

APPENDICES A - I

2020 Annual Maximum Benefits Monitoring Program Report

for the

**Beaumont, San Timoteo and Yucaipa Groundwater
Management Zones**

in the

Upper Santa Ana River Basin

APPENDIX A

**Hydrographs of Groundwater Elevations at Wells in the
Yucaipa Groundwater Management Zone**

APPENDIX A

Groundwater Elevation Hydrographs for the Yucaipa Groundwater Management Zone

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Groundwater Elevation at Well BV 5th Ave. 1 (BVMWC)

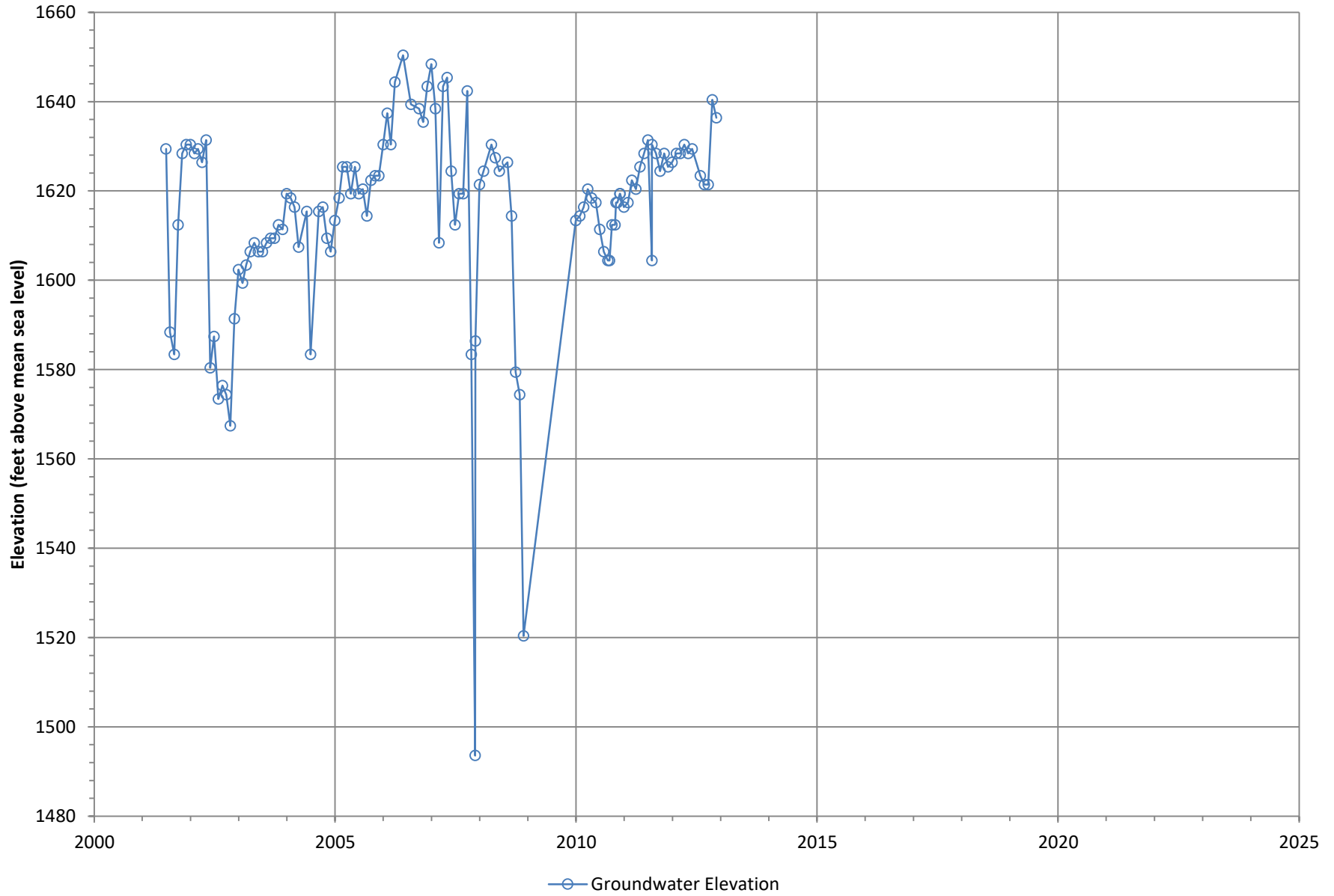


Figure A-1

Groundwater Elevation at Well Chicken Hill (CHICKNH4)

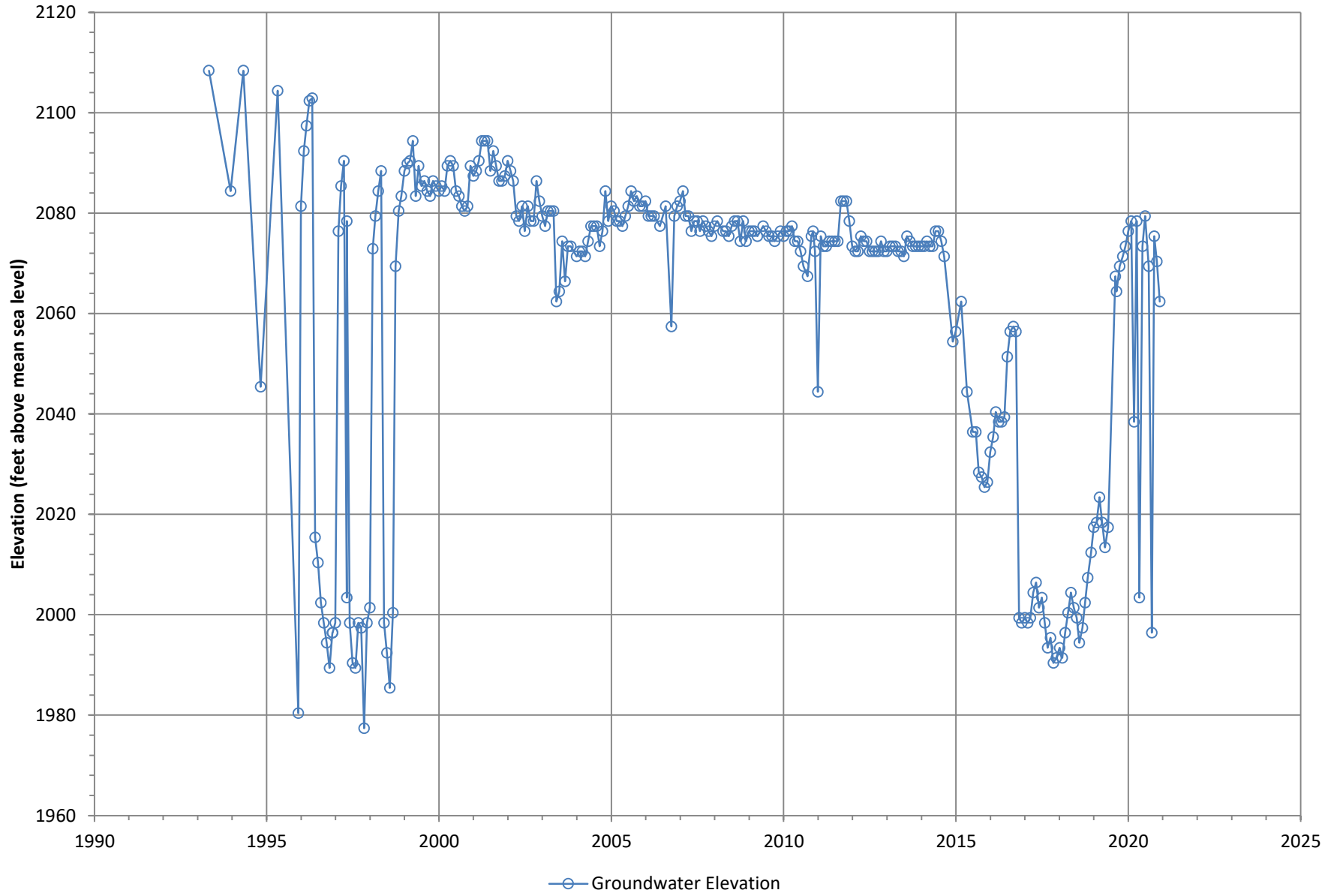


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Groundwater Elevation at Well Hog Canyon 2 (HOG CYN 2)

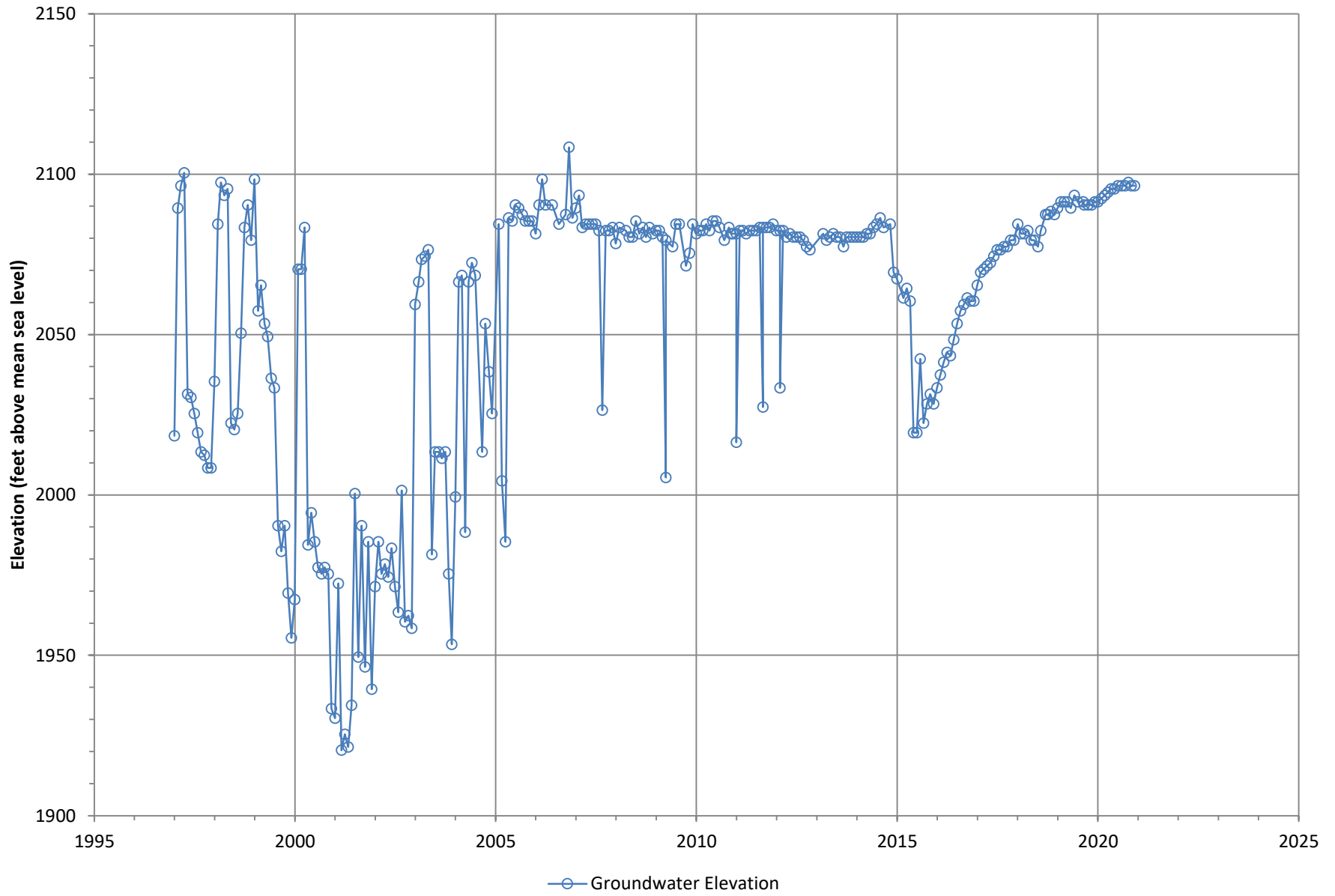


Figure A-3

Groundwater Elevation at Well Redlands 10

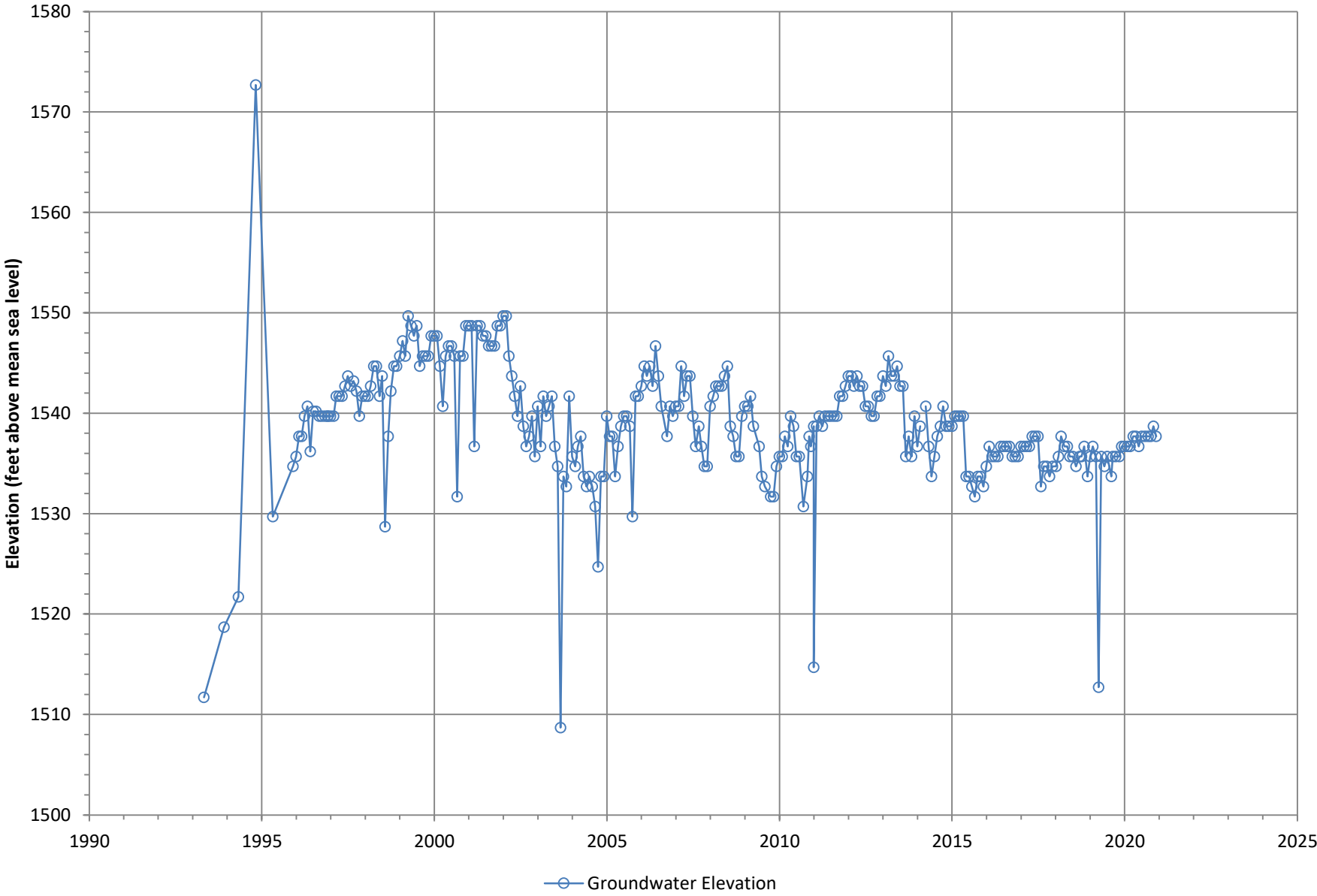


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Groundwater Elevation at Well Redlands 11

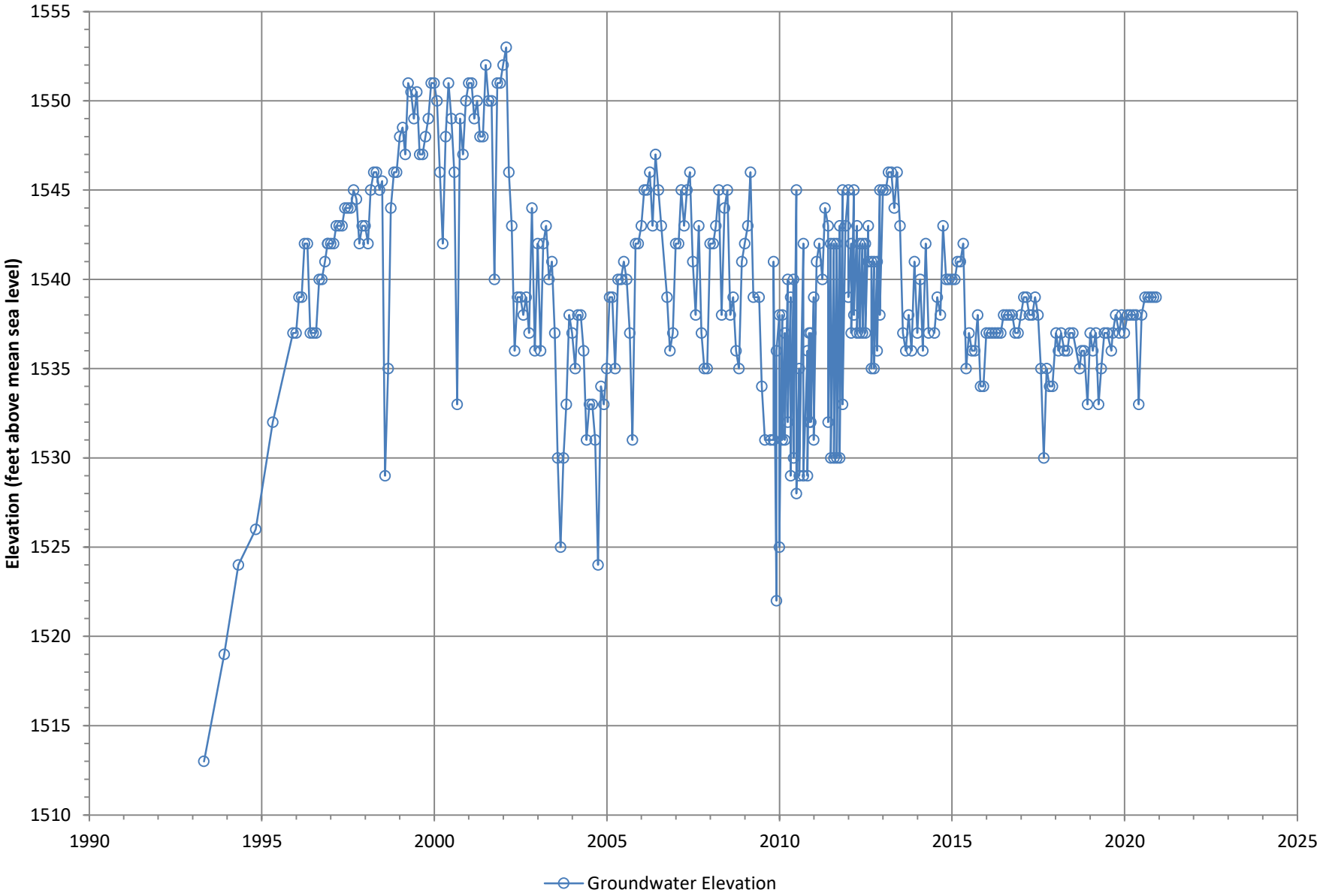


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Groundwater Elevation at Well Redlands 12

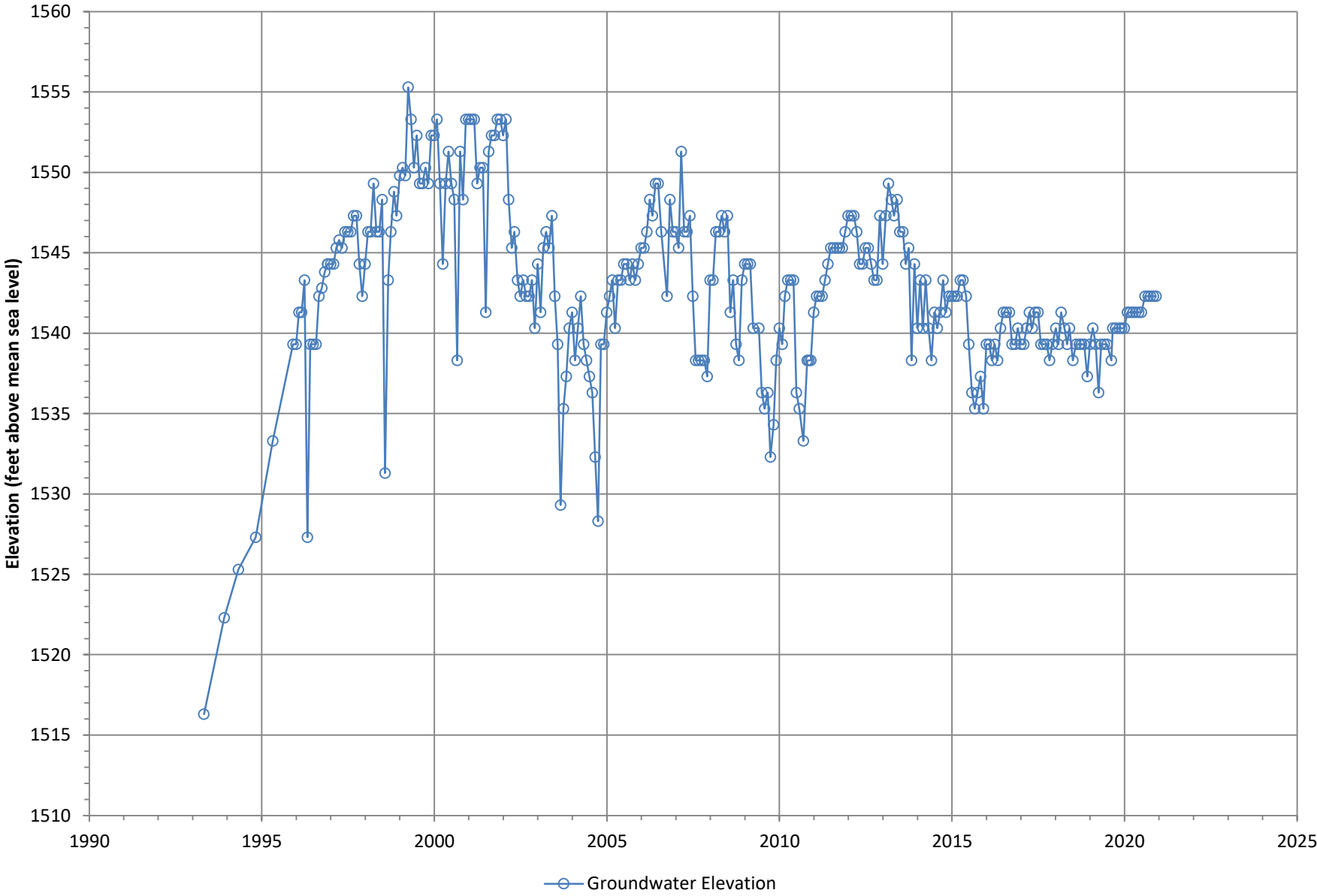


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Groundwater Elevation at Well Redlands 13

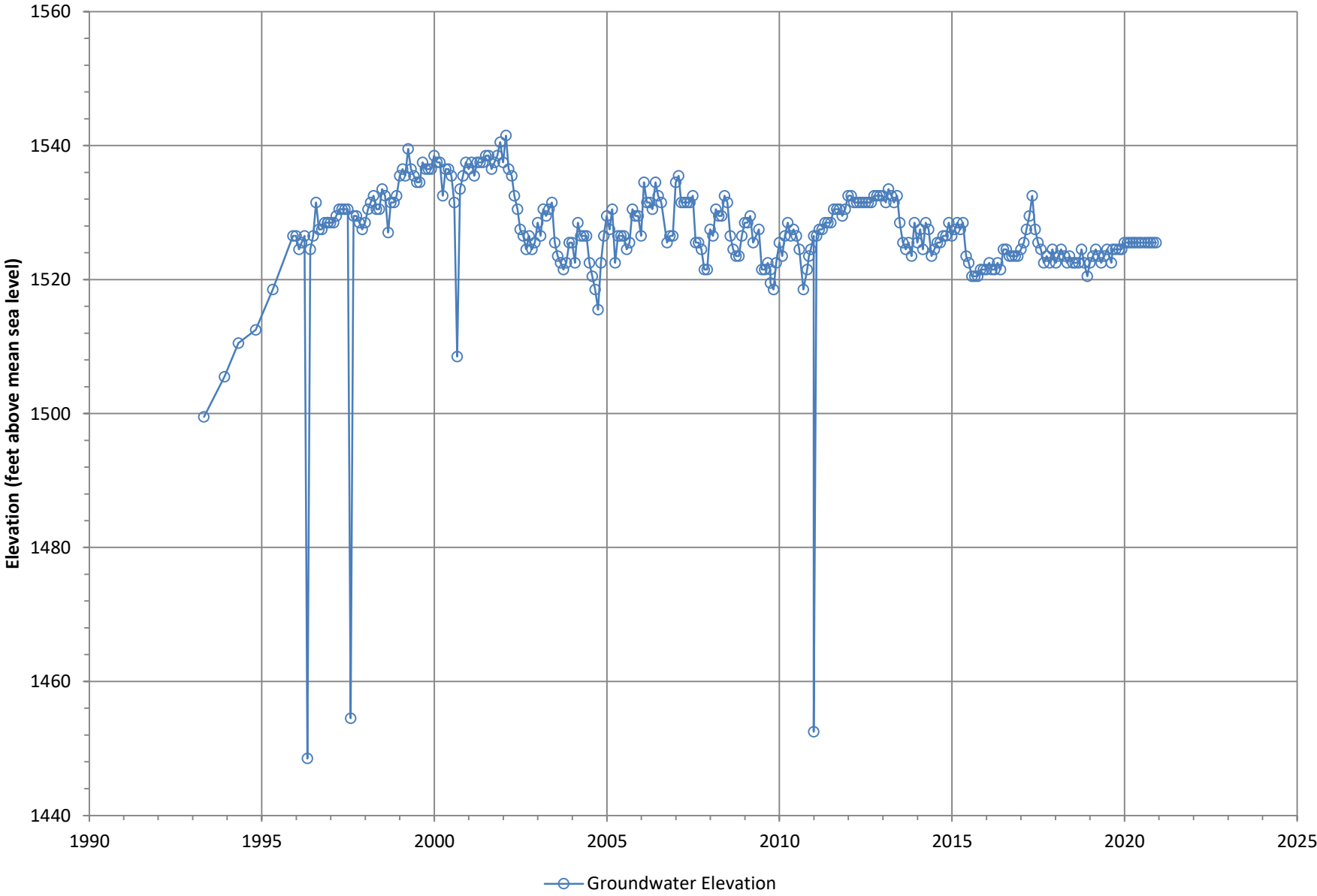


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Groundwater Elevation at Well Redlands 14

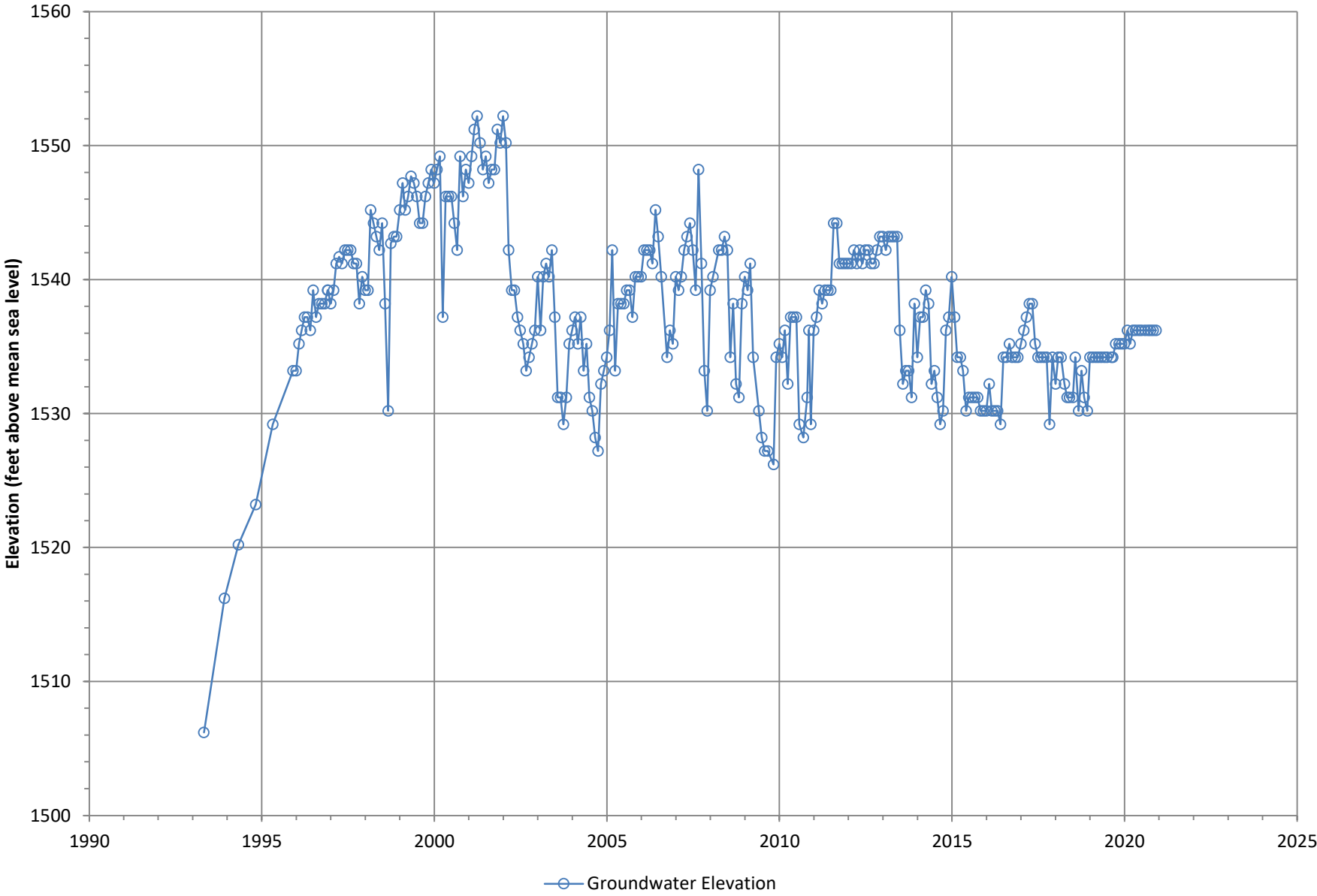


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Groundwater Elevation at Well Redlands 16

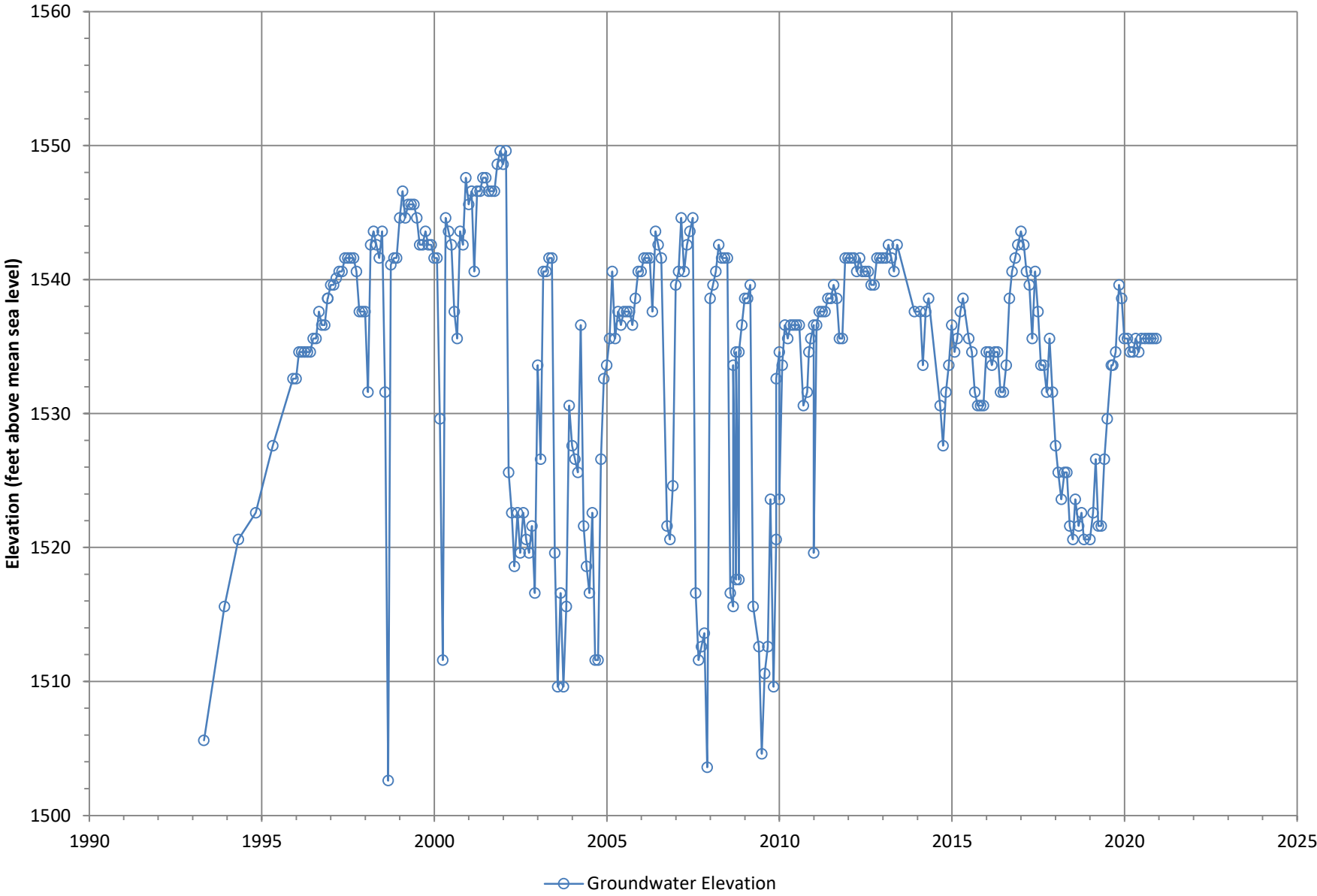


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Groundwater Elevation at Well Redlands 36

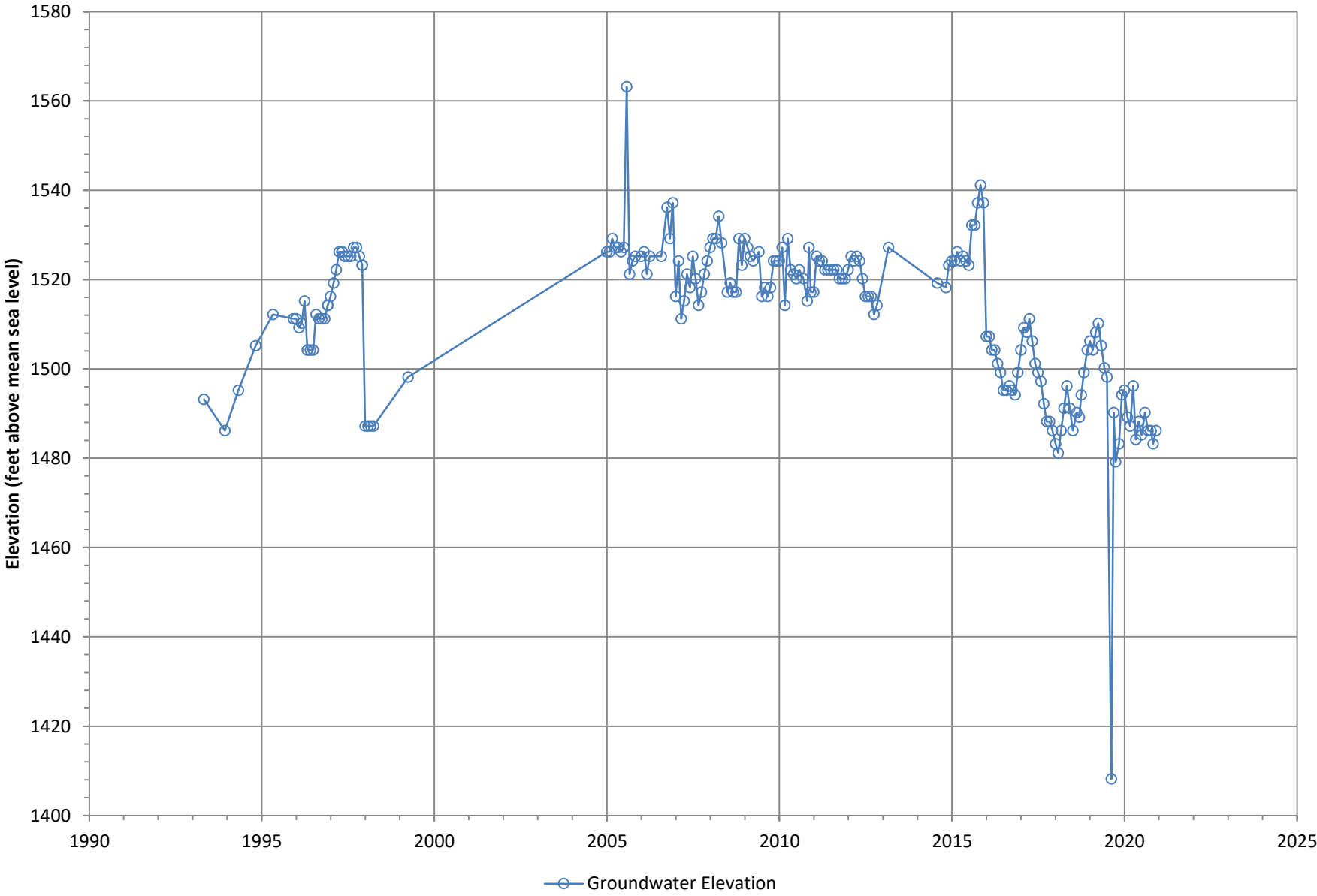


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Groundwater Elevation at Well Redlands Heights

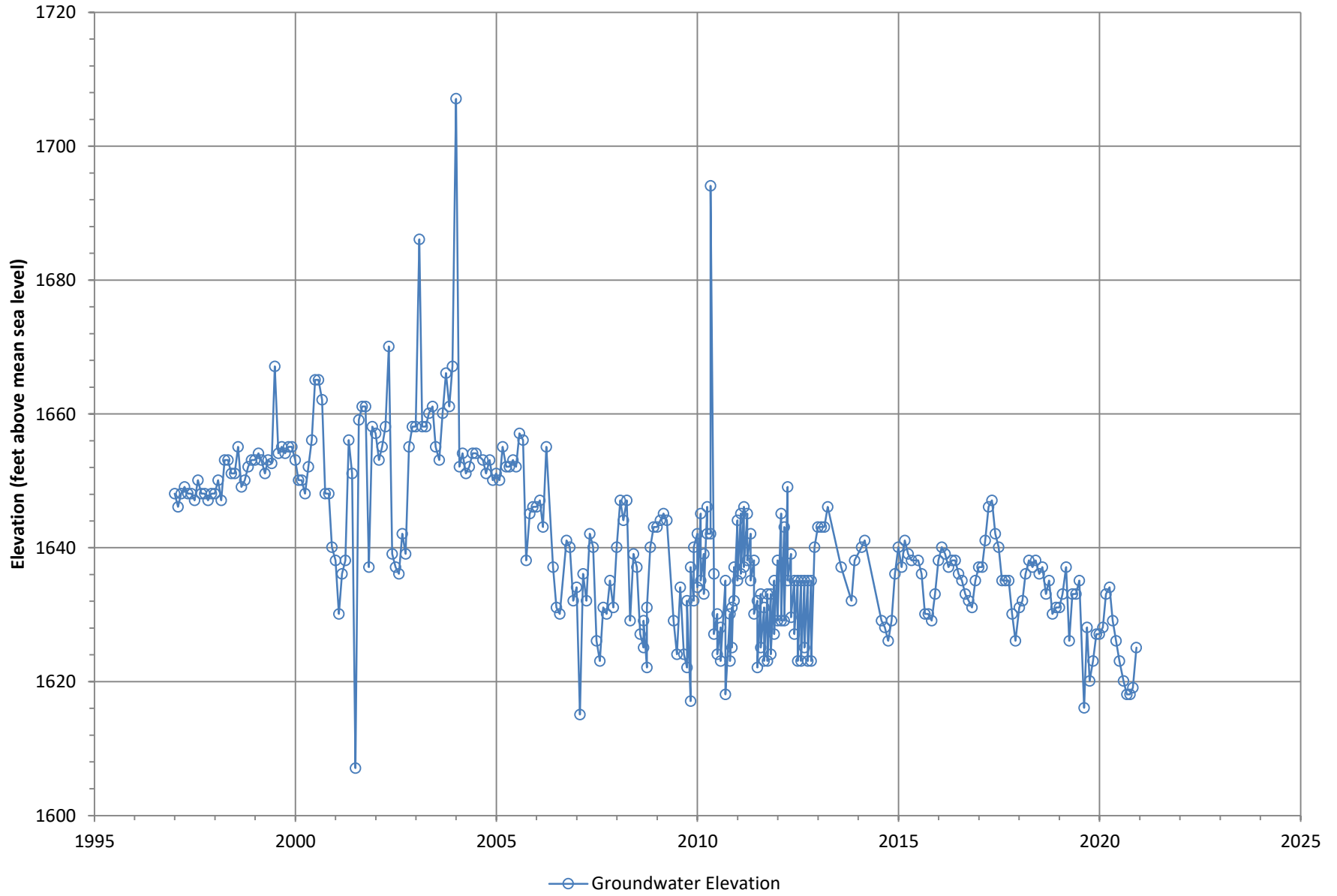


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Groundwater Elevation at Well Y-02 (County of San Bernardino)

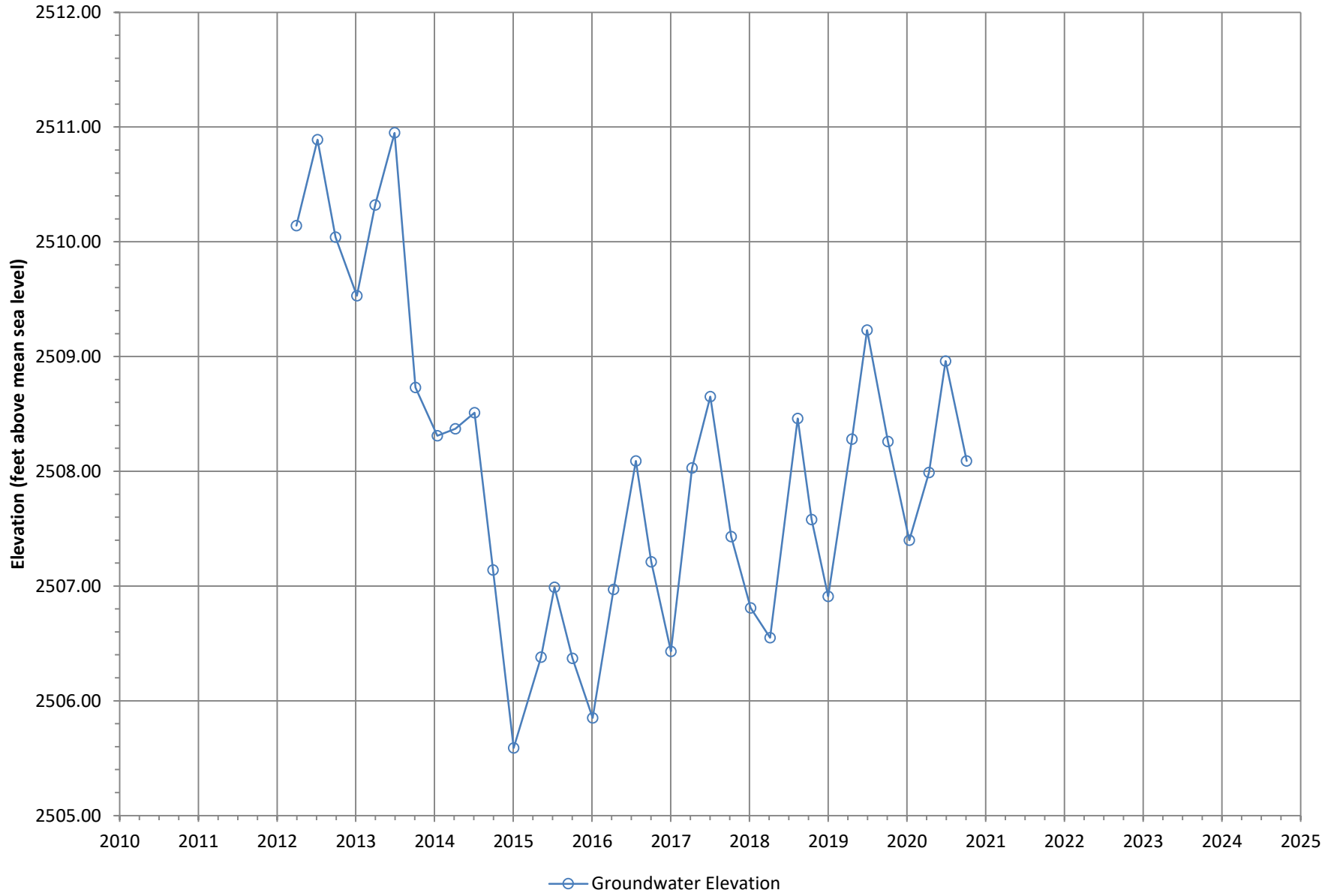


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Groundwater Elevation at Well Y-03 (County of San Bernardino)

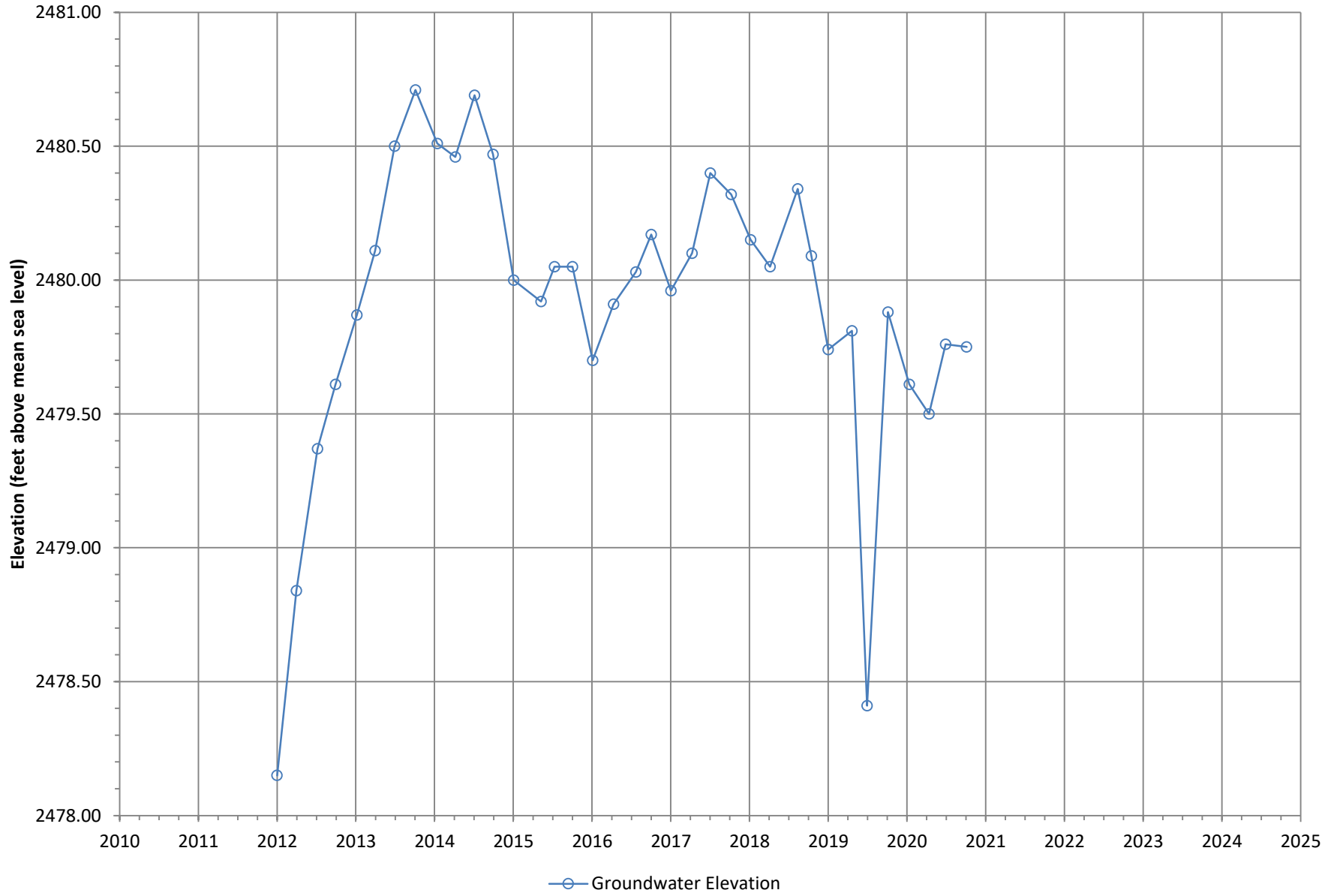


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Groundwater Elevation at Well Y-04 (County of San Bernardino)

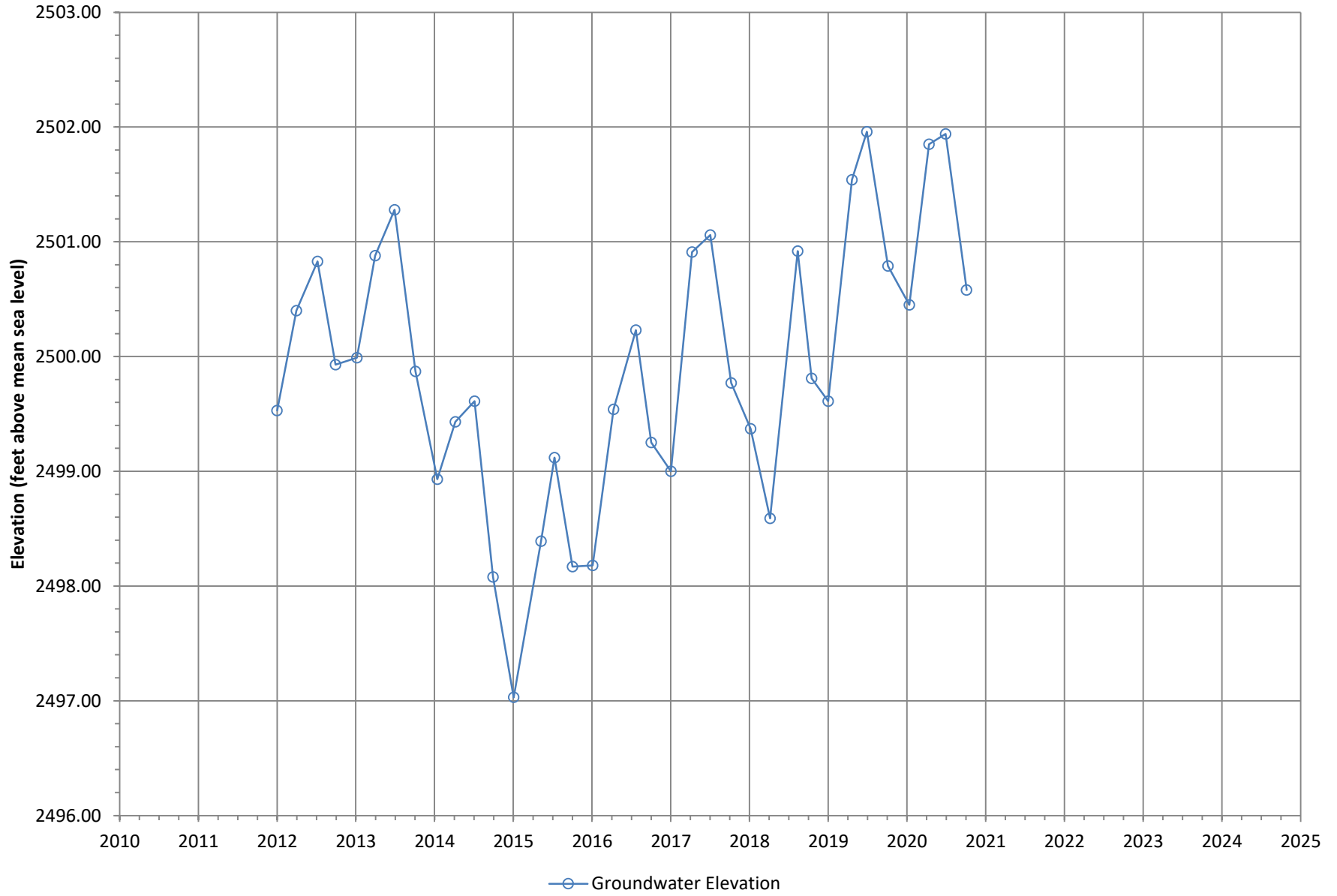


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Groundwater Elevation at Well Y-05 (County of San Bernardino)

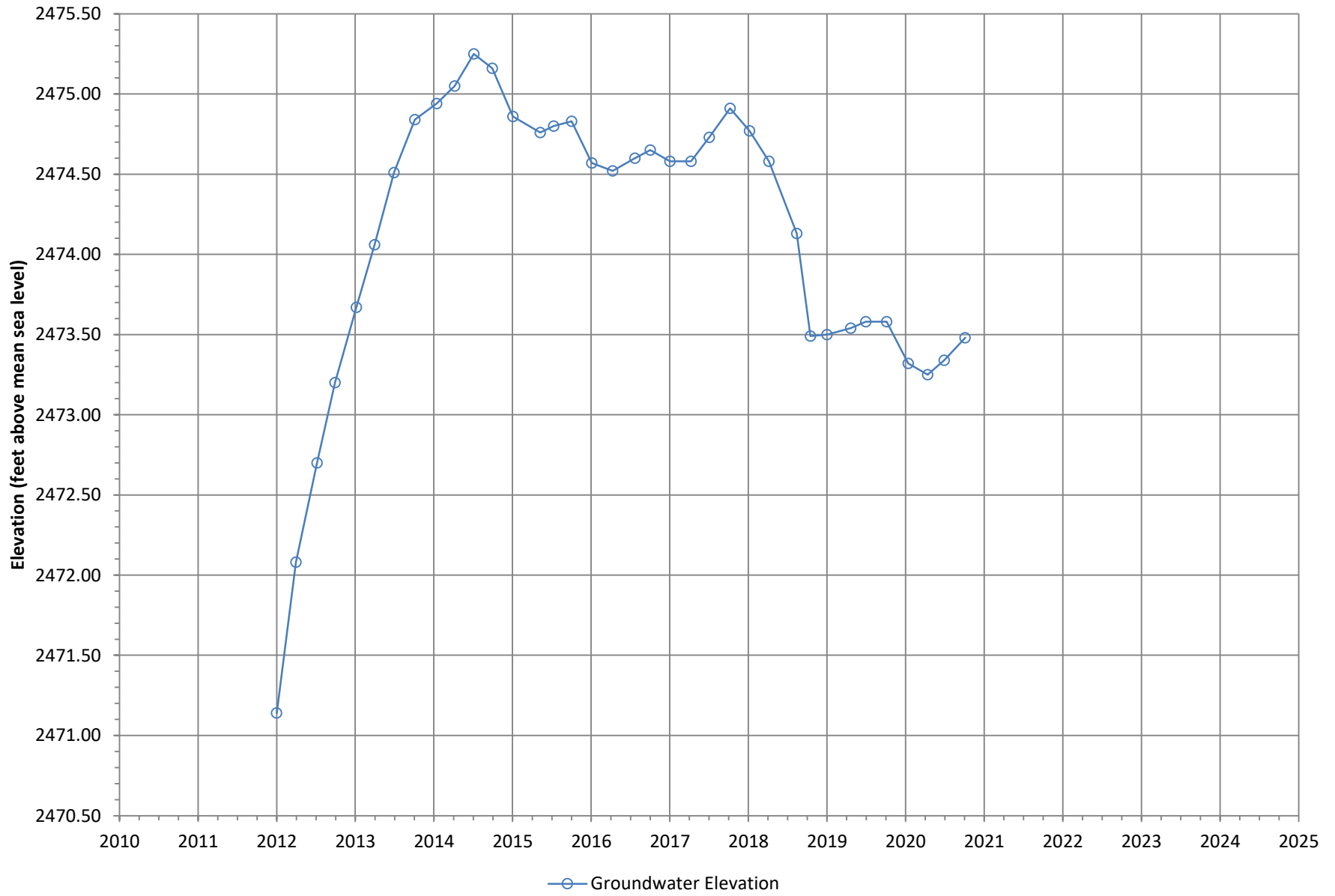


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Groundwater Elevation at Well Y-08 (County of San Bernardino)

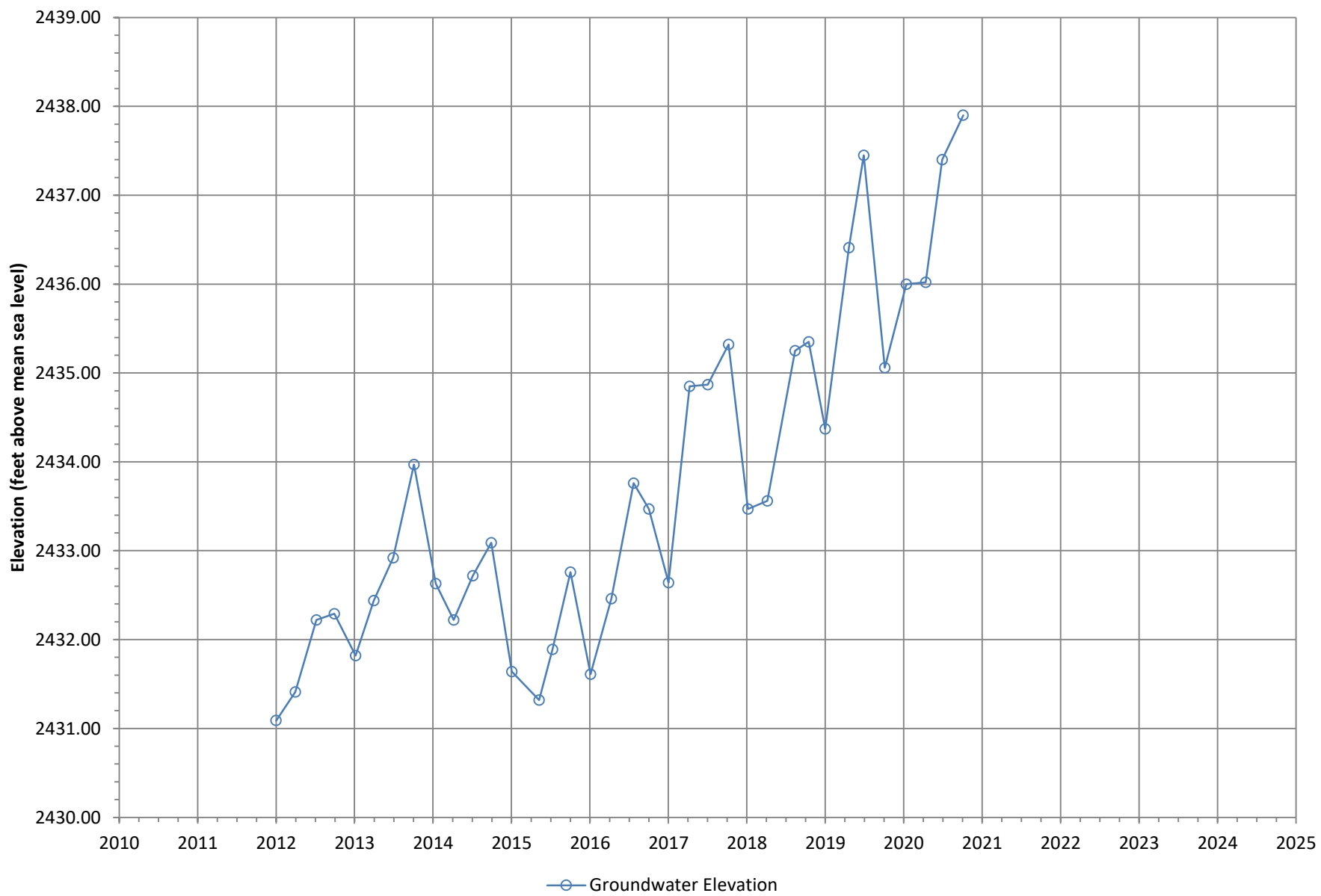


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Groundwater Elevation at Well Y-09A (County of San Bernardino)

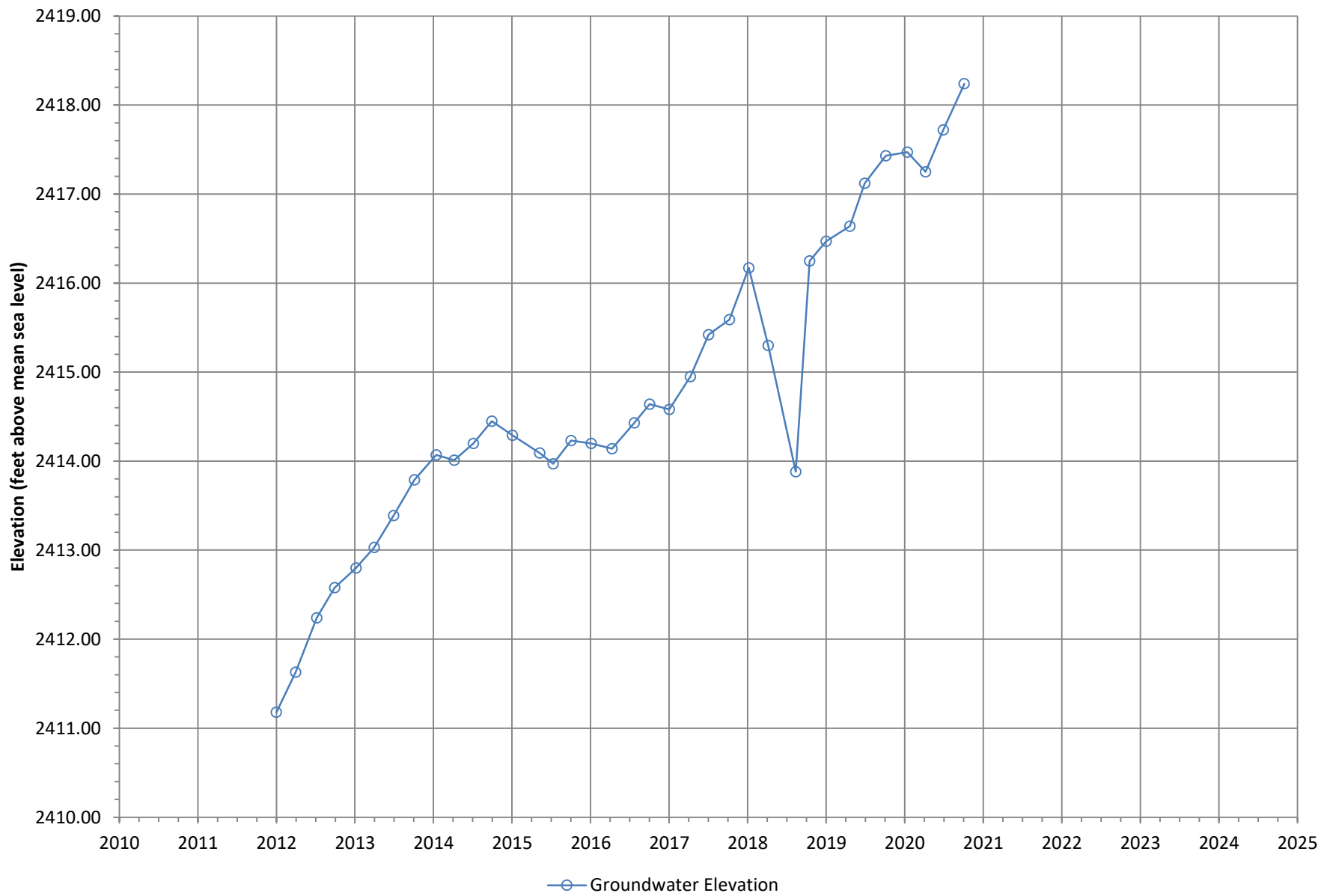


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Groundwater Elevation at Well Y-09B (County of San Bernardino)

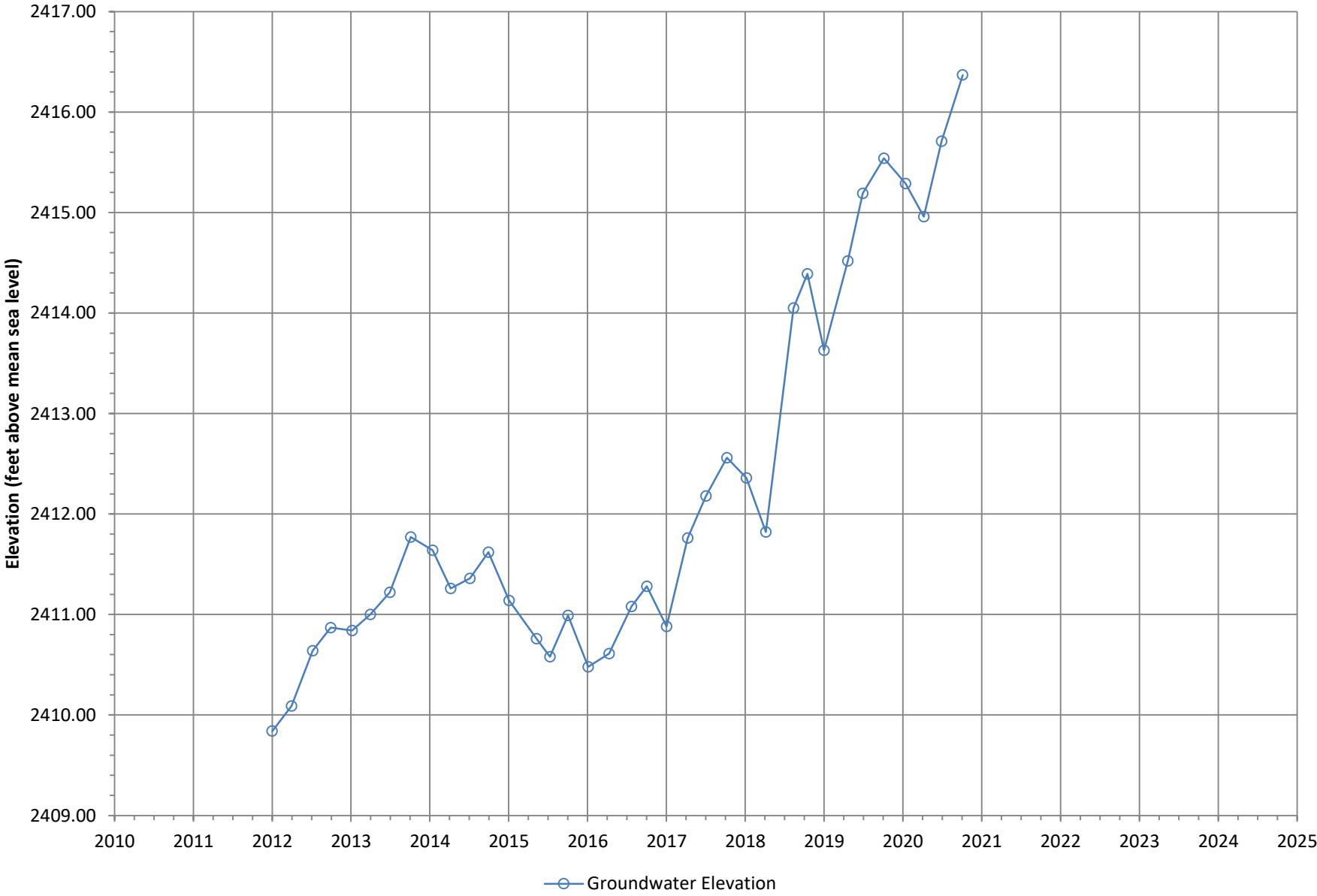


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Groundwater Elevation at Well Y-10A (County of San Bernardino)

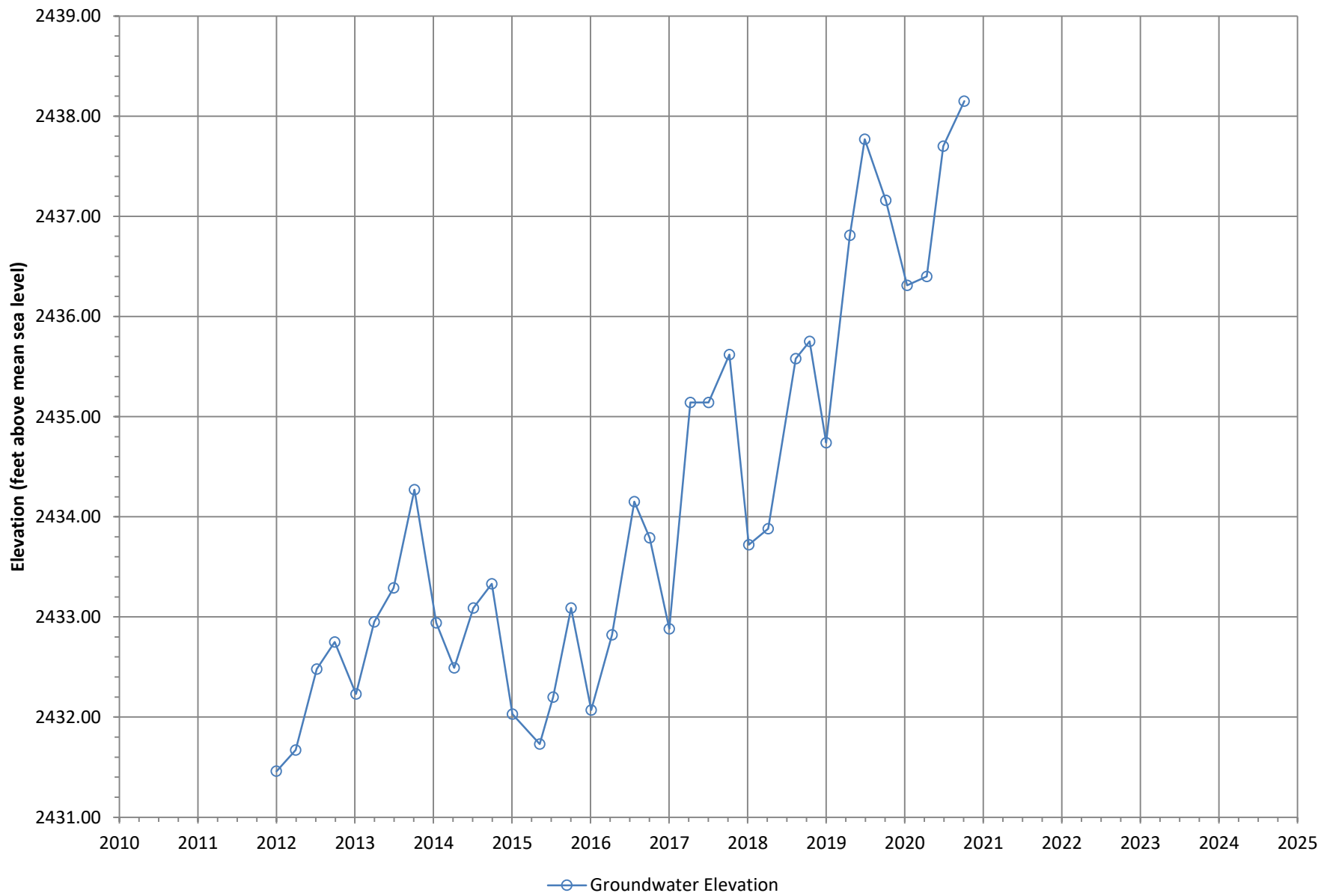


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Groundwater Elevation at Well Y-10B (County of San Bernardino)

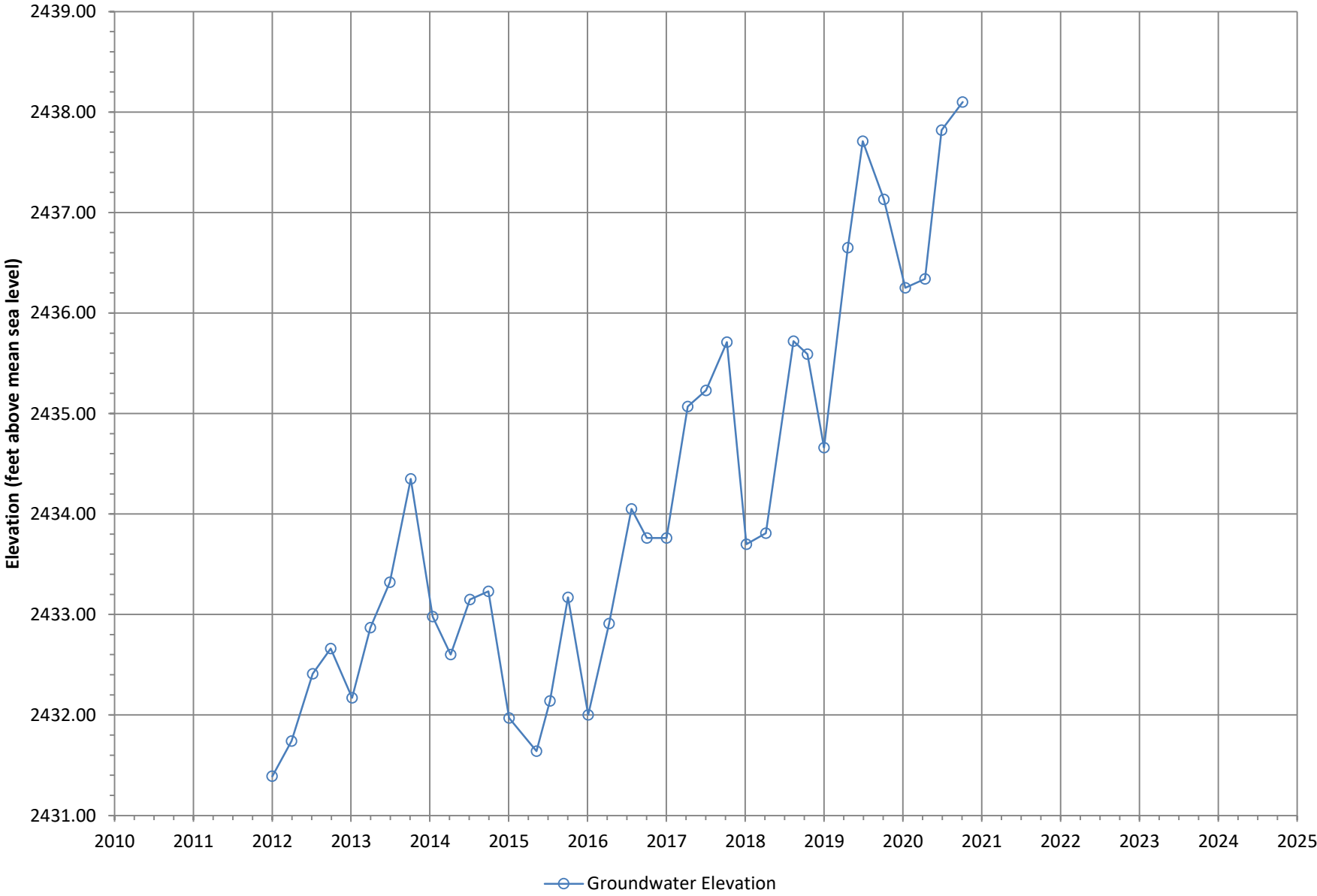


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Groundwater Elevation at Well Y-11A (County of San Bernardino)

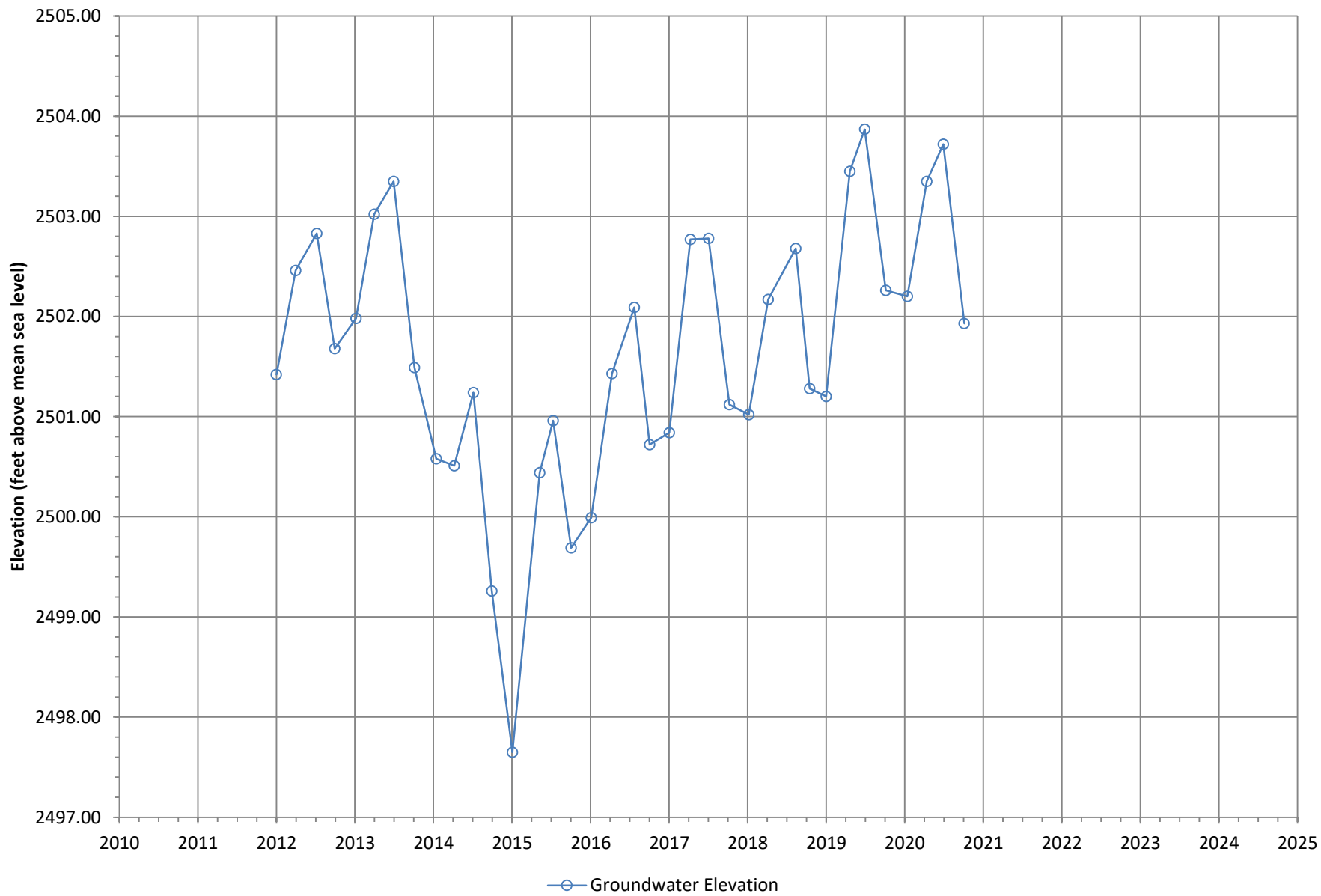


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Groundwater Elevation at Well Y-11B (County of San Bernardino)

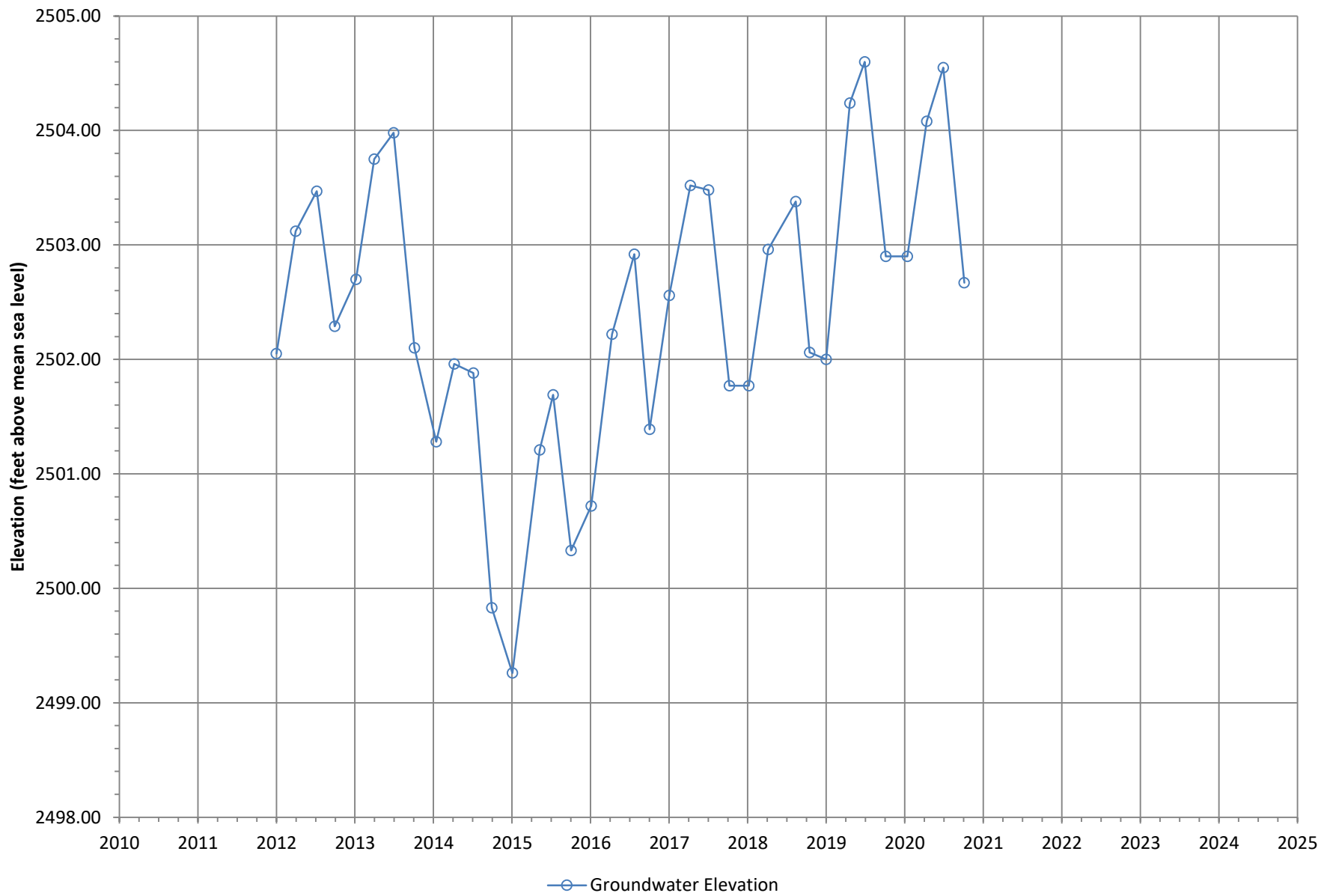


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Groundwater Elevation at Well Y-12 (County of San Bernardino)

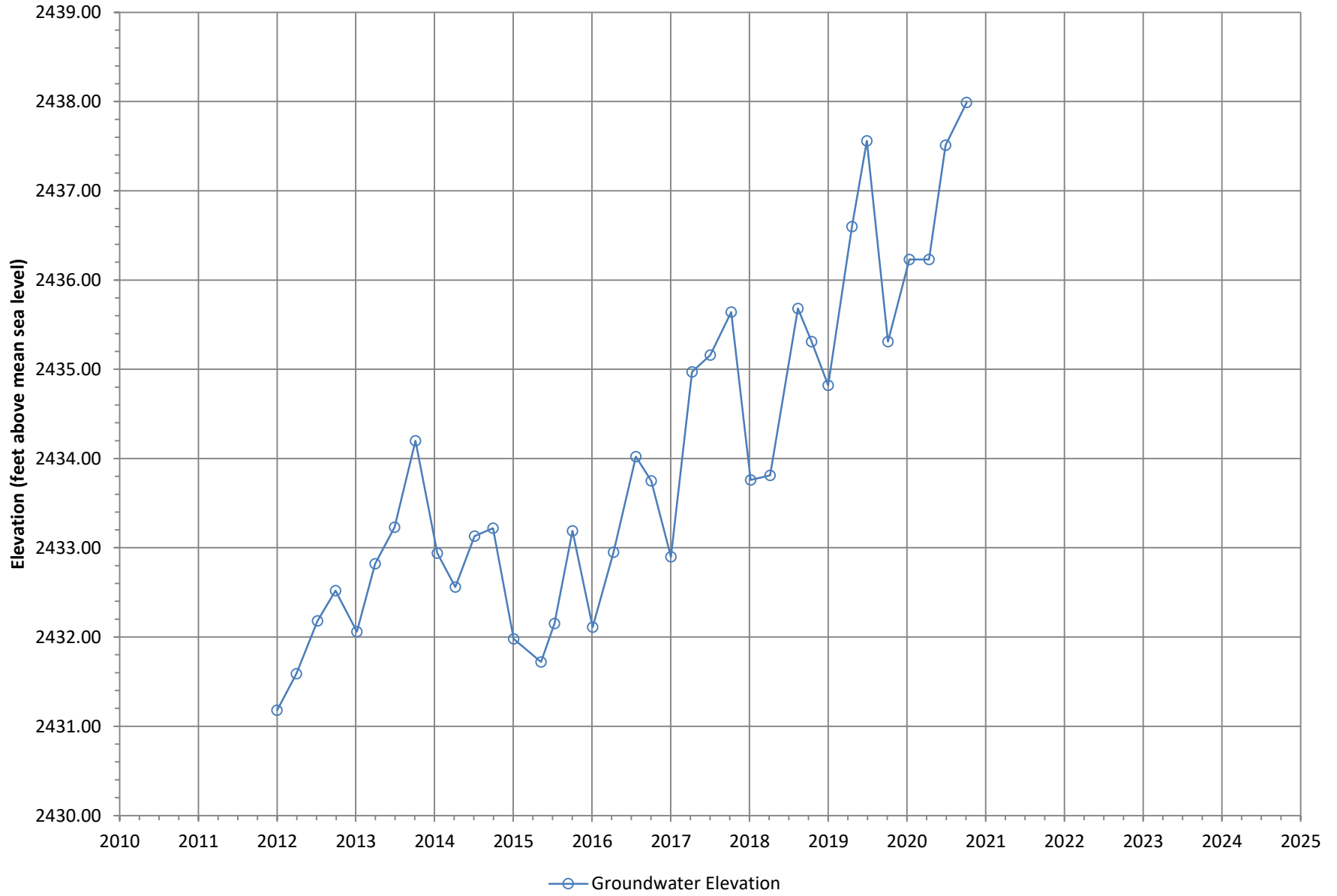


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Groundwater Elevation at Well Y-13 (County of San Bernardino)

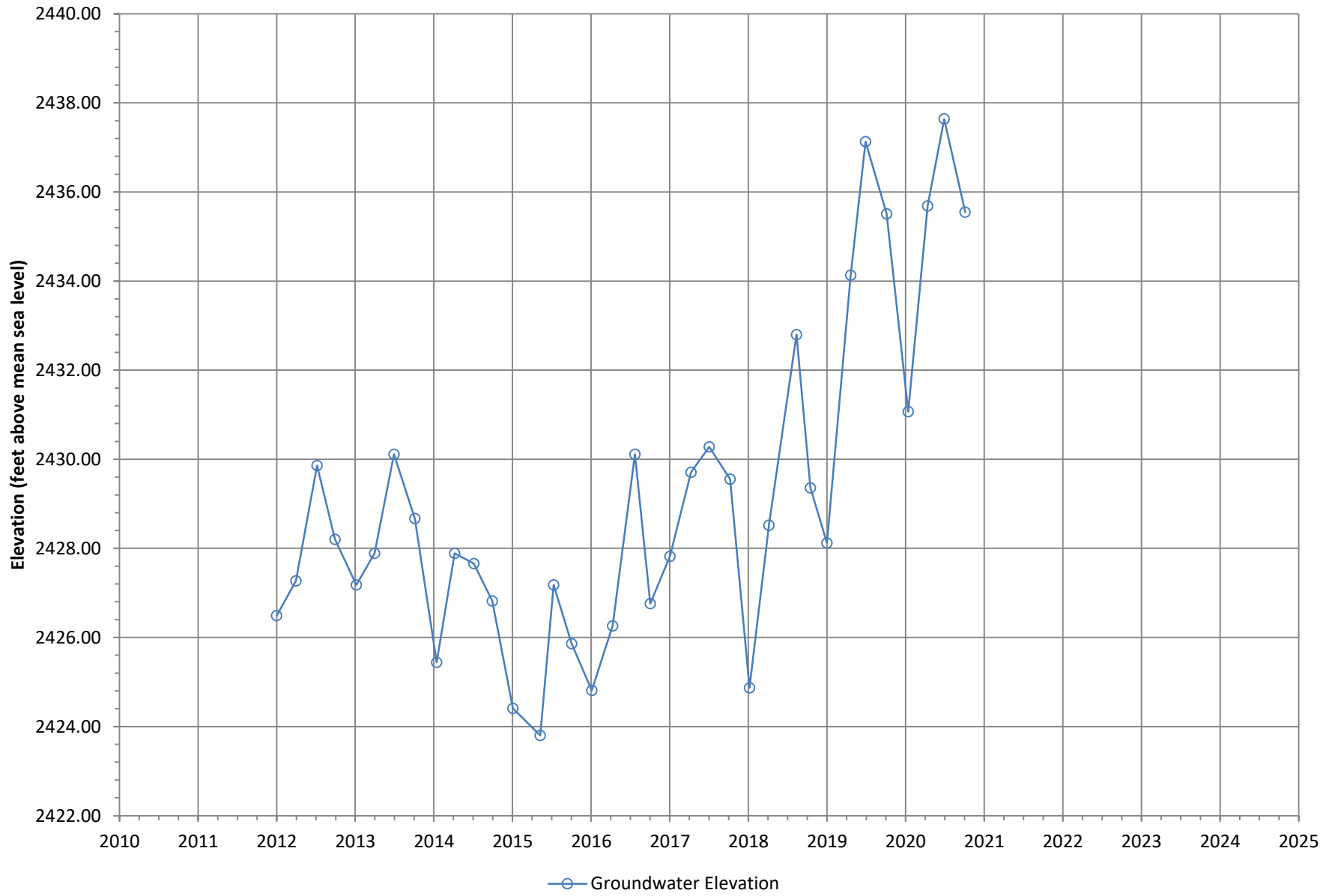


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Groundwater Elevation at Well Y-14 (County of San Bernardino)

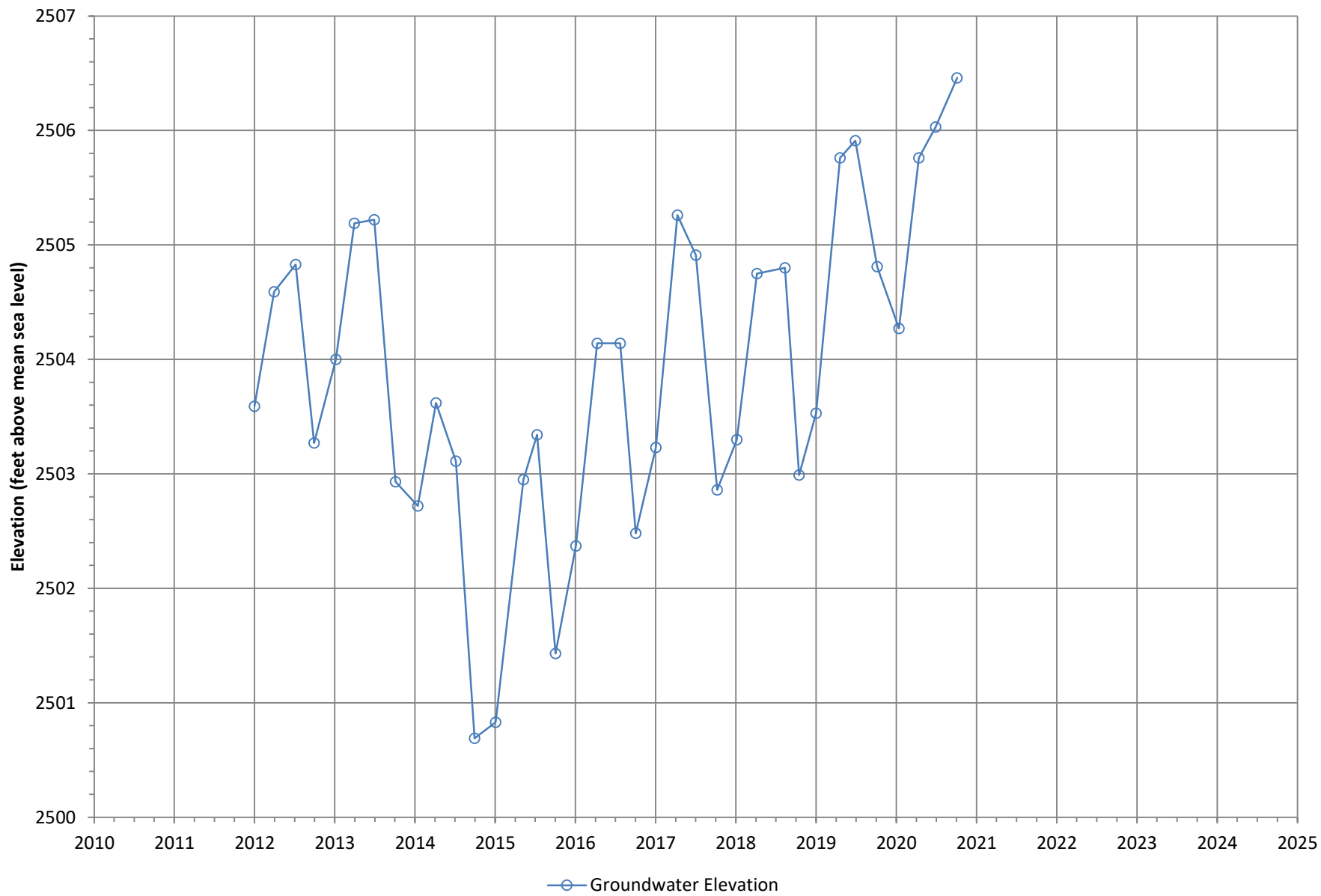


Figure A-25

Groundwater Elevation at Well Y-15 (County of San Bernardino)

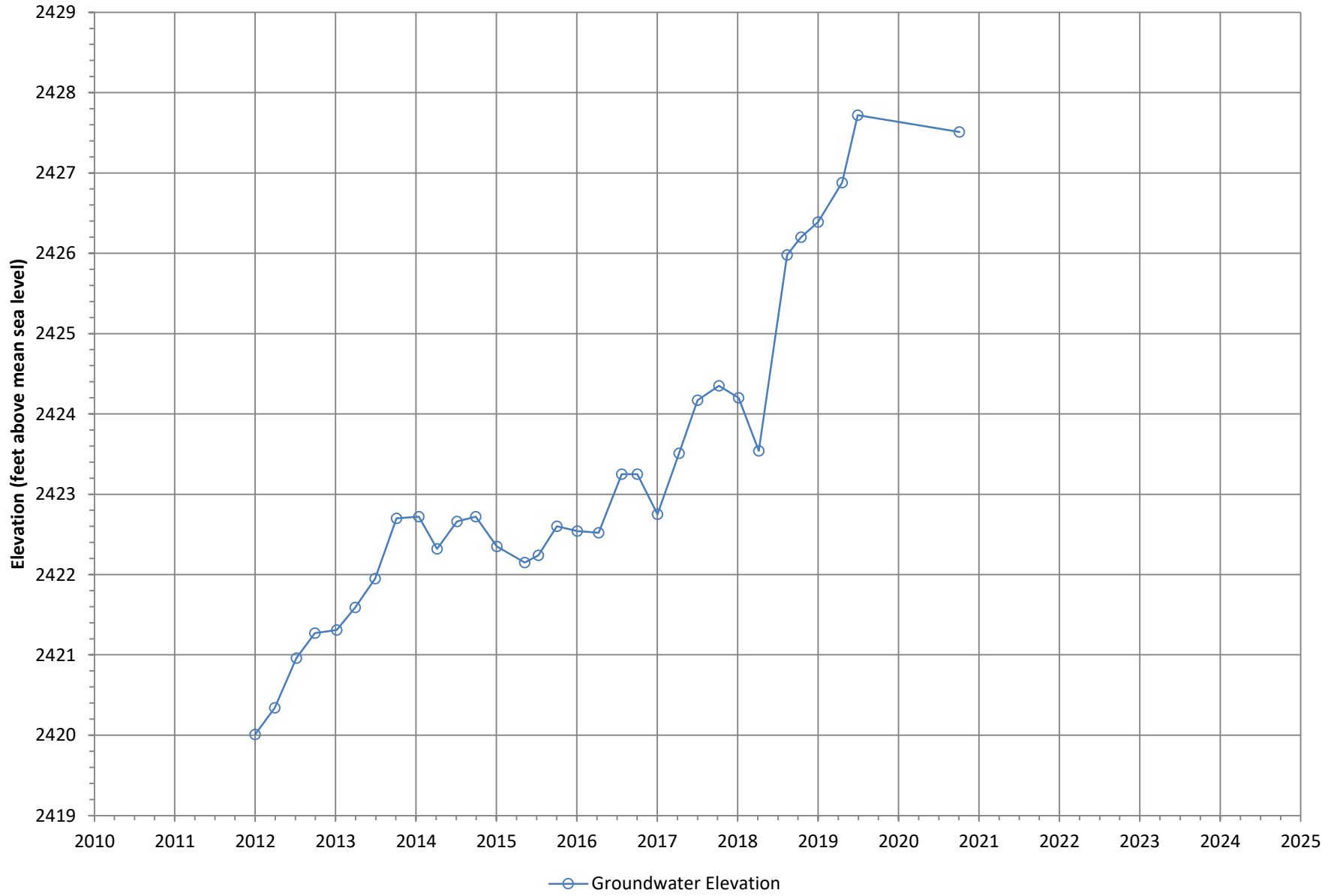


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Groundwater Elevation at Well Y-16 (County of San Bernardino)

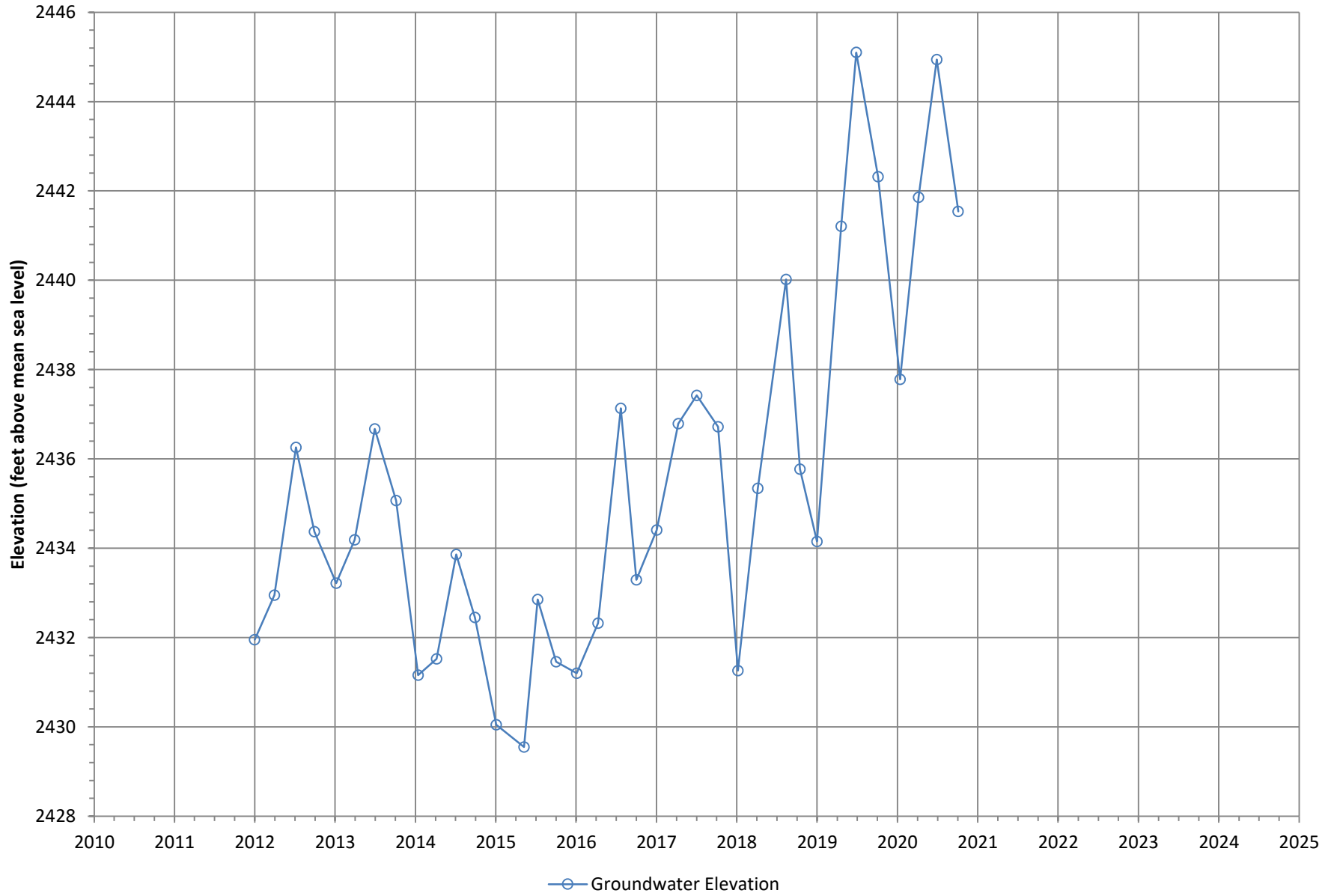


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Groundwater Elevation at Well Y-17 (County of San Bernardino)

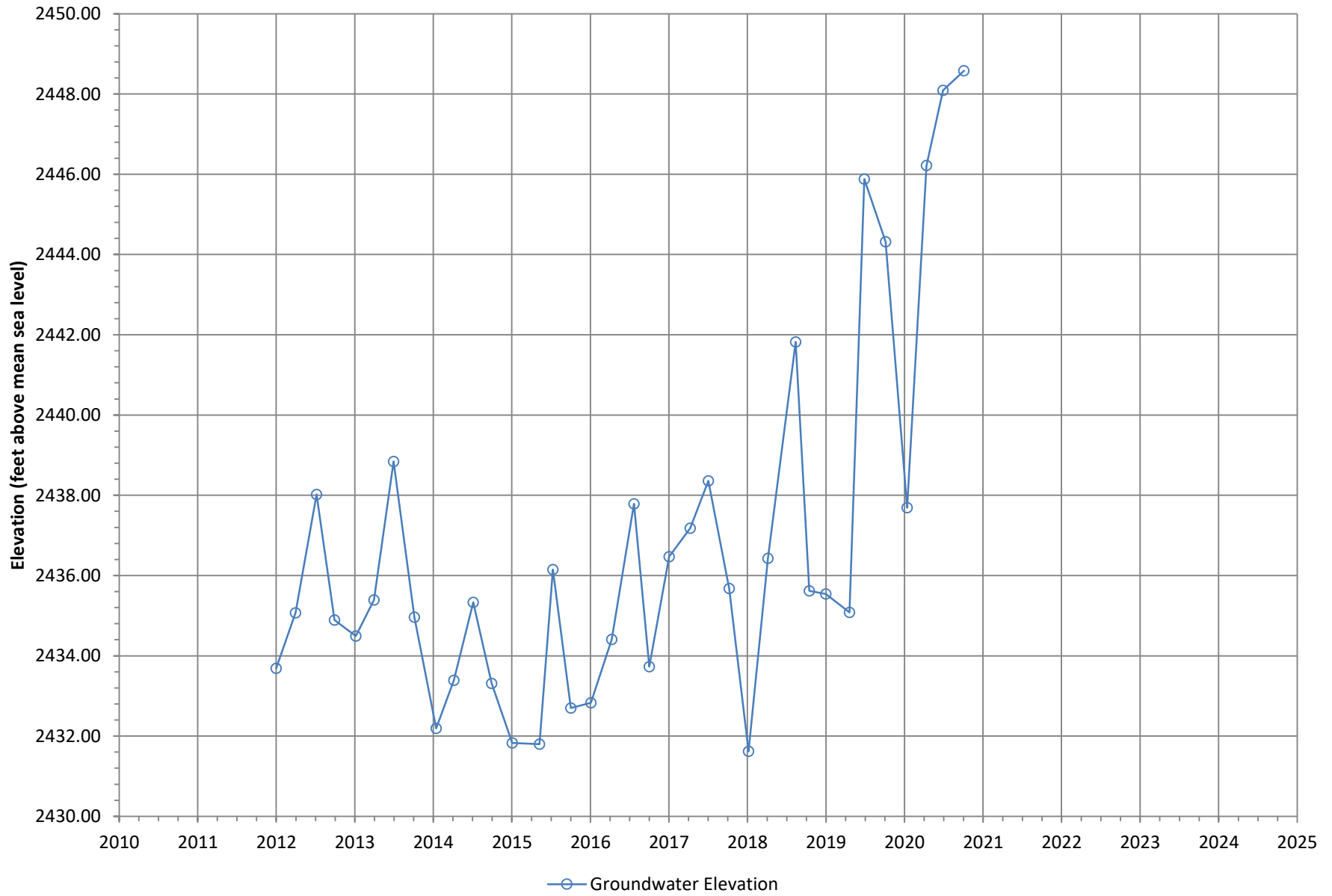


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Groundwater Elevation at Well Y-19 (County of San Bernardino)

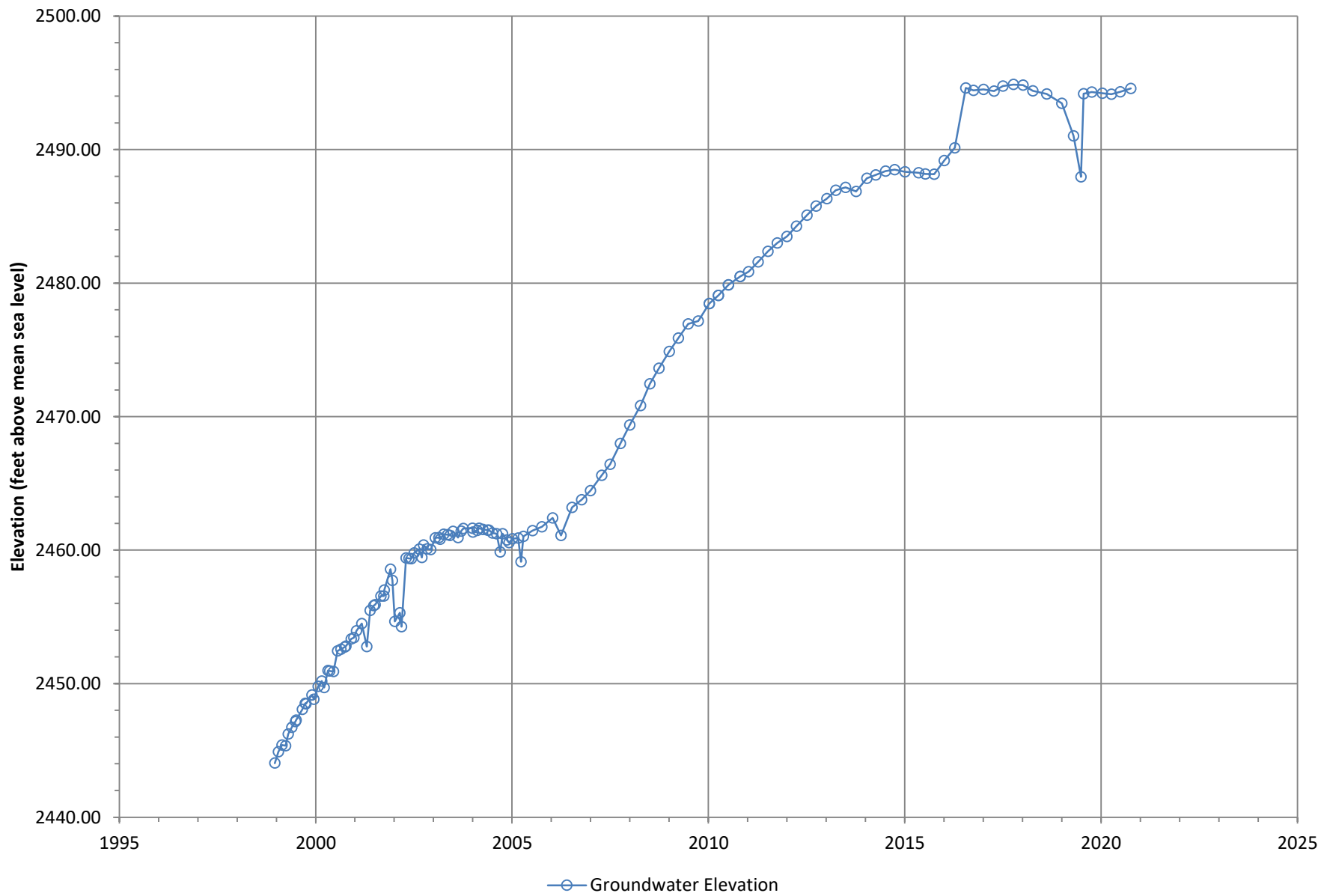


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Groundwater Elevation at Well Y-21 (County of San Bernardino)

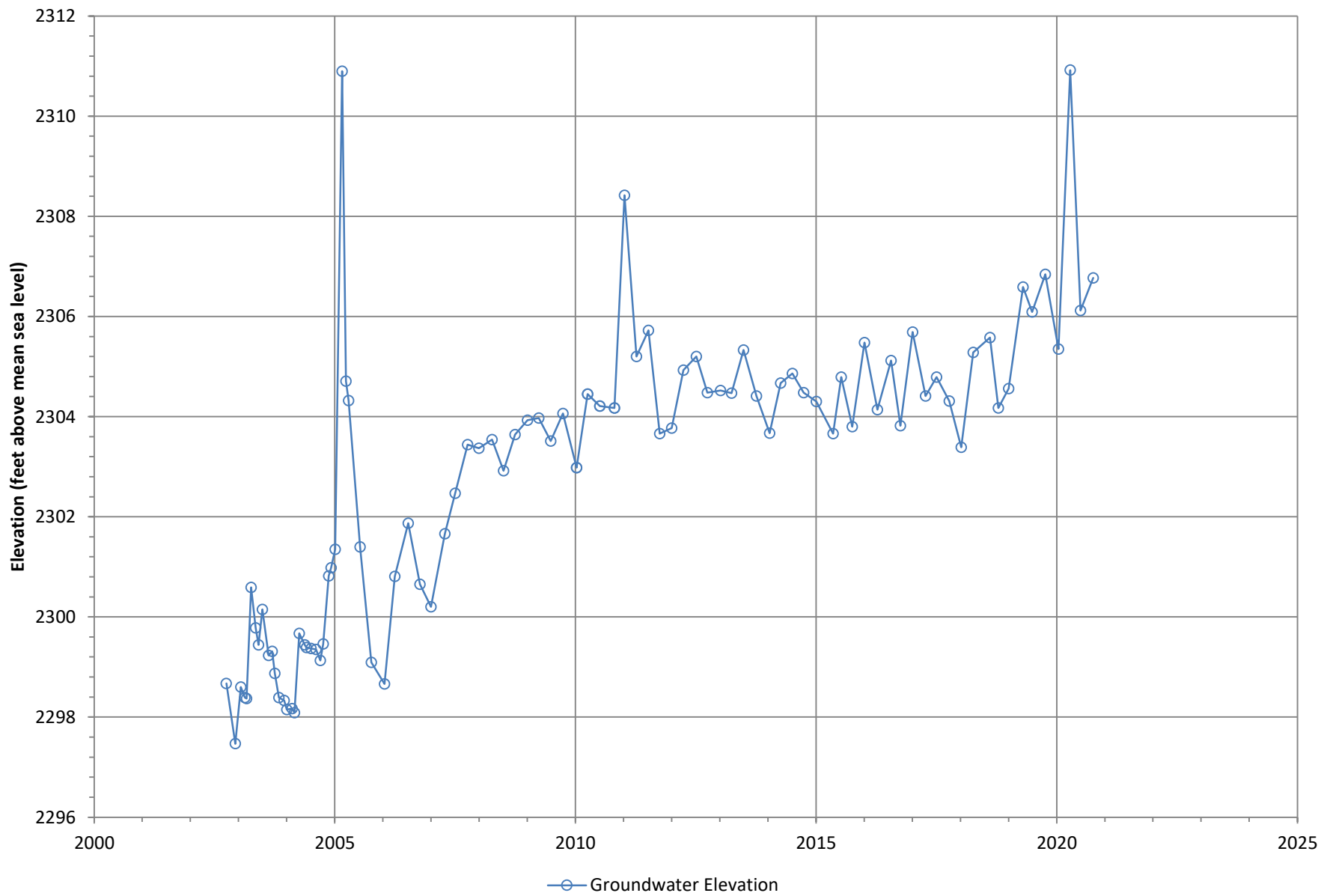


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Groundwater Elevation at Well Y-22 (County of San Bernardino)

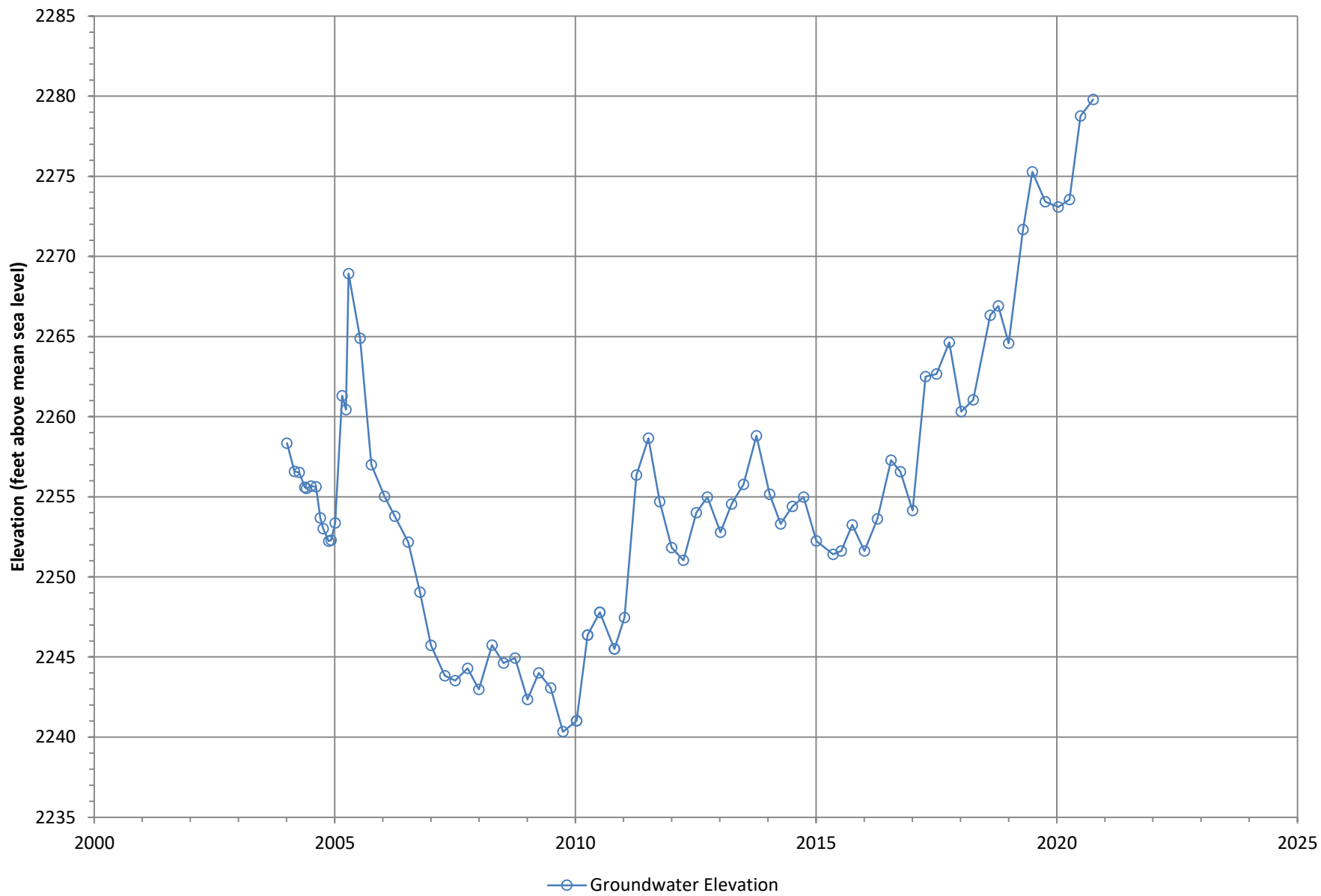


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Groundwater Elevation at Well Y-23 (County of San Bernardino)

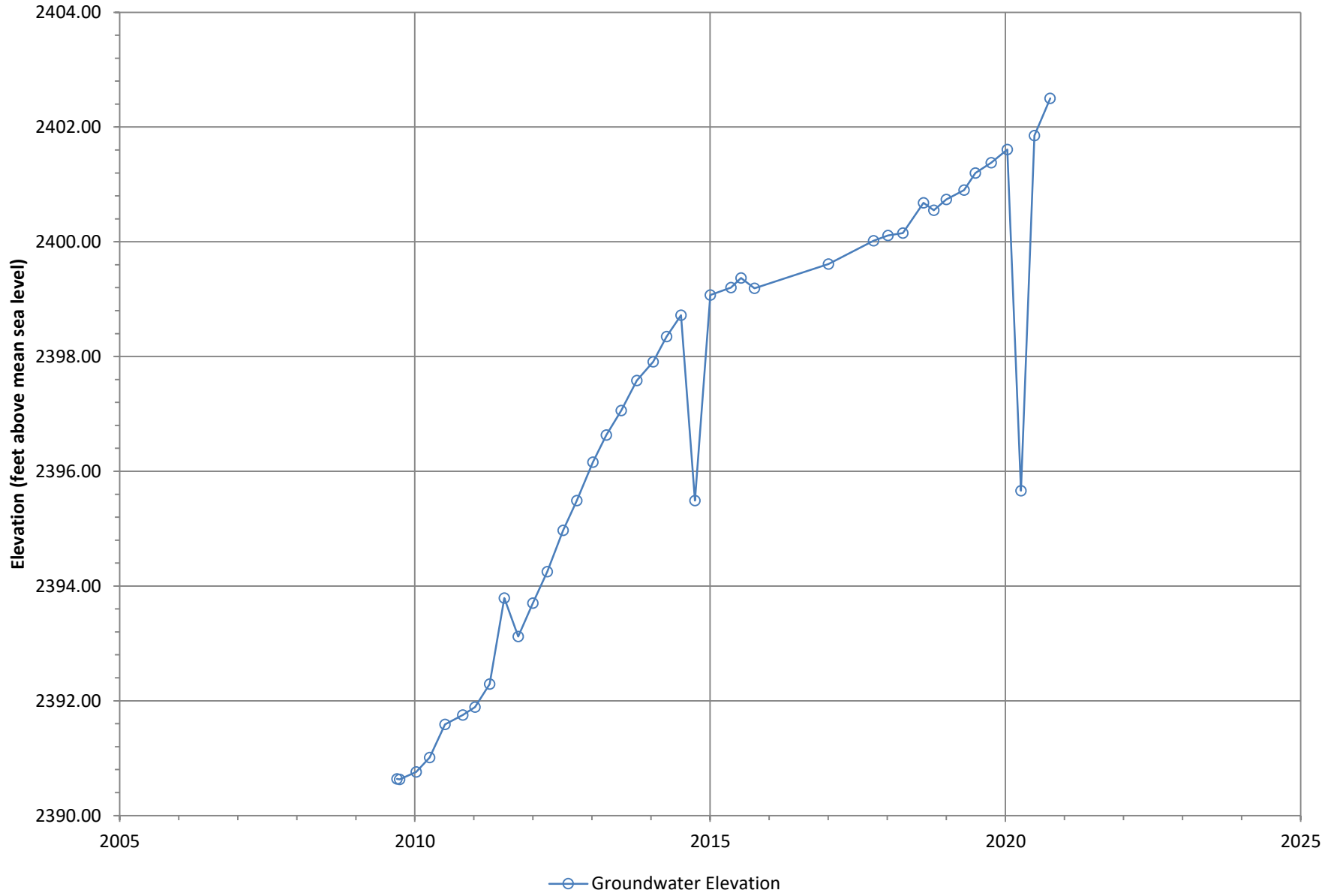


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Groundwater Elevation at Well Y-24 (County of San Bernardino)

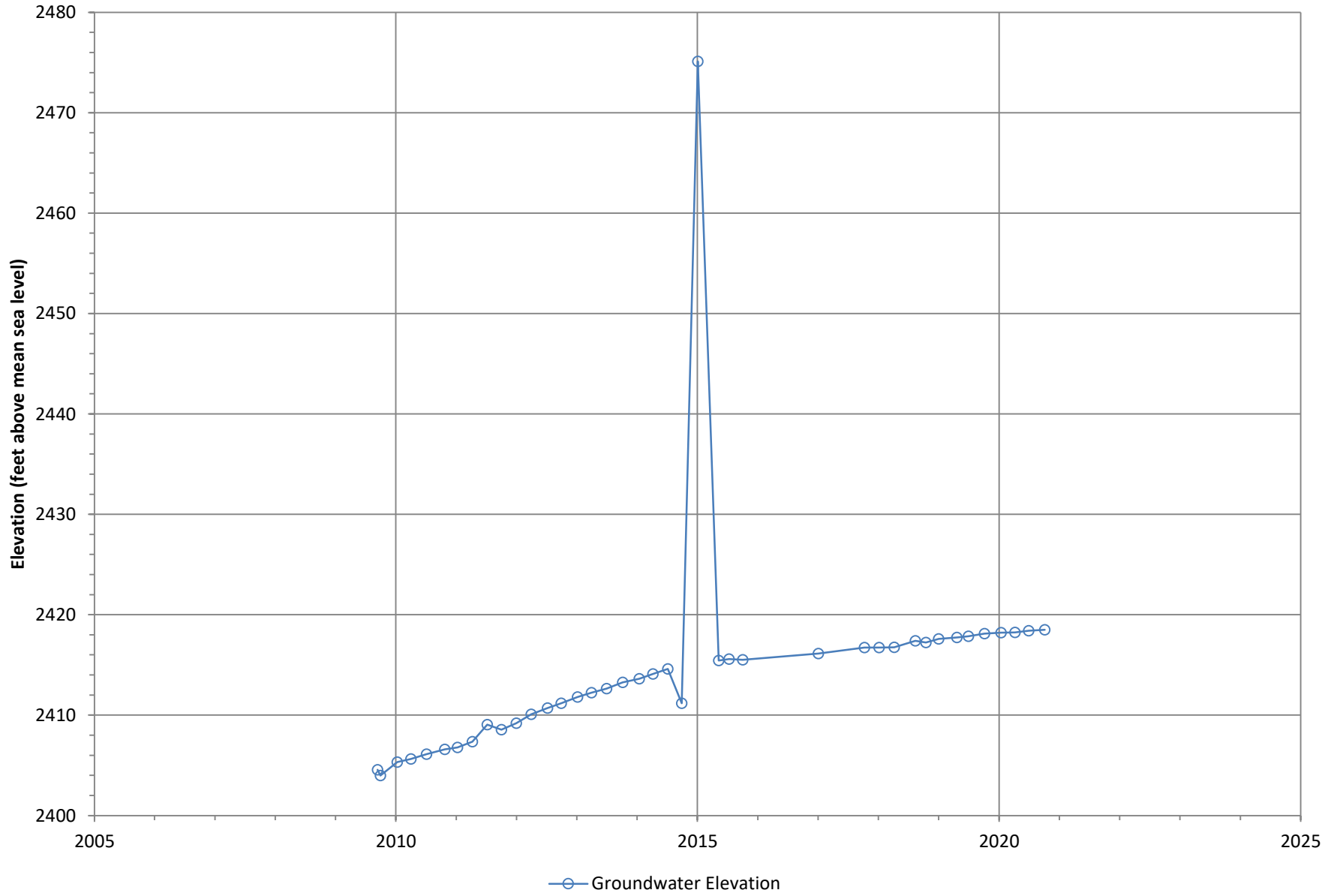


Figure A-34

Groundwater Elevation at Well GL-1 (HMWC)

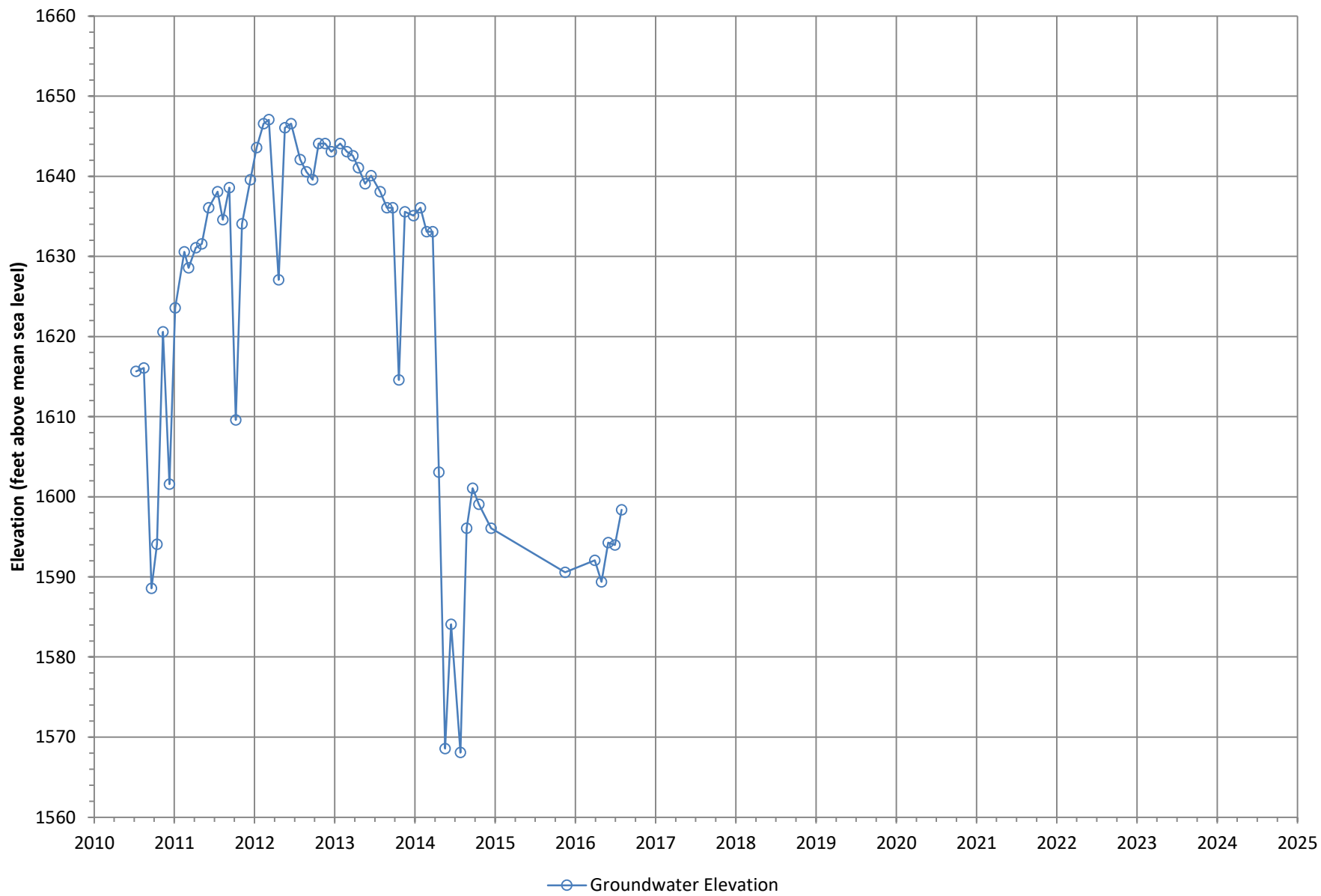


Figure A-35

Groundwater Elevation at Well GL-5

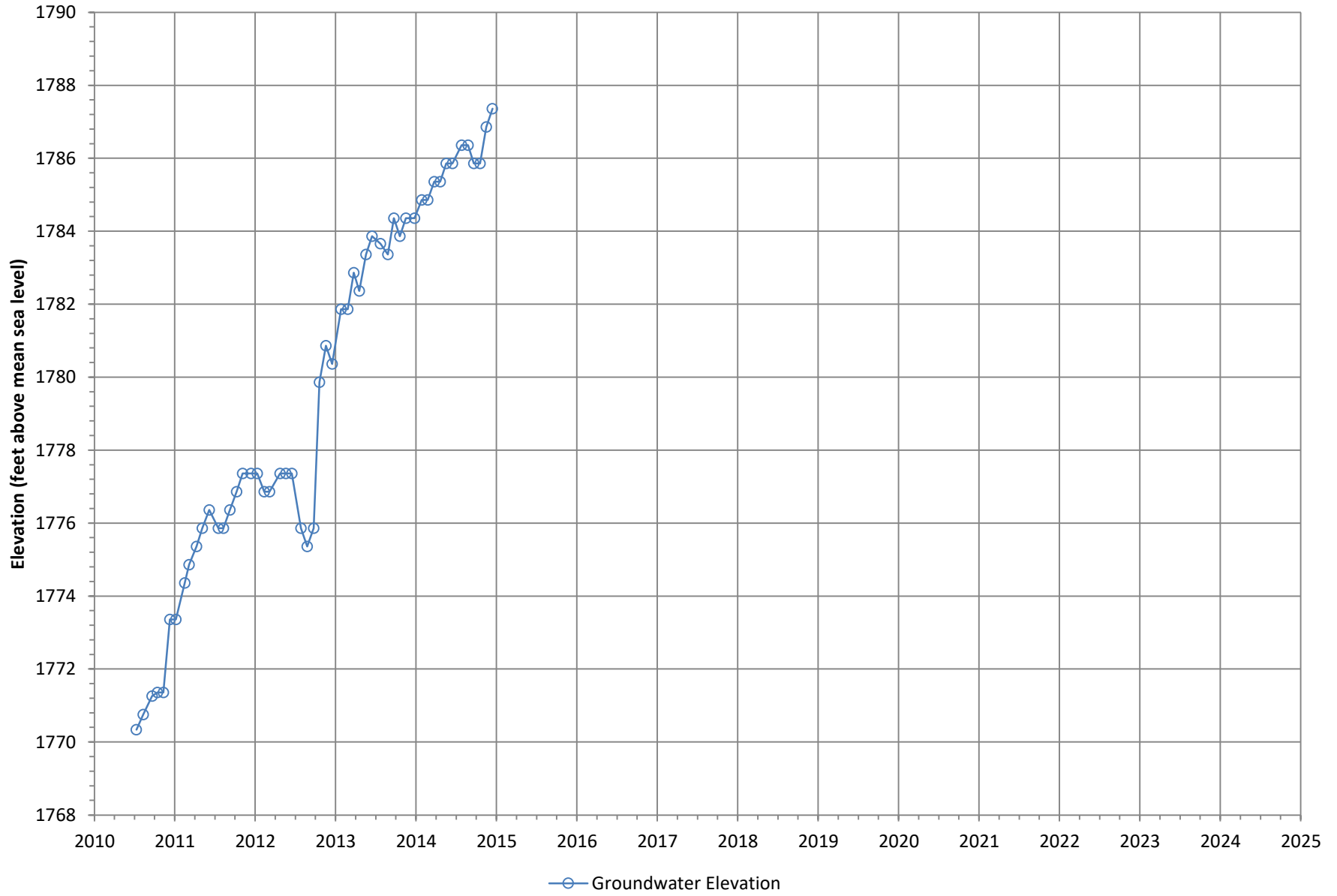


Figure A-36

Groundwater Elevation at Well COVINGTON (Oak Valley Partners)

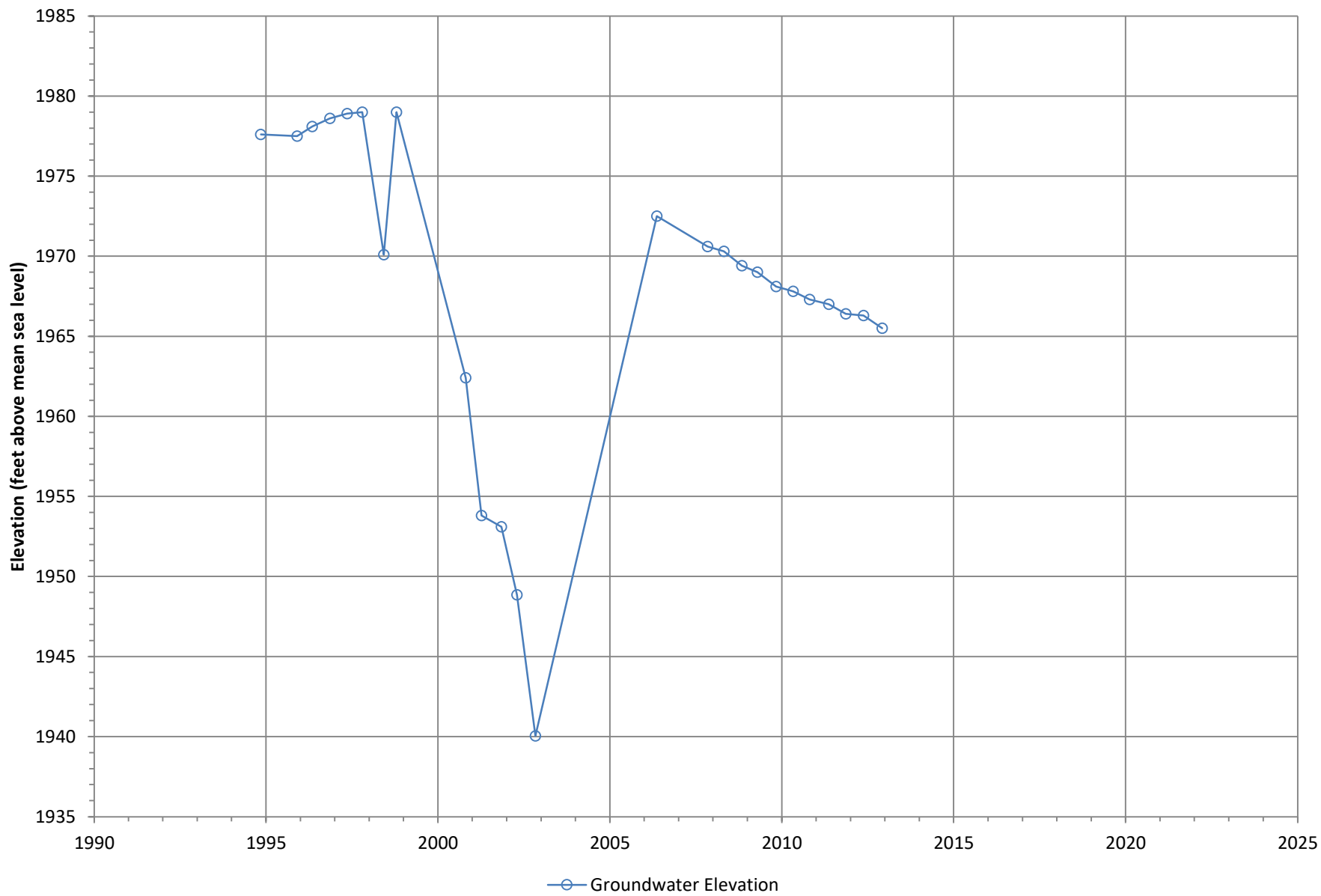


Figure A-37

Groundwater Elevation at Sierra Nursery Well (GL-3)

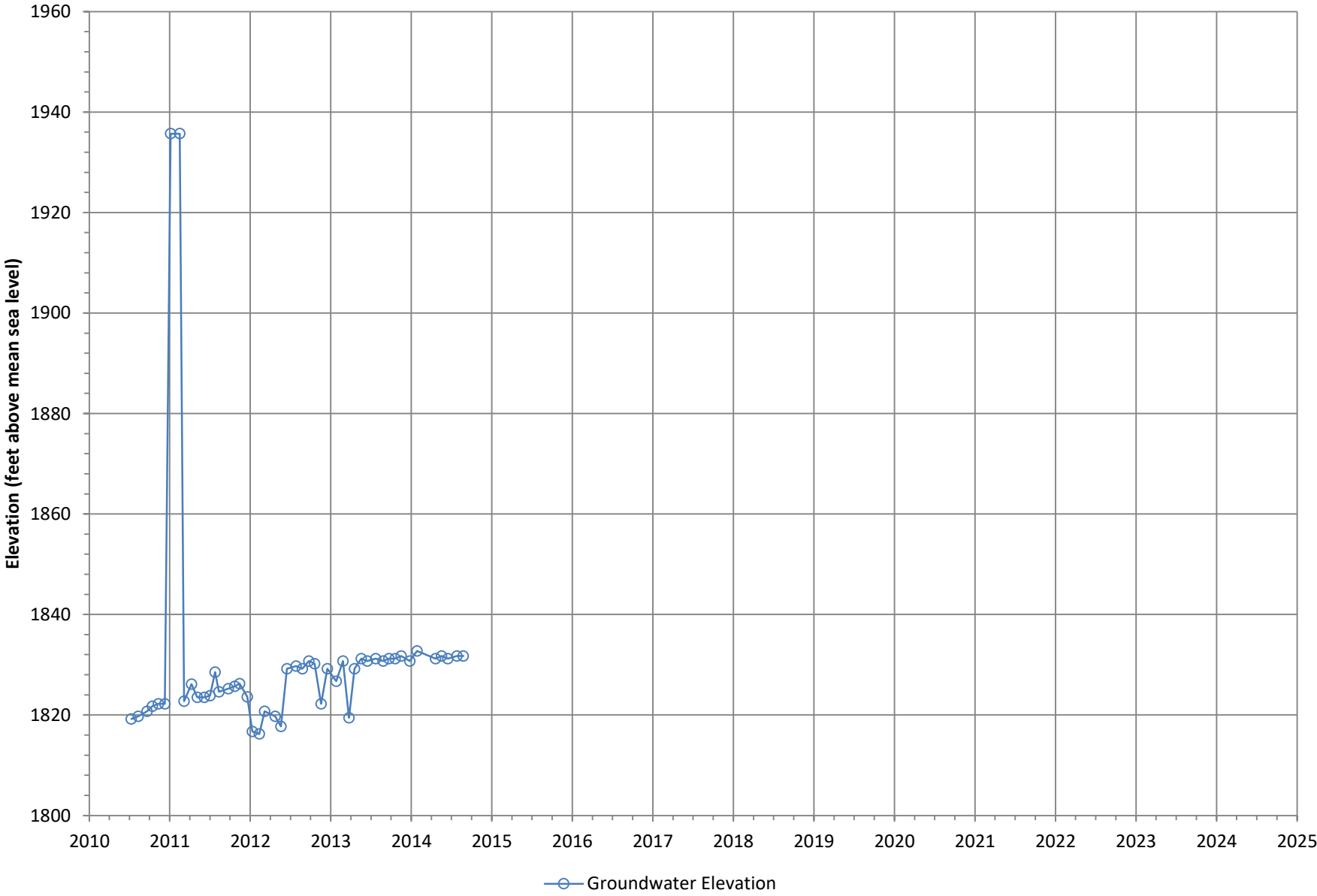


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Groundwater Elevation at Well SMWC-07

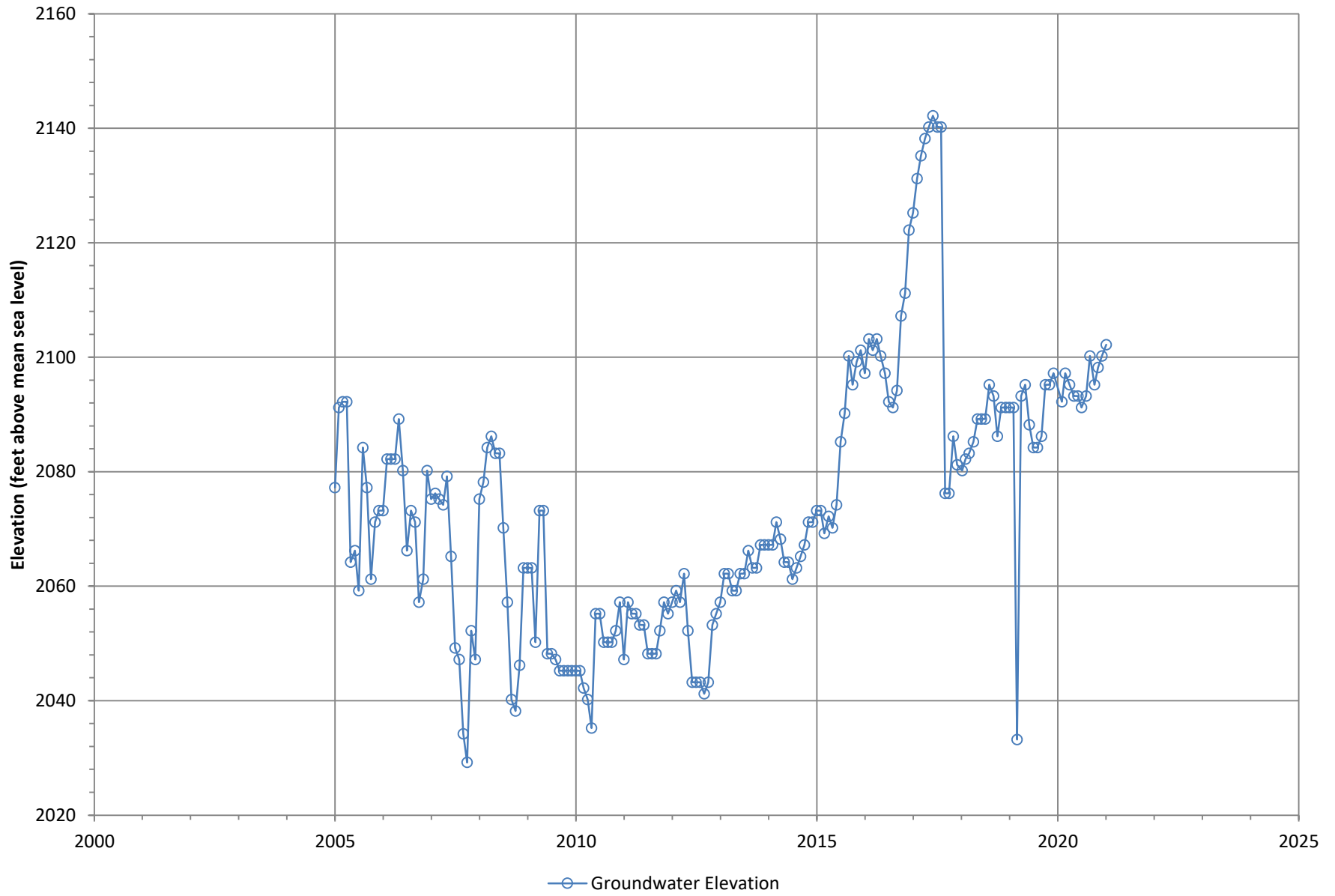


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Groundwater Elevation at Well SMWC-11

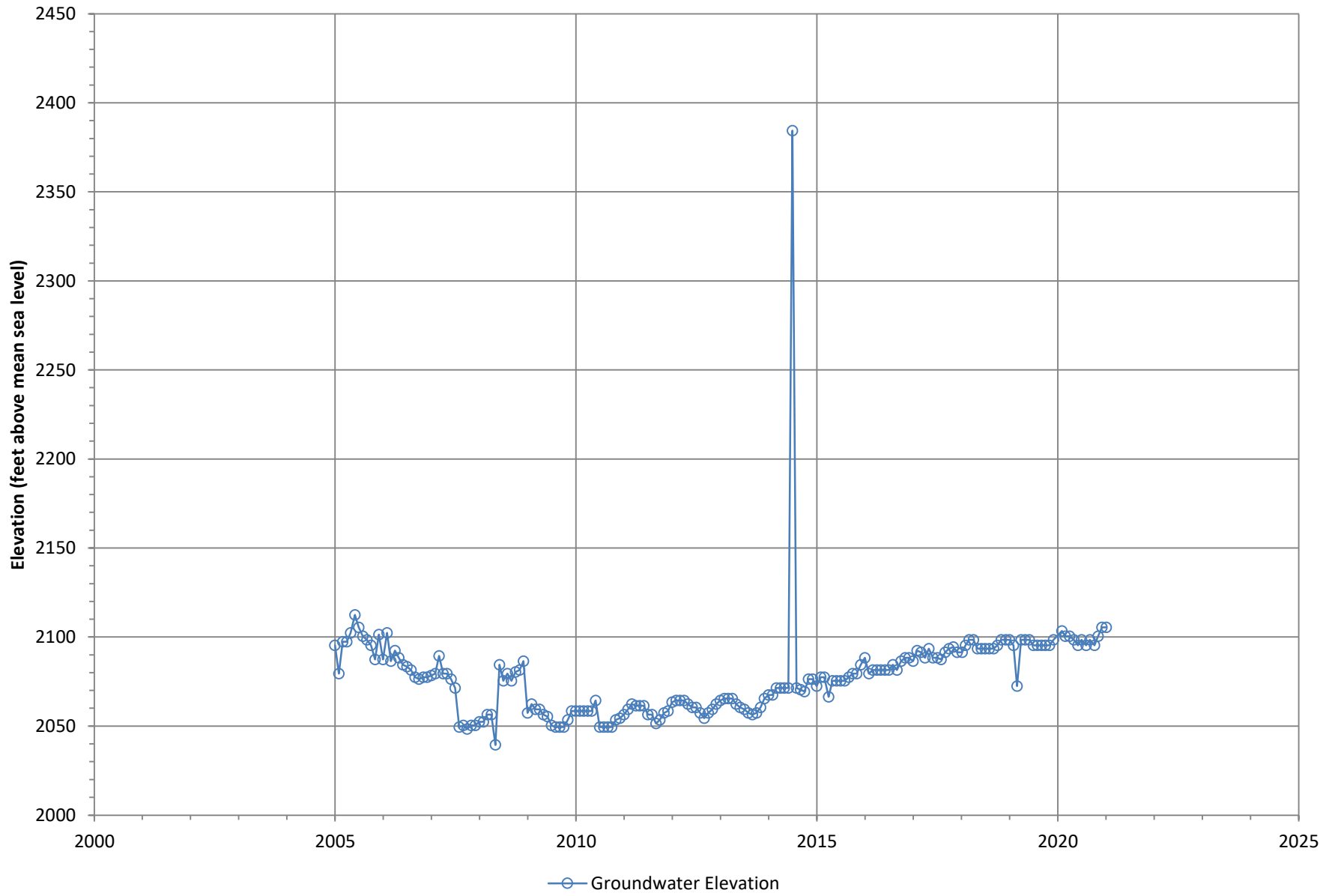


Figure A-41

Groundwater Elevation at USGS Well 6th Street and Ave E 01

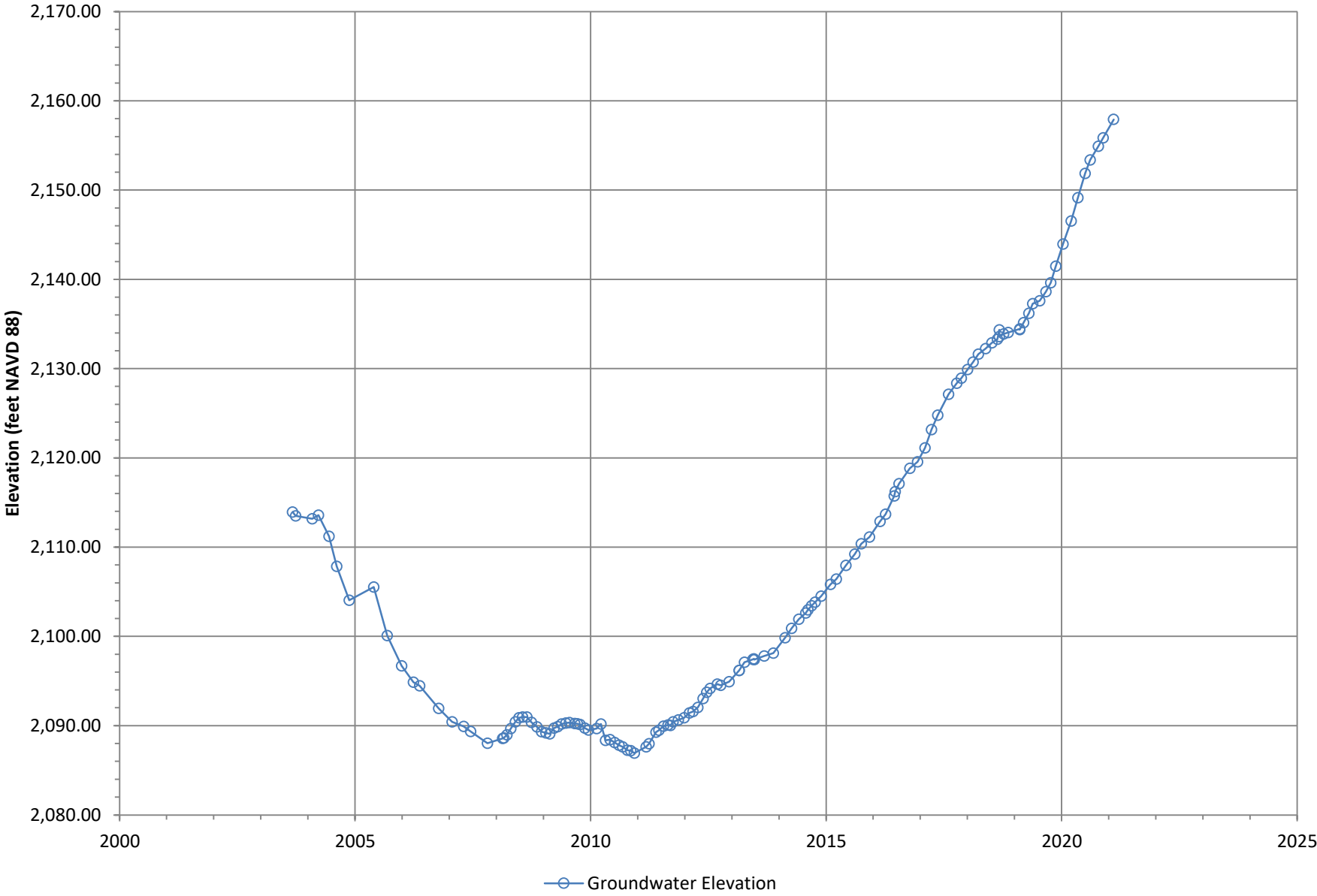


Figure A-44

Groundwater Elevation at USGS Well 6th Street and Ave E 02

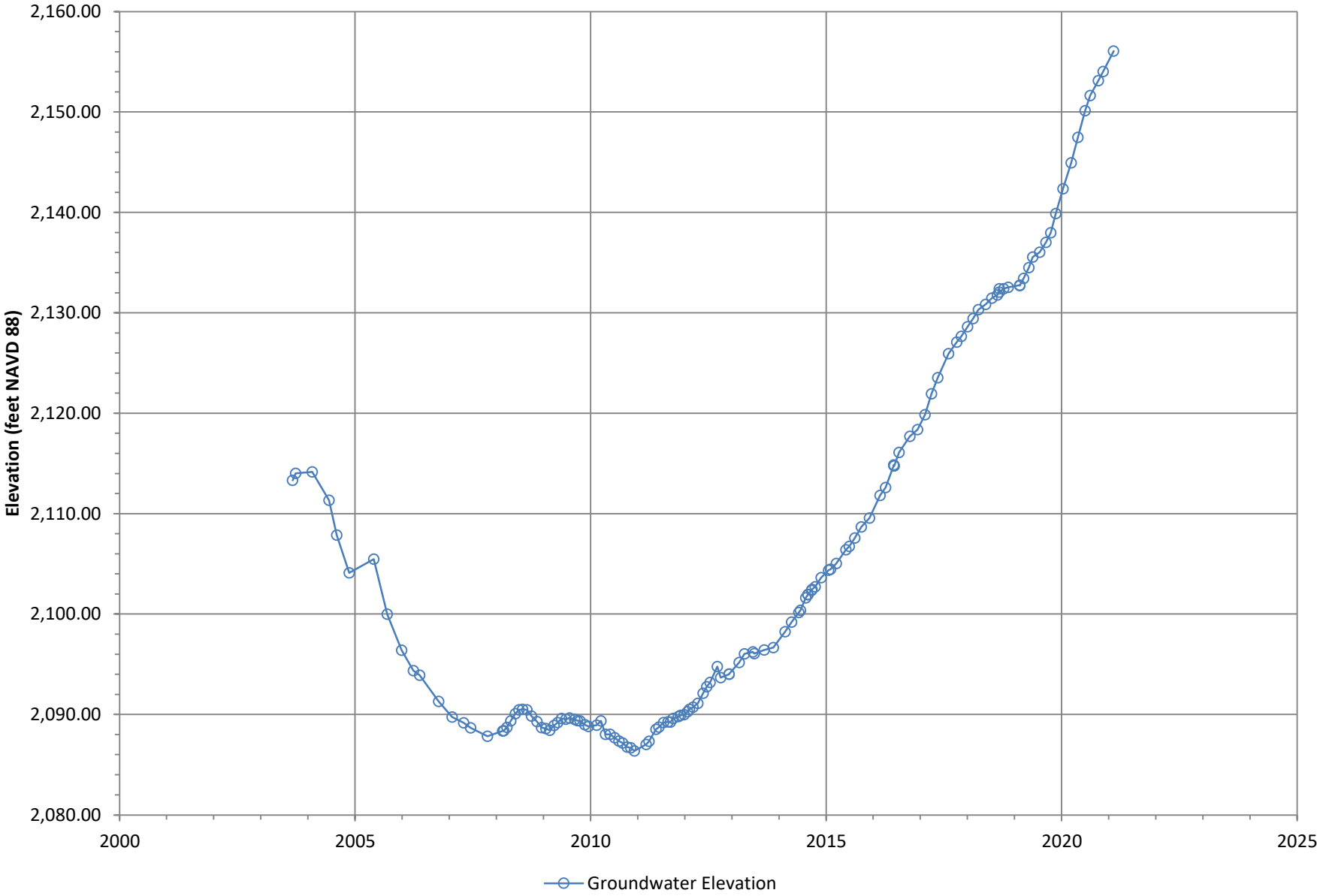


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Groundwater Elevation at USGS Well 6th Street and Ave E 03

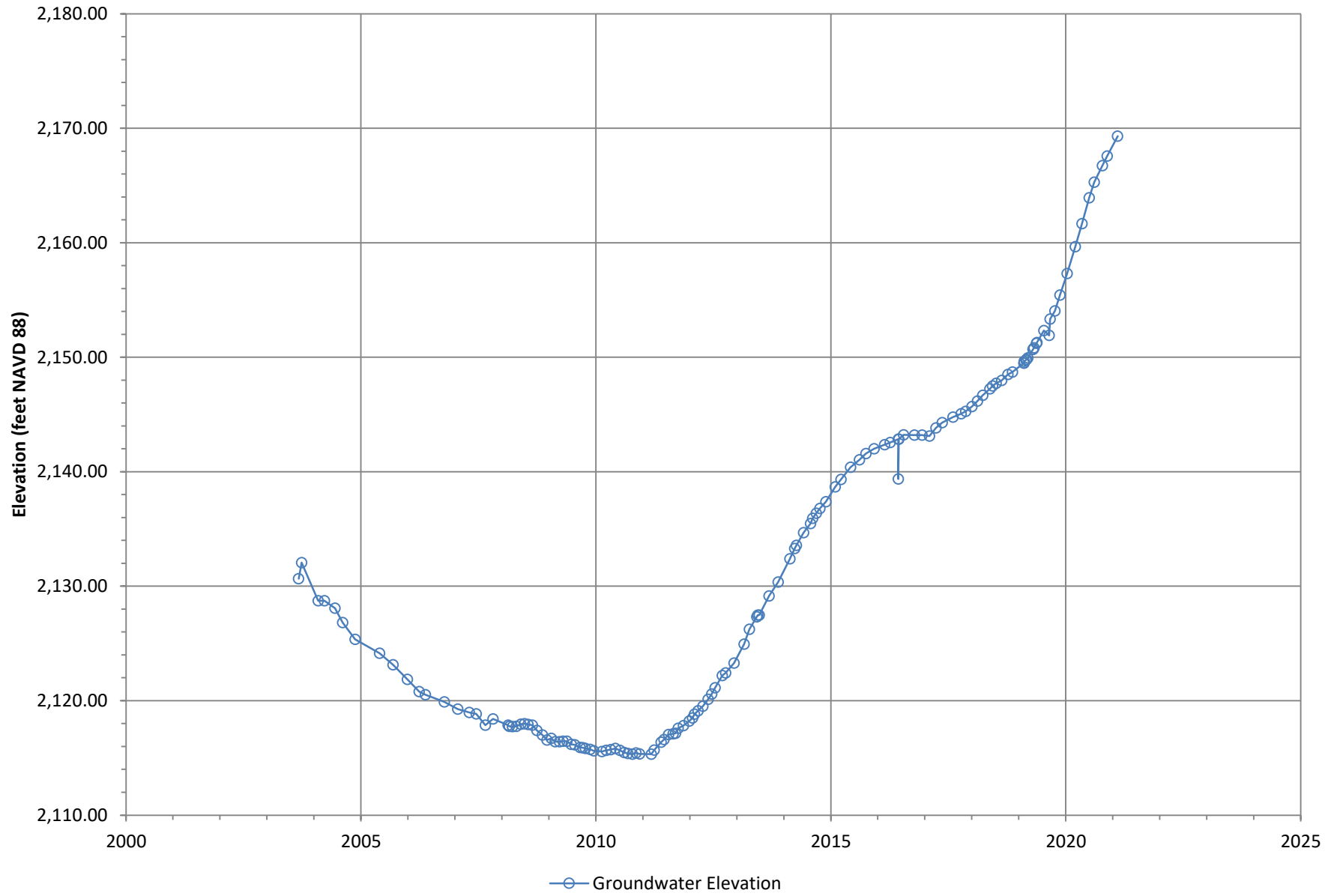


Figure A-46

Groundwater Elevation at USGS Well 6th Street and Ave E 04

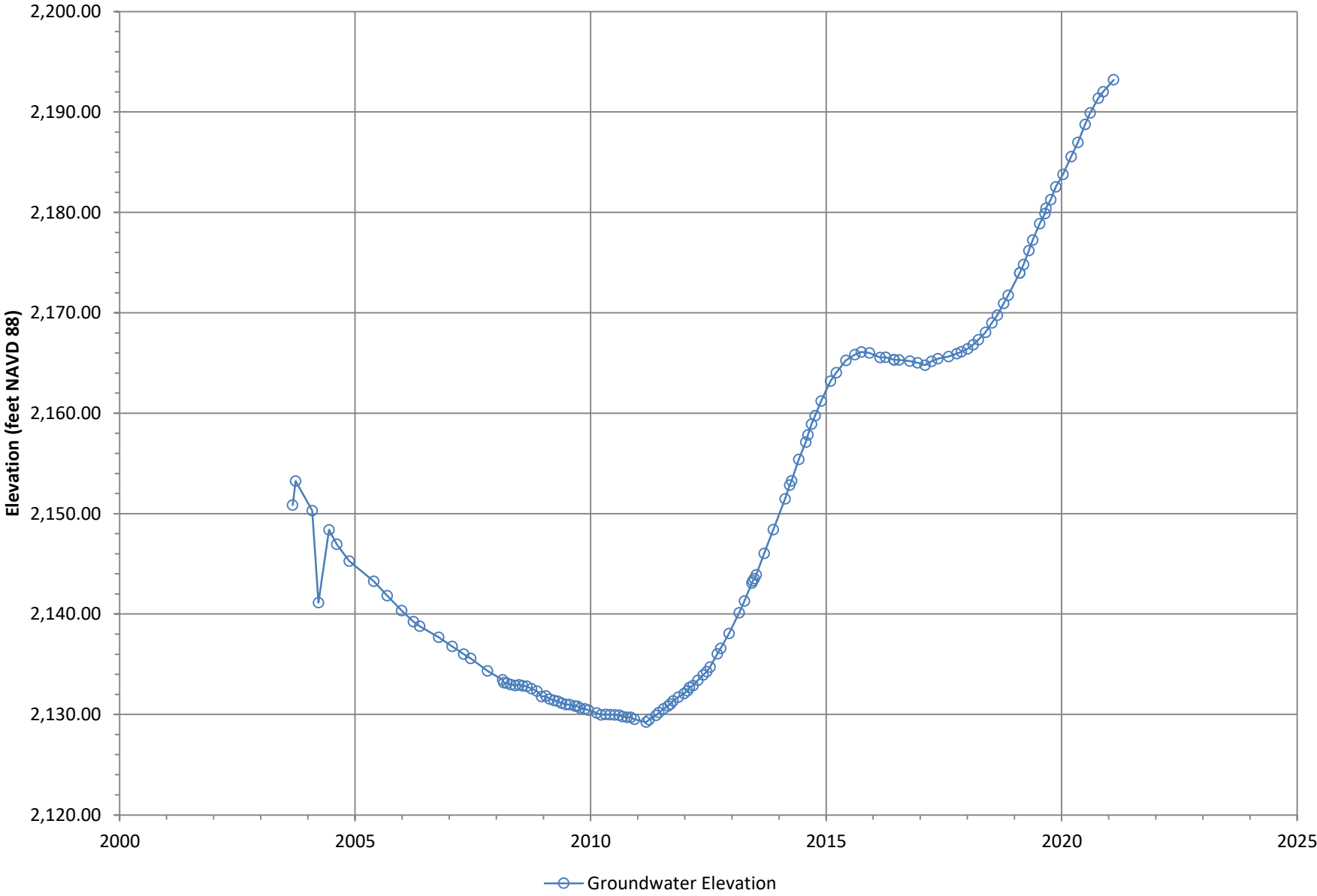


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Groundwater Elevation at USGS Well 6th Street and Ave E 05

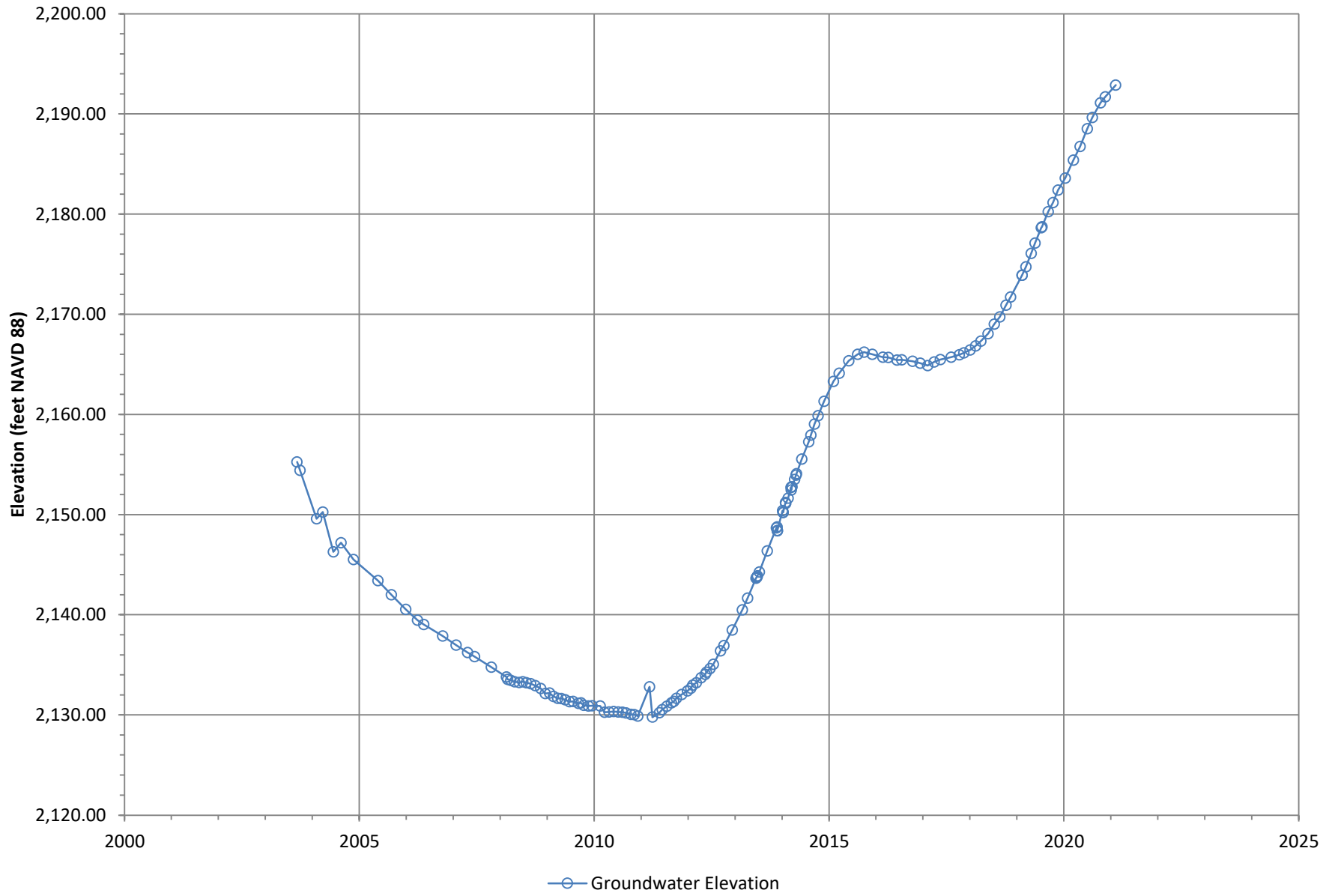


Figure A-48

Groundwater Elevation at USGS Well Dunlap Acres 01

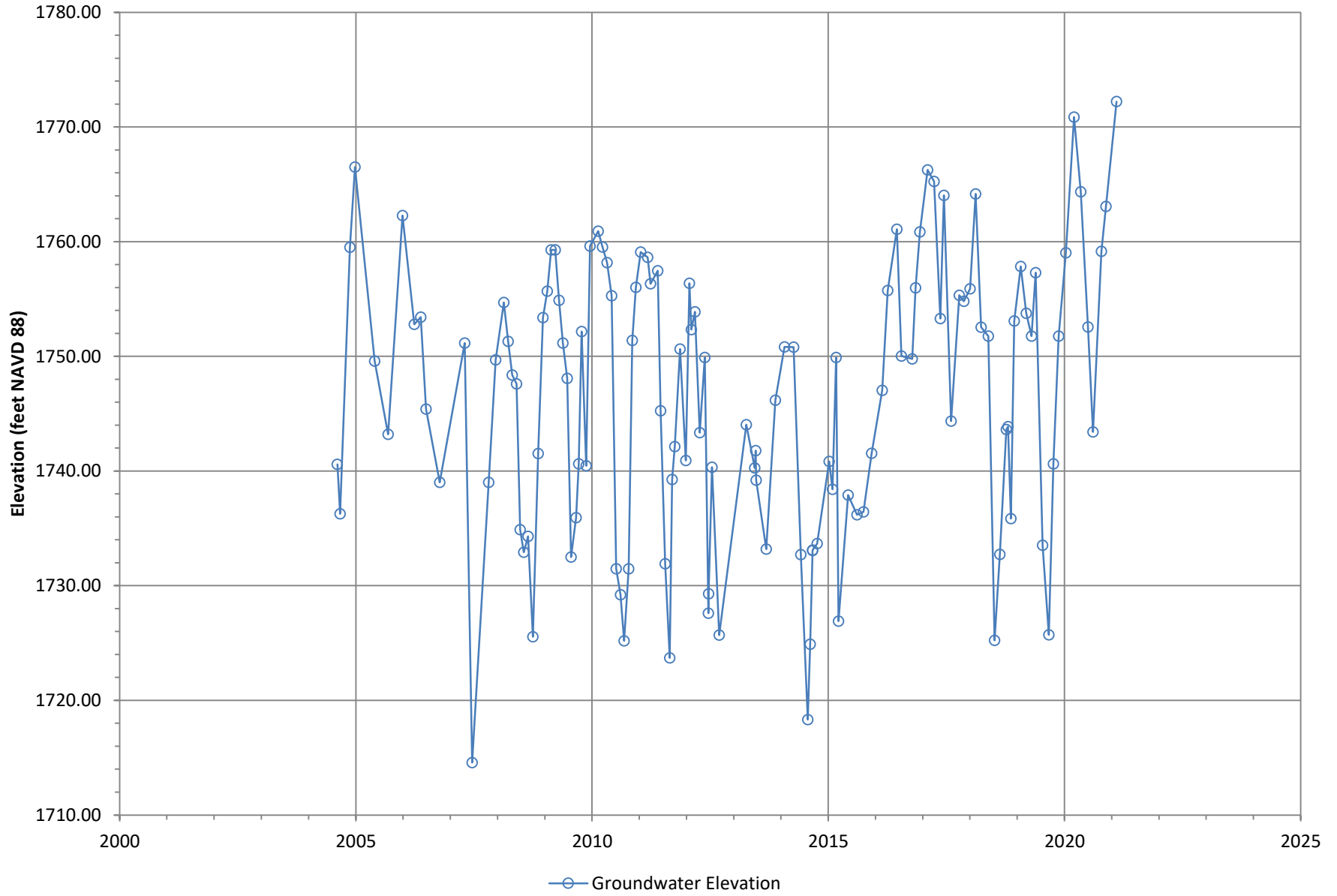


Figure A-49

Groundwater Elevation at USGS Well Dunlap Acres 04

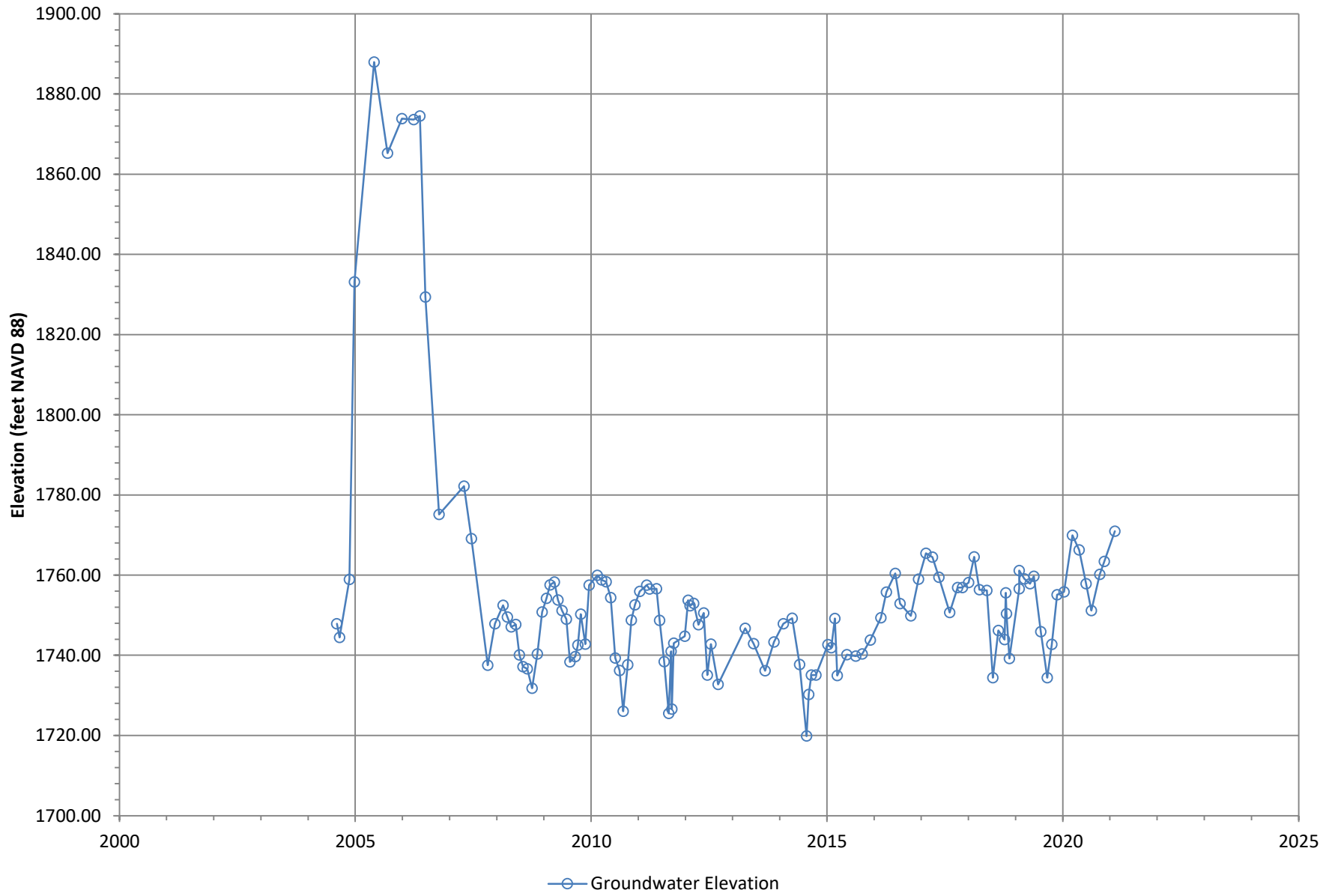


Figure A-52

Groundwater Elevation at USGS Well Dunlap Acres 05

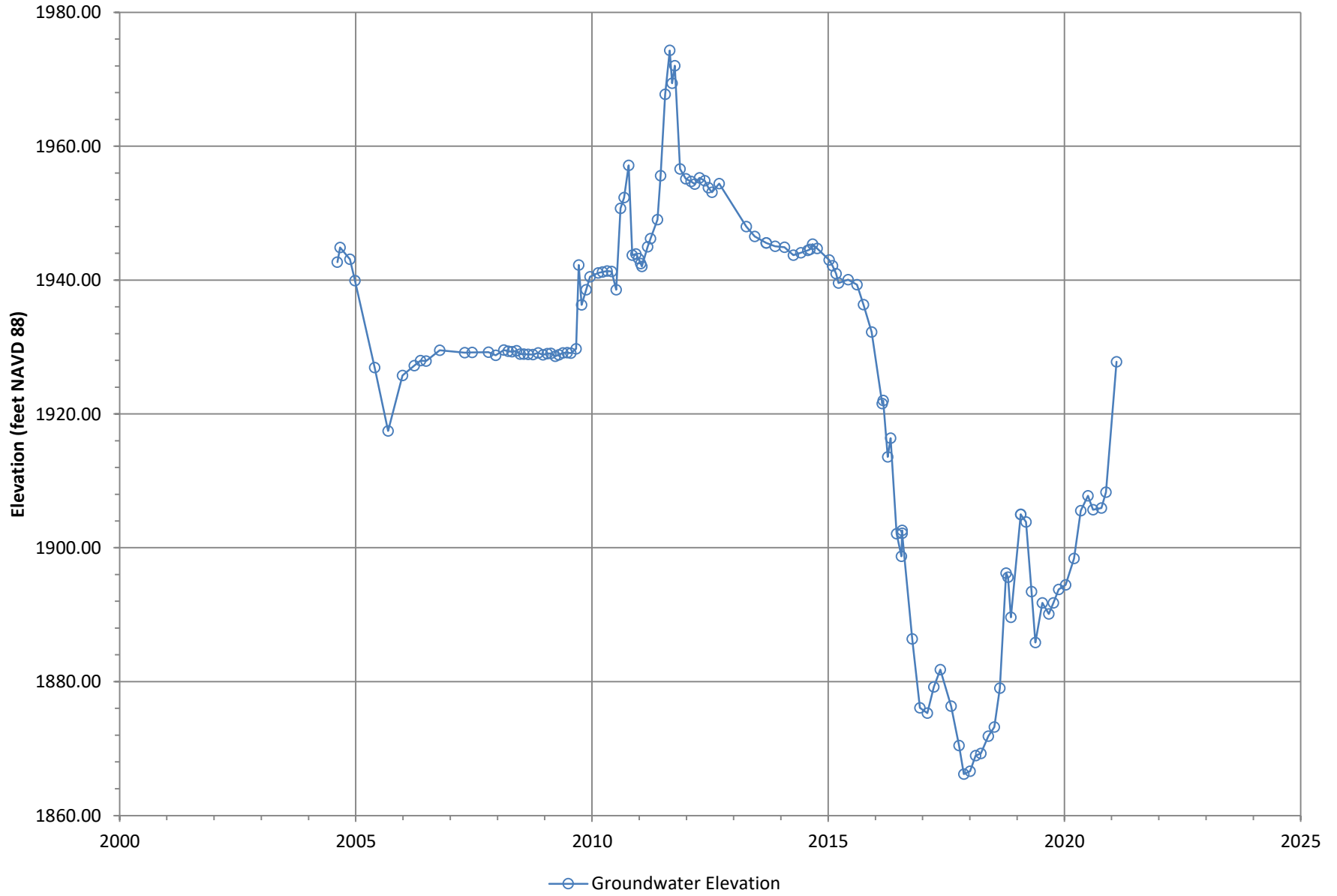


Figure A-53

Groundwater Elevation at USGS Well Equestrian Park on Ave G 01

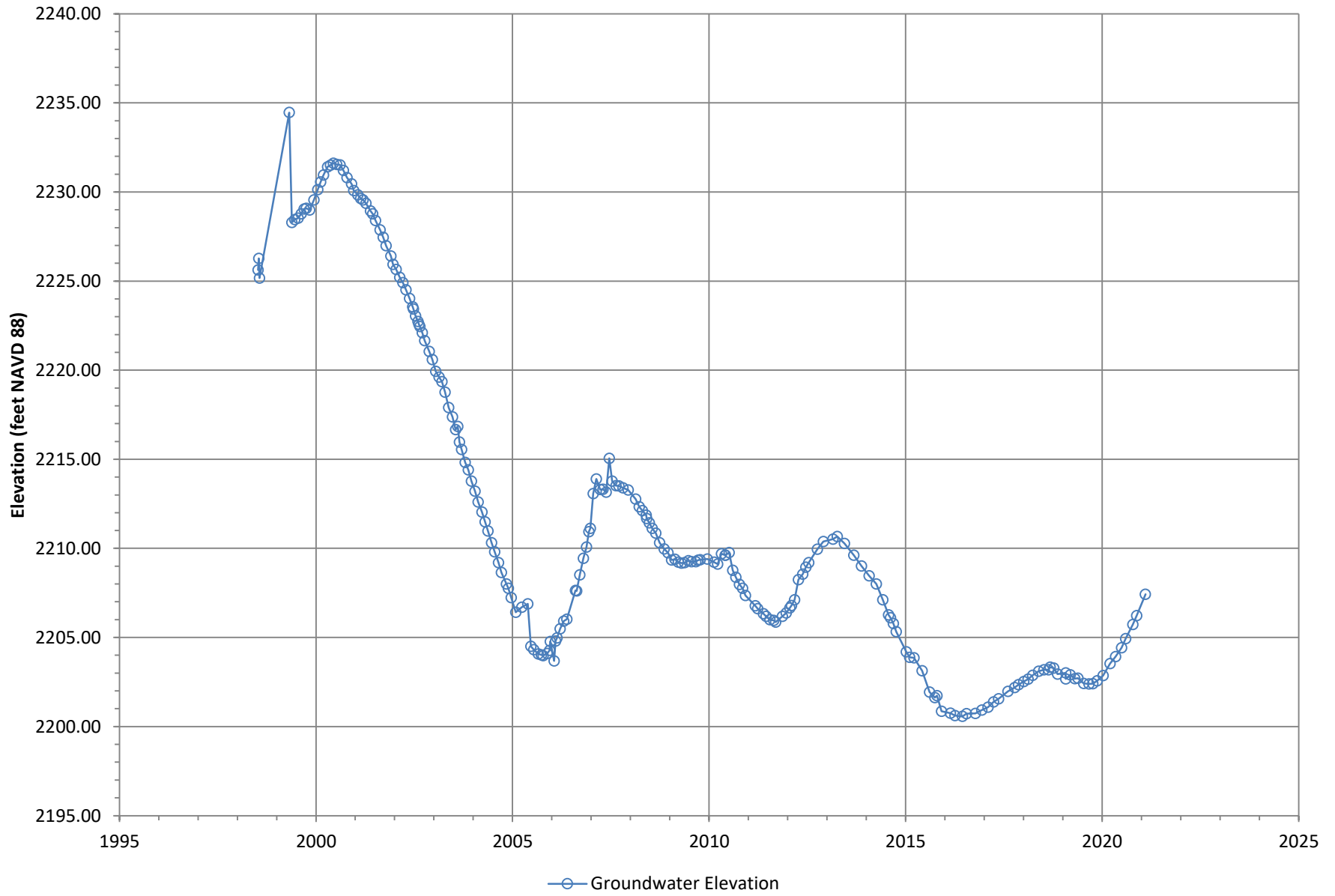


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Groundwater Elevation at USGS Well Equestrian Park on Ave G 02

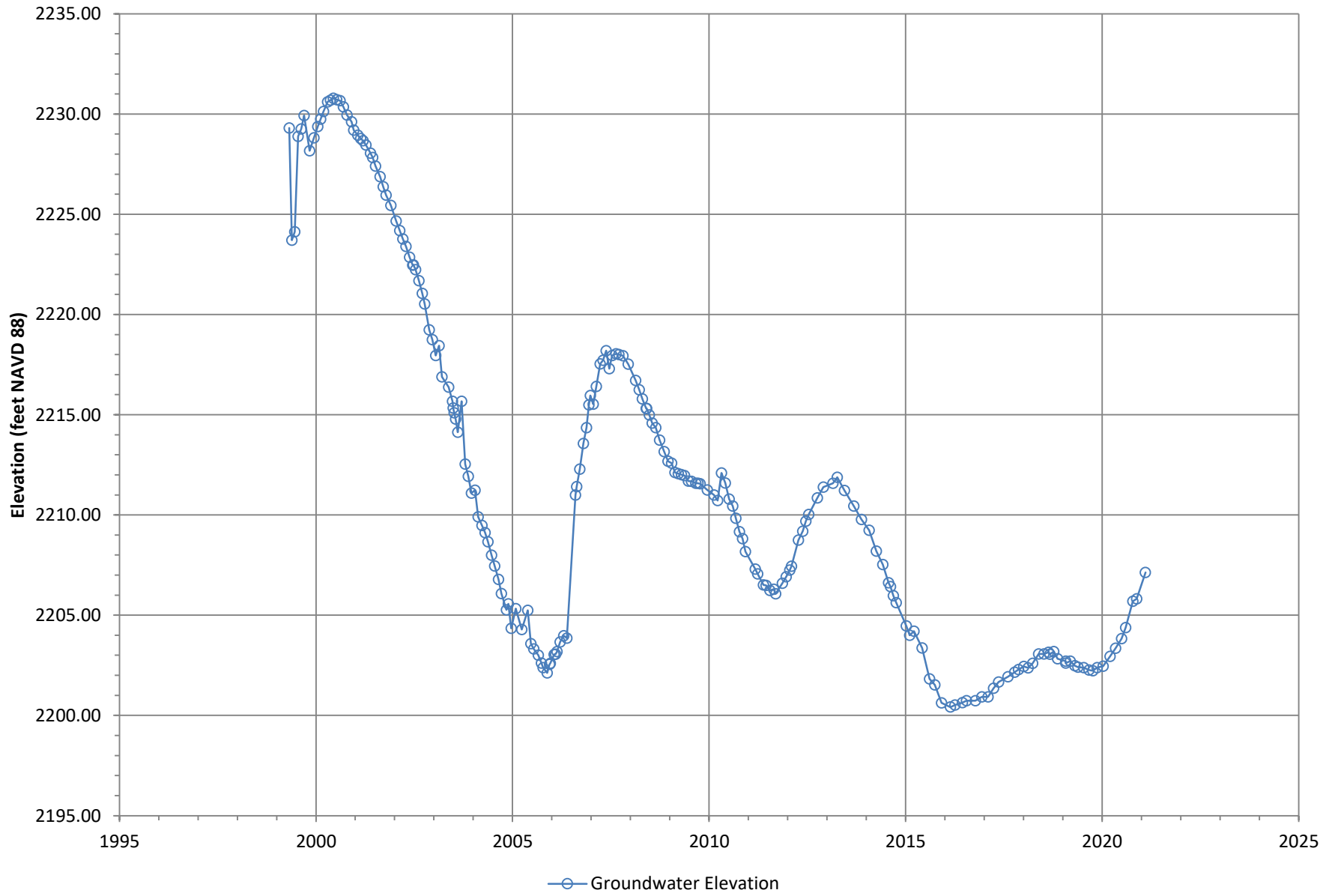


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Groundwater Elevation at USGS Well Equestrian Park on Ave G 03

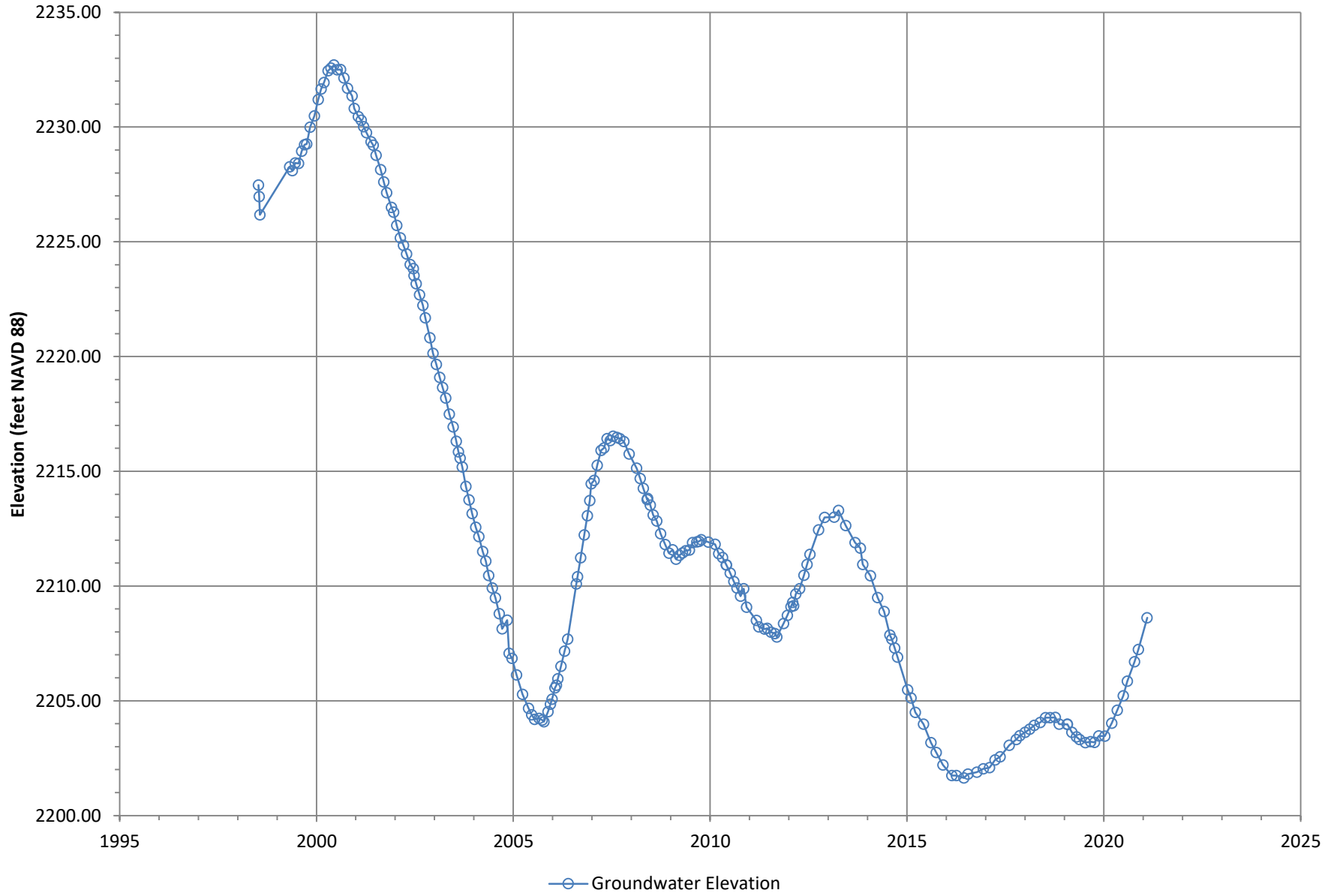


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Groundwater Elevation at USGS Well Equestrian Park on Ave G 04

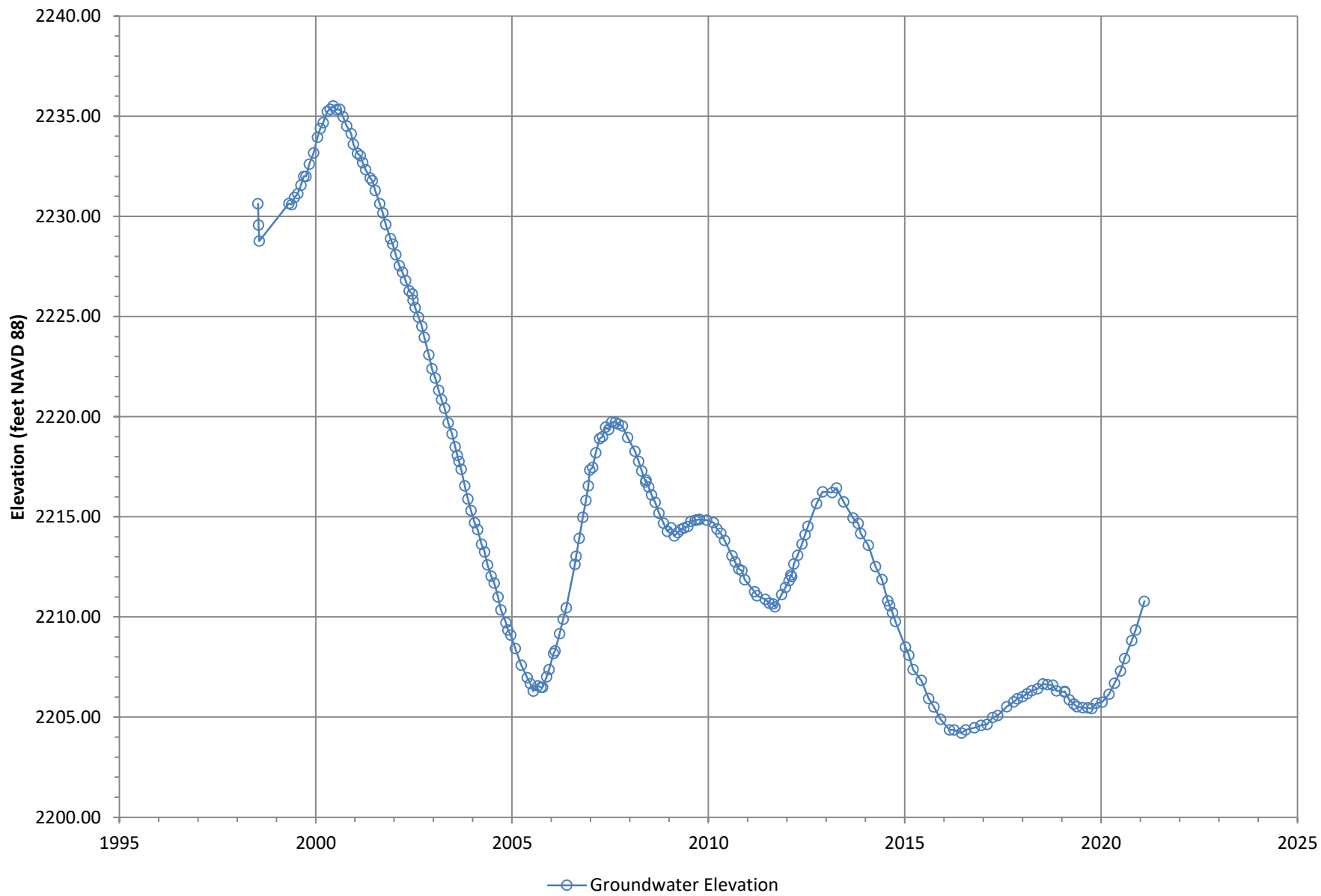


Figure A-57

Groundwater Elevation at USGS Well Wilson Creek 01

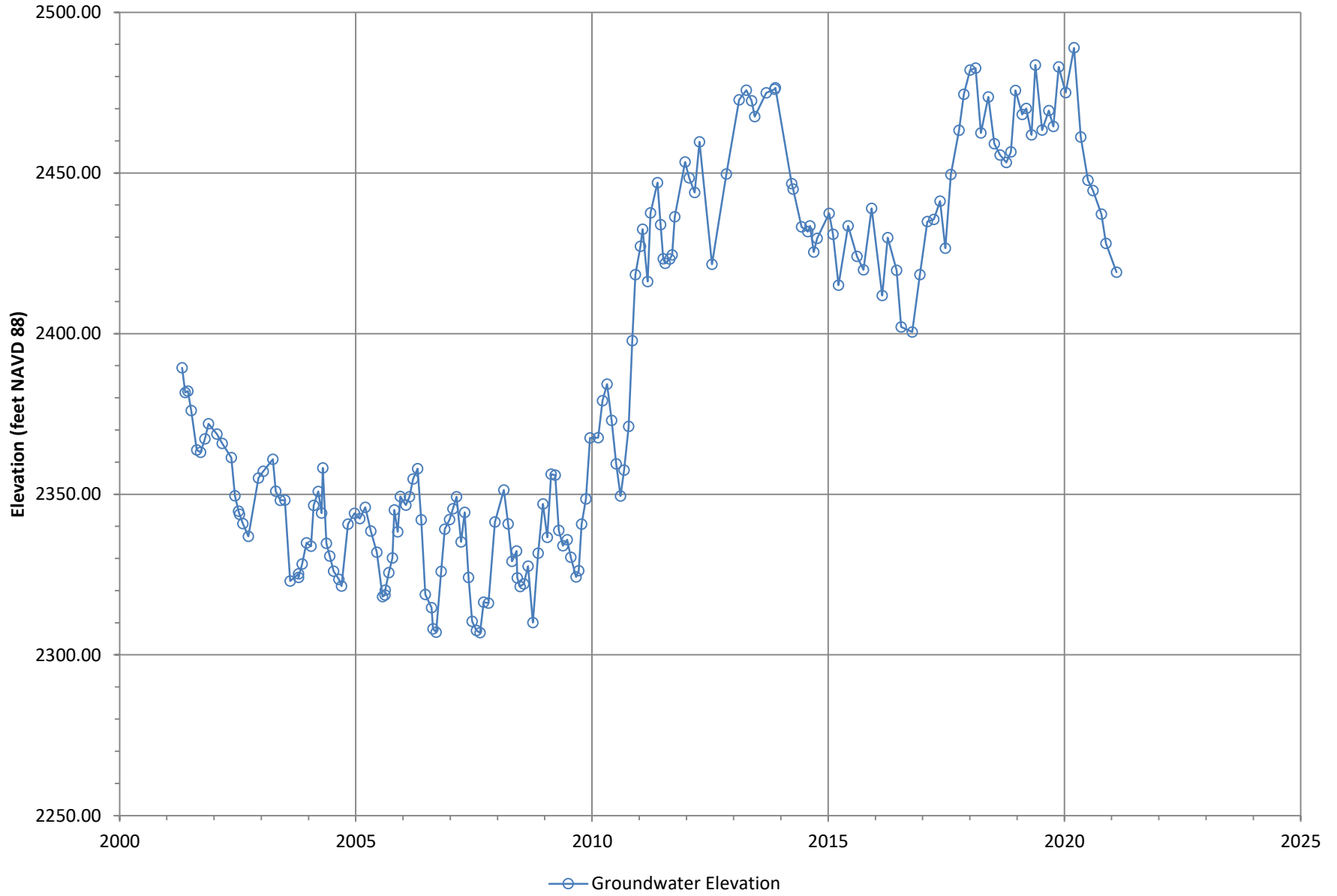


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Groundwater Elevation at USGS Well Wilson Creek 02

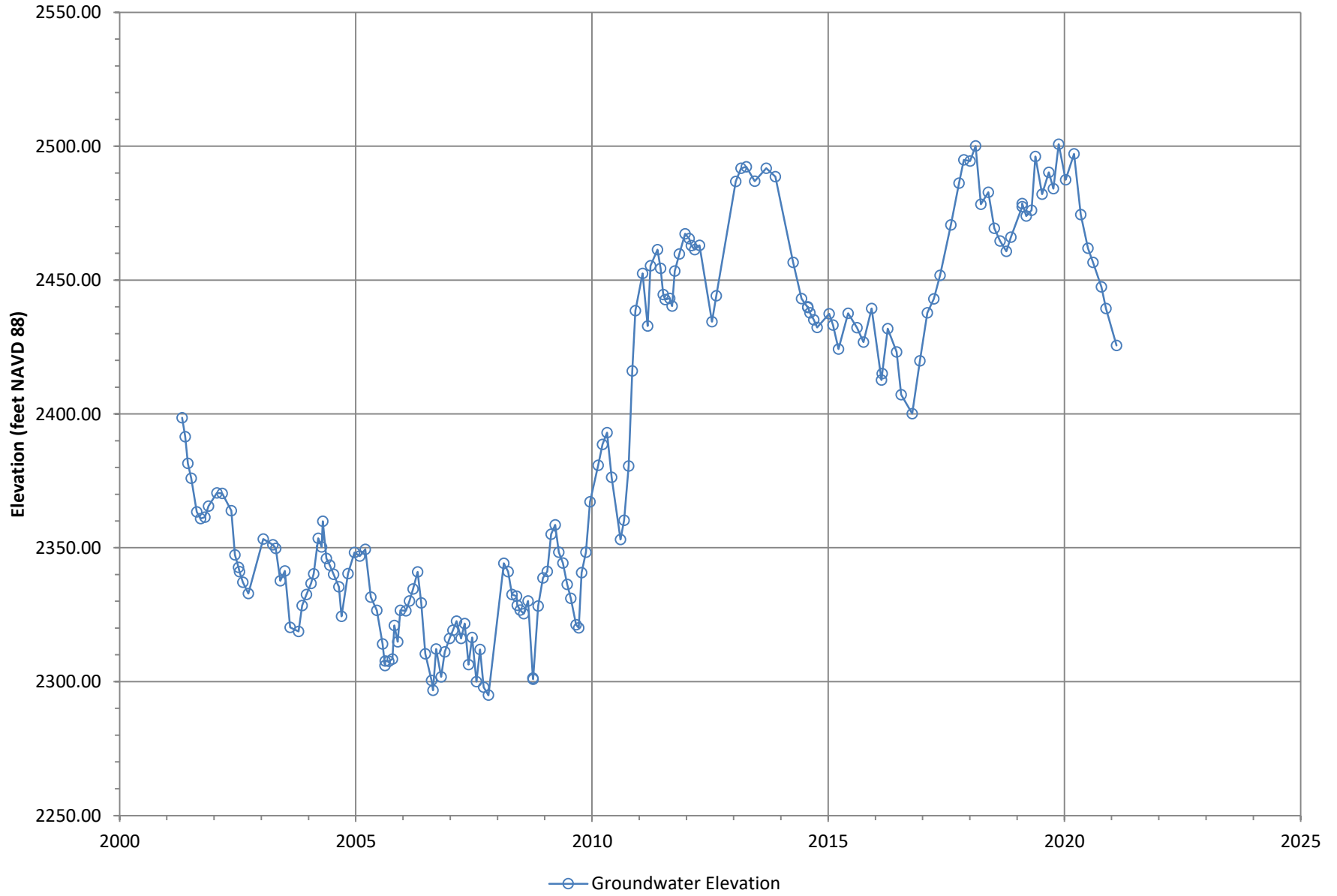


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Groundwater Elevation at USGS Well Wilson Creek 03

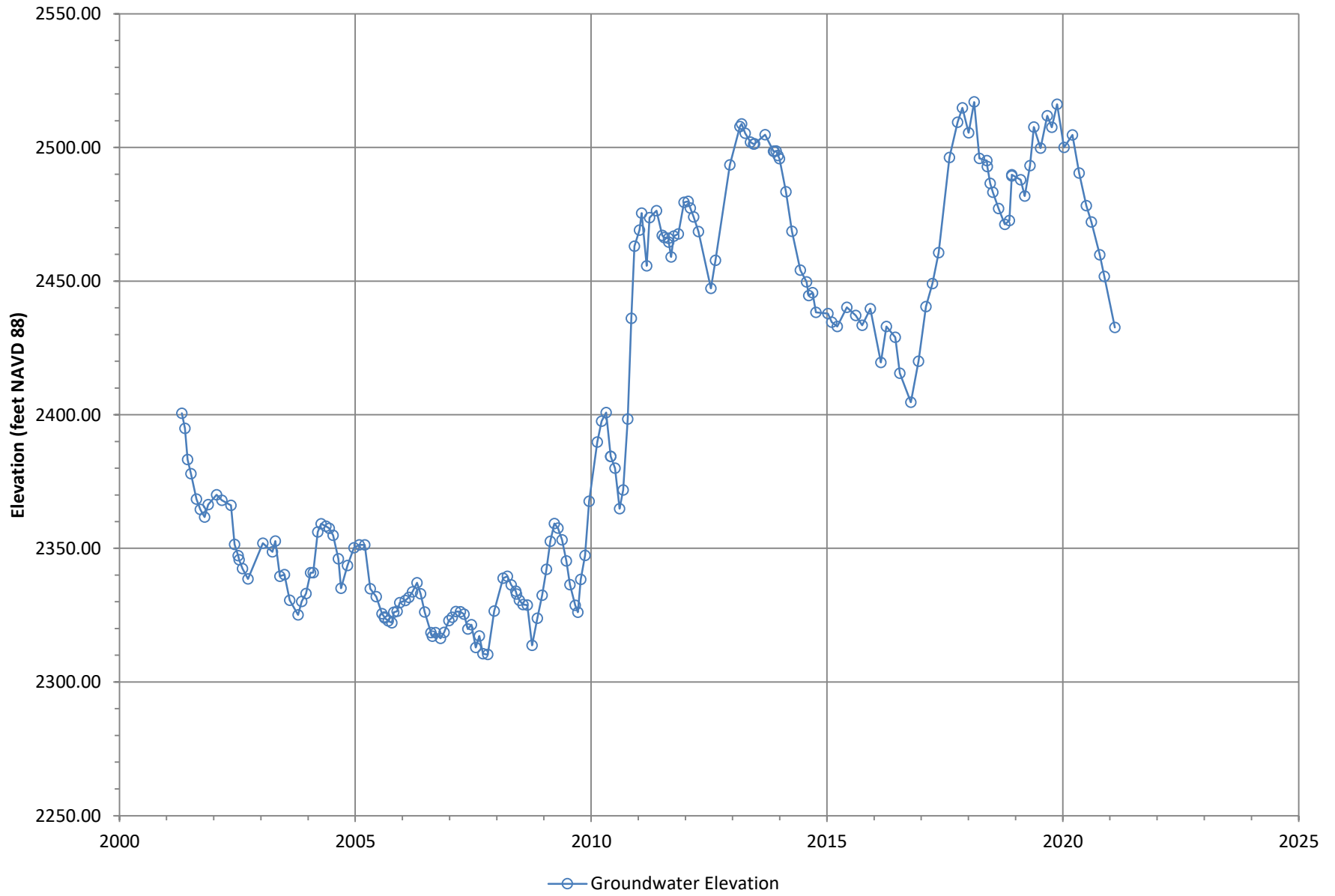


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Groundwater Elevation at USGS Well Wilson Creek 04

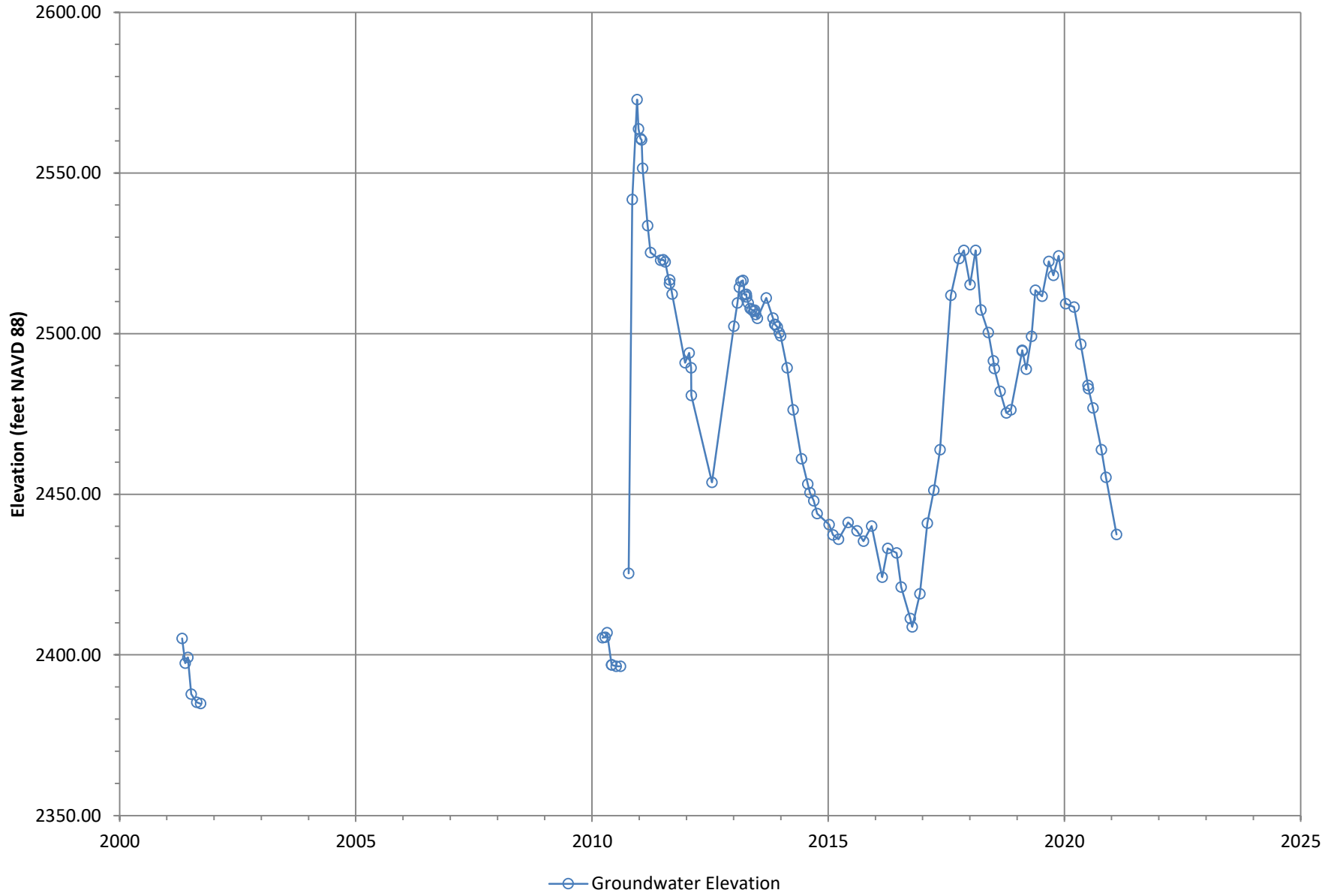


Figure A-61

Groundwater Elevation at Well WHWC-02A

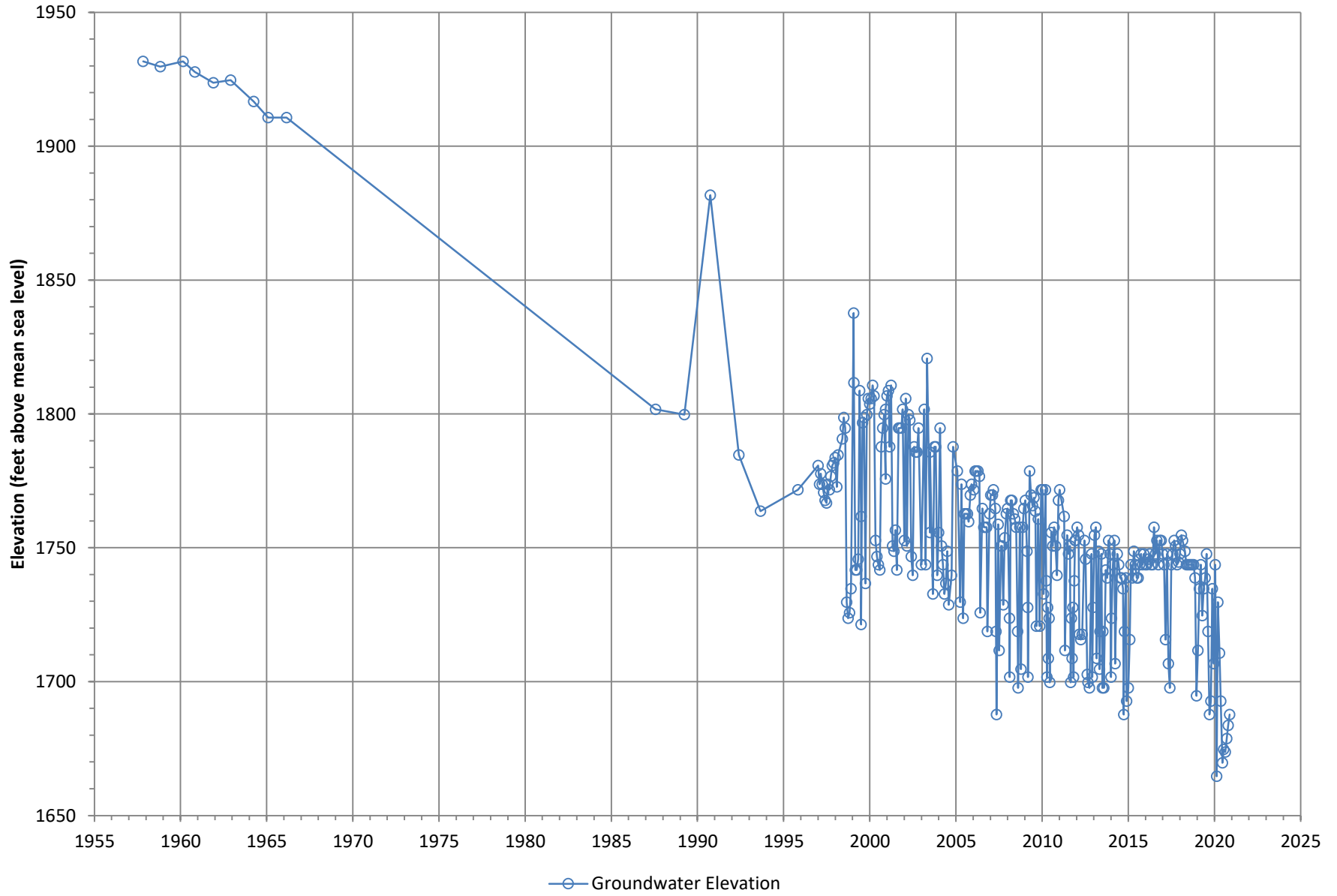


Figure A-62

Groundwater Elevation at Well WHWC-10

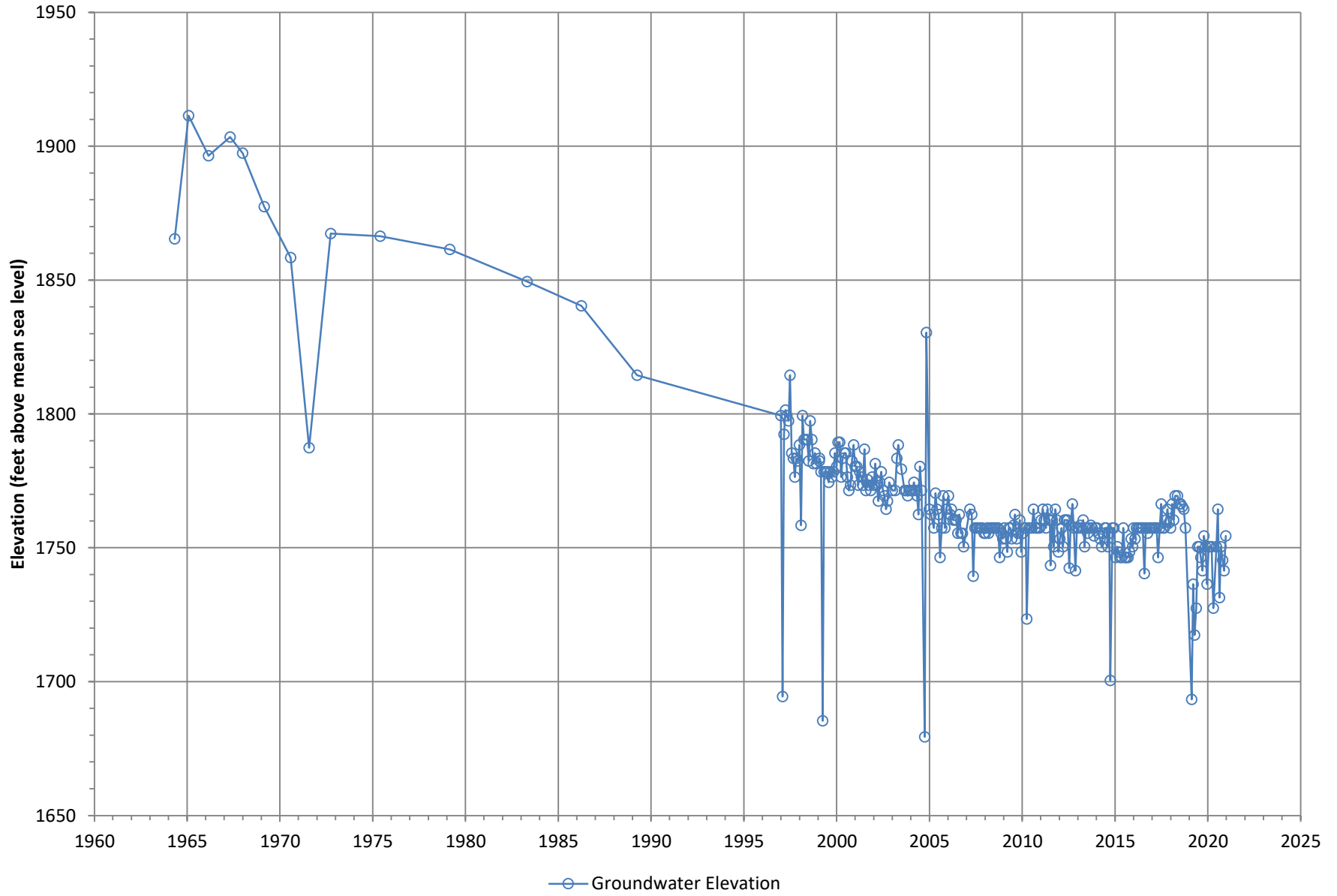


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Groundwater Elevation at Well WHWC-11

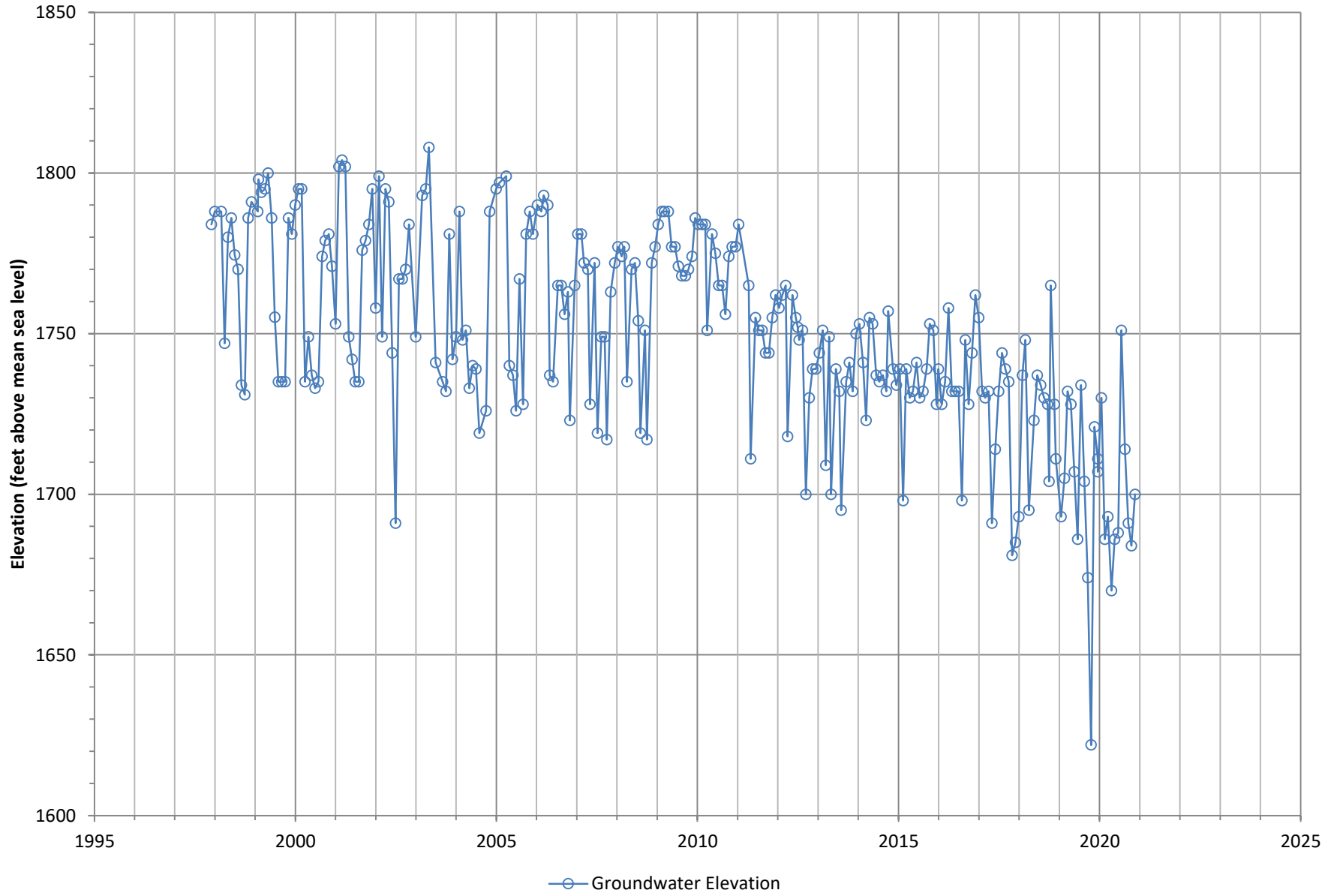


Figure A-64

Groundwater Elevation at Well SBVMWD Wilson B

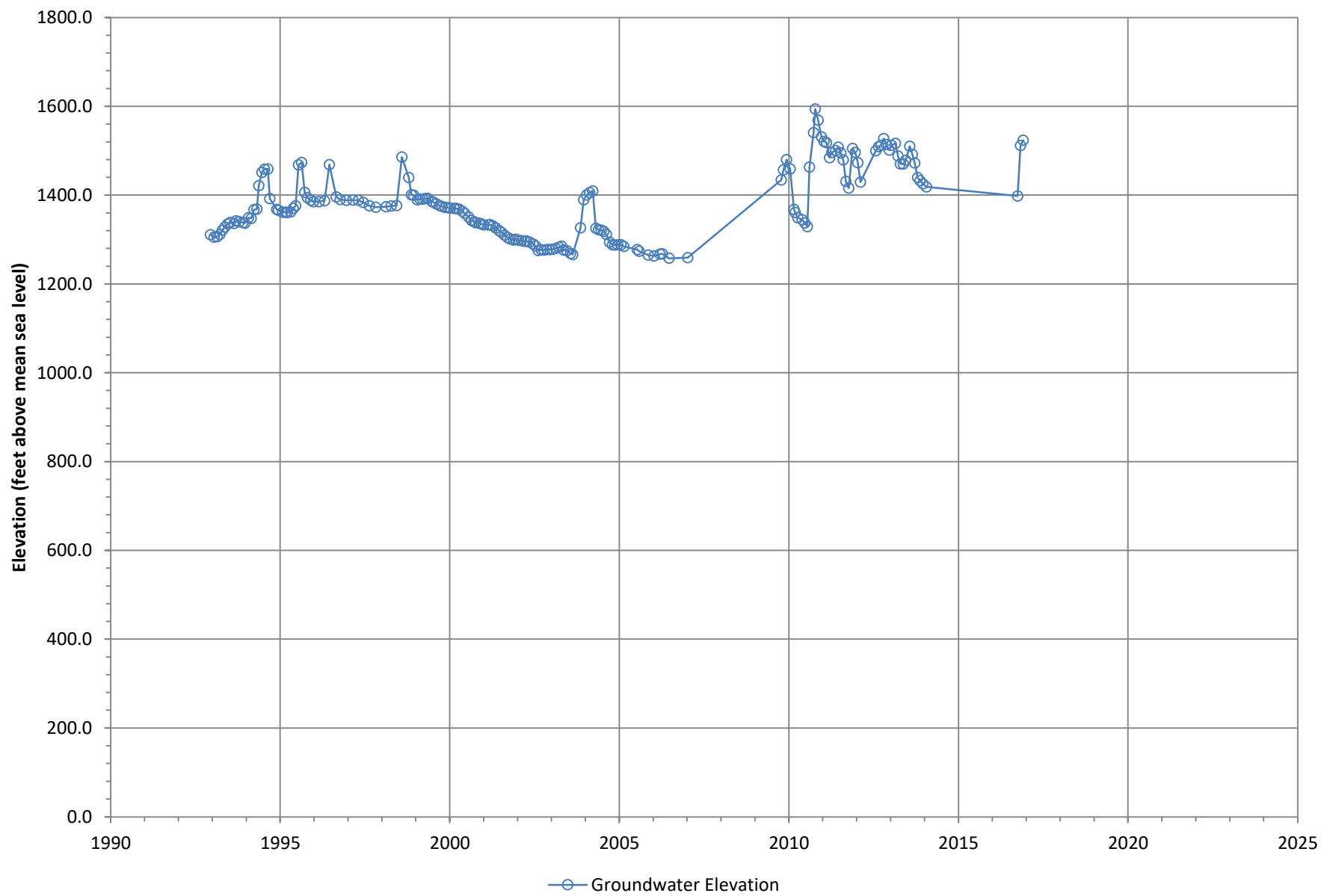


Figure A-67

Groundwater Elevation at Well YVWD-02

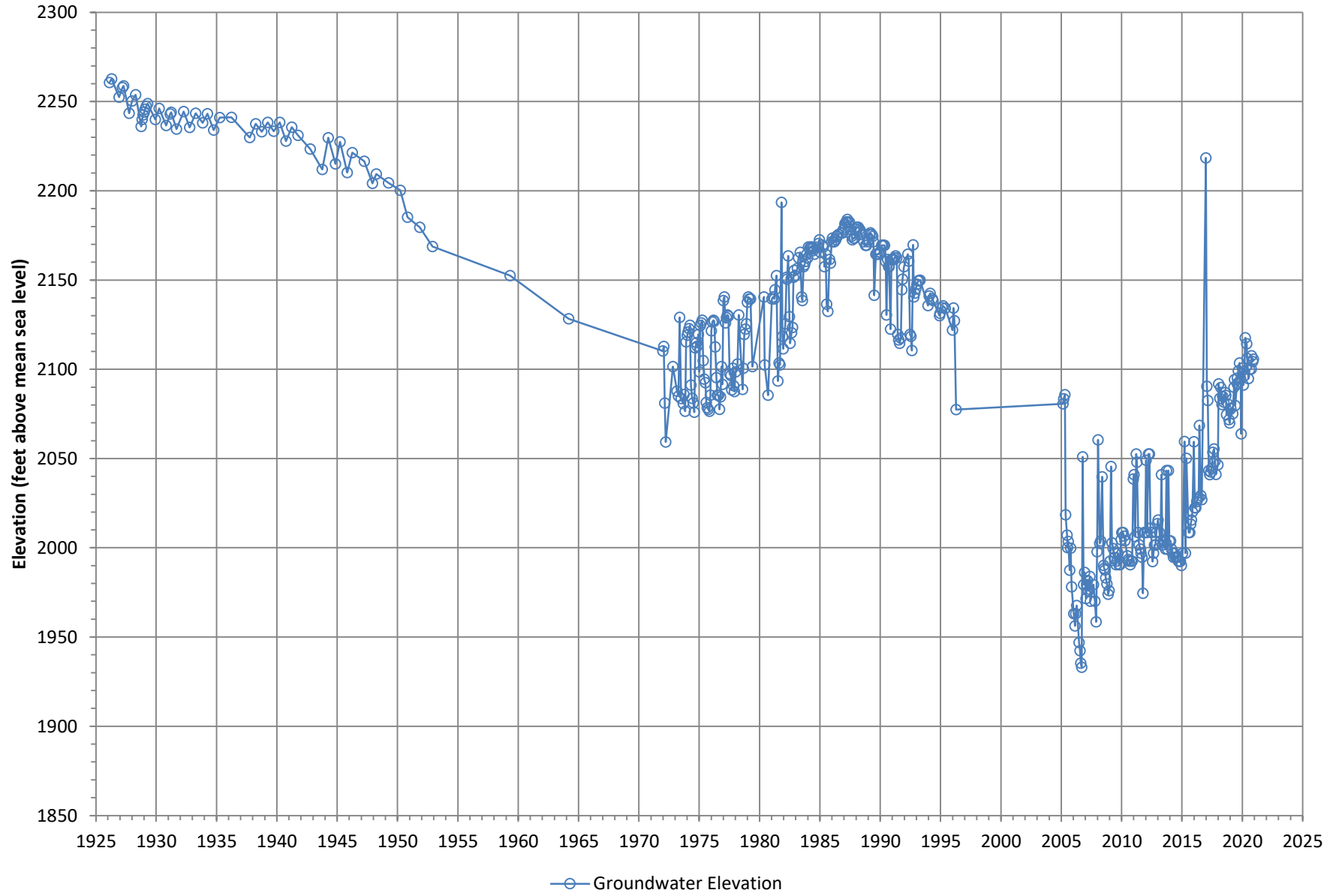


Figure A-68

Groundwater Elevation at Well YVWD-05

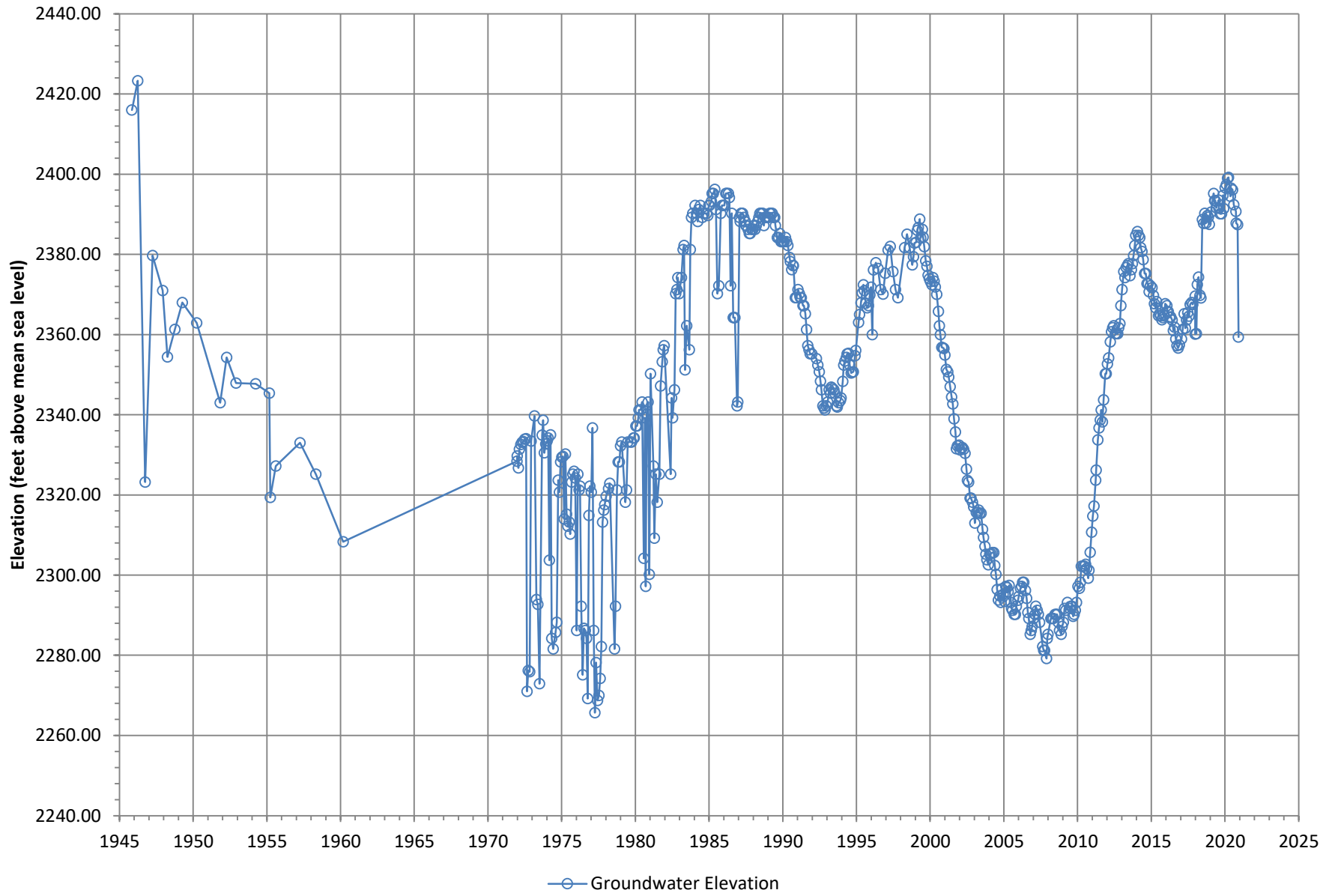


Figure A-69

Groundwater Elevation at Well YVWD-06

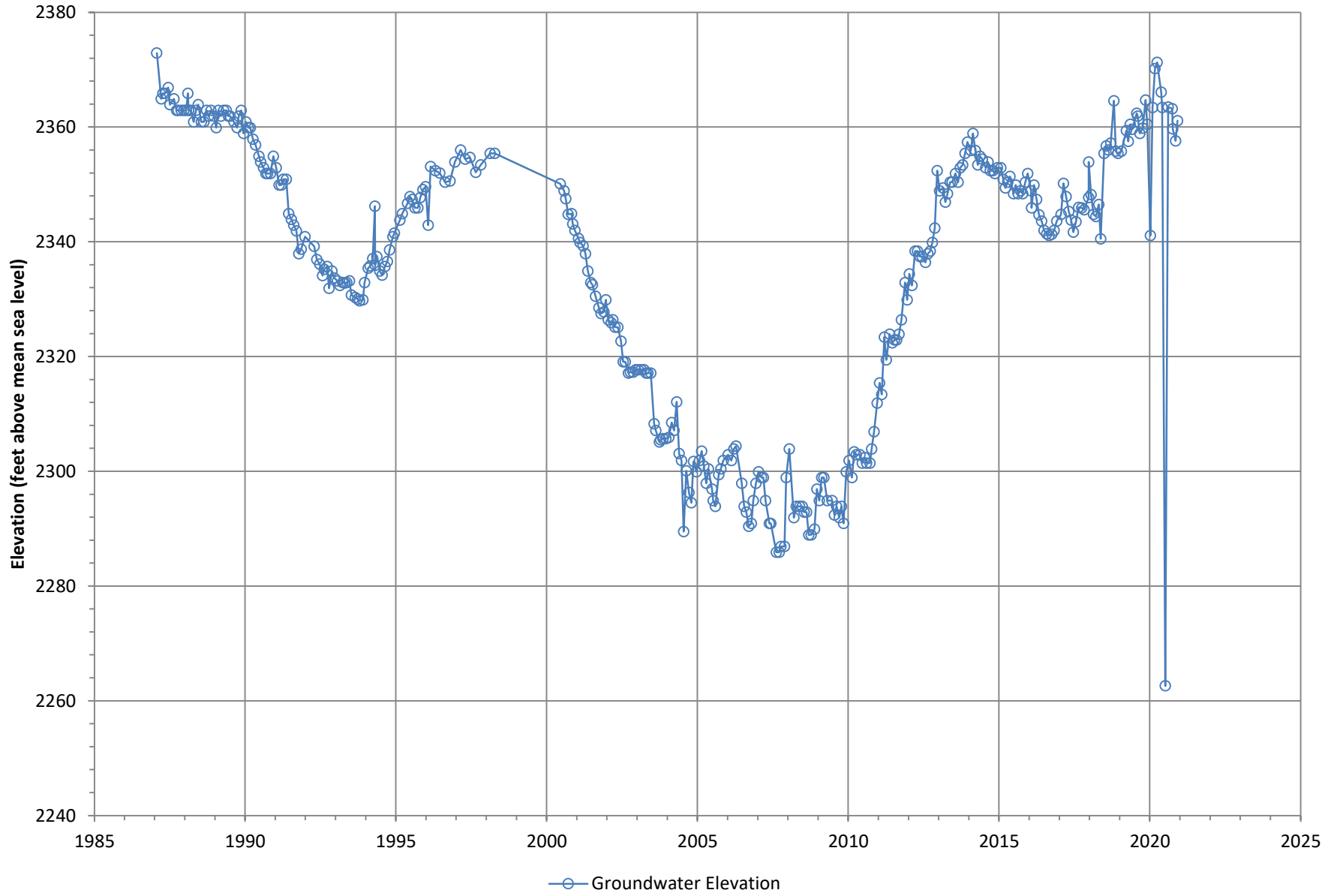


Figure A-70

Groundwater Elevation at Well YVWD-07

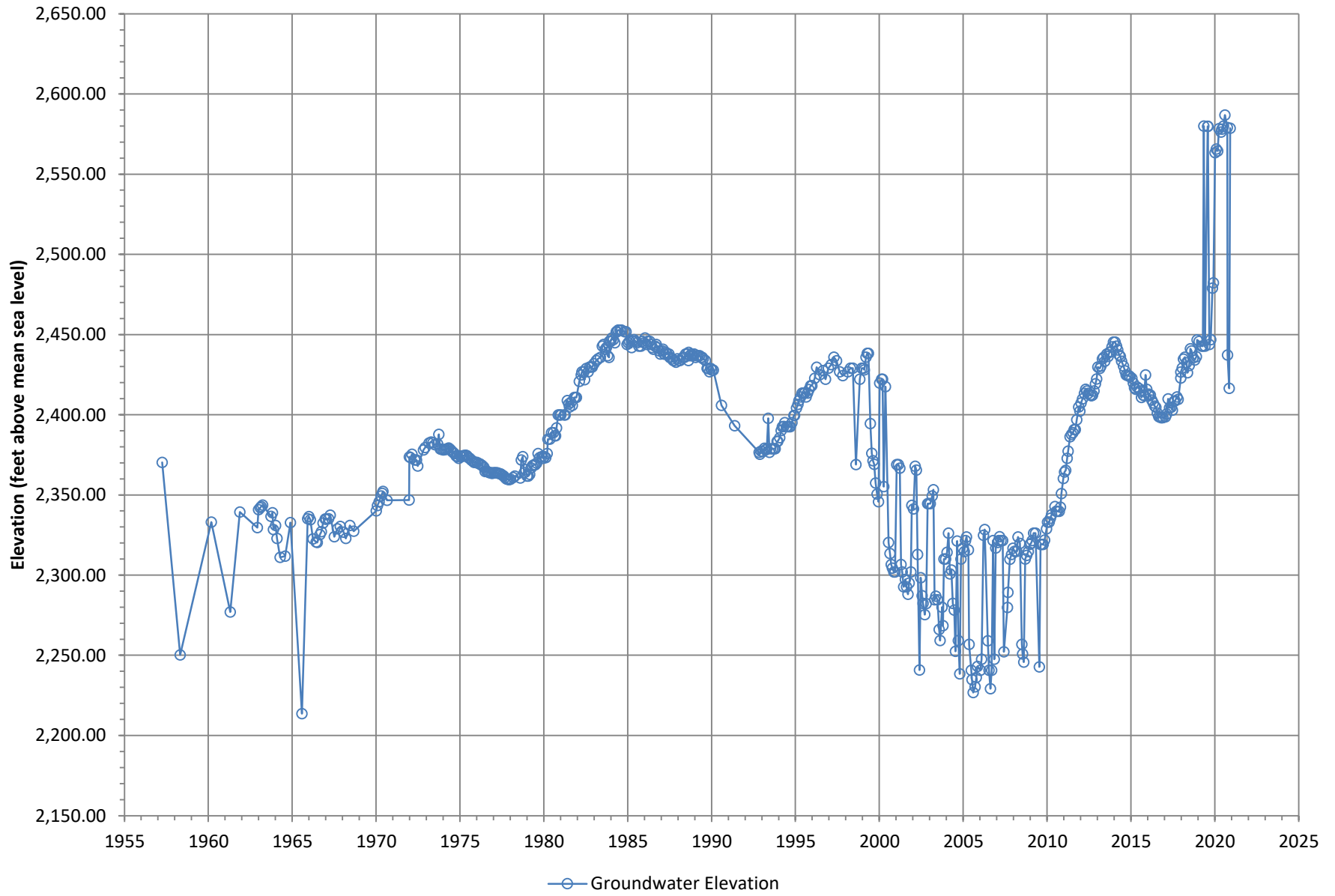


Figure A-71

Groundwater Elevation at Well YVWD-10

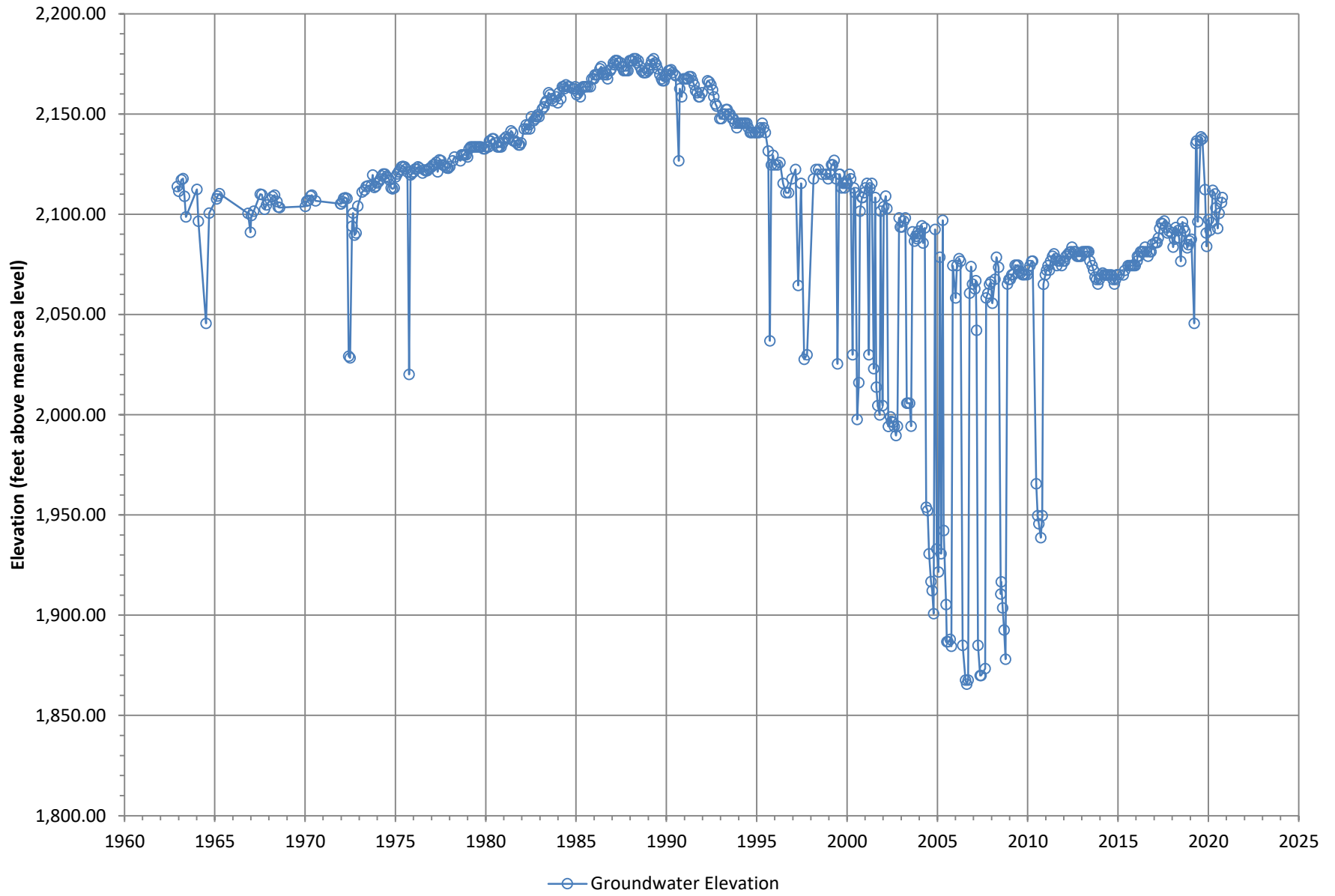


Figure A-72

Groundwater Elevation at Well YVWD-12

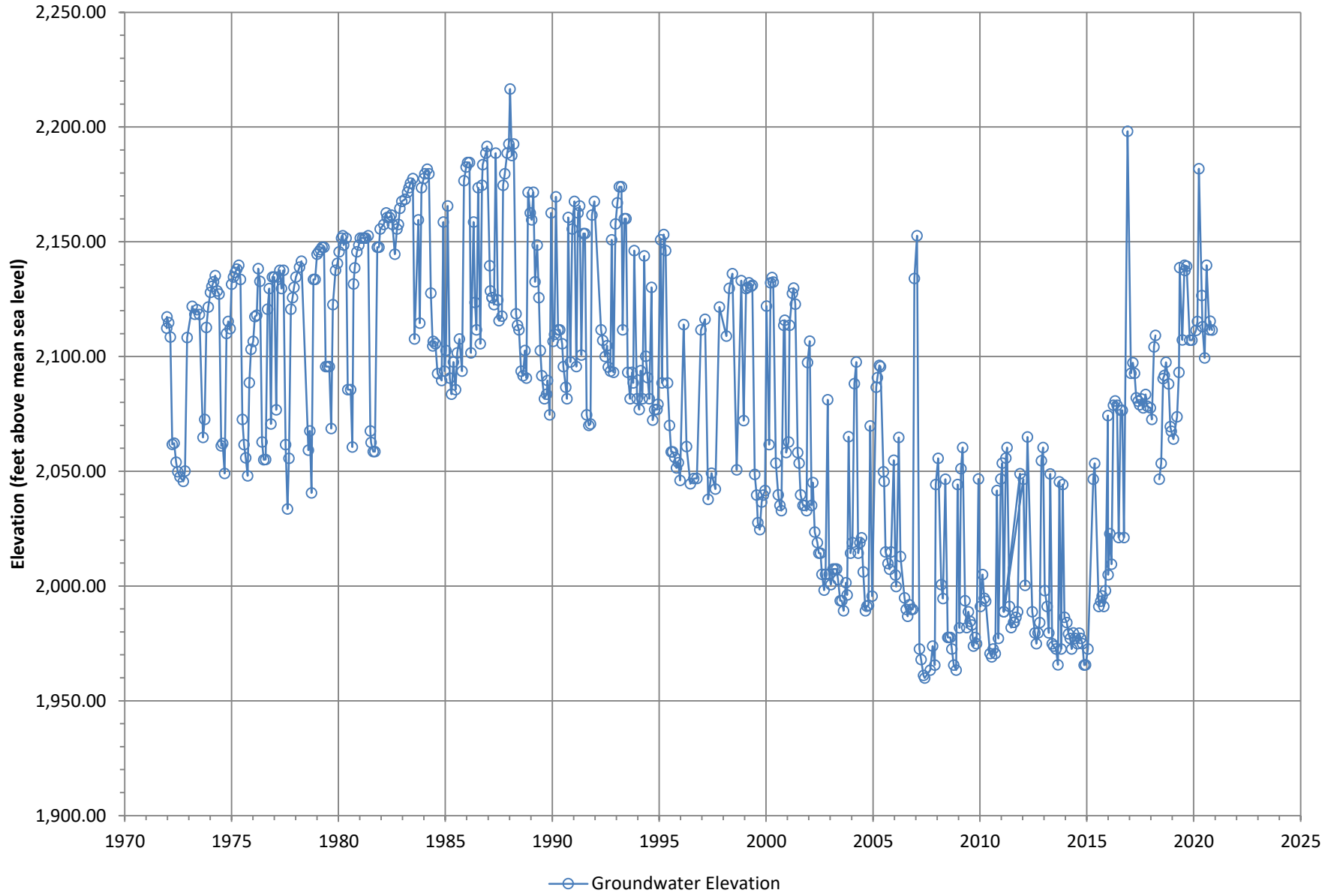


Figure A-73

Groundwater Elevation at Well YVWD-13

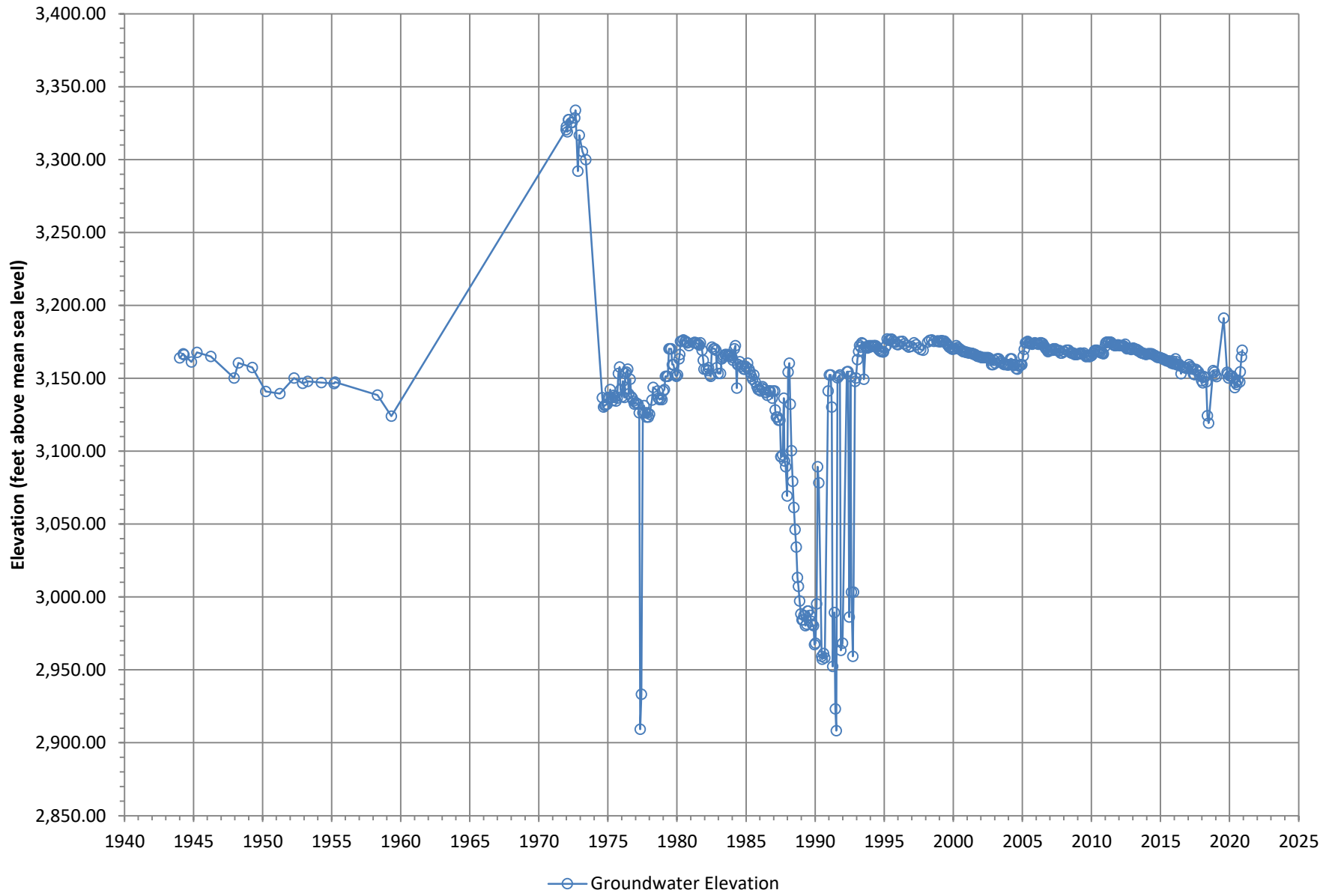


Figure A-74

Groundwater Elevation at Well YVWD-14

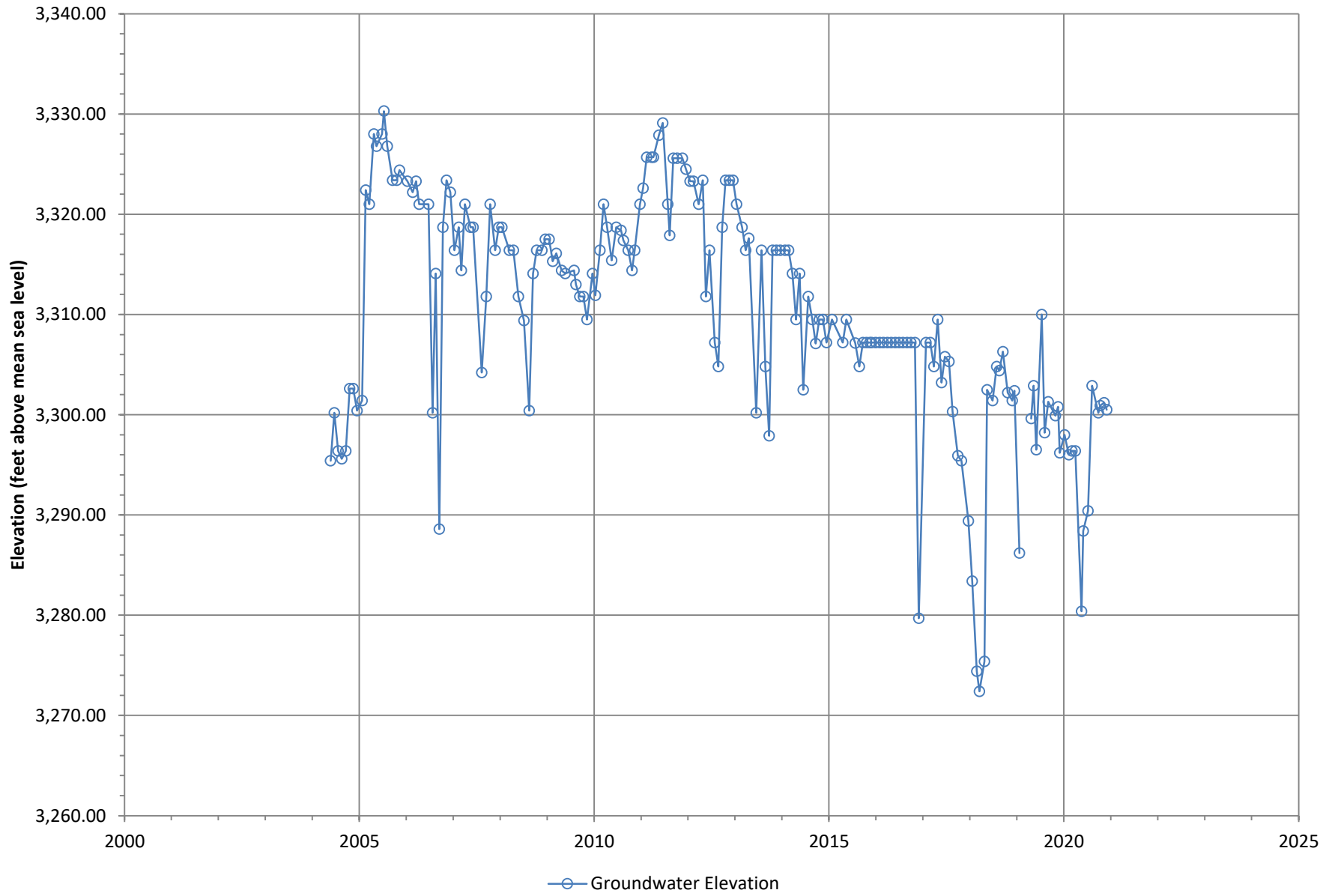


Figure A-75

Groundwater Elevation at Well YVWD-16

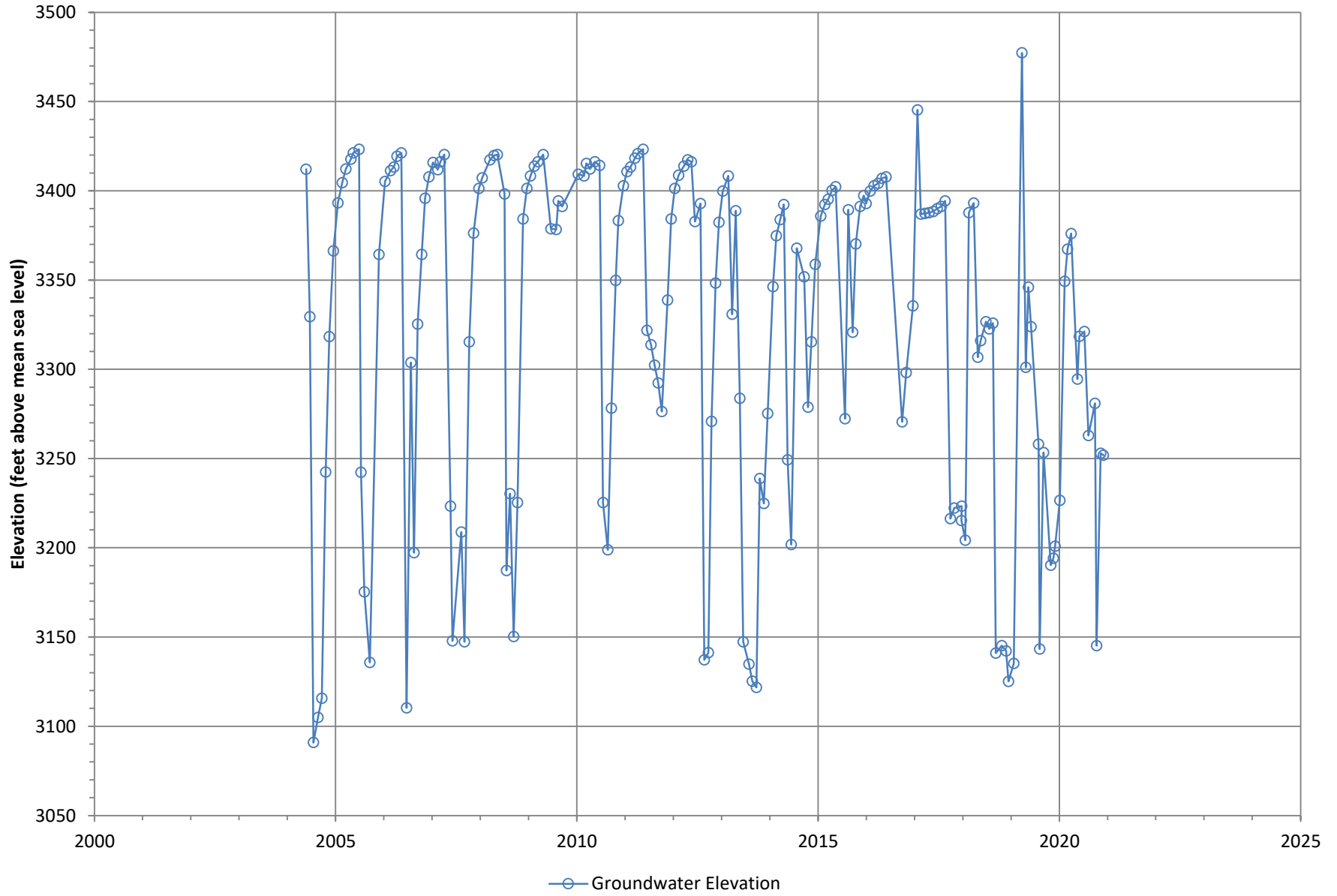


Figure A-76

Groundwater Elevation at Well YVWD-18

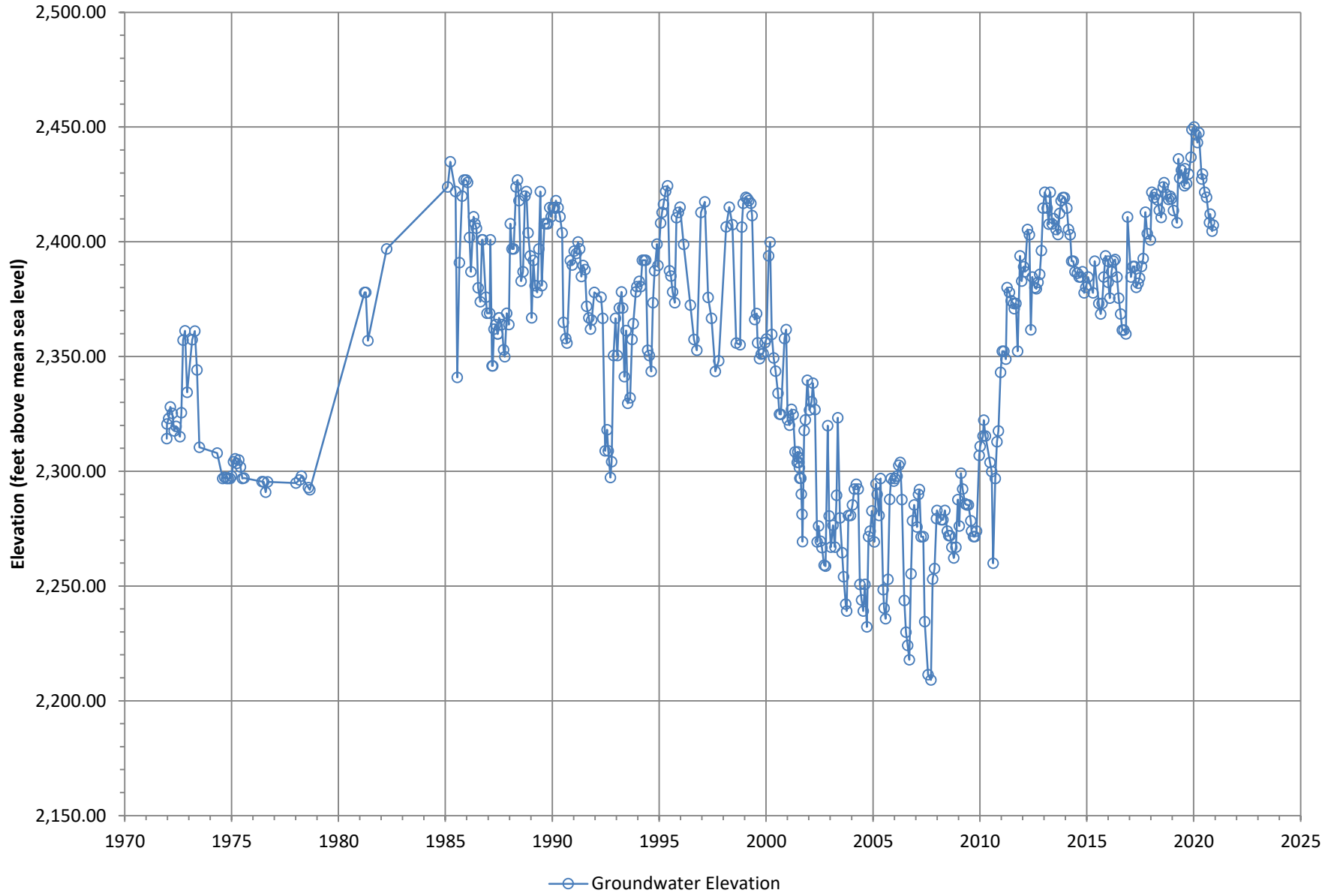


Figure A-77

Groundwater Elevation at Well YVWD-24

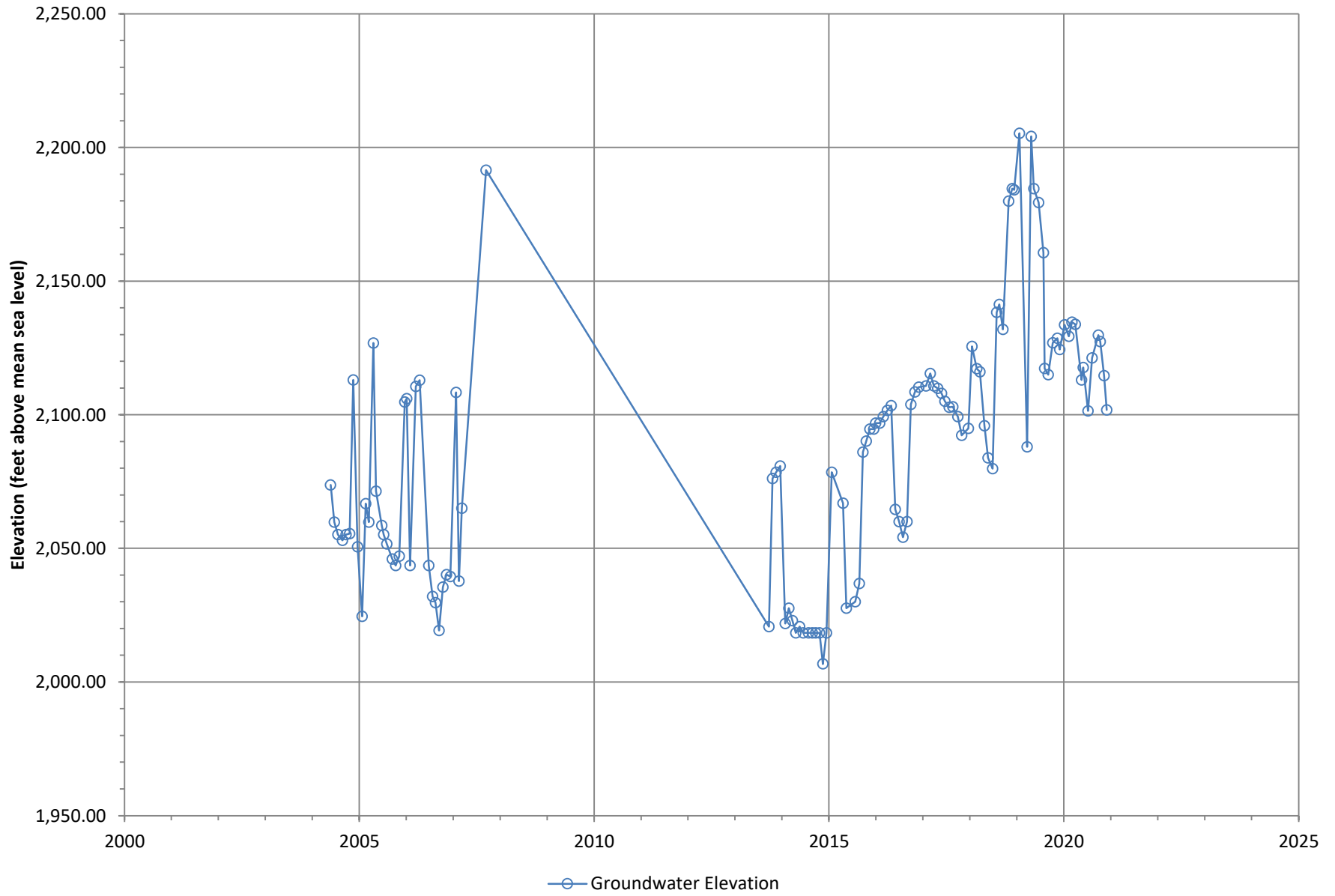


Figure A-78

Groundwater Elevation at Well YVWD-25

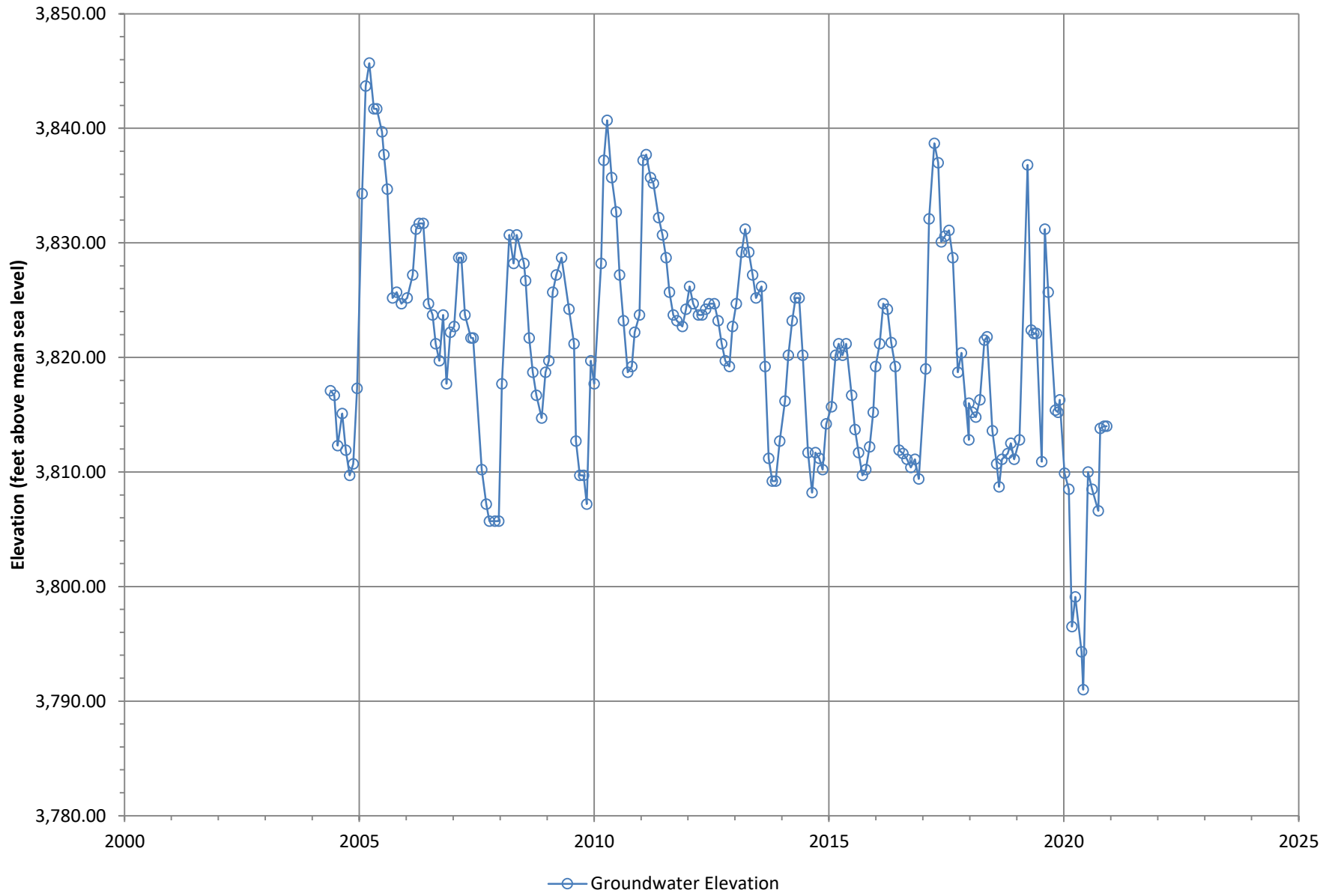


Figure A-79

Groundwater Elevation at Well YVWD-27

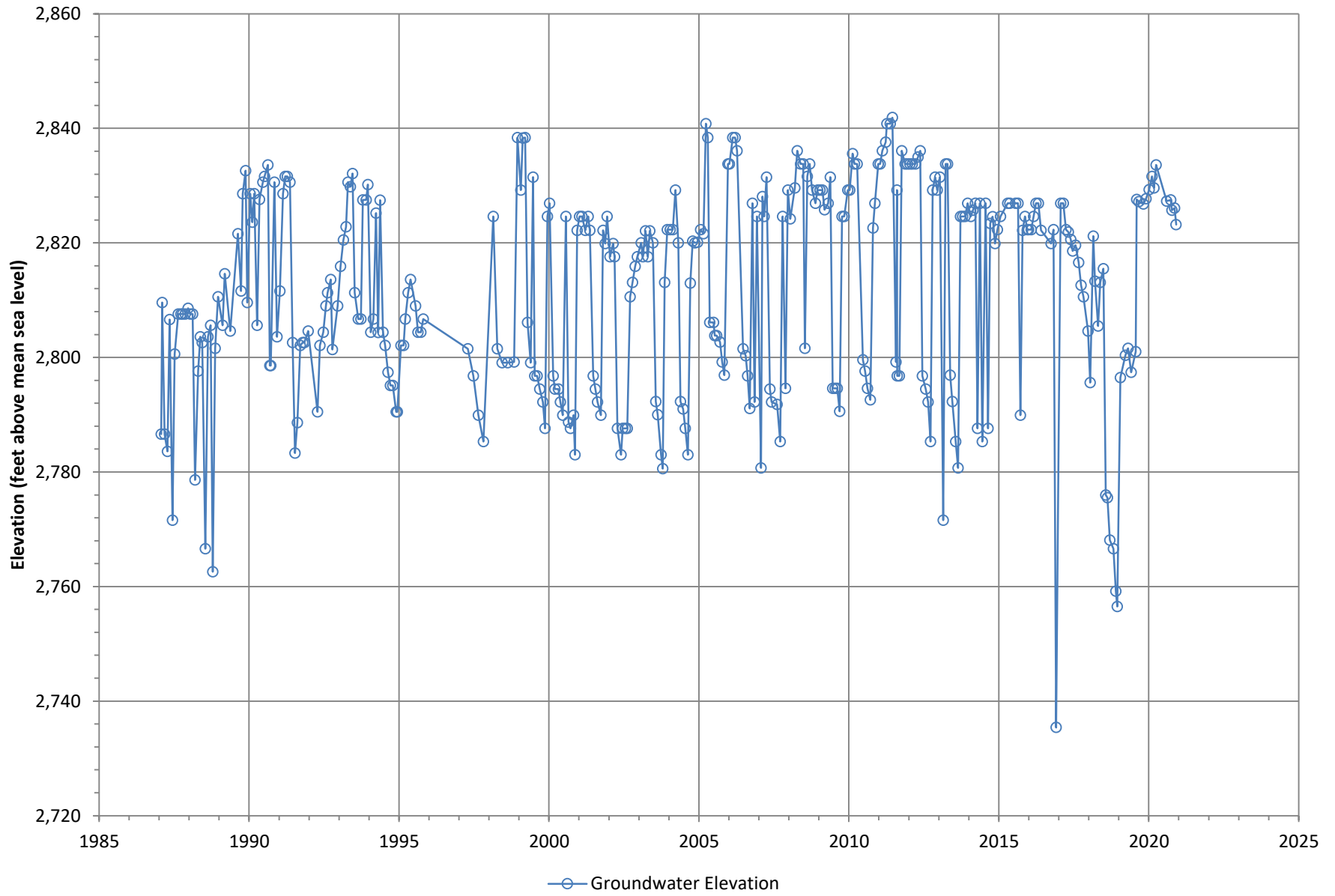


Figure A-80

Groundwater Elevation at Well YVWD-27A

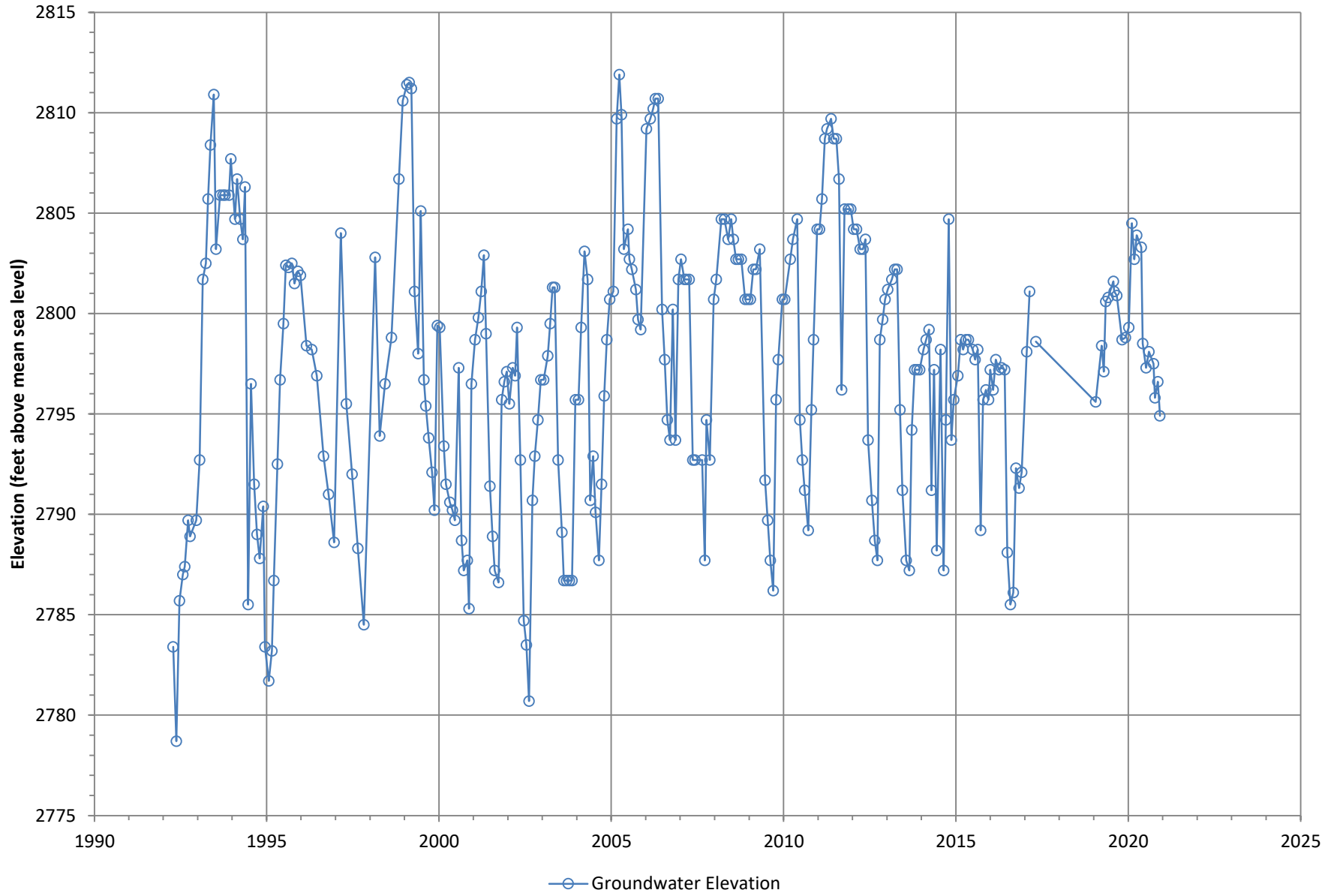


Figure A-81

Groundwater Elevation at Well YVWD-28

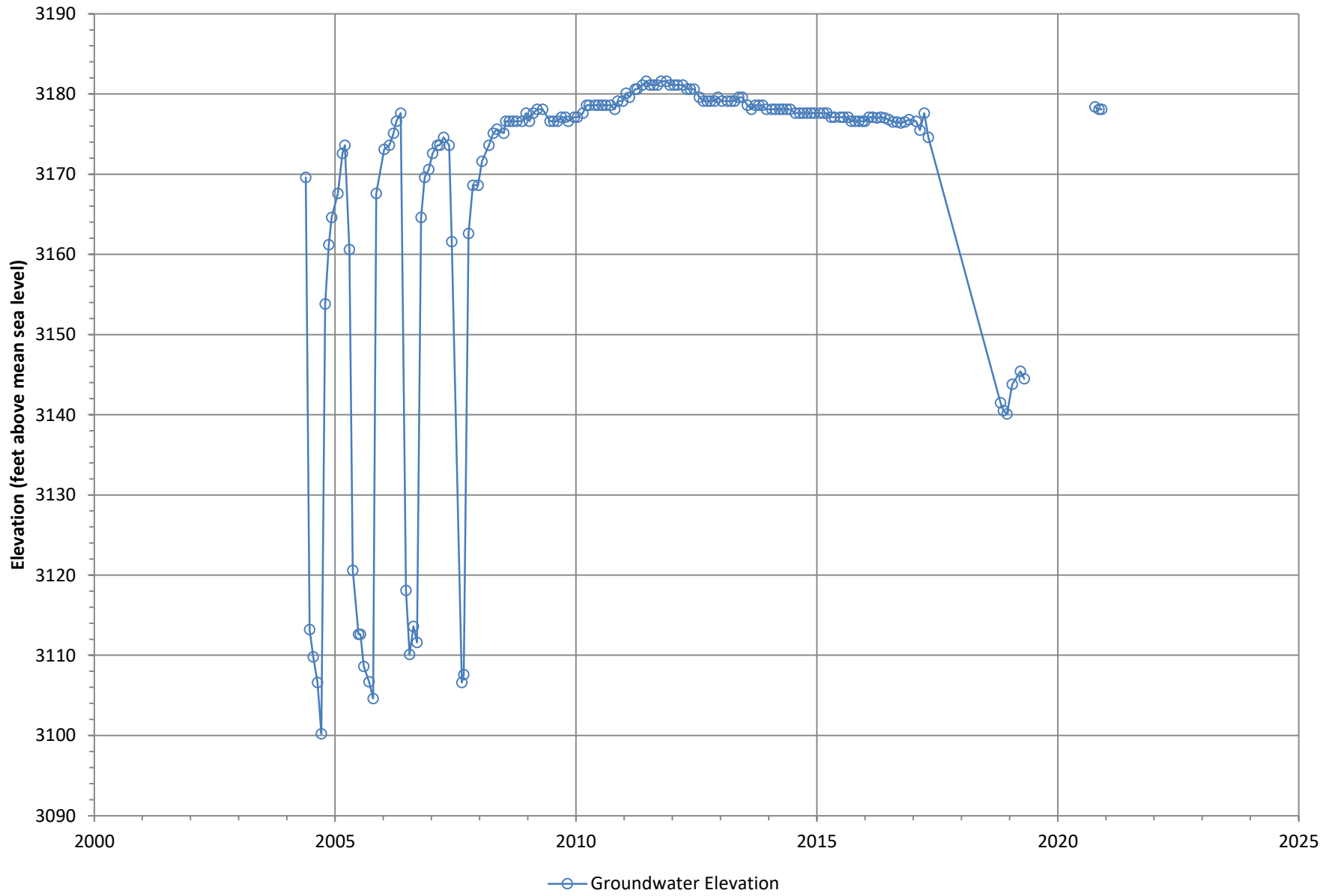


Figure A-82

Groundwater Elevation at Well YVWD-37

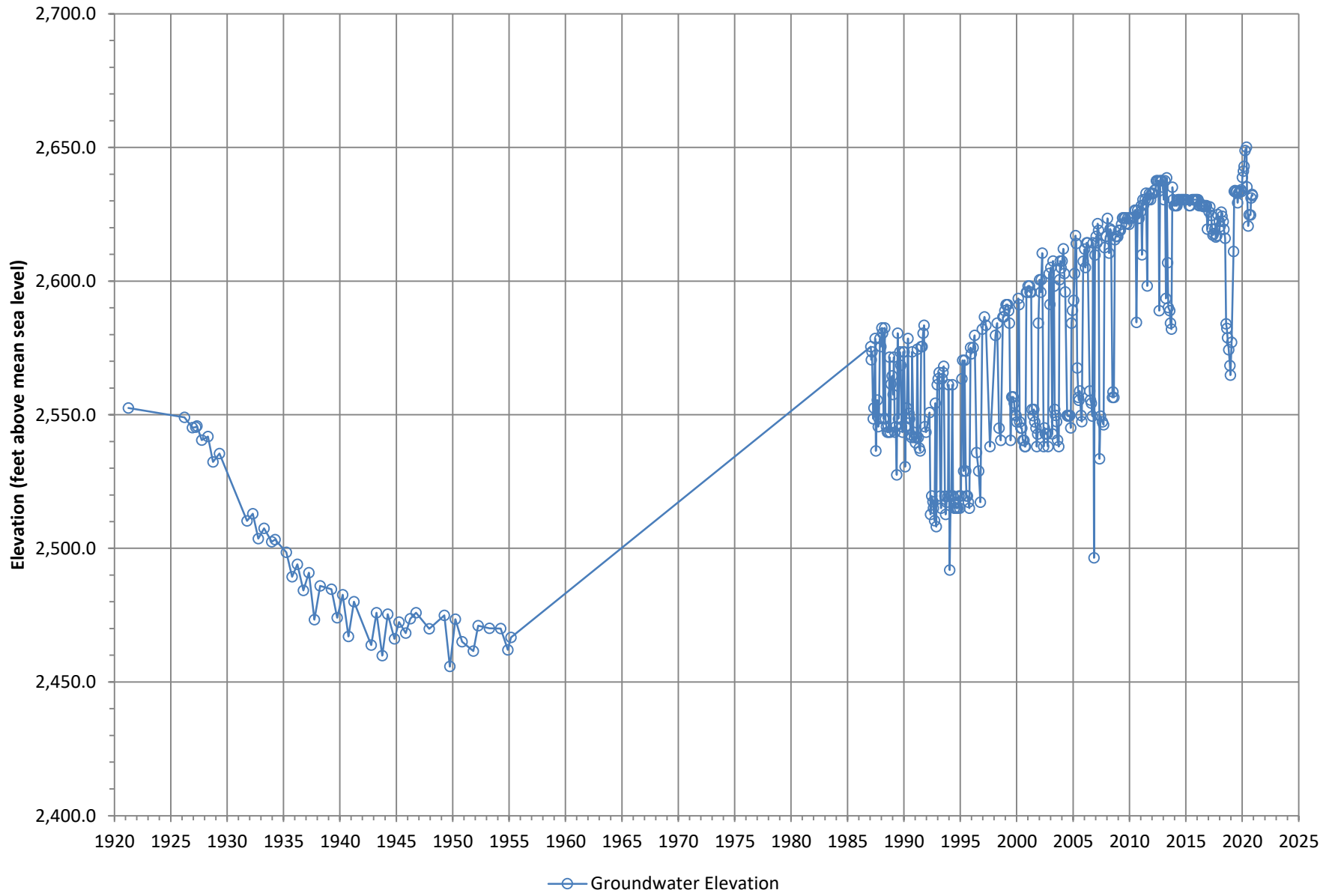


Figure A-83

Groundwater Elevation at Well YVWD-43 (GL-2)

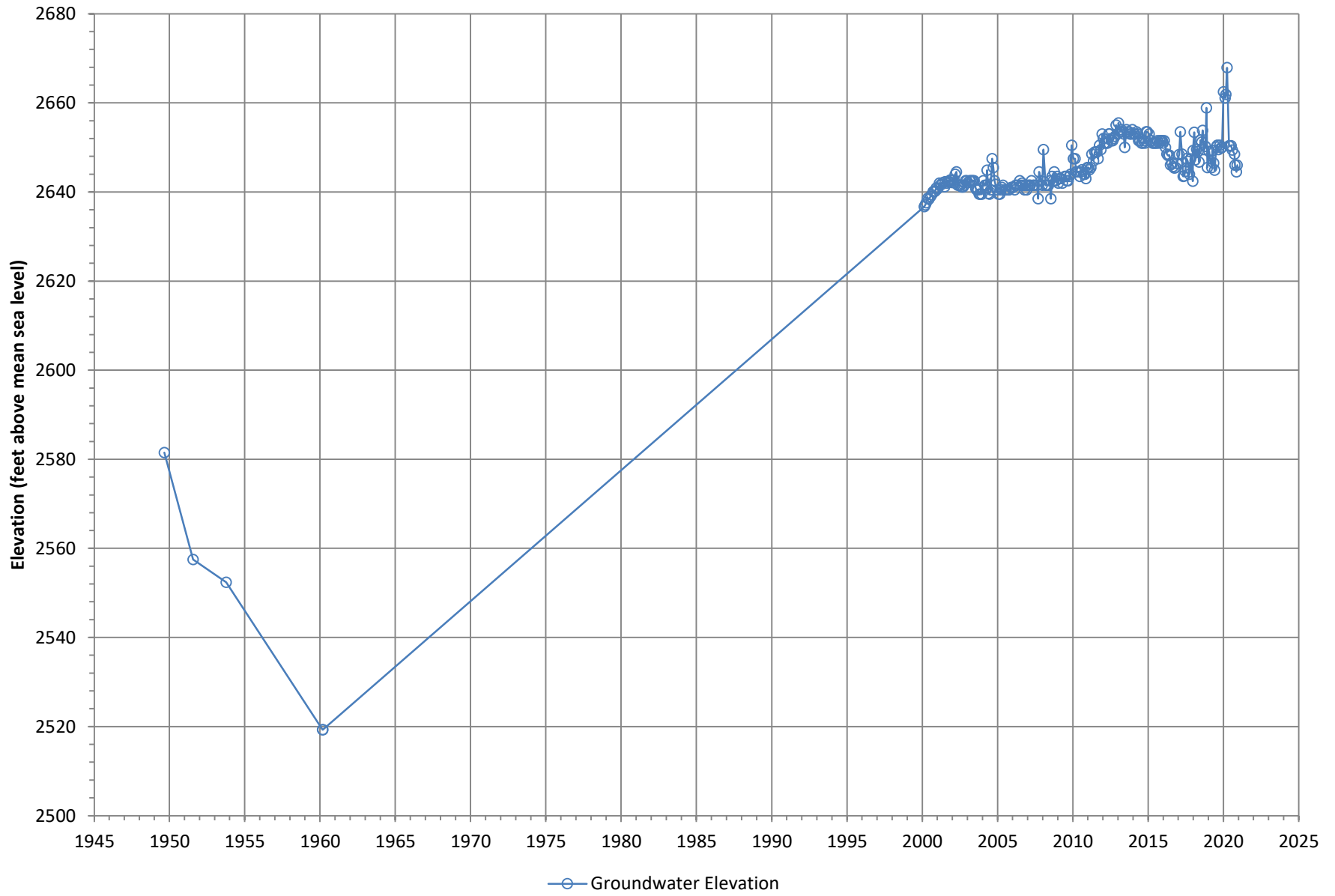


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Groundwater Elevation at Well YVWD-44

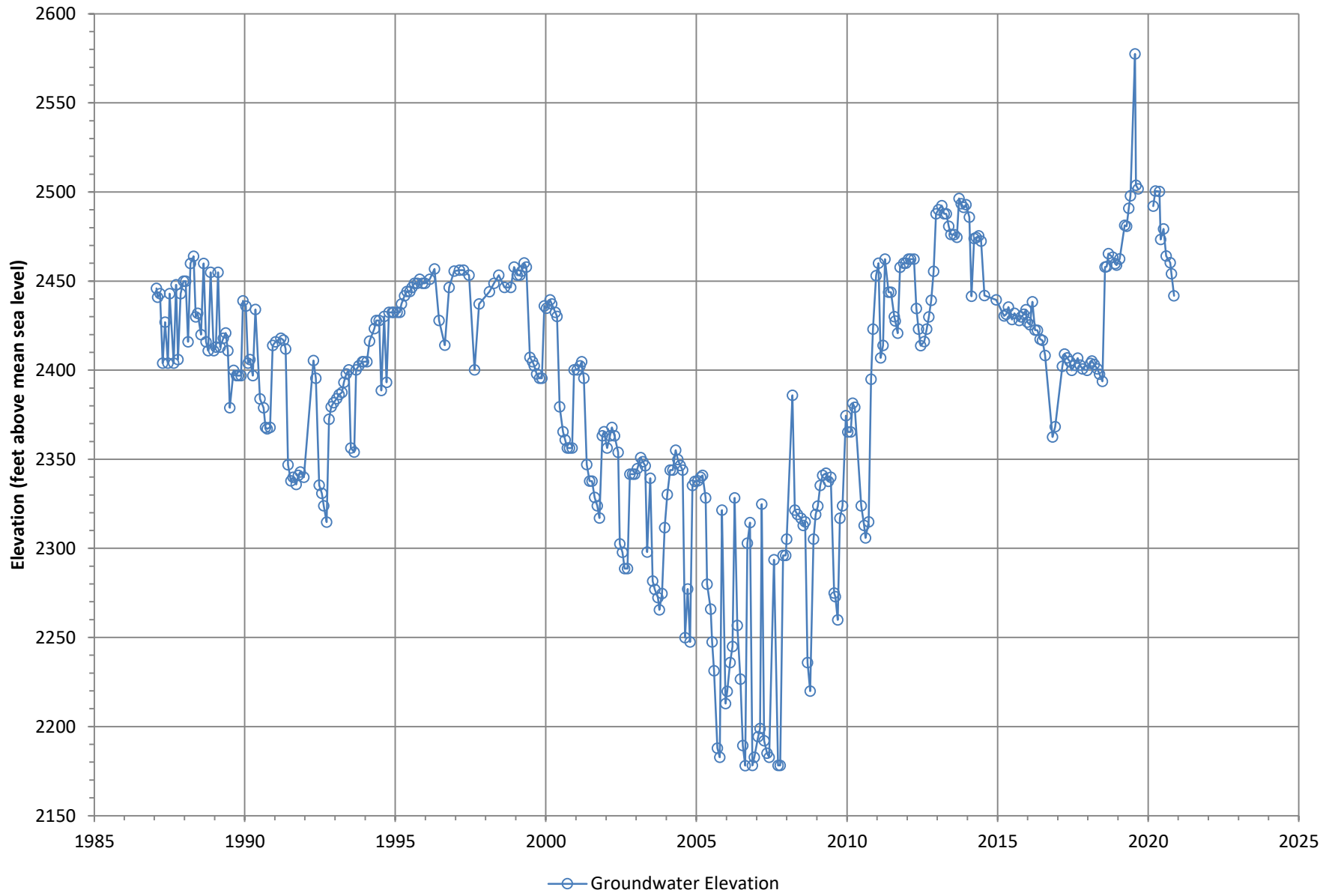


Figure A-85

Groundwater Elevation at Well YVWD-46

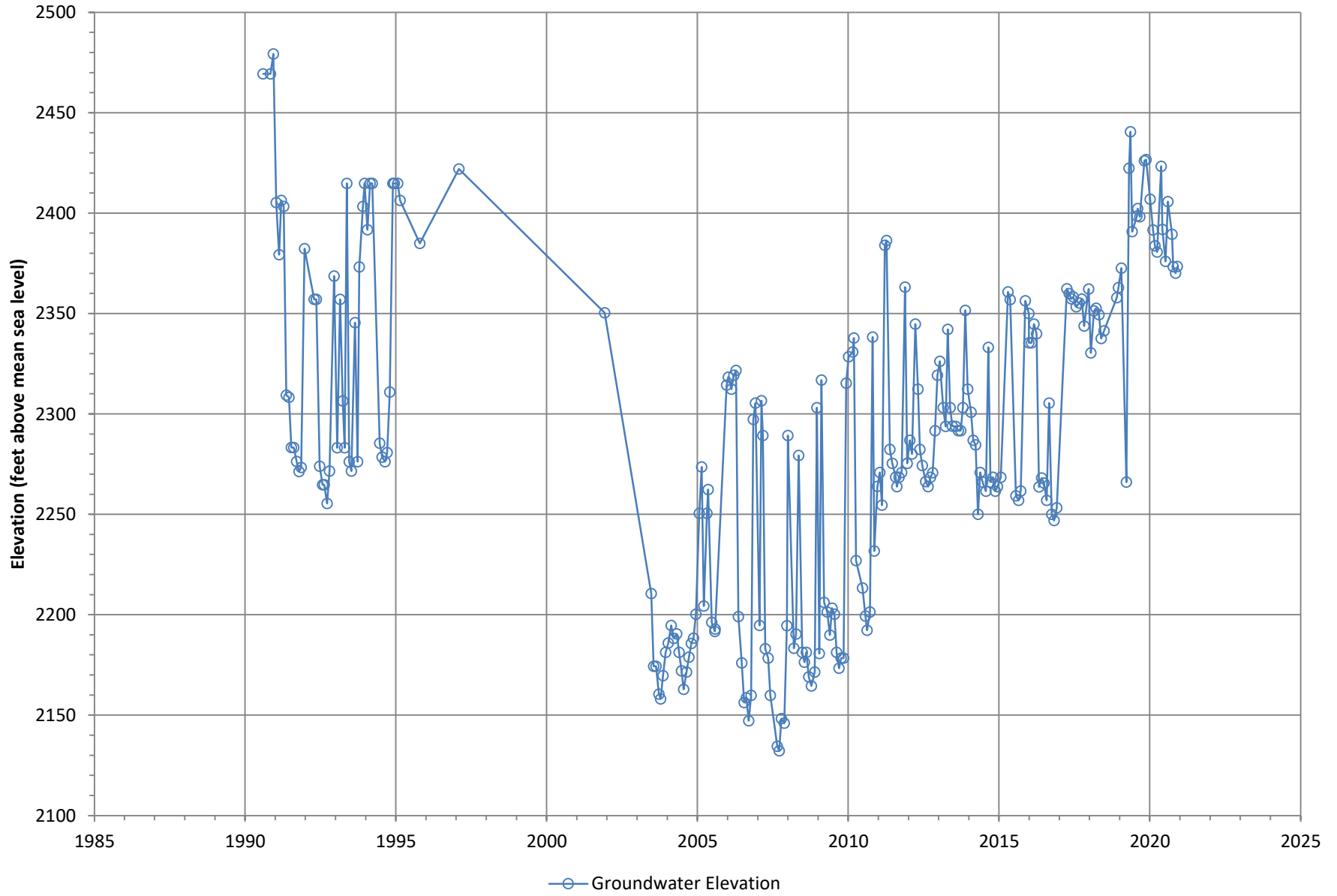


Figure A-86

Groundwater Elevation at Well YVWD-49

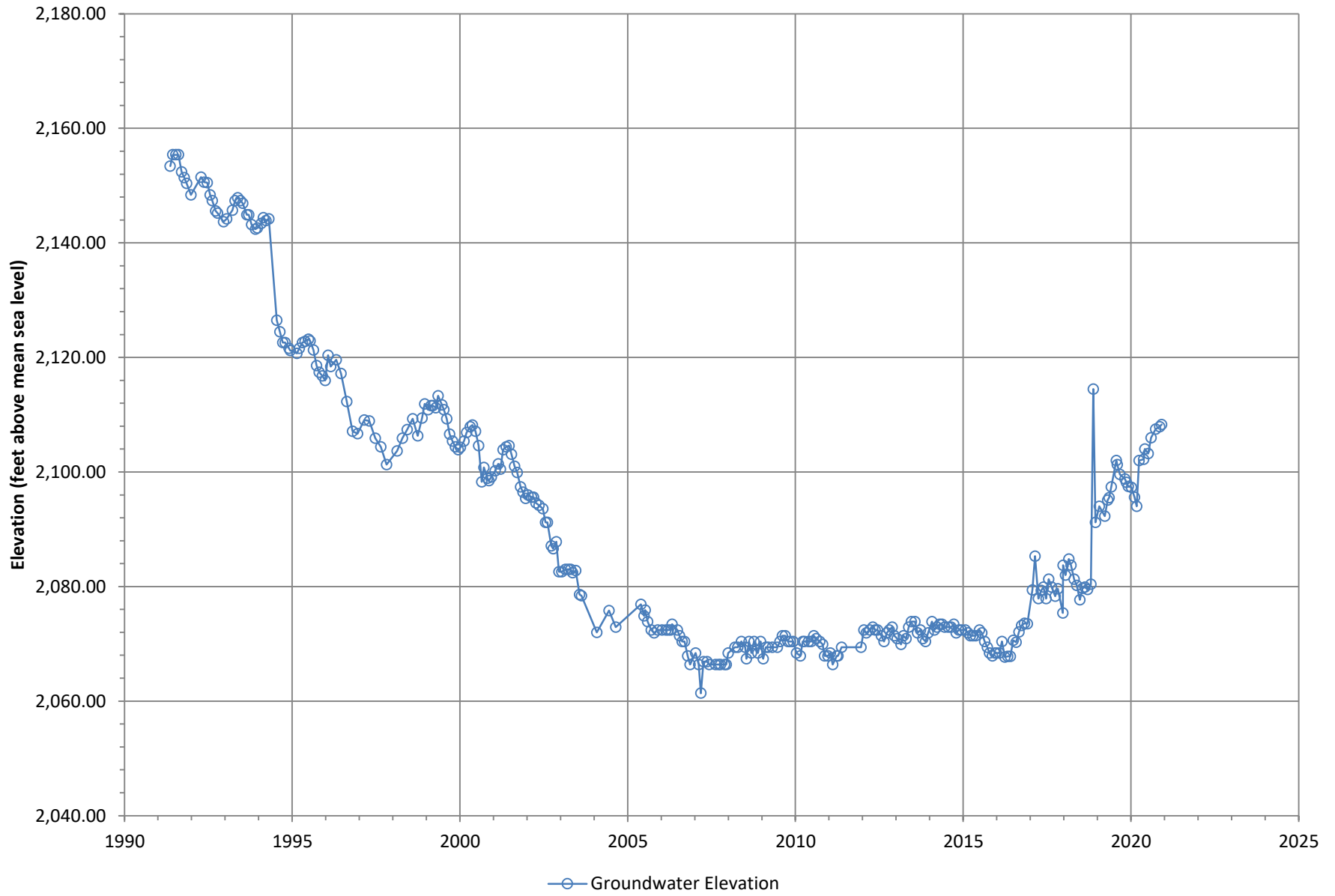


Figure A-87

Groundwater Elevation at Well YVWD-50

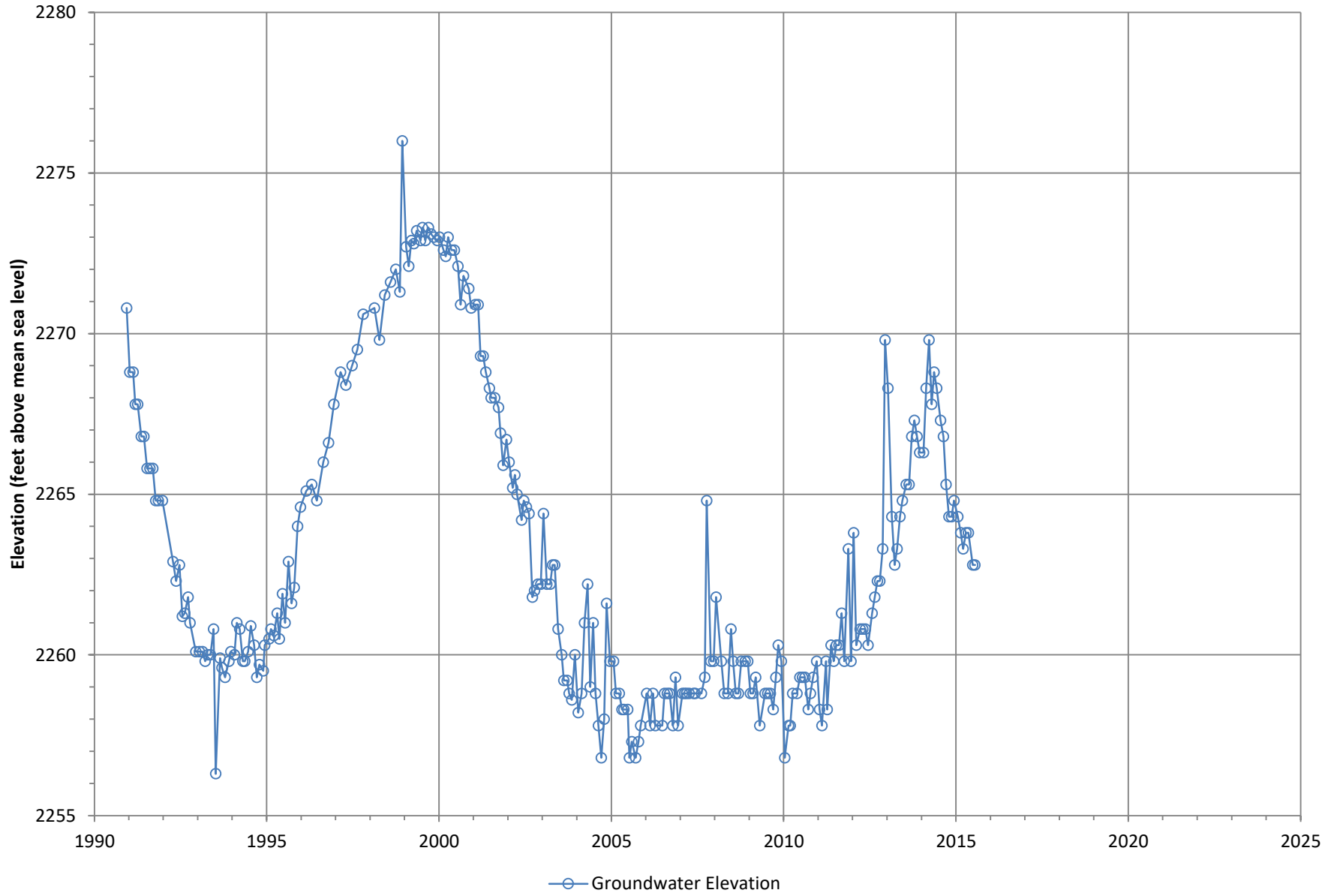


Figure A-88

Groundwater Elevation at Well YVWD-53

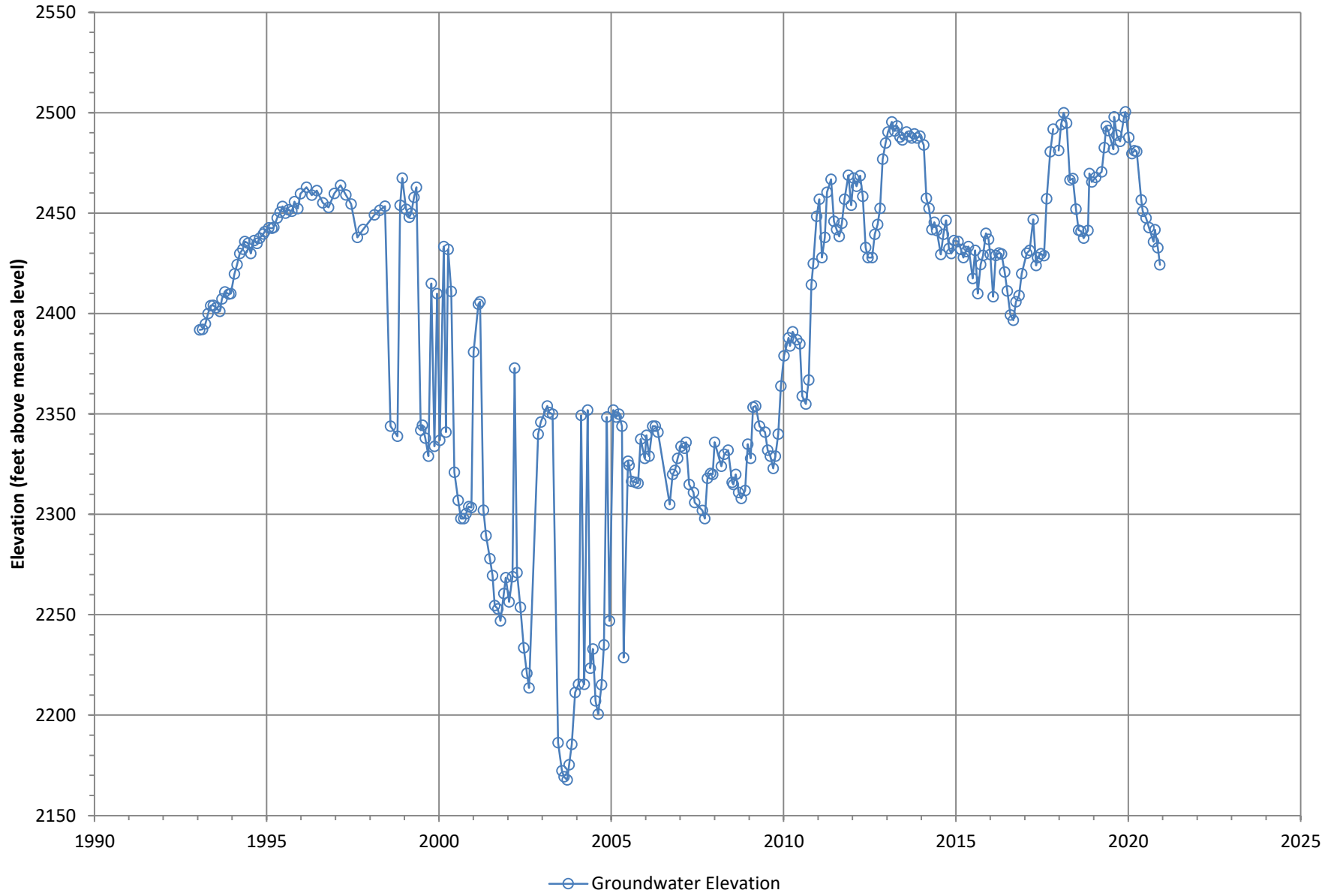


Figure A-89

Groundwater Elevation at Well YVWD-55

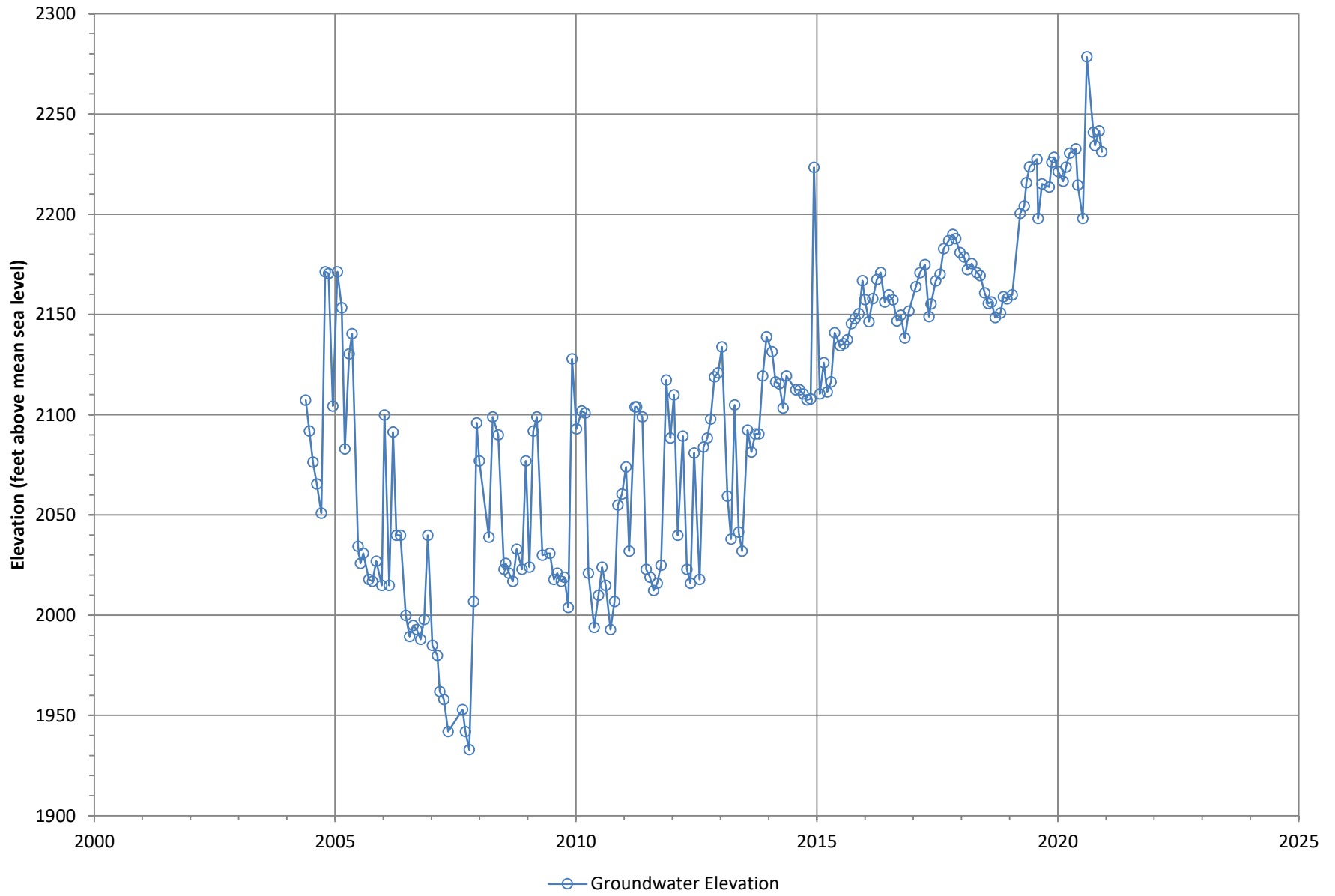


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Groundwater Elevation at Well YVWD-56

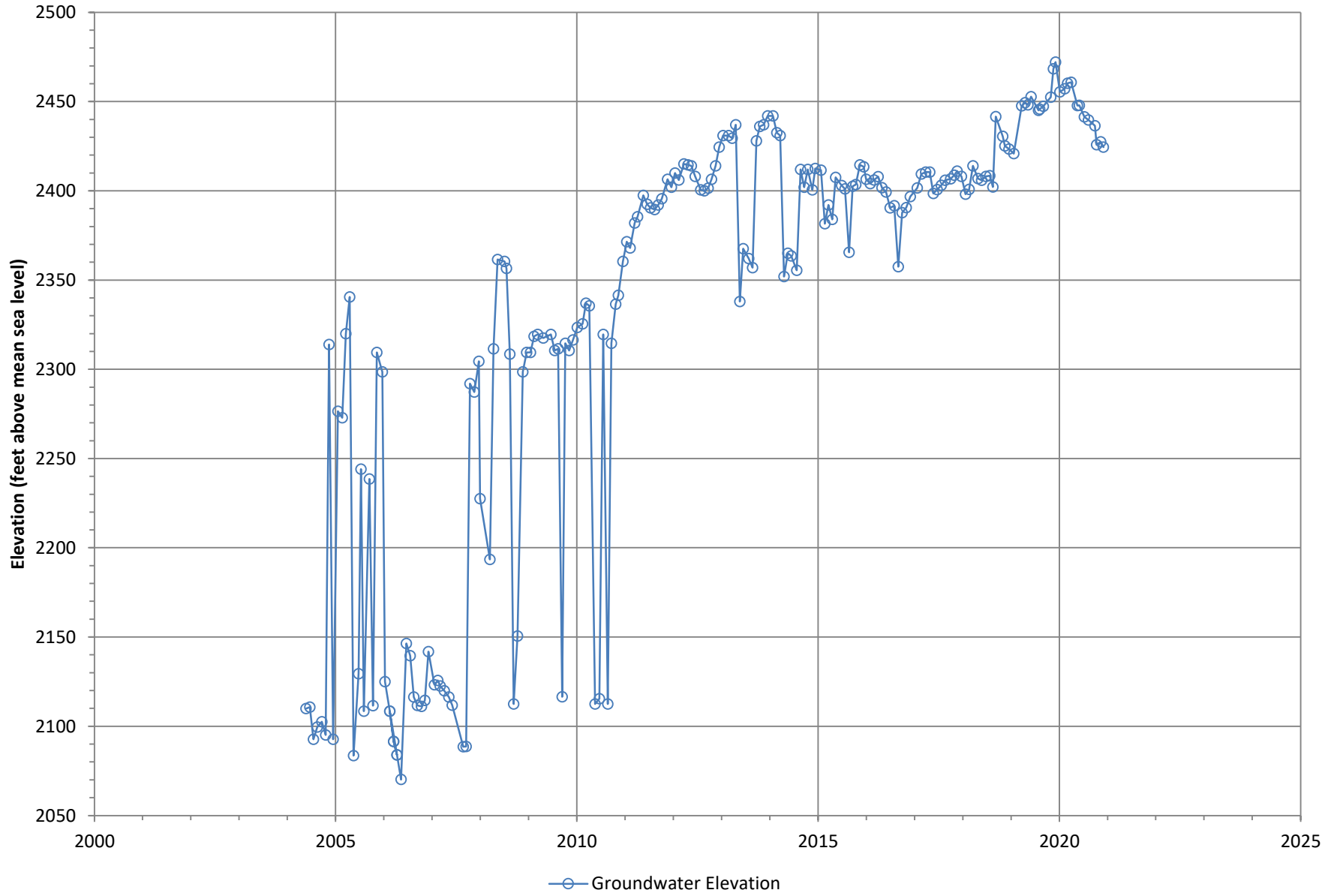


Figure A-91

APPENDIX B

Hydrographs for Total Dissolved Solids and Nitrate (as Nitrogen) Groundwater Concentrations at Wells in the Yucaipa Groundwater Management Zone

APPENDIX B

Groundwater Quality Hydrographs for the Yucaipa Groundwater Management Zone

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Total Dissolved Solids and Nitrate (as Nitrogen) at Well Hog Canyon 2 (HOG CYN2)

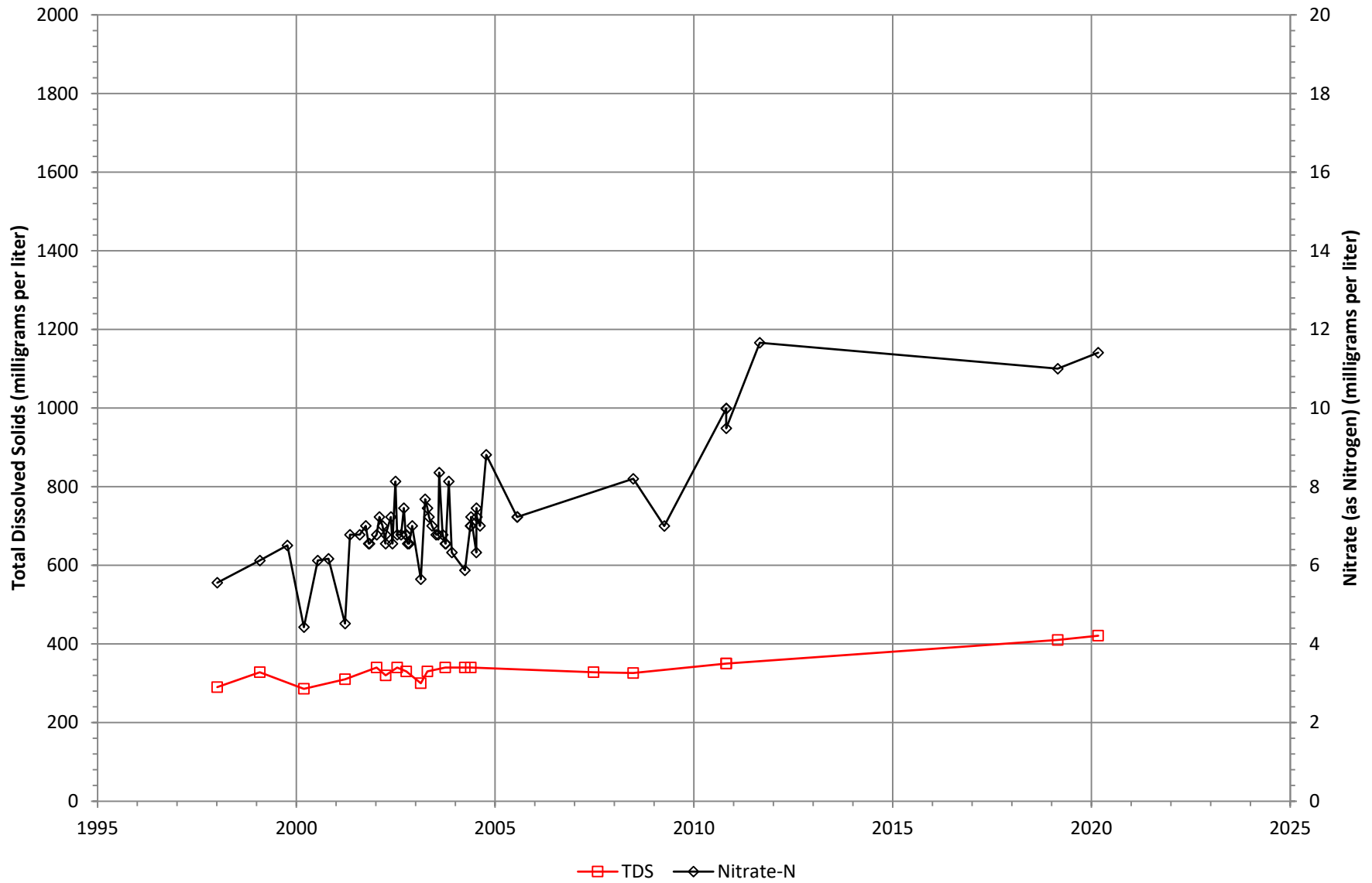


Figure B-1

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Redlands 10

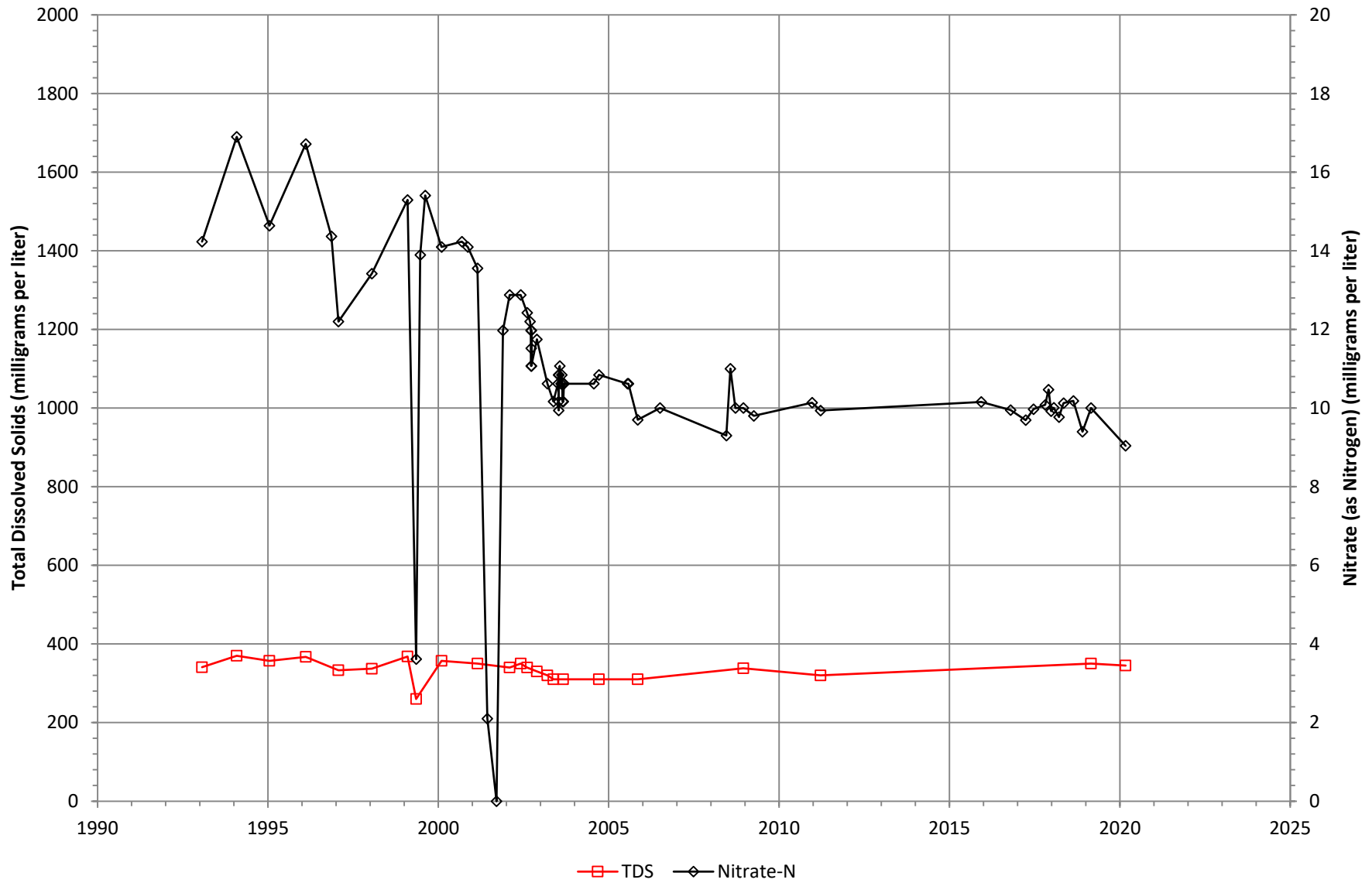


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Total Dissolved Solids and Nitrate (as Nitrogen) at Well Redlands 13

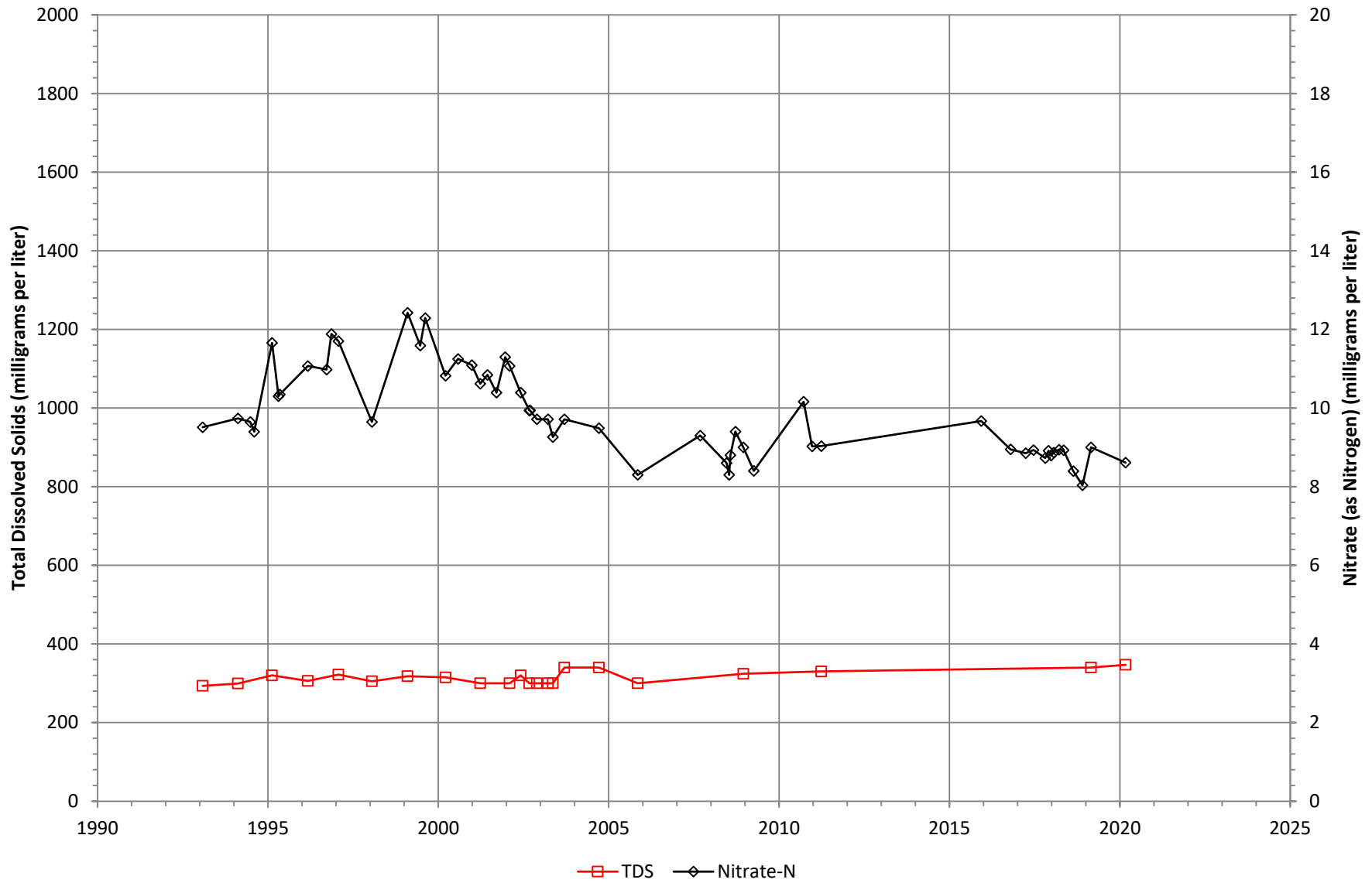


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Total Dissolved Solids and Nitrate (as Nitrogen) at Well Redlands 16

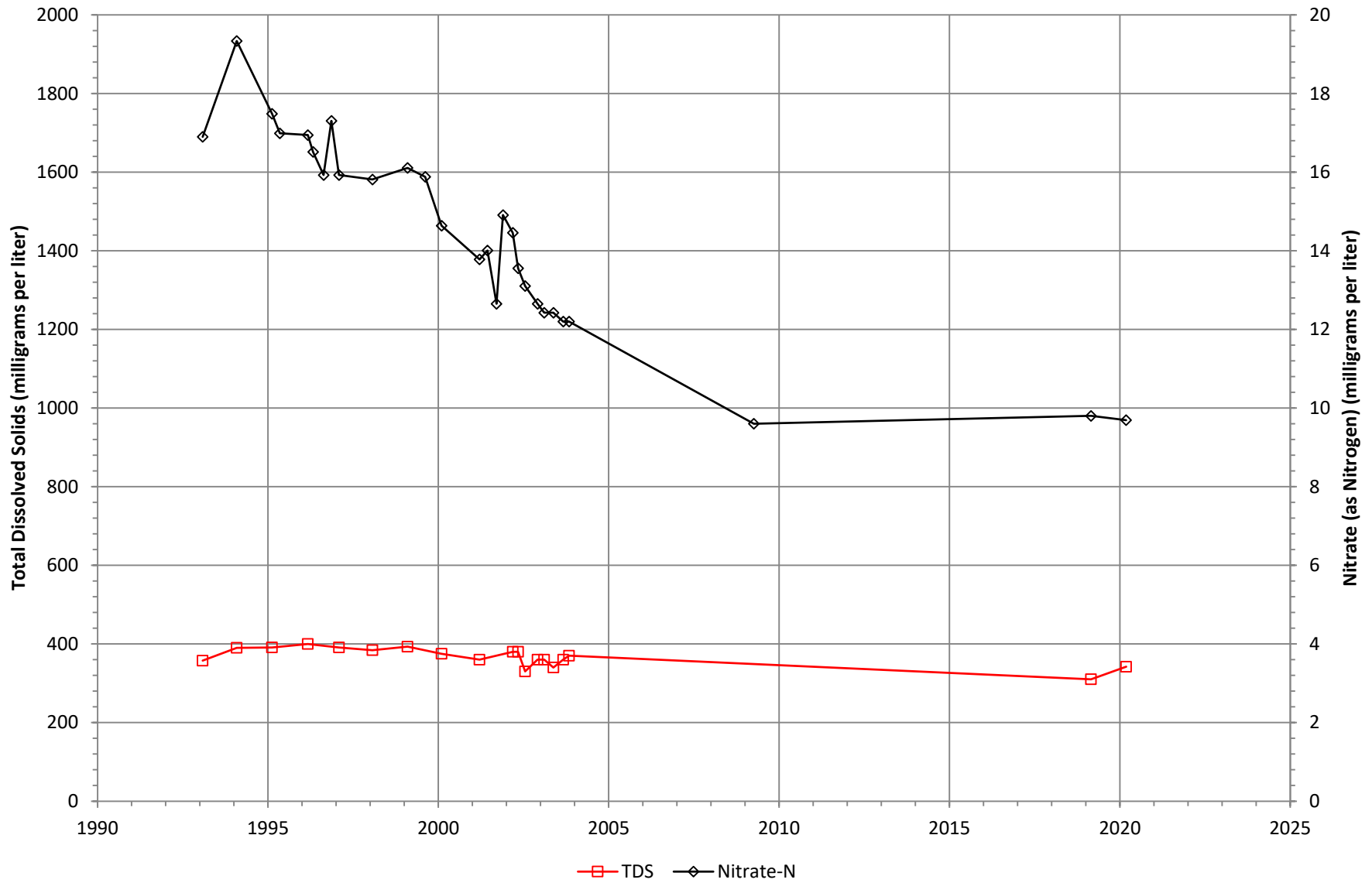


Figure B-4

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-02

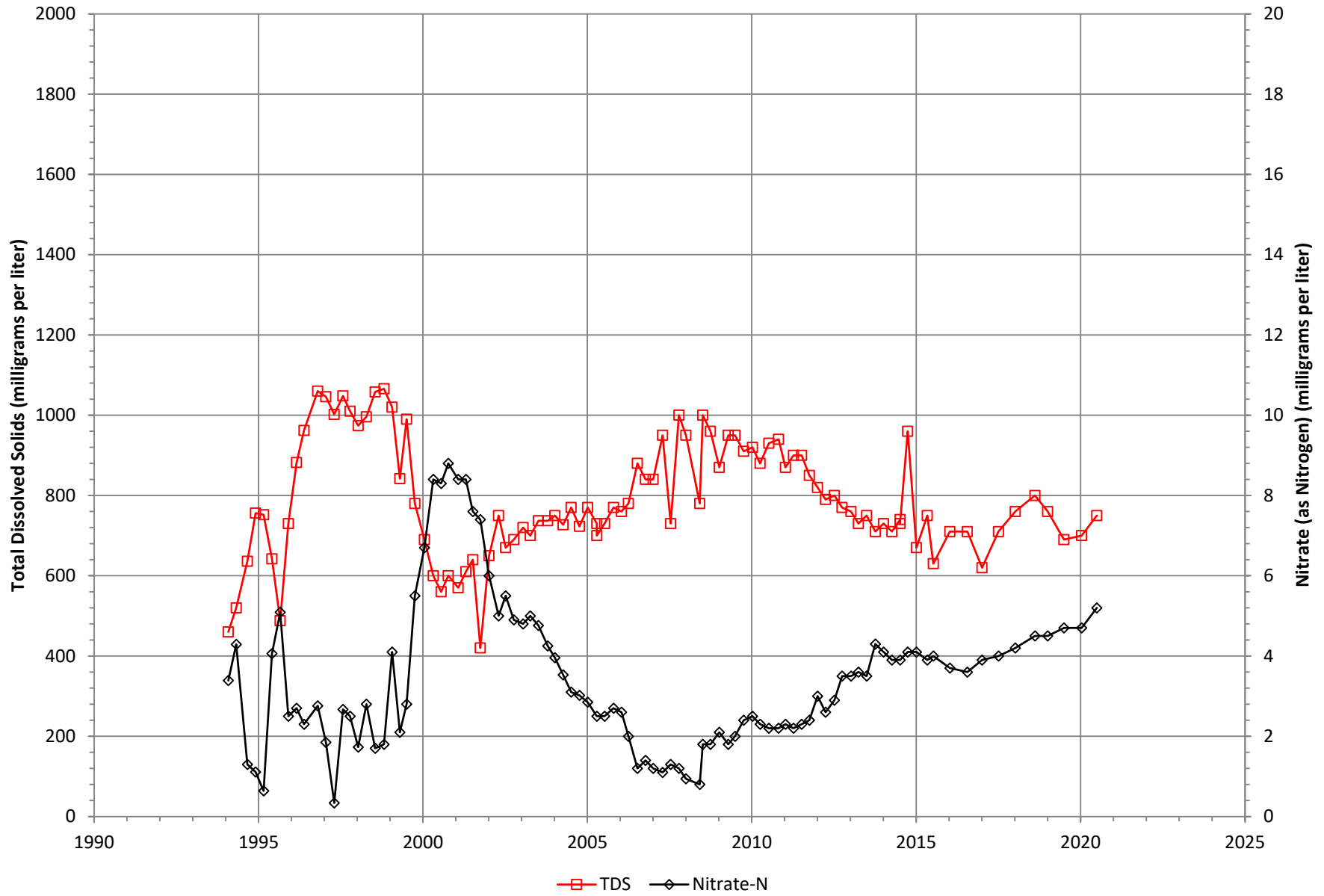


Figure B-5

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-03

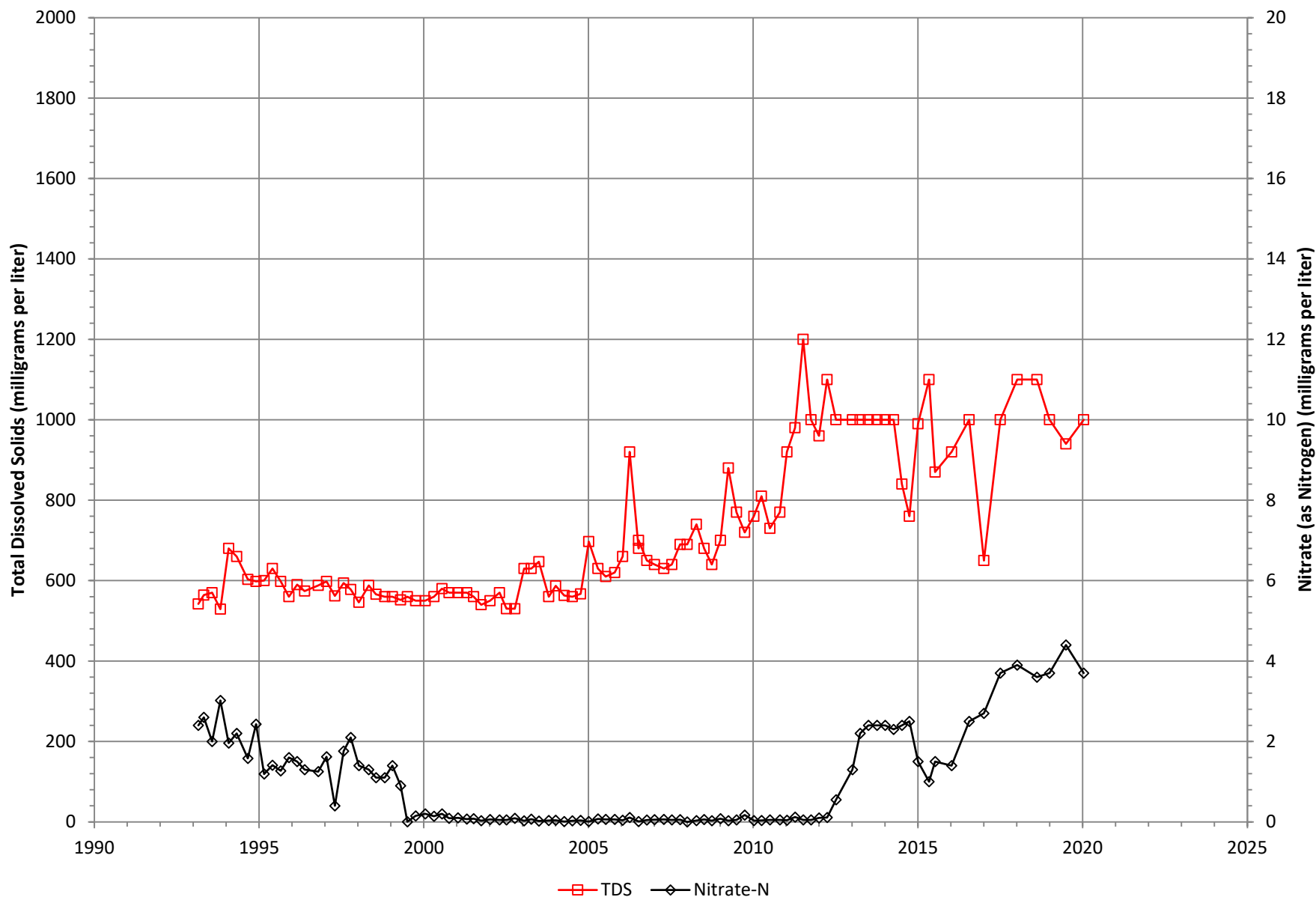


Figure B-6

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-04

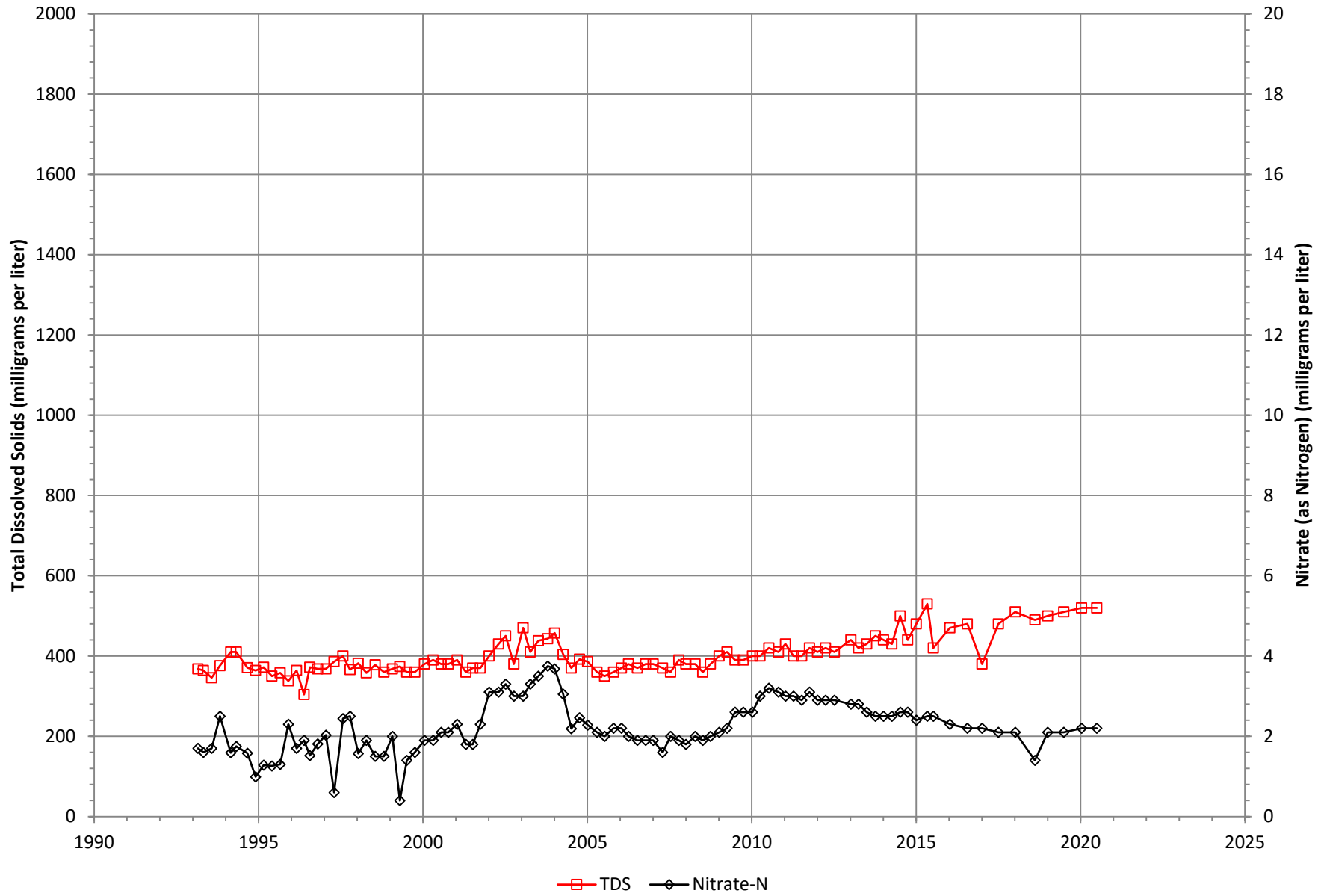


Figure B-7

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-05

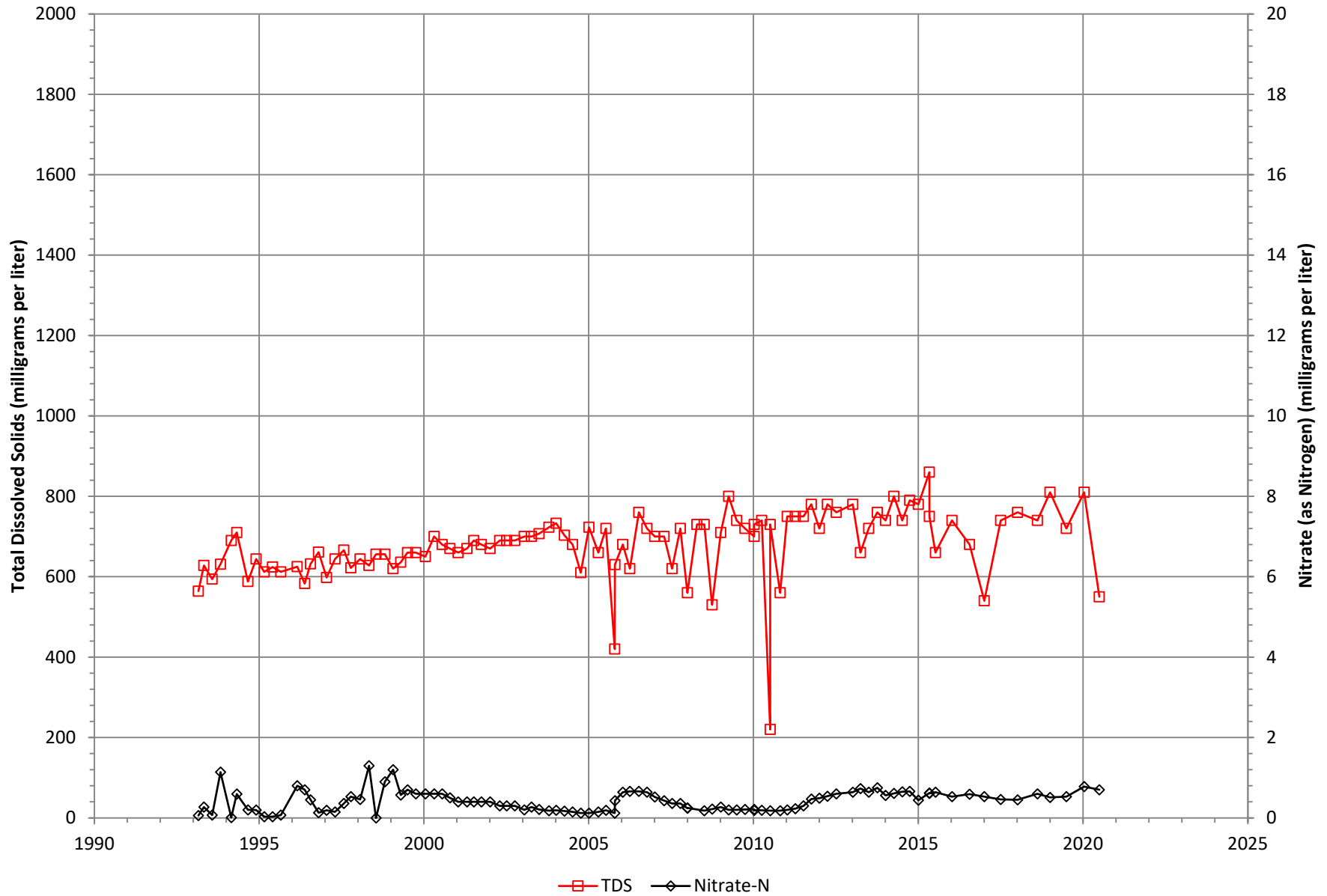


Figure B-8

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-08

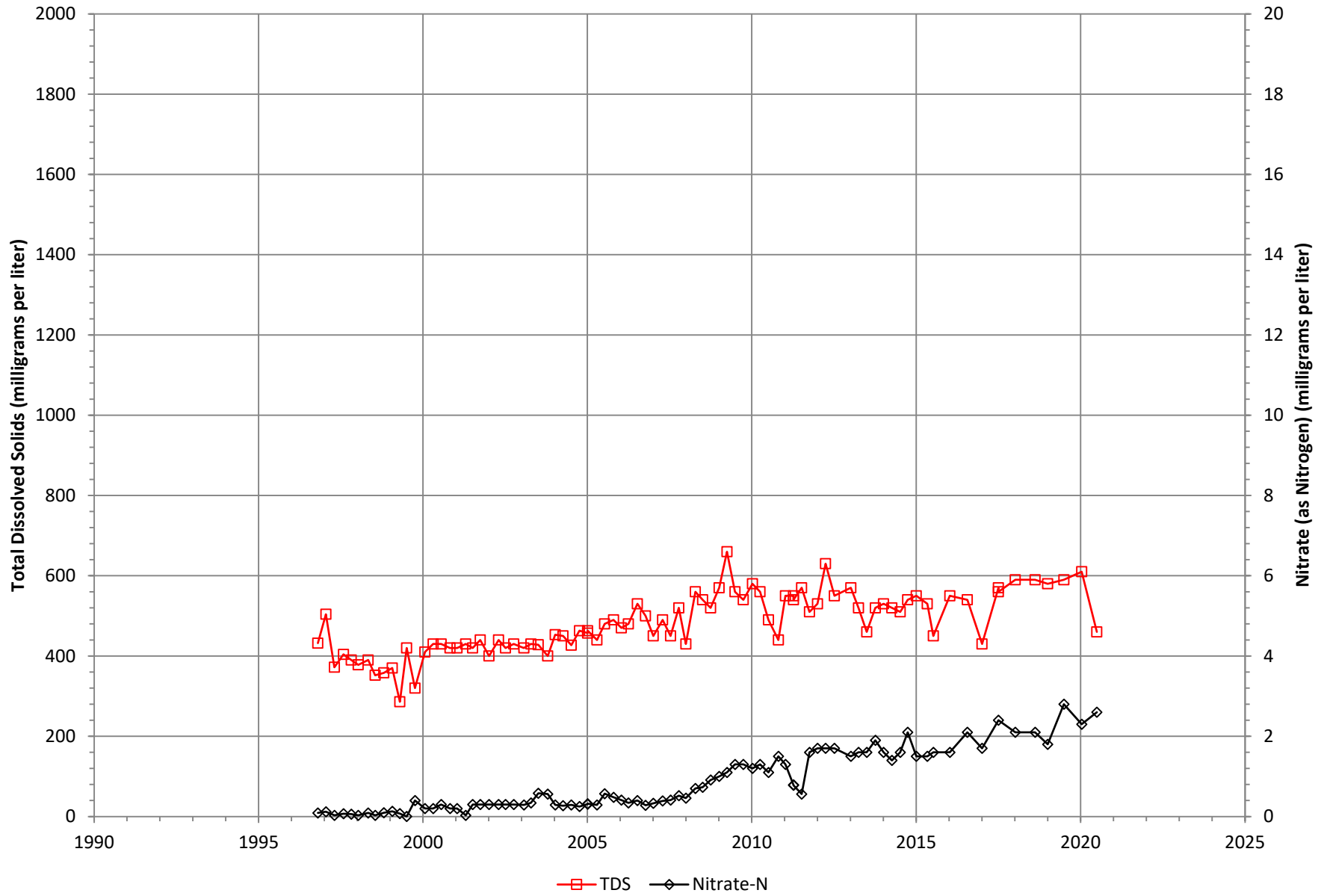


Figure B-9

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-09A

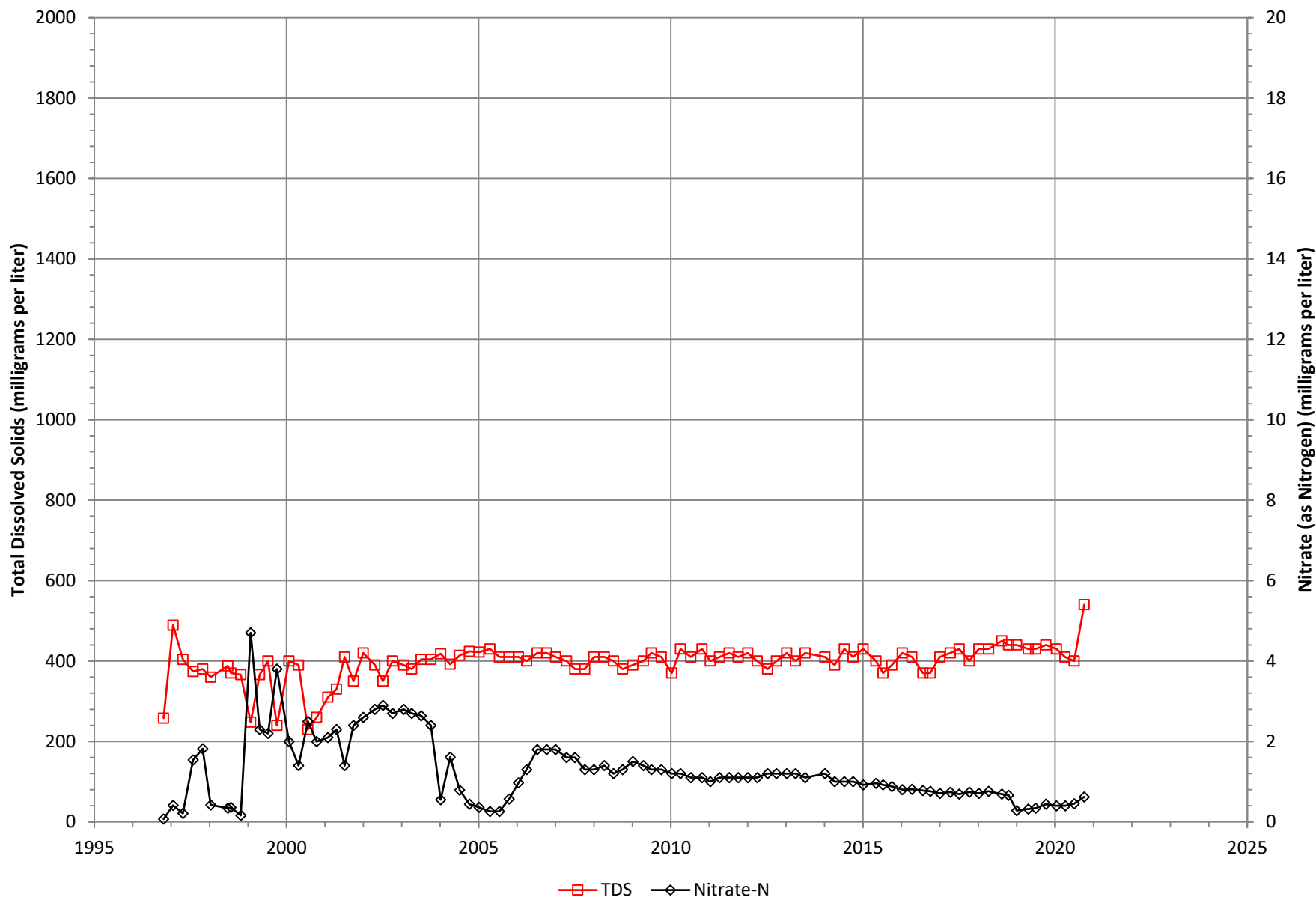


Figure B-10

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-09B

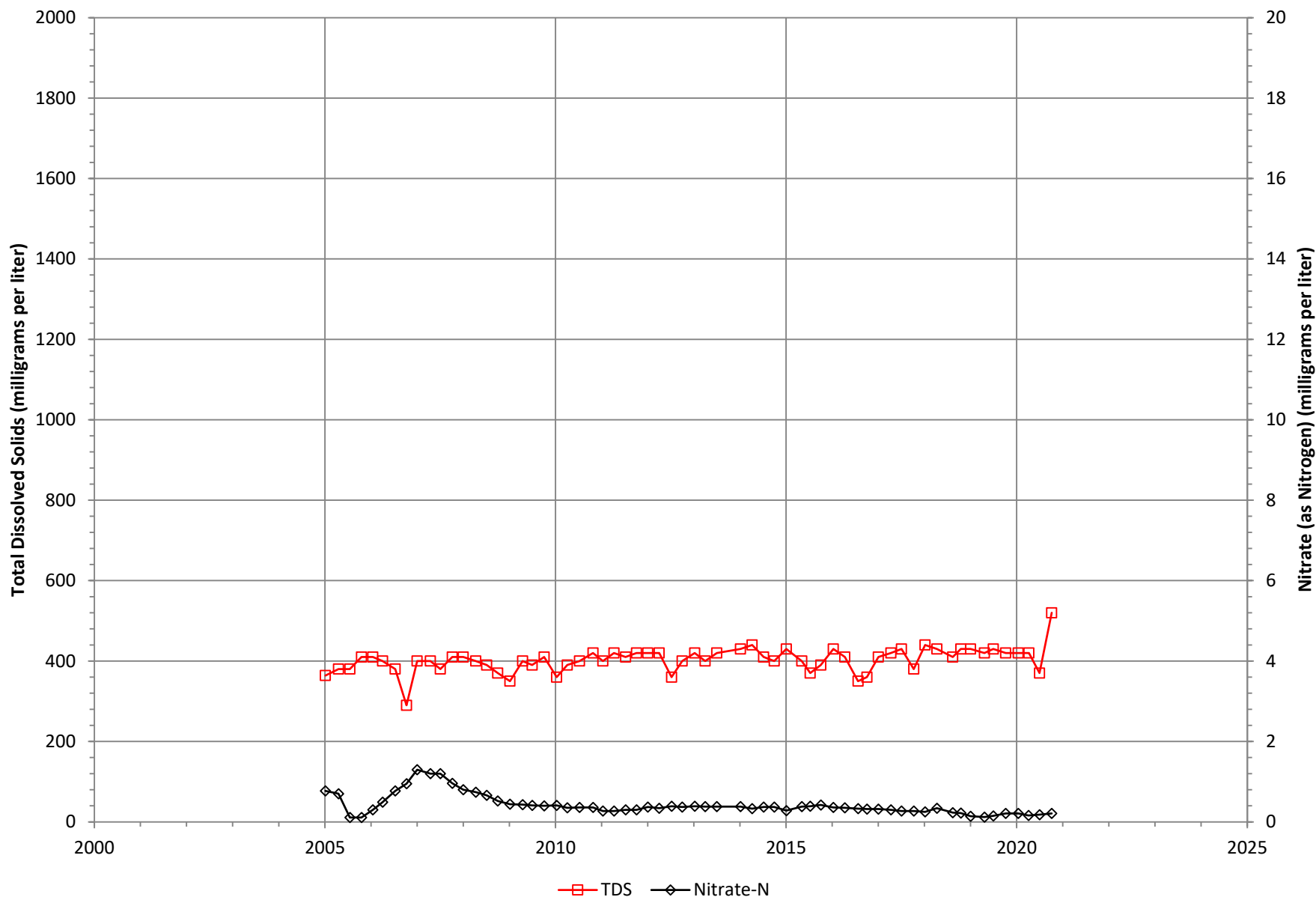


Figure B-11

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-10A

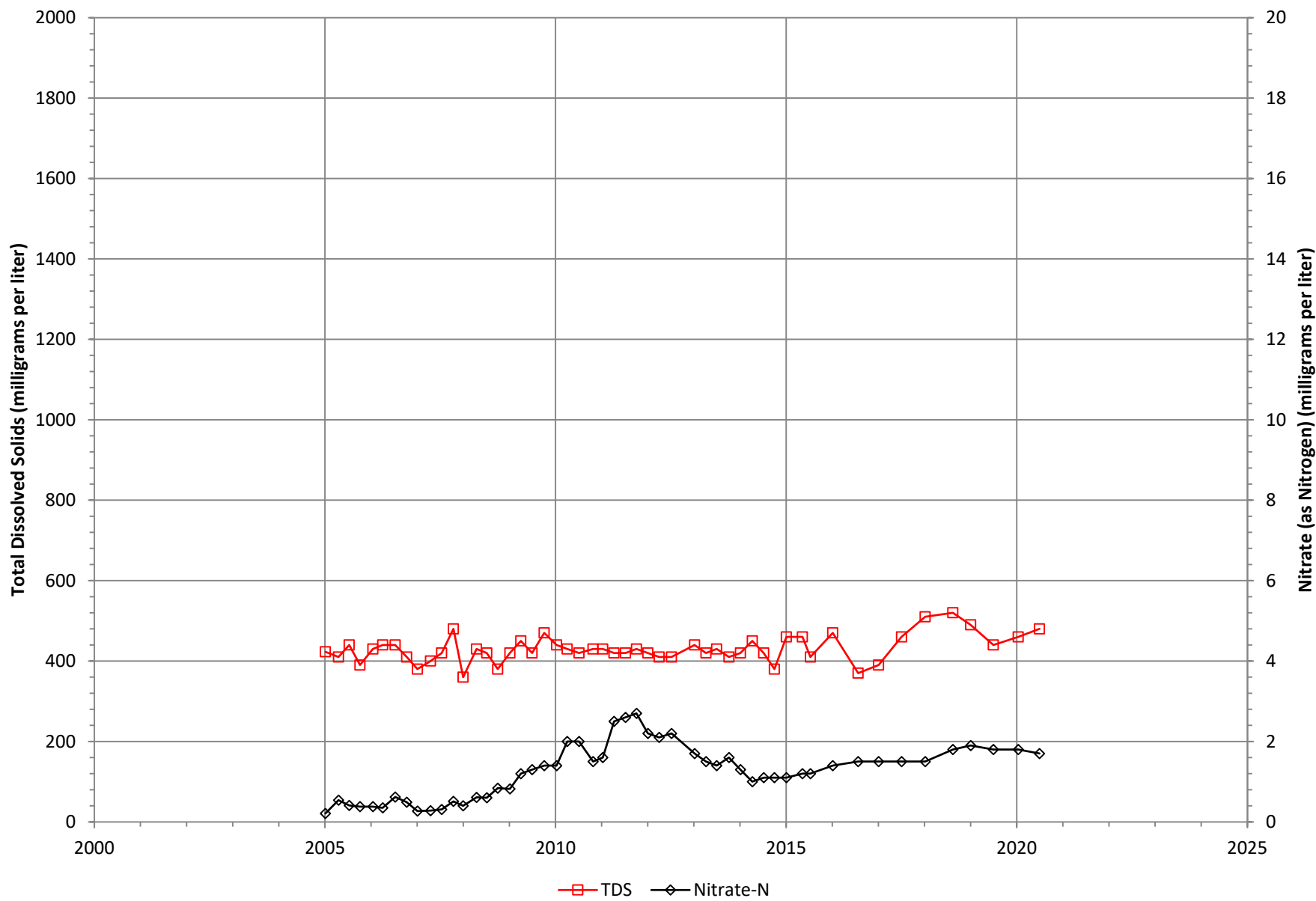


Figure B-12

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-10B

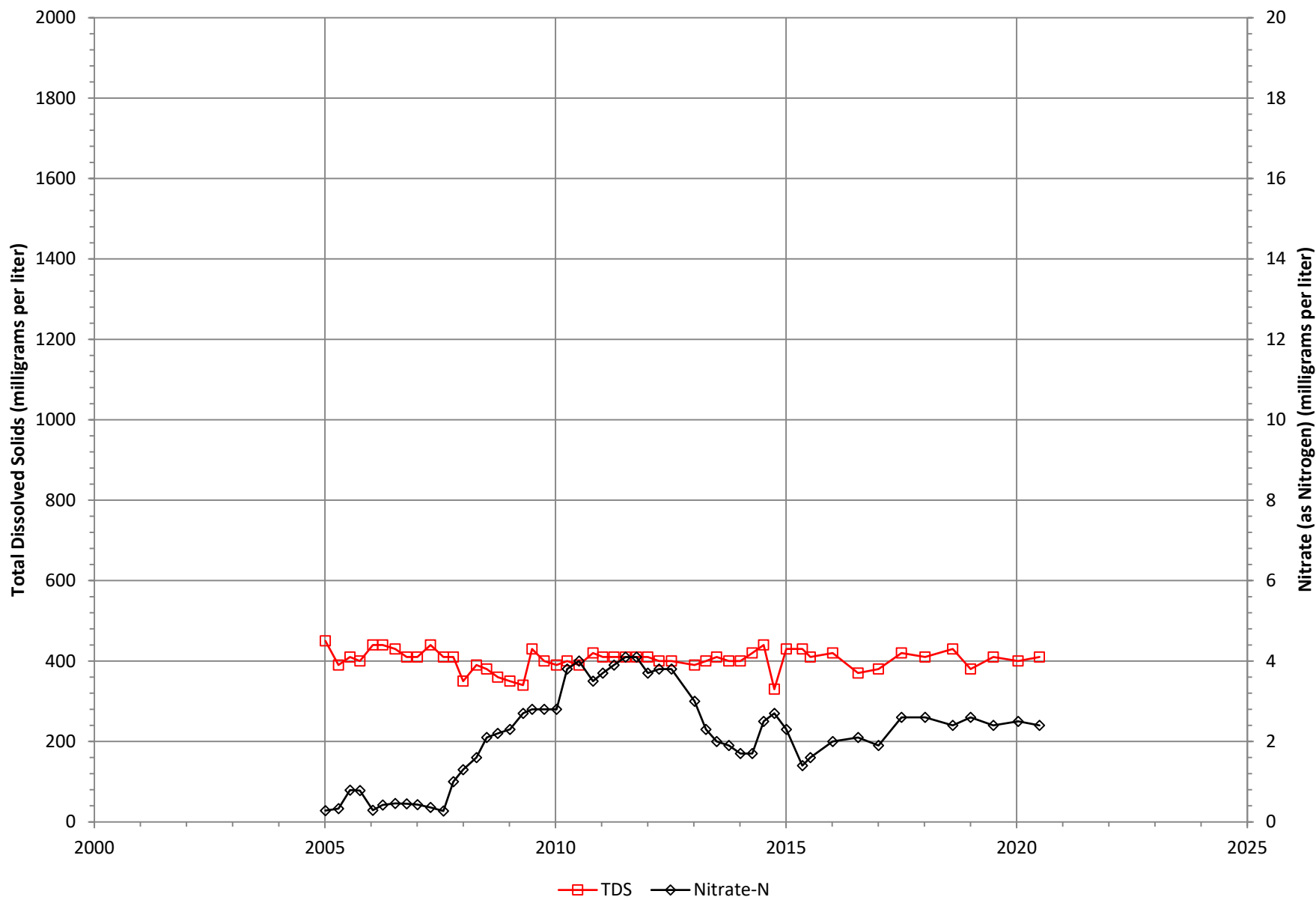


Figure B-13

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-11A

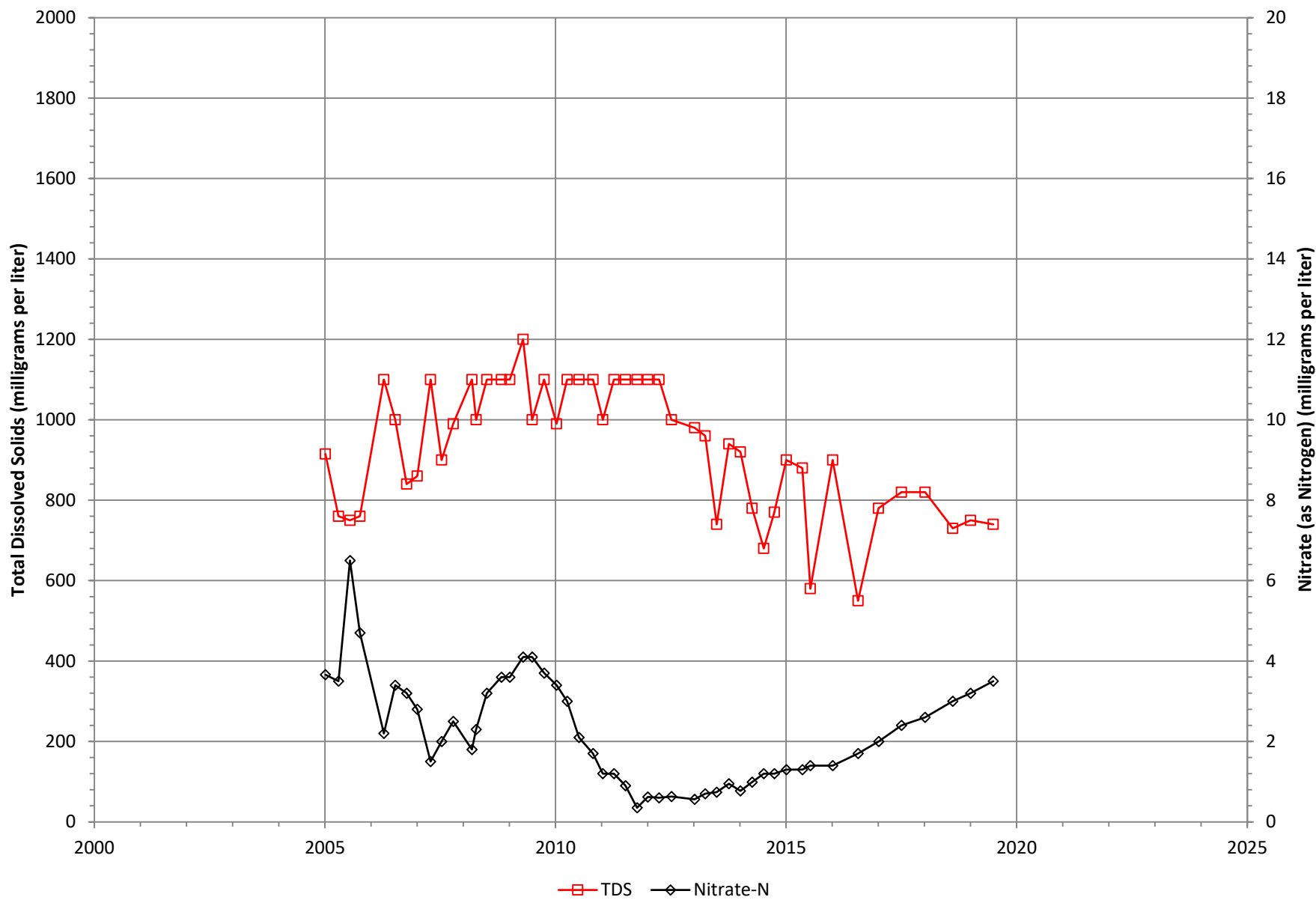


Figure B-14

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-11B

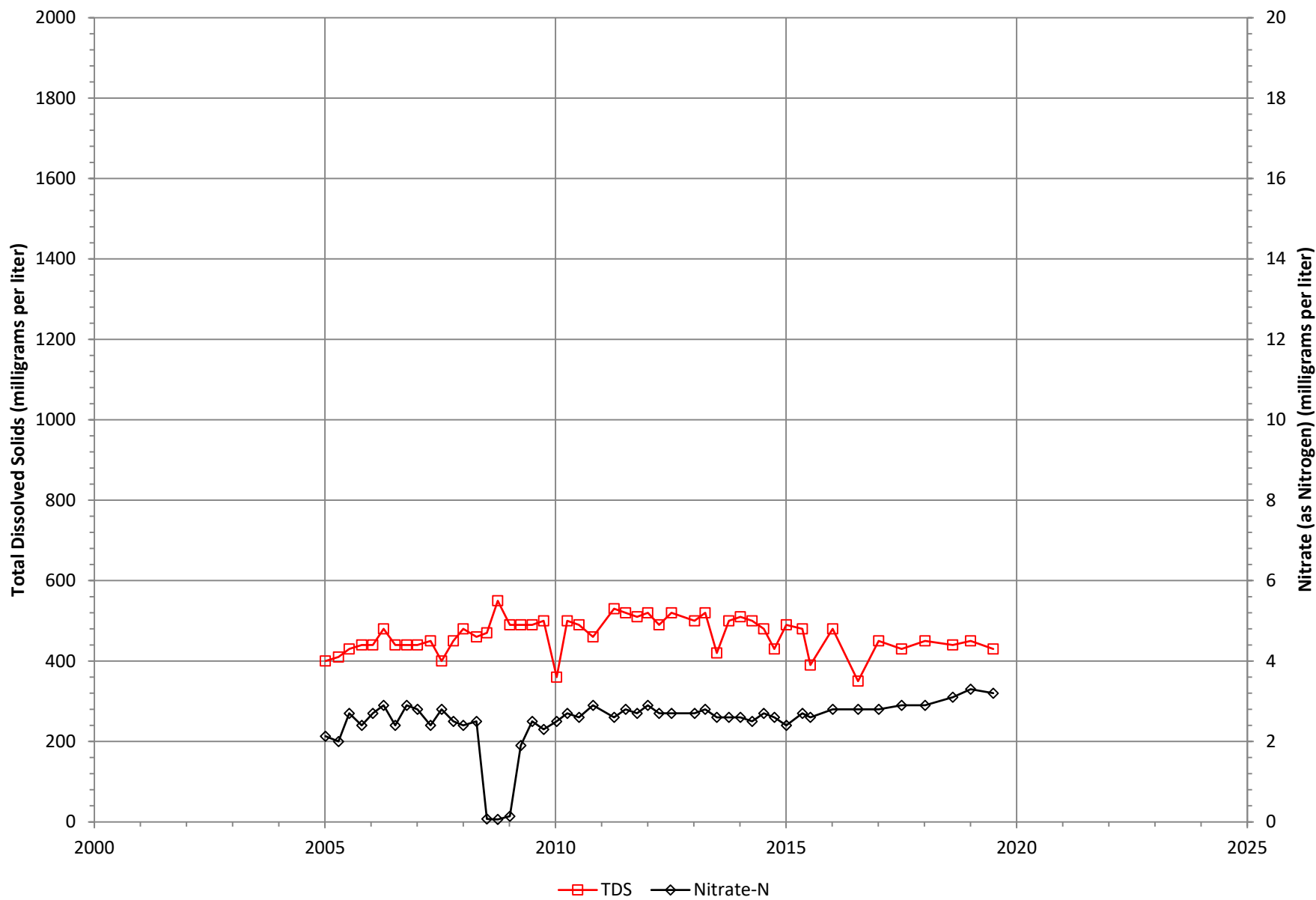


Figure B-15

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-12

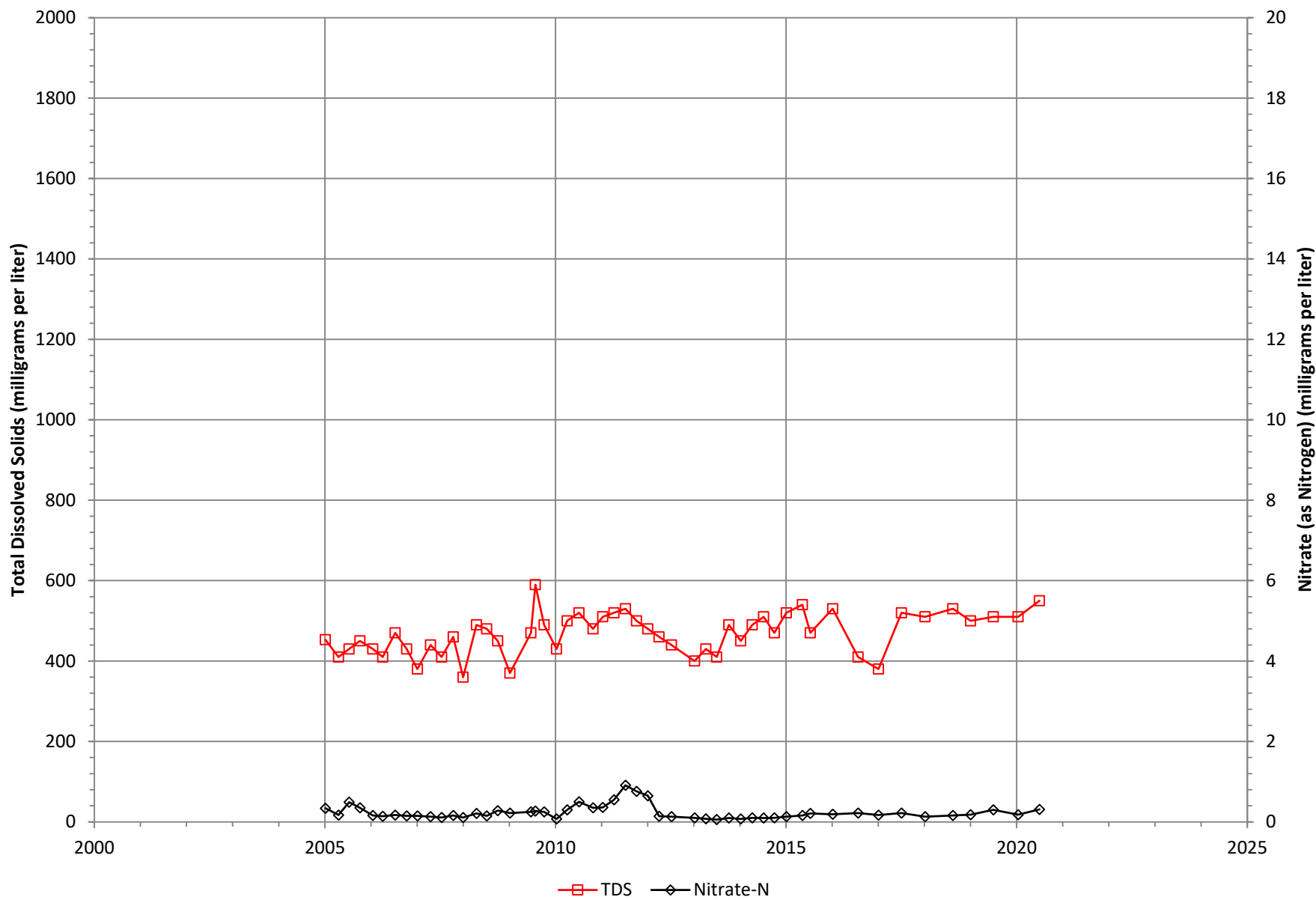


Figure B-16

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-13

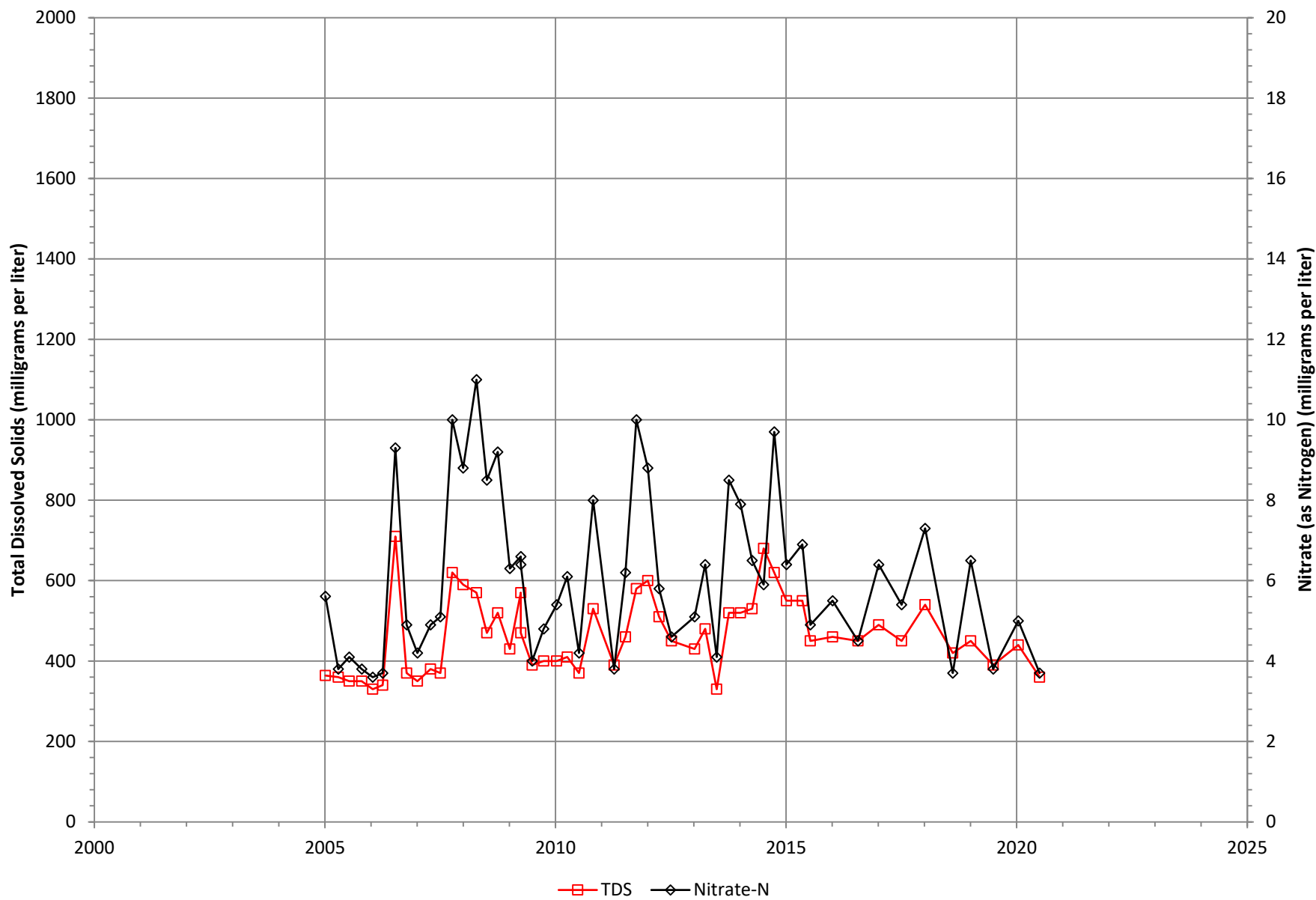


Figure B-17

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-14

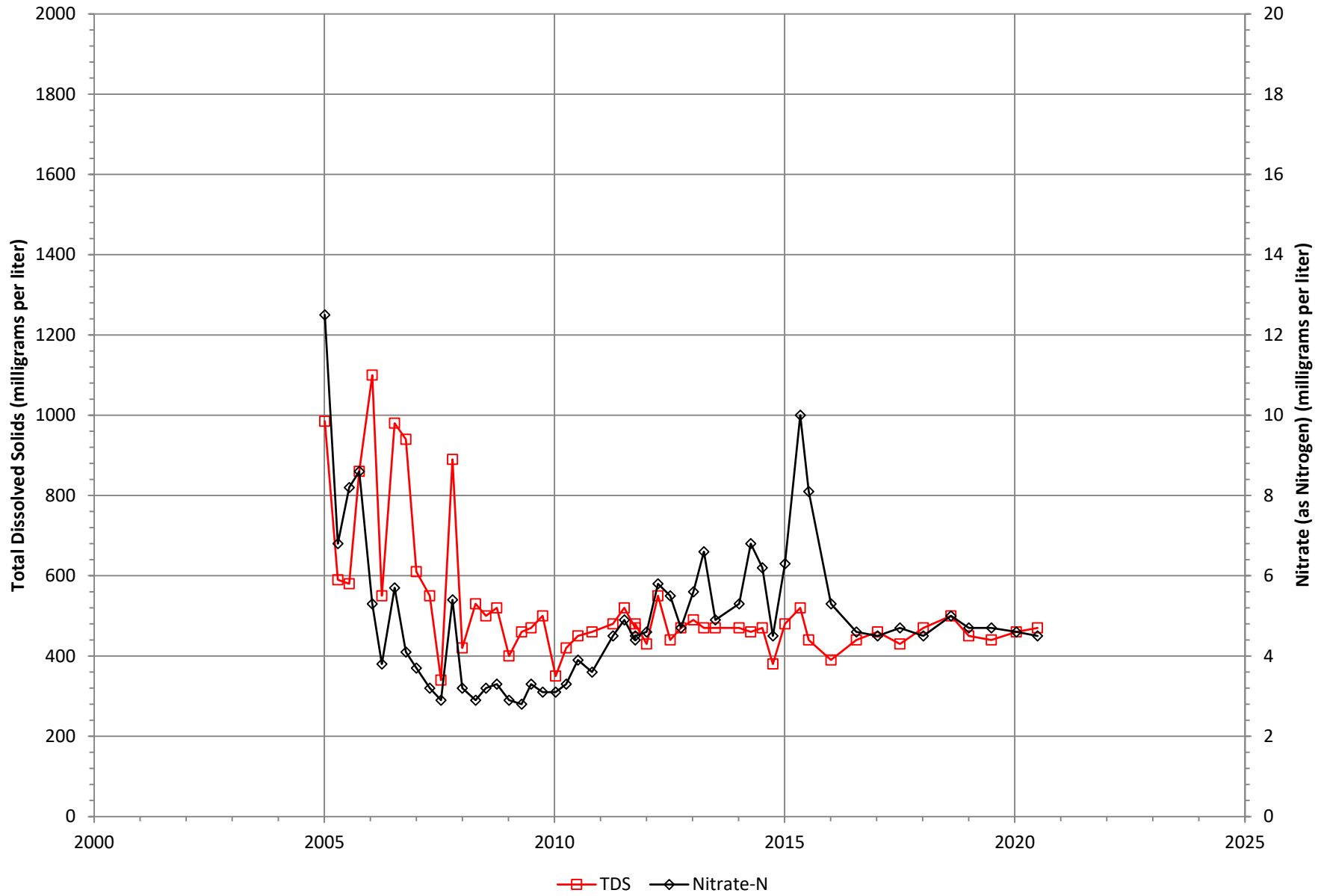


Figure B-18

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-15

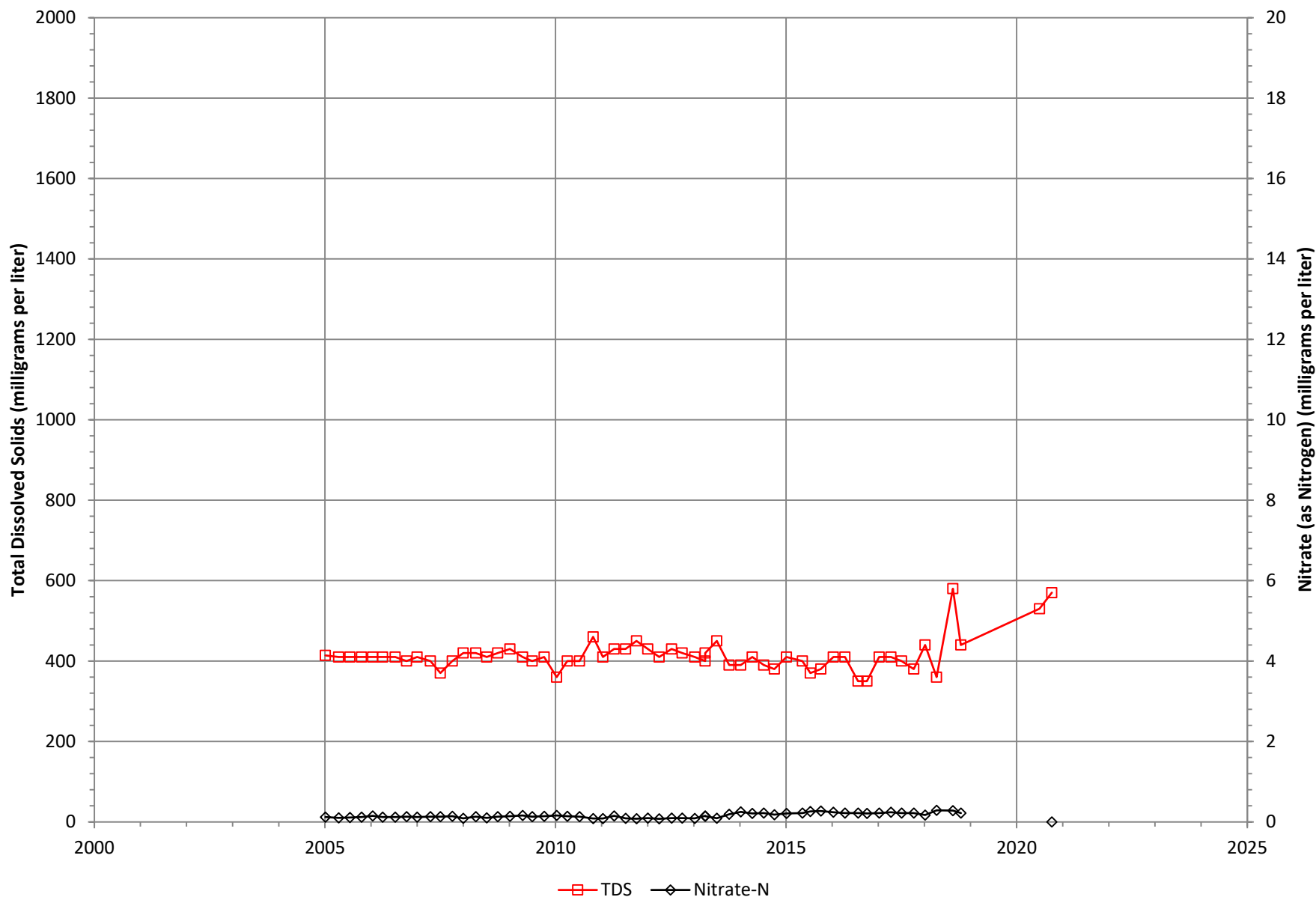


Figure B-19

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-16

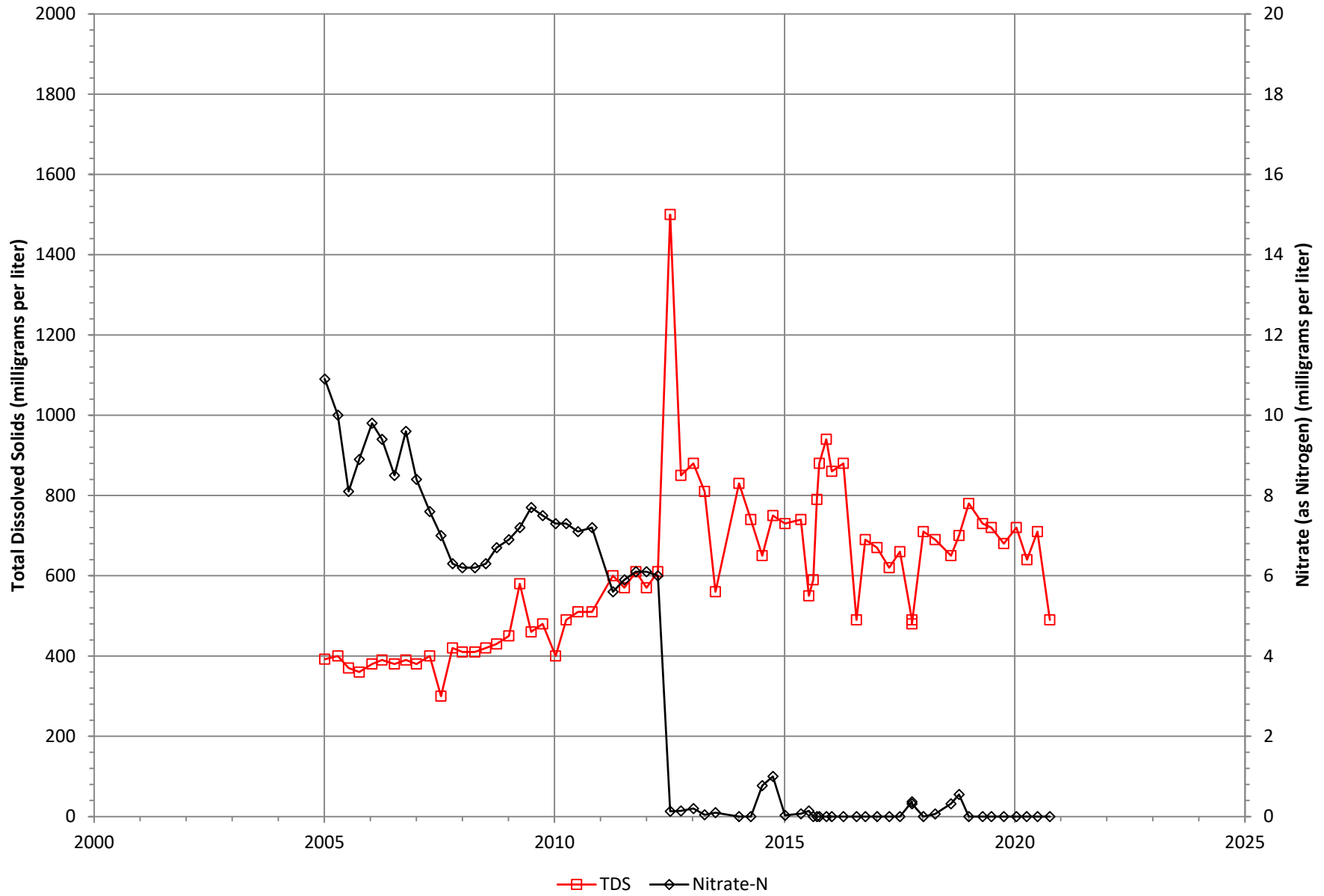


Figure B-20

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-17

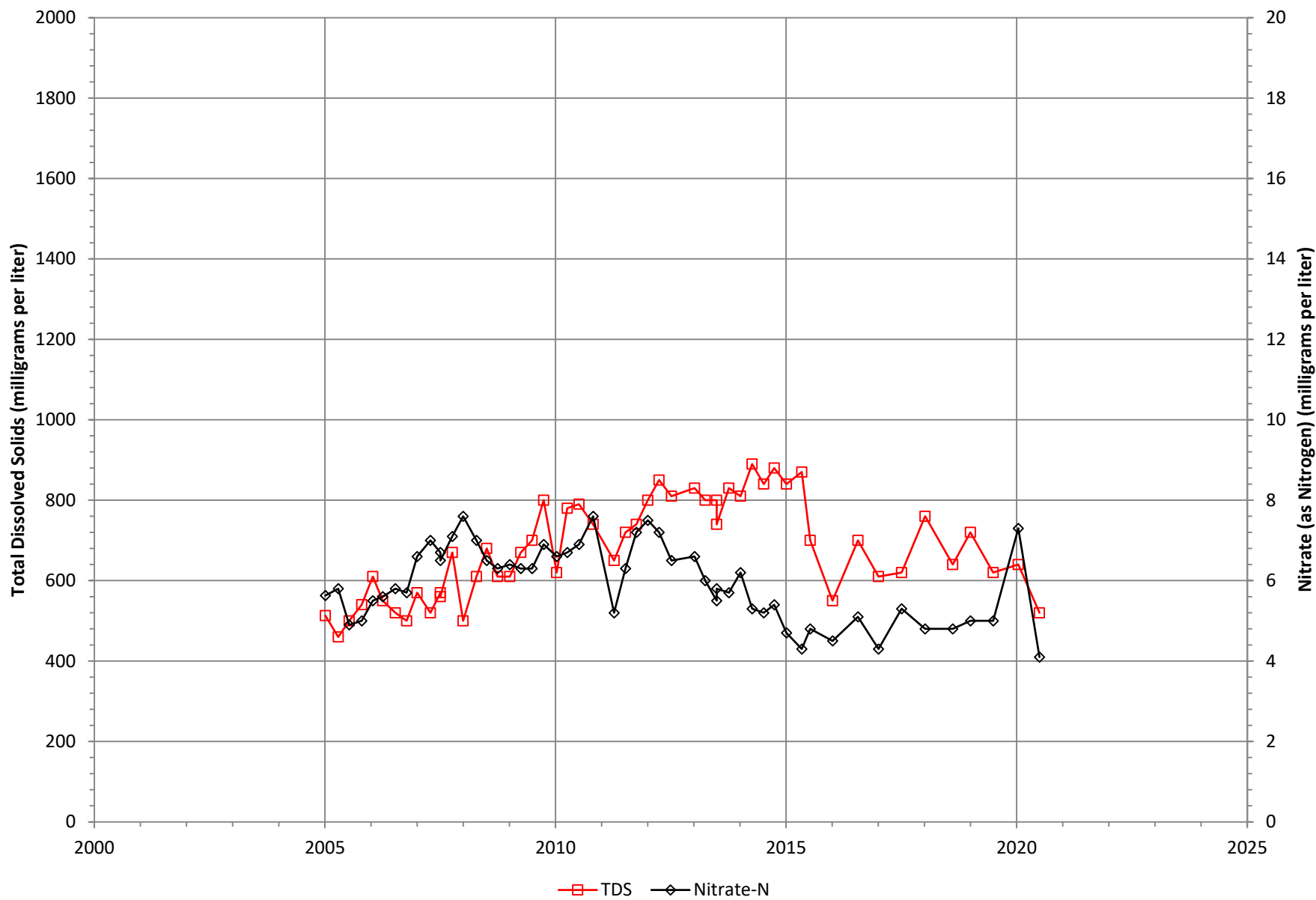


Figure B-21

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-18

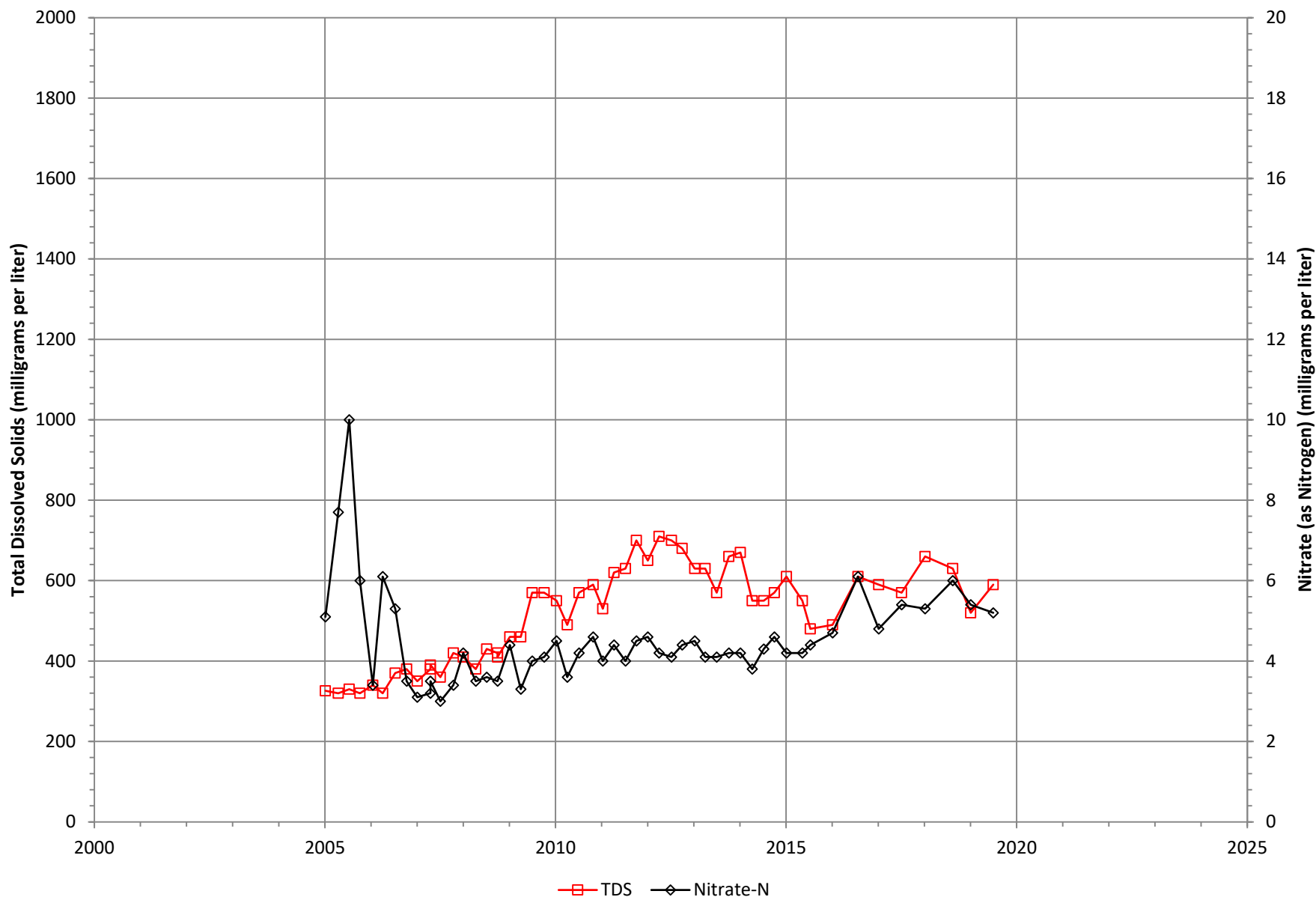


Figure B-22

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-19 and Y-19R

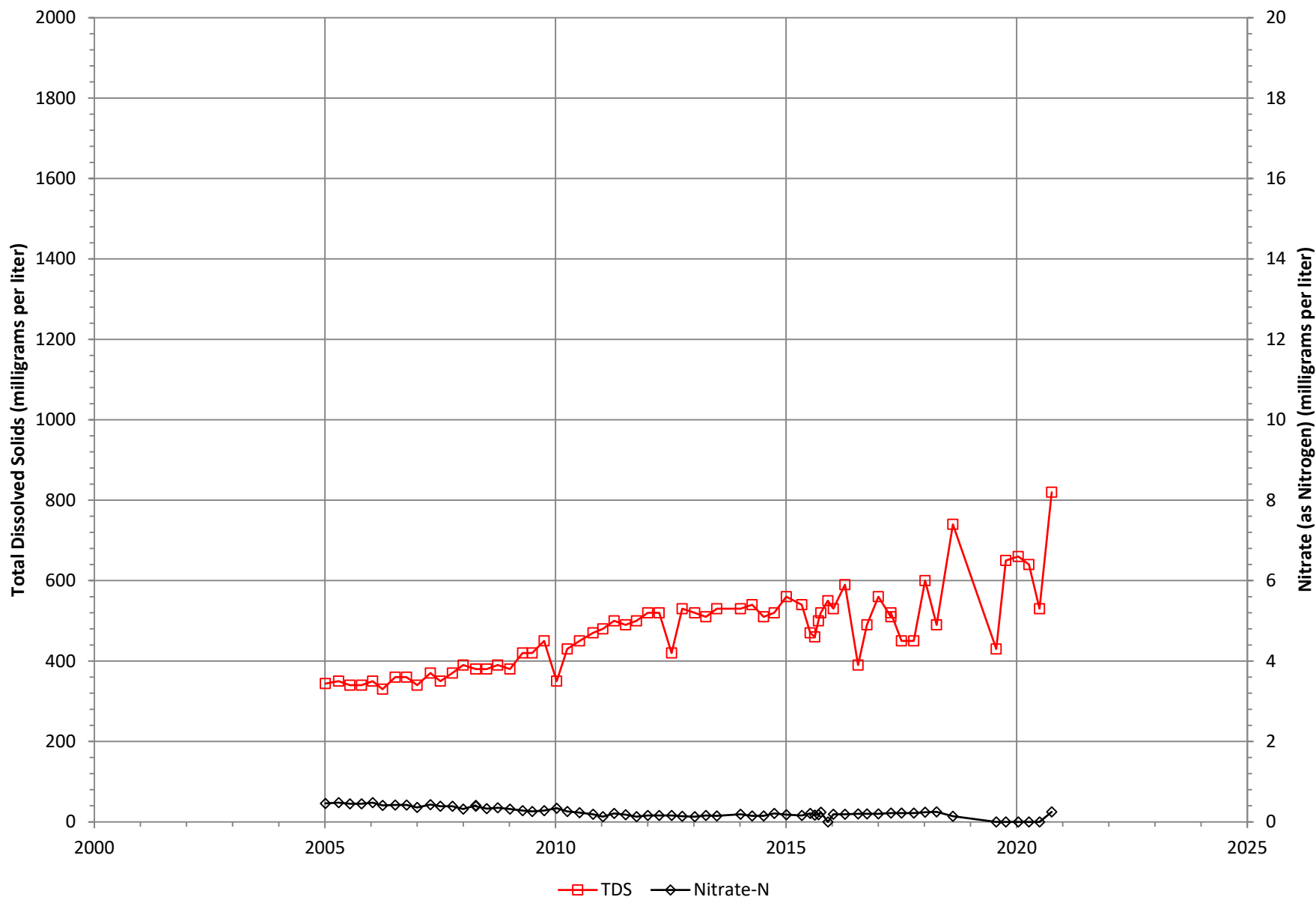


Figure B-23

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-21

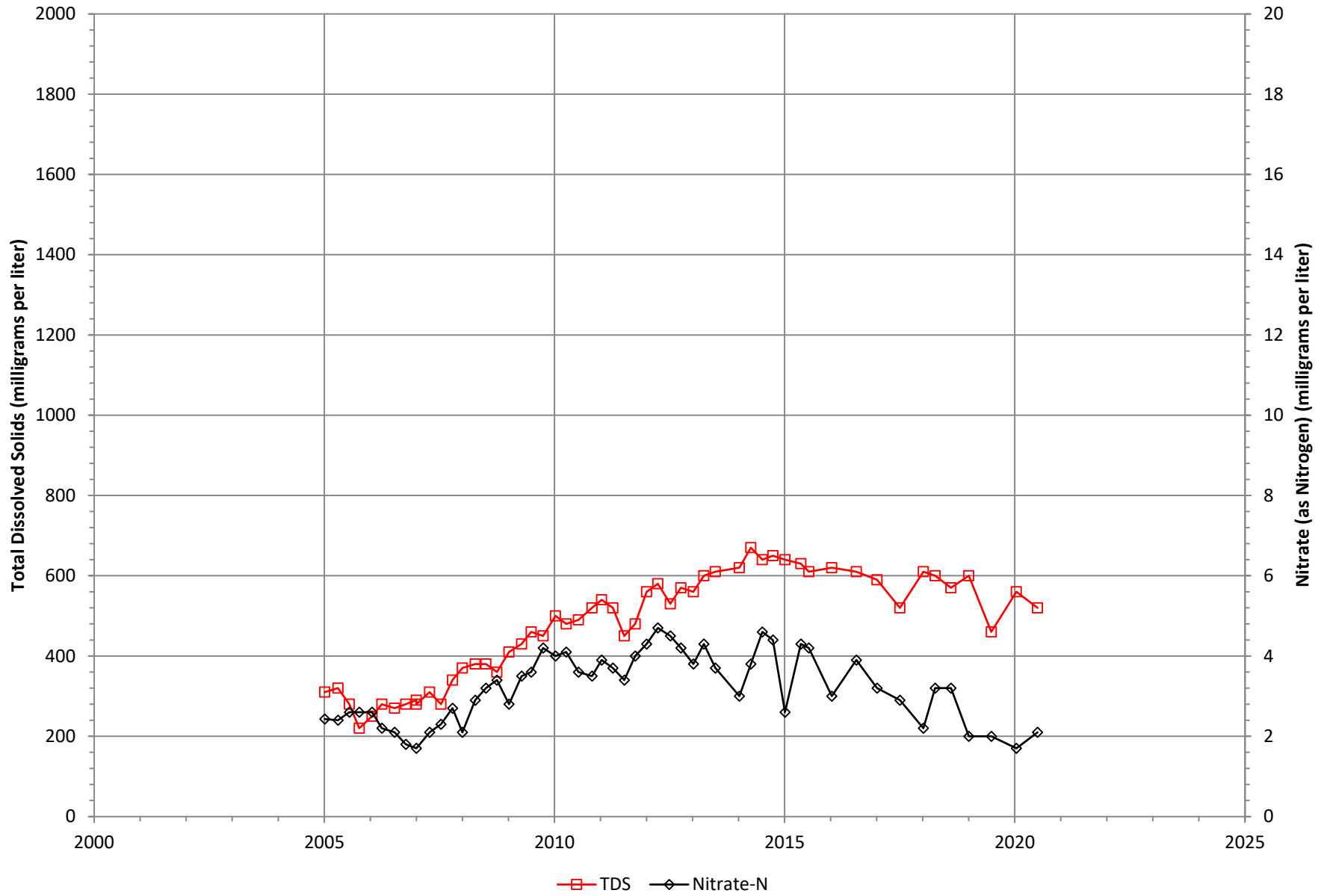


Figure B-24

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-22

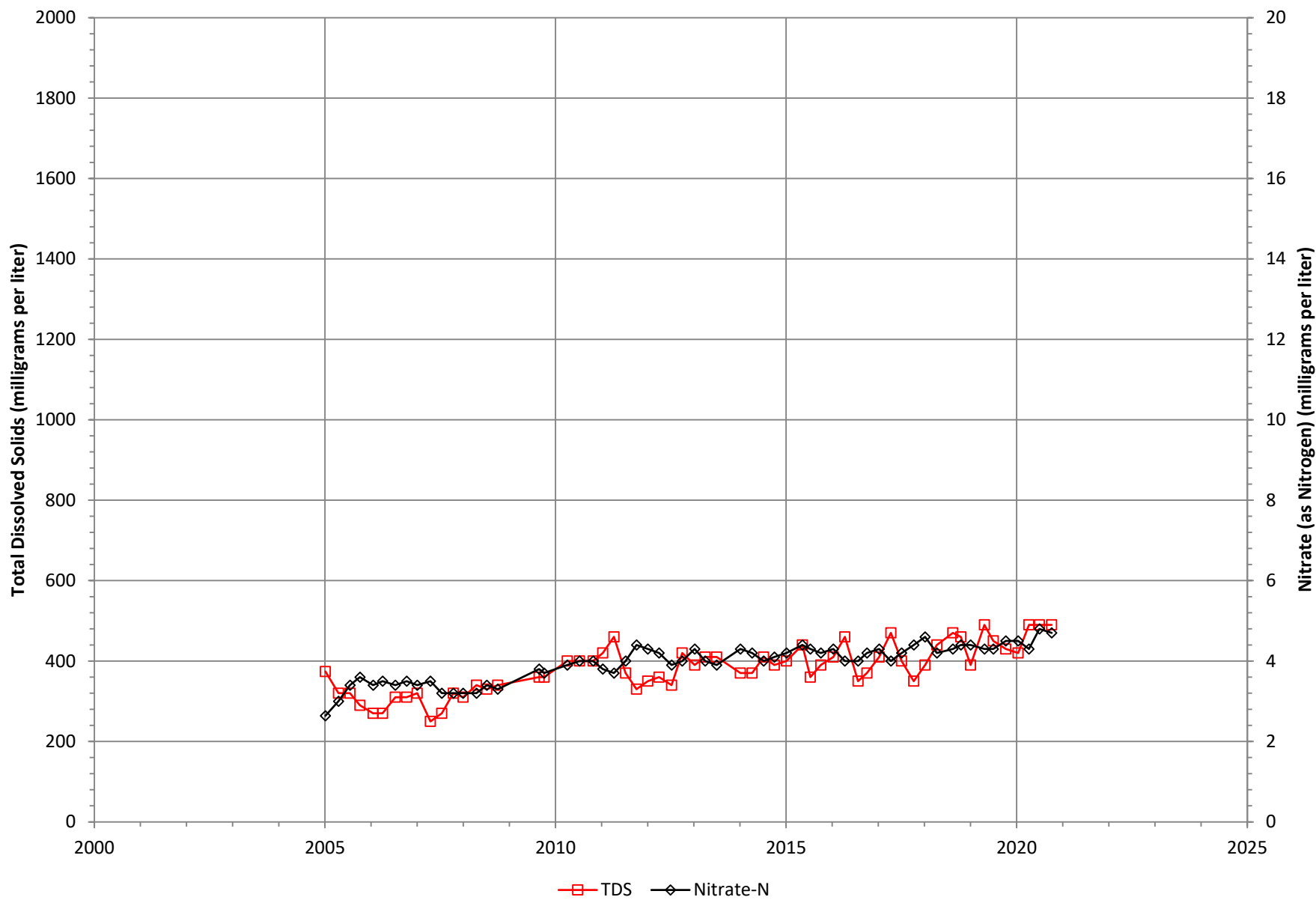


Figure B-25

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-23

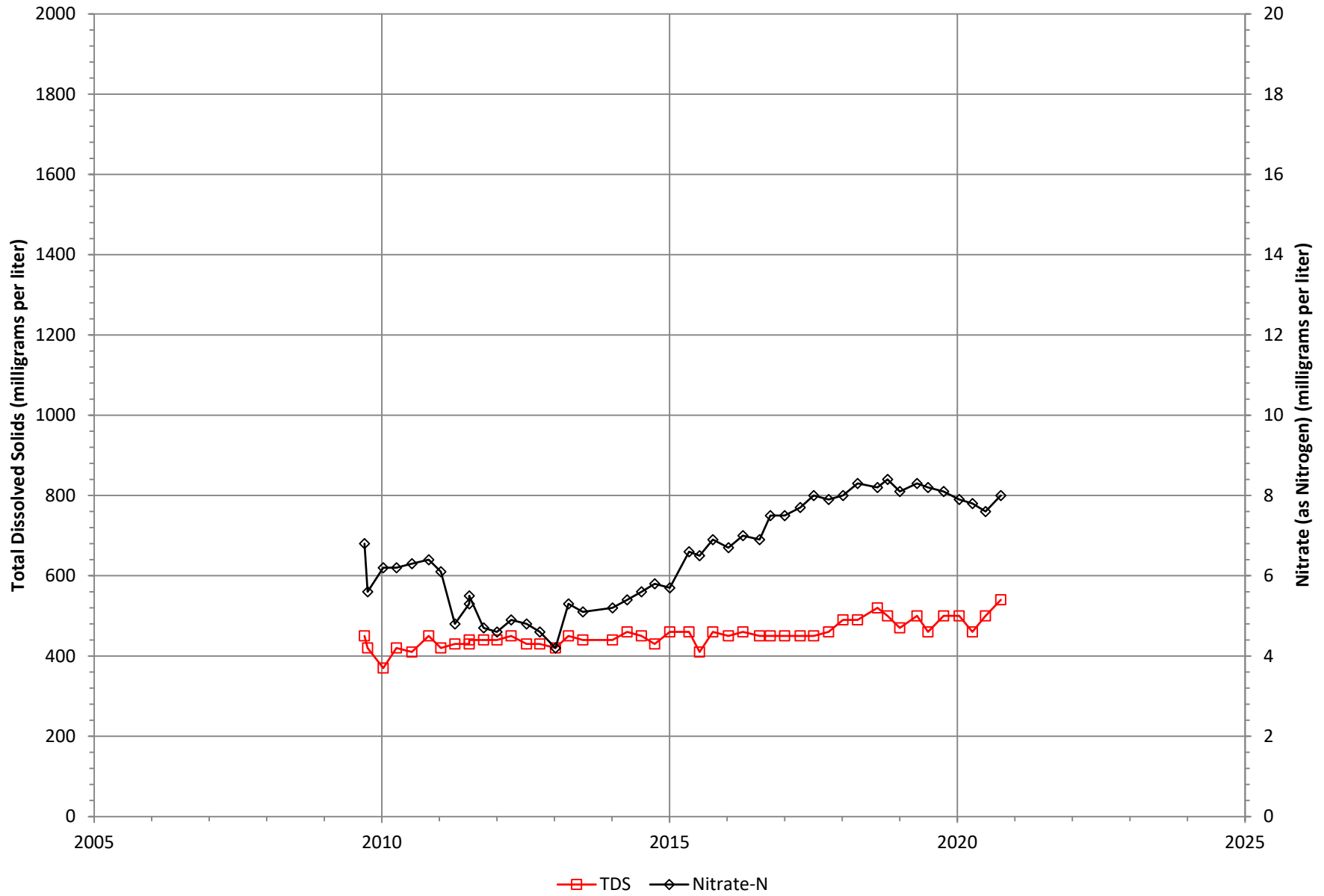


Figure B-26

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Y-24

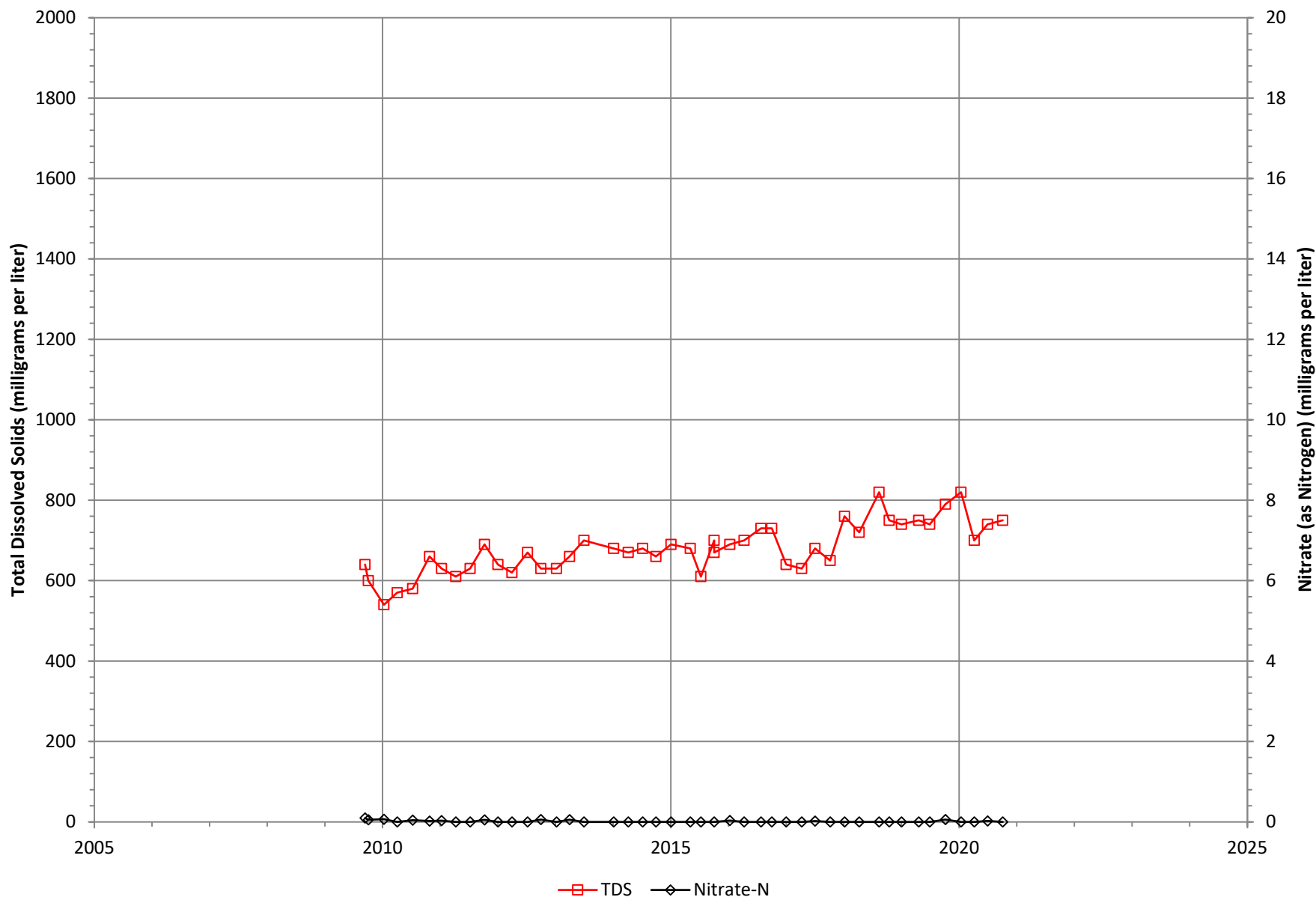


Figure B-27

Total Dissolved Solids and Nitrate (as Nitrogen) at Sierra Nursery Well (GL-3)

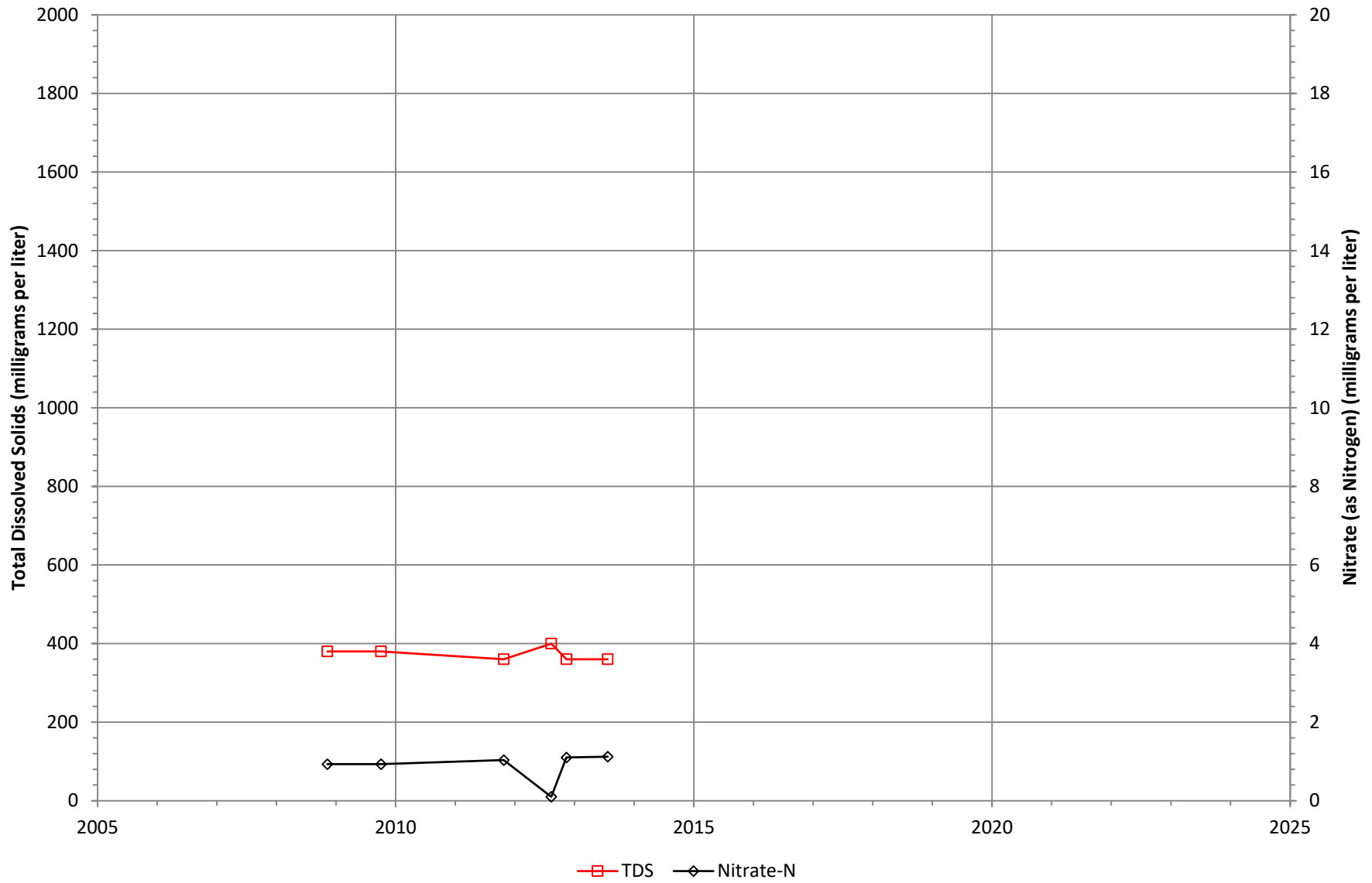


Figure B-28

Total Dissolved Solids and Nitrate (as Nitrogen) at Well SMWC-07

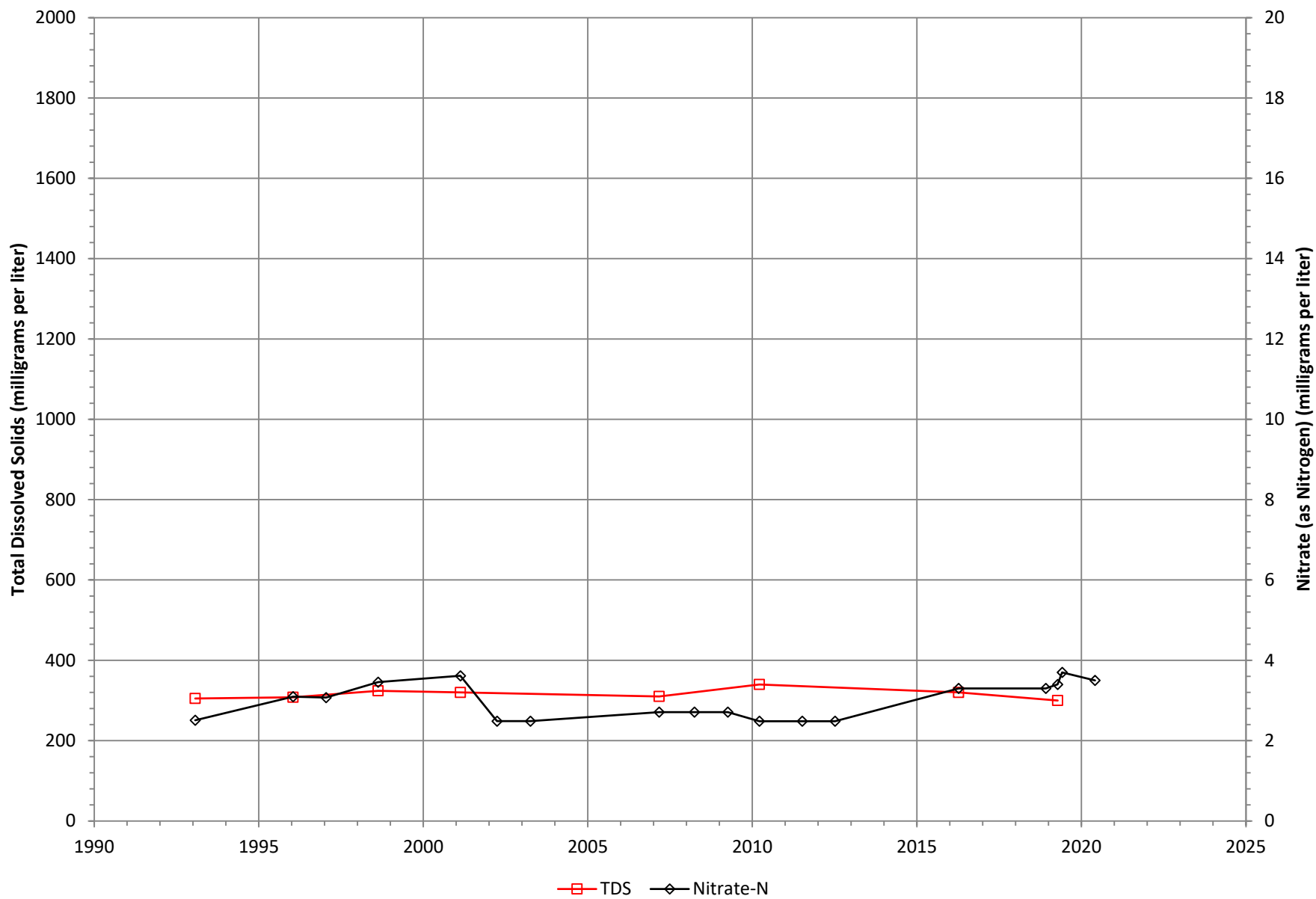


Figure B-29

Total Dissolved Solids and Nitrate (as Nitrogen) at Well SMWC-09

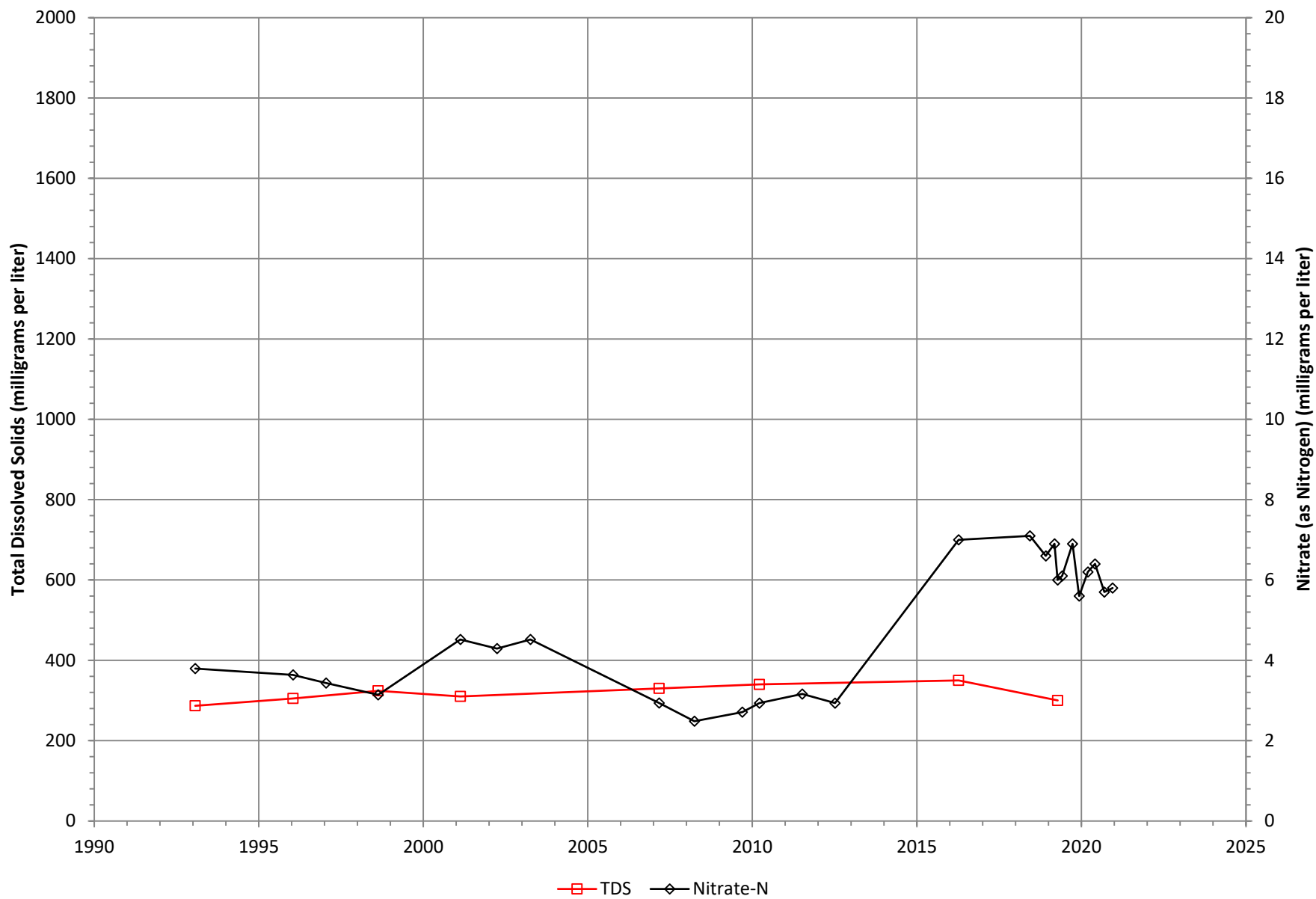


Figure B-30

Total Dissolved Solids and Nitrate (as Nitrogen) at Well SMWC-11

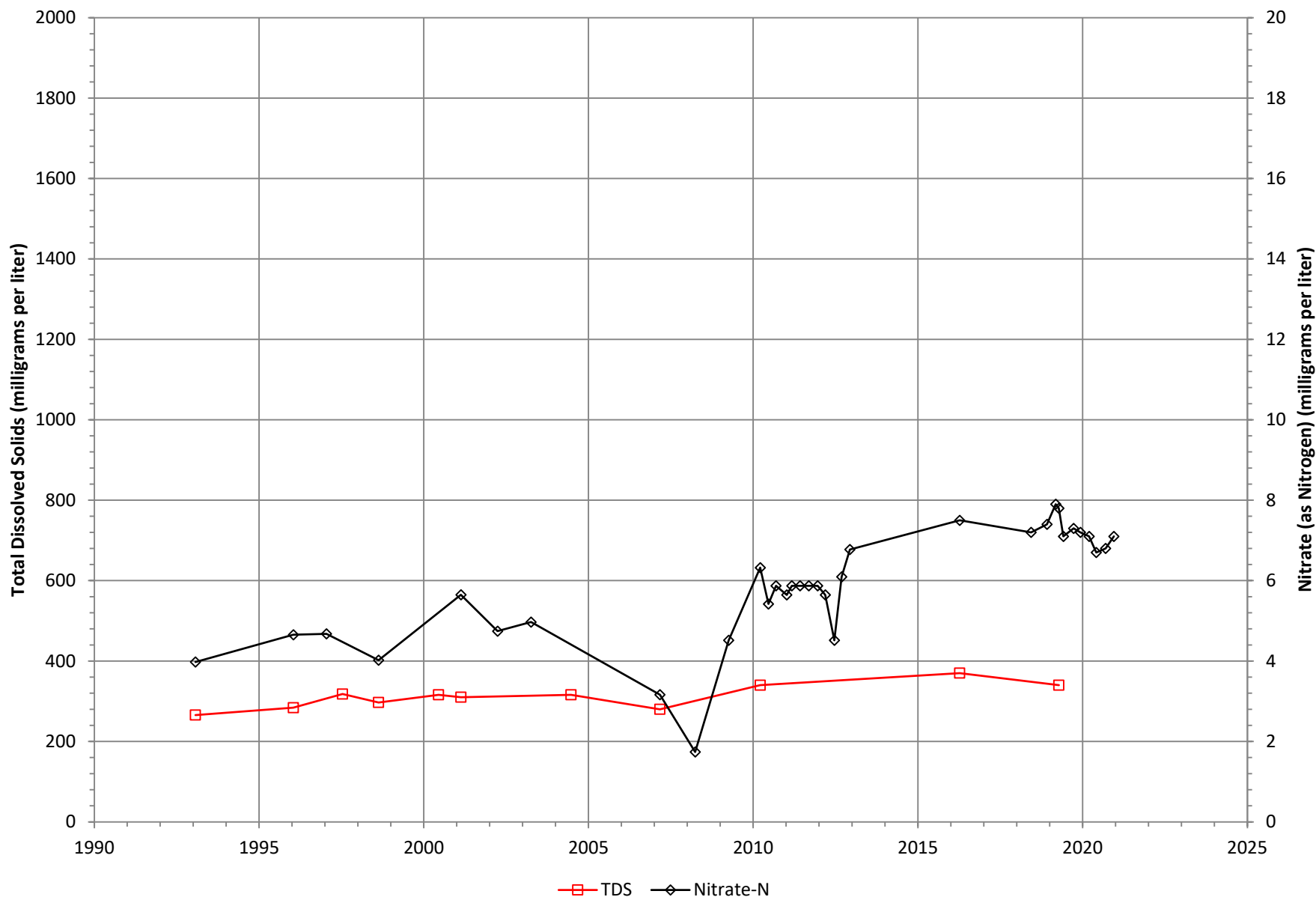


Figure B-31

Total Dissolved Solids and Nitrate (as Nitrogen) at Well SMWC-12

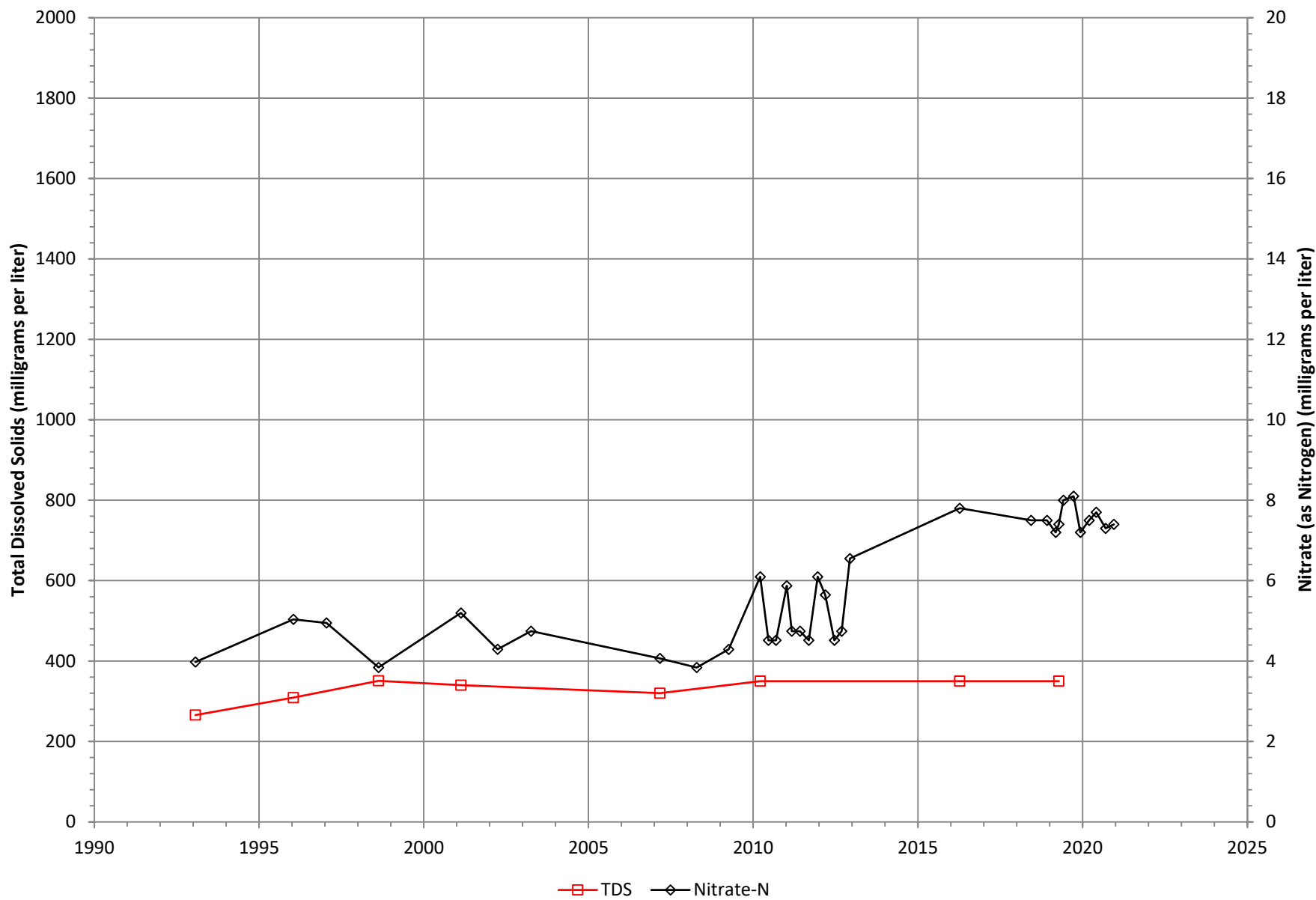


Figure B-32

Total Dissolved Solids and Nitrate (as Nitrogen) at Well SMWC-16

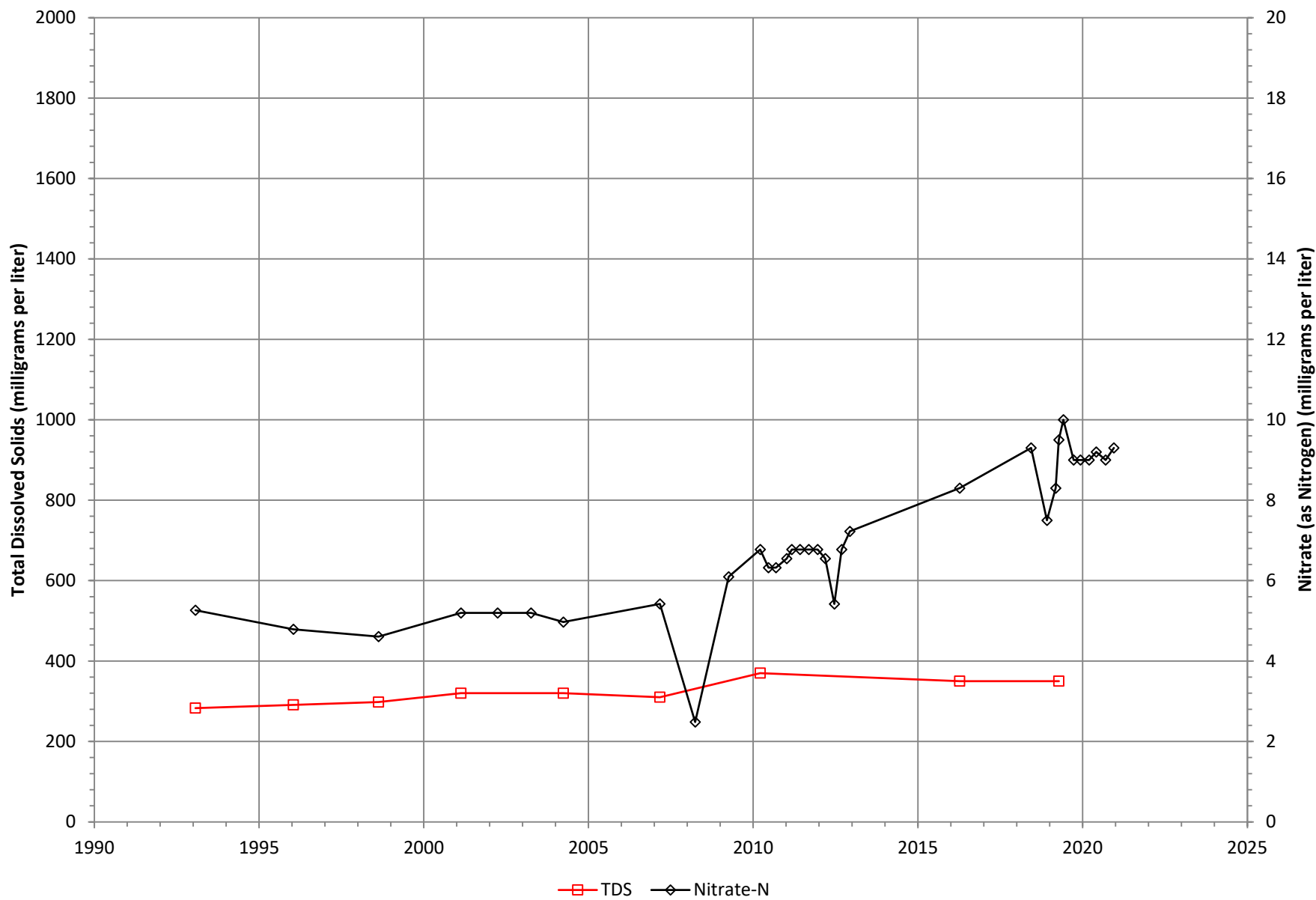


Figure B-33

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well at 6th St and Ave E 01 (870'-930' bls)

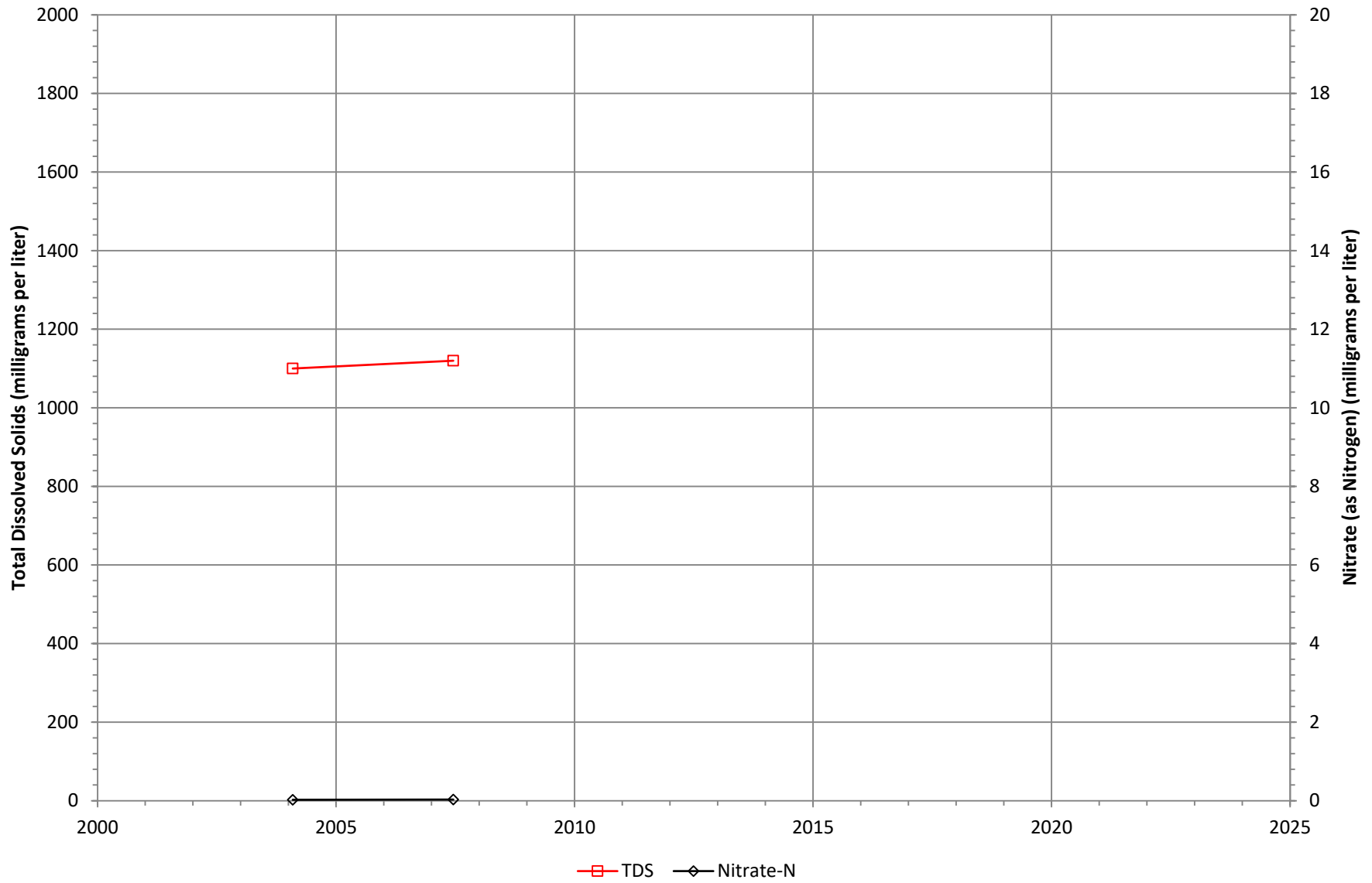


Figure B-34

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well at 6th St and Ave E 02 (730'-750' bls)

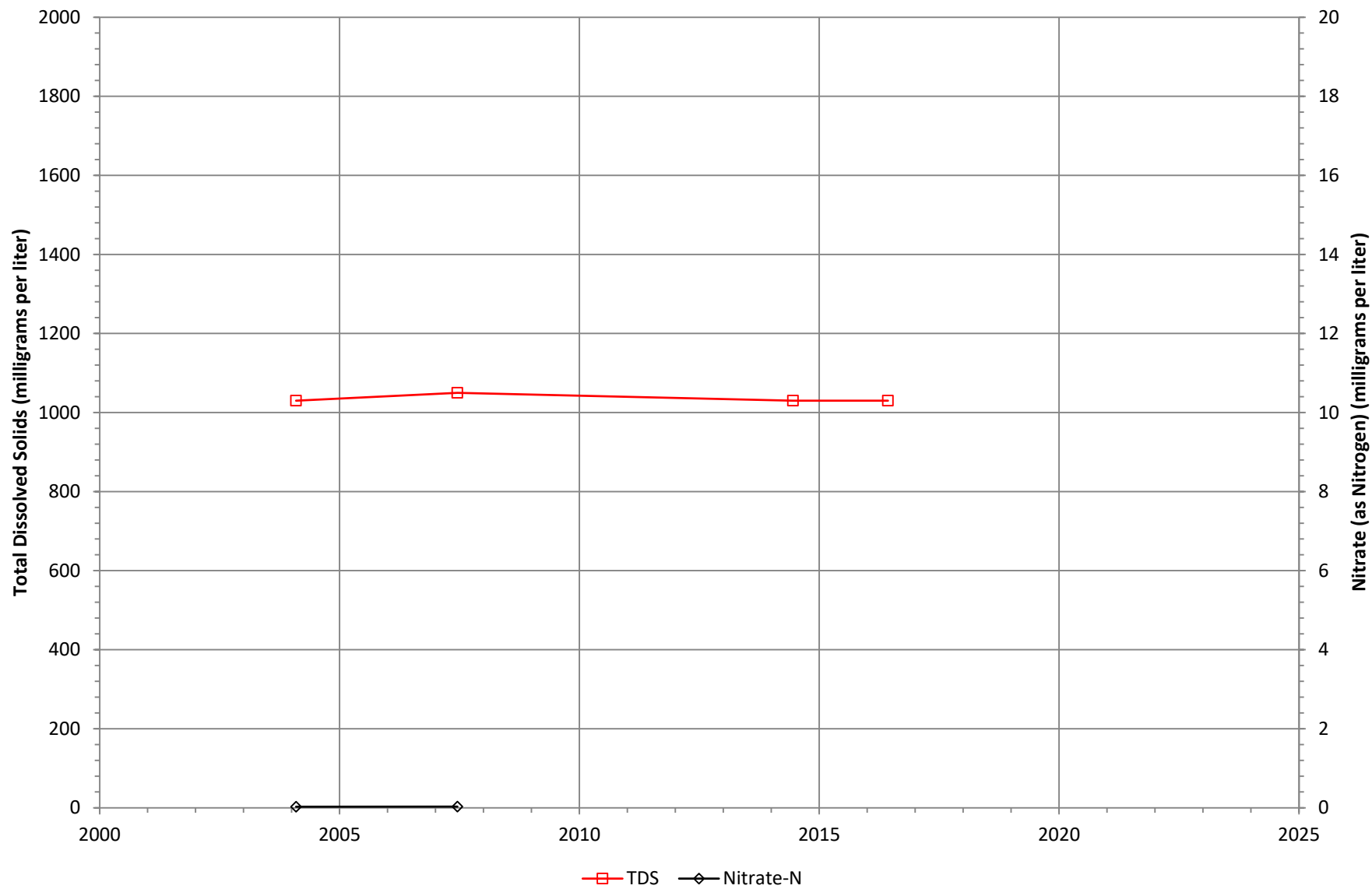


Figure B-35

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well at 6th St and Ave E 03 (500'-540' bls)

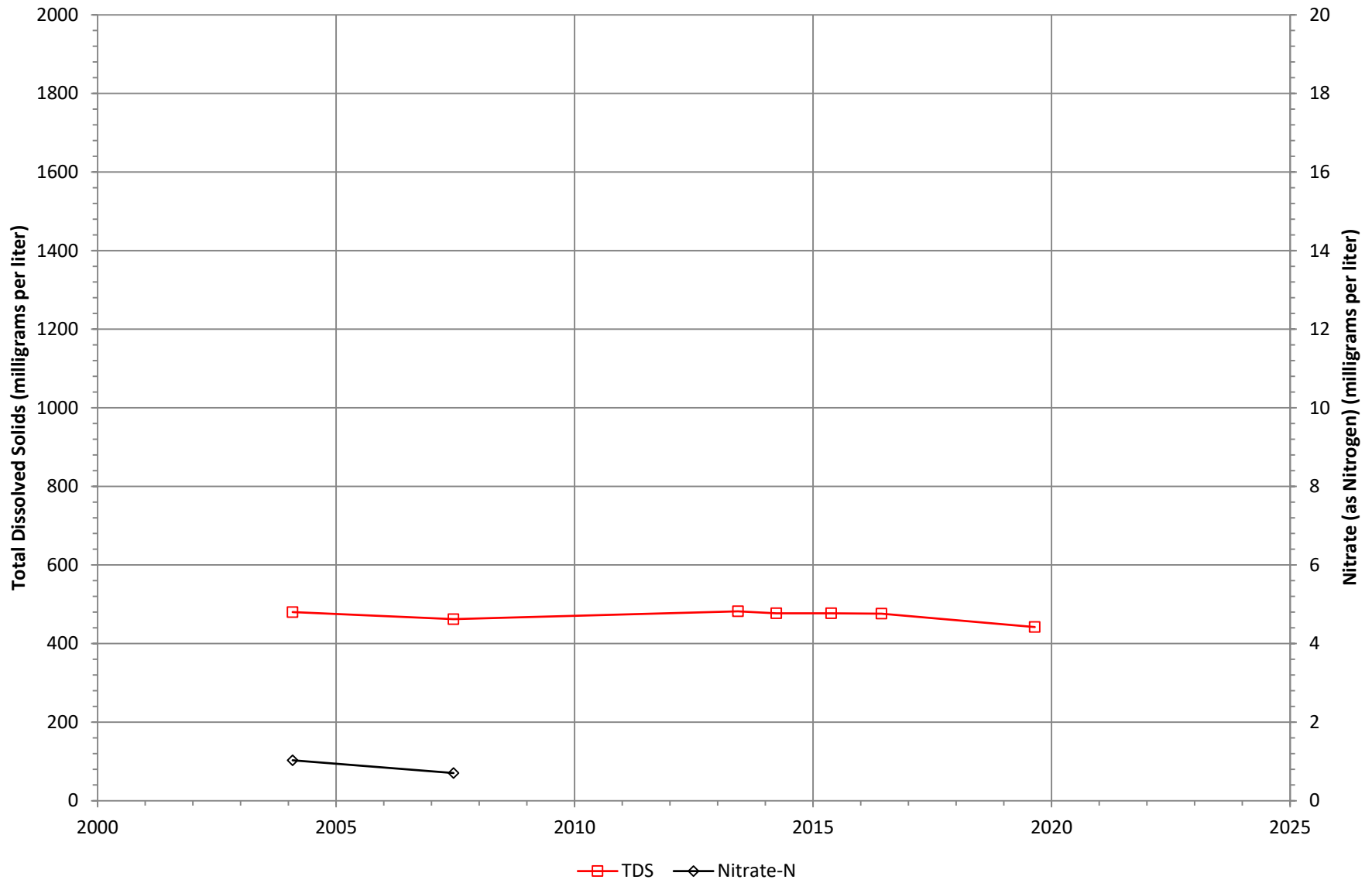


Figure B-36

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well at 6th St and Ave E 04 (380'-400' bls)

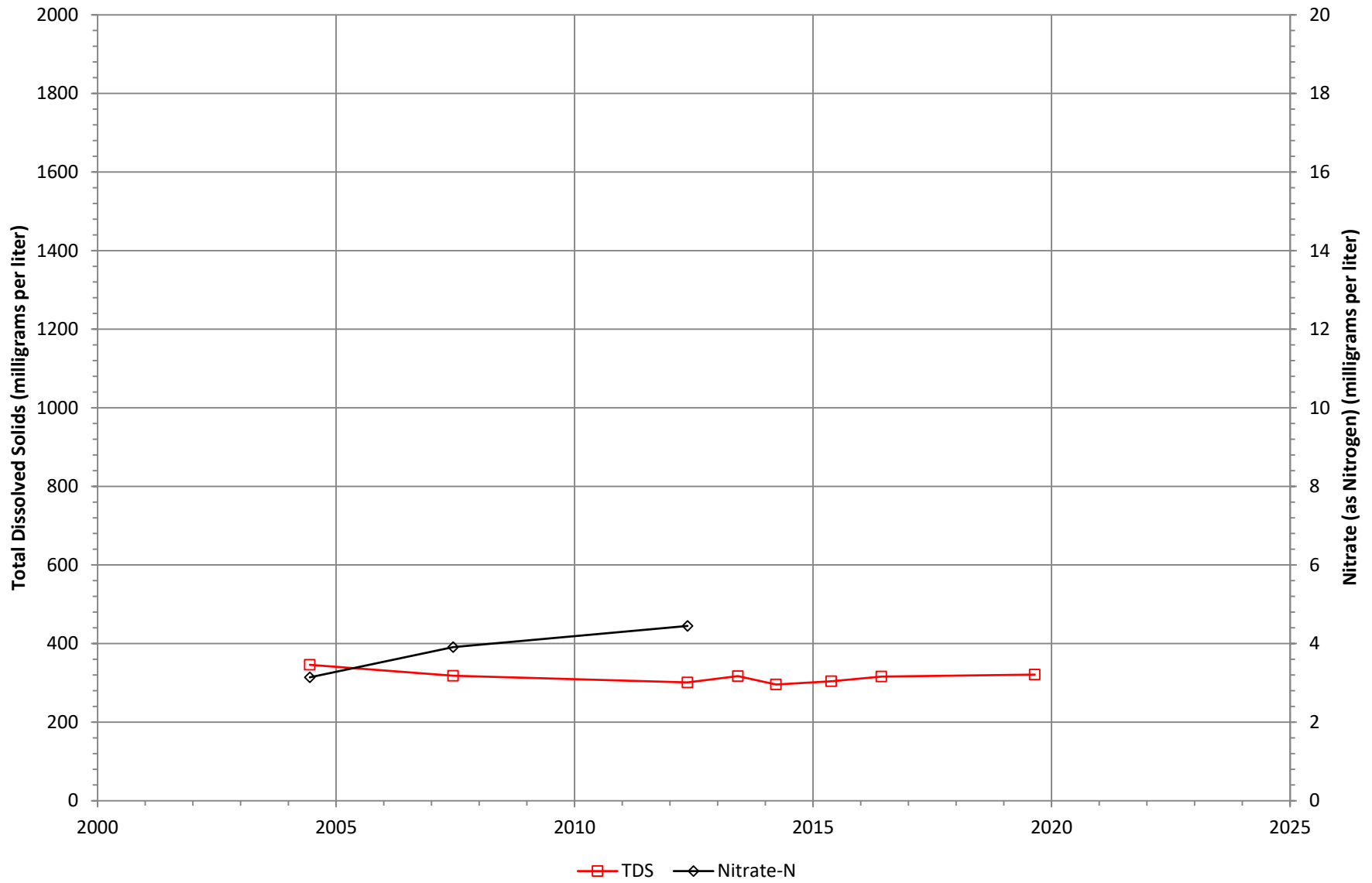


Figure B-37

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well at 6th St and Ave E 05 (290'-310' bls)

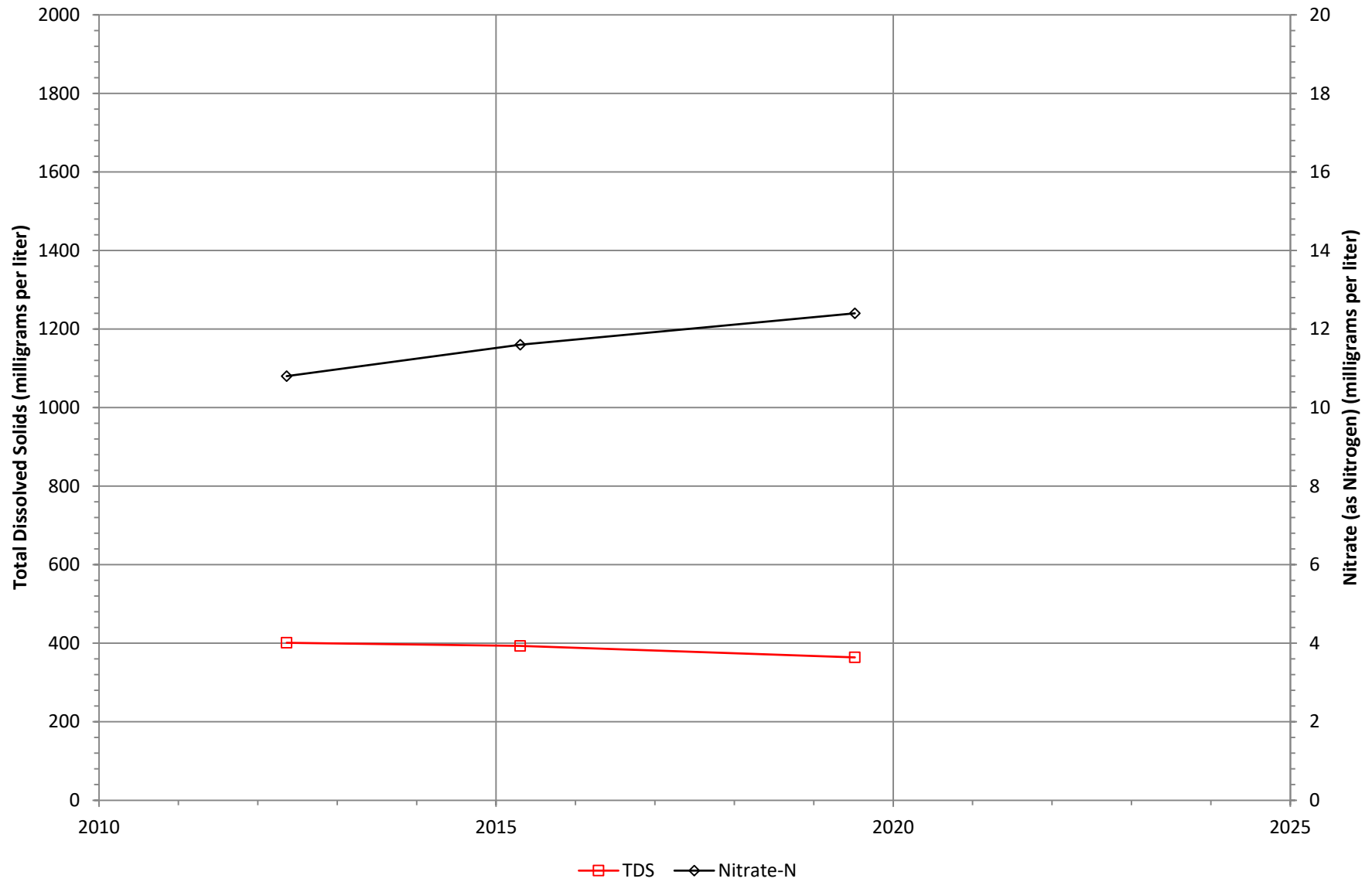


Figure B-38

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Dunlap Acres 01 1010'-1050' bls)

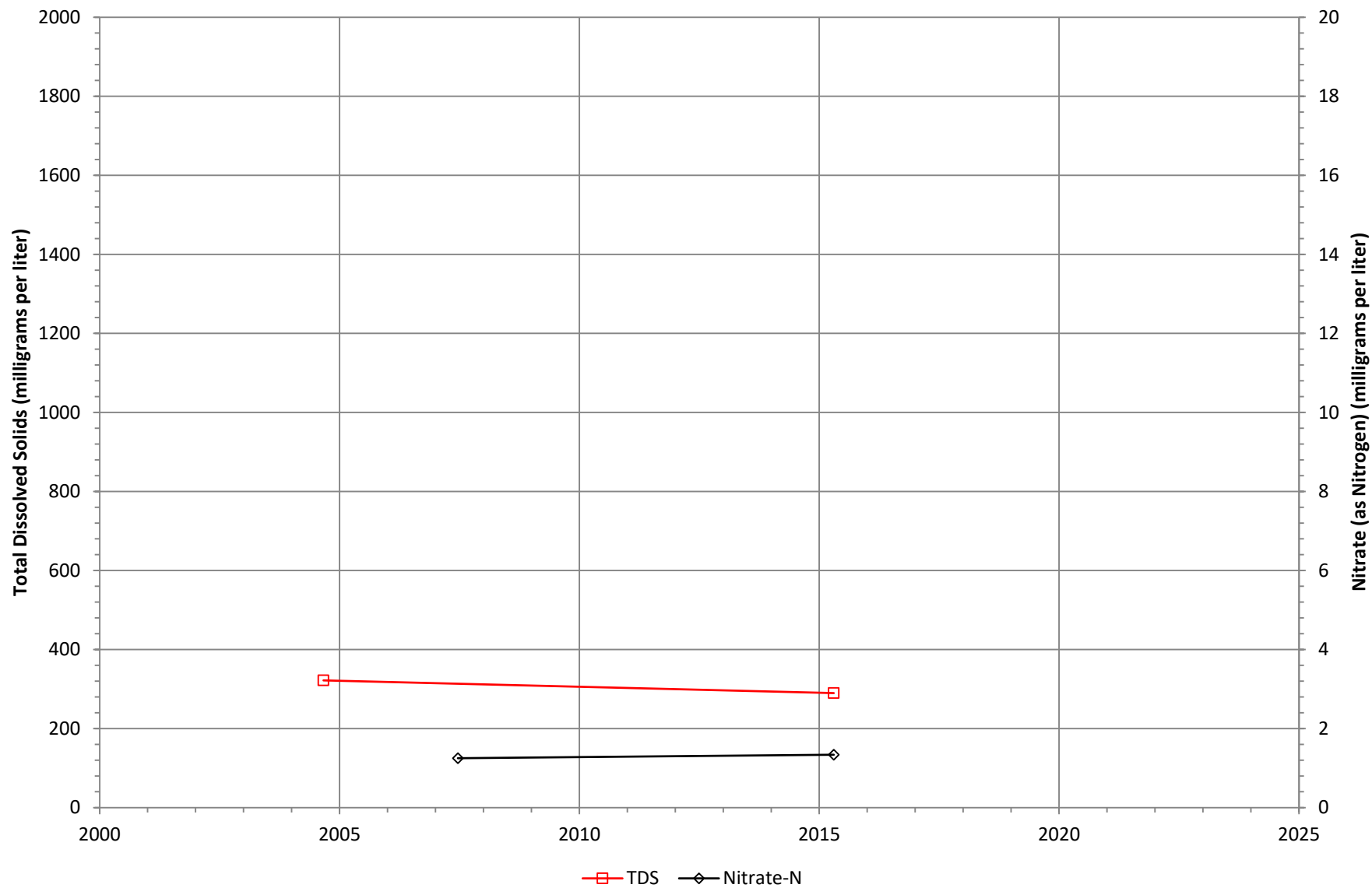


Figure B-39

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Dunlap Acres 02 (830'-850' bls)

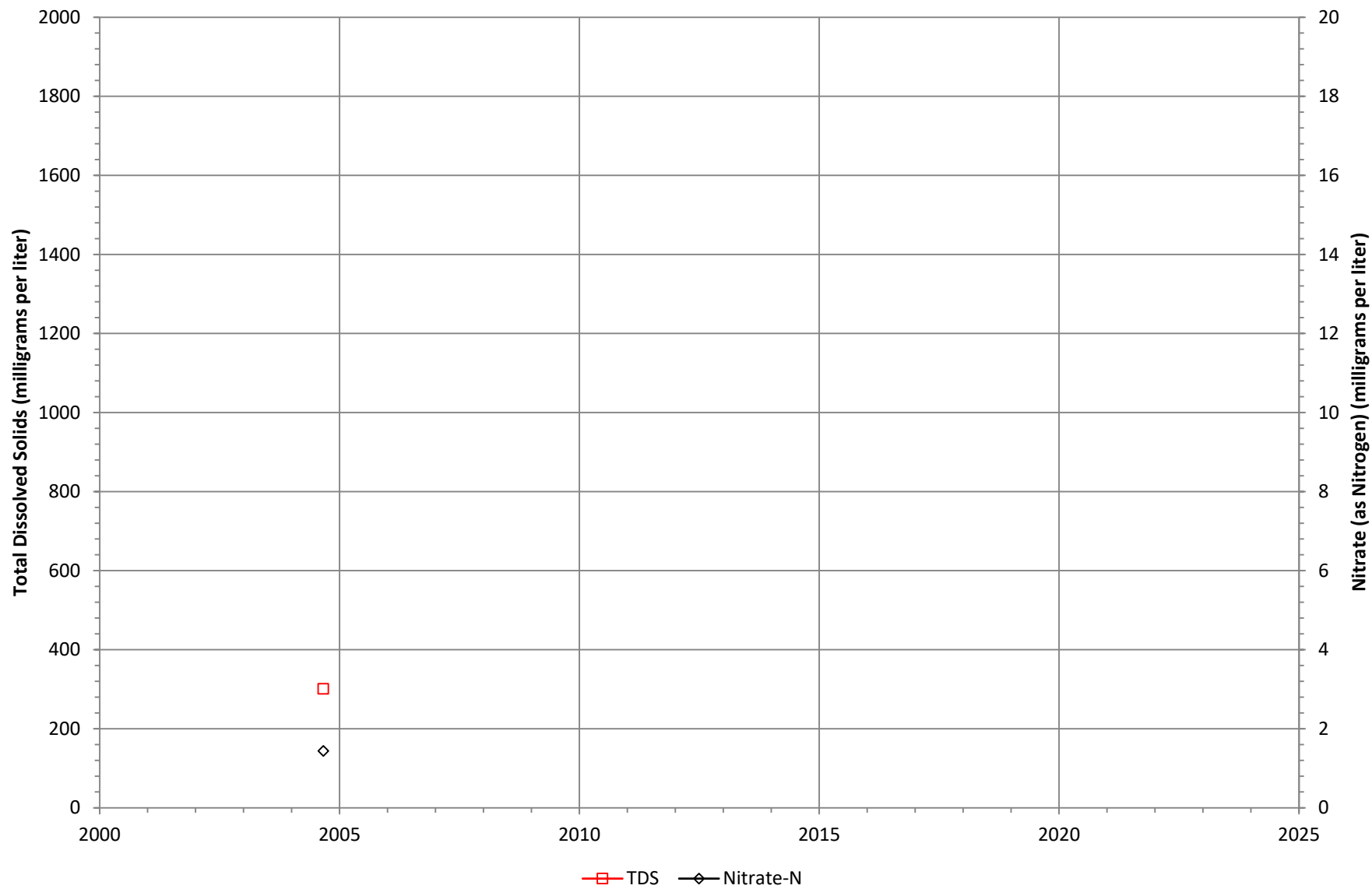


Figure B-40

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Dunlap Acres 03 (590'-610' bls)

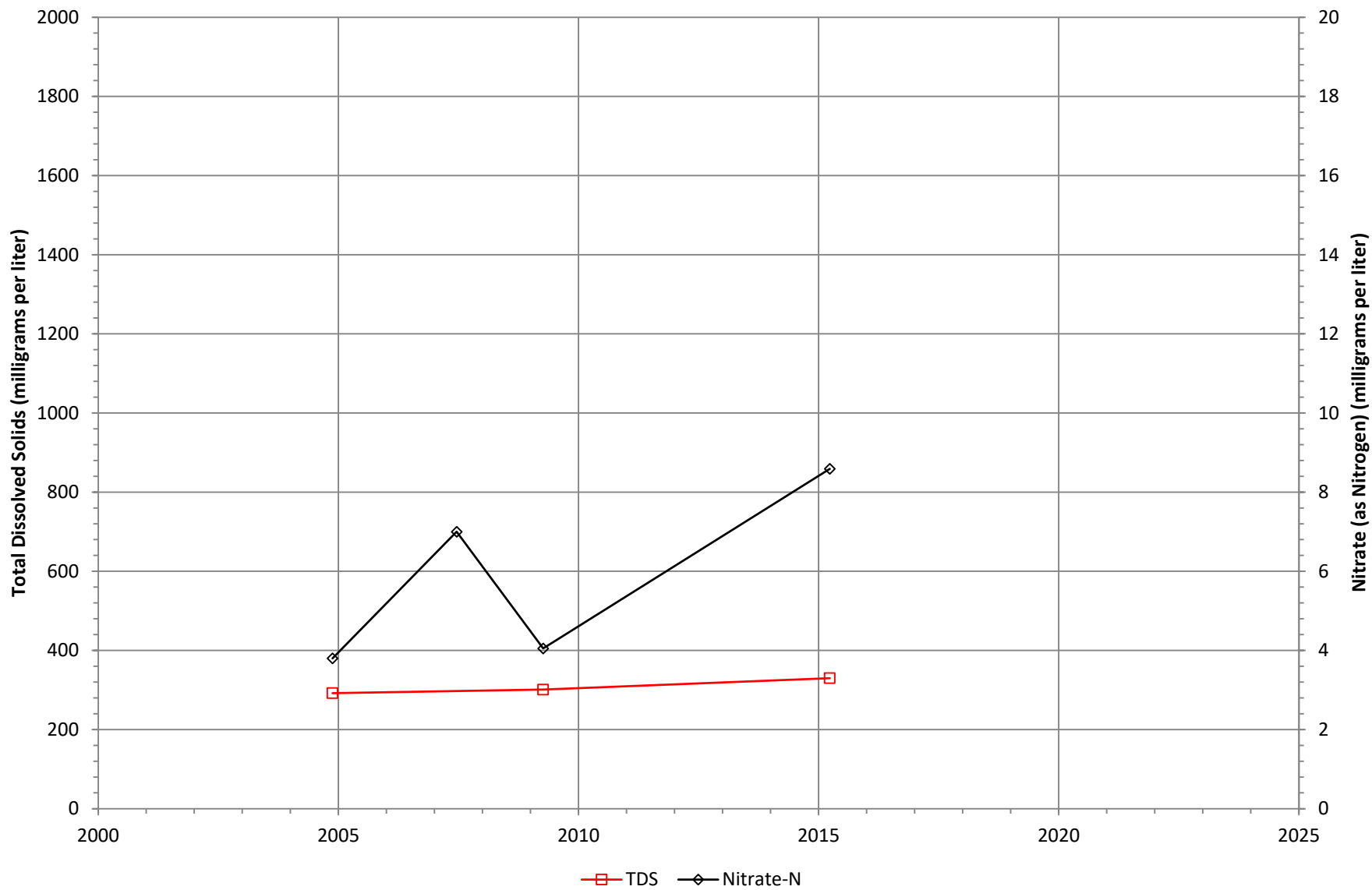


Figure B-41

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Dunlap Acres 04 (440'-460' bls)

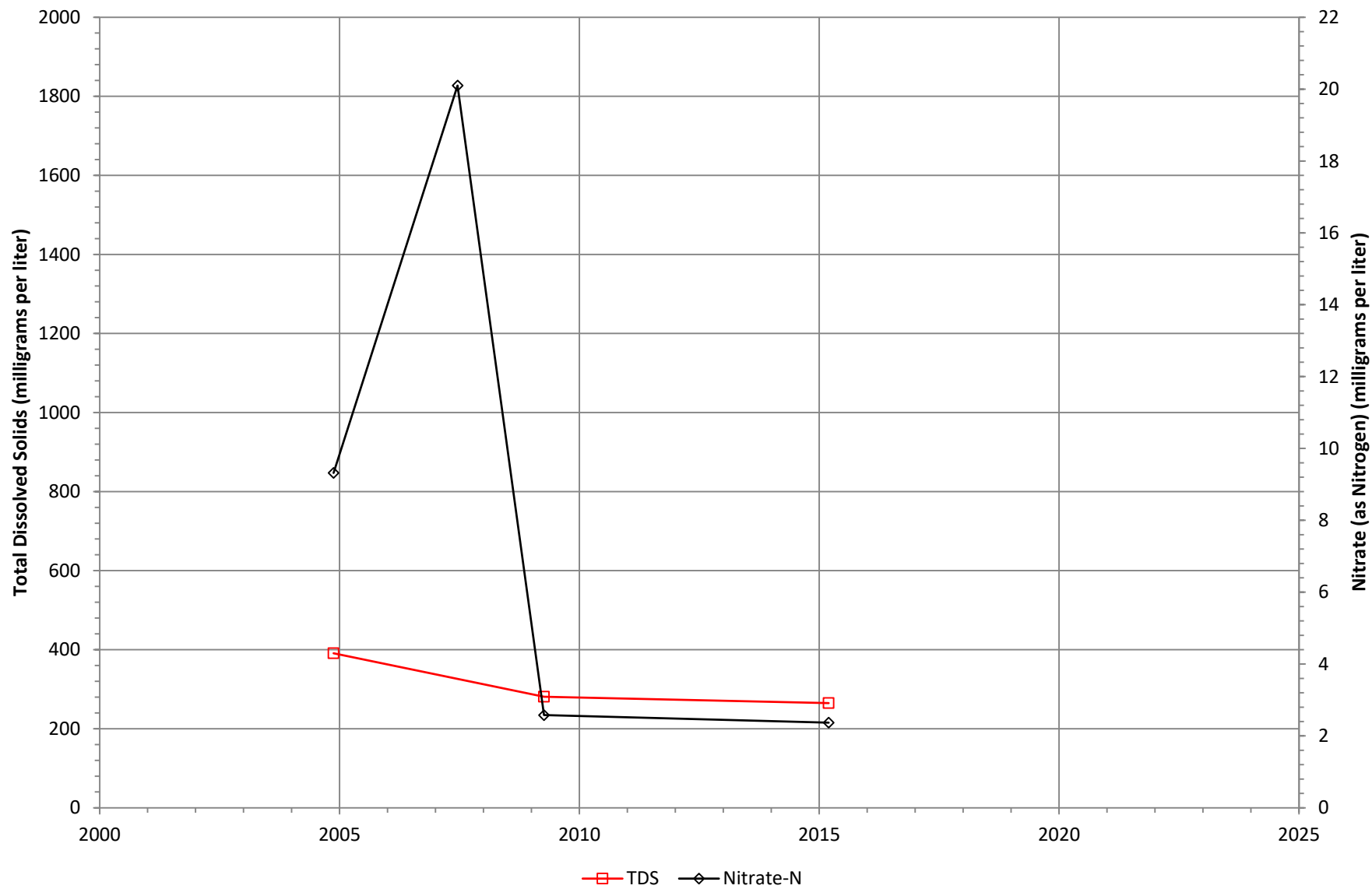


Figure B-42

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Dunlap Acres 05 (230'-250' bls)

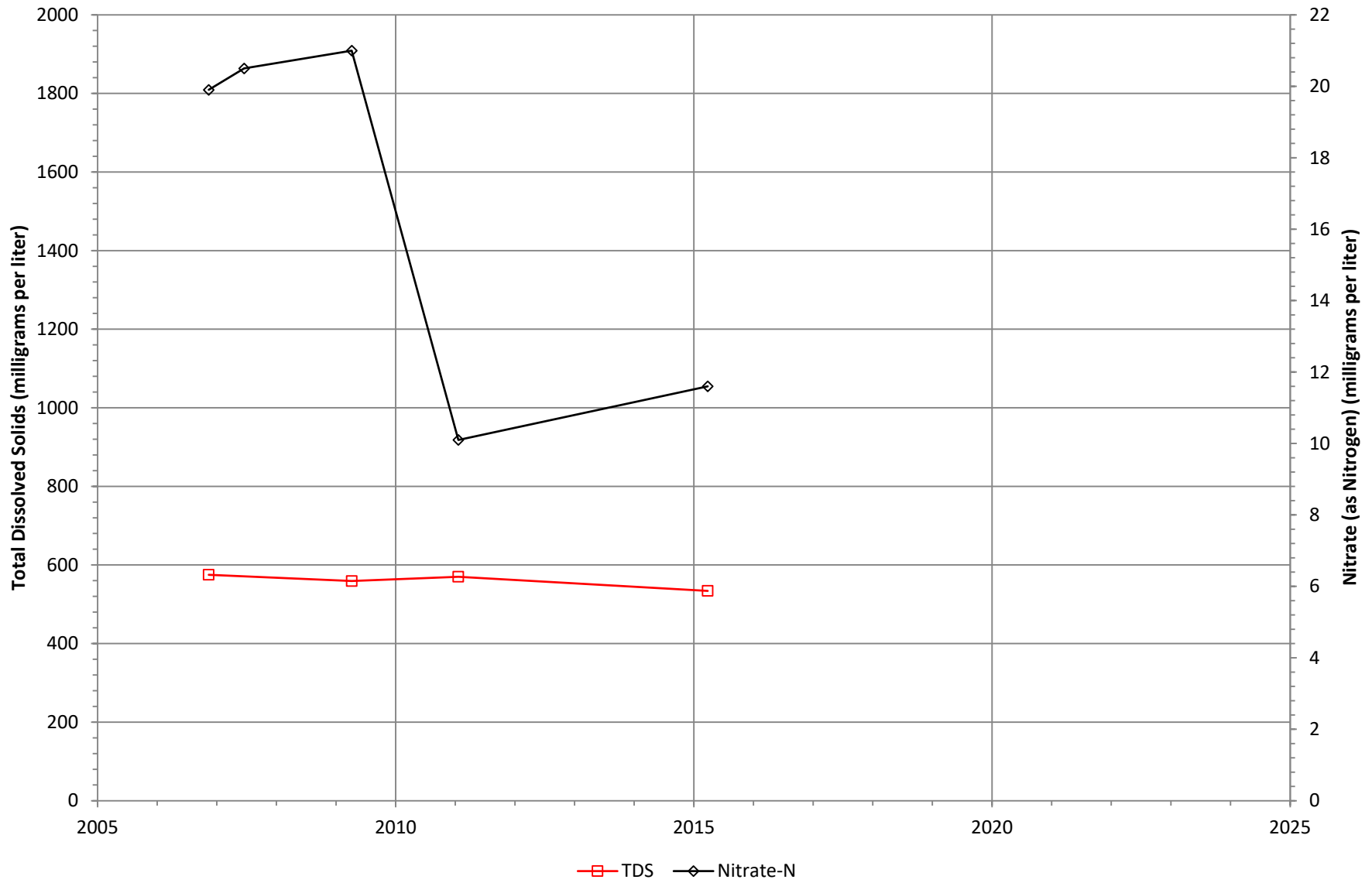


Figure B-43

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Equestrian Park on Ave G 01 (830'-850' bls)

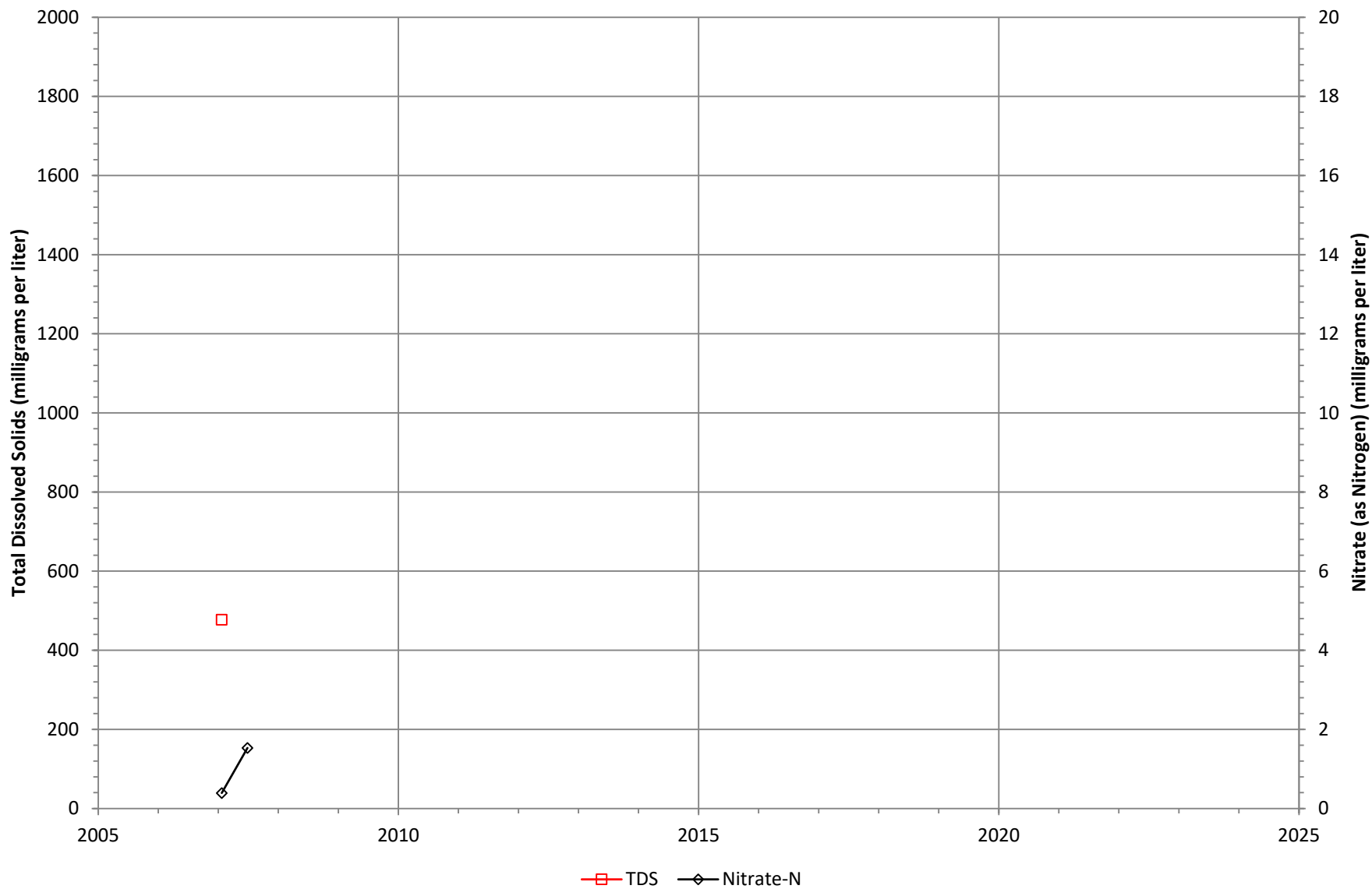


Figure B-44

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Equestrian Park on Ave G 02 (635'-655' bls)

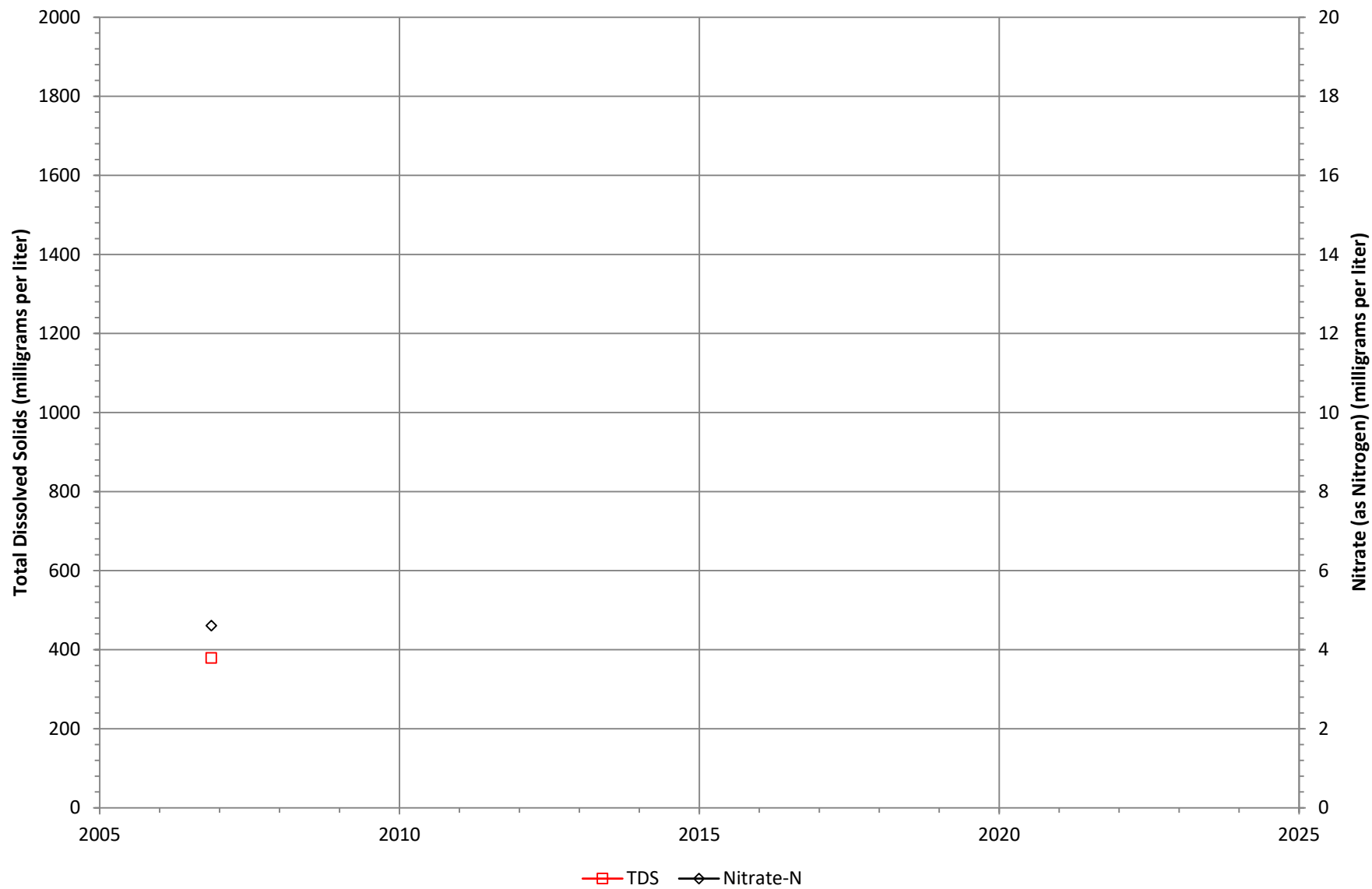


Figure B-45

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Equestrian Park on Ave G 03 (510'-530' bls)

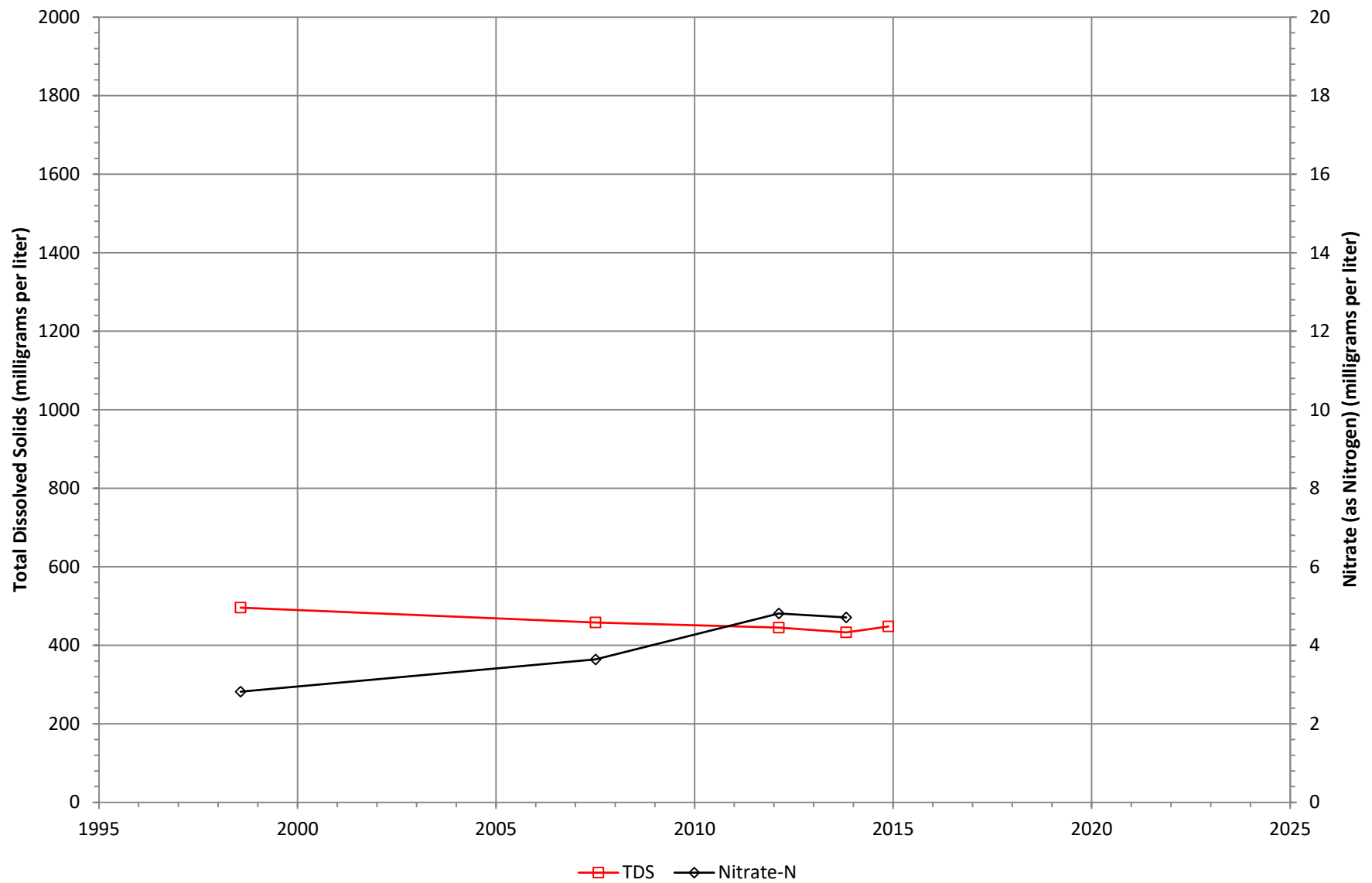


Figure B-46

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Equestrian Park on Ave G 04 (380'-400' bls)

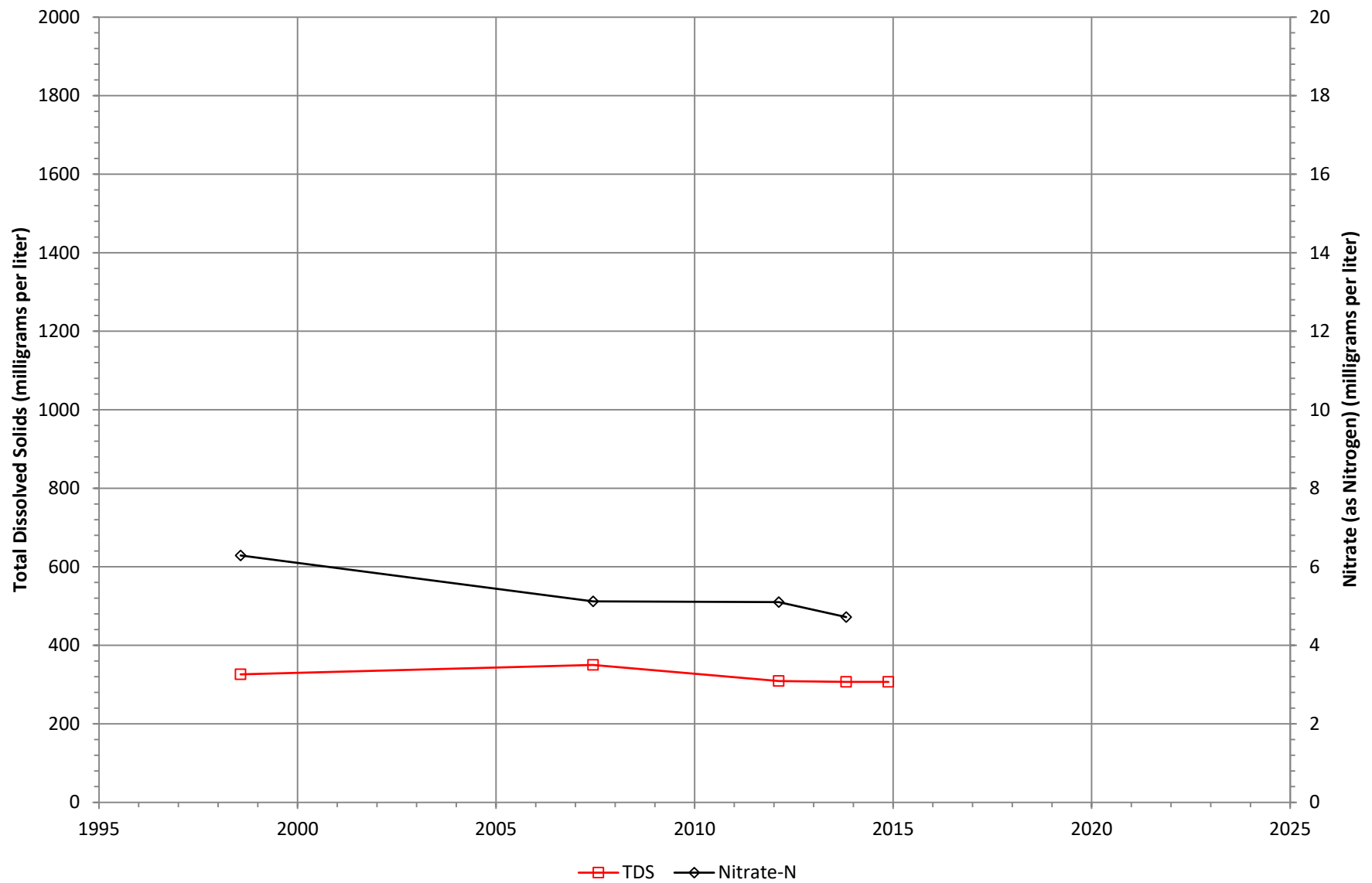


Figure B-47

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Wilson Creek 01 (820'-840' bls)

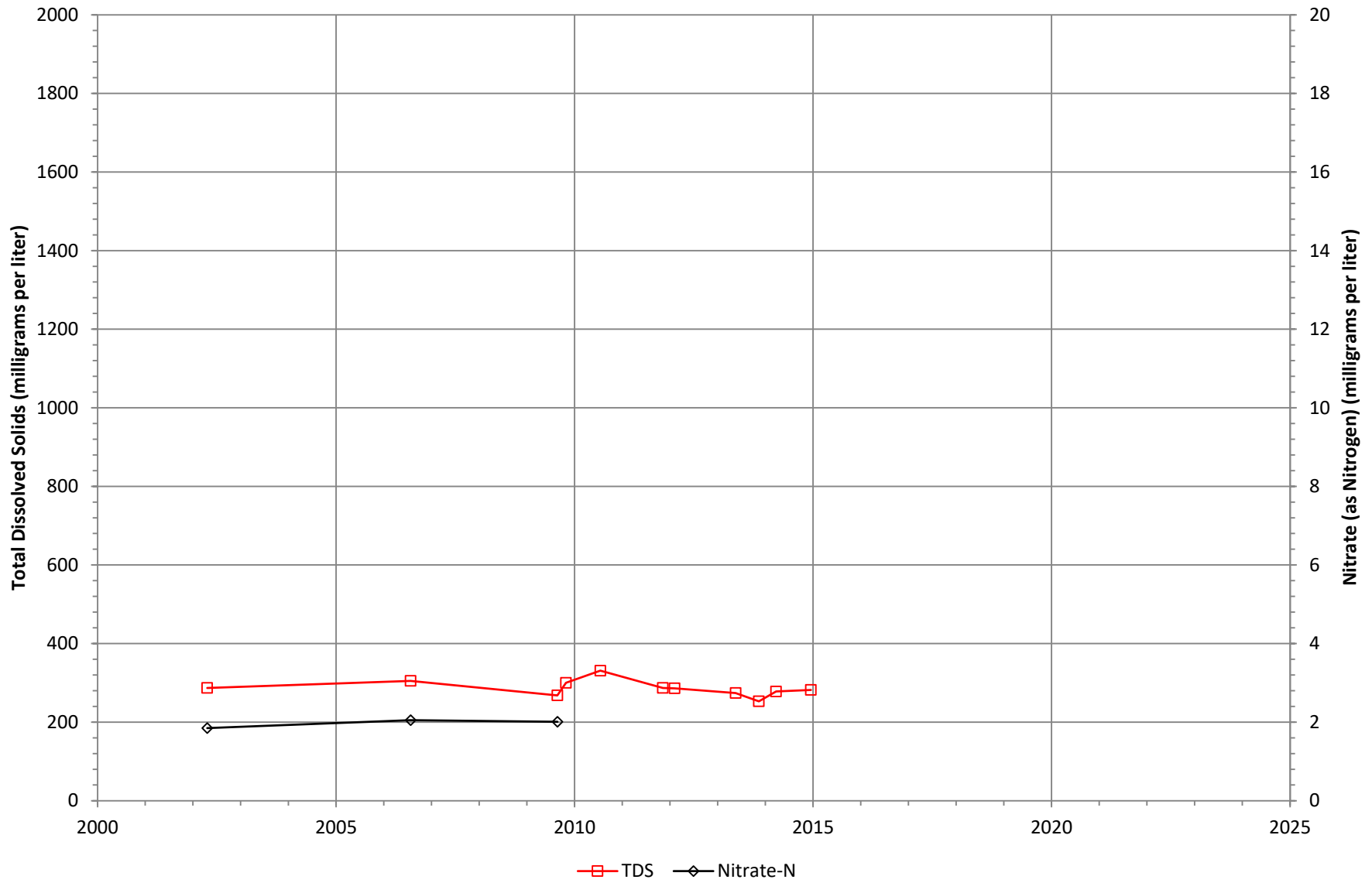


Figure B-48

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Wilson Creek 02 (640'-660' bls)

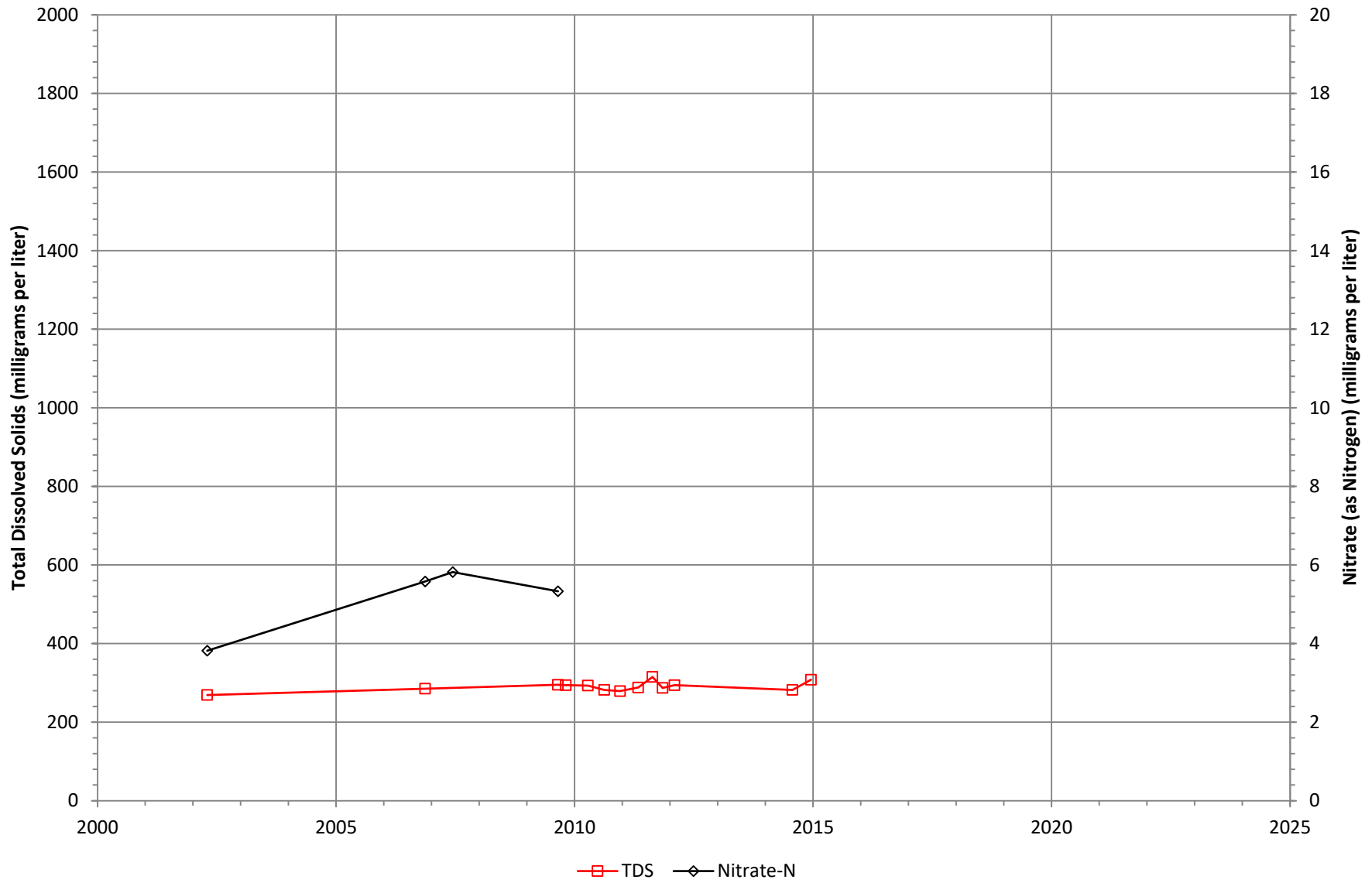


Figure B-49

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Wilson Creek 03 (500'-520' bls)

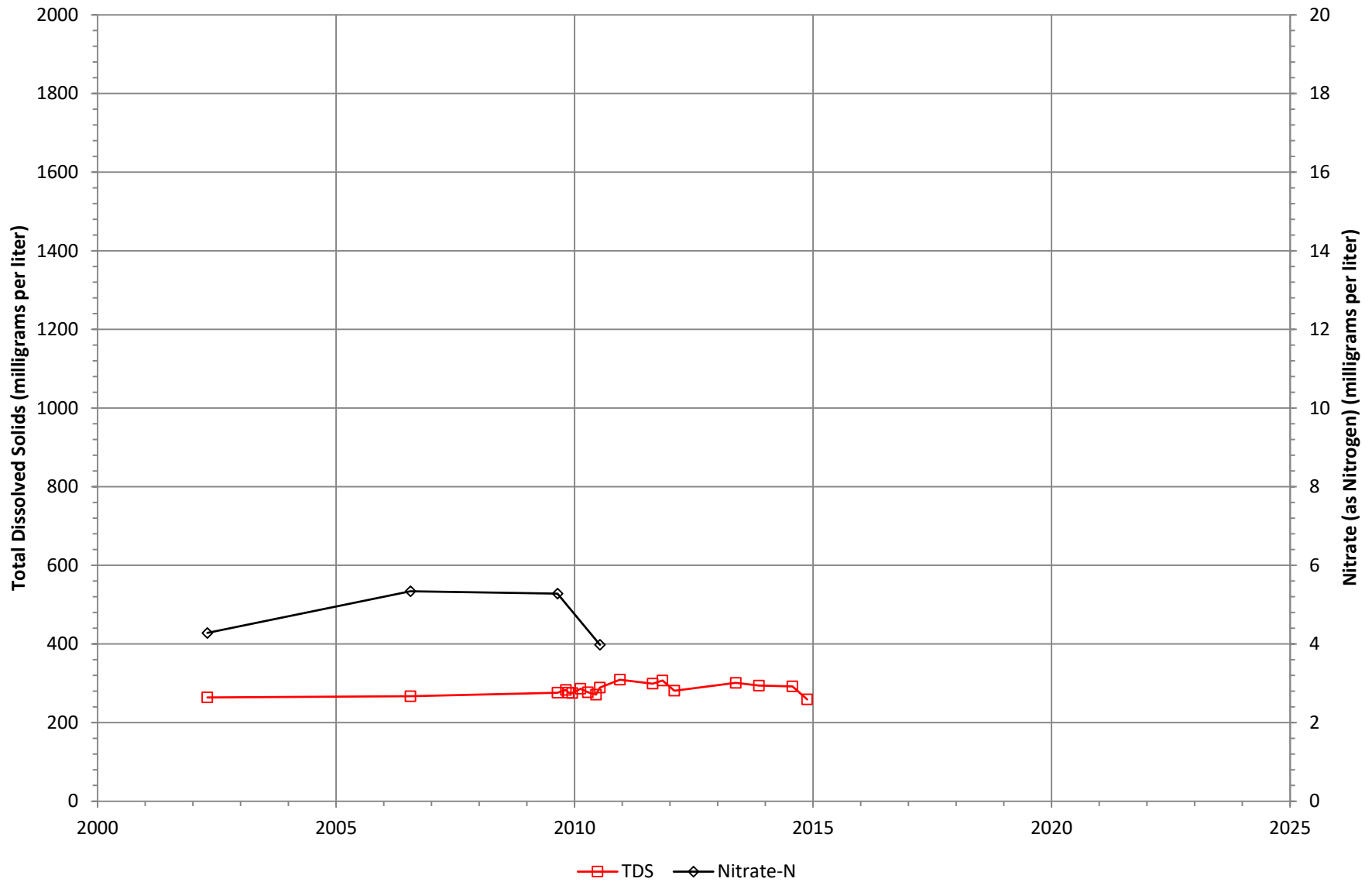


Figure B-50

Total Dissolved Solids and Nitrate (as Nitrogen) at USGS Well Wilson Creek 04 (350'-370' bls)

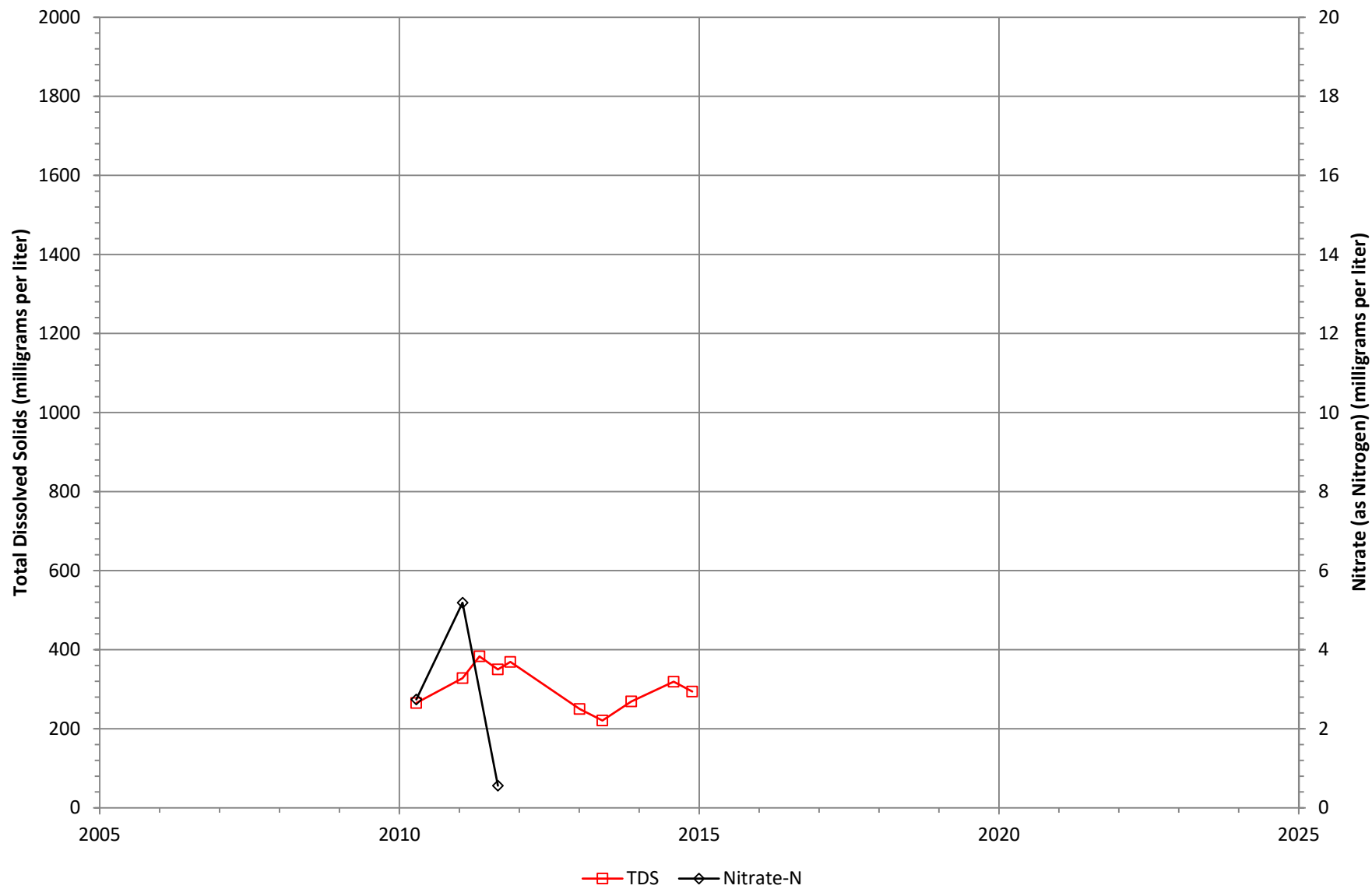


Figure B-51

Total Dissolved Solids and Nitrate (as Nitrogen) at Well WHWC-02A

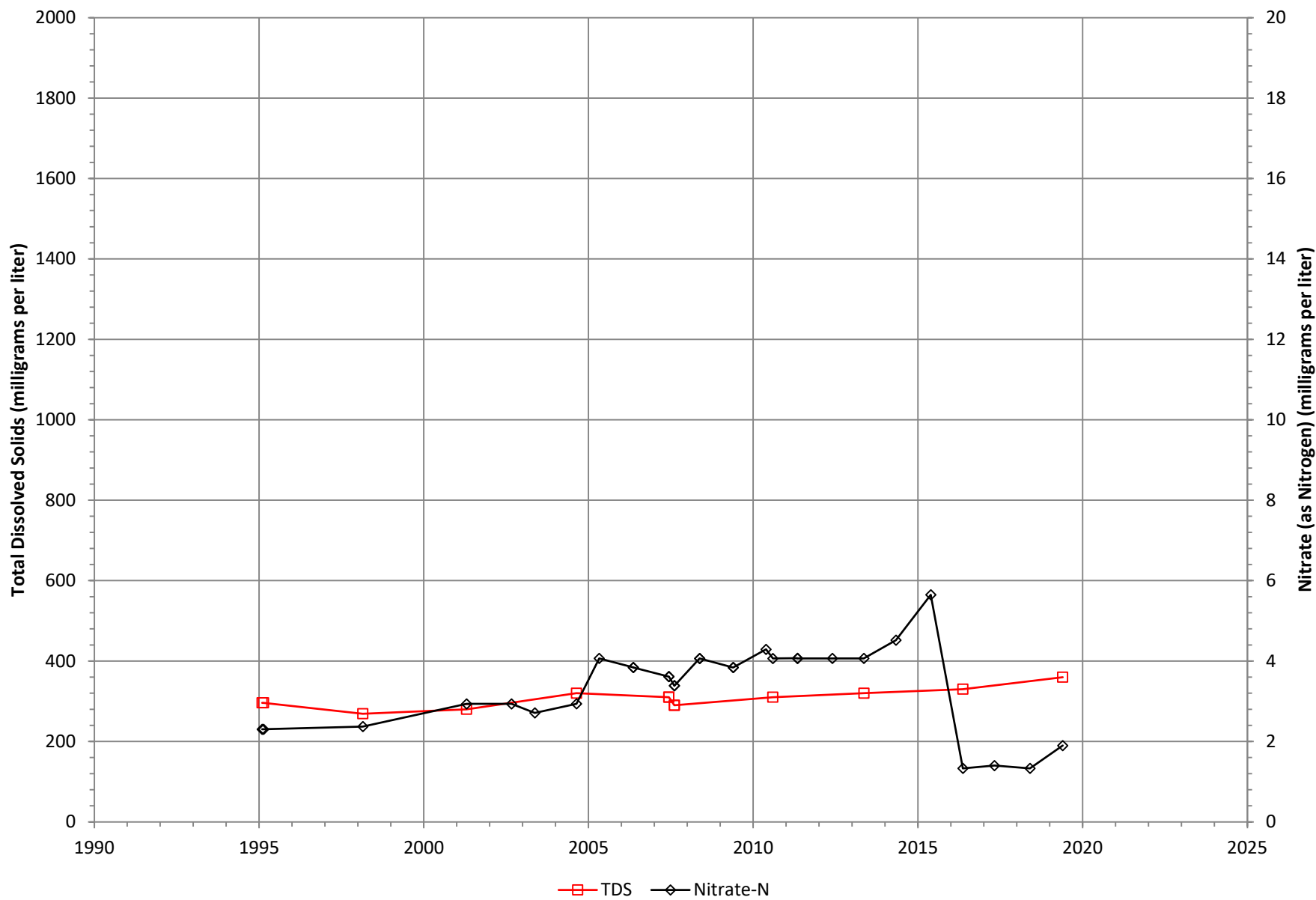


Figure B-52

Total Dissolved Solids and Nitrate (as Nitrogen) at Well WHWC-10

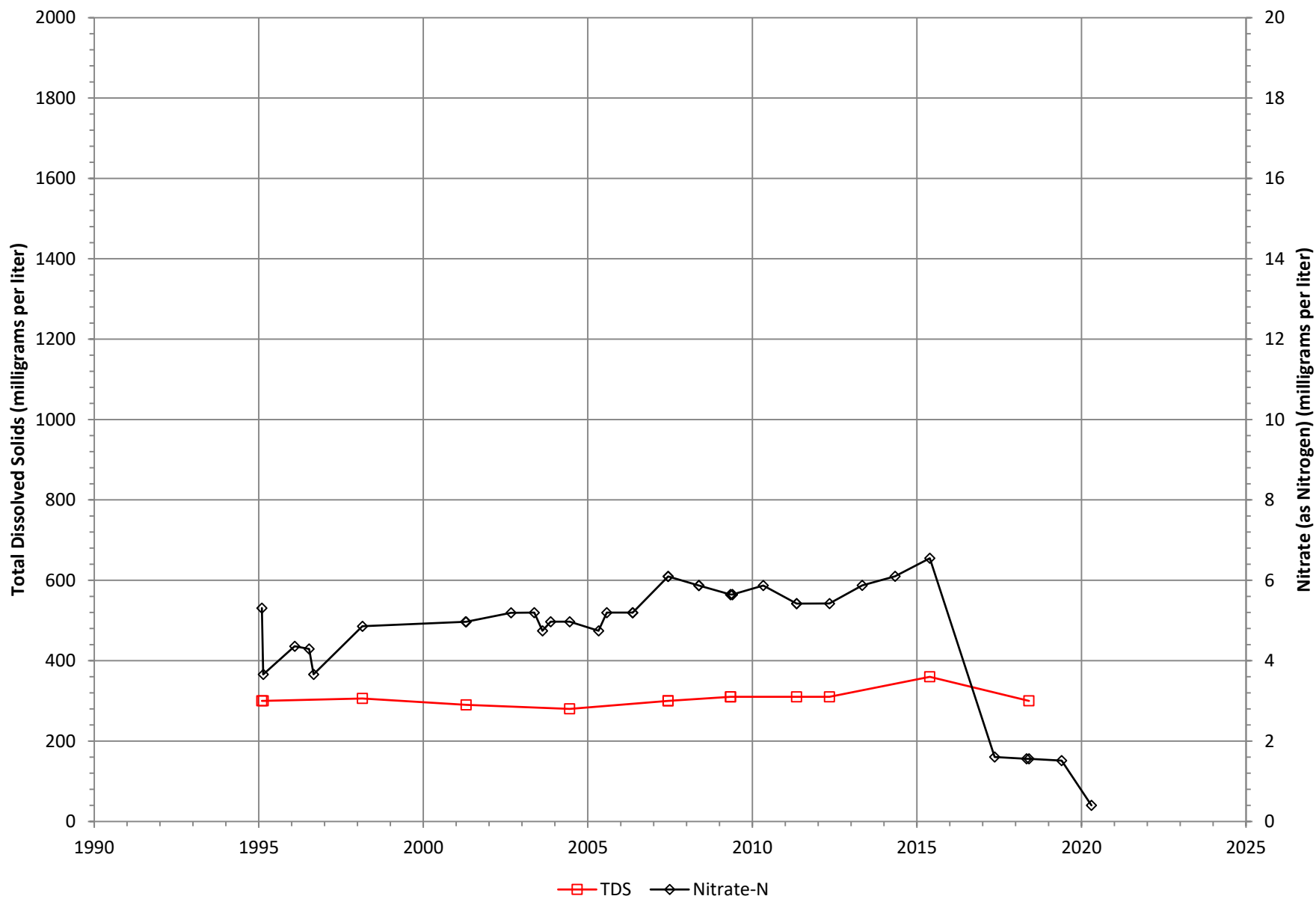


Figure B-53

Total Dissolved Solids and Nitrate (as Nitrogen) at Well WHWC-11

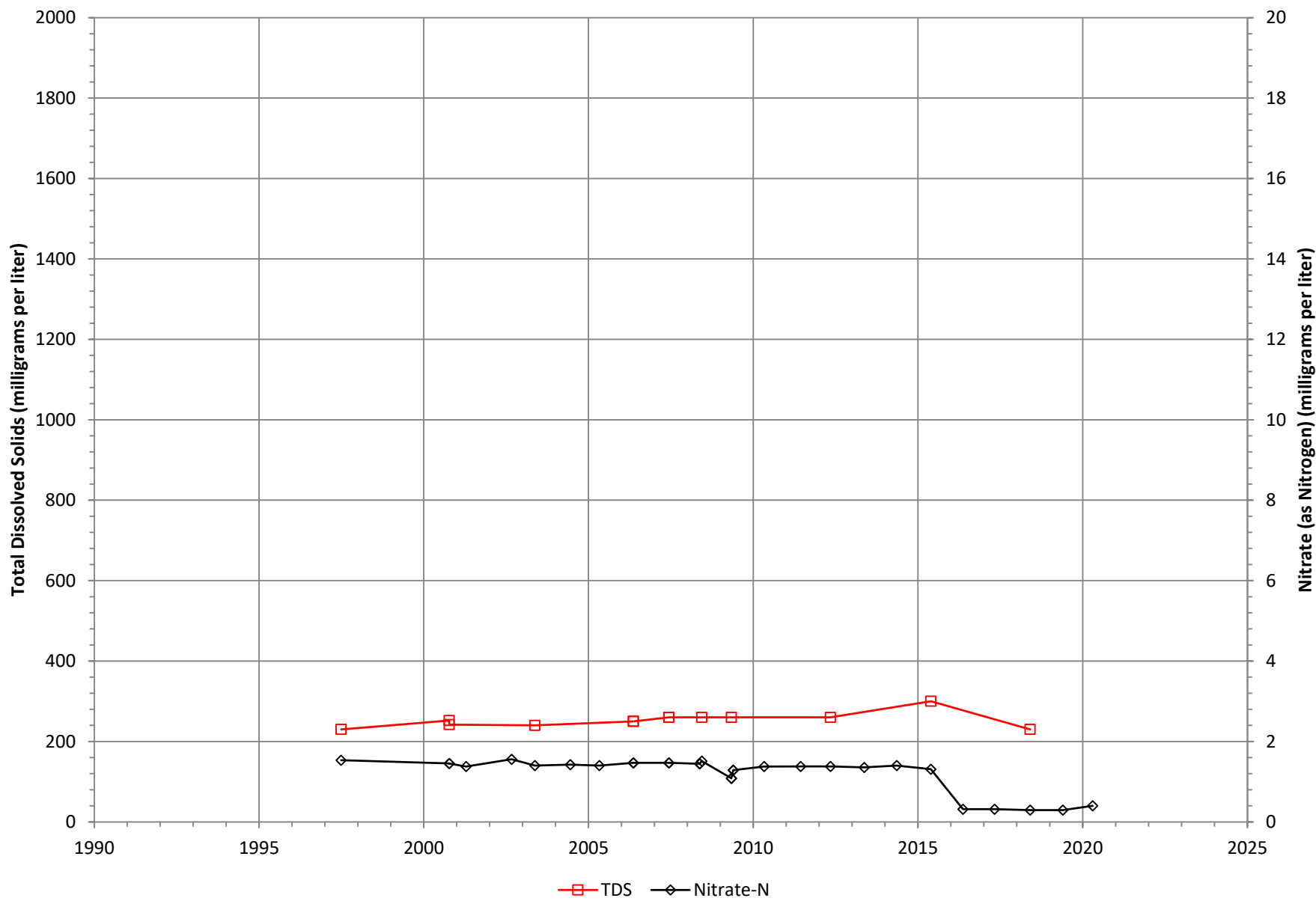


Figure B-54

Total Dissolved Solids and Nitrate (as Nitrogen) at Well WHWC-12

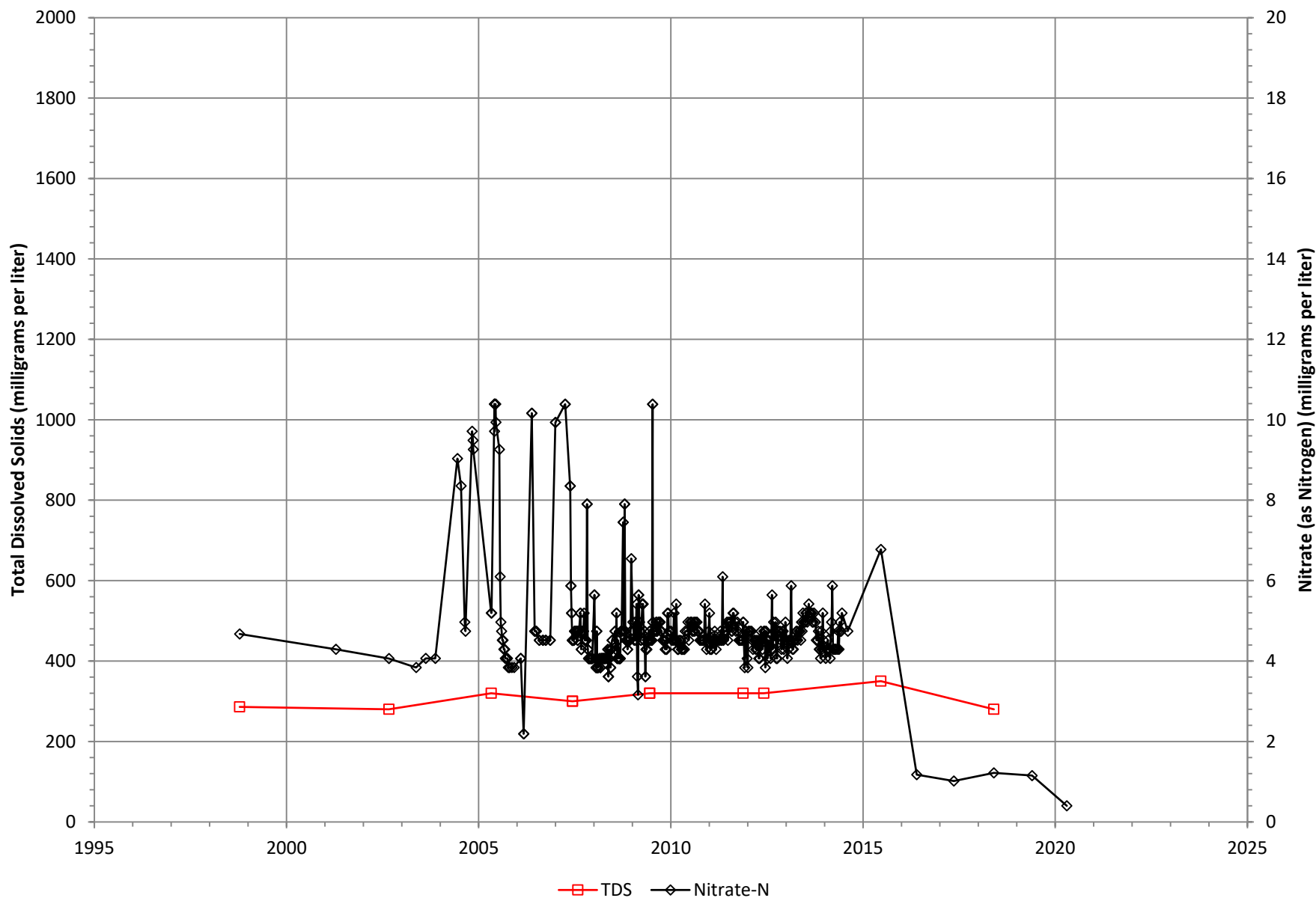


Figure B-55

Total Dissolved Solids and Nitrate (as Nitrogen) at Well WHWC-14

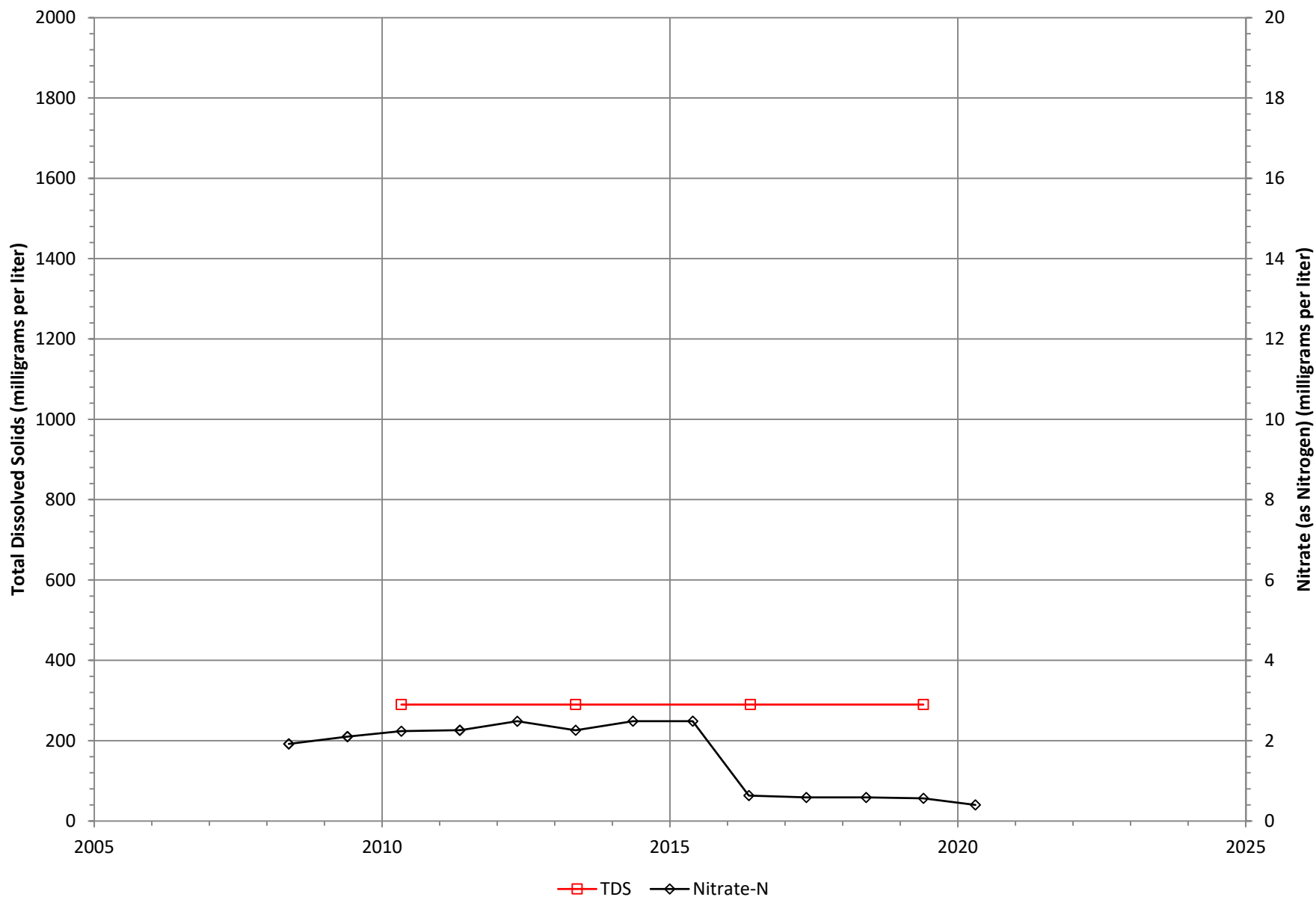


Figure B-56

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-02

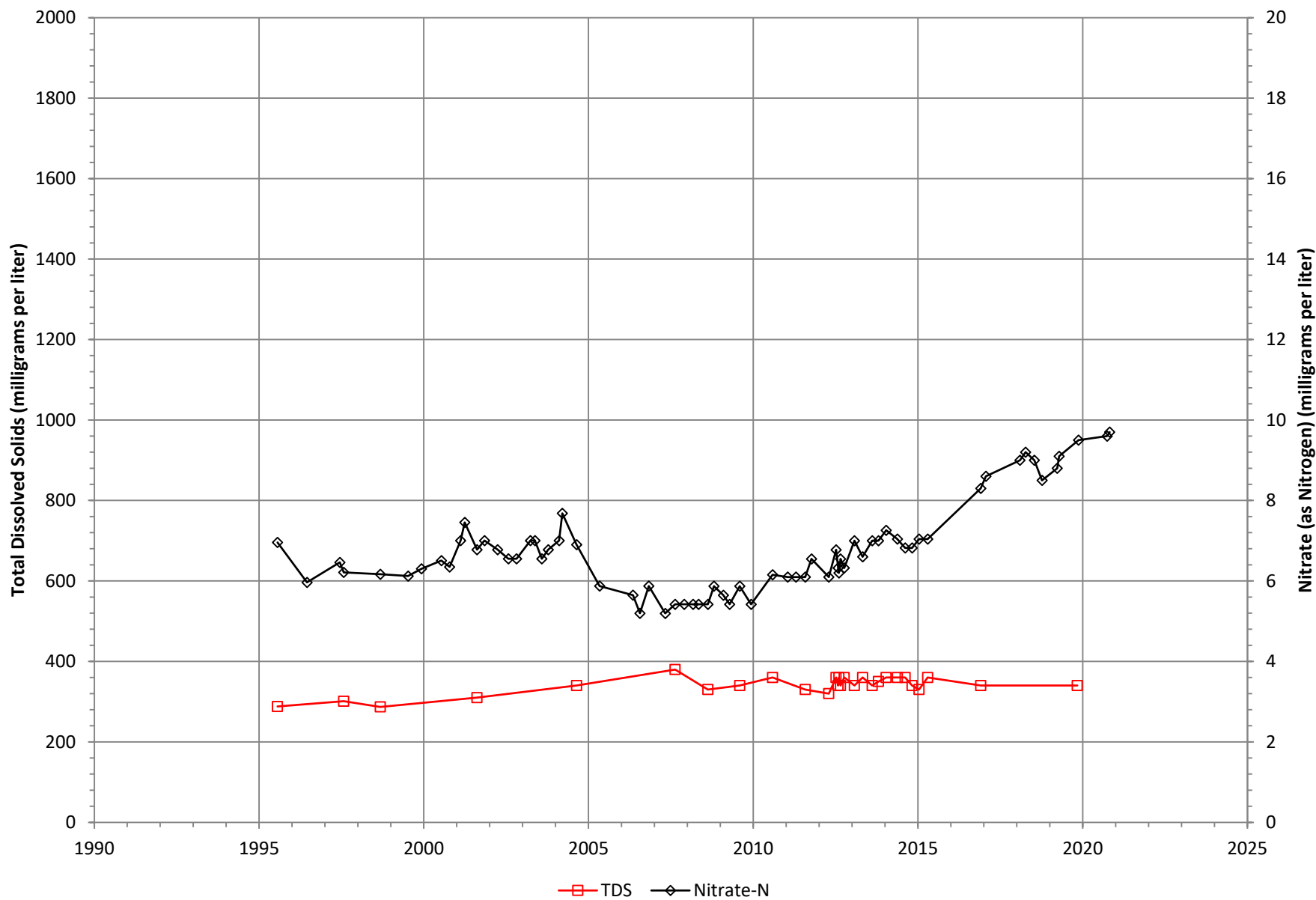


Figure B-57

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-12

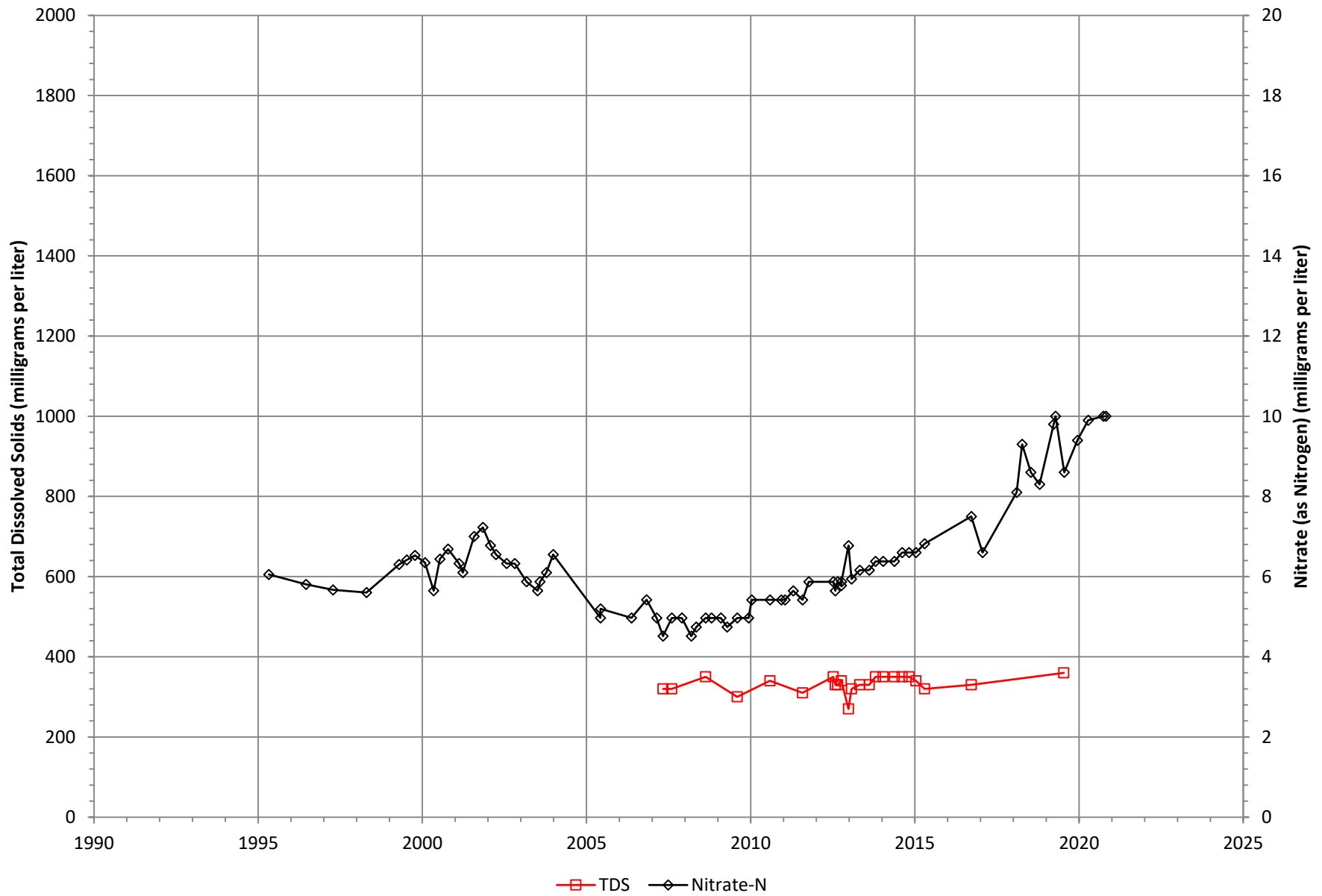


Figure B-58

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-14

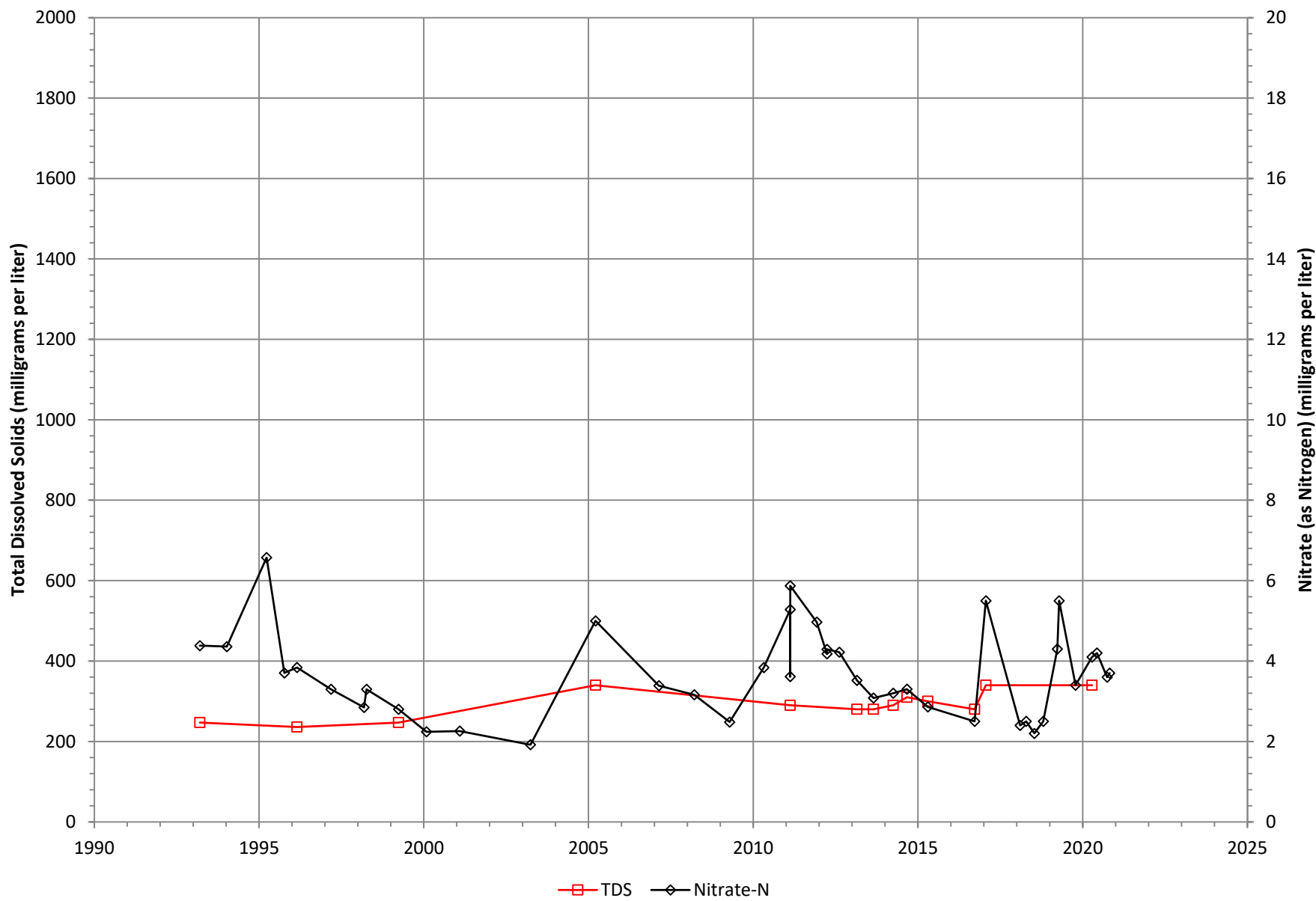


Figure B-59

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-16

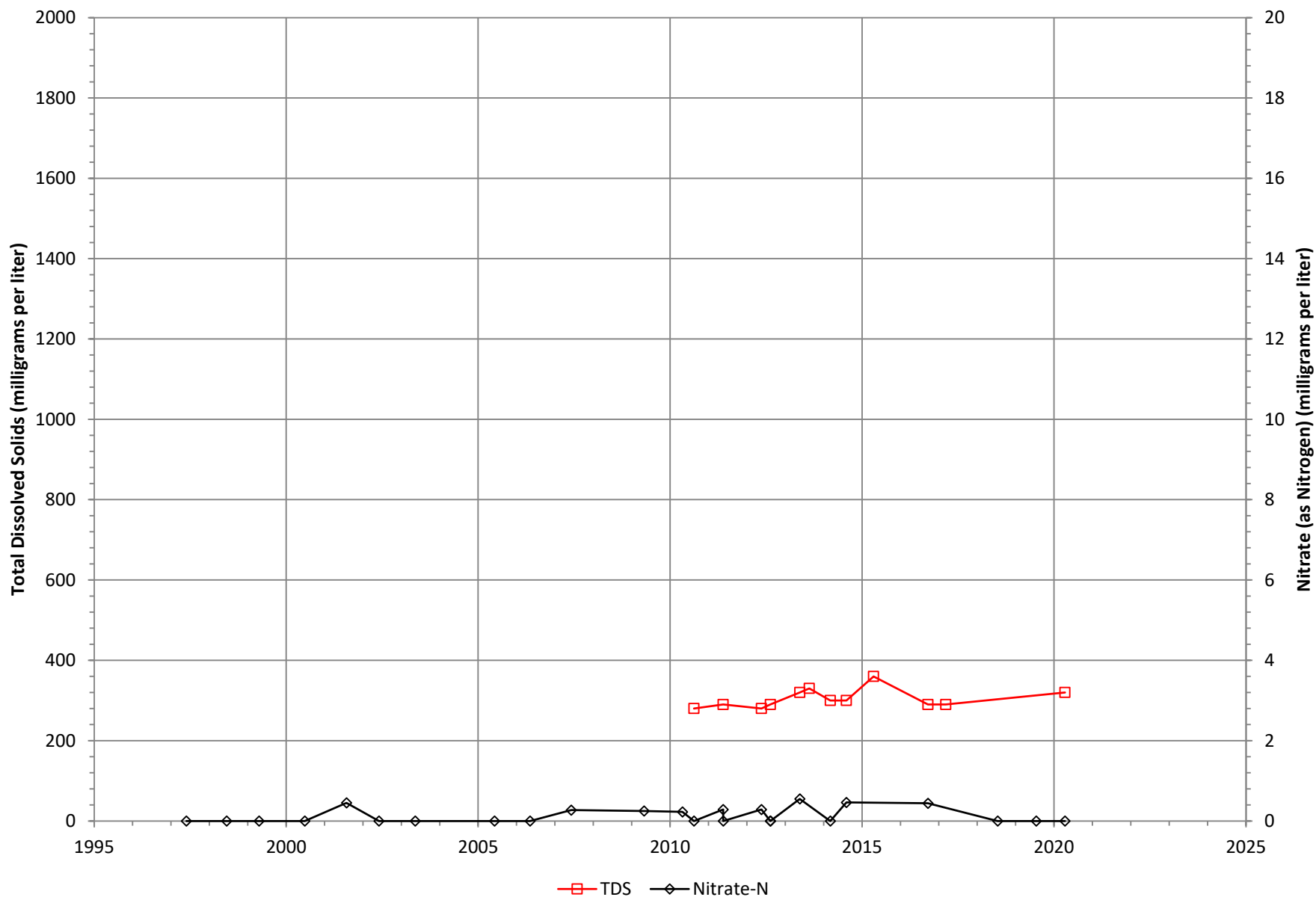


Figure B-60

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-18

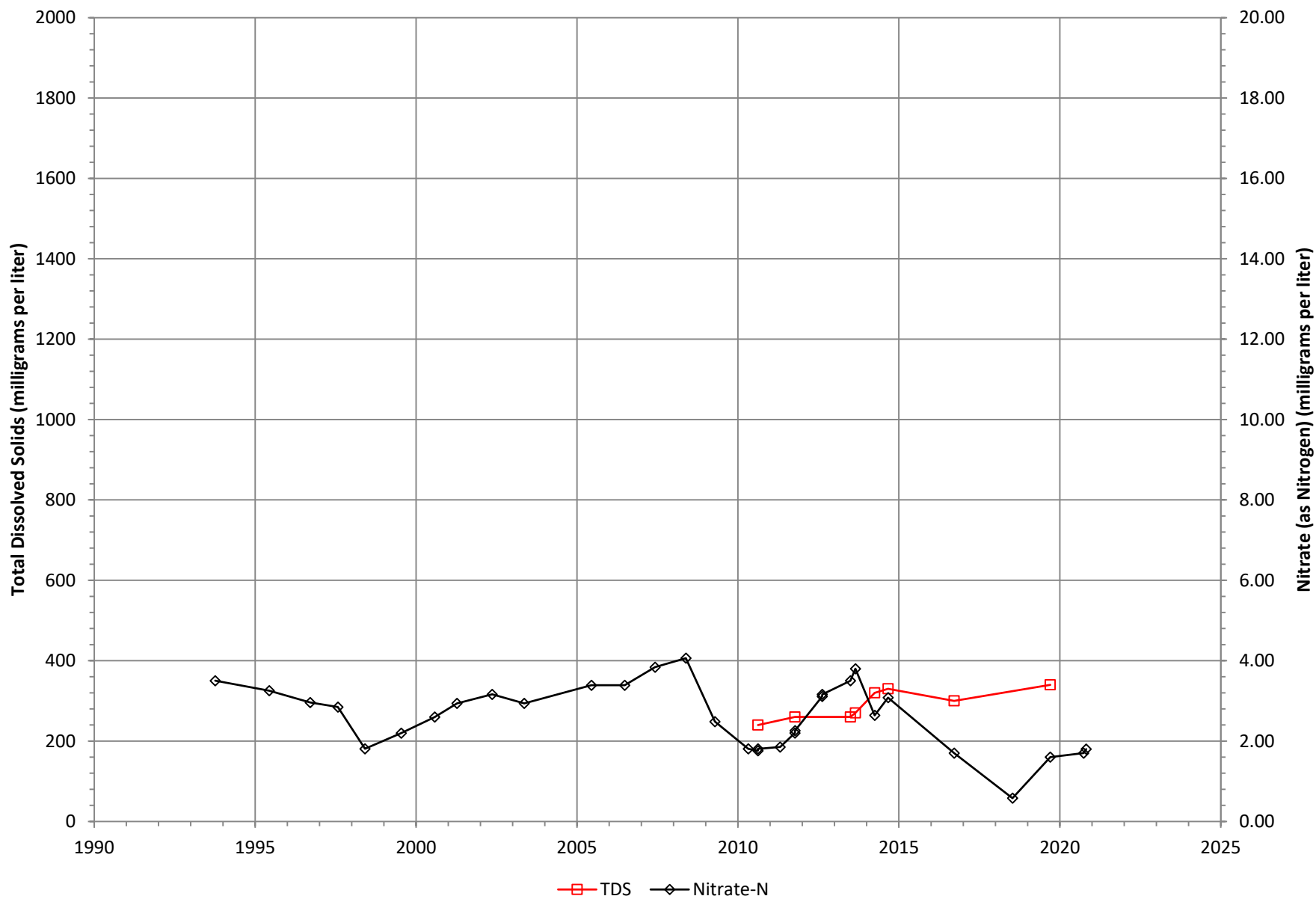


Figure B-61

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-24

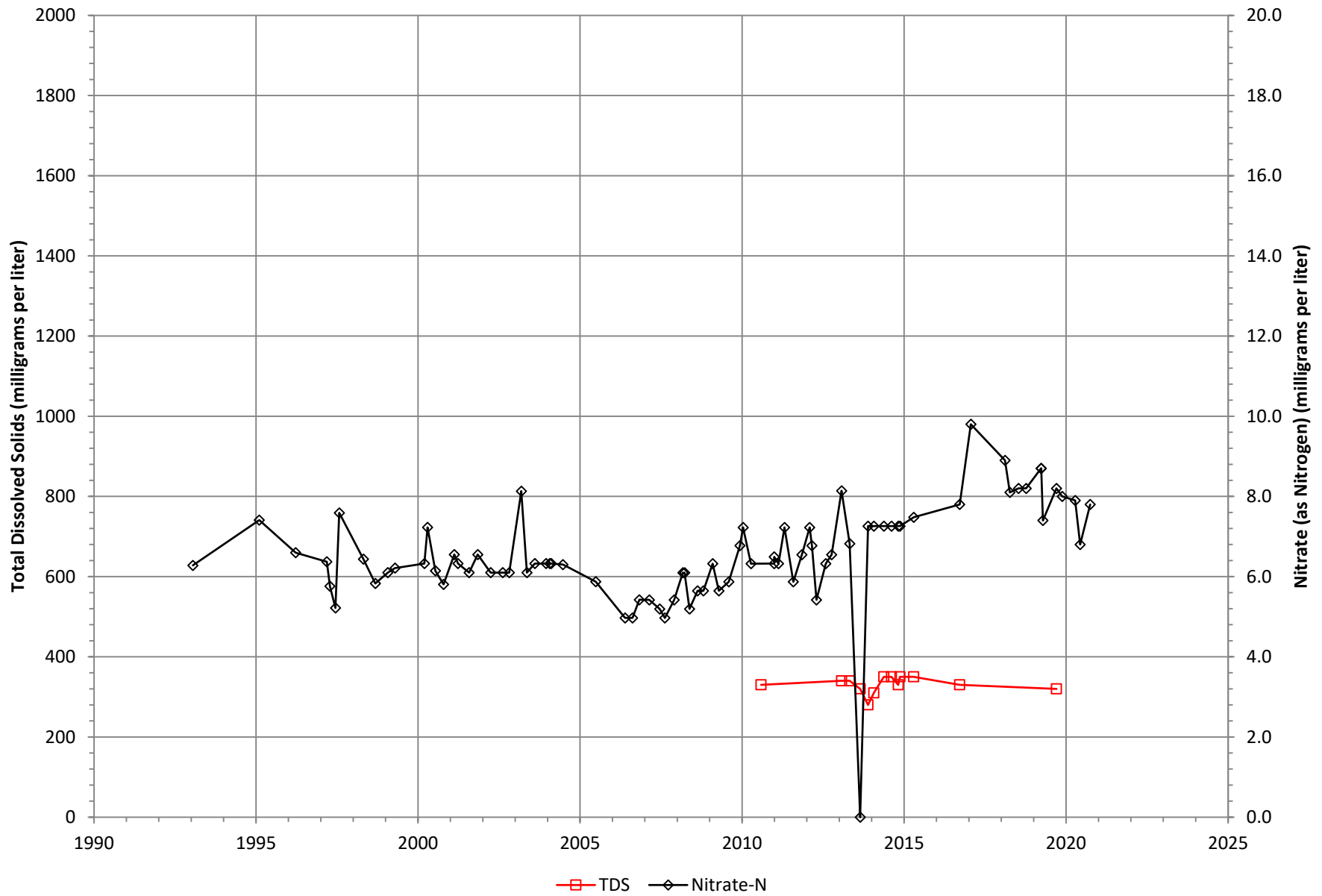


Figure B-62

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-25

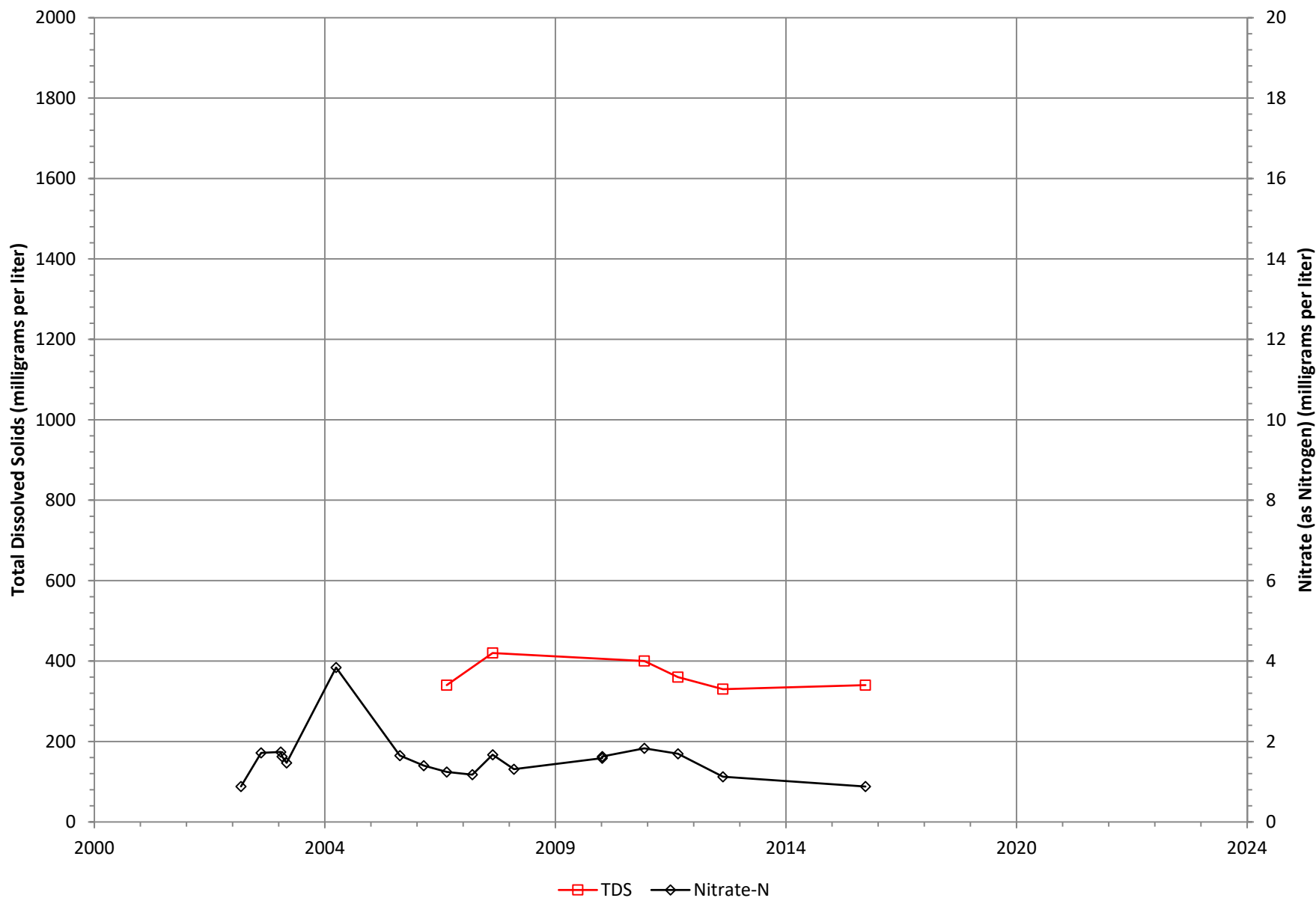


Figure B-63

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-26



Figure B-64

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-27

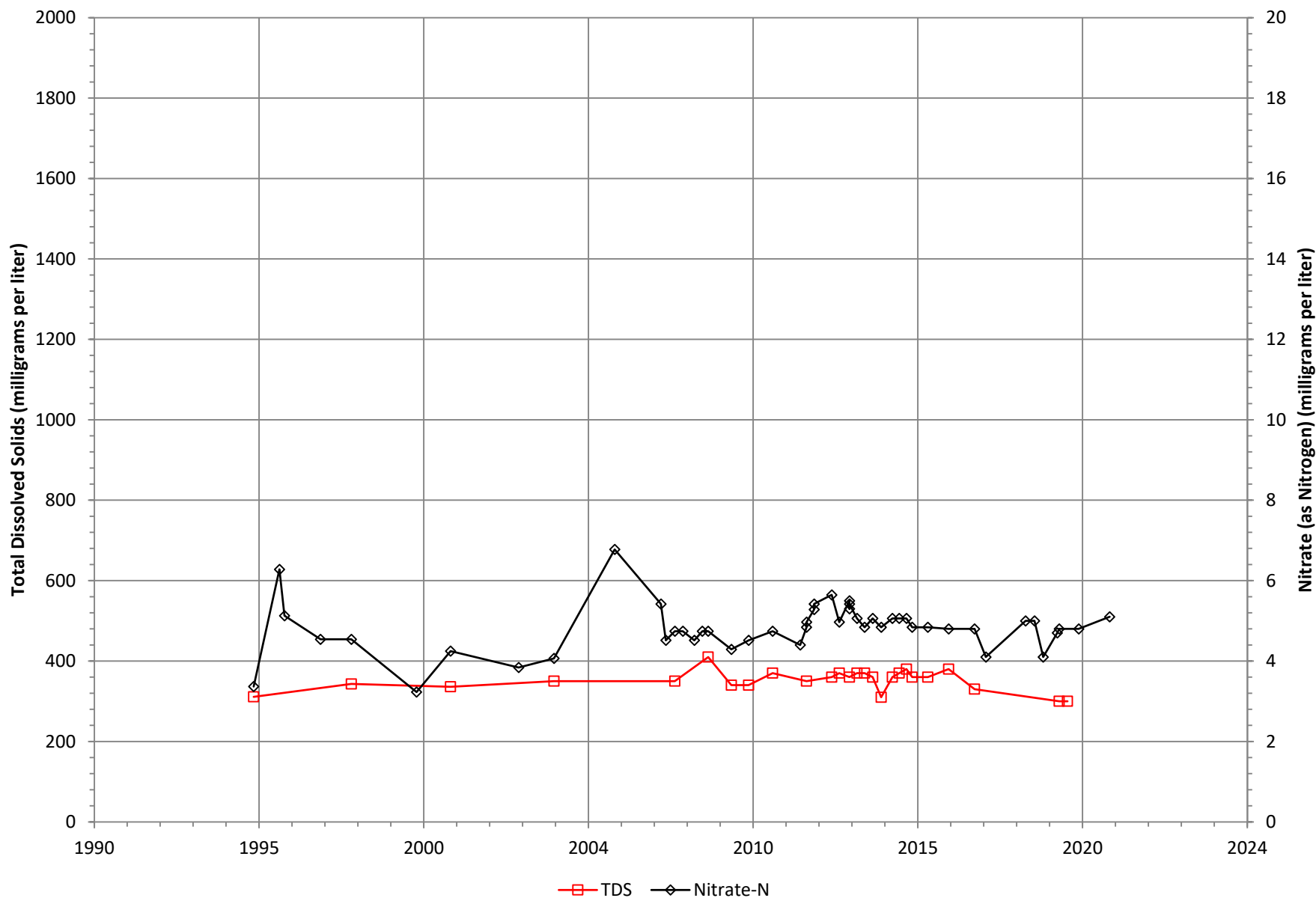


Figure B-65

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-37

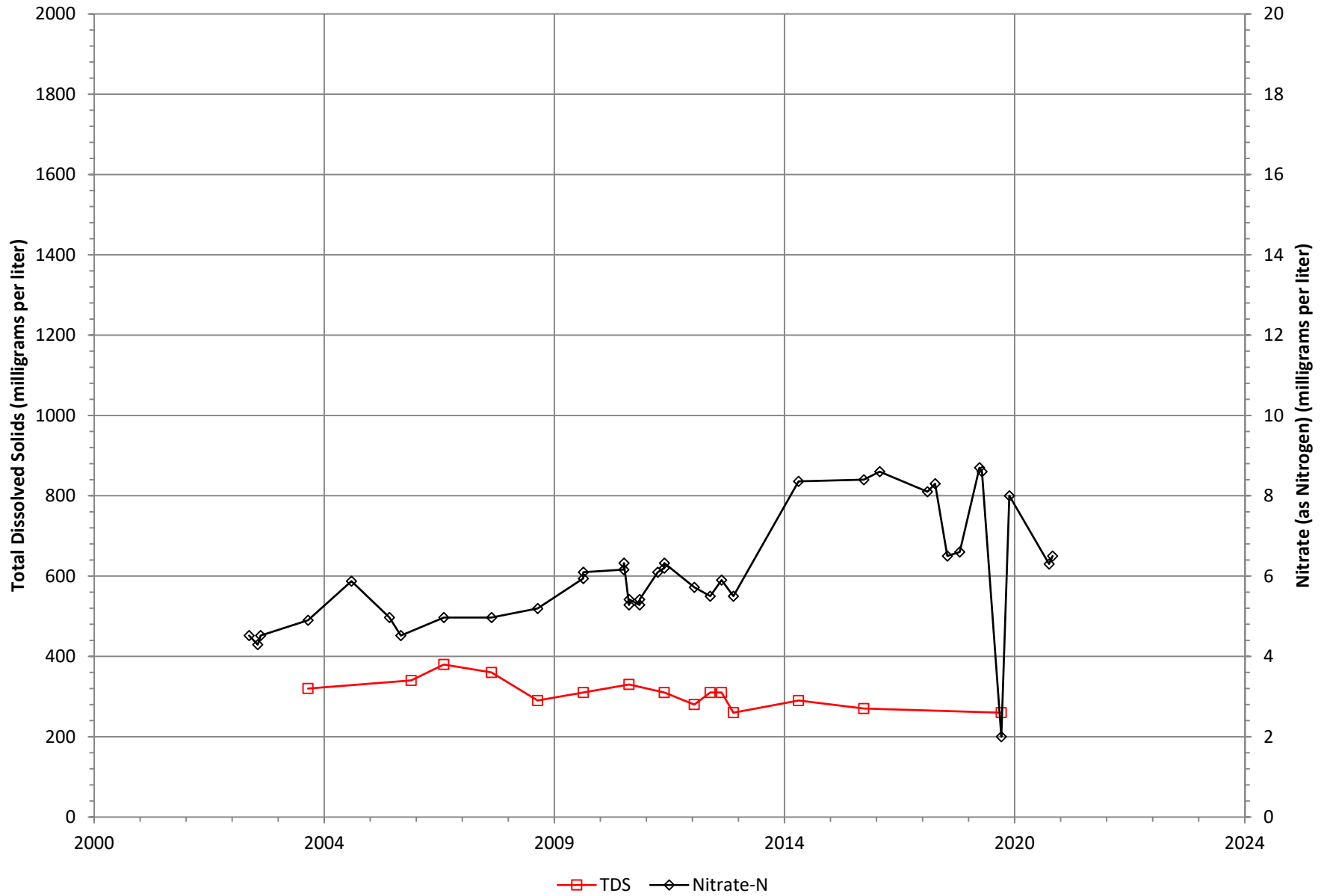


Figure B-66

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-44

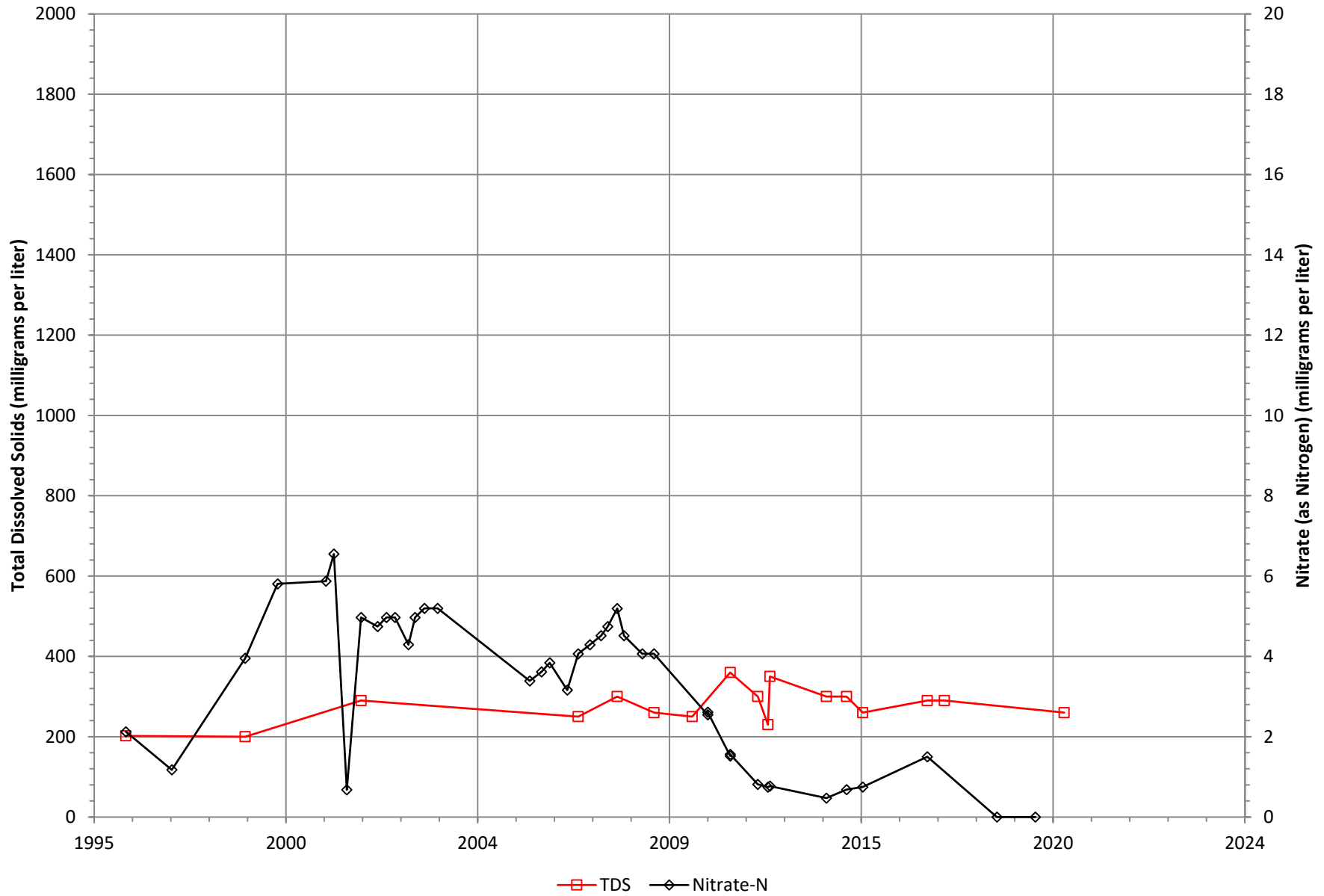


Figure B-67

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-46

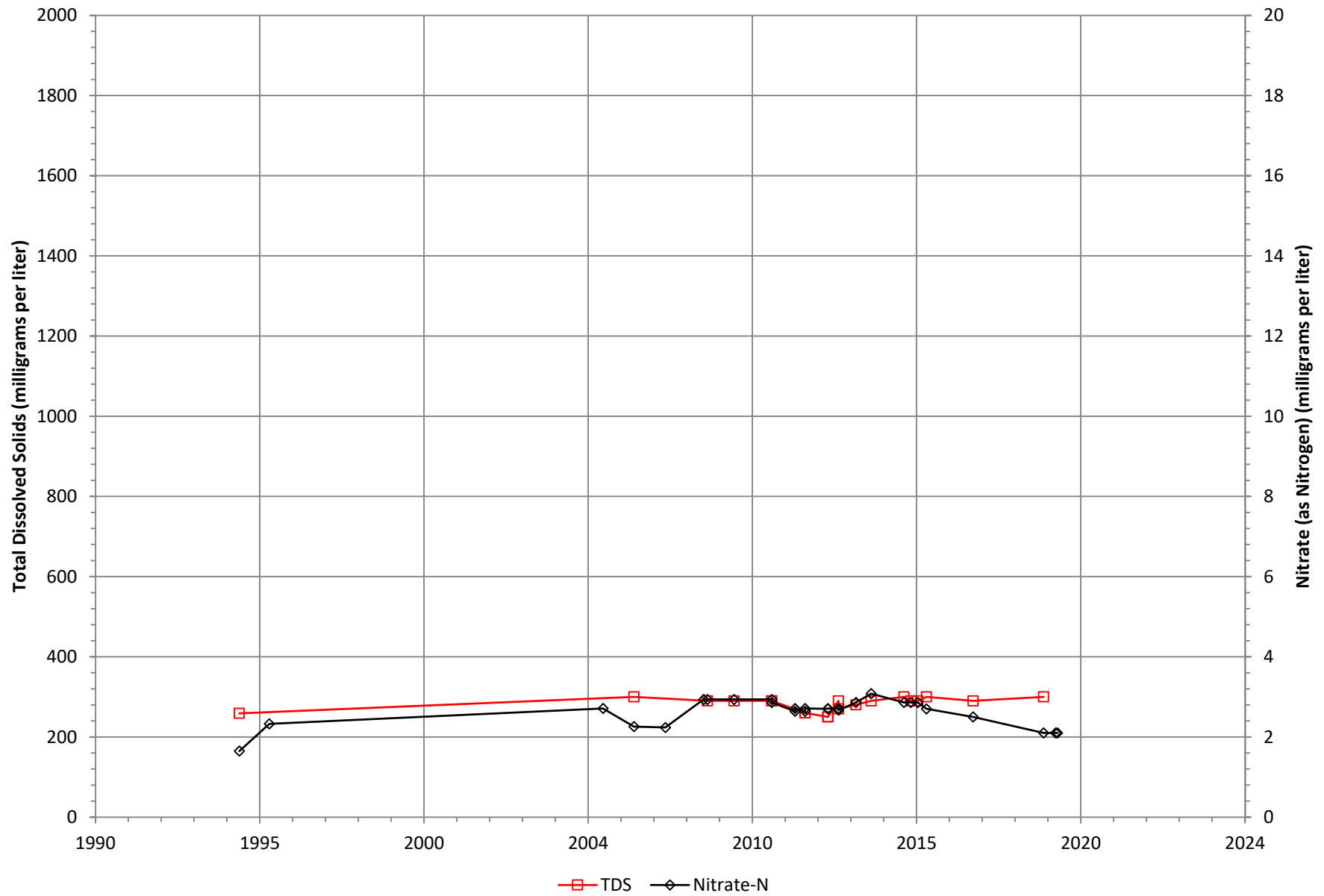


Figure B-68

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-53

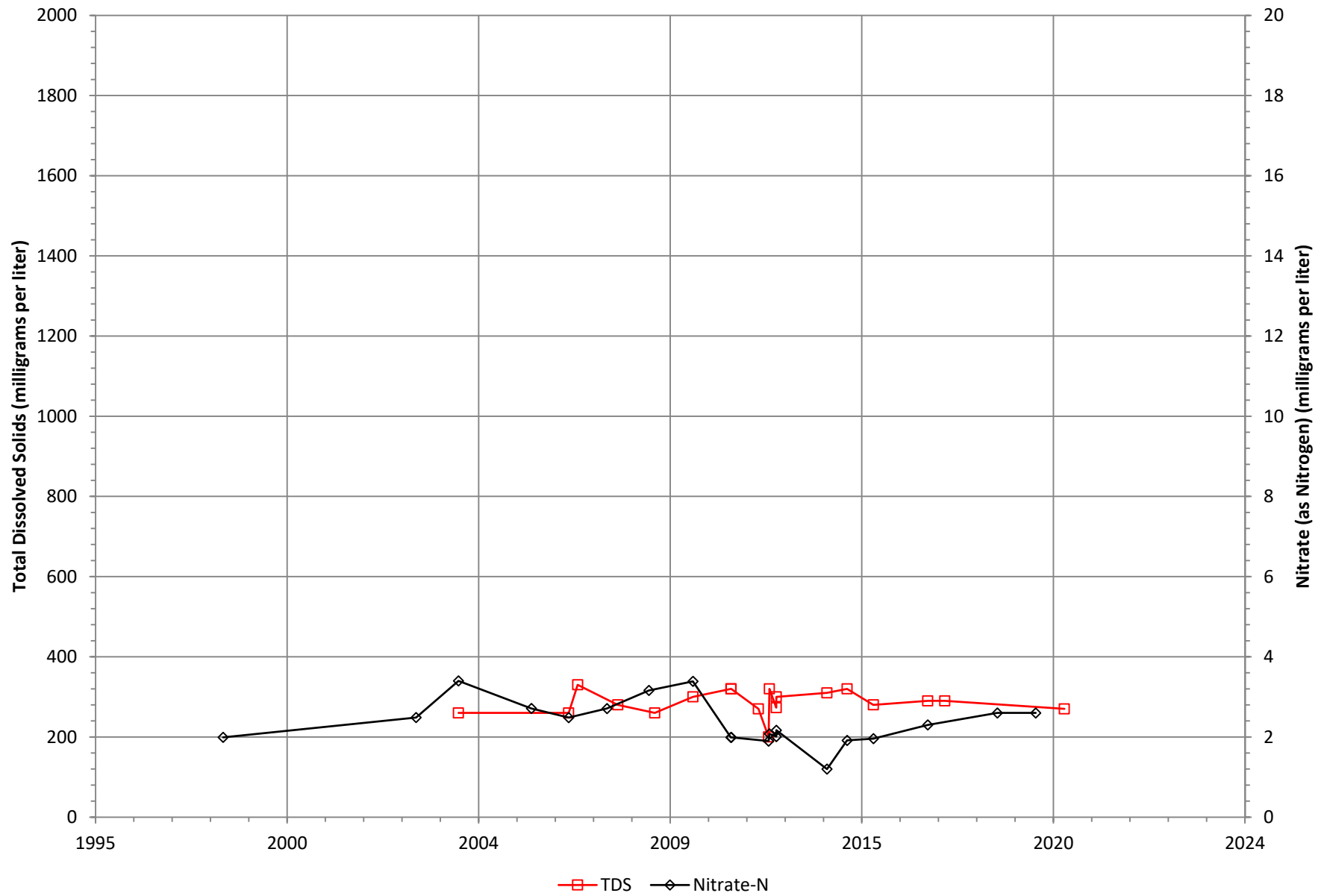


Figure B-69

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-55

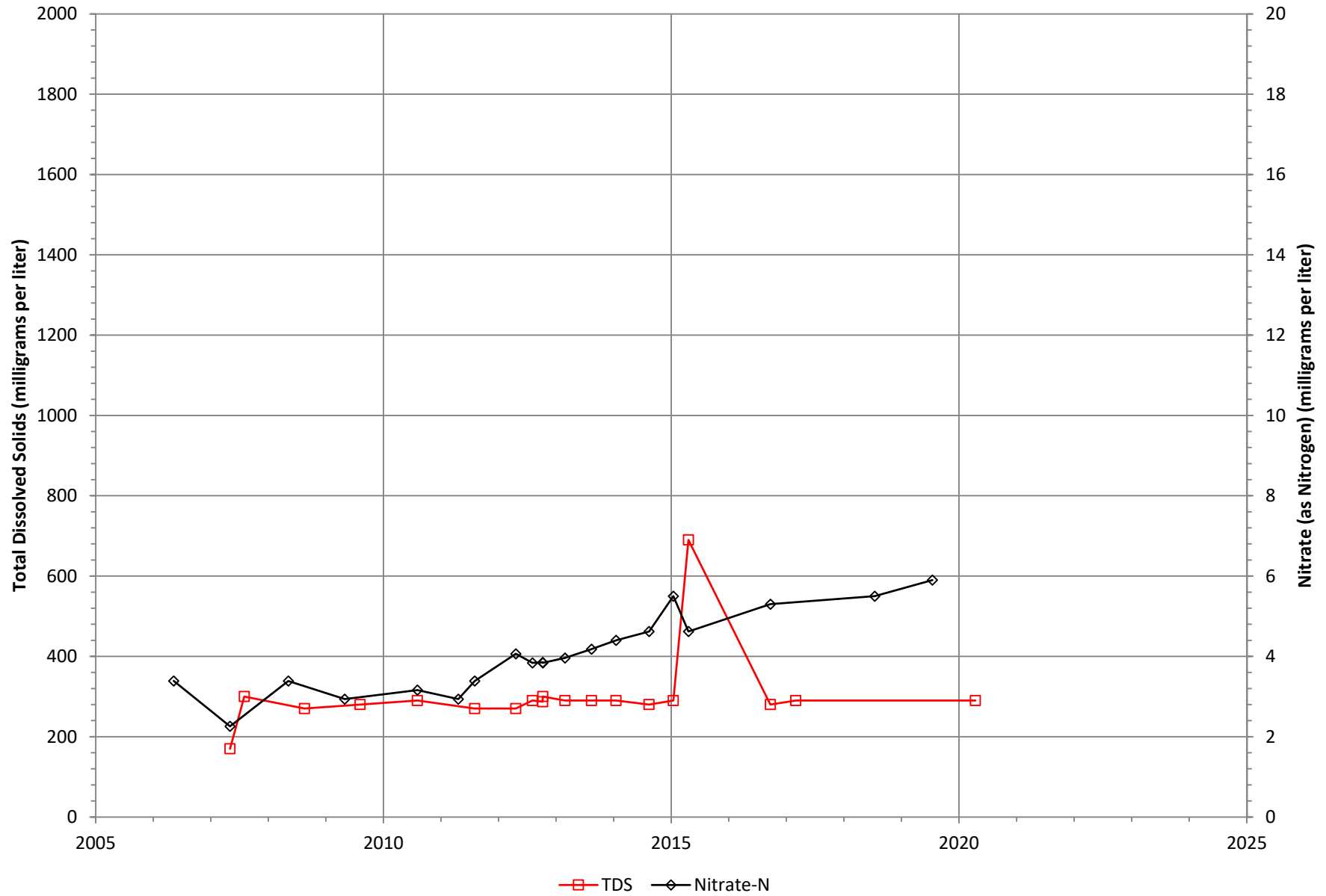


Figure B-70

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-56

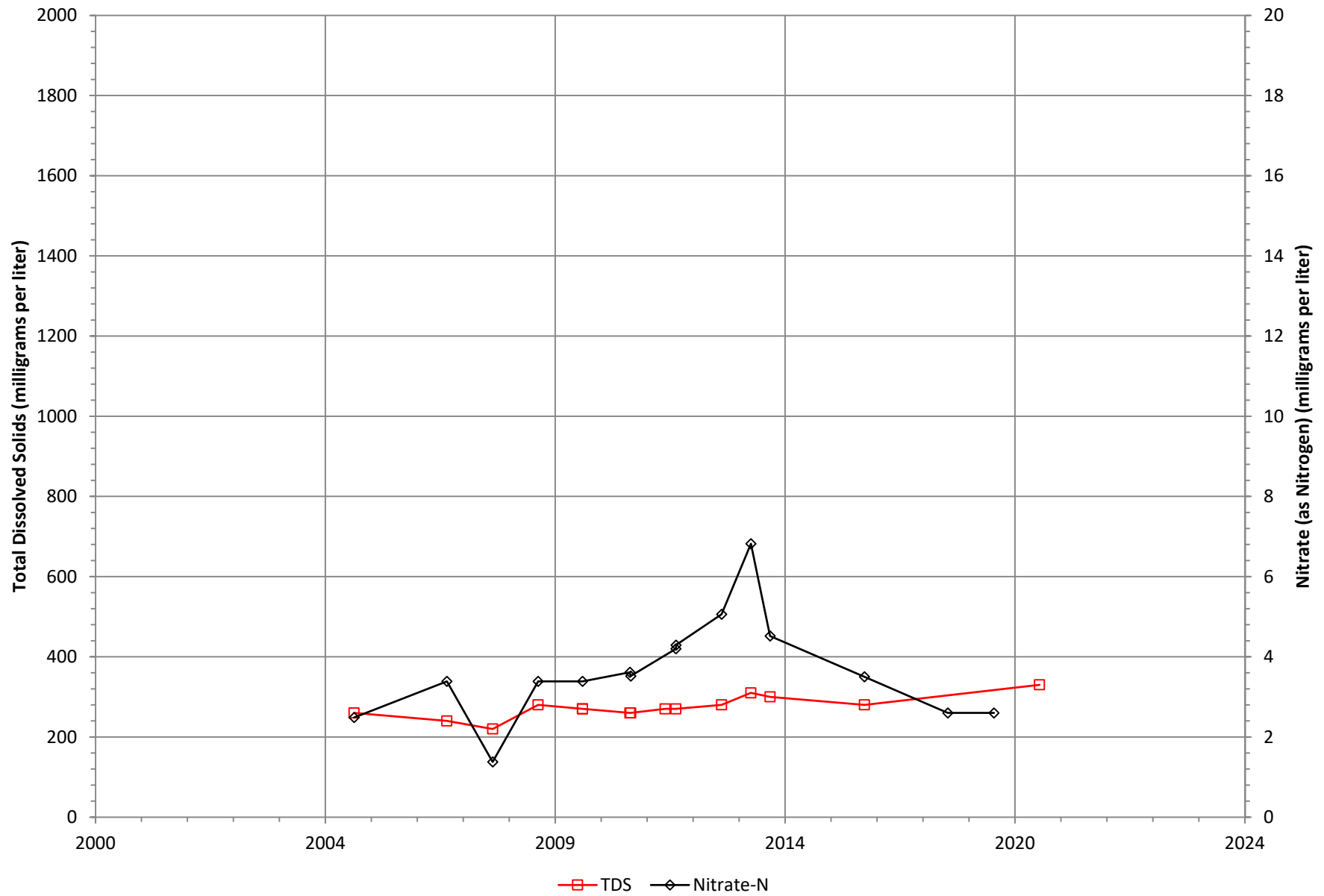


Figure B-71

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD-61

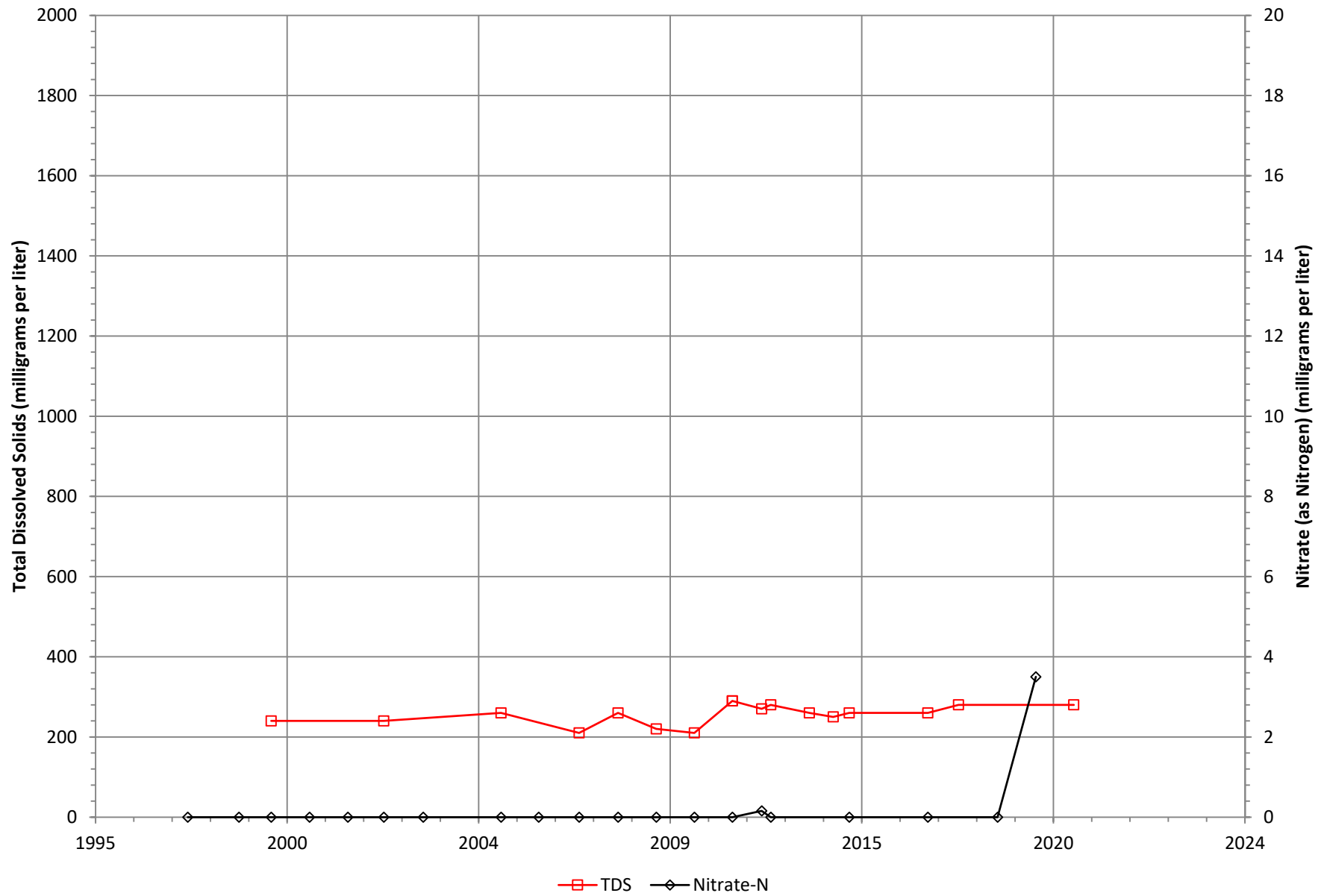


Figure B-72

APPENDIX C

**Historical Stream Flow Discharge at Surface Water
Monitoring Sites in the San Timoteo Groundwater
Management Zone**

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-A in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-A	1/8/2009	3.93	cfs	
YVWD-A	1/15/2009	3.69	cfs	
YVWD-A	1/29/2009	4.61	cfs	
YVWD-A	2/12/2009	3.66	cfs	
YVWD-A	2/26/2009	6.36	cfs	
YVWD-A	3/12/2009	5.31	cfs	
YVWD-A	3/26/2009	5.25	cfs	
YVWD-A	4/9/2009	3.36	cfs	
YVWD-A	4/23/2009	2.17	cfs	
YVWD-A	5/6/2009	2.71	cfs	
YVWD-A	5/21/2009	2.31	cfs	
YVWD-A	6/4/2009	2.50	cfs	
YVWD-A	6/17/2009	2.70	cfs	
YVWD-A	7/8/2009		cfs	INSUFFICIENT
YVWD-A	7/15/2009		cfs	NO FLOW
YVWD-A	7/29/2009		cfs	NO FLOW
YVWD-A	8/13/2009		cfs	NO FLOW
YVWD-A	8/26/2009		cfs	NO FLOW
YVWD-A	9/10/2009		cfs	NO FLOW
YVWD-A	9/23/2009		cfs	NO FLOW
YVWD-A	10/8/2009	4.25	cfs	
YVWD-A	10/23/2009	1.32	cfs	
YVWD-A	11/5/2009	1.16	cfs	
YVWD-A	11/19/2009	2.19	cfs	
YVWD-A	12/3/2009	2.34	cfs	
YVWD-A	12/17/2009		cfs	INSUFFICIENT
YVWD-A	1/7/2010		cfs	insufficient depth
YVWD-A	1/29/2010	4.73	cfs	very turbid
YVWD-A	2/4/2010	7.32	cfs	
YVWD-A	2/18/2010	6.32	cfs	
YVWD-A	3/4/2010	8.46	cfs	
YVWD-A	3/18/2010	8.77	cfs	
YVWD-A	3/31/2010	3.55	cfs	
YVWD-A	1/13/2011	4.92	cfs	
YVWD-A	1/27/2011	5.93	cfs	
YVWD-A	2/10/2011	2.81	cfs	
YVWD-A	2/24/2011	2.41	cfs	
YVWD-A	3/10/2011		cfs	insufficient depth
YVWD-A	3/24/2011		cfs	rainy unsafe conditions
YVWD-A	4/7/2011	3.67	cfs	
YVWD-A	4/21/2011	5.11	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-A in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-A	5/5/2011	1.47	cfs	
YVWD-A	5/18/2011	8.12	cfs	
YVWD-A	6/2/2011	3.17	cfs	
YVWD-A	6/16/2011	3.30	cfs	
YVWD-A	6/30/2011	2.68	cfs	
YVWD-A	7/14/2011	2.07	cfs	
YVWD-A	7/28/2011			dry
YVWD-A	8/11/2011			dry
YVWD-A	8/24/2011			dry
YVWD-A	9/8/2011			dry
YVWD-A	9/22/2011			dry
YVWD-A	10/6/2011			insufficient
YVWD-A	10/20/2011			insufficient
YVWD-A	11/3/2011			insufficient
YVWD-A	11/17/2011			insufficient
YVWD-A	12/1/2011			insufficient
YVWD-A	12/15/2011	3.56	cfs	
YVWD-A	12/29/2011	3.10	cfs	
YVWD-A	1/12/2012		cfs	insufficient depth
YVWD-A	1/26/2012		cfs	insufficient depth
YVWD-A	2/9/2012		cfs	insufficient depth
YVWD-A	2/23/2012		cfs	insufficient depth
YVWD-A	3/8/2012		cfs	insufficient depth
YVWD-A	3/22/2012		cfs	insufficient depth
YVWD-A	4/5/2012	3.62	cfs	
YVWD-A	4/19/2012		cfs	insufficient depth
YVWD-A	5/3/2012		cfs	insufficient depth
YVWD-A	5/17/2012		cfs	insufficient depth
YVWD-A	5/31/2012		cfs	dry
YVWD-A	6/14/2012		cfs	insufficient depth
YVWD-A	6/28/2012		cfs	dry
YVWD-A	7/12/2012		cfs	dry
YVWD-A	7/26/2012		cfs	dry
YVWD-A	8/9/2012		cfs	dry
YVWD-A	8/23/2012	2.54	cfs	
YVWD-A	9/5/2012		cfs	dry
YVWD-A	9/20/2012		cfs	dry
YVWD-A	10/4/2012		cfs	dry
YVWD-A	10/18/2012	2.61	cfs	
YVWD-A	11/1/2012		cfs	insufficient depth
YVWD-A	11/14/2012		cfs	insufficient depth

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-A in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-A	11/29/2012		cfs	insufficient depth
YVWD-A	12/6/2012	2.34	cfs	
YVWD-A	12/27/2012	7.92	cfs	
YVWD-A	1/14/2013		cfs	insufficient depth
YVWD-A	1/31/2013		cfs	insufficient depth
YVWD-A	2/7/2013	4.51	cfs	
YVWD-A	2/28/2013		cfs	insufficient depth
YVWD-A	3/12/2013	5.16	cfs	
YVWD-A	3/21/2013		cfs	insufficient depth
YVWD-A	4/4/2013	4.51	cfs	
YVWD-A	4/18/2013		cfs	insufficient depth
YVWD-A	5/1/2013	4.22	cfs	
YVWD-A	5/16/2013	3.19	cfs	
YVWD-A	5/30/2013	4.07	cfs	
YVWD-A	6/13/2013	3.36	cfs	
YVWD-A	6/27/2013		cfs	insufficient depth
YVWD-A	7/11/2013	0.00	cfs	dry
YVWD-A	7/25/2013		cfs	insufficient depth
YVWD-A	8/8/2013	0.00	cfs	dry
YVWD-A	8/22/2013	0.00	cfs	dry
YVWD-A	9/5/2013		cfs	insufficient depth
YVWD-A	9/19/2013		cfs	insufficient depth
YVWD-A	10/3/2013	2.82	cfs	
YVWD-A	10/17/2013	1.38	cfs	
YVWD-A	10/31/2013	2.83	cfs	
YVWD-A	11/14/2013		cfs	dead skunk in water
YVWD-A	11/27/2013	3.18	cfs	
YVWD-A	12/13/2013	2.11	cfs	
YVWD-A	12/23/2013	3.77	cfs	
YVWD-A	1/7/2014	3.50	cfs	
YVWD-A	1/23/2014	3.50	cfs	
YVWD-A	1/30/2014		cfs	insufficient depth for gage
YVWD-A	2/13/2014	3.70	cfs	
YVWD-A	2/27/2014		cfs	no access
YVWD-A	3/13/2014	4.90	cfs	
YVWD-A	3/27/2014	5.90	cfs	
YVWD-A	4/10/2014	4.36	cfs	
YVWD-A	4/23/2014	3.92	cfs	
YVWD-A	5/13/2014	2.40	cfs	
YVWD-A	5/22/2014		cfs	insuficient
YVWD-A	6/5/2014	1.01	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-A in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-A	6/12/2014	0.88	cfs	
YVWD-A	6/26/2014	2.59	cfs	
YVWD-A	7/10/2014		cfs	insuficient
YVWD-A	7/24/2014	1.67	cfs	
YVWD-A	8/7/2014		cfs	insuficient
YVWD-A	8/25/2014		cfs	insuficient
YVWD-A	9/11/2014		cfs	insuficient
YVWD-A	9/25/2014	2.86	cfs	
YVWD-A	10/1/2014		cfs	insuficient
YVWD-A	10/9/2014		cfs	meter down
YVWD-A	10/23/2014	2.39	cfs	
YVWD-A	11/6/2014	2.69	cfs	
YVWD-A	11/21/2014	4.71	cfs	
YVWD-A	12/18/2014	7.06	cfs	
YVWD-A	10/1/2015	2.81	cfs	
YVWD-A	10/15/2015	3.68	cfs	
YVWD-A	10/29/2015	2.84	cfs	
YVWD-A	11/12/2015	4.59	cfs	
YVWD-A	12/2/2015	3.94	cfs	
YVWD-A	12/15/2015	4.12	cfs	
YVWD-A	12/29/2015	4.43	cfs	
YVWD-A	1/12/2016	5.54	cfs	
YVWD-A	1/26/2016	4.87	cfs	
YVWD-A	2/9/2016	4.08	cfs	
YVWD-A	2/23/2016	5.88	cfs	
YVWD-A	3/8/2016	6.44	cfs	
YVWD-A	3/22/2016	4.20	cfs	
YVWD-A	4/5/2016	2.30	cfs	
YVWD-A	4/19/2016	4.04	cfs	
YVWD-A	5/3/2016	4.00	cfs	
YVWD-A	5/17/2016	3.84	cfs	
YVWD-A	5/31/2016	3.02	cfs	
YVWD-A	6/28/2016	2.93	cfs	
YVWD-A	7/12/2016	1.94	cfs	
YVWD-A	7/26/2016	0.85	cfs	
YVWD-A	8/10/2016	1.55	cfs	
YVWD-A	8/23/2016	1.55	cfs	
YVWD-A	9/6/2016	2.08	cfs	
YVWD-A	9/20/2016	2.16	cfs	
YVWD-A	10/18/2016	3.47	cfs	
YVWD-A	11/1/2016	3.74	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-A in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-A	11/15/2016	3.36	cfs	
YVWD-A	11/30/2016	4.43	cfs	
YVWD-A	12/19/2016	4.05	cfs	
YVWD-A	1/10/2017	6.74	cfs	
YVWD-A	1/24/2017	26.52	cfs	
YVWD-A	2/8/2017	9.58	cfs	
YVWD-A	2/22/2017	5.65	cfs	
YVWD-A	3/9/2017	6.14	cfs	
YVWD-A	3/24/2017	6.93	cfs	
YVWD-A	4/4/2017	5.49	cfs	
YVWD-A	4/18/2017	4.44	cfs	
YVWD-A	5/2/2017	3.47	cfs	
YVWD-A	5/16/2017	4.50	cfs	
YVWD-A	5/30/2017	3.96	cfs	
YVWD-A	6/13/2017	3.05	cfs	
YVWD-A	6/27/2017	0.89	cfs	
YVWD-A	7/13/2017	0.38	cfs	
YVWD-A	8/1/2017	0.17	cfs	
YVWD-A	8/22/2017	0.83	cfs	
YVWD-A	9/12/2017	2.18	cfs	
YVWD-A	9/19/2017	3.83	cfs	
YVWD-A	9/27/2017	2.60	cfs	
YVWD-A	10/11/2017	1.88	cfs	
YVWD-A	10/27/2017	2.55	cfs	
YVWD-A	11/6/2017	2.30	cfs	
YVWD-A	11/20/2017	2.85	cfs	
YVWD-A	12/5/2017	3.23	cfs	
YVWD-A	12/21/2017	3.64	cfs	
YVWD-A	1/12/2018	6.45	cfs	
YVWD-A	2/2/2018	4.10	cfs	
YVWD-A	2/15/2018	1.16	cfs	
YVWD-A	3/5/2018	5.07	cfs	
YVWD-A	3/29/2018	4.03	cfs	
YVWD-A	4/12/2018	3.91	cfs	
YVWD-A	4/26/2018	3.47	cfs	
YVWD-A	5/8/2018	3.37	cfs	
YVWD-A	5/25/2018	4.01	cfs	
YVWD-A	6/8/2018	2.16	cfs	
YVWD-A	6/27/2018	2.68	cfs	
YVWD-A	7/10/2018	2.15	cfs	
YVWD-A	7/17/2018	1.38	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-A in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-A	7/31/2018	0.90	cfs	
YVWD-A	8/17/2018	3.55	cfs	
YVWD-A	8/29/2018	1.69	cfs	
YVWD-A	9/14/2018	1.26	cfs	
YVWD-A	9/25/2018	1.85	cfs	
YVWD-A	10/12/2018	2.39	cfs	
YVWD-A	10/24/2018	2.33	cfs	
YVWD-A	11/13/2018	1.55	cfs	
YVWD-A	11/24/2018	1.93	cfs	
YVWD-A	11/30/2018	11.20	cfs	
YVWD-A	12/21/2018	4.61	cfs	
YVWD-A	1/3/2019	4.56	cfs	
YVWD-A	1/18/2019	15.60	cfs	
YVWD-A	2/7/2019	9.00	cfs	
YVWD-A	2/18/2019	13.06	cfs	
YVWD-A	3/4/2019	7.43	cfs	
YVWD-A	3/18/2019	5.77	cfs	
YVWD-A	4/4/2019	5.85	cfs	
YVWD-A	4/24/2019	4.06	cfs	
YVWD-A	5/6/2019	6.38	cfs	
YVWD-A	5/25/2019	5.01	cfs	
YVWD-A	6/6/2019	4.56	cfs	
YVWD-A	6/20/2019	3.60	cfs	
YVWD-A	7/3/2019	3.46	cfs	
YVWD-A	7/16/2019	1.75	cfs	
YVWD-A	8/2/2019	1.44	cfs	
YVWD-A	8/15/2019	3.55	cfs	
YVWD-A	8/29/2019	3.41	cfs	
YVWD-A	9/11/2019	2.12	cfs	
YVWD-A	9/26/2019	3.78	cfs	
YVWD-A	10/8/2019	2.57	cfs	
YVWD-A	10/24/2019	2.20	cfs	
YVWD-A	11/6/2019	3.96	cfs	
YVWD-A	11/19/2019	4.75	cfs	
YVWD-A	12/5/2019	1.93	cfs	
YVWD-A	12/16/2019	3.74	cfs	
YVWD-A	1/2/2020	6.79	cfs	
YVWD-A	1/15/2020	4.16	cfs	
YVWD-A	1/29/2020	5.61	cfs	
YVWD-A	2/13/2020	6.16	cfs	
YVWD-A	2/27/2020	6.75	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-A in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-A	3/11/2020	8.89	cfs	
YVWD-A	3/25/2020	9.97	cfs	
YVWD-A	4/9/2020	15.46	cfs	
YVWD-A	4/23/2020	6.76	cfs	
YVWD-A	5/12/2020	6.57	cfs	
YVWD-A	5/20/2020	3.69	cfs	
YVWD-A	6/4/2020	3.88	cfs	
YVWD-A	6/18/2020	3.15	cfs	
YVWD-A	7/8/2020	1.37	cfs	
YVWD-A	7/16/2020	1.55	cfs	
YVWD-A	7/30/2020	1.47	cfs	
YVWD-A	8/13/2020	0.87	cfs	
YVWD-A	8/27/2020	1.41	cfs	
YVWD-A	9/10/2020	1.64	cfs	
YVWD-A	9/24/2020	1.46	cfs	
YVWD-A	9/28/2020	0.42	cfs	
YVWD-A	10/7/2020	0.84	cfs	
YVWD-A	10/22/2020	1.15	cfs	
YVWD-A	11/4/2020	0.94	cfs	
YVWD-A	12/3/2020	1.79	cfs	
YVWD-A	12/17/2020	1.95	cfs	
YVWD-A	12/29/2020	9.76	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-B in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-B	1/8/2009	8.22	cfs	
YVWD-B	1/15/2009	8.16	cfs	
YVWD-B	1/29/2009	6.99	cfs	
YVWD-B	2/12/2009	11.52	cfs	
YVWD-B	2/26/2009	11.84	cfs	
YVWD-B	3/12/2009	9.43	cfs	
YVWD-B	3/26/2009	9.42	cfs	
YVWD-B	4/9/2009	7.41	cfs	
YVWD-B	4/23/2009	6.83	cfs	
YVWD-B	5/6/2009	7.75	cfs	
YVWD-B	5/21/2009	5.71	cfs	
YVWD-B	6/4/2009	6.22	cfs	
YVWD-B	6/17/2009	7.15	cfs	
YVWD-B	7/8/2009	5.94	cfs	
YVWD-B	7/15/2009	3.28	cfs	
YVWD-B	7/29/2009	2.86	cfs	
YVWD-B	8/13/2009		cfs	insufficient
YVWD-B	8/26/2009	5.23	cfs	
YVWD-B	9/10/2009		cfs	no data-meters down
YVWD-B	9/23/2009	4.23	cfs	
YVWD-B	10/8/2009	5.88	cfs	
YVWD-B	10/23/2009	4.77	cfs	
YVWD-B	11/5/2009	5.77	cfs	over-estimated
YVWD-B	11/19/2009	5.80	cfs	
YVWD-B	12/3/2009	4.64	cfs	
YVWD-B	12/17/2009	5.56	cfs	
YVWD-B	1/7/2010	11.34	cfs	
YVWD-B	2/1/2010		cfs	streambed obliterated by rains; insufficient depth
YVWD-B	2/4/2010		cfs	multiple/braided channels of insufficient depth
YVWD-B	2/18/2010		cfs	multiple/braided channels of insufficient depth
YVWD-B	3/4/2010		cfs	multiple/braided channels of insufficient depth
YVWD-B	3/18/2010	15.38	cfs	
YVWD-B	3/31/2010	7.50	cfs	
YVWD-B	1/13/2011	9.96	cfs	
YVWD-B	1/27/2011	7.92	cfs	
YVWD-B	2/10/2011	7.46	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-B in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-B	2/24/2011	1.73	cfs	construction activities upstream-unknown effects
YVWD-B	3/10/2011	8.67	cfs	
YVWD-B	3/24/2011		cfs	rainy unsafe conditions
YVWD-B	4/7/2011	10.25	cfs	
YVWD-B	4/27/2011	8.61	cfs	
YVWD-B	5/5/2011	9.30	cfs	
YVWD-B	5/18/2011	12.03	cfs	
YVWD-B	6/2/2011	5.84	cfs	
YVWD-B	6/16/2011			too shallow- brineline const
YVWD-B	6/30/2011	6.34	cfs	
YVWD-B	7/14/2011	3.77	cfs	
YVWD-B	7/28/2011	4.69	cfs	
YVWD-B	8/11/2011	4.93	cfs	
YVWD-B	8/24/2011	3.44	cfs	
YVWD-B	9/8/2011	3.23	cfs	
YVWD-B	9/22/2011	2.81	cfs	
YVWD-B	10/6/2011	6.55	cfs	
YVWD-B	10/20/2011	4.14	cfs	
YVWD-B	11/3/2011	3.31	cfs	
YVWD-B	11/17/2011	4.77	cfs	
YVWD-B	12/1/2011	6.05	cfs	
YVWD-B	12/15/2011	10.12	cfs	
YVWD-B	12/29/2011	4.22	cfs	
YVWD-B	1/12/2012	7.23	cfs	
YVWD-B	1/26/2012	8.31	cfs	
YVWD-B	2/9/2012	6.84	cfs	
YVWD-B	2/23/2012	5.69	cfs	
YVWD-B	3/8/2012	7.07	cfs	
YVWD-B	3/22/2012	9.05	cfs	
YVWD-B	4/5/2012	5.83	cfs	
YVWD-B	4/19/2012		cfs	insufficient depth
YVWD-B	5/3/2012	8.38	cfs	
YVWD-B	5/17/2012	4.57	cfs	
YVWD-B	5/31/2012	4.62	cfs	
YVWD-B	6/14/2012	3.47	cfs	
YVWD-B	6/28/2012	2.93	cfs	
YVWD-B	7/12/2012	1.90	cfs	
YVWD-B	7/26/2012	3.96	cfs	
YVWD-B	8/9/2012	1.36	cfs	
YVWD-B	8/23/2012	4.52	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-B in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-B	9/5/2012	2.63	cfs	
YVWD-B	9/20/2012	2.54	cfs	
YVWD-B	10/4/2012	2.18	cfs	
YVWD-B	10/18/2012	3.62	cfs	
YVWD-B	11/1/2012	5.32	cfs	
YVWD-B	11/14/2012	5.50	cfs	
YVWD-B	11/29/2012	10.57	cfs	
YVWD-B	12/6/2012	4.34	cfs	
YVWD-B	12/27/2012	7.48	cfs	
YVWD-B	1/14/2013	15.05	cfs	
YVWD-B	1/31/2013		cfs	split channel
YVWD-B	2/7/2013	6.89	cfs	
YVWD-B	2/28/2013	7.58	cfs	
YVWD-B	3/12/2013	11.41	cfs	
YVWD-B	3/21/2013	6.65	cfs	
YVWD-B	4/4/2013	9.55	cfs	
YVWD-B	4/18/2013	5.95	cfs	
YVWD-B	5/1/2013	6.92	cfs	
YVWD-B	5/16/2013	3.58	cfs	
YVWD-B	5/30/2013	9.38	cfs	
YVWD-B	6/13/2013	4.44	cfs	
YVWD-B	6/27/2013	2.81	cfs	
YVWD-B	7/11/2013	1.98	cfs	
YVWD-B	7/25/2013	5.26	cfs	
YVWD-B	8/8/2013	3.81	cfs	
YVWD-B	8/22/2013	2.29	cfs	
YVWD-B	9/5/2013	6.45	cfs	
YVWD-B	9/19/2013	4.47	cfs	
YVWD-B	10/3/2013	5.30	cfs	
YVWD-B	10/17/2013	5.54	cfs	
YVWD-B	10/31/2013	6.82	cfs	
YVWD-B	11/14/2013	1.82	cfs	
YVWD-B	11/27/2013	5.31	cfs	
YVWD-B	12/13/2013	5.54	cfs	
YVWD-B	12/23/2013	6.61	cfs	
YVWD-B	1/7/2014	8.80	cfs	
YVWD-B	1/23/2014	5.70	cfs	
YVWD-B	1/30/2014	8.40	cfs	
YVWD-B	2/13/2014	4.90	cfs	
YVWD-B	2/27/2014	2.20	cfs	
YVWD-B	3/13/2014	6.90	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-B in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-B	3/27/2014	13.95	cfs	
YVWD-B	4/10/2014	6.22	cfs	
YVWD-B	4/23/2014	8.62	cfs	
YVWD-B	5/13/2014	6.04	cfs	
YVWD-B	5/22/2014	7.00	cfs	
YVWD-B	6/5/2014	4.19	cfs	
YVWD-B	6/12/2014		cfs	heat issues
YVWD-B	6/26/2014	4.66	cfs	
YVWD-B	7/10/2014	1.75	cfs	
YVWD-B	7/24/2014	1.55	cfs	
YVWD-B	8/7/2014	1.60	cfs	
YVWD-B	8/25/2014	4.52	cfs	
YVWD-B	9/11/2014	5.22	cfs	
YVWD-B	9/25/2014	2.82	cfs	
YVWD-B	10/1/2014	4.07	cfs	
YVWD-B	10/9/2014		cfs	meter down
YVWD-B	10/23/2014	2.44	cfs	
YVWD-B	11/6/2014	2.42	cfs	
YVWD-B	11/21/2014	8.41	cfs	
YVWD-B	12/18/2014		cfs	washed out
YVWD-B	1/8/2015	9.62	cfs	
YVWD-B	1/22/2015	10.68	cfs	
YVWD-B	2/5/2015	10.18	cfs	
YVWD-B	3/5/2015	6.21	cfs	
YVWD-B	3/19/2015	5.32	cfs	
YVWD-B	4/2/2015	4.96	cfs	
YVWD-B	4/16/2015	3.92	cfs	
YVWD-B	5/14/2015	7.47	cfs	
YVWD-B	5/29/2015	8.20	cfs	
YVWD-B	6/11/2015	3.44	cfs	
YVWD-B	6/25/2015	6.85	cfs	
YVWD-B	7/9/2015	4.54	cfs	
YVWD-B	9/3/2015	5.68	cfs	
YVWD-B	9/17/2015	10.78	cfs	
YVWD-B	10/1/2015	8.16	cfs	
YVWD-B	10/15/2015	6.97	cfs	
YVWD-B	10/29/2015	7.10	cfs	
YVWD-B	11/12/2015	8.26	cfs	
YVWD-B	12/2/2015	4.45	cfs	
YVWD-B	12/15/2015	9.96	cfs	
YVWD-B	12/29/2015	8.55	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-B in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-B	1/12/2016	13.71	cfs	
YVWD-B	1/26/2016	8.70	cfs	
YVWD-B	2/9/2016	5.88	cfs	
YVWD-B	2/23/2016	9.78	cfs	
YVWD-B	3/8/2016	11.05	cfs	
YVWD-B	3/22/2016	10.10	cfs	
YVWD-B	4/5/2016	7.24	cfs	
YVWD-B	4/19/2016	9.19	cfs	
YVWD-B	5/3/2016	9.13	cfs	
YVWD-B	5/17/2016	8.97	cfs	
YVWD-B	5/31/2016	9.9	cfs	
YVWD-B	6/28/2016	2.6213	cfs	
YVWD-B	7/12/2016	5.2056	cfs	
YVWD-B	7/26/2016	5.9128	cfs	
YVWD-B	8/10/2016	0.5115	cfs	
YVWD-B	8/23/2016	1.4011	cfs	
YVWD-B	9/6/2016	4.7401	cfs	
YVWD-B	9/20/2016	2.1936	cfs	
YVWD-B	10/18/2016	8.2476	cfs	
YVWD-B	11/1/2016	8	cfs	
YVWD-B	11/15/2016	3.34935	cfs	
YVWD-B	11/30/2016	8.5882	cfs	
YVWD-B	12/19/2016	10.2148	cfs	
YVWD-B	1/10/2017	14.932	cfs	
YVWD-B	1/24/2017	43.2851	cfs	
YVWD-B	2/8/2017	14.5836	cfs	
YVWD-B	2/22/2017	7.1359	cfs	
YVWD-B	3/9/2017	12.0462	cfs	
YVWD-B	3/24/2017		cfs	Equipment malfunction
YVWD-B	4/4/2017	10.821325	cfs	
YVWD-B	4/18/2017	10.55795	cfs	
YVWD-B	5/2/2017	3.45114	cfs	
YVWD-B	5/16/2017	9.5981	cfs	
YVWD-B	5/30/2017	3.63396	cfs	
YVWD-B	6/13/2017	7.4845	cfs	
YVWD-B	6/27/2017	6.3494	cfs	
YVWD-B	7/13/2017	0.123	cfs	
YVWD-B	8/1/2017	5.51328	cfs	
YVWD-B	8/22/2017	4.91355	cfs	
YVWD-B	9/12/2017	10.15704	cfs	
YVWD-B	9/19/2017	7.45393	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-B in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-B	9/27/2017	6.4329	cfs	
YVWD-B	10/11/2017	6.9738	cfs	
YVWD-B	10/27/2017	7.97104	cfs	
YVWD-B	11/6/2017	7.89426	cfs	
YVWD-B	11/20/2017	8.8374	cfs	
YVWD-B	12/5/2017	9.6292	cfs	
YVWD-B	12/21/2017	12.3958	cfs	
YVWD-B	1/12/2018	12.0876	cfs	
YVWD-B	2/2/2018	8.30324	cfs	
YVWD-B	2/15/2018	7.7165	cfs	
YVWD-B	3/5/2018	7.45514	cfs	
YVWD-B	3/29/2018	7.76424	cfs	
YVWD-B	4/12/2018	7.4214	cfs	
YVWD-B	4/26/2018	6.15296	cfs	
YVWD-B	5/8/2018	2.10408	cfs	
YVWD-B	5/25/2018	2.1684	cfs	
YVWD-B	6/8/2018	3.1787	cfs	
YVWD-B	6/27/2018	5.3239	cfs	
YVWD-B	7/10/2018	0.9435	cfs	
YVWD-B	7/17/2018	6.5857	cfs	
YVWD-B	7/31/2018	1.1595	cfs	
YVWD-B	8/17/2018	2.97696	cfs	
YVWD-B	8/29/2018	1.46927	cfs	
YVWD-B	9/14/2018	1.171	cfs	
YVWD-B	9/25/2018	1.614	cfs	
YVWD-B	10/12/2018	2.4908	cfs	
YVWD-B	10/24/2018	6.3746	cfs	
YVWD-B	11/13/2018	6.97609	cfs	
YVWD-B	11/24/2018	8.13549	cfs	
YVWD-B	11/30/2018	17.5127	cfs	
YVWD-B	12/21/2018	8.883	cfs	
YVWD-B	1/3/2019	8.81512	cfs	
YVWD-B	1/18/2019	25.9902	cfs	
YVWD-B	2/7/2019	9.5525	cfs	
YVWD-B	2/18/2019	20.25625	cfs	
YVWD-B	3/4/2019	-	cfs	Braided Stream - Unable to measure
YVWD-B	3/18/2019	-	cfs	Braided Stream - Unable to measure
YVWD-B	4/4/2019	9.1364	cfs	
YVWD-B	4/24/2019	8.4105	cfs	
YVWD-B	5/6/2019	7.7882	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-B in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-B2	6/6/2019	8.4373	cfs	YVWD-B2 is located downstream of the Alessandro Rd. bridge and replaces YVWD-B due to access issues
YVWD-B2	6/20/2019	6.5934	cfs	
YVWD-B2	7/3/2019	3.3874	cfs	
YVWD-B2	7/16/2019	0	cfs	Flow too low to measure (<0.2')
YVWD-B2	8/2/2019	3.09023	cfs	
YVWD-B2	8/15/2019	1.9852	cfs	
YVWD-B2	8/29/2019	7.1819	cfs	
YVWD-B2	9/11/2019	2.3346	cfs	
YVWD-B2	9/26/2019	2.88508	cfs	
YVWD-B2	10/8/2019	2.18196	cfs	
YVWD-B2	10/24/2019	2.9911	cfs	
YVWD-B2	11/6/2019	3.47614	cfs	
YVWD-B2	11/19/2019	8.9126	cfs	
YVWD-B2	12/5/2019	12.9526	cfs	
YVWD-B2	12/16/2019	8.04956	cfs	
YVWD-B2	1/2/2020	11.2724	cfs	
YVWD-B2	1/15/2020	9.5751	cfs	
YVWD-B2	1/29/2020	9.58772	cfs	
YVWD-B2	2/13/2020	4.0394	cfs	
YVWD-B2	2/27/2020	11.5547	cfs	
YVWD-B2	3/11/2020	14.2779	cfs	
YVWD-B2	3/25/2020	22.5751	cfs	
YVWD-B2	4/9/2020	22.158	cfs	
YVWD-B2	4/23/2020	16.4966	cfs	
YVWD-B2	5/12/2020	3.8715	cfs	
YVWD-B2	5/20/2020	4.56034	cfs	
YVWD-B2	6/4/2020	2.5513	cfs	
YVWD-B2	6/18/2020	8.08498	cfs	
YVWD-B2	7/8/2020	6.6597	cfs	
YVWD-B2	7/16/2020	5.9985	cfs	
YVWD-B2	7/30/2020	1.031	cfs	
YVWD-B2	8/13/2020	7.1653	cfs	
YVWD-B2	8/27/2020	4.7969	cfs	
YVWD-B2	9/10/2020	5.8338	cfs	
YVWD-B2	9/24/2020	2.1191	cfs	
YVWD-B2	9/28/2020	0.5768	cfs	
YVWD-B2	10/7/2020	3.63767	cfs	
YVWD-B2	10/22/2020	4.517	cfs	

Appendix C - Historical Stream Flow at Surface Water Monitoring Site YVWD-B in the San Timoteo Groundwater Management Zone

Site name	Date	Results	Units	Comments
YVWD-B2	11/4/2020	6.0488	cfs	
YVWD-B2	12/3/2020	3.1101	cfs	
YVWD-B2	12/17/2020	4.106	cfs	
YVWD-B2	12/29/2020	13.7363	cfs	

**Appendix C - Historical Stream Flow at Surface Water Monitoring Sites YVWD-C and YVWD-Z
in the San Timoteo Groundwater Management Zone**

WE ID		Results	Units	Comments
YVWD-C	1/8/2009	9.47	cfs	
YVWD-C	1/15/2009	8.33	cfs	
YVWD-C	1/29/2009	8	cfs	
YVWD-C	2/12/2009		cfs	inaccessible
YVWD-C	2/26/2009		cfs	inaccessible
YVWD-C	3/12/2009	7.07	cfs	
YVWD-C	3/13/2009	8.12	cfs	
YVWD-C	4/9/2009	7.12	cfs	
YVWD-C	4/23/2009	5.44	cfs	
YVWD-C	5/6/2009	7.28	cfs	
YVWD-C	5/21/2009	4.44	cfs	
YVWD-C	6/4/2009	0.83	cfs	
YVWD-C	6/17/2009		cfs	inaccessible (lock cut)
YVWD-C	7/8/2009		cfs	insufficient
YVWD-C	7/15/2009		cfs	insufficient
YVWD-C	7/29/2009		cfs	insufficient
YVWD-C	8/13/2009		cfs	insufficient
YVWD-C	8/26/2009		cfs	insufficient
YVWD-C	9/10/2009		cfs	no flow- diverted
YVWD-C	9/23/2009		cfs	no flow- diverted
YVWD-C	10/8/2009	1.58	cfs	
YVWD-C	10/23/2009		cfs	insufficient depth
YVWD-C	11/5/2009	1.71	cfs	
YVWD-C	11/19/2009	2.4	cfs	
YVWD-C	12/3/2009	2.87	cfs	
YVWD-C	12/17/2009	7.29	cfs	
YVWD-C	1/7/2010	8.2	cfs	
YVWD-C	2/1/2010		cfs	diverted for spreading
YVWD-C	2/4/2010		cfs	diverted for spreading
YVWD-C	2/18/2010		cfs	diverted for spreading
YVWD-C	3/4/2010		cfs	diverted for spreading
YVWD-C	3/18/2010		cfs	multiple/braided channels of insufficient depth
YVWD-C	3/31/2010		cfs	multiple/braided channels of insufficient depth
YVWD-C	1/13/2011		cfs	access denied by SBCFCD
YVWD-C	1/27/2011		cfs	braided: many shallow channels
YVWD-C	2/10/2011	8.56	cfs	
YVWD-C	2/24/2011		cfs	braided: many shallow channels
YVWD-C	3/10/2011		cfs	braided: many shallow channels
YVWD-C	3/24/2011		cfs	rainy unsafe conditions

**Appendix C - Historical Stream Flow at Surface Water Monitoring Sites YVWD-C and YVWD-Z
in the San Timoteo Groundwater Management Zone**

WE ID		Results	Units	Comments
YVWD-C	4/7/2011	10.97	cfs	
YVWD-C	4/27/2011	7.42	cfs	
YVWD-C	5/5/2011	3.6	cfs	
YVWD-C	5/18/2011		cfs	numerous shallow braids
YVWD-C	6/2/2011		cfs	numerous shallow braids
YVWD-C	6/16/2011	1.56	cfs	
YVWD-C	6/30/2011			insufficient
YVWD-C	7/14/2011			insufficient
YVWD-C	7/28/2011			insufficient
YVWD-C	8/11/2011	1.7	cfs	
YVWD-C	8/24/2011	1.36	cfs	
YVWD-C	9/8/2011			insufficient
YVWD-C	9/22/2011			insufficient
YVWD-C	10/6/2011			insufficient
YVWD-C	10/20/2011			insufficient
YVWD-C	11/3/2011			insufficient
YVWD-C	11/17/2011	4.51	cfs	
YVWD-C	12/1/2011			insufficient
YVWD-C	12/15/2011			numerous shallow braids
YVWD-C	12/29/2011			numerous shallow braids
YVWD-C	1/12/2012		cfs	insufficient depth
YVWD-C	1/26/2012		cfs	insufficient depth
YVWD-C	2/9/2012		cfs	insufficient depth
YVWD-C	2/23/2012		cfs	insufficient depth
YVWD-C	3/8/2012		cfs	insufficient depth
YVWD-C	3/22/2012		cfs	insufficient depth
YVWD-C	4/5/2012		cfs	insufficient depth
YVWD-C	4/19/2012		cfs	insufficient depth
YVWD-C	5/3/2012		cfs	insufficient depth
YVWD-C	5/17/2012		cfs	insufficient depth
YVWD-C	5/31/2012		cfs	insufficient depth
YVWD-C	6/14/2012		cfs	insufficient depth
YVWD-C	6/28/2012		cfs	insufficient depth
YVWD-C	7/12/2012		cfs	insufficient depth
YVWD-C	7/26/2012		cfs	insufficient depth
YVWD-C	8/9/2012		cfs	insufficient depth
YVWD-C	8/23/2012		cfs	insufficient depth
YVWD-C	9/5/2012		cfs	insufficient depth
YVWD-C	9/20/2012		cfs	insufficient depth
YVWD-C	10/4/2012		cfs	insufficient depth
YVWD-C	10/18/2012	2.5	cfs	

**Appendix C - Historical Stream Flow at Surface Water Monitoring Sites YVWD-C and YVWD-Z
in the San Timoteo Groundwater Management Zone**

WE ID		Results	Units	Comments
YVWD-C	11/1/2012	1.4	cfs	
YVWD-C	11/14/2012		cfs	insufficient depth
YVWD-C	11/29/2012	4.51	cfs	
YVWD-C	12/6/2012	2.87	cfs	one was channel too shallow
YVWD-C	12/27/2012		cfs	braided
YVWD-C	1/14/2013		cfs	braided
YVWD-C	1/31/2013		cfs	braided
YVWD-C	2/7/2013		cfs	braided
YVWD-C	2/28/2013		cfs	braided
YVWD-C	3/12/2013		cfs	access denied- flood control
YVWD-C	3/21/2013		cfs	access denied- flood control
YVWD-C	4/4/2013		cfs	access denied- flood control
YVWD-C	4/18/2013		cfs	access denied- flood control
YVWD-C	5/1/2013	7.99	cfs	
YVWD-C	5/16/2013		cfs	insufficient depth
YVWD-C	5/30/2013	7.44	cfs	
YVWD-C	6/13/2013		cfs	insufficient depth
YVWD-C	6/27/2013		cfs	insufficient depth
YVWD-C	7/11/2013		cfs	insufficient depth
YVWD-C	7/25/2013		cfs	insufficient depth
YVWD-C	8/8/2013		cfs	insufficient depth
YVWD-C	8/22/2013		cfs	insufficient depth
YVWD-C	9/5/2013		cfs	insufficient depth
YVWD-C	9/19/2013		cfs	insufficient depth
YVWD-C	10/3/2013		cfs	braided
YVWD-C	10/17/2013	1.95	cfs	
YVWD-C	10/31/2013		cfs	no access
YVWD-C	11/14/2013		cfs	no access
YVWD-C	11/27/2013	10.18	cfs	
YVWD-C	12/13/2013		cfs	braided
YVWD-C	12/23/2013	6.49	cfs	
YVWD-C	1/7/2014	6.4	cfs	
YVWD-C	1/23/2014	8.2	cfs	
YVWD-C	1/30/2014	9.6	cfs	
YVWD-C	2/13/2014		cfs	no access
YVWD-C	2/27/2014		cfs	no access- flood control
YVWD-C	3/13/2014		cfs	multiple braided channels of insufficient depth
YVWD-C	3/27/2014		cfs	no access- flood control
YVWD-C	4/10/2014		cfs	shallow braids
YVWD-C	4/23/2014		cfs	shallow braids

**Appendix C - Historical Stream Flow at Surface Water Monitoring Sites YVWD-C and YVWD-Z
in the San Timoteo Groundwater Management Zone**

WE ID		Results	Units	Comments
YVWD-C	5/13/2014	6.074	cfs	
YVWD-C	5/22/2014		cfs	insuficient
YVWD-C	6/5/2014	1.228	cfs	
YVWD-C	6/12/2014		cfs	insuficient
YVWD-C	6/26/2014	1.644	cfs	
YVWD-C	7/10/2014		cfs	braided
YVWD-C	7/24/2014	1.006	cfs	
YVWD-C	8/7/2014		cfs	insuficient
YVWD-C	8/25/2014		cfs	braided
YVWD-C	9/11/2014		cfs	braided
YVWD-C	9/25/2014		cfs	braided
YVWD-C	10/1/2014		cfs	braided
YVWD-C	10/9/2014		cfs	meter down
YVWD-C	10/23/2014		cfs	braided & insufficient
YVWD-C	11/6/2014		cfs	ribbons
YVWD-C	11/21/2014		cfs	braids/ribbons
YVWD-C	12/18/2014		cfs	braided & choked with deadwood
YVWD-Z	10/1/2015	3.8864	cfs	
YVWD-Z	10/15/2015	4.7935	cfs	
YVWD-Z	10/29/2015	5.6073	cfs	
YVWD-Z	11/12/2015	6.0739	cfs	
YVWD-Z	12/2/2015	5.0121	cfs	
YVWD-Z	12/15/2015	10.7499	cfs	
YVWD-Z	12/29/2015	6.127	cfs	
YVWD-Z	1/12/2016	9.6734	cfs	
YVWD-Z	1/26/2016	8.6185	cfs	
YVWD-Z	2/1/2016	6.5676	cfs	
YVWD-Z	2/9/2016	6.9514	cfs	
YVWD-Z	2/23/2016	7.9479	cfs	
YVWD-Z	3/8/2016	5.8548	cfs	
YVWD-Z	3/22/2016	2.14766	cfs	
YVWD-Z	4/5/2016	5.7997	cfs	
YVWD-Z	4/11/2016	12.8176	cfs	
YVWD-Z	4/19/2016	2.327	cfs	
YVWD-Z	5/3/2016	6.7873	cfs	
YVWD-Z	5/17/2016	5.3591	cfs	
YVWD-Z	5/31/2016	4.5345	cfs	
YVWD-Z	6/28/2016	2.1093	cfs	
YVWD-Z	7/12/2016	4.1618	cfs	
YVWD-Z	7/26/2016	1.0317	cfs	
YVWD-Z	8/10/2016	0.5476	cfs	

**Appendix C - Historical Stream Flow at Surface Water Monitoring Sites YVWD-C and YVWD-Z
in the San Timoteo Groundwater Management Zone**

WE ID		Results	Units	Comments
YVWD-Z	8/23/2016	0.21225	cfs	
YVWD-Z	9/6/2016	0.2988	cfs	
YVWD-Z	9/20/2016	0.6195	cfs	
YVWD-Z	10/18/2016	1.12992	cfs	
YVWD-Z	11/1/2016	3.476	cfs	
YVWD-Z	11/15/2016	1.891	cfs	
YVWD-Z	11/30/2016	6.45084	cfs	
YVWD-Z	12/19/2016	11.936	cfs	
YVWD-Z	1/10/2017	11.4559	cfs	
YVWD-Z	1/24/2017	49.5452	cfs	
YVWD-Z	2/8/2017	11.7065	cfs	
YVWD-Z	2/22/2017		cfs	Not analyzed for safety, high flow.
YVWD-Z	3/9/2017	11.693	cfs	
YVWD-Z	3/24/2017		cfs	Equipment malfunction
YVWD-Z	4/4/2017	7.8135	cfs	
YVWD-Z	4/18/2017	3.2257	cfs	
YVWD-Z	5/2/2017	4.5212	cfs	
YVWD-Z	5/16/2017	11.2709	cfs	
YVWD-Z	5/30/2017	4.3802	cfs	
YVWD-Z	6/13/2017	0	cfs	Low flow (<0.2')
YVWD-Z	6/27/2017	0.25507	cfs	Low flow (<0.2')
YVWD-Z	7/13/2017	0	cfs	Low flow (<0.2')
YVWD-Z	8/1/2017	0	cfs	Low flow (<0.2')
YVWD-Z	8/22/2017	0.322	cfs	
YVWD-Z	9/12/2017	0.386	cfs	
YVWD-Z	9/19/2017	3.8858	cfs	
YVWD-Z	9/27/2017	2.508	cfs	
YVWD-Z	10/11/2017	3.635	cfs	
YVWD-Z	10/27/2017	2.42847	cfs	Flood control construction
YVWD-Z	11/6/2017	5.7223	cfs	Flood control construction
YVWD-Z	11/20/2017	3.06328	cfs	Flood control construction
YVWD-Z	12/5/2017	4.7212	cfs	Flood control construction
YVWD-Z	12/21/2017	5.008	cfs	
YVWD-Z	1/12/2018	10.0371	cfs	
YVWD-Z	2/2/2018	12.3852	cfs	
YVWD-Z	2/15/2018	11.5875	cfs	
YVWD-Z	3/5/2018	6.71473	cfs	
YVWD-Z	3/29/2018	3.28311	cfs	
YVWD-Z	4/12/2018	1.8507	cfs	
YVWD-Z	4/26/2018	1.9344	cfs	
YVWD-Z	5/8/2018	2.84614	cfs	

**Appendix C - Historical Stream Flow at Surface Water Monitoring Sites YVWD-C and YVWD-Z
in the San Timoteo Groundwater Management Zone**

WE ID		Results	Units	Comments
YVWD-Z	5/25/2018	3.64408	cfs	
YVWD-Z	6/8/2018	3.32695	cfs	
YVWD-Z	6/27/2018	1.8136	cfs	
YVWD-Z	7/10/2018	1.0722	cfs	
YVWD-Z	7/17/2018	0.9804	cfs	
YVWD-Z	7/31/2018	0.608	cfs	
YVWD-Z	8/17/2018	0.5654	cfs	
YVWD-Z	8/29/2018	0.1842	cfs	
YVWD-Z	9/14/2018	0.2206	cfs	
YVWD-Z	9/25/2018	0.7447	cfs	
YVWD-Z	10/12/2018	2.3761	cfs	
YVWD-Z	10/24/2018	4.1934	cfs	
YVWD-Z	11/13/2018	3.5232	cfs	
YVWD-Z	11/24/2018	4.3587	cfs	
YVWD-Z	11/30/2018	--	cfs	
YVWD-Z	12/21/2018	14.9871	cfs	
YVWD-Z	1/3/2019	7.21777	cfs	
YVWD-Z	1/18/2019	33.042	cfs	
YVWD-Z	2/7/2019	10.5423	cfs	
YVWD-Z	2/18/2019	20.8725	cfs	
YVWD-Z	3/4/2019	-	cfs	Dangerous Conditions, flow too deep and fast to enter streambed
YVWD-Z	3/18/2019	14.0034	cfs	
YVWD-Z	4/4/2019	6.9674	cfs	
YVWD-Z	4/24/2019	5.9152	cfs	
YVWD-Z	5/6/2019	11.8752	cfs	
YVWD-Z	5/25/2019	6.1638	cfs	
YVWD-Z	6/6/2019	2.85725	cfs	
YVWD-Z	6/20/2019	4.2366	cfs	
YVWD-Z	7/3/2019	0	cfs	Flow too low to measure (<0.2')
YVWD-Z	7/16/2019	0.8064	cfs	
YVWD-Z	8/2/2019	0.4002	cfs	
YVWD-Z	8/15/2019	0	cfs	Flow too low to measure (<0.2')
YVWD-Z	8/29/2019	3.2968	cfs	
YVWD-Z	9/11/2019	0.2255	cfs	
YVWD-Z	9/26/2019	1.45475	cfs	
YVWD-Z	10/8/2019	0.80262	cfs	
YVWD-Z	10/24/2019	1.5549	cfs	
YVWD-Z	11/6/2019	4.90743	cfs	
YVWD-Z	11/19/2019	7.2307	cfs	
YVWD-Z	12/5/2019	13.2855	cfs	

**Appendix C - Historical Stream Flow at Surface Water Monitoring Sites YVWD-C and YVWD-Z
in the San Timoteo Groundwater Management Zone**

WE ID		Results	Units	Comments
YVWD-Z	12/16/2019	6.4555	cfs	
YVWD-Z	1/2/2020	5.35234	cfs	
YVWD-Z	1/15/2020	6.51937	cfs	
YVWD-Z	1/29/2020	7.21413	cfs	
YVWD-Z	2/13/2020	3.5824	cfs	
YVWD-Z	2/27/2020	11.02176	cfs	
YVWD-Z	3/11/2020	10.27326	cfs	
YVWD-Z	3/25/2020	14.90986	cfs	
YVWD-Z	4/9/2020	-	cfs	Dangerous Conditions, flow too deep and fast to enter streambed
YVWD-Z	4/23/2020	10.2816	cfs	
YVWD-Z	5/12/2020	2.57844	cfs	
YVWD-Z	5/20/2020	4.399908	cfs	
YVWD-Z	6/4/2020	0.9401	cfs	
YVWD-Z	6/18/2020	1.24184	cfs	
YVWD-Z	7/8/2020	1.14169	cfs	
YVWD-Z	7/16/2020	0	cfs	No Flow
YVWD-Z	7/30/2020	1.51728	cfs	
YVWD-Z	8/13/2020	0	cfs	No Flow
YVWD-Z	8/27/2020	0	cfs	No Flow
YVWD-Z	9/10/2020	2.36256	cfs	
YVWD-Z	9/24/2020	0.3871	cfs	
YVWD-Z	9/28/2020	1.0409	cfs	
YVWD-Z	10/7/2020	0.6876	cfs	
YVWD-Z	10/22/2020	3.4208	cfs	
YVWD-Z	12/3/2020	4.8364	cfs	
YVWD-Z	12/17/2020	4.8364	cfs	
YVWD-Z	12/29/2020	13.88472	cfs	

APPENDIX D

**Field Forms and Field Parameters for Surface Water
Monitoring in the San Timoteo Groundwater Management
Zone in 2020**

Site: yvwd-A

Date: _____

Weather Flow Visuals

Conditions: N-0-4 3-4 4

Total width of creek 10.0

Sum of segment's widths 10.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1142	1.0	-0.2	-		6.7881
	1.0	0.2	0.917	0.1834	
	1.0	0.2	2.076	0.4152	
	1.0	0.3	3.376	1.0128	
	1.0	0.3	3.585	1.0755	
	1.0	0.3	3.502	1.0506	
	1.0	0.4	2.960	1.184	
	1.0	0.5	2.528	1.264	
	1.0	0.2	1.904	0.3808	
	1.0	0.2	1.109	0.2218	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1140	12.2	8.23	684	10.45	N
1148	12.3	8.21	672	10.22	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd-B
 Date: 1/2/2020

Weather: N-0-4 Flow: 3-4 Visuals: 3
 Conditions: N-0-4 3-4 3

Total width of creek 10.0

Sum of segment's widths 10.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1105	1.0	-0.2	-		11.2724
	1.0	0.3	2.113	0.6339	
	1.0	0.4	3.585	1.434	
	1.0	0.5	4.236	2.118	
	1.0	0.5	4.188	2.094	
	1.0	0.5	3.873	1.9365	
	1.0	0.4	2.551	1.0204	
	1.0	0.4	2.160	0.864	
	1.0	0.4	2.313	0.9252	
	1.0	0.2	1.232	0.2464	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1104	13.9	8.26	679	9.49	N
1110	14.1	8.22	672	9.59	N
1112	14.1	8.24	670	9.53	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
 Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gvwd-2

Date: 1/2/2020

Weather Flow Visuals

Conditions: N-0-4 3-4 3

Total width of creek 10.4

Sum of segment's widths 10.4

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1035	1.0	0.3	1.315	0.3945	5.37038
	1.0	0.4	1.627	0.6748	
	1.0	0.5	1.952	0.976	
	1.0	0.4	2.00	0.8	
	1.0	0.4	1.656	0.6624	
	1.0	0.3	1.472	0.4416	
	1.0	0.3	1.396	0.4188	
	1.0	0.3	1.396	0.4188	
	1.2	0.3	1.376	0.4928 0.4954	
	1.2	0.2	0.367	0.66808	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1030	13.4	8.7	762	11.73	N
1034	13.5	8.27	759	10.54	N
1044	13.8	8.30	768	10.27	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gvwd-A
 Date: 1/15/2020

Weather: N-1-4 Flow: 3-4 Visuals: 2
 Conditions: N-1-4 3-4 2

Total width of creek 11

Sum of segment's widths 11.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	-0.2			4.1576
	1.0	-0.2			
	1.0	-0.2			
	1.0	0.2	2.181	0.4362	
	1.0	0.2	2.076	0.4152	
	1.0	0.2	2.24	0.4480	
	1.0	0.2	2.384	0.4768	
	1.0	0.2	2.288	0.4576	
	1.0	0.3	2.384	0.7152	
	1.0	0.4	2.480	0.9920	
	1.0	0.2	1.083	0.2166	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1350	13.2	8.16	692	10.52	N
1356	13.2	8.17	674	9.94	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gwwd-13

Date: 11/5/2020

Weather Flow Visuals

Conditions: N-1-3 3-4 3-4

Total width of creek 14.0

Sum of segment's widths 14.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0 1.0	-0.2			10.9161
	1.0	-0.2			
	1.0	0.2	1.113	0.2226	
	1.0	0.3	2.349	0.7047	
	1.0	0.4	2.672	1.0688	
	1.0	0.4	3.153	1.2612	
	1.0	0.4	3.873	1.5492	
	1.0	0.4	3.969	1.5876	
	1.0	0.5	3.758	1.879	
	1.0	0.4	1.472	0.5888	
	1.0	0.2	0.977	0.1954	
	1.0	0.3	1.726	0.5178	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1150	14.7	8.11	733	9.46	N
1155	14.8	8.14	692	9.46	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

	DEPTH (Feet) d	VELOCITY ft/s
1.0	0.4	2.229 0.8916
1.0	0.3	1.498 0.4494

Site: yvwd-2

Weather Flow Visuals

Date: 11/5/2020

Conditions: N-0-3 3-4 3

Total width of creek 7.7

Sum of segment's widths 7.7

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	2.7 1.1	0.402	0.967	0.21274	6.51937
	1.1	0.3	1.457	0.48081	
	1.1	0.6	2.277	1.50282	
	1.1	0.6	2.218	1.46388	
	1.1	0.6	2.372	1.56552	
	1.1	0.5	2.076	1.1418	
	1.1	0.2	0.69	0.1518	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1116	12.2	8.09	725	11.61	N
1124	12.6	9.02	709	10.04	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: Madeline Bwa
 Date of Field Calibration: 1/15/2020
 Field Location: Yucaipa area, CA
 Weather Conditions: Sunny
 Parameter Sensor:
 Instr. Type: YSI
 Model: 556
 Temp (using thermometer): 19.5
 Temp (using meter): 19.5

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (uS/cm)	Percent Error
Standard Solution Values	1	7.0		707.5	←	was just read	
	2	7.0				1327	
	3	10.0					
Pre-calibration Readings for Each Standard	1	4.00		711.5		1331	
	2	6.91					
	3	10.08					
Post-calibration Readings for Each Standard	1						
	2						
	3						

Site: yvwd - A

Date: 1/29/2020

Total width of creek 8.8

Weather Flow Visuals

Conditions: y-0-4 34 3

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
		0.2			5.098 x 1.1 5.6078
		0.2			
	1.1	0.2	1.232	0.2464	
	1.1	0.3	1.904	0.5712	
	1.1	0.4	2.336	0.9344	
	1.1	0.4	3.424	1.3696	
	1.1	0.4	3.153	1.2612	
	1.1	0.5	2.384	0.7152	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1126	12.7	8.08	790	10.41	N
1130	12.7	8.02	793	9.95	N
1134	12.8	8.12	795	9.86	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd-B

Date: 1/29/2020

Weather Flow Visuals

Conditions: Y-0-4 34 4

Total width of creek 10 + 9.1

Sum of segment's widths 9.1

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	1.197	0.2394	9.5877
	1.0	0.3	2.400	0.7224	
	1.0	0.2	1.800	0.3616	
	1.0	0.3 0.4	3.882	1.5528	
	1.0	0.4	4.209	1.6836	
	1.0	0.4	3.949	1.5796	
	1.0	0.4	4.331	1.7324	
	1.0	0.4	3.137	1.2548	
	1.1	0.2	2.096	0.4612	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1057	14.8	8.03	671	9.13	N
1103	14.9	8.06	660	9.21	N
1106	15.0	8.08	677	9.20	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: Yard - Z

Date: 1/29/2020

Weather Flow Visuals

Conditions: Y-0-4 3 3

Total width of creek 8.8

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1033	1.1	0.2	0.848	0.1696	6.5583 x 1.1 7.21413
1033	1.1	0.4	0.896	0.3584	
1035	1.1	0.6	2.503	1.5018	
1035	1.1	0.7	2.599	1.8193	
1036	1.1	0.6	2.420	1.452	
1036	1.1	0.4	1.895	0.758	
1038	1.1	0.3	1.664	0.4992	
	1.1	0.2			

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1027	12.3	8.05	729	11.29	N
1032	12.4	7.83	727	10.46	N
1038	12.5	7.88	727	10.39	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: Madeline Blair
 Date of Field Calibration: 1/29/2020
 Field Location: Yucaipa area, CA
 Weather Conditions: Sunny/Windy
 Parameter Sensor:
 Instr. Type: YSI
 Model: 556
 Signature: [Signature]

Temp (using thermometer): 18.9 Temp (using meter): 18.3

		Parameters / Field Measurements				General Description of Standards		
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (uS/cm)	Percent Error	calibration solution, supplier, exp. Date
Standard Solution Values	1	4.0		705.5		1413		
	2	7.0		705.5				
	3	10.0						
Pre-calibration Readings for Each Standard	1	4.07		711.7		1494		
	2	7.03		98.7				
	3	9.94						
Post-calibration Readings for Each Standard	1			705		1416		
	2			91.8				
	3							

Site: YVWD-A

Date: 2-13-20

Weather Flow Visuals

Conditions: N-041 3 2

Total width of creek 9.9

Sum of segment's widths 9.9

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.1	<0.2			6.157
	1.1	0.2	1.538	0.338	
	1.1	0.3	2.672	0.882	
	1.1	0.4	2.672	1.176	
	1.1	0.3	2.302	0.760	
	1.1	0.4	3.122	1.374	
	1.1	0.2	2.960	0.651	
	1.1	0.2	2.599	0.572	
	1.1	0.2	1.838	0.404	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1204	14.4	8.31	465.1	9.70	Y
1206	14.5	8.29	467.6	9.68	N
1208	14.5	8.29	404.5	9.67	N

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: Yrwd-B

Date: 2/13/2020

Weather Flow Visuals
 Conditions: N-0-4 3 3

Total width of creek 9

Sum of segment's widths 9

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1	0.2	1.020	0.204	4.039
	1	0.2	1.356	0.271	
	1	0.2	1.093	0.219	
	1	0.3	2.028	0.608	
	1	0.3	2.646	0.794	
	1	0.4	1.505	0.602	
	1	0.4	1.971	0.788	
	1	0.2	1.895	0.379	
	1	0.2	0.870	0.174	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1135	17.0	8.18	511.1	9.04	N
1137	17.0	8.19	508.7	9.04	N
1139	17.0	8.21	520.3	8.89	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yuvud - 2

Date: 2/13/2020

Weather: N-0-4 Flow: 3 Visuals: 3

Total width of creek 7.0

Sum of segment's widths 7.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	0.655	0.131	3,583
	1.0	0.2	1.220	0.244	
	1.0	0.4	2.123	0.849	
	1.0	0.4	2.171	0.868	
	1.0	0.4	2.384	0.954	
	1.0	0.3	1.712	0.514	
	1.0	0.2	0.113	0.023	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1049	14.9	7.85	750	9.79	N
1051	15.1	7.88	729	10.55	N
1053	15.1	7.93	721	9.82	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: Madeline Bha
 Signature: *MB*

Date of Field Calibration: 2/13/2020
 Field Location: Yucaipa area, CA
 Weather Conditions: Sunny
 Parameter Sensor:
 Instr. Type: YSI
 Model: 556

Temp (using thermometer): 19.1 Temp (using meter): 19.1

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (uS/cm)	Percent Error
Standard Solution Values	1	4.0		705.8		1284	
	2	7.0		705.8			
	3	10.0					
Pre-calibration Readings for Each Standard	1	4.05		706.4		1245	
	2	7.09					
	3	10.14					
Post-calibration Readings for Each Standard	1	4.01		705.7			
	2	7.01					
	3	10.06					

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Date of Field Calibration: 2/24/2020
 Project Number: 11889
 Field Location: Yucaipa area, CA
 Field Crew: Madeira Bora
 Weather Conditions: Sunny
 Parameter Sensor: _____
 Instr. Type: YSI
 Model: 556
 Signature: MR
 Temp (using thermometer): 19.7 Temp (using meter): 19.8

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error
Standard Solution Values	1	4.0		708.5		1413	
	2	7.0					
	3	10.0					
Pre-calibration Readings for Each Standard	1	4.25		708.3		1309	
	2	6.98					
	3	9.97					
Post-calibration Readings for Each Standard	1	3.99				1410	
	2	7.01					
	3	9.98					

Site: yvwd-A

Date: 2/27/2020

Weather Flow Visuals

Conditions: N-1-4 3 3

Total width of creek _____

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1025	1.0 0.25	0.3	1.369	0.4107	6.7457
	1.0	0.5	3.104	1.552	
	1.0	0.4	3.825	1.53	
	1.0	0.4	3.537	1.4148	
	1.0	0.4	3.249	1.2996	
	1.0	0.2	1.616	0.3232	
	1.0	0.2	1.077	0.2154	
	1.0	0.2			

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1022	14.3	7.82	831	10.03	N
1030	14.5	8.09	800	9.71	N
1033	14.6	8.15	799	9.65	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: igvwd - B

Date: 2/27/2020

Weather Flow Visuals

Conditions: N-1-5 3-4 3

Total width of creek 14

Sum of segment's widths 14

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1116	1.0	0.2	0.402	0.0804	11.5187
	1.0	0.2	1.592	0.3184	
	1.0	0.2	1.895	0.379	
	1.0	0.2			
	1.0	0.2	1.184	0.2368	
	1.0	0.2	2.240	0.448	
	1.0	0.2	2.420	0.448	
	1.0	0.3	3.133	0.9459	
	1.0	0.4	3.758	1.5032	
	1.0	0.4	4.065	1.626	
	1.0	0.5	4.209	2.1045	
	1.0	0.5	3.921	1.9605	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1112	18.4	8.32	520.3	8.87	N
1116	18.6	8.33	533	8.57	N
1123	18.7	8.35	522.4	8.46	X

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

1.0	0.5	1.656	0.828
1.0	0.4	1.600	0.64

Site: YVWD-2

Date: 2/27/2020

Weather: N-1-5 Flow: 4 Visuals: 3

Total width of creek 11.6

Sum of segment's widths 11.6

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	1.280	0.256	11.02176
	1.0	0.3	0.835	0.2505	
	1.0	0.3	2.086	0.6258	
	1.0	0.4	3.026	1.2104	
	1.0	0.5	2.960	1.48	
	1.1 1.0	0.5	2.741	1.50755	
	1.1 1.0	0.5	2.946	1.6203	
	1.1	0.5	2.960	1.628	
	1.1	0.5	2.979	1.63845	
	1.1	0.4	1.829	0.80476	
	1.1				

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1:48	20.7	8.31	448.4	5.43	N
1:54	21.0	8.28	577	6.89	N
1:58	20.7	8.29	464.4	5.28	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek

Date of Field Calibration: 2/27/2020

Project Number: 11889

Field Location: Yucaipa area, CA

Field Crew: Madeleine Bha

Weather Conditions: Sunny

Parameter Sensor: _____

Parameter Sensor: _____

Instr. Type: YSI

Instr. Type: YSI

Signature: MJA

Model: 556

Temp (using thermometer): 20.1 Temp (using meter): 20.2

		Parameters / Field Measurements				General Description of Standards	
		Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error	
Standard Solution Values	1	4.0	70.0		1413		
	2	7.0					
	3	10.0					
Pre-calibration Readings for Each Standard	1	4.0	70.1		1389		
	2	6.90					
	3	10.03					
Post-calibration Readings for Each Standard	1						
	2						
	3						

Site: yvwd - A

Date: 3/11/2020

Weather Flow Visuals
 Conditions: N-1-4 4 3

Total width of creek 9.0

Sum of segment's widths 9.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	1.057	0.2114	8.8864
	1.0	0.4	1.856	0.7424	
	1.0	0.5	2.503	1.2515	
	1.0	0.6	2.931	1.7586	
	1.0	0.5	3.441	1.7205	
	1.0	0.4	3.345	1.338	
	1.0	0.4	3.297	1.3188	
	1.0	0.3	1.538	0.4614	
	1.0	0.2	0.419	0.0838	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1354	20.5	8.08	631	8.47	N
1356	20.5	8.06	625	8.26	N
1359	20.6	8.14	693	8.25	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd-B

Date: 3/11/2020

Weather Flow Visuals

Conditions: N-1-4 4 3

Total width of creek 18.4

Sum of segment's widths 18.4

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.3	0.781	0.2343	14.2779
	1.0	0.6	2.912	1.7472	
	1.0	0.6	4.353	2.6118	
	1.0	0.6	4.256	2.5536	
	1.0	0.5	3.825	1.9125	
	1.0	0.3	2.850	0.855	
	1.0	0.2	2.599	0.5198	
	1.0	0.2	2.218	0.4436	
	1.0	0.2	2.336	0.4672	
	1.0	0.2	2.066	0.4132	
	1.0	0.2	1.743	0.3486	
	1.0	<0.2	N/A		

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1510	22.1	8.14	595	8.26	N
1513	22.1	8.24	657	7.70	N
1517	22.5	8.20	408	7.59	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

13					
14	1.0	<0.2			
15	1.0	<0.2			
16	1.0	0.2	2.361	0.4722	
17	1.0	0.3	2.659	0.7977	
18	1.2	0.3	1.990	0.7164	
18	1.2	0.2	0.770	0.1848	

Site: LyVwd - Z
 Date: 3/11/2022

Weather Flow Visuals
 Conditions: N-1-4 4 3

Total width of creek 8.4

Sum of segment's widths 8.4

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.3	1.309	0.3927	10.2335
	1.0	0.5	2.912	1.456	
	1.0	0.8	3.156	2.5248	
	1.0	0.8	3.201	2.5608	
	1.0	0.8	3.153	2.5224	
	1.0	0.5	1.156	0.578	
	1.2	0.4	0.497	0.1988	
	1.2	<0.2			

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1543	23.2	8.26	640	8.01	
1545	23.2	8.26	640	7.87	
1547	23.3	8.26	638	7.72	

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: *Madeira Bwa*
 Date of Field Calibration: *3/11/2020*
 Field Location: Yucaipa area, CA
 Weather Conditions: *cloudy*
 Parameter Sensor:
 Instr. Type: YSI
 Model: 556
 Temp (using thermometer): *21.5* Temp (using meter): *21.4*

		Parameters / Field Measurements					General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (uS/cm)	Percent Error	
Standard Solution Values	1	<i>4.0</i>		<i>703.8</i>		<i>1413</i>		calibration solution, supplier, exp. Date
	2	<i>7.0</i>						
	3	<i>10.0</i>						
Pre-calibration Readings for Each Standard	1	<i>4.16</i>		<i>704.0</i>		<i>1545</i>		
	2	<i>6.95</i>						
	3	<i>10.02</i>						
Post-calibration Readings for Each Standard	1					<i>1448</i>		
	2							
	3							

Site: yrvwd-A
 Date: 4/9/2020

Weather Flow Visuals
 Conditions: N-3-3 4 3
 Total width of creek 14.4 Sum of segment's widths 14.4

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s	
	1.0	0.2	0.926	0.1852	15.457	
	1.0	0.3	2.468	0.7404		
	1.0	0.3	3.006	0.9018		
	1.0	0.3	2.528	0.7584		
	1.0	0.3	1.538	0.4614		
	1.0	0.5	3.264	1.632		
	1.0	0.6	4.666	2.7996		
	1.0	0.6	3.056	1.8336		
	1.0	0.5	4.401	2.2005		
	1.0	0.5	3.137	1.5685		
	1.2	0.4	2.001	0.3004		0.96048
	1.2	0.4	2.006	0.24072		

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
11:20	13.5	7.50	556.8	9.60	N
11:22	13.5	7.59	539.5	9.64	N
11:25	13.5	7.73	583.7	9.70	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

1.0 0.3 1.509 0.4527

Site: yrvwd-B Page 1

Date: 4/9/2020

Weather Flow Visuals
 Conditions: N-3-3 4 3

Total width of creek ~~25~~ 29

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
		0.3	2.181	0.6543	31.428
		0.4	2.313	0.9252	
		0.4	2.659	1.0636	
		0.3	3.006	0.9018	
		0.3	2.864	0.8592	
		0.3	2.646	0.7938	
		0.3	2.576	0.7728	
		0.2	2.850	0.57	
		0.3	2.707	0.8121	
		0.3	2.758	0.8274	
		0.3	2.662	0.7986	
		0.3	1.888	0.5664	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
12:14	15.2	8.16	564.6	9.58	N
12:18	15.2	8.16	637.1	9.47	N
12:23	15.3	8.16	526.8	9.42	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Continued page 2

Site: grwd-B

Weather Flow Visuals

Date: _____

Conditions: _____

Total width of creek _____

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
		0.2	1.990		
		0.2	1.799		
		0.2	1.307		
		<0.2			
		<0.2			
		<0.2			
		<0.2			
		<0.2			
		<0.2			
		0.2	1.616		
		0.2	2.468		
		0.2	2.408		

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: Grwd-B continued page 3

Weather Flow Visuals

Date: _____ Conditions: _____

Total width of creek _____ Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
		0.2	2.517	0.5034	
		0.2	2.192	0.4384	
		0.2	1.162	0.2324	
		0.7	1.49	1.043	
		0.7	1.61	1.127	
		0.6	2.010	1.206	
		0.6	2.19	1.314	
		0.5	2.32	1.16	
		0.5	2.27	1.135	
		0.4	2.46	0.984	
		0.3	1.56	0.468	
		0.3	1.28	0.384	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

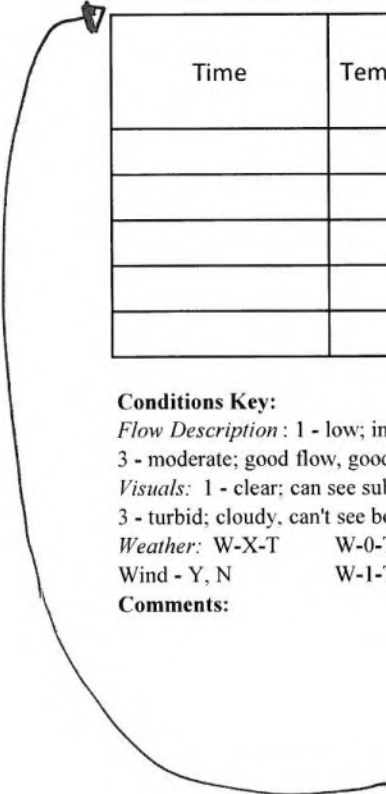
Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F


Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F



0.2 1.50 0.3
 < 0.2
 < 0.2
 < 0.2
 < 0.2

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: Madevie Guia
 Signature: 

Date of Field Calibration: 8/4/9/2020
 Field Location: Yucaipa area, CA
 Weather Conditions: cloudy/rainy
 Parameter Sensor:
 Instr. Type: YSI
 Model: 556
 Temp (using thermometer):
 Temp (using meter):

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (uS/cm)	Percent Error
Standard Solution Values	1	4.06		718.9			
	2	7.00					
	3	10.00					
Pre-calibration Readings for Each Standard	1	3.96		719.7			
	2	6.87			1440		
	3	10.01					
Post-calibration Readings for Each Standard	1						
	2						
	3						

Site: gvwd-A

Date: 4/23/2020

Weather: N-0-5 Flow: 3 Visuals: 3

Total width of creek 13.0

Sum of segment's widths 13.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s	
	1.0	0.2	NA		6.7649	
	1.0	0.2	36	1.184		0.2368
	1.0	0.3	64	2.080		0.624
	1.0	0.3	80	2.592		0.7776
	1.0	0.3	65	2.112		0.6336
	1.0	0.3	42	1.376		0.4128
	1.0	0.2	15	0.511		0.1022
	1.0	0.2	55	1.792		0.3584
	1.0	0.3	74	2.400		0.72
	1.0	0.3	91	2.944		0.8832
	1.0	0.3	101	3.265		0.9795
	1.0	0.2	96	3.104		0.6208

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1146	23.4	8.15	657	8.07	
1148	23.4	8.17	633	7.85	
1150	23.5	8.19	660	7.88	

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

1.0 0.2 - 64 2.080 0.416

Site: gwd-B page 1
 Date: 4/23/2020

Weather: N-0-5 Flow: 3 Visuals: 3
 Conditions: N-0-5 3 3

Total width of creek 30.6

Sum of segment's widths 30.6

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
		<0.2			16.497
		<0.2			
		0.2	1.280	1.280 0.256	
		0.3	2.016	2.016 0.605	
		0.4	2.976	1.1904	
		0.4	3.360	1.344	
		0.3	2.560	0.768	
		0.2	2.016	0.4032	
		<0.2			
		<0.2			
		0.2	2.016	0.4032	
		<0.2			

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1056	22.9	8.00	593	7.90	N
1059	22.9	8.01	679	7.92	N
1103	22.8	8.00	601	7.93	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gvwd-B page 2

Weather Flow Visuals

Date: _____ Conditions: _____

Total width of creek _____ Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
		<0.2			
		<0.2			
		<0.2			
		0.2	1.248	0.2496	
		0.2	1.600	0.32	
		0.3	1.600	0.48	
		0.3	1.920	0.576	
		0.3	2.432	0.7296	
		0.3	1.280	0.384	
		0.4	2.624	1.0496	
		0.3	2.368	0.7104	
		0.4	3.425	1.37	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd-13 page 3

Weather Flow Visuals

Date: _____ Conditions: _____

Total width of creek _____ Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
		0.3			
		0.4			
		0.4	2.592	1.0368	
		0.4	3.393	1.3572	
		0.4	2.912	1.1648	
		0.5	2.720	1.36	
		0.3	2.016	0.6048	
		0.2	0.671	0.1343	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd-2
 Date: 4/23/20

Weather: N-0-4 Flow: 3~~4~~ Visuals: 3

Total width of creek _____ Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1	< 0.2	NA		10.2316
	1	0.3	57	1.856	
	1	0.6	66	2.144	
	1	0.6	79	2.560	
	1	0.6	83	2.688	
	1	0.6	68	2.208	
	1	0.8	56	1.824	
	1	0.9	66	2.144	
	1	0.9 0.4	44	1.430	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1013	22.5	6.62	769	8.66	
1016	22.6	7.32	566	8.29	
1019	23.0	7.56	659	8.25	
1021	23.2	7.66	816	8.15	
1025	23.4	7.92	815	8.02	

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals : 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: Madeline Blum
 Signature: *MB*

Date of Field Calibration: 4/23/2020
 Field Location: Yucaipa area, CA
 Weather Conditions: Sunny
 Parameter Sensor:
 Instr. Type: YSI
 Model: 556

Temp (using thermometer): 22.3 Temp (using meter):

		Parameters / Field Measurements				General Description of Standards		
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (uS/cm)	Percent Error	
Standard Solution Values	1	4.00		718.9		1413		calibration solution, supplier, exp. Date
	2	7.00						
	3	10.00						
Pre-calibration Readings for Each Standard	1	3.89		717.6		1354		
	2	6.90						
	3	10.22						
Post-calibration Readings for Each Standard	1	4.07				1473		
	2	7.07						
	3	10.09						

Site: yrwd - A
 Date: 5/7/20

Weather: N-0-4 Flow: 3 Visuals: 3
 Conditions: N-0-4 3 3

Total width of creek 13.6

Sum of segment's widths 13.6

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1039	1	0.2			6.5691 <div style="border: 1px solid black; padding: 5px; display: inline-block;">6.5691</div>
1039	1	0.3	57	1.856	
1040	1	0.4	96	2.848	
1040	1	0.4	100	3.233	
1041	1	0.3	95	3.072	
1041	1	0.3	91	2.944	
1041	1	0.3	75	2.432	
1042	1	0.2	45	1.472	
1042	1	0.2			
1043	1	0.2	27	0.596	
1043	1.2	0.2			
1043	1.2	0.2	10	0.607	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1039	23.6	7.78	781	9.45	N
1043	23.8	7.96	781	9.24	N
1045	24.1	8.09	771	8.08	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

1043 | 1.2 | 0.3 | 36, 1.184 0.4262

Site: ground-B
 Date: 5/7/2020

Weather Flow Visuals
 Conditions: N-0-5 3 3

Total width of creek 8 Sum of segment's widths 8.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1119	1.0	0.3	21.0703	0.2109	3.8715
1120	1.0	0.3	34.1120	0.336	
1120	1.0	0.2	89.1920	0.384	
1120	1.0	0.3	96.3104	0.9312	
1121	1.0	0.4	82.2656	1.0624	
1121	1.0	0.4	64.2080	0.832	
1122	1.0	0.2	17.0575	0.115	
	1.0	20.2			

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1119	27.4	8.23	586	8.53	NO
1123	27.6	8.25	494	8.25	NO
1125	27.3	8.27	540	8.10	Yes

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gVwd-2
 Date: 5/7/2020

Weather: N-0-5 Flow: 3 Visuals: 3
 Conditions: N-0-5 3 3

Total width of creek 7.8

Sum of segment's widths 7.8

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1149	1	0.2	23 0.768	0.1536	2.5784
1150	1	0.3	48 1.568	0.4704	
1150	1	0.3	45 1.472	0.4416	
1151	1	0.3	45 1.472	0.4416	
1151	1	0.3	31 1.024	0.3072	
1152	1	0.3	33 1.0876	0.3263	
1153	1	0.3	23 0.768	0.2304	
1154	0.8	0.3	26 0.864	0.2693	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1149	32.6	8.39	741	7.72	N
1153	32.0	8.43	742	7.76	N
1153	32.9	8.44	742	7.08	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek Date of Field Calibration: 5/7/2020
 Project Number: 11889 Field Location: Yucaipa area, CA
 Field Crew: Madelaine Blum Weather Conditions: Sunny
 Parameter Sensor: _____
 Instr. Type: YSI
 Model: 556
 Signature: *MBlum*

Temp (using thermometer): _____ Temp (using meter): _____

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error
Standard Solution Values	1	4.0		7.8		1413	
	2	7.0					
	3	10.0					
Pre-calibration Readings for Each Standard	1	4.09		7.5		1656	
	2	6.93					
	3	10.04					
Post-calibration Readings for Each Standard	1			7.8		1424	
	2						
	3						
calibration solution, supplier, exp. Date							

Site: gvud-A

Date: 5/20

Weather N-0-4 Flow 2 Visuals 2

Total width of creek 7.0

Sum of segment's widths 7.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	18 ^{0.6074}	0.1215	3.6932
	1.0	0.2	42 ^{1.3758}	0.2752	
	1.0	0.6	39 ^{1.2797}	0.7678	
	1.0	0.6	43 ^{1.4078}	0.8447	
	1.0	0.3	77 ^{2.5979}	0.7794	
	1.1	0.3	74 ^{2.4002}	0.7921	
	1.1	0.2	15 ^{0.5114}	0.1125	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1137	22.1	8.48	869	8.83	N
1141	22.2	8.49	882	9.01	N
1144	22.4	8.51	872	9.12	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: grid-B
 Date: 5/20

Weather Conditions: N-0-4 Flow: 32 Visuals: 2

Total width of creek 6.0 Sum of segment's widths 6.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	110 ^{3.833}	0.0767	4.5603
	1.0	0.4	70 ^{2.721}	0.9088	
	1.0	0.4	110 ^{3.5527}	1.4211	
	1.0	0.4	108 ^{3.4886}	1.3954	
	1.0	0.3	58 ^{0.9596}	0.5664	
	1.0	0.2	29 ^{1.8860}	0.1919	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1100	23.5	8.44	726	8.61	N
1105	23.7	8.45	714	8.62	N
1110	23.4	8.42	720	8.60	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: Gyrod-8

Date: 5/20

Weather: N-0-4 Flow: 2 Visuals: 2

Total width of creek 6.4

Sum of segment's widths 6.4

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.5	501.6319	0.81595	4.39995
	1.0	0.6	702.2721	1.3633	
	1.0	0.5	591.9192	0.9596	
	1.0	0.3	501.6317	0.4895	
	1.2	0.3	371.2157	0.4377	
	1.2	0.3	28.9276	0.3339	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1036					
0958	23.3	8.20	796	9.21	N
1040	23.6	8.39	734	8.59	N
1042	23.9	8.42	724	8.49	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Clinical Lab of San Bernardino, Inc.

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

Chain of Custody

WO _____

Client		Destination Laboratory		Analysis Requested		Turn Around Time (TAT)
Address:		No. of Preserved Cont.		Comments		
Yucaipa Valley Water District 880 W. County Line Road Yucaipa, CA 92399		[X] Clinical Grand Terrace / ELAP 1088 [] Clinical Lompoc / ELAP 1678 [] Other:		Fluoride (EPA 300.0)		10
Client Contact: Ashley Gibson		ChlorAC		Chloride (EPA 300.0)		10
Phone No.: 909-560-1370 FAX No.: 909-795-0402		ZnC4H6O4		pH (SM 4500H+B)		10
System No.:		Na2SO3		Specific Conductance (SM 2510B)		10
Project: Max Benefits - San Timoteo GMZ		NaOH		Sulfate (EPA 300.0)		
Sampled By: <i>Madeira Ga</i>		HCl		Ca, Mg, K, Na (EPA 200.7)		
Comments: <i>.....</i>		HNO3		Alkalinity (inc. HCO3, CO3, and OH)		
Email results to: Lina Robert (lrobert@ywwd.dst.ca.us) and Steven Stuart (sstuart@dudek.com)		C6H8O6		Ammonia-N (EPA 350.1)		
Date		NH4Cl		Nitrite-N (EPA 300.0)		
Time		Na2S2O3		Nitrate-N (EPA 300.0)		
Sample Identification		Unpreserved		Total Dissolved Solids (SM 2540C)		
Container ID		Sample Type				
Matrix		Matrix				
Date		Matrix				
Time		Matrix				
Sample Identification		Matrix				
Container ID		Matrix				
Matrix		Matrix				
Use for Bacteria Samples / Sample Type: 1-Routine 2-Repeat 3-Replacement 4-Special D-Distribution W-Well		Matrix				
Matrix: DW - Drinking Water GW - Ground Water SW - Surface Water W - Water WW - Wastewater SWR - Stormwater Runoff S - Sludge O - Other		Matrix				
TAT: (10) Ten Day (5) Five Day Rush (2) Two Day Rush		Matrix				
Relinquished By (Sign)		Date / Time		Received By (Sign)		Print Name / Company
<i>MK</i>		7/20/20 1323				
Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company
<i>Madeira Bln</i>						
Clinical Lab Receipt Temp.: _____ °C						
Shipped Via: [] Fed Ex [] Golden State Overnight [] UPS [] OnTrac [] USPS [] Other						
Condition: [] On Wet Ice [] On Blu Ice [] Intact [] Custody Seals Samples / COC Checked By: _____						
Receipt Comments:						
Work Order Logged By: _____						
Clinical Lab Receipt Temp.: _____ °C						

Site: gvwd-1
 Date: 6/4/20

Weather _____ Flow _____ Visuals _____
 Conditions: N-05 23 2

Total width of creek 5.5

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1229	1.0'	0.2			3.882
	1.0	0.3	1.520	0.456	
	1.0	0.4	2.646	1.0584	
	1.0	0.4	3.344 ⁵ 0.9 20sec	1.3378	
	1.0	0.4	2.302	0.9208	
	0.5	0.2	1.000	0.1088	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1224	27.9	8.35	665	Prokret working	N
				7.74	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gvwd-B
 Date: 6/4/20

Weather N-0-5 Flow 3 Visuals 2
 Conditions: N-0-5 3 2

Total width of creek 9

Sum of segment's widths 9

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1159	1.0	0.2			2,5513
1159	1.0	0.2	1.025	0.205	
1200	1.0	0.2	0.390	0.078	
1200	1.0	0.2	1.695	0.339	
1200	1.0	0.3	2.591	0.7653	
1201	1.0	0.2	2.288	0.4576	
1203	1.0	0.2	2.096	0.4192	
1203	1.0	0.2	0.752	0.1504	
1204	1.0	0.2	0.684	0.1368	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1159	29.4	8.20	284	7.59	N
1204	29.3	8.19	417.7	7.46	N
1207	29.3	8.19	513	7.42	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yuvd-2

Date: 6/4/20

Weather: N-0-5 Flow: 3 Visuals: 3

Total width of creek 6

Sum of segment's widths 6

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1135	1.0	<0.2			0.9401
1135	1.0	0.2	1.03	0.206	
1135	1.0	0.3	0.941	0.2823	
1136	1.0	0.2	1.136	0.2272	
1136	1.0	0.2	0.546	0.1092	
1136	1.0	0.2	0.577	0.1154	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1125	32.6	7.44	835	7.23	N
1132	32.8	8.13	830	7.11	N
1137	32.4	8.26	918	7.08	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Clinical Lab of San Bernardino, Inc.

Chain of Custody

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

WO _____

Client		Destination Laboratory		Analysis Requested		Turn Around Time (TAT)
Yucaipa Valley Water District 880 W. County Line Road Yucaipa, CA 92399		[X] Clinical Grand Terrace / ELAP 1088 [] Clinical Lompoc / ELAP 1678 [] Other:		Fluoride (EPA 300.0) Chloride (EPA 300.0) pH (SM 4500H+B) Specific Conductance (SM 2510B) Sulfate (EPA 300.0) Ca, Mg, K, Na (EPA 200.7) Alkalinity (inc. HCO3, CO3, and OH) Ammonia-N (EPA 350.1) Nitrite-N (EPA 300.0) Nitrate-N (EPA 300.0) Total Dissolved Solids (SM 2540C)		
Date	Time	Sample Identification	Matrix	Sample Type	No. of Preserved Cont.	Total Containers
6/4/20	12:21	YVWD-A 3EA53	SW	X		ChlorAC
6/4/20	12:07	YVWD-B 3EA54	SW	X		ZnC4H6O4
6/4/20	11:37	YVWD-Z 3EA56	SW	X		Na2SO3
						NaOH
						HCl
						HNO3
						C6H8O6
						NH4Cl
						Na2S2O3
						Unpreserved

Matrix: DW - Drinking Water GW - Ground Water SW - Surface Water W - Water WW - Wastewater SWR - Stormwater Runoff S - Sludge O - Other

Use for Bacteria Samples / Sample Type: 1-Routine 2-Repeat 3-Replacement 4-Special D-Distribution W-Well

TAT: (10) Ten Day (5) Five Day Rush (2) Two Day Rush

Relinquished By (Sign) _____ Date / Time _____ Received By (Sign) _____ Print Name / Company _____

MM _____ Madeline Bla WWD 6/4/20 13:20

(Lab Use Only) Lompoc Lab Receipt Temp.: _____ °C

Shipped Via: [] Fed Ex [] Golden State Overnight [] UPS [] OnTrac [] USPS [] Other _____

Condition: [] On Wet Ice [] On Blu Ice [] Intact [] Custody Seals Samples / COC Checked By: _____ Work Order Logged By: _____

Receipt Comments: _____ Clinical Lab Receipt Temp.: _____ °C

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek Date of Field Calibration: 6/24/2020
 Project Number: 11889 Field Location: Yucaipa area, CA
 Field Crew: Melissa Bora Weather Conditions: Sunny
 Signature: [Signature] Parameter Sensor: _____
 Instr. Type: YSI
 Model: 556
 Temp (using thermometer): _____ Temp (using meter): _____

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error
Standard Solution Values	1	4.0		78.0		1413	
	2	7.0					
	3	10.0					
Pre-calibration Readings for Each Standard	1	3.77		716.1		1448	
	2	6.89					
	3	10.47					
Post-calibration Readings for Each Standard	1	4.06		78.0			
	2	7.14					
	3	10.10					

Site: Yhwd-A
 Date: 6/17/20

Weather: N-0-5 Flow: 1 Visuals: 2
 Conditions: N-0-5 1 2

Total width of creek 5.2

Sum of segment's widths 5.2

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0 1.0	0.2	0.335	0.067	3.1478
	1.0	0.2	1.430	0.286	
	1.0	0.4	2.361	0.944	
	1.0	0.4	2.659	1.0636	
	1.2	0.4	1.640	0.7872	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1426	27.3	8.60	655	7.65	N
1428	27.4	8.61	636	7.77	N
1430	27.4	8.61	628	7.80	Y

Conditions Key:
Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud
Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gvwd - B

Date: 6/17/20

Weather: N-0-5 Flow: 2 Visuals: 2

Total width of creek 12.4

Sum of segment's widths 12.4

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	<0.2			9.2235
	1.0	<0.2			
	1.0	0.2	1.02	0.204	
	1.0	0.3	2.755	0.8265	
	1.0	0.3	3.217	0.9651	
	1.0	0.3	3.567	1.0701	
	1.0	0.4	3.633	1.4532	
	1.0	0.4	3.424	1.3696	
	1.0	0.3	2.864	0.8592	
	1.0	0.3	2.528	0.7584	
	1.2	0.2	1.538	1.5076	
	1.2	0.2	0.874	0.20976	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1353	27.7	8.33	520	7.23	N
1356	27.6	8.34	642	6.97	N
1359	27.7	8.34	510	6.93	Y
			656		

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
 Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd-2
 Date: 6/17/2020

Weather: N-0-5 Flow: 1 Visuals: 2

Total width of creek 3.6

Sum of segment's widths 3.6

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1328	3.6 1.0	0.2	0.35	0.07	1.2418
	1.0	0.2	2.171	0.4342	
	1.0	0.3	2.134	0.6402	
	0.6	0.2	0.812	0.0974	


Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1329	31.6	8.36	603	6.94	N
1330	31.6	8.38	582	4.90	6.67 N
1332	31.6	8.39	558	6.69	N
1334	31.6	8.42	776	6.81	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: Maddine Blue
 Signature: 

Date of Field Calibration: 6/18/20
 Field Location: Yucaipa area, CA
 Weather Conditions: Sunny
 Parameter Sensor:
 Instr. Type: YSI
 Model: 556

Temp (using thermometer): _____ Temp (using meter): _____

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (uS/cm)	Percent Error
Standard Solution Values	1	4.0		78.6		1413	
	2	7.0					
	3	10.0					
Pre-calibration Readings for Each Standard	1	4.08		79.4		1565	
	2	6.92					
	3	9.97					
Post-calibration Readings for Each Standard	1					1427	
	2						
	3						

Site: y vwd- A

Date: 7/8/2020

Weather Flow Visuals

Conditions: N-07 2 1

Total width of creek 4

Sum of segment's widths 4.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1452	1	0.2	0.752	0.1504	1.3749
1452	1	0.3	1.981	0.5643	
1453	1	0.3	1.734	0.5202	
1454	1	0.2	0.700	0.14	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1452	30.7	Does	601	6.57	N
1454	30.7	not	694	6.44	N
1457	30.7	work	693	6.46	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: Wwd-B
 Date: 7/8/2020

Weather Flow Visuals
 Conditions: N-0-6 3 2

Total width of creek 10.0

Sum of segment's widths 16.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1405	1.0	0.2	0.385	0.077	6.6597
1407	1.0	0.2	1.675	0.309	
1409	1.0	0.3	1.904	0.5712	
1410	1.0	0.3	2.864	0.8592	
1411	1.0	0.3	3.201	0.9603	
1411	1.0	0.3	3.359	1.0077	
1412	1.0	0.3	3.441	1.0323	
1413	1.0	0.3	3.296	0.9888	
1413	1.0	0.2	2.741	0.5482	
1414	1.0	0.2	1.53	0.306	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1405	31.0		674	6.82	N
1411	30.8		672	6.47	N
1414	30.7		671	6.44	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gvwd-2

Date: 7/6/2020

Weather Flow Visuals

Conditions: Y-0-6 2 2

Total width of creek 33

Sum of segment's widths 33

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1329	1.1	0.2	0.841	0.1852 0.19602	1.14169
	1.1	0.3	1.703	0.35763 0.56199	
	1.1	0.2	1.744	0.38368	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1329	36.8	*	647	6.94	N
1328	35.9	*	840	6.67	N
1331	35.9	*	840	6.50	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: *Heather B...*

Date of Field Calibration: *7/7/2020 - 7/8/2020*

Field Location: Yucaipa area, CA

Weather Conditions: *Sunny*

Parameter Sensor:

Instr. Type: YSI

Model: 556

Temp (using thermometer): *21.1* Temp (using meter): *21.0*

Signature: *MM*

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error
Standard Solution Values	1	<i>4.0</i>				<i>1413</i>	
	2	<i>7.0</i>					
	3	<i>10.0</i>					
Pre-calibration Readings for Each Standard	1	<i>Does not work</i>		2.0		<i>1365</i>	
	2						
	3					<i>1409</i>	
Post-calibration Readings for Each Standard	1						
	2						
	3						

Site: yrrwd-A

Date: 7/16/2020

Weather Flow Visuals

Conditions: N-0-6 2 2

Total width of creek 6

Sum of segment's widths 6

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	0.626	0.1252	1.5496
	1.0	0.2	1.178	0.2356	
	1.0	0.2	1.952	0.3904	
	1.0	0.2	1.990	0.398	
	1.0	0.2	1.010	0.202	
	1.0	0.2	0.992	0.1984	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1437	31°	 	 	6.68	N
1439	31°	 	 	6.67	N
1442	31°	 	 	6.71	Y
		8.33			

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: Grwd-B

Date: 7/16/2020

Conditions: Y-0-6 Weather 2 Flow 2 Visuals 2

Total width of creek 7

Sum of segment's widths 7

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	> 0.2	—		5.9985
	1.0	0.2	0.562	0.1124	
	1.0	0.4	2.576	1.0304	
	1.0	0.5	3.407	1.7035	
	1.0	0.5	3.489	1.7445	
	1.0	0.5	2.917	1.2085	
	1.0	0.2	0.996	0.1992	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1402	31°	X	X	6.72	N
1415	30.9°			6.49	N
1417	30.9°			6.43	Y
		8.3			

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
 Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gvwd-z

No Flow

Weather

Flow

Visuals

Date: 7/16/2020

Conditions: _____

Total width of creek _____

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: Madeline Pina
 Signature: *M*

Date of Field Calibration: 7/16/2020
 Field Location: Yucaipa area, CA
 Weather Conditions: Sunny
 Parameter Sensor:
 Instr. Type: YSI
 Model: 556
 Temp (using thermometer):
 Temp (using meter):

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error
Standard Solution Values	1	4.0		718.3		1413	
	2	7.0					
	3	10.0					
Pre-calibration Readings for Each Standard	1			719.2		1298	
	2	Not					
	3	Water temp					
Post-calibration Readings for Each Standard	1					1425	
	2						
	3						

Site: gvwd - A

Date: 7/30/2020

Weather Flow Visuals

Conditions: N-0-8 2 2

Total width of creek 4.0

Sum of segment's widths N-0-8

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1503		0.2	1.674	0.3358	1.4085
1504		0.3	2.059	0.6177	
1504		0.3	1.232	0.3696	
1505		0.2	0.727	0.1454	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1503	32.1	8.50	789	6.37	N
1504	32.1	8.51	783	6.32	N
1506	32.1	8.51	785	6.32	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: WVWD-B

Date: 7/30/2020

Weather Flow Visuals

Conditions: N-0-8 3 2

Total width of creek 4.0

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1438	1.0	0.2	0.451	0.0902	0.9746
1439	1.0	0.2	0.867	0.1774	
1439	1.0	0.2	2.802	0.5604	
1440	1.0	0.2	1.015	0.203	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1438	32.9	8.36	650	6.3	Y
1439	32.9	8.36	560	6.12	N
1442	32.9	8.36	735	6.44	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: juvd - Z
 Date: 7/30/2020

Weather Flow Visuals
 Conditions: N-0-7 2 2

Total width of creek _____

Sum of segment's widths 3.6

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1413	1.2	0.2	1.098	0.2635	1.5173
1414	1.2	0.4	2.006	1.0013	
1415	1.2	0.2	1.052	0.2525	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1413	37.0	8.72	787	6.54	N
1415	37.0	8.71	787	6.64	N
1418	37.0	8.71	787	6.58	Y

Conditions Key:
Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud
Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek

Date of Field Calibration: 7/30/2020

Project Number: 11889

Field Location: Yucaipa area, CA

Field Crew: Mohamed B. ...

Weather Conditions: Sunny

Parameter Sensor: _____

Parameter Sensor: _____

Instr. Type: _____

Instr. Type: YSI

Signature: 

Model: 556

Temp (using thermometer): _____

Temp (using meter): _____

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error
Standard Solution Values	1	4.0		78.5		1413	
	2	7.0					
	3	10.0					
Pre-calibration Readings for Each Standard	1	3.94		719.0		1392	
	2	7.07					
	3	10.24					
Post-calibration Readings for Each Standard	1						
	2						
	3						

Site: gwvd-A
Date: 8/13/2020

Conditions: V-1-7
Weather
Flow
Visuals

Total width of creek 4

Sum of segments widths 4

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	0.607	0.1214	0.2732
	1.0	6.3	1.498	0.4494	
	1.0	0.2	1.512	0.3024	
	1.0	<0.2			

Time	Temperature (°C)	pH	Specific Conductance (us/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1458	28.6	8.57	823	7.40	N
1501	28.8	8.60	823	7.30	N
1503	28.8	8.60	824	7.27	Y

Conditions Key:
 Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
 Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud
 Weather: W-X-T
 W-0-T sunny
 W-1-T few clouds
 W-2-T cloudy
 W-3-T raining
 Wind - Y, N
Comments:

W-X-0 = < 30° F
 W-X-1 = 30-40° F
 W-X-2 = 40-50° F
 W-X-3 = 50-60° F
 W-X-4 = 60-70° F
 W-X-5 = 70-80° F
 W-X-6 = 80-90° F
 W-X-7 = 90-100° F
 W-X-8 = > 100° F

Site: gswd-13
 Date: 8/13/2020

Conditions: N-2-7
 Weather 2 Flow 2 Visuals 2

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1423	1.0	0.2	1.472	0.295	6.5125
	1.0	0.3	1.191	0.3573	
	1.0	<0.2			
	1.0	0.2	1.450	0.29	
	1.0	0.3	2.816	0.8448	
	1.0	0.3	2.912	0.8736	
	1.0	0.4	3.217	1.2868	
	1.0	0.4	3.758	1.5032	
	1.0	0.3	2.586	0.7758	
	1.0	0.3	2.420	0.726	
	1.0	0.2	1.067	0.4134	

Total width of creek Sum of segment's widths

Time	Temperature (°C)	pH	Specific Conductance (us/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1423	29.3	8.38	666	6.79	N
1425	29.2	8.38	665	6.74	N
1429	29.1	8.34	664	6.71	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
 Visuals : 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy; can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud
 Weather: W-X-T sunny W-0-T cloudy W-2-T rainy W-3-T raining
 Wind - Y, N
 Comments:

W-X-3 = 50-60° F
 W-X-4 = 60-70° F
 W-X-5 = 70-80° F
 W-X-6 = 80-90° F
 W-X-7 = 90-100° F
 W-X-8 = > 100° F

Page 1 of 1

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek

Date of Field Calibration: 8/13/2020

Project Number:

11889

Field Location: Yucaipa area, CA

Field Crew:

Madelive Blue

Weather Conditions: Windy

Parameter Sensor:

Instr. Type: YSI

Model: 556

Signature: *MB*

Temp (using thermometer):

Temp (using meter):

Parameters / Field Measurements						General Description of Standards	
	pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (uS/cm)	Percent Error	
Standard Solution Values	1	4.0			78.3	1413	calibration solution, supplier, exp. Date
	2	7.0					
	3	10.0					
Pre-calibration Readings for Each Standard	1	3.96			717.9	1478	
	2	7.03					
	3	10.22					
Post-calibration Readings for Each Standard	1						
	2						
	3						

Site: gvwd-4

Date: 8/27/2020

Weather Flow Visuals

Conditions: N-0-7 1.2 2

Total width of creek ~~7.6~~ 6.6

Sum of segment's widths ~~7.6~~ 6.6

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.1	0.2	1.077	0.2369	11.9519
	1.1	0.2	2.144	4.7168	
	1.1	0.2	1.068	3.4496	
	1.1	0.2	0.870	1.914	
	1.1	0.2	0.437	0.9614	
	1.1	0.2	0.304	0.6732	
	7				

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1431	30.8	8.55	818	7.08	N
1436	30.8	8.55	819	7.02	N
1439	30.8	8.55	834	7.01	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gvwd- B
 Date: 8/27/2020

Weather Flow Visuals
 Conditions: N-0-7 2 2

Total width of creek 11

Sum of segment's widths 11

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	≤ 0.2	0	—	4.7969
	1.0	0.3	2.672	0.8016	
	1.0	0.4	2.048	0.8192	
	1.0	0.3	2.539	0.7617	
	1.0	0.2	2.456	0.4912	
	1.0	0.2	2.028	0.4056	
	1.0	0.2	2.171	0.4342	
	1.0	0.2	1.760	0.352	
	1.0	0.2	2.076	0.4152	
	1.0	0.2	1.088	0.2176	
	1.0	0.2	0.493	0.0986	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1511	31.0	8.45	427.4	6.95	N
1515	30.9	8.44	459.6	6.88	N
1518	30.9	8.44	428.7	6.82	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Clinical Lab of San Bernardino, Inc.

Chain of Custody

WO _____

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

Client		Destination Laboratory		Analysis Requested		Turn Around Time (TAT)	
Comments		Analysis Requested		Turn Around Time (TAT)			
Yucaipa Valley Water District 880 W. County Line Road Yucaipa, CA 92399 Client Contact: Ashley Gibson Phone No.: 909-560-1370 FAX No.: 909-795-0402 System No.: Project: Max Benefits - San Timoteo GMZ Sampled By: <i>Madeha Bue</i> Comments: Email results to: Lina Robert (lrobert@yvwd.dst.ca.us) and Steven Stuart (sstuart@dndek.com)		[X] Clinical Grand Terrace / ELAP 1088 [] Clinical Lompoc / ELAP 1678 [] Other:		Fluoride (EPA 300.0) Chloride (EPA 300.0) pH (SM 4500H+B) Specific Conductance (SM 2510B) Sulfate (EPA 300.0) Ca, Mg, K, Na (EPA 200.7) Alkalinity (inc. HCO3, CO3, and OH) Ammonia-N (EPA 350.1) Nitrite-N (EPA 300.0) Nitrate-N (EPA 300.0) Total Dissolved Solids (SM 2540C)	10 10 10		
Date		Sample Identification		Matrix		Container ID	
8/27	14:31	YVWD-A	3EA53	SW			
8/27	15:18	YVWD-B	3EA54	SW			
		YVWD-Z	3EA56	SW			
Matrix: DW - Drinking Water GW - Ground Water SW - Surface Water W - Water WW - Wastewater SWR - Stormwater Runoff S - Sludge O - Other Use for Bacteria Samples / Sample Type: 1-Routine 2-Repeat 3-Replacement 4-Special D-Distribution W-Well		Total Containers ChlorAC ZnC4H6O4 Na2SO3 NaOH HCl HNO3 C6H8O6 NH4Cl Na2S2O3 Unpreserved		Sample Type Matrix		No. of Preserved Cont.	
Relinquished By (Sign)		Print Name / Company		Date / Time		Received By (Sign)	
<i>Madeha Bue</i>		Madeha Bue		8/27 16:07			
(Lab Use Only) Lompoc Lab Receipt Temp.: _____ °C Shipped Via: [] Fed Ex [] Golden State Overnight [] UPS [] OnTrac [] USPS [] Other Condition: [] On Wet Ice [] On Blu Ice [] Intact [] Custody Seals Samples / COC Checked By: _____ Work Order Logged By: _____ Receipt Comments: _____ Clinical Lab Receipt Temp.: _____ °C							

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek

Date of Field Calibration: 8/27/2020

Project Number: 11889

Field Location: Yucaipa area, CA

Field Crew: Madeline Bhan

Weather Conditions:

Parameter Sensor:

Instr. Type: YSI

Signature: 

Model: 556

Temp (using thermometer): 24.2 Temp (using meter): 24.2

Parameters / Field Measurements

General Description of Standards

		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error				
Standard Solution Values	1	4.0		718.0		1413		calibration solution, supplier, exp. Date			
	2	7.0									
	3	10.0									
Pre-calibration Readings for Each Standard	1	4.07		716.1		1586					
	2	7.05									
	3	10.09									
Post-calibration Readings for Each Standard	1			718.1		1417					
	2										
	3										

Site: gvwd-A
 Date: 9/10/2020

Weather Flow Visuals
 Conditions: N-1-6 2 1

Total width of creek 6.0

Sum of segment's widths 6.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1315	1.0	<0.2			1.6365
	1.0	<0.2			
	1.0	0.2	1.184	0.2368	
	1.0	0.4	2.048	0.8192	
	1.0	0.3	1.585	0.4755	
	1.0	0.2	0.525	0.105	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1318	24.5	8.54	354.1	8.40	N
	24.5	8.28	456.2	8.18	N
	24.5	8.54	392.4	8.27	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: ground - B
 Date: 9/10/2020

Weather Flow Visuals
 Conditions: N-1-6 3 2

Total width of creek 4.0

Sum of segment's widths 4.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1241	1.0	0.5	2.048	1.024	5.8338
	1.0	0.4	3.393	1.3572	
	1.0	0.5	3.567	1.7835	
	1.0	0.5	2.599	1.2995	
		0.3	1.232	0.3696	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1241	25.4	8.48	532	7.90	N
	25.5	8.46	517	7.418	N
	25.4	8.46	502	7.81	Y

Conditions Key:
Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud
Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd- z
 Date: 9/10/2020

Weather: N-2-6 Flow: 2 Visuals: 2

Total width of creek 3.6

Sum of segment's widths 3.6

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1215	1.2	0.4	2.349	1.1275	2.3625
1217	1.2	0.3	2.884	1.03824	
1218	1.2	0.2	0.820	0.1968	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1215	28.0	8.36	633	7.44	
1217	28.0	8.33	632	7.30	

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: Moham Bhor
 Date of Field Calibration: 9/10/2020
 Field Location: Yucaipa area, CA
 Weather Conditions: 2Mokey
 Parameter Sensor: _____
 Instr. Type: YSI
 Model: 556
 Temp (using thermometer): 22.0 Temp (using meter): 22.3

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (uS/cm)	Percent Error
Standard Solution Values	1	4.6		717.3		1413	
	2	7.0					
	3	10.0					
Pre-calibration Readings for Each Standard	1	4.07		724.5		1343	
	2	7.03					
	3	10.05					
Post-calibration Readings for Each Standard	1			717.3		1408	
	2						
	3						

Site: A
 Date: 9-24-20

Conditions: 0 Weather 2 Flow 2 Visuals 2

Total width of creek _____

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1220	6	< 0.2	—		1.4577
1230	6	< 0.2	—		
1232	6	0.2	1.656	0.3312	
1233	6	0.3	1.736	0.5208	
1234	6	0.3	2.019	0.6057	
1235	6	< 0.2	—		

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1224	25.7	8.42	796	7.36	N
1234	25.7	8.42	796	7.25	N
1239	25.8	8.42	795	7.20	Y

Conditions Key:
Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud
Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: B

Date: 9/24/2020

Weather: 0 Flow: 2 Visuals: 2

Total width of creek _____

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1157	4 1.0	< 0.2			2.1191
1158	4 1.0	0.3	3.629	1.0887	
1200	4 1.0	0.4	2.576	1.0304	
1201	4 1.0	< 0.2			
1206					

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1200	25.8	8.28	522	7.08	N
1205	25.9	8.27	566	6.82	N
1210	26.0	8.27	573	6.83	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: Z

Date: 4-24-20

Weather _____ Flow _____ Visuals _____

Conditions: 0 2 1

Total width of creek 3'

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1121	β 1.0	0.2	1.090	0.218	0.3871
1129	β 1.0	0.2	0.727	0.1454	
1132	β 1.0	0.3	0.079	0.0237	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1112	28.0	8.34	602	6.75	N
1117	27.9	8.37	412.4	6.25	N
1122	28.0	8.33	409.5	6.43	Y*

Conditions Key:
Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud
Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

* Accidentally put a NO
 GP/MK

Site: Yvond-A
 Date: 9/28/20

Weather: N-0-7 Flow: 2 Visuals: 1

Total width of creek 3.0

Sum of segment's widths 3.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	0.752	0.1504	0.4228
	1.0	0.2	1.362	0.2724	
	1.0	<0.2			

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
2:49	27.2/27.2	8.36/8.57	814/843	7.00/7.15	N
2:51	27.2/27.2	8.39/8.56	819/846	6.94/7.06	N
2:53	27.2/27.1	8.39/8.56	821/845	6.90/7.12	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

* first numbers are newer probes - calibrated
 second numbers are other not calibrated today

Site: gweed-13

Date: 9/28/20

Weather: N-O-F Flow: 2 Visuals: 1

Total width of creek 2.5 + 1

Sum of segment's widths 3.5

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	0.629	0.1258	0.5768
	1.0	0.2	1.273	0.2546	
	0.5	0.2			
	1.0	0.2	0.982	0.1964	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1:57	28.9/28.9	8.30/8.45	564/693	6.52/6.64	N
1:59	28.9/28.9	8.31/8.48	504/687	6.56/6.44	N
2:01	28.9/28.9	8.30/8.47	570/687	6.41/6.36	Y
			690/700		

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gymcd-z

Date: 9/28/20

Weather Flow Visuals

Conditions: N-0-7 2 3

Total width of creek 4.0

Sum of segment's widths 4.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	<0.2			1.0394
	1.0	0.2	1.328	0.2656	
	1.0	0.2	1.904	0.3808	
	1.0	0.3	1.315	0.399	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1:29	31.3/31.3	8.24/8.44	753/754	5.99/6.26	N
1:33	31.3/31.3	8.31/8.47	741/738	6.24/6.17	N
1:35	31.4/31.4	8.30/8.44	746/779	5.96/4.13	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Clinical Lab of San Bernardino, Inc.

Chain of Custody

WO _____

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

Client		Yucaipa Valley Water District		Destination Laboratory		Analysis Requested		Turn Around Time (TAT)	
Address:		880 W. County Line Road		[X] Clinical Grand Terrace / ELAP 1088		Fluoride (EPA 300.0)		10	
		Yucaipa, CA 92399		[] Clinical Lompoc / ELAP 1678		Chloride (EPA 300.0)		10	
Client Contact:		Ashley Gibson		[] Other:		pH (SM 4500H+B)		10	
Phone No.:		909-560-1370		No. of Preserved Cont.		Specific Conductance (SM 2510B)			
FAX No.:		909-795-0402		ChlorAC		Sulfate (EPA 300.0)			
System No.:		C Madeline Bl		ZnC4H6O4		Ca, Mg, K, Na (EPA 200.7)			
Project:		Max Benefits - San Timoteo GMZ		Na2SO3		Alkalinity (inc. HCO3, CO3, and OH)			
Sampled By:		CA		NaOH		Ammonia-N (EPA 350.1)			
Comments:				HCl		Nitrite-N (EPA 300.0)			
Email results to: Lina Robert (lrobert@yvw.district.ca.us) and Steven Stuart (sstuart@dudek.com)				HNO3		Nitrate-N (EPA 300.0)			
				C6H8O6		Total Dissolved Solids (SM 2540C)			
				NH4Cl		Total Containers			
				Na2S2O3		ChlorAC			
				Unpreserved		ZnC4H6O4			
				Sample Type		Na2SO3			
				Matrix		NaOH			
				Container ID		HCl			
				Date		HNO3			
				Time		C6H8O6			
				Sample Identification		NH4Cl			
				Date		Na2S2O3			
				Time		Unpreserved			
				Sample Identification		Sample Type			
				Date		Matrix			
				Time		Container ID			
				Sample Identification		Date			
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FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: Madeline Bur
 Date of Field Calibration: 9/28/2020
 Field Location: Yucaipa area, CA
 Weather Conditions: Sunny
 Parameter Sensor:
 Instr. Type: YSI
 Model: 556
 Signature: M

Temp (using thermometer): 23.8 Temp (using meter): 24.1

		Parameters / Field Measurements				General Description of Standards		
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (uS/cm)	Percent Error	calibration solution, supplier, exp. Date
Standard Solution Values	1	4.0		77.9		1413		
	2	7.0						
	3	10.0						
Pre-calibration Readings for Each Standard	1	3.83		75.2		1425		
	2	6.93						
	3	10.10						
Post-calibration Readings for Each Standard	1			77.9				
	2							
	3							

Site: gvwd-A
 Date: 10/7/2020

Weather: N-0-6 Flow: 2 Visuals: 2
 Conditions: N-0-6 2 2

Total width of creek 4.0

Sum of segment's widths 4.0

1442

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1442	1.0	0.2	0.323	0.0646	0.8446
1444	1.0	0.2	1.443	0.2886	
1445	1.0	0.2	1.417	0.2834	
1445	1.0	0.2	1.040	0.208	

1442
1444

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1442	24.3	8.45	801	7.47	N
1443	24.3	8.48	800	7.43	N
1445	24.3	8.48	7.90	7.35	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
 Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud
 Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd-B

Date: 10/7/2020

Weather Flow Visuals

Conditions: N-0-6 3 2

Total width of creek _____

Sum of segment's widths 6.3

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1417	1.0	0.3	1.718	0.5154	3.63767
1418	1.0	0.3	1.280	0.384	
1419	1.0	0.3	1.183	0.3549	
1420	1.1	0.2	1.273	0.28006	
1421	1.1	0.3	1.943	0.64086	
1422	1.1	0.5	2.659	1.46245	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1415	25.7	8.1	680	7.48	
1417	25.7	8.4	674	7.24	
1419	25.8	8.4	681	7.10	

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd-2
 Date: 10/07/2020

Weather: Y-0-6 Flow: 2 Visuals: 2
 Conditions: Y-0-6 2 2

Total width of creek _____ Sum of segment's widths 3.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1345		0.2			0.6876
1348		0.2	1.410	0.282	
1349		0.2	2.028	0.4056	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1345	29.2	8.04	580750	6.41	N
1347	29.2	8.46	730	6.53	N
1350	29.2	8.46	746	6.61	Y
1					

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Clinical Lab of San Bernardino, Inc.

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

WO _____

Client Yucaipa Valley Water District 880 W. County Line Road Yucaipa, CA 92399 Client Contact: Ashley Gibson Phone No.: 909-560-1370 FAX No.: 909-795-0402 System No.: Project: Max Benefits - San Timoteo GMZ Sampled By: <i>Madebre Ben</i> Comments: Email results to: Lina Robert (lrobert@yvw.d.dst.ca.us) and Steven Stuart (sstuart@dudek.com)		Destination Laboratory <input checked="" type="checkbox"/> Clinical Grand Terrace / ELAP 1088 <input type="checkbox"/> Clinical Lompoc / ELAP 1678 <input type="checkbox"/> Other:		Analysis Requested Fluoride (EPA 300.0) <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Chloride (EPA 300.0) <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> pH (SM 4500H+B) <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Specific Conductance (SM 2510B) <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Sulfate (EPA 300.0) <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Ca, Mg, K, Na (EPA 200.7) <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Alkalinity (inc. HCO3, CO3, and OH) <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Ammonia-N (EPA 350.1) <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Nitrite-N (EPA 300.0) <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Nitrate-N (EPA 300.0) <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> Total Dissolved Solids (SM 2540C) <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>										Turn Around Time (TAT) 10 10 10									
Container ID YVWD-A 3EA53 YVWD-B 3EA54 YVWD-Z 3EA56		Matrix SW SW SW		Sample Type Unpreserved Na2S2O3 NH4Cl C6H8O6 HNO3 HCl NaOH Na2SO3 ZnC4H6O4 ChlorAC		No. of Preserved Cont.		Total Containers		Comments		Received By (Sign) <i>Madebre Ben</i>		Date / Time 10/7/20 1445 10/7/20 1449 10/7/20 1308		Print Name / Company Madebre Ben / YVWD		Received By (Sign) _____		Date / Time 10/7/20 1532		Print Name / Company _____	
Matrix: DW - Drinking Water GW - Ground Water SW - Surface Water W - Water WW - Wastewater SWR - Stormwater Funoff S - Sludge O - Other Use for Bacteria Samples / Sample Type: 1-Routine 2-Repeat 3-Replacement 4-Special D-Distribution W-Well																							
Relinquished By (Sign) _____																							
Receipt Comments: (Lab Use Only) Lompoc Lab Receipt Temp.: _____ °C Shipped Via: <input type="checkbox"/> Fed Ex <input type="checkbox"/> Golden State Overnight <input type="checkbox"/> UPS <input type="checkbox"/> OnTrac <input type="checkbox"/> USPS <input type="checkbox"/> Other Condition: <input type="checkbox"/> On Wet Ice <input type="checkbox"/> On Blu Ice <input type="checkbox"/> Intact <input type="checkbox"/> Custody Seals Samples / COC Checked By: _____ Work Order Logged By: _____ Clinical Lab Receipt Temp.: _____ °C																							

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek Date of Field Calibration: 10/7/2020
 Project Number: 11889 Field Location: Yucaipa area, CA
 Field Crew: Madeline Pina Weather Conditions: Sunny
 Signature: [Signature] Parameter Sensor: _____
 Instr. Type: YSI
 Model: 556 Temp (using thermometer): 22.09 Temp (using meter): 23.3

		Parameters / Field Measurements				General Description of Standards		
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error	calibration solution, supplier, exp. Date
Standard Solution Values	1	4.0		77.9		1413		
	2	7.0						
	3	10.0						
Pre-calibration Readings for Each Standard	1	3.83		77.0		1437		
	2	6.91						
	3	10.11						
Post-calibration Readings for Each Standard	1	4.04		77.9				
	2	7.03						
	3	10.09						

Site: gvwd-A

Date: 10/22/2020

Weather X-0-5 Flow 2 Visuals 1

Total width of creek 4.0

Sum of segment's widths 4.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1534	1	0.2	0.730	0.146	1.1524
	1	0.3	0.968	0.2604	
	1	0.3	2.114	0.6342	
	1	0.2	0.554	0.1118	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1533	20.4	8.45	797	8.33	N
1538	20.4	8.46	791	8.47 7.87	N
1542	20.4	8.46	790	7.91	Y

*Missed

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: Yound - B
 Date: 10/22/20

Weather: Y-0-5 Flow: 2-3 Visuals: 2
 Conditions: Y-0-5 2-3 2

Total width of creek: 9.4 Sum of segment's widths: 11.6

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1448	1.2	0.2	0.544	0.13152	4.517
	1.2	0.3	0.691	0.24516	
	1	0.2	1.362	0.2724	
	1	0.4	1.876	0.7504	
	1	0.5	2.134	1.067	
	1	0.4	1.782	0.7128	
	1	0.2	0.885	0.1766	
	1	0.2	0.546	0.1092	
	1	0.2	—	—	
				0.21752	
1501	1.2	0.3	0.492	0.20448	
1503	1.2	0.4	1.530	0.7344	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1448	23.7	8.40	641	7.76	N
1453	23.6	8.39	524	7.36	N
1457	23.7	8.39	635	7.23	X

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: ground-Z

Date: 10/22/20

Weather Flow Visuals

Conditions: Y-0-5 2-3 2

Total width of creek 6.0

Sum of segment's widths 6.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1422	1.0	0.2	0.820	0.1640	3.4208
1422	1.0	0.2	1.424	0.2848	
1423	1.0	0.4	3.074	1.2296	
1423	1.0	0.4	3.740	1.496	
1424	1.0	0.2	1.232	0.2464	
1425	1.0	0.2			

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1422	26.2	8.34	636	5.75	N
1425	26.2	8.35	684	4.58	N
1424	26.2	8.30	715	5.95	X

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name:

Yucaipa Valley Water District - San Timoteo Creek

Date of Field Calibration:

10/22/00

Project Number:

11889

Field Location:

Yucaipa area, CA

Field Crew:

Mabelle Bala

Weather Conditions:

Cloudy

Parameter Sensor:

Instr. Type: YSI

Signature:



Model: 556

22.8

Temp (using thermometer): 22.8

Temp (using meter): 22.8

		Parameters / Field Measurements				General Description of Standards		
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error	
Standard Solution Values	1	4.0		718.8		1413		calibration solution, supplier, exp. Date
	2	7.0						
	3	10.0						
Pre-calibration Readings for Each Standard	1	3.97		716.5		1427		
	2	7.02						
	3	10.09						
Post-calibration Readings for Each Standard	1			718.8				
	2							
	3							

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek

Date of Field Calibration: 11/4/2020

Project Number: 11889

Field Location: Yucaipa area, CA

Field Crew: Madeline Blum

Weather Conditions: cloudy

Parameter Sensor: _____

Instr. Type: YSI

Model: 556

Temp (using thermometer): _____

Temp (using meter): _____

Signature: 

Parameters / Field Measurements						General Description of Standards	
	pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error	
Standard Solution Values							
1	4.0		717.0		1413		
2	7.0						
3	10.0						
Pre-calibration Readings for Each Standard							
1	4.02		717.1		1401		
2	7.04						
3	10.11						
Post-calibration Readings for Each Standard							
1							
2							
3							

Site: gvwd-A
 Date: 11/4/20

Weather: N-2-6 Flow: 2 Visuals: 1
 Conditions: _____

Total width of creek _____ Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1439		0.2	0.637	0.1274	0.9412
1440		0.3	1.178	0.3534	
1441		0.2	1.703	0.3406	
1442		0.2	0.599	0.1198	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1439	19.6	8.40	595	8.06	N
1441	19.6	8.41	589	8.06	N
1443	19.6	8.40	589	8.02	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gvwd-B
 Date: 11/4/2020

Weather: N-1-6 Flow: 2 Visuals: 2

Total width of creek _____ Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1410	0.6	0.2	0.835	0.1002	6.0488
1413	1.0	0.2	0.866	0.1732	
1414	1.0	0.2	1.178	0.2356	
1416	1.0	0.4	3.249	1.2996	
1416	1.0	0.3	3.662	1.0986	
1417	1.0	0.4	3.169	1.2676	
	1.0	0.4	2.706	1.0824	
	1.0	0.2	1.751	0.3502	
	1.0	0.2	0.752	0.1504	
	1.0	0.2	0.559	0.1118	
	1.0	0.2	0.890	0.1792	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1410	22.2 °C	8.34	562	7.74	N
1412	22.3	8.36	541	7.5	N
1414	22.3	8.34	538	7.45	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: gvwd-2

Date: 11/9/2020

Weather N-2-3 Flow 3 Visuals 3

Total width of creek _____

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1537	17.0	8.46	523.6	10.73	N
1539	17.0	8.39	524.4	9.40	N
1541	17.0	8.40	526.7	9.20	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: grwd-E

Date: 11/9/2020

Weather: N-2-3 Flow: 3 Visuals: 3

Total width of creek _____

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1611	16.7	7.93	224.5	5.55	N
1613	16.6	8.50	283.5	7.60	N
1615	16.6	8.52	282.4	7.41	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd-2

Date: 11/19/20

Weather: N-0-5 Flow: 3 Visuals: 3

Total width of creek _____

Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1355					

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1355	20.2	8.37	469.9	9.36	N
1400	20.1	8.42	456.7	8.25	N
1404	20.1	8.45	391.4	8.20	X


Conditions Key:


Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces
 3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: Madeline Bha
 Signature: 

Date of Field Calibration: 11/19/20
 Field Location: Yucaipa area, CA
 Weather Conditions: Clear
 Parameter Sensor:
 Instr. Type: YSI
 Model: 556
 Signature: 

Temp (using thermometer): Temp (using meter):

		Parameters / Field Measurements				General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error
Standard Solution Values	1	4.0		717.5		1413	
	2	7.0					
	3	10.0					
Pre-calibration Readings for Each Standard	1	4.07		718.6		1712	
	2	7.08					
	3	10.14					
Post-calibration Readings for Each Standard	1					1415	
	2						
	3						

Site: yvwd-A

Date: 12/3/20

Weather Flow Visuals

Conditions: N-0-4 2 1

Total width of creek 4.0

Sum of segment's widths 4.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	1.172	0.2344	1.7893
	1.0	0.3	2.672	0.8016	
	1.0	0.3	1.885	0.5655	
	1.0	0.2	0.939	0.1878	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1512	11.9	8.37	645	10.3	N
1514	11.8	8.39	644	9.78	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T

W-0-T sunny

W-2-T cloudy

W-X-0 = < 30° F

W-X-3 = 50-60° F

W-X-6 = 80-90° F

Wind - Y, N

W-1-T few clouds

W-3-T raining

W-X-1 = 30-40° F

W-X-4 = 60-70° F

W-X-7 = 90-100° F

Comments:

W-X-2 = 40-50° F

W-X-5 = 70-80° F

W-X-8 = > 100° F

Site: uvud - B

Weather Flow Visuals

Date: 12/3/20

Conditions: N-0-4

Total width of creek 8.0

Sum of segment's widths 8.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.2	0.832	0.1664	3.1101
	1.0	0.3	2.372	0.7116	
	1.0	0.3	2.439	0.7317	
	1.0	0.3	2.420	0.726	
	1.0	0.2	0.534	0.1068	
	1.0	0.2	0.674	0.1348	
	1.0	0.2	0.996	0.1992	
	1.0	0.2	1.668	0.3336	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1444	16.3	8.22	571	9.39	N
1446	16.3	8.2	571	8.54	N
1449	16.2	8.2	572	8.37	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd-2

Weather Flow Visuals

Date: 12/3/20

Conditions: N-0-4

Total width of creek 5.0

Sum of segment's widths 5.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
	1.0	0.3	1.030	0.309	4.8364
	1.0	0.5	2.586	1.293	
	1.0	0.5	2.960	1.48	
	1.0	0.5	3.012	1.506	
	1.0	0.3	0.828	0.2484	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1416	16.6	8.27	561	9.96	N
1419	16.6	8.37	516	9.11	N
1421	16.6	8.39	488	8.97	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Clinical Lab of San Bernardino, Inc.

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

WO _____

Chain of Custody

Client Yucaipa Valley Water District 880 W. County Line Road Yucaipa, CA 92399 Client Contact: Ashley Gibson Phone No.: 909-560-1370 FAX No.: 909-795-0402 System No.: Project: Max Benefits - San Timoteo GMZ Sampled By: <i>Madeleine Blum</i> Comments: Email results to: Lina Robert (lrobert@yvwd.dst.ca.us) and Steven Stuart (sstuart@dudek.com)		Destination Laboratory <input checked="" type="checkbox"/> Clinical Grand Terrace / ELAP 1088 <input type="checkbox"/> Clinical Lompoc / ELAP 1678 <input type="checkbox"/> Other:		Analysis Requested Fluoride (EPA 300.0) Chloride (EPA 300.0) pH (SM 4500H+B) Specific Conductance (SM 2510B) Sulfate (EPA 300.0) Ca, Mg, K, Na (EPA 200.7) Alkalinity (inc. HCO3, CO3, and OH) Ammonia-N (EPA 350.1) Nitrite-N (EPA 300.0) Nitrate-N (EPA 300.0) Total Dissolved Solids (SM 2540C)		Turn Around Time (TAT) 10 10 10	
Container ID YVWD-A 3EA53 YVWD-B 3EA54 YVWD-Z 3EA56		Sample Identification Date: 12/13 1514 12/13 1449 12/13 1421		Matrix SW SW SW		Sample Type Unpreserved Preserved	
No. of Preserved Cont. ChlorAC ZnC4H6O4 Na2SO3 NaOH HCl HNO3 C6H8O6 NH4Cl Na2S2O3		Matrix SW SW SW		Sample Type Unpreserved Preserved		Analysis Requested Fluoride (EPA 300.0) Chloride (EPA 300.0) pH (SM 4500H+B) Specific Conductance (SM 2510B) Sulfate (EPA 300.0) Ca, Mg, K, Na (EPA 200.7) Alkalinity (inc. HCO3, CO3, and OH) Ammonia-N (EPA 350.1) Nitrite-N (EPA 300.0) Nitrate-N (EPA 300.0) Total Dissolved Solids (SM 2540C)	
Matrix: DW - Drinking Water GW - Ground Water SW - Surface Water W - Water WW - Wastewater SWR - Stormwater Runoff S - Sludge O - Other Use for Bacteria Samples / Sample Type: 1-Routine 2-Repeat 3-Replacement 4-Special D-Distribution W-Well		Relinquished By (Sign) <i>Madeleine Blum</i>		Print Name / Company Madeleine Blum YVWD		Date / Time 12/13/2015 1555	
Received By (Sign) _____		Print Name / Company _____		Date / Time _____		TAT: (10) Ten Day (5) Five Day Rush (2) Two Day Rush	
(Lab Use Only) Lompoc Lab Receipt Temp.: _____ °C Shipped Via: <input type="checkbox"/> Fed Ex <input type="checkbox"/> Golden State Overnight <input type="checkbox"/> UPS <input type="checkbox"/> OnTrac <input type="checkbox"/> USPS <input type="checkbox"/> Other Condition: <input type="checkbox"/> On Wet Ice <input type="checkbox"/> On Blu Ice <input type="checkbox"/> Intact <input type="checkbox"/> Custody Seals Samples / COC Checked By: _____ Receipt Comments: _____		Work Order Logged By: _____ Clinical Lab Receipt Temp.: _____ °C		Comments		Turn Around Time (TAT)	

FIELD CALIBRATION RECORD

Project Name:

Yucaipa Valley Water District - San Timoteo Creek

Date of Field Calibration:

12/3/20

Project Number:

11889

Field Location:

Yucaipa area, CA

Field Crew:

Made live thru

Weather Conditions:

Sunny, cool

Parameter Sensor:

Instr. Type: YSI

Signature:



Model: 556

Temp (using thermometer): 20.8 Temp (using meter): 20.9

Parameters / Field Measurements

General Description of Standards

	pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error	General Description of Standards
Standard Solution Values	1	4.0	718.5		1413		
	2	7.0					
	3	10.0					
Pre-calibration Readings for Each Standard	1	4.05	7216		1410		
	2	7.08					
	3	10.09					
Post-calibration Readings for Each Standard	1		718.5				
	2						
	3						

Site: yvwd-A

Date: 12/17/20

Weather: N-2-4 Flow: 2 Visuals: 2

Total width of creek 4.6

Sum of segment's widths 4.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1525	1.0	0.3	0.445	0.1335	1.94706
1526	1.0	0.3	1.136	0.3408	
1527	1.0	0.3	2.002	0.8406	
1527	1.0	0.3	1.608	0.4824	
1528	0.6	0.2	1.249	0.14976	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1525	12.7	8.35	482.3	6.32	N
1530	12.7	8.37	630.5	4.34	N
1535	12.7	8.36	630.6	4.43	Y
				4.52	

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow. ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: g vwd-B

Date: 12/17/20

Weather Flow Visuals

Conditions: N-2-4 3 1

Total width of creek 8.0

Sum of segment's widths 8.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1502	1.0	0.2	0.632	0.1264	4.1058
1502	1.0	0.2	1.362	0.2724	
1503	1.0	0.2	1.904	0.5076	
1504	1.0	0.2	2.539	0.3808	
1505	1.0	0.3	2.646	0.7938	
1505	1.0	0.3	3.026	0.9078	
1506	1.0	0.3	1.790	0.537	
1507	1.0	0.4	1.450	0.580	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1502	15.9	8.17	577.0	3.97	N
1507	15.5	8.10	567.8	4.03	N
1512	15.4	8.21	550.9	4.11	Y

Conditions Key:

Flow Description : 1 - low; insufficient depth 2 - low-mod; just sufficient for flow. ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

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Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: yvwd-2

Date: 12/17/20

Weather Flow Visuals

Conditions: N-2-4 3 3

Total width of creek 7.2

Sum of segment's widths 7.2

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1420	1.0	0.2	0.493	0.0986	4.2805
1428	1.0	0.2	2.432	0.4864	
1429	1.0	0.3	2.707	0.8121	
1430	1.0	0.3	2.432	0.7296	
1431	1.0	0.3	2.672	0.8016	
1432	1.1	0.3	2.707	0.89331	
1433	1.1	0.2	2.096	0.4589	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1426	16.7	8.98	712.5	2.81	N
1433	15.5	8.36	422.8	3.52	N
1438	15.4	8.27	423.6	3.52	Y
			596		

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft

3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

3 - turbid; cloudy, can't see bottom, debris 4 - very turbid; lots of debris 5 - chunky mud

Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Project Number: 11889
 Field Crew: *Mohamed Bkr*
 Date of Field Calibration: *12/17/2010*
 Field Location: Yucaipa area, CA
 Weather Conditions: *Sunny, cold*
 Parameter Sensor:
 Instr. Type: YSI
 Model: 556
 Signature: *[Signature]*

Temp (using thermometer): _____ Temp (using meter): _____

		Parameters / Field Measurements					General Description of Standards	
		pH	Percent Error	Dissolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error	
Standard Solution Values	1	4.0		717.3		1015		calibration solution, supplier, exp. Date
	2	7.0						
	3	10.0						
Pre-calibration Readings for Each Standard	1	4.04		712.1		1030		
	2	7.06						
	3	10.10						
Post-calibration Readings for Each Standard	1			717.4		1015		
	2							
	3							

Site: ymwd-A
 Date: 12/29/20

Weather: N-1-4 Flow: 3 Visuals: 3
 Conditions: N-1-4 3 3

Total width of creek 7.4 Sum of segment's widths 7.4

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1045 1050	1.0	0.3	1.695	0.5085	9.7579 1.8918
1051	1.0	0.4	2.528	1.0112	
1053	1.0	0.5	3.153	1.5765	
1055	1.0	0.5	3.615	1.8075	
1057	1.0	0.5	3.280	1.64	
1058	1.2	0.5	3.153	1.8918	
1100	1.2	0.4	2.755	1.3724	

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1046	10.1	8.34	464	12.96	N
1047	10.2	8.11	464	11.59	N
1050	10.2	8.19	445	11.34	N
1052	10.3	8.17	452	11.19	N
1054	10.3	8.18	450	10.82	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow
 Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

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 Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Site: Yvond-B

Date: 12/29/20

Weather Flow Visuals

Conditions: N-1-4 4 3

Total width of creek 20.0

Sum of segment's widths 20.0

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1135		0.2	0.987	0.1974	
1135		0.4	2.456	0.9824	
1136		0.4	3.376	1.3504	
1137		0.4	4.093	1.6372	
1138		0.4	3.921	1.5684	
1139		0.4	4.257	1.7028	
1140		0.4	4.017	1.6068	
1140		0.4	3.217	1.2868	
1141		0.3	2.397	0.7191	
1142		0.2	2.273 ^{2.313}	0.4626	
1142		0.2	1.914	0.3828	
1142		< 0.2			

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1134	13.6	8.22	452	9.26	N
1136	13.5	8.23	453	9.04	N
1138	13.6	8.22	427	9.60	N
1140	13.7	8.23	427	9.9	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

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Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
 Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

1142 < 0.2

1143 0.2 1.718 0.3436

1144 0.2 2.160 0.432

1144 < 0.2

1146 0.2 1.483 0.2966

1147 0.2 1.465 0.293

1148 0.2 1.491 0.2982

1149 0.2 0.287 0.1762

Site: ground-Z

Weather Flow Visuals

Date: 12/29/20

Conditions: 1 1 1

Total width of creek 12.2

Sum of segment's widths 12.2

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s
1216	1.0	0.7	1.971	1.3797	13.88472
1218	1.0	0.7	3.006	2.1042	
1219	1.0	0.6	2.979	1.7874	
1220	1.0	0.4	2.728	1.0912	
1221	1.0	0.5	3.006	1.503	
1222	1.0	0.6	2.768	1.6608	
1222	1.0	0.5	2.444	1.222	
1223	1.0	0.5	2.240 2.240	1.12	
1224	1.0	0.4	2.802	1.1208	
1224	1.0	0.3	2.255	0.6765	
1224	1.2	0.2	0.913	0.21912	
1225	1.0	<0.2			

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
1210	14.3	8.16	428	10.71	N
1212	14.2	8.17	333 ³	10.46	N
1215	14.2	8.19	369	10.17	N
1217	14.3	8.20	367	10.03	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

Visuals: 1 - clear; can see substrate 2 - slightly turbid; no large pieces

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Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F

Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F

Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

FIELD CALIBRATION RECORD

Project Name: Yucaipa Valley Water District - San Timoteo Creek
 Date of Field Calibration: _____
 Project Number: 11889
 Field Location: Yucaipa area, CA
 Field Crew: *Mabelle Baker*
 Weather Conditions: *Sunny some clouds*
 Parameter Sensor: _____
 Instr. Type: YSI
 Model: 556
 Signature: _____
 Temp (using thermometer): _____ Temp (using meter): _____

		Parameters / Field Measurements					General Description of Standards	
		Percent Error	Disolved Oxygen - Atmospheric Pressure (mmHg)	Percent Error	Specific Conductance (µS/cm)	Percent Error		
Standard Solution Values	1		78.2		1015		DO and barometer calibrated on 12/23, new DO membrane	
	2							
	3							
Pre-calibration Readings for Each Standard	1		78.2		1053			
	2							
	3							
Post-calibration Readings for Each Standard	1				1015			
	2							
	3							

Storm Event

Site: yvwd - Z
 Date: 12/30/20

Weather Flow Visuals
 Conditions: N-0-4 4 3

Total width of creek _____ Sum of segment's widths _____

Time	Width (feet) of segment (w)	Depth (feet) (d)	Velocity in ft/s (v)	Flow in ft ³ /s (w x d x v)	Total Flow Through Creek in ft ³ /s

Time	Temperature (°C)	pH	Specific Conductance (uS/cm)	Dissolved Oxygen (mg/L)	Sample Collected (Y/N)
9:12	8.9	8.37	550.7	12.64	N
9:14	9.0	8.42	550.3	12.24	N
9:16	9.0	8.33	549.8	12.21	Y

Conditions Key:

Flow Description: 1 - low; insufficient depth 2 - low-mod; just sufficient for flow, ~0.2 ft
 3 - moderate; good flow, good depth 4 - mod-high; 1/2 ft across, fast 5 - high; 1 foot across, fast flow

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Weather: W-X-T W-0-T sunny W-2-T cloudy W-X-0 = < 30° F W-X-3 = 50-60° F W-X-6 = 80-90° F
 Wind - Y, N W-1-T few clouds W-3-T raining W-X-1 = 30-40° F W-X-4 = 60-70° F W-X-7 = 90-100° F
Comments: W-X-2 = 40-50° F W-X-5 = 70-80° F W-X-8 = > 100° F

Clinical Lab of San Bernardino, Inc.

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

Chain of Custody

WO _____

Client		Destination Laboratory		Analysis Requested											Turn Around Time (TAT)																																																																																	
Yucaipa Valley Water District 880 W. County Line Road Yucaipa, CA 92399 Ashley Gibson 909-560-1370 FAX No.: 909-795-0402		[X] Clinical Grand Terrace / ELAP 1088 [] Clinical Lompoc / ELAP 1678 [] Other:		<table border="1"> <thead> <tr> <th colspan="11">No. of Preserved Cont.</th> <th colspan="1">Total Containers</th> </tr> <tr> <th>ChlorAC</th> <th>ZnC4H6O4</th> <th>Na2SO3</th> <th>NaOH</th> <th>HCl</th> <th>HNO3</th> <th>C6H8O6</th> <th>NH4Cl</th> <th>Na2S2O3</th> <th>Unpreserved</th> <th>Sample Type</th> <th>Matrix</th> <th>Container ID</th> </tr> </thead> <tbody> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td> <td>SW</td> <td>SW</td> <td>SW</td> <td>SW</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td> <td>SW</td> <td>SW</td> <td>SW</td> <td>SW</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td> <td>SW</td> <td>SW</td> <td>SW</td> <td>SW</td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>X</td> <td>SW</td> <td>SW</td> <td>SW</td> <td>SW</td> </tr> </tbody> </table>											No. of Preserved Cont.											Total Containers	ChlorAC	ZnC4H6O4	Na2SO3	NaOH	HCl	HNO3	C6H8O6	NH4Cl	Na2S2O3	Unpreserved	Sample Type	Matrix	Container ID										X	SW	SW	SW	SW										X	SW	SW	SW	SW										X	SW	SW	SW	SW										X	SW	SW	SW	SW	10 10 10 10
No. of Preserved Cont.											Total Containers																																																																																					
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Ashley Gibson		Michele B...		X																																																																																												
Phone No.:		System No.:		Chloride (EPA 300.0)																																																																																												
909-560-1370		909-795-0402		X																																																																																												
System No.:		Project:		pH (SM 4500H+B)																																																																																												
		Max Benefits - San Timoteo GMZ		X																																																																																												
Sampled By:		Comments:		Specific Conductance (SM 2510B)																																																																																												
Michele B...		Email results to: Lina Robert (lrobert@yvwd.dst.ca.us) and Steven Stuart (sstuart@dudek.com)		X																																																																																												
Date		Time		Sample Identification		Sulfate (EPA 300.0)																																																																																										
				YVWD-A 3EA53		X																																																																																										
				YVWD-B 3EA54		X																																																																																										
				YVWD-Z 3EA56		X																																																																																										
				YVWD-E		X																																																																																										
Date		Time		Sample Identification		Ca, Mg, K, Na (EPA 200.7)																																																																																										
						X																																																																																										
Date		Time		Sample Identification		Alkalinity (inc. HCO3, CO3, and OH)																																																																																										
						X																																																																																										
Date		Time		Sample Identification		Ammonia-N (EPA 350.1)																																																																																										
						X																																																																																										
Date		Time		Sample Identification		Nitrite-N (EPA 300.0)																																																																																										
						X																																																																																										
Date		Time		Sample Identification		Nitrate-N (EPA 300.0)																																																																																										
						X																																																																																										
Date		Time		Sample Identification		Total Dissolved Solids (SM 2540C)																																																																																										
						X																																																																																										

Matrix: DW - Drinking Water GW - Ground Water SW - Surface Water W - Water WW - Wastewater SWR - Stormwater Runoff S - Sludge O - Other
 Use for Bacteria Samples / Sample Type: 1-Routine 2-Repeat 3-Replacement 4-Special D-Distribution W-Well

TAT: (10) Ten Day (5) Five Day Rush (2) Two Day Rush

Relinquished By (Sign)	Print Name / Company	Date / Time	Received By (Sign)	Print Name / Company
<i>Math Kaker</i>	Math Kaker / YVWD	12/30/2010 1032		

(Lab Use Only) Lompoc Lab Receipt Temp.: _____ °C
 Shipped Via: [] Fed Ex [] Golden State Overnight [] UPS [] OnTrac [] USPS [] Other
 Condition: [] On Wet Ice [] On Blu Ice [] Intact [] Custody Seals Samples / COC Checked By: _____ Work Order Logged By: _____
 Receipt Comments: _____ Clinical Lab Receipt Temp.: _____ °C

APPENDIX E

**Analytical Laboratory Reports for Surface Water Samples
Collected in the San Timoteo Groundwater Management Zone
in 2020**

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20A0166
Received: 01/03/20 12:20
Reported: 01/16/20

YVWD-A **20A0166-01 (Water)** **Sample Date:** 01/02/20 11:00 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	270	mg/L	5.0		01/06/20	01/06/20	2001037	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	01/15/20	01/15/20	2003059	
Bicarbonate (HCO3)	SM 2320 B	330	mg/L	5.0		01/06/20	01/06/20	2001037	
Carbonate (CO3)	SM 2320B	0.96	mg/L	5.0		01/06/20	01/06/20	2001037	J
Chloride (Cl)	EPA 300.0	80	mg/L	1.0	0.075	01/03/20	01/03/20	2001038	
Specific Conductance (E.C.)	SM 2510B	820	umhos/cm	2.0	0.20	01/03/20	01/03/20	2001037	
Fluoride (F)	EPA 300.0	0.52	mg/L	0.10	0.026	01/03/20	01/03/20	2001038	
Hardness, Total (as CaCO3)	Calculated	280	mg/L	33		01/13/20	01/14/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		01/06/20	01/06/20	2001037	
Inorganic Nitrogen	Calculated	2.9	mg/L	1.3		01/15/20	01/15/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	2.9	mg/L	0.40	0.12	01/03/20	01/03/20	2001038	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	01/03/20	01/03/20	2001038	
pH (Lab)	SM 4500HB	8.3	pH Units			01/03/20	01/03/20	2001037	
Sulfate (SO4)	EPA 300.0	36	mg/L	0.50	0.14	01/03/20	01/03/20	2001038	
Total Filterable Residue/TDS	SM 2540C	480	mg/L	5.0	3.1	01/03/20	01/07/20	2001046	

Metals

Calcium (Ca)	EPA 200.7	74	mg/L	5.0	0.40	01/13/20	01/14/20	2003021	
Magnesium (Mg)	EPA 200.7	22	mg/L	5.0	2.6	01/13/20	01/14/20	2003021	
Potassium (K)	EPA 200.7	12	mg/L	5.0	0.90	01/13/20	01/14/20	2003021	
Sodium (Na)	EPA 200.7	110	mg/L	5.0	1.1	01/13/20	01/14/20	2003021	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20A0166
Received: 01/03/20 12:20
Reported: 01/16/20

YVWD-B **20A0166-02 (Water)** **Sample Date:** 01/02/20 11:04 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	230	mg/L	5.0		01/06/20	01/06/20	2001037	
Ammonia as N (NH3-N)	EPA 350.1	0.18	mg/L	0.50	0.15	01/15/20	01/15/20	2003059	J
Bicarbonate (HCO3)	SM 2320 B	280	mg/L	5.0		01/06/20	01/06/20	2001037	
Carbonate (CO3)	SM 2320B	1.9	mg/L	5.0		01/06/20	01/06/20	2001037	J
Chloride (Cl)	EPA 300.0	64	mg/L	1.0	0.075	01/03/20	01/03/20	2001038	
Specific Conductance (E.C.)	SM 2510B	700	umhos/cm	2.0	0.20	01/03/20	01/03/20	2001037	
Fluoride (F)	EPA 300.0	0.45	mg/L	0.10	0.026	01/03/20	01/03/20	2001038	
Hardness, Total (as CaCO3)	Calculated	240	mg/L	6.6		01/13/20	01/14/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		01/06/20	01/06/20	2001037	
Inorganic Nitrogen	Calculated	2.4	mg/L	1.3		01/15/20	01/15/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	2.3	mg/L	0.40	0.12	01/03/20	01/03/20	2001038	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	01/03/20	01/03/20	2001038	
pH (Lab)	SM 4500HB	8.3	pH Units			01/03/20	01/03/20	2001037	
Sulfate (SO4)	EPA 300.0	33	mg/L	0.50	0.14	01/03/20	01/03/20	2001038	
Total Filterable Residue/TDS	SM 2540C	410	mg/L	5.0	3.1	01/03/20	01/07/20	2001046	

Metals

Calcium (Ca)	EPA 200.7	63	mg/L	1.0	0.080	01/13/20	01/14/20	2003021	
Magnesium (Mg)	EPA 200.7	21	mg/L	1.0	0.51	01/13/20	01/14/20	2003021	
Potassium (K)	EPA 200.7	11	mg/L	1.0	0.18	01/13/20	01/14/20	2003021	
Sodium (Na)	EPA 200.7	90	mg/L	1.0	0.21	01/13/20	01/14/20	2003021	

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Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20A0166
Received: 01/03/20 12:20
Reported: 01/16/20

YVWD-Z **20A0166-03 (Water)** **Sample Date:** 01/02/20 10:30 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
General Chemical Analyses									
Alkalinity, Total (as CaCO3)	SM 2320 B	280	mg/L	5.0		01/06/20	01/06/20	2001037	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	01/15/20	01/15/20	2003059	
Bicarbonate (HCO3)	SM 2320 B	340	mg/L	5.0		01/06/20	01/06/20	2001037	
Carbonate (CO3)	SM 2320B	2.9	mg/L	5.0		01/06/20	01/06/20	2001037	J
Chloride (Cl)	EPA 300.0	71	mg/L	1.0	0.075	01/03/20	01/03/20	2001038	
Specific Conductance (E.C.)	SM 2510B	760	umhos/cm	2.0	0.20	01/03/20	01/03/20	2001037	
Fluoride (F)	EPA 300.0	0.51	mg/L	0.10	0.026	01/03/20	01/03/20	2001038	
Hardness, Total (as CaCO3)	Calculated	340	mg/L	33		01/13/20	01/14/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		01/06/20	01/06/20	2001037	
Inorganic Nitrogen	Calculated	1.7	mg/L	1.3		01/15/20	01/15/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.7	mg/L	0.40	0.12	01/03/20	01/03/20	2001038	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	01/03/20	01/03/20	2001038	
pH (Lab)	SM 4500HB	8.4	pH Units			01/03/20	01/03/20	2001037	
Sulfate (SO4)	EPA 300.0	35	mg/L	0.50	0.14	01/03/20	01/03/20	2001038	
Total Filterable Residue/TDS	SM 2540C	440	mg/L	5.0	3.1	01/03/20	01/07/20	2001046	
Metals									
Calcium (Ca)	EPA 200.7	83	mg/L	5.0	0.40	01/13/20	01/14/20	2003021	
Magnesium (Mg)	EPA 200.7	32	mg/L	5.0	2.6	01/13/20	01/14/20	2003021	
Potassium (K)	EPA 200.7	13	mg/L	5.0	0.90	01/13/20	01/14/20	2003021	
Sodium (Na)	EPA 200.7	92	mg/L	5.0	1.1	01/13/20	01/14/20	2003021	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20A1234

Received: 01/16/20 09:10

Reported: 01/27/20

YVWD-B **20A1234-02 (Water)** **Sample Date:** 01/15/20 11:50 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	240	mg/L	5.0		01/20/20	01/20/20	2003100	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	01/22/20	01/23/20	2004070	
Bicarbonate (HCO3)	SM 2320 B	280	mg/L	5.0		01/20/20	01/20/20	2003100	
Carbonate (CO3)	SM 2320B	2.4	mg/L	5.0		01/20/20	01/20/20	2003100	J
Chloride (Cl)	EPA 300.0	68	mg/L	1.0	0.075	01/16/20	01/16/20	2003104	
Specific Conductance (E.C.)	SM 2510B	720	umhos/cm	2.0	0.20	01/20/20	01/20/20	2003100	
Fluoride (F)	EPA 300.0	0.36	mg/L	0.10	0.026	01/16/20	01/16/20	2003104	
Hardness, Total (as CaCO3)	Calculated	280	mg/L	6.6		01/23/20	01/23/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		01/20/20	01/20/20	2003100	
Inorganic Nitrogen	Calculated	2.2	mg/L	1.3		01/22/20	01/23/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	2.2	mg/L	0.40	0.12	01/16/20	01/16/20	2003104	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	01/16/20	01/16/20	2003104	
pH (Lab)	SM 4500HB	8.3	pH Units			01/16/20	01/16/20	2003100	
Sulfate (SO4)	EPA 300.0	35	mg/L	0.50	0.14	01/16/20	01/16/20	2003104	
Total Filterable Residue/TDS	SM 2540C	440	mg/L	5.0	3.1	01/16/20	01/17/20	2003107	

Metals

Calcium (Ca)	EPA 200.7	73	mg/L	1.0	0.080	01/23/20	01/23/20	2004100	
Magnesium (Mg)	EPA 200.7	24	mg/L	1.0	0.51	01/23/20	01/23/20	2004100	
Potassium (K)	EPA 200.7	12	mg/L	1.0	0.18	01/23/20	01/23/20	2004100	
Sodium (Na)	EPA 200.7	98	mg/L	1.0	0.21	01/23/20	01/23/20	2004100	

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Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20A1234
Received: 01/16/20 09:10
Reported: 01/27/20

YVWD-Z **20A1234-03 (Water)** **Sample Date:** 01/15/20 11:16 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	250	mg/L	5.0		01/20/20	01/20/20	2003100	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	01/22/20	01/23/20	2004070	
Bicarbonate (HCO3)	SM 2320 B	300	mg/L	5.0		01/20/20	01/20/20	2003100	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		01/20/20	01/20/20	2003100	
Chloride (Cl)	EPA 300.0	70	mg/L	1.0	0.075	01/16/20	01/16/20	2003104	
Specific Conductance (E.C.)	SM 2510B	720	umhos/cm	2.0	0.20	01/20/20	01/20/20	2003100	
Fluoride (F)	EPA 300.0	0.37	mg/L	0.10	0.026	01/16/20	01/16/20	2003104	
Hardness, Total (as CaCO3)	Calculated	270	mg/L	6.6		01/23/20	01/23/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		01/20/20	01/20/20	2003100	
Inorganic Nitrogen	Calculated	1.8	mg/L	1.3		01/22/20	01/23/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.8	mg/L	0.40	0.12	01/16/20	01/16/20	2003104	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	01/16/20	01/16/20	2003104	
pH (Lab)	SM 4500HB	8.3	pH Units			01/16/20	01/16/20	2003100	
Sulfate (SO4)	EPA 300.0	35	mg/L	0.50	0.14	01/16/20	01/16/20	2003104	
Total Filterable Residue/TDS	SM 2540C	430	mg/L	5.0	3.1	01/17/20	01/22/20	2003129	

Metals

Calcium (Ca)	EPA 200.7	68	mg/L	1.0	0.080	01/23/20	01/23/20	2004100	
Magnesium (Mg)	EPA 200.7	23	mg/L	1.0	0.51	01/23/20	01/23/20	2004100	
Potassium (K)	EPA 200.7	11	mg/L	1.0	0.18	01/23/20	01/23/20	2004100	
Sodium (Na)	EPA 200.7	93	mg/L	1.0	0.21	01/23/20	01/23/20	2004100	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20A2349

Received: 01/30/20 09:00

Reported: 02/11/20

YVWD-A **20A2349-01 (Water)** **Sample Date:** 01/29/20 11:26 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	290	mg/L	5.0		02/04/20	02/04/20	2005112	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	02/04/20	02/04/20	2006024	
Bicarbonate (HCO3)	SM 2320 B	340	mg/L	5.0		02/04/20	02/04/20	2005112	
Carbonate (CO3)	SM 2320B	5.8	mg/L	5.0		02/04/20	02/04/20	2005112	
Chloride (Cl)	EPA 300.0	83	mg/L	1.0	0.075	01/30/20	01/30/20	2005097	
Specific Conductance (E.C.)	SM 2510B	830	umhos/cm	2.0	0.20	01/30/20	01/30/20	2005112	
Fluoride (F)	EPA 300.0	0.42	mg/L	0.10	0.026	01/30/20	01/30/20	2005097	
Hardness, Total (as CaCO3)	Calculated	260	mg/L	6.6		02/10/20	02/10/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		02/04/20	02/04/20	2005112	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		02/04/20	02/04/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.1	mg/L	0.40	0.12	01/30/20	01/30/20	2005097	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	01/30/20	01/30/20	2005097	
pH (Lab)	SM 4500HB	8.4	pH Units			01/30/20	01/30/20	2005112	
Sulfate (SO4)	EPA 300.0	37	mg/L	0.50	0.14	01/30/20	01/30/20	2005097	
Total Filterable Residue/TDS	SM 2540C	480	mg/L	5.0	3.1	02/03/20	02/04/20	2006004	

Metals

Calcium (Ca)	EPA 200.7	70	mg/L	1.0	0.080	02/10/20	02/10/20	2007013	
Magnesium (Mg)	EPA 200.7	21	mg/L	1.0	0.51	02/10/20	02/10/20	2007013	
Potassium (K)	EPA 200.7	12	mg/L	1.0	0.18	02/10/20	02/10/20	2007013	
Sodium (Na)	EPA 200.7	110	mg/L	5.0	1.1	02/10/20	02/10/20	2007013	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

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Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20A2349
Received: 01/30/20 09:00
Reported: 02/11/20

YVWD-B **20A2349-02 (Water)** **Sample Date:** 01/29/20 10:57 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	240	mg/L	5.0		02/04/20	02/04/20	2005112	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	02/04/20	02/04/20	2006024	
Bicarbonate (HCO3)	SM 2320 B	290	mg/L	5.0		02/04/20	02/04/20	2005112	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		02/04/20	02/04/20	2005112	
Chloride (Cl)	EPA 300.0	70	mg/L	1.0	0.075	01/30/20	01/30/20	2005097	
Specific Conductance (E.C.)	SM 2510B	720	umhos/cm	2.0	0.20	01/30/20	01/30/20	2005112	
Fluoride (F)	EPA 300.0	0.38	mg/L	0.10	0.026	01/30/20	01/30/20	2005097	
Hardness, Total (as CaCO3)	Calculated	230	mg/L	6.6		02/10/20	02/10/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		02/04/20	02/04/20	2005112	
Inorganic Nitrogen	Calculated	2.0	mg/L	1.3		02/04/20	02/04/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	2.0	mg/L	0.40	0.12	01/30/20	01/30/20	2005097	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	01/30/20	01/30/20	2005097	
pH (Lab)	SM 4500HB	8.3	pH Units			01/30/20	01/30/20	2005112	
Sulfate (SO4)	EPA 300.0	35	mg/L	0.50	0.14	01/30/20	01/30/20	2005097	
Total Filterable Residue/TDS	SM 2540C	430	mg/L	5.0	3.1	02/03/20	02/04/20	2006004	

Metals

Calcium (Ca)	EPA 200.7	61	mg/L	1.0	0.080	02/10/20	02/10/20	2007013	
Magnesium (Mg)	EPA 200.7	18	mg/L	1.0	0.51	02/10/20	02/10/20	2007013	
Potassium (K)	EPA 200.7	11	mg/L	1.0	0.18	02/10/20	02/10/20	2007013	
Sodium (Na)	EPA 200.7	89	mg/L	1.0	0.21	02/10/20	02/10/20	2007013	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20A2349

Received: 01/30/20 09:00

Reported: 02/11/20

YVWD-Z **20A2349-03 (Water)** **Sample Date:** 01/29/20 10:27 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
General Chemical Analyses									
Alkalinity, Total (as CaCO3)	SM 2320 B	260	mg/L	5.0		02/04/20	02/04/20	2005112	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	02/04/20	02/04/20	2006024	
Bicarbonate (HCO3)	SM 2320 B	310	mg/L	5.0		02/04/20	02/04/20	2005112	
Carbonate (CO3)	SM 2320B	1.9	mg/L	5.0		02/04/20	02/04/20	2005112	J
Chloride (Cl)	EPA 300.0	74	mg/L	1.0	0.075	01/30/20	01/30/20	2005097	
Specific Conductance (E.C.)	SM 2510B	760	umhos/cm	2.0	0.20	01/30/20	01/30/20	2005112	
Fluoride (F)	EPA 300.0	0.41	mg/L	0.10	0.026	01/30/20	01/30/20	2005097	
Hardness, Total (as CaCO3)	Calculated	270	mg/L	6.6		02/10/20	02/10/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		02/04/20	02/04/20	2005112	
Inorganic Nitrogen	Calculated	1.7	mg/L	1.3		02/04/20	02/04/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.7	mg/L	0.40	0.12	01/30/20	01/30/20	2005097	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	01/30/20	01/30/20	2005097	
pH (Lab)	SM 4500HB	8.4	pH Units			01/30/20	01/30/20	2005112	
Sulfate (SO4)	EPA 300.0	36	mg/L	0.50	0.14	01/30/20	01/30/20	2005097	
Total Filterable Residue/TDS	SM 2540C	440	mg/L	5.0	3.1	02/03/20	02/04/20	2006004	
Metals									
Calcium (Ca)	EPA 200.7	71	mg/L	1.0	0.080	02/10/20	02/10/20	2007013	
Magnesium (Mg)	EPA 200.7	23	mg/L	1.0	0.51	02/10/20	02/10/20	2007013	
Potassium (K)	EPA 200.7	11	mg/L	1.0	0.18	02/10/20	02/10/20	2007013	
Sodium (Na)	EPA 200.7	93	mg/L	1.0	0.21	02/10/20	02/10/20	2007013	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Lab of San Bernardino, Inc.

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

Chain of Custody

WO 20A2349

Client		Yucaipa Valley Water District		Destination Laboratory		[X] Clinical Grand Terrace / ELAP 1088		Analysis Requested		Turn Around Time (TAT)	
Address:		880 W. County Line Road		[] Clinical Lompoc / ELAP 1678		[] Other:		Fluoride (EPA 300.0)		10	
Client Contact:		Yucaipa, CA 92399		No. of Preserved Cont.		Total Containers		Chloride (EPA 300.0)		10	
Phone No.:		Ashley Gibson		ChlorAC		ChlorAC		pH (SM 4500H+B)		10	
System No.:		909-560-1370 FAX No.: 909-795-0402		Na2SO3		Na2SO3		Specific Conductance (SM 2510B)		10	
Project:		Max Benefits - San Timoteo GMIZ		NaOH		NaOH		Sulfate (EPA 300.0)			
Sampled By:		Madelaine Blevins		HCl		HCl		Ca, Mg, K, Na (EPA 200.7)			
Comments:				HNO3		HNO3		Alkalinity (inc. HCO3, CO3, and OH)			
Email results to:		Lina Robert (lrobert@yvw.dst.ca.us) and Steven Stuart (sstuart@dudek.com)		C6H8O6		C6H8O6		Ammonia-N (EPA 350.1)			
Date		Time		NH4Cl		NH4Cl		Nitrite-N (EPA 300.0)			
1/29/20		11:26		Na2S2O3		Na2S2O3		Nitrate-N (EPA 300.0)			
1/29/20		10:57		Unpreserved		Unpreserved		Total Dissolved Solids (SM 2540C)			
1/29/20		10:27		Sample Type		Sample Type					
				Matrix		Matrix					
				Container ID		Container ID					
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Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20B1179

Received: 02/14/20 11:30

Reported: 02/25/20

YVWD-A **20B1179-01 (Water)** **Sample Date:** 02/13/20 12:04 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	280	mg/L	5.0		02/18/20	02/18/20	2007153	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	02/19/20	02/19/20	2008030	
Bicarbonate (HCO3)	SM 2320 B	340	mg/L	5.0		02/18/20	02/18/20	2007153	
Carbonate (CO3)	SM 2320B	4.3	mg/L	5.0		02/18/20	02/18/20	2007153	J
Chloride (Cl)	EPA 300.0	84	mg/L	1.0	0.075	02/14/20	02/14/20	2007150	
Specific Conductance (E.C.)	SM 2510B	830	umhos/cm	2.0	0.20	02/18/20	02/18/20	2007153	
Fluoride (F)	EPA 300.0	0.55	mg/L	0.10	0.026	02/14/20	02/14/20	2007150	
Hardness, Total (as CaCO3)	Calculated	240	mg/L	6.6		02/19/20	02/19/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		02/18/20	02/18/20	2007153	
Inorganic Nitrogen	Calculated	1.8	mg/L	1.3		02/19/20	02/19/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.8	mg/L	0.40	0.12	02/14/20	02/14/20	2007150	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	02/14/20	02/14/20	2007150	
pH (Lab)	SM 4500HB	8.4	pH Units			02/14/20	02/14/20	2007153	
Sulfate (SO4)	EPA 300.0	36	mg/L	0.50	0.14	02/14/20	02/14/20	2007150	
Total Filterable Residue/TDS	SM 2540C	480	mg/L	5.0	3.1	02/17/20	02/18/20	2008020	

Metals

Calcium (Ca)	EPA 200.7	64	mg/L	1.0	0.080	02/19/20	02/19/20	2008069	
Magnesium (Mg)	EPA 200.7	19	mg/L	1.0	0.51	02/19/20	02/19/20	2008069	
Potassium (K)	EPA 200.7	12	mg/L	1.0	0.18	02/19/20	02/19/20	2008069	
Sodium (Na)	EPA 200.7	93	mg/L	1.0	0.21	02/19/20	02/19/20	2008069	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20B1179

Received: 02/14/20 11:30

Reported: 02/25/20

YVWD-B **20B1179-02 (Water)** **Sample Date:** 02/13/20 11:39 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	270	mg/L	5.0		02/18/20	02/18/20	2007153	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	02/19/20	02/19/20	2008030	
Bicarbonate (HCO3)	SM 2320 B	330	mg/L	5.0		02/18/20	02/18/20	2007153	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		02/18/20	02/18/20	2007153	
Chloride (Cl)	EPA 300.0	80	mg/L	1.0	0.075	02/14/20	02/14/20	2007150	
Specific Conductance (E.C.)	SM 2510B	790	umhos/cm	2.0	0.20	02/18/20	02/18/20	2007153	
Fluoride (F)	EPA 300.0	0.55	mg/L	0.10	0.026	02/14/20	02/14/20	2007150	
Hardness, Total (as CaCO3)	Calculated	230	mg/L	6.6		02/19/20	02/19/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		02/18/20	02/18/20	2007153	
Inorganic Nitrogen	Calculated	1.5	mg/L	1.3		02/19/20	02/19/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.5	mg/L	0.40	0.12	02/14/20	02/14/20	2007150	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	02/14/20	02/14/20	2007150	
pH (Lab)	SM 4500HB	8.2	pH Units			02/14/20	02/14/20	2007153	
Sulfate (SO4)	EPA 300.0	36	mg/L	0.50	0.14	02/14/20	02/14/20	2007150	
Total Filterable Residue/TDS	SM 2540C	460	mg/L	5.0	3.1	02/17/20	02/18/20	2008020	

Metals

Calcium (Ca)	EPA 200.7	62	mg/L	1.0	0.080	02/19/20	02/19/20	2008069	
Magnesium (Mg)	EPA 200.7	18	mg/L	1.0	0.51	02/19/20	02/19/20	2008069	
Potassium (K)	EPA 200.7	9.5	mg/L	1.0	0.18	02/19/20	02/19/20	2008069	
Sodium (Na)	EPA 200.7	87	mg/L	1.0	0.21	02/19/20	02/19/20	2008069	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20B1179
Received: 02/14/20 11:30
Reported: 02/25/20

YVWD-Z **20B1179-03 (Water)** **Sample Date:** 02/13/20 10:53 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	360	mg/L	5.0		02/18/20	02/18/20	2007153	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	02/19/20	02/19/20	2008030	
Bicarbonate (HCO3)	SM 2320 B	430	mg/L	5.0		02/18/20	02/18/20	2007153	
Carbonate (CO3)	SM 2320B	2.9	mg/L	5.0		02/18/20	02/18/20	2007153	J
Chloride (Cl)	EPA 300.0	78	mg/L	1.0	0.075	02/14/20	02/14/20	2007150	
Specific Conductance (E.C.)	SM 2510B	790	umhos/cm	2.0	0.20	02/18/20	02/18/20	2007153	
Fluoride (F)	EPA 300.0	0.59	mg/L	0.10	0.026	02/14/20	02/14/20	2007150	
Hardness, Total (as CaCO3)	Calculated	480	mg/L	17		02/19/20	02/20/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		02/18/20	02/18/20	2007153	
Inorganic Nitrogen	Calculated	1.3	mg/L	1.3		02/19/20	02/19/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.3	mg/L	0.40	0.12	02/14/20	02/14/20	2007150	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	02/14/20	02/14/20	2007150	
pH (Lab)	SM 4500HB	8.4	pH Units			02/14/20	02/14/20	2007153	
Sulfate (SO4)	EPA 300.0	40	mg/L	0.50	0.14	02/14/20	02/14/20	2007150	
Total Filterable Residue/TDS	SM 2540C	460	mg/L	5.0	3.1	02/17/20	02/18/20	2008020	

Metals

Calcium (Ca)	EPA 200.7	110	mg/L	5.0	0.40	02/19/20	02/20/20	2008069	
Magnesium (Mg)	EPA 200.7	50	mg/L	1.0	0.51	02/19/20	02/19/20	2008069	
Potassium (K)	EPA 200.7	19	mg/L	1.0	0.18	02/19/20	02/19/20	2008069	
Sodium (Na)	EPA 200.7	93	mg/L	1.0	0.21	02/19/20	02/19/20	2008069	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20B1832
Received: 02/25/20 09:15
Reported: 03/06/20

YVWD-Z **20B1832-01 (Water)** **Sample Date:** 02/24/20 12:04 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	280	mg/L	5.0		02/28/20	02/28/20	2009036	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	03/02/20	03/03/20	2010022	
Bicarbonate (HCO3)	SM 2320 B	340	mg/L	5.0		02/28/20	02/28/20	2009036	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		02/28/20	02/28/20	2009036	
Chloride (Cl)	EPA 300.0	63	mg/L	1.0	0.075	02/25/20	02/25/20	2009041	
Specific Conductance (E.C.)	SM 2510B	690	umhos/cm	2.0	0.20	02/28/20	02/28/20	2009036	
Fluoride (F)	EPA 300.0	0.42	mg/L	0.10	0.026	02/25/20	02/25/20	2009041	
Hardness, Total (as CaCO3)	Calculated	660	mg/L	33		03/02/20	03/02/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		02/28/20	02/28/20	2009036	
Inorganic Nitrogen	Calculated	2.1	mg/L	1.3		03/02/20	03/03/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	2.1	mg/L	0.40	0.12	02/25/20	02/25/20	2009041	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	02/25/20	02/25/20	2009041	
pH (Lab)	SM 4500HB	8.2	pH Units			02/25/20	02/25/20	2009036	
Sulfate (SO4)	EPA 300.0	34	mg/L	0.50	0.14	02/25/20	02/25/20	2009041	
Total Filterable Residue/TDS	SM 2540C	420	mg/L	5.0	3.1	02/25/20	02/27/20	2009049	

Metals

Calcium (Ca)	EPA 200.7	140	mg/L	5.0	0.40	03/02/20	03/02/20	2010014	
Magnesium (Mg)	EPA 200.7	76	mg/L	5.0	2.6	03/02/20	03/02/20	2010014	
Potassium (K)	EPA 200.7	30	mg/L	1.0	0.18	03/02/20	03/02/20	2010014	
Sodium (Na)	EPA 200.7	83	mg/L	1.0	0.21	03/02/20	03/02/20	2010014	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20B1832

Received: 02/25/20 09:15

Reported: 03/06/20

YVWD-E **20B1832-02 (Water)** **Sample Date:** 02/24/20 12:36 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	220	mg/L	5.0		02/28/20	02/28/20	2009036	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	03/02/20	03/03/20	2010022	
Bicarbonate (HCO3)	SM 2320 B	200	mg/L	5.0		02/28/20	02/28/20	2009036	
Carbonate (CO3)	SM 2320B	33	mg/L	5.0		02/28/20	02/28/20	2009036	
Chloride (Cl)	EPA 300.0	58	mg/L	1.0	0.075	02/25/20	02/25/20	2009041	
Specific Conductance (E.C.)	SM 2510B	650	umhos/cm	2.0	0.20	02/28/20	02/28/20	2009036	
Fluoride (F)	EPA 300.0	0.56	mg/L	0.10	0.026	02/25/20	02/25/20	2009041	
Hardness, Total (as CaCO3)	Calculated	210	mg/L	6.6		03/02/20	03/02/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		02/28/20	02/28/20	2009036	
Inorganic Nitrogen	Calculated	1.5	mg/L	1.3		03/02/20	03/03/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.5	mg/L	0.40	0.12	02/25/20	02/25/20	2009041	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	02/25/20	02/25/20	2009041	
pH (Lab)	SM 4500HB	9.1	pH Units			02/25/20	02/25/20	2009036	
Sulfate (SO4)	EPA 300.0	36	mg/L	0.50	0.14	02/25/20	02/25/20	2009041	
Total Filterable Residue/TDS	SM 2540C	380	mg/L	5.0	3.1	02/25/20	02/27/20	2009049	

Metals

Calcium (Ca)	EPA 200.7	56	mg/L	1.0	0.080	03/02/20	03/02/20	2010014	
Magnesium (Mg)	EPA 200.7	16	mg/L	1.0	0.51	03/02/20	03/02/20	2010014	
Potassium (K)	EPA 200.7	7.8	mg/L	1.0	0.18	03/02/20	03/02/20	2010014	
Sodium (Na)	EPA 200.7	78	mg/L	1.0	0.21	03/02/20	03/02/20	2010014	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20B2206
Received: 02/28/20 12:45
Reported: 03/12/20

YVWD-B **20B2206-02 (Water)** **Sample Date:** 02/27/20 11:23 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	210	mg/L	5.0		03/02/20	03/02/20	2009132	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	03/02/20	03/03/20	2010022	
Bicarbonate (HCO3)	SM 2320 B	260	mg/L	5.0		03/02/20	03/02/20	2009132	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		03/02/20	03/02/20	2009132	
Chloride (Cl)	EPA 300.0	63	mg/L	1.0	0.075	02/28/20	02/28/20	2009137	
Specific Conductance (E.C.)	SM 2510B	690	umhos/cm	2.0	0.20	02/28/20	02/28/20	2009132	
Fluoride (F)	EPA 300.0	0.36	mg/L	0.10	0.026	02/28/20	02/28/20	2009137	
Hardness, Total (as CaCO3)	Calculated	180	mg/L	6.6		03/04/20	03/04/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		03/02/20	03/02/20	2009132	
Inorganic Nitrogen	Calculated	3.0	mg/L	1.3		03/02/20	03/03/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	3.0	mg/L	0.40	0.12	02/28/20	02/28/20	2009137	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	02/28/20	02/28/20	2009137	
pH (Lab)	SM 4500HB	8.3	pH Units			02/28/20	02/28/20	2009132	
Sulfate (SO4)	EPA 300.0	31	mg/L	0.50	0.14	02/28/20	02/28/20	2009137	
Total Filterable Residue/TDS	SM 2540C	480	mg/L	5.0	3.1	02/27/20	03/02/20	2009107	

Metals

Calcium (Ca)	EPA 200.7	48	mg/L	1.0	0.080	03/04/20	03/04/20	2010090	
Magnesium (Mg)	EPA 200.7	15	mg/L	1.0	0.51	03/04/20	03/04/20	2010090	
Potassium (K)	EPA 200.7	9.9	mg/L	1.0	0.18	03/04/20	03/04/20	2010090	
Sodium (Na)	EPA 200.7	83	mg/L	1.0	0.21	03/04/20	03/04/20	2010090	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20B2206

Received: 02/28/20 12:45

Reported: 03/12/20

YVWD-Z **20B2206-03 (Water)** **Sample Date:** 02/27/20 11:56 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	300	mg/L	5.0		03/02/20	03/02/20	2009132	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	03/02/20	03/03/20	2010022	
Bicarbonate (HCO3)	SM 2320 B	370	mg/L	5.0		03/02/20	03/02/20	2009132	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		03/02/20	03/02/20	2009132	
Chloride (Cl)	EPA 300.0	66	mg/L	1.0	0.075	02/28/20	02/28/20	2009137	
Specific Conductance (E.C.)	SM 2510B	710	umhos/cm	2.0	0.20	02/28/20	02/28/20	2009132	
Fluoride (F)	EPA 300.0	0.42	mg/L	0.10	0.026	02/28/20	02/28/20	2009137	
Hardness, Total (as CaCO3)	Calculated	500	mg/L	17		03/04/20	03/04/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		03/02/20	03/02/20	2009132	
Inorganic Nitrogen	Calculated	2.6	mg/L	1.3		03/02/20	03/03/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	2.6	mg/L	0.40	0.12	02/28/20	02/28/20	2009137	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	02/28/20	02/28/20	2009137	
pH (Lab)	SM 4500HB	8.2	pH Units			02/28/20	02/28/20	2009132	
Sulfate (SO4)	EPA 300.0	33	mg/L	0.50	0.14	02/28/20	02/28/20	2009137	
Total Filterable Residue/TDS	SM 2540C	440	mg/L	5.0	3.1	02/27/20	03/02/20	2009107	

Metals

Calcium (Ca)	EPA 200.7	140	mg/L	5.0	0.40	03/04/20	03/04/20	2010090	
Magnesium (Mg)	EPA 200.7	37	mg/L	1.0	0.51	03/04/20	03/04/20	2010090	
Potassium (K)	EPA 200.7	13	mg/L	1.0	0.18	03/04/20	03/04/20	2010090	
Sodium (Na)	EPA 200.7	92	mg/L	1.0	0.21	03/04/20	03/04/20	2010090	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20C1055
Received: 03/12/20 09:15
Reported: 03/24/20

YVWD-B **20C1055-02 (Water)** **Sample Date:** 03/11/20 15:17 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	200	mg/L	5.0		03/19/20	03/19/20	2011091	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	03/16/20	03/17/20	2012010	
Bicarbonate (HCO3)	SM 2320 B	250	mg/L	5.0		03/19/20	03/19/20	2011091	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		03/19/20	03/19/20	2011091	
Chloride (Cl)	EPA 300.0	58	mg/L	1.0	0.075	03/12/20	03/12/20	2011098	
Specific Conductance (E.C.)	SM 2510B	630	umhos/cm	2.0	0.20	03/19/20	03/19/20	2011091	
Fluoride (F)	EPA 300.0	0.34	mg/L	0.10	0.026	03/12/20	03/12/20	2011098	
Hardness, Total (as CaCO3)	Calculated	210	mg/L	6.6		03/19/20	03/19/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		03/19/20	03/19/20	2011091	
Inorganic Nitrogen	Calculated	1.9	mg/L	1.3		03/16/20	03/17/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.9	mg/L	0.40	0.12	03/12/20	03/12/20	2011098	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	03/12/20	03/12/20	2011098	
pH (Lab)	SM 4500HB	8.3	pH Units			03/12/20	03/12/20	2011091	
Sulfate (SO4)	EPA 300.0	31	mg/L	0.50	0.14	03/12/20	03/12/20	2011098	
Total Filterable Residue/TDS	SM 2540C	360	mg/L	5.0	3.1	03/12/20	03/18/20	2011110	

Metals

Calcium (Ca)	EPA 200.7	55	mg/L	1.0	0.080	03/19/20	03/19/20	2012115	
Magnesium (Mg)	EPA 200.7	18	mg/L	1.0	0.51	03/19/20	03/19/20	2012115	
Potassium (K)	EPA 200.7	9.8	mg/L	1.0	0.18	03/19/20	03/19/20	2012115	
Sodium (Na)	EPA 200.7	79	mg/L	1.0	0.21	03/19/20	03/19/20	2012115	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20C1055
Received: 03/12/20 09:15
Reported: 03/24/20

YVWD-Z **20C1055-03 (Water)** **Sample Date:** 03/11/20 15:47 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	240	mg/L	5.0		03/19/20	03/19/20	2011091	
Ammonia as N (NH3-N)	EPA 350.1	0.16	mg/L	0.50	0.15	03/16/20	03/17/20	2012010	J
Bicarbonate (HCO3)	SM 2320 B	290	mg/L	5.0		03/19/20	03/19/20	2011091	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		03/19/20	03/19/20	2011091	
Chloride (Cl)	EPA 300.0	59	mg/L	1.0	0.075	03/12/20	03/12/20	2011098	
Specific Conductance (E.C.)	SM 2510B	640	umhos/cm	2.0	0.20	03/19/20	03/19/20	2011091	
Fluoride (F)	EPA 300.0	0.39	mg/L	0.10	0.026	03/12/20	03/12/20	2011098	
Hardness, Total (as CaCO3)	Calculated	400	mg/L	6.6		03/19/20	03/19/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		03/19/20	03/19/20	2011091	
Inorganic Nitrogen	Calculated	1.8	mg/L	1.3		03/16/20	03/17/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.7	mg/L	0.40	0.12	03/12/20	03/12/20	2011098	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	03/12/20	03/12/20	2011098	
pH (Lab)	SM 4500HB	8.2	pH Units			03/12/20	03/12/20	2011091	
Sulfate (SO4)	EPA 300.0	33	mg/L	0.50	0.14	03/12/20	03/12/20	2011098	
Total Filterable Residue/TDS	SM 2540C	400	mg/L	5.0	3.1	03/12/20	03/18/20	2011110	

Metals

Calcium (Ca)	EPA 200.7	97	mg/L	1.0	0.080	03/19/20	03/19/20	2012115	
Magnesium (Mg)	EPA 200.7	37	mg/L	1.0	0.51	03/19/20	03/19/20	2012115	
Potassium (K)	EPA 200.7	15	mg/L	1.0	0.18	03/19/20	03/19/20	2012115	
Sodium (Na)	EPA 200.7	80	mg/L	1.0	0.21	03/19/20	03/19/20	2012115	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

2/16

WO 2001055

Clinical Lab of San Bernardino, Inc. Chain of Custody
 21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

Client		Destination Laboratory		Analysis Requested												Turn Around Time (TAT)																																																																													
Yucaipa Valley Water District 880 W. County Line Road Yucaipa, CA 92399		[X] Clinical Grand Terrace / ELAP 1088 [] Clinical Lompoc / ELAP 1678 [] Other:		<table border="1"> <thead> <tr> <th rowspan="2">Sample Type</th> <th colspan="12">No. of Preserved Cont.</th> </tr> <tr> <th>ChlorAC</th> <th>ZnC4H6O4</th> <th>Na2SO3</th> <th>NaOH</th> <th>HCl</th> <th>HNO3</th> <th>C6H8O6</th> <th>NH4Cl</th> <th>Na2S2O3</th> <th>Unpreserved</th> <th>Matrix</th> <th>Container ID</th> </tr> </thead> <tbody> <tr> <td>SW</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>SW</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>SW</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>												Sample Type	No. of Preserved Cont.												ChlorAC	ZnC4H6O4	Na2SO3	NaOH	HCl	HNO3	C6H8O6	NH4Cl	Na2S2O3	Unpreserved	Matrix	Container ID	SW														SW														SW														<table border="1"> <thead> <tr> <th>Received By (Sign)</th> <th>Date / Time</th> <th>Print Name / Company</th> </tr> </thead> <tbody> <tr> <td><i>[Signature]</i></td> <td>3/12/2020-840</td> <td>Max Benefits - San Timoteo GMZ</td> </tr> <tr> <td><i>[Signature]</i></td> <td>3/12/2020-915</td> <td>Max Benefits - San Timoteo GMZ</td> </tr> </tbody> </table>		Received By (Sign)	Date / Time	Print Name / Company	<i>[Signature]</i>	3/12/2020-840	Max Benefits - San Timoteo GMZ	<i>[Signature]</i>	3/12/2020-915	Max Benefits - San Timoteo GMZ
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Date	Time	Sample Identification												Comments																																																																															
2/11	1359	YVWD-A 3EA53												10																																																																															
2/11	1517	YVWD-B 3EA54												10																																																																															
2/11	1547	YVWD-Z 3EA56												10																																																																															
Matrix: DW - Drinking Water GW - Ground Water SW - Surface Water W - Water WW - Wastewater SWR - Stormwater Runoff S - Sludge O - Other				Use for Bacteria Samples / Sample Type: 1-Routine 2-Repeat 3-Replacement 4-Special D-Distribution W-Well												TAT: (10) Ten Day (5) Five Day Rush (2) Two Day Rush																																																																													
Relinquished By (Sign)		Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company																																																																															
<i>[Signature]</i>		Max Benefits - San Timoteo GMZ		3/12/2020-840		<i>[Signature]</i>		Max Benefits - San Timoteo GMZ		3/12/2020-915		<i>[Signature]</i>		Max Benefits - San Timoteo GMZ																																																																															
(Lab Use Only) Lompoc Lab Receipt Temp.: _____ °C				Shipped Via: [] Fed Ex [] Golden State Overnight [] UPS [] OnTrac [] USPS [] Other				Condition: [] On Wet Ice [] On Blu Ice [] Contact [] Custody Seals				Work Order Logged By: _____																																																																																	
Receipt Comments:				Clinical Lab Receipt Temp.: 2-3 °C																																																																																									

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20C1308

Received: 03/17/20 10:00

Reported: 03/25/20

YVWD-Z **20C1308-01 (Water)** **Sample Date:** 03/16/20 14:07 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	240	mg/L	5.0		03/20/20	03/20/20	2012041	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	03/23/20	03/23/20	2012117	
Bicarbonate (HCO3)	SM 2320 B	290	mg/L	5.0		03/20/20	03/20/20	2012041	
Carbonate (CO3)	SM 2320B	2.4	mg/L	5.0		03/20/20	03/20/20	2012041	J
Chloride (Cl)	EPA 300.0	63	mg/L	1.0	0.075	03/17/20	03/17/20	2012039	
Specific Conductance (E.C.)	SM 2510B	700	umhos/cm	2.0	0.20	03/17/20	03/17/20	2012041	
Fluoride (F)	EPA 300.0	0.39	mg/L	0.10	0.026	03/17/20	03/17/20	2012039	
Hardness, Total (as CaCO3)	Calculated	230	mg/L	6.6		03/19/20	03/19/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		03/20/20	03/20/20	2012041	
Inorganic Nitrogen	Calculated	1.6	mg/L	1.3		03/23/20	03/23/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.6	mg/L	0.40	0.12	03/17/20	03/17/20	2012039	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	03/17/20	03/17/20	2012039	
pH (Lab)	SM 4500HB	8.5	pH Units			03/17/20	03/17/20	2012041	
Sulfate (SO4)	EPA 300.0	40	mg/L	0.50	0.14	03/17/20	03/17/20	2012039	
Total Filterable Residue/TDS	SM 2540C	400	mg/L	5.0	3.1	03/18/20	03/19/20	2012056	

Metals

Calcium (Ca)	EPA 200.7	62	mg/L	1.0	0.080	03/19/20	03/19/20	2012115	
Magnesium (Mg)	EPA 200.7	18	mg/L	1.0	0.51	03/19/20	03/19/20	2012115	
Potassium (K)	EPA 200.7	7.4	mg/L	1.0	0.18	03/19/20	03/19/20	2012115	
Sodium (Na)	EPA 200.7	80	mg/L	1.0	0.21	03/19/20	03/19/20	2012115	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20C1308
Received: 03/17/20 10:00
Reported: 03/25/20

YVWD-E **20C1308-02 (Water)** **Sample Date:** 03/16/20 14:40 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	230	mg/L	5.0		03/20/20	03/20/20	2012041	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	03/23/20	03/23/20	2012117	
Bicarbonate (HCO3)	SM 2320 B	260	mg/L	5.0		03/20/20	03/20/20	2012041	
Carbonate (CO3)	SM 2320B	7.2	mg/L	5.0		03/20/20	03/20/20	2012041	
Chloride (Cl)	EPA 300.0	62	mg/L	1.0	0.075	03/17/20	03/17/20	2012039	
Specific Conductance (E.C.)	SM 2510B	690	umhos/cm	2.0	0.20	03/17/20	03/17/20	2012041	
Fluoride (F)	EPA 300.0	0.37	mg/L	0.10	0.026	03/17/20	03/17/20	2012039	
Hardness, Total (as CaCO3)	Calculated	240	mg/L	6.6		03/19/20	03/19/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		03/20/20	03/20/20	2012041	
Inorganic Nitrogen	Calculated	1.6	mg/L	1.3		03/23/20	03/23/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.6	mg/L	0.40	0.12	03/17/20	03/17/20	2012039	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	03/17/20	03/17/20	2012039	
pH (Lab)	SM 4500HB	8.7	pH Units			03/17/20	03/17/20	2012041	
Sulfate (SO4)	EPA 300.0	40	mg/L	0.50	0.14	03/17/20	03/17/20	2012039	
Total Filterable Residue/TDS	SM 2540C	390	mg/L	5.0	3.1	03/18/20	03/19/20	2012056	

Metals

Calcium (Ca)	EPA 200.7	65	mg/L	1.0	0.080	03/19/20	03/19/20	2012115	
Magnesium (Mg)	EPA 200.7	20	mg/L	1.0	0.51	03/19/20	03/19/20	2012115	
Potassium (K)	EPA 200.7	7.6	mg/L	1.0	0.18	03/19/20	03/19/20	2012115	
Sodium (Na)	EPA 200.7	78	mg/L	1.0	0.21	03/19/20	03/19/20	2012115	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20C2093

Received: 03/26/20 08:55

Reported: 04/06/20

YVWD-E **20C2093-04 (Water)** **Sample Date:** 03/25/20 11:40 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	220	mg/L	5.0		03/30/20	03/30/20	2013096	
Ammonia as N (NH3-N)	EPA 350.1	0.22	mg/L	0.50	0.15	03/26/20	03/27/20	2013112	J
Bicarbonate (HCO3)	SM 2320 B	240	mg/L	5.0		03/30/20	03/30/20	2013096	
Carbonate (CO3)	SM 2320B	14	mg/L	5.0		03/30/20	03/30/20	2013096	
Chloride (Cl)	EPA 300.0	58	mg/L	1.0	0.075	03/26/20	03/26/20	2013099	
Specific Conductance (E.C.)	SM 2510B	650	umhos/cm	2.0	0.20	03/30/20	03/30/20	2013096	
Fluoride (F)	EPA 300.0	0.33	mg/L	0.10	0.026	03/26/20	03/26/20	2013099	
Hardness, Total (as CaCO3)	Calculated	200	mg/L	6.6		03/31/20	03/31/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		03/30/20	03/30/20	2013096	
Inorganic Nitrogen	Calculated	1.8	mg/L	1.3		03/26/20	03/27/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.6	mg/L	0.40	0.12	03/26/20	03/26/20	2013099	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	03/26/20	03/26/20	2013099	
pH (Lab)	SM 4500HB	8.5	pH Units			03/26/20	03/26/20	2013096	
Sulfate (SO4)	EPA 300.0	38	mg/L	0.50	0.14	03/26/20	03/26/20	2013099	
Total Filterable Residue/TDS	SM 2540C	390	mg/L	5.0	3.1	03/27/20	04/01/20	2013138	

Metals

Calcium (Ca)	EPA 200.7	52	mg/L	1.0	0.080	03/31/20	03/31/20	2014047	
Magnesium (Mg)	EPA 200.7	16	mg/L	1.0	0.51	03/31/20	03/31/20	2014047	
Potassium (K)	EPA 200.7	6.3	mg/L	1.0	0.18	03/31/20	03/31/20	2014047	
Sodium (Na)	EPA 200.7	65	mg/L	1.0	0.21	03/31/20	03/31/20	2014047	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

0/0/17

WO 2002093

Clinical Lab of San Bernardino, Inc. Chain of Custody
 21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

Client		Destination Laboratory		Analysis Requested												Turn Around Time (TAT)																						
Yucaipa Valley Water District 880 W. County Line Road Yucaipa, CA 92399		[X] Clinical Grand Terrace / ELAP 1088 [] Clinical Lompoc / ELAP 1678 [] Other:		<table border="1"> <tr><th>Fluoride (EPA 300.0)</th><td></td></tr> <tr><th>Chloride (EPA 300.0)</th><td></td></tr> <tr><th>pH (SM 4500H+B)</th><td></td></tr> <tr><th>Specific Conductance (SM 2510B)</th><td></td></tr> <tr><th>Sulfate (EPA 300.0)</th><td></td></tr> <tr><th>Ca, Mg, K, Na (EPA 200.7)</th><td></td></tr> <tr><th>Alkalinity (inc. HCO3, CO3, and OH)</th><td></td></tr> <tr><th>Ammonia-N (EPA 350.1)</th><td></td></tr> <tr><th>Nitrite-N (EPA 300.0)</th><td></td></tr> <tr><th>Nitrate-N (EPA 300.0)</th><td></td></tr> <tr><th>Total Dissolved Solids (SM 2540C)</th><td></td></tr> </table>												Fluoride (EPA 300.0)		Chloride (EPA 300.0)		pH (SM 4500H+B)		Specific Conductance (SM 2510B)		Sulfate (EPA 300.0)		Ca, Mg, K, Na (EPA 200.7)		Alkalinity (inc. HCO3, CO3, and OH)		Ammonia-N (EPA 350.1)		Nitrite-N (EPA 300.0)		Nitrate-N (EPA 300.0)		Total Dissolved Solids (SM 2540C)		
Fluoride (EPA 300.0)																																						
Chloride (EPA 300.0)																																						
pH (SM 4500H+B)																																						
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Sulfate (EPA 300.0)																																						
Ca, Mg, K, Na (EPA 200.7)																																						
Alkalinity (inc. HCO3, CO3, and OH)																																						
Ammonia-N (EPA 350.1)																																						
Nitrite-N (EPA 300.0)																																						
Nitrate-N (EPA 300.0)																																						
Total Dissolved Solids (SM 2540C)																																						
System No.:		No. of Preserved Cont.		Matrix																																		
909-560-1370 FAX No.: 909-795-0402		Total Containers		SW																																		
Project: Max Benefits - San Timoteo GMZ		ChlorAC		X																																		
Sampled By: Maddie Bw		ZnC4H6O4		X																																		
Comments: Lina Robert (lrobert@yvwd.dst.ca.us) and Steven Stuart (sstuart@dudek.com)		Na2SO3		X																																		
Date		NaOH		X																																		
Time		HCl		X																																		
Sample Identification		HNO3		X																																		
3/25/20 9:25		C6H8O6		X																																		
10:25		NH4Cl		X																																		
11:01		Na2S2O3		X																																		
11:40		Unpreserved		X																																		
		Sample Type																																				
		Matrix																																				
		Container ID																																				
Matrix: DW - Drinking Water GW - Ground Water SW - Surface Water W - Water WW - Wastewater SWR - Stormwater Runoff S - Sludge O - Other				TAT: (10) Ten Day (5) Five Day Rush (2) Two Day Rush																																		
Use for Bacteria Samples / Sample Type: 1-Routine 2-Repeat 3-Replacement 4-Special D-Distribution W-Well																																						
Relinquished By (Sign)		Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company																														
<i>Maddie Bw</i>		Maddie Bw		3/25/20 12:21		<i>[Signature]</i>		Sasha/CSB																														
<i>[Signature]</i>		Sasha/CSB		3/26/20 8:20		<i>[Signature]</i>		Sasha/CSB																														
				3/26/20 8:55																																		
(Lab Use Only) Lompoc Lab Receipt Temp.: _____ °C Shipped Via: [] Fed Ex [] Golden State Overnight [] UPS [] OnTrac [] USPS [] Other Condition: [X] On Wet Ice [] On Blu Ice [X] Intact [] Custody Seals Samples / COC Checked By: _____ Work Order Logged By: _____ Receipt Comments: _____ Clinical Lab Receipt Temp.: 0.1 °C																																						

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20D0882

Received: 04/10/20 08:50

Reported: 04/22/20

YVWD-E **20D0882-04 (Water)** **Sample Date:** 04/09/20 13:55 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	180	mg/L	5.0		04/16/20	04/16/20	2015127	
Ammonia as N (NH3-N)	EPA 350.1	0.19	mg/L	0.50	0.15	04/15/20	04/16/20	2016084	J
Bicarbonate (HCO3)	SM 2320 B	210	mg/L	5.0		04/16/20	04/16/20	2015127	
Carbonate (CO3)	SM 2320B	4.3	mg/L	5.0		04/16/20	04/16/20	2015127	J
Chloride (Cl)	EPA 300.0	31	mg/L	1.0	0.075	04/10/20	04/10/20	2015145	
Specific Conductance (E.C.)	SM 2510B	450	umhos/cm	2.0	0.20	04/10/20	04/10/20	2015127	
Fluoride (F)	EPA 300.0	0.28	mg/L	0.10	0.026	04/10/20	04/10/20	2015145	
Hardness, Total (as CaCO3)	Calculated	280	mg/L	6.6		04/14/20	04/14/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		04/16/20	04/16/20	2015127	
Inorganic Nitrogen	Calculated	1.7	mg/L	1.3		04/15/20	04/16/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.5	mg/L	0.40	0.12	04/10/20	04/10/20	2015145	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	04/10/20	04/10/20	2015145	
pH (Lab)	SM 4500HB	8.5	pH Units			04/10/20	04/10/20	2015127	
Sulfate (SO4)	EPA 300.0	30	mg/L	0.50	0.14	04/10/20	04/10/20	2015145	
Total Filterable Residue/TDS	SM 2540C	290	mg/L	5.0	3.1	04/13/20	04/15/20	2016006	

Metals

Calcium (Ca)	EPA 200.7	69	mg/L	1.0	0.080	04/14/20	04/14/20	2016045	
Magnesium (Mg)	EPA 200.7	27	mg/L	1.0	0.51	04/14/20	04/14/20	2016045	
Potassium (K)	EPA 200.7	9.4	mg/L	1.0	0.18	04/14/20	04/14/20	2016045	
Sodium (Na)	EPA 200.7	49	mg/L	1.0	0.21	04/14/20	04/14/20	2016045	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

0/0/8

WO 200882

Clinical Lab of San Bernardino, Inc. Chain of Custody

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

Client		Destination Laboratory										Analysis Requested										Turn Around Time (TAT)
Yucaipa Valley Water District		[X] Clinical Grand Terrace / ELAP 1088 [] Clinical Lompoc / ELAP 1678 [] Other:										Fluoride (EPA 300.0) Chloride (EPA 300.0) pH (SM 4500H+B) Specific Conductance (SM 2510B) Sulfate (EPA 300.0) Ca, Mg, K, Na (EPA 200.7) Alkalinity (inc. HCO3, CO3, and OH) Ammonia-N (EPA 350.1) Nitrite-N (EPA 300.0) Nitrate-N (EPA 300.0) Total Dissolved Solids (SM 2540C)										
Address:		No. of Preserved Cont.		Sample Type		Matrix		Container ID		Sample Identification		Date / Time		Received By (Sign)		Date / Time		Print Name / Company				
880 W. County Line Road		ChlorAC		SW		SW		SW		SW		4/9/20 11:25		[Signature]		4/9/20 3:09		Madeline Pila				
Yucaipa, CA 92399		ZnC4H6O4		SW		SW		SW		SW		4/10/2020 - 8:30		[Signature]		4/10/2020 - 8:30		SAShenker B				
Ashley Gibson		Na2SO3		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
909-560-1370 FAX No.: 909-795-0402		NaOH		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
System No.:		HCl		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Project: Max Benefits - San Timoteo GMZ		HNO3		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Sampled By: Madeline Pila		C6H8O6		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Comments: Lina Robert (lrobert@ywwd.dst.ca.us) and Steven Stuart (sstuart@dndek.com)		NH4Cl		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Date		Na2S2O3		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Time		Unpreserved		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Sample Identification		Sample Type		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Date		Matrix		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Time		Container ID		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Sample Identification		Matrix		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Date		Container ID		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Time		Matrix		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Sample Identification		Container ID		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Date		Matrix		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Time		Container ID		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				
Sample Identification		Matrix		SW		SW		SW		SW		4/10/2020 - 8:50		[Signature]		4/10/2020 - 8:50		SAShenker B				

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20D1949

Received: 04/24/20 12:10

Reported: 05/06/20

YVWD-A **20D1949-01 (Water)** **Sample Date:** 04/23/20 11:50 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
General Chemical Analyses									
Alkalinity, Total (as CaCO3)	SM 2320 B	300	mg/L	5.0		04/29/20	04/29/20	2017137	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	05/04/20	05/04/20	2019017	
Bicarbonate (HCO3)	SM 2320 B	350	mg/L	5.0		04/29/20	04/29/20	2017137	
Carbonate (CO3)	SM 2320B	7.7	mg/L	5.0		04/29/20	04/29/20	2017137	
Chloride (Cl)	EPA 300.0	88	mg/L	1.0	0.075	04/24/20	04/24/20	2017144	
Specific Conductance (E.C.)	SM 2510B	900	umhos/cm	2.0	0.20	04/24/20	04/24/20	2017137	
Fluoride (F)	EPA 300.0	0.58	mg/L	0.10	0.026	04/24/20	04/24/20	2017144	
Hardness, Total (as CaCO3)	Calculated	280	mg/L	6.6		05/04/20	05/04/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		04/29/20	04/29/20	2017137	
Inorganic Nitrogen	Calculated	1.2	mg/L	0.80		04/24/20	04/24/20	[CALC]	
Inorganic Nitrogen	Calculated	ND	mg/L	0.50		05/04/20	05/04/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.2	mg/L	0.40	0.12	04/24/20	04/24/20	2017144	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	04/24/20	04/24/20	2017144	
pH (Lab)	SM 4500HB	8.5	pH Units			04/24/20	04/24/20	2017137	
Sulfate (SO4)	EPA 300.0	45	mg/L	0.50	0.14	04/24/20	04/24/20	2017144	
Total Filterable Residue/TDS	SM 2540C	510	mg/L	5.0	3.1	04/24/20	04/28/20	2017138	

Metals

Calcium (Ca)	EPA 200.7	71	mg/L	1.0	0.080	05/04/20	05/04/20	2019015	
Magnesium (Mg)	EPA 200.7	24	mg/L	1.0	0.51	05/04/20	05/04/20	2019015	
Potassium (K)	EPA 200.7	12	mg/L	1.0	0.18	05/04/20	05/04/20	2019015	
Sodium (Na)	EPA 200.7	100	mg/L	5.0	1.1	05/04/20	05/04/20	2019015	

Stu Styles
Client Services Manager

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20D1949

Received: 04/24/20 12:10

Reported: 05/06/20

YVWD-Z **20D1949-03 (Water)** **Sample Date:** 04/23/20 10:25 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	290	mg/L	5.0		04/29/20	04/29/20	2017137	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	04/30/20	05/01/20	2018117	
Bicarbonate (HCO3)	SM 2320 B	340	mg/L	5.0		04/29/20	04/29/20	2017137	
Carbonate (CO3)	SM 2320B	8.2	mg/L	5.0		04/29/20	04/29/20	2017137	
Chloride (Cl)	EPA 300.0	73	mg/L	1.0	0.075	04/24/20	04/24/20	2017144	
Specific Conductance (E.C.)	SM 2510B	790	umhos/cm	2.0	0.20	04/24/20	04/24/20	2017137	
Fluoride (F)	EPA 300.0	0.48	mg/L	0.10	0.026	04/24/20	04/24/20	2017144	
Hardness, Total (as CaCO3)	Calculated	280	mg/L	6.6		05/04/20	05/04/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		04/29/20	04/29/20	2017137	
Inorganic Nitrogen	Calculated	2.0	mg/L	1.3		04/30/20	05/01/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	2.0	mg/L	0.40	0.12	04/24/20	04/24/20	2017144	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	04/24/20	04/24/20	2017144	
pH (Lab)	SM 4500HB	8.5	pH Units			04/24/20	04/24/20	2017137	
Sulfate (SO4)	EPA 300.0	43	mg/L	0.50	0.14	04/24/20	04/24/20	2017144	
Total Filterable Residue/TDS	SM 2540C	460	mg/L	5.0	3.1	04/24/20	04/28/20	2017138	

Metals

Calcium (Ca)	EPA 200.7	74	mg/L	1.0	0.080	05/04/20	05/04/20	2019015	
Magnesium (Mg)	EPA 200.7	24	mg/L	1.0	0.51	05/04/20	05/04/20	2019015	
Potassium (K)	EPA 200.7	10	mg/L	1.0	0.18	05/04/20	05/04/20	2019015	
Sodium (Na)	EPA 200.7	92	mg/L	1.0	0.21	05/04/20	05/04/20	2019015	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20E0639

Received: 05/08/20 10:50

Reported: 05/20/20

YVWD-B **20E0639-02 (Water)** **Sample Date:** 05/07/20 11:25 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	260	mg/L	5.0		05/18/20	05/18/20	2019145	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	05/14/20	05/15/20	2020103	
Bicarbonate (HCO3)	SM 2320 B	300	mg/L	5.0		05/18/20	05/18/20	2019145	
Carbonate (CO3)	SM 2320B	7.7	mg/L	5.0		05/18/20	05/18/20	2019145	
Chloride (Cl)	EPA 300.0	75	mg/L	1.0	0.075	05/08/20	05/08/20	2019161	
Specific Conductance (E.C.)	SM 2510B	800	umhos/cm	2.0	0.20	05/08/20	05/08/20	2019145	
Fluoride (F)	EPA 300.0	0.52	mg/L	0.10	0.026	05/08/20	05/08/20	2019161	
Hardness, Total (as CaCO3)	Calculated	240	mg/L	33		05/15/20	05/15/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		05/18/20	05/18/20	2019145	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		05/14/20	05/15/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.2	mg/L	0.40	0.12	05/08/20	05/08/20	2019161	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	05/08/20	05/08/20	2019161	
pH (Lab)	SM 4500HB	8.5	pH Units			05/08/20	05/08/20	2019145	
Sulfate (SO4)	EPA 300.0	39	mg/L	0.50	0.14	05/08/20	05/08/20	2019161	
Total Filterable Residue/TDS	SM 2540C	440	mg/L	5.0	3.1	05/11/20	05/13/20	2020016	

Metals

Calcium (Ca)	EPA 200.7	63	mg/L	5.0	0.40	05/15/20	05/15/20	2020168	
Magnesium (Mg)	EPA 200.7	19	mg/L	5.0	2.6	05/15/20	05/15/20	2020168	
Potassium (K)	EPA 200.7	8.9	mg/L	5.0	0.90	05/15/20	05/15/20	2020168	
Sodium (Na)	EPA 200.7	93	mg/L	5.0	1.1	05/15/20	05/15/20	2020168	

Stu Styles
Client Services Manager

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20E0639

Received: 05/08/20 10:50

Reported: 05/20/20

YVWD-Z **20E0639-03 (Water)** **Sample Date:** 05/07/20 11:53 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	280	mg/L	5.0		05/18/20	05/18/20	2019145	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	05/14/20	05/15/20	2020103	
Bicarbonate (HCO3)	SM 2320 B	320	mg/L	5.0		05/18/20	05/18/20	2019145	
Carbonate (CO3)	SM 2320B	11	mg/L	5.0		05/18/20	05/18/20	2019145	
Chloride (Cl)	EPA 300.0	75	mg/L	1.0	0.075	05/08/20	05/08/20	2019161	
Specific Conductance (E.C.)	SM 2510B	810	umhos/cm	2.0	0.20	05/08/20	05/08/20	2019145	
Fluoride (F)	EPA 300.0	0.53	mg/L	0.10	0.026	05/08/20	05/08/20	2019161	
Hardness, Total (as CaCO3)	Calculated	290	mg/L	33		05/15/20	05/15/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		05/18/20	05/18/20	2019145	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		05/14/20	05/15/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.2	mg/L	0.40	0.12	05/08/20	05/08/20	2019161	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	05/08/20	05/08/20	2019161	
pH (Lab)	SM 4500HB	8.6	pH Units			05/08/20	05/08/20	2019145	
Sulfate (SO4)	EPA 300.0	39	mg/L	0.50	0.14	05/08/20	05/08/20	2019161	
Total Filterable Residue/TDS	SM 2540C	440	mg/L	5.0	3.1	05/11/20	05/13/20	2020016	

Metals

Calcium (Ca)	EPA 200.7	73	mg/L	5.0	0.40	05/15/20	05/15/20	2020168	
Magnesium (Mg)	EPA 200.7	25	mg/L	5.0	2.6	05/15/20	05/15/20	2020168	
Potassium (K)	EPA 200.7	10	mg/L	5.0	0.90	05/15/20	05/15/20	2020168	
Sodium (Na)	EPA 200.7	96	mg/L	5.0	1.1	05/15/20	05/15/20	2020168	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

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Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20E1678
Received: 05/21/20 10:00
Reported: 06/02/20

YVWD-B **20E1678-02 (Water)** **Sample Date:** 05/20/20 11:10 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	270	mg/L	5.0		05/29/20	05/29/20	2021113	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	05/29/20	05/29/20	2022118	
Bicarbonate (HCO3)	SM 2320 B	310	mg/L	5.0		05/29/20	05/29/20	2021113	
Carbonate (CO3)	SM 2320B	7.2	mg/L	5.0		05/29/20	05/29/20	2021113	
Chloride (Cl)	EPA 300.0	75	mg/L	1.0	0.075	05/21/20	05/21/20	2021118	
Specific Conductance (E.C.)	SM 2510B	800	umhos/cm	2.0	0.20	05/21/20	05/21/20	2021113	
Fluoride (F)	EPA 300.0	0.52	mg/L	0.10	0.026	05/21/20	05/21/20	2021118	
Hardness, Total (as CaCO3)	Calculated	230	mg/L	6.6		05/28/20	05/28/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		05/29/20	05/29/20	2021113	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		05/29/20	05/29/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.0	mg/L	0.40	0.12	05/21/20	05/21/20	2021118	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	05/21/20	05/21/20	2021118	
pH (Lab)	SM 4500HB	8.5	pH Units			05/21/20	05/21/20	2021113	
Sulfate (SO4)	EPA 300.0	36	mg/L	0.50	0.14	05/21/20	05/21/20	2021118	
Total Filterable Residue/TDS	SM 2540C	450	mg/L	5.0	3.1	05/26/20	05/28/20	2022027	

Metals

Calcium (Ca)	EPA 200.7	62	mg/L	1.0	0.080	05/28/20	05/28/20	2022095	
Magnesium (Mg)	EPA 200.7	18	mg/L	1.0	0.51	05/28/20	05/28/20	2022095	
Potassium (K)	EPA 200.7	9.4	mg/L	1.0	0.18	05/28/20	05/28/20	2022095	
Sodium (Na)	EPA 200.7	93	mg/L	1.0	0.21	05/28/20	05/28/20	2022095	

Stu Styles
Client Services Manager

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20E1678

Received: 05/21/20 10:00

Reported: 06/02/20

YVWD-Z **20E1678-03 (Water)** **Sample Date:** 05/20/20 10:42 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	270	mg/L	5.0		05/29/20	05/29/20	2021113	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	06/01/20	06/01/20	2023010	
Bicarbonate (HCO3)	SM 2320 B	300	mg/L	5.0		05/29/20	05/29/20	2021113	
Carbonate (CO3)	SM 2320B	11	mg/L	5.0		05/29/20	05/29/20	2021113	
Chloride (Cl)	EPA 300.0	75	mg/L	1.0	0.075	05/21/20	05/21/20	2021118	
Specific Conductance (E.C.)	SM 2510B	800	umhos/cm	2.0	0.20	05/21/20	05/21/20	2021113	
Fluoride (F)	EPA 300.0	0.52	mg/L	0.10	0.026	05/21/20	05/21/20	2021118	
Hardness, Total (as CaCO3)	Calculated	250	mg/L	6.6		05/28/20	05/28/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		05/29/20	05/29/20	2021113	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		06/01/20	06/01/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	0.88	mg/L	0.40	0.12	05/21/20	05/21/20	2021118	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	05/21/20	05/21/20	2021118	
pH (Lab)	SM 4500HB	8.6	pH Units			05/21/20	05/21/20	2021113	
Sulfate (SO4)	EPA 300.0	36	mg/L	0.50	0.14	05/21/20	05/21/20	2021118	
Total Filterable Residue/TDS	SM 2540C	440	mg/L	5.0	3.1	05/26/20	05/28/20	2022027	

Metals

Calcium (Ca)	EPA 200.7	69	mg/L	1.0	0.080	05/28/20	05/28/20	2022095	
Magnesium (Mg)	EPA 200.7	20	mg/L	1.0	0.51	05/28/20	05/28/20	2022095	
Potassium (K)	EPA 200.7	9.2	mg/L	1.0	0.18	05/28/20	05/28/20	2022095	
Sodium (Na)	EPA 200.7	95	mg/L	1.0	0.21	05/28/20	05/28/20	2022095	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20F0593

Received: 06/05/20 11:35

Reported: 06/17/20

YVWD-B **20F0593-02 (Water)** **Sample Date:** 06/04/20 12:07 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	280	mg/L	5.0		06/09/20	06/09/20	2023165	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	06/10/20	06/11/20	2024104	
Bicarbonate (HCO3)	SM 2320 B	320	mg/L	5.0		06/09/20	06/09/20	2023165	
Carbonate (CO3)	SM 2320B	8.6	mg/L	5.0		06/09/20	06/09/20	2023165	
Chloride (Cl)	EPA 300.0	73	mg/L	1.0	0.075	06/05/20	06/05/20	2023172	
Specific Conductance (E.C.)	SM 2510B	760	umhos/cm	2.0	0.20	06/05/20	06/05/20	2023165	
Fluoride (F)	EPA 300.0	0.54	mg/L	0.10	0.026	06/05/20	06/05/20	2023172	
Hardness, Total (as CaCO3)	Calculated	230	mg/L	6.6		06/16/20	06/16/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		06/09/20	06/09/20	2023165	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		06/10/20	06/11/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	0.78	mg/L	0.40	0.12	06/05/20	06/05/20	2023172	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	06/05/20	06/05/20	2023172	
pH (Lab)	SM 4500HB	8.5	pH Units			06/05/20	06/05/20	2023165	
Sulfate (SO4)	EPA 300.0	36	mg/L	0.50	0.14	06/05/20	06/05/20	2023172	
Total Filterable Residue/TDS	SM 2540C	450	mg/L	5.0	3.1	06/08/20	06/10/20	2024032	

Metals

Calcium (Ca)	EPA 200.7	62	mg/L	1.0	0.080	06/16/20	06/16/20	2025037	
Magnesium (Mg)	EPA 200.7	17	mg/L	1.0	0.51	06/16/20	06/16/20	2025037	
Potassium (K)	EPA 200.7	8.9	mg/L	1.0	0.18	06/16/20	06/16/20	2025037	
Sodium (Na)	EPA 200.7	99	mg/L	1.0	0.21	06/16/20	06/16/20	2025037	

Stu Styles
Client Services Manager

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20F0593

Received: 06/05/20 11:35

Reported: 06/17/20

YVWD-Z **20F0593-03 (Water)** **Sample Date:** 06/04/20 11:37 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	280	mg/L	5.0		06/09/20	06/09/20	2023165	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	06/10/20	06/11/20	2024104	
Bicarbonate (HCO3)	SM 2320 B	320	mg/L	5.0		06/09/20	06/09/20	2023165	
Carbonate (CO3)	SM 2320B	10	mg/L	5.0		06/09/20	06/09/20	2023165	
Chloride (Cl)	EPA 300.0	77	mg/L	1.0	0.075	06/05/20	06/05/20	2023172	
Specific Conductance (E.C.)	SM 2510B	800	umhos/cm	2.0	0.20	06/05/20	06/05/20	2023165	
Fluoride (F)	EPA 300.0	0.55	mg/L	0.10	0.026	06/05/20	06/05/20	2023172	
Hardness, Total (as CaCO3)	Calculated	270	mg/L	6.6		06/16/20	06/16/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		06/09/20	06/09/20	2023165	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		06/10/20	06/11/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	0.61	mg/L	0.40	0.12	06/05/20	06/05/20	2023172	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	06/05/20	06/05/20	2023172	
pH (Lab)	SM 4500HB	8.7	pH Units			06/05/20	06/05/20	2023165	
Sulfate (SO4)	EPA 300.0	37	mg/L	0.50	0.14	06/05/20	06/05/20	2023172	
Total Filterable Residue/TDS	SM 2540C	450	mg/L	5.0	3.1	06/08/20	06/10/20	2024032	

Metals

Calcium (Ca)	EPA 200.7	73	mg/L	1.0	0.080	06/16/20	06/16/20	2025037	
Magnesium (Mg)	EPA 200.7	21	mg/L	1.0	0.51	06/16/20	06/16/20	2025037	
Potassium (K)	EPA 200.7	10	mg/L	1.0	0.18	06/16/20	06/16/20	2025037	
Sodium (Na)	EPA 200.7	100	mg/L	5.0	1.1	06/16/20	06/16/20	2025037	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20G0791

Received: 07/09/20 09:10

Reported: 07/22/20

YVWD-B **20G0791-02 (Water)** **Sample Date:** 07/08/20 14:14 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	210	mg/L	5.0		07/14/20	07/14/20	2028125	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	07/16/20	07/16/20	2029103	
Bicarbonate (HCO3)	SM 2320 B	250	mg/L	5.0		07/14/20	07/14/20	2028125	
Carbonate (CO3)	SM 2320B	6.2	mg/L	5.0		07/14/20	07/14/20	2028125	
Chloride (Cl)	EPA 300.0	64	mg/L	1.0	0.075	07/09/20	07/09/20	2028117	
Specific Conductance (E.C.)	SM 2510B	660	umhos/cm	2.0	0.20	07/09/20	07/09/20	2028125	
Fluoride (F)	EPA 300.0	0.31	mg/L	0.10	0.026	07/09/20	07/09/20	2028117	
Hardness, Total (as CaCO3)	Calculated	190	mg/L	6.6		07/16/20	07/16/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		07/14/20	07/14/20	2028125	
Inorganic Nitrogen	Calculated	2.0	mg/L	1.3		07/16/20	07/16/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	2.0	mg/L	0.40	0.12	07/09/20	07/09/20	2028117	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	07/09/20	07/09/20	2028117	
pH (Lab)	SM 4500HB	8.5	pH Units			07/09/20	07/09/20	2028125	
Sulfate (SO4)	EPA 300.0	32	mg/L	0.50	0.14	07/09/20	07/09/20	2028117	
Total Filterable Residue/TDS	SM 2540C	380	mg/L	5.0	3.1	07/10/20	07/13/20	2028159	

Metals

Calcium (Ca)	EPA 200.7	51	mg/L	1.0	0.080	07/16/20	07/16/20	2029131	
Magnesium (Mg)	EPA 200.7	16	mg/L	1.0	0.51	07/16/20	07/16/20	2029131	
Potassium (K)	EPA 200.7	11	mg/L	1.0	0.18	07/16/20	07/16/20	2029131	
Sodium (Na)	EPA 200.7	78	mg/L	1.0	0.21	07/16/20	07/16/20	2029131	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20G0791

Received: 07/09/20 09:10

Reported: 07/22/20

YVWD-Z **20G0791-03 (Water)** **Sample Date:** 07/08/20 13:31 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	290	mg/L	5.0		07/14/20	07/14/20	2028125	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	07/16/20	07/16/20	2029103	
Bicarbonate (HCO3)	SM 2320 B	300	mg/L	5.0		07/14/20	07/14/20	2028125	
Carbonate (CO3)	SM 2320B	24	mg/L	5.0		07/14/20	07/14/20	2028125	
Chloride (Cl)	EPA 300.0	88	mg/L	1.0	0.075	07/09/20	07/09/20	2028117	
Specific Conductance (E.C.)	SM 2510B	830	umhos/cm	2.0	0.20	07/09/20	07/09/20	2028125	
Fluoride (F)	EPA 300.0	0.41	mg/L	0.10	0.026	07/09/20	07/09/20	2028117	
Hardness, Total (as CaCO3)	Calculated	240	mg/L	6.6		07/16/20	07/16/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		07/14/20	07/14/20	2028125	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		07/16/20	07/16/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	0.61	mg/L	0.40	0.12	07/09/20	07/09/20	2028117	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	07/09/20	07/09/20	2028117	
pH (Lab)	SM 4500HB	8.9	pH Units			07/09/20	07/09/20	2028125	
Sulfate (SO4)	EPA 300.0	41	mg/L	0.50	0.14	07/09/20	07/09/20	2028117	
Total Filterable Residue/TDS	SM 2540C	550	mg/L	5.0	3.1	07/10/20	07/13/20	2028159	

Metals

Calcium (Ca)	EPA 200.7	67	mg/L	1.0	0.080	07/16/20	07/16/20	2029131	
Magnesium (Mg)	EPA 200.7	18	mg/L	1.0	0.51	07/16/20	07/16/20	2029131	
Potassium (K)	EPA 200.7	10	mg/L	1.0	0.18	07/16/20	07/16/20	2029131	
Sodium (Na)	EPA 200.7	110	mg/L	5.0	1.1	07/20/20	07/20/20	2030023	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Lab of San Bernardino, Inc.

Chain of Custody

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

WO 20070791

0/0/6

Client		Destination Laboratory		Analysis Requested												Turn Around Time (TAT)
Yucaipa Valley Water District		Clinical Grand Terrace / ELAP 1088		<input checked="" type="checkbox"/> Fluoride (EPA 300.0) <input checked="" type="checkbox"/> Chloride (EPA 300.0) <input checked="" type="checkbox"/> pH (SM 4500H+B) <input checked="" type="checkbox"/> Specific Conductance (SM 2510B) <input checked="" type="checkbox"/> Sulfate (EPA 300.0) <input checked="" type="checkbox"/> Ca, Mg, K, Na (EPA 200.7) <input checked="" type="checkbox"/> Alkalinity (inc. HCO3, CO3, and OH) <input checked="" type="checkbox"/> Ammonia-N (EPA 350.1) <input checked="" type="checkbox"/> Nitrite-N (EPA 300.0) <input checked="" type="checkbox"/> Nitrate-N (EPA 300.0) <input checked="" type="checkbox"/> Total Dissolved Solids (SM 2540C)												10
880 W. County Line Road		Clinical Lompoc / ELAP 1678														
Yucaipa, CA 92399		Other:														
Client Contact: Ashley Gibson		No. of Preserved Cont.														
Phone No.: 909-560-1370 FAX No.: 909-795-0402		Total Containers														
System No.:		ChlorAC														
Project: Max Benefits - San Timoteo GMZ		ZnC4H6O4														
Sampled By: <i>Lina Robert</i>		Na2SO3														
Comments: <i>Water Blue</i>		NaOH														
Email results to: Lina Robert (lrobert@yvwd.dst.ca.us) and Steven Stuart (sstuart@dudek.com)		HCl														
		HNO3														
		C6H8O6														
		NH4Cl														
		Na2S2O3														
		Unpreserved														
		Sample Type														
		Matrix														
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Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20G1650

Received: 07/17/20 12:30

Reported: 07/29/20

YVWD-B **20G1650-02 (Water)** **Sample Date:** 07/16/20 14:17 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	230	mg/L	5.0		07/21/20	07/21/20	2029120	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	07/23/20	07/23/20	2030090	
Bicarbonate (HCO3)	SM 2320 B	260	mg/L	5.0		07/21/20	07/21/20	2029120	
Carbonate (CO3)	SM 2320B	7.7	mg/L	5.0		07/21/20	07/21/20	2029120	
Chloride (Cl)	EPA 300.0	66	mg/L	1.0	0.075	07/17/20	07/17/20	2029161	
Specific Conductance (E.C.)	SM 2510B	680	umhos/cm	2.0	0.20	07/17/20	07/17/20	2029120	
Fluoride (F)	EPA 300.0	0.53	mg/L	0.10	0.026	07/17/20	07/17/20	2029161	
Hardness, Total (as CaCO3)	Calculated	180	mg/L	6.6		07/22/20	07/22/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		07/21/20	07/21/20	2029120	
Inorganic Nitrogen	Calculated	1.8	mg/L	1.3		07/23/20	07/23/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.8	mg/L	0.40	0.12	07/17/20	07/17/20	2029161	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	07/17/20	07/17/20	2029161	
pH (Lab)	SM 4500HB	8.5	pH Units			07/17/20	07/17/20	2029120	
Sulfate (SO4)	EPA 300.0	30	mg/L	0.50	0.14	07/17/20	07/17/20	2029161	
Total Filterable Residue/TDS	SM 2540C	380	mg/L	5.0	3.1	07/20/20	07/22/20	2030022	

Metals

Calcium (Ca)	EPA 200.7	48	mg/L	1.0	0.080	07/22/20	07/22/20	2030079	
Magnesium (Mg)	EPA 200.7	15	mg/L	1.0	0.51	07/22/20	07/22/20	2030079	
Potassium (K)	EPA 200.7	9.4	mg/L	1.0	0.18	07/22/20	07/22/20	2030079	
Sodium (Na)	EPA 200.7	78	mg/L	1.0	0.21	07/22/20	07/22/20	2030079	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Lab of San Bernardino, Inc.

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

Chain of Custody

WO 20061650

Client		Yucaipa Valley Water District		Destination Laboratory		[X] Clinical Grand Terrace / ELAP 1088		Analysis Requested		Turn Around Time (TAT)	
Address:		880 W. County Line Road		[] Clinical Lompoc / ELAP 1678		[] Other:		Fluoride (EPA 300.0)		10	
Client Contact:		Ashley Gibson		No. of Preserved Cont.		Total Containers		Chloride (EPA 300.0)		10	
Phone No.:		909-560-1370		FAX No.:		909-795-0402		pH (SM 4500H+B)		10	
System No.:				Sample Type		Matrix		Specific Conductance (SM 2510B)			
Project:		Max Benefits - San Timoteo GMZ		Unpreserved		SW		Sulfate (EPA 300.0)			
Sampled By:		Madeline Blum		SW		SW		Ca, Mg, K, Na (EPA 200.7)			
Comments:		Email results to: Lina Robert (lrobert@yvw.dst.ca.us) and Steven Stuart (sstuart@dudek.com)		SW				Alkalinity (inc. HCO3, CO3, and OH)			
Date		Time		Sample Identification		Container ID		Ammonia-N (EPA 350.1)			
7/16/20		1442		YVWD-A 3EA53				Nitrite-N (EPA 300.0)			
7/16/20		1417		YVWD-B 3EA54				Nitrate-N (EPA 300.0)			
				YVWD-Z 3EA56				Total Dissolved Solids (SM 2540C)			
<p>Matrix: DW - Drinking Water GW - Ground Water SW - Surface Water W - Water WW - Wastewater SWR - Stormwater Runoff S - Sludge O - Other</p> <p>Use for Bacteria Samples / Sample Type: 1-Routine 2-Repeat 3-Replacement 4-Special D-Distribution W-Well</p>											
Relinquished By (Sign)				Print Name / Company		Date / Time		Received By (Sign)		Print Name / Company	
Chris Martinez				Madeline Blum / YVWD		7/16/20 1530		Chris Martinez		Chris Martinez	
Chris Martinez				Chris Martinez		7-17-20 12:30		Chris Martinez		Chris Martinez	
<p>(Lab Use Only) Lompoc Lab Receipt Temp.: _____ °C</p> <p>Shipped Via: [] Fed Ex [] Golden State Overnight [] UPS [] OnTrac [] USPS [] Other</p> <p>Condition: [] On Wet Ice [] On Blu Ice [] Intact [] Custody Seals Samples / COC Checked By: _____ Work Order Logged By: _____</p> <p>Receipt Comments: _____ Clinical Lab Receipt Temp.: 49 °C</p>											

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20G2680

Received: 07/31/20 12:15

Reported: 08/12/20

YVWD-Z **20G2680-03 (Water)** **Sample Date:** 07/30/20 14:18 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	260	mg/L	5.0		08/03/20	08/03/20	2031127	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	08/06/20	08/06/20	2032082	
Bicarbonate (HCO3)	SM 2320 B	270	mg/L	5.0		08/03/20	08/03/20	2031127	
Carbonate (CO3)	SM 2320B	26	mg/L	5.0		08/03/20	08/03/20	2031127	
Chloride (Cl)	EPA 300.0	79	mg/L	1.0	0.075	07/31/20	07/31/20	2031135	
Specific Conductance (E.C.)	SM 2510B	790	umhos/cm	2.0	0.20	07/31/20	07/31/20	2031127	
Fluoride (F)	EPA 300.0	0.51	mg/L	0.10	0.026	07/31/20	07/31/20	2031135	
Hardness, Total (as CaCO3)	Calculated	190	mg/L	6.6		08/04/20	08/04/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		08/03/20	08/03/20	2031127	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		08/06/20	08/06/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	0.78	mg/L	0.40	0.12	07/31/20	07/31/20	2031135	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	07/31/20	07/31/20	2031135	
pH (Lab)	SM 4500HB	8.9	pH Units			07/31/20	07/31/20	2031127	
Sulfate (SO4)	EPA 300.0	36	mg/L	0.50	0.14	07/31/20	07/31/20	2031135	
Total Filterable Residue/TDS	SM 2540C	440	mg/L	5.0	3.1	08/03/20	08/04/20	2031130	

Metals

Calcium (Ca)	EPA 200.7	53	mg/L	1.0	0.080	08/04/20	08/04/20	2032049	
Magnesium (Mg)	EPA 200.7	14	mg/L	1.0	0.51	08/04/20	08/04/20	2032049	
Potassium (K)	EPA 200.7	7.7	mg/L	1.0	0.18	08/04/20	08/04/20	2032049	
Sodium (Na)	EPA 200.7	92	mg/L	1.0	0.21	08/04/20	08/04/20	2032049	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20H2283

Received: 08/28/20 12:45

Reported: 09/09/20

YVWD-B **20H2283-02 (Water)** **Sample Date:** 08/27/20 15:18 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	200	mg/L	5.0		09/02/20	09/02/20	2035124	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	08/31/20	08/31/20	2036004	
Bicarbonate (HCO3)	SM 2320 B	220	mg/L	5.0		09/02/20	09/02/20	2035124	
Carbonate (CO3)	SM 2320B	8.6	mg/L	5.0		09/02/20	09/02/20	2035124	
Chloride (Cl)	EPA 300.0	64	mg/L	1.0	0.075	08/28/20	08/28/20	2035126	
Specific Conductance (E.C.)	SM 2510B	650	umhos/cm	2.0	0.20	08/28/20	08/28/20	2035124	
Fluoride (F)	EPA 300.0	0.47	mg/L	0.10	0.026	08/28/20	08/28/20	2035126	
Hardness, Total (as CaCO3)	Calculated	160	mg/L	6.6		09/02/20	09/02/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		09/02/20	09/02/20	2035124	
Inorganic Nitrogen	Calculated	1.8	mg/L	1.3		08/31/20	08/31/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.8	mg/L	0.40	0.12	08/28/20	08/28/20	2035126	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	08/28/20	08/28/20	2035126	
pH (Lab)	SM 4500HB	8.5	pH Units			08/28/20	08/28/20	2035124	
Sulfate (SO4)	EPA 300.0	29	mg/L	0.50	0.14	08/28/20	08/28/20	2035126	
Total Filterable Residue/TDS	SM 2540C	380	mg/L	5.0	3.1	08/31/20	09/01/20	2035116	

Metals

Calcium (Ca)	EPA 200.7	42	mg/L	1.0	0.080	09/02/20	09/02/20	2036061	
Magnesium (Mg)	EPA 200.7	12	mg/L	1.0	0.51	09/02/20	09/02/20	2036061	
Potassium (K)	EPA 200.7	9.4	mg/L	1.0	0.18	09/02/20	09/02/20	2036061	
Sodium (Na)	EPA 200.7	82	mg/L	1.0	0.21	09/02/20	09/02/20	2036061	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20J1959

Received: 10/23/20 10:25

Reported: 11/04/20

YVWD-Z **20J1959-03 (Water)** **Sample Date:** 10/22/20 14:24 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	260	mg/L	5.0		10/29/20	10/29/20	2043132	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	11/02/20	11/03/20	2045027	
Bicarbonate (HCO3)	SM 2320 B	310	mg/L	5.0		10/29/20	10/29/20	2043132	
Carbonate (CO3)	SM 2320B	1.9	mg/L	5.0		10/29/20	10/29/20	2043132	J
Chloride (Cl)	EPA 300.0	79	mg/L	1.0	0.075	10/23/20	10/23/20	2043134	
Specific Conductance (E.C.)	SM 2510B	740	umhos/cm	2.0	0.20	10/23/20	10/23/20	2043132	
Fluoride (F)	EPA 300.0	0.46	mg/L	0.10	0.026	10/23/20	10/23/20	2043134	
Hardness, Total (as CaCO3)	Calculated	370	mg/L	6.6		10/28/20	10/29/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		10/29/20	10/29/20	2043132	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		11/02/20	11/03/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	0.92	mg/L	0.40	0.12	10/23/20	10/23/20	2043134	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	10/23/20	10/23/20	2043134	
pH (Lab)	SM 4500HB	8.3	pH Units			10/23/20	10/23/20	2043132	
Sulfate (SO4)	EPA 300.0	36	mg/L	0.50	0.14	10/23/20	10/23/20	2043134	
Total Filterable Residue/TDS	SM 2540C	420	mg/L	5.0	3.1	10/26/20	10/28/20	2044003	

Metals

Calcium (Ca)	EPA 200.7	88	mg/L	1.0	0.080	10/28/20	10/29/20	2044069	
Magnesium (Mg)	EPA 200.7	36	mg/L	1.0	0.51	10/28/20	10/29/20	2044069	
Potassium (K)	EPA 200.7	16	mg/L	1.0	0.18	10/28/20	10/29/20	2044069	
Sodium (Na)	EPA 200.7	90	mg/L	1.0	0.21	10/28/20	10/29/20	2044069	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20K0620

Received: 11/06/20 12:20

Reported: 11/18/20

YVWD-B **20K0620-02 (Water)** **Sample Date:** 11/05/20 14:14 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	200	mg/L	5.0		11/13/20	11/13/20	2045151	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	11/13/20	11/13/20	2046142	
Bicarbonate (HCO3)	SM 2320 B	240	mg/L	5.0		11/13/20	11/13/20	2045151	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		11/13/20	11/13/20	2045151	
Chloride (Cl)	EPA 300.0	65	mg/L	1.0	0.075	11/06/20	11/06/20	2045160	
Specific Conductance (E.C.)	SM 2510B	640	umhos/cm	2.0	0.20	11/06/20	11/06/20	2045151	
Fluoride (F)	EPA 300.0	0.46	mg/L	0.10	0.026	11/06/20	11/06/20	2045160	
Hardness, Total (as CaCO3)	Calculated	170	mg/L	6.6		11/12/20	11/12/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		11/13/20	11/13/20	2045151	
Inorganic Nitrogen	Calculated	2.0	mg/L	1.3		11/13/20	11/13/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	2.0	mg/L	0.40	0.12	11/06/20	11/06/20	2045160	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	11/06/20	11/06/20	2045160	
pH (Lab)	SM 4500HB	8.1	pH Units			11/06/20	11/06/20	2045151	
Sulfate (SO4)	EPA 300.0	33	mg/L	0.50	0.14	11/06/20	11/06/20	2045160	
Total Filterable Residue/TDS	SM 2540C	360	mg/L	5.0	3.1	11/09/20	11/11/20	2046002	

Metals

Calcium (Ca)	EPA 200.7	46	mg/L	1.0	0.080	11/12/20	11/12/20	2046120	
Magnesium (Mg)	EPA 200.7	13	mg/L	1.0	0.51	11/12/20	11/12/20	2046120	
Potassium (K)	EPA 200.7	9.4	mg/L	1.0	0.18	11/12/20	11/12/20	2046120	
Sodium (Na)	EPA 200.7	83	mg/L	1.0	0.21	11/12/20	11/12/20	2046120	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

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Client Services Manager

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Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20K0852
Received: 11/10/20 11:30
Reported: 11/20/20

YVWD-Z **20K0852-01 (Water)** **Sample Date:** 11/09/20 15:40 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	220	mg/L	5.0		11/17/20	11/17/20	2046037	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	11/14/20	11/14/20	2046154	
Bicarbonate (HCO3)	SM 2320 B	260	mg/L	5.0		11/17/20	11/17/20	2046037	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		11/17/20	11/17/20	2046037	
Chloride (Cl)	EPA 300.0	67	mg/L	1.0	0.075	11/10/20	11/10/20	2046038	
Specific Conductance (E.C.)	SM 2510B	670	umhos/cm	2.0	0.20	11/10/20	11/10/20	2046037	
Fluoride (F)	EPA 300.0	0.52	mg/L	0.10	0.026	11/10/20	11/10/20	2046038	
Hardness, Total (as CaCO3)	Calculated	310	mg/L	33		11/18/20	11/18/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		11/17/20	11/17/20	2046037	
Inorganic Nitrogen	Calculated	2.0	mg/L	1.3		11/14/20	11/14/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	2.0	mg/L	0.40	0.12	11/10/20	11/10/20	2046038	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	11/10/20	11/10/20	2046038	
pH (Lab)	SM 4500HB	8.2	pH Units			11/10/20	11/10/20	2046037	
Sulfate (SO4)	EPA 300.0	33	mg/L	0.50	0.14	11/10/20	11/10/20	2046038	
Total Filterable Residue/TDS	SM 2540C	380	mg/L	5.0	3.1	11/12/20	11/13/20	2046113	

Metals

Calcium (Ca)	EPA 200.7	74	mg/L	5.0	0.40	11/18/20	11/18/20	2047063	
Magnesium (Mg)	EPA 200.7	32	mg/L	5.0	2.6	11/18/20	11/18/20	2047063	
Potassium (K)	EPA 200.7	15	mg/L	5.0	0.90	11/18/20	11/18/20	2047063	
Sodium (Na)	EPA 200.7	91	mg/L	5.0	1.1	11/18/20	11/18/20	2047063	

Stu Styles
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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20K0852

Received: 11/10/20 11:30

Reported: 11/20/20

YVWD-E **20K0852-02 (Water)** **Sample Date:** 11/09/20 16:15 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	200	mg/L	5.0		11/17/20	11/17/20	2046037	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	11/14/20	11/14/20	2046154	
Bicarbonate (HCO3)	SM 2320 B	250	mg/L	5.0		11/17/20	11/17/20	2046037	
Carbonate (CO3)	SM 2320B	0.96	mg/L	5.0		11/17/20	11/17/20	2046037	J
Chloride (Cl)	EPA 300.0	64	mg/L	1.0	0.075	11/10/20	11/10/20	2046038	
Specific Conductance (E.C.)	SM 2510B	660	umhos/cm	2.0	0.20	11/10/20	11/10/20	2046037	
Fluoride (F)	EPA 300.0	0.55	mg/L	0.10	0.026	11/10/20	11/10/20	2046038	
Hardness, Total (as CaCO3)	Calculated	200	mg/L	33		11/18/20	11/18/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		11/17/20	11/17/20	2046037	
Inorganic Nitrogen	Calculated	2.2	mg/L	1.3		11/14/20	11/14/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	2.2	mg/L	0.40	0.12	11/10/20	11/10/20	2046038	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	11/10/20	11/10/20	2046038	
pH (Lab)	SM 4500HB	8.3	pH Units			11/10/20	11/10/20	2046037	
Sulfate (SO4)	EPA 300.0	35	mg/L	0.50	0.14	11/10/20	11/10/20	2046038	
Total Filterable Residue/TDS	SM 2540C	370	mg/L	5.0	3.1	11/12/20	11/13/20	2046113	

Metals

Calcium (Ca)	EPA 200.7	51	mg/L	5.0	0.40	11/18/20	11/18/20	2047063	
Magnesium (Mg)	EPA 200.7	17	mg/L	5.0	2.6	11/18/20	11/18/20	2047063	
Potassium (K)	EPA 200.7	9.0	mg/L	5.0	0.90	11/18/20	11/18/20	2047063	
Sodium (Na)	EPA 200.7	84	mg/L	5.0	1.1	11/18/20	11/18/20	2047063	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

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Client Services Manager

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20K1784

Received: 11/20/20 11:05

Reported: 12/04/20

YVWD-B **20K1784-02 (Water)** **Sample Date:** 11/19/20 14:23 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	210	mg/L	5.0		12/01/20	12/01/20	2047125	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	11/23/20	11/24/20	2048022	
Bicarbonate (HCO3)	SM 2320 B	250	mg/L	5.0		12/01/20	12/01/20	2047125	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		12/01/20	12/01/20	2047125	
Chloride (Cl)	EPA 300.0	67	mg/L	1.0	0.075	11/20/20	11/20/20	2047131	
Specific Conductance (E.C.)	SM 2510B	650	umhos/cm	2.0	0.20	11/20/20	11/20/20	2047125	
Fluoride (F)	EPA 300.0	0.44	mg/L	0.10	0.026	11/20/20	11/20/20	2047131	
Hardness, Total (as CaCO3)	Calculated	180	mg/L	6.6		11/25/20	11/25/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		12/01/20	12/01/20	2047125	
Inorganic Nitrogen	Calculated	1.3	mg/L	1.3		11/23/20	11/24/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.3	mg/L	0.40	0.12	11/20/20	11/20/20	2047131	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	11/20/20	11/20/20	2047131	
pH (Lab)	SM 4500HB	8.2	pH Units			11/20/20	11/20/20	2047125	
Sulfate (SO4)	EPA 300.0	31	mg/L	0.50	0.14	11/20/20	11/20/20	2047131	
Total Filterable Residue/TDS	SM 2540C	370	mg/L	5.0	3.1	11/23/20	11/24/20	2048003	

Metals

Calcium (Ca)	EPA 200.7	50	mg/L	1.0	0.080	11/25/20	11/25/20	2048067	
Magnesium (Mg)	EPA 200.7	14	mg/L	1.0	0.51	11/25/20	11/25/20	2048067	
Potassium (K)	EPA 200.7	8.6	mg/L	1.0	0.18	11/25/20	11/25/20	2048067	
Sodium (Na)	EPA 200.7	82	mg/L	1.0	0.21	11/25/20	11/25/20	2048067	

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20K1784

Received: 11/20/20 11:05

Reported: 12/04/20

YVWD-Z **20K1784-03 (Water)** **Sample Date:** 11/19/20 14:04 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
General Chemical Analyses									
Alkalinity, Total (as CaCO3)	SM 2320 B	210	mg/L	5.0		12/01/20	12/01/20	2047125	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	11/23/20	11/24/20	2048022	
Bicarbonate (HCO3)	SM 2320 B	260	mg/L	5.0		12/01/20	12/01/20	2047125	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		12/01/20	12/01/20	2047125	
Chloride (Cl)	EPA 300.0	68	mg/L	1.0	0.075	11/20/20	11/20/20	2047131	
Specific Conductance (E.C.)	SM 2510B	640	umhos/cm	2.0	0.20	11/20/20	11/20/20	2047125	
Fluoride (F)	EPA 300.0	0.48	mg/L	0.10	0.026	11/20/20	11/20/20	2047131	
Hardness, Total (as CaCO3)	Calculated	200	mg/L	6.6		11/25/20	11/25/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		12/01/20	12/01/20	2047125	
Inorganic Nitrogen	Calculated	1.4	mg/L	1.3		11/23/20	11/24/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.4	mg/L	0.40	0.12	11/20/20	11/20/20	2047131	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	11/20/20	11/20/20	2047131	
pH (Lab)	SM 4500HB	8.3	pH Units			11/20/20	11/20/20	2047125	
Sulfate (SO4)	EPA 300.0	31	mg/L	0.50	0.14	11/20/20	11/20/20	2047131	
Total Filterable Residue/TDS	SM 2540C	360	mg/L	5.0	3.1	11/23/20	11/24/20	2048003	

Metals

Calcium (Ca)	EPA 200.7	52	mg/L	1.0	0.080	11/25/20	11/25/20	2048067	
Magnesium (Mg)	EPA 200.7	17	mg/L	1.0	0.51	11/25/20	11/25/20	2048067	
Potassium (K)	EPA 200.7	9.1	mg/L	1.0	0.18	11/25/20	11/25/20	2048067	
Sodium (Na)	EPA 200.7	76	mg/L	1.0	0.21	11/25/20	11/25/20	2048067	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

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Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20L0504

Received: 12/04/20 09:20

Reported: 12/16/20

YVWD-Z **20L0504-03 (Water)** **Sample Date:** 12/03/20 14:21 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	230	mg/L	5.0		12/16/20	12/16/20	2049126	
Ammonia as N (NH3-N)	EPA 350.1	0.35	mg/L	0.50	0.15	12/07/20	12/08/20	2050024	J
Bicarbonate (HCO3)	SM 2320 B	270	mg/L	5.0		12/16/20	12/16/20	2049126	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		12/16/20	12/16/20	2049126	
Chloride (Cl)	EPA 300.0	68	mg/L	1.0	0.075	12/04/20	12/04/20	2049174	
Specific Conductance (E.C.)	SM 2510B	660	umhos/cm	2.0	0.20	12/04/20	12/16/20	2049126	
Fluoride (F)	EPA 300.0	0.38	mg/L	0.10	0.026	12/04/20	12/04/20	2049174	
Hardness, Total (as CaCO3)	Calculated	280	mg/L	6.6		12/08/20	12/08/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		12/16/20	12/16/20	2049126	
Inorganic Nitrogen	Calculated	1.8	mg/L	1.3		12/07/20	12/08/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.5	mg/L	0.40	0.12	12/04/20	12/04/20	2049174	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	12/04/20	12/04/20	2049174	
pH (Lab)	SM 4500HB	8.2	pH Units			12/04/20	12/16/20	2049126	
Sulfate (SO4)	EPA 300.0	32	mg/L	0.50	0.14	12/04/20	12/04/20	2049174	
Total Filterable Residue/TDS	SM 2540C	380	mg/L	5.0	3.1	12/07/20	12/08/20	2050014	

Metals

Calcium (Ca)	EPA 200.7	81	mg/L	1.0	0.080	12/08/20	12/08/20	2050042	
Magnesium (Mg)	EPA 200.7	20	mg/L	1.0	0.51	12/08/20	12/08/20	2050042	
Potassium (K)	EPA 200.7	7.7	mg/L	1.0	0.18	12/08/20	12/08/20	2050042	
Sodium (Na)	EPA 200.7	77	mg/L	1.0	0.21	12/08/20	12/08/20	2050042	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

0/0/6

WO 20LO504

Clinical Lab of San Bernardino, Inc. Chain of Custody

21881 Barton Road Grand Terrace CA 92313 909 825-7693 / 516-A N 8th St. Lompoc CA 93436 805 737-7300

Client		Destination Laboratory										Analysis Requested										Turn Around Time (TAT)
Yucaipa Valley Water District		<input checked="" type="checkbox"/> Clinical Grand Terrace / ELAP 1088 <input type="checkbox"/> Clinical Lompoc / ELAP 1678 <input type="checkbox"/> Other:										Fluoride (EPA 300.0) Chloride (EPA 300.0) pH (SM 4500H+B) Specific Conductance (SM 2510B) Sulfate (EPA 300.0) Ca, Mg, K, Na (EPA 200.7) Alkalinity (inc. HCO3, CO3, and OH) Ammonia-N (EPA 350.1) Nitrite-N (EPA 300.0) Nitrate-N (EPA 300.0) Total Dissolved Solids (SM 2540C)										
Address:		No. of Preserved Cont.										Sample Type										Comments
880 W. County Line Road		ChlorAC ZnC4H6O4 Na2SO3 NaOH HCl HNO3 C6H8O6 NH4Cl Na2S2O3 Unpreserved										SW SW SW										
Client Contact:		Matrix										Container ID										
Ashley Gibson		SW SW SW										YVWD-A 3EA53 YVWD-B 3EA54 YVWD-Z 3EA56										
Phone No.:		Sample Identification										Date / Time										
909-560-1370 FAX No.: 909-795-0402		Max Benefits - San Timoteo GMZ Lina Robert (lrobert@yvwd.dst.ca.us) and Steven Stuart (sstuart@dudek.com)										12/3/20/1535 12/4/20/838 12/4/20/920										
System No.:		Relinquished By (Sign)										Print Name / Company										
		[Signature] Michelle Blue Chief										[Signature] Michelle Blue Chief										
Project:		Received By (Sign)										Print Name / Company										
Max Benefits - San Timoteo GMZ		[Signature] Michelle Blue Chief										[Signature] Michelle Blue Chief										
Sampled By:		Date / Time										Received By (Sign)										
[Signature]		12/3/20/1535 12/4/20/838 12/4/20/920										[Signature] Michelle Blue Chief										
Comments:		Date / Time										Received By (Sign)										
		12/3/20/1535 12/4/20/838 12/4/20/920										[Signature] Michelle Blue Chief										
Email results to:		Date / Time										Received By (Sign)										
Lina Robert (lrobert@yvwd.dst.ca.us) and Steven Stuart (sstuart@dudek.com)		12/3/20/1535 12/4/20/838 12/4/20/920										[Signature] Michelle Blue Chief										
Date		Date / Time										Received By (Sign)										
		12/3/20/1535 12/4/20/838 12/4/20/920										[Signature] Michelle Blue Chief										
Date		Date / Time										Received By (Sign)										
		12/3/20/1535 12/4/20/838 12/4/20/920										[Signature] Michelle Blue Chief										

Matrix: DW - Drinking Water GW - Ground Water SW - Surface Water W - Water WW - Wastewater SWR - Stormwater Runoff S - Sludge O - Other

Use for Bacteria Samples / Sample Type: 1-Routine 2-Repeat 3-Replacement 4-Special D-Distribution W-Well

TAT: (10) Ten Day (5) Five Day Rush (2) Two Day Rush

Relinquished By (Sign): [Signature] Michelle Blue Chief

Print Name / Company: Michelle Blue Chief

Date / Time: 12/3/20/1535

Received By (Sign): [Signature]

Print Name / Company: Michelle Blue Chief

Date / Time: 12/4/20/838

Received By (Sign): [Signature]

Print Name / Company: Michelle Blue Chief

Date / Time: 12/4/20/920

Received By (Sign): [Signature]

Print Name / Company: Michelle Blue Chief

Work Order Logged By: [Signature]

Clinical Lab Receipt Temp.: 6.4°C

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20L1708

Received: 12/18/20 11:45

Reported: 12/30/20

YVWD-A **20L1708-01 (Water)** **Sample Date:** 12/17/20 15:35 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	250	mg/L	5.0		12/22/20	12/22/20	2051149	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	12/22/20	12/23/20	2052048	
Bicarbonate (HCO3)	SM 2320 B	300	mg/L	5.0		12/22/20	12/22/20	2051149	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		12/22/20	12/22/20	2051149	
Chloride (Cl)	EPA 300.0	71	mg/L	1.0	0.075	12/18/20	12/18/20	2051130	
Specific Conductance (E.C.)	SM 2510B	690	umhos/cm	2.0	0.20	12/18/20	12/22/20	2051149	
Fluoride (F)	EPA 300.0	0.48	mg/L	0.10	0.026	12/18/20	12/18/20	2051130	
Hardness, Total (as CaCO3)	Calculated	200	mg/L	6.6		12/28/20	12/28/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		12/22/20	12/22/20	2051149	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		12/22/20	12/23/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	0.48	mg/L	0.40	0.12	12/18/20	12/18/20	2051130	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	12/18/20	12/18/20	2051130	
pH (Lab)	SM 4500HB	8.2	pH Units			12/18/20	12/22/20	2051149	
Sulfate (SO4)	EPA 300.0	28	mg/L	0.50	0.14	12/18/20	12/18/20	2051130	
Total Filterable Residue/TDS	SM 2540C	390	mg/L	5.0	3.1	12/22/20	12/28/20	2052027	

Metals

Calcium (Ca)	EPA 200.7	52	mg/L	1.0	0.080	12/28/20	12/28/20	2053029	
Magnesium (Mg)	EPA 200.7	16	mg/L	1.0	0.51	12/28/20	12/28/20	2053029	
Potassium (K)	EPA 200.7	8.1	mg/L	1.0	0.18	12/28/20	12/28/20	2053029	
Sodium (Na)	EPA 200.7	79	mg/L	1.0	0.21	12/28/20	12/28/20	2053029	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20L1708
Received: 12/18/20 11:45
Reported: 12/30/20

YVWD-B **20L1708-02 (Water)** **Sample Date:** 12/17/20 15:12 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	220	mg/L	5.0		12/22/20	12/22/20	2051149	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	12/22/20	12/23/20	2052048	
Bicarbonate (HCO3)	SM 2320 B	270	mg/L	5.0		12/22/20	12/22/20	2051149	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		12/22/20	12/22/20	2051149	
Chloride (Cl)	EPA 300.0	69	mg/L	1.0	0.075	12/18/20	12/18/20	2051130	
Specific Conductance (E.C.)	SM 2510B	670	umhos/cm	2.0	0.20	12/18/20	12/22/20	2051149	
Fluoride (F)	EPA 300.0	0.48	mg/L	0.10	0.026	12/18/20	12/18/20	2051130	
Hardness, Total (as CaCO3)	Calculated	180	mg/L	6.6		12/28/20	12/28/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		12/22/20	12/22/20	2051149	
Inorganic Nitrogen	Calculated	1.5	mg/L	1.3		12/22/20	12/23/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.5	mg/L	0.40	0.12	12/18/20	12/18/20	2051130	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	12/18/20	12/18/20	2051130	
pH (Lab)	SM 4500HB	8.0	pH Units			12/18/20	12/22/20	2051149	
Sulfate (SO4)	EPA 300.0	31	mg/L	0.50	0.14	12/18/20	12/18/20	2051130	
Total Filterable Residue/TDS	SM 2540C	430	mg/L	5.0	3.1	12/22/20	12/28/20	2052027	

Metals

Calcium (Ca)	EPA 200.7	50	mg/L	1.0	0.080	12/28/20	12/28/20	2053029	
Magnesium (Mg)	EPA 200.7	13	mg/L	1.0	0.51	12/28/20	12/28/20	2053029	
Potassium (K)	EPA 200.7	7.2	mg/L	1.0	0.18	12/28/20	12/28/20	2053029	
Sodium (Na)	EPA 200.7	82	mg/L	1.0	0.21	12/28/20	12/28/20	2053029	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20L1708
Received: 12/18/20 11:45
Reported: 12/30/20

YVWD-Z **20L1708-03 (Water)** **Sample Date:** 12/17/20 14:38 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	230	mg/L	5.0		12/22/20	12/22/20	2051149	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	12/22/20	12/23/20	2052048	
Bicarbonate (HCO3)	SM 2320 B	280	mg/L	5.0		12/22/20	12/22/20	2051149	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		12/22/20	12/22/20	2051149	
Chloride (Cl)	EPA 300.0	71	mg/L	1.0	0.075	12/18/20	12/18/20	2051130	
Specific Conductance (E.C.)	SM 2510B	670	umhos/cm	2.0	0.20	12/18/20	12/22/20	2051149	
Fluoride (F)	EPA 300.0	0.35	mg/L	0.10	0.026	12/18/20	12/18/20	2051130	
Hardness, Total (as CaCO3)	Calculated	250	mg/L	6.6		12/28/20	12/28/20	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		12/22/20	12/22/20	2051149	
Inorganic Nitrogen	Calculated	1.6	mg/L	1.3		12/22/20	12/23/20	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.6	mg/L	0.40	0.12	12/18/20	12/18/20	2051130	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	12/18/20	12/18/20	2051130	
pH (Lab)	SM 4500HB	8.2	pH Units			12/18/20	12/22/20	2051149	
Sulfate (SO4)	EPA 300.0	33	mg/L	0.50	0.14	12/18/20	12/18/20	2051130	
Total Filterable Residue/TDS	SM 2540C	380	mg/L	5.0	3.1	12/22/20	12/28/20	2052027	

Metals

Calcium (Ca)	EPA 200.7	72	mg/L	1.0	0.080	12/28/20	12/28/20	2053029	
Magnesium (Mg)	EPA 200.7	18	mg/L	1.0	0.51	12/28/20	12/28/20	2053029	
Potassium (K)	EPA 200.7	7.8	mg/L	1.0	0.18	12/28/20	12/28/20	2053029	
Sodium (Na)	EPA 200.7	79	mg/L	1.0	0.21	12/28/20	12/28/20	2053029	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20L2499
Received: 12/30/20 12:45
Reported: 01/12/21

YVWD-A **20L2499-01 (Water)** **Sample Date:** 12/29/20 10:54 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	180	mg/L	5.0		01/05/21	01/05/21	2053076	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	01/04/21	01/05/21	2102024	
Bicarbonate (HCO3)	SM 2320 B	210	mg/L	5.0		01/05/21	01/05/21	2053076	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		01/05/21	01/05/21	2053076	
Chloride (Cl)	EPA 300.0	53	mg/L	1.0	0.075	12/31/20	12/31/20	2053097	
Specific Conductance (E.C.)	SM 2510B	530	umhos/cm	2.0	0.20	12/31/20	12/31/20	2053076	
Fluoride (F)	EPA 300.0	0.52	mg/L	0.10	0.026	12/31/20	12/31/20	2053097	
Hardness, Total (as CaCO3)	Calculated	170	mg/L	6.6		01/06/21	01/06/21	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		01/05/21	01/05/21	2053076	
Inorganic Nitrogen	Calculated	ND	mg/L	1.3		01/04/21	01/05/21	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	0.93	mg/L	0.40	0.12	12/31/20	12/31/20	2053097	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	12/31/20	12/31/20	2053097	
pH (Lab)	SM 4500HB	7.8	pH Units			12/31/20	12/31/20	2053076	
Sulfate (SO4)	EPA 300.0	32	mg/L	0.50	0.14	12/31/20	12/31/20	2053097	
Total Filterable Residue/TDS	SM 2540C	310	mg/L	5.0	3.1	12/31/20	01/04/21	2053102	

Metals

Calcium (Ca)	EPA 200.7	46	mg/L	1.0	0.080	01/06/21	01/06/21	2102078	
Magnesium (Mg)	EPA 200.7	14	mg/L	1.0	0.51	01/06/21	01/06/21	2102078	
Potassium (K)	EPA 200.7	7.0	mg/L	1.0	0.18	01/06/21	01/06/21	2102078	
Sodium (Na)	EPA 200.7	64	mg/L	1.0	0.21	01/06/21	01/06/21	2102078	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20L2499

Received: 12/30/20 12:45

Reported: 01/12/21

YVWD-Z **20L2499-03 (Water)** **Sample Date:** 12/29/20 12:17 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	280	mg/L	5.0		01/05/21	01/05/21	2053076	
Ammonia as N (NH3-N)	EPA 350.1	ND	mg/L	0.50	0.15	01/04/21	01/05/21	2102024	
Bicarbonate (HCO3)	SM 2320 B	340	mg/L	5.0		01/05/21	01/05/21	2053076	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		01/05/21	01/05/21	2053076	
Chloride (Cl)	EPA 300.0	58	mg/L	1.0	0.075	12/31/20	12/31/20	2053097	
Specific Conductance (E.C.)	SM 2510B	570	umhos/cm	2.0	0.20	12/31/20	12/31/20	2053076	
Fluoride (F)	EPA 300.0	0.53	mg/L	0.10	0.026	12/31/20	12/31/20	2053097	
Hardness, Total (as CaCO3)	Calculated	270	mg/L	6.6		01/06/21	01/06/21	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		01/05/21	01/05/21	2053076	
Inorganic Nitrogen	Calculated	1.4	mg/L	1.3		01/04/21	01/05/21	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.4	mg/L	0.40	0.12	12/31/20	12/31/20	2053097	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	12/31/20	12/31/20	2053097	
pH (Lab)	SM 4500HB	7.7	pH Units			12/31/20	12/31/20	2053076	
Sulfate (SO4)	EPA 300.0	36	mg/L	0.50	0.14	12/31/20	12/31/20	2053097	
Total Filterable Residue/TDS	SM 2540C	340	mg/L	5.0	3.1	01/04/21	01/06/21	2102017	

Metals

Calcium (Ca)	EPA 200.7	67	mg/L	1.0	0.080	01/06/21	01/06/21	2102078	
Magnesium (Mg)	EPA 200.7	25	mg/L	1.0	0.51	01/06/21	01/06/21	2102078	
Potassium (K)	EPA 200.7	11	mg/L	1.0	0.18	01/06/21	01/06/21	2102078	
Sodium (Na)	EPA 200.7	69	mg/L	1.0	0.21	01/06/21	01/06/21	2102078	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater
12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface
Sub Project: Max Benefits - San Timoteo GMZ
Project Manager: Ashley Gibson

Work Order: 20L2584
Received: 12/31/20 10:15
Reported: 01/12/21

YVWD-Z **20L2584-01 (Water)** **Sample Date:** 12/30/20 9:16 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
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General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	230	mg/L	5.0		01/05/21	01/05/21	2053076	
Ammonia as N (NH3-N)	EPA 350.1	0.38	mg/L	0.50	0.15	01/04/21	01/05/21	2102024	J
Bicarbonate (HCO3)	SM 2320 B	280	mg/L	5.0		01/05/21	01/05/21	2053076	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		01/05/21	01/05/21	2053076	
Chloride (Cl)	EPA 300.0	65	mg/L	1.0	0.075	12/31/20	12/31/20	2053097	
Specific Conductance (E.C.)	SM 2510B	640	umhos/cm	2.0	0.20	12/31/20	12/31/20	2053076	
Fluoride (F)	EPA 300.0	0.49	mg/L	0.10	0.026	12/31/20	12/31/20	2053097	
Hardness, Total (as CaCO3)	Calculated	370	mg/L	6.6		01/06/21	01/06/21	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		01/05/21	01/05/21	2053076	
Inorganic Nitrogen	Calculated	1.7	mg/L	1.3		01/04/21	01/05/21	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.3	mg/L	0.40	0.12	12/31/20	12/31/20	2053097	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	12/31/20	12/31/20	2053097	
pH (Lab)	SM 4500HB	7.9	pH Units			12/31/20	12/31/20	2053076	
Sulfate (SO4)	EPA 300.0	31	mg/L	0.50	0.14	12/31/20	12/31/20	2053097	
Total Filterable Residue/TDS	SM 2540C	360	mg/L	5.0	3.1	01/04/21	01/06/21	2102017	

Metals

Calcium (Ca)	EPA 200.7	85	mg/L	1.0	0.080	01/06/21	01/06/21	2102078	
Magnesium (Mg)	EPA 200.7	38	mg/L	1.0	0.51	01/06/21	01/06/21	2102078	
Potassium (K)	EPA 200.7	15	mg/L	1.0	0.18	01/06/21	01/06/21	2102078	
Sodium (Na)	EPA 200.7	78	mg/L	1.0	0.21	01/06/21	01/06/21	2102078	

Stu Styles
Client Services Manager

Clinical Laboratory of San Bernardino, Inc.

Celebrating 50 Years of Analytical Service 1967-2017



Yucaipa Valley Water District - Wastewater

12770 2nd Street
Yucaipa CA, 92399

Project: San Timoteo-Surface

Sub Project: Max Benefits - San Timoteo GMZ

Project Manager: Ashley Gibson

Work Order: 20L2584

Received: 12/31/20 10:15

Reported: 01/12/21

YVWD-E **20L2584-02 (Water)** **Sample Date:** 12/30/20 10:05 **Sampler:** Madeline Blua

Analyte	Method	Result	Units	Rep. Limit	MDL	Prepared	Analyzed	Batch	Qualifier
---------	--------	--------	-------	------------	-----	----------	----------	-------	-----------

General Chemical Analyses

Alkalinity, Total (as CaCO3)	SM 2320 B	190	mg/L	5.0		01/05/21	01/05/21	2053076	
Ammonia as N (NH3-N)	EPA 350.1	0.18	mg/L	0.50	0.15	01/04/21	01/05/21	2102024	J
Bicarbonate (HCO3)	SM 2320 B	230	mg/L	5.0		01/05/21	01/05/21	2053076	
Carbonate (CO3)	SM 2320B	ND	mg/L	5.0		01/05/21	01/05/21	2053076	
Chloride (Cl)	EPA 300.0	59	mg/L	1.0	0.075	12/31/20	12/31/20	2053097	
Specific Conductance (E.C.)	SM 2510B	610	umhos/cm	2.0	0.20	12/31/20	12/31/20	2053076	
Fluoride (F)	EPA 300.0	0.51	mg/L	0.10	0.026	12/31/20	12/31/20	2053097	
Hardness, Total (as CaCO3)	Calculated	200	mg/L	6.6		01/06/21	01/06/21	[CALC]	
Hydroxide (OH)	SM 2320B	ND	mg/L	5.0		01/05/21	01/05/21	2053076	
Inorganic Nitrogen	Calculated	1.4	mg/L	1.3		01/04/21	01/05/21	[CALC]	
Nitrate as N (NO3-N)	EPA 300.0	1.2	mg/L	0.40	0.12	12/31/20	12/31/20	2053097	
Nitrite as N (NO2-N)	EPA 300.0	ND	mg/L	0.40	0.17	12/31/20	12/31/20	2053097	
pH (Lab)	SM 4500HB	8.0	pH Units			12/31/20	12/31/20	2053076	
Sulfate (SO4)	EPA 300.0	34	mg/L	0.50	0.14	12/31/20	12/31/20	2053097	
Total Filterable Residue/TDS	SM 2540C	350	mg/L	5.0	3.1	01/04/21	01/06/21	2102017	

Metals

Calcium (Ca)	EPA 200.7	53	mg/L	1.0	0.080	01/06/21	01/06/21	2102078	
Magnesium (Mg)	EPA 200.7	16	mg/L	1.0	0.51	01/06/21	01/06/21	2102078	
Potassium (K)	EPA 200.7	7.5	mg/L	1.0	0.18	01/06/21	01/06/21	2102078	
Sodium (Na)	EPA 200.7	68	mg/L	1.0	0.21	01/06/21	01/06/21	2102078	

J Detected below the Reporting Limit; reported concentration is estimated; (J-Flag)

pH (Lab) was analyzed ASAP but received and analyzed past the 15 minute hold time.

ND Analyte NOT DETECTED at or above the MDL; Method Detection Limit

Stu Styles
Client Services Manager

APPENDIX F

**Hydrographs of Groundwater Elevations at Wells in the
San Timoteo Groundwater Management Zone**

APPENDIX F

Historical Groundwater Elevations at Wells in the San Timoteo Groundwater Management Zone

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- F-28 Groundwater Elevation Hydrograph at Well YVWD OW-1P
- F-29 Groundwater Elevation Hydrograph at Well YVWD OW-1T
- F-30 Groundwater Elevation Hydrograph at Well YVWD OW-2P
- F-31 Groundwater Elevation Hydrograph at Well YVWD OW-3P

Groundwater Elevation at Well GL-8

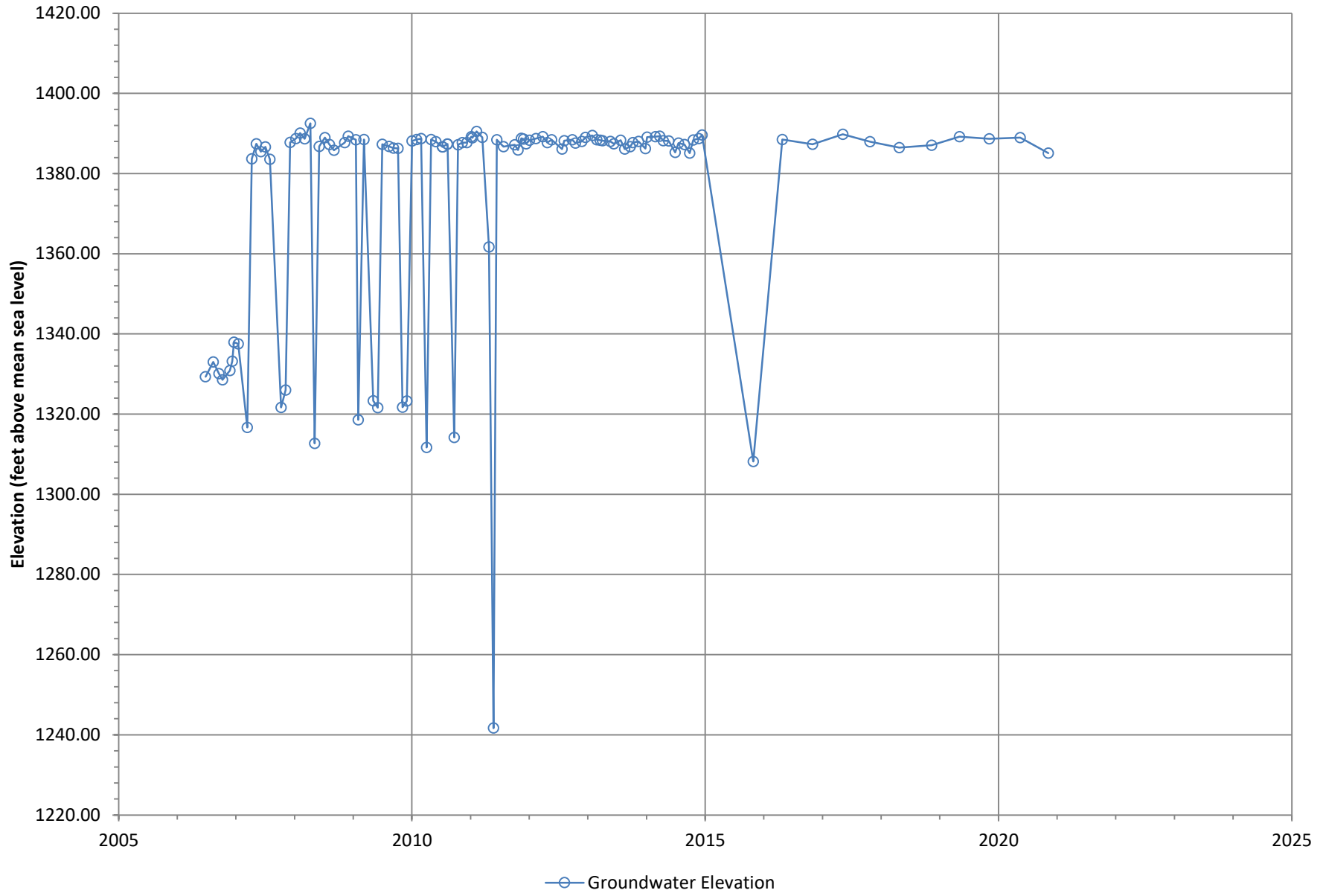


Figure F-1

Groundwater Elevation at Heartland Well

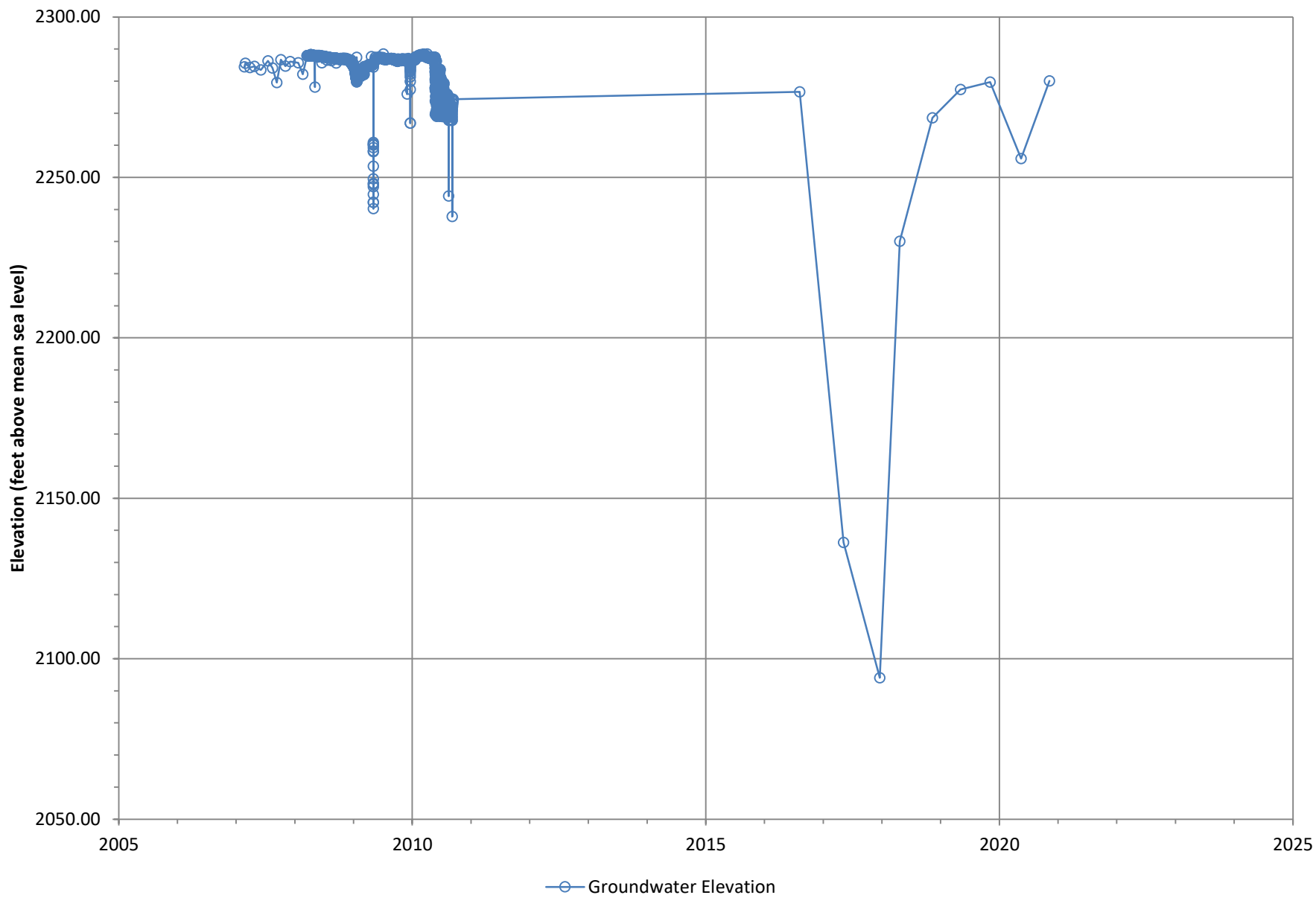


Figure F-2

Groundwater Elevation at Well ST-02

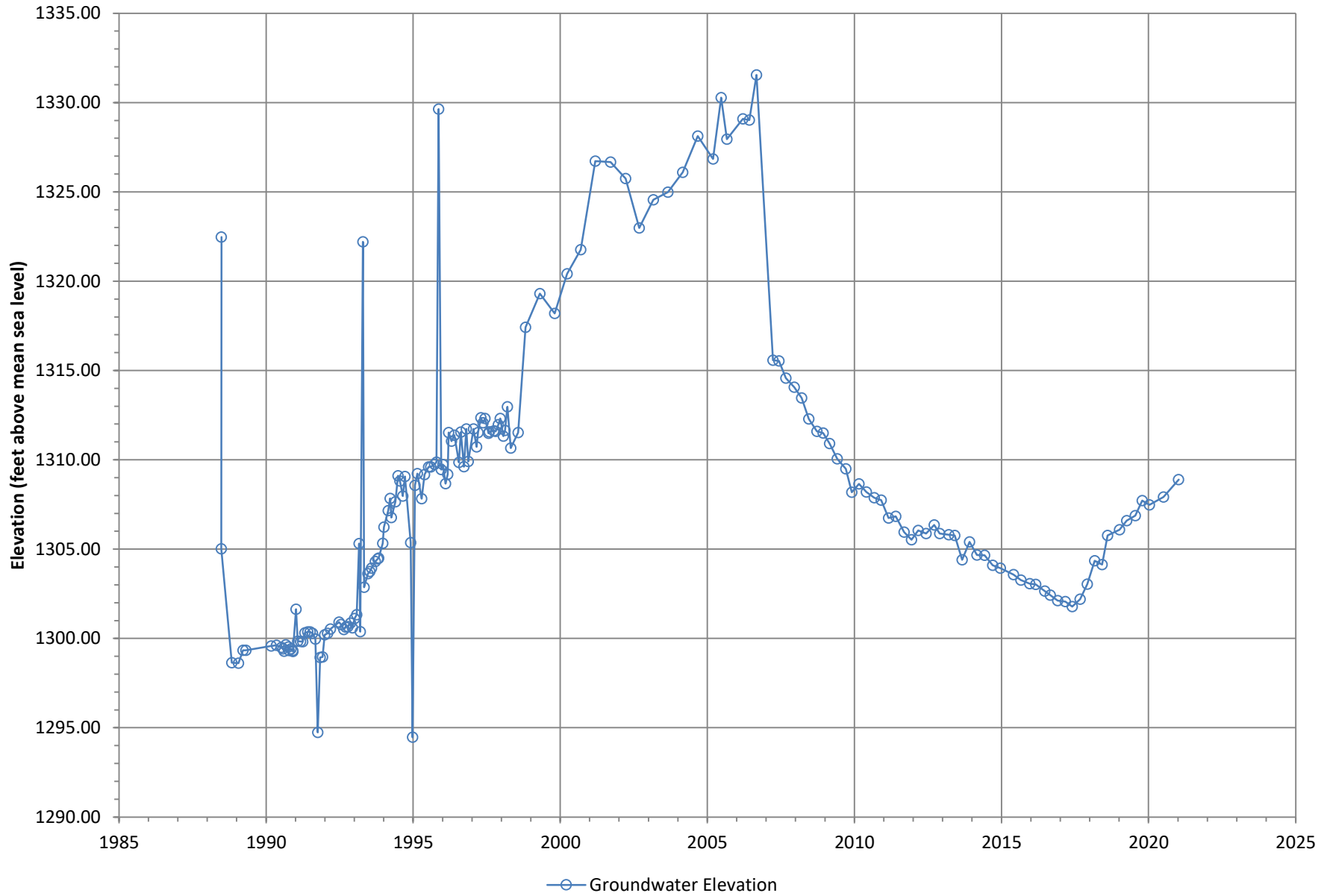


Figure F-3

Groundwater Elevation at Well ST-03

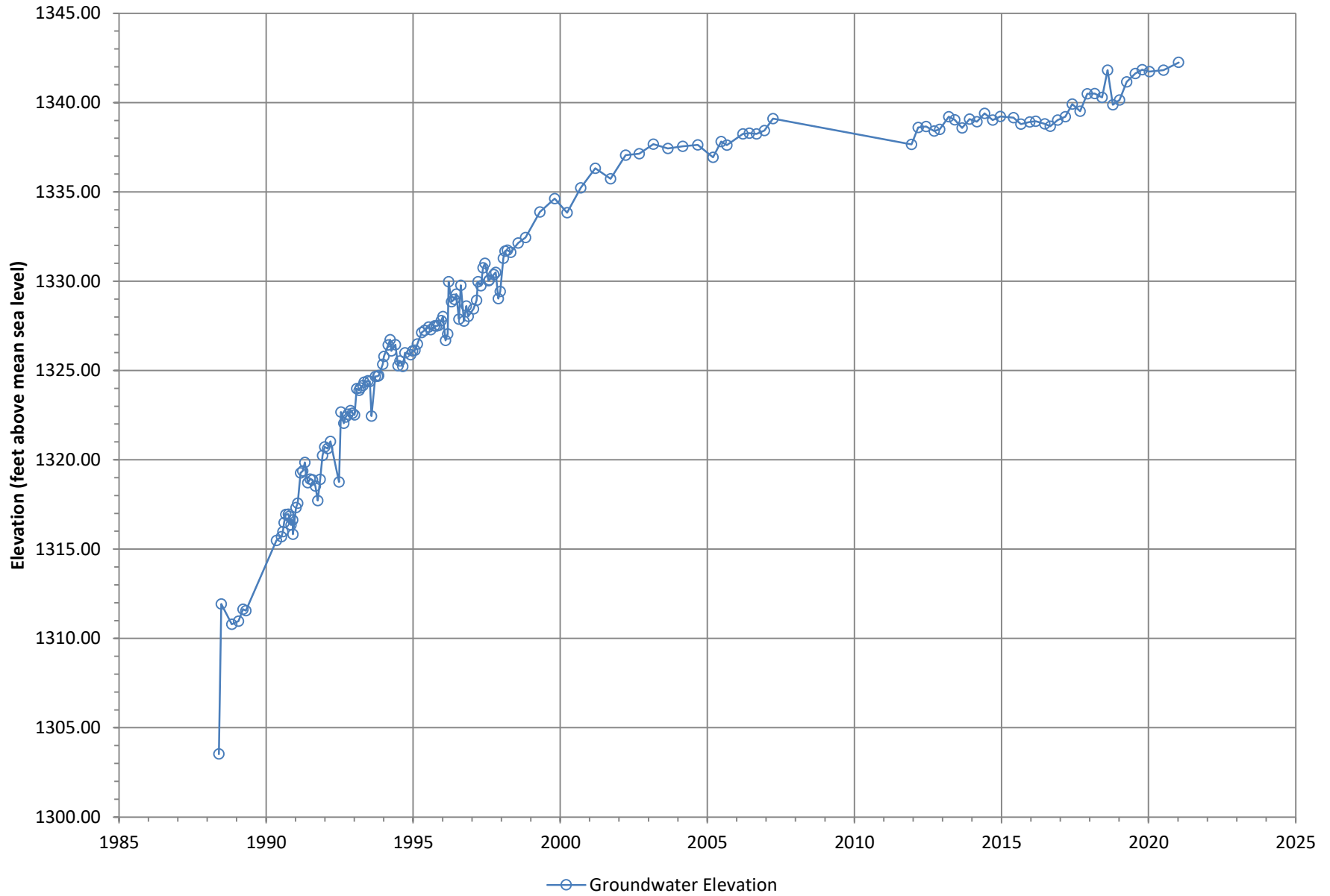


Figure F-4

Groundwater Elevation at Well ST-05C

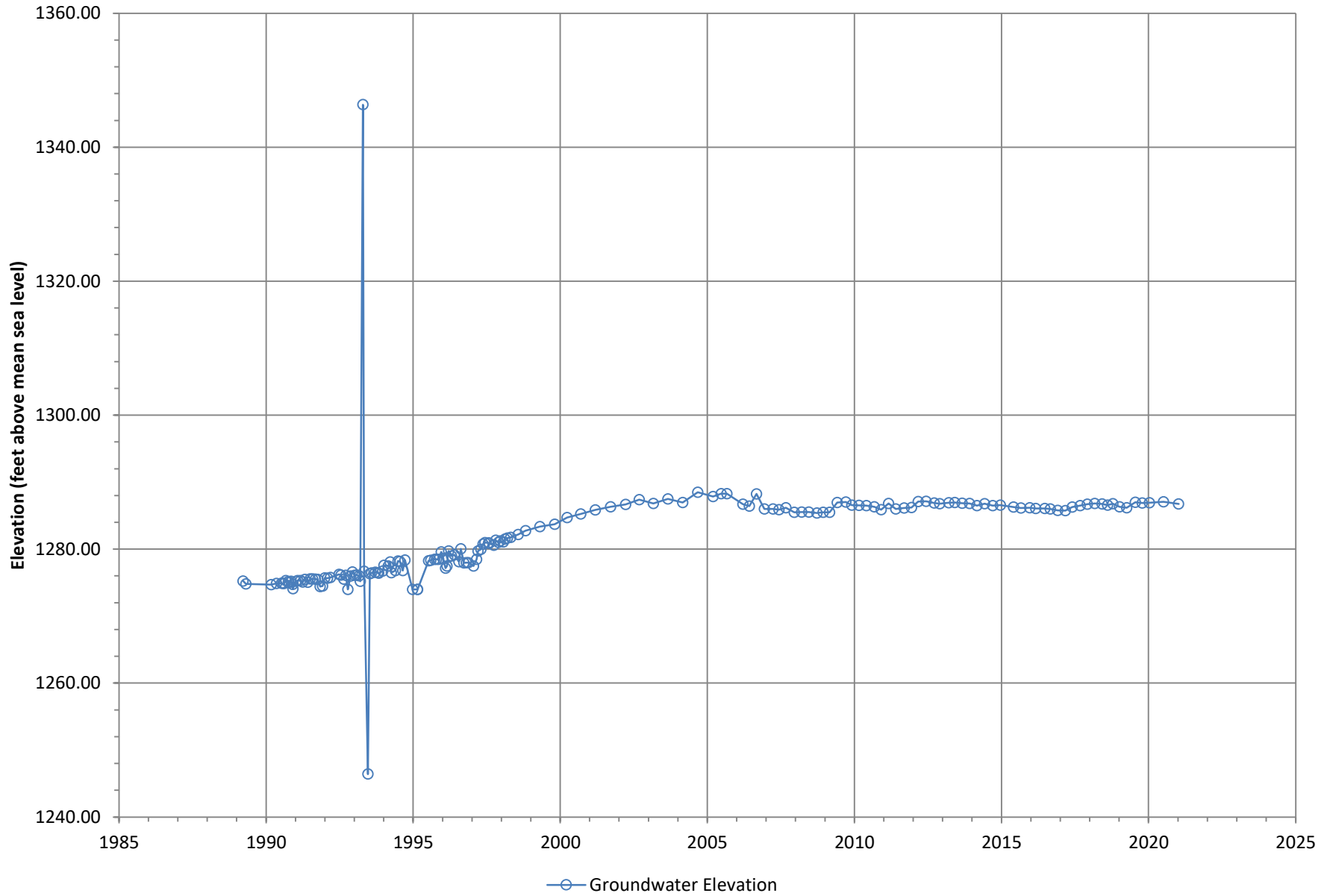


Figure F-5

Groundwater Elevation at Well ST-07A

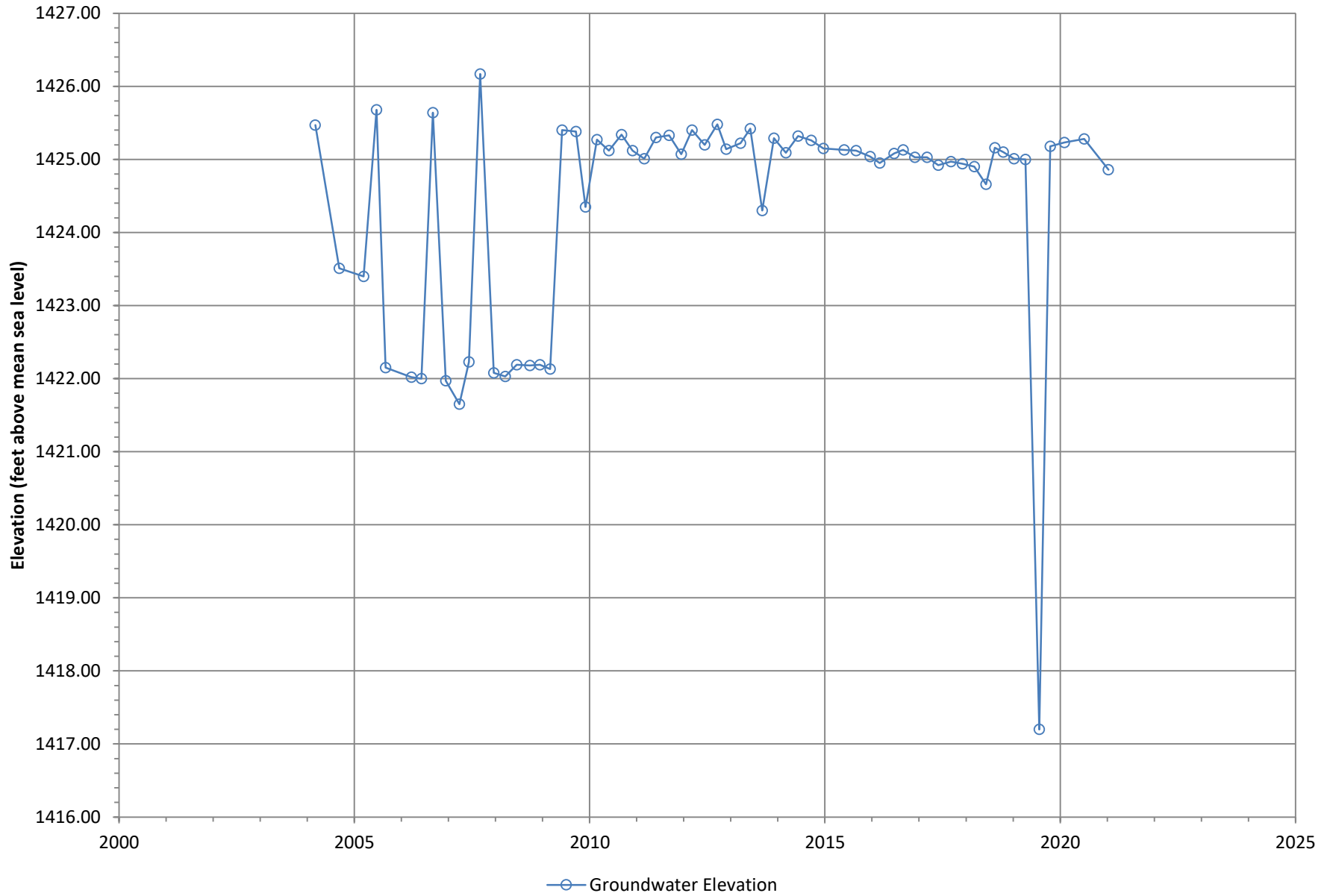


Figure F-6

Groundwater Elevation at Well ST-08

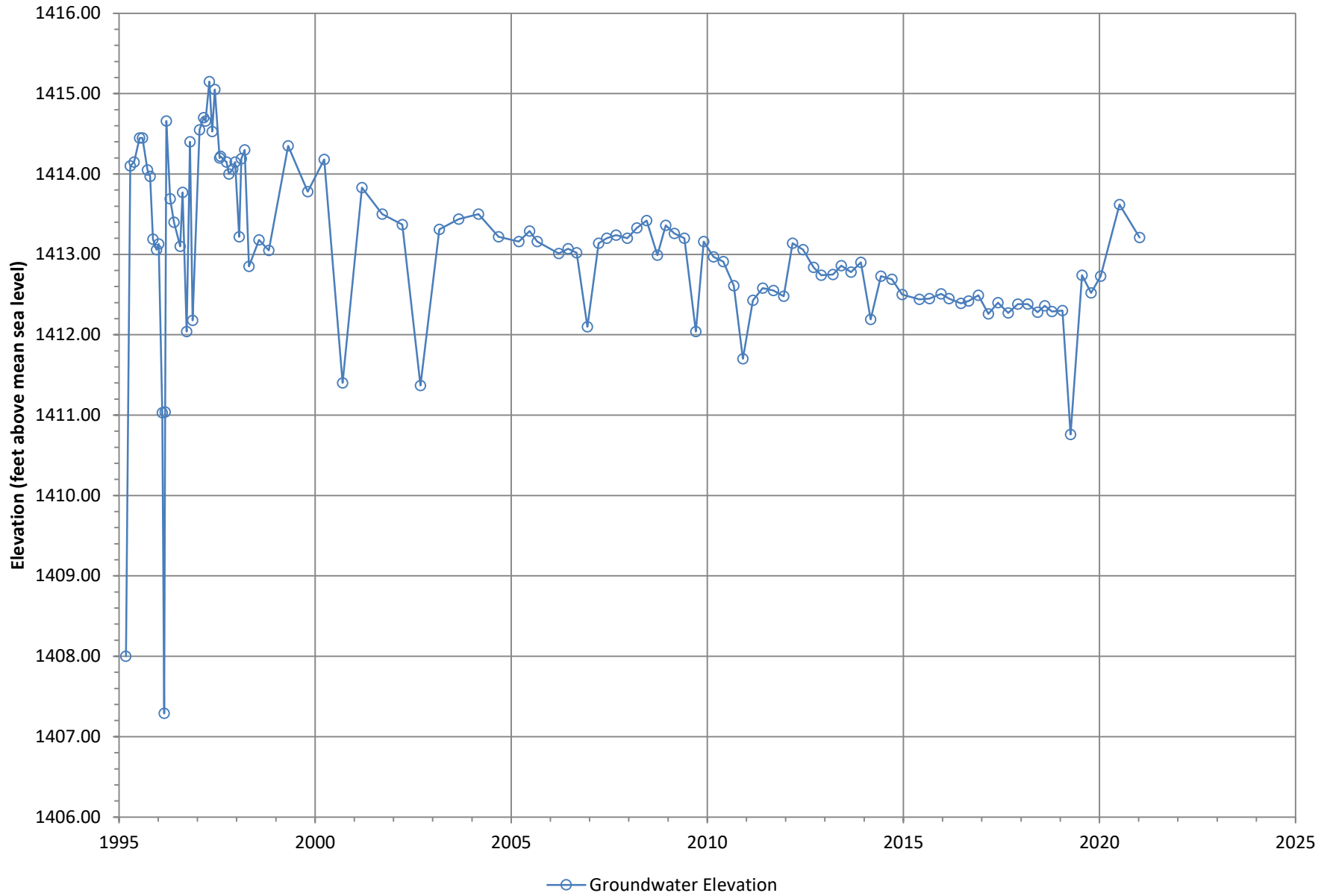


Figure F-7

Groundwater Elevation at Well ST-10

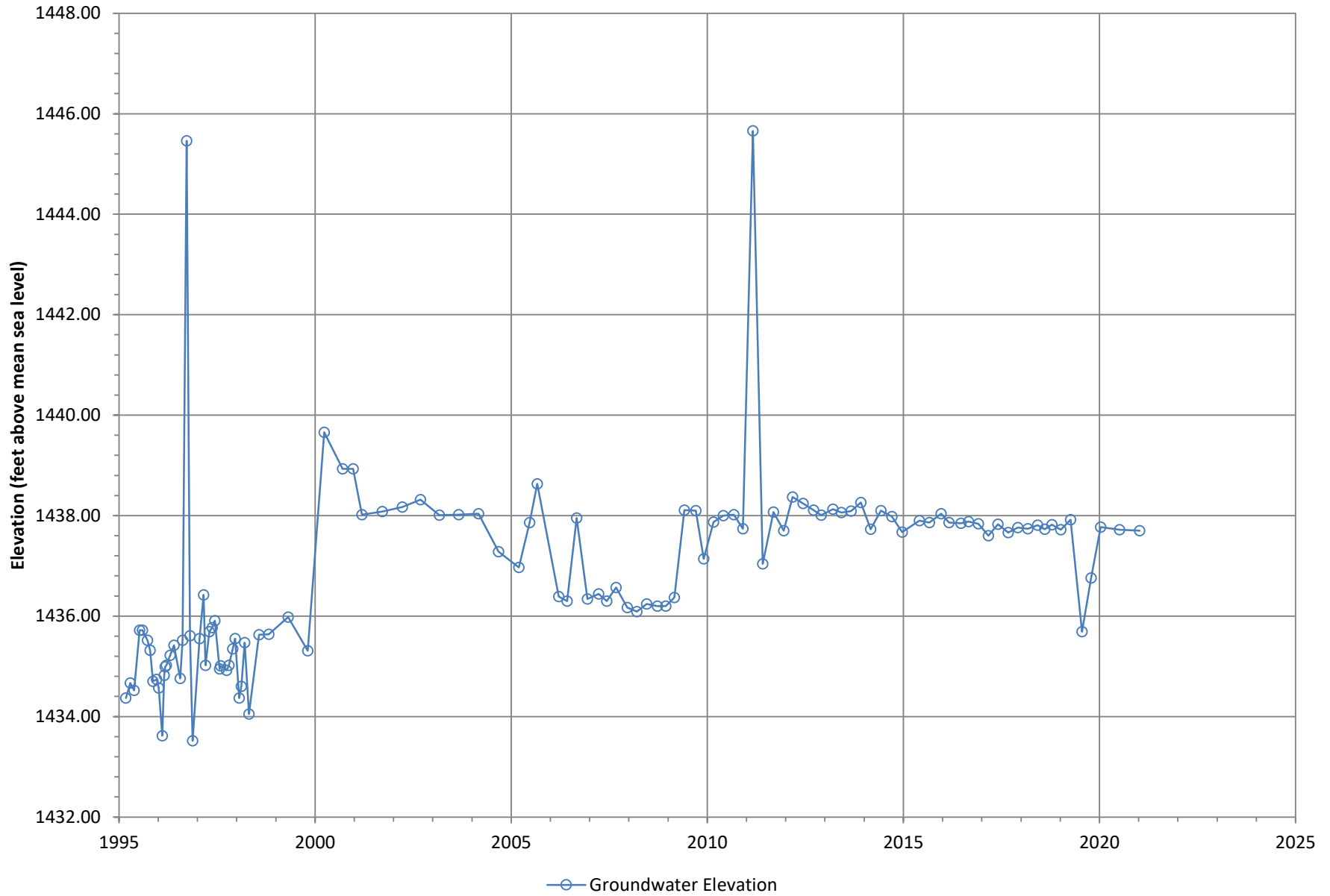


Figure F-8

Groundwater Elevation at Well ST-11

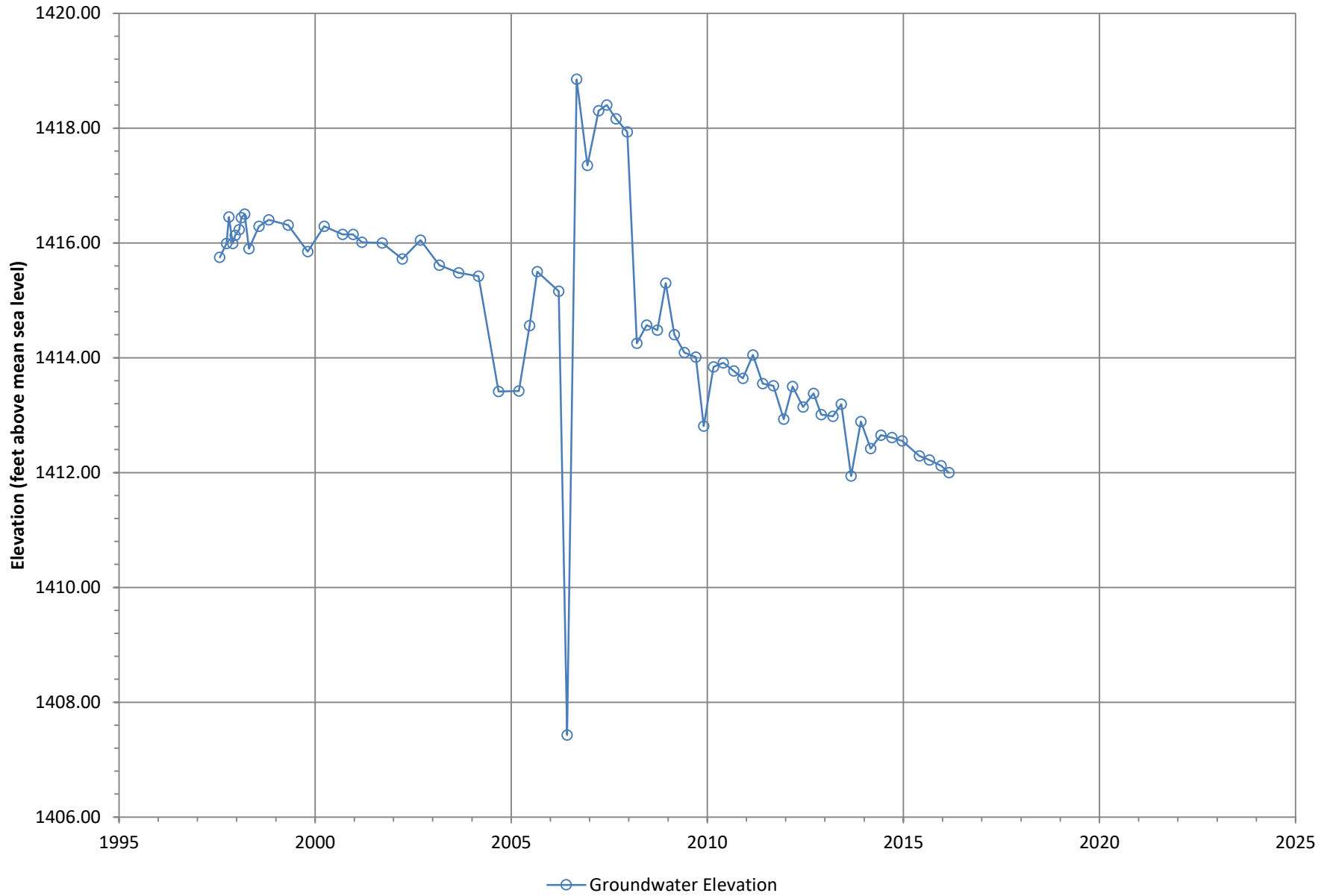


Figure F-9

Groundwater Elevation at Well ST-12

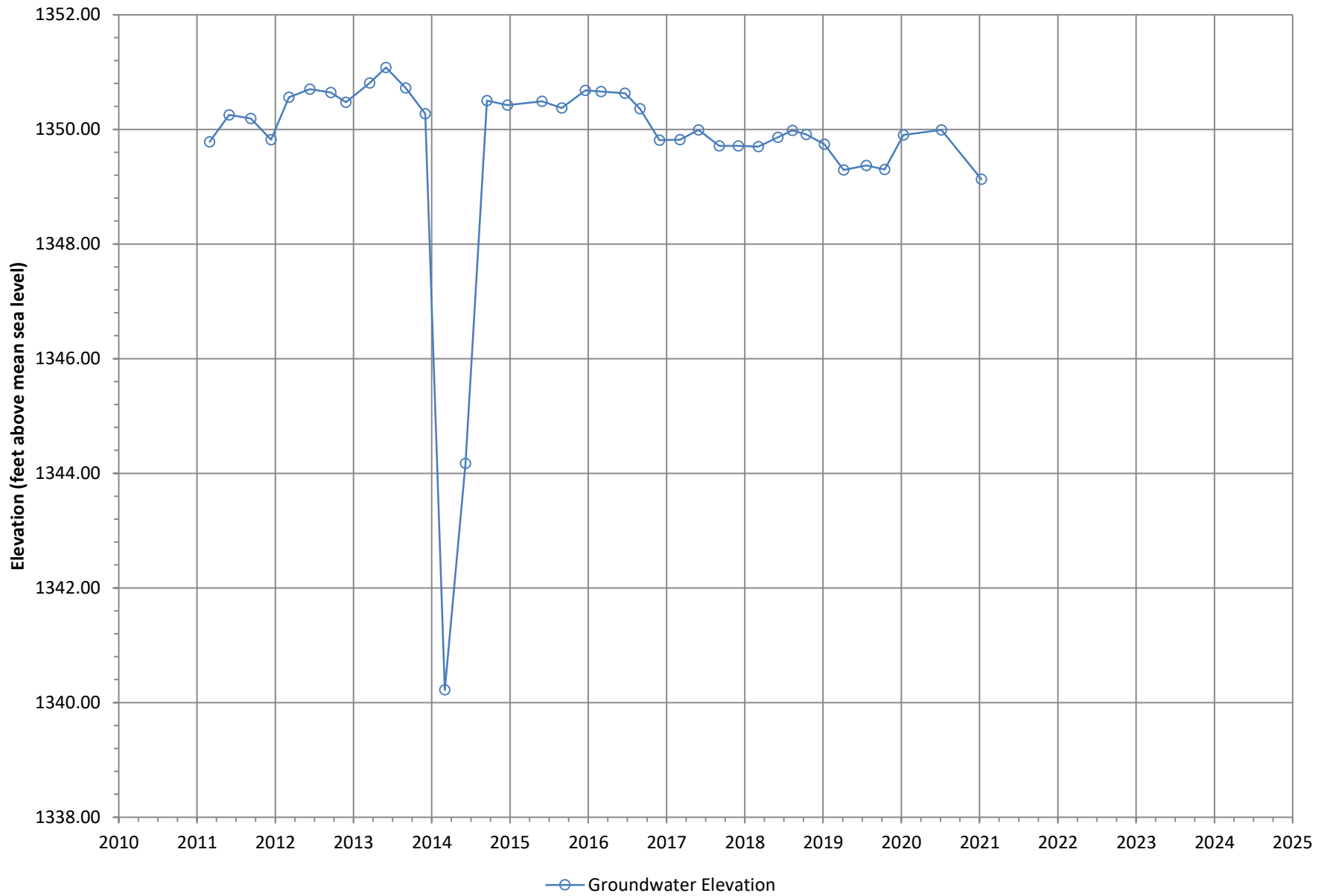


Figure F-10

Groundwater Elevation at Well East Valley Golf Club

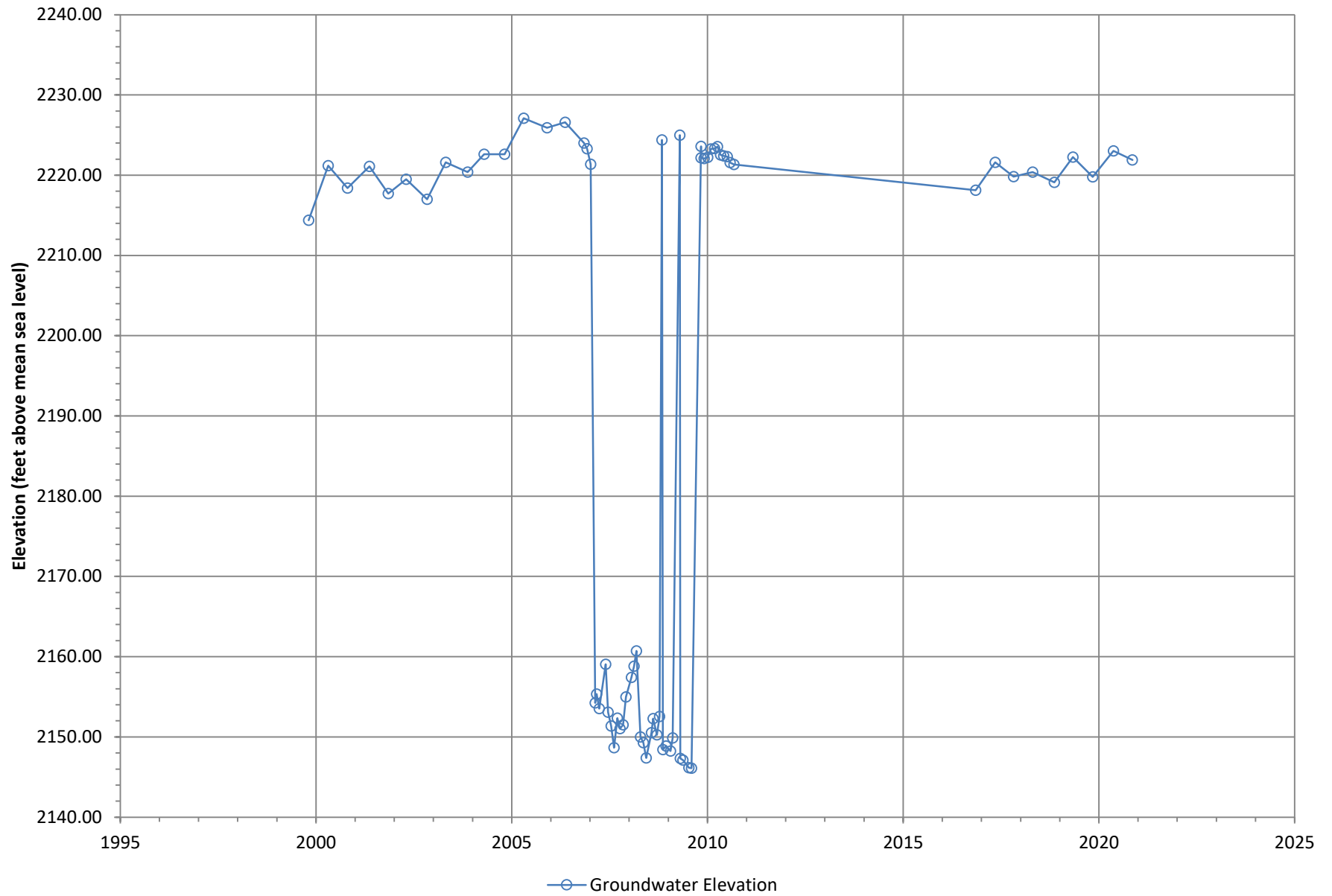


Figure F-11

Groundwater Elevation at Well Hildebrand, Chester F.

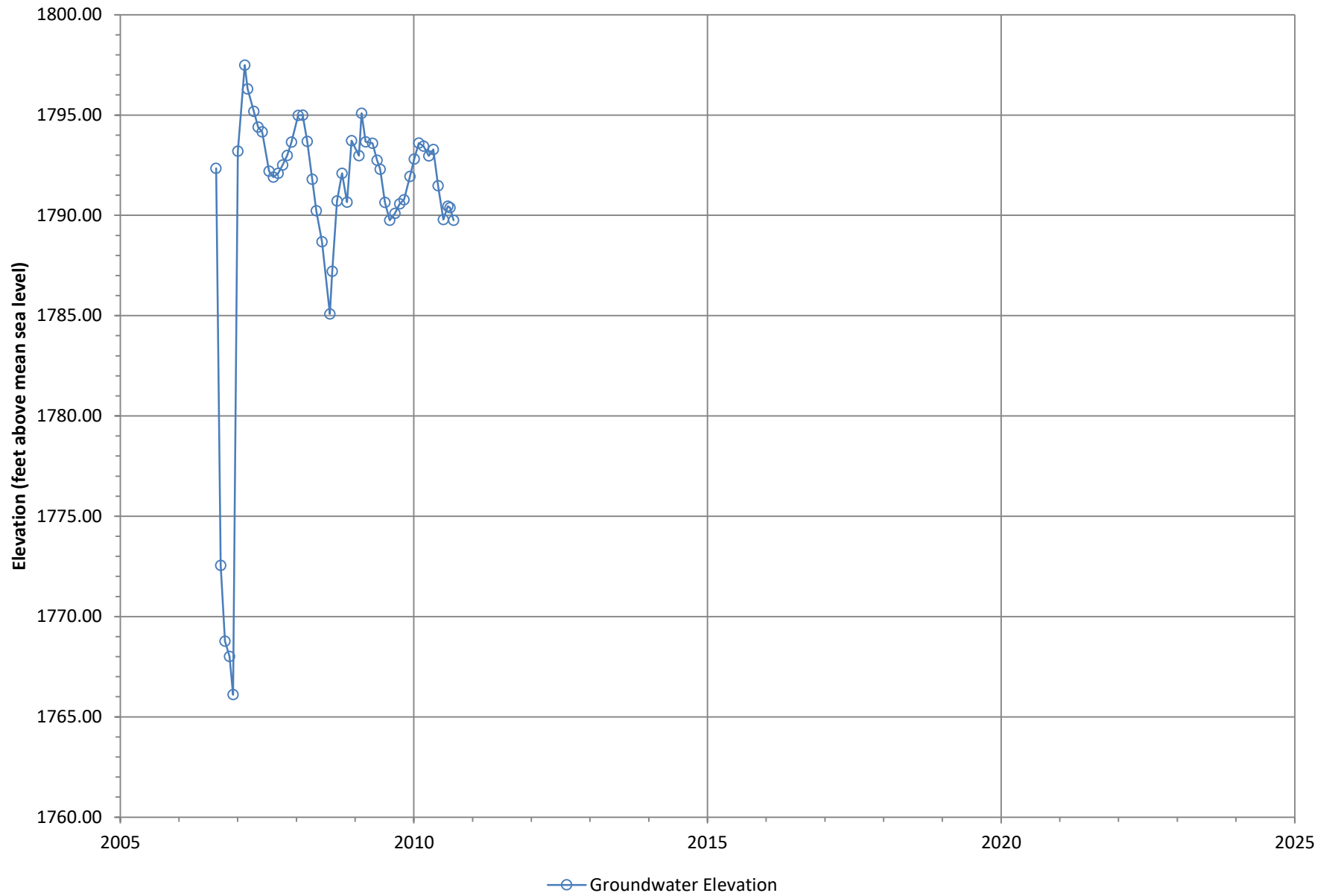


Figure F-13

Groundwater Elevation at Well San Tim Badlands BH-20

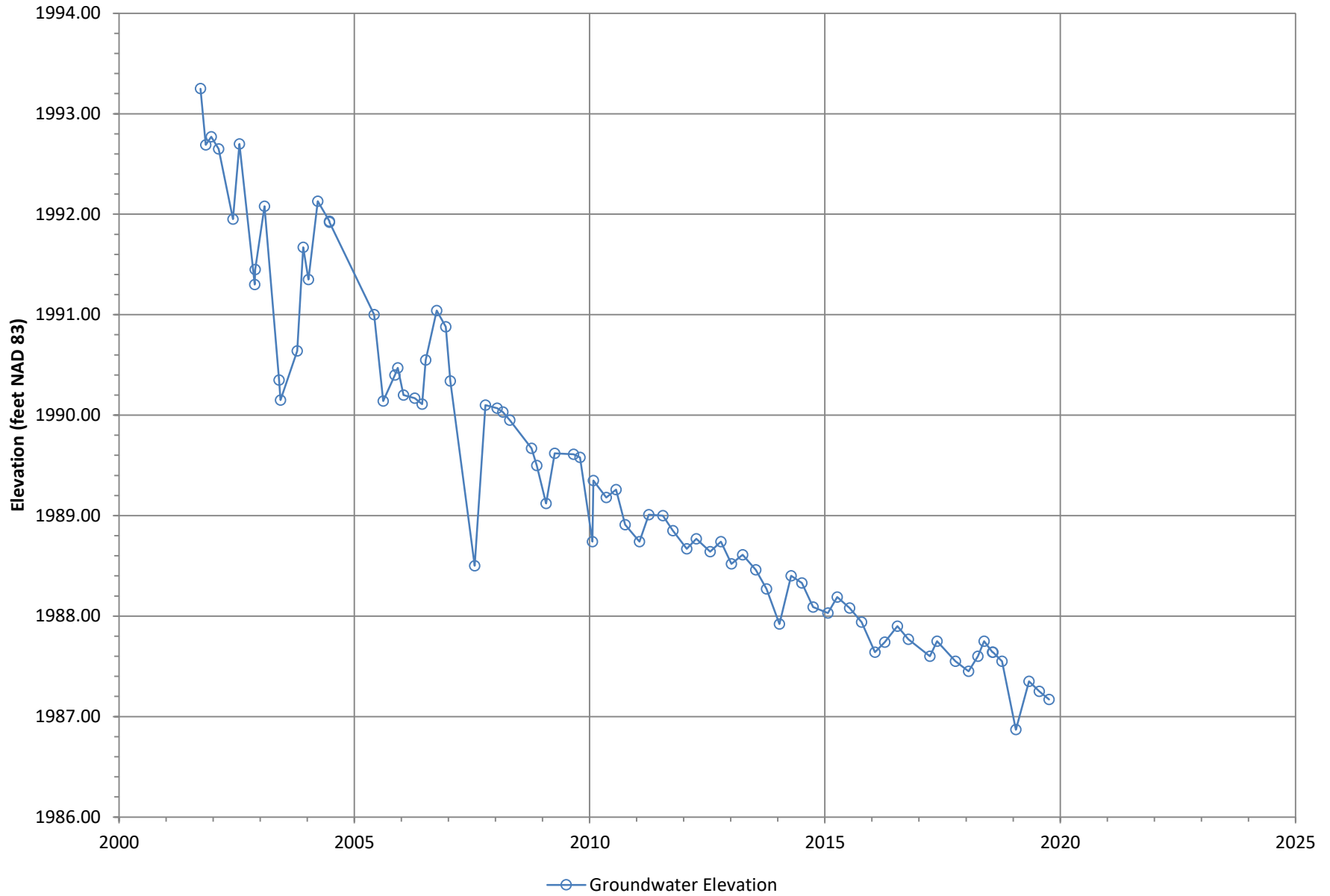


Figure F-15

Groundwater Elevation at Well San Tim Badlands BH-21

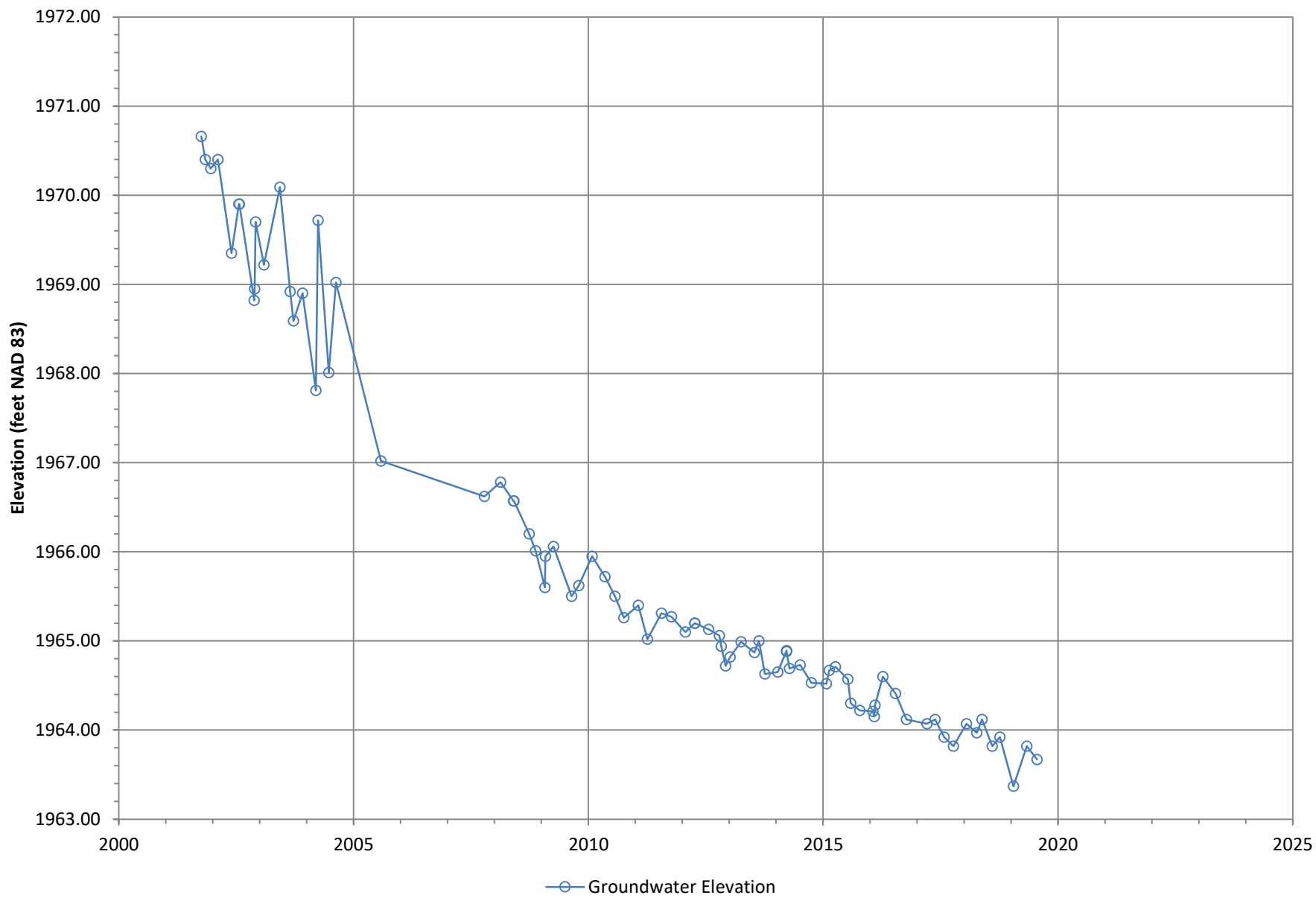


Figure F-16

Groundwater Elevation at Well San Tim Badlands BH-24

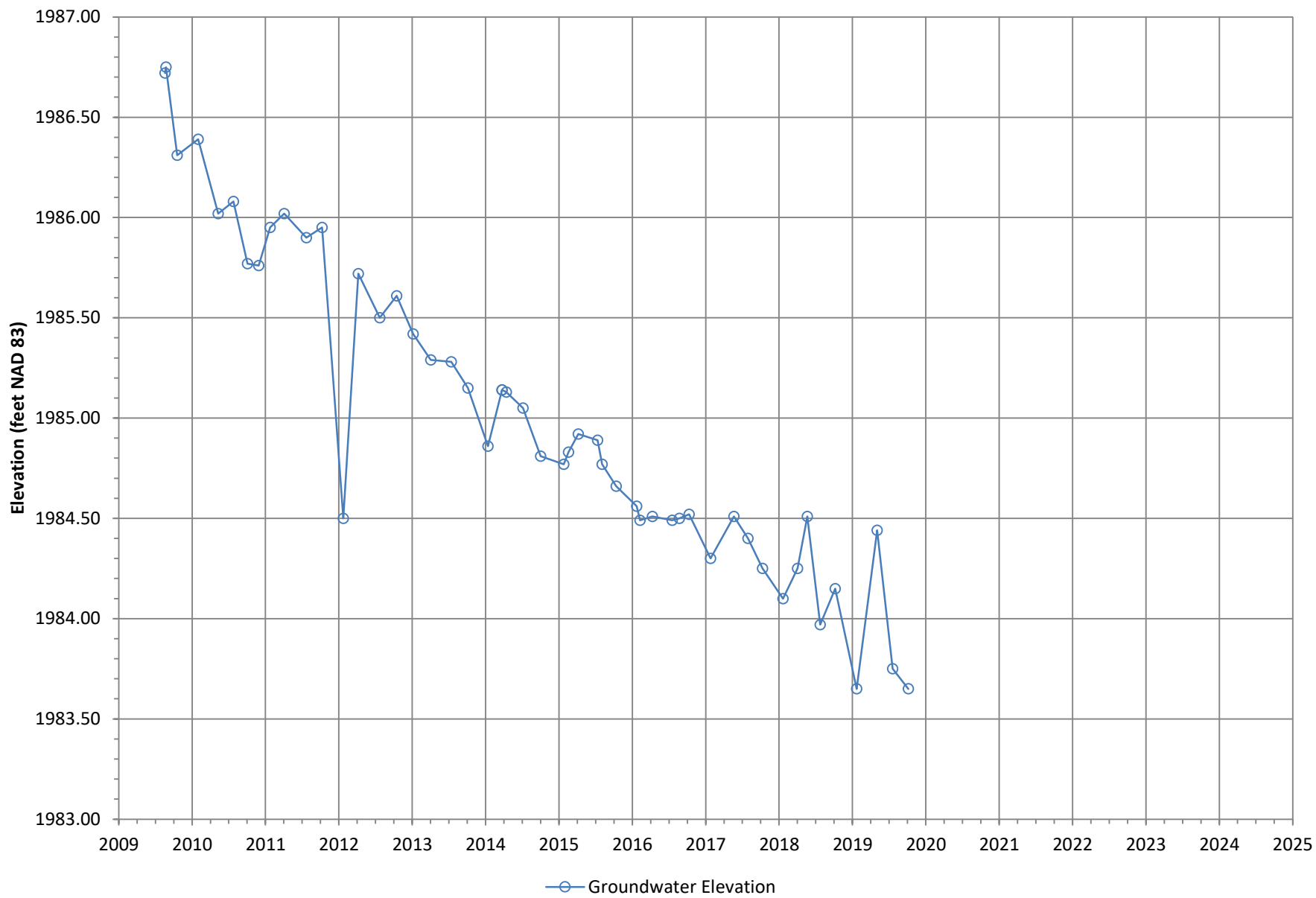


Figure F-17

Groundwater Elevation at Well #427, Agri-Empire

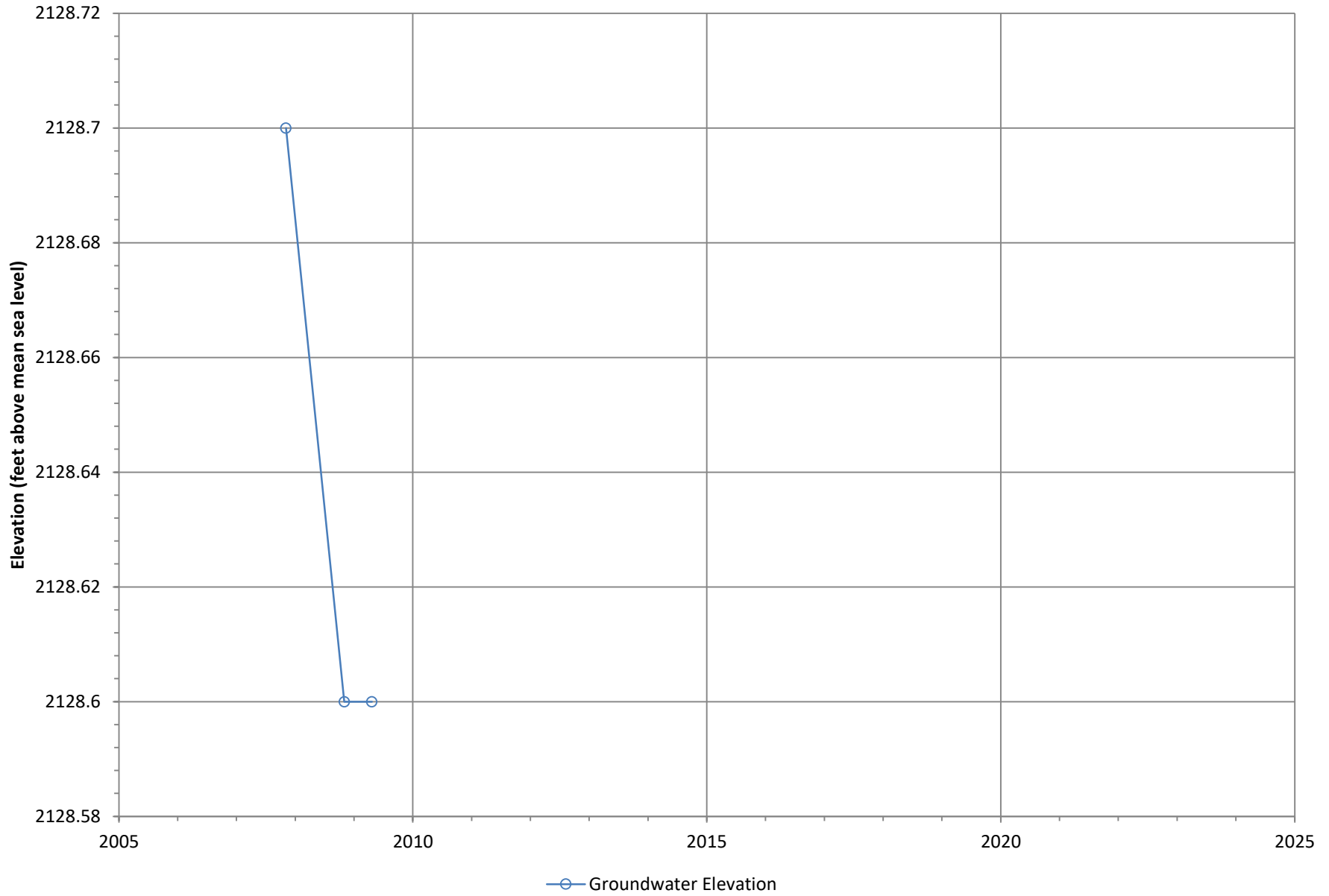


Figure F-19

Groundwater Elevation at Well #428, Agri-Empire #2

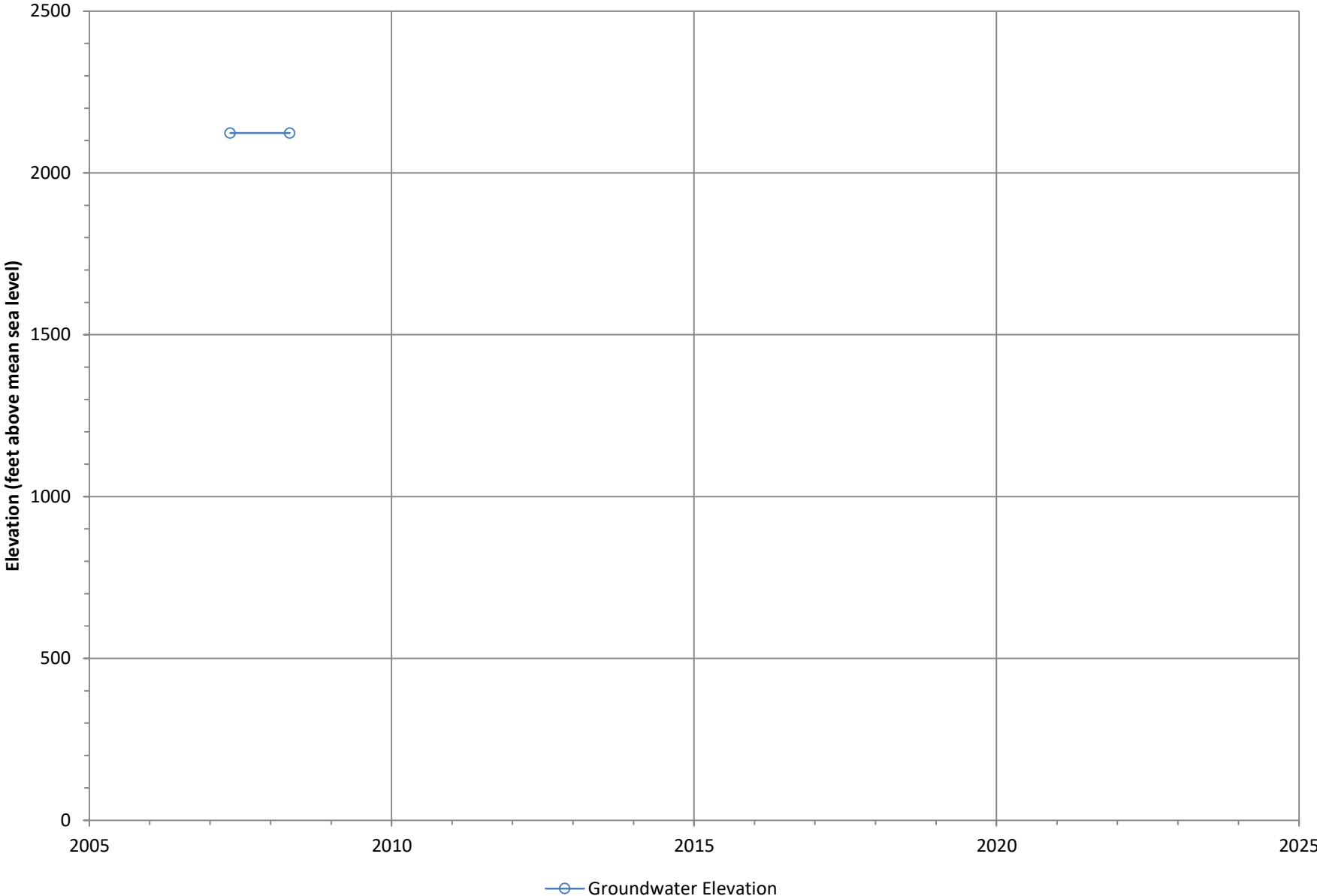


Figure F-20

Groundwater Elevation at Well YVWD GMMW-1

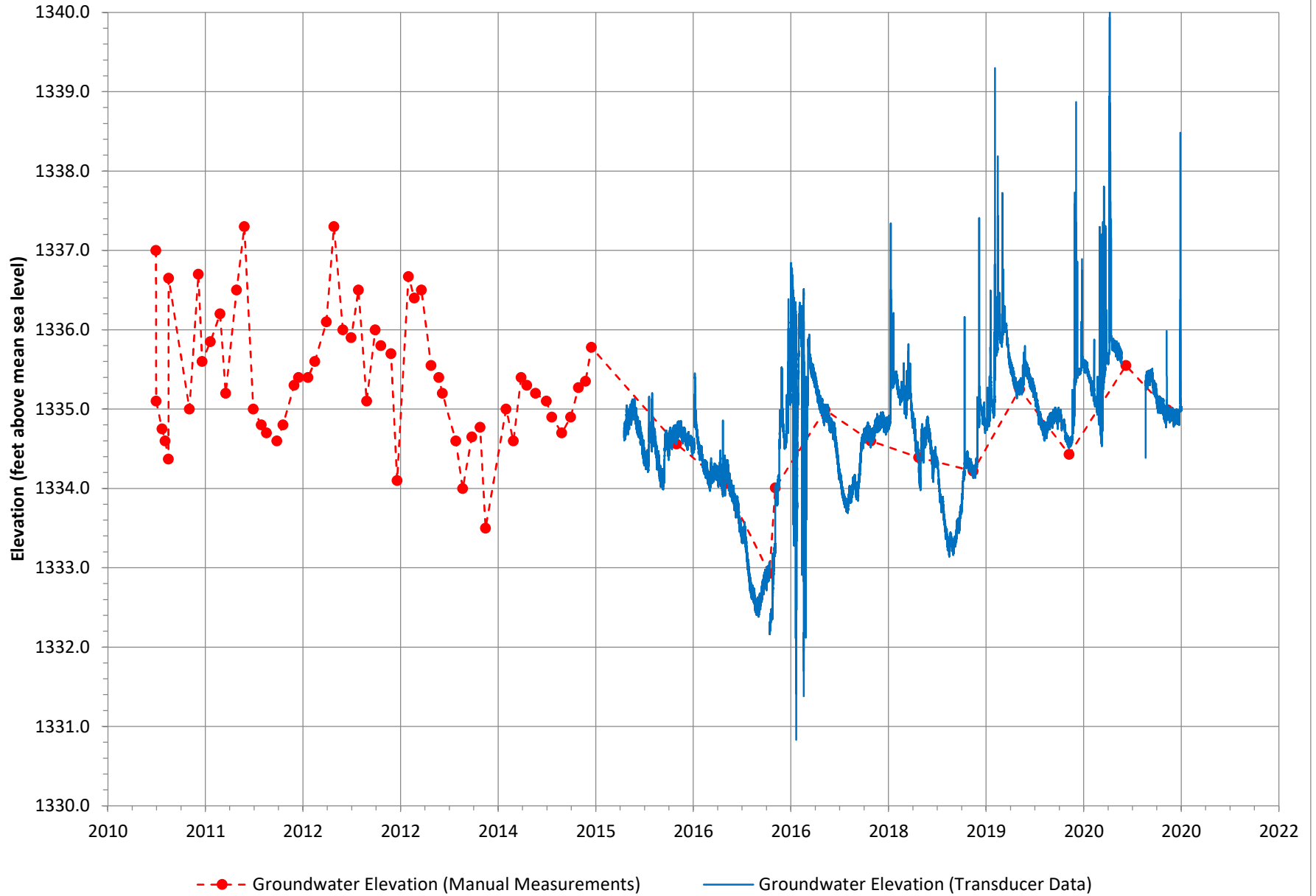


Figure F-22

Groundwater Elevation at Well YVWD GMMW-2

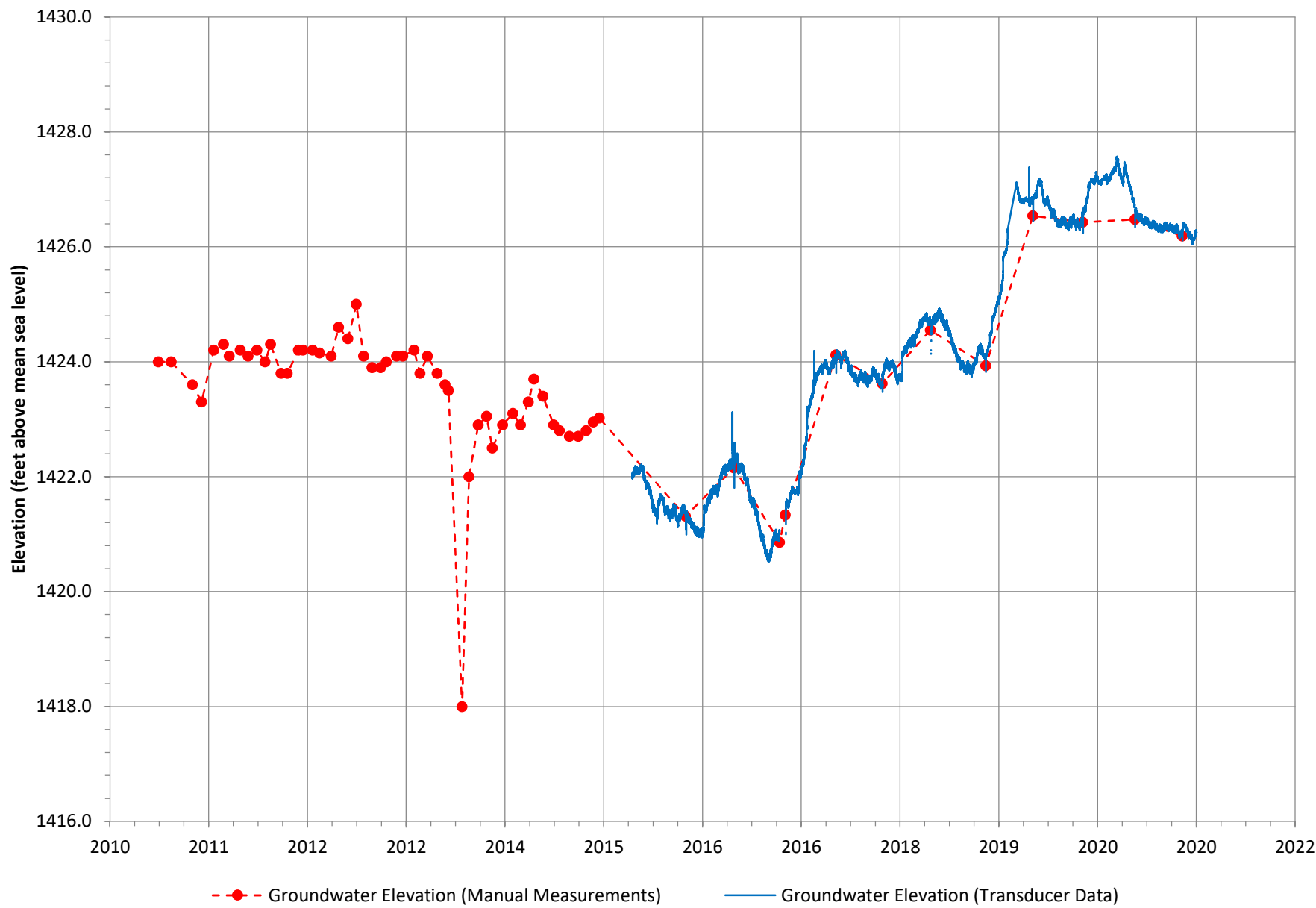


Figure F-23

Groundwater Elevation at Well YVWD GMMW-3

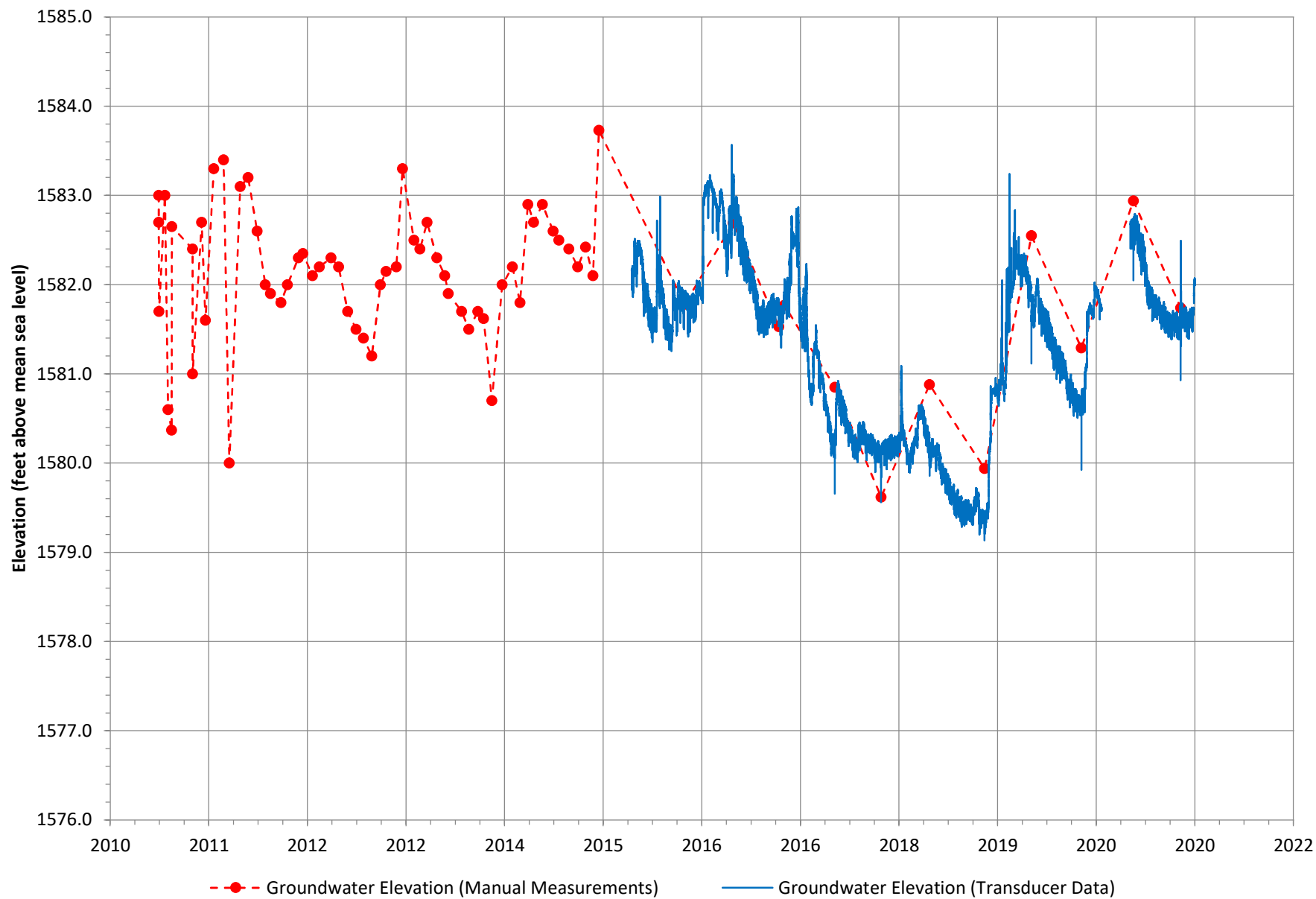


Figure F-24

Groundwater Elevation at Well YVWD GMMW-4

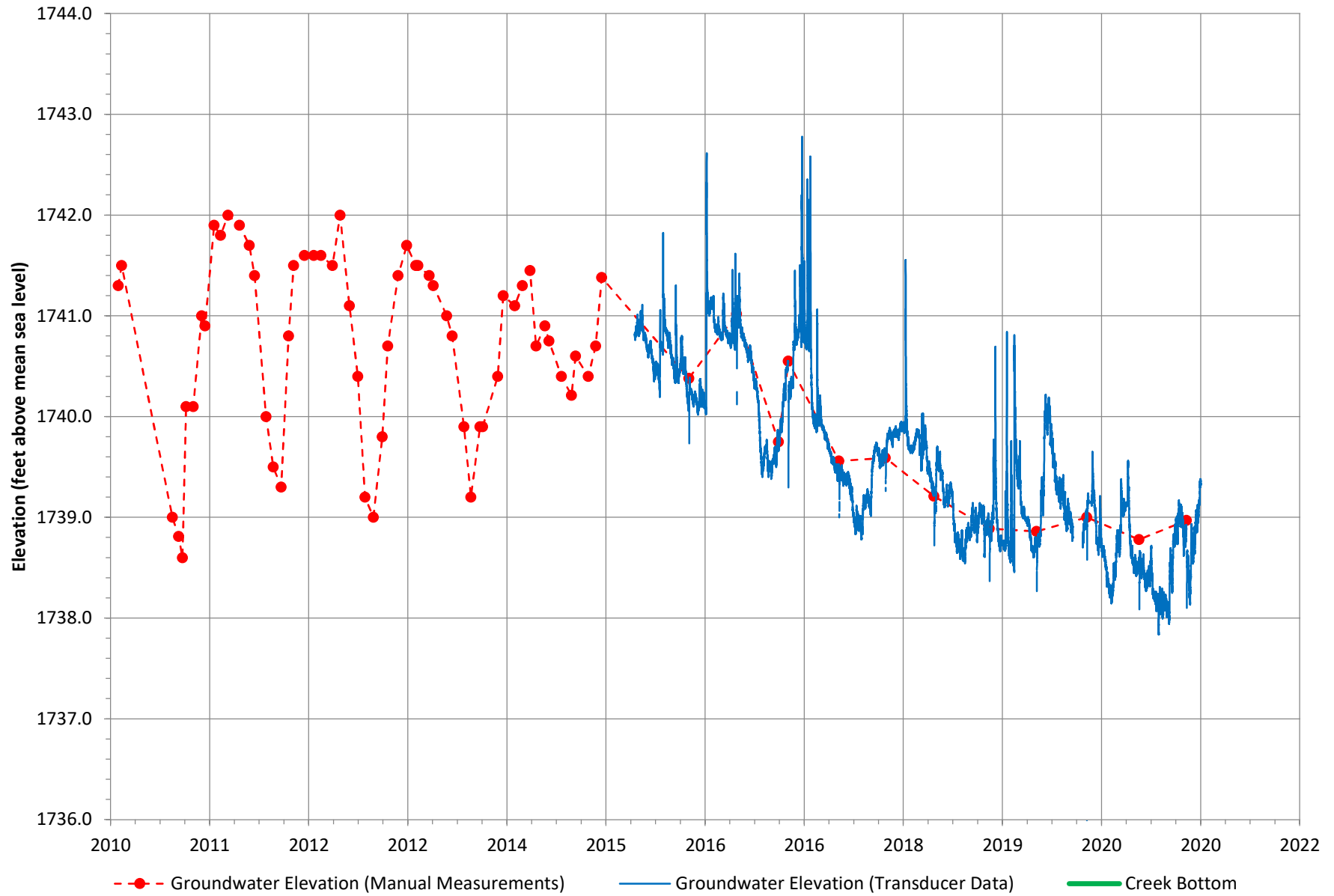


Figure F-25

Groundwater Elevation at Well YVWD GMMW-5A

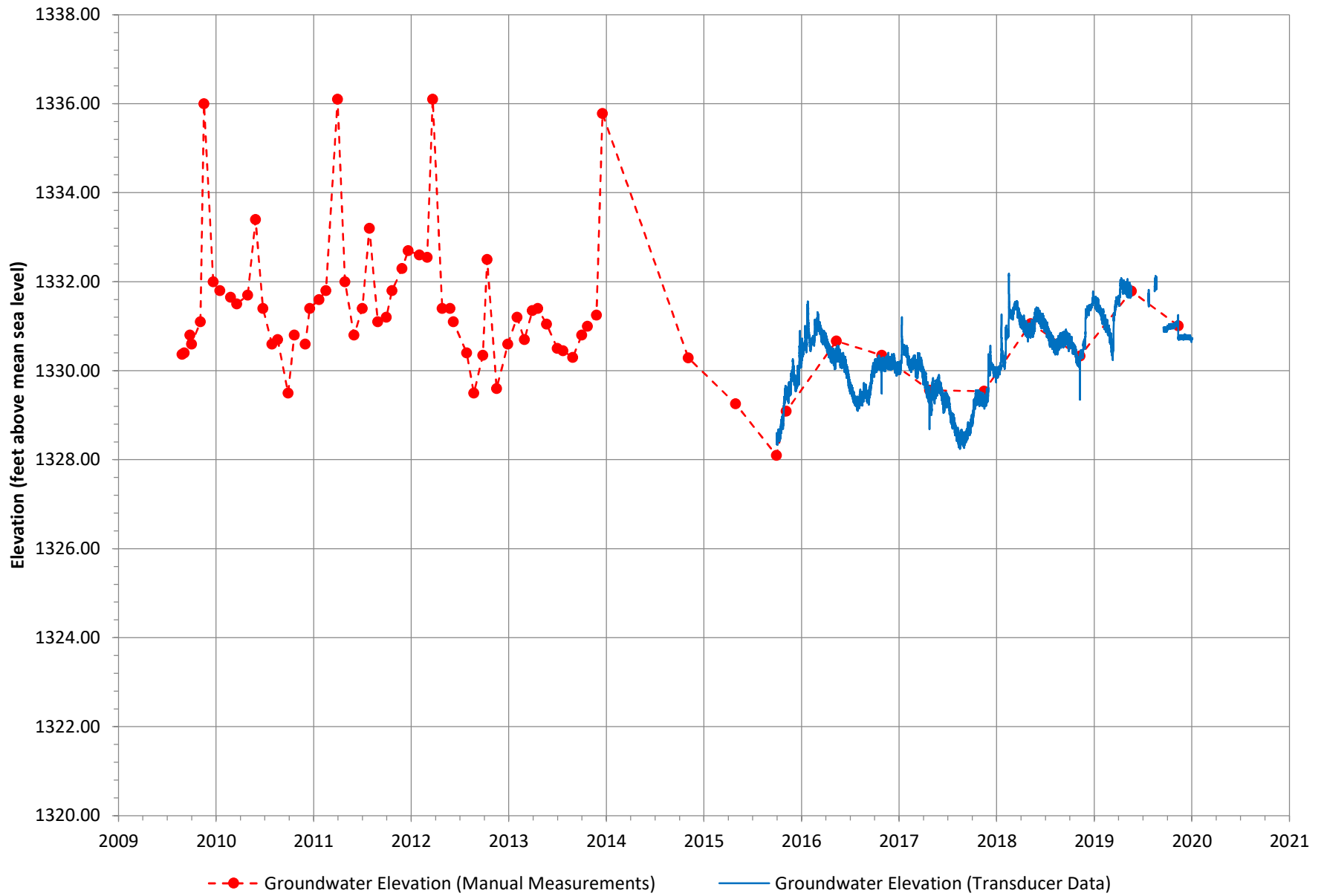


Figure F-26

Groundwater Elevation at Well YVWD GMMW-5B

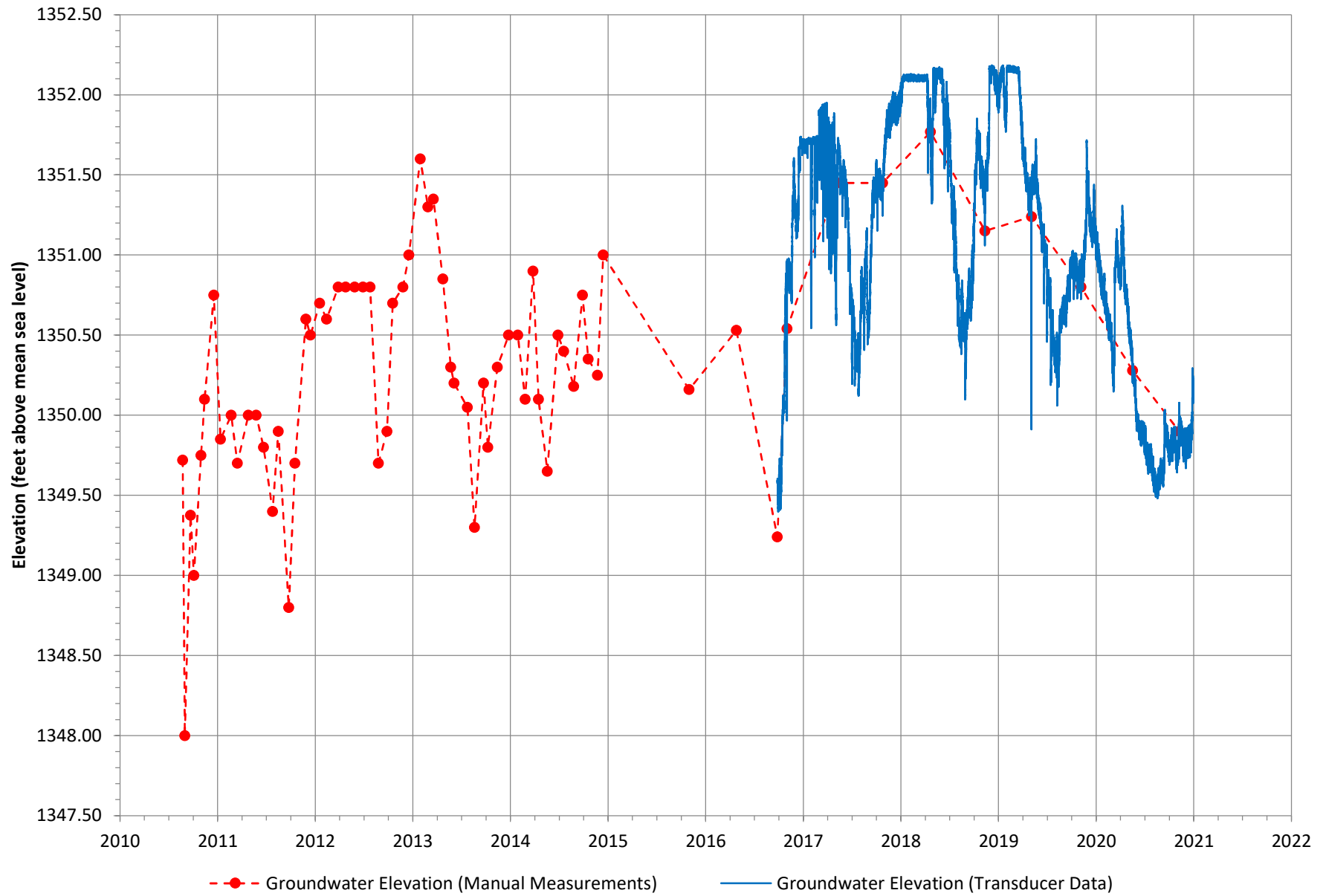


Figure F-27

Groundwater Elevation at Well YVWD OW-1P

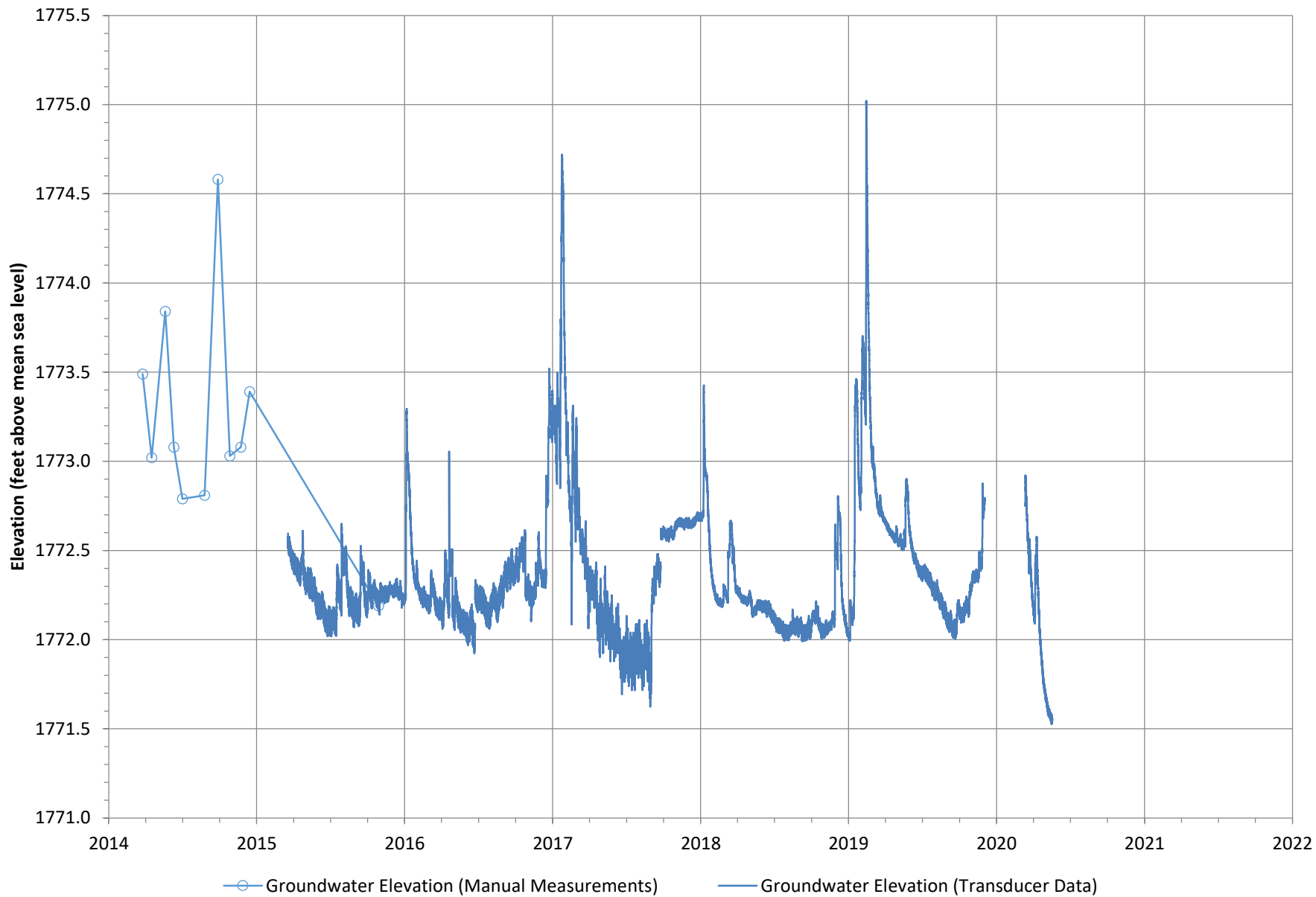


Figure F-28

Groundwater Elevation at Well YVWD OW-1T

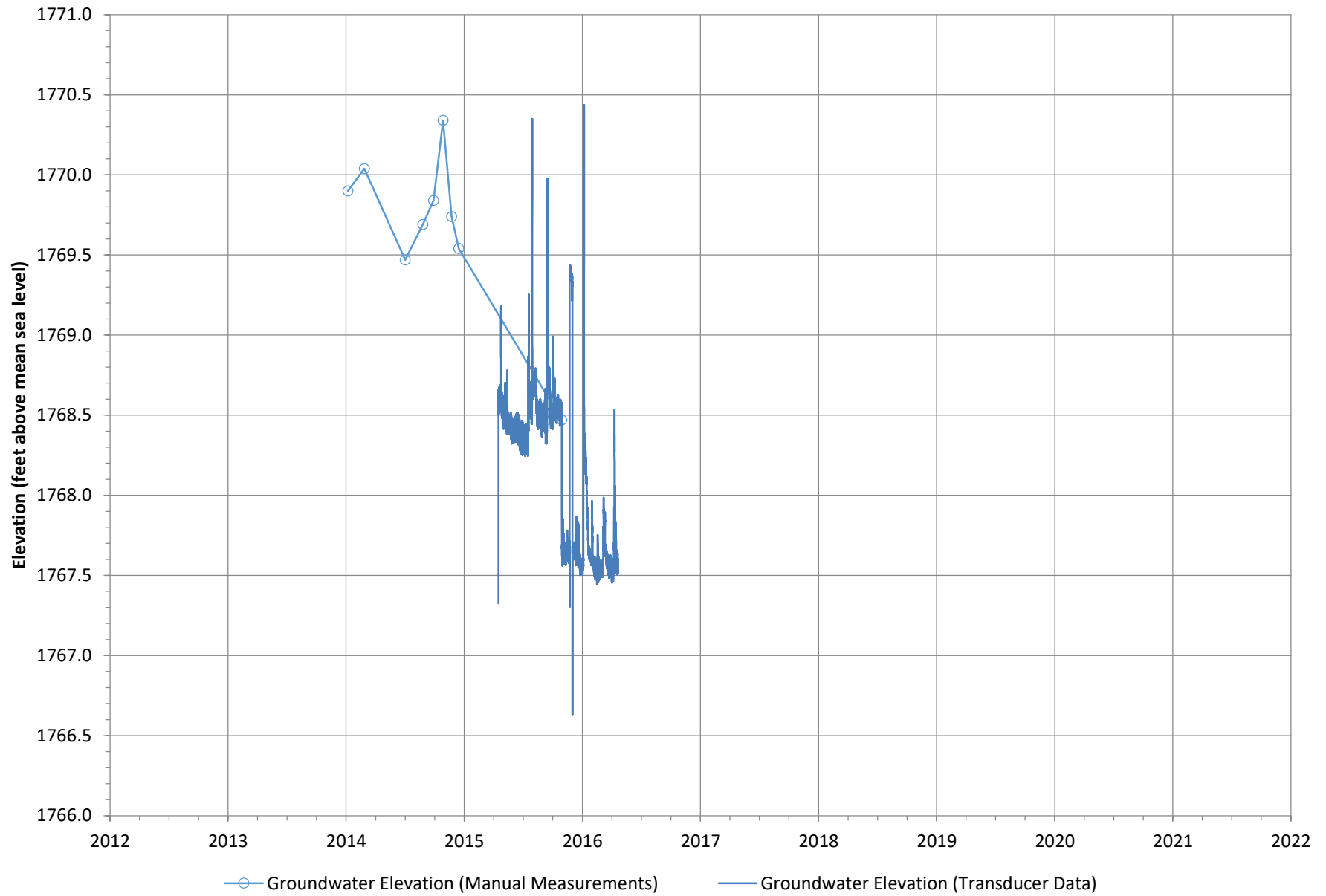


Figure F-29

Groundwater Elevation at Well YVWD OW-2P

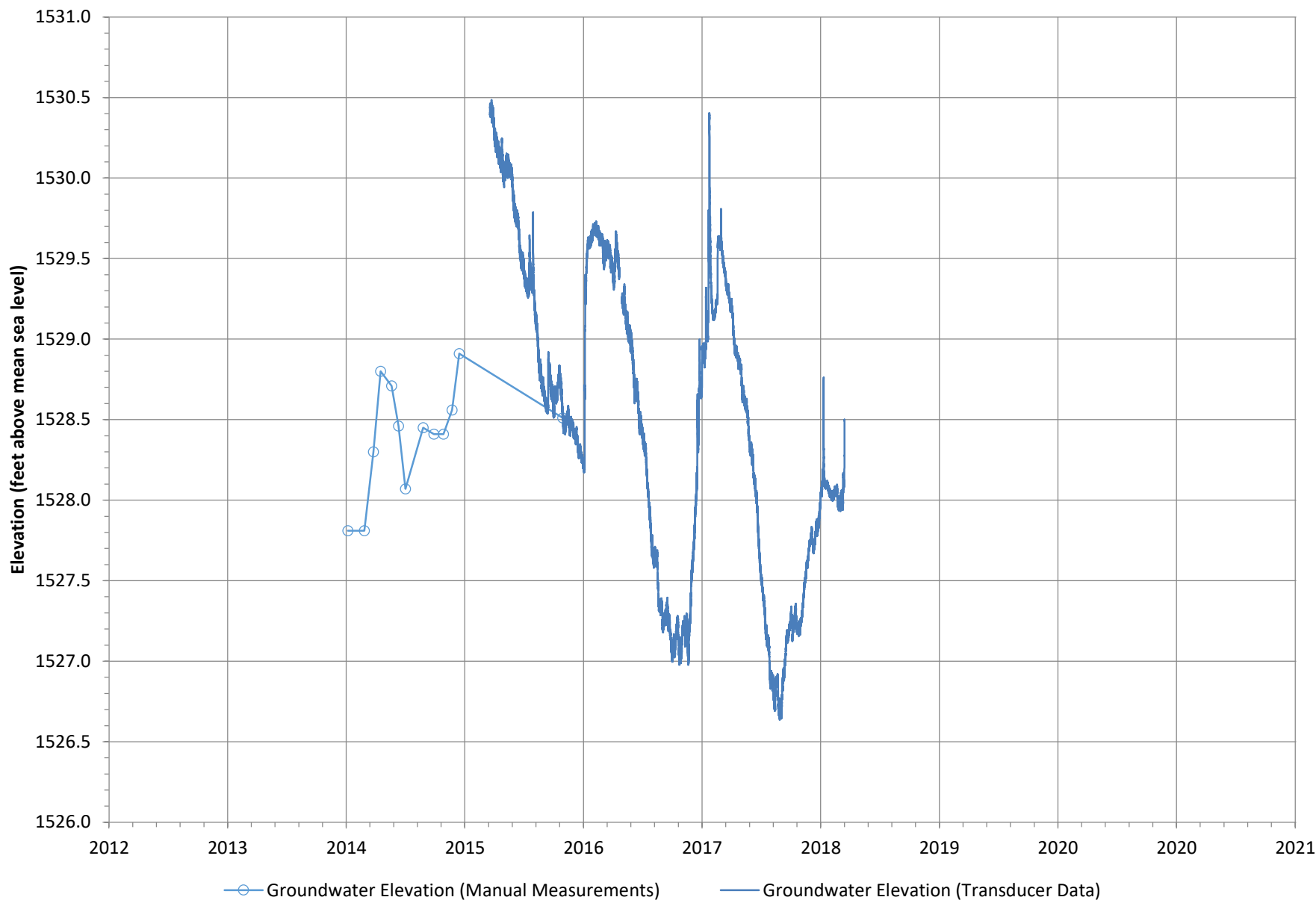


Figure F-30

APPENDIX G

Hydrographs of Total Dissolved Solids and Nitrate (as Nitrogen) Groundwater Concentrations at Wells in the San Timoteo Groundwater Management Zone

APPENDIX G

Historical Total Dissolved Solids and Nitrate (as Nitrogen) Groundwater Concentrations at Wells in the San Timoteo Groundwater Management Zone

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- G-23 Groundwater Quality Hydrograph at Well YVWD GWMW-2
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- G-27 Groundwater Quality Hydrograph at Well YVWD GWMW-5C

Total Dissolved Solids and Nitrate (as Nitrogen) at Heartland Well

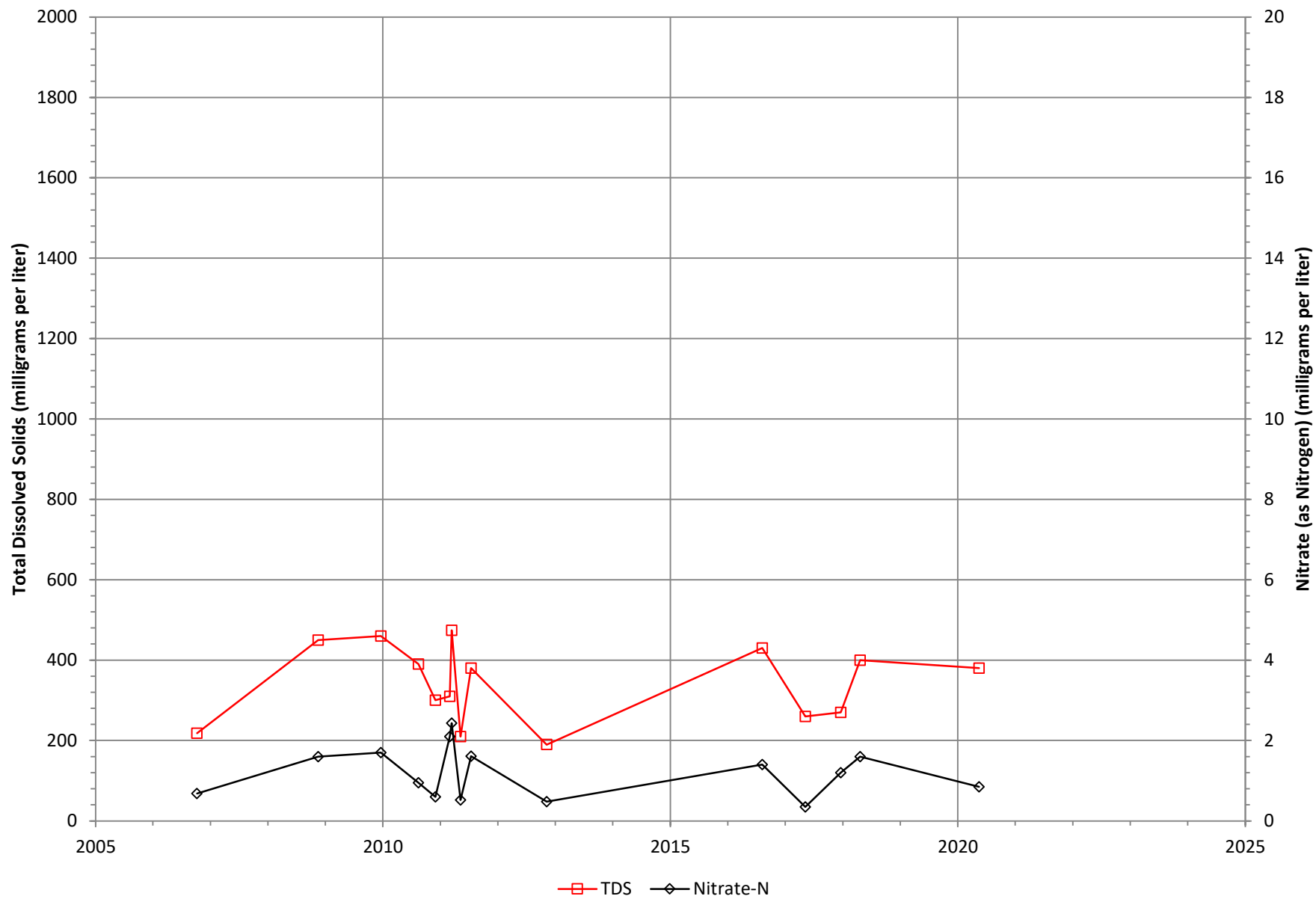


Figure G-1

Total Dissolved Solids and Nitrate (as Nitrogen) at Well San Tim-2B/1

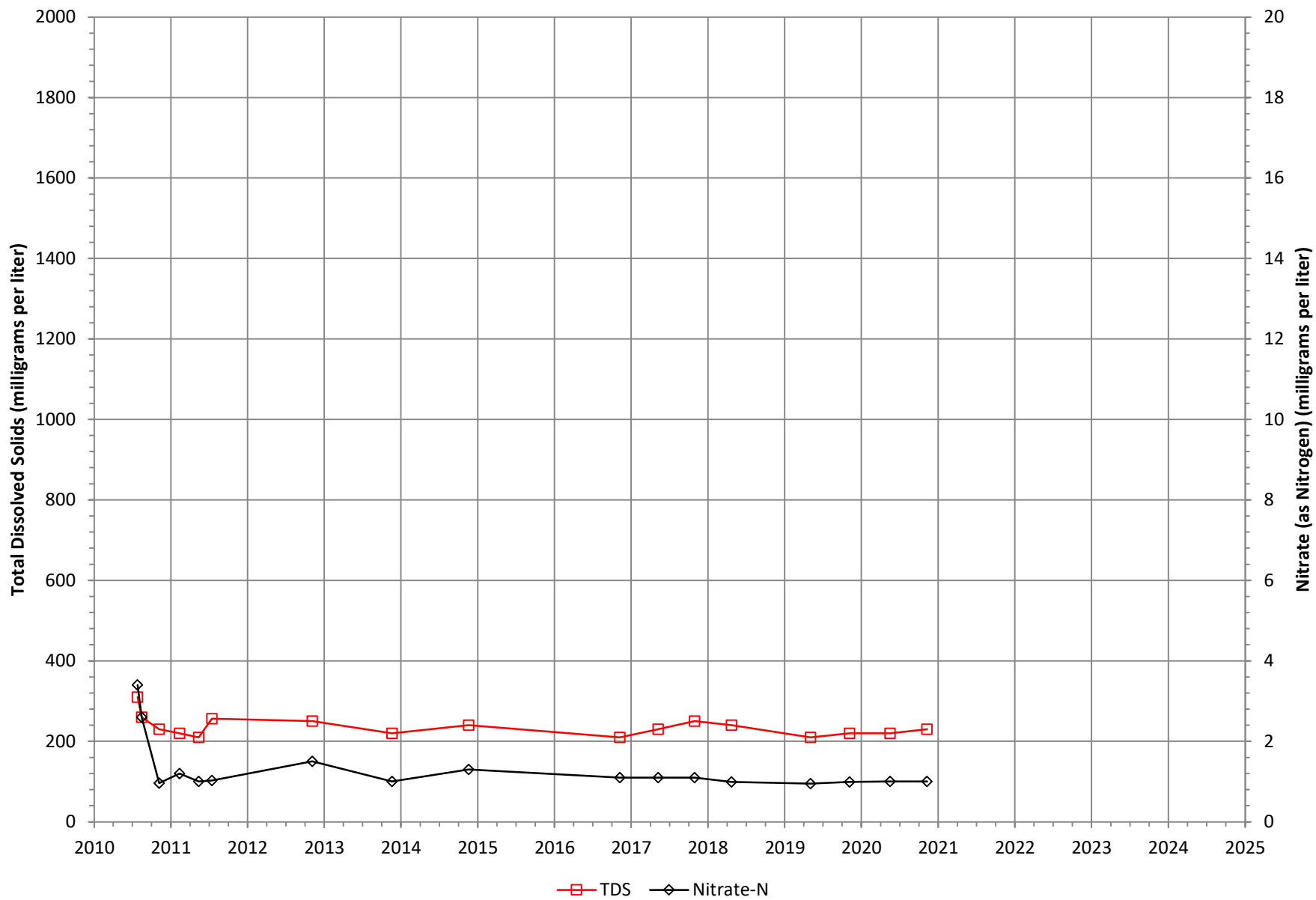


Figure G-2

Total Dissolved Solids and Nitrate (as Nitrogen) at Well San Tim-2B/2

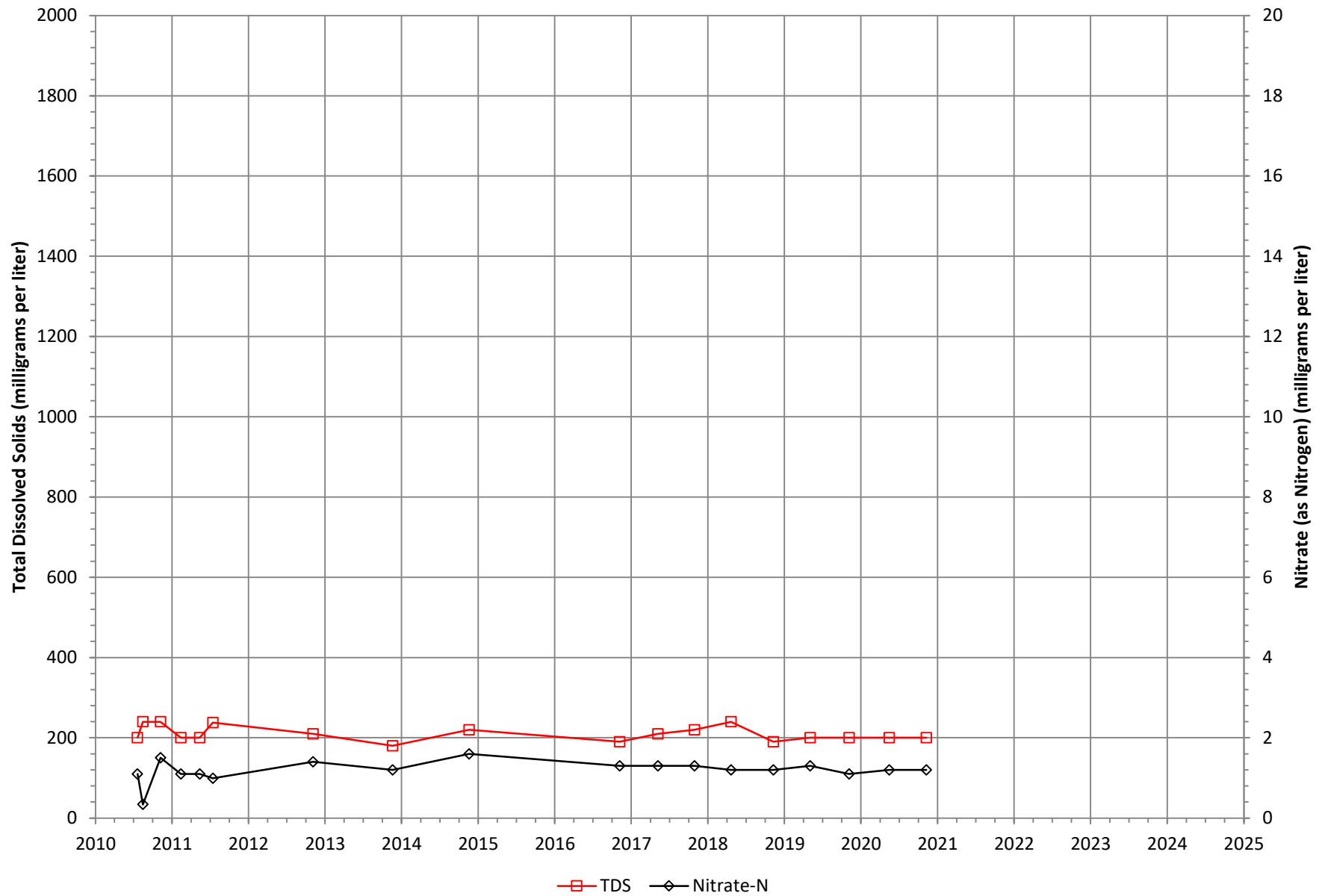


Figure G-3

Total Dissolved Solids and Nitrate (as Nitrogen) at Well San Tim-1

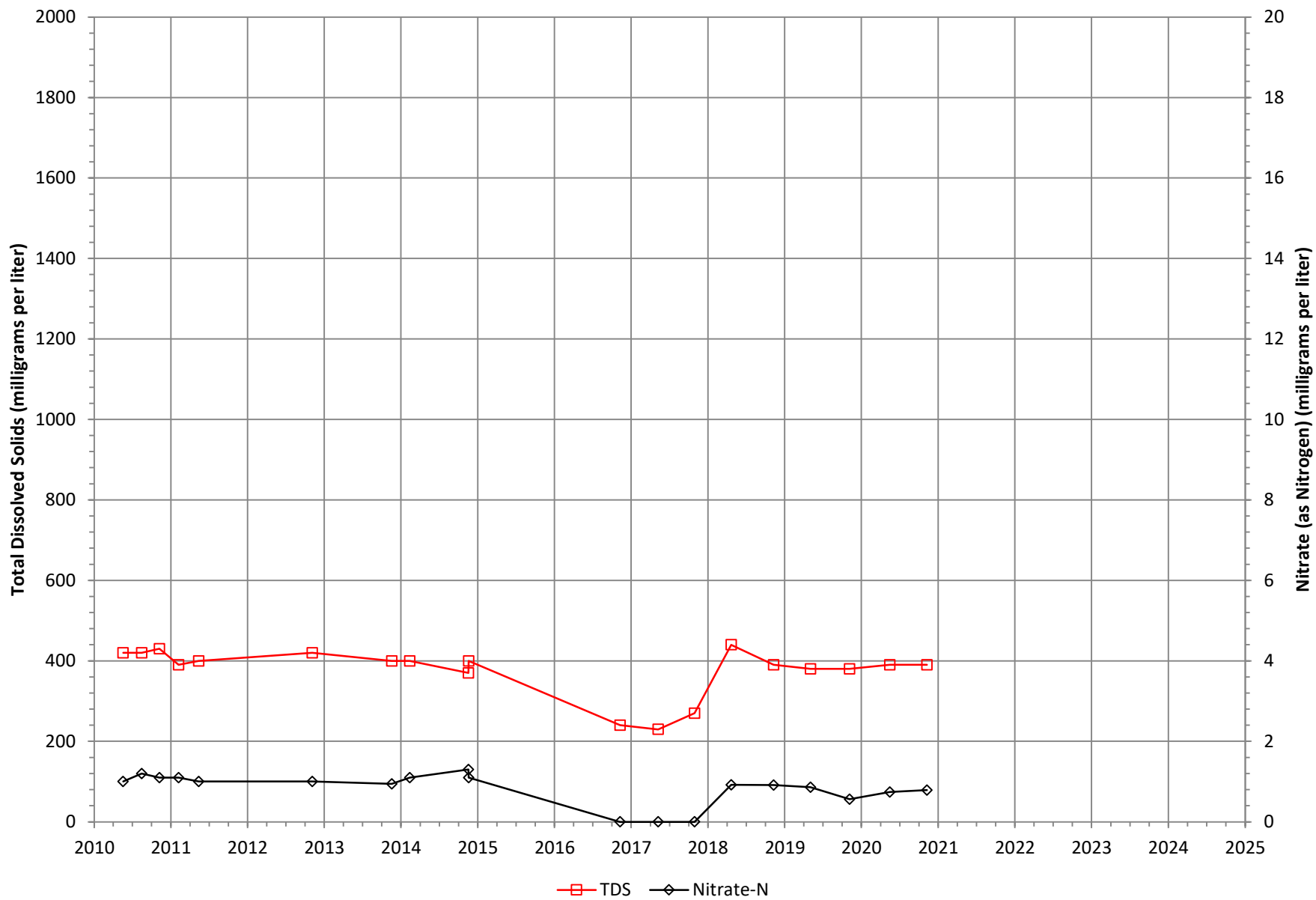


Figure G-4

Total Dissolved Solids and Nitrate (as Nitrogen) at Well ST-02

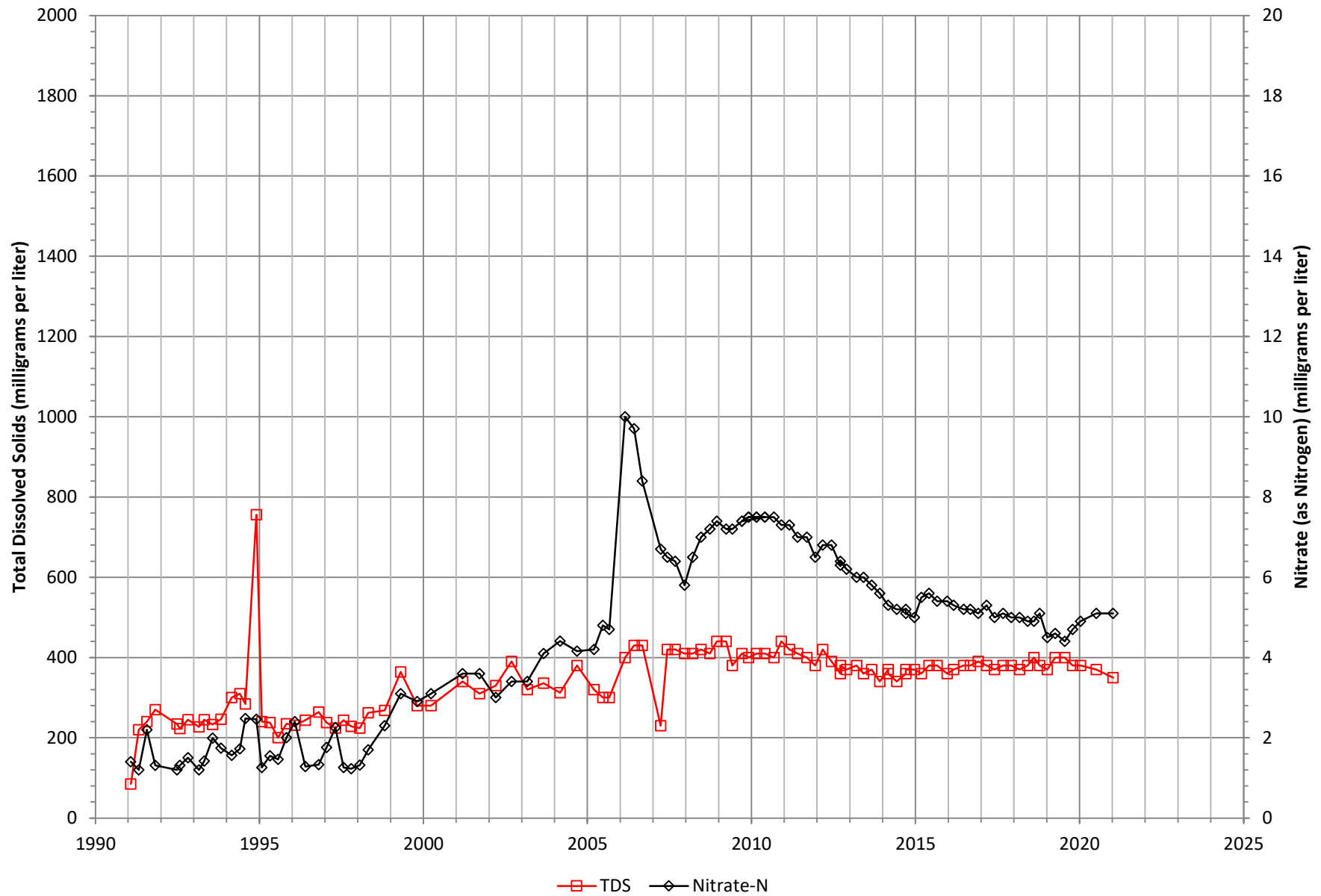


Figure G-5

Total Dissolved Solids and Nitrate (as Nitrogen) at Well ST-03

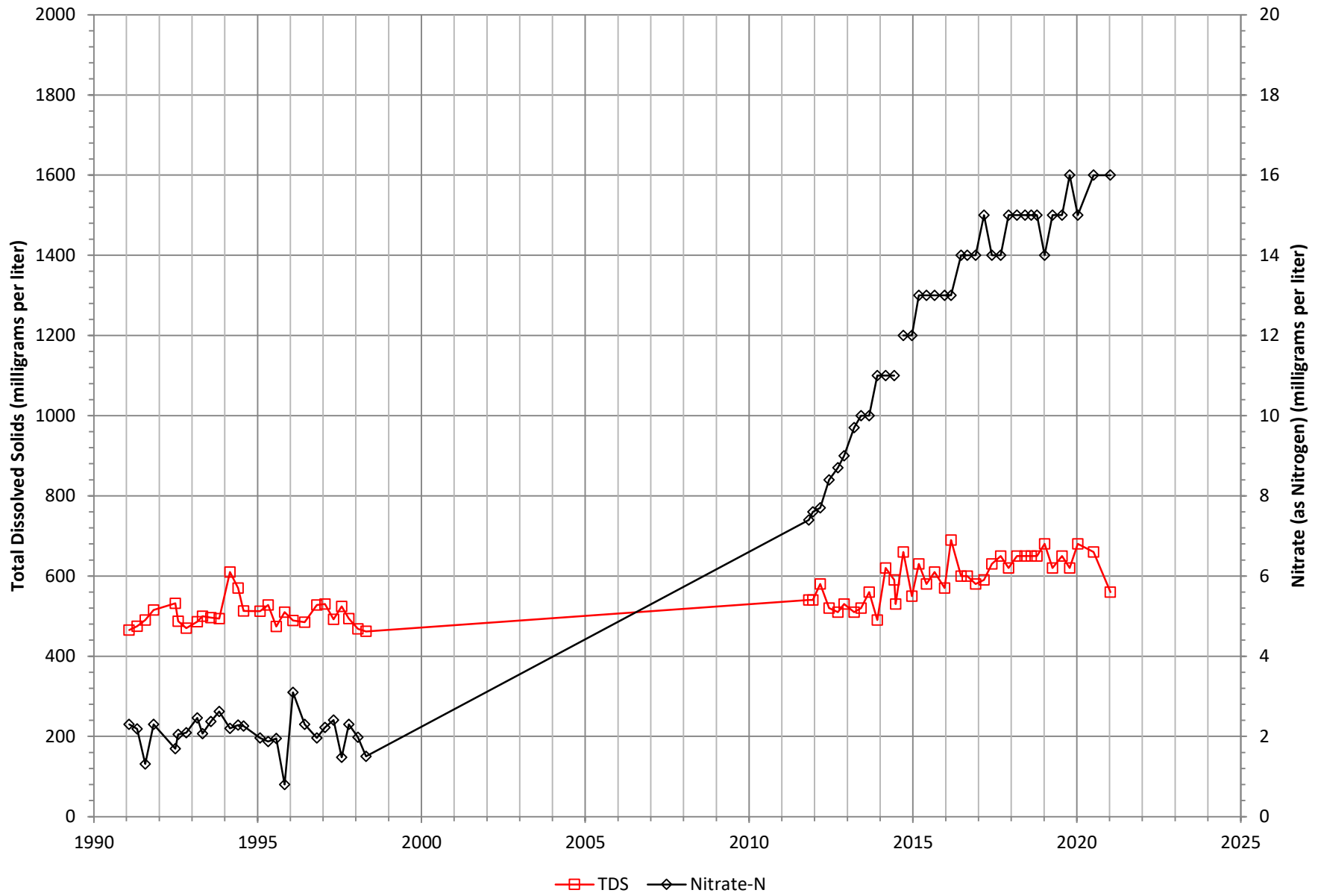


Figure G-6

Total Dissolved Solids and Nitrate (as Nitrogen) at Well ST-05C

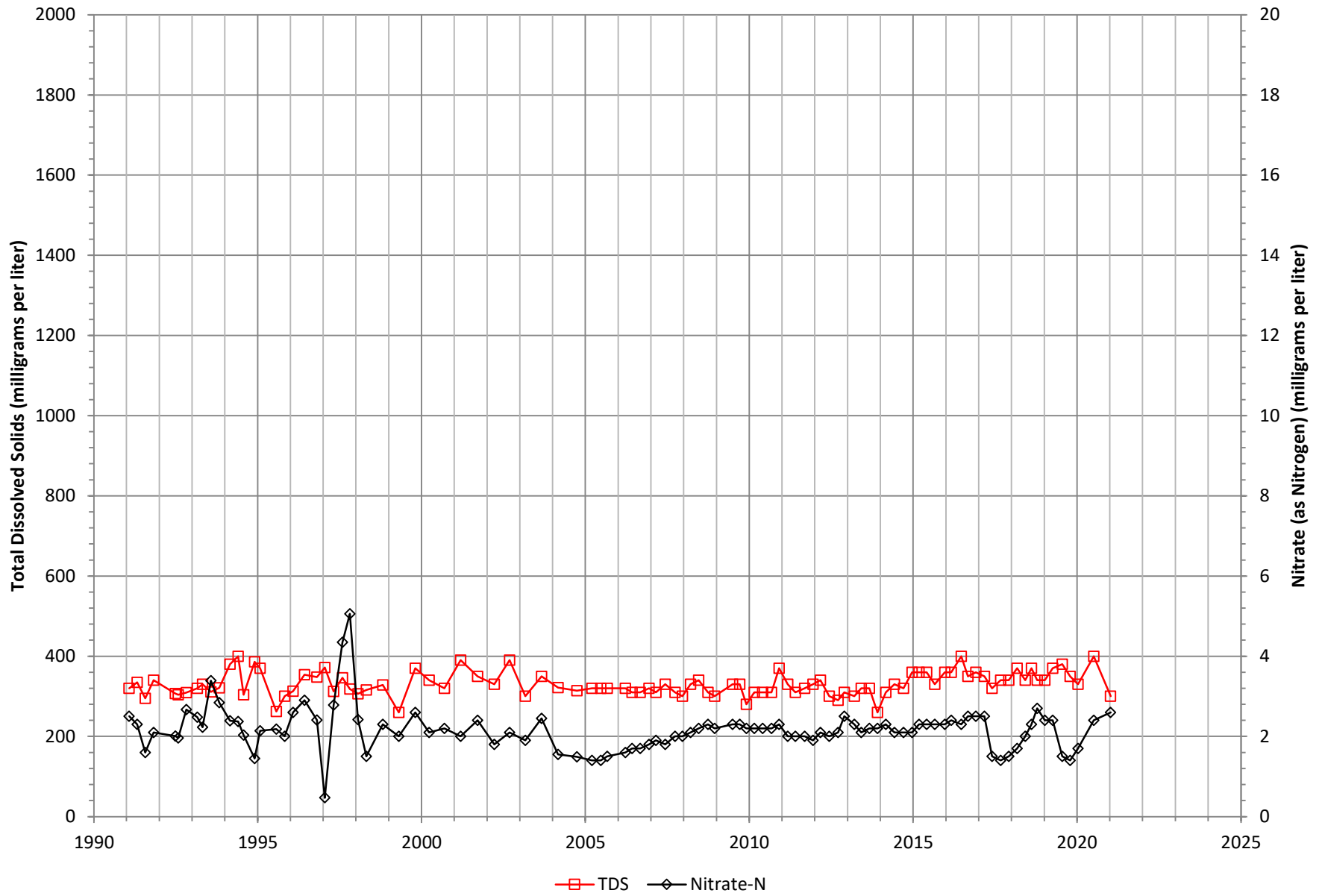


Figure G-7

Total Dissolved Solids and Nitrate (as Nitrogen) at Well ST-07



Figure G-8

Total Dissolved Solids and Nitrate (as Nitrogen) at Well ST-07A

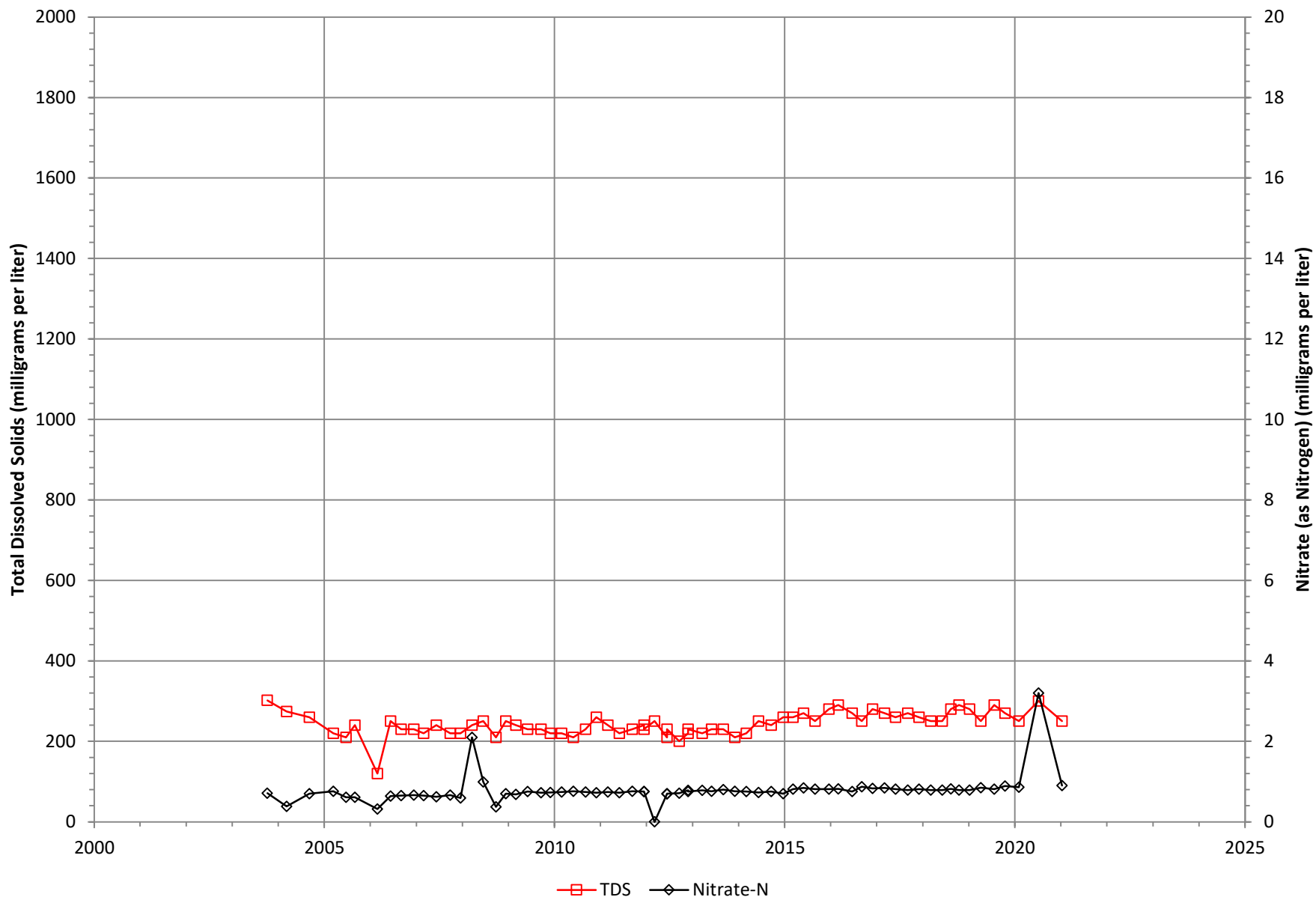


Figure G-9

Total Dissolved Solids and Nitrate (as Nitrogen) at Well ST-08

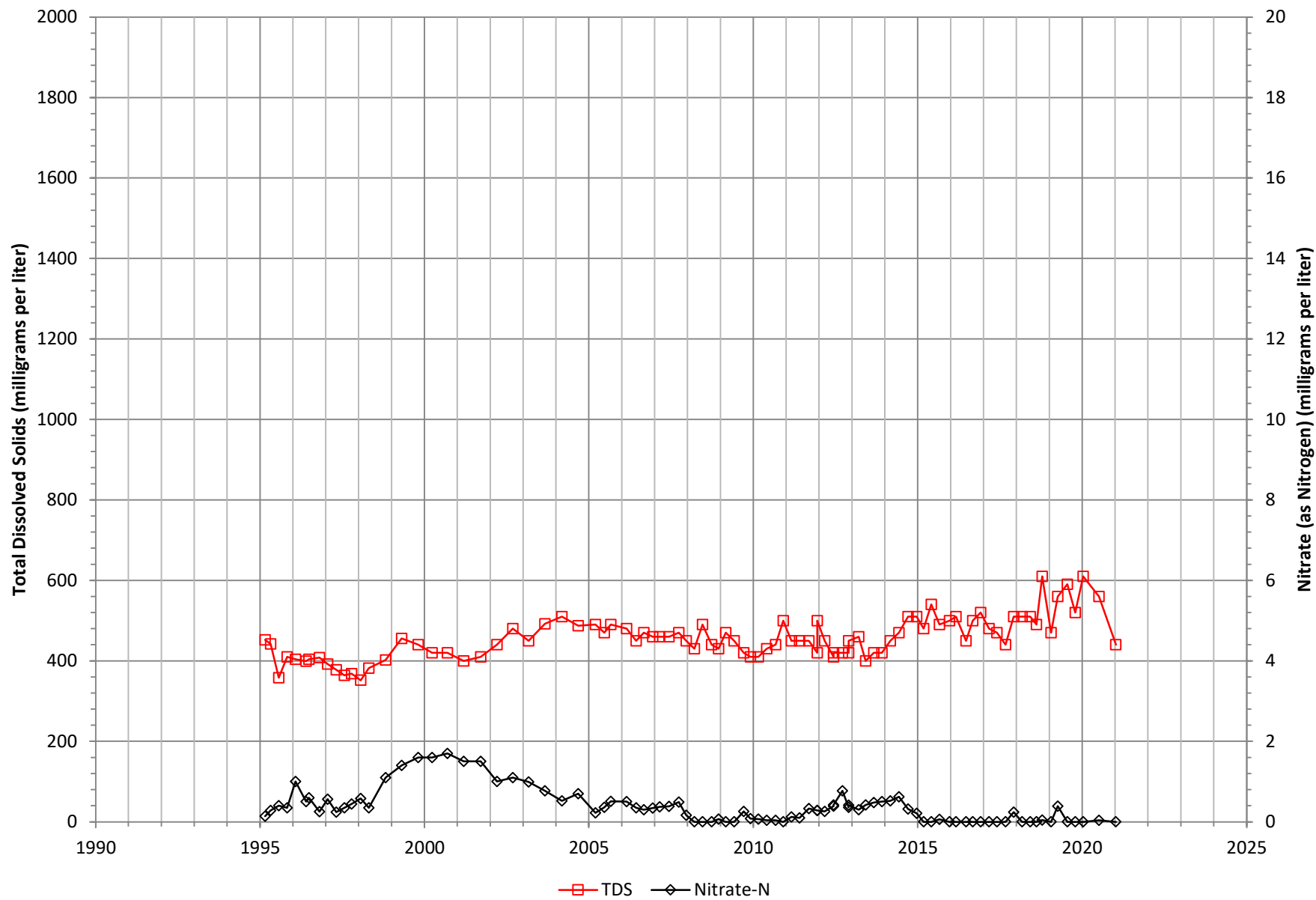


Figure G-10

Total Dissolved Solids and Nitrate (as Nitrogen) at Well ST-10

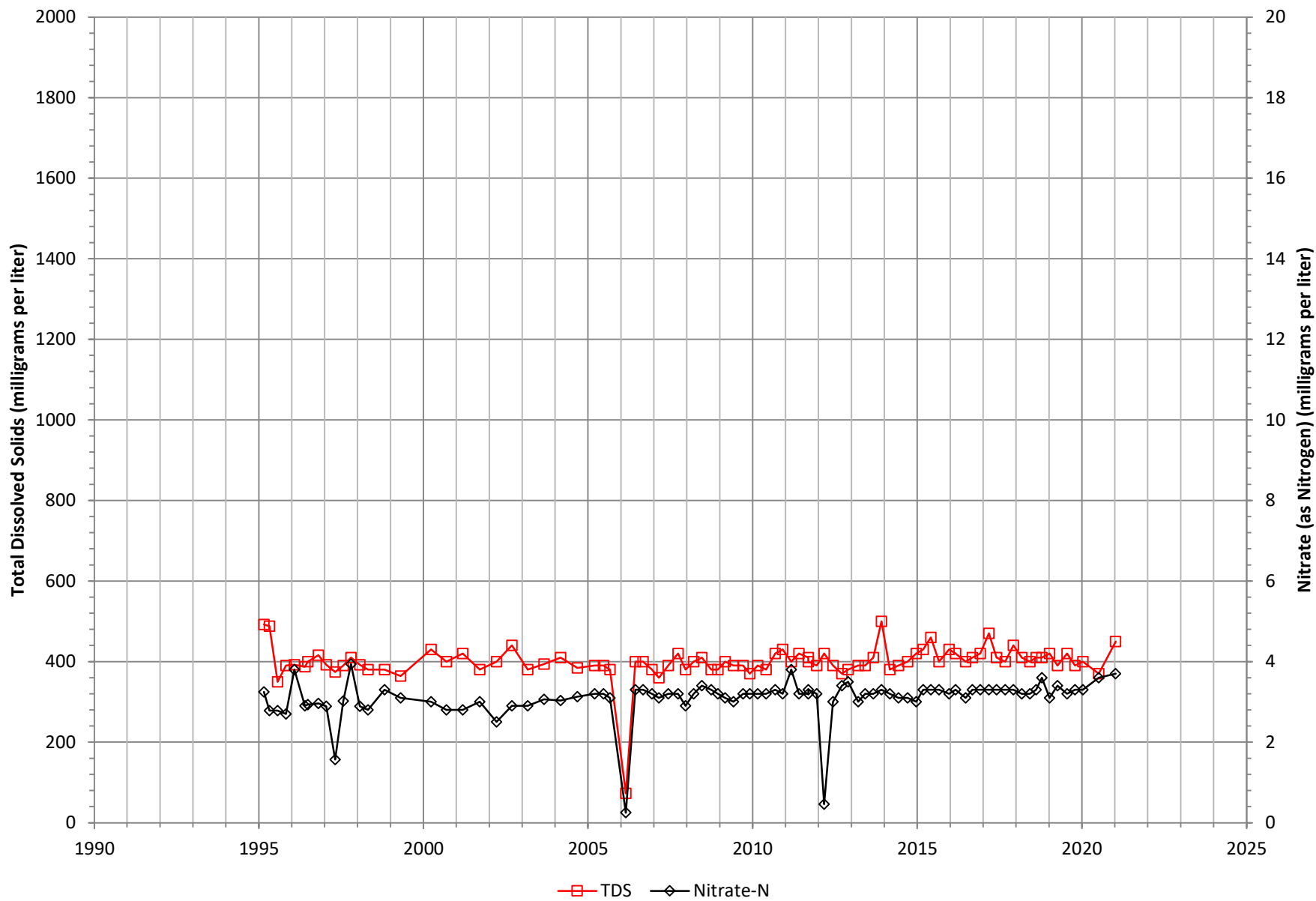


Figure G-11

Total Dissolved Solids and Nitrate (as Nitrogen) at Well ST-11

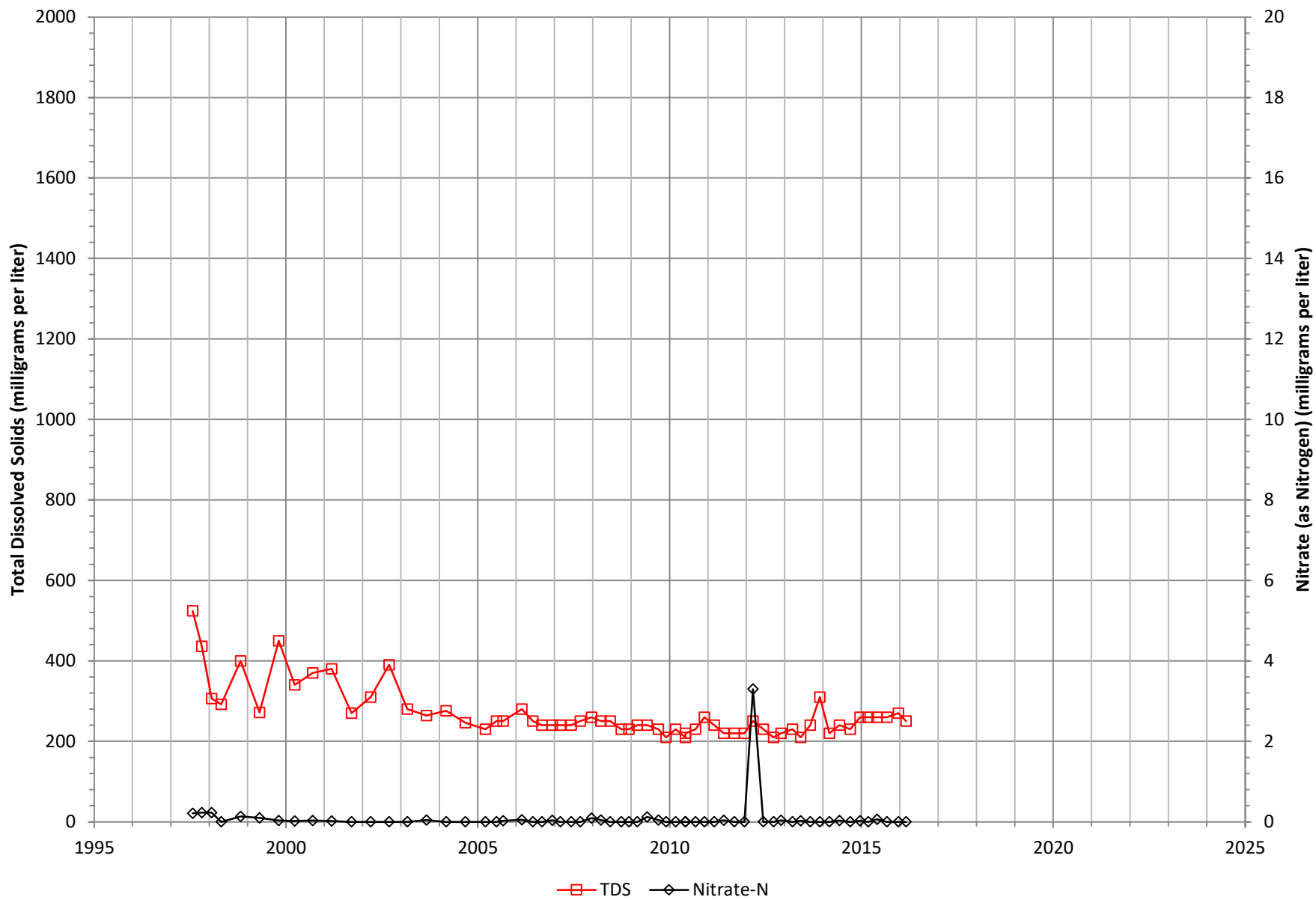
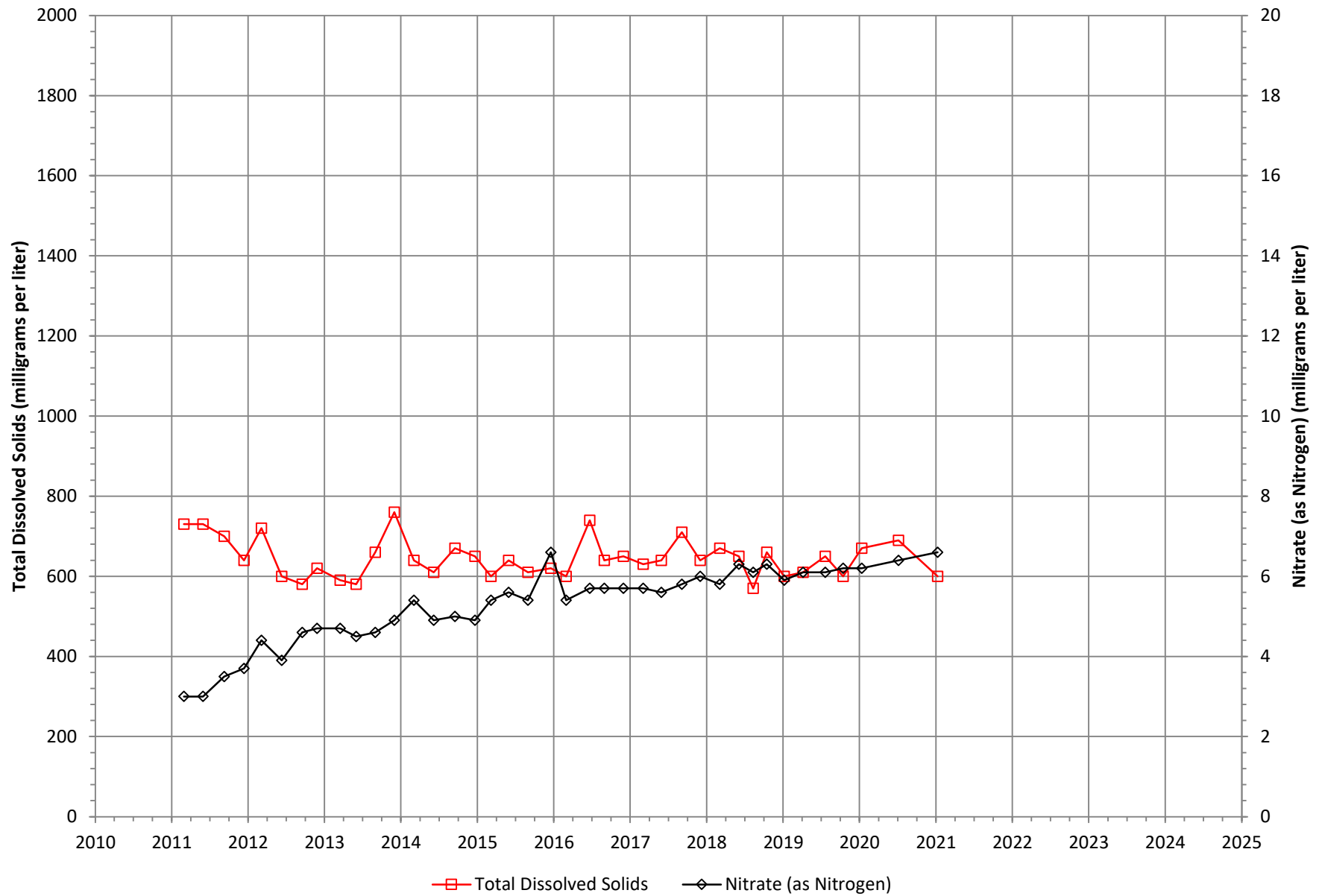


Figure G-12

Total Dissolved Solids and Nitrate (as Nitrogen) at Well ST-12



Total Dissolved Solids and Nitrate (as Nitrogen) at Well GL-6

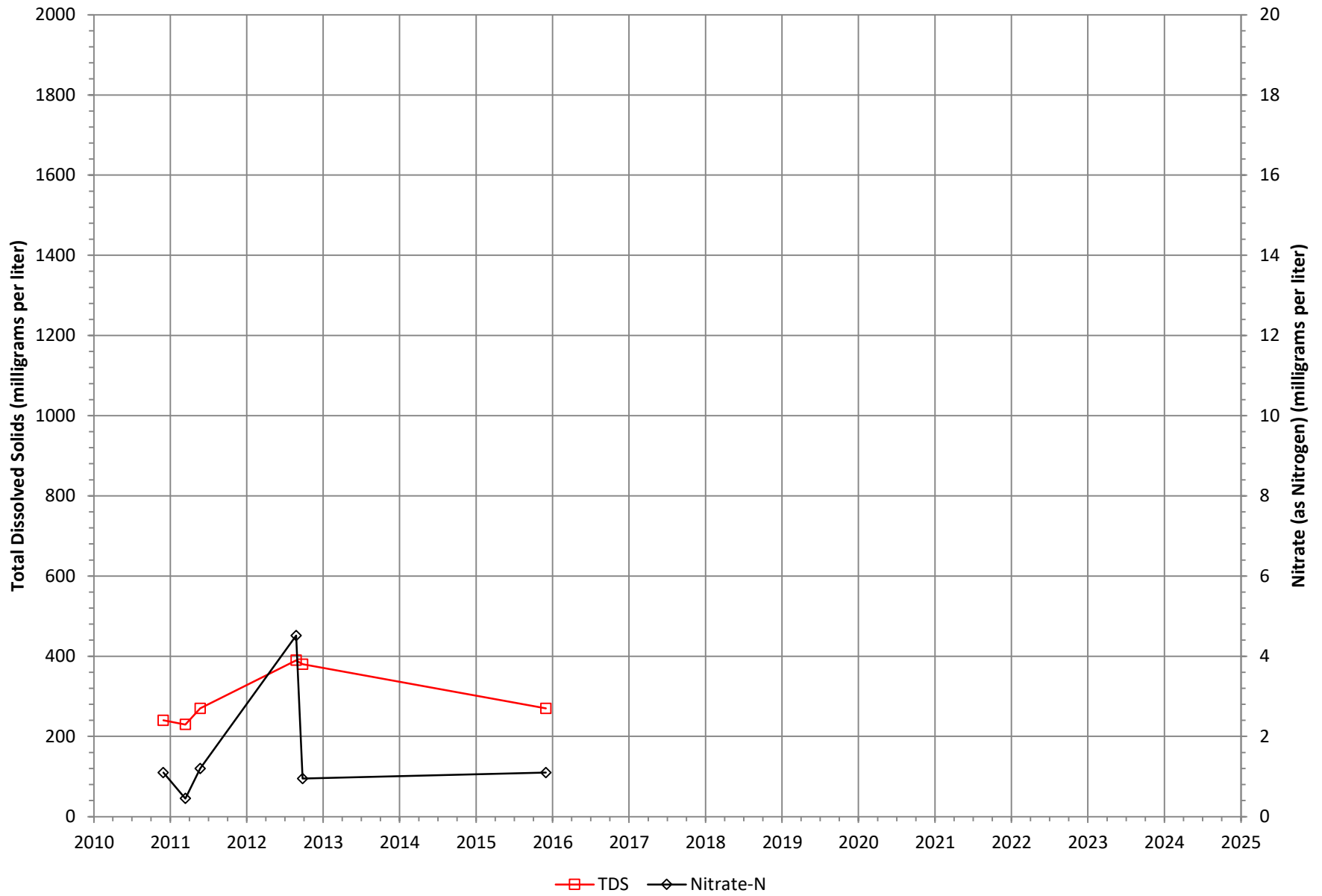


Figure G-14

Total Dissolved Solids and Nitrate (as Nitrogen) at Deep Well

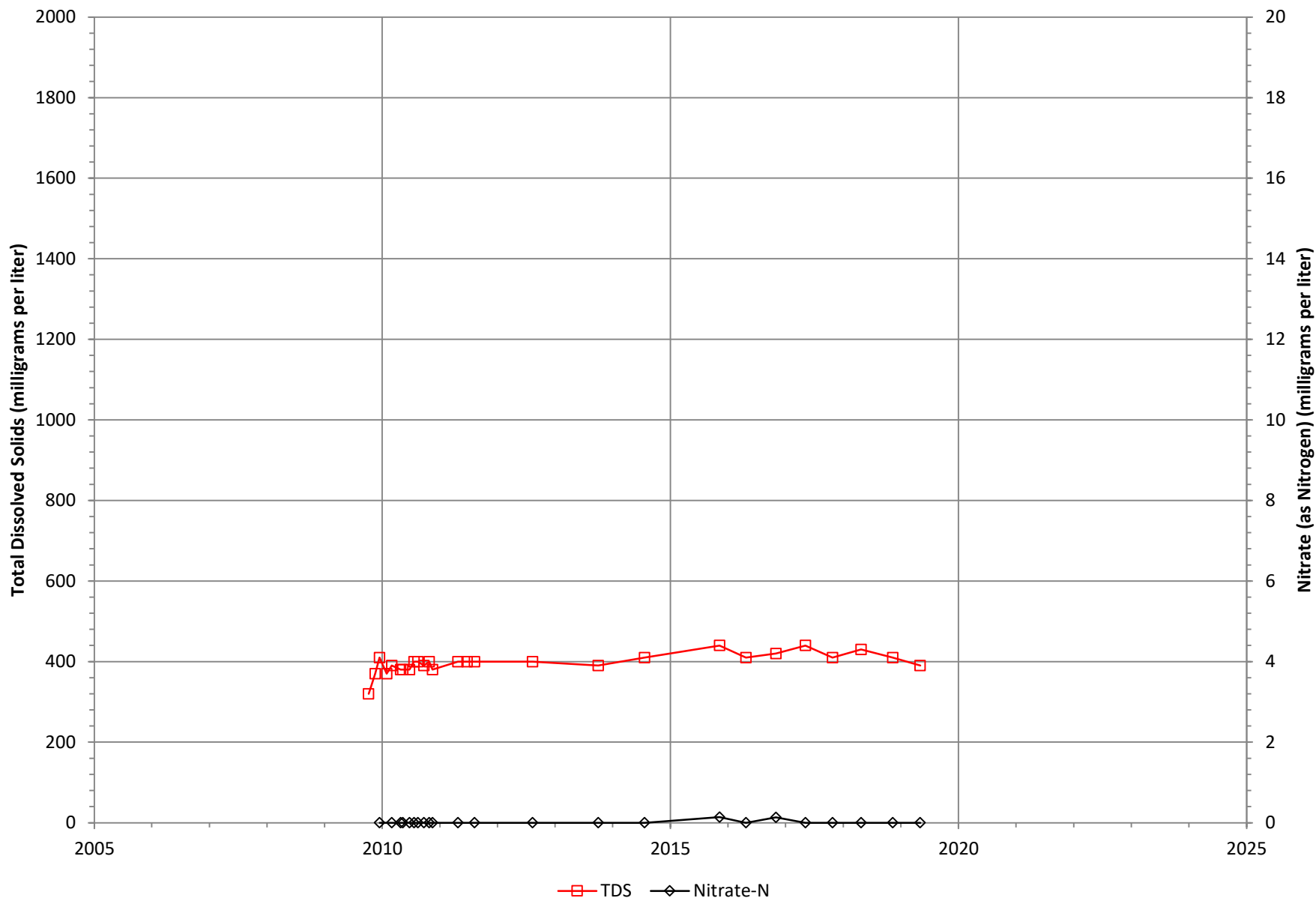


Figure G-15

Total Dissolved Solids and Nitrate (as Nitrogen) at Well San Tim Badlands BH-20

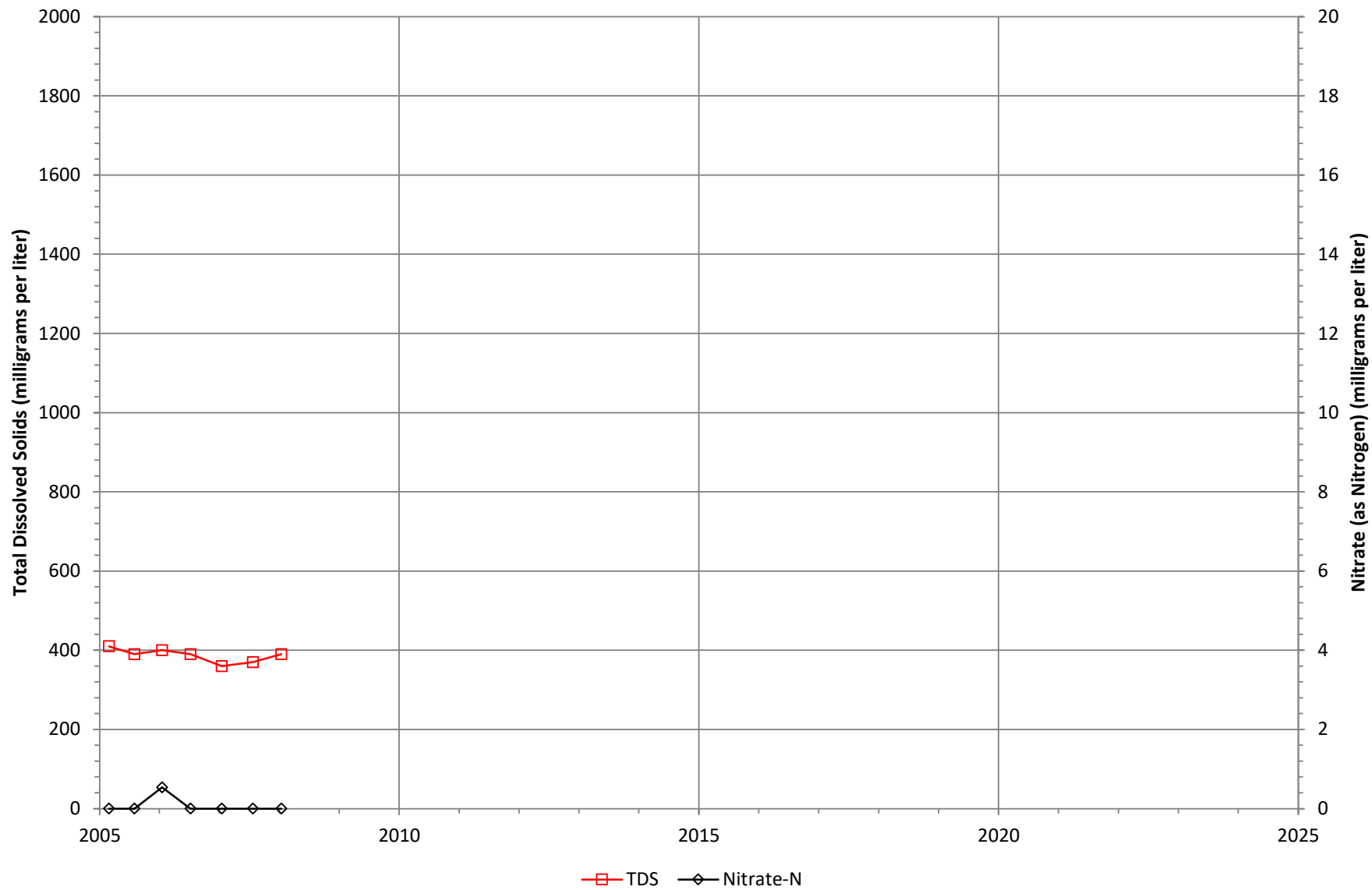


Figure G-16

Total Dissolved Solids and Nitrate (as Nitrogen) at Well San Tim Badlands BH-21

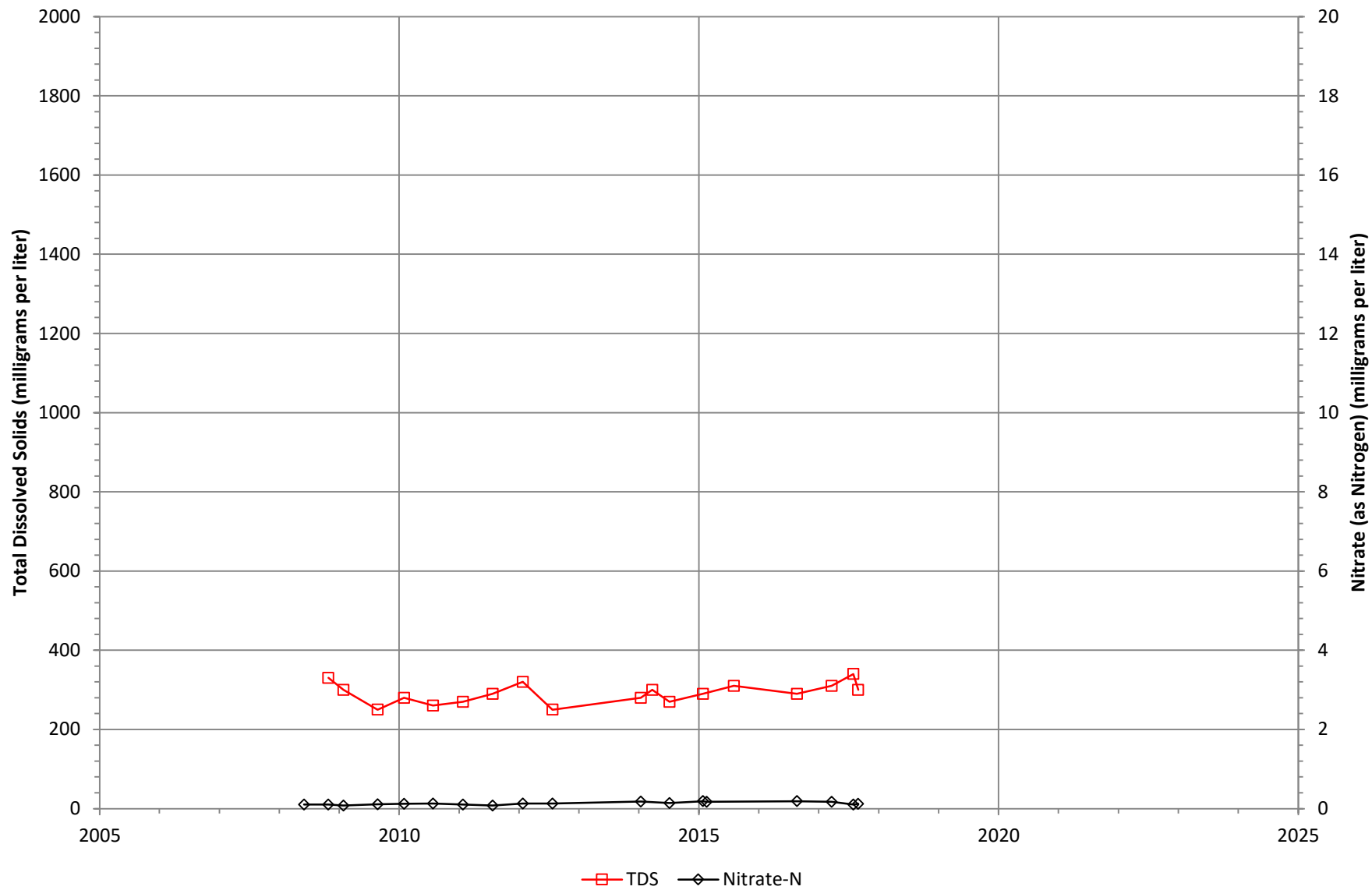


Figure G-17

Total Dissolved Solids and Nitrate (as Nitrogen) at Well San Tim Badlands BH-24

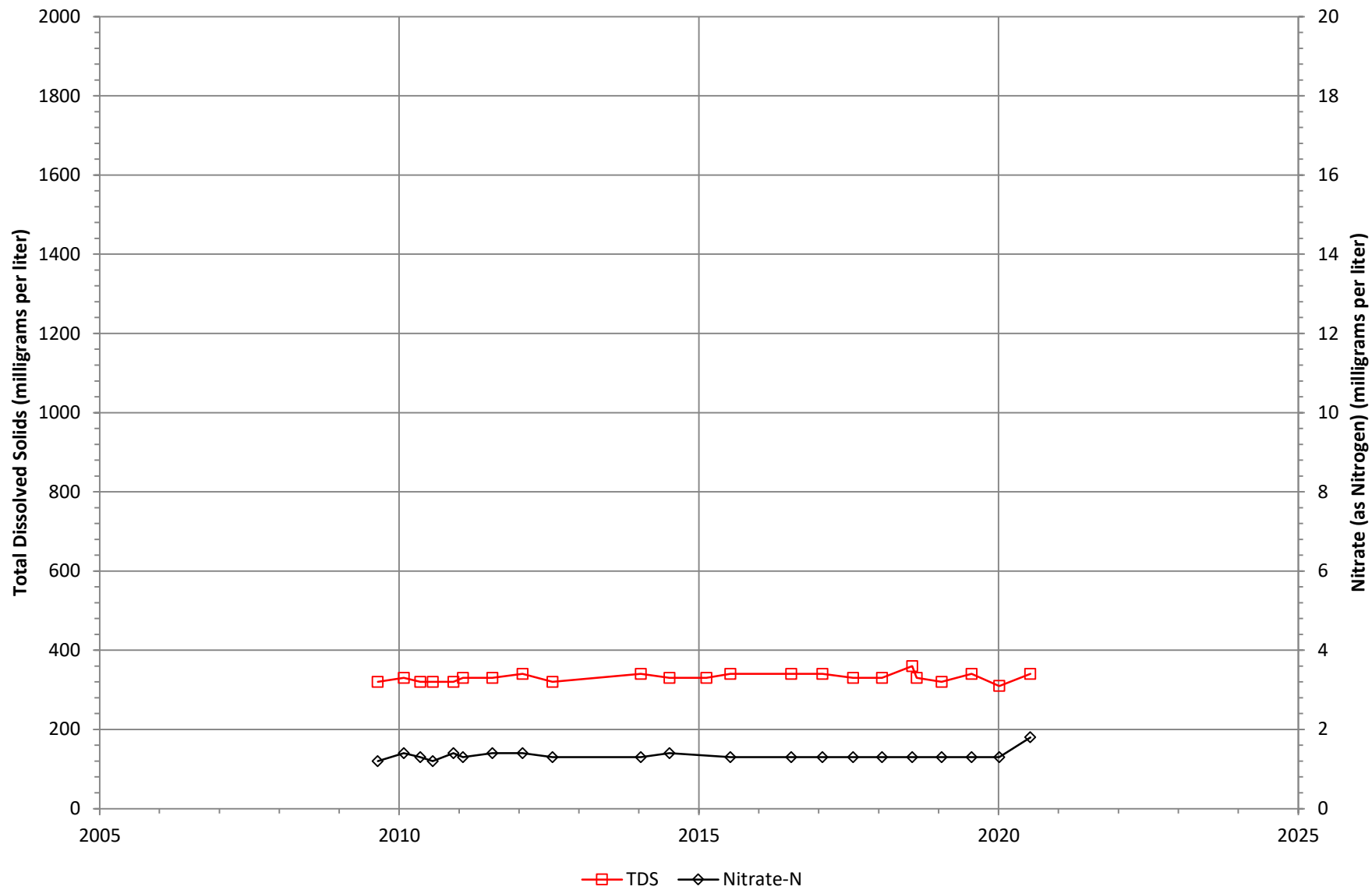


Figure G-18

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Fishermen's Retreat 1

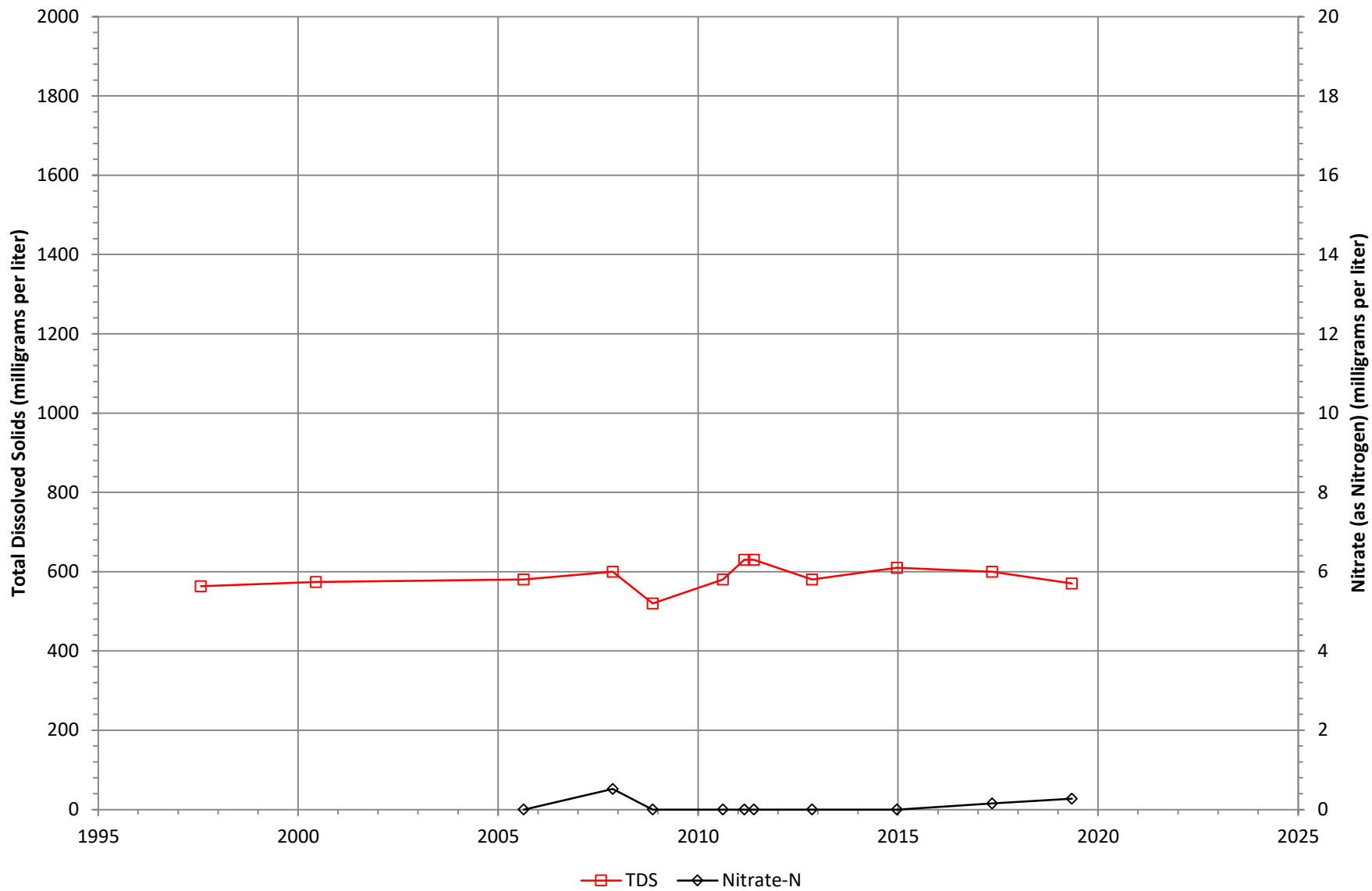


Figure G-19

Total Dissolved Solids and Nitrate (as Nitrogen) at Well Fishermen's Retreat 2

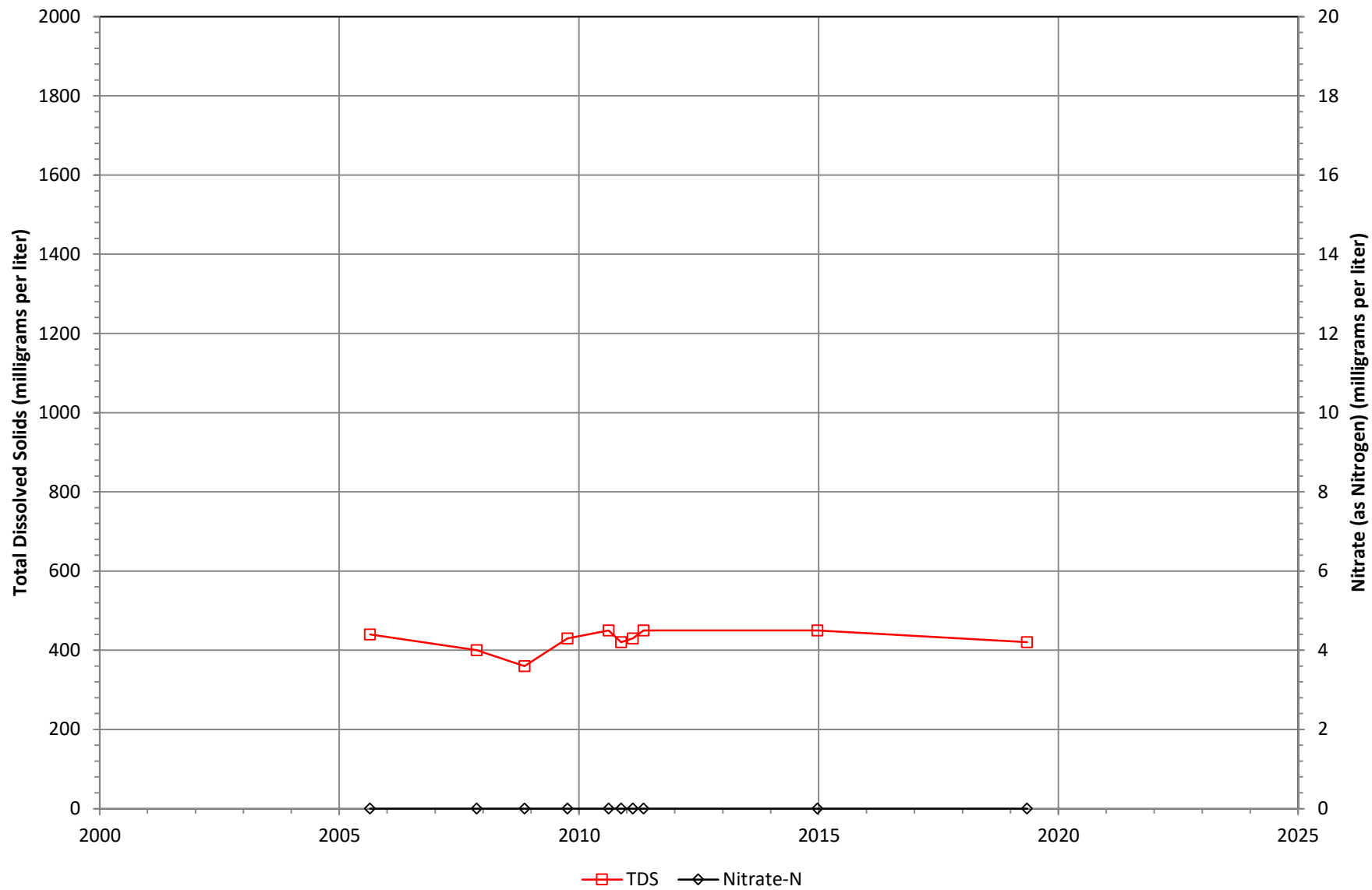


Figure G-20

Total Dissolved Solids and Nitrate (as Nitrogen) at Well 1 (Schwenckert, Henry W. and Jewel)

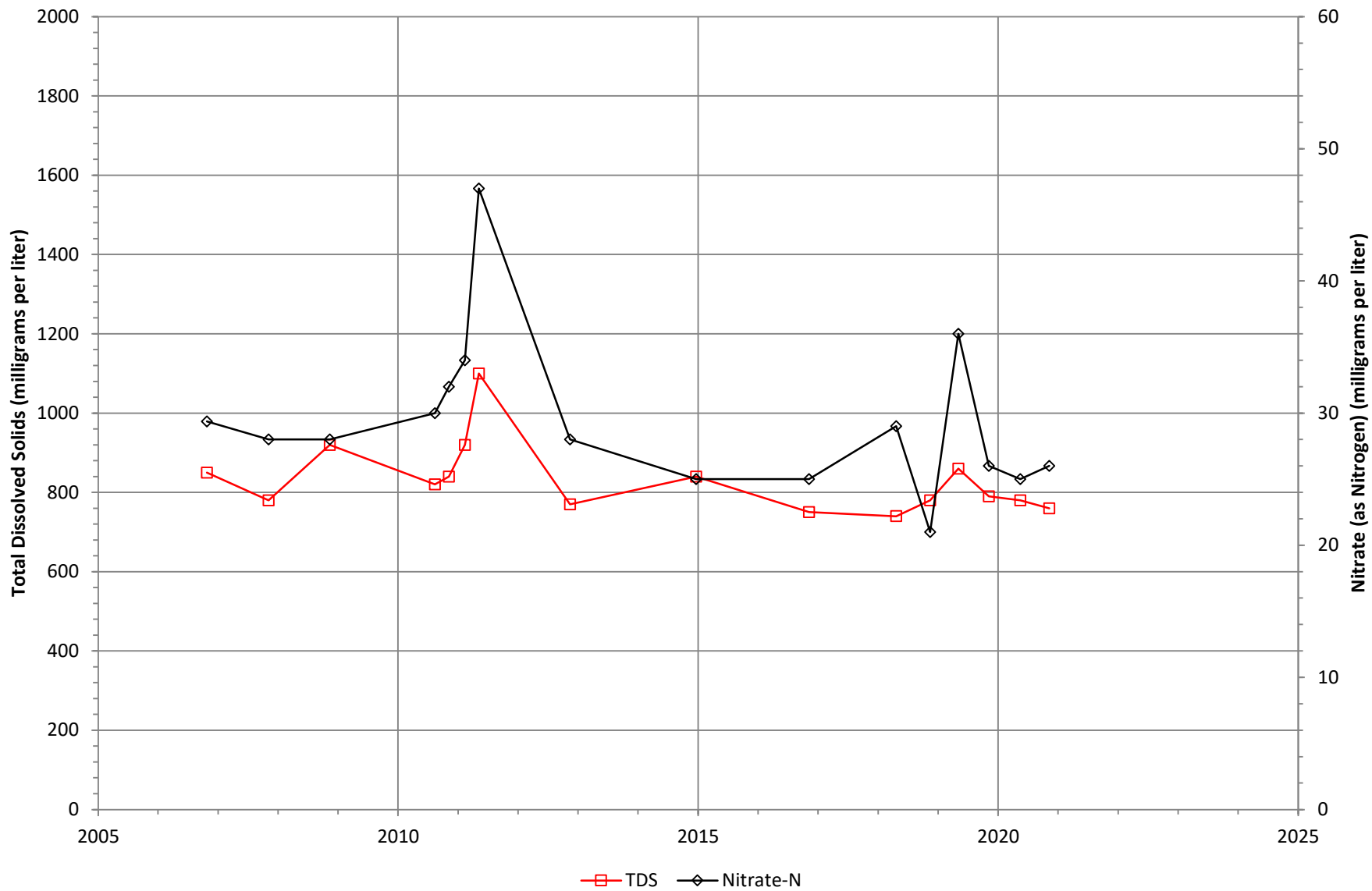


Figure G-21

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD GMMW-1

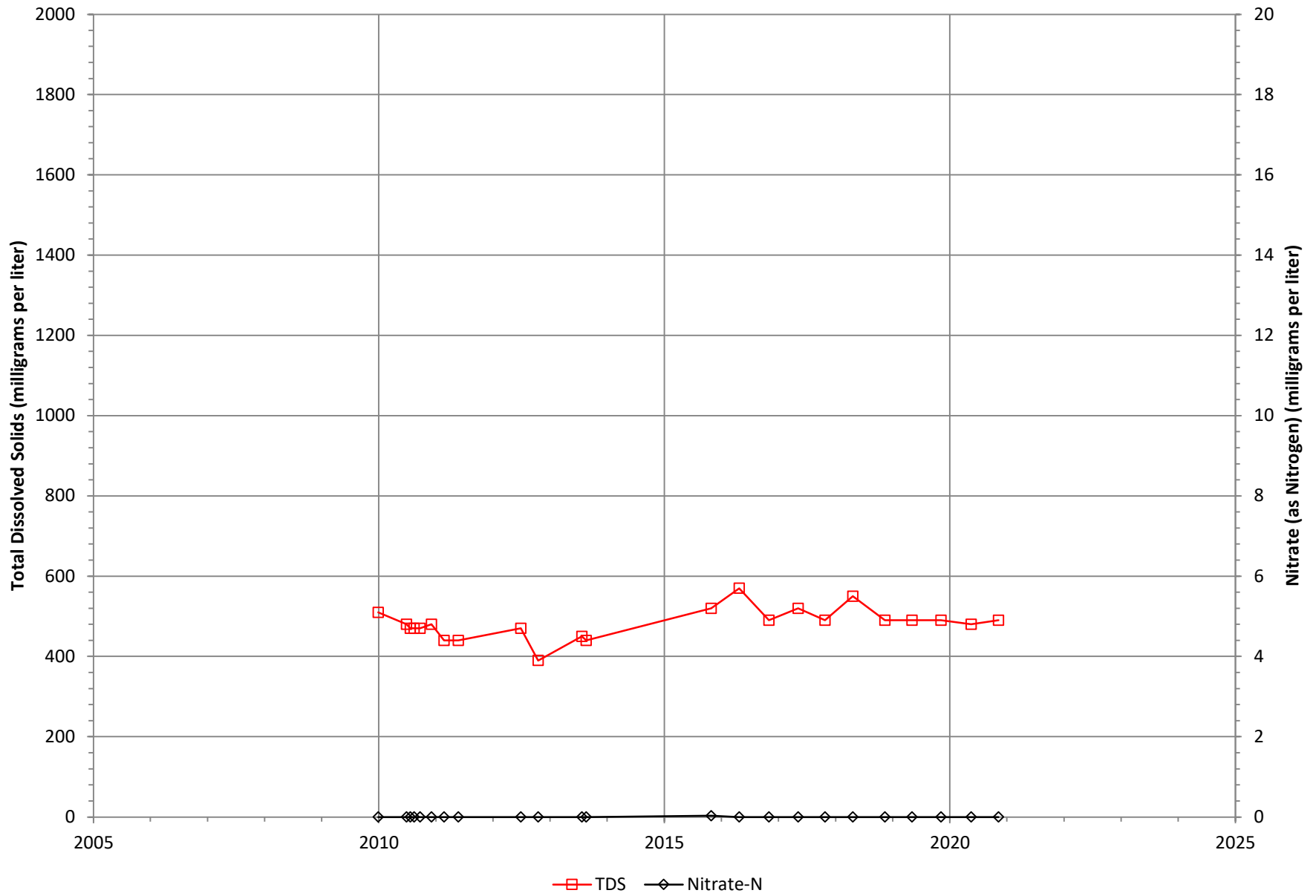


Figure G-22

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD GMMW-2

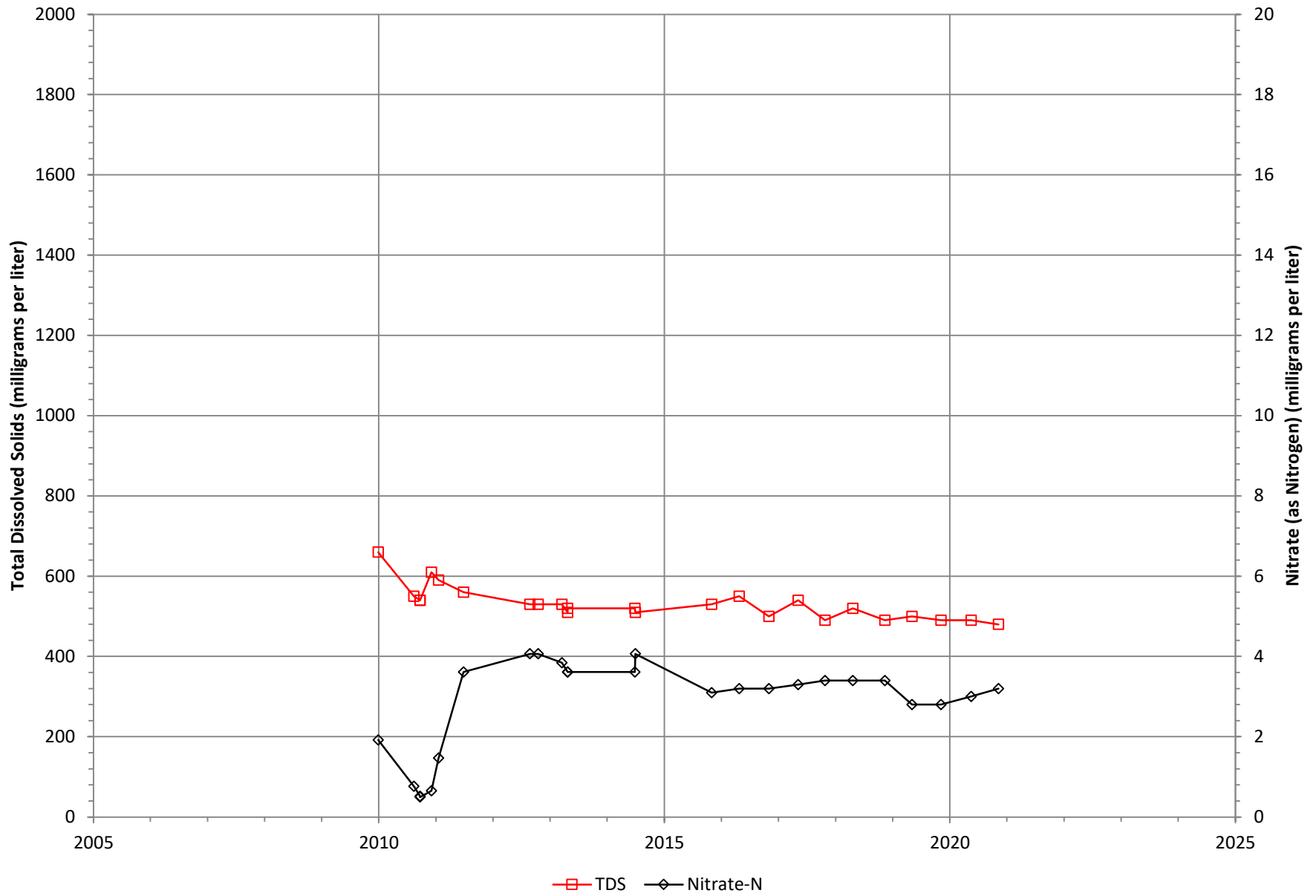


Figure G-23

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD GMMW-5A

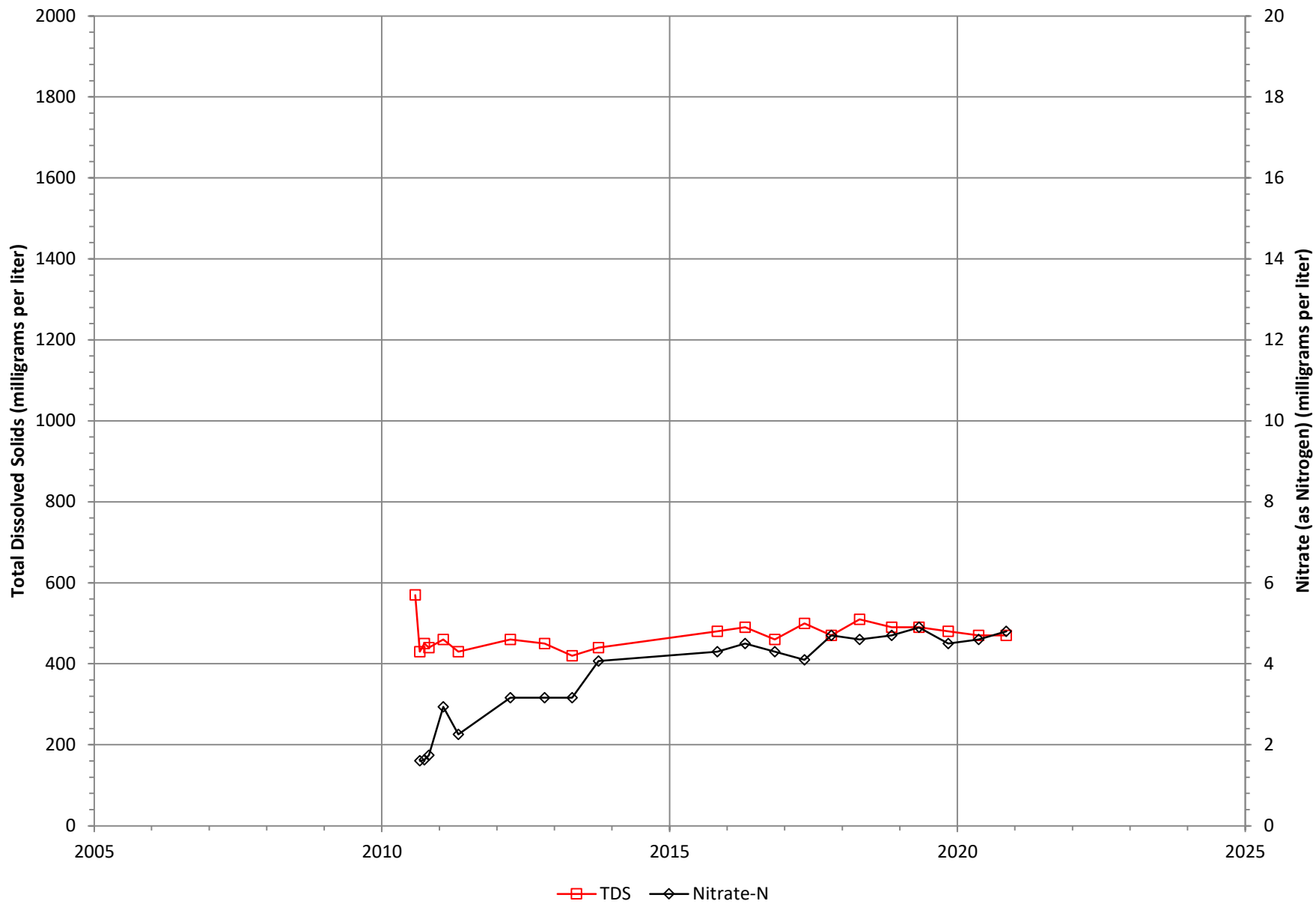


Figure G-25

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD GMMW-5B

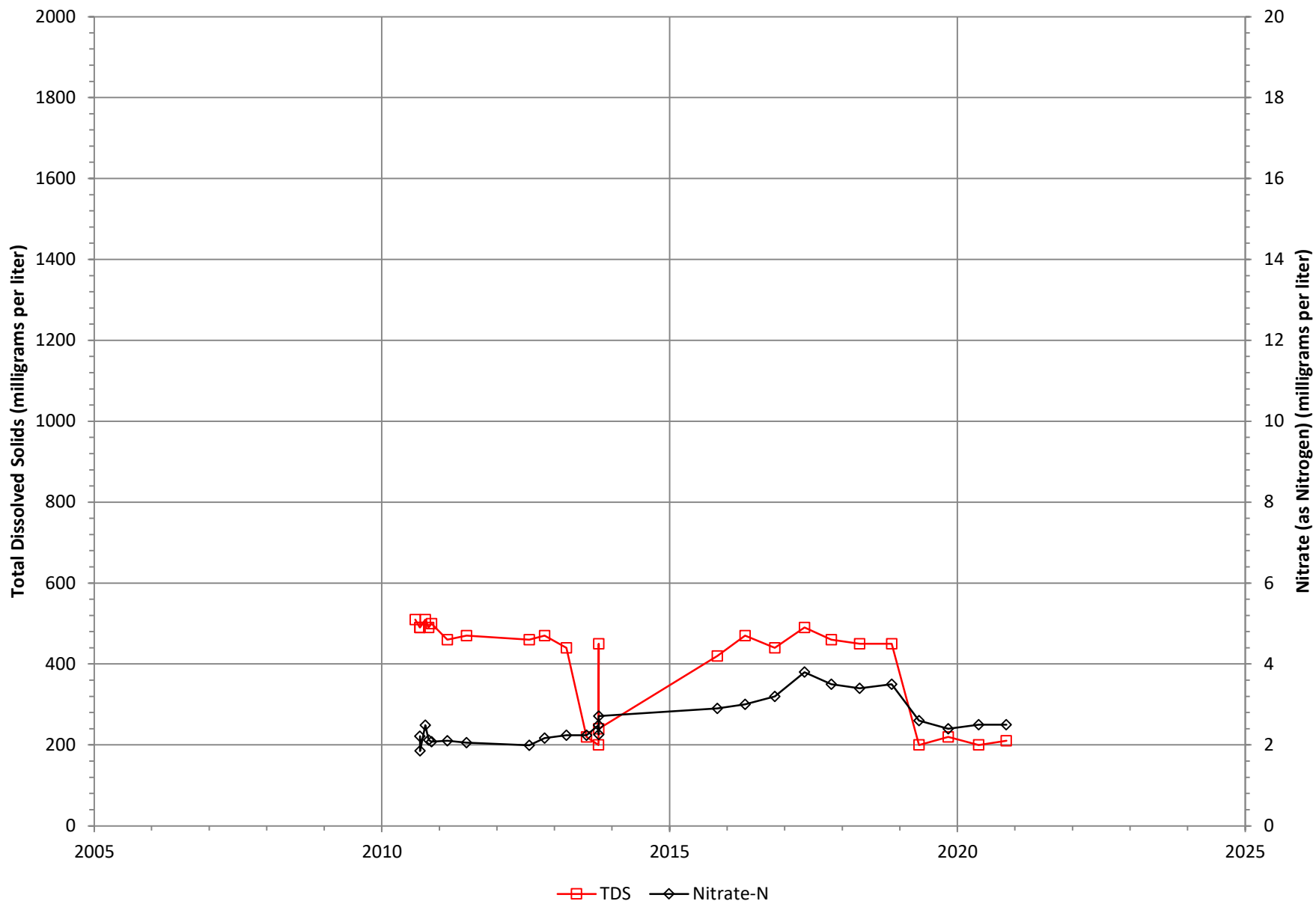


Figure G-26

Total Dissolved Solids and Nitrate (as Nitrogen) at Well YVWD GMMW-5C

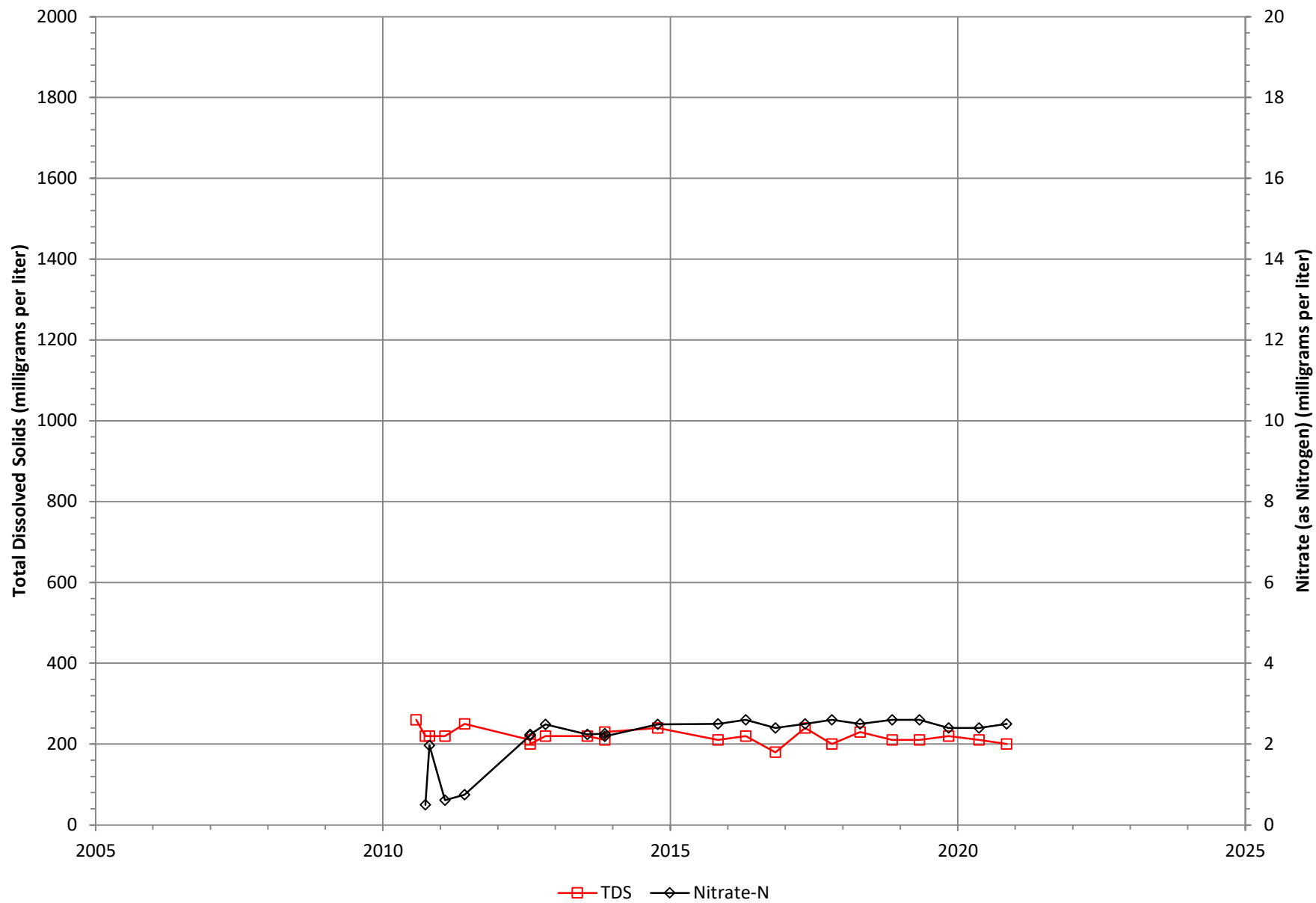


Figure G-27

APPENDIX H

**Historical Total Dissolved Solids Concentration of Recycled
Water Discharged at WRWRF Outfall to San Timoteo Creek**

Appendix H. Historical TDS Concentrations of Recycled Water Discharged at WRWRF Outfall

Sample Date	Total Dissolved Solids (mg/L)	Total Monthly Discharge Volume (MG)	TDS * Volume	Volume-Weighted Annual Average (mg/L)	10-Year Running Volume-Weighted Average (mg/L)
1/31/2002	488	94.298	46,017.42		
2/28/2002	488	82.246	40,136.05		
3/31/2002	502	91.509	45,937.52		
4/30/2002	496	87.597	43,448.11		
5/31/2002	492	91.173	44,857.12		
6/30/2002	478	86.12	41,165.36		
7/31/2002	484	87.415	42,308.86		
8/31/2002	481	83.938	40,374.18		
9/30/2002	470	84.981	39,941.07		
10/31/2002	483	89.62	43,286.46		
11/30/2002	484	89.27	43,206.68		
12/31/2002	470	95.19	44,739.30	485	
1/31/2003	450	77.316	34,792.20		
2/28/2003	444	86.34	38,334.96		
3/31/2003	502	94.064	47,220.13		
4/30/2003	480	91.202	43,776.96		
5/31/2003	470	93.94	44,151.80		
6/30/2003	485	95.648	46,389.28		
7/31/2003	454	96.67	43,888.18		
8/31/2003	410	107.226	43,962.66		
9/30/2003	447	102.577	45,851.92		
10/31/2003	420	108.196	45,442.32		
11/30/2003	455	109.445	49,797.47		
12/31/2003	470	110.509	51,939.23	457	
1/31/2004	469	109.17	51,200.73		
2/29/2004	475	103.461	49,143.97		
3/31/2004	459	105.557	48,450.66		
4/30/2004	472	103.947	49,062.98		
5/31/2004	479	106.359	50,945.96		
6/30/2004	493	102.165	50,367.34		
7/31/2004	473	102.995	48,716.64		
8/31/2004	510	105.544	53,827.44		
9/30/2004	479	102.854	49,267.07		
10/31/2004	460	111.056	51,085.76		
11/30/2004	502	106.208	53,316.42		
12/31/2004	455	108.474	49,355.67	477	
1/31/2005	472	111.692	52,718.62		
2/28/2005	505	100.474	50,739.37		
3/31/2005	515	106.212	54,699.18		
4/30/2005	460	102.456	47,129.76		
5/31/2005	495	106.689	52,811.06		
6/30/2005	507	102.302	51,867.11		
7/31/2005	457	105.988	48,436.52		
8/31/2005	476	106.229	50,565.00		
9/30/2005	537	102.802	55,204.67		
10/31/2005	466	109.227	50,899.78		
11/30/2005	465	105.035	48,841.27		

Appendix H. Historical TDS Concentrations of Recycled Water Discharged at WRWRF Outfall

Sample Date	Total Dissolved Solids (mg/L)	Total Monthly Discharge Volume (MG)	TDS * Volume	Volume-Weighted Annual Average (mg/L)	10-Year Running Volume-Weighted Average (mg/L)
12/31/2005	499	110.426	55,102.57	488	
1/8/2006	460	111.11	51,109.22		
2/5/2006	476	99.54	47,380.56		
3/12/2006	469	108.37	50,823.65		
4/4/2006	455	106.12	48,283.24		
5/5/2006	464	108.19	50,198.30		
6/4/2006	473	104.04	49,208.55		
7/2/2006	504	107.09	53,973.86		
8/13/2006	572	108.42	62,014.52		
9/10/2006	577	108.06	62,350.04		
10/10/2006	409	111.99	45,803.09		
11/11/2006	472	108.67	51,294.60		
12/3/2006	487	114.94	55,973.83	485	
1/31/2007	504	113.98	57,447.94		
2/28/2007	515	102.51	52,794.71		
3/31/2007	531	110.39	58,619.74		
4/30/2007	513	108.46	55,639.98		
5/31/2007	523	109.91	57,481.36		
6/30/2007	493	108.78	53,629.03		
7/31/2007	465	110.34	51,307.17		
8/31/2007	505	111.91	56,513.54		
9/30/2007	423	109.64	46,377.72		
10/31/2007	467	113.15	52,841.05		
11/30/2007	460	111.22	51,161.66		
12/31/2007	463	116.86	54,103.86	488	
1/3/2008	426	116.08	49,452.21		
2/14/2008	504	103.79	52,307.64		
3/5/2008	481	110.60	53,200.04		
4/3/2008	482	105.83	51,010.06		
5/8/2008	481	108.84	52,350.12		
6/5/2008	483	103.21	49,848.50		
7/2/2008	510	108.07	55,116.72		
8/14/2008	510	108.71	55,442.10		
9/11/2008	478	115.11	55,023.06		
10/9/2008	481	110.81	53,297.53		
11/7/2008	480	107.55	51,625.92		
12/4/2008	480	112.68	54,084.86	483	
1/5/2009	440	108.89	47,911.31		
2/2/2009	450	94.95	42,728.65		
3/2/2009	530	110.30	58,457.19		
4/6/2009	450	106.00	47,699.71		
5/4/2009	450	112.73	50,727.34		
6/8/2009	450	103.03	46,365.75		
7/6/2009	450	112.27	50,522.82		
8/3/2009	450	113.05	50,872.50		
9/8/2009	430	108.84	46,801.20		
10/5/2009	400	111.32	44,528.00		

Appendix H. Historical TDS Concentrations of Recycled Water Discharged at WRWRF Outfall

Sample Date	Total Dissolved Solids (mg/L)	Total Monthly Discharge Volume (MG)	TDS * Volume	Volume-Weighted Annual Average (mg/L)	10-Year Running Volume-Weighted Average (mg/L)
11/2/2009	450	109.69	49,360.50		
12/7/2009	470	115.46	54,263.85	452	
1/4/2010	440	123.80	54,472.00		
2/8/2010	430	104.11	44,767.30		
3/8/2010	450	112.69	50,710.50		
4/5/2010	450	110.86	49,887.00		
5/3/2010	440	110.95	48,818.00		
6/7/2010	440	107.21	47,172.40		
7/6/2010	450	110.87	49,891.50		
8/2/2010	430	110.27	47,413.95		
9/7/2010	410	110.55	45,324.49		
10/4/2010	418	113.97	47,639.46		
11/8/2010	450	109.78	49,401.00		
12/6/2010	420	120.22	50,492.40	436	
1/10/2011	450	116.07	52,231.50		
2/7/2011	440	106.10	46,684.00		
3/7/2011	450	113.06	50,874.75		
4/4/2011	390	116.11	45,282.90		
5/2/2011	410	118.55	48,605.50		
6/6/2011	420	108.18	45,435.60		
7/5/2011	440	115.64	50,881.60		
8/8/2011	380	116.84	44,399.20		
9/6/2011	400	112.65	45,060.00		
10/3/2011	410	117.16	48,035.60		
11/7/2011	380	123.51	46,933.80		
12/5/2011	380	111.75	42,465.00	412	465
1/9/2012	450	110.55	49,747.50		
2/6/2012	430	101.05	43,451.50		
3/5/2012	420	111.60	46,872.00		
4/2/2012	450	107.87	48,541.50		
5/7/2012	460	112.20	51,612.00		
6/4/2012	450	109.74	49,383.00		
7/2/2012	430	115.88	49,828.40		
8/6/2012	380	117.71	44,729.80		
9/3/2012	470	115.34	54,209.80		
10/8/2012	440	118.36	52,078.40		
11/5/2012	440	113.02	49,728.80		
12/3/2012	410	113.35	46,473.50	436	461
1/7/2013	390	117.80	45,942.00		
2/28/2013	440	102.71	45,192.40		
3/31/2013	510	113.30	57,783.00		
4/8/2013	490	116.13	56,903.70		
5/6/2013	530	113.41	60,107.30		
6/30/2013	470	111.05	52,193.50		
7/31/2013	450	114.78	51,651.00		
8/31/2013	430	117.50	50,525.00		
9/30/2013	440	114.27	50,278.80		

Appendix H. Historical TDS Concentrations of Recycled Water Discharged at WRWRF Outfall

Sample Date	Total Dissolved Solids (mg/L)	Total Monthly Discharge Volume (MG)	TDS * Volume	Volume-Weighted Annual Average (mg/L)	10-Year Running Volume-Weighted Average (mg/L)
10/31/2013	440	116.76	51,374.40		
11/4/2013	410	113.91	46,703.10		
12/2/2013	510	117.09	59,715.90	459	461
1/6/2014	460	115.79	53,263.40		
2/3/2014	460	101.31	46,602.60		
3/3/2014	350	109.04	38,164.00		
4/7/2014	520	110.86	57,647.20		
5/5/2014	440	115.75	50,930.00		
6/2/2014	490	110.82	54,301.80		
7/7/2014	470	112.97	53,095.90		
8/4/2014	420	112.50	47,250.00		
9/8/2014	400	110.09	44,036.00		
10/6/2014	460	113.62	52,265.20		
11/3/2014	470	107.48	50,514.66		
12/8/2014	460	101.25	46,575.50	450	458
1/31/2015	480	86.29	41,420.26		
2/28/2015	440	62.91	27,681.87		
3/31/2015	530	61.16	32,414.00		
4/30/2015	450	49.98	22,490.90		
5/31/2015	460	71.07	32,692.48		
6/30/2015	410	66.67	27,335.37		
7/31/2015	430	70.37	30,259.53		
8/31/2015	450	72.81	32,764.05		
9/30/2015	470	75.76	35,607.66		
10/31/2015	460	97.27	44,742.03		
11/30/2015	480	103.01	49,445.84		
12/31/2015	430	109.55	47,108.18	457	455
1/31/2016	640	80.70	51,649.92		
2/29/2016	450	59.48	26,766.90		
3/31/2016	450	89.15	40,116.60		
4/30/2016	630	103.82	65,408.97		
5/31/2016	450	97.14	43,712.10		
6/30/2016	430	77.46	33,309.09		
7/31/2016	430	69.00	29,669.57		
8/31/2016	290	66.07	19,161.46		
9/30/2016	280	73.16	20,484.52		
10/31/2016	300	86.50	25,949.41		
11/30/2016	340	86.39	29,373.18		
12/31/2016	360	109.85	39,544.87	426	450
1/31/2017	400	115.24	46,096.00		
2/28/2017	350	102.90	36,015.00		
3/31/2017	260	98.59	25,633.40		
4/30/2017	290	78.55	22,779.50		
5/31/2017	270	92.78	25,050.60		
6/30/2017	260	71.16	18,501.60		
7/31/2017	230	81.18	18,671.40		
8/31/2017	210	98.03	20,586.30		

Appendix H. Historical TDS Concentrations of Recycled Water Discharged at WRWRF Outfall

Sample Date	Total Dissolved Solids (mg/L)	Total Monthly Discharge Volume (MG)	TDS * Volume	Volume-Weighted Annual Average (mg/L)	10-Year Running Volume-Weighted Average (mg/L)
9/30/2017	220	101.29	22,283.80		
10/31/2017	240	89.79	21,550.56		
11/30/2017	250	102.73	25,681.61		
12/31/2017	260	117.02	30,426.20	273	430
1/31/2018	280	123.66	34,624.89		
2/28/2018	310	106.15	32,906.40		
3/31/2018	380	90.58	34,421.35		
4/30/2018	290	57.22	16,593.47		
5/31/2018	430	102.25	43,966.36		
6/30/2018	290	96.41	27,958.77		
7/31/2018	260	96.65	25,129.35		
8/31/2018	260	86.63	22,524.41		
9/30/2018	320	91.68	29,336.47		
10/31/2018	260	100.70	26,181.30		
11/30/2018	250	90.77	22,693.37		
12/31/2018	280	125.75	35,210.86	301	412
1/31/2019	290	131.33	38,086.57		
2/28/2019	280	89.22	24,981.88		
3/31/2019	480	103.61	49,732.32		
4/30/2019	280	82.55	23,114.28		
5/31/2019	260	98.54	25,619.36		
6/30/2019	260	68.94	17,923.58		
7/31/2019	250	70.00	17,500.12		
8/31/2019	240	76.72	18,411.62		
9/30/2019	240	73.08	17,538.22		
10/31/2019	235	59.67	14,022.28		
11/30/2019	250	98.74	24,683.75		
12/31/2019	260	103.82	26,993.46	283	396
1/31/2020	280	75.00	20,998.60		
2/29/2020	300	75.60	22,679.10		
3/31/2020	310	115.99	35,956.90		
4/30/2020	290	103.56	30,033.27		
5/31/2020	270	75.85	20,479.23		
6/30/2020	250	63.81	15,951.25		
7/31/2020	250	60.24	15,060.93		
8/31/2020	270	62.51	16,878.51		
9/30/2020	280	81.49	22,818.32		
10/31/2020	290	81.24	23,559.31		
11/30/2020	290	81.15	23,534.08		
12/31/2020	280	87.07	24,378.48	283	382

APPENDIX I

**Historical Nitrate (as Nitrogen) Concentration of Recycled
Water Discharged at WRWRF Outfall to San Timoteo Creek**

Appendix I. Historical Concentrations of Nitrate (as Nitrogen) at WRWRF Outfall

Sample Date	Nitrate-Nitrogen (mg/L)	Nitrite-Nitrogen (mg/L)	Ammonia-Nitrogen (mg/L)	Total Inorganic Nitrogen (mg/L)	Total Monthly Discharge Volume (MG)	Nitrate-N * Volume	Volume-Weighted Annual Average Nitrate-N (mg/L)	10-Year Running Volume-Weighted Average Nitrate-N (mg/L)	Volume-Weighted Annual Average TIN (mg/L)	10-Year Running Volume-Weighted Average TIN (mg/L)
1/31/2002	8.6		2.8	11.4	94.298	811.0				
2/28/2002	3.7		2.2	5.9	82.246	304.3				
3/31/2002	7.1		2.3	9.4	91.509	649.7				
4/30/2002	5.8		2.4	8.2	87.597	508.1				
5/31/2002	6.9		1.9	8.8	91.173	629.1				
6/30/2002	5.6		2.4	8.0	86.12	482.3				
7/31/2002	5.3		1.7	7.0	87.415	463.3				
8/31/2002	4.1		2.0	6.1	83.938	344.1				
9/30/2002	4.0		1.8	5.8	84.981	339.9				
10/31/2002	2.8		1.0	3.8	89.62	250.9				
11/30/2002	3.2		2.0	5.2	89.27	285.7				
12/31/2002	3.1		2.5	5.6	95.19	295.1	5.0		7.1	
1/31/2003	0.8		2.8	3.6	77.316	61.9				
2/28/2003	0.4		2.4	2.8	86.34	34.5				
3/31/2003	5.6		2.9	8.5	94.064	526.8				
4/30/2003	5.7		2.9	8.6	91.202	519.9				
5/31/2003	5.3		1.3	6.6	93.94	497.9				
6/30/2003	1.9		2.4	4.3	95.648	181.7				
7/31/2003	1.5		1.9	3.4	96.67	145.0				
8/31/2003	2.1		2.8	4.9	107.226	225.2				
9/30/2003	4.2		0.9	5.1	102.577	430.8				
10/31/2003	4.1		0.2	4.3	108.196	443.6				
11/30/2003	3.6		2.7	6.3	109.445	394.0				
12/31/2003	2.7		3.8	6.5	110.509	298.4	3.2		5.4	
1/31/2004	0.0		4.5	4.5	109.17	0.0				
2/29/2004	11.1		3.6	14.7	103.461	1148.4				
3/31/2004	6.1		4.4	10.5	105.557	643.9				
4/30/2004	7.5		3.9	11.4	103.947	779.6				
5/31/2004	10.3		3.8	14.1	106.359	1095.5				
6/30/2004	10.1		2.1	12.2	102.165	1031.9				
7/31/2004	5.6		2.4	8.0	102.995	576.8				
8/31/2004	3.8		2.5	6.3	105.544	401.1				
9/30/2004	7.9		0.1	8.0	102.854	812.5				
10/31/2004	9.6		0.0	9.6	111.056	1066.1				
11/30/2004	6.9		0.0	6.9	106.208	732.8				

Appendix I. Historical Concentrations of Nitrate (as Nitrogen) at WRWRF Outfall

Sample Date	Nitrate-Nitrogen (mg/L)	Nitrite-Nitrogen (mg/L)	Ammonia-Nitrogen (mg/L)	Total Inorganic Nitrogen (mg/L)	Total Monthly Discharge Volume (MG)	Nitrate-N * Volume	Volume-Weighted Annual Average Nitrate-N (mg/L)	10-Year Running Volume-Weighted Average Nitrate-N (mg/L)	Volume-Weighted Annual Average TIN (mg/L)	10-Year Running Volume-Weighted Average TIN (mg/L)
12/31/2004	11.8		0.0	11.8	108.474	1280.0	7.5		9.8	
1/31/2005	14.6		0.0	14.6	111.69	1630.7				
2/28/2005	14.1		0.0	14.1	100.47	1416.7				
3/31/2005	13.3		0.0	13.3	106.21	1412.6				
4/30/2005	8.9		0.0	8.9	102.46	911.9				
5/31/2005	11.4		0.0	11.4	106.69	1216.3				
6/30/2005	13.6		0.1	13.7	102.30	1391.3				
7/31/2005	8.5		0.0	8.5	105.99	900.9				
8/31/2005	9.4		0.1	9.5	106.23	998.6				
9/30/2005	10.3		0.1	10.4	102.80	1058.9				
10/31/2005	8.6		0.3	8.9	109.23	939.4				
11/30/2005	12.0		0.4	12.4	105.04	1260.4				
12/31/2005	21.4		0.2	21.6	110.43	2363.1	12.2		12.3	
1/31/2006	16.9		<0.2	16.9	111.11	1877.7				
2/28/2006	16.3		<0.2	16.3	99.54	1622.5				
3/31/2006	18.9		0.2	19.1	108.37	2048.1				
4/30/2006	15.9		0.2	16.1	106.12	1687.3				
5/31/2006	17.6		<0.2	17.6	108.19	1904.1				
6/30/2006	16.4		0.4	16.8	104.04	1706.2				
7/31/2006	15.7		<0.2	15.7	107.09	1681.3				
8/31/2006	17		<0.2	17.0	108.42	1843.1				
9/30/2006	19.4		<0.2	19.4	108.06	2096.3				
10/31/2006	17.6		<0.2	17.6	111.99	1971.0				
11/30/2006	16.0		<0.2	16.0	108.67	1738.8				
12/31/2006	16.1		<0.2	16.1	114.94	1850.5	17.0		17.1	
1/31/2007	18.1		<0.2	18.1	113.98	2063.1				
2/28/2007	16.7		<0.2	16.7	102.51	1712.0				
3/31/2007	17.3		0.7	18.0	110.39	1909.8				
4/30/2007	17.7		<0.2	17.7	108.46	1919.7				
5/31/2007	14.7		<0.2	14.7	109.91	1615.6				
6/30/2007	13.4		<0.2	13.4	108.78	1457.7				
7/31/2007	10.5		<0.2	10.5	110.34	1158.5				
8/31/2007	13		0.3	13.3	111.91	1454.8				

Appendix I. Historical Concentrations of Nitrate (as Nitrogen) at WRWRF Outfall

Sample Date	Nitrate-Nitrogen (mg/L)	Nitrite-Nitrogen (mg/L)	Ammonia-Nitrogen (mg/L)	Total Inorganic Nitrogen (mg/L)	Total Monthly Discharge Volume (MG)	Nitrate-N * Volume	Volume-Weighted Annual Average Nitrate-N (mg/L)	10-Year Running Volume-Weighted Average Nitrate-N (mg/L)	Volume-Weighted Annual Average TIN (mg/L)	10-Year Running Volume-Weighted Average TIN (mg/L)
9/30/2007	9.9		<0.2	9.9	109.64	1085.4				
10/31/2007	10.0		<0.2	10.0	113.15	1131.5				
11/30/2007	8.1		<0.2	8.1	111.22	900.9				
12/31/2007	11		<0.2	11.0	116.86	1285.4	13.3		13.4	
1/31/2008	14.4		<0.2	14.4	116.08	1671.6				
2/29/2008	24		0.3	24.3	103.79	2490.8				
3/31/2008	27.7		<0.2	27.7	110.60	3063.7				
4/30/2008	26.7		0.2	26.9	105.83	2825.7				
5/31/2008	18.3		0.2	18.5	108.84	1991.7				
6/30/2008	19.1		<0.2	19.1	103.21	1971.2				
7/31/2008	25.9		<0.2	25.9	108.07	2799.3				
8/31/2008	9		<0.2	9.0	108.71	978.4				
9/30/2008	7.72		<0.2	7.7	115.11	888.7				
10/31/2008	4.5		<0.2	4.5	110.81	498.6				
11/30/2008	12.8		<0.2	12.8	107.55	1376.7				
12/31/2008	7.4	0.5	<0.2	7.9	112.68	833.8	16.3		16.4	
1/31/2009	4.1	0.7	<0.2	4.8	108.89	446.4				
2/28/2009	1.4	0.0	2	3.4	94.95	132.9				
3/31/2009	4.1	0.8	9.3	14.2	110.30	452.2				
4/30/2009	2.6	0.7	0.6	3.9	106.00	275.6				
5/31/2009	2.2	0.9	0.5	3.6	112.73	248.0				
6/30/2009	2.5	0.4	1.6	4.5	103.03	257.6				
7/31/2009	3.2	0.2	<0.2	3.4	112.27	359.3				
8/31/2009	3.7	0.1	0.4	4.2	113.05	418.3				
9/30/2009	3.6	0.2	0	3.8	108.84	391.8				
10/31/2009	4.2	0.2	<0.2	4.4	111.32	467.5				
11/30/2009	3.6	0.4	<0.2	4.0	109.69	394.9				
12/31/2009	1.9	0.6	4.2	6.7	115.46	219.4	3.1		5.1	
1/31/2010	3.8	0.5	2.5	6.8	123.80	470.4				
2/28/2010	2.2	0.5	4.6	7.3	104.11	229.0				
3/31/2010	3.4	0.2	1	4.6	112.69	383.1				
4/30/2010	3.2	0.5	1.9	5.6	110.86	354.8				
5/31/2010	1	0.6	11.1	12.7	110.95	111.0				

Appendix I. Historical Concentrations of Nitrate (as Nitrogen) at WRWRF Outfall

Sample Date	Nitrate-Nitrogen (mg/L)	Nitrite-Nitrogen (mg/L)	Ammonia-Nitrogen (mg/L)	Total Inorganic Nitrogen (mg/L)	Total Monthly Discharge Volume (MG)	Nitrate-N * Volume	Volume-Weighted Annual Average Nitrate-N (mg/L)	10-Year Running Volume-Weighted Average Nitrate-N (mg/L)	Volume-Weighted Annual Average TIN (mg/L)	10-Year Running Volume-Weighted Average TIN (mg/L)
6/30/2010	3.9	<0.23	<0.2	3.9	107.21	418.1				
7/31/2010	5.8	0.2	0.17	6.1	110.87	643.0				
8/31/2010	3.5	<0.23	<.2	3.5	110.27	385.9				
9/30/2010	3.6	<0.23	<0.2	3.6	110.55	398.0				
10/31/2010	2.85	<0.15	<0.2	2.9	113.97	324.8				
11/30/2010	2	<0.23	0.3	2.3	109.78	219.6				
12/31/2010	1.9	0.4	0.2	2.5	120.22	228.4	3.1		5.1	
1/31/2011	2.1	0.3	0.7	3.1	116.07	243.7				
2/28/2011	3.3	0.2	0.2	3.7	106.10	350.1				
3/31/2011	2.22	0.4	1.2	3.9	113.06	251.0				
4/30/2011	1.42	0.5	3.1	5.0	116.11	164.9				
5/31/2011	1.3	<0.23	3.2	4.5	118.55	154.1				
6/30/2011	<0.7	0.3	11.3	11.6	108.18	37.9				
7/31/2011	3.3	<.23	0.7	4.0	115.64	381.6				
8/31/2011	3.9	<0.15	<0.2	3.9	116.84	455.7				
9/30/2011	2	<0.15	0.24	2.2	112.65	225.3				
10/31/2011	3.3	<0.15	<0.2	3.3	117.16	386.6				
11/30/2011	2.3	0.3	0.3	2.9	123.51	284.1				
12/31/2011	2.46	0.3	0.6	3.4	111.75	274.9	2.3	8.4	4.2	9.6
1/31/2012	2.3	0.2	0.6	3.1	110.55	254.3				
2/29/2012	2.91	0.3	<0.2	3.2	101.05	294.1				
3/31/2012	3.55	<0.15	<0.2	3.6	111.60	396.2				
4/30/2012	2.3	0.2	3	5.5	107.87	248.1				
5/31/2012	2.5	<0.15	0.2	2.7	112.20	280.5				
6/30/2012	2.7	<0.15	0.1	2.8	109.74	296.3				
7/31/2012	3.9	<0.15	0.2	4.1	115.88	451.9				
8/31/2012	2.2	<0.11	<0.2	2.2	117.71	259.0				
9/30/2012	1.9	<0.11	<0.2	1.9	115.34	219.1				
10/31/2012	4.2	<0.15	<0.2	4.2	118.36	497.1				
11/30/2012	2.5	<0.15	0.2	2.7	113.02	282.6				
12/31/2012	2.36	0.3	0.7	3.4	113.35	267.5	2.8	8.1	3.3	9.2
1/31/2013	1.7	<0.40	0.5	2.2	117.80	200.3				
2/28/2013	2.3	<0.4	4	6.3	102.71	236.2				

Appendix I. Historical Concentrations of Nitrate (as Nitrogen) at WRWRF Outfall

Sample Date	Nitrate-Nitrogen (mg/L)	Nitrite-Nitrogen (mg/L)	Ammonia-Nitrogen (mg/L)	Total Inorganic Nitrogen (mg/L)	Total Monthly Discharge Volume (MG)	Nitrate-N * Volume	Volume-Weighted Annual Average Nitrate-N (mg/L)	10-Year Running Volume-Weighted Average Nitrate-N (mg/L)	Volume-Weighted Annual Average TIN (mg/L)	10-Year Running Volume-Weighted Average TIN (mg/L)
3/31/2013	3.3	<0.4	0.9	4.2	113.30	373.9				
4/30/2013	3.2	<0.4	<0.2	3.2	116.13	371.6				
5/31/2013	2.6	0.4	1.8	4.8	113.41	294.9				
6/30/2013	2.8	<0.4	<0.15	2.8	111.05	310.9				
7/31/2013	3.8	<0.4	<0.15	3.8	114.78	436.2				
8/31/2013	3.8	<0.4	<0.5	3.8	117.50	446.5				
9/30/2013	4.1	<0.4	<0.15	4.1	114.27	468.5				
10/31/2013	4.7	<0.4	<0.15	4.7	116.76	548.8				
11/30/2013	2.6	<0.4	<0.15	2.6	113.91	296.2				
12/31/2013	2.2	<0.4	<0.15	2.2	117.09	257.6	3.1	8.0	3.7	9.0
1/31/2014	2.9	<0.4	<0.15	2.9	115.79	335.8				
2/28/2014	3.1	<0.4	0.9	4.0	101.31	314.1				
3/31/2014	2.9	<0.4	<0.15	2.9	109.04	316.2				
4/30/2014	3	<0.4	<0.5	3.0	110.86	332.6				
5/31/2014	3.3	<0.17	<0.15	3.3	115.75	382.0				
6/30/2014	3.2	<0.17	<0.5	3.2	110.82	354.6				
7/31/2014	3.9	<0.17	<0.5	3.9	112.97	440.6				
8/31/2014	4.3	<0.17	<0.15	4.3	112.50	483.8				
9/30/2014	4.2	<0.17	<0.15	4.2	110.09	462.4				
10/31/2014	3.8	<0.17	<0.15	3.8	113.62	431.8				
11/30/2014	5	<0.4	<0.15	5.0	107.48	537.4				
12/31/2014	4.5	<0.4	<0.15	4.5	101.25	455.6	3.7	7.6	3.7	8.4
1/31/2015	4.3	<0.4	<0.5	4.3	86.29	371.1				
2/28/2015	4.7	<0.4	<0.15	4.7	62.91	295.7				
3/31/2015	5.3	<0.17	<0.15	5.3	61.16	324.1				
4/30/2015	4.8	<0.4	<0.15	4.8	49.98	239.9				
5/31/2015	3.1	<0.4	<0.15	3.1	71.07	220.3				
6/30/2015	4.1	<0.4	<0.15	4.1	66.67	273.4				
7/31/2015	5	<0.4	<0.15	5.0	70.37	351.9				
8/31/2015	5.9	<0.4	<0.15	5.9	72.81	429.6				
9/30/2015	4.2	<0.4	0.68	4.9	75.76	318.2				
10/31/2015	2.9	<0.4	0.57	3.5	97.27	282.1				
11/30/2015	2.8	<0.4	0.26	3.1	103.01	288.4				

Appendix I. Historical Concentrations of Nitrate (as Nitrogen) at WRWRF Outfall

Sample Date	Nitrate-Nitrogen (mg/L)	Nitrite-Nitrogen (mg/L)	Ammonia-Nitrogen (mg/L)	Total Inorganic Nitrogen (mg/L)	Total Monthly Discharge Volume (MG)	Nitrate-N * Volume	Volume-Weighted Annual Average Nitrate-N (mg/L)	10-Year Running Volume-Weighted Average Nitrate-N (mg/L)	Volume-Weighted Annual Average TIN (mg/L)	10-Year Running Volume-Weighted Average TIN (mg/L)
12/31/2015	0.5	<0.4	4.58	5.1	109.55	54.8	3.7	6.9	4.4	7.7
1/31/2016	2.1	<0.4	7.53	9.6	80.70	169.5				
2/29/2016	3.1	<0.4	0.61	3.7	59.48	184.4				
3/31/2016	2.6	<0.4	1.19	3.8	89.15	231.8				
4/30/2016	3.0	<0.4	0.85	3.9	103.82	311.5				
5/31/2016	3.1	<0.4	0.38	3.5	97.14	301.1				
6/30/2016	4.1	<0.4	0.27	4.4	77.46	317.6				
7/31/2016	3.9	<0.4	0.55	4.5	69.00	269.1				
8/31/2016	3.1	<0.4	0.41	3.5	66.07	204.8				
9/30/2016	3.6	<0.4	0.43	4.0	73.16	263.4				
10/31/2016	3.1	<0.4	0.79	3.9	86.50	268.1				
11/30/2016	2.6	<0.4	<0.15	2.6	86.39	224.6				
12/31/2016	0.8	<0.4	5.36	6.2	109.85	87.9	2.8	5.5	4.5	6.5
1/31/2017	0.8	<0.4	13.97	14.8	115.24	92.2				
2/28/2017	0.6	<0.4	15.88	16.5	102.90	61.7				
3/31/2017	0.7	<0.4	9.2	9.9	98.59	69.0				
4/30/2017	1.3	<0.4	2.19	3.5	78.55	102.1				
5/31/2017	1.7	<0.4	1.16	2.9	92.78	157.7				
6/30/2017	1.9	<0.4	0.57	2.5	71.16	135.2				
7/31/2017	2.4	<0.4	0.51	2.9	81.18	194.8				
8/31/2017	3.5	<0.4	0.41	3.9	98.03	343.1				
9/30/2017	3.2	<0.4	0.8	4.0	101.29	324.1				
10/31/2017	3.2	<0.4	1.14	4.3	89.79	287.3				
11/30/2017	3.6	<0.4	0.17	3.8	102.73	369.8				
12/31/2017	2.3	<0.4	0.44	2.7	117.02	269.2	2.1	4.4	6.3	5.7
1/31/2018	1.7	<0.4(0.32)	<0.15	1.7	123.66	210.2				
2/28/2018	1.4	<0.4(0.27)	0.43	1.8	106.15	148.6				
3/31/2018	1.4	<0.4(0.32)	0.94	2.3	90.58	126.8				
4/30/2018	2.4	<0.4(0.0)	0.44	2.8	57.22	137.3				
5/31/2018	2.1	<0.4(0.06)	0.38	2.5	102.25	214.7				
6/30/2018	1.7	<0.4(0.0)	0.41	2.1	96.41	163.9				
7/31/2018	1.9	<0.4(0.0)	0.31	2.2	96.65	183.6				
8/31/2018	1.7	<0.4(0.0)	0.45	2.2	86.63	147.3				

Appendix I. Historical Concentrations of Nitrate (as Nitrogen) at WRWRF Outfall

Sample Date	Nitrate-Nitrogen (mg/L)	Nitrite-Nitrogen (mg/L)	Ammonia-Nitrogen (mg/L)	Total Inorganic Nitrogen (mg/L)	Total Monthly Discharge Volume (MG)	Nitrate-N * Volume	Volume-Weighted Annual Average Nitrate-N (mg/L)	10-Year Running Volume-Weighted Average Nitrate-N (mg/L)	Volume-Weighted Annual Average TIN (mg/L)	10-Year Running Volume-Weighted Average TIN (mg/L)
9/30/2018	2.1	<0.4(0.0)	0.25	2.35	91.68	192.52				
10/31/2018	2.4	<0.4(0.21)	0.26	2.66	100.70	241.67				
11/30/2018	2.1	<0.4(0.14)	0.17	2.27	90.77	190.62				
12/31/2018	1.2	<0.4(0.14)	<0.15 (0.0)	1.20	125.75	150.90	1.8	2.8	2.1	4.2
1/31/2019	0.8	0.2	0.85	1.85	131.33	105.07				
2/28/2019	0.4	0.7	1.13	2.23	89.22	35.69				
3/31/2019	1.1	0.5	1.22	2.82	103.61	113.97				
4/30/2019	1.6	0.47	3.3	5.37	82.55	132.08				
5/31/2019	1.2	0.02	<0.15 (0.0)	1.22	98.54	118.24				
6/30/2019	1.4	<0.4(0.03)	<0.15 (0.10)	1.40	68.94	96.51				
7/31/2019	2.2	<0.4(0.05)	<0.15 (0.04)	2.20	70.00	154.00				
8/31/2019	3	<0.4(0.05)	<0.15 (0.0)	3.00	76.72	230.15				
9/30/2019	2.7	<0.4(0.05)	<0.15 (0.06)	2.70	73.08	197.30				
10/31/2019	2.2	<0.4(0.01)	<0.18 (0.09)	2.20	59.67	131.27				
11/30/2019	2.6	<0.4(0.00)	<0.18 (0.00)	2.60	98.74	256.71				
12/31/2019	1.9	<0.4(0.12)	0.31	2.21	103.82	197.26	1.7	2.7	2.5	4.0
1/31/2020	2.1	<0.4(0.10)	1.33	3.43	74.995	157.49				
2/29/2020	2.2	<0.4(0.18)	0.58	2.78	75.597	166.31				
3/31/2020	2.3	<0.4(0.07)	2.2	4.50	115.99	266.78				
4/30/2020	4.1	<0.4(0.00)	1.83	5.93	103.563	424.61				
5/31/2020	3	<0.4(0.01)	<0.18 (0.1)	3.00	75.849	227.55				
6/30/2020	2.4	<0.4(0.00)	0.78	3.18	63.805	153.13				
7/31/2020	3.5	<0.4(0.00)	<0.15 (0.0)	3.50	60.24372	210.85				
8/31/2020	2.1	<0.4(0.07)	<0.15 (0.0)	2.10	62.513	131.28				
9/30/2020	2.1	<0.4(0.00)	<0.15 (0.0)	2.10	81.494	171.14				
10/31/2020	1.5	<0.4(0.02)	<0.15 (0.08)	1.50	81.239	121.86				
11/30/2020	1.8	0.2	0.98	3.02	81.152	146.07				
12/31/2020	0.5	0.1	5.3	5.94	87.066	43.53	2.3	2.6	3.6	3.8