring potential vertical migration in Sharon aquifer.
65	Winklepeck	WBGmw-021	**Upper Sharon** well paired with WBGmw-006; source area well for monitoring potential vertical migration in Sharon aquifer.

Note:

Unless otherwise stated, all wells were completed in the first water-bearing zone identified during well installation.

Table 3-2 RI Monitoring Wells and Rationale

No	RVAAP-66 Area	Well Location	Rationale/Comments
1	Background	BKGmw-008	**Upper Sharon** monitoring well being utilized for the facility-wide background study. Sampling in Spring 2017 to confirm cyanide concentrations from Fall 2016.
2	Building 1200	B12mw-011	**Upper Sharon** monitoring well to be sampled in Spring 2017 for SVOCs due to dry conditions in Fall 2016.
3	Building 1200	B12mw-012	**Upper Sharon** monitoring well to be sampled in Spring 2017 for SVOCs due to dry conditions in Fall 2016.
4	Load Line 1	LL1mw-063	**Unconsolidated** monitoring well to be sampled in Spring 2017 due to dry conditions in Fall 2016.
5	Load Line 1	LL1mw-089	**Upper Sharon** well installed on the eastern interior of Load Line 1 to further characterize the nature and extent of facility-wide groundwater impacts.
6	Load Line 2	LL2mw-270	**Upper Sharon** to be sampled in Spring 2017 to confirm current pentachlorophenol conditions.
7	Load Line 2	LL2mw-272	**Upper Sharon** well installed on the southwest interior of Load Line 2 to further characterize the nature and extent of facility-wide groundwater impacts.
8	Load Line 3	LL3mw-236	**Upper Sharon** well to be sampled in Spring 2017 due to dry conditions in Fall 2016.
9	Load Line 4	LL4mw-194	**Unconsolidated** well to be sampled for explosives in Spring 2017 only to confirm current conditions.
10	Load Line 4	LL4mw-200	**Unconsolidated** well to be sampled in Spring 2017 only to confirm current conditions downgradient of LL4 for cyanide.
11	Load Line 5	LL5mw-001	**Homewood** well to be sampled in Spring 2017 to delineate carbon tetrachloride at LL10.
12	Load Line 6	LL6mw-001	**Unconsolidated** well to be sampled in Spring 2017 due to dry conditions in Fall 2016.
13	Load Line 6	LL6mw-002	**Unconsolidated** well to be sampled in Spring 2017 due to dry conditions in Fall 2016.
14	Load Line 6	LL6mw-006	**Unconsolidated** well to be sampled in Spring 2017 due to dry conditions in Fall 2016.
15	Load Line 12	LL12mw-189	**Upper Sharon** well to be sampled in Spring 2017 due to dry conditions in Fall 2016.
16	Fuze and Booster	FBQmw-166	**Unconsolidated** monitoring well to be sampled in Spring 2017 to confirm current DEHP conditions and to delineate cyanide at FBQmw-176.
17	Facility-Wide	FWGmw-017	**Basal Sharon Conglomerate** well installed at the post boundary southeast of Load Line 2 to further characterize the nature and extent of facility-wide groundwater impacts.
18	Facility-Wide	FWGmw-018	**Basal Sharon Conglomerate** well installed at the post boundary south of Load Line 12 to further characterize the nature and extent of facility-wide groundwater impacts.

No	RVAAP-66 Area	Well Location	Rationale/Comments
19	Facility-Wide	FWGmw-019	**Basal Sharon Conglomerate** well installed between Load Line 9 and Load Line 10 to further characterize the nature and extent of facility-wide groundwater impacts.
20	Facility-Wide	FWGmw-020	**Upper Sharon** well installed at the post boundary southeast of Load Line 2 to further characterize the nature and extent of facility-wide groundwater impacts.
21	Facility-Wide	FWGmw-021	**Upper Sharon** well installed at the post boundary southwest of Load Line 3 to further characterize the nature and extent of facility-wide groundwater impacts.
22	Facility-Wide	FWGmw-022	**Upper Sharon** well installed between Load Line 9 and Load Line 10 to further characterize the nature and extent of facility-wide groundwater impacts.
23	Facility-Wide	FWGmw-023	**Upper Sharon** well installed east of the Fuze and Booster Quarry to further characterize the nature and extent of facility-wide groundwater impacts.
24	Facility-Wide	FWGmw-024	**Upper Sharon** well installed at the post boundary southeast of Load Line 2 to further characterize the nature and extent of facility-wide groundwater impacts.
25	Landfill North of Winklepeck	LNWmw-026	**Unconsolidated** well to be sampled in Spring 2017 to confirm current explosives conditions.
26	Suspected Mustard Burial Site	MBSmw-004	**Unconsolidated** well to be sampled in Spring 2017 due to dry conditions in Fall 2017.
27	Suspected Mustard Burial Site	MBSmw-006	**Unconsolidated** well to be sampled in Spring 2017 due to dry conditions in Fall 2017.
28	NACA Test	NTAmw-116	**Unconsolidated** well to be sampled in Spring 2017 for PAHs.
29	NACA Test	NTAmw-120	**Upper Sharon** well installed at the central portion of the NACA Test Area to further characterize the nature and extent of facility-wide groundwater impacts.
30	Ramsdell Quarry	RQLmw-017	**Upper Sharon** well to be sampled in Spring 2017 to characterize current PCB conditions due to dry conditions in Fall 2016. .
31	Winklepeck	WBGmw-015	**Unconsolidated** to be sampled in Spring 2017 due to inaccessible site conditions in Fall 2017.

Table 3-3 FWGWMP and RI Monitoring Wells with Analytical Testing Suite

Well ID	VOCs	SVOCs	PCBs	Explosives	Pesticides	Cyanide	Other	Metals
B12mw-011		X[1,4,6]						pending[3]
B12mw-012		X[1,4]						pending[3]
BKGmw-008						X[1]		
CBPmw-008						**X[10]**		pending[3]
CBPmw-009		**X[1,4]**				**X**		pending[3]
DA2mw-115		**X[4]**		**X**		**X**		**X**
DET-003	**X**	**X[4,5,6,7]**	**X**	**X**	**X**	**X**		**X**
DET-004	**X**	**X[4,5,6,7]**	**X**	**X**	**X**	**X**		**X**
EBGmw-125						**X[10]**		pending[3]
EBGmw-131						**X**		pending[3]
FBQmw-166		X[1,4]				X[1]		pending[3]
FBQmw-171						**X**	Sulfate/Sulfide, Nitrate/Nitrite, Alkalinity	X (Cr[VI]), pending[3]
FBQmw-172						**X[10]**		pending[3]
FBQmw-174		**X[4]**		**X**	**X**		Sulfate/Sulfide, Nitrate/Nitrite, Alkalinity	X (Cr[VI]), pending[3]
FBQmw-175							Sulfate/Sulfide, Nitrate/Nitrite, Alkalinity	X (Cr[VI]), pending[3]
FBQmw-176					X[1]	**X**		pending[3]
FWGmw-002							**Alkalinity**	pending[3]
FWGmw-004		**X[4]**		**X**				**X**
FWGmw-007		**X[4]**		**X**				**X**

Well ID	VOCs	SVOCs	PCBs	Explosives	Pesticides	Cyanide	Other	Metals
FWGmw-010						**X**		pending[3]
FWGmw-011		**X[4]**		**X**				**X**
FWGmw-012		**X[4]**		**X**				**X**
FWGmw-013						**X**		pending[3]
FWGmw-015		**X[4]**		**X**				**X**
FWGmw-016		**X[4]**		**X**				**X**
FWGmw-017	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11] (Perchlorate, Nitroguanidine, Nitrocellulose)**	**X + Cr(VI)[11]**
FWGmw-018	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11] (Perchlorate, Nitroguanidine, Nitrocellulose)**	**X + Cr(VI)[11]**
FWGmw-019	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11] (Perchlorate, Nitroguanidine, Nitrocellulose)**	**X + Cr(VI)[11]**
FWGmw-020	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11] (Perchlorate, Nitroguanidine, Nitrocellulose)**	**X + Cr(VI)[11]**
FWGmw-021	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11] (Perchlorate, Nitroguanidine, Nitrocellulose)**	**X + Cr(VI)[11]**
FWGmw-022	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11] (Perchlorate, Nitroguanidine, Nitrocellulose)**	**X + Cr(VI)[11]**
FWGmw-023	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11] (Perchlorate, Nitroguanidine, Nitrocellulose)**	**X + Cr(VI)[11]**
FWGmw-024	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11] (Perchlorate, Nitroguanidine, Nitrocellulose)**	**X + Cr(VI)[11]**

Well ID	VOCs	SVOCs	PCBs	Explosives	Pesticides	Cyanide	Other	Metals
LL1mw-063				X[1]		X[1]		
LL1mw-064		**X[4]**		**X**				**X**
LL1mw-065		**X[4]**		**X**				**X**
LL1mw-080				**X**				pending[3]
LL1mw-081				**X**		**X**		pending[3]
LL1mw-083		**X[4]**		**X**	**X**		Sulfate/Sulfide, Nitrate/Nitrite, Alkalinity	X (Cr[VI]), pending[3]
LL1mw-084		**X[4]**	X[1]	**X**	**X**	**X[10]**	Sulfate/Sulfide, Nitrate/Nitrite, Alkalinity	X + Cr[VI]
LL1mw-086		**X[4]**		**X**			Alkalinity	**X**
LL1mw-087		**X[4]**		**X**				**X**
LL1mw-088		**X[4]**		**X**	**X**		Alkalinity	**X**
LL1mw-089	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11] (Perchlorate, Nitroguanidine, Nitrocellulose)**	**X + Cr(VI)[11]**
LL2mw-059		**X[4]**		**X**				**X**
LL2mw-264						**X**		pending[3]
LL2mw-267		**X[4]**		**X**				**X**
LL2mw-270			X[1]					pending[3]
LL2mw-272	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11] (Perchlorate, Nitroguanidine, Nitrocellulose)**	**X + Cr(VI)[11]**
LL3mw-234						**X[10]**		pending[3]
LL3mw-236				X[1]		X[1]		pending[3]
LL3mw-237				**X**				pending[3]

Well ID	VOCs	SVOCs	PCBs	Explosives	Pesticides	Cyanide	Other	Metals
LL3mw-244		**X[4]**		**X**	**X**			**X + Cr(VI)**
LL3mw-246		**X[4]**		**X**			**Perchlorate**	**X**
LL4mw-193				X[1]		**X[10]**		pending[3]
LL4mw-194				X[1]				pending[3]
LL4mw-200		X[1,6]				X[1]		pending[3]
LL5mw-001	X[1]							pending[3]
LL6mw-001		X[1,4]				X[1]		pending[3]
LL6mw-002		X[1]		X[1]		X[1]		pending[3]
LL6mw-006		X[1,4]		X[1]		X[1]		pending[3]
LL7mw-001	**X**	**X[4]**		**X**		X[1]		**X**
LL7mw-006				**X**				pending[3]
LL10mw-003	**X**	**X[4,5]**						**X**
LL10mw-005	**X**	**X**						**X**
LL11mw-005						**X[10]**		pending[3]
LL12mw-183		**X[6]**				**X**		pending[3]
LL12mw-185						**X**	**Nitrate**	**Arsenic**
LL12mw-187		**X[4], X[1]**					**Nitrate**	**X**
LL12mw-189		X[1,6]		X[1]		X[1]		pending[3]
LL12mw-242		**X[4]**		**X**			**Nitrate**	**X**
LL12mw-245		**X[4]**		**X**			**Nitrate**	**X**
LL12mw-247		**X[4]**		**X**		**X[10]**	**Nitrate**	**X + Cr(VI)**
LNWmw-026				X[1]				pending[3]
MBSmw-004				X[1]		X[1]		pending[3]

Well ID	VOCs	SVOCs	PCBs	Explosives	Pesticides	Cyanide	Other	Metals
MBSmw-006				X[1]		X[1]		pending[3]
NTAmw-116		X[1,6]						pending[3]
NTAmw-117						**X**		pending[3]
NTAmw-118						**X[10]**		pending[3]
NTAmw-119	**X**	**X[4,5,6]**		**X**				**X**
NTAmw-120	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11]**	**X[11] (Perchlorate, Nitroguanidine, Nitrocellulose)**	**X + Cr(VI)[11]**
RQLmw-007	**X**	**X[4,6,7]**	**X**	**X**	**X**	**X**	Phosphorus	**X**
RQLmw-008	**X**	**X[4,6,7]**	**X**	**X**	**X**	**X**		**X**
RQLmw-009	**X**	**X[4,6,7]**	**X**	**X**	**X**	**X**		**X**
RQLmw-011		**X**					Sulfate/Sulfide, Nitrate/Nitrite, Alkalinity	X (Cr[VI]), pending[3]
RQLmw-012						**X[10]**	Sulfate/Sulfide, Nitrate/Nitrite, Alkalinity	X (Cr[VI]), pending[3]
RQLmw-013							Sulfate/Sulfide, Nitrate/Nitrite, Alkalinity	X (Cr[VI]), pending[3]
RQLmw-014				**X**			Sulfate/Sulfide, Nitrate/Nitrite, Alkalinity	X (Cr[VI]), pending[3]
RQLmw-016						**X**		pending[3]
RQLmw-017			X[1]					pending[3]
SCFmw-004		**X[4]**		**X**	**X**			**X**
WBGmw-006		**X[4]**	X[1]	**X**				**X**
WBGmw-009		**X[4]**		**X**				**X**

Well ID	VOCs	SVOCs	PCBs	Explosives	Pesticides	Cyanide	Other	Metals
WBGmw-015	X[1]			X[1]		X[1]		pending[3]
WBGmw-020		**X[4]**	X[1]	**X**				**X**
WBGmw-021		**X[4]**	X[1]	**X**				**X**

Notes:

X - indicates well or constituent to be sampled as part of the 2017 FWGWMP or during the RI characterization sampling. Wells and constituents will be sampled semi-annually unless indicated by footnotes described below.

Bold and shaded cells indicate content associated with the 2017 FWGWMP

[1] Indicates monitoring well or constituents to be sampled in Spring 2017 as part of the RI characterization effort only (not part of the FWGWMP). Additional sampling during 2017 for these wells and constituents will be based on review of Spring 2017 results.

[2] Background study wells will be sampled for a minimum of three consecutive quarters in order to obtain a base representative sample set of 12 per aquifer

[3] Metals to be characterized for the RI will be selected based on a comparison of historical sampling results to individual constituent upper-bound value concentrations in the pending metals background study following approval by Ohio EPA.

[4] SVOCs: phthalates

[5] SVOCs: nitroaromatics

[6] SVOCs: polycyclic aromatic hydrocarbons

[7] SVOCs: phenols

[8] Indicates FWGMP well identified for alkalinity testing only

[9] Pending metals evaluation will include hexavalent chromium

[10] Testing for cyanide will include collection of sample pairs for free and total concentrations.

[11] Indicates new RI well installed in 2016 and to be sampled for a minimum of three quarters during 2017.

Table 3-4 Analytical Laboratory Test Methods

Constituents	Method1
Polychlorinated biphenyls (PCBs)	Gas Chromatography (GC) – Semivolatile Organics (SVOCs) (8082A)
Pesticides	GC Semivolatile Organics (8081B)
Base/Neutrals and Acids (SVOCs)	GC/Mass Spectrometry (MS) Semivolatile Organics (8270C)
Polycyclic Aromatic Hydrocarbons (PAHs)	8270D SIM
Volatile Organic Compounds (VOCs)	GC/MS Volatile Organics (8260B)
Nitroguanidine (Propellant)	Organic compounds by UV/HPLC (8330 modified)
Nitroaromatics & Nitramines (Explosives)	GC Semivolatile Organics Explosives (8330)
Nitrocellulose (Propellant)	Colorimetric Cadmium Reduction 353.2[2]
Nitrate/Nitrites	General Chemistry (353.2)[2]
Total Alkalinity	SM2320B
Cyanide (Total)	General Chemistry (9012B)
Metals (Magnesium, Manganese, Barium, Nickel, Potassium, Silver, Sodium, Vanadium, Chromium, Calcium, Cobalt, Copper, Arsenic, Lead, Selenium)	Inductively Coupled Plasma (6010B)
Metals (Antimony, Iron, Beryllium, Thallium, Zinc, Cadmium, Aluminum)	Inductively Coupled Plasma Mass Spectrometry (6020); 6010C
Hexavalent Chromium	7196A
Mercury	Liquid Waste Cold Vapor Technique (7470A)
Perchlorate	Method 6860

Notes:

1 = USEPA SW846
2 = EPA Methods for Chemical Analysis of Water and Waste

APPENDIX A
INDIVIDUAL WELL CONTAMINANT TREND ANALYSIS

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Site Related Compound Trend Analysis Summary
Camp Ravenna, OH
April 2017
Final

AOC	Well Station ID	Monitored Formation	Constituent	Trend Analysis Results	Constituent Recommended For Additional RI Sampling	Comments
Atlas Scrap Yard	ASYmw-004	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	All historical data non-detect; no 2016 data collected for explosives	No	
Atlas Scrap Yard	ASYmw-004	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	All historical data non-detect; no 2016 data collected for SVOCs	No	
Atlas Scrap Yard	ASYmw-004	Sharon Sandstone	Cyanide	less than 4 detections; trend analysis not conducted; 2016 exceedance with lower detection limit than historical results; 2016 result is consistent with historical range of detected constituent concentrations.	No	
Atlas Scrap Yard	ASYmw-005	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Trend analysis is not applicable as 5 of 6 sample results ND. Only one historical detection in 2010 for 40+ samples for all wells sampled for this constituent in the Atlas Scrap Yard.	No	
Atlas Scrap Yard	ASYmw-005	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Results for last 5 sampling events ND; no 2016 data collected for SVOCs	No	
Atlas Scrap Yard	ASYmw-005	Sharon Sandstone	Cyanide	Last 5 sampling results ND with DL>SL; no trend analysis conducted	No	
Atlas Scrap Yard	ASYmw-010	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for last 6 sampling events (including one in 2016) ND	No	
Atlas Scrap Yard	ASYmw-010	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for last 5 sampling events ND - no 2016 data	No	
Atlas Scrap Yard	ASYmw-010	Unconsolidated	Cyanide	Last 5 sampling results ND with DL>SL; no trend analysis conducted	No	
Building 1200	B12mw-011	Sharon Sandstone	Di-n-octylphthalate	Results for last 5 sampling events ND; no 2016 data	Yes	Sample Spring 2017 due to dry conditions in Fall 2016.
Building 1200	B12mw-011	Sharon Sandstone	Indeno(1,2,3-cd)pyrene	Results for last 6 sampling events ND	Yes	Sample Spring 2017 due to dry conditions in Fall 2016.
Building 1200	B12mw-012	Sharon Sandstone	Di-n-octylphthalate	Less than 4 detections; 1 detection out of 9 events; 1 event since last detection; no 2016 data	Yes	Sample Spring 2017 due to dry conditions in Fall 2016.
Building 1200	B12mw-012	Sharon Sandstone	Indeno(1,2,3-cd)pyrene	Results for last 9 sampling events ND	No	
Background	BKGmw-004	Sharon Sandstone	Antimony	Additional evaluation of detected inorganic constituent concentrations will be made after establishing Ohio EPA approved background concentrations.	No	
Background	BKGmw-008	Sharon Sandstone	Full 2016 Sampling Suite	Checked all constituents for 2016. Exceedances reported for cyanide and cobalt. Several other constituents were reported as ND with the DL>SL. Sample for CN during next quarterly background study sampling event to confirm current conditions.	Yes	
C-Block Quarry	CBLmw-001	Homewood	Benz(a)anthracene	6 of 7 sample results (including one in 2016) ND, last 5 sample results were ND. One historical sample detect for all CBL wells sampled for this constituent.	No	
C-Block Quarry	CBLmw-001	Homewood	Benzo(a)pyrene	6 of 7 sample results (including one in 2016) ND, last 5 sample results were ND. One historical sample detect for all CBL wells sampled for this constituent.	No	
C-Block Quarry	CBLmw-001	Homewood	Benzo(b)fluoranthene	6 of 7 sample results (including one in 2016) ND, last 5 sample results were ND. One historical sample detect for all CBL wells sampled for this constituent.	No	
C-Block Quarry	CBLmw-001	Homewood	Bis(2-ethylhexyl)phthalate	All reported detections of this constituent are JB-flagged indicating method blank contamination.	No	
C-Block Quarry	CBLmw-001	Homewood	Indeno(1,2,3-cd)pyrene	6 of 7 sample results (including one in 2016) ND, last 5 sample results were ND. One historical sample detect for all CBL wells sampled for this constituent.	No	
C-Block Quarry	CBLmw-001	Homewood	PCB-1248	All PCBs ND for 2016 confirmation sampling at the CBL	No	
C-Block Quarry	CBLmw-001	Homewood	Total Cyanide	less than 4 detections; trend analysis not conducted. 2016 result ND with DL>SL	No	
C-Block Quarry	CBLmw-002	Homewood	Benz(a)anthracene	Results for last 9 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-002	Homewood	Benzo(a)pyrene	Results for last 9 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-002	Homewood	Benzo(b)fluoranthene	Results for last 9 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-002	Homewood	Bis(2-ethylhexyl)phthalate	All reported concentrations either ND or estimated below SL since maximum reported concentration of 0.400 mg/L in 2005.	No	
C-Block Quarry	CBLmw-002	Homewood	Indeno(1,2,3-cd)pyrene	Results for last 9 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-002	Homewood	PCB-1248	All PCBs ND for 2016 confirmation sampling at the CBL	No	
C-Block Quarry	CBLmw-002	Homewood	Total Cyanide	4 of 5 results ND with DL>SL; trend analysis not conducted; 2016 detection above SLs is within range of historical detections for the CBL. Lower MDL for the 2016 sampling than previous events.	No	
C-Block Quarry	CBLmw-003	Homewood	Benz(a)anthracene	Results for last 7 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-003	Homewood	Benzo(a)pyrene	Results for last 7 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-003	Homewood	Benzo(b)fluoranthene	Results for last 7 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-003	Homewood	Bis(2-ethylhexyl)phthalate	No Mann-Kendall Trend Decreasing OLS Regression Line Decreasing Theil-Sen Trend Line 1 of 6 sample results ND	No	
C-Block Quarry	CBLmw-003	Homewood	Indeno(1,2,3-cd)pyrene	Results for last 7 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-003	Homewood	PCB-1248	All PCBs ND for 2016 confirmation sampling at the CBL	No	
C-Block Quarry	CBLmw-003	Homewood	Total Cyanide	5 of 6 results ND with DL>SL; trend analysis not conducted; 2016 detection above SLs is within range of historical detections for the CBL. Lower MDL for the 2016 sampling than previous events.	No	
C-Block Quarry	CBLmw-004	Homewood	Benz(a)anthracene	Results for last 7 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-004	Homewood	Benzo(a)pyrene	Results for last 7 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-004	Homewood	Benzo(b)fluoranthene	Results for last 7 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-004	Homewood	Bis(2-ethylhexyl)phthalate	All reported detections of this constituent are JB-flagged indicating method blank contamination.	No	

Site Related Compound Trend Analysis Summary
Camp Ravenna, OH
April 2017
Final

AOC	Well Station ID	Monitored Formation	Constituent	Trend Analysis Results	Constituent Recommended For Additional RI Sampling	Comments
C-Block Quarry	CBLmw-004	Homewood	Indeno(1,2,3-cd)pyrene	Results for last 7 sampling events (including one in 2016) ND	No	
C-Block Quarry	CBLmw-004	Homewood	PCB-1248	All PCBs ND for 2016 confirmation sampling at the CBL	No	
C-Block Quarry	CBLmw-004	Homewood	Total Cyanide	5 of 6 results ND with DL>SL; trend analysis not conducted; 2016 detection above SLs is within range of historical detections for the CBL. Lower MDL for the 2016 sampling than previous events.	No	
Central Burn Pits	CBPmw-001	Unconsolidated	2,6-Dinitrotoluene	Results for last 7 sampling events (including one in 2016) ND	No	
Central Burn Pits	CBPmw-001	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for last 5 sampling events (including one in 2016) ND	No	
Central Burn Pits	CBPmw-001	Unconsolidated	Bis(2-ethylhexyl)phthalate	3 of 6 sample results (including one in 2016) ND. Three historical samples detections JB-flagged indicating method blank contamination.	No	
Central Burn Pits	CBPmw-001	Unconsolidated	Nitroglycerin	6 of 7 sample results (including one in 2016) ND. One historical and 2016 sample detection for all CBP wells sampled for this constituent.	No	
Central Burn Pits	CBPmw-001	Unconsolidated	PCB-1248	All PCBs ND for 2016 confirmation sampling at the CBP	No	
Central Burn Pits	CBPmw-001	Unconsolidated	Total Cyanide	All 7 sample results, including 2016 result, ND with DL>SL	No	
Central Burn Pits	CBPmw-002	Unconsolidated	2,6-Dinitrotoluene (Explosives)	5 of 6 sample results (including one in 2016) ND. One historical sample detect below current SL.	No	
Central Burn Pits	CBPmw-002	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for last 5 sampling events ND; no 2016 data collected for SVOCs	No	
Central Burn Pits	CBPmw-002	Unconsolidated	Bis(2-ethylhexyl)phthalate	All detections below current SLs.	No	
Central Burn Pits	CBPmw-002	Unconsolidated	Nitroglycerin	Results for last 6 sampling events (including one in 2016) ND	No	
Central Burn Pits	CBPmw-002	Unconsolidated	PCB-1248	All PCBs ND for 2016 confirmation sampling at the CBP	No	
Central Burn Pits	CBPmw-002	Unconsolidated	Total Cyanide	All 7 sample results, including 2016 result, ND with DL>SL	No	
Central Burn Pits	CBPmw-004	Unconsolidated	2,6-Dinitrotoluene (Explosives)	10 of 11 sample results (including one in 2016) ND. One historical sample detect below SL.	No	
Central Burn Pits	CBPmw-004	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for last 9 sampling events ND; no 2016 results	No	
Central Burn Pits	CBPmw-004	Unconsolidated	Bis(2-ethylhexyl)phthalate	All detections below current SLs.	No	
Central Burn Pits	CBPmw-004	Unconsolidated	Nitroglycerin	Results for last 11 sampling events (including one in 2016) ND	No	
Central Burn Pits	CBPmw-004	Unconsolidated	PCB-1248	All PCBs ND for 2016 confirmation sampling at the CBP	No	
Central Burn Pits	CBPmw-004	Unconsolidated	PCB-1248	All PCBs ND for 2016 confirmation sampling at the CBP	No	
Central Burn Pits	CBPmw-004	Unconsolidated	Total Cyanide	1 of 11 results are detections; 4 events since last detection; all NDs, including 2016 result, ND with DL>SL	No	
Central Burn Pits	CBPmw-006	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for last 5 sampling events ND; no 2016 data	No	
Central Burn Pits	CBPmw-006	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for last 5 sampling events (including one in 2016) ND	No	
Central Burn Pits	CBPmw-006	Unconsolidated	Bis(2-ethylhexyl)phthalate	4 of 6 sample results (including one in 2016) ND. Two historical samples with detection were JB-flagged indicating method blank contamination. All detections below current SLs.	No	
Central Burn Pits	CBPmw-006	Unconsolidated	Nitroglycerin	Results for last 5 sampling events ND; no 2016 data	No	
Central Burn Pits	CBPmw-006	Unconsolidated	PCB-1248	All PCBs ND for 2016 confirmation sampling at the CBP	No	
Central Burn Pits	CBPmw-006	Unconsolidated	Total Cyanide	1 of 6 results are detections; 4 events since last detection; NDs, including 2016 result, ND with DL>SL	No	
Central Burn Pits	CBPmw-008	Unconsolidated	2,6-Dinitrotoluene (Explosives)	6 of 7 sample results (including one in 2016) ND. One historical sample detect below current SL.	No	
Central Burn Pits	CBPmw-008	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for last 6 sampling events (including one in 2016) ND	No	
Central Burn Pits	CBPmw-008	Unconsolidated	Bis(2-ethylhexyl)phthalate	4 of 7 sample results (including one in 2016) ND. Three historical samples detect.	No	DEHP not detected in any 2016 confirmation samples collected at CBP.
Central Burn Pits	CBPmw-008	Unconsolidated	Nitroglycerin	Results for last 7 sampling events (including one in 2016) ND	No	
Central Burn Pits	CBPmw-008	Unconsolidated	PCB-1248	All PCBs ND for 2016 confirmation sampling at the CBP	No	
Central Burn Pits	CBPmw-008	Unconsolidated	Total Cyanide	6 of 7 results ND; trend analysis not conducted; 2016 exceedance presents historical AOC maximum.	Yes	Sample during both SA events in 2017.
Central Burn Pits	CBPmw-009	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for last 8 sampling events (including one in 2016) ND	No	
Central Burn Pits	CBPmw-009	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Historical samples for 2,6-Dinitrotoluene only analyzed under Explosives analysis group; 5 samples all ND; 2016 result ND with DL>SL	No	
Central Burn Pits	CBPmw-009	Unconsolidated	Bis(2-ethylhexyl)phthalate	No Mann-Kendall Trend Increasing OLS Regression Line Flat Theil-Sen Trend Line 1 of 8 sample results ND	Yes	Sample Spring 2017 to confirm current conditions.
Central Burn Pits	CBPmw-009	Unconsolidated	Nitroglycerin	Results for last 8 sampling events (including one in 2016) ND	No	
Central Burn Pits	CBPmw-009	Unconsolidated	PCB-1248	All PCBs ND for 2016 confirmation sampling at the CBP	No	
Central Burn Pits	CBPmw-009	Unconsolidated	Total Cyanide	7 of 8 results ND with DL>SL; trend analysis not conducted; 2016 exceedance	Yes	Sample during both SA events in 2017.
Demolition Area 2	DA2mw-104	Unconsolidated	2,6-Dinitrotoluene (Explosives)	5 of 7 sample results ND (including one in 2016); Two historical samples detected below current SLs.	No	
Demolition Area 2	DA2mw-104	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for last 6 sampling events ND; no 2016 results	No	
Demolition Area 2	DA2mw-104	Unconsolidated	Benz(a)anthracene	Results for last 6 sampling events (including one in 2016) ND	No	
Demolition Area 2	DA2mw-104	Unconsolidated	Benzo(a)pyrene	Results for last 6 sampling events (including one in 2016) ND	No	
Demolition Area 2	DA2mw-104	Unconsolidated	Benzo(b)fluoranthene	Results for last 6 sampling events (including one in 2016) ND	No	
Demolition Area 2	DA2mw-104	Unconsolidated	Naphthalene	Results for last 6 sampling events (including one in 2016) ND	No	

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Demolition Area 2	DA2mw-104	Unconsolidated	Nitroglycerin	Results for last 7 sampling events (including one in 2016) ND	No	
Demolition Area 2	DA2mw-104	Unconsolidated	PCB-1242	All PCBs non-detect in 2016 confirmation sampling at DA2	No	
Demolition Area 2	DA2mw-104	Unconsolidated	PCB-1248	All PCBs non-detect in 2016 confirmation sampling at DA2	No	
Demolition Area 2	DA2mw-104	Unconsolidated	RDX	Results for last 7 sampling events (including one in 2016) ND	No	
Demolition Area 2	DA2mw-104	Unconsolidated	Total Cyanide	5 of 6 results ND with DL>SL; trend analysis not conducted; 2016 detection above SLs is within range of historical detections for DA2. Lower MDL for the 2016 sampling than previous events.	No	
Demolition Area 2	DA2mw-105	Unconsolidated	2,6-Dinitrotoluene (Explosives)	3 of 6 sample results (including one in 2016) ND; Three historical samples detected below current SLs	No	
Demolition Area 2	DA2mw-105	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-105	Unconsolidated	Benz(a)anthracene	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-105	Unconsolidated	Benzo(a)pyrene	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-105	Unconsolidated	Benzo(b)fluoranthene	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-105	Unconsolidated	Naphthalene	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-105	Unconsolidated	Nitroglycerin	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-105	Unconsolidated	PCB-1242	All PCBs non-detect in 2016 confirmation sampling at DA2	No	
Demolition Area 2	DA2mw-105	Unconsolidated	PCB-1248	All PCBs non-detect in 2016 confirmation sampling at DA2	No	
Demolition Area 2	DA2mw-105	Unconsolidated	RDX	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-105	Unconsolidated	Total Cyanide	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-107	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for last 15 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-107	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for last 15 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-107	Unconsolidated	Benz(a)anthracene	Results for last 14 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-107	Unconsolidated	Benzo(a)pyrene	Results for last 14 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-107	Unconsolidated	Benzo(b)fluoranthene	Results for last 14 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-107	Unconsolidated	Naphthalene	Results for last 14 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-107	Unconsolidated	Nitroglycerin	Results for last 7 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-107	Unconsolidated	PCB-1242	All PCBs non-detect in 2016 confirmation sampling at DA2	No	
Demolition Area 2	DA2mw-107	Unconsolidated	PCB-1248	All PCBs non-detect in 2016 confirmation sampling at DA2	No	
Demolition Area 2	DA2mw-107	Unconsolidated	RDX	Results for last 15 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-107	Unconsolidated	Total Cyanide	12 of 13 results ND with DL>SL; 1 detection within range of DA2 historical concentrations; trend analysis not conducted; no 2016 data	No	
Demolition Area 2	DA2mw-108	Unconsolidated	2,6-Dinitrotoluene (Explosives)	9 of 11 sample results (including one in 2016) ND; Two historical samples detections below current SL	No	
Demolition Area 2	DA2mw-108	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for last 8 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-108	Unconsolidated	Benz(a)anthracene	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-108	Unconsolidated	Benzo(a)pyrene	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-108	Unconsolidated	Benzo(b)fluoranthene	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-108	Unconsolidated	Naphthalene	Results for last 5 sampling events ND - no 2016 data	No	
Demolition Area 2	DA2mw-108	Unconsolidated	Nitroglycerin	10 of 11 sample results (including one in 2016) ND; One historical sample detection below current SL	No	
Demolition Area 2	DA2mw-108	Unconsolidated	PCB-1242	All PCBs non-detect in 2016 confirmation sampling at DA2	No	
Demolition Area 2	DA2mw-108	Unconsolidated	PCB-1248	All PCBs non-detect in 2016 confirmation sampling at DA2	No	
Demolition Area 2	DA2mw-108	Unconsolidated	RDX	Results for last 11 sampling events (including one in 2016) ND	No	
Demolition Area 2	DA2mw-108	Unconsolidated	Total Cyanide	Results for last 5 sampling events ND with DL>SL; trend analysis not conducted; no 2016 data	No	
Erie Burning Grounds	EBGmw-123	Unconsolidated	Nitrobenzene (Explosives)	5 of 7 sample results (including one in 2016) ND; Two historical samples detections below current SL	No	
Erie Burning Grounds	EBGmw-123	Unconsolidated	Nitrobenzene (SVOCs)	Results for last 7 sampling events ND - no 2016 data	No	
Erie Burning Grounds	EBGmw-123	Unconsolidated	Total Cyanide	Results for last 7 sampling events, including one in 2016, ND with DL>SL	No	
Erie Burning Grounds	EBGmw-126	Unconsolidated	Nitrobenzene (Explosives)	6 of 8 sample results (including one in 2016) ND; two historical samples detections below current SL	No	
Erie Burning Grounds	EBGmw-126	Unconsolidated	Nitrobenzene (SVOCs)	Results for last 7 sampling events ND - no 2016 data	No	
Erie Burning Grounds	EBGmw-126	Unconsolidated	Total Cyanide	Results for last 8 sampling events, including one in 2016, ND with DL>SL	No	
Erie Burning Grounds	EBGmw-128	Unconsolidated	Nitrobenzene (Explosives)	5 of 6 sample results (including one in 2016) ND; One historical sample detection below current SL	No	
Erie Burning Grounds	EBGmw-128	Unconsolidated	Nitrobenzene (Explosives)	Results for last 5 sampling events ND - no 2016 data	No	
Erie Burning Grounds	EBGmw-128	Unconsolidated	Nitrobenzene (SVOCs)	Results for last 5 sampling events ND - no 2016 data	No	
Erie Burning Grounds	EBGmw-128	Unconsolidated	Nitrobenzene (SVOCs)	No historical or current results reported for Nitrobenzene under SVOCs	No	
Erie Burning Grounds	EBGmw-128	Unconsolidated	Total Cyanide	Results from last 8 sampling events, including one in 2016, ND with DL>SL	No	
Erie Burning Grounds	EBGmw-128	Unconsolidated	Total Cyanide	6 of 6 sampling results ND with DL>SL (including one in 2016)	No	
Erie Burning Grounds	EBGmw-131	Sharon Sandstone	Nitrobenzene (Explosives)	Results for last 5 sampling events (including one in 2016) ND	No	
Erie Burning Grounds	EBGmw-131	Sharon Sandstone	Total Cyanide	2016 sample is the first detection in 5 events; detection likely an artifact of lower DLs in 2016.	Yes	Sample during both SA events in 2017.
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	2,4,6-Trinitrotoluene	Results from last 6 sampling events (including one in 2016) ND	No	

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Fuze and Booster Quarry	FBQmw-166	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Less than 4 detections reported; most recent detection in 2008; most recent result flagged UQJ; no detections above current SL	No	
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	2-Amino-4,6-Dinitrotoluene	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	4-Amino-2,6-Dinitrotoluene	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	Bis(2-ethylhexyl)phthalate	Previous trend analysis indicated no M-K trend, stable OLS Regression, and Decreasing TS Trend; 2016 result ND (with highest DL)	Yes	
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	Nitrobenzene (Explosives)	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	Nitrobenzene (SVOCs)	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	Total Cyanide	4 of 5 results ND with DL>SL; 2016 exceedance	Yes	Nature and extent of CN at FBQmw-176
Fuze and Booster Quarry	FBQmw-166	Unconsolidated	Trichloroethene	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	2,4,6-Trinitrotoluene	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results from last 6 sampling events ND - no 2016 data	No	
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	2-Amino-4,6-Dinitrotoluene	Less than 4 detections reported; one sampling event since last detection; 2016 result qualified as UQ	Yes	Sample during both SA events in 2017.
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	4-Amino-2,6-Dinitrotoluene	Less than 4 detections reported; one sampling event since last detection; 2016 result ND	Yes	Sample during both SA events in 2017.
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	Bis(2-ethylhexyl)phthalate	Less than 4 detections reported; 3 of 5 detections; exceedance reported in most recent sample (2009); no 2016 data	No	Nature and extent of DEHP being addressed through resampling of FBQmw-176, mw-166 and mw-167
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	Nitrobenzene (Explosives)	Results from last 6 sampling events ND (including one in 2016)	No	
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	Nitrobenzene (SVOCs)	Results from last 5 sampling events ND - no 2016 data	No	
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	Total Cyanide	Results from last 5 events, including one in 2016, ND with DL>SL	No	
Fuze and Booster Quarry	FBQmw-168	Unconsolidated	Trichloroethene	Results from last 6 sampling events (including one in 2016) ND	No	
Fuze and Booster Quarry	FBQmw-174	Unconsolidated	2,4,6-Trinitrotoluene	Previous trend analysis indicated no M-K trend, stable OLS Regression, and Decreasing TS Trend; 2016 result greater than previous result No Mann-Kendall Trend Negative OLS Regression Line Positive Theil-Sen Trend Line 0 of 13 sample results (including one from 2016) ND	Yes	Sample during both 2017 SA events
Fuze and Booster Quarry	FBQmw-174	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Previous trend analysis indicated no M-K trend, decreasing/stable OLS Regression and TS Trend; 2016 result ND with DL >SL	No	
Fuze and Booster Quarry	FBQmw-174	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results from last 7 sampling events ND - no 2016 data	No	
Fuze and Booster Quarry	FBQmw-174	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Previous trend analysis indicated all 3 trends decreasing; 2016 result ND with DL>SL	Yes	Sample during both 2017 SA events
Fuze and Booster Quarry	FBQmw-174	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results from last 7 sampling events ND - no 2016 data	No	
Fuze and Booster Quarry	FBQmw-174	Unconsolidated	2-Amino-4,6-Dinitrotoluene	Previous trend analysis indicated all 3 trends decreasing; 2016 result ND with lowest DL reported	No	
Fuze and Booster Quarry	FBQmw-174	Unconsolidated	4-Amino-2,6-Dinitrotoluene	Previous trend analysis indicated no M-K trend, decreasing/stable OLS Regression and TS Trend; 2016 result ND with lowest DL reported	No	

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Fuze and Booster Quarry	FBQmw-174	Unconsolidated	Bis(2-ethylhexyl)phthalate	No Mann Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 7 of 13 sample results (including one from 2016) ND	No	
Fuze and Booster Quarry	FBQmw-174	Unconsolidated	Nitrobenzene (Explosives)	Results from last 13 sampling events (including one from 2016) ND	No	
Fuze and Booster Quarry	FBQmw-174	Unconsolidated	Nitrobenzene (SVOCs)	Results from last 7 sampling events ND - no 2016 data	No	
Fuze and Booster Quarry	FBQmw-174	Unconsolidated	Total Cyanide	Results from last 5 events ND with DL>SL; no 2016 results	No	
Fuze and Booster Quarry	FBQmw-174	Unconsolidated	Trichloroethene	Results from last 7 sampling events ND - no 2016 data	No	
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	2,4,6-Trinitrotoluene	Results from last 9 sampling events (including one from 2016) ND	No	
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results from last 9 sampling events (including one from 2016) ND[1]	Yes	Sample in Spring 2017 to confirm current conditions with QAPP compliant DL.
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results from last 9 sampling events (including one from 2016) ND	No	
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results from last 9 sampling events (including one from 2016) ND[1]	Yes	Sample in Spring 2017 to confirm current conditions with QAPP compliant DL.
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results from last 9 sampling events (including one from 2016) ND	No	
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	2-Amino-4,6-Dinitrotoluene	Results from last 9 sampling events (including one from 2016) ND	No	
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	4-Amino-2,6-Dinitrotoluene	Results from last 9 sampling events (including one from 2016) ND	No	
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	Bis(2-ethylhexyl)phthalate	Previous trend analysis indicated no M-K trend, increasing OLS Regression and TS Trend; Less than 4 detections reported; 5 events since last detection; 2016 result ND with DL>SL	No	
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	Nitrobenzene (Explosives)	Results from last 9 sampling events (including one from 2016) ND[1]	No	
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	Nitrobenzene (Explosives)	Results from last 9 sampling events (including one from 2016) ND[1]	Yes	Sample in Spring 2017 to confirm current conditions with QAPP compliant DL.
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	Nitrobenzene (SVOCs)	Results from last 9 sampling events (including one from 2016) ND	No	
Fuze and Booster Quarry	FBQmw-176	Unconsolidated	Trichloroethene	Results from last 9 sampling events (including one from 2016) ND	No	
Load Line 1	FWGmw-010	Unconsolidated	1,3-Dinitrobenzene	Results from last 5 sampling events (including one in 2016) ND	No	
Load Line 1	FWGmw-010	Unconsolidated	2,4,6-Trinitrotoluene	Results from last 5 sampling events (including one in 2016) ND	No	
Load Line 1	FWGmw-010	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results from last 5 sampling events (including one in 2016) ND	No	
Load Line 1	FWGmw-010	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	No historical data for 2,4-Dinitrotoluene run for SVOCs; 2016 result ND	No	
Load Line 1	FWGmw-010	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results from last 5 sampling events (including one in 2016) ND	No	
Load Line 1	FWGmw-010	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	No historical data for 2,6-Dinitrotoluene run for SVOCs; 2016 result ND	No	
Load Line 1	FWGmw-010	Unconsolidated	2-Amino-4,6-Dinitrotoluene	Results from last 5 sampling events (including one in 2016) ND	No	
Load Line 1	FWGmw-010	Unconsolidated	3-Nitrotoluene	Results from last 5 sampling events (including one in 2016) ND	No	
Load Line 1	FWGmw-010	Unconsolidated	4-Amino-2,6-Dinitrotoluene	Results from last 5 sampling events (including one in 2016) ND	No	
Load Line 1	FWGmw-010	Unconsolidated	Nitroglycerin	Results from last 5 sampling events (including one in 2016) ND	No	
Load Line 1	FWGmw-010	Unconsolidated	RDX	Results from last 5 sampling events (including one in 2016) ND	No	
Load Line 1	FWGmw-010	Unconsolidated	Total Cyanide	Results from 4 of 5 sampling events ND with DL>SL; 2016 exceedance	Yes	Sample during both 2017 SA events
Load Line 10	LL10mw-001	Homewood	2,4,6-Trinitrotoluene	Results for 5 of 6 historical data ND with DL < SL (includes one sample in 2016); 1 historical detection >SL in 2005	No	
Load Line 10	LL10mw-001	Homewood	2,6-Dinitrotoluene (Explosives)	Results for all 6 historical data ND; 2016 result ND with DL>SL	No	
Load Line 10	LL10mw-001	Homewood	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Load Line 10	LL10mw-001	Homewood	Carbon tetrachloride	No Mann-Kendall Trend Positive OLS Regression Line Positive Theil-Sen Trend Line 1 of 5 sample results ND - no 2016 data	No	Visual review of trend results indicates relatively stable conditions since 2005.
Load Line 10	LL10mw-001	Homewood	Total Cyanide	Results for 4 of 6 historical data ND; 2016 estimated result > SL	No	2016 results within range of historical detections at LL10
Load Line 10	LL10mw-003	Homewood	2,4,6-Trinitrotoluene	Results for all 7 historical data ND with DL<SL 2016 result ND with DL<SL	No	

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Load Line 10	LL10mw-003	Homewood	2,6-Dinitrotoluene (Explosives)	Results for all 7 historical data ND with DL>SL (including one sample in 2016)	No	
Load Line 10	LL10mw-003	Homewood	2,6-Dinitrotoluene (SVOCs)	Results for all 9 historical data ND with DL>SL 2016 sample ND with DL>SL	No	
Load Line 10	LL10mw-003	Homewood	Carbon tetrachloride	2016 result is a new well and AOC maximum concentration	Yes	Sample during Spring and Fall 2017 SA events to confirm current conditions.
Load Line 10	LL10mw-003	Homewood	Total Cyanide	Results for 6 of 7 historical data ND with DL>SL 2016 result estimated > SL	No	2016 result within range of historical detections at LL10
Load Line 10	LL10mw-006	Unconsolidated	2,4,6-Trinitrotoluene	Results for all 5 historical data ND with DL<SL No 2016 sample data	No	
Load Line 10	LL10mw-006	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 5 historical data ND with DL<SL in 4 of 5 samples No 2016 sample data	No	
Load Line 10	LL10mw-006	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Load Line 10	LL10mw-006	Unconsolidated	Carbon tetrachloride	Results for all 5 historical data ND with DL<SL No 2016 sample data	No	
Load Line 10	LL10mw-006	Unconsolidated	Total Cyanide	Results for 5 of 6 historical data ND with DL>SL 2016 result estimated >SL	No	2016 result within range of historical detections at LL10
Load Line 11	LL11mw-001	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 6 historical data ND; no 2016 data	No	
Load Line 11	LL11mw-001	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 6 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-001	Unconsolidated	bis(2-Ethylhexyl)phthalate	No Mann-Kendall Trend Positive OLS Regression Line Positive Theil-Sen Trend Line 3 of 7 sample results (including one in 2016) ND	No	Concentration trend analysis skewed by historical maximum concentration of 350 µg/L in 2009. All 2016 confirmation sampling results at LL11 were ND for DEHP.
Load Line 11	LL11mw-001	Unconsolidated	Cyanide/Total Cyanide	Results for all 6 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-001	Unconsolidated	Trichloroethene	Results for all 6 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 11	LL11mw-002	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for 13 of 14 historical data ND with DL>SL in 1 of 12 samples; 1 historical estimated detection > current SL in 2006 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-002	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 13 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-002	Unconsolidated	bis(2-Ethylhexyl)phthalate	No Mann-Kendall Trend Negative OLS Regression Line Flat Theil-Sen Trend Line 11 of 14 sample results (including on in 2016) ND	No	All 2016 confirmation sampling results at LL11 were ND for DEHP.
Load Line 11	LL11mw-002	Unconsolidated	Cyanide/Total Cyanide	Results for 13 of 14 historical data ND with DL>SL; 1 B-flagged (indicating method blank contamination) historical estimated detection > SL in 2006 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-002	Unconsolidated	Trichloroethene	Results for all 13 historical data ND with DL<SL No 2016 sample data	No	
Load Line 11	LL11mw-003	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 6 historical data ND with DL > SL; 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-003	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 4 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-003	Unconsolidated	bis(2-Ethylhexyl)phthalate	No Mann-Kendall Trend Negative OLS Regression Line Positive Theil-Sen Trend Line 2 of 6 sample results (including one in 2016) ND	No	Trend analysis skewed by max result of 8.6 µg/L in 2009 and LOQ for most recent sampling (LOD was below current SL). All 2016 confirmation sampling results at LL11 were ND for DEHP.
Load Line 11	LL11mw-003	Unconsolidated	Cyanide/Total Cyanide	Results for all 6 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-003	Unconsolidated	Trichloroethene	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 11	LL11mw-005	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 6 historical data ND; 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-005	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-005	Unconsolidated	bis(2-Ethylhexyl)phthalate	Results for 2 of 5 historical data ND with DL>SL; 3 historical estimated detections <SL in 2009 2016 result ND with DL>SL	No	All 2016 confirmation sampling results at LL11 were ND for DEHP.

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Load Line 11	LL11mw-005	Unconsolidated	Cyanide/Total Cyanide	Results for all 6 historical data ND with DL>SL 2016 result >SL	Yes	Sample during Spring and Fall 2017 SA events
Load Line 11	LL11mw-005	Unconsolidated	Trichloroethene	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 11	LL11mw-006	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for 5 of 6 historical data ND; 1 historical estimated detection <SL in 2009 2016 result ND with DL>SL	No	All 2,6-DNT results ND at LL11 since 2009.
Load Line 11	LL11mw-006	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 4 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-006	Unconsolidated	bis(2-Ethylhexyl)phthalate	Results for 3 of 5 historical data ND with DL>SL; 2 historical estimated detections <SL in 2009 2016 result ND with DL>SL	No	All 2016 confirmation sampling results at LL11 were ND for DEHP.
Load Line 11	LL11mw-006	Unconsolidated	Cyanide/Total Cyanide	Results for all 5 historical data ND with DL>SL 2016 result estimated >SL	No	
Load Line 11	LL11mw-006	Unconsolidated	Trichloroethene	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 11	LL11mw-010	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for 3 of 5 historical data ND with DL<SL in 2 of 3 samples; 1 historical detection <SL in 2009 and 1 historical estimated detection <SL in 2009 2016 result ND with DL>SL	No	All 2,6-DNT results ND at LL11 since 2009.
Load Line 11	LL11mw-010	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 4 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-010	Unconsolidated	bis(2-Ethylhexyl)phthalate	Results for 2 of 5 historical data ND with DL>SL; 3 historical estimated detections <SL in 2009 2016 result ND with DL>SL	No	All 2016 confirmation sampling results at LL11 were ND for DEHP.
Load Line 11	LL11mw-010	Unconsolidated	Cyanide/Total Cyanide	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 11	LL11mw-010	Unconsolidated	Trichloroethene	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-107	Unconsolidated	1,2-Dichloroethene	Results for all 8 historical data ND (no SL for constituent) 2016 result ND (no SL for constituent)	No	
Load Line 12	LL12mw-107	Unconsolidated	2,4,6-Trinitrotoluene	Results for all 15 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-107	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results for all 8 historical data ND with DL>SL in 2 of 8 samples 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-107	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-107	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 8 historical data ND; 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-107	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-107	Unconsolidated	2-Nitrotoluene	Results for all 8 historical data ND; 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-107	Unconsolidated	3-Nitrotoluene	Results for 7 of 8 historical data ND with DL>SL; 1 historical estimated detection = SL in 2000 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-107	Unconsolidated	Benz(a)anthracene	Results for all 8 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-107	Unconsolidated	Benzene	Results for all 8 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-107	Unconsolidated	Benzo(a)pyrene	Results for all 8 historical data ND with DL>SL in 2 of 8 samples 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-107	Unconsolidated	Benzo(b)fluoranthene	Results for all 8 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-107	Unconsolidated	Cyanide / Total Cyanide	Results for 5 of 6 historical data ND with DL>SL; 1 historical detection >SL in 2008 2016 result estimated > SL	No	2016 result is within historical detections at LL12.
Load Line 12	LL12mw-107	Unconsolidated	Dibenz(a,h)anthracene	Results for all 8 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-107	Unconsolidated	Hydrazine	Hydrazine not analyzed for this well	No	
Load Line 12	LL12mw-107	Unconsolidated	Indeno(1,2,3-cd)pyrene	Results for all 8 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-107	Unconsolidated	Naphthalene	Results for all 8 historical data ND with DL>SL 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-107	Unconsolidated	Nitrobenzene (Explosives)	Results for 7 of 8 historical data ND; 1 historical estimated detection < SL in 2008 2016 result ND with DL > SL	No	
Load Line 12	LL12mw-107	Unconsolidated	Nitrobenzene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-107	Unconsolidated	Nitroglycerin	Results for all 8 historical data ND; 2016 result ND with DL > SL	No	

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Load Line 12	LL12mw-107	Unconsolidated	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	
Load Line 12	LL12mw-107	Unconsolidated	PCB-1254	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	
Load Line 12	LL12mw-107	Unconsolidated	RDX	Results for 7 of 8 historical data ND with DL<SL; 1 historical estimated detection <SL in 2000 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-182	Unconsolidated	1,2-Dichloroethene	Results for all 15 historical data ND (no SL for constituent) 2016 result ND (no SL for constituent)	No	
Load Line 12	LL12mw-182	Unconsolidated	2,4,6-Trinitrotoluene	Results for 14 of 15 historical data ND with DL<SL; 1 historical detection <SL in 2000 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-182	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results for all 15 historical data ND with DL<SL in 13 of 15 samples 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-182	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results for all 15 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-182	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for 13 of 15 historical data ND; 2 historical estimated detections > SL in 2006 and 2007 2016 result ND with DL> SL	No	
Load Line 12	LL12mw-182	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 16 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-182	Unconsolidated	2-Nitrotoluene	Results for 13 of 15 historical data ND; 1 historical detection <SL in 2000 and 1 historical estimated detection <SL in 2007 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-182	Unconsolidated	3-Nitrotoluene	Results for 14 of 15 historical data ND with DL>SL in 12 of 14 samples; 1 historical estimated detection <SL in 2007 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-182	Unconsolidated	Benz(a)anthracene	Results for 14 of 15 historical data ND with DL>SL; 1 historical detection >SL in 2010 2016 result ND with DL>SL	No	Constituent not detected in any LL12 samples tested for this SVOC since 2010.
Load Line 12	LL12mw-182	Unconsolidated	Benzene	Results for all 15 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-182	Unconsolidated	Benzo(a)pyrene	Results for all 15 historical data ND; 2016 result ND with DL > SL	No	
Load Line 12	LL12mw-182	Unconsolidated	Benzo(b)fluoranthene	Results for 14 of 15 historical data ND; 1 historical detection > SL in 2010 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-182	Unconsolidated	Cyanide / Total Cyanide	Results for 11 of 13 historical data ND with DL>SL; 2 historical detections >SL in 2006 and 2007 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-182	Unconsolidated	Dibenz(a,h)anthracene	Results for 14 of 15 historical data ND with DL>SL; 1 historical detection >SL in 2010 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-182	Unconsolidated	Hydrazine	Hydrazine not analyzed for this well	No	
Load Line 12	LL12mw-182	Unconsolidated	Indeno(1,2,3-cd)pyrene	Results for 14 of 15 historical data ND with DL>SL; 1 historical detection >SL in 2010 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-182	Unconsolidated	Naphthalene	Results for all 15 historical data ND with DL>SL 2016 result >SL	No	
Load Line 12	LL12mw-182	Unconsolidated	Nitrobenzene (Explosives)	Results for all 15 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-182	Unconsolidated	Nitrobenzene (SVOCs)	Results for all 16 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-182	Unconsolidated	Nitroglycerin	Results for all 7 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-182	Unconsolidated	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	
Load Line 12	LL12mw-182	Unconsolidated	PCB-1254	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	
Load Line 12	LL12mw-182	Unconsolidated	RDX	Results for all 22 historical data ND with DL<SL No 2016 sample data	No	
Load Line 12	LL12mw-186	Sharon Shale	1,2-Dichloroethene	Results for all 15 historical data ND (no SL for constituent) 2016 result ND (no SL for constituent)	No	
Load Line 12	LL12mw-186	Sharon Shale	2,4,6-Trinitrotoluene	Results for all 15 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-186	Sharon Shale	2,4-Dinitrotoluene (Explosives)	Results for all 15 historical data ND with DL<SL in 13 of 15 samples 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	2,4-Dinitrotoluene (SVOCs)	Results for all 15 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	2,6-Dinitrotoluene (Explosives)	Results for all 15 historical data ND with DL<SL in 13 of 15 samples 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	2,6-Dinitrotoluene (SVOCs)	Results for all 15 historical data ND with DL>SL 2016 result ND with DL>SL	No	

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Load Line 12	LL12mw-186	Sharon Shale	2-Nitrotoluene	Results for 13 of 15 historical data ND with DL>SL in 12 of 13 samples; 1 historical detection >SL in 2000 and 1 historical estimated detection <SL in 2007 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	3-Nitrotoluene	Results for all 15 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	Benz(a)anthracene	Results for 14 of 15 historical data ND with DL>SL; 1 historical detection >SL in 2004 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	Benzene	Results for all 15 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-186	Sharon Shale	Benzo(a)pyrene	Results for 14 of 15 historical data ND with DL<SL in 13 of 14 samples; 1 historical estimated detection >SL in 2004 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-186	Sharon Shale	Benzo(b)fluoranthene	Results for 14 of 15 historical data ND with DL>SL; 1 historical estimated detection >SL in 2004 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	Cyanide / Total Cyanide	No Mann-Kendall Trend Negative OLS Regression Line Flat Theil-Sen Trend Line 10 of 14 sample results (including on in 2016) ND	No	
Load Line 12	LL12mw-186	Sharon Shale	Dibenz(a,h)anthracene	Results for 14 of 15 historical data ND with DL>SL in 13 of 14 samples; 1 historical detection >SL in 2004 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	Hydrazine	Hydrazine not analyzed for this well	No	
Load Line 12	LL12mw-186	Sharon Shale	Indeno(1,2,3-cd)pyrene	Results for 14 of 15 historical data ND with DL>SL in 13 of 14 samples; 1 historical detection >SL in 2004 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	Naphthalene	Results for all 15 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	Nitrobenzene (Explosives)	Results for all 15 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	Nitrobenzene (SVOCs)	Results for all 15 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-186	Sharon Shale	Nitroglycerin	Results for all 6 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-186	Unconsolidated	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	
Load Line 12	LL12mw-186	Unconsolidated	PCB-1254	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	
Load Line 12	LL12mw-186	Sharon Shale	RDX	Results for 12 of 15 historical data ND with DL<SL; 1 historical detection >SL in 2000 and 2 historical estimated detections <SL in 2007 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-188	Unconsolidated	1,2-Dichloroethene	Results for all 8 historical data ND (no SL for constituent) 2016 result ND (no SL for constituent)	No	
Load Line 12	LL12mw-188	Unconsolidated	2,4,6-Trinitrotoluene	Results for all 8 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-188	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results for all 8 historical data ND with DL<SL in 6 of 8 samples 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-188	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-188	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 8 historical data ND; 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-188	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-188	Unconsolidated	2-Nitrotoluene	Results for 7 of 8 historical data ND with DL>SL in 6 of 7 samples; 1 historical detection >SL in 2000 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-188	Unconsolidated	3-Nitrotoluene	Results for all 8 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-188	Unconsolidated	Benz(a)anthracene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-188	Unconsolidated	Benzene	Results for 7 of 8 historical data ND with DL<SL in 6 of 7 samples; 1 historical estimated detection <SL in 2008 No 2016 sample data	No	Benzene not detected in any LL12 sampled tested for VOCs since 2011.
Load Line 12	LL12mw-188	Unconsolidated	Benzo(a)pyrene	Results for all 8 historical data ND with DL>SL in 2 of 8 samples No 2016 sample data	No	
Load Line 12	LL12mw-188	Unconsolidated	Benzo(b)fluoranthene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	

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Load Line 12	LL12mw-188	Unconsolidated	Cyanide / Total Cyanide	Results for all 6 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-188	Unconsolidated	Dibenz(a,h)anthracene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-188	Unconsolidated	Hydrazine	Hydrazine not analyzed for this well	No	
Load Line 12	LL12mw-188	Unconsolidated	Indeno(1,2,3-cd)pyrene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-188	Unconsolidated	Naphthalene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-188	Unconsolidated	Nitrobenzene (Explosives)	Results for 6 of 8 historical data ND with DL<SL; 2 historical estimated detection >SL in 2000 and 2008 2016 result ND with DL<SL	No	Constituent not detected in any LL12 samples tested for explosives since 2008.
Load Line 12	LL12mw-188	Unconsolidated	Nitrobenzene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-188	Unconsolidated	Nitroglycerin	Results for all 8 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-188	Unconsolidated	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	
Load Line 12	LL12mw-188	Unconsolidated	PCB-1254	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	
Load Line 12	LL12mw-188	Unconsolidated	RDX	Results for 6 of 8 historical data ND with DL<SL in 5 of 6 samples; 2 historical estimated detection >SL in 2008 and 2010 2016 result ND with DL<SL	No	RDX not detected in any LL12 well sampled for explosives since 2010
Load Line 12	LL12mw-189	Sharon Shale	1,2-Dichloroethene	Results for all 8 historical data ND (no SL for constituent) 2016 result ND (no SL for constituent)	No	
Load Line 12	LL12mw-189	Sharon Shale	2,4,6-Trinitrotoluene	Results for 7 of 8 historical data ND with DL<SL; 1 historical estimated detection >SL in 2000 No 2016 sample data	No	2,4,6-TNT not detected in any LL12 well tested for explosives since 2004.
Load Line 12	LL12mw-189	Sharon Shale	2,4-Dinitrotoluene (Explosives)	Results for 7 of 8 historical data ND with DL<SL in 6 of 7 samples; 1 historical detection >SL in 2000 No 2016 sample data	No	2,4-DNT not detected in any LL12 well tested for explosives since 2000.
Load Line 12	LL12mw-189	Sharon Shale	2,4-Dinitrotoluene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-189	Sharon Shale	2,6-Dinitrotoluene (Explosives)	Results for all 8 historical data ND with DL<SL in 6 of 8 samples No 2016 sample data	No	
Load Line 12	LL12mw-189	Sharon Shale	2,6-Dinitrotoluene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-189	Sharon Shale	2-Nitrotoluene	Results for 7 of 8 historical data ND with DL>SL in 6 of 7 samples; 1 historical detection >SL in 2000 No 2016 sample data	No	Constituent not detected in any LL12 well tested for explosives since 2007.
Load Line 12	LL12mw-189	Sharon Shale	3-Nitrotoluene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-189	Sharon Shale	Benz(a)anthracene	Results for all 8 historical data ND with DL>SL No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016).
Load Line 12	LL12mw-189	Sharon Shale	Benzene	Results for all 8 historical data ND with DL<SL in 7 of 8 samples No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016).
Load Line 12	LL12mw-189	Sharon Shale	Benzo(a)pyrene	Results for all 8 historical data ND with DL<SL in 6 of 8 samples No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016).
Load Line 12	LL12mw-189	Sharon Shale	Benzo(b)fluoranthene	Results for all 8 historical data ND with DL>SL No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016).
Load Line 12	LL12mw-189	Sharon Shale	Cyanide / Total Cyanide	Results for all 6 historical data ND with DL>SL No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016).
Load Line 12	LL12mw-189	Sharon Shale	Dibenz(a,h)anthracene	Results for all 8 historical data ND with DL>SL No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016).
Load Line 12	LL12mw-189	Sharon Shale	Hydrazine	Hydrazine not analyzed for this well	No	
Load Line 12	LL12mw-189	Sharon Shale	Indeno(1,2,3-cd)pyrene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-189	Sharon Shale	Naphthalene	Results for 7 of 8 historical data ND with DL>SL; 1 historical detection >SL in 2010 No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016).
Load Line 12	LL12mw-189	Sharon Shale	Nitrobenzene (Explosives)	Results for 7 of 8 historical data ND with DL<SL; 1 historical estimated detection <SL in 2000 No 2016 sample data	No	Current naphthalene conditions evaluated through 2017 sampling at LL12mw-153 and 182
Load Line 12	LL12mw-189	Sharon Shale	Nitrobenzene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-189	Sharon Shale	Nitroglycerin	Results for all 8 historical data ND with DL<SL No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016).
Load Line 12	LL12mw-189	Unconsolidated	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	
Load Line 12	LL12mw-189	Unconsolidated	PCB-1254	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	

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Load Line 12	LL12mw-189	Sharon Shale	RDX	Results for 7 of 8 historical data ND with DL<SL; 1 historical estimated detection <SL in 2000 No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016).
Load Line 12	LL12mw-243	Unconsolidated	1,2-Dichloroethene	Results for all 7 historical data ND (no SL for constituent) 2016 result ND (no SL for constituent)	No	
Load Line 12	LL12mw-243	Unconsolidated	2,4,6-Trinitrotoluene	Results for 6 of 7 historical data ND with DL<SL; 1 historical detection >SL in 2004 2016 result ND with DL<SL	No	2,4,6-TNT not detected in any LL12 well tested for explosives since 2004.
Load Line 12	LL12mw-243	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results for all 7 historical data ND with DL<SL in 6 of 7 samples 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results for all 7 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for 6 of 7 historical data ND with DL<SL in 5 of 6 samples; 1 historical estimated detection <SL in 2008 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 7 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	2-Nitrotoluene	Results for all 7 historical data ND with DL>SL in 6 of 7 samples 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	3-Nitrotoluene	Results for all 7 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	Benz(a)anthracene	Results for all 7 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	Benzene	Results for 6 of 7 historical data ND with DL<SL; 1 historical estimated detection <SL in 2008 2016 result ND with DL<SL	No	Benzene not detected in any LL12 sampled tested for VOCs since 2011.
Load Line 12	LL12mw-243	Unconsolidated	Benzo(a)pyrene	Results for all 7 historical data ND with DL>SL in 2 of 7 samples 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-243	Unconsolidated	Benzo(b)fluoranthene	Results for all 7 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	Cyanide / Total Cyanide	Results for all 5 historical data ND with DL>SL 2016 estimated detection >SL	No	2016 result fits within historical range of cyanide detections at LL12.
Load Line 12	LL12mw-243	Unconsolidated	Dibenz(a,h)anthracene	Results for all 7 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	Hydrazine	No historical data 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	Indeno(1,2,3-cd)pyrene	Results for all 7 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	Naphthalene	Results for all 7 historical data ND with DL>SL 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-243	Unconsolidated	Nitrobenzene (Explosives)	Results for 6 of 7 historical data ND with DL<SL; 1 historical estimated detection <SL in 2008 2016 result ND with DL<SL[1]	No	Constituent not detected in any LL12 well tested for explosives since 2008.
Load Line 12	LL12mw-243	Unconsolidated	Nitrobenzene (SVOCs)	Results for all 7 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-243	Unconsolidated	Nitroglycerin	Results for 6 of 7 historical data ND with DL<SL; 1 historical estimated detection <SL in 2010 2016 result ND with DL<SL	No	Constituent not detected in any LL12 well tested for explosives since 2010.
Load Line 12	LL12mw-243	Unconsolidated	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at LL12[1]. 2016 result detection limits at 0.18 µg/L compared to QAPP value of 0.1 µg/L.	No	
Load Line 12	LL12mw-243	Unconsolidated	PCB-1254	All PCBs non-detect for 2016 confirmation sampling at LL12[1]. 2016 result detection limit at 0.15 µg/L compared to QAPP value of 0.1 µg/L.	No	
Load Line 12	LL12mw-243	Unconsolidated	RDX	Results for 6 of 7 historical data ND with DL<SL; 1 historical detection >SL in 2004 2016 result ND with DL<SL	No	RDX not detected in any LL12 well sampled for explosives since 2010.
Load Line 12	LL12mw-244	Unconsolidated	1,2-Dichloroethene	Results for all 7 historical data ND (no SL for constituent) 2016 result ND (no SL for constituent)	No	
Load Line 12	LL12mw-244	Unconsolidated	2,4,6-Trinitrotoluene	Results for all 7 historical data ND with DL<SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results for all 7 historical data ND with DL<SL in 6 of 7 samples No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 7 historical data ND with DL<SL in 6 of 7 samples No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	

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Load Line 12	LL12mw-244	Unconsolidated	2-Nitrotoluene	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	3-Nitrotoluene	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	Benz(a)anthracene	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	Benzene	Results for 5 of 7 historical data ND with DL<SL; 2 historical estimated detections <SL in 2008 and 2011 2016 result ND with DL<SL	No	
Load Line 12	LL12mw-244	Unconsolidated	Benzo(a)pyrene	Results for all 7 historical data ND with DL>SL in 1 of 7 samples (all others DL=SL) No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	Benzo(b)fluoranthene	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	Cyanide / Total Cyanide	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	Dibenz(a,h)anthracene	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	Hydrazine	No historical data 2016 result ND with DL>SL	No	
Load Line 12	LL12mw-244	Unconsolidated	Indeno(1,2,3-cd)pyrene	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	Naphthalene	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	Nitrobenzene (Explosives)	Results for all 7 historical data ND with DL<SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	Nitrobenzene (SVOCs)	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	Nitroglycerin	Results for all 7 historical data ND with DL<SL No 2016 sample data	No	
Load Line 12	LL12mw-244	Unconsolidated	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	
Load Line 12	LL12mw-244	Unconsolidated	PCB-1254	All PCBs non-detect for 2016 confirmation sampling at LL12.	No	
Load Line 12	LL12mw-244	Unconsolidated	RDX	Results for all 7 historical data ND with DL<SL No 2016 sample data	No	
Load Line 1	LL1mw-063	Unconsolidated	1,3-Dinitrobenzene	Less than 4 detections; no 2016 data; most recent detection < SL	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 1	LL1mw-063	Unconsolidated	2,4,6-Trinitrotoluene	Less than 4 detections; no 2016 data; most recent detection > SL	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 1	LL1mw-063	Unconsolidated	2,4-Dinitrotoluene (Explosives)	No 2016 data; trend analysis conducted on historical data No Mann-Kendall Trend Positive OLS Regression Line Positive Theil-Sen Trend Line 1 of 6 sample results ND - no 2016 data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 1	LL1mw-063	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results from last 5 sampling events ND - no 2016 data	No	
Load Line 1	LL1mw-063	Unconsolidated	2,6-Dinitrotoluene (Explosives)	No 2016 data; trend analysis conducted on historical data No Mann-Kendall Trend Positive OLS Regression Line Positive Theil-Sen Trend Line 1 of 6 sample results ND - no 2016 data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 1	LL1mw-063	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results from last 5 sampling events ND - no 2016 data	No	
Load Line 1	LL1mw-063	Unconsolidated	2-Amino-4,6-Dinitrotoluene	No 2016 data; trend analysis conducted on historical data No Mann-Kendall Trend Positive OLS Regression Line Positive Theil-Sen Trend Line 0 of 5 sample results ND - no 2016 data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 1	LL1mw-063	Unconsolidated	3-Nitrotoluene	Results from last 6 sampling events ND - no 2016 data	No	
Load Line 1	LL1mw-063	Unconsolidated	4-Amino-2,6-Dinitrotoluene	Previous trend analysis indicated no M-K trend, increasing OLS Regression and TS Trend;	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 1	LL1mw-063	Unconsolidated	Nitroglycerin	Results from last 5 sampling events ND - no 2016 data	No	
Load Line 1	LL1mw-063	Unconsolidated	RDX	No 2016 data; trend analysis conducted on historical data No Mann-Kendall Trend Negative OLS Regression Line Positive Theil-Sen Trend Line 1 of 6 sample results ND	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 1	LL1mw-063	Unconsolidated	Total Cyanide	Results from 1 of 5 sampling events ND with DL>SL; no 2016 data	Yes	Sample Spring 2017 to confirm current conditions (dry in Fall 2016)

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Load Line 2	LL2mw-060	Sharon Sandstone	2,4-Dinitrotoluene (Explosives)	Less than 4 detections; 11 events since last detection; 2016 result ND with DL>SL	No	
Load Line 2	LL2mw-060	Sharon Sandstone	2,4-Dinitrotoluene (SVOCs)	Results from last 8 sampling events ND - no 2016 data	No	
Load Line 2	LL2mw-060	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Results from last 14 sampling events (including 2 from 2016) ND	No	
Load Line 2	LL2mw-060	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Results from last 8 sampling events ND - no 2016 data	No	
Load Line 2	LL2mw-060	Sharon Sandstone	Benzene	1 detection (below current SL) in 10 samples; 3 events since last detection; 2016 result ND	No	
Load Line 2	LL2mw-060	Sharon Sandstone	Pentachlorophenol	Results from last 9 sampling events ND - no 2016 data	No	
Load Line 2	LL2mw-060	Sharon Sandstone	RDX	Results from last 14 sampling events (including 2 from 2016) ND	No	
Load Line 2	LL2mw-060	Sharon Sandstone	Total Cyanide	Less than 4 detections; no trend analysis completed; NDs with DL>SL	No	
Load Line 2	LL2mw-264	Sharon Sandstone	2,4-Dinitrotoluene (Explosives)	Results from last 6 sampling events (including one in 2016) ND	No	
Load Line 2	LL2mw-264	Sharon Sandstone	2,4-Dinitrotoluene (SVOCs)	Results from last 5 sampling events ND - no 2016 data	No	
Load Line 2	LL2mw-264	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Results from last 6 sampling events (including one in 2016) ND	No	
Load Line 2	LL2mw-264	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Results from last 5 sampling events ND - no 2016 data	No	
Load Line 2	LL2mw-264	Sharon Sandstone	Benzene	4 of 5 results ND; single detection < SL	No	
Load Line 2	LL2mw-264	Sharon Sandstone	PCB-1242	All PCBs non-detect in 2016 confirmation sampling at LL2	No	
Load Line 2	LL2mw-264	Sharon Sandstone	Pentachlorophenol	Results from last 5 events ND; no 2016 data	No	
Load Line 2	LL2mw-264	Sharon Sandstone	RDX	Results from last 6 sampling events (including one in 2016) ND	No	
Load Line 2	LL2mw-264	Sharon Sandstone	Total Cyanide	5 of 6 results ND with DL>SL; trend analysis not conducted; 2016 detection > SL is likely an artifact of lower DLs	Yes	Sample during both 2017 SA events
Load Line 2	LL2mw-268	Sharon Sandstone	2,4-Dinitrotoluene (Explosives)	Results from last 6 sampling events (including one in 2016) ND	No	
Load Line 2	LL2mw-268	Sharon Sandstone	2,4-Dinitrotoluene (SVOCs)	Results from last 5 sampling events ND - no 2016 data	No	
Load Line 2	LL2mw-268	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Results from last 6 sampling events (including one in 2016) ND	No	
Load Line 2	LL2mw-268	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Results from last 5 sampling events ND - no 2016 data	No	
Load Line 2	LL2mw-268	Sharon Sandstone	Benzene	5 of 6 results ND; 1 detection < SL; 2016 result ND	No	
Load Line 2	LL2mw-268	Sharon Sandstone	PCB-1242	All PCBs non-detect in 2016 confirmation sampling at LL2	No	
Load Line 2	LL2mw-268	Sharon Sandstone	Pentachlorophenol	Results from last 5 sampling events ND - no 2016 data	No	
Load Line 2	LL2mw-268	Sharon Sandstone	RDX	Results from last 6 sampling events (including one in 2016) ND	No	
Load Line 2	LL2mw-268	Sharon Sandstone	Total Cyanide	Results from last 5 sampling events ND with DL>SL; no 2016 data	No	
Load Line 2	LL2mw-270	Sharon Sandstone	2,4-Dinitrotoluene (Explosives)	Results from last 7 sampling events (including 1 in 2016) ND	No	
Load Line 2	LL2mw-270	Sharon Sandstone	2,4-Dinitrotoluene (SVOCs)	Results from last 6 sampling events ND - no 2016 data	No	
Load Line 2	LL2mw-270	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Results from last 7 sampling events (including 1 in 2016) ND	No	
Load Line 2	LL2mw-270	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Results from last 6 sampling events ND - no 2016 data	No	
Load Line 2	LL2mw-270	Sharon Sandstone	Benzene	5 of 6 results ND; 1 detection < current SL; 2016 result ND	No	
Load Line 2	LL2mw-270	Sharon Sandstone	PCB-1242	All PCBs non-detect in 2016 confirmation sampling at LL2	No	
Load Line 2	LL2mw-270	Sharon Sandstone	Pentachlorophenol	Less than 4 detections; 3 events since last detection; no 2016 data	Yes	Sample Spring 2017
Load Line 2	LL2mw-270	Sharon Sandstone	RDX	Results from last 7 sampling events (including 1 in 2016) ND	No	
Load Line 2	LL2mw-270	Sharon Sandstone	Total Cyanide	6 of 7 results ND with DL>SL; trend analysis not conducted; 2016 exceedance	Yes	Sample during both 2017 SA events
Load Line 3	LL3mw-236	Sharon Sandstone	1,3,5-Trinitrobenzene	Less than 4 detections; 0 events since last detection; previous detection was not an exceedance; no 2016 data	Yes	Sample in Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 3	LL3mw-236	Sharon Sandstone	1,3-Dinitrobenzene	Previous trend analysis indicated no M-K trend and decreasing OLS Regression and T-S Trend; no 2016 data	Yes	Sample in Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 3	LL3mw-236	Sharon Sandstone	2,4,6-Trinitrotoluene	No 2016 data; trend analysis conducted on historical data. Based on RI table, explosives should have been analyzed in 2016 No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 2 of 7 sample results ND	Yes	Sample in Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 3	LL3mw-236	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Results from last 7 sampling events ND - no 2016 data. Based on RI table, explosives should have been analyzed in 2016	Yes	Sample in Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 3	LL3mw-236	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Results from last 7 sampling events ND - no 2016 data.	No	
Load Line 3	LL3mw-236	Sharon Sandstone	2-Amino-4,6-Dinitrotoluene	Less than 4 detections - 2016 should have been first event since the last detection; however there are no 2016 results	Yes	Sample in Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 3	LL3mw-236	Sharon Sandstone	3-Nitrotoluene	Results from last 7 sampling events ND - no 2016 data.	Yes	Sample in Spring 2017 to confirm current conditions (dry in Fall 2016)

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Load Line 3	LL3mw-236	Sharon Sandstone	4-Amino-2,6-Dinitrotoluene	No 2016 data; trend analysis conducted on historical data. No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 2 of 7 sample results ND	Yes	Sample in Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 3	LL3mw-236	Sharon Sandstone	Bis(2-ethylhexyl)phthalate	All 3 detections were below SL. 0 events since last detection.	No	DEHP evaluated through 2016 sampling at LL3mw-241, -244, and -246
Load Line 3	LL3mw-236	Sharon Sandstone	Cyanide	Results from last 5 sampling events ND with DL>SL; no 2016 data.	Yes	Sample in Spring 2017 to confirm current conditions (dry in Fall 2016)
Load Line 3	LL3mw-236	Sharon Sandstone	Nitrobenzene (Explosives)	Results from last 7 sampling events ND - no 2016 data.	No	
Load Line 3	LL3mw-236	Sharon Sandstone	Nitrobenzene (SVOCs)	Results from last 7 sampling events ND - no 2016 data.	No	
Load Line 3	LL3mw-236	Sharon Sandstone	Pentachlorophenol	Results from last 6 sampling events ND - no 2016 data.	No	
Load Line 3	LL3mw-236	Sharon Sandstone	RDX	Results from last 7 sampling events ND - no 2016 data.	No	
Load Line 3	LL3mw-237	Sharon Sandstone	1,3,5-Trinitrobenzene	Previous trend analysis indicated no M-K trend, stable OLS Regression, and Decreasing TS Trend; 2016 result ND	No	
Load Line 3	LL3mw-237	Sharon Sandstone	1,3-Dinitrobenzene	Results from last 7 sampling events (including 1 in 2016) ND	No	
Load Line 3	LL3mw-237	Sharon Sandstone	2,4,6-Trinitrotoluene	Previous trend analysis indicated no M-K trend and increasing OLS Regression and T-S trend; 2016 results ND with DL>SL No Mann-Kendall Trend Positive OLS Regression Line Positive Theil-Sen Trend Line 3 of 7 sample results ND	Yes	Sample in Spring 2017 to confirm current conditions
Load Line 3	LL3mw-237	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Less than 4 detections; 3 events (including one in 2016) since last detection; 2016 result ND with DL>SL	Yes	
Load Line 3	LL3mw-237	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Results from last 6 sampling events ND with DL>SL; no 2016 data.	No	
Load Line 3	LL3mw-237	Sharon Sandstone	2-Amino-4,6-Dinitrotoluene	Previous trend analysis indicated no M-K trend and increasing OLS Regression and T-S trend; 2016 exceedance No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 1 of 7 sample results ND	No	
Load Line 3	LL3mw-237	Sharon Sandstone	3-Nitrotoluene	Results from last 7 sampling events (including one in 2016) ND with DL>SL	No	
Load Line 3	LL3mw-237	Sharon Sandstone	4-Amino-2,6-Dinitrotoluene	No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 1 of 7 sample results (including one in 2016) ND	No	
Load Line 3	LL3mw-237	Sharon Sandstone	Bis(2-ethylhexyl)phthalate	No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 2 of 6 sample results ND	No	DEHP evaluated through 2016 sampling at LL3mw-241, -244, and -246
Load Line 3	LL3mw-237	Sharon Sandstone	Cyanide	Results from last 7 sampling events (including one in 2016) ND with DL>SL	No	
Load Line 3	LL3mw-237	Sharon Sandstone	Nitrobenzene (Explosives)	Results from last 7 sampling events (including one in 2016) ND	No	
Load Line 3	LL3mw-237	Sharon Sandstone	Nitrobenzene (SVOCs)	Results from last 6 sampling events ND with DL>SL - no 2016 data	No	
Load Line 3	LL3mw-237	Sharon Sandstone	Pentachlorophenol	Results from last 6 sampling events ND with DL>SL - no 2016 data	No	
Load Line 3	LL3mw-237	Sharon Sandstone	RDX	No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 2 of 7 sample results (including one in 2016) ND	No	
Load Line 3	LL3mw-238	Sharon Sandstone	1,3,5-Trinitrobenzene	Previous trend analysis indicated all 3 trends decreasing; 2016 results similar but lower than previous	No	
Load Line 3	LL3mw-238	Sharon Sandstone	1,3-Dinitrobenzene	Previous trend analysis indicated no M-K trend, decreasing/stable OLS Regression, and stable T-S trend; 2016 results ND with DL>SL[1]	No	Although detection limit for 2016 sample was above QAPP specified levels, all other 2016 samples for this constituent were ND at QAPP specified detection limits.
Load Line 3	LL3mw-238	Sharon Sandstone	2,4,6-Trinitrotoluene	Previous trend analysis indicated all 3 trends decreasing; 2016 results lower than previous[1]	No	
Load Line 3	LL3mw-238	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Previous trend analysis indicated all 3 trends decreasing; 2016 results ND with DL>SL[1]	No	Although detection limit for 2016 sample was above QAPP specified levels, all other 2016 samples for this constituent were ND at QAPP specified detection limits.
Load Line 3	LL3mw-238	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Previous trend analysis indicated all 3 trends decreasing; no 2016 data	No	
Load Line 3	LL3mw-238	Sharon Sandstone	2-Amino-4,6-Dinitrotoluene	Previous trend analysis indicated no M-K trend and decreasing OLS Regression and T-S Trend; 2016 exceedance - slightly lower than previous result	No	

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Load Line 3	LL3mw-238	Sharon Sandstone	3-Nitrotoluene	Previous trend analysis indicated decreasing M-K and OLS Regression; stable T-S trend; 2016 data ND with DL>SL and greater than previous DL[1]	No	Although detection limit for 2016 sample was above QAPP specified levels, all other 2016 samples for this constituent were ND at QAPP specified detection limits.
Load Line 3	LL3mw-238	Sharon Sandstone	4-Amino-2,6-Dinitrotoluene	Previous trend analysis indicated no M-K trend and decreasing OLS Regression and T-S Trend; 2016 exceedance - slightly lower than previous result	No	
Load Line 3	LL3mw-238	Sharon Sandstone	Bis(2-ethylhexyl)phthalate	No Mann-Kendall Trend Positive OLS Regression Line Positive Theil-Sen Trend Line 15 of 22 sample results (including two in 2016) ND	No	All historical detections above current SLs B-flagged indicating method blank contamination.
Load Line 3	LL3mw-238	Sharon Sandstone	Cyanide	Less than 4 detections; 2016 exceedance	No	2016 result within range of historically detected concentrations at LL3.
Load Line 3	LL3mw-238	Sharon Sandstone	Nitrobenzene (Explosives)	Previous trend analysis indicated no M-K trend and decreasing OLS Regression and T-S Trend; 2016 ND with DL>SL[1]	No	Although detection limit for 2016 sample was above QAPP specified levels, all other 2016 samples for this constituent were ND at QAPP specified detection limits.
Load Line 3	LL3mw-238	Sharon Sandstone	Nitrobenzene (SVOCs)	Previous trend analysis indicated no M-K trend and decreasing OLS Regression and T-S Trend; no 2016 data.	No	
Load Line 3	LL3mw-238	Sharon Sandstone	Pentachlorophenol	Results from last 14 events ND with DL>SL; no 2016 data	No	
Load Line 3	LL3mw-238	Sharon Sandstone	RDX	Previous trend analysis indicated no M-K trend and stable OLS Regression and T-S Trend; 2016 exceedance; values lower than previous event	No	
Load Line 3	LL3mw-239	Sharon Sandstone	1,3,5-Trinitrobenzene	No Mann-Kendall Trend Positive OLS Regression Line Flat Theil-Sen Trend Line 3 of 7 sample results (including one in 2016) ND	No	
Load Line 3	LL3mw-239	Sharon Sandstone	1,3-Dinitrobenzene	Results from last 7 sampling events (including one in 2016) ND; 4 NDs with DL>SL	No	
Load Line 3	LL3mw-239	Sharon Sandstone	2,4,6-Trinitrotoluene	No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 3 of 7 sample results (including one in 2016) ND	No	
Load Line 3	LL3mw-239	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Results from last 7 sampling events (including one in 2016) ND; 2016 ND with DL>SL	No	
Load Line 3	LL3mw-239	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Results from last 6 sampling events ND with DL>SL; no 2016 data.	No	
Load Line 3	LL3mw-239	Sharon Sandstone	2-Amino-4,6-Dinitrotoluene	No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 3 of 7 sample results (including one in 2016) ND	No	
Load Line 3	LL3mw-239	Sharon Sandstone	3-Nitrotoluene	Results from last 7 sampling events (including one in 2016) ND with DL>SL	No	
Load Line 3	LL3mw-239	Sharon Sandstone	4-Amino-2,6-Dinitrotoluene	No Mann-Kendall Trend Positive OLS Regression Line Negative Theil-Sen Trend Line 3 of 7 sample results (including one in 2016) ND	No	
Load Line 3	LL3mw-239	Sharon Sandstone	Bis(2-ethylhexyl)phthalate	Less than 4 detections; 3 events since last detection with ND>SL	No	DEHP evaluated through 2017 sampling at LL3mw-241, -244, and -246
Load Line 3	LL3mw-239	Sharon Sandstone	Cyanide	Results from last 5 sampling events ND with DL>SL	No	
Load Line 3	LL3mw-239	Sharon Sandstone	Nitrobenzene (Explosives)	Results from last 7 sampling events (including one in 2016) ND	No	
Load Line 3	LL3mw-239	Sharon Sandstone	Nitrobenzene (SVOCs)	Results from last 6 sampling events ND with DL>SL	No	
Load Line 3	LL3mw-239	Sharon Sandstone	Pentachlorophenol	Results from last 6 sampling events ND with DL>SL	No	
Load Line 3	LL3mw-239	Sharon Sandstone	RDX	No Mann-Kendal Trend Positive OLS Regression Line Positive Theil-Sen Trend Line 1 of 7 sample results (including one in 2016) ND	No	Detected concentrations exhibit minor fluctuation, trend analysis skewed by historical DL for non-detect result
Load Line 3	LL3mw-241	Sharon Sandstone	1,3,5-Trinitrobenzene	Previous trend analysis indicated no M-K trend, increasing/stable OLS Regression; decreasing/stable T-S	No	
Load Line 3	LL3mw-241	Sharon Sandstone	1,3-Dinitrobenzene	Previous trend analysis indicated no M-K trend, decreasing OLS Regression, and stable T-S trend; 2016 results ND with DL>SL and greater than previous DLs	No	
Load Line 3	LL3mw-241	Sharon Sandstone	2,4,6-Trinitrotoluene	Previous trend analysis indicated no M-K trend, stable OLS Regression, and decreasing T-S trend; 2016 exceedance with value below previous detection	No	
Load Line 3	LL3mw-241	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Previous trend analysis indicated all 3 trends decreasing; 2016 result ND with DL>SL	No	
Load Line 3	LL3mw-241	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Previous trend analysis indicated all 3 trends decreasing; no 2016 data	No	
Load Line 3	LL3mw-241	Sharon Sandstone	2-Amino-4,6-Dinitrotoluene	Previous trend analysis indicated all 3 trends decreasing; first 2016 event exceedance (similar to previous result) and second 2016 event ND with DL>SL	No	
Load Line 3	LL3mw-241	Sharon Sandstone	3-Nitrotoluene	Results from last 13 sampling events (including two from 2016) ND with DL>SLs	No	
Load Line 3	LL3mw-241	Sharon Sandstone	4-Amino-2,6-Dinitrotoluene	Previous trend analysis indicated all 3 trends decreasing; first 2016 event exceedance (similar to previous result) and second 2016 event ND with DL>SL	No	

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Load Line 3	LL3mw-241	Sharon Sandstone	Bis(2-ethylhexyl)phthalate	All historical detections < current screening levels.	No	
Load Line 3	LL3mw-241	Sharon Sandstone	Cyanide	No detections in 6 samples, including one in 2016	No	
Load Line 3	LL3mw-241	Sharon Sandstone	Nitrobenzene (Explosives)	Results from last 16 events (including 2 in 2016) ND	No	
Load Line 3	LL3mw-241	Sharon Sandstone	Nitrobenzene (SVOCs)	Results from last 7 sampling events ND - no 2016 data	No	
Load Line 3	LL3mw-241	Sharon Sandstone	Pentachlorophenol	Results from last 5 sampling events ND with DL>SL	No	
Load Line 3	LL3mw-241	Sharon Sandstone	RDX	Previous trend analysis indicated all 3 trends decreasing; 2016 exceedances (similar to previous result)	No	
Load Line 3	LL3mw-243	Sharon Sandstone	1,3,5-Trinitrobenzene	Less than 4 detections, all < SLs; 3 events, including one in 2016, since last detection	No	
Load Line 3	LL3mw-243	Sharon Sandstone	1,3-Dinitrobenzene	Results from last 7 sampling events (including one in 2016) ND	No	
Load Line 3	LL3mw-243	Sharon Sandstone	2,4,6-Trinitrotoluene	Results from last 7 sampling events (including one in 2016) ND	No	
Load Line 3	LL3mw-243	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	2 J-flagged historical detections below current DLs; 1 event (2016) since last detection; 2016 ND with DL>SL	No	
Load Line 3	LL3mw-243	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Results from last 6 sampling events ND; no 2016 data	No	
Load Line 3	LL3mw-243	Sharon Sandstone	2-Amino-4,6-Dinitrotoluene	Results from last 7 sampling events (including one in 2016) ND	No	
Load Line 3	LL3mw-243	Sharon Sandstone	3-Nitrotoluene	Results from last 7 sampling events (including one in 2016) ND	No	
Load Line 3	LL3mw-243	Sharon Sandstone	4-Amino-2,6-Dinitrotoluene	Results from last 7 sampling events (including one in 2016) ND	No	
Load Line 3	LL3mw-243	Sharon Sandstone	Bis(2-ethylhexyl)phthalate	All historical detections JB-flagged to indicate method blank contamination.	No	DEHP evaluated through 2017 sampling at LL3mw-241, -244, and -246
Load Line 3	LL3mw-243	Sharon Sandstone	Cyanide	Previous trend analysis indicated insufficient data for trend analysis; 2 of 7 detections; one event (2016) since last detection; 2016 result ND with DL>SL	No	
Load Line 3	LL3mw-243	Sharon Sandstone	Nitrobenzene (Explosives)	Previous trend analysis indicated no M-K trend; decreasing OLS Regression and T-S trend; 2016 ND with DL greater than previous ND DLs	No	
Load Line 3	LL3mw-243	Sharon Sandstone	Nitrobenzene (SVOCs)	Previous trend analysis indicated no M-K trend; decreasing OLS Regression and T-S trend; no 2016 data	No	
Load Line 3	LL3mw-243	Sharon Sandstone	Pentachlorophenol	Results from last 7 sampling events ND; no 2016 data	No	
Load Line 3	LL3mw-243	Sharon Sandstone	RDX	Results from last 7 sampling events (including one in 2016) ND	No	
Load Line 4	LL4mw-193	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Less than 4 detections; one event (2016) since last detection; 2016 ND with DL>SL	Yes	Sample Spring 2017 to confirm current conditions
Load Line 4	LL4mw-193	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results from last 6 sampling events ND; no 2016 data	No	
Load Line 4	LL4mw-193	Unconsolidated	Benzene	Less than 4 detections; 2 events, including one in 2016, since last detection	No	
Load Line 4	LL4mw-193	Unconsolidated	Cyanide	6 of 7 results ND; trend analysis not conducted; 2016 exceedance	Yes	Sample during Spring and Fall 2017 SA Events
Load Line 4	LL4mw-193	Unconsolidated	Naphthalene	Results from last 7 events ND; 2016 DL is lowest DL	No	
Load Line 4	LL4mw-194	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Less than 4 detections; 3 events, including 2 in 2016, since last detection; 2016 NDs with DL>SL	Yes	Sample Spring 2017 to confirm current conditions
Load Line 4	LL4mw-194	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results from last 5 sampling events ND with DL>SL	No	
Load Line 4	LL4mw-194	Unconsolidated	Benzene	1 detection out of 6 events; one event (2016) since last detection	No	
Load Line 4	LL4mw-194	Unconsolidated	Cyanide	1 detection out of 6 events; detection reported in 2016 sample but 2016 duplicate ND with DL>SL	No	2016 result within range of historically detected concentrations at LL4.
Load Line 4	LL4mw-194	Unconsolidated	Naphthalene	Results from last 6 sampling events, including one in 2016, ND	No	
Load Line 4	LL4mw-197	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results from last 7 sampling events ND; 2016 result ND with DL>SL	No	
Load Line 4	LL4mw-197	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results from last 6 sampling events ND; no 2016 data	No	
Load Line 4	LL4mw-197	Unconsolidated	Benzene	Results from last 6 sampling events ND; no 2016 data	No	
Load Line 4	LL4mw-197	Unconsolidated	Cyanide	Less than 4 detections; 0 events since last detection; 2016 exceedance	No	
Load Line 4	LL4mw-197	Unconsolidated	Naphthalene	Results from last 6 sampling events ND; no 2016 data	No	
Load Line 4	LL4mw-199	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results from last 17 sampling events (including one in 2016) ND	No	
Load Line 4	LL4mw-199	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results from last 14 sampling events ND; no 2016 data	No	
Load Line 4	LL4mw-199	Unconsolidated	Benzene	Results from last 17 sampling events (including one in 2016) ND	No	
Load Line 4	LL4mw-199	Unconsolidated	Cyanide	Less than 4 detections; 8 sampling events (including one in 2016) since last detection	No	
Load Line 4	LL4mw-199	Unconsolidated	Naphthalene	Results from last 14 sampling events (including one in 2016) ND	No	
Load Line 4	LL4mw-200	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results from last 7 sampling events (including one in 2016) ND	No	
Load Line 4	LL4mw-200	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results from last 6 sampling events ND; no 2016 data	No	
Load Line 4	LL4mw-200	Unconsolidated	Benzene	1 detection < current SL in 7 sampling events; 2 events (including one in 2016) since last detection	No	
Load Line 4	LL4mw-200	Unconsolidated	Cyanide	1 detection in 7 sampling events; 2016 exceedance	Yes	Sample Spring 2017 to confirm current downgradient conditions
Load Line 4	LL4mw-200	Unconsolidated	Naphthalene	Results from last 7 sampling events (including one in 2016) ND	No	
Load Line 4	LL4mw-201	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results from last 5 sampling events (including one in 2016) ND; 2016 ND with DL>SL	No	
Load Line 4	LL4mw-201	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	No SVOC results for 2,6-Dinitrotoluene	No	
Load Line 4	LL4mw-201	Unconsolidated	Benzene	Results from last 5 sampling events (including one in 2016) ND	No	
Load Line 4	LL4mw-201	Unconsolidated	Cyanide	0 detections in 5 sampling events	No	

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Load Line 4	LL4mw-201	Unconsolidated	Naphthalene	1 detection at this well out of 5 samples ; 2 events, including one in 2016, since last detection; only one detection in sample history for all wells at LL4 sampled for this constituent	No	
Load Line 5	LL5mw-001	Homewood	2,4,6-Trinitrotoluene	Results for all 5 historical data ND with DL<SL No 2016 sample data	No	
Load Line 5	LL5mw-001	Homewood	2,6-Dinitrotoluene (Explosives)	Results for all 5 historical data ND with DL<SL in 4 of 5 samples No 2016 sample data	No	
Load Line 5	LL5mw-001	Homewood	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL 2016 result ND with DL<SL	No	
Load Line 5	LL5mw-001	Homewood	Carbon tetrachloride	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	Yes	Sample in Spring 2017 to delineate carbon tetrachloride at LL10
Load Line 5	LL5mw-001	Homewood	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at LL5.	No	
Load Line 5	LL5mw-001	Homewood	Total Cyanide	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Load Line 5	LL5mw-002	Homewood	1,1-Dichloroethane	2016 confirmation sampling results were ND	No	
Load Line 5	LL5mw-002	Homewood	1,1-Dichloroethene	2016 confirmation sampling results were ND	No	
Load Line 5	LL5mw-002	Homewood	2,4,6-Trinitrotoluene	Results for all 5 historical data ND with DL<SL No 2016 sample data	No	
Load Line 5	LL5mw-002	Homewood	2,6-Dinitrotoluene (Explosives)	Results for all 5 historical data ND with DL<SL in 4 of 5 samples No 2016 sample data	No	
Load Line 5	LL5mw-002	Homewood	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Load Line 5	LL5mw-002	Homewood	Carbon tetrachloride	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 5	LL5mw-002	Homewood	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at LL5.	No	
Load Line 5	LL5mw-002	Homewood	Total Cyanide	Results for 3 of 4 historical data ND with DL>SL; 1 historical detection >SL in 2008 2016 result estimated >SL	No	2016 results within range of historical detections at LL5
Load Line 5	LL5mw-006	Homewood	1,1-Dichloroethane	2016 confirmation sampling results were ND	No	
Load Line 5	LL5mw-006	Homewood	1,1-Dichloroethene	2016 confirmation sampling results were ND	No	
Load Line 5	LL5mw-006	Homewood	2,4,6-Trinitrotoluene	Results for all 5 historical data ND with DL<SL No 2016 sample data	No	
Load Line 5	LL5mw-006	Homewood	2,6-Dinitrotoluene (Explosives)	Results for all 5 historical data ND with DL<SL in 4 of 5 samples No 2016 sample data	No	
Load Line 5	LL5mw-006	Homewood	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Load Line 5	LL5mw-006	Homewood	Carbon tetrachloride	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 5	LL5mw-006	Homewood	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at LL5.	No	
Load Line 5	LL5mw-006	Homewood	Total Cyanide	Results for all 4 historical data ND with DL>SL 2016 result estimated >SL	No	2016 results within range of historical detections at LL5
Load Line 6	LL6mw-001	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 6 historical data ND with DL<SL in 5 of 6 samples No 2016 sample data	No	
Load Line 6	LL6mw-001	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Load Line 6	LL6mw-001	Unconsolidated	4-Nitrobenzenamine / 4-Nitroaniline	Results for all 6 historical data ND with DL<SL No 2016 sample data	No	
Load Line 6	LL6mw-001	Unconsolidated	bis(2-Ethylhexyl)phthalate	Results for 3 of 6 historical data ND with DL>SL; 1 historical detection >SL in 2003 and 2 historical estimated detections <SL in 2008 No 2016 sample data	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-001	Unconsolidated	Nitroglycerin	Results for all 6 historical data ND with DL<SL No 2016 sample data	No	
Load Line 6	LL6mw-001	Unconsolidated	Total Cyanide	Results for 5 of 6 historical data ND with DL>SL; 1 historical detection >SL in 2008 No 2016 sample data	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-002	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 5 historical data ND with DL<SL in 4 of 5 samples No 2016 sample data	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-002	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 6 historical data ND with DL>SL No 2016 sample data	No	
Load Line 6	LL6mw-002	Unconsolidated	4-Nitrobenzenamine / 4-Nitroaniline	Results for all 5 historical data ND with DL<SL No 2016 sample data	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-002	Unconsolidated	bis(2-Ethylhexyl)phthalate	Trend analysis will be conducted after Spring 2017 sampling	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-002	Unconsolidated	Nitroglycerin	Results for all 5 historical data ND with DL<SL No 2016 sample data	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-002	Unconsolidated	Total Cyanide	Results for all 5 historical data ND with DL>SL No 2016 sample data	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-003	Homewood	1,1-Dichloroethane	2016 confirmation sampling results were ND	No	
Load Line 6	LL6mw-003	Homewood	1,1-Dichloroethene	2016 confirmation sampling results were ND	No	

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Load Line 6	LL6mw-003	Homewood	2,6-Dinitrotoluene (Explosives)	Results for all 5 historical data ND with DL<SL in 4 of 5 samples 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-003	Homewood	2,6-Dinitrotoluene (SVOCs)	Results for all 4 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-003	Homewood	4-Nitrobenzenamine / 4-Nitroaniline	Results for all 5 historical data ND with DL<SL 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-003	Homewood	bis(2-Ethylhexyl)phthalate	Results for 3 of 5 historical data ND with DL>SL; 2 historical estimated detections <SL in 2008 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-003	Homewood	Nitroglycerin	Results for 4 of 5 historical data ND with DL<SL; 1 historical estimated detection <SL in 2008 2016 result ND with DL<SL	No	
Load Line 6	LL6mw-003	Homewood	Total Cyanide	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-006	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for 4 of 5 historical data ND with DL>SL in 1 of 4 samples; 1 historical estimated detections <SL in 2009 No 2016 sample data	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-006	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Load Line 6	LL6mw-006	Unconsolidated	4-Nitrobenzenamine / 4-Nitroaniline	Results for all 5 historical data ND with DL<SL No 2016 sample data	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-006	Unconsolidated	bis(2-Ethylhexyl)phthalate	Results for 3 of 5 historical data ND with DL>SL; 1 historical detection >SL in 2003 and 1 historical estimated detections <SL in 2009 No 2016 sample data	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-006	Unconsolidated	Nitroglycerin	Results for all 5 historical data ND with DL<SL No 2016 sample data	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-006	Unconsolidated	Total Cyanide	Results for all 5 historical data ND with DL>SL No 2016 sample data	Yes	Sample in Spring 2017 (dry in Fall 2016)
Load Line 6	LL6mw-007	Homewood	2,6-Dinitrotoluene (Explosives)	Results for all 5 historical data ND with DL<SL in 4 of 5 samples 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-007	Homewood	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-007	Homewood	4-Nitrobenzenamine / 4-Nitroaniline	Results for all 5 historical data ND with DL<SL 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-007	Homewood	bis(2-Ethylhexyl)phthalate	Results for 3 of 6 historical data ND with DL>SL in 2 of 3 samples; 3 historical estimated detections <SL in 2009 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-007	Homewood	Nitroglycerin	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 6	LL6mw-007	Homewood	Total Cyanide	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-008	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 4 historical data ND with DL<SL 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-008	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	No historical data 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-008	Unconsolidated	4-Nitrobenzenamine / 4-Nitroaniline	Results for all 4 historical data ND with DL<SL 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-008	Unconsolidated	bis(2-Ethylhexyl)phthalate	Results for 2 of 4 historical data ND with DL<SL; 2 historical estimated detections <SL in 2012 2016 result ND with DL>SL	No	
Load Line 6	LL6mw-008	Unconsolidated	Nitroglycerin	Results for all 4 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 6	LL6mw-008	Unconsolidated	Total Cyanide	Results for all 4 historical data ND with DL<SL 2016 result estimated >SL	No	2016 results within range of historical detections at LL6
Load Line 7	LL7mw-005	Homewood	1,1-Dichloroethane	Results for all 6 historical data ND with DL<SL No 2016 sample data	No	
Load Line 7	LL7mw-005	Homewood	RDX	Results for all 6 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 7	LL7mw-005	Homewood	Total Cyanide	Results for 4 of 5 historical data ND with DL>SL; 1 historical detection >SL in 2010 2016 result estimated >SL	No	2016 results within range of historical detections at LL7
Load Line 7	LL7mw-006	Homewood	1,1-Dichloroethane	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 7	LL7mw-006	Homewood	RDX	Trend analysis indicates increasing RDX concentrations.	Yes	
Load Line 7	LL7mw-006	Homewood	Total Cyanide	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	

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Load Line 9	LL9mw-003	Homewood	2,4,6-Trinitrotoluene	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 9	LL9mw-003	Homewood	2,6-Dinitrotoluene (Explosives)	Results for 4 of 5 historical data ND with DL<SL in 3 of 4 samples; 1 historical estimated detection <SL in 2009 2016 result ND with DL>SL	No	
Load Line 9	LL9mw-003	Homewood	2,6-Dinitrotoluene (SVOCs)	Results for all 4 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 9	LL9mw-003	Homewood	Carbon tetrachloride	Results for all 5 historical data ND with DL<SL No 2016 sample data	No	
Load Line 9	LL9mw-003	Homewood	Total Cyanide	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Load Line 9	LL9mw-004	Homewood	2,4,6-Trinitrotoluene	Results for all 6 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 9	LL9mw-004	Homewood	2,6-Dinitrotoluene (Explosives)	Results for all 6 historical data ND with DL<SL in 5 of 6 samples 2016 result ND with DL>SL	No	
Load Line 9	LL9mw-004	Homewood	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 9	LL9mw-004	Homewood	Carbon tetrachloride	Results for all 6 historical data ND with DL<SL No 2016 sample data	No	
Load Line 9	LL9mw-004	Homewood	Total Cyanide	Results for all 6 historical data ND with DL>SL No 2016 sample data	No	
Load Line 9	LL9mw-005	Homewood	2,4,6-Trinitrotoluene	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 9	LL9mw-005	Homewood	2,6-Dinitrotoluene (Explosives)	Results for all 5 historical data ND with DL<SL in 4 of 5 samples 2016 result ND with DL>SL	No	
Load Line 9	LL9mw-005	Homewood	2,6-Dinitrotoluene (SVOCs)	Results for all 4 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 9	LL9mw-005	Homewood	Carbon tetrachloride	Results for all 5 historical data ND with DL<SL No 2016 sample data	No	
Load Line 9	LL9mw-005	Homewood	Total Cyanide	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Load Line 9	LL9mw-007	Homewood	2,4,6-Trinitrotoluene	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 9	LL9mw-007	Homewood	2,6-Dinitrotoluene (Explosives)	Results for all 4 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Load Line 9	LL9mw-007	Homewood	2,6-Dinitrotoluene (SVOCs)	Results for all 6 historical data ND with DL<SL 2016 result ND with DL<SL	No	
Load Line 9	LL9mw-007	Homewood	Carbon tetrachloride	Results for all 5 historical data ND with DL<SL No 2016 sample data	No	
Load Line 9	LL9mw-007	Homewood	Total Cyanide	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Landfill North of Winklepeck	LNWmw-025	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 6 historical data ND with DL>SL in 1 of 6 samples 2016 result ND with DL>SL	No	
Landfill North of Winklepeck	LNWmw-025	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 6 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Landfill North of Winklepeck	LNWmw-025	Unconsolidated	bis(2-Ethylhexyl)phthalate	Decreasing Mann-Kendall Trend Decreasing OLS Regression Slope Decreasing Theil-Sen Trend Line 0 of 7 sample results ND	No	DEHP detections since 2005 at LNW have been below current SL.
Landfill North of Winklepeck	LNWmw-025	Unconsolidated	Total Cyanide	Results for 4 of 5 historical data ND with DL>SL; 1 historical detection >SL in 2008 2016 result estimated >SL	No	2016 results are within range of historical detections at LNW.
Landfill North of Winklepeck	LNWmw-026	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for 3 of 5 historical data ND with DL>SL for 2 of 3 samples; 2 estimated historical detections <SL in 2008 2016 result ND with DL>SL	Yes	Sample Spring 2017 to confirm current conditions.
Landfill North of Winklepeck	LNWmw-026	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
Landfill North of Winklepeck	LNWmw-026	Unconsolidated	bis(2-Ethylhexyl)phthalate	Results for 3 of 5 historical data ND with DL<SL for 2 of 3 samples; 2 estimated historical detections <SL in 2008 and 2009 2016 result ND with DL>SL	No	DEHP detections since 2005 at LNW have been below current SL.
Landfill North of Winklepeck	LNWmw-026	Unconsolidated	Total Cyanide	Results for all 4 historical data ND with DL>SL 2016 result estimated >SL	No	2016 results are within range of historical detections at LNW.
Suspected Mustard Agent Burial Site	MBS-004	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 4 historical data ND with DL>SL No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (due to omission in Fall 2016)
Suspected Mustard Agent Burial Site	MBS-004	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	

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Suspected Mustard Agent Burial Site	MBS-004	Unconsolidated	Benz(a)anthracene	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-004	Unconsolidated	Benzo(a)pyrene	Results for all 4 historical data ND with DL=SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-004	Unconsolidated	Benzo(b)fluoranthene	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-004	Unconsolidated	Bromochloromethane (Historical) / Chlorobromomethane (2016)	Results for all 4 historical data ND with DL<SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-004	Unconsolidated	Dibenz(a,h)anthracene	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-004	Unconsolidated	Indeno(1,2,3-cd)pyrene	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-004	Unconsolidated	Naphthalene	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-004	Unconsolidated	Total Cyanide	Results for 3 of 4 historical data ND with DL>SL; 1 historical detection >SL in 2008 No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (due to omission in Fall 2016)
Suspected Mustard Agent Burial Site	MBS-006	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for 3 of 4 historical data ND with DL<SL; 1 estimated historical detection <SL in 2008 No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (due to omission in Fall 2016)
Suspected Mustard Agent Burial Site	MBS-006	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-006	Unconsolidated	Benz(a)anthracene	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-006	Unconsolidated	Benzo(a)pyrene	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-006	Unconsolidated	Benzo(b)fluoranthene	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-006	Unconsolidated	Bromochloromethane (Historical) / Chlorobromomethane (2016)	Results for all 4 historical data ND with DL<SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-006	Unconsolidated	Dibenz(a,h)anthracene	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-006	Unconsolidated	Indeno(1,2,3-cd)pyrene	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-006	Unconsolidated	Naphthalene	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Suspected Mustard Agent Burial Site	MBS-006	Unconsolidated	Total Cyanide	Results for all 4 historical data ND with DL>SL No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (due to omission in Fall 2016)
NACA Test Area	NTAmw-109	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for 4 of 5 historical data ND with DL<SL in 2 of 4; 1 estimated historical detection <SL in 2008 No 2016 sample data	No	
NACA Test Area	NTAmw-109	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
NACA Test Area	NTAmw-109	Unconsolidated	Benz(a)anthracene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
NACA Test Area	NTAmw-109	Unconsolidated	Benzo(a)pyrene	Results for all 8 historical data ND with DL>SL in 1 of 8 samples No 2016 sample data	No	
NACA Test Area	NTAmw-109	Unconsolidated	Benzo(b)fluoranthene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
NACA Test Area	NTAmw-109	Unconsolidated	Bromochloromethane (Historical) / Chlorobromomethane (2016)	Results for all 8 historical data ND with DL<SL 2016 result ND with DL<SL	No	
NACA Test Area	NTAmw-109	Unconsolidated	Dibenz(a,h)anthracene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
NACA Test Area	NTAmw-109	Unconsolidated	Indeno(1,2,3-cd)pyrene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
NACA Test Area	NTAmw-109	Unconsolidated	Naphthalene	Results for all 8 historical data ND with DL>SL in 5 of 8 samples No 2016 sample data	No	
NACA Test Area	NTAmw-109	Unconsolidated	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at NTA.	No	
NACA Test Area	NTAmw-109	Unconsolidated	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at NTA.	No	
NACA Test Area	NTAmw-109	Unconsolidated	Total Cyanide	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	

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NACA Test Area	NTAmw-114	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for 4 of 5 historical data ND with DL<SL in 3 of 4; 1 estimated historical detection <SL in 2008 2016 result ND with DL>SL	No	2,6-DNT not detected in any explosives sample collected at NTA since 2008.
NACA Test Area	NTAmw-114	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
NACA Test Area	NTAmw-114	Unconsolidated	Benz(a)anthracene	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
NACA Test Area	NTAmw-114	Unconsolidated	Benzo(a)pyrene	Results for all 5 historical data ND with 4 of 5 DL<SL 2016 result ND with DL<SL	No	
NACA Test Area	NTAmw-114	Unconsolidated	Benzo(b)fluoranthene	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
NACA Test Area	NTAmw-114	Unconsolidated	Bromochloromethane (Historical) / Chlorobromomethane (2016)	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
NACA Test Area	NTAmw-114	Unconsolidated	Dibenz(a,h)anthracene	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
NACA Test Area	NTAmw-114	Unconsolidated	Indeno(1,2,3-cd)pyrene	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
NACA Test Area	NTAmw-114	Unconsolidated	Naphthalene	Results for all 5 historical data ND with DL>SL 2016 result ND with DL<SL	No	
NACA Test Area	NTAmw-114	Unconsolidated	Total Cyanide	Results for all 4 historical data ND with DL>SL 2016 result estimated >SL	No	2016 result within range of historical detections at NTA.
NACA Test Area	NTAmw-115	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for 4 of 5 historical data ND with DL<SL in 3 of 4; 1 estimated historical detection <SL in 2008 2016 result ND with DL>SL	No	2,6-DNT not detected in any explosives sample collected at NTA since 2008.
NACA Test Area	NTAmw-115	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
NACA Test Area	NTAmw-115	Unconsolidated	Benz(a)anthracene	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
NACA Test Area	NTAmw-115	Unconsolidated	Benzo(a)pyrene	Results for all 5 historical data ND with 4 of 5 DL<SL 2016 result ND with DL<SL	No	
NACA Test Area	NTAmw-115	Unconsolidated	Benzo(b)fluoranthene	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
NACA Test Area	NTAmw-115	Unconsolidated	Bromochloromethane (Historical) / Chlorobromomethane (2016)	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
NACA Test Area	NTAmw-115	Unconsolidated	Dibenz(a,h)anthracene	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
NACA Test Area	NTAmw-115	Unconsolidated	Indeno(1,2,3-cd)pyrene	Results for all 5 historical data ND with DL>SL 2016 result ND with DL>SL	No	
NACA Test Area	NTAmw-115	Unconsolidated	Naphthalene	Results for all 5 historical data ND with DL>SL 2016 result ND with DL<SL	No	
NACA Test Area	NTAmw-115	Unconsolidated	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at NTA.	No	
NACA Test Area	NTAmw-115	Unconsolidated	Total Cyanide	Results for 2 of 4 historical data ND with DL>SL; 2 historical detections >SL in 2008 2016 result estimated >SL	No	2016 result within range of historical detections at NTA.
NACA Test Area	NTAmw-116	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 5 historical data ND with DL>SL for 4 of 5 samples 2016 result ND with DL>SL	No	
NACA Test Area	NTAmw-116	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
NACA Test Area	NTAmw-116	Unconsolidated	Benz(a)anthracene	Results for all 6 historical data ND with DL>SL No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (due to omission in Fall 2016)
NACA Test Area	NTAmw-116	Unconsolidated	Benzo(a)pyrene	Results for all 6 historical data ND with DL>SL No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (due to omission in Fall 2016)
NACA Test Area	NTAmw-116	Unconsolidated	Benzo(b)fluoranthene	Results for all 6 historical data ND with DL>SL No 2016 sample data	Yes	Sample Spring 2017 to confirm current conditions (due to omission in Fall 2016)
NACA Test Area	NTAmw-116	Unconsolidated	Bromochloromethane (Historical) / Chlorobromomethane (2016)	Results for all 5 historical data ND with DL<SL 2016 result ND with DL<SL	No	
NACA Test Area	NTAmw-116	Unconsolidated	Dibenz(a,h)anthracene	Results for 4 of 5 historical data ND with DL>SL; 1 estimated historical detections >SL in 2004 (1 pair with one estimated detection and 1 ND) 2016 result ND with DL>SL	No	

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AOC	Well Station ID	Monitored Formation	Constituent	Trend Analysis Results	Constituent Recommended For Additional RI Sampling	Comments
NACA Test Area	NTAmw-116	Unconsolidated	Indeno(1,2,3-cd)pyrene	Results for 4 of 5 historical data ND with DL>SL; 1 estimated historical detections >SL in 2004 (1 pair with one estimated detection and 1 ND) 2016 result ND with DL>SL	No	
NACA Test Area	NTAmw-116	Unconsolidated	Naphthalene	Results for all 5 historical data ND with DL>SL 2016 result ND with DL<SL	No	
NACA Test Area	NTAmw-116	Unconsolidated	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at NTA.	No	
NACA Test Area	NTAmw-116	Unconsolidated	Total Cyanide	Results for 3 of 4 historical data ND with DL>SL; 1 historical detection >SL in 2008 2016 result ND with DL>SL	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	1,1,2,2-Tetrachloroethane	Results for all 9 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	2,4-Dinitrotoluene (Explosives)	Results for all 8 historical data ND with DL>SL for 3 of 8 samples No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	2,4-Dinitrotoluene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Results for all 8 historical data ND with DL>SL for 3 of 8 samples No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	2-Nitrotoluene	Results for all 8 historical data ND with DL>SL for 3 of 8 samples No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	Benzene	Results for all 8 historical data ND with DL<SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	bis(2-Ethylhexyl)phthalate	No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 3 of 8 sample results ND - no 2016 data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	Dibenz(a,h)anthracene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	Indeno(1,2,3-cd)pyrene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	Naphthalene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	Nitrobenzene (Explosives)	Results for all 8 historical data ND with DL<SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	Nitrobenzene (SVOCs)	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	Nitroglycerin (Explosives)	Results for all 8 historical data ND with DL>SL for 3 of 8 samples No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	PCB-1248	All PCBs non-detect for 2016 confirmation sampling at RQL.	No	
Ramsdell Quarry Landfill	RQLmw-015	Sharon Sandstone	Total Cyanide	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	1,1,2,2-Tetrachloroethane	Results for all 9 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	2,4-Dinitrotoluene (Explosives)	Results for all 9 historical data ND with DL>SL for 3 of 9 samples No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	2,4-Dinitrotoluene (SVOCs)	Results for all 9 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Results for all 9 historical data ND with DL>SL for 3 of 9 samples No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	Results for all 9 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	2-Nitrotoluene	Results for all 9 historical data ND with DL>SL for 6 of 9 samples No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	Benzene	Results for all 9 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	bis(2-Ethylhexyl)phthalate	No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 5 of 9 sample results ND - no 2016 data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	Dibenz(a,h)anthracene	Results for all 8 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	Indeno(1,2,3-cd)pyrene	Results for all 9 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	Naphthalene (SVOCs)	Results for all 9 historical data ND with DL>SL No 2016 sample data	No	

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Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	Nitrobenzene (Explosives)	Results for all 9 historical data ND with DL<SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	Nitrobenzene (SVOCs)	Results for all 9 historical data ND with DL>SL No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	Nitroglycerin (Explosives)	Results for all 9 historical data ND with DL>SL for 3 of 9 samples No 2016 sample data	No	
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	PCB-1248	Pending 2017 sampling	Yes	Sample Spring 2017 due to dry conditions in Fall 2016
Ramsdell Quarry Landfill	RQLmw-017	Sharon Sandstone	Total Cyanide	Results for all 7 historical data ND with DL>SL No 2016 sample data	No	
Sharon Conglomerate	SCFmw-001	Basal Sharon Cong.	Various	Constituent trend review pending Jan 2017 sampling results.	Pending	Pending
Upper and Lower Cobbs Pond	ULCPmw-001	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 5 historical data ND, with 4 of 5 sample results with DL>SL Results for 2016 sampling data ND with DL>SL	No	
Upper and Lower Cobbs Pond	ULCPmw-001	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	
Upper and Lower Cobbs Pond	ULCPmw-001	Unconsolidated	Naphthalene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Upper and Lower Cobbs Pond	ULCPmw-001	Unconsolidated	Total Cyanide	Results for 4 of 5 sample results ND with DL>SL; 1 historical detection >SL in 2008 Estimated result for 2016 sampling (in sample and dupe) with result >SL	No	2016 results within range of historical detections at ULCP.
Upper and Lower Cobbs Pond	ULCPmw-006	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 6 historical data ND with DL<SL in 5 of 6 sample and dupe pairs No 2016 sample data	No	
Upper and Lower Cobbs Pond	ULCPmw-006	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL in 5 of 5 sample and dupe pairs No 2016 sample data	No	
Upper and Lower Cobbs Pond	ULCPmw-006	Unconsolidated	Naphthalene	5 of 6 historical sample results ND with DL>SL; 1 estimated historical detections >SL in 2009 (1 pair with one estimated detection and 1 ND) 2016 sample result ND with DL < SL	No	
Upper and Lower Cobbs Pond	ULCPmw-006	Unconsolidated	Total Cyanide	Results for all 6 historical data ND with DL>SL No 2016 sample data	No	
Winklepeck Burning Grounds	WBGmw-007	Unconsolidated	2,4-Dinitrotoluene (Explosives)	19 of 21 sample results ND with 18 of those 19 DL<SL; 2 estimated historical detections <SL in 1998 and 2000 2016 sample result ND with DL < SL[1]	No	2,4-DNT not detected in any WGB well tested for explosives since 2000.
Winklepeck Burning Grounds	WBGmw-007	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results for all historical data ND with DL>SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-007	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all historical data ND Results for 2016 sampling data ND with DL>SL[1]	No	
Winklepeck Burning Grounds	WBGmw-007	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	16 of 17 sample results ND with DL>SL; 1 estimated historical detection in 2007 2016 sample result ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-007	Unconsolidated	2-Nitrotoluene	20 of 21 sample results ND; 1 estimated historical detection <SL in 2007 2016 sample result ND with DL>SL	No	Constituent not detected in any WBG well tested for explosives since 2008.
Winklepeck Burning Grounds	WBGmw-007	Unconsolidated	3-Nitrotoluene	Results for all historical data ND with NL>SL (with the exception of 2012 and 2013 data) Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-007	Unconsolidated	Bis(2-ethylhexyl)phthalate	No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 13 of 17 sample results (including one from 2016) ND	No	
Winklepeck Burning Grounds	WBGmw-007	Unconsolidated	RDX	Results for all historical data ND Results for 2016 sampling data ND	No	
Winklepeck Burning Grounds	WBGmw-007	Unconsolidated	Total Cyanide	12 of 14 historical sample results ND with DL>SL; 2 historical detections >SL in 2006 and 2007 2016 result ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-008	Unconsolidated	2,4-Dinitrotoluene (Explosives)	5 of 6 historical sample results ND, with 1 estimated historical detection < SL in 2000 2016 sample result ND with DL>SL	No	2,4-DNT not detected in any WGB well tested for explosives since 2000.
Winklepeck Burning Grounds	WBGmw-008	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Winklepeck Burning Grounds	WBGmw-008	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 6 historical data ND, with 2 of 6 sample results with DL>SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-008	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 6 historical data ND with DL>SL No 2016 sample data	No	
Winklepeck Burning Grounds	WBGmw-008	Unconsolidated	2-Nitrotoluene	5 of 6 historical sample results ND, with 1 estimated historical detection < SL in 2008 2016 sample result ND with DL>SL	No	Constituent not detected in any WBG well tested for explosives since 2008.
Winklepeck Burning Grounds	WBGmw-008	Unconsolidated	3-Nitrotoluene	Results for all 6 historical data ND with DL>SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-008	Unconsolidated	Bis(2-ethylhexyl)phthalate	4 of 6 historical sample results ND, with 2 estimated historical detection < SL in 2008 No 2016 sample collected	No	

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Winklepeck Burning Grounds	WBGmw-008	Unconsolidated	RDX	Results for all 6 historical data ND with DL<SL Results for 2016 sampling data ND with DL<SL	No	
Winklepeck Burning Grounds	WBGmw-008	Unconsolidated	Total Cyanide	Results for all 6 historical data ND with DL>SL 2016 result estimated >SL	No	2016 results within range of historical detections at ULCP.
Winklepeck Burning Grounds	WBGmw-014	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results for all 5 historical data ND, with 1 of 5 sample results with DL>SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-014	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Winklepeck Burning Grounds	WBGmw-014	Unconsolidated	2,6-Dinitrotoluene (Explosives)	4 of 5 historical sample results ND, with 1 estimated historical detection < SL in 2008 Result for 2016 sampling data ND with DL>SL	No	2,6-DNT not detected in any explosives sample collected at WBG since 2007.
Winklepeck Burning Grounds	WBGmw-014	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Winklepeck Burning Grounds	WBGmw-014	Unconsolidated	2-Nitrotoluene	3 of 5 historical sample results ND, with 1 historical detection in 2000 and 1 estimated historical detection in 2008 Result for 2016 sampling data ND with DL>SL	No	Constituent not detected in any WBG well tested for explosives since 2008.
Winklepeck Burning Grounds	WBGmw-014	Unconsolidated	3-Nitrotoluene	Results for all 5 historical data ND with DL<SL Results for 2016 sampling data ND with DL<SL	No	
Winklepeck Burning Grounds	WBGmw-014	Unconsolidated	Bis(2-ethylhexyl)phthalate	2 of 5 historical sample results ND, with 3 estimated historical detections < SL in 2008 and 2009 No 2016 sample collected	No	DEHP detections at WBG have been below current SL since 2006.
Winklepeck Burning Grounds	WBGmw-014	Unconsolidated	RDX	4 of 5 historical sample results ND, with 1 estimated historical detection in 2000 <SL Result for 2016 sampling data ND with DL<SL	No	RDX has been below detection limits for last 5 samples collected from this well.
Winklepeck Burning Grounds	WBGmw-014	Unconsolidated	Total Cyanide	Results for 4 of 5 historical data ND with DL>SL; 1 historical detection >SL in 2008 No 2016 sample data	No	
Winklepeck Burning Grounds	WBGmw-015	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results for all 5 historical data ND with 4 out of 5 DL<SL No 2016 sample collected	No	
Winklepeck Burning Grounds	WBGmw-015	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample collected	No	
Winklepeck Burning Grounds	WBGmw-015	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 5 historical data ND with 4 out of 5 DL<SL No 2016 sample collected	No	
Winklepeck Burning Grounds	WBGmw-015	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	Results for all 5 historical data ND with DL>SL No 2016 sample collected	No	
Winklepeck Burning Grounds	WBGmw-015	Unconsolidated	2-Nitrotoluene	4 of 5 historical sample results ND with DL>SL, with 1 historical detection in 2000 No 2016 sample collected	No	Constituent not detected in any WBG well tested for explosives since 2008.
Winklepeck Burning Grounds	WBGmw-015	Unconsolidated	3-Nitrotoluene	4 of 5 historical sample results ND with DL>SL, with 1 historical detection in 2000 No 2016 sample collected	No	
Winklepeck Burning Grounds	WBGmw-015	Unconsolidated	Bis(2-ethylhexyl)phthalate	3 of 5 historical sample results ND with DL>SL, with 2 historical estimated detections in 2008 and 2009 No 2016 sample collected	No	
Winklepeck Burning Grounds	WBGmw-015	Unconsolidated	RDX	Results for all 5 historical data ND with DL<SL No 2016 sample data	No	
Winklepeck Burning Grounds	WBGmw-015	Unconsolidated	Total Cyanide	Results for all 5 historical data ND with DL>SL No 2016 sample data	No	
Winklepeck Burning Grounds	WBGmw-018	Unconsolidated	2,4-Dinitrotoluene (Explosives)	Results for all 4 historical data ND, with all sample results with DL<SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-018	Unconsolidated	2,4-Dinitrotoluene (SVOCs)	No data - SVOCs not analyzed	No	
Winklepeck Burning Grounds	WBGmw-018	Unconsolidated	2,6-Dinitrotoluene (Explosives)	Results for all 4 historical data ND, with all sample results with DL<SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-018	Unconsolidated	2,6-Dinitrotoluene (SVOCs)	No data - SVOCs not analyzed	No	
Winklepeck Burning Grounds	WBGmw-018	Unconsolidated	2-Nitrotoluene	Results for all 4 historical data ND, with all sample results with DL<SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-018	Unconsolidated	3-Nitrotoluene	Results for all 4 historical data ND, with all sample results with DL<SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-018	Unconsolidated	Bis(2-ethylhexyl)phthalate	1 of 4 historical sample results ND with DL<SL, 3 historical estimated detections in 2012 and 2013 (3 dupe pairs - 2 pairs with both estimated detections, 1 pair with one estimated detection and 1 ND) No 2016 sample collected	No	DEHP detections at WBG have been below current SL since 2006.
Winklepeck Burning Grounds	WBGmw-018	Unconsolidated	RDX	No Mann-Kendall Trend Negative OLS Regression Line Negative Theil-Sen Trend Line 0 of 5 sample results (including one from 2016) ND	No	
Winklepeck Burning Grounds	WBGmw-018	Unconsolidated	Total Cyanide	Results for all 4 historical data ND with DL>SL No 2016 sample data	No	

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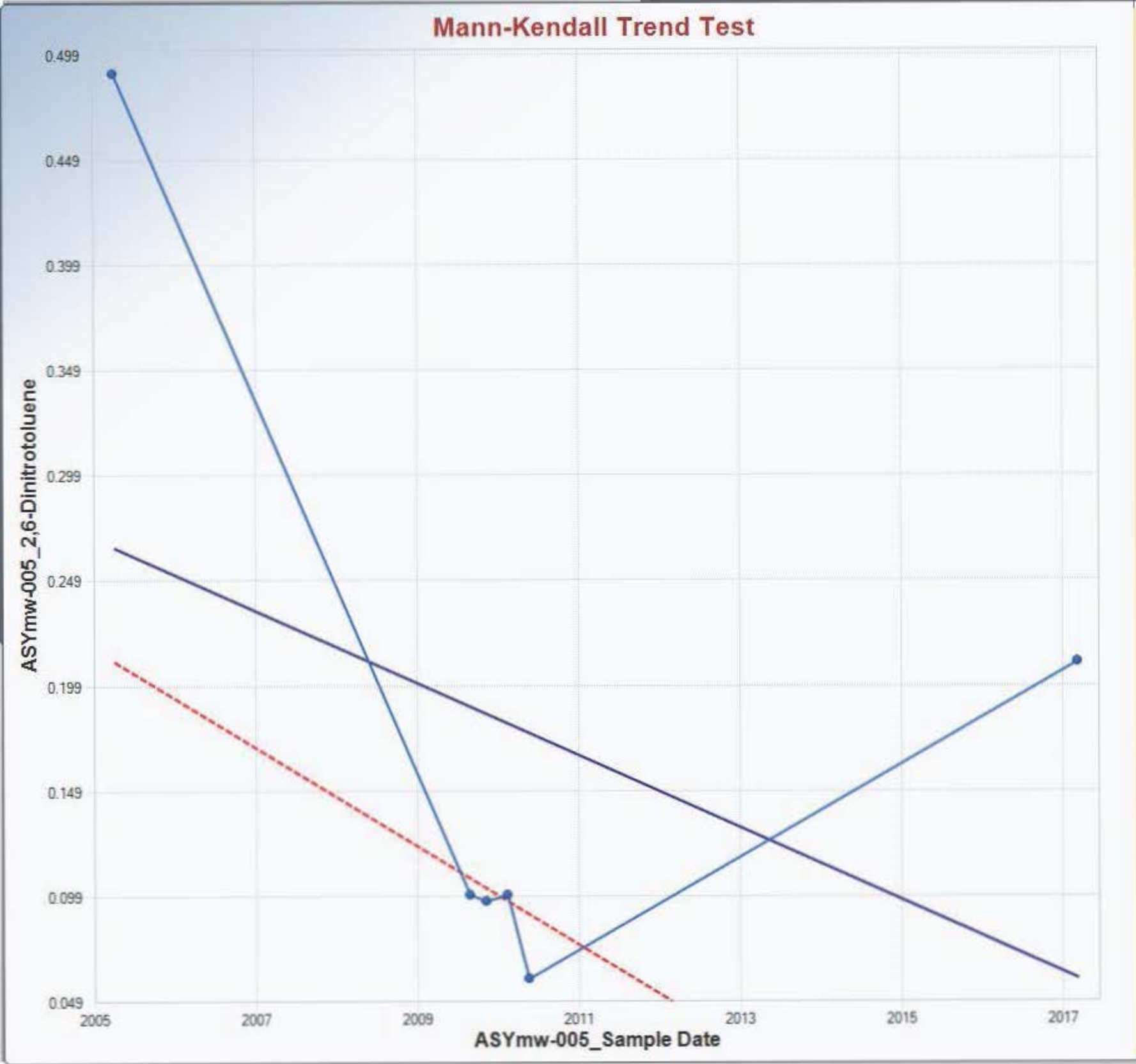
Winklepeck Burning Grounds	WBGmw-019	Sharon Sandstone	2,4-Dinitrotoluene (Explosives)	Results for all 4 historical data ND, with all sample results with DL<SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-019	Sharon Sandstone	2,4-Dinitrotoluene (SVOCs)	No data - SVOCs not analyzed	No	
Winklepeck Burning Grounds	WBGmw-019	Sharon Sandstone	2,6-Dinitrotoluene (Explosives)	Results for all 4 historical data ND, with all sample results with DL<SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-019	Sharon Sandstone	2,6-Dinitrotoluene (SVOCs)	No data - SVOCs not analyzed	No	
Winklepeck Burning Grounds	WBGmw-019	Sharon Sandstone	2-Nitrotoluene	Results for all 4 historical data ND, with all sample results with DL<SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-019	Sharon Sandstone	3-Nitrotoluene	Results for all 4 historical data ND, with all sample results with DL<SL Results for 2016 sampling data ND with DL>SL	No	
Winklepeck Burning Grounds	WBGmw-019	Sharon Sandstone	Bis(2-ethylhexyl)phthalate	1 of 4 historical sample results ND with DL>SL, 3 historical estimated detections in 2012 and 2013 No 2016 sample collected	No	DEHP detections at WBG have been below current SL since 2006.
Winklepeck Burning Grounds	WBGmw-019	Sharon Sandstone	RDX	Results for all 4 historical data ND, with all sample results with DL<SL Results for 2016 sampling data ND with DL<SL	No	
Winklepeck Burning Grounds	WBGmw-019	Sharon Sandstone	Total Cyanide	Results for all 4 historical data ND with DL>SL Result for 2016 sampling data ND with DL>SL	No	

Notes:
[1] - 2016 Detection Limit exceeds LOD reported in QAPP.

µg/L - Micrograms per liter
TNT - Trinitrotoluene
DNT - Dinitrotoluene
CN - Cyanide
DEHP - Bis(2-ethylhexyl)phthalate
DL - Detection Limit
EPA - United States Environmental Protection Agency
M-K - Mann Kendall
ND - Not Detected
OLS - Ordinary Least Squares
PCB - Polychlorinated Biphenyl
QAPP - Quality Assurance Project Plan
RDX - Cyclotrimethylenetrinitramine
SA - Semiannual
SL - Screening Level
SVOC - Semivolatile Organic Compound
T-S - Theil-Sen
VOC - Volatile Organic Compound



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	-0.5738
M-K Test Value (S)	-4
Tabulated p-value	0.2350
Approximate p-value	0.2830

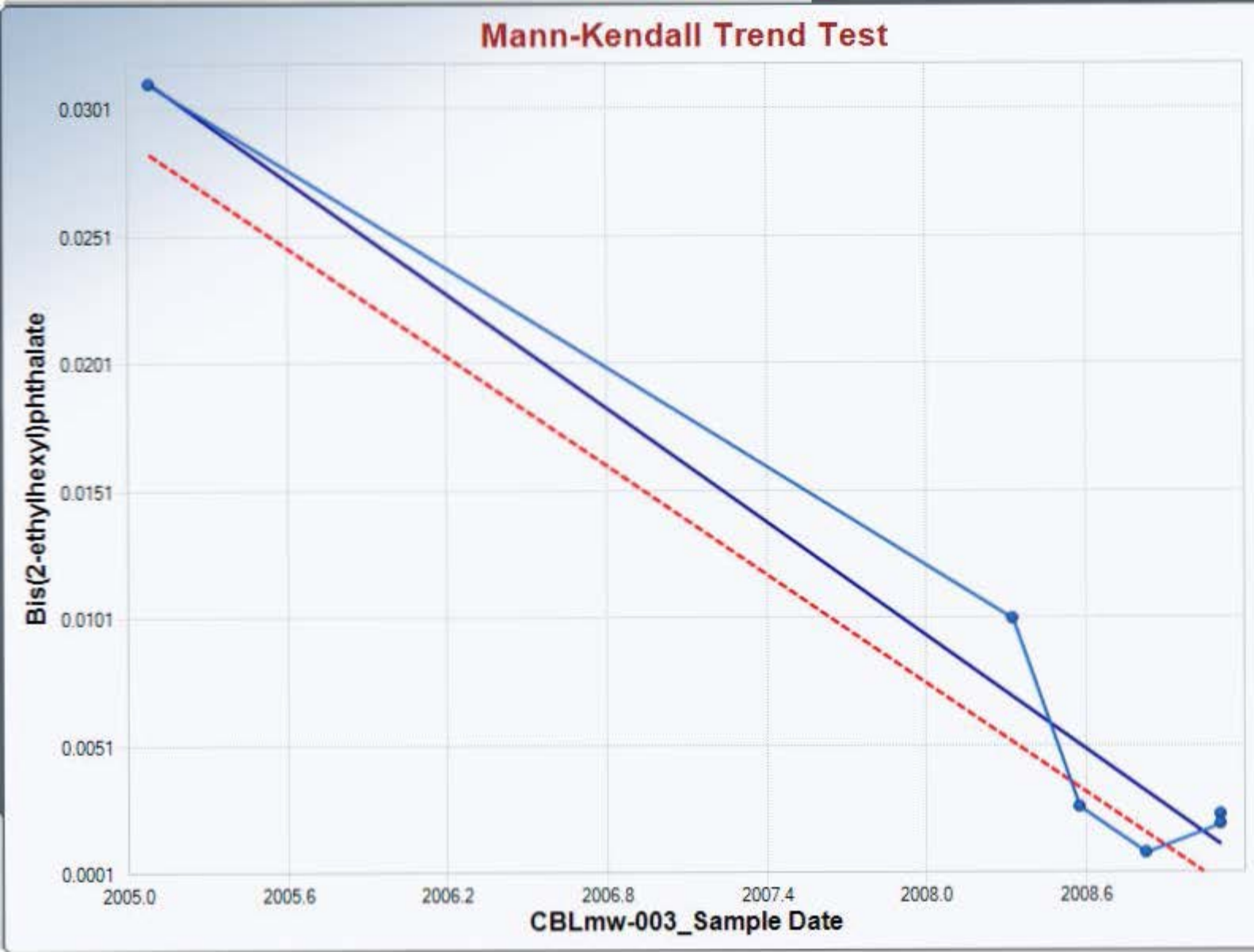
OLS Regression Line (Blue)

OLS Regression Slope	-0.0172
OLS Regression Intercept	34.6977

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0235
Theil-Sen Intercept	47.2820

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	-1.5029
Test Value (S)	-9
Tabulated p-value	0.0680
Approximate p-value	0.0664

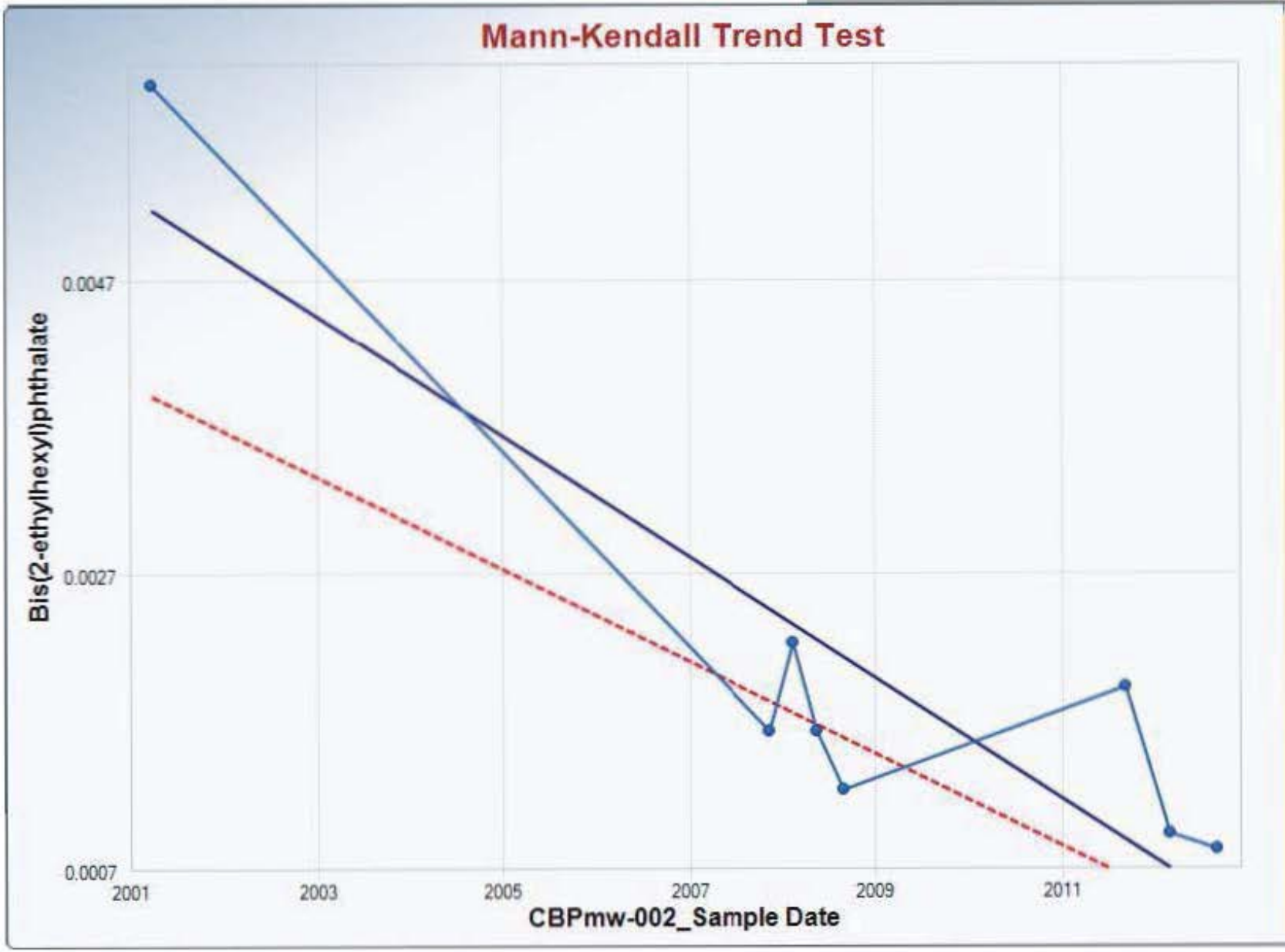
OLS Regression Line (Blue)

OLS Regression Slope	-0.0075
OLS Regression Intercept	14.9694

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0071
Theil-Sen Intercept	14.3557

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	8
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	8.0208
Standardized Value of S	-2.2442
Test Value (S)	-19
Tabulated p-value	0.0160
Approximate p-value	0.0124

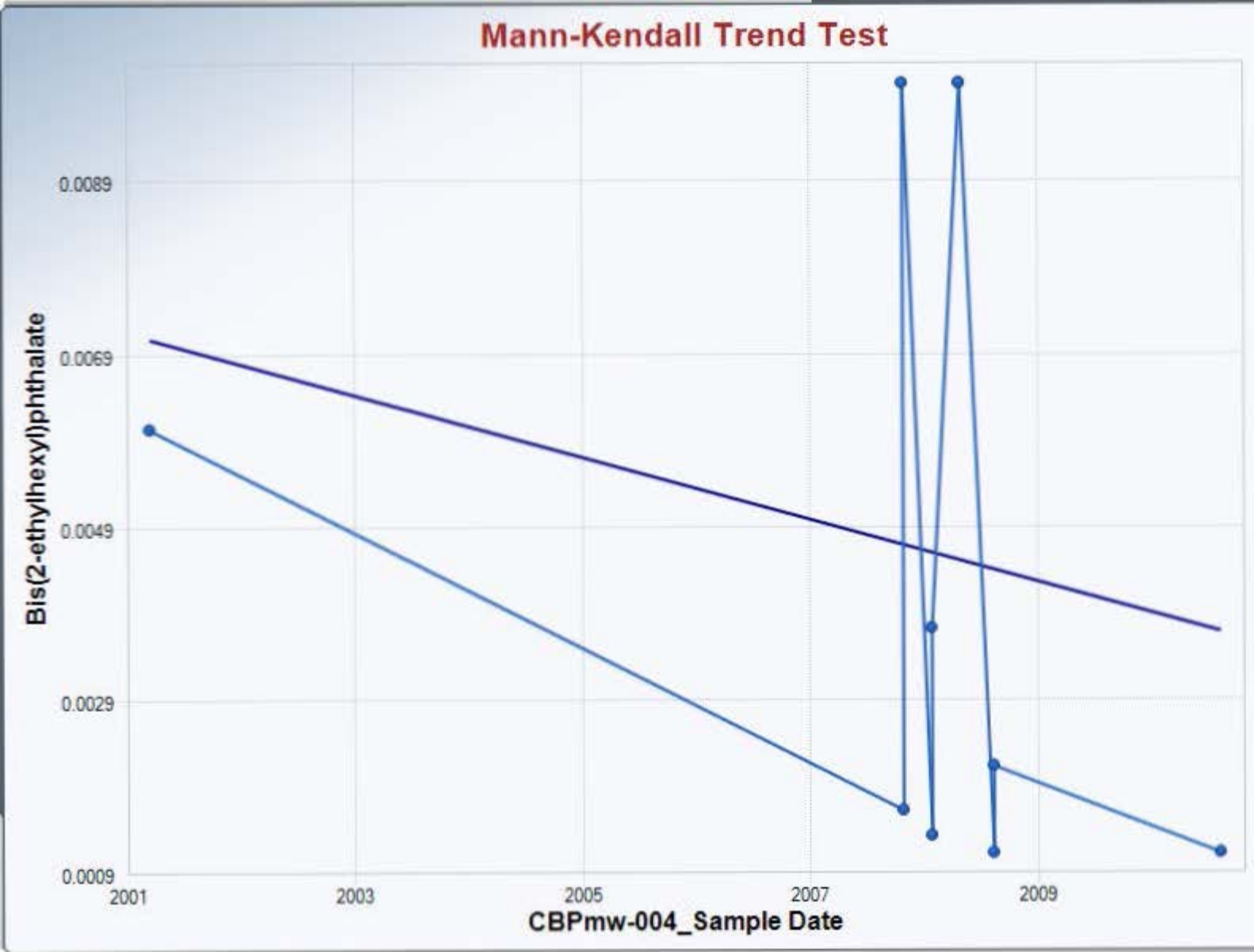
OLS Regression Line (Blue)

OLS Regression Slope	-0.0004
OLS Regression Intercept	0.8285

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0003
Theil-Sen Intercept	0.6324

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	10
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	10.9697
Standardized Value of S	-0.9116
Test Value (S)	-11
Tabulated p-value	0.1900
Approximate p-value	0.1810

OLS Regression Line (Blue)

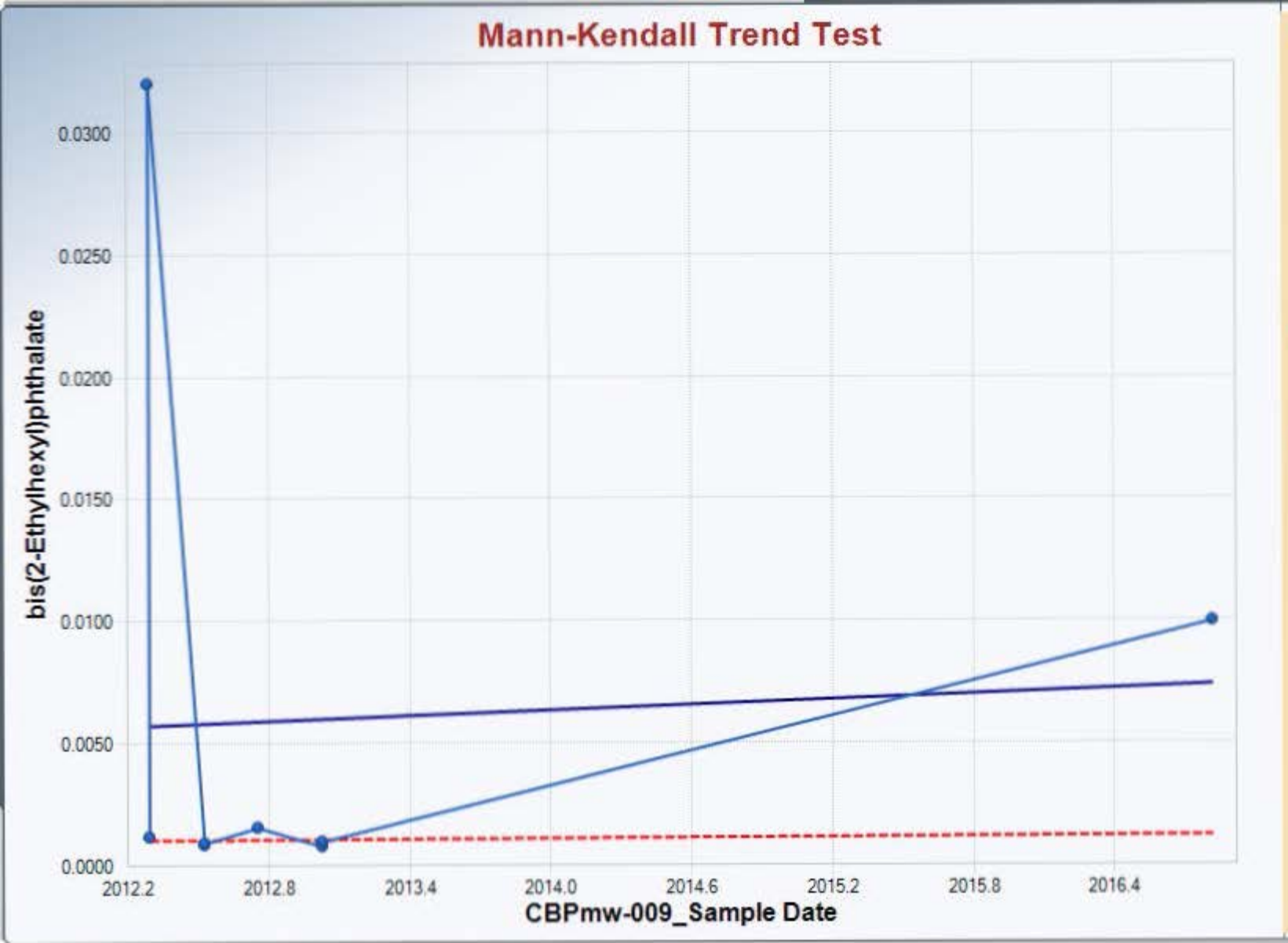
OLS Regression Slope	-0.0004
OLS Regression Intercept	0.7301

Theil-Sen Trend Line (Red)

Theil-Sen Slope

Theil-Sen Intercept

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	8
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	8.0829
Standardized Value of S	
Test Value (S)	0
Tabulated p-value	0.5480
Approximate p-value	

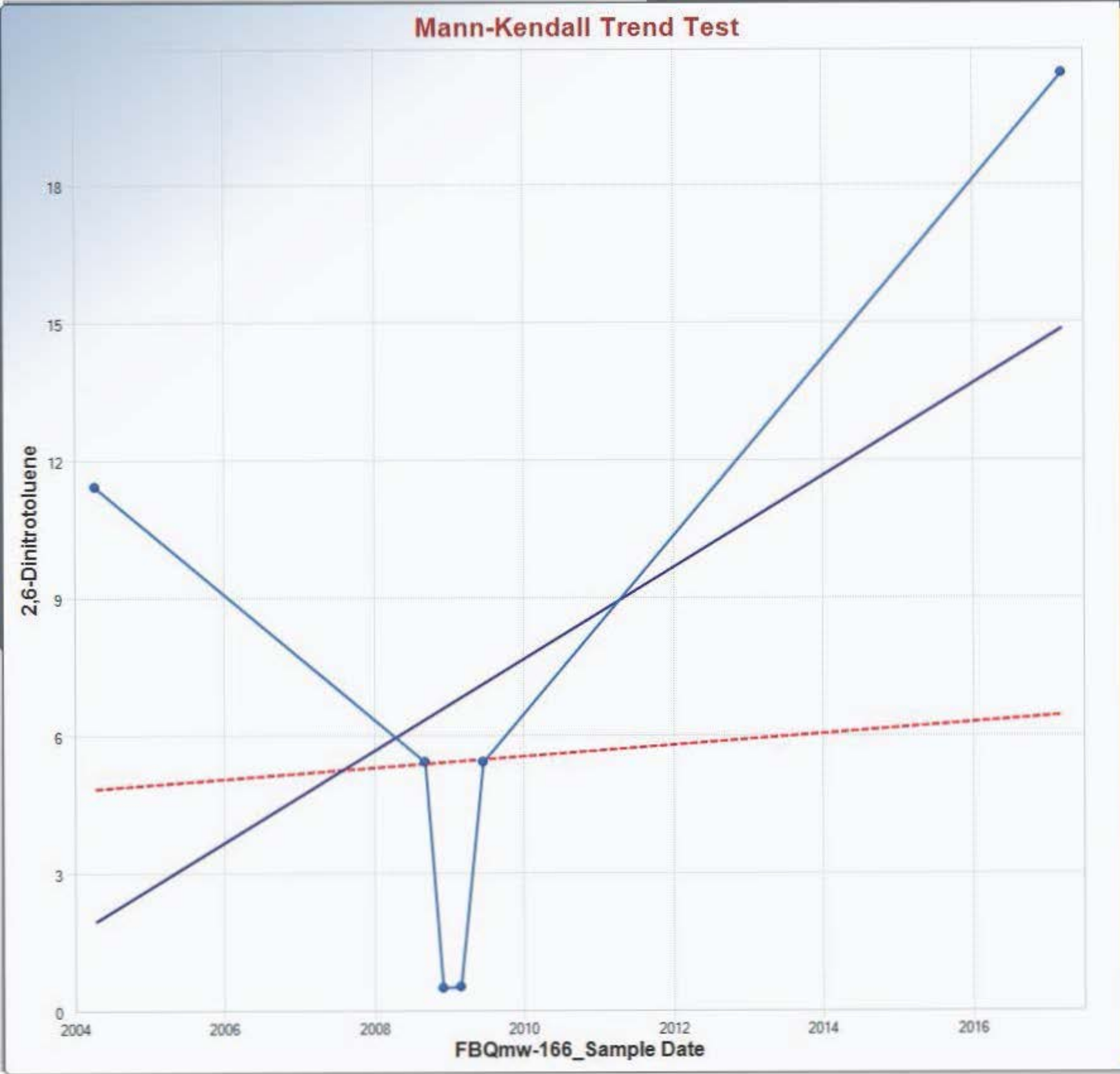
OLS Regression Line (Blue)

OLS Regression Slope	0.0004
OLS Regression Intercept	-0.7444

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	-0.0592

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	0.1913
M-K Test Value (S)	2
Tabulated p-value	0.3600
Approximate p-value	0.4242

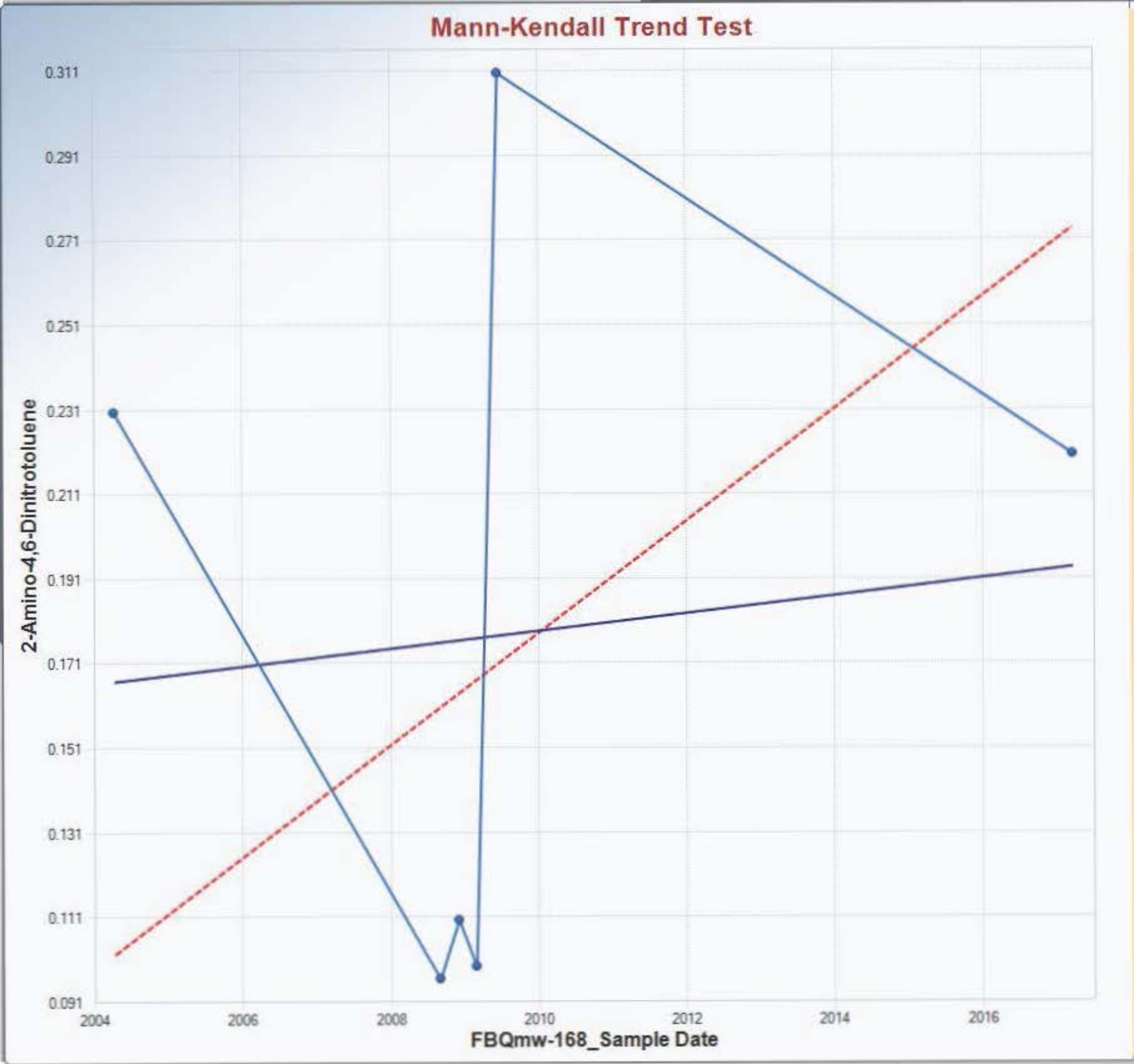
OLS Regression Line (Blue)

OLS Regression Slope	0.9973
OLS Regression Intercept	-1,996.9083

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.1231
Theil-Sen Intercept	-242.2695

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.3757
M-K Test Value (S)	3
Tabulated p-value	0.3600
Approximate p-value	0.3536

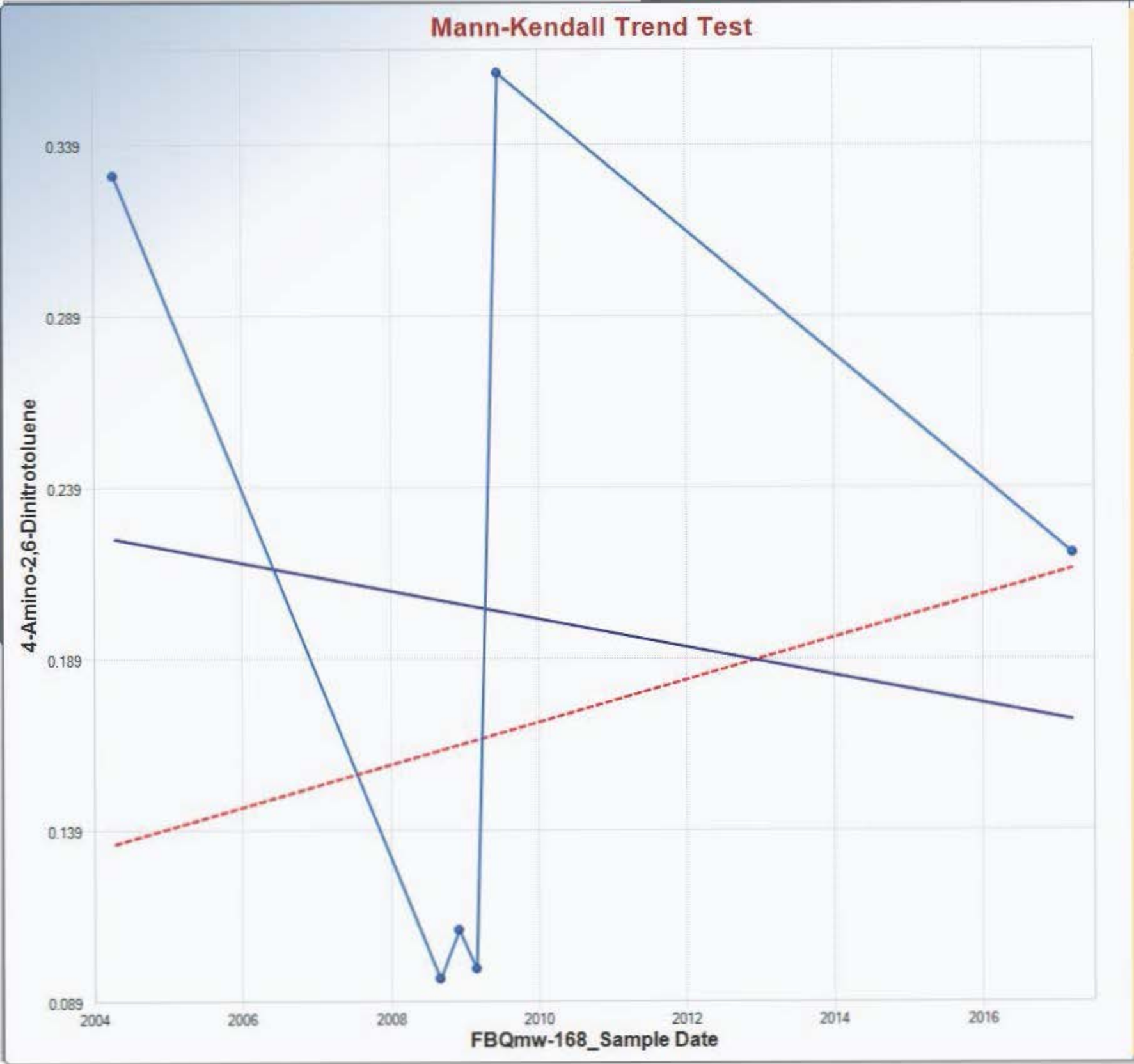
OLS Regression Line (Blue)

OLS Regression Slope	0.0021
OLS Regression Intercept	-3.9841

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0132
Theil-Sen Intercept	-26.4339

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.3757
M-K Test Value (S)	3
Tabulated p-value	0.3600
Approximate p-value	0.3536

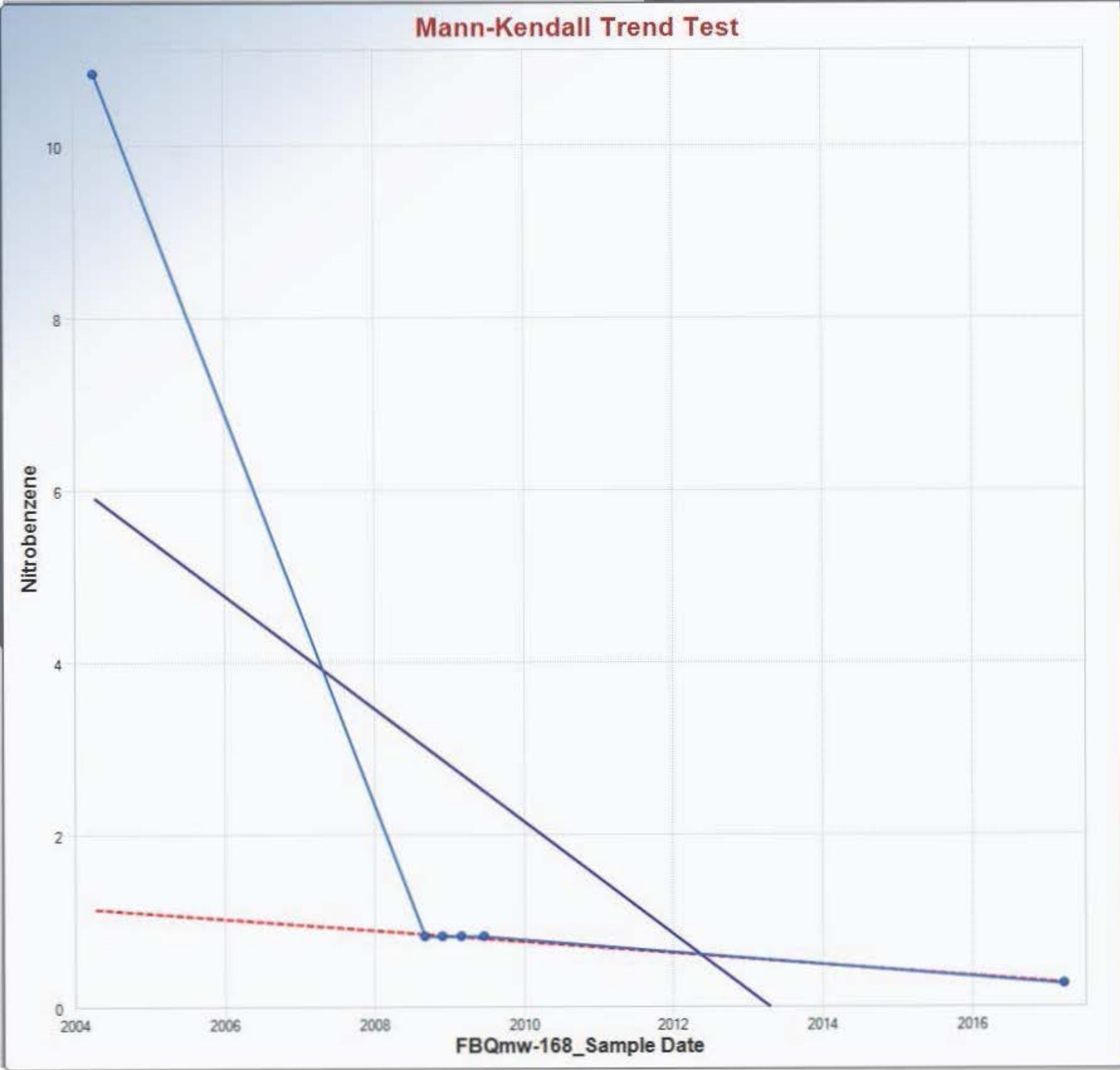
OLS Regression Line (Blue)

OLS Regression Slope	-0.0041
OLS Regression Intercept	8.4199

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0062
Theil-Sen Intercept	-12.2699

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	4.4347
Standardized Value of S	-1.8040
M-K Test Value (S)	-9
Tabulated p-value	0.0680
Approximate p-value	0.0356

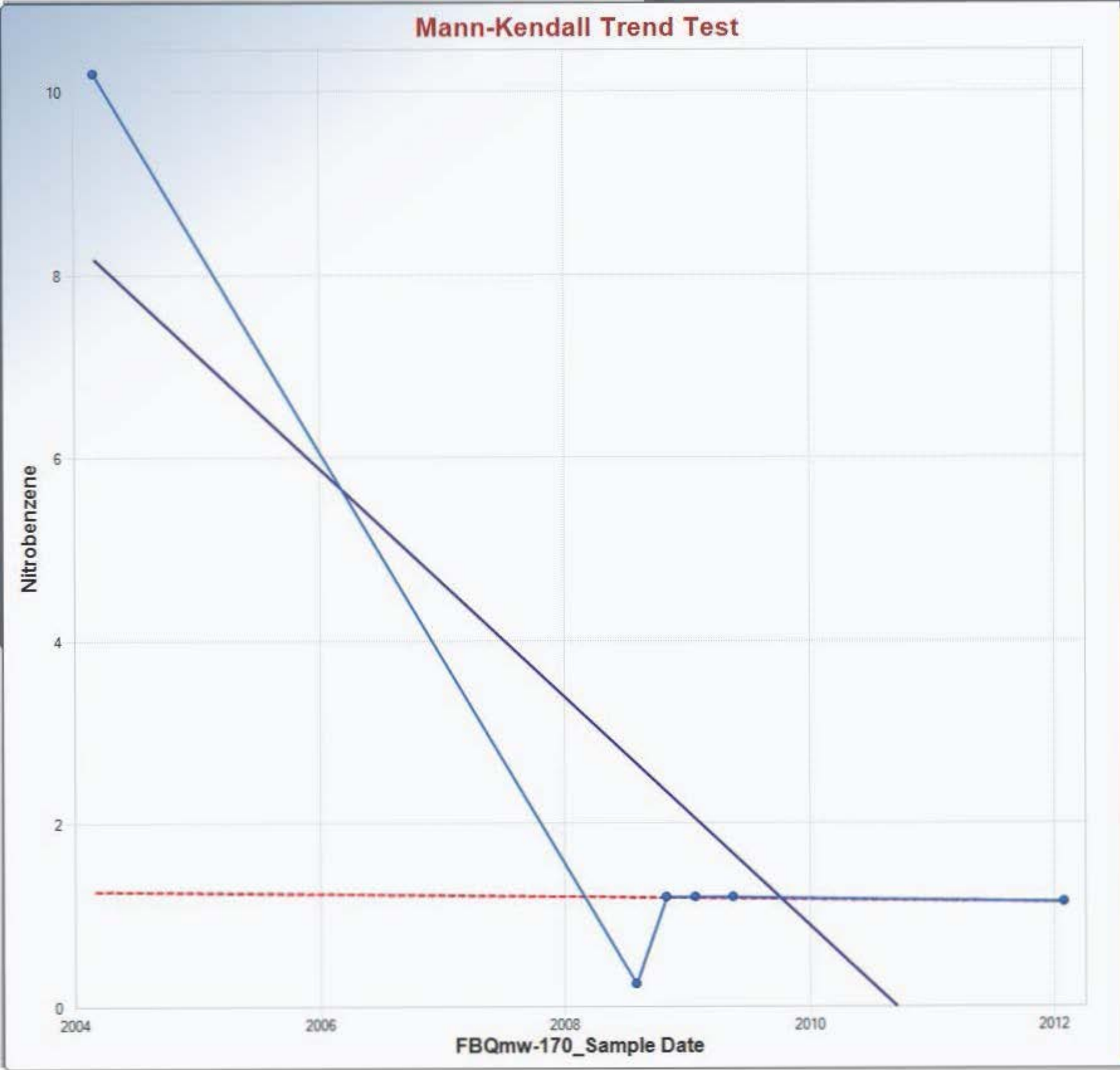
OLS Regression Line (Blue)

OLS Regression Slope	-0.6557
OLS Regression Intercept	1,320.0186

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0674
Theil-Sen Intercept	136.4126

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	4.9666
Standardized Value of S	-0.6040
M-K Test Value (S)	-4
Tabulated p-value	0.2350
Approximate p-value	0.2729

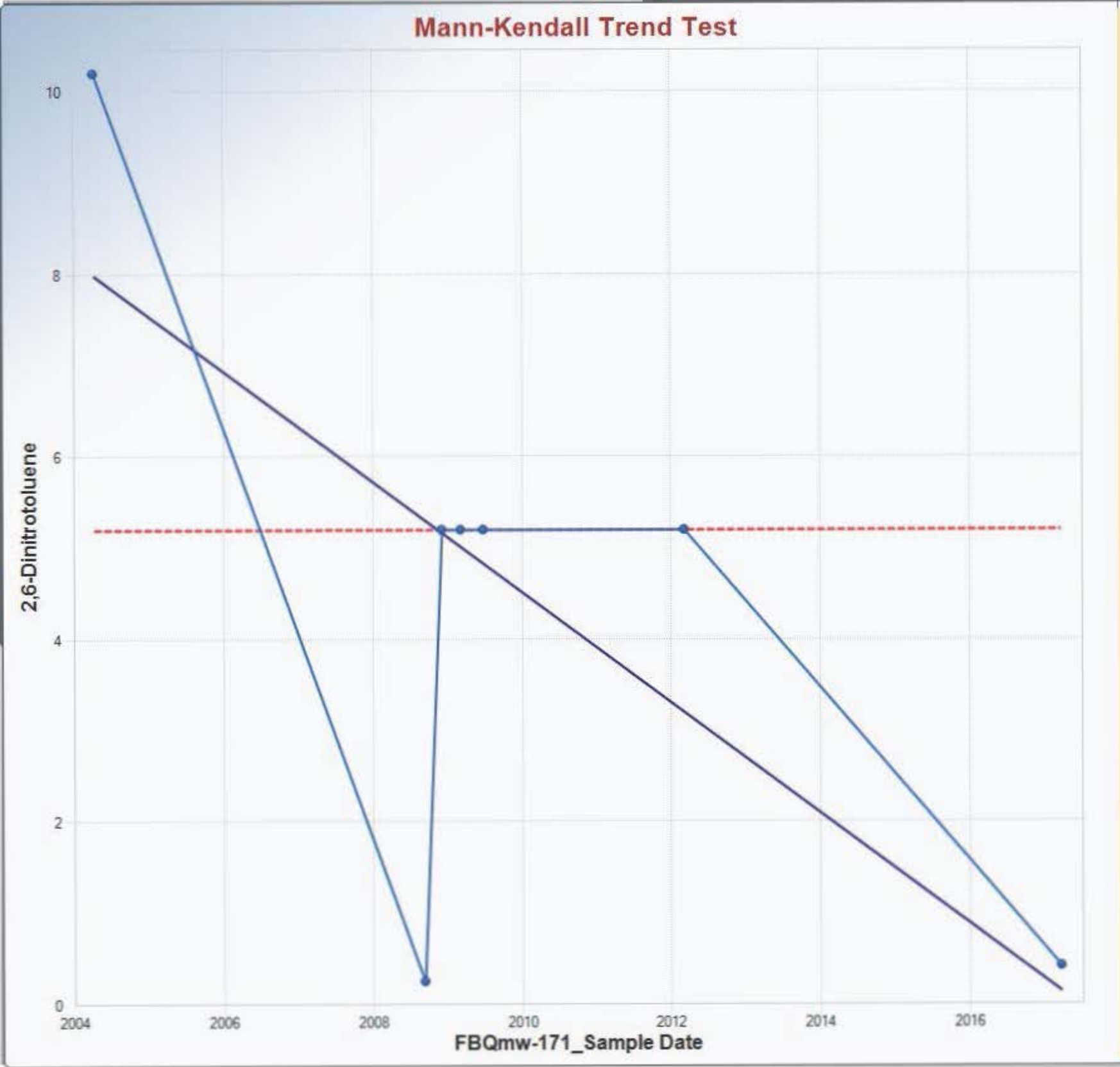
OLS Regression Line (Blue)

OLS Regression Slope	-1.2501
OLS Regression Intercept	2,513.0568

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0154
Theil-Sen Intercept	31.9033

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.9722
Standardized Value of S	-0.6698
M-K Test Value (S)	-5
Tabulated p-value	0.2810
Approximate p-value	0.2515

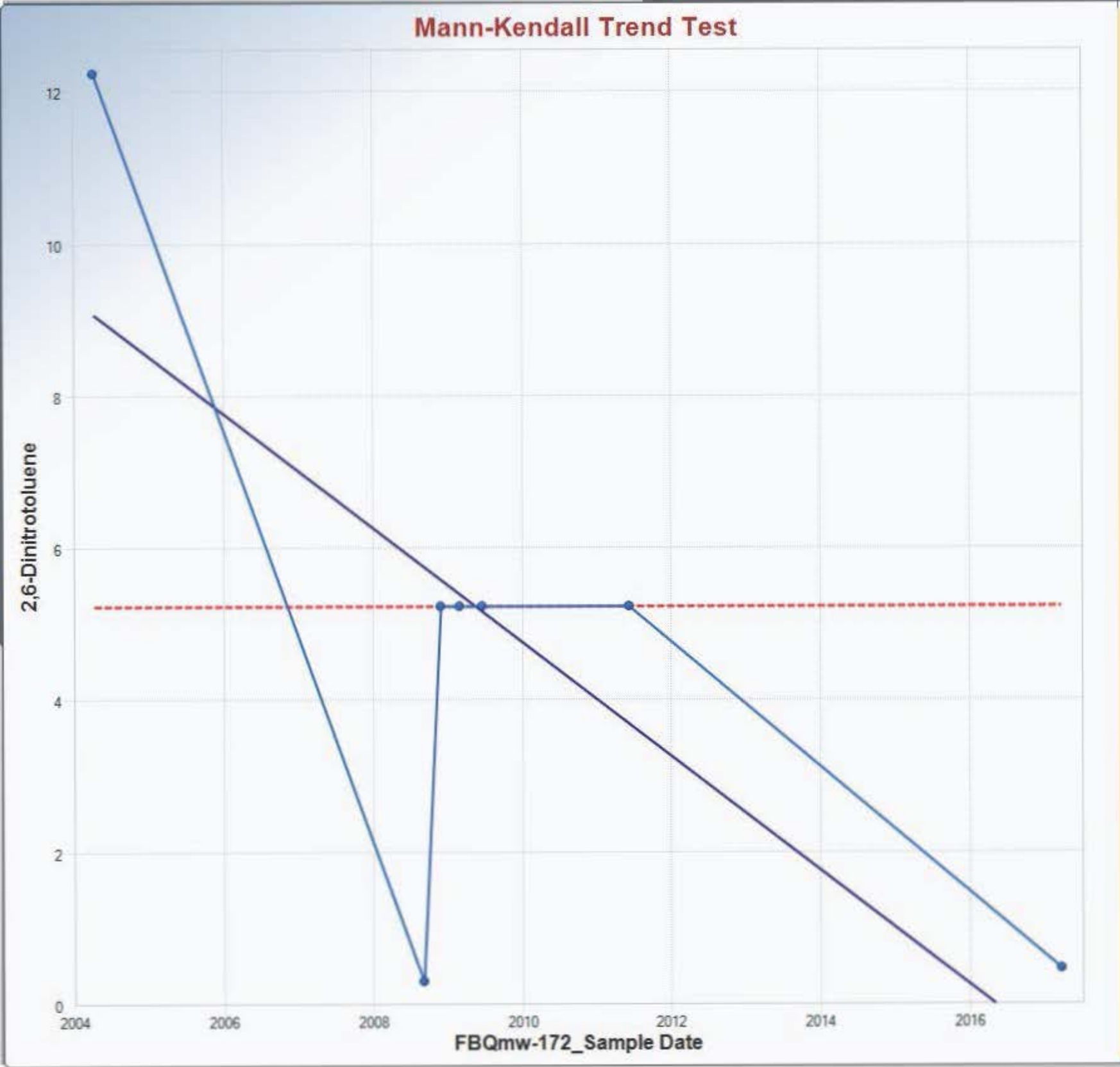
OLS Regression Line (Blue)

OLS Regression Slope	-0.6063
OLS Regression Intercept	1,222.7855

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	5.0000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.9722
Standardized Value of S	-0.6698
M-K Test Value (S)	-5
Tabulated p-value	0.2810
Approximate p-value	0.2515

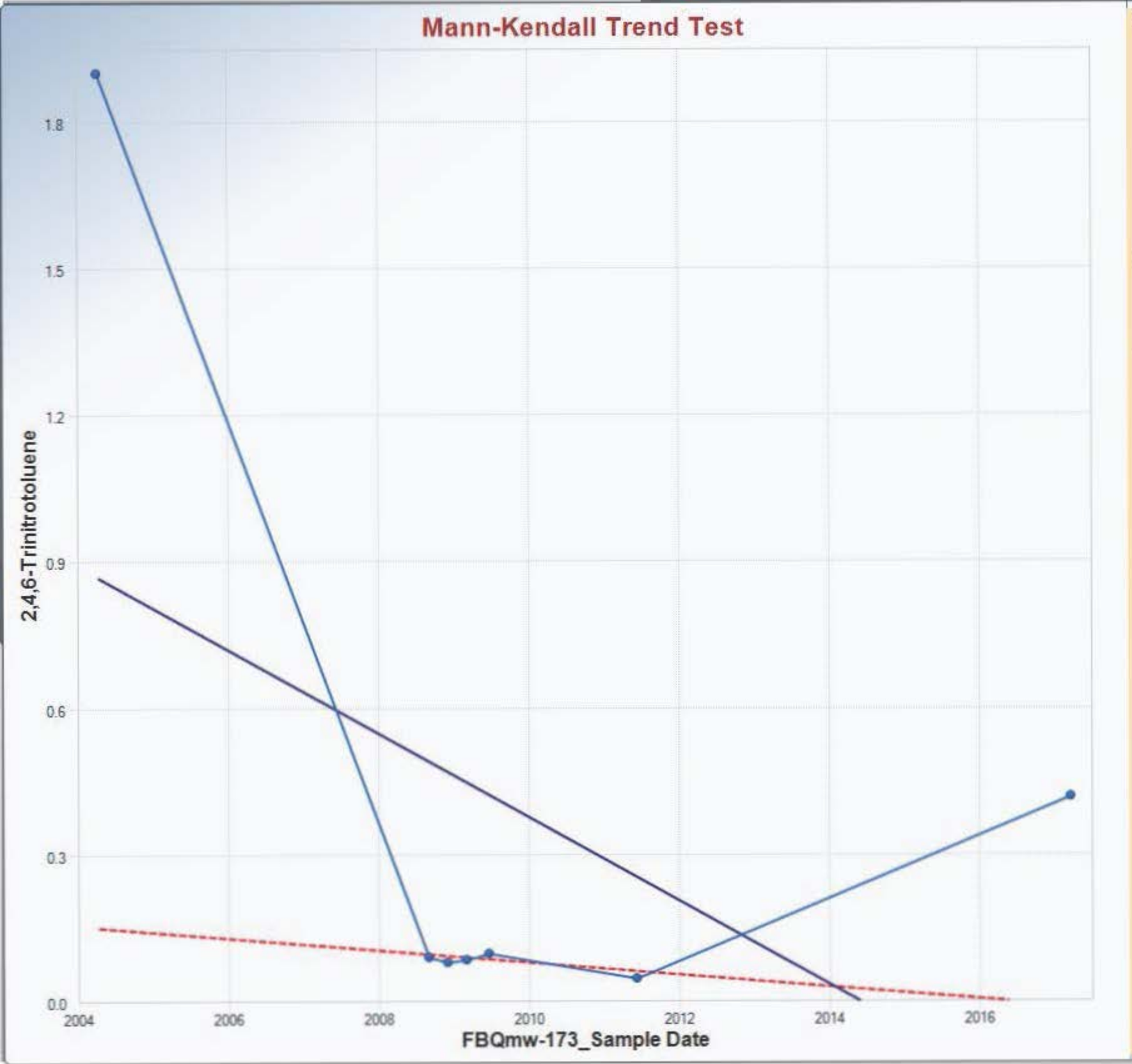
OLS Regression Line (Blue)

OLS Regression Slope	-0.7529
OLS Regression Intercept	1,517.5325

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	5.0000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-0.3004
M-K Test Value (S)	-3
Tabulated p-value	0.3860
Approximate p-value	0.3819

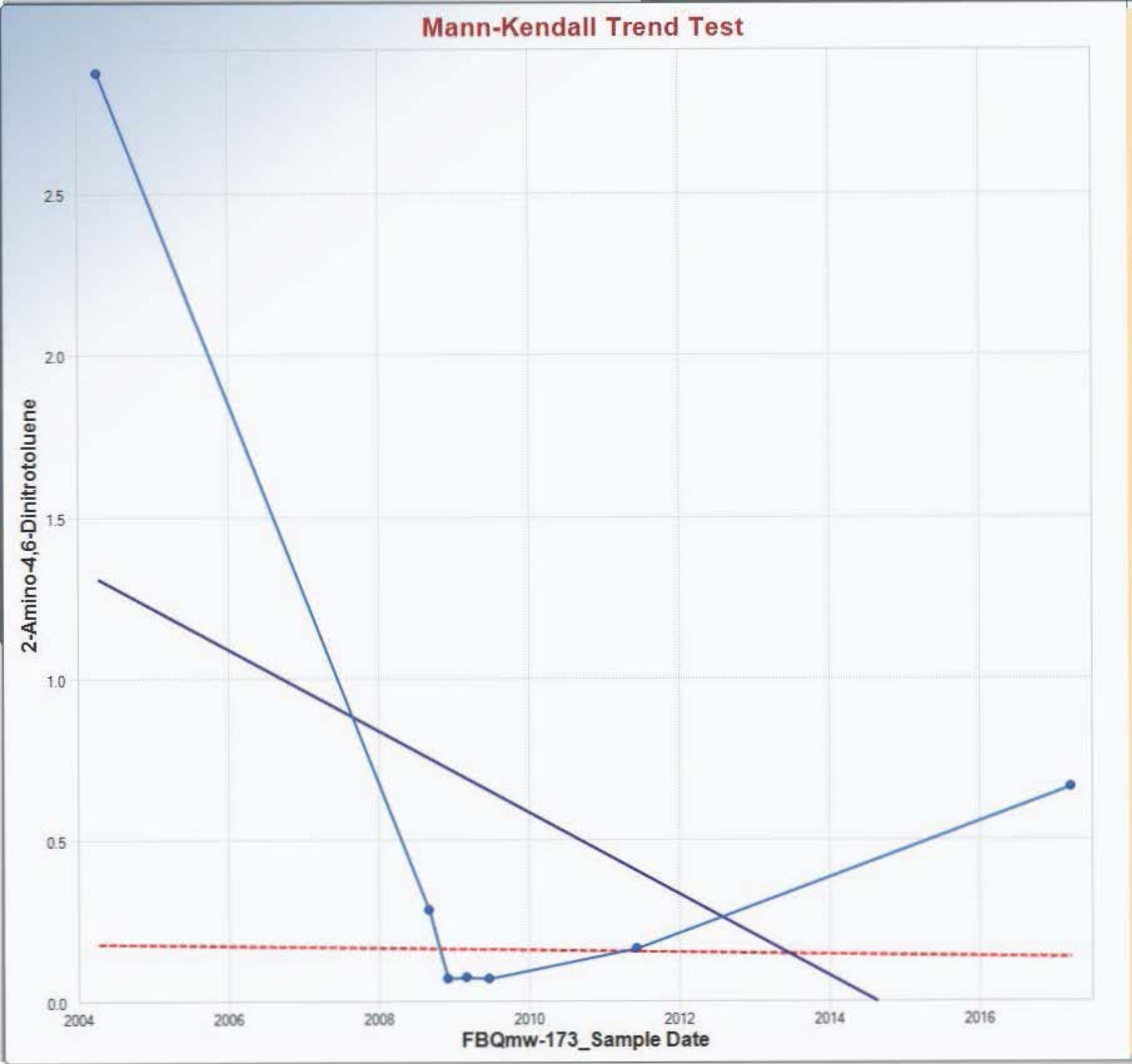
OLS Regression Line (Blue)

OLS Regression Slope	-0.0858
OLS Regression Intercept	172.8564

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0127
Theil-Sen Intercept	25.5821

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	0.0000
M-K Test Value (S)	-1
Tabulated p-value	0.5000
Approximate p-value	0.5000

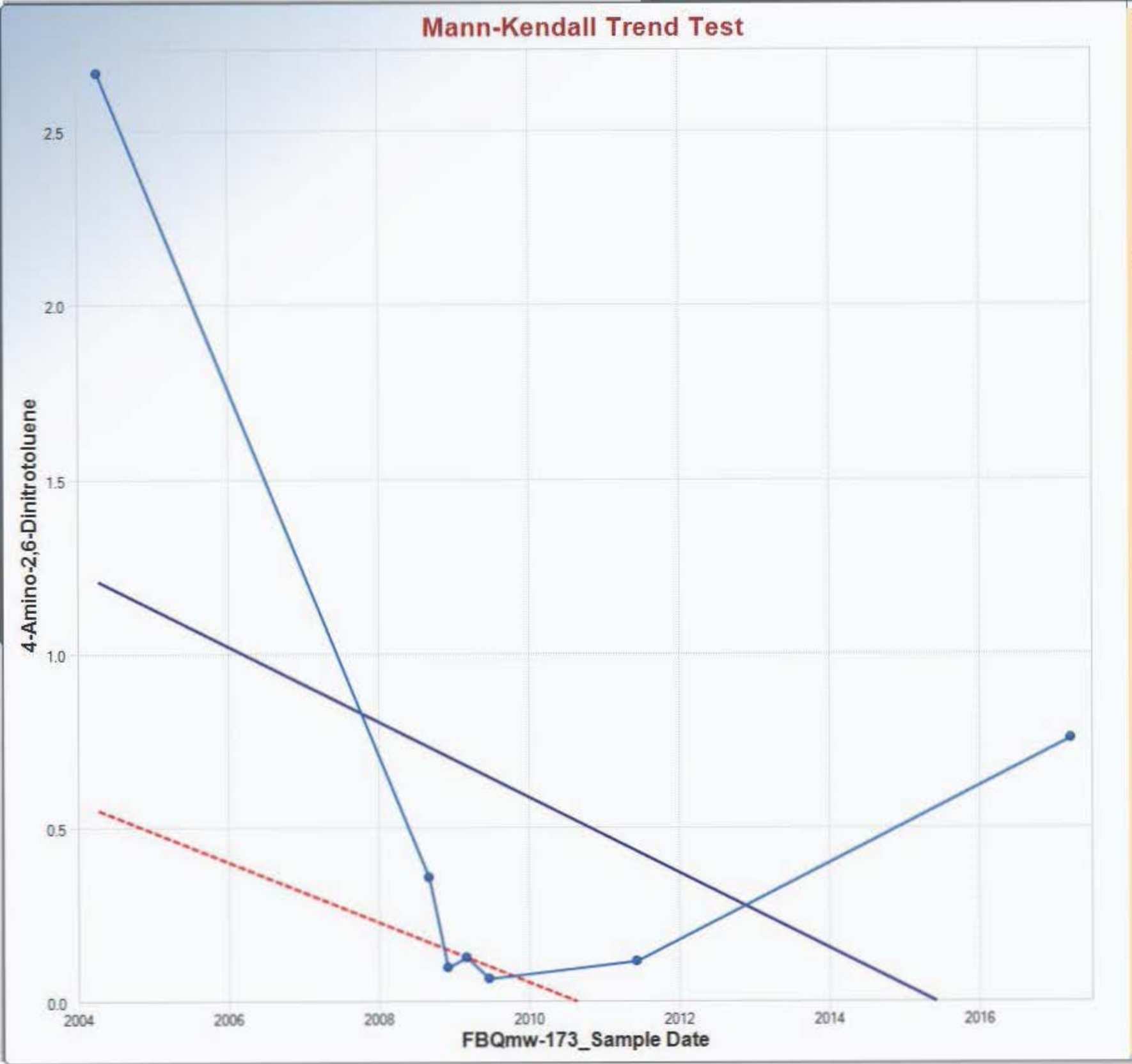
OLS Regression Line (Blue)

OLS Regression Slope	-0.1266
OLS Regression Intercept	255.0011

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0033
Theil-Sen Intercept	6.8000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-0.6008
M-K Test Value (S)	-5
Tabulated p-value	0.2810
Approximate p-value	0.2740

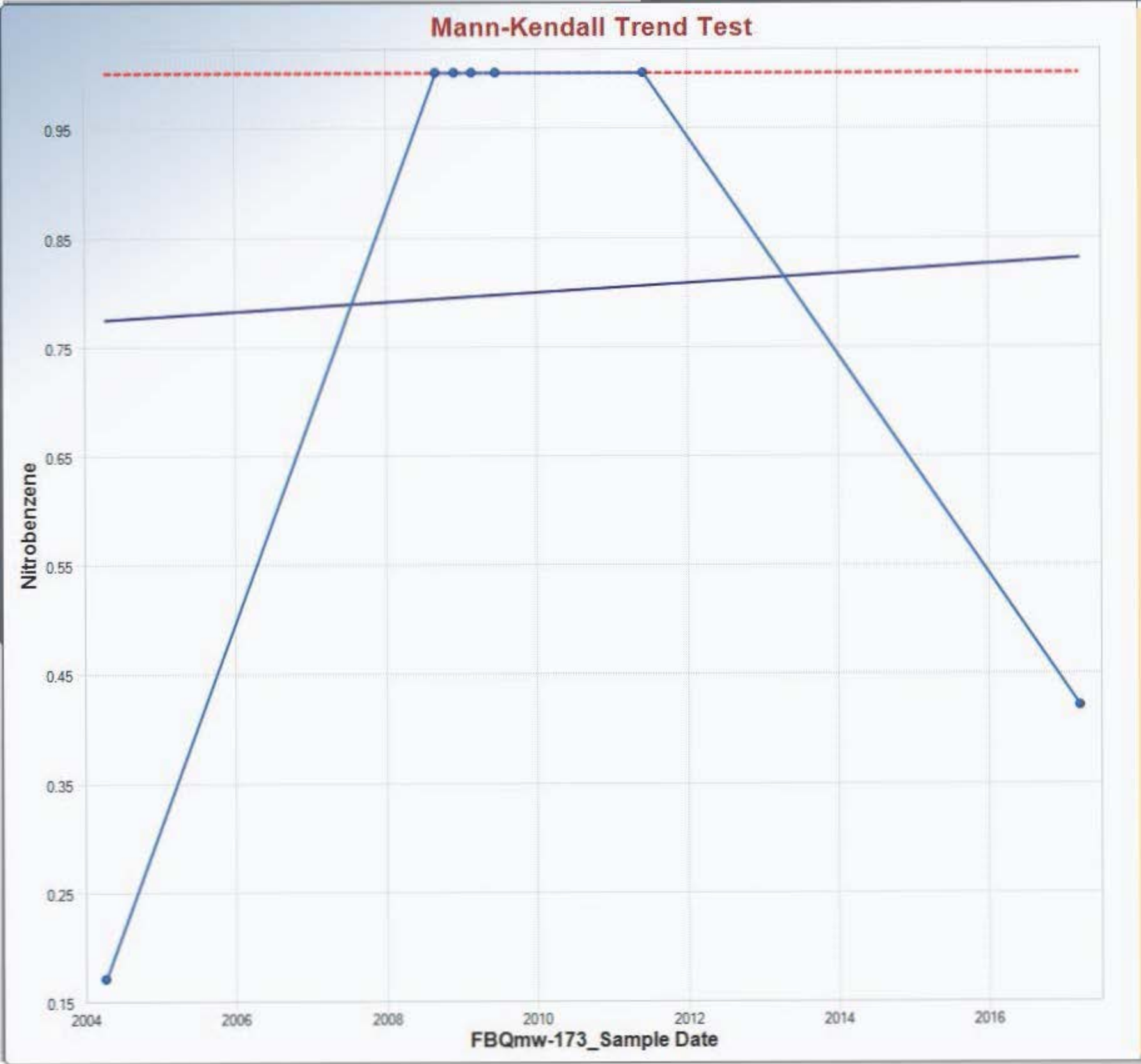
OLS Regression Line (Blue)

OLS Regression Slope	-0.1087
OLS Regression Intercept	219.0489

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0869
Theil-Sen Intercept	174.6779

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2599
Standardized Value of S	0.0000
M-K Test Value (S)	1
Tabulated p-value	0.5000
Approximate p-value	0.5000

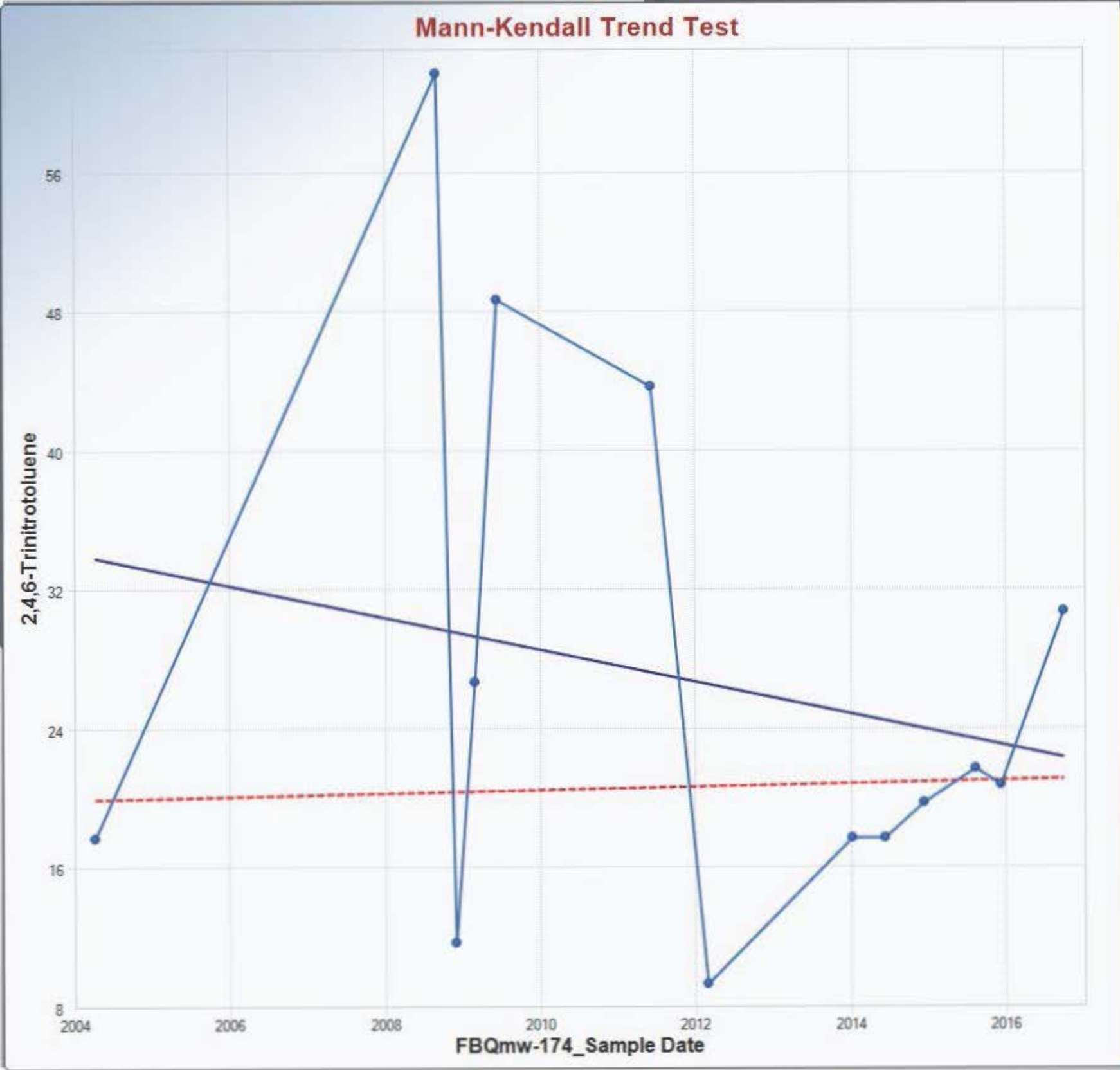
OLS Regression Line (Blue)

OLS Regression Slope	0.0044
OLS Regression Intercept	-8.0144

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	1.0000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.2788
Standardized Value of S	0.1229
M-K Test Value (S)	3
Tabulated p-value	0.4760
Approximate p-value	0.4511

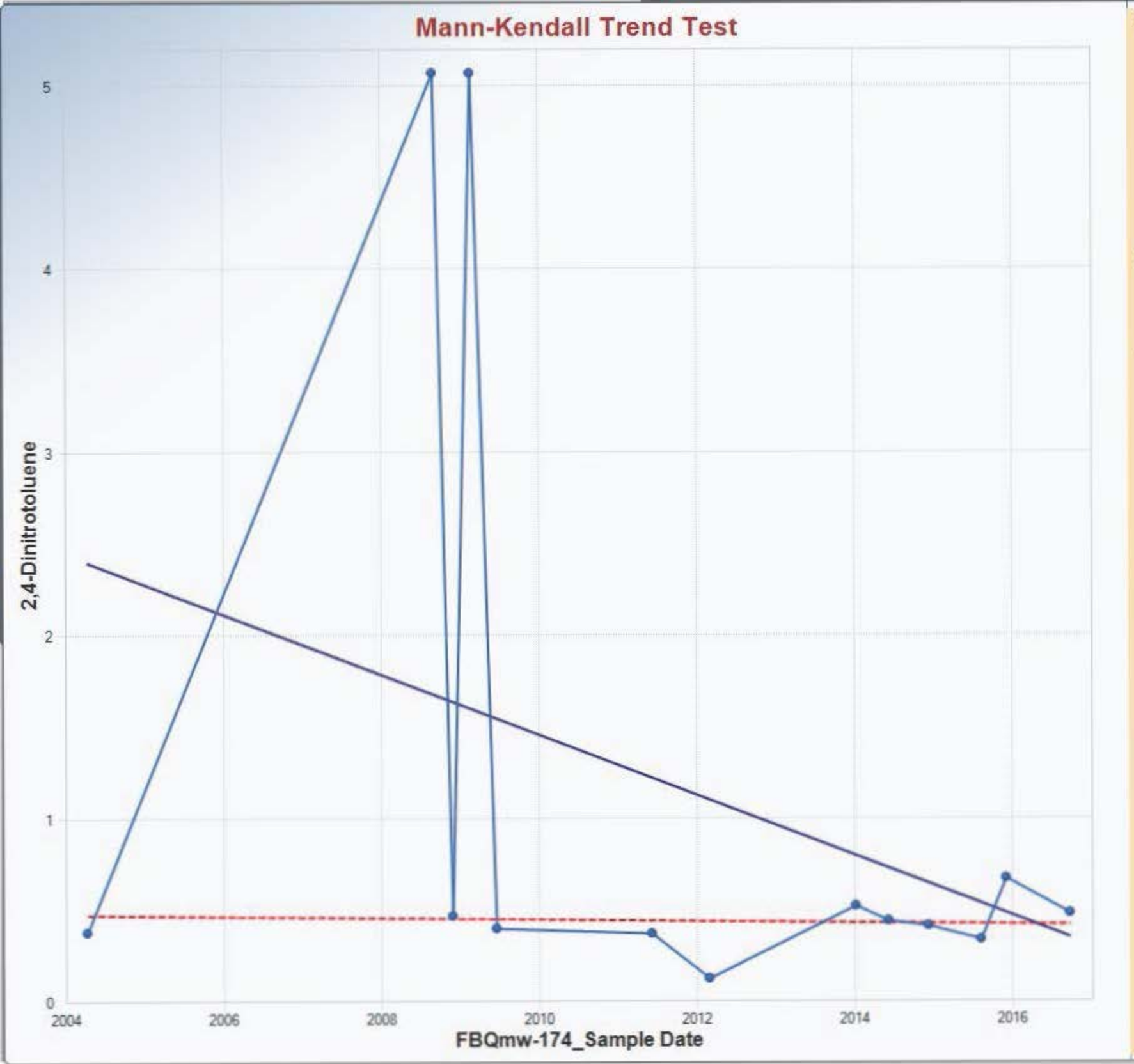
OLS Regression Line (Blue)

OLS Regression Slope	-0.9228
OLS Regression Intercept	1,883.3094

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0937
Theil-Sen Intercept	-167.4078

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.3605
Standardized Value of S	-0.2445
M-K Test Value (S)	-5
Tabulated p-value	0.4290
Approximate p-value	0.4034

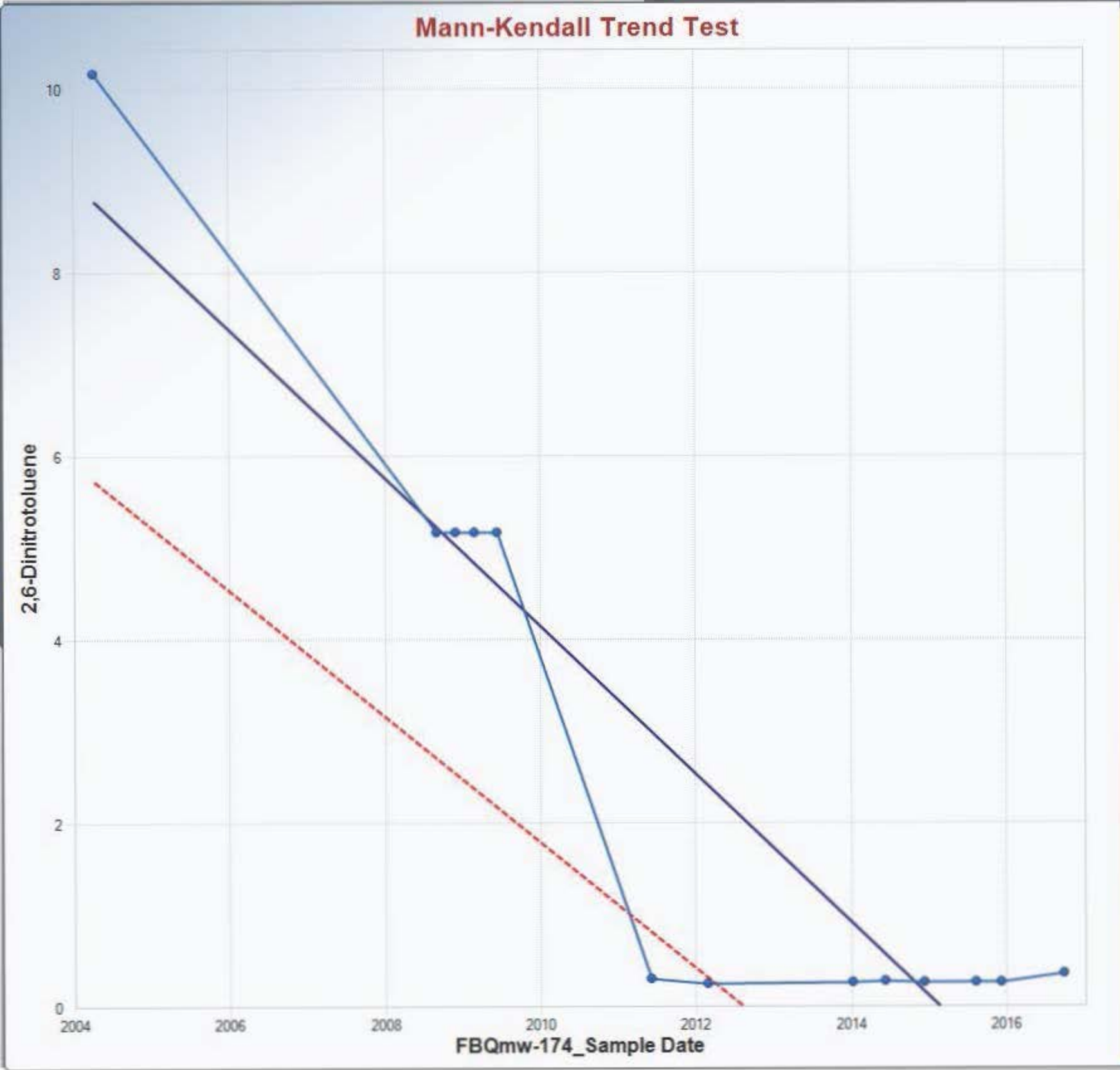
OLS Regression Line (Blue)

OLS Regression Slope	-0.1645
OLS Regression Intercept	331.8916

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0045
Theil-Sen Intercept	9.3761

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	15.8535
Standardized Value of S	-2.4600
M-K Test Value (S)	-40
Tabulated p-value	0.0070
Approximate p-value	0.0069

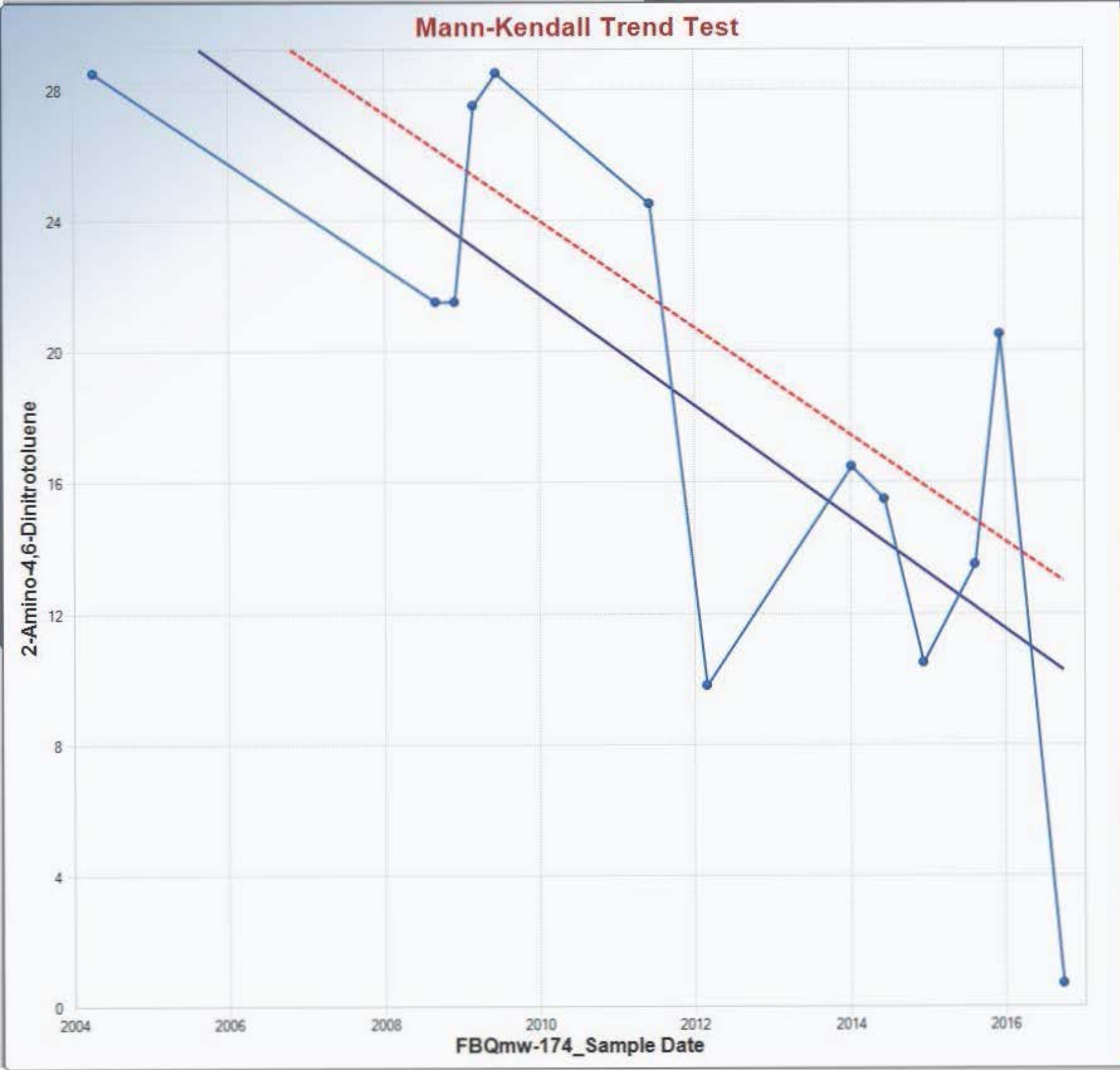
OLS Regression Line (Blue)

OLS Regression Slope	-0.8080
OLS Regression Intercept	1,627.8403

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.6862
Theil-Sen Intercept	1,380.5380

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.3299
Standardized Value of S	-2.5107
M-K Test Value (S)	-42
Tabulated p-value	0.0050
Approximate p-value	0.0060

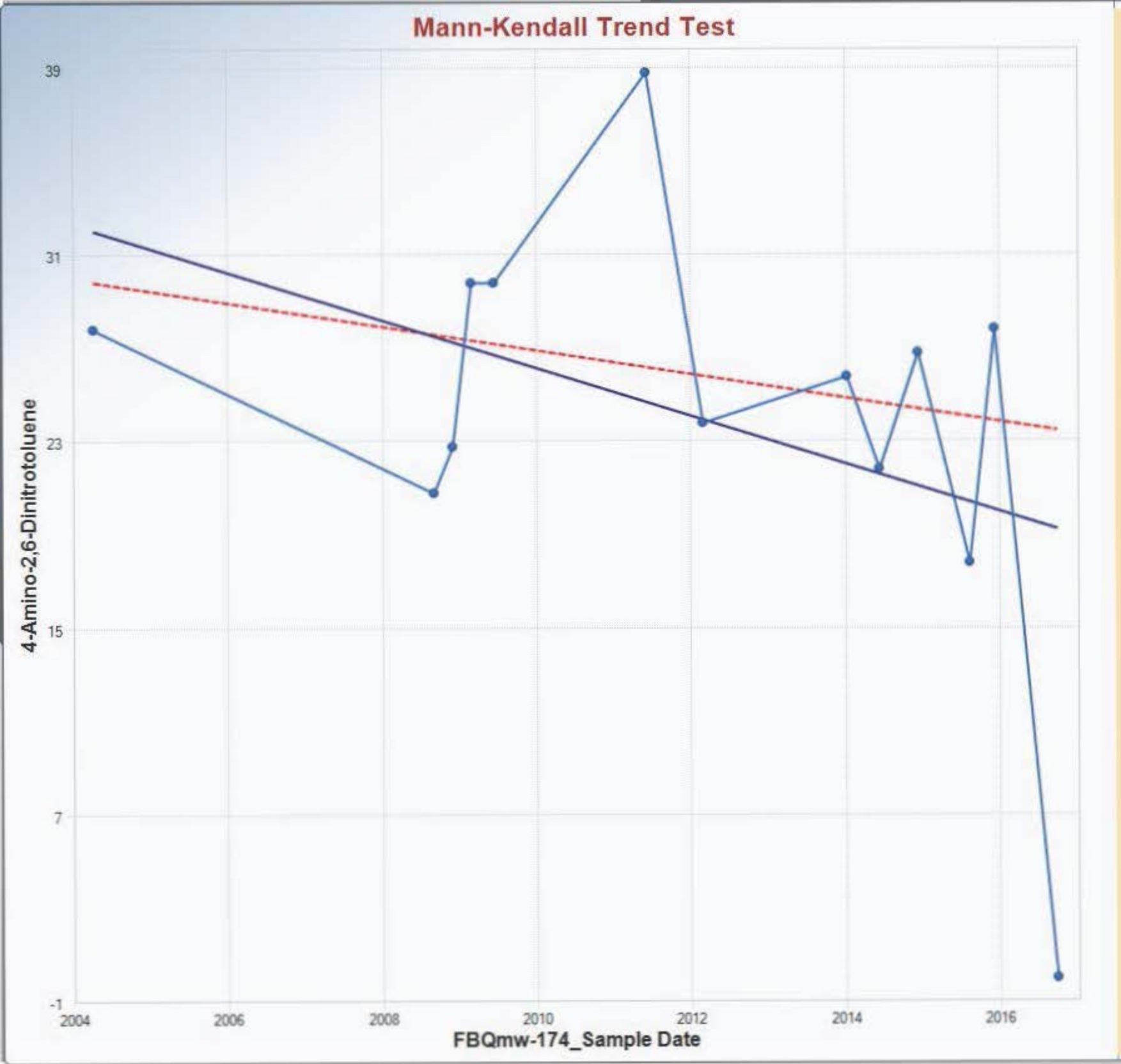
OLS Regression Line (Blue)

OLS Regression Slope	-1.7083
OLS Regression Intercept	3,454.3520

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-1.6374
Theil-Sen Intercept	3,314.0246

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.3299
Standardized Value of S	-0.9186
M-K Test Value (S)	-16
Tabulated p-value	0.1840
Approximate p-value	0.1792

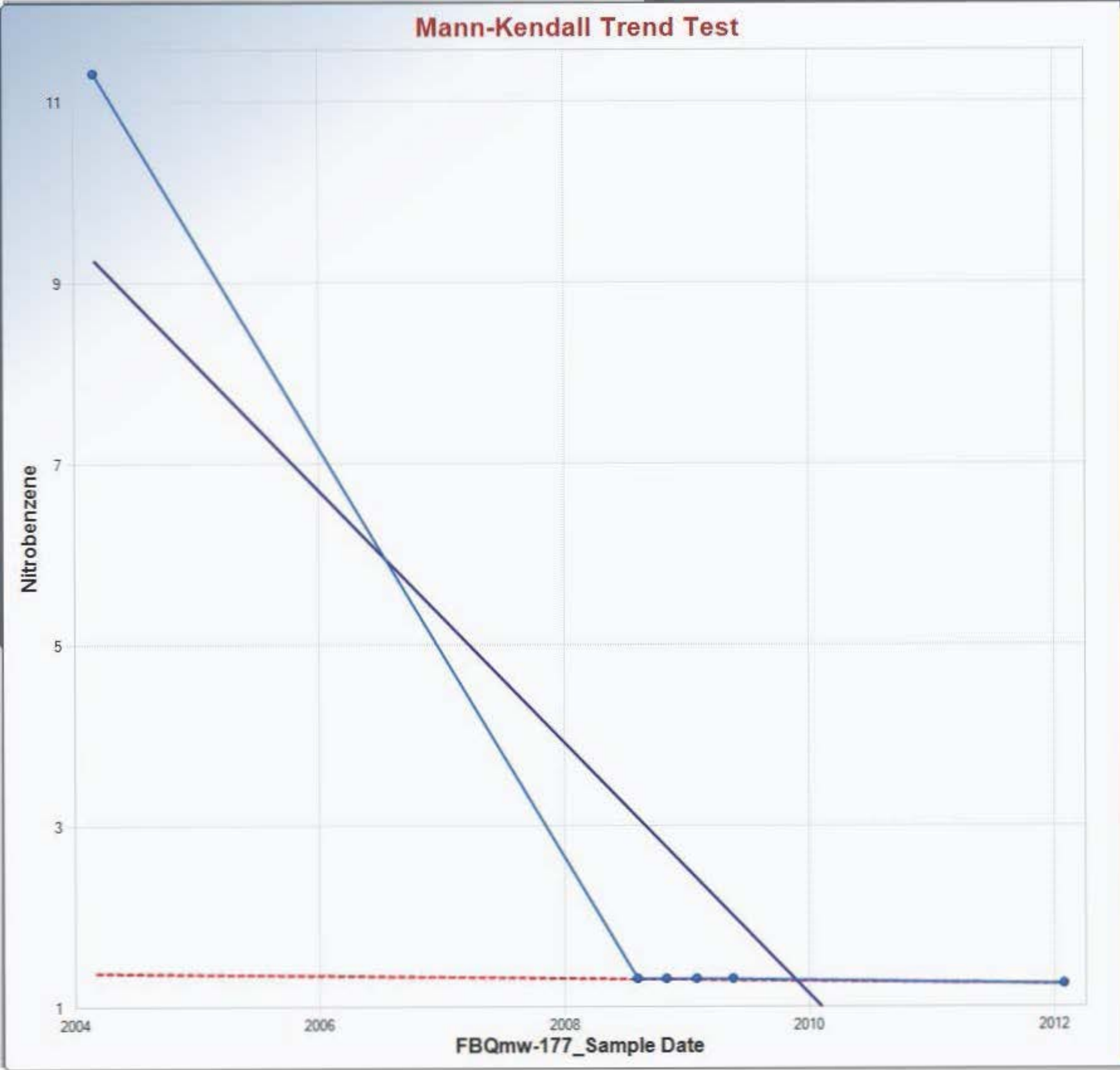
OLS Regression Line (Blue)

OLS Regression Slope	-1.0263
OLS Regression Intercept	2,088.8477

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.5125
Theil-Sen Intercept	1,056.9388

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	4.4347
Standardized Value of S	-1.8040
M-K Test Value (S)	-9
Tabulated p-value	0.0680
Approximate p-value	0.0356

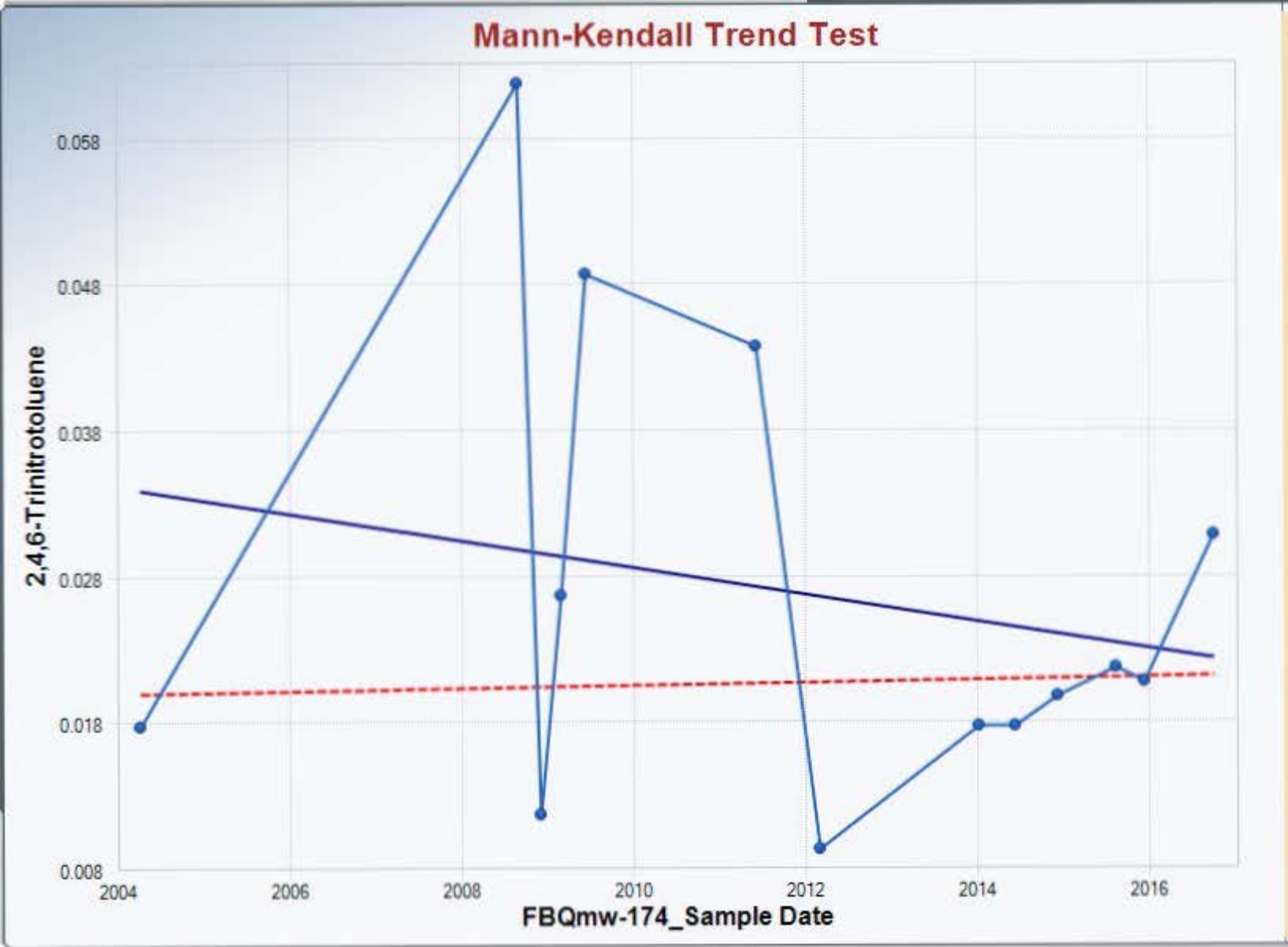
OLS Regression Line (Blue)

OLS Regression Slope	-1.3909
OLS Regression Intercept	2,796.0464

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0154
Theil-Sen Intercept	31.9033

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.2788
Standardized Value of S	0.1229
Test Value (S)	3
Tabulated p-value	0.4760
Approximate p-value	0.4511

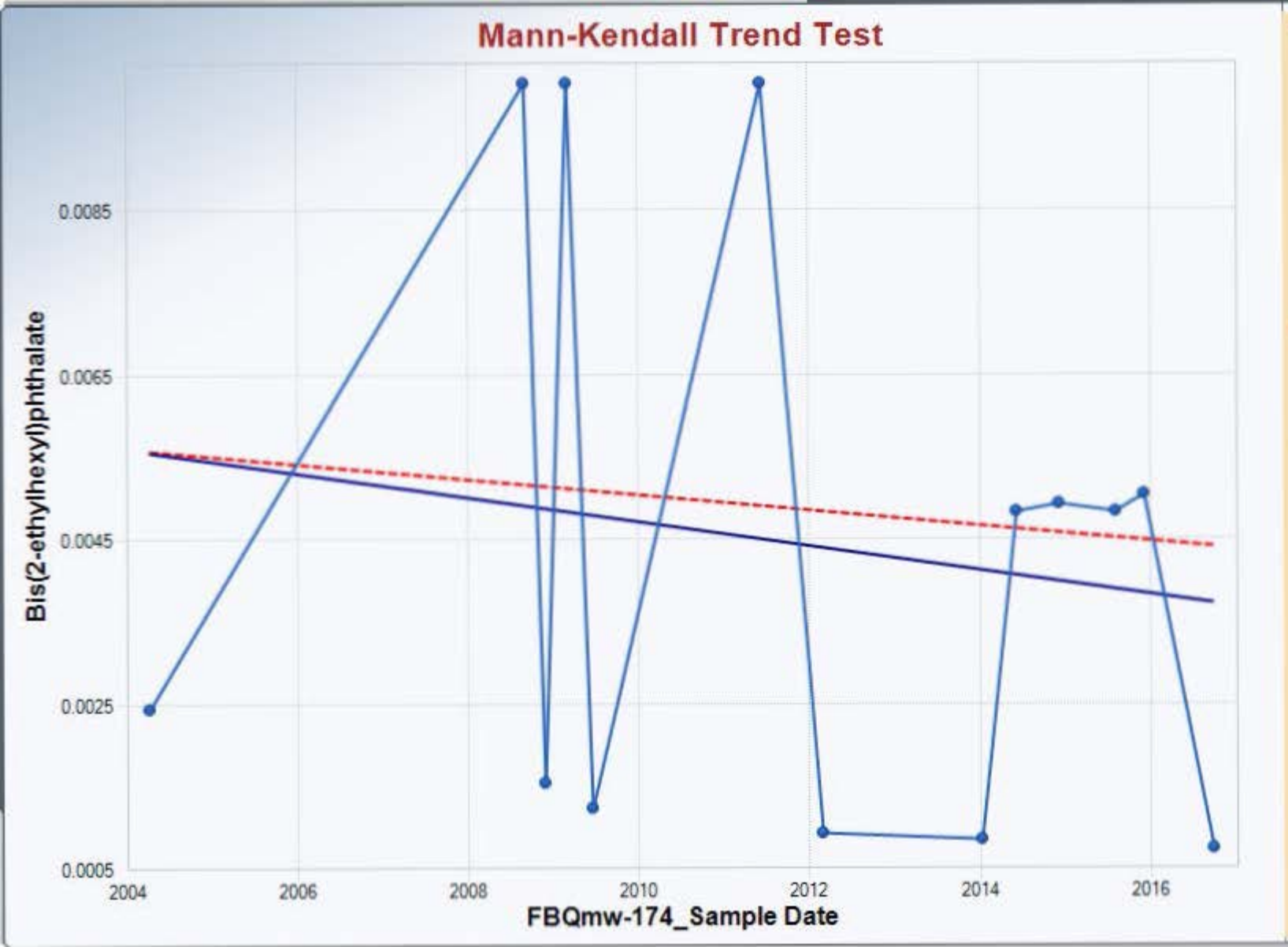
OLS Regression Line (Blue)

OLS Regression Slope	-0.0009
OLS Regression Intercept	1.8833

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0001
Theil-Sen Intercept	-0.1674

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.2481
Standardized Value of S	-0.8001
Test Value (S)	-14
Tabulated p-value	0.2180
Approximate p-value	0.2118

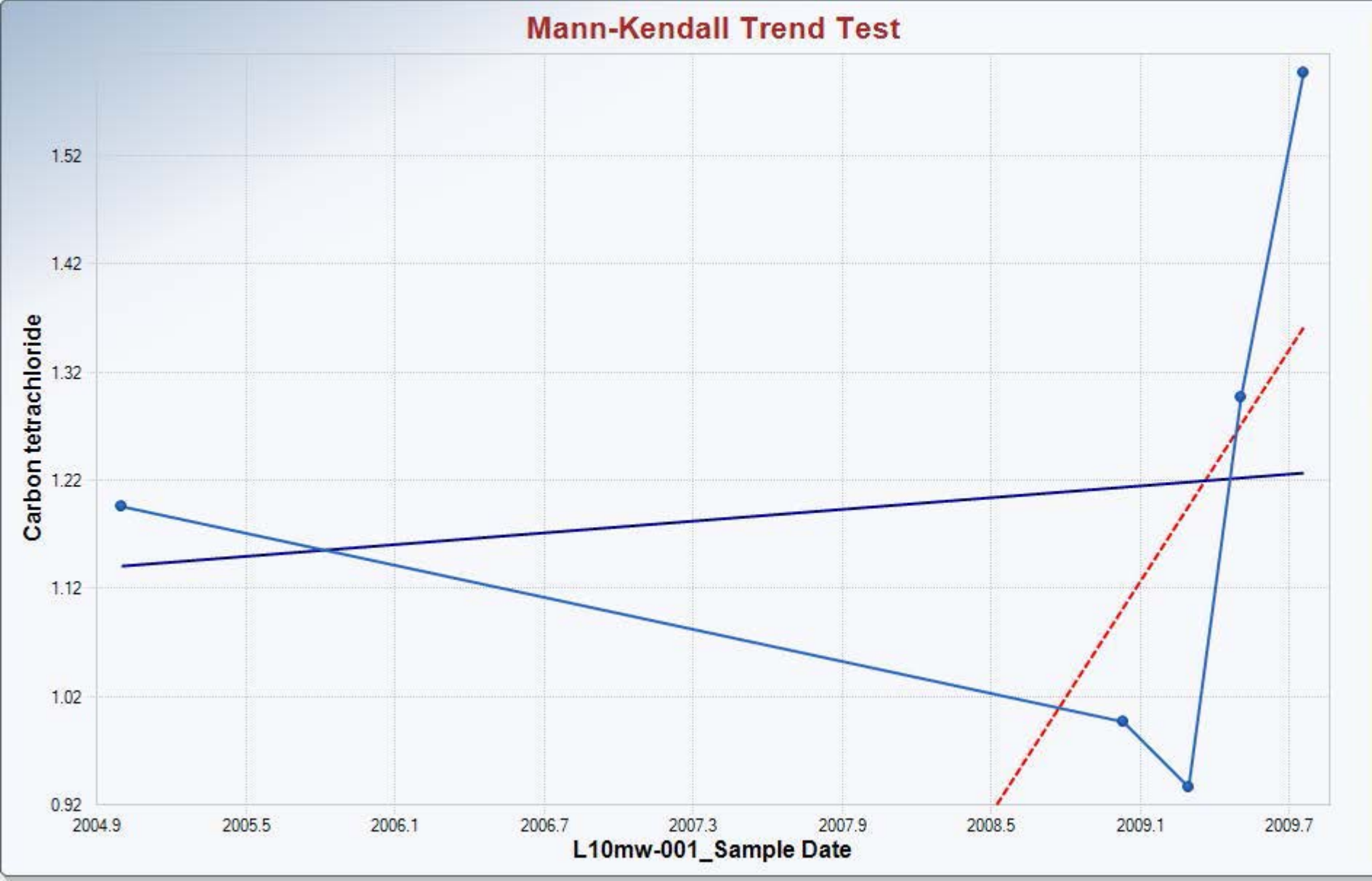
OLS Regression Line (Blue)

OLS Regression Slope	-0.0001
OLS Regression Intercept	0.3005

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0001
Theil-Sen Intercept	0.1913

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	5
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	4.0825
Standardized Value of S	0.7348
Test Value (S)	4
Tabulated p-value	0.2420
Approximate p-value	0.2312

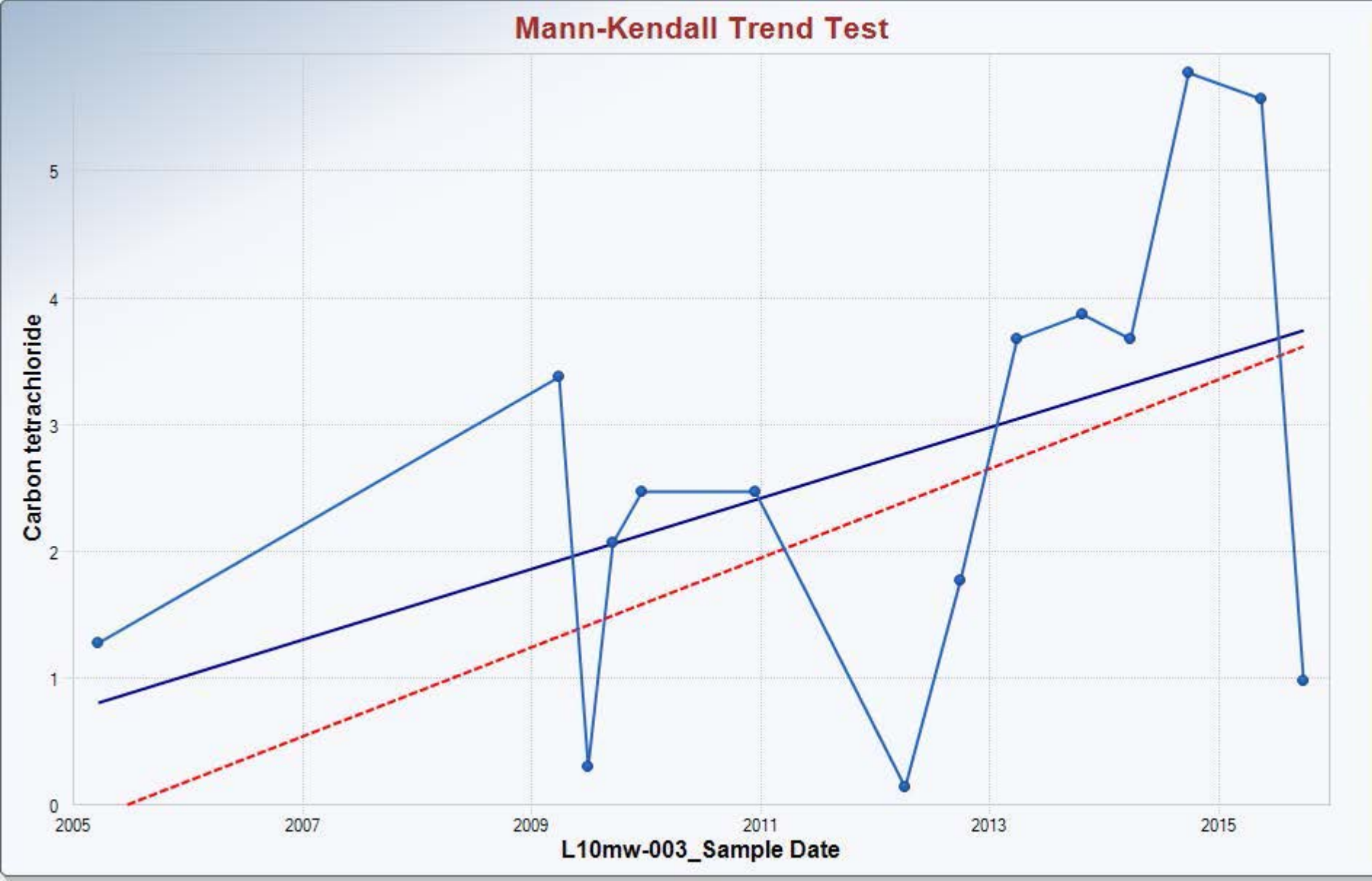
OLS Regression Line (Blue)

OLS Regression Slope	0.0183
OLS Regression Intercept	-35.5989

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.3587
Theil-Sen Intercept	-719.5677

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	18.2117
Standardized Value of S	1.7571
Test Value (S)	33
Tabulated p-value	0.0400
Approximate p-value	0.0394

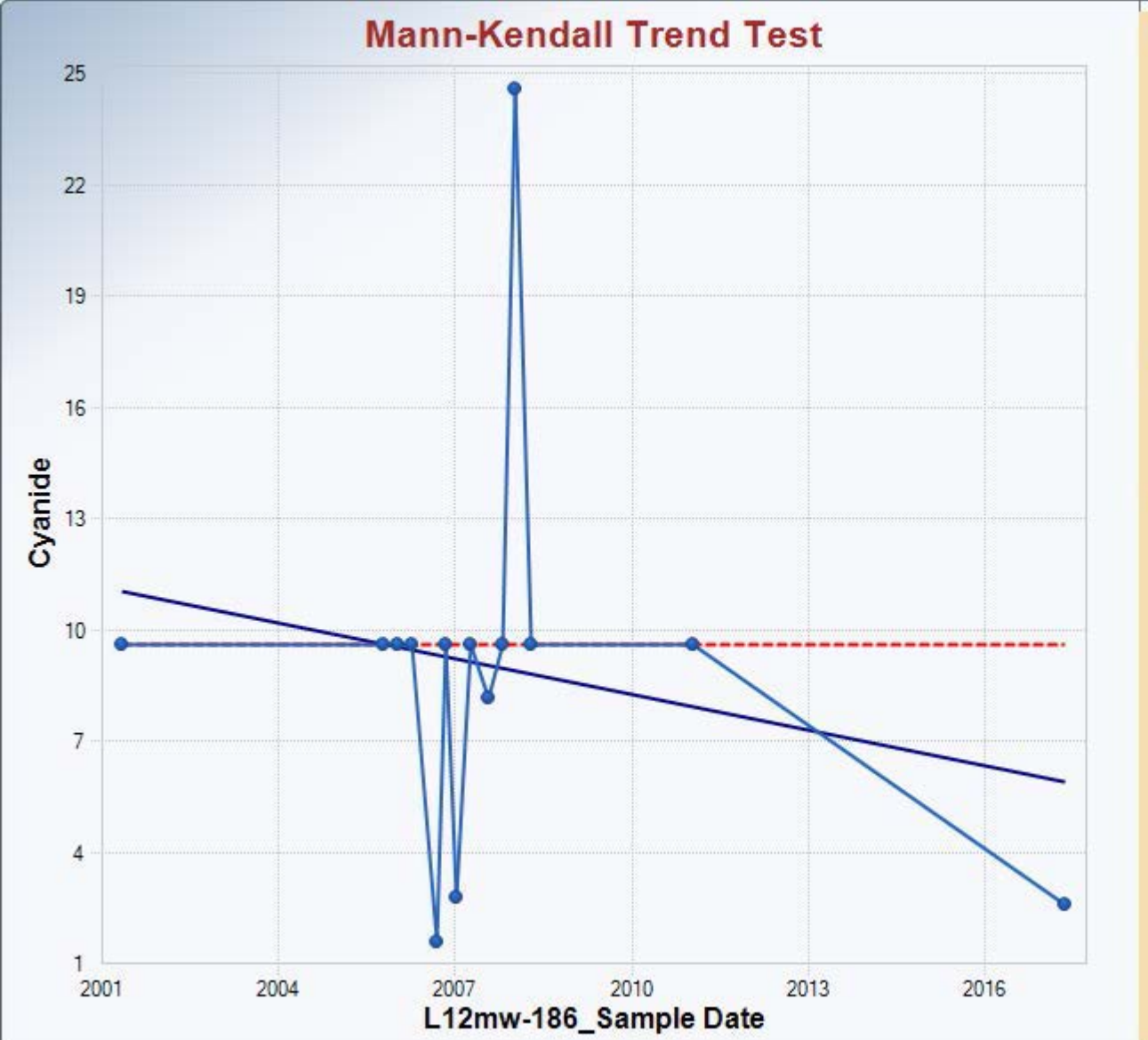
OLS Regression Line (Blue)

OLS Regression Slope	0.2796
OLS Regression Intercept	-559.4938

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.3537
Theil-Sen Intercept	-709.0561

Statistically significant evidence of an increasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	15.5456
Standardized Value of S	-0.1287
Test Value (S)	-3
Tabulated p-value	0.4570
Approximate p-value	0.4488

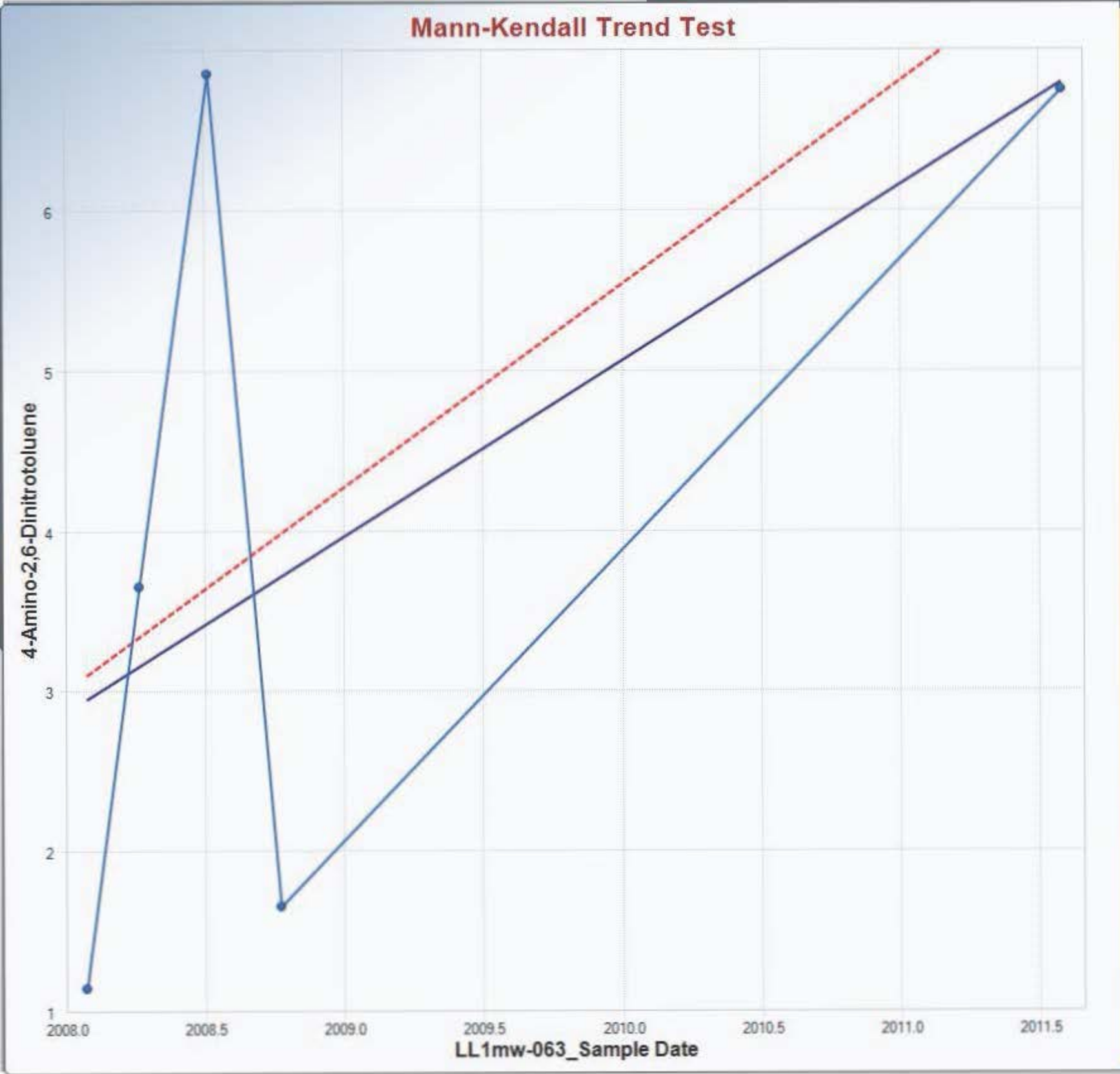
OLS Regression Line (Blue)

OLS Regression Slope	-0.3211
OLS Regression Intercept	653.8700

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	10.0000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	5
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	4.0825
Standardized Value of S	0.7348
M-K Test Value (S)	4
Tabulated p-value	0.2420
Approximate p-value	0.2312

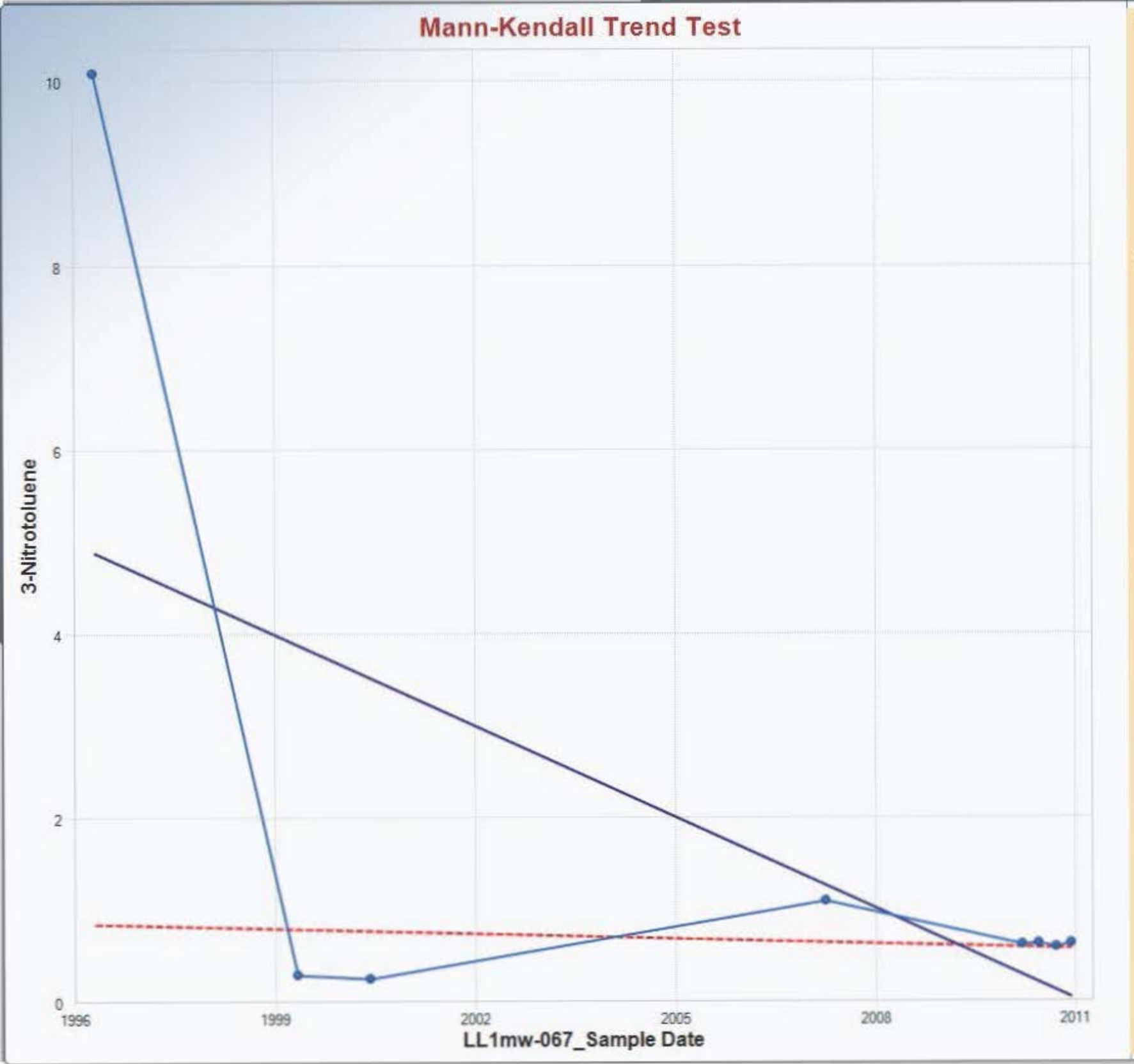
OLS Regression Line (Blue)

OLS Regression Slope	1.0962
OLS Regression Intercept	-2,198.6701

Theil-Sen Trend Line (Red)

Theil-Sen Slope	1.2669
Theil-Sen Intercept	-2,541.2994

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	8
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	8.0208
Standardized Value of S	0.0000
M-K Test Value (S)	-1
Tabulated p-value	0.5480
Approximate p-value	0.5000

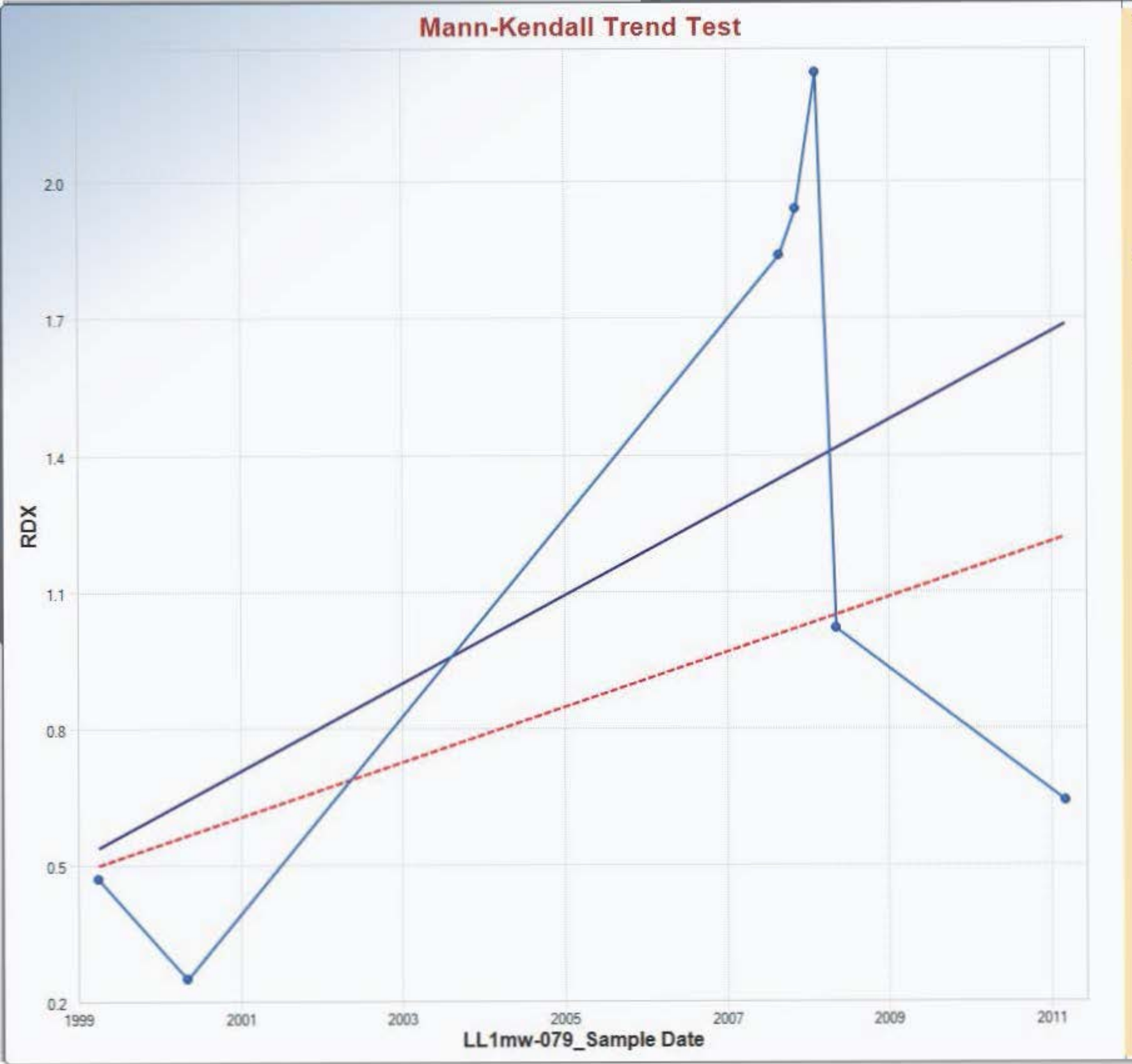
OLS Regression Line (Blue)

OLS Regression Slope	-0.3318
OLS Regression Intercept	667.2728

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0185
Theil-Sen Intercept	37.6832

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	0.6008
M-K Test Value (S)	5
Tabulated p-value	0.2810
Approximate p-value	0.2740

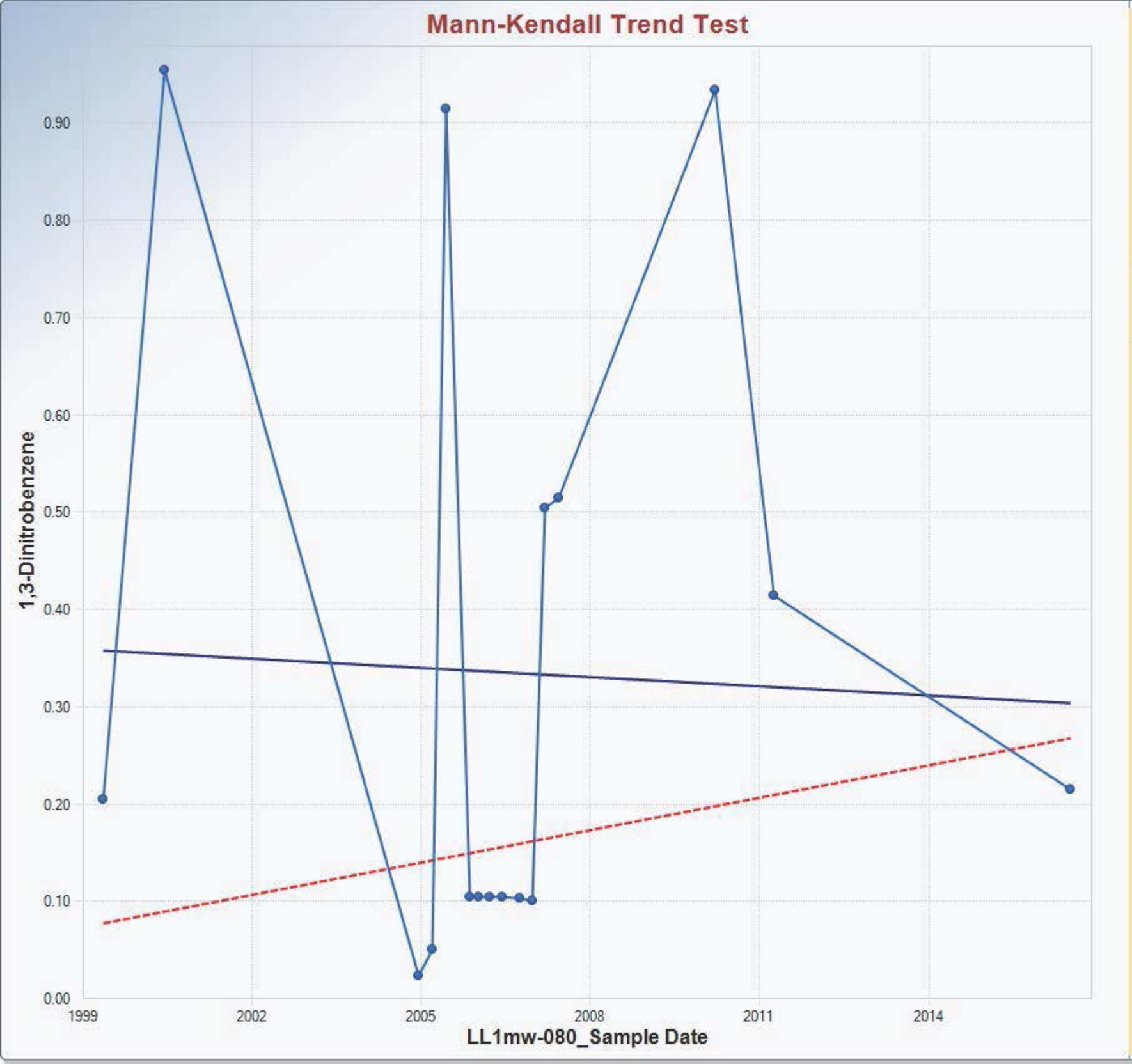
OLS Regression Line (Blue)

OLS Regression Slope	0.0964
OLS Regression Intercept	-192.3165

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0605
Theil-Sen Intercept	-120.4617

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	22.0151
Standardized Value of S	0.7722
M-K Test Value (S)	18
Tabulated p-value	0.2250
Approximate p-value	0.2200

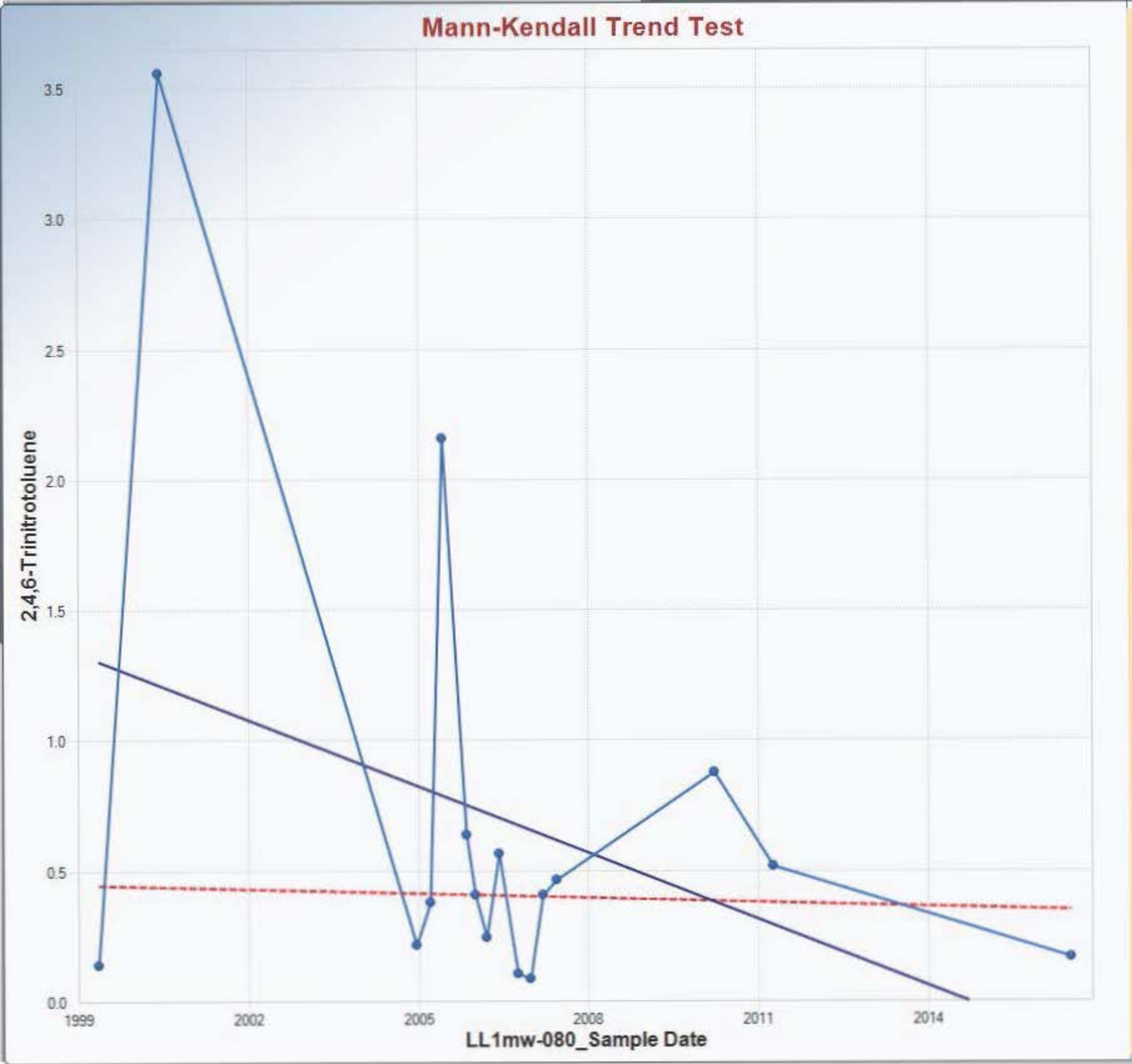
OLS Regression Line (Blue)

OLS Regression Slope	-0.0031
OLS Regression Intercept	6.6062

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0111
Theil-Sen Intercept	-22.2016

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	22.1886
Standardized Value of S	-0.1803
M-K Test Value (S)	-5
Tabulated p-value	0.4470
Approximate p-value	0.4285

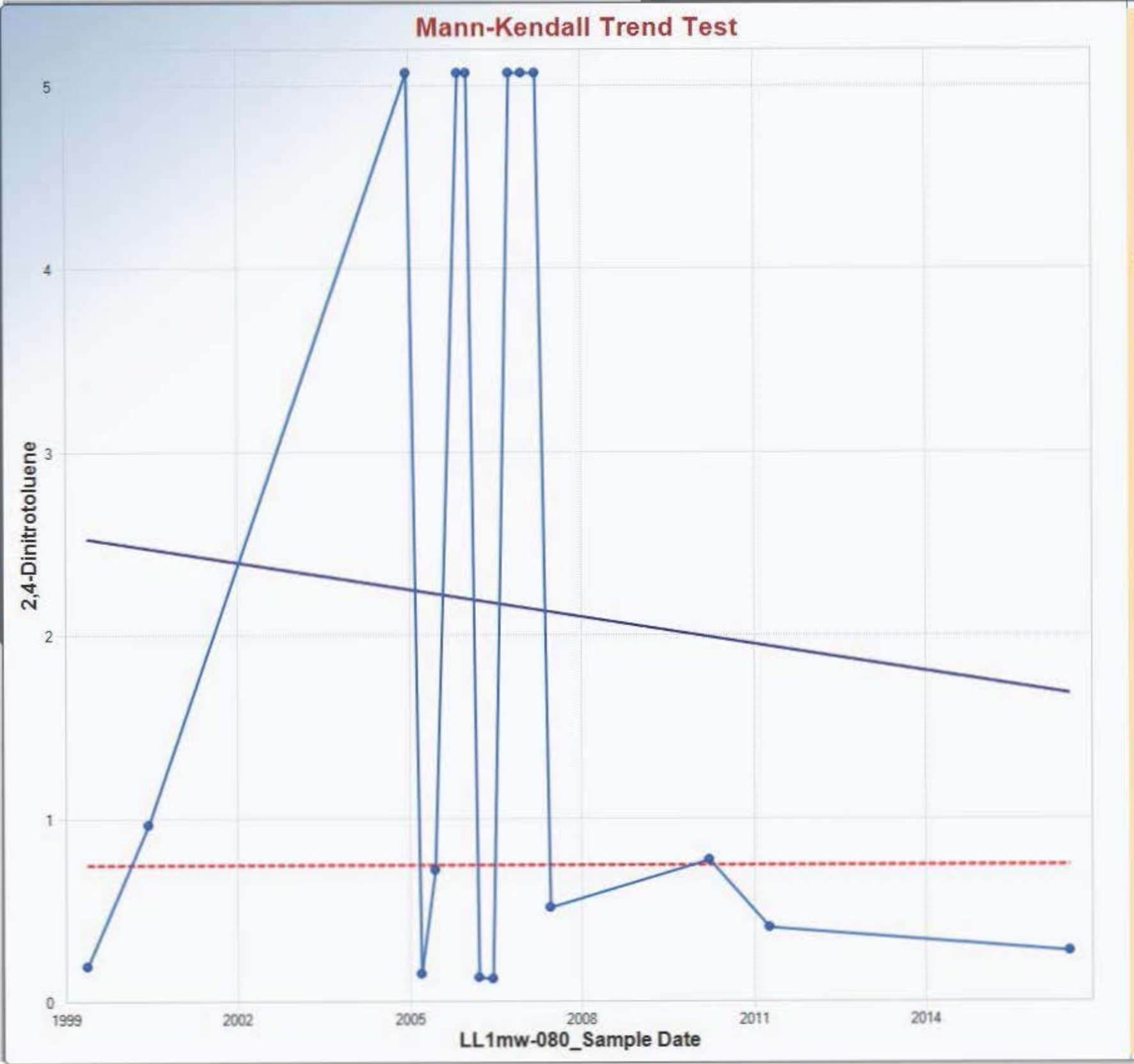
OLS Regression Line (Blue)

OLS Regression Slope	-0.0851
OLS Regression Intercept	171.5899

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0054
Theil-Sen Intercept	11.3842

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	21.5639
Standardized Value of S	-0.2782
M-K Test Value (S)	-7
Tabulated p-value	0.4120
Approximate p-value	0.3904

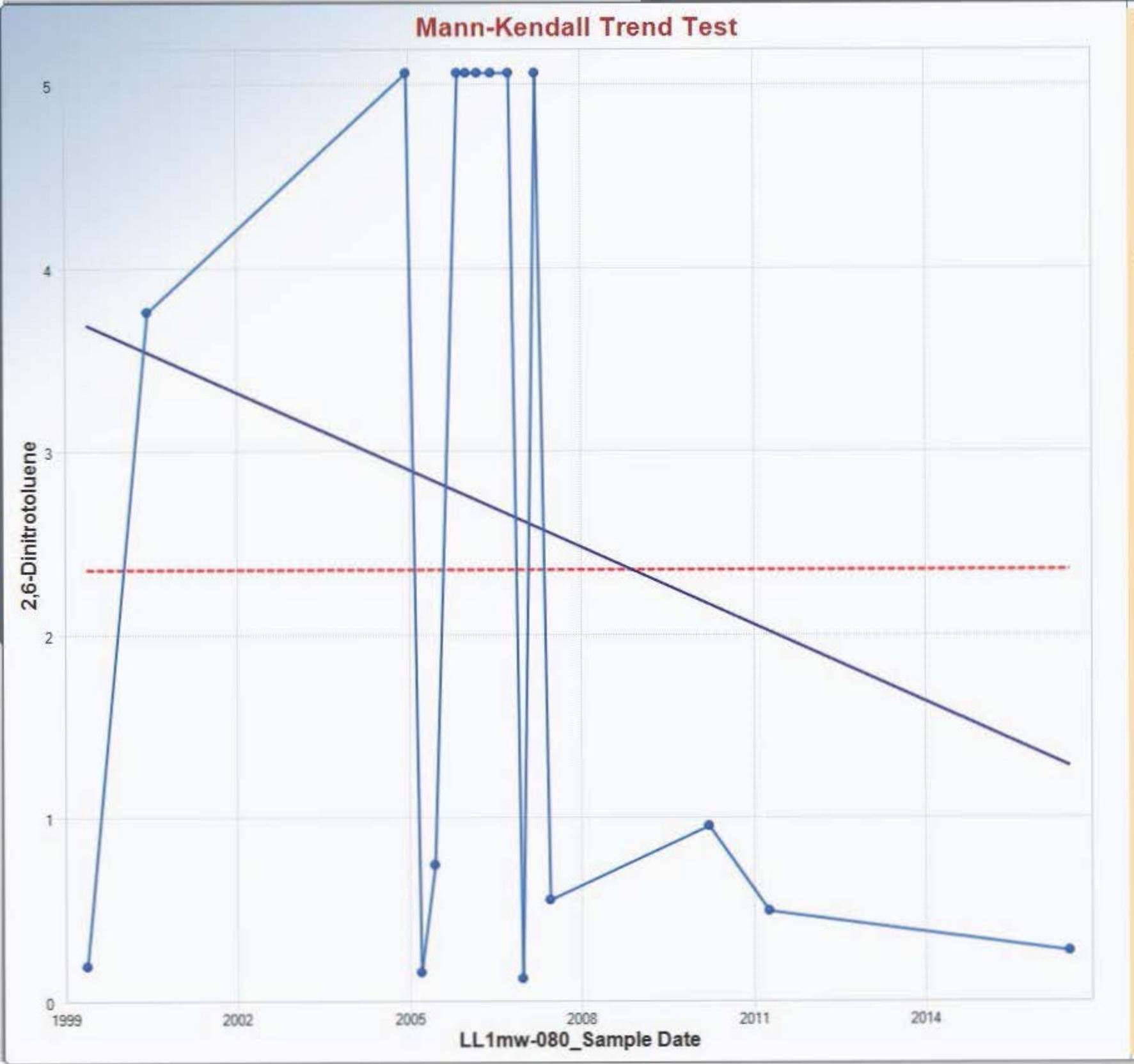
OLS Regression Line (Blue)

OLS Regression Slope	-0.0495
OLS Regression Intercept	101.3495

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.6800

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	21.1896
Standardized Value of S	-0.4719
M-K Test Value (S)	-11
Tabulated p-value	0.3450
Approximate p-value	0.3185

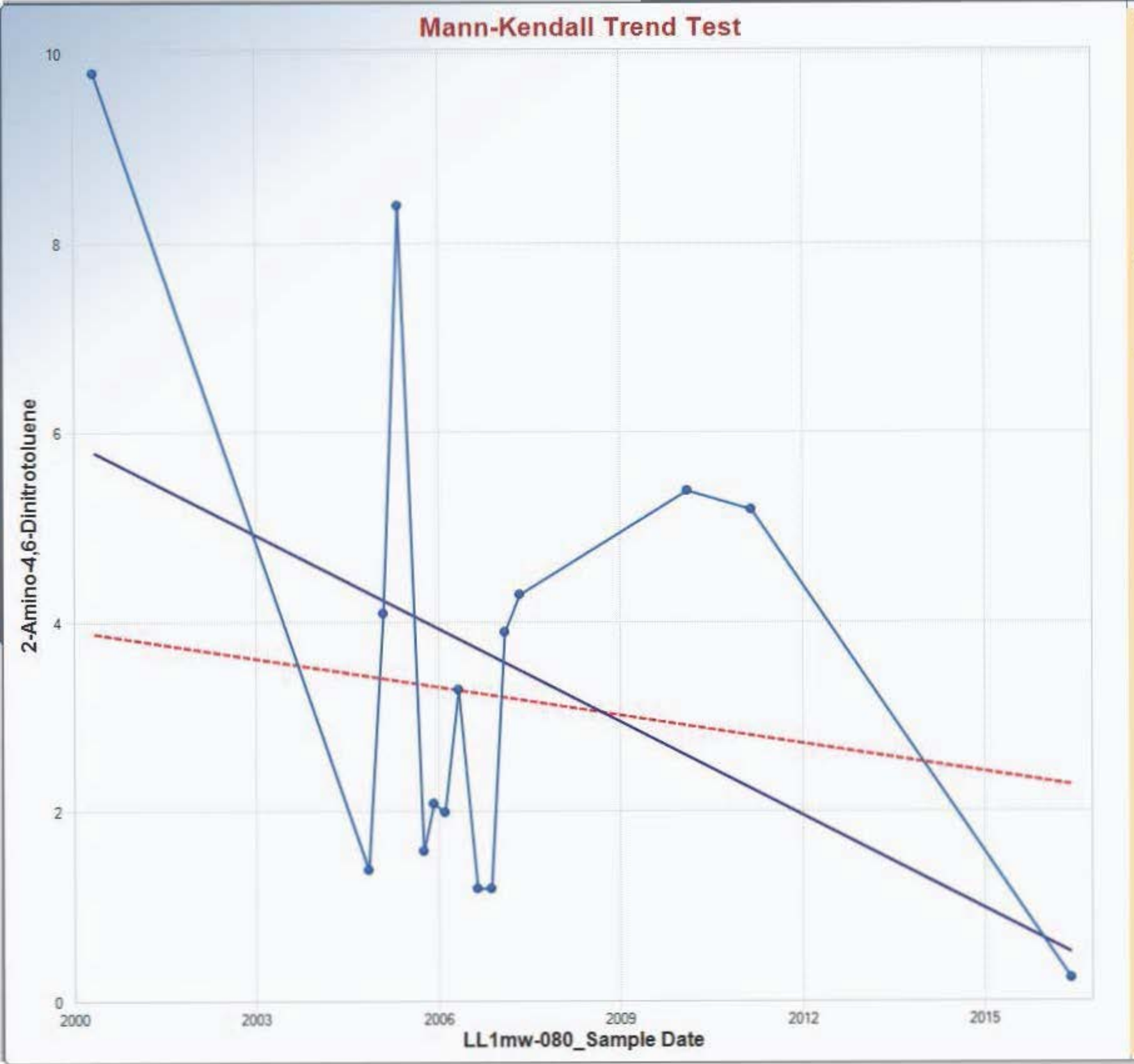
OLS Regression Line (Blue)

OLS Regression Slope	-0.1406
OLS Regression Intercept	284.8517

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	2.2950

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.1825
Standardized Value of S	-0.3468
M-K Test Value (S)	-8
Tabulated p-value	0.3490
Approximate p-value	0.3644

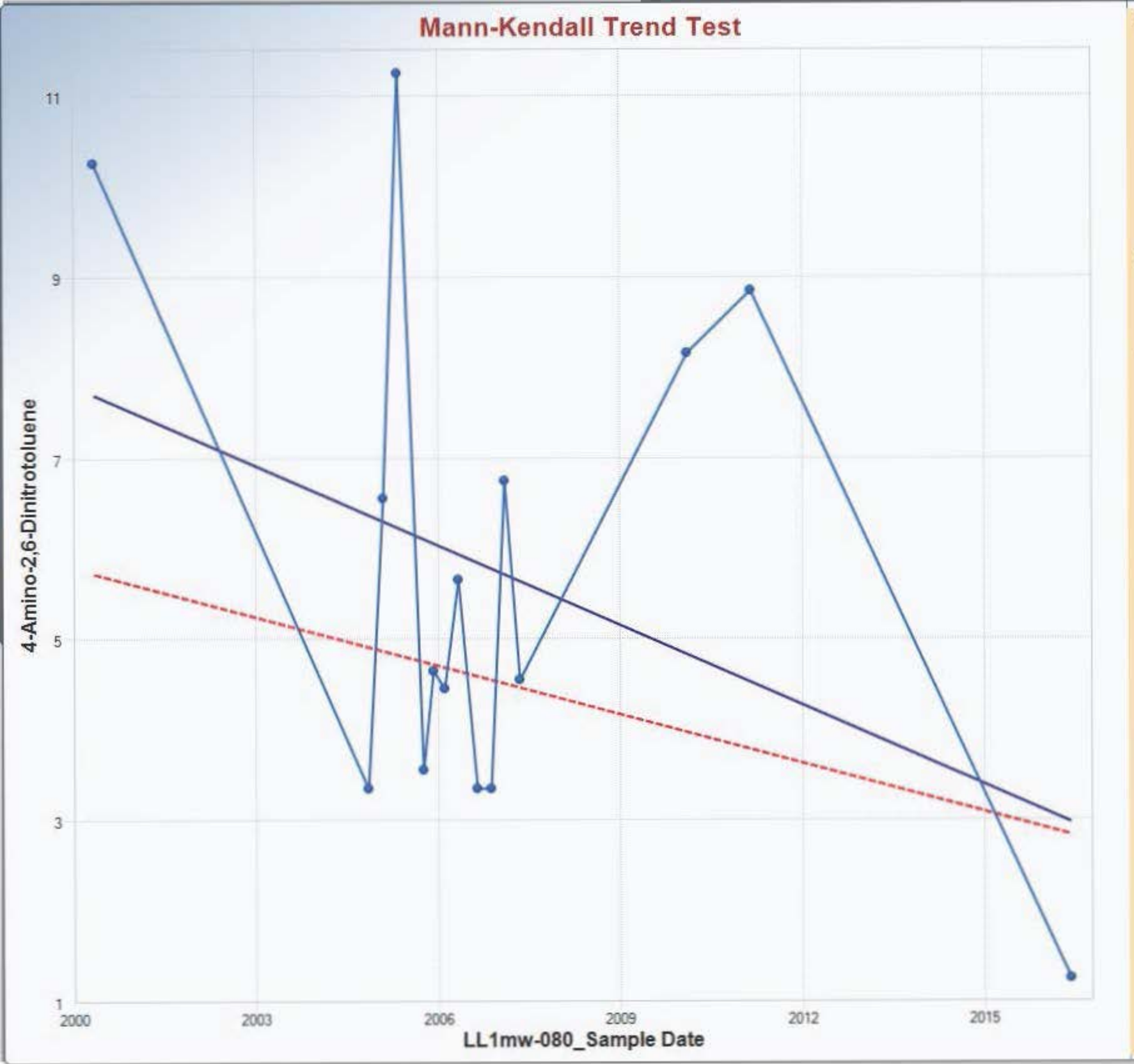
OLS Regression Line (Blue)

OLS Regression Slope	-0.3288
OLS Regression Intercept	663.8885

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0995
Theil-Sen Intercept	203.2442

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.1163
Standardized Value of S	-0.3480
M-K Test Value (S)	-8
Tabulated p-value	0.3490
Approximate p-value	0.3639

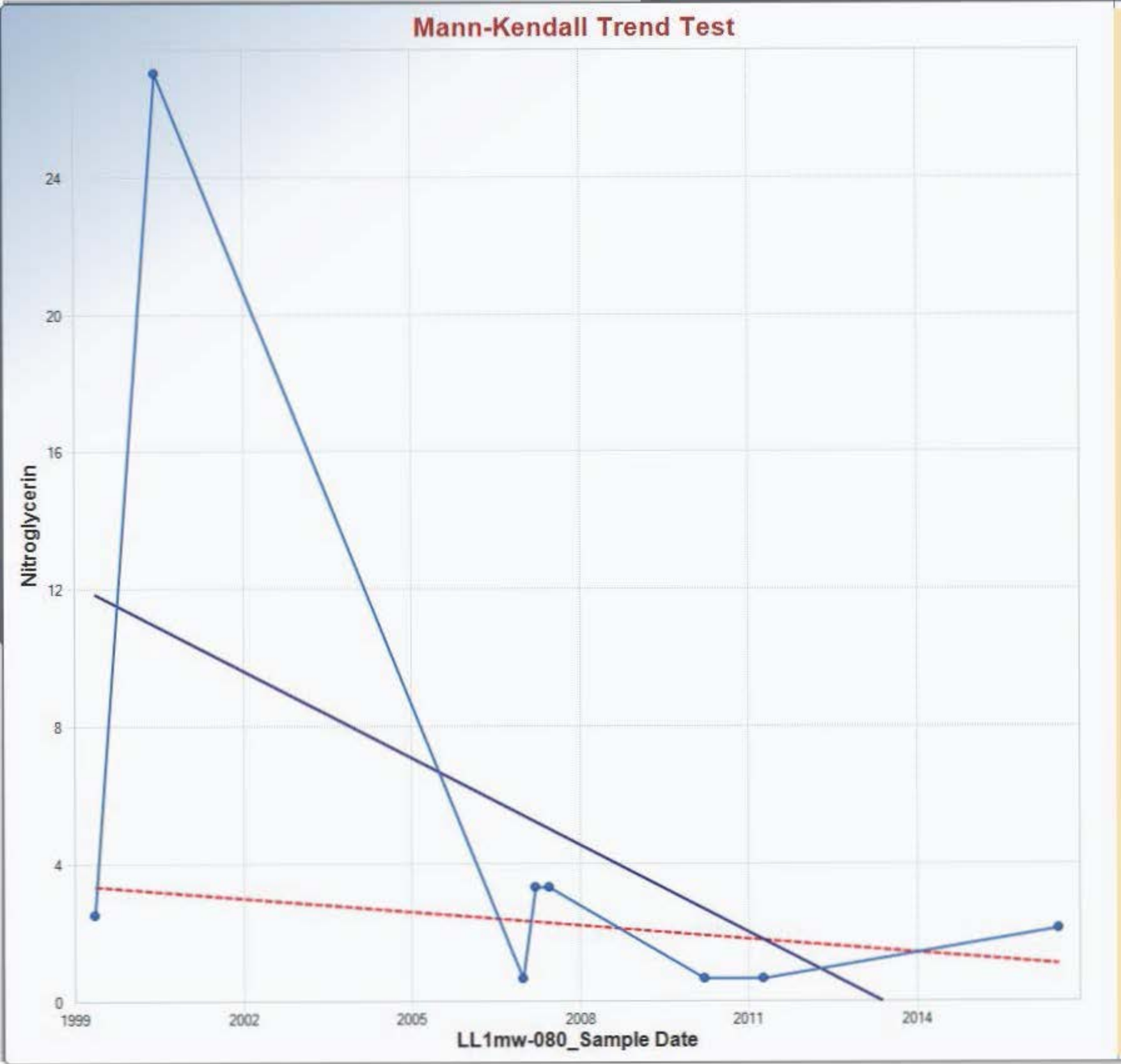
OLS Regression Line (Blue)

OLS Regression Slope	-0.2938
OLS Regression Intercept	595.2108

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.1799
Theil-Sen Intercept	365.4573

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	8
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	7.7889
Standardized Value of S	-0.8987
M-K Test Value (S)	-8
Tabulated p-value	0.1190
Approximate p-value	0.1844

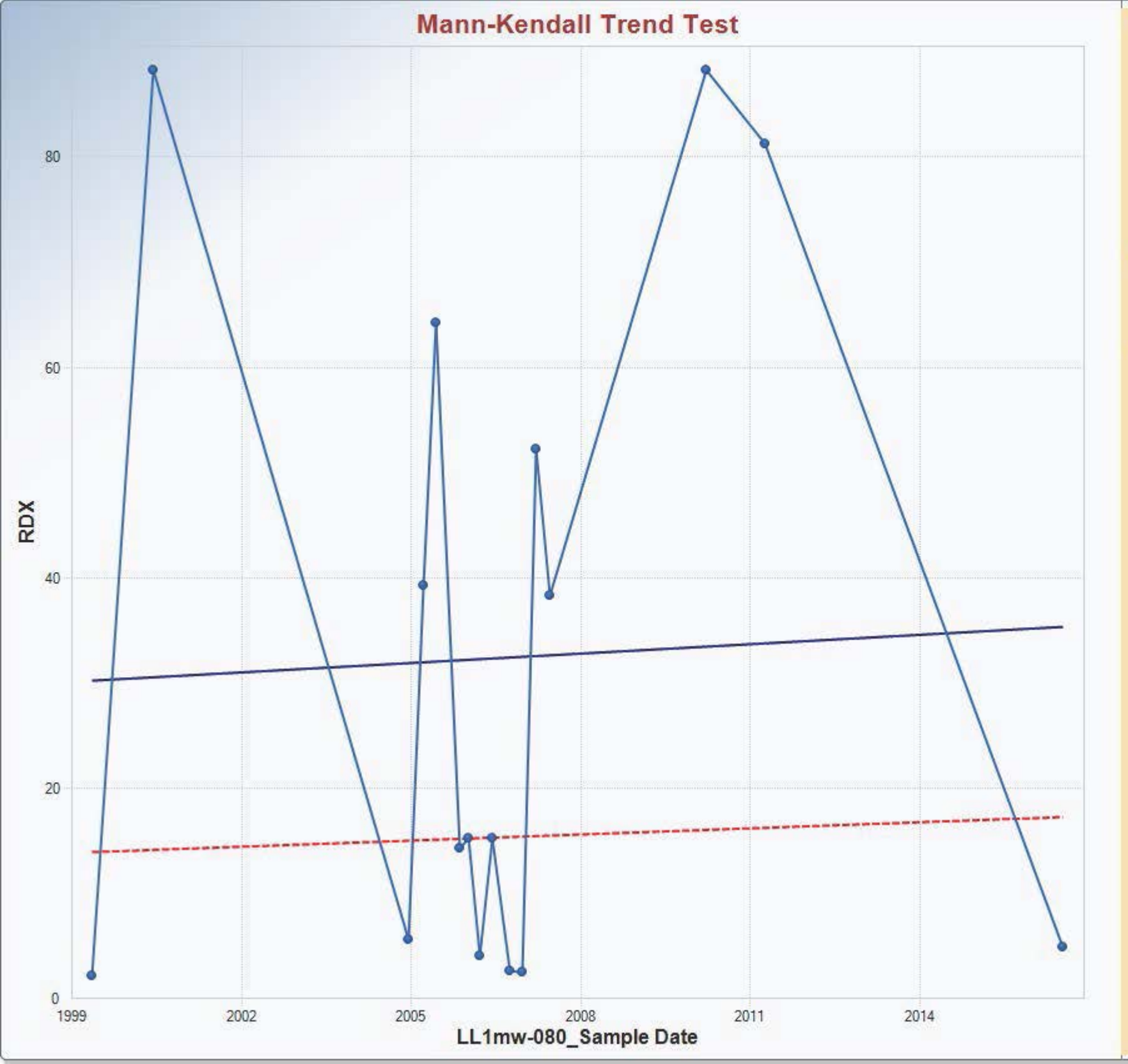
OLS Regression Line (Blue)

OLS Regression Slope	-0.8503
OLS Regression Intercept	1,712.1611

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.1306
Theil-Sen Intercept	264.5073

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	22.1660
Standardized Value of S	0.4060
M-K Test Value (S)	10
Tabulated p-value	0.3450
Approximate p-value	0.3424

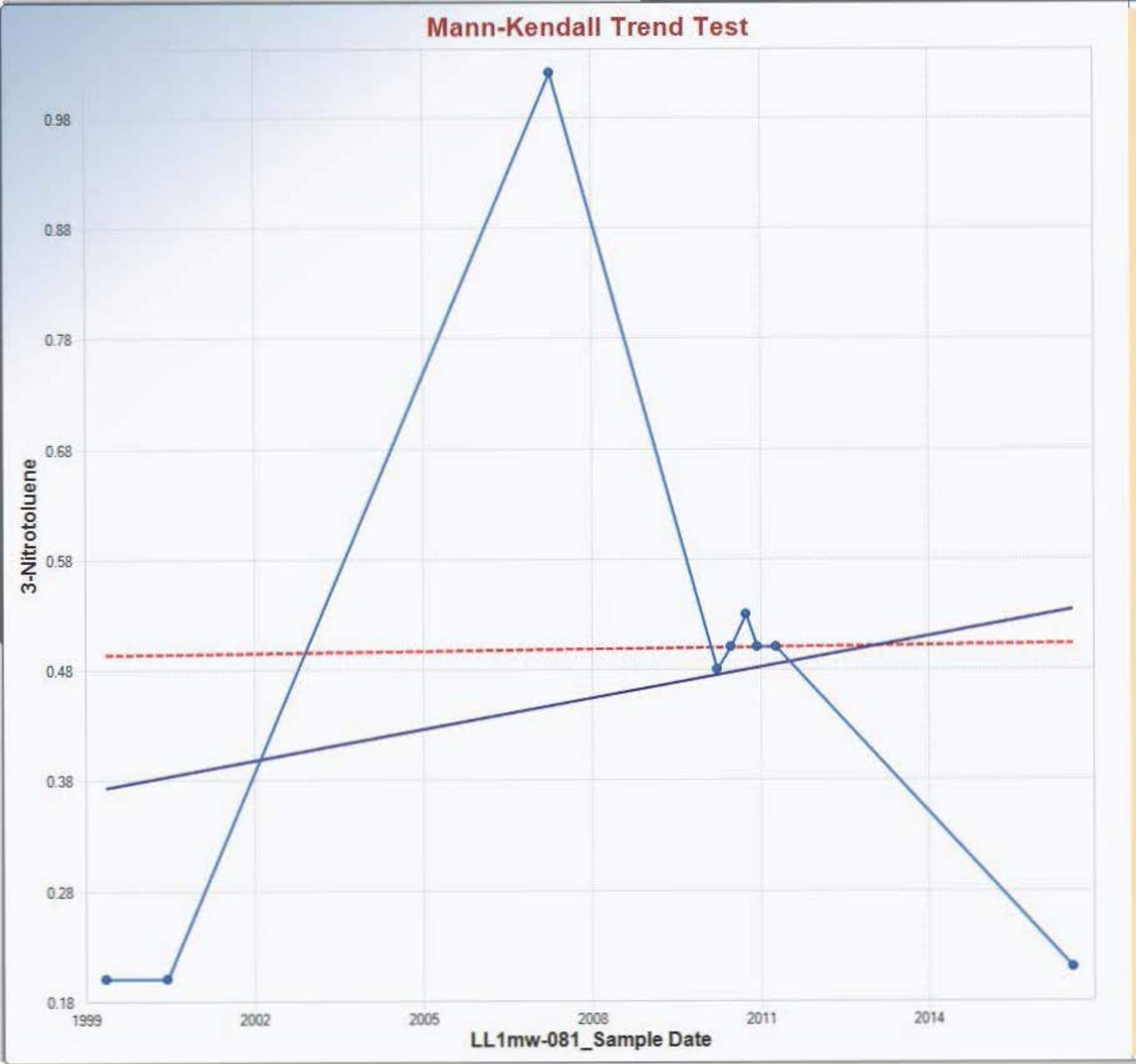
OLS Regression Line (Blue)

OLS Regression Slope	0.2935
OLS Regression Intercept	-556.8014

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.1913
Theil-Sen Intercept	-368.9479

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	9.3452
Standardized Value of S	0.5350
M-K Test Value (S)	6
Tabulated p-value	0.3060
Approximate p-value	0.2963

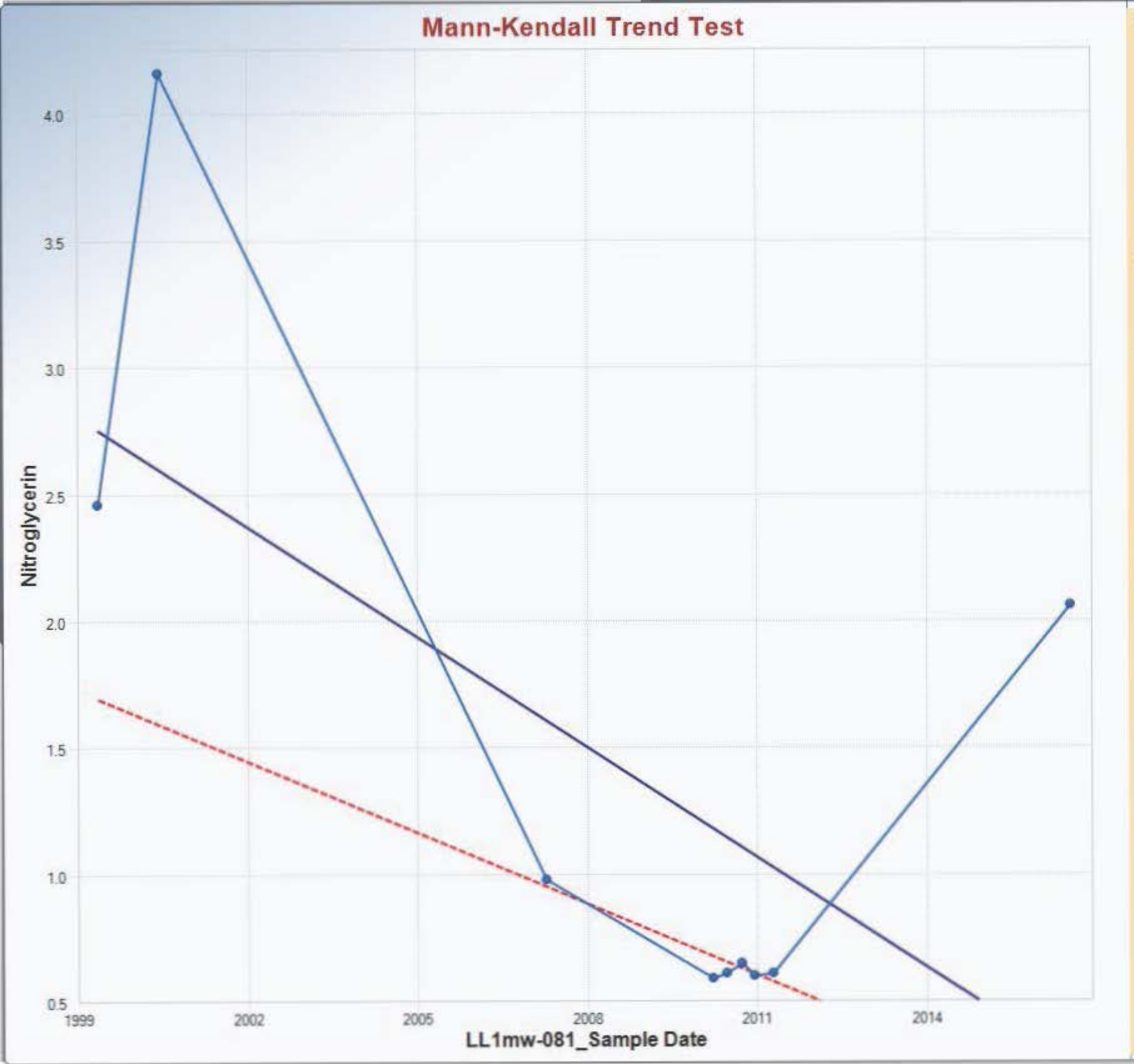
OLS Regression Line (Blue)

OLS Regression Slope	0.0094
OLS Regression Intercept	-18.3879

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0006
Theil-Sen Intercept	-0.7097

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	9.5394
Standardized Value of S	-0.8386
M-K Test Value (S)	-9
Tabulated p-value	0.2380
Approximate p-value	0.2008

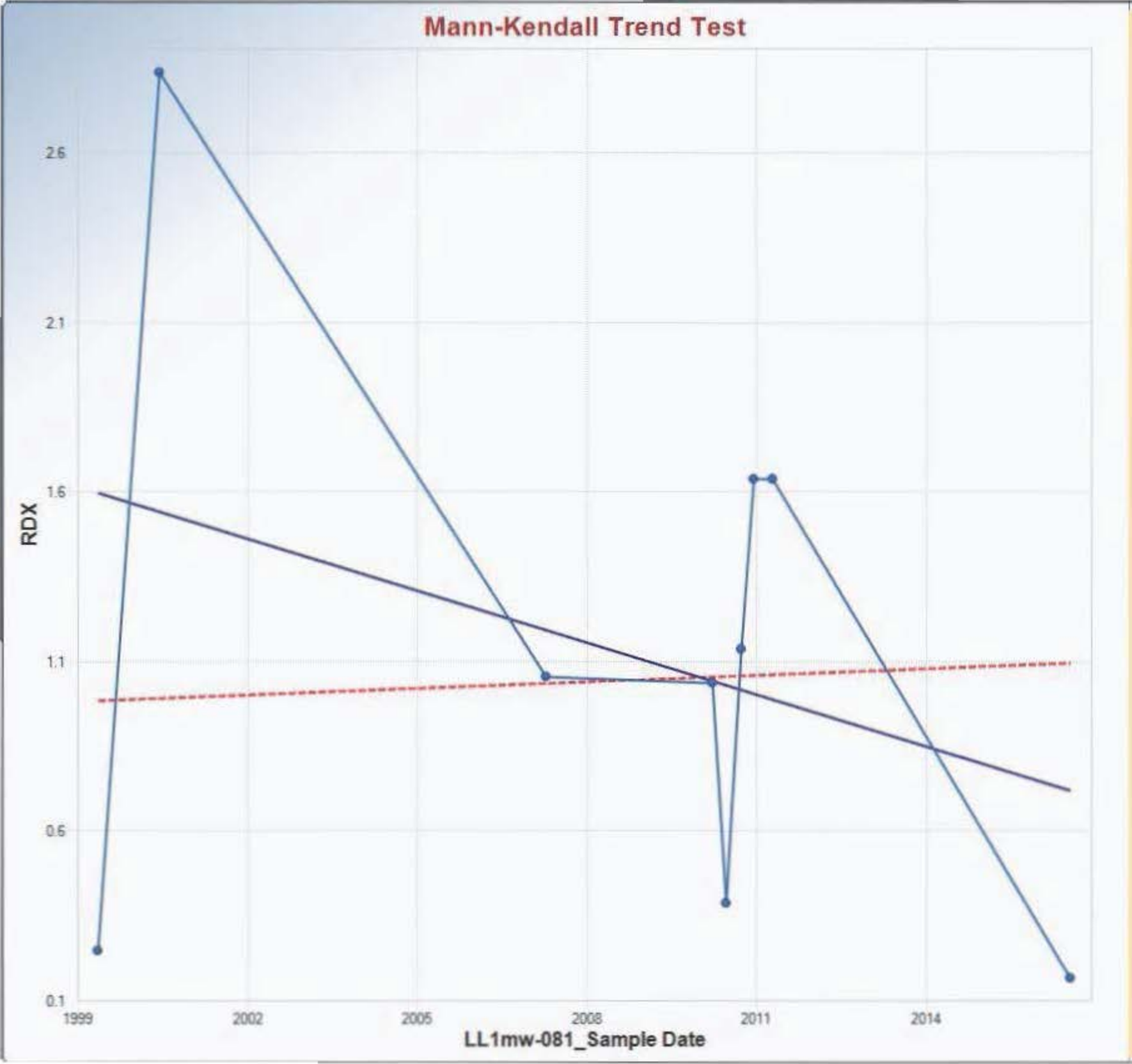
OLS Regression Line (Blue)

OLS Regression Slope	-0.1453
OLS Regression Intercept	293.3581

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0940
Theil-Sen Intercept	189.6219

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	9.5394
Standardized Value of S	0.0000
M-K Test Value (S)	1
Tabulated p-value	0.5400
Approximate p-value	0.5000

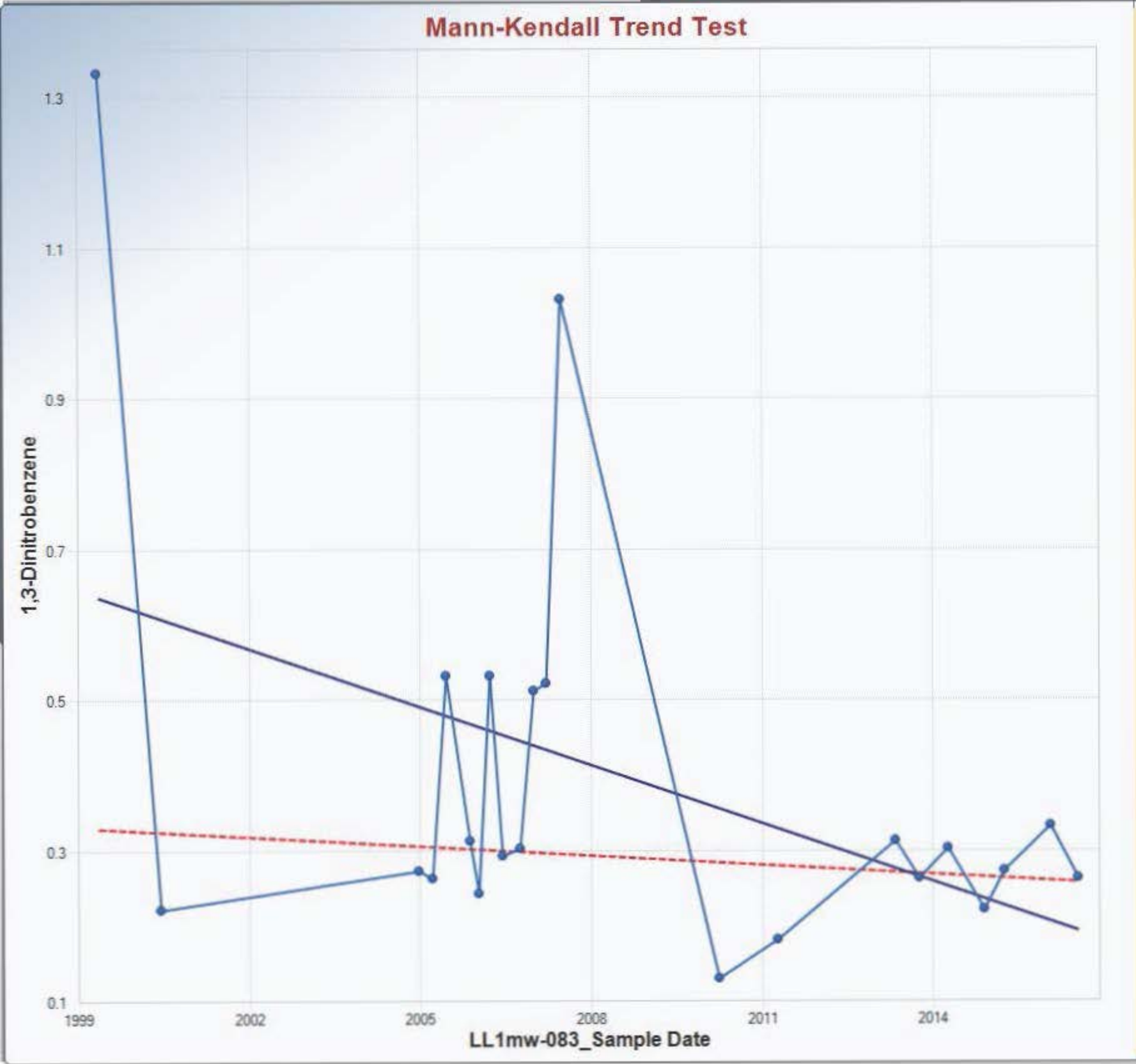
OLS Regression Line (Blue)

OLS Regression Slope	-0.0512
OLS Regression Intercept	103.9312

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0063
Theil-Sen Intercept	-11.6518

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.3412
Standardized Value of S	-0.7357
M-K Test Value (S)	-27
Tabulated p-value	0.2340
Approximate p-value	0.2310

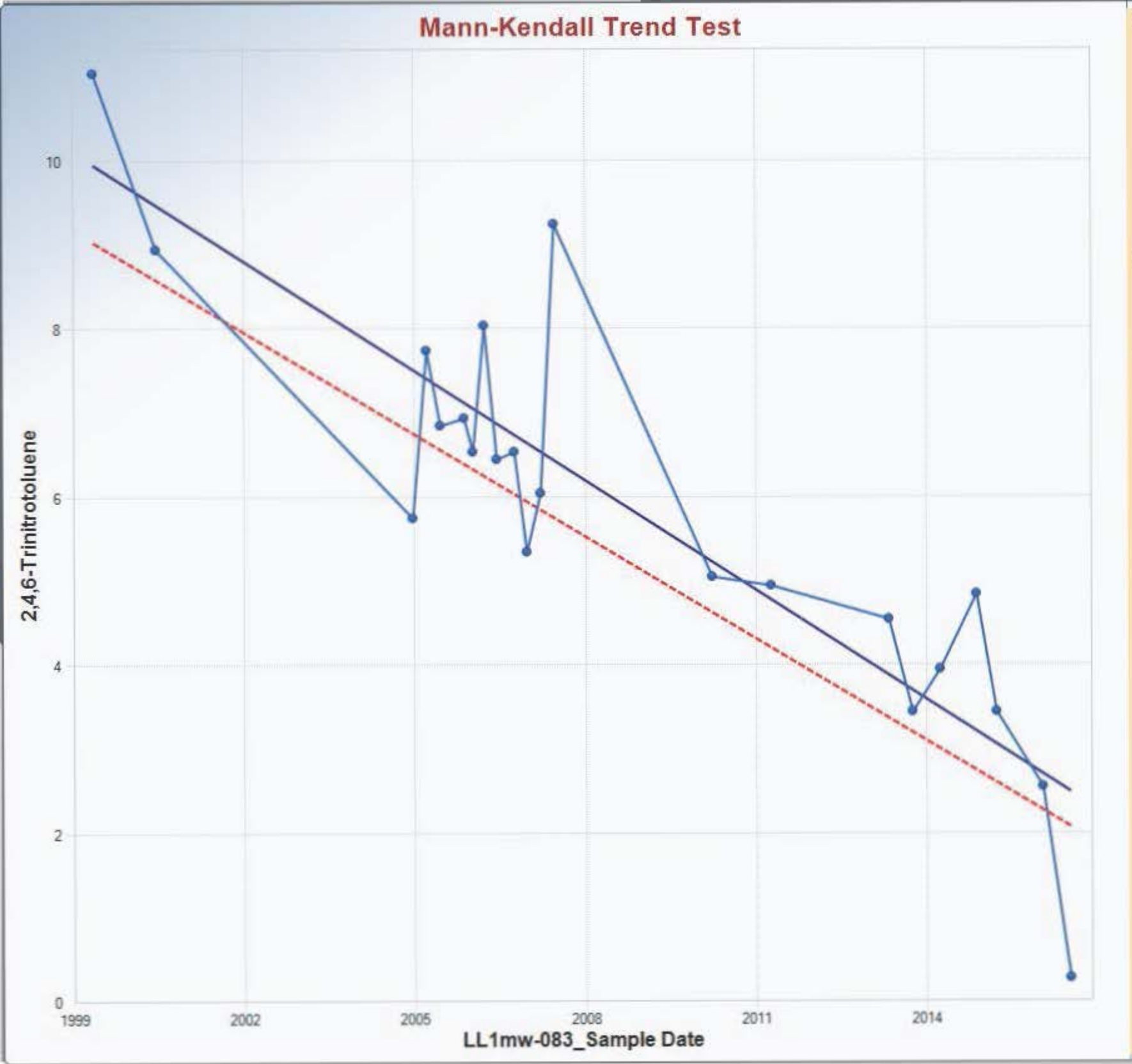
OLS Regression Line (Blue)

OLS Regression Slope	-0.0258
OLS Regression Intercept	52.2336

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0041
Theil-Sen Intercept	8.5093

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.4354
Standardized Value of S	-4.7410
M-K Test Value (S)	-169
Tabulated p-value	0.0000
Approximate p-value	0.0000

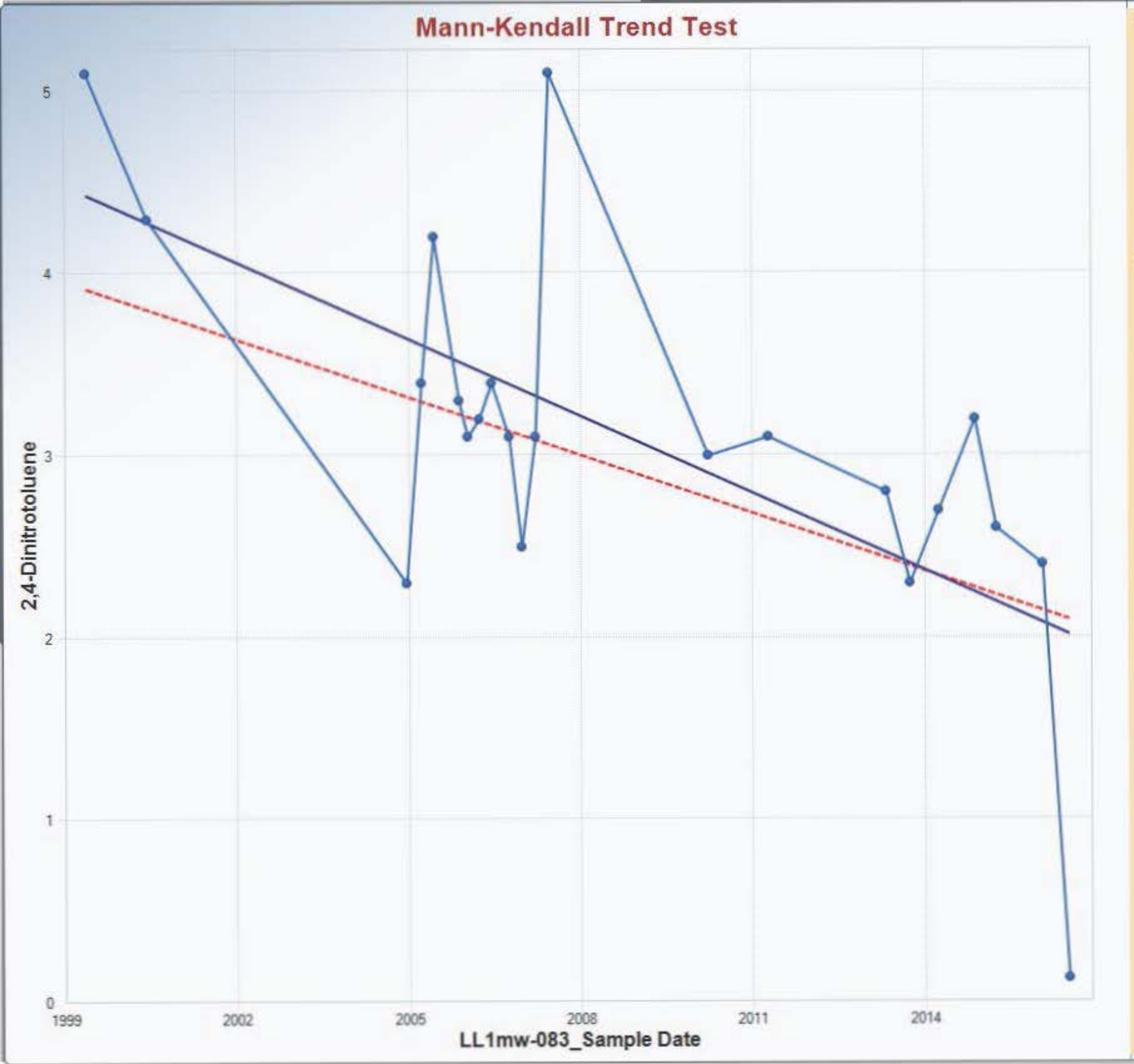
OLS Regression Line (Blue)

OLS Regression Slope	-0.4348
OLS Regression Intercept	879.3179

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.4054
Theil-Sen Intercept	819.6615

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.2846
Standardized Value of S	-3.3442
M-K Test Value (S)	-119
Tabulated p-value	0.0000
Approximate p-value	0.0004

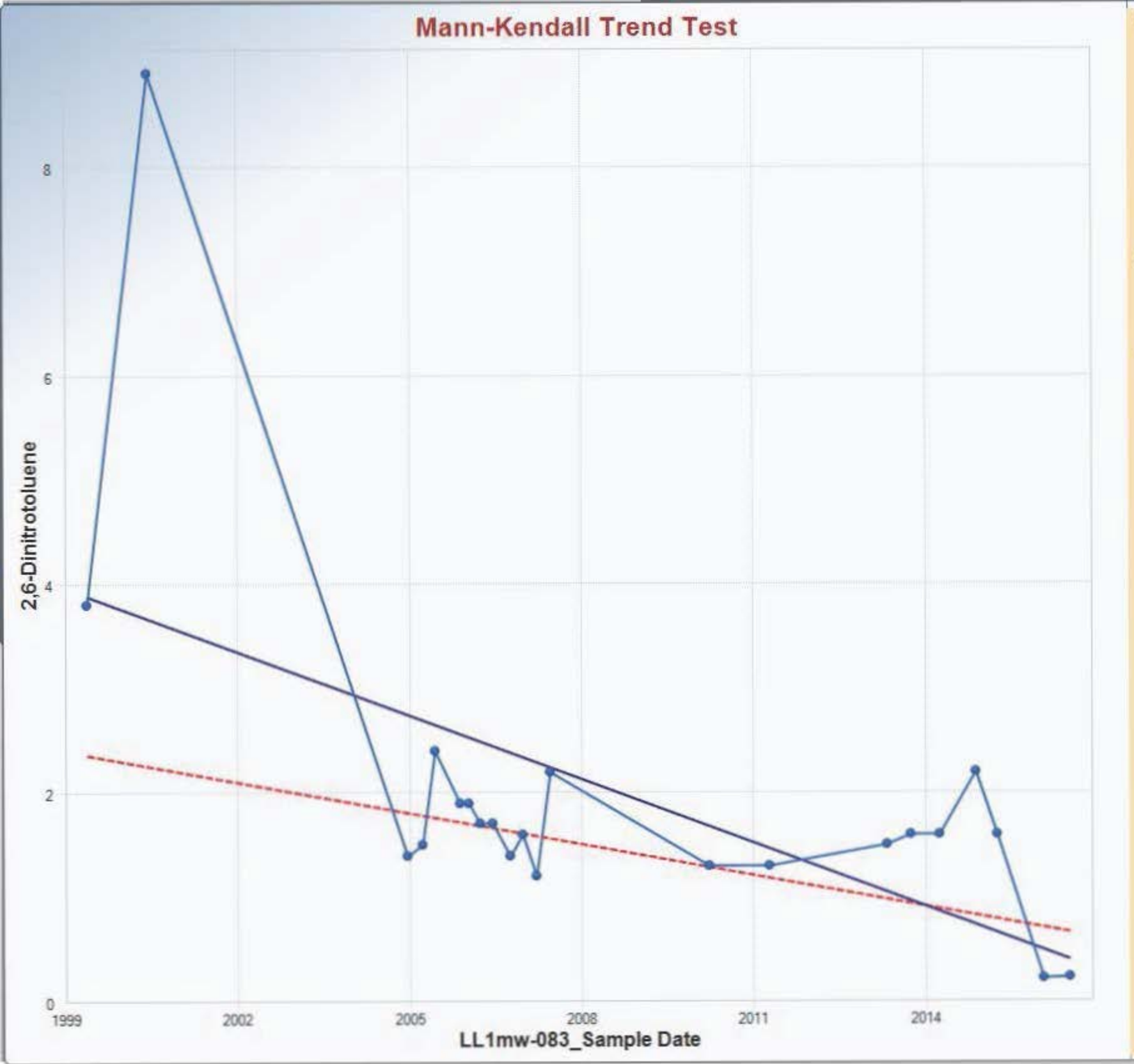
OLS Regression Line (Blue)

OLS Regression Slope	-0.1408
OLS Regression Intercept	286.0481

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.1061
Theil-Sen Intercept	216.0882

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.2562
Standardized Value of S	-2.3826
M-K Test Value (S)	-85
Tabulated p-value	0.0080
Approximate p-value	0.0086

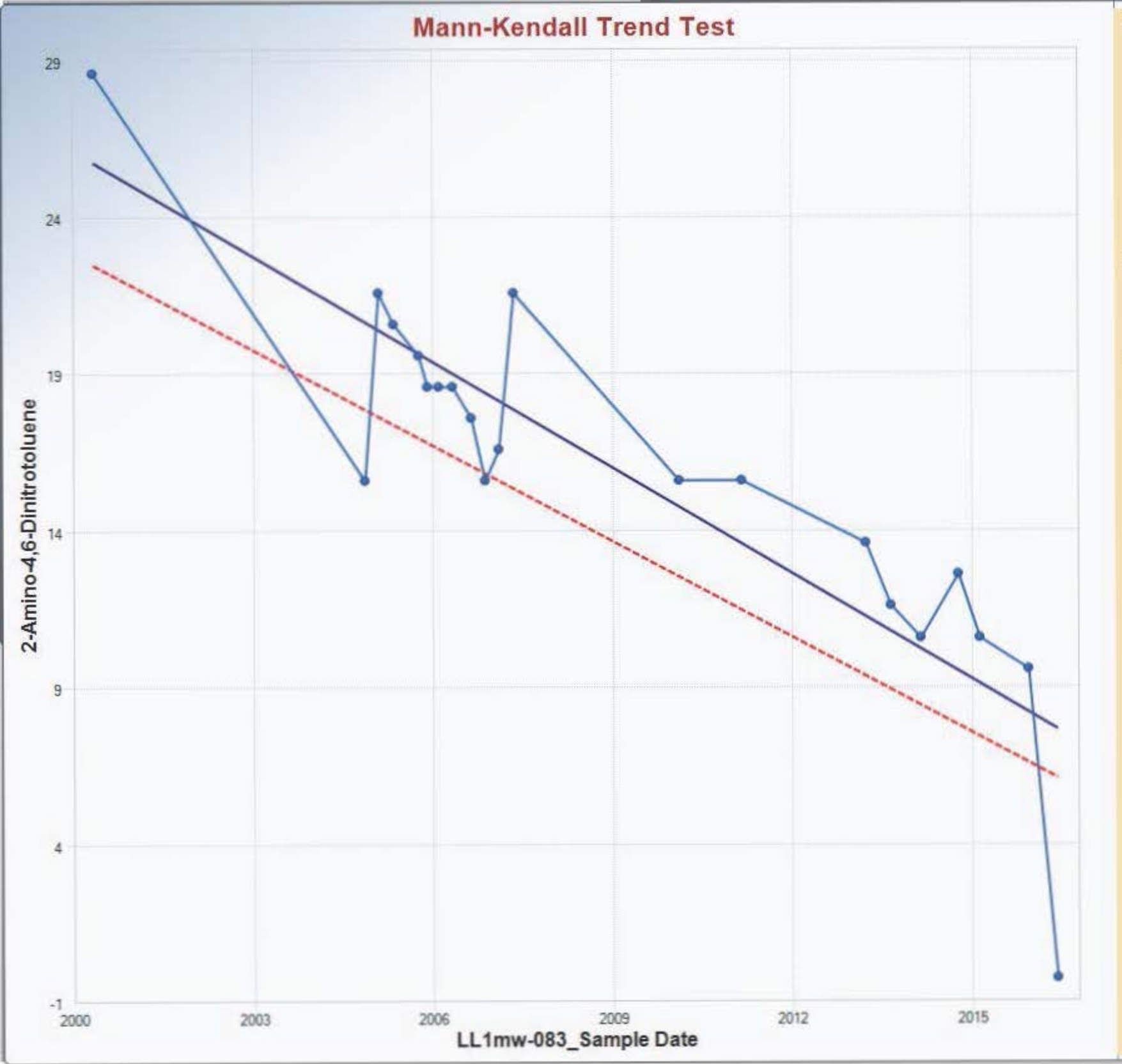
OLS Regression Line (Blue)

OLS Regression Slope	-0.2032
OLS Regression Intercept	410.2307

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0995
Theil-Sen Intercept	201.3819

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	32.8988
Standardized Value of S	-4.8026
M-K Test Value (S)	-159
Tabulated p-value	0.0000
Approximate p-value	0.0000

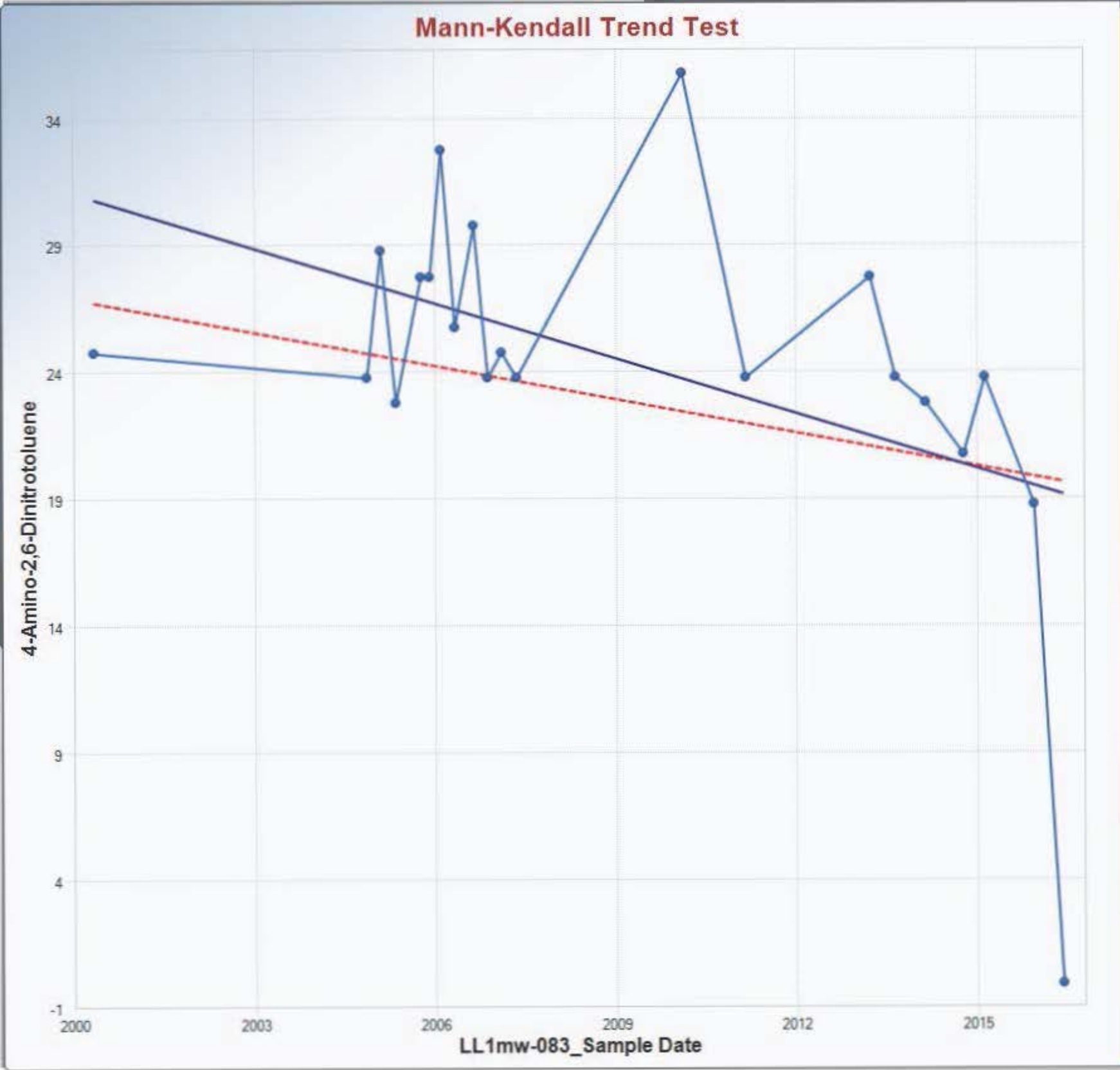
OLS Regression Line (Blue)

OLS Regression Slope	-1.1257
OLS Regression Intercept	2,278.3488

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-1.0183
Theil-Sen Intercept	2,060.2950

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	32.5986
Standardized Value of S	-2.4848
M-K Test Value (S)	-82
Tabulated p-value	0.0070
Approximate p-value	0.0065

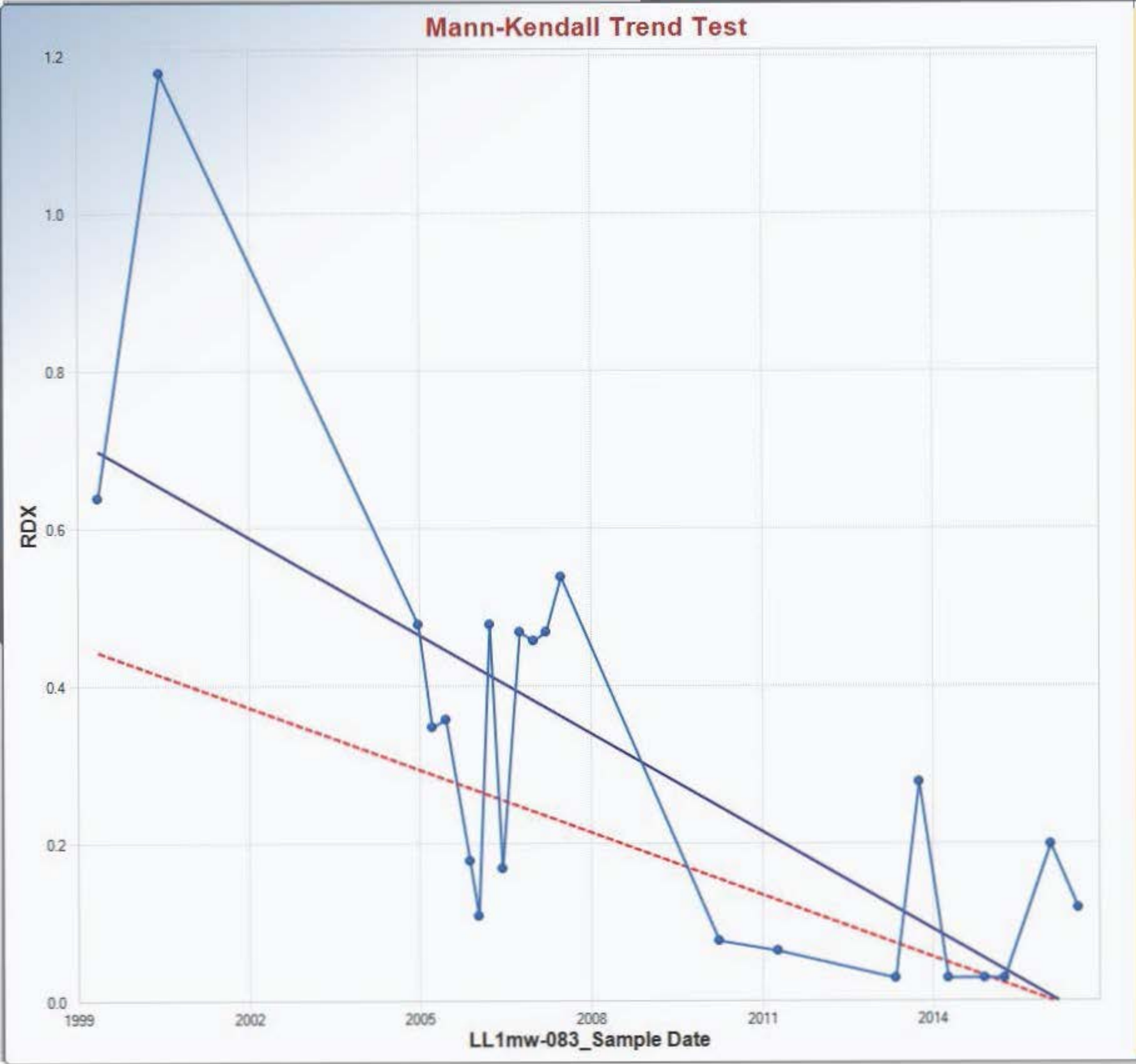
OLS Regression Line (Blue)

OLS Regression Slope	-0.7256
OLS Regression Intercept	1,482.8386

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.4425
Theil-Sen Intercept	912.2795

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.3129
Standardized Value of S	-3.1716
M-K Test Value (S)	-113
Tabulated p-value	0.0010
Approximate p-value	0.0008

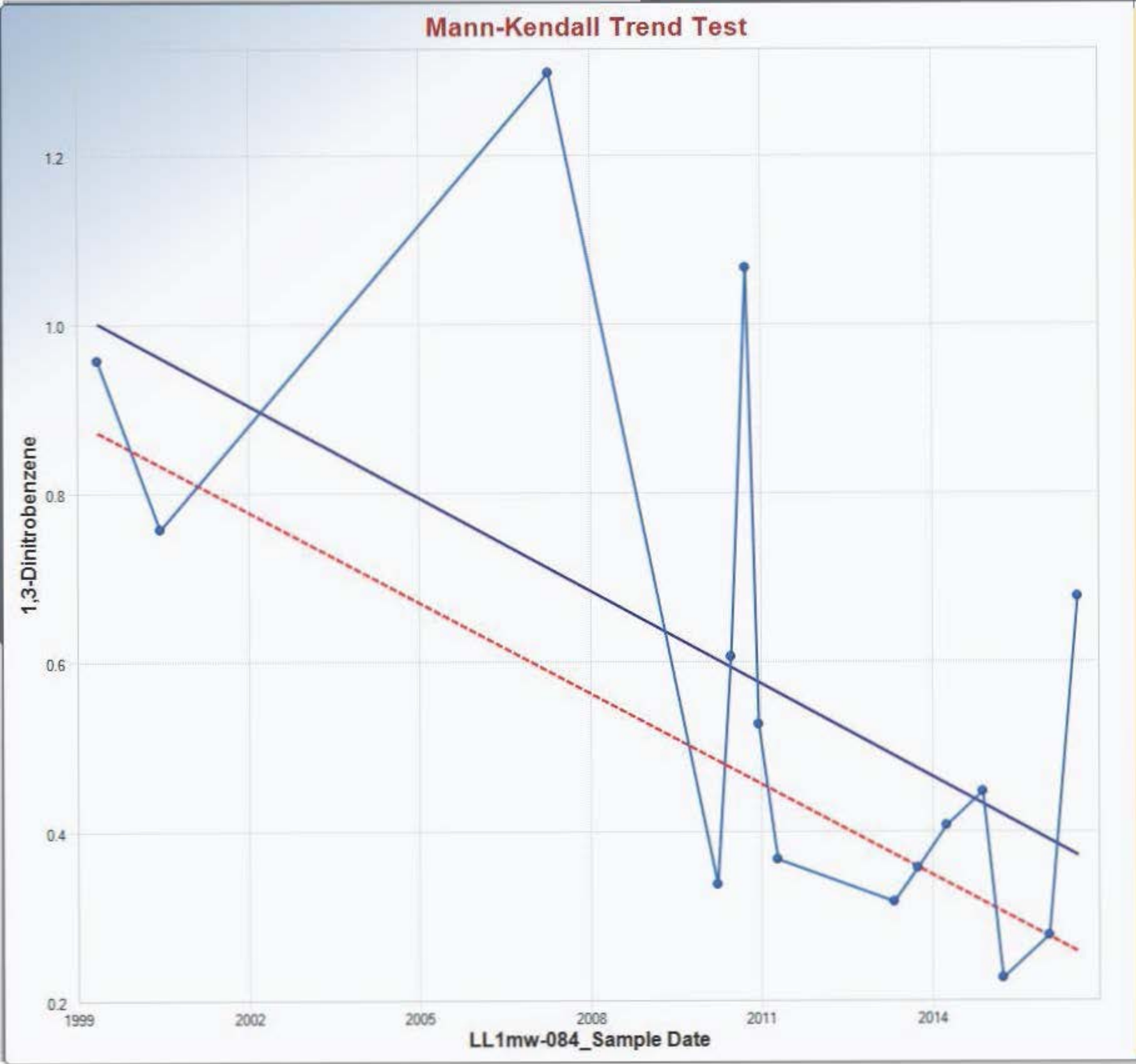
OLS Regression Line (Blue)

OLS Regression Slope	-0.0417
OLS Regression Intercept	84.0090

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0266
Theil-Sen Intercept	53.6477

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.2073
Standardized Value of S	-2.0785
M-K Test Value (S)	-43
Tabulated p-value	0.0180
Approximate p-value	0.0188

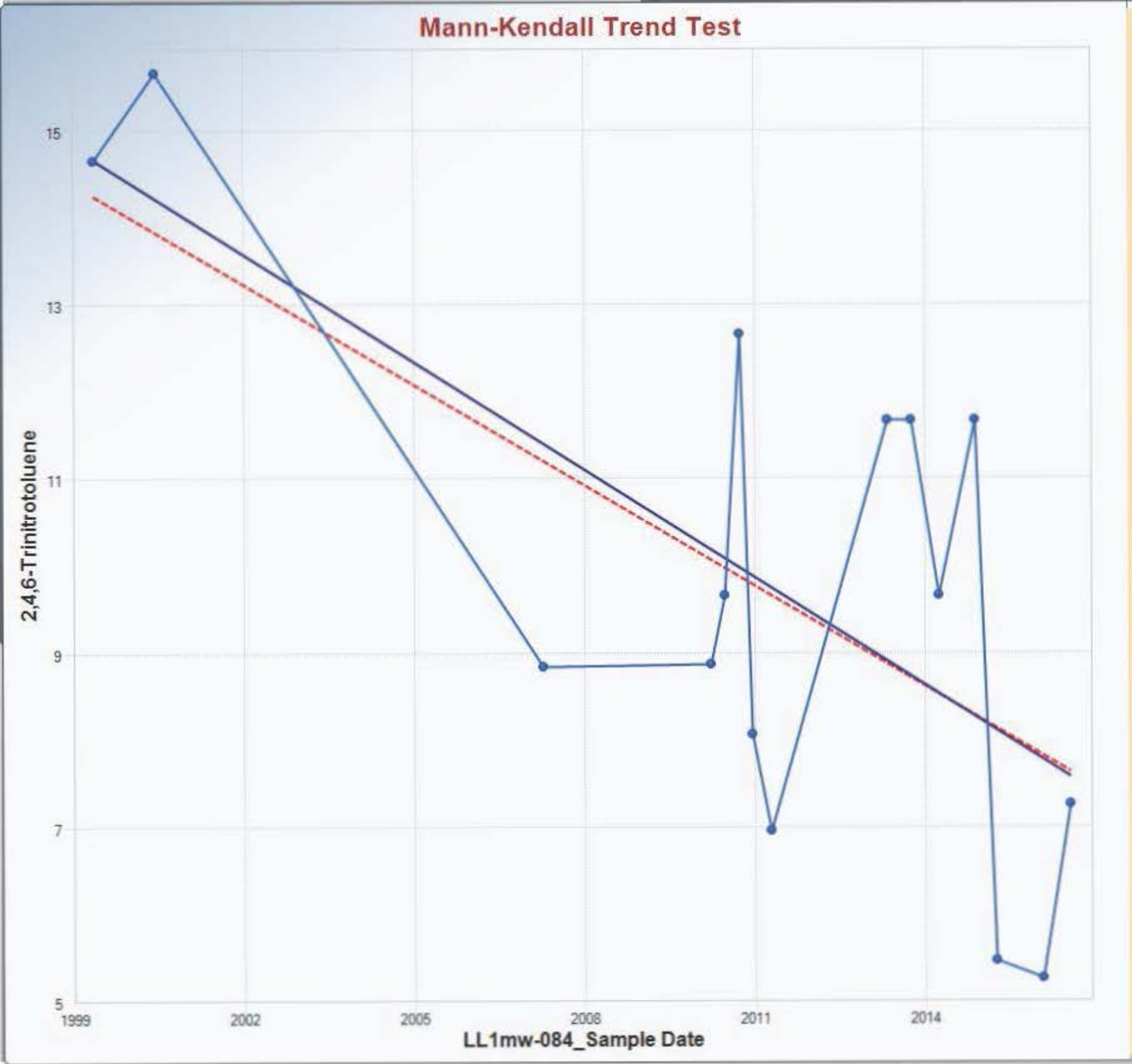
OLS Regression Line (Blue)

OLS Regression Slope	-0.0367
OLS Regression Intercept	74.3446

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0358
Theil-Sen Intercept	72.5375

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.0915
Standardized Value of S	-1.9909
M-K Test Value (S)	-41
Tabulated p-value	0.0230
Approximate p-value	0.0232

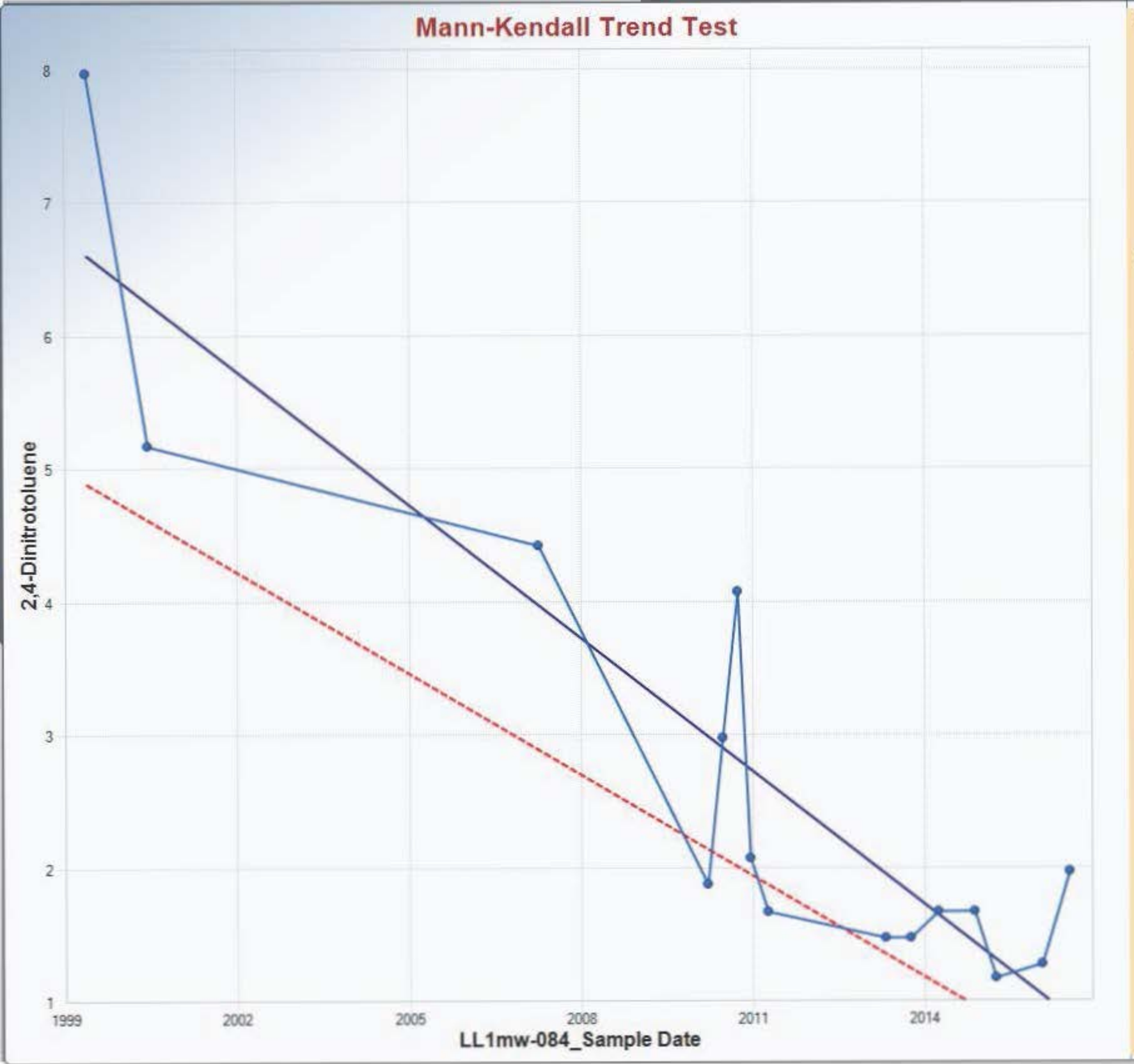
OLS Regression Line (Blue)

OLS Regression Slope	-0.4130
OLS Regression Intercept	840.9581

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.3857
Theil-Sen Intercept	785.8354

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.0915
Standardized Value of S	-3.2850
M-K Test Value (S)	-67
Tabulated p-value	0.0000
Approximate p-value	0.0005

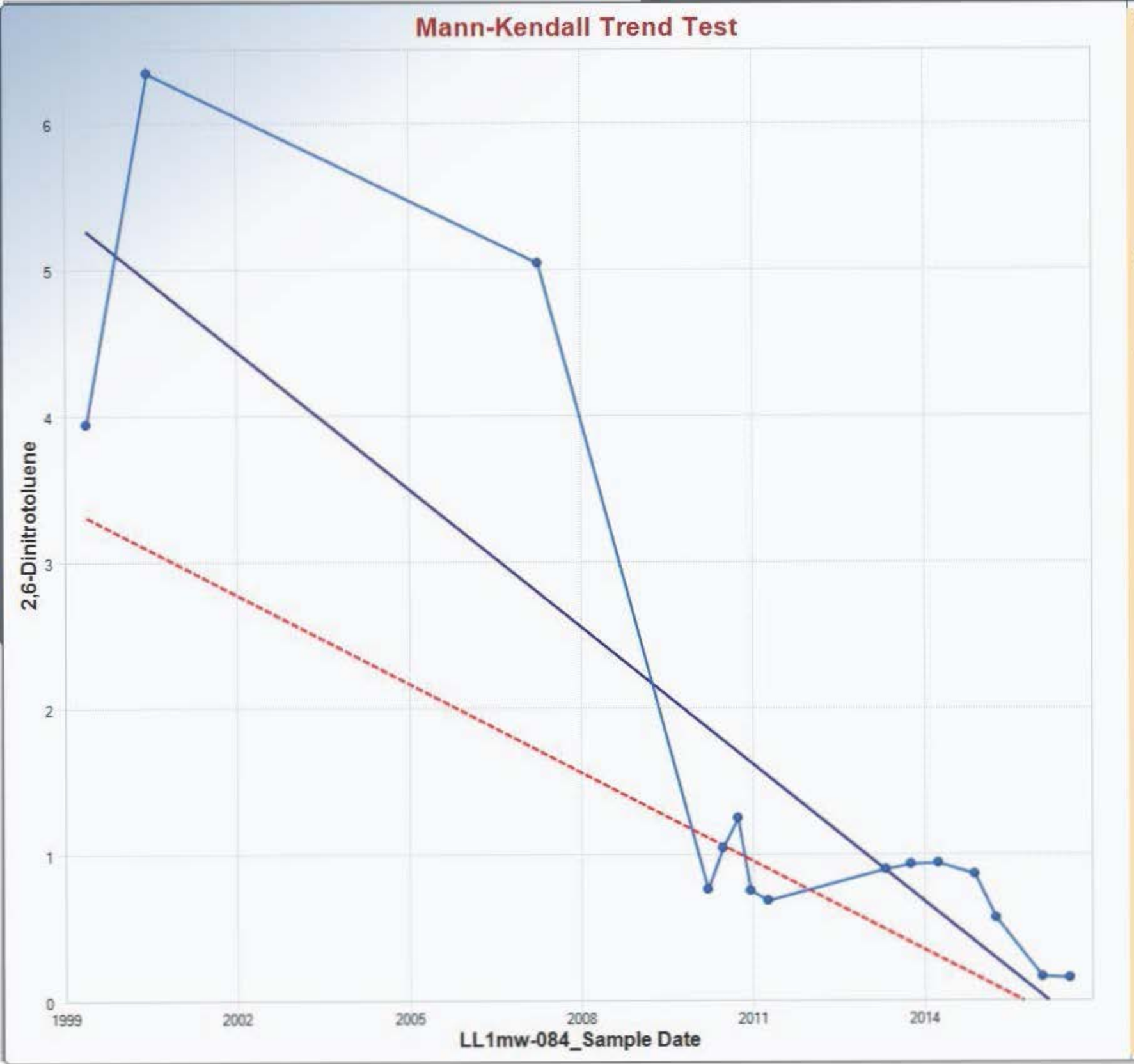
OLS Regression Line (Blue)

OLS Regression Slope	-0.3344
OLS Regression Intercept	675.2977

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.2536
Theil-Sen Intercept	512.0182

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.2073
Standardized Value of S	-3.1672
M-K Test Value (S)	-65
Tabulated p-value	0.0000
Approximate p-value	0.0008

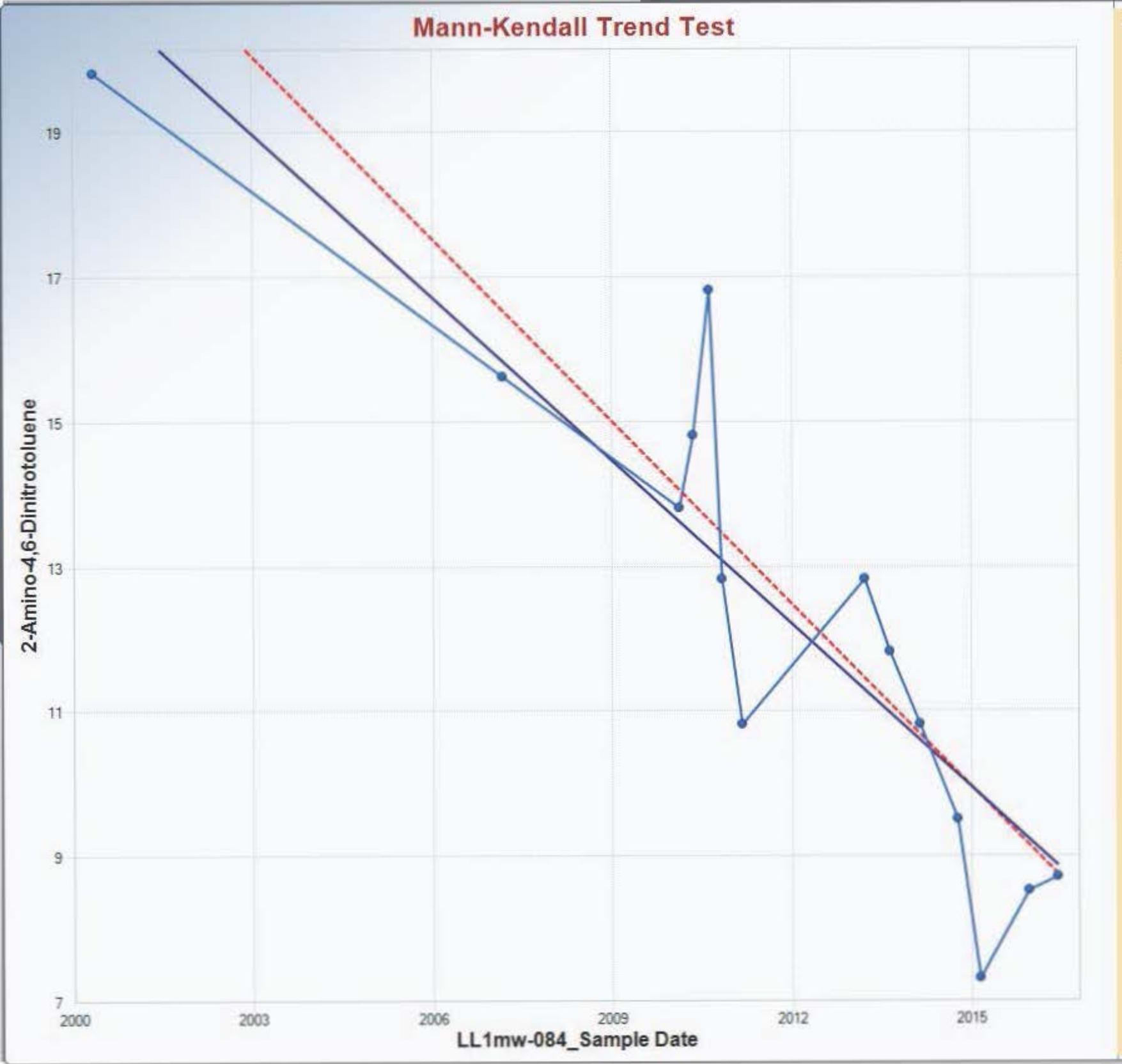
OLS Regression Line (Blue)

OLS Regression Slope	-0.3137
OLS Regression Intercept	632.5515

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.2030
Theil-Sen Intercept	409.3325

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	18.2117
Standardized Value of S	-3.8437
M-K Test Value (S)	-71
Tabulated p-value	0.0000
Approximate p-value	0.0001

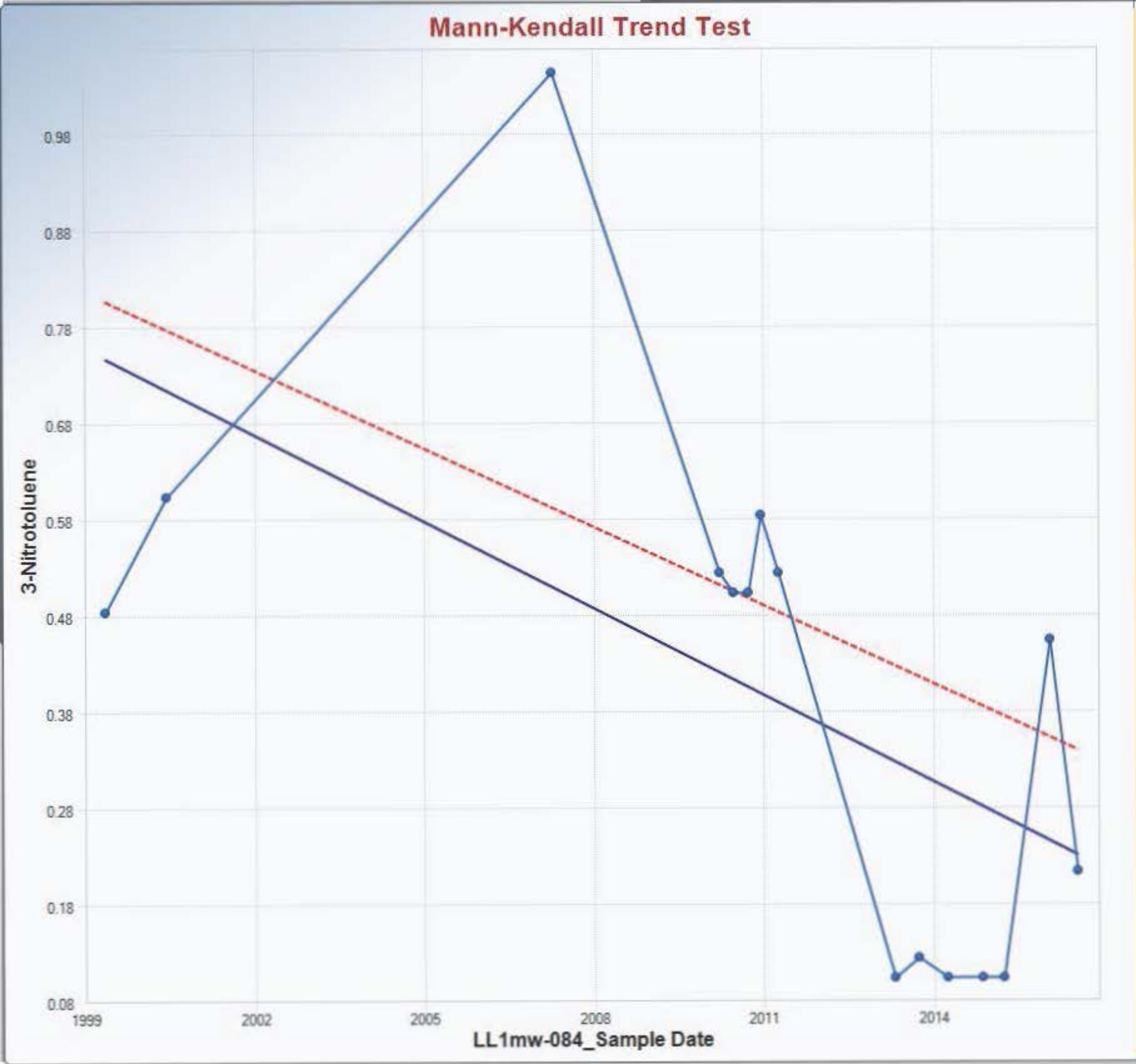
OLS Regression Line (Blue)

OLS Regression Slope	-0.7535
OLS Regression Intercept	1,528.7545

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.8421
Theil-Sen Intercept	1,707.3496

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	19.9416
Standardized Value of S	-2.4070
M-K Test Value (S)	-49
Tabulated p-value	0.0080
Approximate p-value	0.0080

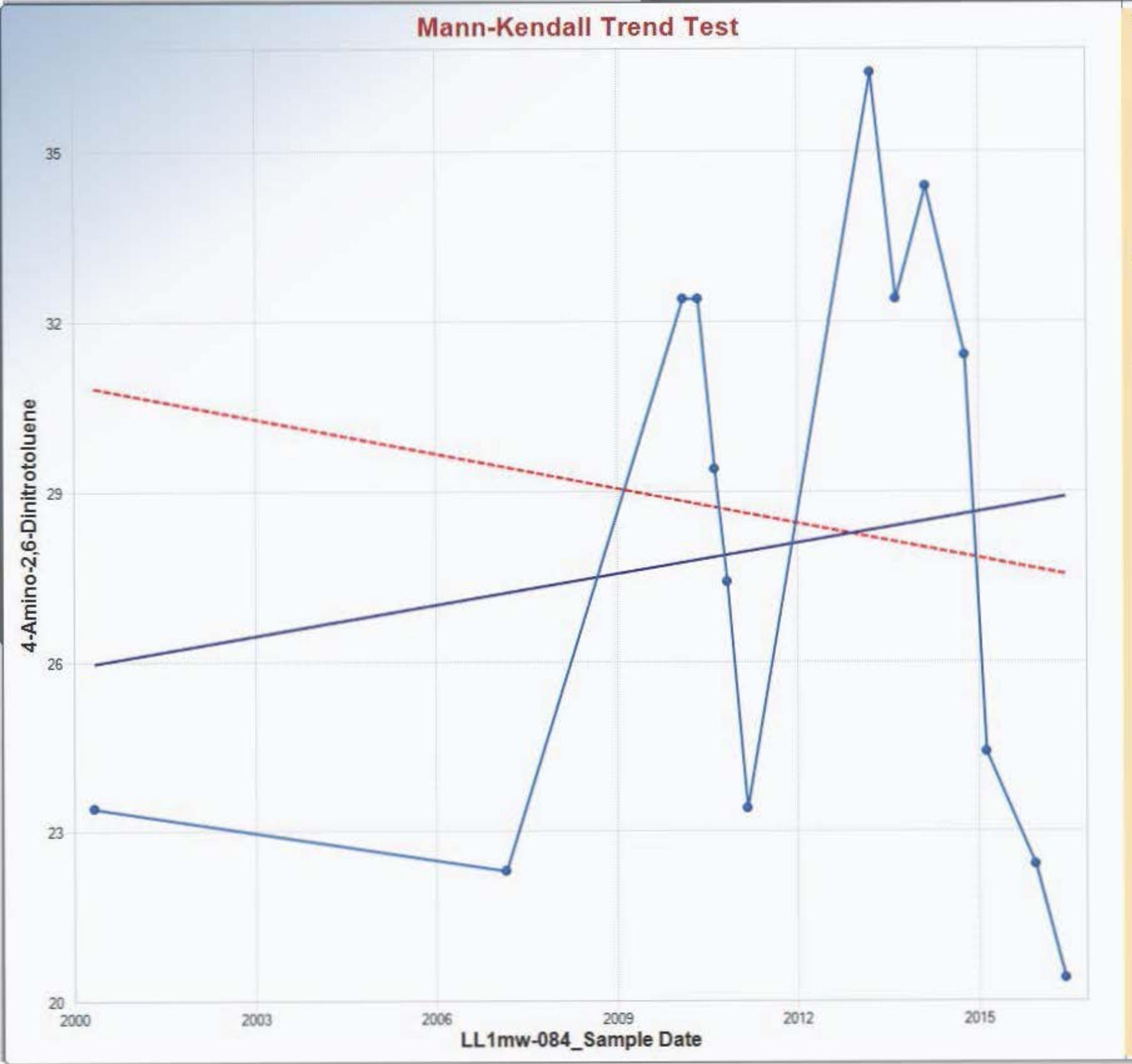
OLS Regression Line (Blue)

OLS Regression Slope	-0.0300
OLS Regression Intercept	60.8321

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0272
Theil-Sen Intercept	55.2237

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	18.1384
Standardized Value of S	-0.5513
M-K Test Value (S)	-11
Tabulated p-value	0.2950
Approximate p-value	0.2907

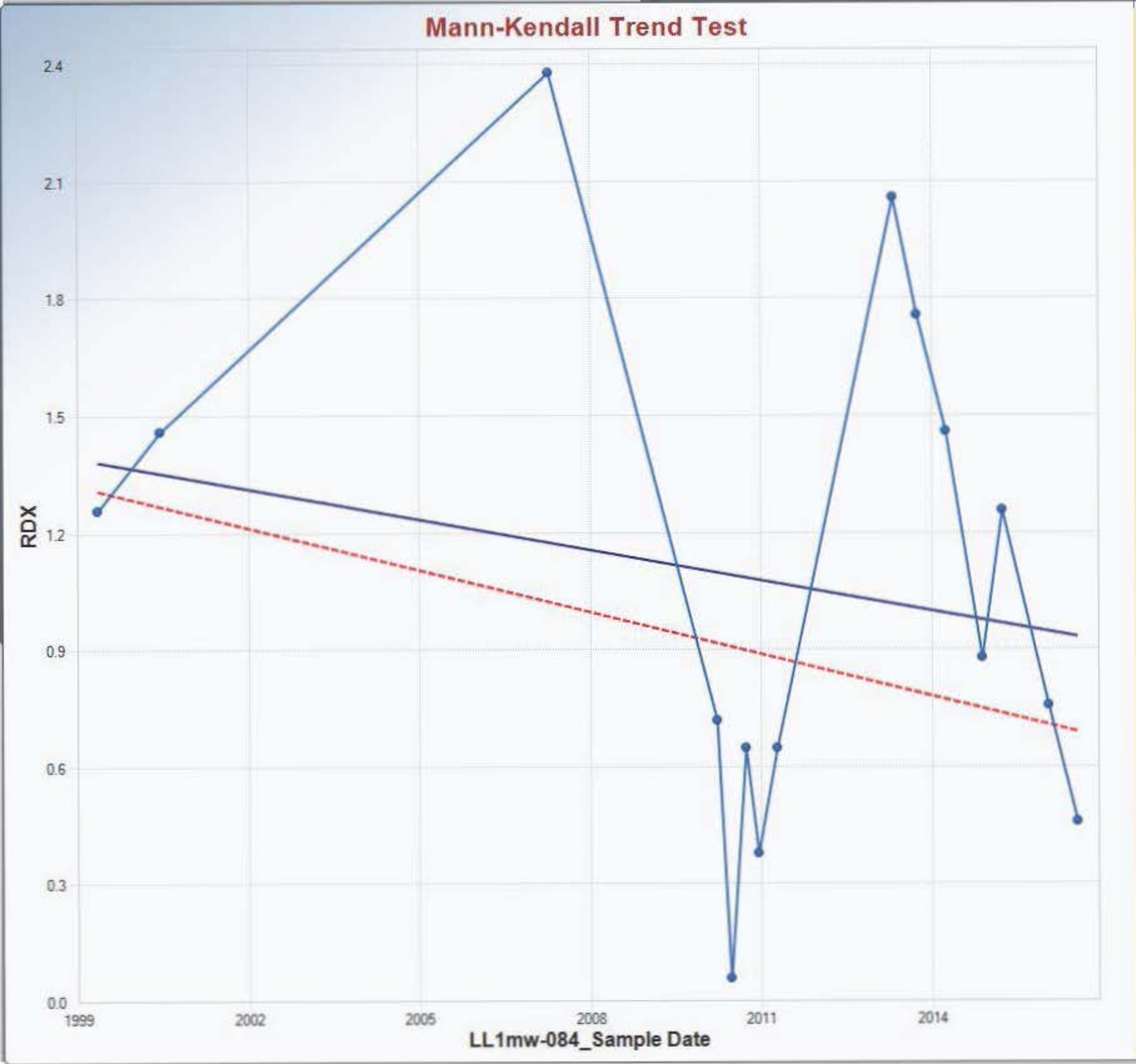
OLS Regression Line (Blue)

OLS Regression Slope	0.1824
OLS Regression Intercept	-339.3797

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.2050
Theil-Sen Intercept	440.6078

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	15
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.1329
Standardized Value of S	-0.5464
M-K Test Value (S)	-12
Tabulated p-value	0.2790
Approximate p-value	0.2924

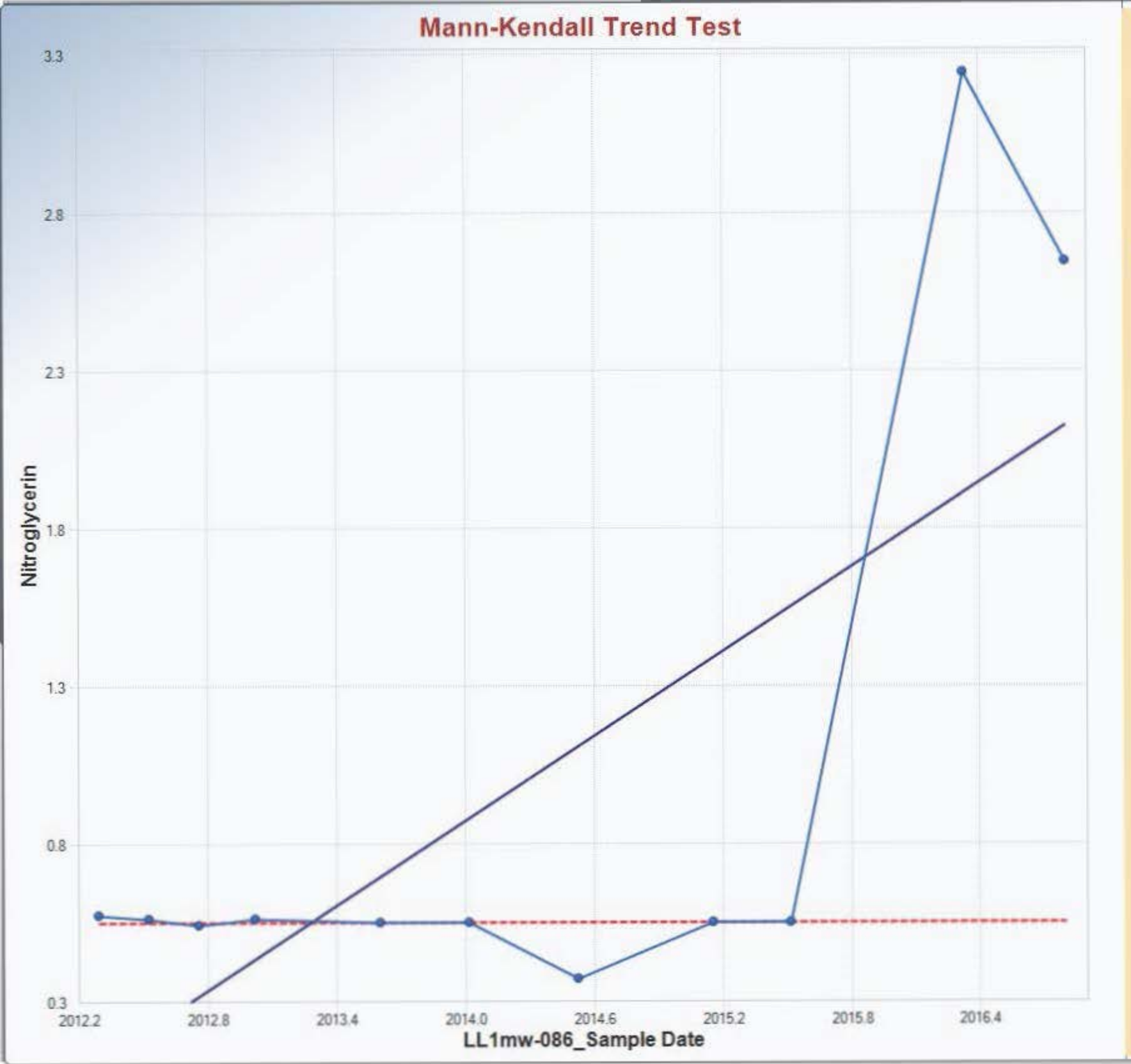
OLS Regression Line (Blue)

OLS Regression Slope	-0.0261
OLS Regression Intercept	53.6337

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0360
Theil-Sen Intercept	73.4371

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	11
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	12.4633
Standardized Value of S	0.0802
M-K Test Value (S)	2
Tabulated p-value	0.4400
Approximate p-value	0.4680

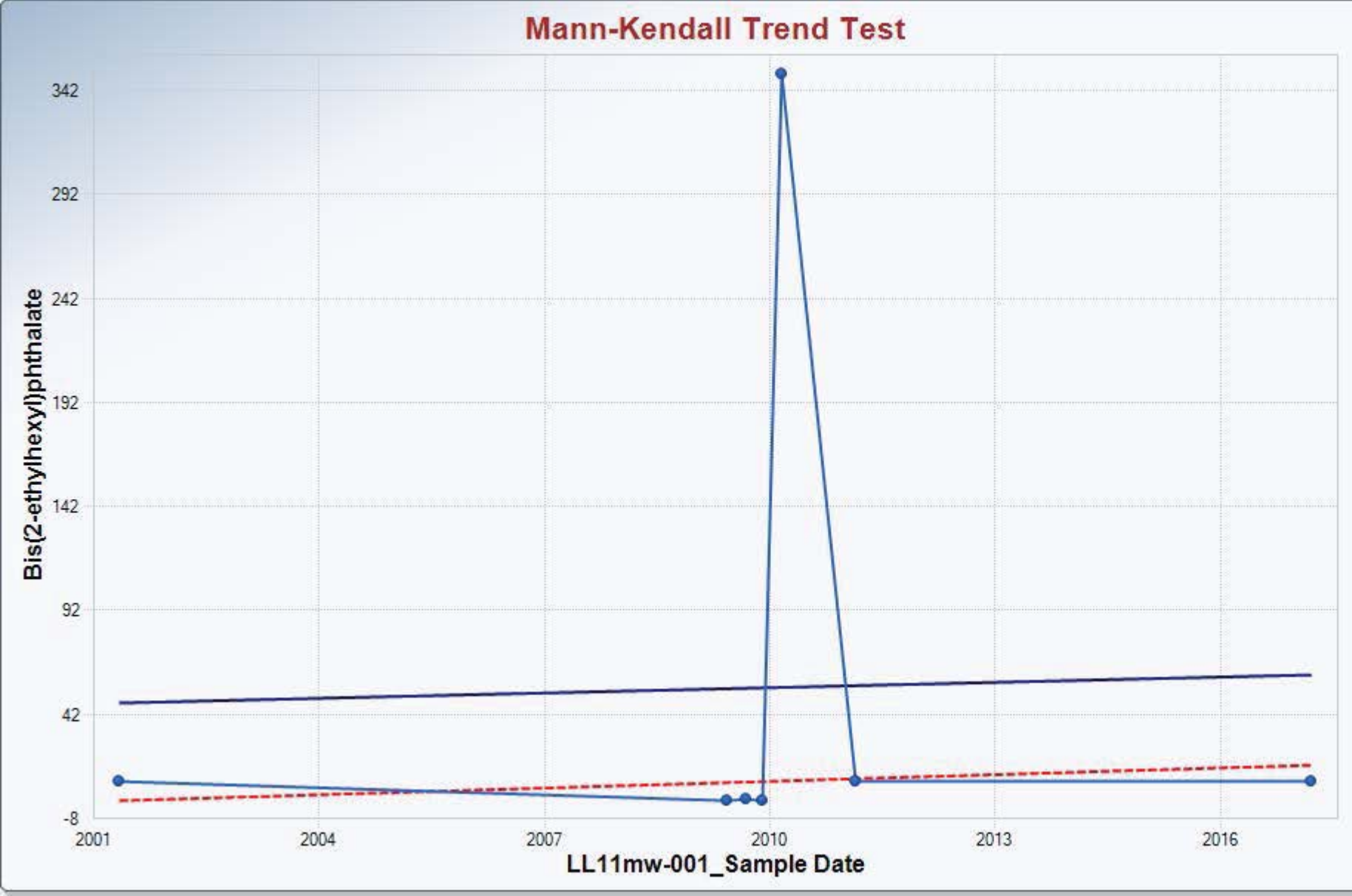
OLS Regression Line (Blue)

OLS Regression Slope	0.4484
OLS Regression Intercept	-902.2590

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.5100

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.5828
Standardized Value of S	0.4557
Test Value (S)	4
Tabulated p-value	0.2810
Approximate p-value	0.3243

OLS Regression Line (Blue)

OLS Regression Slope	0.8596
OLS Regression Intercept	-1,672.6415

Theil-Sen Trend Line (Red)

Theil-Sen Slope	1.0887
Theil-Sen Intercept	-2,177.9636

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Test

Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.9804
Standardized Value of S	0.0000
Test Value (S)	1
Tabulated p-value	0.5000
Approximate p-value	0.5000

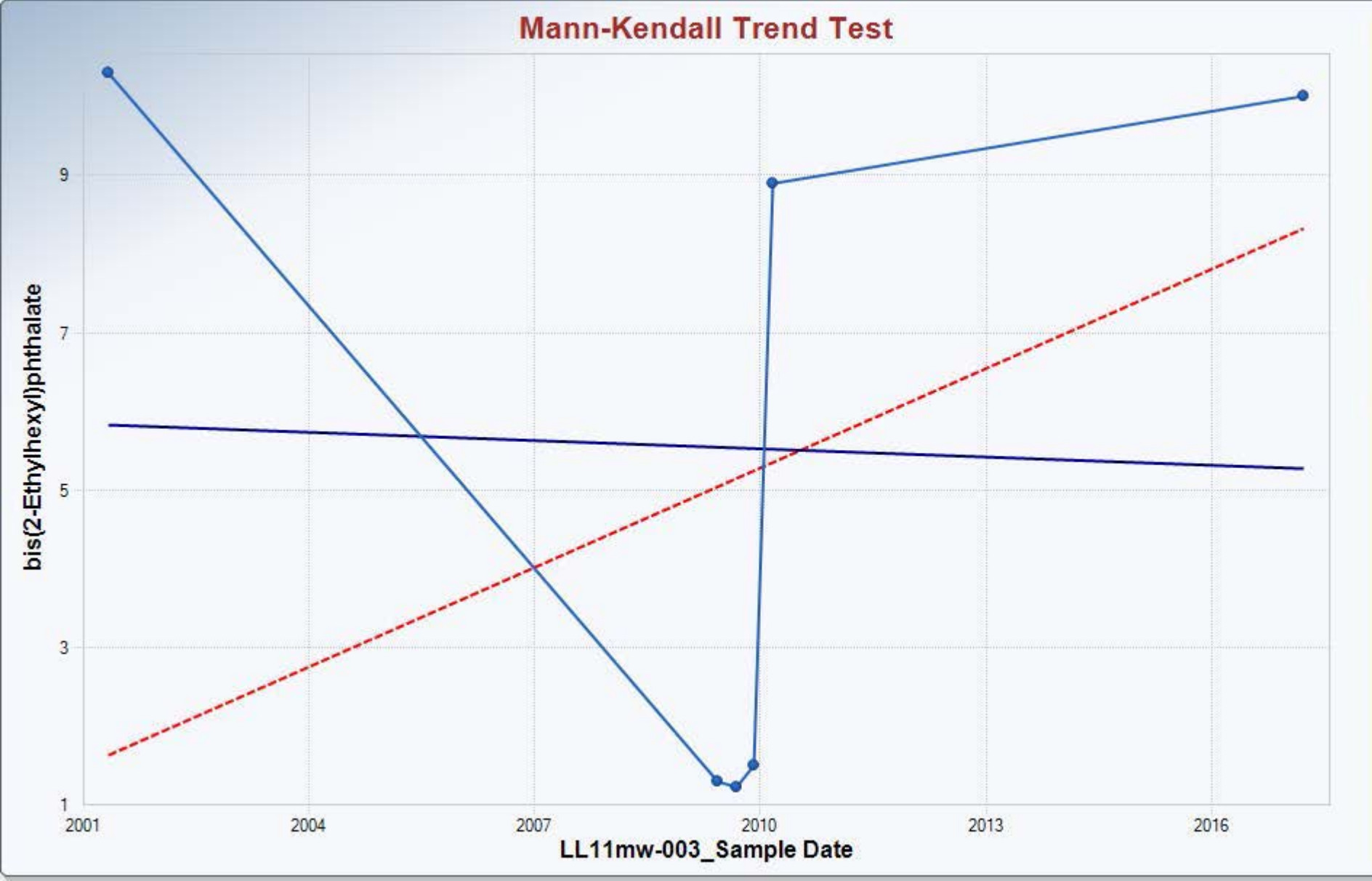
OLS Regression Line (Blue)

OLS Regression Slope	-0.6976
OLS Regression Intercept	1,408.4269

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	10.0000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	0.3757
Test Value (S)	3
Tabulated p-value	0.3600
Approximate p-value	0.3536

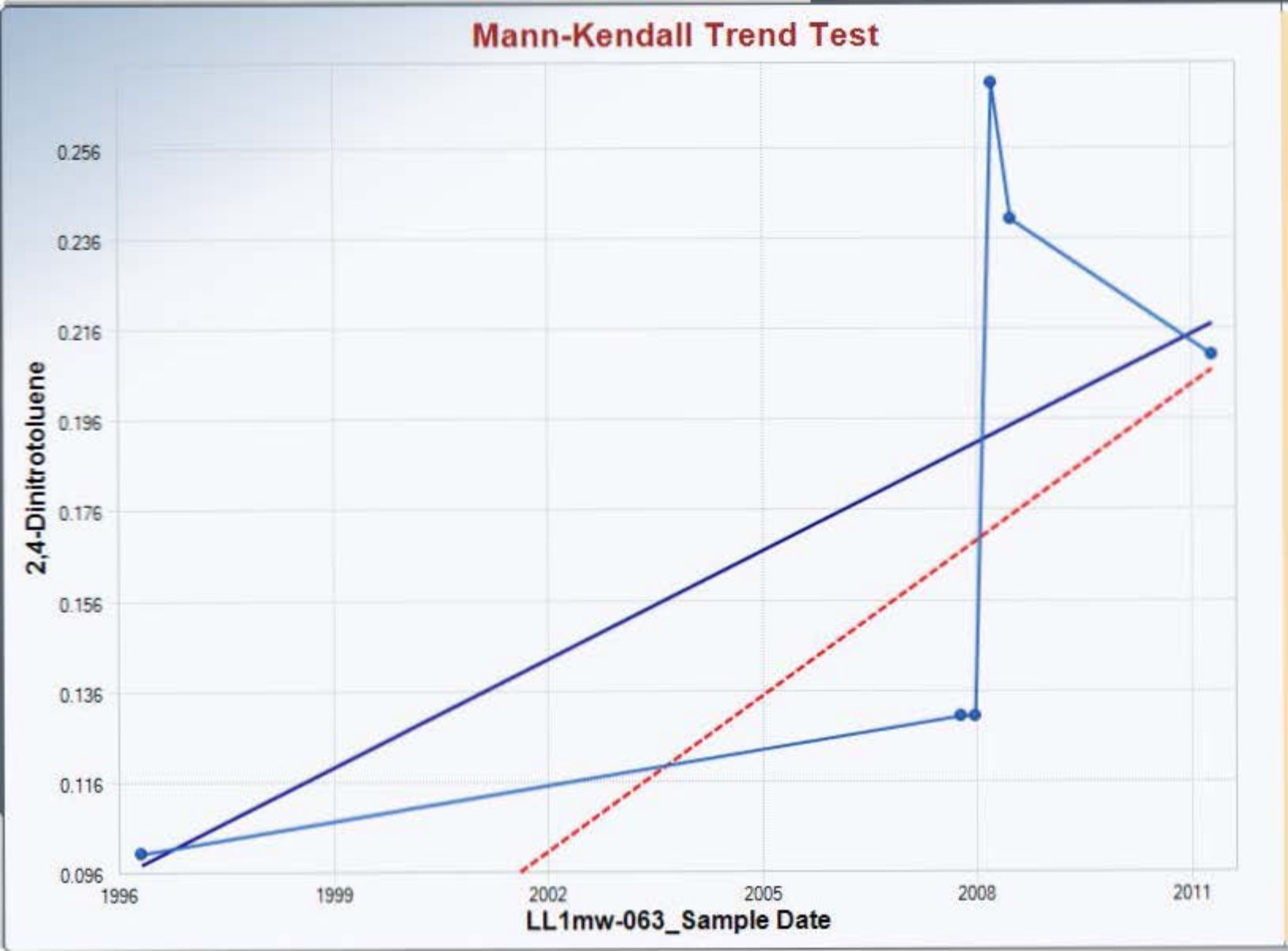
OLS Regression Line (Blue)

OLS Regression Slope	-0.0350
OLS Regression Intercept	75.6185

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.4223
Theil-Sen Intercept	-843.6757

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	1.3389
Test Value (S)	8
Tabulated p-value	0.0680
Approximate p-value	0.0903

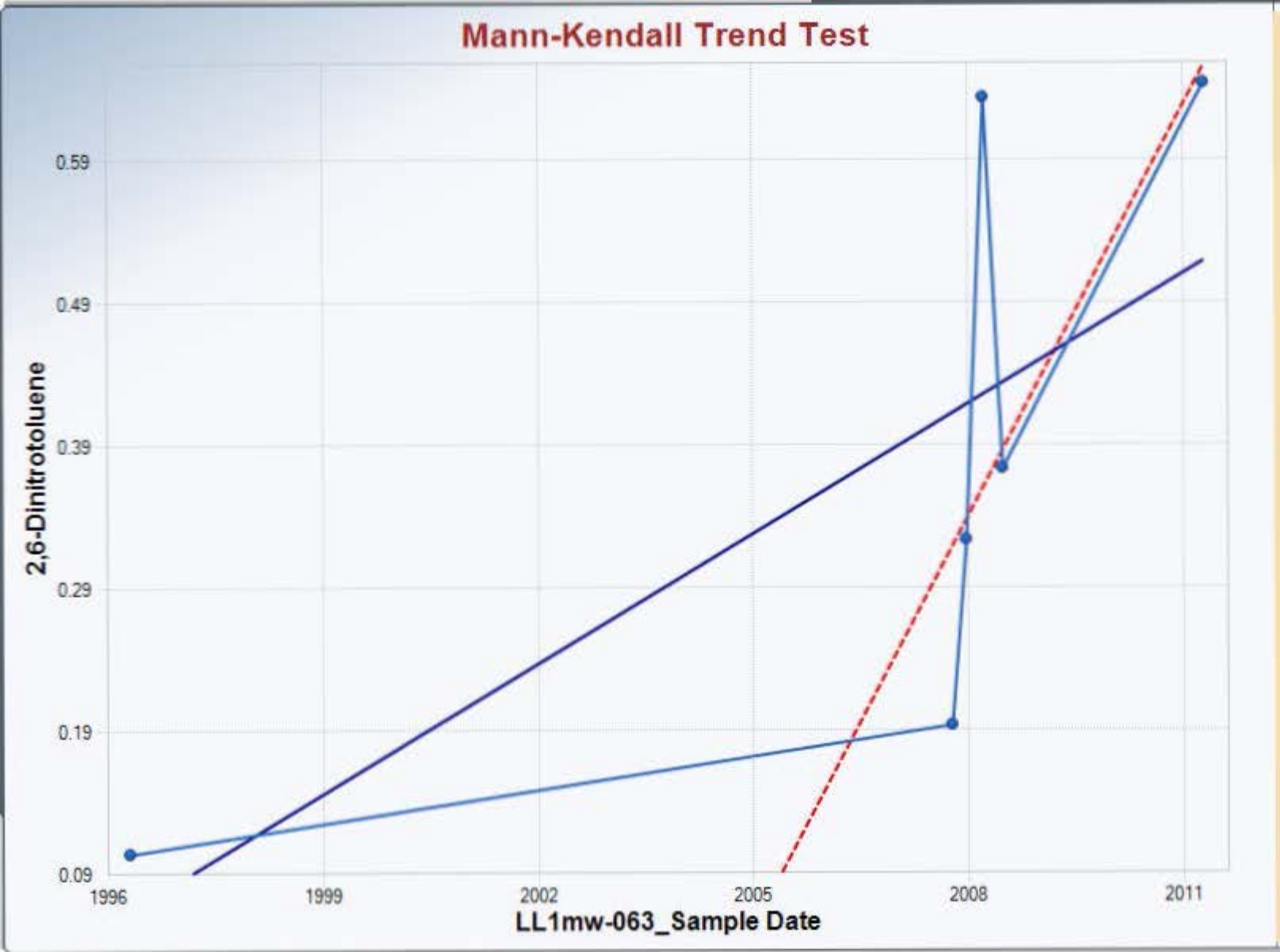
OLS Regression Line (Blue)

OLS Regression Slope	0.0080
OLS Regression Intercept	-15.8373

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0115
Theil-Sen Intercept	-22.9495

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	2.2544
Test Value (S)	13
Tabulated p-value	0.0080
Approximate p-value	0.0121

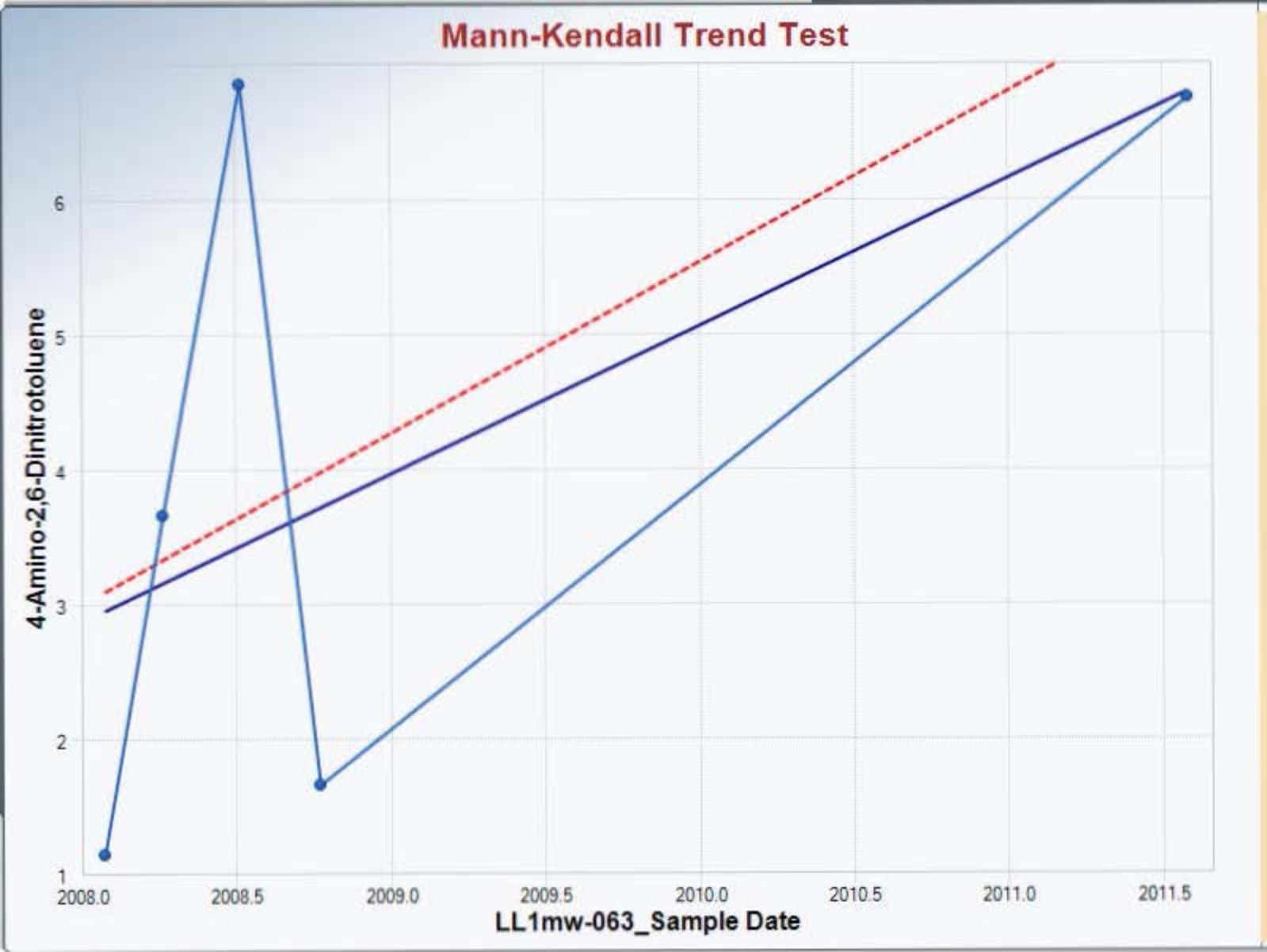
OLS Regression Line (Blue)

OLS Regression Slope	0.0305
OLS Regression Intercept	-60.8108

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0961
Theil-Sen Intercept	-192.6943

Statistically significant evidence of an increasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	5
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	4.0825
Standardized Value of S	0.7348
Test Value (S)	4
Tabulated p-value	0.2420
Approximate p-value	0.2312

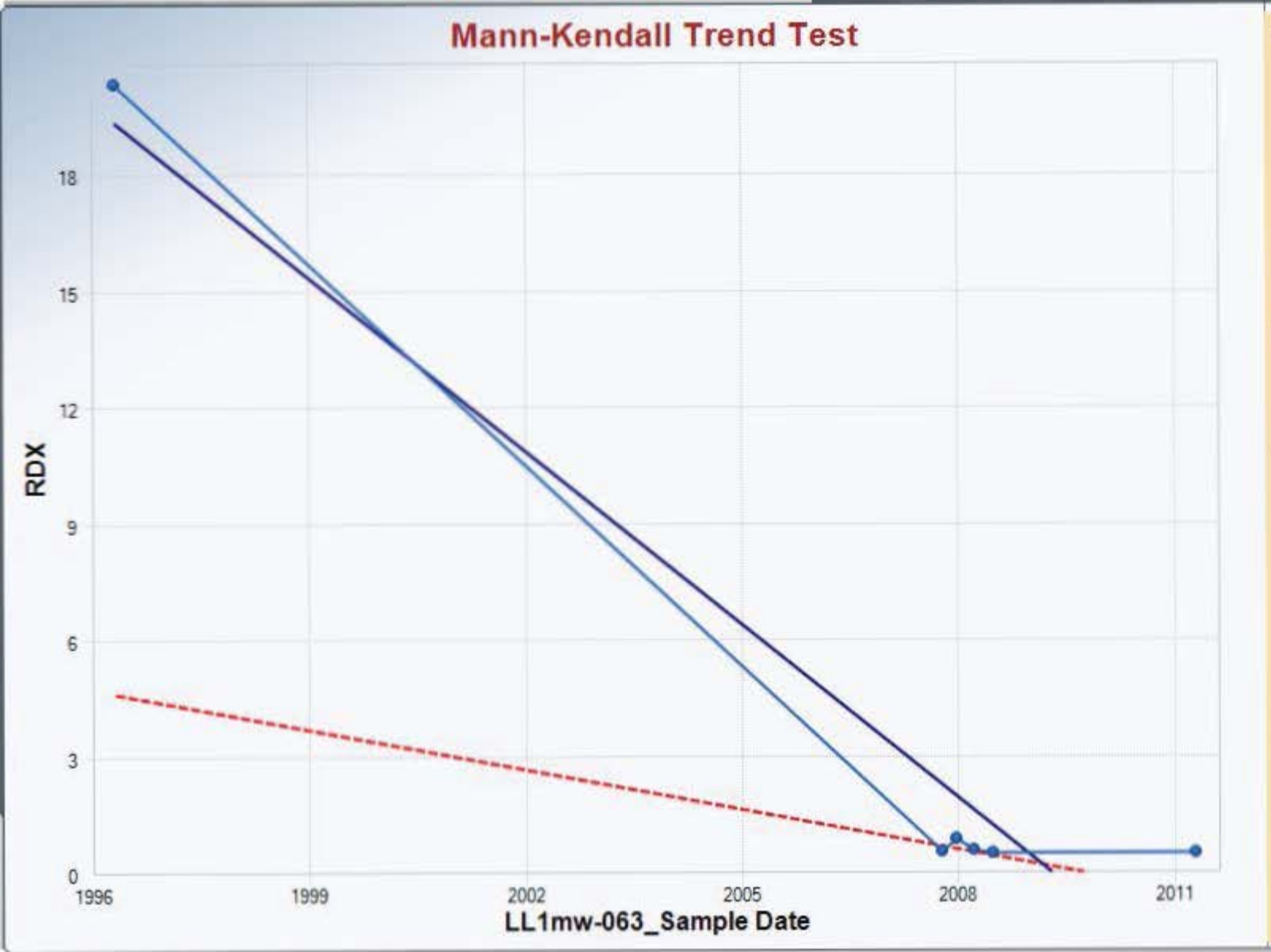
OLS Regression Line (Blue)

OLS Regression Slope	1.0962
OLS Regression Intercept	-2,198.6701

Theil-Sen Trend Line (Red)

Theil-Sen Slope	1.2669
Theil-Sen Intercept	-2,541.2994

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.3229
Standardized Value of S	-1.5029
Test Value (S)	-9
Tabulated p-value	0.0680
Approximate p-value	0.0664

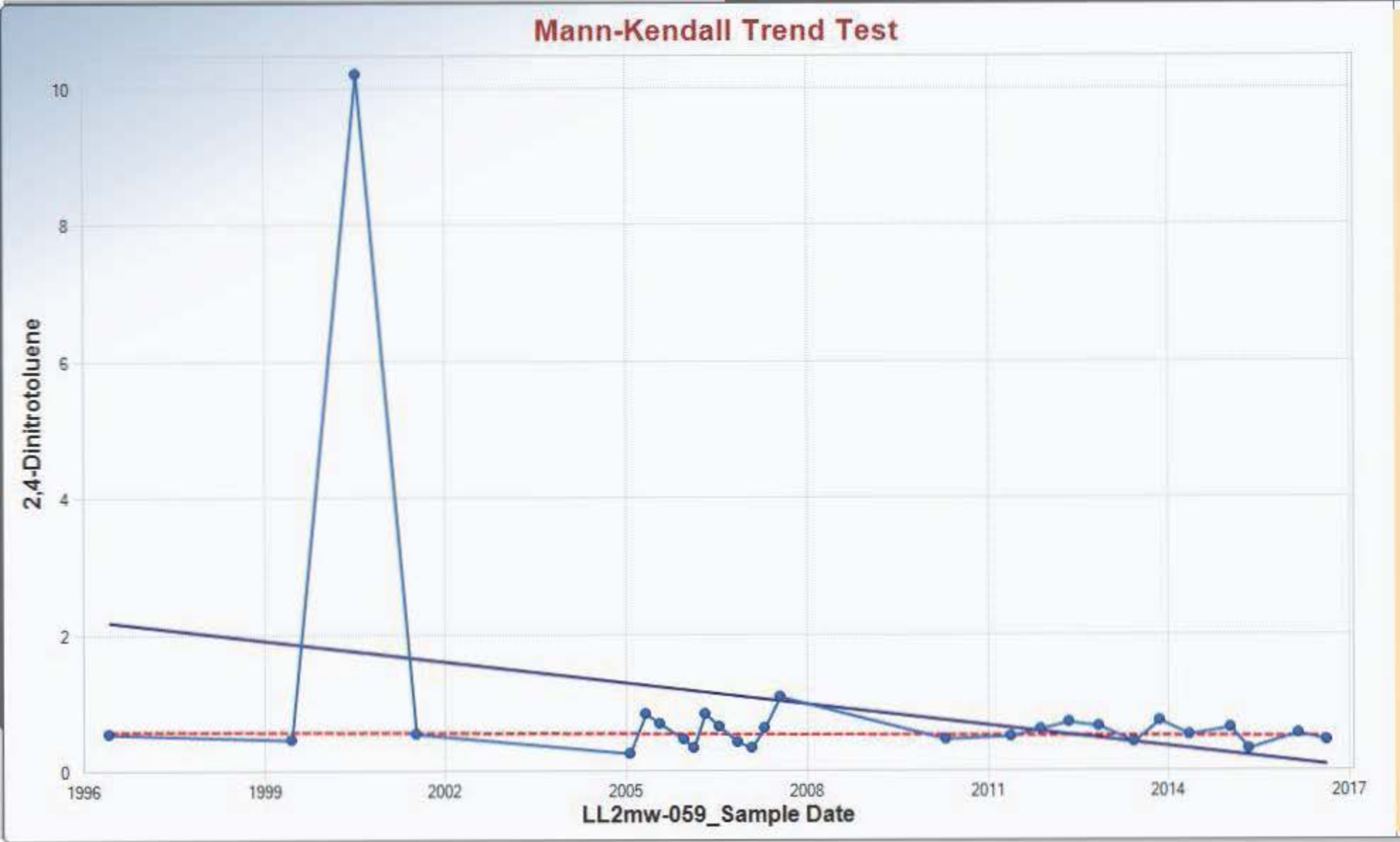
OLS Regression Line (Blue)

OLS Regression Slope	-1.4939
OLS Regression Intercept	3,001.7097

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.3460
Theil-Sen Intercept	695.1614

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	27
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	47.9375
Standardized Value of S	-0.5215
M-K Test Value (S)	-26
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.3010

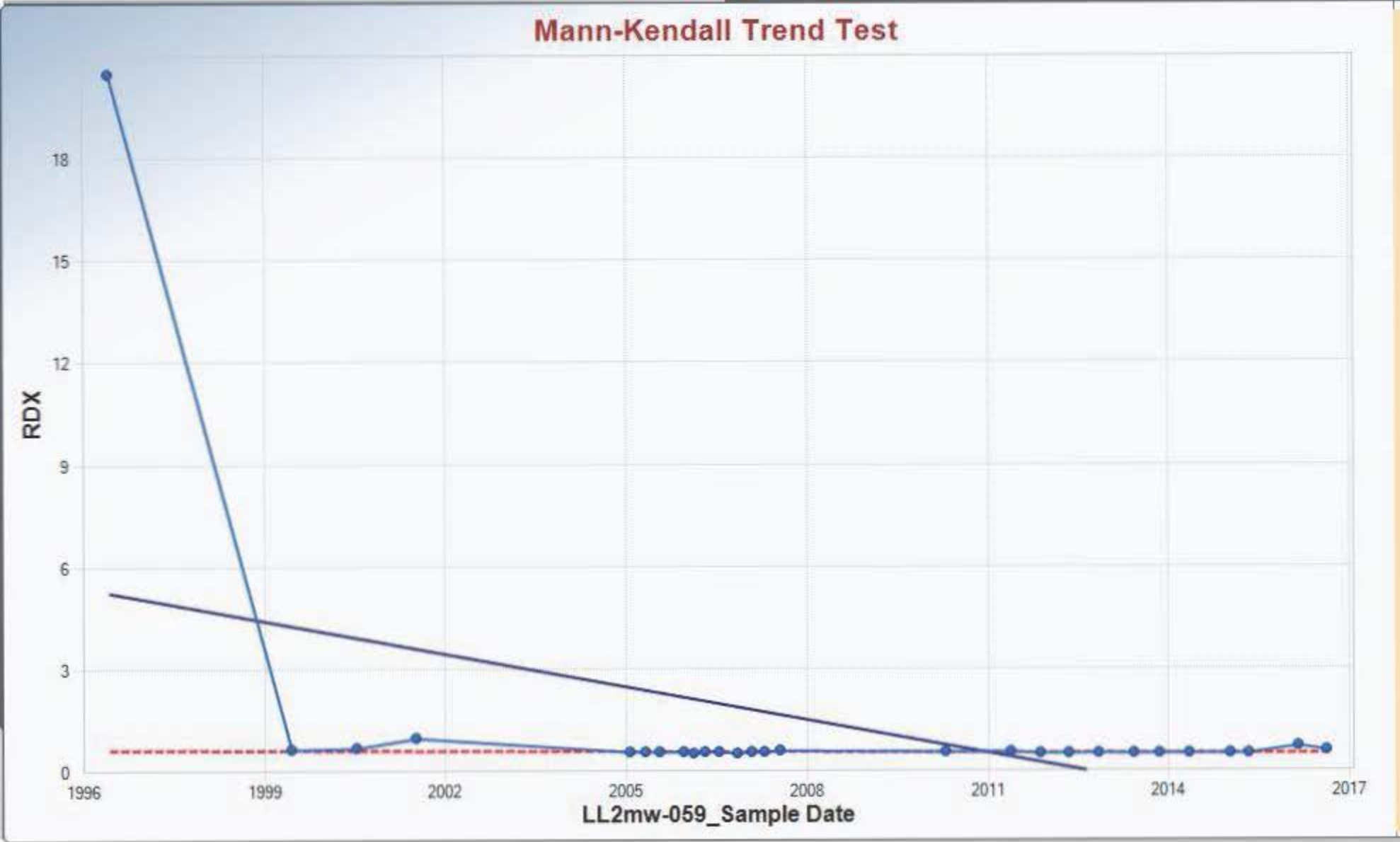
OLS Regression Line (Blue)

OLS Regression Slope	-0.1035
OLS Regression Intercept	208.6231

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0040
Theil-Sen Intercept	8.3860

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	27
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	47.0956
Standardized Value of S	-2.4843
M-K Test Value (S)	-118
Appx. Critical Value (0.05)	-1.6449
Approximate p-value	0.0065

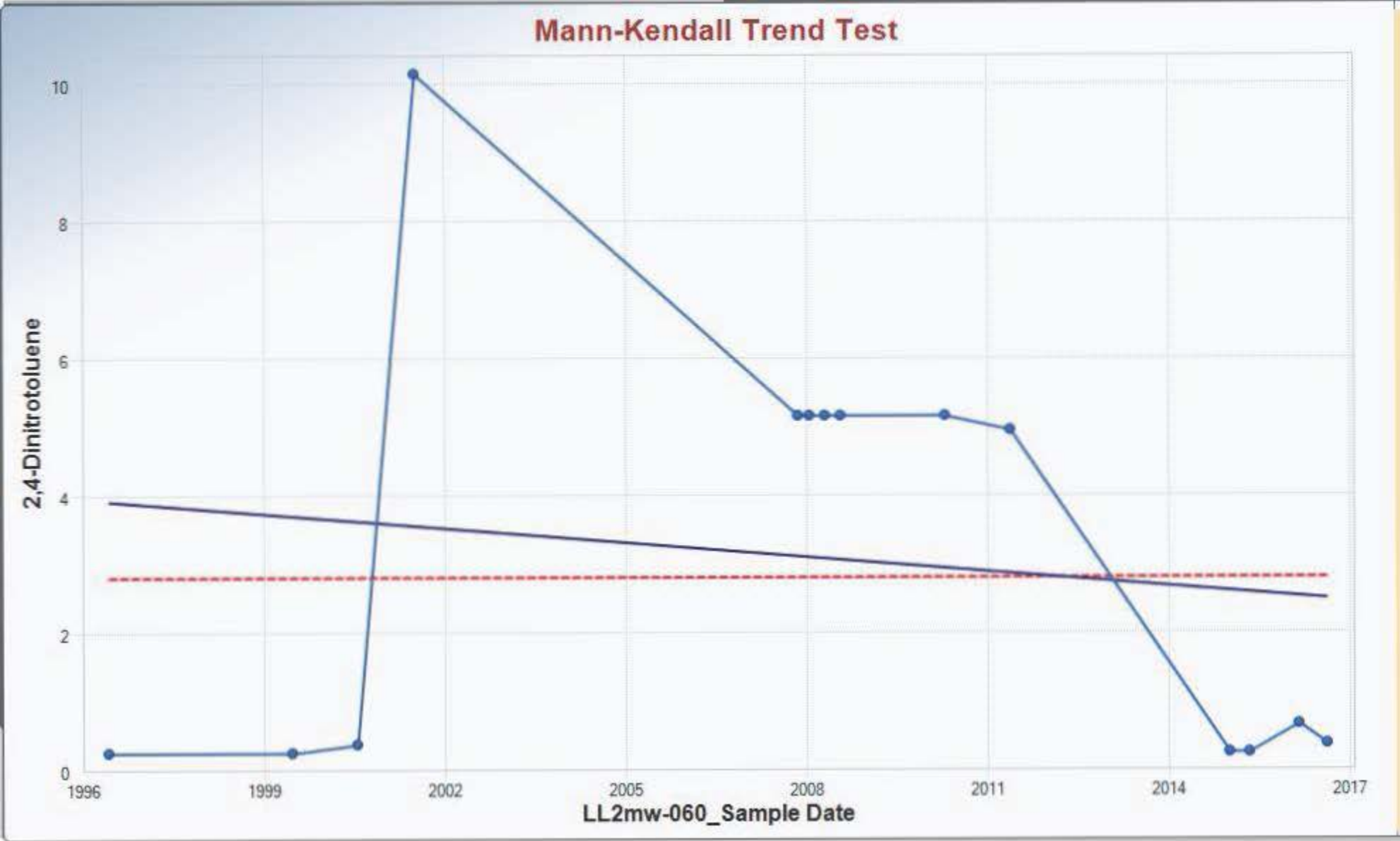
OLS Regression Line (Blue)

OLS Regression Slope	-0.3255
OLS Regression Intercept	654.6788

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0055
Theil-Sen Intercept	11.0506

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	17.7012
Standardized Value of S	-0.3955
M-K Test Value (S)	-8
Tabulated p-value	0.3340
Approximate p-value	0.3463

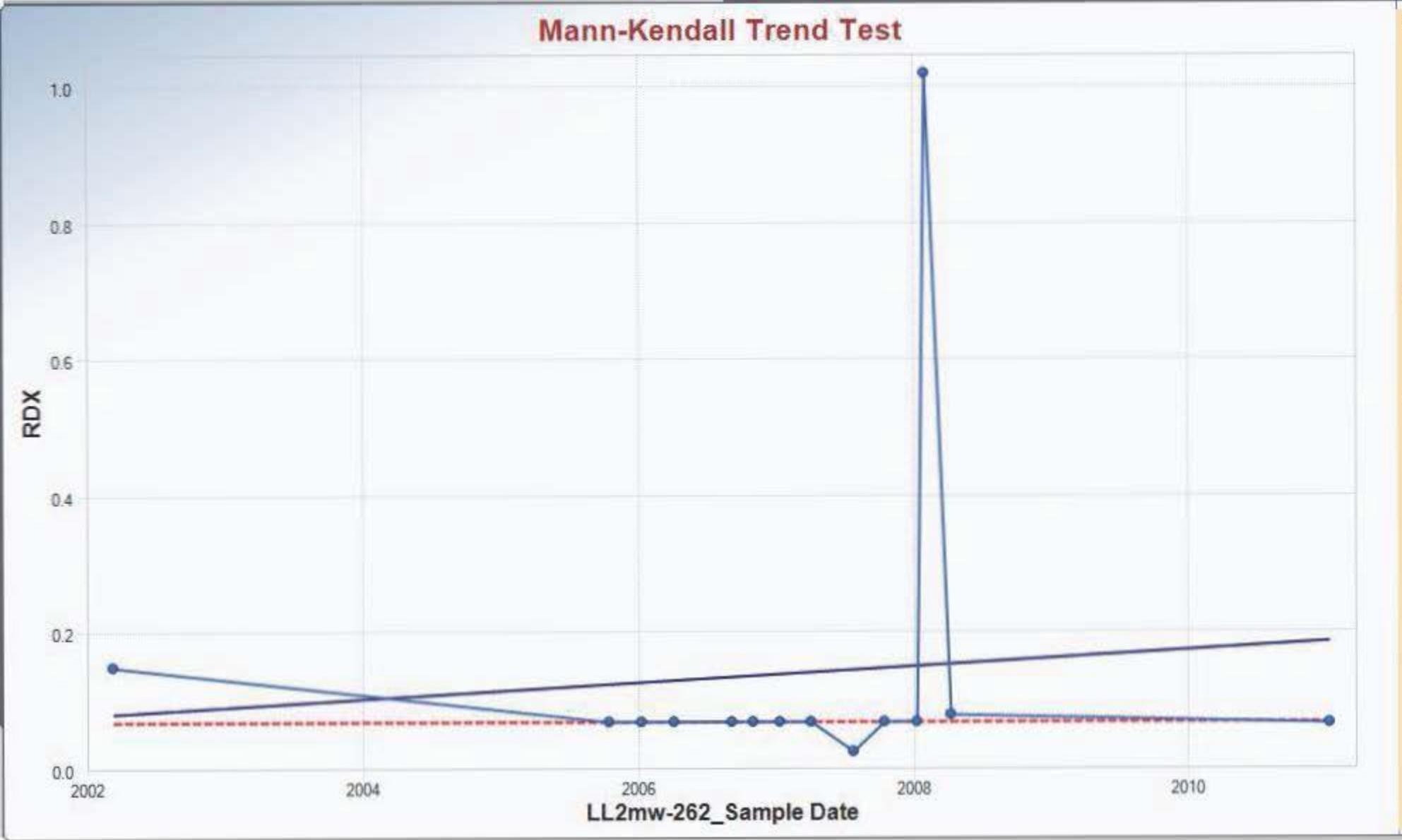
OLS Regression Line (Blue)

OLS Regression Slope	-0.0703
OLS Regression Intercept	144.2219

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	2.6550

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	14
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.3809
Standardized Value of S	-0.8547
M-K Test Value (S)	-15
Tabulated p-value	0.2250
Approximate p-value	0.1964

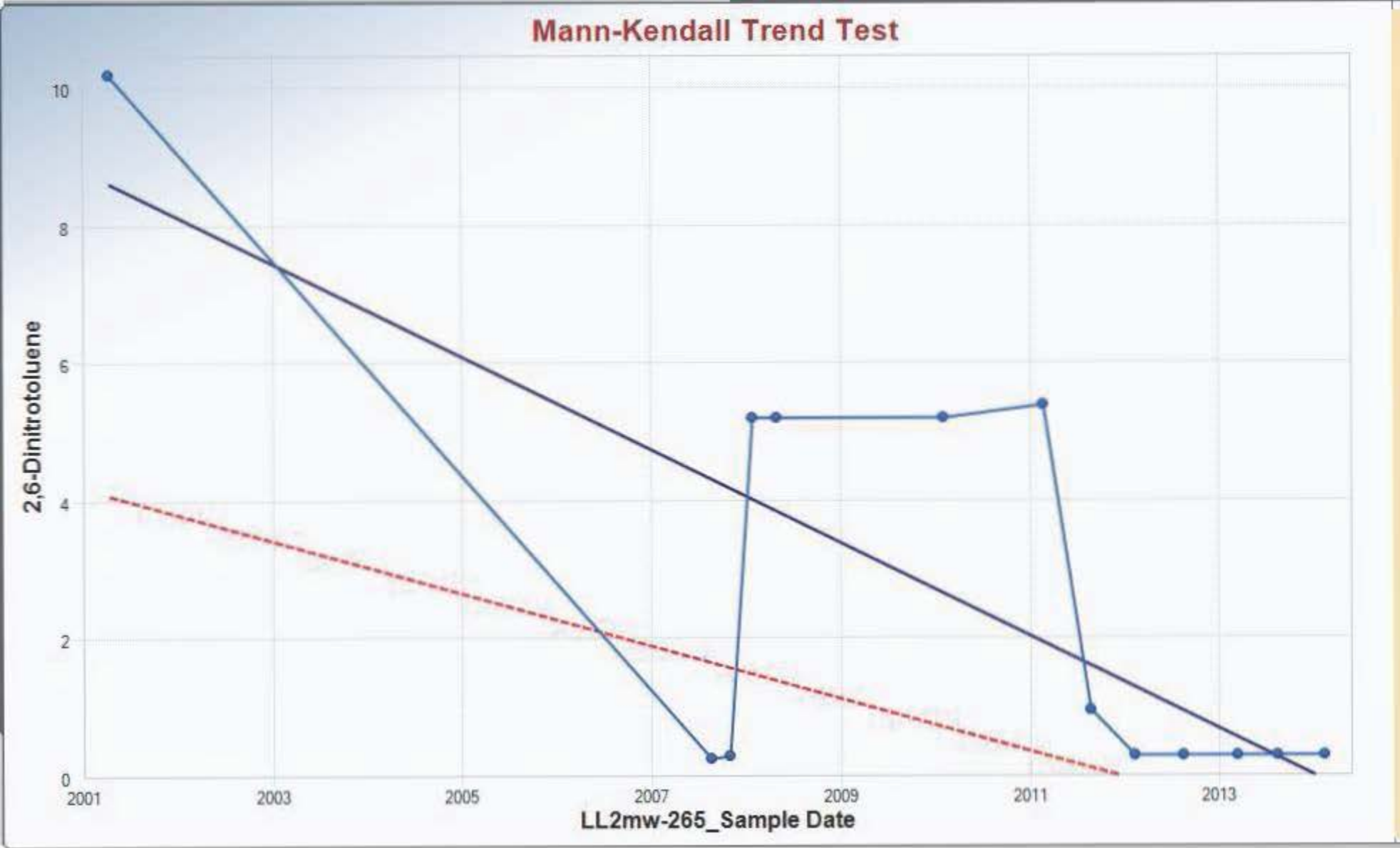
OLS Regression Line (Blue)

OLS Regression Slope	0.0120
OLS Regression Intercept	-23.8886

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.1000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	15.7586
Standardized Value of S	-1.0153
M-K Test Value (S)	-17
Tabulated p-value	0.1840
Approximate p-value	0.1550

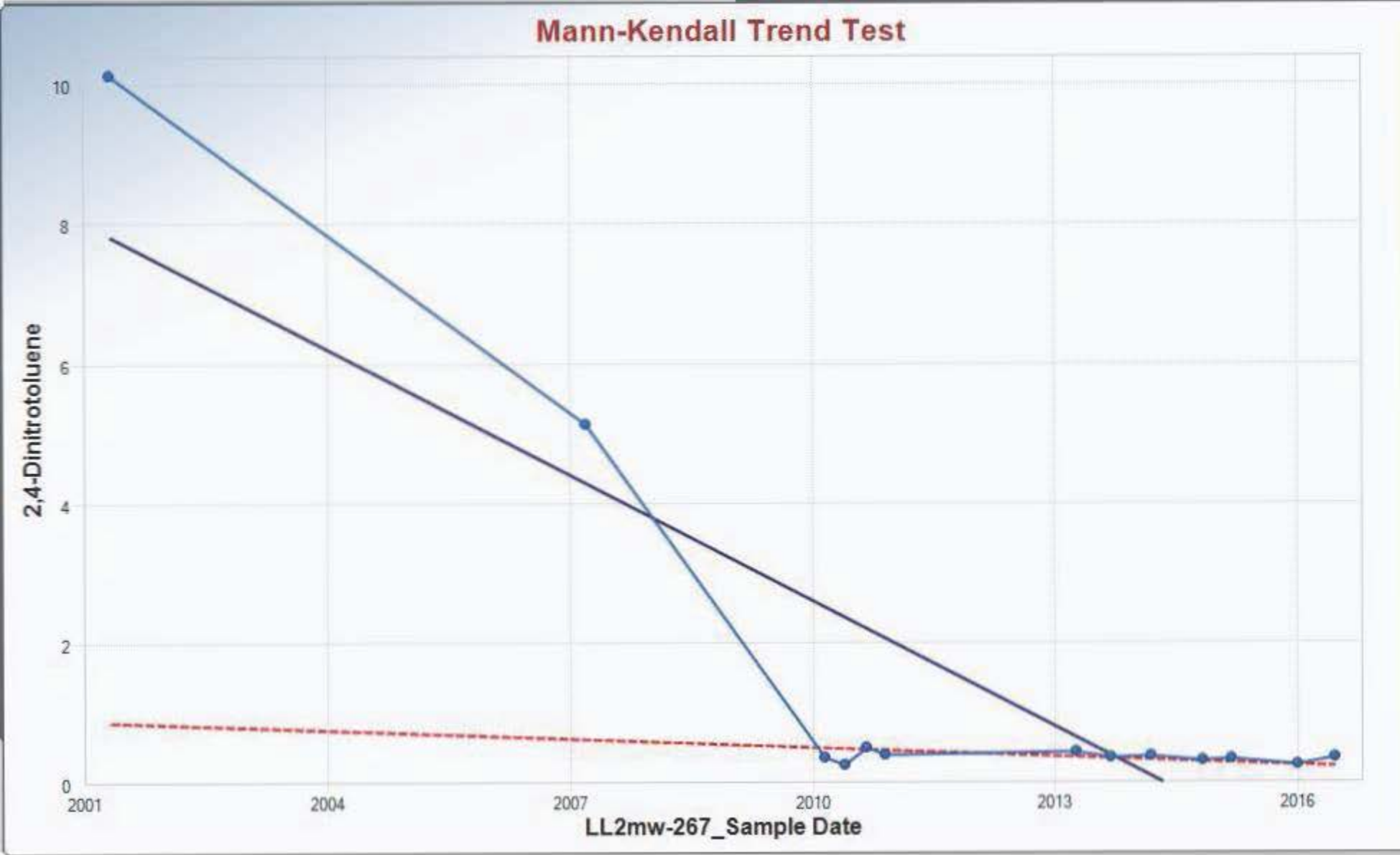
OLS Regression Line (Blue)

OLS Regression Slope	-0.6771
OLS Regression Intercept	1,363.8892

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.3845
Theil-Sen Intercept	773.5536

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.3605
Standardized Value of S	-2.2004
M-K Test Value (S)	-37
Tabulated p-value	0.0150
Approximate p-value	0.0139

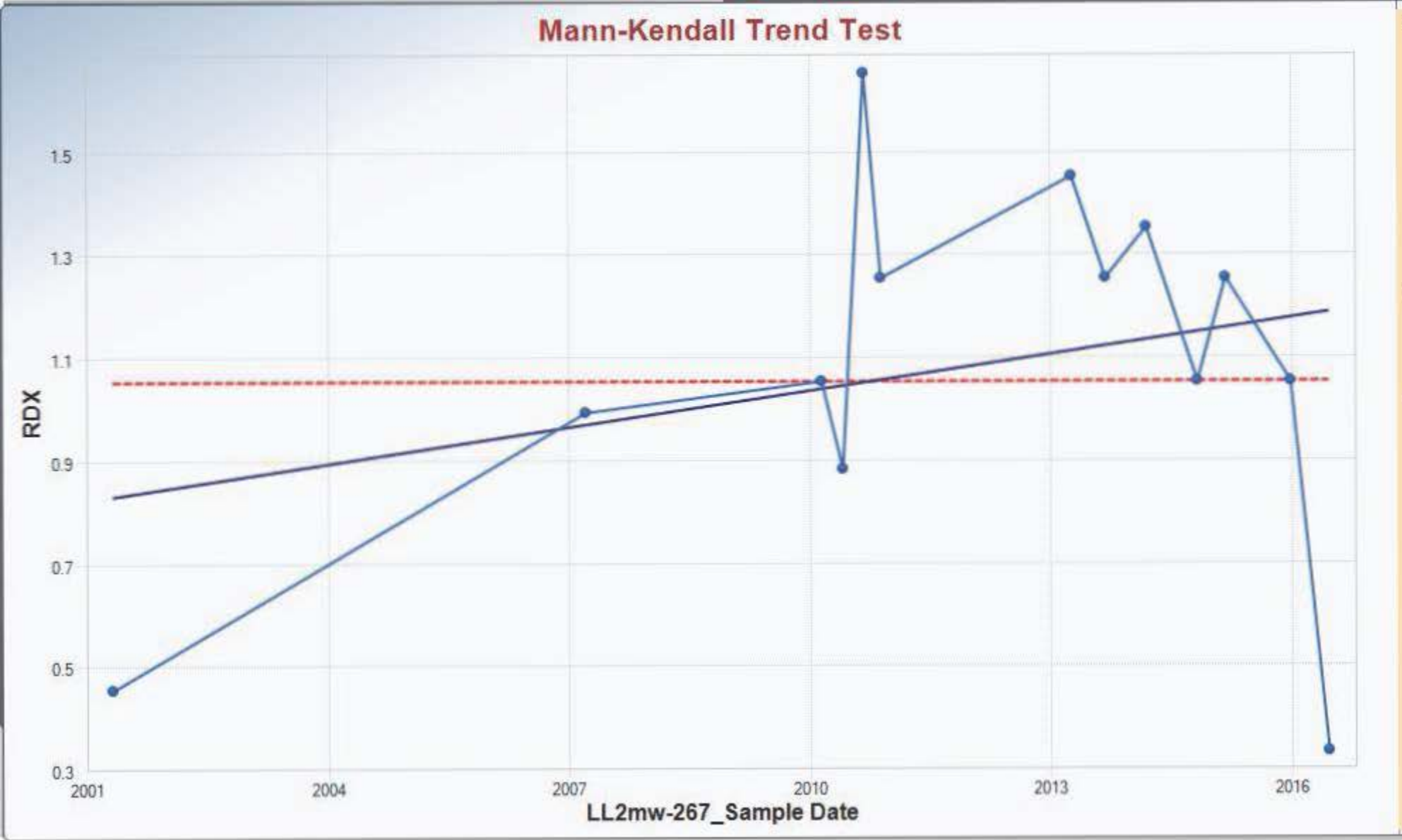
OLS Regression Line (Blue)

OLS Regression Slope	-0.6023
OLS Regression Intercept	1,213.2912

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0429
Theil-Sen Intercept	86.5865

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.1658
Standardized Value of S	0.1856
M-K Test Value (S)	4
Tabulated p-value	0.4290
Approximate p-value	0.4264

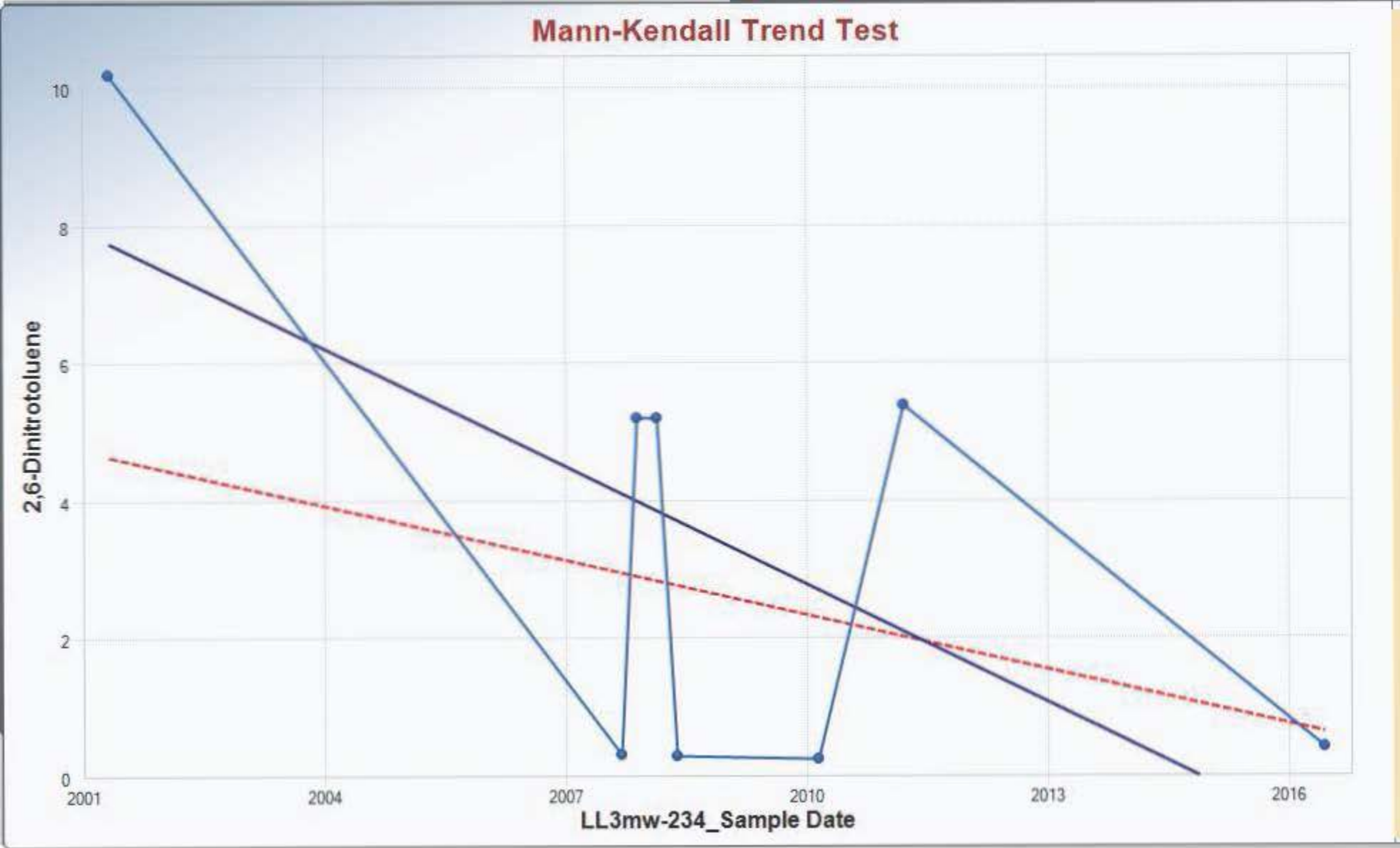
OLS Regression Line (Blue)

OLS Regression Slope	0.0236
OLS Regression Intercept	-46.2848

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	1.1000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	8
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	8.0208
Standardized Value of S	-0.7481
M-K Test Value (S)	-7
Tabulated p-value	0.2740
Approximate p-value	0.2272

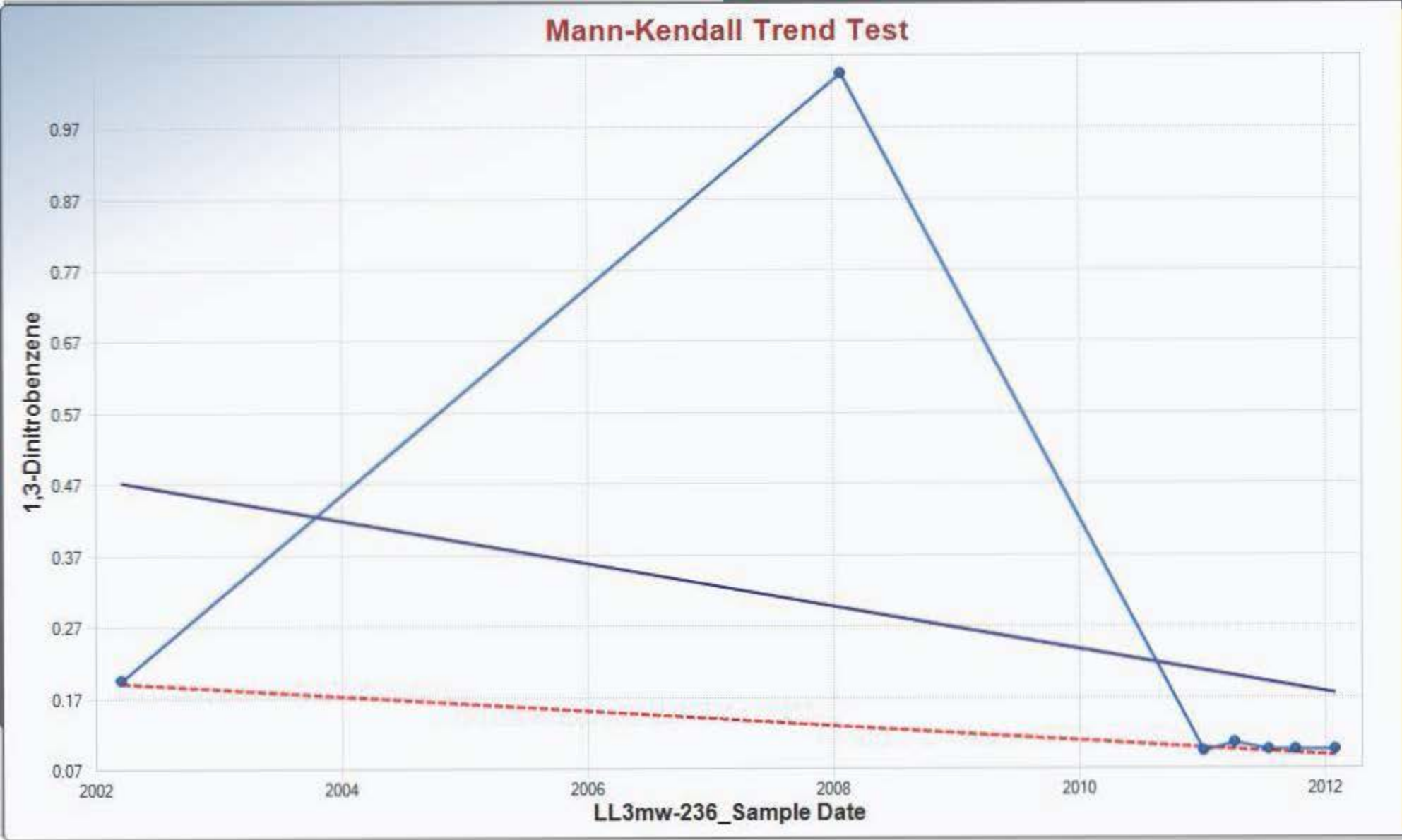
OLS Regression Line (Blue)

OLS Regression Slope	-0.5717
OLS Regression Intercept	1,151.8661

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.2644
Theil-Sen Intercept	533.7923

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.3770
Standardized Value of S	-1.0977
M-K Test Value (S)	-8
Tabulated p-value	0.1190
Approximate p-value	0.1362

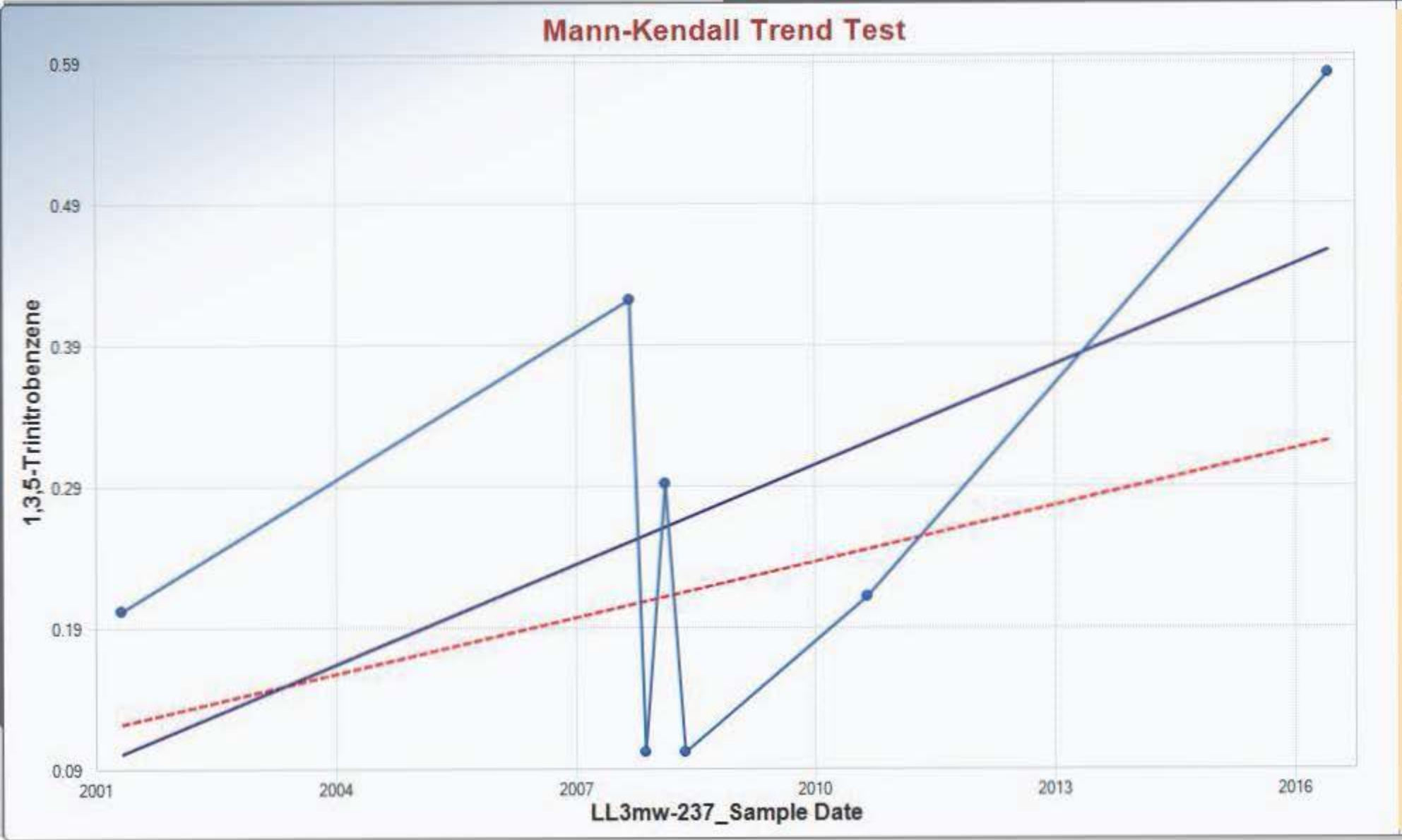
OLS Regression Line (Blue)

OLS Regression Slope	-0.0300
OLS Regression Intercept	60.5517

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0105
Theil-Sen Intercept	21.1558

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.5828
Standardized Value of S	0.4557
M-K Test Value (S)	4
Tabulated p-value	0.2810
Approximate p-value	0.3243

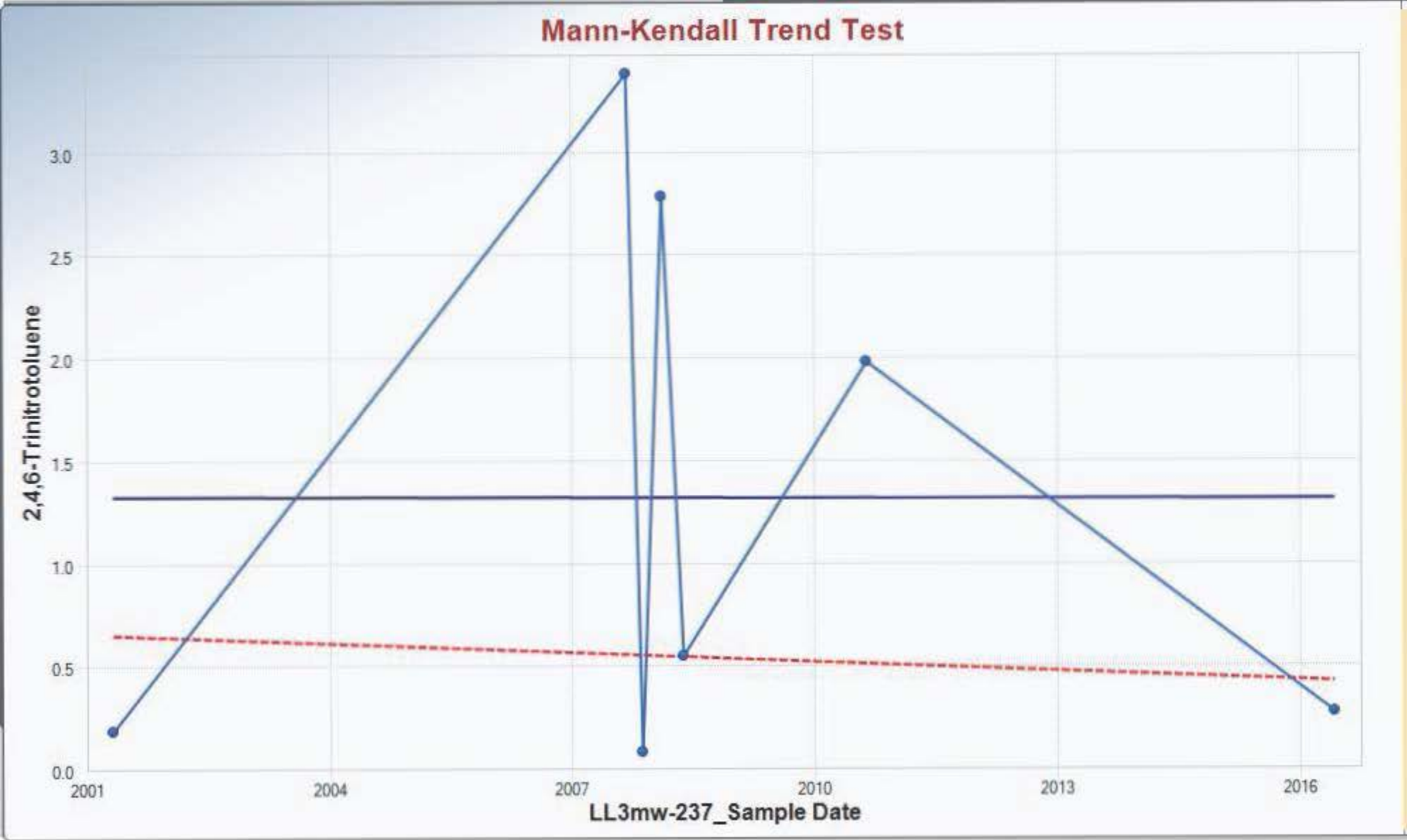
OLS Regression Line (Blue)

OLS Regression Slope	0.0235
OLS Regression Intercept	-47.0266

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0132
Theil-Sen Intercept	-26.3699

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	0.0000
M-K Test Value (S)	-1
Tabulated p-value	0.5000
Approximate p-value	0.5000

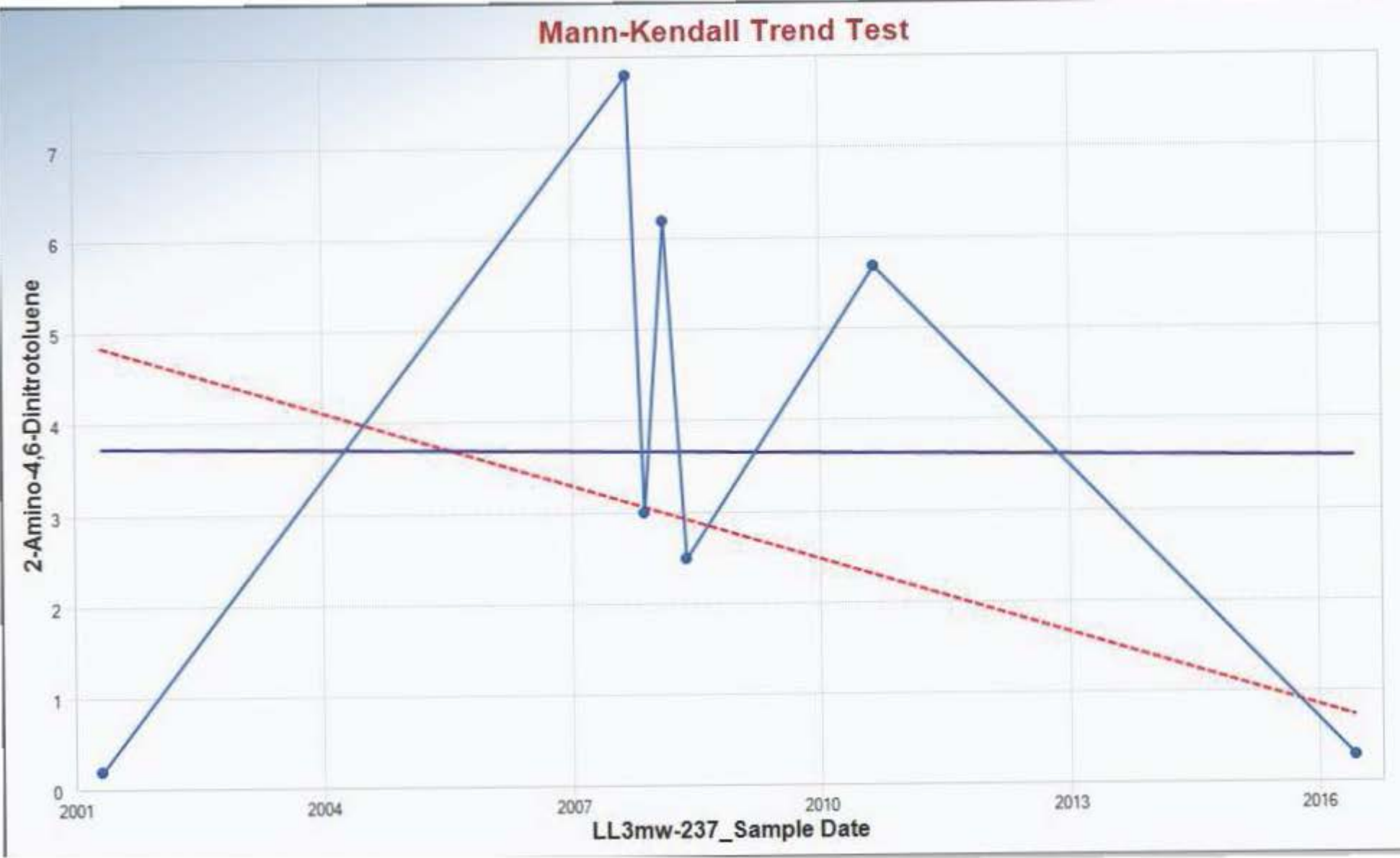
OLS Regression Line (Blue)

OLS Regression Slope	-0.0007
OLS Regression Intercept	2.6788

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0153
Theil-Sen Intercept	31.2260

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-0.3004
M-K Test Value (S)	-3
Tabulated p-value	0.3860
Approximate p-value	0.3819

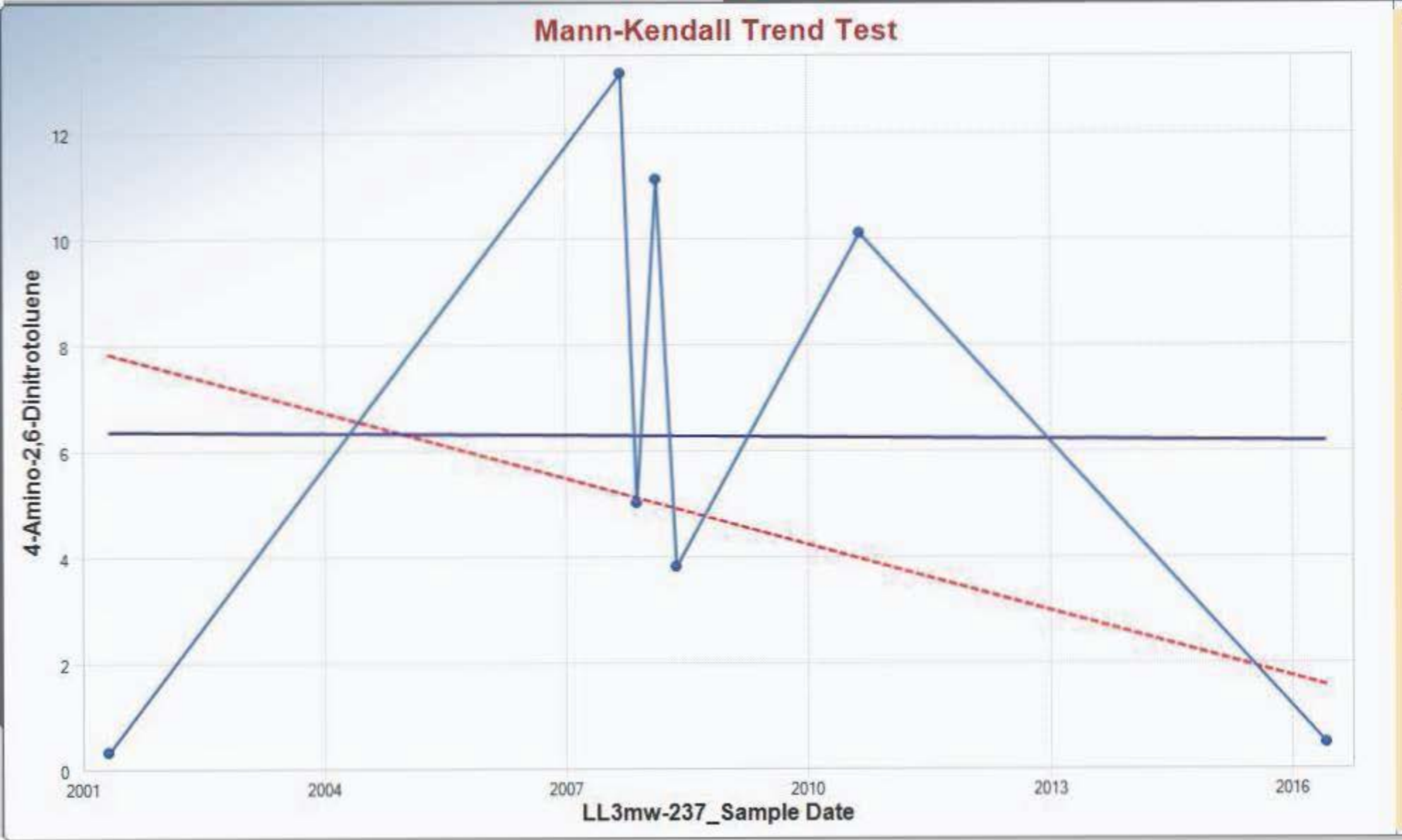
OLS Regression Line (Blue)

OLS Regression Slope	-0.0101
OLS Regression Intercept	23.9012

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.2730
Theil-Sen Intercept	551.3952

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-0.3004
M-K Test Value (S)	-3
Tabulated p-value	0.3860
Approximate p-value	0.3819

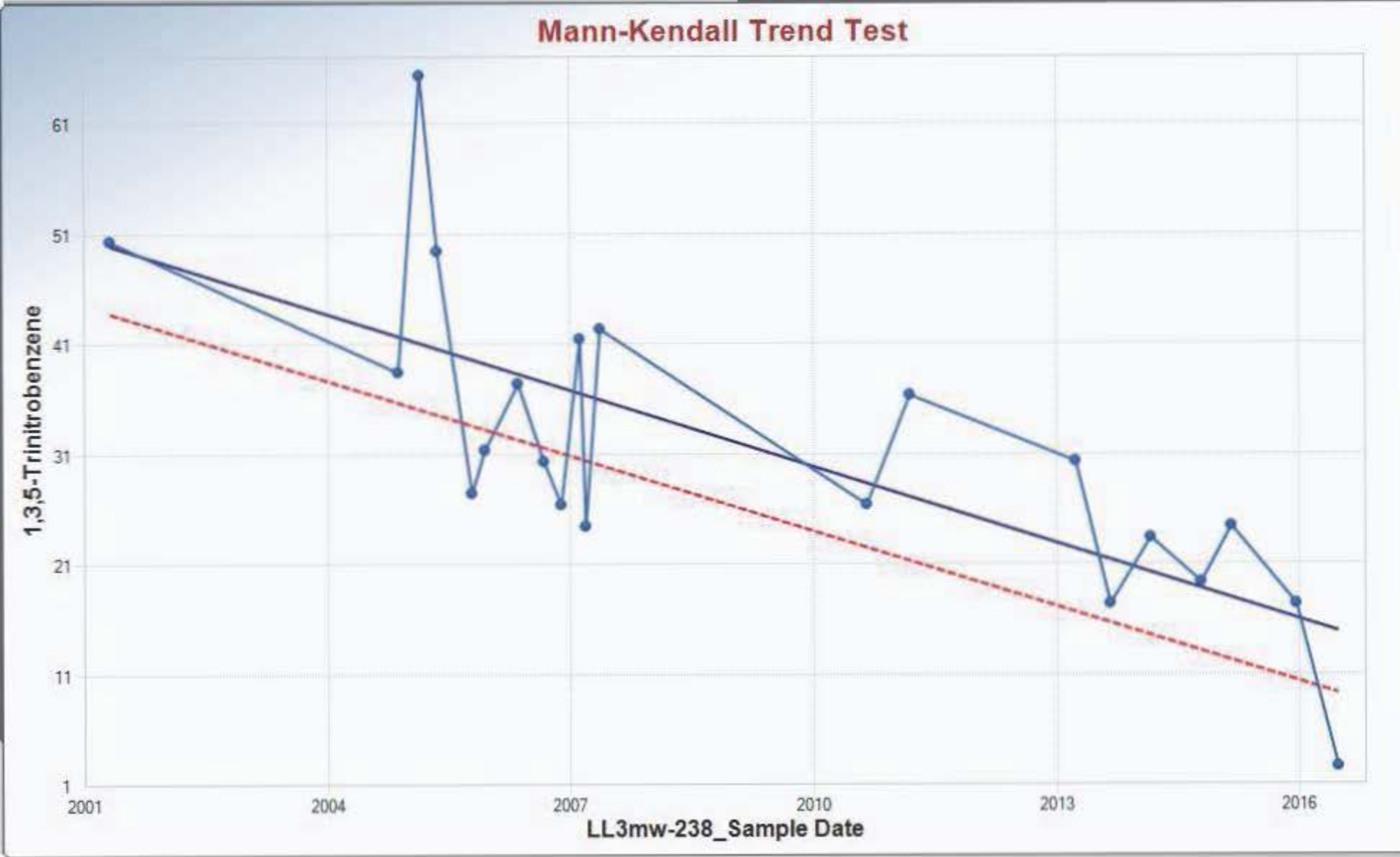
OLS Regression Line (Blue)

OLS Regression Slope	-0.0112
OLS Regression Intercept	28.6476

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.4158
Theil-Sen Intercept	839.9563

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	33.0555
Standardized Value of S	-3.9630
M-K Test Value (S)	-132
Tabulated p-value	0.0000
Approximate p-value	0.0000

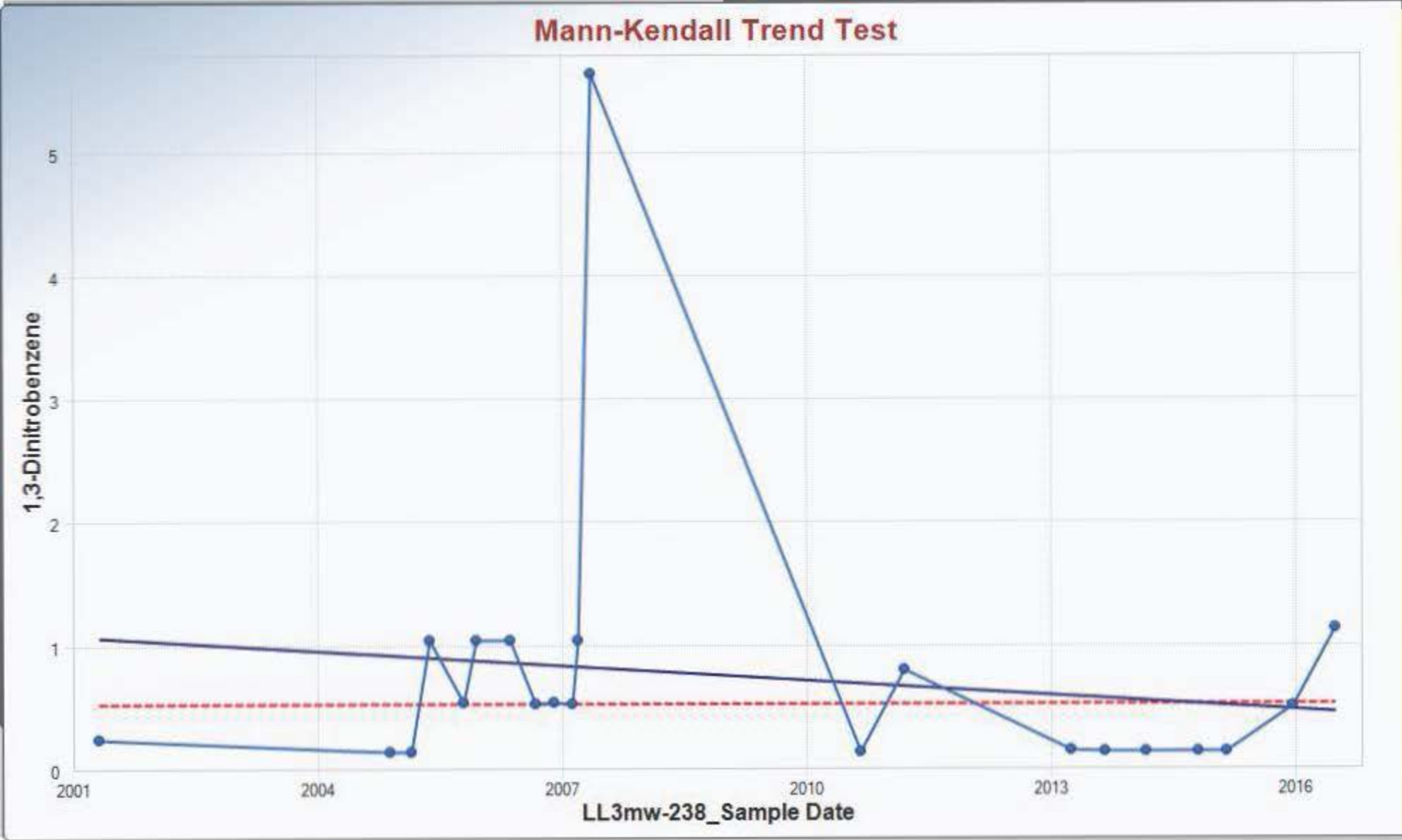
OLS Regression Line (Blue)

OLS Regression Slope	-2.3120
OLS Regression Intercept	4,677.6463

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-2.2766
Theil-Sen Intercept	4,600.5484

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	32.2749
Standardized Value of S	-0.5577
M-K Test Value (S)	-19
Tabulated p-value	0.3060
Approximate p-value	0.2885

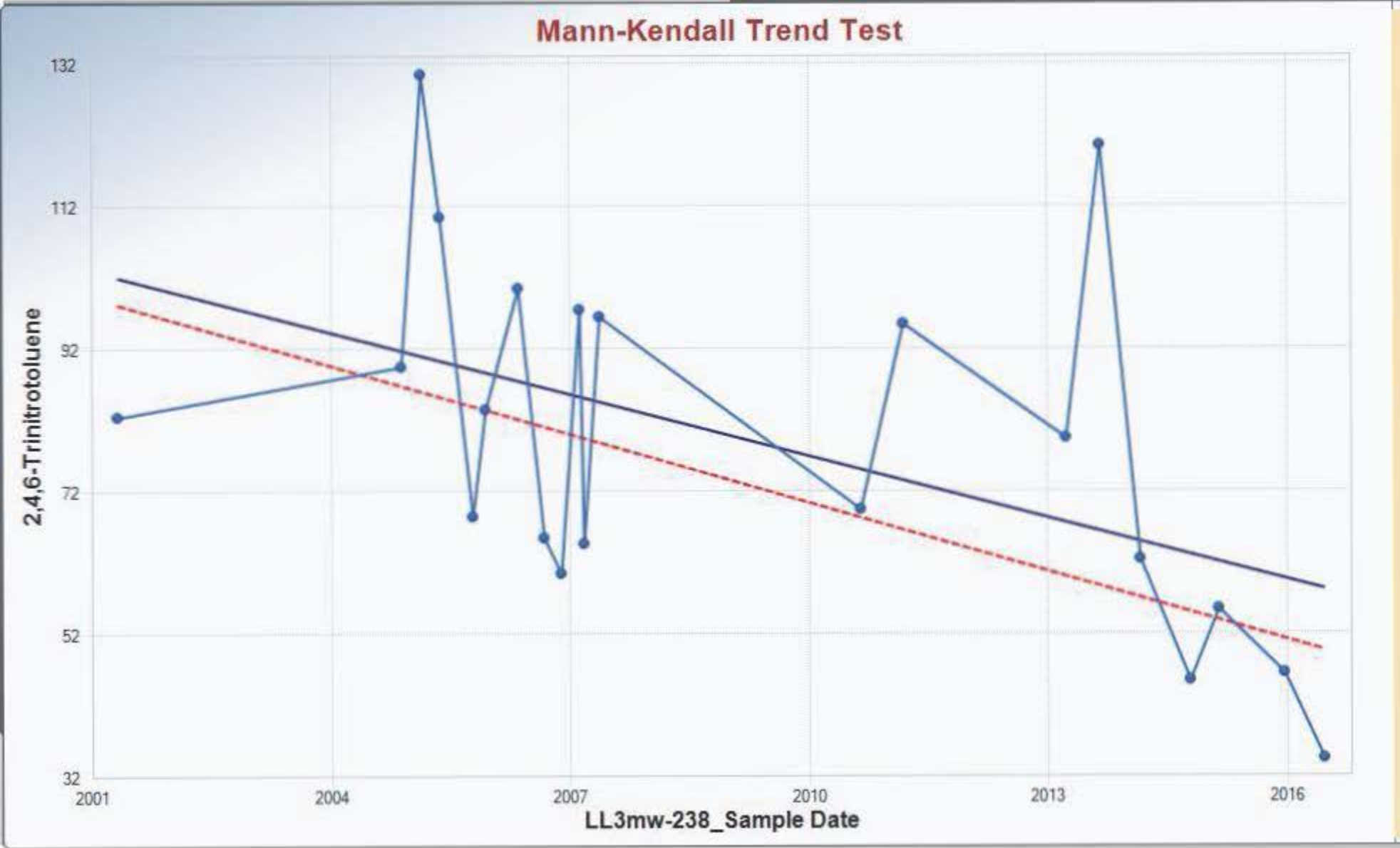
OLS Regression Line (Blue)

OLS Regression Slope	-0.0398
OLS Regression Intercept	80.7490

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.4900

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	33.1160
Standardized Value of S	-2.7479
M-K Test Value (S)	-92
Tabulated p-value	0.0020
Approximate p-value	0.0030

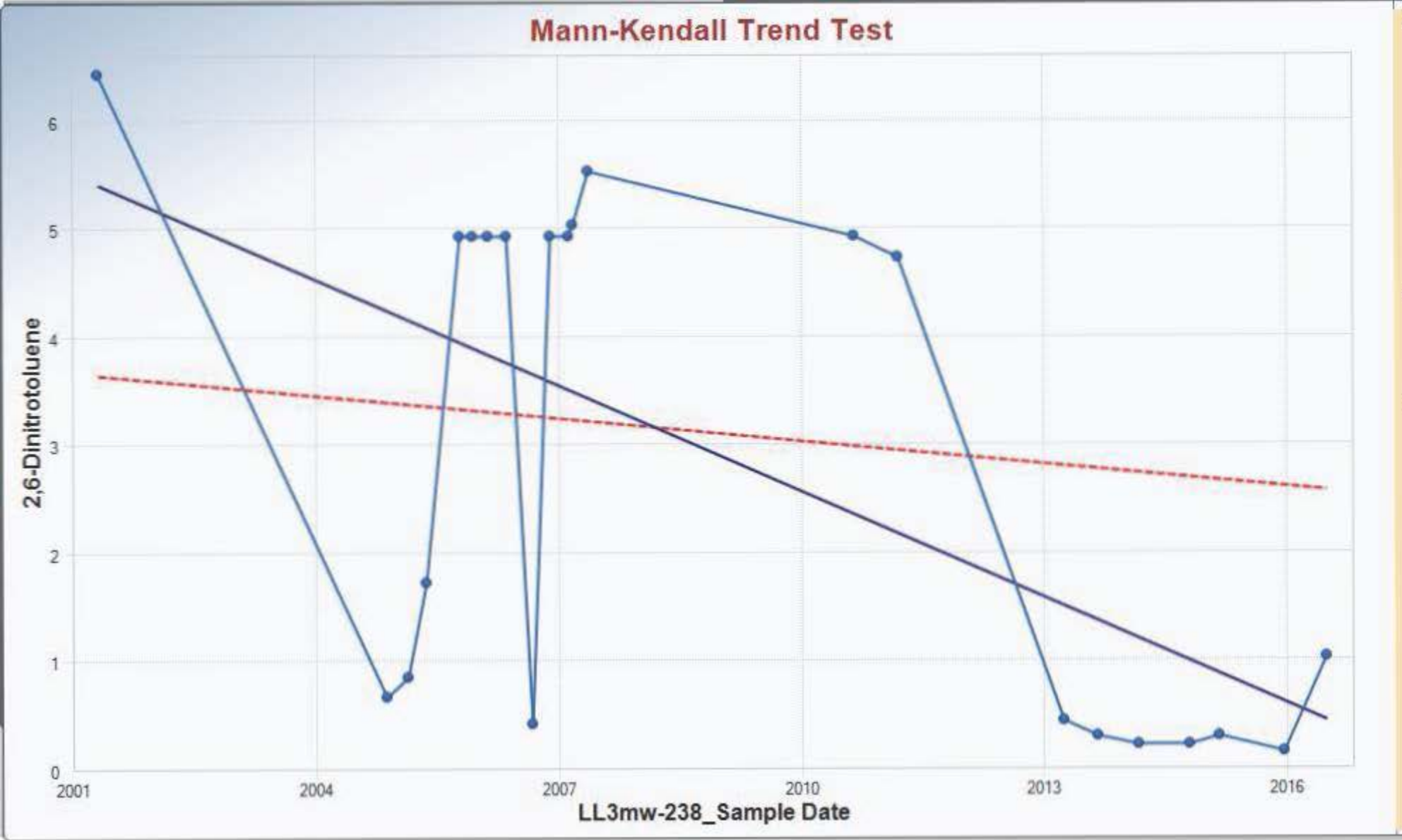
OLS Regression Line (Blue)

OLS Regression Slope	-2.9005
OLS Regression Intercept	5,907.7057

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-3.2137
Theil-Sen Intercept	6,530.8206

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	34.8329
Standardized Value of S	-2.2680
M-K Test Value (S)	-80
Tabulated p-value	0.0110
Approximate p-value	0.0117

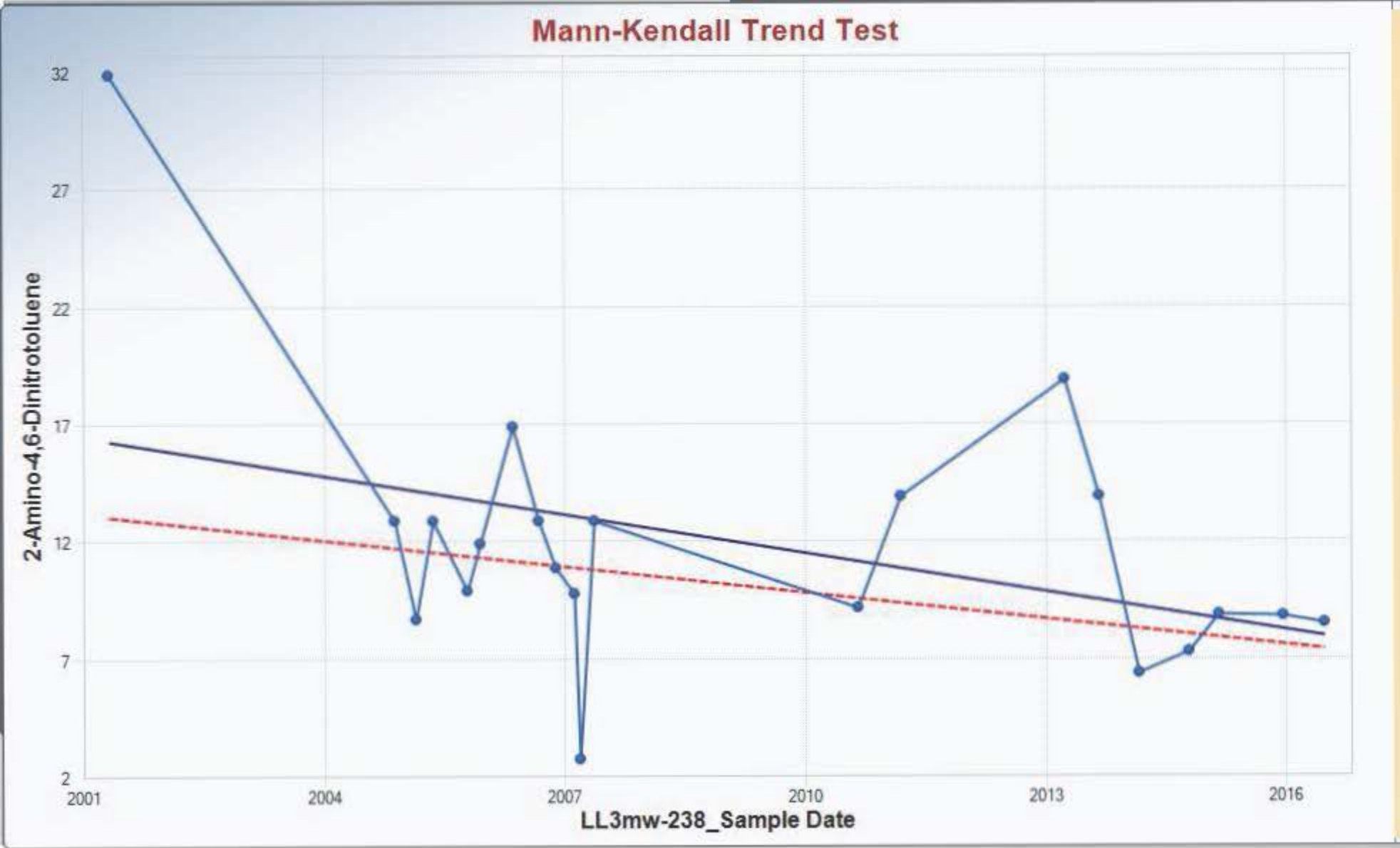
OLS Regression Line (Blue)

OLS Regression Slope	-0.3274
OLS Regression Intercept	660.7584

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0706
Theil-Sen Intercept	144.9890

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	32.9697
Standardized Value of S	-1.7592
M-K Test Value (S)	-59
Tabulated p-value	0.0430
Approximate p-value	0.0393

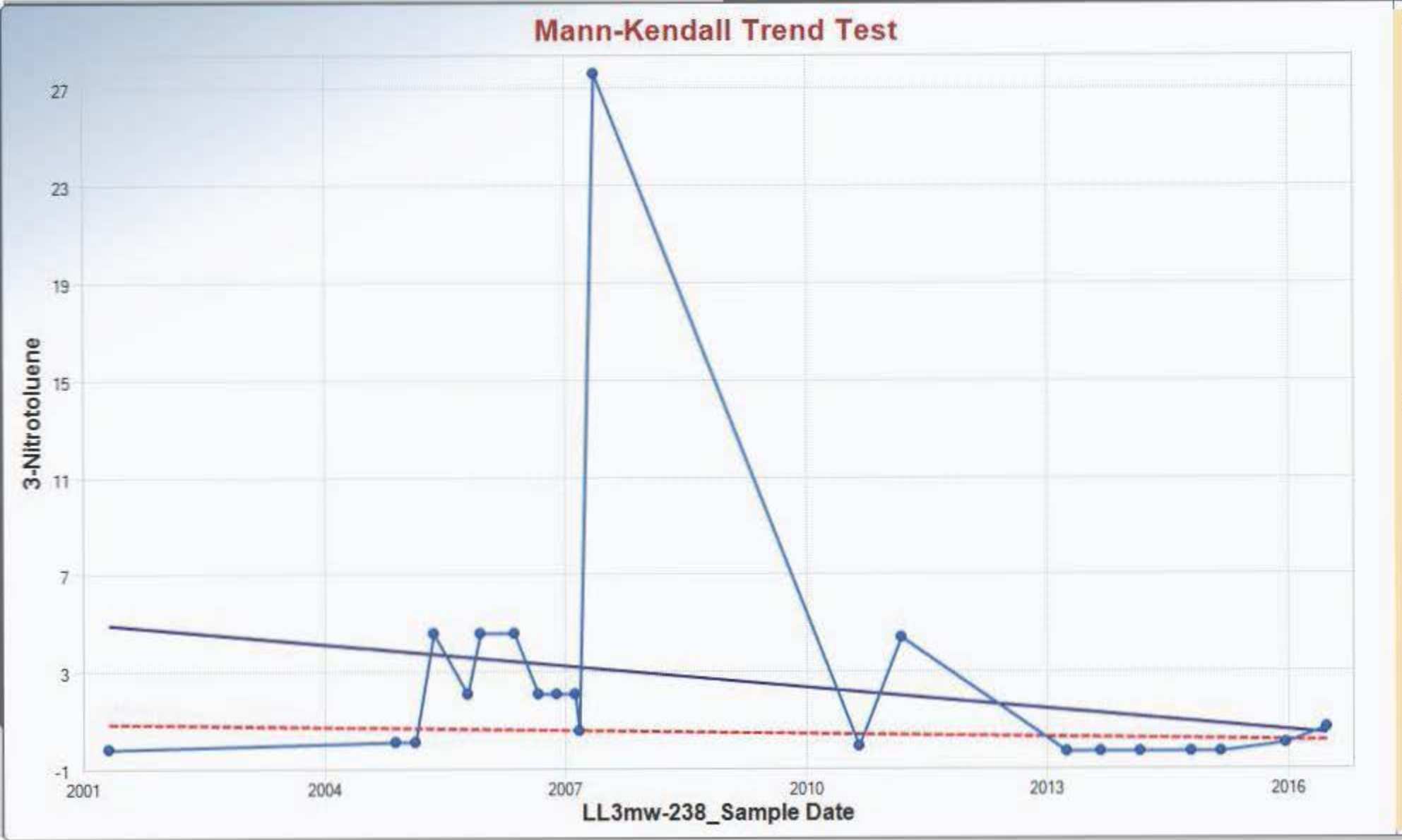
OLS Regression Line (Blue)

OLS Regression Slope	-0.5497
OLS Regression Intercept	1,116.8207

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.3747
Theil-Sen Intercept	763.2513

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	32.8583
Standardized Value of S	-1.7043
M-K Test Value (S)	-57
Tabulated p-value	0.0490
Approximate p-value	0.0442

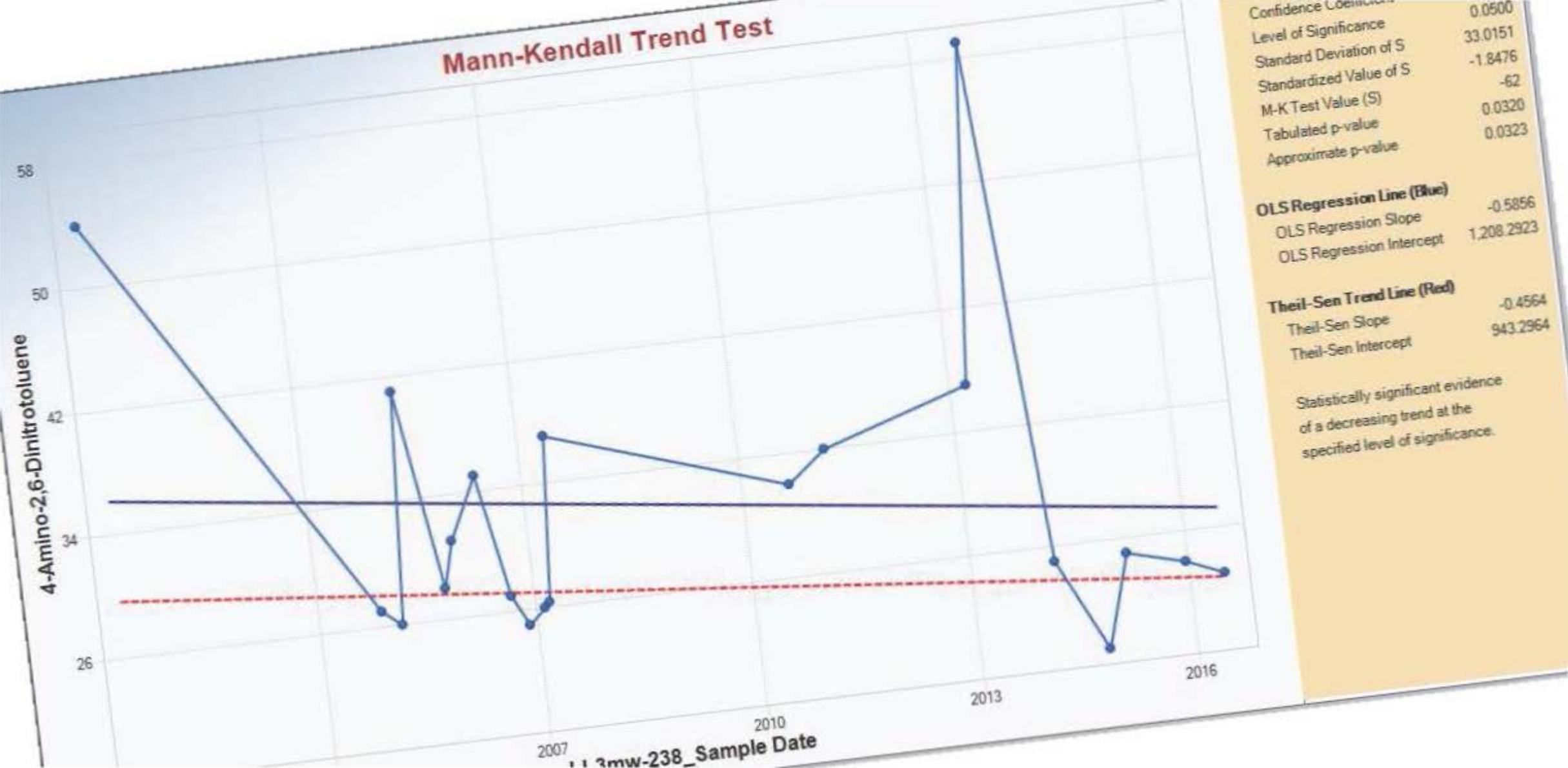
OLS Regression Line (Blue)

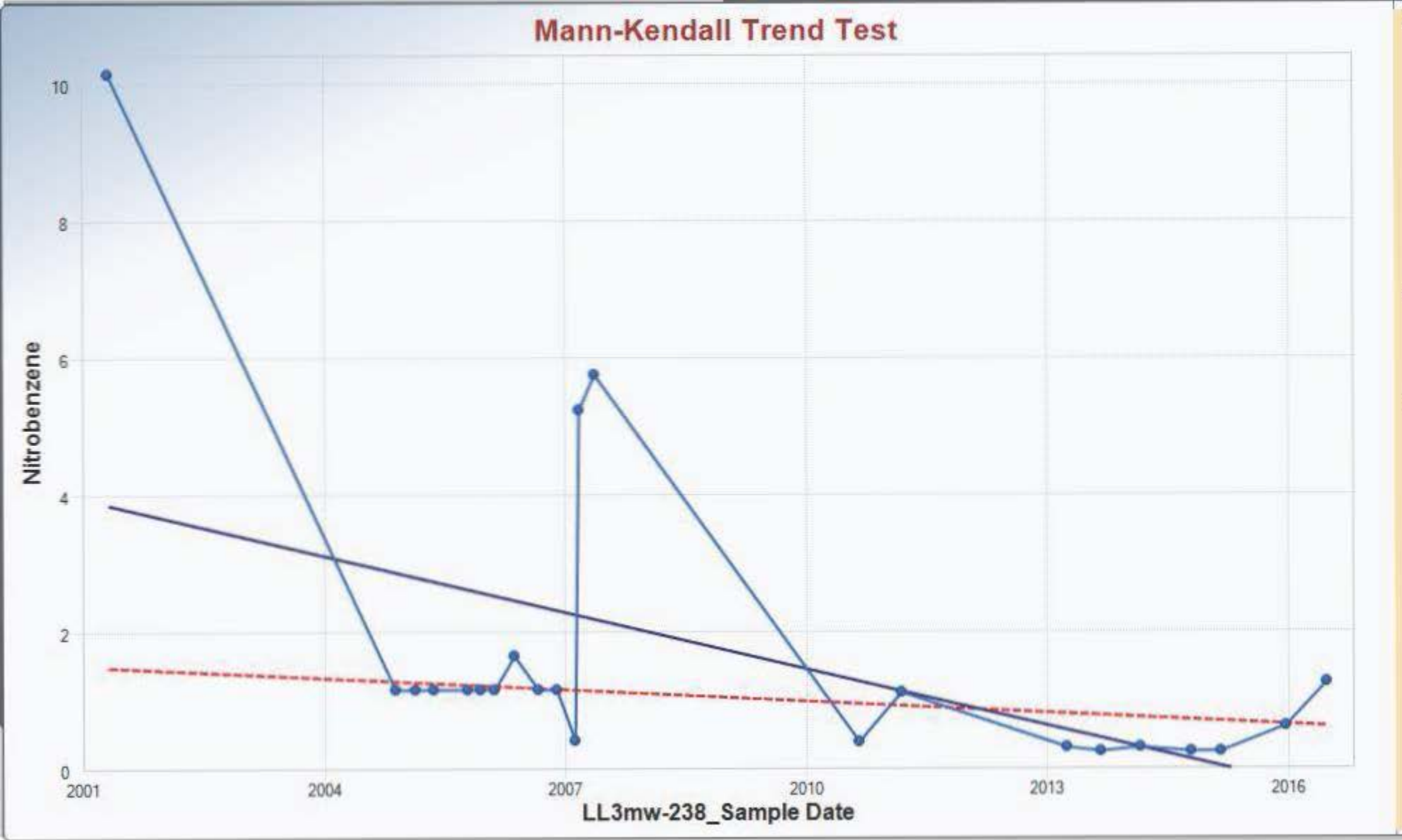
OLS Regression Slope	-0.2937
OLS Regression Intercept	593.2337

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0461
Theil-Sen Intercept	93.6080

Statistically significant evidence of a decreasing trend at the specified level of significance.


Mann-Kendall Trend Test
4-Amino-2,6-Dinitrotoluene
58
50
42
34
26
2007
2010
2013
2016
Confidence Coefficient 0.0500
Level of Significance
Standard Deviation of S 33.0151
Standardized Value of S -1.8476
M-K Test Value (S) -62
Tabulated p-value 0.0320
Approximate p-value 0.0323
OLS Regression Line (Blue)
OLS Regression Slope -0.5856
OLS Regression Intercept 1,208.2923
Theil-Sen Trend Line (Red)
Theil-Sen Slope -0.4564
Theil-Sen Intercept 943.2964
Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	34.5157
Standardized Value of S	-2.6365
M-K Test Value (S)	-92
Tabulated p-value	0.0040
Approximate p-value	0.0042

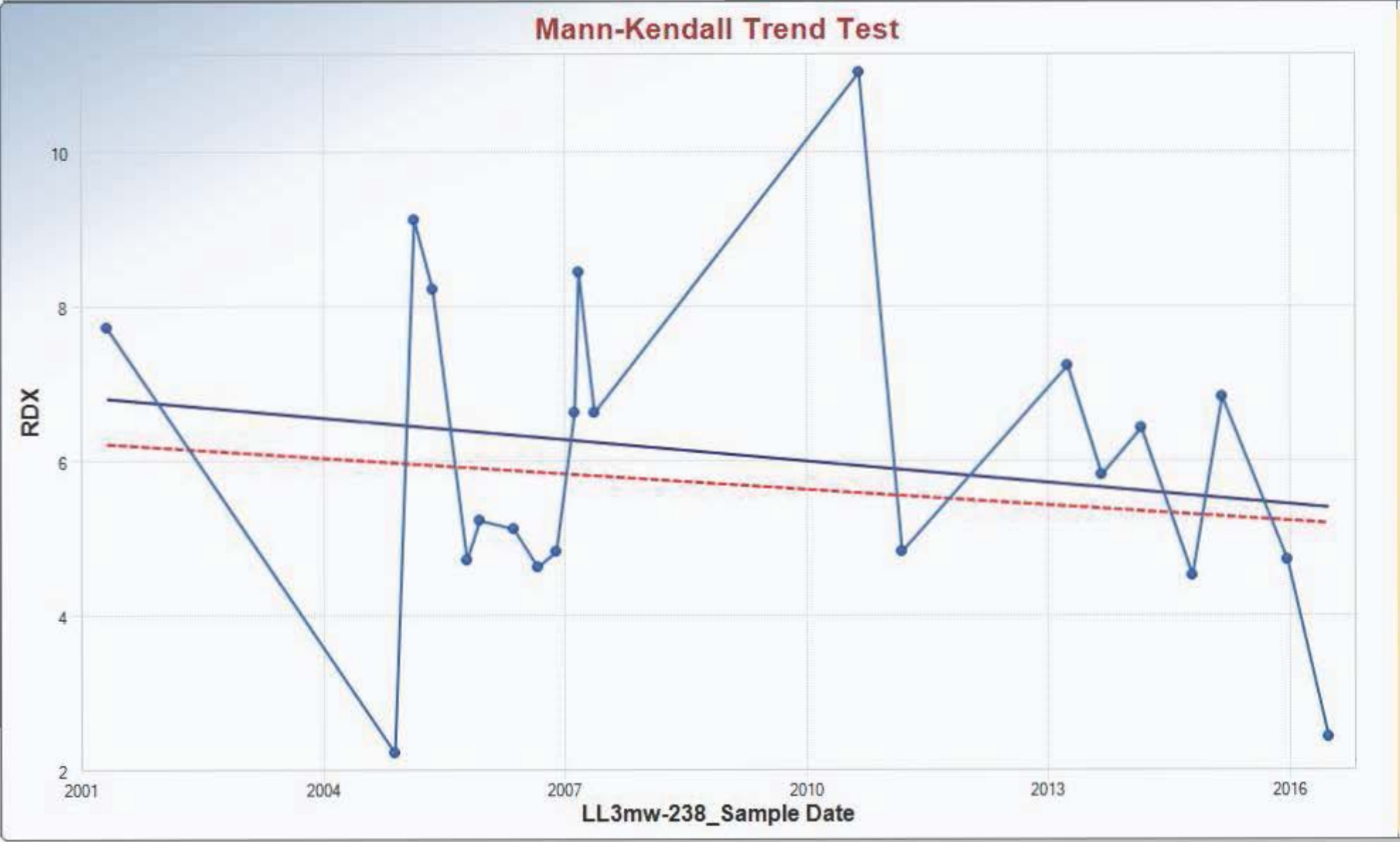
OLS Regression Line (Blue)

OLS Regression Slope	-0.2773
OLS Regression Intercept	558.7063

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0570
Theil-Sen Intercept	115.4682

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	33.0706
Standardized Value of S	-0.7862
M-K Test Value (S)	-27
Tabulated p-value	0.2280
Approximate p-value	0.2159

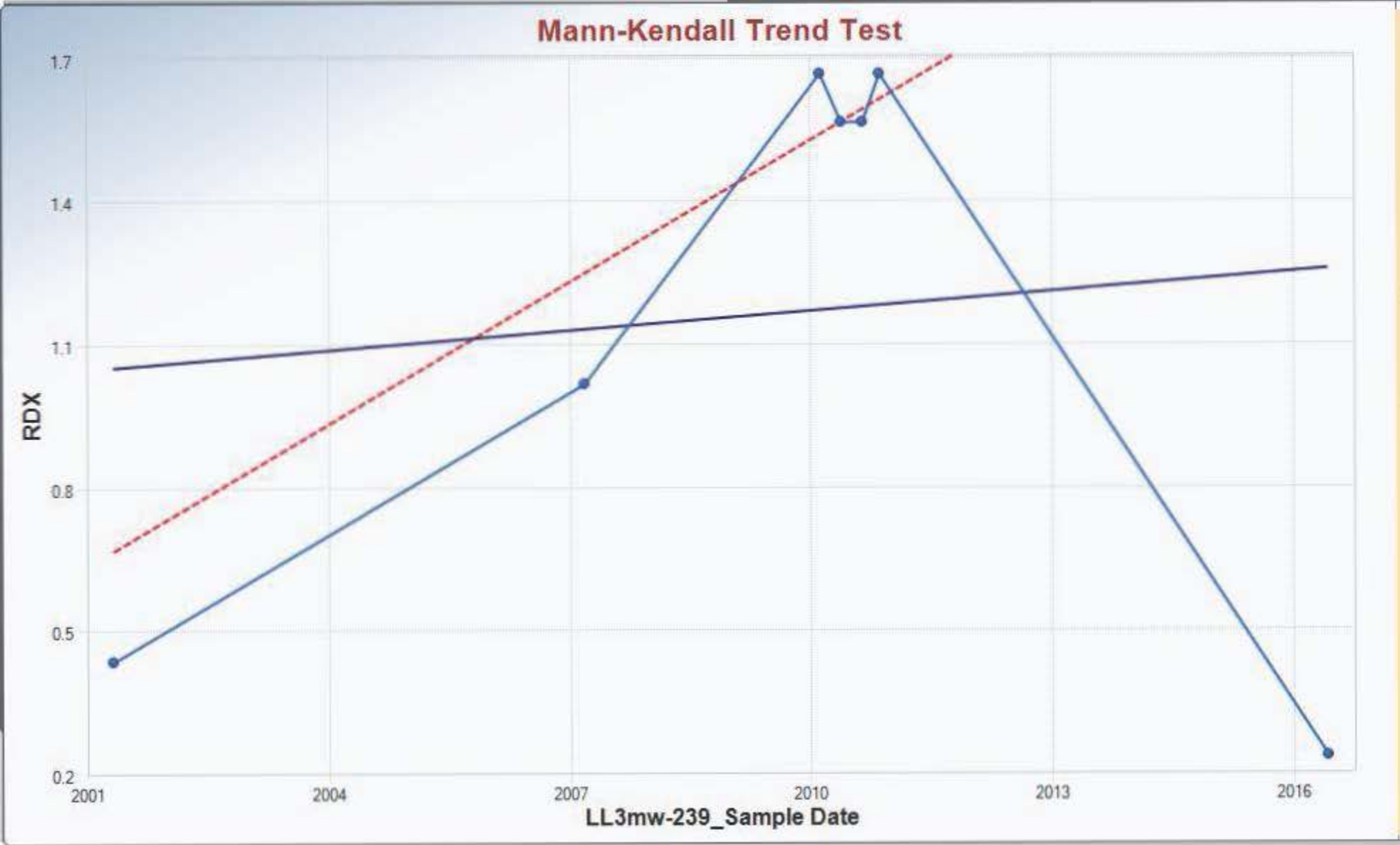
OLS Regression Line (Blue)

OLS Regression Slope	-0.0935
OLS Regression Intercept	193.9718

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0681
Theil-Sen Intercept	142.4981

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.5064
Standardized Value of S	0.3074
M-K Test Value (S)	3
Tabulated p-value	0.3860
Approximate p-value	0.3793

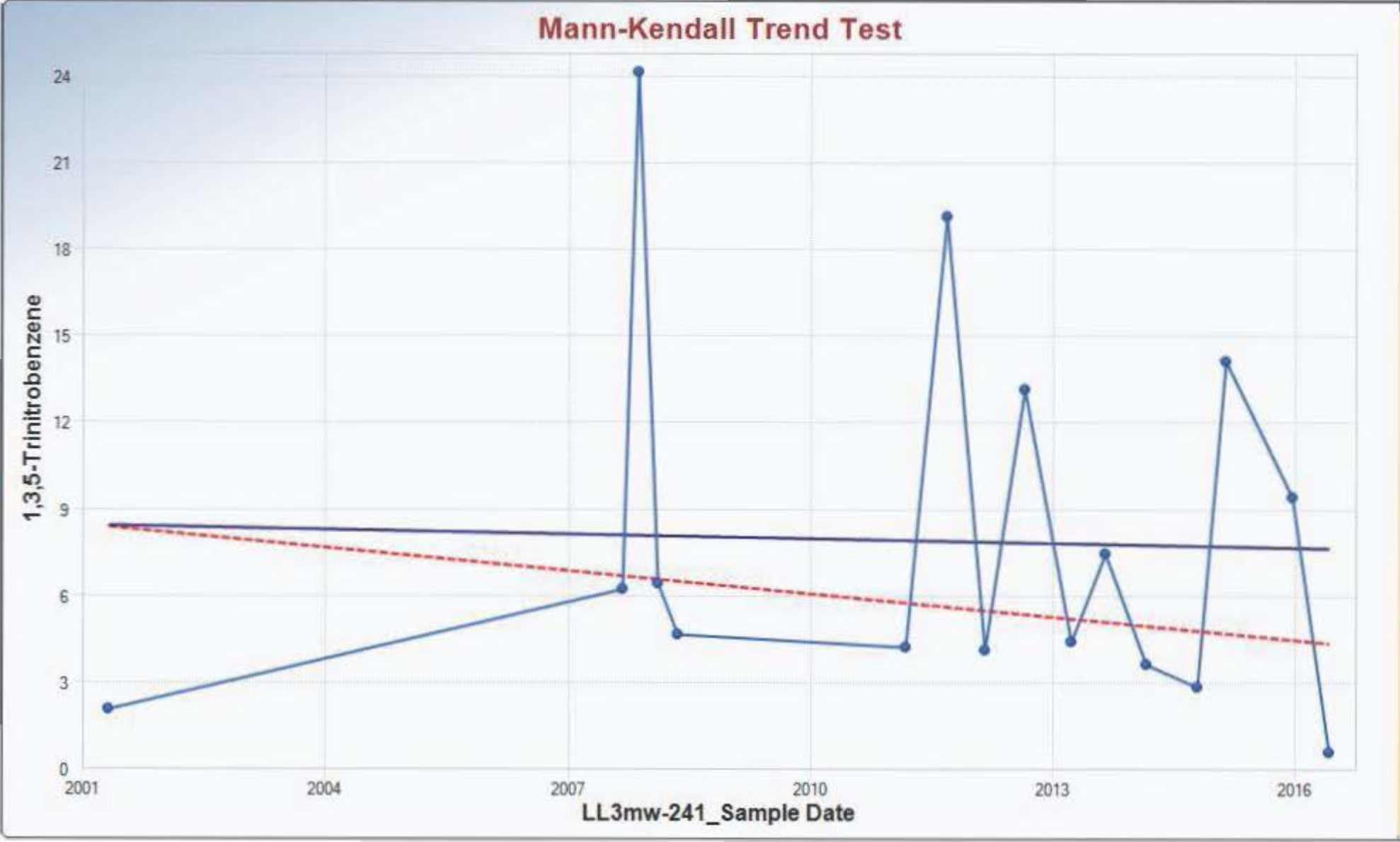
OLS Regression Line (Blue)

OLS Regression Slope	0.0136
OLS Regression Intercept	-26.0499

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0989
Theil-Sen Intercept	-197.3551

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	22.2111
Standardized Value of S	-0.6753
M-K Test Value (S)	-16
Tabulated p-value	0.2530
Approximate p-value	0.2497

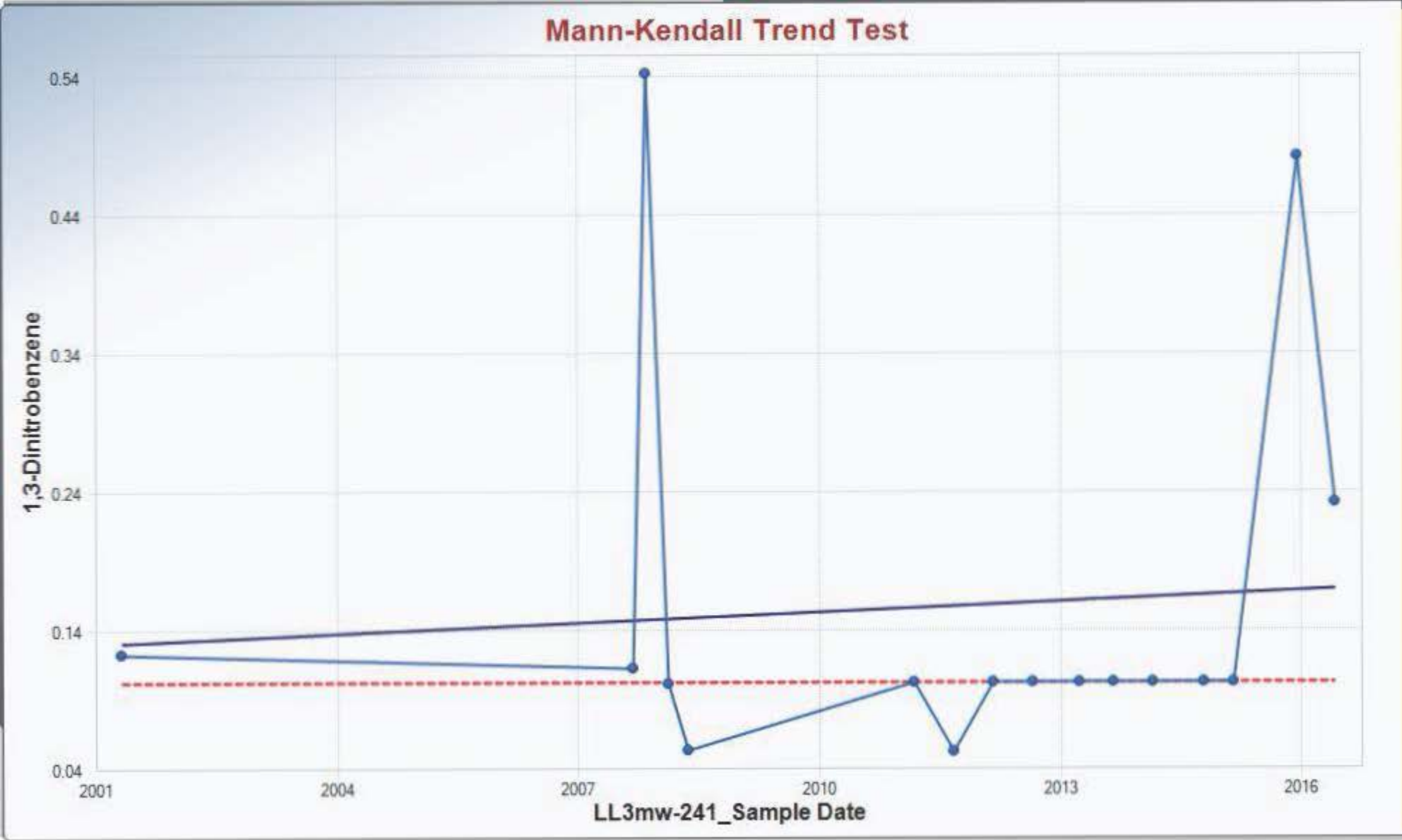
OLS Regression Line (Blue)

OLS Regression Slope	-0.0520
OLS Regression Intercept	112.3649

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.2654
Theil-Sen Intercept	539.4526

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	20.6882
Standardized Value of S	0.4350
M-K Test Value (S)	10
Tabulated p-value	0.3450
Approximate p-value	0.3318

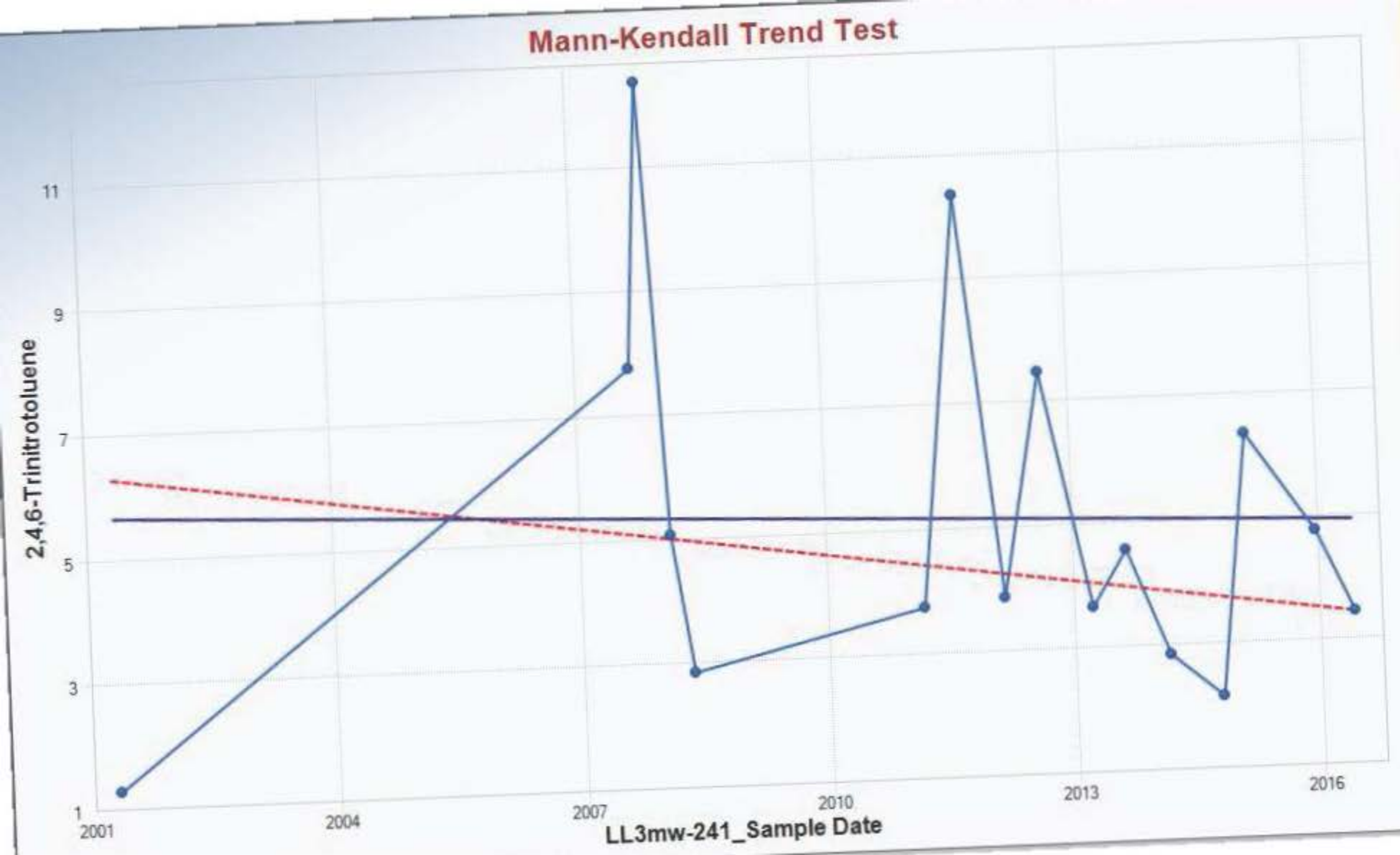
OLS Regression Line (Blue)

OLS Regression Slope	0.0026
OLS Regression Intercept	-5.1036

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.1000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	22.1886
Standardized Value of S	-0.8112
M-K Test Value (S)	-19
Tabulated p-value	0.2250
Approximate p-value	0.2086

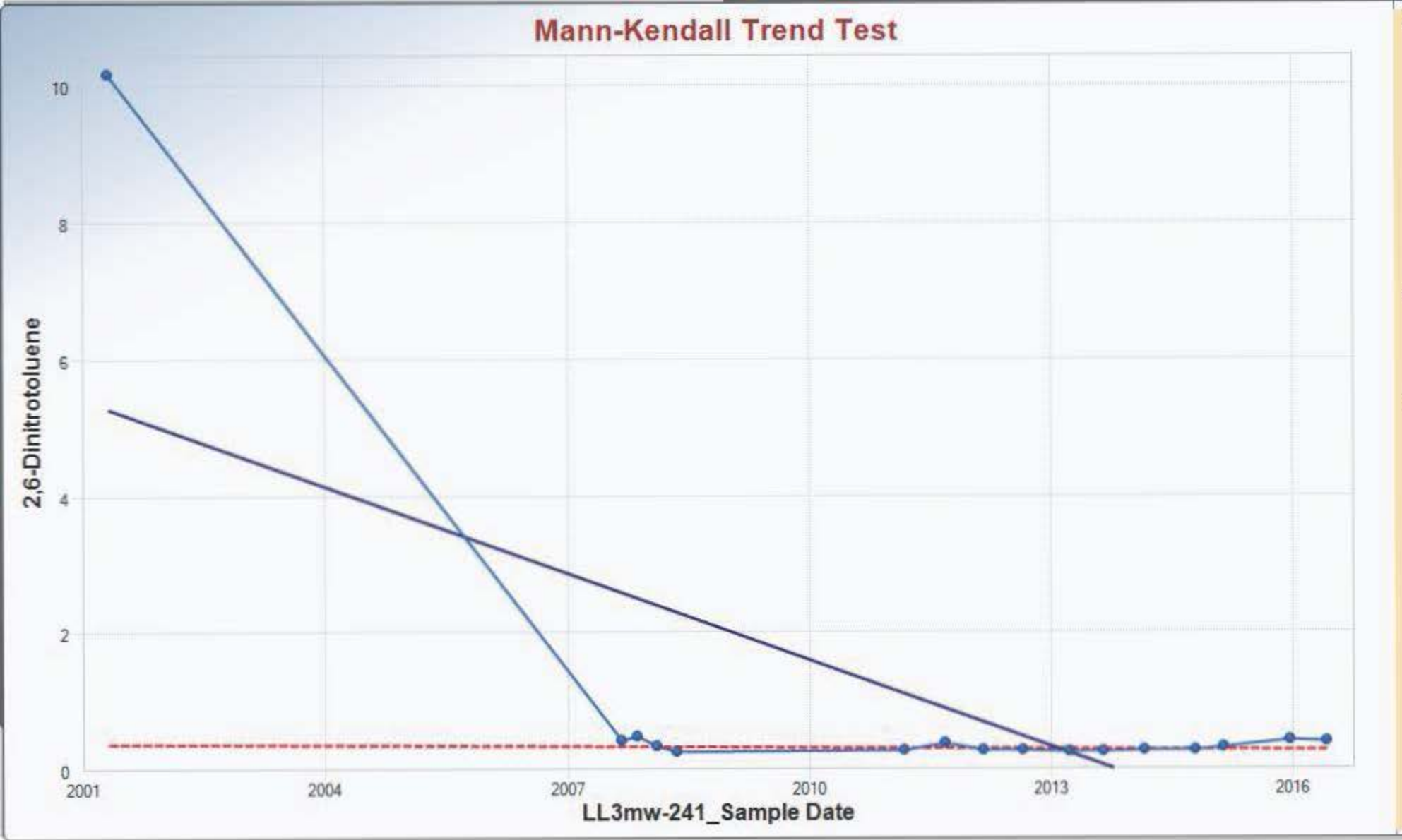
OLS Regression Line (Blue)

OLS Regression Slope	-0.0485
OLS Regression Intercept	102.3015

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.1871
Theil-Sen Intercept	380.4473

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	21.9924
Standardized Value of S	-0.7275
M-K Test Value (S)	-17
Tabulated p-value	0.2530
Approximate p-value	0.2335

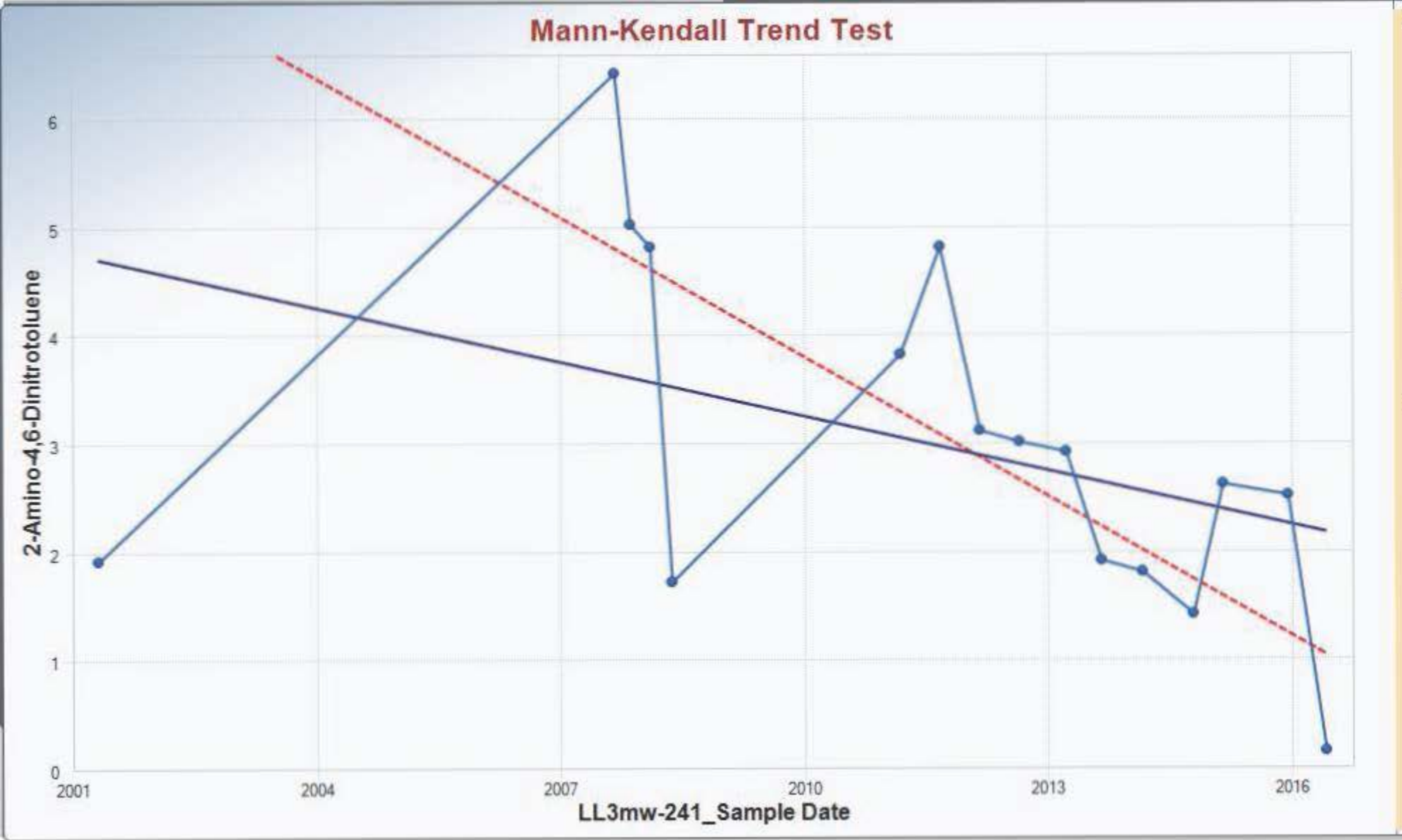
OLS Regression Line (Blue)

OLS Regression Slope	-0.4254
OLS Regression Intercept	856.6368

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0069
Theil-Sen Intercept	14.1088

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	22.1660
Standardized Value of S	-2.9324
M-K Test Value (S)	-66
Tabulated p-value	0.0010
Approximate p-value	0.0017

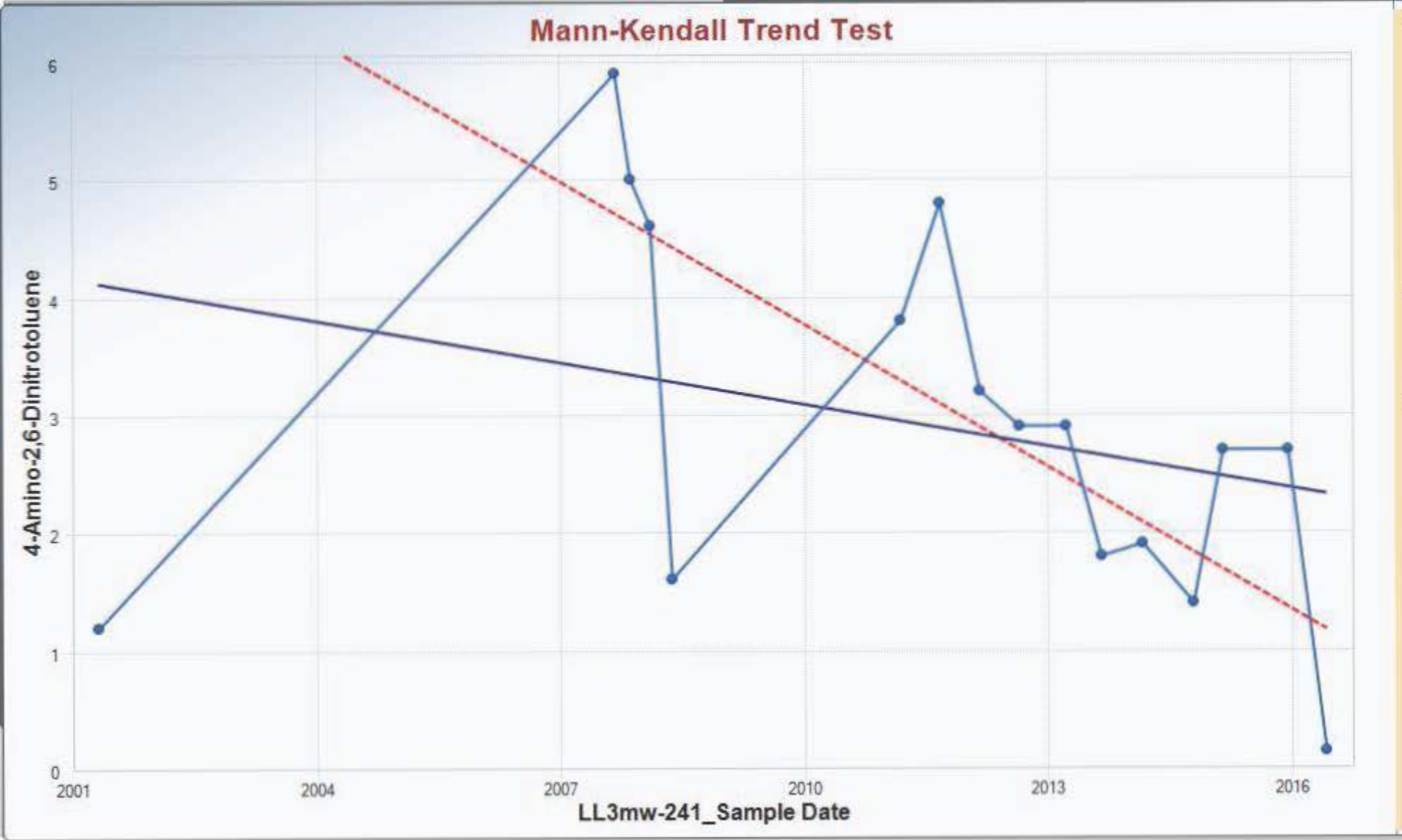
OLS Regression Line (Blue)

OLS Regression Slope	-0.1671
OLS Regression Intercept	339.1860

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.4304
Theil-Sen Intercept	869.0288

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	22.1660
Standardized Value of S	-2.3910
M-K Test Value (S)	-54
Tabulated p-value	0.0080
Approximate p-value	0.0084

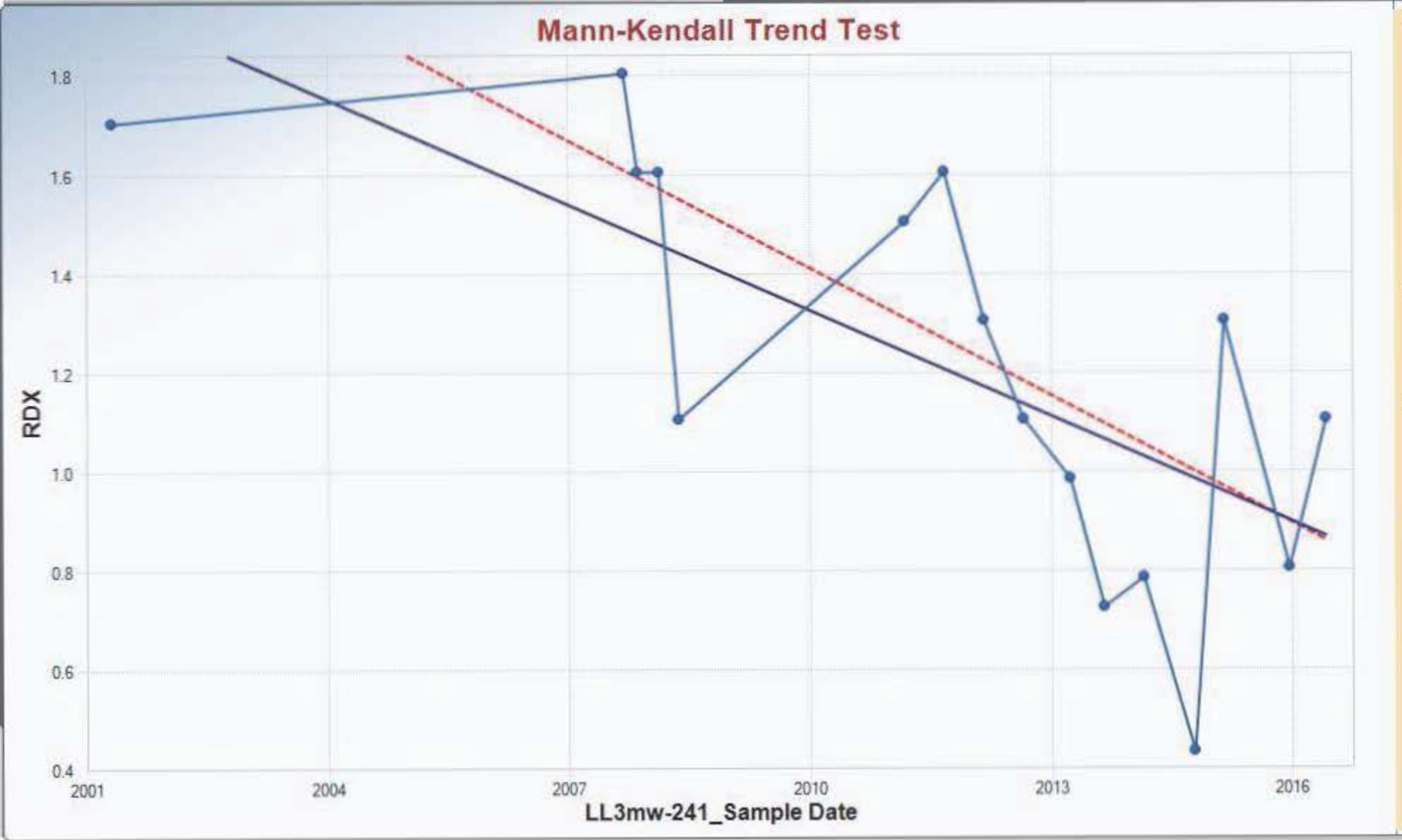
OLS Regression Line (Blue)

OLS Regression Slope	-0.1195
OLS Regression Intercept	243.2689

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.4054
Theil-Sen Intercept	818.8176

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	22.0227
Standardized Value of S	-3.2694
M-K Test Value (S)	-73
Tabulated p-value	0.0000
Approximate p-value	0.0005

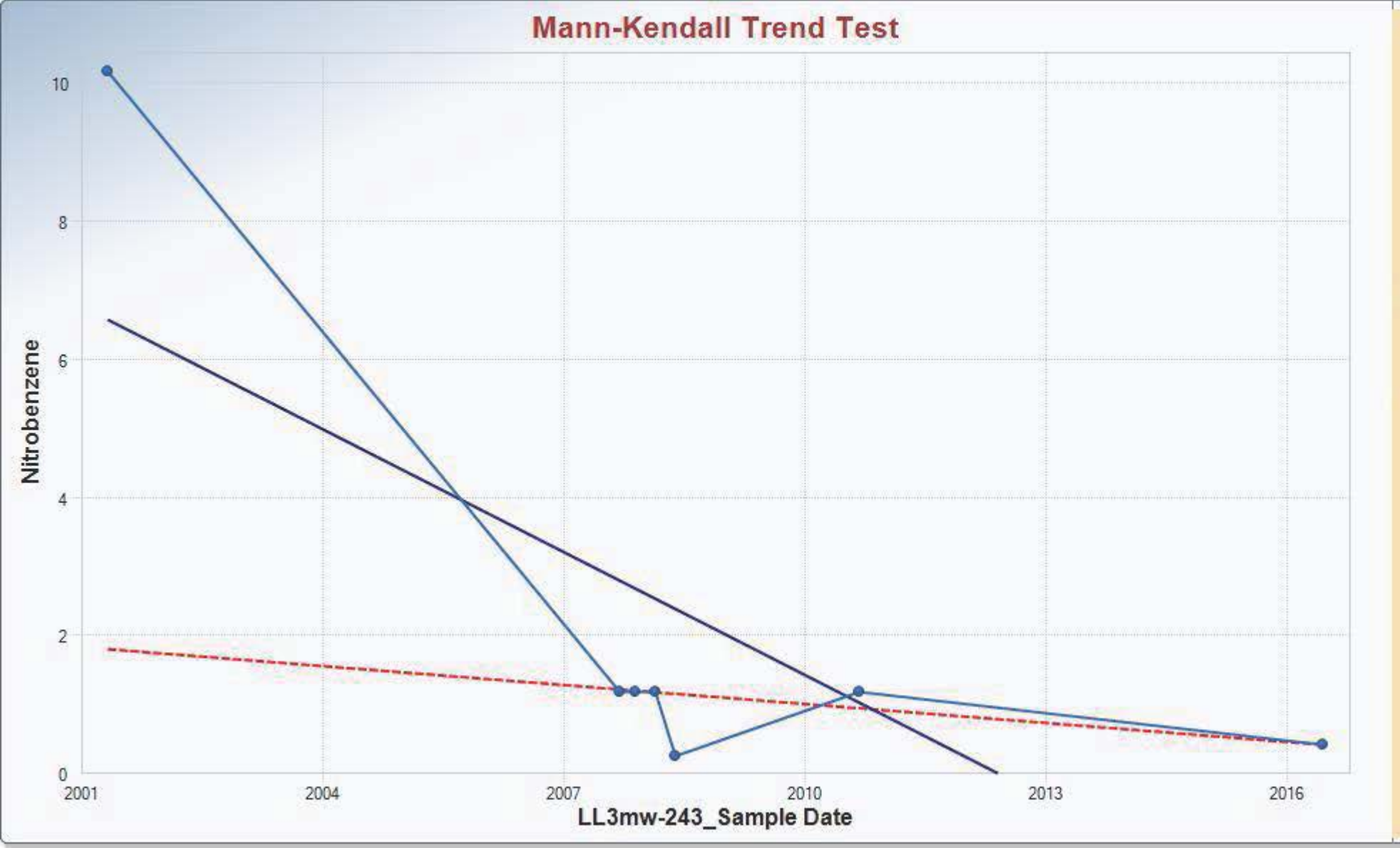
OLS Regression Line (Blue)

OLS Regression Slope	-0.0713
OLS Regression Intercept	144.6082

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0860
Theil-Sen Intercept	174.2538

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.9722
Standardized Value of S	-1.6744
M-K Test Value (S)	-11
Tabulated p-value	0.0680
Approximate p-value	0.0470

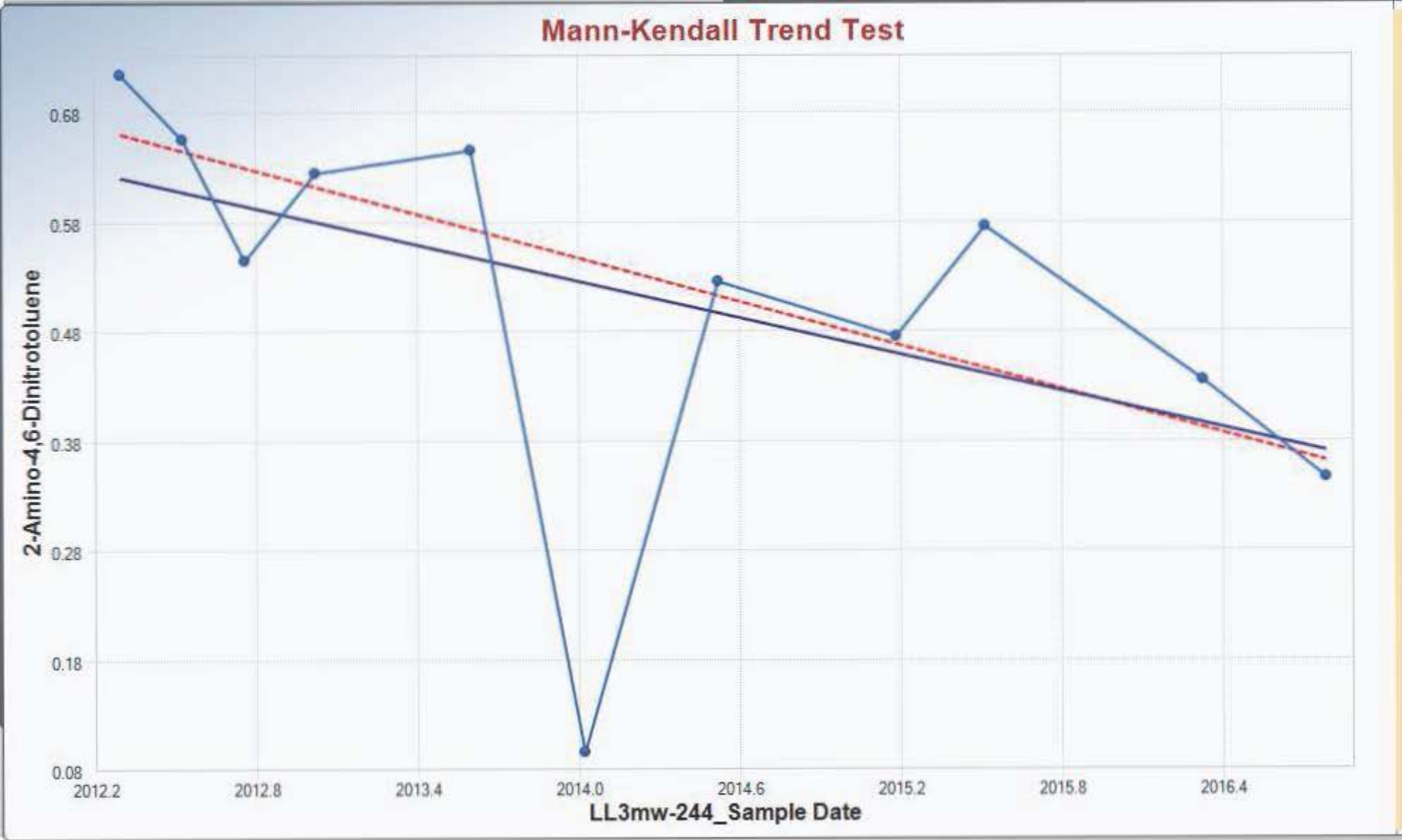
OLS Regression Line (Blue)

OLS Regression Slope	-0.5952
OLS Regression Intercept	1,197.8078

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0915
Theil-Sen Intercept	184.7621

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	11
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	12.8452
Standardized Value of S	-2.4912
M-K Test Value (S)	-33
Tabulated p-value	0.0050
Approximate p-value	0.0064

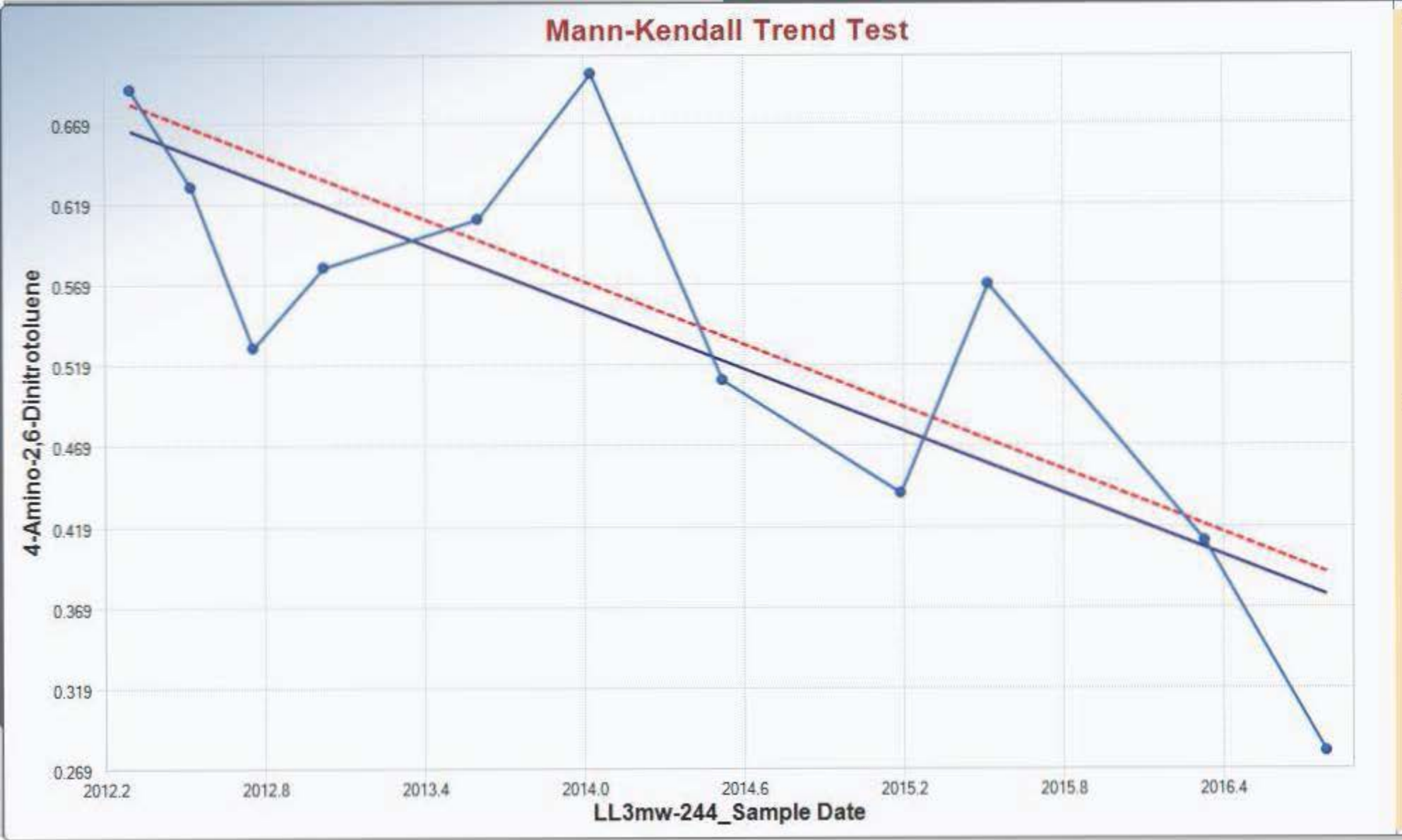
OLS Regression Line (Blue)

OLS Regression Slope	-0.0559
OLS Regression Intercept	113.0594

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0668
Theil-Sen Intercept	135.0361

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	11
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	12.8452
Standardized Value of S	-2.4912
M-K Test Value (S)	-33
Tabulated p-value	0.0050
Approximate p-value	0.0064

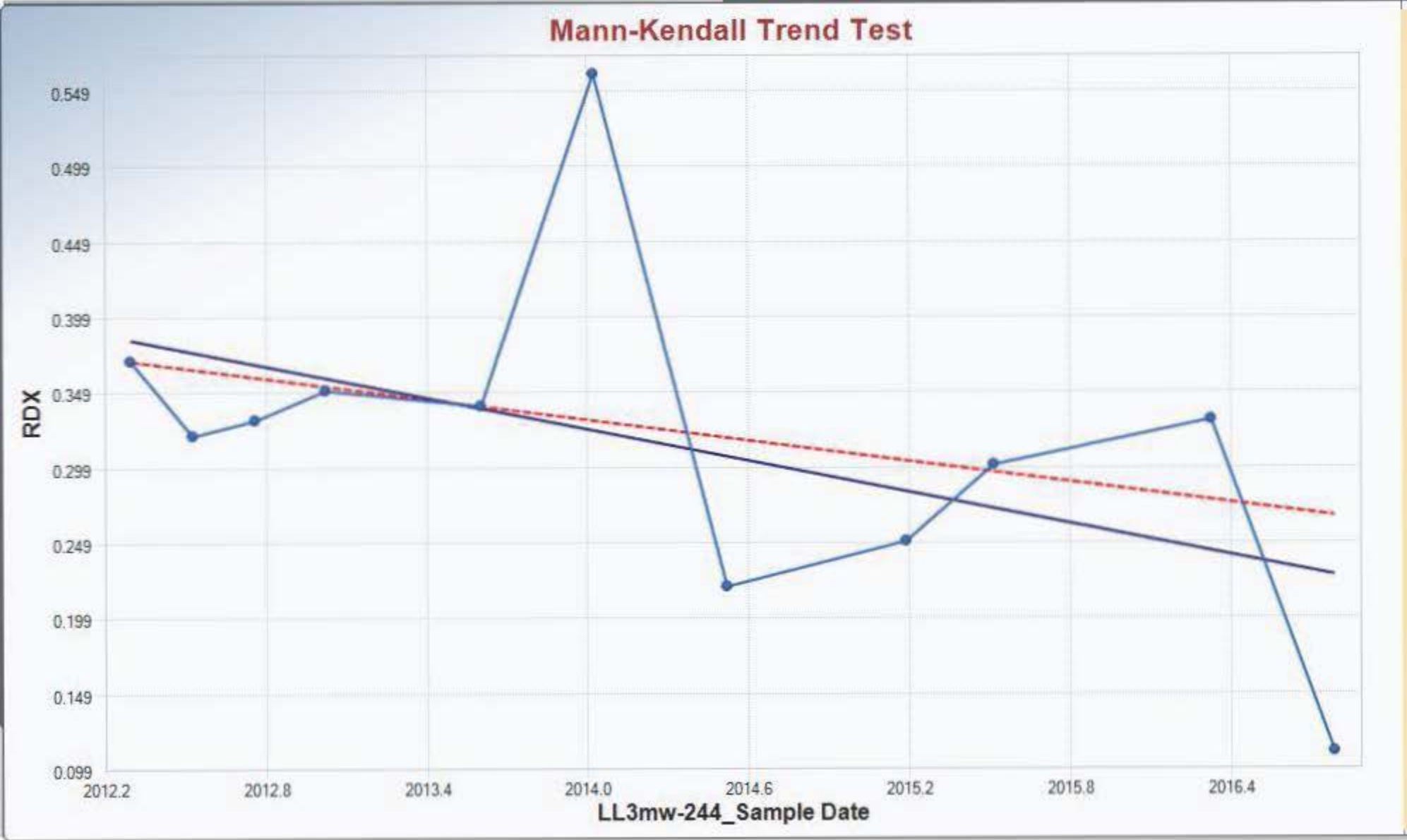
OLS Regression Line (Blue)

OLS Regression Slope	-0.0640
OLS Regression Intercept	129.5440

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0646
Theil-Sen Intercept	130.7676

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	11
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	12.8062
Standardized Value of S	-1.4837
M-K Test Value (S)	-20
Tabulated p-value	0.0600
Approximate p-value	0.0690

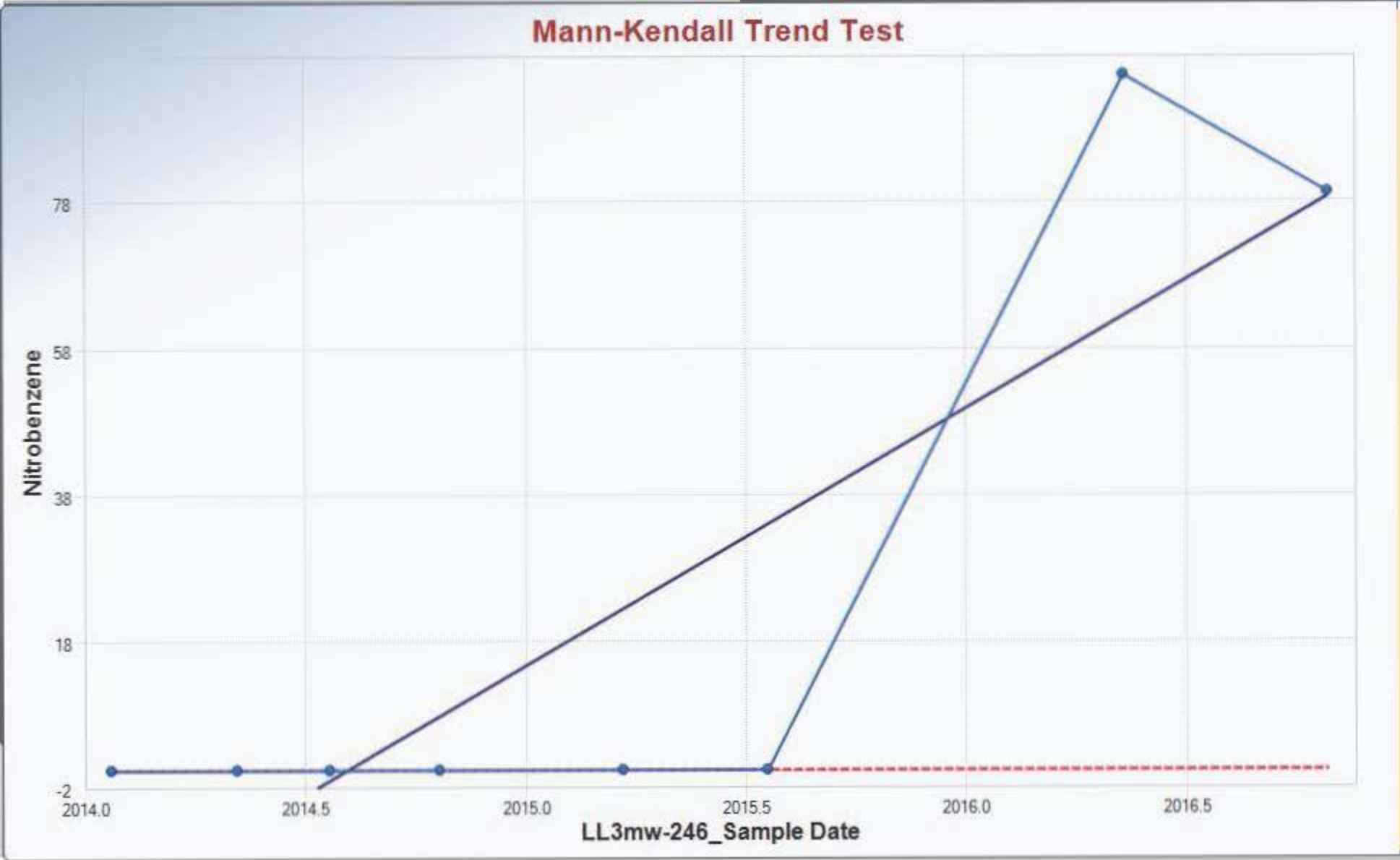
OLS Regression Line (Blue)

OLS Regression Slope	-0.0348
OLS Regression Intercept	70.4674

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0230
Theil-Sen Intercept	46.5949

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	8
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.9761
Standardized Value of S	1.5768
M-K Test Value (S)	12
Tabulated p-value	0.0890
Approximate p-value	0.0574

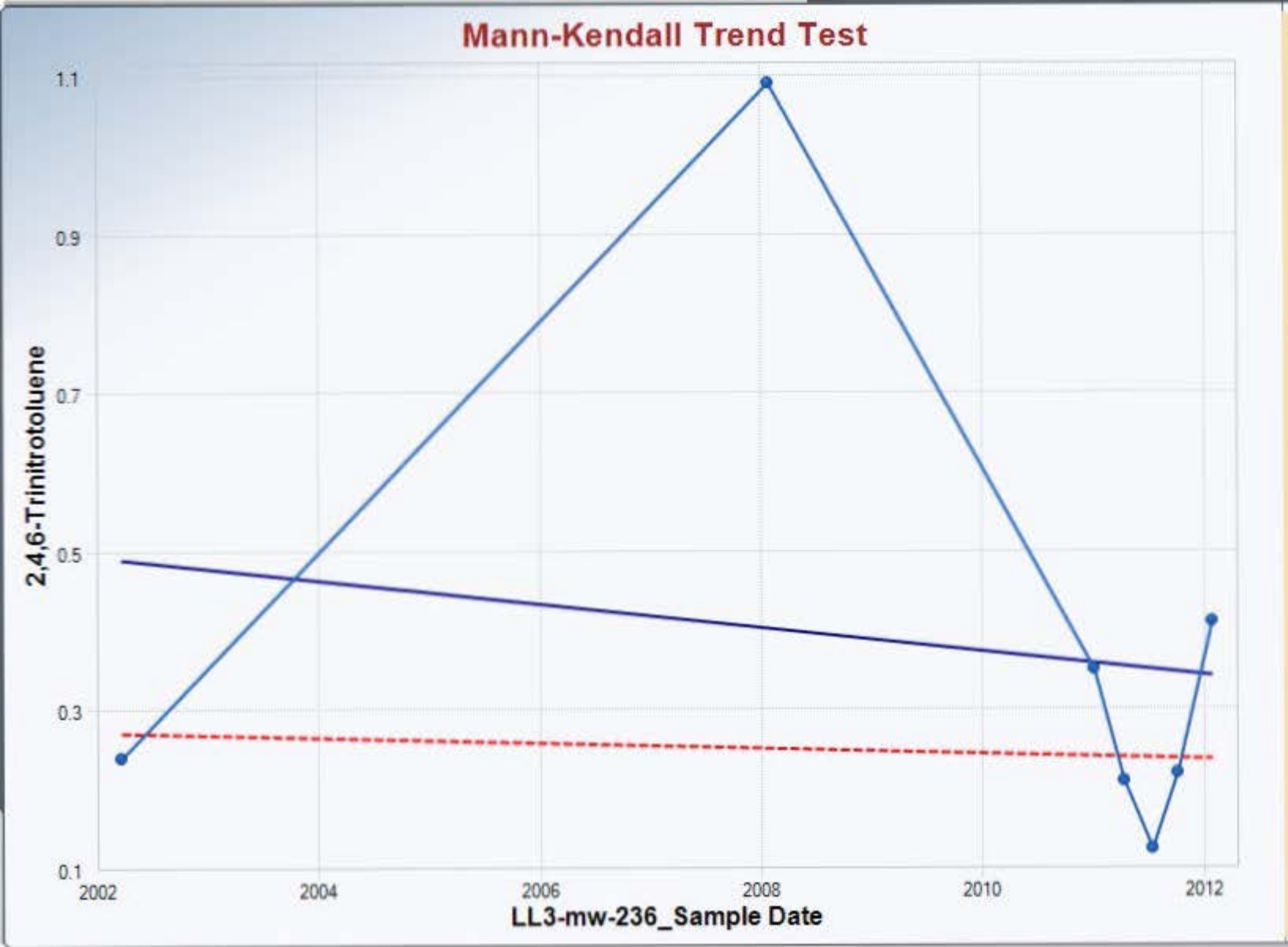
OLS Regression Line (Blue)

OLS Regression Slope	35.1116
OLS Regression Intercept	-70,735.8584

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0176
Theil-Sen Intercept	-35.2808

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-0.3004
Test Value (S)	-3
Tabulated p-value	0.3860
Approximate p-value	0.3819

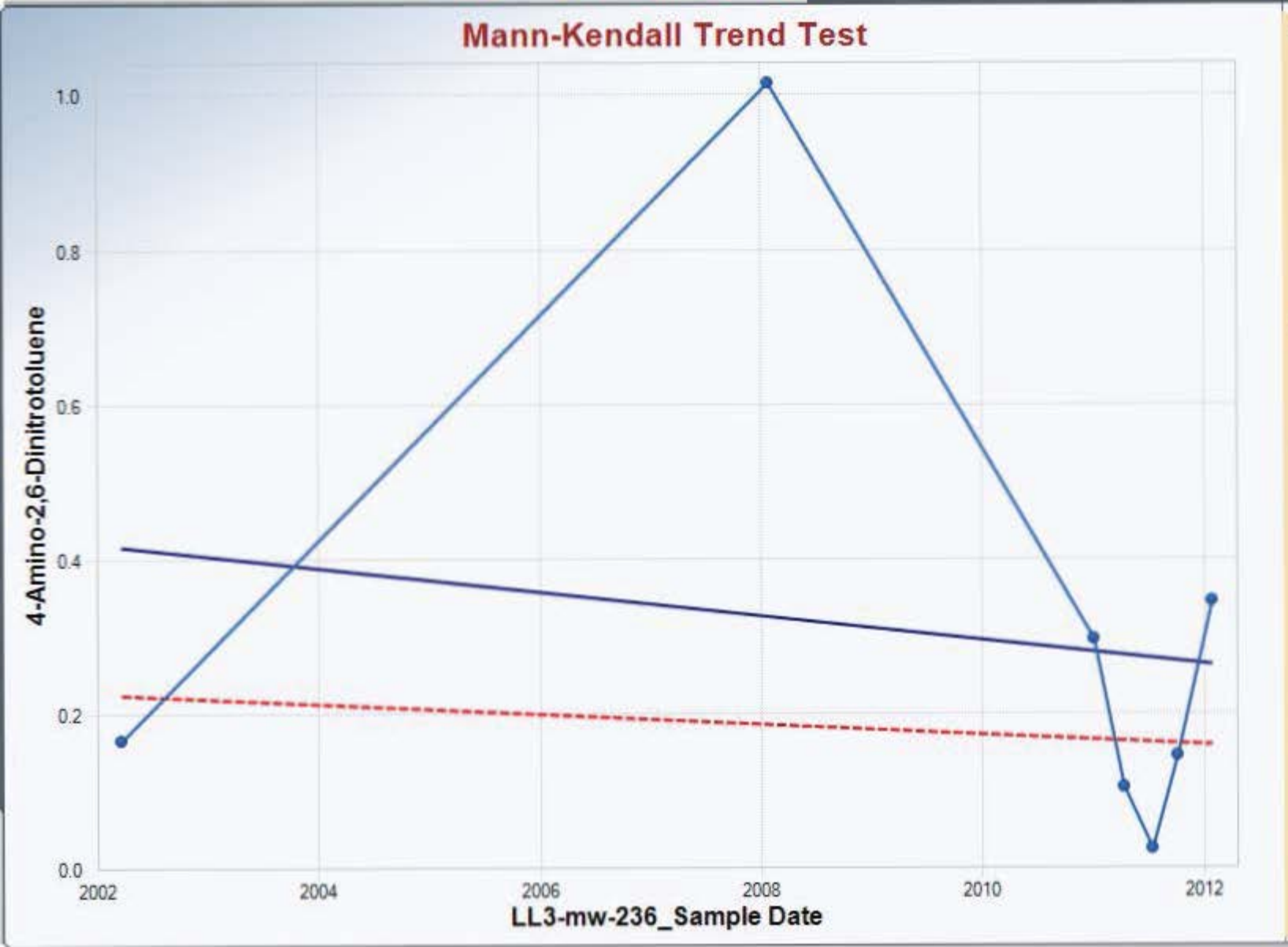
OLS Regression Line (Blue)

OLS Regression Slope	-0.0150
OLS Regression Intercept	30.4289

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0033
Theil-Sen Intercept	6.8544

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-0.3004
Test Value (S)	-3
Tabulated p-value	0.3860
Approximate p-value	0.3819

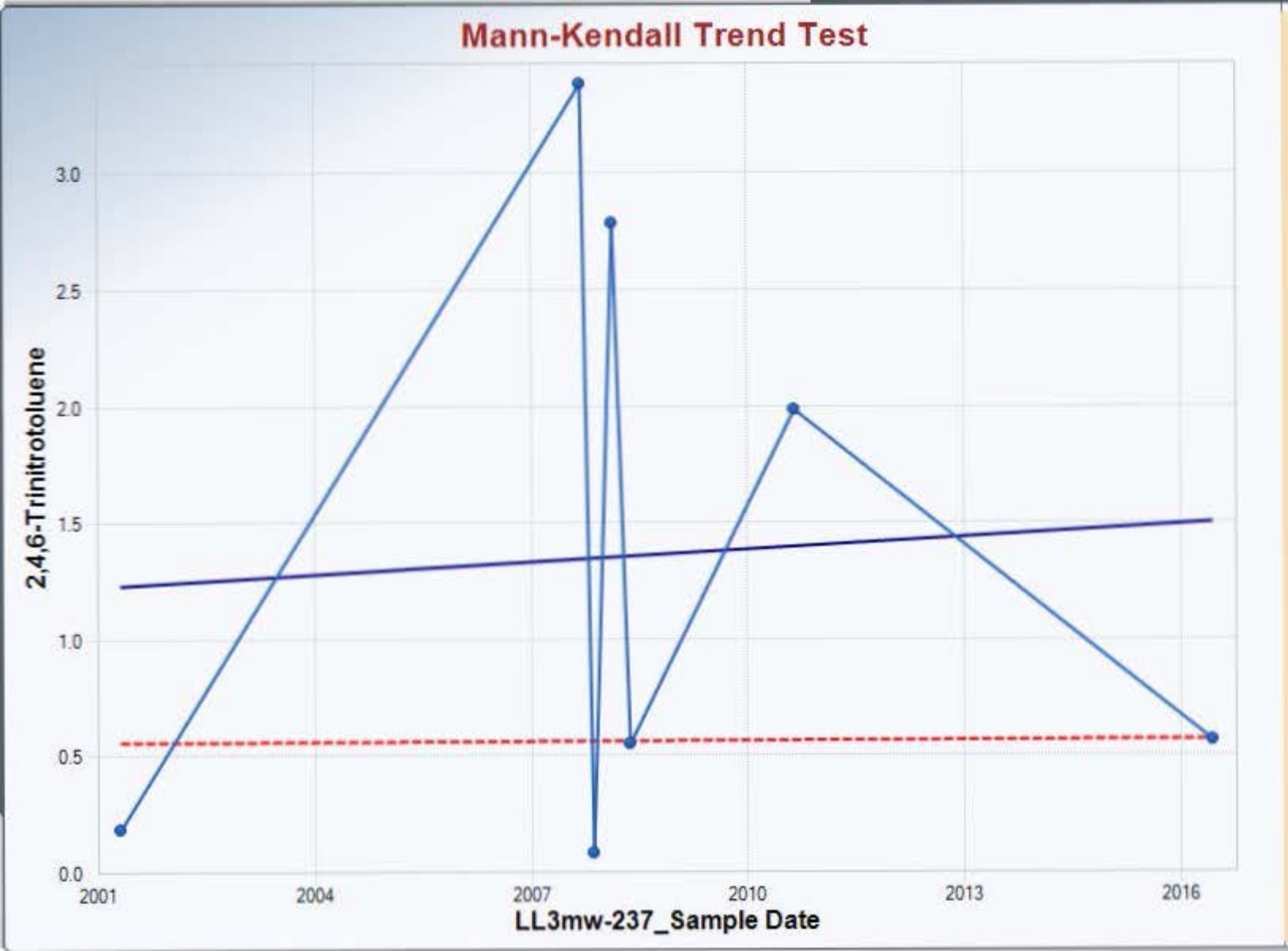
OLS Regression Line (Blue)

OLS Regression Slope	-0.0155
OLS Regression Intercept	31.5103

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0066
Theil-Sen Intercept	13.5088

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	0.0000
Test Value (S)	1
Tabulated p-value	0.5000
Approximate p-value	0.5000

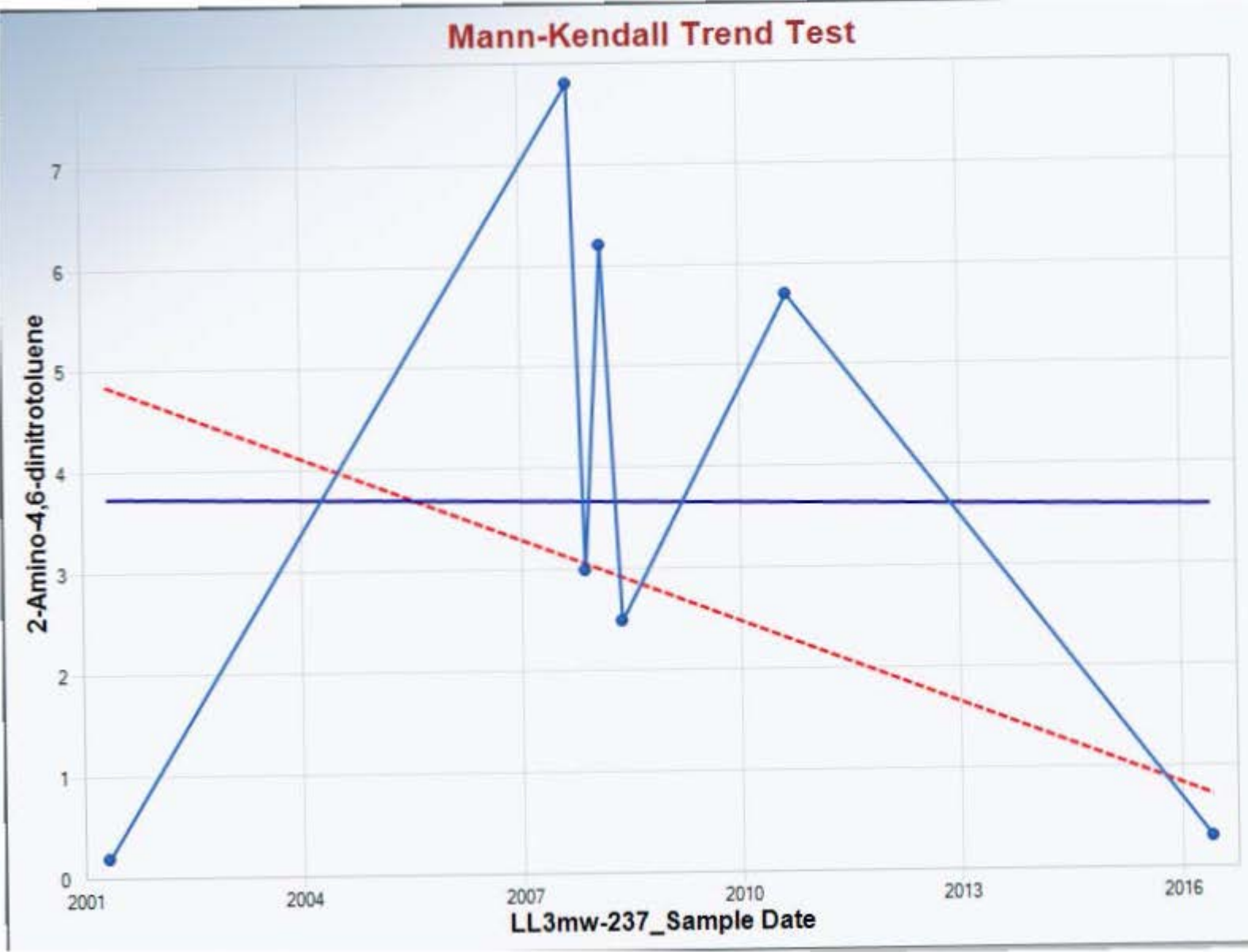
OLS Regression Line (Blue)

OLS Regression Slope	0.0181
OLS Regression Intercept	-35.0771

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0012
Theil-Sen Intercept	-1.9127

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-0.3004
Test Value (S)	-3
Tabulated p-value	0.3860
Approximate p-value	0.3819

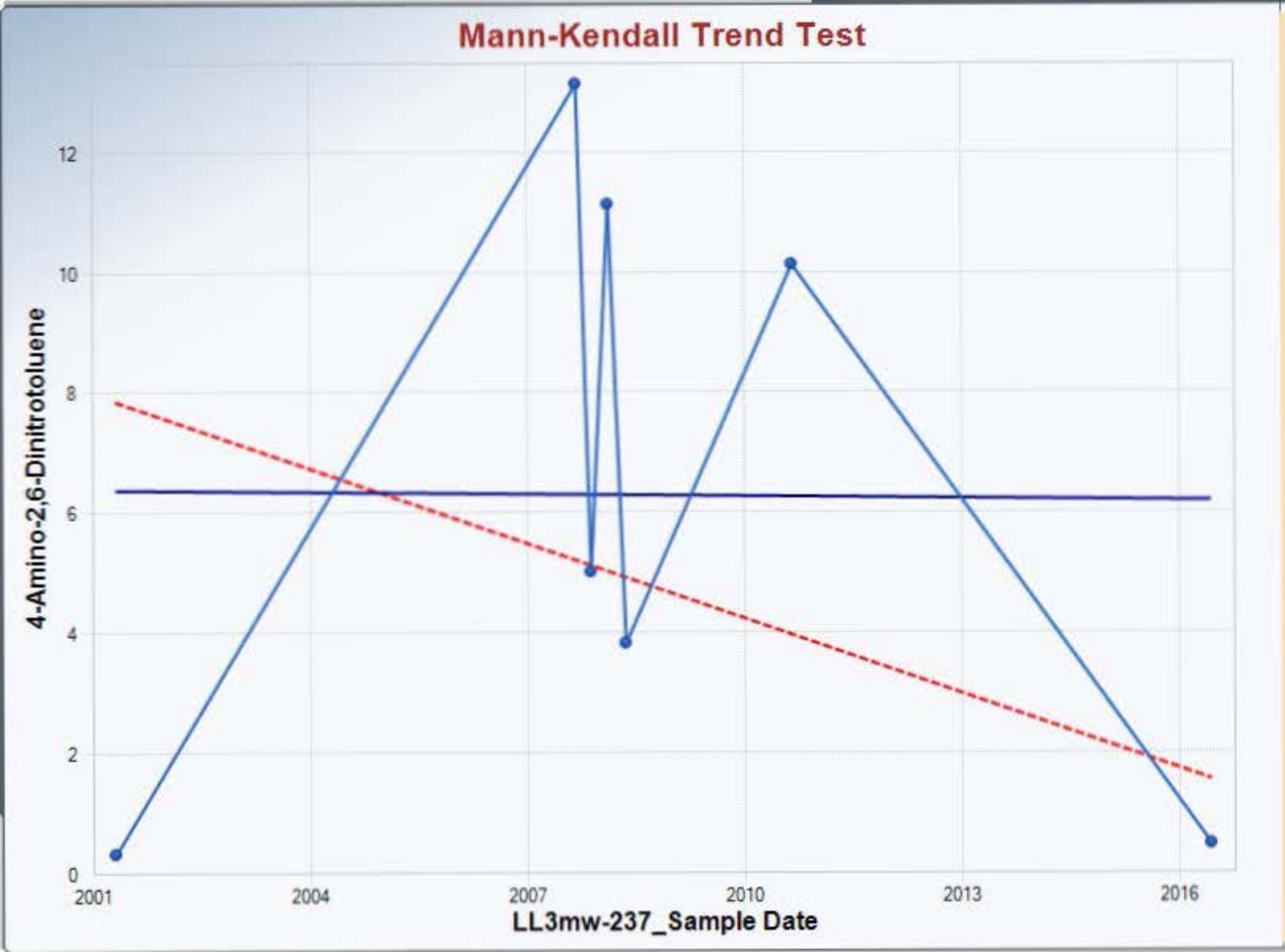
OLS Regression Line (Blue)

OLS Regression Slope	-0.0101
OLS Regression Intercept	23.9012

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.2730
Theil-Sen Intercept	551.3952

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-0.3004
Test Value (S)	-3
Tabulated p-value	0.3860
Approximate p-value	0.3819

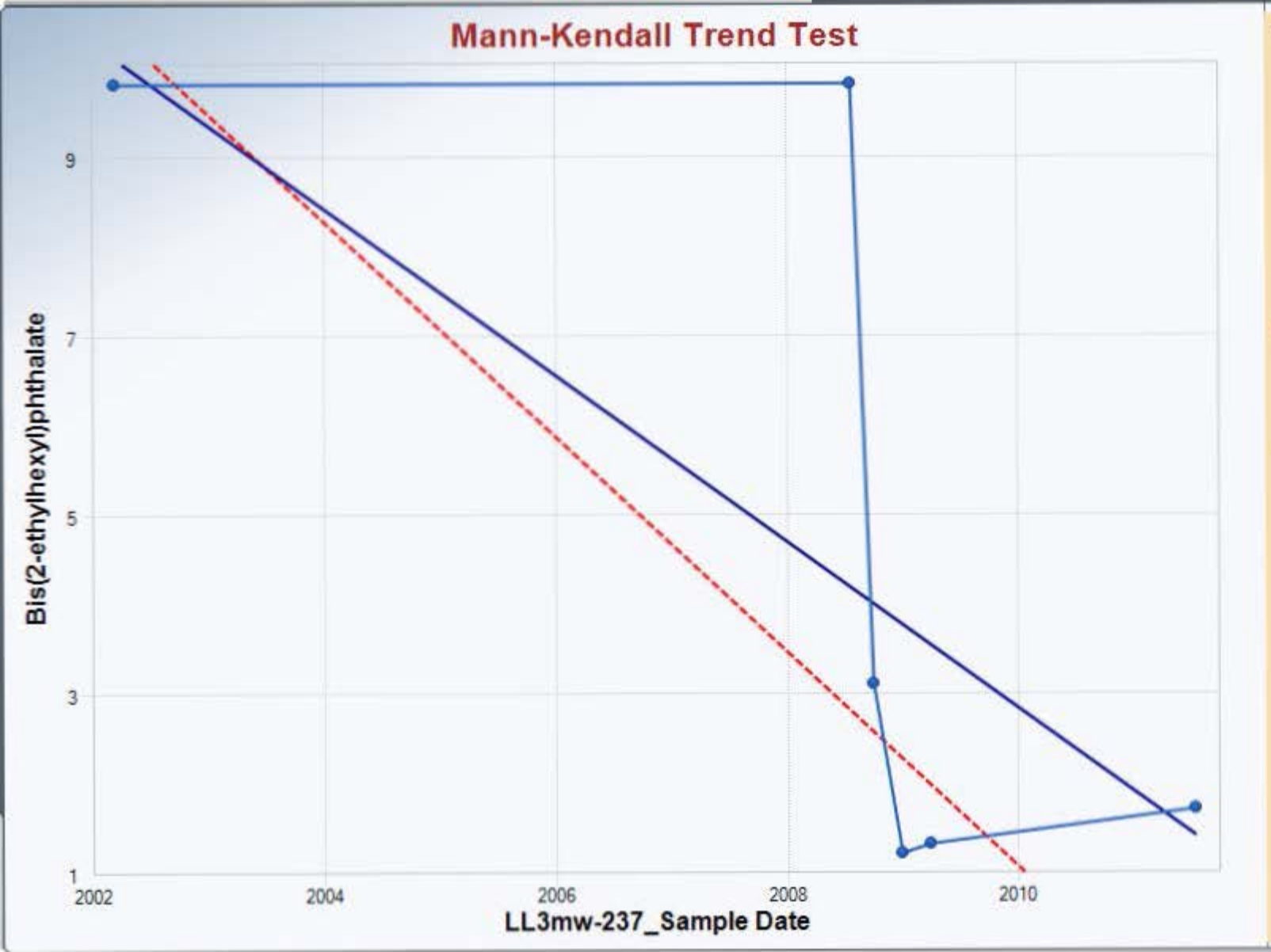
OLS Regression Line (Blue)

OLS Regression Slope	-0.0112
OLS Regression Intercept	28.6476

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.4158
Theil-Sen Intercept	839.9563

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	-1.3389
Test Value (S)	-8
Tabulated p-value	0.0680
Approximate p-value	0.0903

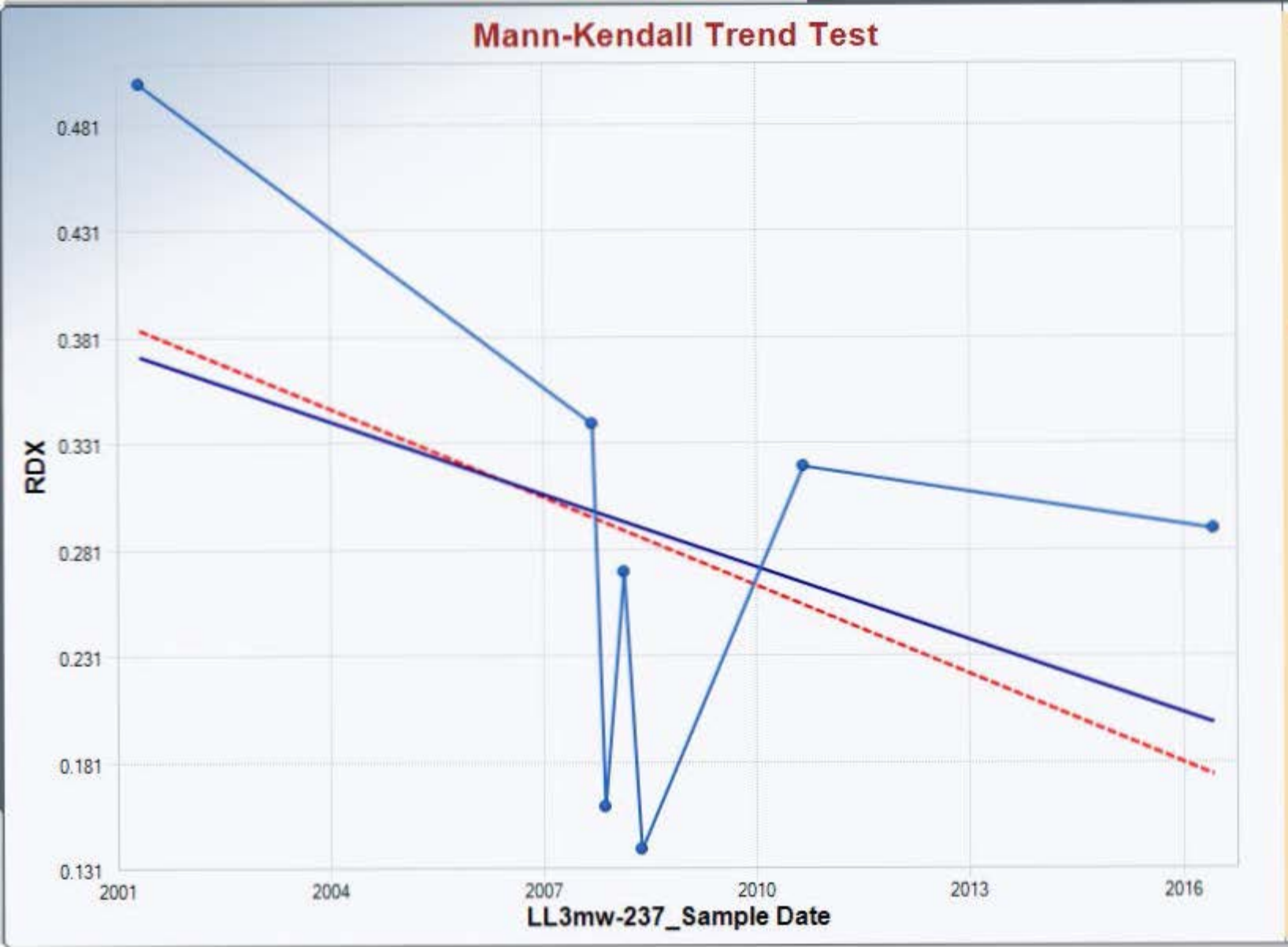
OLS Regression Line (Blue)

OLS Regression Slope	-0.9335
OLS Regression Intercept	1,878.8144

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-1.2057
Theil-Sen Intercept	2,424.0382

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-0.9011
Test Value (S)	-7
Tabulated p-value	0.1910
Approximate p-value	0.1838

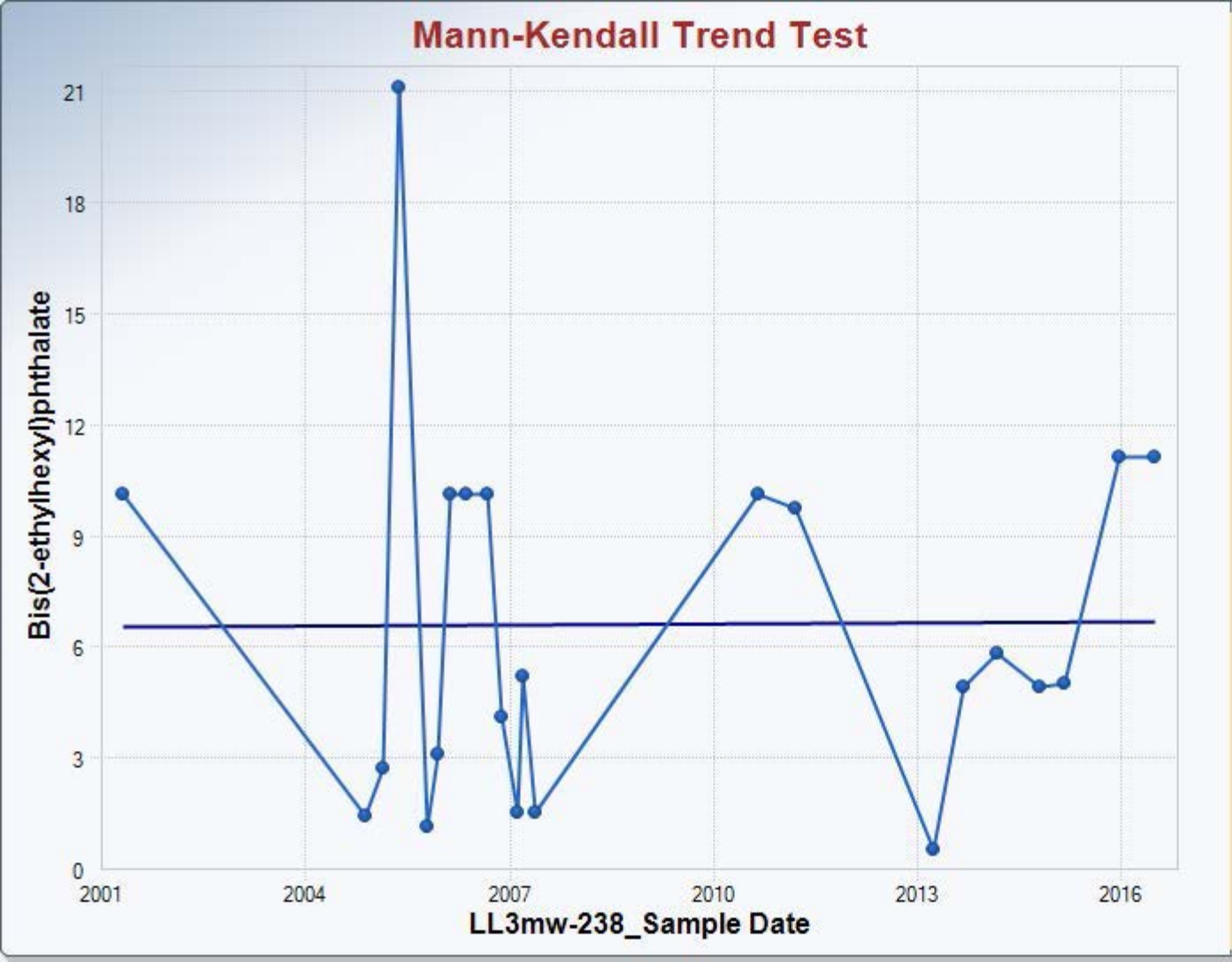
OLS Regression Line (Blue)

OLS Regression Slope	-0.0114
OLS Regression Intercept	23.2710

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0139
Theil-Sen Intercept	28.2089

Insufficient statistical evidence of a significant trend at the specified level of significance.



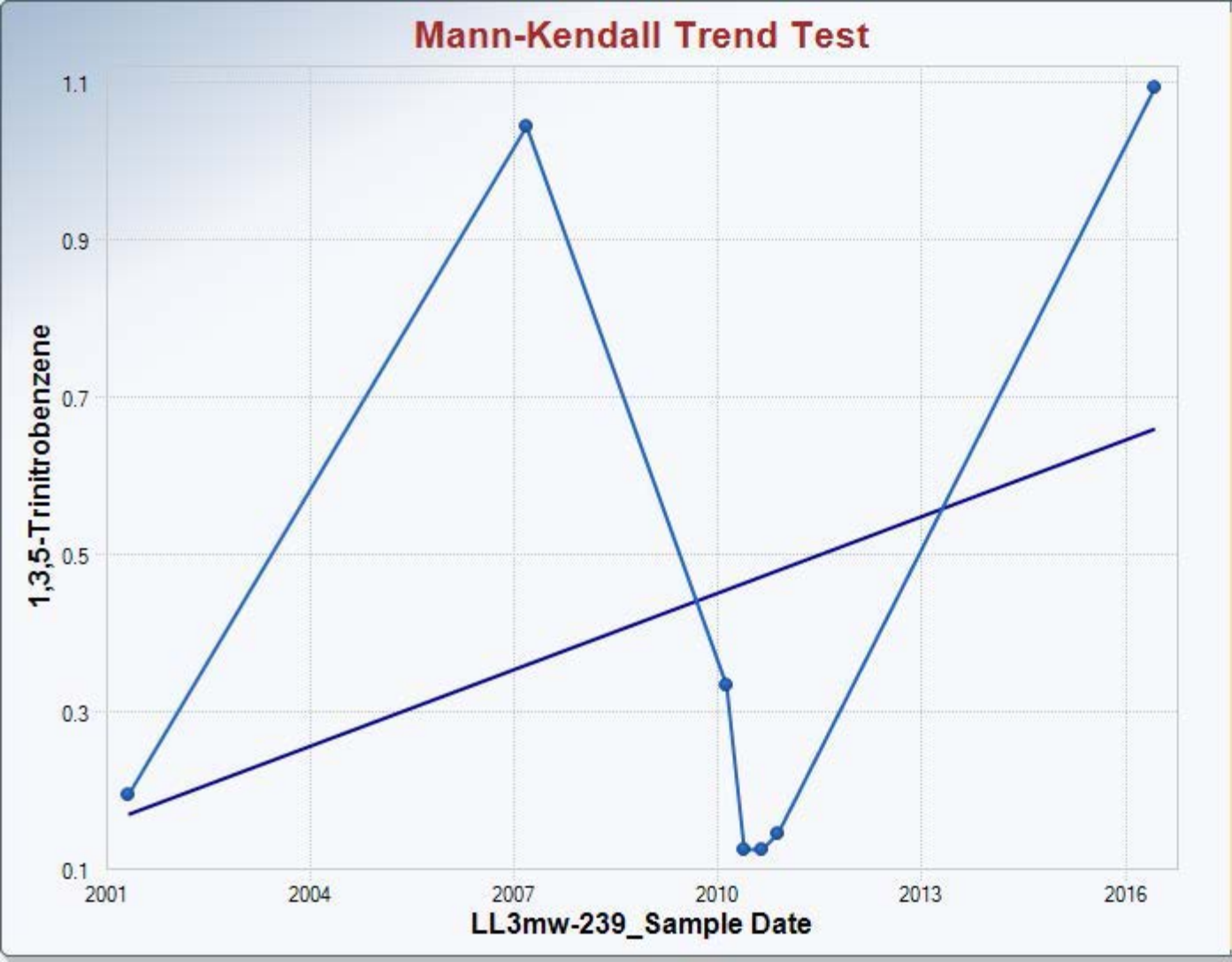
Mann-Kendall Trend Analysis

n	22
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	35.1852
Standardized Value of S	0.7674
Test Value (S)	28
Tabulated p-value	0.2170
Approximate p-value	0.2214

OLS Regression Line (Blue)

OLS Regression Slope	0.0085
OLS Regression Intercept	-10.5556

Insufficient statistical evidence of a significant trend at the specified level of significance.



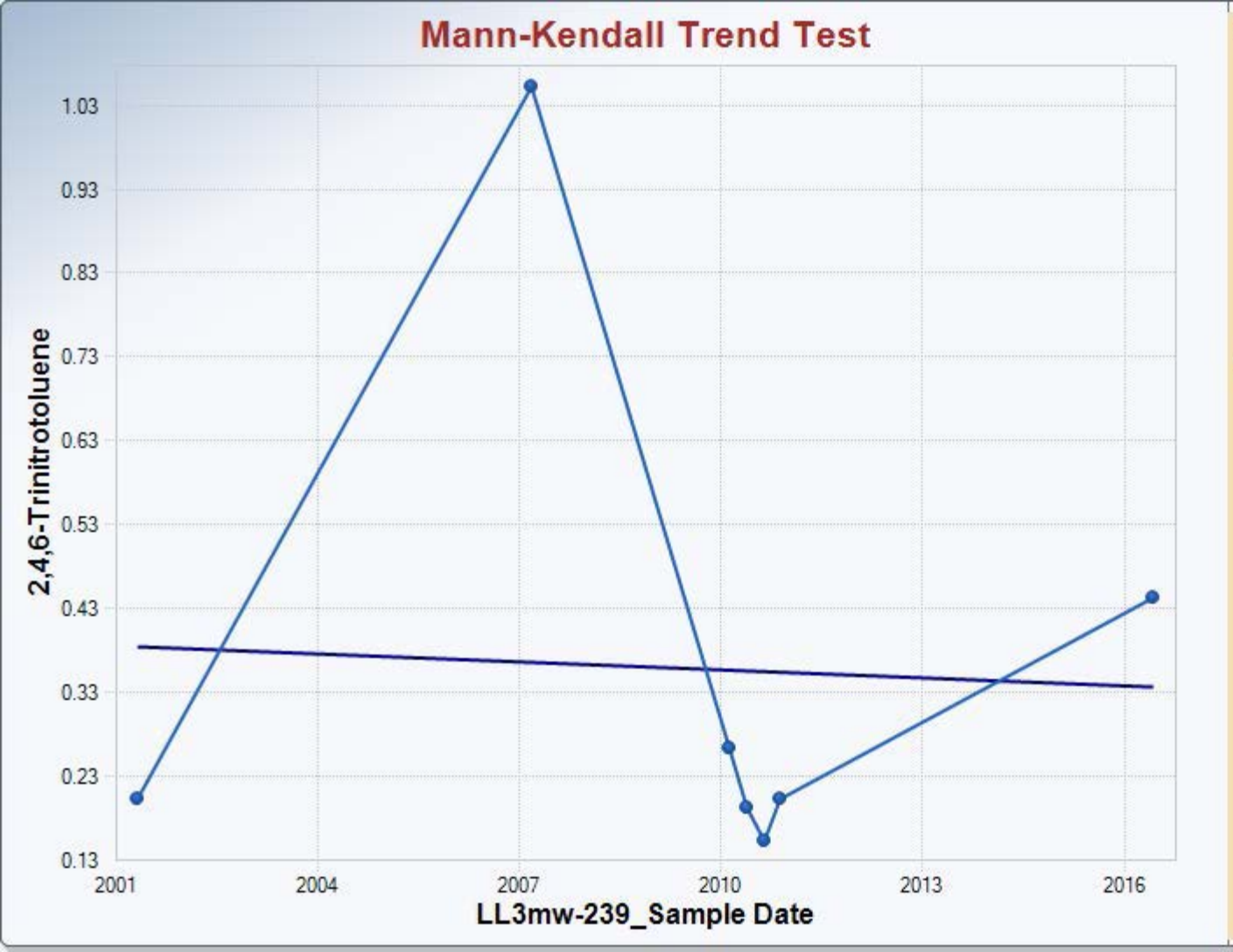
Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.5828
Standardized Value of S	
Test Value (S)	0
Tabulated p-value	0.5000
Approximate p-value	

OLS Regression Line (Blue)

OLS Regression Slope	0.0323
OLS Regression Intercept	-64.5138

Insufficient statistical evidence of a significant trend at the specified level of significance.



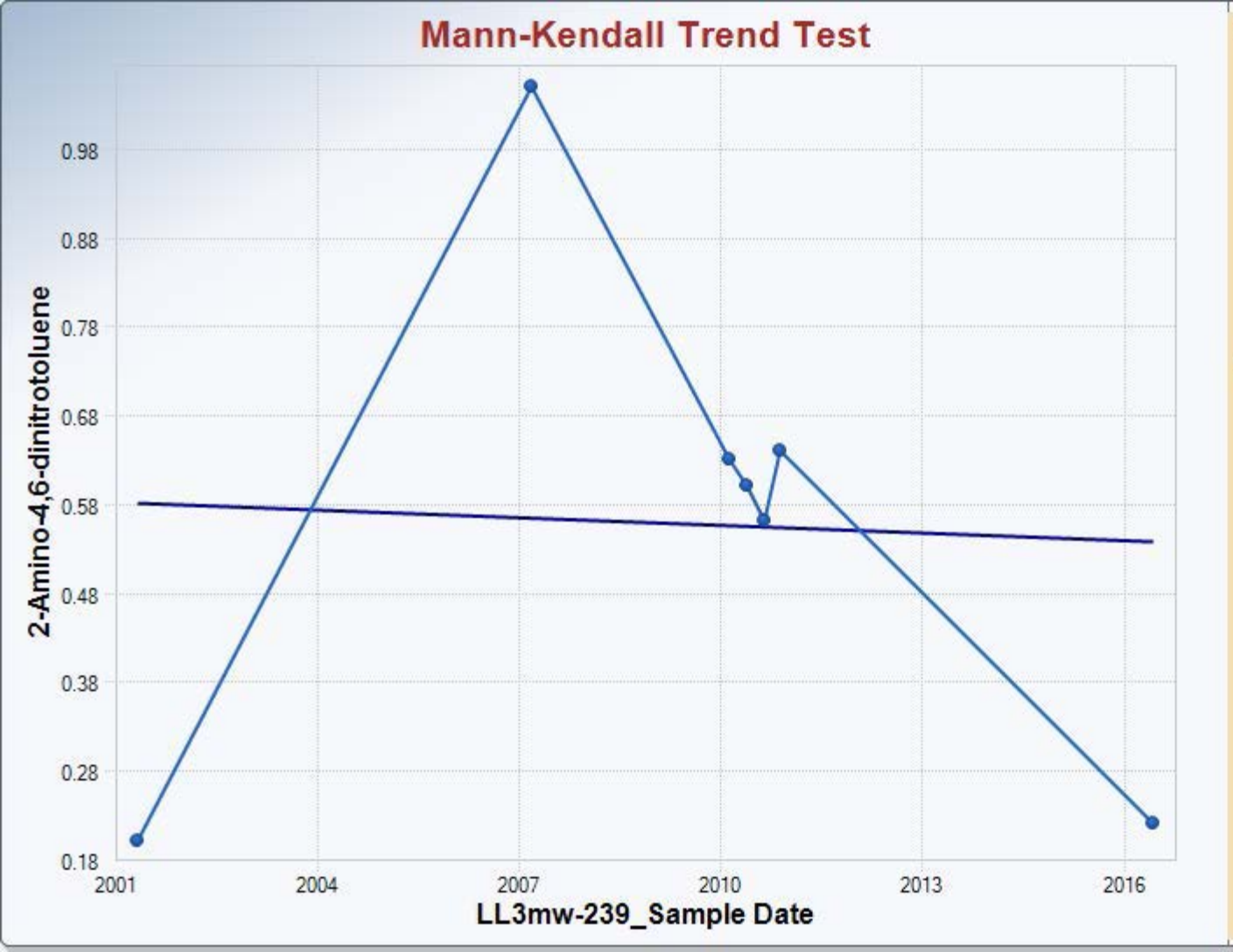
Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.5828
Standardized Value of S	-0.1519
Test Value (S)	-2
Tabulated p-value	0.3860
Approximate p-value	0.4396

OLS Regression Line (Blue)

OLS Regression Slope	-0.0033
OLS Regression Intercept	6.9548

Insufficient statistical evidence of a significant trend at the specified level of significance.



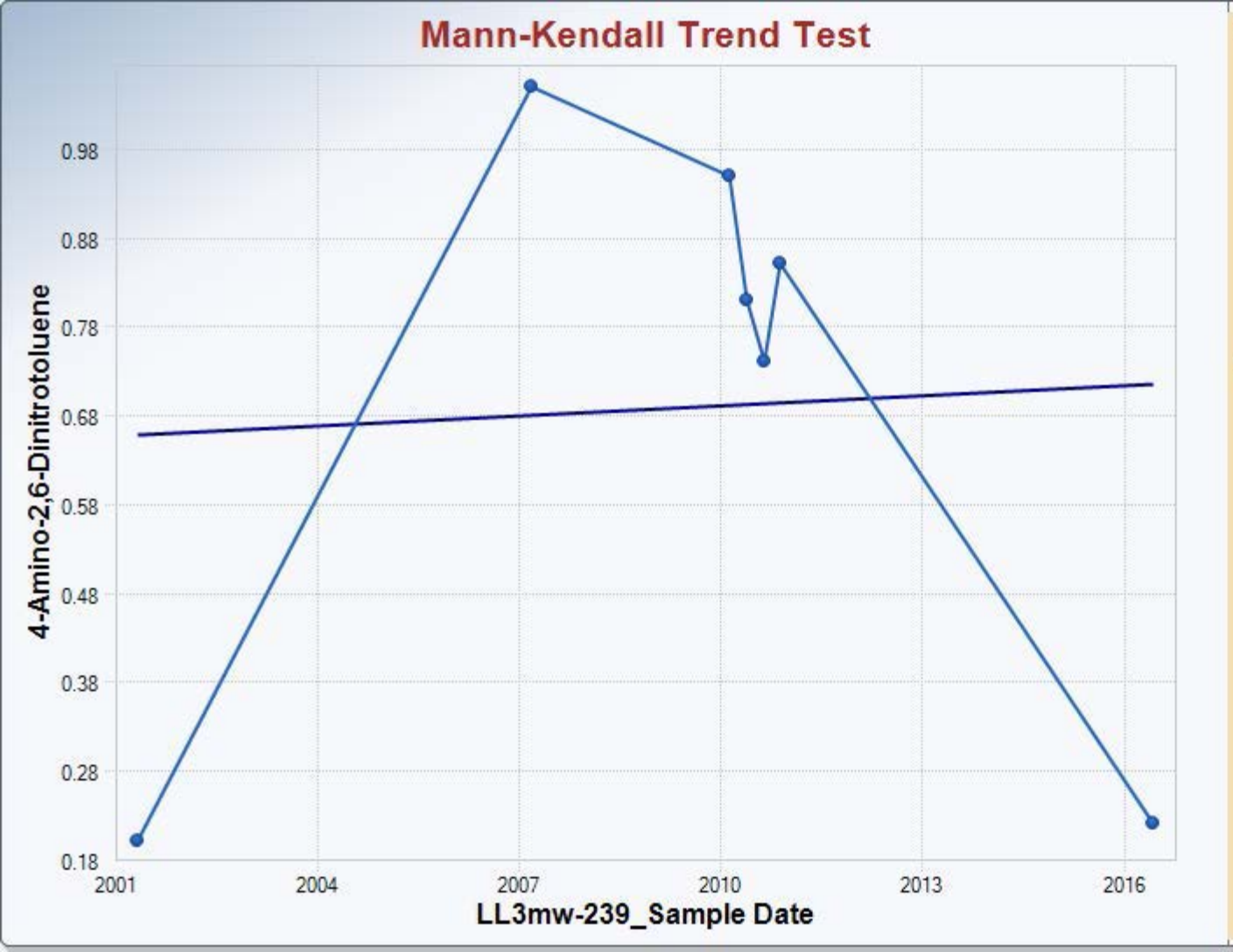
Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-0.3004
Test Value (S)	-3
Tabulated p-value	0.3860
Approximate p-value	0.3819

OLS Regression Line (Blue)

OLS Regression Slope	-0.0029
OLS Regression Intercept	6.3086

Insufficient statistical evidence of a significant trend at the specified level of significance.



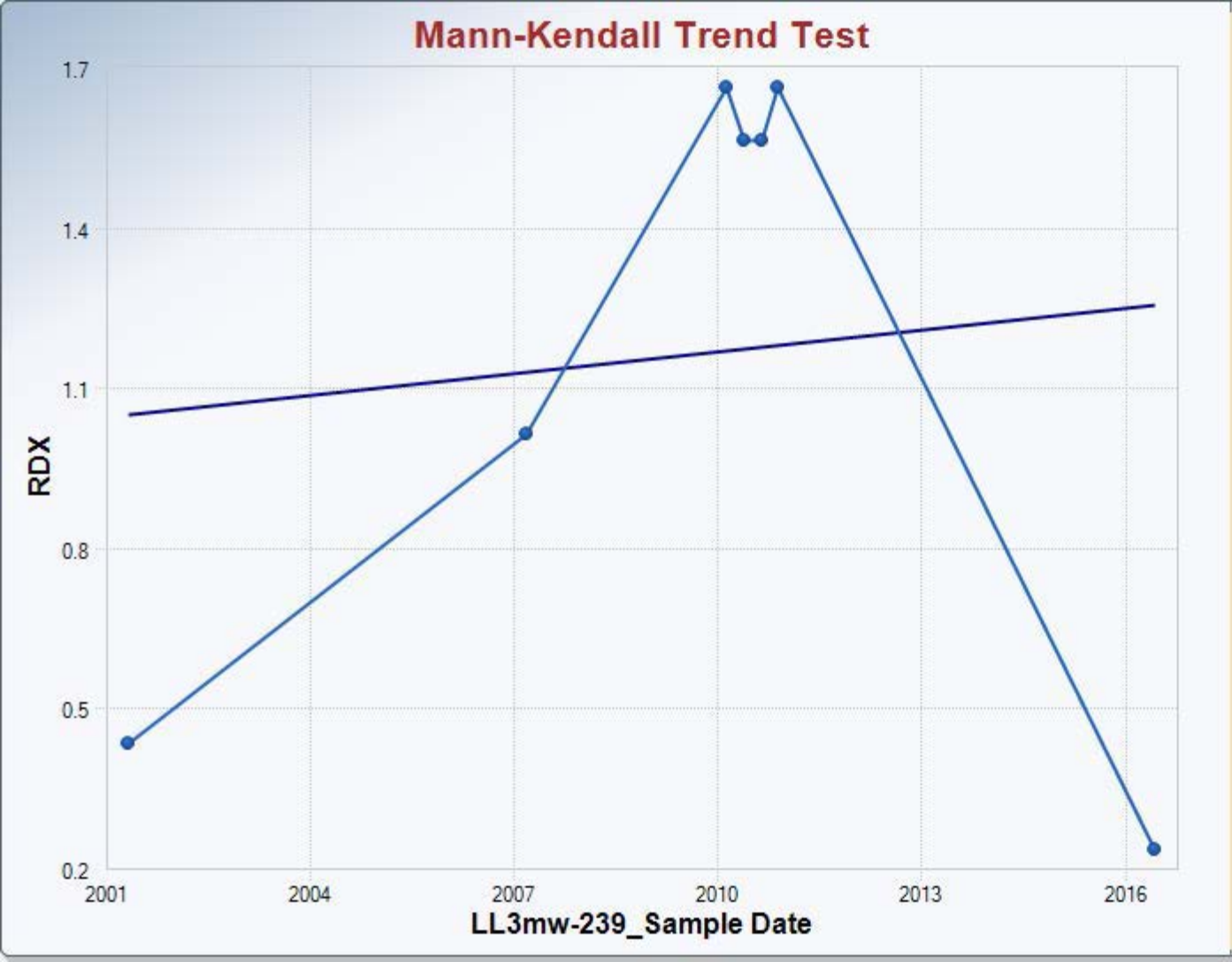
Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-0.6008
Test Value (S)	-5
Tabulated p-value	0.2810
Approximate p-value	0.2740

OLS Regression Line (Blue)

OLS Regression Slope	0.0037
OLS Regression Intercept	-6.7832

Insufficient statistical evidence of a significant trend at the specified level of significance.



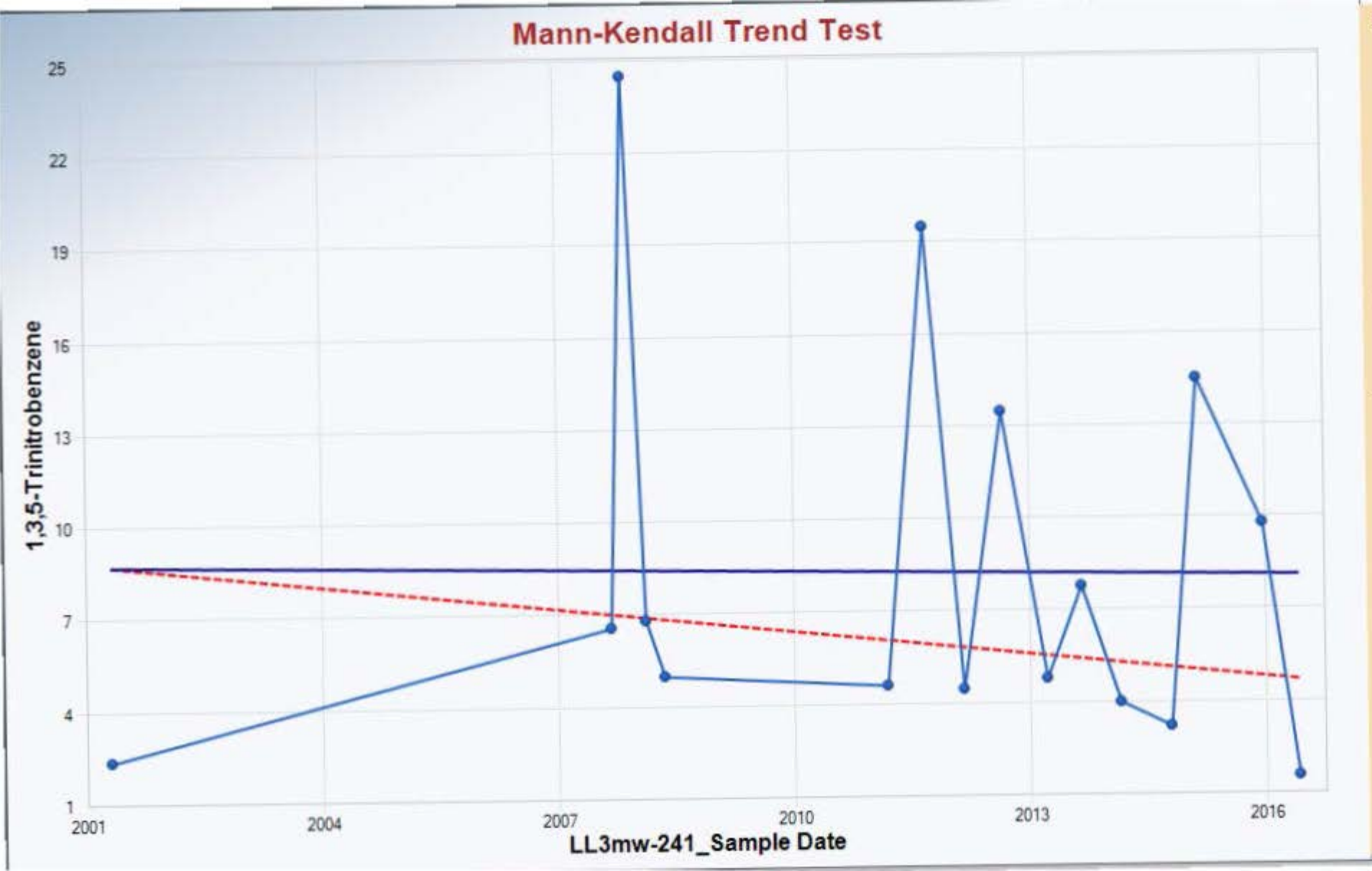
Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.5064
Standardized Value of S	0.3074
Test Value (S)	3
Tabulated p-value	0.3860
Approximate p-value	0.3793

OLS Regression Line (Blue)

OLS Regression Slope	0.0136
OLS Regression Intercept	-26.0499

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	22.2111
Standardized Value of S	-0.6753
Test Value (S)	-16
Tabulated p-value	0.2530
Approximate p-value	0.2497

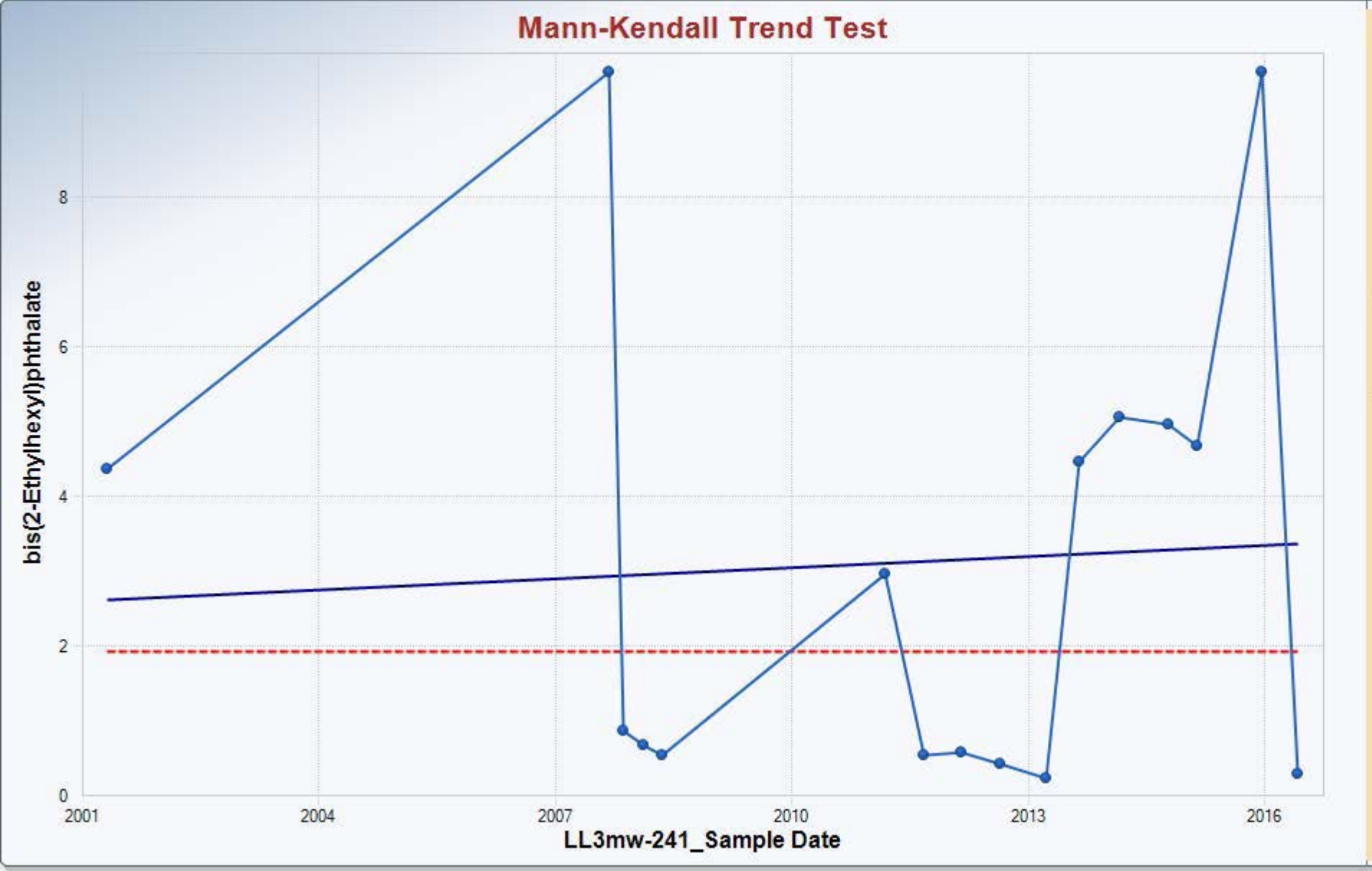
OLS Regression Line (Blue)

OLS Regression Slope	-0.0386
OLS Regression Intercept	85.4610

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.2654
Theil-Sen Intercept	539.4526

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	16
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	22.1660
Standardized Value of S	
Test Value (S)	0
Tabulated p-value	0.5180
Approximate p-value	

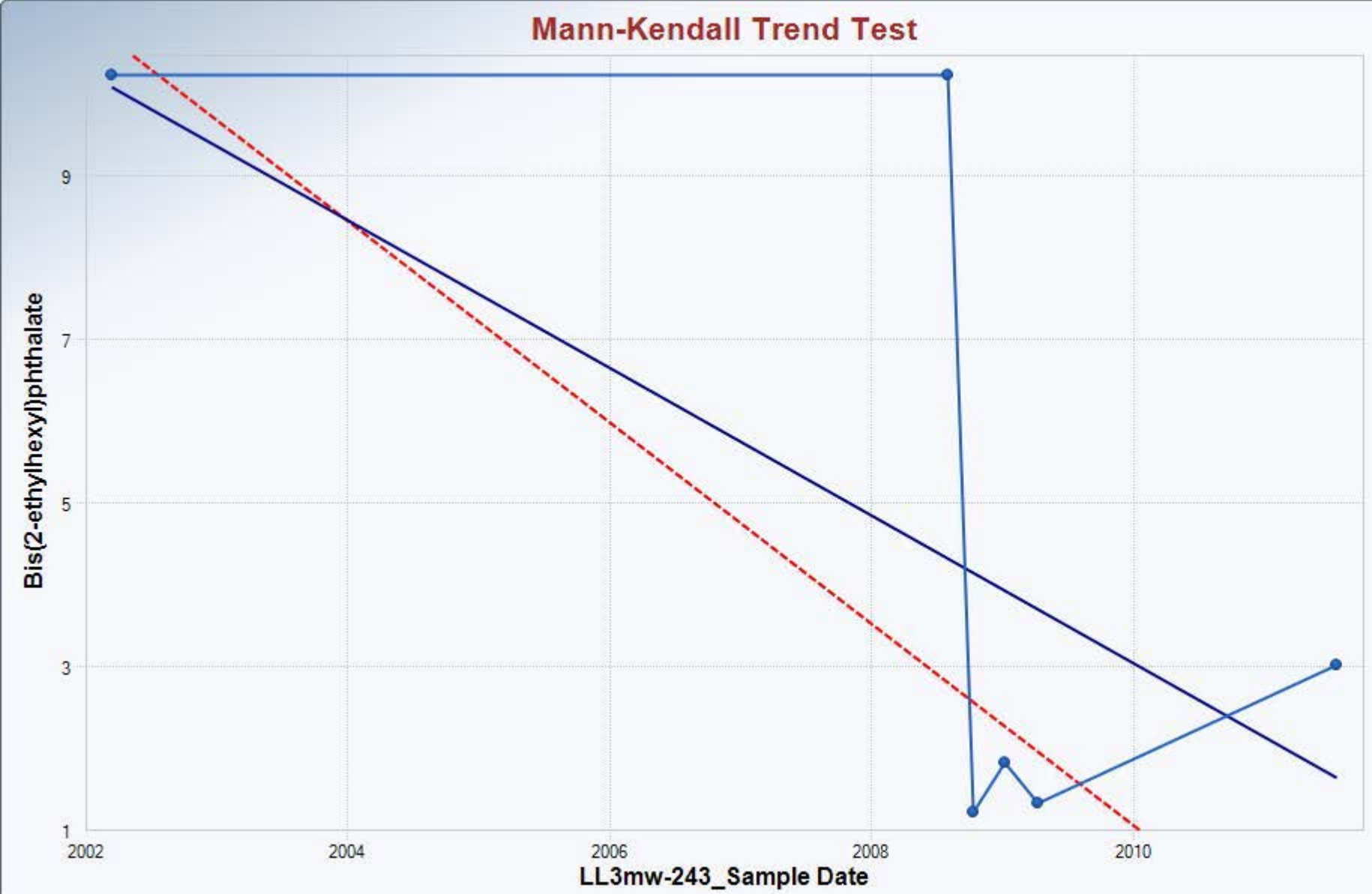
OLS Regression Line (Blue)

OLS Regression Slope	0.0494
OLS Regression Intercept	-95.9831

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	2.2500

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	-0.5738
Test Value (S)	-4
Tabulated p-value	0.2350
Approximate p-value	0.2830

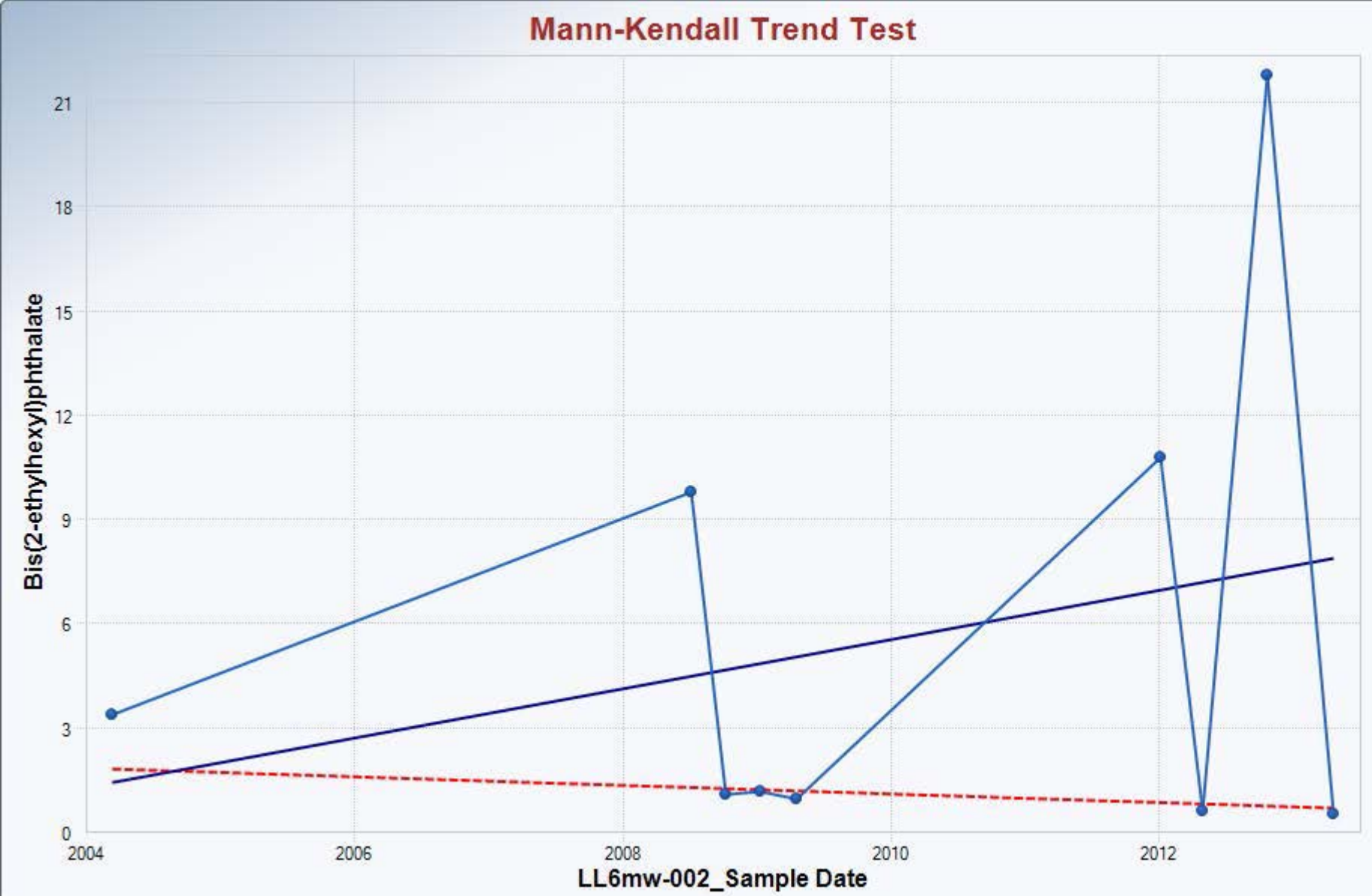
OLS Regression Line (Blue)

OLS Regression Slope	-0.9008
OLS Regression Intercept	1,812.9032

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-1.2311
Theil-Sen Intercept	2,474.8334

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	9.5917
Standardized Value of S	-0.7298
Test Value (S)	-8
Tabulated p-value	0.2380
Approximate p-value	0.2328

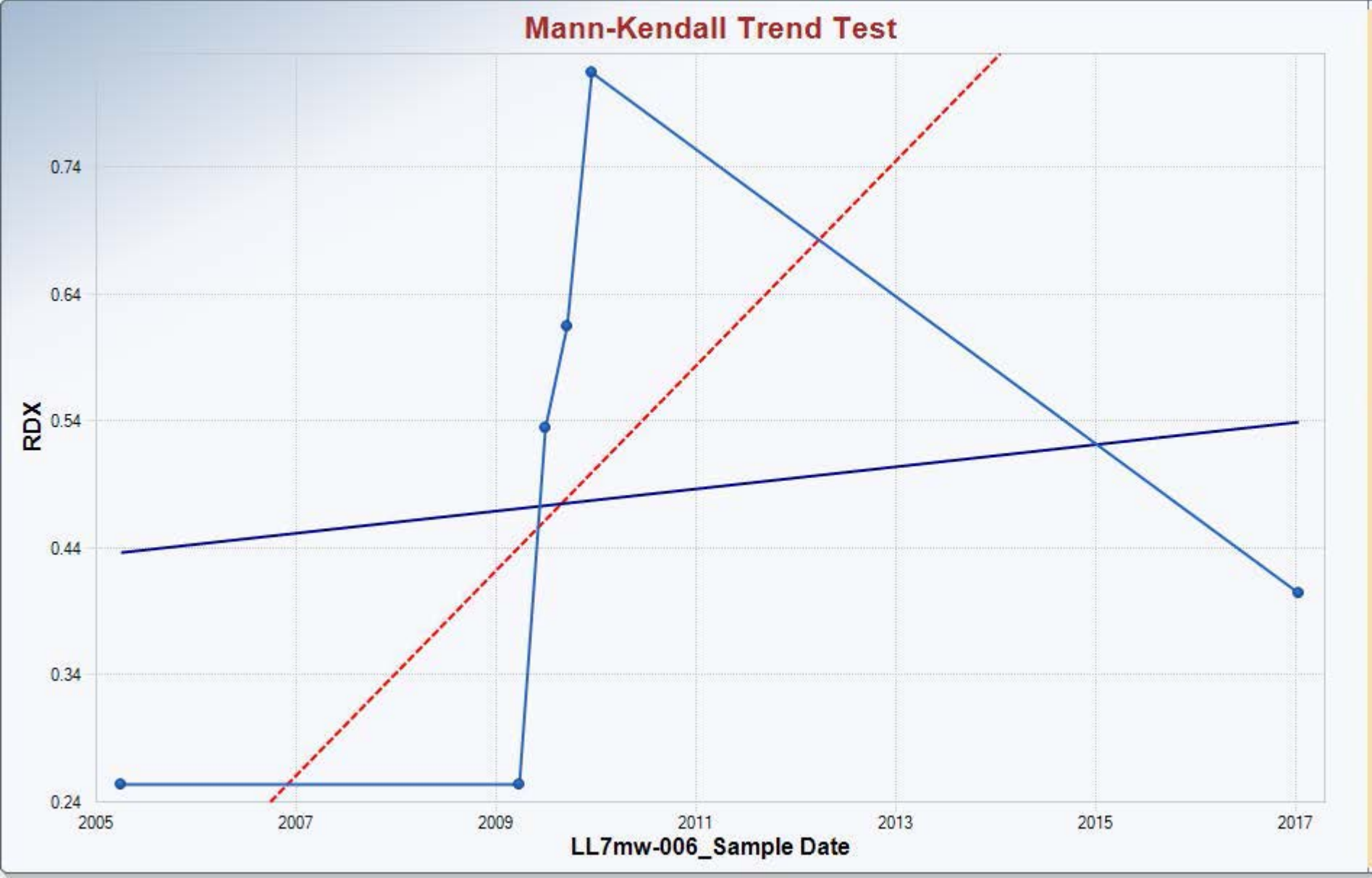
OLS Regression Line (Blue)

OLS Regression Slope	0.7052
OLS Regression Intercept	-1,411.5307

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.1245
Theil-Sen Intercept	251.4861

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	6
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	5.2281
Standardized Value of S	1.3389
Test Value (S)	8
Tabulated p-value	0.0680
Approximate p-value	0.0903

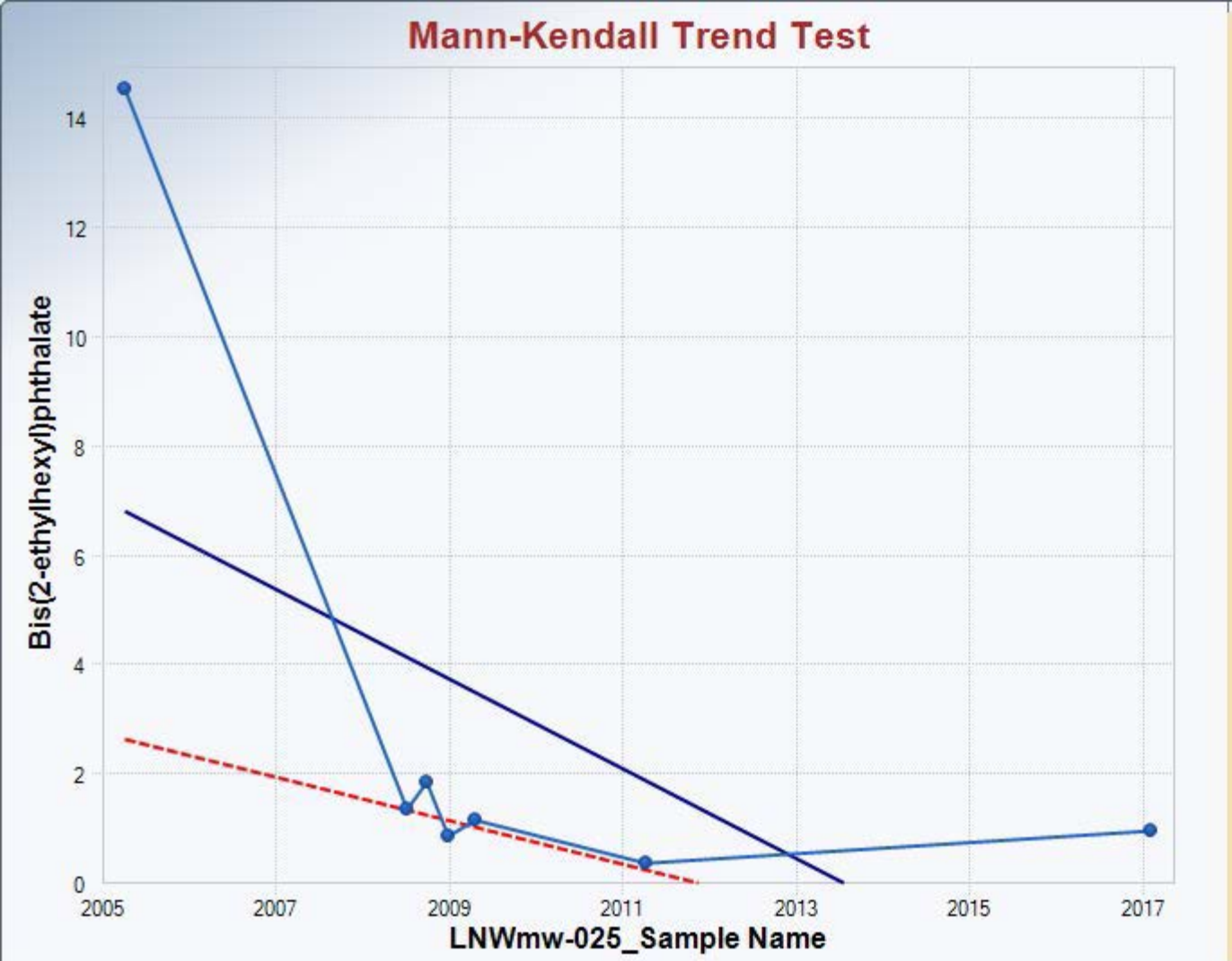
OLS Regression Line (Blue)

OLS Regression Slope	0.0087
OLS Regression Intercept	-16.9627

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0807
Theil-Sen Intercept	-161.6326

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.6583
Standardized Value of S	-1.8023
Test Value (S)	-13
Tabulated p-value	0.0350
Approximate p-value	0.0358

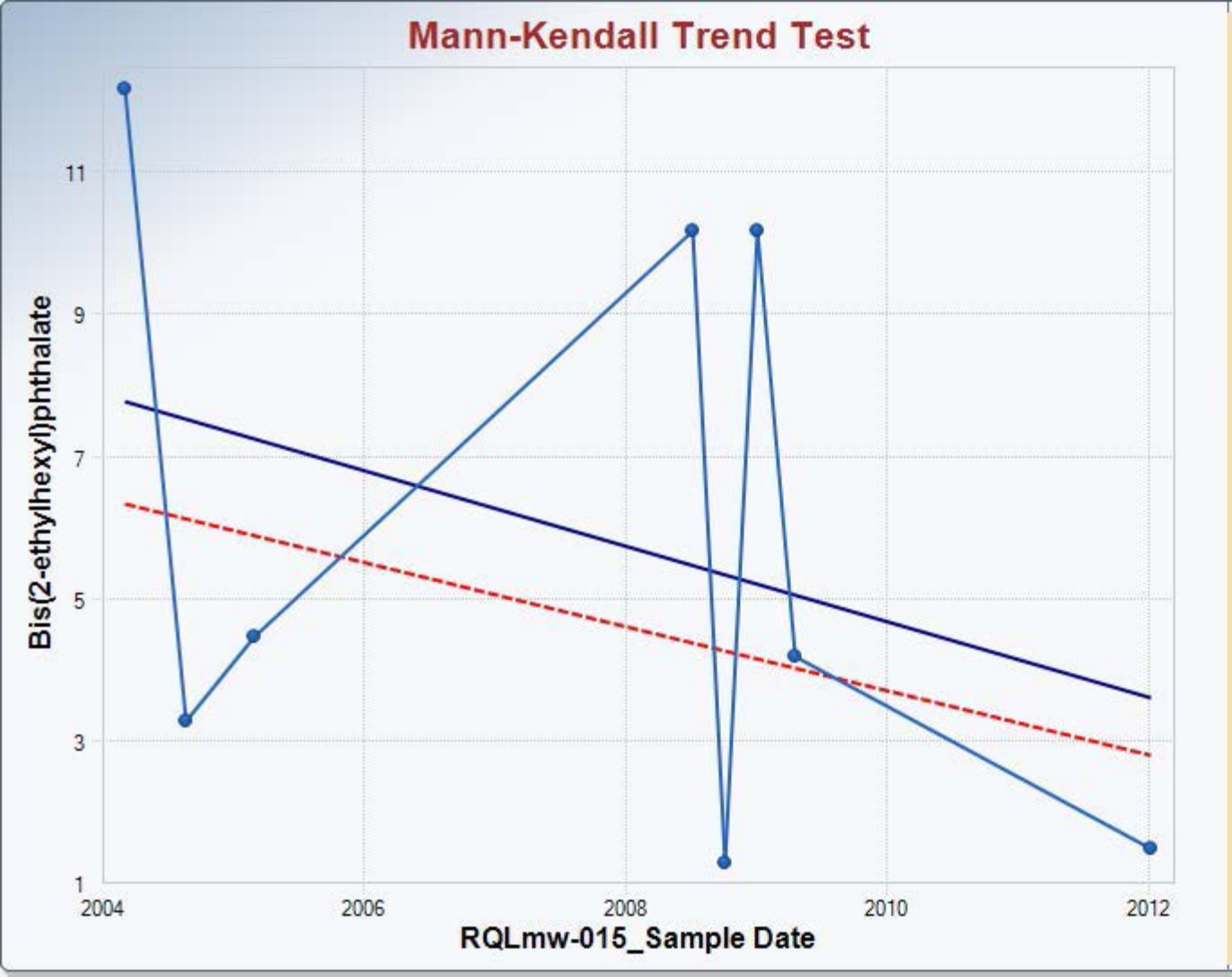
OLS Regression Line (Blue)

OLS Regression Slope	-0.8195
OLS Regression Intercept	1,650.3429

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.3996
Theil-Sen Intercept	804.3781

Statistically significant evidence of a decreasing trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	8
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	8.0208
Standardized Value of S	-0.9974
Test Value (S)	-9
Tabulated p-value	0.1190
Approximate p-value	0.1593

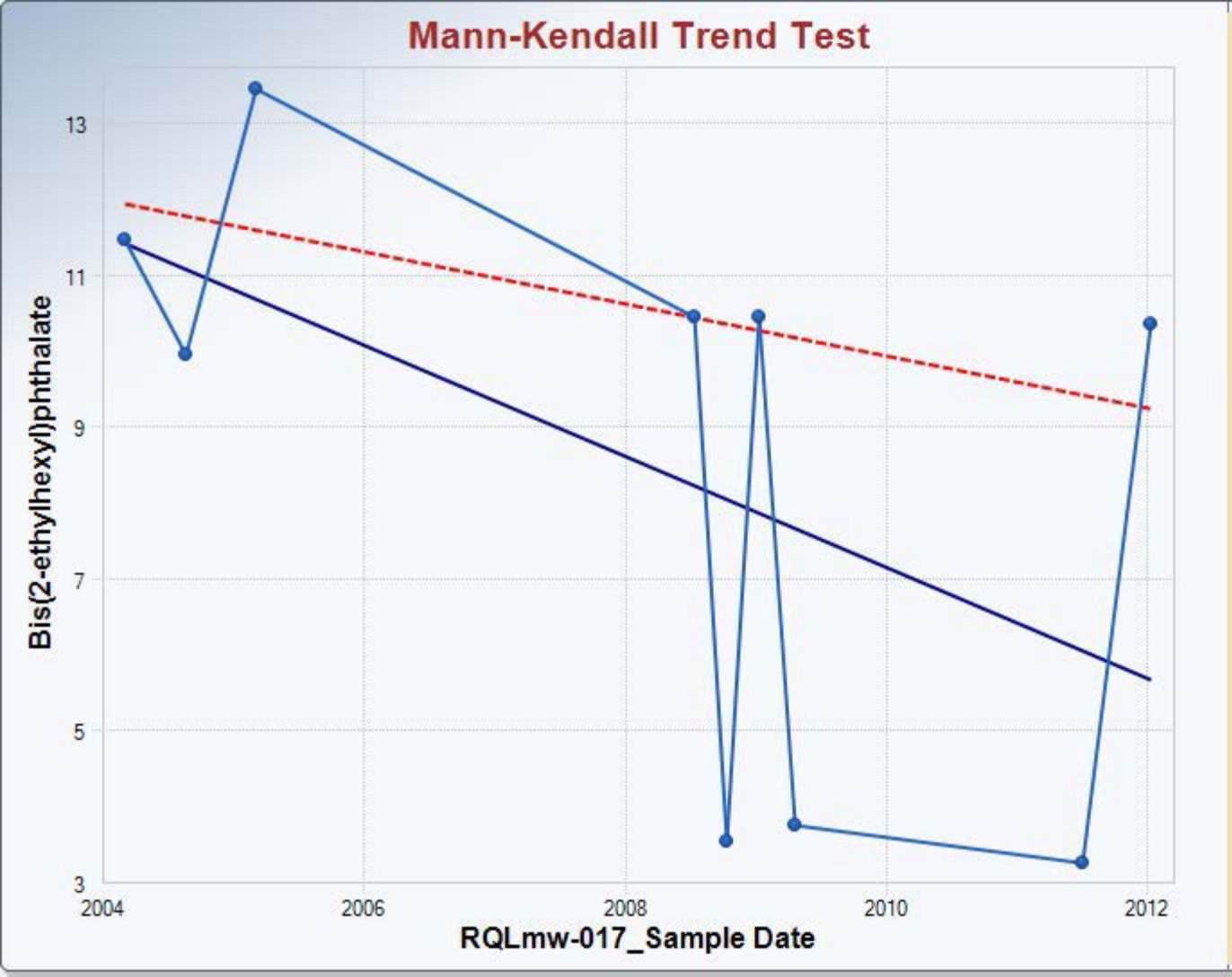
OLS Regression Line (Blue)

OLS Regression Slope	-0.5308
OLS Regression Intercept	1,071.2191

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.4486
Theil-Sen Intercept	905.0501

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	9.5394
Standardized Value of S	-1.4676
Test Value (S)	-15
Tabulated p-value	0.0900
Approximate p-value	0.0711

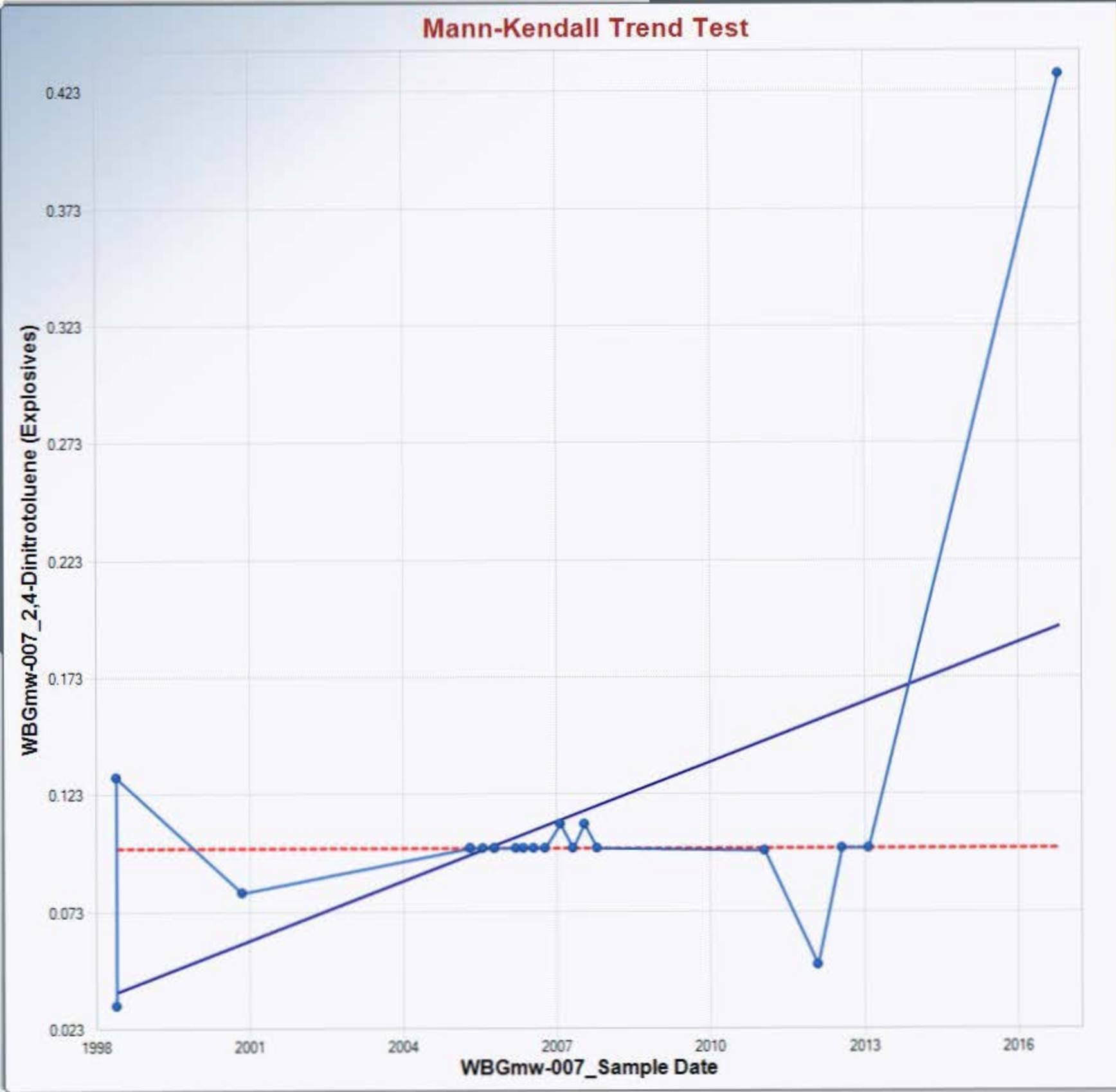
OLS Regression Line (Blue)

OLS Regression Slope	-0.7297
OLS Regression Intercept	1,473.2069

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.3408
Theil-Sen Intercept	694.4110

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	28.7576
Standardized Value of S	0.8346
M-K Test Value (S)	25
Tabulated p-value	0.2460
Approximate p-value	0.2020

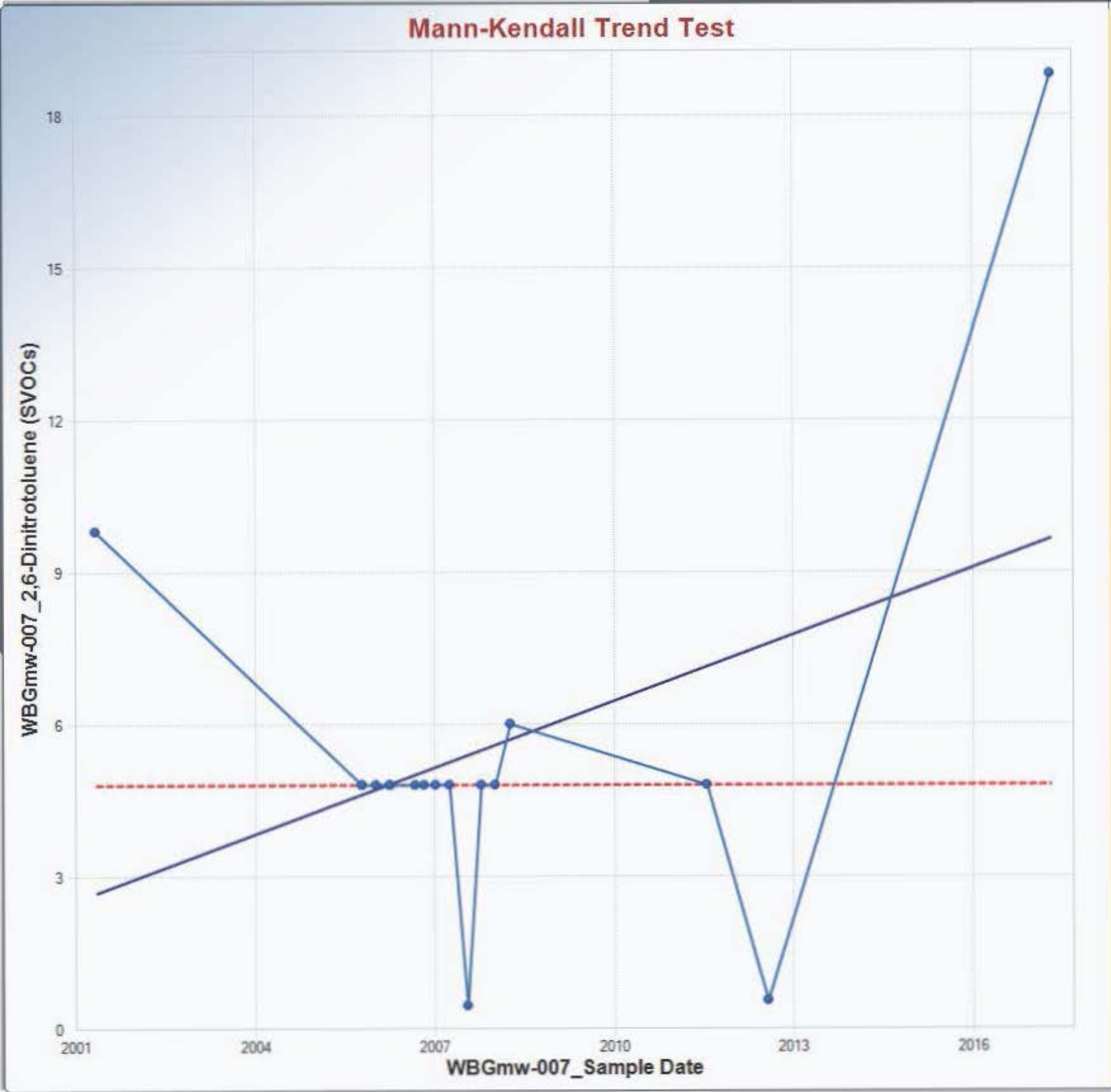
OLS Regression Line (Blue)

OLS Regression Slope	0.0084
OLS Regression Intercept	-16.8436

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.1000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	17
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	19.4079
Standardized Value of S	-0.2576
M-K Test Value (S)	-6
Tabulated p-value	0.4200
Approximate p-value	0.3983

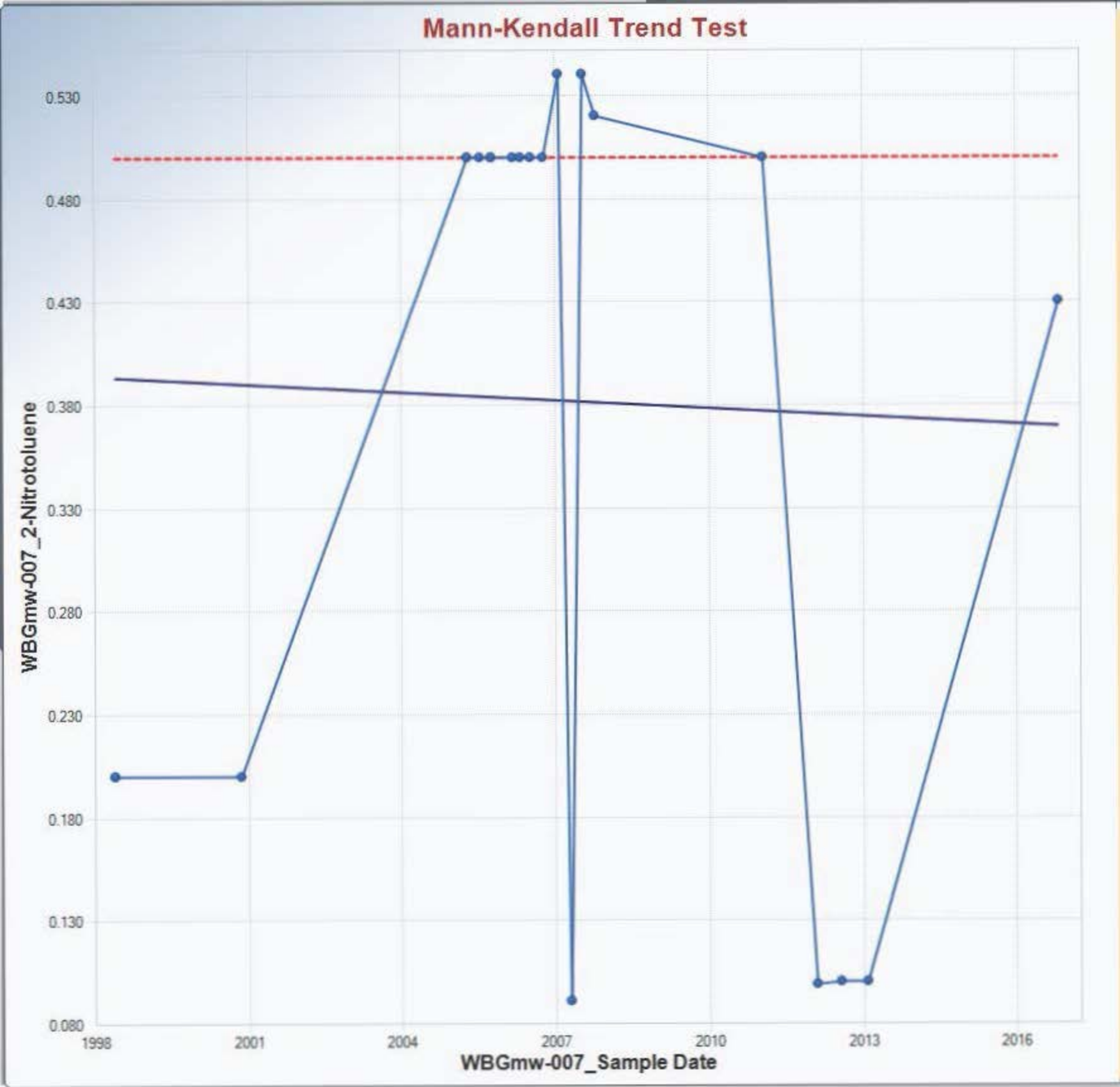
OLS Regression Line (Blue)

OLS Regression Slope	0.4371
OLS Regression Intercept	-871.7582

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	5.0000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	21
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	31.0805
Standardized Value of S	0.0322
M-K Test Value (S)	2
Tabulated p-value	0.4880
Approximate p-value	0.4872

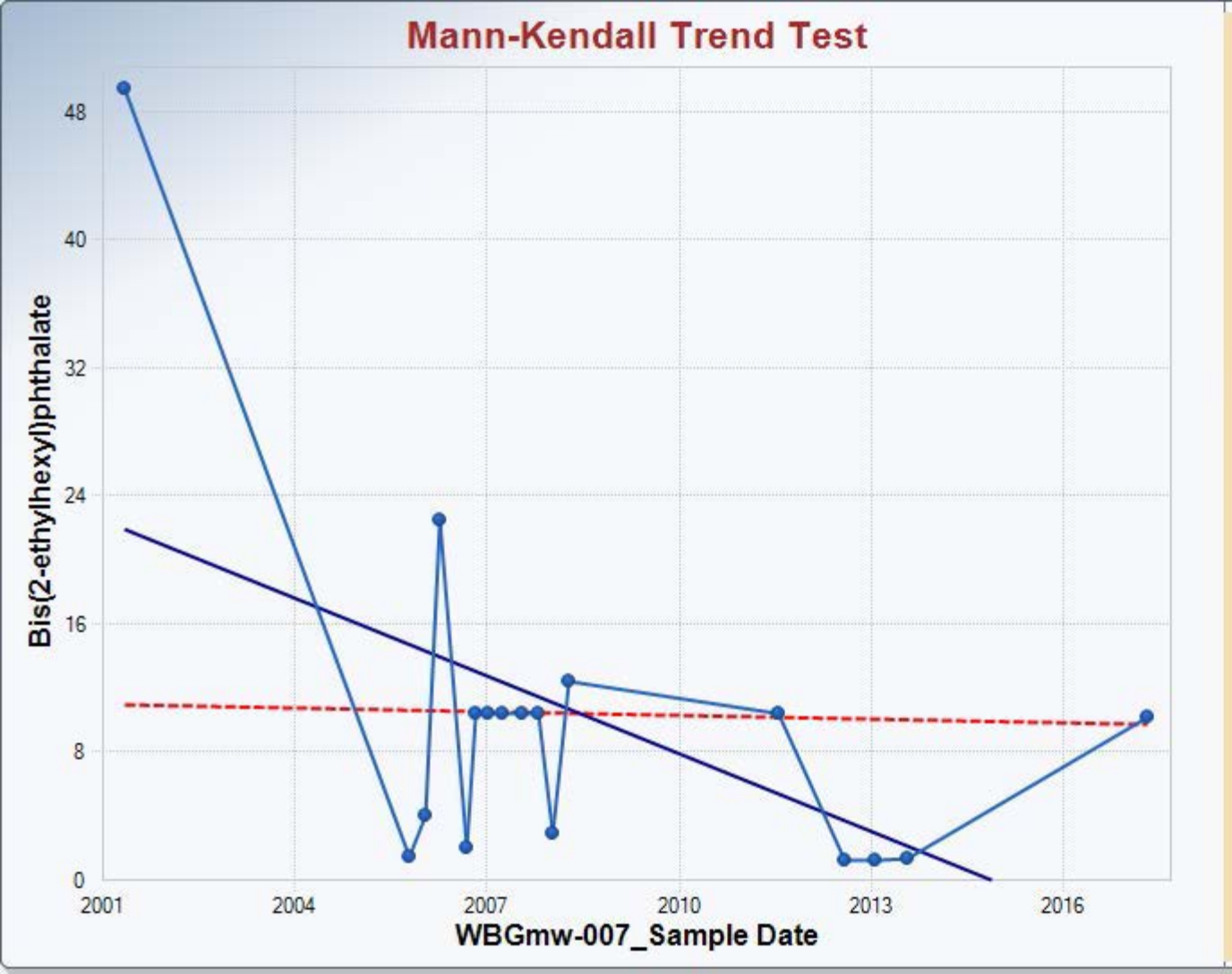
OLS Regression Line (Blue)

OLS Regression Slope	-0.0013
OLS Regression Intercept	2.9696

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0000
Theil-Sen Intercept	0.5000

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	17
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	23.6854
Standardized Value of S	-1.3510
Test Value (S)	-33
Tabulated p-value	0.1020
Approximate p-value	0.0883

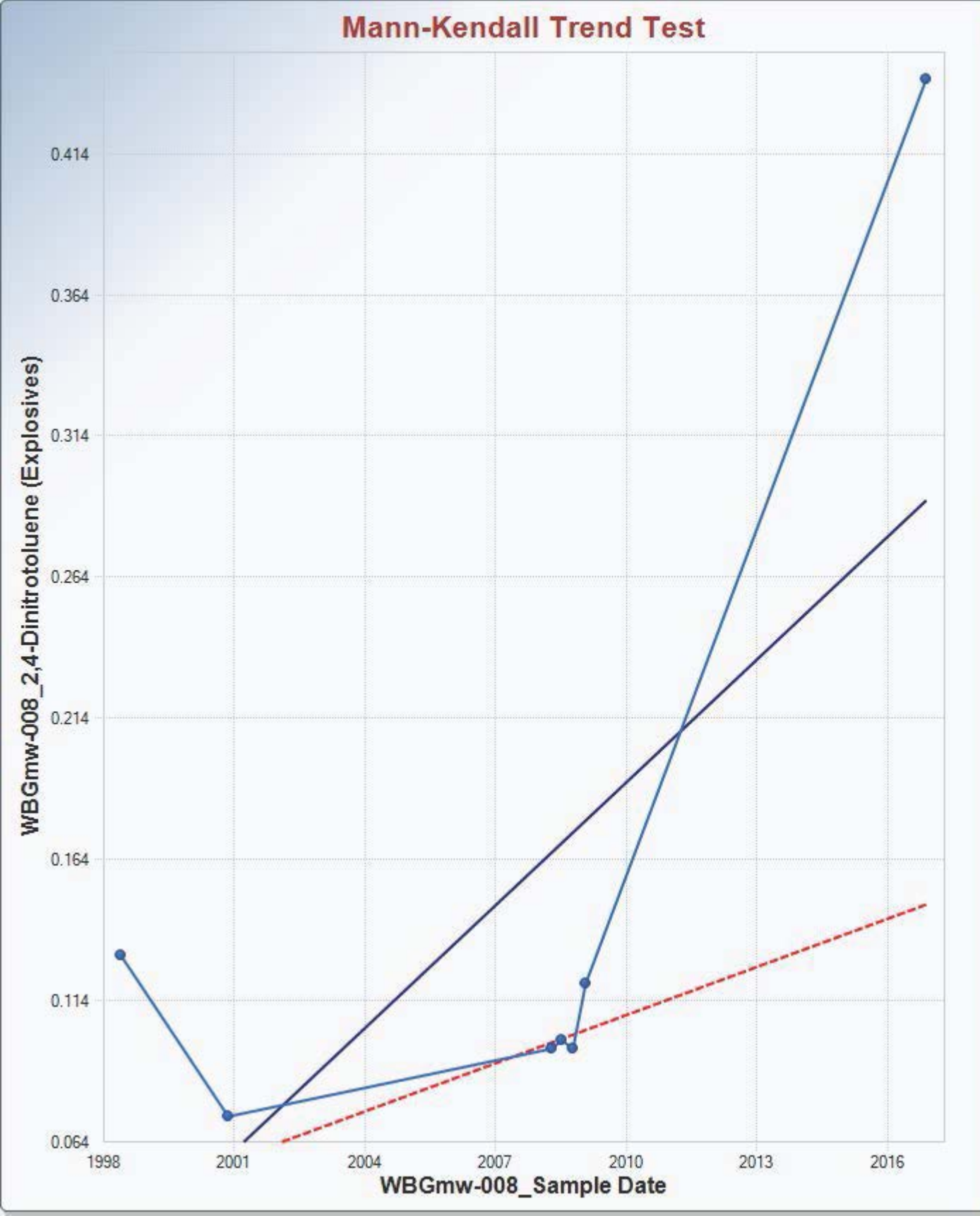
OLS Regression Line (Blue)

OLS Regression Slope	-1.6227
OLS Regression Intercept	3,268.1839

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0747
Theil-Sen Intercept	159.8609

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	7
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	6.5828
Standardized Value of S	1.0634
M-K Test Value (S)	8
Tabulated p-value	0.1190
Approximate p-value	0.1438

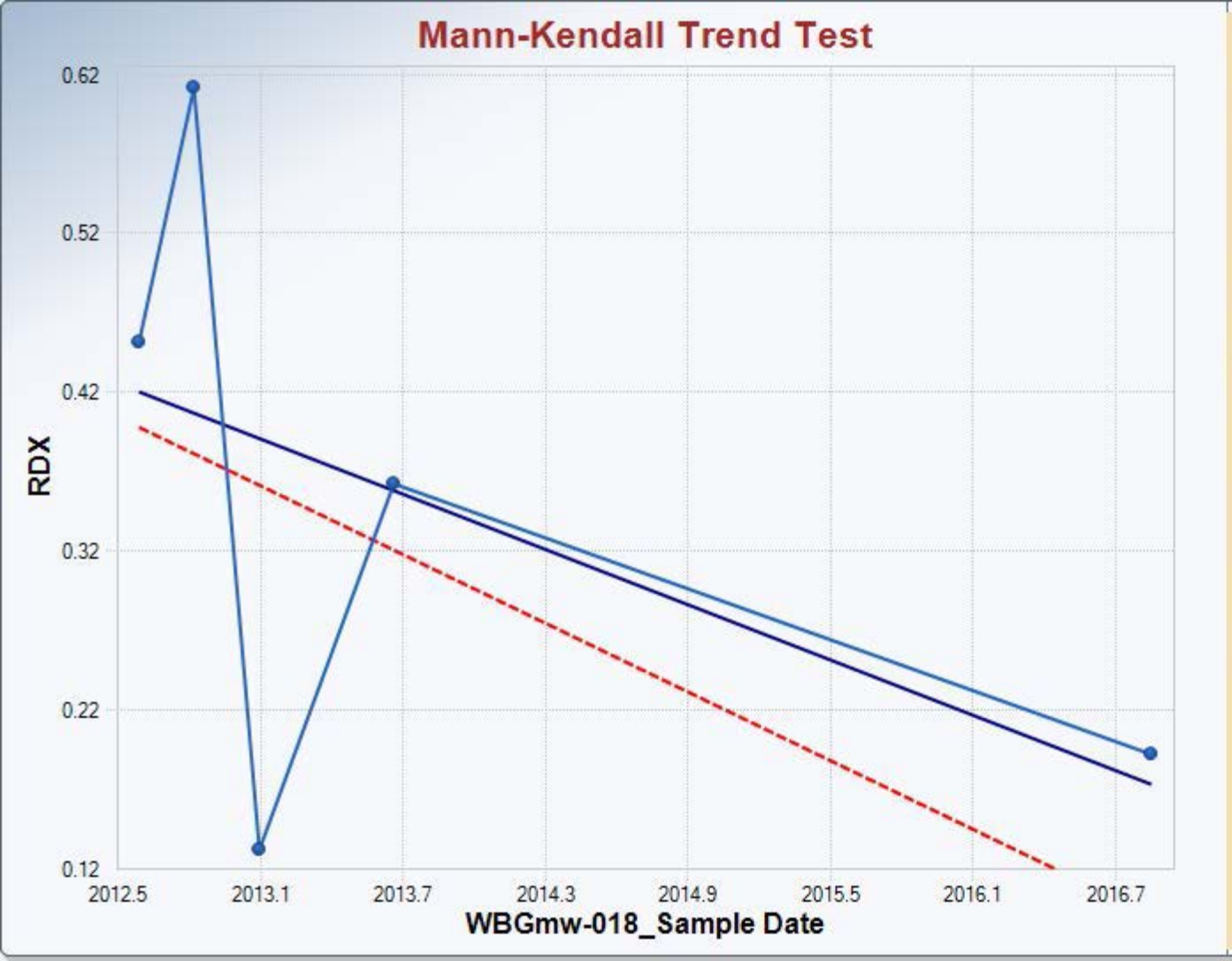
OLS Regression Line (Blue)

OLS Regression Slope	0.0145
OLS Regression Intercept	-29.0258

Theil-Sen Trend Line (Red)

Theil-Sen Slope	0.0057
Theil-Sen Intercept	-11.3701

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	5
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	4.0825
Standardized Value of S	-0.7348
Test Value (S)	-4
Tabulated p-value	0.2420
Approximate p-value	0.2312

OLS Regression Line (Blue)

OLS Regression Slope	-0.0579
OLS Regression Intercept	116.9241

Theil-Sen Trend Line (Red)

Theil-Sen Slope	-0.0723
Theil-Sen Intercept	145.9397

Insufficient statistical evidence of a significant trend at the specified level of significance.

APPENDIX B
COMMENT RESPONSE TABLE

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Comment Resolution Table

Installation: Camp Ravenna/Former RVAAP
Document: Comments on the Draft Facility-Wide Groundwater Monitoring Program Plan, RVAAP-66 Facility-Wide Groundwater, Semiannual Groundwater Monitoring Addendum for 2017
Reviewer(s): Kevin M. Palombo, Ohio EPA, (330) 963-1292
Date: 30 March 2017

Cmt No.	Page or Sheet	Comment	Response
General Comments			
1	**Section 1.0, paragraph 1**	Section 1.0, paragraph 1 describes the activities being conducted at the former Ravenna Army Ammunition Plant (RVAAP) as a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) "closure." Use of the word "closure" is confusing in this context as the CERCLA program does not cover closure. "Closure" is a Resource Conservation and Recovery Act term please clarify the language in this section of the document.	Concur. The term “closure” will be replaced with “investigation and cleanup” in the referenced text.
Specific Groundwater Comments			
1	**Table 3-1**	Table 3-1 indicates that Upper Sharon Aquifer well LL12mw-189 as one of the 46 FWGWMP wells monitored in 2016. However, according to the *FWGWMP Annual Report for 2016,* LL12mw-189 was not one of the 46 FWGWMP wells sampled in 2016. It appears from the note in Table 3-1 that the NGB wants to add well LL 12mw-189 to the list of FWGWMP wells to be sampled in 2017 because that well represents source area conditions in the Load Line 12 AOC. If this is the case, then well LL 12mw-189 needs to be added to the list of 24 existing wells to be sampled semi-annually (spring and fall) in 2017 as part of the FWGWMP sampling listed on page ES-1. However, Table 3-2 indicates that well LL 12mw-189 is a RI well. The NGB needs to clarify the sampling status of well LL 12mw-189.	Concur. The Table 3-1 entry for LL12mw-189 will be revised (now as part of Table 3-2, RI Wells and Rationale, see response to Comment No. 2 below) to indicate it is an RI well that will be sampled in Spring 2017 due to being dry during the Fall 2016 sampling event. The need for additional sampling of LL12mw-189 for the purposes of the RI will be evaluated based on the results of the Spring 2017 event.
2	**Table 3-1**	Table 3-1 is entitled "Semiannual/RI Monitoring Wells and Rationale." The aforementioned title is confusing because the table contains both FWGWMP and RI wells, and some of the FWGWMP wells are being sampled semi-annually while other are being sampled quarterly and RI wells are only being sampled during the spring semi-annual event. Also, it is not clear in the table which of the 96 wells are FGWMP wells and which are RI wells. For clarity, Ohio EPA recommends splitting Table 3-1 into two tables, one for FWGWMP wells and one for RI wells. Ohio EPA recommends entitling the two Tables: "FWGWMP Wells and Rationale" and "RI Wells and Rationale."	Concur. Table 3-1 will be separated into Table 3-1, FWGWMP Wells and Rationale and Table 3-2, RI Wells and Rationale.

Comment Resolution Table

Installation: Camp Ravenna/Former RVAAP
Document: Comments on the Draft Facility-Wide Groundwater Monitoring Program Plan, RVAAP-66 Facility-Wide Groundwater, Semiannual Groundwater Monitoring Addendum for 2017
Reviewer(s): Kevin M. Palombo, Ohio EPA, (330) 963-1292
Date: 30 March 2017

3	**Table 3-2**	Table 3-2 is entitled "Semiannual Monitoring Wells and Analytical Testing Suite." This title is confusing because some of the FWGWMP wells are being sampled semiannually and some (newly installed wells) are being sampled quarterly. Also, five of the new FWGWMP wells were sampled once in the fall of 2016, and are to be sampled for only three quarterly events in 2017. The table does not clearly indicate the frequency at which individual FWGWMP wells will be sampled. These issues need to be clarified.	Concur. The title of the referenced table will be revised to Table 3-3, 2017 FWGWMP and RI Monitoring Wells with Analytical Testing Suite. Footnotes will be added to clarify three quarters of sampling during 2017 for newly installed wells, to identify RI wells subject to review for additional sampling after receipt of Spring 2017 results, and semi-annual FWGWMP well monitoring. Per guidance in Section 3.2 of the Final Conceptual Plan for the FWGWMP Plan included as Appendix F of the Director's Final Findings and Orders, dated June 2004, and in Section 3.1.2.2 of the Final FWGWMP, dated September 2004, new wells installed as part of the RI will be considered for inclusion in the 2018 FWGWMP based on results of the initial four quarters of sampling.
4	**Page 2-2**	Line 11 on page 2-2 and line 27 on page 3-2 incorrectly indicate nine new wells were installed in 2016. For clarity, 15 new wells were installed in 2016. Four of these are background wells and 11 are down-gradient of AOCs.	Concur. The text will be revised to correctly relay the number of wells installed in 2016.
5	**Title**	The title of the submitted document "Semiannual Ground Water Monitoring Addendum for 2017" is confusing for two reasons. First, the addendum to the *FWGWMPP* is issued/revised annually, and second, FWGWMP sampling includes both semiannual sampling of old wells and quarterly sampling of new wells. Ohio EPA recommends entitling the addendum "Ground Water Monitoring Addendum for 2017."	The draft document title was based on previously reviewed and OEPA approved versions of the annual FWGWMP addendum. The title will be revised as requested for the final document version.

Ohio Environmental Protection Agency

John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

April 20, 2017

Mr. Mark Leeper
Army National Guard Directorate
ARNGD-ILE Clean Up
111 South George Mason Drive
Arlington, VA 22204

Re: US Army Ammunition Plt RVAAP
Remediation Response
Project Records
Remedial Response
Portage County
267000859036

Subject: Ravenna Army Ammunition Plant, Portage/Trumbull Counties. Approval of the Response to Ohio EPA Comments on the "Draft Facility-Wide Groundwater Monitoring Program Plan, RVAAP-66 Facility-Wide Groundwater, Semiannual Groundwater Monitoring Addendum for 2017" at the Former Ravenna Army Ammunition Plant, Ravenna, Ohio, Dated April 6, 2017

Dear Mr. Leeper:

The Ohio Environmental Protection Agency (Ohio EPA) has received the Response to Comments on the "Draft Facility-Wide Groundwater Monitoring Program Plan, RVAAP-66 Facility-Wide Groundwater, Semiannual Groundwater Monitoring Addendum for 2017" at the Ravenna Army Ammunition Plant (RVAAP), Ravenna, Ohio. These responses to comments were received at Ohio EPA's Northeast District Office (NEDO), Division of Environmental Response and Revitalization (DERR) on April 7, 2017. The report was prepared for the Army National Guard Directorate by TEC-Weston Joint Venture under Contract Number W9133L-14-D-0008.

The response to comments were reviewed by personnel from Ohio EPA's DERR and Division of Drinking and Ground Waters (DDAGW), pursuant to the Director's Findings and Orders paragraph 39 (b), the responses are satisfactory. Please submit the final document for Agency approval with the changes made as agreed in the Comment Resolution Table.

If you have any questions, please call me at (330) 963-1292.

Sincerely,

Kevin M. Palombo
Environmental Specialist
Division of Environmental Response and Revitalization

KP/nvr

cc: Rebecca Shreffler/Gail Harris, VISTA Sciences Corp.

ec: Bob Princic, Ohio EPA, NEDO DERR
Rodney Beals, Ohio EPA, NEDO DERR
Thomas Schneider, Ohio EPA, SWDO DERR
Carrie Rasik, Ohio EPA, CO DERR
Kevin Sedlak, ARNG
Katie Tait, OHARNG RTLS