COLORADO OFFICE
10758 W. CENTENNIAL RD., STE. 200
LITTLETON, CO 80127
TEL: (866) 981-4588
FAX: (720) 981-5643

WYOMING OFFICE
5880 ENTERPRISE DR., STE. 200
CASPER, WY 82609
TEL: (307) 265-2373
FAX: (307) 265-2801

PATHFINDER

February 28, 2017

Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate
Division of Waste Management and Environmental Protection
Office of Federal and State Materials and Environmental Management Programs
Mailstop T8-F5
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Re: Docket No. 40-6622, License No. SUA-442
July - December 2016 Semi-Annual Groundwater Monitoring Report
Article Number: 7015 1660 0000 7308 2778

Dear Deputy Director,

Please find behind this cover the Semi-Annual Ground-Water Monitoring Report for the Shirley Basin Mine.

If you have any questions, please feel free to call me at our Casper office.

Regards,

Mr. John W. Cash
President

CC: Mr. Dominick Orlando U.S. NRC Project Manager, via email
Mrs. Theresa Horne, Ur-Energy

SEMI-ANNUAL
GROUNDWATER MONITORING COMPLIANCE REPORT
FOR THE
SHIRLEY BASIN TAILINGS

PREPARED BY:

PATHFINDER MINES CORPORATION
SHIRLEY BASIN MINE

February 2017

Table of Contents

FIGURES

FIGURES (Continued)

FIGURES (Continued)

TABLES

1.0 Introduction

This semi-annual report presents the results of groundwater and surface water monitoring through October 2016 for Pathfinder Mines Corporation's Shirley Basin mill and tailings facility. This report is the twenty-second in the series of semi-annual reports required by NRC License SUA-442 under License Condition 47.C. License Condition 47.A requires monitoring of water quality from two Point-of-Compliance (POC) wells, other selected wells, and from surface-water sites for the constituents presented in **Table 1**.

Table 1 also lists the "Site Standards" per License Condition 47.B that are in effect for POC wells NP01 and RPI-19B, which are located east of the Shirley Basin tailings facility (see **Figure 1**). Additionally, **Table 1** also presents the October 2016 analytical results for the two POC wells. Data analysis and conclusions are presented in Section 4.

2.0 Piezometric Data

The water-level data collected for the four quarters of 2016 are presented in **Table 2** along with field measurement of pH and conductivity. **Figure 1** shows the current piezometric surface of the surficial aquifer in the area between the tailings impoundment and Spring Creek. The piezometric contours clearly show the subsurface flow that mirrors Mine Creek. **Figure 2** presents time-series plots of water-level elevation versus time for monitor wells MC-14, NP01, RPI-14, RPI-18A and RPI-19B. The corresponding October 2016 water-level elevation is posted adjacent to the well location on the plan view map (**Figure 1**).

Water-level elevations in MC-14 post 2003 show a slow but continuous decline, which is attributed to the decay of the ground-water mound that was generated beneath the historic retention Pond 5 area (Pond 5 has been reclaimed and no longer exists). The other four monitor well water levels have remained fairly stable since 2005. Recent water-level elevation changes are more reflective of seasonal recharge, and the piezometric surface appears to be approaching a relatively steady state condition with a general gradient from the tailings impoundment area toward Spring Creek. There are two anomalous water-level elevations for well MC-14 (2002 and 2011) and one anomalous water-level elevation for wells NP01 (2005) and RPI (2016) shown on **Figure 2** that are likely the result of a measurement or recording error.

3.0 Groundwater and Surface Water Quality

All groundwater analytical results for 2016 are compiled in **Table 3** and surface water results in **Table 4**. Historical water quality data can be found in prior semi-annual report submittals.

Chloride

Figure 3 presents the fall-2016 chloride iso-concentration contours in the surficial aquifer. The chloride concentration is greatest at well P-6, which is located approximately 750 feet east of the tailings impoundment in the southern portion of the monitoring area. Chloride concentrations are also moderately elevated in some wells located closest to the reclaimed tailings. There was a general increasing chloride trend in the Mine Creek area (**Figure 4**) beginning in 2006, but the concentrations appear to have peaked and are now in a declining trend. The chloride concentration in well MC-14 and in surface-water samples, is not significantly elevated over background levels.

Figure 4 presents the plots of chloride concentration versus time for monitor wells MC-14, NP01, RPI-14, RPI-18A and RPI-19B. **Figure 5** shows that the chloride concentration in POC well NP01 began increasing in 2006 through 2013, but has declined since then. Likewise, **Figure 6** shows a similar chloride trend for POC well RPI-19B; however, the fluctuation has been more pronounced, which is attributed to seasonal recharge. Chloride is relatively inert in the groundwater system, thus is a good indicator of seepage migration. Overall, there appears to be a decreasing chloride concentration trend in both POC wells, with the reported 2016 concentrations being significantly less than their respective "Site Standard".

Spring Creek surface-water sampling sites and the fall-2016 chloride analytical results are shown on **Figure 3**. **Figure 7** presents the time-series plots of chloride concentration at surface-water sampling locations SW-1A, SC-2 and POE-DS. The chloride concentrations at the surface-water sites are significantly less than levels found in the groundwater. The fluctuation in concentration is attributed to intermittent nature of Spring Creek.

Radium 226+228

Figure 8 presents fall-2016 Ra 226+228 iso-activity contours in the surficial aquifer. The highest radium values are typically concentrated along the toe of the tailings dam. **Figure 9** presents the plots of Ra 226+228 activity versus time for monitor wells MC-14, NP01, RPI-14, RPI-18A and RPI-19B. The graph shows a lot of variability in measured values. Measured radium, thorium, and gross alpha activity results are typically more erratic (less consistent) than other non-radionuclide constituents; therefore, the iso-activity contours are believed to be less reliable indicators of the extent of seepage.

Figures 10 and **11** present the time-series plot for Ra 226+228 for POC monitor wells NP01 and RPI-19B, respectively. The figures indicate that results vary significantly from year to year as would be expected for any radionuclides. Despite the variability in results, the measured 2016 Ra 226+228 activity levels at both POC wells are significantly less than their respective "Site Standard".

Spring Creek surface-water sampling sites and the fall-2016 radium analytical results are shown on **Figure 8**. **Figure 12** presents time-series plots of Ra 226+228 activities at surface-water sampling locations SW-1A, SC-2 and POE-DS. Up gradient sample site SW-1A has shown a wide range of Ra 226+228 reading in the past few years. However, the surface water radium results appear to be consistent with radiometric land-surface survey results in the area upstream of sampling site SW-1A. Although not directly applicable, the reported surface water radium levels are significantly less than the groundwater radium "Site Standard".

Selenium

Figure 13 presents the fall-2016 selenium iso-concentrations in the surficial aquifer. In general, the wells with the higher selenium concentrations are typically the same wells with higher concentrations of sulfate, chloride and TDS. Selenium, being a metal, is not very mobile in normal pH groundwater environments. Accordingly, it is not necessarily a good indicator of seepage impacts.

Figure 14 presents the plots of selenium concentration versus time for monitor wells MC-14, NP01, RPI-14, RPI-18A and RPI-19B. **Figure 14** indicates that there are no discernable selenium trends developing for monitor wells MC-14, RPI-14 or RPI-18A, and all analytical results are significantly less than the "Site Standard" applicable to the two POC wells. However, **Figure 15** shows that the selenium concentration in POC well NP01 began increasing in 2004 continuing through 2010, then declined to levels that are an order of magnitude lower than the "Site Standard". **Figure 16** shows the plot of selenium concentration versus time for POC well RPI-19B. For the past 20 years, the reported selenium concentration has been an order of magnitude lower than the applicable "Site Standard", with no developing trend noted.

Spring Creek surface-water sampling sites and the fall-2016 selenium analytical results are shown on **Figure 13**. **Figure 17** presents the time-series plots of selenium concentration at surface-water sampling locations SW-1A, SC-2 and POE-DS; no developing selenium trends were noted.

Sulfate

Figure 18 presents the fall-2016 sulfate iso-concentration contours in the surficial aquifer. The sulfate concentration is greatest at well P-6, which is located approximately 750 feet east of the tailings impoundment in the southern portion of the monitoring area. The sulfate concentration is also moderately elevated in wells MC-10, RPI-16A and RPI-21B, which are the three wells that consistently contain elevated levels of other constituents.

Figure 19 presents the sulfate concentrations in monitor wells MC-14, NP01, RPI-14, RPI-18A and RPI-19B. **Figure 20** shows that the sulfate concentration in POC well NP01 began increasing in 2006 peaked in 2013, but has declined since then. Likewise, **Figure 21** shows a similar sulfate trend for POC well RPI-19B; however, the fluctuation has been more pronounced, which is attributed to seasonal recharge and its proximity to Mine Creek. Overall, there appears to be a decreasing sulfate concentration trend in both POC wells, with the reported 2016 concentrations being five times less than their respective "Site Standard".

Spring Creek surface-water sampling sites and the fall-2016 sulfate analytical results are shown on **Figure 18**. **Figure 22** presents the time-series plots of sulfate concentration at surface-water sampling locations SW-1A, SC-2 and POE-DS; values fluctuate widely but no developing sulfate trends were noted.

Thorium-230

Figure 23 presents the fall-2016 thorium-230 iso-activity contour in the surficial aquifer. Thorium-230 activities in ground-water samples are small except for the slightly higher values notes in wells at the dam toe and in Mine Creek, but even those are an order of magnitude lower than the site standard. **Figure 24** presents the plots of thorium-230 activity versus time for monitor wells MC-14, RPI-14, NP01, RPI-18A and RPI-19B. For the past 15 years, the thorium-230 results have shown little variability.

Figures 25 and **26** present the time-series plot for thorium-230 for POC monitor wells NP01 and RPI-19B, respectively. The reported 2016 thorium-230 activity levels in both wells are an order of magnitude lower than their respective "Site Standard".

Spring Creek surface-water sampling sites and the fall-2016 thorium-230 analytical results are shown on **Figure 23**. **Figure 27** presents the plots of thorium-230 activity at surface-water sampling locations SW-1A, SC-2 and POE-DS. The reported thorium-230 values are extremely low and some are negative. Current analytical techniques for thorium-230 activity allow reporting of negative values that indicate levels less than the detection limit.

Total Dissolved Solids

Figure 28 presents the fall-2016 Total Dissolved Solids (TDS) iso-concentration contours in the surficial aquifer. The TDS concentration is greatest at well P-6. There was a general increasing TDS trend in the Mine Creek area beginning in 2006 that peaked in 2013, and is now in a declining trend.

Figure 29 presents the plots of TDS concentration versus time for monitor wells MC-14, NP01, RPI-14, RPI-18A and RPI-19B. **Figure 30** shows that the TDS concentration in POC well NP01 began increasing in 2006 peaked in 2013, and has declined since then. Likewise, **Figure 31** shows a similar TDS trend for POC well RPI-19B; however, the fluctuation has been more pronounced, which is attributed to seasonal recharge and its proximity to Mine Creek. Overall, there appears to be a decreasing TDS concentration trend in both POC wells, with the reported 2016 concentrations being significantly less than their respective "Site Standard".

Spring Creek surface-water sampling sites and the fall-2016 TDS analytical results are shown on **Figure 28**. **Figure 32** presents the time-series plots of TDS concentration at surface-water sampling locations SW-1A, SC-2 and POE-DS, which are all relatively low compared to groundwater values.

Uranium

Figure 33 presents the fall-2016 uranium iso-concentration contours in the surficial aquifer. Uranium concentration in monitor wells MC14, NP01, RPI-14, RPI-18A and RPI-19B started to increase in 2006 (see **Figure 34)** through 2013, but is now in a declining trend.

Figure 34 presents the plots of uranium concentration versus time for monitor wells MC-14, NP01, RPI-14, RPI-18A and RPI-19B. **Figure 35** shows that the uranium concentration in POC well NP01 began increasing in 2006, peaked in 2013, and has declined since then. Likewise, **Figure 36** shows a similar trend for POC well RPI-19B. Overall, there appears to be a decreasing uranium concentration trend in both POC wells, with the reported 2016 concentrations being significantly less than their respective "Site Standard".

Spring Creek surface-water sampling sites and the fall-2016 uranium analytical results are shown on **Figure 33**. **Figure 37** presents the time-series plots of uranium concentration at surface-water sampling locations SW-1A, SC-2 and POE-DS. All reported uranium results are less than 0.2 mg/L

Monitor Well P-6

Figure 38 presents concentration versus time plots for chloride, sulfate and TDS in monitor well P-6. The changes in water quality since 2005 reflects ongoing tailing seepage whereby these constituent concentrations have risen to their pre-corrective action levels. As indicated on **Figure 38**, TDS concentrations increased dramatically beginning in 2006, peaking in late 2013 and have since been in a downward trend. The TDS concentration fluctuation is more pronounced than either chloride or sulfate, which is attributed to seasonal recharge and its proximity to Mine Creek. Chloride and sulfate concentrations have fluctuated within a narrow range since 2009 and appear to have nearly stabilized. Although most of the major constituents show minor sample variability, likely due to seasonal effects, present constituent concentrations are similar to levels that existed prior to the commencement of the Corrective Action Plan.

Figure 39 shows the uranium time-series concentration plot for well P-6. Note that the uranium concentration have been slowly decreasing since 2006, and appear to be stabilizing at about 1.5 mg/L (notable exception is the July 2016 result).

4.0 Findings and Conclusions

All **Table 1** constituent concentrations for both POC wells were reported at levels less than their respective detection limits or at levels significantly less (by an order of magnitude) than the corresponding "Site Standard." The water-quality data seems to reflect significant seasonal recharge influences that appear to cause fairly dramatic swings in various constituent concentrations in some wells.

Constituent concentrations in wells near the reclaimed tailings initially increased after corrective action was discontinued in 2005. Most constituent concentrations have since stabilized or are in a declining trend. The observed concentration increases were expected after corrective action ceased, although the magnitude of the increases in key wells, such as the POC wells, is somewhat less than predicted, and the increases in concentration are lagging predictions. The lagging is believed to be due, in part, to extending the corrective action effort beyond the original planned time-frame. The tailings dewatering activities may have also contributed to the delay or it may reflect some conservatism in the original prediction of seepage migration.

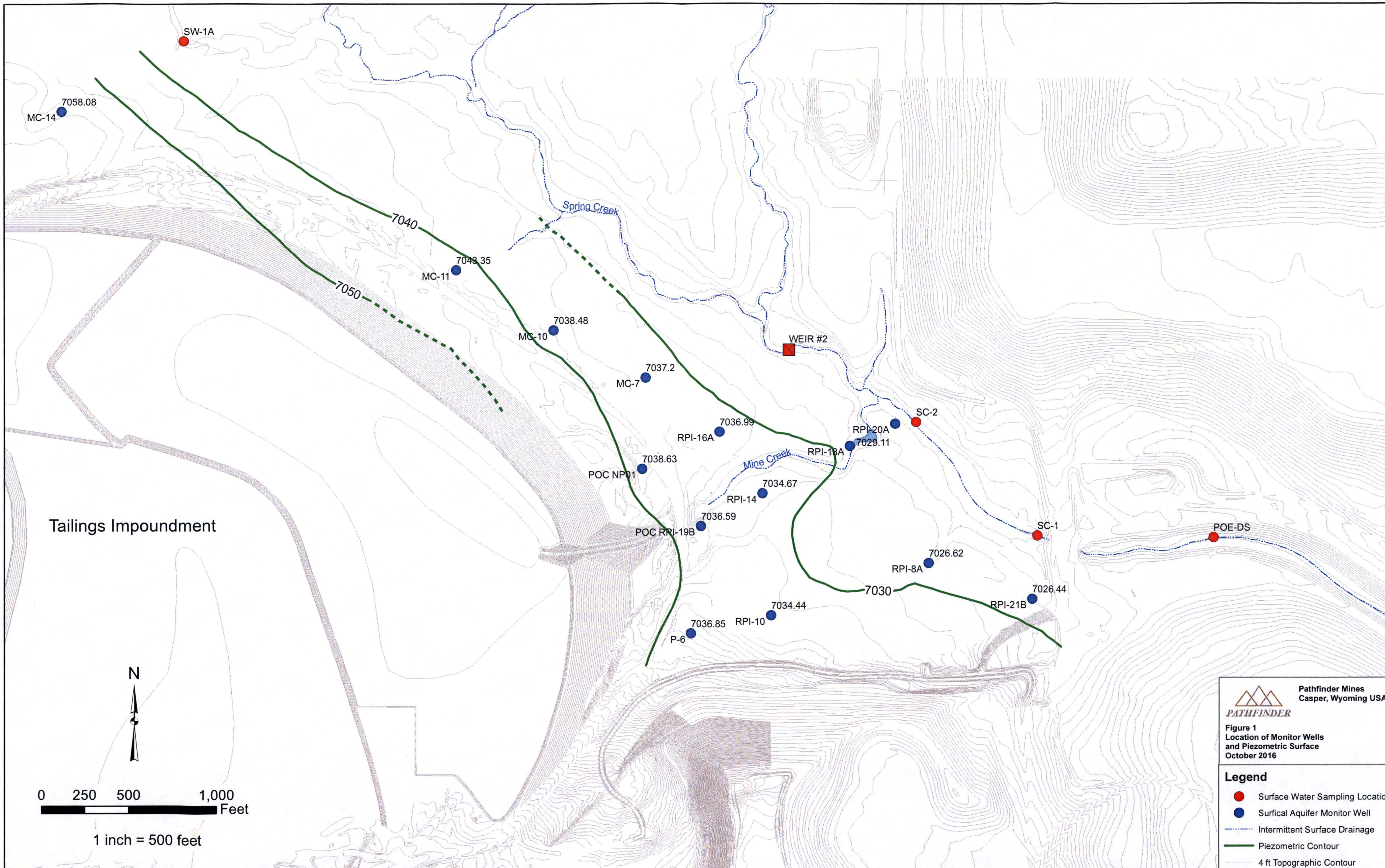


Figure 1
Location of Monitor Wells and Piezometric Surface
October 2016

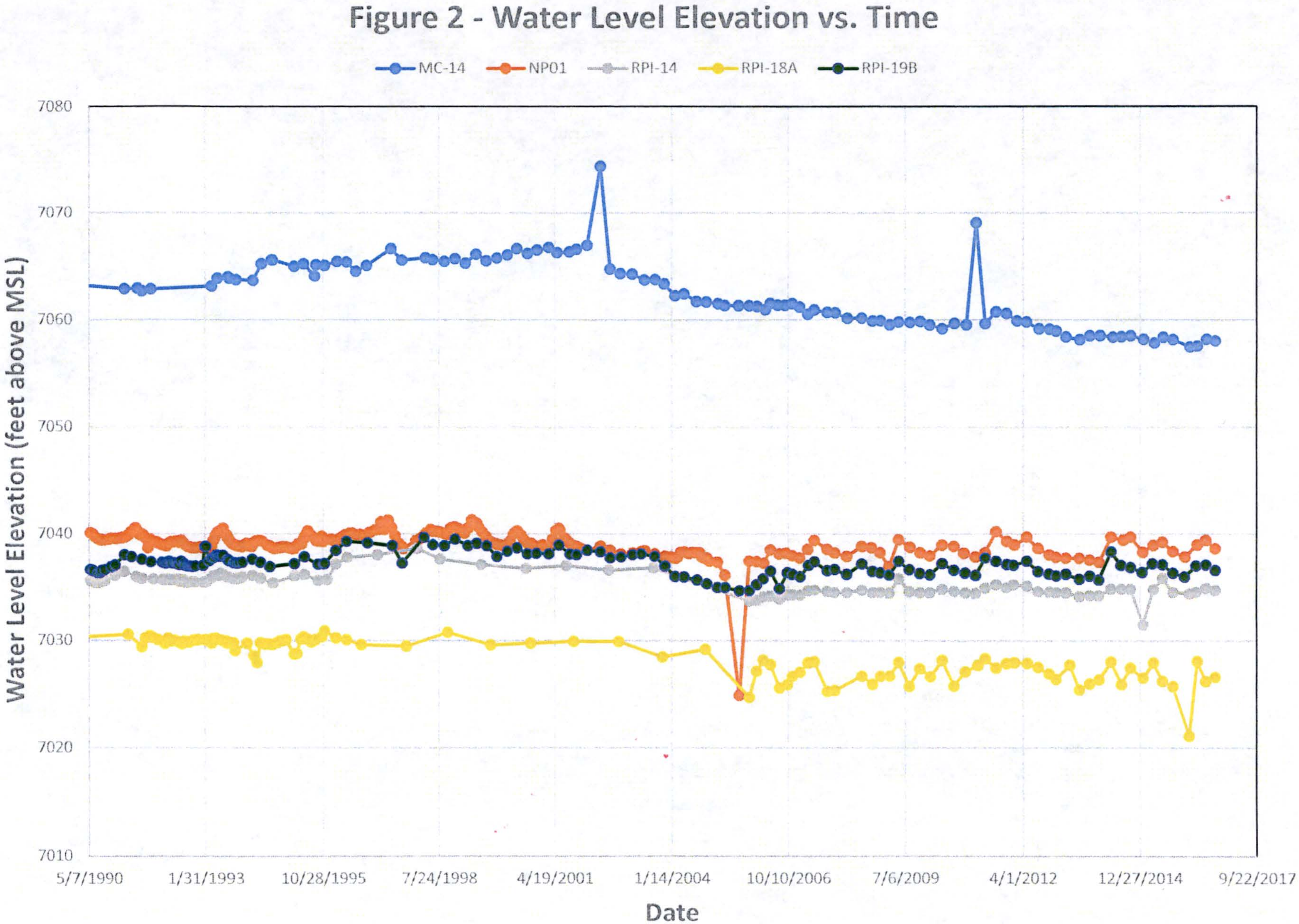


Figure 2 - Water Level Elevation vs. Time
MC-14
NP01
RPI-14
RPI-18A
RPI-19B
Water Level Elevation (feet above MSL)
7080
7070
7060
7050
7040
7030
7020
7010
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

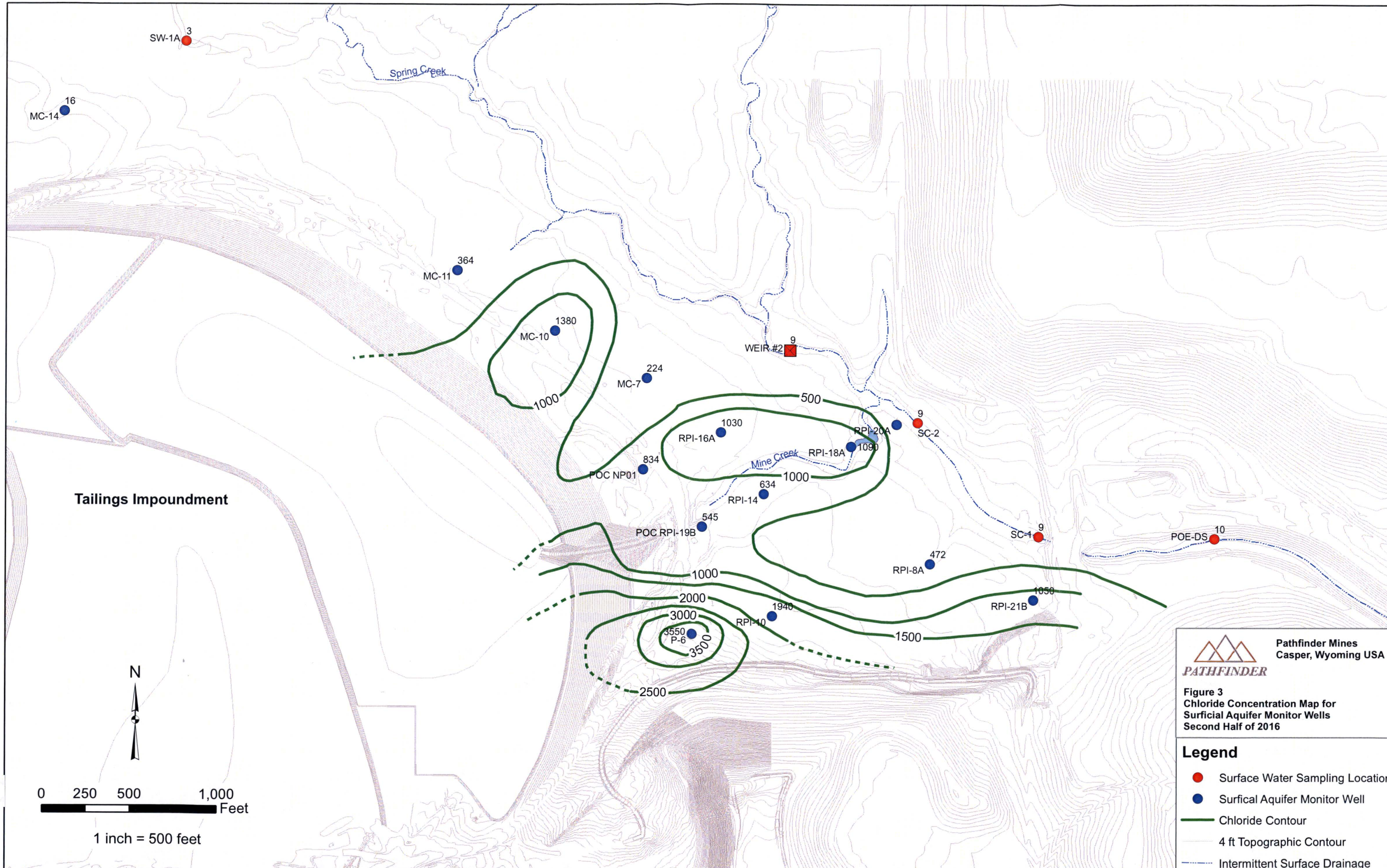


Figure 3
Chloride Concentration Map for Surficial Aquifer Monitor Wells
Second Half of 2016

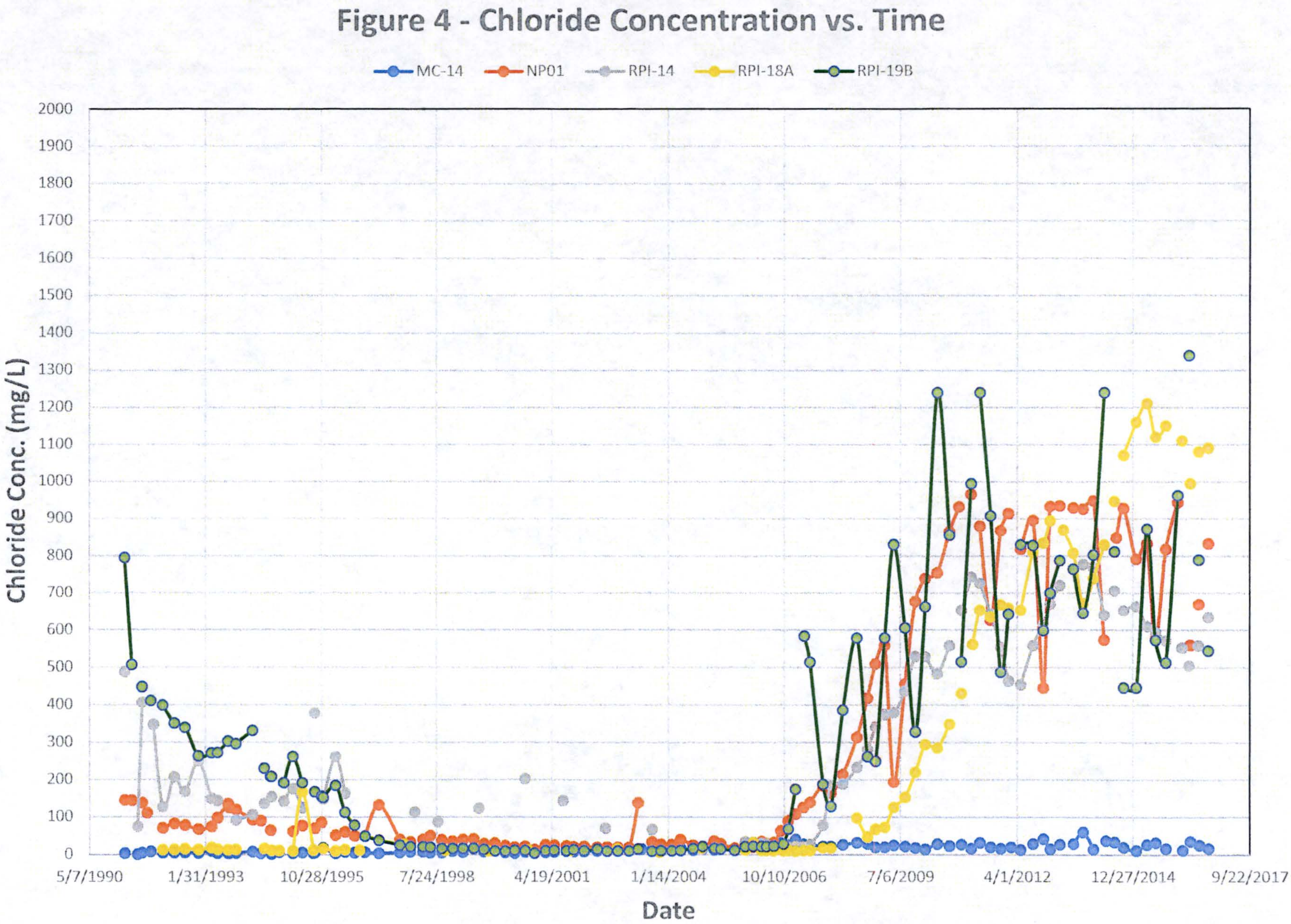


Figure 4 - Chloride Concentration vs. Time
MC-14
NP01
RPI-14
RPI-18A
RPI-19B
Chloride Conc. (mg/L)
2000
1900
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

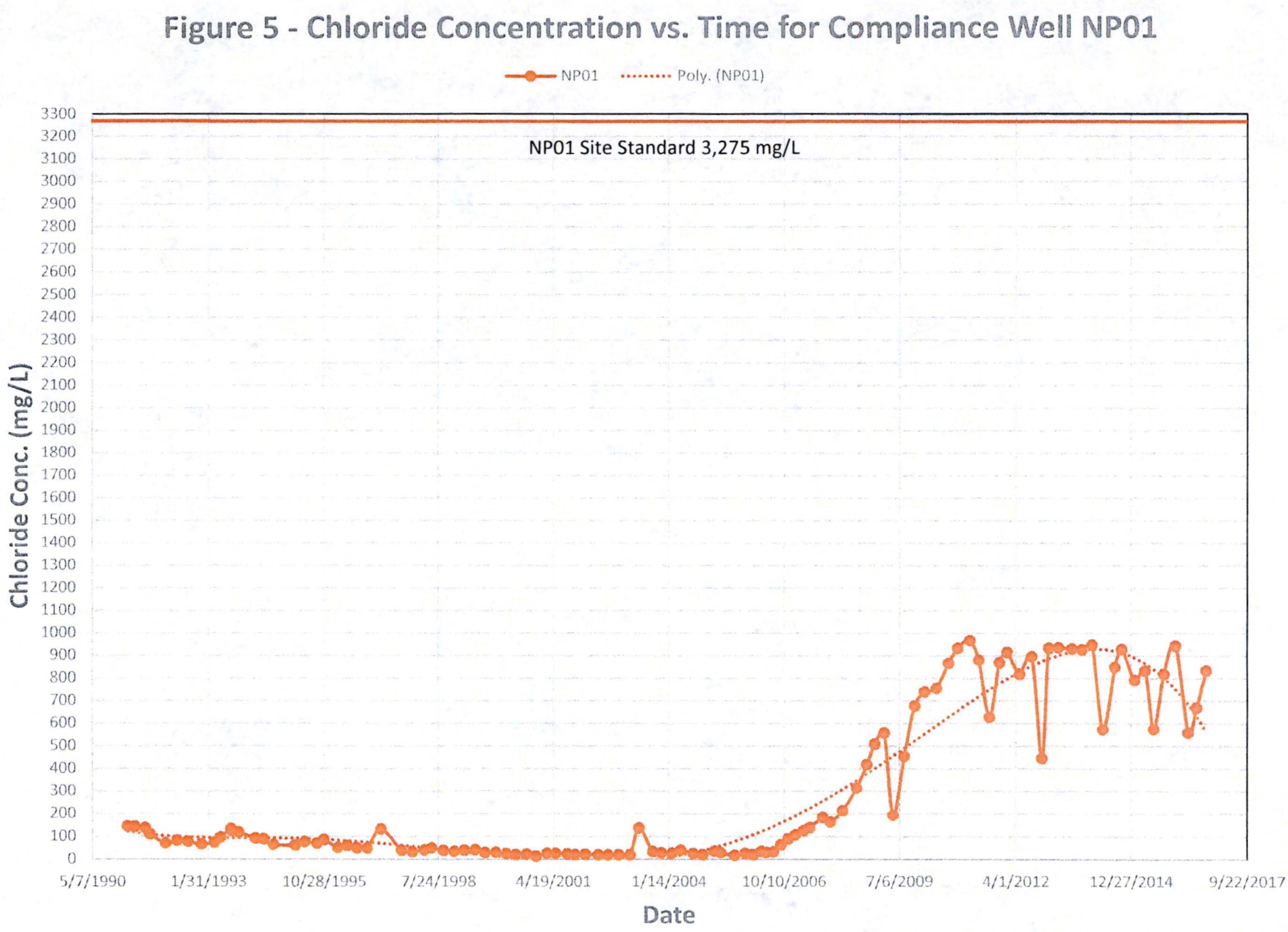
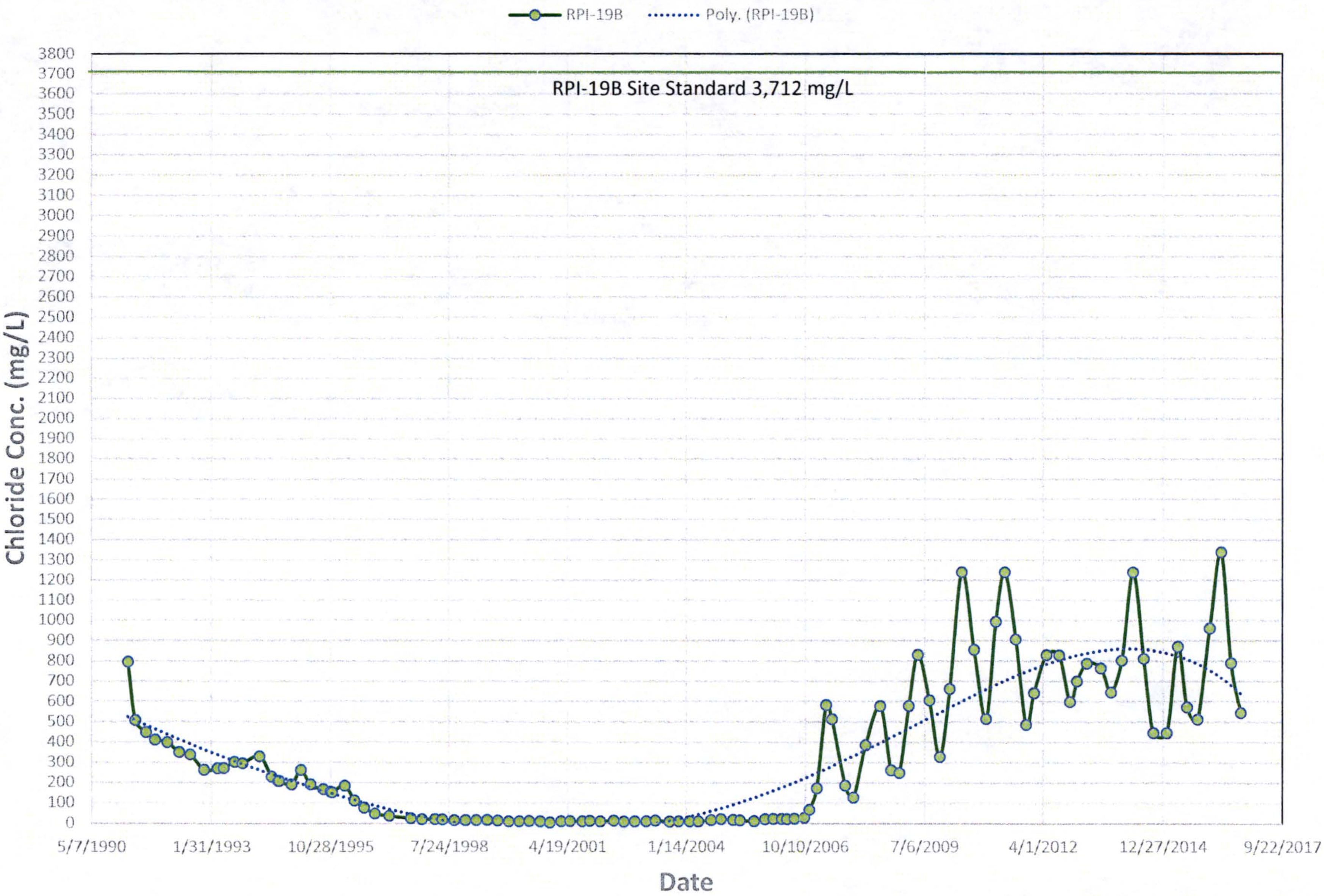


Figure 5 - Chloride Concentration vs. Time for Compliance Well NP01
NP01
Poly. (NP01)
NP01 Site Standard 3,275 mg/L
Chloride Conc. (mg/L)
3300
3200
3100
3000
2900
2800
2700
2600
2500
2400
2300
2200
2100
2000
1900
1800
1700
1600
1500
1400
1300
1200
1100
1000
900
800
700
600
500
400
300
200
100
0
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

Figure 6 - Chloride Concentration vs. Time for Compliance Well RPI-19B



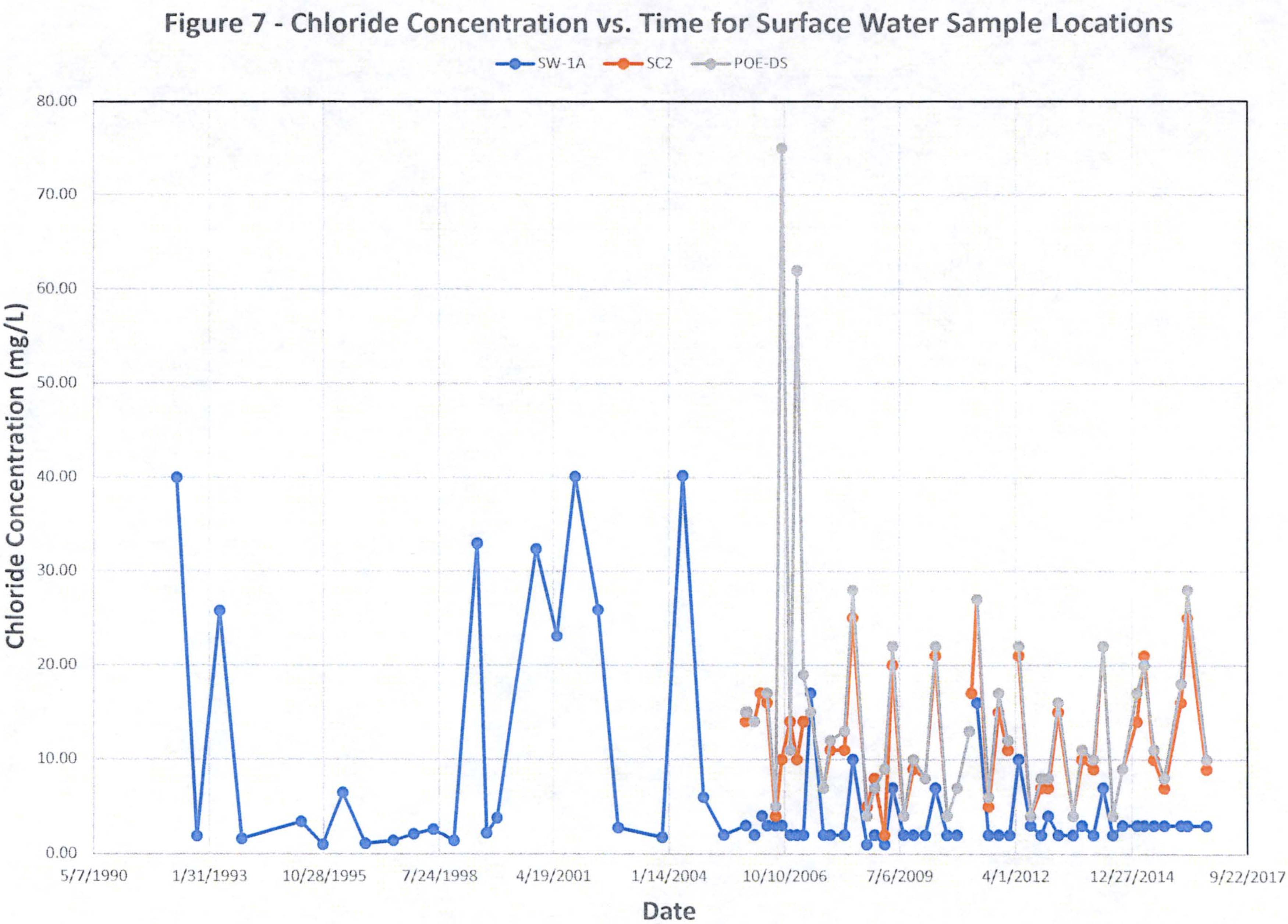


Figure 7 - Chloride Concentration vs. Time for Surface Water Sample Locations
SW-1A
SC2
POE-DS
Chloride Concentration (mg/L)
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

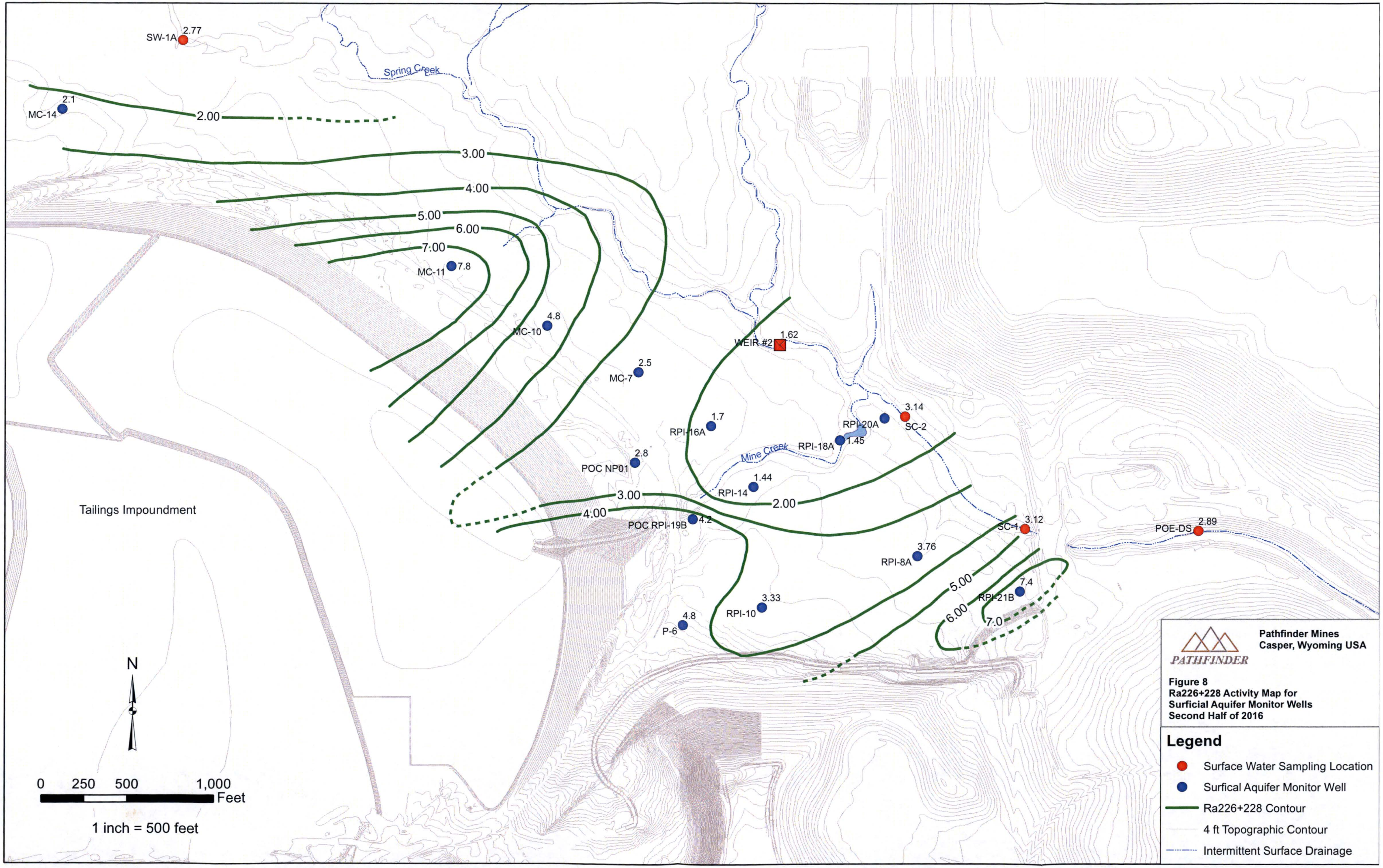


Figure 8
Ra226+228 Activity Map for Surficial Aquifer Monitor Wells Second Half of 2016

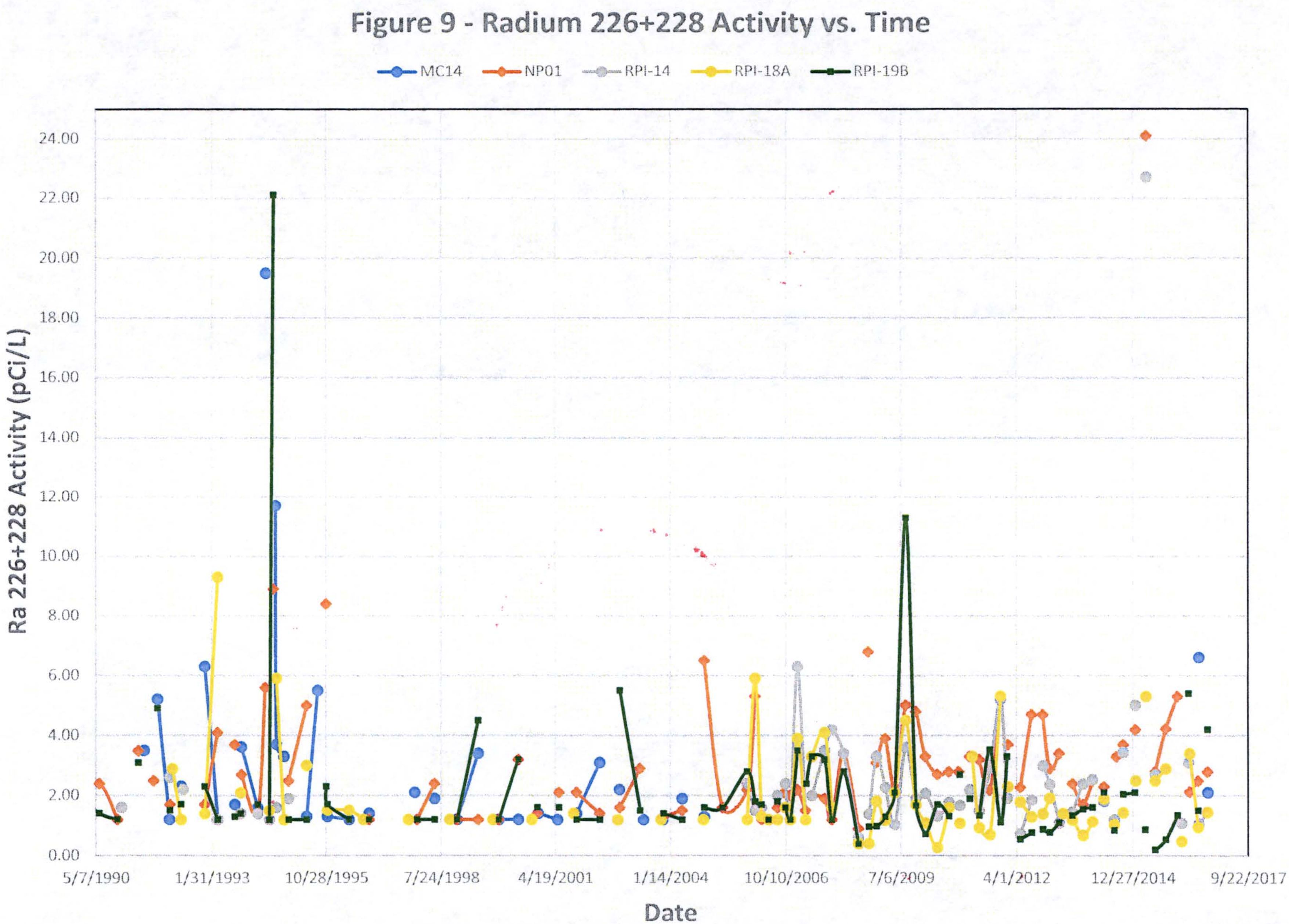


Figure 9 - Radium 226+228 Activity vs. Time
MC14
NP01
RPI-14
RPI-18A
RPI-19B
Ra 226+228 Activity (pCi/L)
24.00
22.00
20.00
18.00
16.00
14.00
12.00
10.00
8.00
6.00
4.00
2.00
0.00
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

Figure 10 - Radium 226+228 Activity vs. Time for Compliance Well NP01

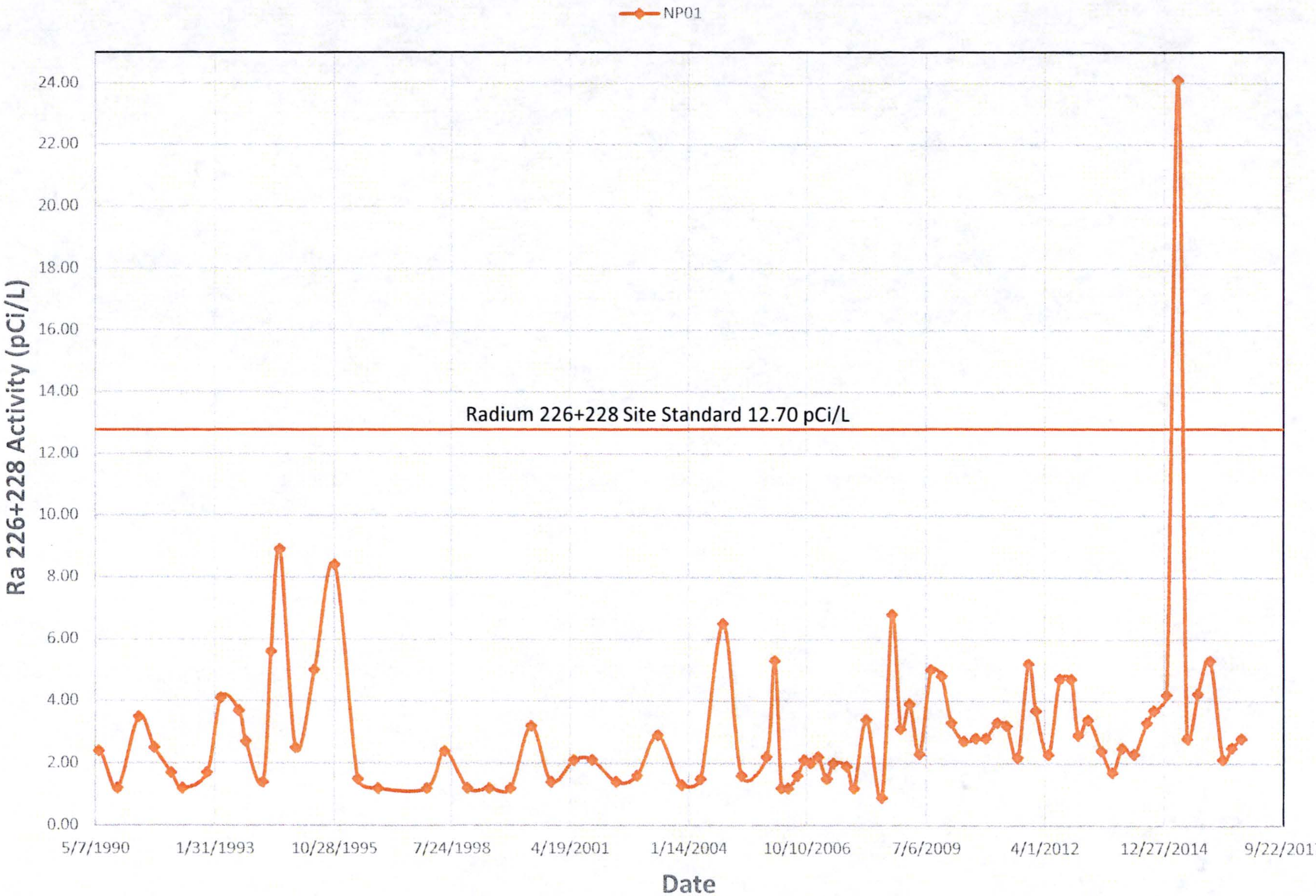


Figure 11 - Radium 226+228 Activity vs. Time for Compliance Well RPI-19B

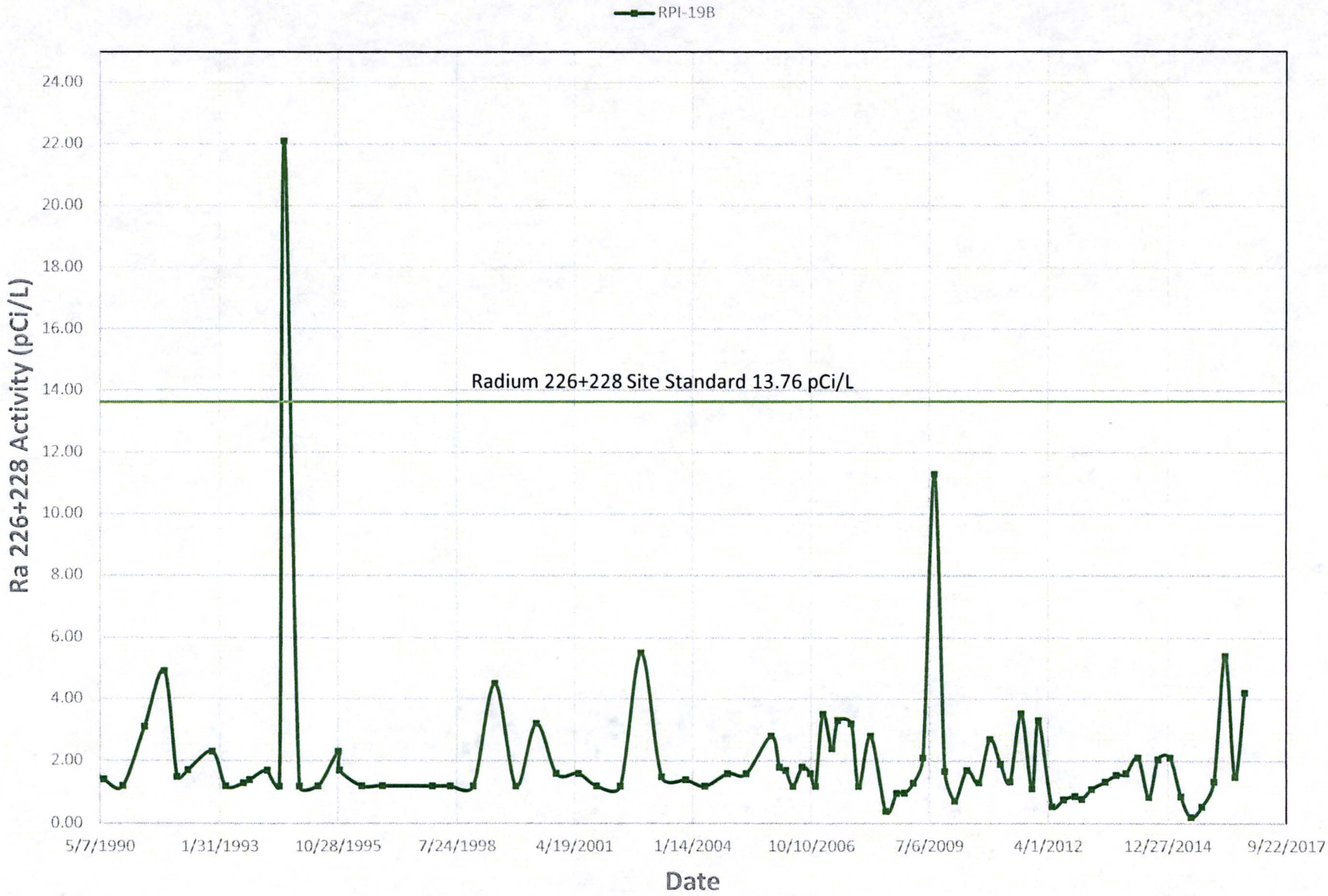
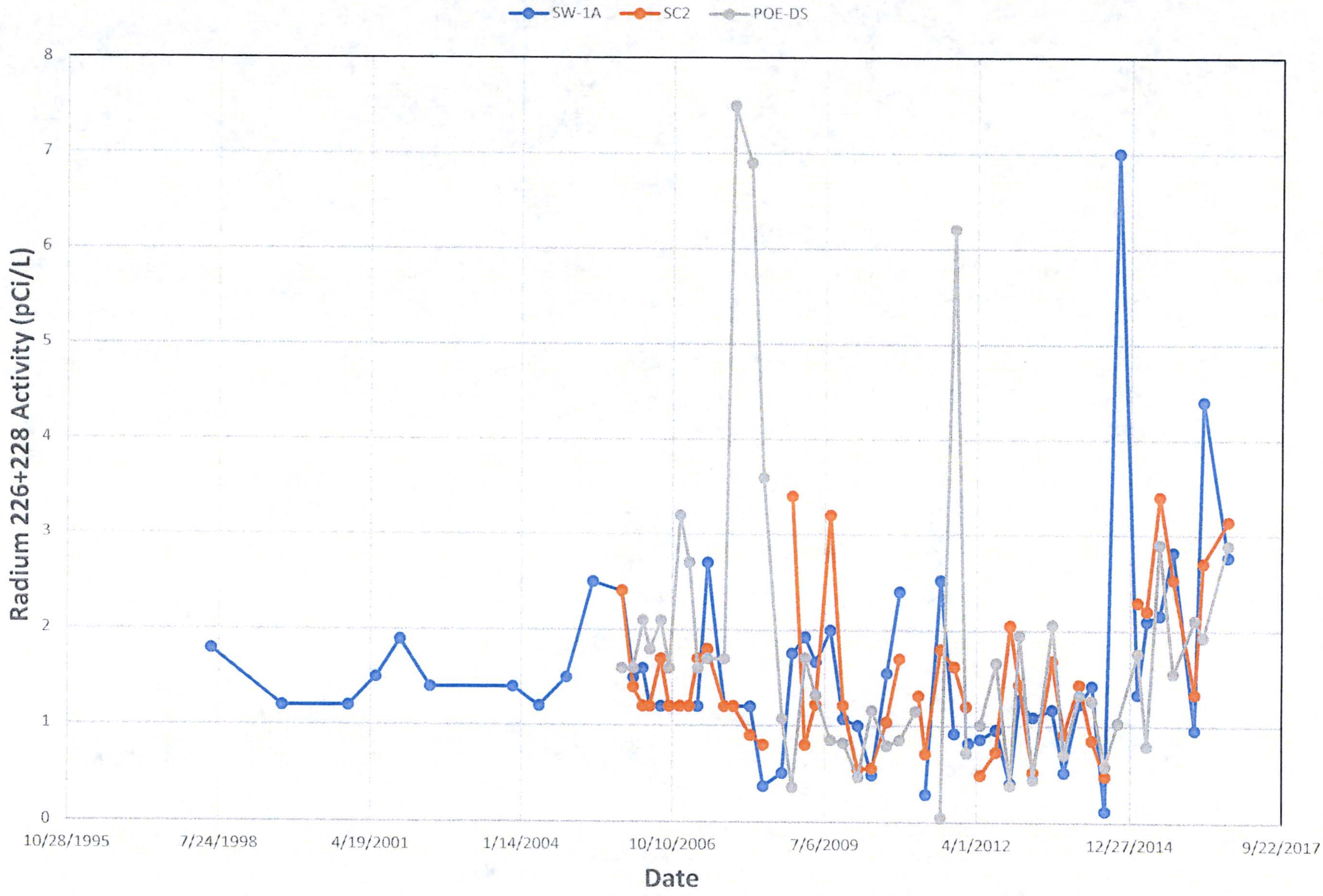
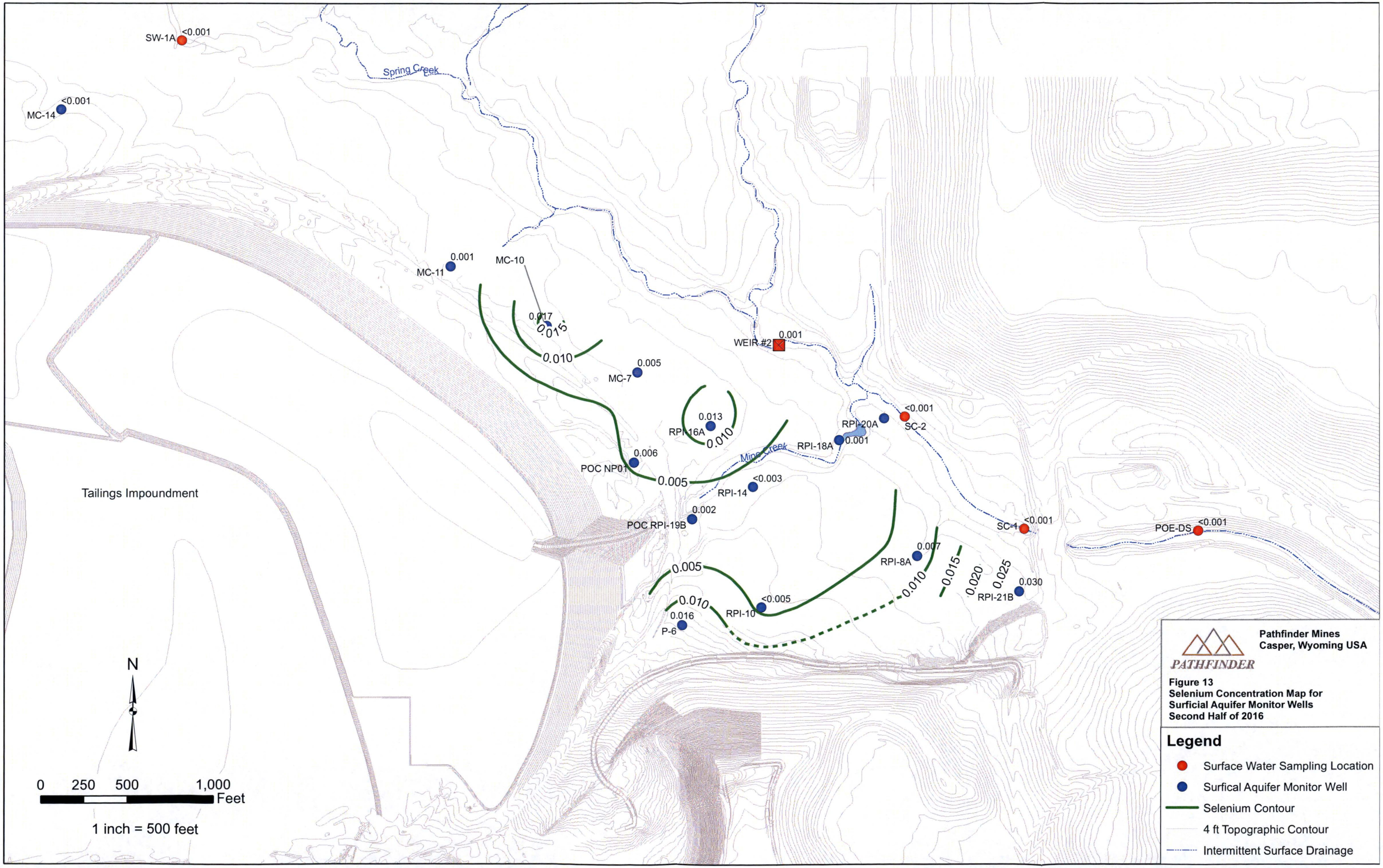


Figure 12 - Radium 226+228 Activity vs. Time for Surface Water Sample Locations





Pathfinder Mines
Casper, Wyoming USA

Figure 13
Selenium Concentration Map for Surficial Aquifer Monitor Wells Second Half of 2016

Legend

- Surface Water Sampling Location
- Surfical Aquifer Monitor Well
- Selenium Contour
- 4 ft Topographic Contour
- Intermittent Surface Drainage

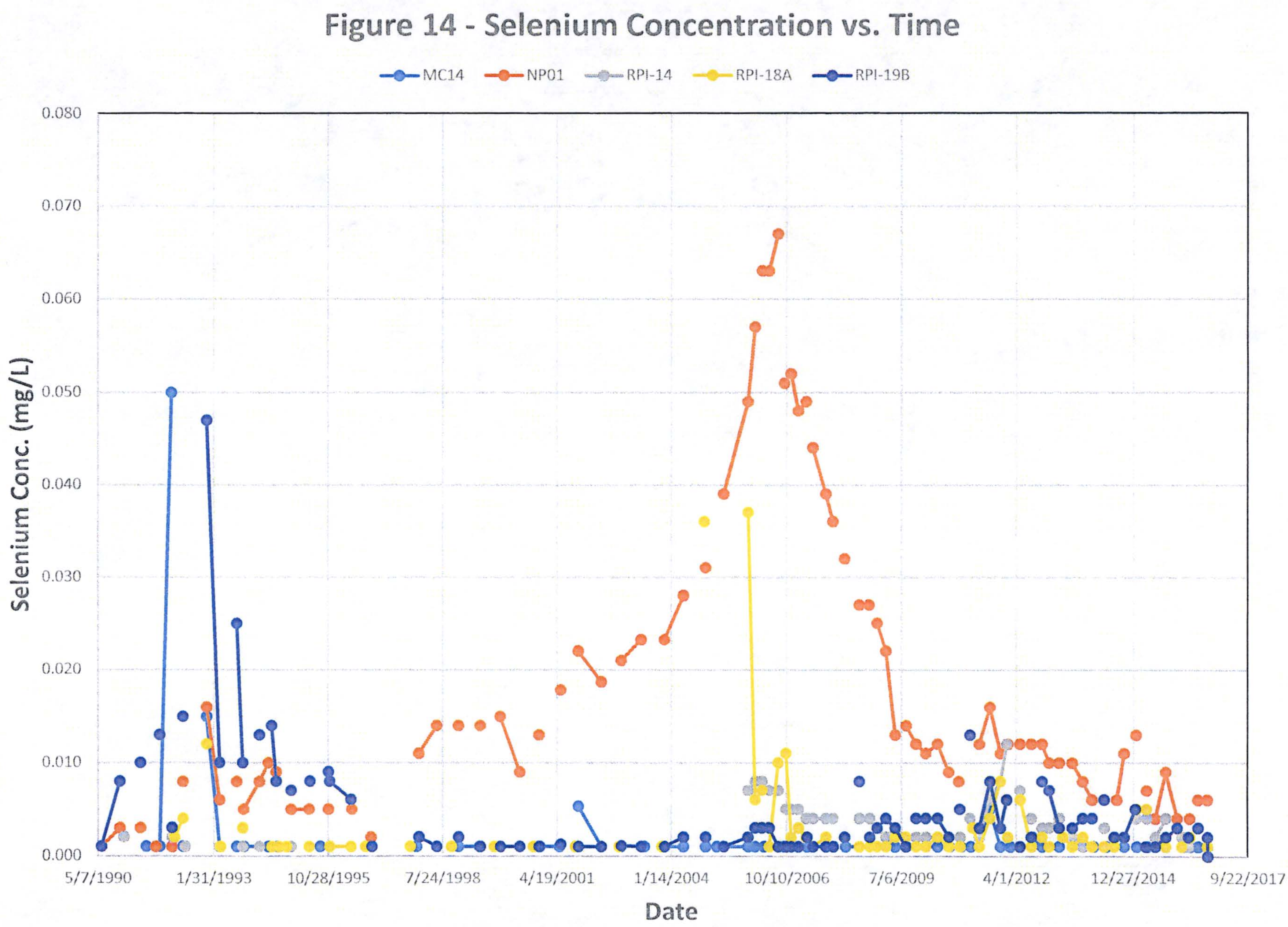
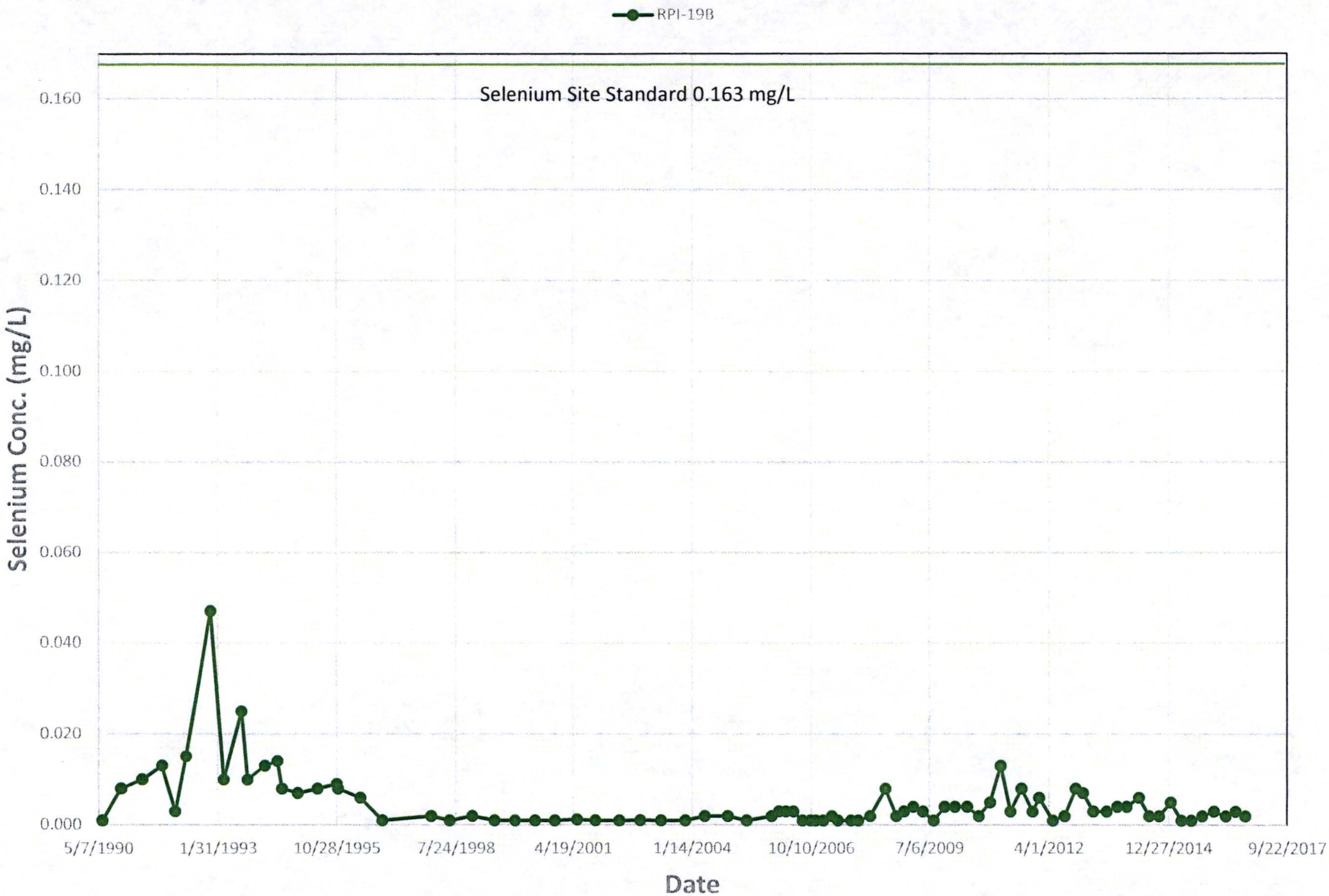


Figure 14 - Selenium Concentration vs. Time
MC14
NP01
RPI-14
RPI-18A
RPI-19B
Selenium Conc. (mg/L)
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

Figure 15 - Selenium Concentration vs. Time for Compliance Well NP01

Figure 16 - Selenium Concentration vs. Time for Compliance Well RPI-19B



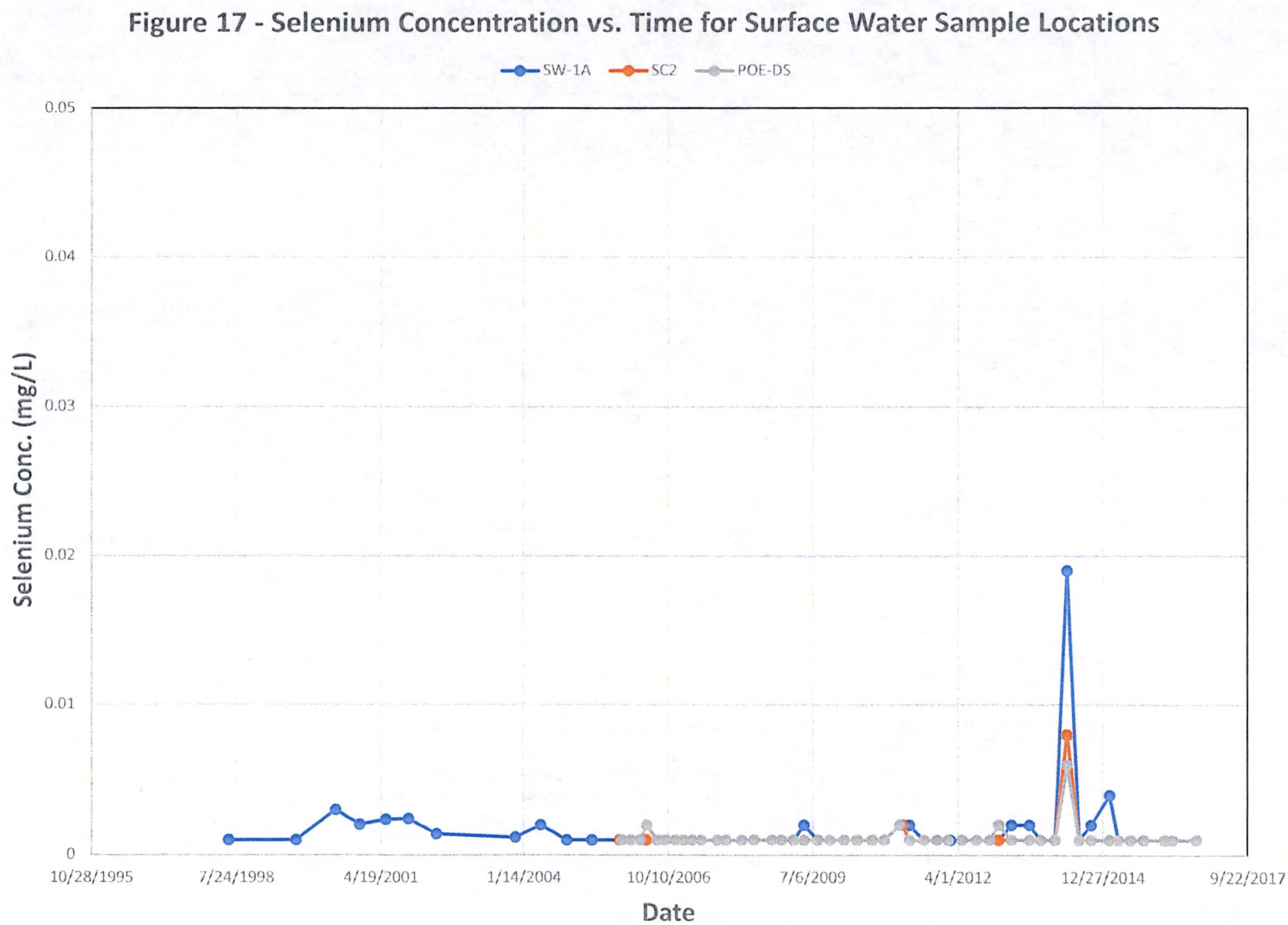
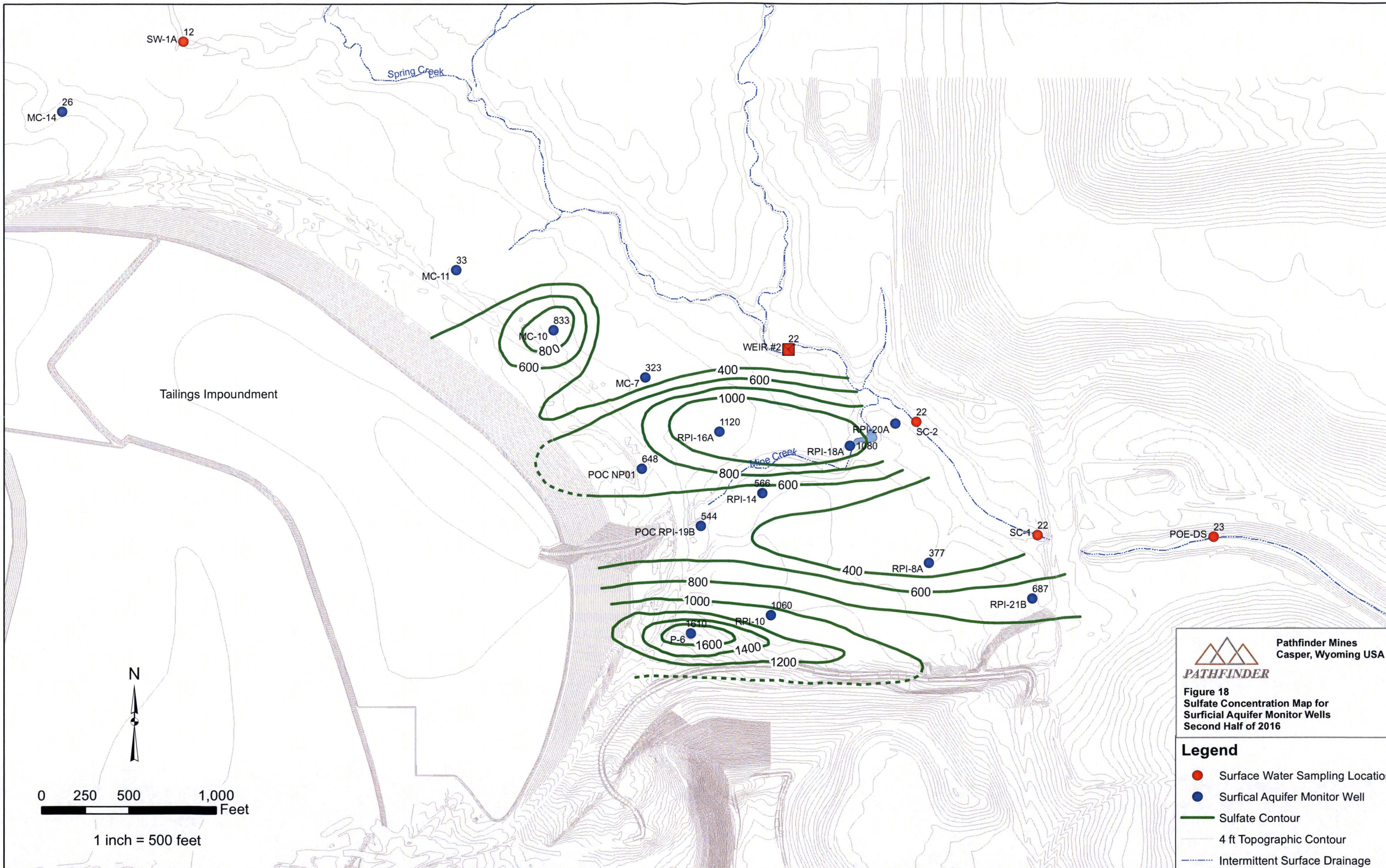
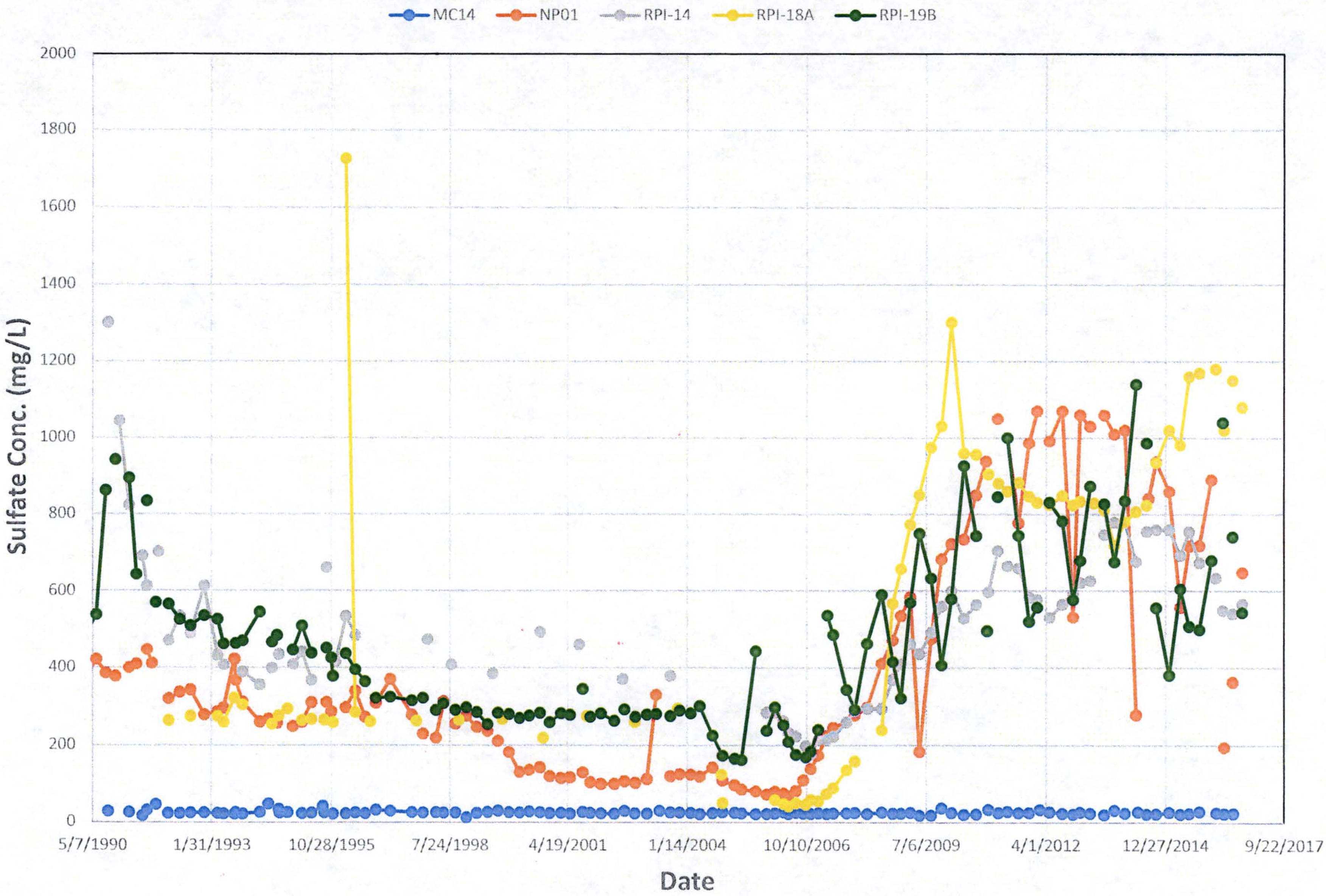


Figure 17 - Selenium Concentration vs. Time for Surface Water Sample Locations
SW-1A
SC2
POE-DS
Selenium Conc. (mg/L)
0.05
0.04
0.03
0.02
0.01
0
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date



SW-1A 12
MC-14 26
Spring Creek
MC-11 33
MC-10 833
800
600
WEIR #2 22
MC-7 323
400
600
1000
Tailings Impoundment
RPI-16A 1120
RPI-20A
22
SC-2
RPI-18A 1080
Mine Creek
POC NP01 648
800
600
RPI-14 566
POC RPI-19B 544
SC-1 22
POE-DS 23
RPI-8A 377
400
800
600
RPI-21B 687
1000
RPI-10 1060
P-6 1610
1600
1400
1200
N
0 250 500 1,000 Feet
1 inch = 500 feet
Pathfinder Mines
Casper, Wyoming USA
PATHFINDER
Figure 18
Sulfate Concentration Map for
Surficial Aquifer Monitor Wells
Second Half of 2016
Legend
Surface Water Sampling Location
Surfical Aquifer Monitor Well
Sulfate Contour
4 ft Topographic Contour
Intermittent Surface Drainage

Figure 19 - Sulfate Concentration vs. Time



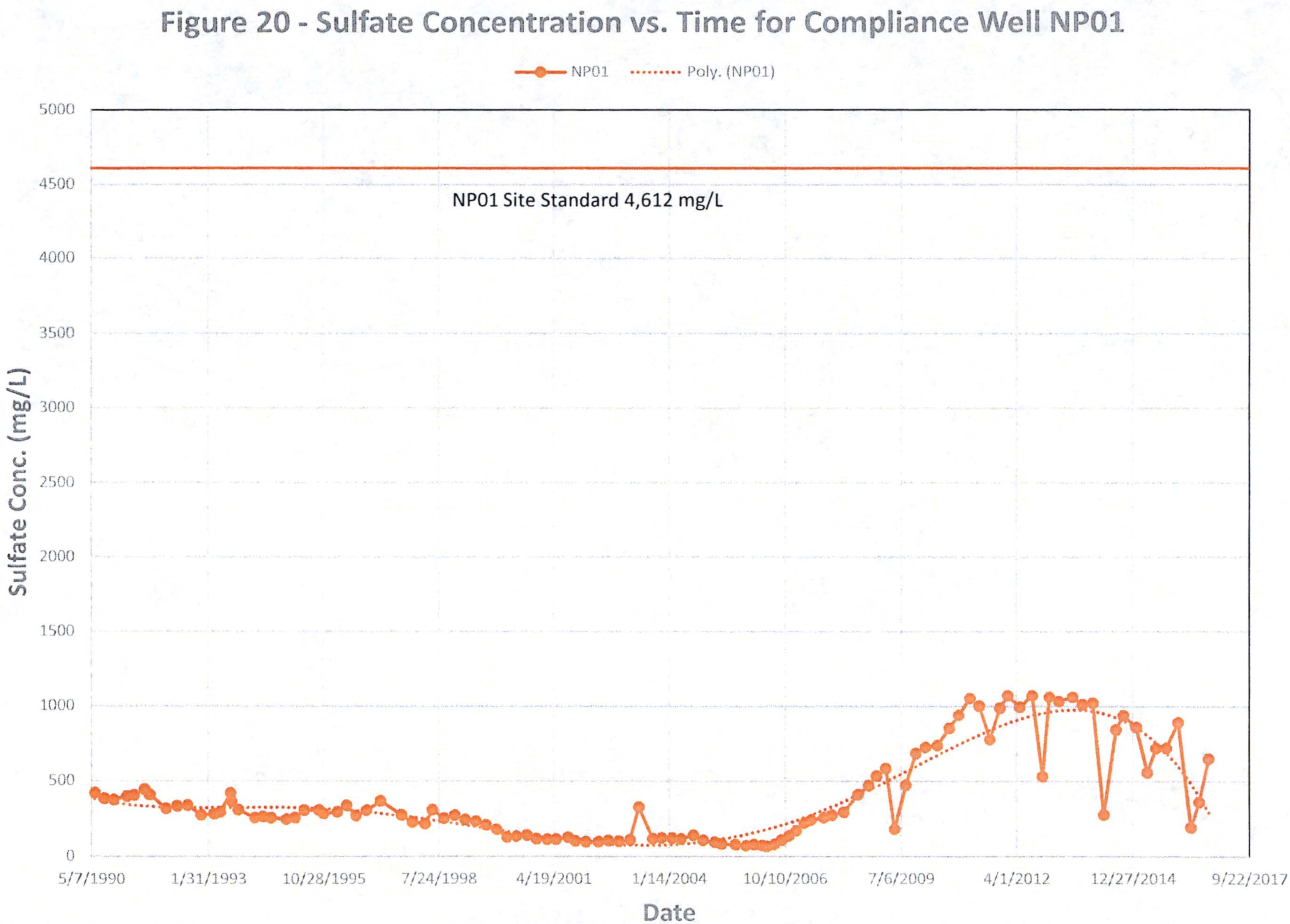


Figure 20 - Sulfate Concentration vs. Time for Compliance Well NP01
NP01
Poly. (NP01)
NP01 Site Standard 4,612 mg/L
Sulfate Conc. (mg/L)
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

Figure 21 - Sulfate Concentration vs. Time for Compliance Well RPI-19B

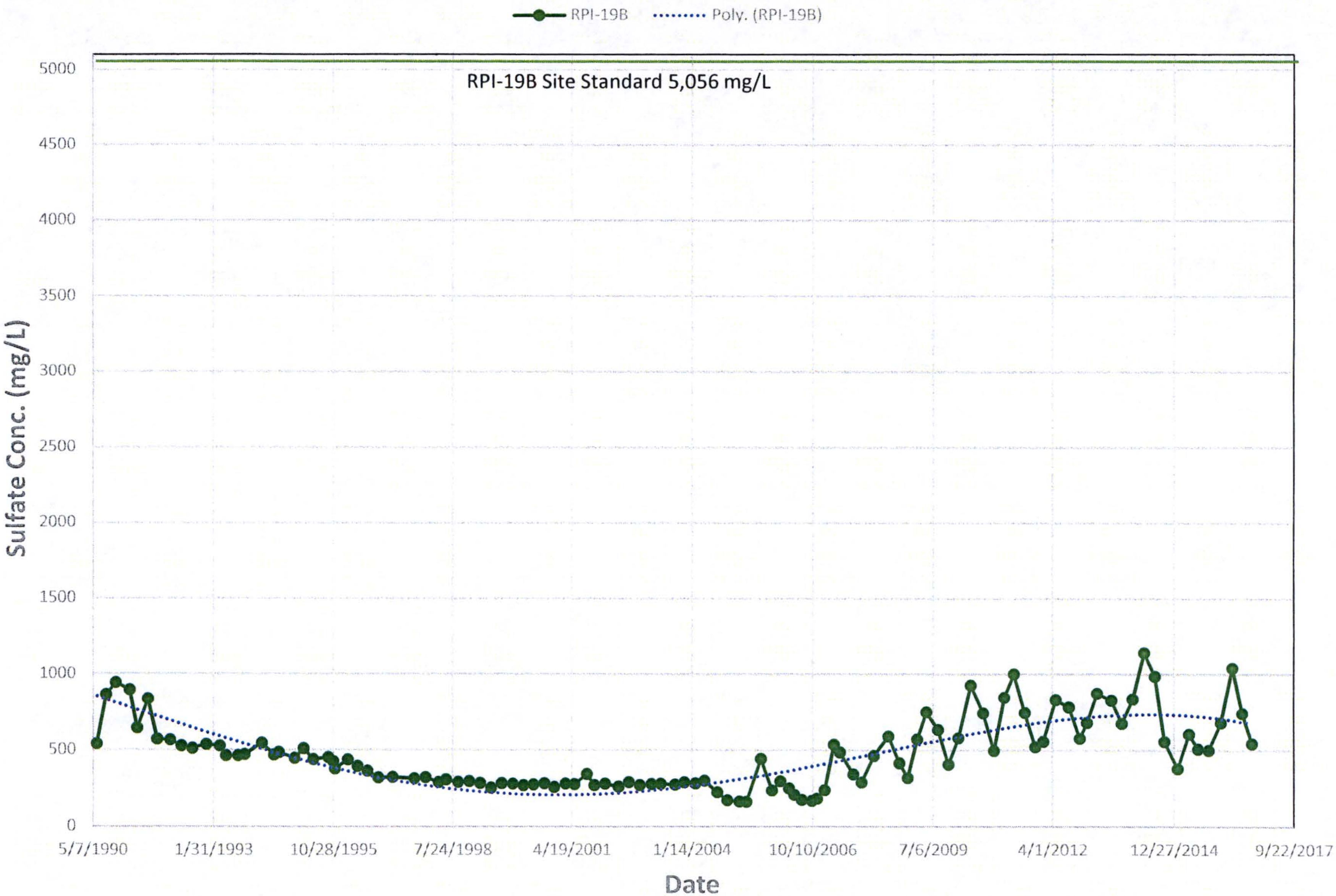
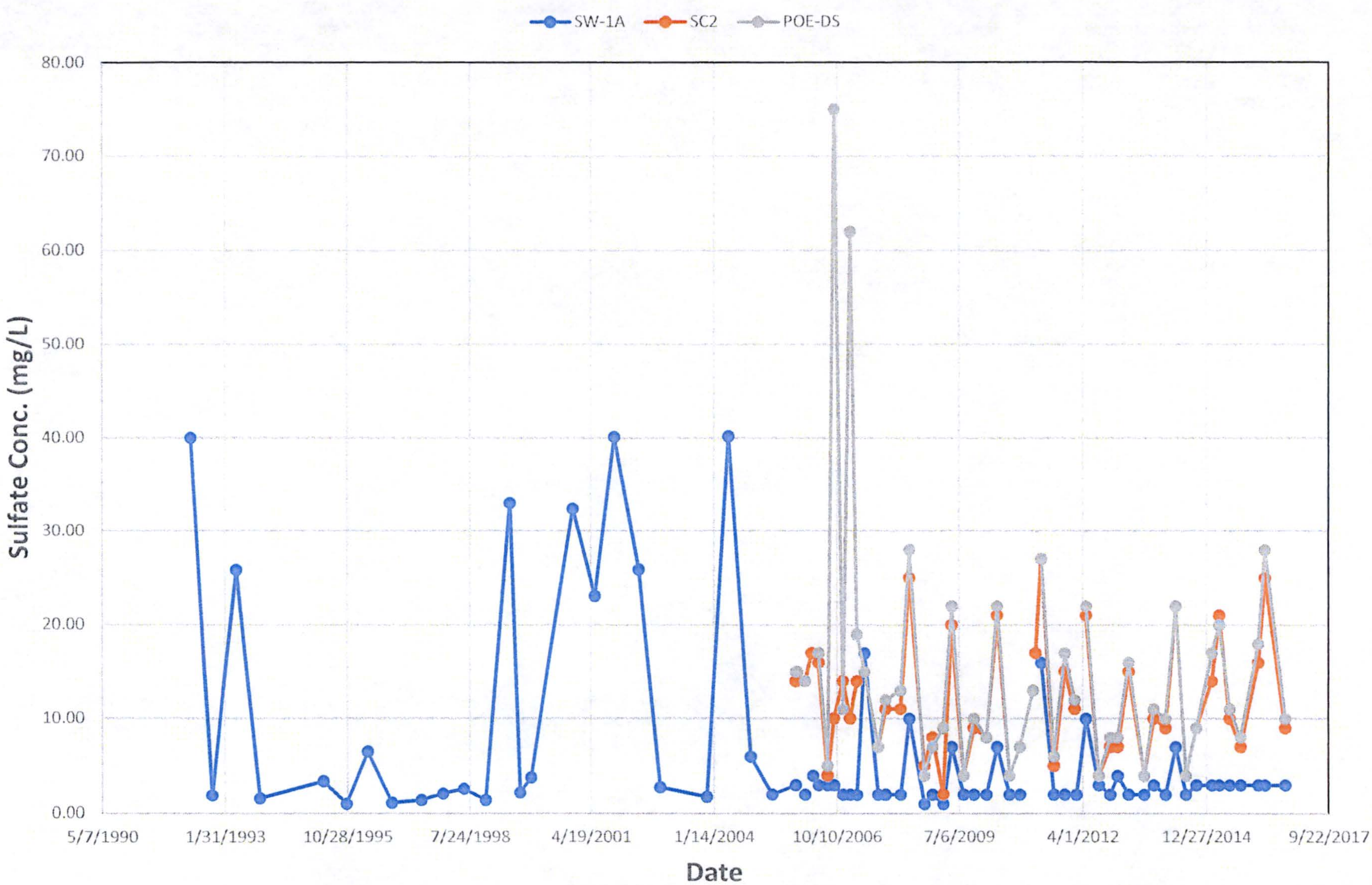
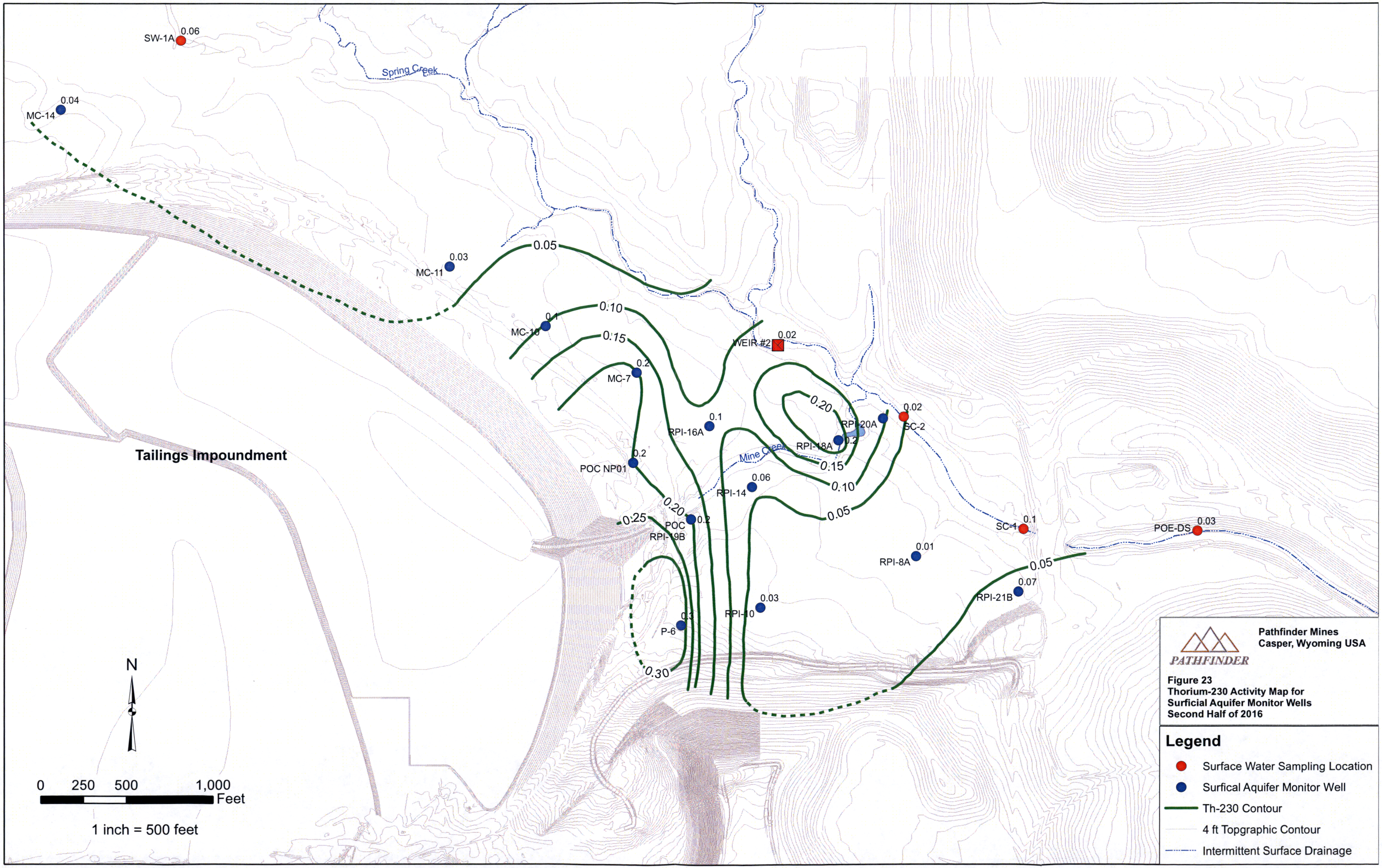


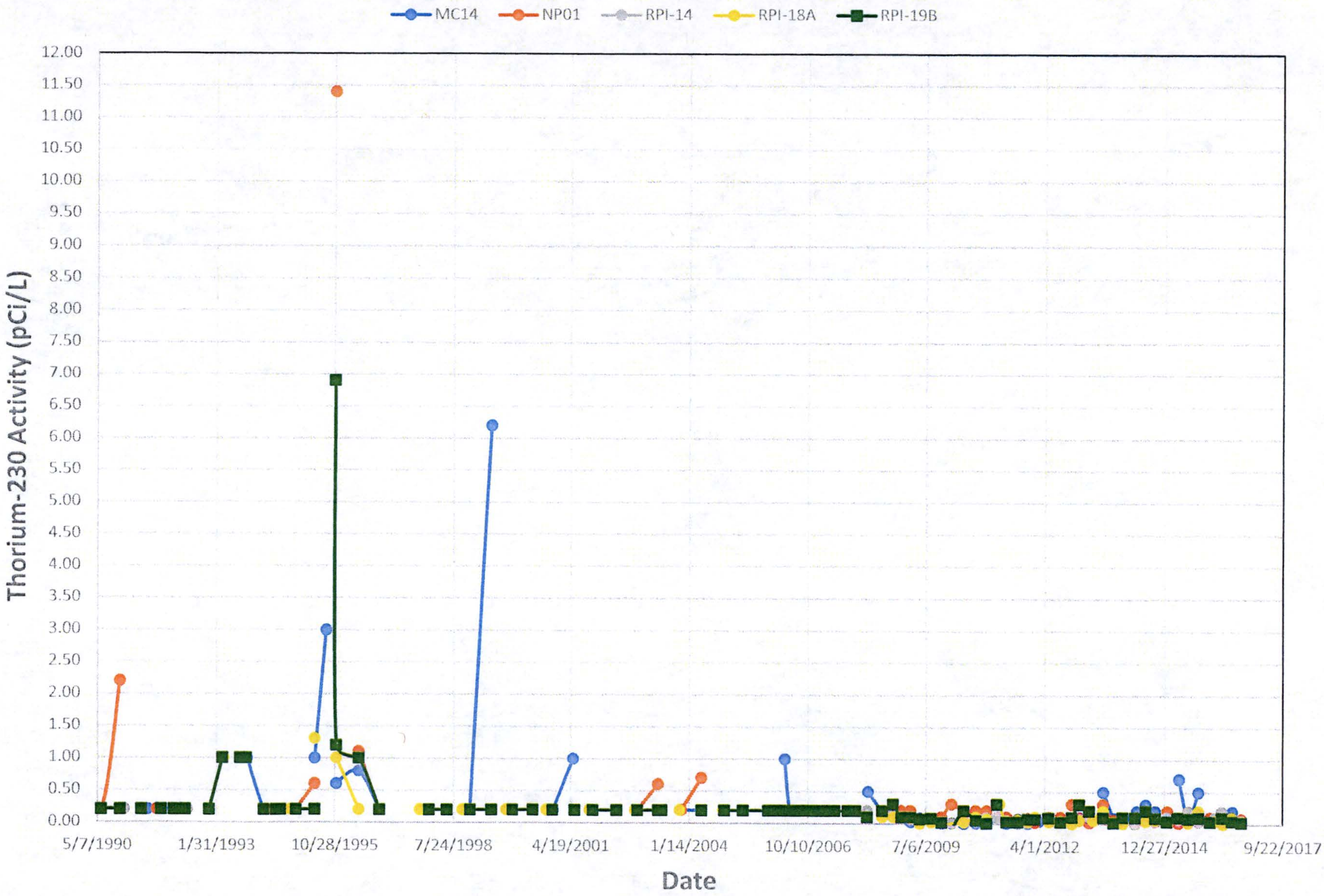
Figure 22 - Sulfate Concentration vs. Time for Surface Water Sample Locations





SW-1A 0.06
MC-14 0.04
Spring Creek
MC-11 0.03
0.05
0.10
0.15
0.20
0.25
0.30
MC-10 0.1
MC-7 0.2
WEIR #2 0.02
RPI-16A 0.1
RPI-20A
RPI-18A 0.2
SC-2 0.02
Mine Creek
POC NP01 0.2
RPI-14 0.06
POC RPI-19B 0.2
SC-1 0.1
POE-DS 0.03
RPI-8A 0.01
RPI-21B 0.07
RPI-10 0.03
P-6 0.3
Tailings Impoundment
N
0 250 500 1,000
Feet
1 inch = 500 feet
PATHFINDER
Pathfinder Mines
Casper, Wyoming USA
Figure 23
Thorium-230 Activity Map for
Surficial Aquifer Monitor Wells
Second Half of 2016
Legend
Surface Water Sampling Location
Surfical Aquifer Monitor Well
Th-230 Contour
4 ft Topgraphic Contour
Intermittent Surface Drainage

Figure 24 - Thorium-230 Activity vs. Time



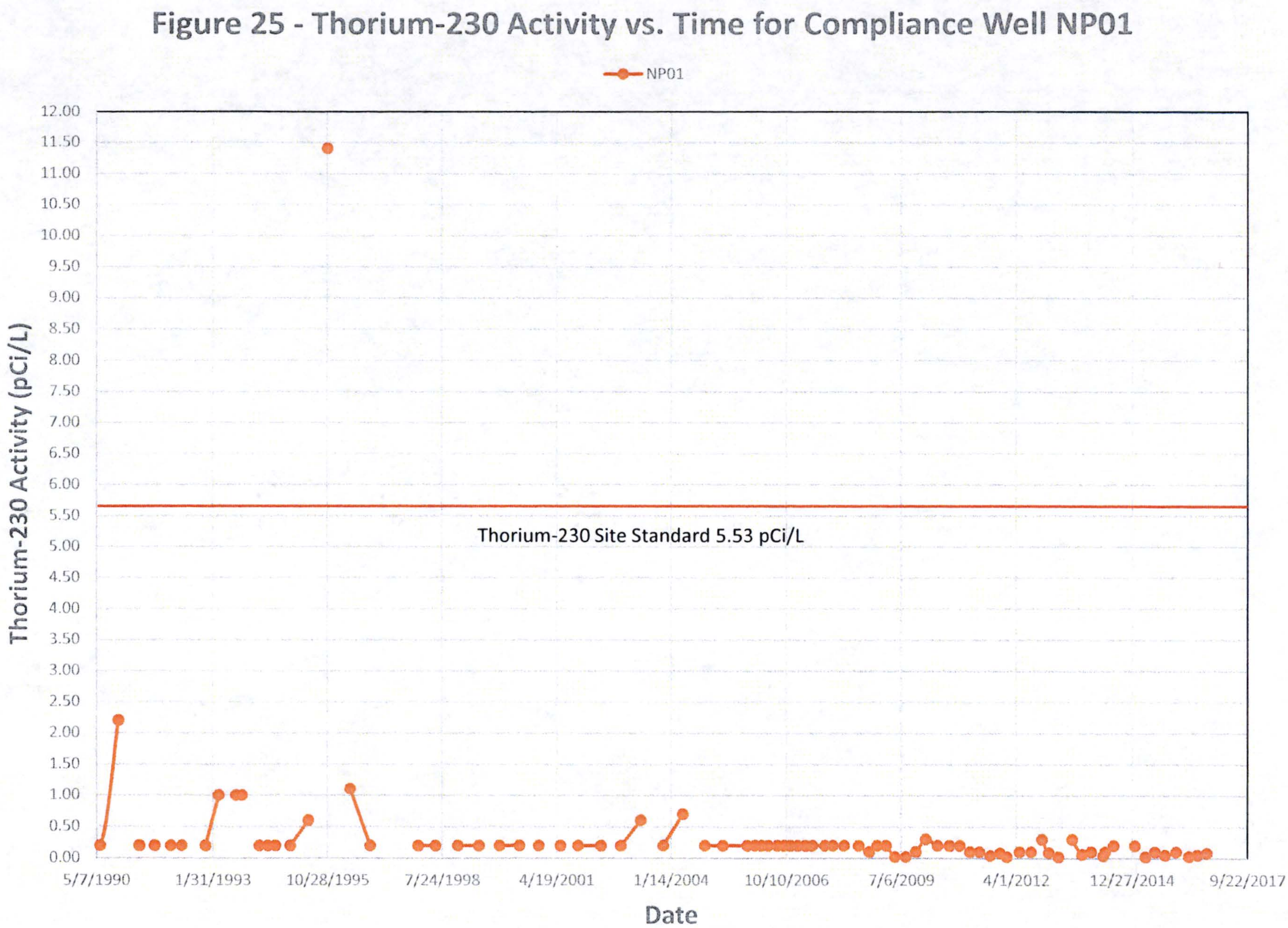
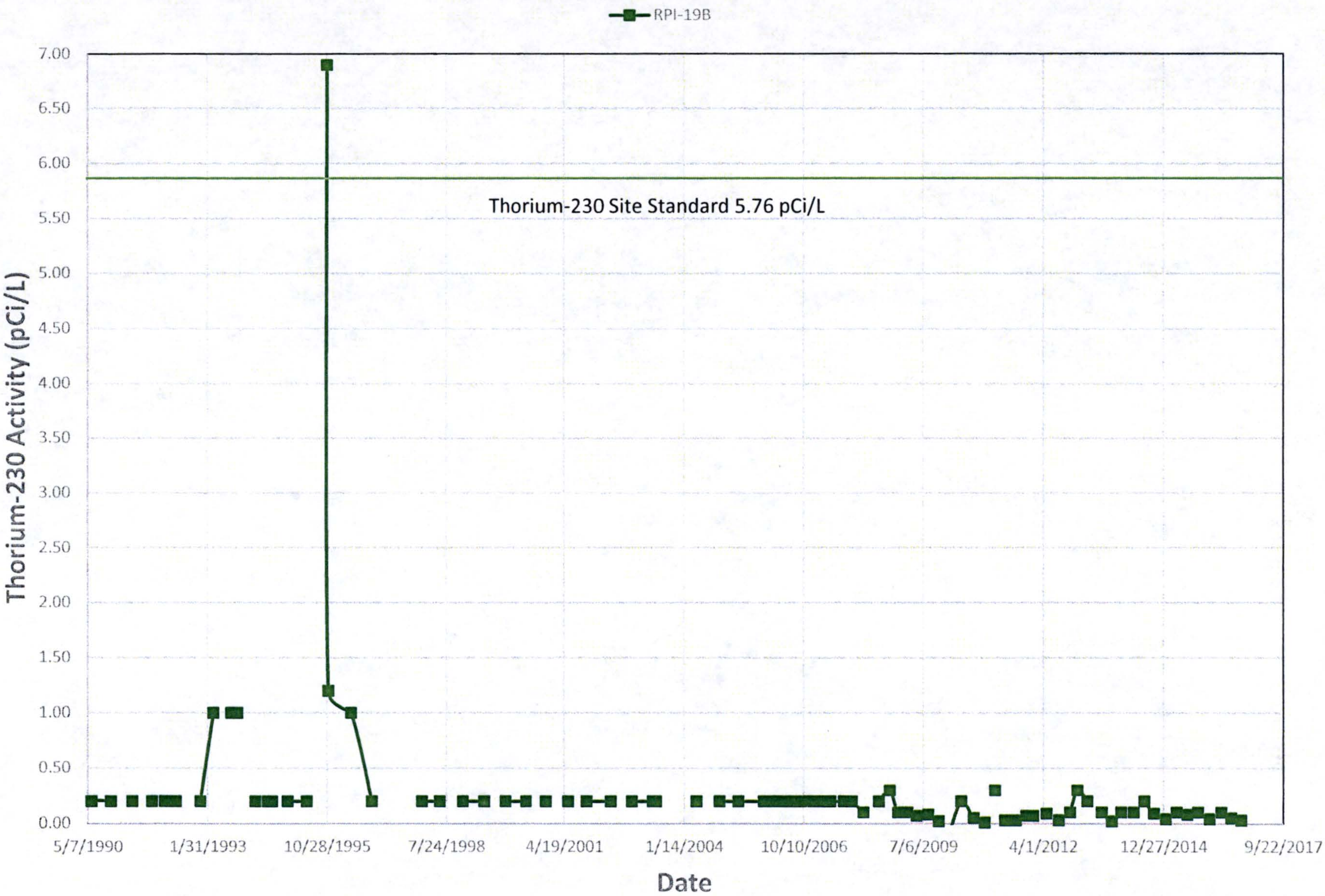


Figure 25 - Thorium-230 Activity vs. Time for Compliance Well NP01
NP01
Thorium-230 Activity (pCi/L)
12.00
11.50
11.00
10.50
10.00
9.50
9.00
8.50
8.00
7.50
7.00
6.50
6.00
5.50
5.00
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
Thorium-230 Site Standard 5.53 pCi/L
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

Figure 26 - Thorium-230 Activity vs. Time for Compliance Well RPI-19B



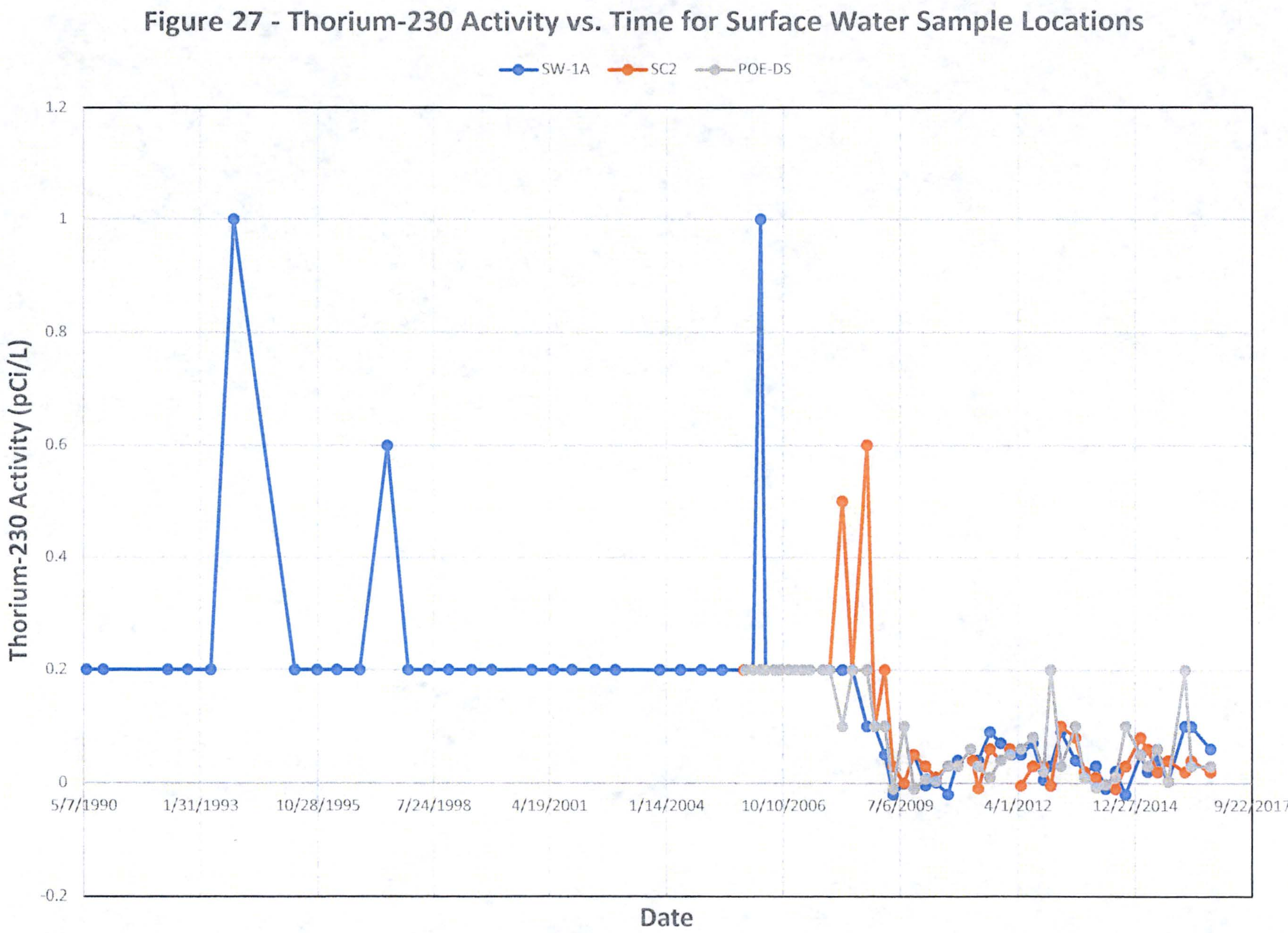
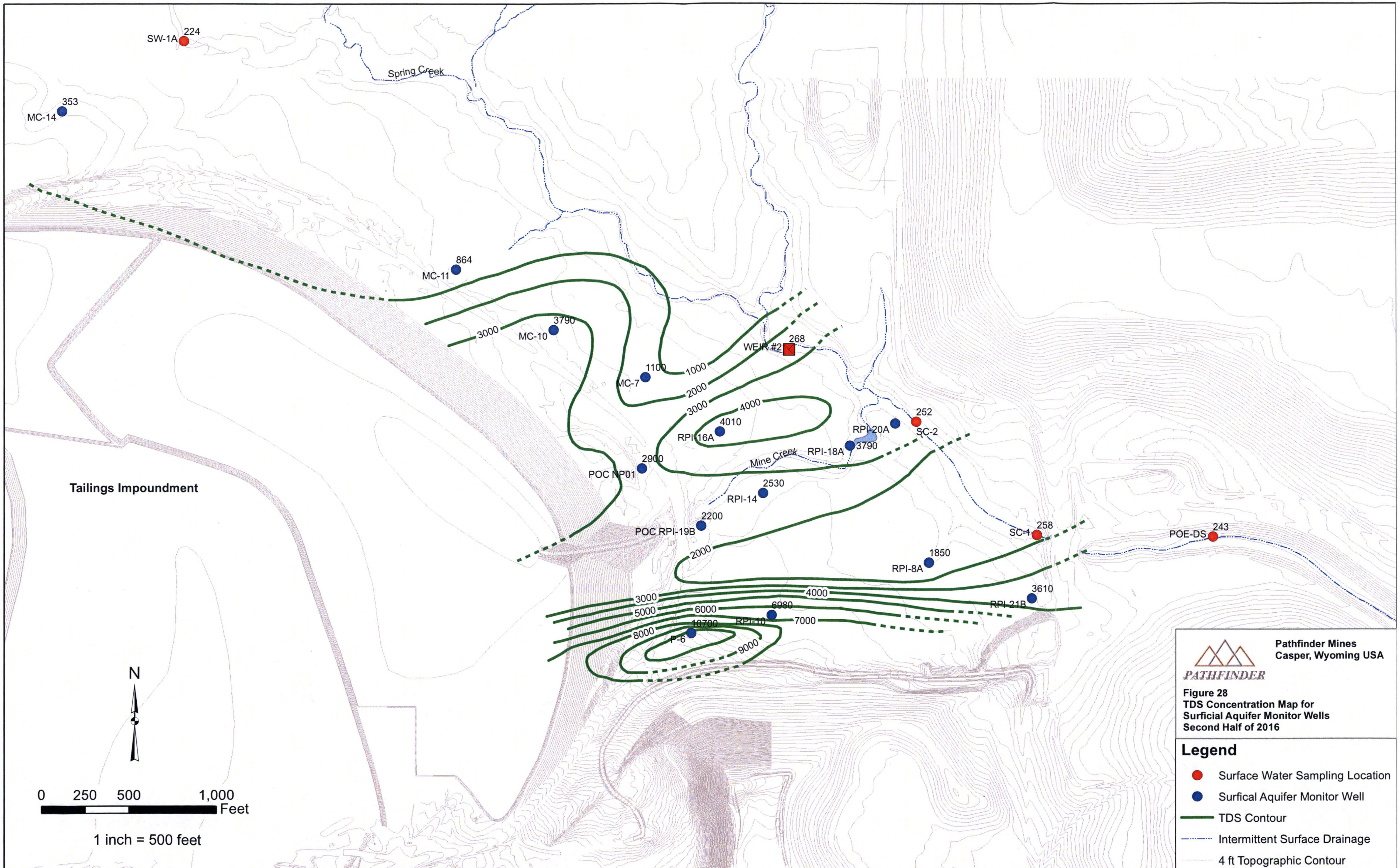


Figure 27 - Thorium-230 Activity vs. Time for Surface Water Sample Locations
SW-1A
SC2
POE-DS
Thorium-230 Activity (pCi/L)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date



SW-1A 224
MC-14 353
Spring Creek
MC-11 864
MC-10 3790
3000
MC-7 1100
1000
2000
3000
4000
WEIR #2 268
RPI-16A 4010
RPI-20A
252
SC-2
RPI-18A 3790
Mine Creek
POC NP01 2900
RPI-14 2530
Tailings Impoundment
POC RPI-19B 2200
2000
SC-1 258
POE-DS 243
RPI-8A 1850
3000
4000
5000
6000
RPI-21B 3610
RPI-10 6080
7000
8000
P-6 10700
9000
N
0 250 500 1,000 Feet
1 inch = 500 feet
Pathfinder Mines
Casper, Wyoming USA
PATHFINDER
Figure 28
TDS Concentration Map for
Surficial Aquifer Monitor Wells
Second Half of 2016
Legend
Surface Water Sampling Location
Surfical Aquifer Monitor Well
TDS Contour
Intermittent Surface Drainage
4 ft Topographic Contour

Figure 29 - Total Dissolved Solids Concentration vs. Time

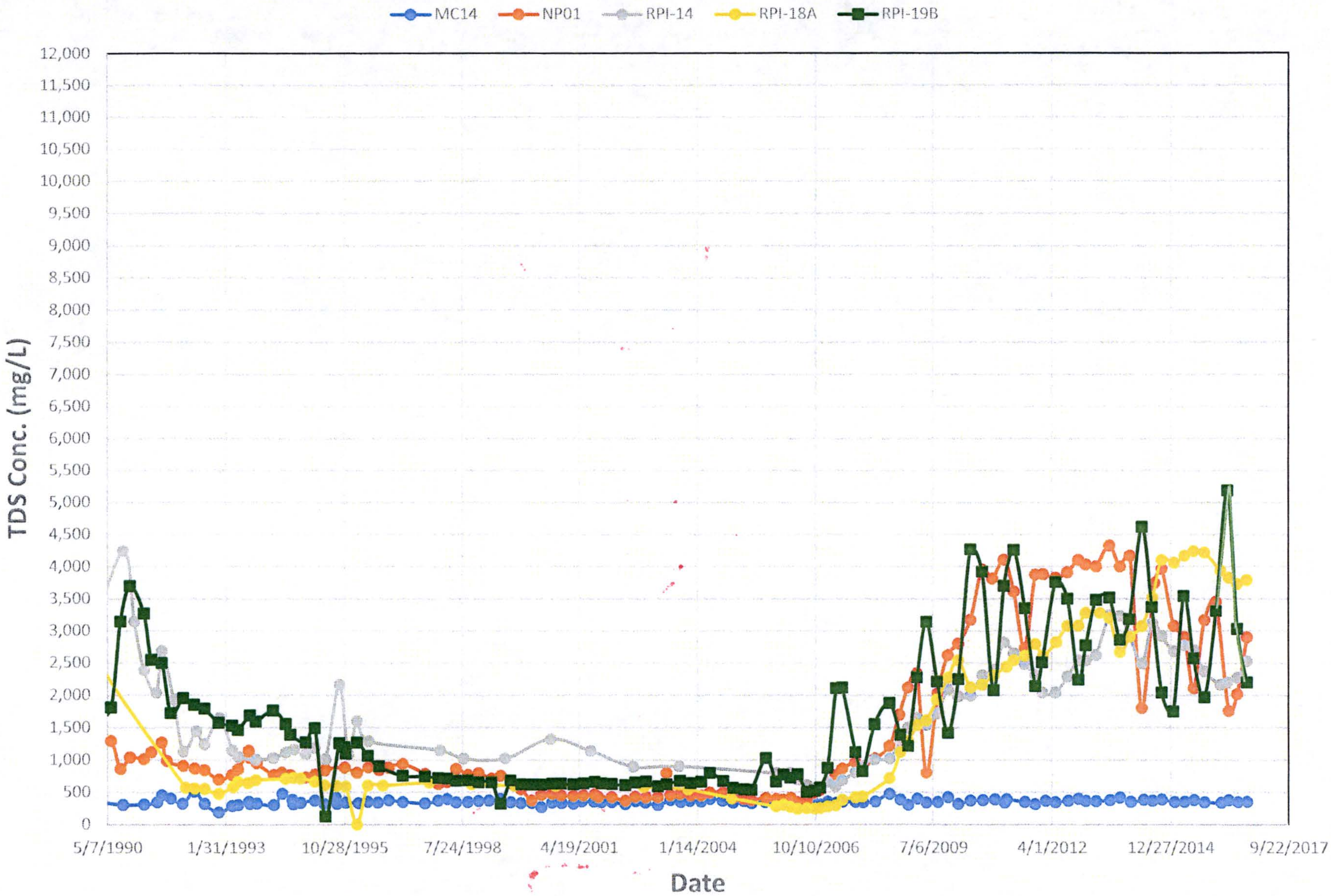


Figure 30 - Total Dissolved Solids Concentration vs. Time for Compliance Well NP01

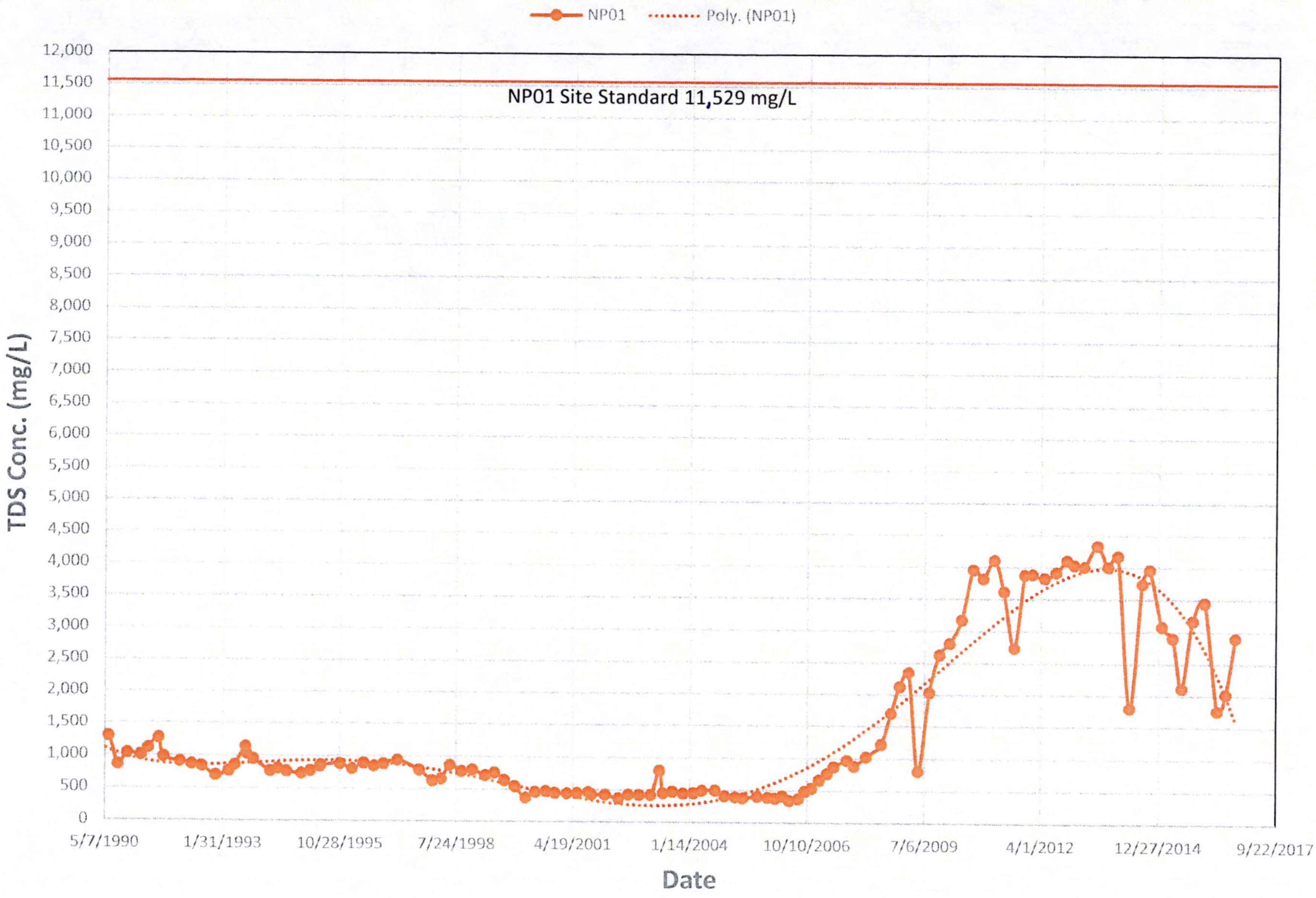


Figure 31 - Total Dissolved Solids Concentration vs. Time for Compliance Well RPI-19B

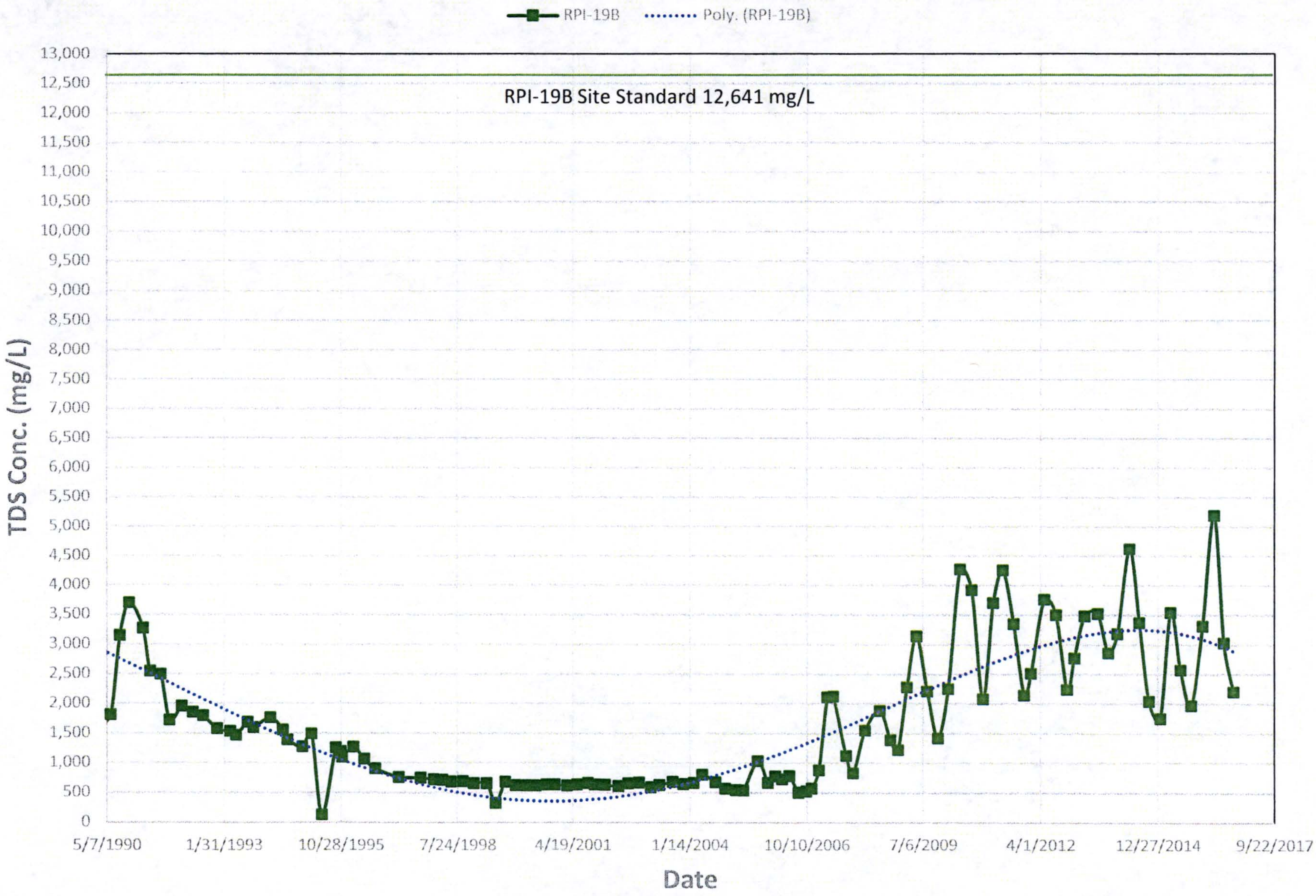
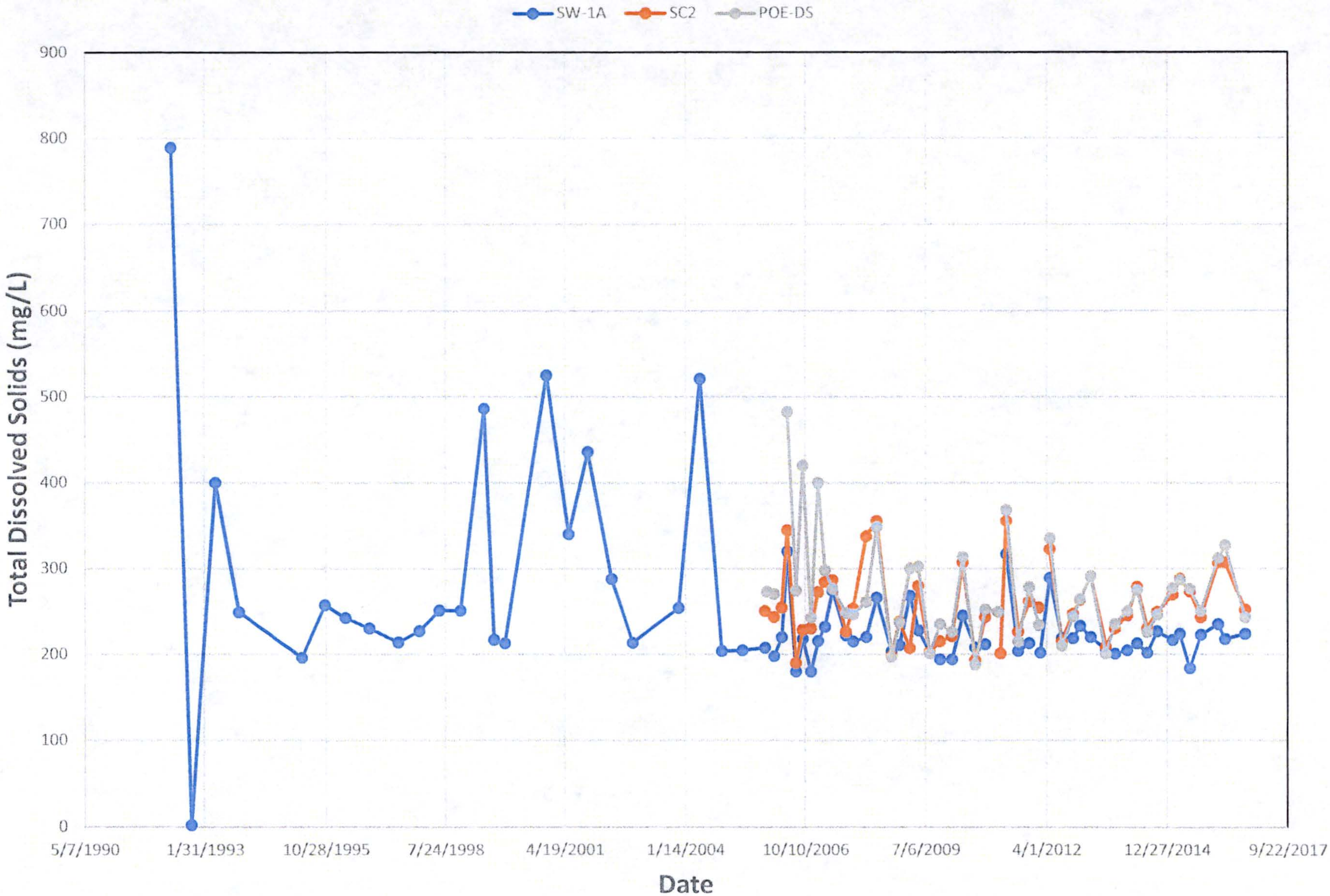


Figure 32 - Total Dissolved Solids vs. Time for Surface Water Sample Locations



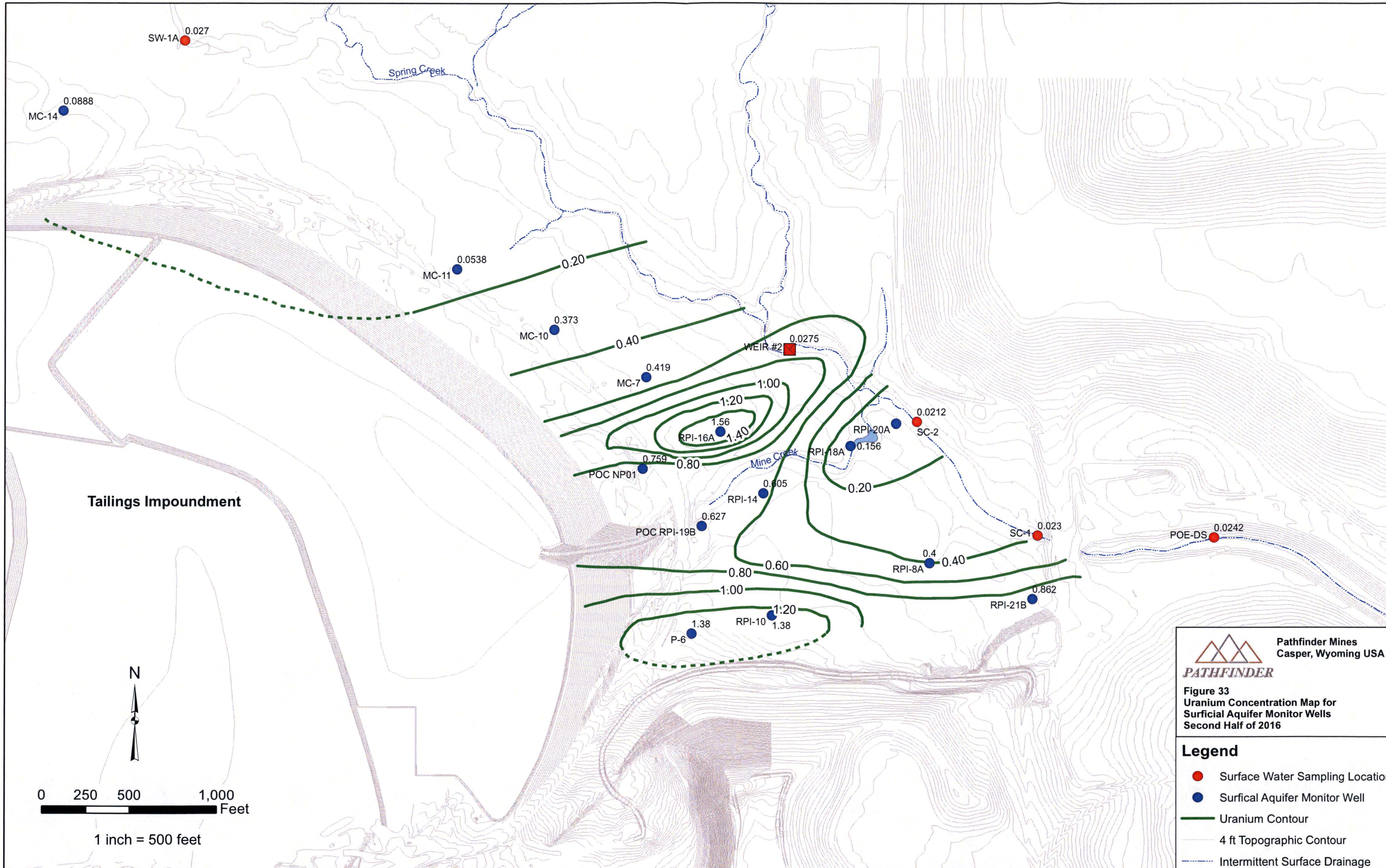


Figure 33
Uranium Concentration Map for Surficial Aquifer Monitor Wells Second Half of 2016

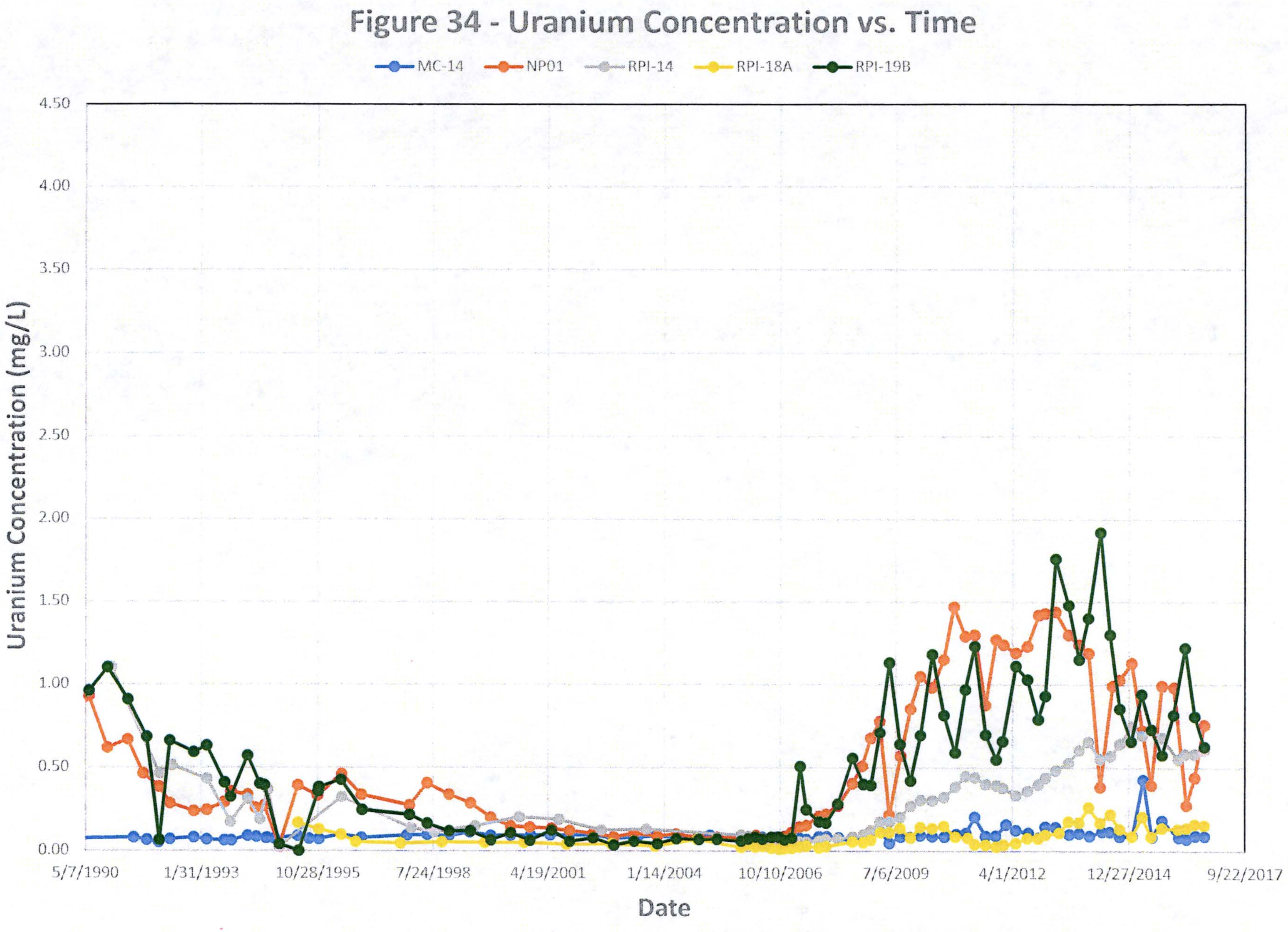


Figure 34 - Uranium Concentration vs. Time
MC-14
NP01
RPI-14
RPI-18A
RPI-19B
Uranium Concentration (mg/L)
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

Figure 35 - Uranium Concentration vs. Time for Compliance Well NP01

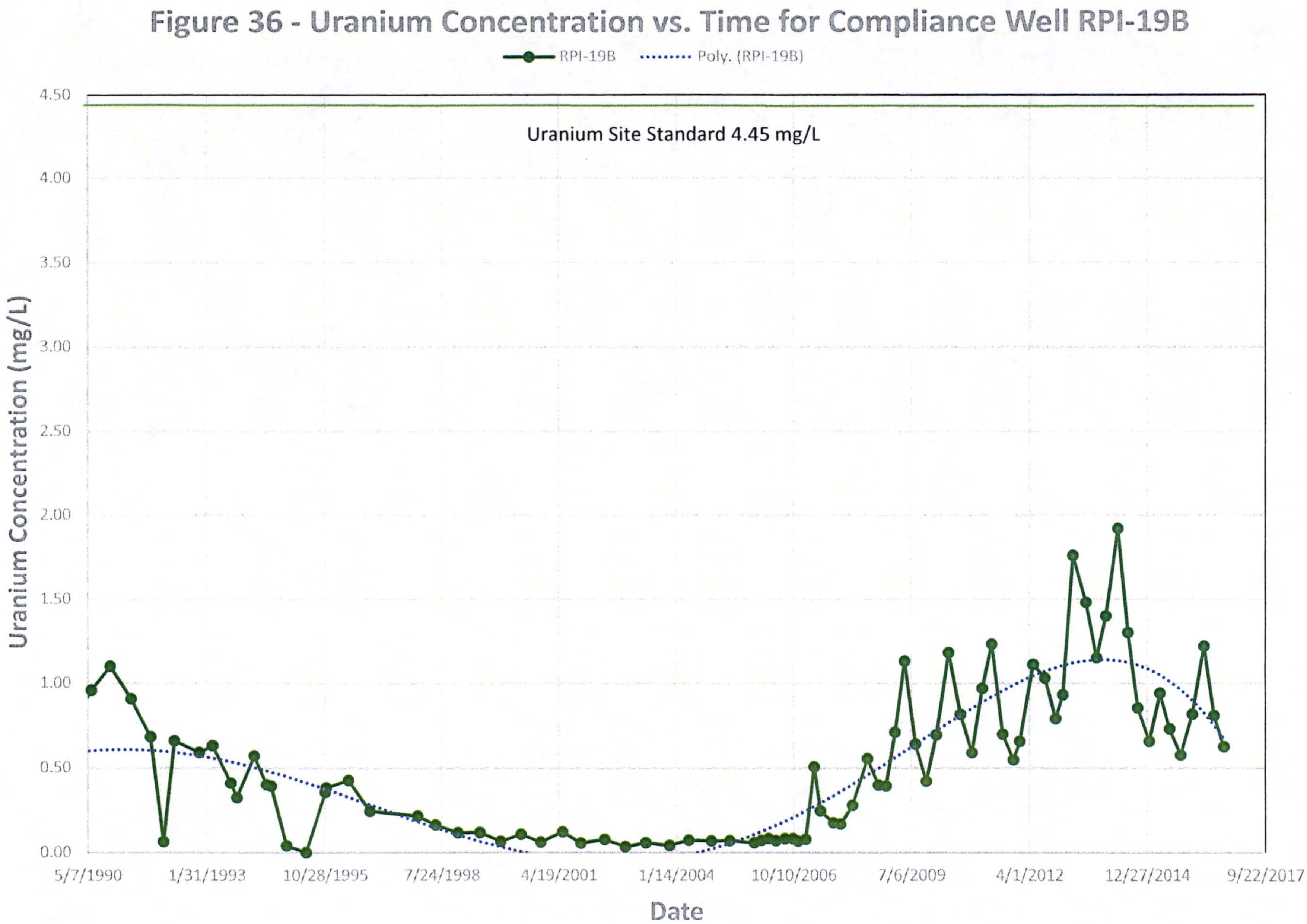


Figure 36 - Uranium Concentration vs. Time for Compliance Well RPI-19B
RPI-19B
Poly. (RPI-19B)
Uranium Site Standard 4.45 mg/L
Uranium Concentration (mg/L)
4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

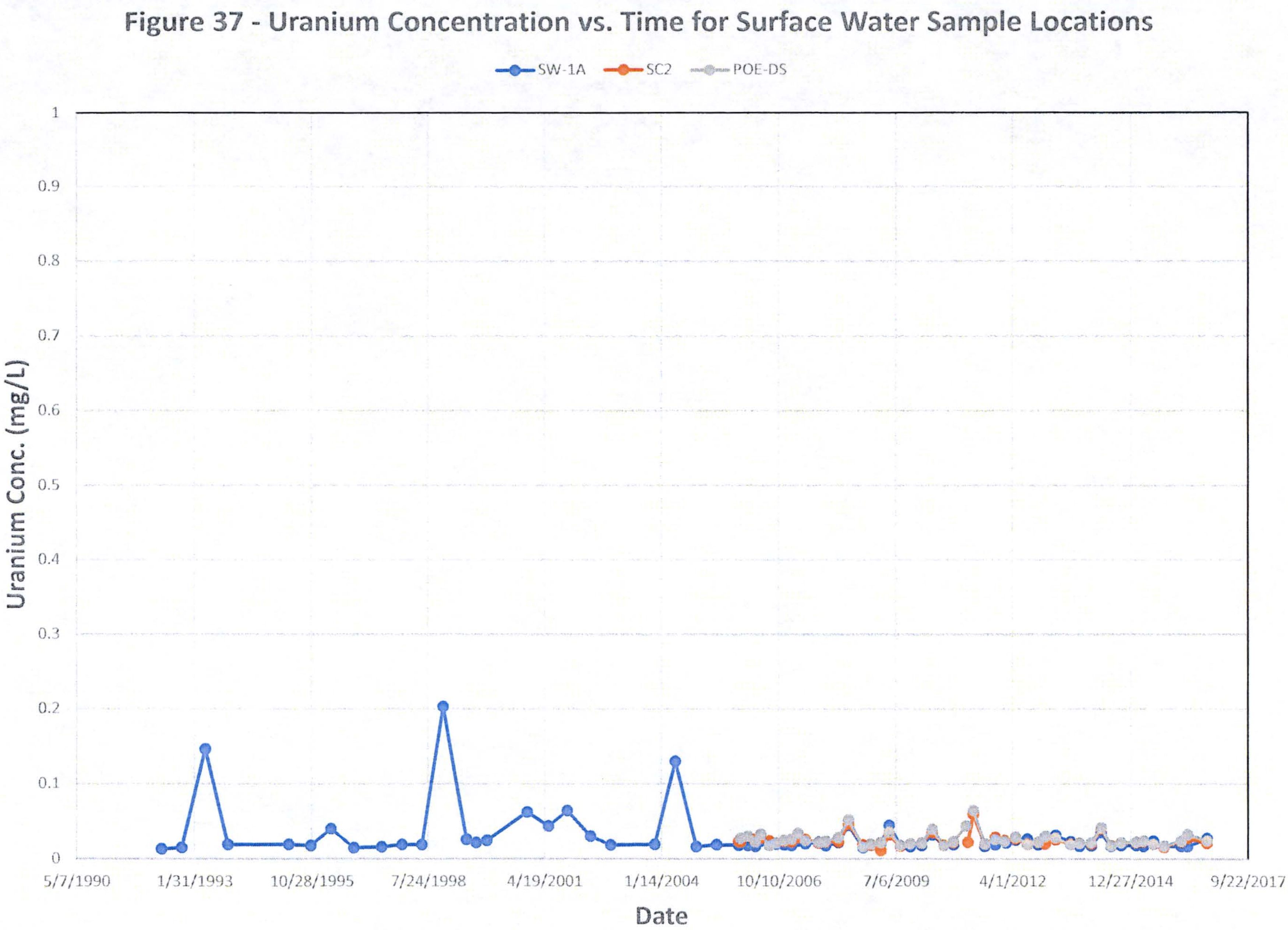


Figure 37 - Uranium Concentration vs. Time for Surface Water Sample Locations
SW-1A
SC2
POE-DS
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Uranium Conc. (mg/L)
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

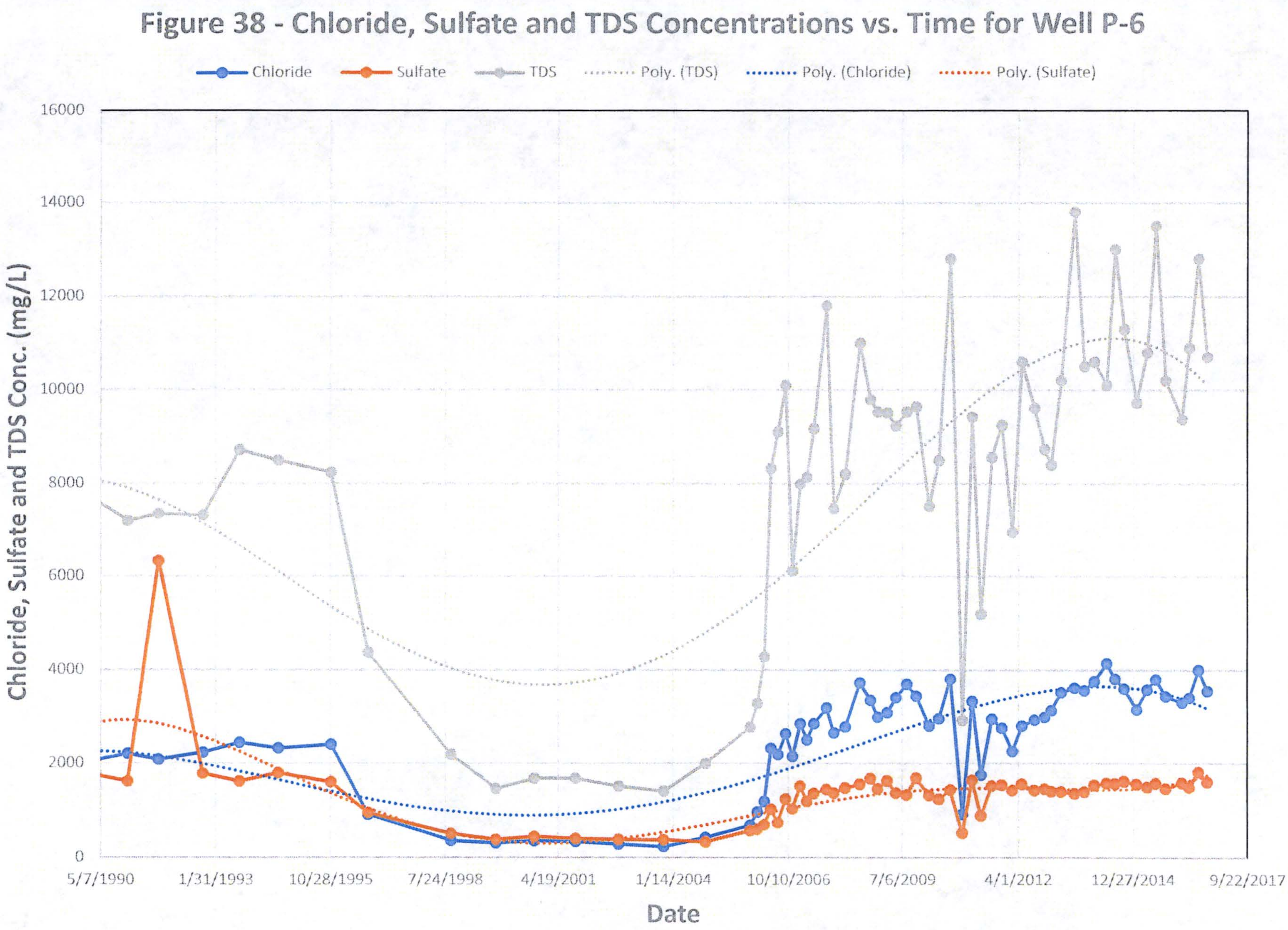


Figure 38 - Chloride, Sulfate and TDS Concentrations vs. Time for Well P-6
Chloride
Sulfate
TDS
Poly. (TDS)
Poly. (Chloride)
Poly. (Sulfate)
16000
14000
12000
10000
8000
6000
4000
2000
0
Chloride, Sulfate and TDS Conc. (mg/L)
5/7/1990
1/31/1993
10/28/1995
7/24/1998
4/19/2001
1/14/2004
10/10/2006
7/6/2009
4/1/2012
12/27/2014
9/22/2017
Date

Figure 39 - Uranium Concentration vs. Time for Well P-6

Table 1 - Groundwater Protection Standards for Point-of-Compliance Monitor Wells

Constituent	Units	POC Well NP01 Site Standard	*Well NP01 Analytical Results	POC Well RPI-19B Site Standard	*Well RPI-19B Analytical Results
Arsenic	mg/L	0.05	0.003	0.05	<0.001
Barium	mg/L	1.00	0.12	1.00	0.05
Beryllium	mg/L	0.02	<0.001	0.02	<0.001
Cadmium	mg/L	0.01	<0.001	0.01	<0.001
Chromium	mg/L	0.05	<0.005	0.05	<0.005
Gross Alpha	pCi/L	15.0	7.40	15.0	9.70
Lead	mg/L	0.05	<0.001	0.05	<0.001
Molybdenum	mg/L	0.10	0.001	0.10	0.002
Nickel	mg/L	0.05	0.005	0.05	0.009
Radium 226+228	pCi/L	12.70	2.80	13.76	4.20
Selenium	mg/L	0.158	0.006	0.163	0.002
Thorium-230	pCi/L	5.53	0.08	5.76	0.03
Uranium	mg/L	4.40	0.759	4.45	0.627
Chloride	mg/L	3,275	834	3,712	545
TDS	mg/L	11,529	2,900	12,641	2,200
Sulfate	mg/L	4,612	648	5,056	544

* = Analytical Results for October 2016 sampling period.

POC = Point-of-Compliance

Table 2 - Field Measurements (Page 1 of 2)

Sample Location	Date	Well Depth (ft.)	Depth to Water (ft.)	Water Level Elevation (ft. amsl)	pH	Conductivity uS/cm
Groundwater						
MC-7	3/1/2016	39.6	13.35	7036.26	7.71	1227
MC-7	5/4/2016	39.6	12.69	7036.92	7.35	1522
MC-7	7/22/2016	39.6	11.81	7037.80	7.29	1832
MC-7	10/7/2016	39.6	12.41	7037.20	7.56	1531
MC-10	3/1/2016	33.5	15.38	7037.22	7.23	3570
MC-10	5/4/2016	33.5	14.05	7038.55	6.92	4120
MC-10	7/22/2016	33.5	13.25	7039.35	6.95	5180
MC-10	10/7/2016	33.5	14.12	7038.48	6.87	5040
MC-11	3/1/2016	56.5	14.65	7041.86	7.82	1244
MC-11	5/4/2016	56.5	13.87	7042.64	7.55	1331
MC-11	7/22/2016	56.5	12.32	7044.19	7.63	1311
MC-11	10/7/2016	56.5	13.16	7043.35	7.72	1339
MC-14	3/1/2016	26.9	27.18	7057.53	8.04	532
MC-14	5/4/2016	26.9	27.1	7057.61	7.68	632
MC-14	7/22/2016	26.9	26.48	7058.23	7.55	575
MC-14	10/7/2016	26.9	26.63	7058.08	7.84	574
NP01	1/18/2016	26.9	13.95	7037.86	7.12	3990
NP01	5/3/2016	26.9	12.8	7039.01	7.19	2270
NP01	7/15/2016	26.9	12.39	7039.42	7.12	2750
NP01	10/5/2016	26.9	13.18	7038.63	7.02	3640
P-6	3/1/2016	29.72	22.44	7035.76	6.51	8530
P-6	5/4/2016	29.72	21.34	7036.86	6.28	9330
P-6	7/22/2016	29.72	20.75	7037.45	6.35	9370
P-6	10/7/2016	29.72	21.35	7036.85	6.49	8990
RPI-8A	2/24/2016	14.44	4.92	7034.48	7	4840
RPI-8A	4/21/2016	14.44	10.65	7028.75	7.47	2490
RPI-8A	7/14/2016	14.44	10.34	7029.06	7.57	2440
RPI-8A	10/4/2016	14.44	10.29	7029.11	7.37	1962
RPI-10	1/15/2016	25.39	15.67	7033.74	7.78	6530
RPI-10	4/22/2016	25.39	15.54	7033.87	7.38	6370
RPI-10	7/14/2016	25.39	14.64	7034.77	6.96	6130
RPI-10	10/4/2016	25.39	14.97	7034.44	6.83	6120
RPI-14	2/24/2016	11.83	7.51	7034.39	7.69	2800
RPI-14	4/22/2016	11.83	7.37	7034.53	7.33	2710
RPI-14	7/14/2016	11.83	7.00	7034.9	7.47	2780
RPI-14	10/4/2016	11.83	7.23	7034.67	7.35	3270
RPI-16A	2/22/2016	20.95	11.31	7036.29	7.13	4330
RPI-16A	5/3/2016	20.95	10.77	7036.83	6.93	4520
RPI-16A	7/15/2016	20.95	10.09	7037.51	7.03	4600
RPI-16A	10/5/2016	20.95	10.61	7036.99	6.92	4650
RPI-18A	1/18/2016	10.68	10.72	7021.13	7.63	2450
RPI-18A	5/3/2016	10.68	3.74	7028.11	6.79	4470
RPI-18A	7/15/2016	10.68	5.61	7026.24	6.81	4460
RPI-18A	10/5/2016	10.68	5.23	7026.62	6.78	4580
RPI-19B	1/15/2016	15.27	10.83	7035.98	7.01	3720
RPI-19B	4/22/2016	15.27	9.80	7037.01	6.69	5160
RPI-19B	7/15/2016	15.27	9.71	7037.1	6.85	3670
RPI-19B	10/5/2016	15.27	10.22	7036.59	6.86	2810

Table 2 - Field Measurements (Page 2 of 2)

Sample Location	Date	Well Depth (ft.)	Depth to Water (ft.)	Water Level Elevation (ft. amsl)	pH	Conductivity uS/cm
Groundwater (continued)						
RPI-20A	2/22/2016	7.83	6.90	7024.71	7.24	3860
RPI-20A	4/22/2016	7.83	5.86	7025.75	7.09	4150
RPI-20A	7/14/2016	7.83	7.22	7024.39	7.07	3580
RPI-20A	10/3/2016	7.83	Dry	---	---	---
RPI-21B	1/15/2016	16.11	10.68	7025.96	7.41	4000
RPI-21B	4/21/2016	16.11	10.39	7026.25	7.26	4230
RPI-21B	7/14/2016	16.11	10.28	7026.36	7.45	3920
RPI-21B	10/4/2016	16.11	10.20	7026.44	7.24	4070
Surface Water						
SC-1	2/25/2016				8.43	466
SC-1	4/21/2016				8.38	470
SC-1	7/7/2016				8.21	387
SC-1	10/3/2016				8.31	379
SC-2	2/25/2016				8.51	495
SC-2	4/21/2016				8.36	465
SC-2	7/7/2016				8.21	383
SC-2	10/3/2016				8.29	382
SW-1A	2/25/2016				8.62	342
SW-1A	4/21/2016				8.42	335
SW-1A	7/7/2016				9.07	270
SW-1A	10/3/2016				8.32	312
POE-DS	2/25/2016				8.53	462
POE-DS	4/21/2016				8.11	496
POE-DS	7/7/2016				8.07	381
POE-DS	10/3/2016				8.18	371
WEIR-2	2/24/2016				8.41	448
WEIR-2	4/21/2016				8.32	443
WEIR-2	7/7/2016				8.23	367
WEIR-2	10/3/2016				8.42	378

Table 3 - Monitor Well 2016 Analytical Results

Monitor Well	Collection Date	Cl (mg/L)	NO3-T (mg/L)	SO4 (mg/L)	TDS (mg/L)	As-D (mg/L)	Ba-D (mg/L)	Be-D (mg/L)	Cd-D (mg/L)	Cr-D (mg/L)	Pb-D (mg/L)	Mo-D (mg/L)	Ni-D (mg/L)	Se-D (mg/L)	U-D (mg/L)	Gross Alpha-D (pCi/L)	Gross Alpha (MDC)-D (pCi/L)	Ra226-D (pCi/L)	Ra226 (MDC)-D (pCi/L)	Ra228-D (pCi/L)	Ra228 (MDC)-D (pCi/L)	Th230-D (pCi/L)	Th230 (MDC)-D (pCi/L)
MC-7	3/1/2016	175	2.2	233	901	0.001	0.07	<0.001	<0.001	<0.005	<0.001	0.002	<0.005	0.005	0.283	6.4	1.5	2.6	0.19	1.7	1.1	0.07	0.1
MC-7	5/4/2016	213	2.4	302	1130	0.001	0.09	<0.001	<0.001	<0.005	<0.001	0.002	<0.005	0.005	0.360	3.5	1.6	0.89	0.17	1.8	1.0	0.2	0.2
MC-7	7/22/2016	347	2.6	370	1480	<0.001	0.09	<0.001		<0.001	<0.005	<0.001	0.001	<0.005	0.008	0.462	4.9	1.4	3.0	0.24	0.8	1.5	0.1
MC-7	10/7/2016	224	2.4	323	1100	0.002	0.08	<0.001	<0.001	<0.005	<0.001	0.002	<0.005	0.005	0.419	3.7	1.0	1.1	0.17	1.4	1.4	0.2	0.2
MC-10	3/1/2016	937	0.5	446	2570	0.001	0.16	<0.001	<0.001	<0.005	<0.001	0.001	<0.005	0.014	0.180	15.3	1.5	6.4	0.19	2.6	1.1	0.1	0.1
MC-10	5/4/2016	1030	1.8	599	3070	<0.001	0.11	<0.001	<0.001	0.005	<0.001	<0.001	<0.005	0.015	0.256	11.4	1.6	3.8	0.17	1.7	1	0.2	0.1
MC-10	7/22/2016	1500	2.7	804	4190	<0.001	0.13	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.015	0.366	19.4	1.3	9.6	0.22	11.3	1.2	0.1	0.1
MC-10	10/7/2016	1380	2.5	833	3790	0.002	0.09	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.017	0.373	7.5	1.0	2.8	0.17	2.0	1.3	0.1	0.2
MC-11	3/1/2016	334	<0.1	32	830	0.002	0.18	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.002	0.0470	20.3	1.5	8.8	0.20	2.1	1.1	0.08	0.2
MC-11	5/4/2016	320	<0.1	29	854	0.001	0.13	<0.001	<0.001	<0.005	<0.001	0.001	<0.005	0.001	0.0476	8.8	1.6	4.4	0.18	2.5	1.0	-0.001	0.2
MC-11	7/22/2016	349	<0.1	32	857	<0.001	0.12	<0.001	<0.001	<0.005	<0.001	0.001	<0.005	<0.001	0.0586	18.6	1.4	8.5	0.22	6.2	1.1	0.1	0.1
MC-11	10/7/2016	364	<0.1	33	864	0.001	0.13	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.001	0.0538	9.1	1.0	4.6	0.17	3.2	1.4	0.03	0.1
MC-14	3/1/2016	12	0.1	25	339	0.003	0.08	<0.001	<0.001	<0.005	<0.001	0.002	<0.005	<0.001	0.0824	10.6	1.5	4.9	0.21	1.5	1.2	0.08	0.2
MC-14	5/4/2016	35	0.1	23	382	0.002	<0.05	<0.001	<0.001	<0.005	<0.001	0.002	<0.005	<0.001	0.0730	3.5	1.6	0.85	0.18	1.7	1.0	0.05	0.2
MC-14	7/22/2016	25	0.1	24	351	0.001	<0.05	<0.001	<0.001	<0.005	<0.001	0.002	<0.005	<0.001	0.0910	6.9	1.3	3.0	0.22	3.6	1.2	0.2	0.1
MC-14	10/7/2016	16	0.1	26	353	0.003	0.06	<0.001	<0.001	<0.005	<0.001	0.001	<0.005	<0.001	0.0888	4.3	1.0	1.0	0.18	1.1	1.4	0.04	0.2
NPO1	7/15/2016	670	2.5	363	2020	0.003	0.06	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.006	0.442	2.1	1.8	1.0	0.16	1.5	1.6	0.05	0.2
NPO1	1/18/2016	944	4.0	890	3450	0.003	0.07	<0.001	<0.001	<0.005	0.001	<0.001	0.007	0.004	0.984	7.0	1.6	3.7	0.16	1.6	1.2	0.1	0.1
NPO1	5/3/2016	560	1.3	194	1760	0.002	0.05	<0.001	<0.001	<0.005	<0.001	0.002	<0.005	0.004	0.277	4.8	1.7	0.43	0.16	1.7	1	0.03	0.2
NPO1	10/5/2016	834	3.7	648	2900	0.003	0.12	<0.001	<0.001	<0.005	<0.001	0.001	0.005	0.006	0.759	7.4	1.3	1.0	0.11	1.8	1.3	0.08	0.2
P-6	3/1/2016	3300	0.8	1590	9370	0.006	0.13	<0.001	0.001	<0.005	<0.001	<0.001	0.015	0.007	1.10	13.6	1.5	5.0	0.18	2.9	1.0	0.8	0.2
P-6	5/4/2016	3400	2.0	1500	10900	0.004	0.09	<0.001	0.002	<0.005	<0.001	0.001	0.018	0.009	1.24	11.5	1.6	2.6	0.16	2.9	1	0.8	0.2
P-6	7/22/2016	4000	1.2	1820	12800	<0.001	0.10	<0.001	0.001	0.009	<0.001	<0.001	0.018	0.021	14.1	5.7	1.4	5.0	0.20	2.0	1.3	1	0.2
P-6	10/7/2016	3550	2.1	1610	10700	0.003	0.08	<0.001	0.001	0.010	<0.001	<0.001	0.017	0.016	1.38	9.8	1.0	1.9	0.15	2.9	1.2	0.3	0.2
RPI-8A	1/18/2016	558	1.1	421	1890	0.002	0.09	<0.001	<0.001	<0.005	<0.001	0.003	0.006	0.003	0.369	6.9	1.6	4.7	0.17	0.3	1.3	0.07	0.1
RPI-8A	7/14/2016	537	1.3	389	1810	0.003	0.07	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.005	0.363	8.0	1.8	5.3	0.15	3.7	1.3		
RPI-8A	10/4/2016	472	1.2	377	1850	0.002	0.07	<0.001	<0.001	<0.005	<0.001	0.002	<0.005	0.007	0.400	8.6	1.3	0.56	0.11	3.2	1.1	0.01	0.1
RPI-10	4/22/2016	1940	2.1	1040	7170	<0.001	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	0.012	0.006	1.50	16.3	1.8	12	0.18	2.0	0.9	0.03	0.2
RPI-10	7/14/2016	1970	2.5	1180	6240	0.002	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	0.009	0.011	1.37	5.0	1.8	2.1	0.15	1.7	1.5		
RPI-10	10/4/2016	1940	2.0	1060	6980	0.003	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	0.011	<0.005	1.38	12.2	1.3	0.43	0.11	2.9	1.4	0.03	0.1
RPI-14	2/24/2016	552	0.5	634	2160	<0.001	<0.05	<0.001	<0.001	<0.005	<0.001	0.001	0.006	0.002	0.551	3.1	1.1	0.18	0.13	0.9	1.1	0.1	0.2
RPI-14	4/22/2016	504	0.4	549	2200	<0.001	<0.05	<0.001	<0.001	<0.005	<0.001	0.001	<0.005	0.001	0.583	1.5	1.8	1.5	0.18	1.6	0.9	0.2	0.1
RPI-14	7/14/2016	558	0.4	541	2270	0.001	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.003	0.583	1.7	1.8	0.36	0.15	0.7	1.6		
RPI-14	10/4/2016	634	0.5	566	2530	<0.001	<0.05	<0.001	<0.001	<0.005	<0.001	0.001	0.005	<0.003	0.605	6.1	1.3	0.34	0.11	1.1	1.3	0.06	0.1
RPI-16A	2/22/2016	965	9.1	1140	3820	0.004	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	0.012	0.013	1.42	0.7	0.9	0.38	0.12	1.7	0.9	0.03	0.1
RPI-16A	5/3/2016	945	9.9	1040	4150	0.005	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	0.006	0.013	1.44	7.1	1.7	0.42	0.16	1.4	1	0.03	0.1
RPI-16A	7/15/2016	1060	9.8	1180	3990	0.004	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	0.006	0.015	1.61	1.8	1.8	0.92	0.16	1.5	1.6	0.04	0.2
RPI-16A	10/5/2016	1030	8.8	1120	4010	0.005	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	0.007	0.013	1.56	6.5	1.3	0.20	0.13	1.5	1.6	-0.01	0.1
RPI-18A	2/24/2016	1110	<0.1	1180	3940	0.002	0.32	<0.001	<0.001	<0.005	<0.001	0.003	0.007	<0.001	0.131	2.0	1.1	0.28	0.12	0.2	1.1	0.05	0.2
RPI-18A	5/3/2016	995	<0.1	1020	3830	0.002	0.06	<0.001	<0.001	<0.005	<0.001	<0.001	0.016	0.002	0.138	6.1	1.7	1.9	0.16	1.5	1	0.005	0.2
RPI-18A	7/15/2016	1080	0.1	1150	3730	0.002	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	0.008	0.003	0.161	1	1.8	0.45	0.16	0.5	1.6	0.1	0.2
RPI-18A	10/5/2016	1090	0.2	1080	3790	0.002	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	0.013	0.001	0.156	3.4	1.3	0.65	0.12	0.8	1.4	0.04	0.2
RPI-19B	4/22/2016	1340	0.1	1040	5190	0.001	0.10	<0.001	0.001	<0.005	<0.001	0.001	0.015	0.002	1.22	5.8	1.7	4.7	0.18	0.7	0.9	0.1	0.2
RPI-19B	7/15/2016	790	<0.1	742	3030	<0.001	0.06	<0.001	<0.001	<0.005	<0.001	<0.001	0.011	0.003	0.809	2.0	1.8	1.0	0.15	0.5	1.6	0.05	0.2
RPI-19B	10/5/2016	545	0.3	544	2200	<0.001	0.05	<0.001	<0.001	<0.005	<0.001	0.002	0.009	0.002	0.627	9.7	1.3	2.9	0.11	1.3	1.3	0.03	0.2
RPI-20A	2/22/2016	860	<0.1	1010	3140	0.007	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	0.007	<0.001	0.205	1.5	1	0.70	0.13	1.9	0.9	0.007	0.1
RPI-20A	4/22/2016	938	<0.1	1030	3680	0.006	0.05	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.002	0.212	8.3	1.8	6.9	0.19	1.7	0.9	0.2	0.2
RPI-20A	7/14/2016	781	<0.1	846	2960	0.006	<0.05	<0.001	<0.001	<0.005	<0.001	<0.001	0.005	<0.003	0.243	2.0	1.8	0.56	0.16	5.1	1.6		
RPI-21B	7/14/2016	967	3.3	724	3160	0.003	0.05	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.018	0.840	7.7	1.8	6.6	0.16	5.3	1.3		
RPI-21B	10/4/2016	1050	3.0	687	3610	0.002	0.07	<0.001	<0.001	<0.005	<0.001	0.001	0.006	0.030	0.862	16.4	1.3	1.8	0.11	5.6	1.2	0.07	0.1

Notes:

-D = Dissolved

T = Total

Table 4 - Surface Water 2016 Analytical Results

Monitor Well	Collection Date	Cl (mg/L)	NO3-T (mg/L)	SO4 (mg/L)	TDS (mg/L)	As-D (mg/L)	Ba-D (mg/L)	Be-D (mg/L)	Cd-D (mg/L)	Cr-D (mg/L)	Pb-D (mg/L)	Mo-D (mg/L)	Ni-D (mg/L)	Se-D (mg/L)	U-D (mg/L)	Gross Alpha-D (pCi/L)	Gross Alpha (MDC)-D (pCi/L)	Ra226-D (pCi/L)	Ra226 (MDC)-D (pCi/L)	Ra228-D (pCi/L)	Ra228 (MDC)-D (pCi/L)	Th230-D (pCi/L)	Th230 (MDC)-D (pCi/L)
SC-1	2/25/2016	17	0.3	33	312	0.006	0.11	<0.001	<0.001	<0.005	<0.001	0.001	<0.005	0.001	0.0244	1.7	1.1	0.13	0.43	0.9	2.4	0.001	0.2
SC-1	4/21/2016	26	<0.1	39	307	0.006	0.1	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.001	0.0317	1.3	1.4	0.49	0.19	0.9	1.2	-0.02	0.2
SC-1	7/7/2016	15	<0.1	33	274	0.007	0.1	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.001	0.0200	0.7	1.5	0.31	0.18	1.8	1.3	0.02	0.1
SC-1	10/3/2016	9	<0.1	22	258	0.005	0.10	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.001	0.0230	2.5	1.3	0.82	0.12	2.3	1.2	0.1	0.2
SC-2	2/25/2016	16	0.3	32	307	0.006	0.10	<0.001	<0.001	<0.005	<0.001	0.001	<0.005	0.001	0.0229	0.7	1.1	0.03	0.23	1.3	1.3	0.02	0.2
SC-2	4/21/2016	25	<0.1	37	307	0.006	0.1	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.001	0.0275	2.2	1.4	1.1	0.19	1.6	1.2	0.04	0.1
SC-2	7/7/2016	15	<0.1	32	276	0.007	0.1	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.001	0.0183	1.1	1.5	0.35	0.18	6.7	1.3	0.07	0.2
SC-2	10/3/2016	9	<0.1	22	252	0.005	0.09	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.001	0.0212	1.9	1.3	0.54	0.11	2.6	1.1	0.02	0.1
SW-1A	2/25/2016	3	0.5	14	235	0.005	0.08	<0.001	<0.001	<0.005	<0.001	0.001	<0.005	<0.001	0.0165	1.4	1.1	0.26	0.22	0.7	1.2	0.1	0.1
SW-1A	4/21/2016	3	0.4	13	218	0.005	0.08	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.001	0.0166	4	1.4	3.3	0.19	1.1	1.2	0.1	0.2
SW-1A	7/7/2016	2	<0.1	14	189	0.005	0.08	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.001	0.0198	1.7	1.5	0.46	0.19	0.4	1.3	-0.01	0.2
SW-1A	10/3/2016	3	0.2	12	224	0.004	0.08	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	<0.001	0.0270	2.2	1.3	0.97	0.12	1.8	1.2	0.06	0.1
POE-DS	2/25/2016	18	0.2	33	312	0.006	0.10	<0.001	<0.001	<0.005	<0.001	0.001	<0.005	0.001	0.0235	1.6	1.6	0.21	0.31	1.9	1.7	0.2	0.2
POE-DS	4/21/2016	28	<0.1	42	327	0.006	0.11	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.001	0.0323	2.3	1.4	0.43	0.19	1.5	1.2	0.03	0.1
POE-DS	7/7/2016	16	<0.1	35	268	0.008	0.1	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.001	0.0202	0.8	1.5	0.47	0.18	1.4	1.3	0.08	0.2
POE-DS	10/3/2016	10	<0.1	23	243	0.005	0.09	<0.001	<0.001	<0.005	<0.001	0.001	<0.005	<0.001	0.0242	1.9	1.3	0.59	0.11	2.3	1.2	0.03	0.2
WEIR-2	2/24/2016	13	0.3	28	301	0.006	0.10	<0.001	<0.001	<0.005	<0.001	0.001	<0.005	<0.001	0.0196	2.0	1.1	0.23	0.13	0.2	1.1	0.03	0.2
WEIR-2	4/21/2016	19	<0.1	30	283	0.006	0.1	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.001	0.0212	6.2	1.4	0.52	0.19	1.1	1.1	0.007	0.1
WEIR-2	7/7/2016	13	<0.1	31	266	0.007	0.11	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.001	0.0194	-0.01	1.5	0.6	0.17	2.5	1.2	0.03	0.1
WEIR-2	10/3/2016	9	<0.1	22	268	0.005	0.09	<0.001	<0.001	<0.005	<0.001	<0.001	<0.005	0.001	0.0275	2.1	1.3	0.92	0.12	0.7	1.2	0.02	0.2

Notes:

-D = Dissolved

T = Total