

Appendix 5. Time-Series Graphs Showing Local Regression Models

Confidence intervals for the smooth curve fitted to concentration data for selected constituents measured for in water samples from wells in the Idaho National Laboratory water-quality aquifer monitoring network, 1989–2018. The smooth curve was obtained using a local polynomial regression method (LOESS) and is called the ‘loess curve’.

EXPLANATION

-  Type-1 detection neglecting uncertainty
-  Type-1 nondetection substituted with one-half reporting threshold
-  Loess curve fitted to observations
-  90-percent confidence band around loess curve

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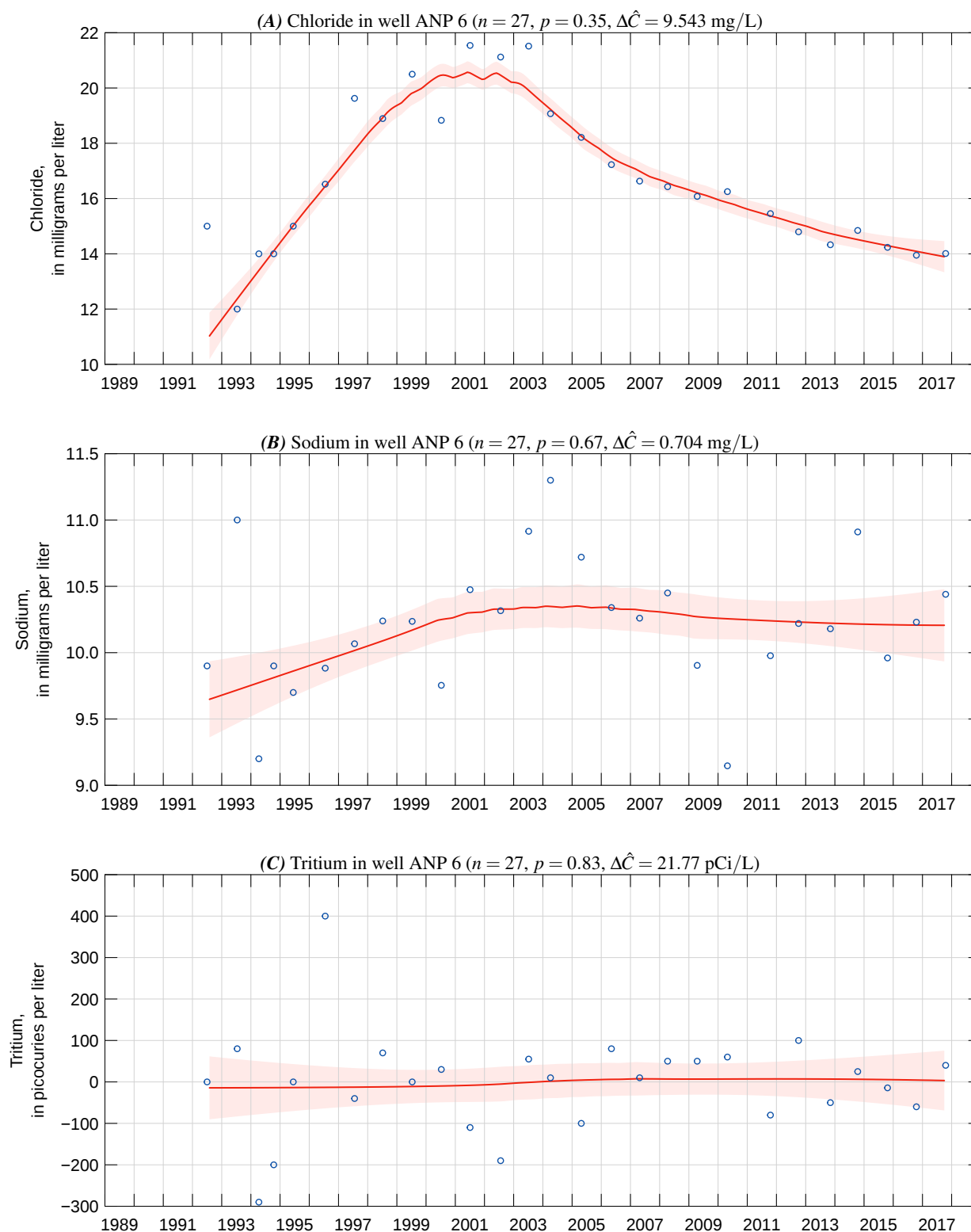


Figure 5.1. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well ANP 6 (Site No. 435152112443101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

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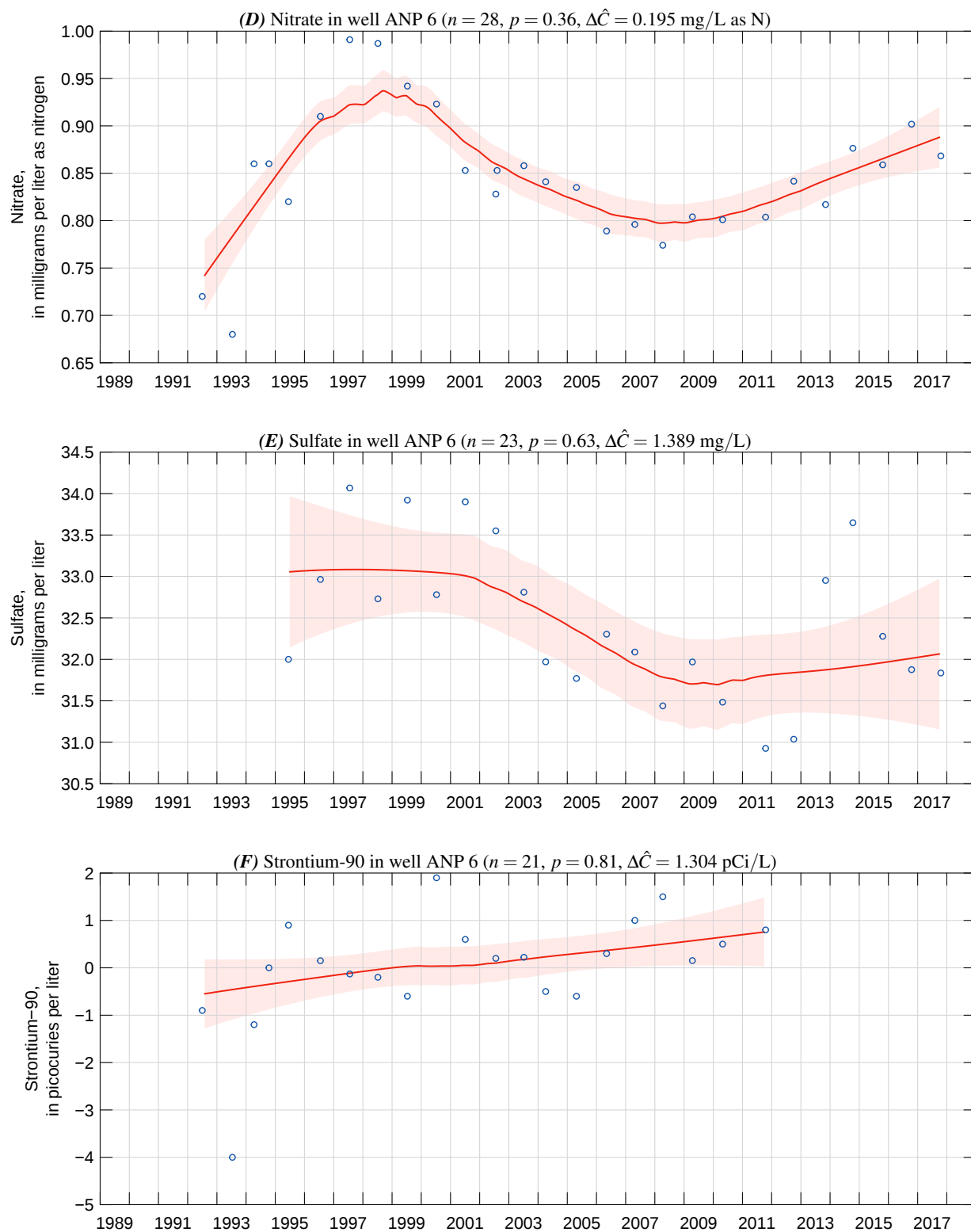


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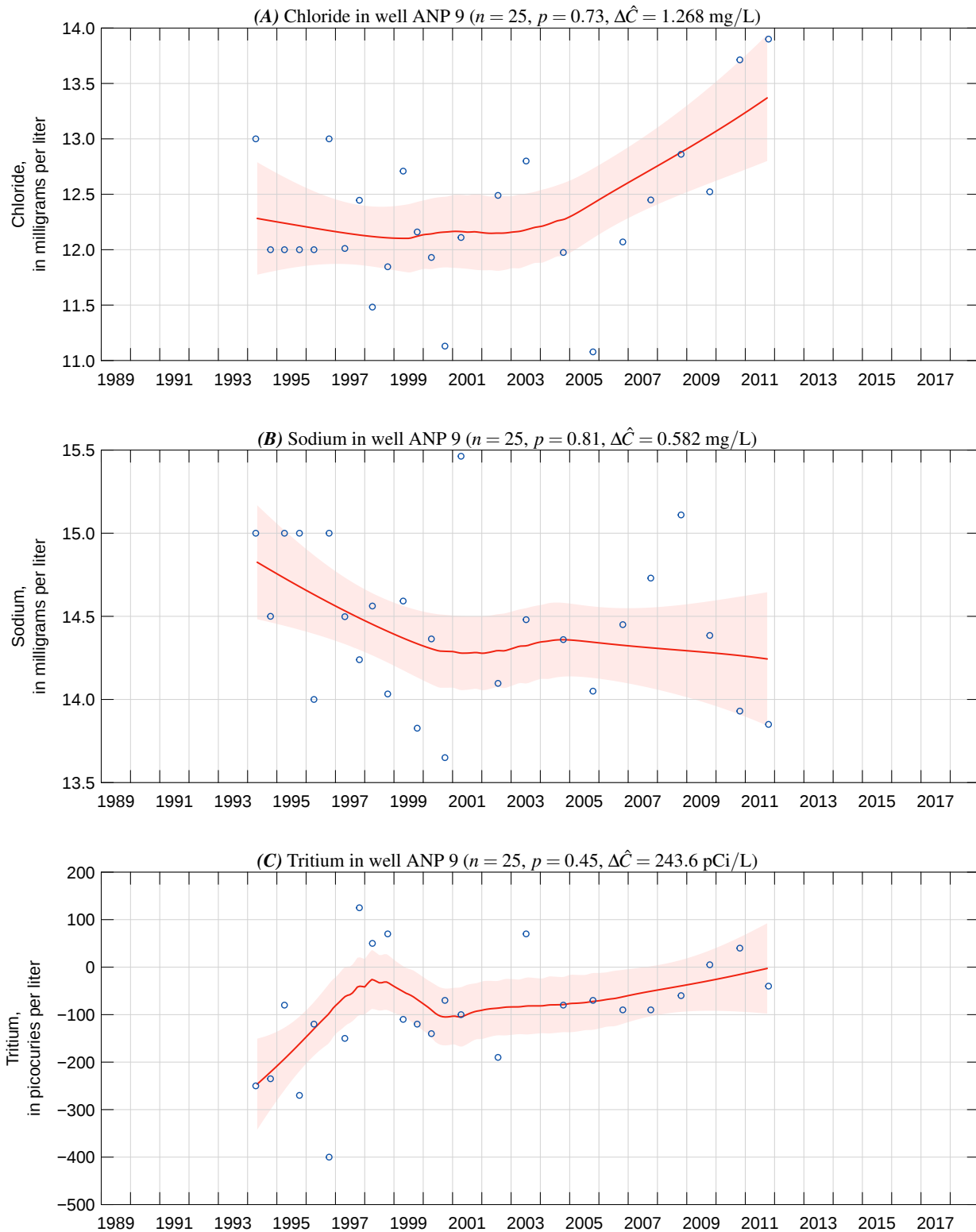


Figure 5.2. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, (N) trichloroethylene, and (O) strontium-90 measured in water samples collected from well ANP 9 (Site No. 434856112400001), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

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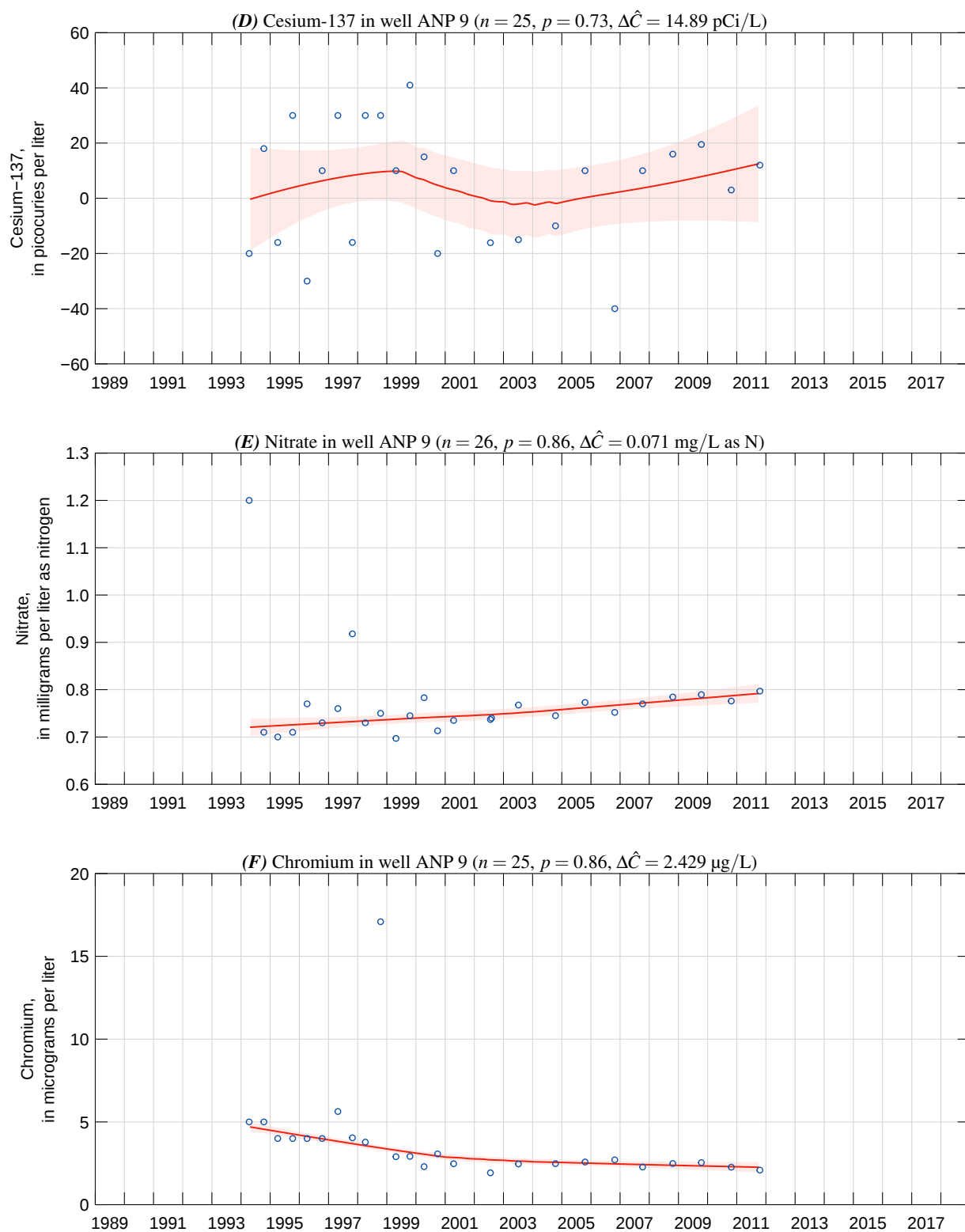


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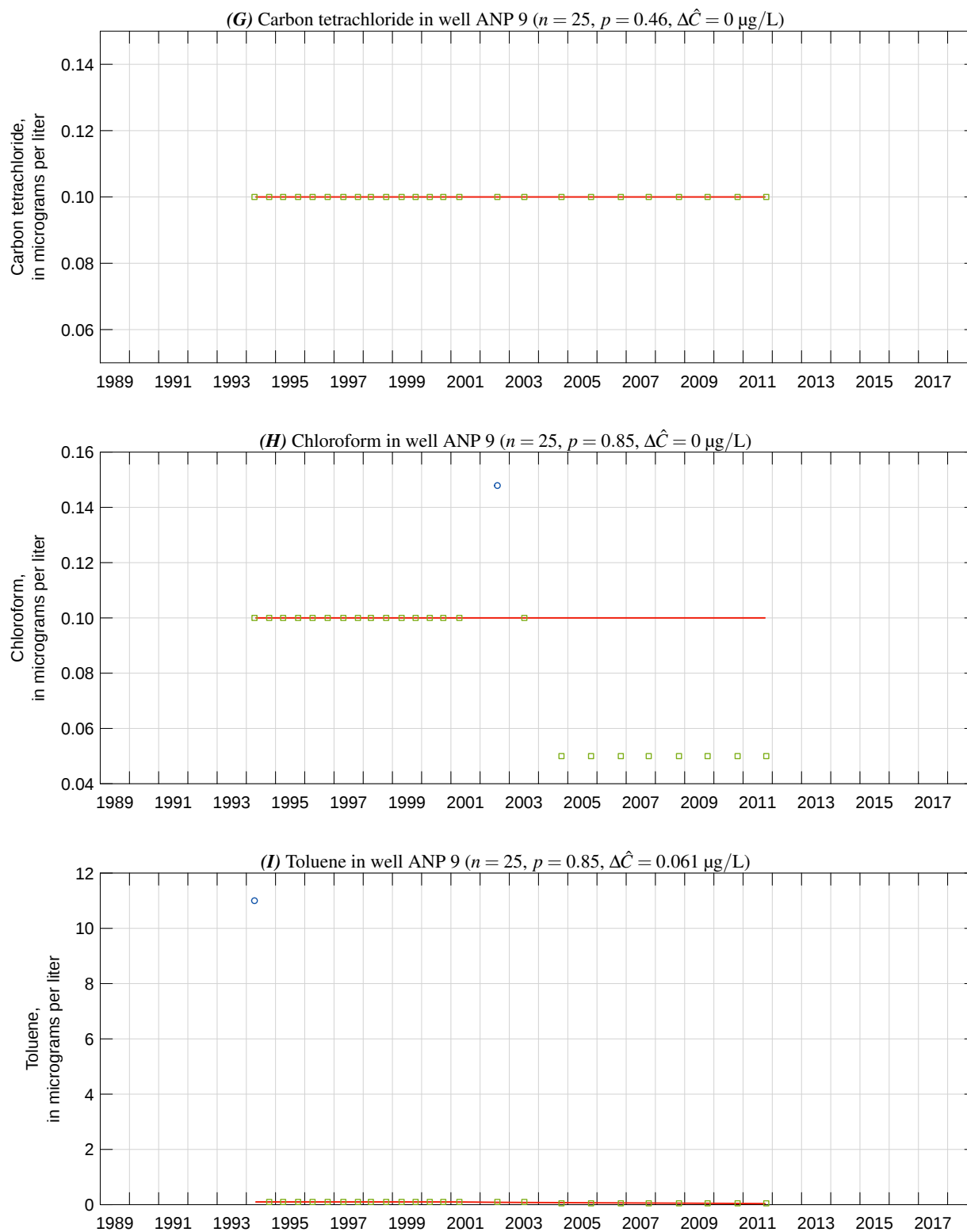


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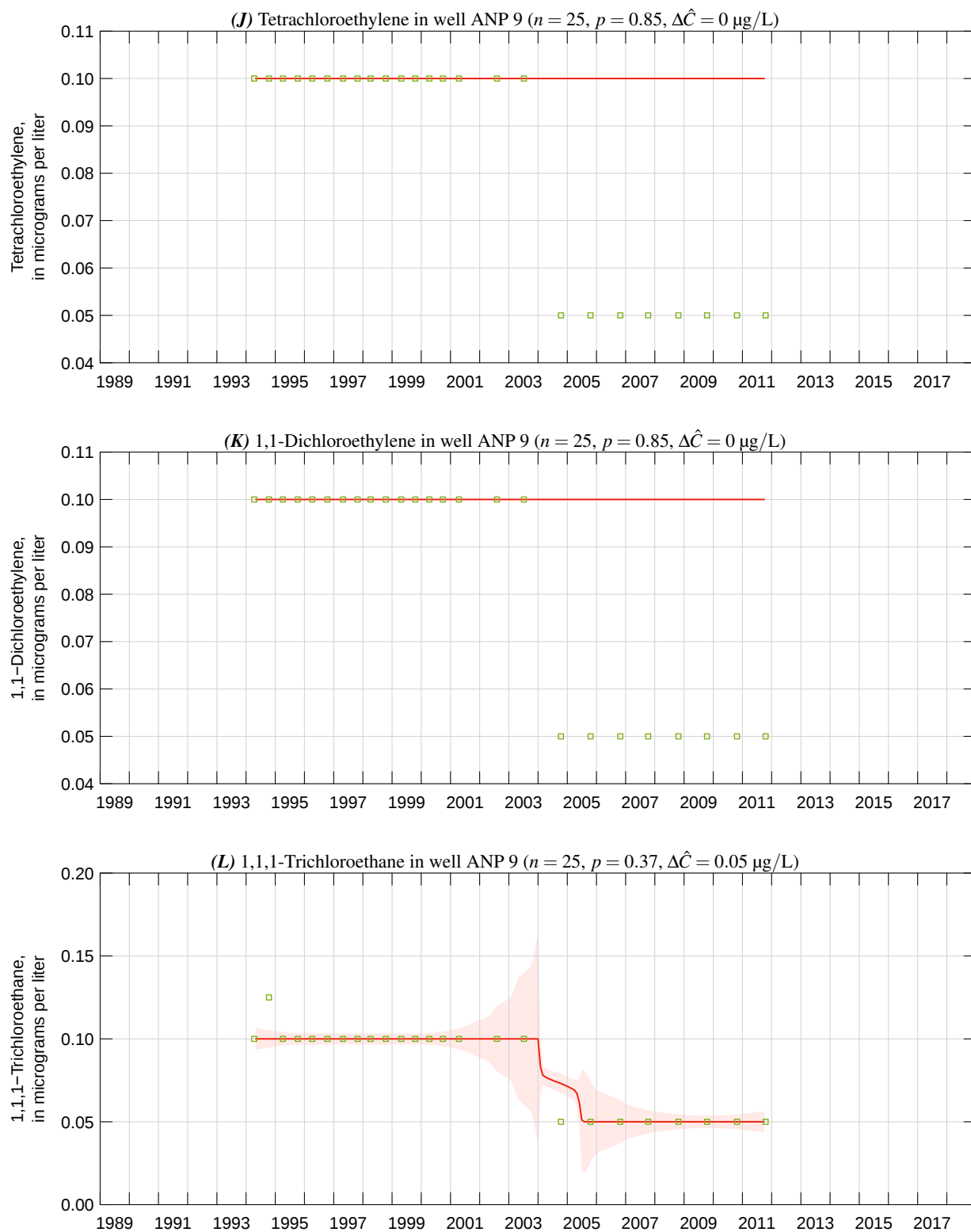


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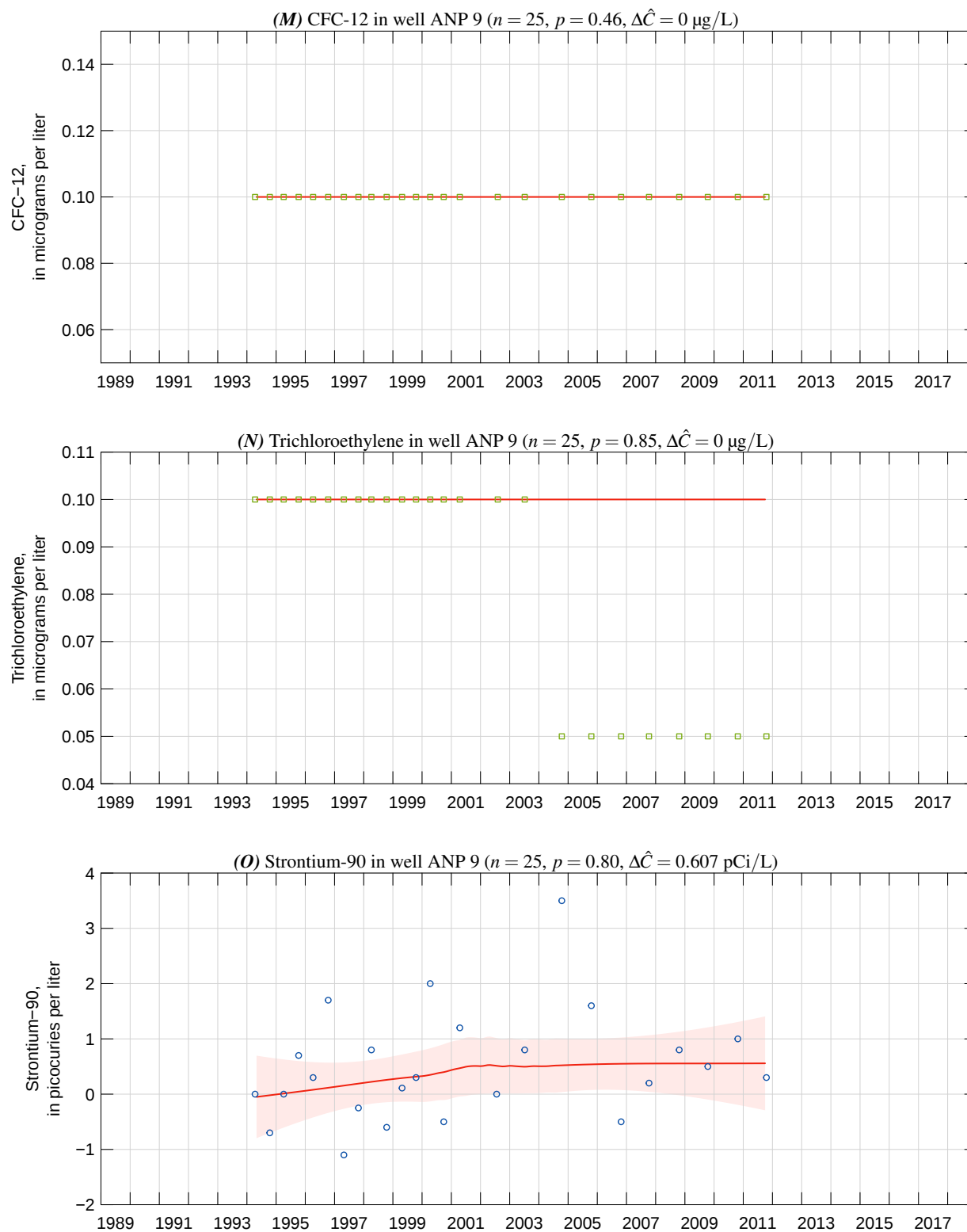


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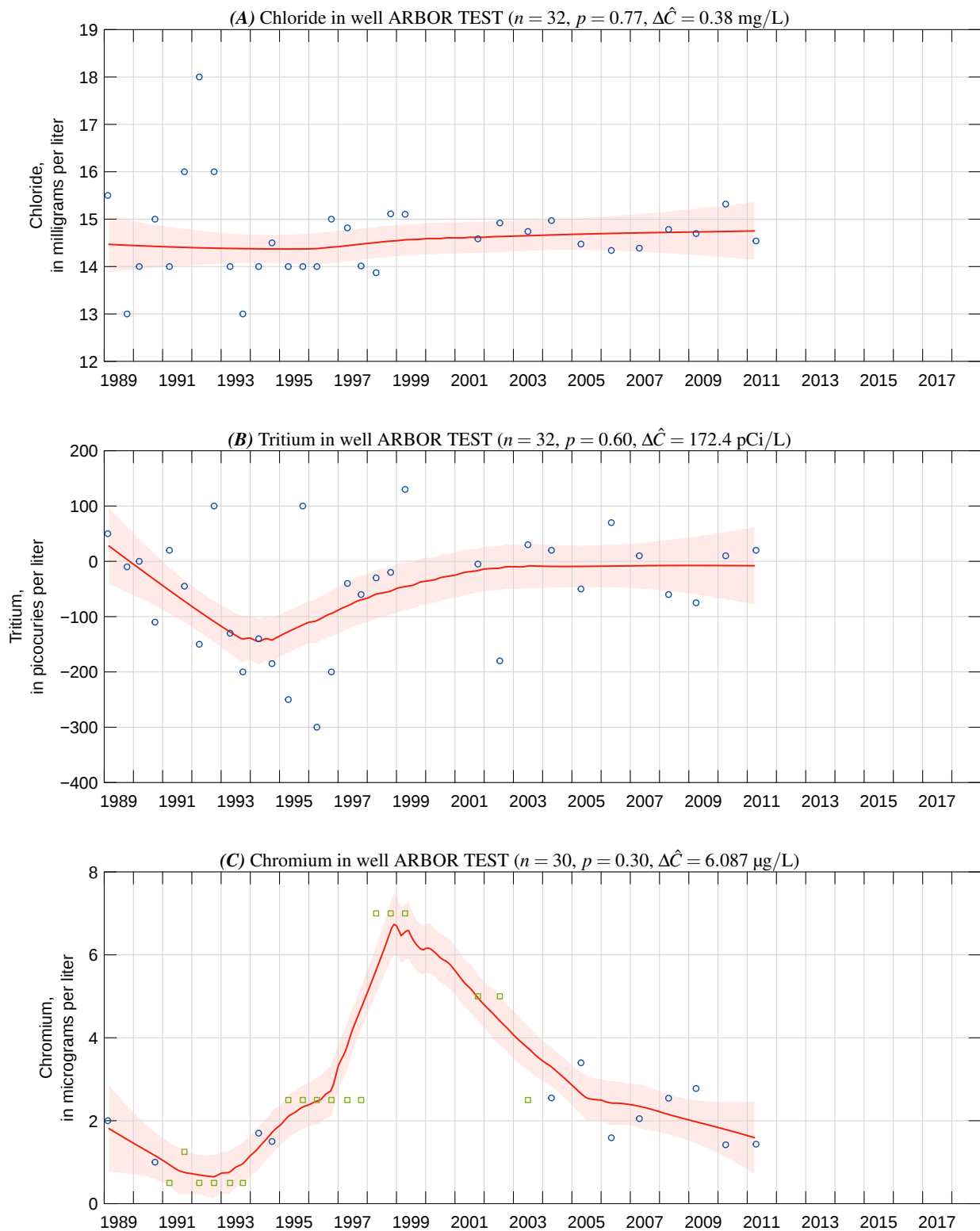


Figure 5.3. Local-regression model fitted to (A) chloride, (B) tritium, and (C) chromium measured in water samples collected from well ARBOR TEST (Site No. 433509112384801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

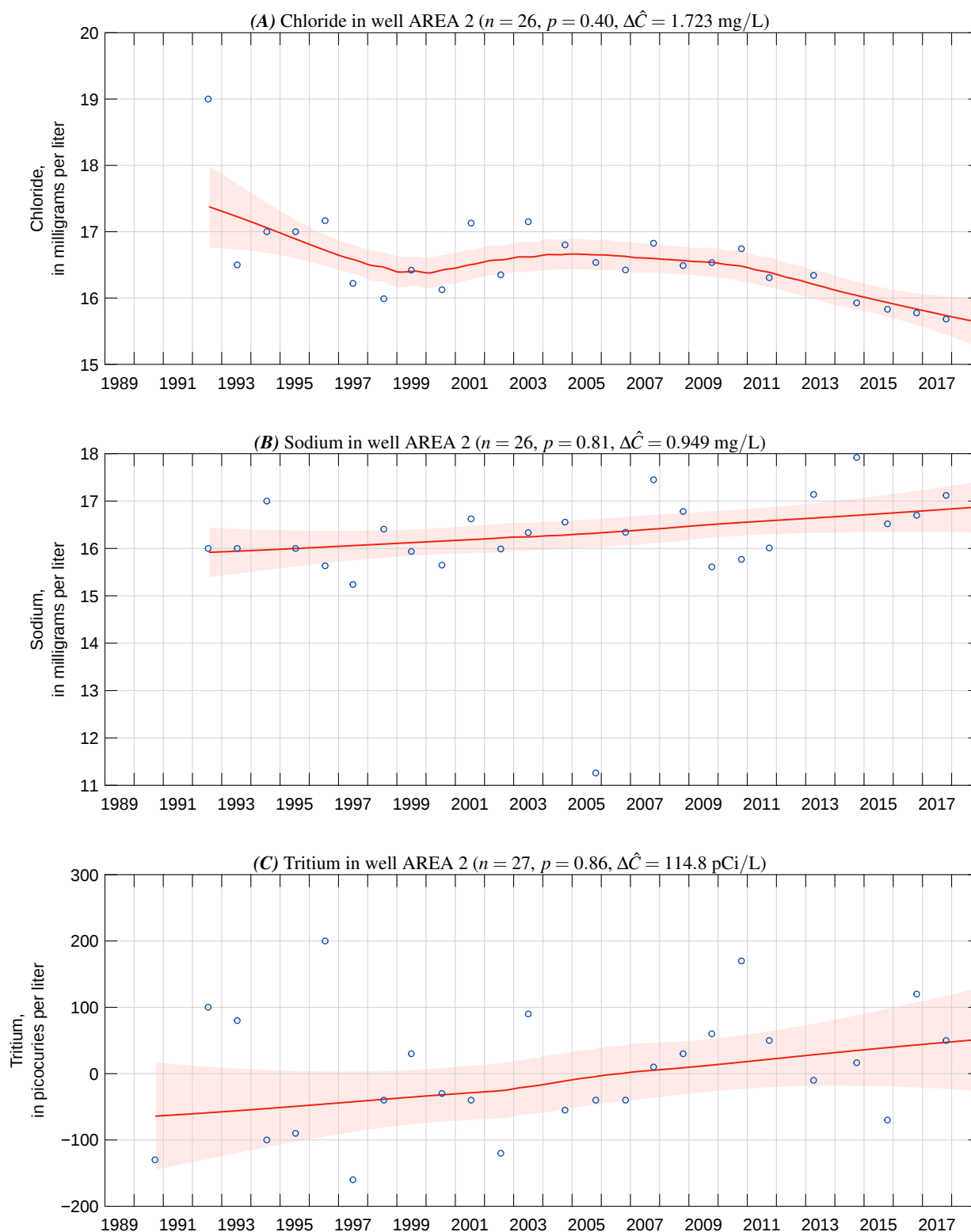


Figure 5.4. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well AREA 2 (Site No. 433223112470201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

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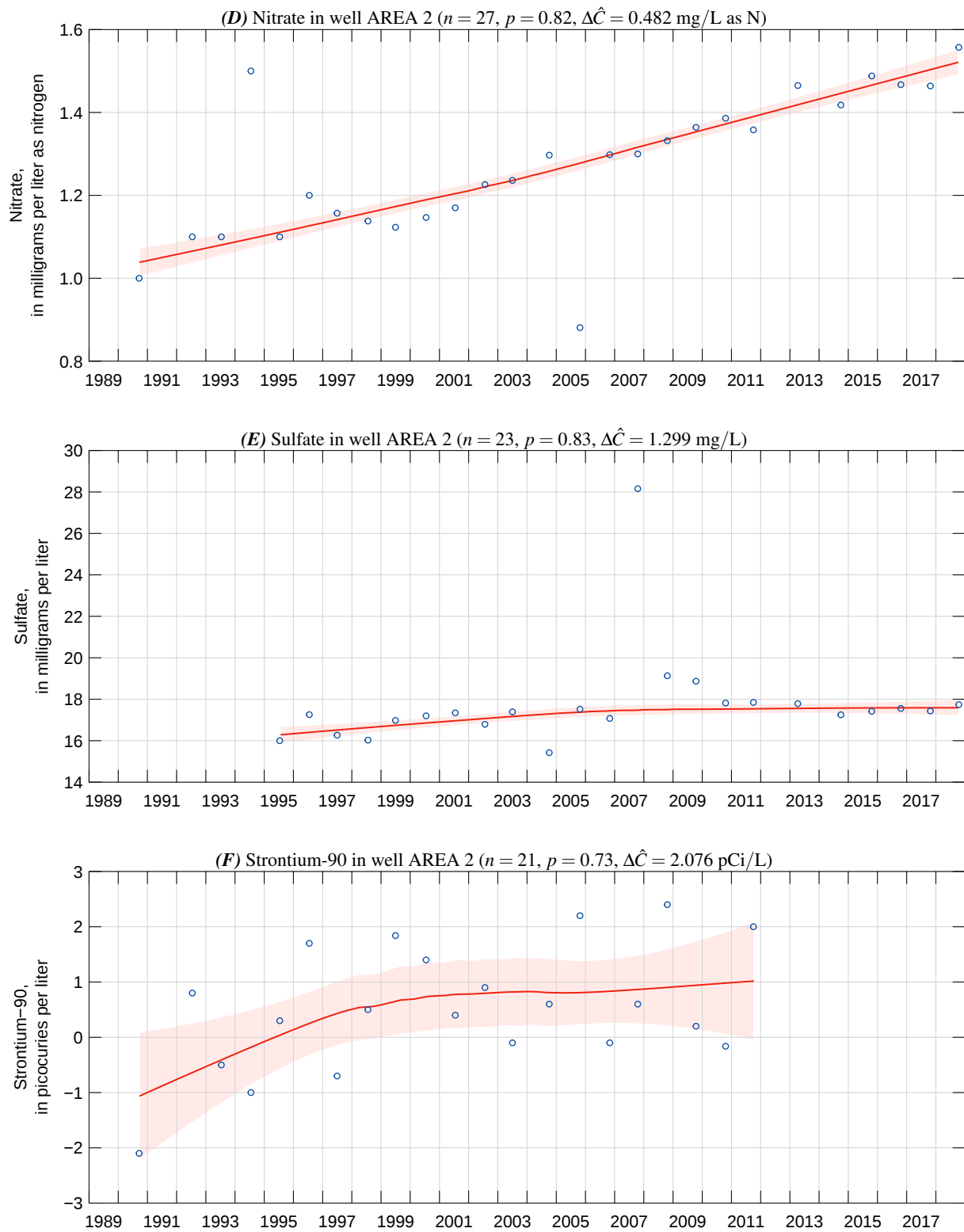


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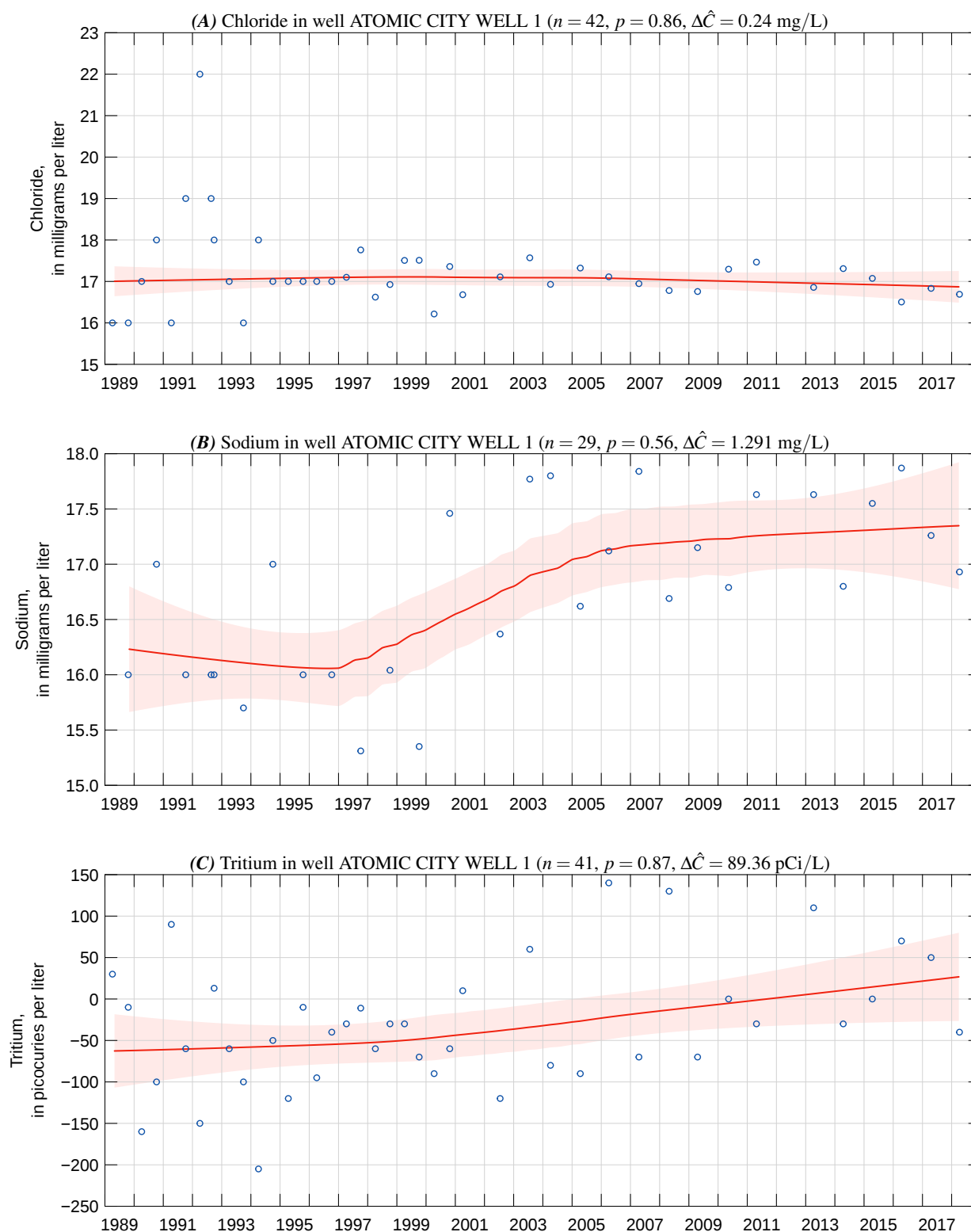


Figure 5.5. Local-regression model fitted to (A) chloride, (B) sodium, and (C) tritium measured in water samples collected from well ATOMIC CITY WELL 1 (Site No. 432638112484101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

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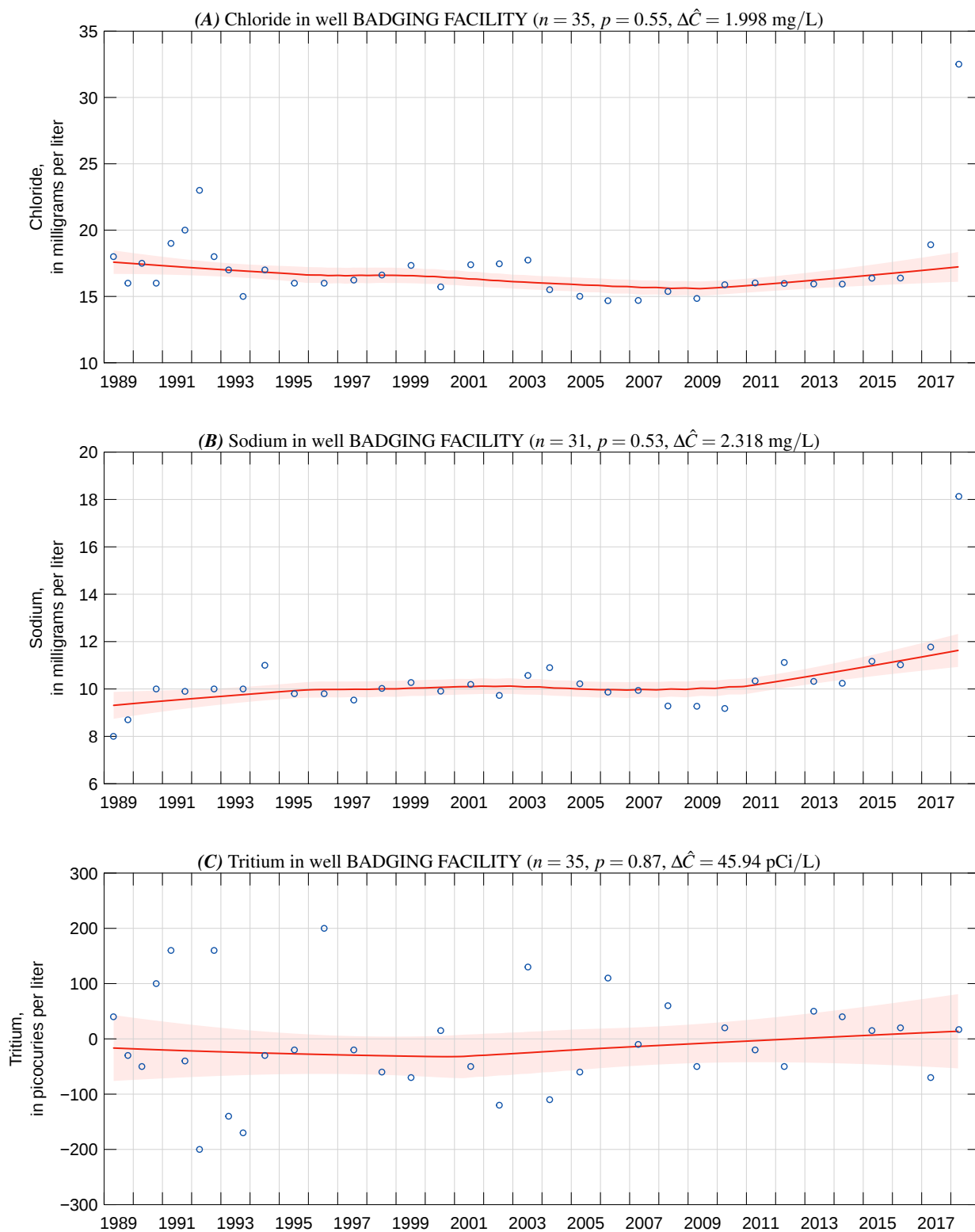


Figure 5.6. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well BADGING FACILITY (Site No. 433042112535101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

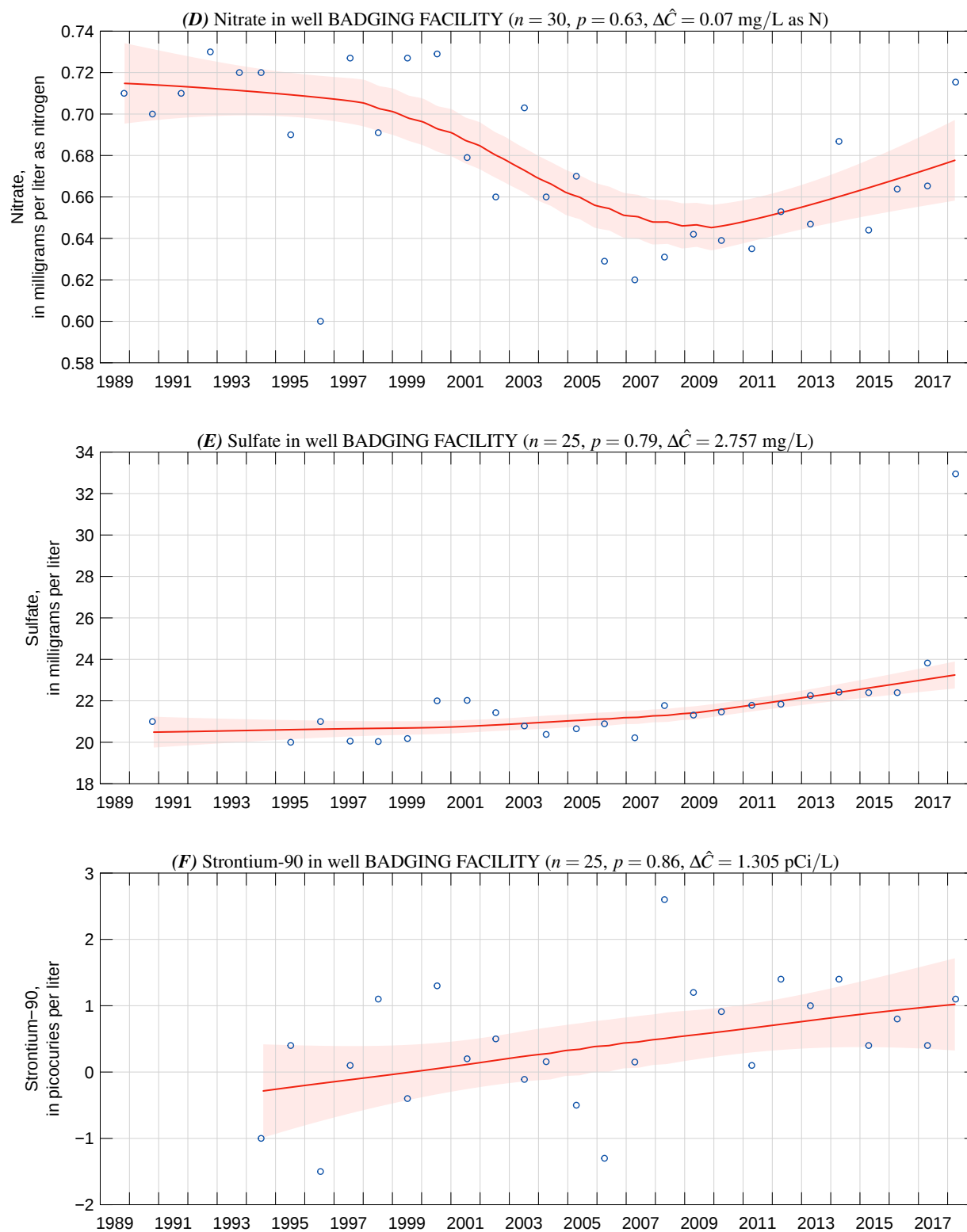


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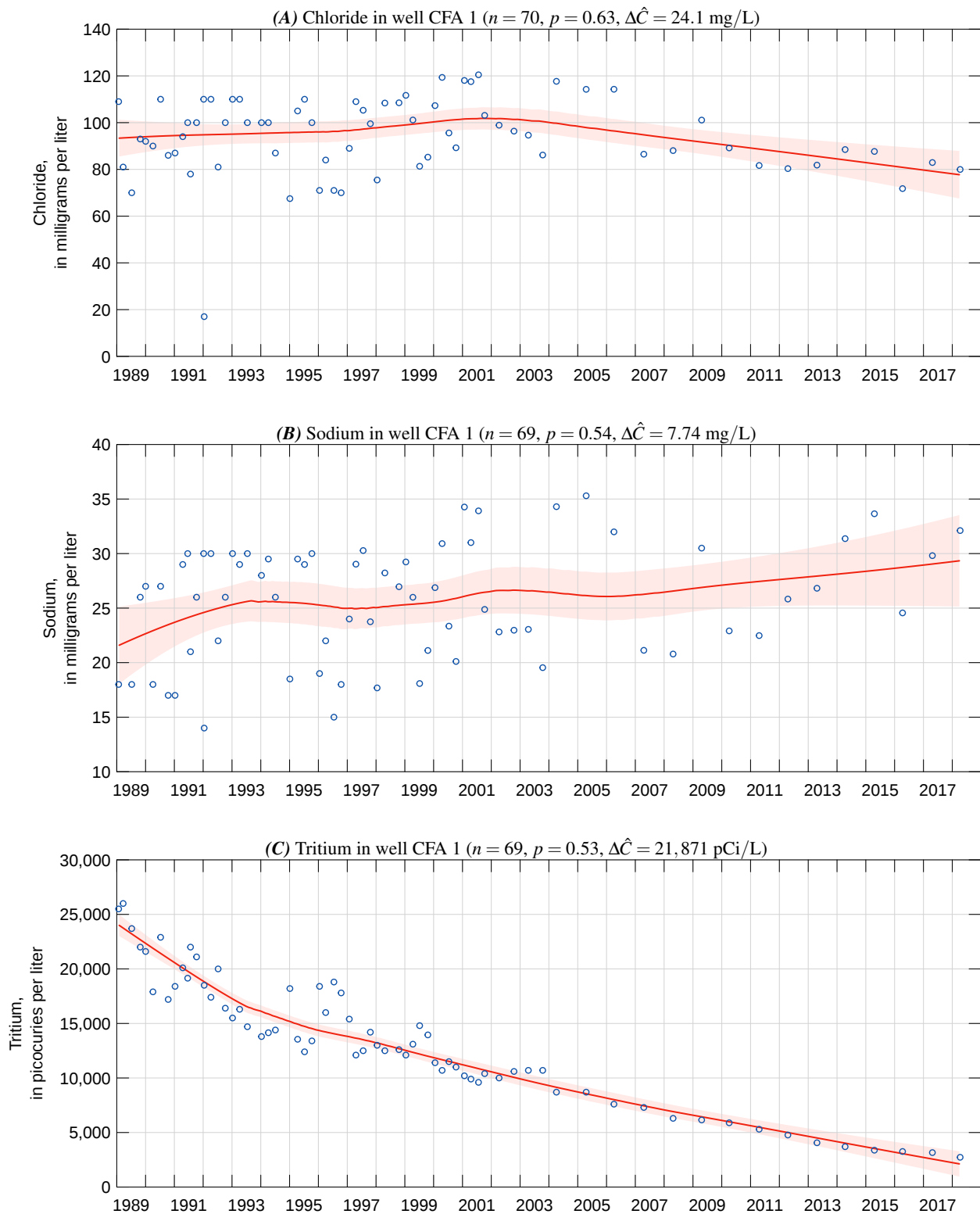


Figure 5.7. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well CFA 1 (Site No. 433204112562001), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

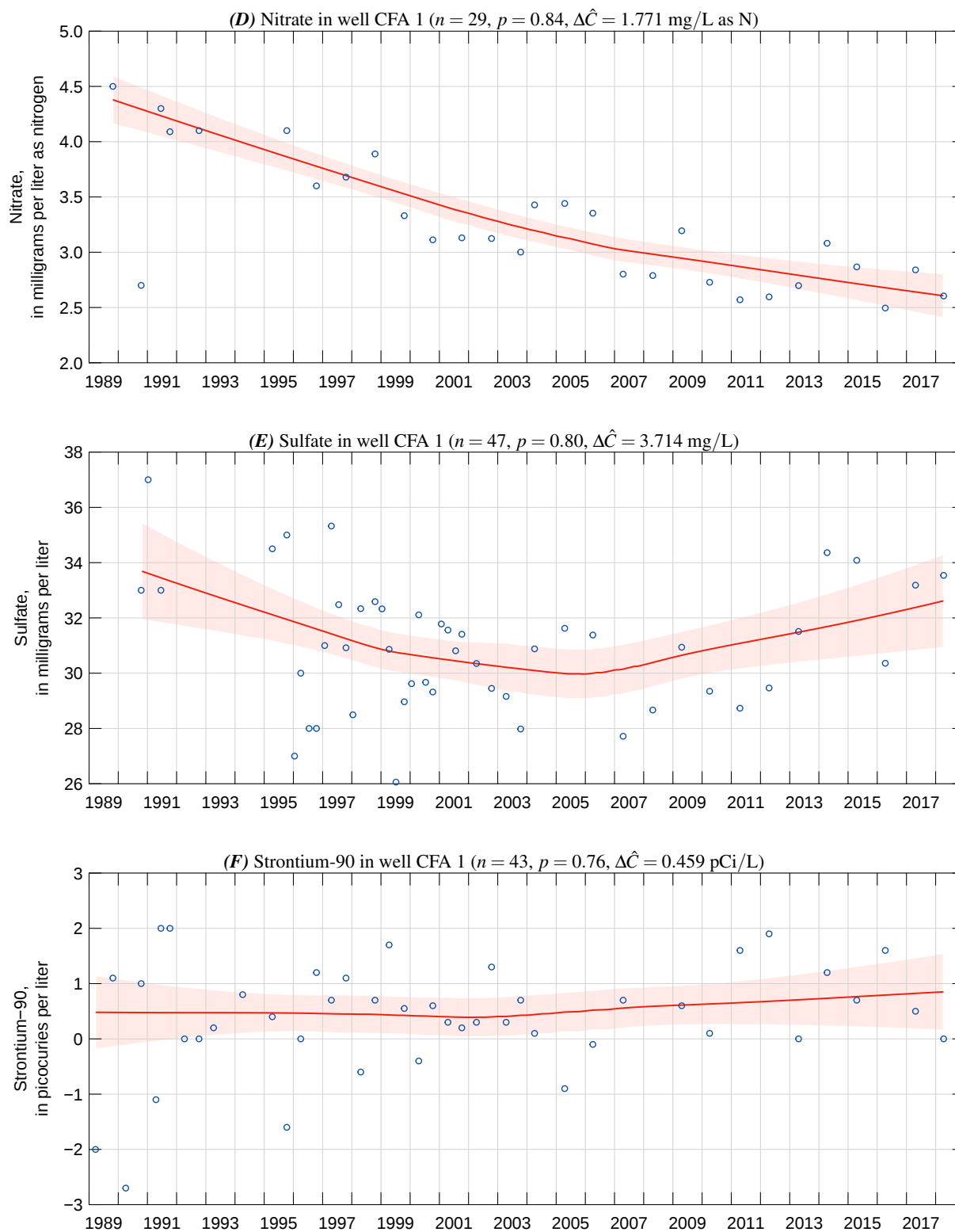


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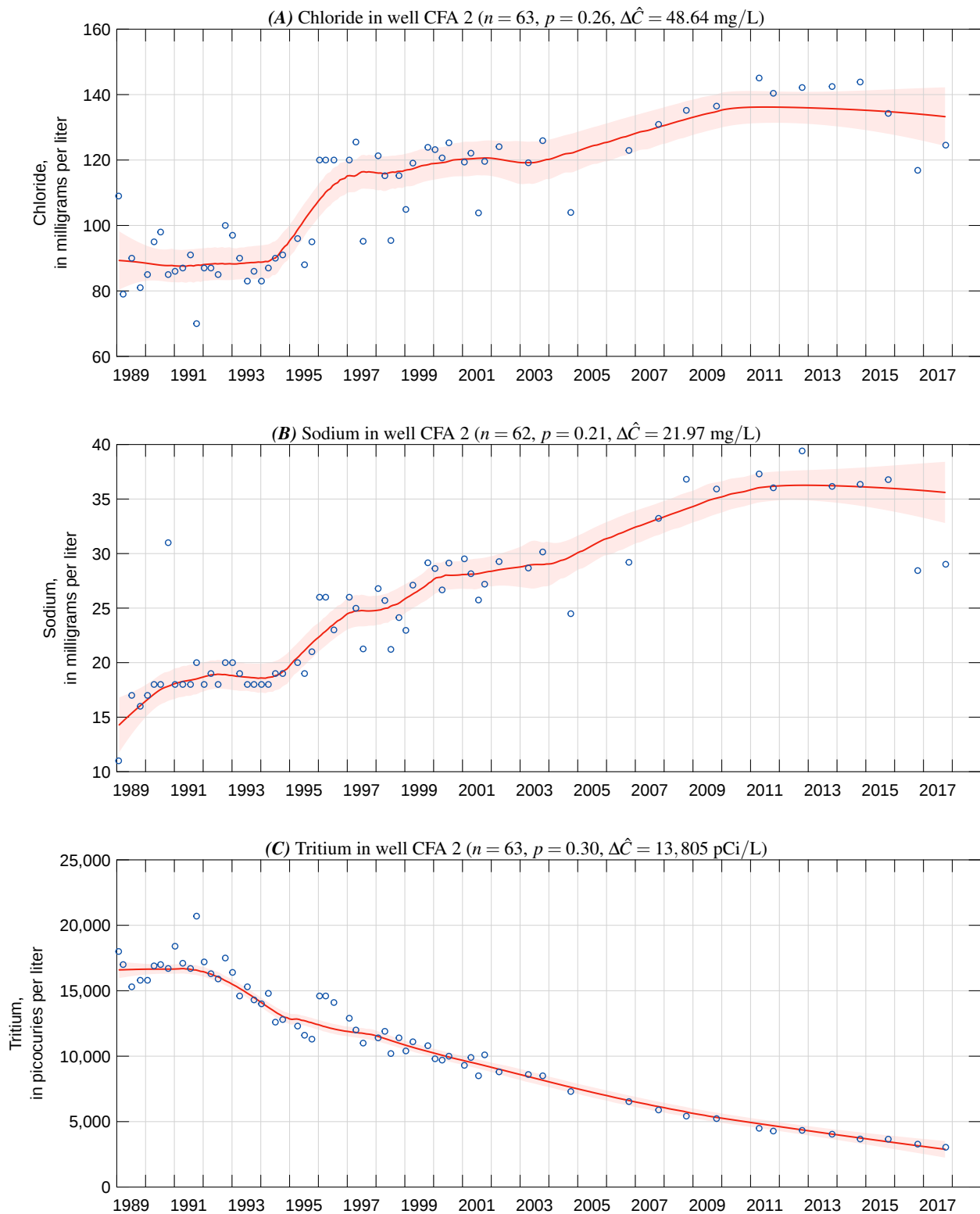


Figure 5.8. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well CFA 2 (Site No. 433144112563501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

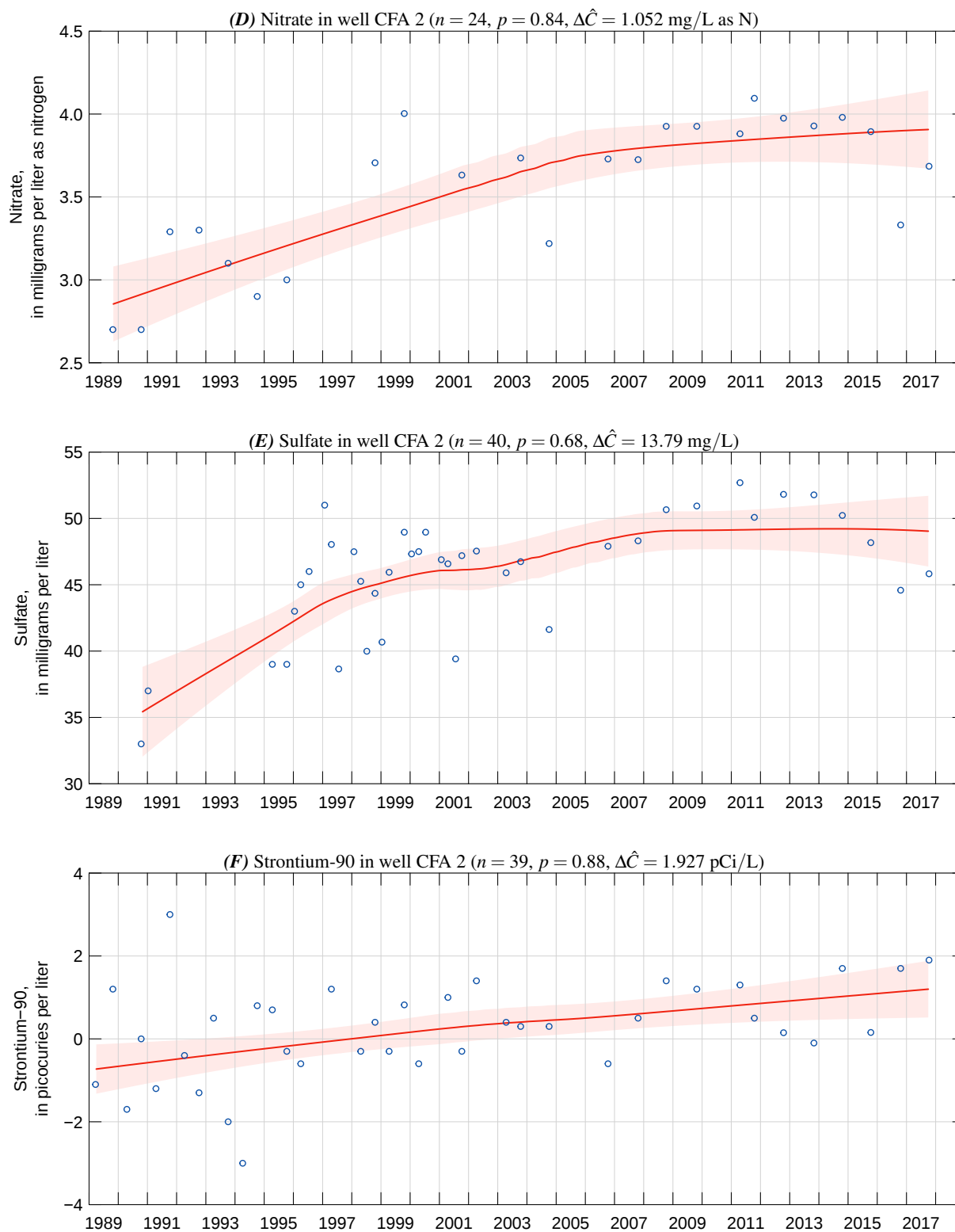


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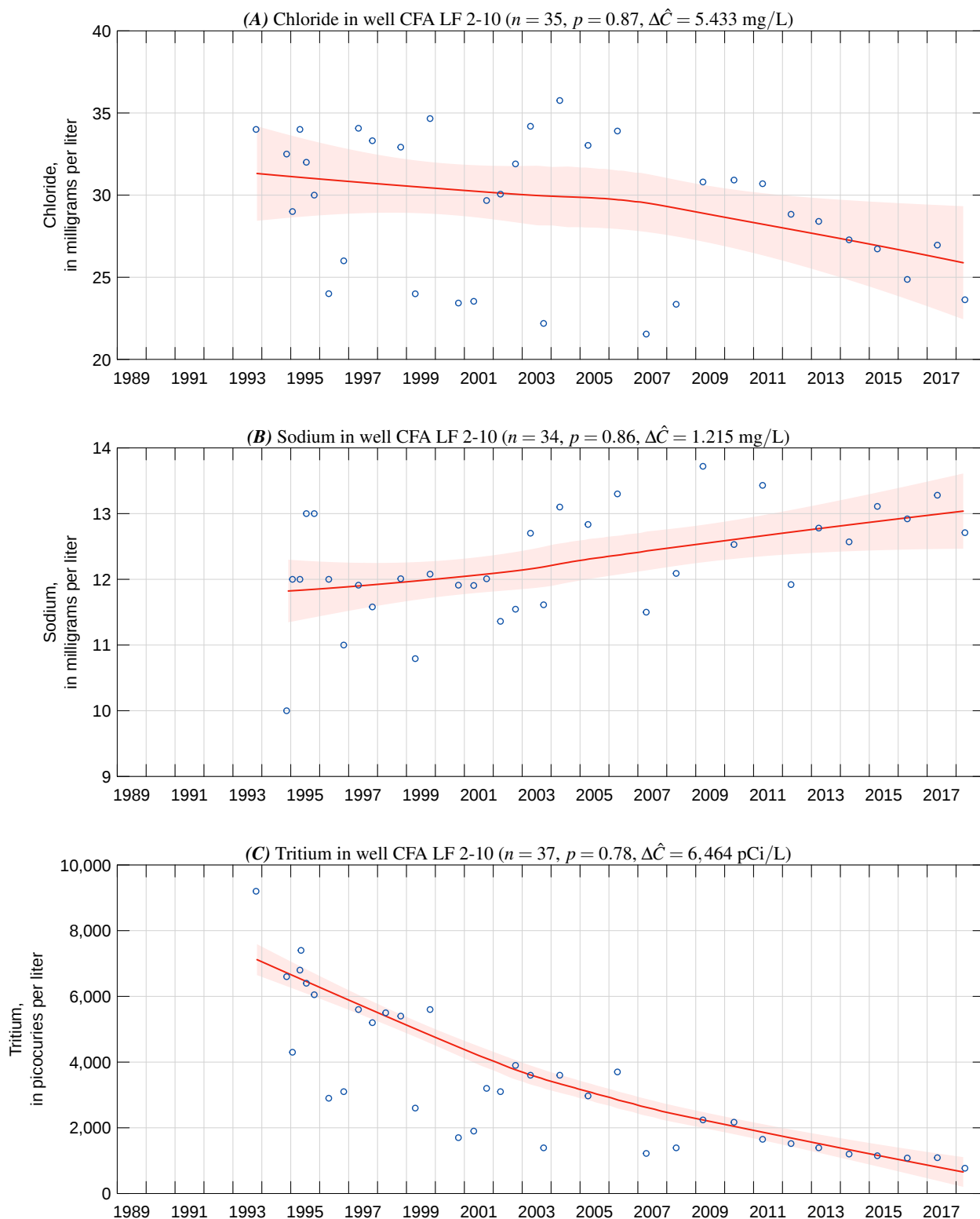


Figure 5.9. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, and (G) strontium-90 measured in water samples collected from well CFA LF 2-10 (Site No. 433216112563301), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

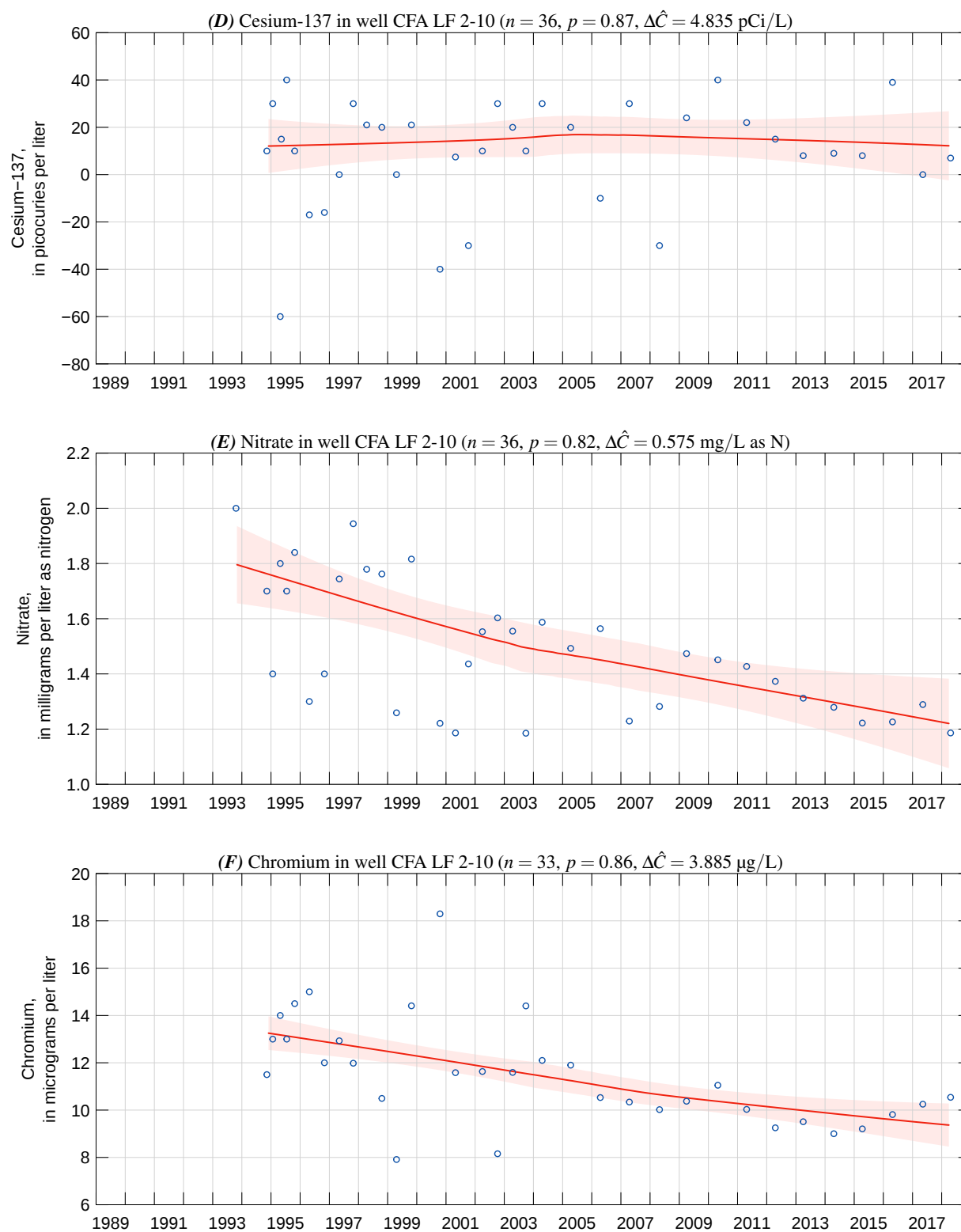
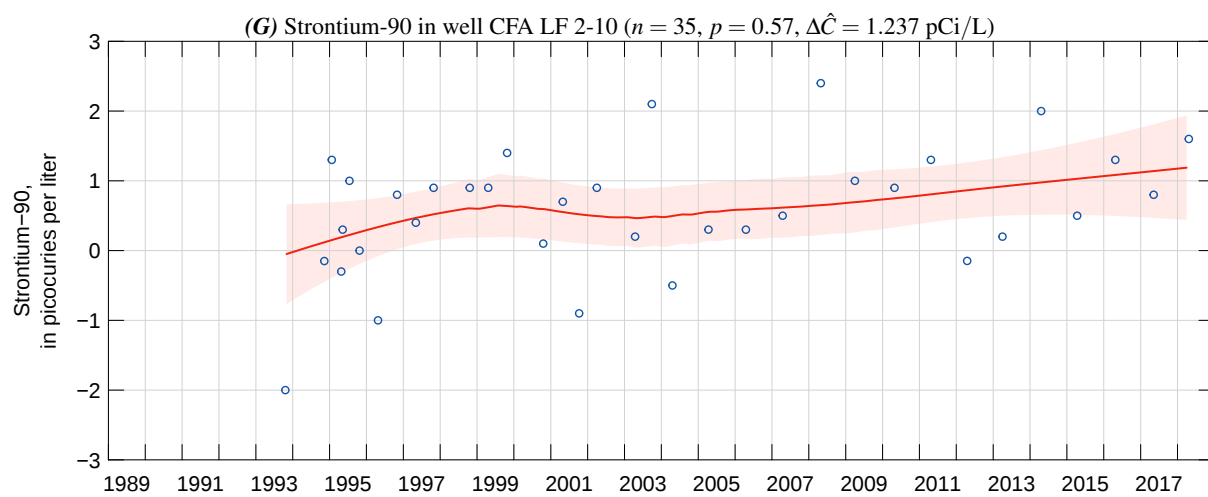


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**Figure 5.9.** —Continued

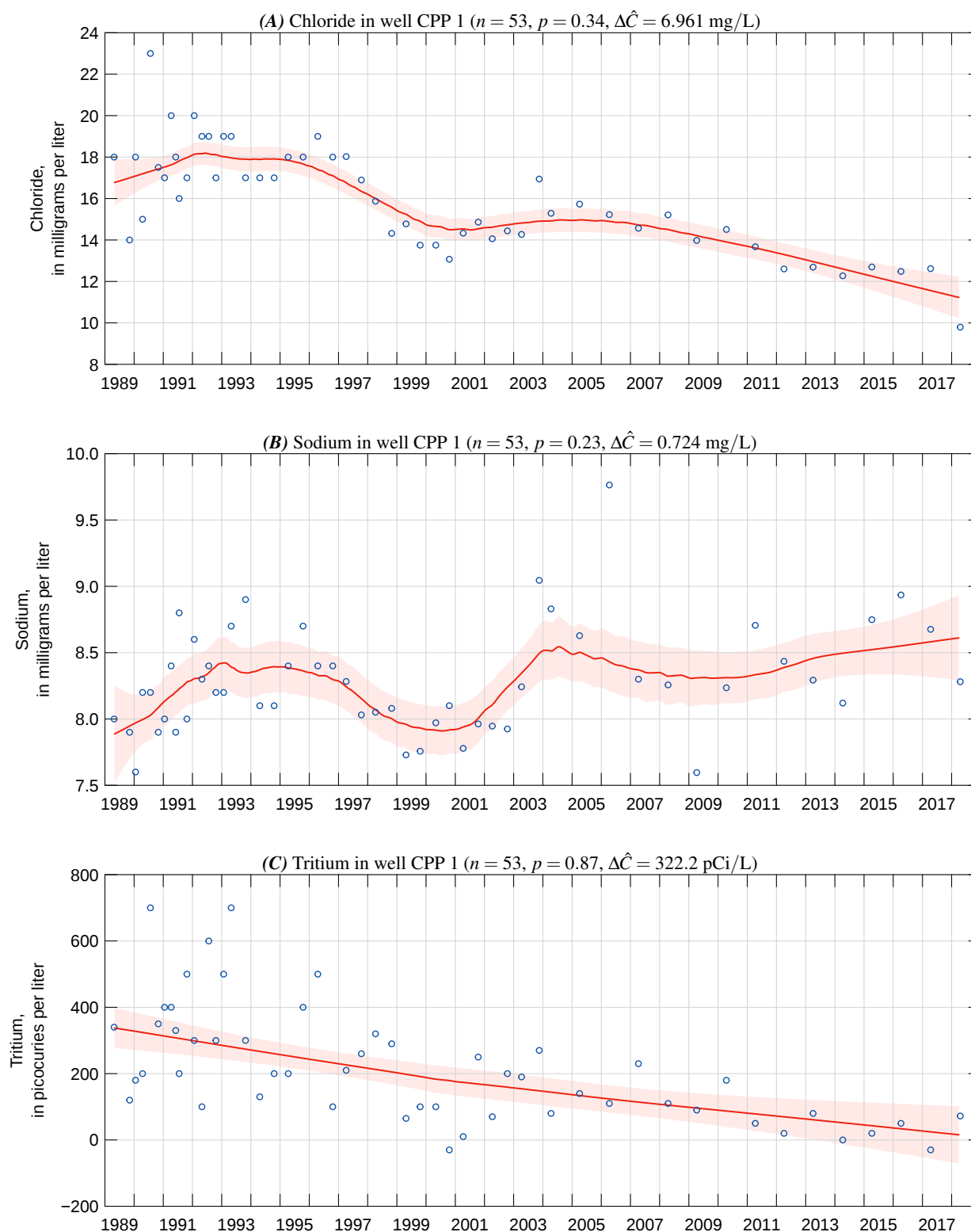


Figure 5.10. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) fluoride, (H) chromium, (I) carbon tetrachloride, (J) chloroform, (K) toluene, (L) tetrachloroethylene, (M) 1,1-dichloroethylene, (N) 1,1,1-trichloroethane, (O) cfc-12, (P) trichloroethylene, (Q) strontium-90, and (R) plutonium-238 measured in water samples collected from well CPP 1 (Site No. 433433112560201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

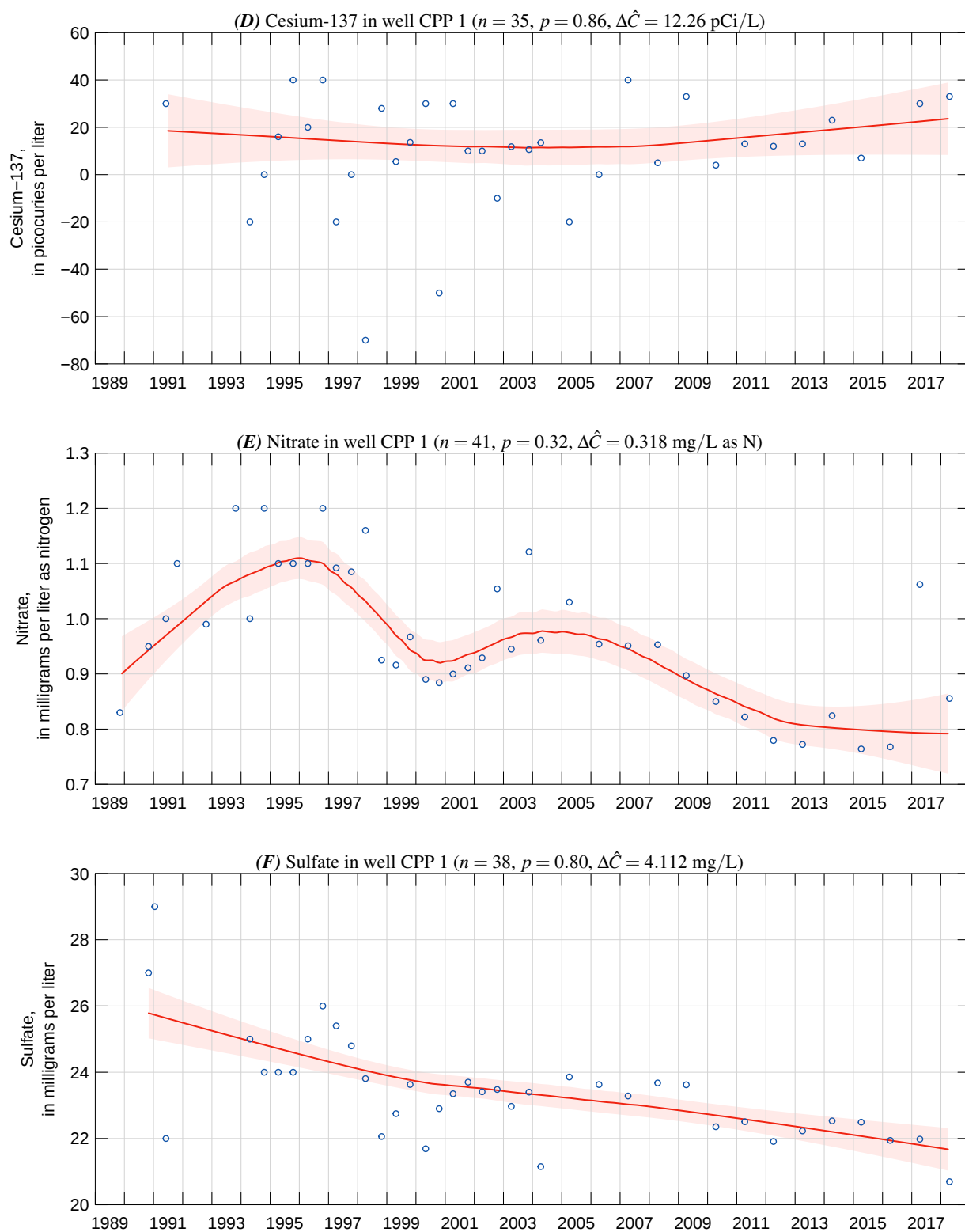


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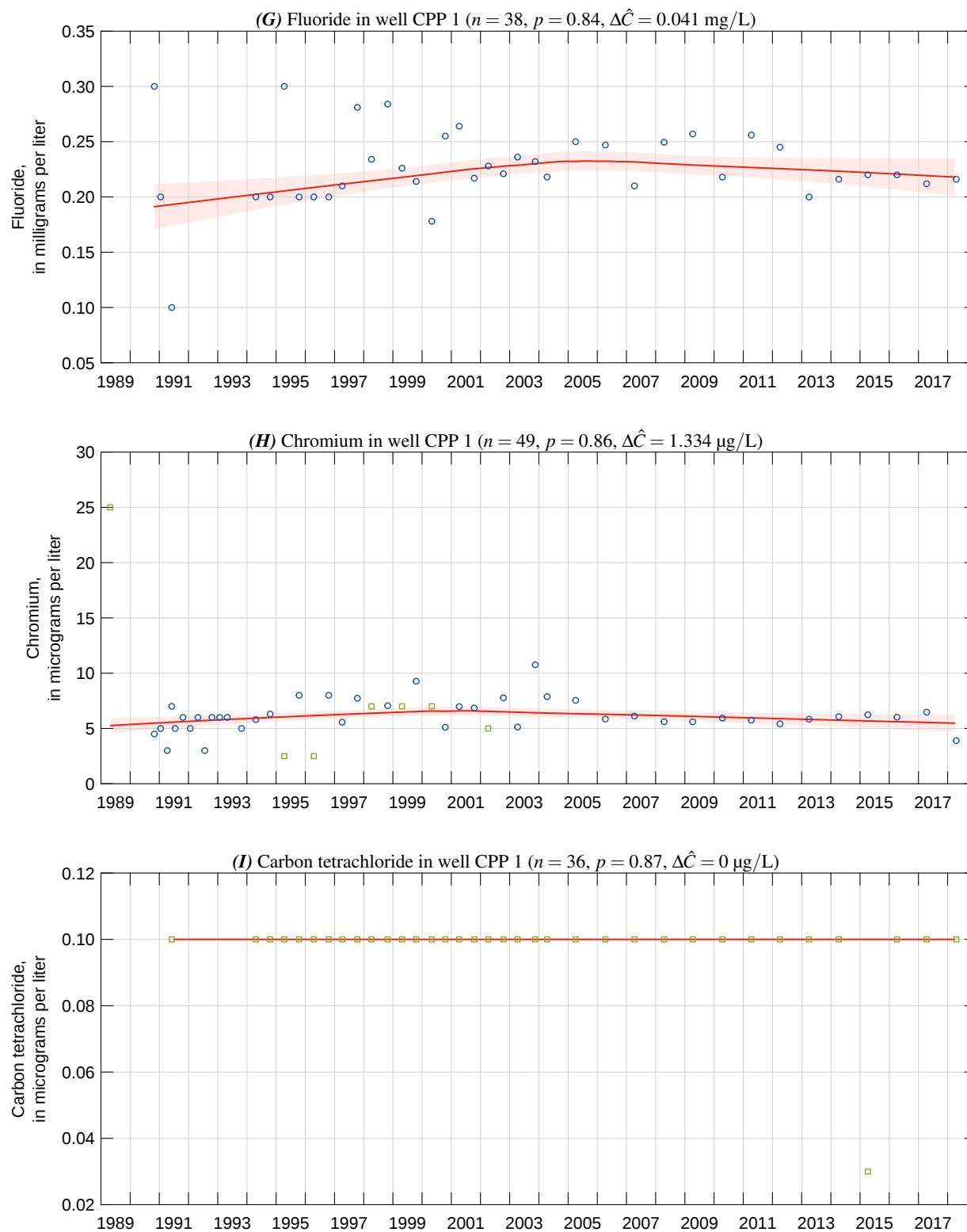


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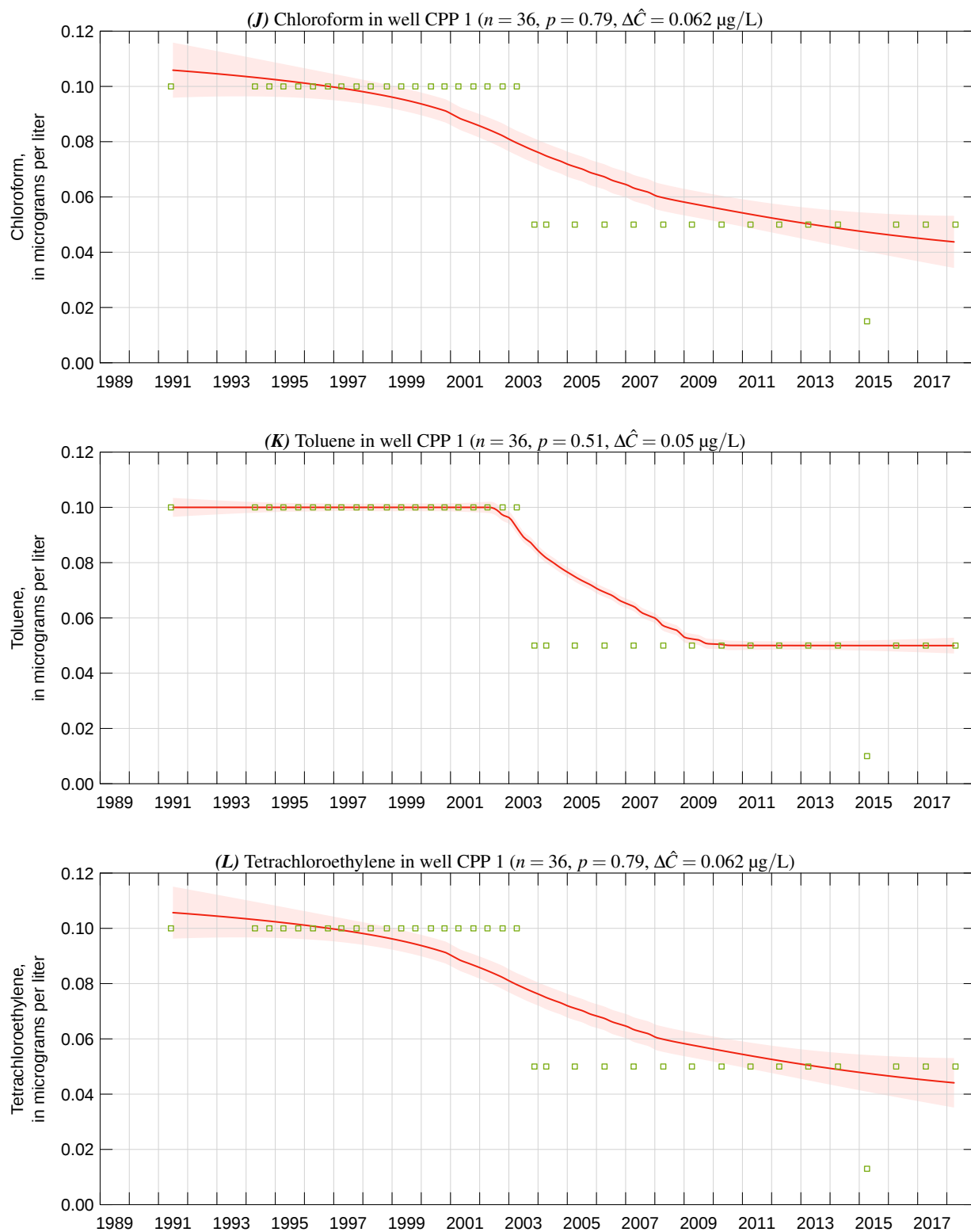


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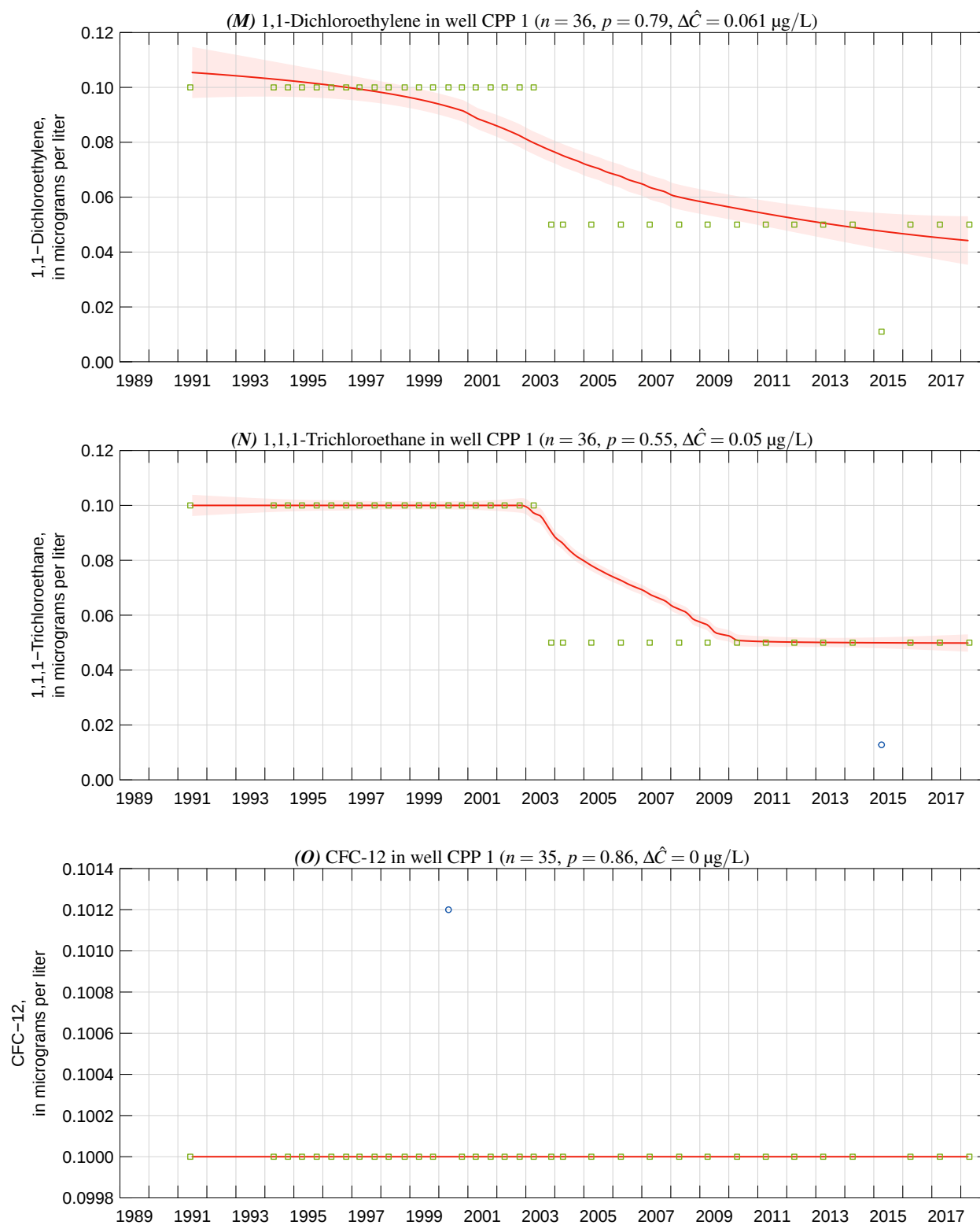


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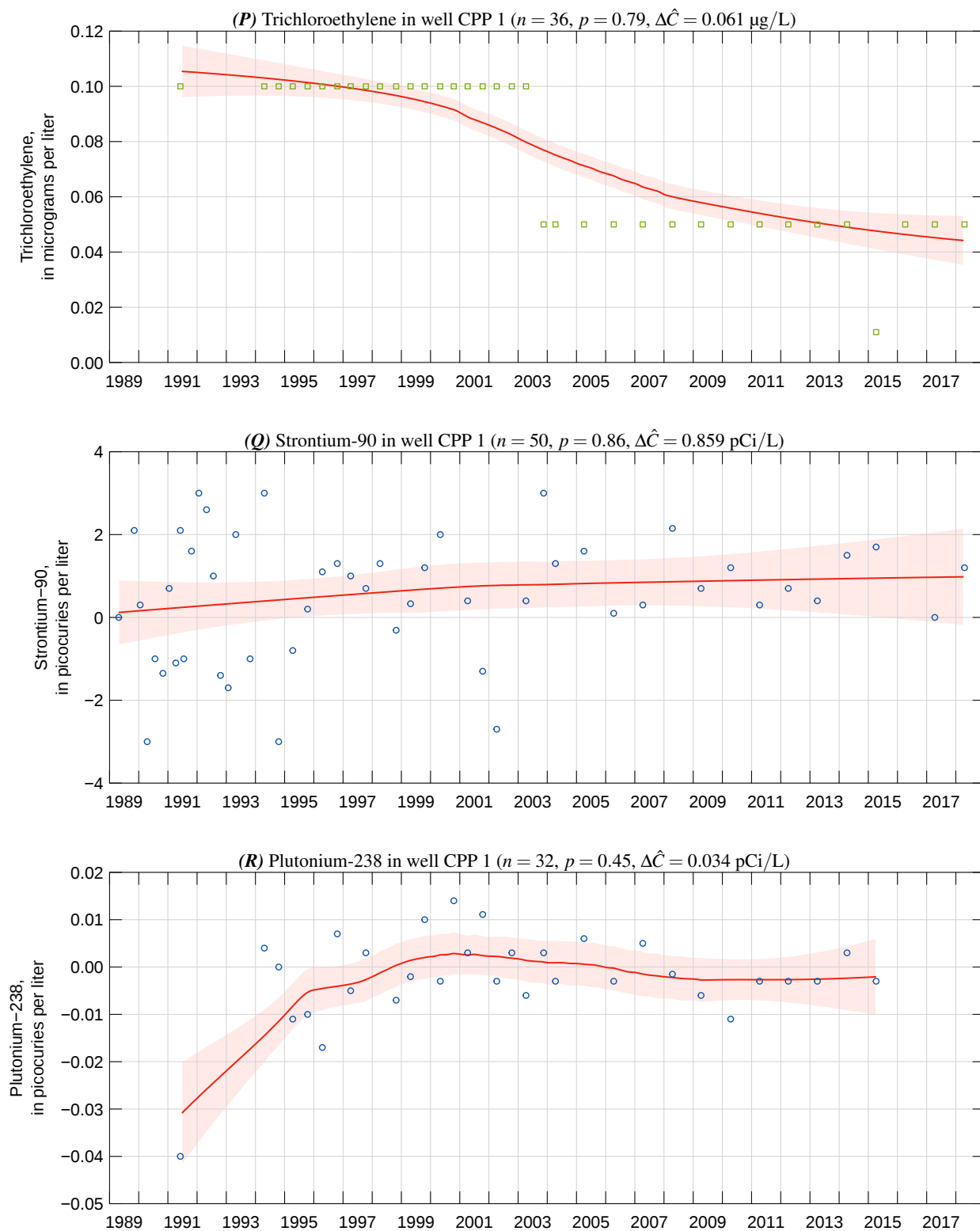


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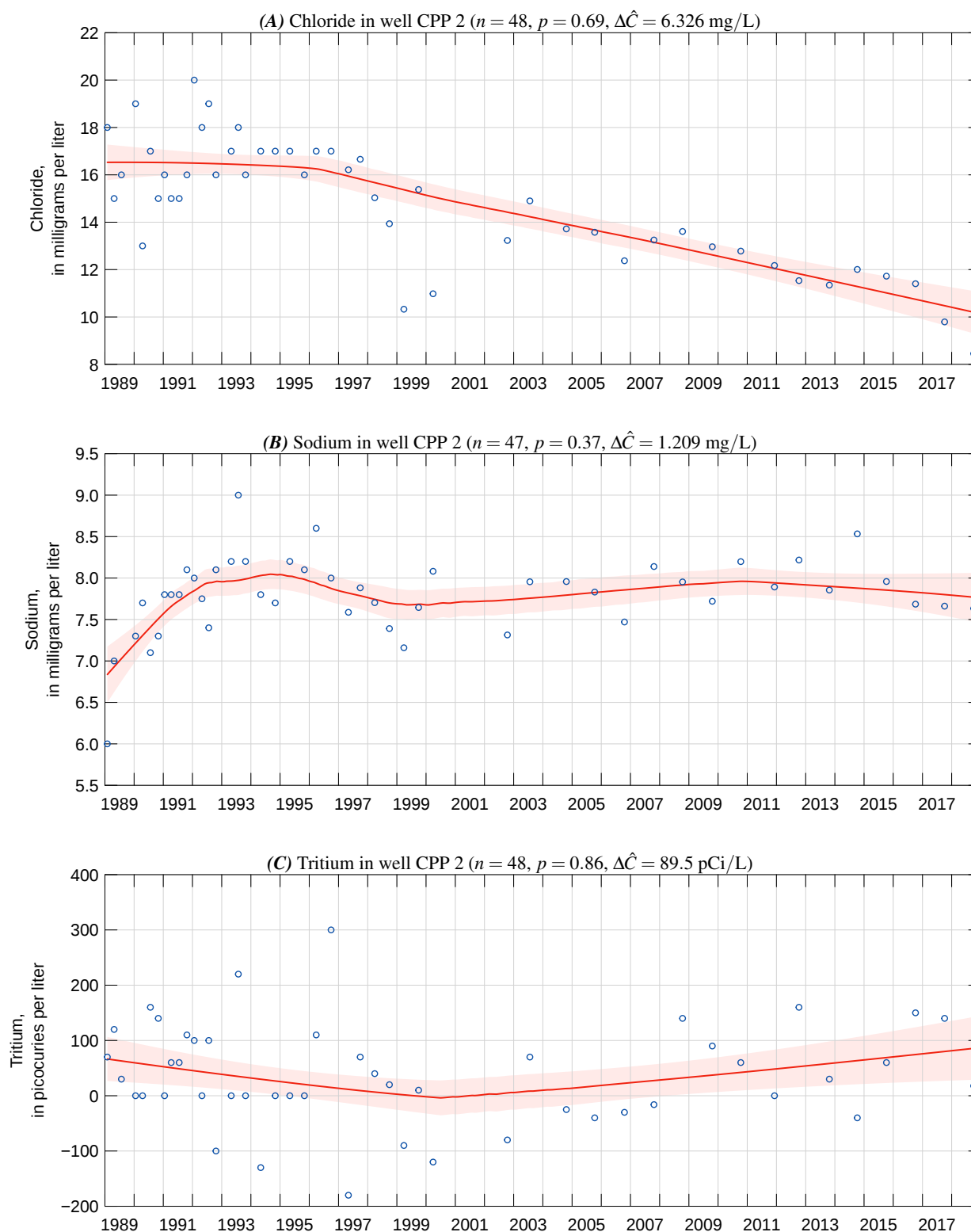


Figure 5.11. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) chromium, and (F) strontium-90 measured in water samples collected from well CPP 2 (Site No. 433432112560801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

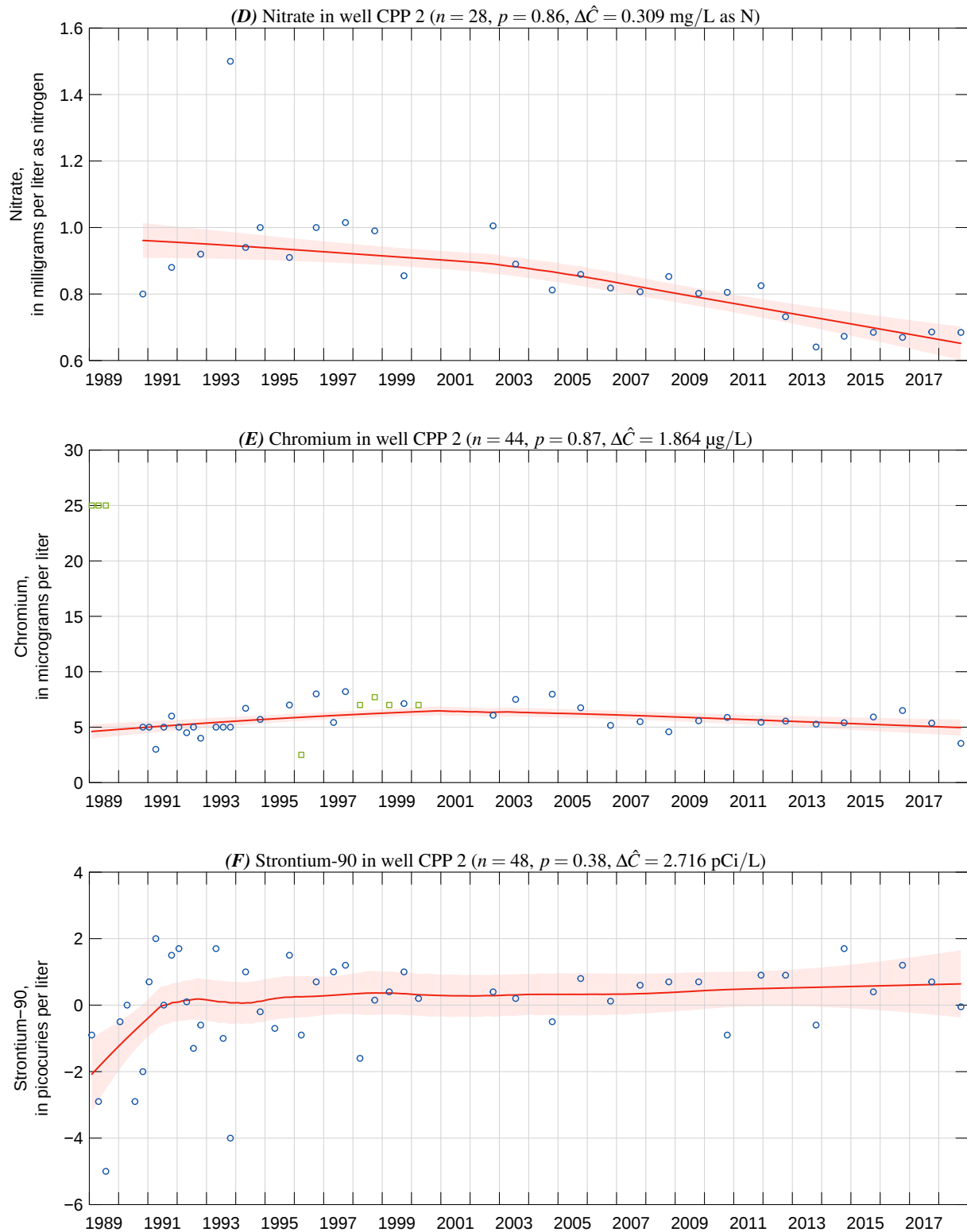


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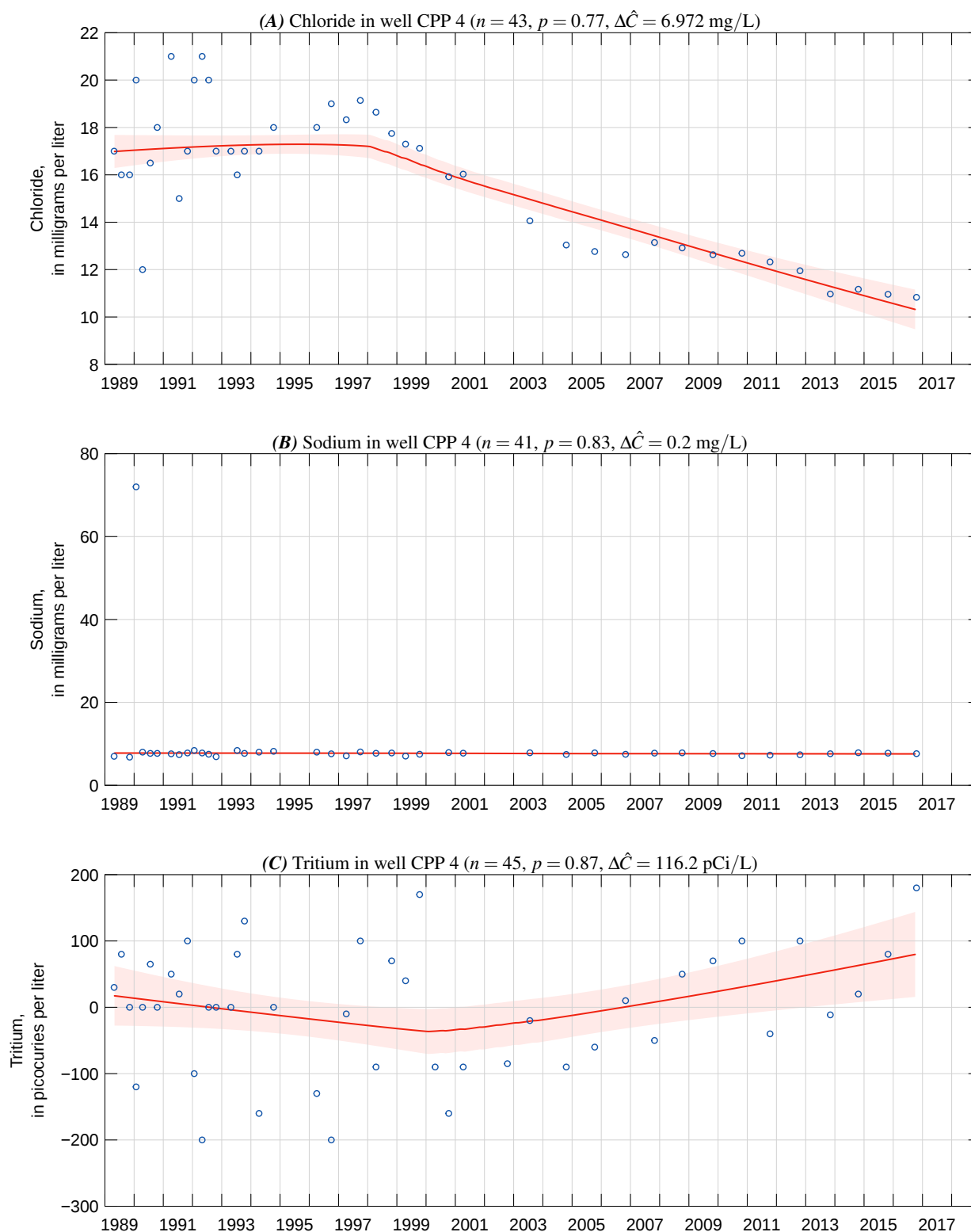


Figure 5.12. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) chromium, and (F) strontium-90 measured in water samples collected from well CPP 4 (Site No. 433440112554401), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

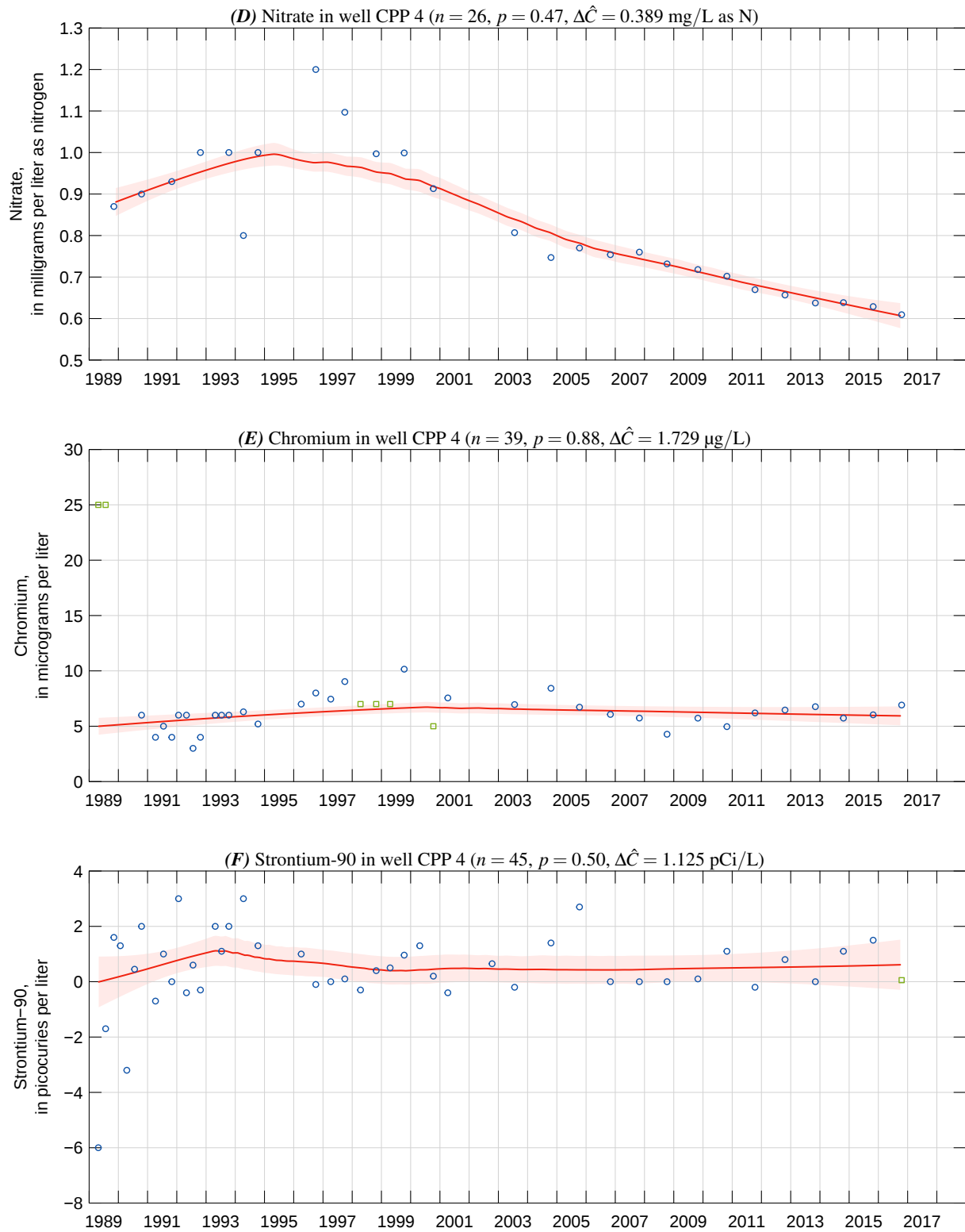


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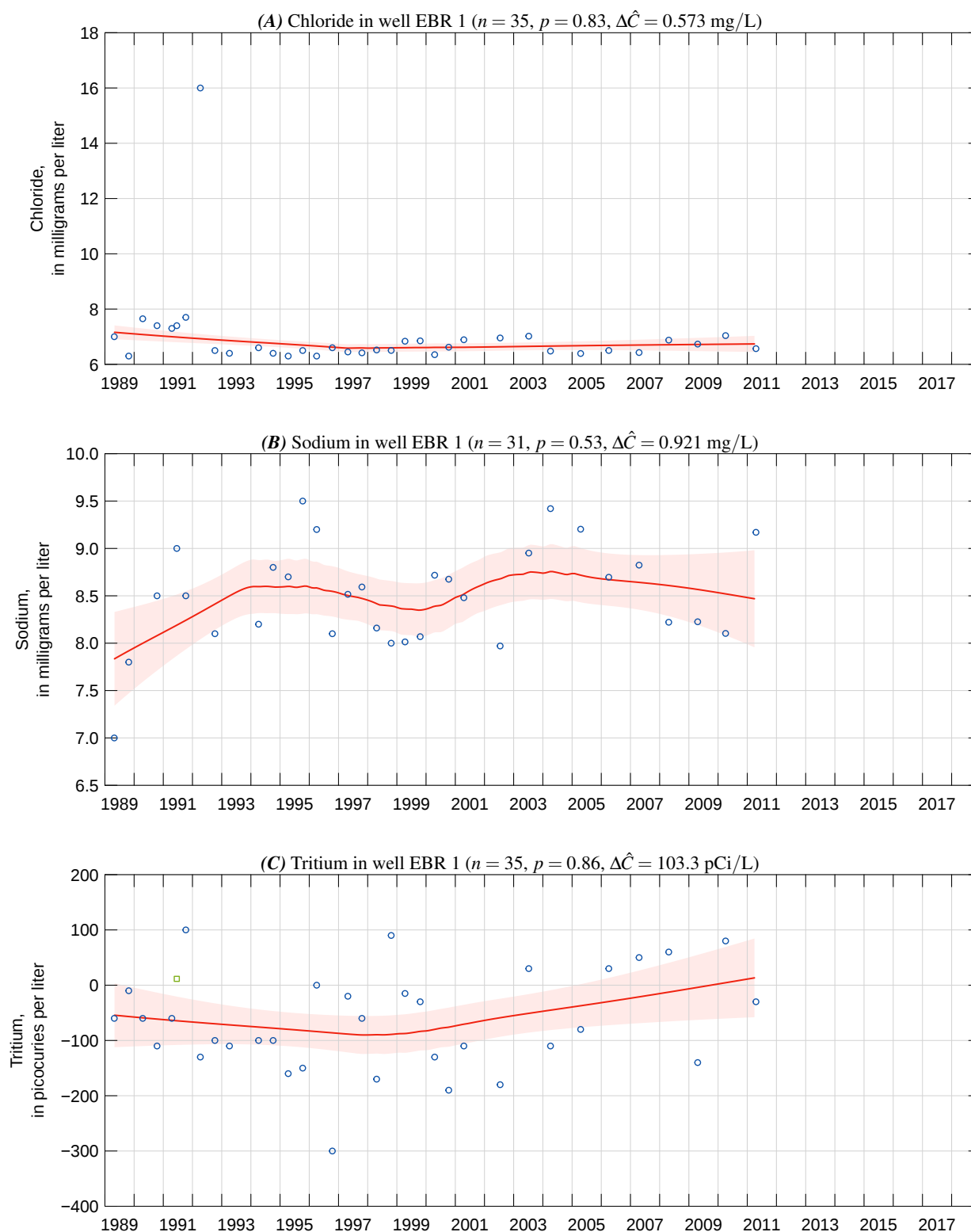


Figure 5.13. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, and (N) trichloroethylene measured in water samples collected from well EBR 1 (Site No. 433051113002601), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

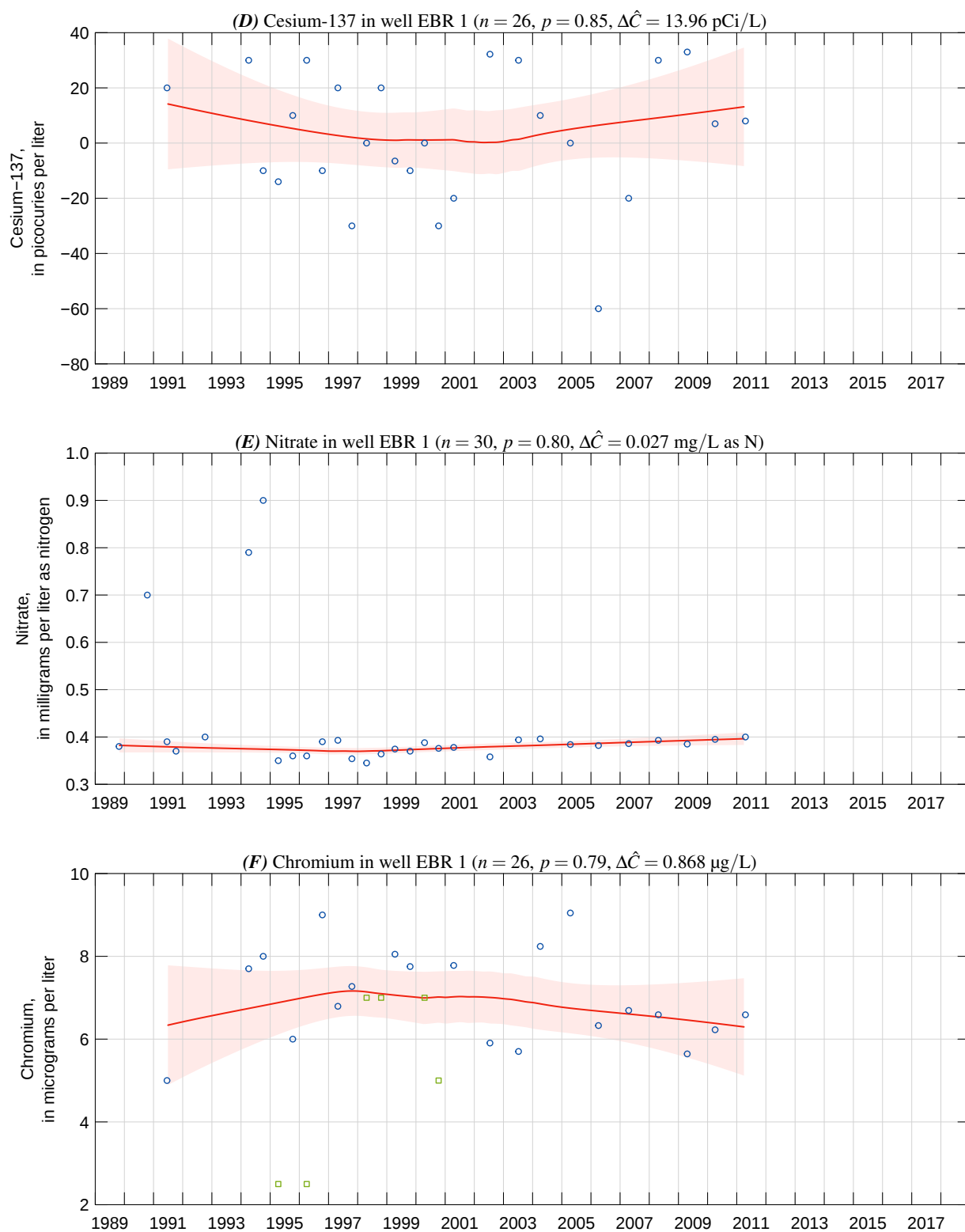


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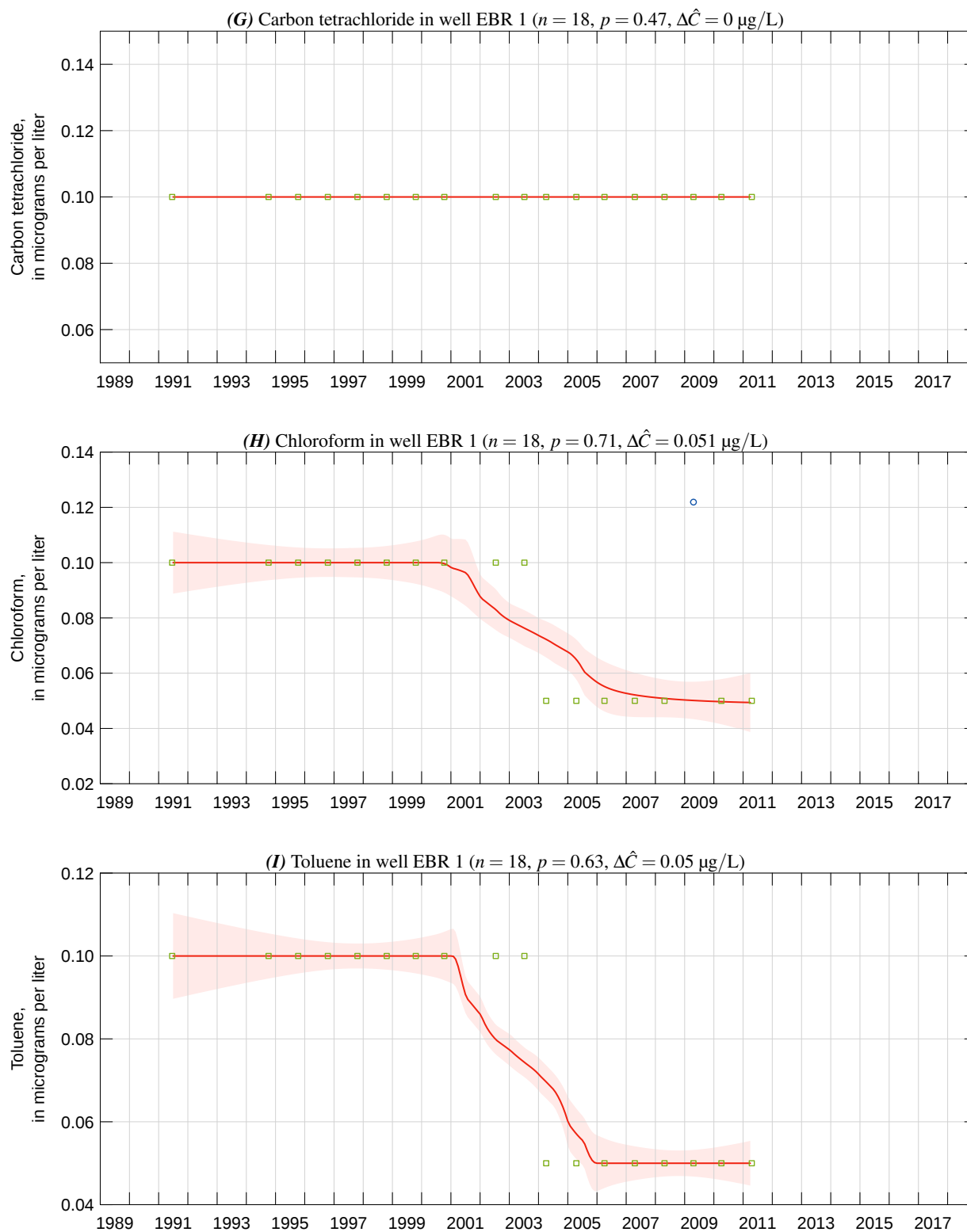


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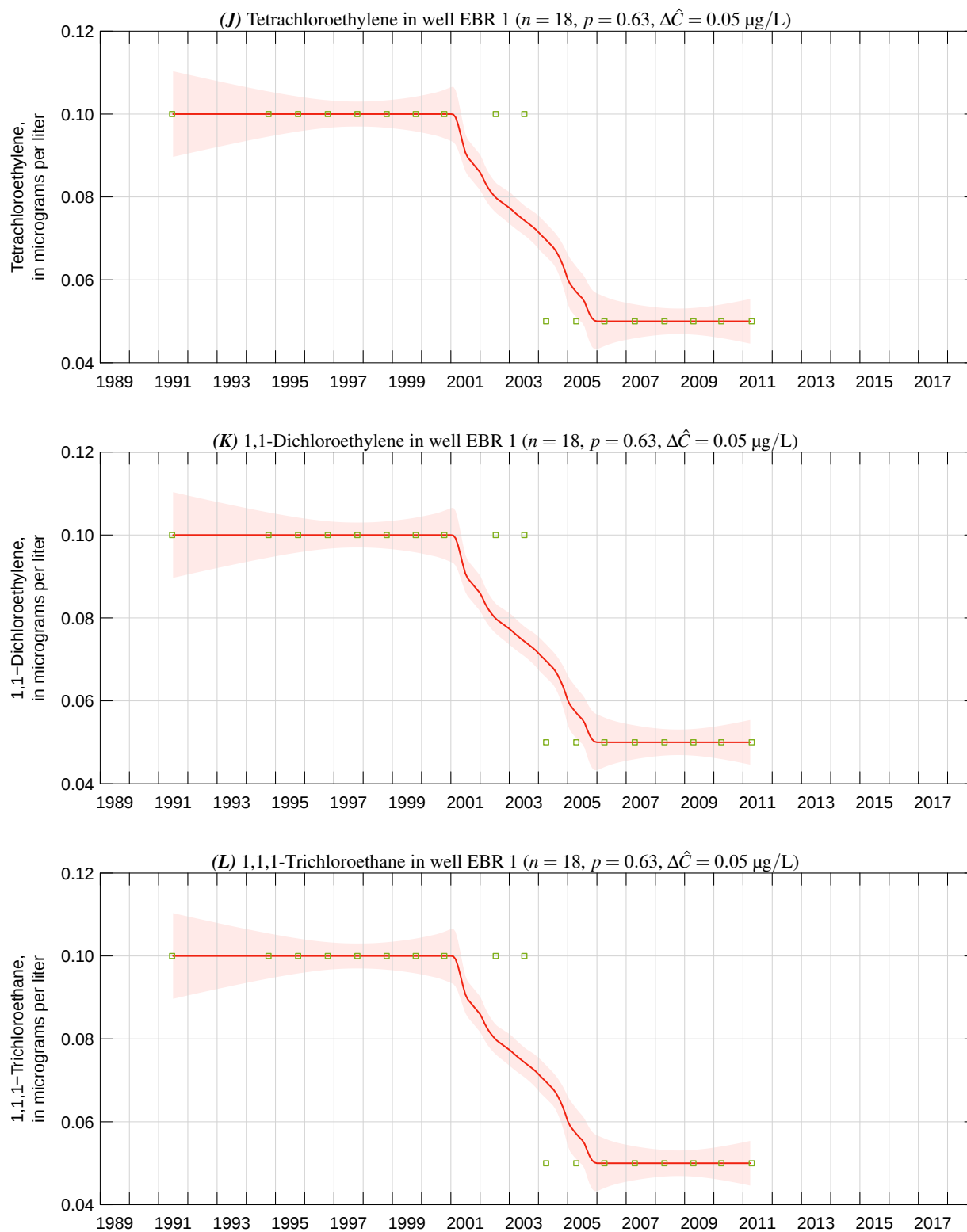
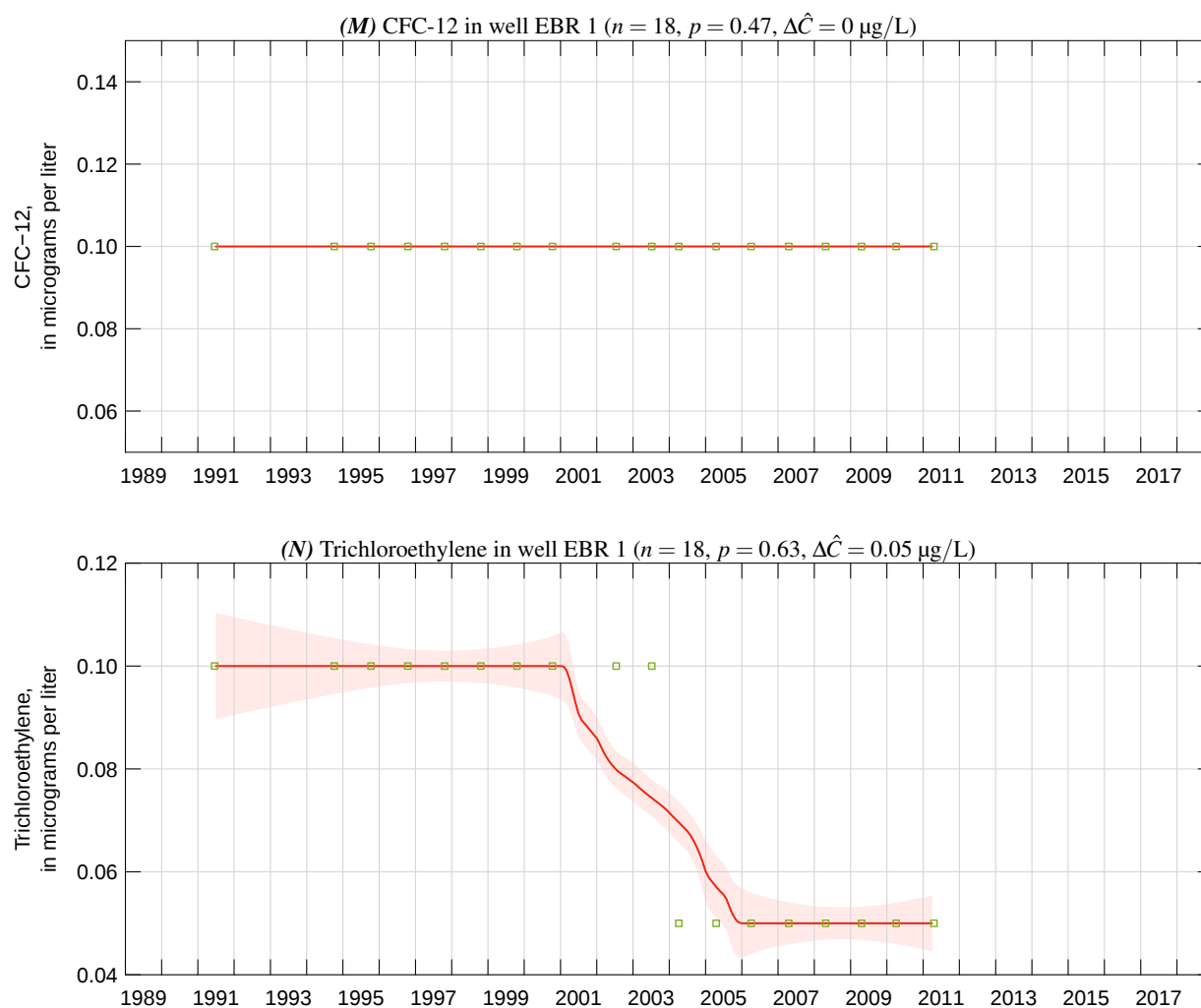


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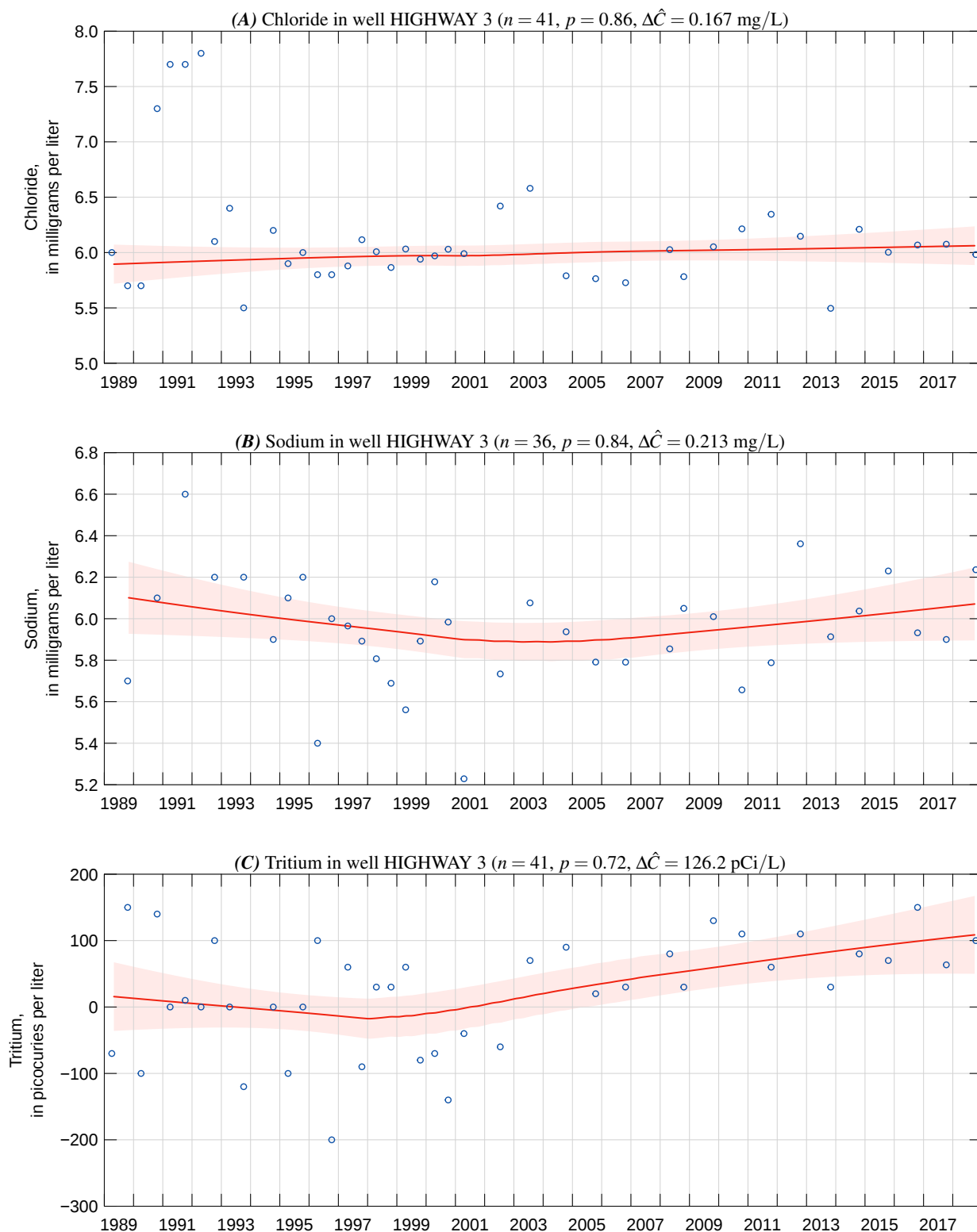


Figure 5.14. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, and (N) trichloroethylene measured in water samples collected from well HIGHWAY 3 (Site No. 433256113002501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

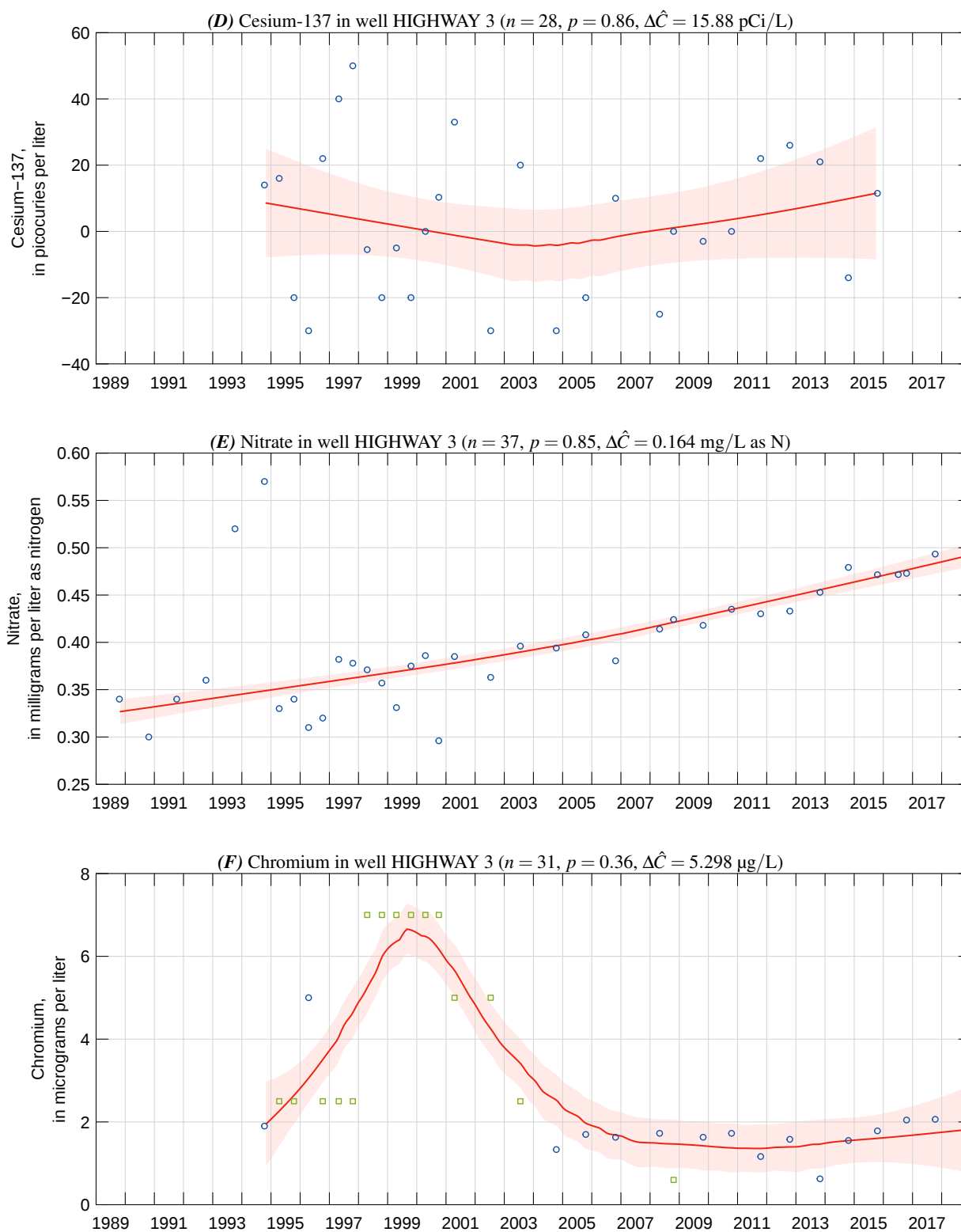


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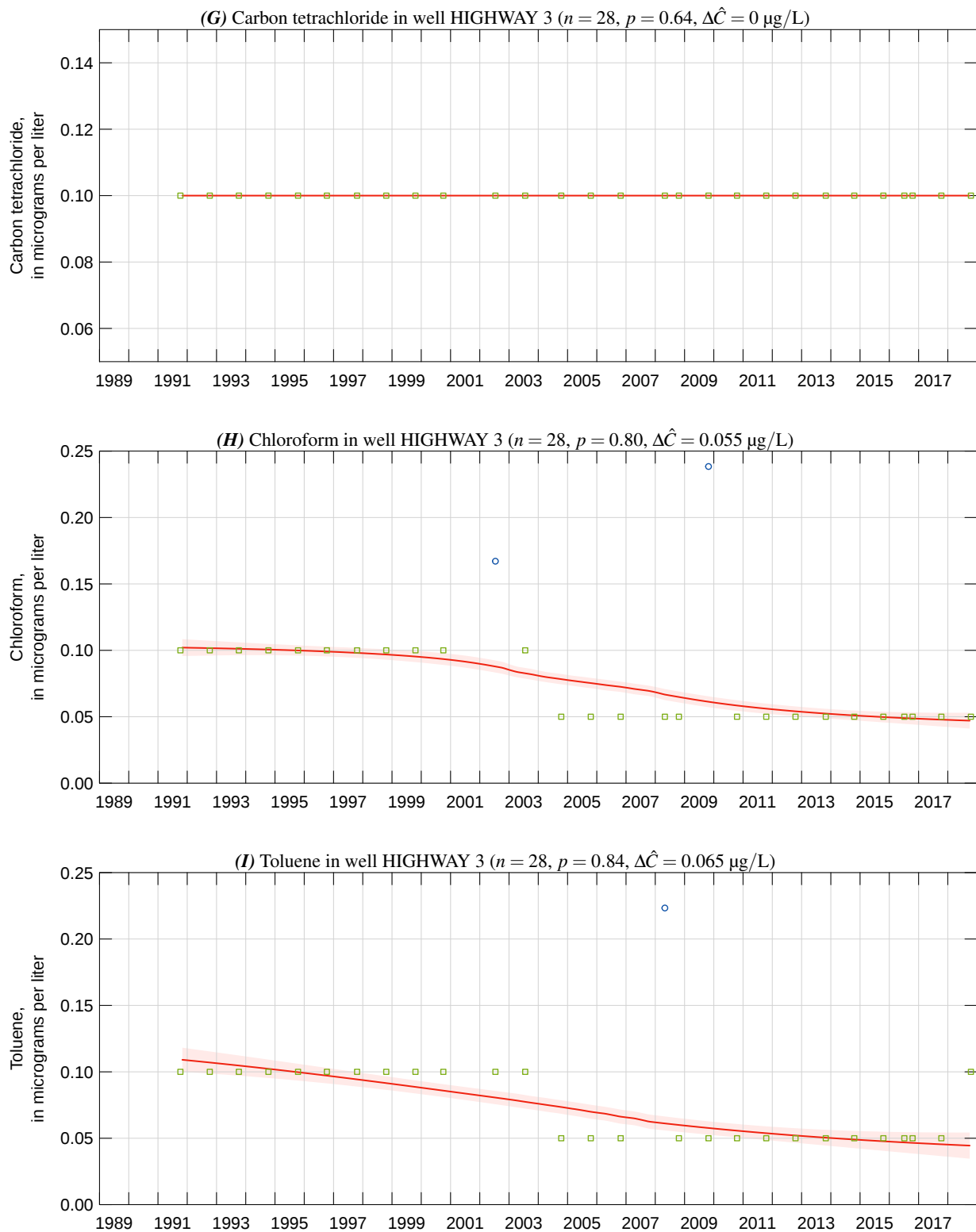


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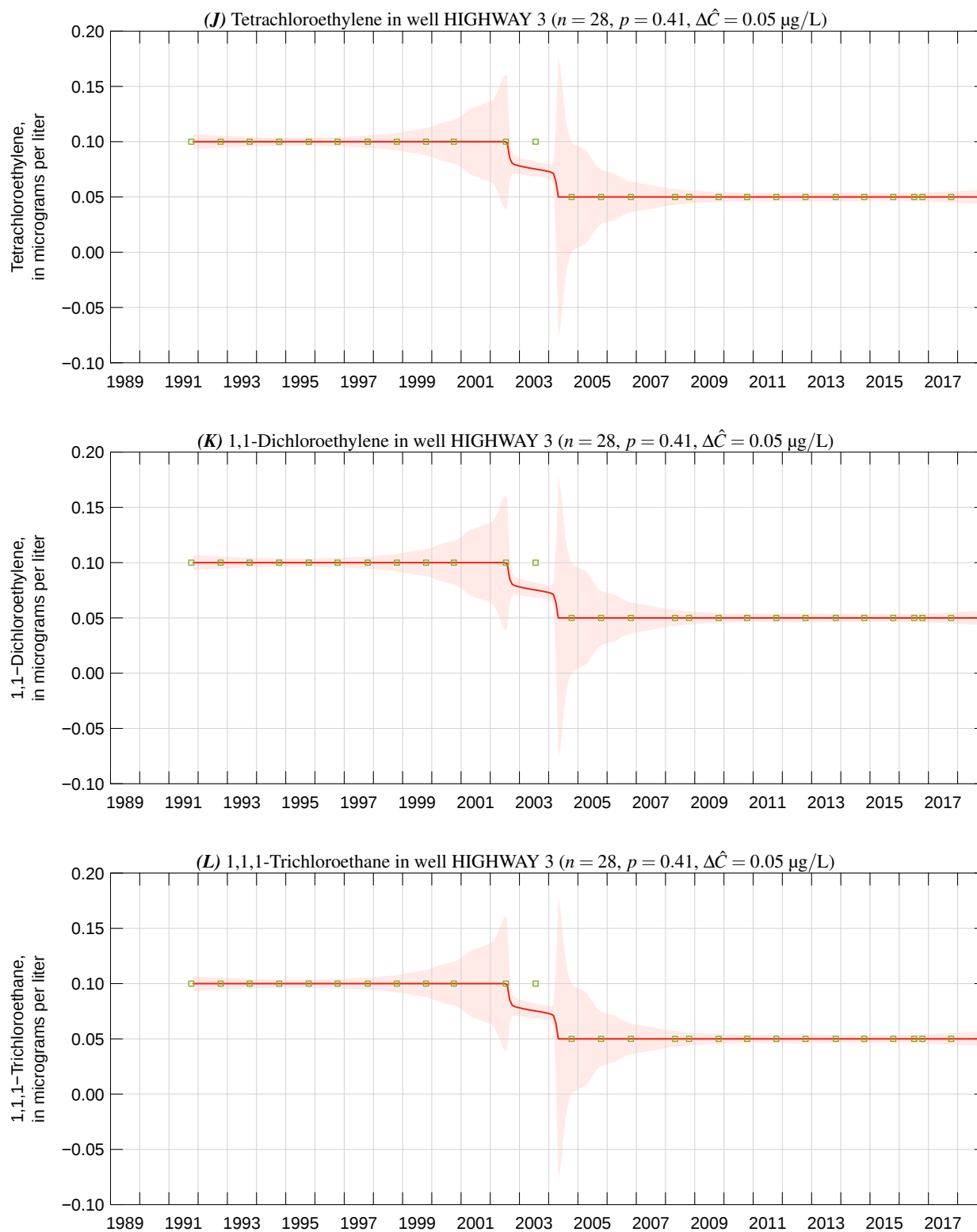


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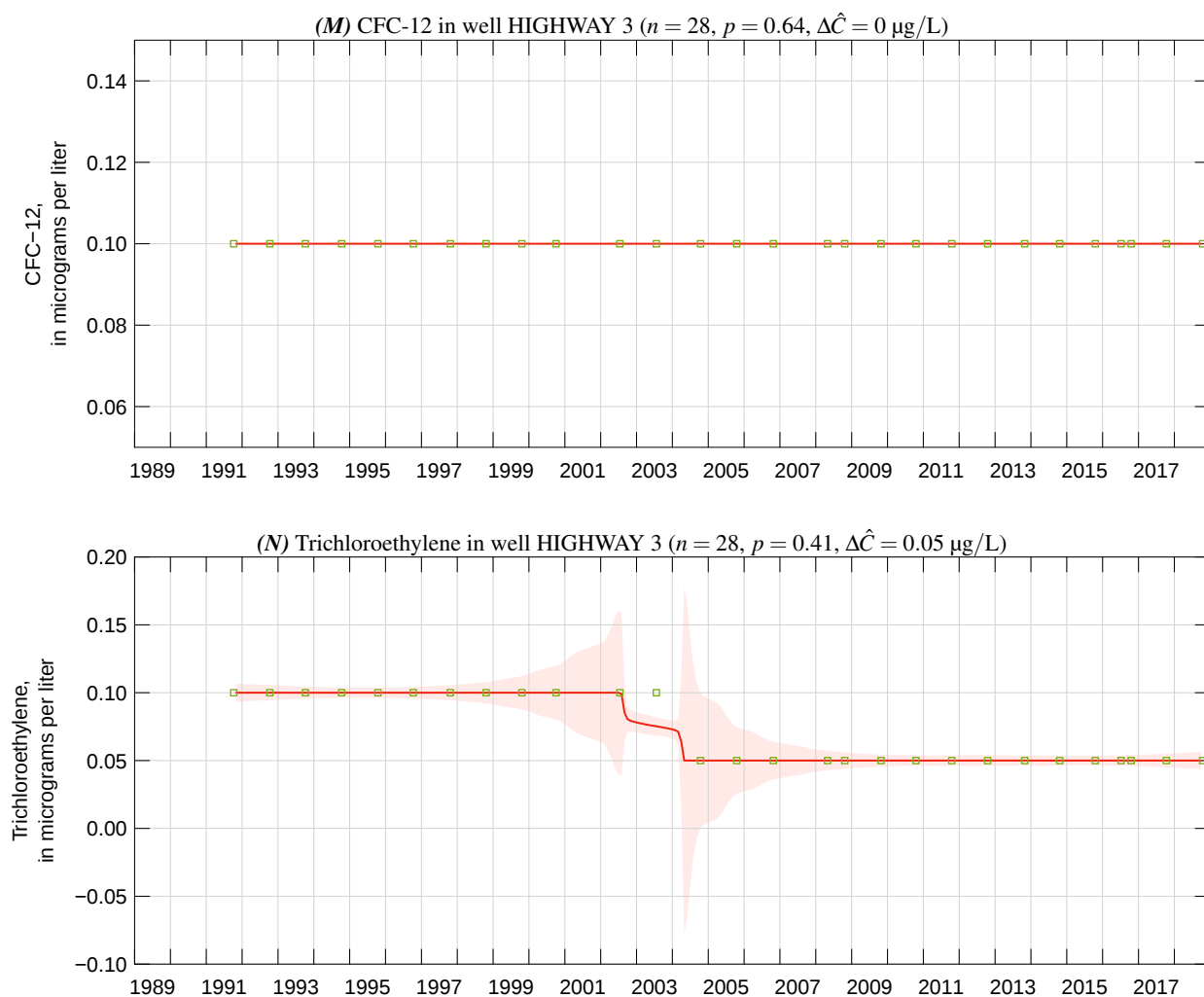


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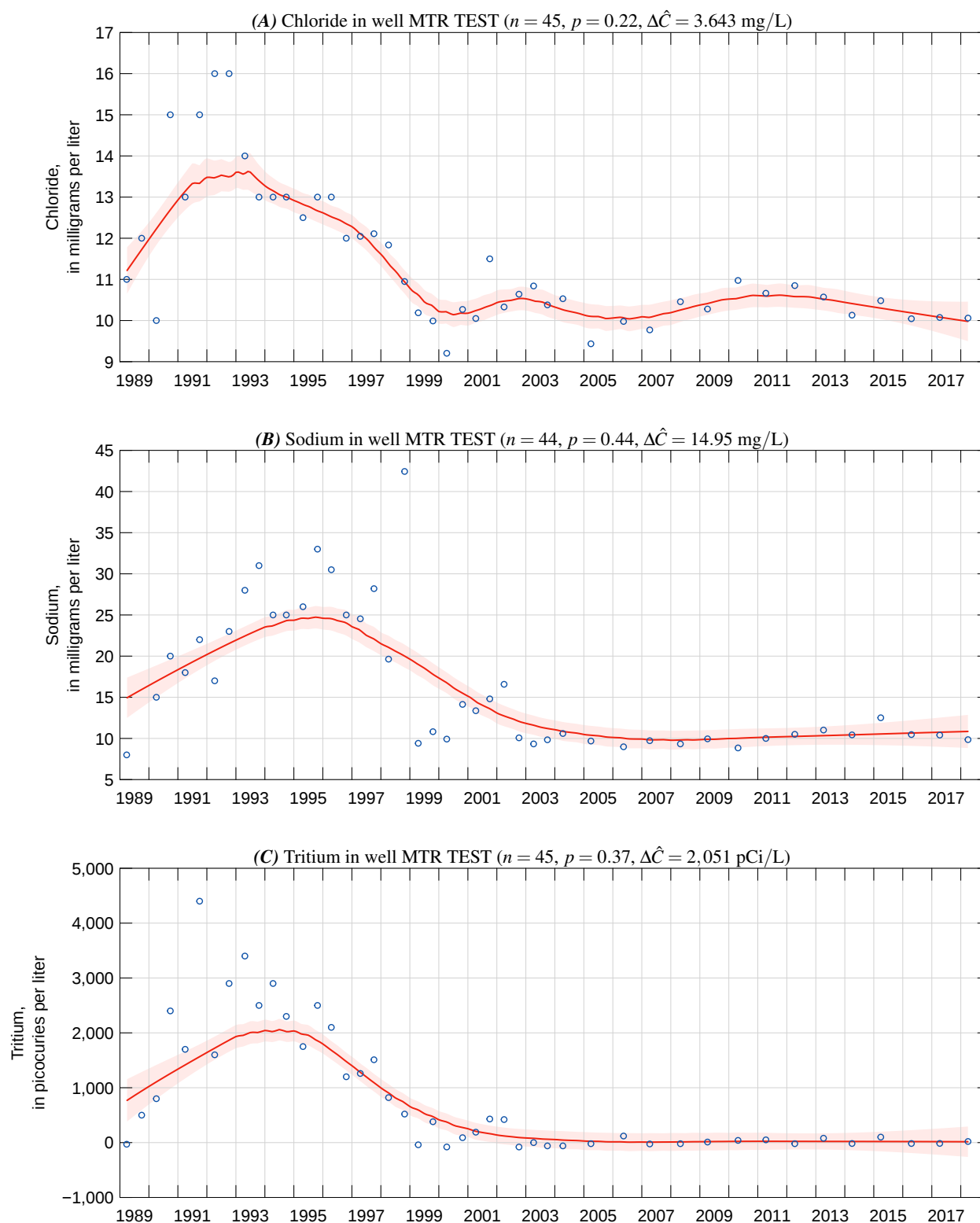


Figure 5.15. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) chromium measured in water samples collected from well MTR TEST (Site No. 433520112572601), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

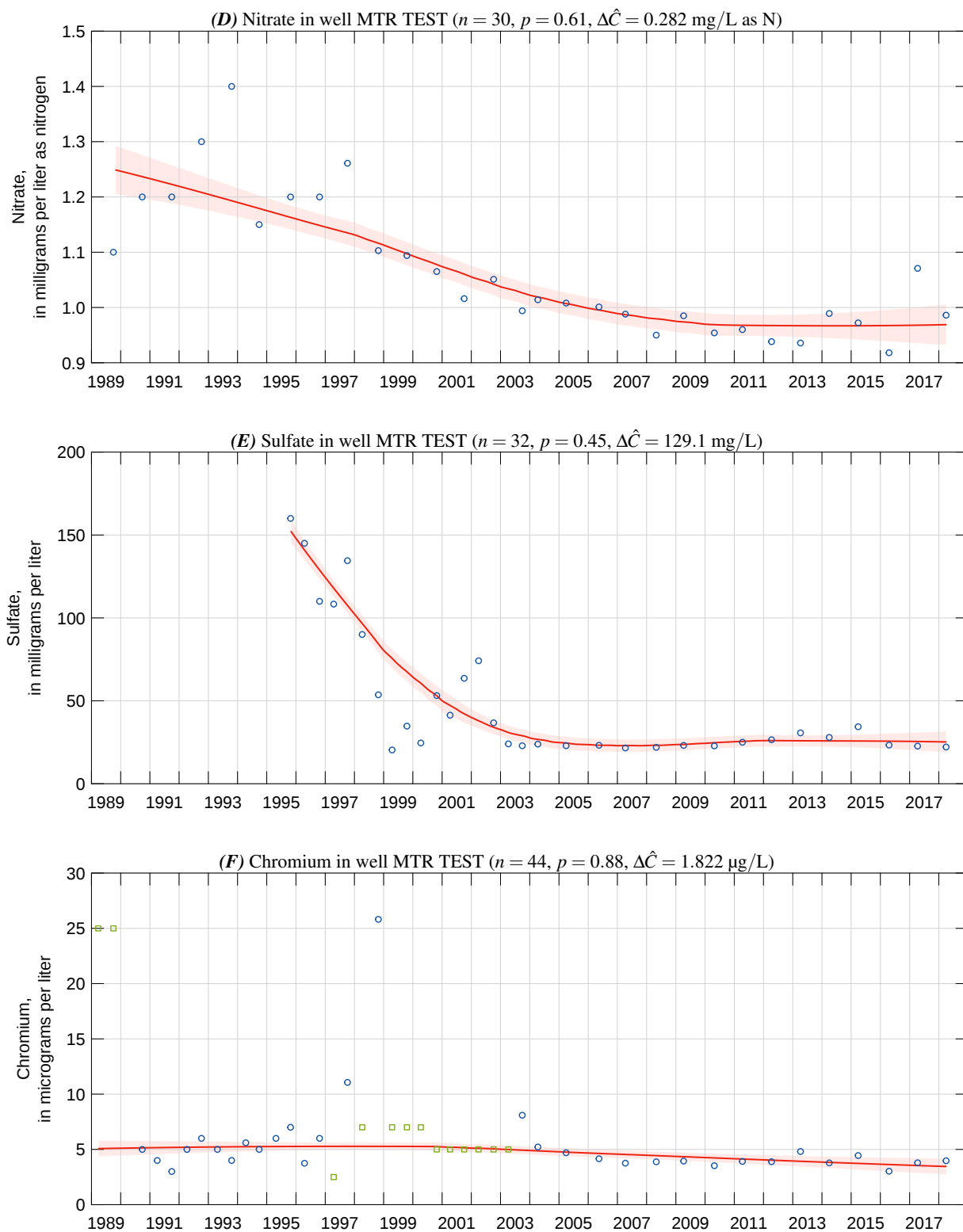


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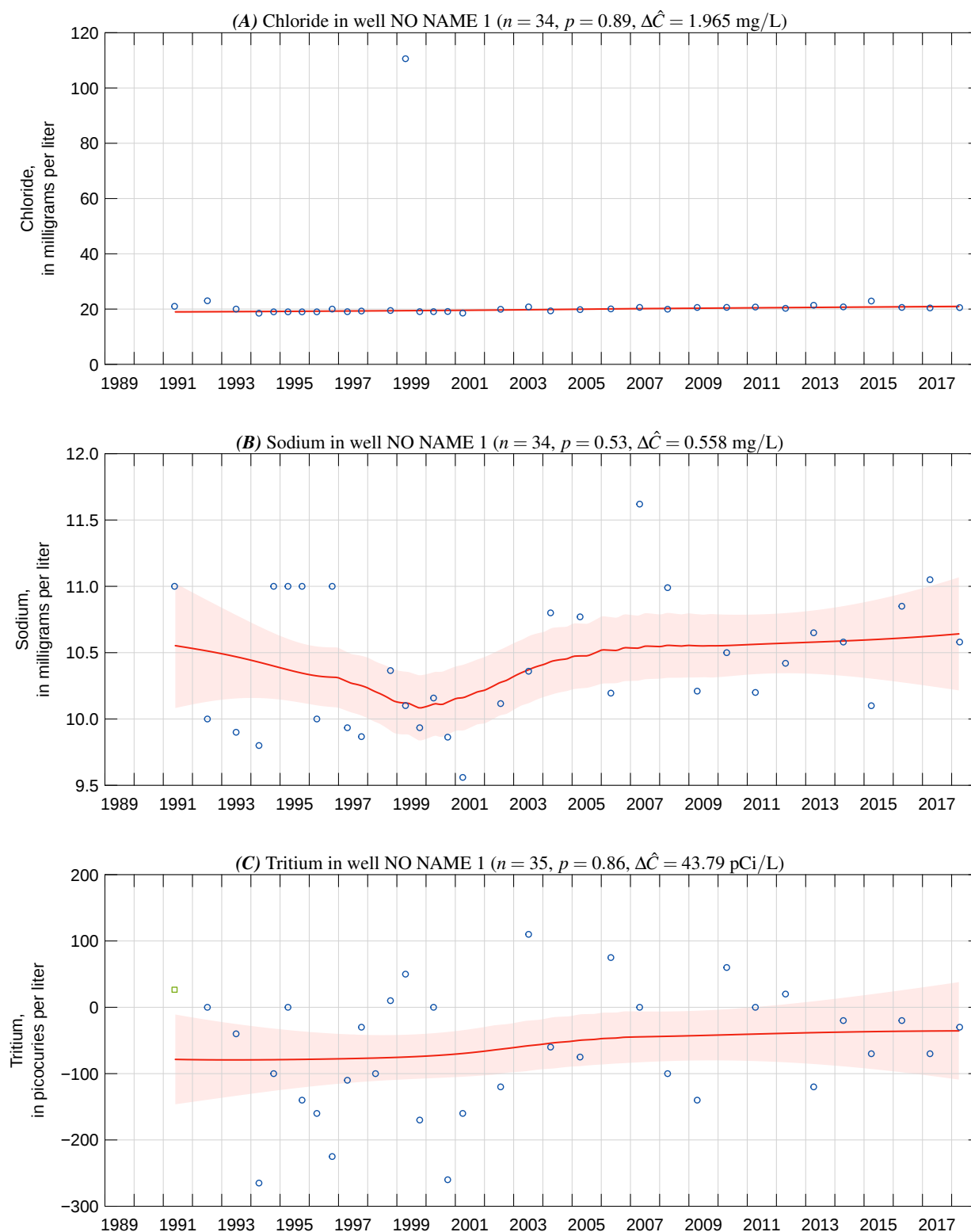


Figure 5.16. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, (N) trichloroethylene, and (O) strontium-90 measured in water samples collected from well NO NAME 1 (Site No. 435038112453401), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

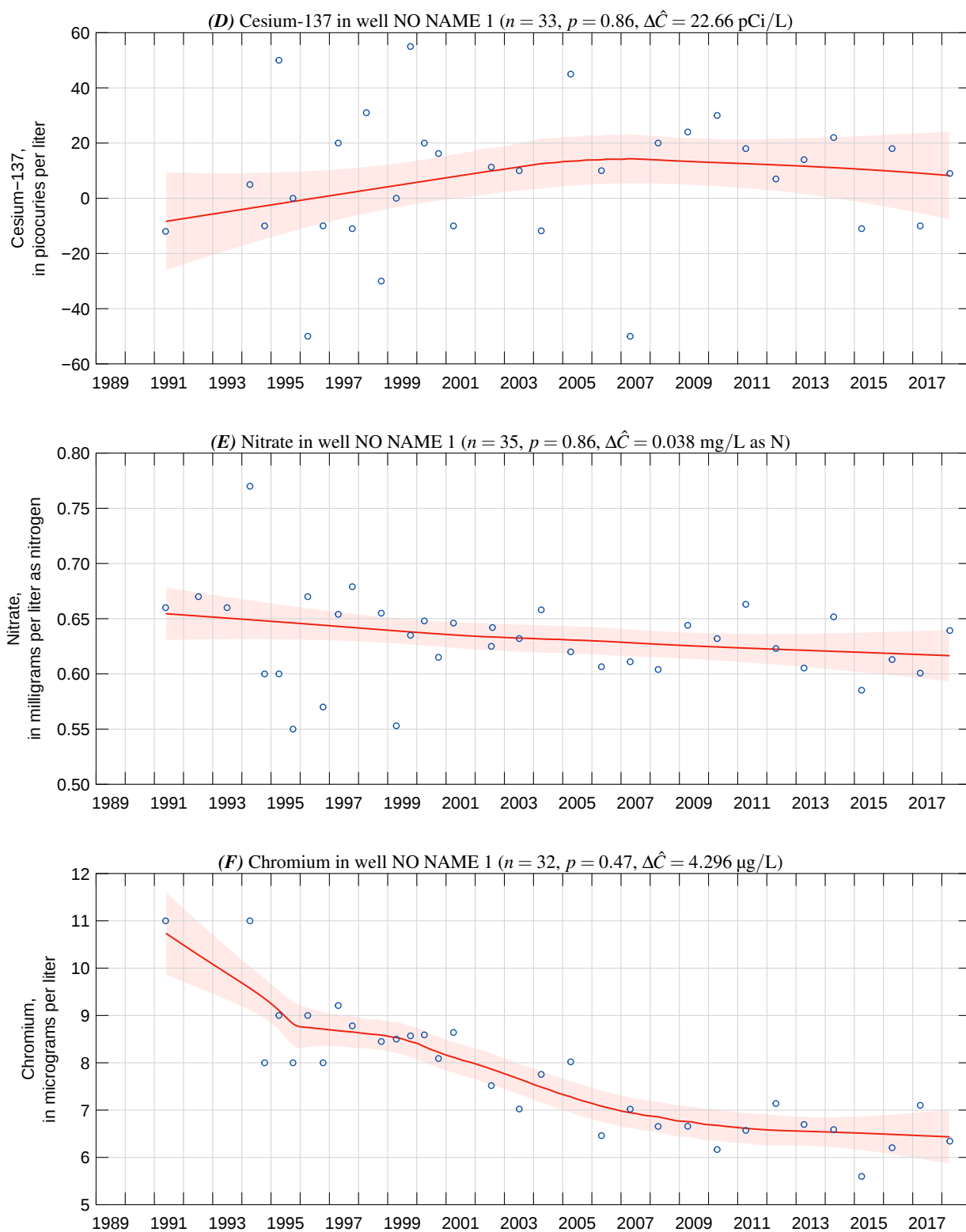


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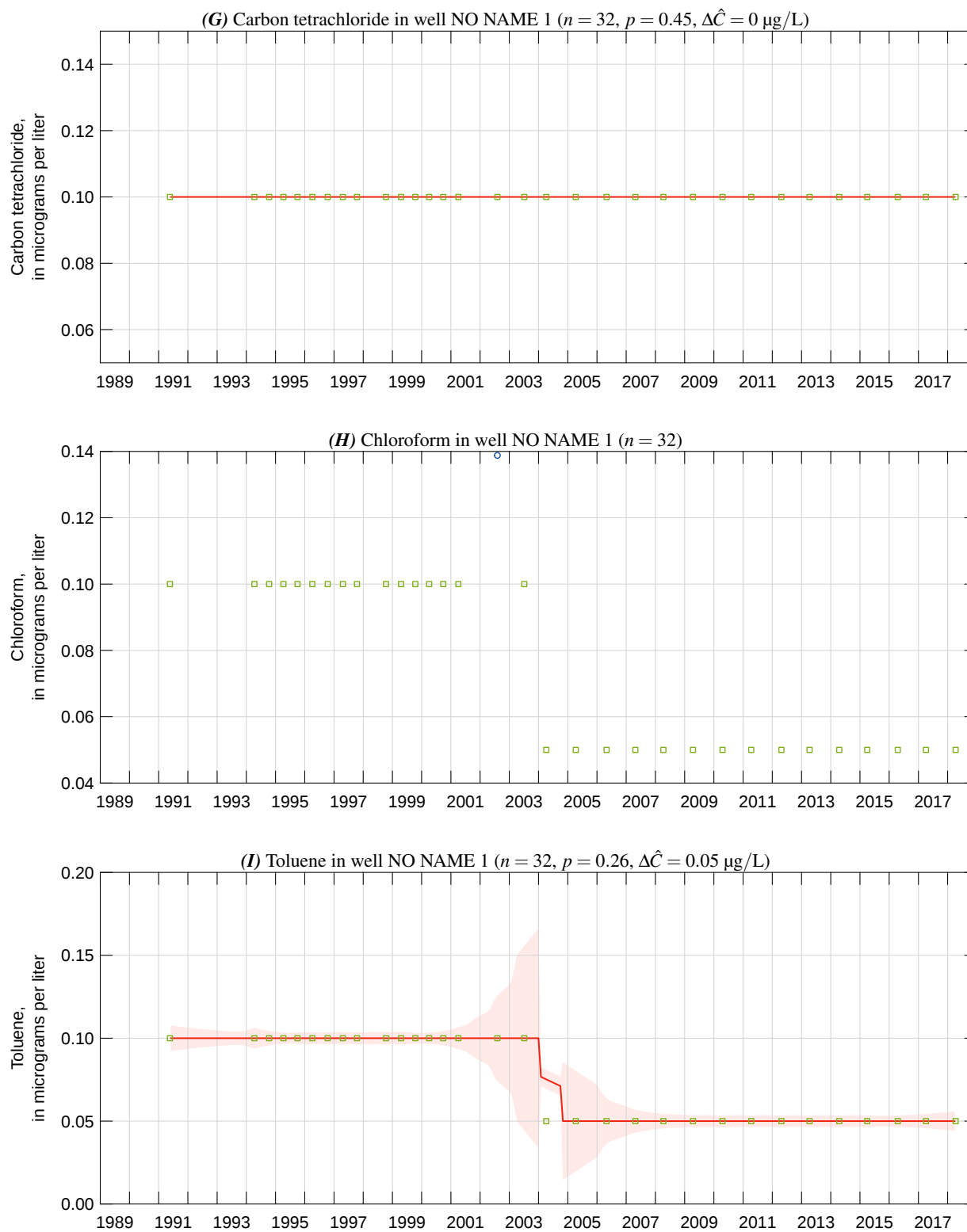


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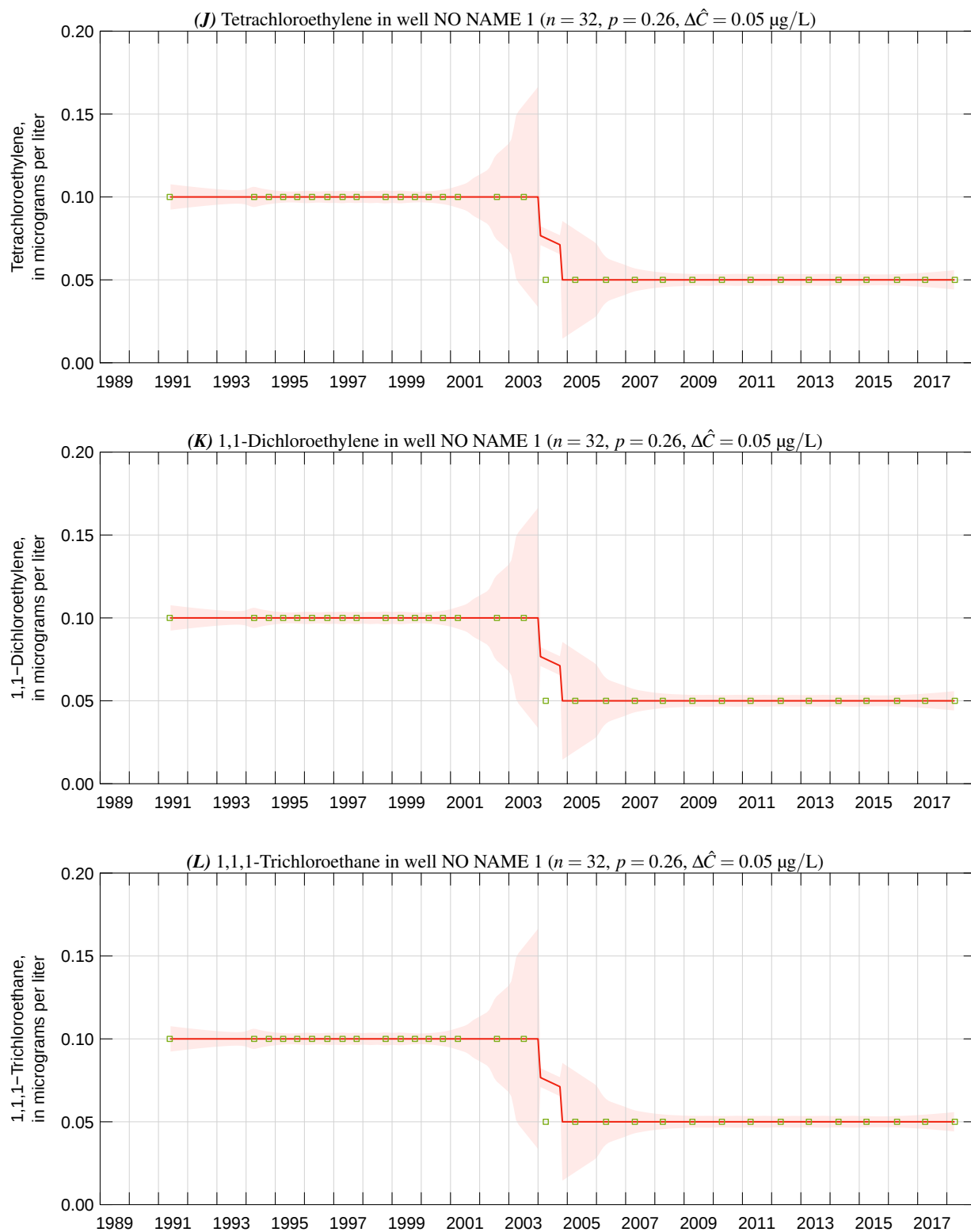


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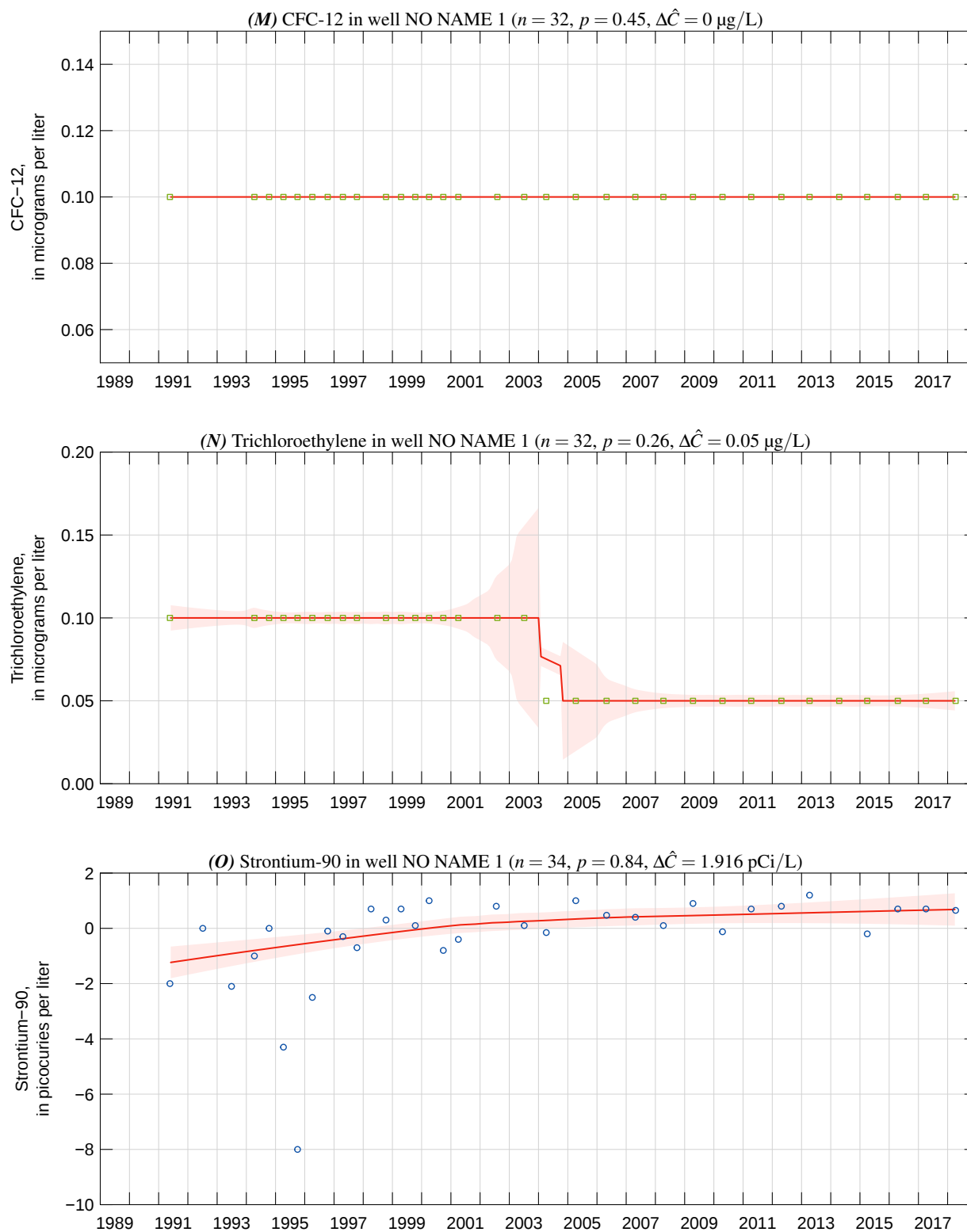


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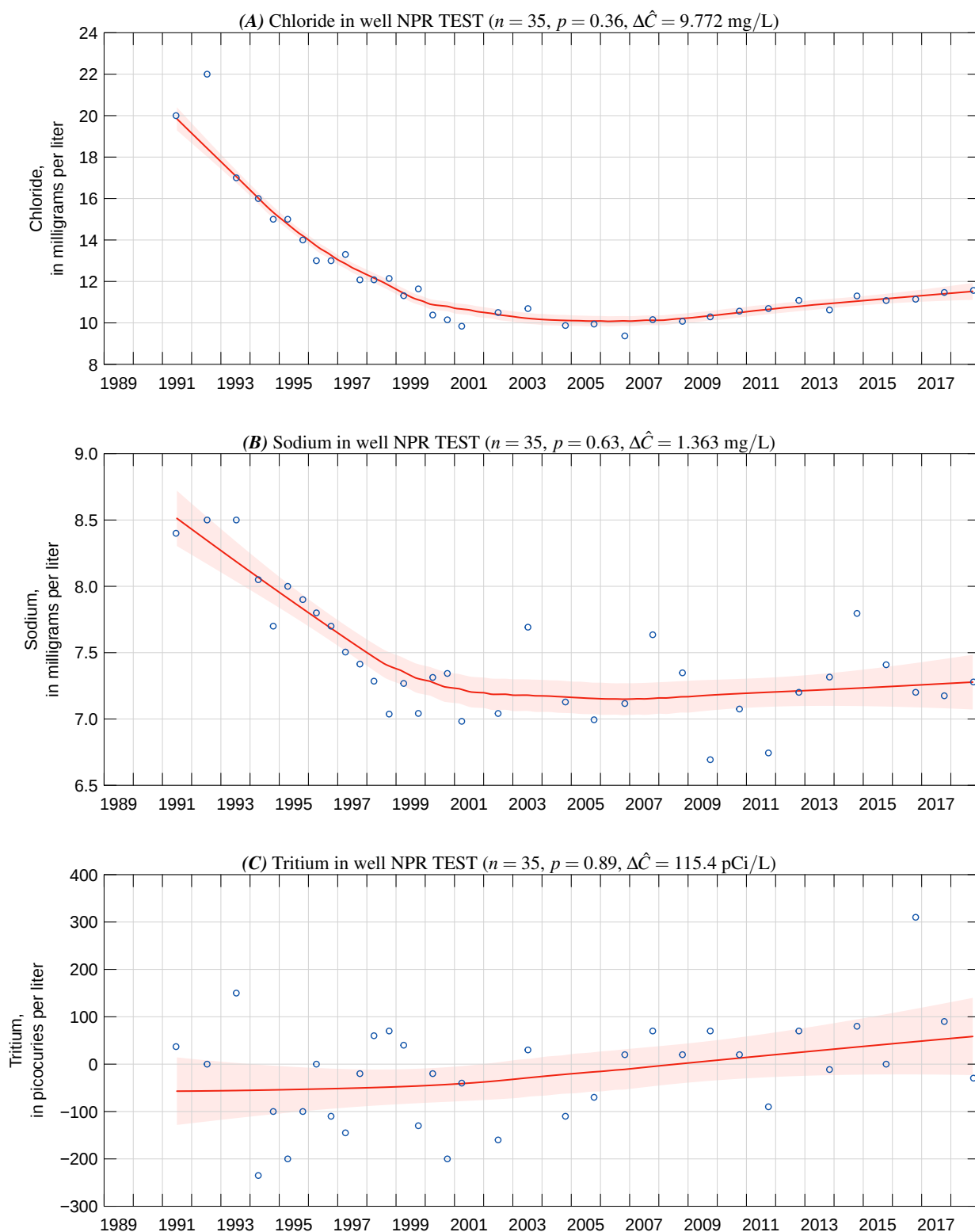


Figure 5.17. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, and (N) trichloroethylene measured in water samples collected from well NPR TEST (Site No. 433449112523101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

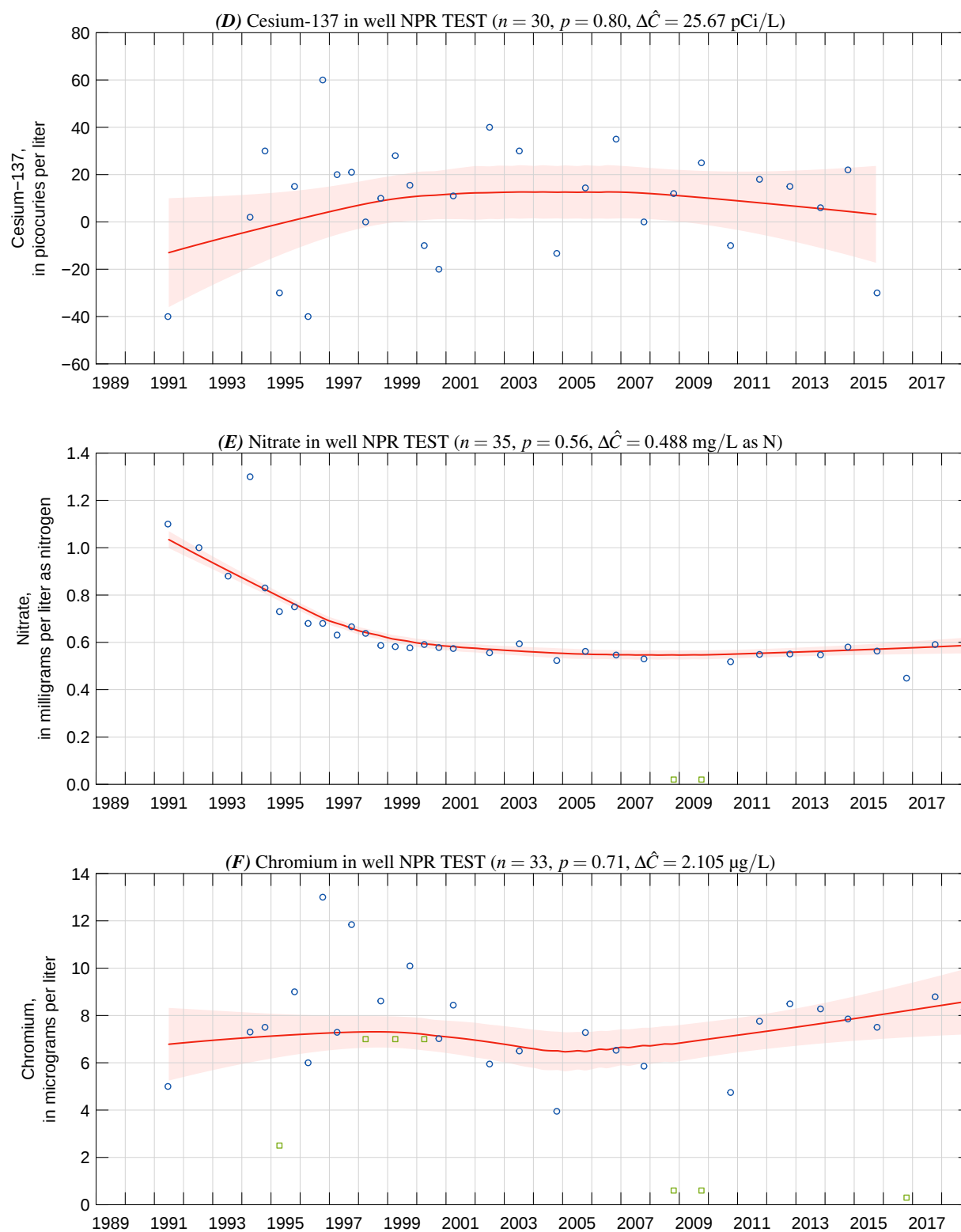


Figure 5.17. —Continued

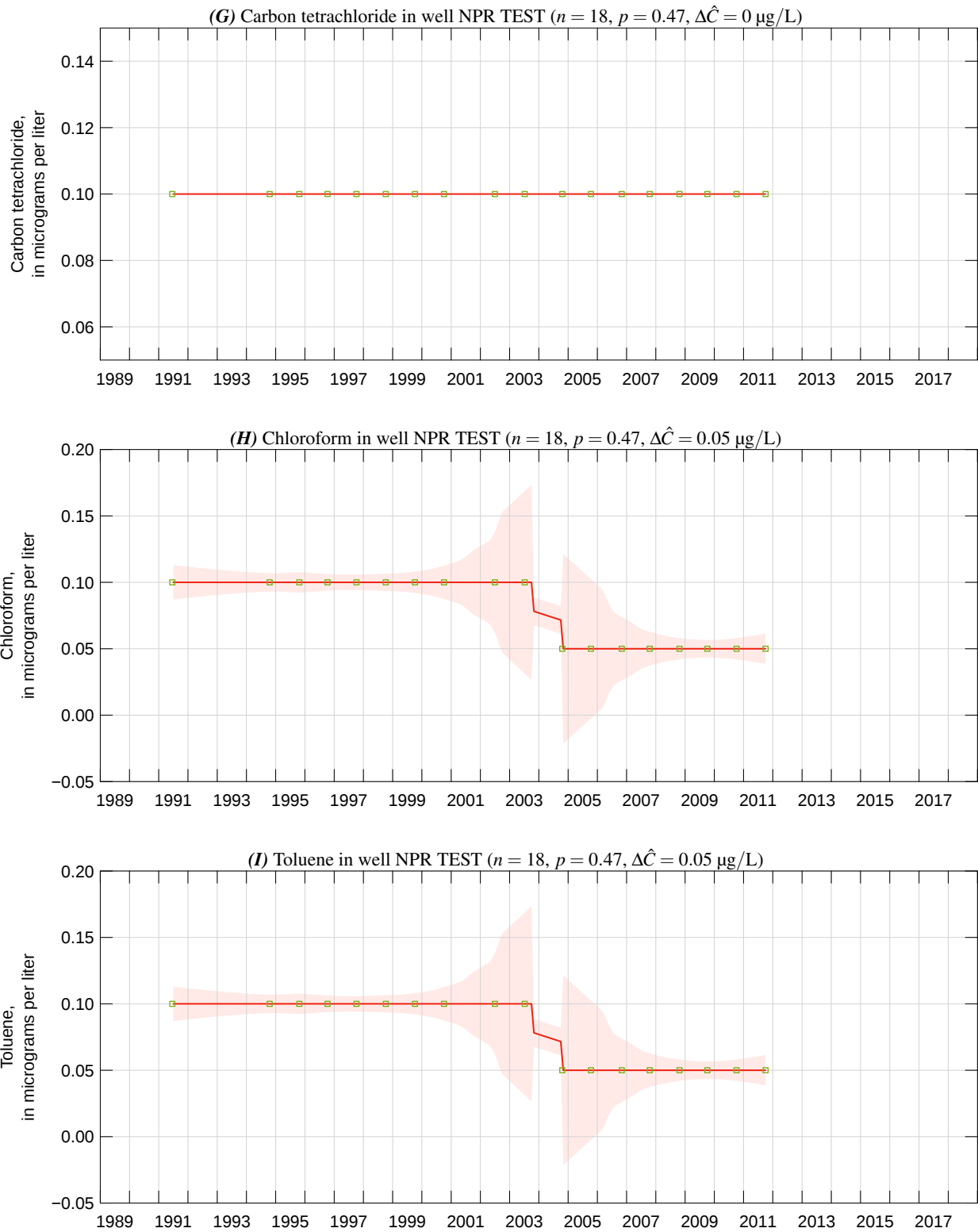


Figure 5.17. —Continued

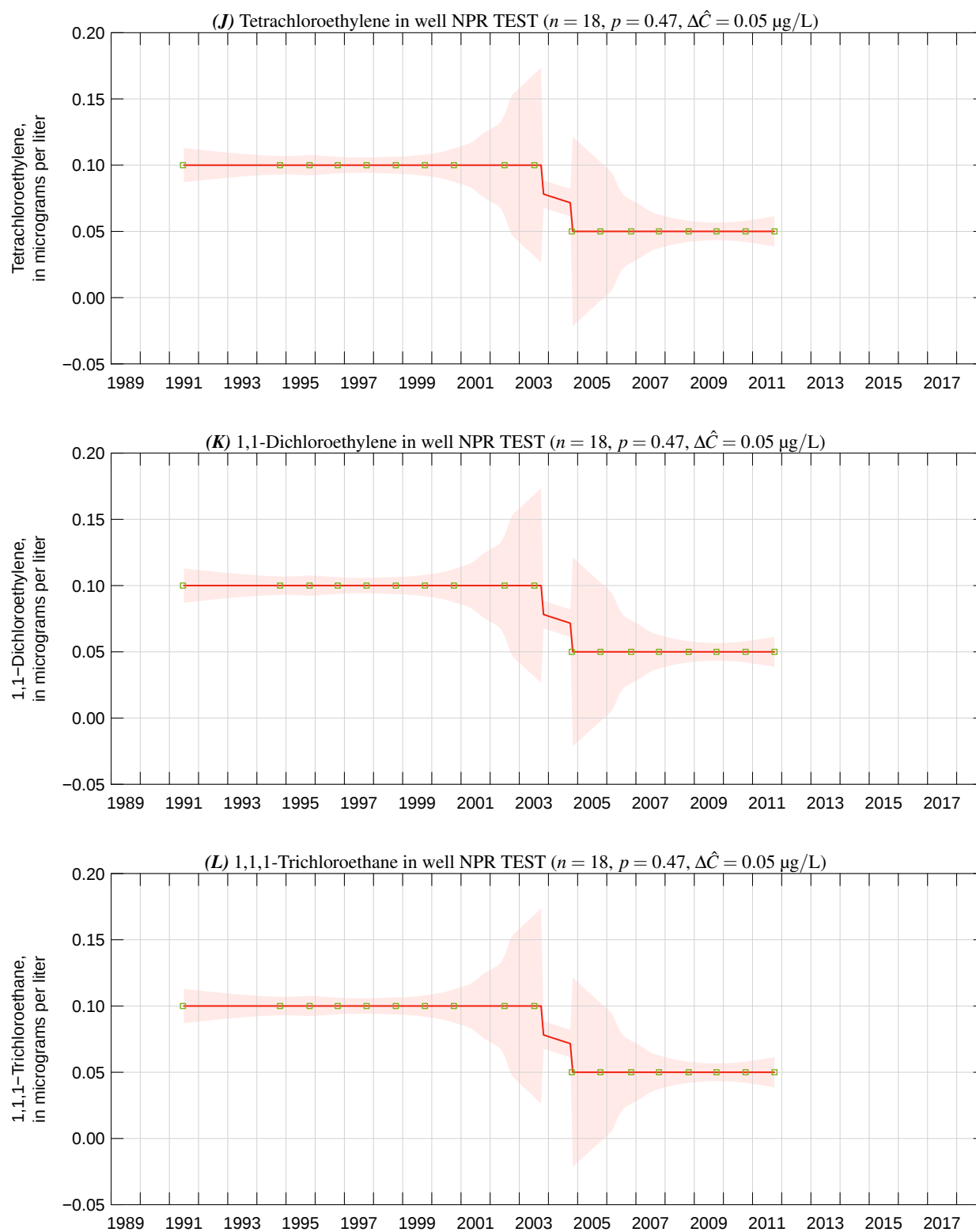


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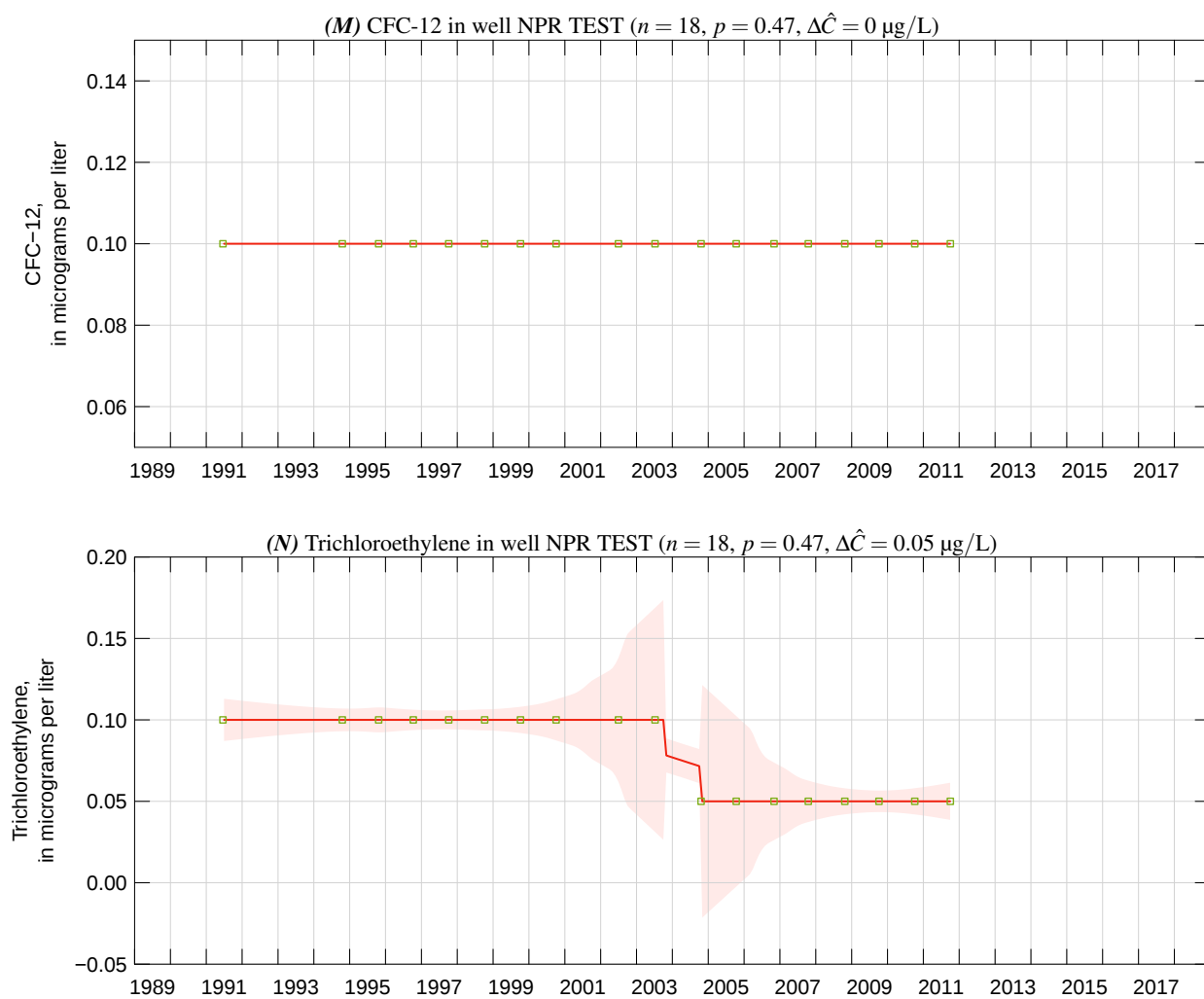


Figure 5.17. —Continued

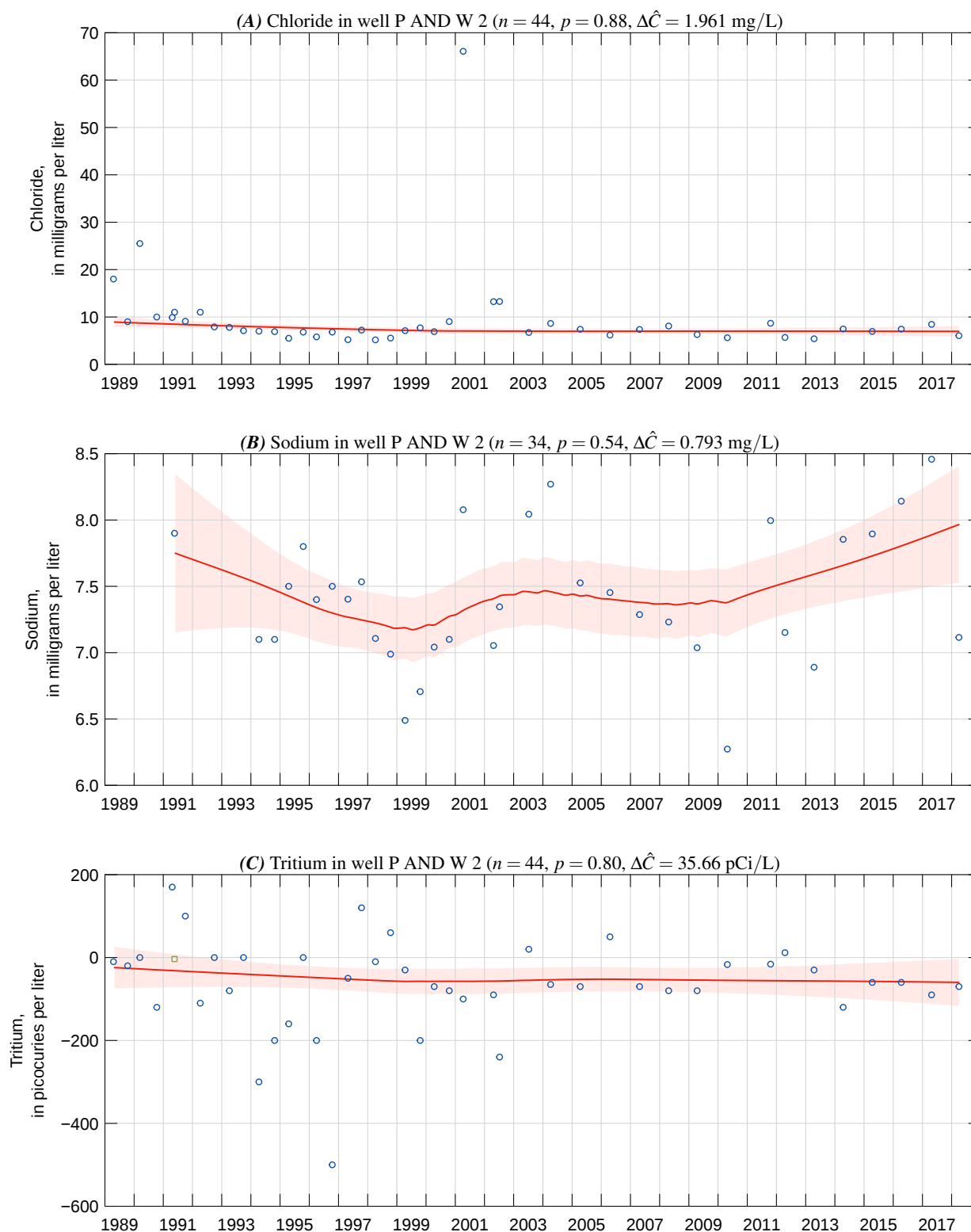


Figure 5.18. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well P AND W 2 (Site No. 435419112453101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

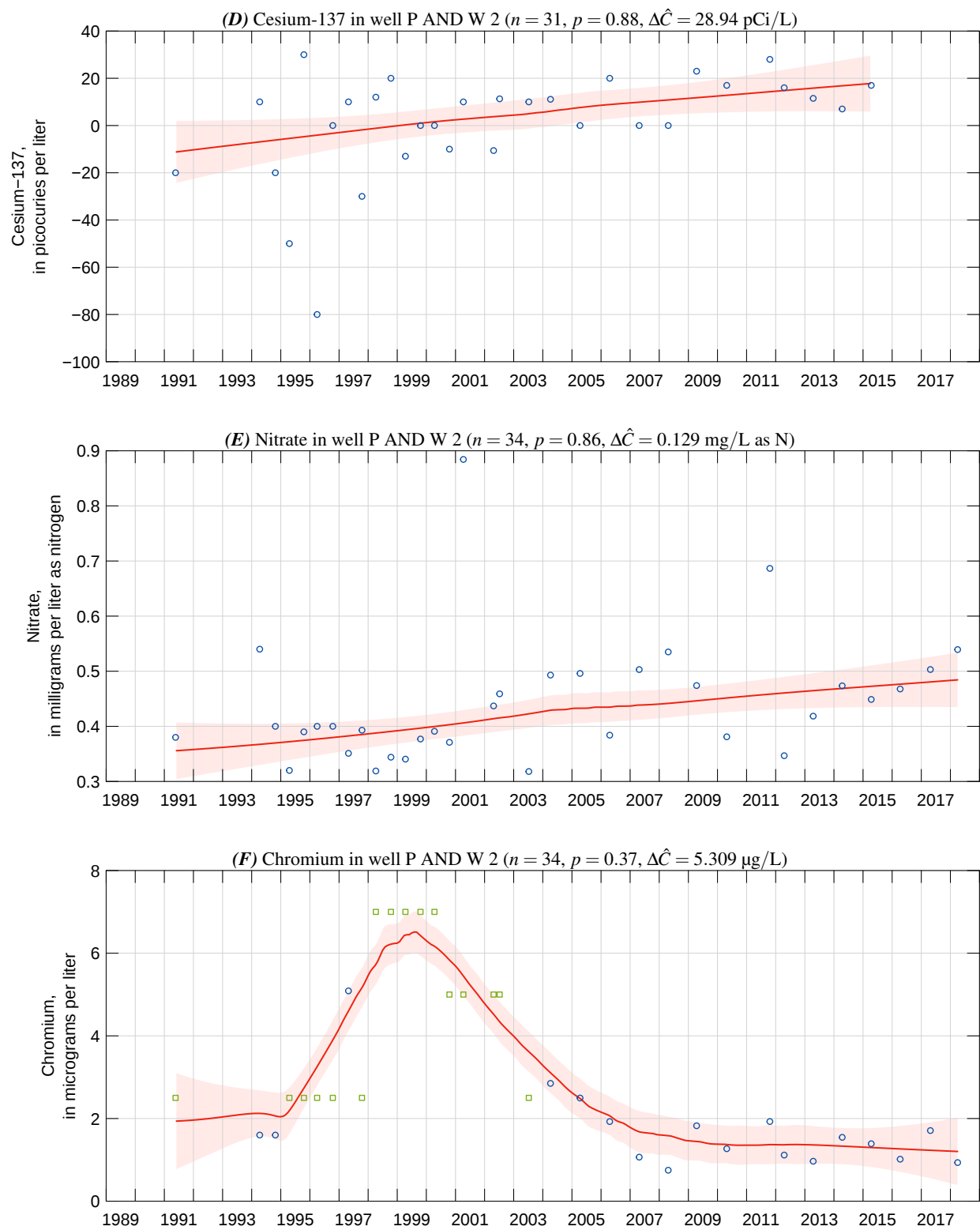


Figure 5.18. —Continued

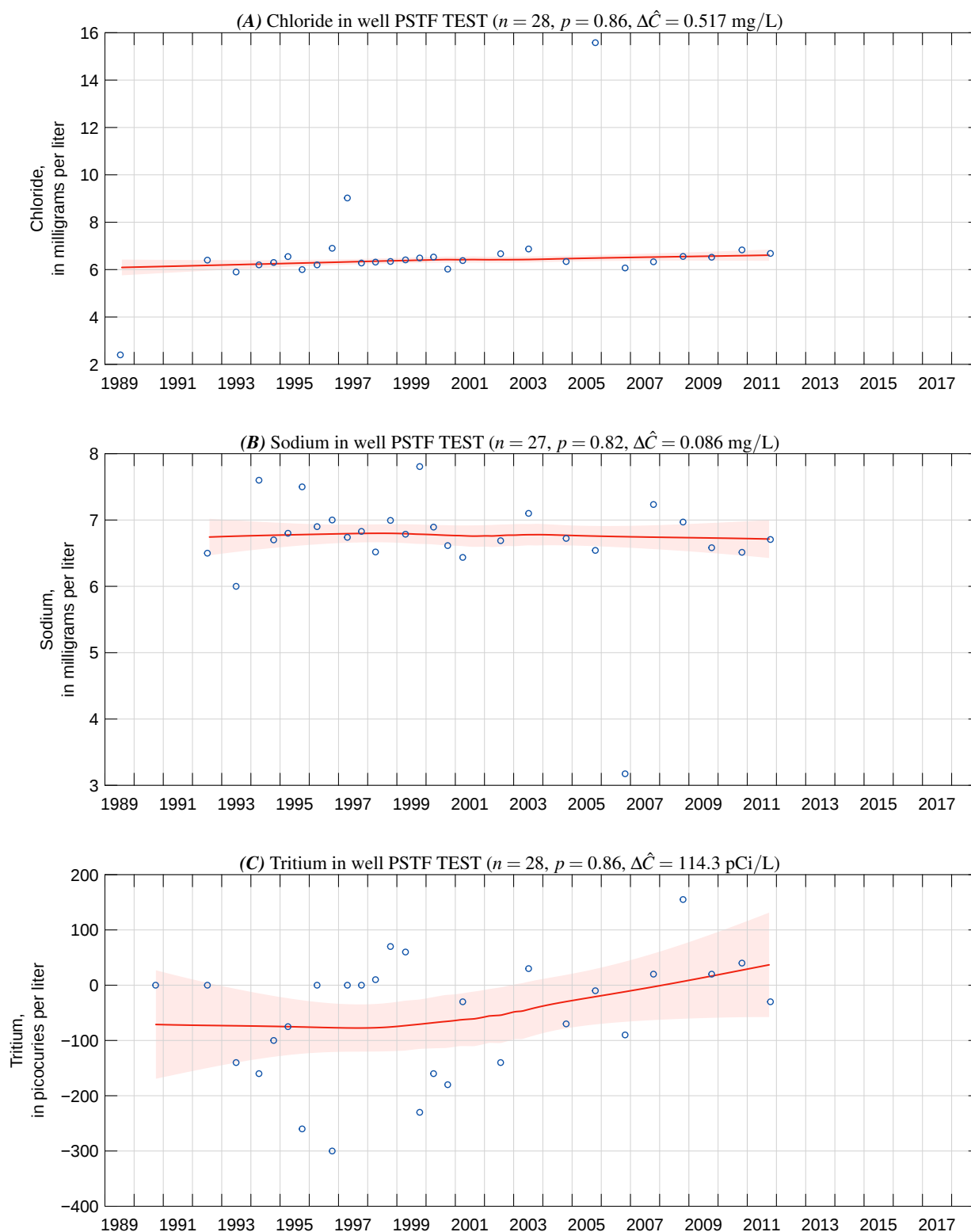


Figure 5.19. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, (N) trichloroethylene, and (O) strontium-90 measured in water samples collected from well PSTF TEST (Site No. 434941112454201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

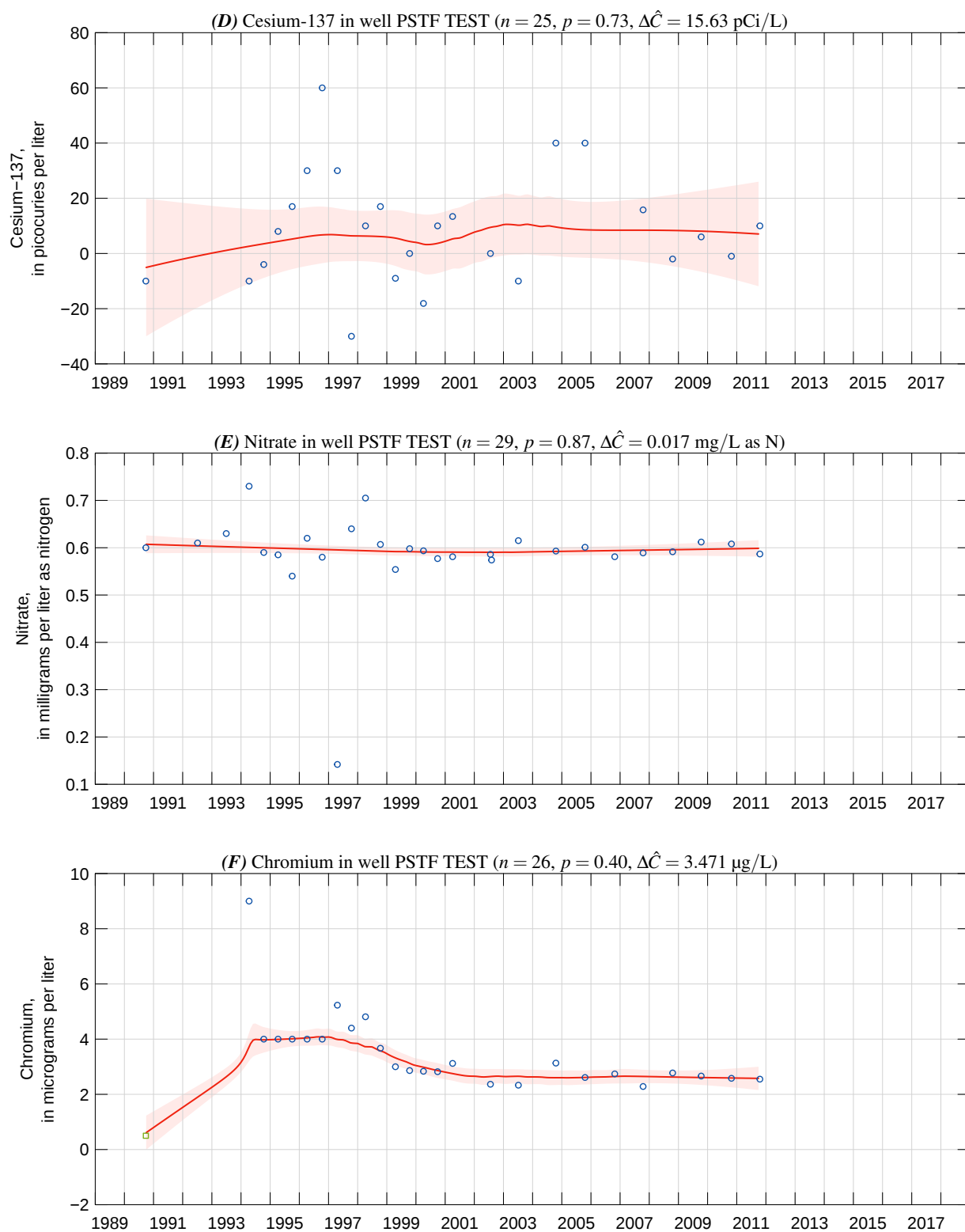


Figure 5.19. —Continued

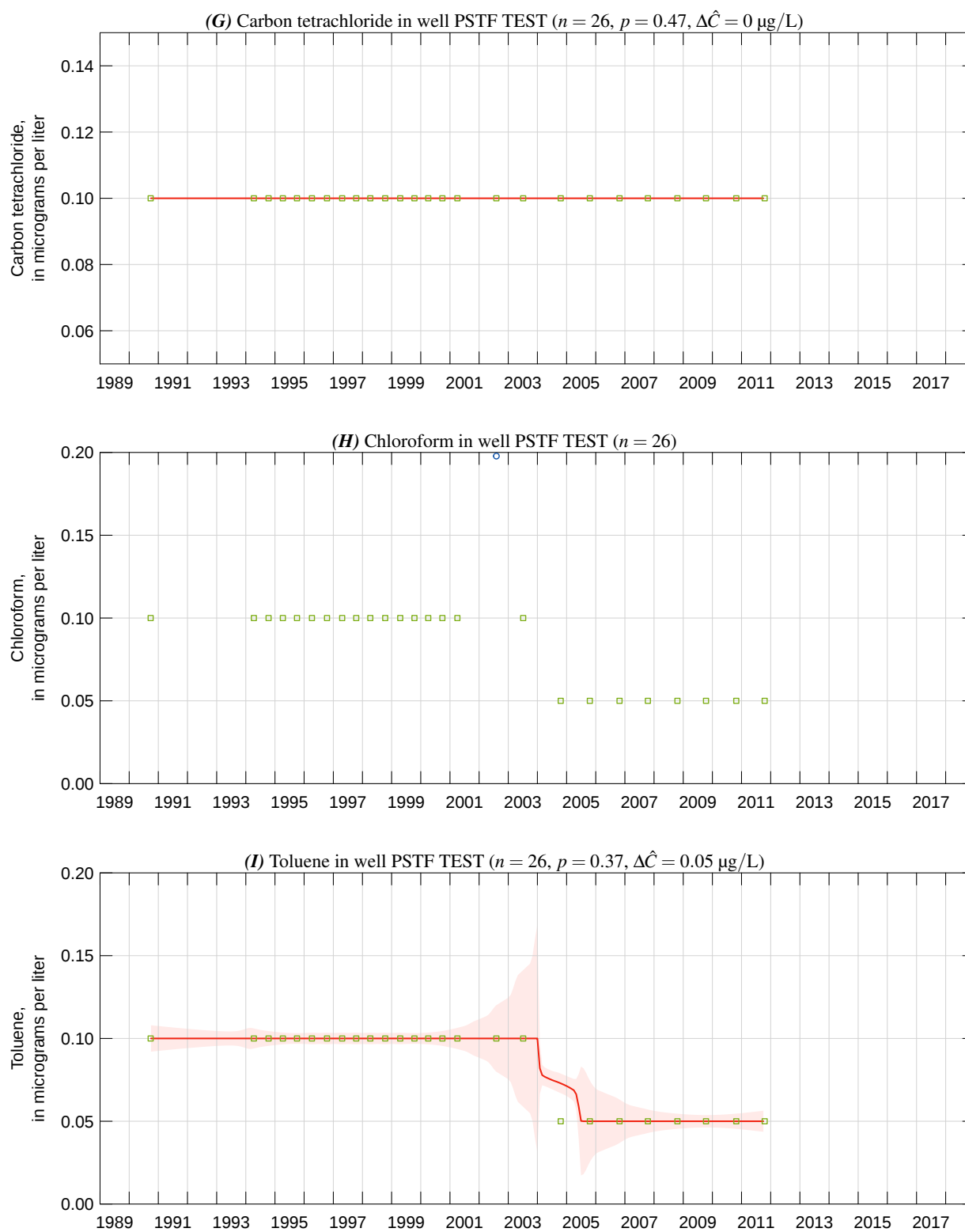


Figure 5.19. —Continued

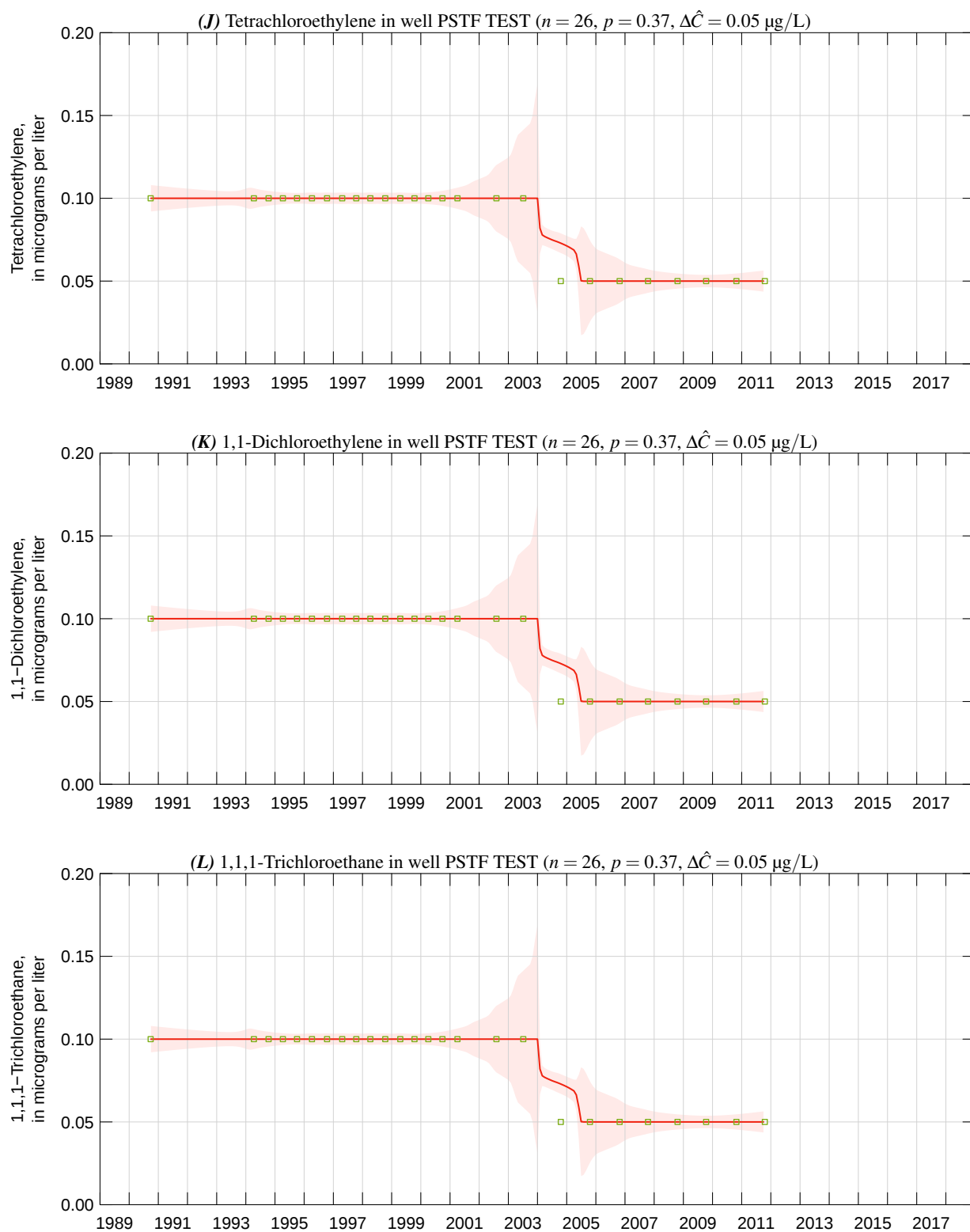


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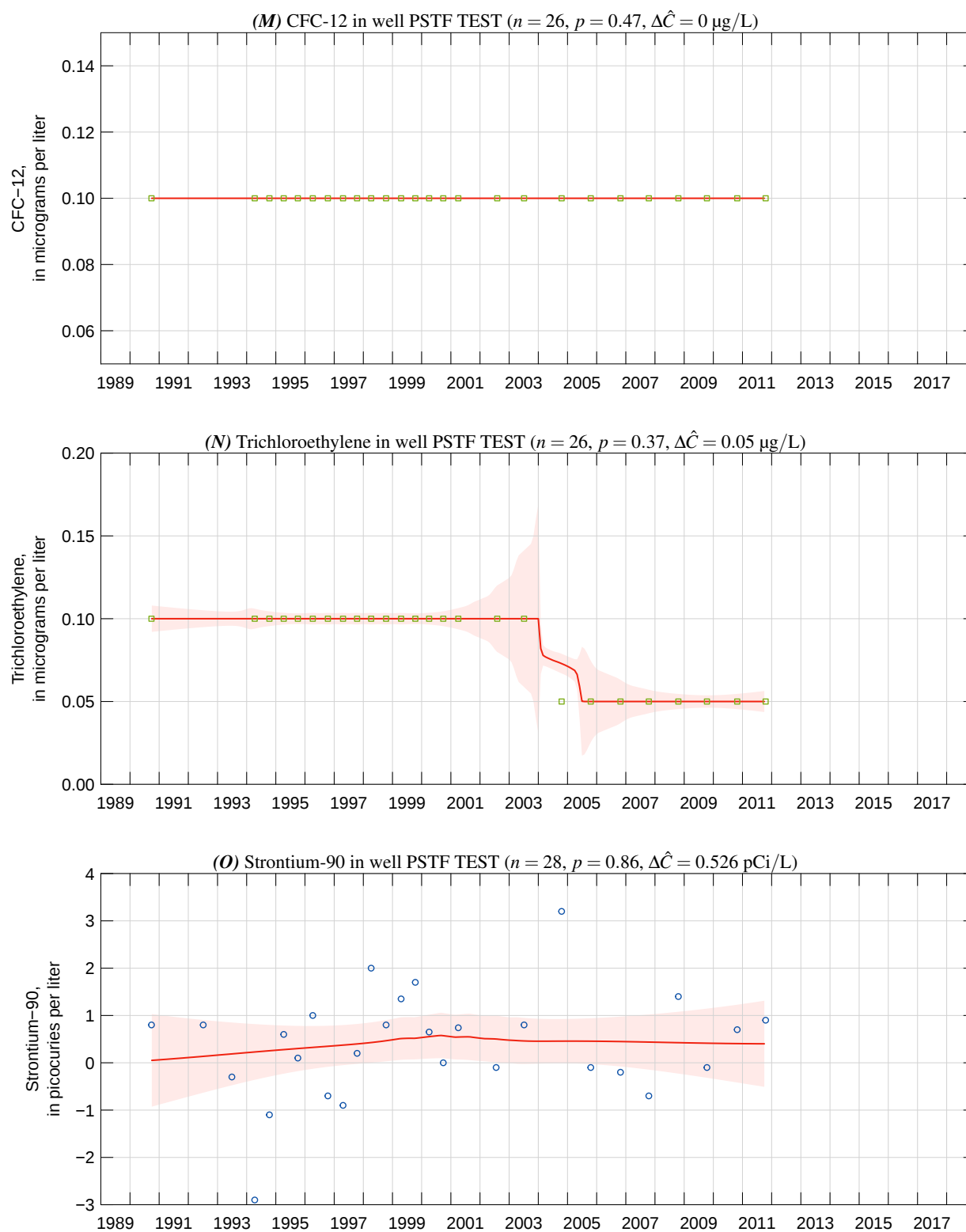


Figure 5.19. —Continued

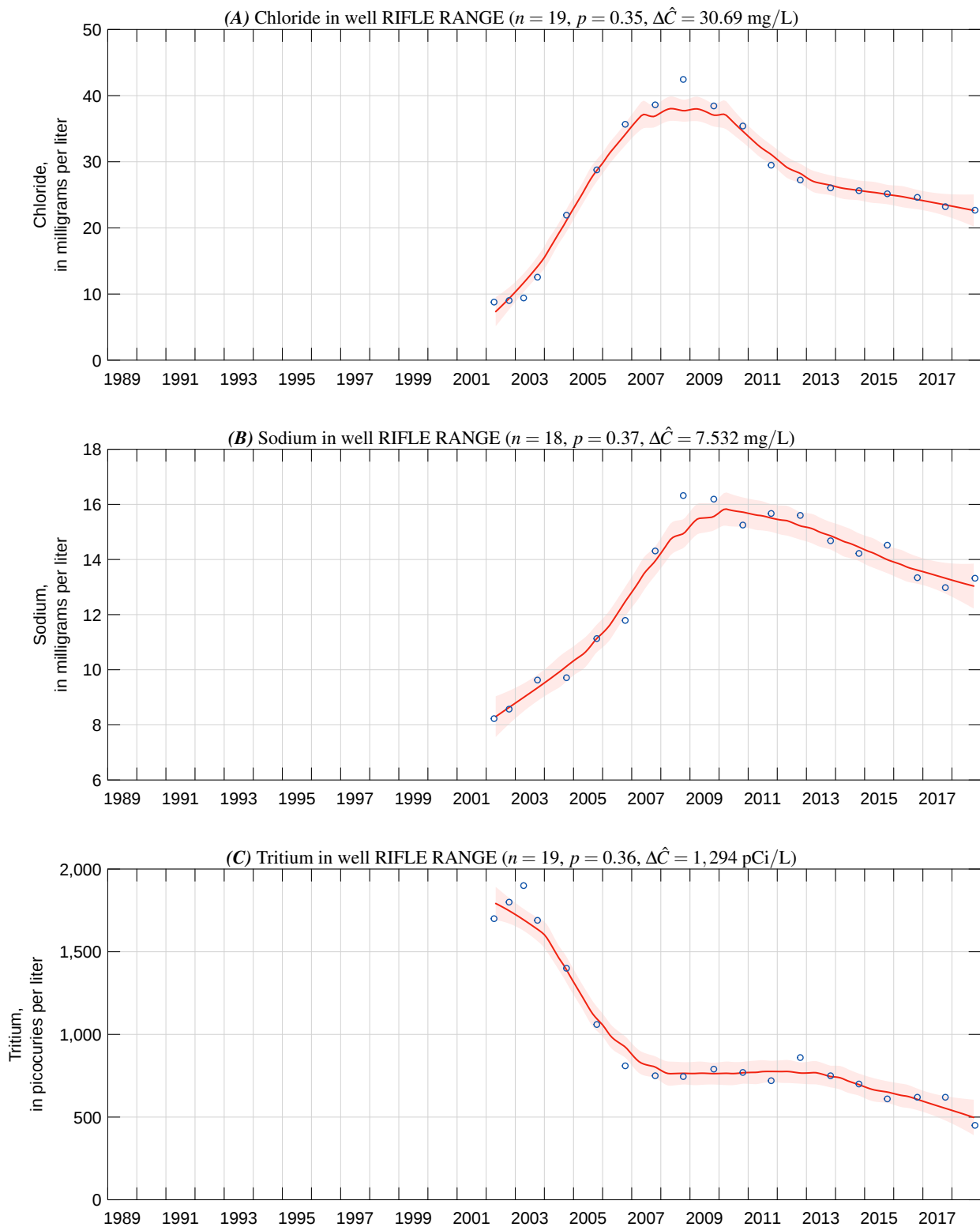


Figure 5.20. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) sulfate, (F) chromium, and (G) strontium-90 measured in water samples collected from well RIFLE RANGE (Site No. 433243112591101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

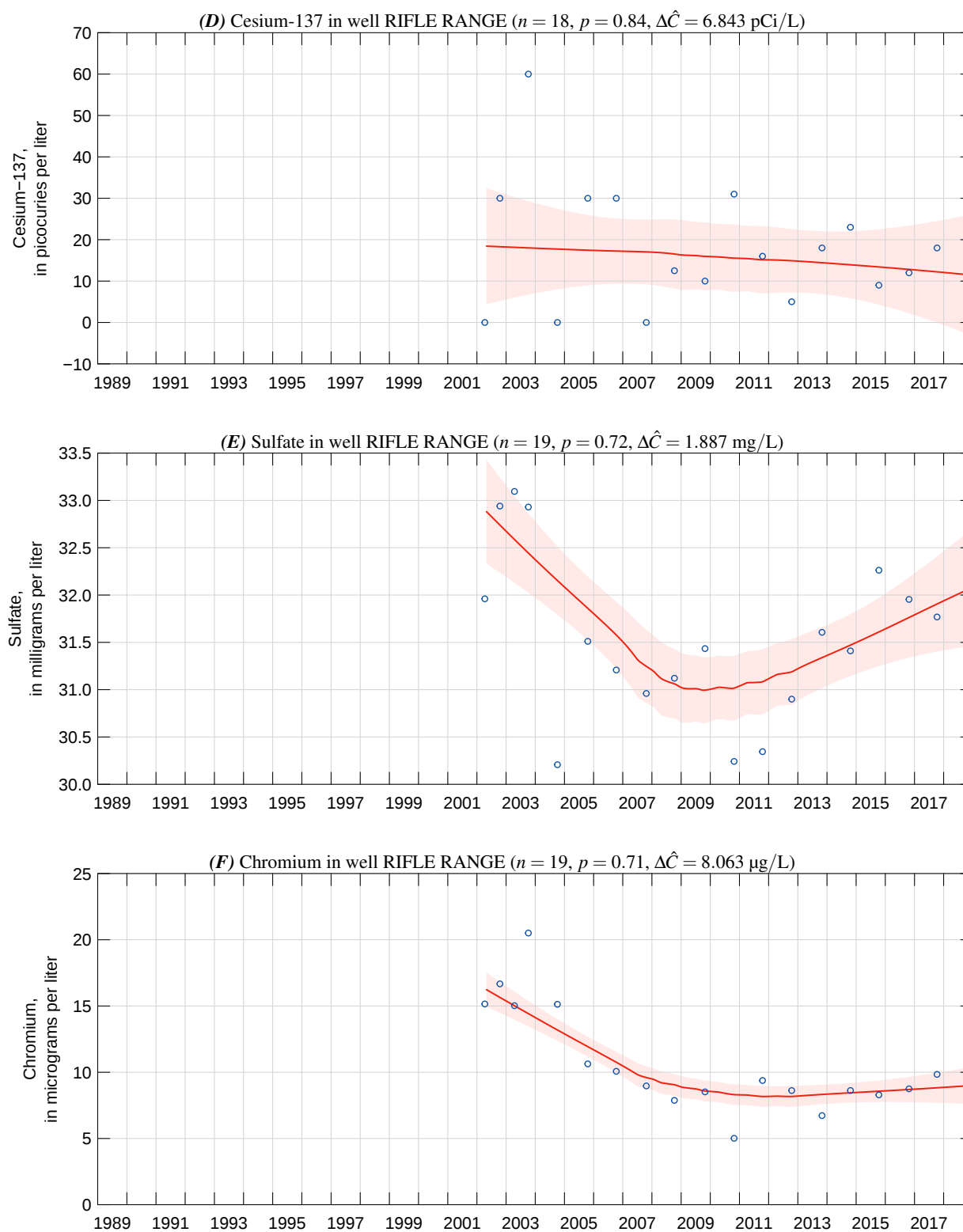


Figure 5.20. —Continued

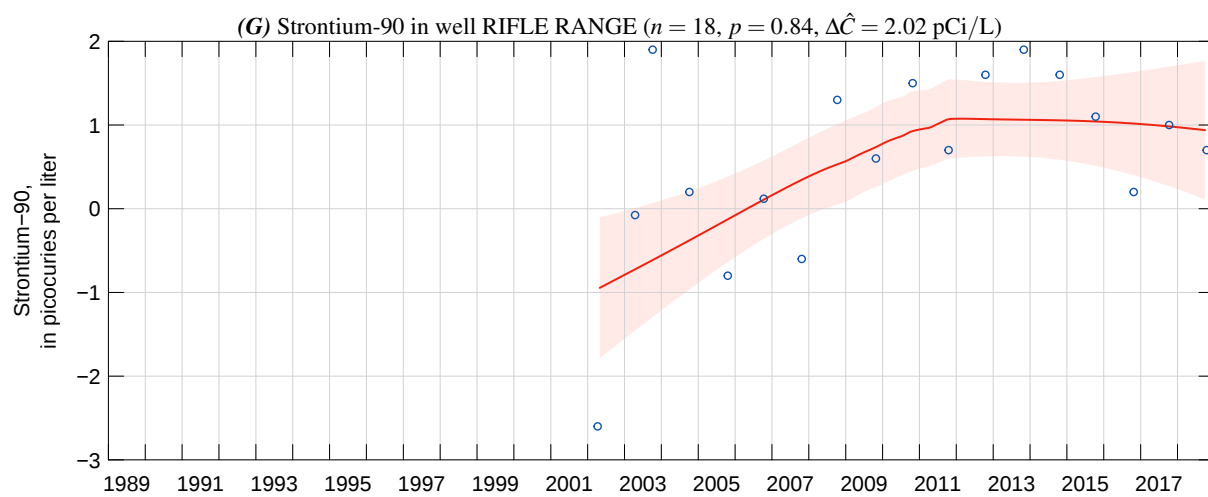


Figure 5.20. —Continued

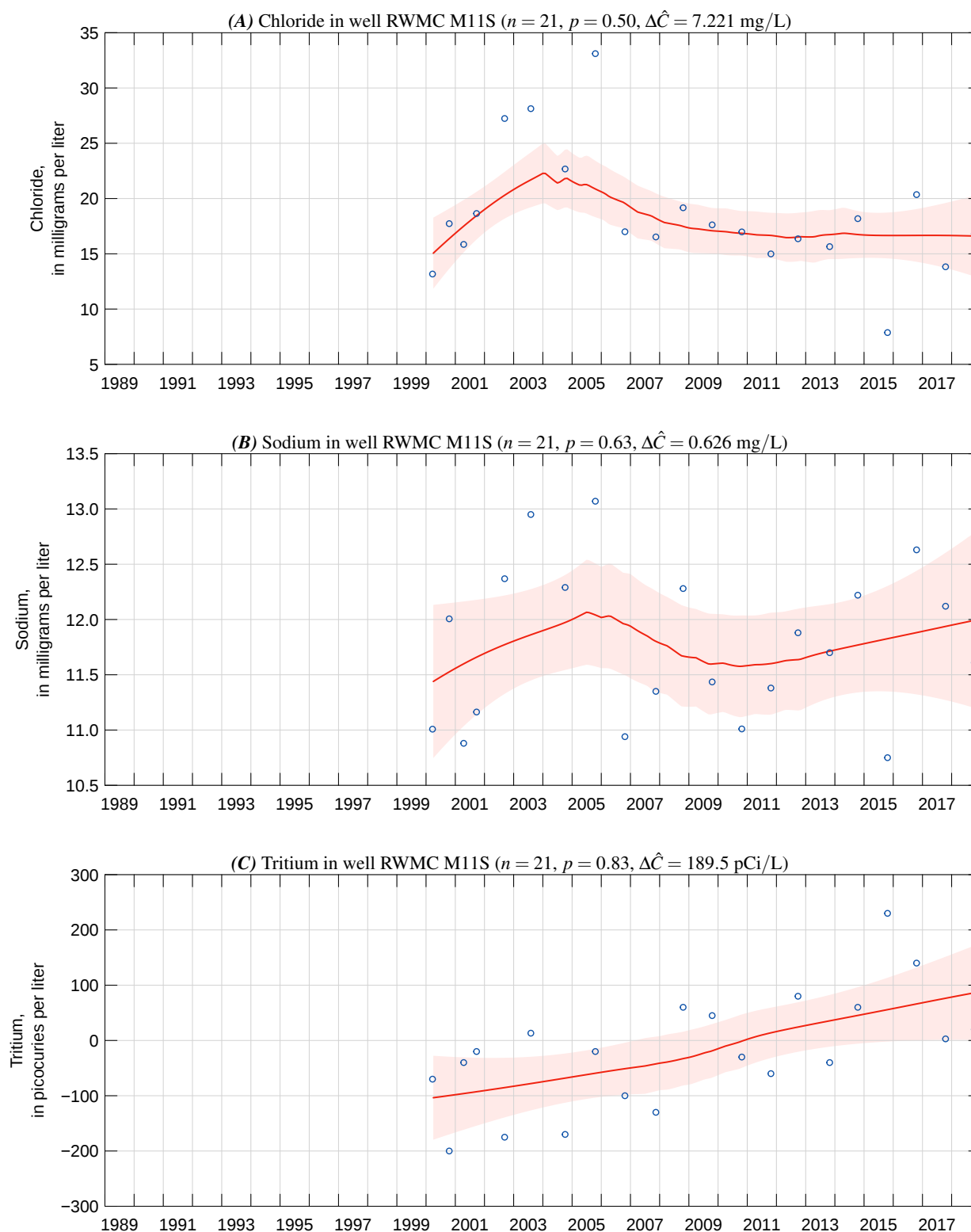


Figure 5.21. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well RWMC M11S (Site No. 433058113010401), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

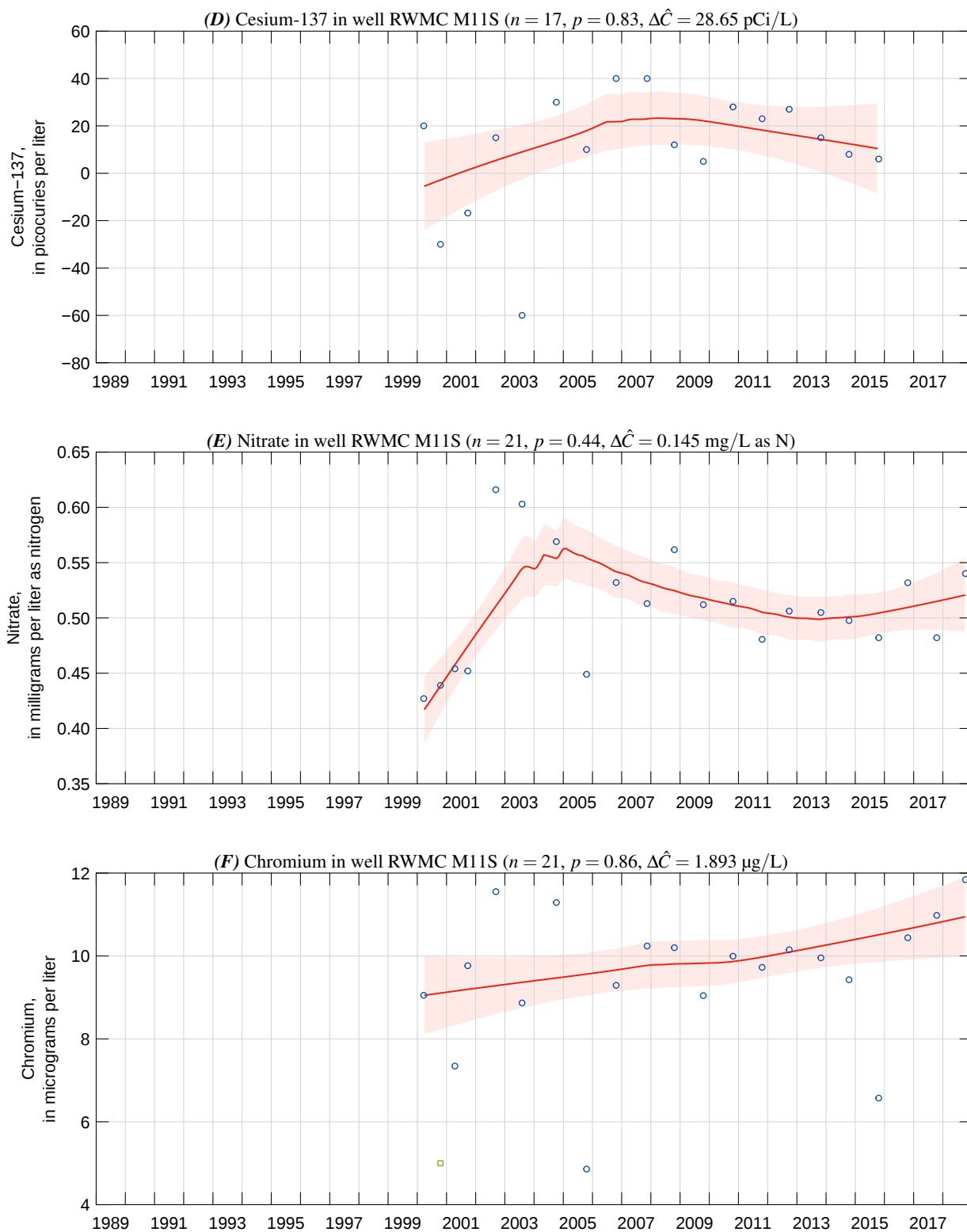


Figure 5.21. —Continued

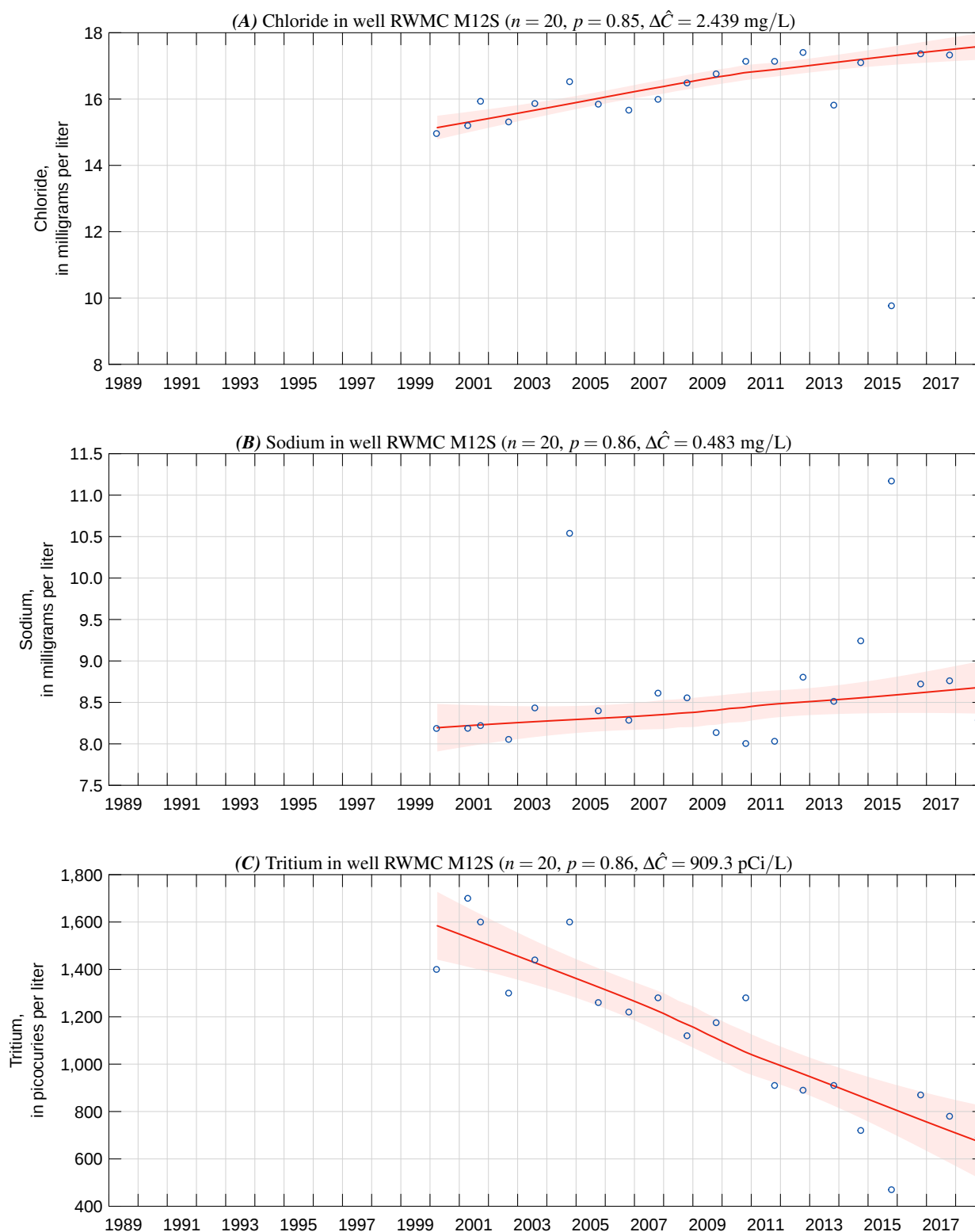


Figure 5.22. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well RWMC M12S (Site No. 433118112593401), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

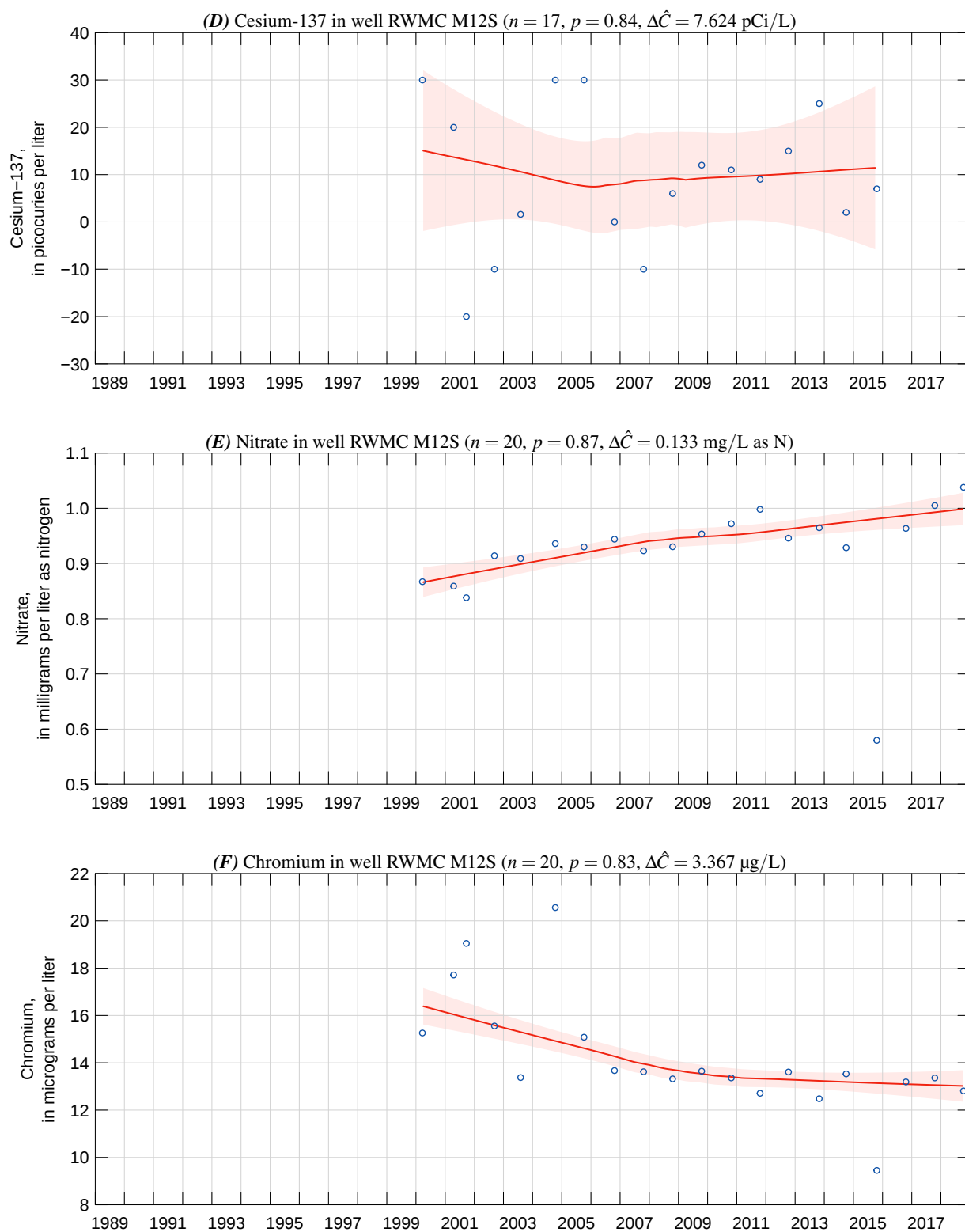


Figure 5.22. —Continued

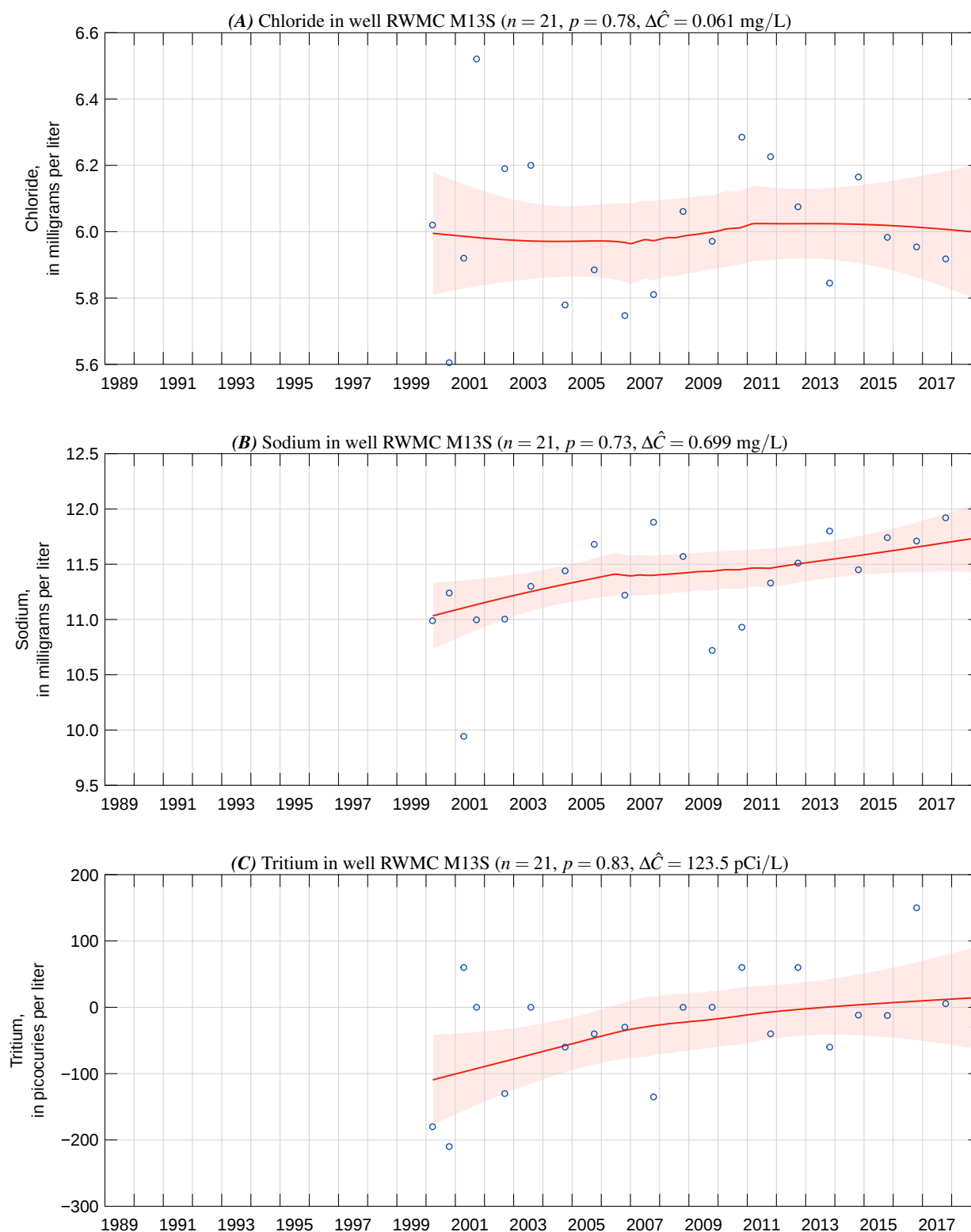


Figure 5.23. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well RWMC M13S (Site No. 433037113002701), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

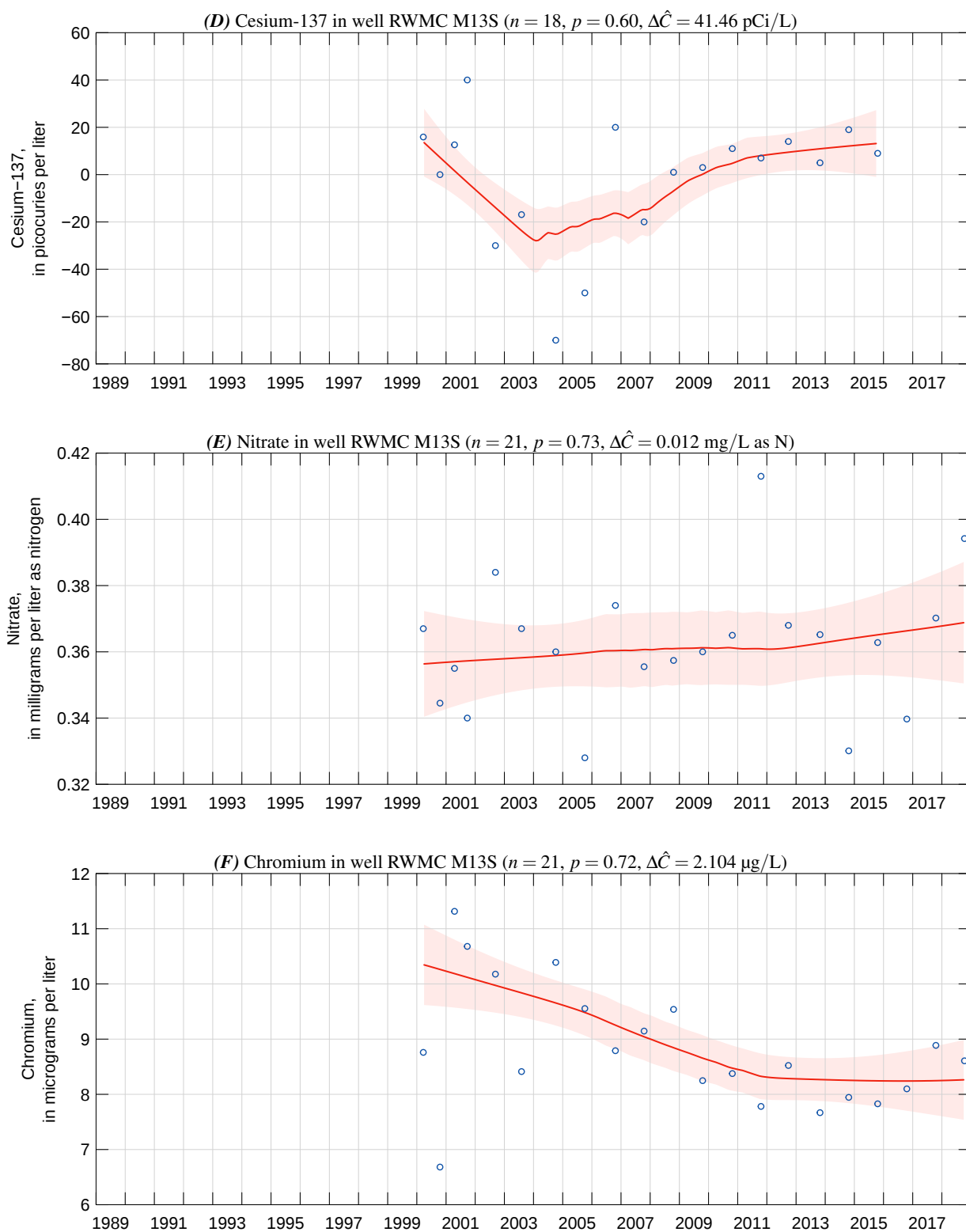


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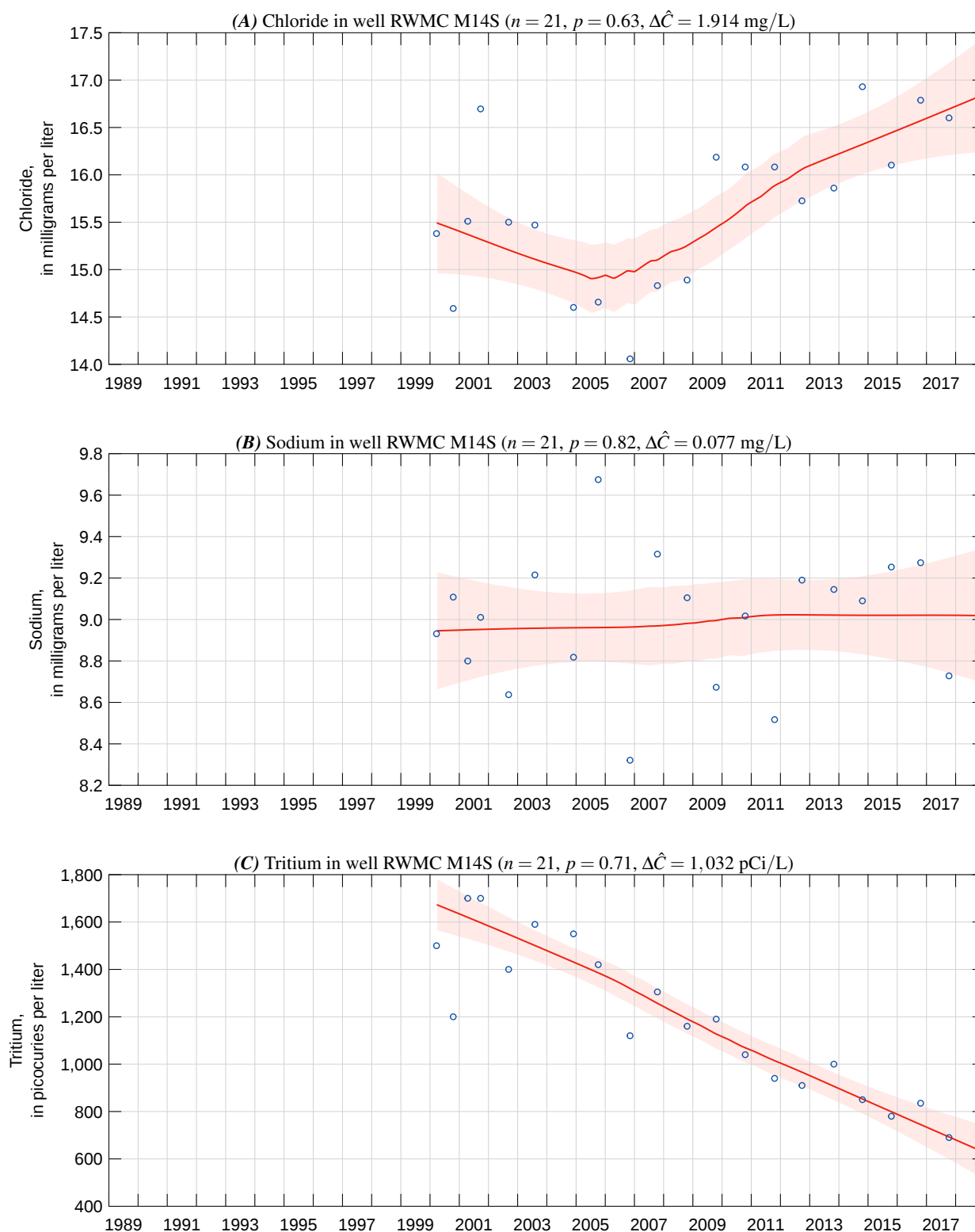


Figure 5.24. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well RWMC M14S (Site No. 433052113025001), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

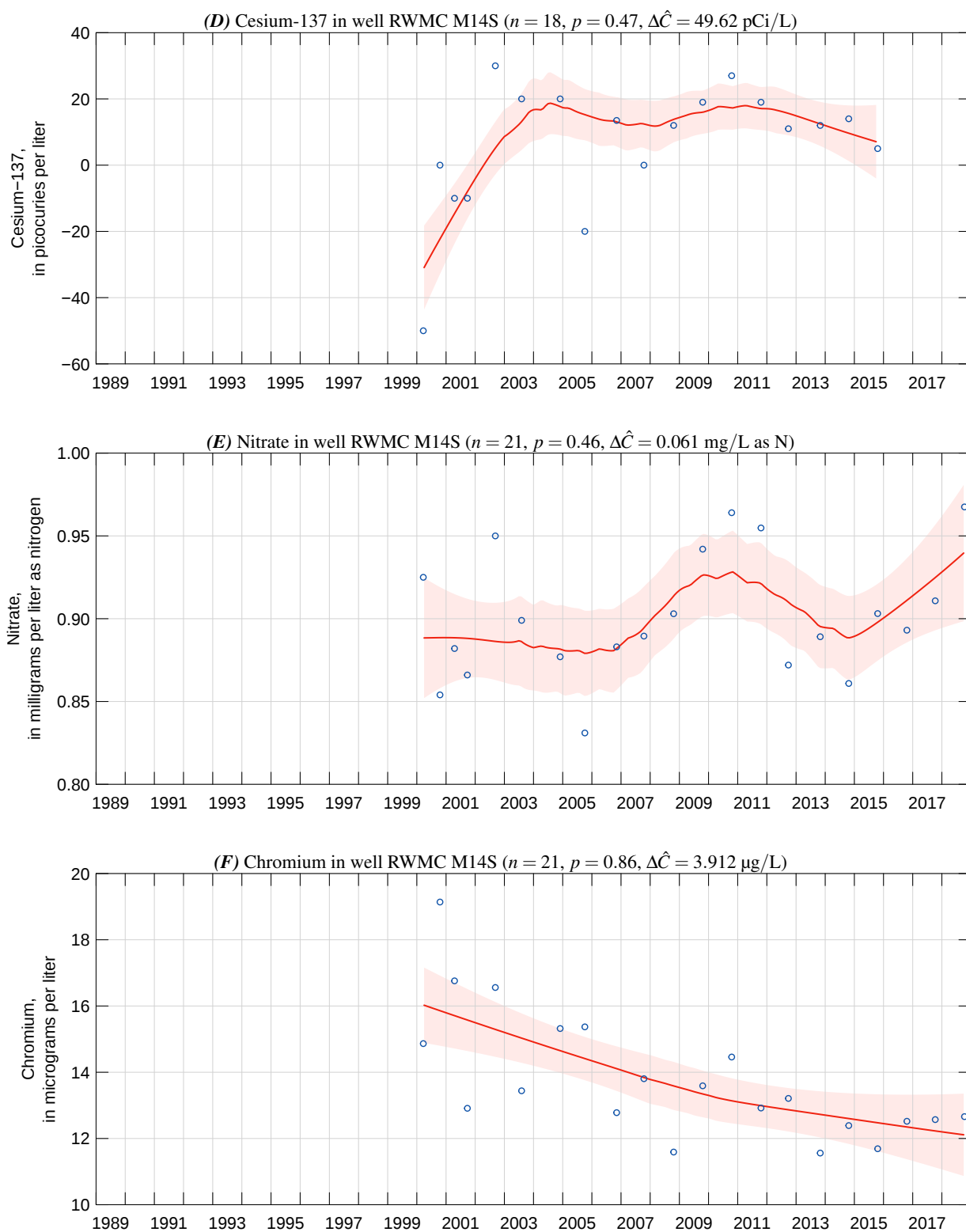


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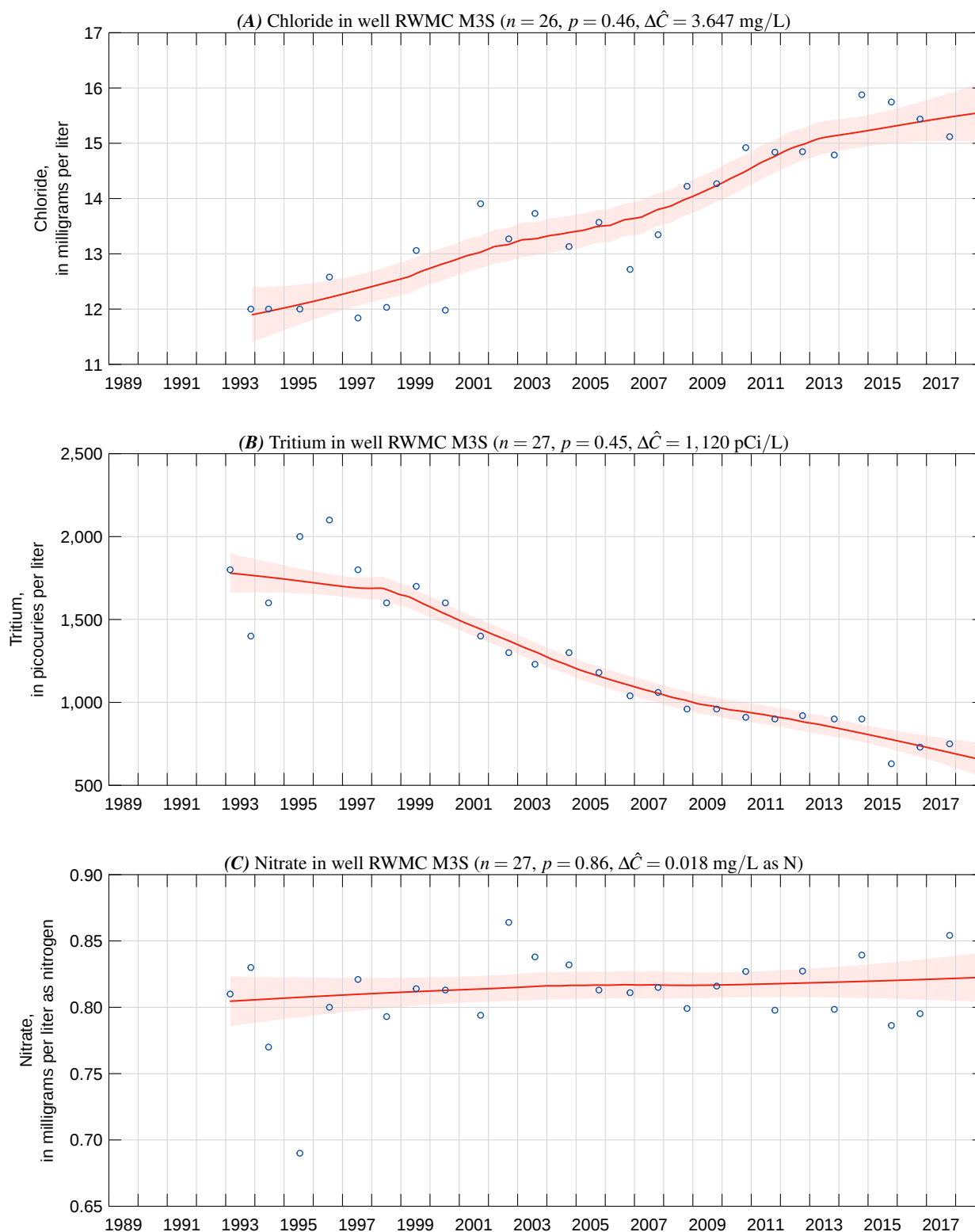


Figure 5.25. Local-regression model fitted to (A) chloride, (B) tritium, (C) nitrate, and (D) strontium-90 measured in water samples collected from well RWMC M3S (Site No. 433008113021801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

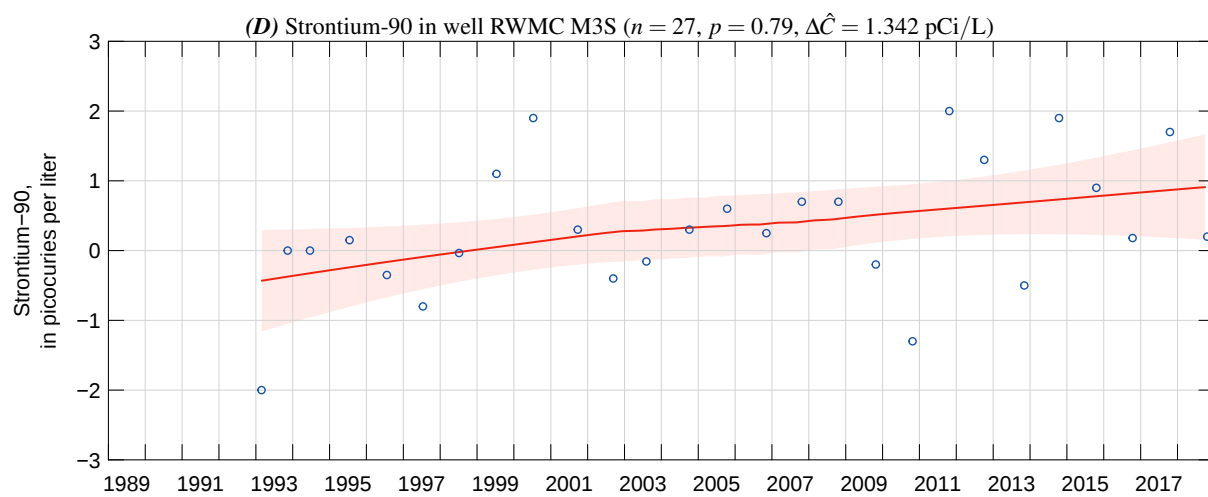


Figure 5.25. —Continued

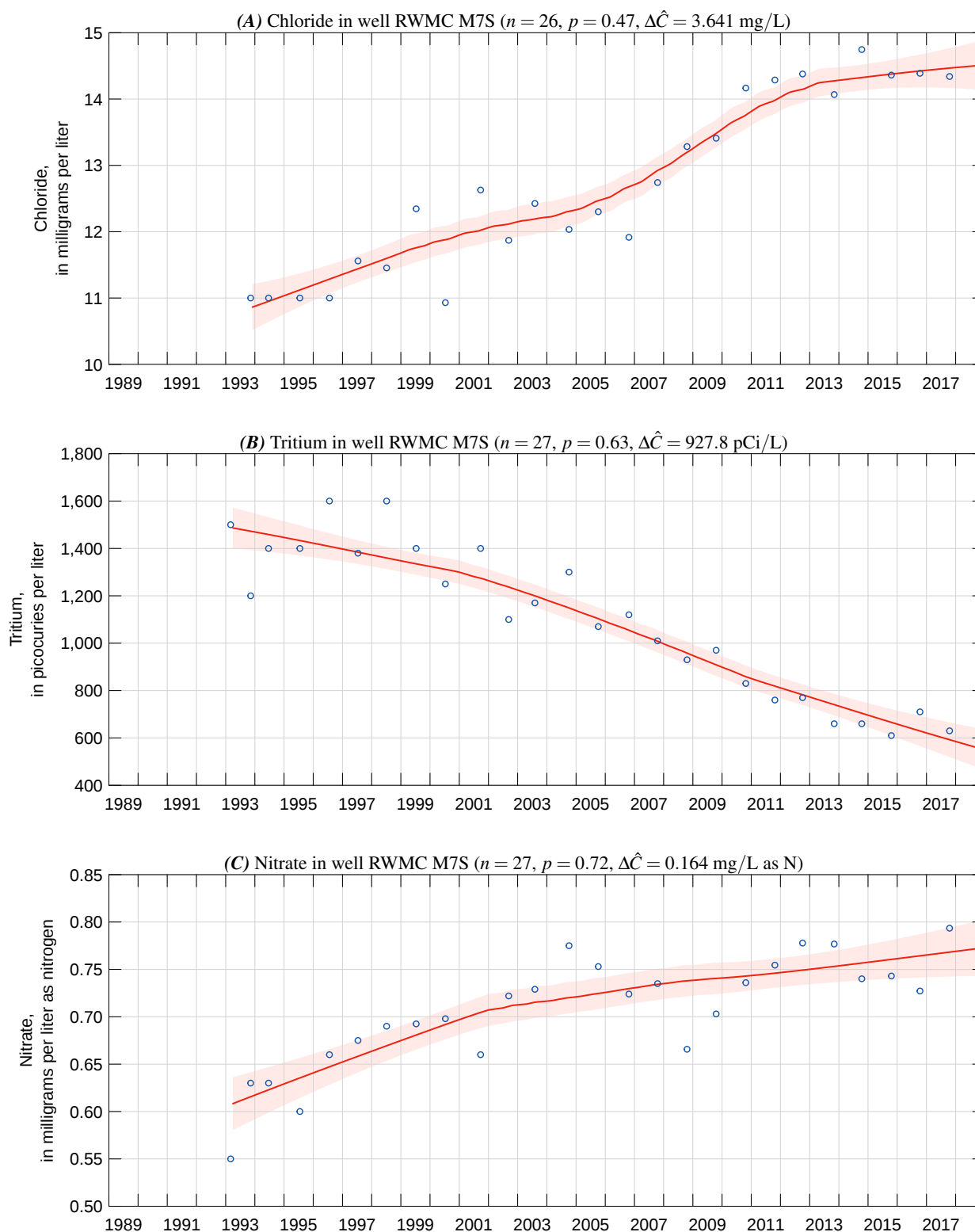


Figure 5.26. Local-regression model fitted to (A) chloride, (B) tritium, (C) nitrate, and (D) strontium-90 measured in water samples collected from well RWMC M7S (Site No. 433023113014801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

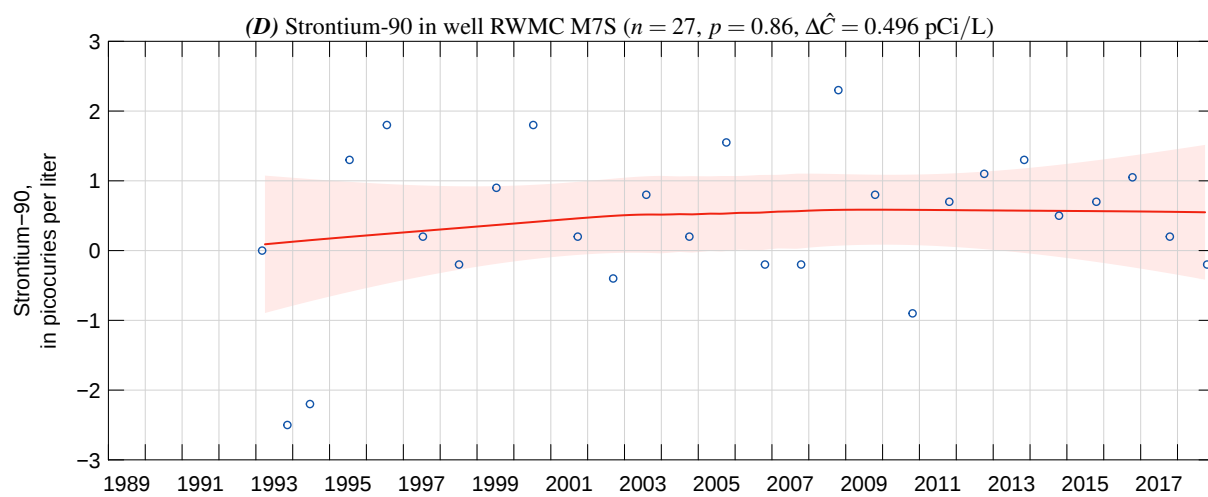


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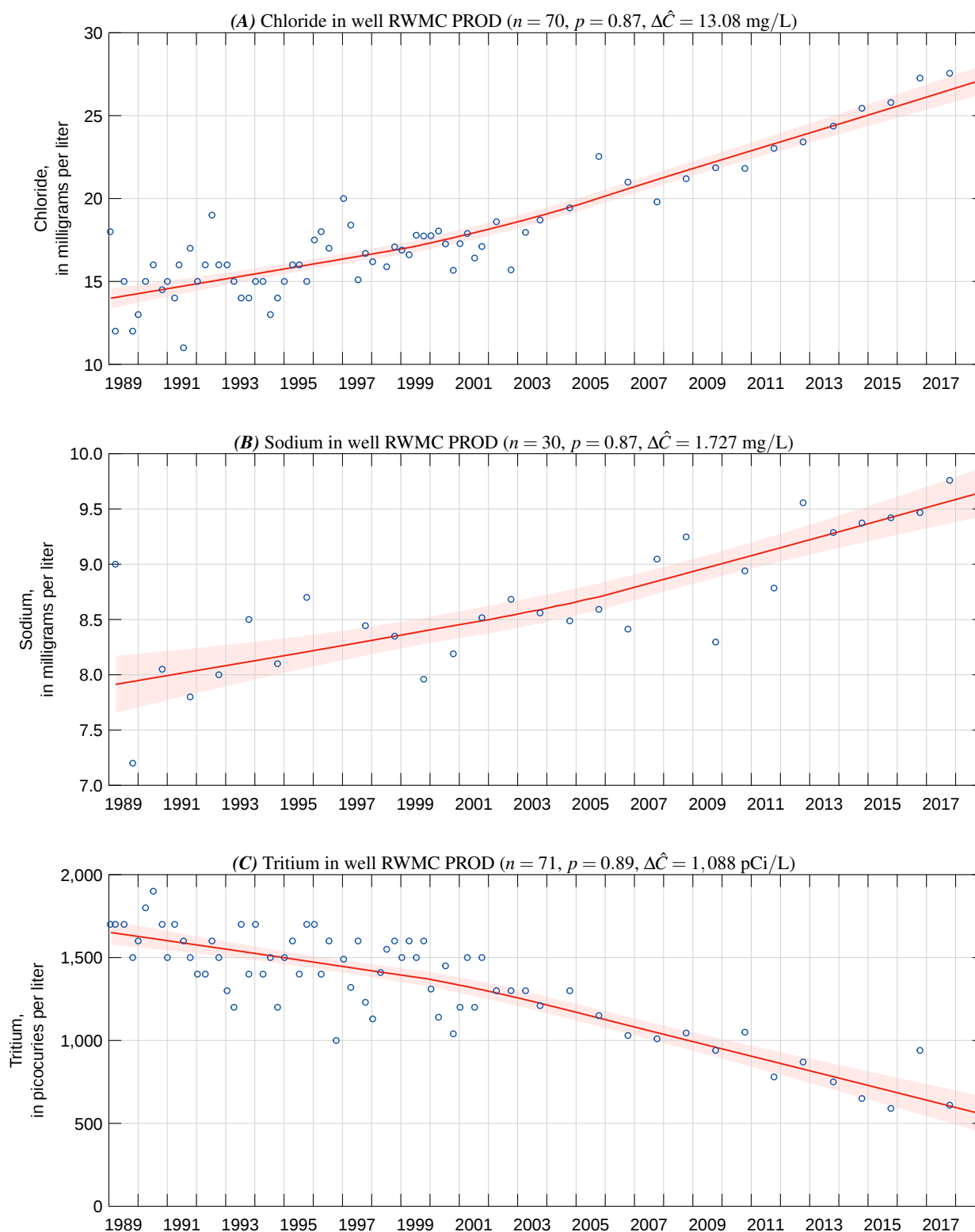


Figure 5.27. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, (N) trichloroethylene, (O) strontium-90, and (P) plutonium-238 measured in water samples collected from well RWMC PROD (Site No. 433002113021701), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

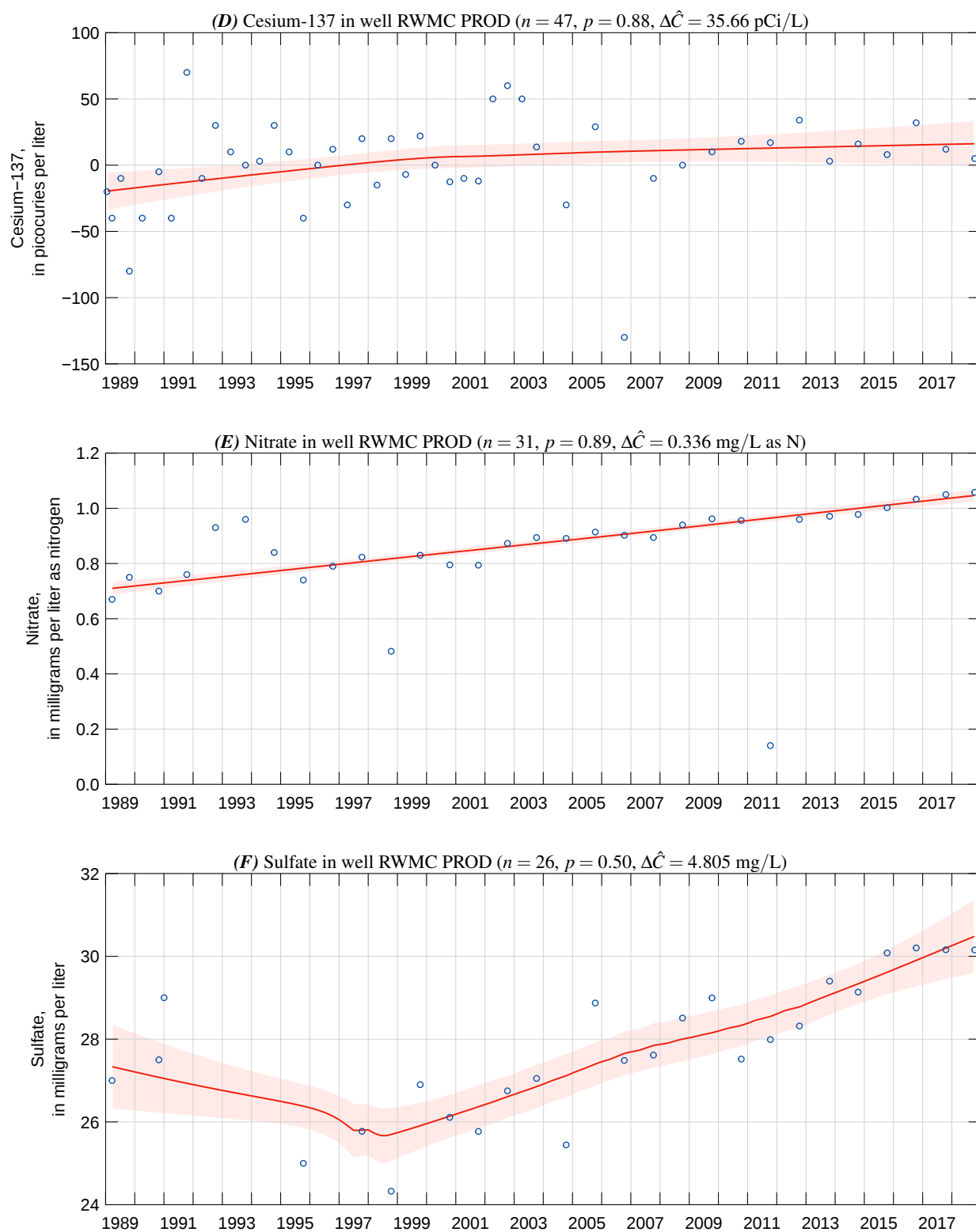


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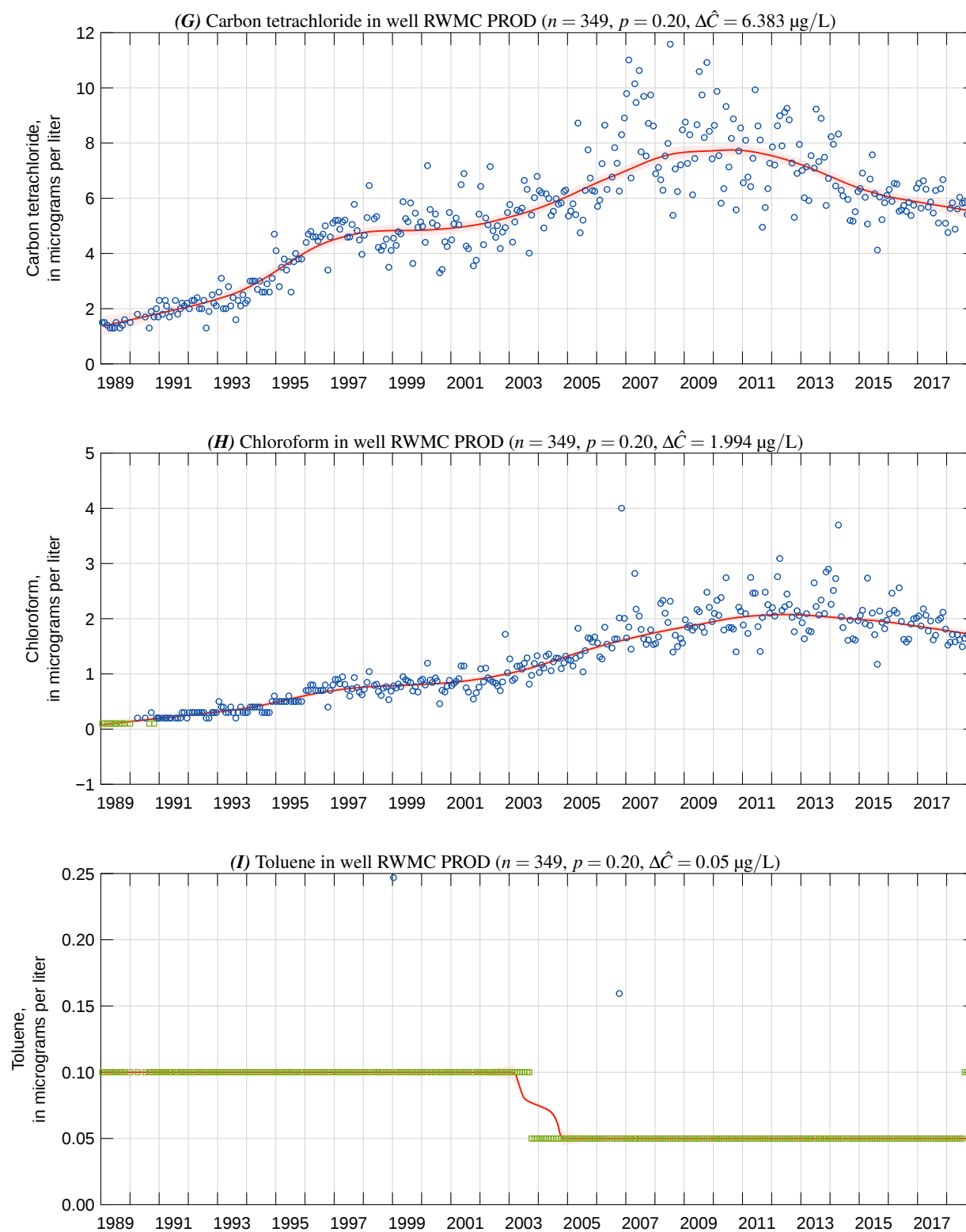


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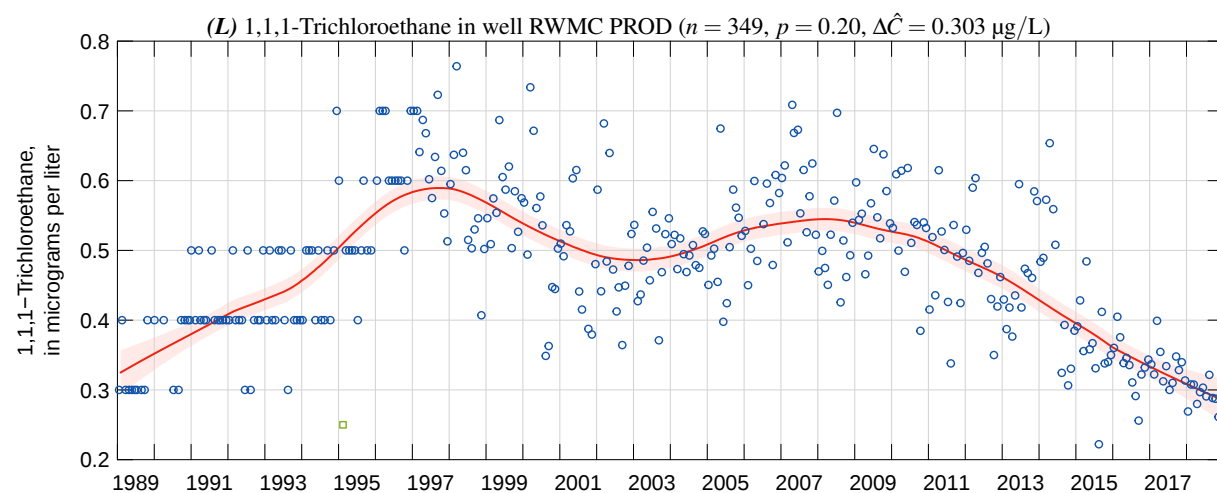
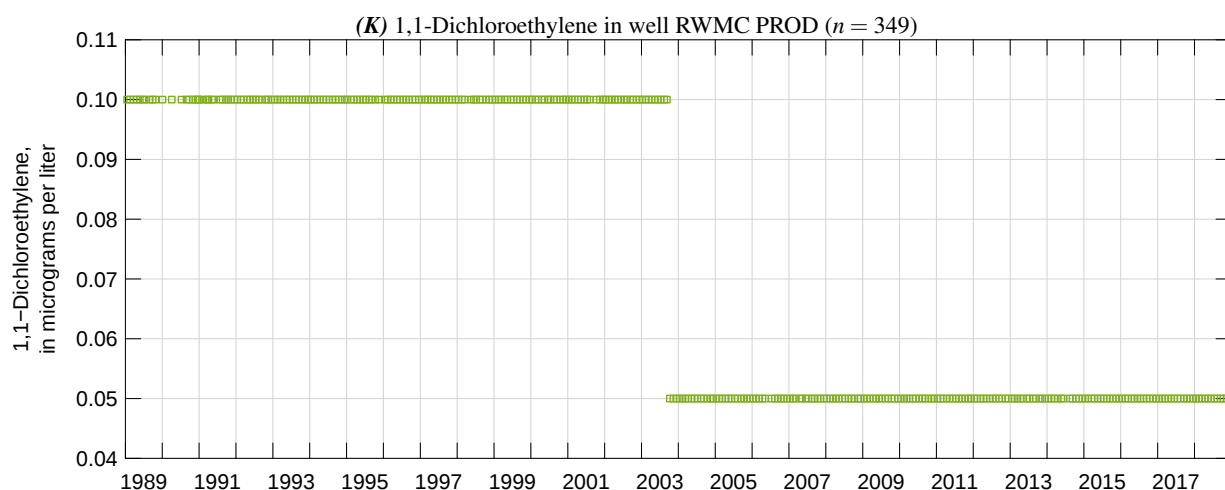
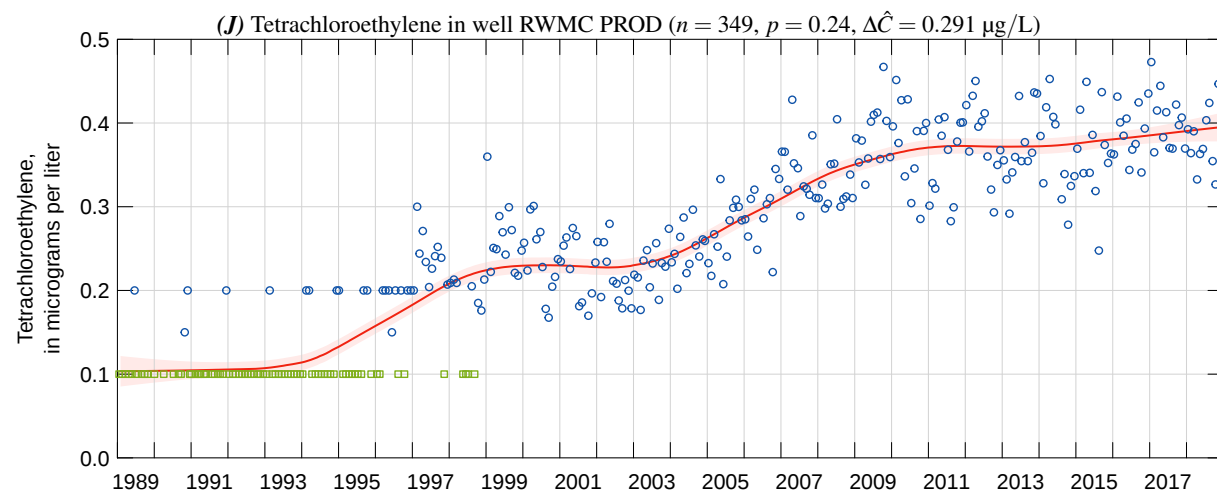


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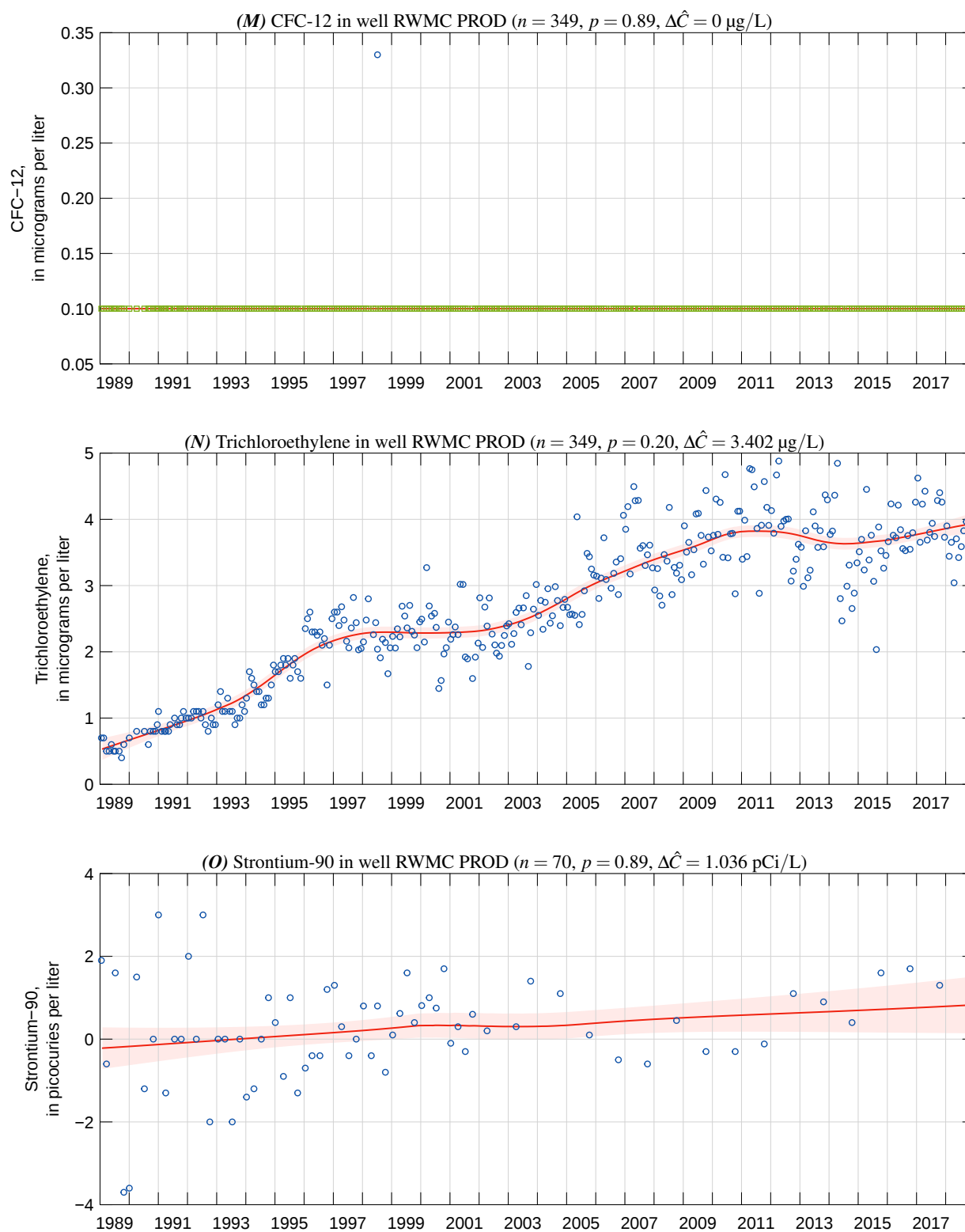


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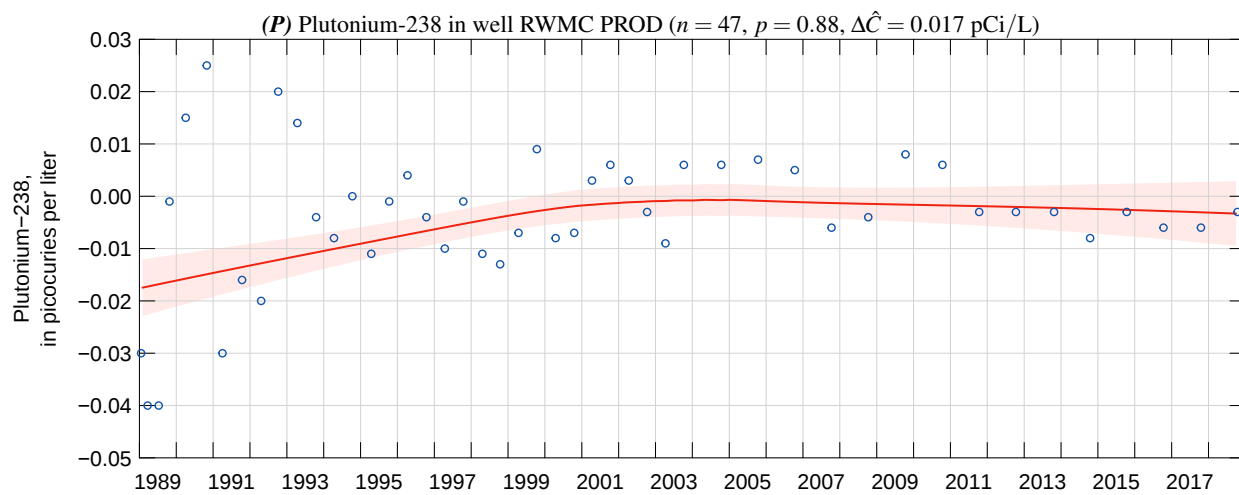


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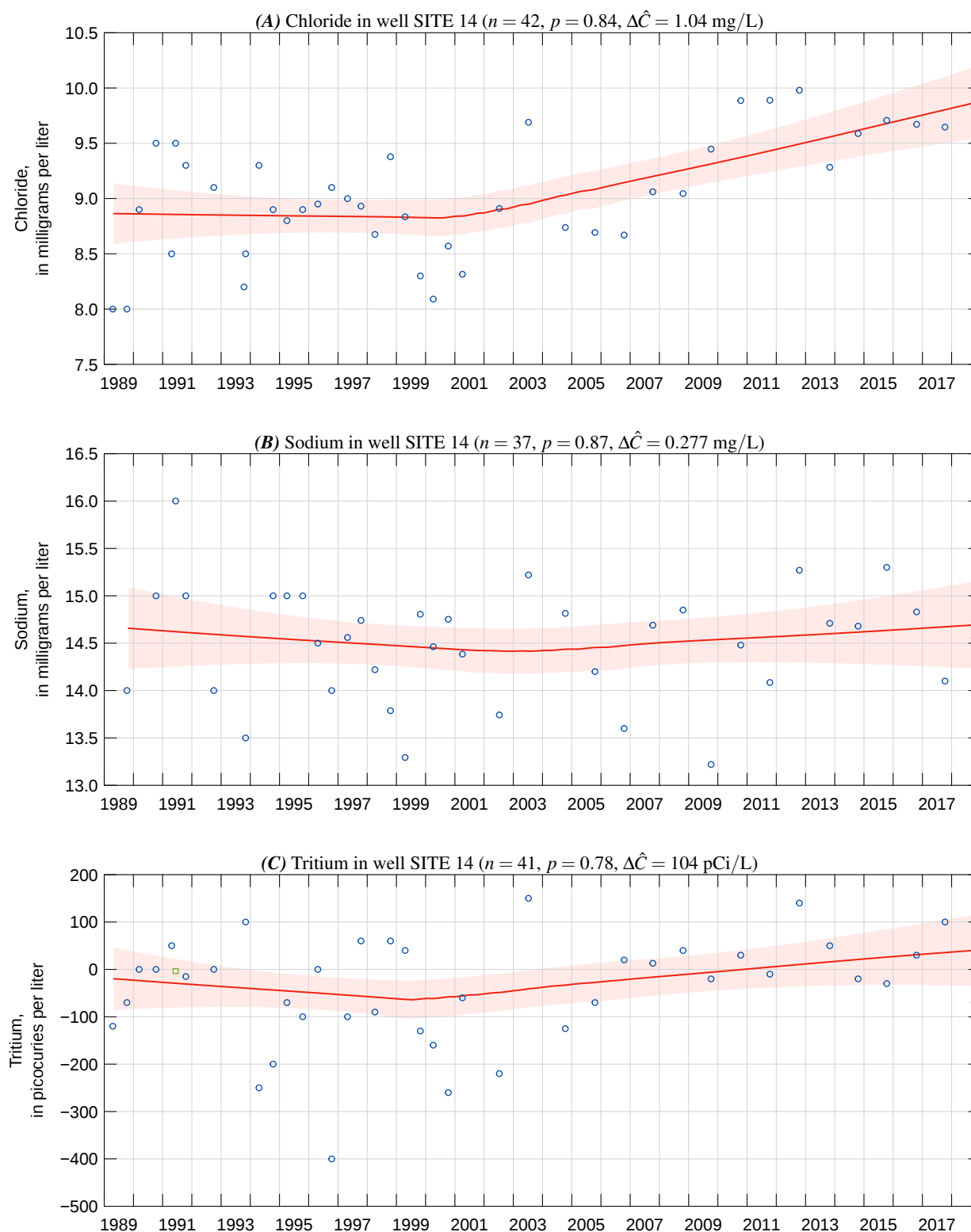


Figure 5.28. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well SITE 14 (Site No. 434334112463101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

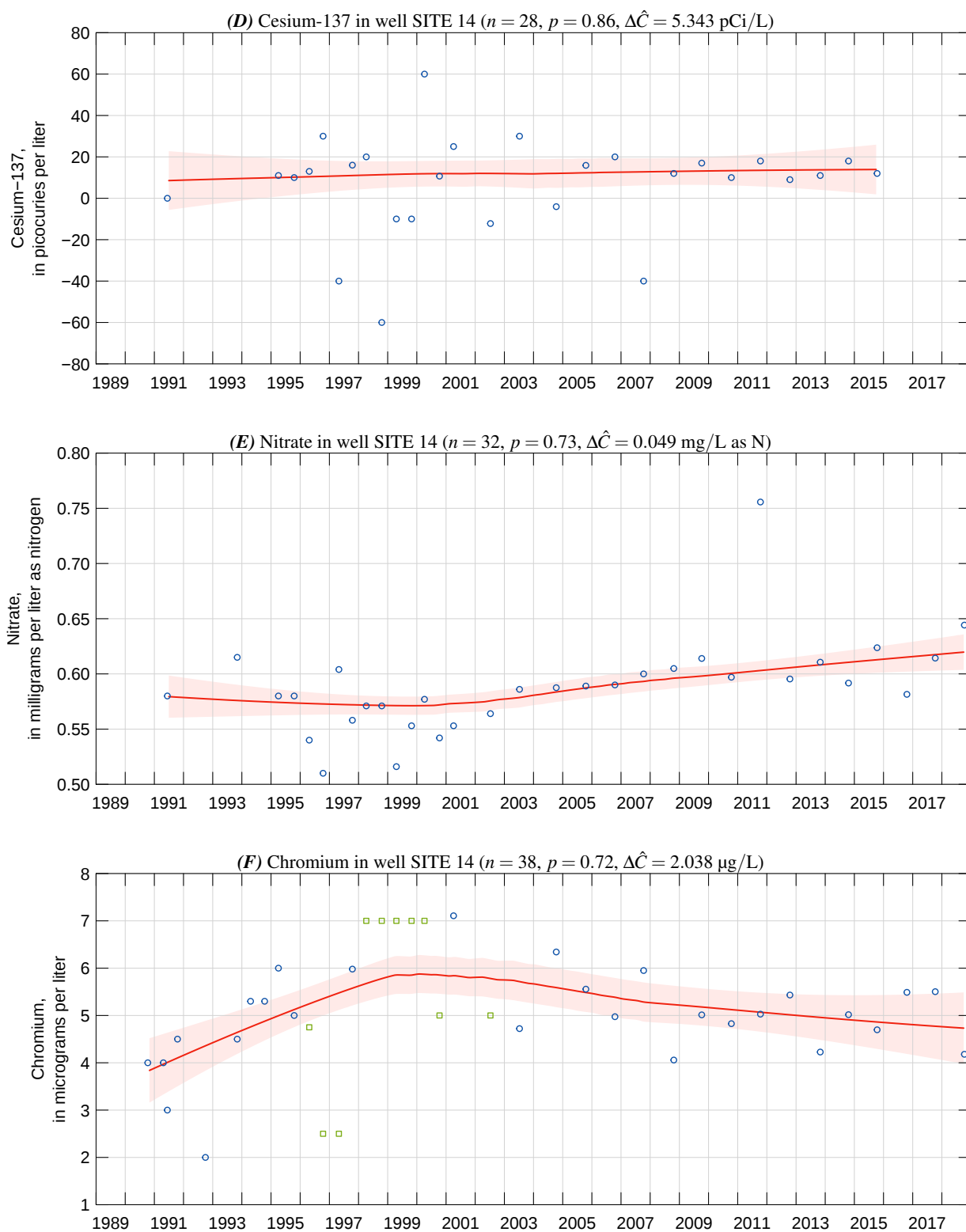


Figure 5.28. —Continued

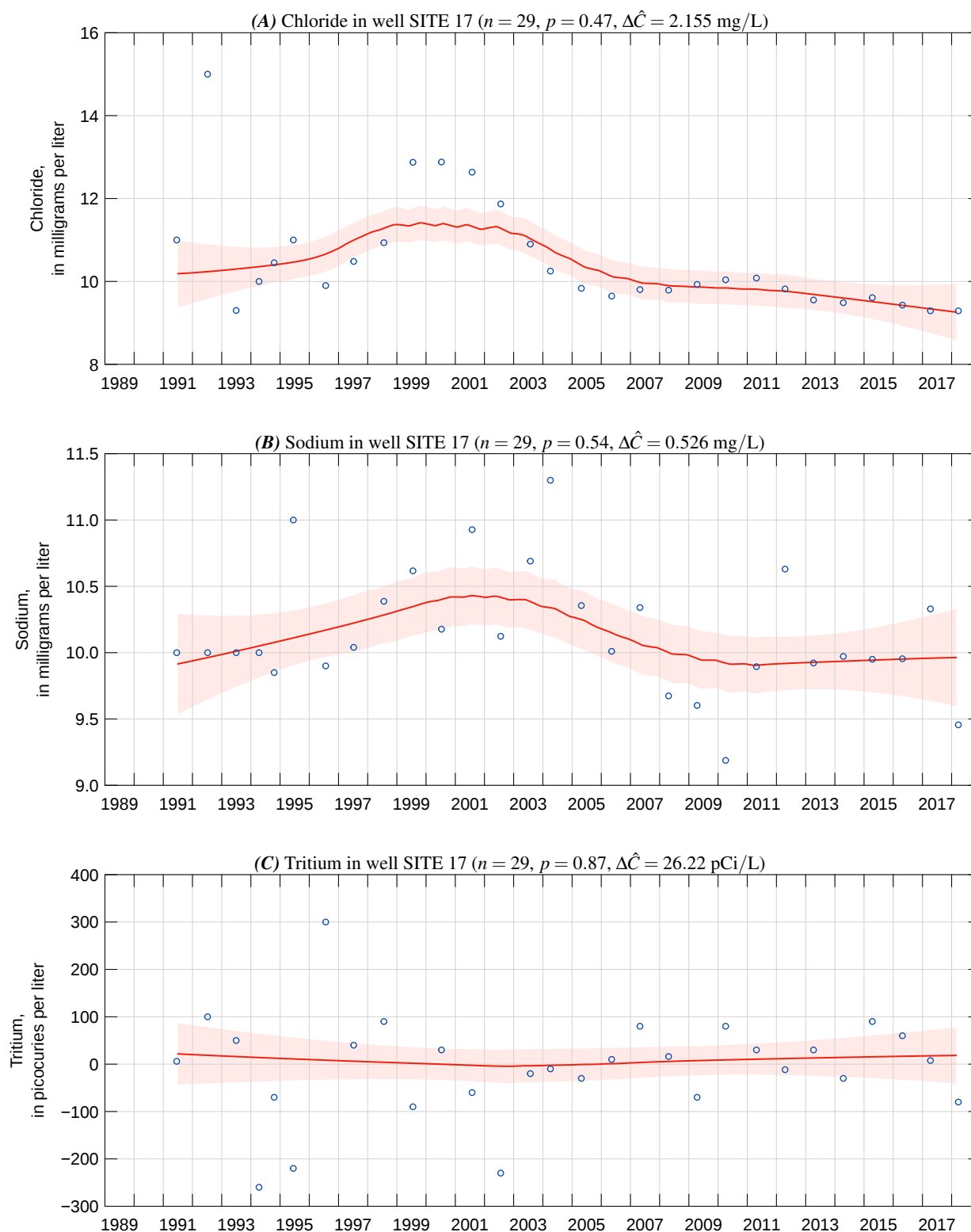


Figure 5.29. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well SITE 17 (Site No. 434027112575701), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

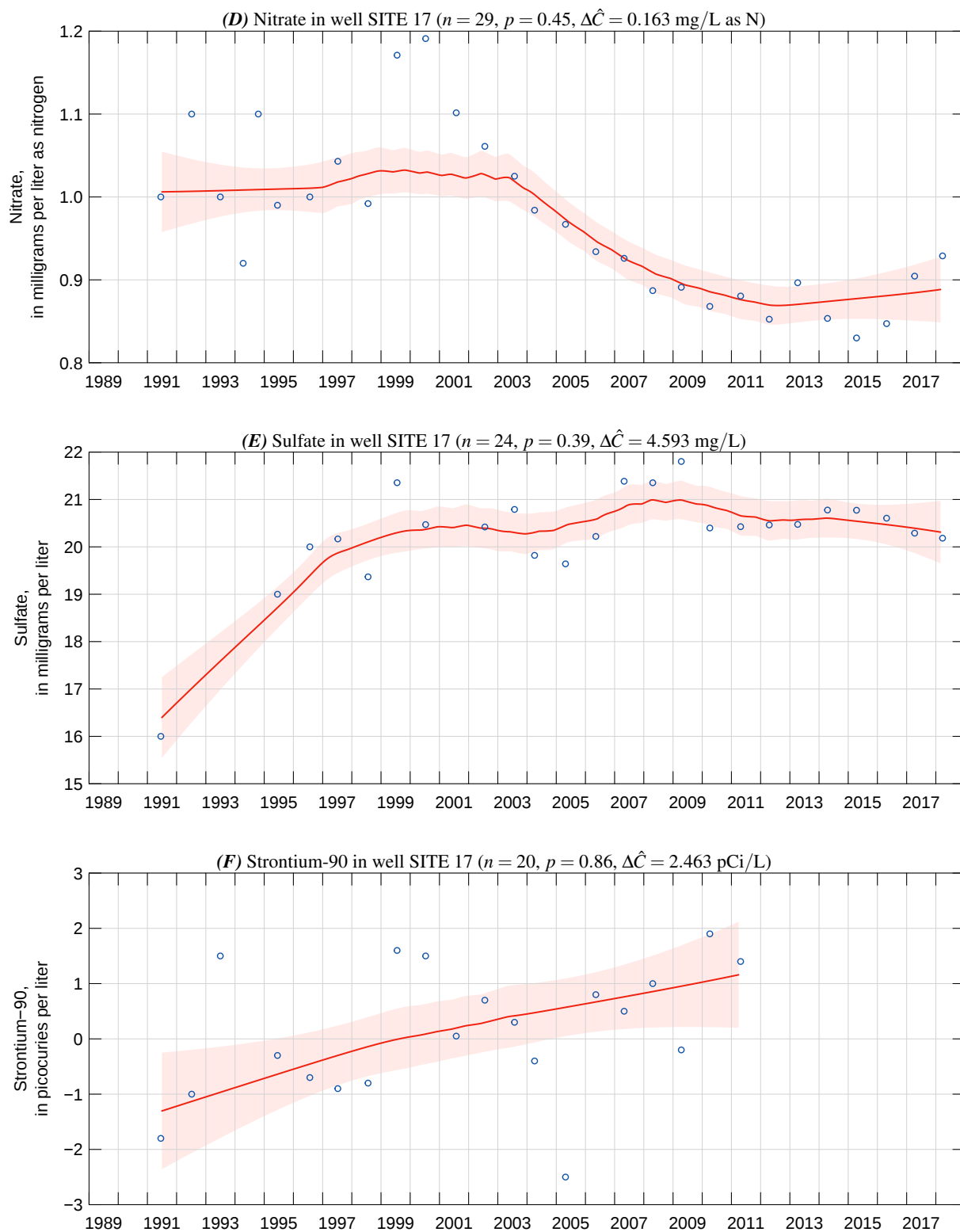


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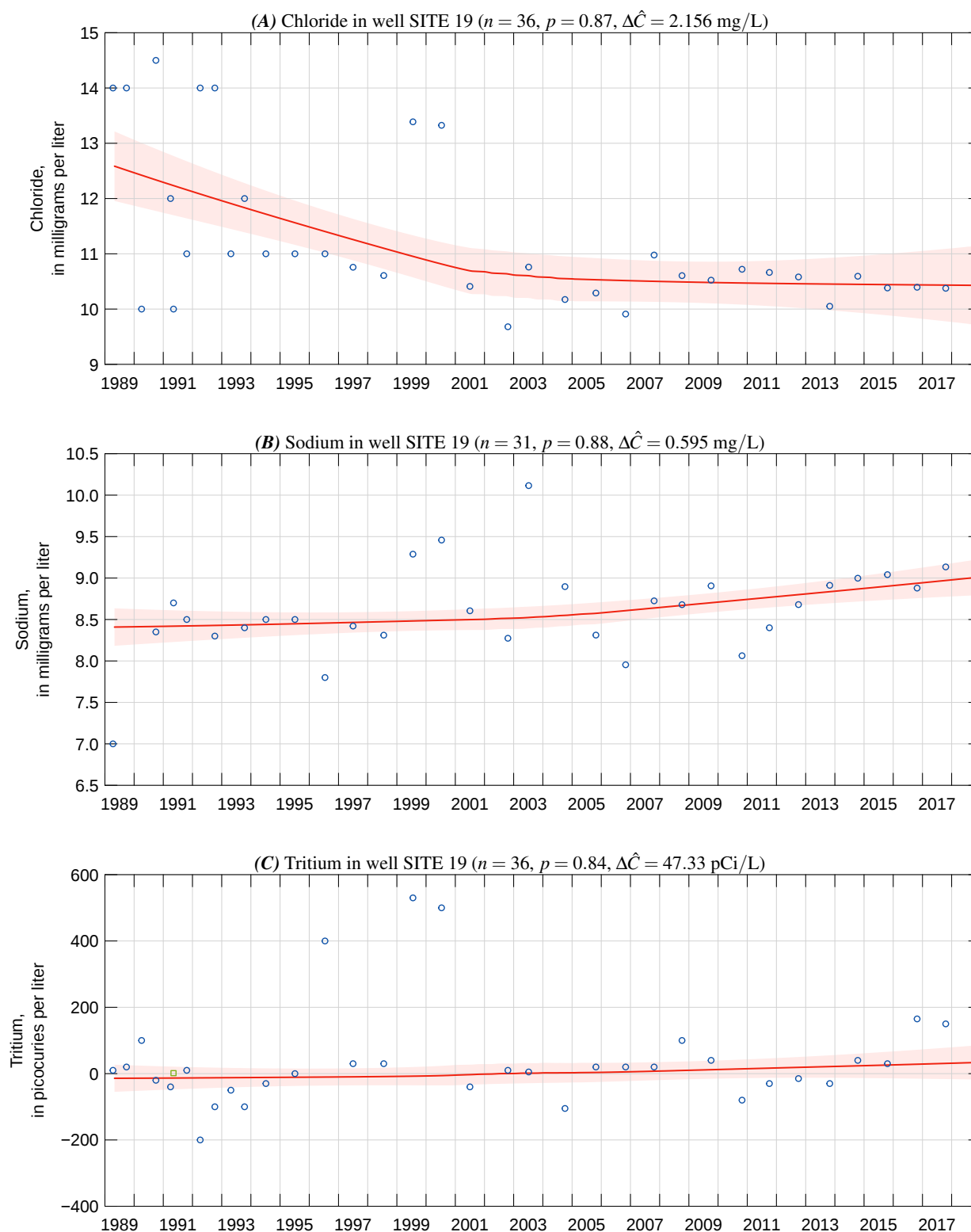


Figure 5.30. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) sulfate, and (E) chromium measured in water samples collected from well SITE 19 (Site No. 433522112582101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

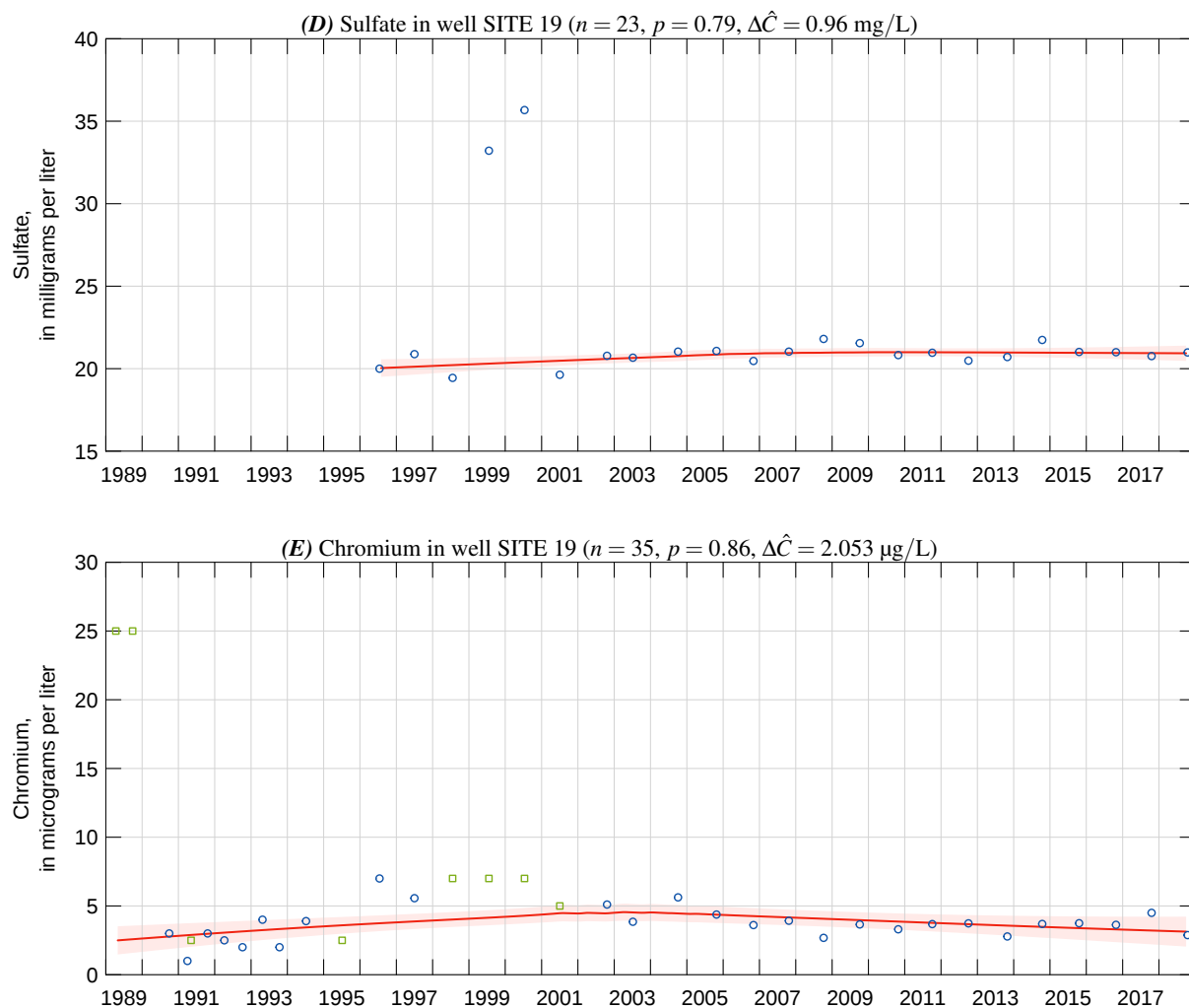


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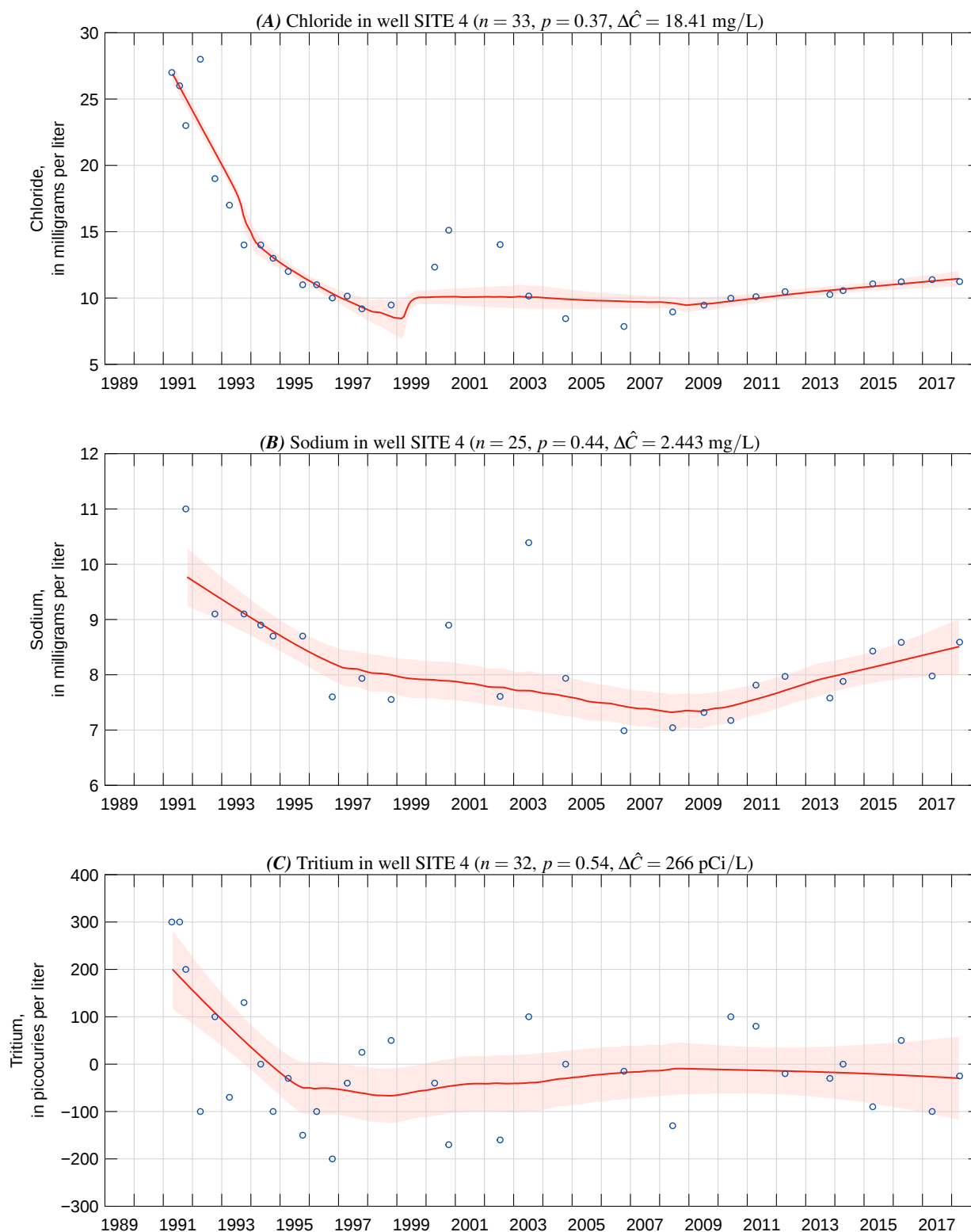


Figure 5.31. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) sulfate, and (E) chromium measured in water samples collected from well SITE 4 (Site No. 433617112542001), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

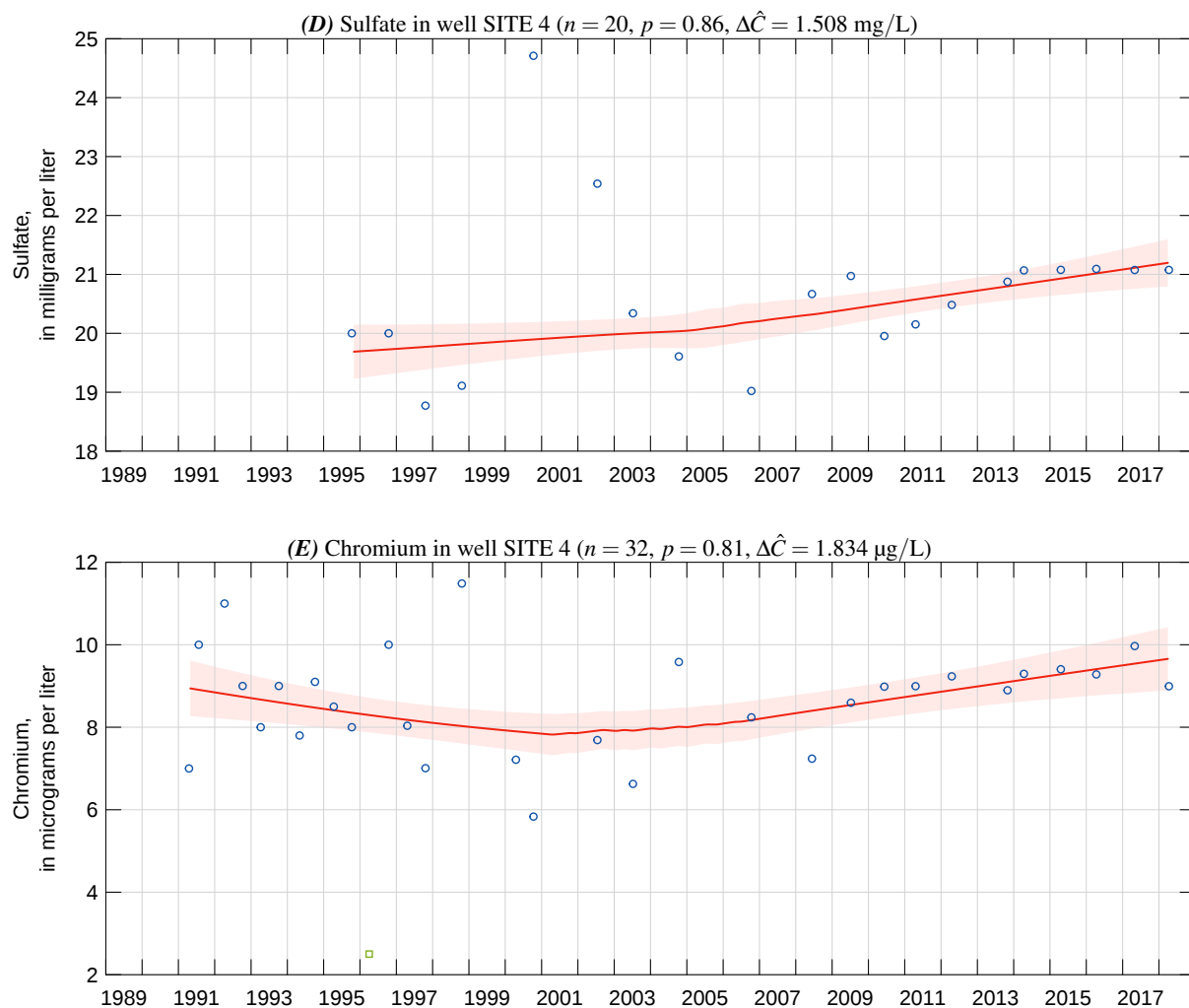


Figure 5.31. —Continued

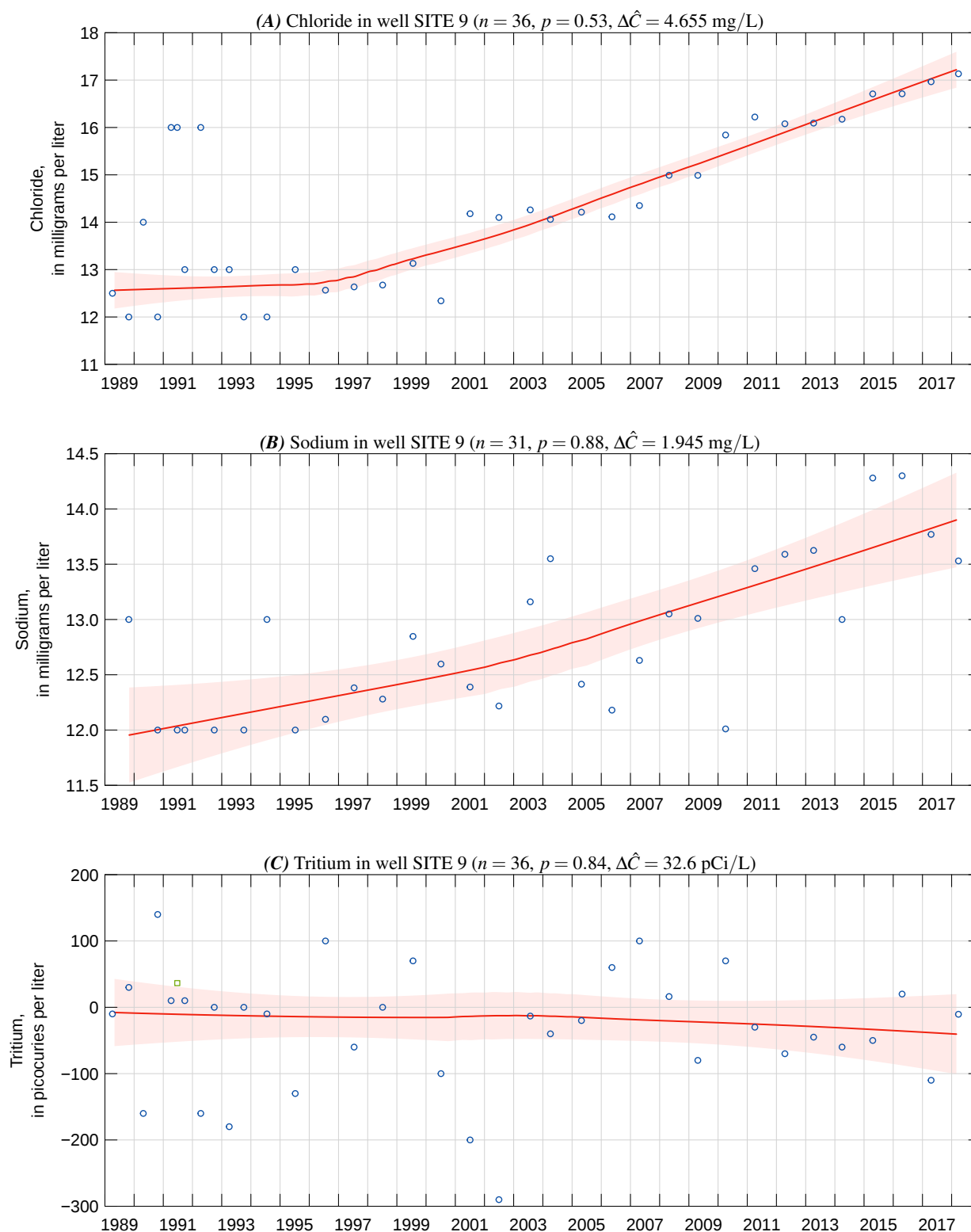


Figure 5.32. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well SITE 9 (Site No. 433123112530101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

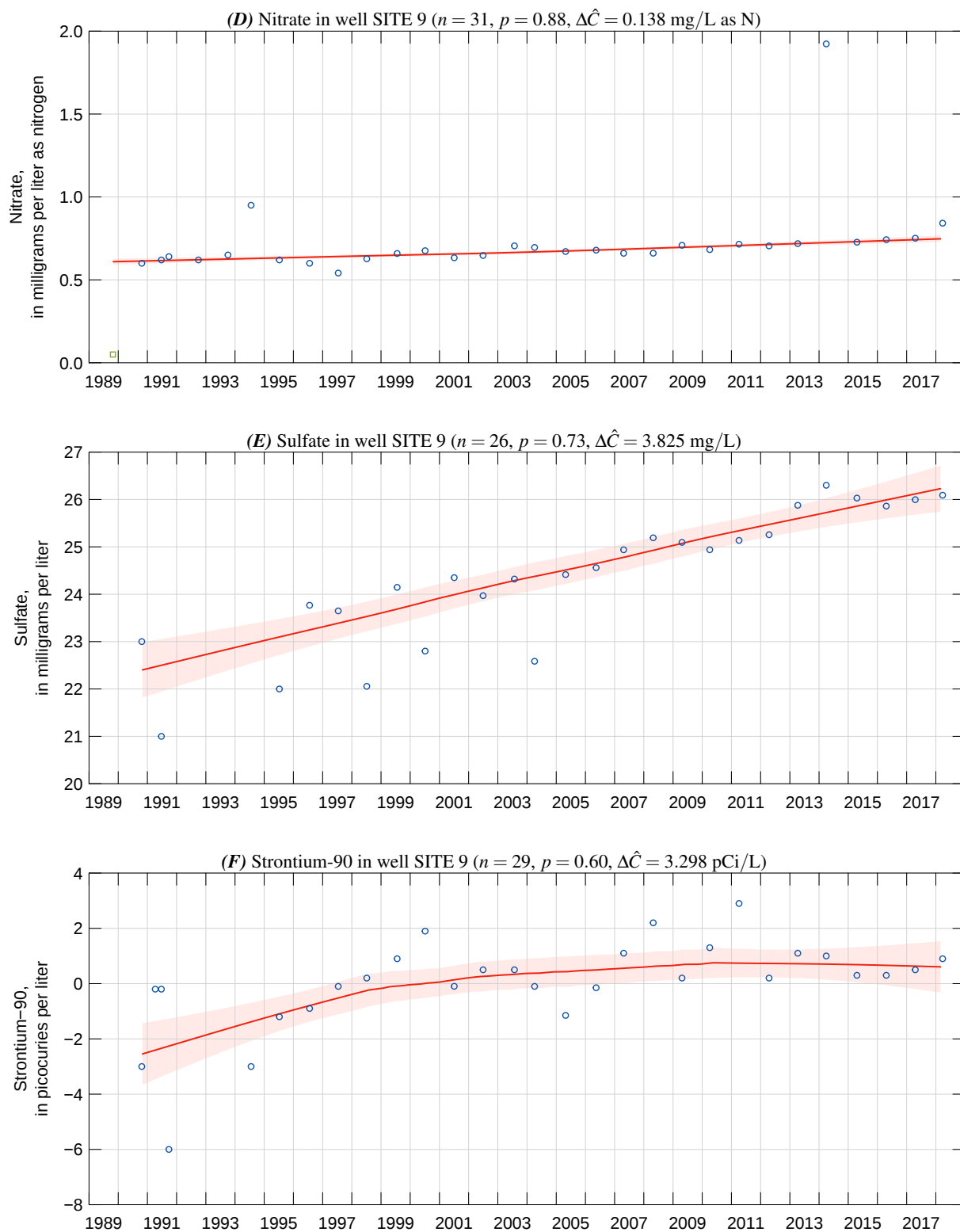


Figure 5.32. —Continued

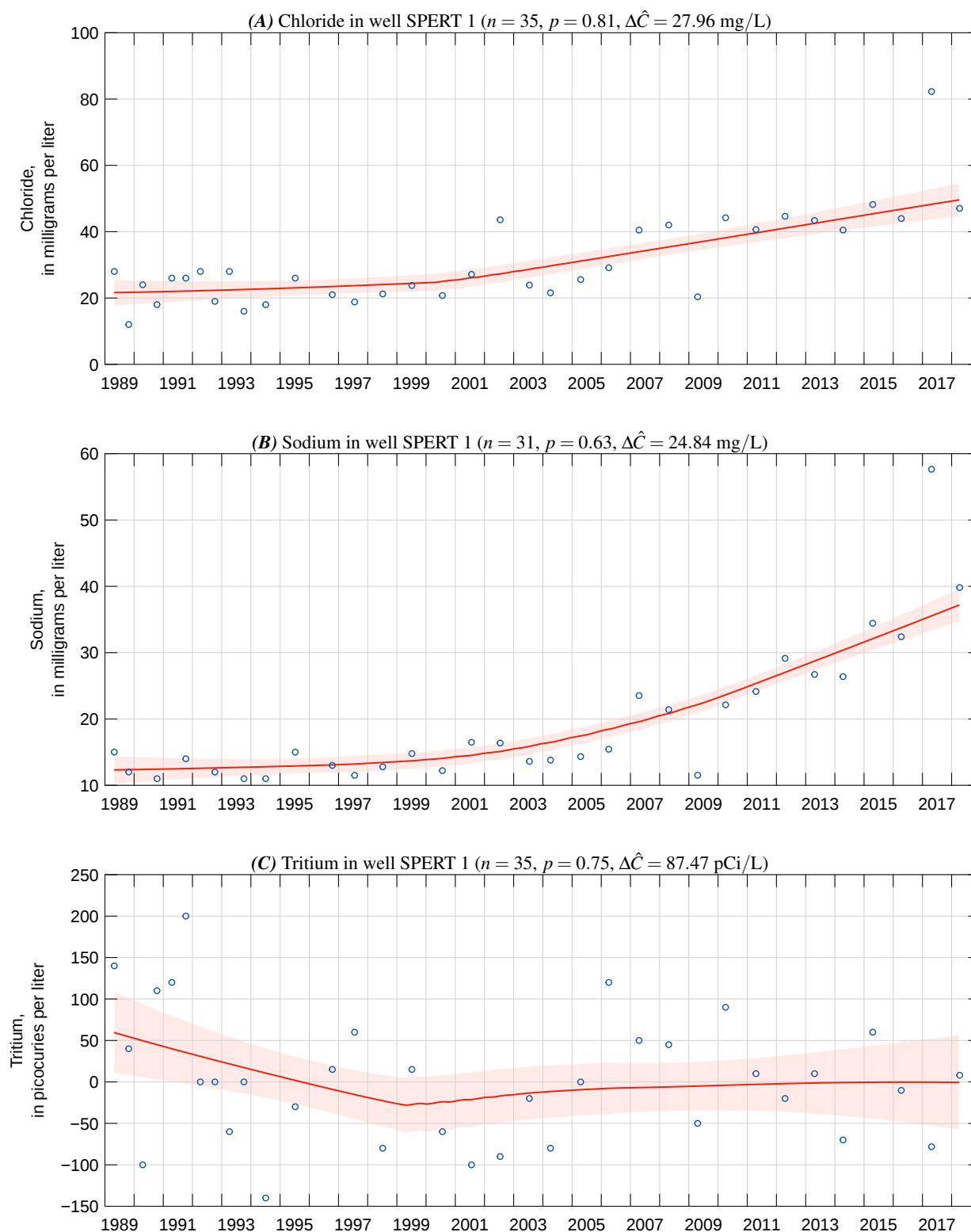


Figure 5.33. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, and (D) nitrate measured in water samples collected from well SPERT 1 (Site No. 433252112520301), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

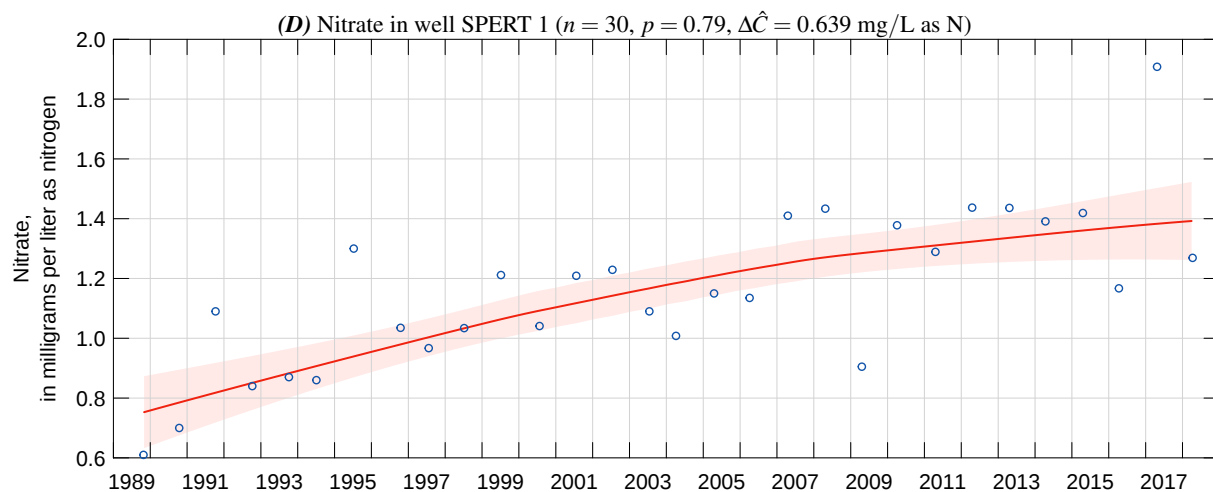


Figure 5.33. —Continued

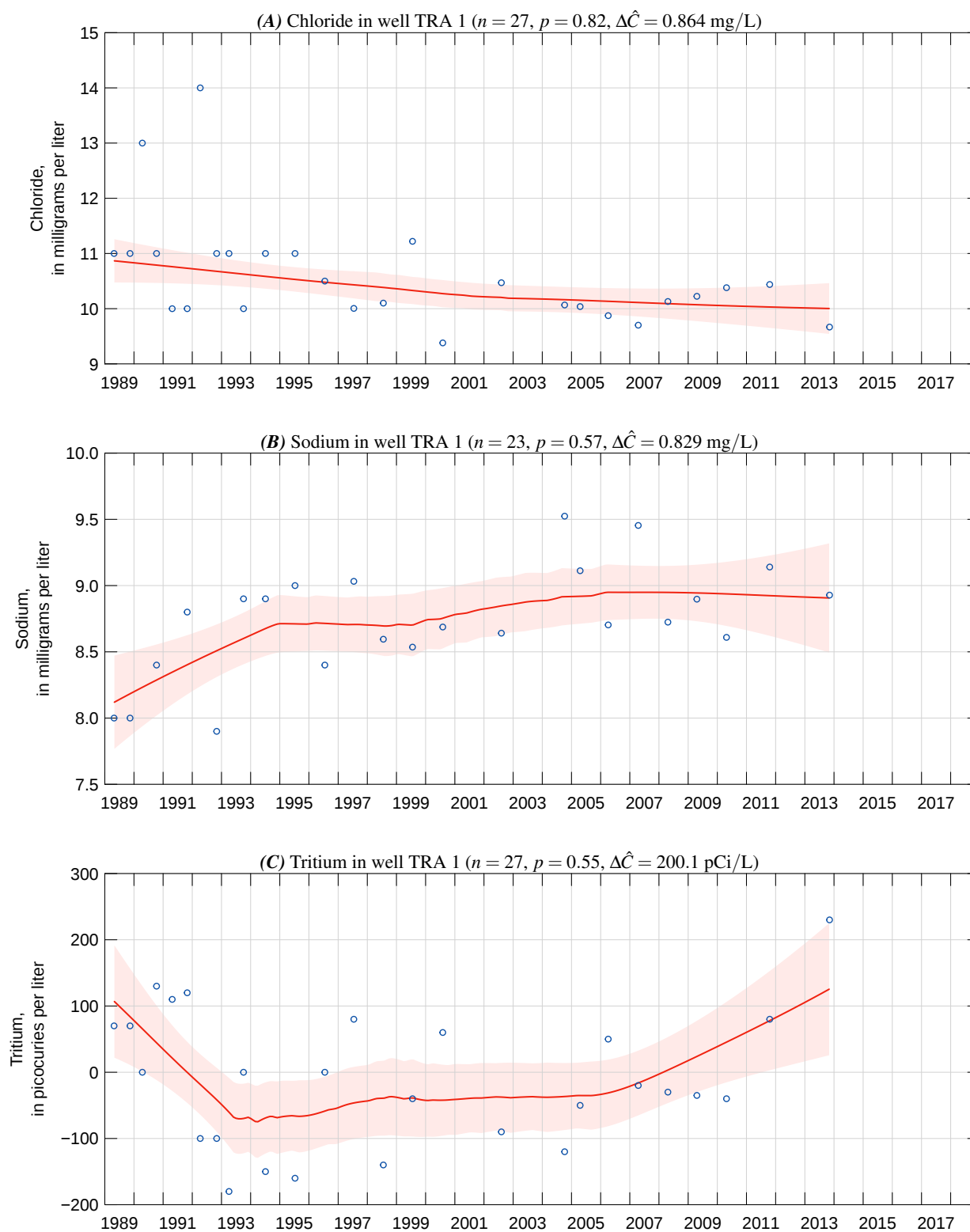


Figure 5.34. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) sulfate, and (E) chromium measured in water samples collected from well TRA 1 (Site No. 433521112573801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

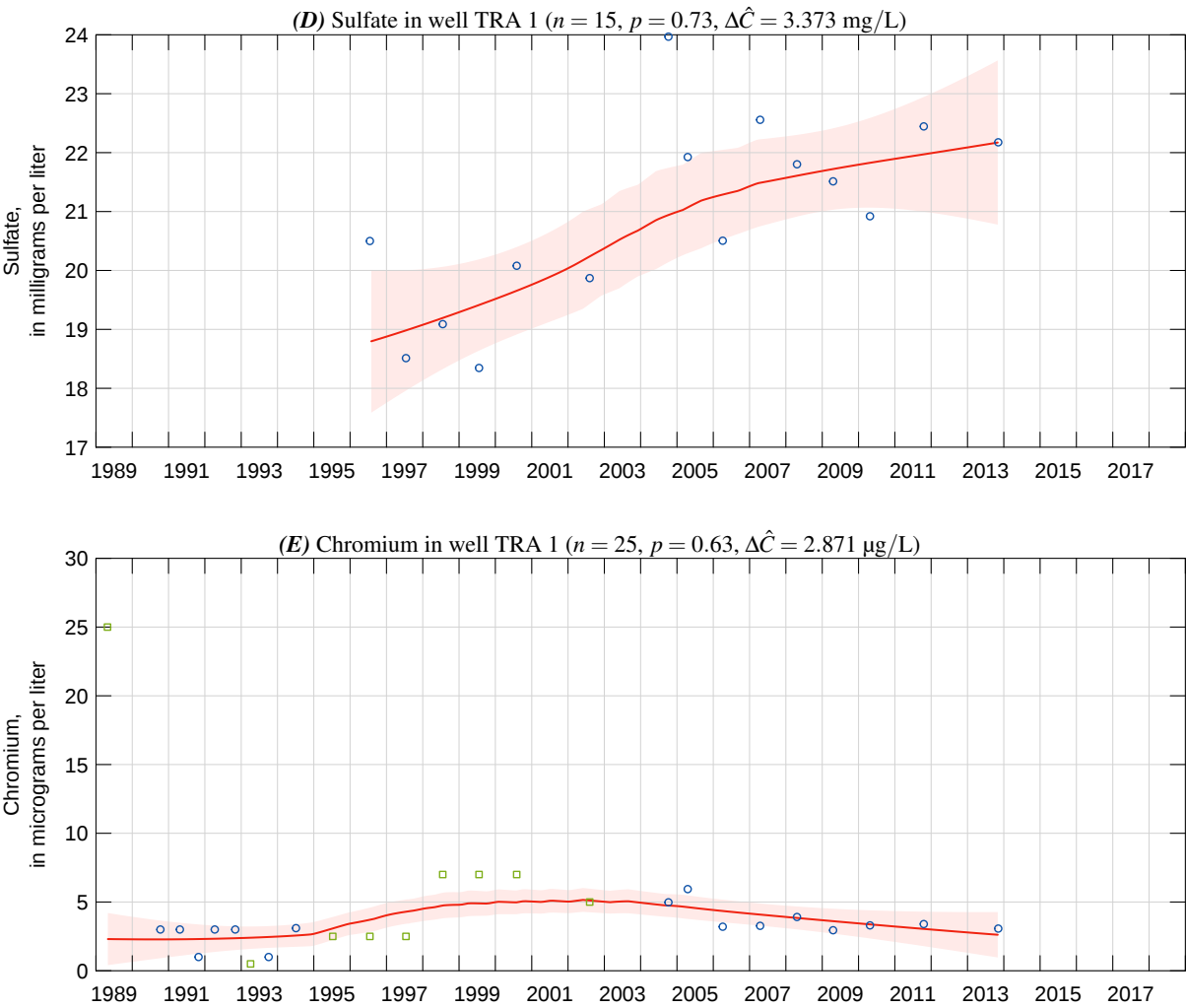


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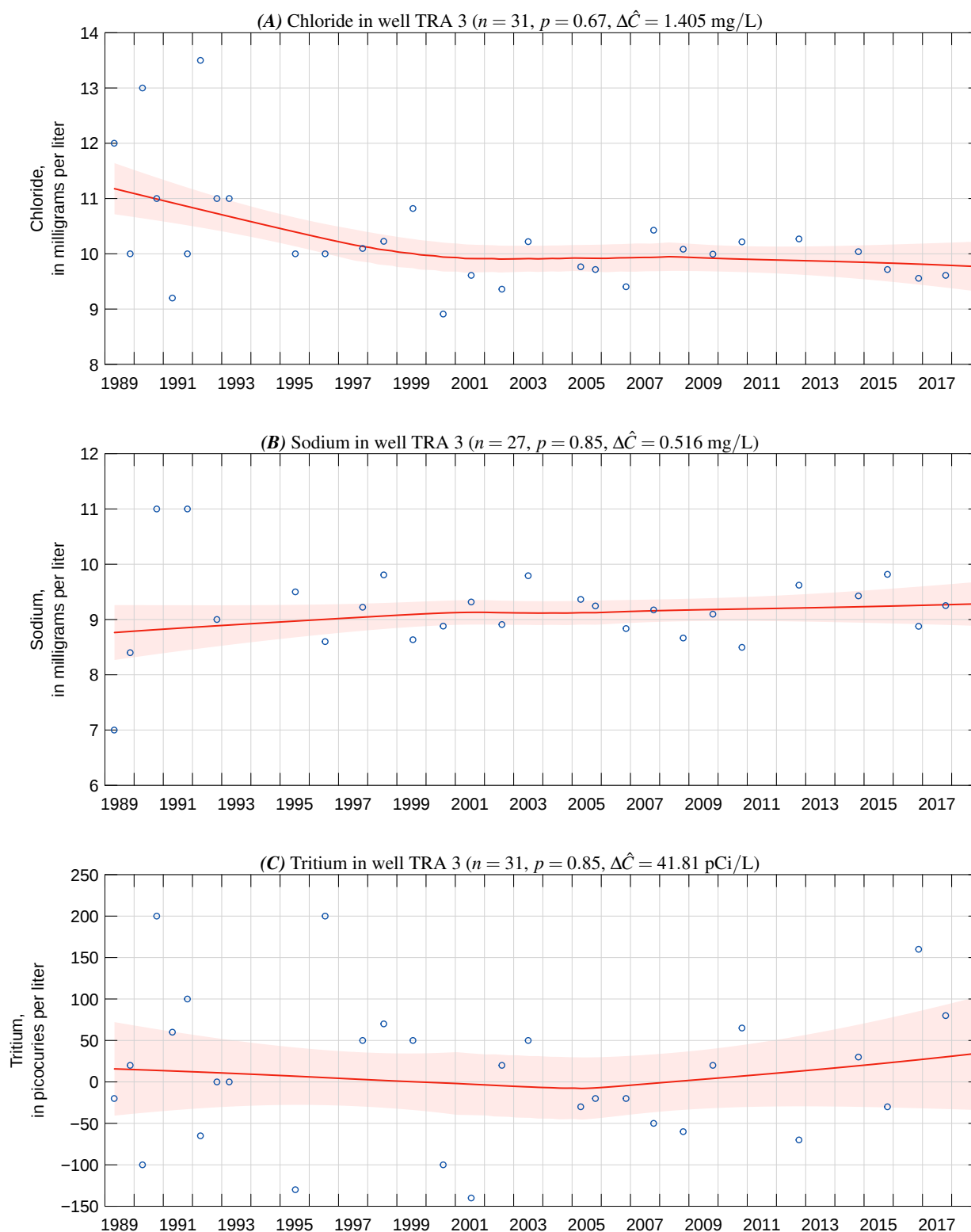


Figure 5.35. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) sulfate, and (E) chromium measured in water samples collected from well TRA 3 (Site No. 433522112573501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

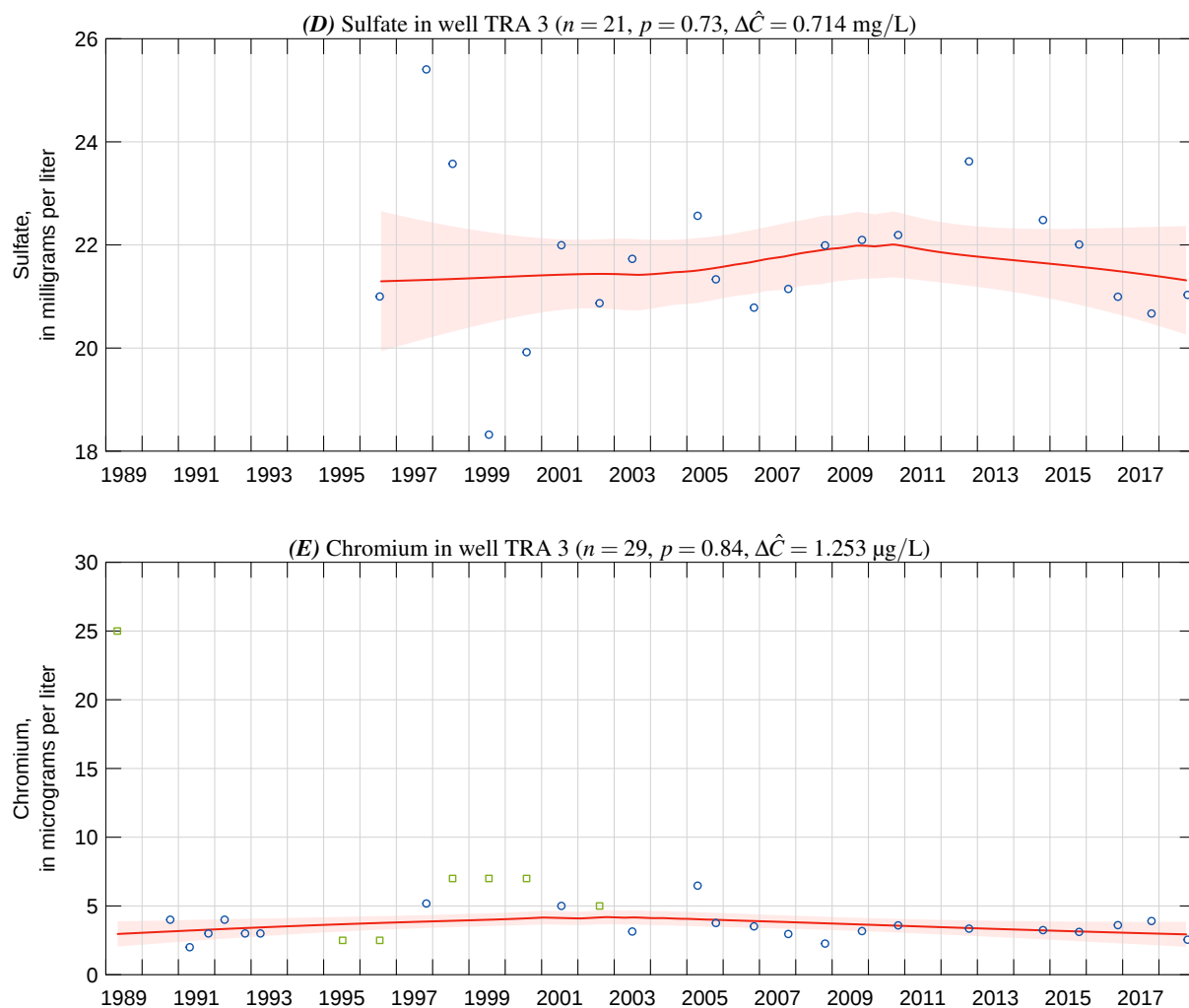


Figure 5.35. —Continued

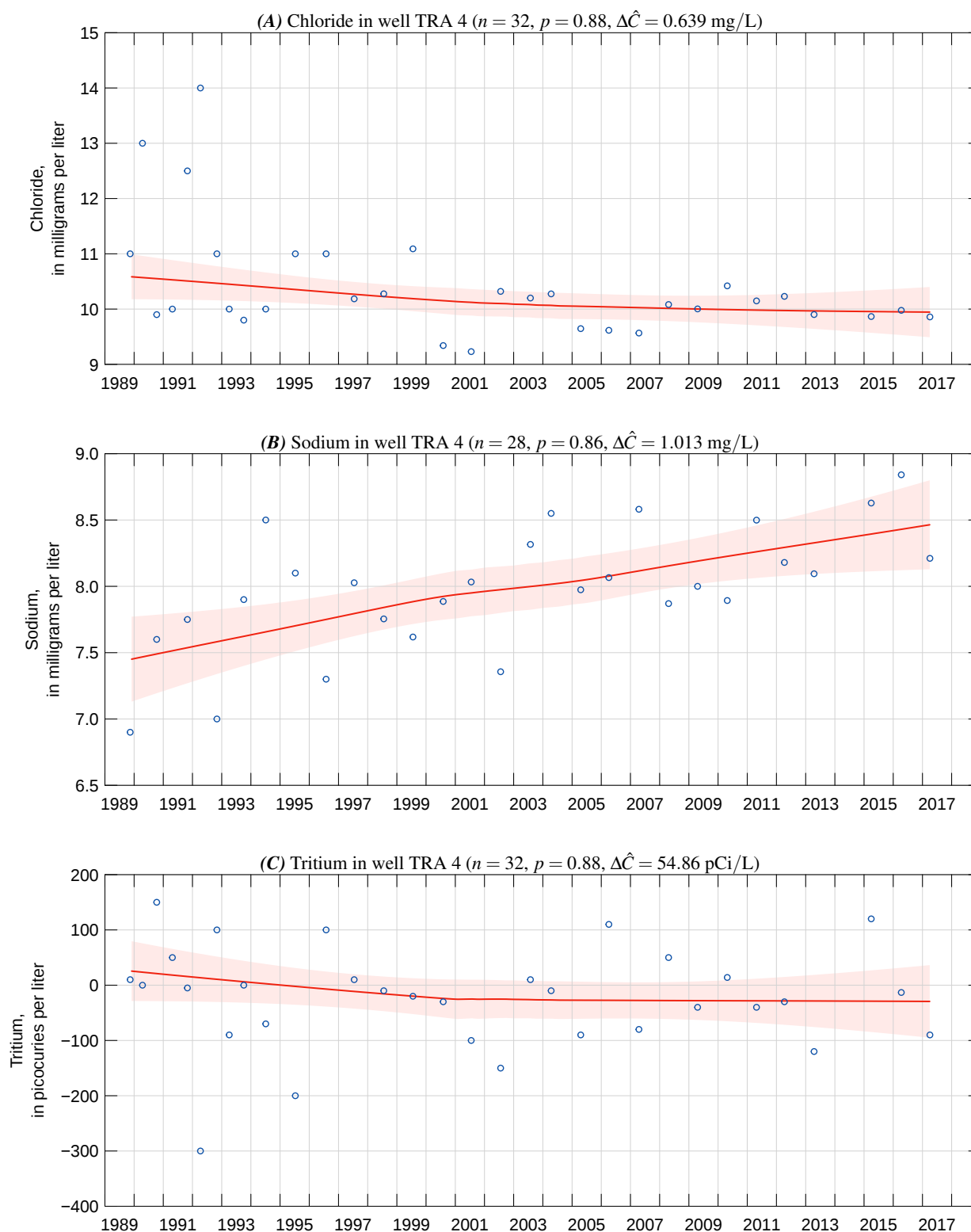


Figure 5.36. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) sulfate, and (E) chromium measured in water samples collected from well TRA 4 (Site No. 433521112574201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

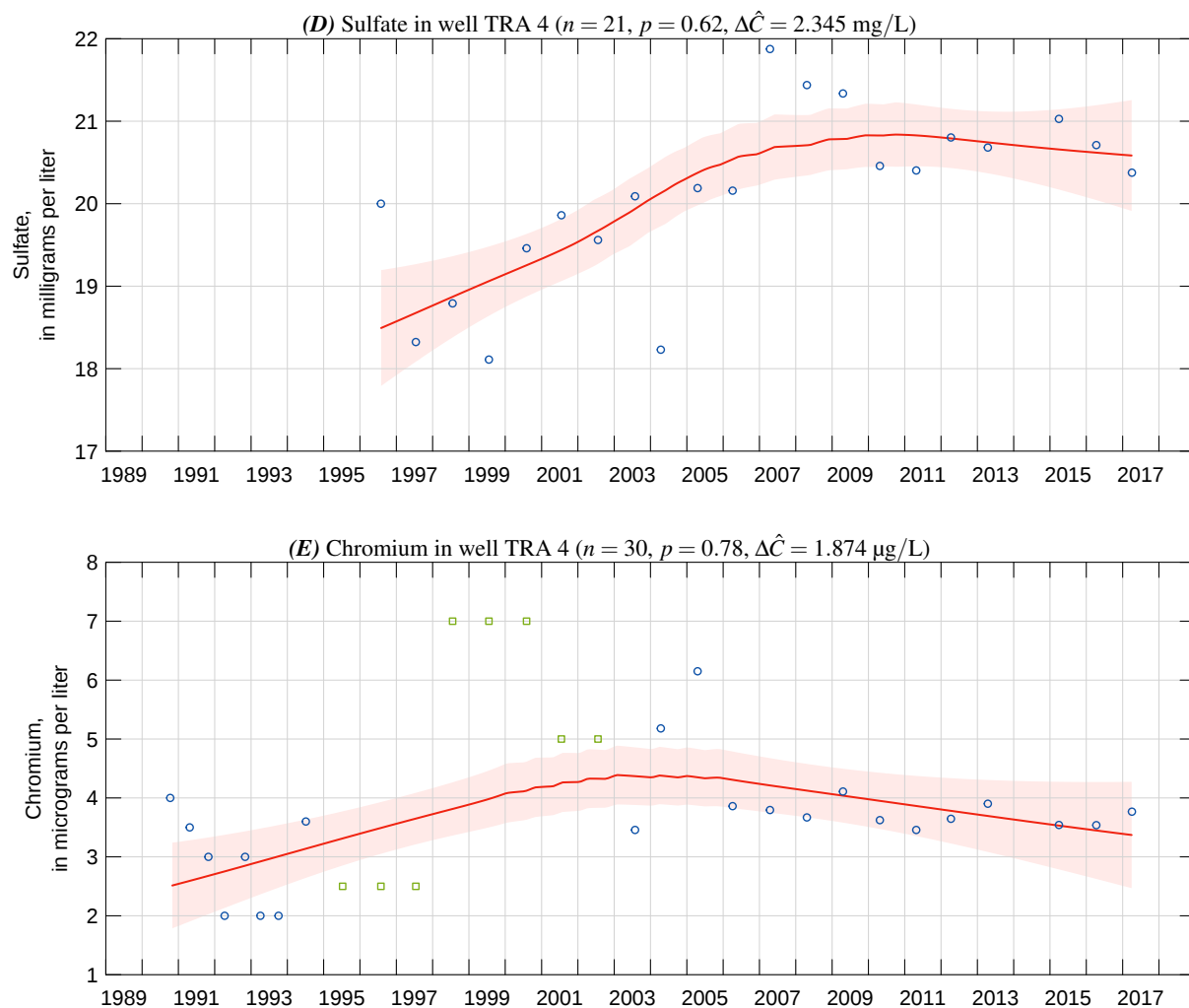


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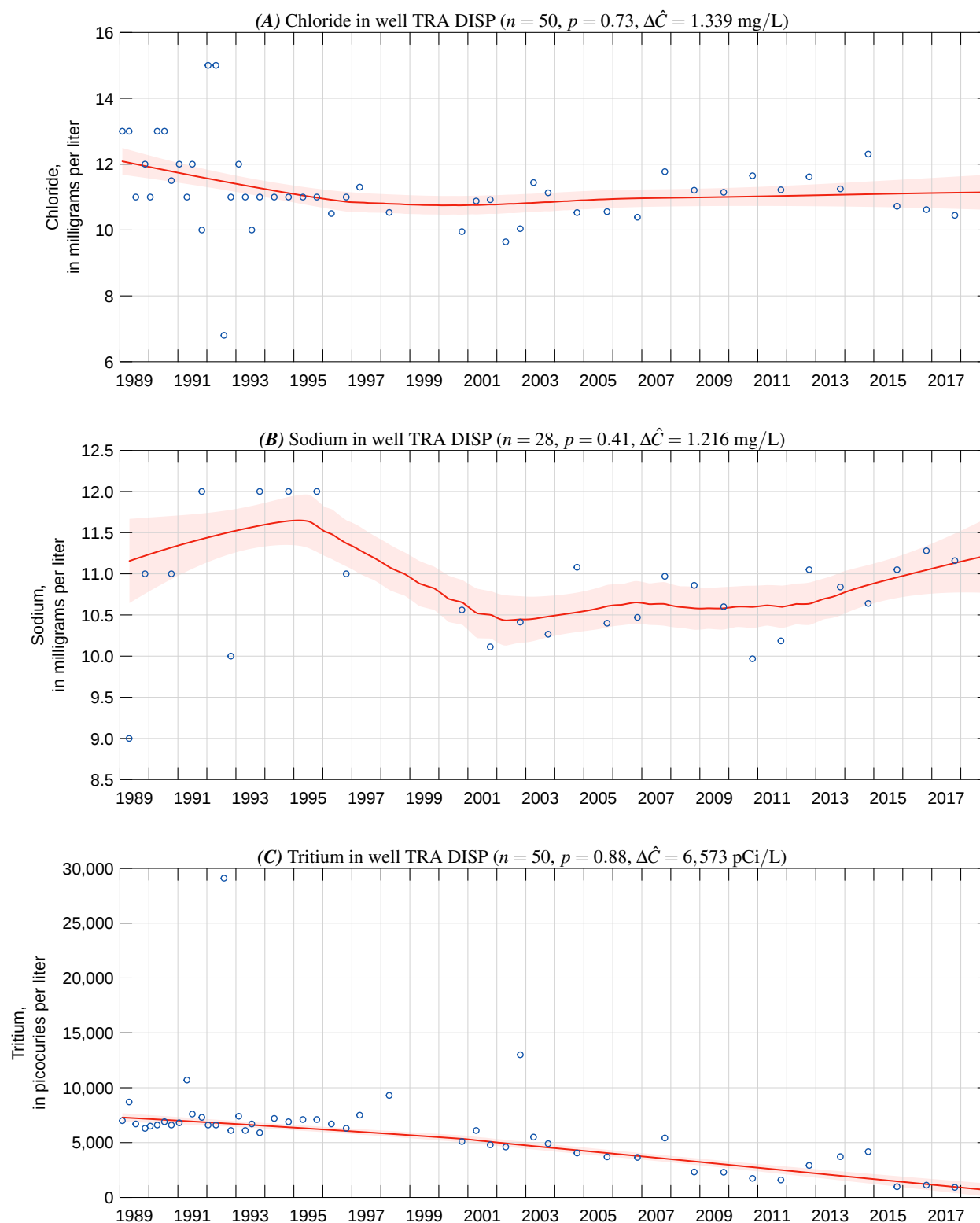


Figure 5.37. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) chromium, and (H) strontium-90 measured in water samples collected from well TRA DISP (Site No. 433506112572301), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

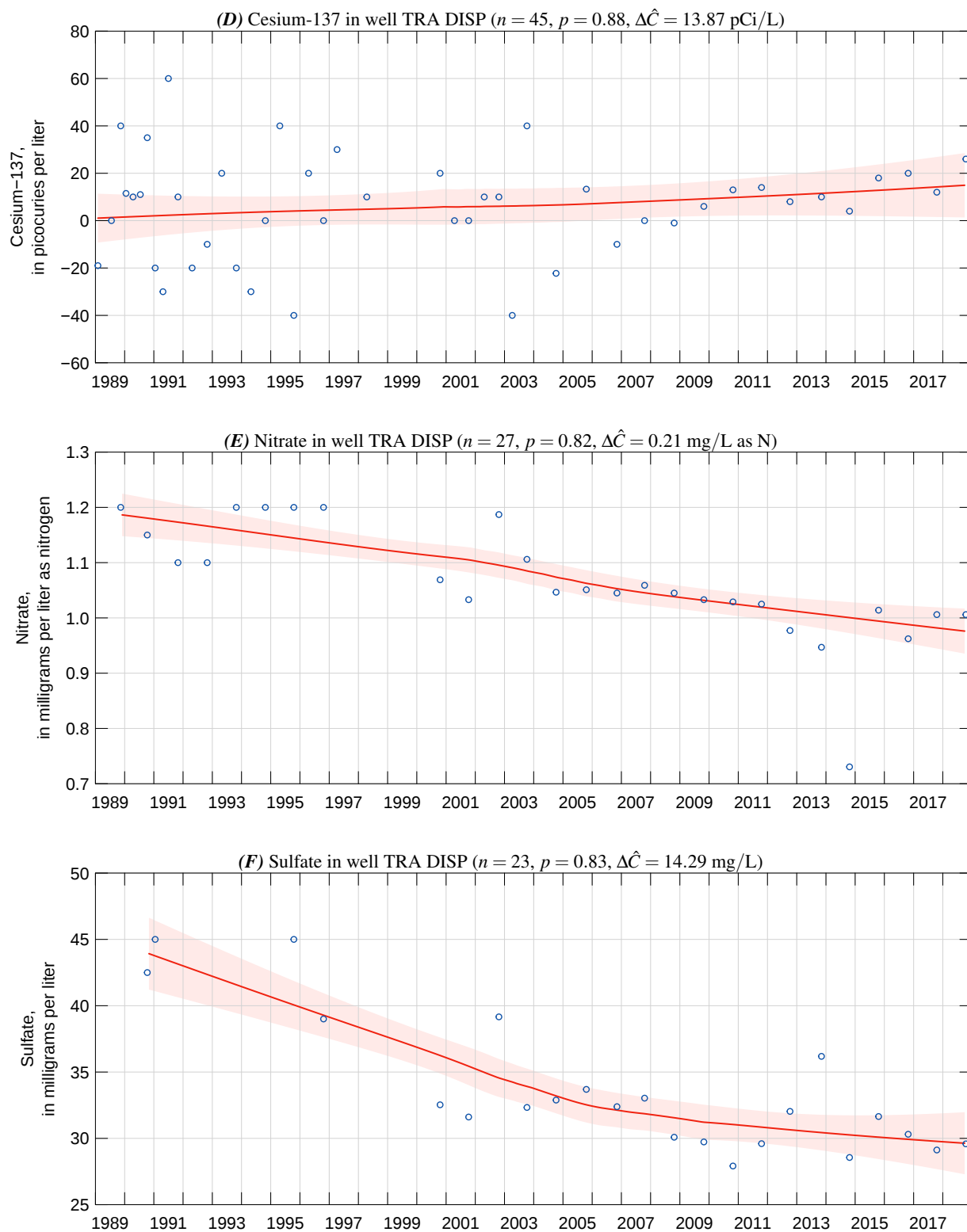


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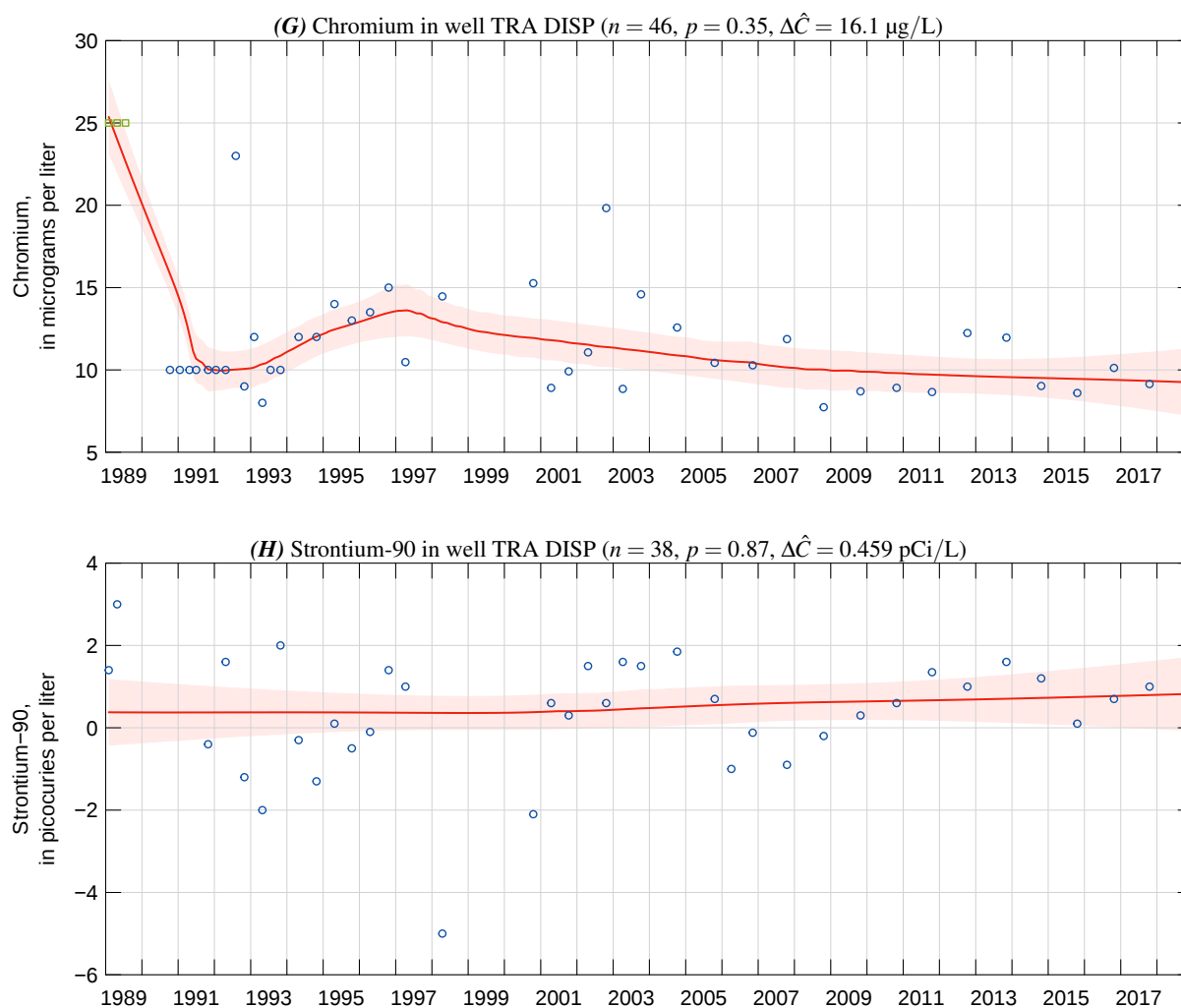


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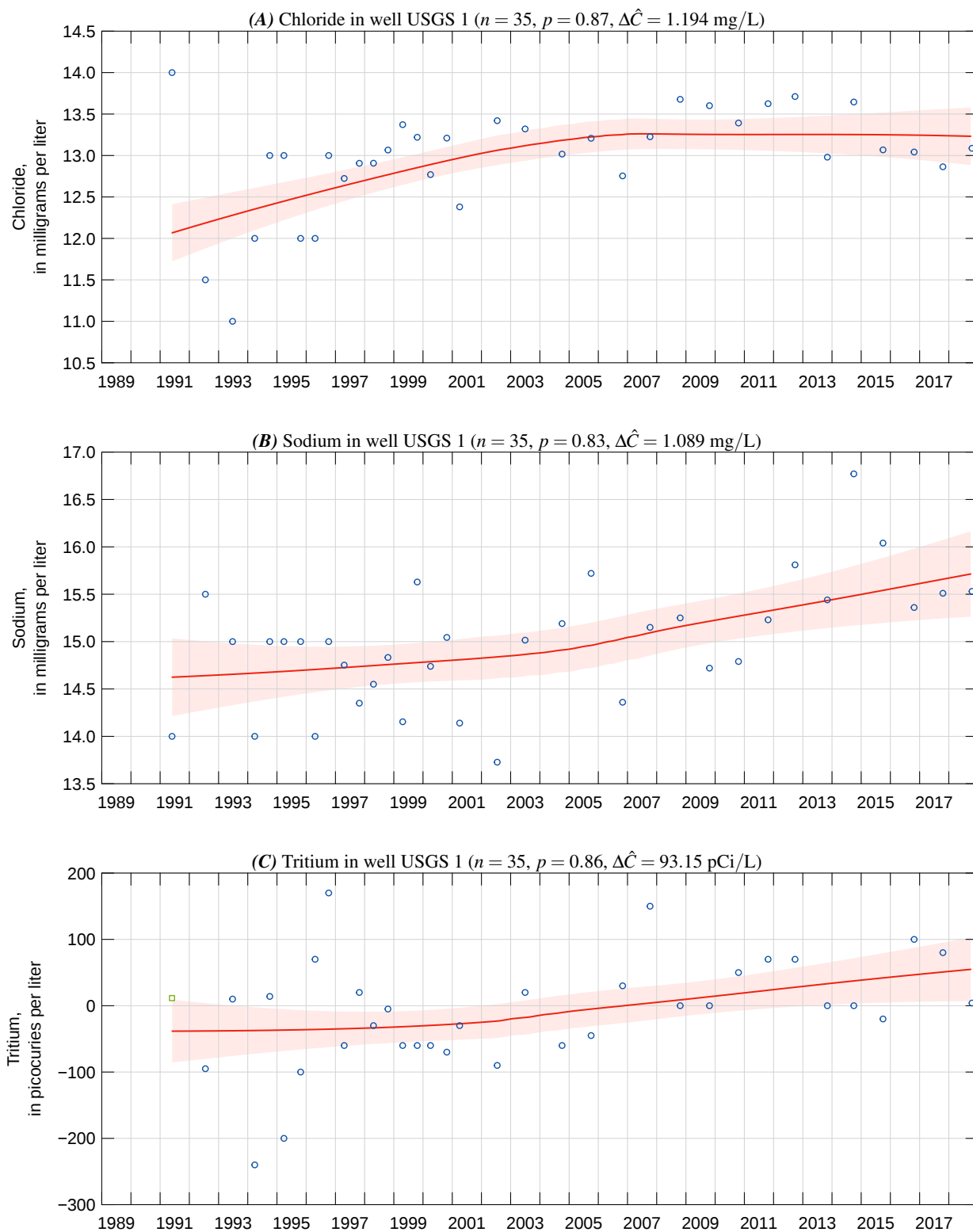


Figure 5.38. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 1 (Site No. 432700112470801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

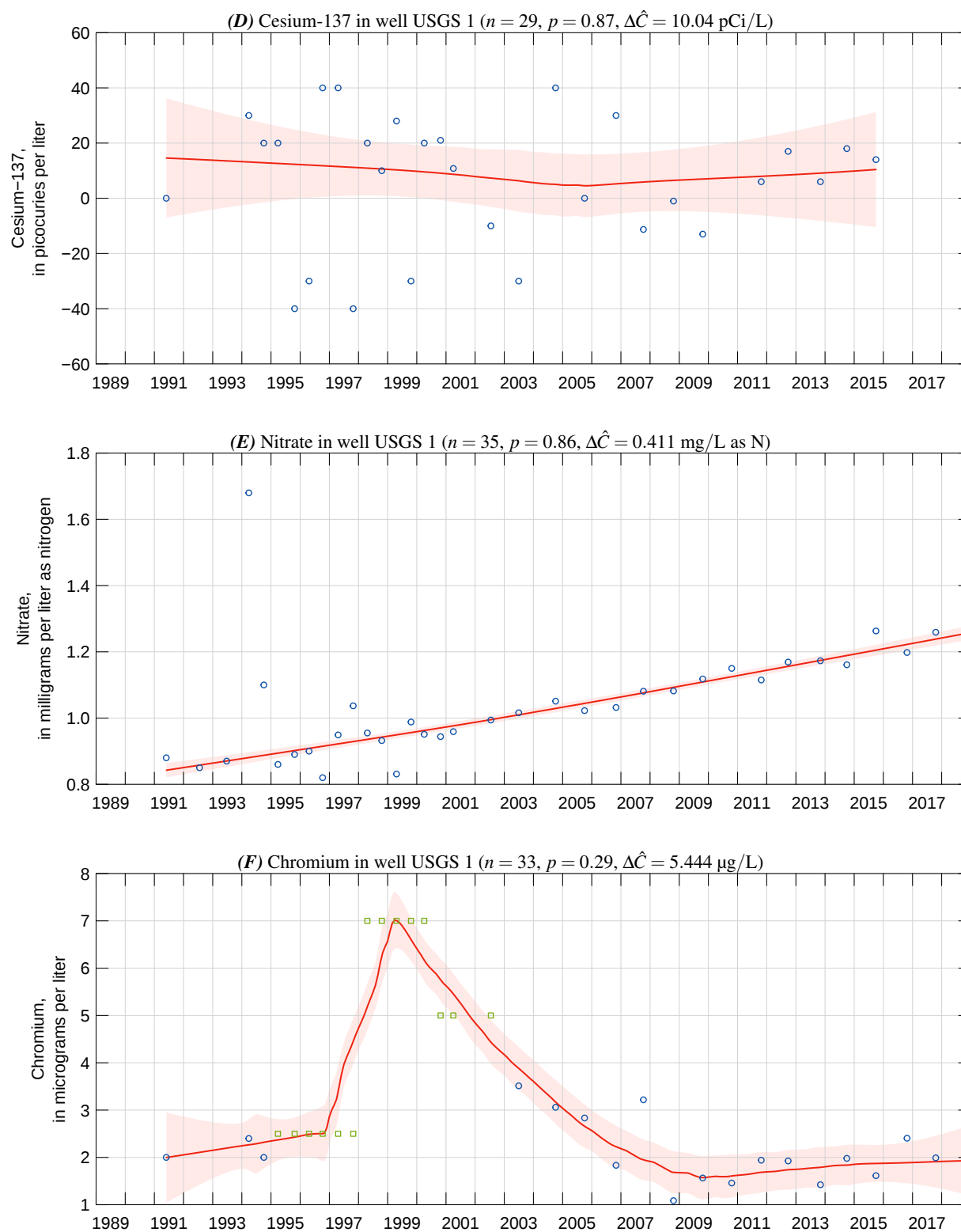


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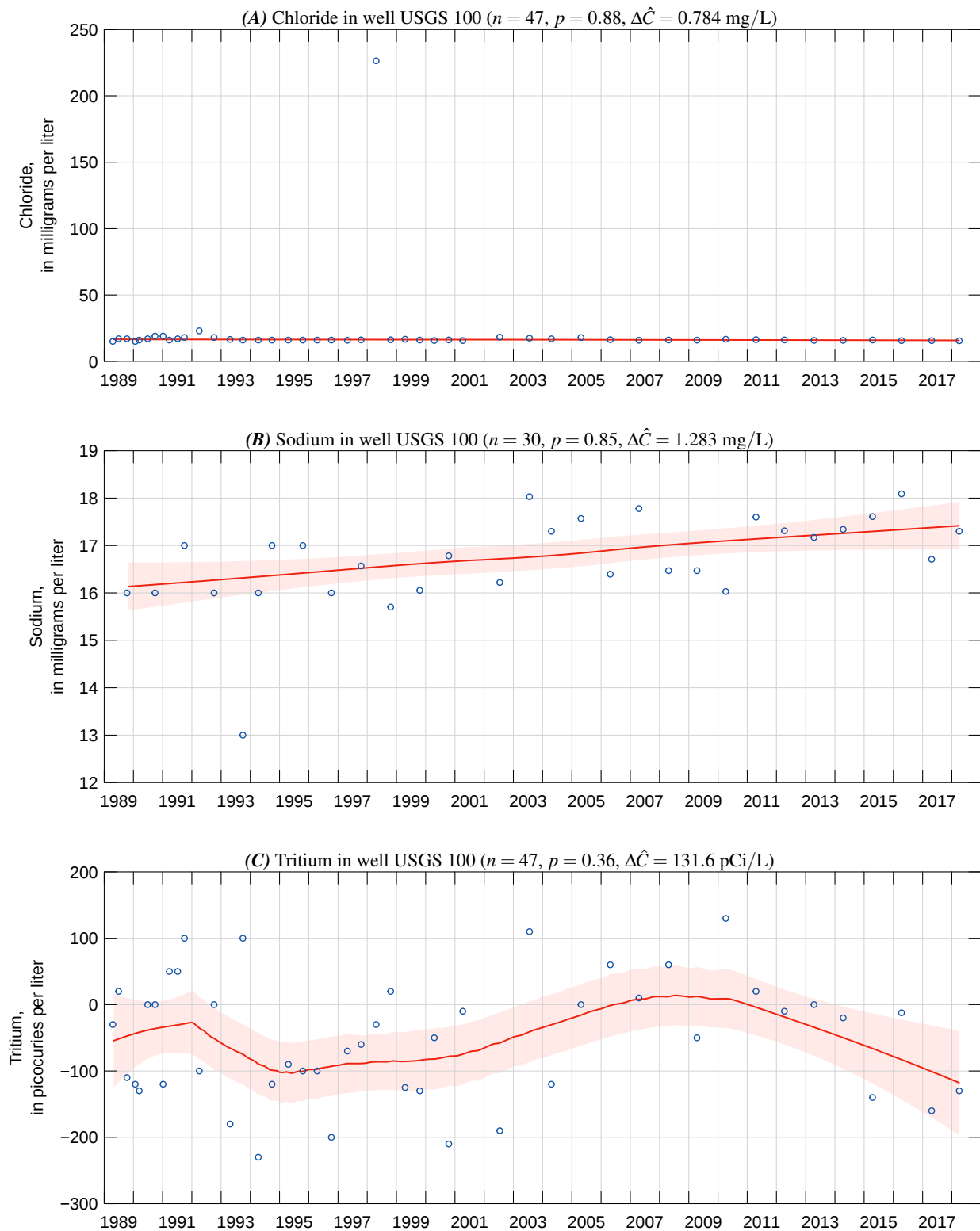


Figure 5.39. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) sulfate, and (E) chromium measured in water samples collected from well USGS 100 (Site No. 433503112400701), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

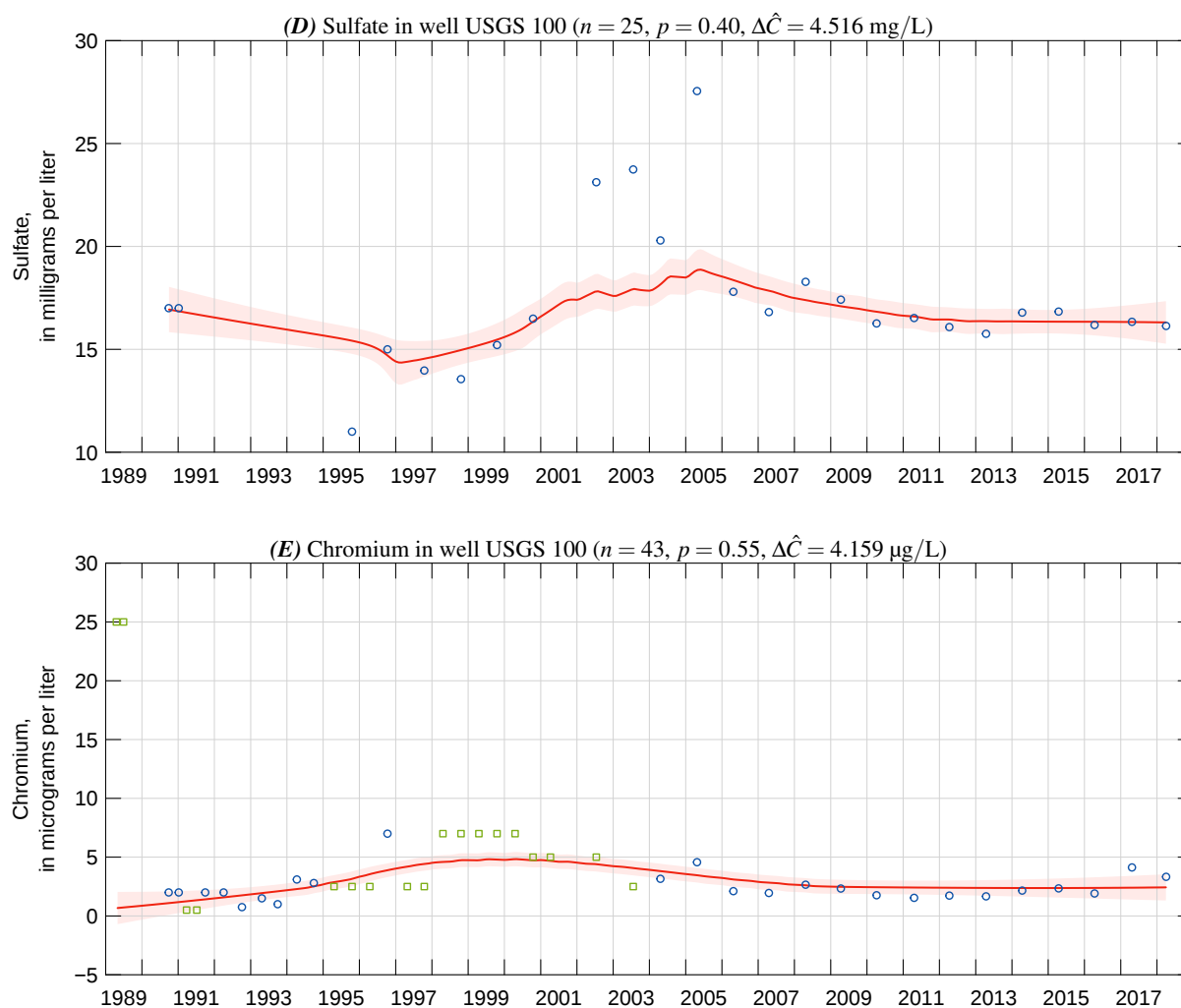


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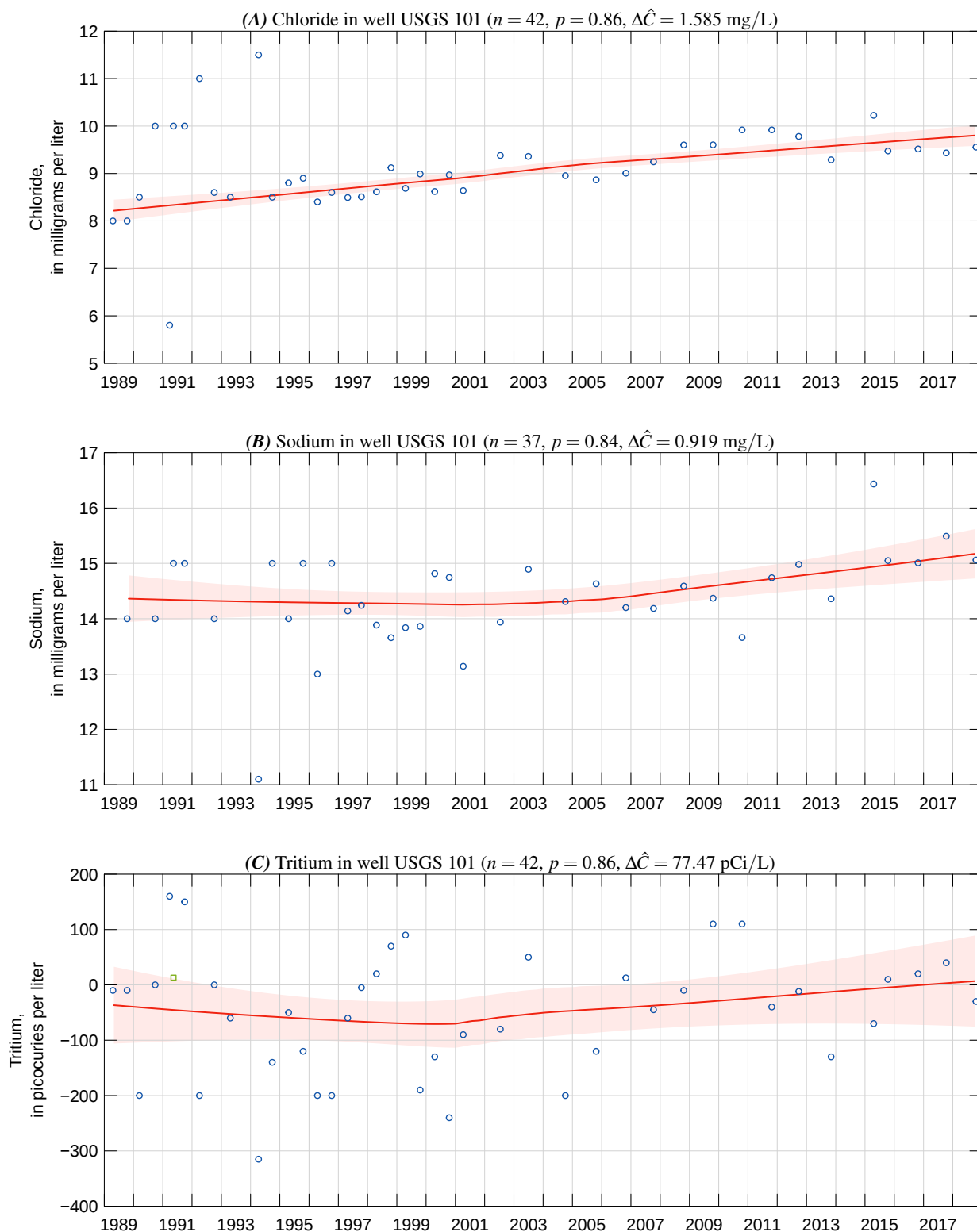


Figure 5.40. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 101 (Site No. 433255112381801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

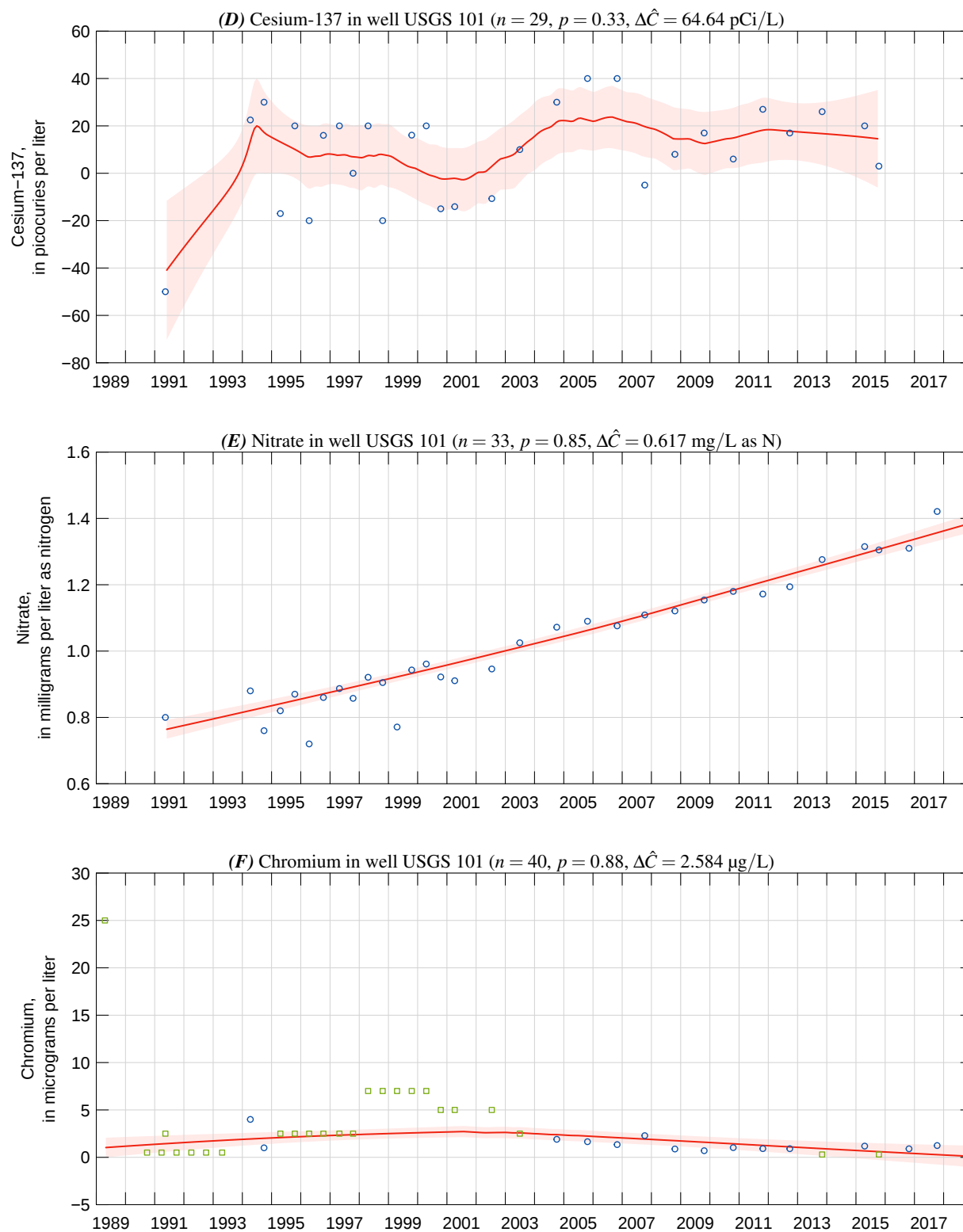


Figure 5.40. —Continued

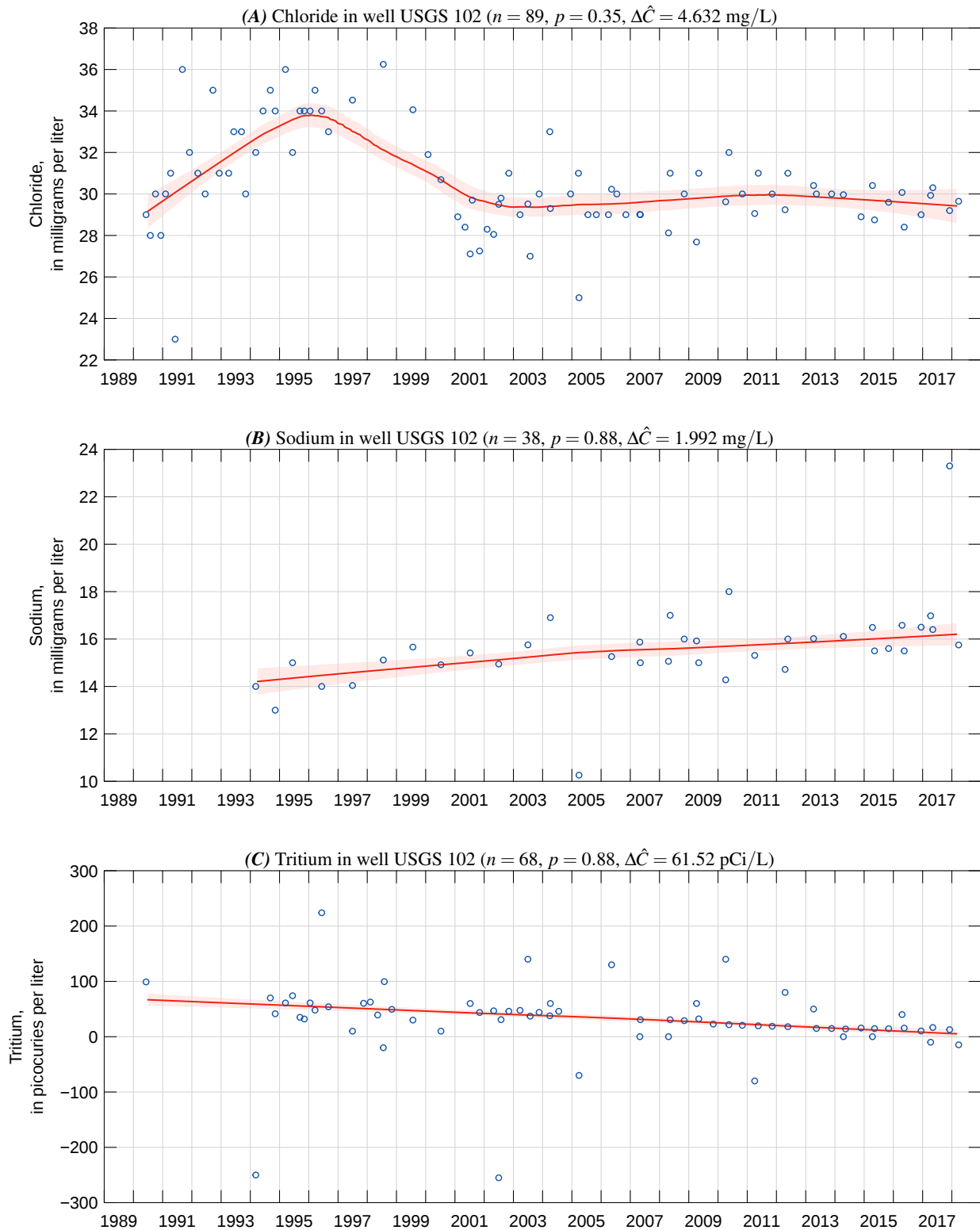


Figure 5.41. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, (F) carbon tetrachloride, (G) toluene, (H) tetrachloroethylene, (I) 1,1-dichloroethylene, (J) 1,1,1-trichloroethane, (K) trichloroethylene, and (L) strontium-90 measured in water samples collected from well USGS 102 (Site No. 433853112551601), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

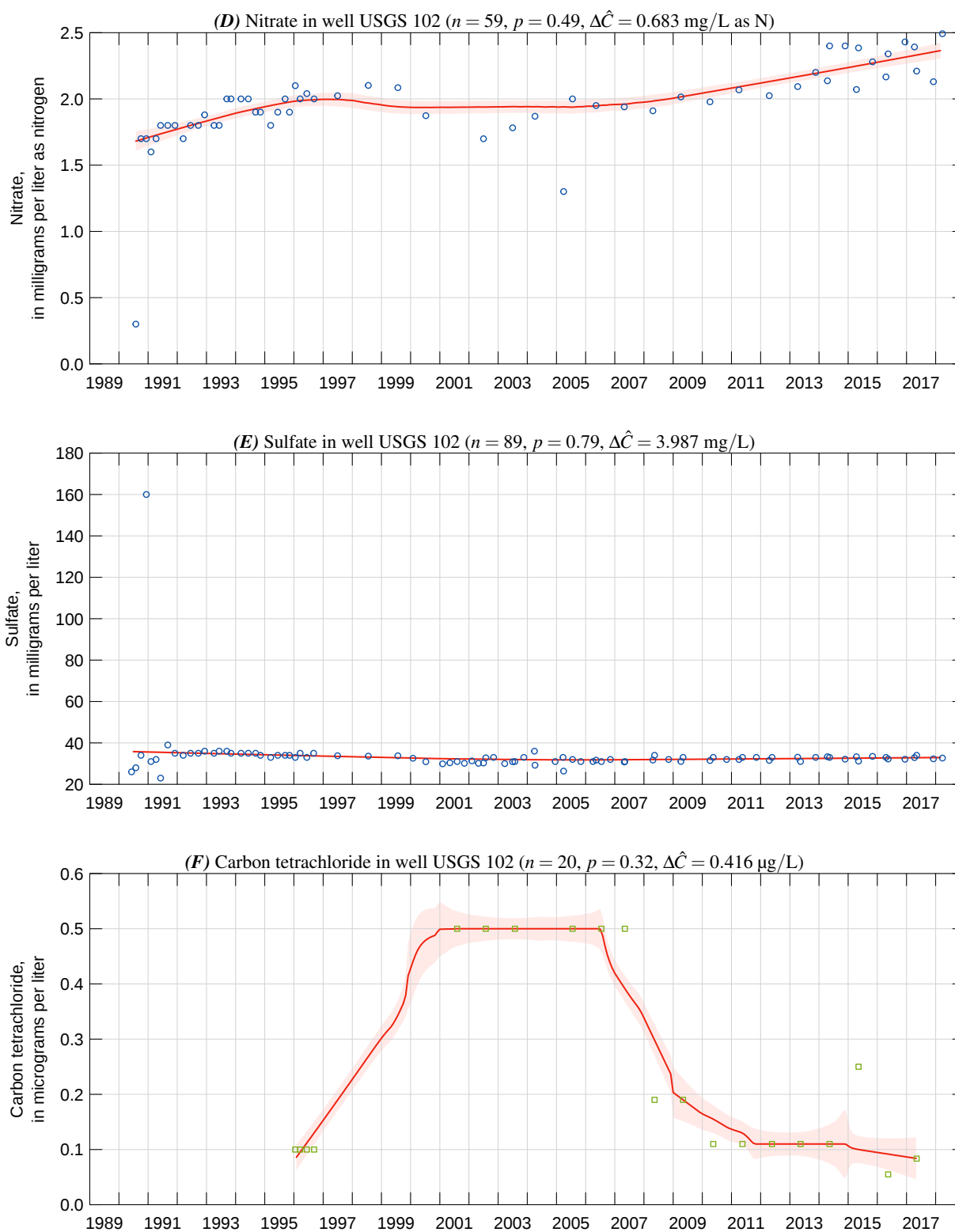
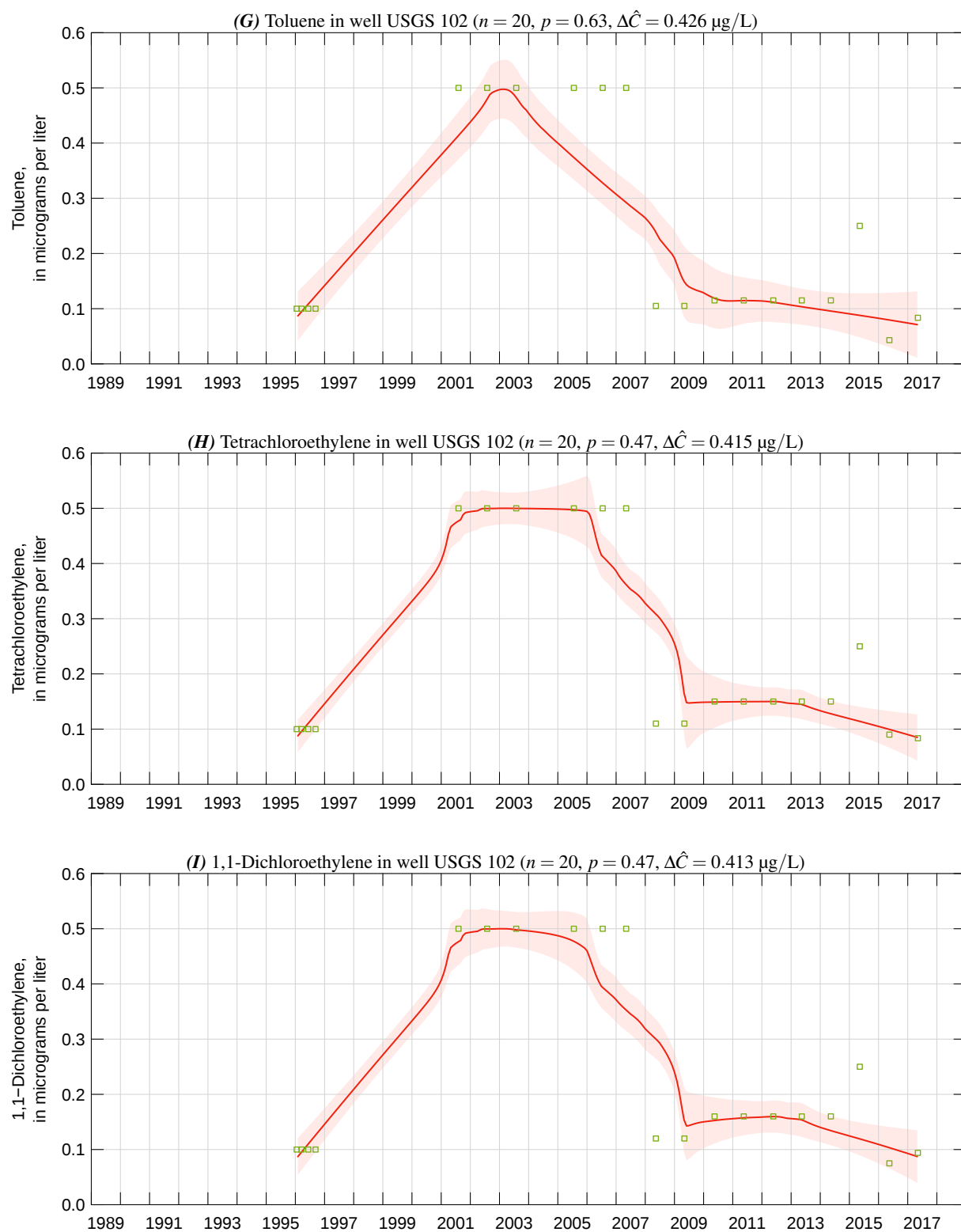


Figure 5.41. —Continued



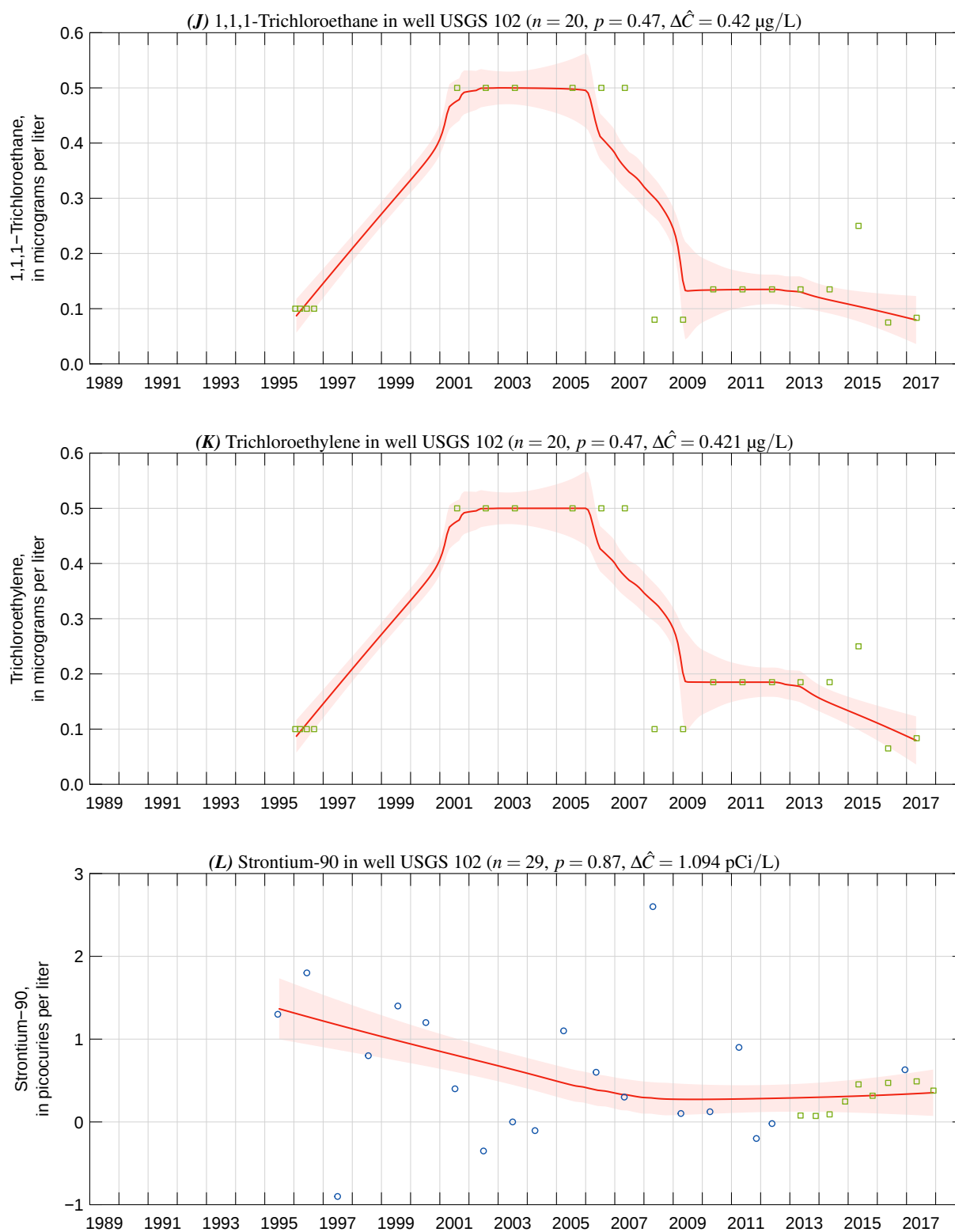


Figure 5.41. —Continued

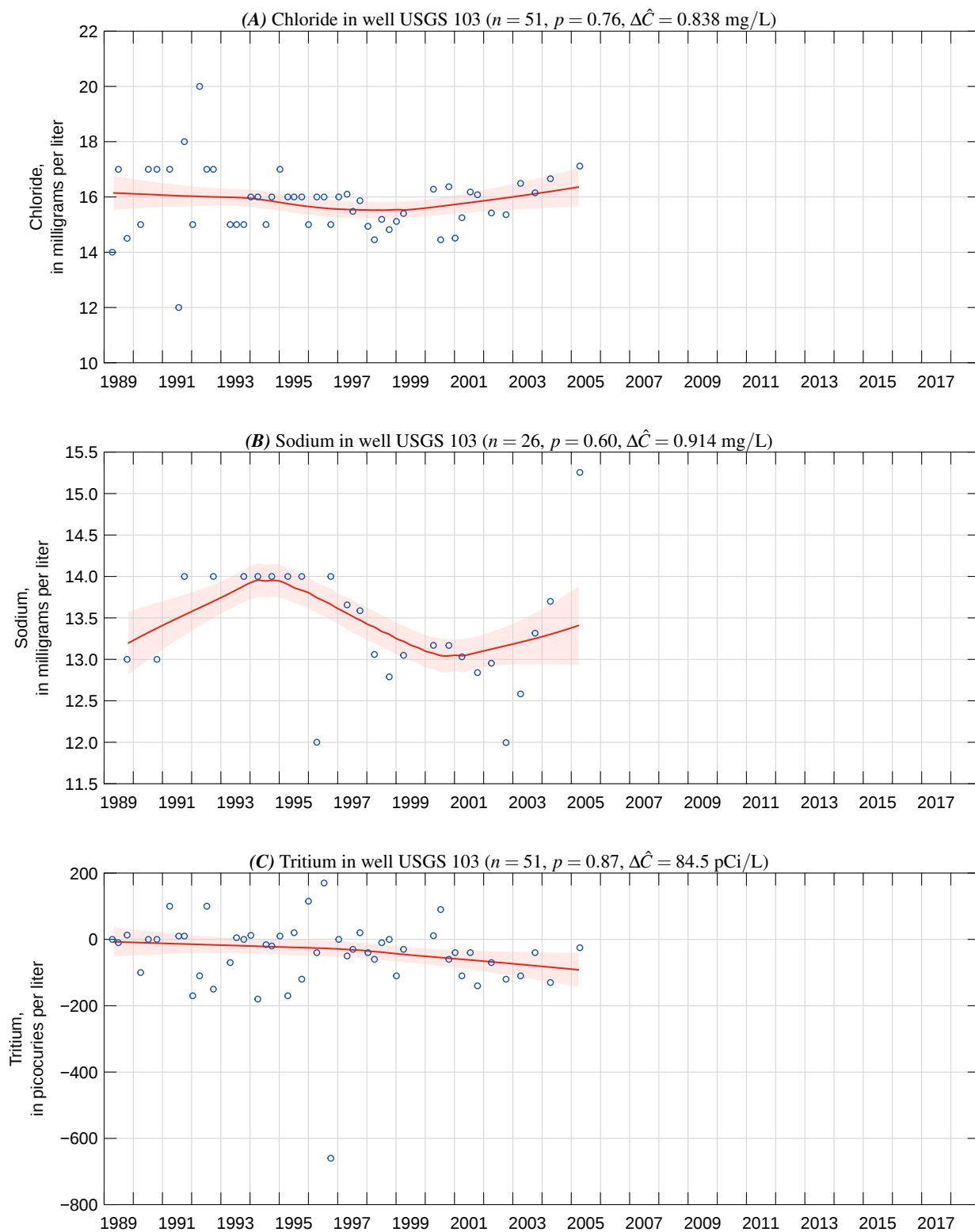


Figure 5.42. Local-regression model fitted to (A) chloride, (B) sodium, and (C) tritium measured in water samples collected from well USGS 103 (Site No. 432714112560701), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

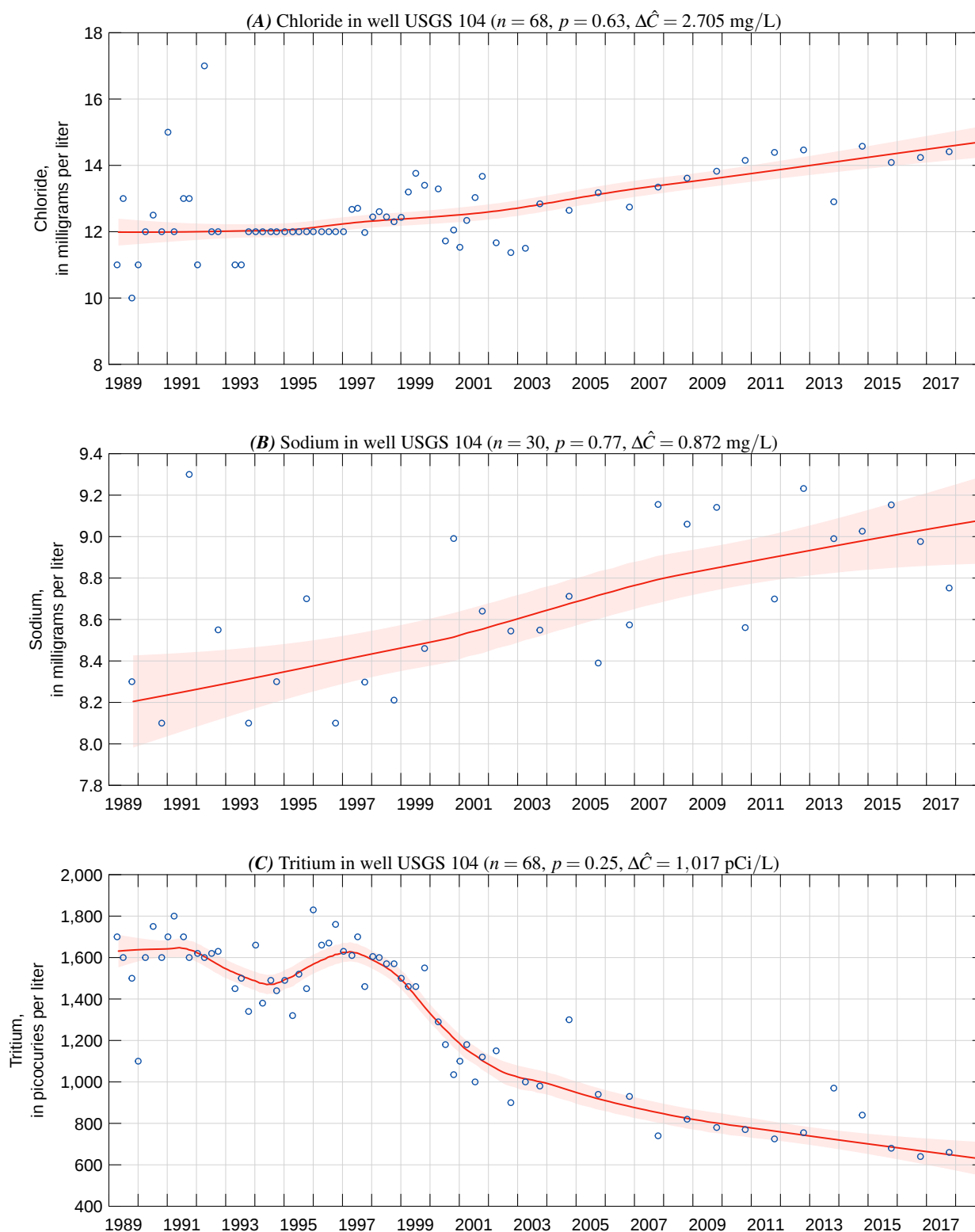
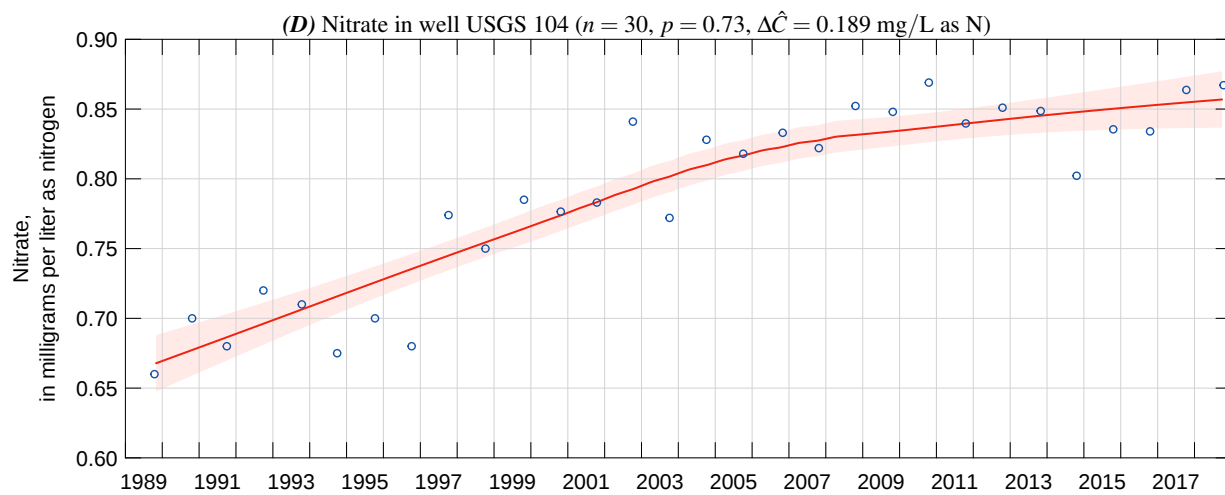


Figure 5.43. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, and (D) nitrate measured in water samples collected from well USGS 104 (Site No. 432856112560801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

**Figure 5.43.** —Continued

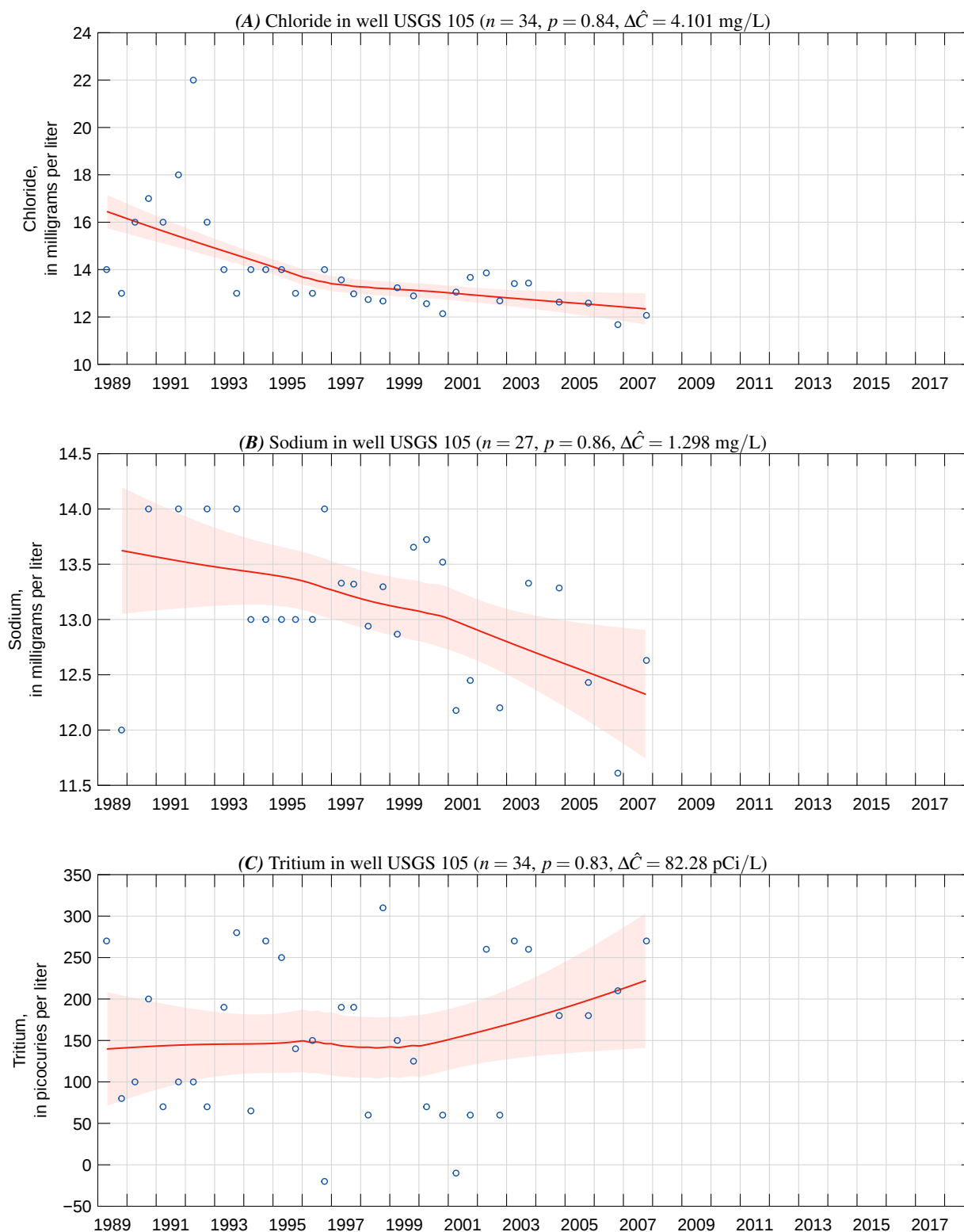


Figure 5.44. Local-regression model fitted to (A) chloride, (B) sodium, and (C) tritium measured in water samples collected from well USGS 105 (Site No. 432703113001801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

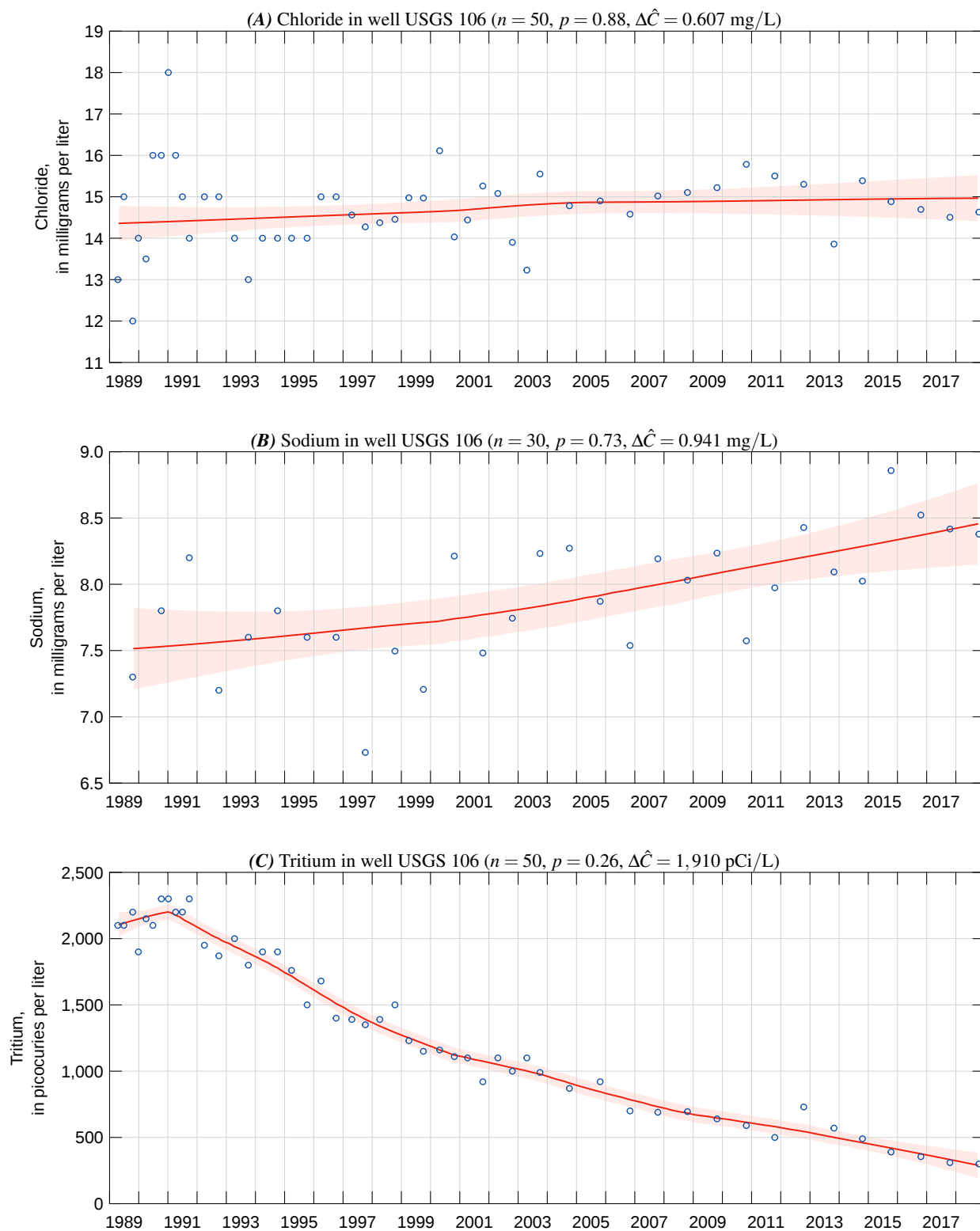


Figure 5.45. Local-regression model fitted to (A) chloride, (B) sodium, and (C) tritium measured in water samples collected from well USGS 106 (Site No. 432959112593101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

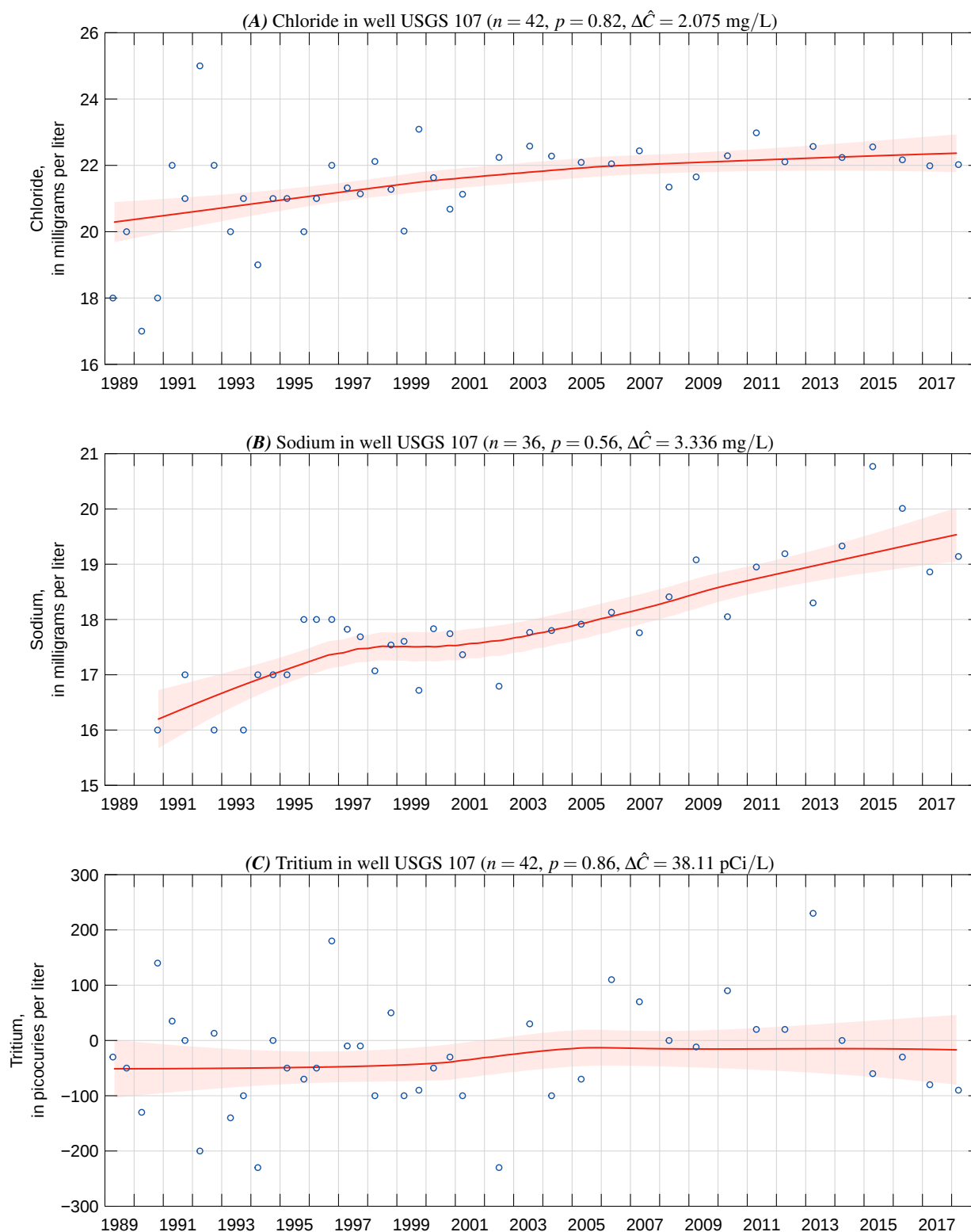


Figure 5.46. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, and (N) trichloroethylene measured in water samples collected from well USGS 107 (Site No. 432942112532801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

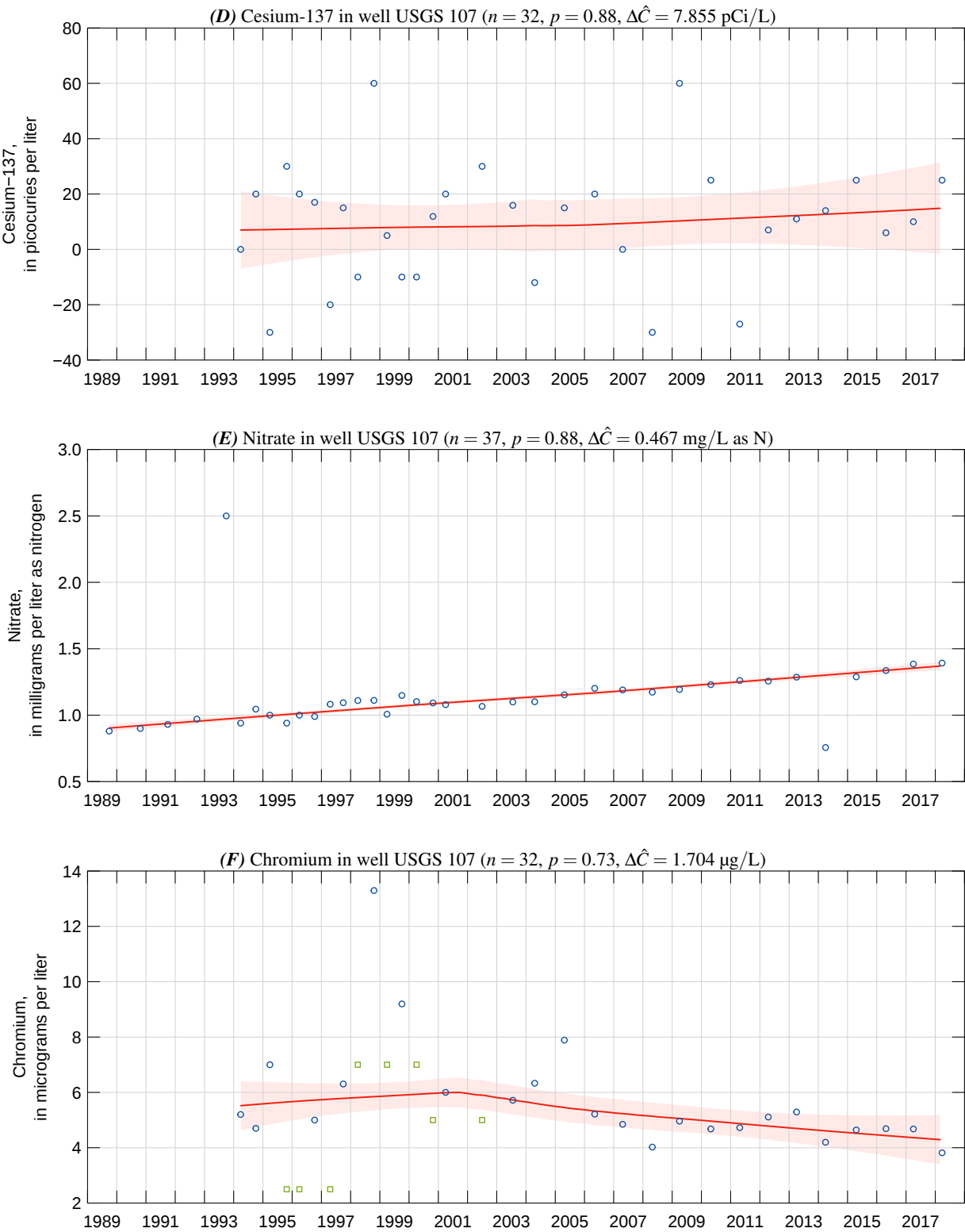


Figure 5.46. —Continued

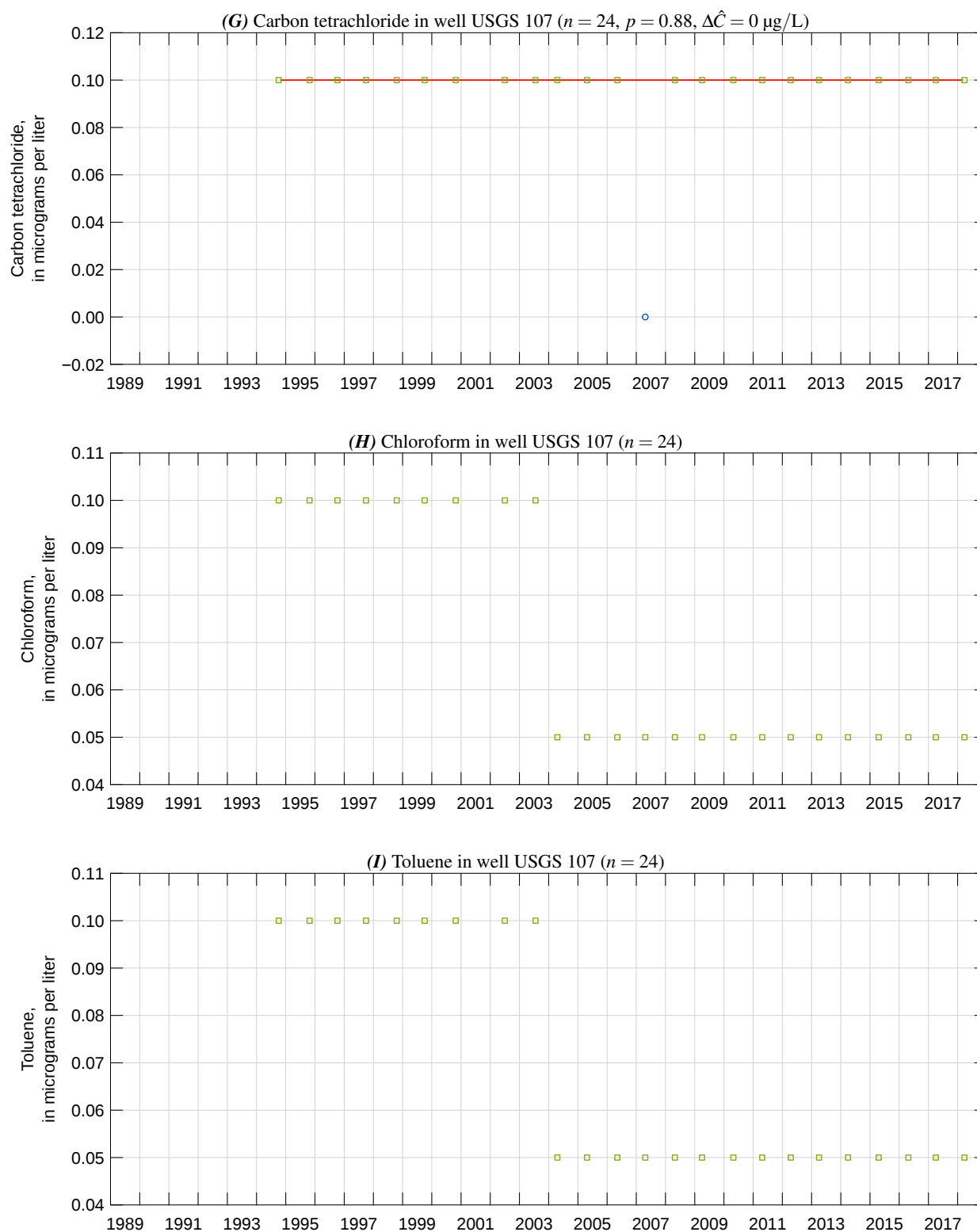


Figure 5.46. —Continued

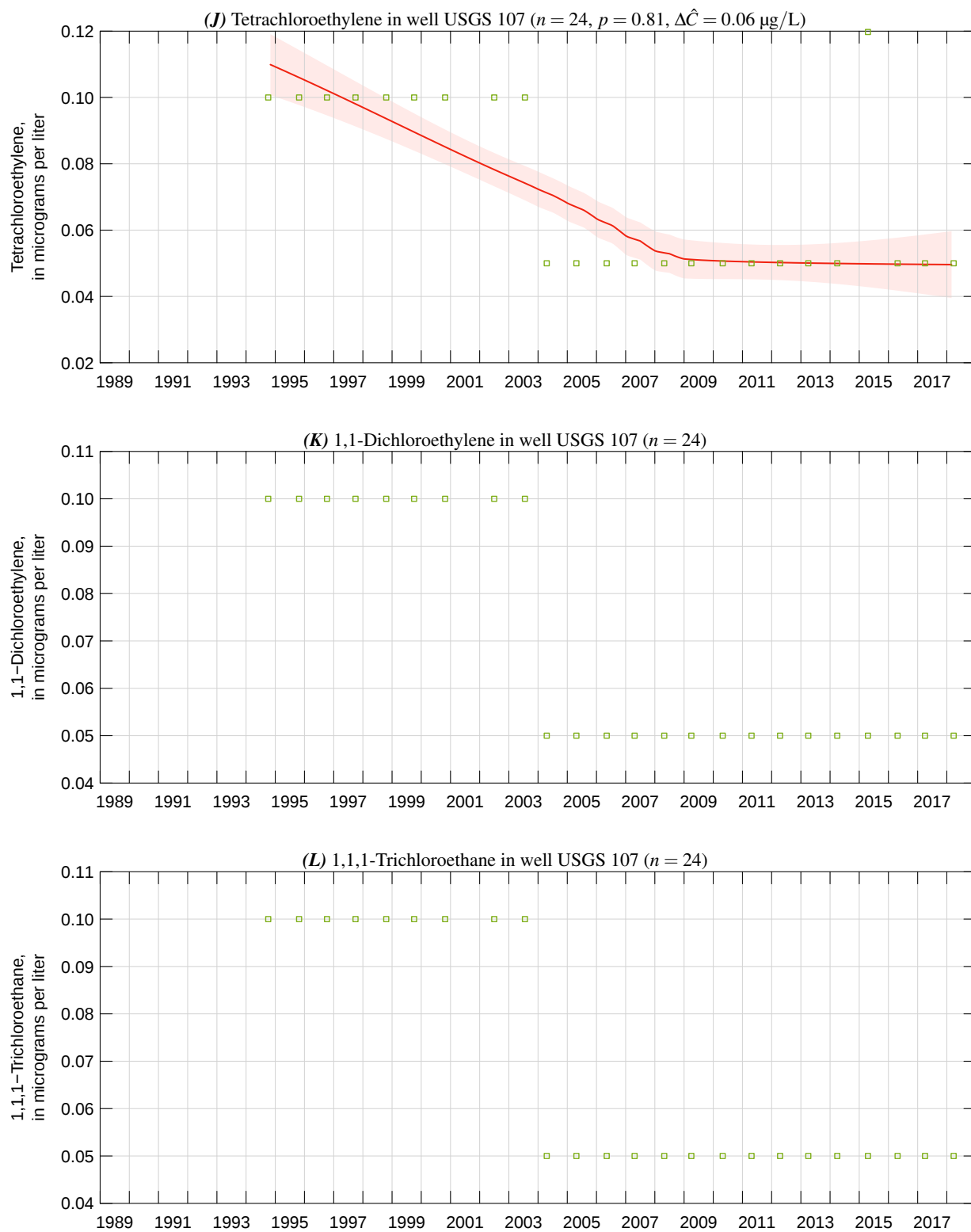


Figure 5.46. —Continued

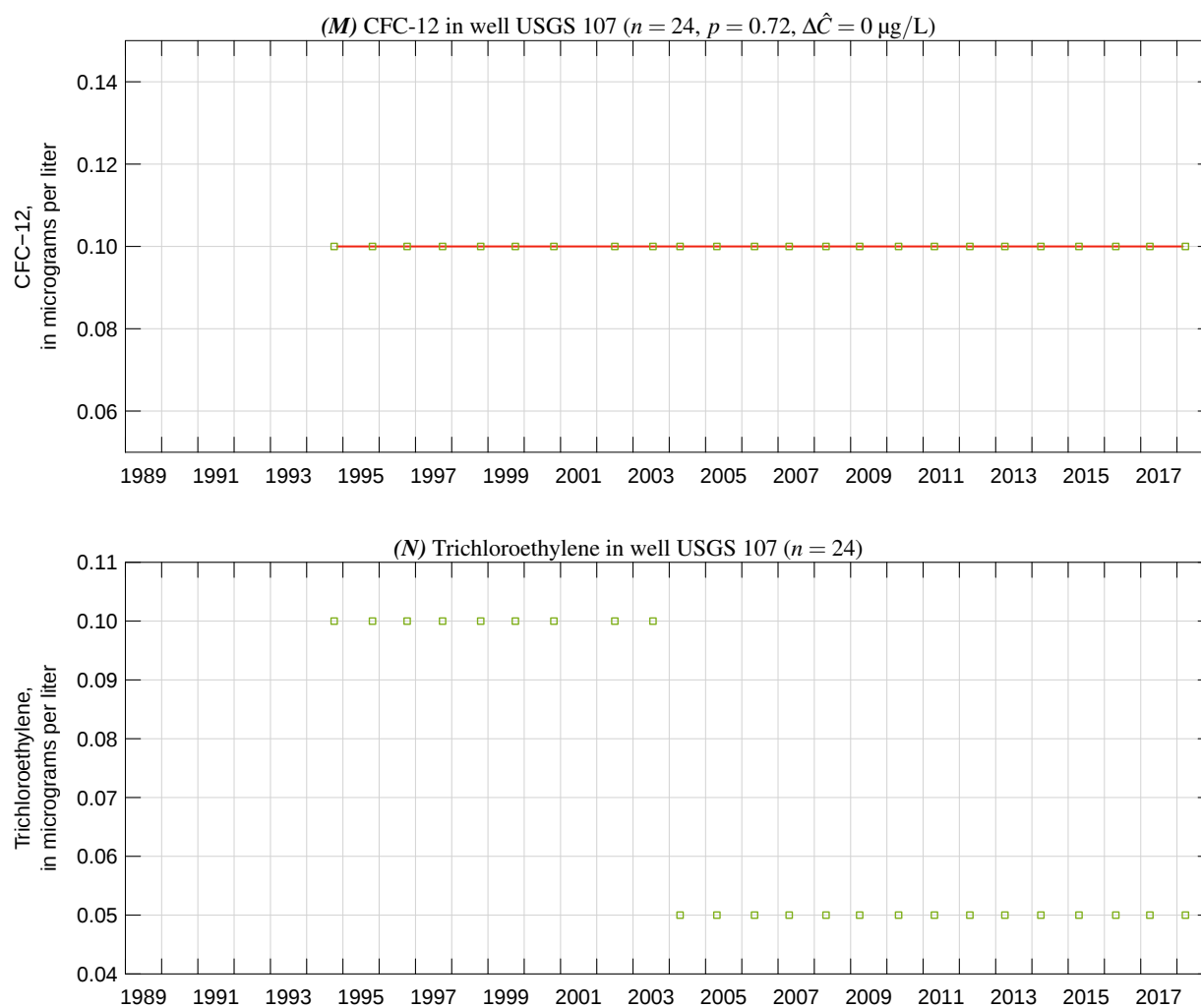


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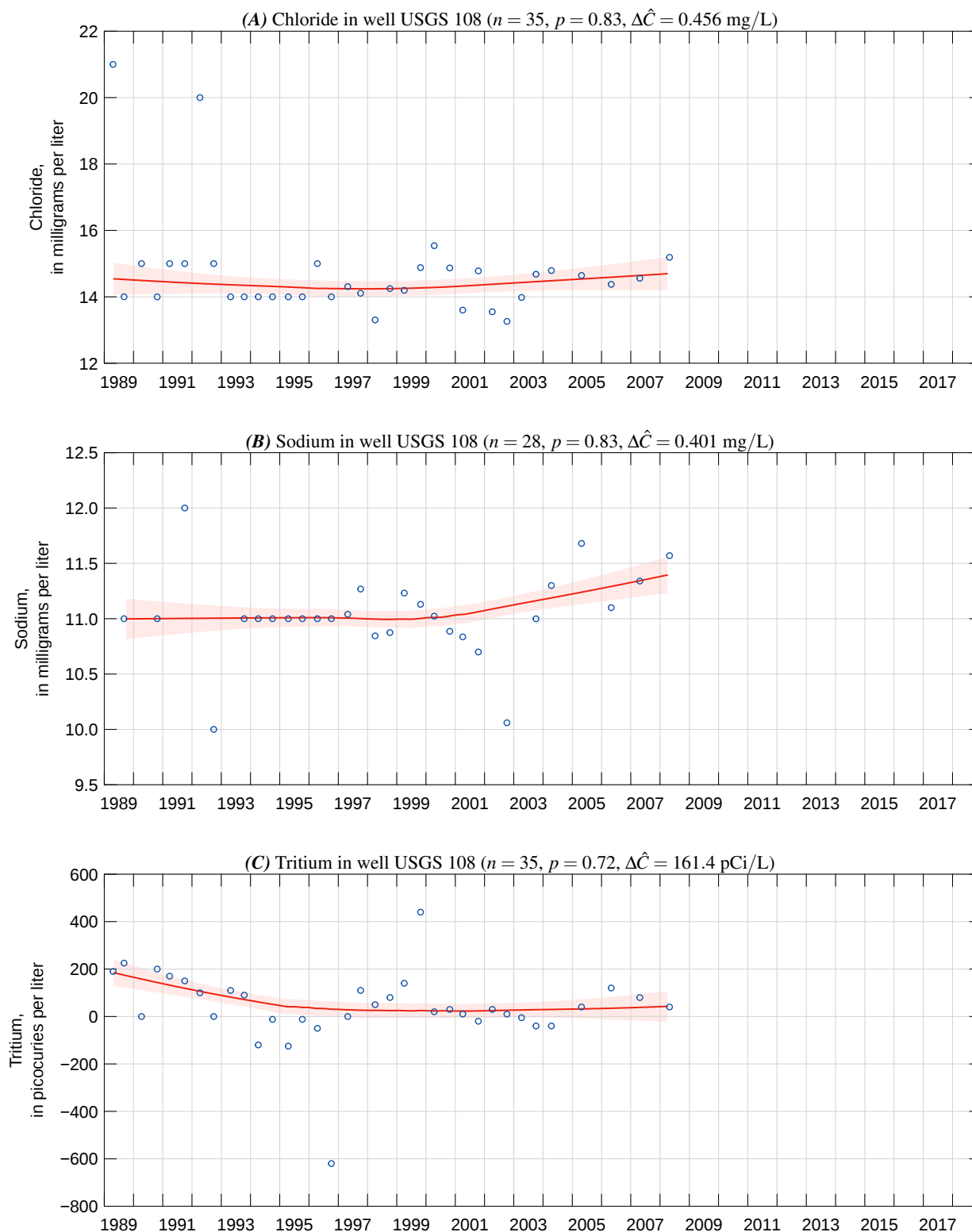


Figure 5.47. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 108 (Site No. 432659112582601), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

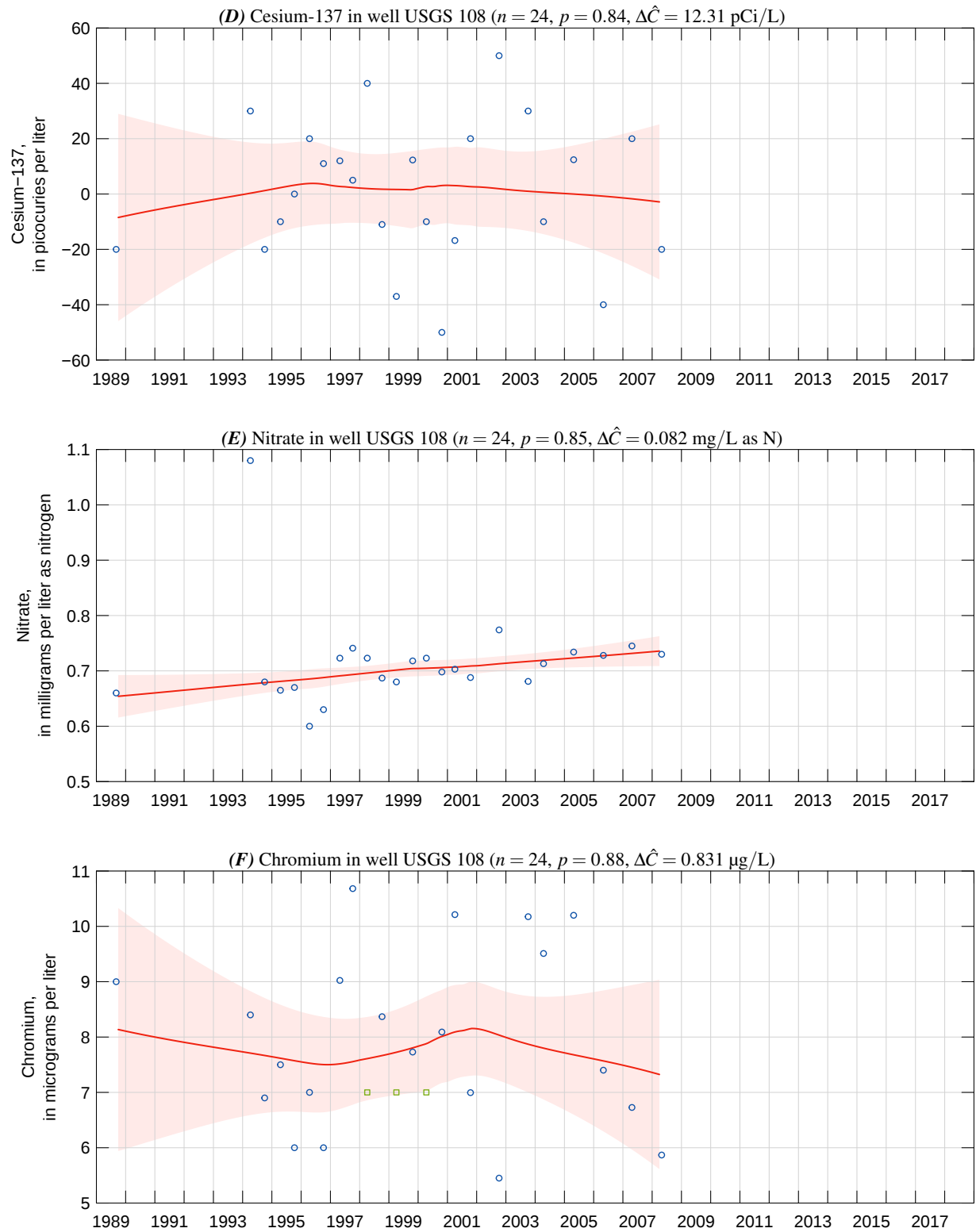


Figure 5.47. —Continued

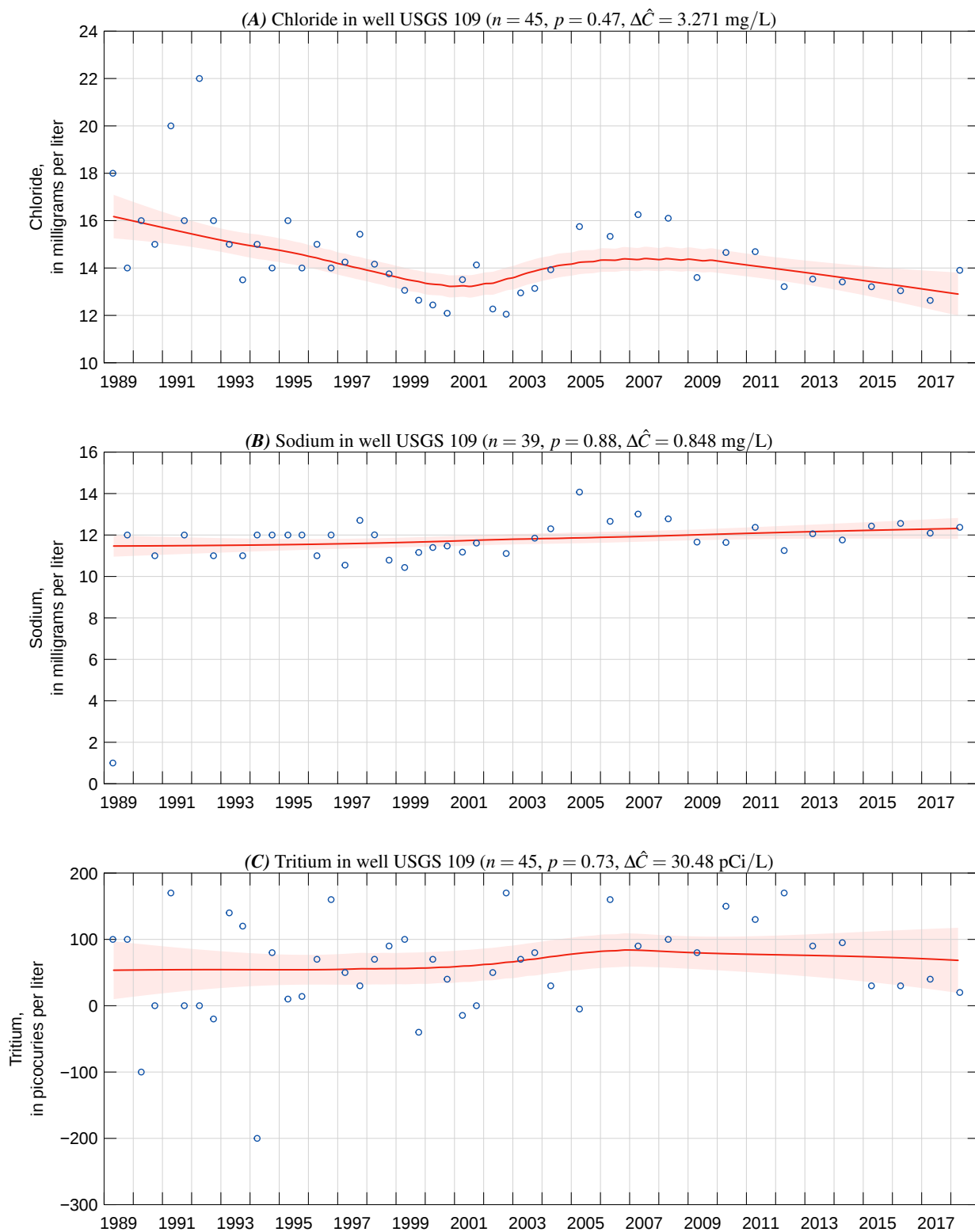


Figure 5.48. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 109 (Site No. 432701113025601), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

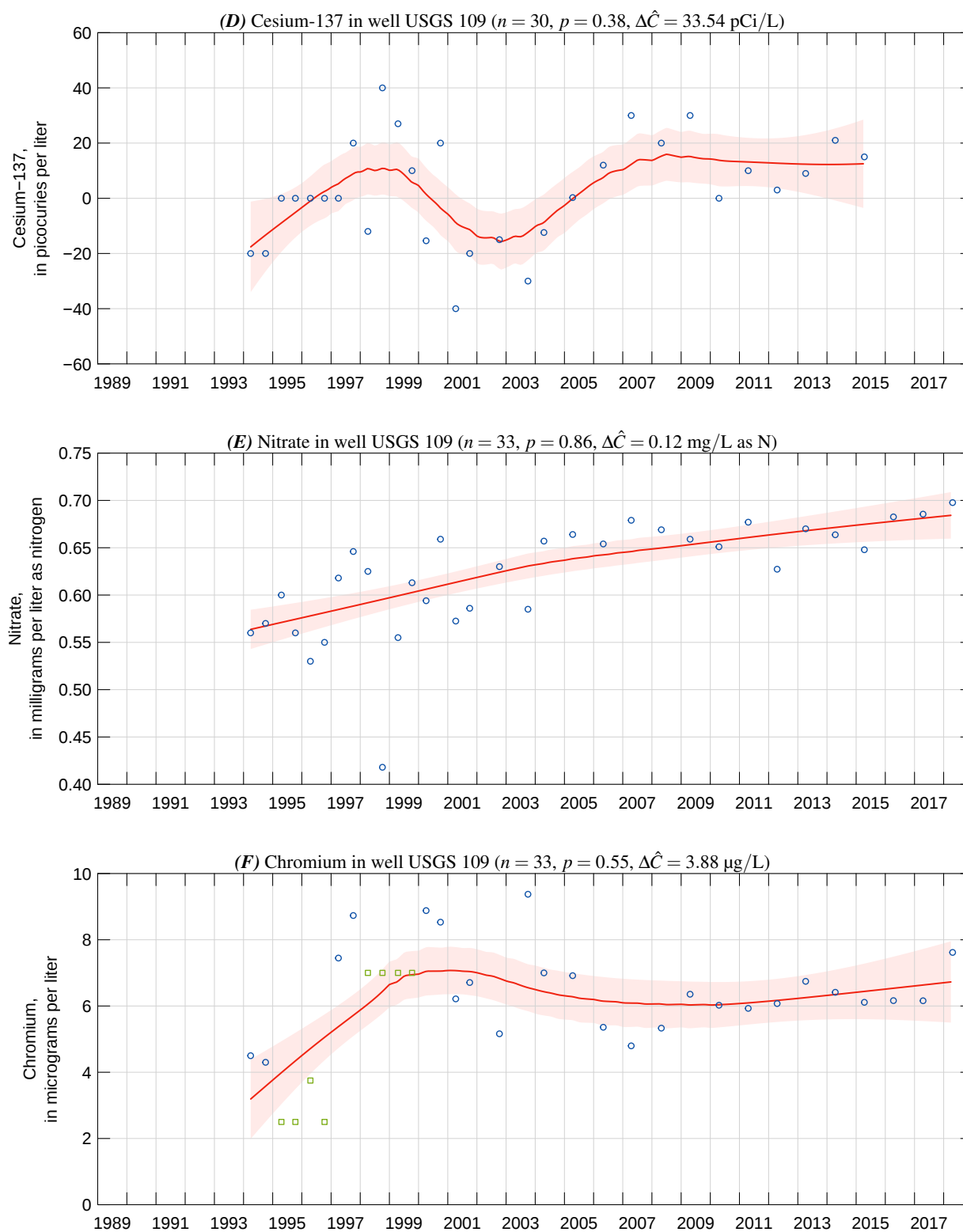


Figure 5.48. —Continued

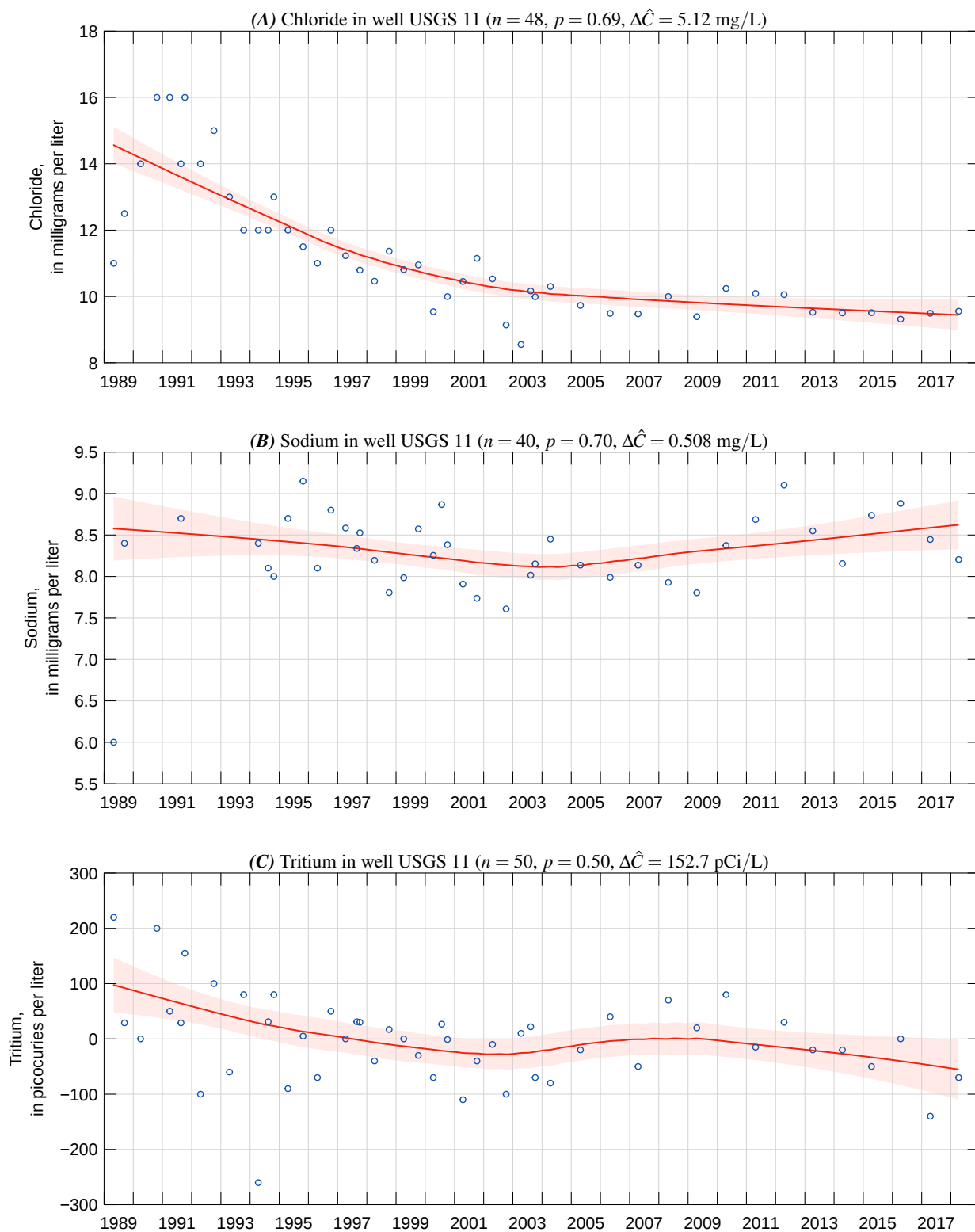


Figure 5.49. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 11 (Site No. 432336113064201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

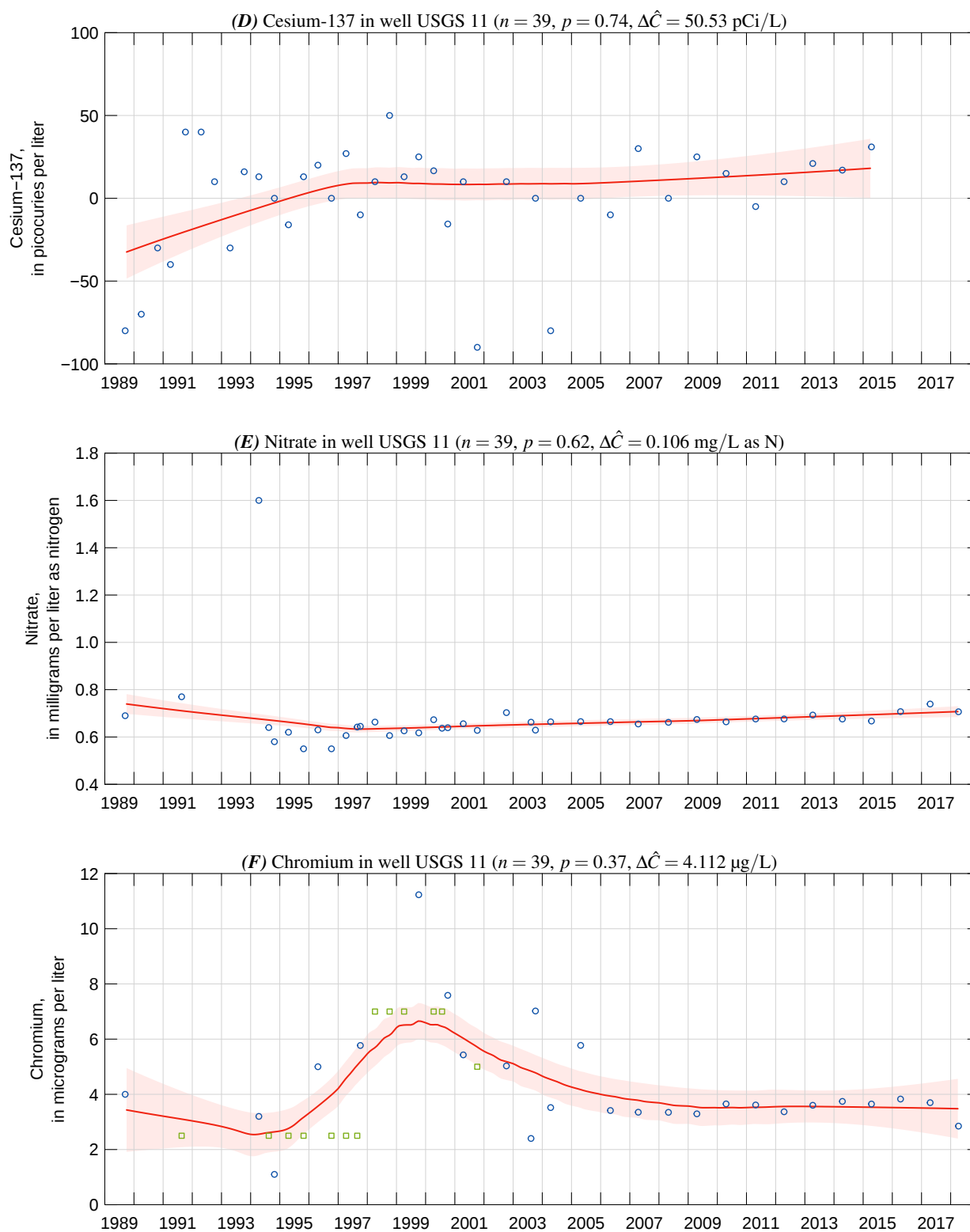


Figure 5.49. —Continued

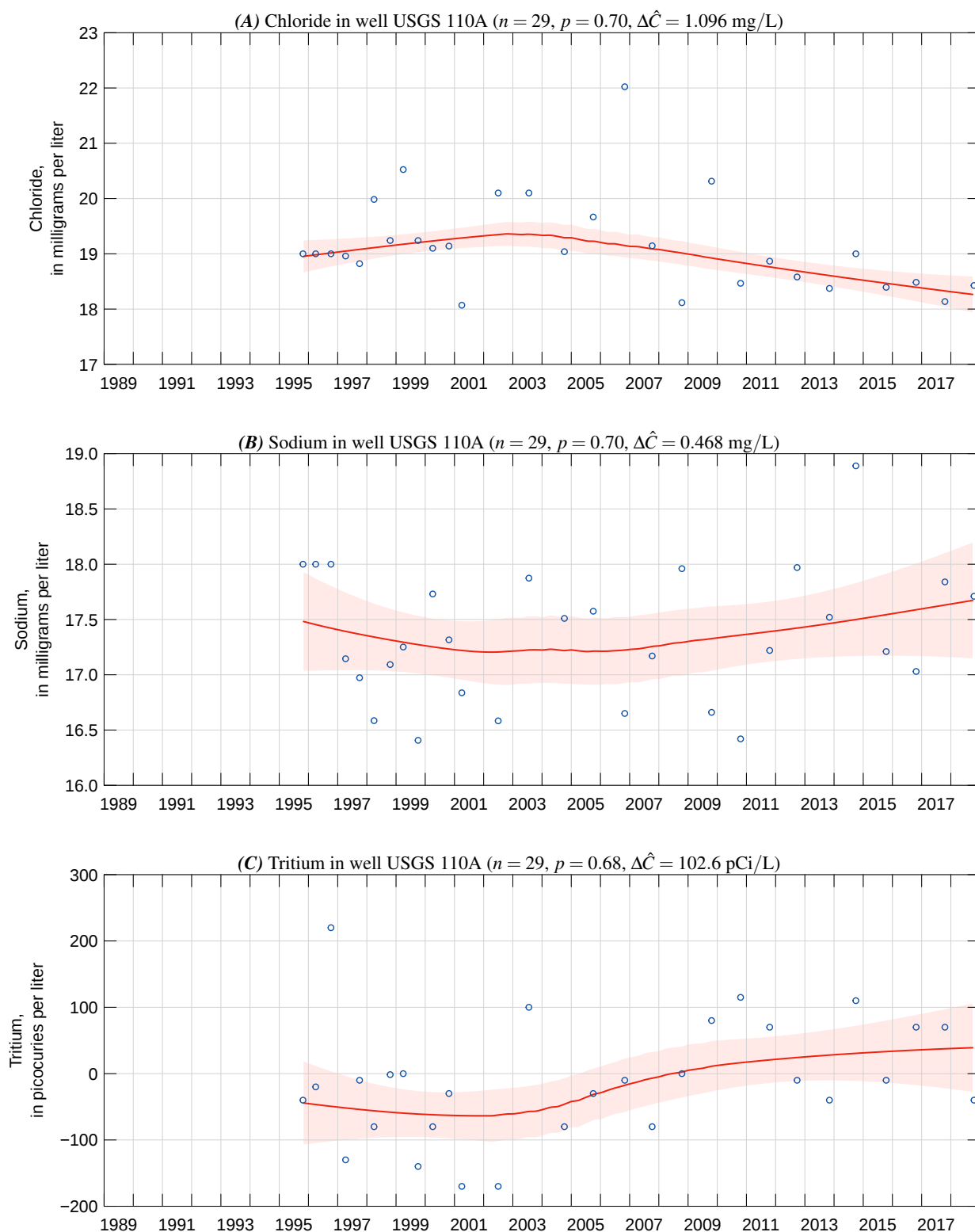


Figure 5.50. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 110A (Site No. 432717112501502), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

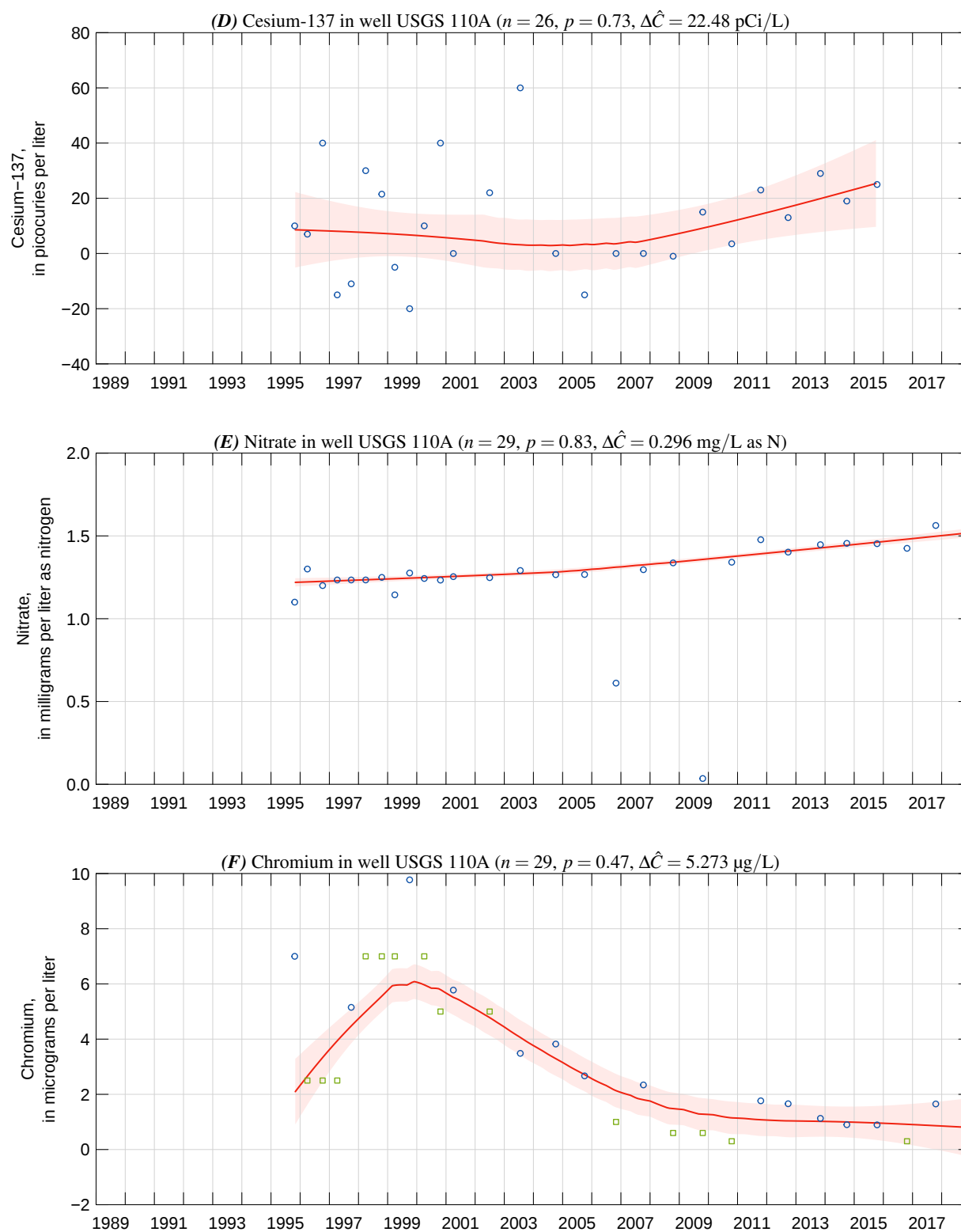


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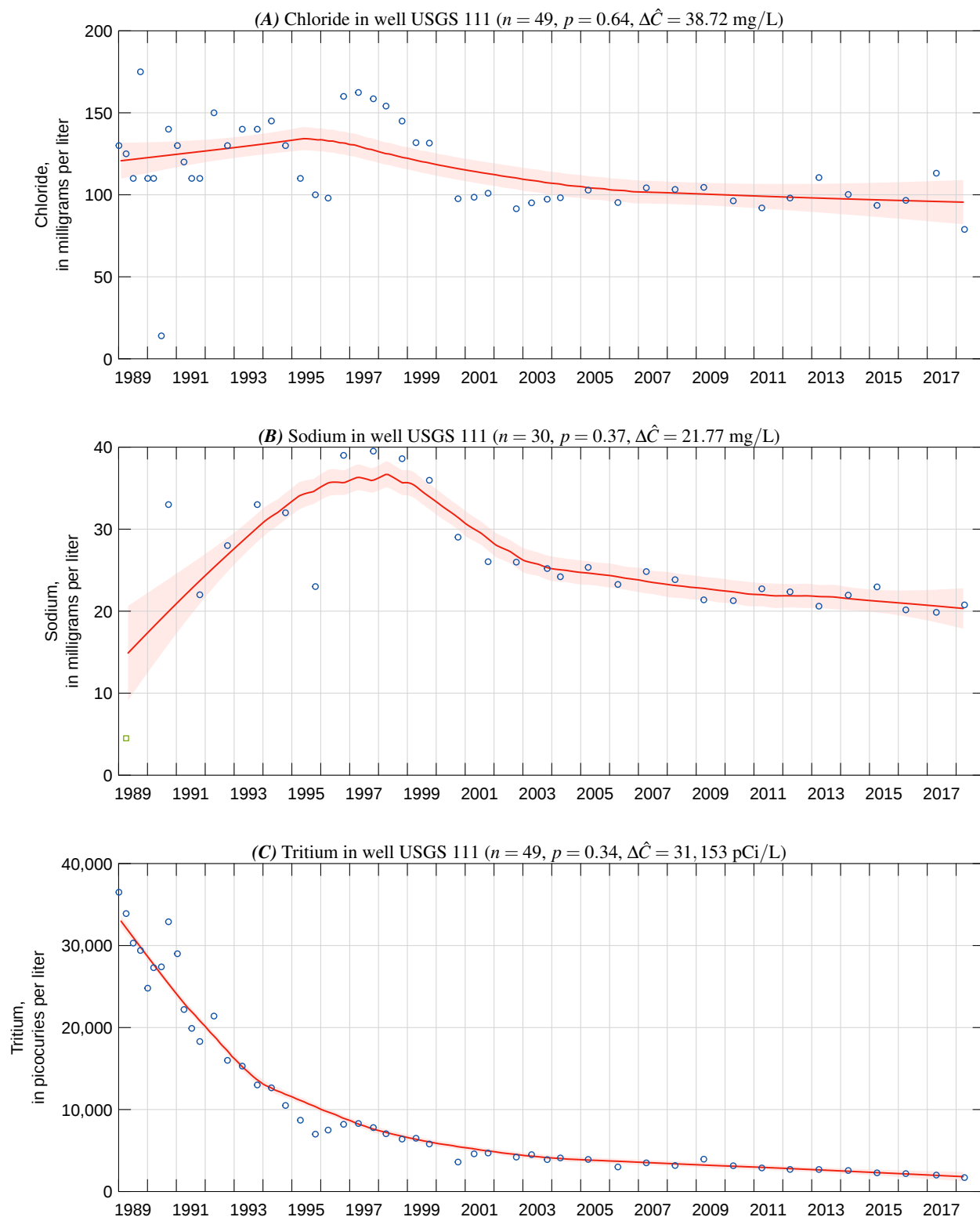


Figure 5.51. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 111 (Site No. 433331112560501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

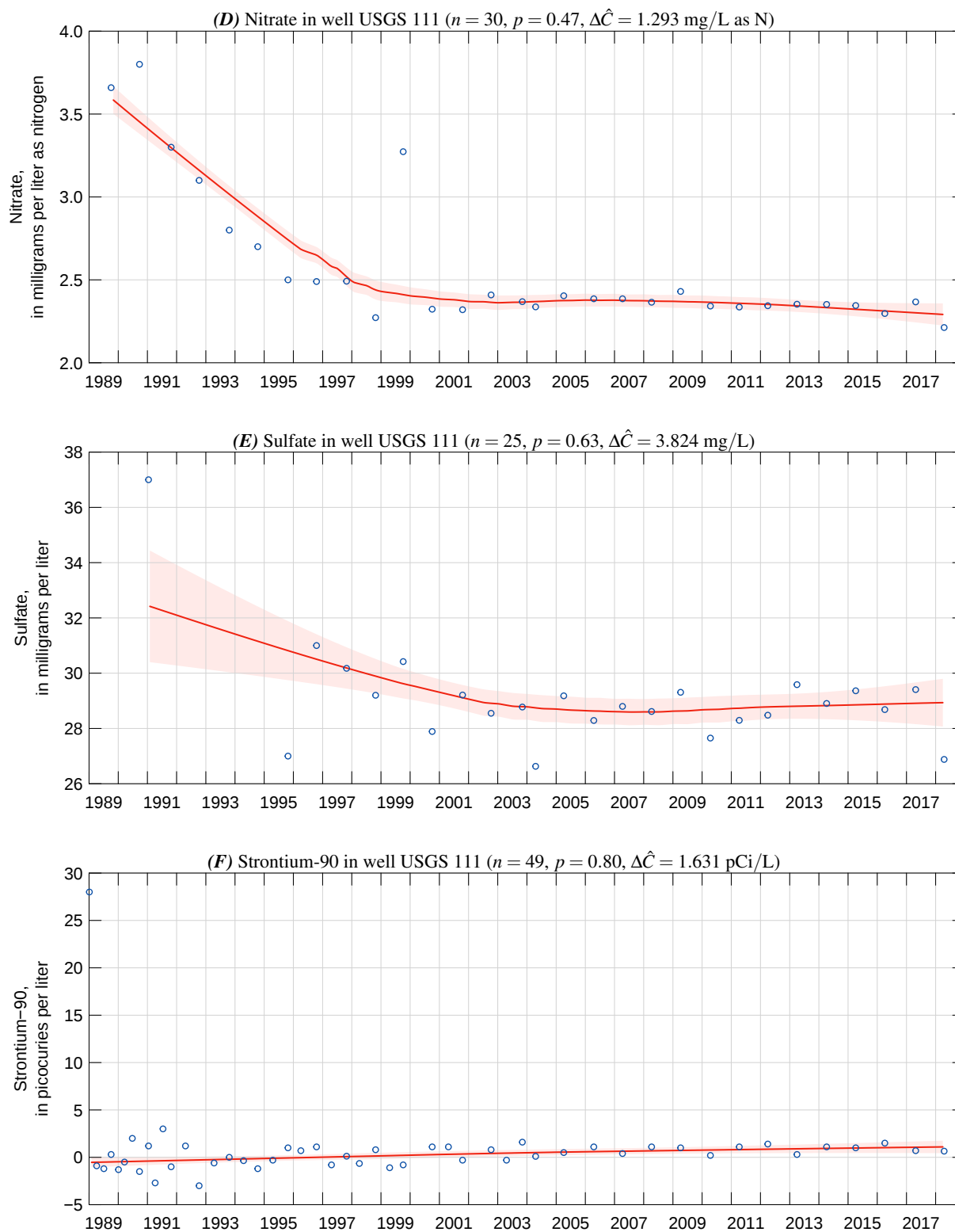


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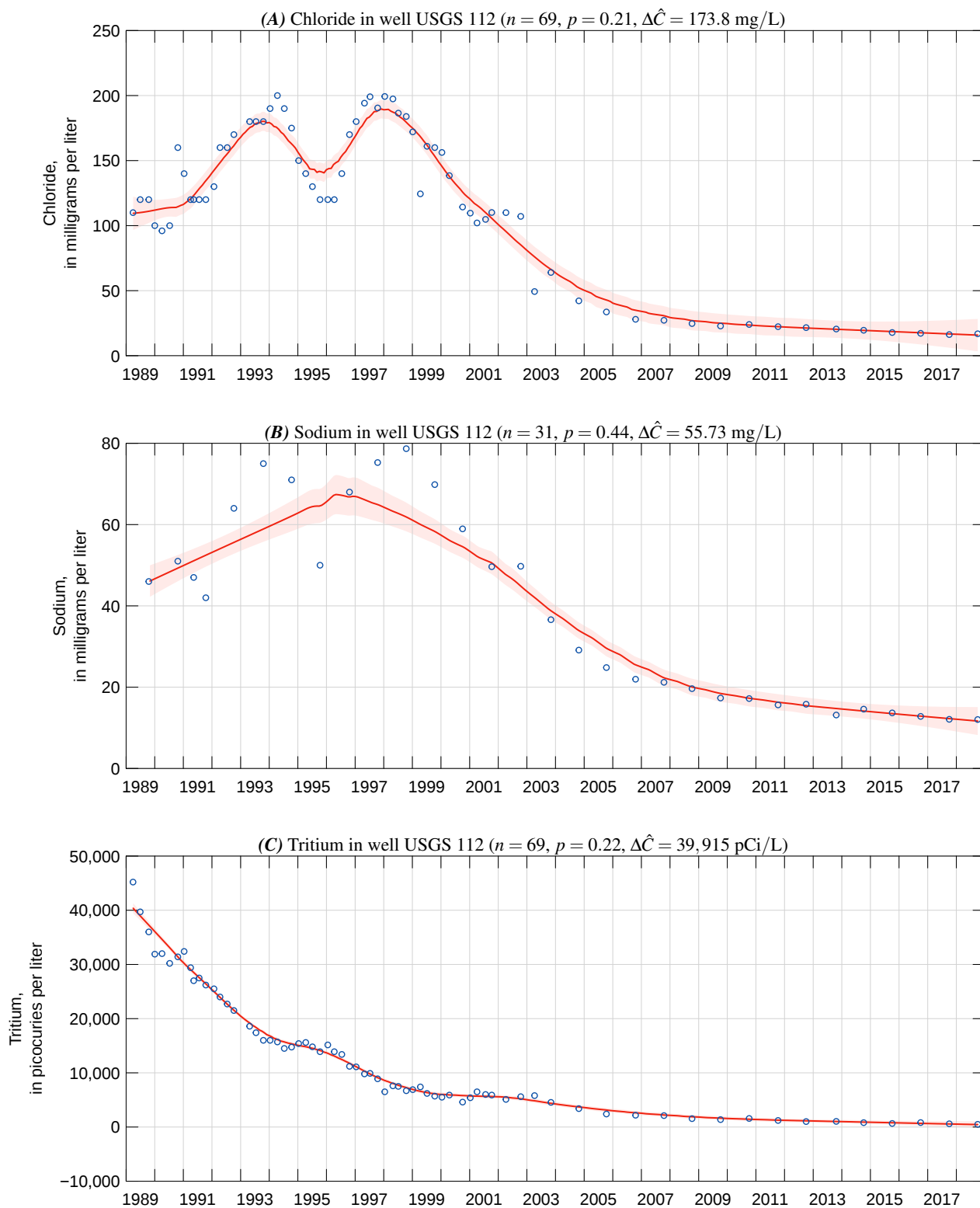


Figure 5.52. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 112 (Site No. 433314112563001), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

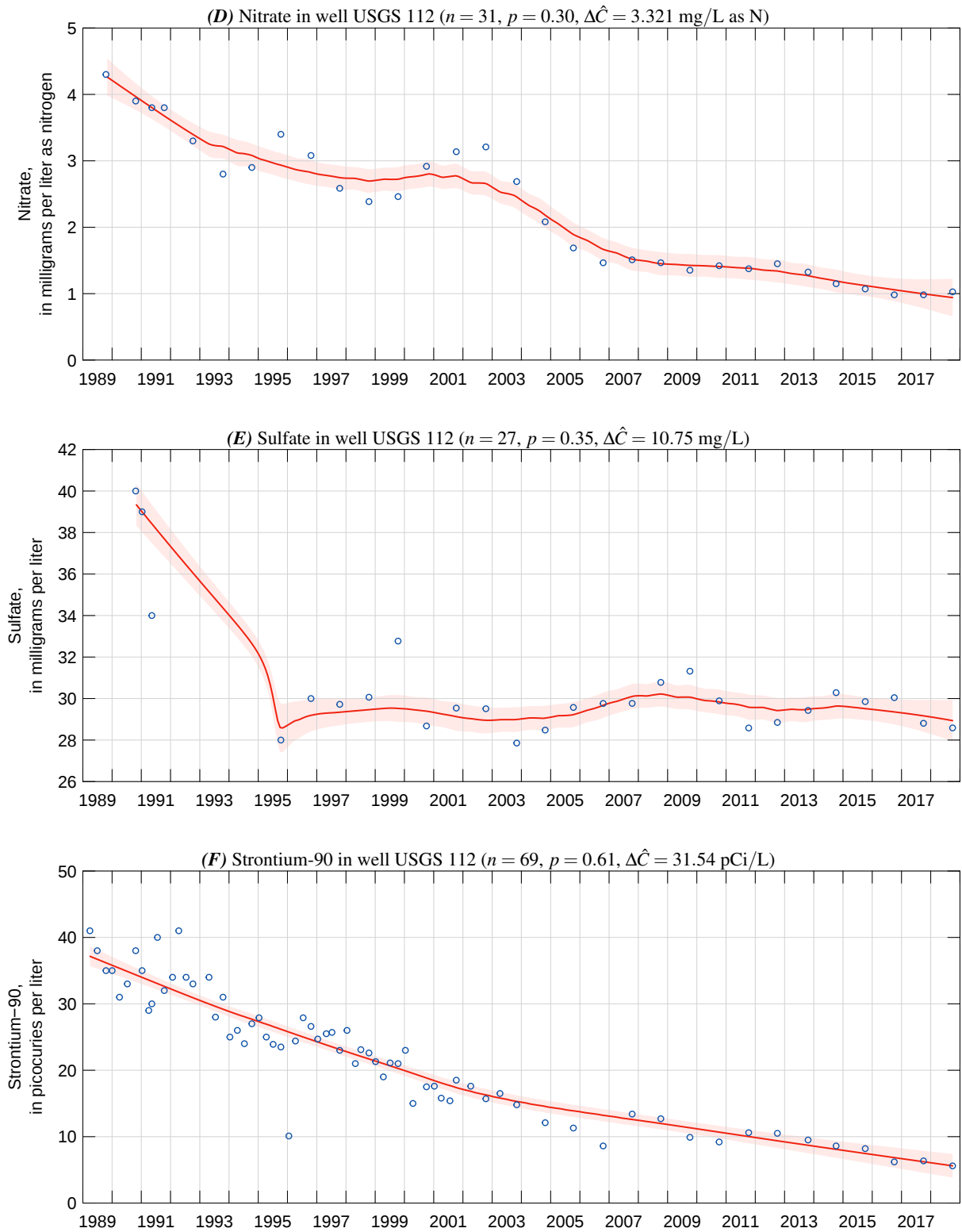


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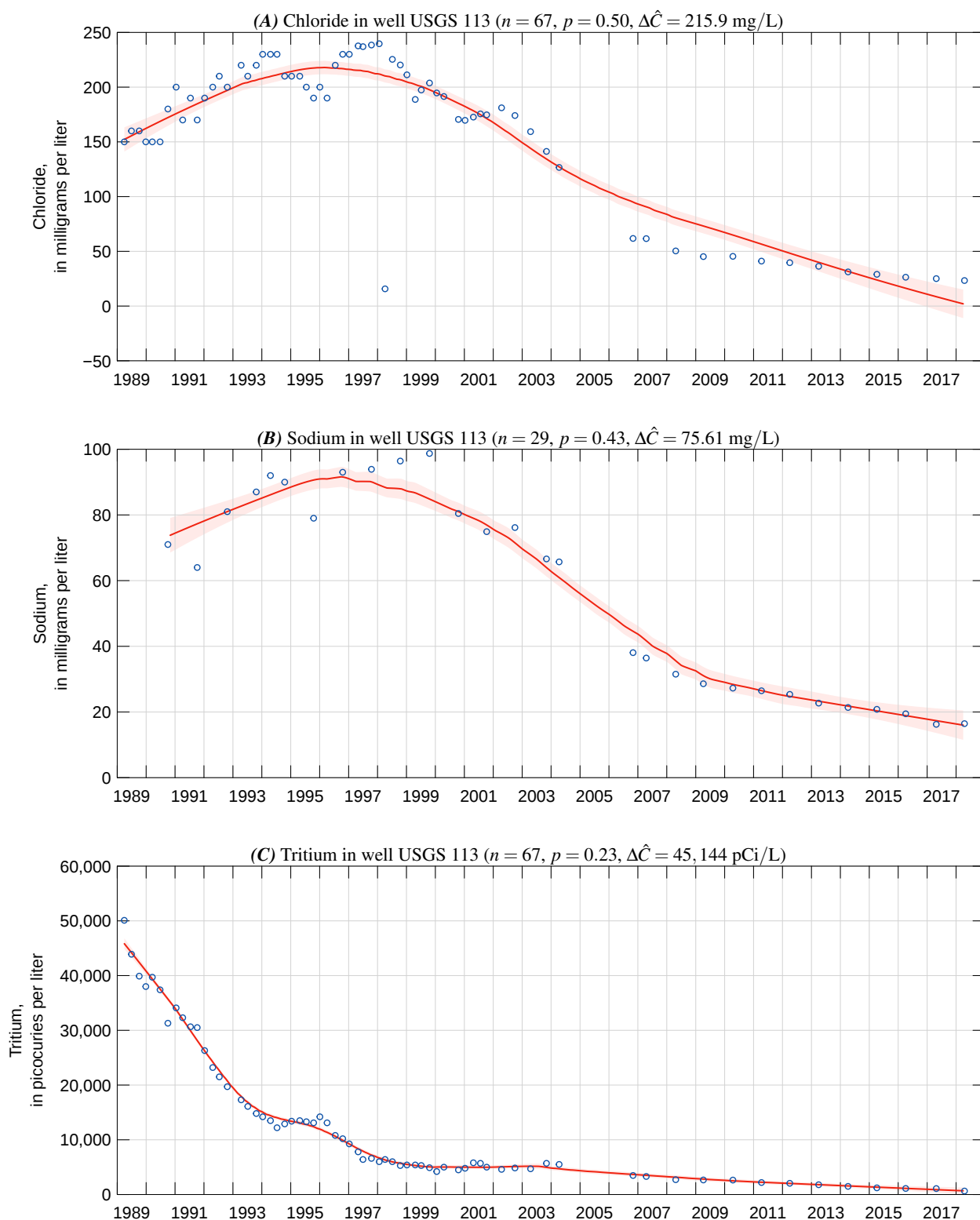


Figure 5.53. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, and (G) strontium-90 measured in water samples collected from well USGS 113 (Site No. 433314112561801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

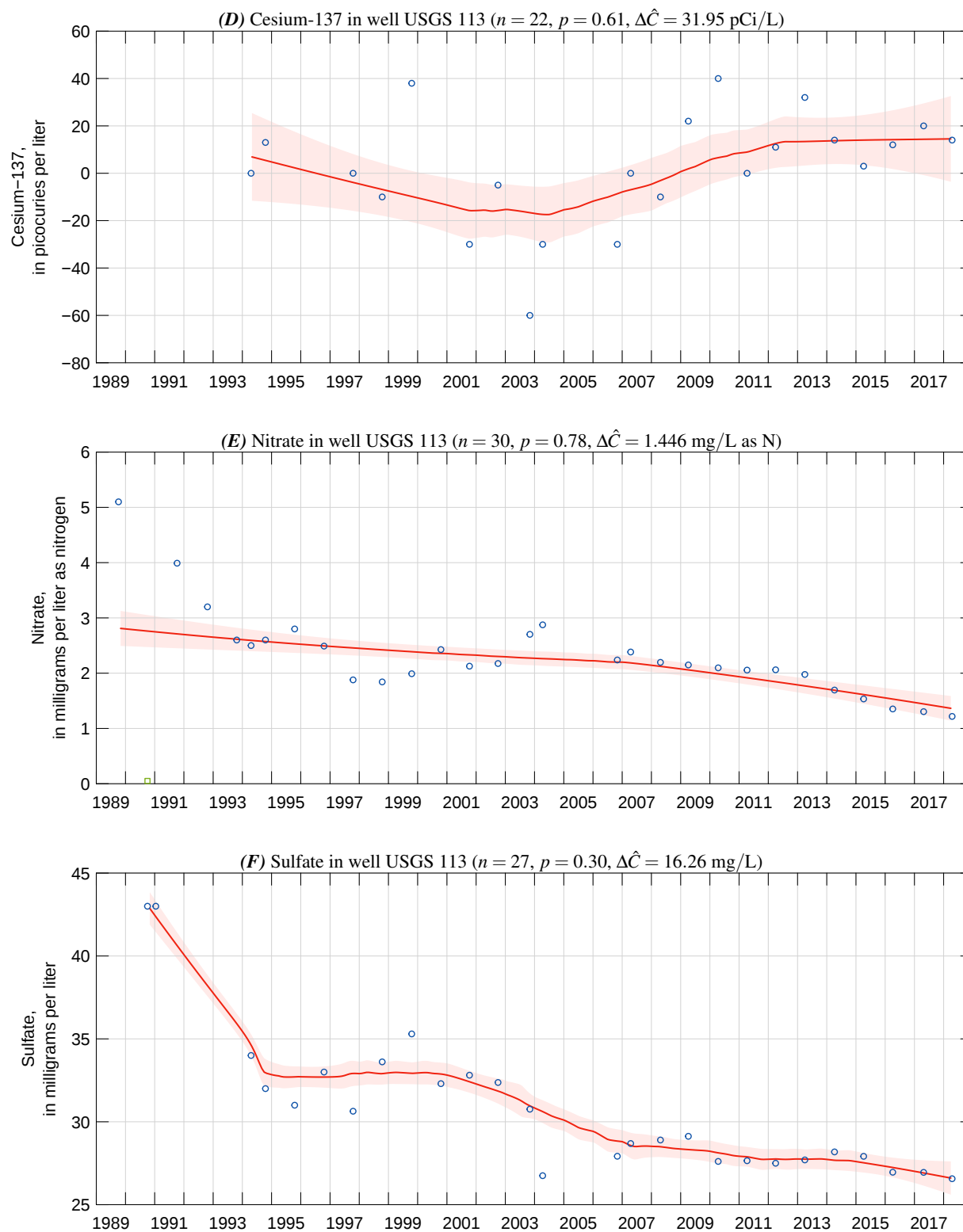


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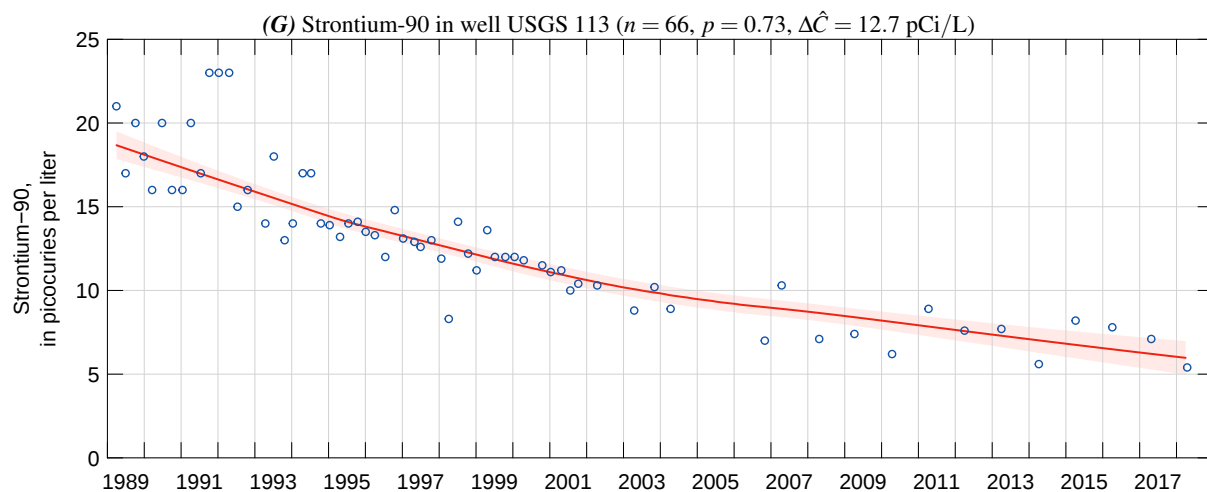


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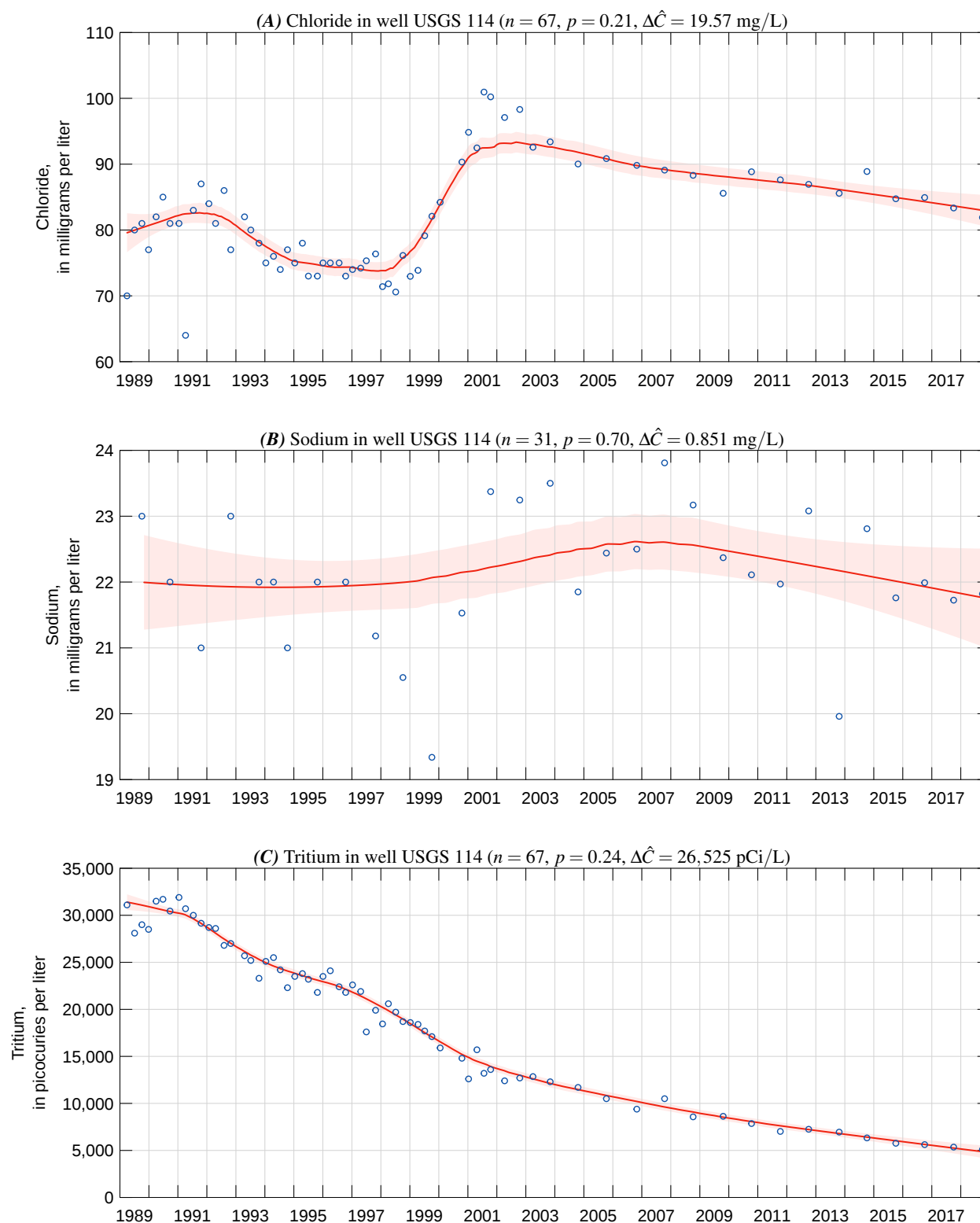


Figure 5.54. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 114 (Site No. 433318112555001), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

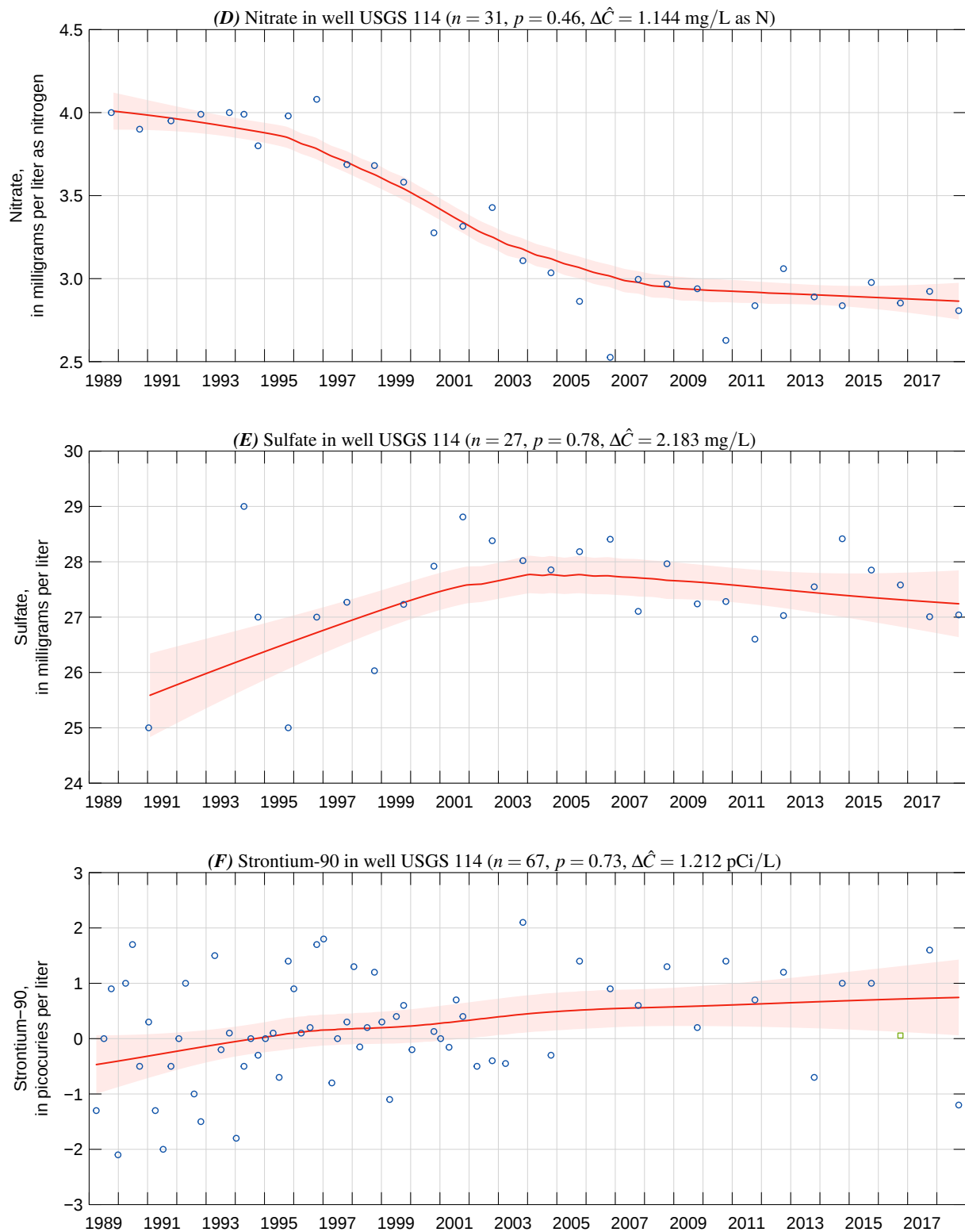


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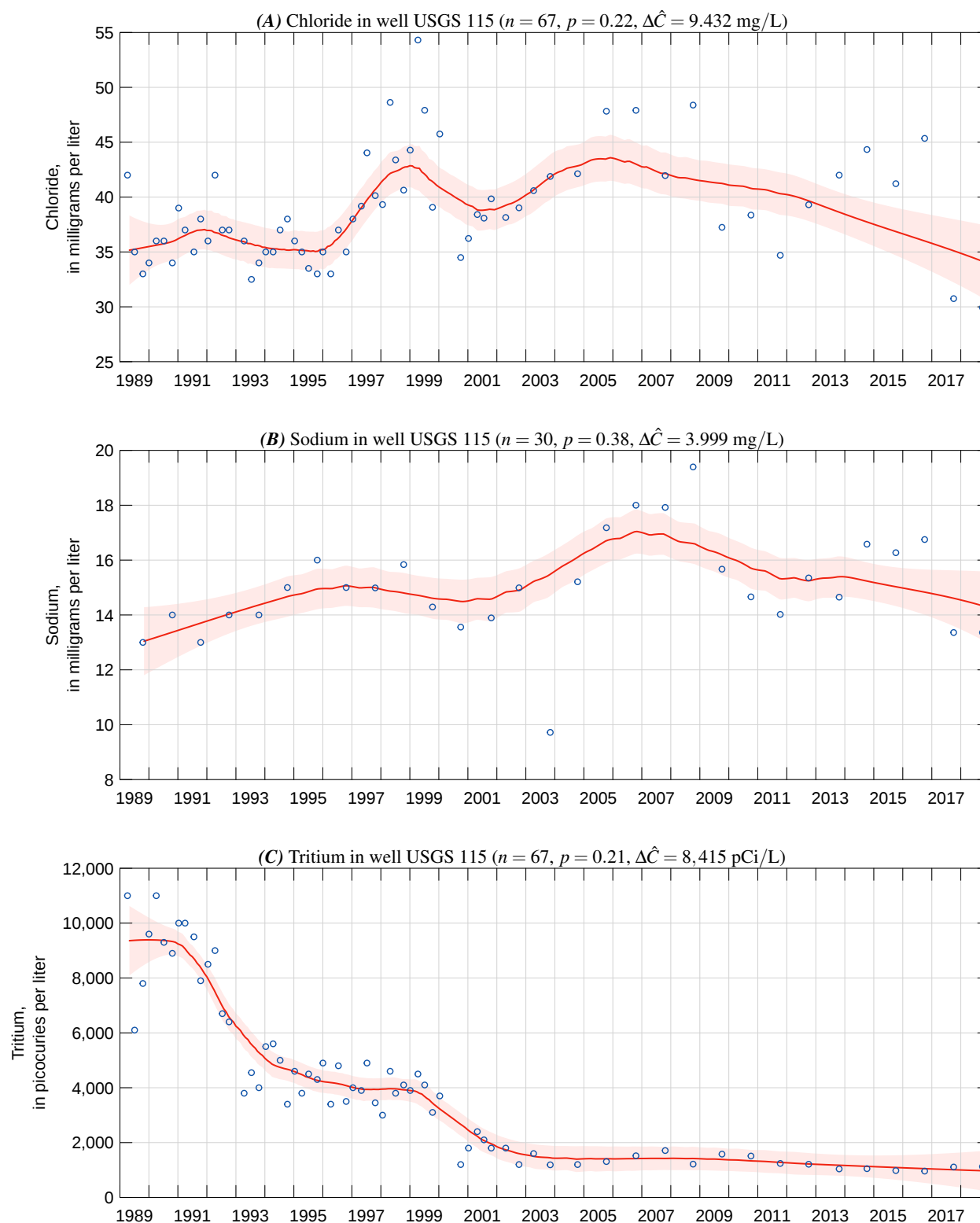


Figure 5.55. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 115 (Site No. 433320112554101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

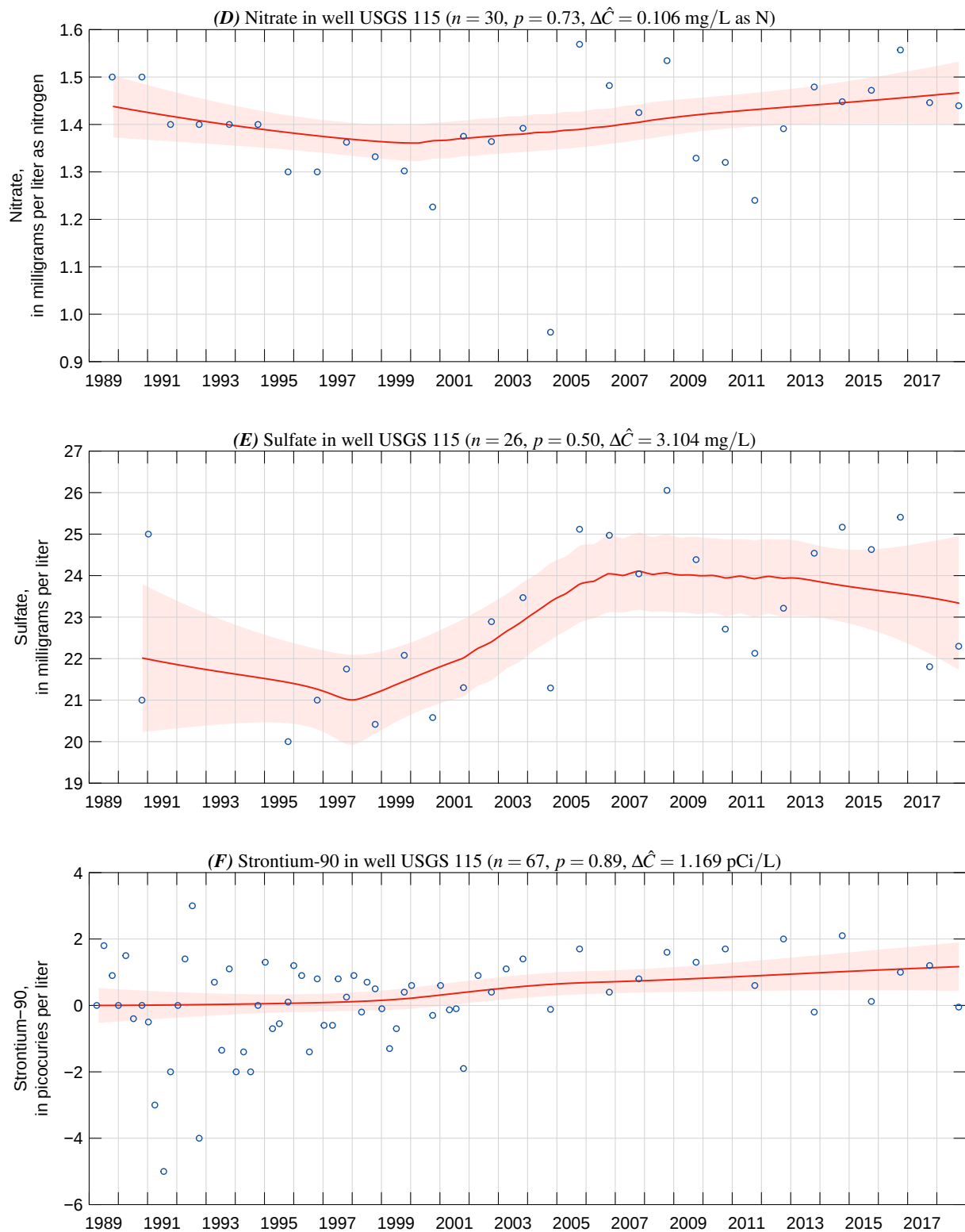


Figure 5.55. —Continued

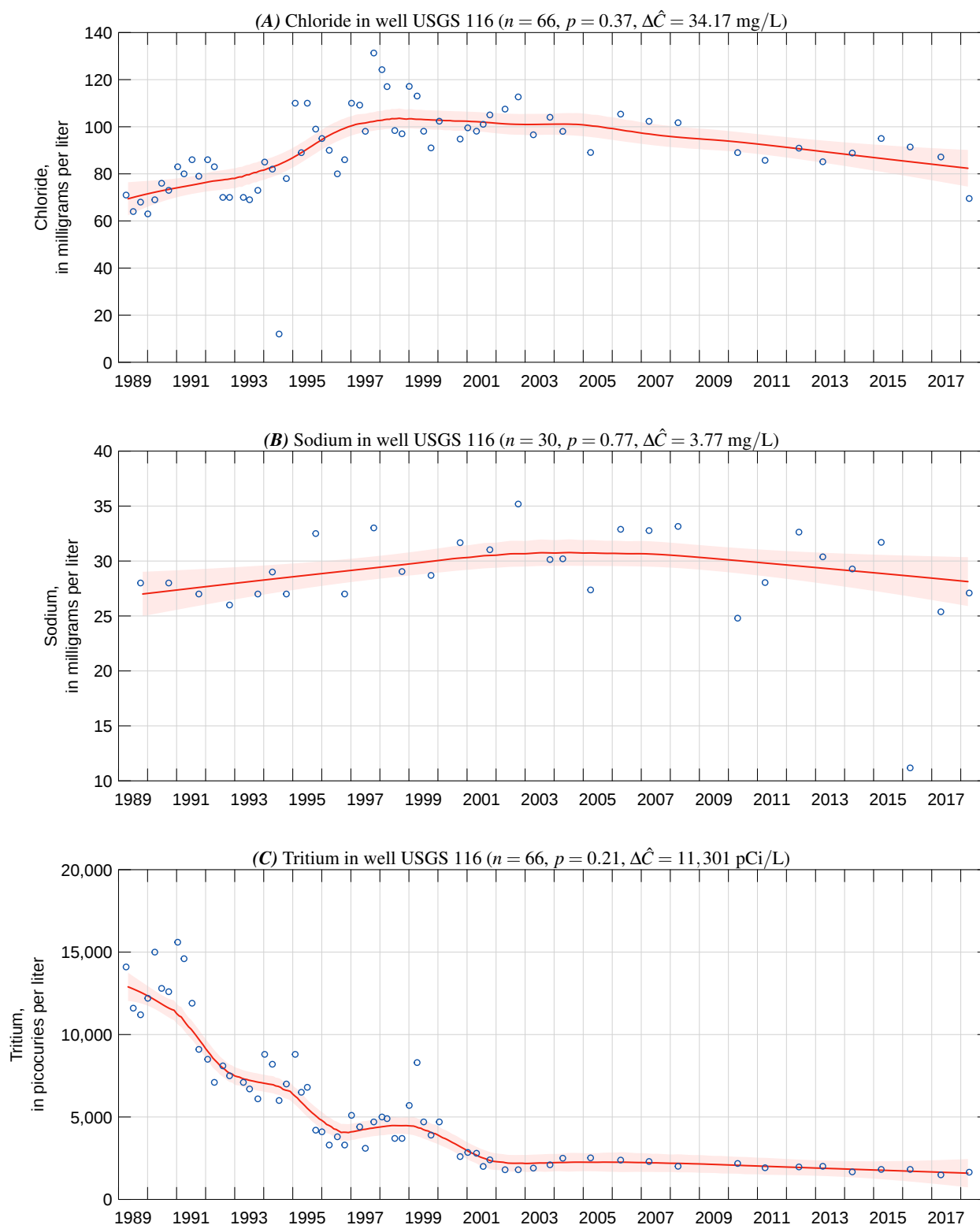


Figure 5.56. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 116 (Site No. 433331112553201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

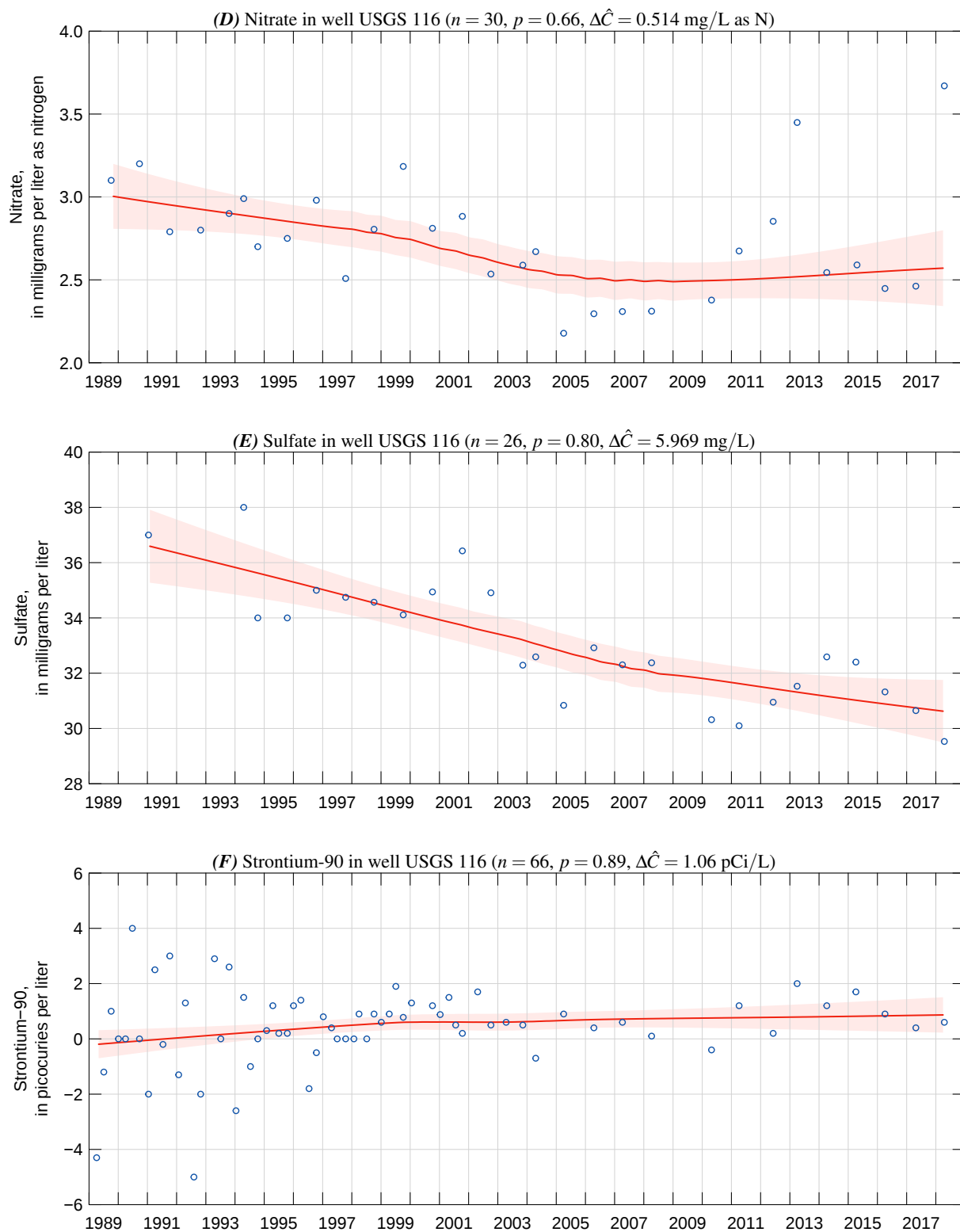


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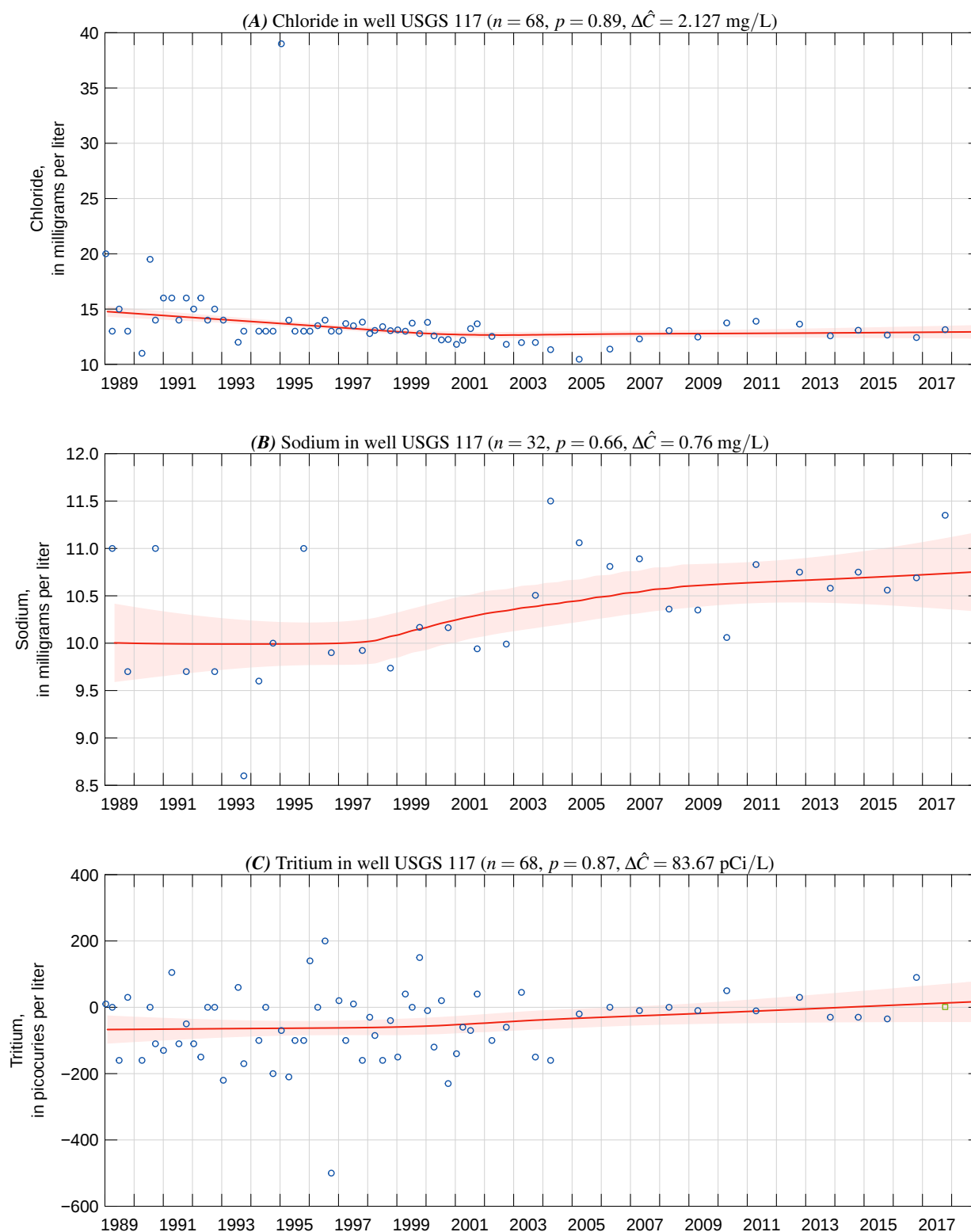


Figure 5.57. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, (N) trichloroethylene, (O) strontium-90, and (P) plutonium-238 measured in water samples collected from well USGS 117 (Site No. 432955113025901), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

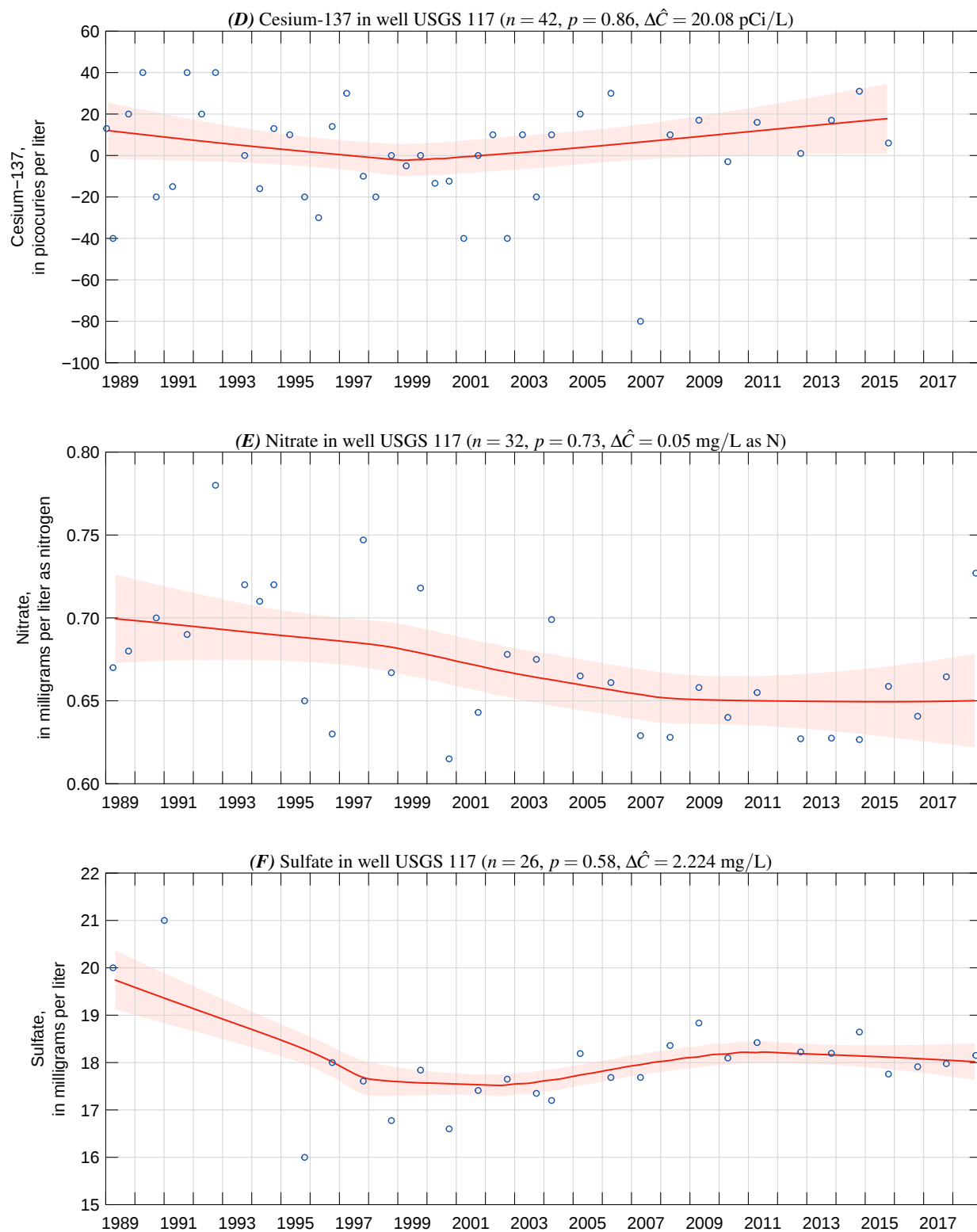


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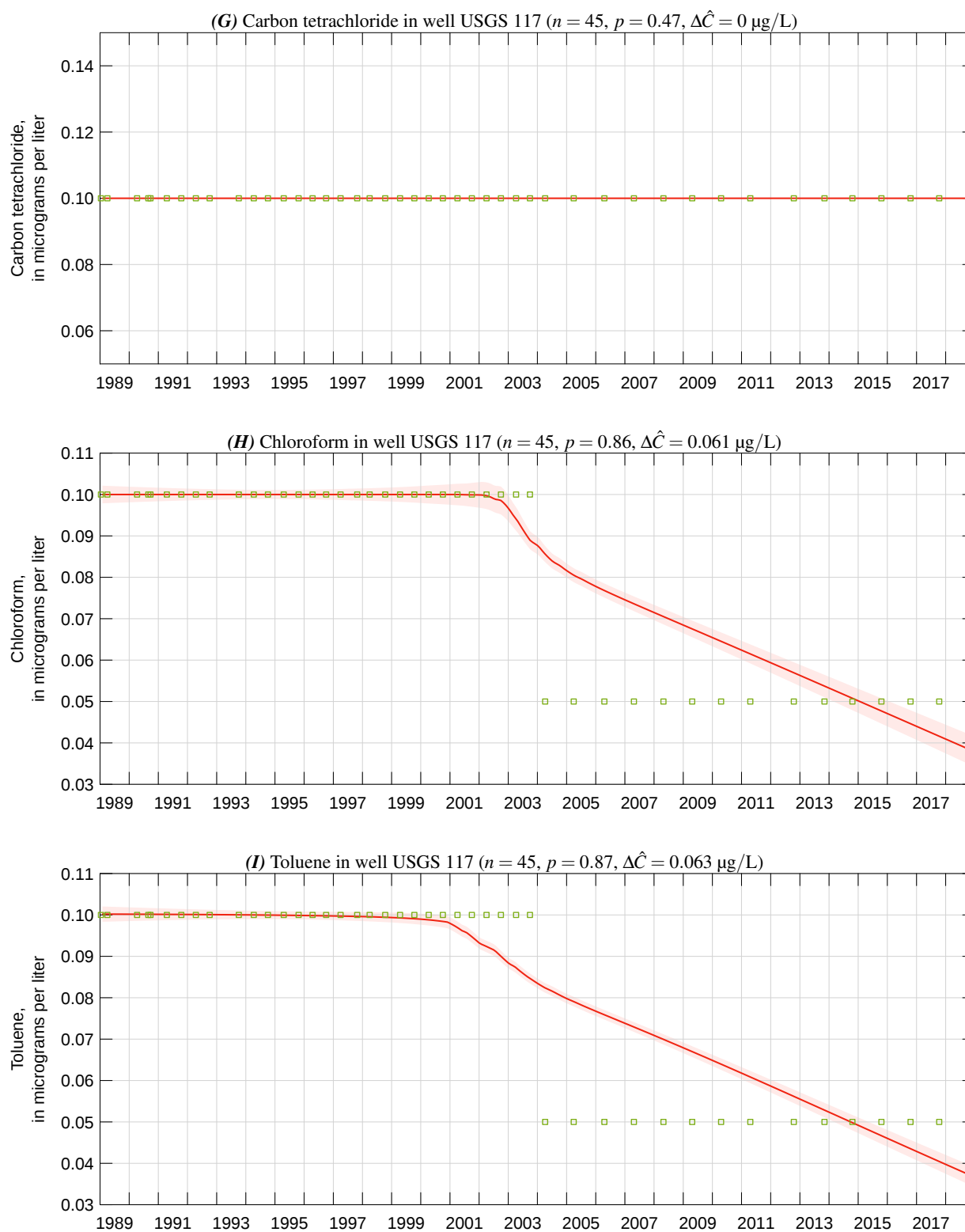


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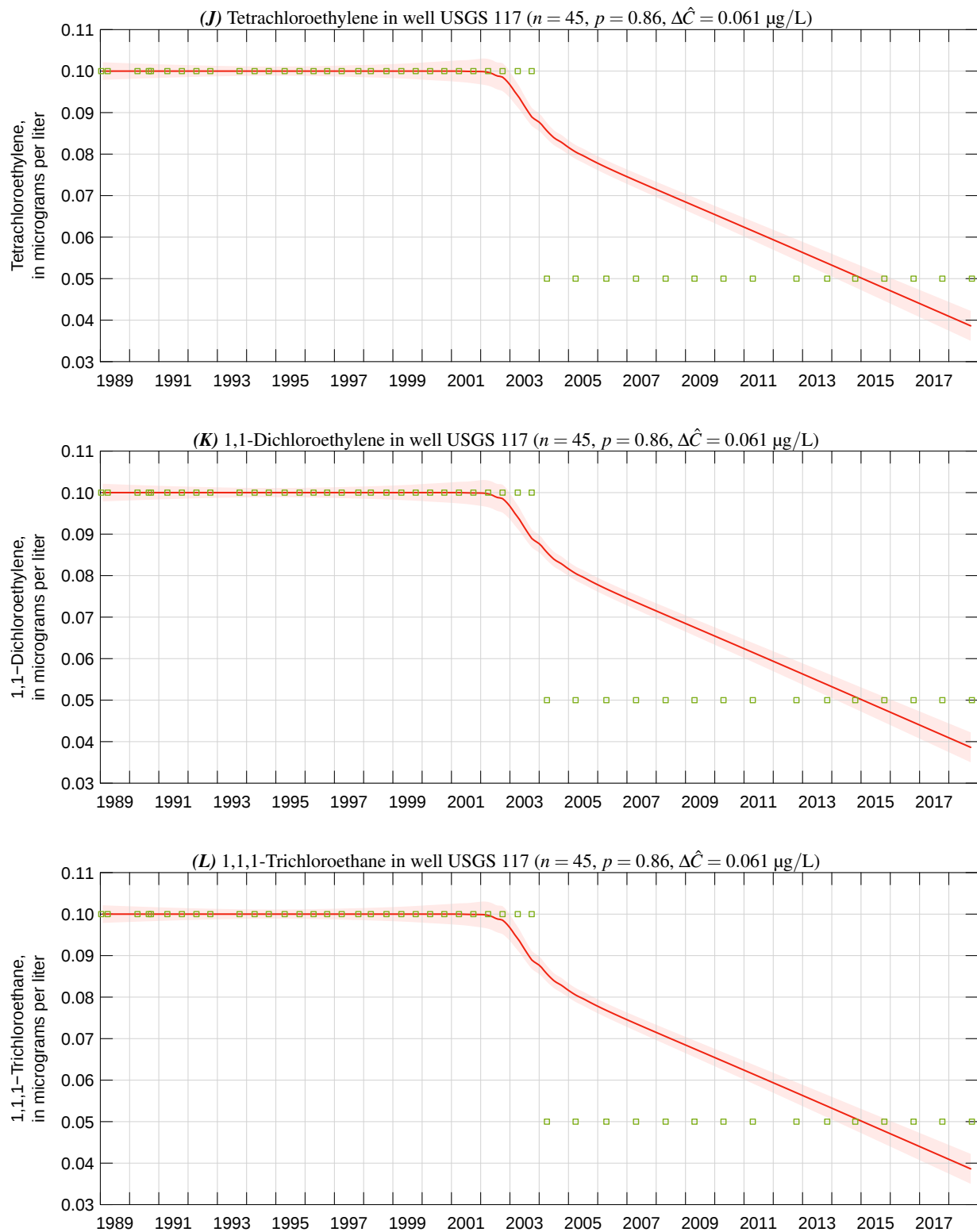
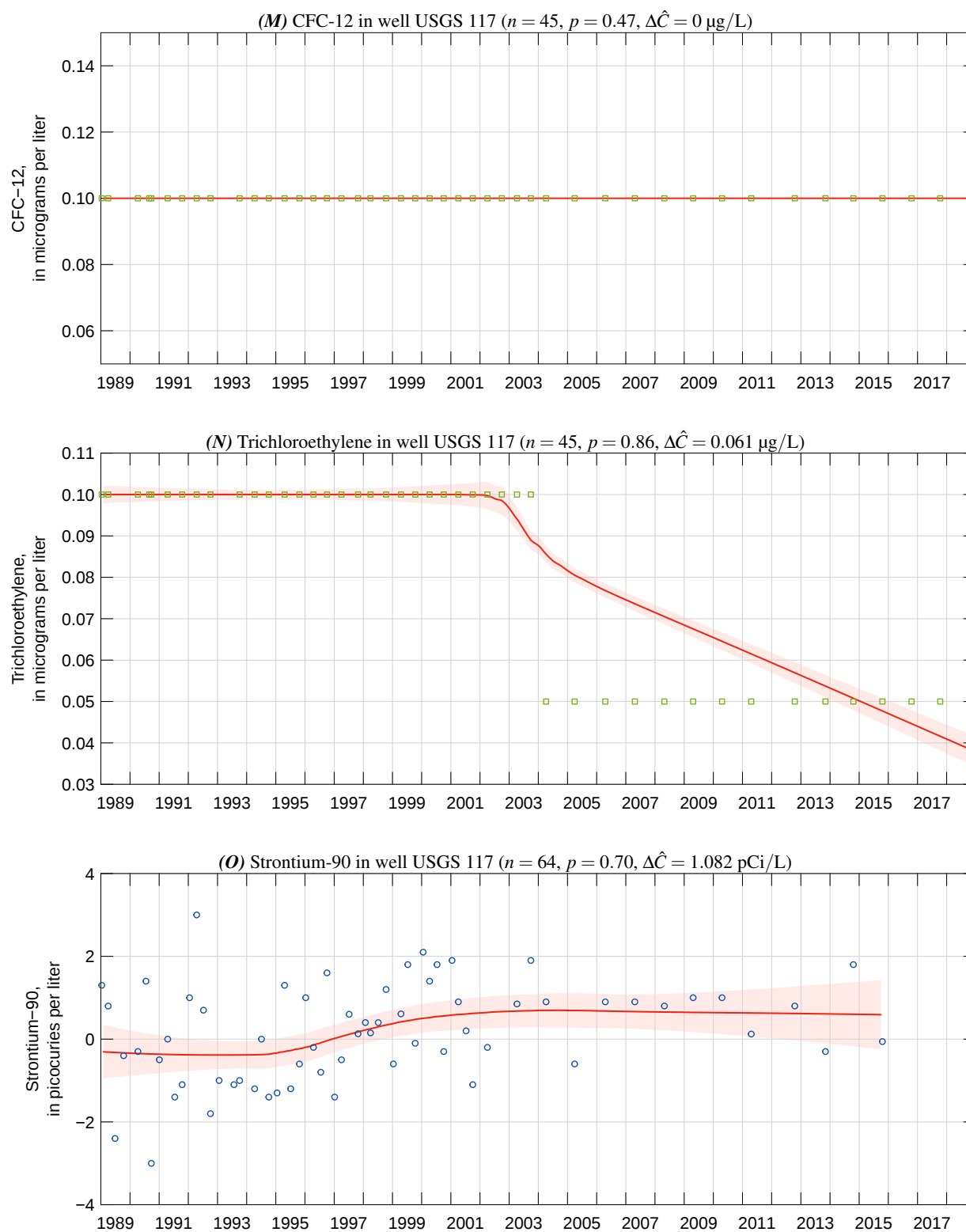


Figure 5.57. —Continued



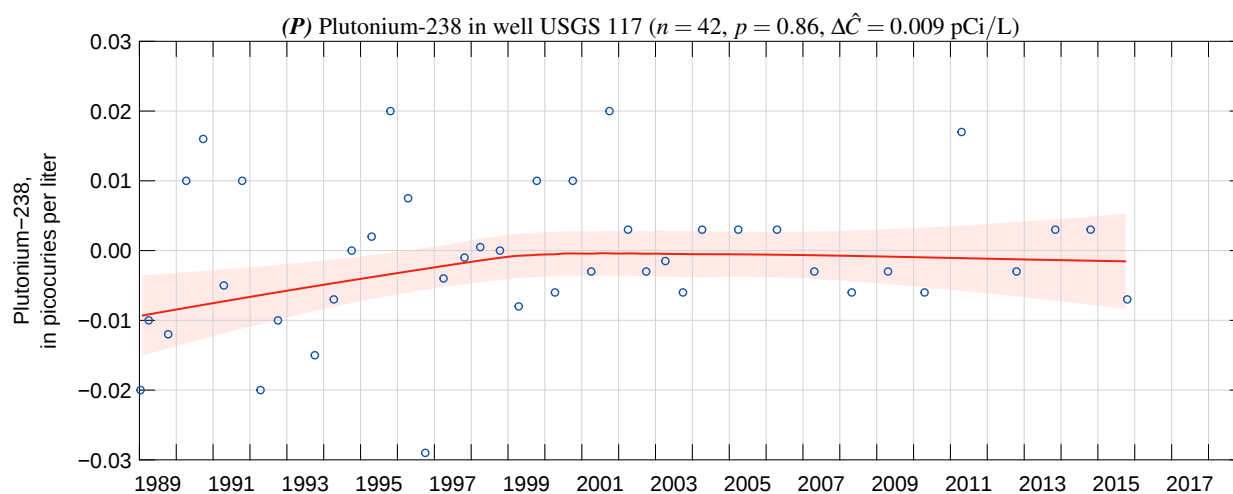


Figure 5.57. —Continued

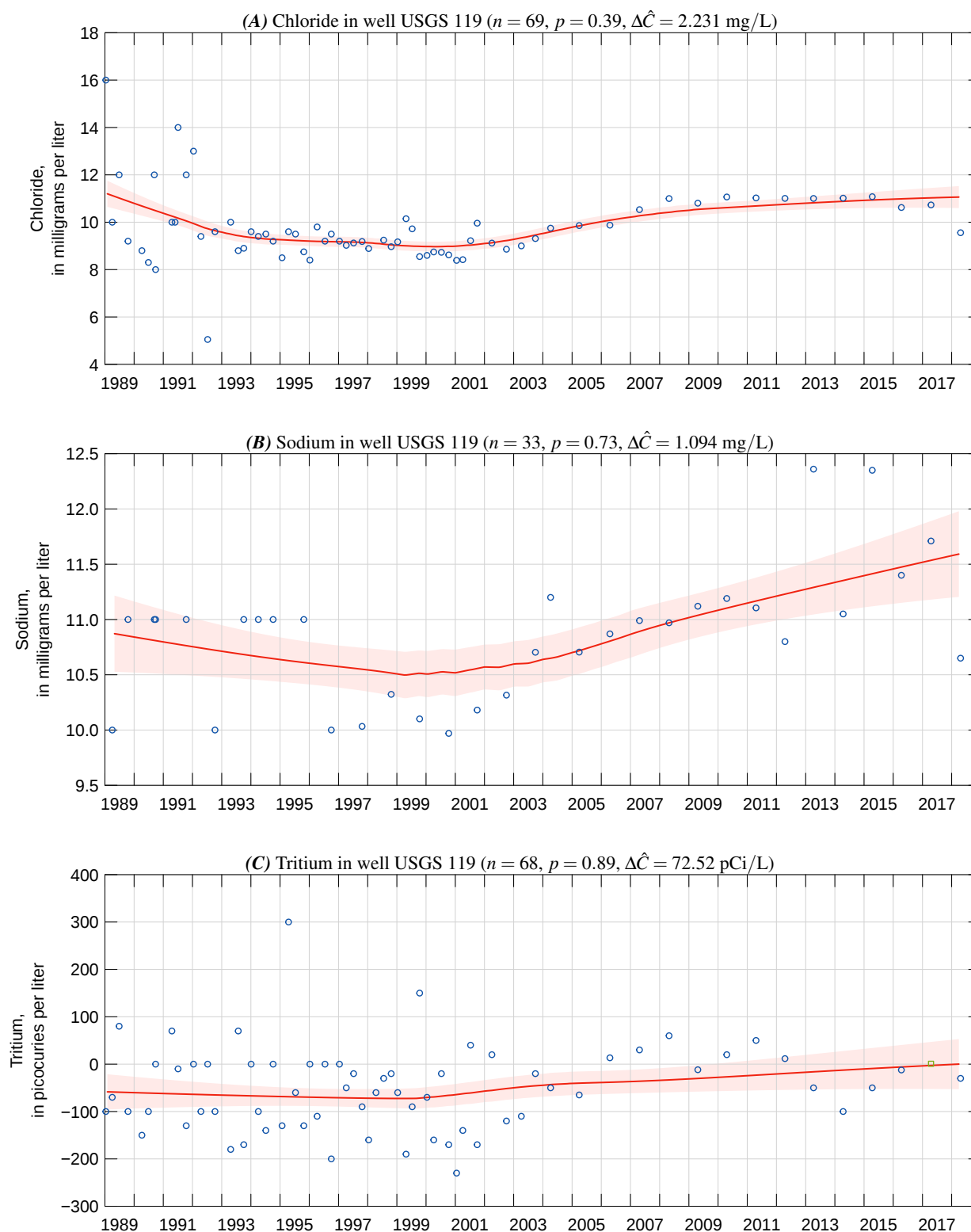


Figure 5.58. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, (N) trichloroethylene, (O) strontium-90, and (P) plutonium-238 measured in water samples collected from well USGS 119 (Site No. 432945113023401), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

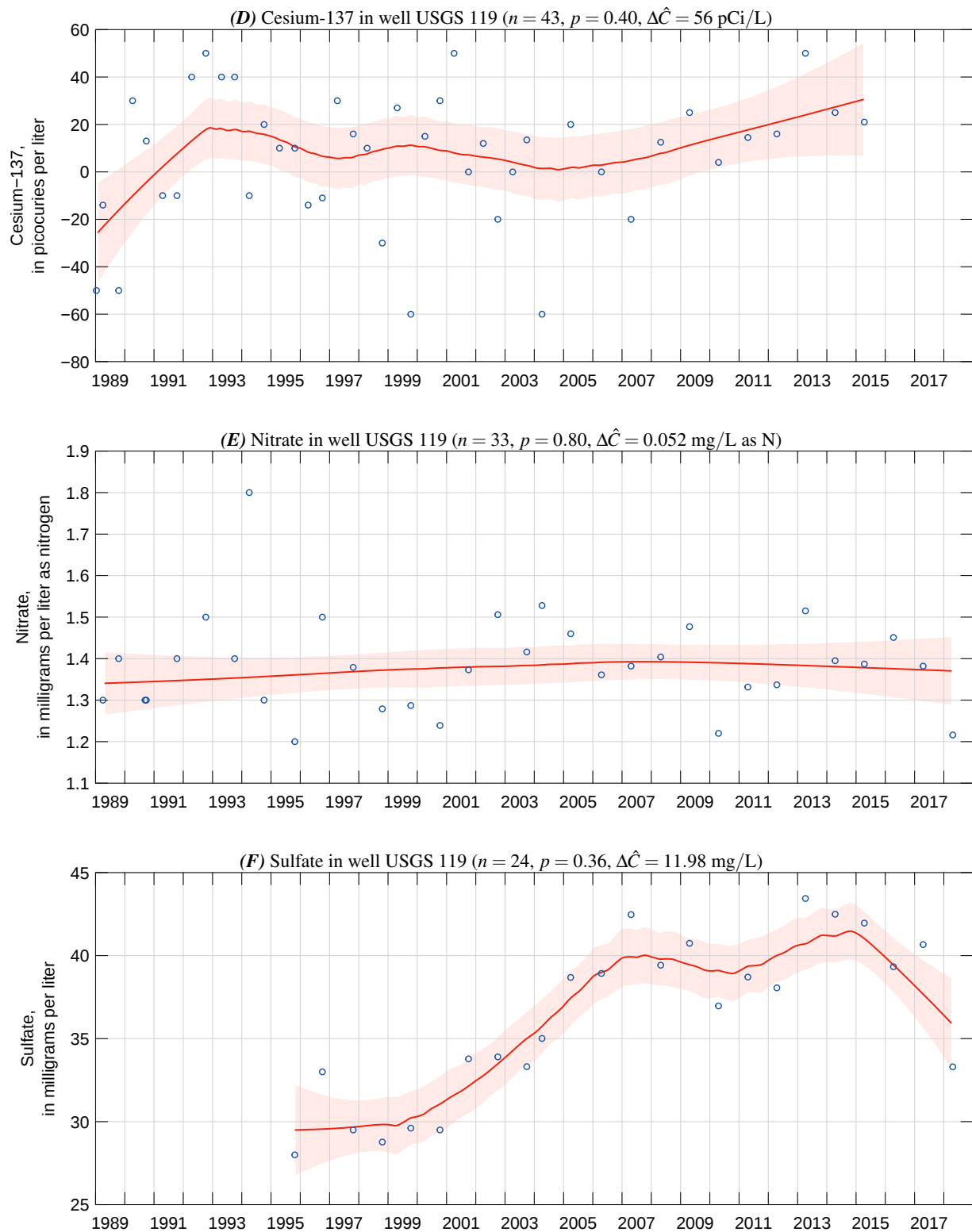


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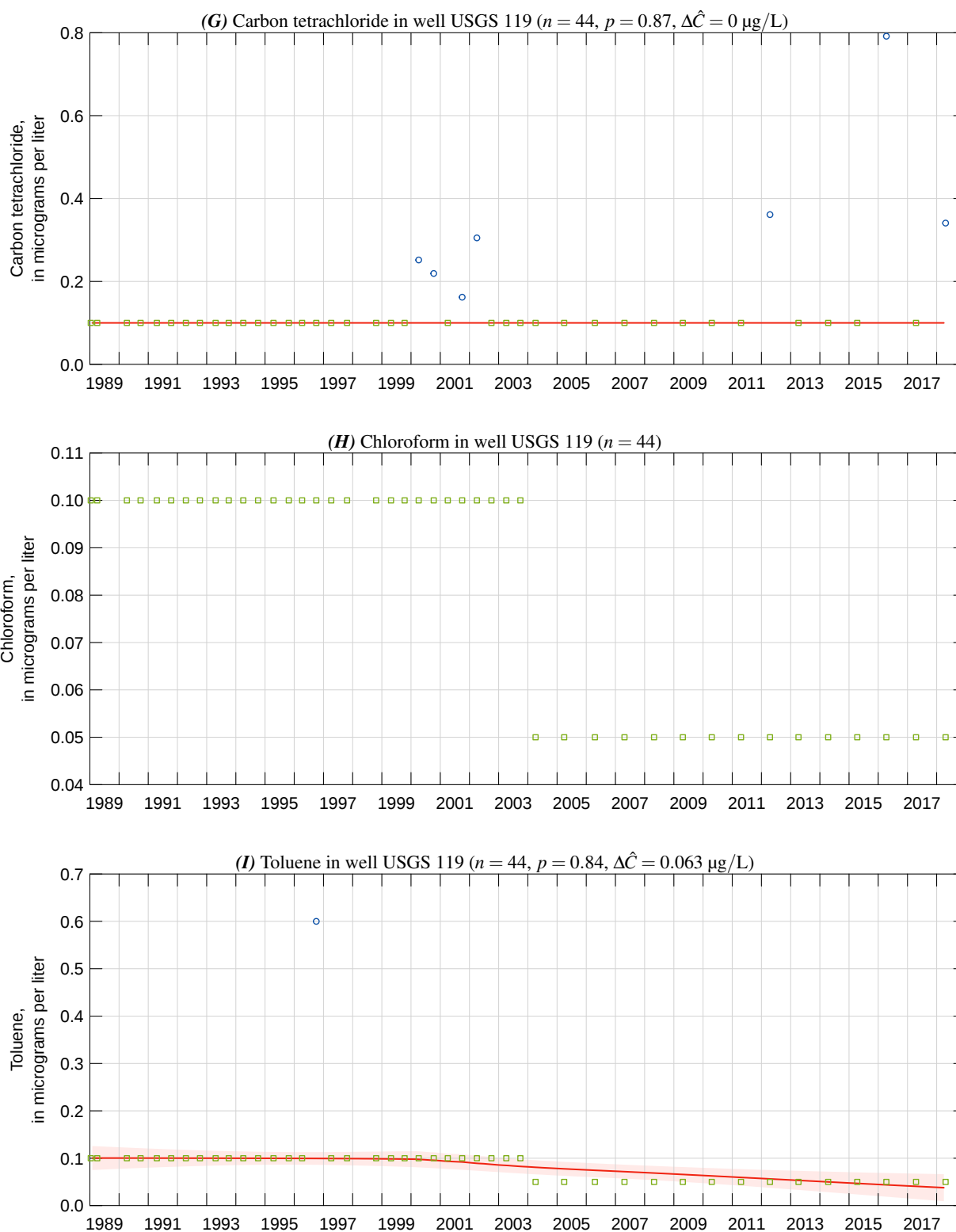


Figure 5.58. —Continued

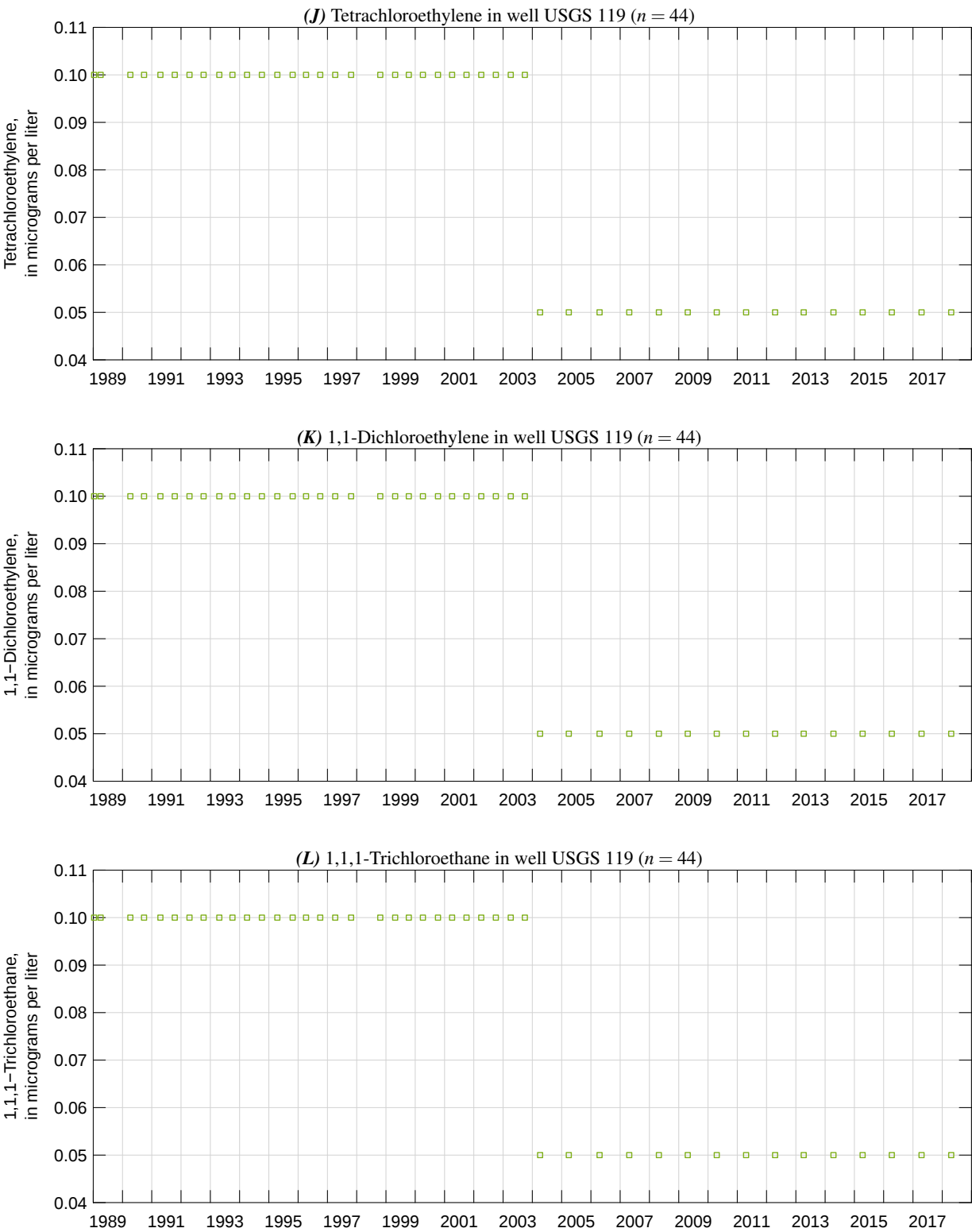


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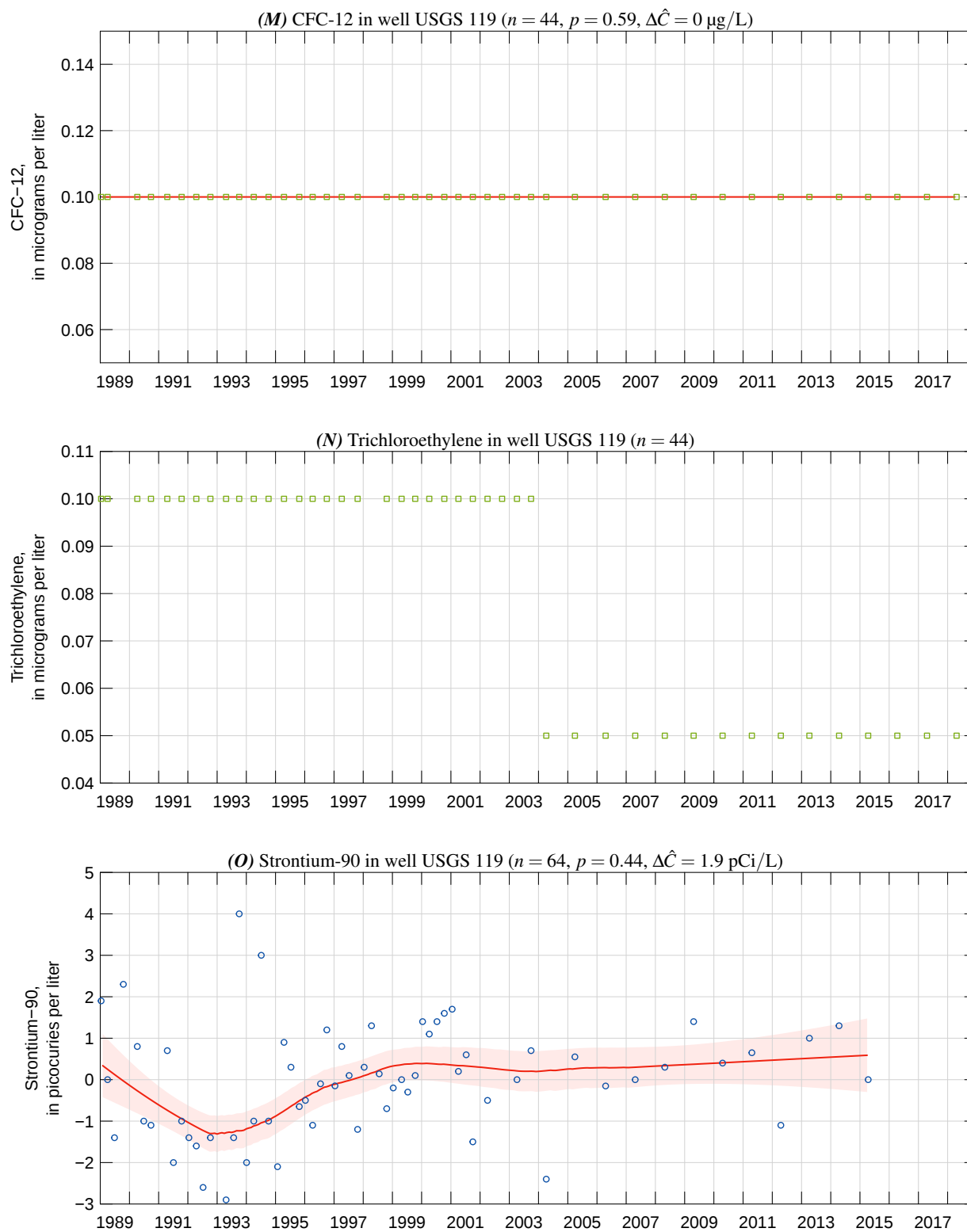


Figure 5.58. —Continued

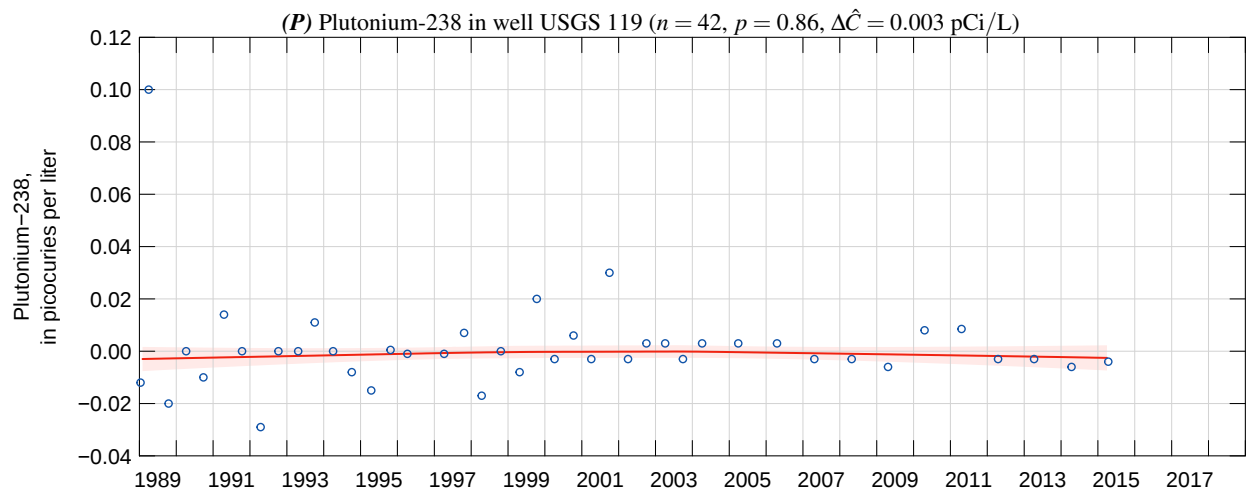


Figure 5.58. —Continued

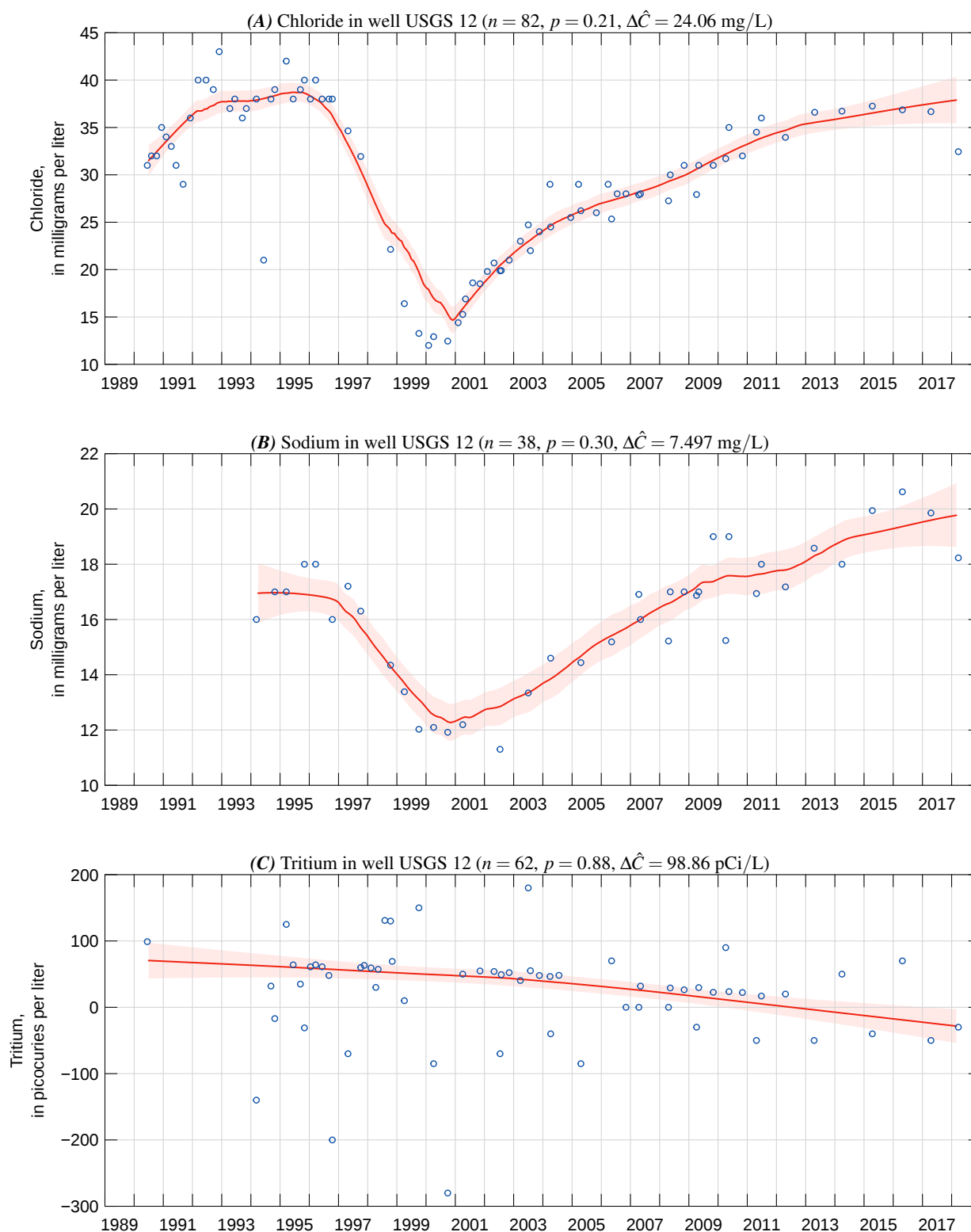


Figure 5.59. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) chromium, (H) carbon tetrachloride, (I) chloroform, (J) toluene, (K) tetrachloroethylene, (L) 1,1-dichloroethylene, (M) 1,1,1-trichloroethane, (N) cfc-12, and (O) trichloroethylene measured in water samples collected from well USGS 12 (Site No. 434126112550701), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

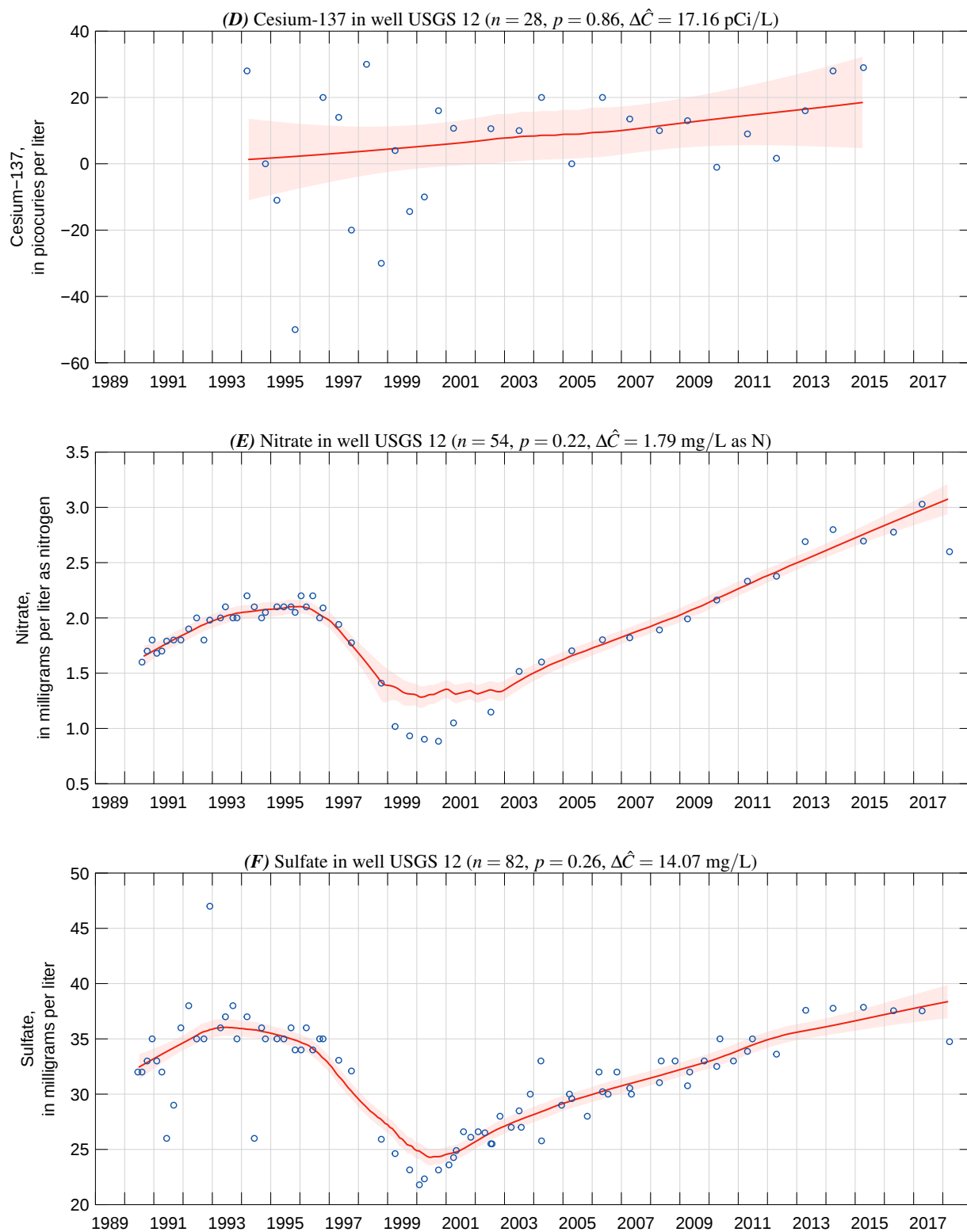


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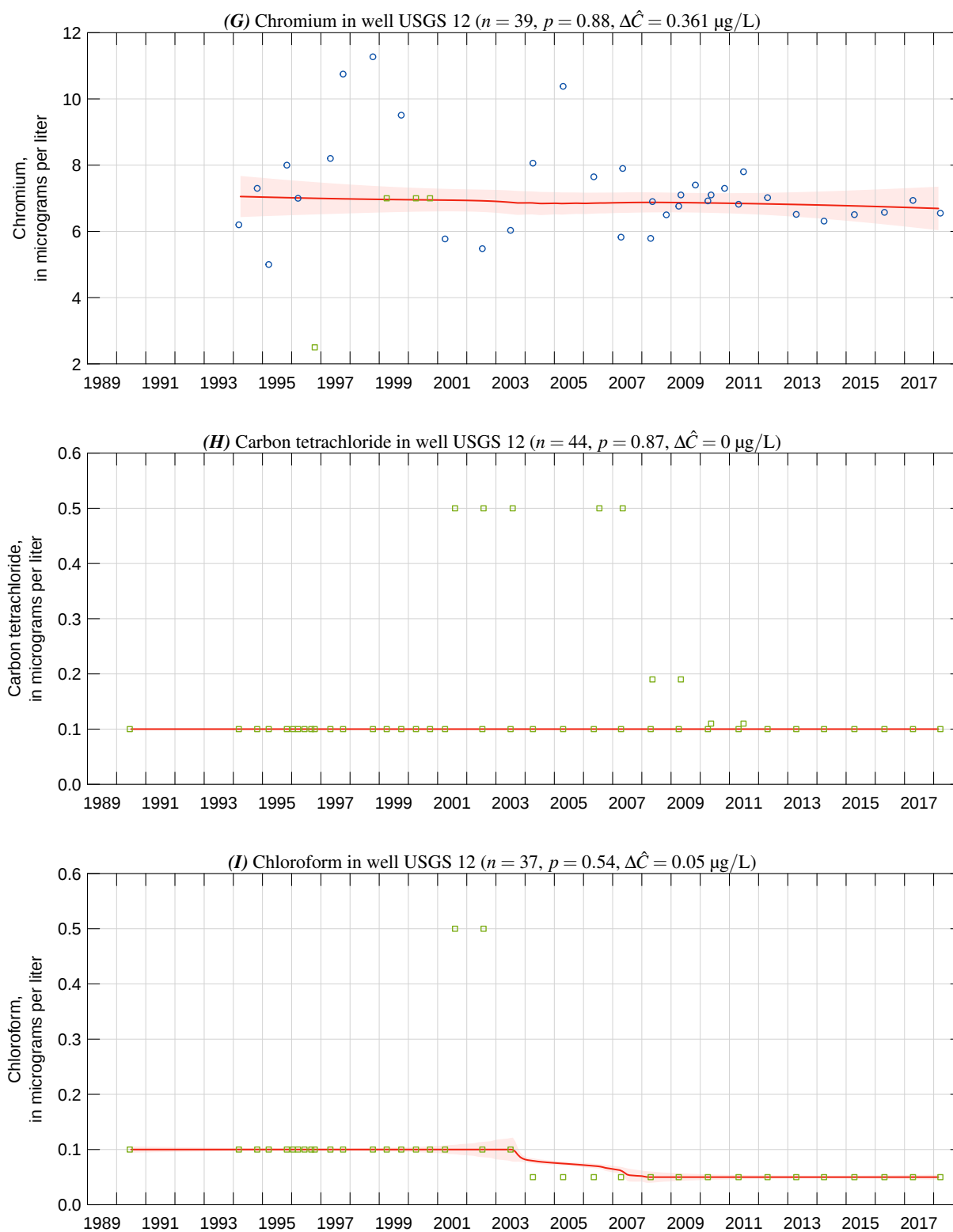


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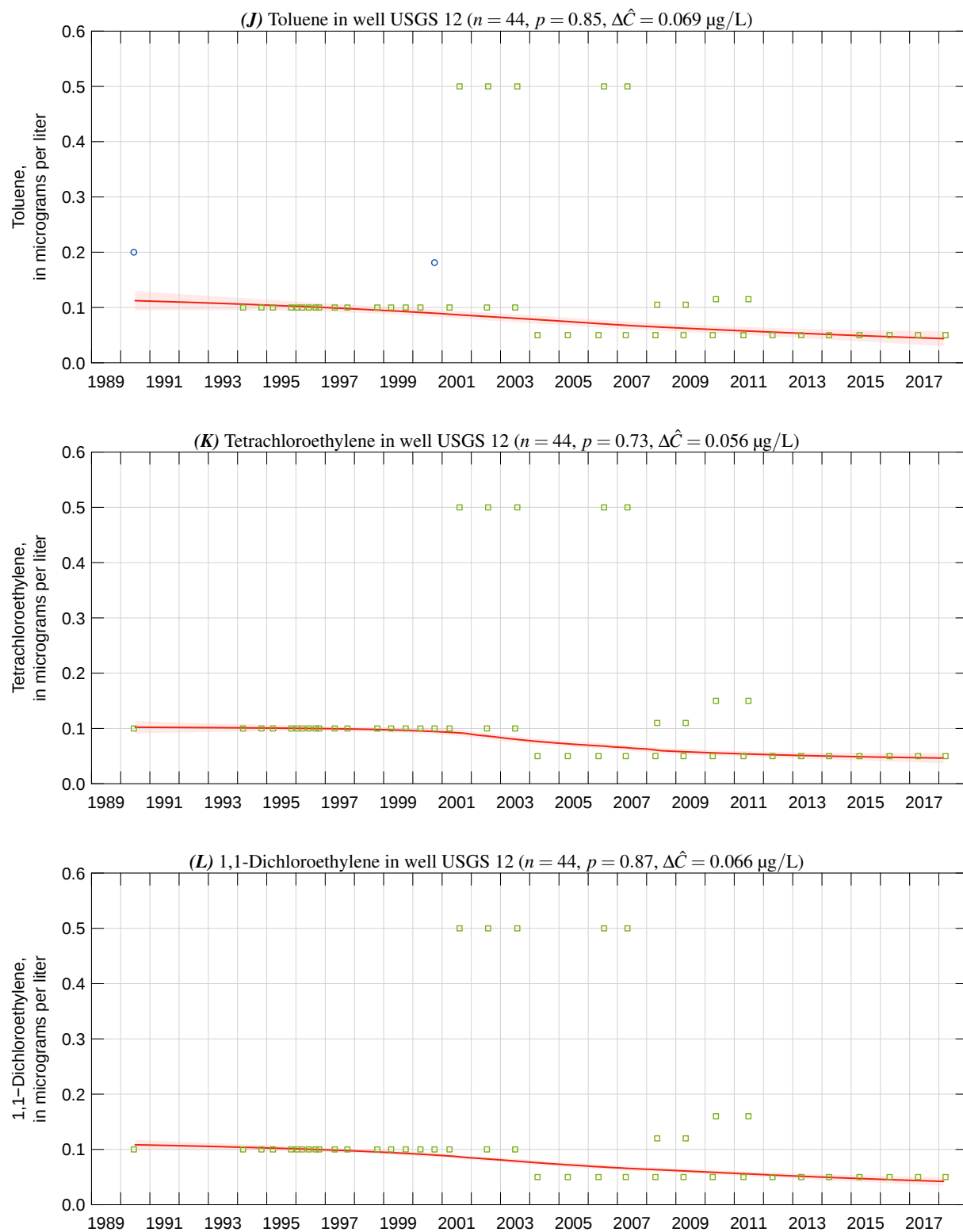


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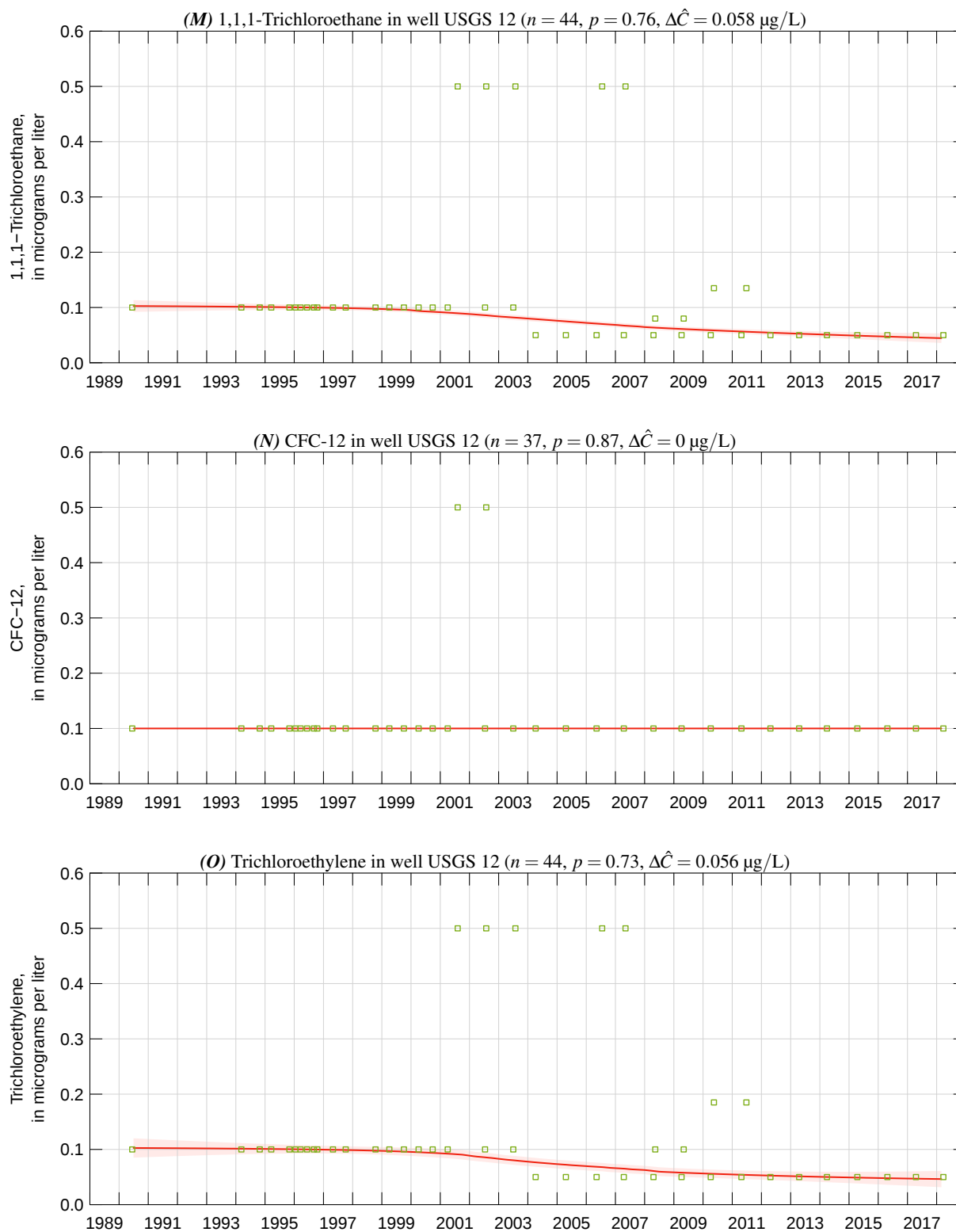


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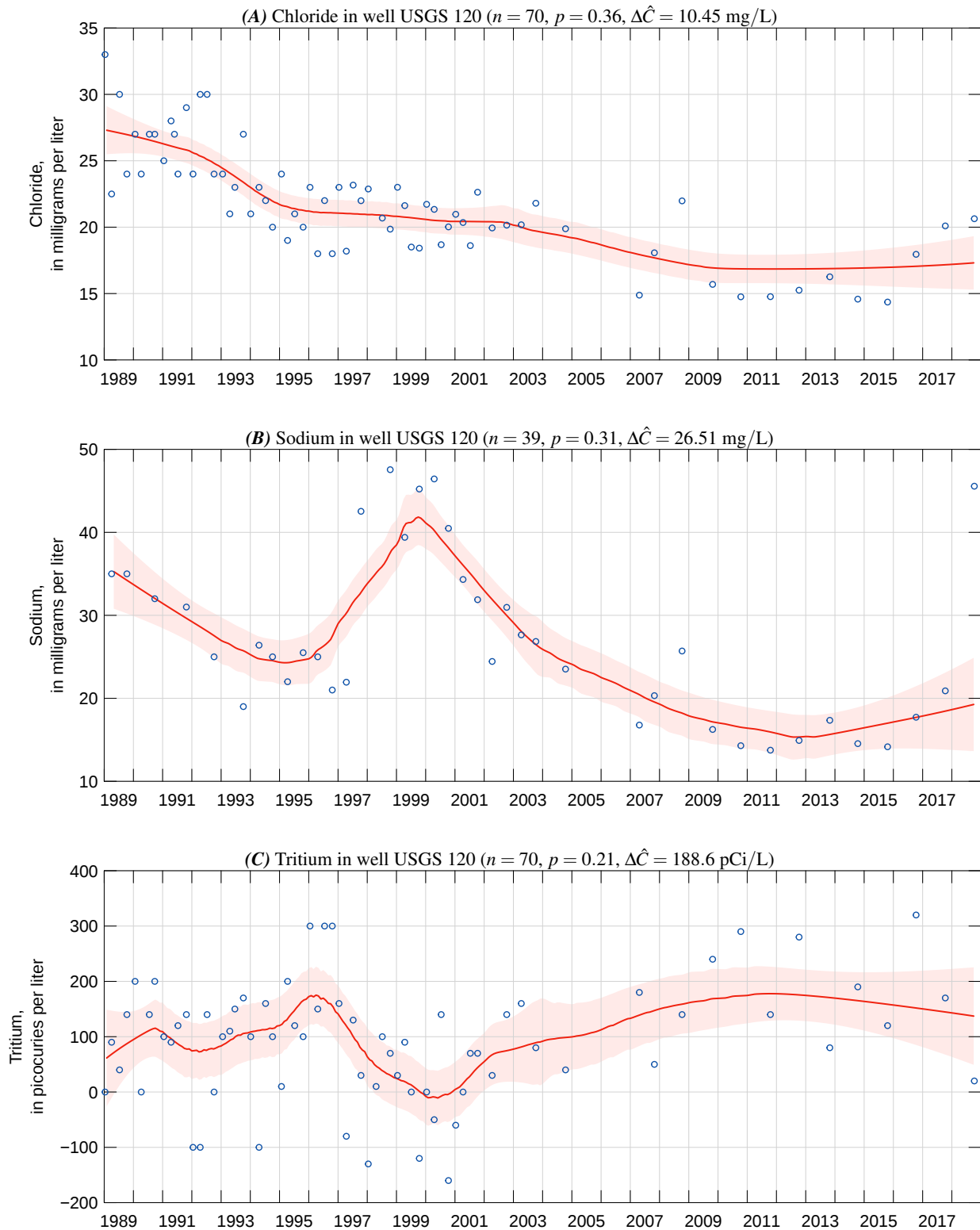


Figure 5.60. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) chromium, (H) carbon tetrachloride, (I) chloroform, (J) toluene, (K) tetrachloroethylene, (L) 1,1-dichloroethylene, (M) 1,1,1-trichloroethane, (N) cfc-12, (O) trichloroethylene, (P) strontium-90, and (Q) plutonium-238 measured in water samples collected from well USGS 120 (Site No. 432919113031501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

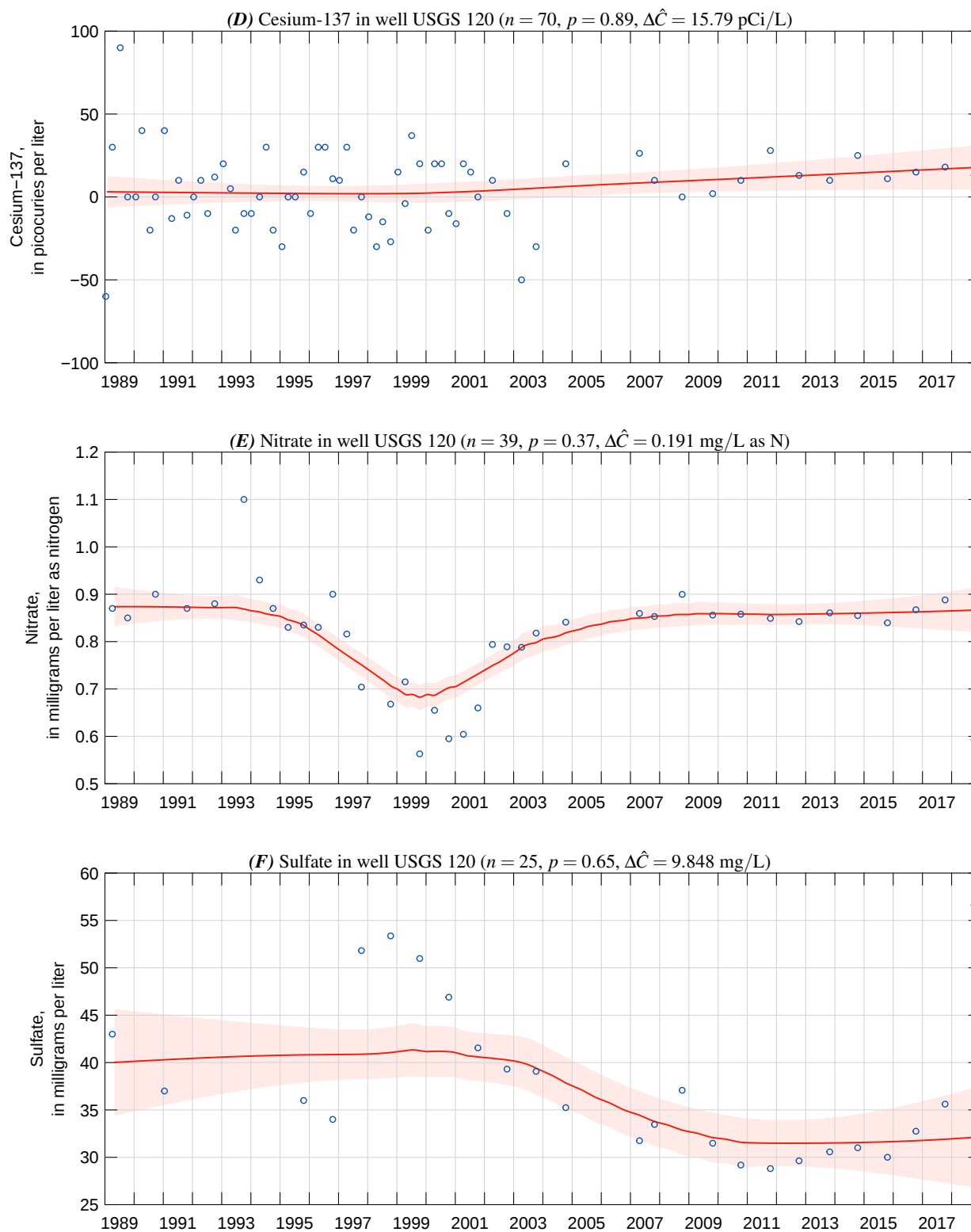


Figure 5.60. —Continued

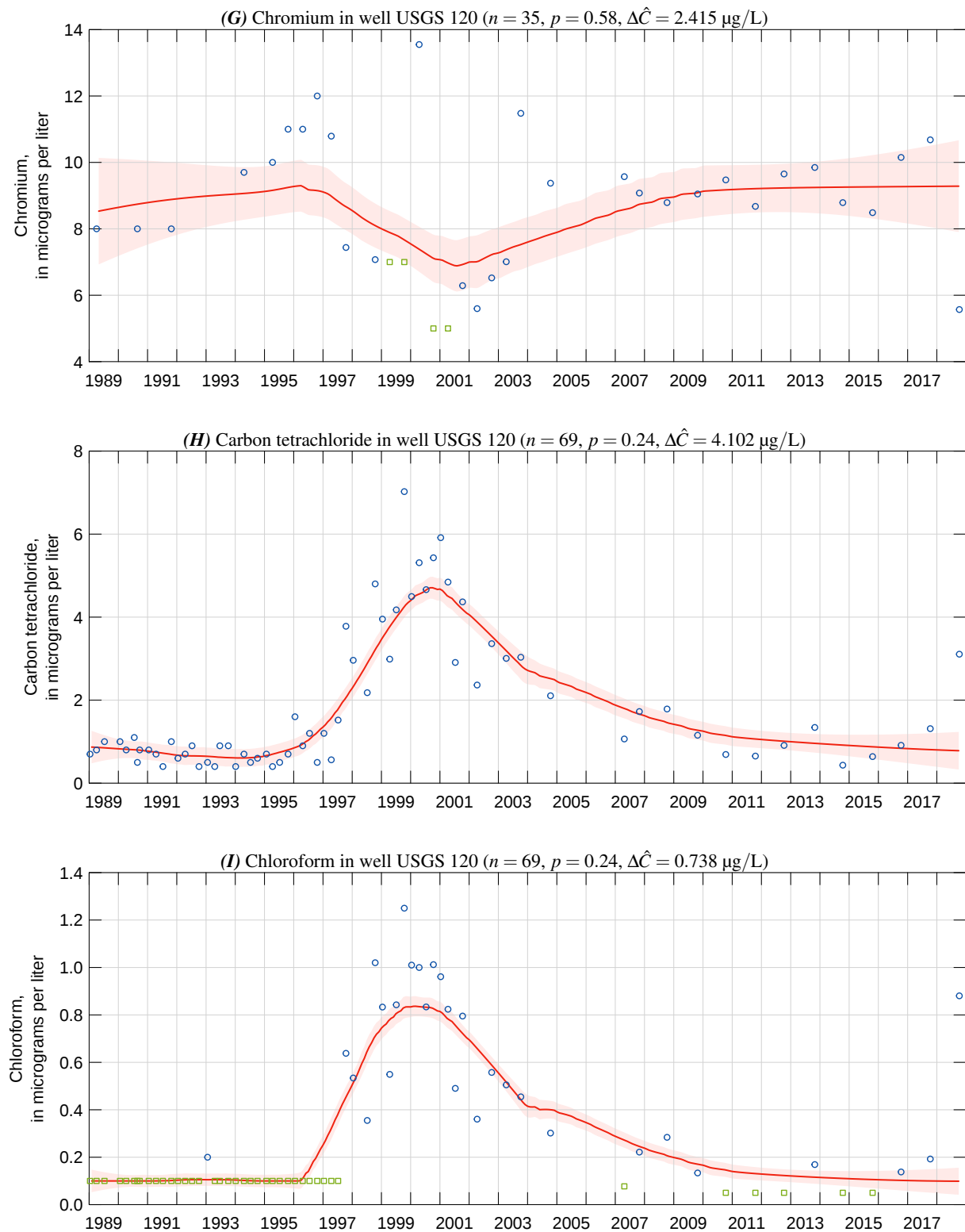


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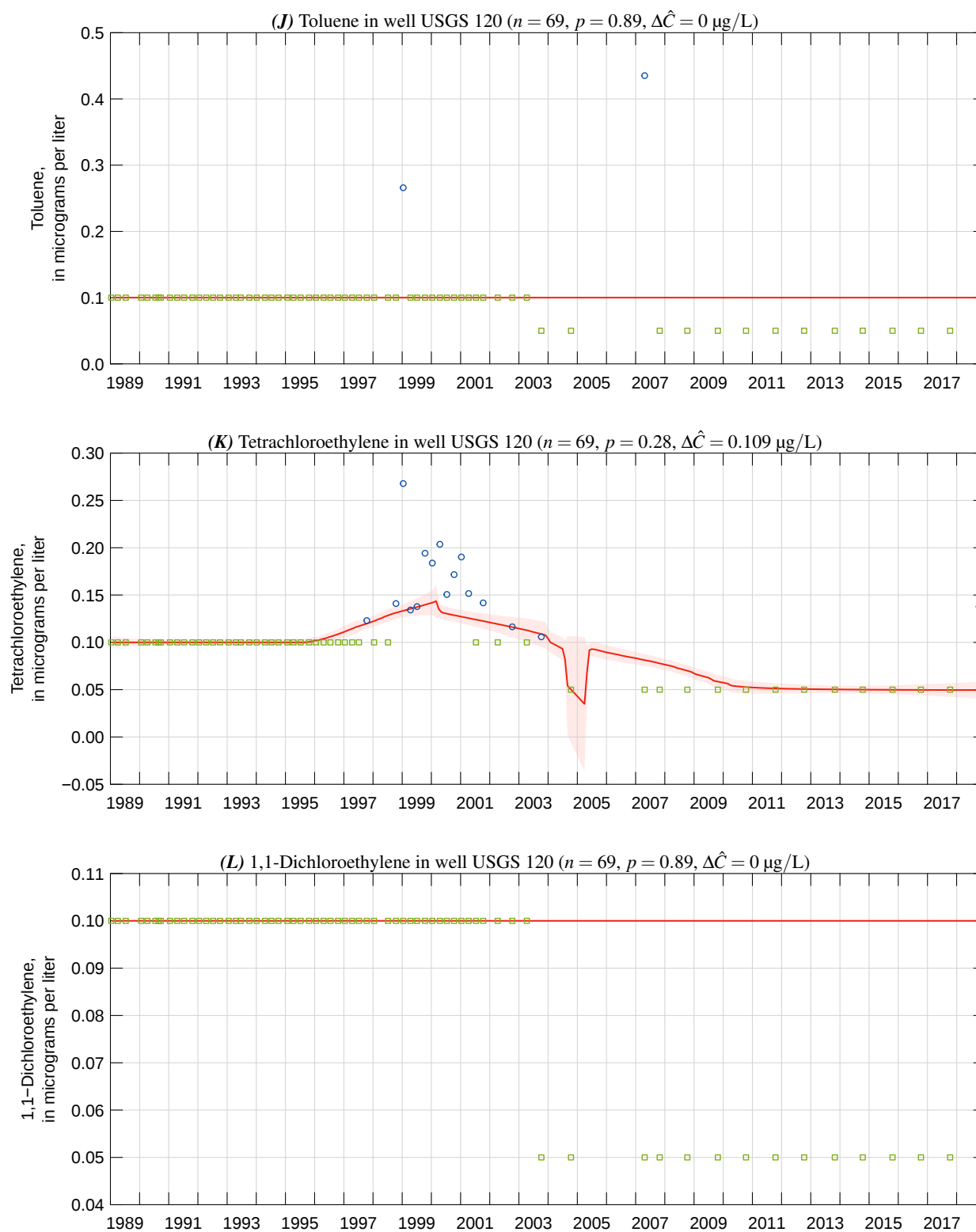


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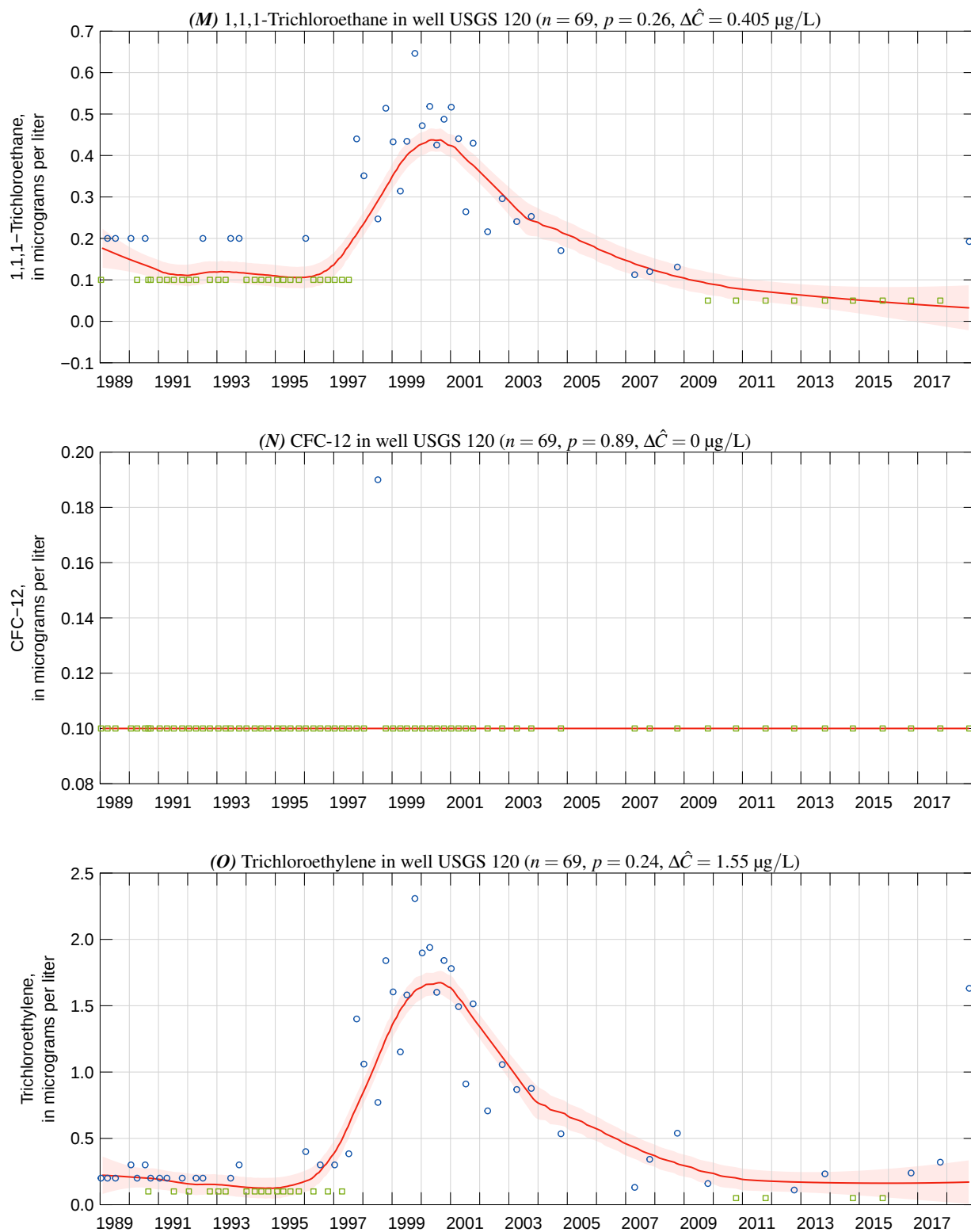


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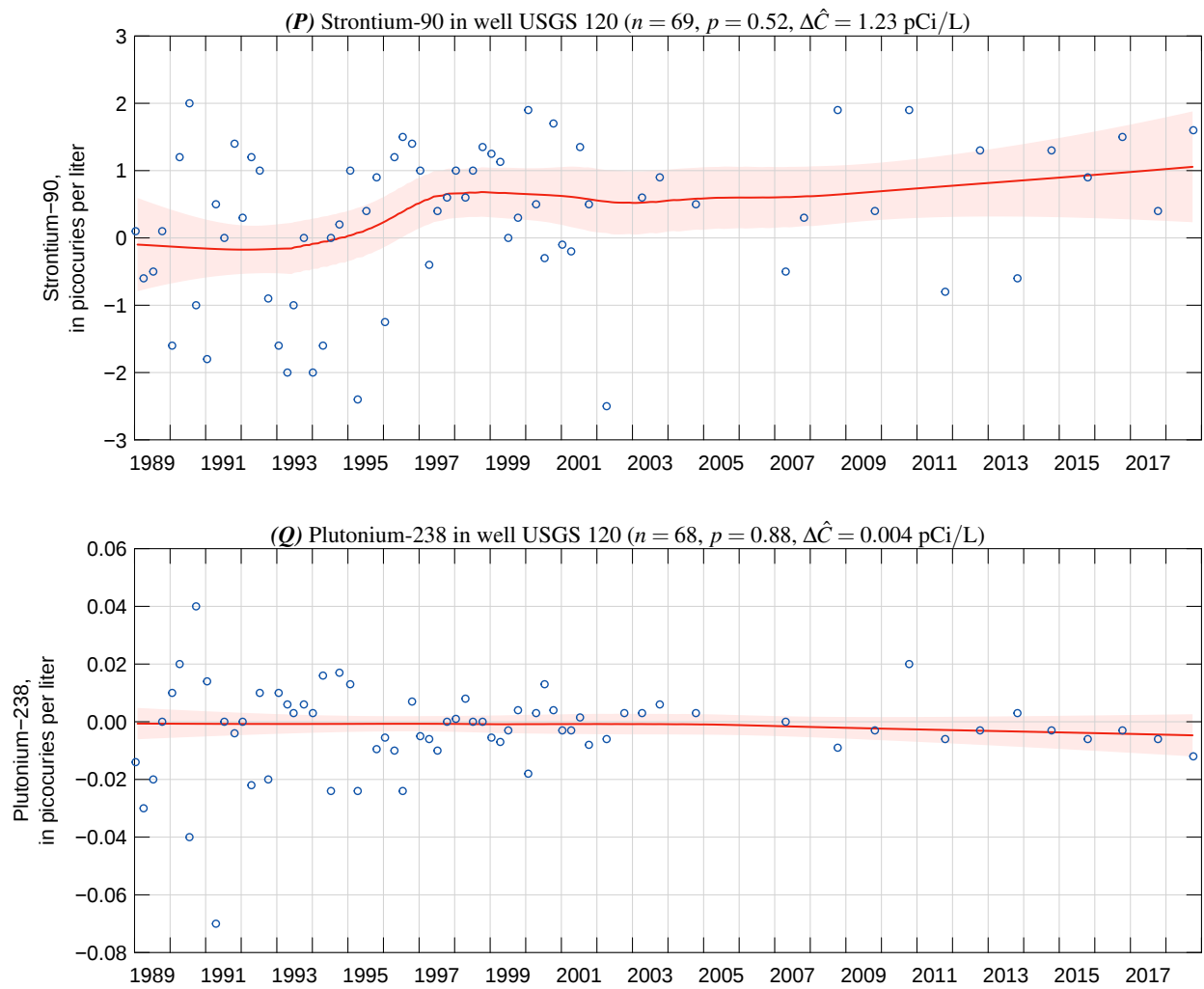


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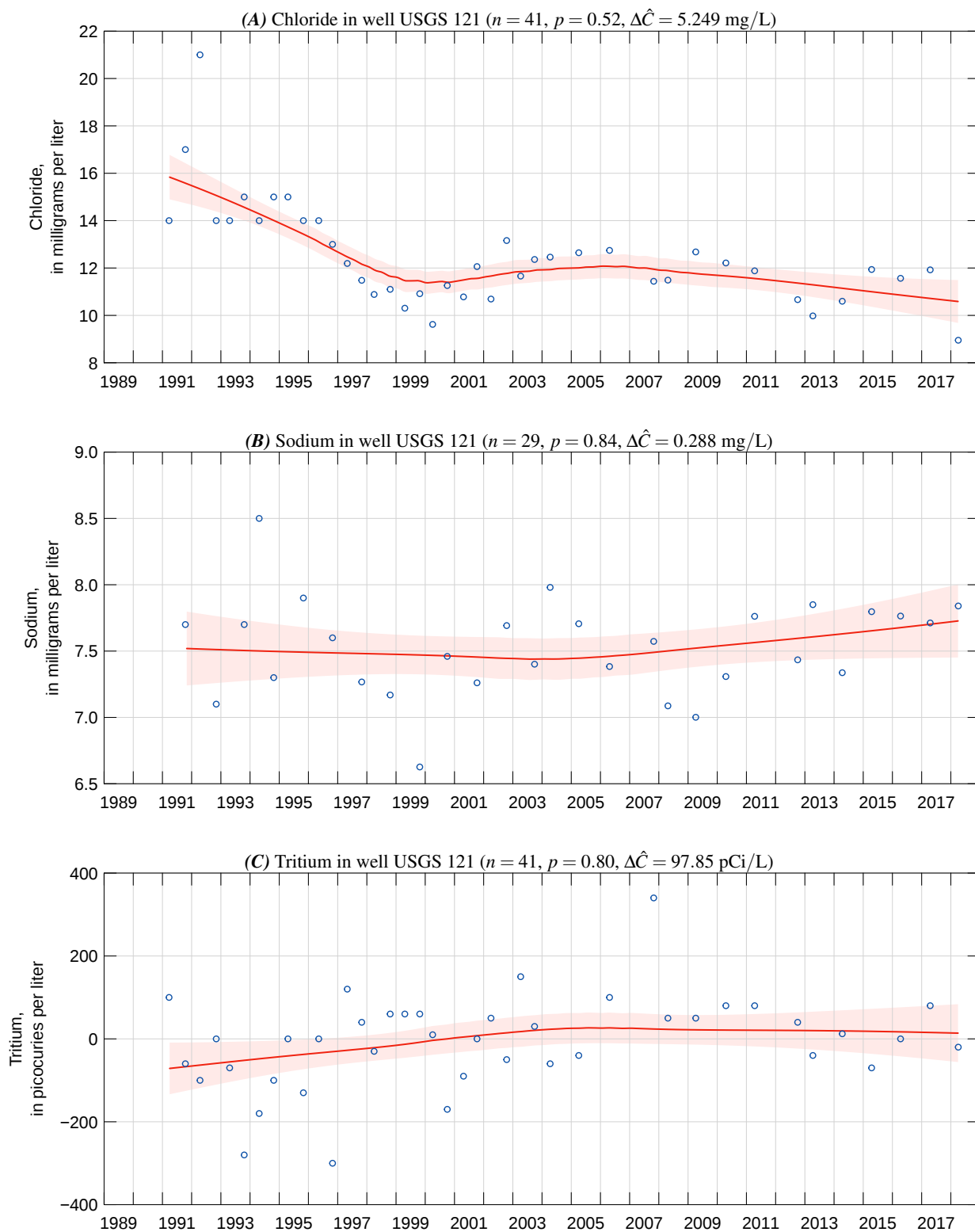


Figure 5.61. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 121 (Site No. 433450112560301), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

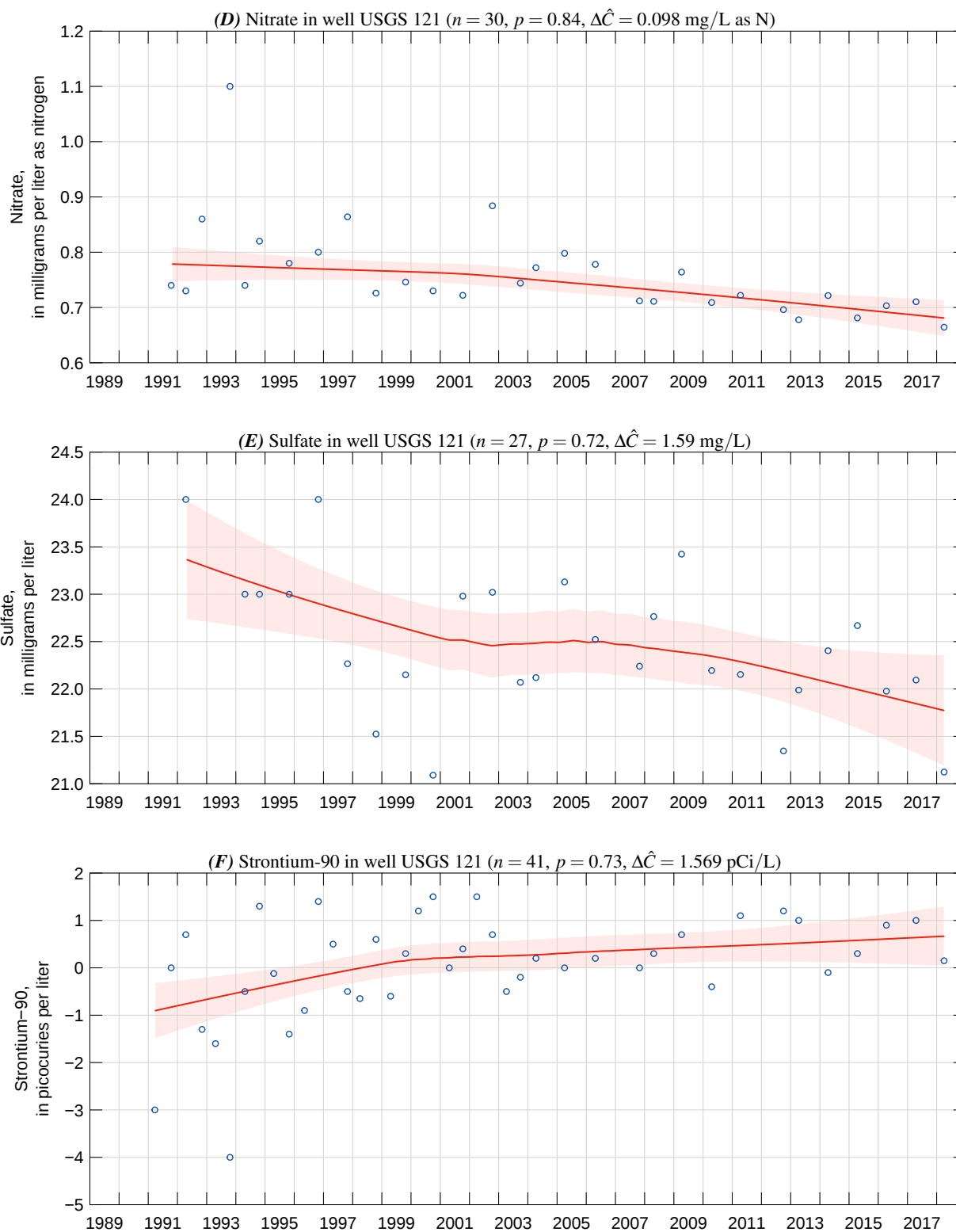


Figure 5.61. —Continued

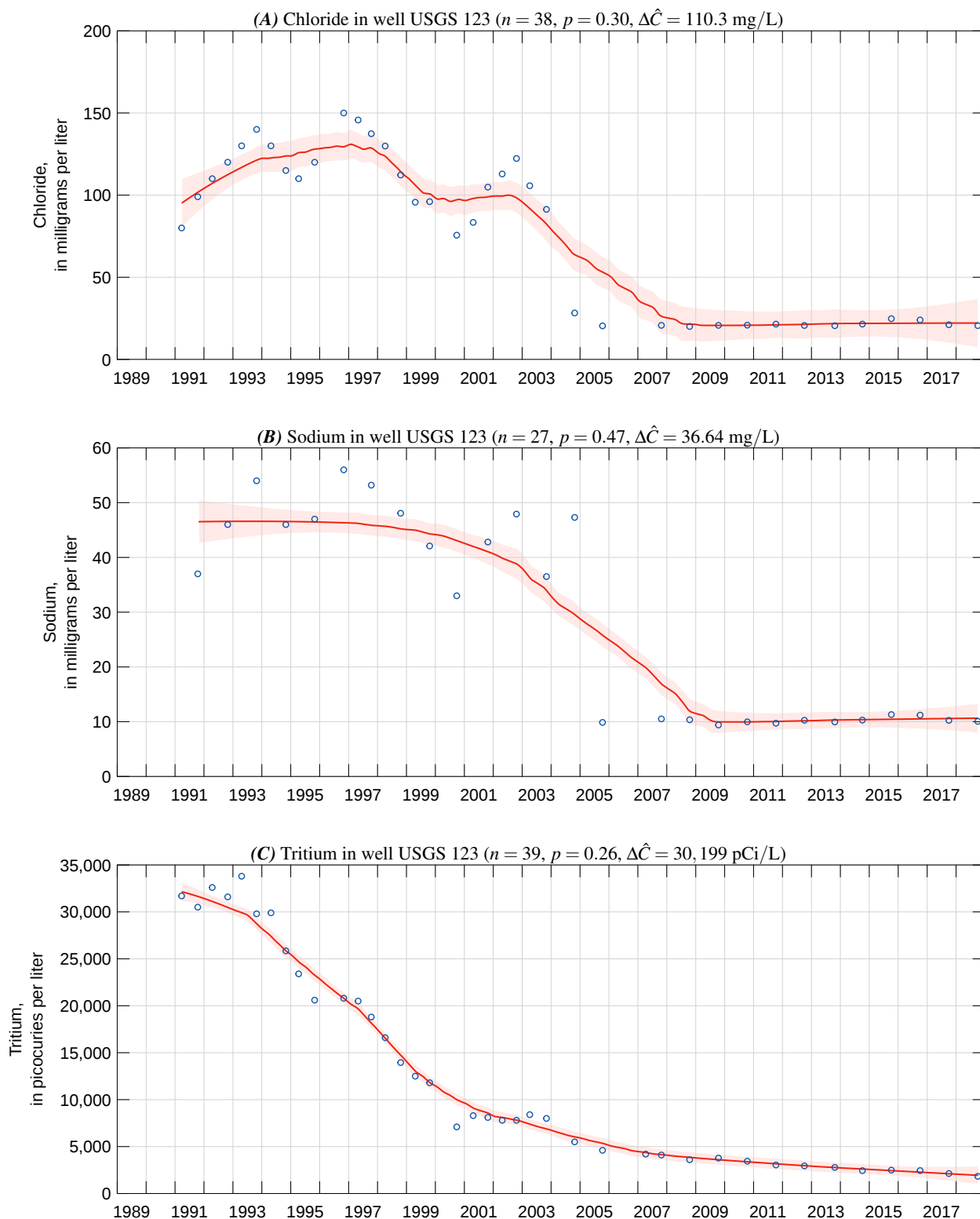


Figure 5.62. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 123 (Site No. 433352112561401), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

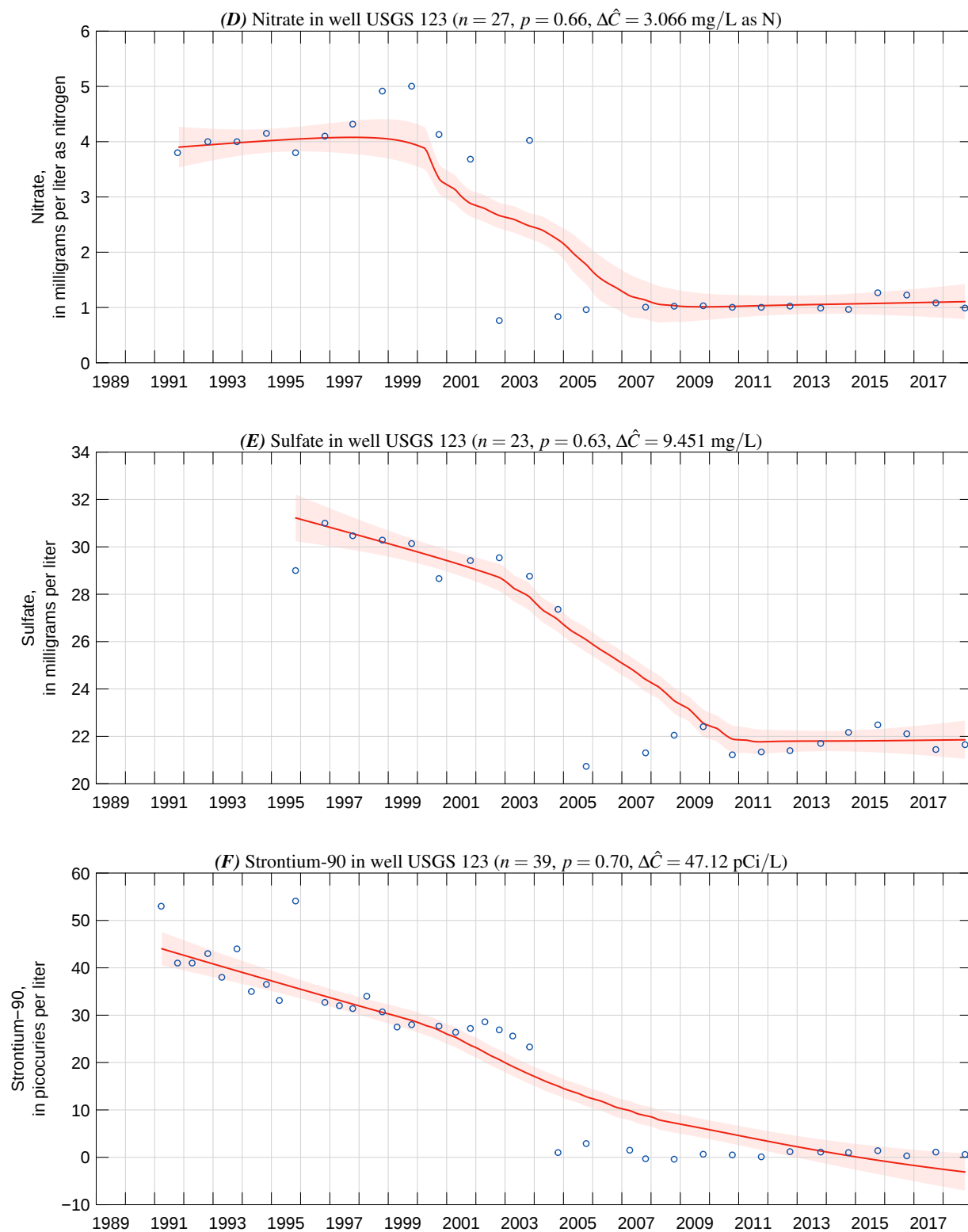


Figure 5.62. —Continued

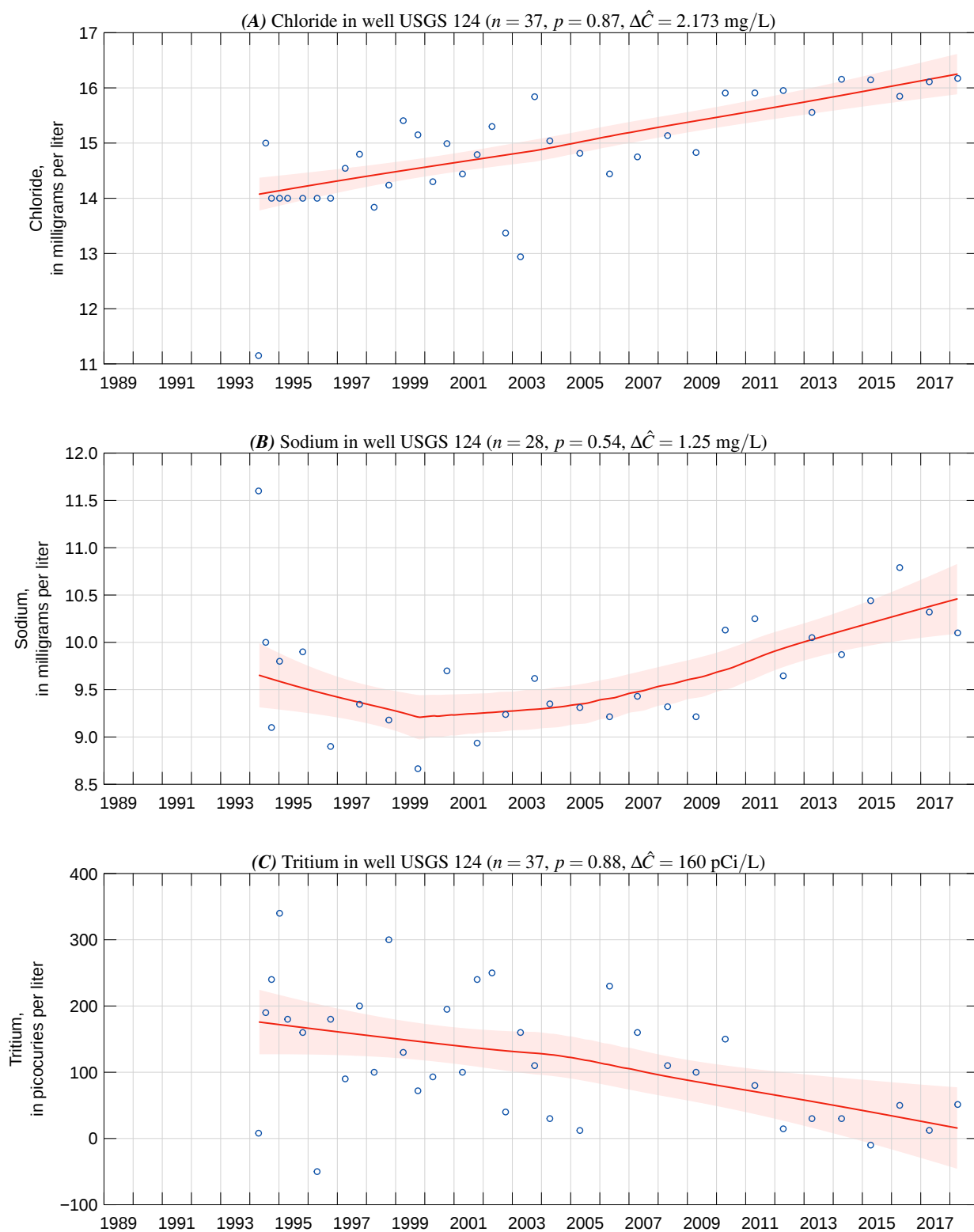


Figure 5.63. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, and (D) nitrate measured in water samples collected from well USGS 124 (Site No. 432307112583101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

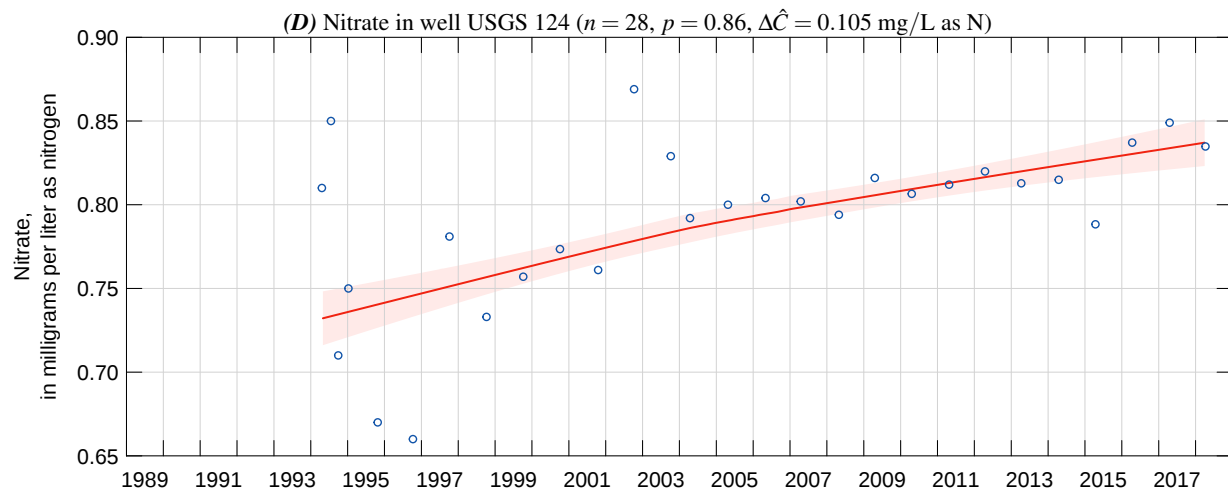


Figure 5.63. —Continued

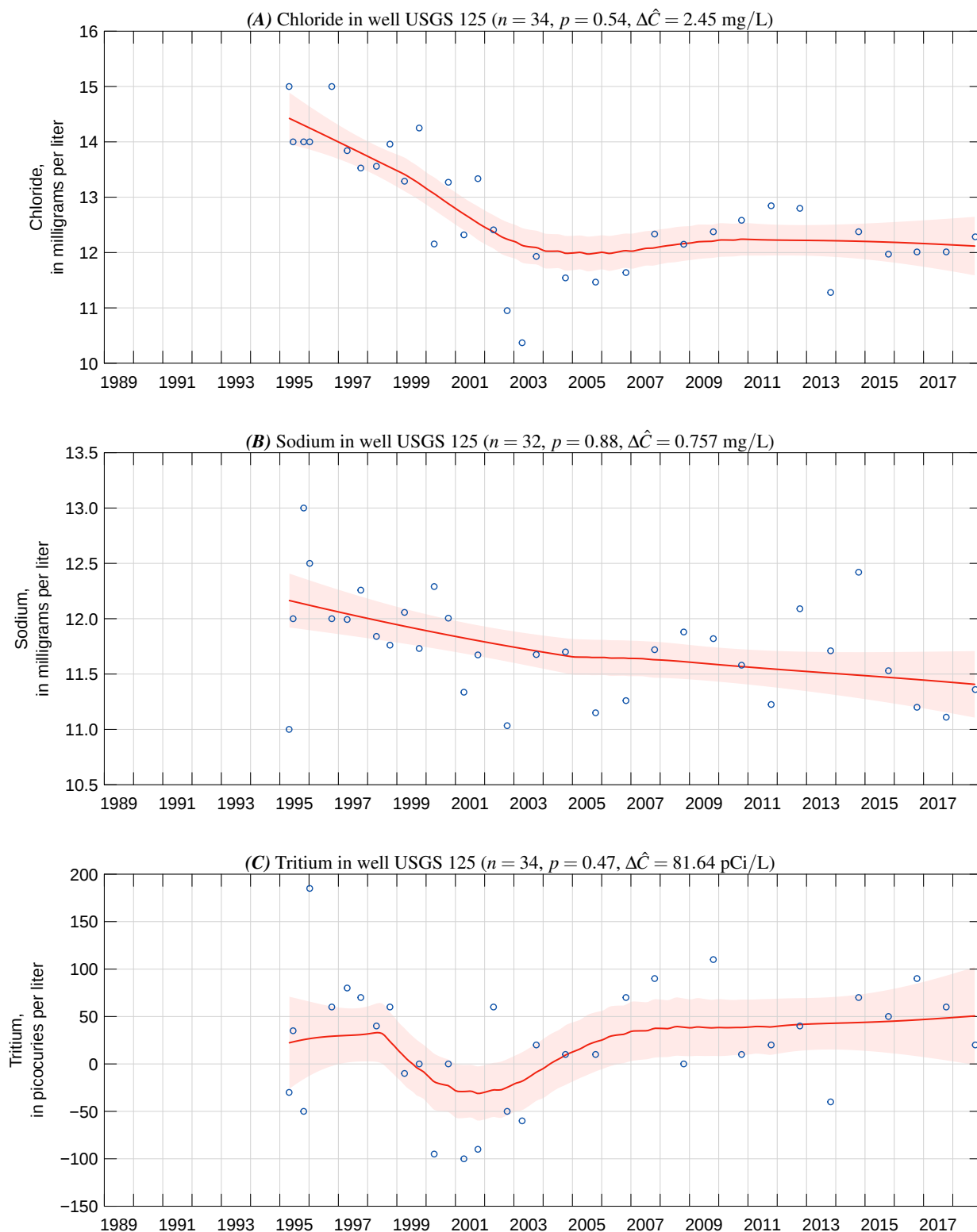


Figure 5.64. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 125 (Site No. 432602113052801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

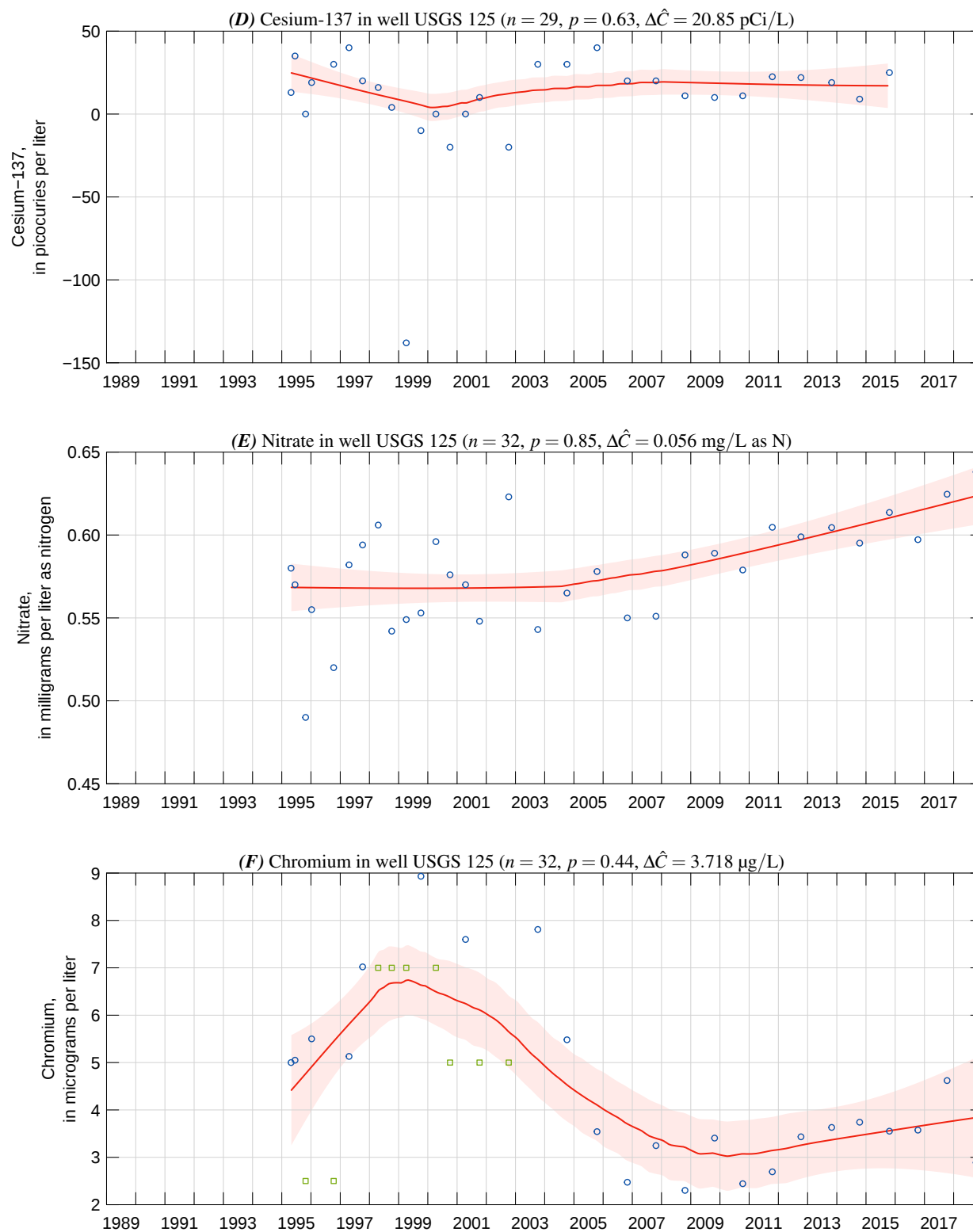


Figure 5.64. —Continued

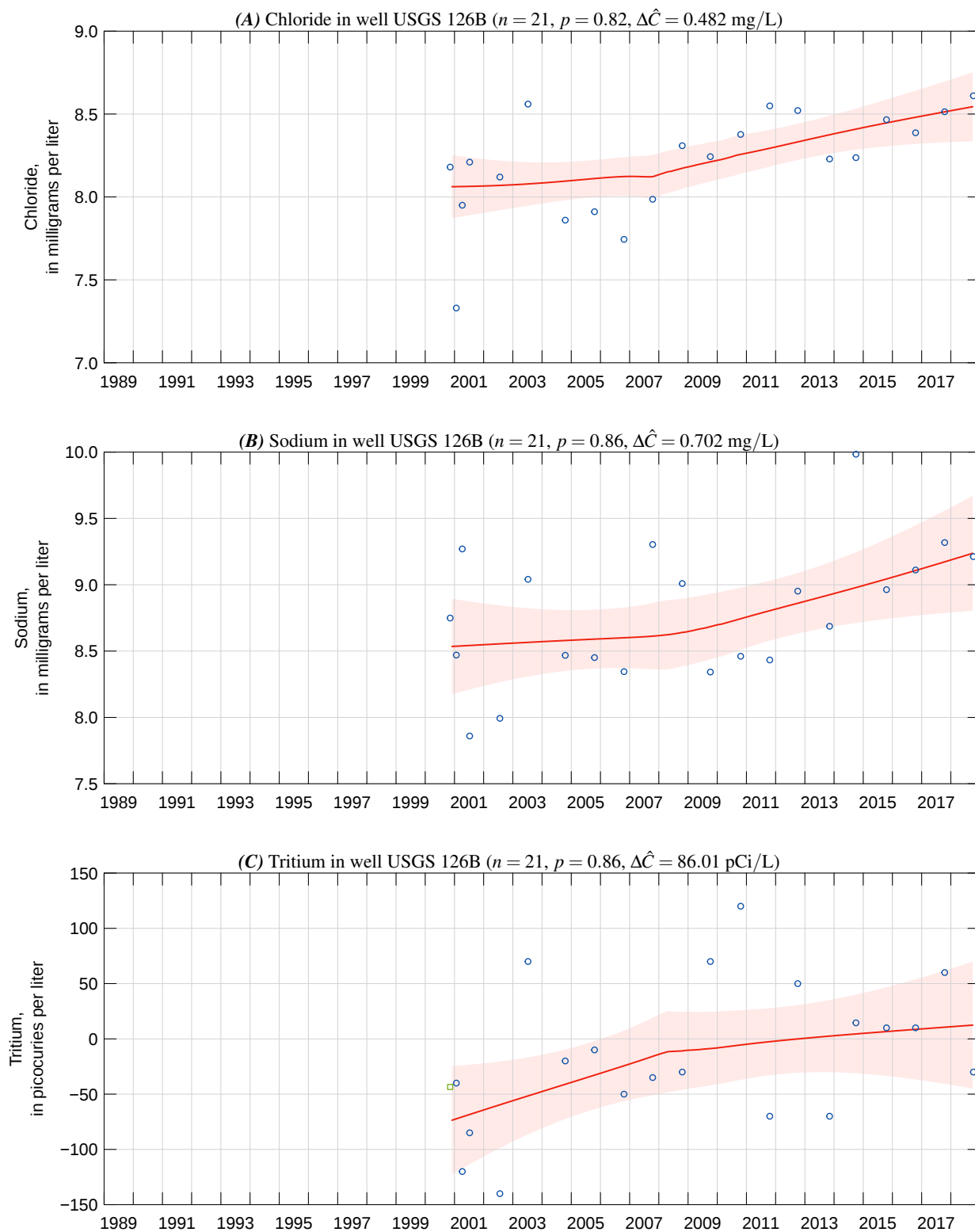


Figure 5.65. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, and (E) chromium measured in water samples collected from well USGS 126B (Site No. 435529112471401), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

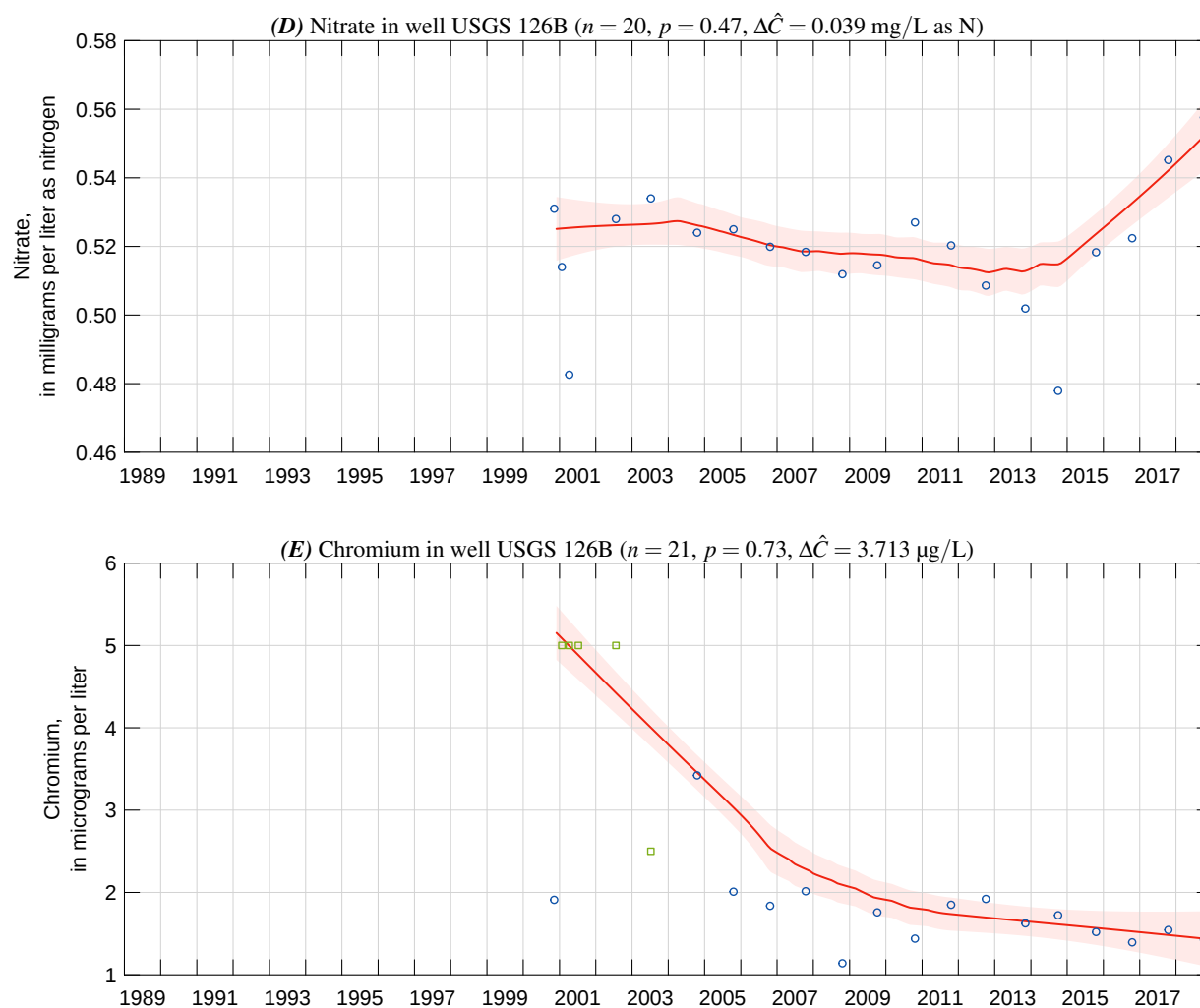


Figure 5.65. —Continued

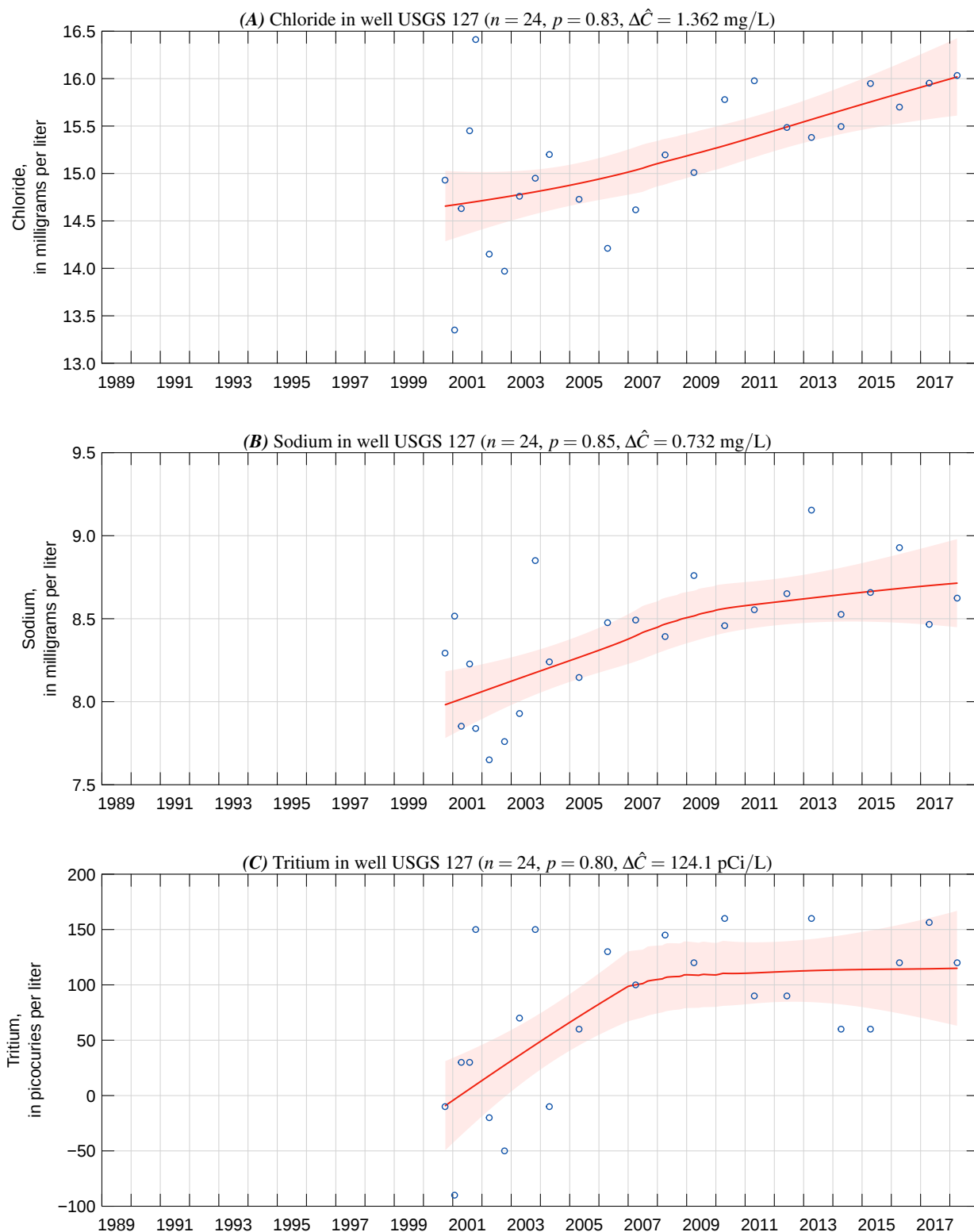


Figure 5.66. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, and (G) strontium-90 measured in water samples collected from well USGS 127 (Site No. 433058112572201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

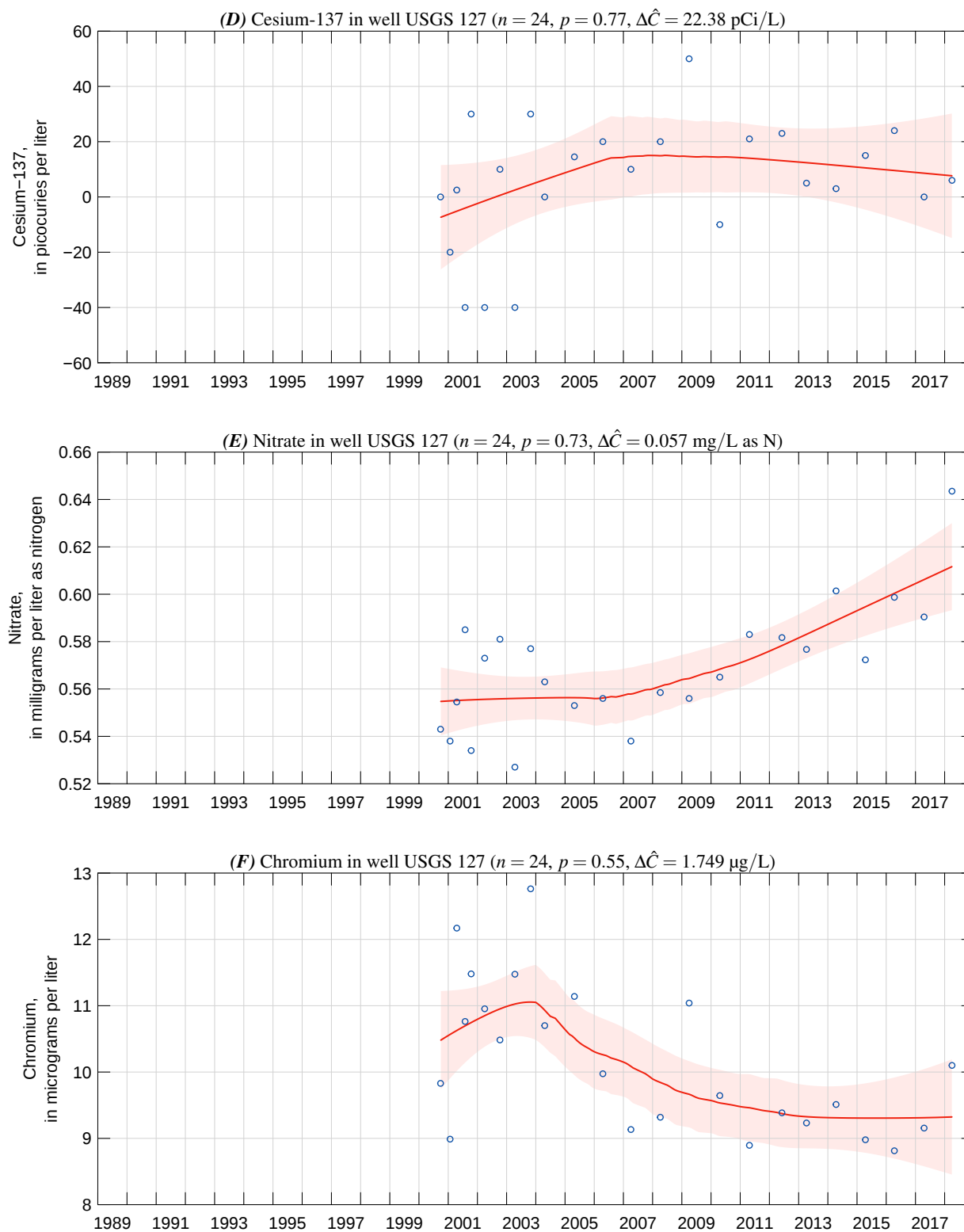


Figure 5.66. —Continued

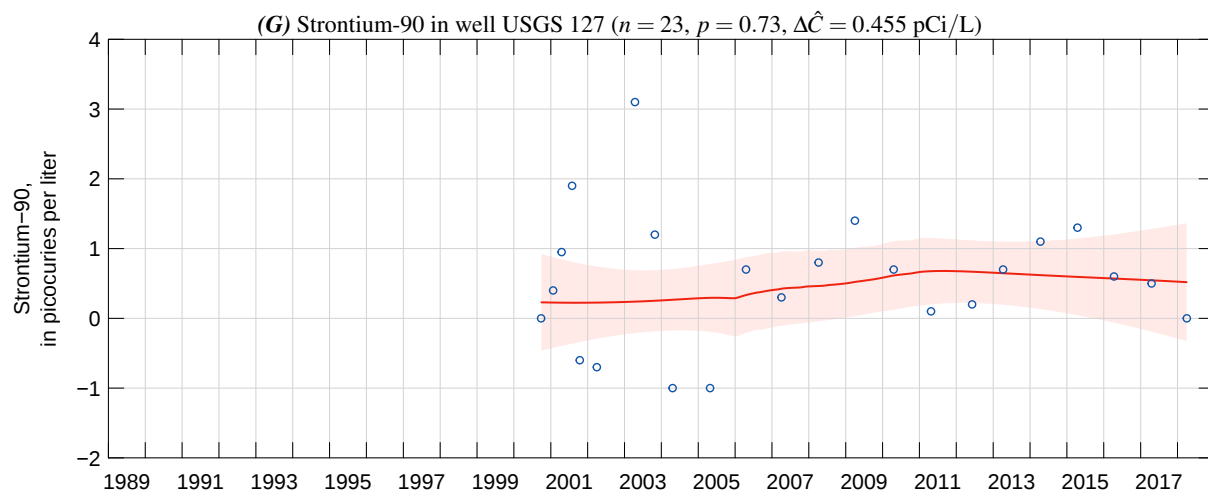


Figure 5.66. —Continued

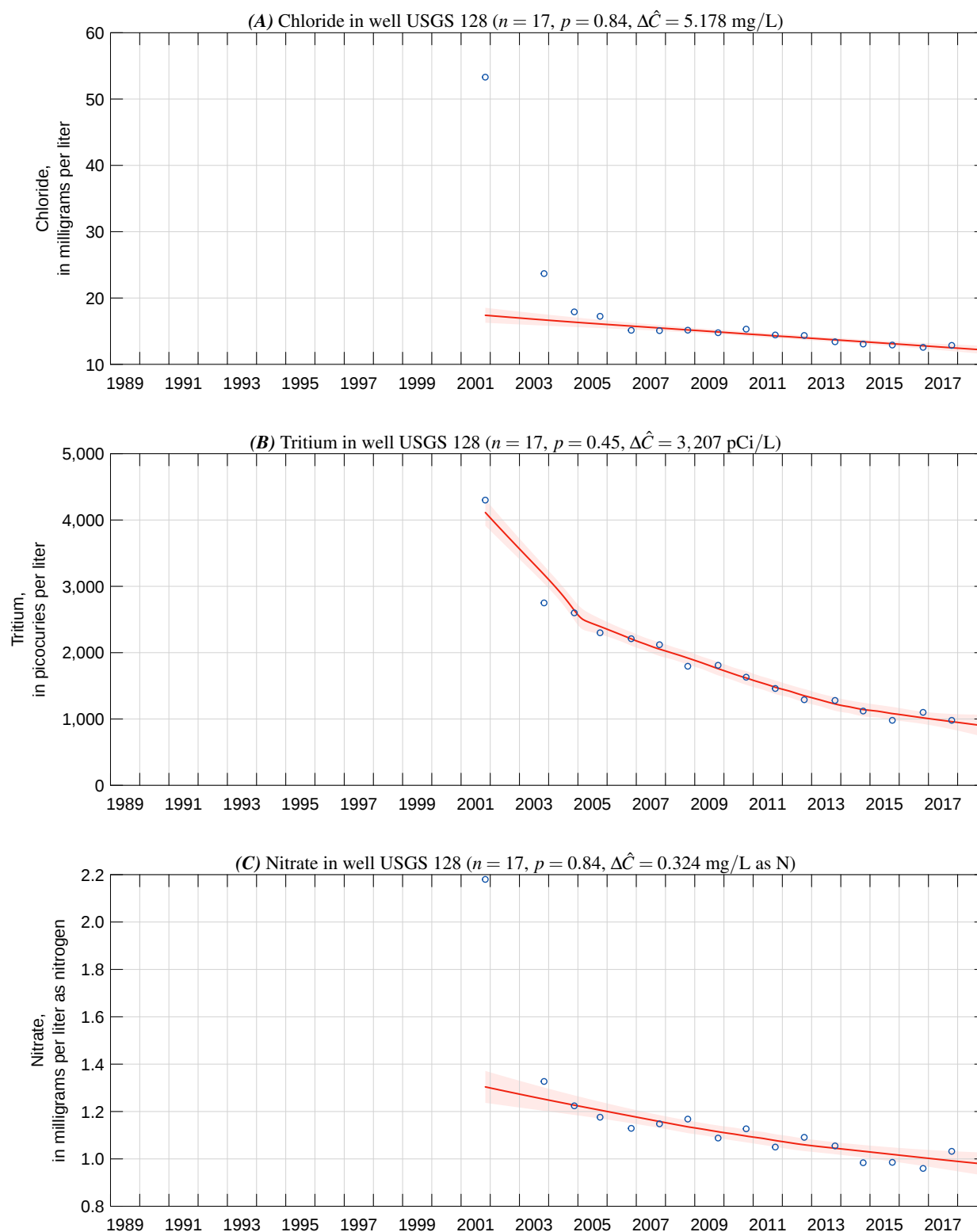


Figure 5.67. Local-regression model fitted to (A) chloride, (B) tritium, (C) nitrate, and (D) strontium-90 measured in water samples collected from well USGS 128 (Site No. 433250112565601), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

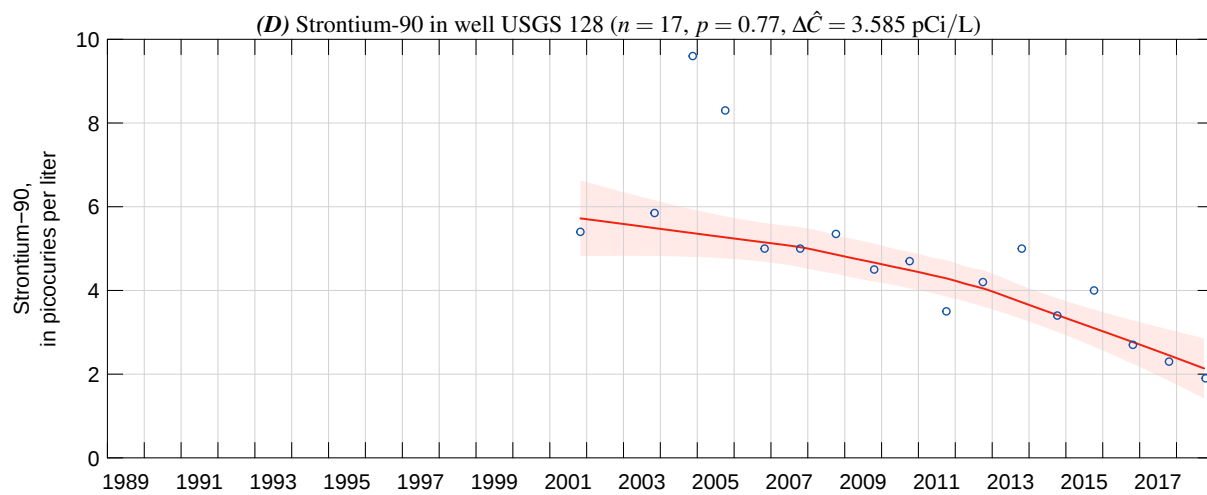


Figure 5.67. —Continued

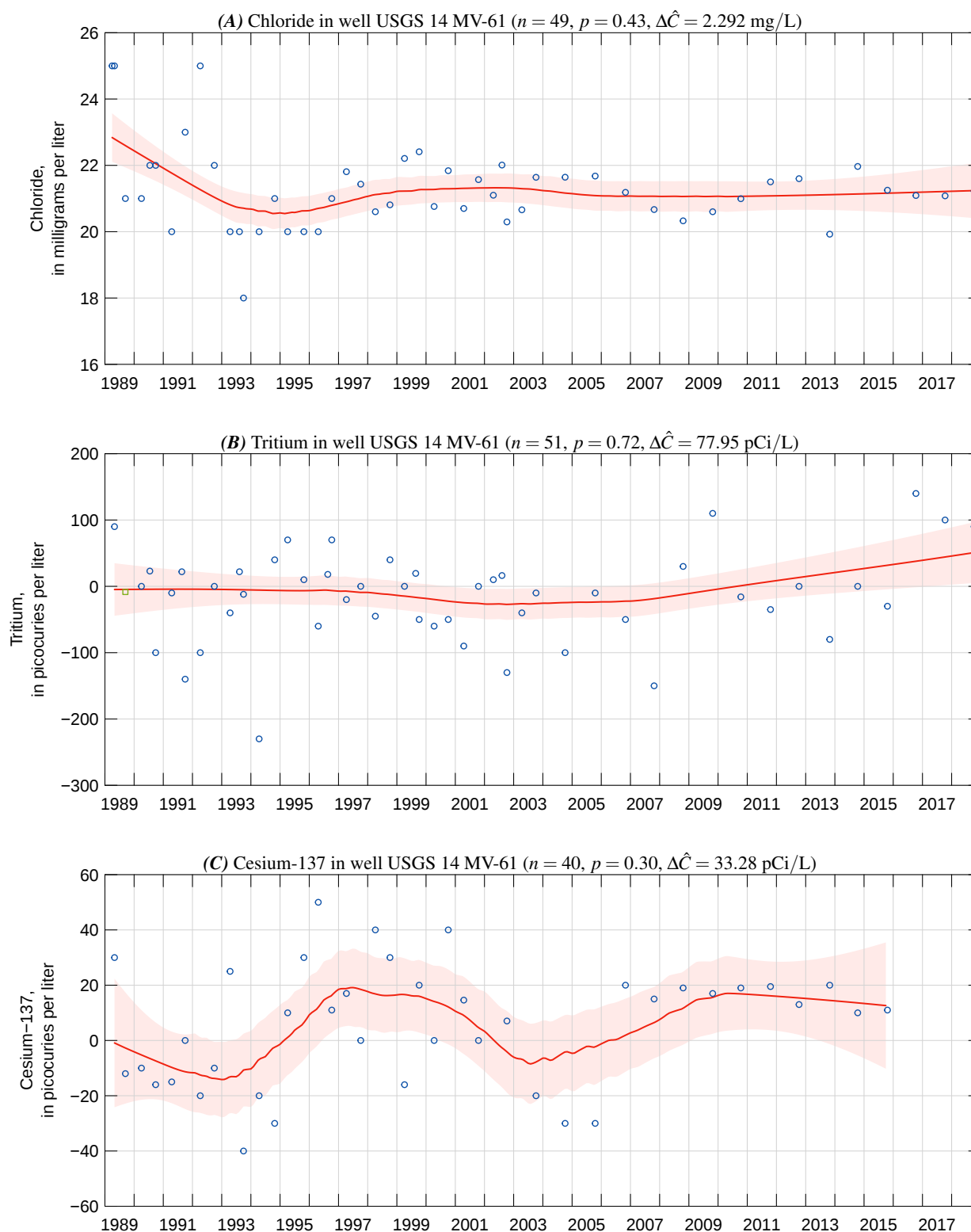


Figure 5.68. Local-regression model fitted to (A) chloride, (B) tritium, and (C) cesium-137 measured in water samples collected from well USGS 14 MV-61 (Site No. 432019112563201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

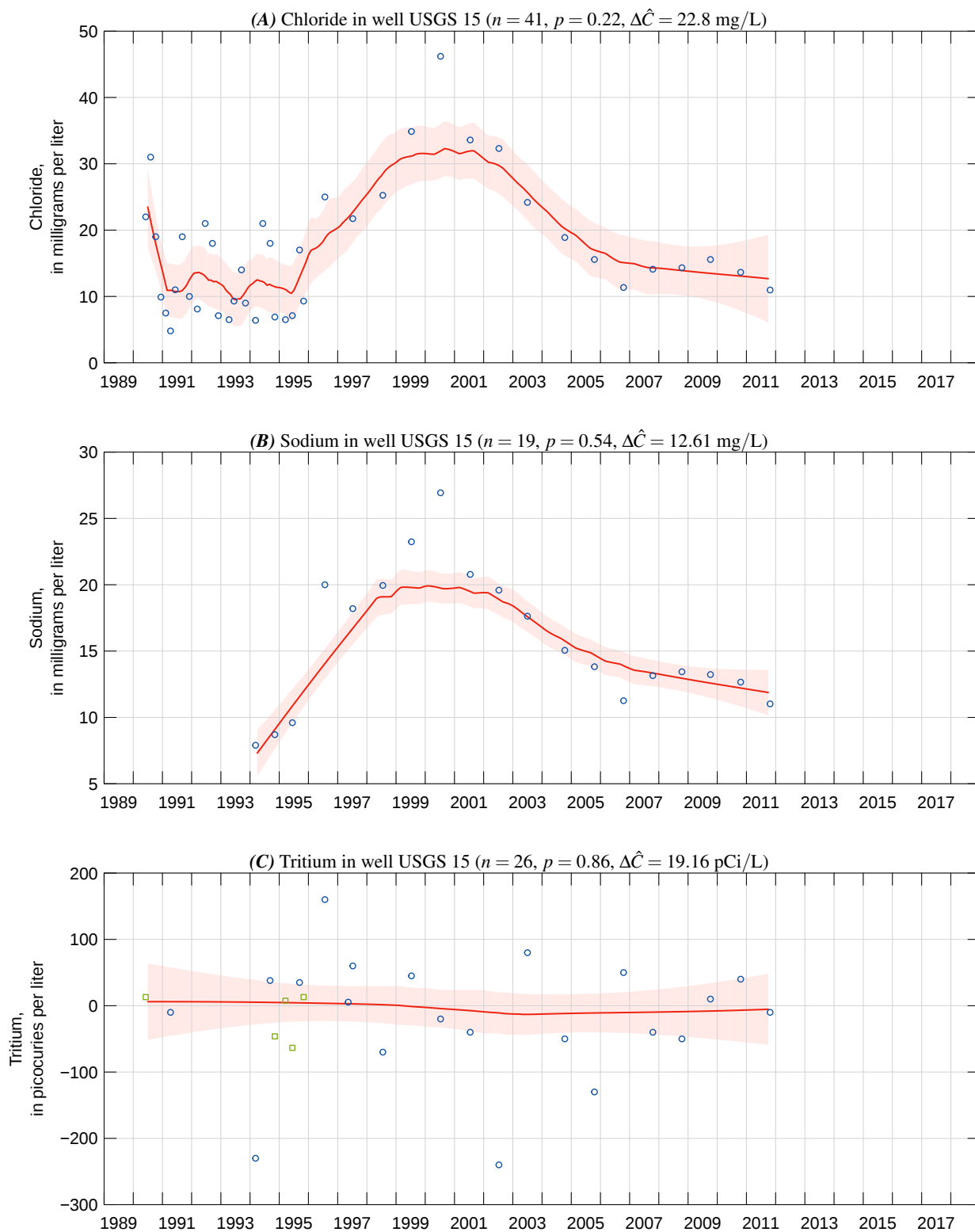


Figure 5.69. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 15 (Site No. 434234112551701), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

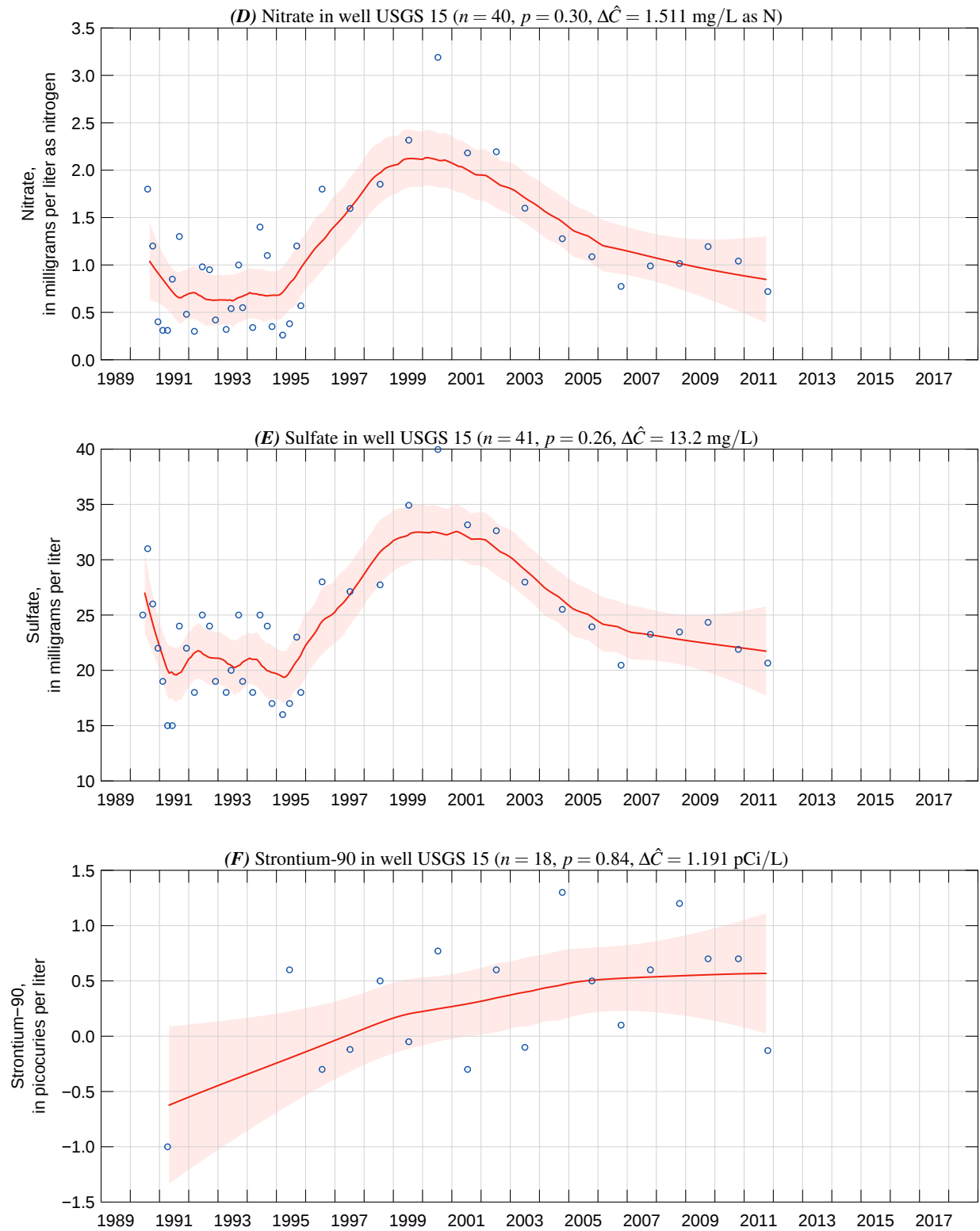


Figure 5.69. —Continued

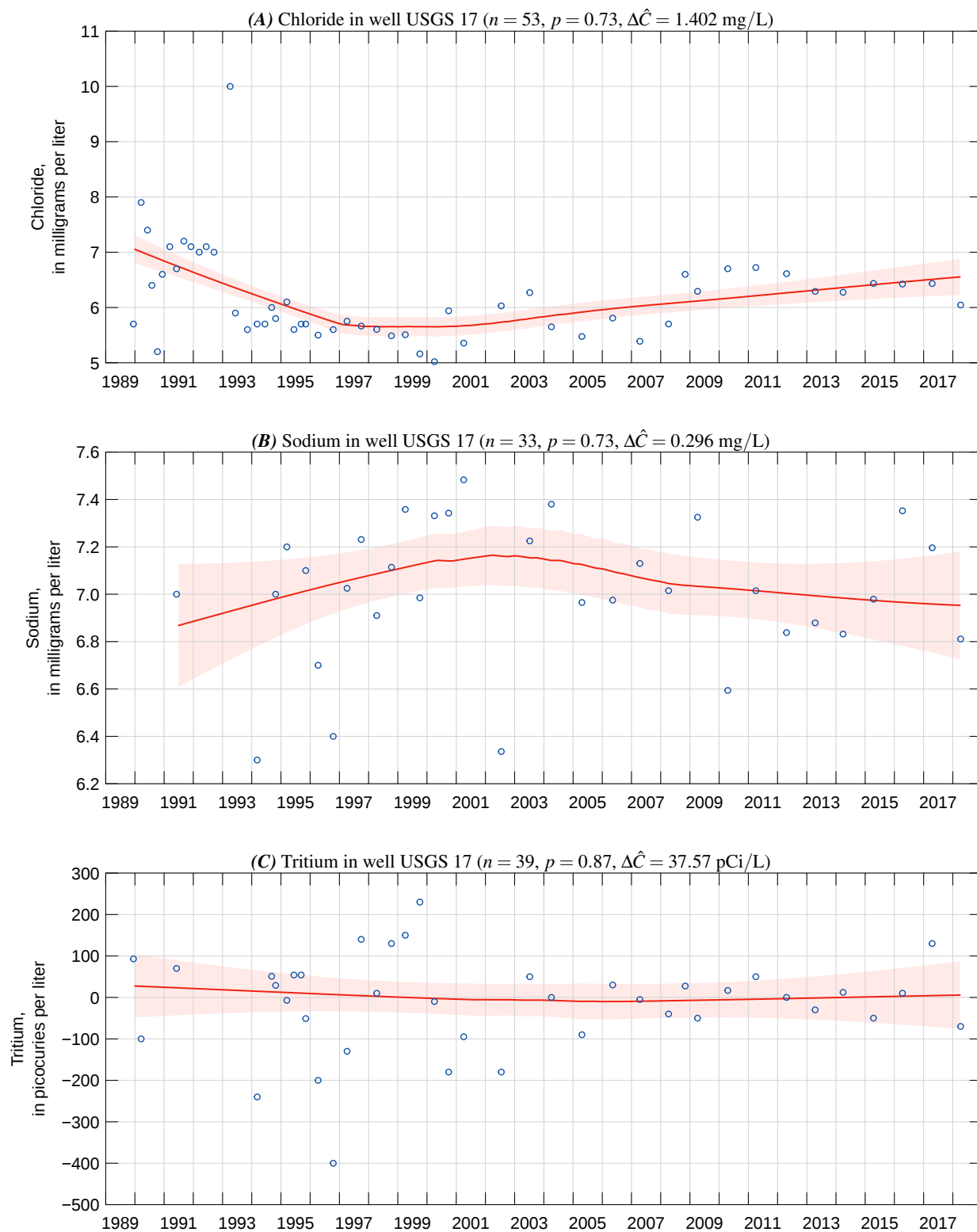


Figure 5.70. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 17 (Site No. 433937112515401), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

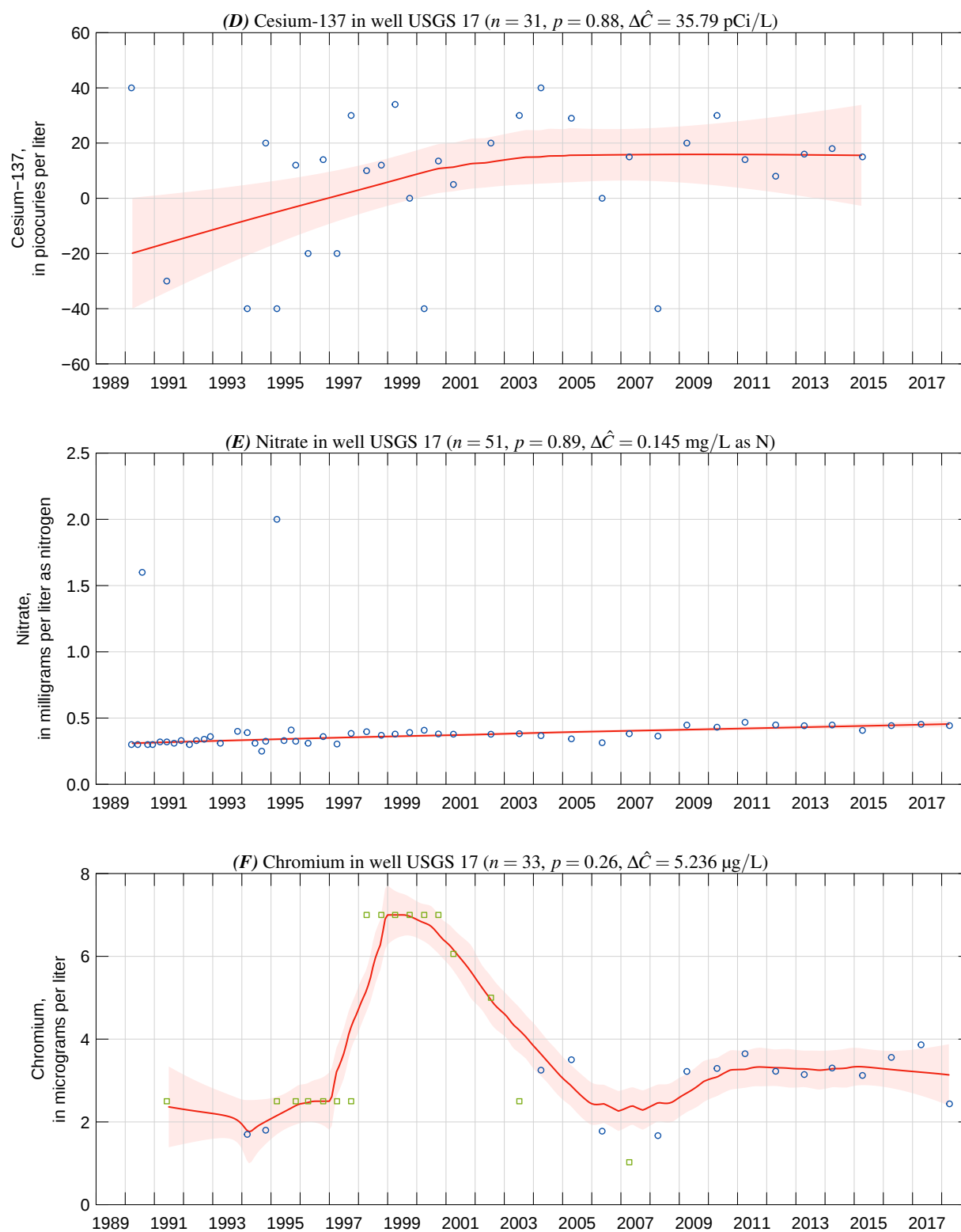


Figure 5.70. —Continued

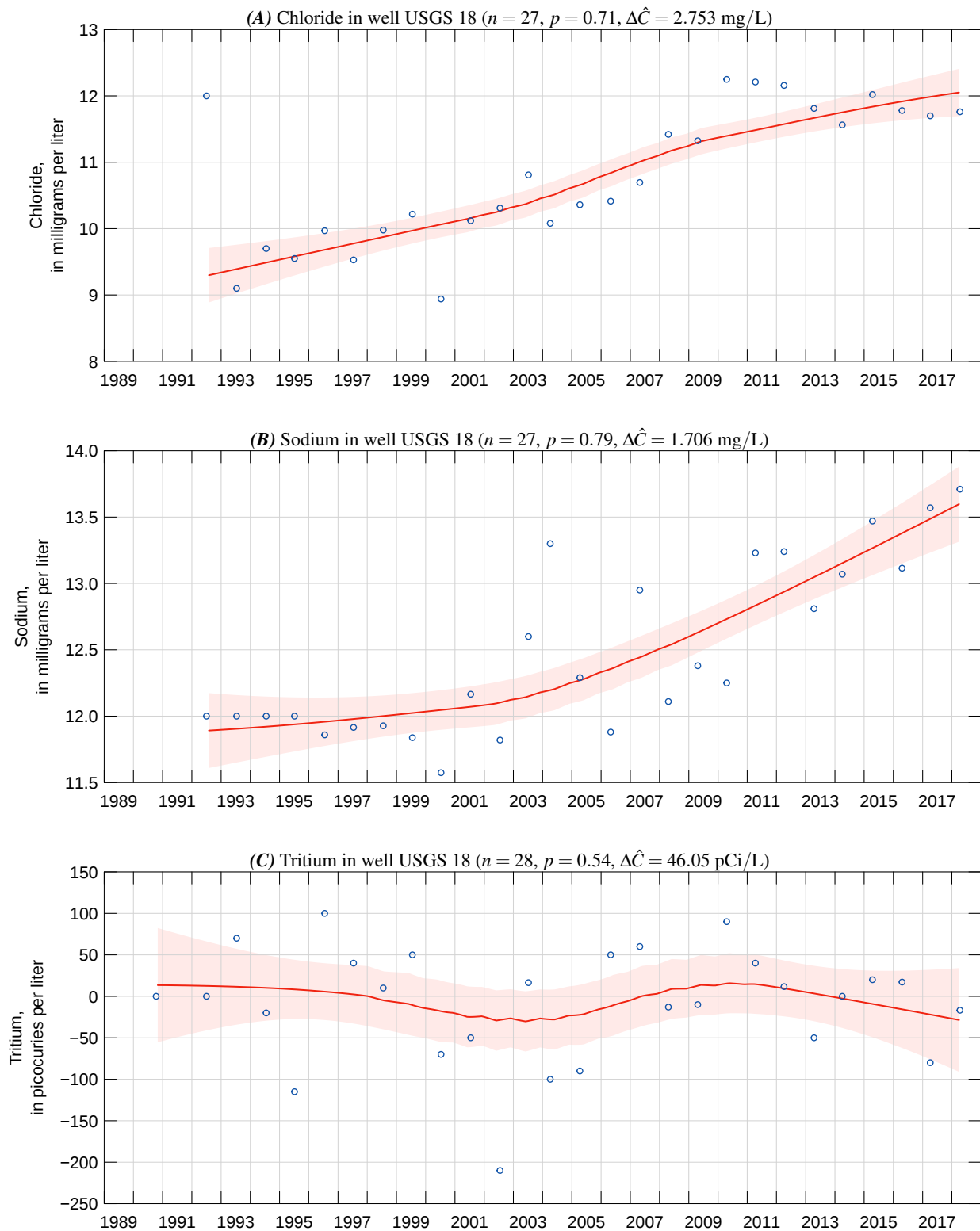


Figure 5.71. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 18 (Site No. 434540112440901), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

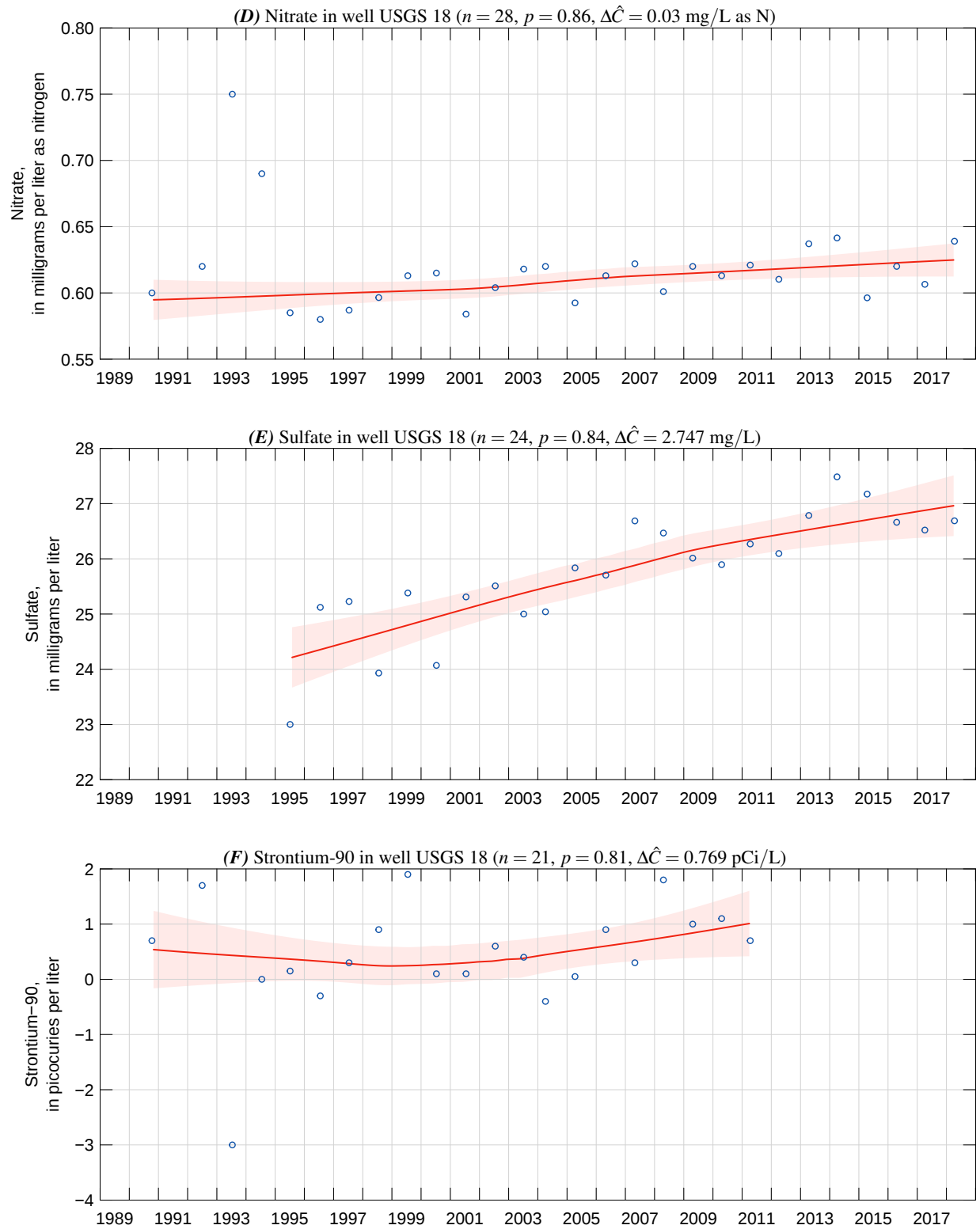


Figure 5.71. —Continued

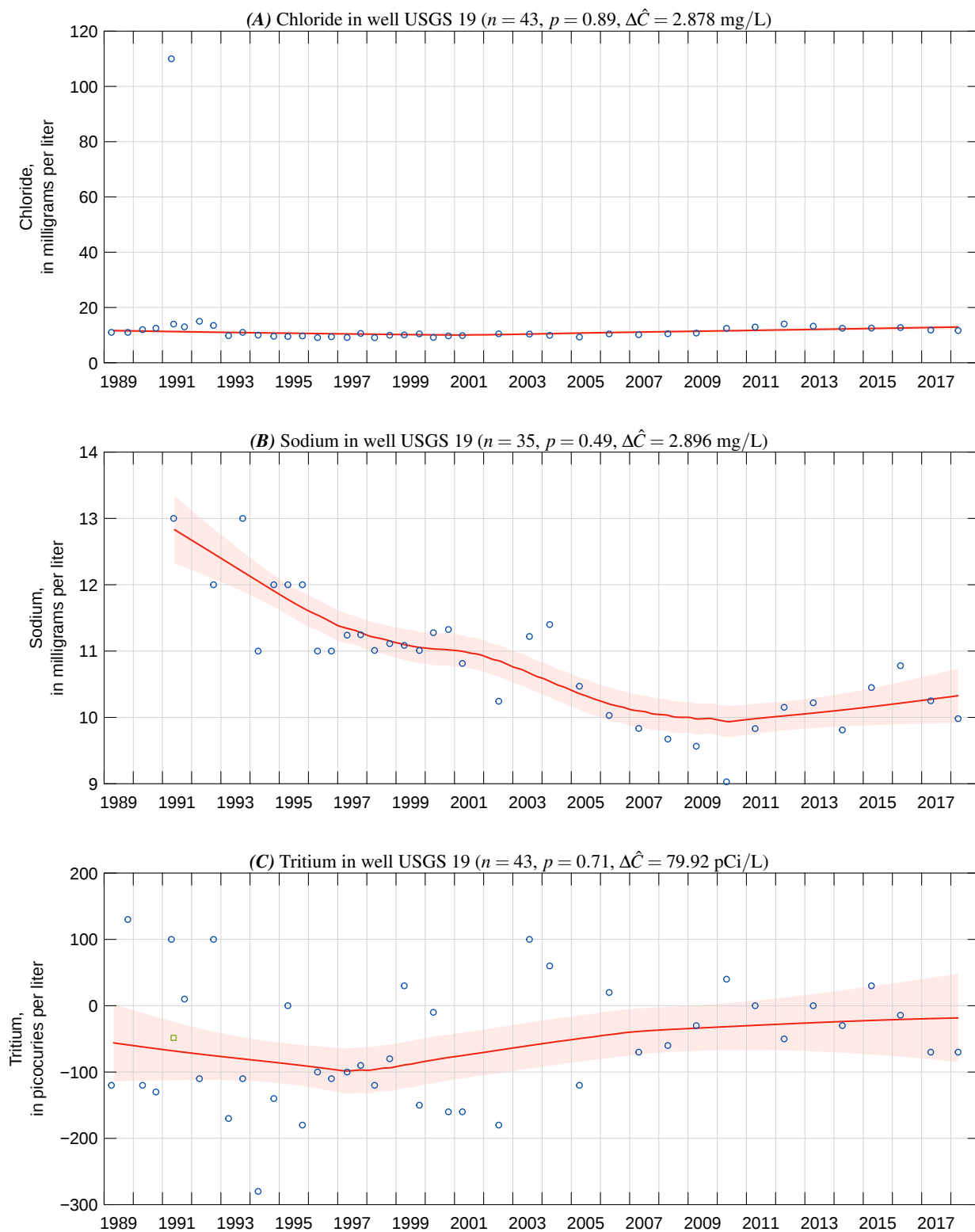


Figure 5.72. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 19 (Site No. 434426112575701), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

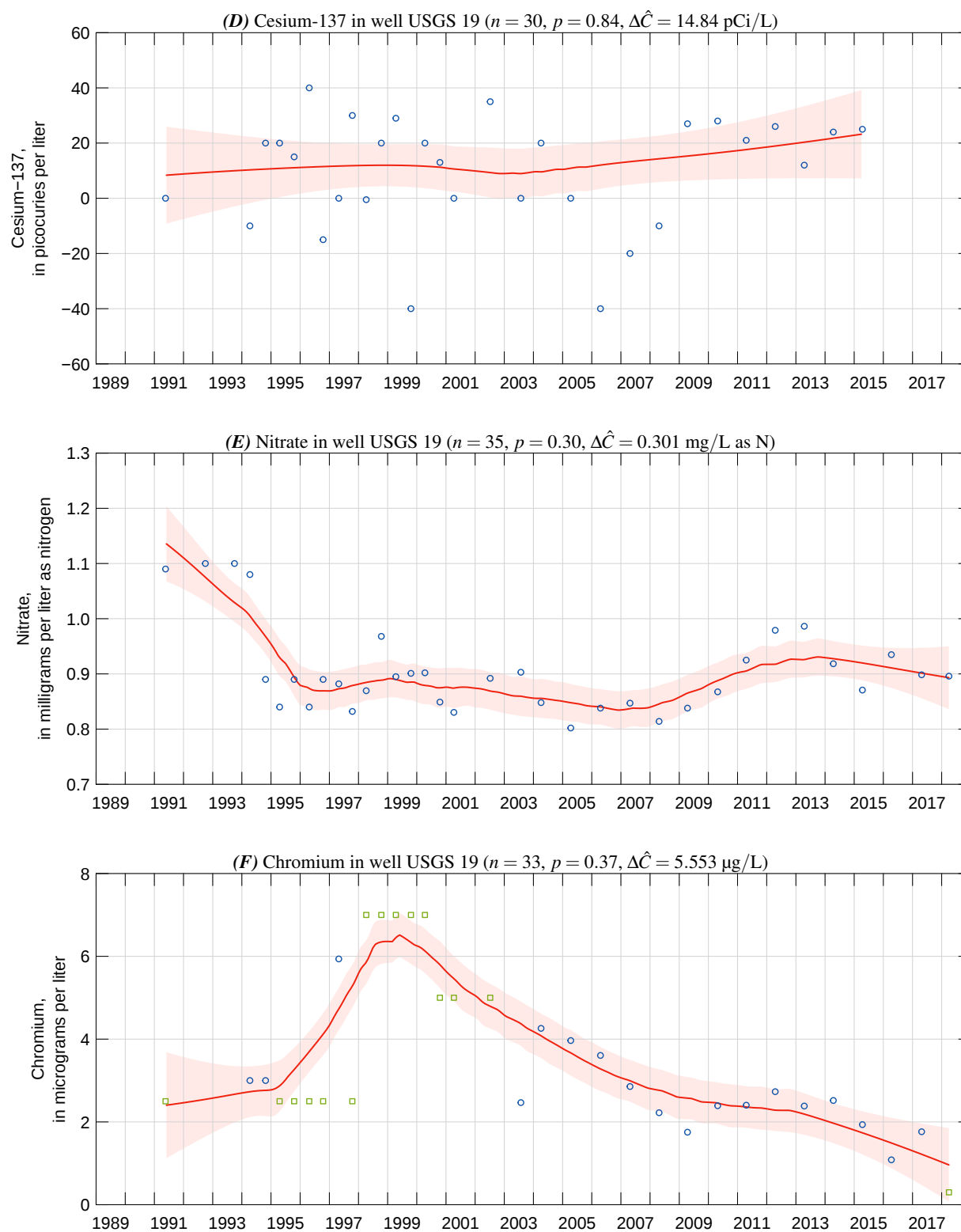


Figure 5.72. —Continued

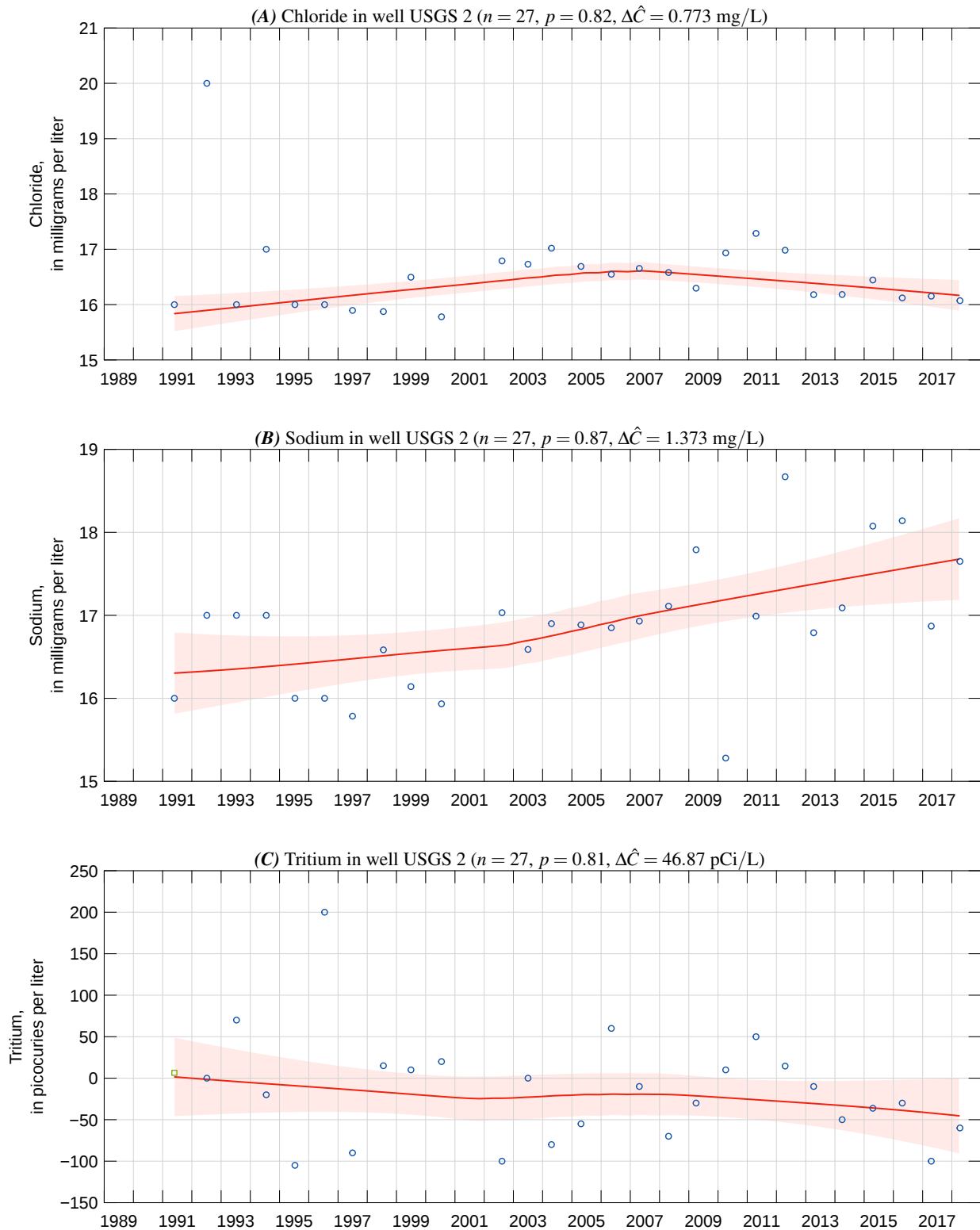


Figure 5.73. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 2 (Site No. 433320112432301), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

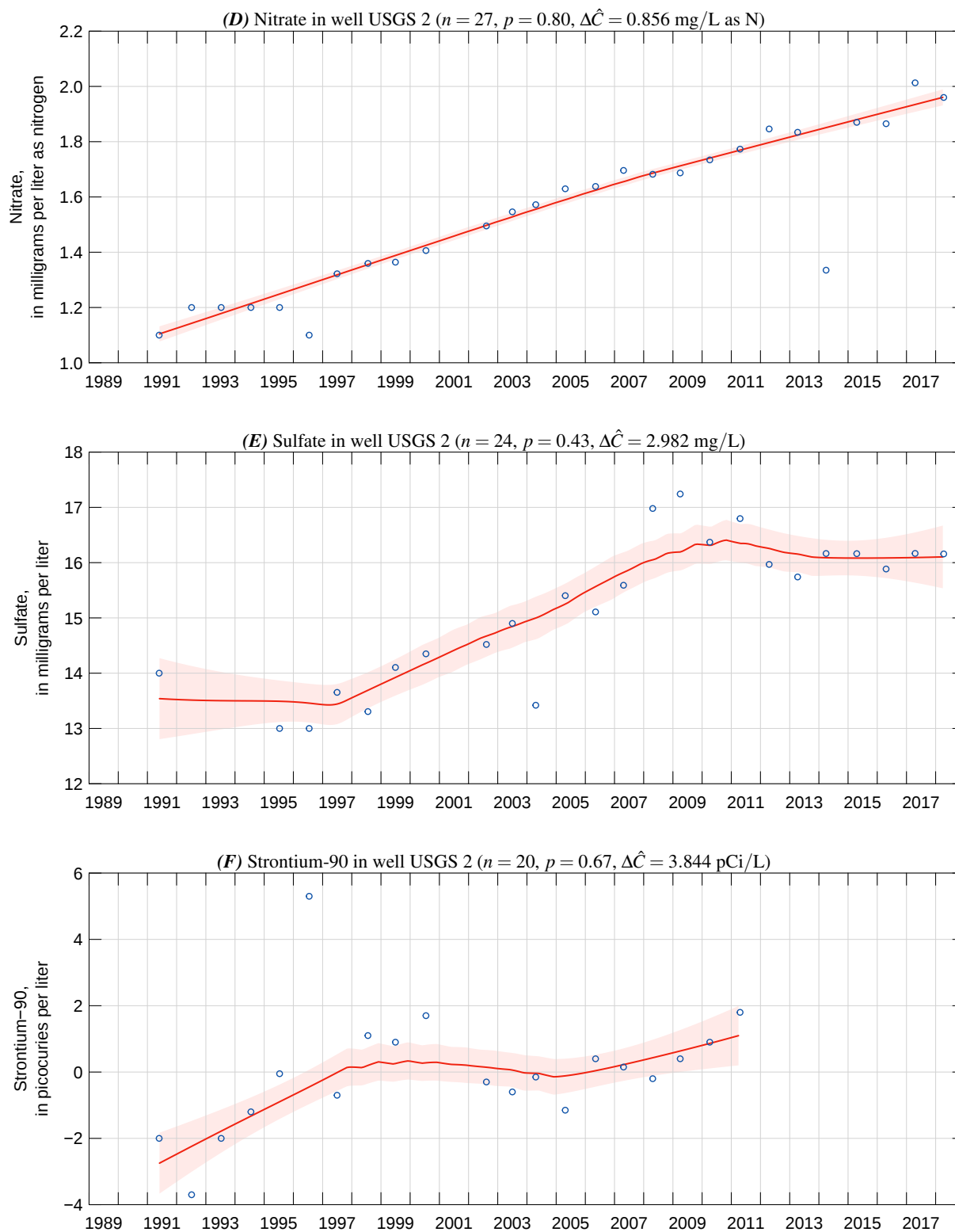


Figure 5.73. —Continued

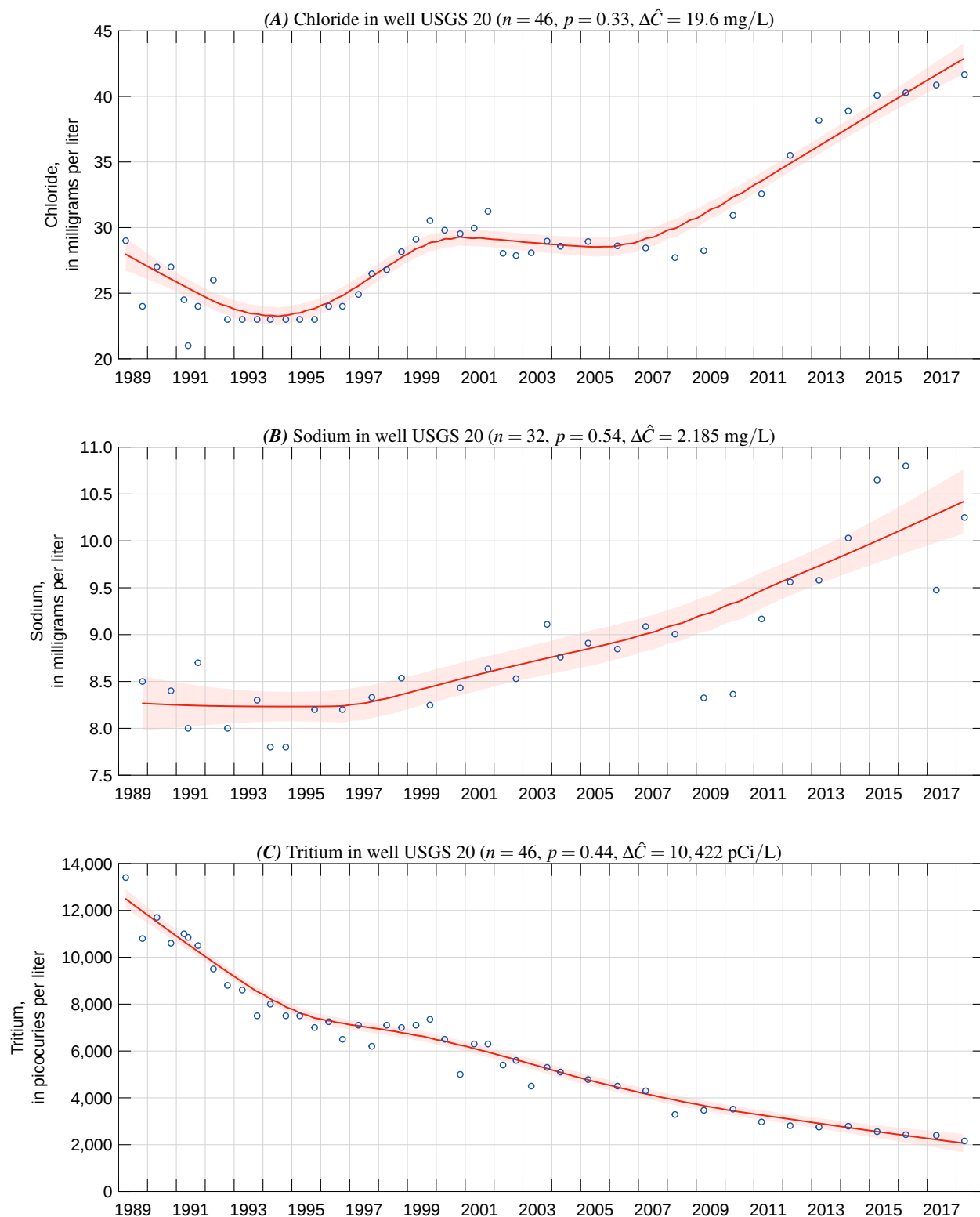


Figure 5.74. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 20 (Site No. 433253112545901), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

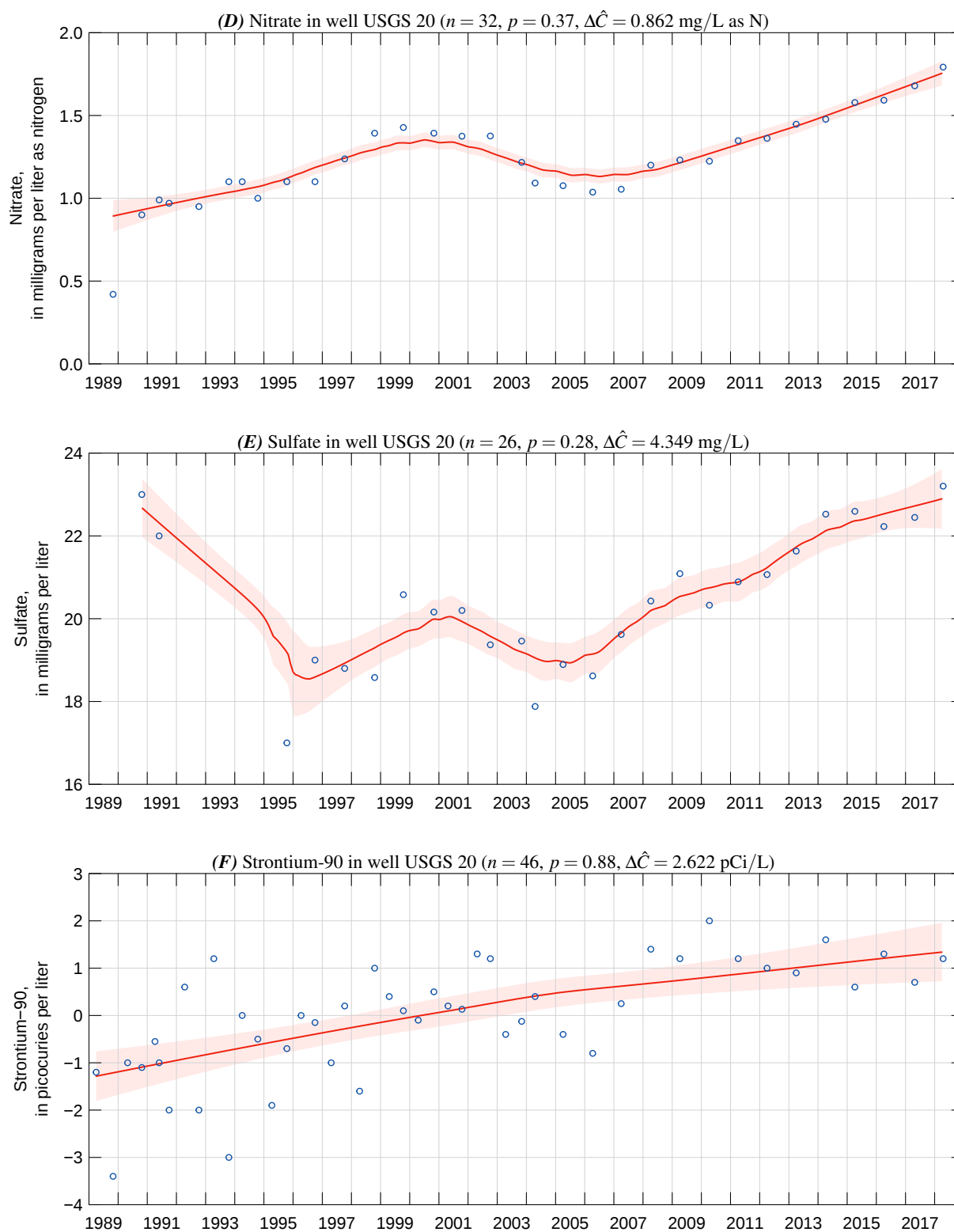


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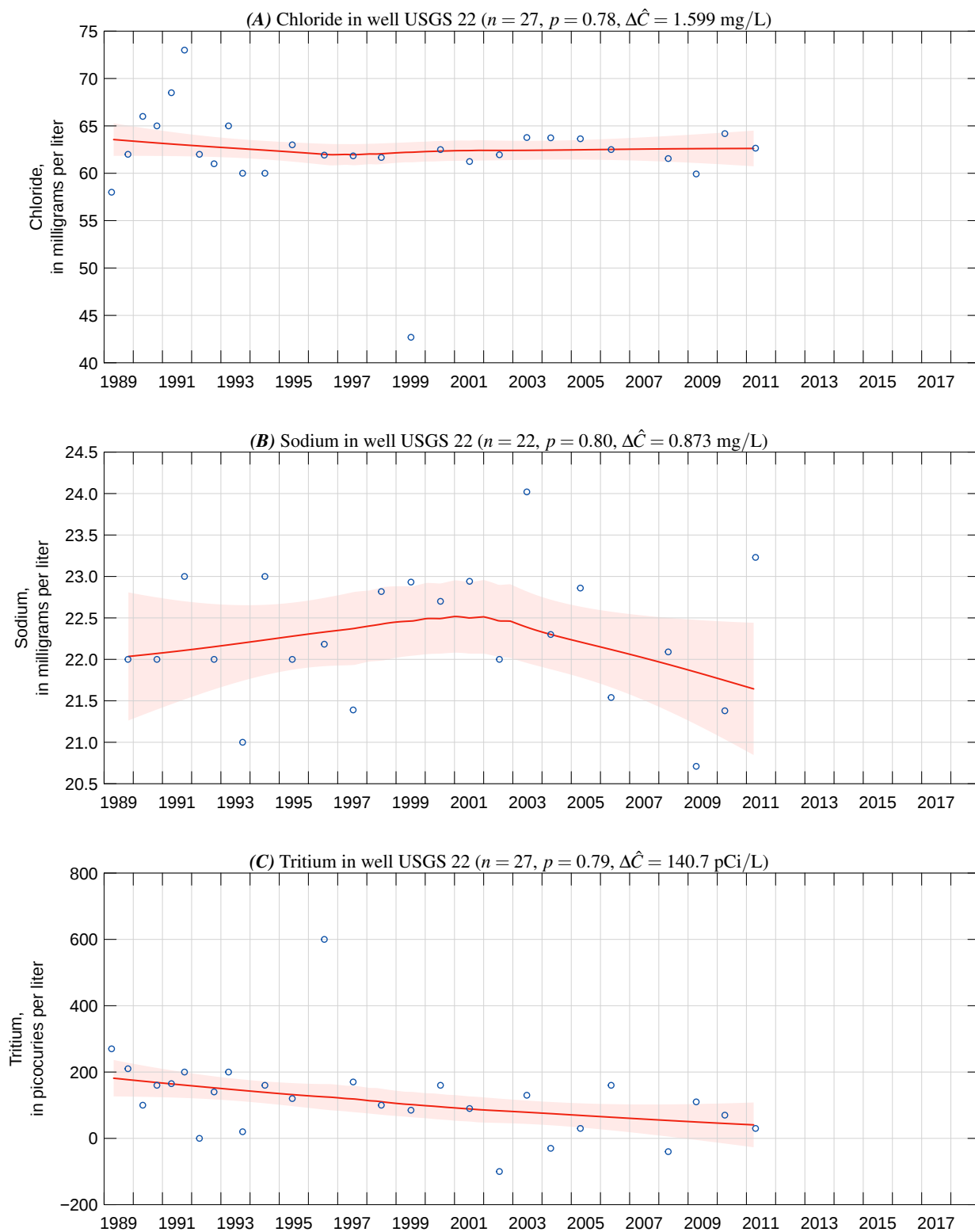


Figure 5.75. Local-regression model fitted to (A) chloride, (B) sodium, and (C) tritium measured in water samples collected from well USGS 22 (Site No. 433422113031701), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

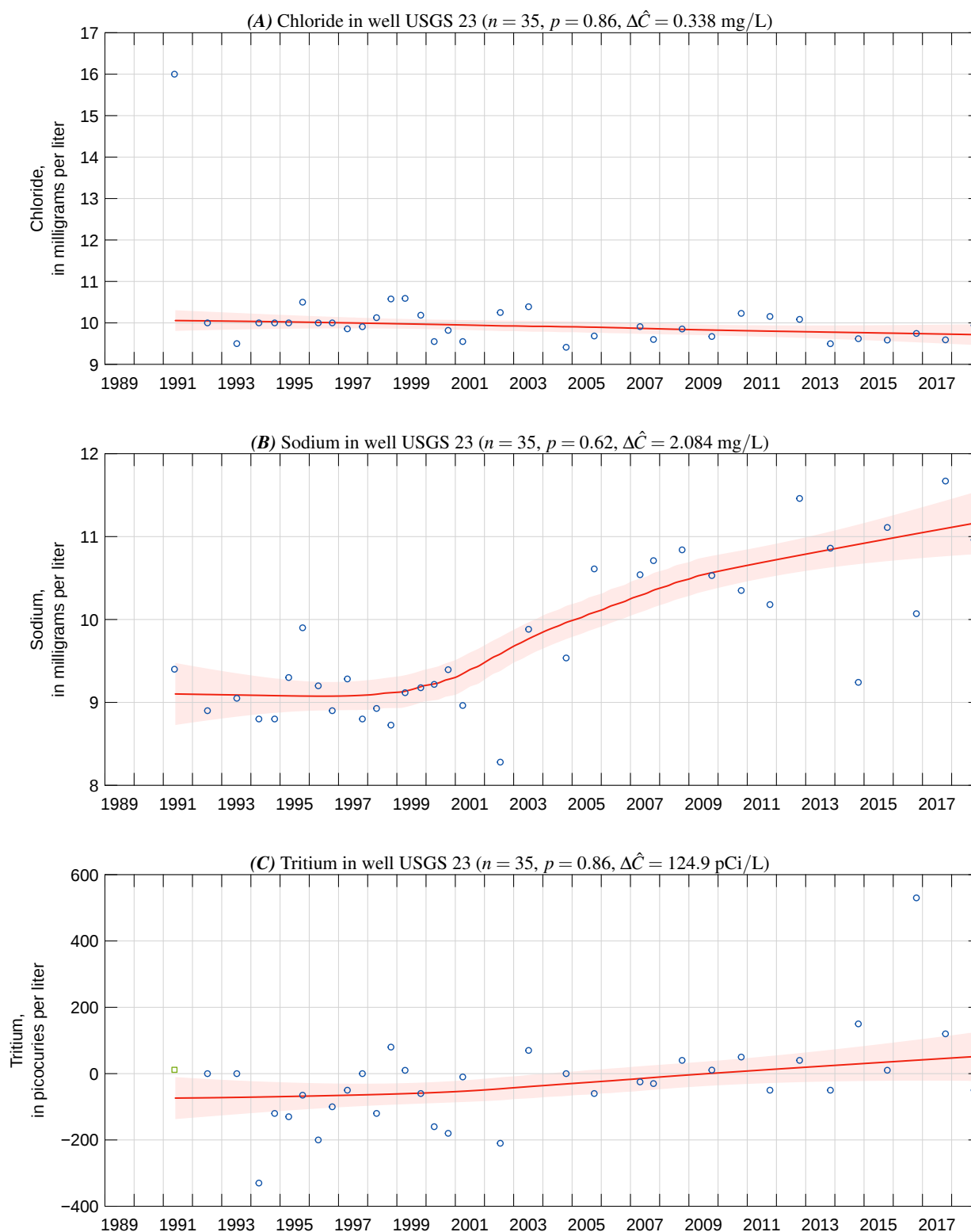


Figure 5.76. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 23 (Site No. 434055112595901), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

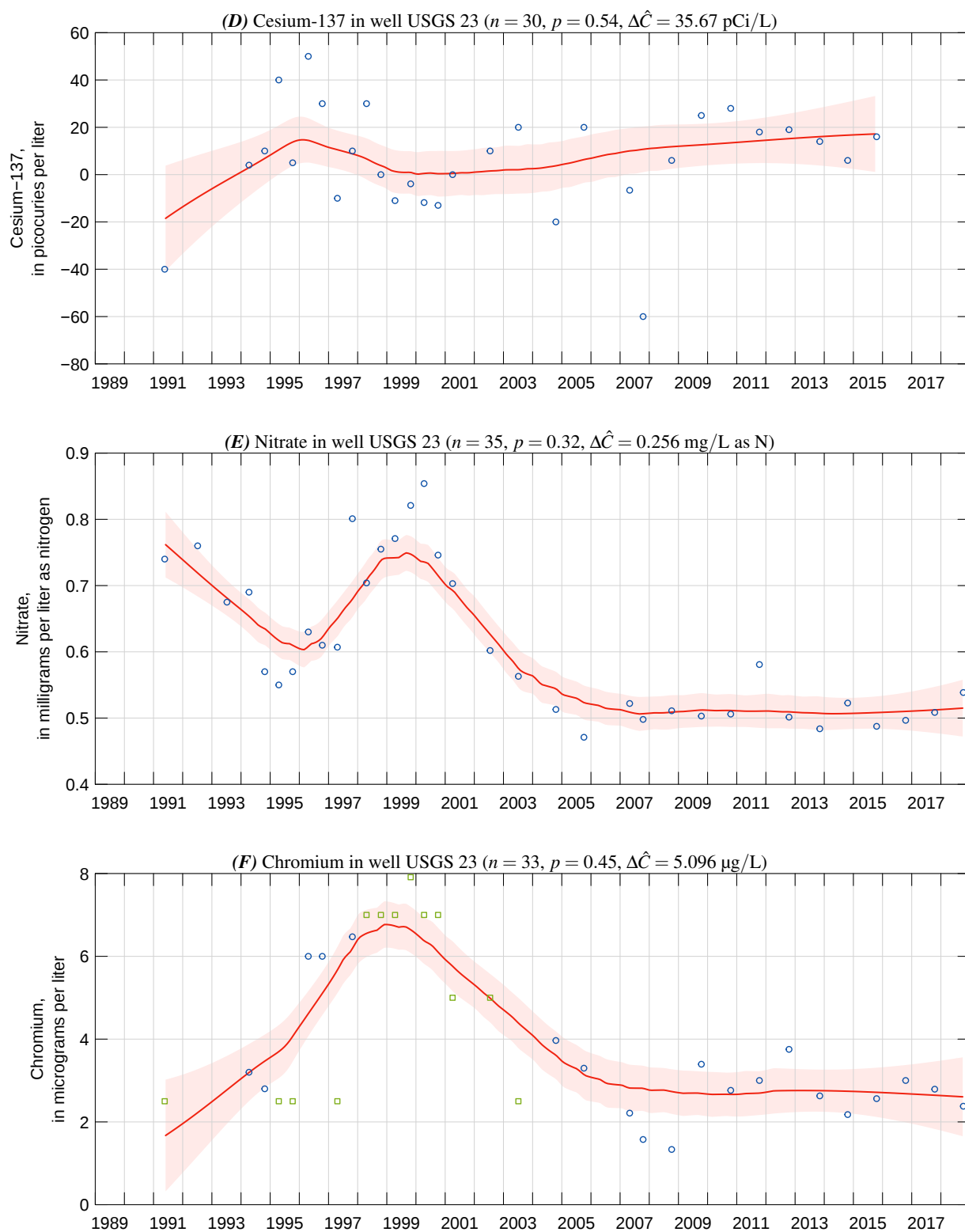


Figure 5.76. —Continued

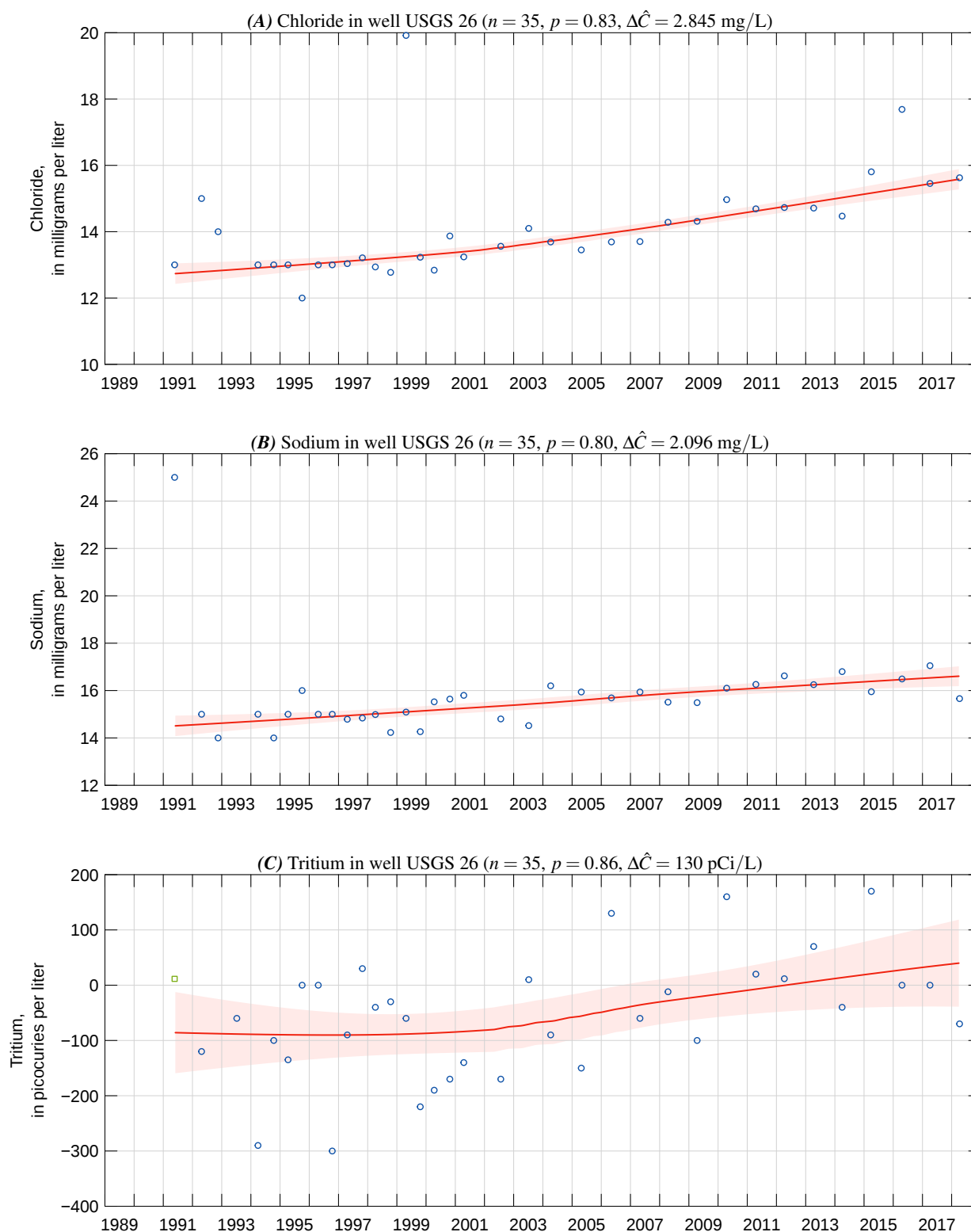


Figure 5.77. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, (N) trichloroethylene, and (O) strontium-90 measured in water samples collected from well USGS 26 (Site No. 435212112394001), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

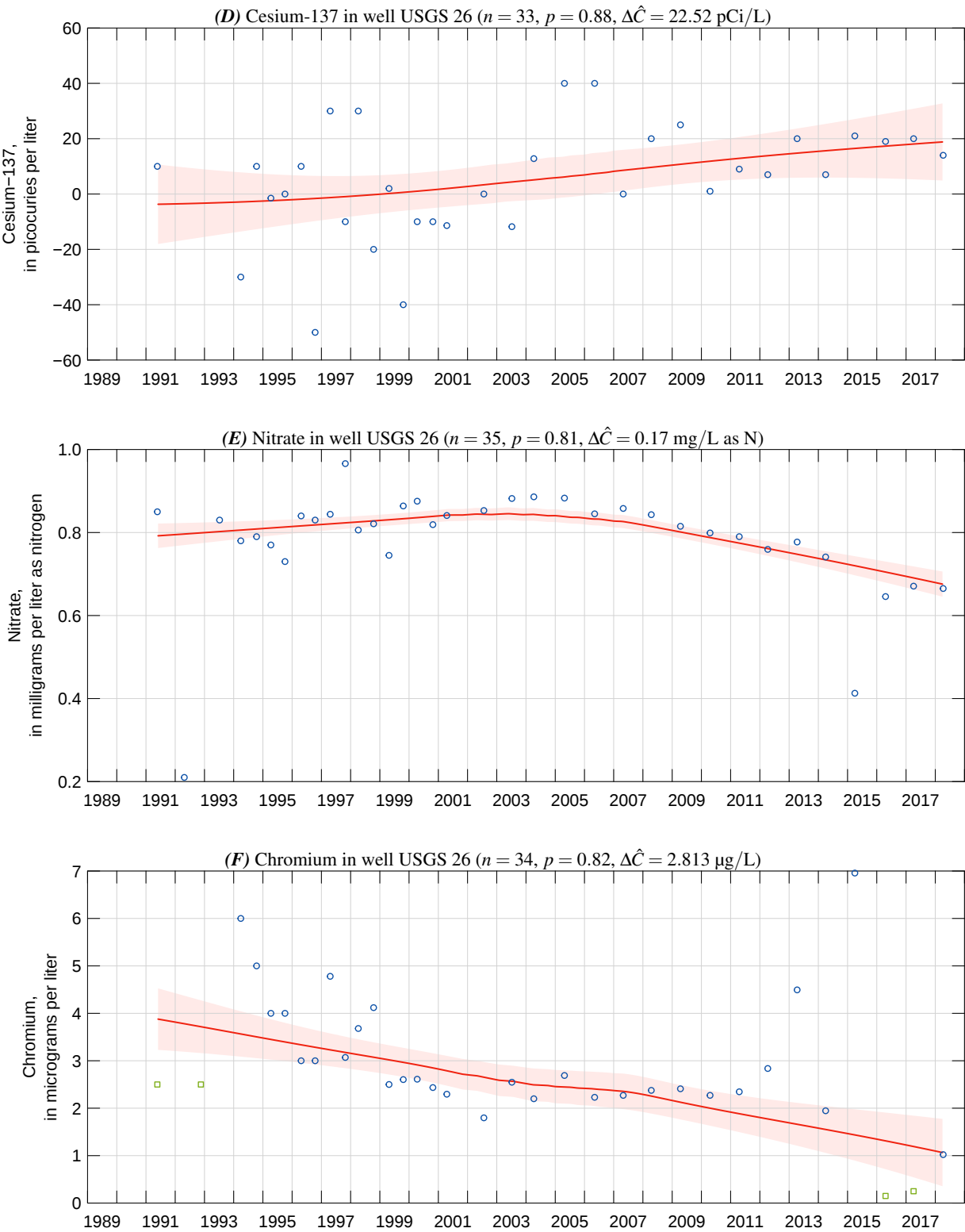
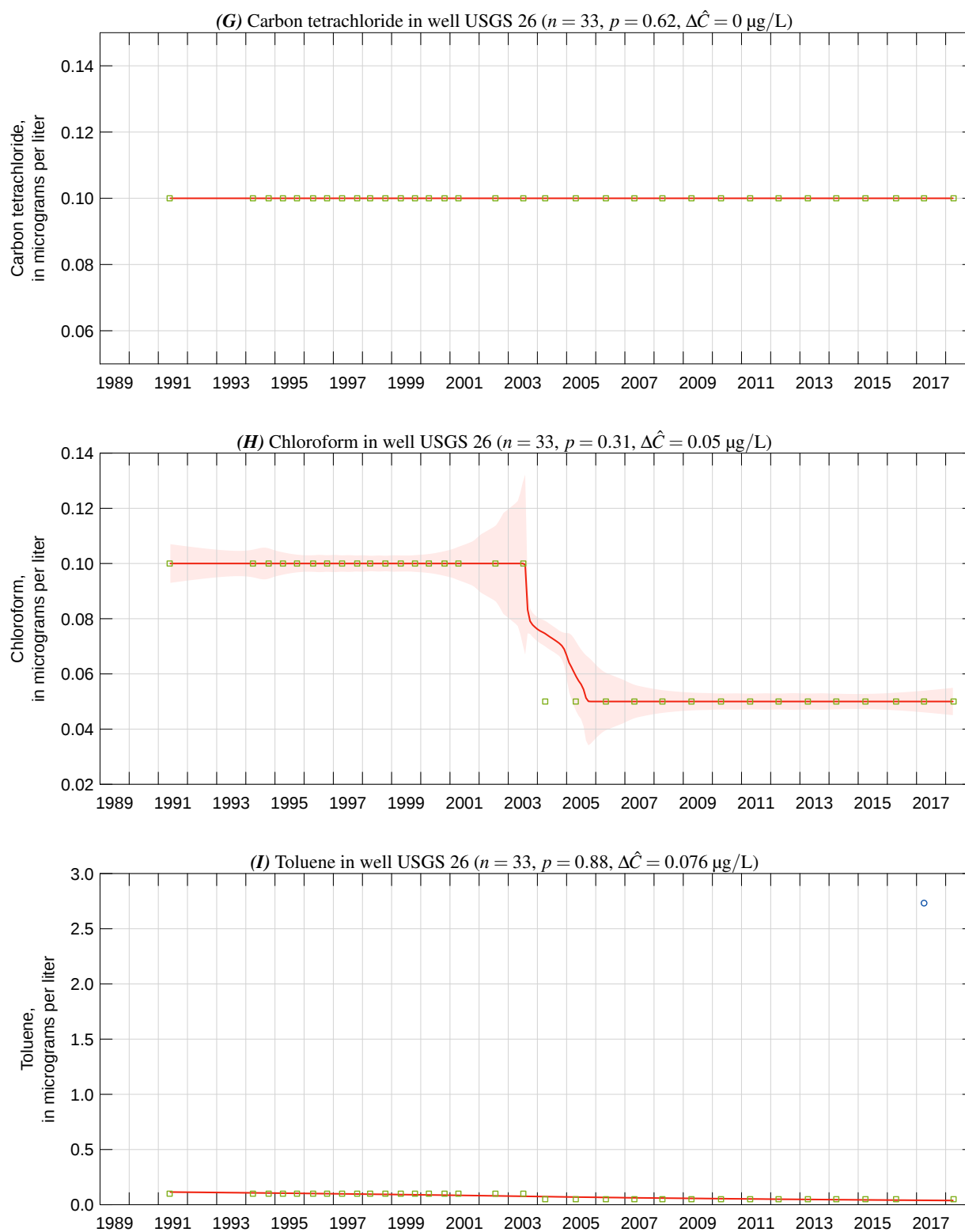


Figure 5.77. —Continued



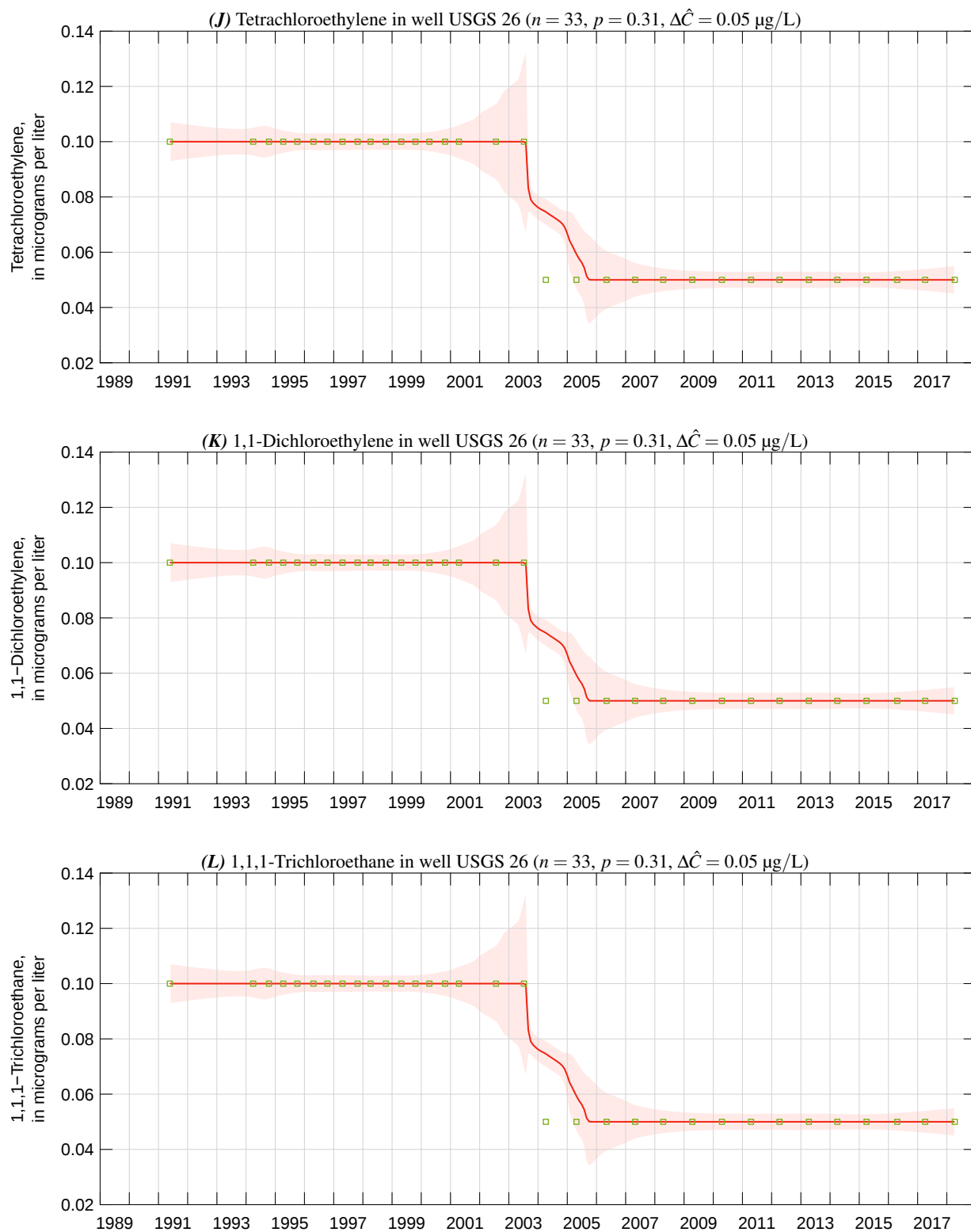


Figure 5.77. —Continued

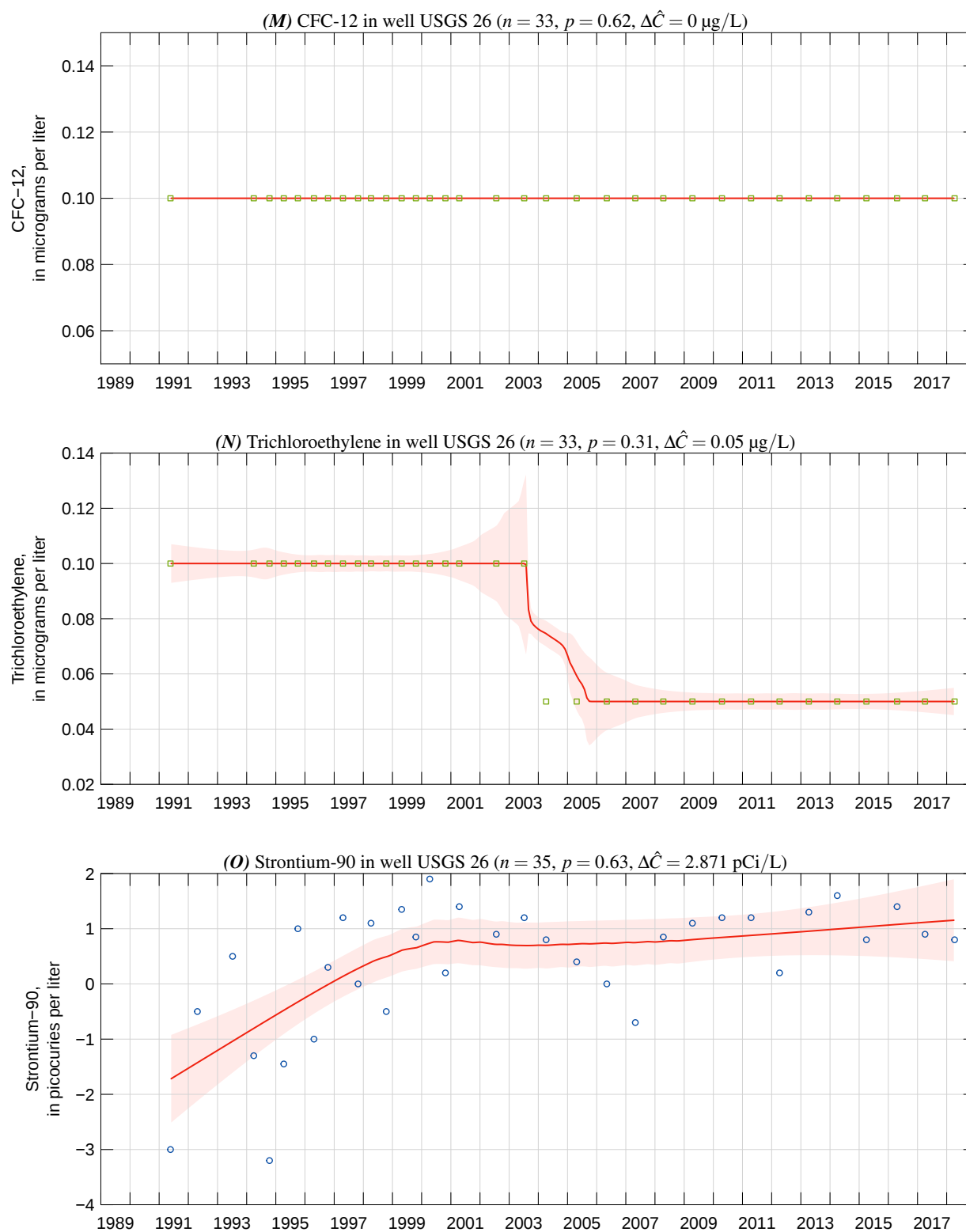


Figure 5.77. —Continued

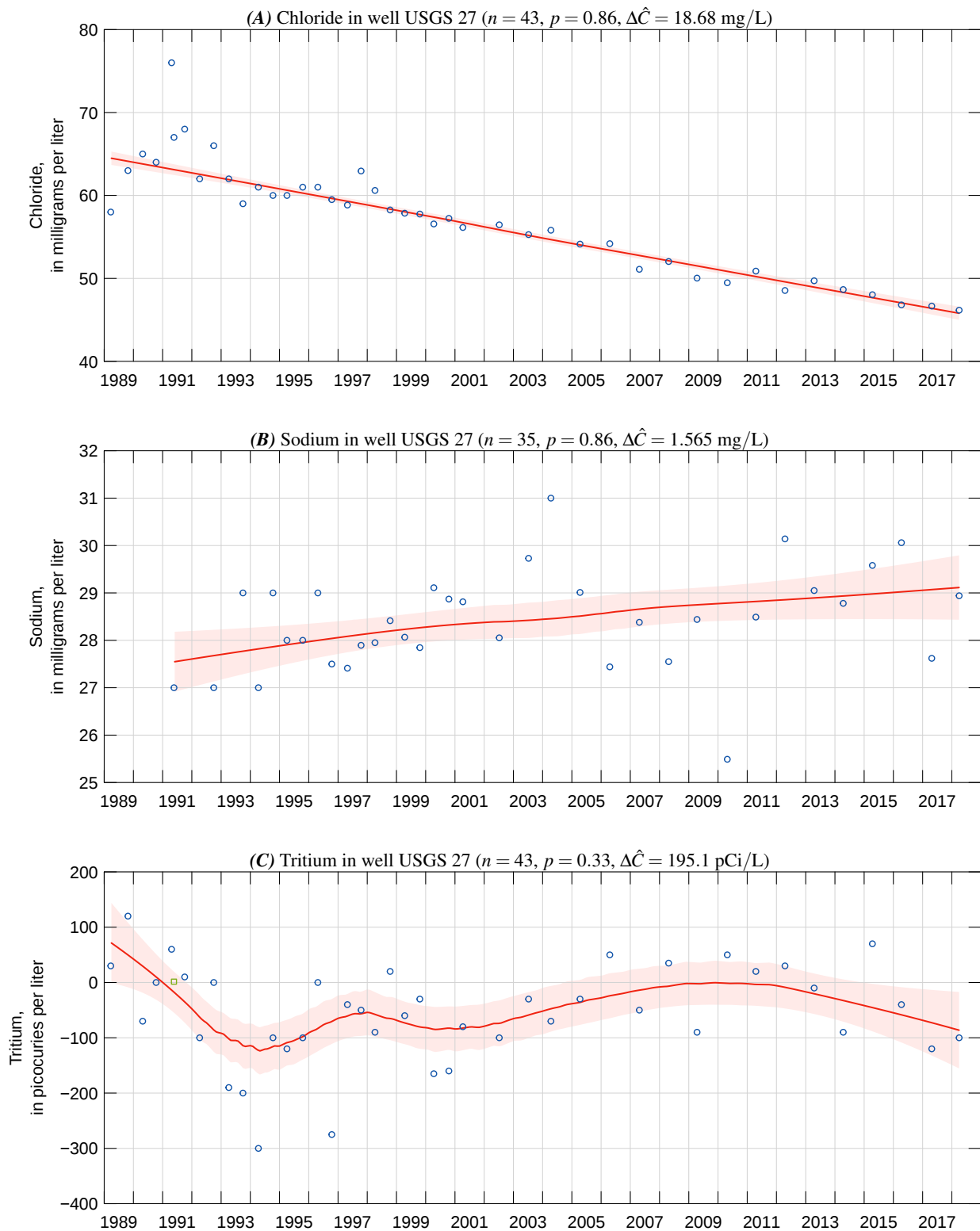


Figure 5.78. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 27 (Site No. 43485112321801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

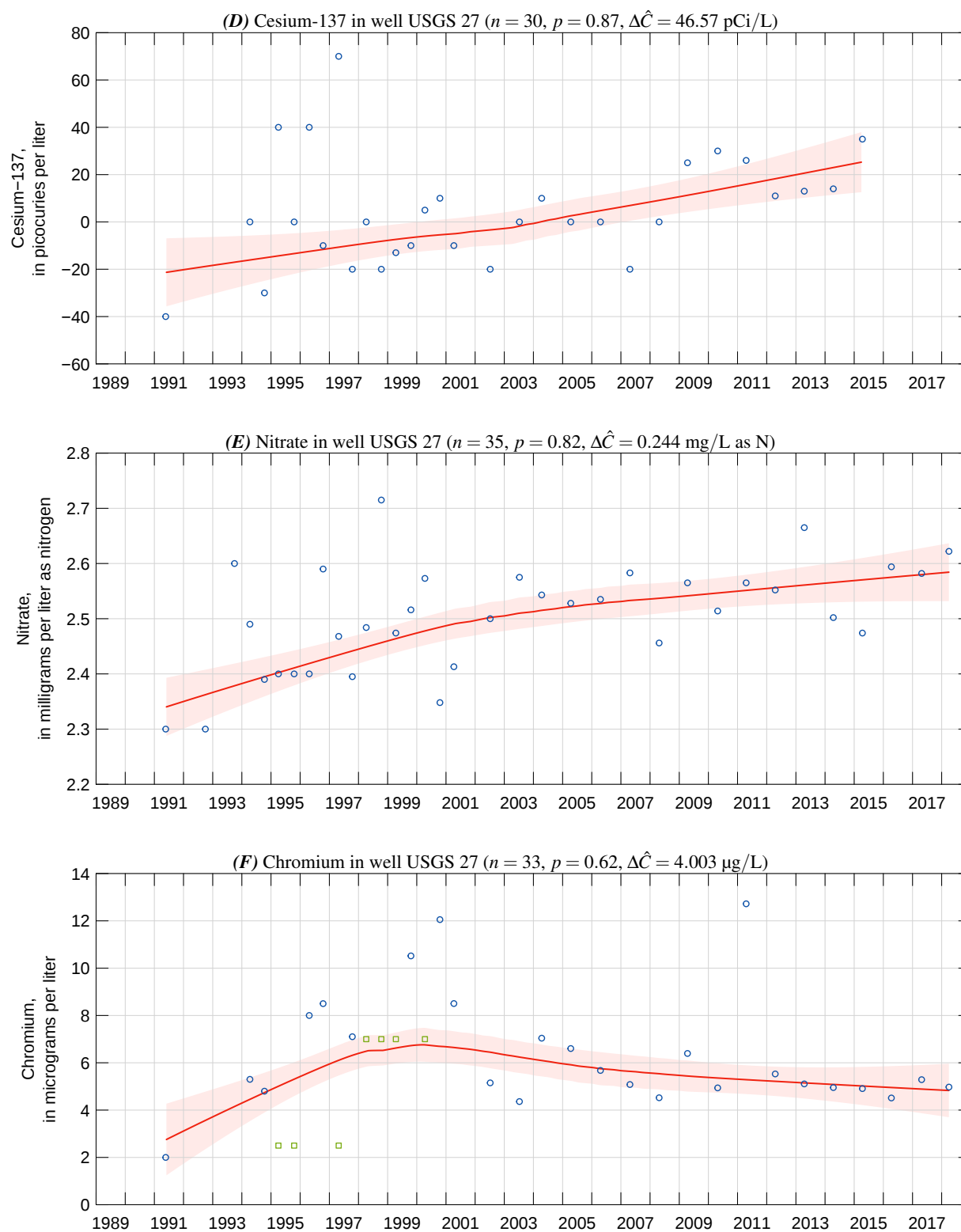


Figure 5.78. —Continued

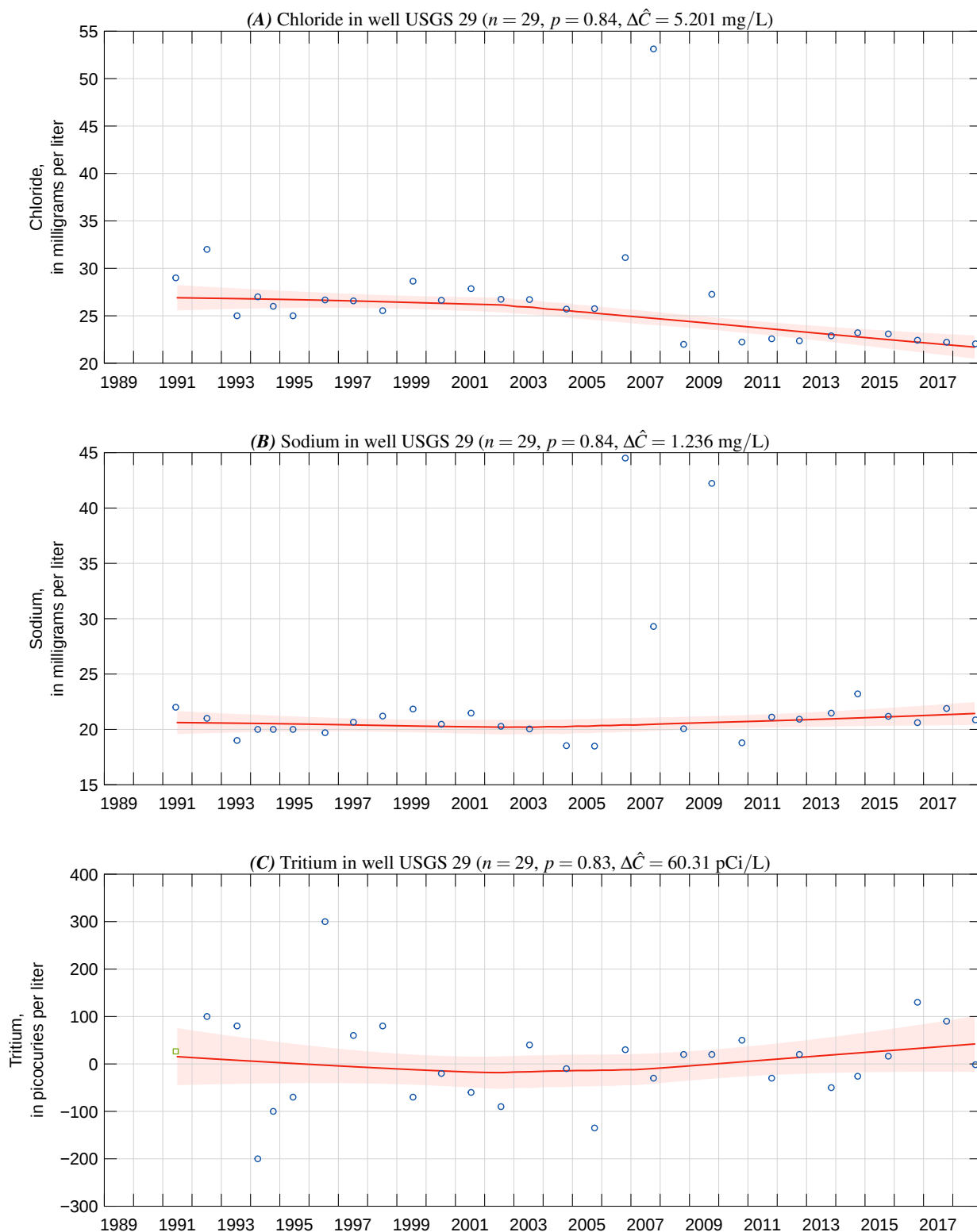


Figure 5.79. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 29 (Site No. 434407112285101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

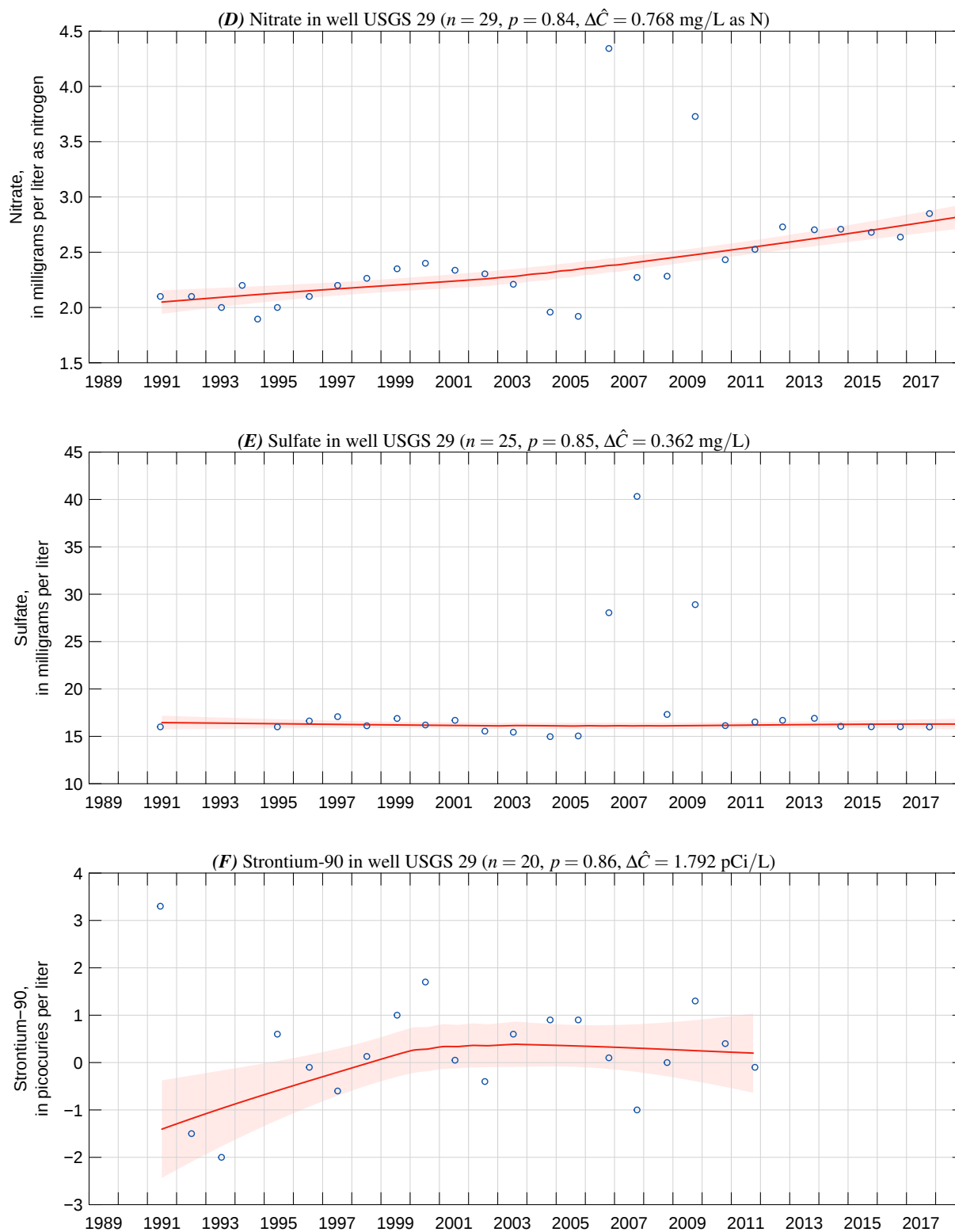


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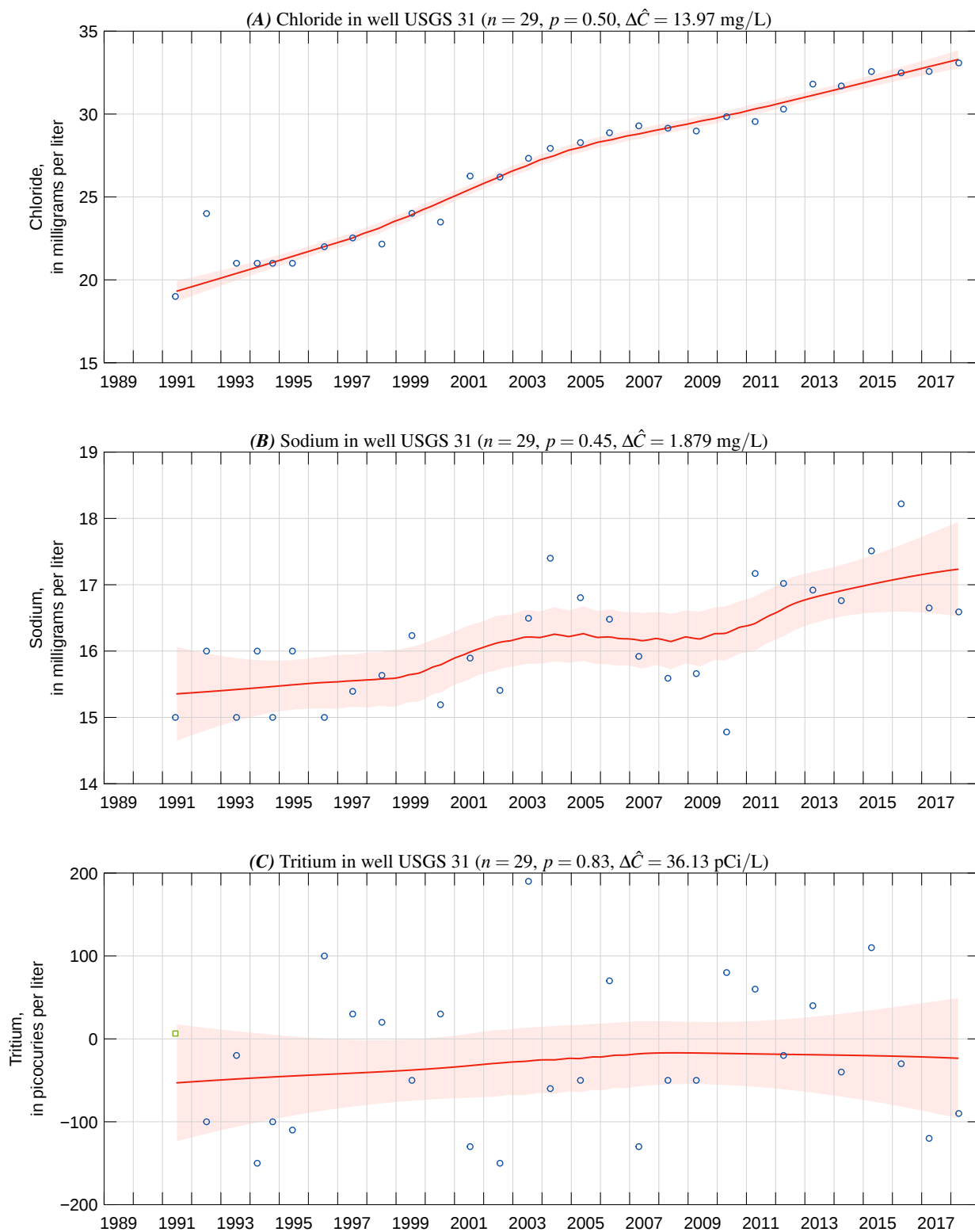


Figure 5.80. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 31 (Site No. 434625112342101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

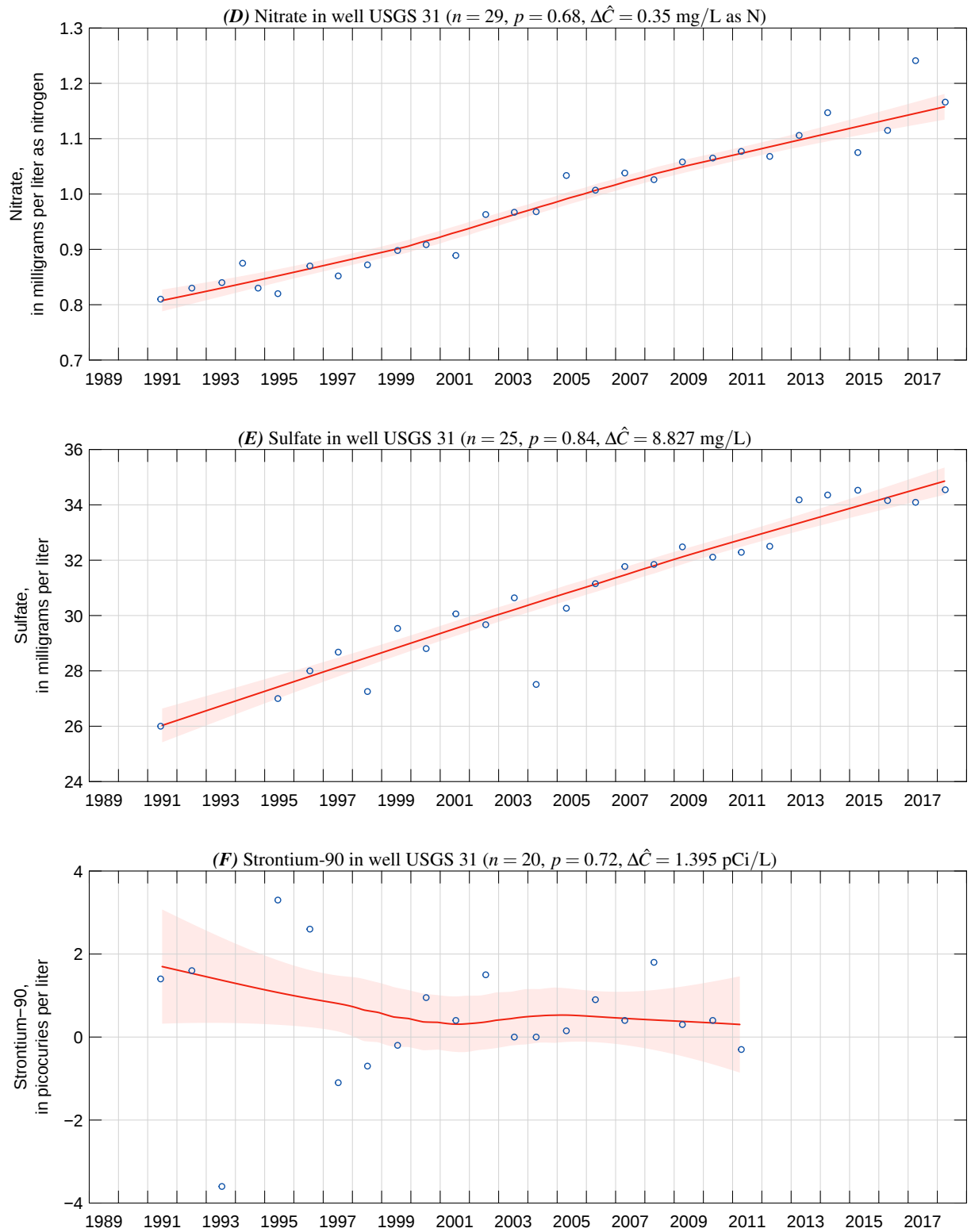


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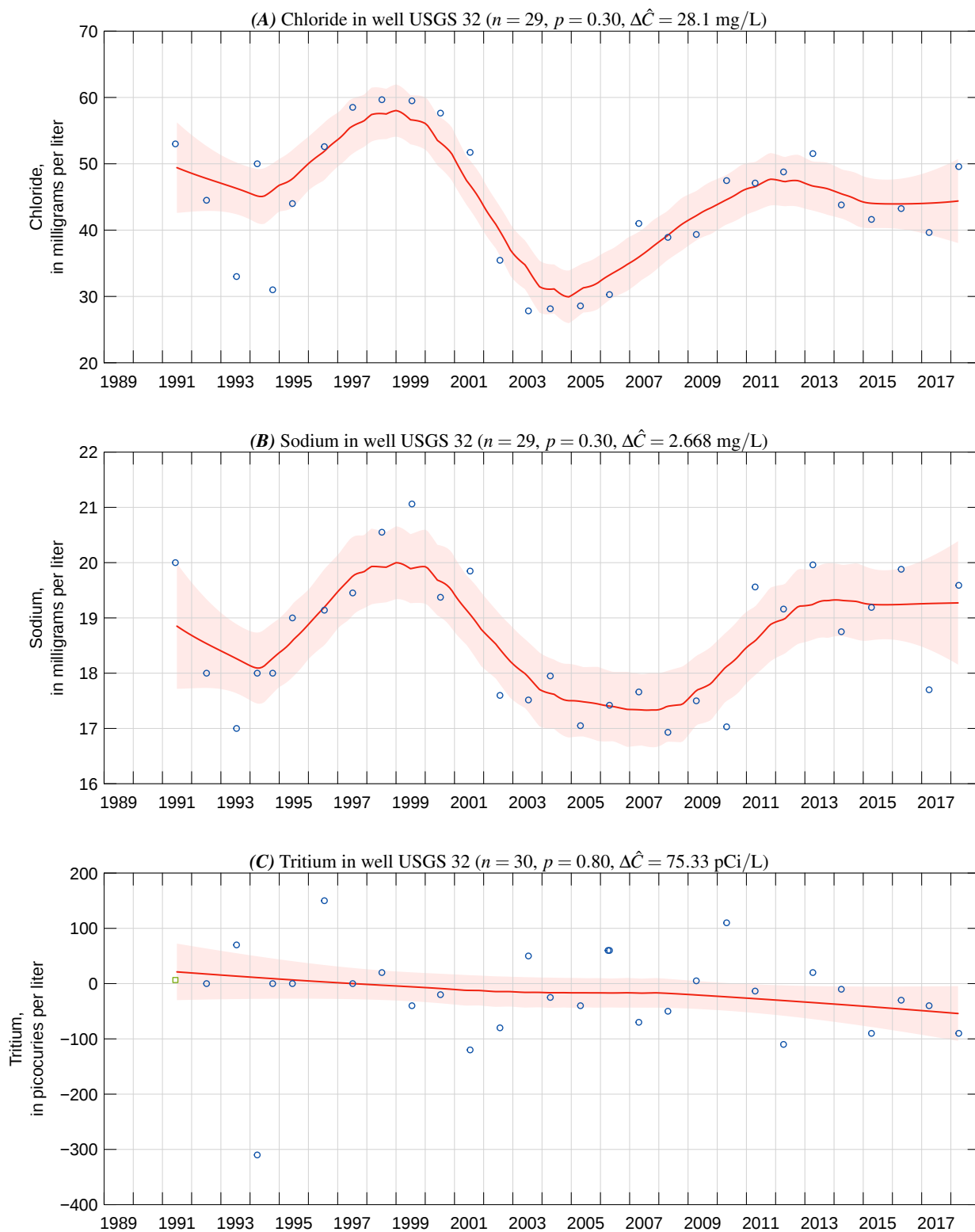


Figure 5.81. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 32 (Site No. 434444112322101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

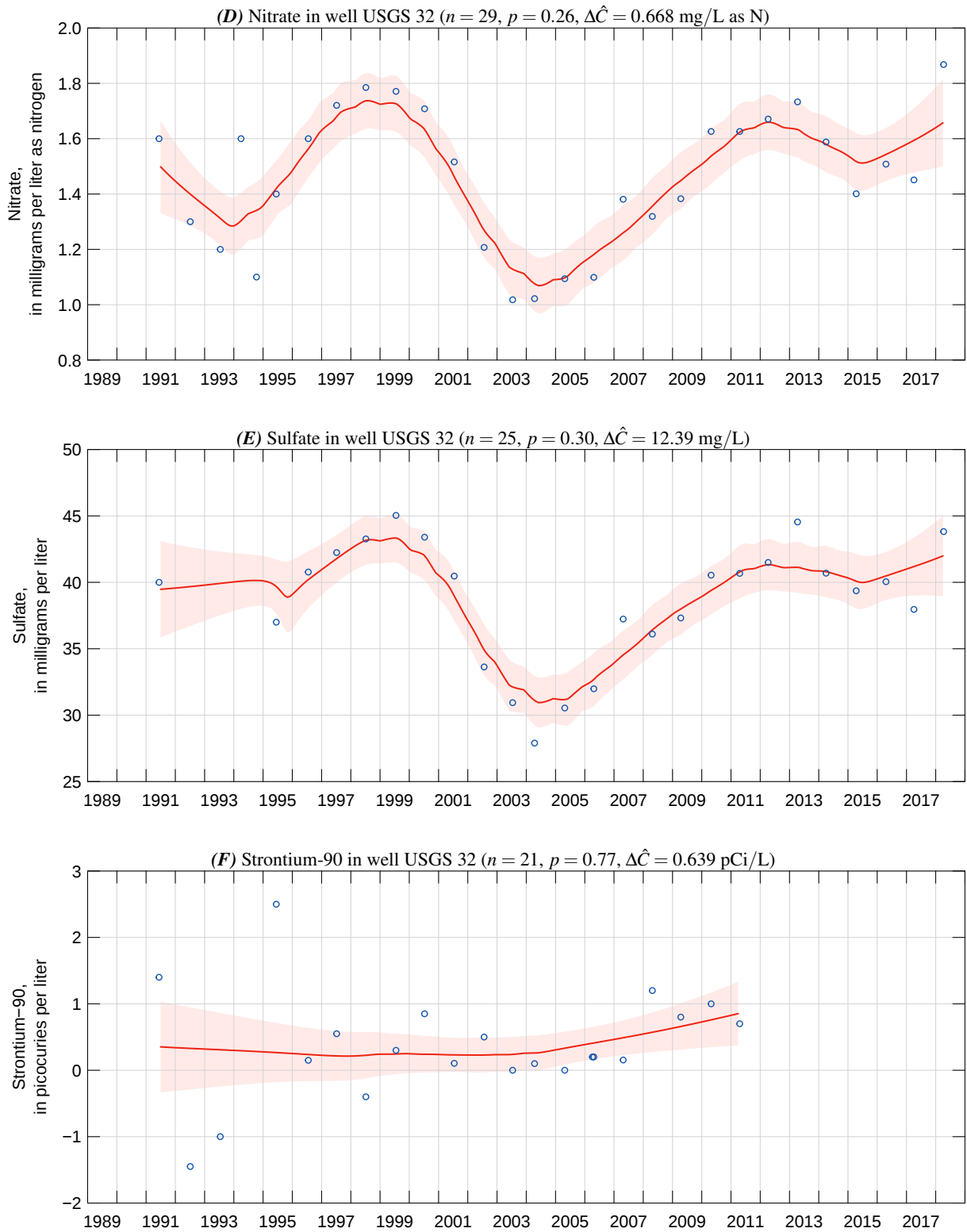


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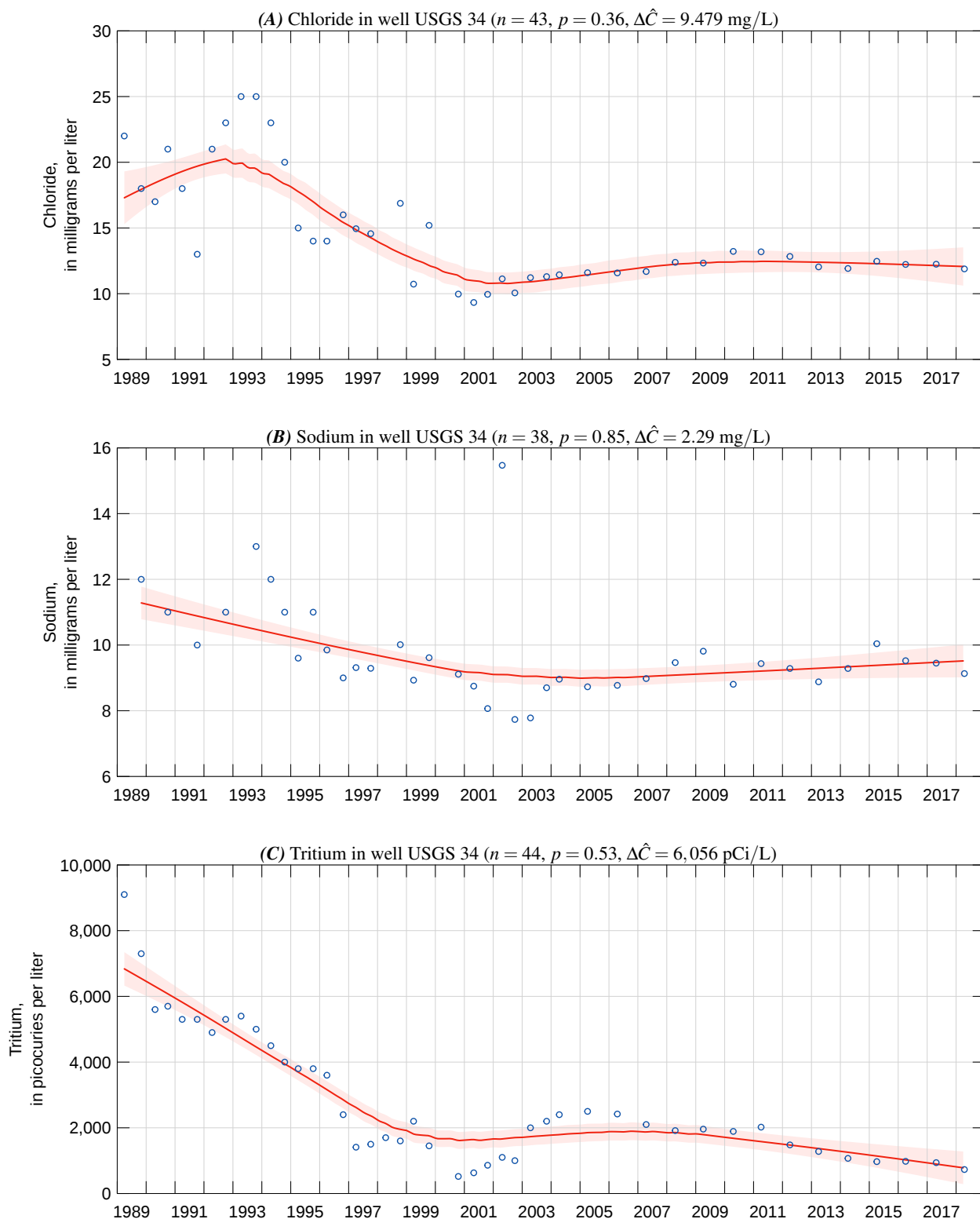


Figure 5.82. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) fluoride, (H) chromium, (I) carbon tetrachloride, (J) chloroform, (K) toluene, (L) tetrachloroethylene, (M) 1,1-dichloroethylene, (N) 1,1,1-trichloroethane, (O) cfc-12, (P) trichloroethylene, (Q) strontium-90, and (R) plutonium-238 measured in water samples collected from well USGS 34 (Site No. 433334112565501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

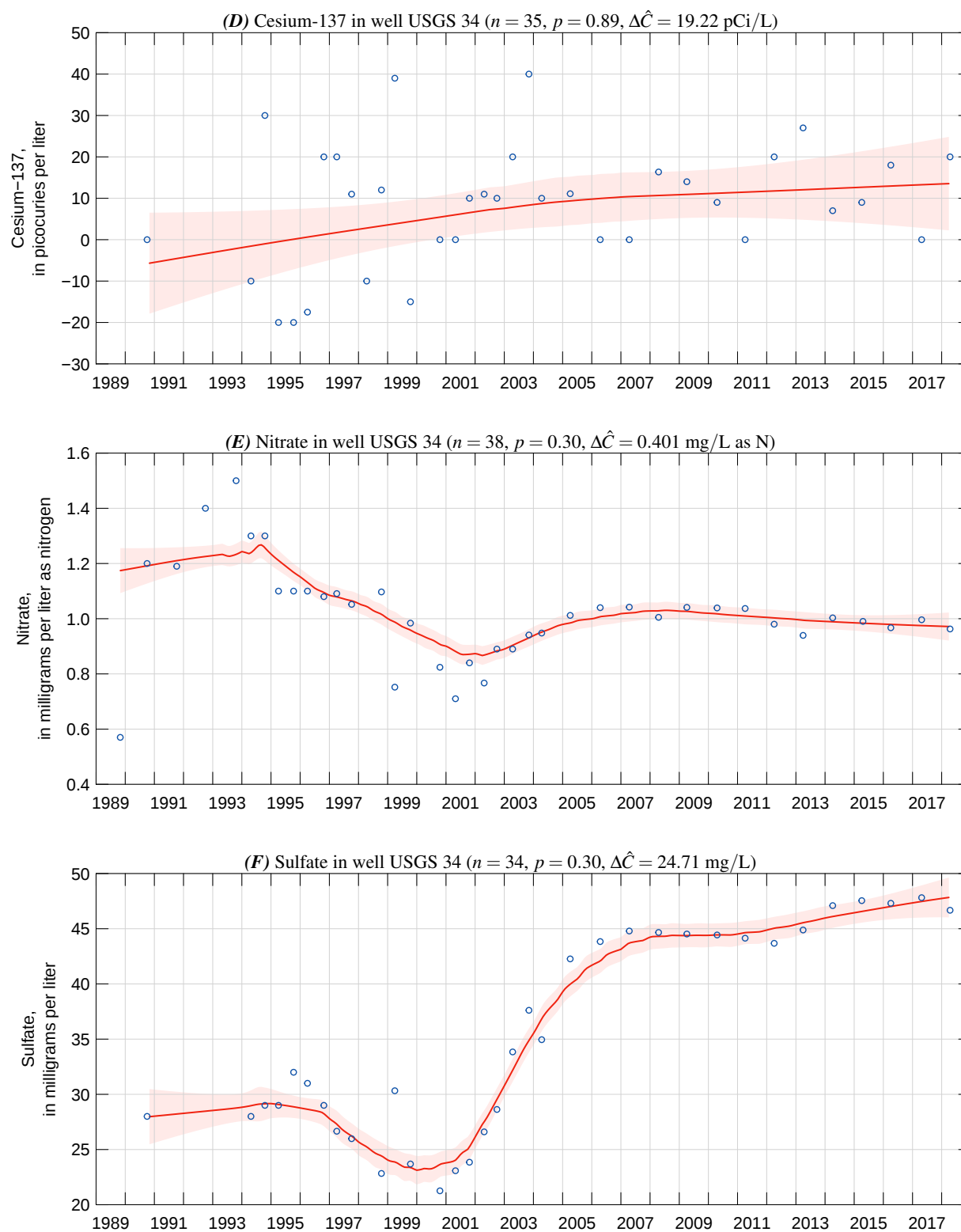


Figure 5.82. —Continued

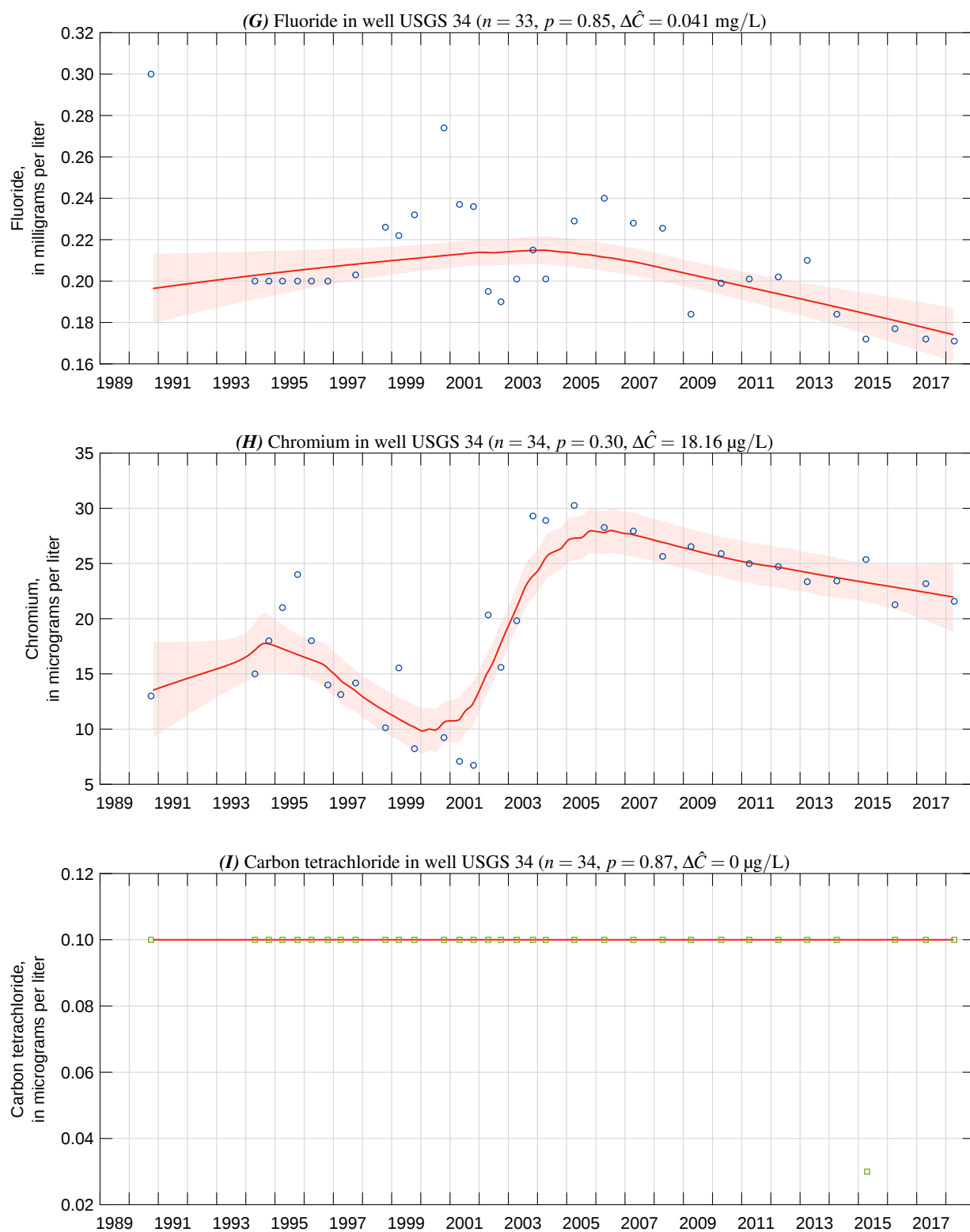


Figure 5.82. —Continued

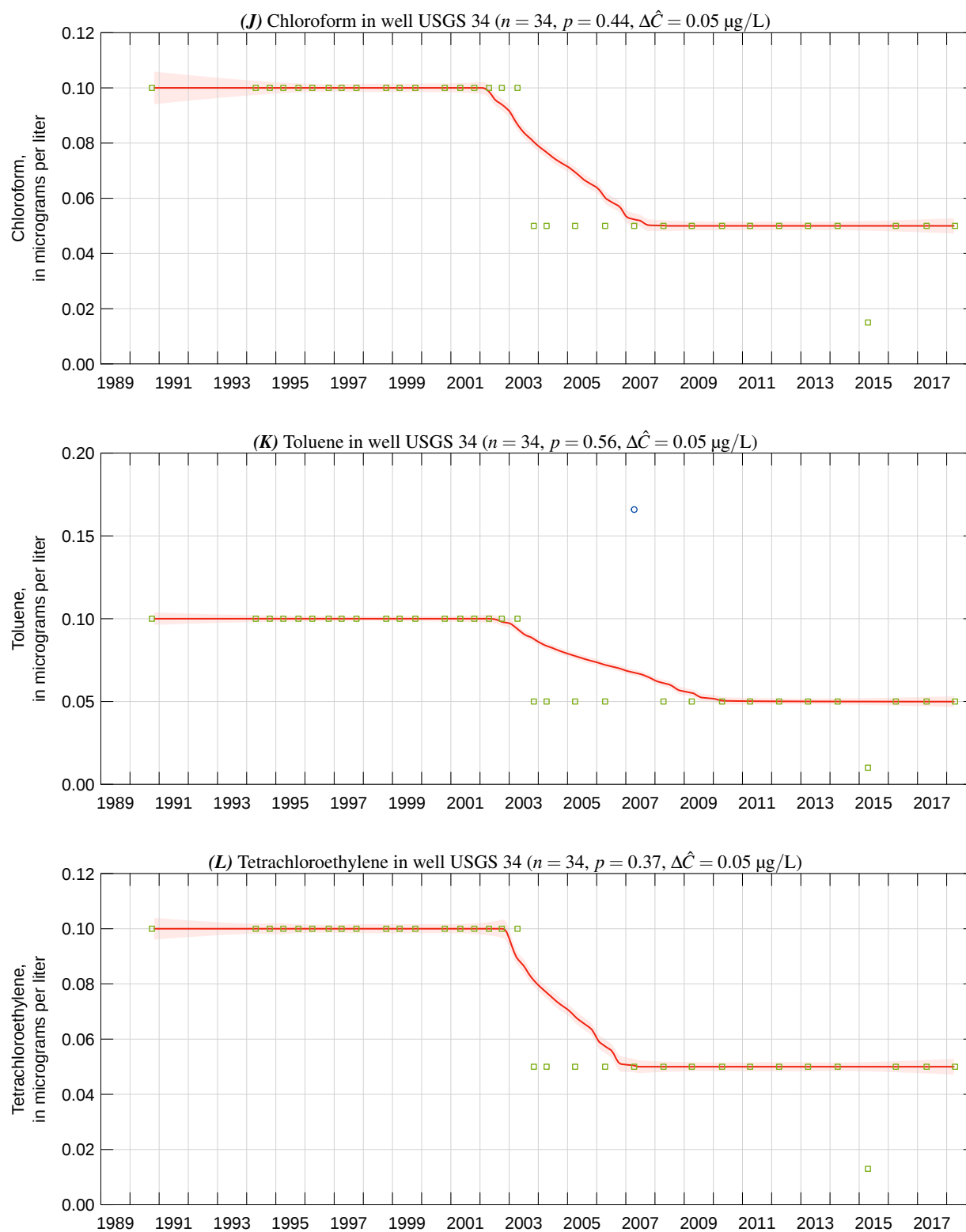


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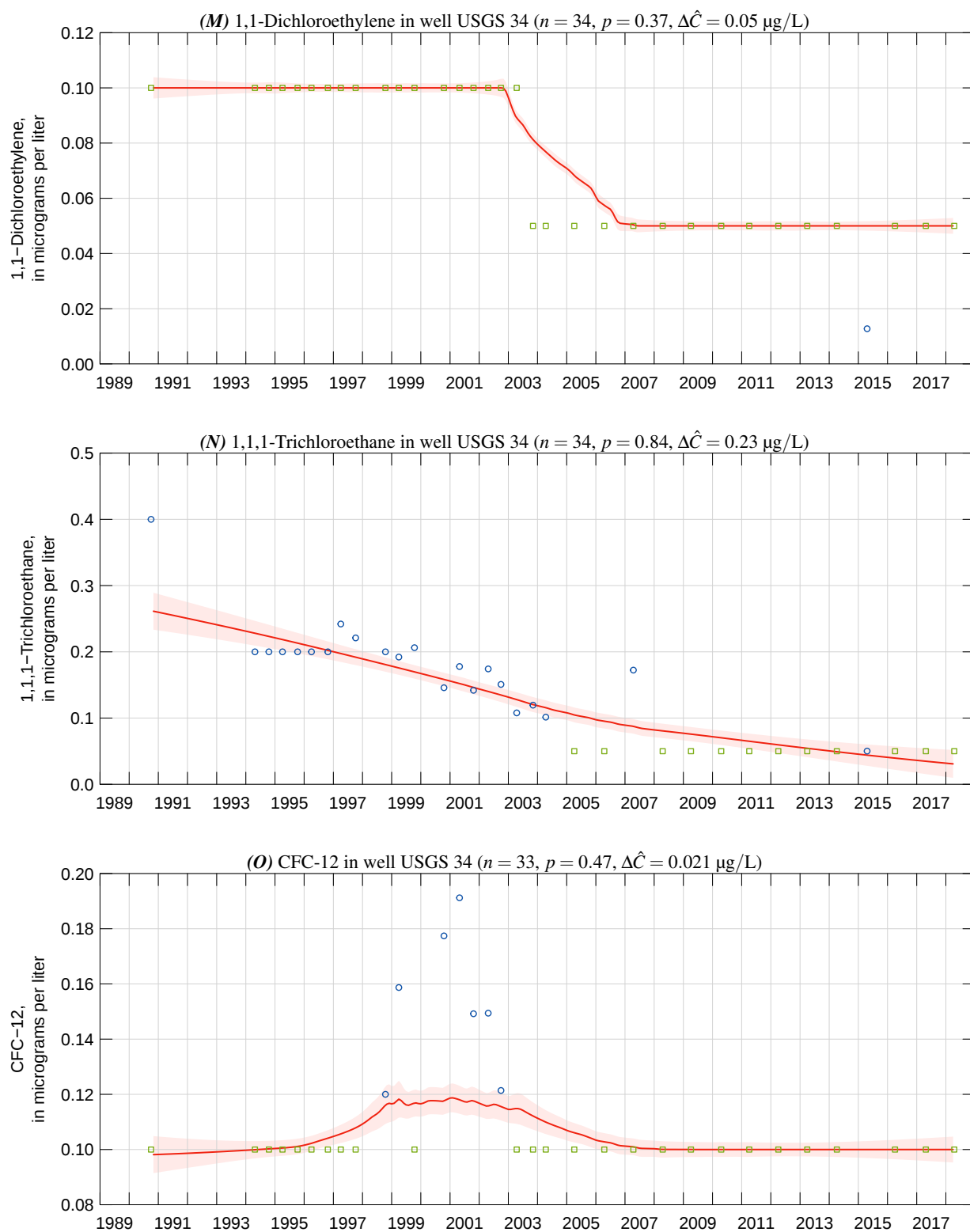


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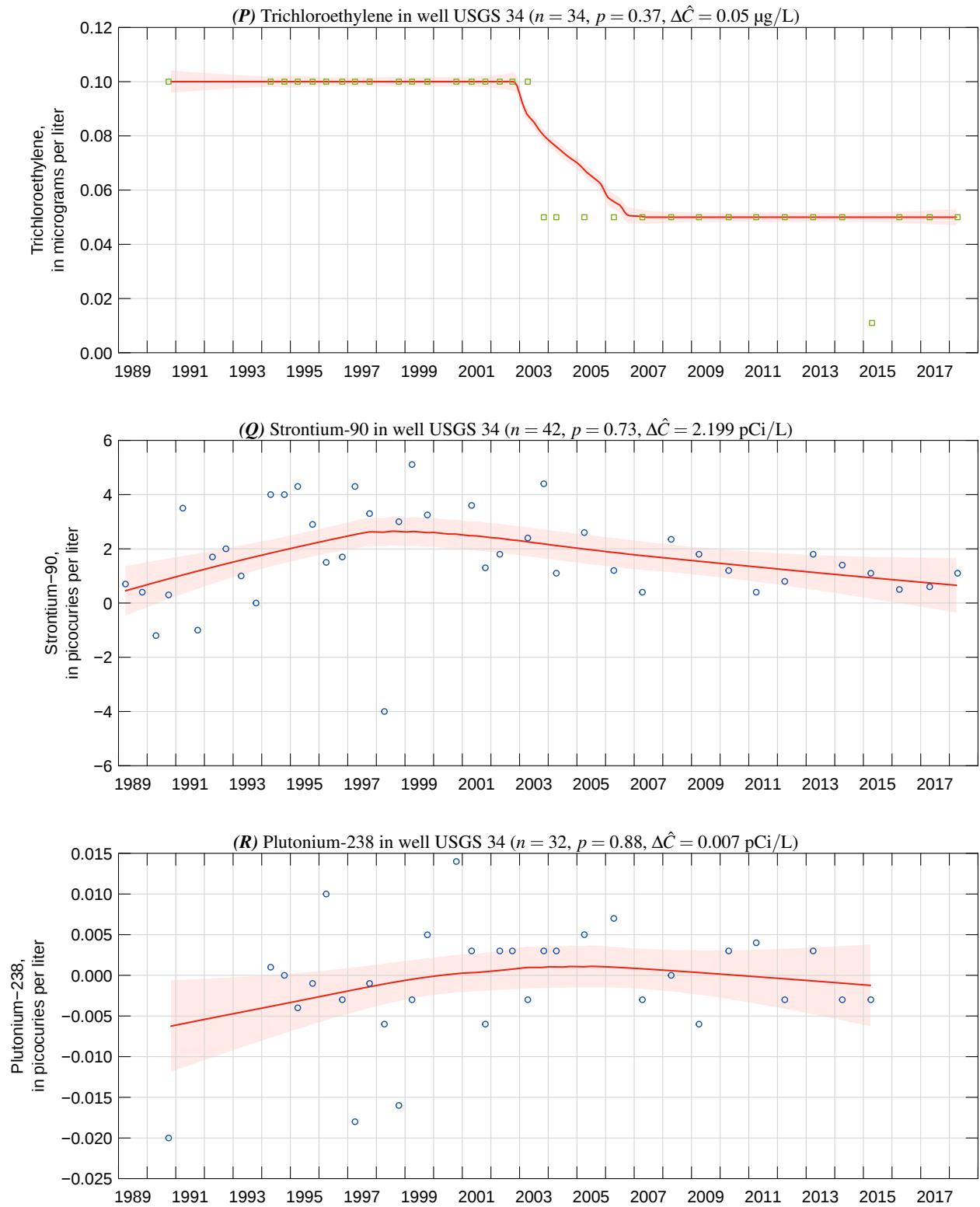


Figure 5.82. —Continued

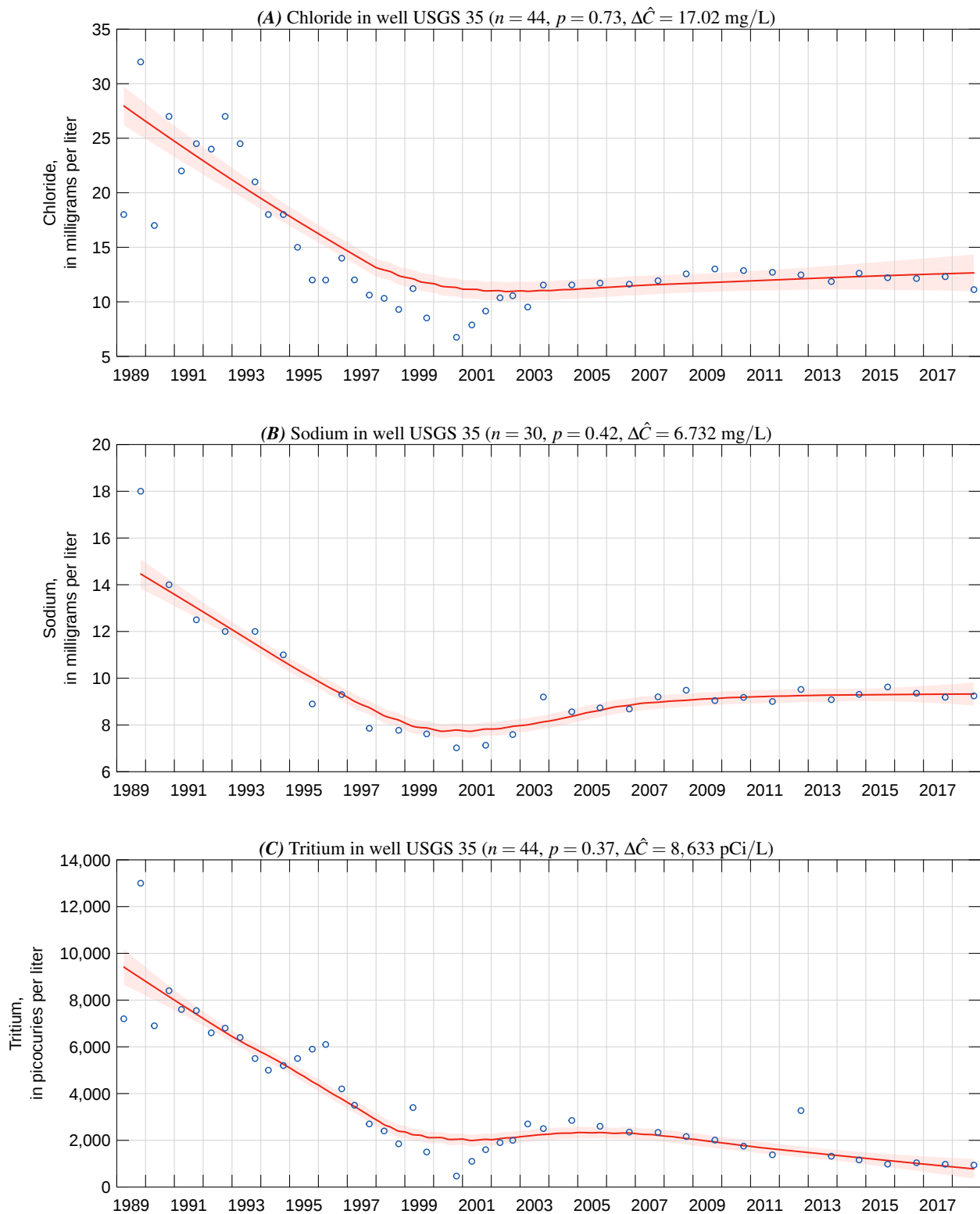


Figure 5.83. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 35 (Site No. 433339112565801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

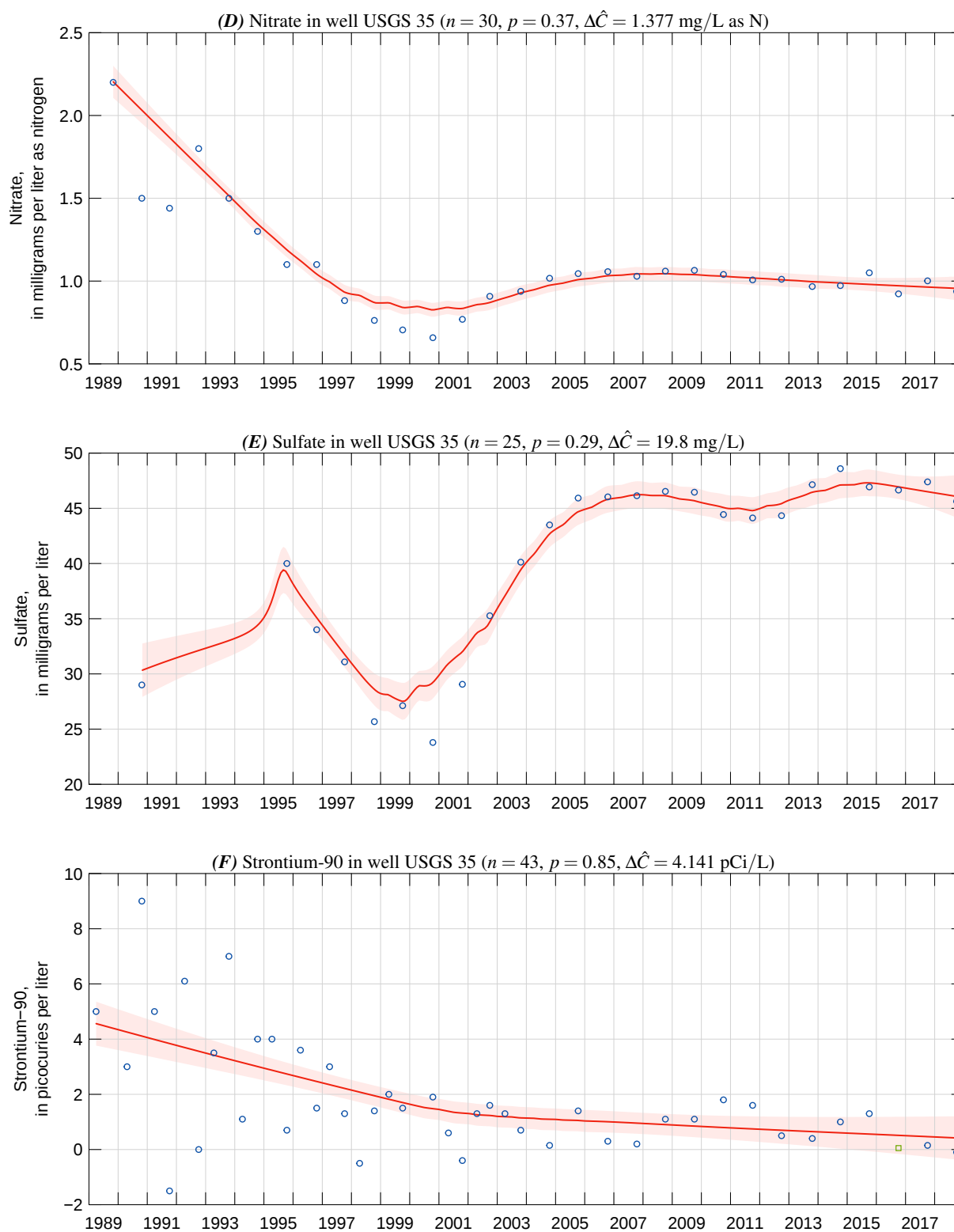


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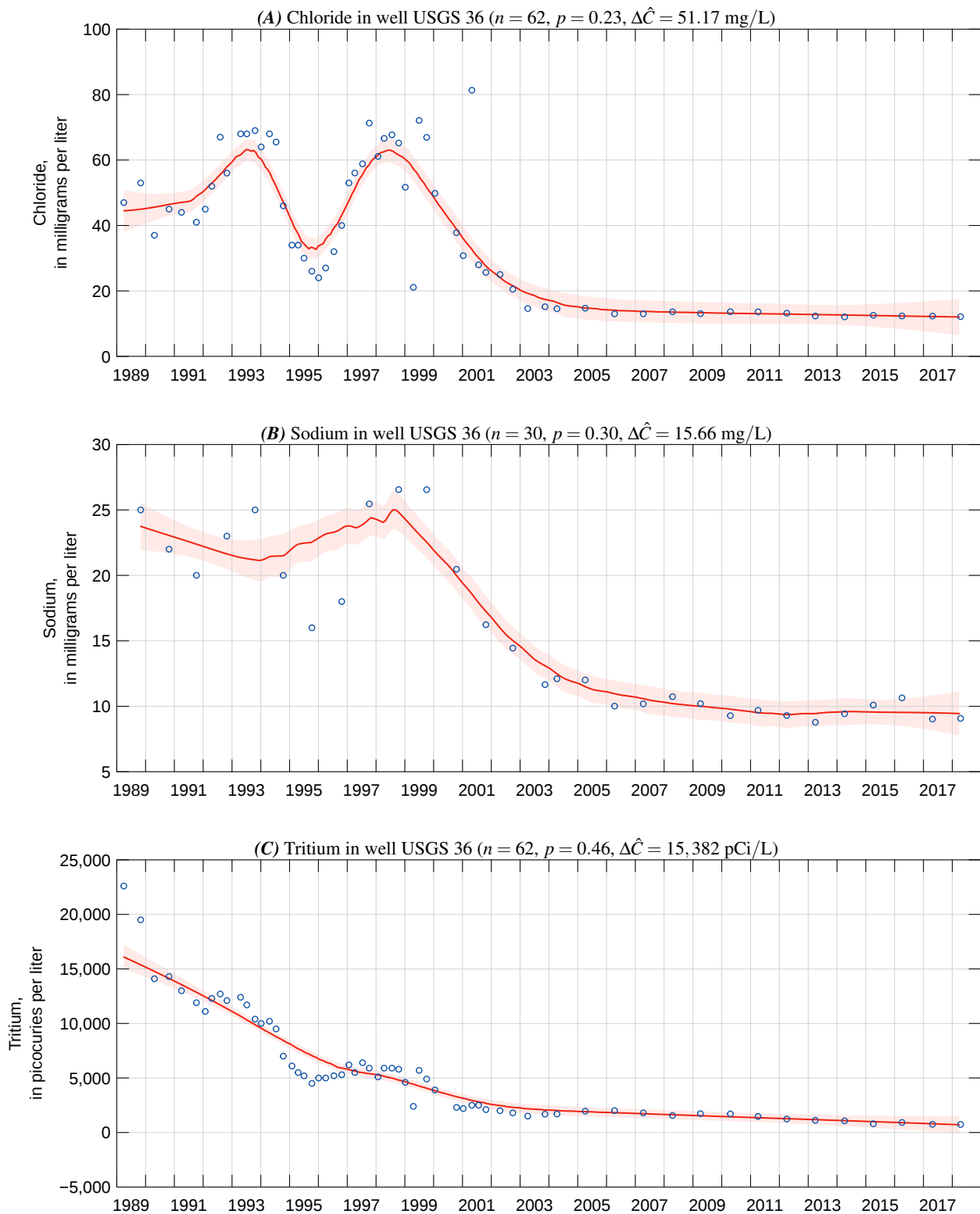


Figure 5.84. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 36 (Site No. 433330112565201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

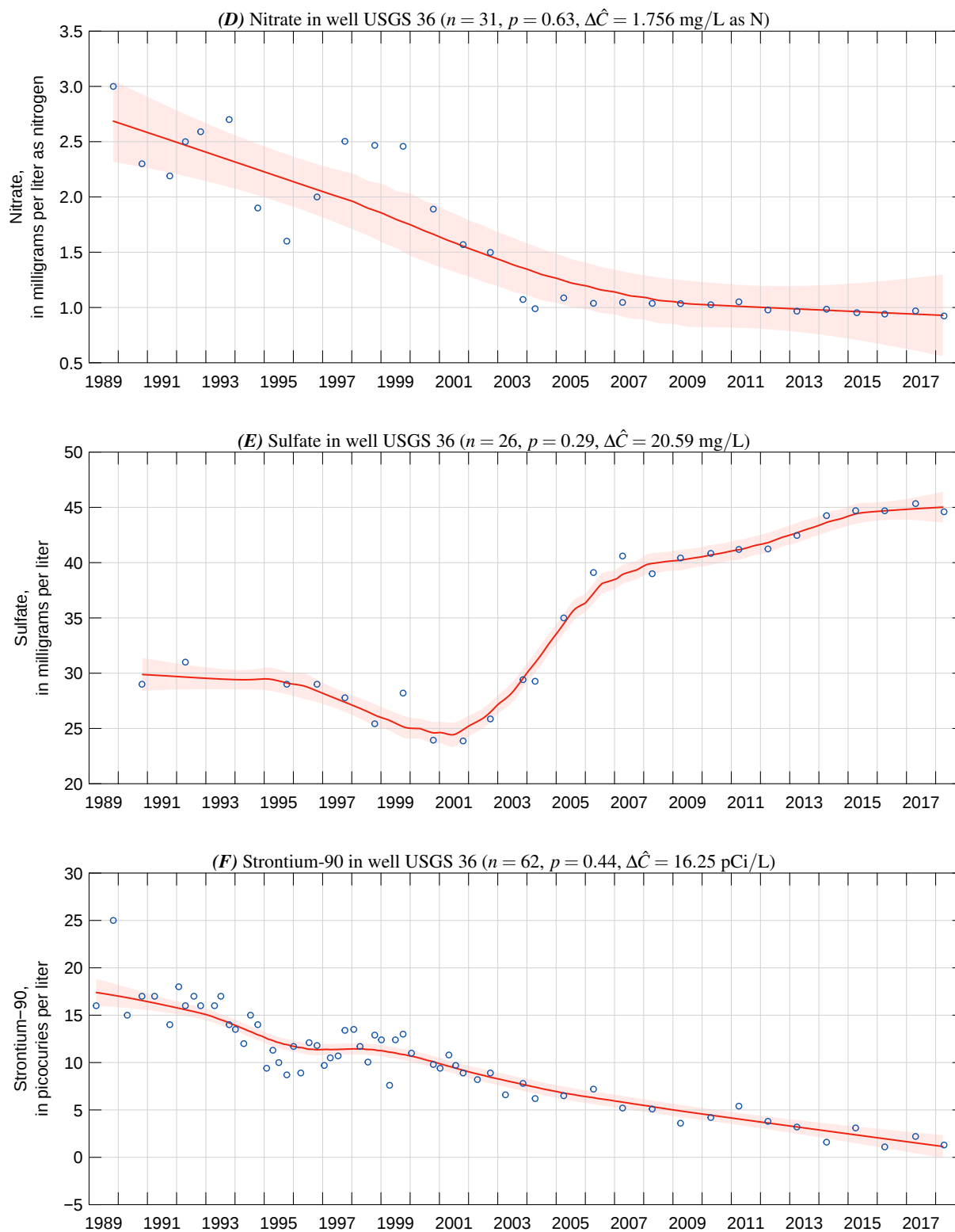


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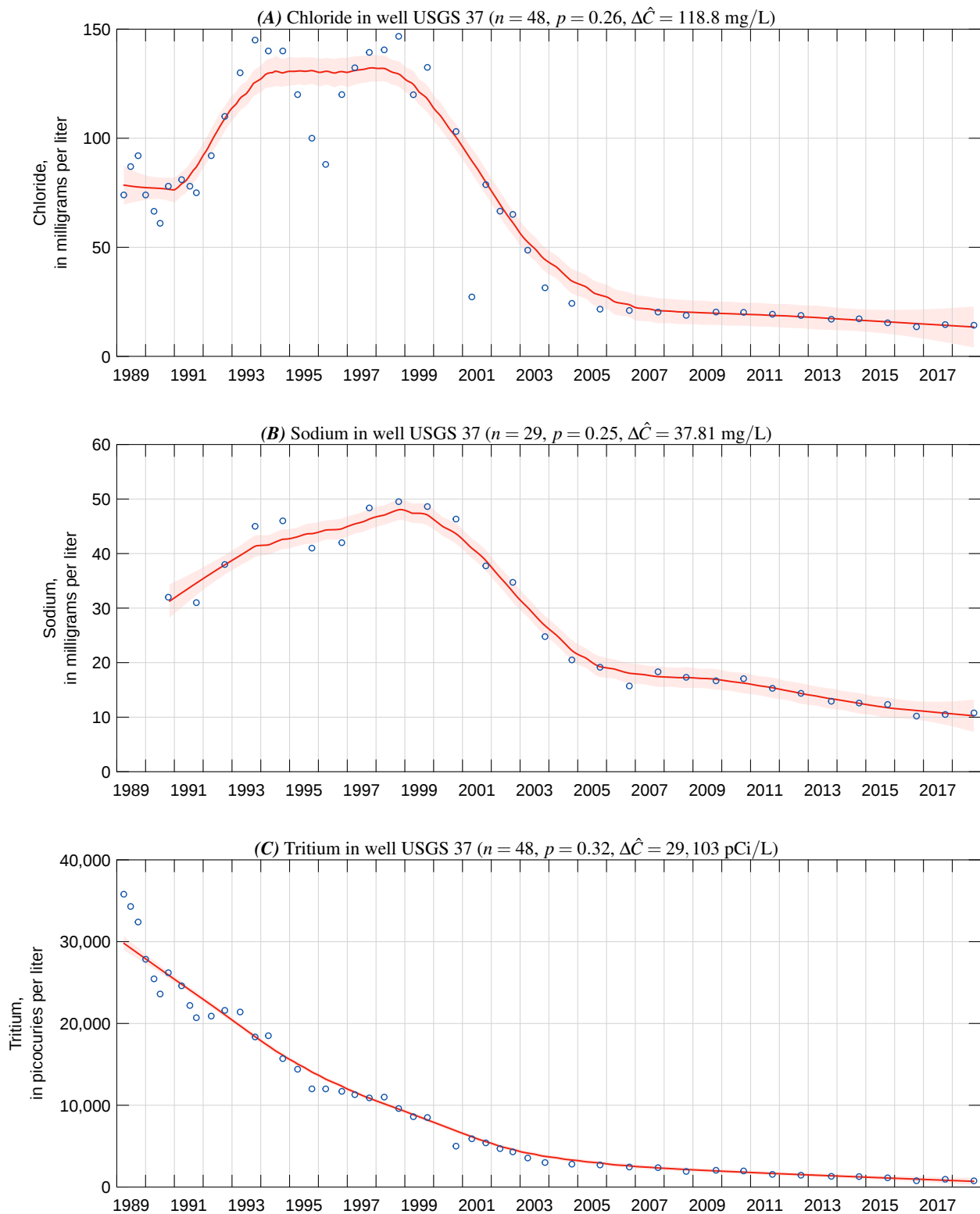


Figure 5.85. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) strontium-90, and (H) plutonium-238 measured in water samples collected from well USGS 37 (Site No. 433326112564801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

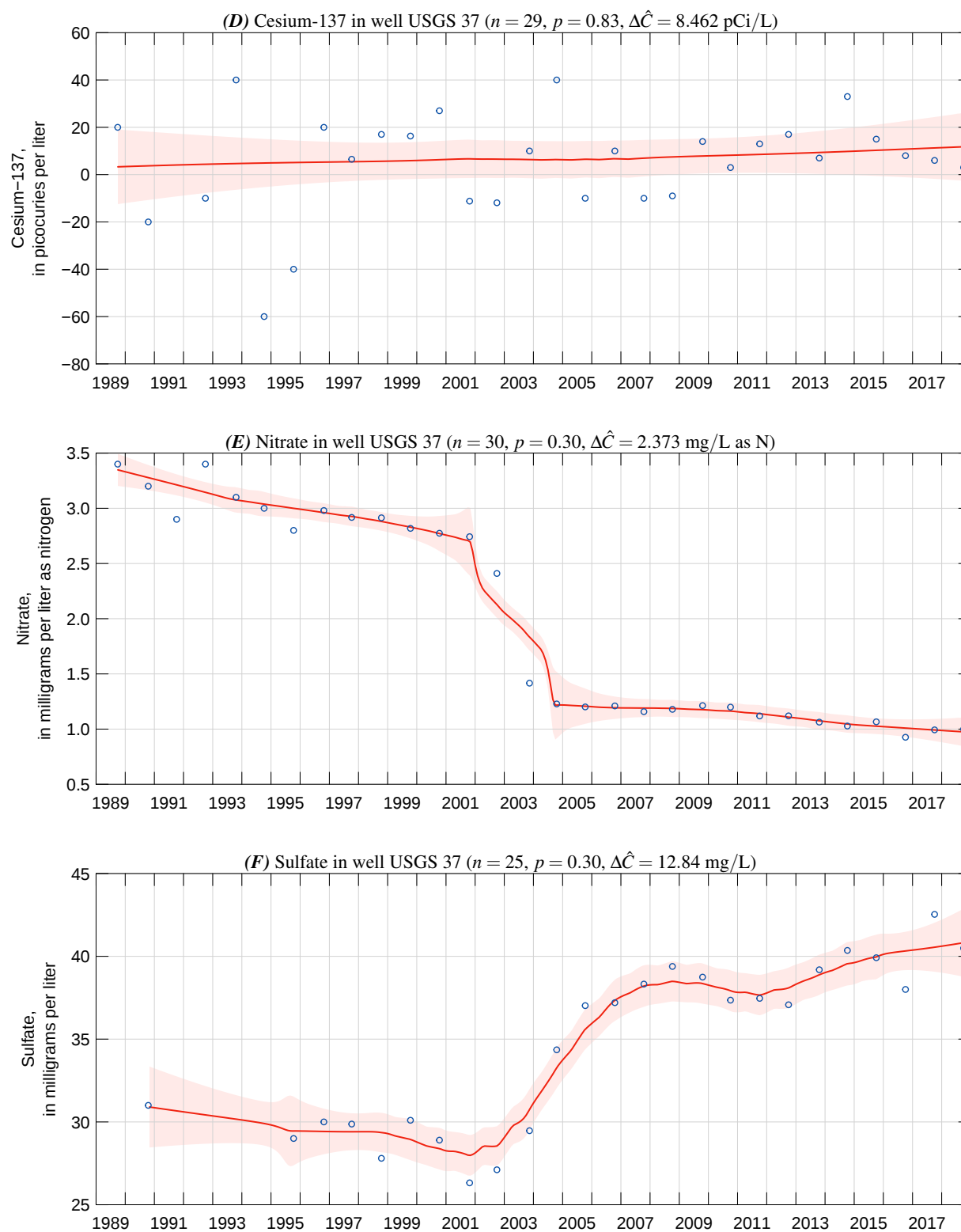


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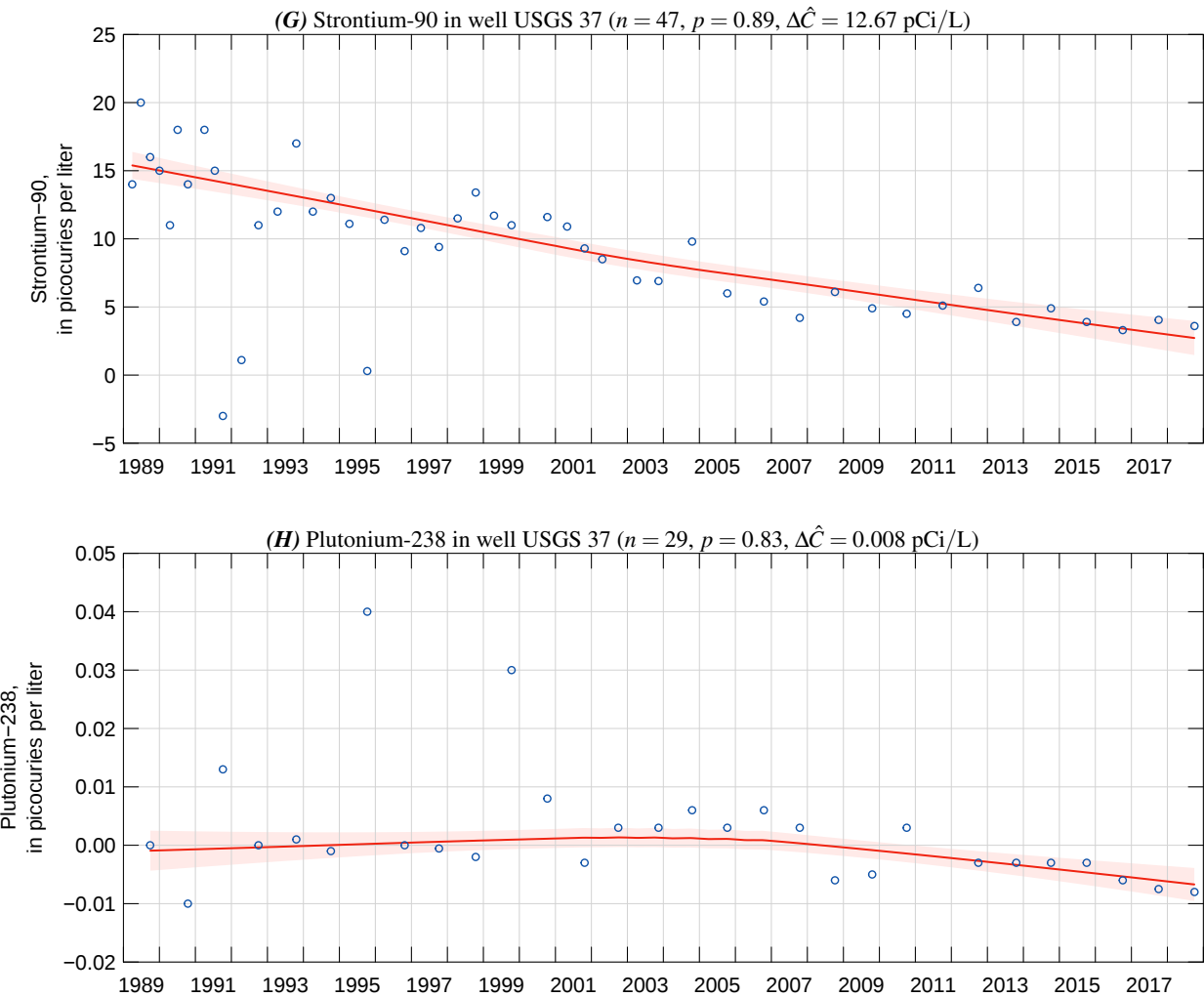


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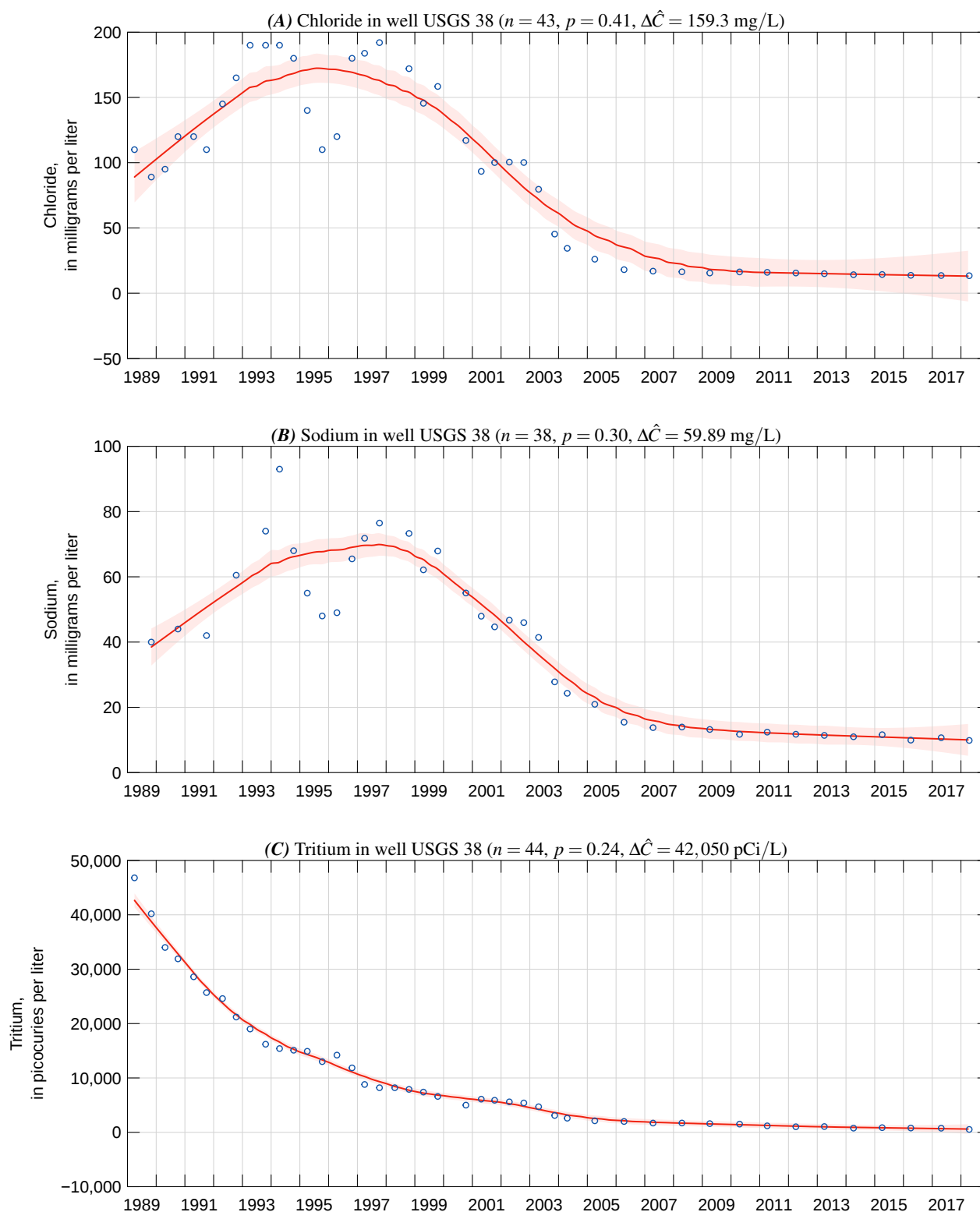


Figure 5.86. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) fluoride, (H) chromium, (I) carbon tetrachloride, (J) chloroform, (K) toluene, (L) tetrachloroethylene, (M) 1,1-dichloroethylene, (N) 1,1,1-trichloroethane, (O) cfc-12, (P) trichloroethylene, (Q) strontium-90, and (R) plutonium-238 measured in water samples collected from well USGS 38 (Site No. 433322112564301), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

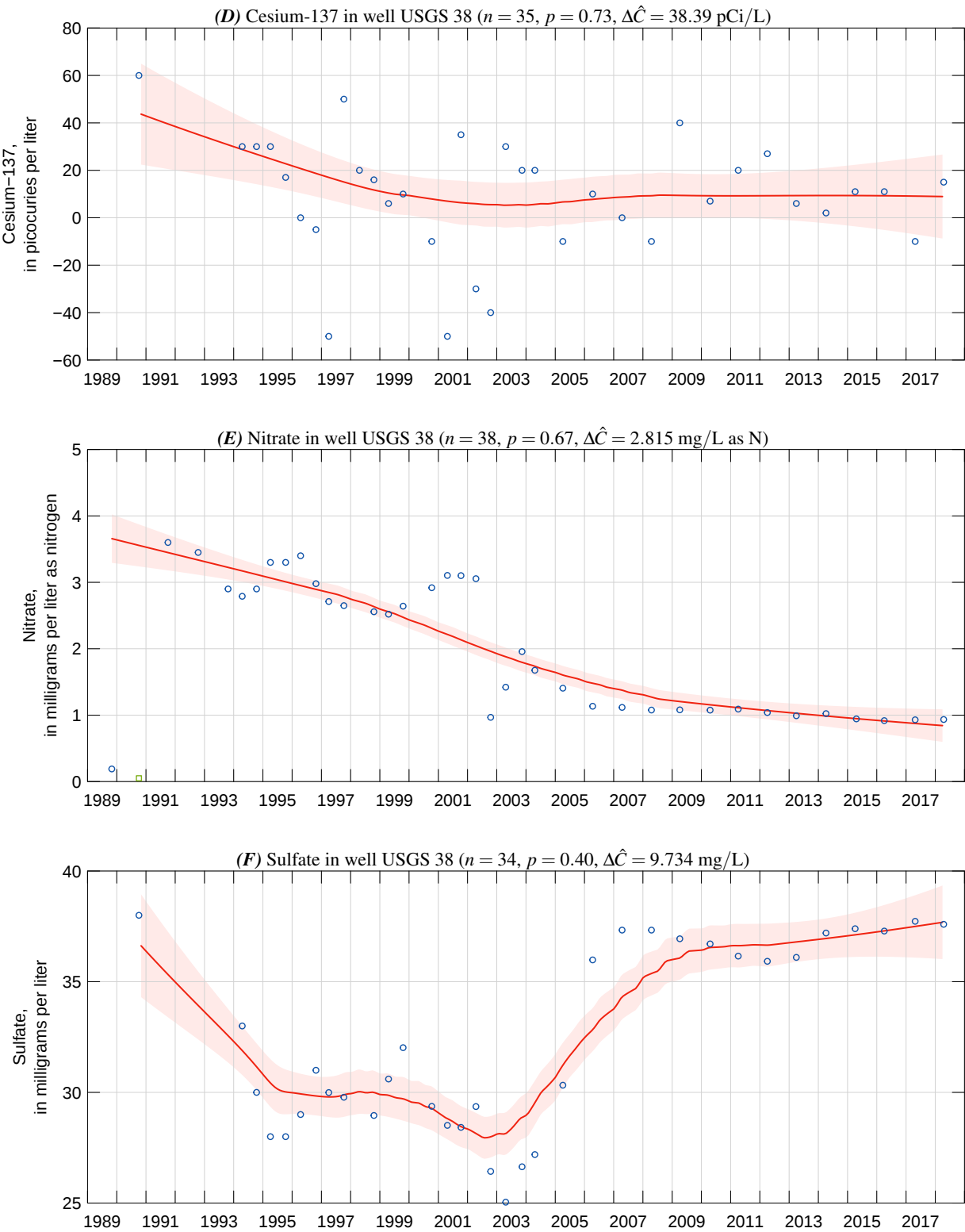


Figure 5.86. —Continued

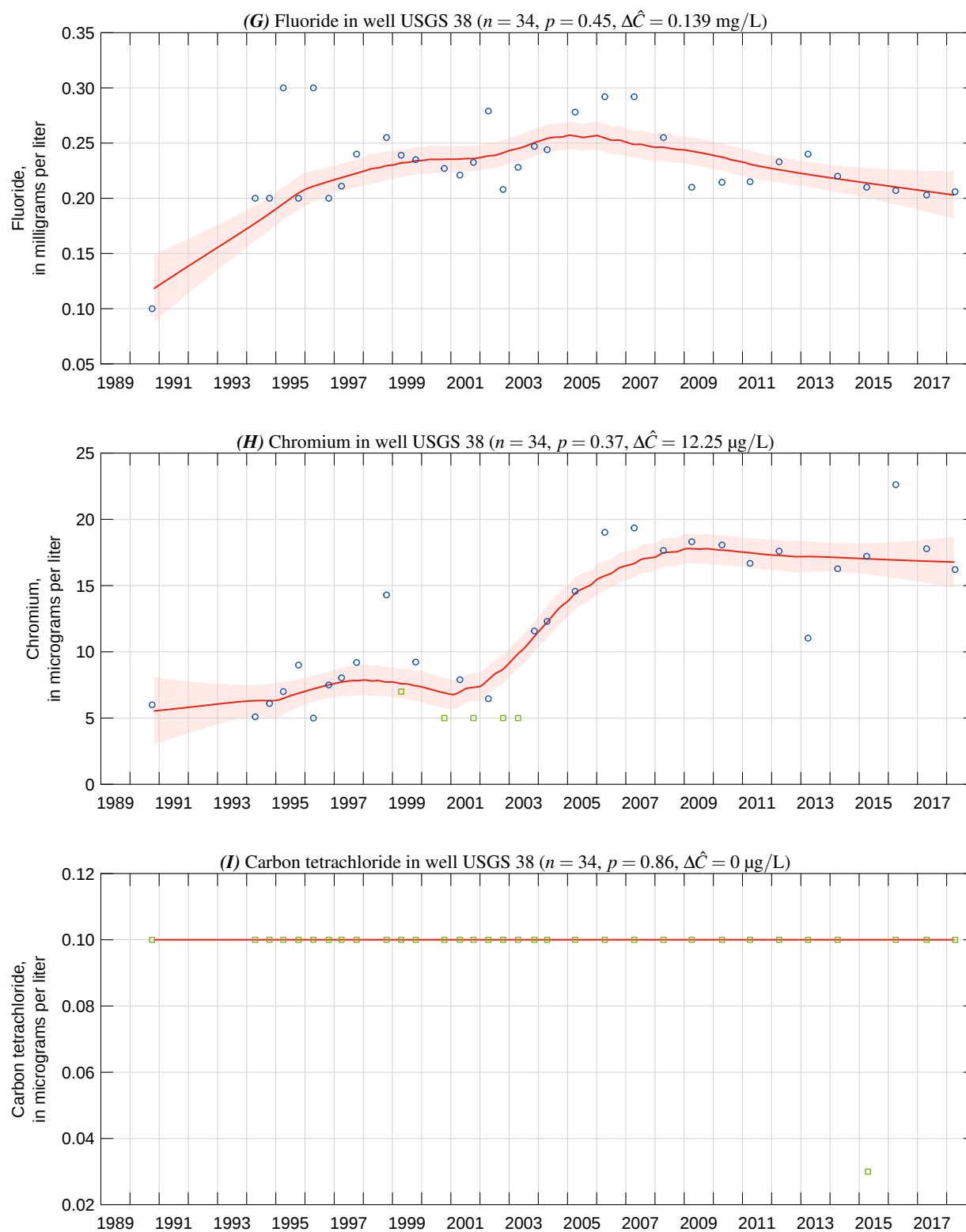


Figure 5.86. —Continued

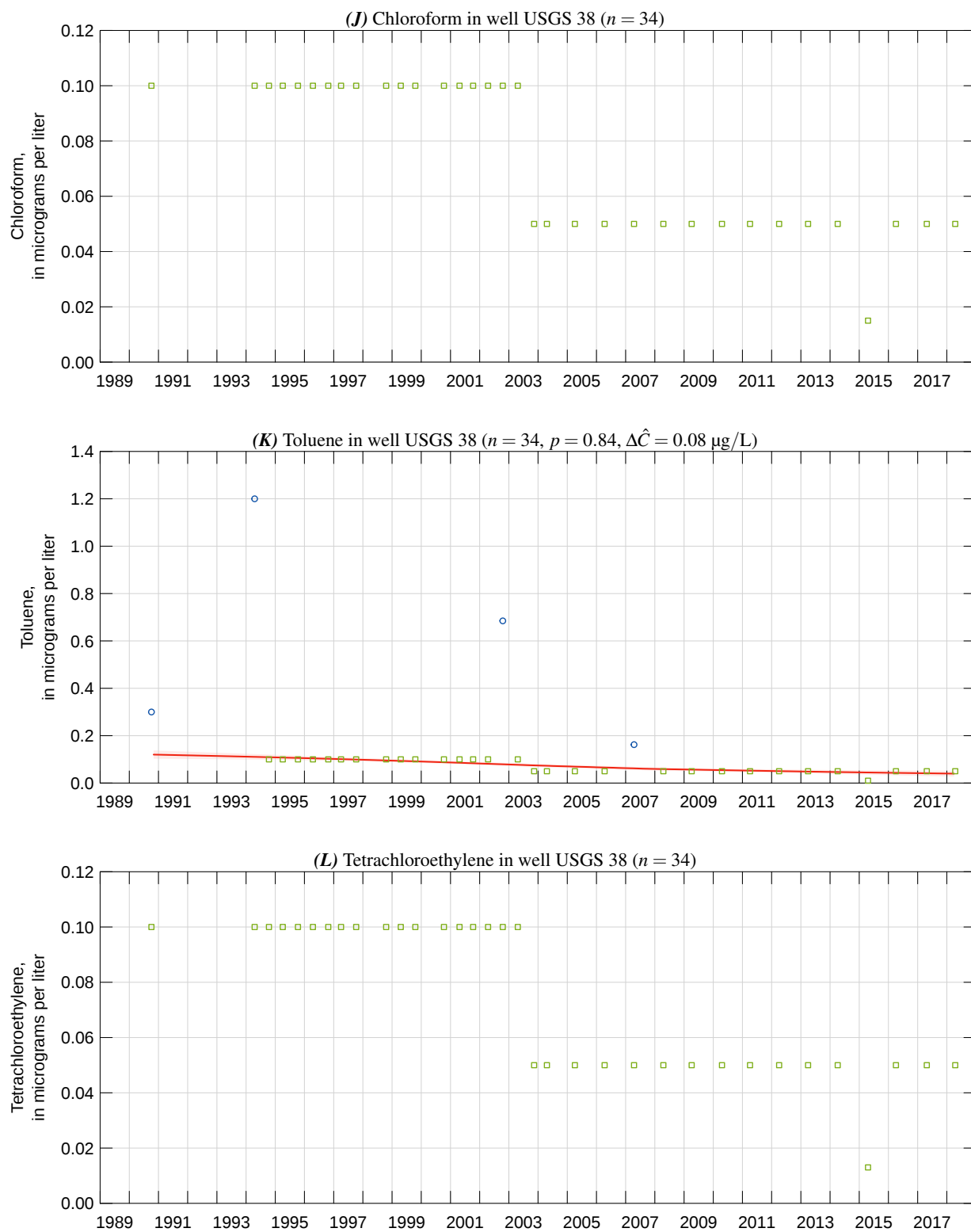


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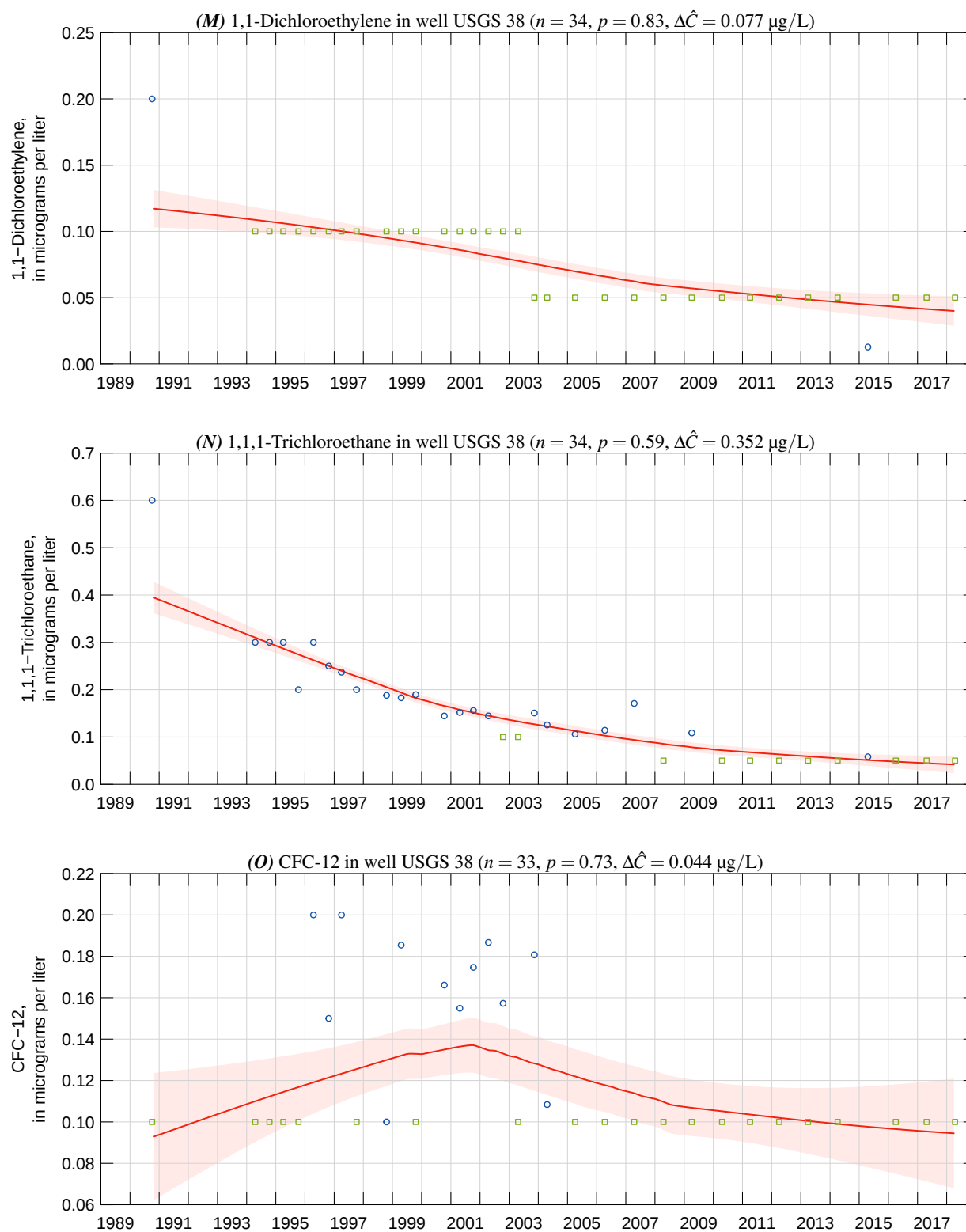


Figure 5.86. —Continued

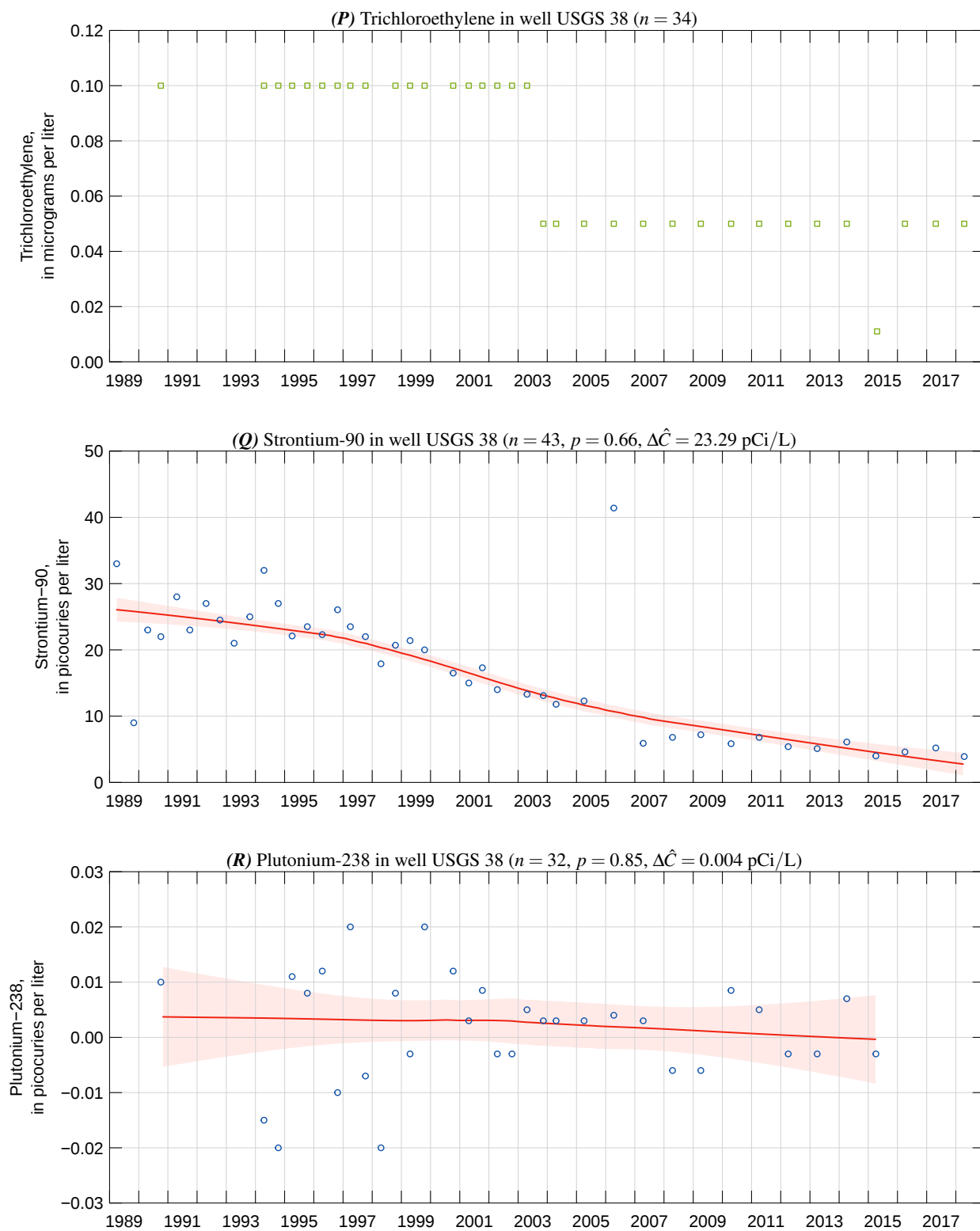


Figure 5.86. —Continued

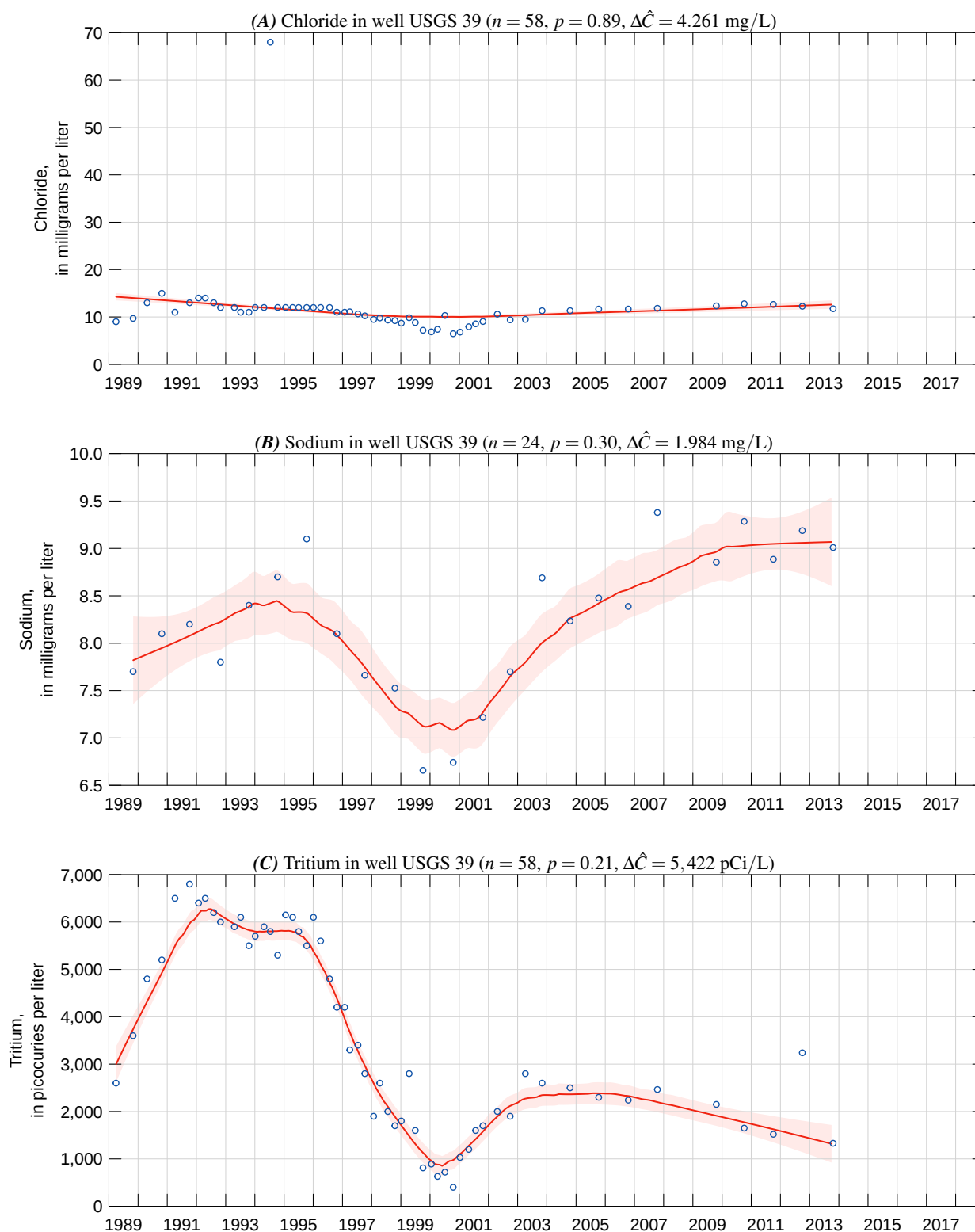


Figure 5.87. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 39 (Site No. 433343112570001), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

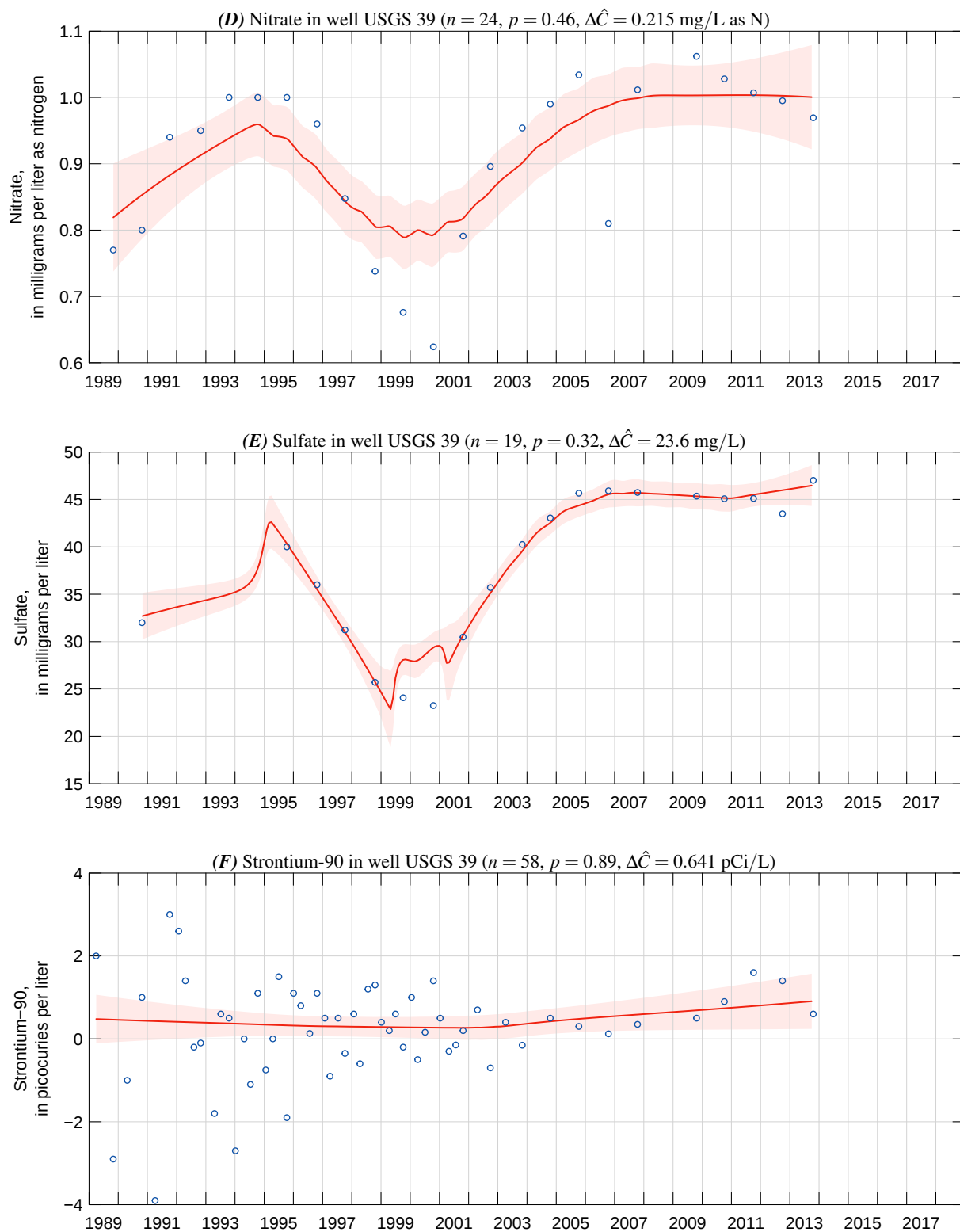


Figure 5.87. —Continued

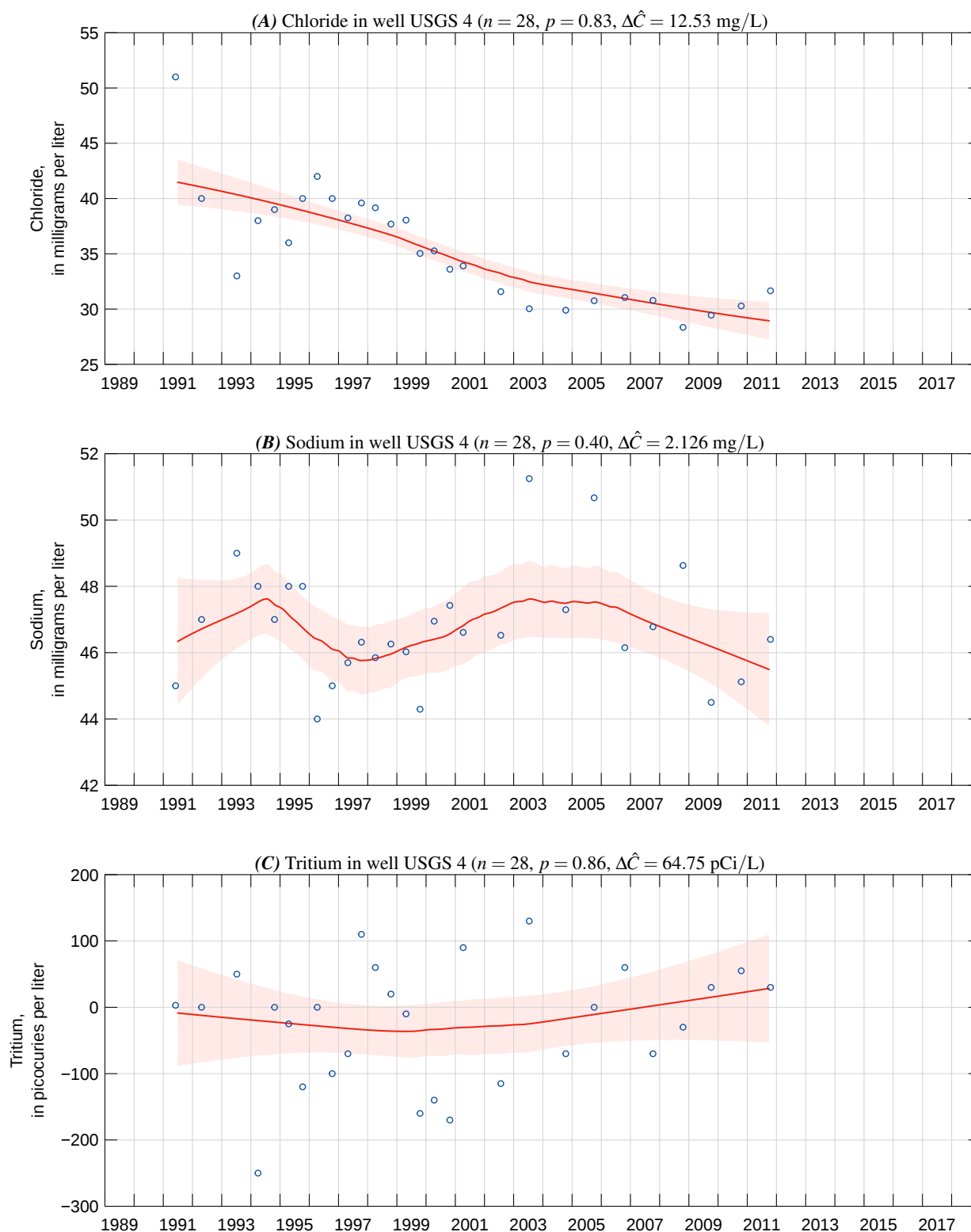


Figure 5.88. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 4 (Site No. 434657112282201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

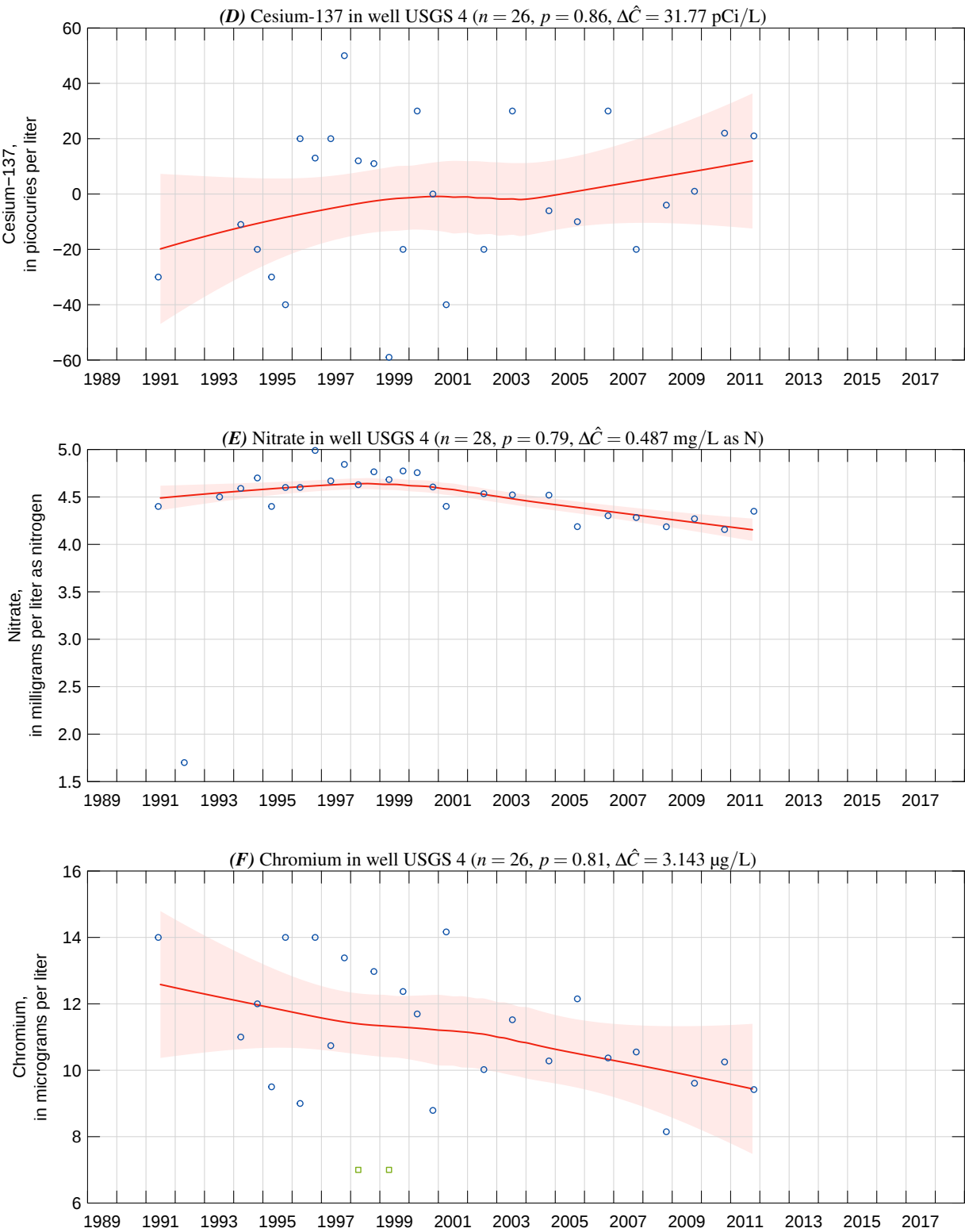


Figure 5.88. —Continued

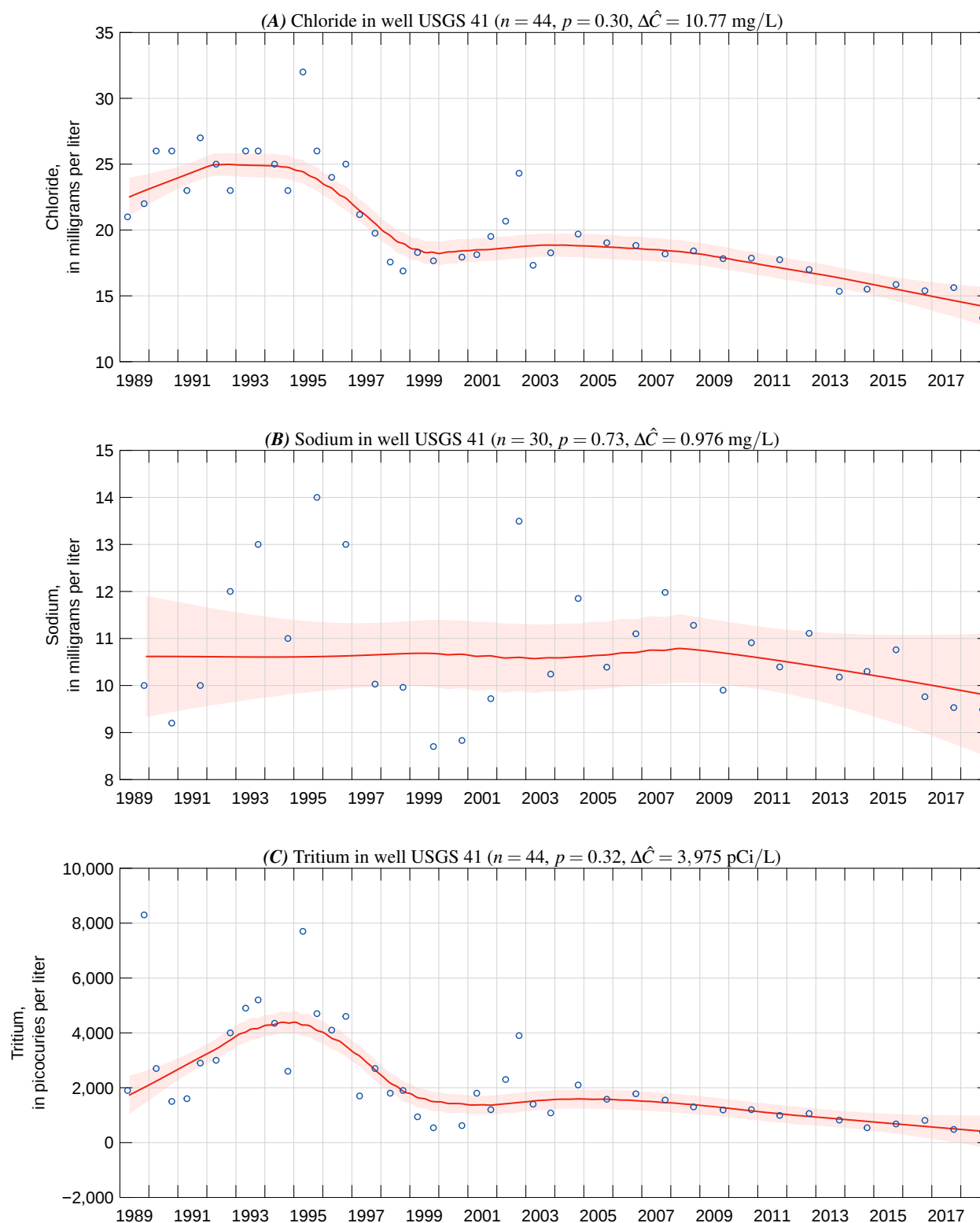


Figure 5.89. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 41 (Site No. 433409112561301), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

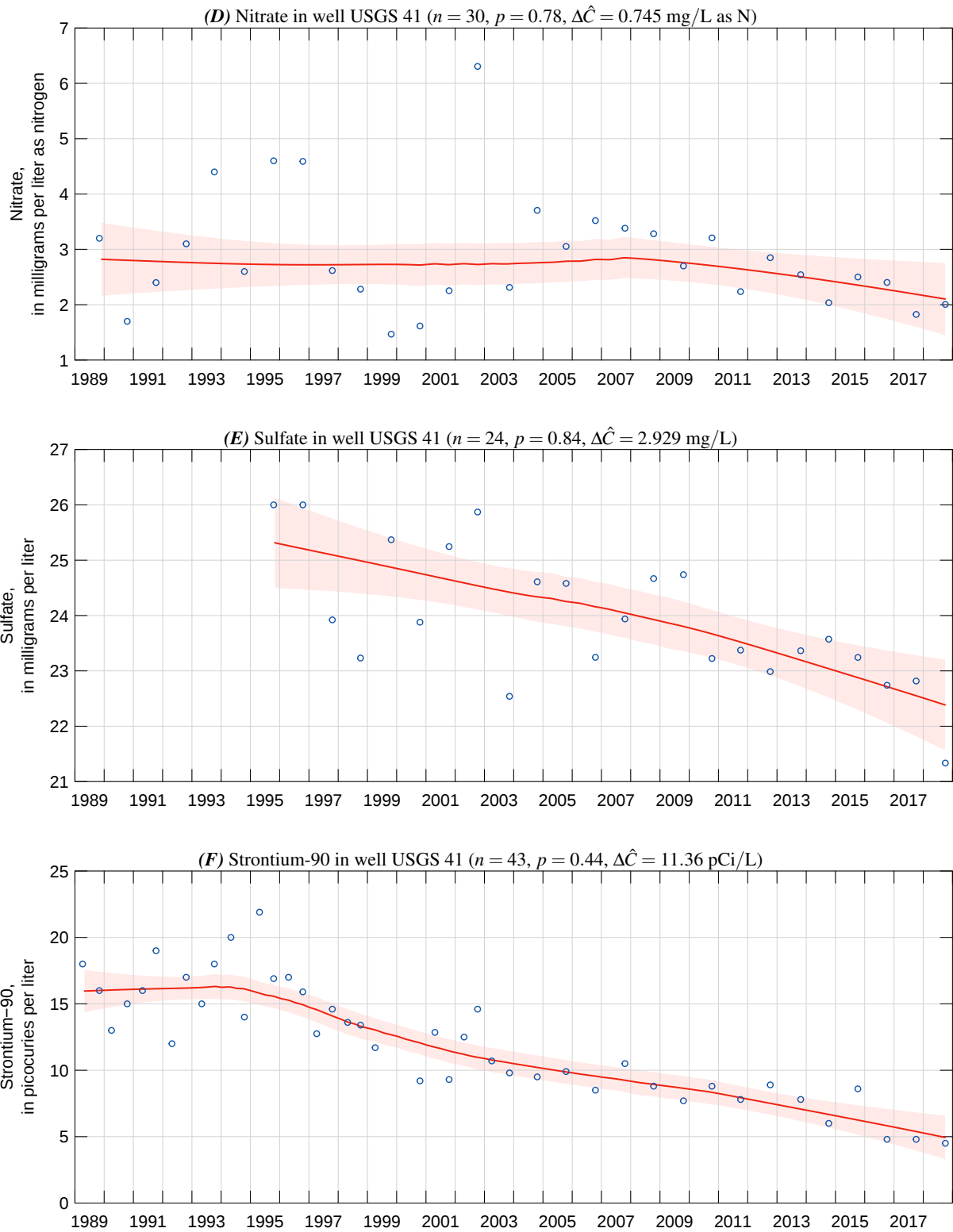


Figure 5.89. —Continued

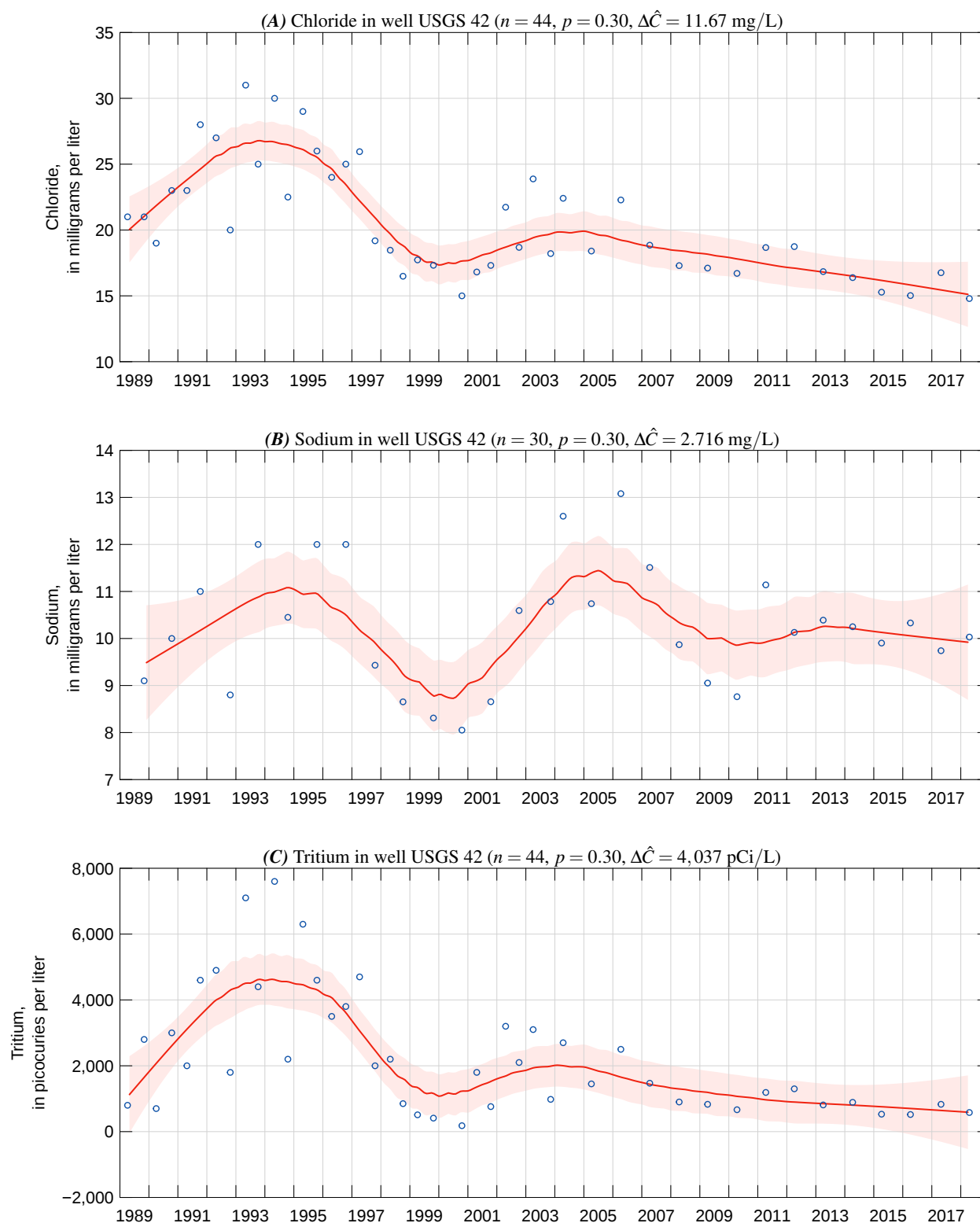


Figure 5.90. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 42 (Site No. 433404112561301), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

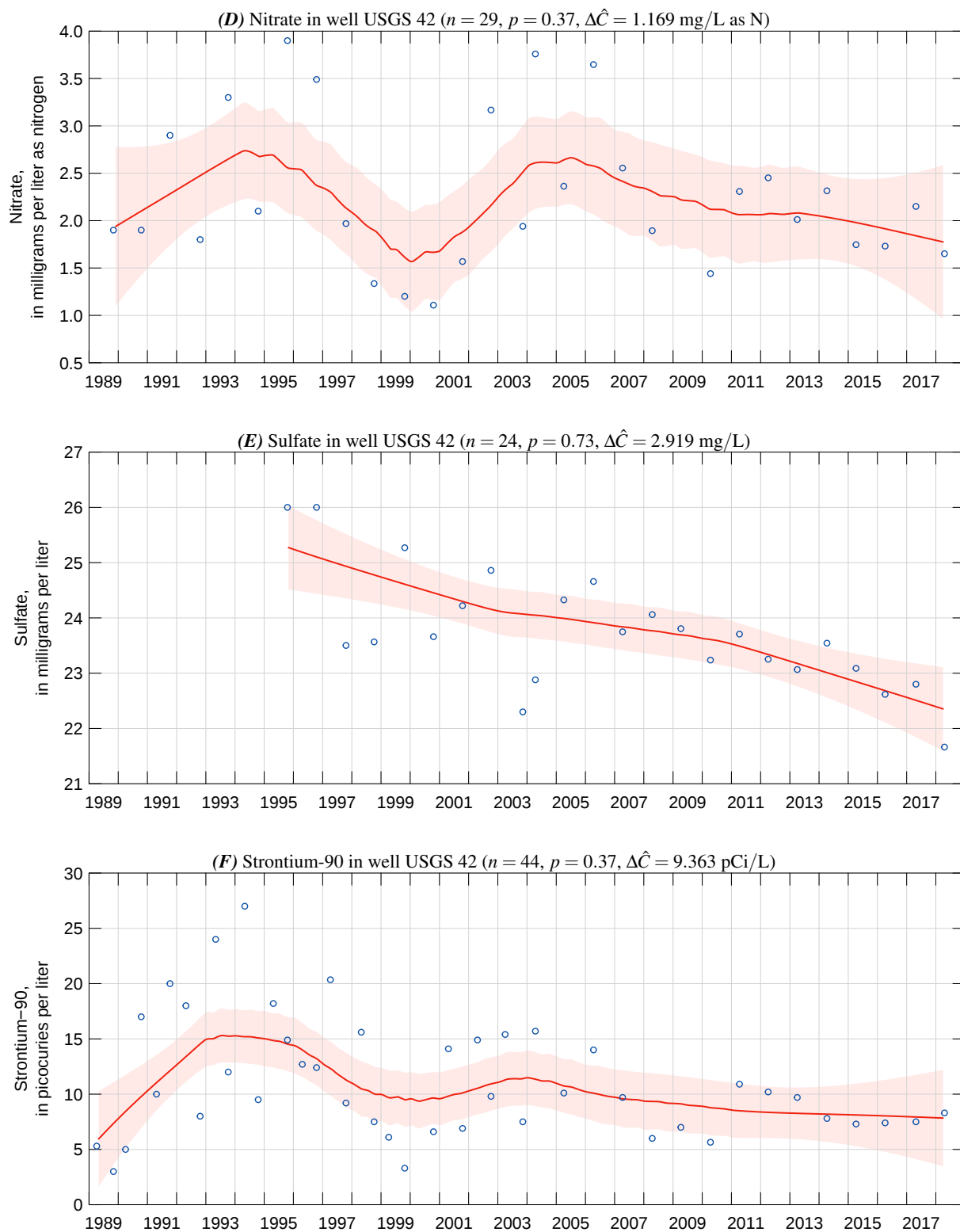


Figure 5.90. —Continued

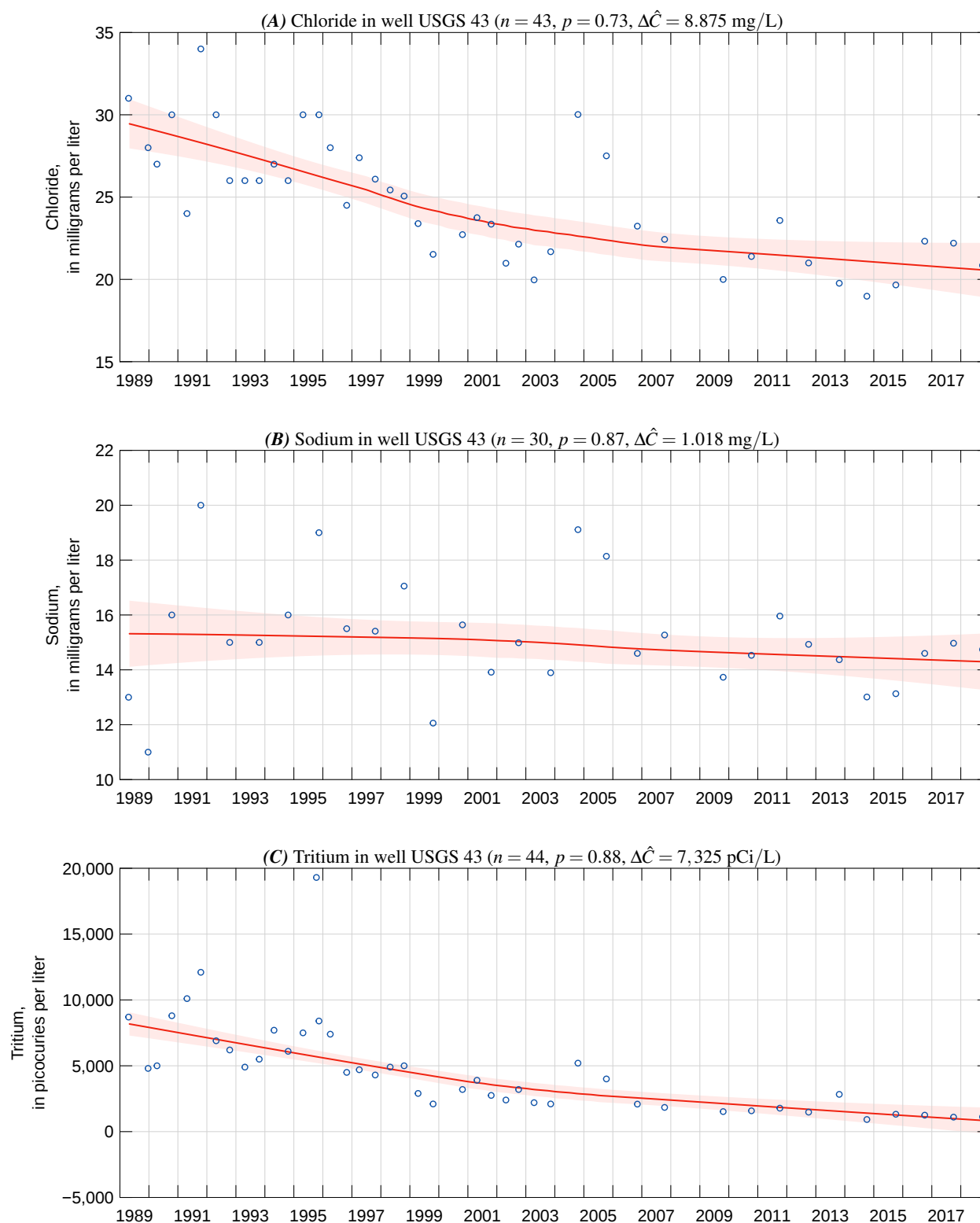


Figure 5.91. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) strontium-90, and (H) plutonium-238 measured in water samples collected from well USGS 43 (Site No. 433415112561501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

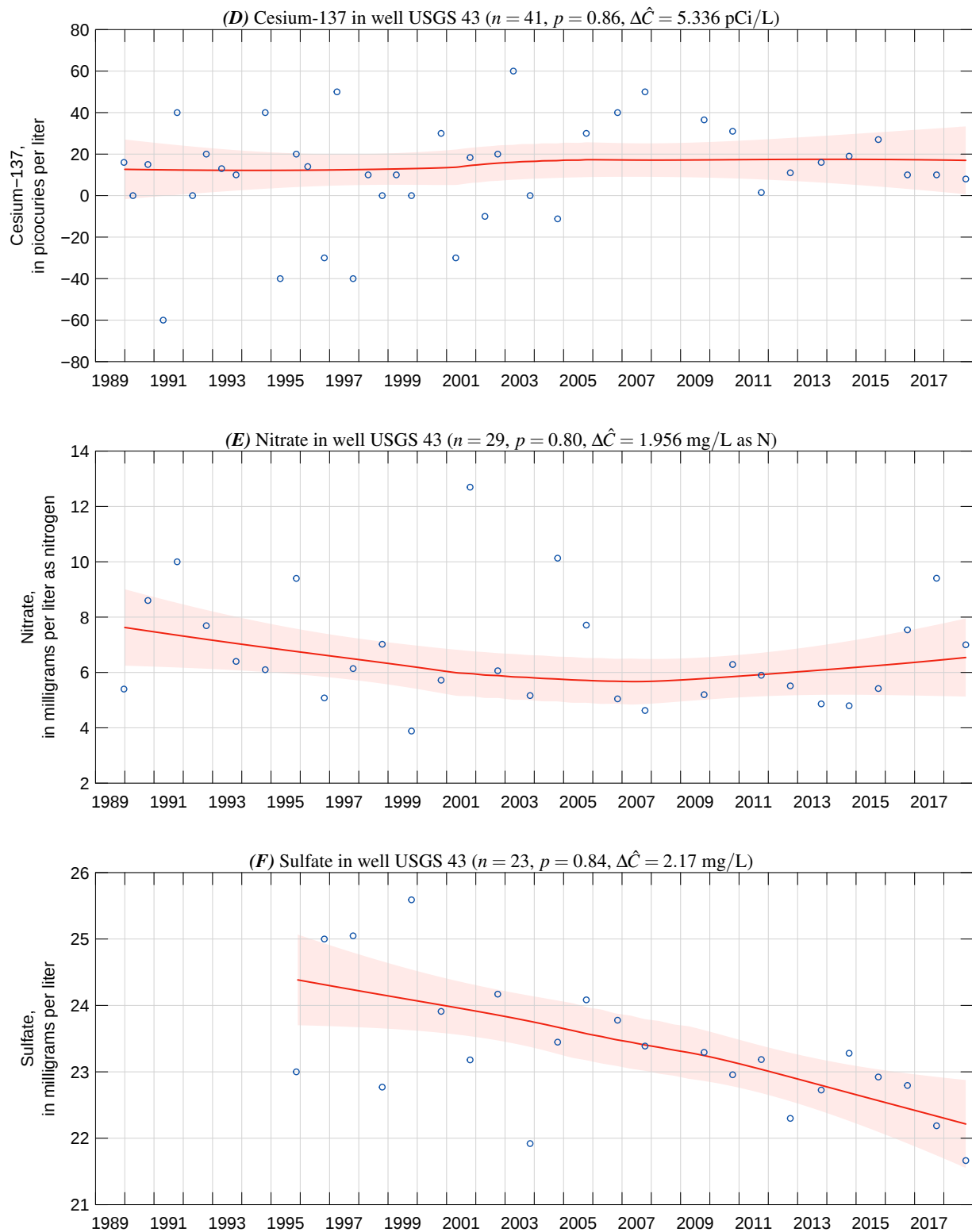


Figure 5.91. —Continued

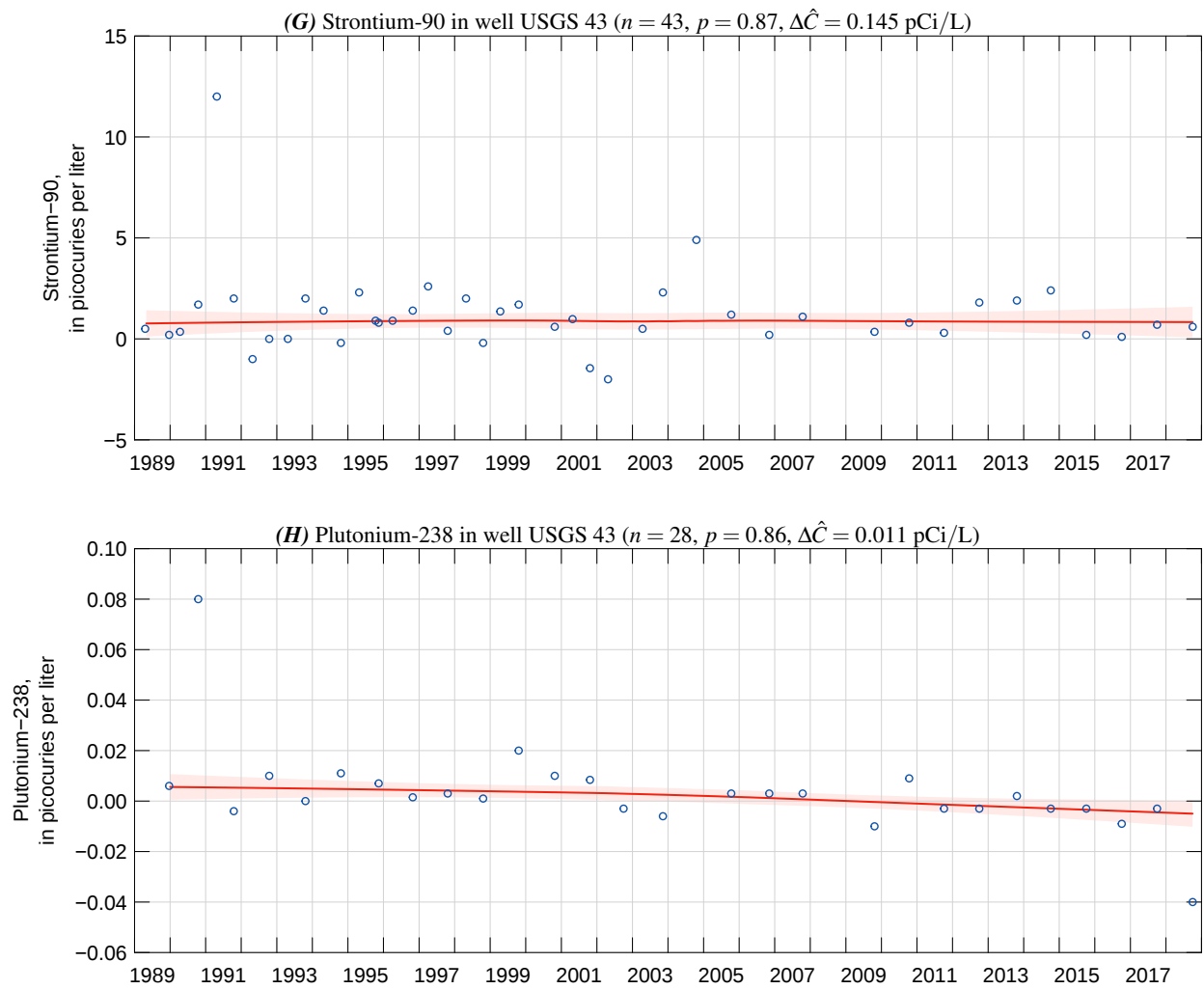


Figure 5.91. —Continued

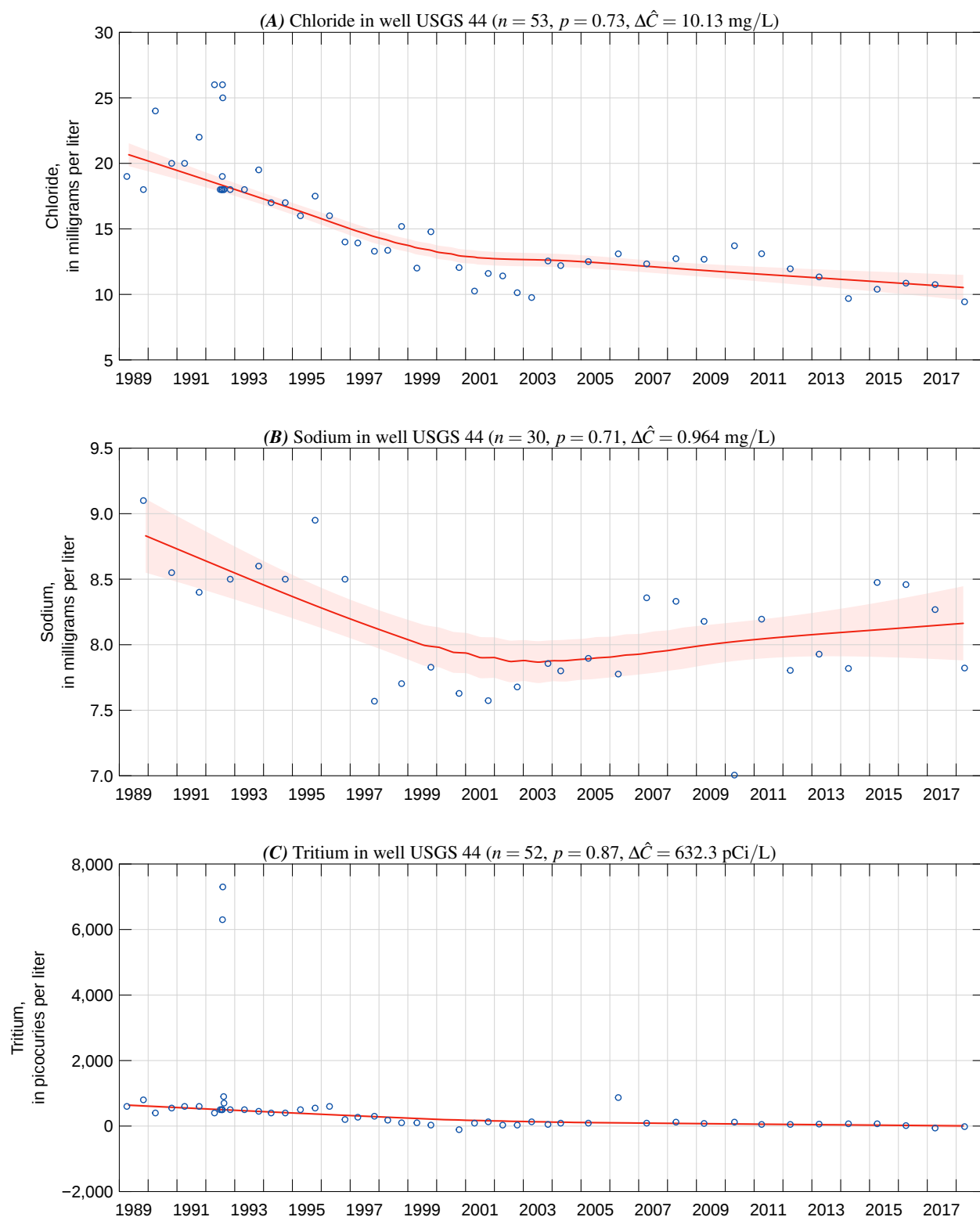


Figure 5.92. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, and (G) strontium-90 measured in water samples collected from well USGS 44 (Site No. 433409112562101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

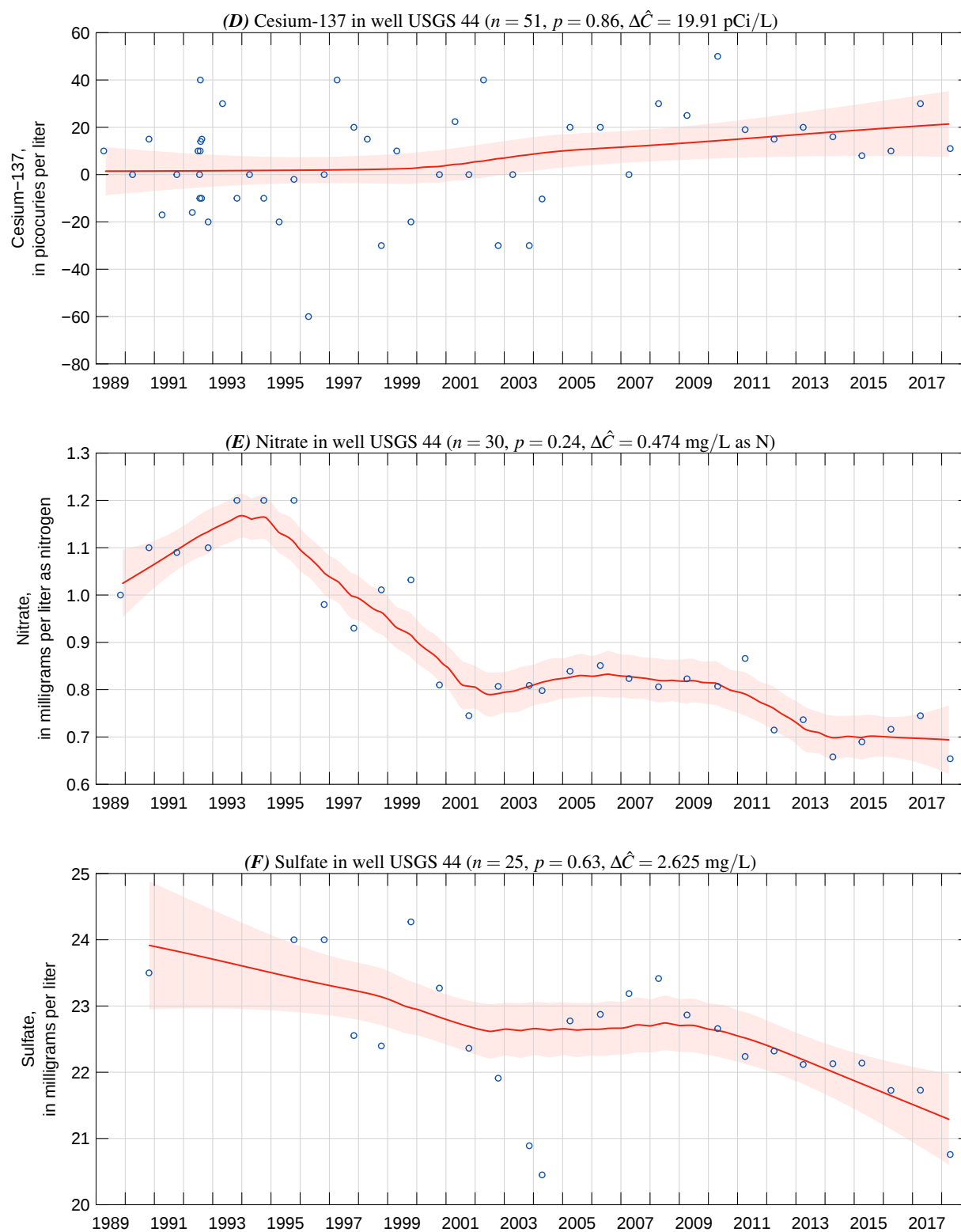


Figure 5.92. —Continued

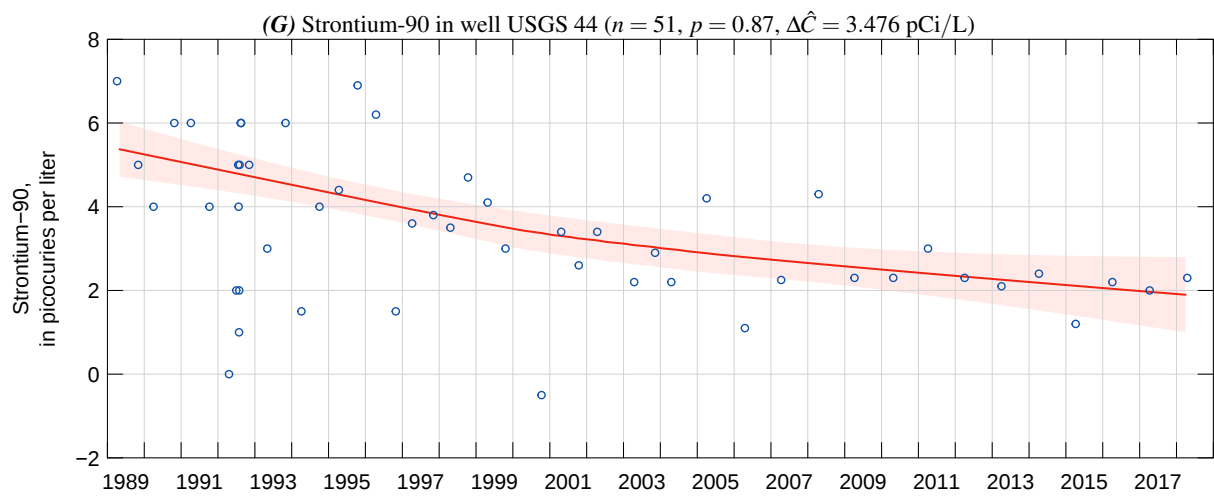


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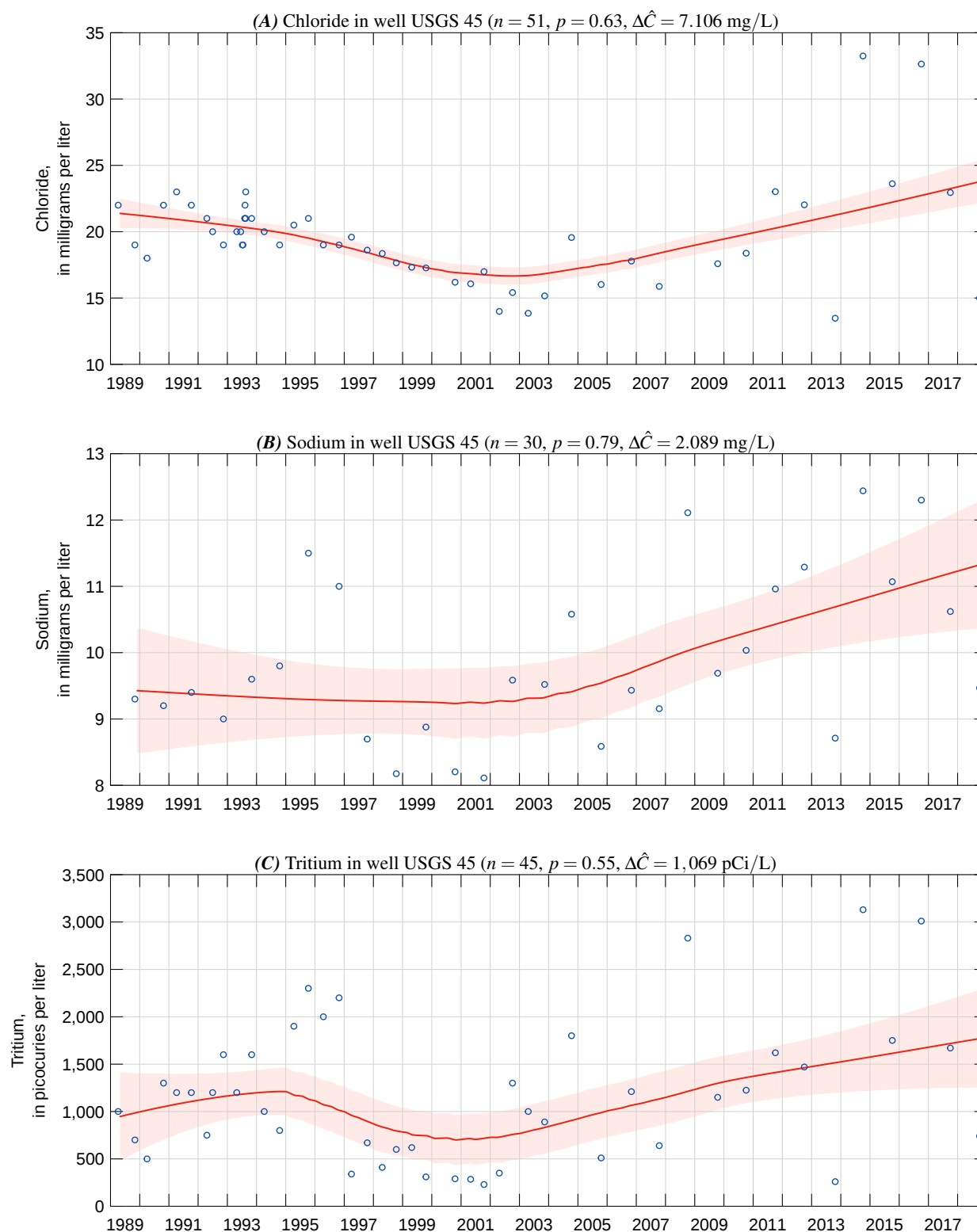


Figure 5.93. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 45 (Site No. 433402112561801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

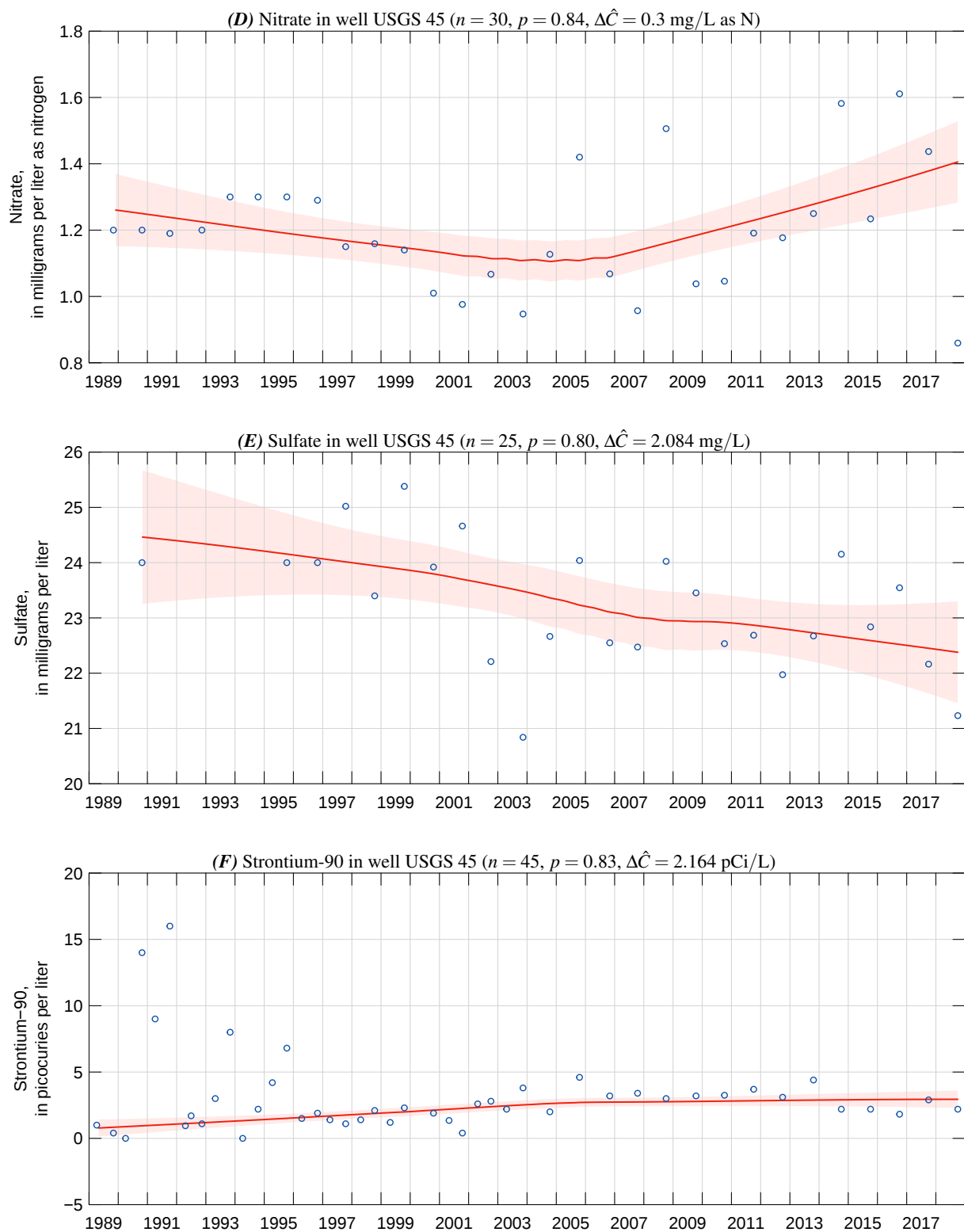


Figure 5.93. —Continued

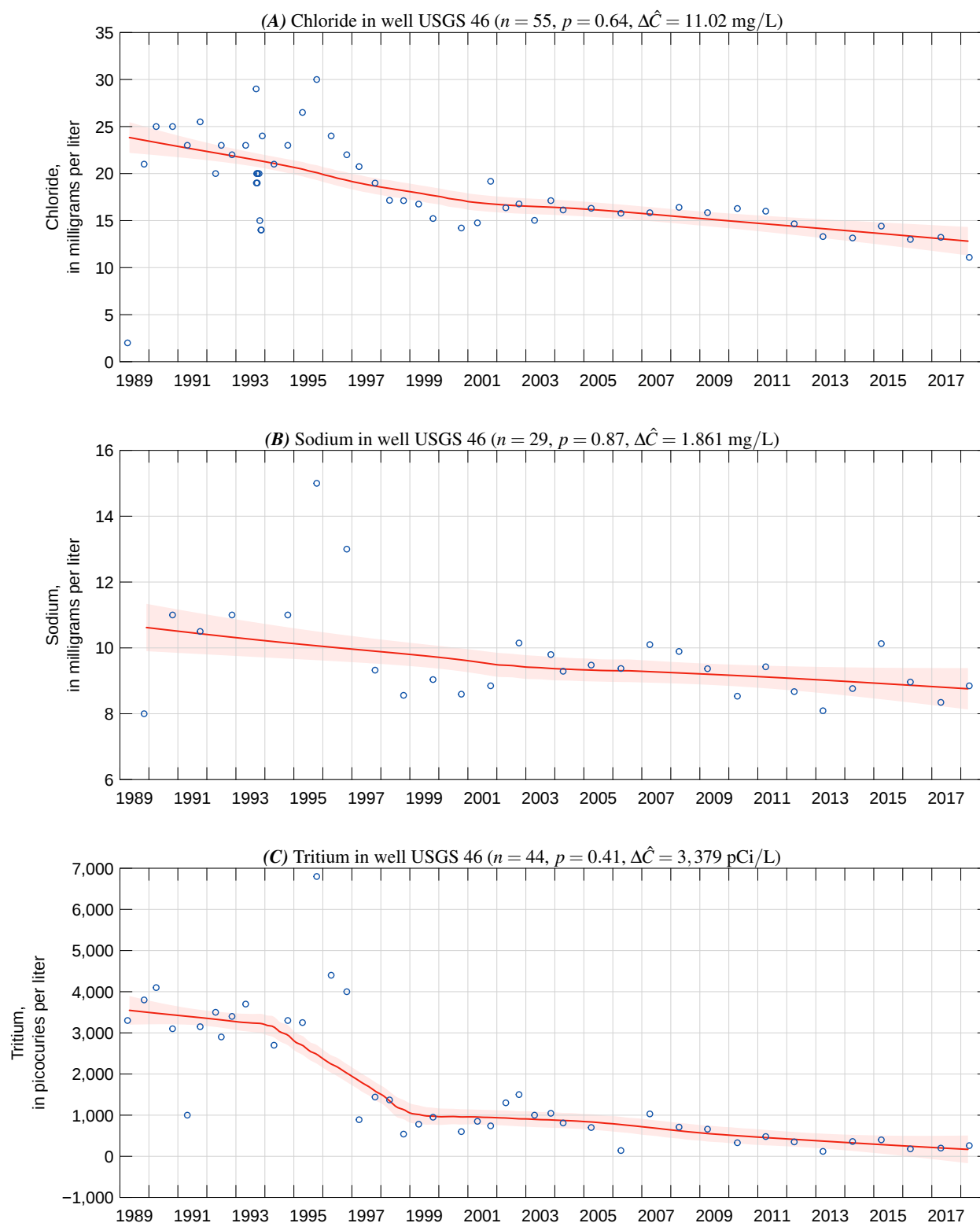


Figure 5.94. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, and (G) strontium-90 measured in water samples collected from well USGS 46 (Site No. 433407112561501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

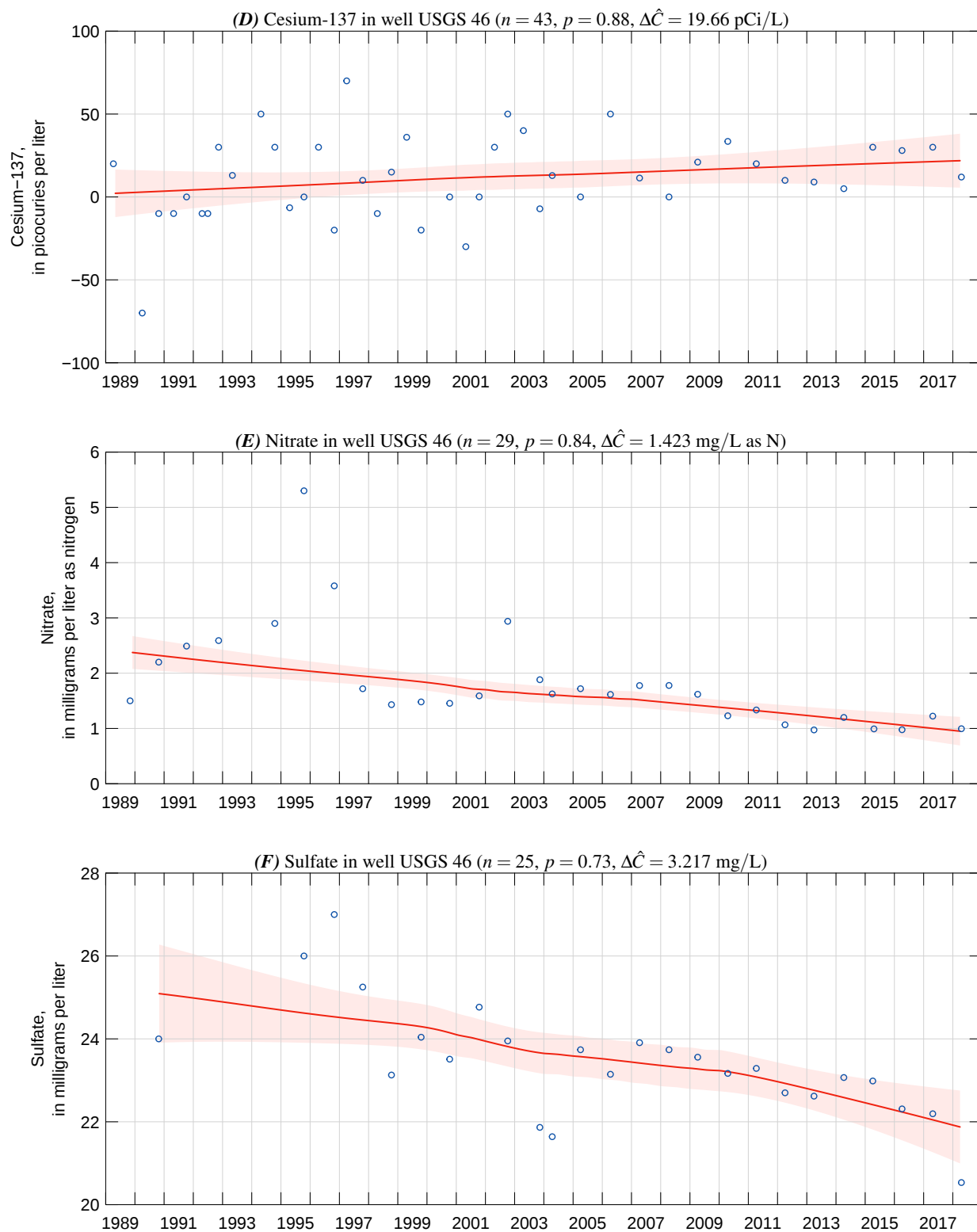
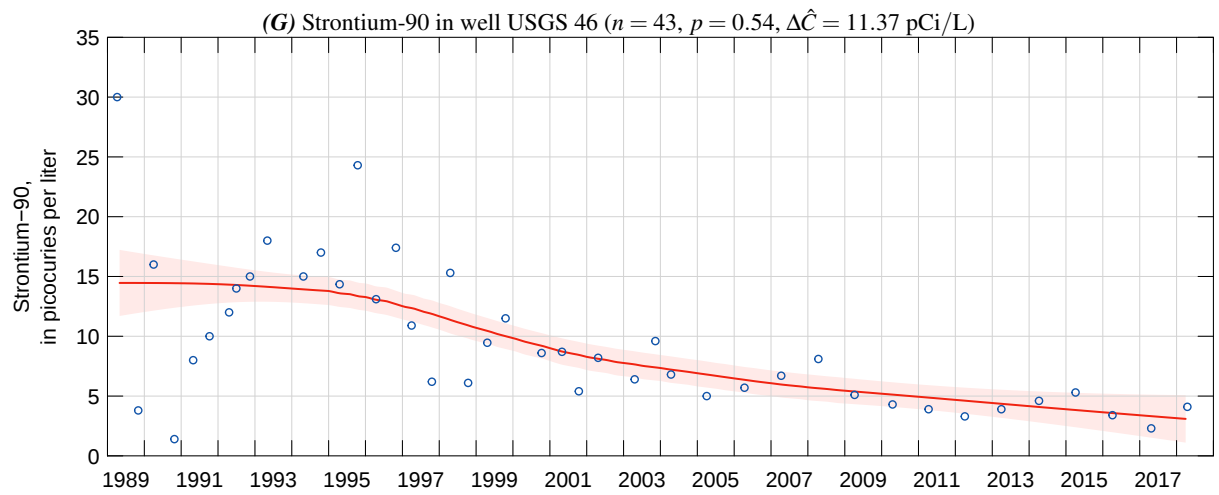


Figure 5.94. —Continued

**Figure 5.94.** —Continued

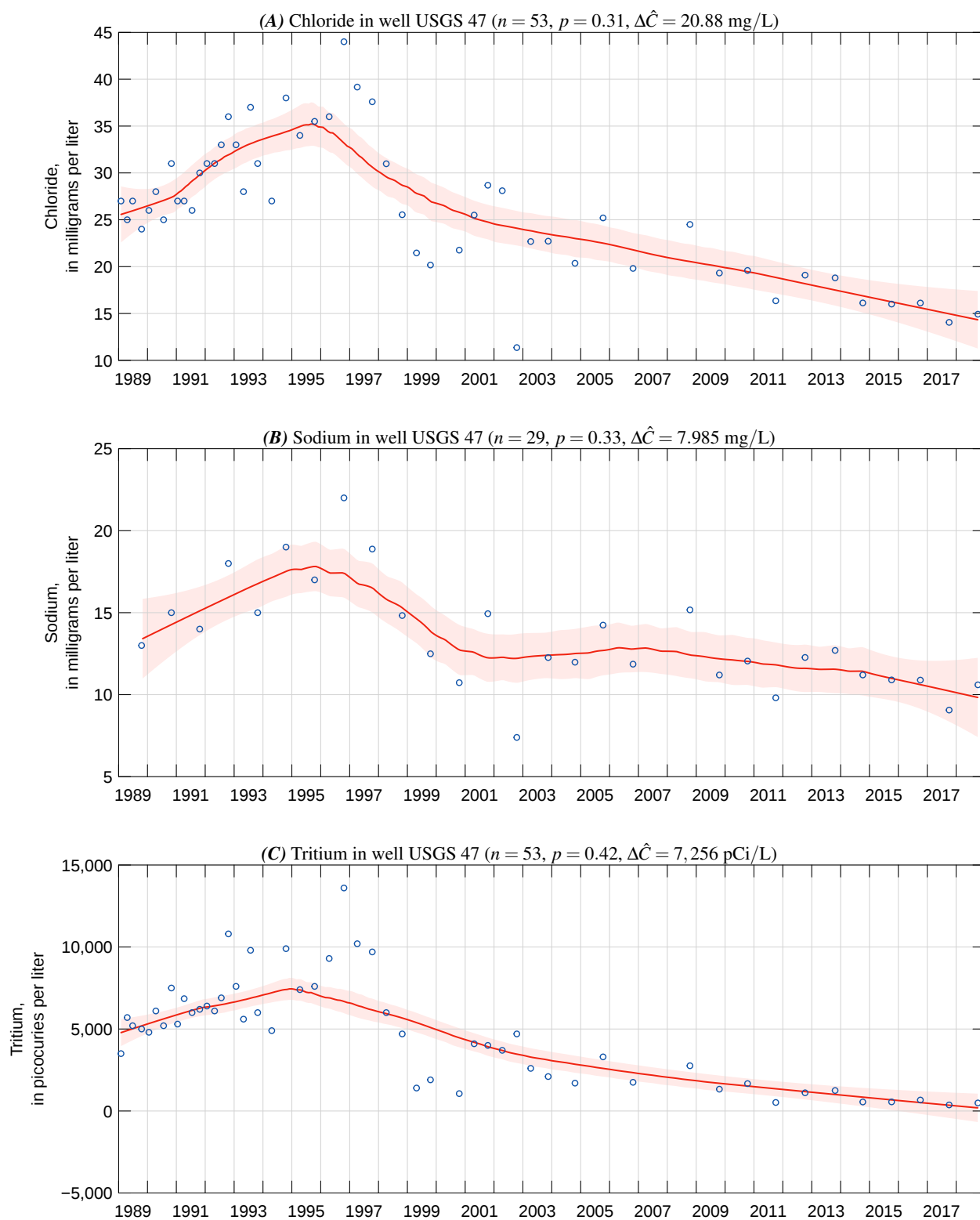


Figure 5.95. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) strontium-90, and (H) plutonium-238 measured in water samples collected from well USGS 47 (Site No. 433407112560301), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

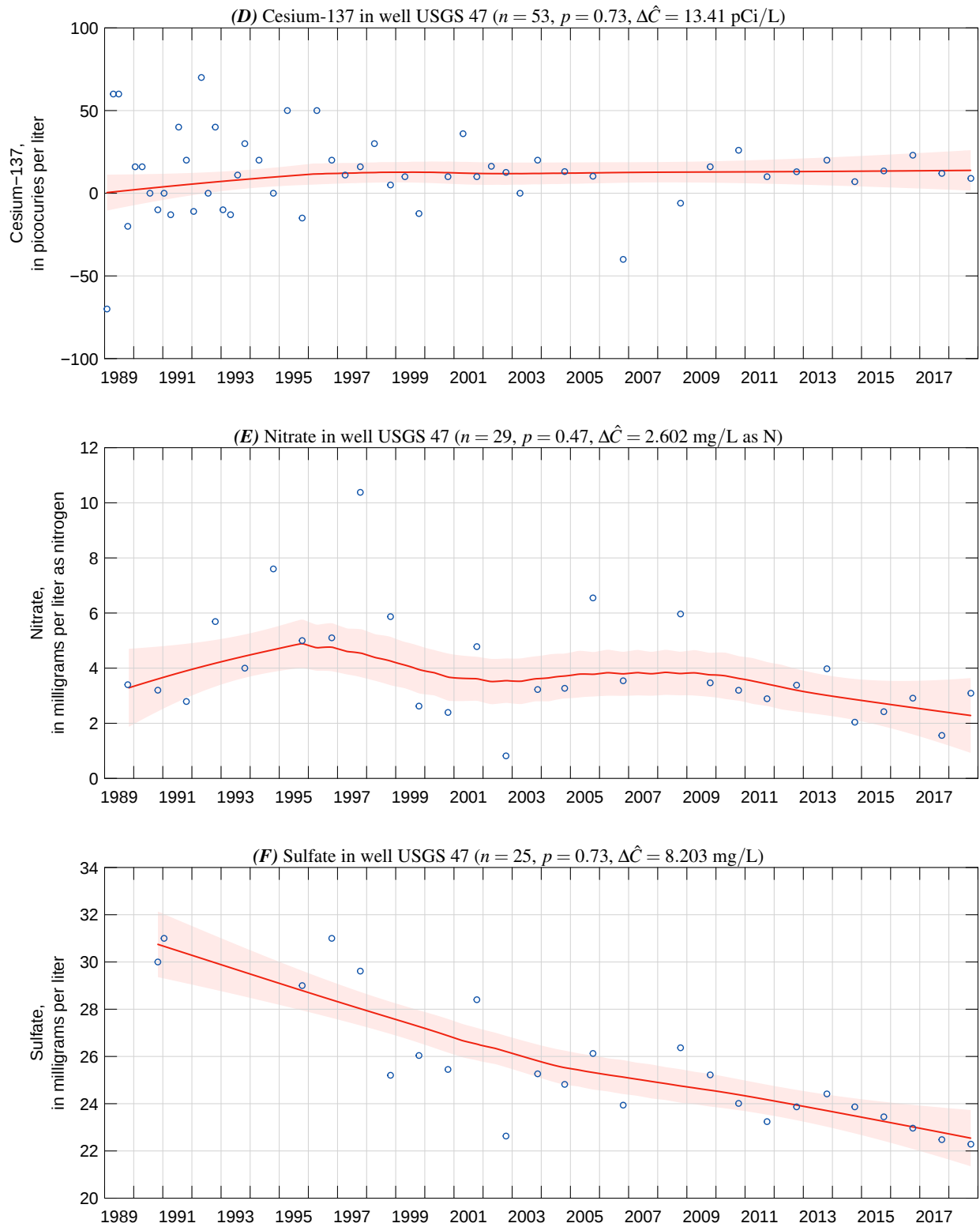


Figure 5.95. —Continued

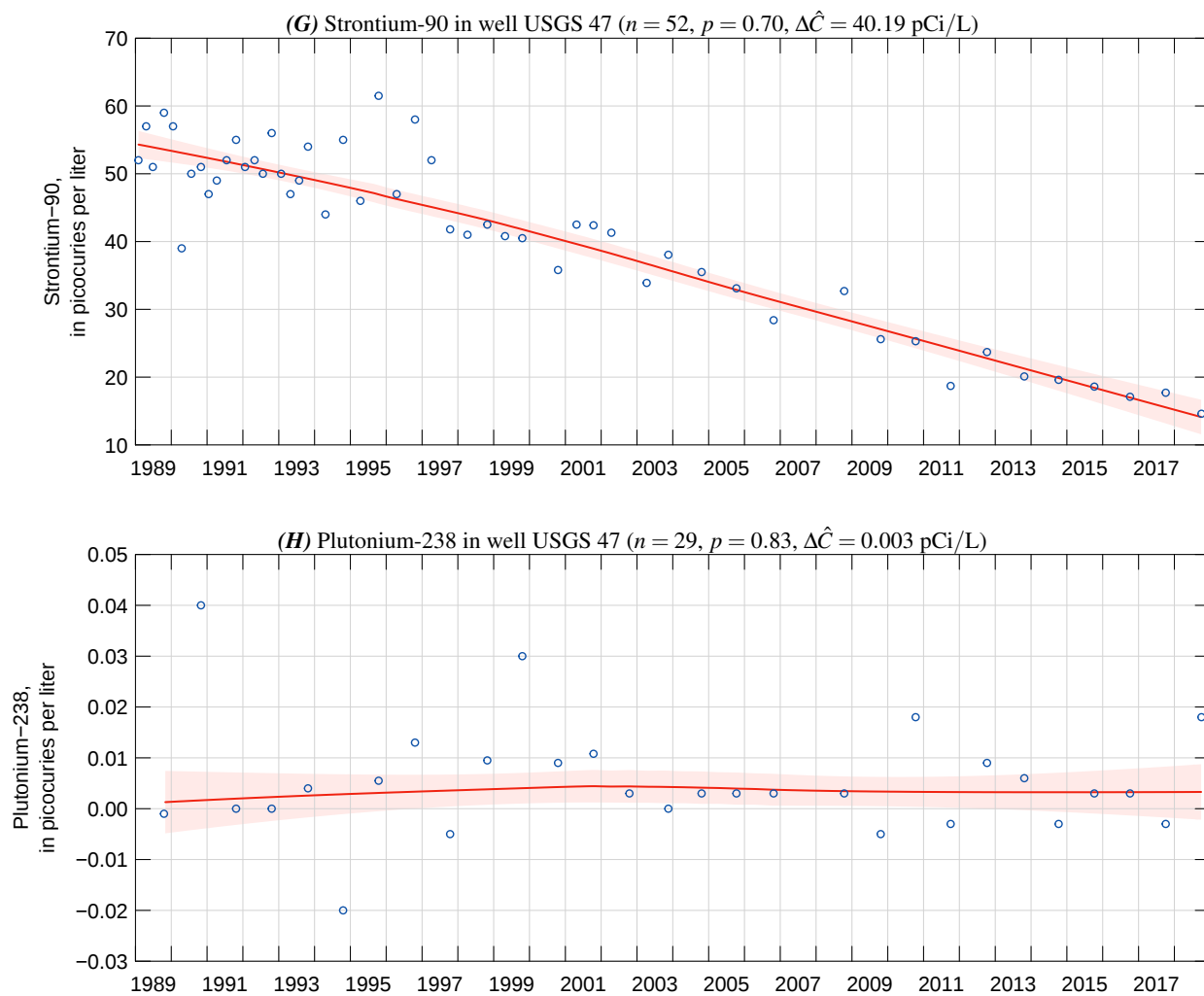


Figure 5.95. —Continued

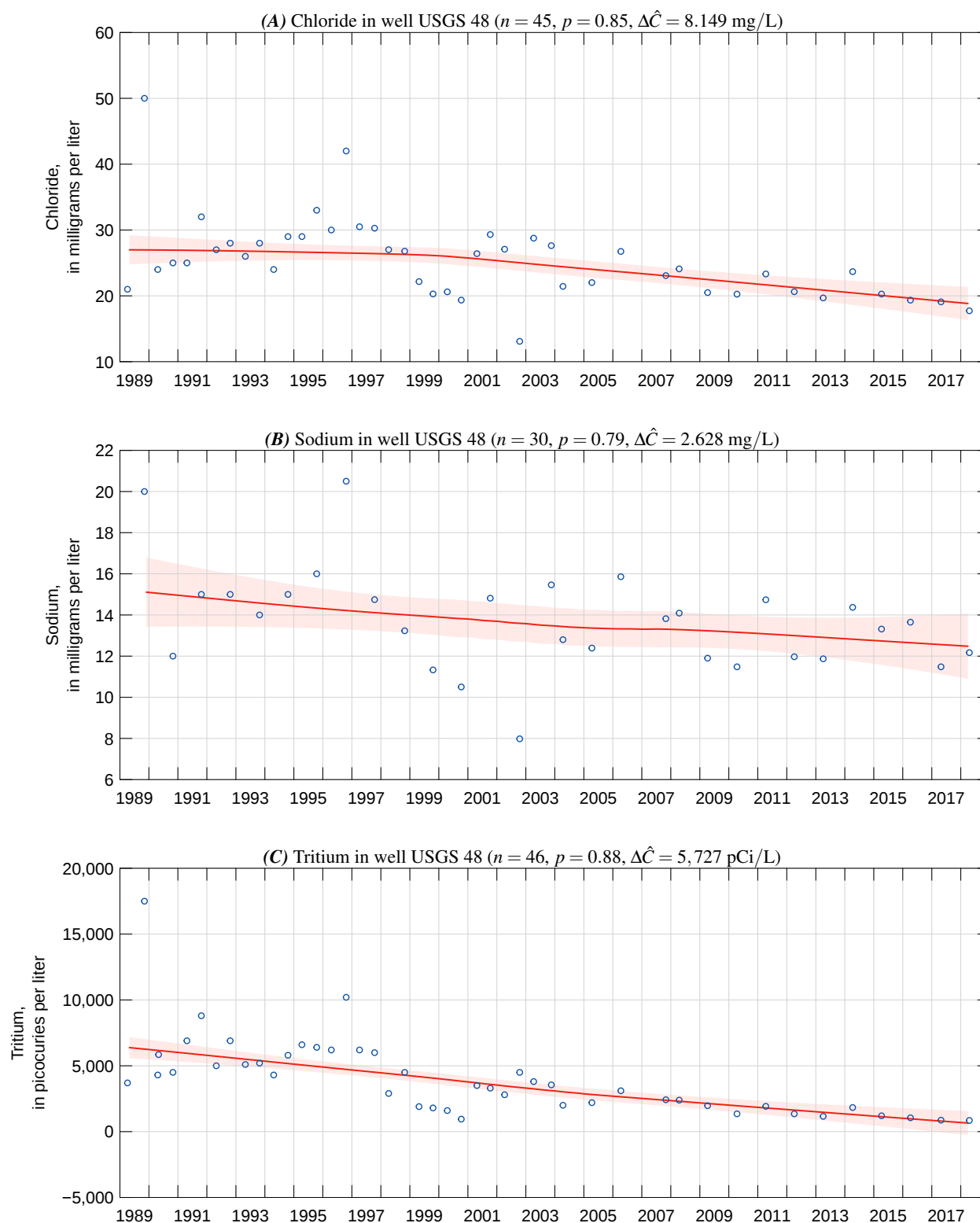


Figure 5.96. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 48 (Site No. 433401112560301), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

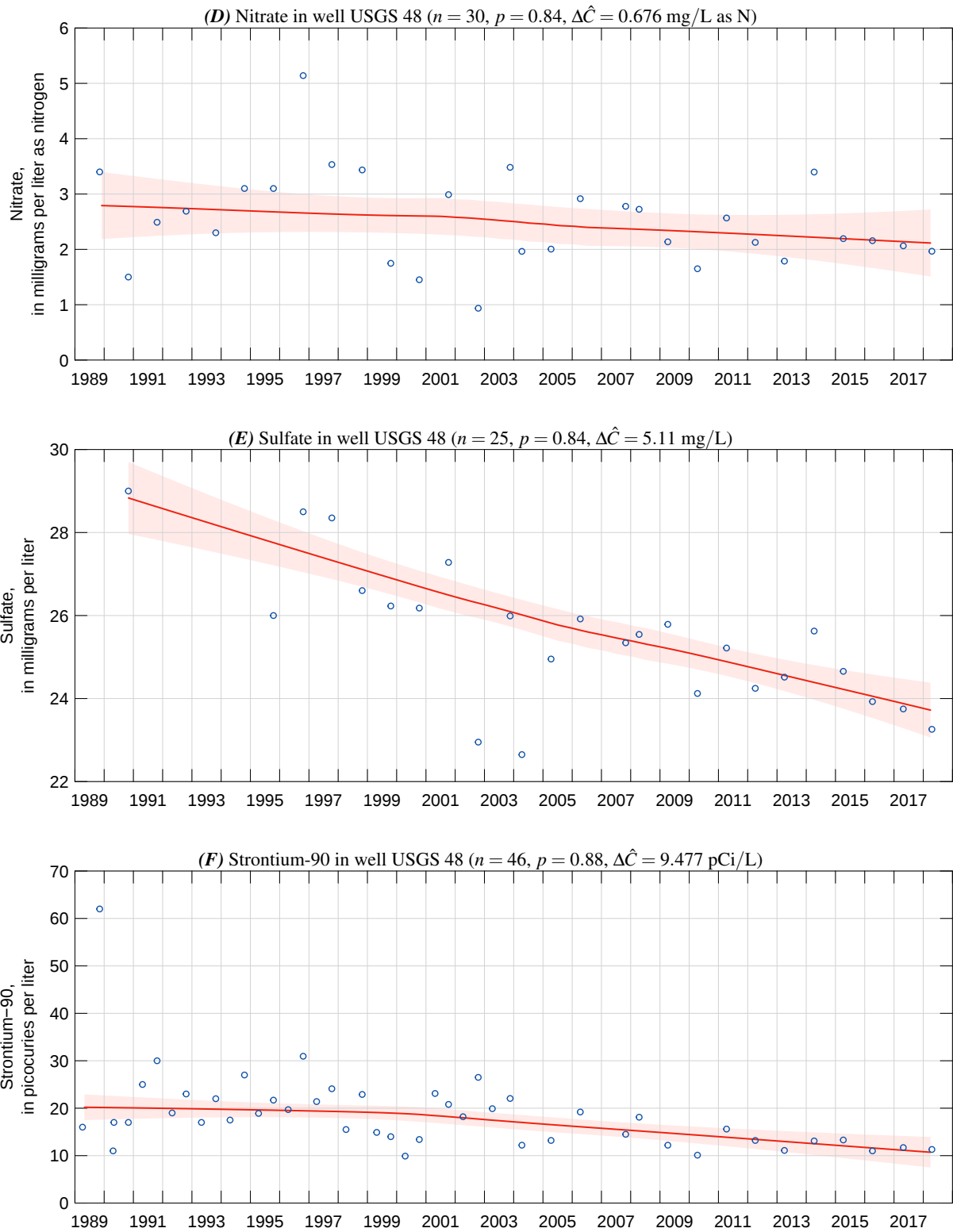


Figure 5.96. —Continued

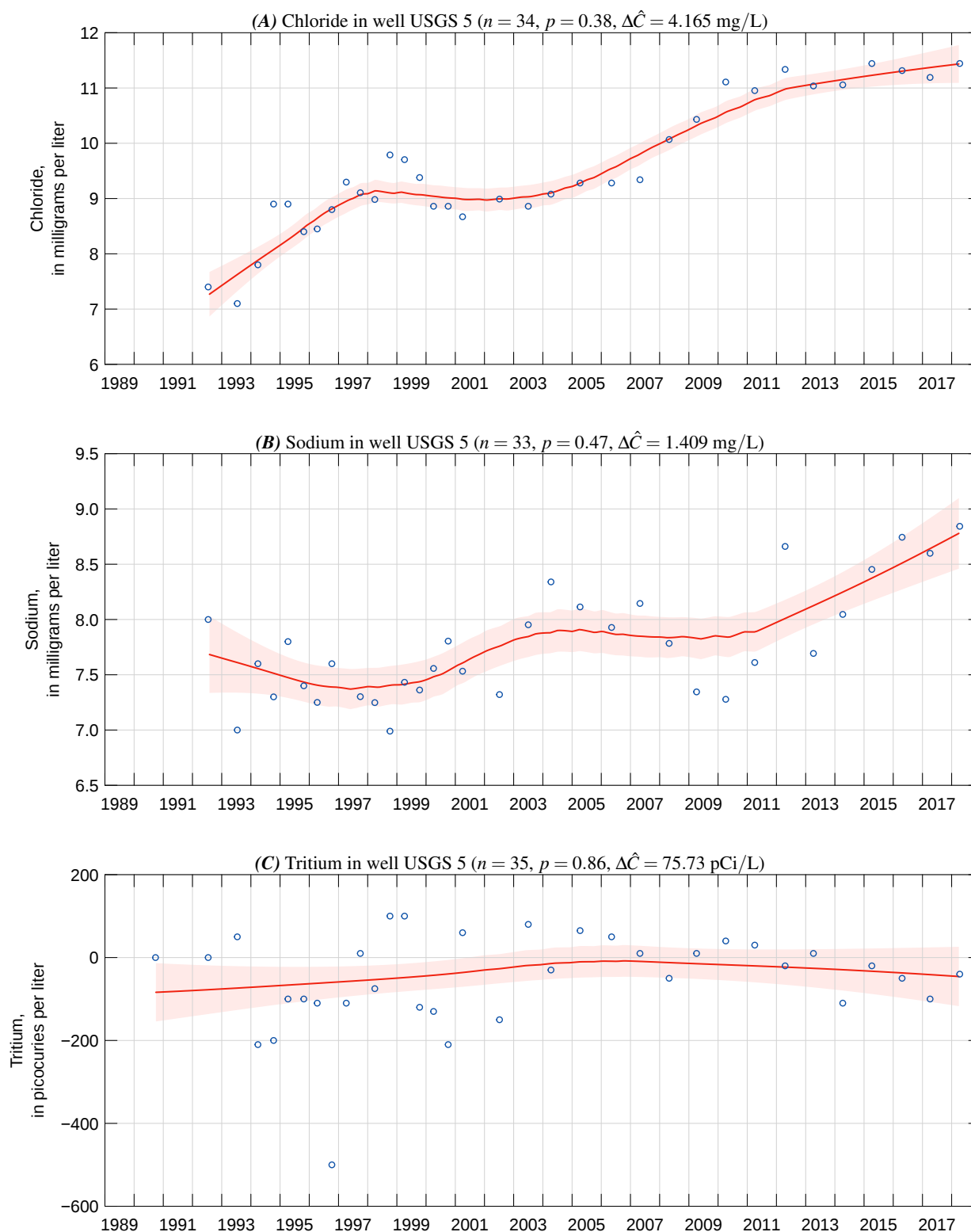


Figure 5.97. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, and (N) trichloroethylene measured in water samples collected from well USGS 5 (Site No. 433543112493801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

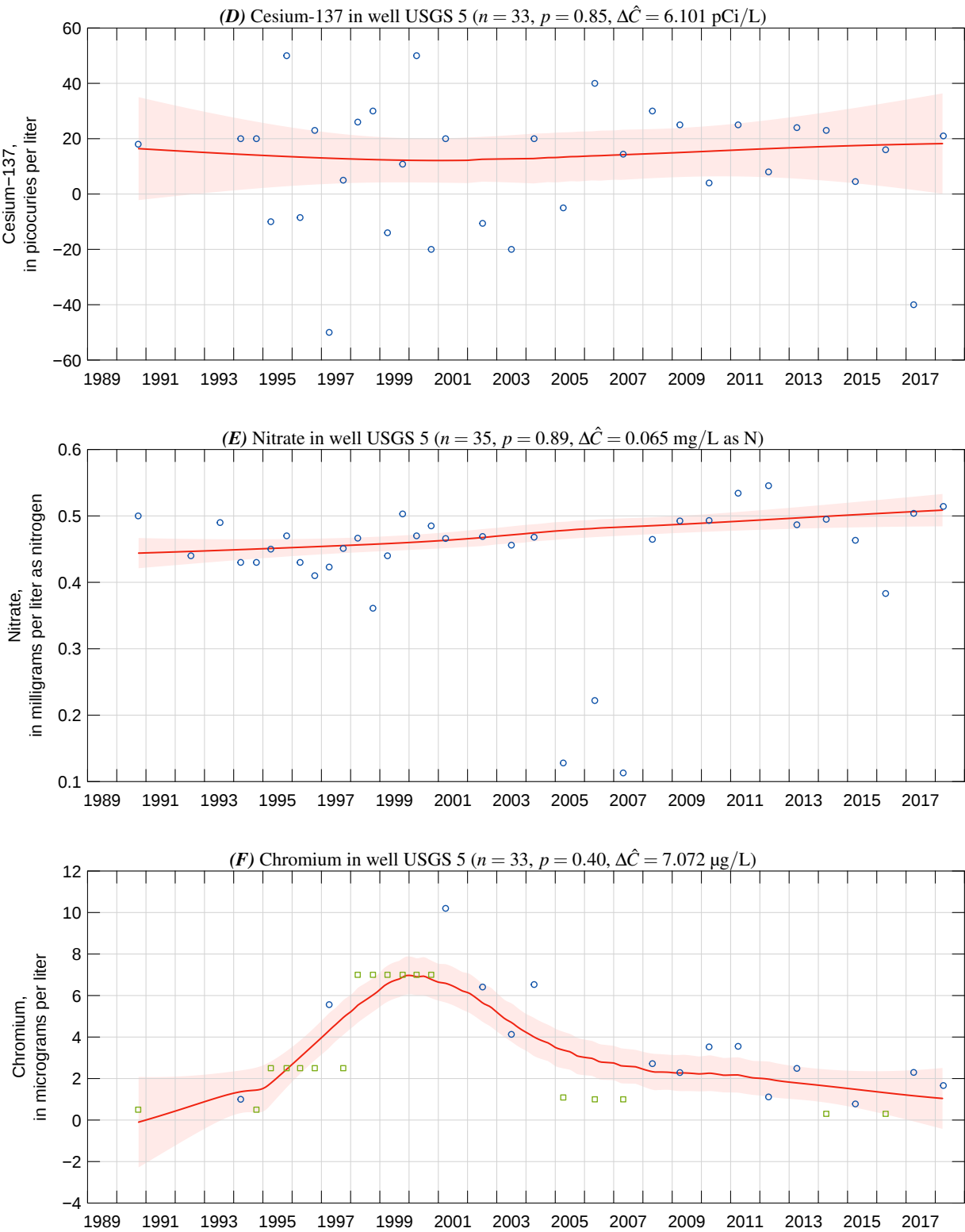


Figure 5.97. —Continued

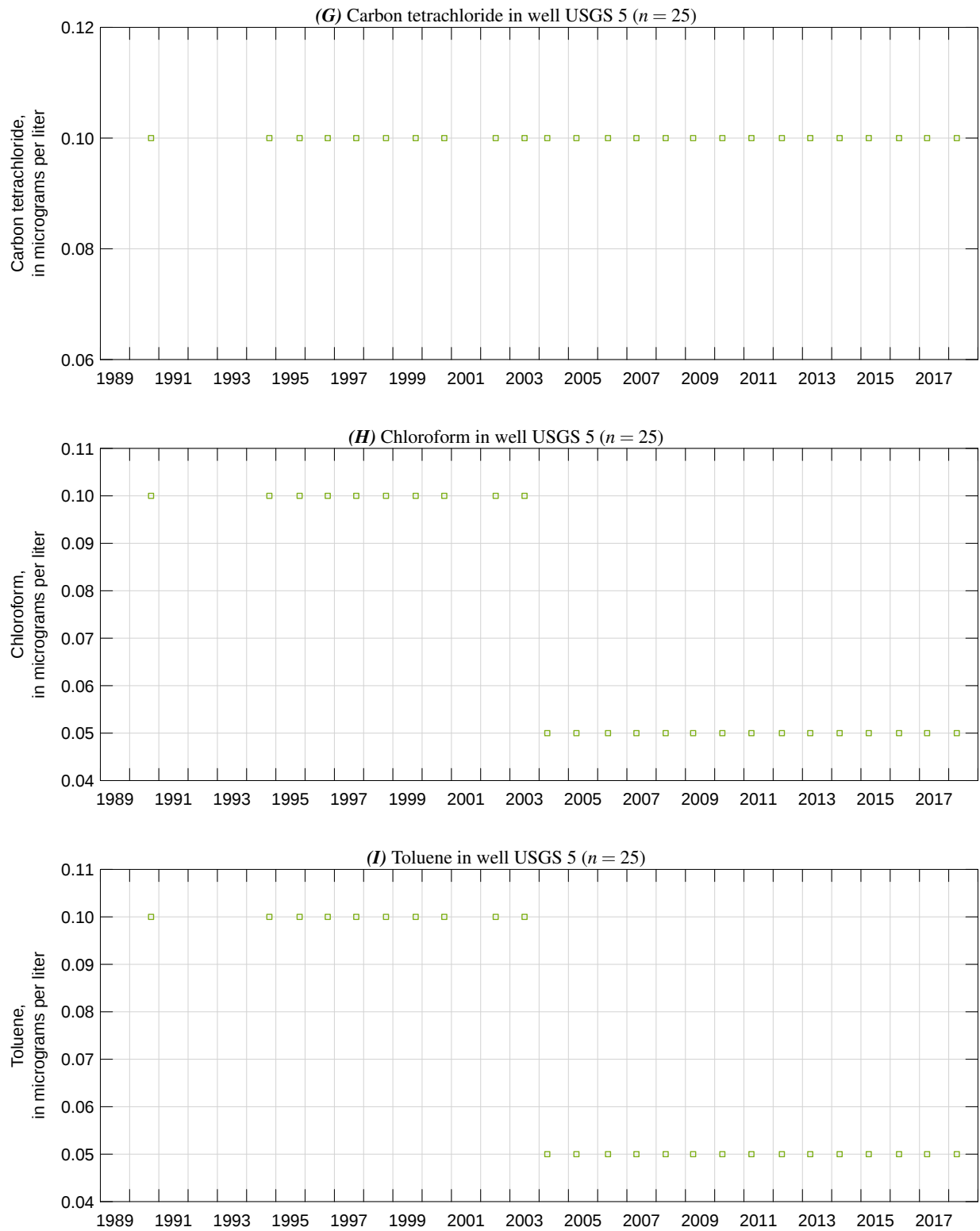


Figure 5.97. —Continued

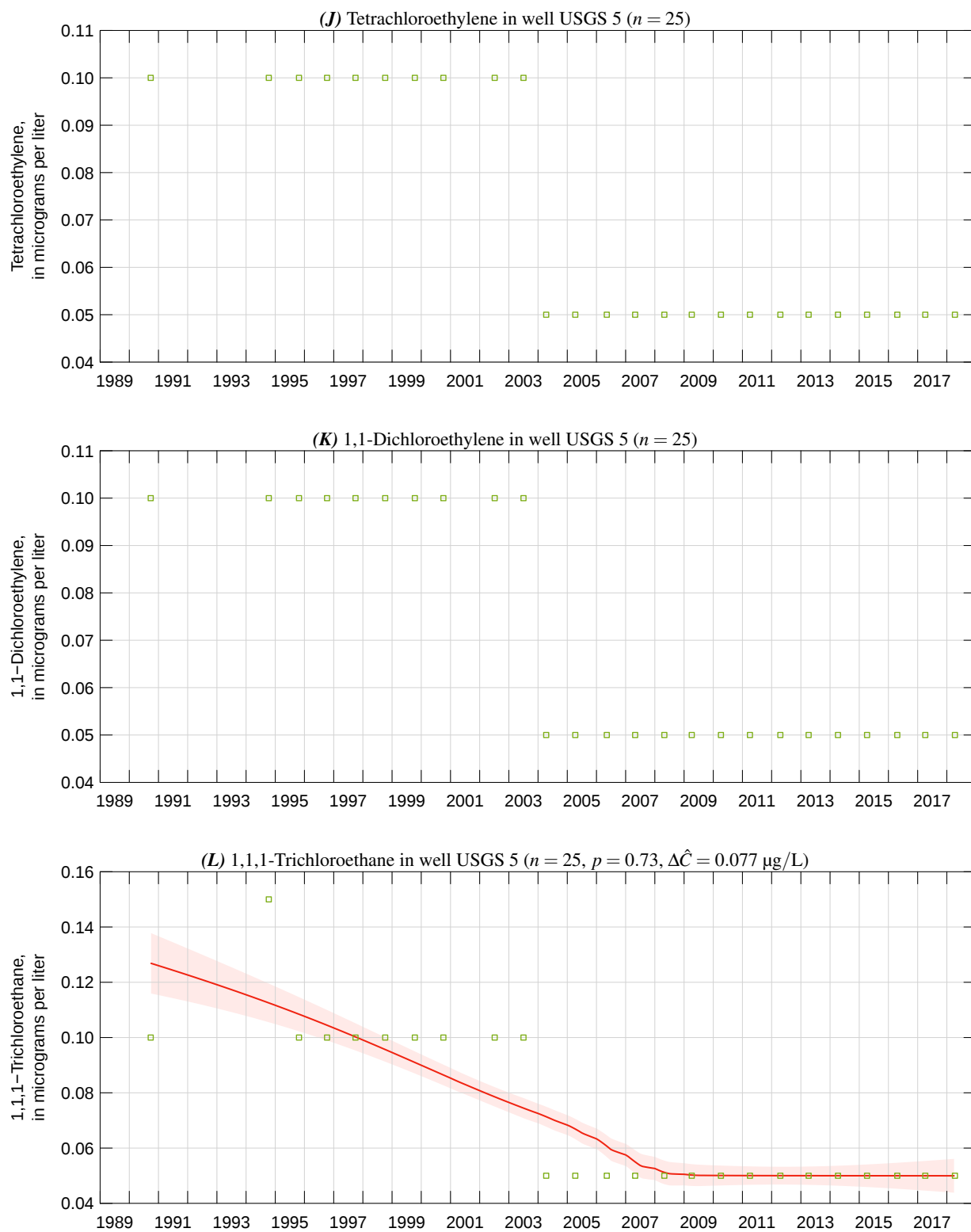


Figure 5.97. —Continued

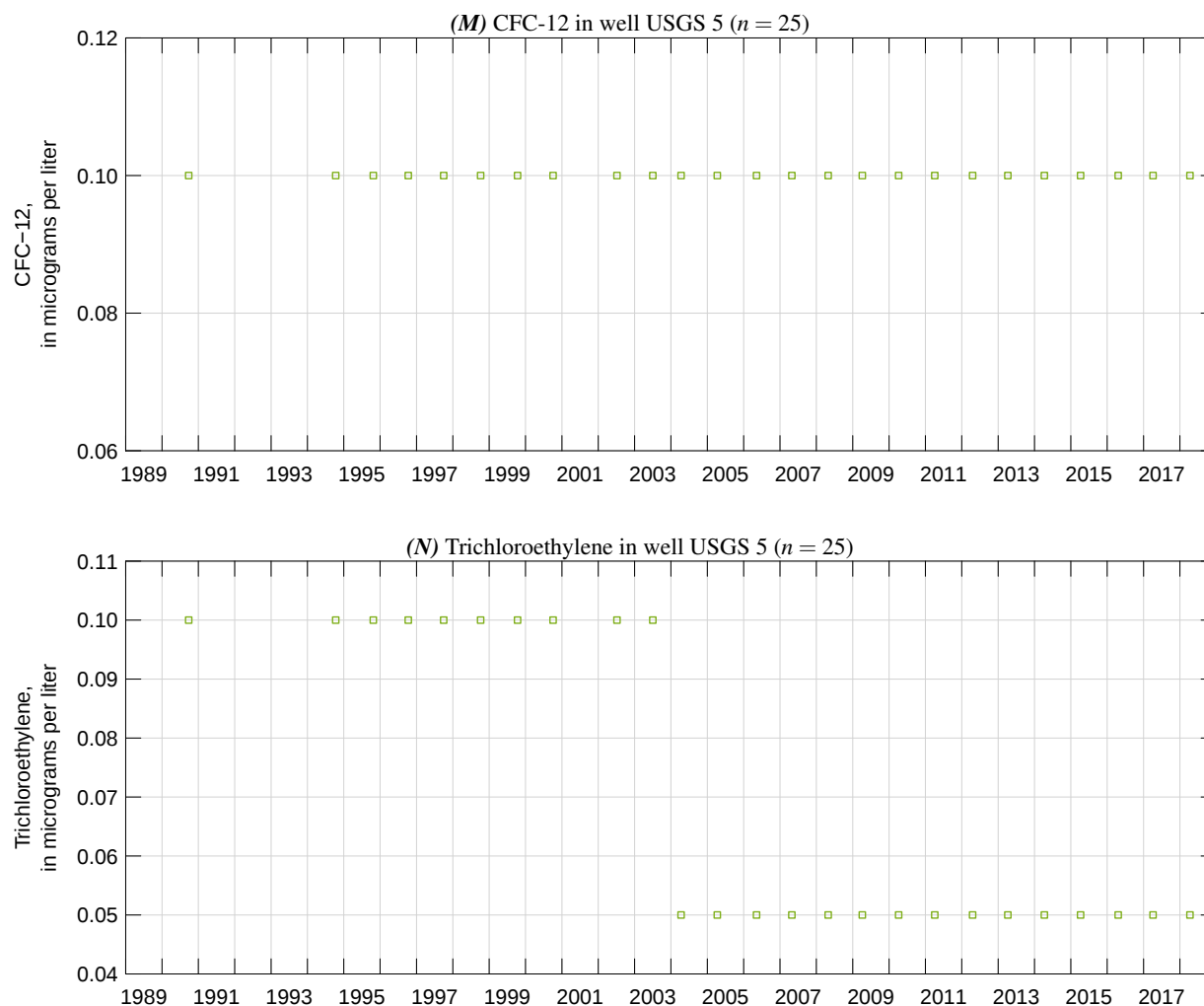


Figure 5.97. —Continued

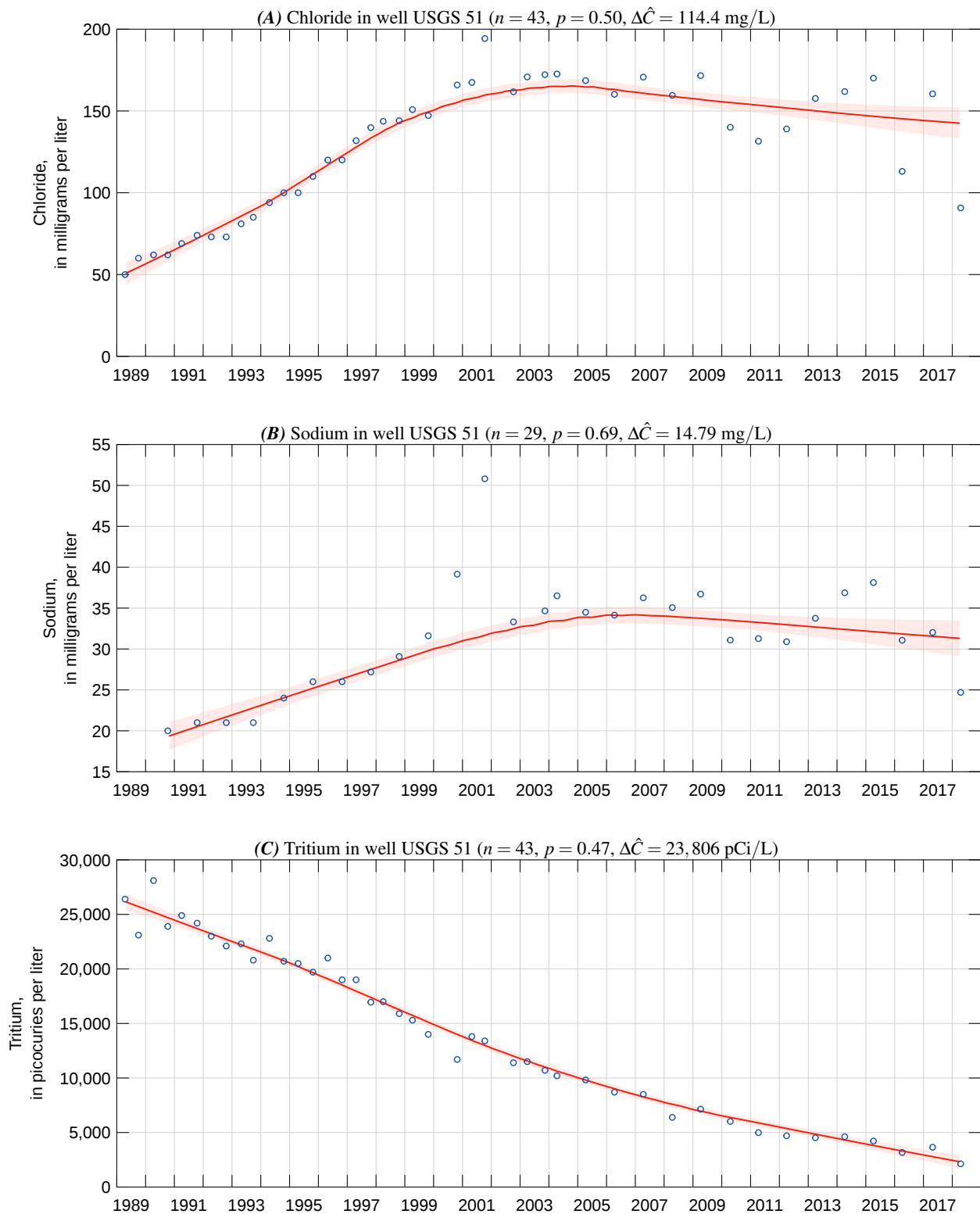


Figure 5.98. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 51 (Site No. 433350112560601), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

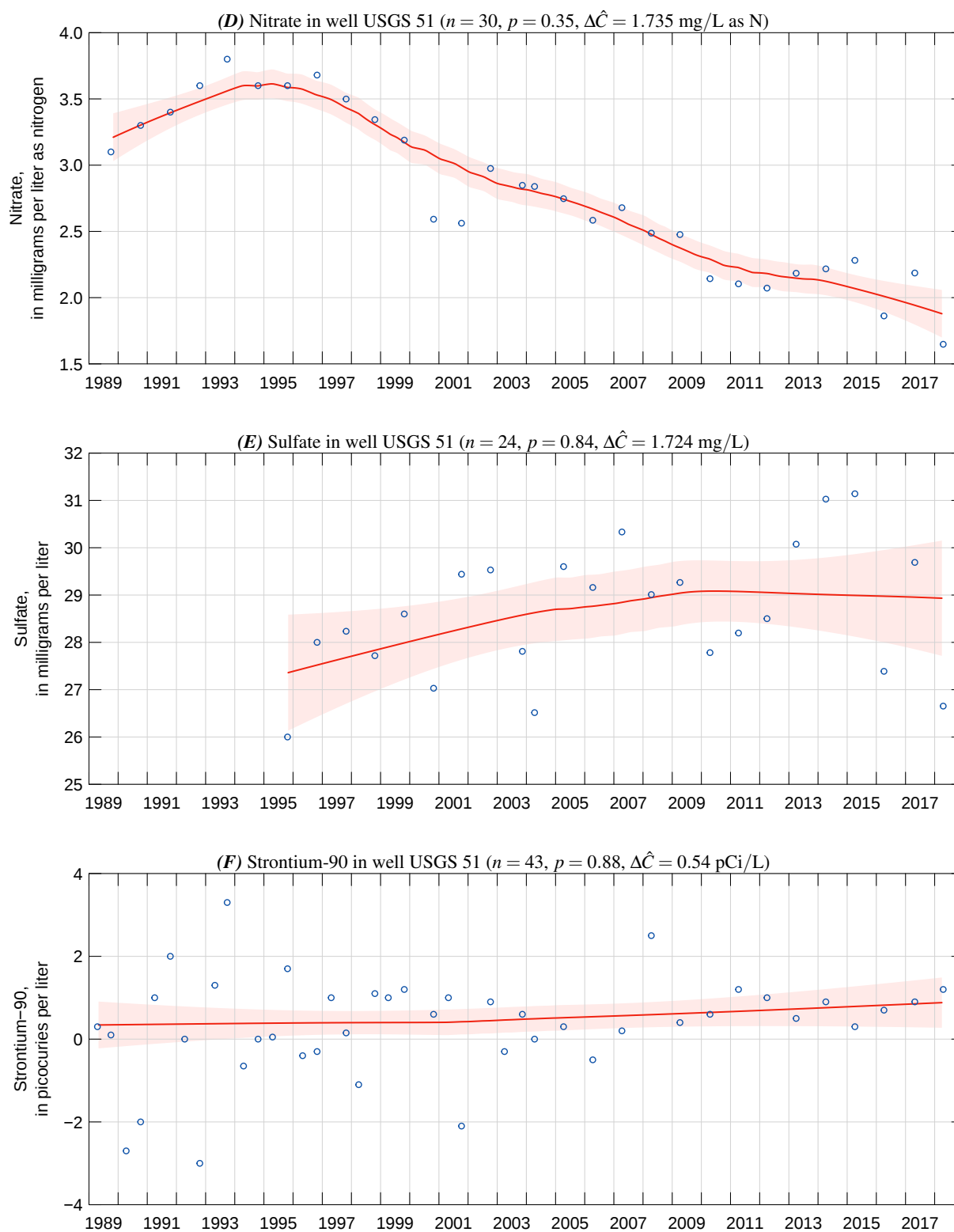


Figure 5.98. —Continued

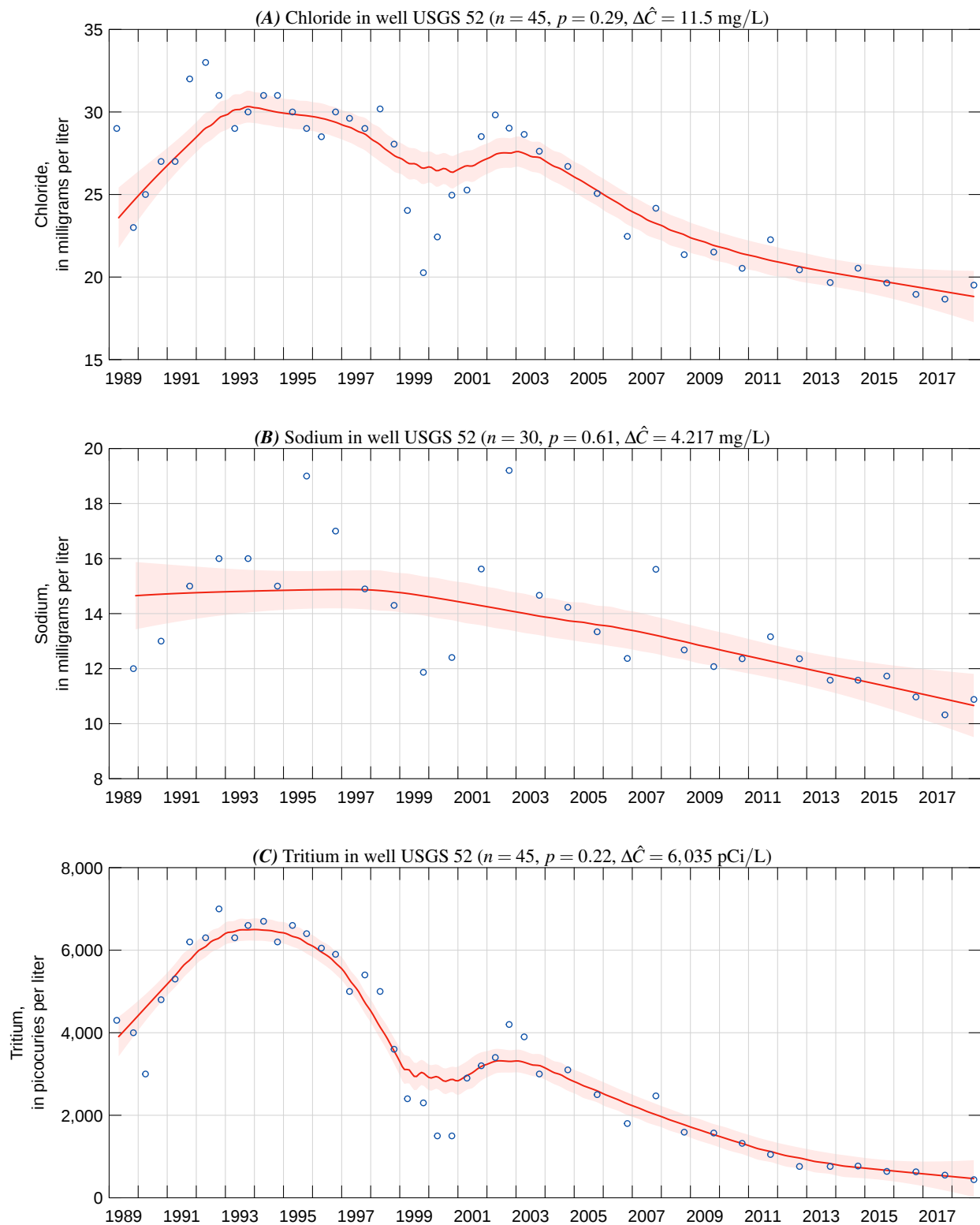


Figure 5.99. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 52 (Site No. 433414112554201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

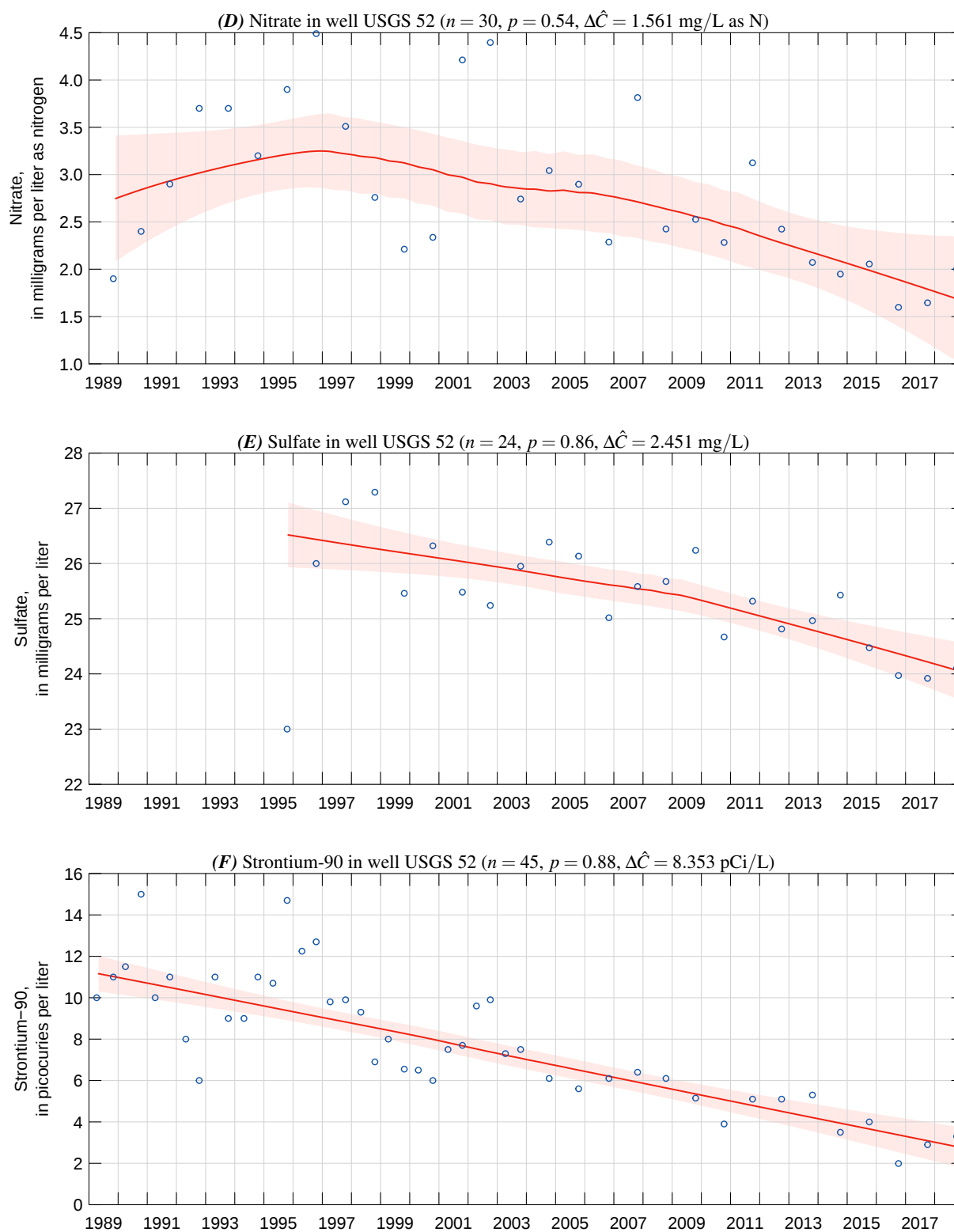


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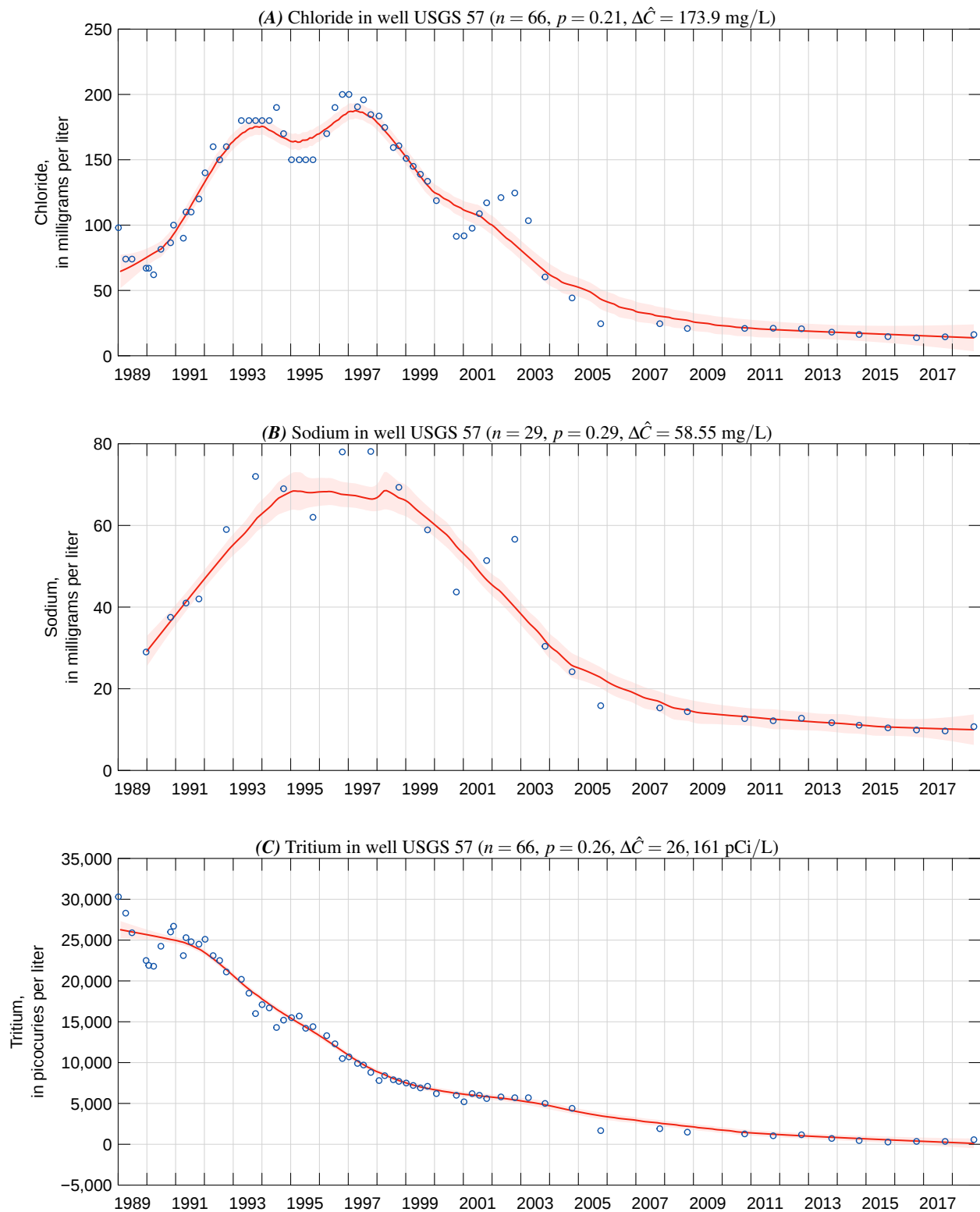


Figure 5.100. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, and (G) strontium-90 measured in water samples collected from well USGS 57 (Site No. 433344112562601), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

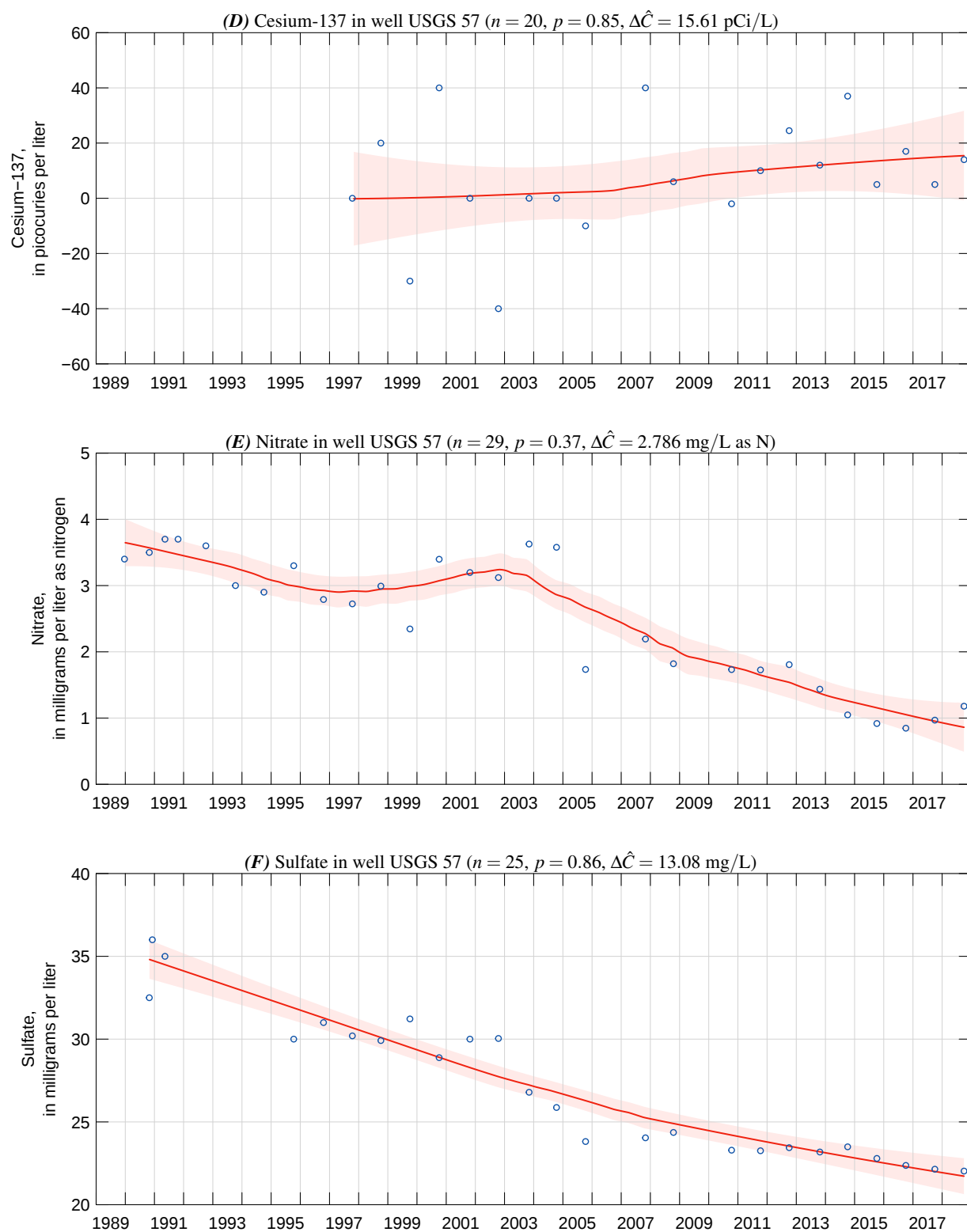


Figure 5.100. —Continued

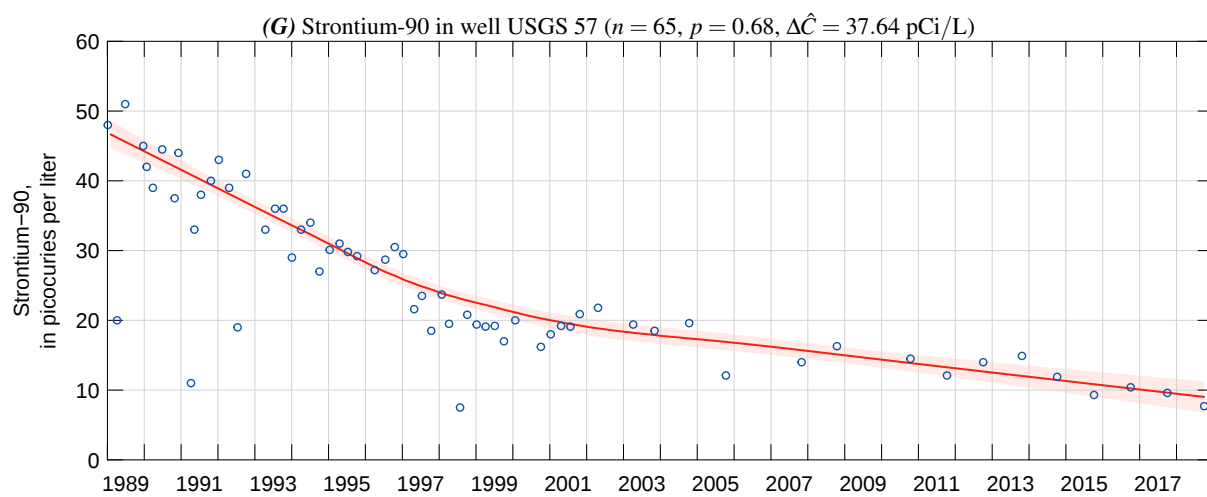


Figure 5.100. —Continued

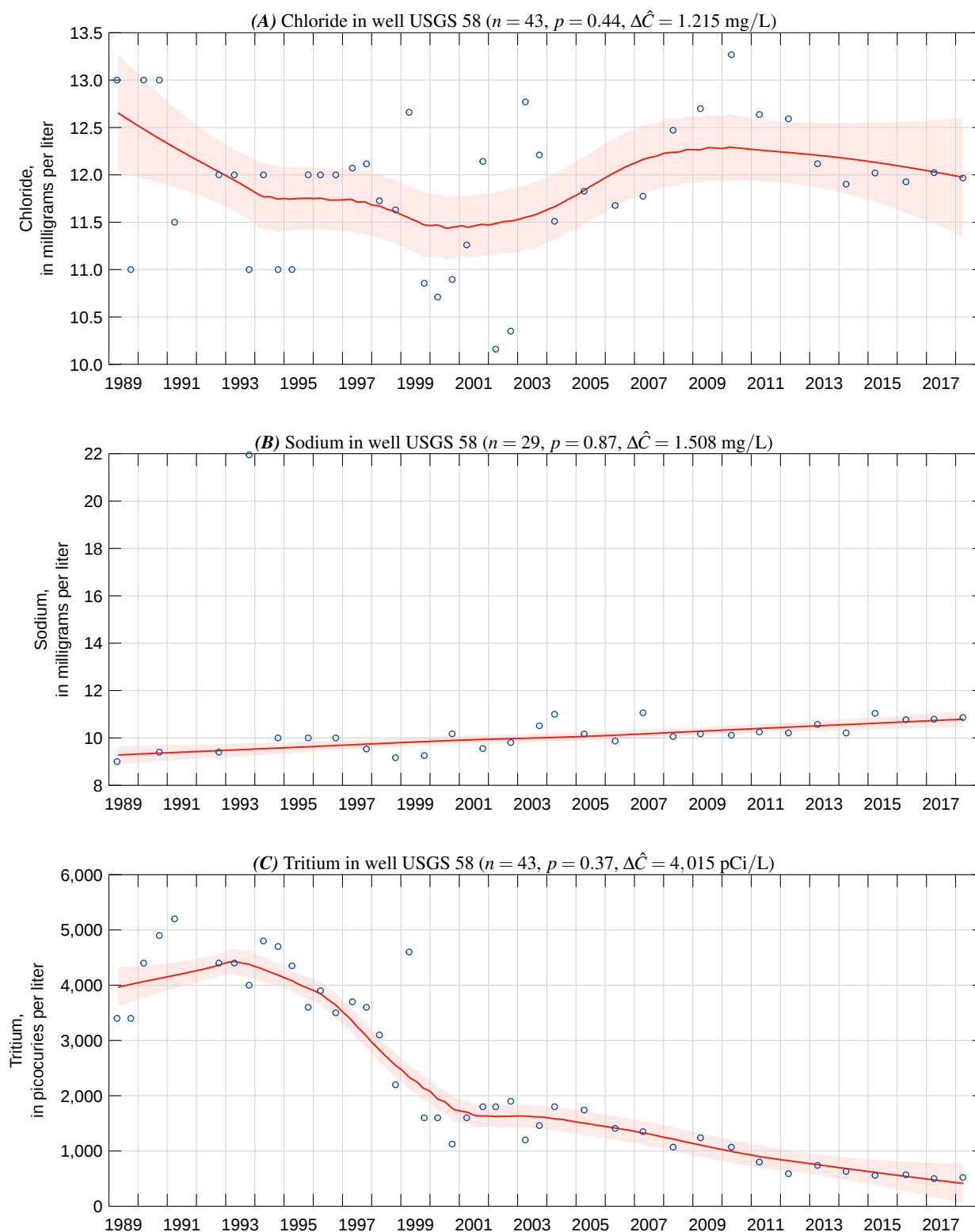


Figure 5.101. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) sulfate, (F) chromium, and (G) strontium-90 measured in water samples collected from well USGS 58 (Site No. 433500112572502), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

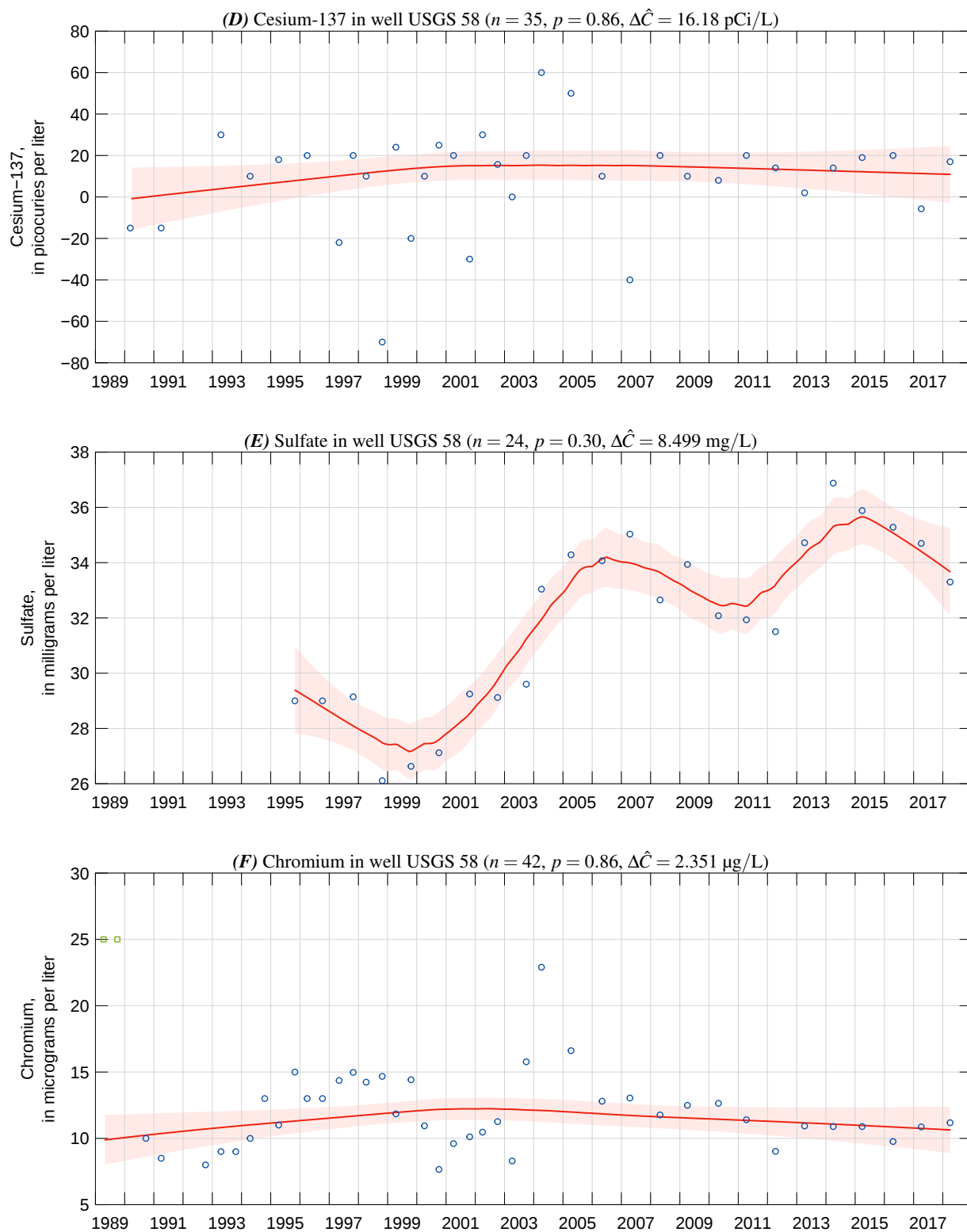


Figure 5.101. —Continued

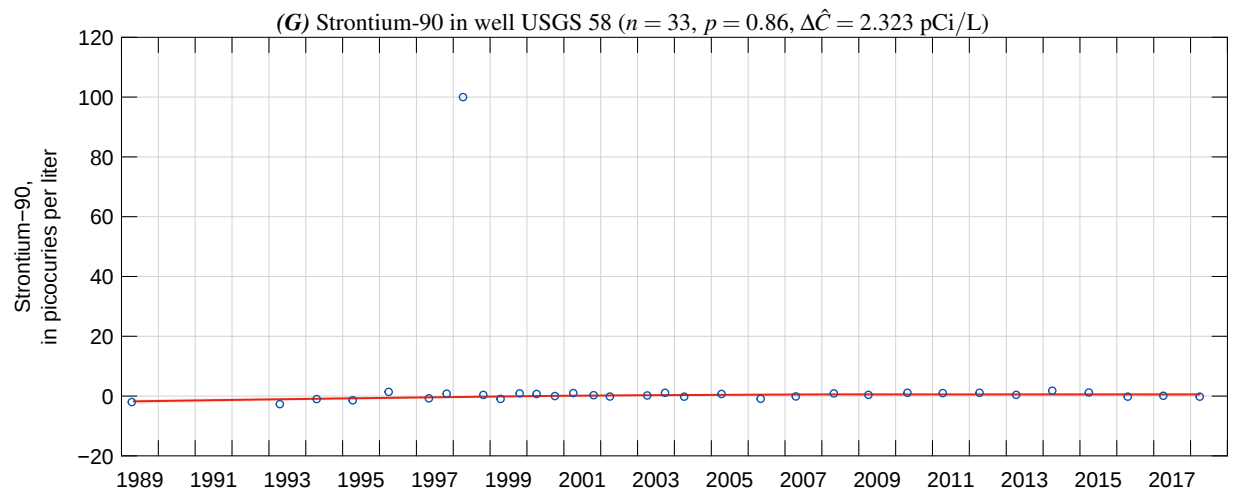


Figure 5.101. —Continued

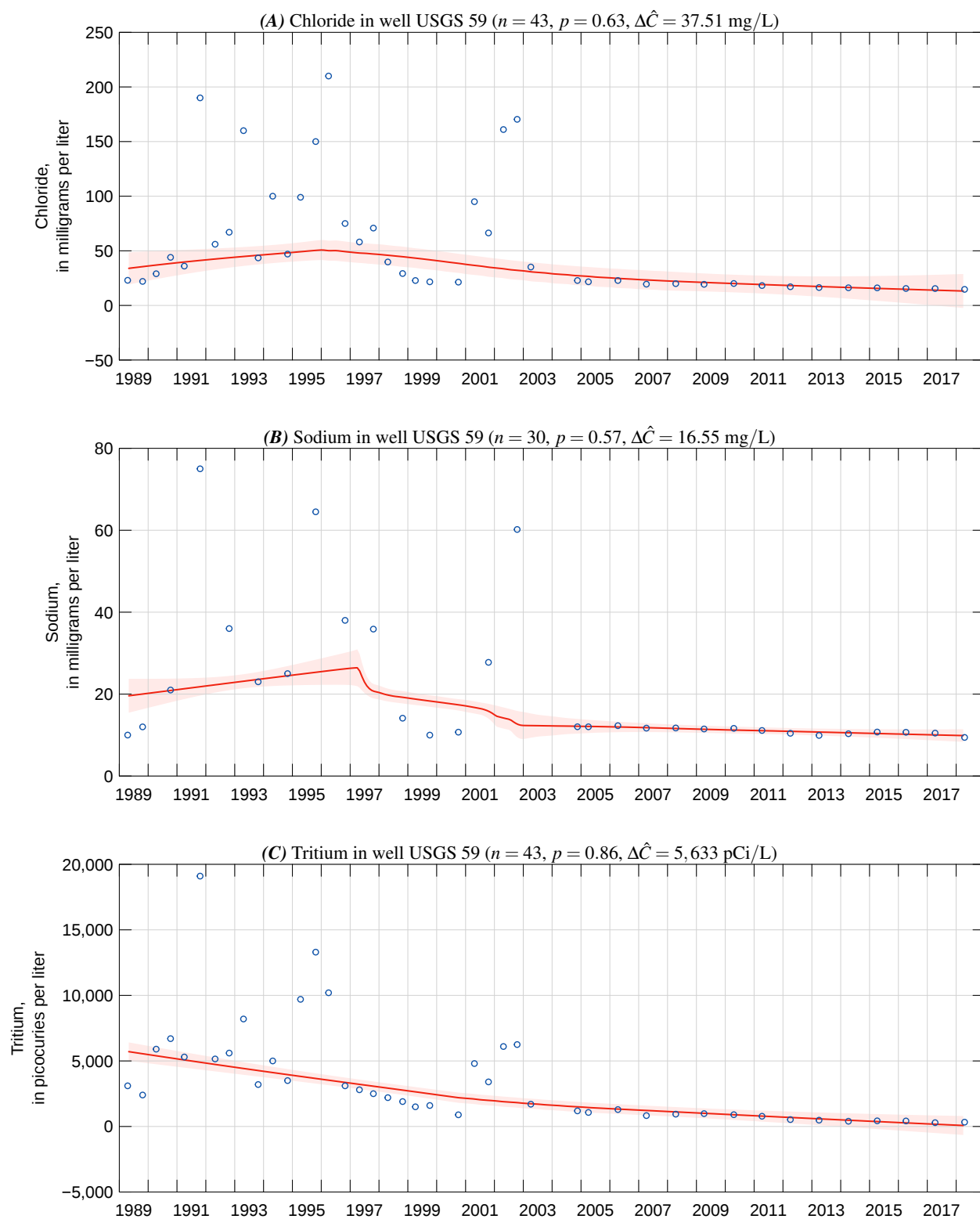


Figure 5.102. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 59 (Site No. 433354112554701), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

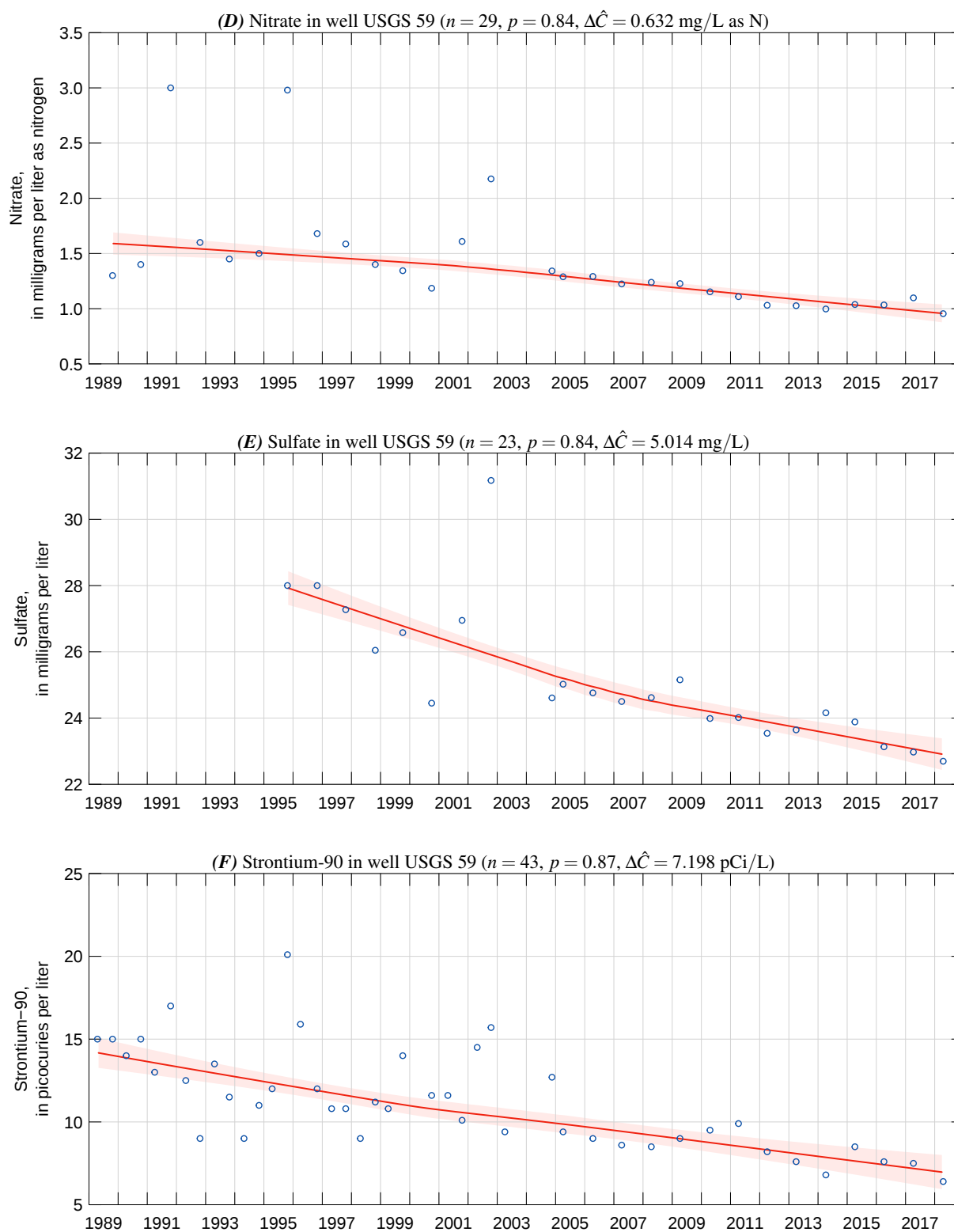


Figure 5.102. —Continued

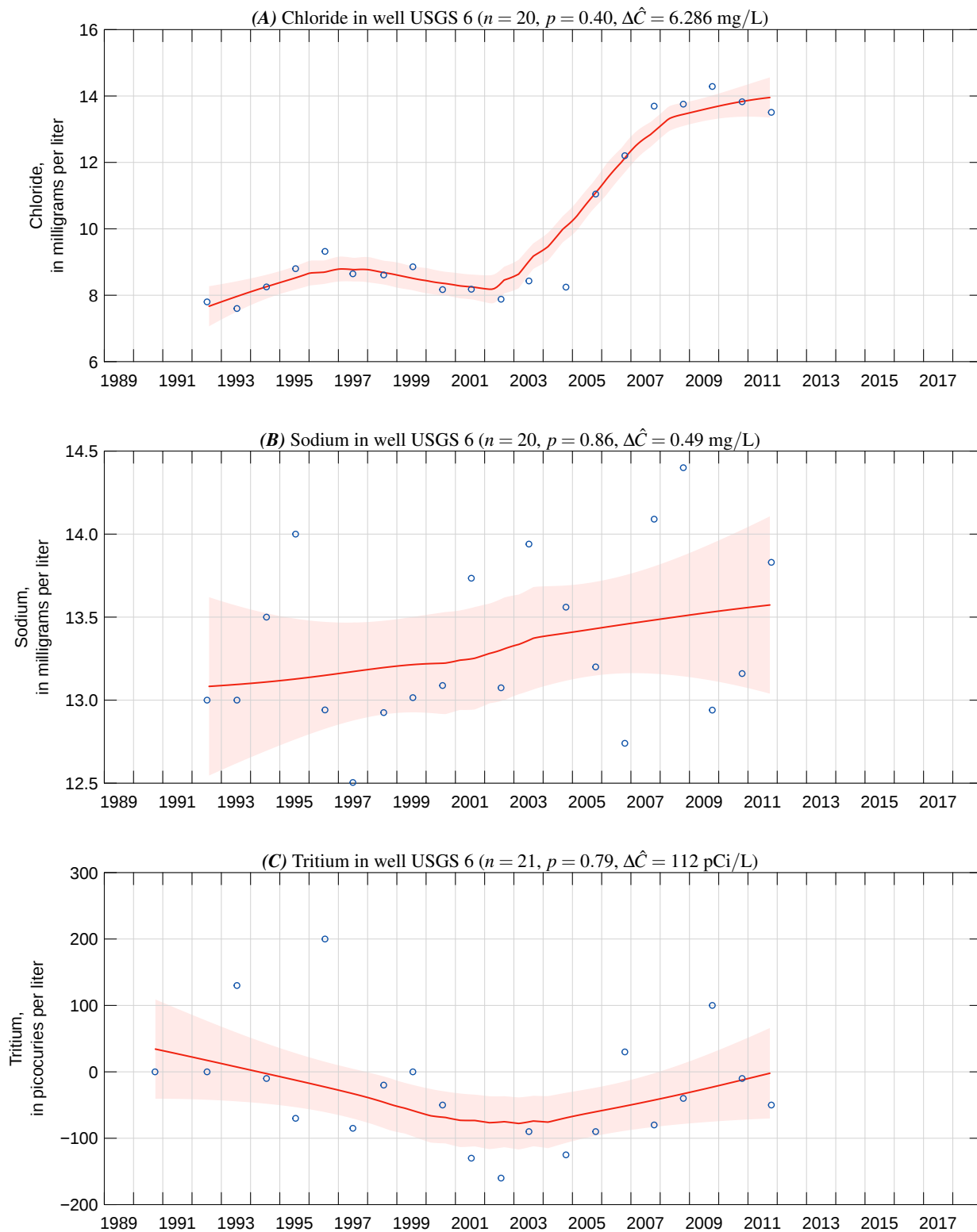


Figure 5.103. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 6 (Site No. 43403112453701), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

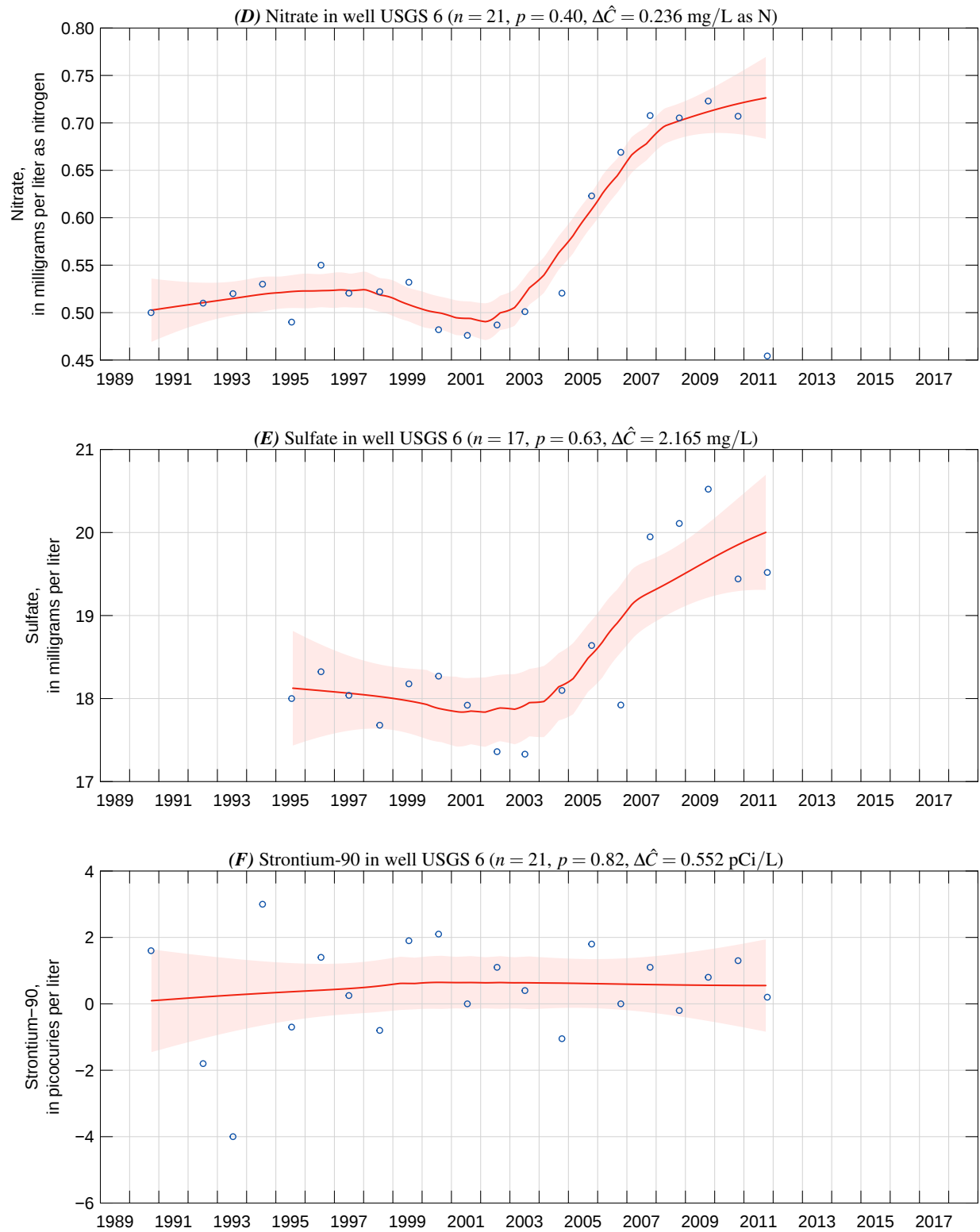


Figure 5.103. —Continued

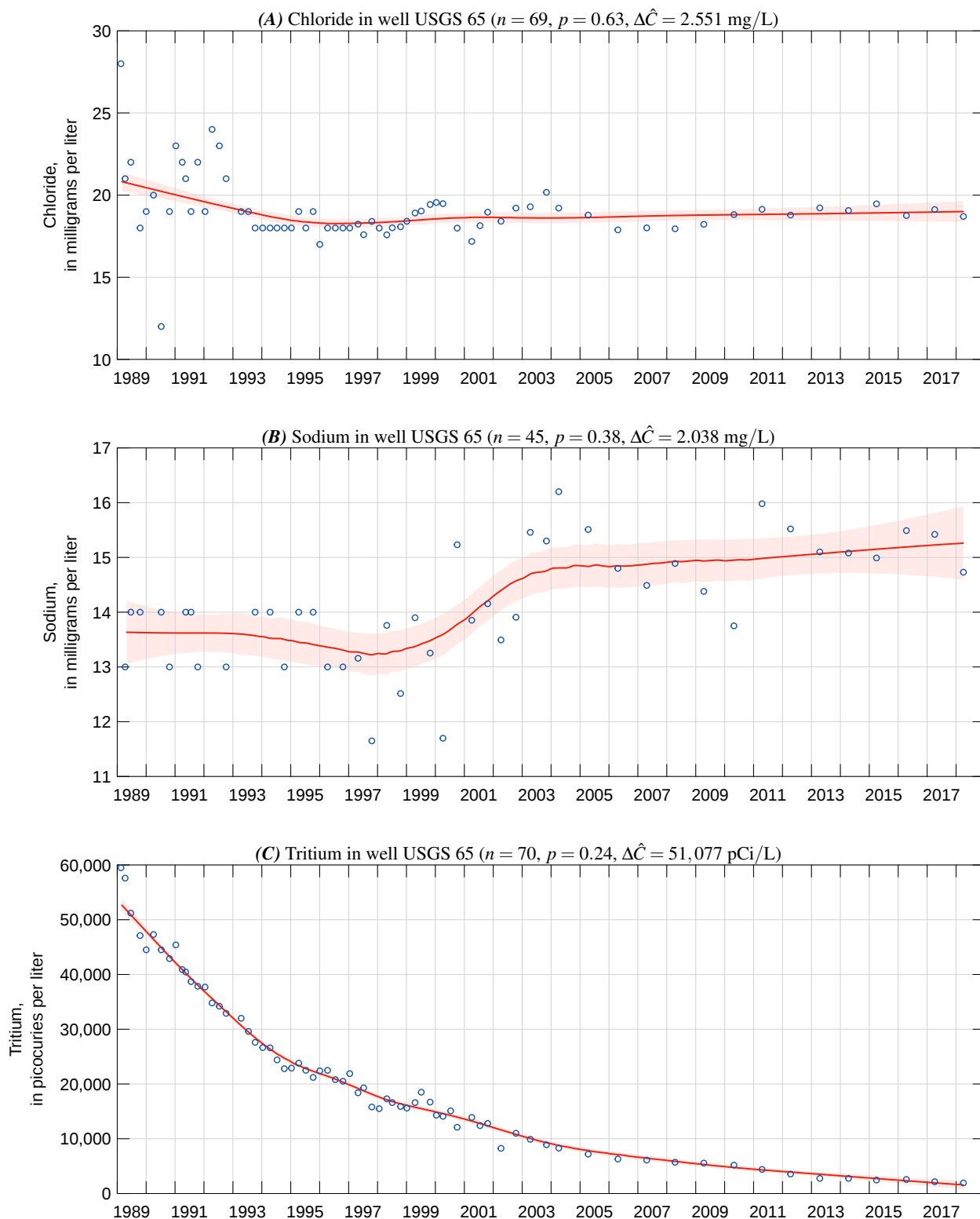


Figure 5.104. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) chromium, (H) carbon tetrachloride, (I) chloroform, (J) toluene, (K) tetrachloroethylene, (L) 1,1-dichloroethylene, (M) 1,1,1-trichloroethane, (N) cfc-12, (O) trichloroethylene, (P) strontium-90, and (Q) plutonium-238 measured in water samples collected from well USGS 65 (Site No. 433447112574501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

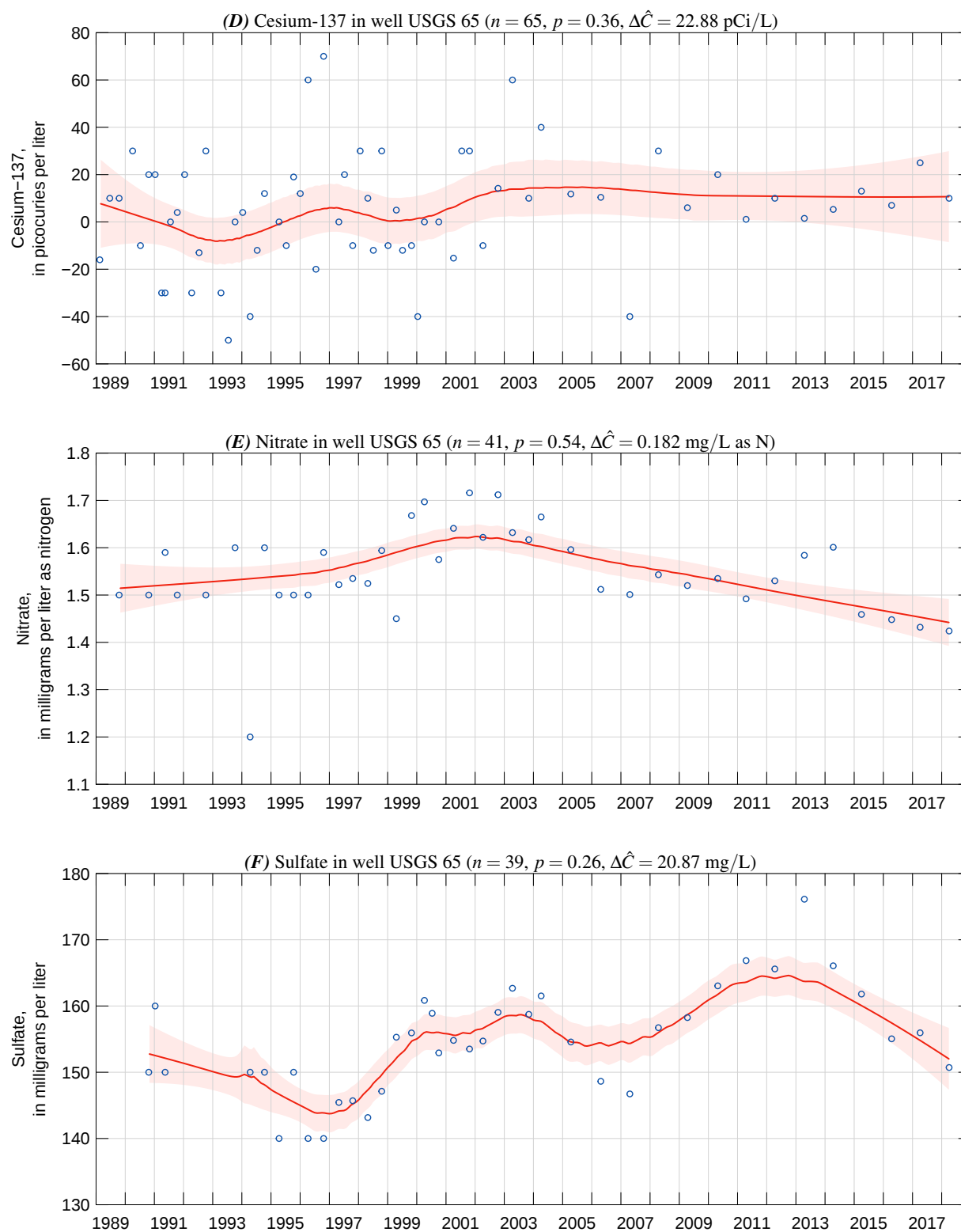


Figure 5.104. —Continued

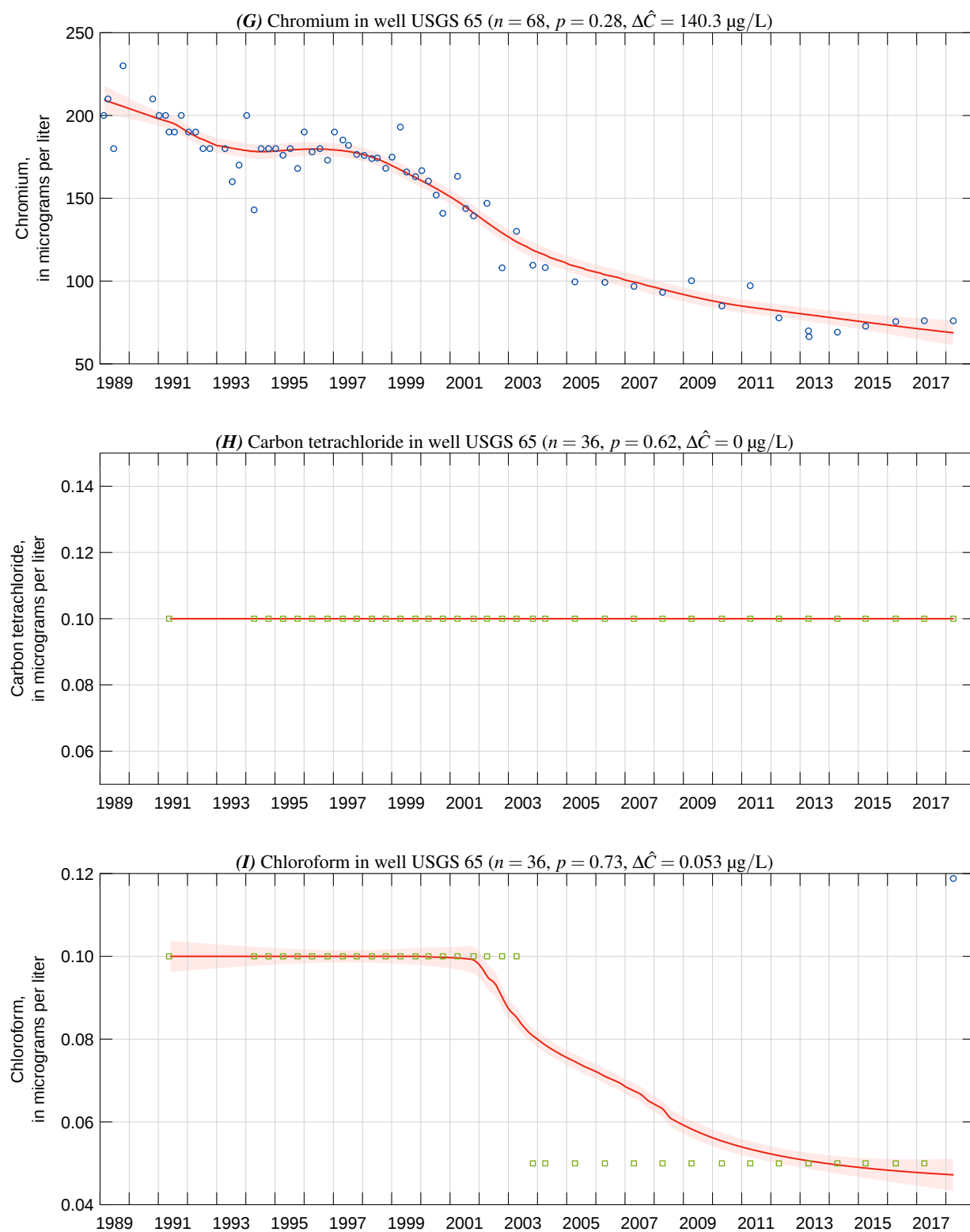


Figure 5.104. —Continued

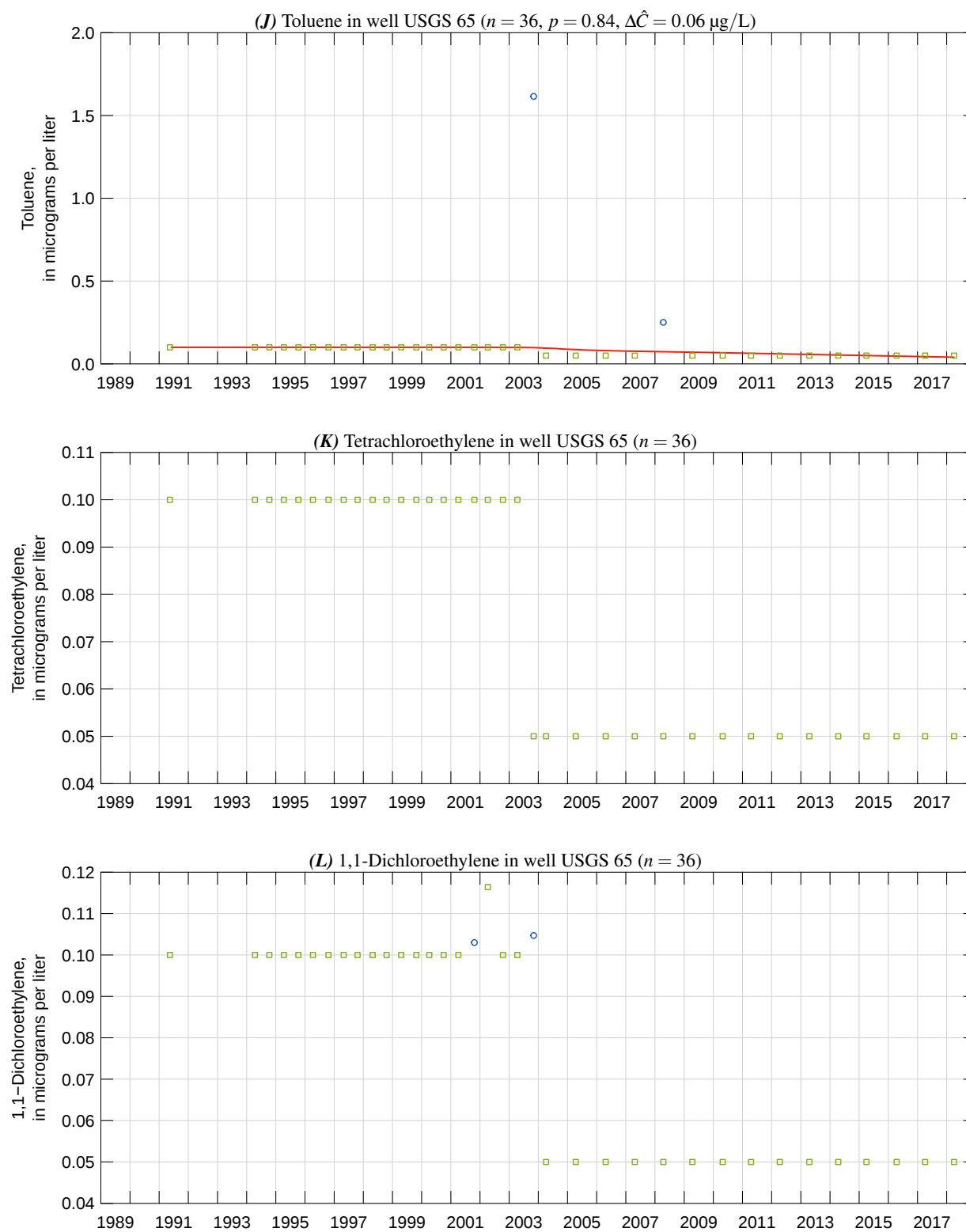
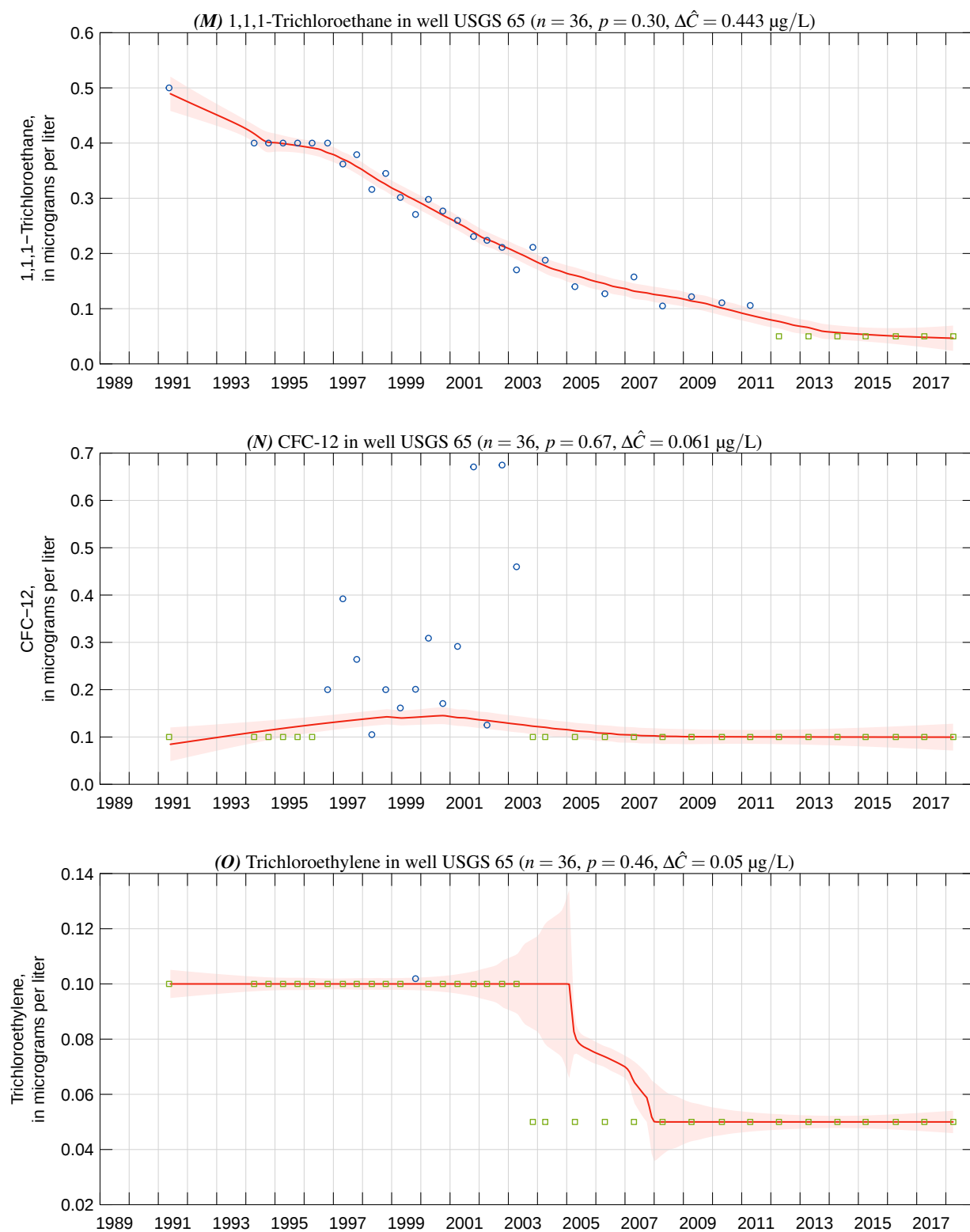


Figure 5.104. —Continued



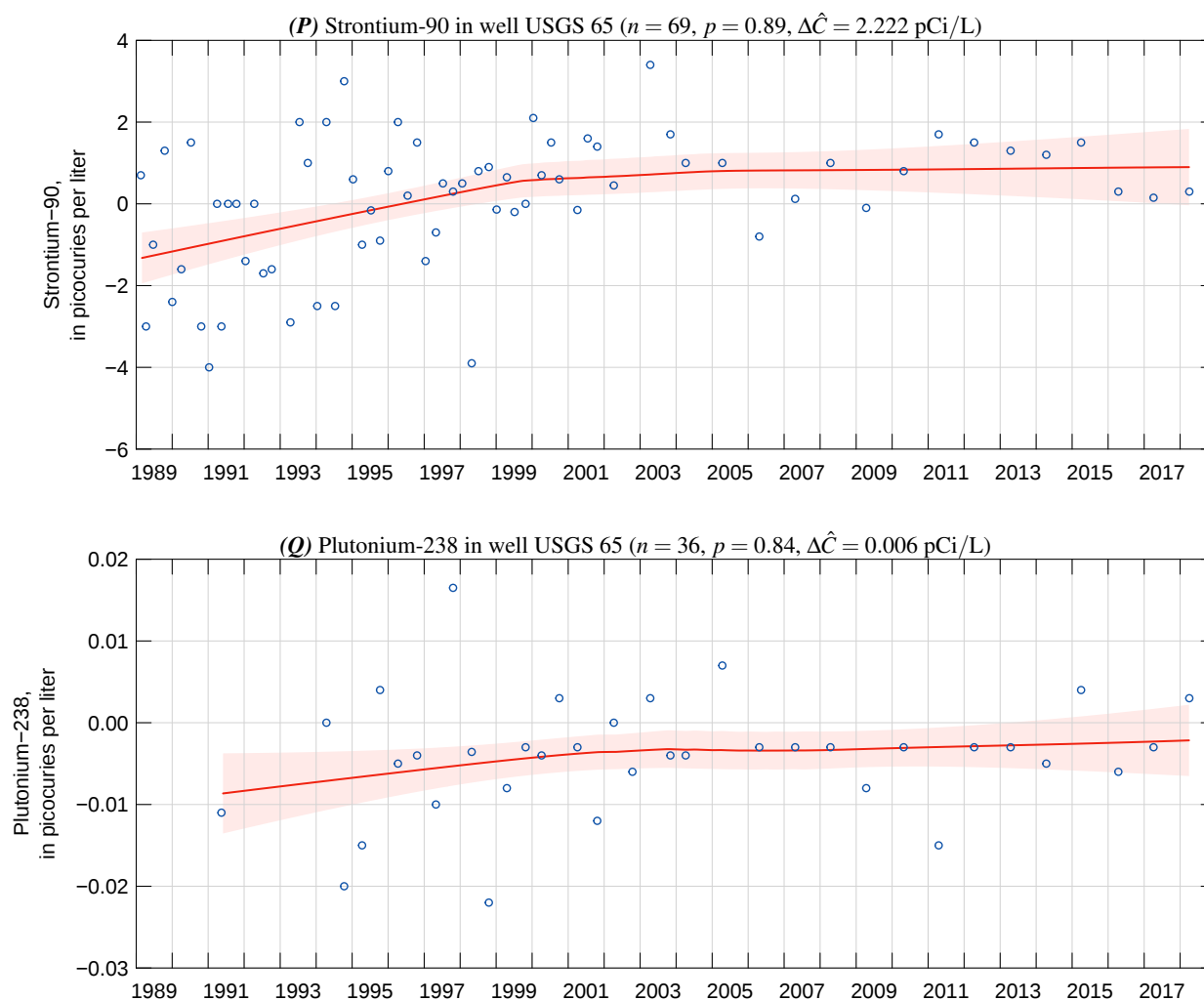


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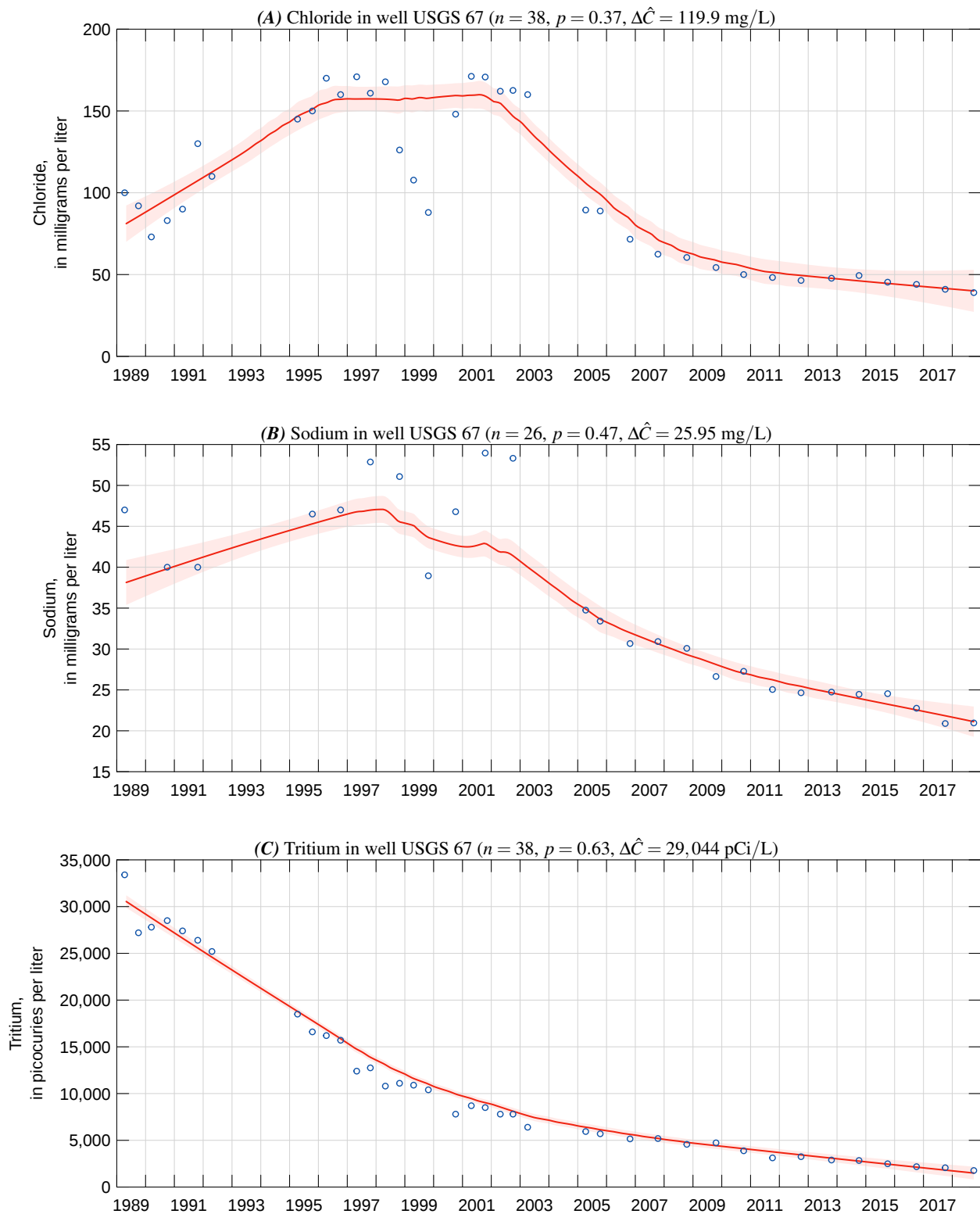


Figure 5.105. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 67 (Site No. 433344112554101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

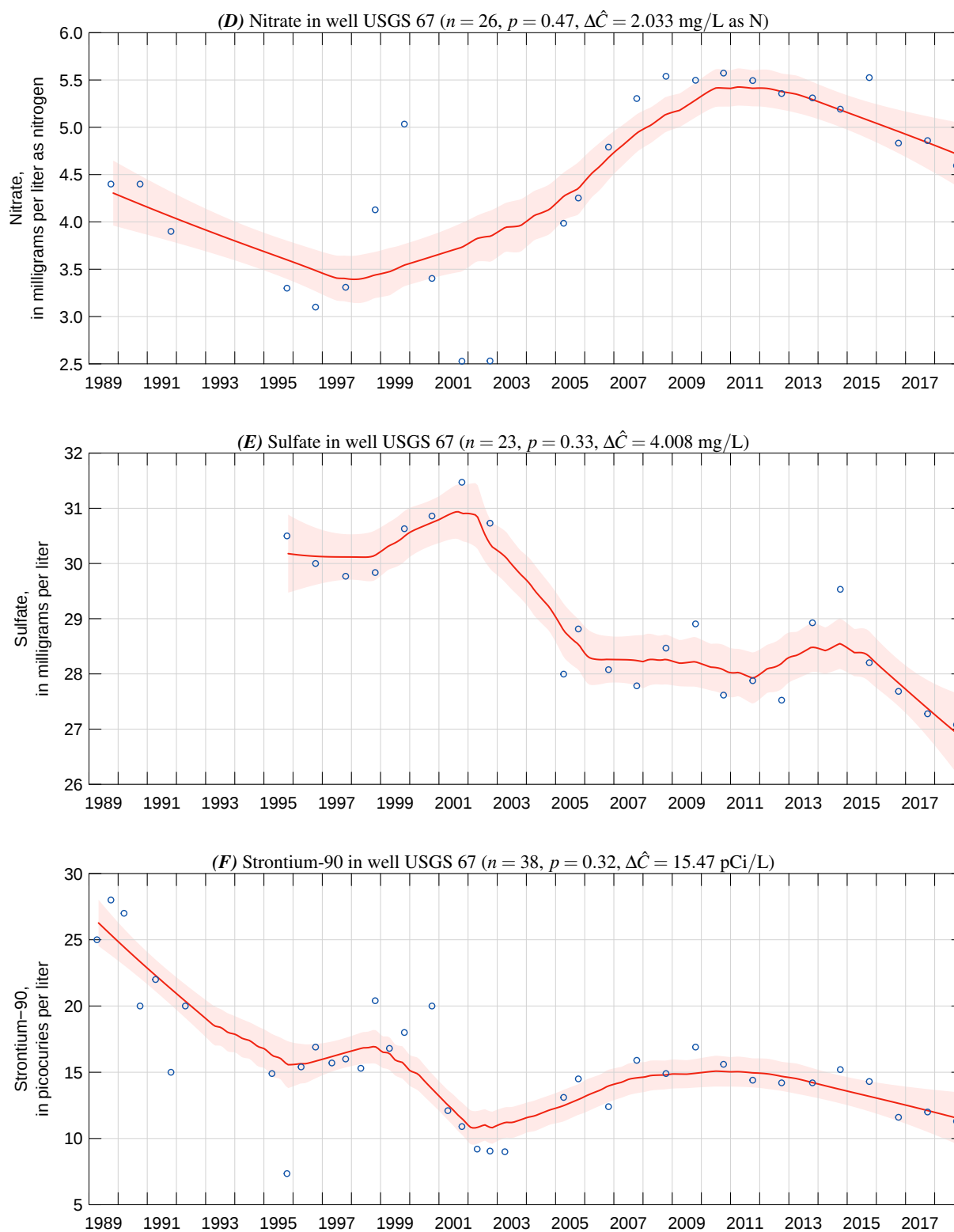


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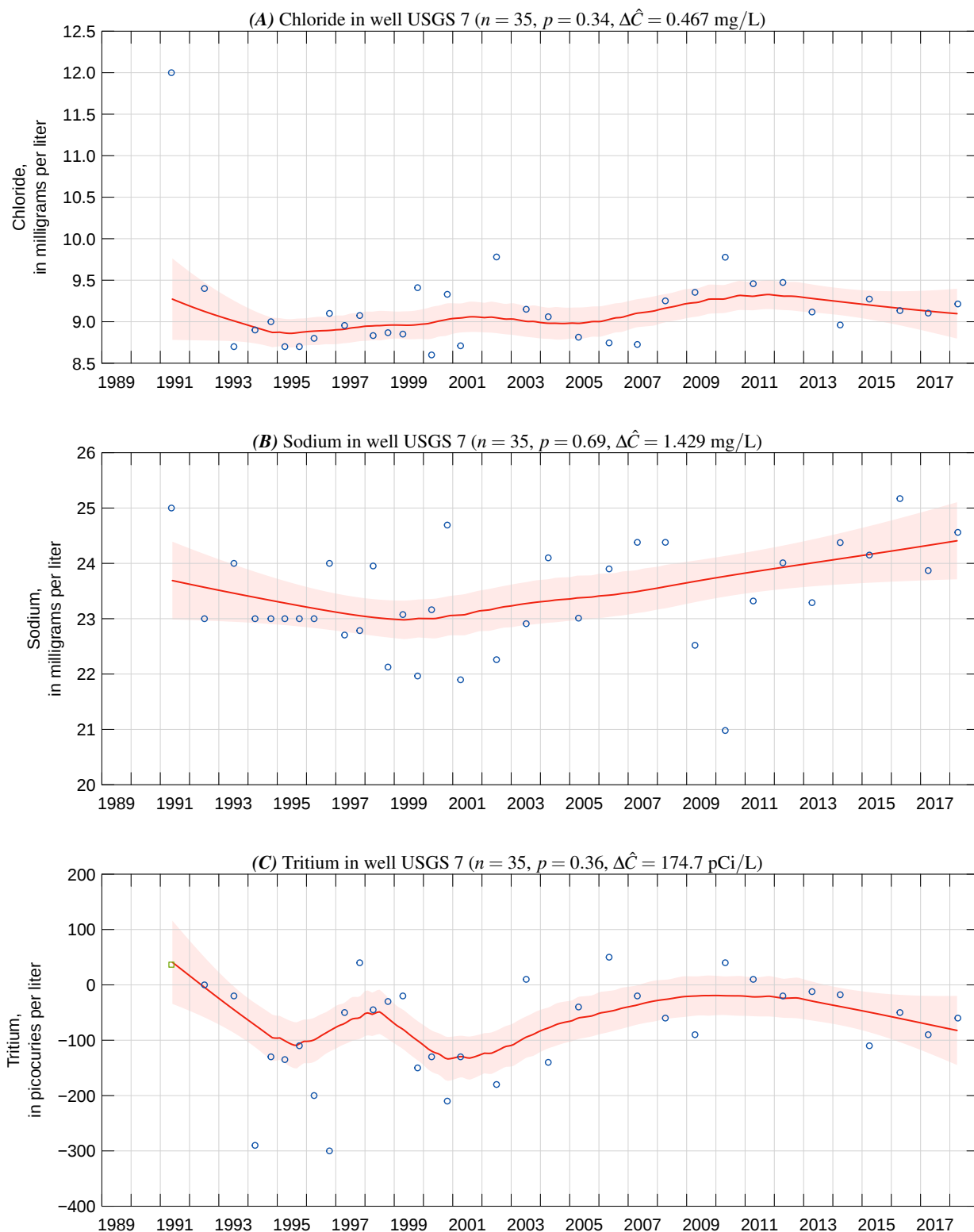


Figure 5.106. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, (N) trichloroethylene, and (O) strontium-90 measured in water samples collected from well USGS 7 (Site No. 434915112443901), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

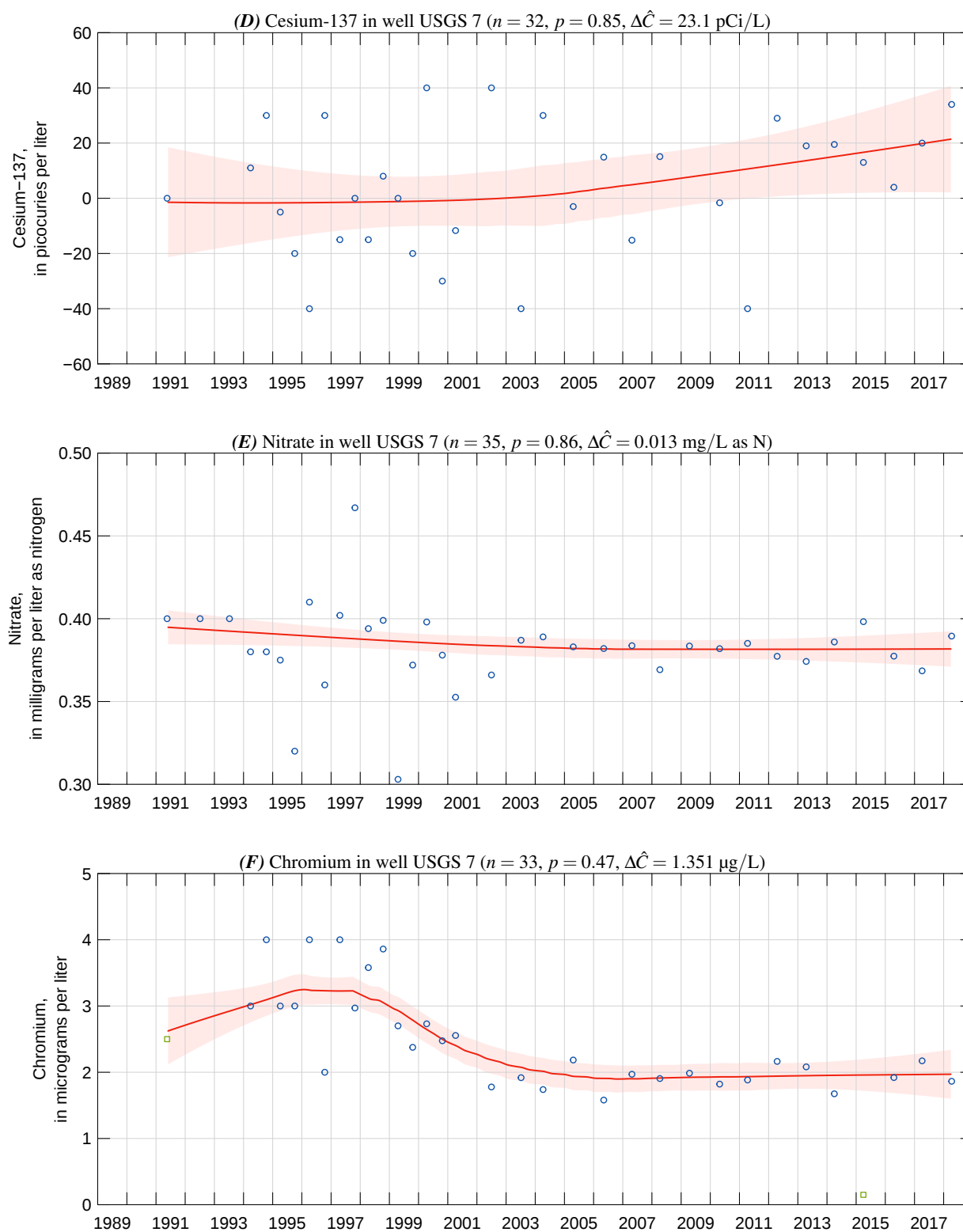


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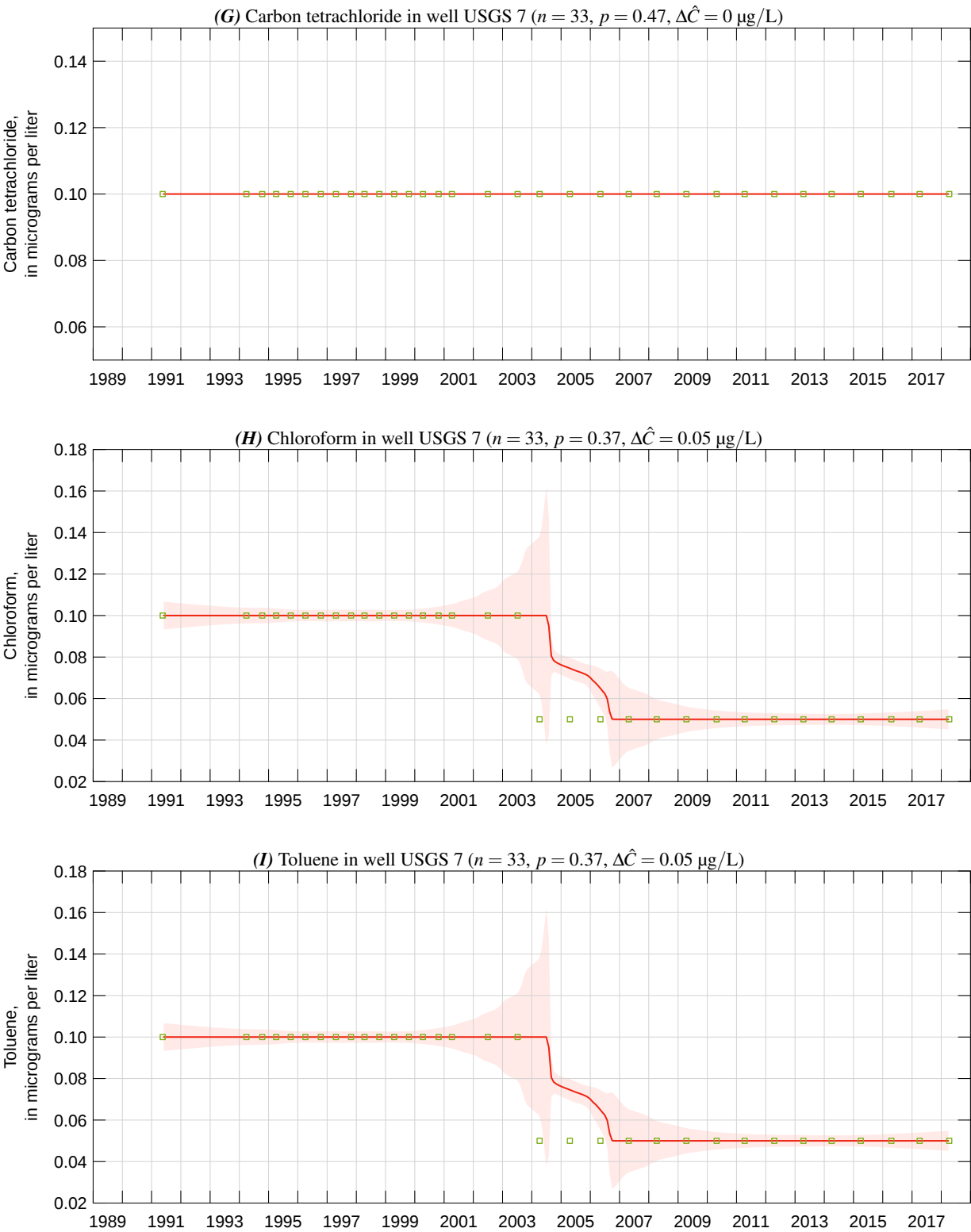


Figure 5.106. —Continued

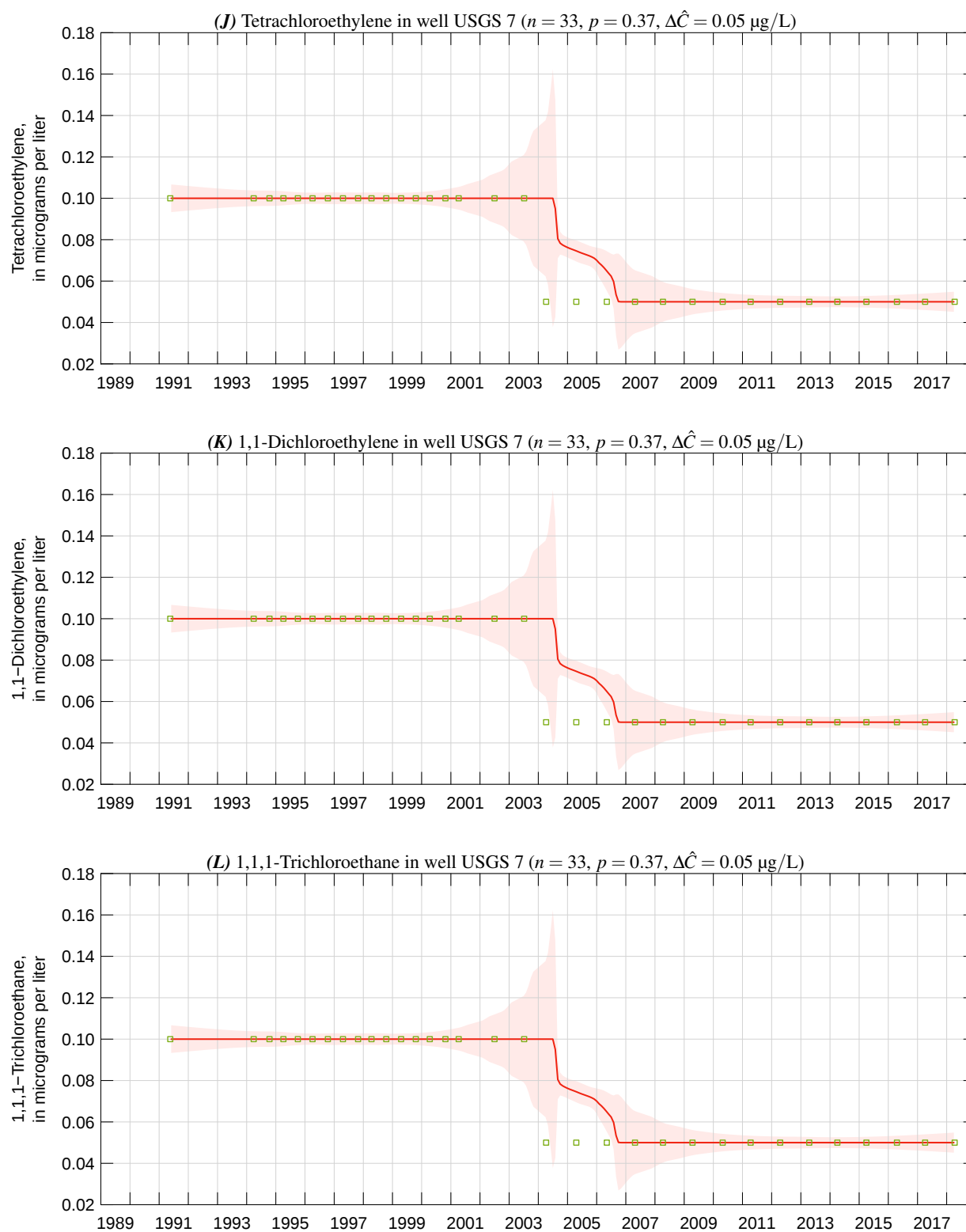


Figure 5.106. —Continued

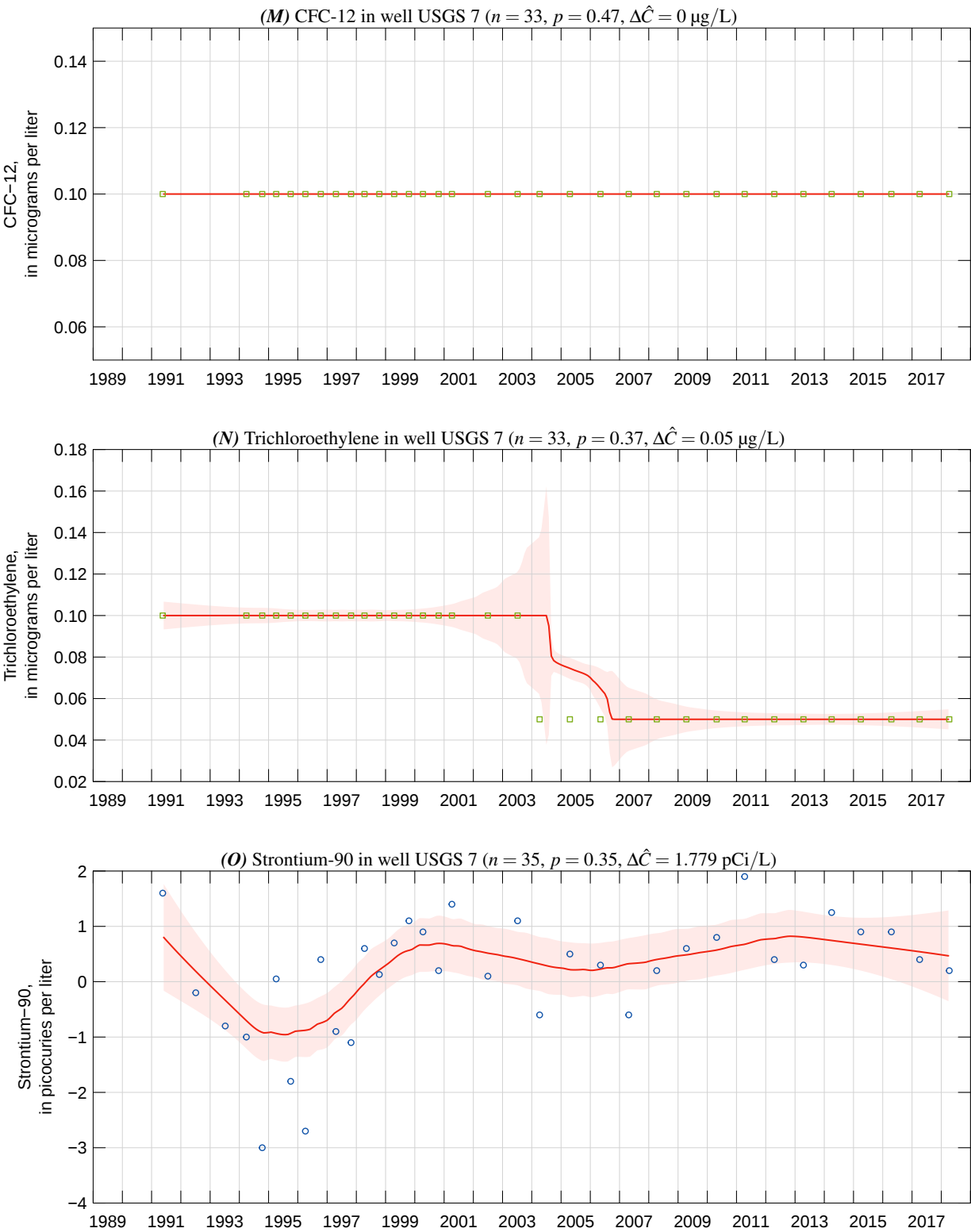


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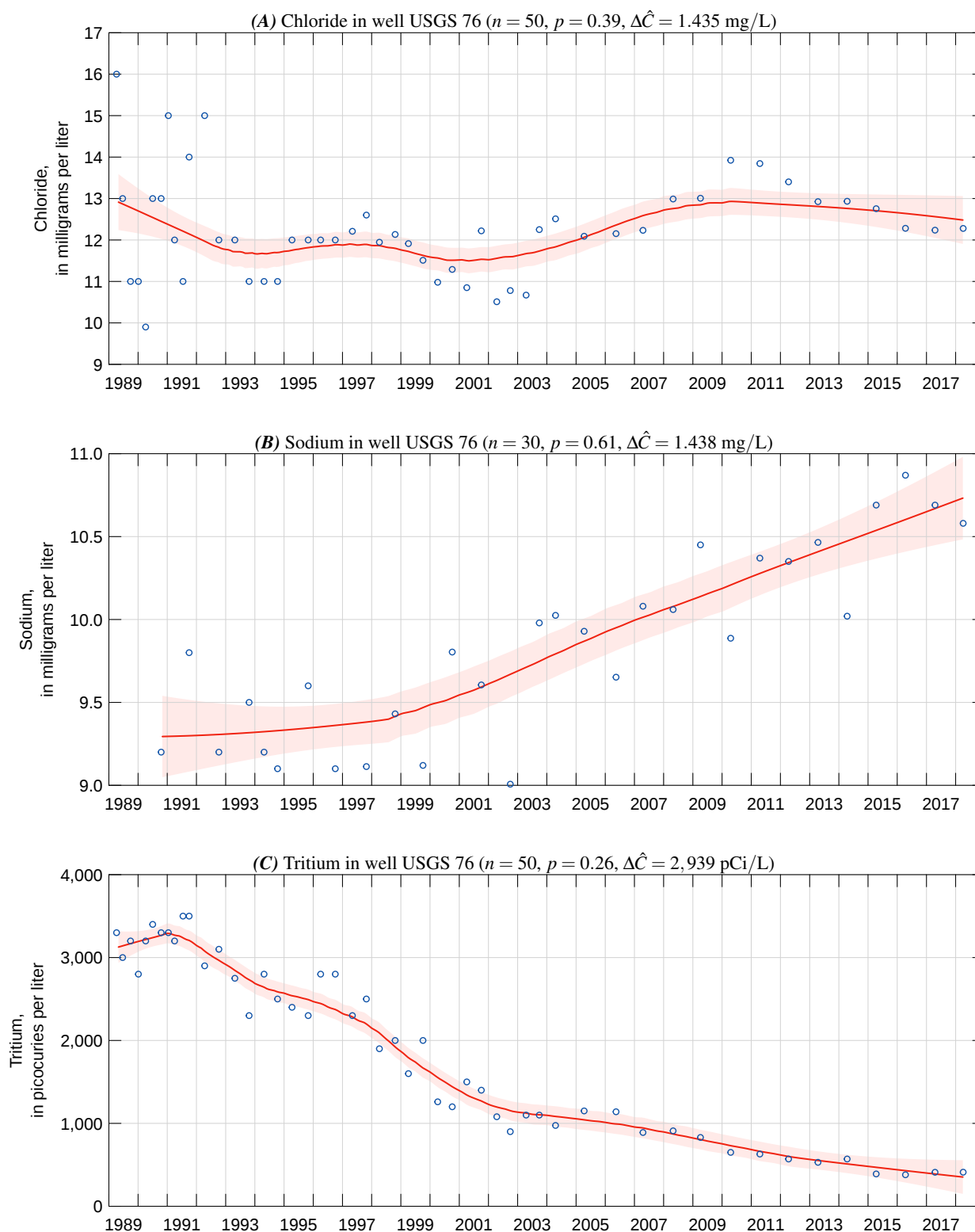


Figure 5.107. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) chromium, and (H) strontium-90 measured in water samples collected from well USGS 76 (Site No. 433425112573201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

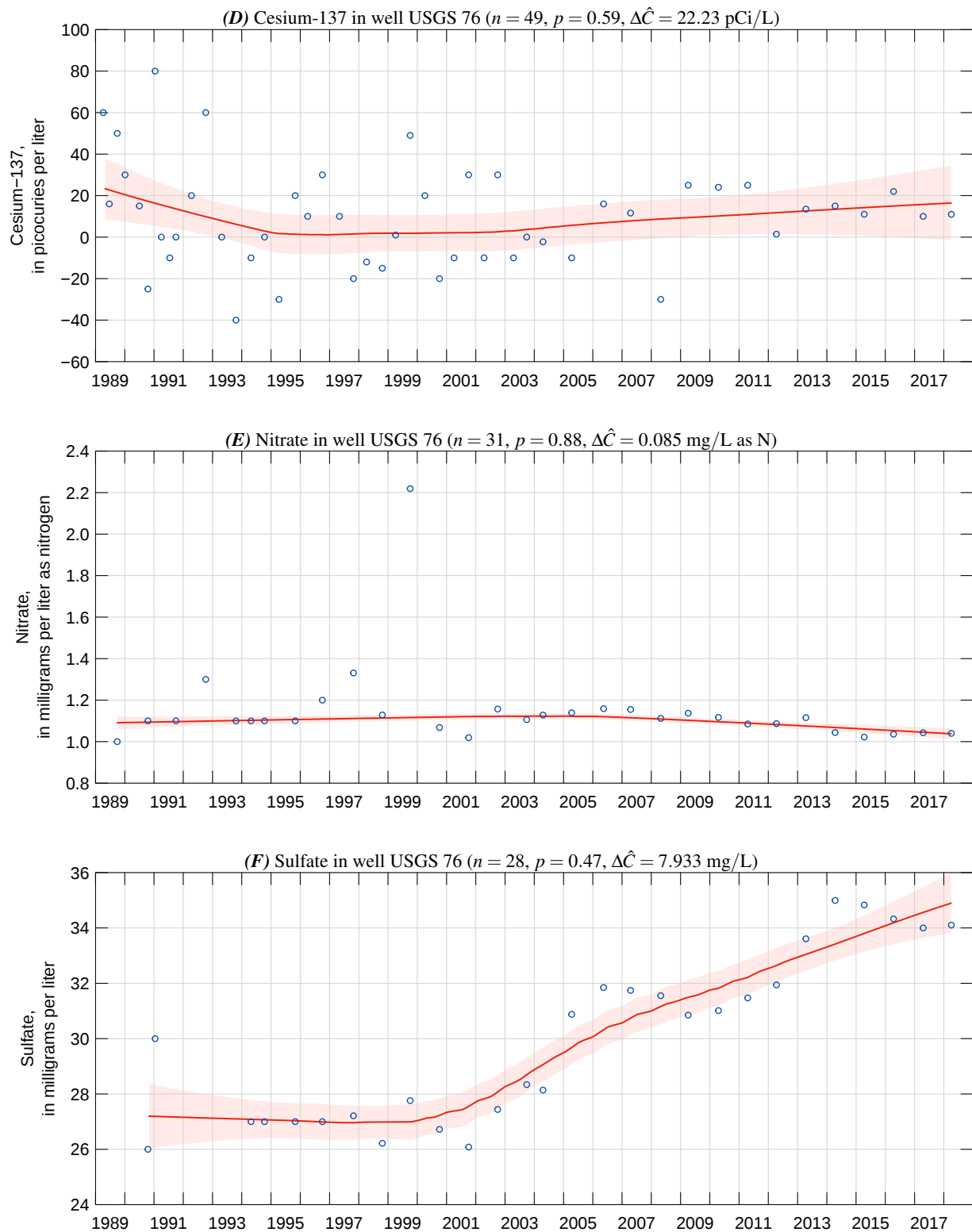


Figure 5.107. —Continued

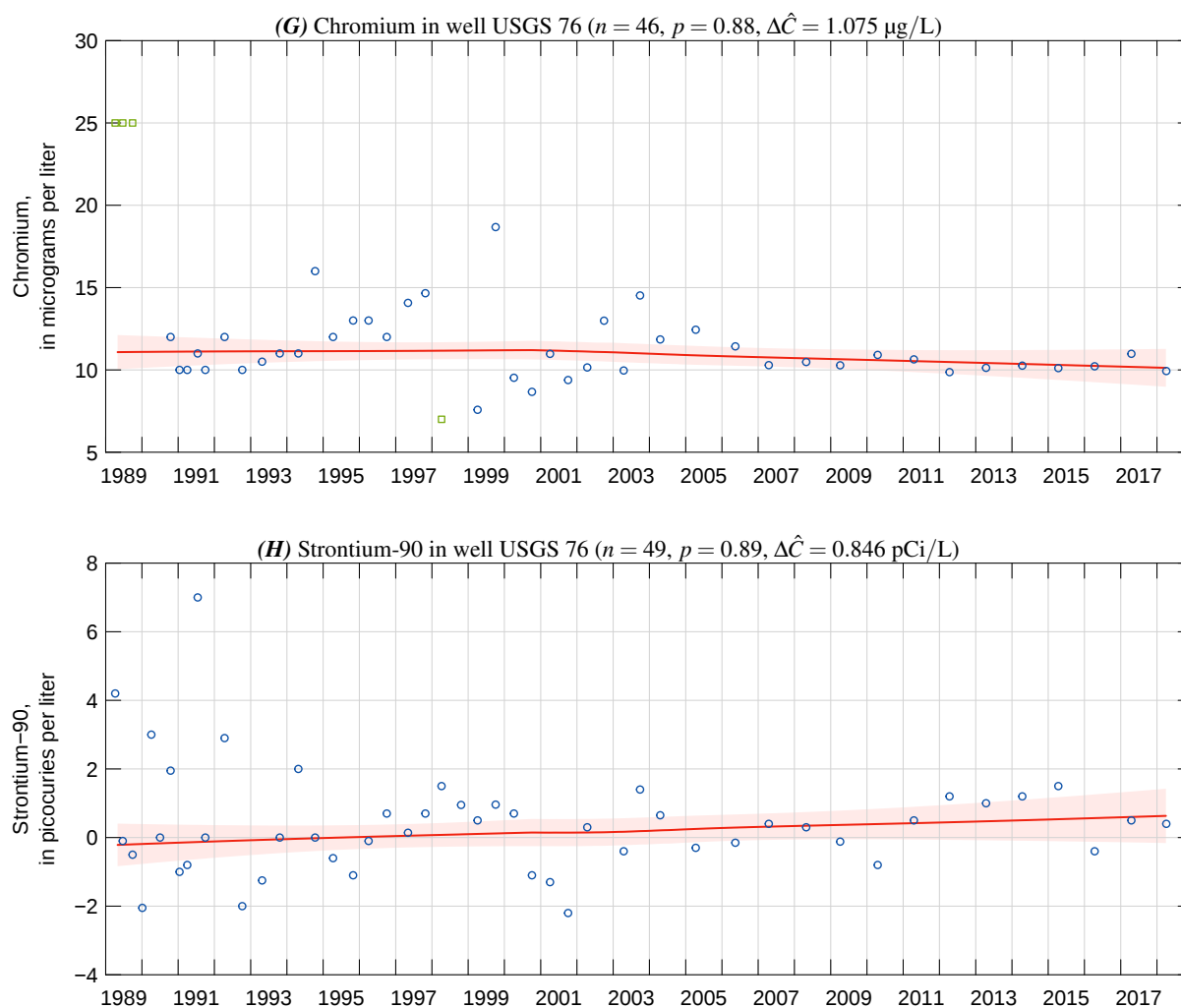


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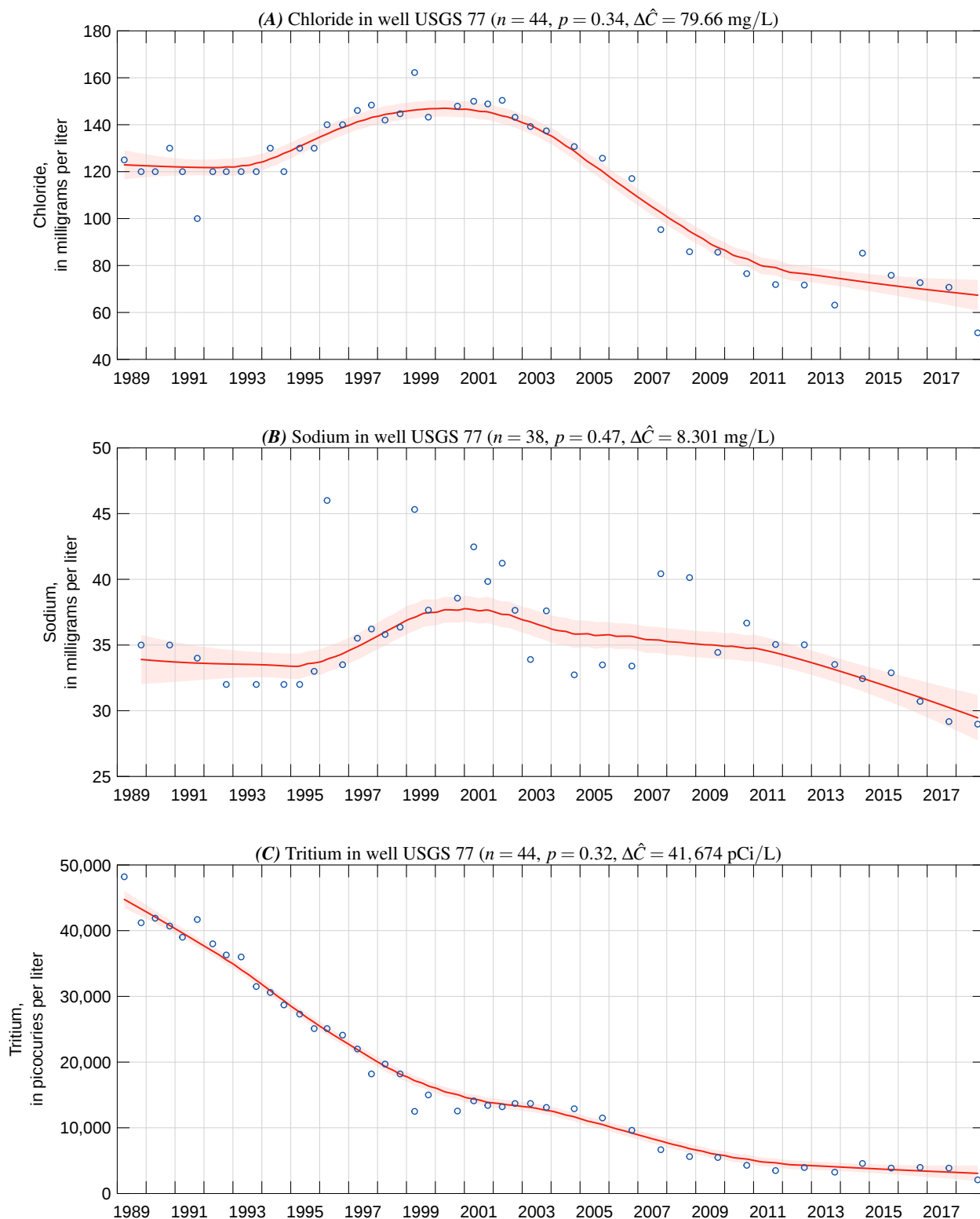


Figure 5.108. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) fluoride, (H) chromium, (I) carbon tetrachloride, (J) chloroform, (K) toluene, (L) tetrachloroethylene, (M) 1,1-dichloroethylene, (N) 1,1,1-trichloroethane, (O) cfc-12, (P) trichloroethylene, (Q) strontium-90, and (R) plutonium-238 measured in water samples collected from well USGS 77 (Site No. 433315112560301), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

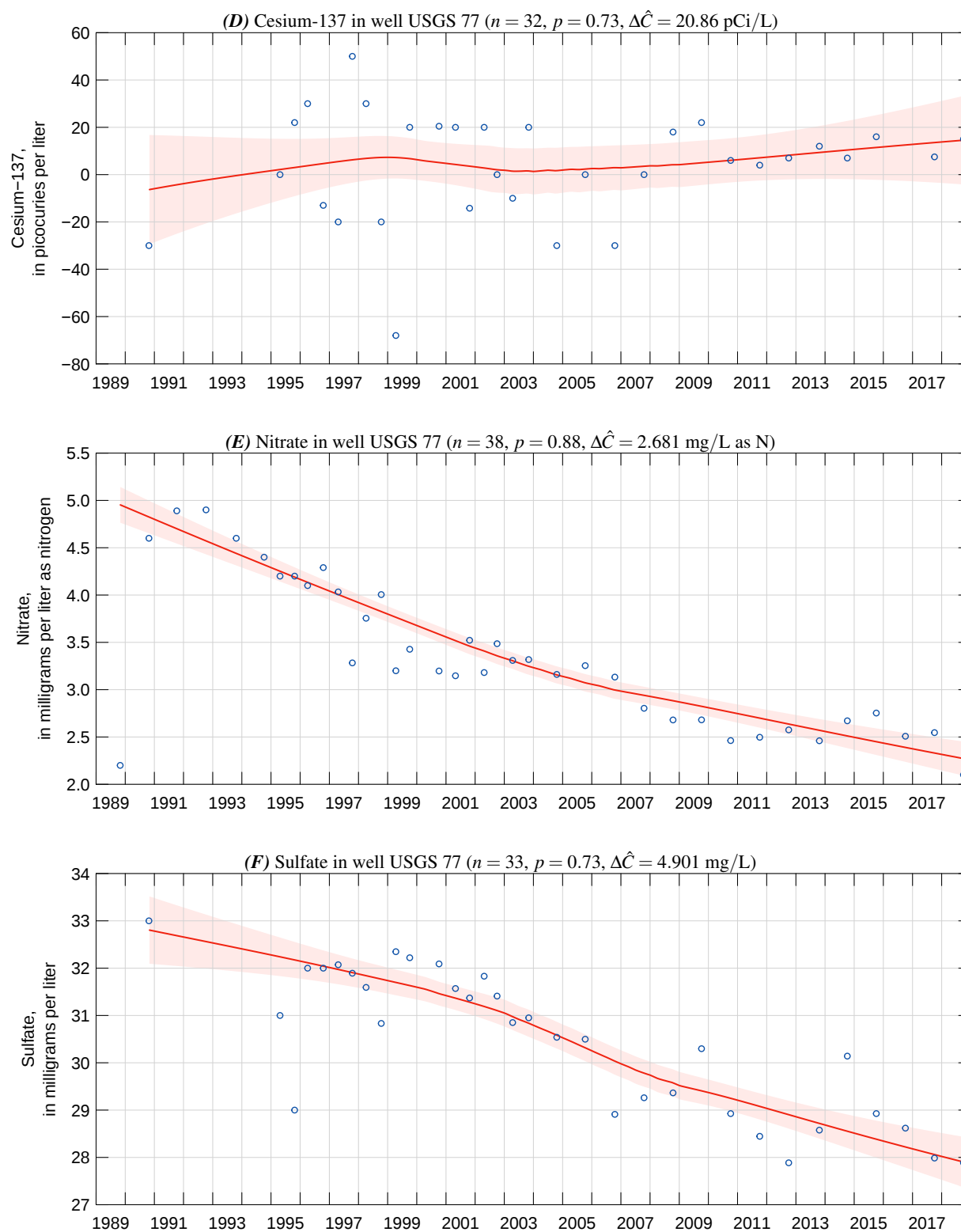


Figure 5.108. —Continued

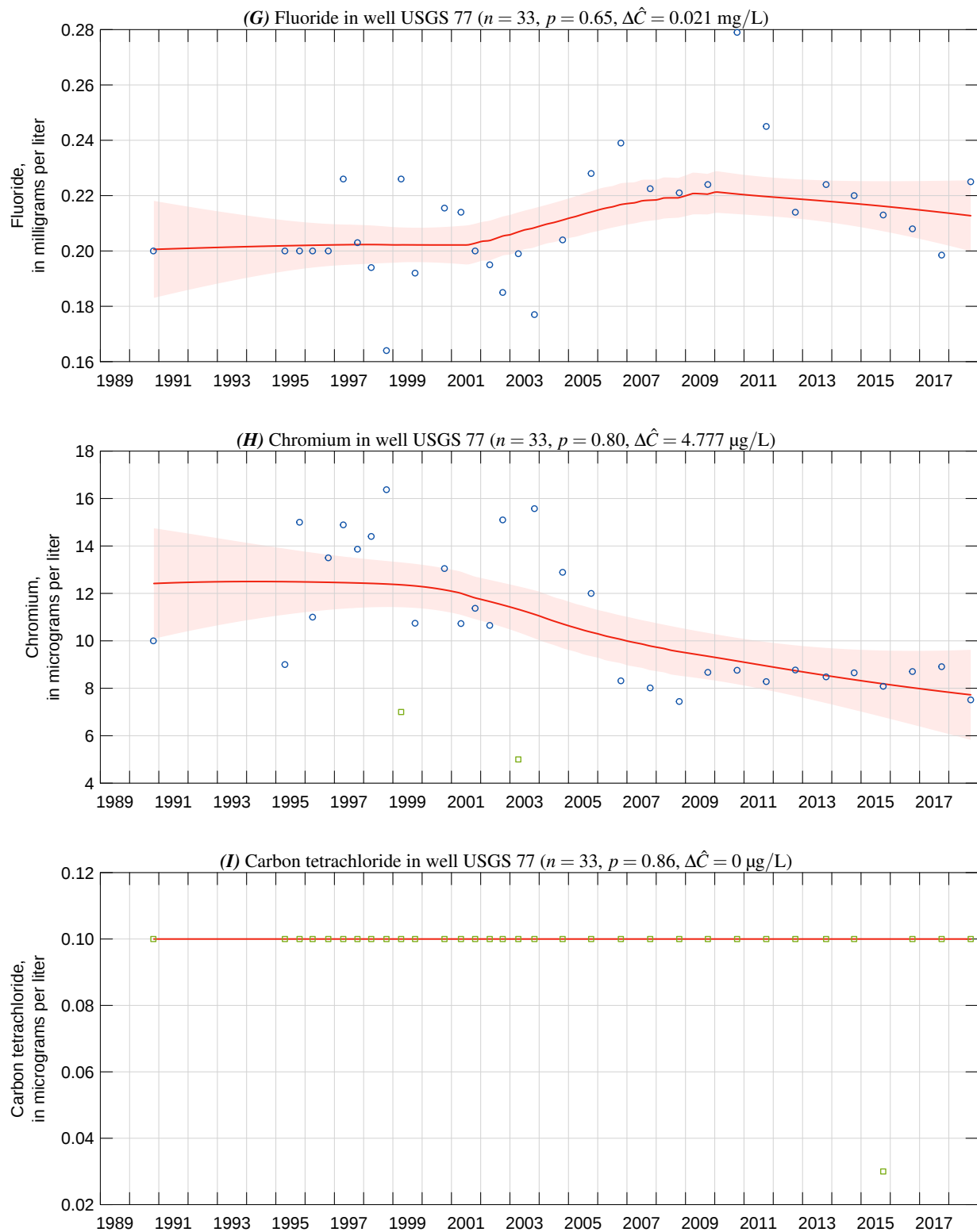


Figure 5.108. —Continued

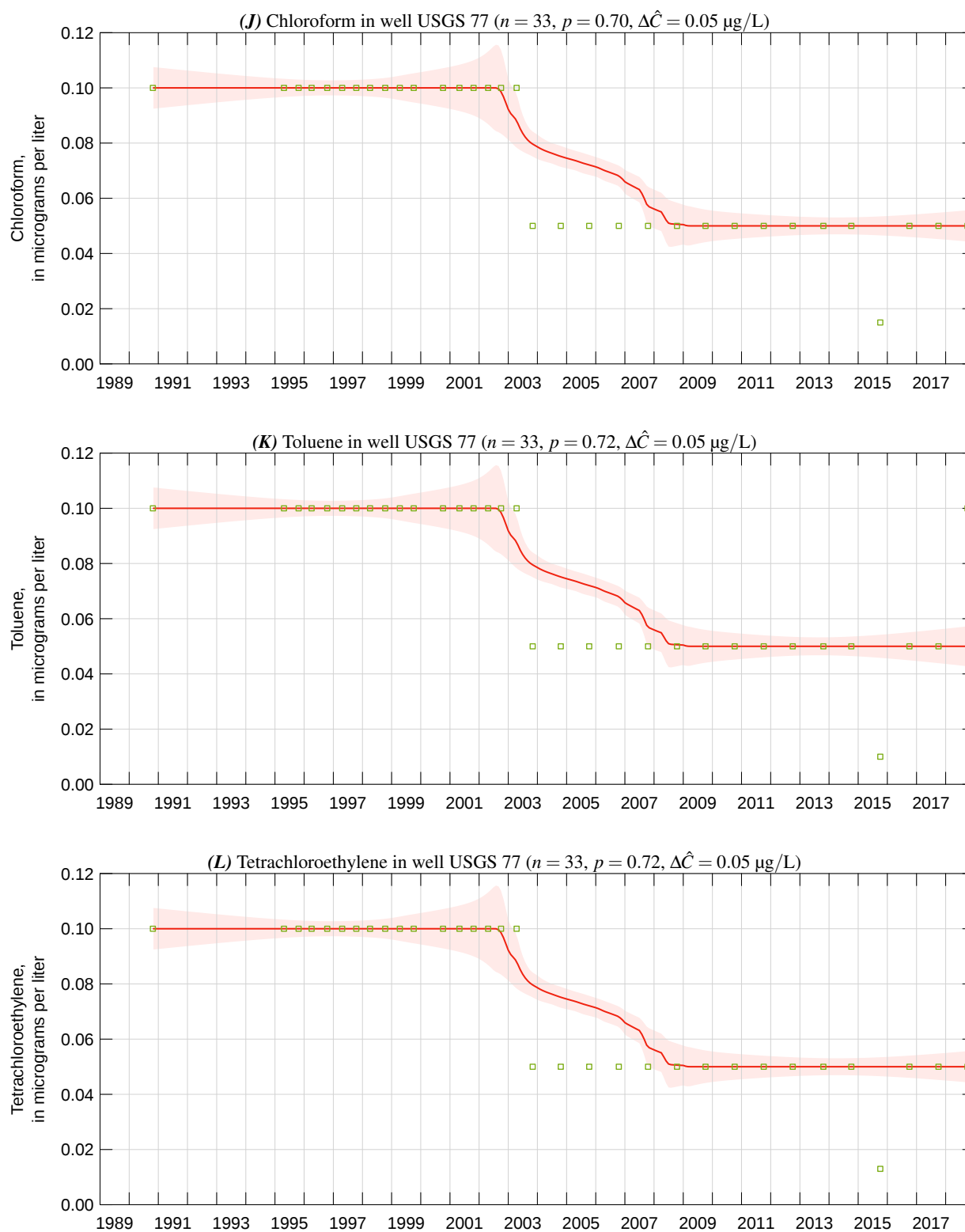


Figure 5.108. —Continued

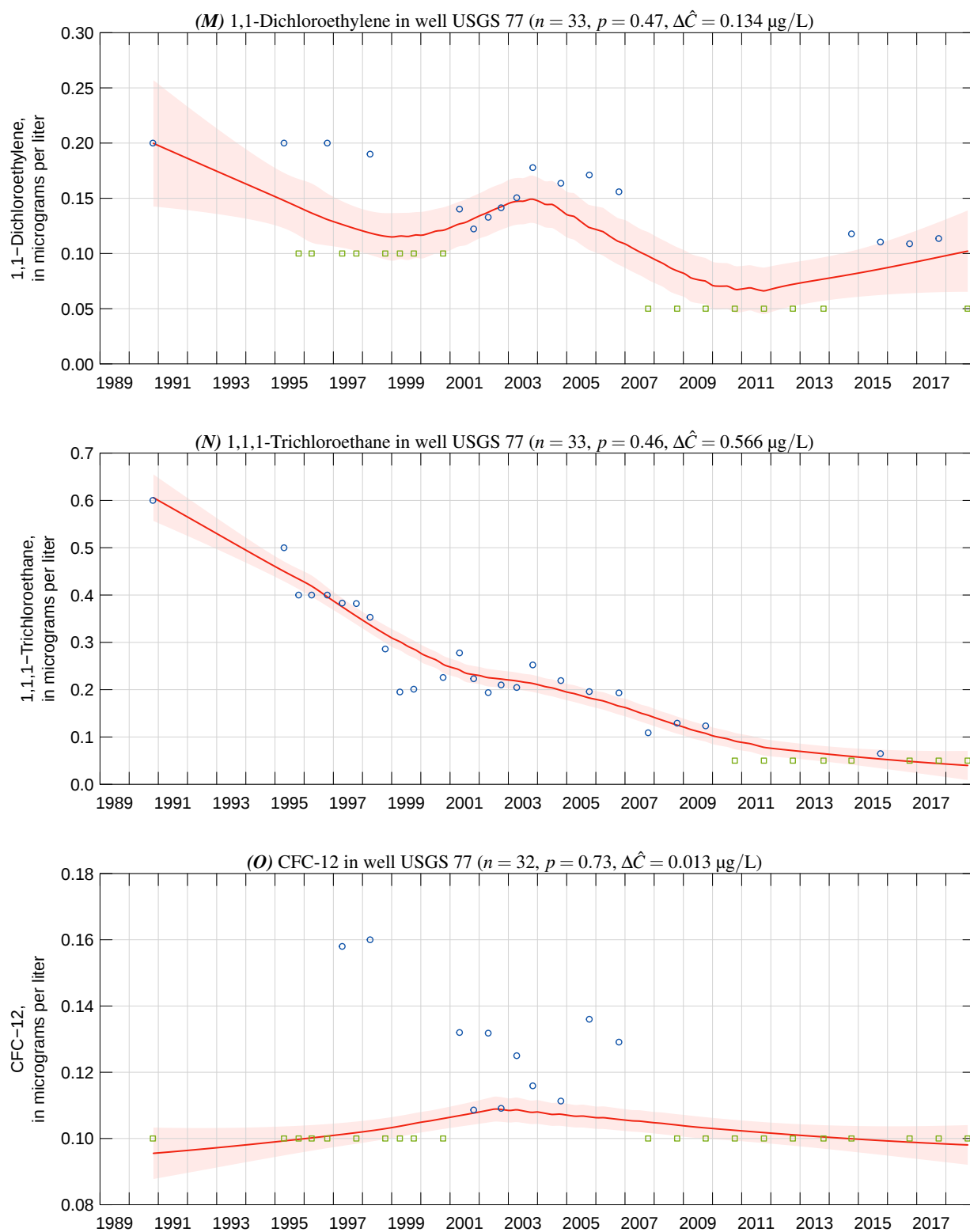


Figure 5.108. —Continued

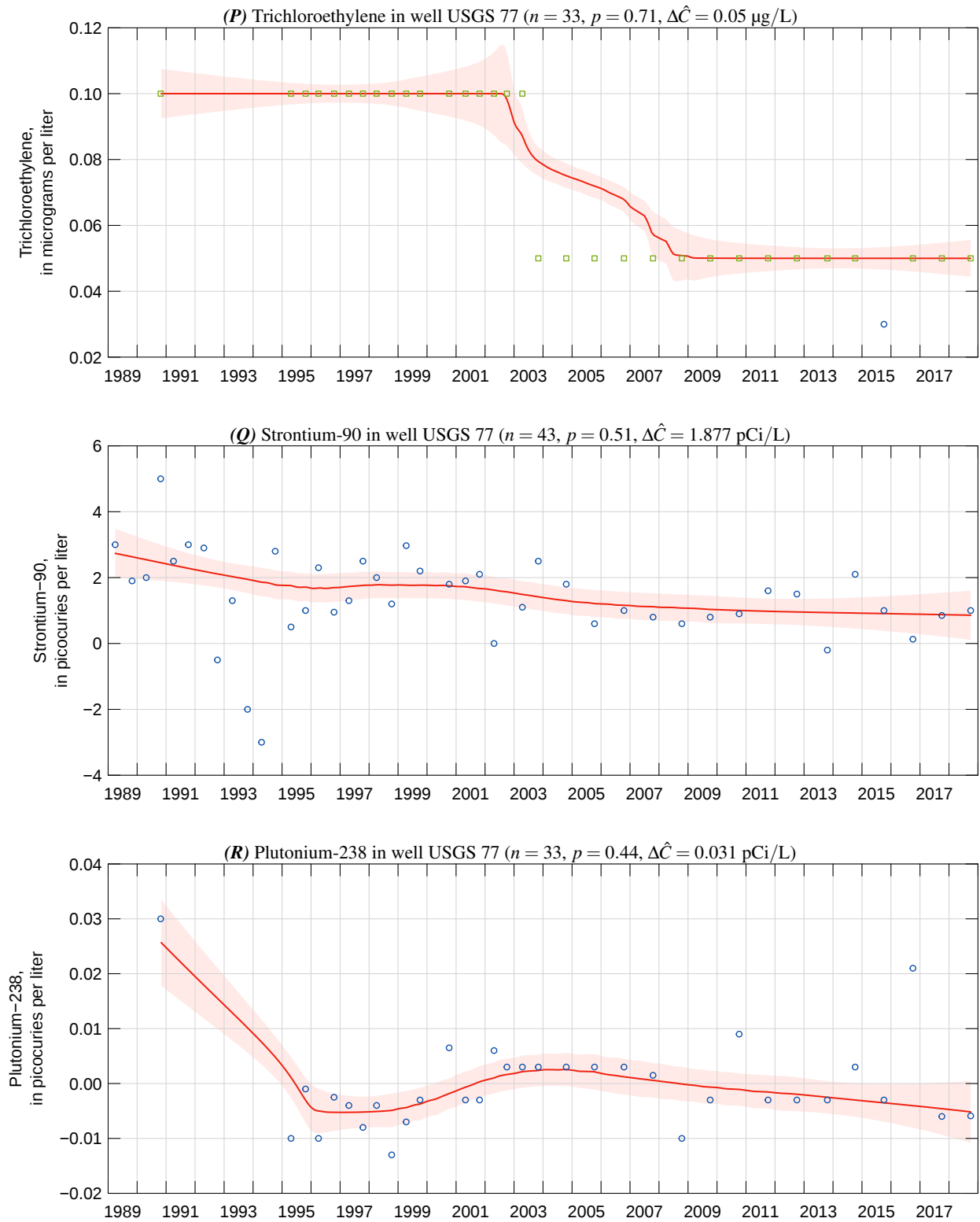


Figure 5.108. —Continued

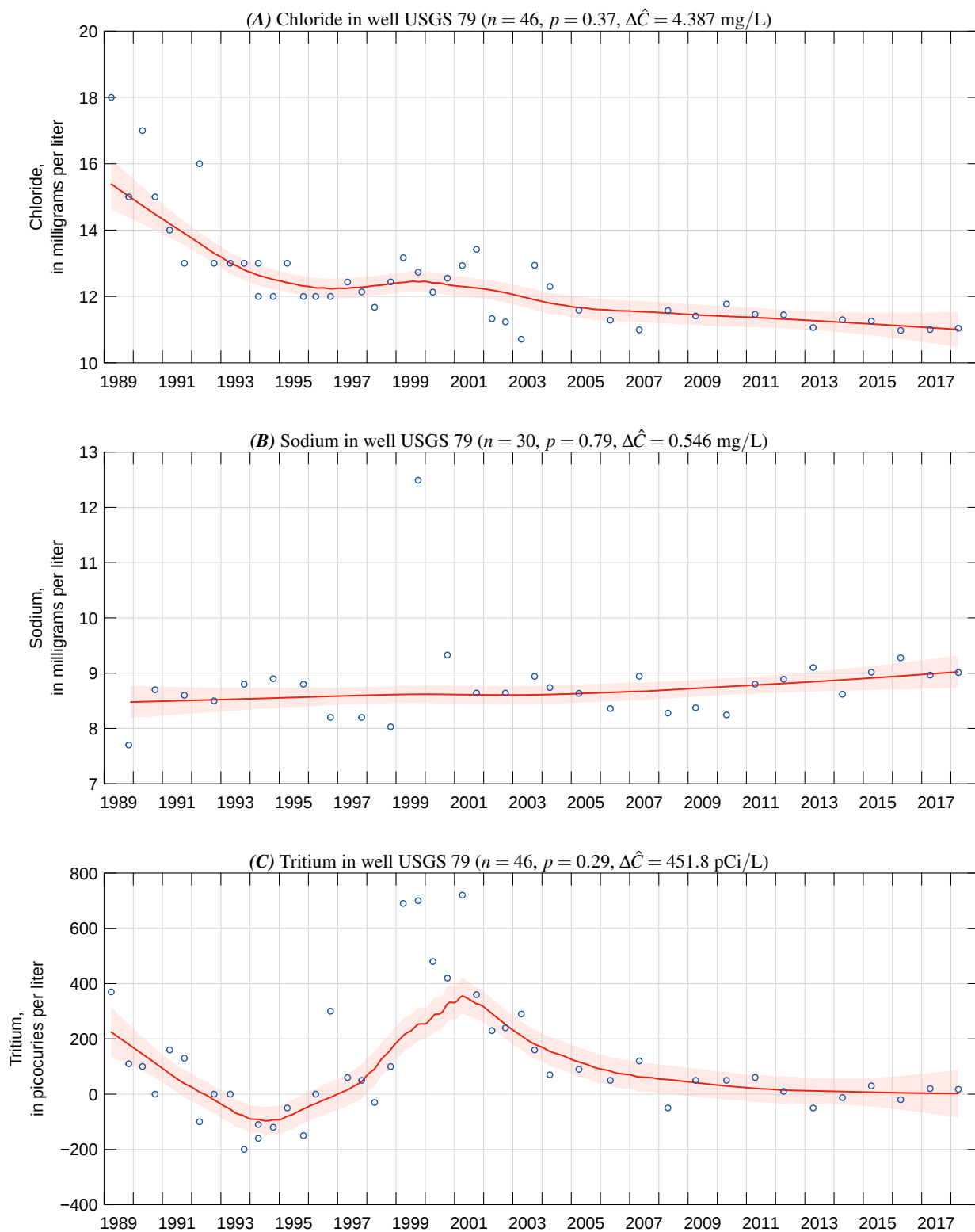


Figure 5.109. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) sulfate, and (E) chromium measured in water samples collected from well USGS 79 (Site No. 433505112581901), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

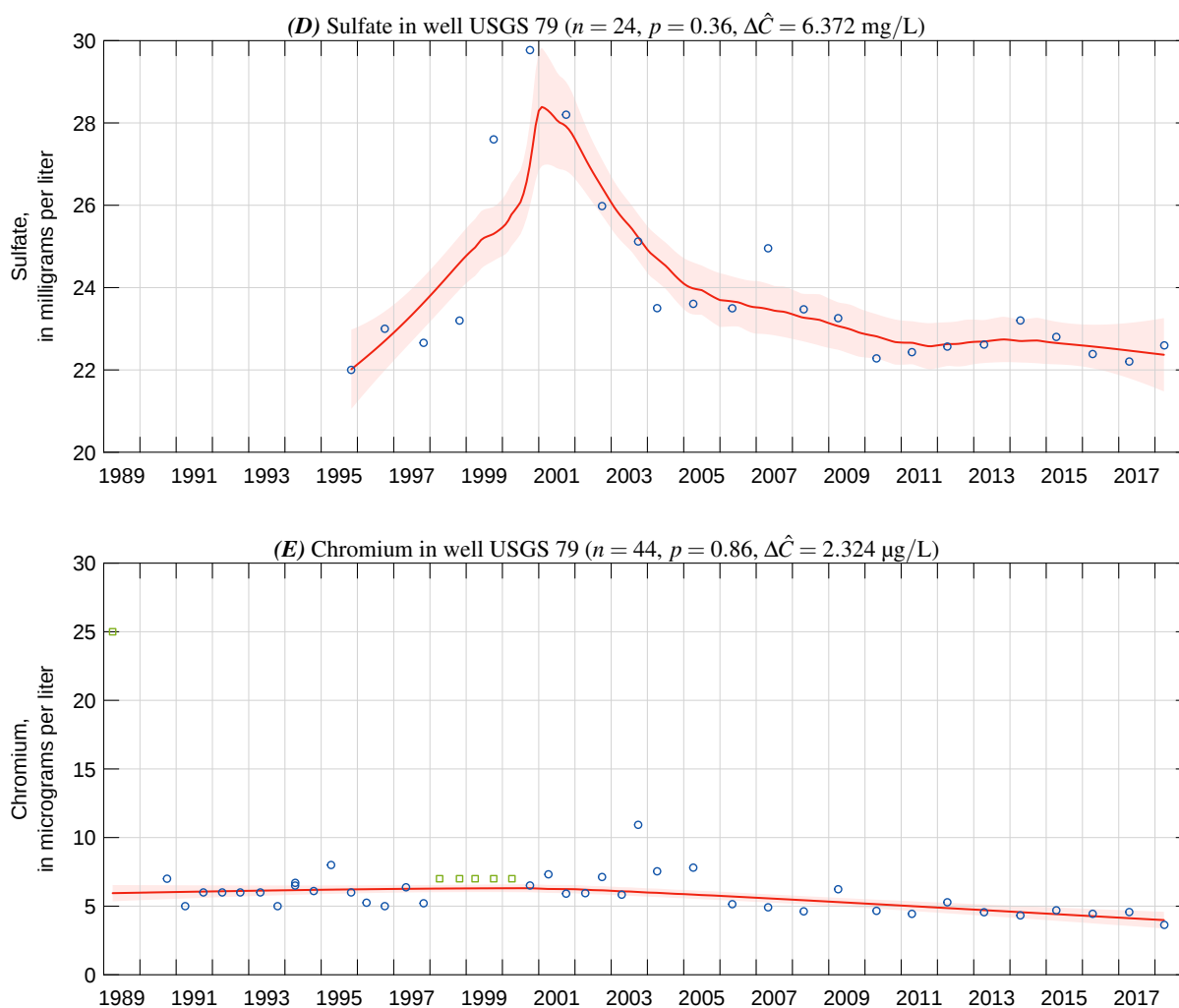


Figure 5.109. —Continued

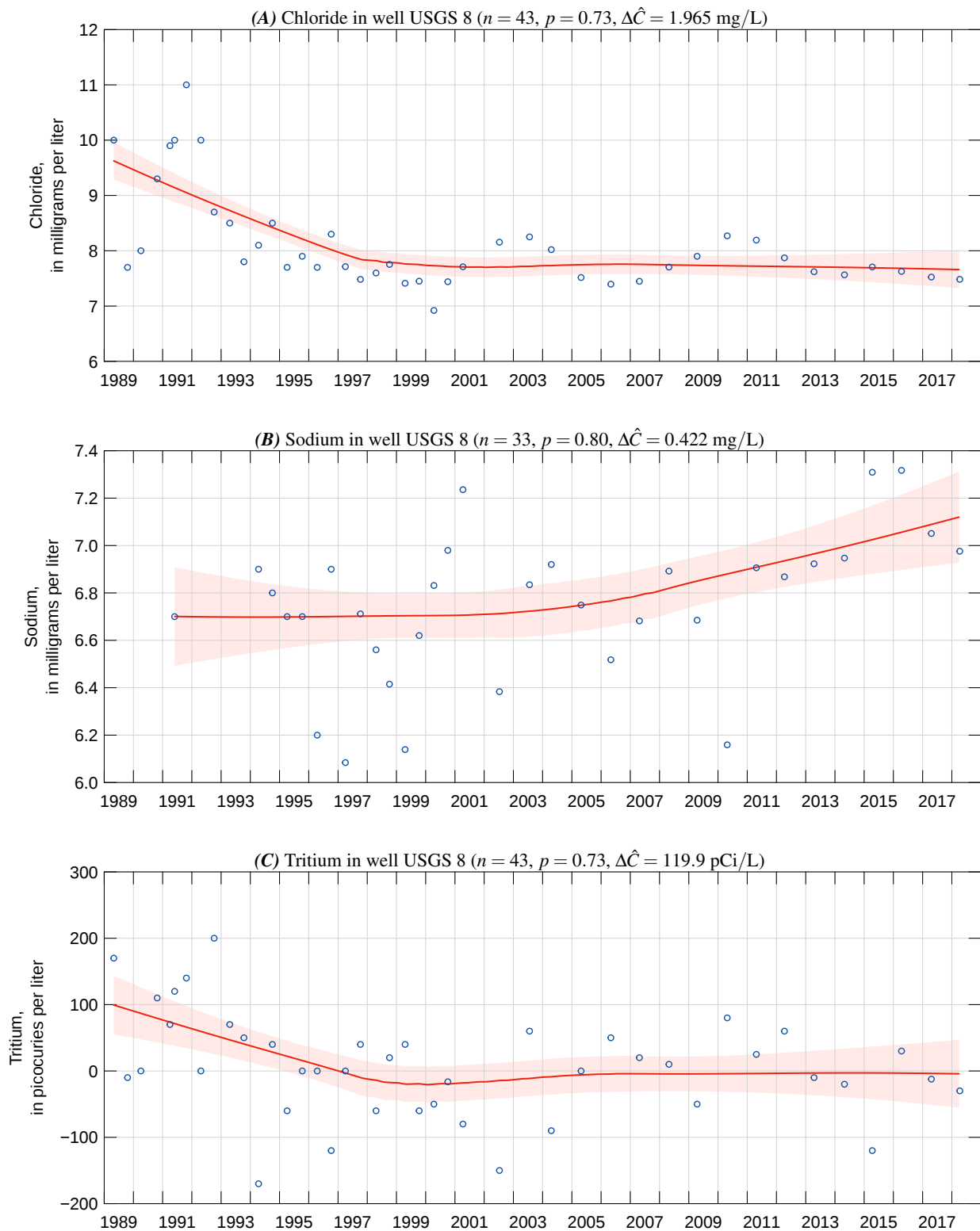


Figure 5.110. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 8 (Site No. 433121113115801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

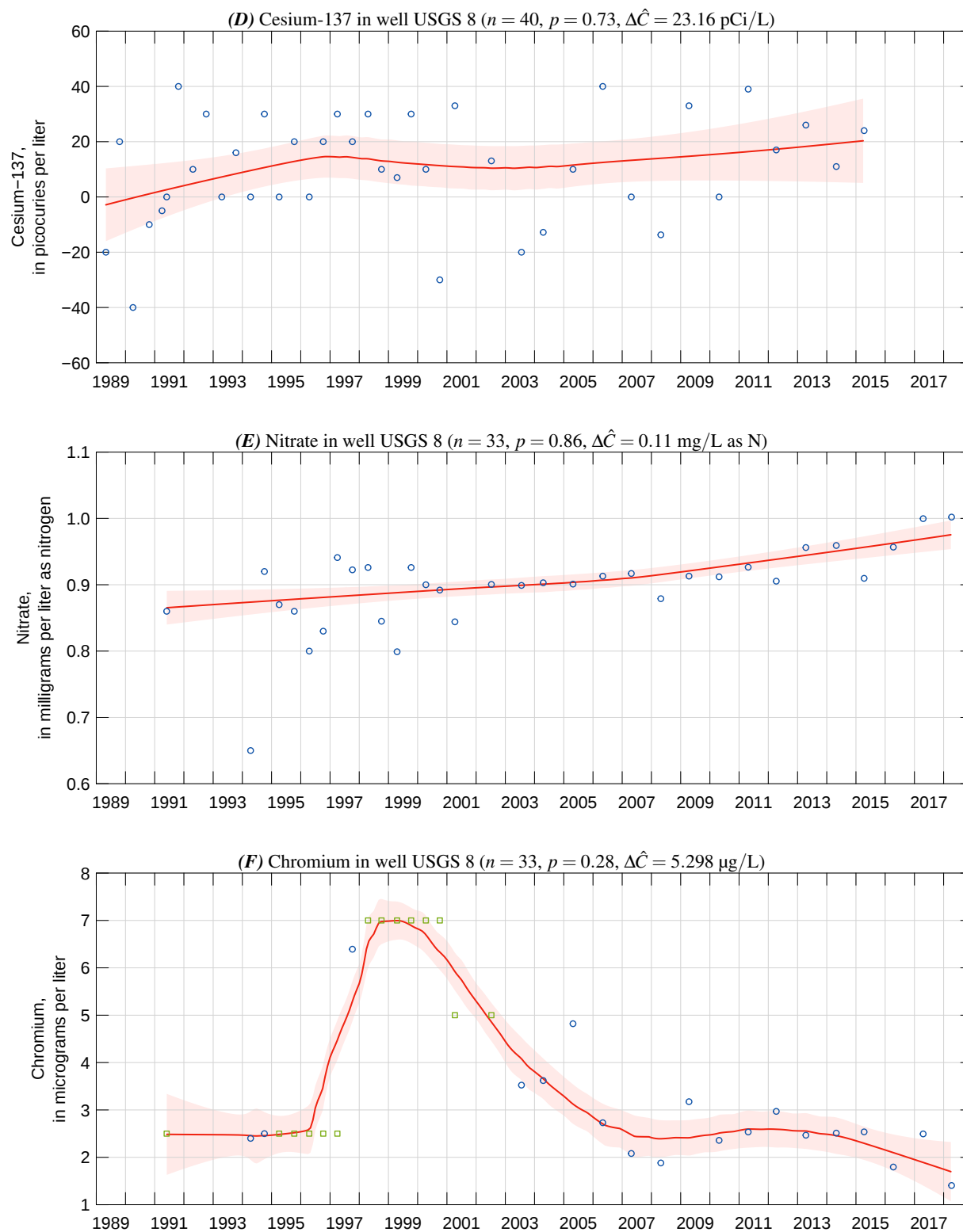


Figure 5.110. —Continued

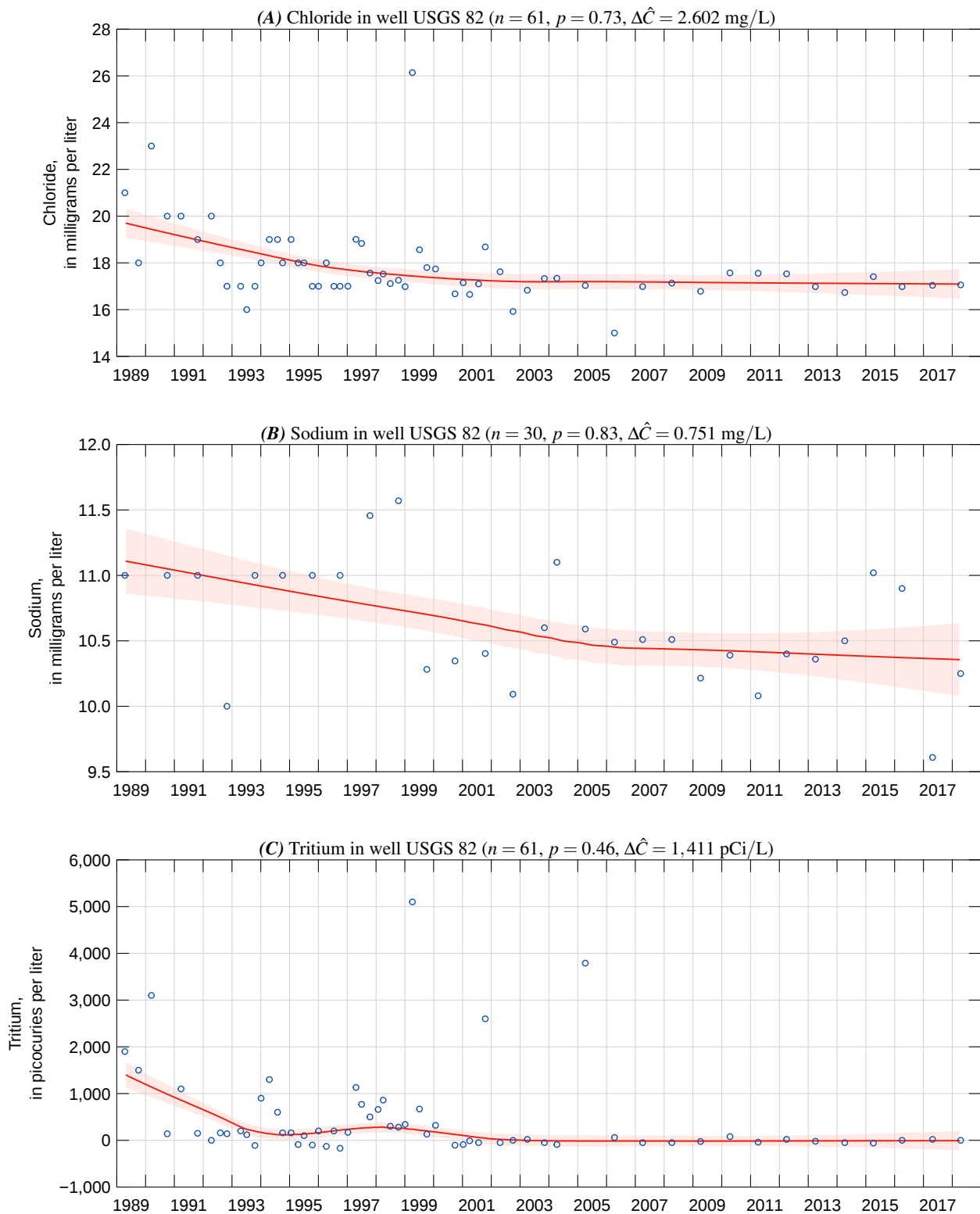


Figure 5.111. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 82 (Site No. 433401112551001), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

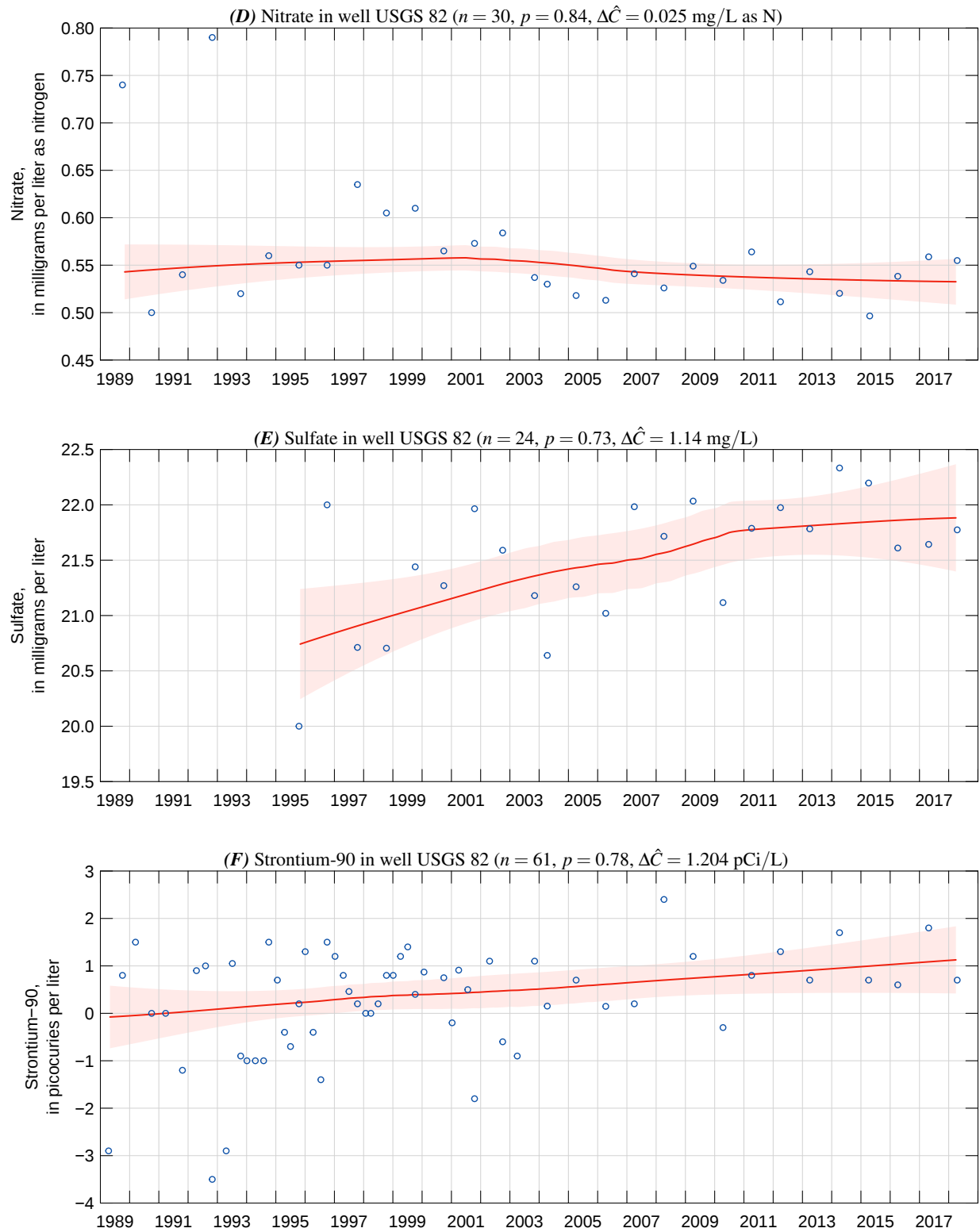


Figure 5.111. —Continued

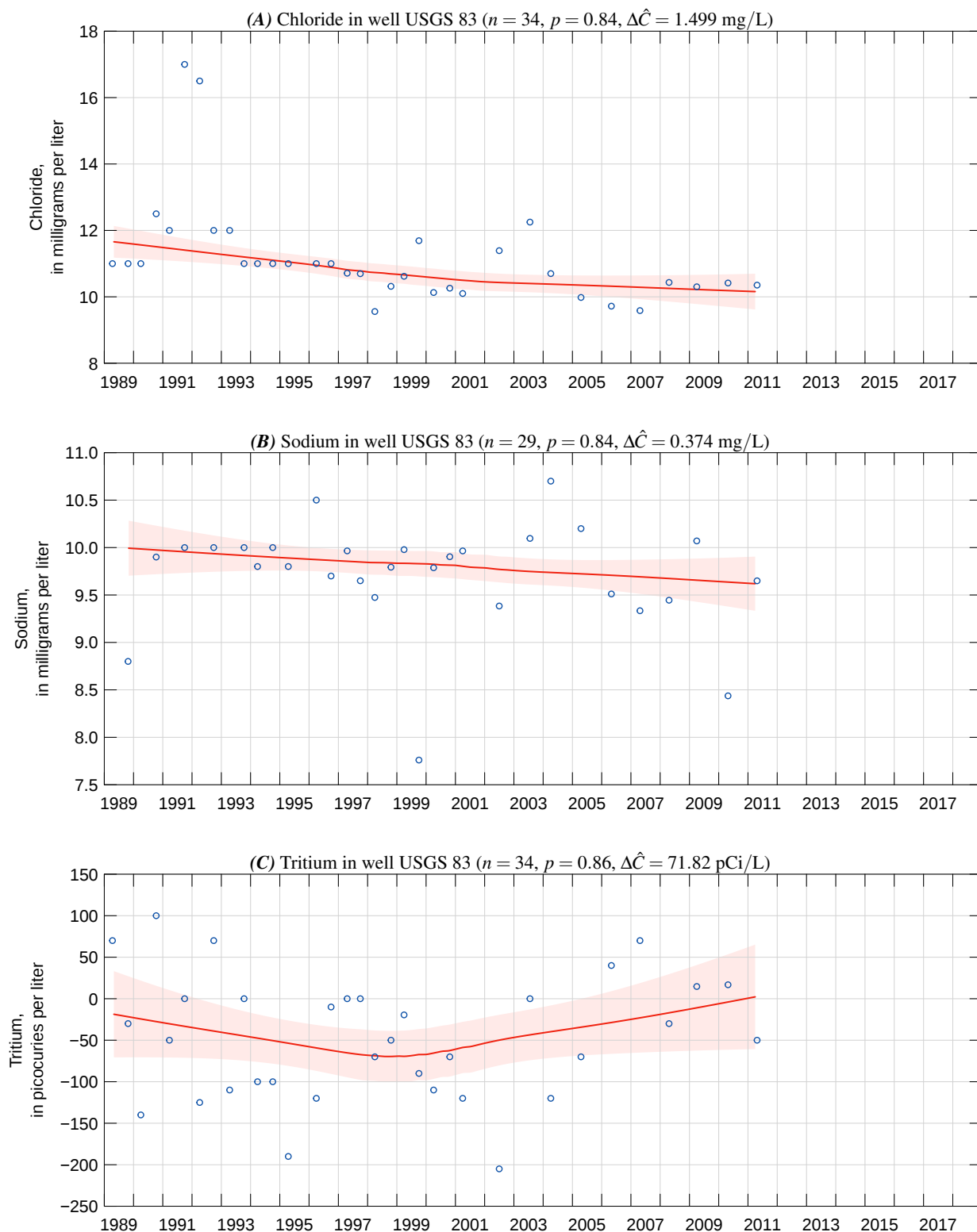


Figure 5.112. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) chromium, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, and (N) trichloroethylene measured in water samples collected from well USGS 83 (Site No. 433023112561501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

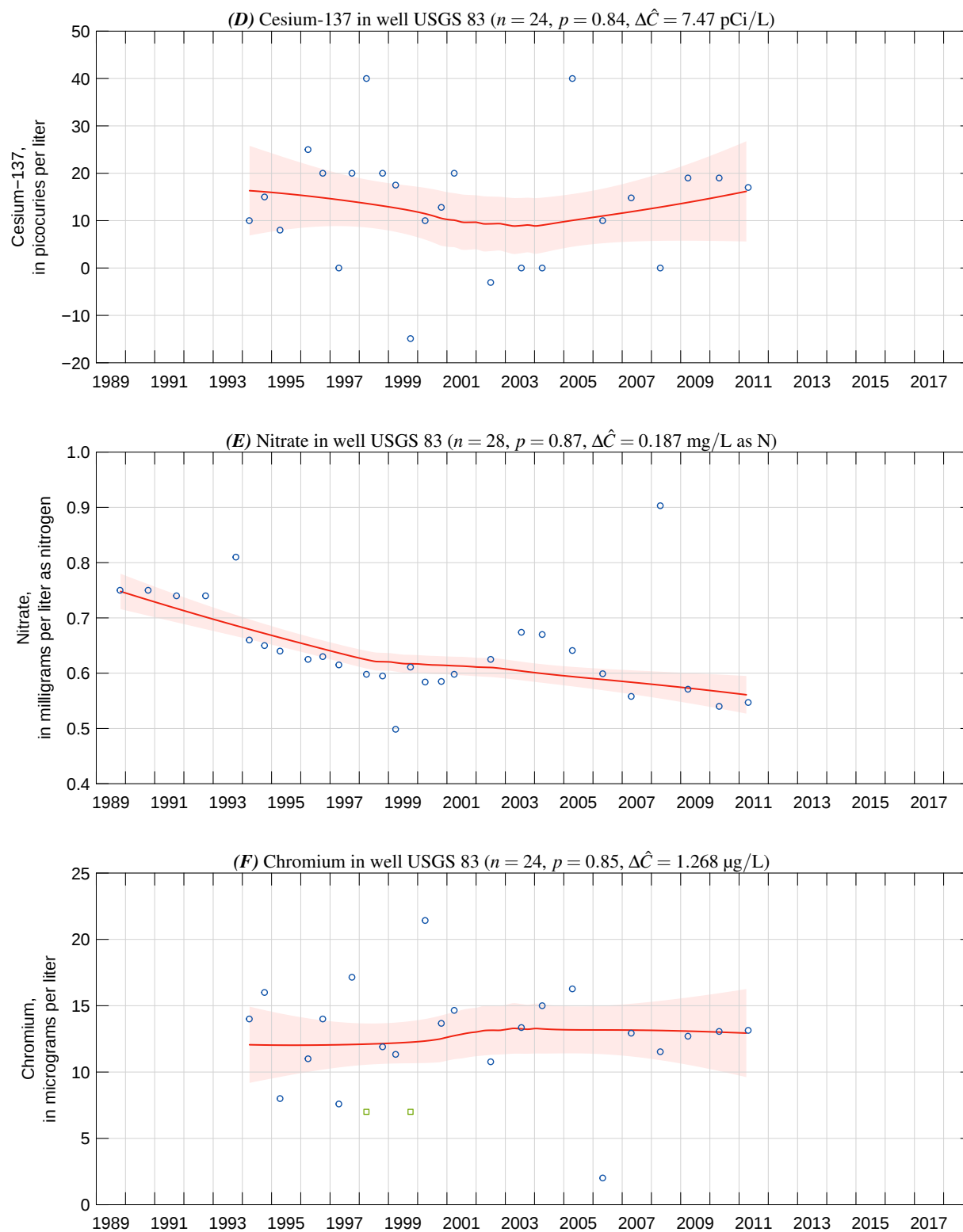
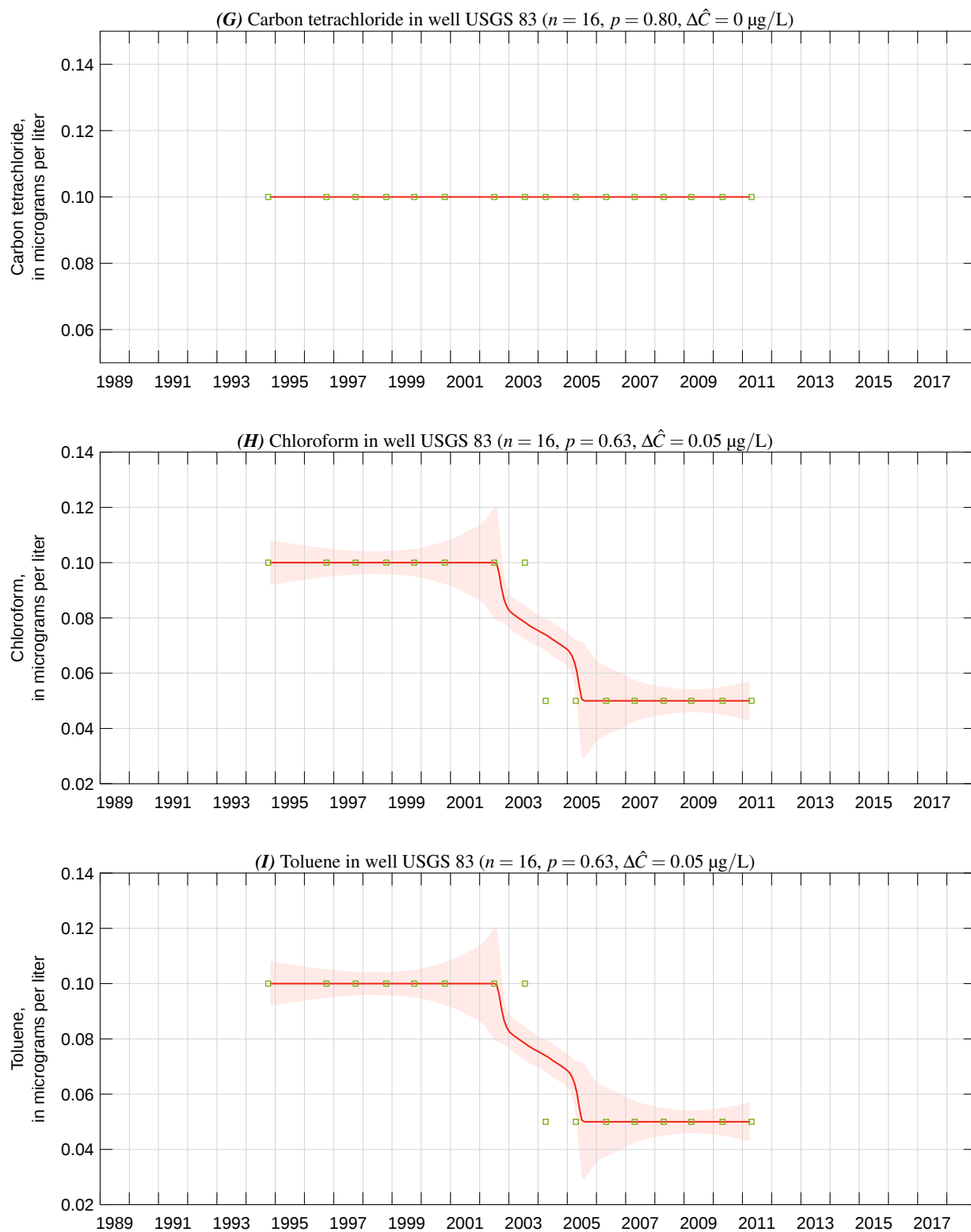


Figure 5.112. —Continued



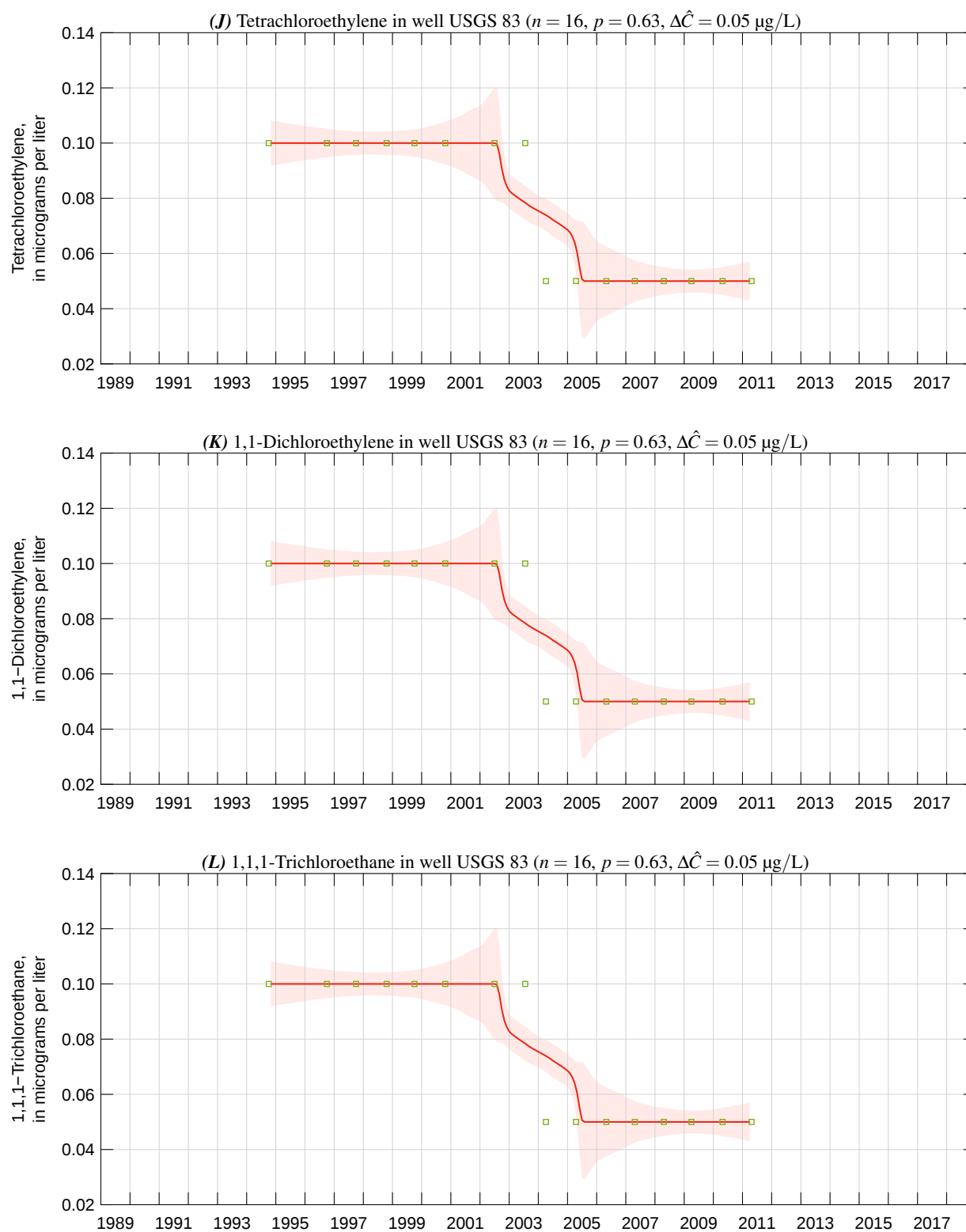


Figure 5.112. —Continued

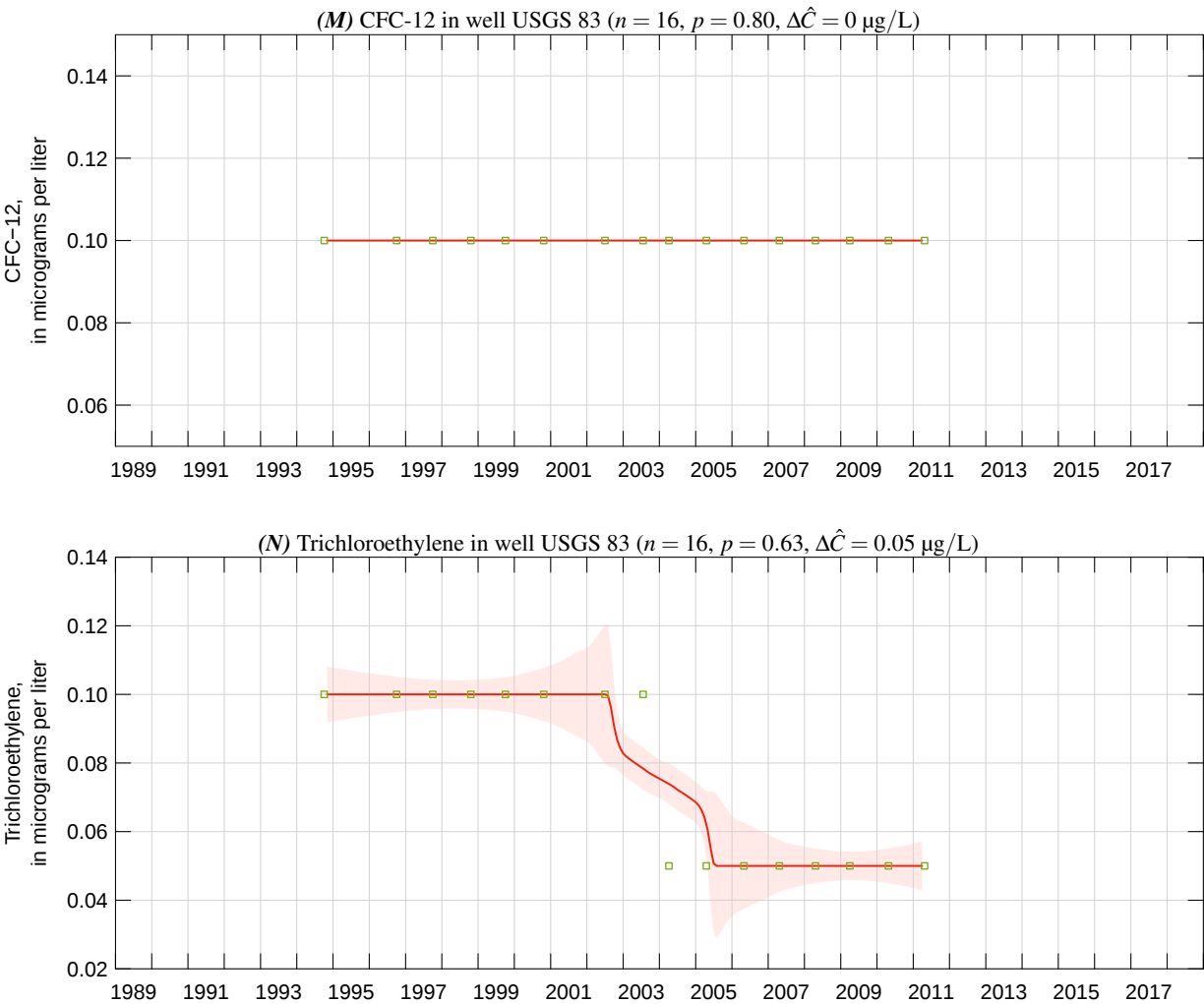


Figure 5.112. —Continued

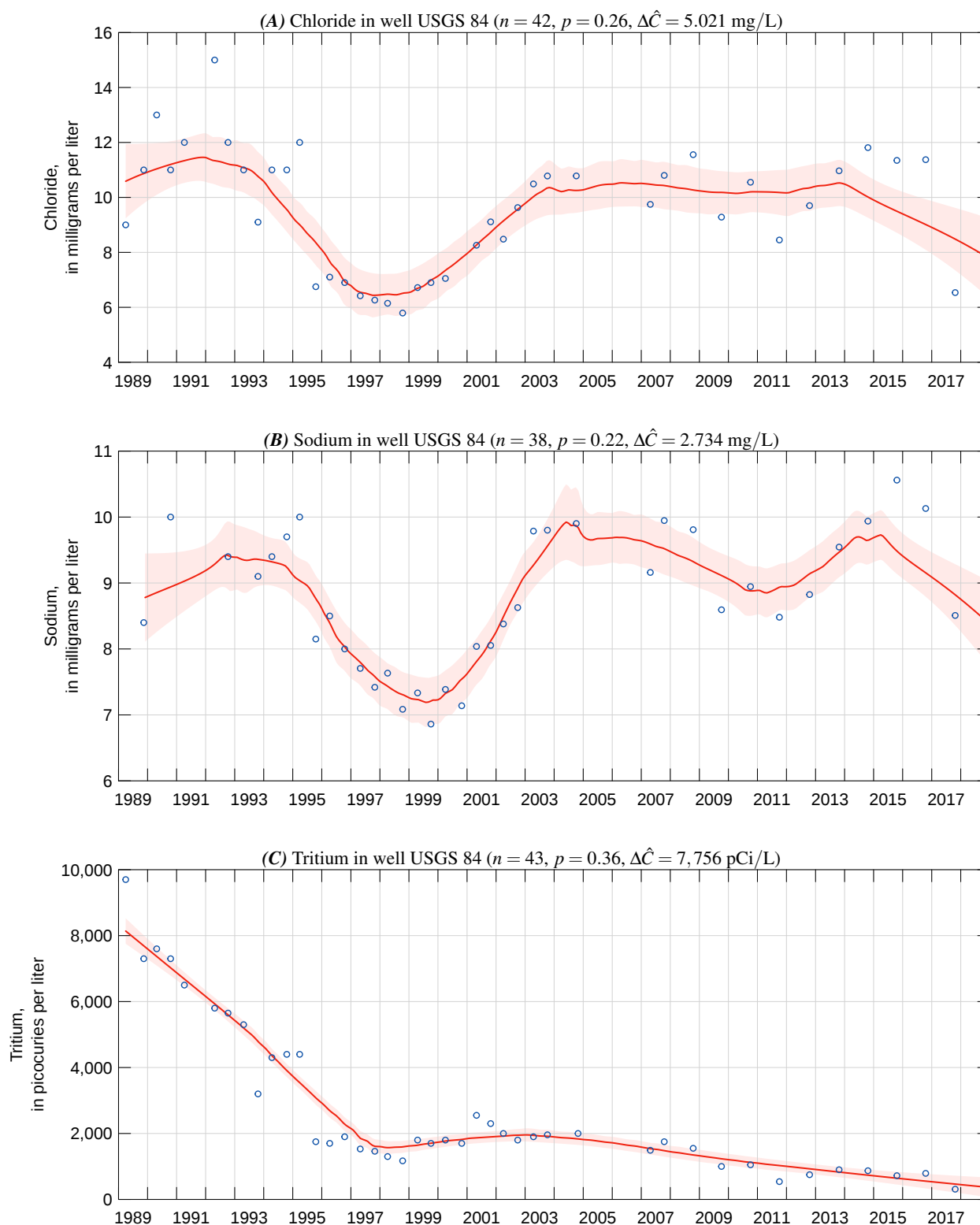


Figure 5.113. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) chromium, (H) carbon tetrachloride, (I) chloroform, (J) toluene, (K) tetrachloroethylene, (L) 1,1-dichloroethylene, (M) 1,1,1-trichloroethane, (N) cfc-12, (O) trichloroethylene, (P) strontium-90, and (Q) plutonium-238 measured in water samples collected from well USGS 84 (Site No. 433356112574201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

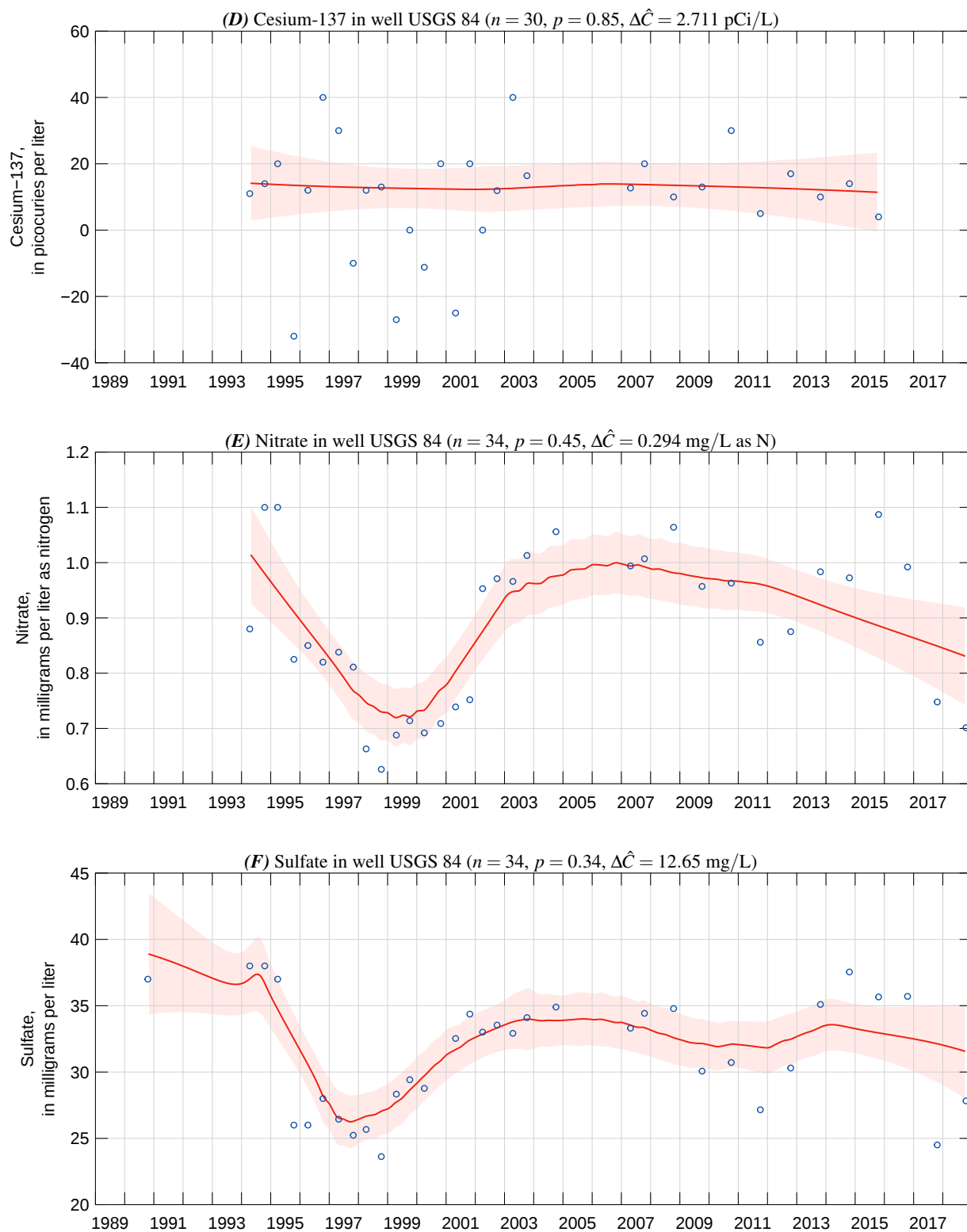


Figure 5.113. —Continued

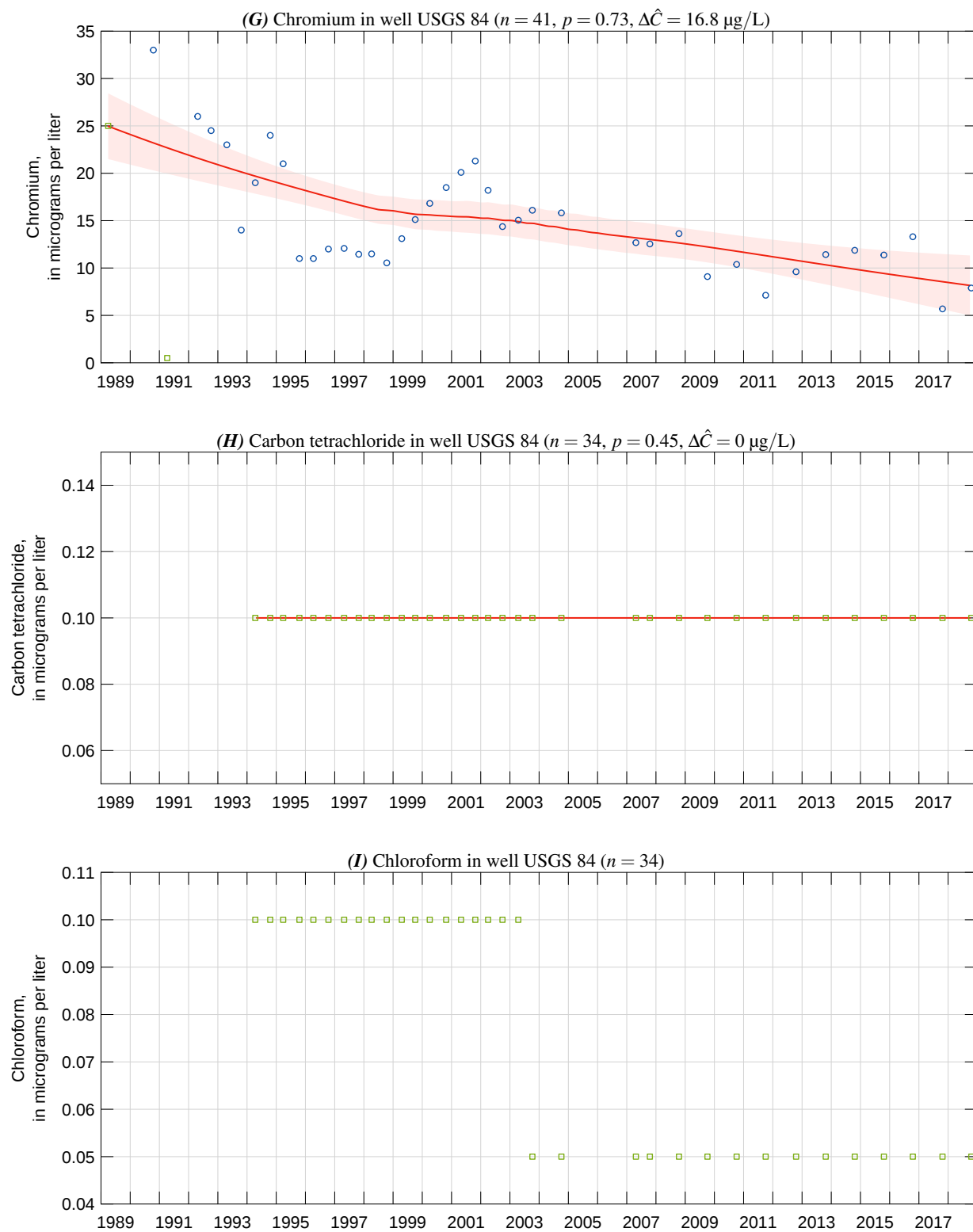


Figure 5.113. —Continued

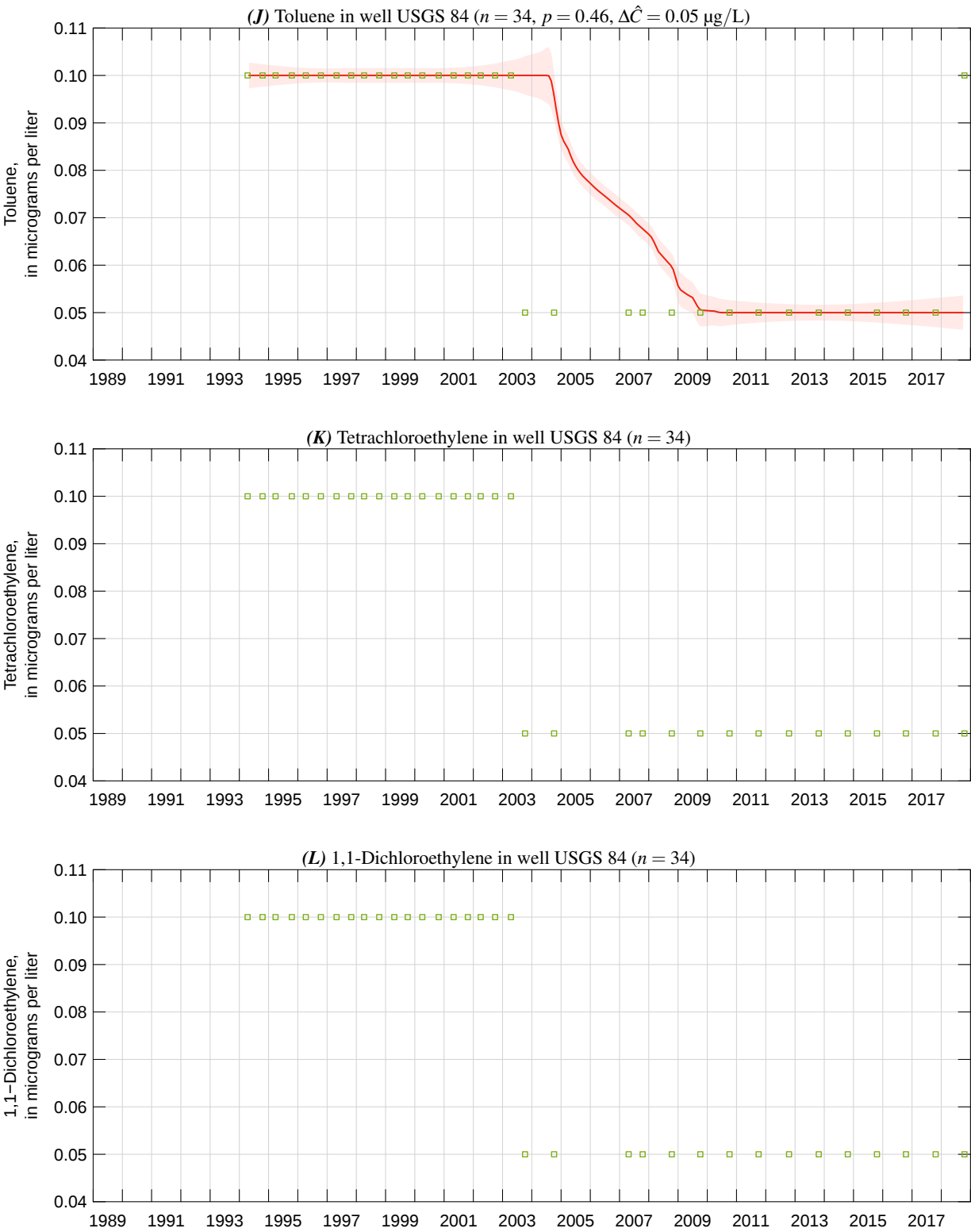


Figure 5.113. —Continued

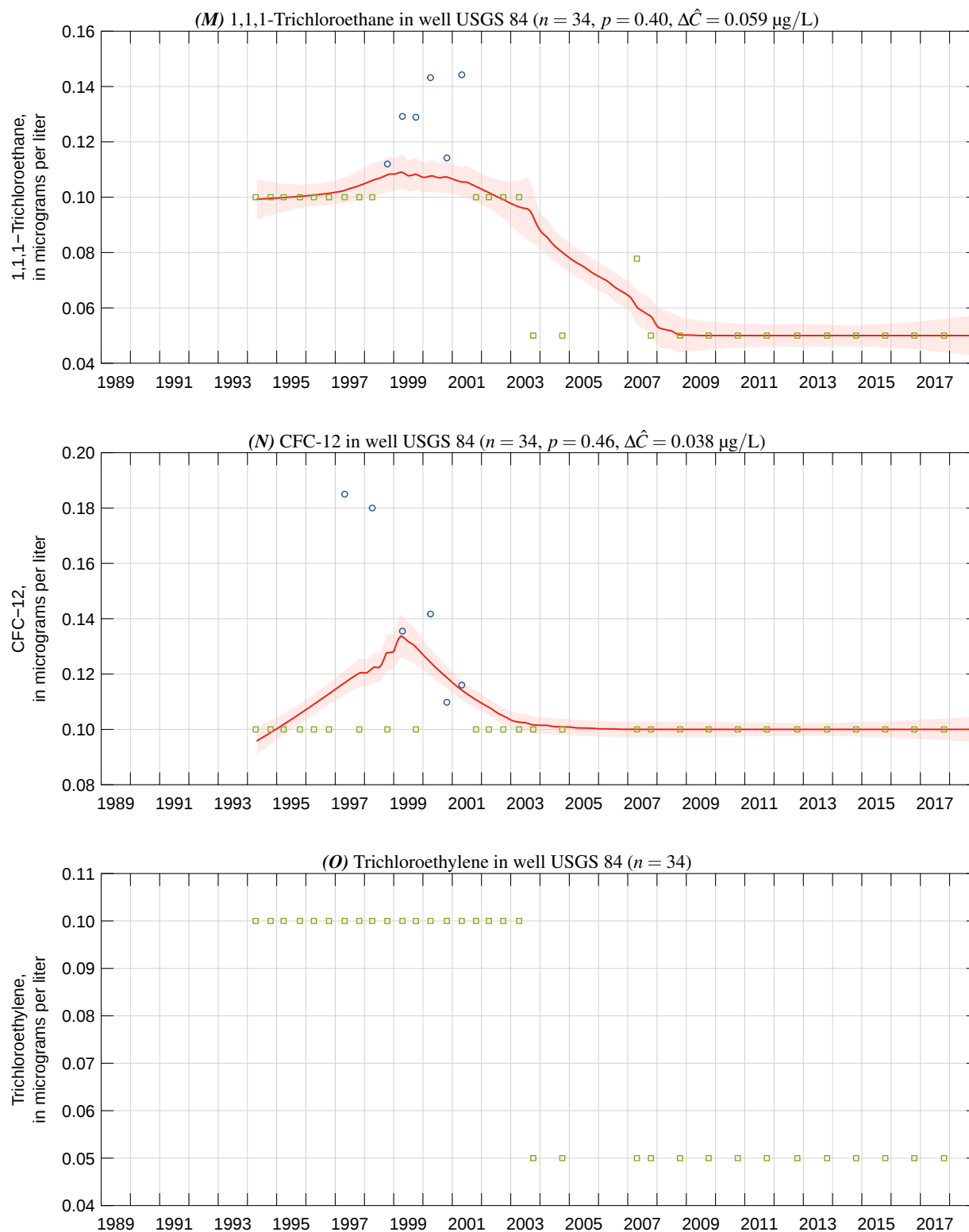


Figure 5.113. —Continued

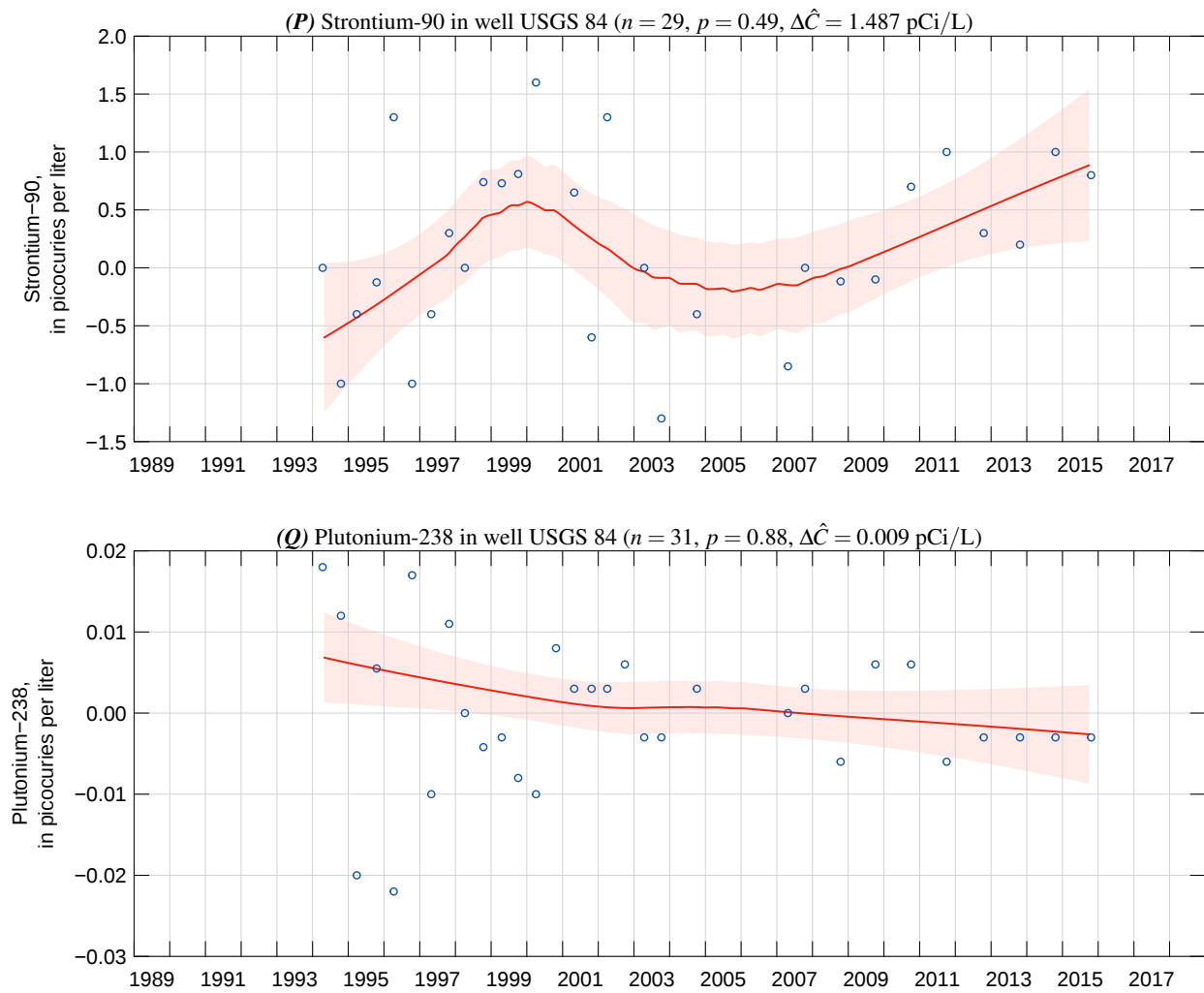


Figure 5.113. —Continued

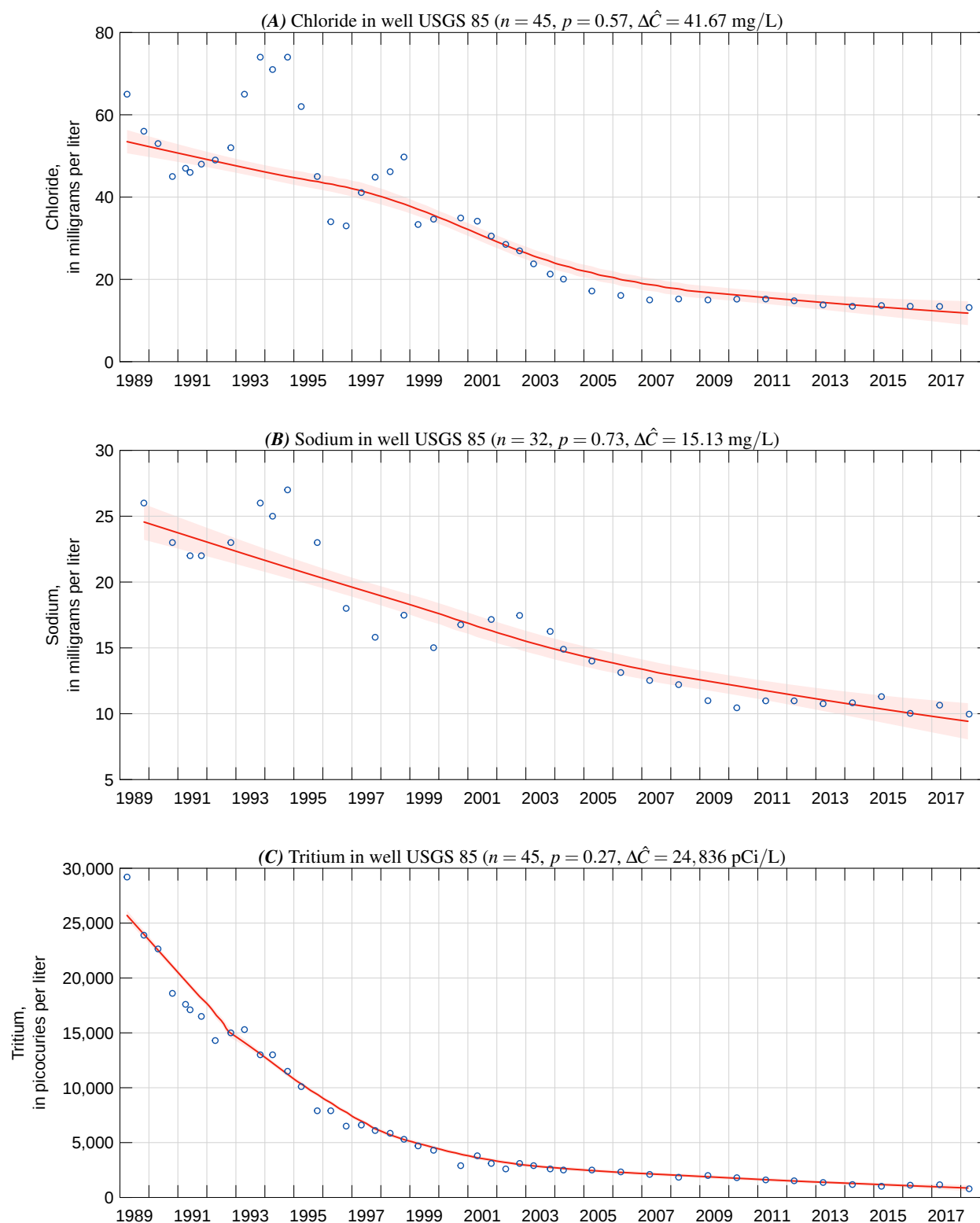


Figure 5.114. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) nitrate, (E) sulfate, and (F) strontium-90 measured in water samples collected from well USGS 85 (Site No. 433246112571201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

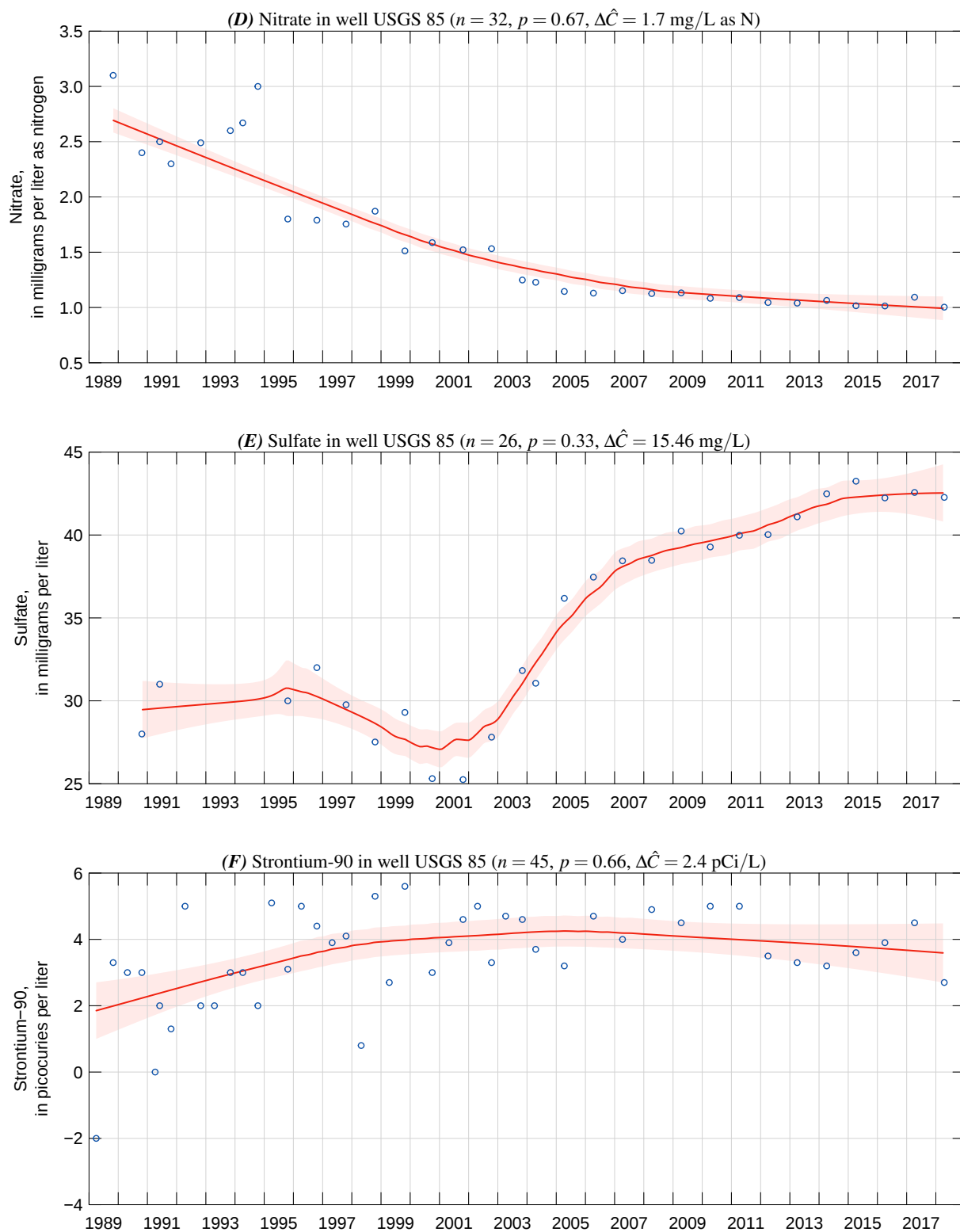


Figure 5.114. —Continued

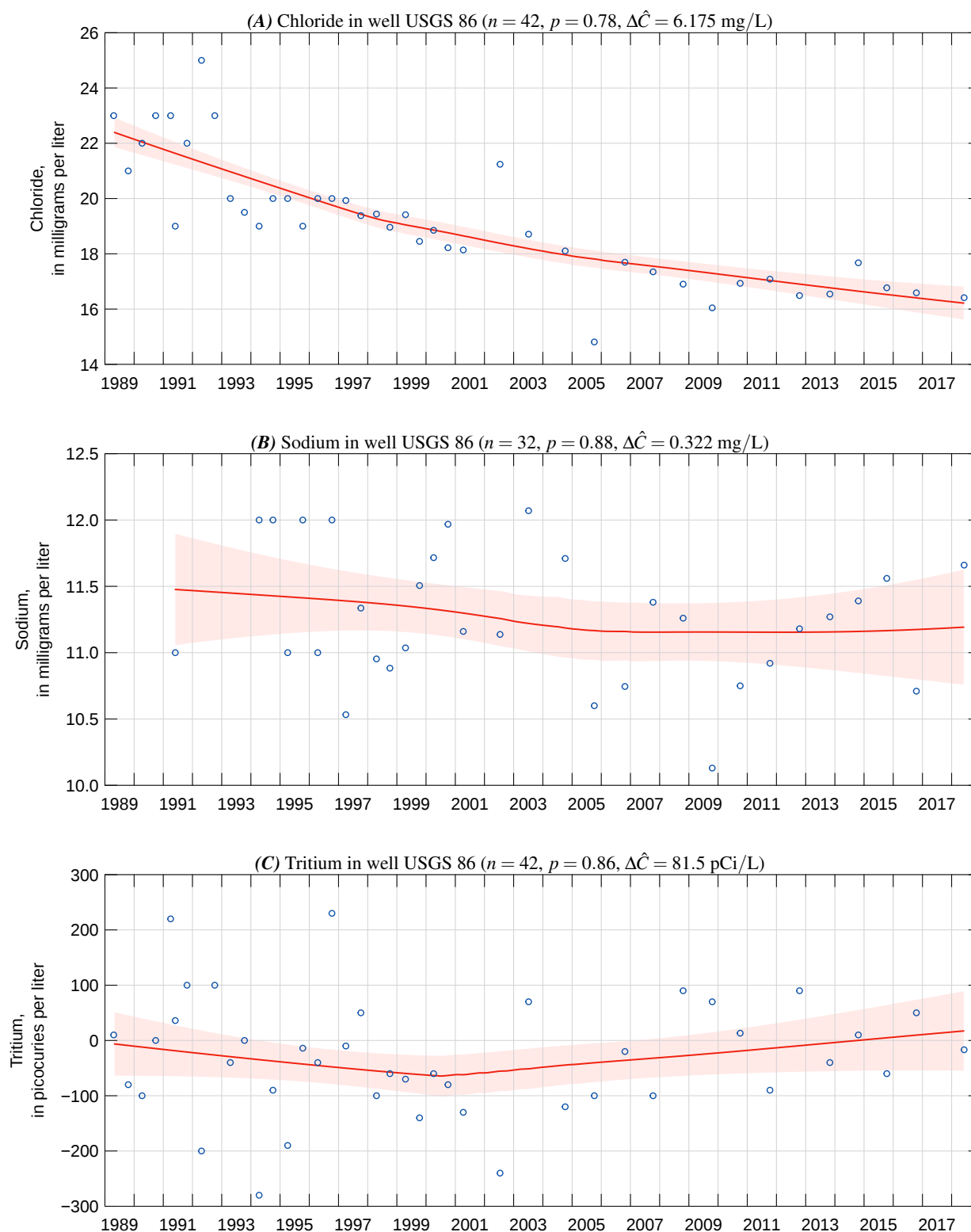


Figure 5.115. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 86 (Site No. 432935113080001), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

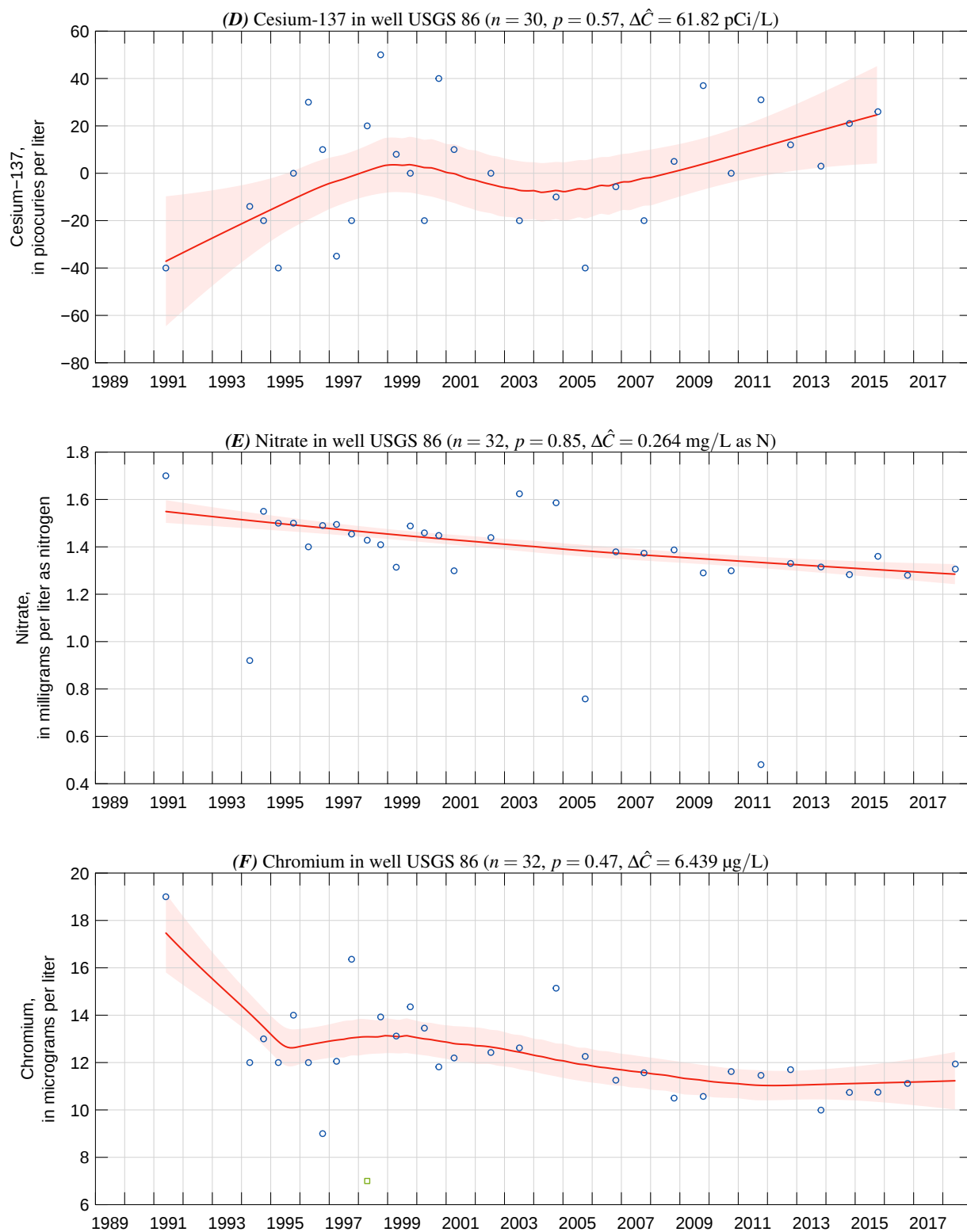


Figure 5.115. —Continued

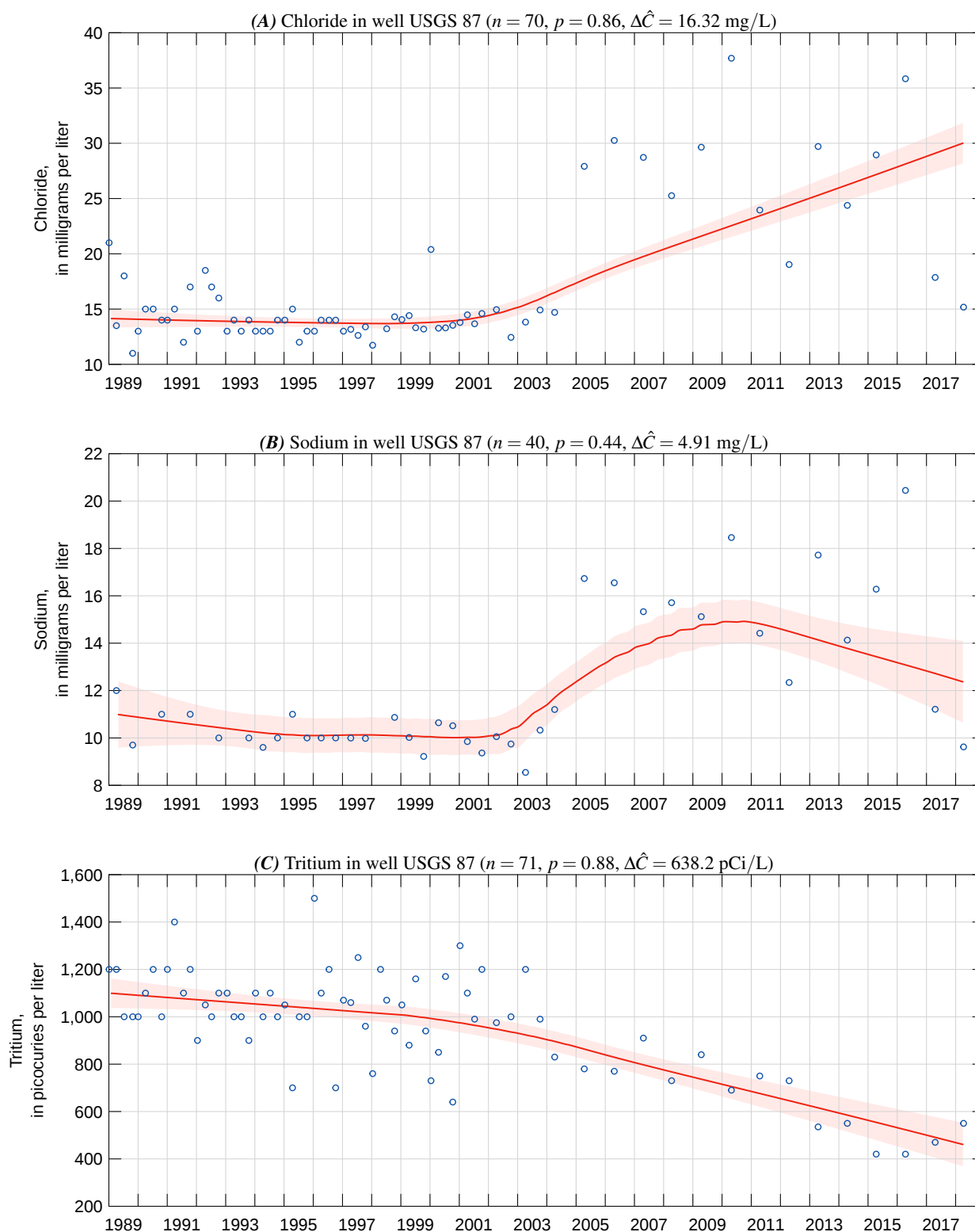


Figure 5.116. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) chromium, (H) carbon tetrachloride, (I) chloroform, (J) toluene, (K) tetrachloroethylene, (L) 1,1-dichloroethylene, (M) 1,1,1-trichloroethane, (N) cfc-12, (O) trichloroethylene, (P) strontium-90, and (Q) plutonium-238 measured in water samples collected from well USGS 87 (Site No. 433013113024201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

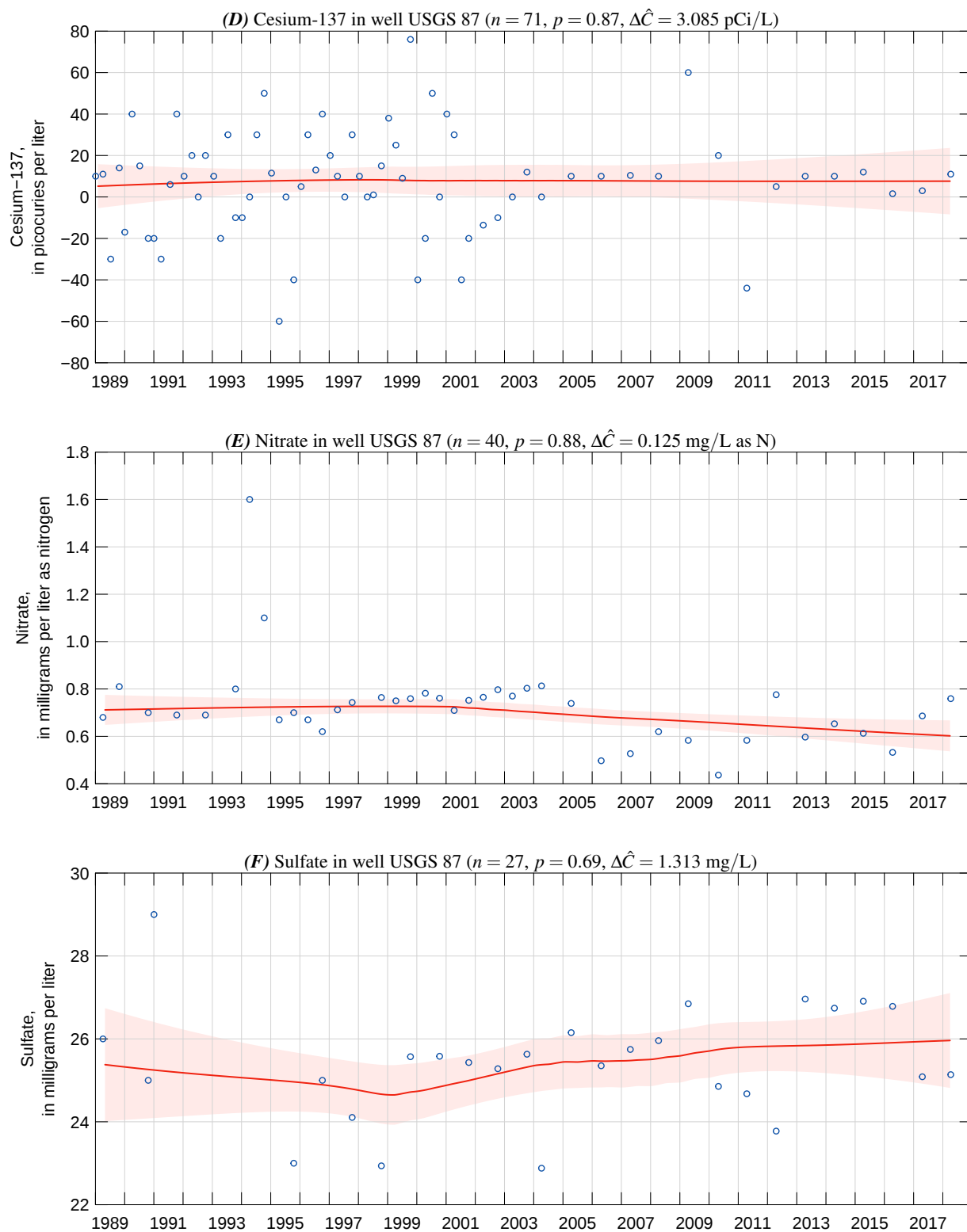


Figure 5.116. —Continued

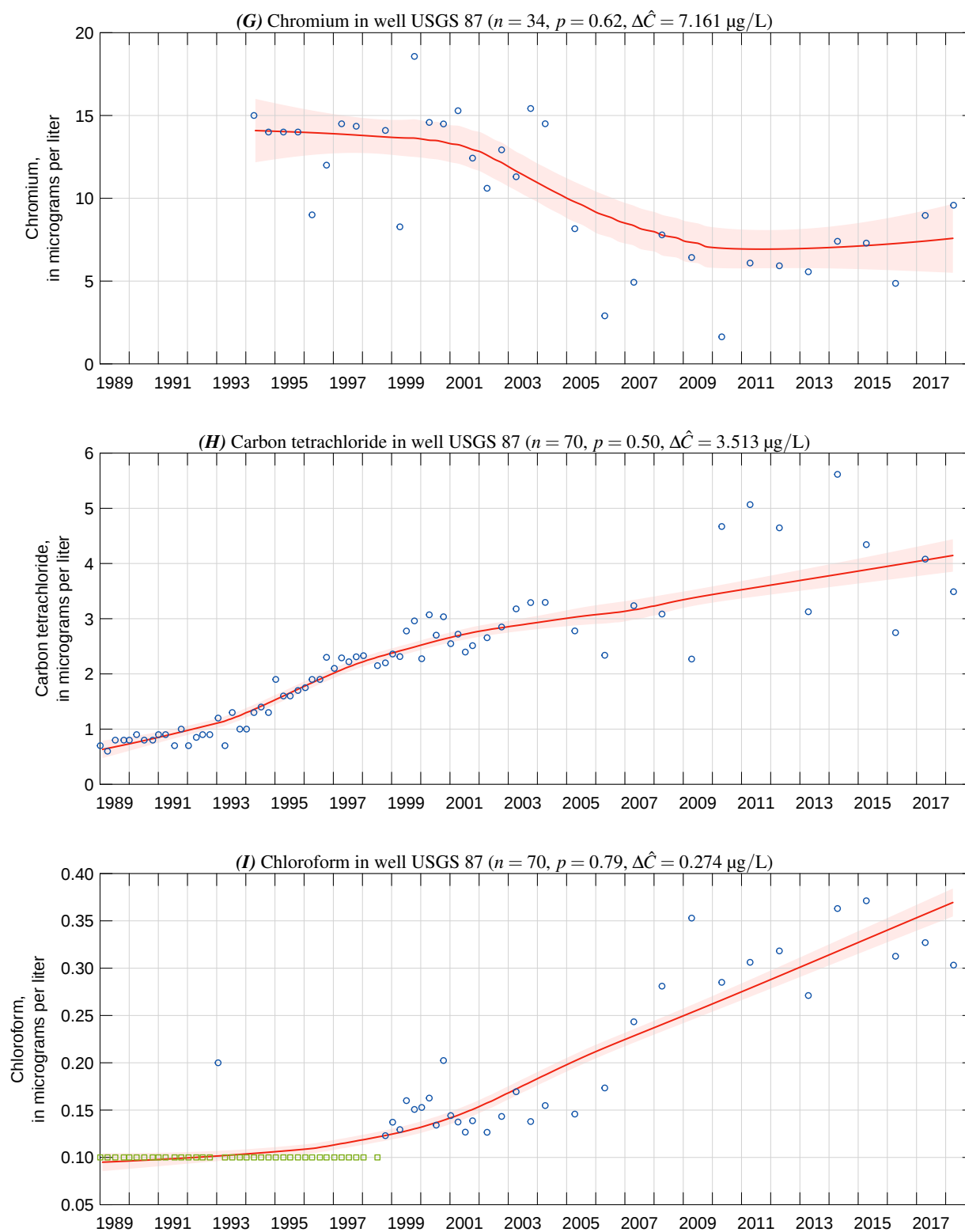


Figure 5.116. —Continued

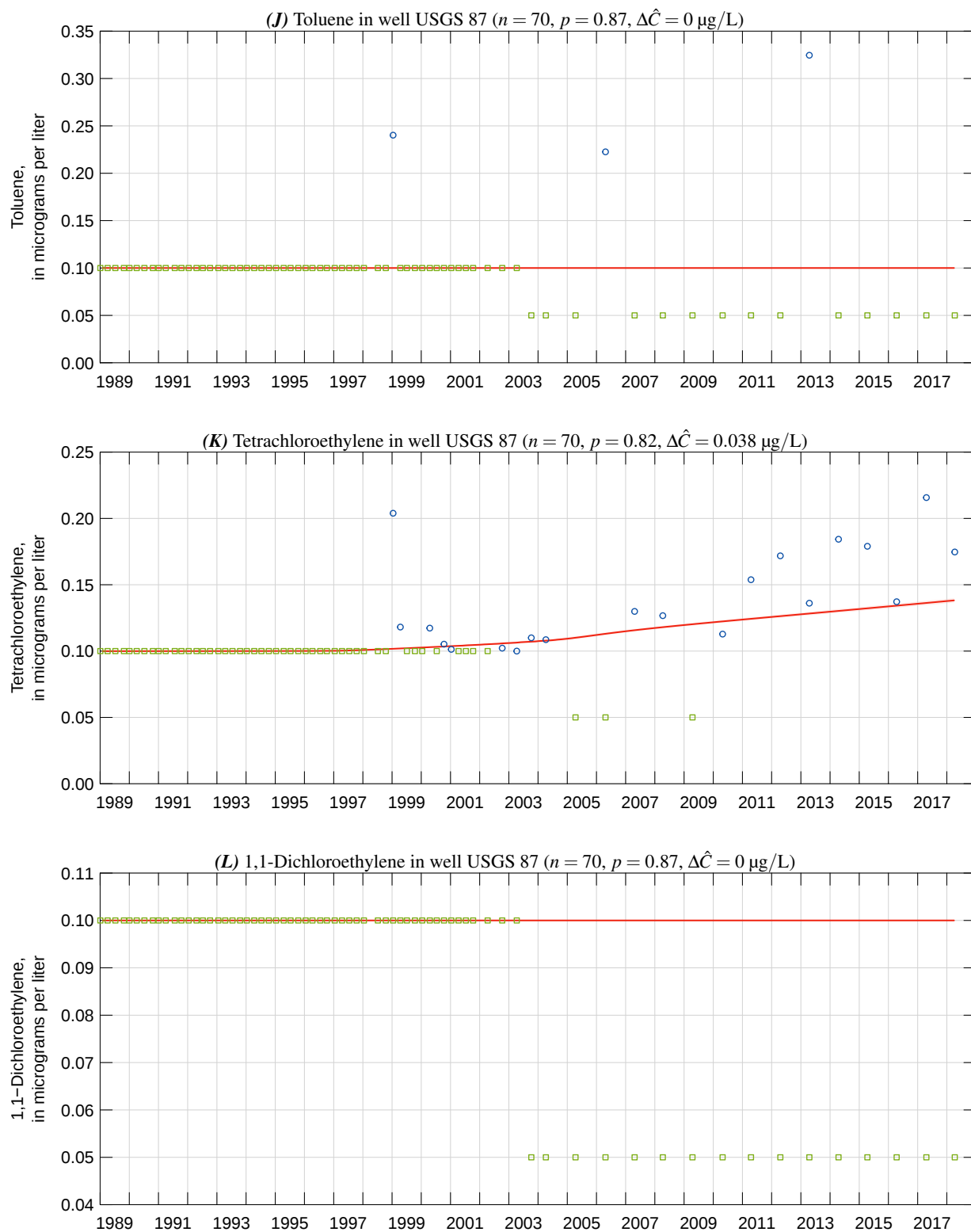


Figure 5.116. —Continued

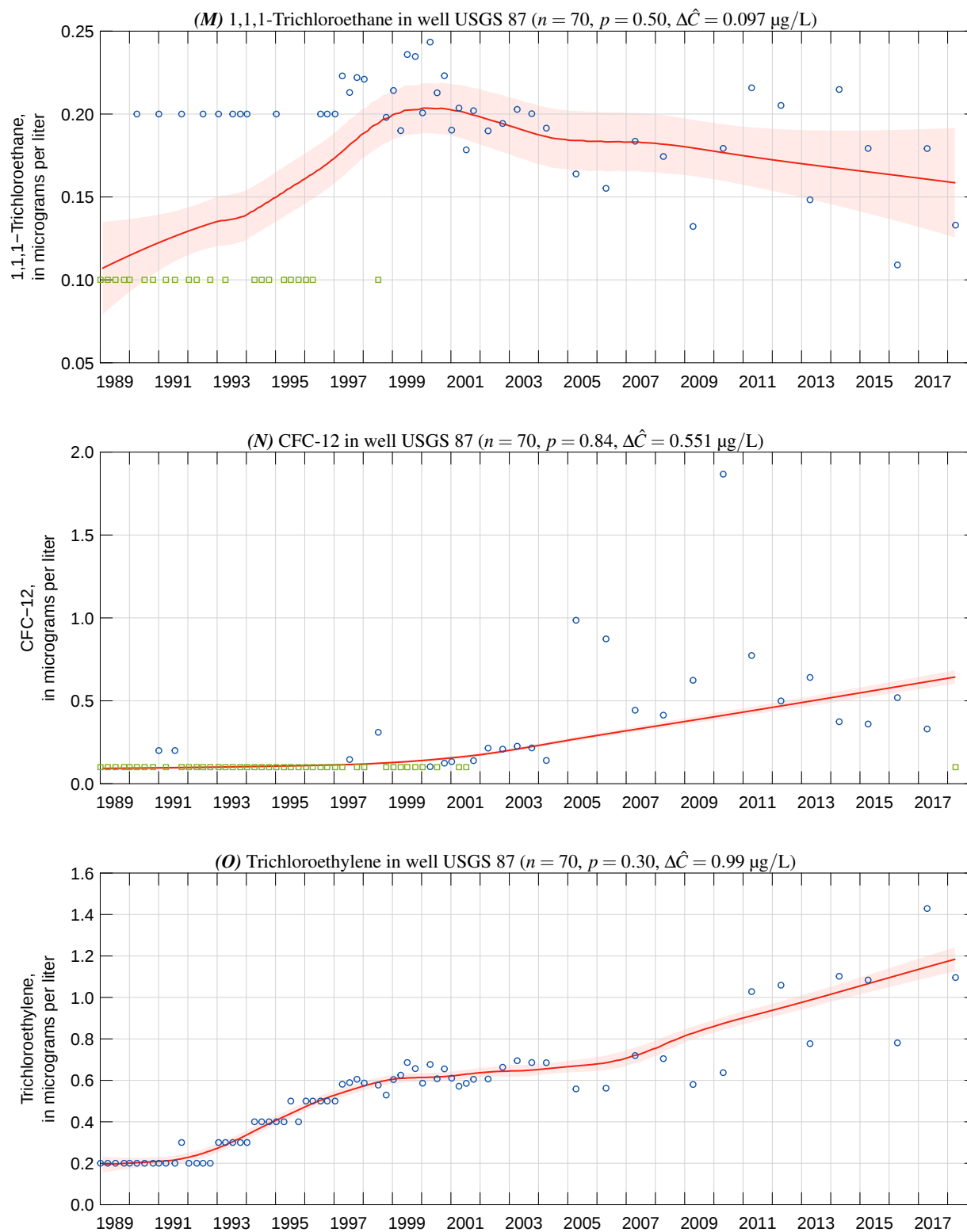


Figure 5.116. —Continued

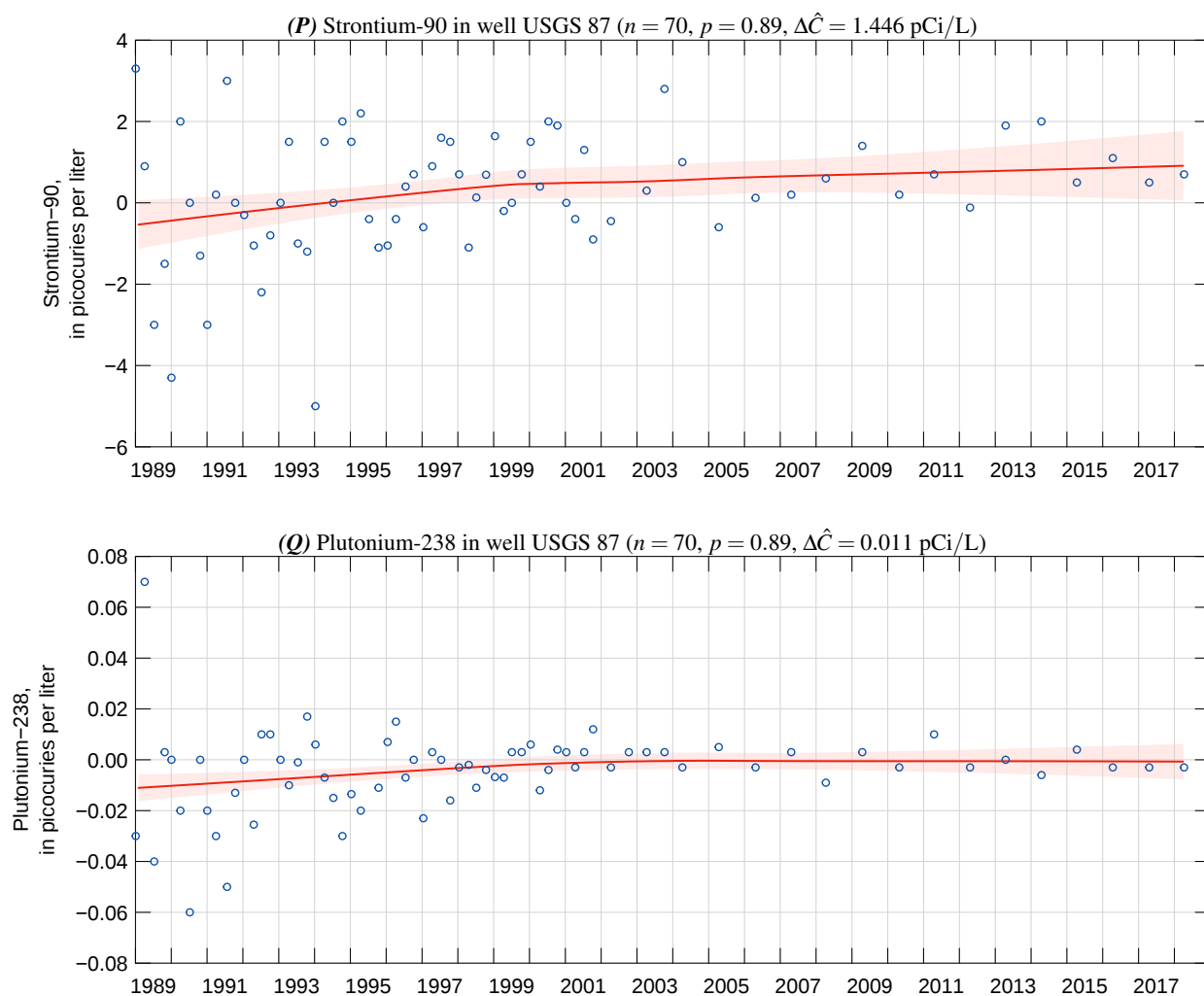


Figure 5.116. —Continued

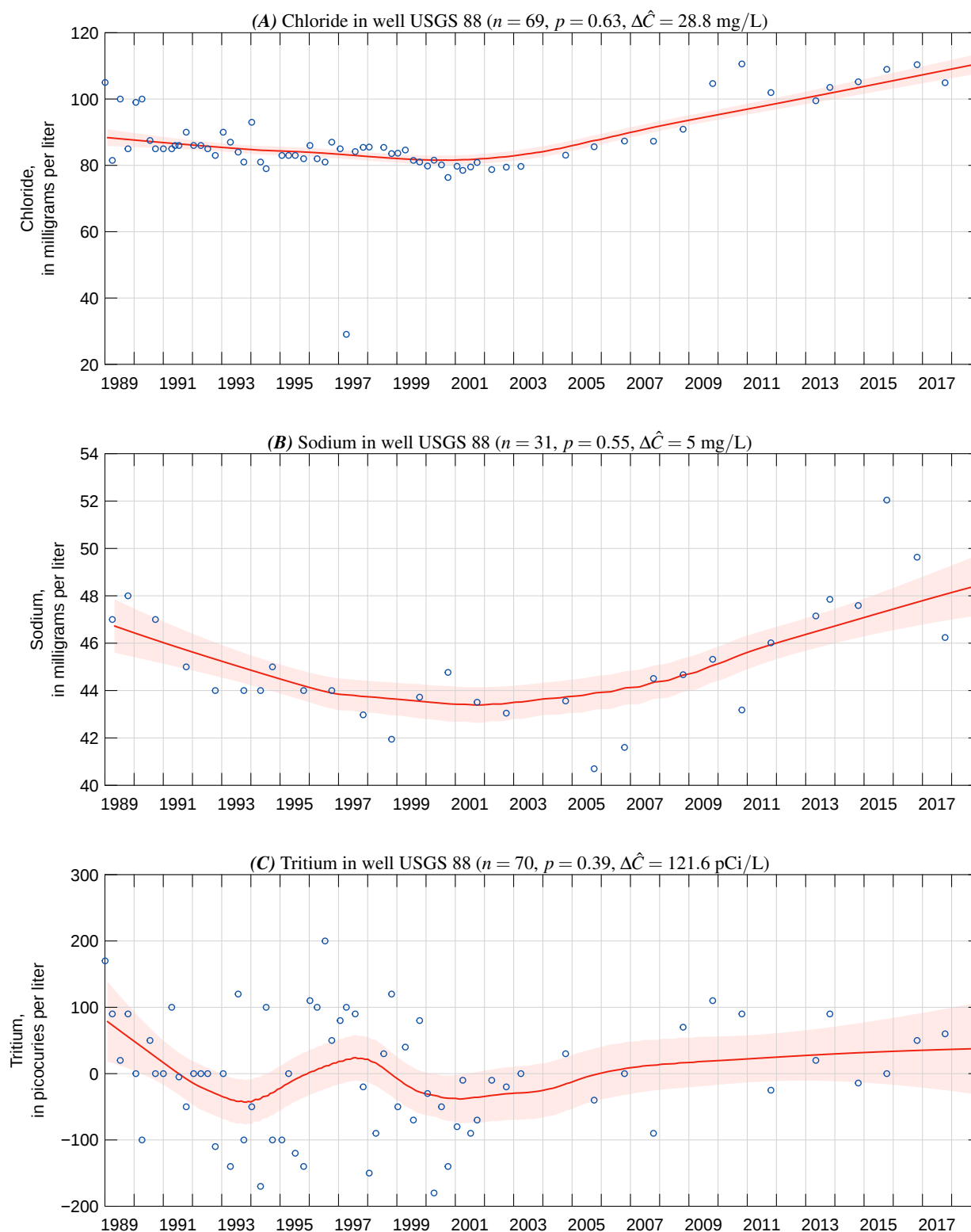


Figure 5.117. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, (N) trichloroethylene, (O) strontium-90, and (P) plutonium-238 measured in water samples collected from well USGS 88 (Site No. 432940113030201), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

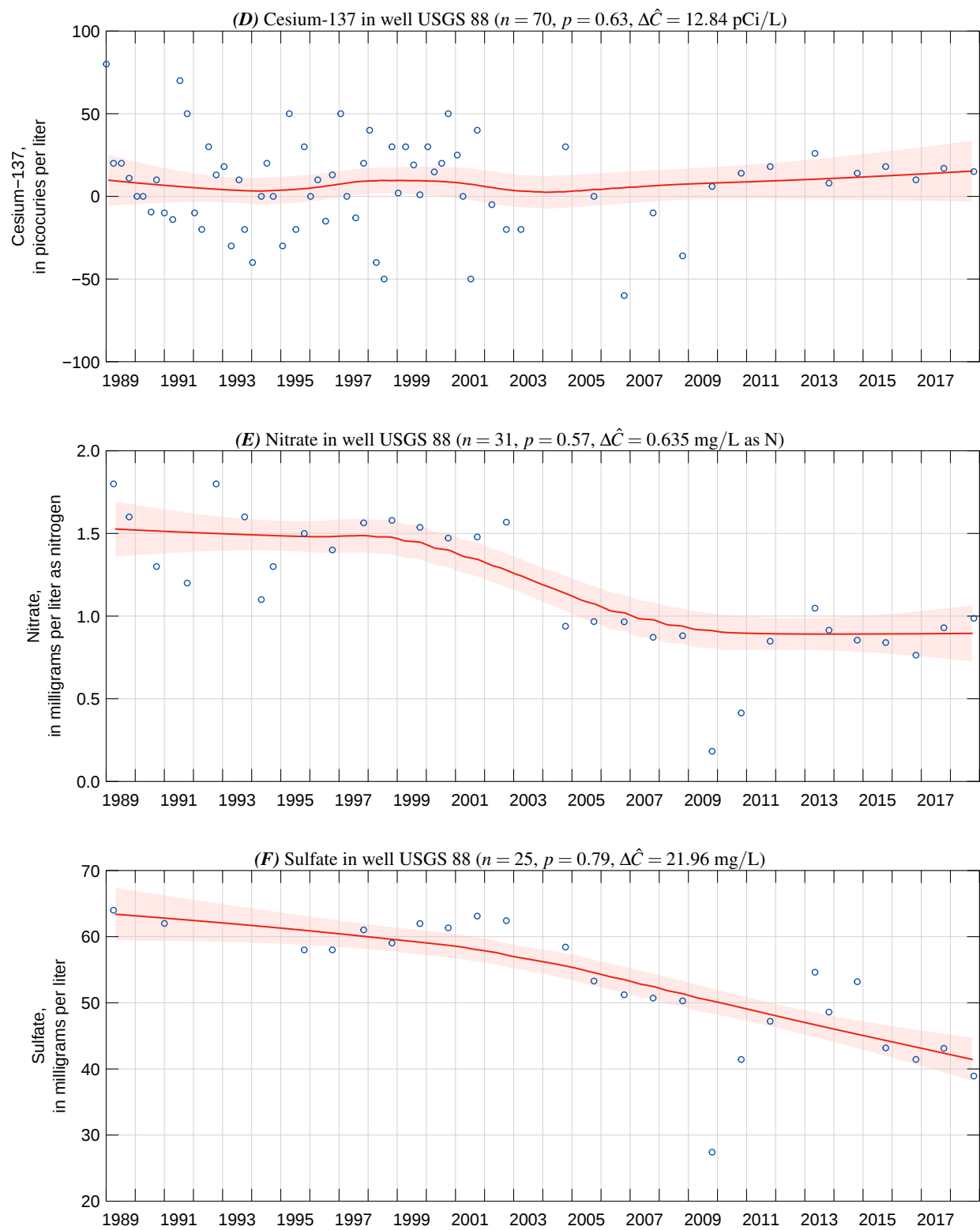


Figure 5.117. —Continued

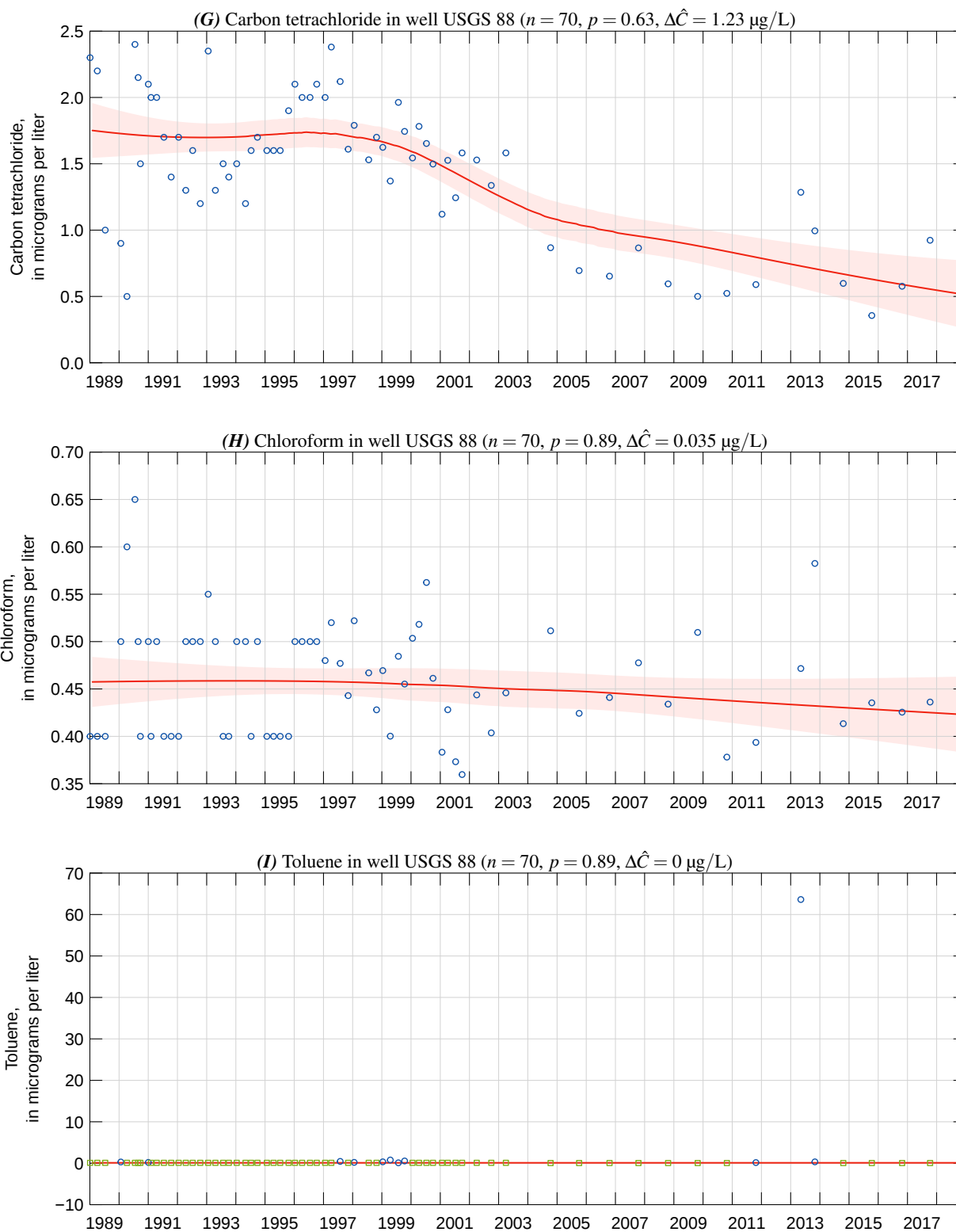


Figure 5.117. —Continued

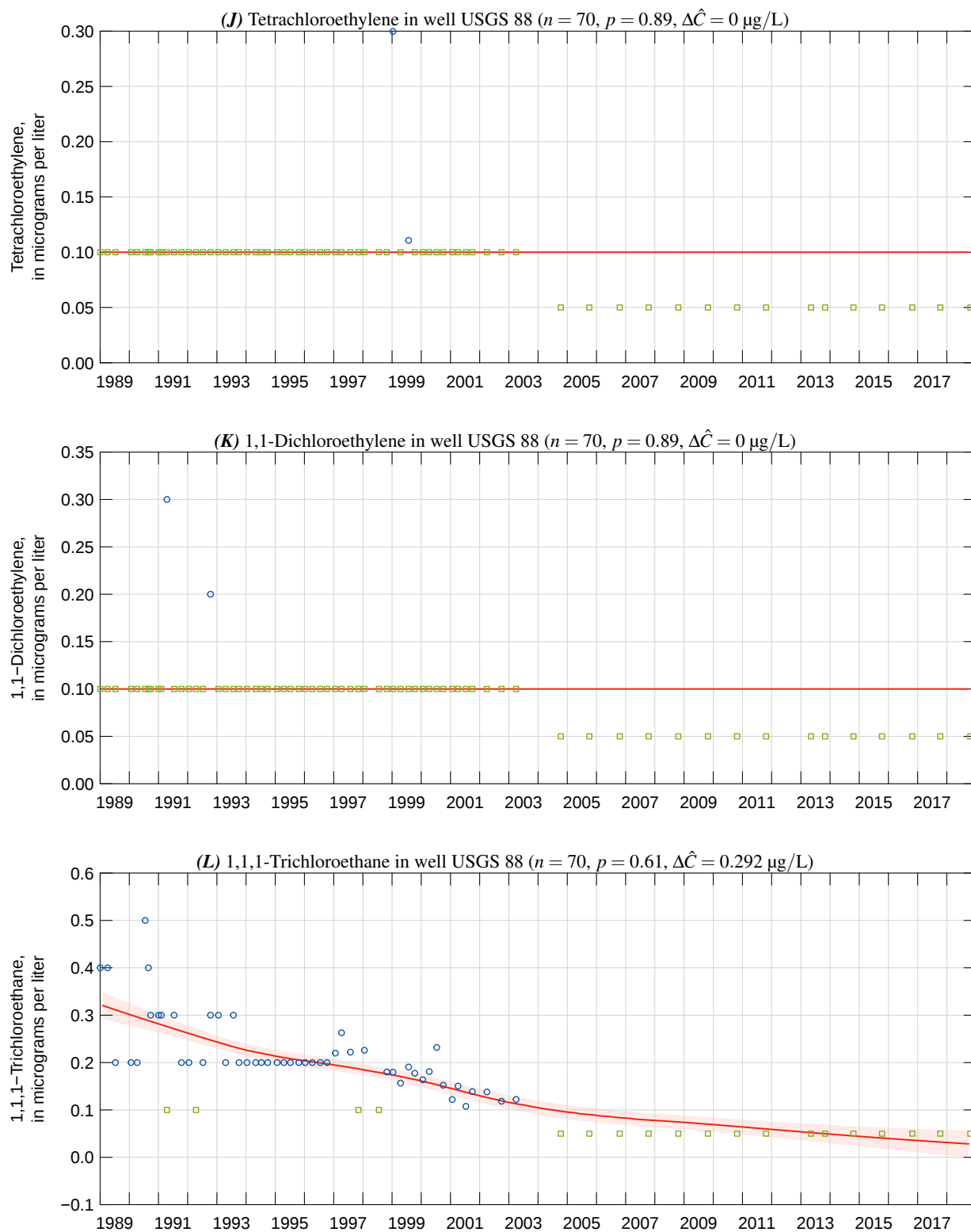


Figure 5.117. —Continued

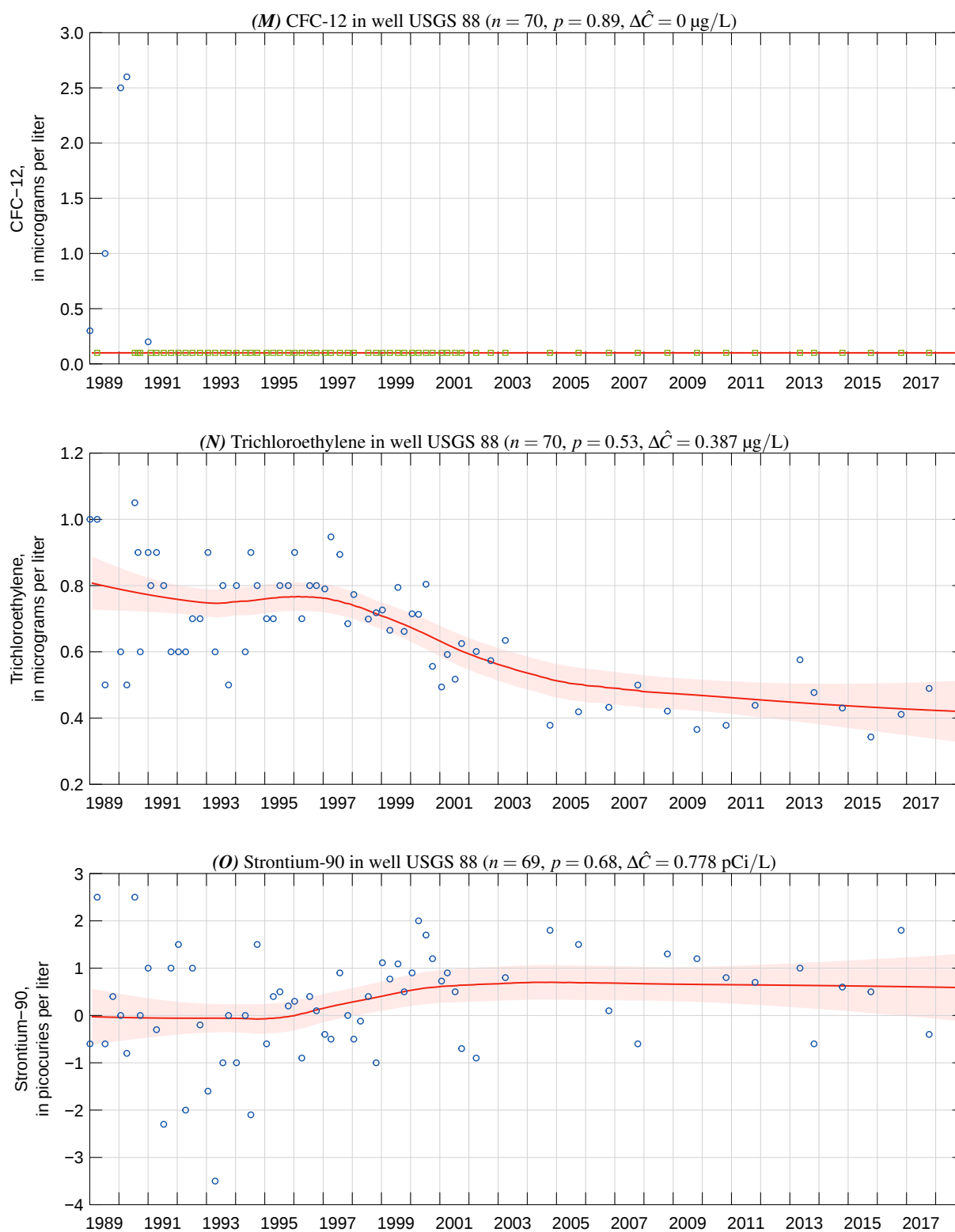


Figure 5.117. —Continued

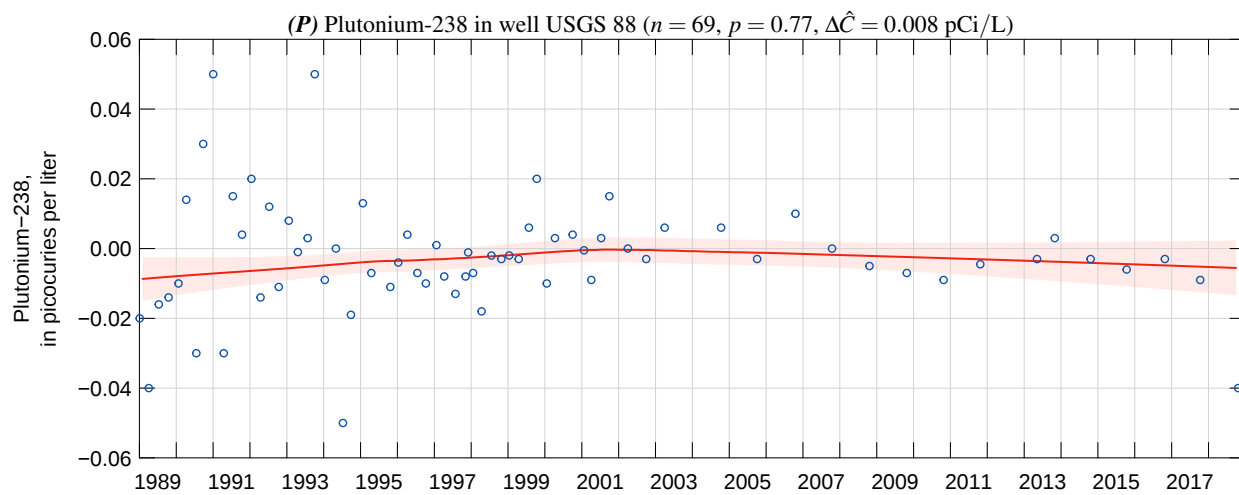


Figure 5.117. —Continued

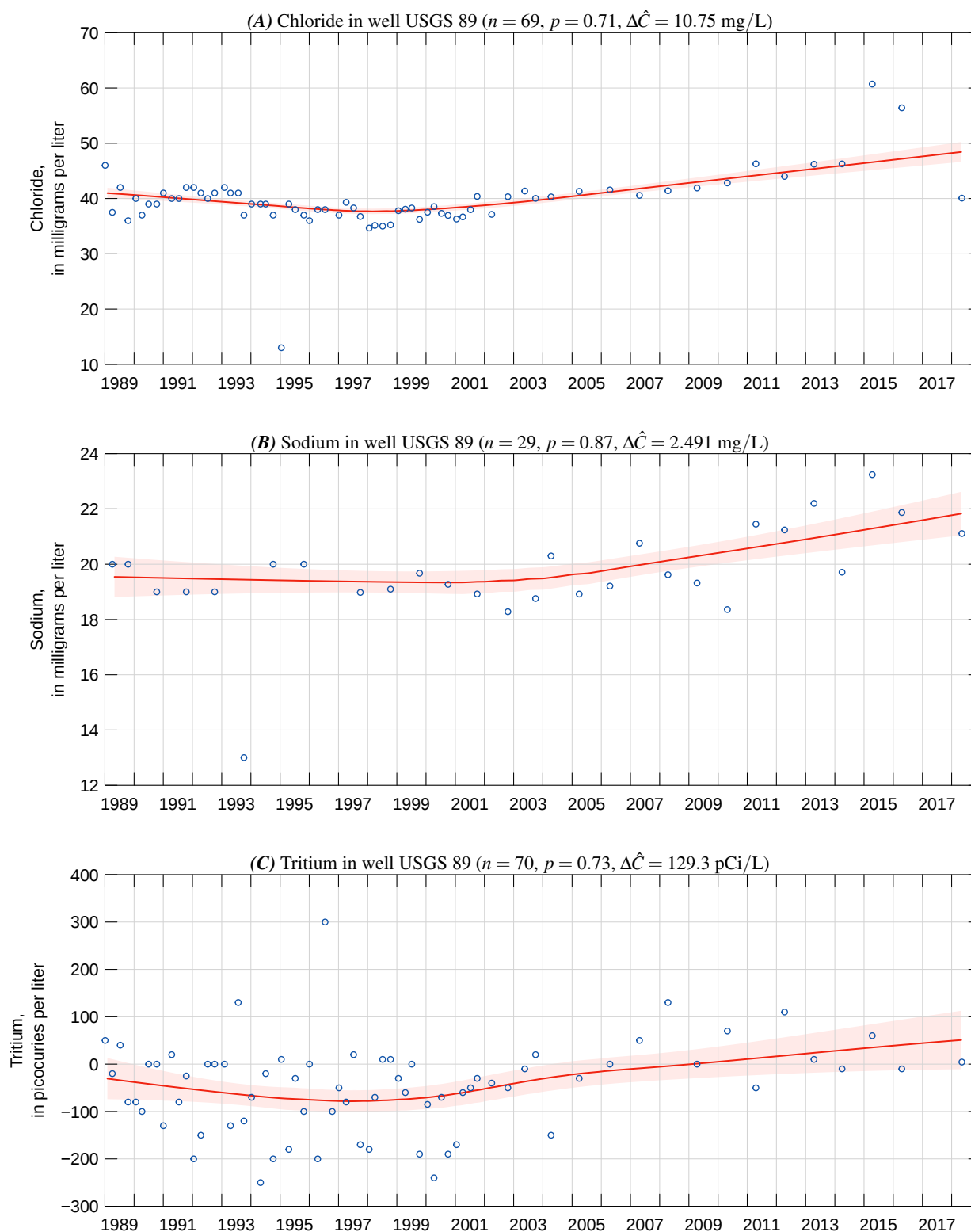


Figure 5.118. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) carbon tetrachloride, (H) chloroform, (I) toluene, (J) tetrachloroethylene, (K) 1,1-dichloroethylene, (L) 1,1,1-trichloroethane, (M) cfc-12, (N) trichloroethylene, (O) strontium-90, and (P) plutonium-238 measured in water samples collected from well USGS 89 (Site No. 433005113032801), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

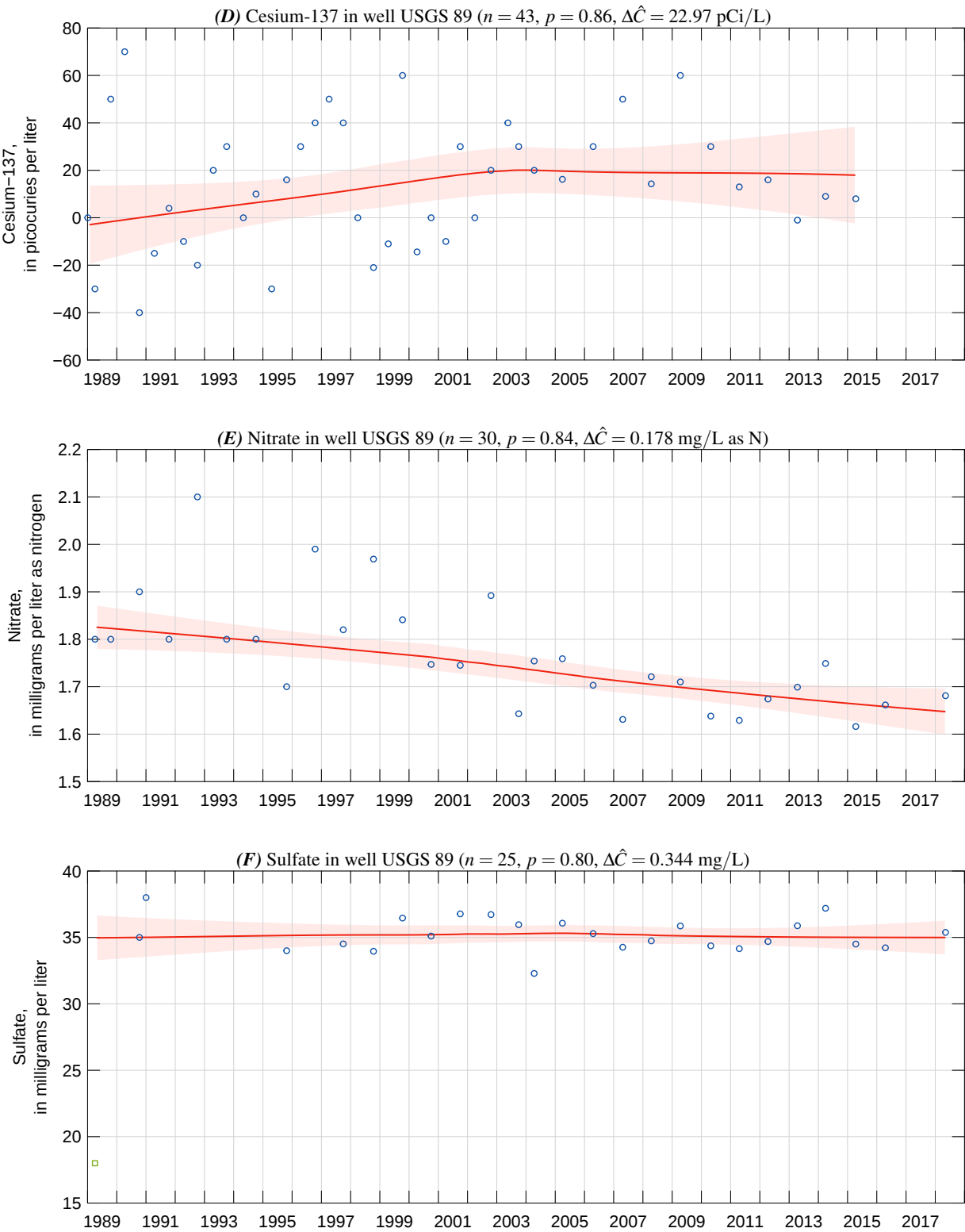


Figure 5.118. —Continued

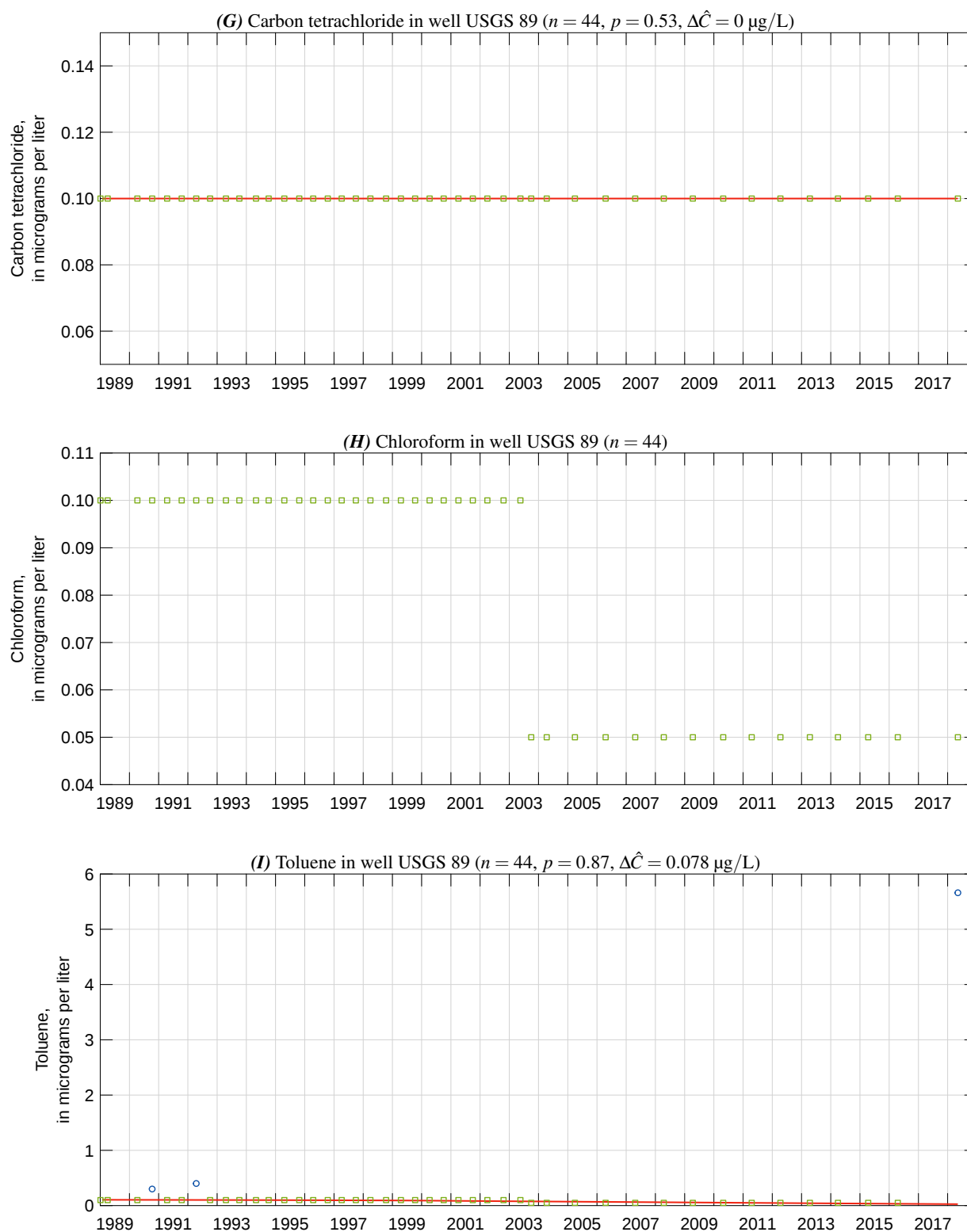


Figure 5.118. —Continued

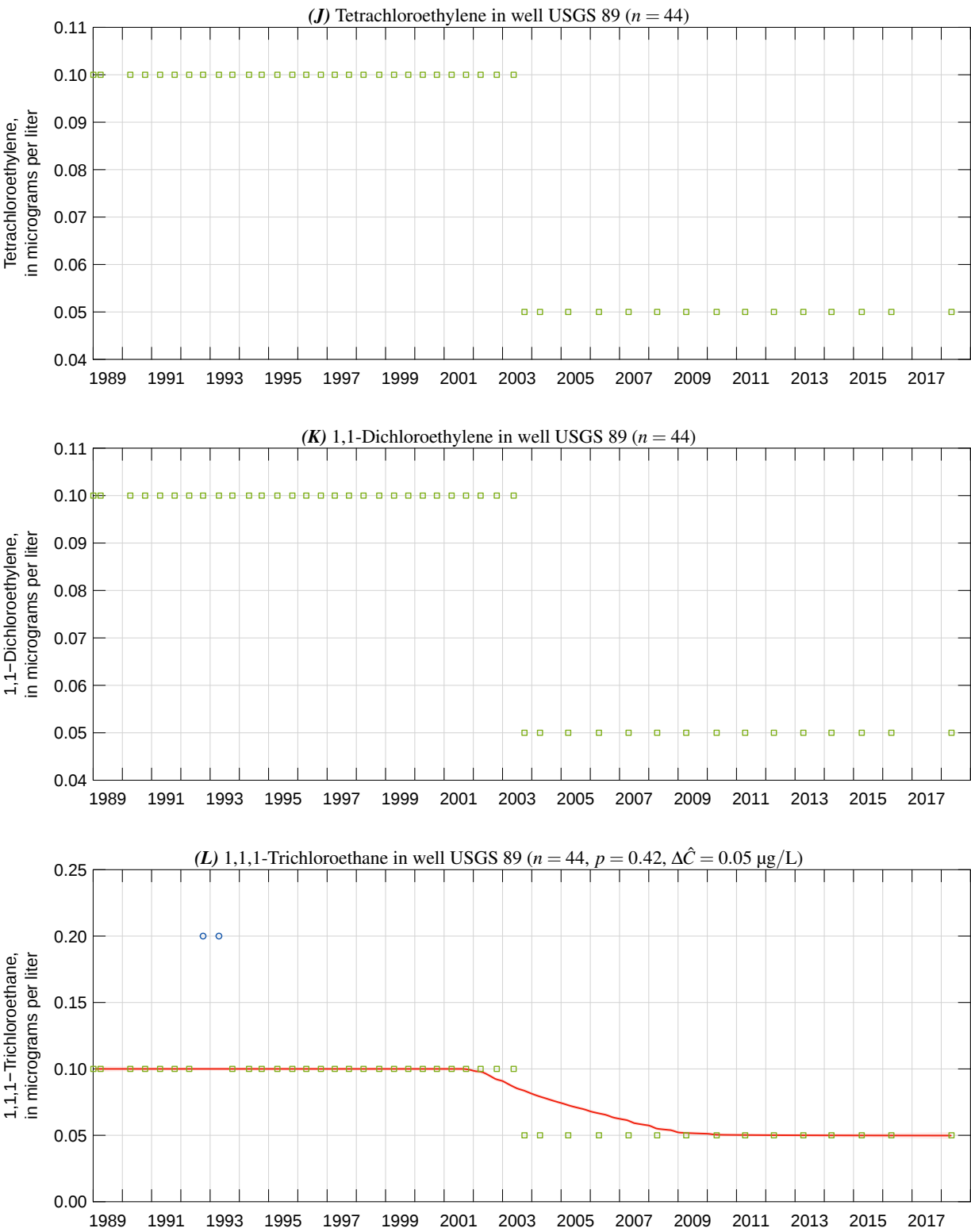


Figure 5.118. —Continued

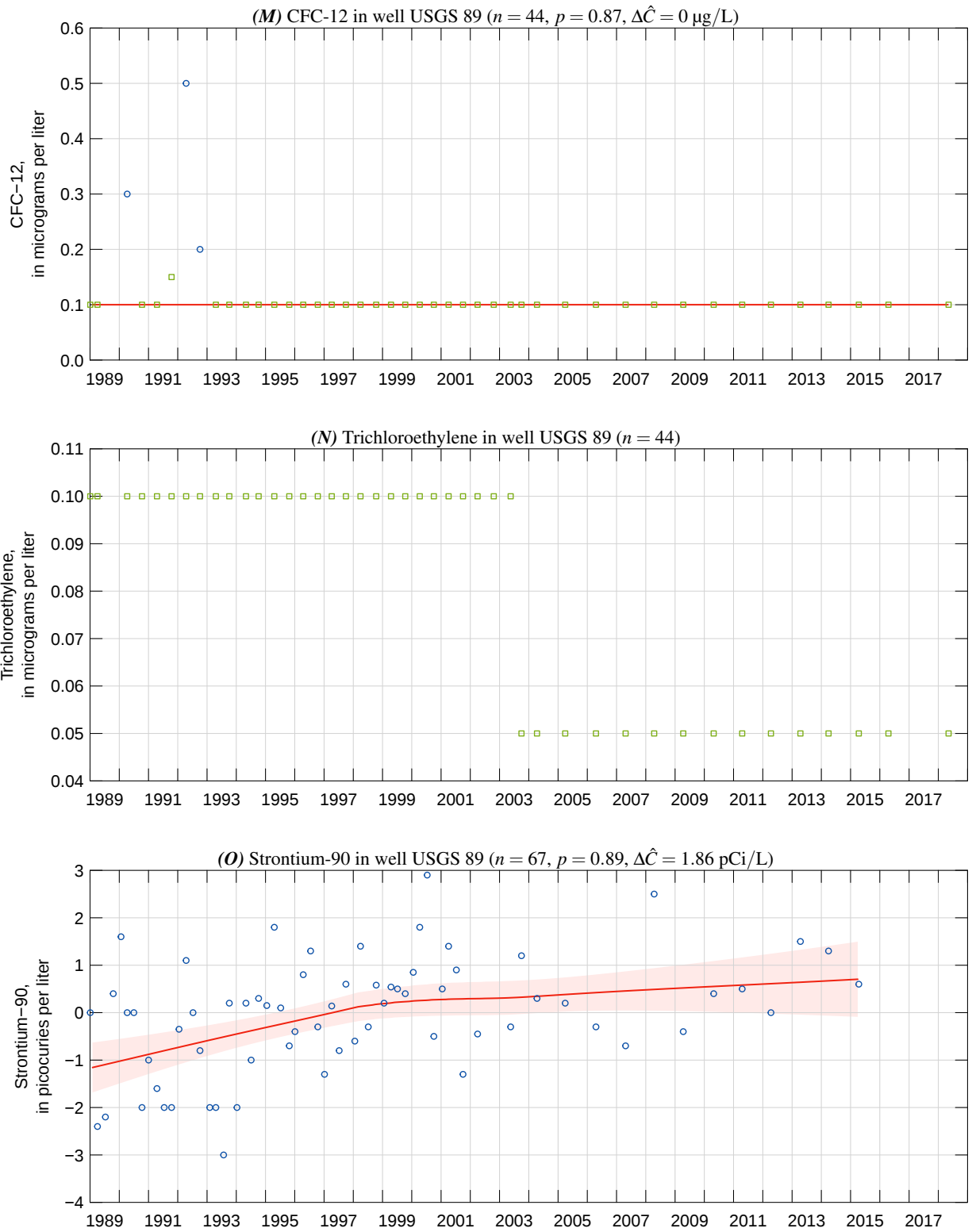
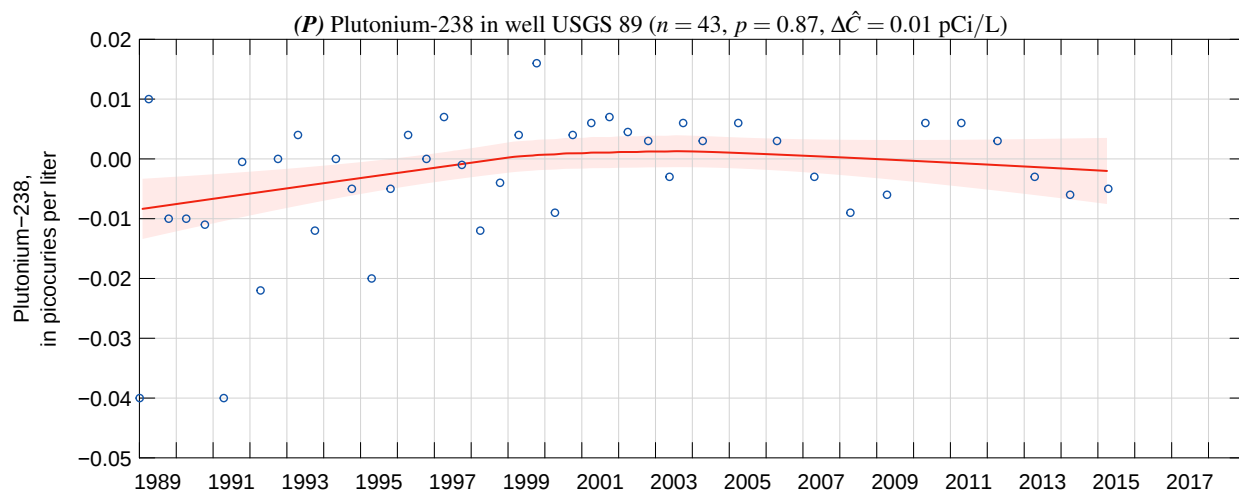


Figure 5.118. —Continued

**Figure 5.118.** —Continued

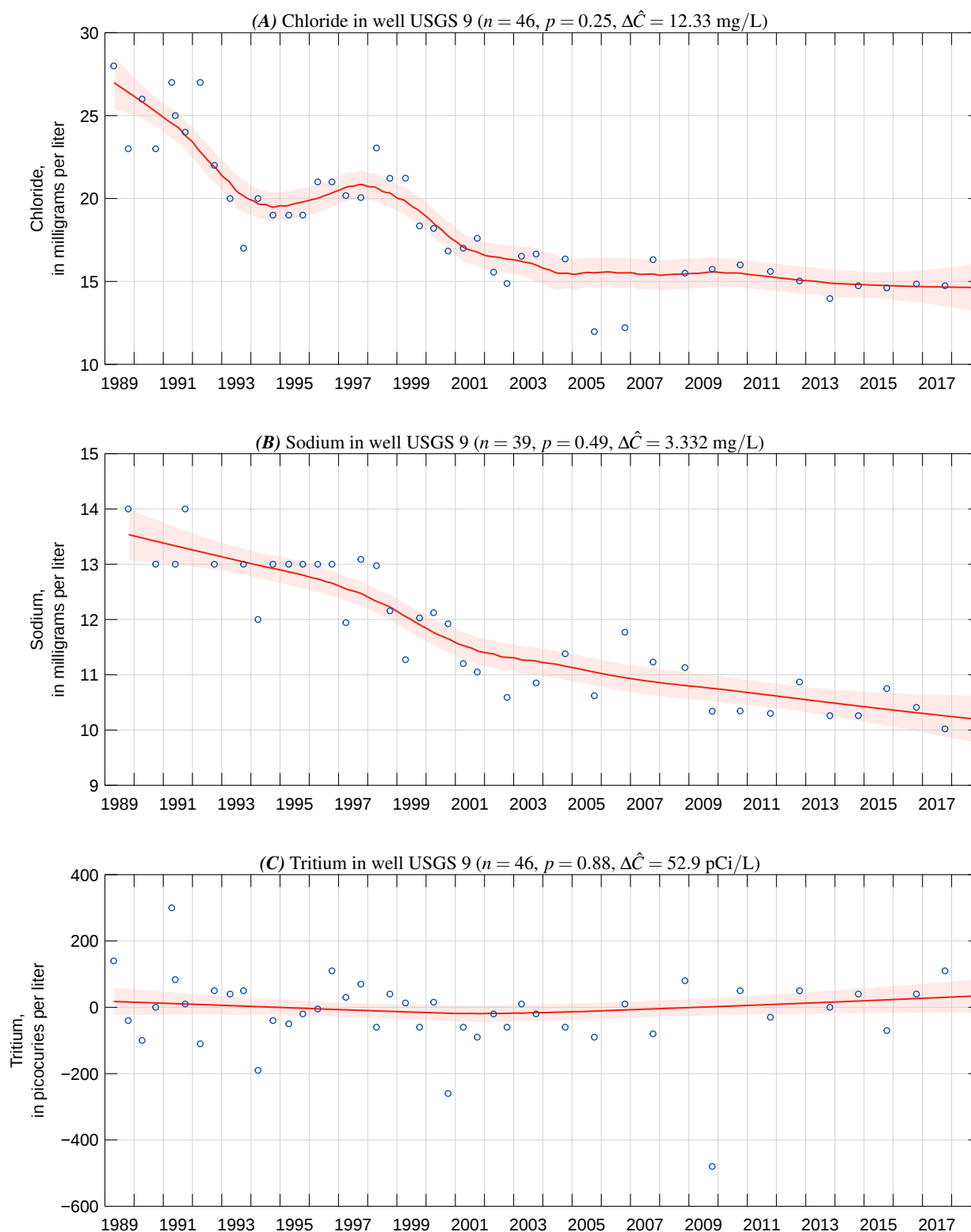


Figure 5.119. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, and (F) chromium measured in water samples collected from well USGS 9 (Site No. 432740113044501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

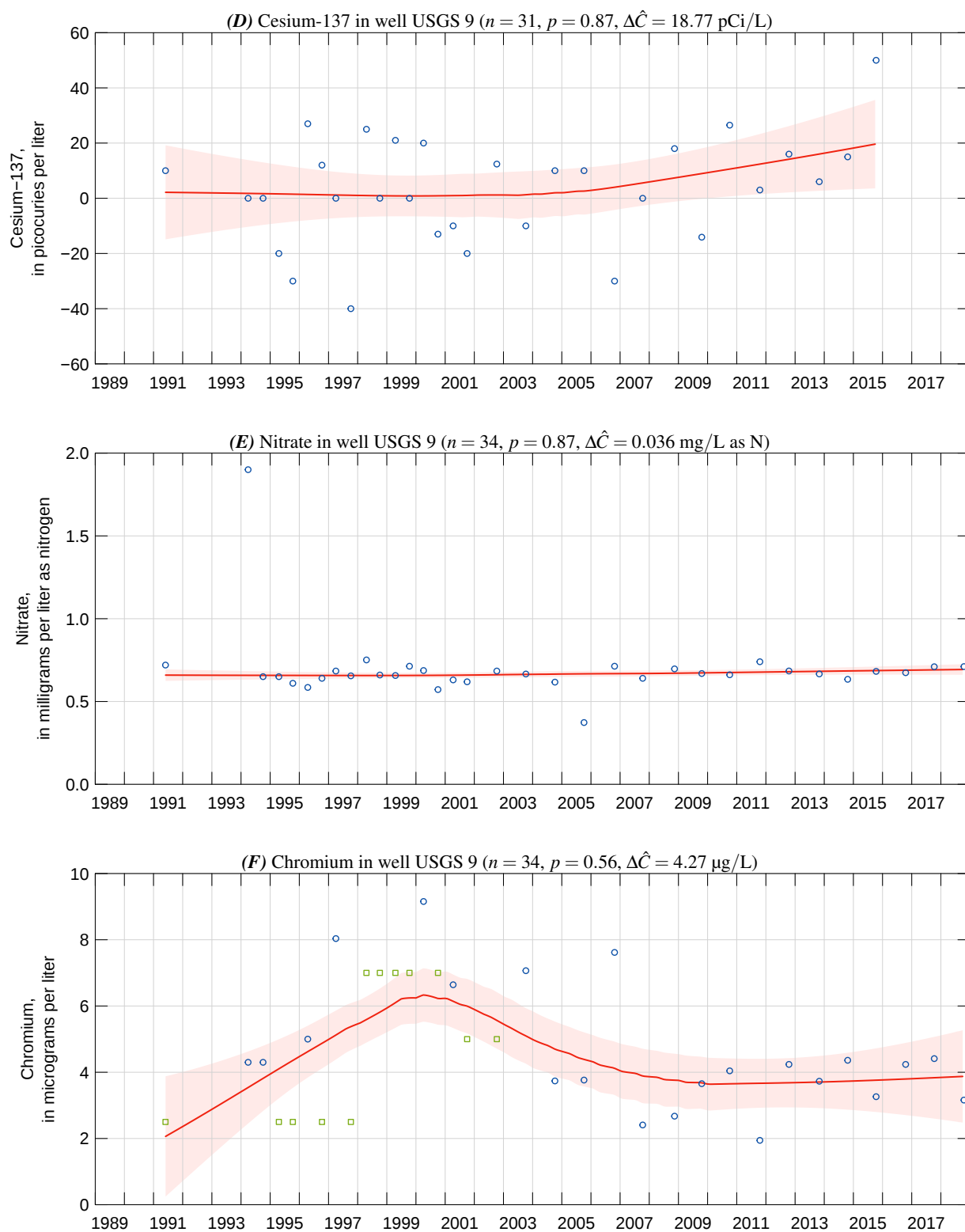


Figure 5.119. —Continued

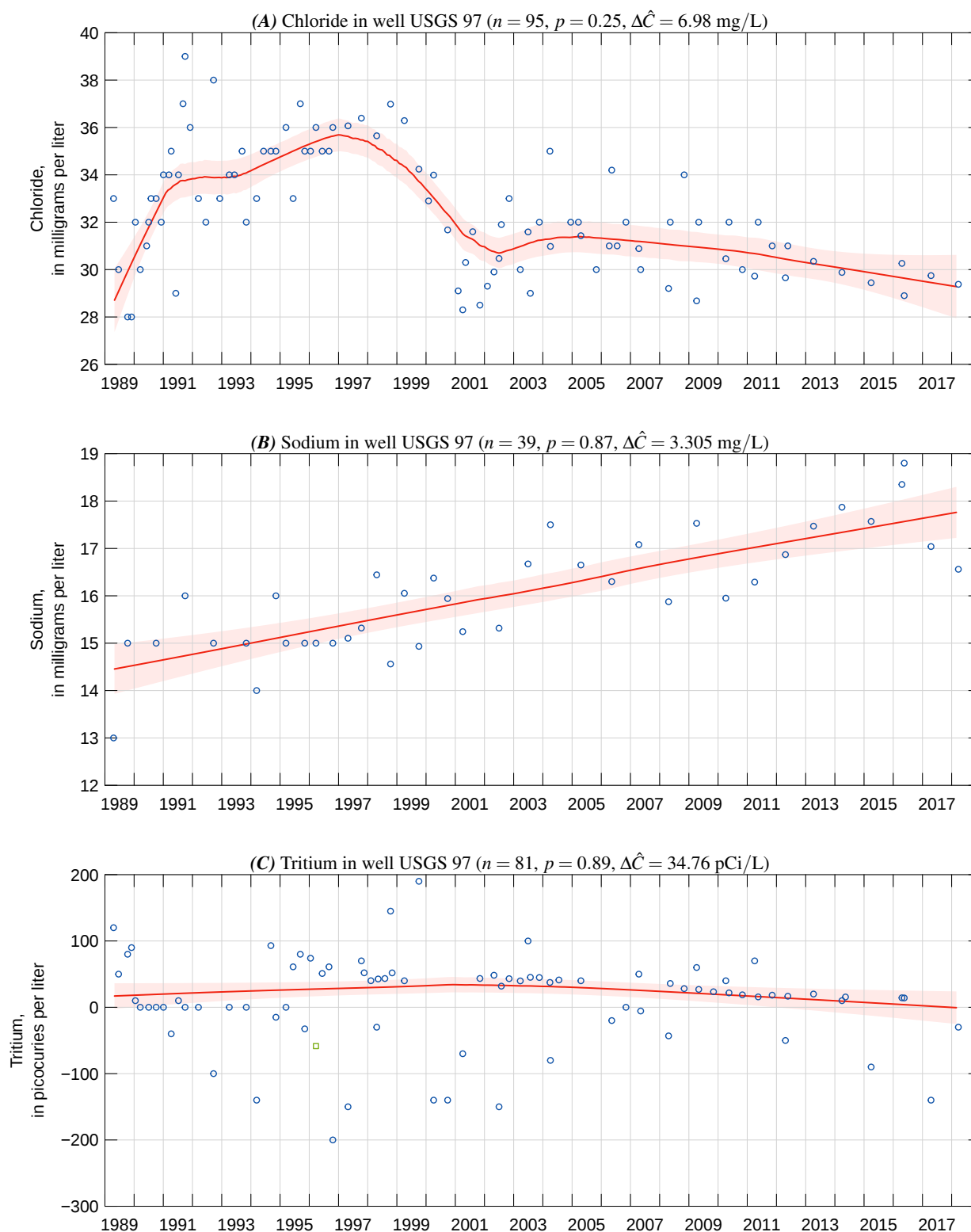


Figure 5.120. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) chromium, (H) carbon tetrachloride, (I) chloroform, (J) toluene, (K) tetrachloroethylene, (L) 1,1-dichloroethylene, (M) 1,1,1-trichloroethane, (N) cfc-12, (O) trichloroethylene, (P) strontium-90, and (Q) plutonium-238 measured in water samples collected from well USGS 97 (Site No. 433807112551501), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

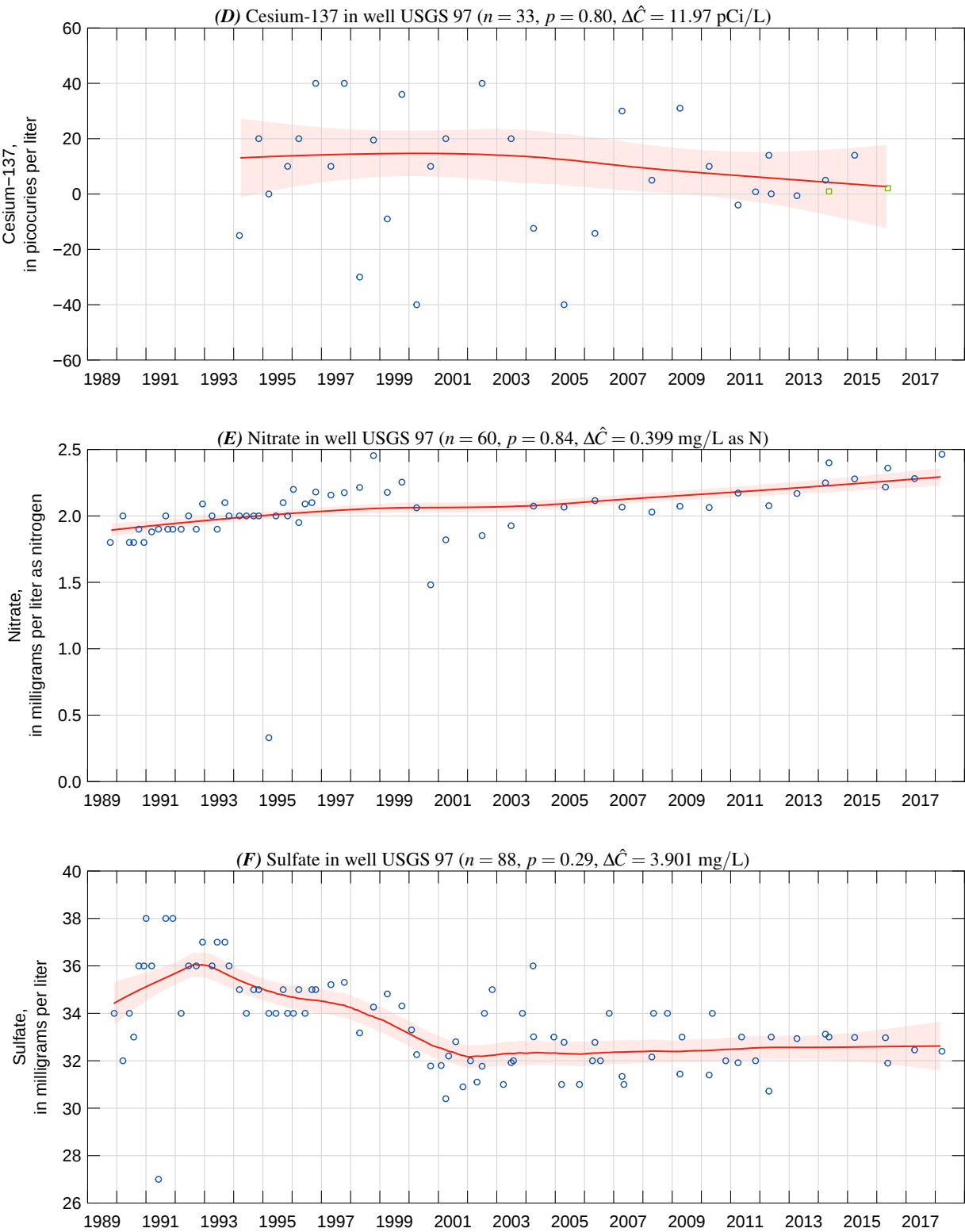


Figure 5.120. —Continued

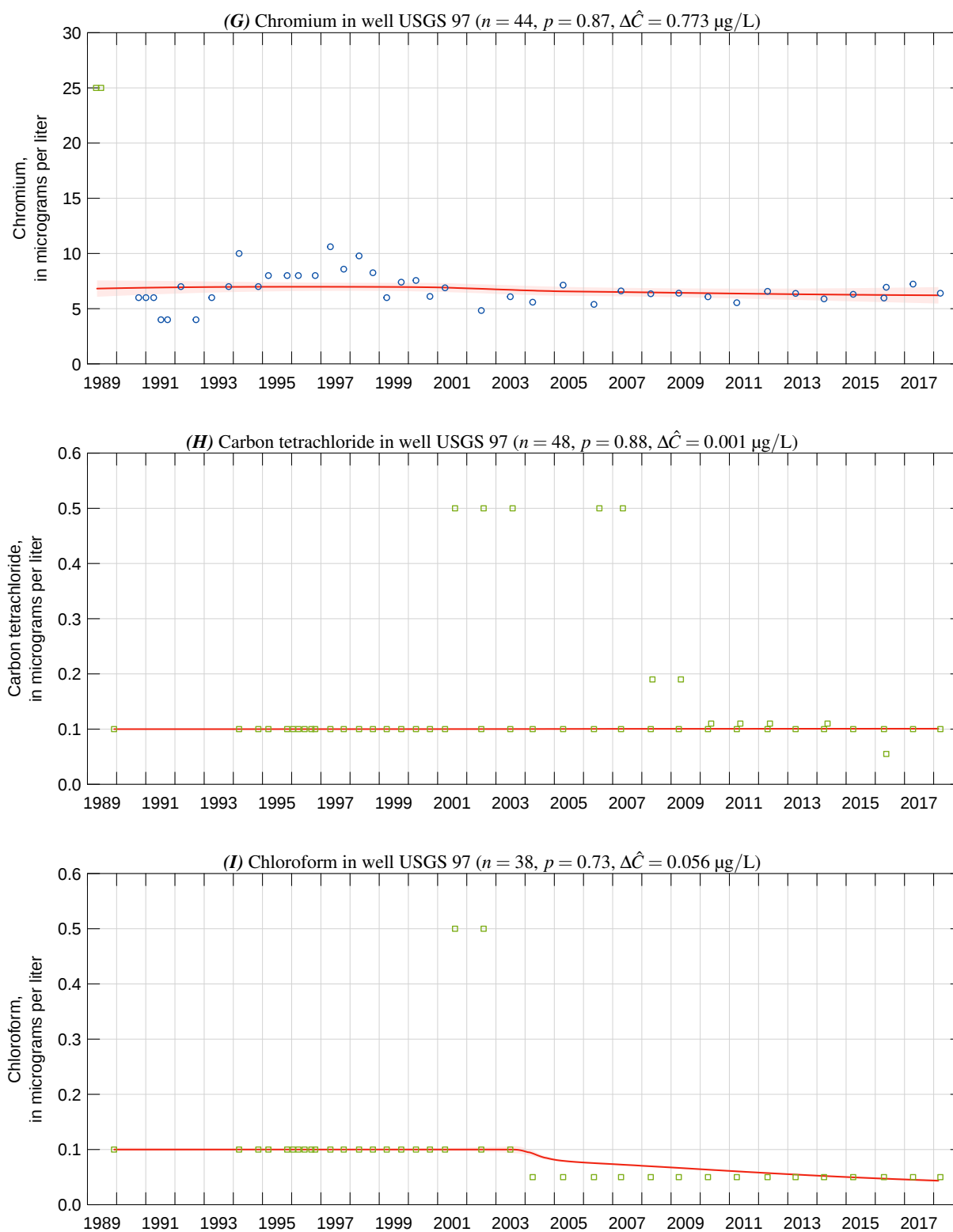


Figure 5.120. —Continued

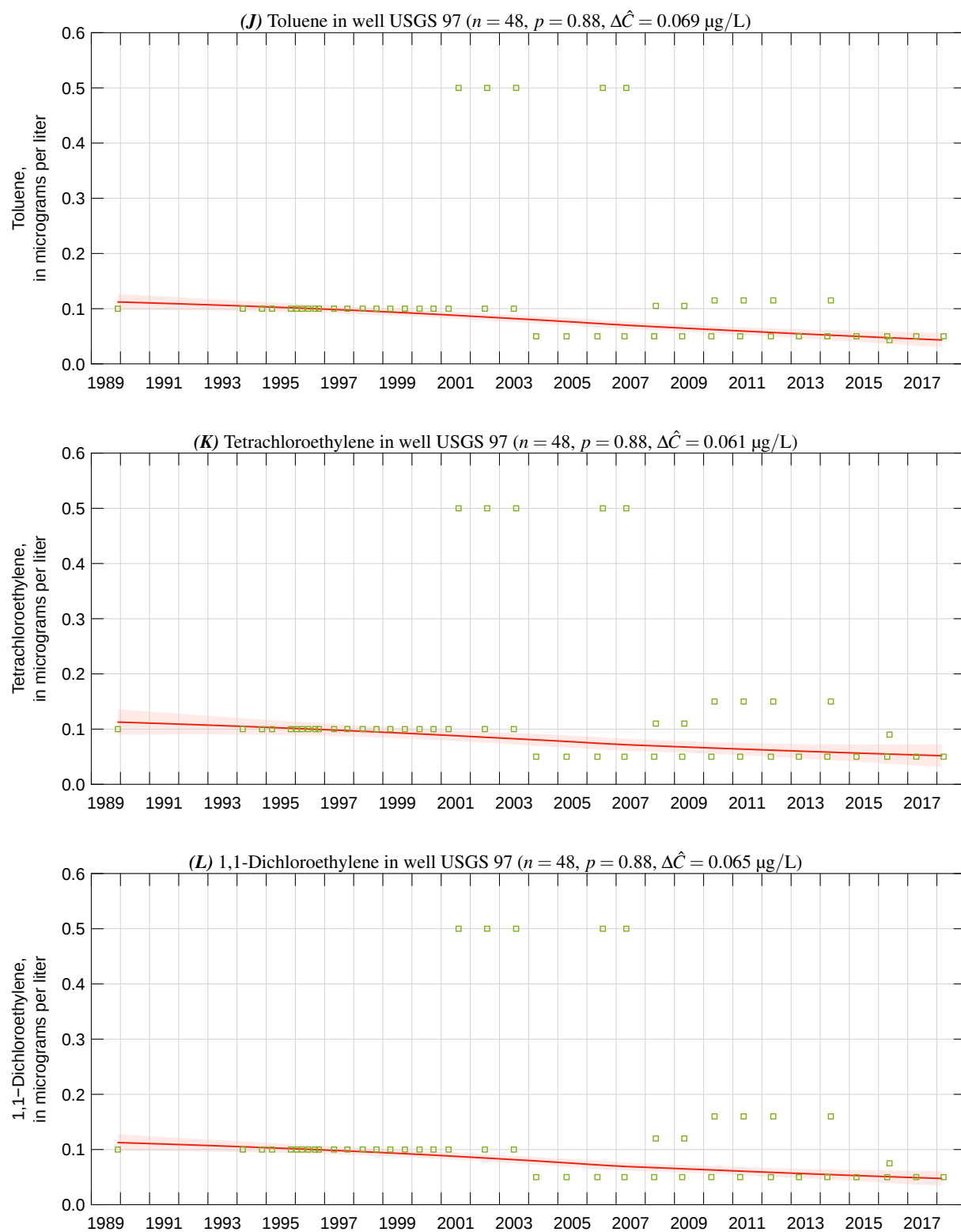


Figure 5.120. —Continued

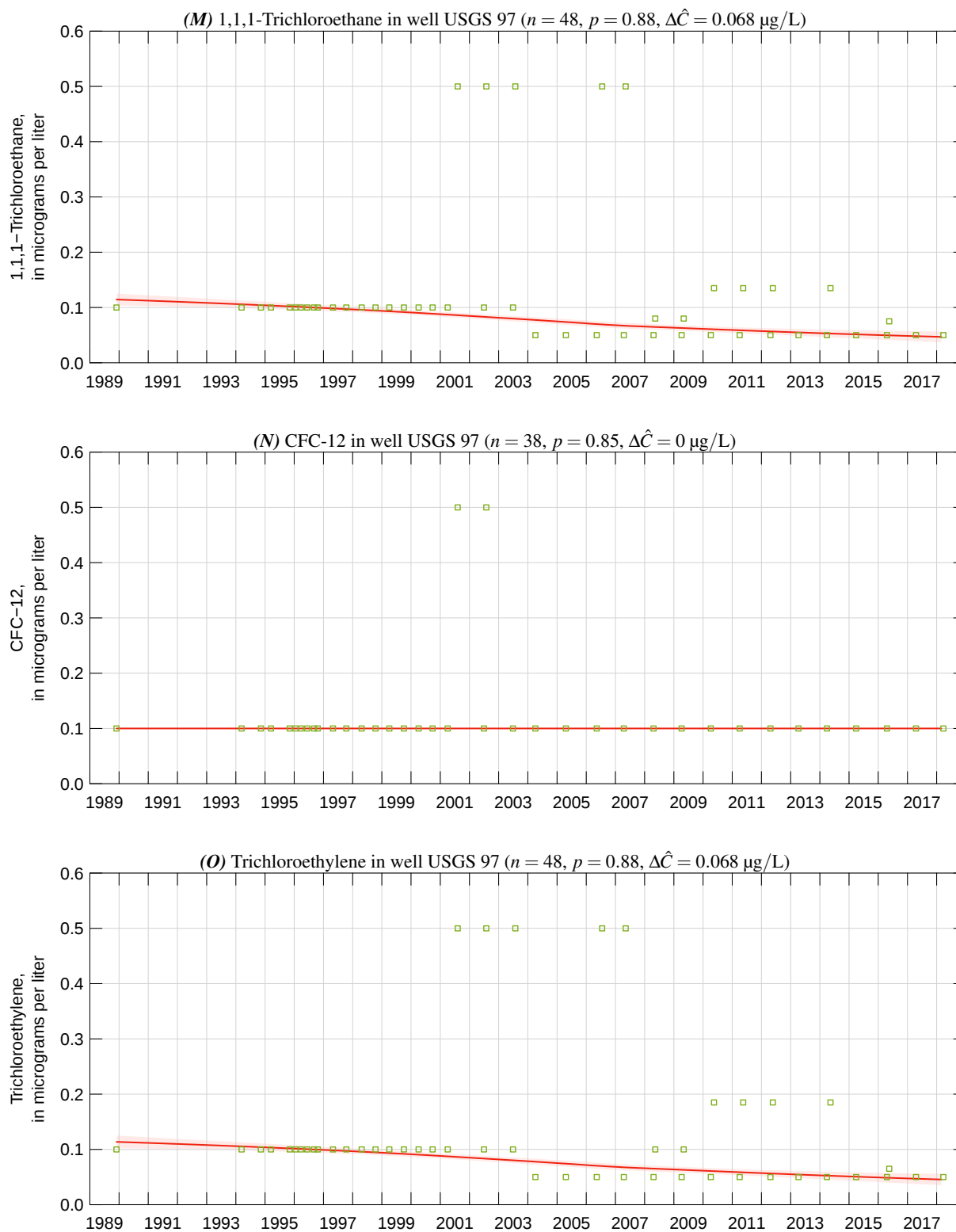


Figure 5.120. —Continued

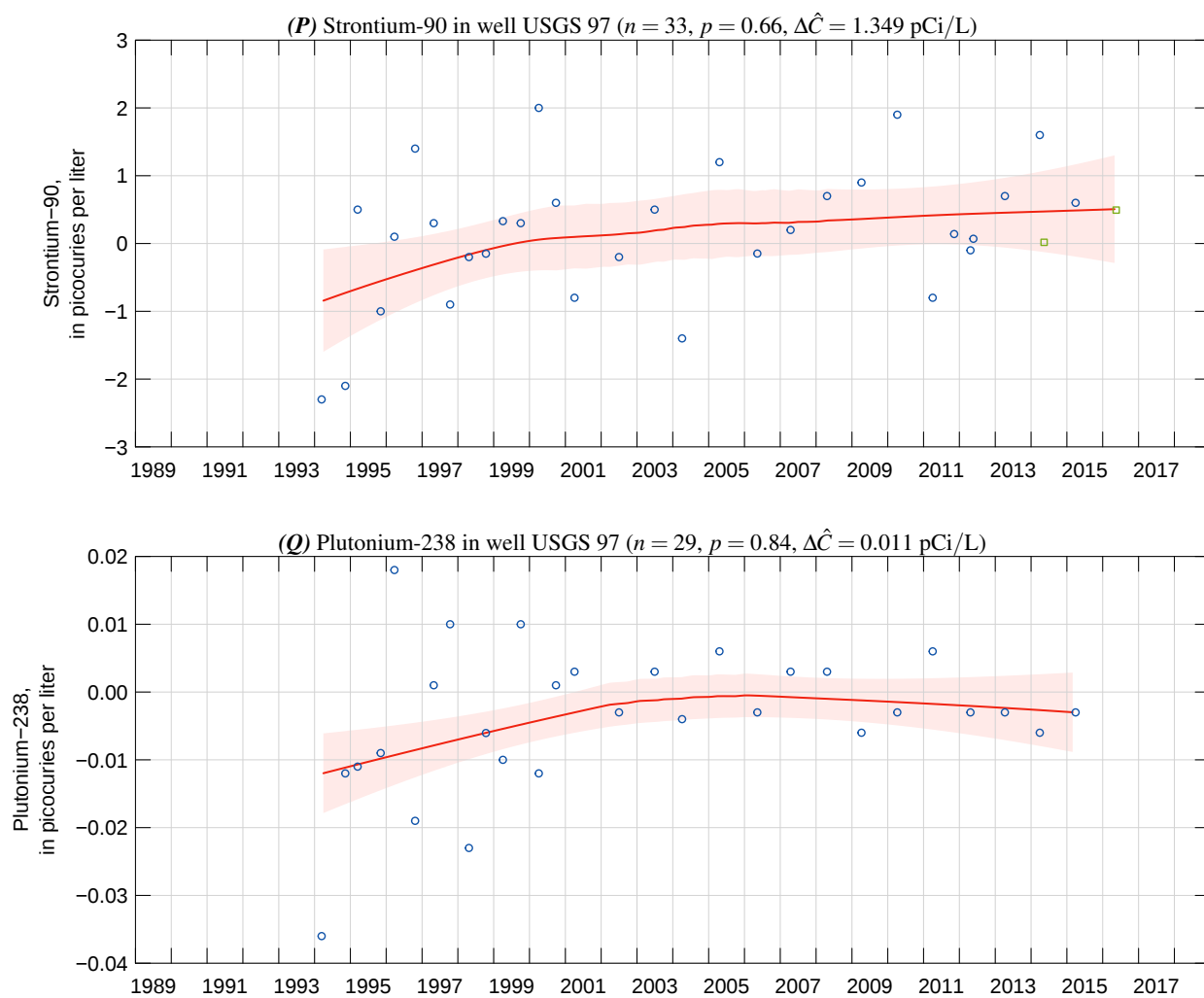


Figure 5.120. —Continued

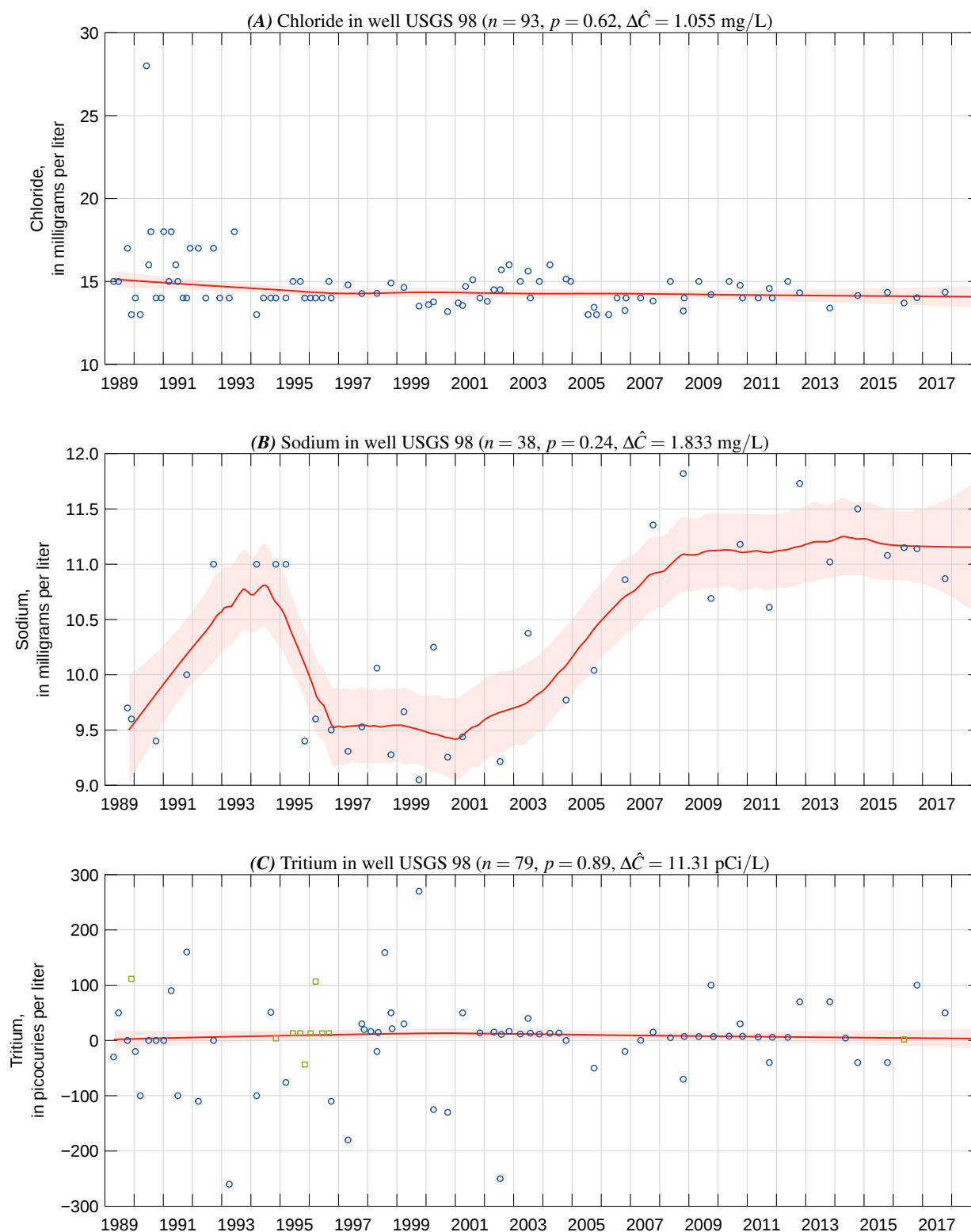


Figure 5.121. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) cesium-137, (E) nitrate, (F) sulfate, (G) chromium, (H) carbon tetrachloride, (I) chloroform, (J) toluene, (K) tetrachloroethylene, (L) 1,1-dichloroethylene, (M) 1,1,1-trichloroethane, (N) cfc-12, (O) trichloroethylene, (P) strontium-90, and (Q) plutonium-238 measured in water samples collected from well USGS 98 (Site No. 433657112563601), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

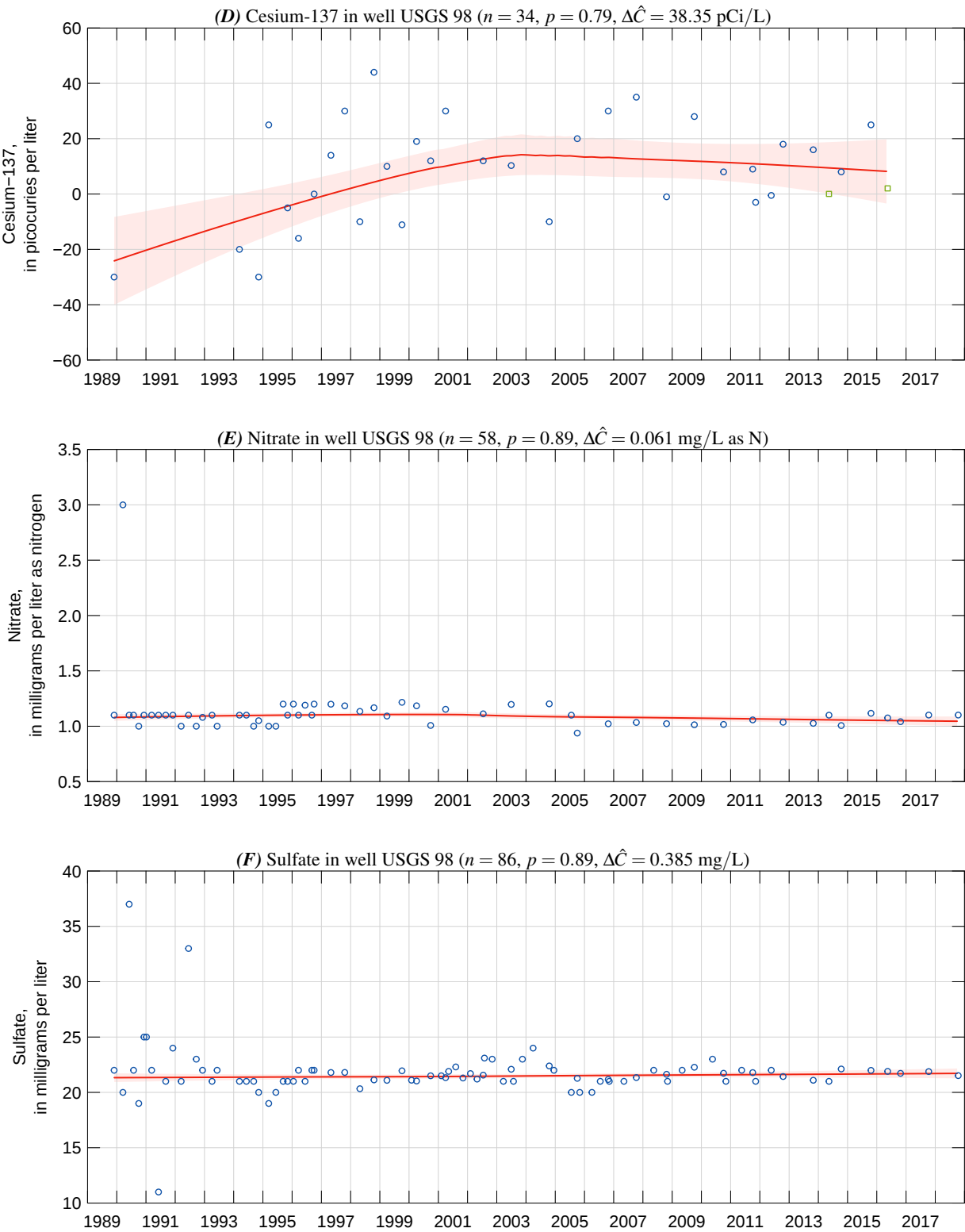


Figure 5.121. —Continued

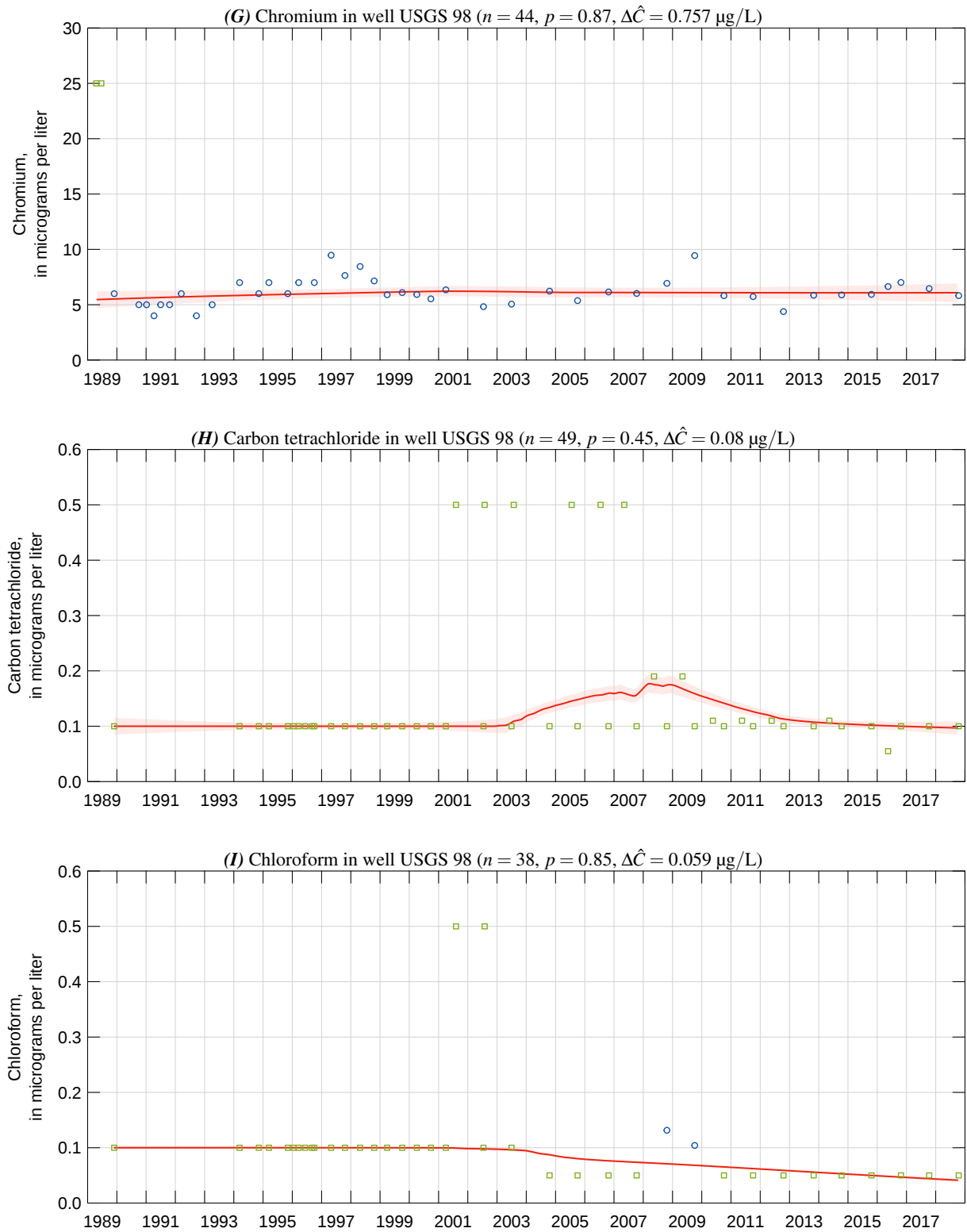


Figure 5.121. —Continued

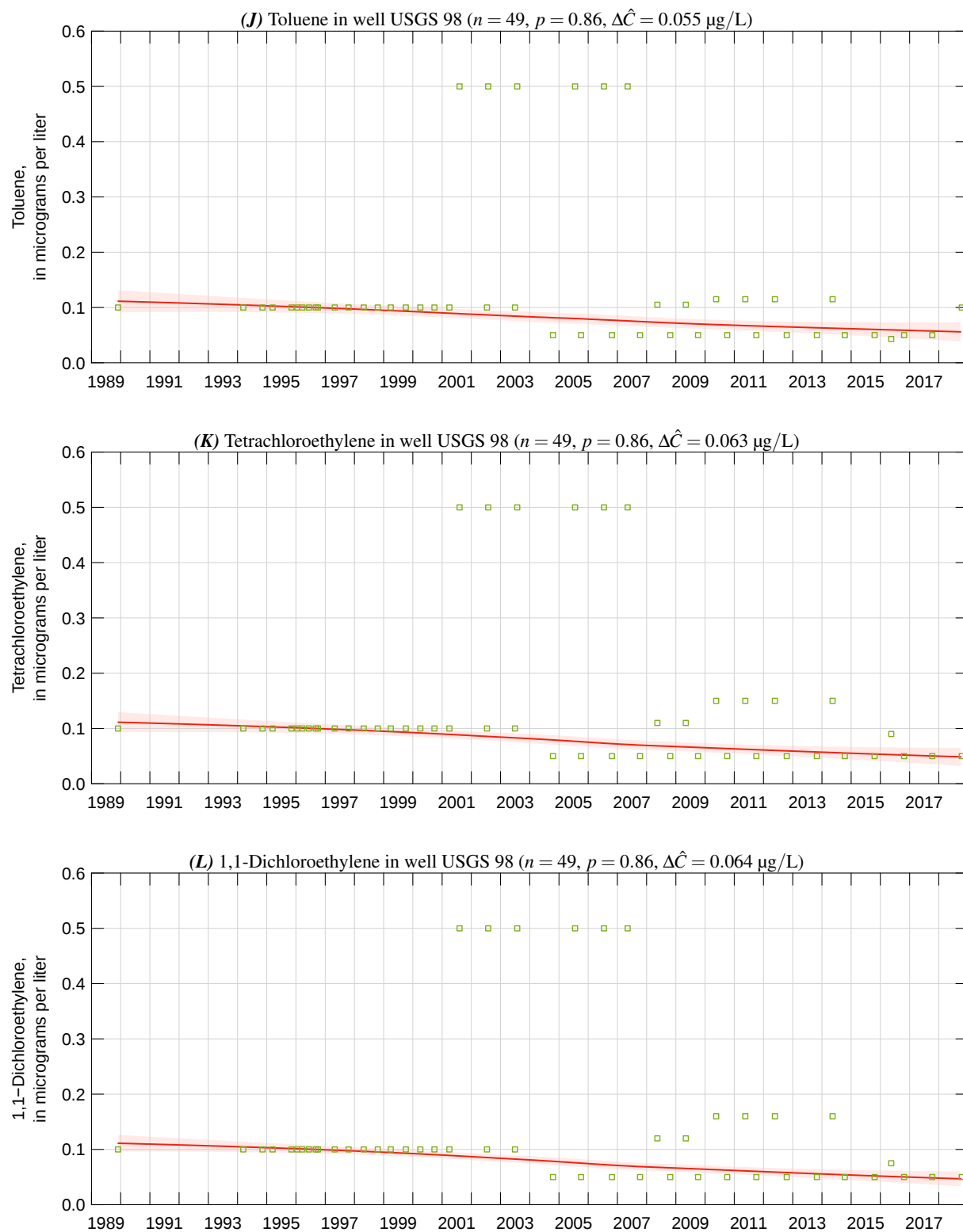


Figure 5.121. —Continued

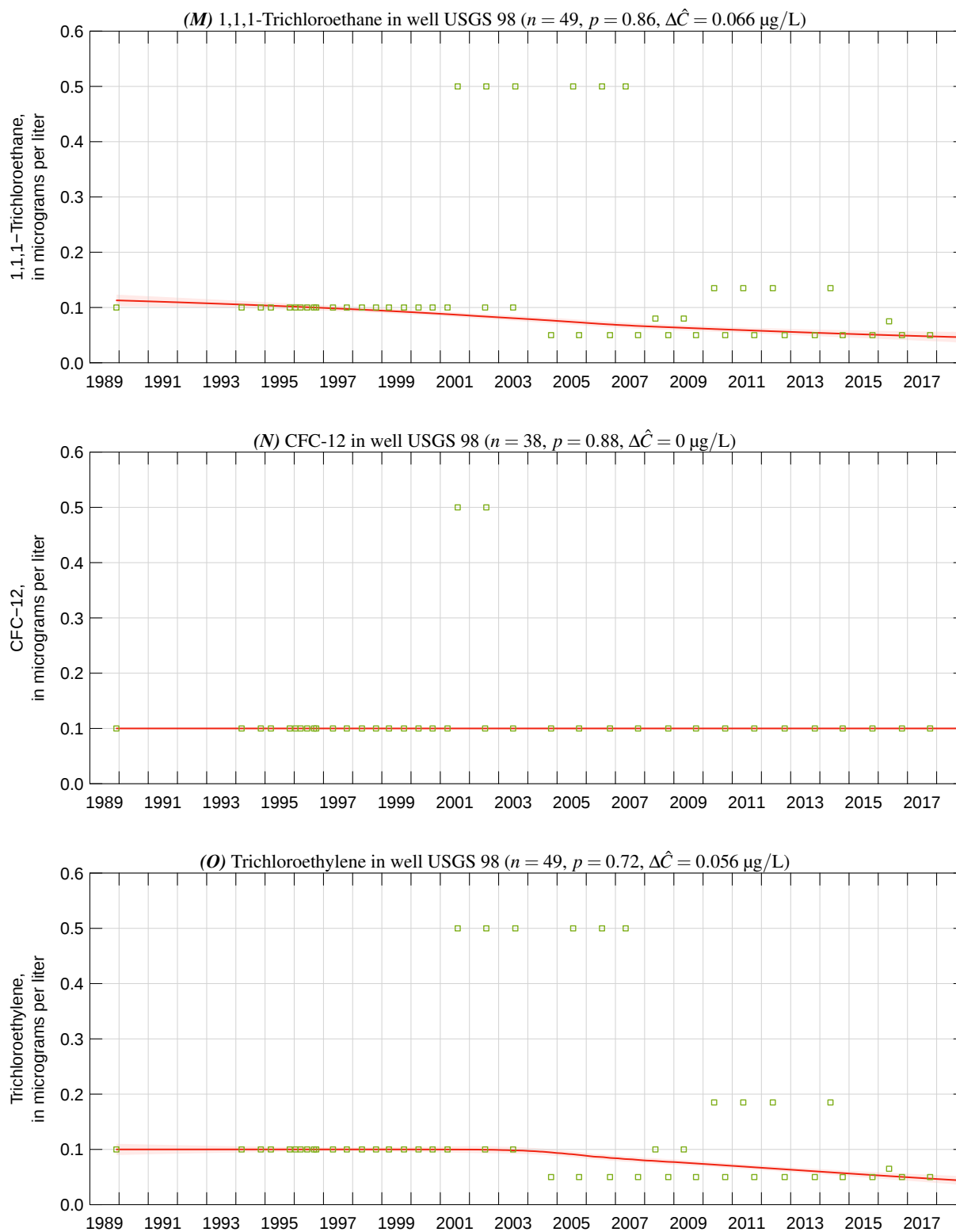


Figure 5.121. —Continued

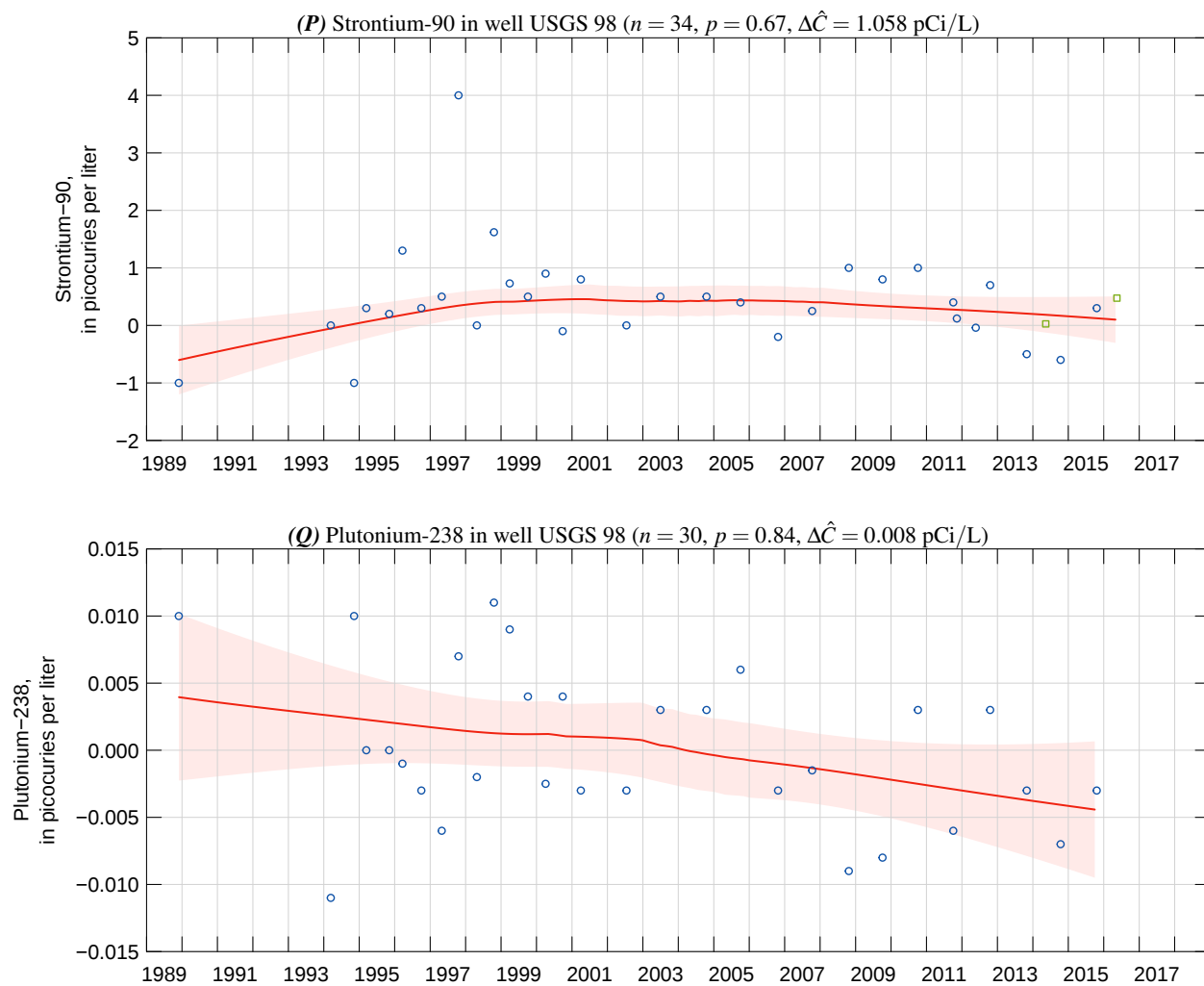


Figure 5.121. —Continued

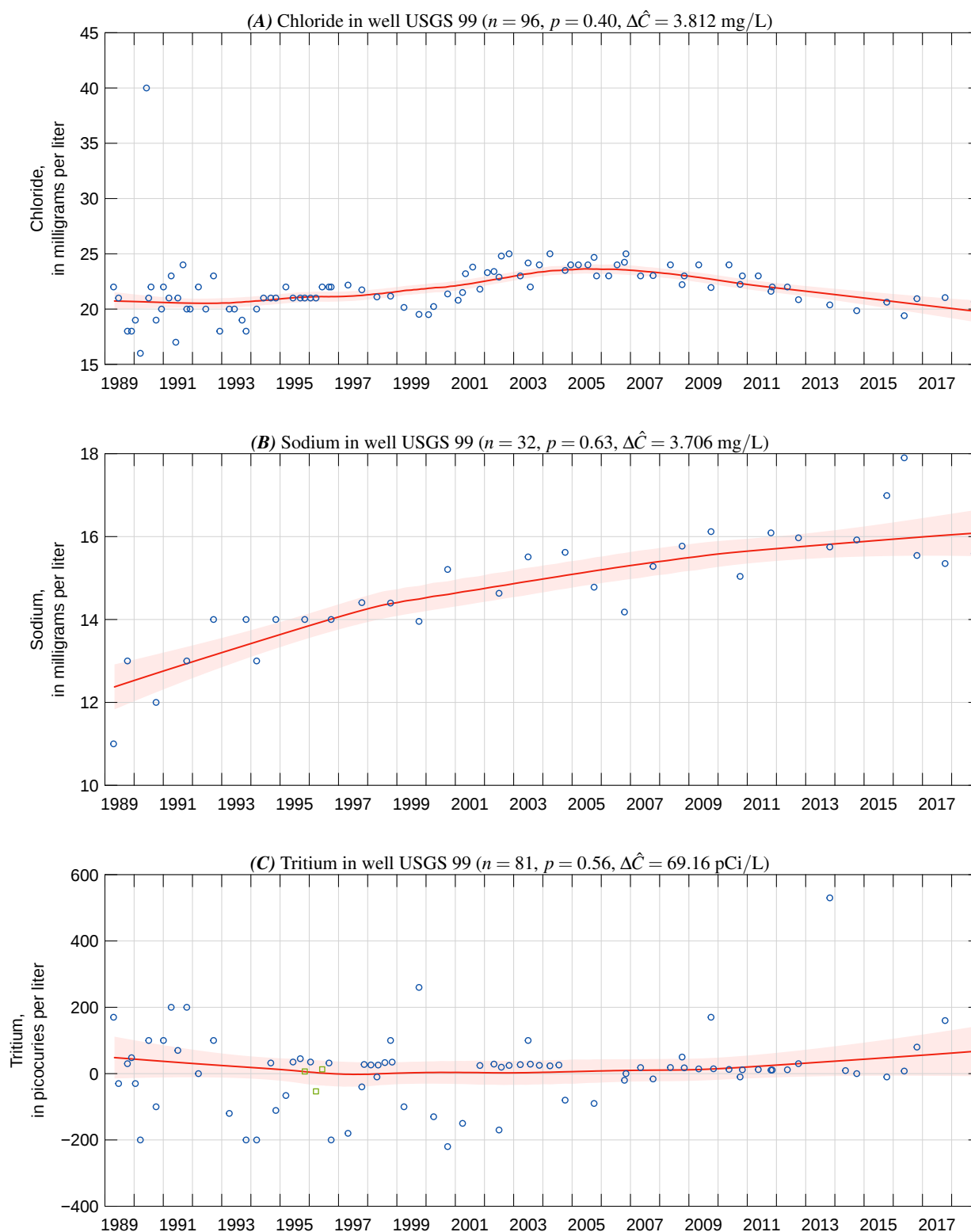


Figure 5.122. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) sulfate, (E) chromium, (F) carbon tetrachloride, (G) toluene, (H) tetrachloroethylene, (I) 1,1-dichloroethylene, (J) 1,1,1-trichloroethane, and (K) trichloroethylene measured in water samples collected from well USGS 99 (Site No. 433705112552101), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

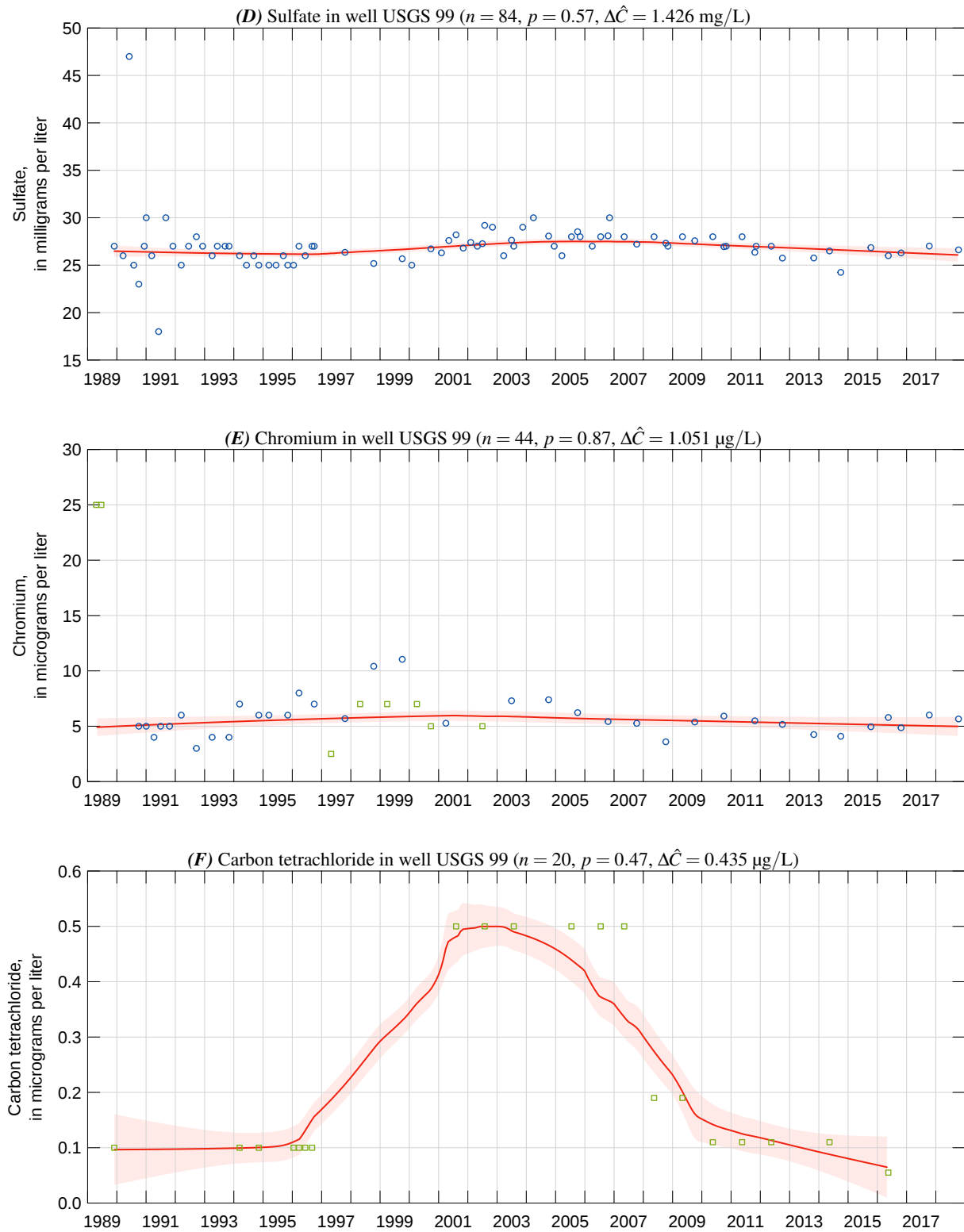


Figure 5.122. —Continued

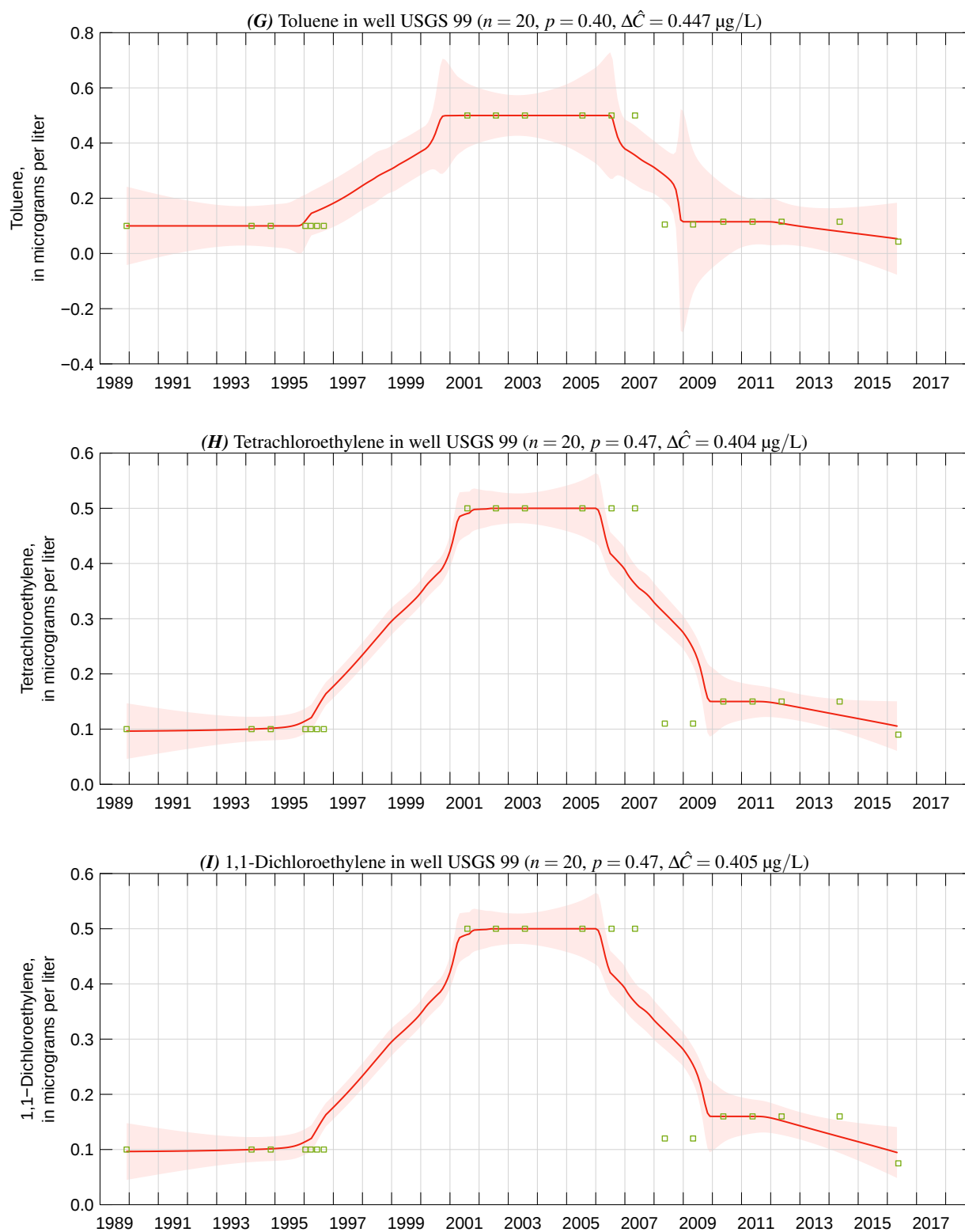


Figure 5.122. —Continued

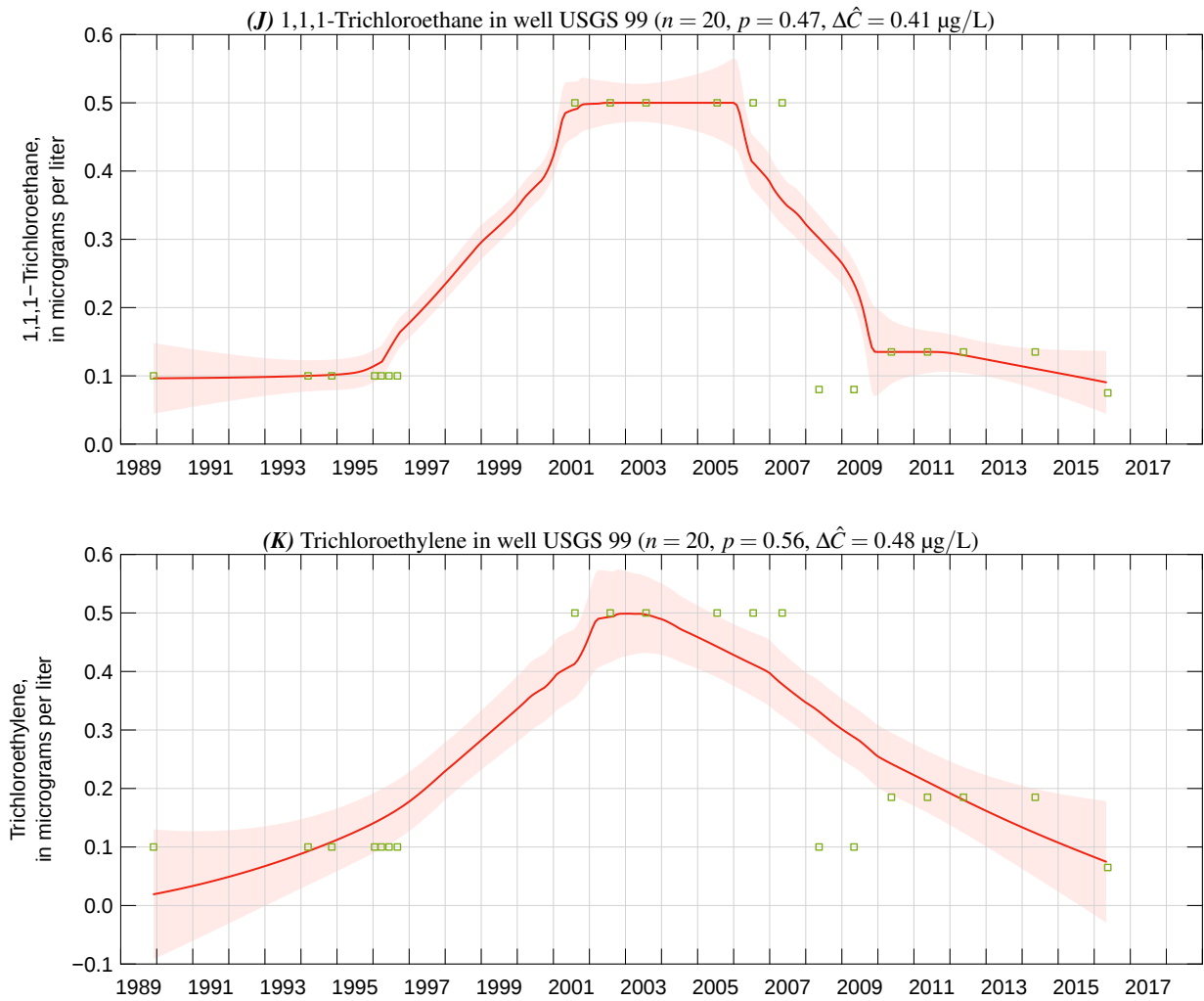


Figure 5.122. —Continued

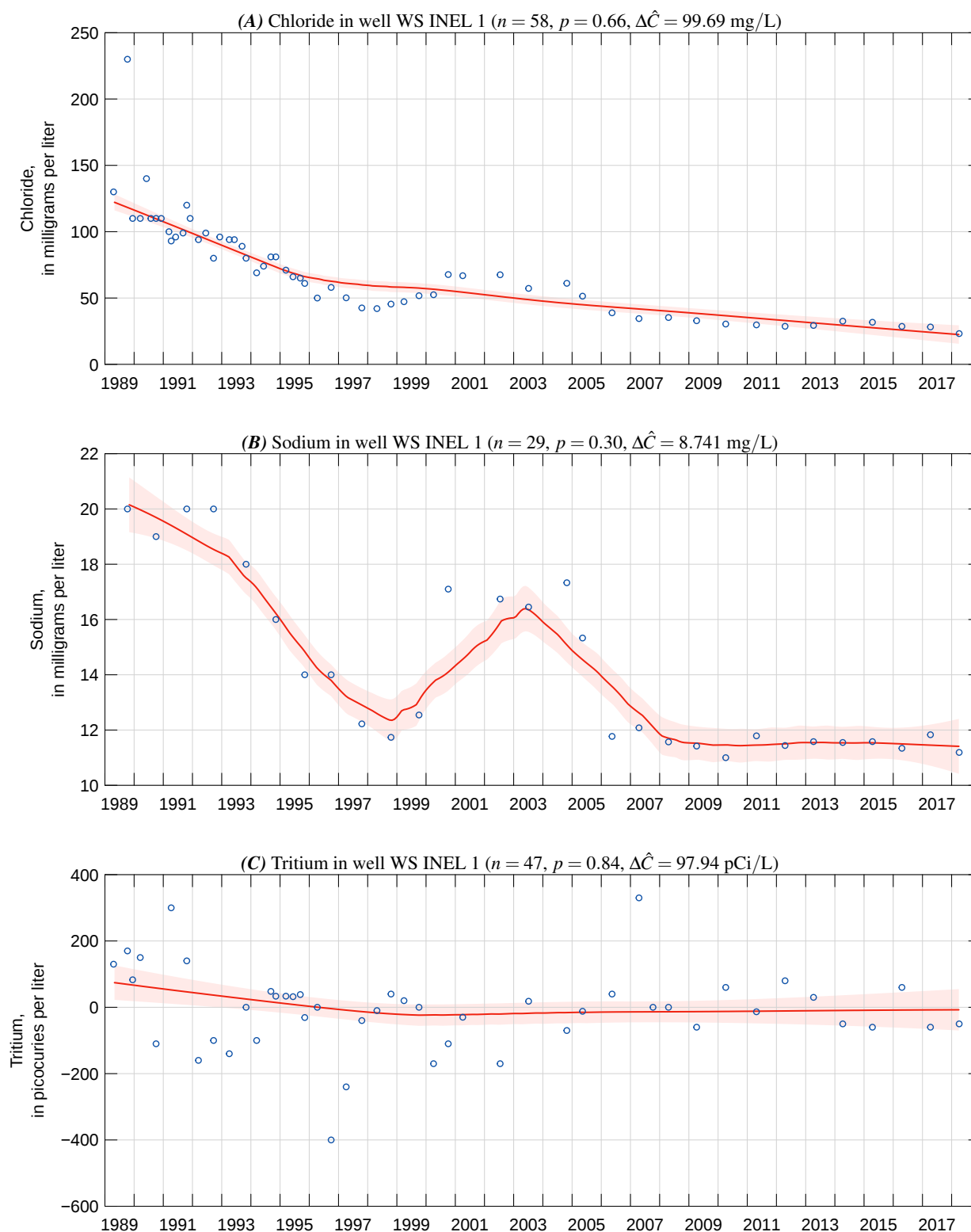


Figure 5.123. Local-regression model fitted to (A) chloride, (B) sodium, (C) tritium, (D) sulfate, and (E) chromium measured in water samples collected from well WS INEL 1 (Site No. 433716112563601), Idaho National Laboratory, Idaho, 1989–2018. Water-quality data from groundwater samples collected on the same day were averaged.

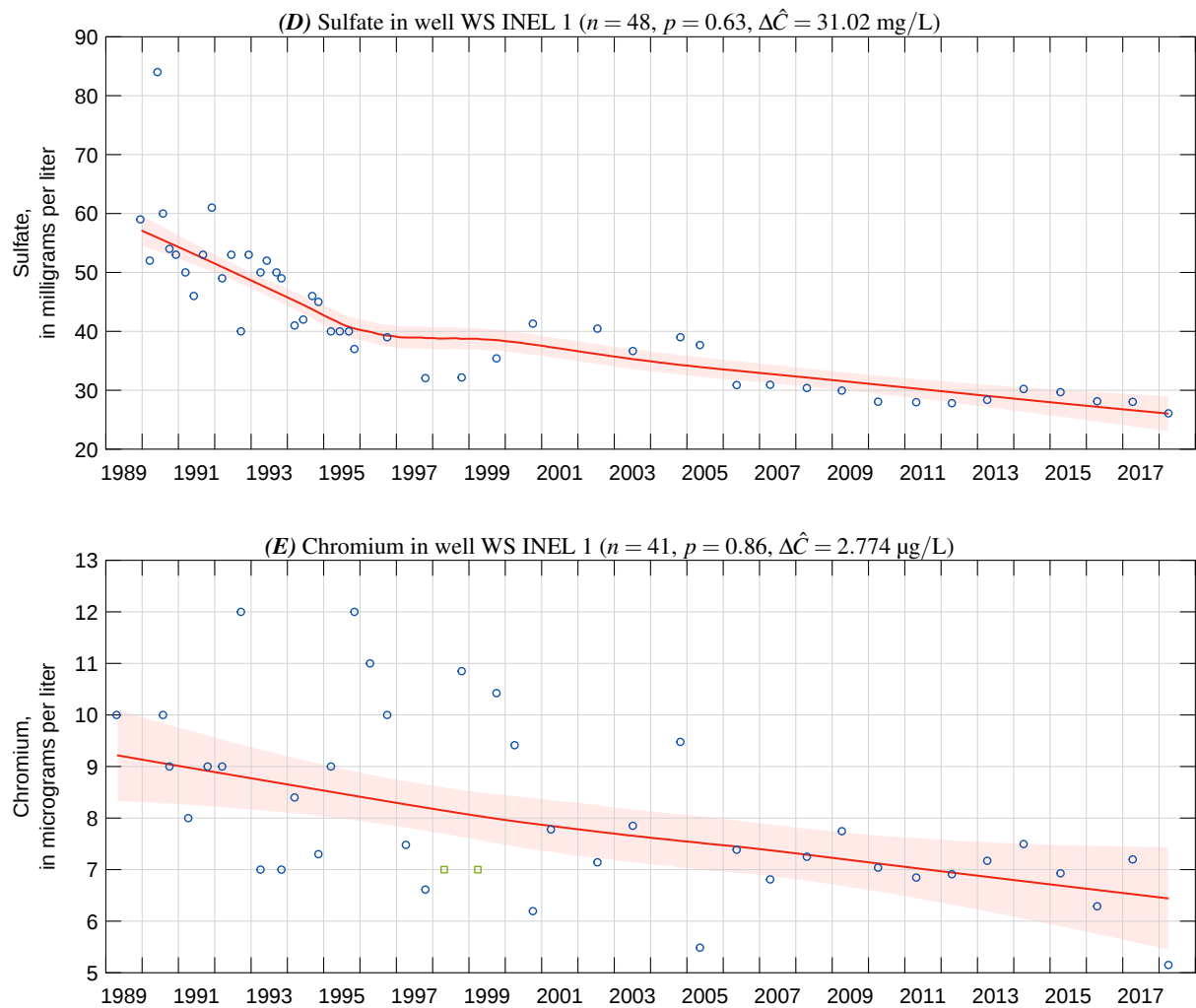


Figure 5.123. —Continued