**Organic Matter Programmer test log – AQUATOXVolumeModel, HMS JSON vs. AQUATOX 3.2**

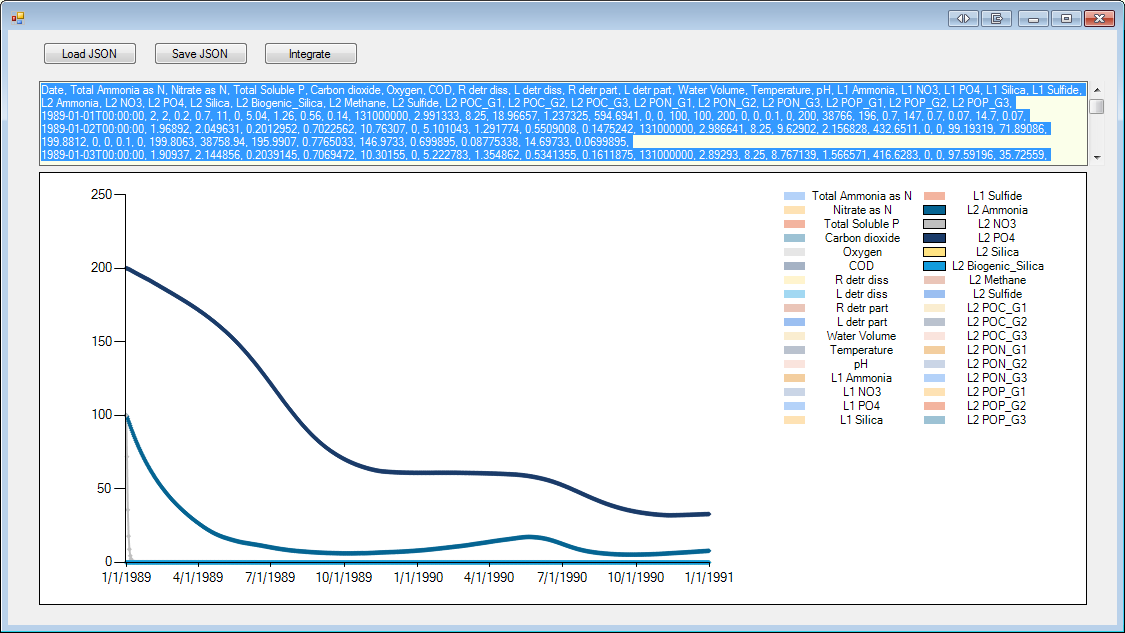
**Diagenesis “simple” mode (no linkage to plants or animals) 6/29/2019**

AQUATOX 3.2 file**: Onondaga\_Diagenesis\_NoStrat\_NoBiota.aps**

HMS Input file: **Onondaga\_Diagenesis\_NoStrat\_NoBiota.JSON**

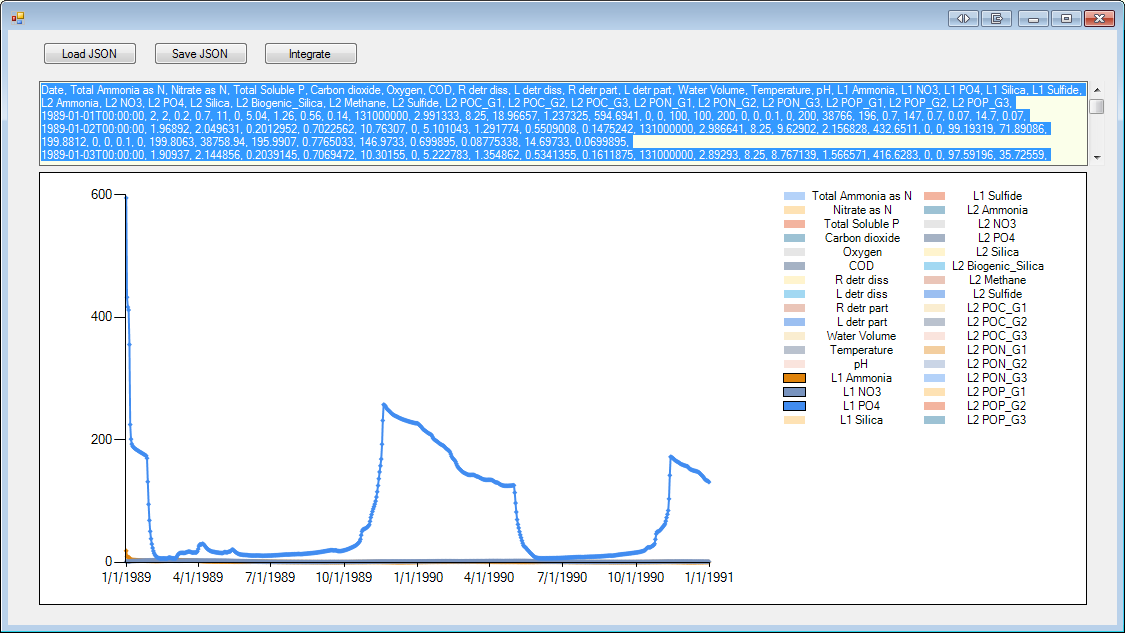
All state variables match precisely by eye and precisely based on Excel calculations: **Fixed\_SSOnondaga\_Diagenesis\_NoStrat\_NoBiota\_Table.xlsx**

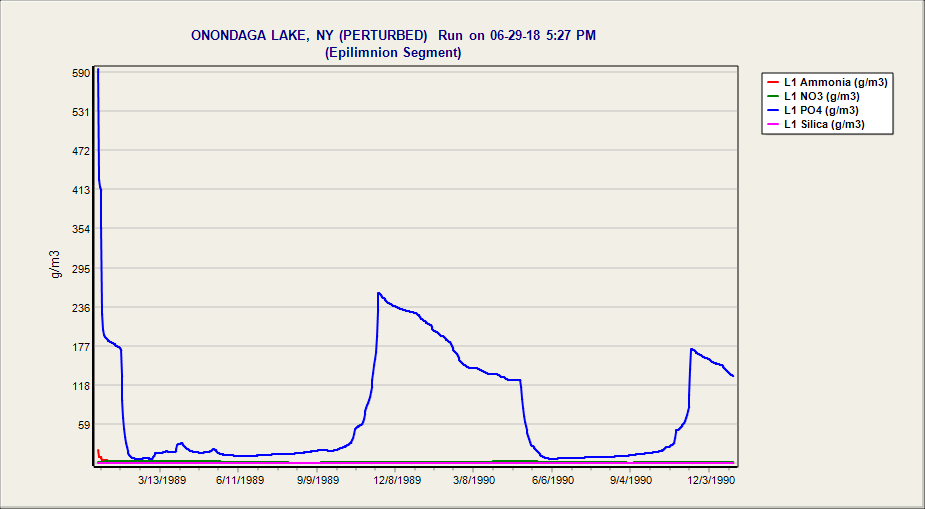
Layer 2 nutrients:



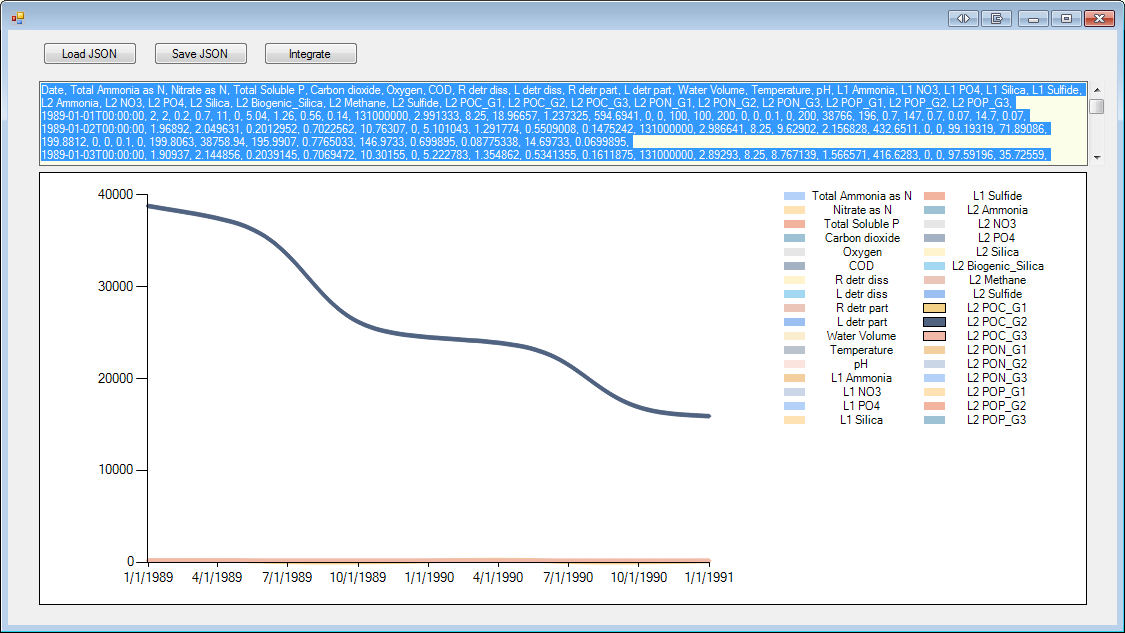
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**Layer 1—steady state nutrients**





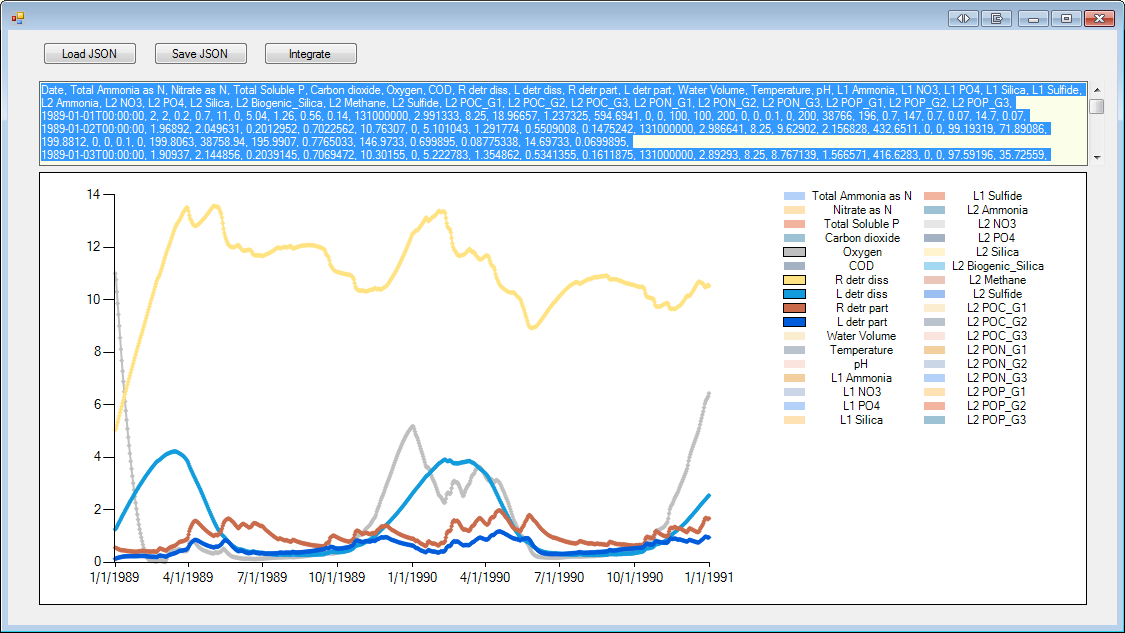
**Layer 2 -- POC**



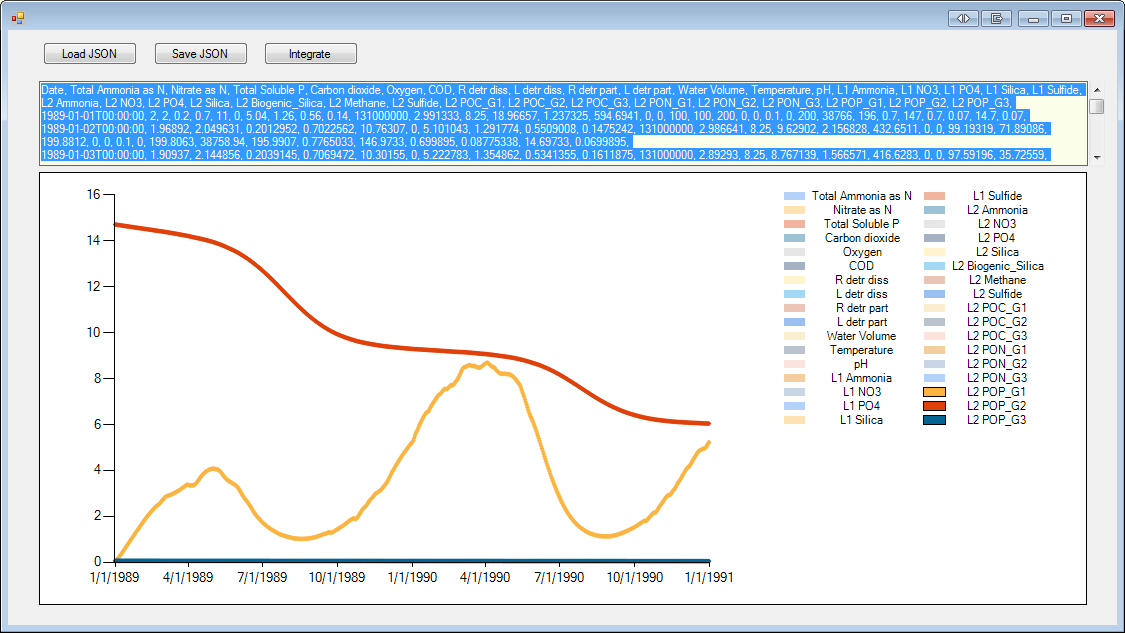
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**Waer column Detritus and Oxygen that interacts via SOD from diagenesis layers**

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**Sediment Layer 2, POP**

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**Nutrients that interact with mineralization and release from sediment layer**

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