



**SUMMARY OF QUARTERLY PERFORMANCE MONITORING
FOR NORTHERN AND SOUTHERN AREAS,
THIRD QUARTER 2025**

Apache Powder Superfund Site

November 16, 2025



**Summary of Quarterly Performance Monitoring for
Northern and Southern Areas,
Third Quarter 2025**

**Apache Powder Superfund Site
Cochise County, Arizona**

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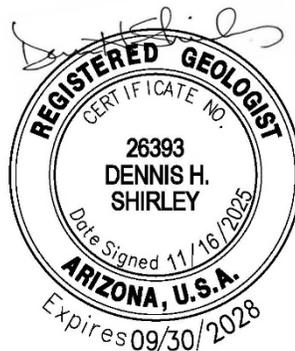
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THIRD QUARTER 2025
APACHE POWDER SUPERFUND SITE

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ACRONYMS AND ABBREVIATIONS

µg/L	micrograms per liter
3Q25	third quarter 2025
ammonia	ammonia as nitrate
amsl	above mean sea level
ANPI	Apache Nitrogen Products, Inc.
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	chemical constituents of concern
DCP	Design Confirmation Piezometer
EPA	U.S. Environmental Protection Agency
ESD	Explanation of Significant Differences
gpm	gallons per minute
H+A	Hargis + Associates, Inc.
MCL	Maximum Contaminant Level
mg/L	milligrams per liter
MRL	method reporting level
NARS	Northern Area Remediation System
nitrate	nitrate as nitrogen
MNA	Monitored Natural Attenuation
PMP	Performance Monitoring Plan
QAPP	Quality Assurance Project Plan
QMP	Quality Management Plan
ROD	Record of Decision
SEW	Shallow Extraction Well
Site	Apache Powder Superfund Site, Cochise County, Arizona
Synergy	Synergy Environmental LLC
TDS	total dissolved solids
TP	Total Phosphorus
UAO	Unilateral Administrative Order



SUMMARY OF QUARTERLY PERFORMANCE MONITORING FOR
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1.0 INTRODUCTION

Water level measurements and water quality analyses, along with surface water monitoring of the San Pedro River are performed and reported quarterly at the Apache Powder Superfund Site in Cochise County, Arizona (the Site). This monitoring provides a means of assessing performance of the active remedies. Performance monitoring is done in accordance with the schedule provided in the annual report which is reviewed and approved annually by the U.S. Environmental Protection Agency (EPA). Quarterly performance monitoring is done for scheduled wells to assess seasonal and year-to-year trends in the aquifer conditions and remedial performance.

This report summarizes the results of the third quarter 2025 (3Q25) monitoring performed at the Site pertaining to ongoing Site remedial actions that are specified in EPA's October 3, 1994, Record of Decision (ROD) and February 29, 1994, Unilateral Administrative Order (UAO) issued pursuant to EPA's authorities under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and subsequent amendments and explanations of significant differences (ESDs) to the ROD (EPA, 1994 and 1994a; 1997, 2000, 2005, 2008, and 2017). Work was performed according to procedures outlined in agency-approved Performance Monitoring Plans (PMPs) for the Northern and Southern Areas of the Site and the Quality Assurance Project Plan (QAPP) (Hargis + Associates, Inc. [H+A], 2007, 2009a, and 2010) and the Quality Management Plan (QMP) (Synergy Environmental, LLC [Synergy], 2024a).

For the purposes of remedial assessment, the PMP monitoring program comprises measurement, sampling, and analysis in two primary areas designated as the Southern and Northern Areas. These two areas are delineated on the basis of differences in their subsurface flow characteristics and chemical constituents of concern (COCs). The COCs for the Southern Area include both nitrate as nitrogen (nitrate) and perchlorate. The COC for the Northern Area is nitrate only. The Southern Area includes areas designated as Perched Zone A, Perched Zone B, and the shallow aquifer along the San Pedro River. The Northern Area includes an on-going remedial action



known as the Northern Area Remediation System (NARS) and an area north of the NARS known as the Northern Area Monitored Natural Attenuation (MNA) Management Zone. The NARS component includes pumping from shallow alluvial groundwater along the San Pedro River at three shallow extraction wells (SEWs). Well SEW-01 has been pumping since 1997 as the primary capture well and the remedial action was expanded in July 2018 and March 2021 to include groundwater pumping from SEW-02 and SEW-03, respectively, for enhanced mass capture. The San Pedro River, which is also a component of the monitoring program, flows northward from the Southern Area into and through the Northern Area. The monitoring network comprises monitor wells and piezometers constructed by Apache Nitrogen Products, Inc. (ANPI), selected shallow aquifer private wells, and surface water stations along the San Pedro River (Figure 1).

The 3Q25 quarterly PMP monitoring round included measurements of water levels in perched zone monitor wells and piezometers, shallow aquifer monitoring wells and piezometers, design confirmation piezometer (DCP), shallow aquifer extraction wells and selected shallow aquifer private wells, according to the monitoring schedule presented in the Annual Report (Synergy, 2025a).

At PMP monitoring wells scheduled for sampling, water samples were collected for analysis of identified COCs (Tables 1 and 4; Figure 1; Appendix A). Water levels and field water quality parameters were monitored while purging of at least three casing volumes prior to sampling. Surface water samples were also scheduled at monitoring locations along the San Pedro River for analysis of COCs. However, streamflow was not observed in the San Pedro River at the time of this PMP quarterly sampling event. A summary of water quality monitoring locations and analyses performed during the 3Q25 performance monitoring event is included as Table 1. Results of sample analyses are discussed in the following sections.



2.0 WATER LEVELS

In 3Q25, water levels were measured in August at scheduled wells across the PMP Network in the Southern Area, the NARS Area, and the Northern Area MNA Management Zone, while surface water conditions were monitored at five locations in the San Pedro River. The results of 3Q25 water level monitoring are summarized in Tables 2 and 3 and depicted in Figures 2 and 3. Water level hydrographs for each well are provided in Appendix A. Water level elevations across the Site reflected a general slight upward trend between May and August 2025.

2.1 SOUTHERN AREA

Required monitoring in the Southern Area is for the Perched System and shallow aquifer, the scope of which has been significantly reduced based on EPA approved changes in 2020. In 3Q25, static water levels were measured in one perched zone piezometer (Figure 2 and Table 2) as explained below.

2.1.1 Perched Zone A

In August 2025, the water level elevation in Perched Zone A was 3,667.49 feet above mean sea level (amsl) at perched zone piezometer P-01 (Table 2; Figure 2). The saturated thickness of Perched Zone A was 5.26 feet at this piezometer P-01. (Table 3; Figure 4). The water level in perched zone piezometer P-01 decreased 0.42 feet between May and August 2025.

In August 2025, the water level elevation at perched zone piezometer P-03 was 3,642.17 feet amsl (Table 2; Figure 2). The saturated thickness of Perched Zone A was 13.14 feet at piezometer P-03. (Table 3; Figure 4). The water level in perched zone piezometer P-03 increased 3.87 feet between May and August 2025.

Water level measurements were not scheduled at monitor wells MW-29, MW-30, MW-31, and MW-32 in 3Q25 (Tables 2 and 3; Figures A-1 through A-6). PZ-A piezometer P-10 was dry when measured. Piezometers P-02, P-04, and P-11 and monitor wells MW-03 and MW-04 were measured with groundwater elevation ranging from a high of 3,362.20 ft asml in well MW-04 to a low of 3,625.32 ft asml in piezometer P-02.



2.1.2 Perched Zone B

Water level measurements were scheduled at four PZ-B wells in 3Q25. Monitoring well MW-15 was dry and MW-21 and MW-23 were not accessible. Monitoring wells MW-39, and MW-47 ranged in elevation from a low of 3,600.38 ft amsl in MW-47 to a high of 3,600.56 feet amsl in MW-39. (Table 2; Figures A-7 through A-13).

2.1.3 Southern Area Shallow Aquifer

Water level measurements were scheduled at six Southern Area shallow aquifer monitor wells in 3Q25. Monitoring wells MW-01, MW-06, and MW-25 were not measured during the sampling event due to landowner access issues. Monitoring wells MW-14 and MW-33 water elevation ranged from a high of 3,605.89 feet amsl in monitoring well MW-14 and a low of 3,601.09 feet amsl in monitoring well MW-33 (Table 2; Figures A-14 through A-20).

2.2 NORTHERN AREA

In 3Q25, water levels were scheduled at ten shallow aquifer monitor wells, five shallow aquifer piezometers, three shallow aquifer extraction wells, one wetland discharge monitoring well, and one design confirmation piezometer in Northern Area Groundwater.

2.2.1 Northern Area Remediation System

In 3Q25, water level measurements were obtained in August 2025 at Northern Area monitor wells MW-10, MW-17, MW-18, MW-20, MW-34, MW-35, MW-36, MW-42, MW-45, DCP-12, PB-2A, PB-4, and PB-7, and extraction well SEW-01. Extraction well SEW-01 was pumping at the time of measurement. Water level measurements were not collected at piezometers NAP-1, NAP-2, NAP-3, NAP-4, and NAP-5 due to obstructions in the well casing caused by plant roots entering the well casing from vegetation along the San Pedro River channel. An attempt was made in 3Q25 to clear the obstruction from the five NAP wells but was unsuccessful. An additional attempt to clear the obstruction will be performed in the fourth quarter of 2025. The water level measurements are summarized in Table 2 and depicted in Figure 3 and individual well hydrographs are provided in Figures A-21 through A-40.



2.2.2 Monitor Wells and Private Wells in the Northern Area MNA Management Zone

Water level measurements for Northern Area MNA Management Zone were obtained at monitor wells MW-20, MW-40, MW-41A, MW-41B, MW-42, and MW-45. Monitoring was not scheduled or conducted in 3Q25 at monitor well MW-38. For the past several years, quarterly water level measurements have been scheduled at Northern Area MNA Management Zone private well D(18-21)06bcb. However, due to lack of an access portal at the wellhead, water level measurements will no longer be scheduled at this well until such time as an access portal is reinstalled. Private wells D(17-20)36caa and D(17-20)36ddc were measured in 3Q25. Recent water level data for private wells in the Northern Area MNA Management Zone are given in Table 2 and Figures A-41 through A-50.

2.3 SAN PEDRO RIVER CONDITION

The San Pedro River flow was monitored at five surface water stations including SW-03, SW-04, SW-12, SW-13, and SW-14 during the 3Q25 monitoring event (Figures A-51 through A-55). Streamflow was not observed at any of these locations in the San Pedro River at the time of the quarterly monitoring activity.

3.0 WATER QUALITY

Water samples were collected across the PMP network for analysis of the designated COCs (nitrate and perchlorate) and selected other water quality parameters used to assess flow dynamics. The following sections summarize the results of analysis of samples from Perched Zone A, Perched Zone B, and shallow aquifer portions of the Southern Area; NARS and Northern Area MNA Management Zone areas; and the San Pedro River (Figure 1).

3.1 SOUTHERN AREA

Perchlorate is present, along with nitrate, only in Perched Zone A and Perched Zone B (Figure 5). The water samples were analyzed for nitrate using EPA Method 300.0, for perchlorate using EPA Method 314.0, and for ammonia as nitrate (ammonia) using EPA Method SM4500. All samples were collected and analyzed in accordance with procedures specified in the Southern Area PMP and QAPP (H+A, 2007 and 2010), and the QMP (Synergy, 2024a). Results of the 3Q25 water sample analyses are summarized in Table 4. Time-series graphs of historical nitrate and perchlorate concentrations in the Southern Area are provided in Appendix A.

3.1.1 Perched Zone A

In 3Q25, water samples were collected in August at perched zone piezometers P-01 and P-03 (Table 4; Figure 5; Figures A-1 and A-2).

Water quality analyses indicate that the concentration of nitrate at P-01 decreased from 300 milligrams per liter (mg/L) in May 2025 to 280 mg/L in August 2025 (Table 4, Figure A-1). During the August sampling event, the perchlorate concentration in water at piezometer P-01 was detected at 3.1 micrograms per liter ($\mu\text{g/L}$). Perchlorate was not detected above the 20 $\mu\text{g/L}$ method reporting level (MRL) that was reported for the sample analyzed in May.

The nitrate at piezometer P-03 decreased from 4,300 mg/L in May 2025 to 4,200 mg/L in the August 2025 sampling event. Perchlorate was reported to be 384 $\mu\text{g/L}$ at P-03 in the August 2025 sampling event which is an increase from the May 2025 concentration of 354 $\mu\text{g/L}$.



3.1.2 Perched Zone B

Water samples were not collected from Perched Zone B monitor wells MW-15 and MW-23, during 3Q25 due to MW-15 being dry and landowner access issue for MW-23. Water samples were collected in 3Q25 from monitoring wells MW-21, MW-39, and MW-47. MW-21 had a nitrate concentration of 3,700 mg/L and a perchlorate concentration of 332 µg/L. MW-39 had a nitrate concentration of 2,300 mg/L and a perchlorate concentration of 220 µg/L. MW-47 had a nitrate concentration of 31 mg/L.

3.1.3 Southern Area Shallow Aquifer

Water samples were not collected during the 3Q25 monitoring event from Southern Area Shallow Aquifer monitor wells MW-01 and MW-06 due to landowner access issues. Monitoring wells MW-14 and MW-33 were sampled during the 3Q25 monitoring event with MW-14 having a nitrate concentration of 0.85 mg/L and a perchlorate concentration below the MRL of 4.0 µg/L and MW-33 having a nitrate and perchlorate concentration below their respective reporting limit.

3.2 NORTHERN AREA

The Northern Area comprises two different areas of the shallow aquifer that are monitored as part of the Northern Area PMP (Figure 6), including the NARS and the Northern Area MNA Management Zone. The NARS includes the area within the capture envelope of extraction wells SEW-01, SEW-02, and SEW-03 and is situated in the central portion of the Northern Area, west of the current San Pedro River channel. The Northern Area MNA Management Zone is generally north of the NARS, extending toward the northern (downstream) segment of the shallow alluvium in the St. David Basin. The only COC present in the Northern Area is nitrate. Water samples collected were analyzed for nitrate by EPA Method 300.0.

All samples were collected in accordance with procedures specified in the Northern Area PMP and the QAPP (H+A, 2009a and 2010) and QMP (Synergy, 2024a). Results of the 3Q25 water sample analyses are summarized in Table 4 and Figure 6. Time-series graphs of historical water quality in the Northern Area are provided in Appendix A.

3.2.1 Northern Area Remediation System (NARS)

In 3Q25, water samples were collected monthly at extraction wells SEW-01, SEW-02, and SEW-03 and in August at shallow aquifer piezometers and monitoring wells DCP-12, MW-10, MW-34, MW-35, MW-36, MW-41Am MW-41B, MW-42, MW-45, PB-2A, PB-4, and PB-7 (Table 4; Figure 6; Figures A-21 through A-34). These monitor wells are located within the capture zone of the extraction wells. Samples were not collected at MW-08 or MW-19 as there was insufficient water to collect samples.

Monitor well MW-10 and piezometer DCP-12 were not purged but were sampled using dedicated bailers. Monitor wells MW-45, PB-2A, PB-4, and PB-7 were not purged but were sampled at specific depths using HydraSleeve™ samplers. Nitrate samples were obtained near the bottom of the well from MW-45 and in the middle of the screened interval at PB-2A, while samples were collected at three specific depths corresponding to the top, middle, and bottom of the screened intervals at monitor wells PB-4 and PB-7.

In 3Q25, nitrate concentrations in the NARS well network ranged from <0.50 mg/L at monitor well MW-10 and up to 400 mg/L at monitor well PB-4 (Table 4; Figure 6). Where depth-specific samples were obtained at PB-4 and PB-7, the results indicate that nitrate concentration increased with depth in PB-4 from 41 mg/L in the top and intermediate samples to 400 mg/L in the bottom sample. At well PB-7, the top and intermediate samples both had a nitrate concentration of 25 mg/L with the highest nitrate value of 66 mg/L in the bottom sample. The results of the water quality analyses are summarized in Table 4 and depicted in Figure 6.

In 3Q25, additional water samples were collected in August from the NARS wetland cells for analysis of nitrate, ammonia, total phosphorus (TP), total organic carbon, and chemical oxygen demand. Water samples were also collected from NARS wetland effluent for nitrate, ammonia, TP, total dissolved solids (TDS), and total suspended solids. Samples were collected at wetland cells PDA-S, PDA-C, PDA-N, ANA, and FDA, and in wetland effluent (EFF-L). Concentration of nitrate in the wetland cells ranged from 27 mg/L in PDA-S to <0.50 mg/L in EFF-L in 3Q25 (Table 4).



3.2.2 NARS Remedy Performance

During 3Q25, ANPI continued to extract and treat shallow aquifer water from Extraction Wells SEW-01, SEW-02, and SEW-03 (Table 5). A total of 22,573,140 gallons of shallow aquifer water were extracted from SEW-01 in 3Q25 and routed to the NARS treatment wetland for denitrification. This volume corresponds to an estimated 12,849 pounds of nitrate removed from the shallow aquifer at SEW-01 and treated during the quarter. During 3Q25, shallow aquifer extraction well SEW-01 was operated between 16 to 23.5 hours per day on average with a discharge rate of approximately 190 gallons per minute (gpm). As discussed in section 3.2.5 that follows, ANPI expanded pumping of SEW-01 beginning in March to re-establish capture of the Northern Area Groundwater nitrate plume. At the same time, pumping at Extraction Wells SEW-02 and SEW-03 was scaled back and/or temporarily discontinued.

Extraction pumping was initiated at extraction well SEW-02 during July 2018. During 3Q25 an estimated total of 80,498 gallons of shallow aquifer water was extracted from SEW-02 and routed to the NARS treatment wetland for denitrification. This volume represents the volume of water associated with monthly sampling and corresponds to an estimated 217 pounds of nitrate removed from the shallow aquifer at SEW-02 and treated during the quarter. During 3Q25, extraction pumping at well SEW-02 was scaled back and was primarily associated with the monthly sampling. The pumping occurred at a rate of about 45 gpm for less than 1 hour per day, on average.

Extraction pumping was initiated at extraction well SEW-03 in March 2021. During 3Q25, a total of 203,533 gallons of shallow aquifer water was extracted from SEW-03 and routed to the NARS treatment wetland for denitrification. This volume corresponds to approximately 521 pounds of nitrate removed at SEW-03 and treated during the quarter. The pumping occurred at an average of 10 gpm for 4 hours per day, on average.

3.2.3 Monitor Wells in the Northern Area MNA Management Zone

In accordance with the PMP monitoring schedule and with the exceptions as noted in the following two sections, water samples were not collected from monitor wells in the Northern Area MNA Management Zone during 3Q25.



3.2.4 Private Wells in the Northern Area MNA Management Zone

Water samples were collected in 3Q25 at shallow aquifer private well D(18-21)06bcb (Jones well) in accordance with the PMP monitoring schedule and expanded monitoring associated with the SEW-01 Enhanced Capture Initiative discussed in Section 3.2.5. During 3Q25, the reported nitrate concentration ranged from 9.7 to 15 mg/L. In recent years, nitrate concentrations at this well have been less than 10 mg/L Federal Drinking Water maximum contaminant level (MCL). Beginning with the December 2024 results, however, the well had a reported nitrate level of 19 mg/L. Because nitrate concentrations at private well D(18-21)06bcb (Jones) continue to remain at or above the MCL, it will be monitored monthly for the foreseeable future. At present, this well is only used for irrigation purposes and ANPI delivers bottled water to this residence per the *Alternate Domestic Water Supply Plan, Revision 3.0* (H+A, 2009b).

3.2.5 SEW-01 Enhanced Capture Initiative

In March 2025, ANPI initiated a program of expanded pumping of SEW-01 in an effort to re-establish the hydraulic capture envelope and restore attenuation mechanisms in the Northern Area MNA Management Zone. During 3Q25, SEW-01 was operated about 20 hours per day, on average. ANPI also began a program of monthly monitoring of water levels and water quality at select monitor and private wells at the leading edge of the 10 mg/L nitrate plume. The program is anticipated to continue through the end of the year to better determine the capture zone.

The monthly monitoring was conducted July 30th, August 26th and September 24th, 2025 at the following wells: SEW-01, PB-2A, MW-17, MW-18, MW-20, MW-42 and private wells D(18-21)06bcb (Jones) and D(17-20)36dcc (Morales well). After the August sampling event, monitor wells MW-17, MW-18, and MW-20 were removed from the monthly sampling schedule and private well D(18-21)06bcb2 (Haymore) was added. Water level data and water quality results for sampling and analysis of nitrate are included in Tables 2 and 4, respectively. Additionally, the sample collected from SEW-1 on August 27th, 2025 was also analyzed for inorganic water quality consisting of calcium, magnesium, sodium, chloride, sulfate, fluoride, alkalinity, bicarbonate, carbonate and TDS. The results of the inorganic water quality analyses are included in Table 6.



3.3 SAN PEDRO RIVER WATER QUALITY

In 3Q25, surface water samples were not collected from the San Pedro River due to an absence of flow at monitor stations SW-3, SW-4, SW-12, SW-13, and SW-14. These stations will be inspected during subsequent monitoring events, and water samples will be collected if the river is flowing.



4.0 REFERENCES

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TABLES



TABLE 1

**SUMMARY OF WATER QUALITY MONITORING LOCATIONS
AND ANALYSES PERFORMED, AUGUST 2025**

WELL OR SITE IDENTIFIER	3rd QUARTER, AUGUST 2025				
	STATUS	NO ₃ -N	ClO ₄	NH ₃ -N	MNA PARAMETERS
P-01		X	X		
P-03		X	X		
MW-01	NS				
MW-06	NS				
MW-08	NS				
MW-10		X		X	
MW-11		X			
MW-13		X	X		
MW-14		X	X		
MW-15	NS				
MW-17		X			
MW-18		X			
MW-19	NS				
MW-20		X			
MW-21		X	X		
MW-23	NS				
MW-25	NS				
MW-33		X	X		
MW-34		X			
MW-35		X			
MW-36		X			
MW-38	NS				
MW-39		X	X		
MW-40		X			
MW-41A		X			
MW-41B		X			
MW-42		X			
MW-45		X	X		
MW-47		X			
DCP-12		X			
PB-2A		X			
PB-4		X			
PB-7		X			
SEW-01		X	X	X	X
SEW-02		X			
SEW-03		X	X	X	X



TABLE 1

**SUMMARY OF WATER QUALITY MONITORING LOCATIONS
AND ANALYSES PERFORMED, AUGUST 2025**

WELL OR SITE IDENTIFIER	3rd QUARTER, AUGUST 2025				
	STATUS	NO ₃ -N	ClO ₄	NH ₃ -N	MNA PARAMETERS
D(17-20)25bad (Spears)	NS				
D(17-20)36aad1 (Jacobs)		X			
D(17-20)36caa (Gaynor)	NS				
D(17-20)36caa2 (Hyder)	NS				
D(17-20)36cdb (Woolever)	NS				
D(17-20)36ddc (Morales)		X			X
D(18-20)01aad (McRae)	NS				
D(18-21)06bcb (Jones)		X			
D(18-21)06bcb2 (Haymore)		X			X
SW-03	NS				
SW-04	NS				
SW-12	NS				
SW-13	NS				
SW-14	NS				

NOTES and ABBREVIATIONS:

DRY = Dry or water level insufficient for sample collection.

MNA PARAMETERS = Alkalinity, sulfate, total dissolved solids, dissolved manganese

NH₃-N = Ammonia as Nitrogen

NO₃-N = Nitrate as Nitrogen

NS = Not Sampled

**TABLE 2
WATER LEVEL ELEVATION**

IDENTIFIER	DATE MEASURED	MEASURING POINT ELEVATION (feet msl)	DEPTH TO WATER (feet bmp)	WATER LEVEL ELEVATION (feet msl)
PERCHED ZONE A PIEZOMETERS				
P-01	5/29/2024	3688.93	23.80	3665.13
P-01	12/9/2024		20.94	3667.99
P-01	2/6/2025		20.97	3667.96
P-01	5/22/2025		21.02	3667.91
P-01	8/21/2025		21.44	3667.49
P-02	8/21/2025	3678.17	52.85	3625.32
P-03	5/30/2024	3674.45	NM	---
P-03	12/9/2024		36.97	3637.48
P-03	2/7/2025		36.69	3637.76
P-03	5/22/2025		36.15	3638.30
P-03	8/21/2025		32.28	3642.17
P-04	8/21/2025	3679.36	29.30	3650.06
P-10	8/21/2025	3669.12	DRY	---
P-11	8/21/2025	3669.12	47.23	3621.89
PERCHED ZONE A MONITOR WELLS				
MW-03	8/21/2025	3670.69	31.78	3638.91
MW-04	8/21/2025	3685.20	23.00	3662.20
MW-29	12/9/2024	3664.91	DRY	---
MW-30	12/9/2024	3664.28	DRY	---
MW-31	12/9/2024	3662.58	DRY	---
MW-32	12/9/2024	3659.37	DRY	---
PERCHED ZONE B MONITOR WELLS				
MW-15	8/21/2020	3655.59	DRY	---
MW-21	12/9/2024	3662.87	UTM	---
MW-23	8/14/2023	3660.66	58.20	3602.46
MW-39	8/20/2025	3649.14	48.58	3600.56
MW-47	8/26/2025	3652.63	52.25	3600.38
SOUTHERN AREA SHALLOW AQUIFER MONITOR WELLS				
MW-01	8/21/2025	3631.00	UTM	---
MW-06	12/9/2024	3648.44	UTM	---
MW-14	8/20/2025	3623.59	17.7	3605.89
MW-22	12/9/2024	3624.96	18.29	3606.67
MW-25	12/9/2024	3621.01	UTM	---
MW-33	8/20/2025	3623.69	22.6	3601.09
NORTHERN AREA SHALLOW AQUIFER MONITOR WELLS				
MW-08	5/30/2024	3640.00	72.42	3567.582
MW-08	12/9/2024		DRY	---
MW-08	2/6/2025		DRY	---
MW-08	8/21/2025		DRY	---
MW-11	5/30/2024	3617.45	NM	---
MW-11	12/9/2024		31.51	3585.94
MW-11	2/6/2025		30.52	3586.93
MW-11	8/21/2025		32.71	3584.74
MW-13	5/30/2024	3623.89	16.21	3607.68
MW-13	12/9/2024		33.80	3590.09
MW-13	2/6/2025		33.71	3590.18
MW-13	8/21/2025		35.50	3588.39
MW-17	5/30/2024	3625.92	58.38	3567.54
MW-17	12/9/2024		61.18	3564.74
MW-17	2/6/2025		60.62	3565.30
MW-17	3/27/2025		62.86	3563.06
MW-17	5/21/2025		63.29	3562.63
MW-17	6/25/2025		64.22	3561.70
MW-17	7/30/2025		65.80	3560.12
MW-17	8/21/2025		62.85	3563.07

**TABLE 2
WATER LEVEL ELEVATION**

IDENTIFIER	DATE MEASURED	MEASURING POINT ELEVATION (feet msl)	DEPTH TO WATER (feet bmp)	WATER LEVEL ELEVATION (feet msl)
MW-18	5/30/2024	3625.90	59.98	3565.92
MW-18	12/9/2024		62.67	3563.23
MW-18	2/6/2025		62.24	3563.66
MW-18	3/7/2025		62.86	3563.04
MW-18	5/21/2025		63.12	3562.78
MW-18	6/25/2025		62.22	3563.68
MW-18	7/30/2025		65.80	3560.10
MW-18	8/21/2025		67.38	3558.52
MW-19	5/30/2024		NM	---
MW-19	12/9/2024		NM	---
MW-19	2/7/2025		NM	---
MW-19	8/21/2025		DRY	---
MW-20	12/9/2024	3601.22	DRY	---
MW-20	3/27/2025		32.54	3568.68
MW-20	5/21/2025		36.08	3565.14
MW-20	8/21/2025		37.9	3563.32
MW-34	5/29/2024	3615.60	29.5	3586.10
MW-34	12/9/2024		31.96	3583.64
MW-34	2/6/2025		30.15	3585.45
MW-34	5/21/2025		30.47	3585.13
MW-34	8/21/2025		32.07	3583.53
MW-35	5/29/2024	3597.83	13.71	3584.12
MW-35	12/9/2024		14.96	3582.87
MW-35	2/6/2025		13.34	3584.49
MW-35	5/21/2025		14.74	3583.09
MW-35	8/21/2025		15.82	3582.01
MW-36	5/29/2024	3611.05	26.52	3584.53
MW-36	12/9/2024		27.95	3583.10
MW-36	2/6/2025		27.3	3583.75
MW-36	5/21/2025		27.60	3583.45
MW-36	8/21/2025		28.90	3582.15
MW-38	8/14/2023	3571.35	UTM	---
MW-40	8/21/2025	3589.40	37.25	3552.15
MW-41A	8/26/2025	3574.93	28.24	3546.69
MW-41B	12/9/2024	3574.93	30.53	3544.40
MW-42	8/14/2023	3603.29	39.34	3563.95
MW-42	3/27/2025		44.84	3558.45
MW-42	5/22/2025		45.65	3557.64
MW-42	6/25/2025		46.46	3556.83
MW-42	7/30/2025		47.00	3556.29
MW-42	8/20/2025		45.00	3558.29
MW-45	5/29/2024	3613.06	28.5	3584.56
MW-45	12/9/2024		29.98	3583.08
MW-45	2/6/2025		29.02	3584.04
MW-45	5/22/2025		29.46	3583.60
MW-45	8/20/2025		30.9	3582.16
PB-2A	12/9/2024	3594.98	24.51	3570.47
PB-2A	2/6/2025		24.11	3570.87
PB-2A	3/27/2025		24.32	3570.66
PB-2A	5/20/2025		25.45	3569.53
PB-2A	6/25/2025		23.38	3571.60
PB-2A	7/30/2025		26.70	3568.28
PB-2A	8/26/2025		27.65	3567.33

**TABLE 2
WATER LEVEL ELEVATION**

IDENTIFIER	DATE MEASURED	MEASURING POINT ELEVATION (feet msl)	DEPTH TO WATER (feet bmp)	WATER LEVEL ELEVATION (feet msl)
PB-4	5/28/2024	3600.98	13.03	3587.95
PB-4	12/9/2024		18.95	3582.03
PB-4	2/6/2025		17.35	3583.63
PB-4	5/22/2025		17.66	3583.32
PB-4	8/20/2025		19.30	3581.68
PB-7	5/29/2024	3597.23	16.80	3580.43
PB-7	12/9/2024		14.27	3582.96
PB-7	2/6/2025		13.60	3583.63
PB-7	5/22/2025		14.05	3583.18
PB-7	8/20/2025		15.03	3582.20
NORTHERN AREA SHALLOW AQUIFER PIEZOMETERS				
NAP-1	2/6/2024	3596.42	UTM	---
NAP-1	5/30/2024		UTM	---
NAP-1	12/9/2024		UTM	---
NAP-1	2/6/2025		UTM	---
NAP-2	2/6/2024	3596.15	10.47	3585.68
NAP-2	5/30/2024		UTM	---
NAP-2	12/9/2024		UTM	---
NAP-2	2/6/2025		UTM	---
NAP-3	2/6/2024	3598.52	UTM	---
NAP-3	5/30/2024		UTM	---
NAP-3	12/9/2024		UTM	---
NAP-3	2/6/2025		UTM	---
NAP-4	2/6/2024	3599.91	13.46	3586.45
NAP-4	5/30/2024		UTM	---
NAP-4	12/9/2024		15.70	3584.21
NAP-4	2/6/2025		UTM	---
NAP-5	2/6/2024	3599.30	11.58	3587.72
NAP-5	5/30/2024		12.00	3587.30
NAP-5	12/9/2024		UTM	---
NAP-5	2/6/2025		UTM	---
NARS SHALLOW AQUIFER EXTRACTION WELLS				
SEW-01	11/7/2023	3623.63	62.52 P	3561.11
SEW-01	5/28/2024		63.67 P	3559.96
SEW-01	12/9/2024		66.07 P	3559.96
SEW-01	2/6/2025		65.70 P	3560.78
SEW-01	3/27/2025		66.30 P	3557.33
SEW-01	5/27/2025		68.71 P	3554.92
SEW-01	6/25/2025		62.00 P	3561.63
SEW-01	7/30/2025		64.68 P	3558.95
SEW-01	8/26/2025		68.71 P	3554.92
SEW-02	11/7/2023	3613.23	28.40	3584.83
SEW-02	5/28/2024		28.10	3585.13
SEW-02	12/9/2024		36.73 P	3576.50
SEW-02	2/6/2025		38.39 P	3574.84
SEW-02	5/27/2025		29.46	3583.77
SEW-03	11/7/2023	3621.15	44.05 P	3577.10
SEW-03	5/28/2024		39.11 P	3582.04
SEW-03	12/9/2024		37.00	3584.15
SEW-03	2/6/2025		39.31	3581.84
SEW-03	5/27/2025		35.78	3585.37



**TABLE 2
WATER LEVEL ELEVATION**

IDENTIFIER	DATE MEASURED	MEASURING POINT ELEVATION (feet msl)	DEPTH TO WATER (feet bmp)	WATER LEVEL ELEVATION (feet msl)
NARS SHALLOW AQUIFER MONITOR WELLS				
DCP-12	5/29/2024	3690.10	23.55	3666.55
DCP-12	12/9/2024		20.18	3669.92
DCP-12	2/6/2025		14.50	3675.60
DCP-12	5/27/2025		22.50	3667.60
DCP-12	8/26/2025		25.30	3664.80
MW-10	5/29/2024	3634.00	16.83	3617.17
MW-10	12/9/2024		19.01	3614.99
MW-10	2/6/2025		20.50	3614.99
MW-10	5/27/2025		14.66	3619.34
MW-10	8/26/2025		15.15	3618.85
NORTHERN AREA SHALLOW AQUIFER PRIVATE WELLS				
D(18-21)06bcb (Jones)	8/26/2025	---	UTM	---
D(17-20)25bad (Spears)	8/17/2023	3563.62	UTM	---
D(17-20)36aad1 (Jacobs)	8/17/2023	3581.34	UTM	---
D(17-20)36aad3 (Acuña)	8/16/2023	3582.00	UTM	---
D(17-20)36caa (Gaynor)	8/26/2025	3589.65	39.42	3550.23
D(17-20)36caa2(Hyder)	12/9/2024	3589.18	UTM	---
D(17-20)36cad1 (McCann)	8/16/2023	3591.69	UTM	---
D(17-20)36cdb (Woolever)	8/16/2023	3610.64	UTM	---
D(17-20)36dad (Ohlde)	8/16/2023	3594.17	UTM	---
D(17-20)36ddc (Morales)	6/25/2025	3590.60	37.55	3553.05
D(17-20)36ddc (Morales)	7/30/2025	3590.60	38.00	3552.6
D(17-20)36ddc (Morales)	8/26/2025	3590.60	38.51	3552.09
D(18-20)01aad (McRae)	8/16/2023	3601.91	UTM	---
D(18-21)06ada (White)	8/16/2023	3626.00	UTM	---
D(18-21)06bab (Alexander)	8/17/2023	3610.00	UTM	---
D(18-21)06bcc2 (Wooten)	8/17/2023	3635.00	UTM	---
D(18-21)08bab (Tenopir)	8/17/2023	3625.00	UTM	---

ACRONYMS AND ABBREVIATIONS:

- feet msl = feet above mean sea level
- feet bmp = feet below measuring point
- NM = not measured
- P = pumping
- PWL = pumping water level
- RP = recently pumped
- UTM = unable to measure

TABLE 3

SATURATED THICKNESS OF PERCHED ZONE A

IDENTIFIER	DATE MEASURED	WATER LEVEL ELEVATION (feet msl)	ELEVATION OF SCREEN BOTTOM (feet msl)	SATURATED THICKNESS OF PERCHED ZONE (feet)
PERCHED ZONE A PIEZOMETERS				
P-01	5/29/2024	3665.13	3662.23	2.90
	12/9/2024	3667.99		5.76
	2/6/2025	3667.96		5.73
	5/22/2025	3667.91		5.68
	8/21/2025	3667.49		5.26
P-03	5/30/2024	NM	3629.03	---
	12/9/2024	3637.48		8.45
	2/6/2025	3637.76		8.73
	5/21/2025	3638.30		9.27
	8/21/2025	3642.17		13.14

ACRONYMS/ABBREVIATIONS:

- DRY = Dry or water level insufficient for sample collection.
- feet msl = feet above mean sea level
- NM = Not Measured



TABLE 4

WATER QUALITY DATA
(NITRATE, AMMONIA AND PERCHLORATE)

IDENTIFIER	SAMPLE DATE	NITRATE-N (mg/L)	AMMONIA-NH3 (mg/L)	PERCHLORATE (µg/L)	SAMPLE TYPE
PERCHED ZONE A PIEZOMETERS					
P-01	8/21/2025	280	NA	3.1	ORG
P-03	8/20/2025	4200	NA	384	ORG
PERCHED ZONE B MONITOR WELLS					
MW-21	8/20/2025	3700	NA	332	ORG
MW-39	8/20/2025	2300	NA	220	ORG
	8/20/2025	0.56	NA	<4.0	FB
MW-47	8/26/2025	31	NA	NA	ORG
SOUTHERN AREA SHALLOW AQUIFER MONITOR WELLS					
MW-14	8/20/2025	0.85	NA	<4.0	ORG
	8/20/2025	0.24 (J)	NA	<1.0	SPT
MW-33	8/20/2025	<0.50	NA	<4.0	ORG
	8/20/2025	0.075 (J)	NA	<1.0	SPT
NORTHERN AREA SHALLOW AQUIFER MONITOR WELLS					
MW-08	5/30/2024	8.6	NA	NA	ORG
	5/30/2024	10	NA	NA	FD
MW-10	8/27/2025	<0.50	<0.50	NA	ORG
MW-11	8/21/2025	4.5	NA	NA	ORG
MW-13	8/20/2025	13	NA	NA	ORG
	8/20/2025	14 (J)	NA	<1.0	SPT
MW-17	7/30/2025	3.1	NA	NA	ORG
	7/30/2025	<0.50	NA	NA	FB
	8/27/2025	3.0	NA	NA	ORG
MW-18	7/30/2025	18	NA	NA	ORG
	8/27/2025	16	NA	NA	ORG
MW-20	7/30/2025	1.1	NA	NA	ORG
	8/21/2025	1.1	NA	NA	ORG
MW-34	8/21/2025	66	NA	NA	ORG
MW-35	8/21/2025	39	NA	NA	ORG
	8/21/2025	40	NA	NA	FD
MW-36	8/21/2025	170	NA	NA	ORG
MW-41a	8/26/2025	<0.50	NA	NA	ORG
MW-41b	8/26/2025	5.7	NA	NA	ORG
MW-42	7/30/2025	7.0	NA	NA	ORG
	7/30/2025	7.1	NA	NA	FD
	8/20/2025	7.5	NA	<4.0	ORG
	8/20/2025	7.4	NA	<20.0	FD
	8/20/2025	8.3	NA	NA	SPT
	9/24/2025	8.1	NA	NA	ORG
	9/24/2025	<0.50	NA	NA	FB



TABLE 4

**WATER QUALITY DATA
(NITRATE, AMMONIA AND PERCHLORATE)**

IDENTIFIER	SAMPLE DATE	NITRATE-N (mg/L)	AMMONIA-NH3 (mg/L)	PERCHLORATE (µg/L)	SAMPLE TYPE
MW-45	8/20/2025	160	NA	NA	ORG
PB-2A	7/30/2025	150 (90')	NA	NA	ORG
	8/26/2025	180 (90')	NA	NA	ORG
	8/26/2025	180 (90')	NA	NA	FD
	9/24/2025	180 (90')	NA	NA	ORG
PB-4	8/26/2025	41 (45')	NA	NA	ORG
	8/26/2025	41 (55') (J)	NA	NA	ORG
	8/26/2025	400 (65')	NA	NA	ORG
PB-7	8/26/2025	25 (40')	NA	NA	ORG
	8/26/2025	25 (50')	NA	NA	ORG
	8/26/2025	66 (60')	NA	NA	ORG
NORTHERN AREA DESIGN CONFIRMATION PIEZOMETER					
DCP-12	8/27/2025	0.71	NA	NA	ORG
NARS SHALLOW AQUIFER EXTRACTION WELLS					
SEW-01	7/22/2025	74	NA	NA	ORG
	7/22/2025	74 (J)	NA	NA	FD
	7/30/2025	77	NA	NA	ORG
	7/30/2025	78	NA	NA	SPT
	8/27/2025	67	<0.50	<1.0	ORG
	8/27/2025	73	<0.50	<1.0	FD
	9/23/2025	61	NA	NA	ORG
	9/24/2025	62	NA	NA	ORG
	9/24/2025	61	NA	NA	FD
SEW-02	7/22/2025	340	NA	NA	ORG
	8/27/2025	Well Off - No Sample			
	9/23/2025	270	NA	NA	ORG
SEW-03	7/22/2025	310	NA	NA	ORG
	8/27/2025	320	<0.50	<1.0	ORG
	9/23/2025	290	NA	NA	ORG
	9/23/2025	240 J	NA	NA	SPT
WETLAND SURFACE WATER AND EFFLUENT					
PDA-S	7/22/2025	27	32	NA	ORG
	8/27/2025	14	11	NA	ORG
	9/23/2025	24	8.6	NA	ORG
PDA-C	7/22/2025	16	<0.50	NA	ORG
	7/22/2025	16 (J)	0.050	NA	SPT
	8/27/2025	<0.50	<0.50	NA	ORG
	8/27/2025	<0.50	<0.50	NA	FB
	9/23/2025	0.74	<0.050	NA	ORG



TABLE 4

**WATER QUALITY DATA
(NITRATE, AMMONIA AND PERCHLORATE)**

IDENTIFIER	SAMPLE DATE	NITRATE-N (mg/L)	AMMONIA-NH3 (mg/L)	PERCHLORATE (µg/L)	SAMPLE TYPE
PDA-N	7/22/2025	10.00	<0.50	NA	ORG
	8/27/2025	<0.50	<0.50	NA	ORG
	9/23/2025	<0.50	<0.50	NA	ORG
	9/23/2025	<0.50	<0.50	NA	FD
ANA	7/22/2025	1.4	<0.50	NA	ORG
	7/22/2025	<0.50	<0.50	NA	FB
	8/27/2025	<0.50	<0.50	NA	ORG
	9/23/2025	<0.50	<0.50	NA	ORG
FDA	7/22/2025	<0.50	<0.50	NA	ORG
	8/27/2025	<0.50	<0.50	NA	ORG
	8/27/2025	<0.050	0.15	NA	SPT
	9/23/2025	<0.50	<0.50	NA	ORG
EFF-L	7/22/2025	<0.50	<0.50	NA	ORG
	8/27/2025	<0.50	<0.50	<1.0	ORG
	9/23/2025	<0.50	<0.50	NA	ORG
	9/23/2025	<0.50	<0.50	NA	FB
EFF-U	11/25/2024	6.4	<0.50	NA	ORG
	11/25/2024	6.4	<0.50	NA	FB
NORTHERN AREA SHALLOW AQUIFER PRIVATE WELLS					
D(18-21)06bcb (Jones)					
Pre-Tank	7/30/2025	15	NA	NA	ORG
Post-Tank	7/30/2025	14	NA	NA	ORG
Post-Tank	8/26/2025	14	NA	NA	ORG
Post-Tank	8/26/2025	13	NA	NA	FD
Post-Tank	9/24/2025	9.7	NA	NA	ORG
D(18-21)06bcb2 (Haymore)	8/21/2025	12	NA	NA	ORG
	9/24/2025	10	NA	NA	ORG
D(17-20)36ddc (Morales)	7/30/2025	0.59 ¹	NA	NA	ORG
	8/26/2025	4.0	NA	NA	ORG
	8/26/2025	4.4	NA	NA	SPT
	9/24/2025	8.7	NA	NA	ORG
D(17-20)36caa (Gaynor)	12/12/2024	0.51	NA	NA	ORG
	12/12/2024	0.41	NA	NA	SPT
D(17-20)36aad1 (Jacobs)	8/26/2025	1.5	NA	NA	ORG
	8/26/2025	1.6	NA	NA	SPT
SURFACE WATER					
SW-03	12/10/2024	NA	NA	NA	ORG
SW-04	12/10/2024	NA	NA	NA	ORG
SW-12	12/10/2024	NA	NA	NA	ORG



TABLE 4

WATER QUALITY DATA
(NITRATE, AMMONIA AND PERCHLORATE)

IDENTIFIER	SAMPLE DATE	NITRATE-N (mg/L)	AMMONIA-NH3 (mg/L)	PERCHLORATE (µg/L)	SAMPLE TYPE
SW-13	12/10/2024	NA	NA	NA	ORG
SW-14	12/10/2024	NA	NA	NA	ORG

ACRONYMS/ABBREVIATIONS:

- < = not detected; numerical value is less than the reporting limit
- µg/L = micrograms per liter
- mg/L = milligrams per liter
- NA = not analyzed
- FB = field blank sample
- FD = field duplicate sample
- ORG = original sample
- SPT = split sample

NOTES:

- J** = Concentration estimated due to nonconformities discovered during validation. EPA/ADEQ Qualifier.



TABLE 5

**SUMMARY OF QUARTERLY TREATMENT PERFORMANCE
JULY 2025 THROUGH SEPTEMBER 2025**

TREATMENT SYSTEM	MONTH	VOLUME EXTRACTED* (gallons)	NITRATE MASS REMOVED (pounds)
SEW-01	Jul-25	9,506,120	5,871
	Aug-25	6,504,880	3,637
	Sep-25	6,562,140	3,341
	QTR TOTAL	22,573,140	12,849
	ITD TOTAL	1,165,250,892	855,435
SEW-02	Jul-25	44,505	126
	Aug-25	17,661	50
	Sep-25	18,332	41
	QTR TOTAL	80,498	217
	ITD TOTAL	42,398,813	82,228
SEW-03	Jul-25	54,959	142
	Aug-25	75,088	201
	Sep-25	73,486	178
	QTR TOTAL	203,533	521
	ITD TOTAL	10,437,385	71,987

ACRONYMNS/ABBREVIATIONS:

- SEW-01 = Shallow Aquifer Extraction Well No. 1
- SEW-02 = Shallow Aquifer Extraction Well No. 2
- SEW-03 = Shallow Aquifer Extraction Well No. 3
- ITD = Inception to Date

NOTES:

*Totalized values were recorded at SEW-01, SEW-02 and SEW-03 from the flow meters and/or estimated from pumping rates and time pumped.

**TABLE 6
INORGANIC WATER QUALITY DATA FROM THE MONTHLY MONITORING
ASSOCIATED WITH SEW-01 ENHANCED CAPTURE INITIATIVE**

COC	UNITS	DATE	SEW-01	PB-2A	MW-17	MW-18	Jones	MW-42	MW-20
Calcium	mg/L	3/27/2025	220	240	91	130	97	460	68
		4/24/2025	180	200	75	110	77	380	55
		8/27/2025	150	NA	NA	NA	NA	NA	NA
Magnesium	mg/L	3/27/2025	42	36	21	28	22	29	16
		4/24/2025	34	30	17	23	17	25	13
		8/27/2025	29	NA	NA	NA	NA	NA	NA
Bicarbonate (HCO3)	mg/L	3/27/2025	NA	NA	NA	NA	NA	NA	NA
		4/24/2025	280	190	310	310	280	140	270
Carbonate (CO3)	mg/L	3/27/2025	NA	NA	NA	NA	NA	NA	NA
		4/24/2025	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Potassium	mg/L	3/27/2025	5.9	5.6	< 5.6	< 5.6	< 5.6	< 5.6	< 5.6
		4/24/2025	5.3	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
		8/27/2025	5.2	NA	NA	NA	NA	NA	NA
Sodium	mg/L	3/27/2025	130	98	92	99	85	81	74
		4/24/2025	120	91	84	91	73	76	68
		8/27/2025	100	NA	NA	NA	NA	NA	NA
Chloride	mg/L	3/27/2025	16	13	11	13	9.5	5.9	8.3
		4/24/2025	18	13	12	13	11	6.2	8.6
		5/22/2025	NA	NA	NA	NA	NA	7.4	NA
		8/27/2025	15	NA	NA	NA	NA	NA	NA
Sulfate	mg/L	3/27/2025	290	230	150	160	120	1200	84
		4/24/2025	330	510	150	160	130	1200	86
		5/22/2025	NA	NA	NA	NA	NA	1300 (D2)	NA
		8/27/2025	350	NA	NA	NA	NA	NA	NA
Fluoride	mg/L	3/27/2025	1.4	1.8	1.6	1.6	1.7	1.8	2.2
		4/24/2025	1.5	1.8	1.6	1.5	1.9	1.9	2.3
		5/22/2025	NA	NA	NA	NA	NA	2.9	NA
		8/27/2025	1.9	NA	NA	NA	NA	NA	NA
TDS	mg/L	3/27/2025	1400	1400	600	840	610	1900	460
		4/24/2025	1400	1400	600	850	590	1900	450
		8/27/2025	1000	NA	NA	NA	NA	NA	NA

ACRONYMS/ABBREVIATIONS:

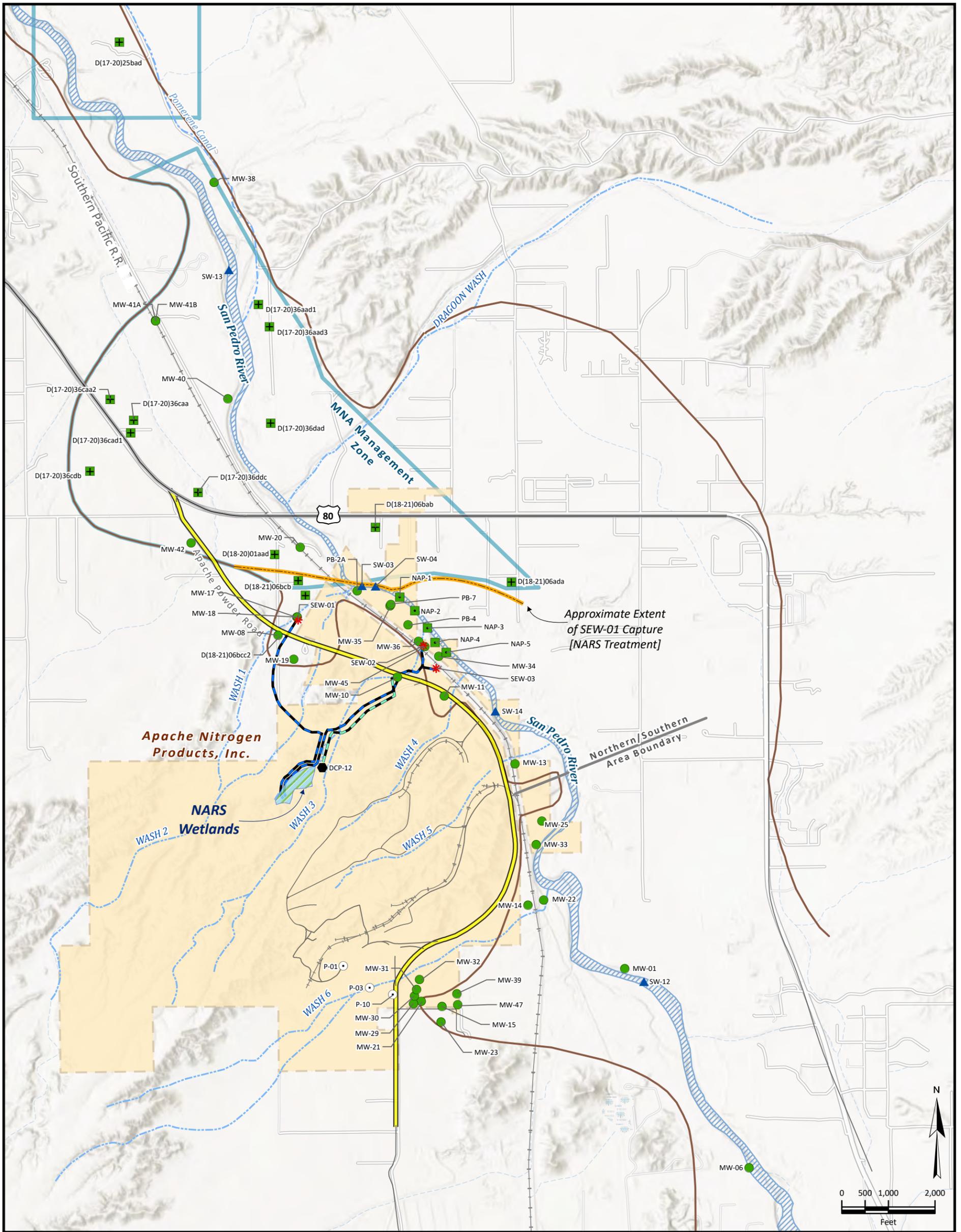
- < = not detected: numerical value is less than the reporting limit
- COC = chemicals of concern
- mg/L = milligrams per liter
- µg/L = micrograms per liter
- NA = not analyzed
- ND = non-detect
- TDS = total dissolved solids
- Jones = post-tank results

NOTES:

D2 = Sample required dilution due to high concentration of analyte.



FIGURES



EXPLANATION

- | | | | |
|---------------|-----------------------------------|------------------------------------|------------------------------|
| MW-36 | ● Shallow Aquifer Monitor Well | — Collection System Piping | — Apache Powder Road |
| SEW-01 | * Shallow Aquifer Extraction Well | — Treatment Effluent Return System | ▨ San Pedro River |
| D(18-21)06bcb | ■ Shallow Aquifer Piezometer | — Shallow Aquifer Boundary | ▨ MNA Management Zone (2012) |
| PB-4 | ■ Shallow Aquifer Private Well | — Wash | ▨ ANPI Property Boundary |
| P-01 | ○ Perched Zone Piezometer | | |
| DCP-12 | ● Design Confirmation Piezometer | | |
| SW-14 | ▲ Surface Monitoring Station | | |

Notes

Service Layer Credits: World Terrain Base:
Sources: Esri, TomTom, Garmin, FAO, NOAA,
USGS, © OpenStreetMap contributors, and the
GIS User Community
World Hillshade: Esri, NASA, NGA, USGS, FEMA,
AZGS, ADWR

FIGURE NUMBER:

1

**APACHE NITROGEN PRODUCTS, INC.
BENSON, ARIZONA**

MATRIXNEWORLD
A TRUE ENVIRONMENTAL COMPANY

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3033 North 44th Street, Suite 270
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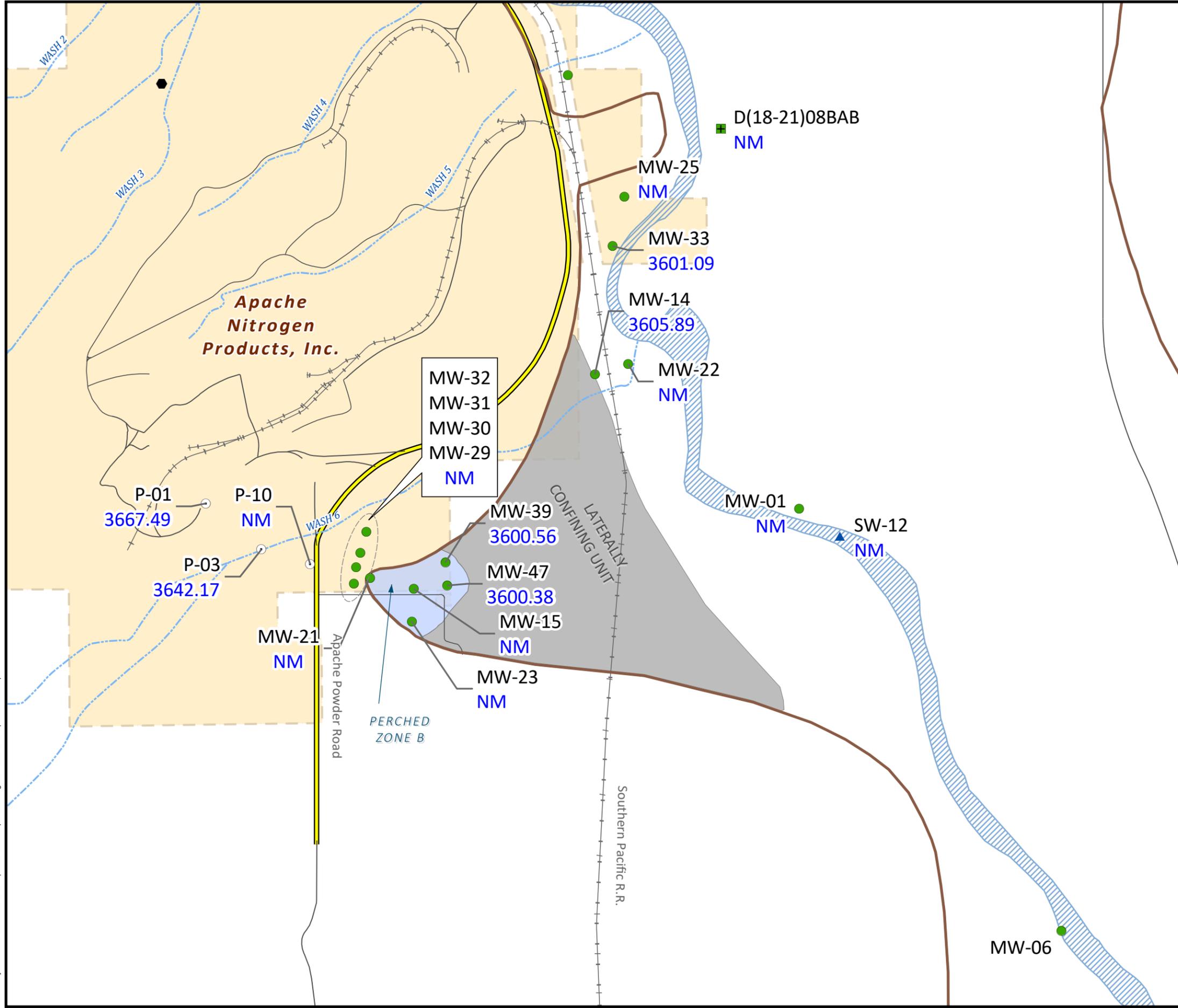
**PERFORMANCE MONITORING
NETWORK WELLS**

APPROVED BY:
JJ
DATE:
11/06/2025

APPROVED BY:
AM
DATE:
11/06/2025

**PROJECT NUMBER:
24-0484**

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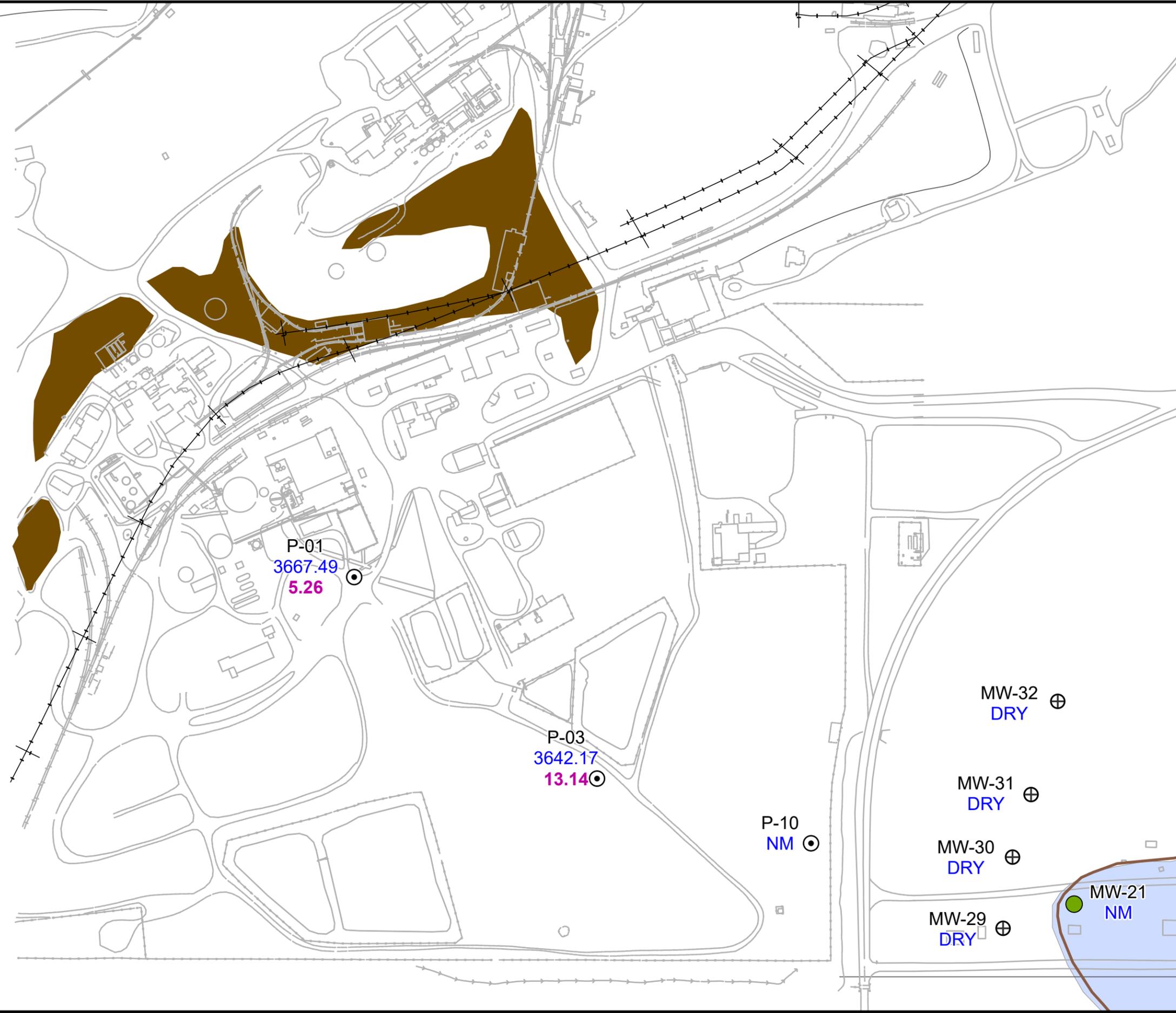


EXPLANATION	
MW-13 3607.68	● Shallow Aquifer Monitor Well and Water Level Elevation in ft amsl
DCP-12 3668.51	● Design Confirmation Piezometer and Water Level Elevation in ft amsl
P-01 3665.13	○ Perched Zone Piezometer and Water Level Elevation in ft amsl
D(18-21)08bab NM	■ Shallow Aquifer Private Well and Water Level Elevation in ft amsl
SW-12 NM	▲ Surface Monitoring Station (Approximate Flow Rate in cfs)
	■ Perched Zone B
	■ ANPI Property Boundary
	■ San Pedro River
	--- Wash
	— Shallow Aquifer Boundary
	— Apache Powder Road

Notes
 Service Layer Credits: , AZGS, ADWR
 NM - Not Measured
 ft amsl - feet above mean sea level
 cfs - cubic feet per second

WATER LEVEL ELEVATIONS IN THE SOUTHERN AREA SHALLOW AQUIFER THIRD QUARTER 2025	
<p style="font-weight: bold; font-size: 1.2em;">MATRIX NEWORLD</p> <p style="font-size: 0.8em;">A TRUE ENVIRONMENTAL COMPANY</p> <p style="font-size: 0.7em;">Matrix New World Engineering, PC 3033 North 44th Street, Suite 270 Phoenix, Arizona 85018 Tel: 602.965.6647 Fax: 602.965.7585 www.mnwe.com</p>	<p style="font-weight: bold;">PROJECT NUMBER: 24-0484</p> <p style="font-weight: bold;">DATE: 11/06/2025</p> <p style="font-weight: bold;">APPROVED BY: AM</p> <p style="font-weight: bold;">DATE: 11/06/2025</p>
APACHE NITROGEN PRODUCTS, INC. BENSON, ARIZONA	
FIGURE NUMBER: 2	

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EXPLANATION

P-01 3665.13 2.9	⊙	Perched Zone A Piezometer, Elevation of Perched Groundwater in ft amsl, and Measured Saturated Thickness in ft
MW-31 DRY	⊕	Perched Zone A Monitor Well
MW-21 NM	●	Perched Zone B Monitor Well
—		Shallow Aquifer Boundary
■		Approximate Surface Outcrop of St. David Clay
■		Perched Zone B

Notes
Service Layer Credits: , AZGS, ADWR
NM - Not Measured
ft amsl - feet above mean sea level

0 1,000 2,000
Feet

N

APACHE NITROGEN PRODUCTS, INC.
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Phoenix, Arizona 85018

**NITRATE IN
SOUTHERN AREA PERCHED
ZONES A AND B, THIRD QUARTER 2025**

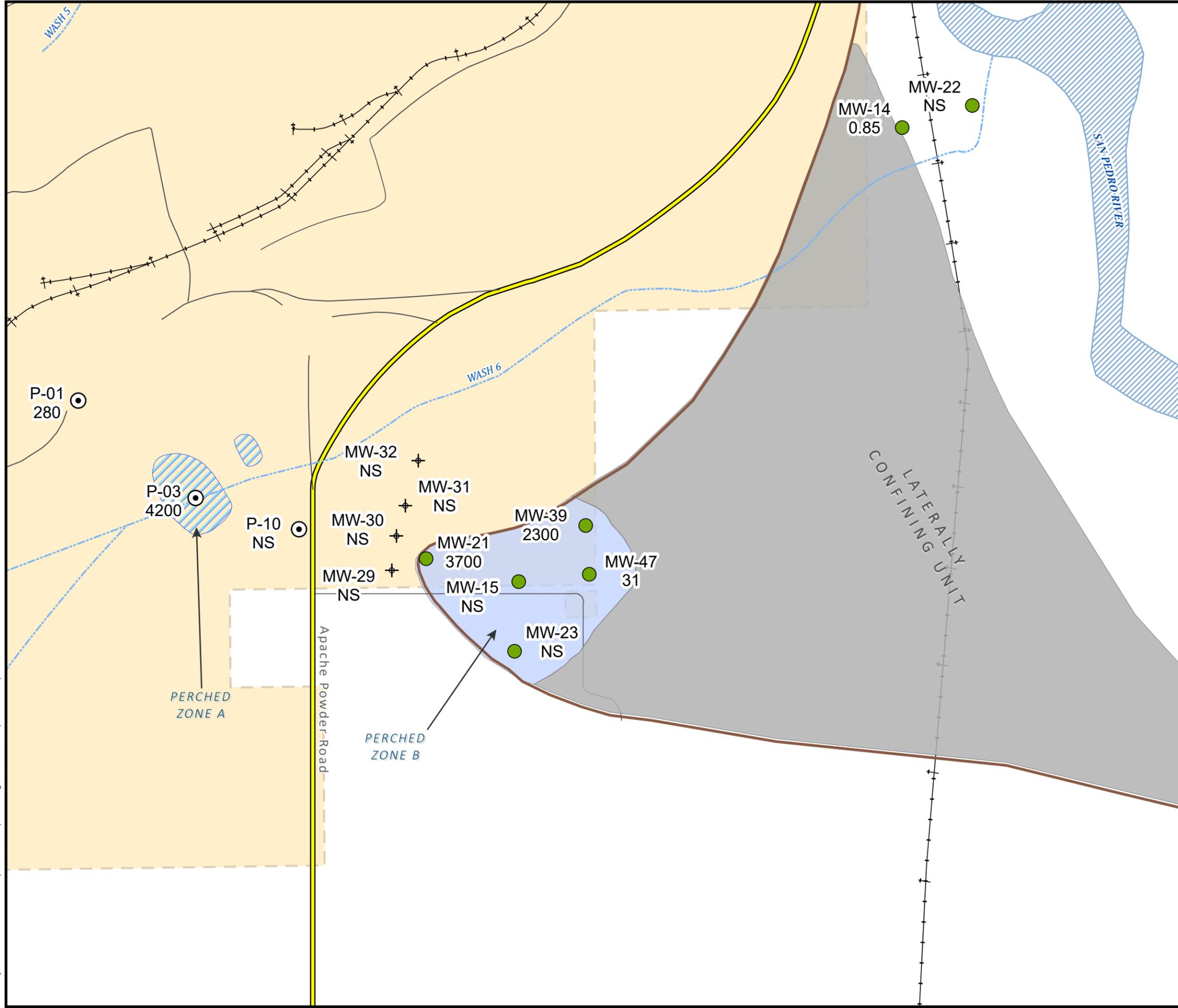
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DATE: 11/06/2025

PROJECT NUMBER:
24-0484

FIGURE NUMBER:
4

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EXPLANATION

- P-01 NS Perched Zone A Piezometer with Nitrate-Nitrogen concentration in mg/L
- MW-31 NS Perched Zone A Monitor Well with Nitrate-Nitrogen concentration in mg/L
- MW-21 NS Perched Zone B Monitor Well with Nitrate-Nitrogen concentration in mg/L
- Shallow Aquifer Boundary
- Ephemeral Stream
- San Pedro River
- Laterally Confining Unit
- Maximum Lateral Extent of Perched Zone A Saturated Sediments, November 2021
- Perched Zone B
- ANPI Property Boundary

Notes
 Service Layer Credits: , AZGS, ADWR
 NS - Not Sampled
 mg/L - milligrams per liter
 µg/L - micrograms per liter

0 1,000 2,000
 Feet

Notes
 Service Layer Credits: , AZGS, ADWR
 NS - Not Sampled
 mg/L - milligrams per liter
 µg/L - micrograms per liter

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FIGURE NUMBER:
5

NITRATE IN SOUTHERN AREA PERCHED ZONES A AND B, THIRD QUARTER 2025

PROJECT NUMBER:
 24-0484

DRAFTED BY: JJ
DATE: 11/06/2025

APPROVED BY: AM
DATE: 11/06/2025

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APPENDIX A

WATER LEVEL AND WATER QUALITY HYDROGRAPHS



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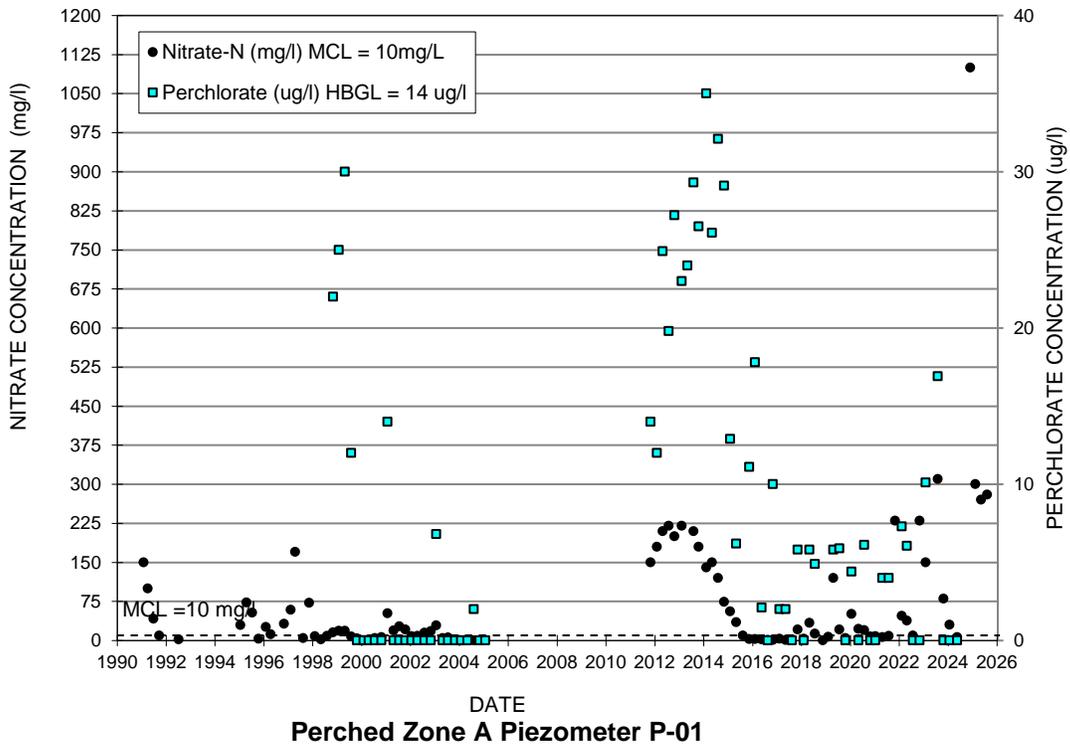
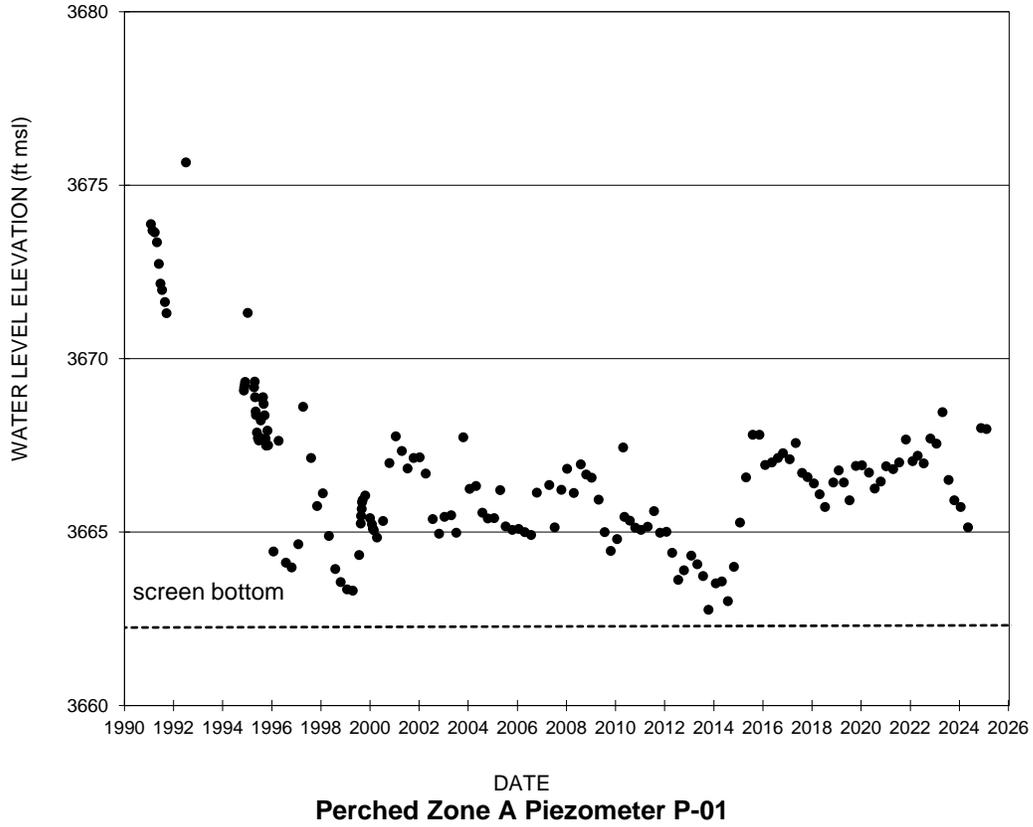
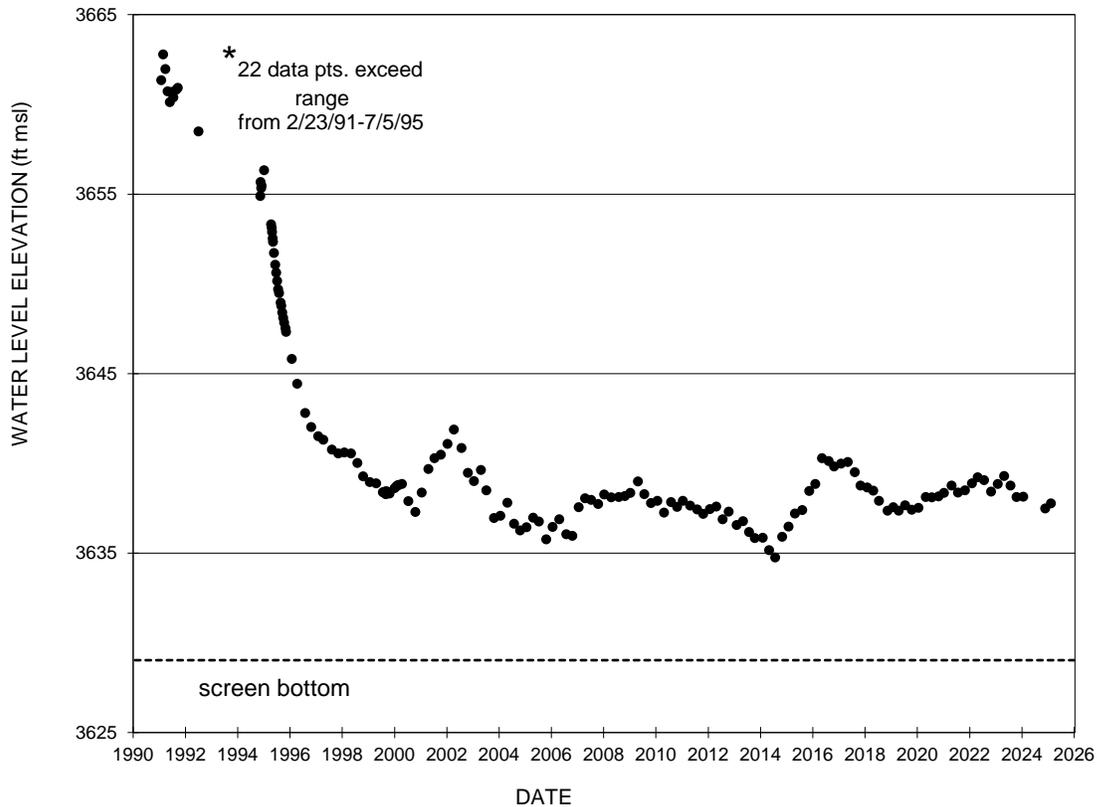
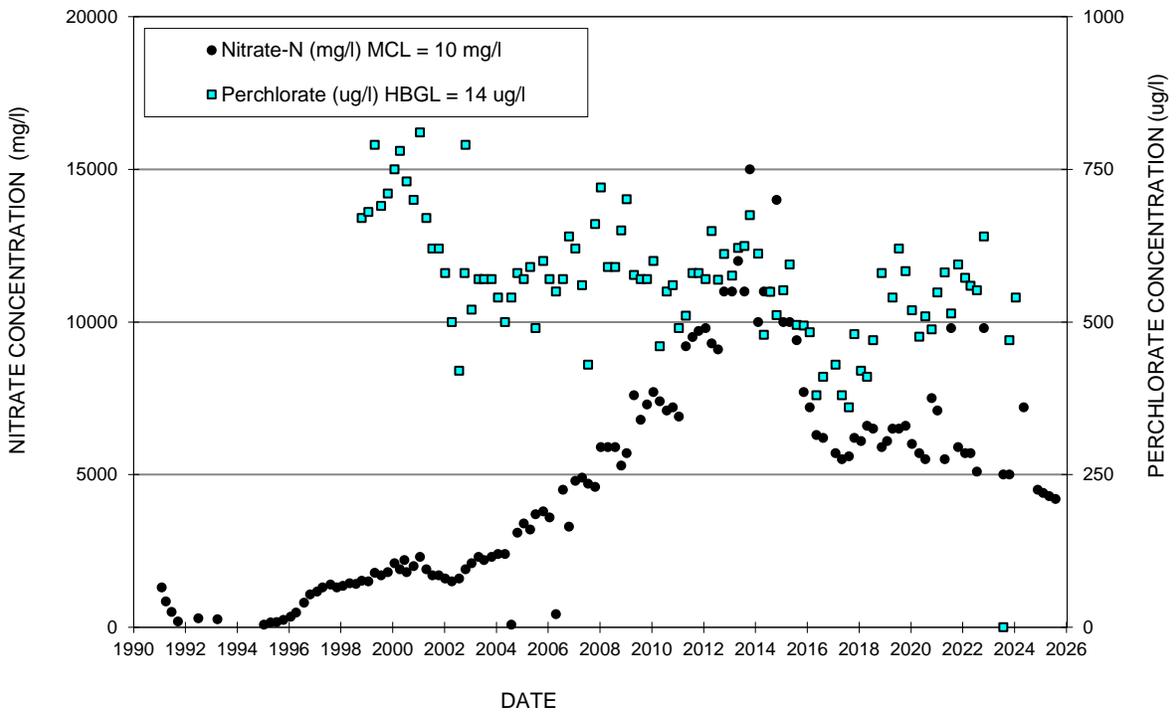


FIGURE A-1. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE A PIEZOMETER P-01



Perched Zone A Piezometer P-03



Perched Zone A Piezometer P-03

FIGURE A-2. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE A PIEZOMETER P-03

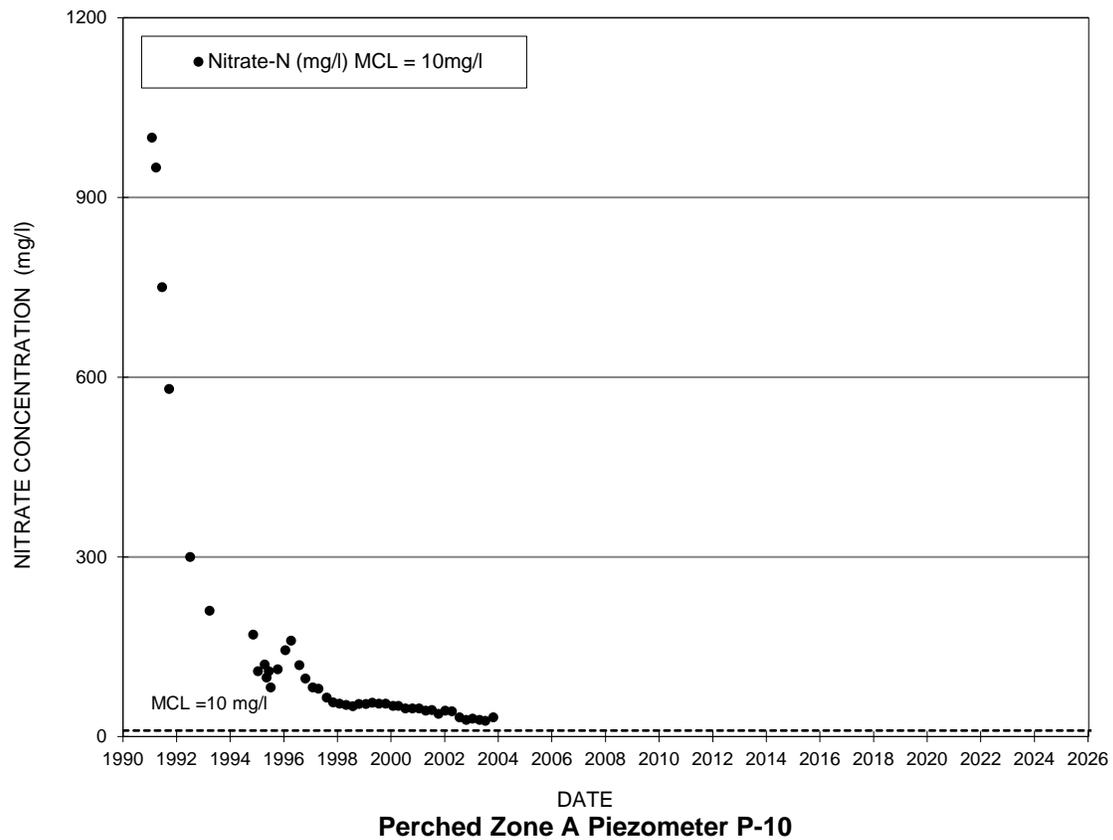
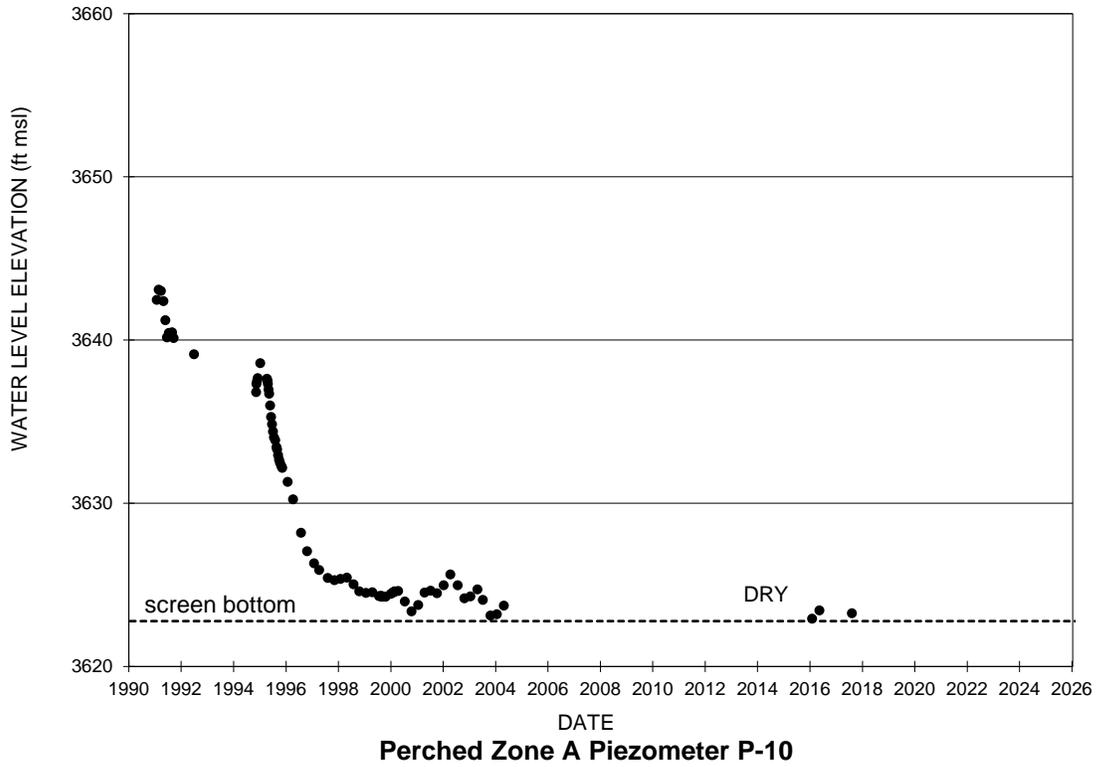


FIGURE A-3. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE A PIEZOMETER P-10

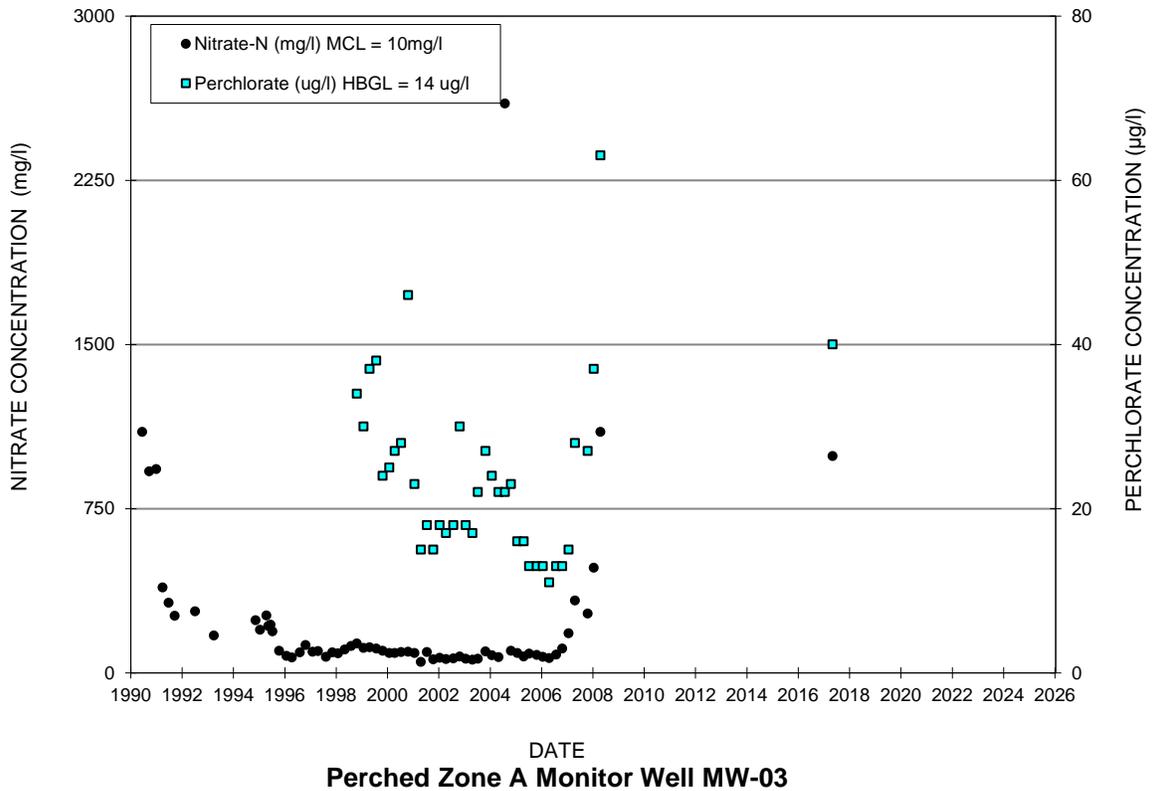
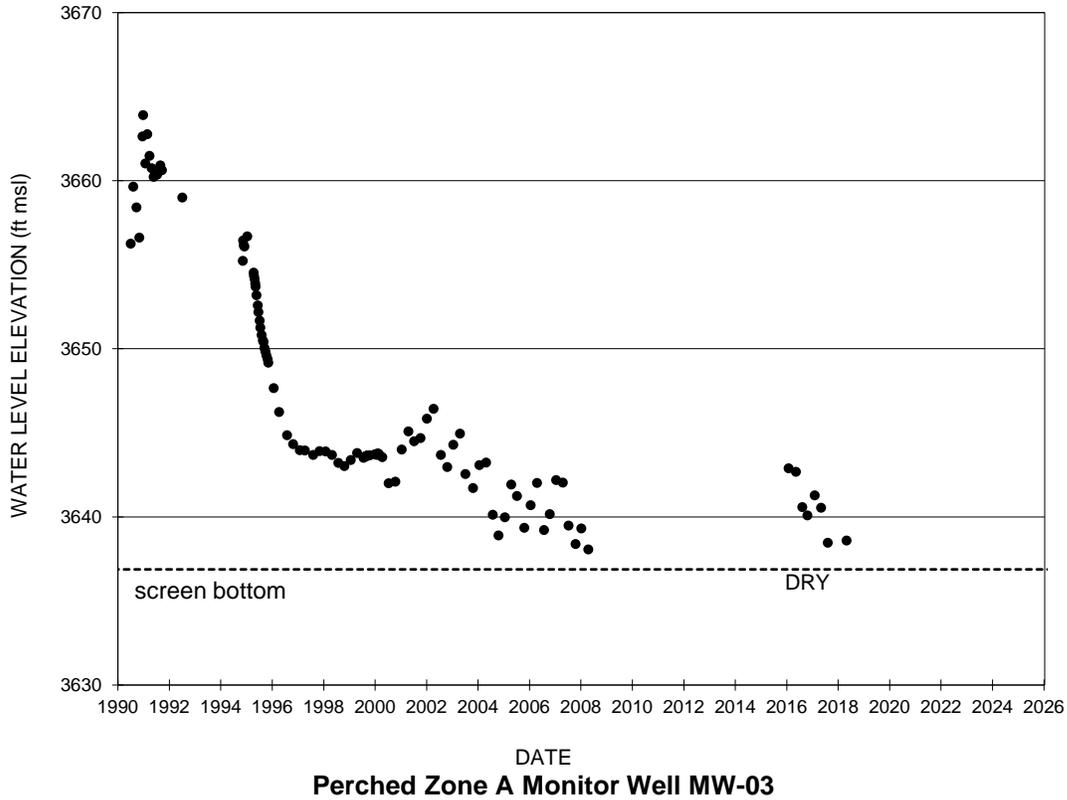


FIGURE A-4. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE A MONITOR WELL MW-03

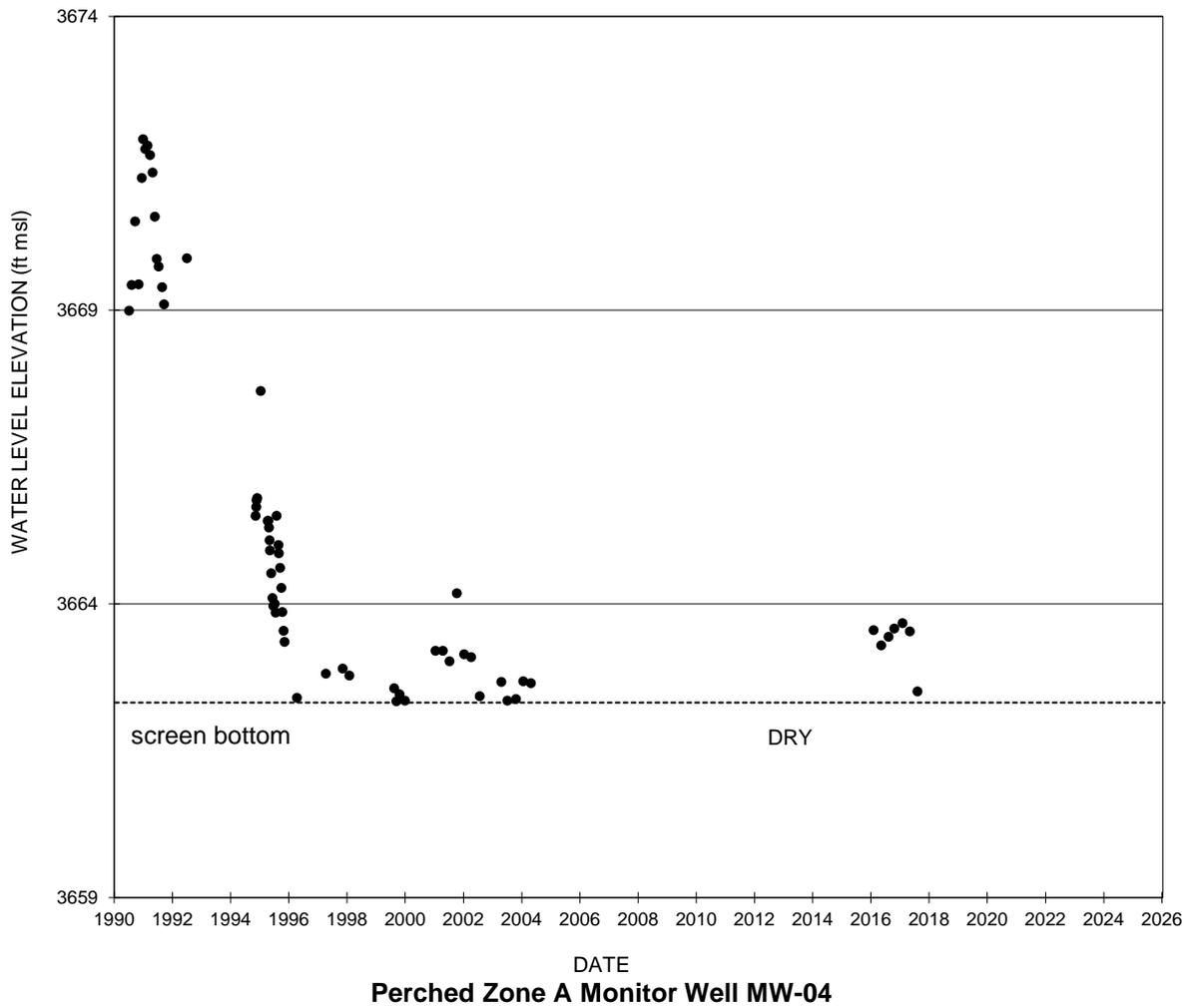


FIGURE A-5. WATER LEVEL HYDROGRAPH FOR PERCHED ZONE A MONITOR WELL MW-04

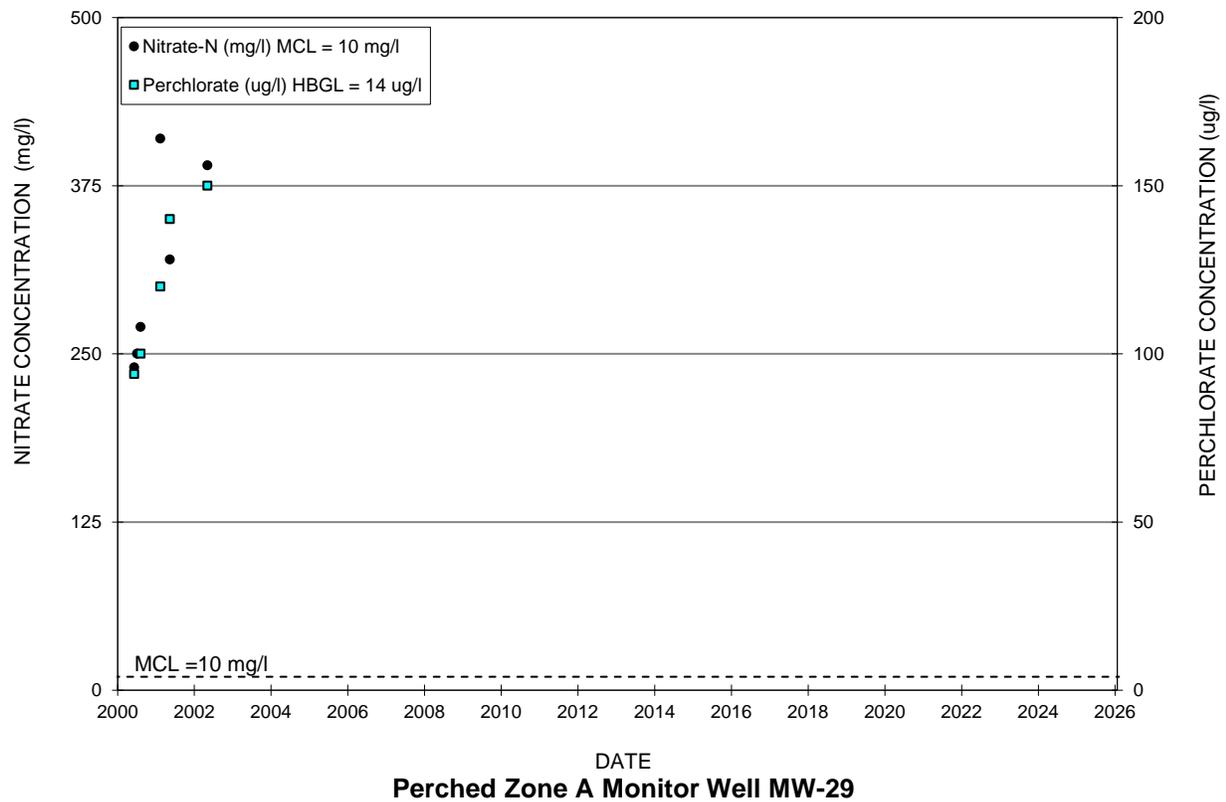
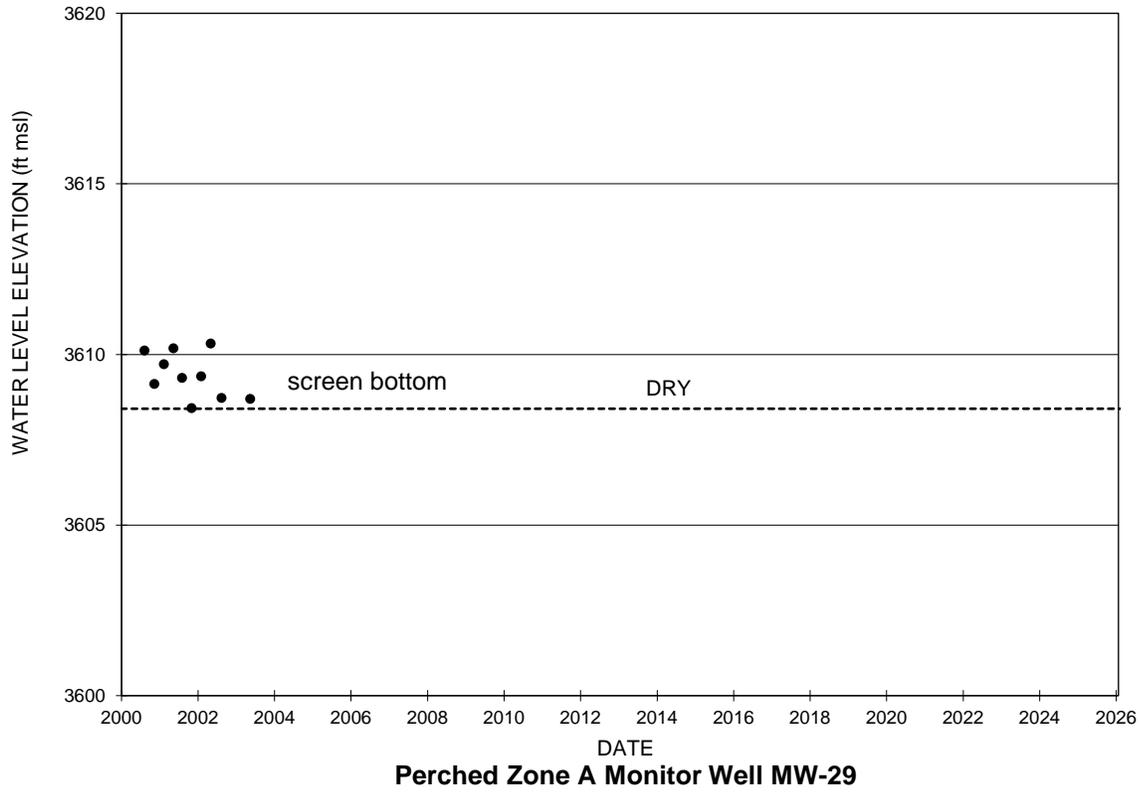


FIGURE A-6. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE A MONITOR WELL MW-29

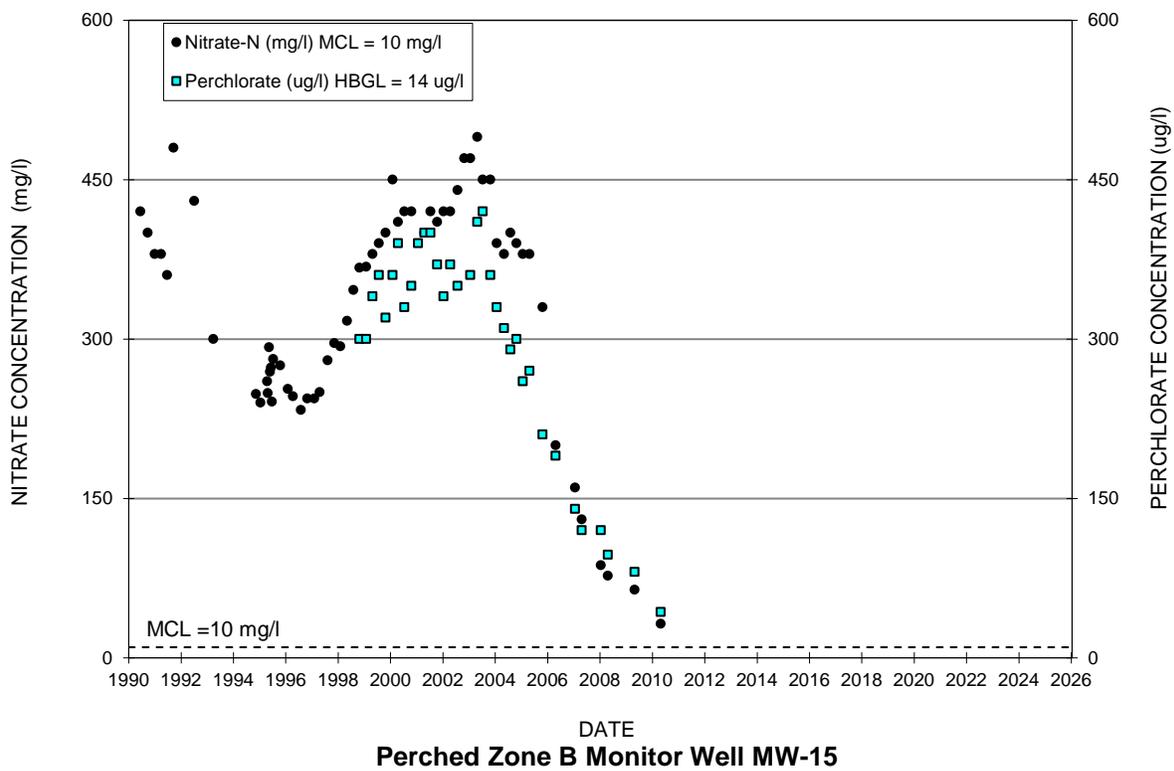
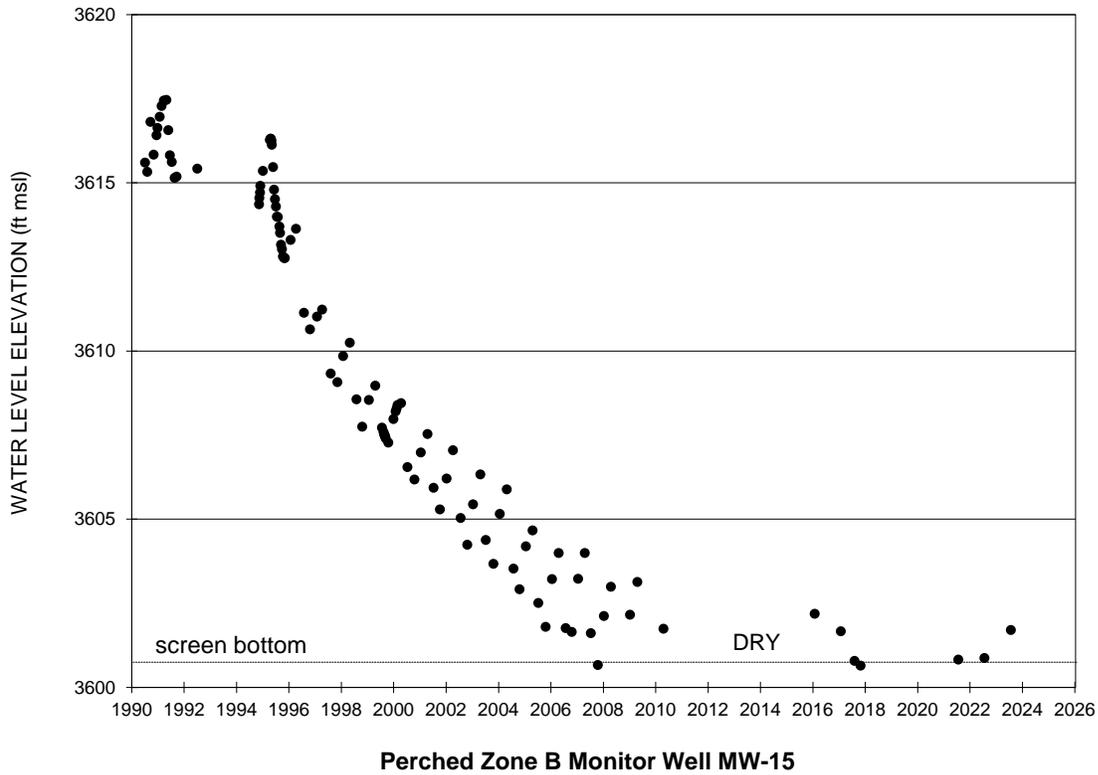


FIGURE A-7. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE B MONITOR WELL MW-15

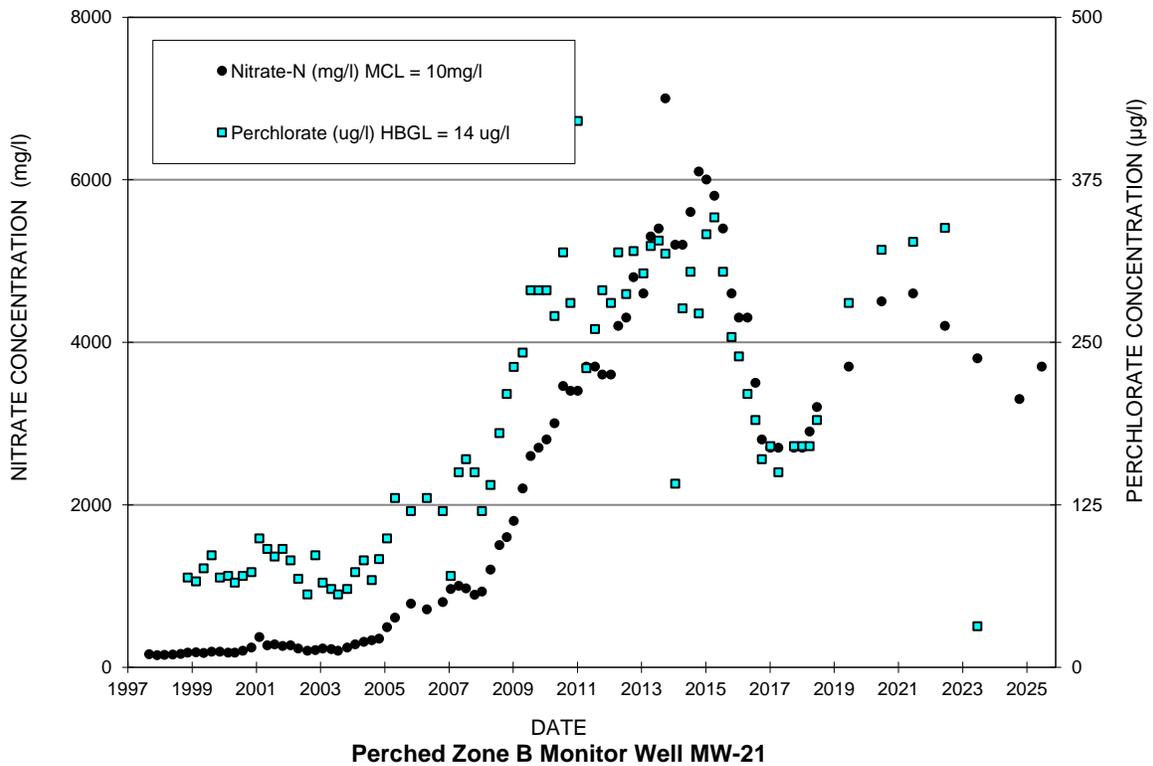
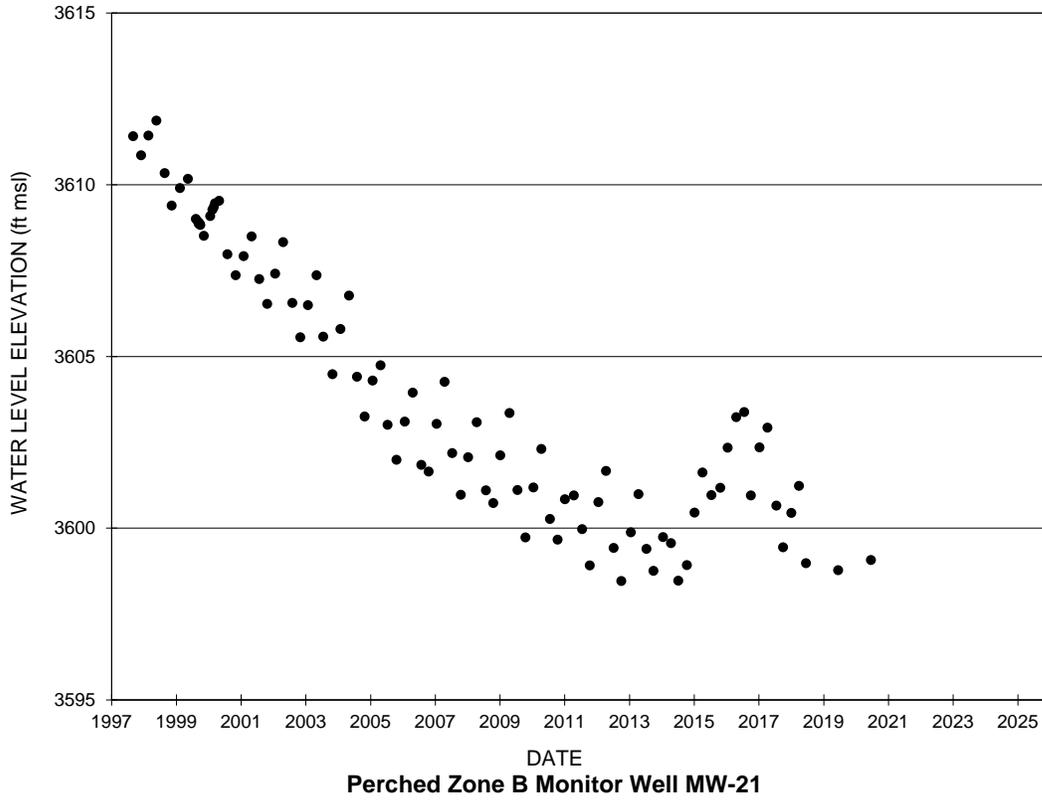


FIGURE A-8. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE B MONITOR WELL MW-21

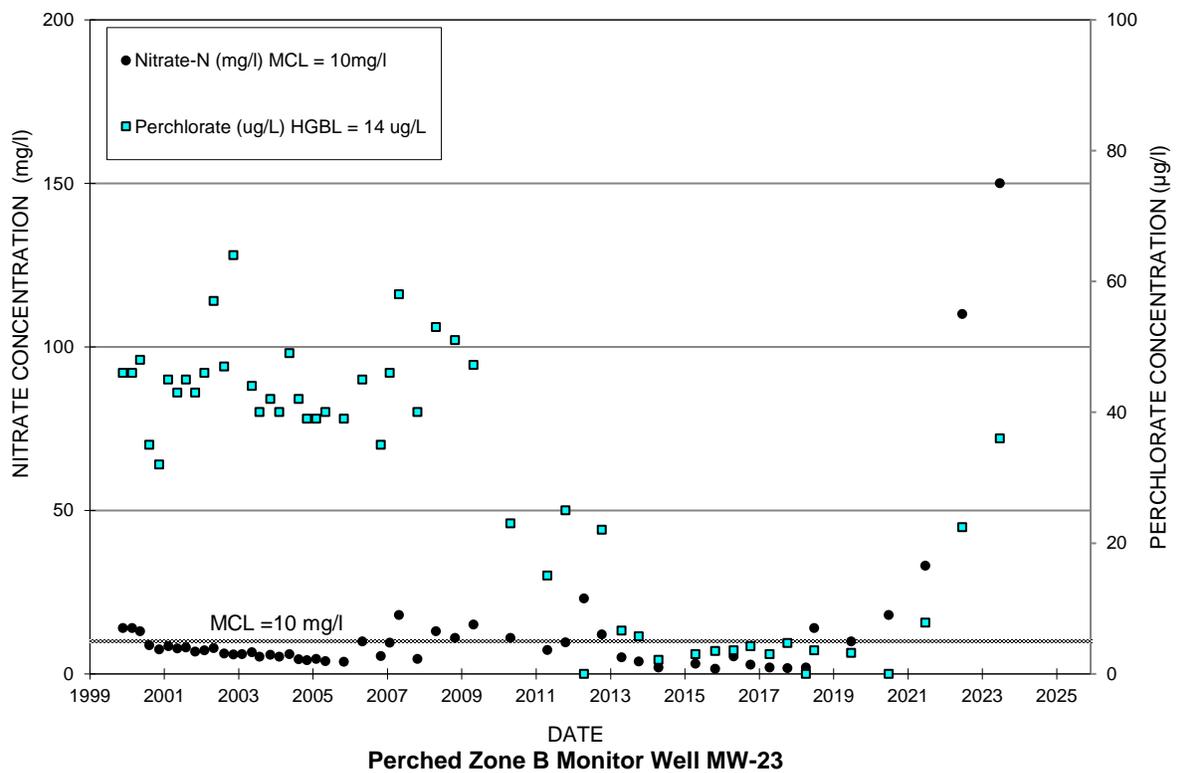
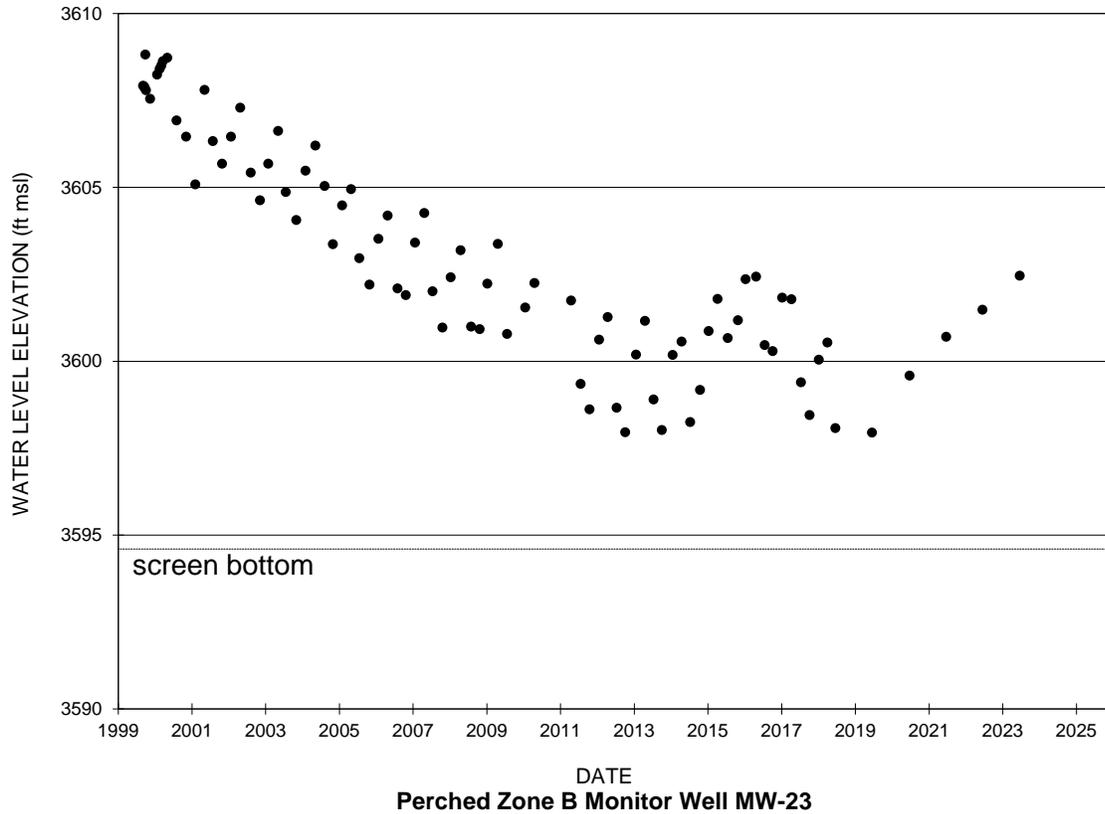
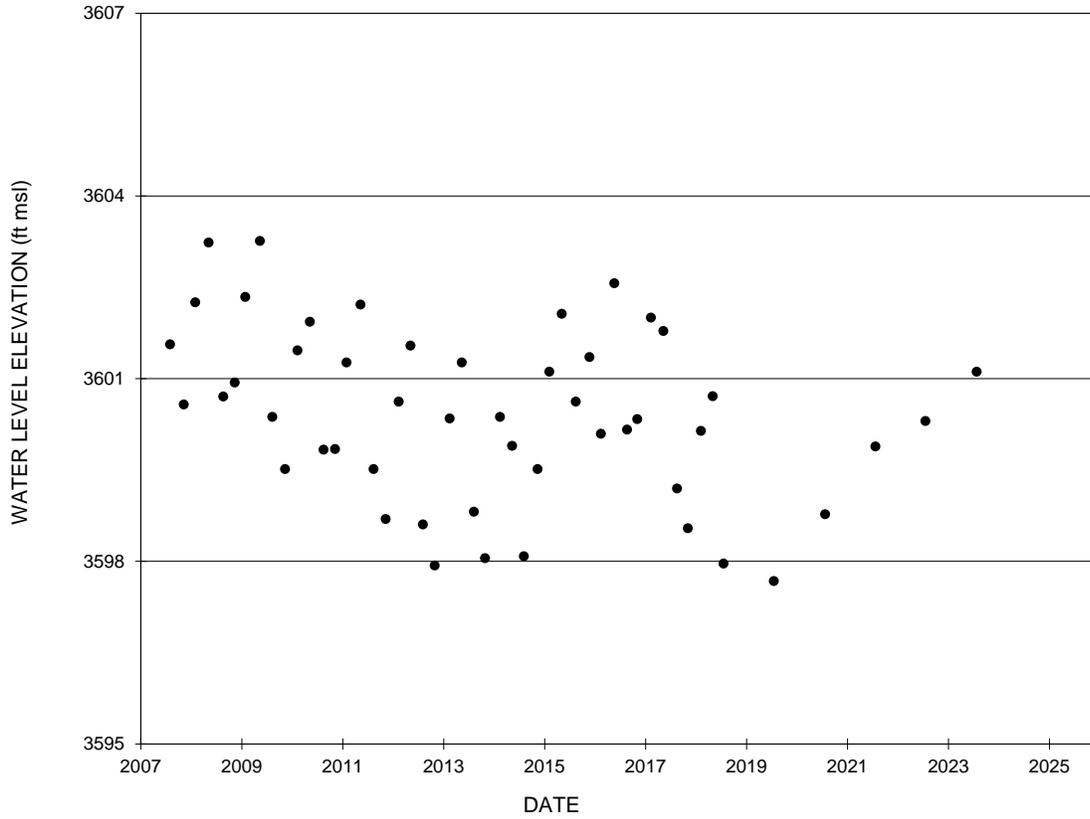
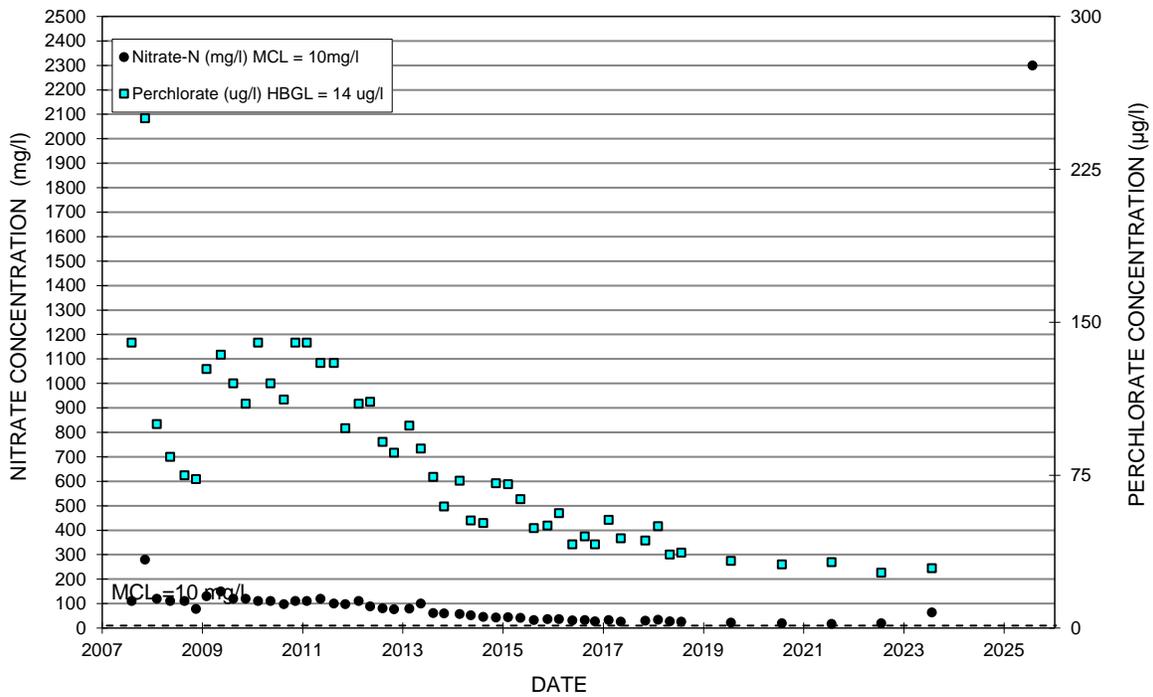


FIGURE A-9. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE B MONITOR WELL MW-23



Perched Zone B Monitor Well MW-39



Perched Zone B Monitor Well MW-39

FIGURE A-10. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE B MONITOR WELL MW-39

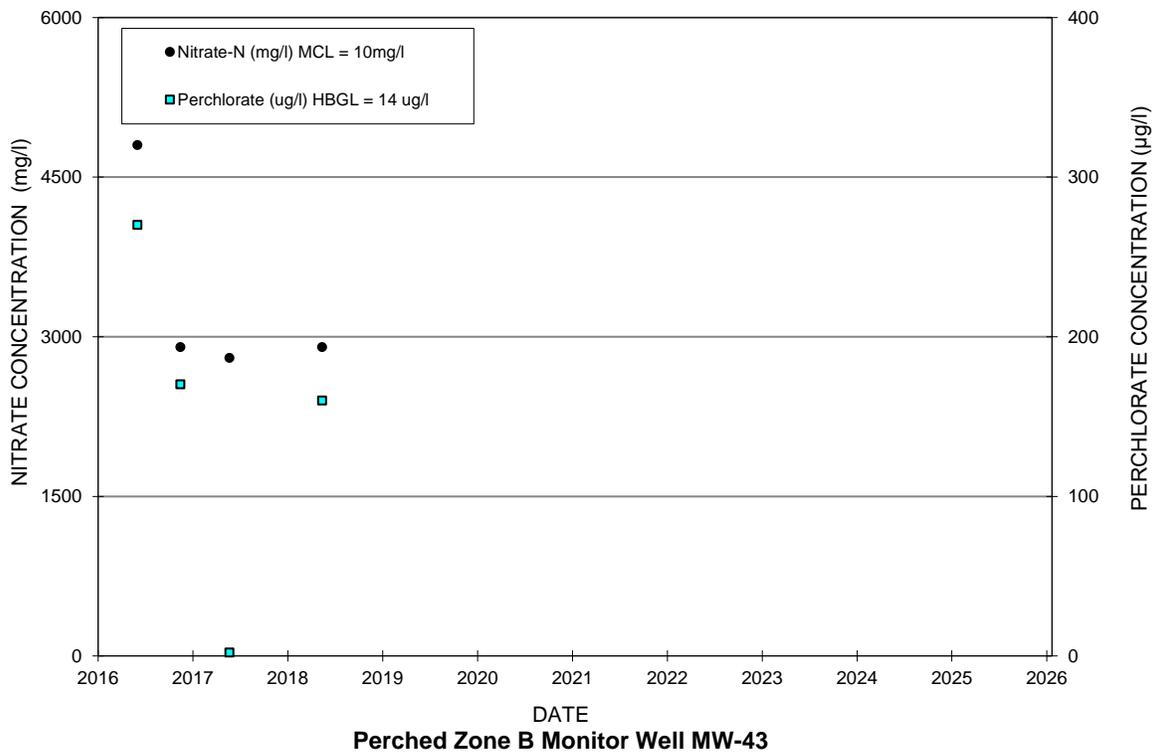
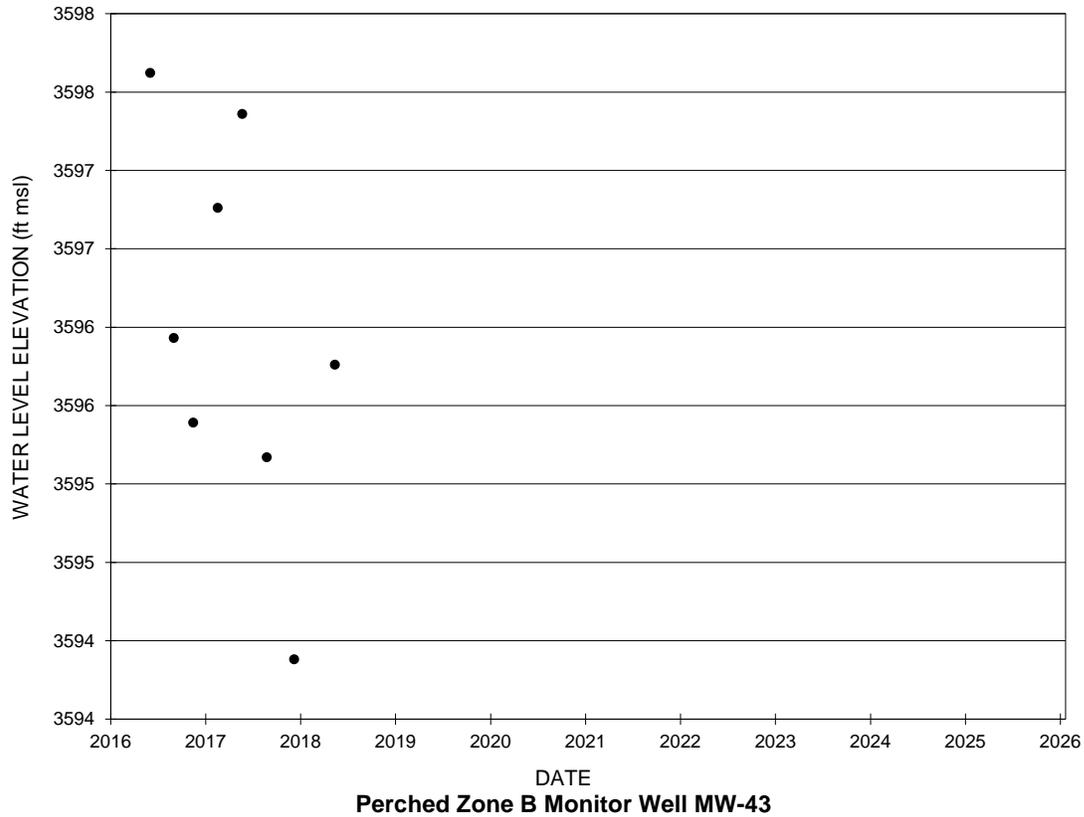


FIGURE A-11. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE B MONITOR WELL MW-43

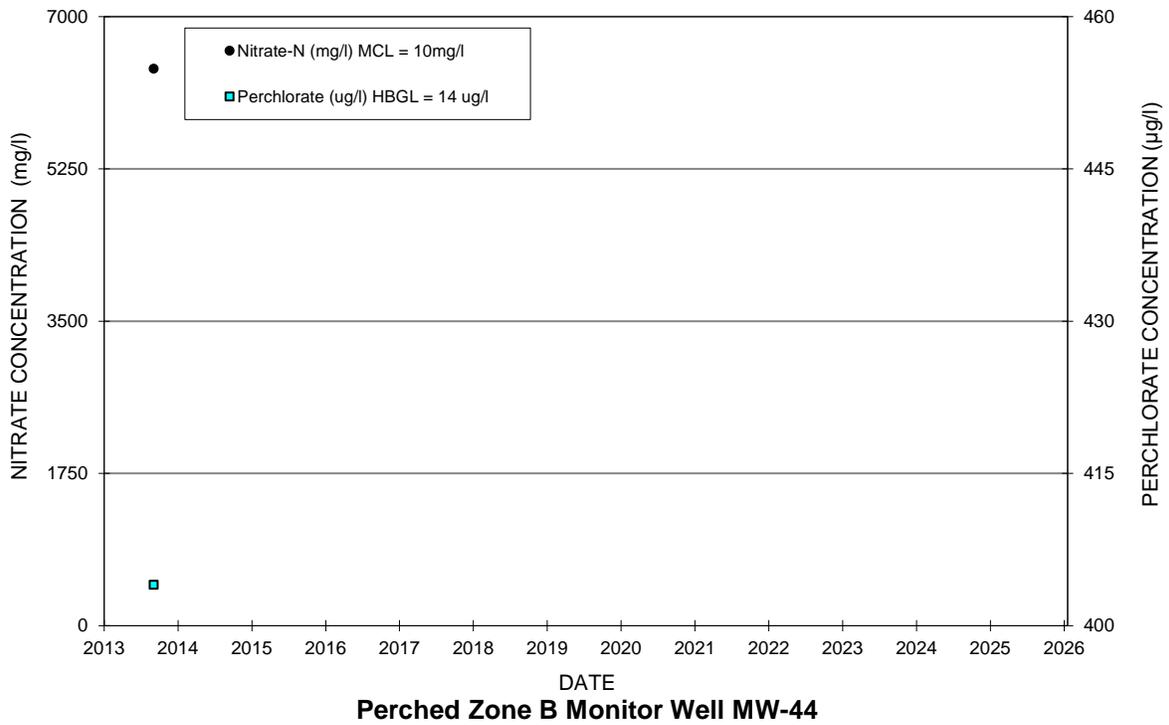
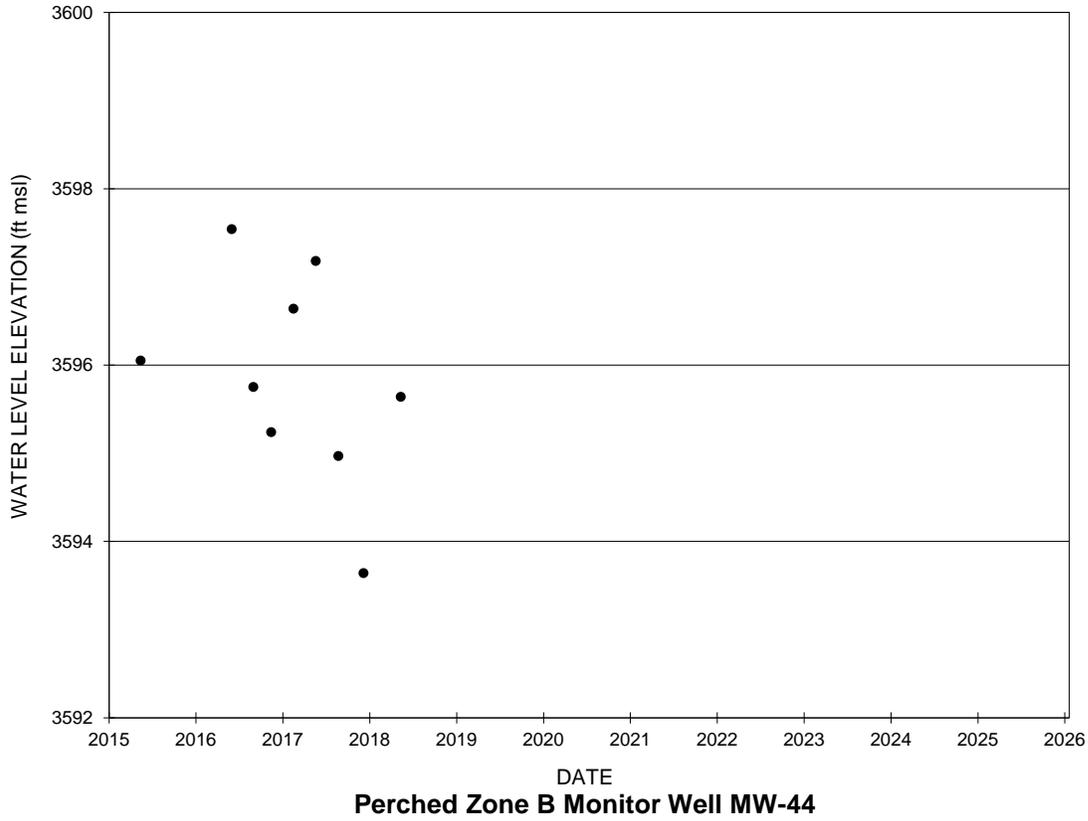


FIGURE A-12. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE B MONITOR WELL MW-44

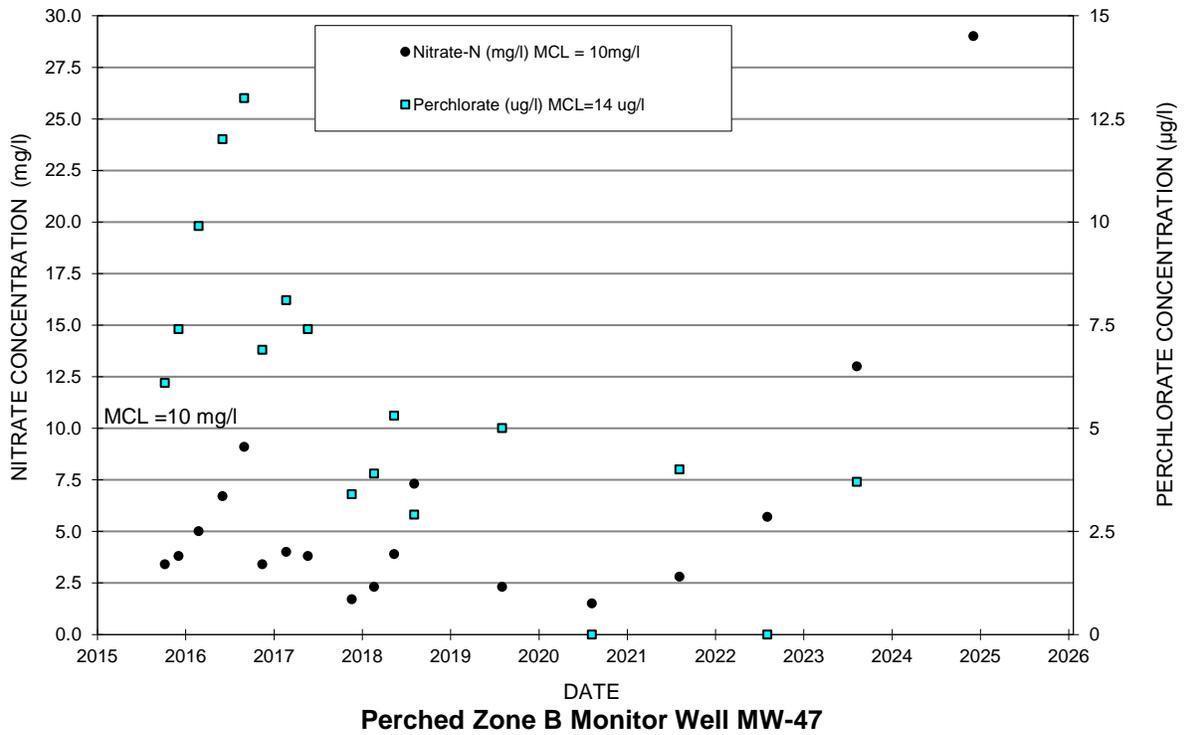
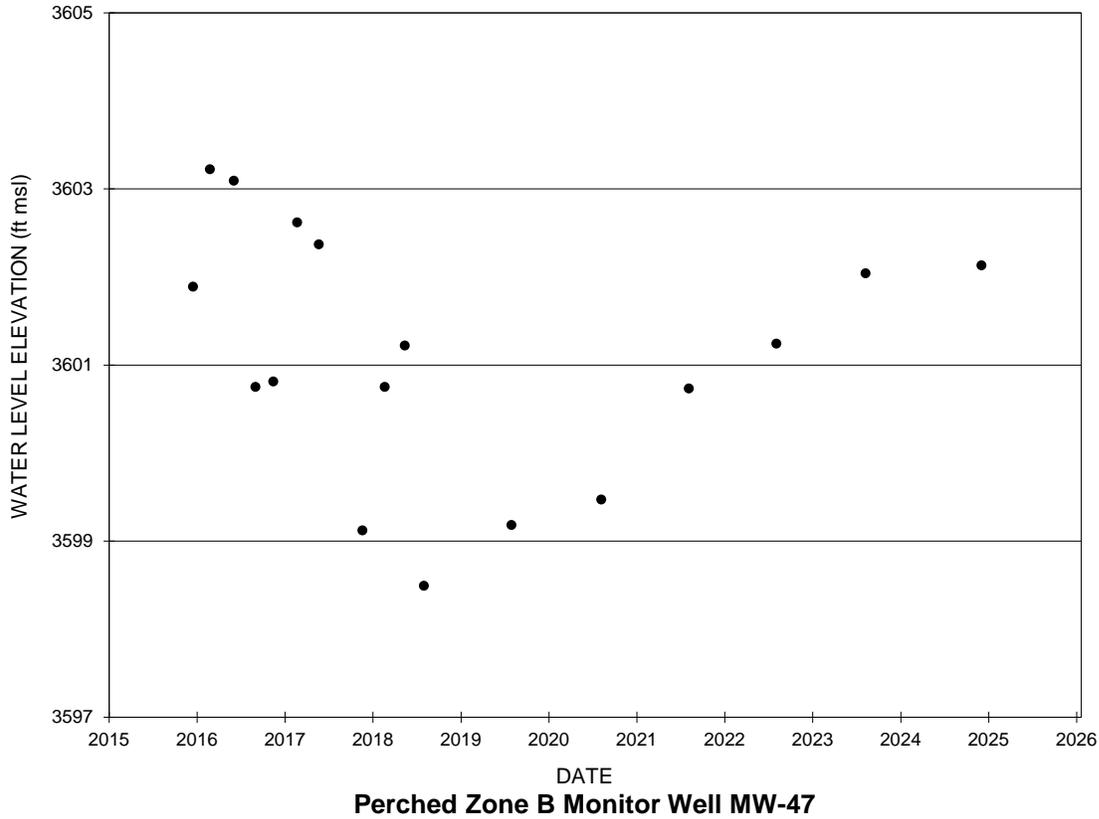


FIGURE A-13. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR PERCHED ZONE B MONITOR WELL MW-47

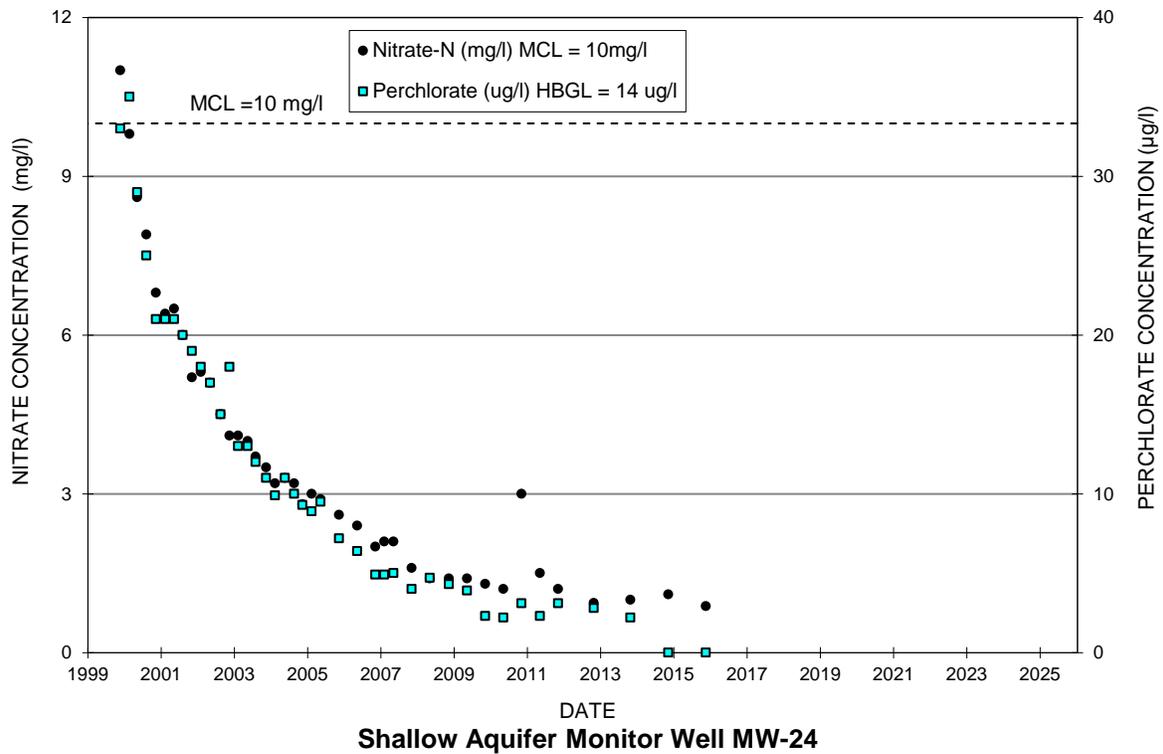
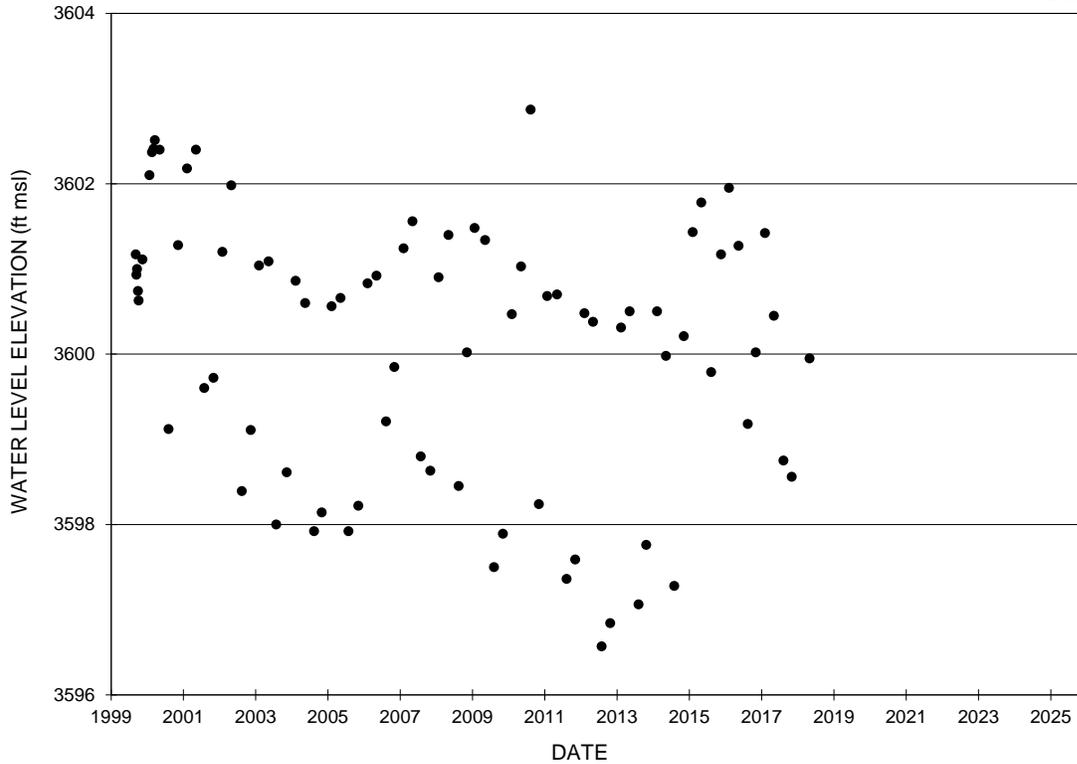


FIGURE A-14. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SOUTHERN AREA UPGRADIENT MONITOR WELL MW-24

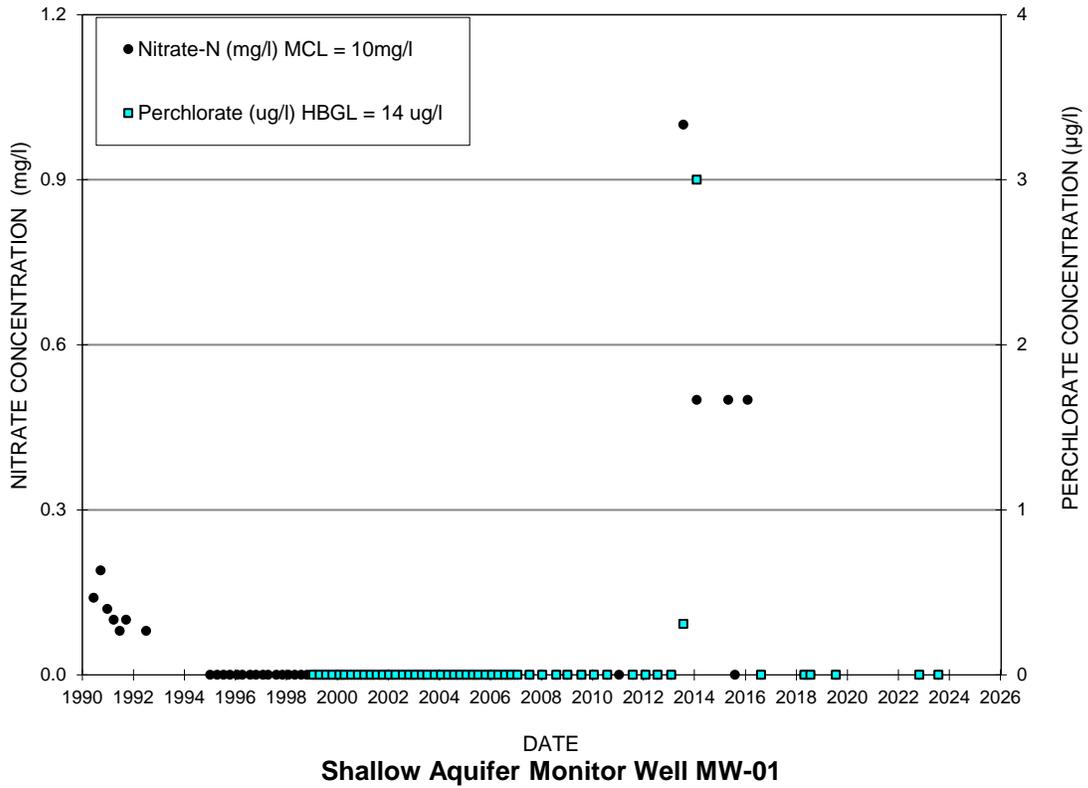
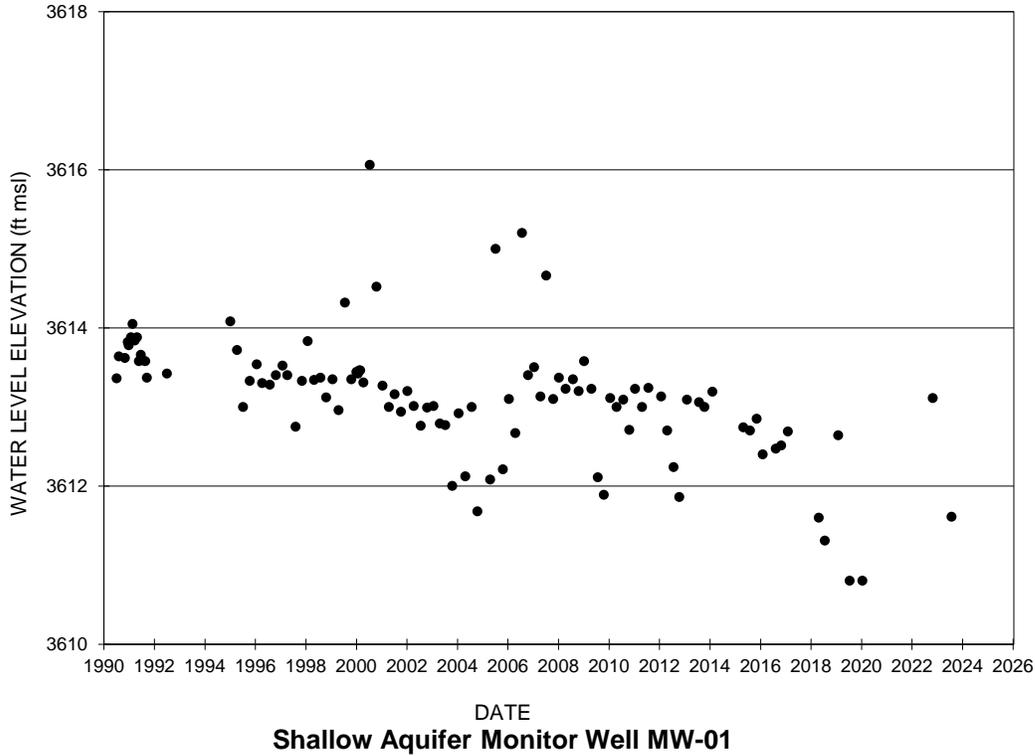


FIGURE A-15. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SOUTHERN AREA UPGRADIENT MONITOR WELL MW-01

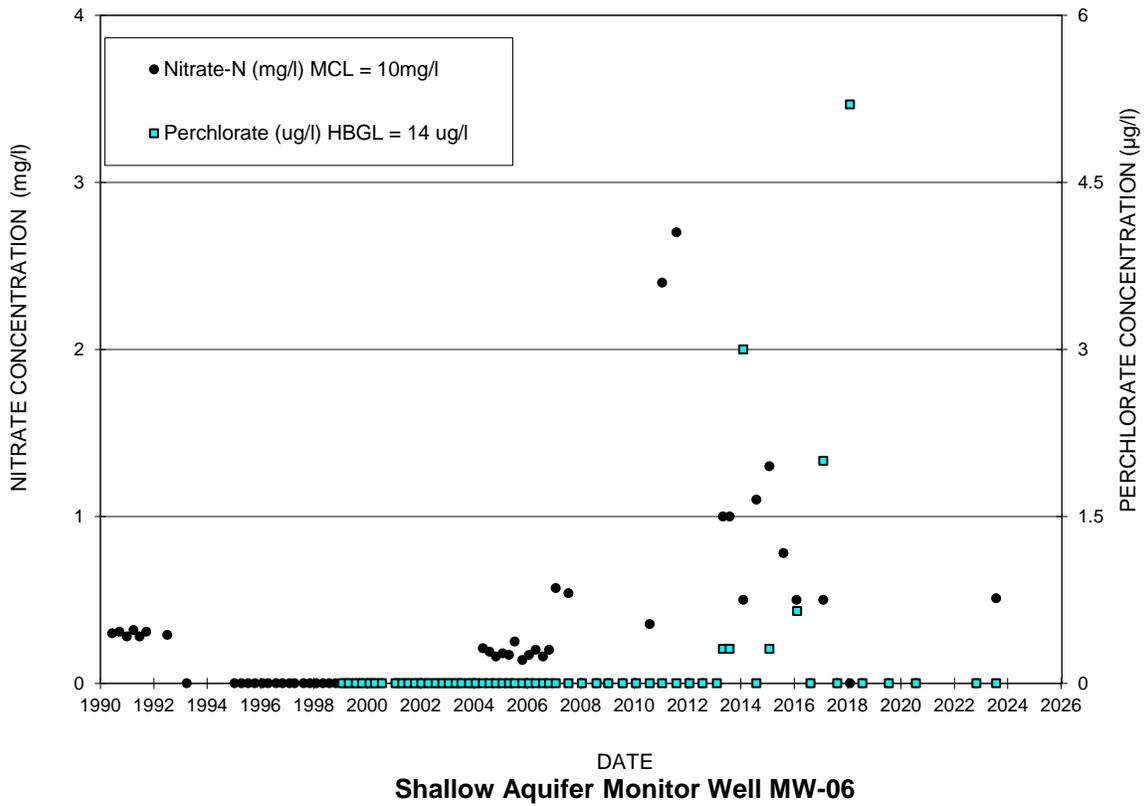
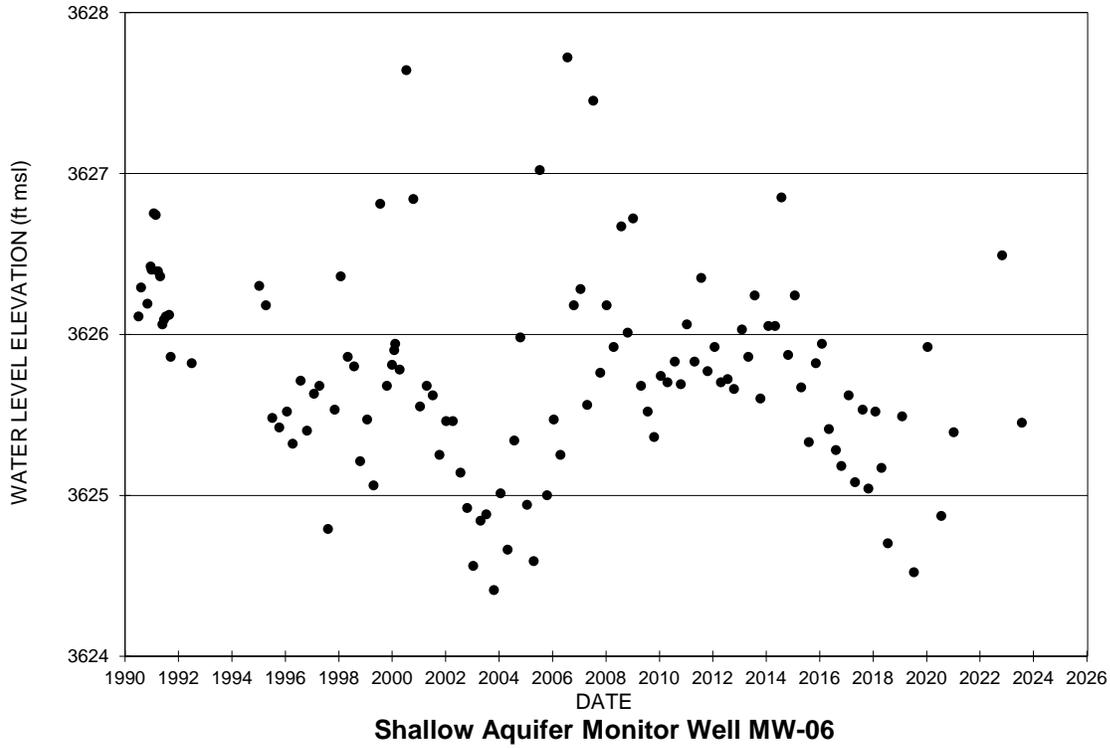


FIGURE A-16. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SOUTHERN AREA UPGRADIENT MONITOR WELL MW-06

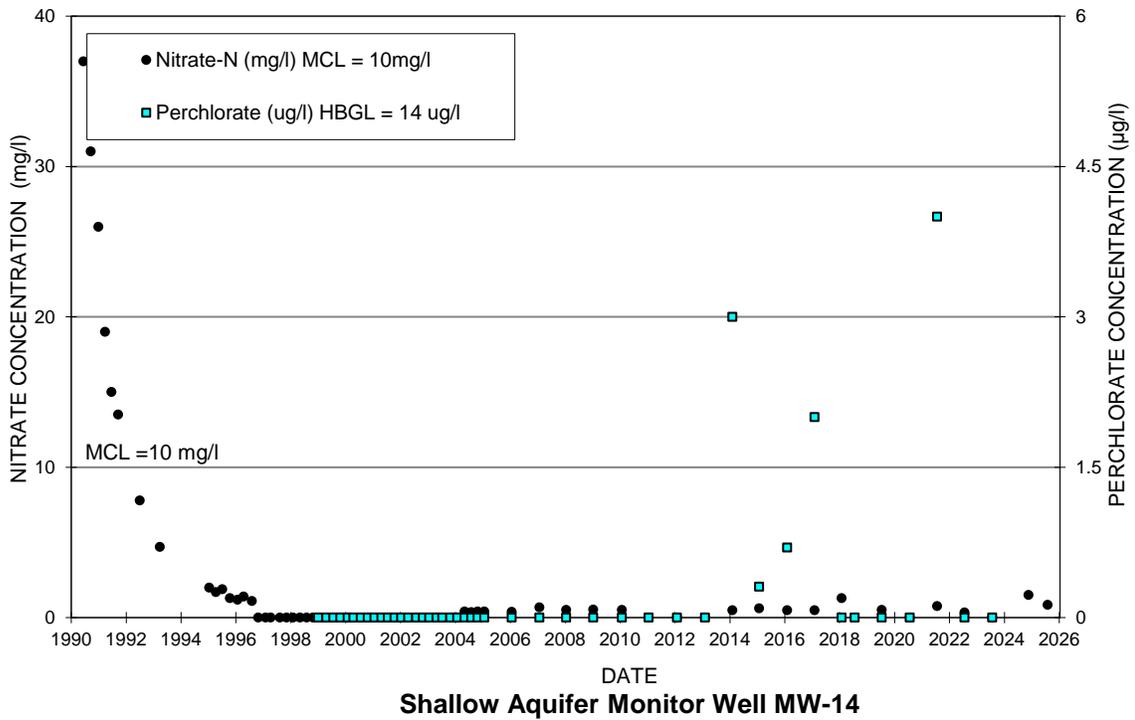
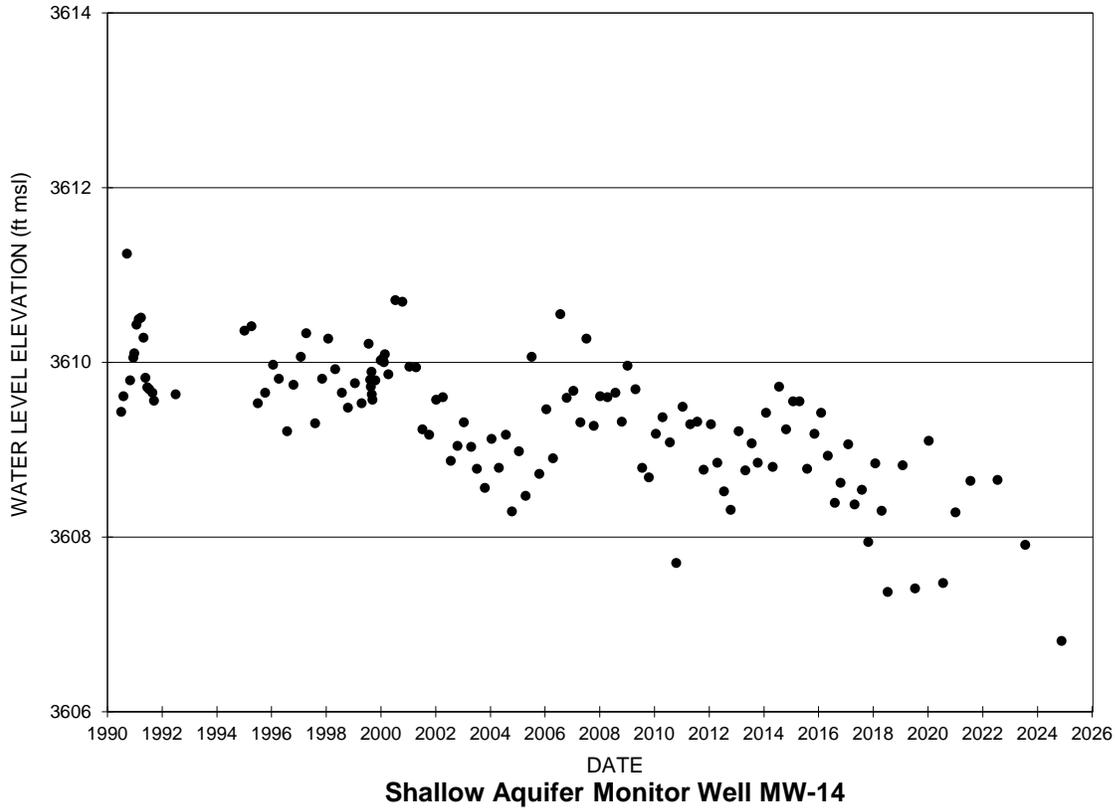


FIGURE A-17. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SOUTHERN AREA SENTINEL MONITOR WELL MW-14

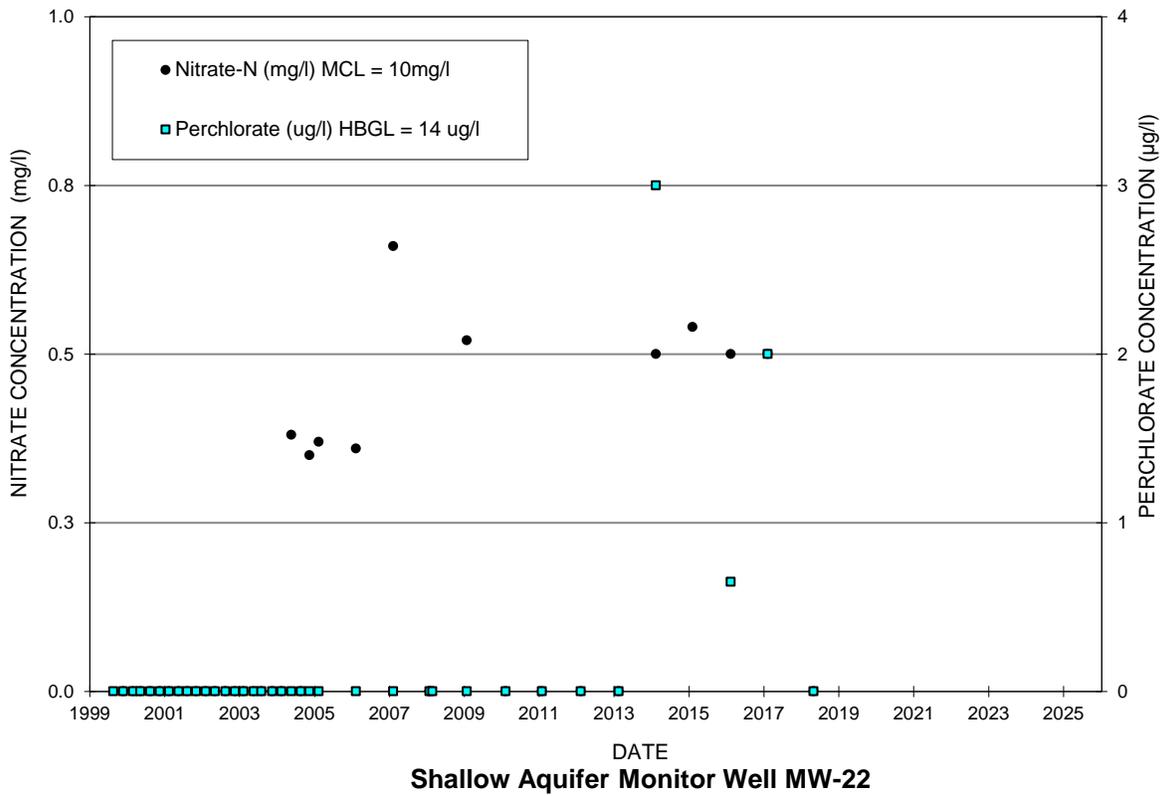
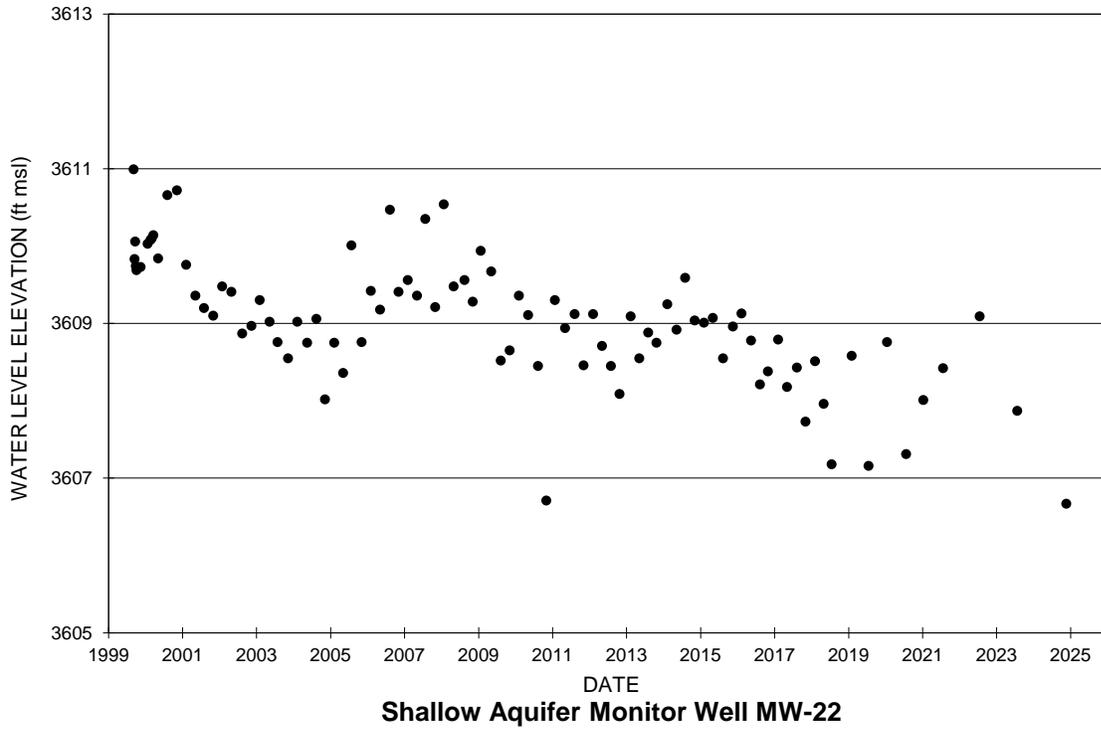


FIGURE A-18. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SOUTHERN AREA SENTINEL MONITOR WELL MW-22

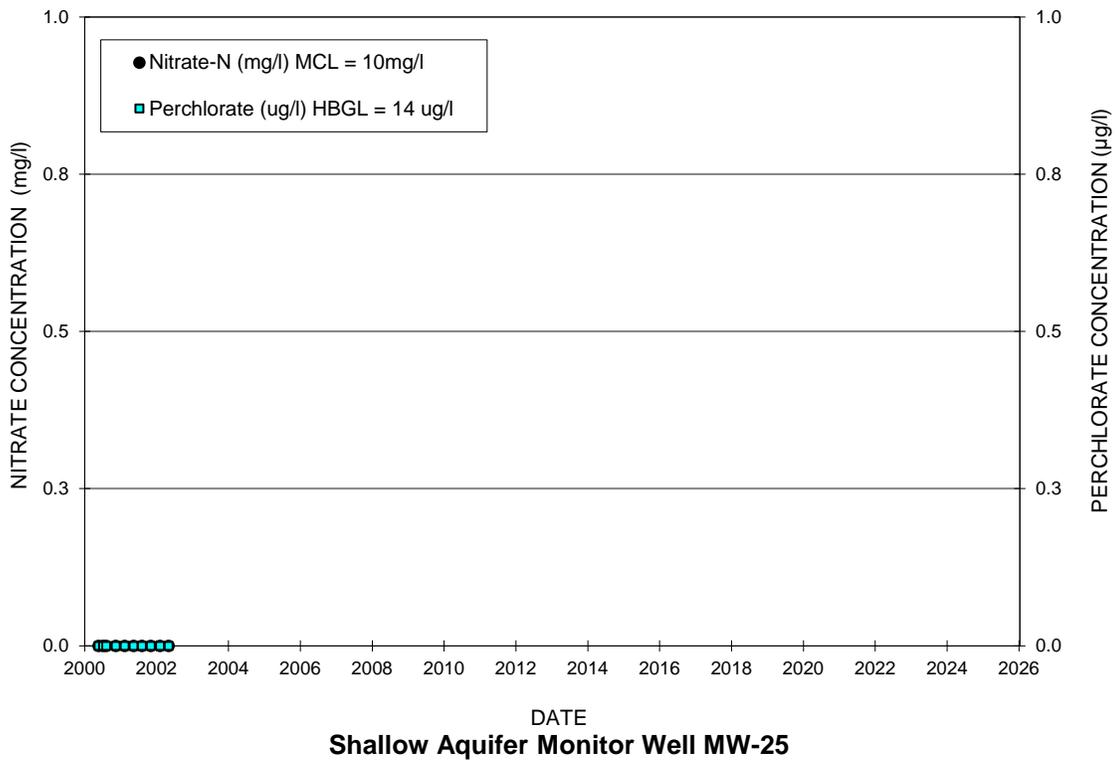
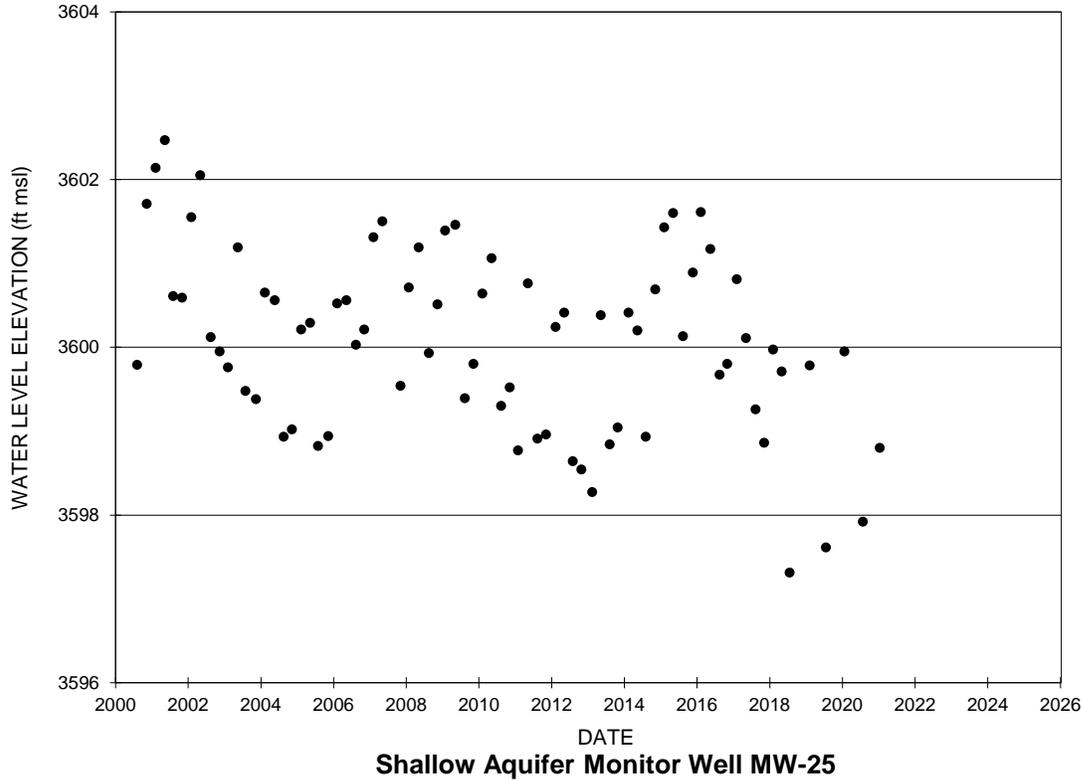


FIGURE A-19. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SOUTHERN AREA BUFFER ZONE MONITOR WELL MW-25

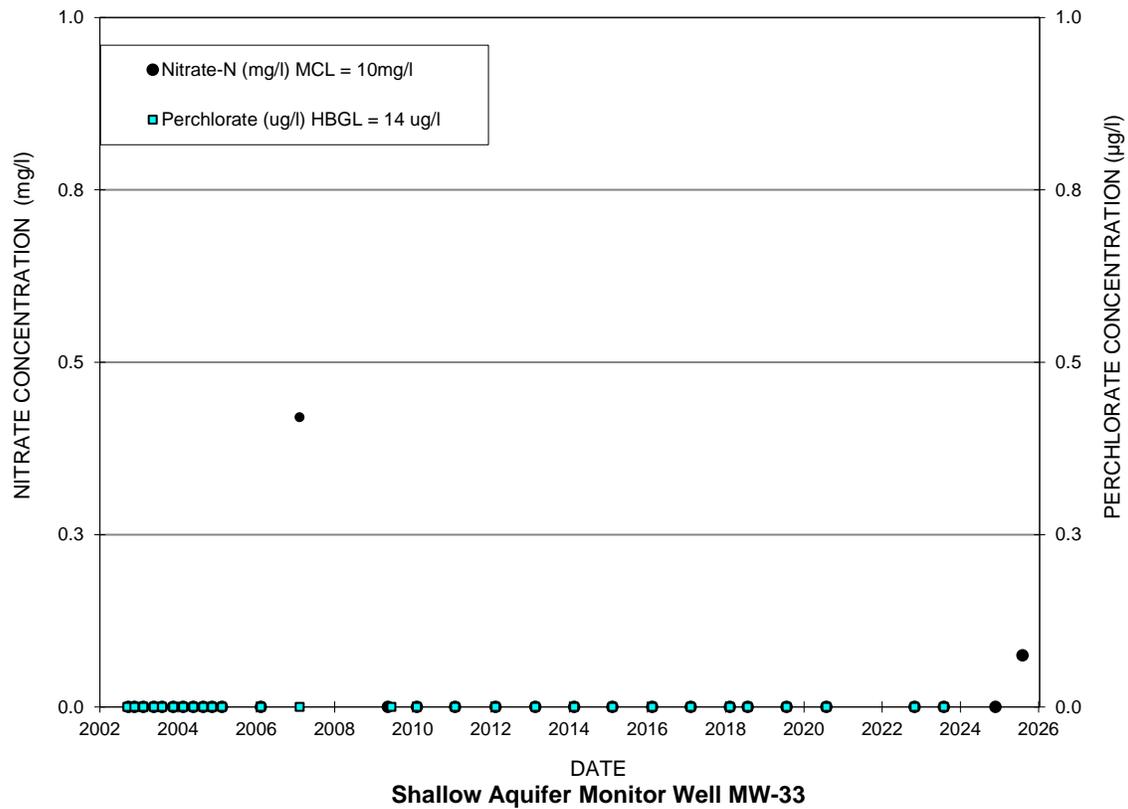
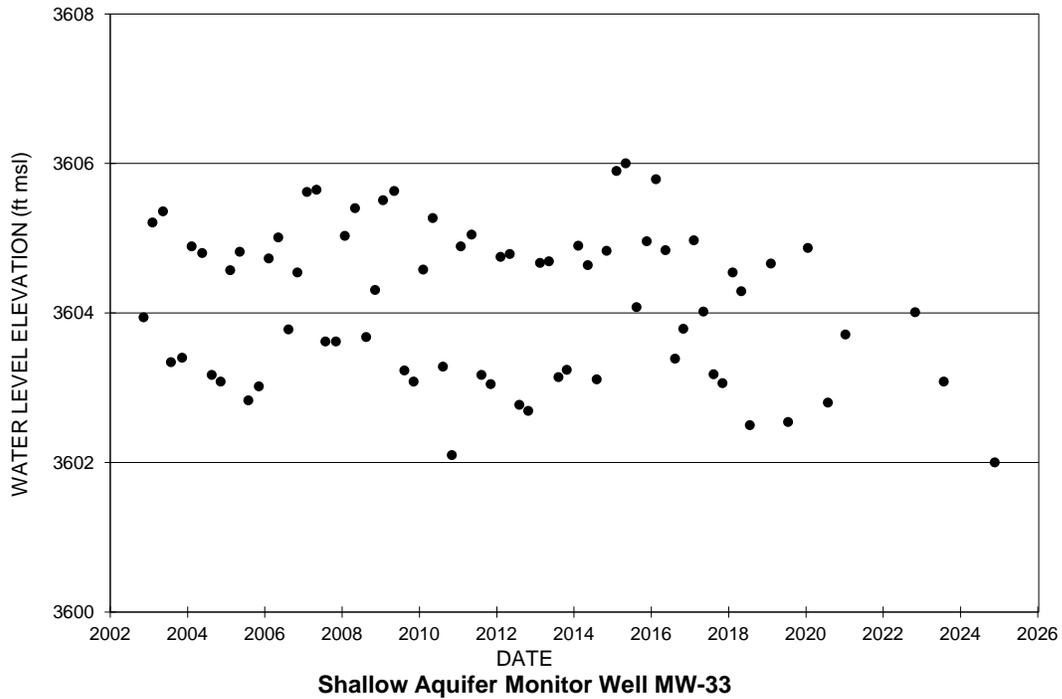


FIGURE A-20 WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SOUTHERN AREA BUFFER ZONE MONITOR WELL MW-33

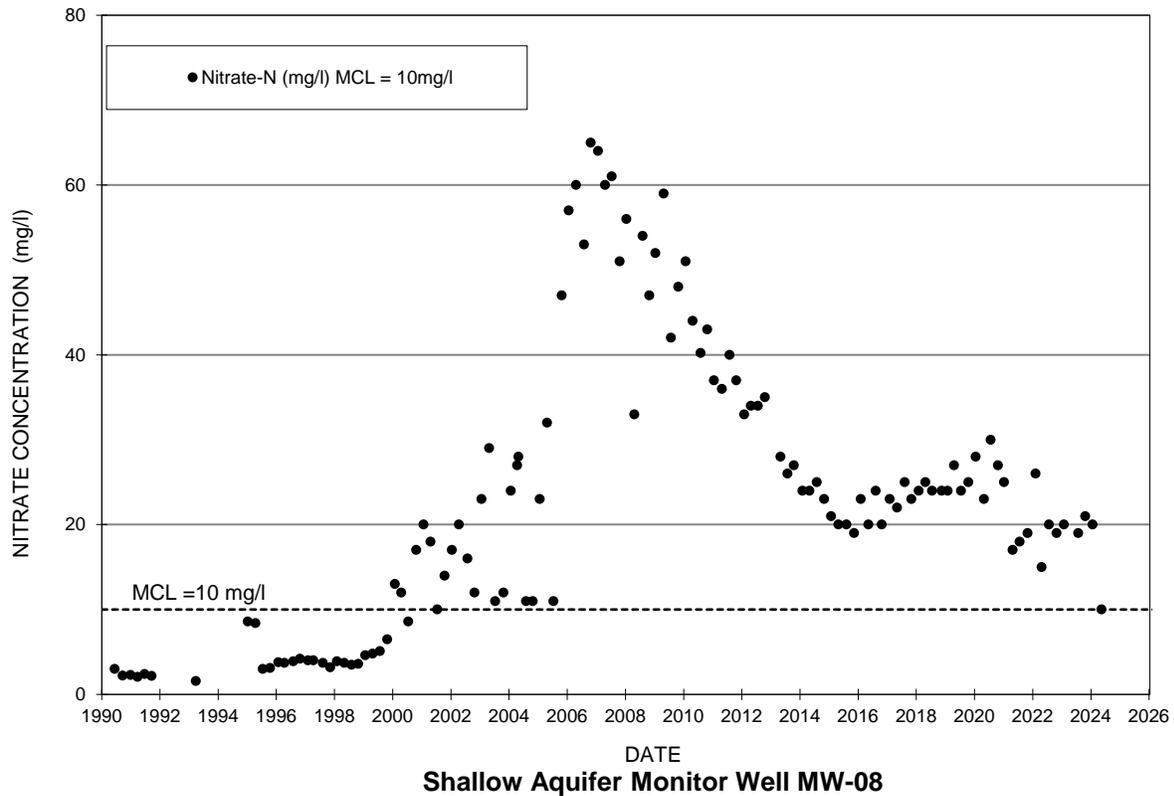
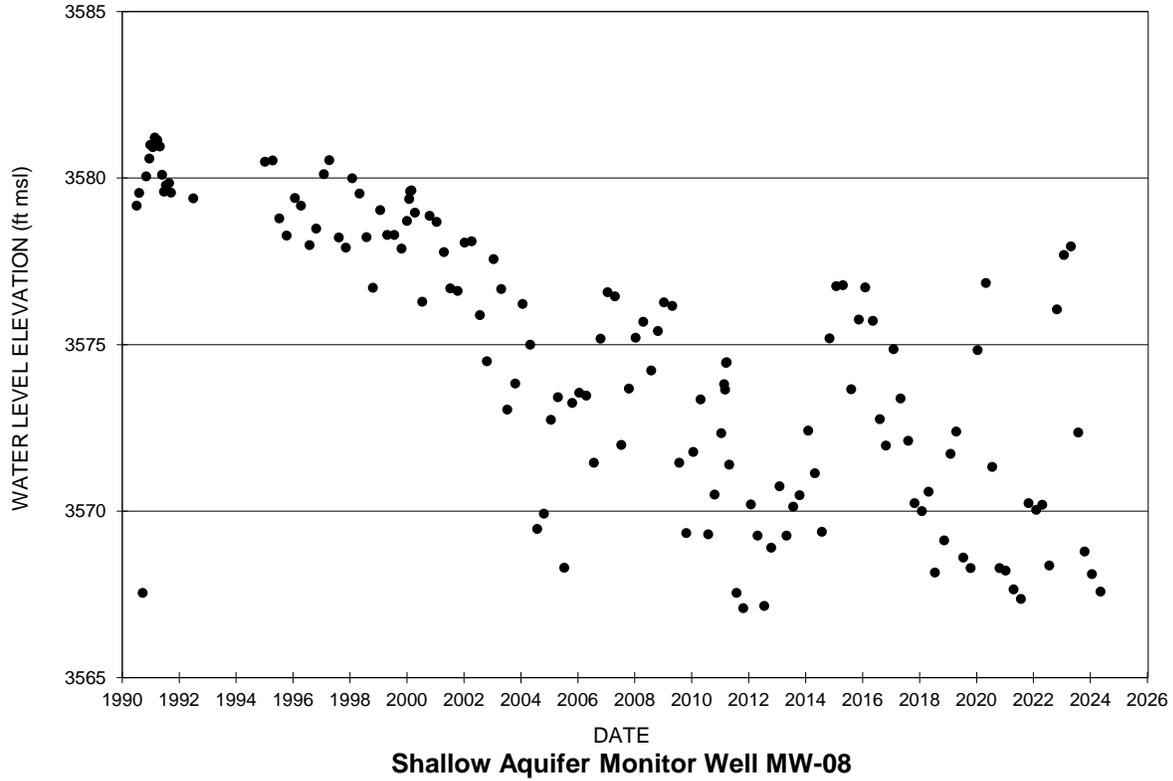


FIGURE A-21. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL MW-08

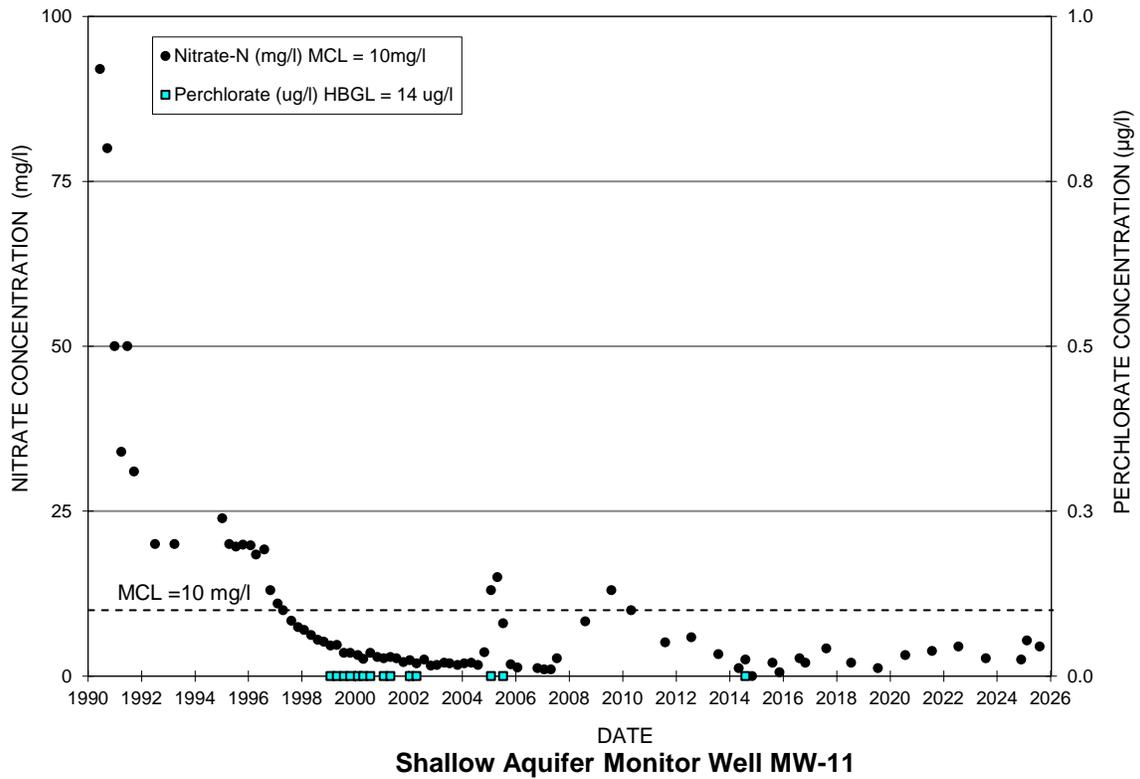
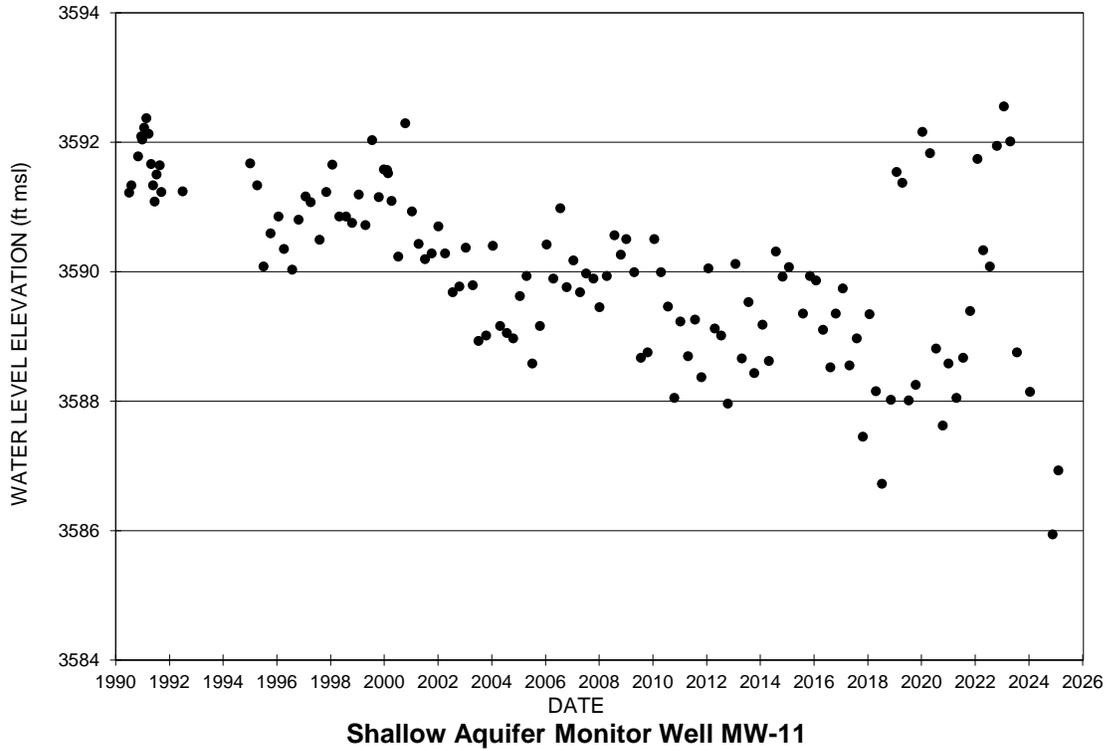
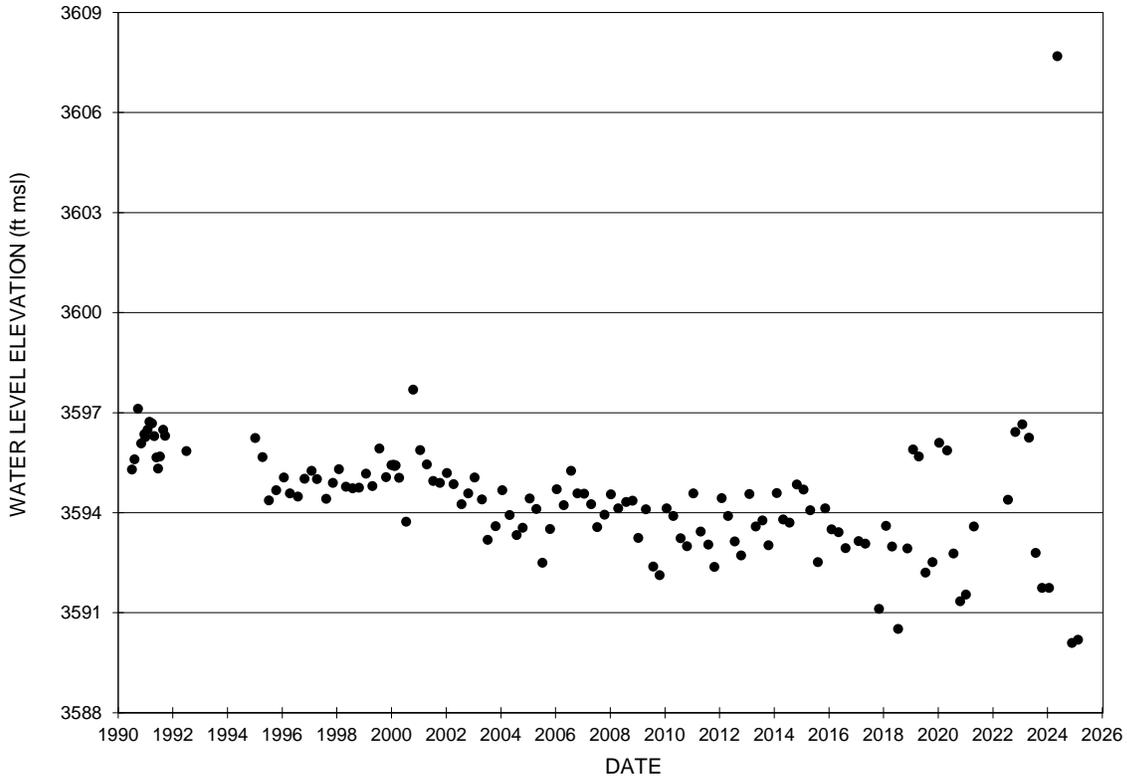
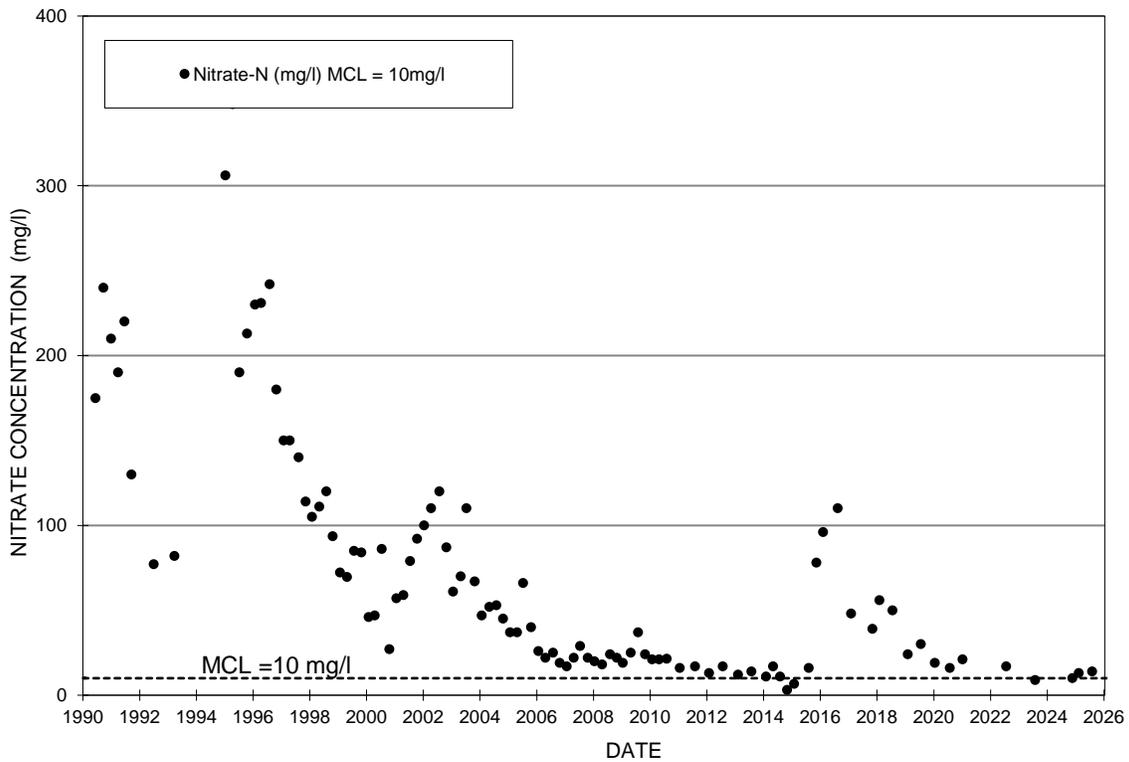


FIGURE A-22. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL MW-11



Shallow Aquifer Monitor Well MW-13



Shallow Aquifer Monitor Well MW-13

FIGURE A-23. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL MW-13

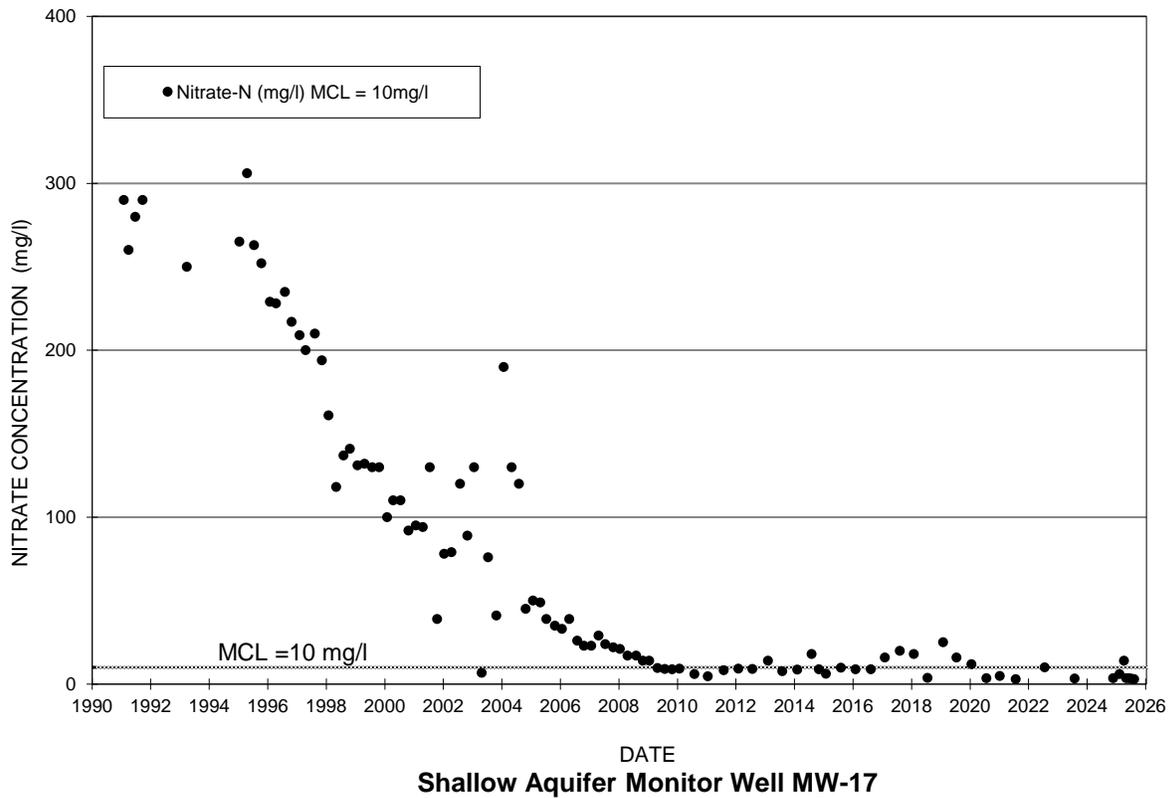
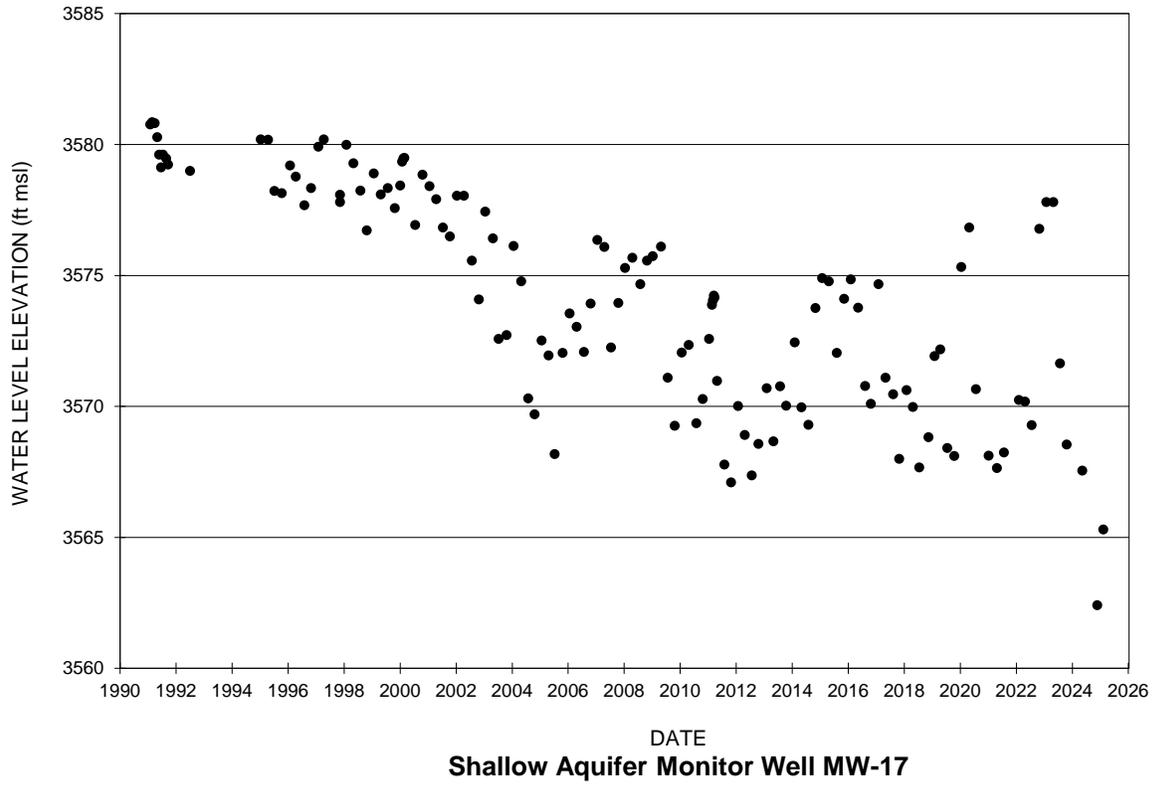


FIGURE A-24. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL MW-17

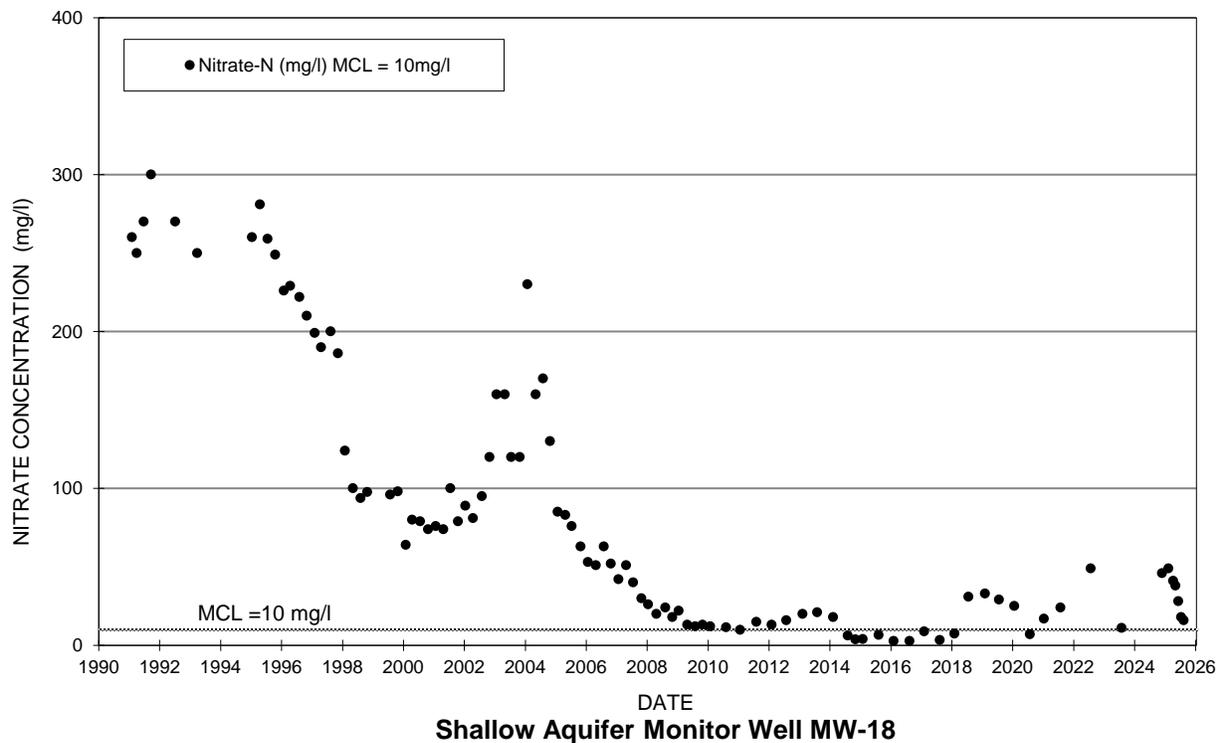
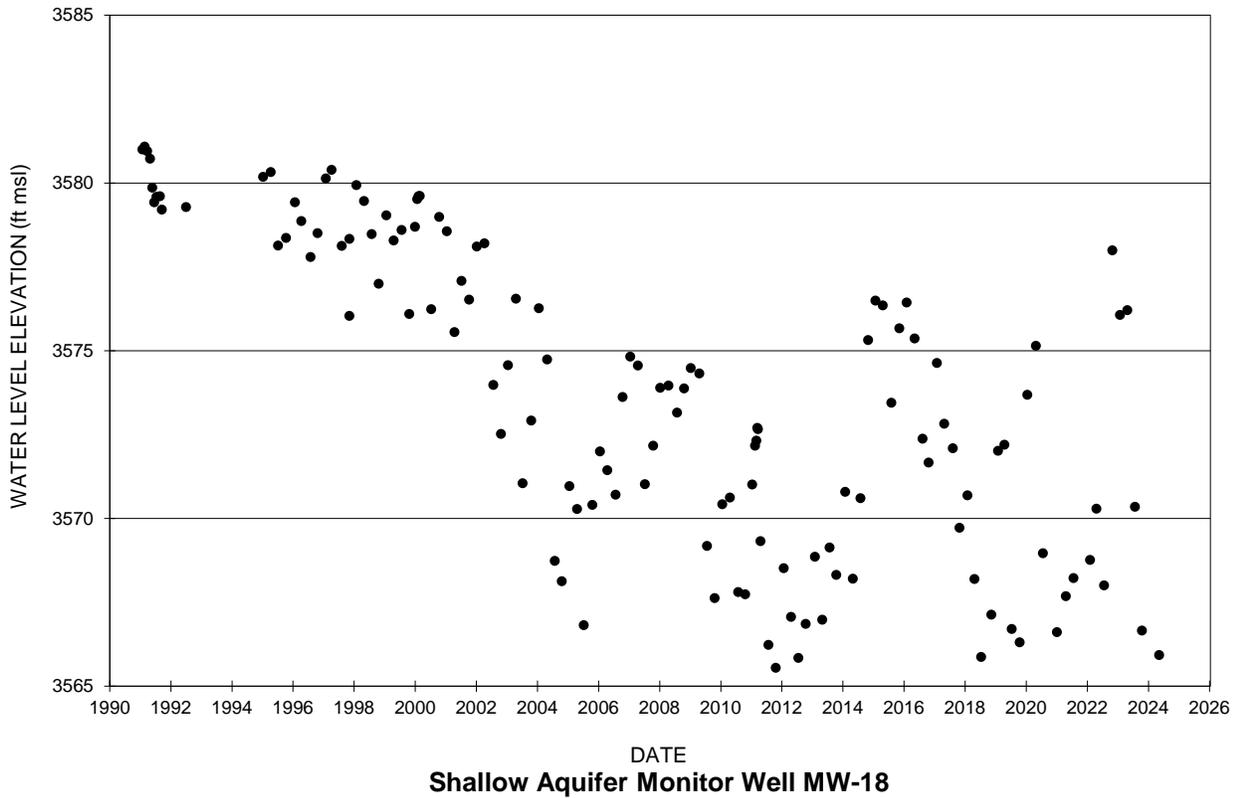


FIGURE A-25. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL MW-18

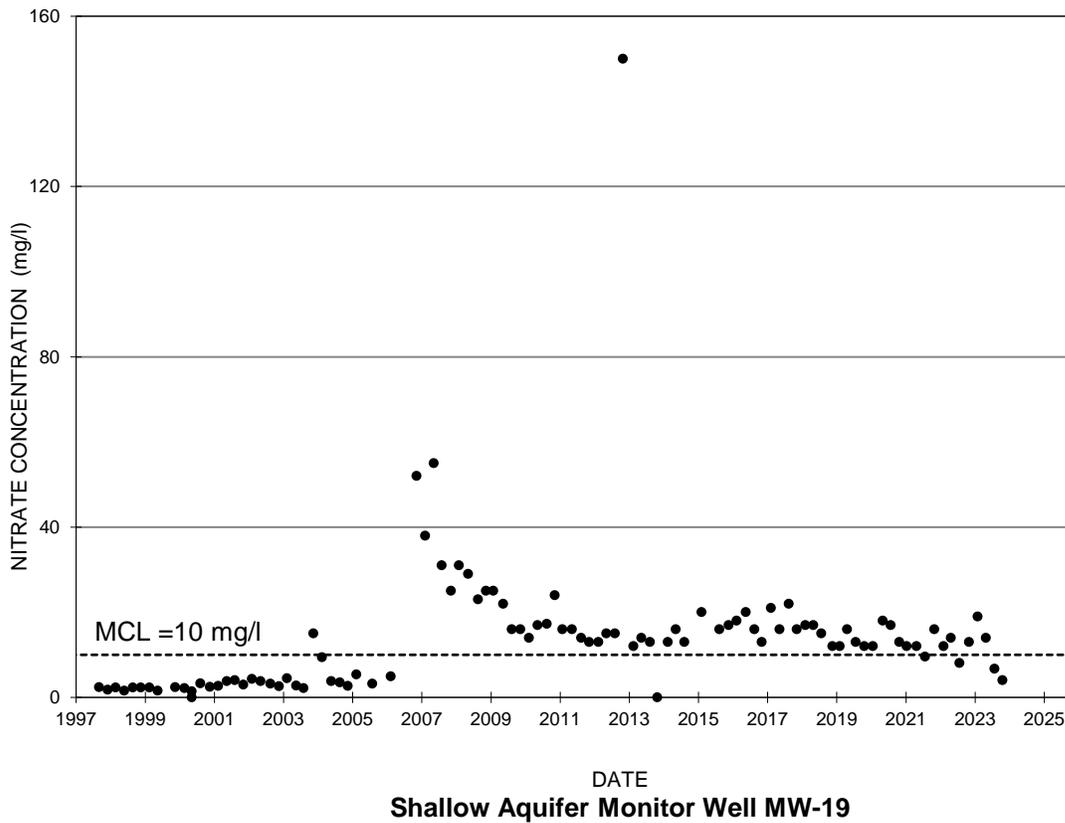
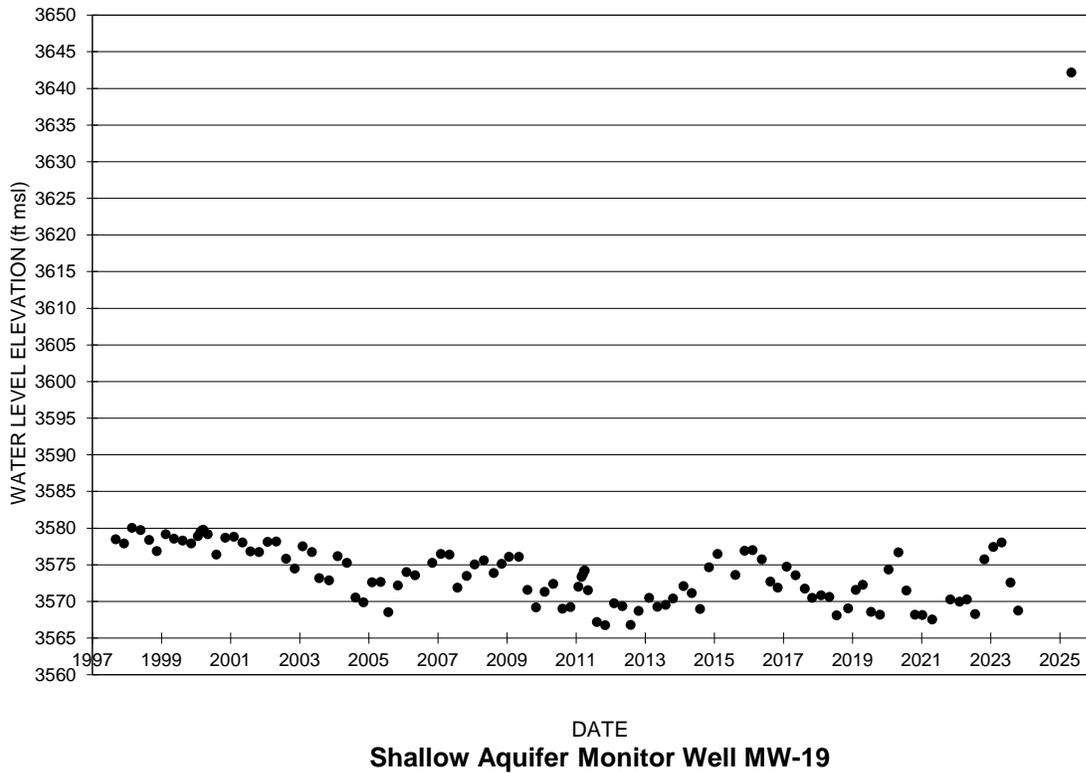
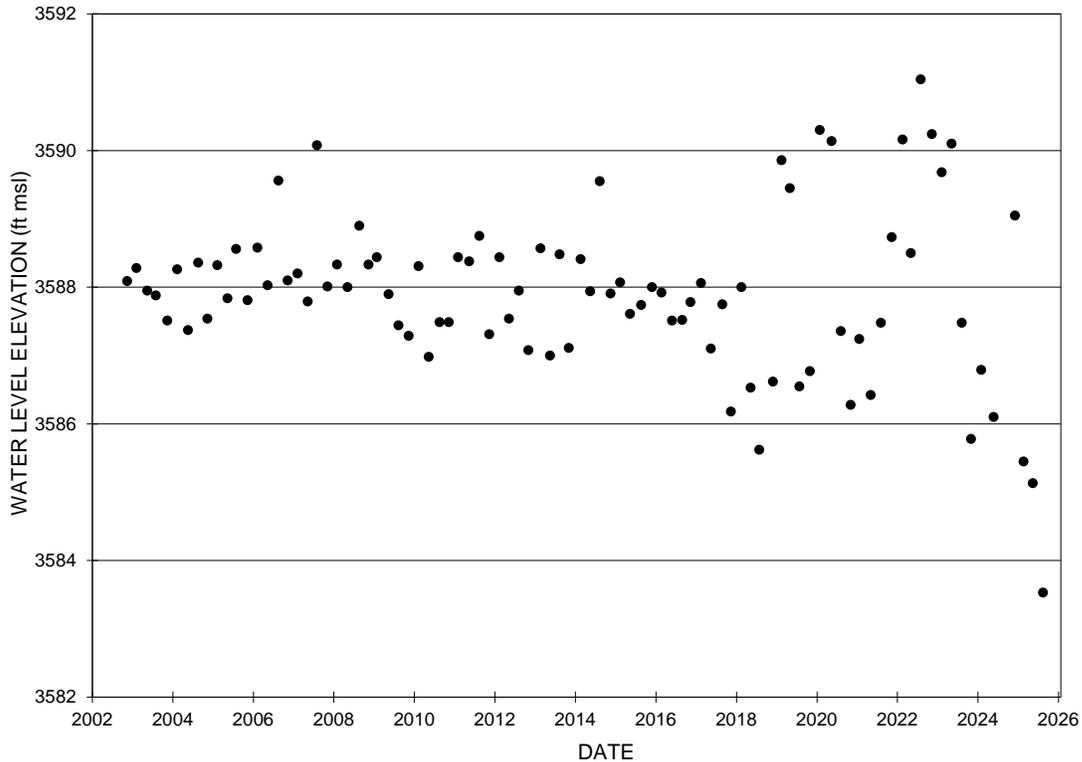
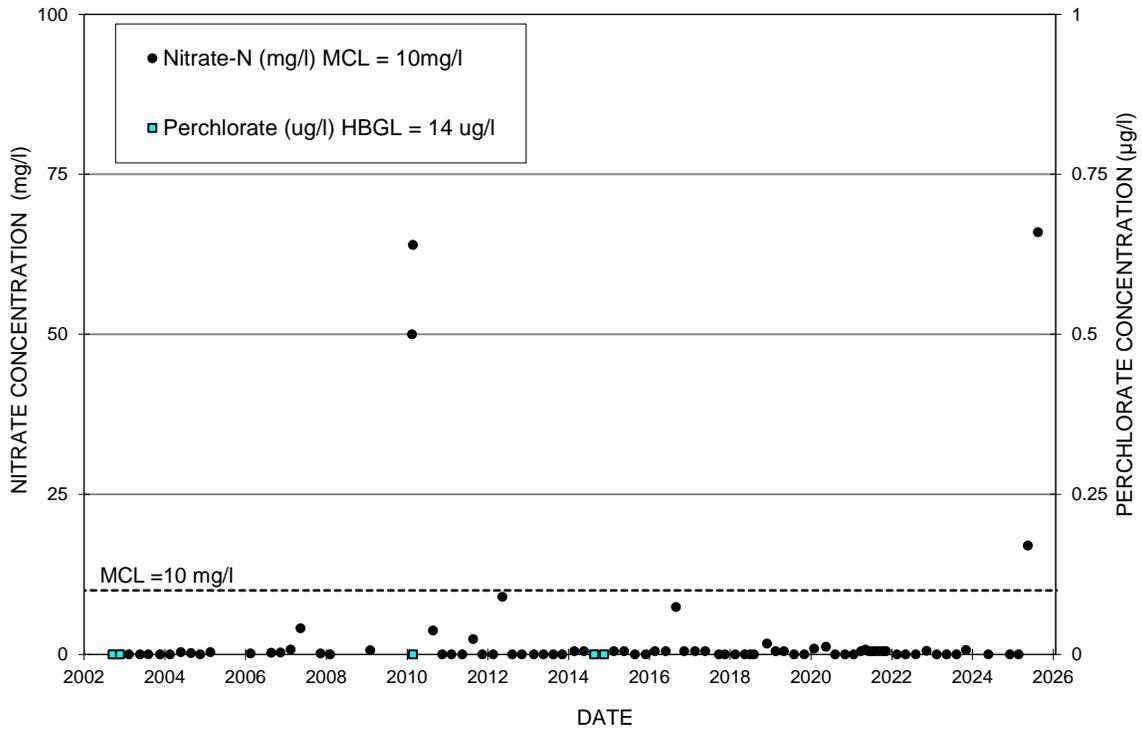


FIGURE A-26. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL MW-19



Shallow Aquifer Monitor Well MW-34



Shallow Aquifer Monitor Well MW-34

FIGURE A-27. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL MW-34

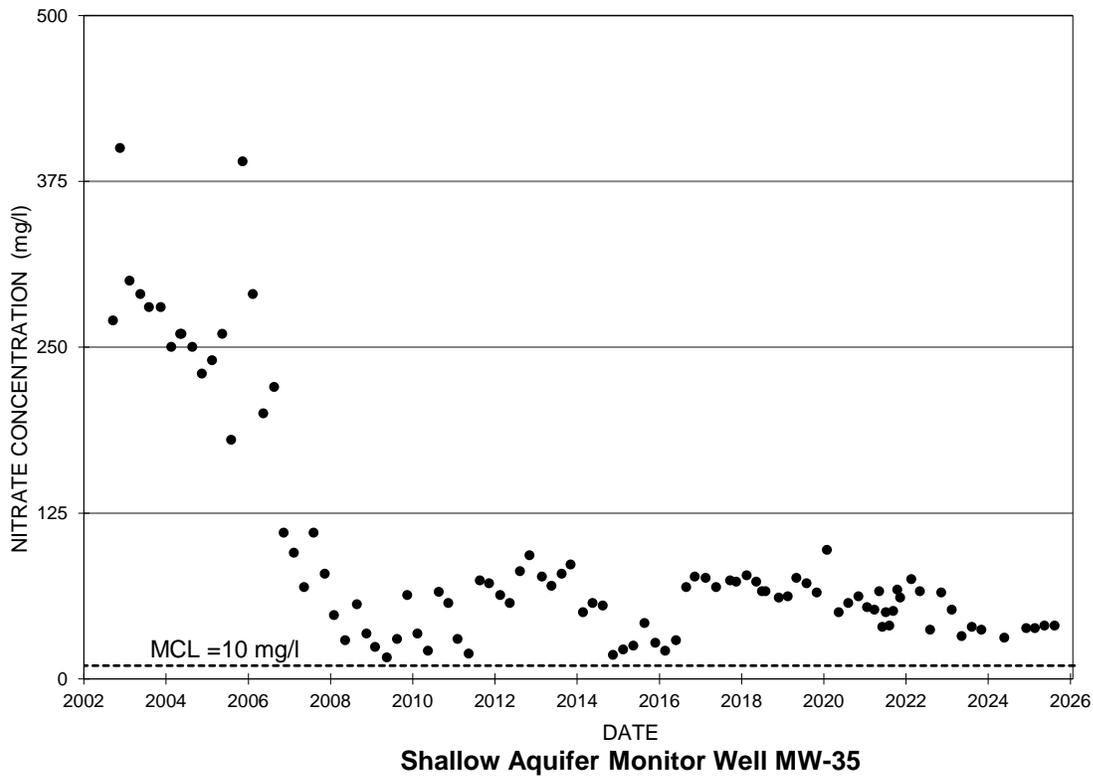
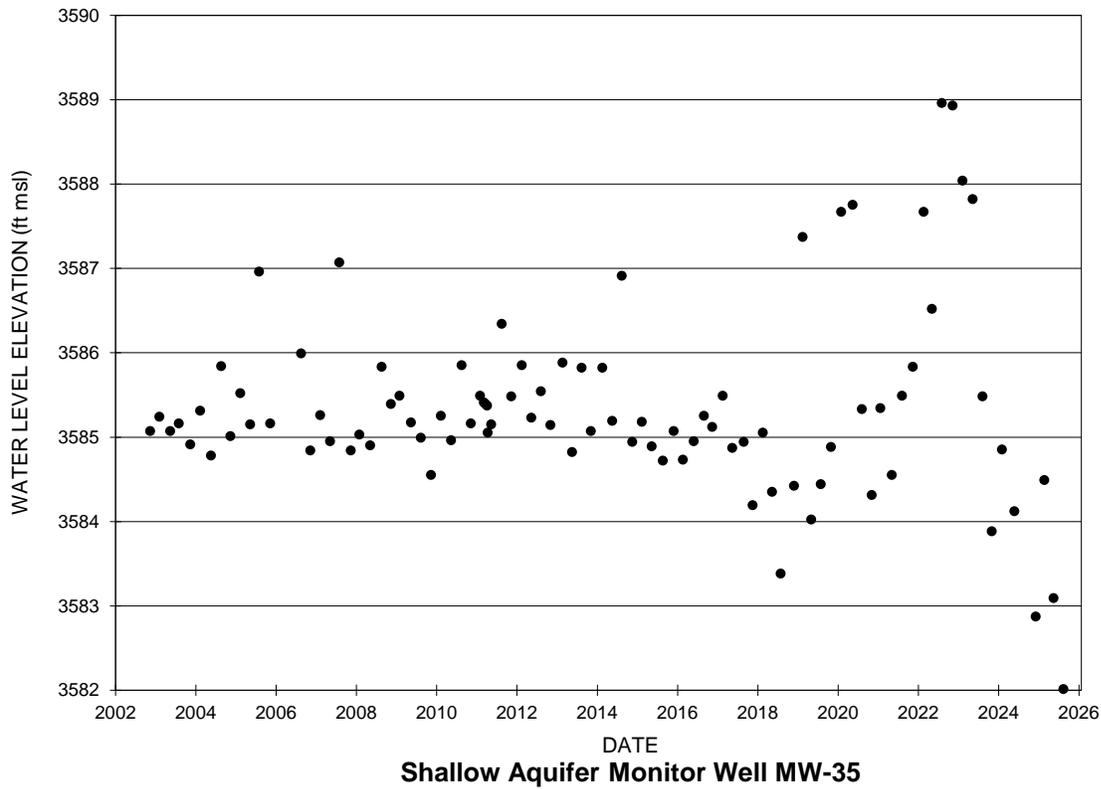


FIGURE A-28. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL MW-35

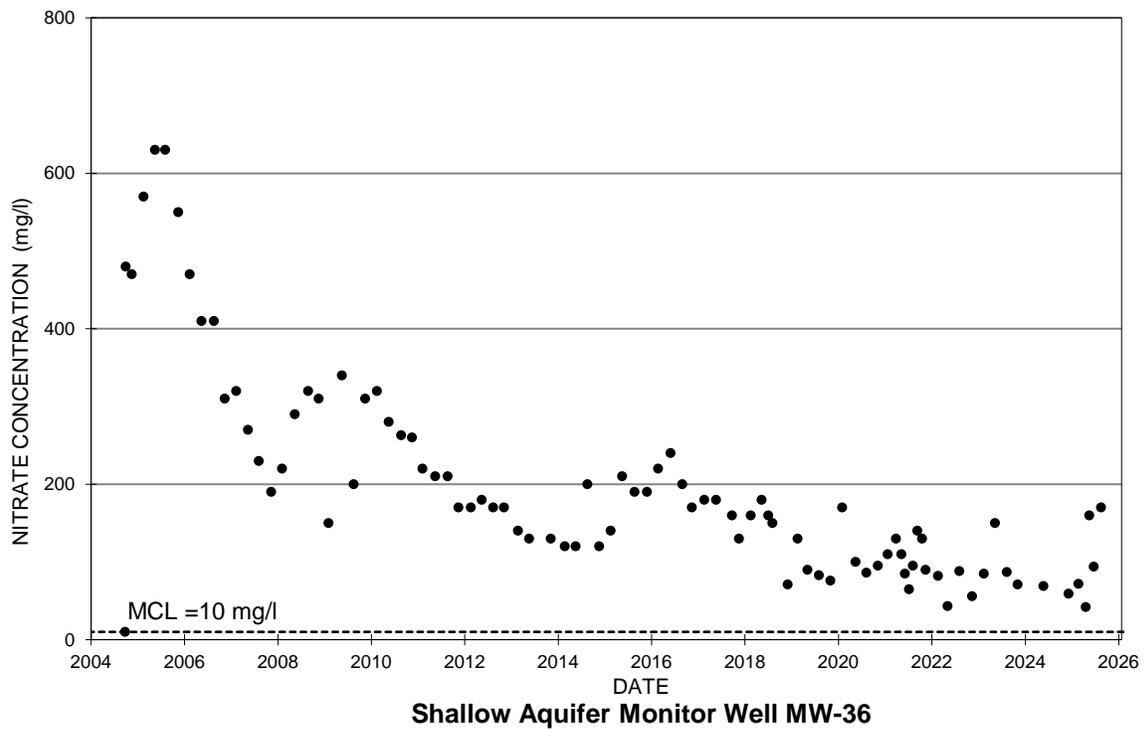
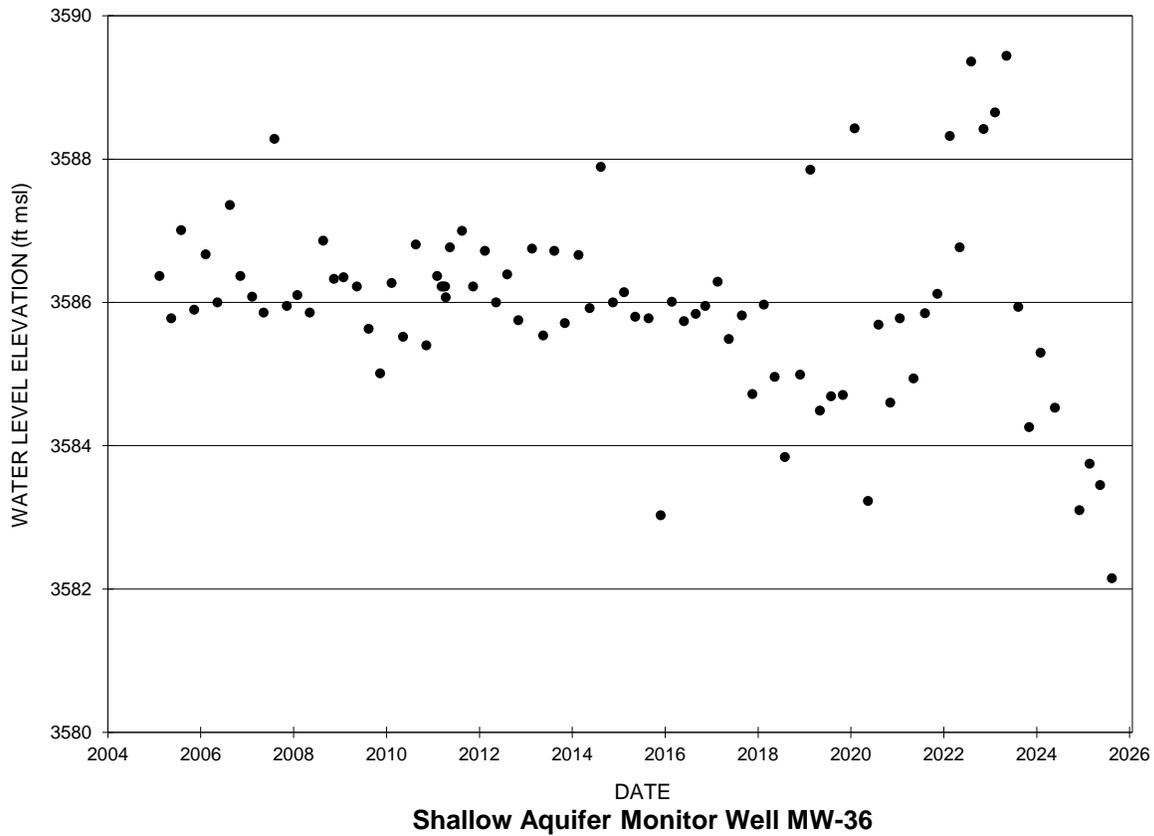
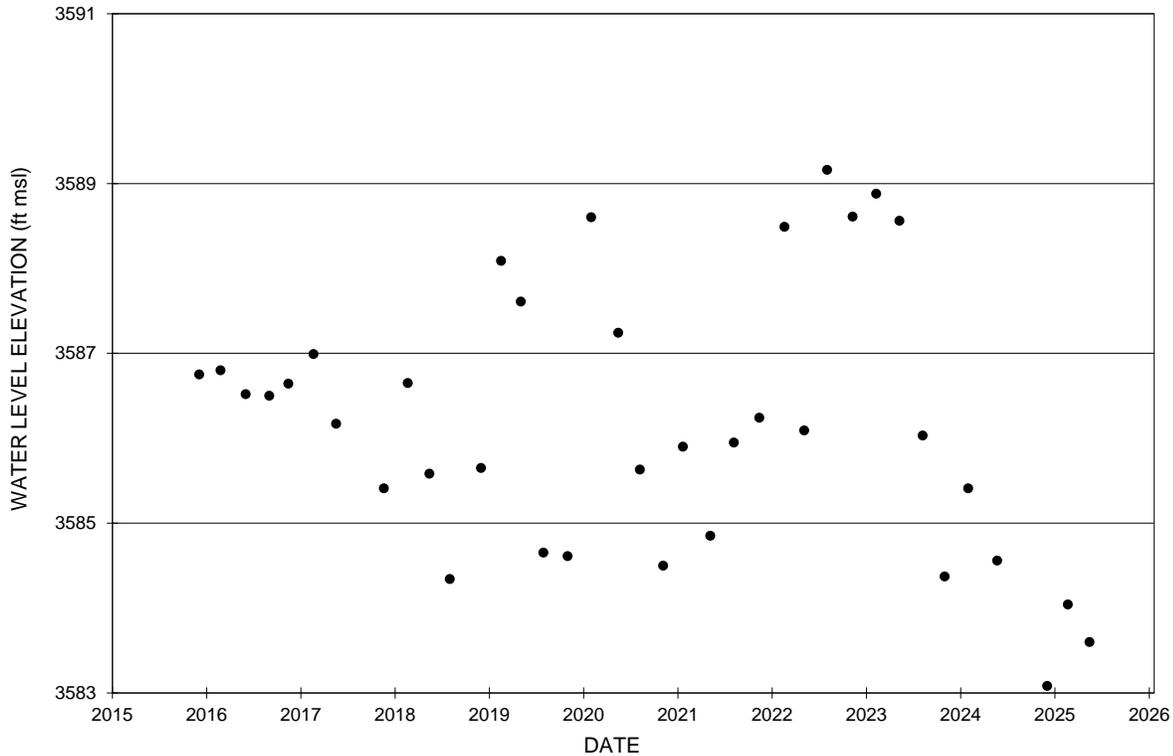
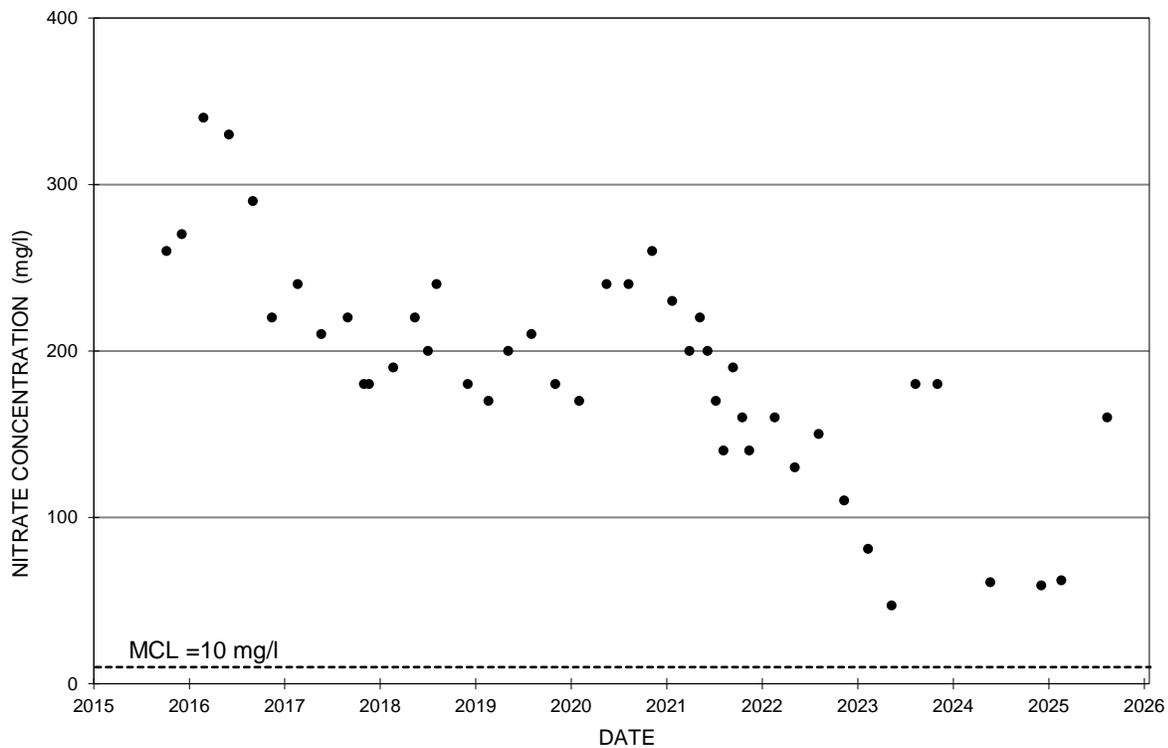


FIGURE A-29. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL MW-36

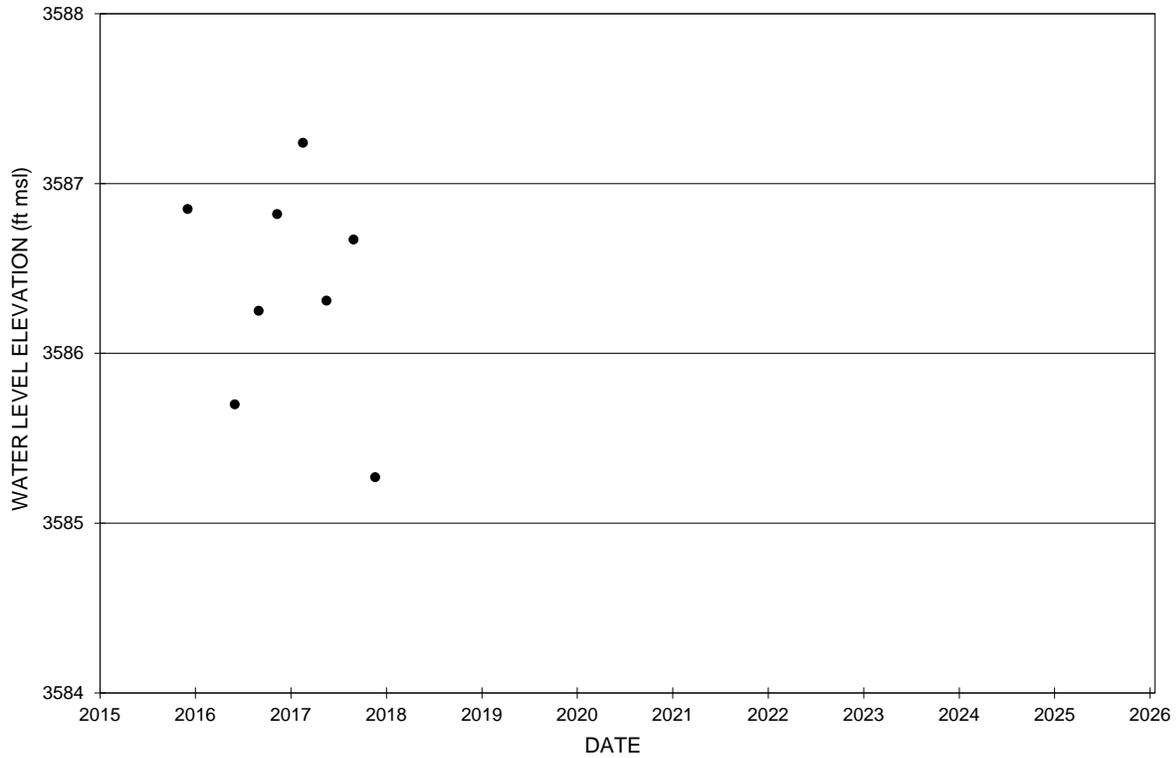


Shallow Aquifer Monitor Well MW-45

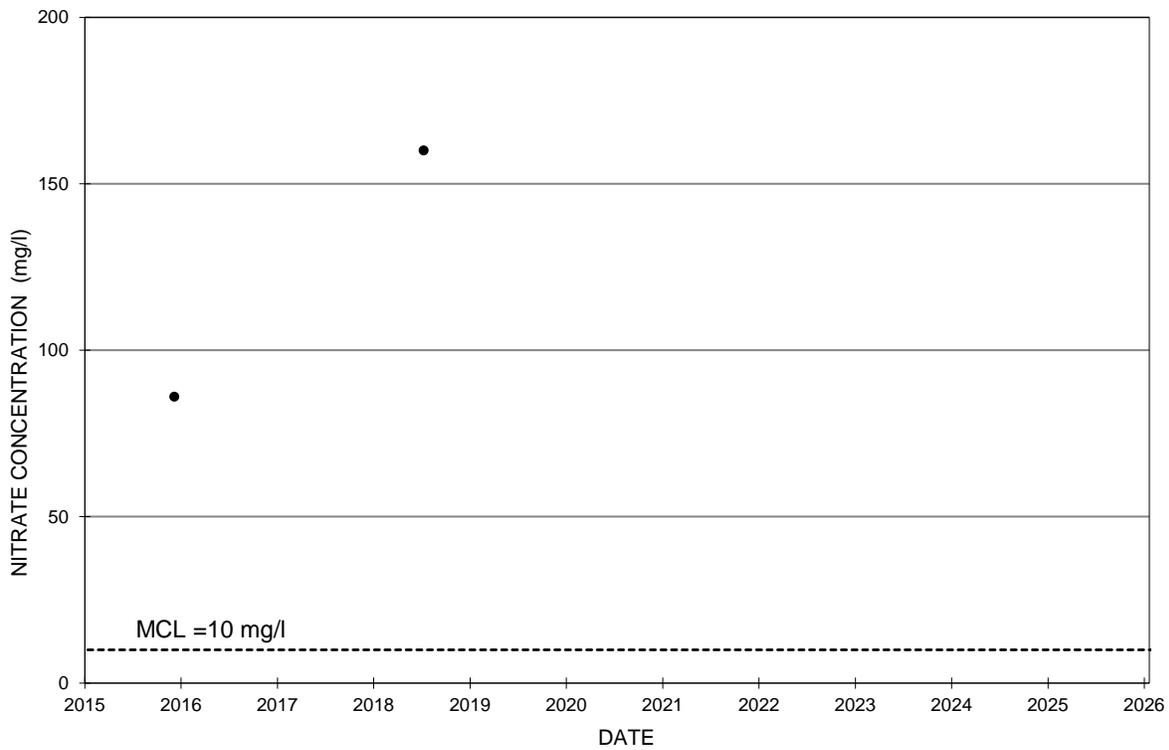


Shallow Aquifer Monitor Well MW-45

FIGURE A-30. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL MW-45

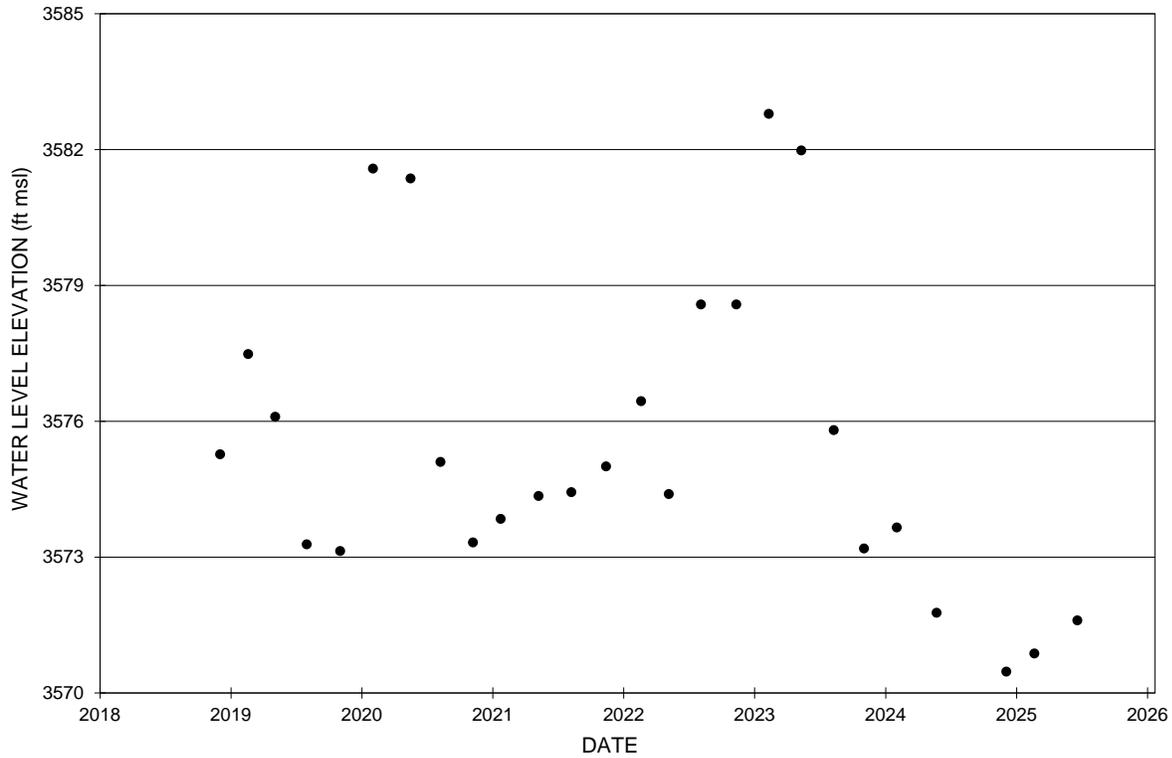


Shallow Aquifer Monitor Well MW-46

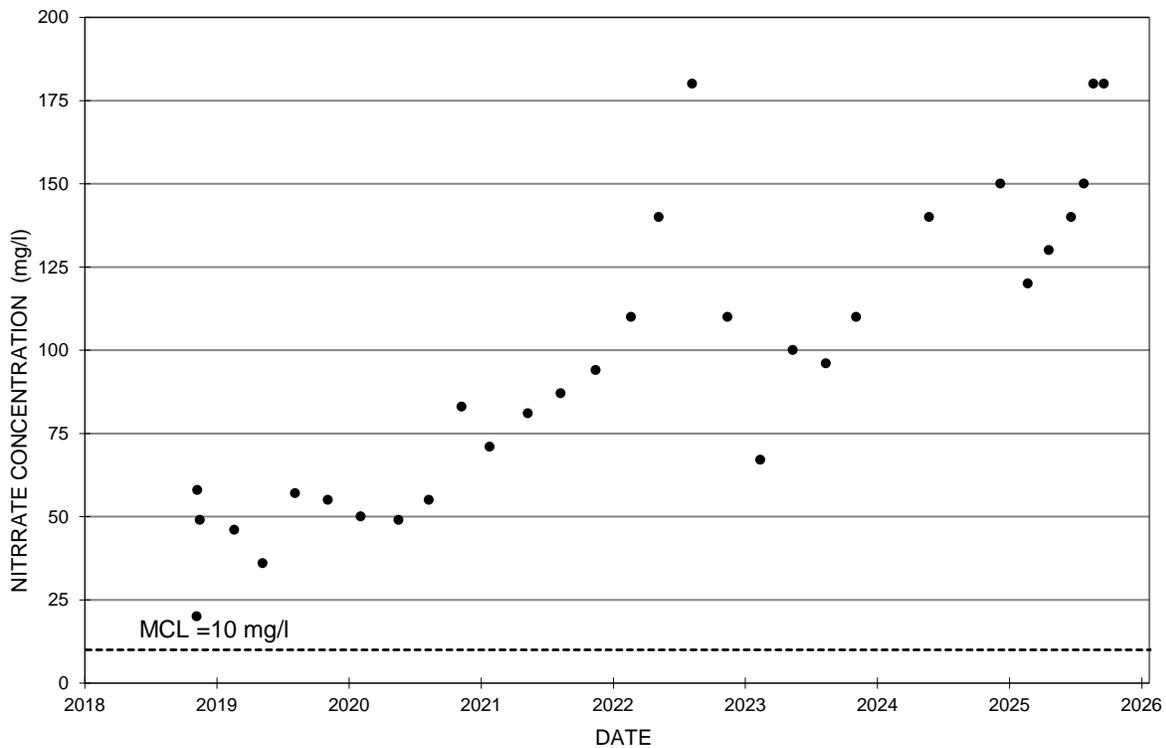


Shallow Aquifer Monitor Well MW-46

FIGURE A-31. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL MW-46

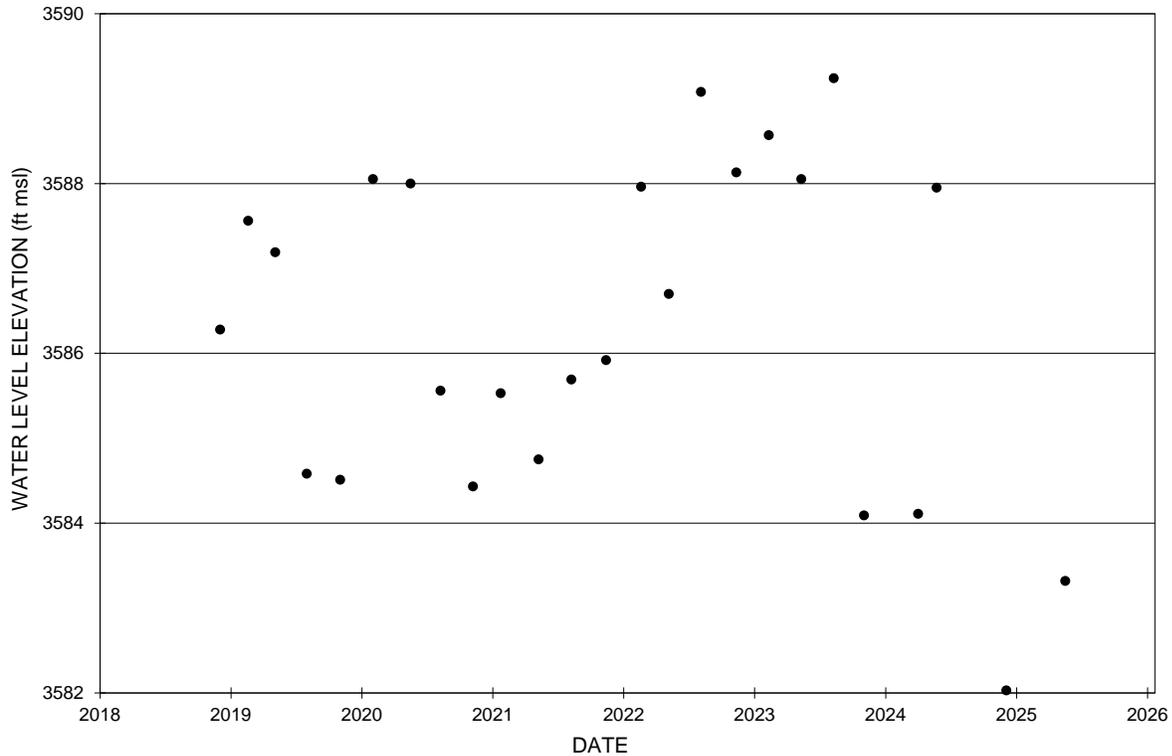


Shallow Aquifer Monitor Well PB-2A

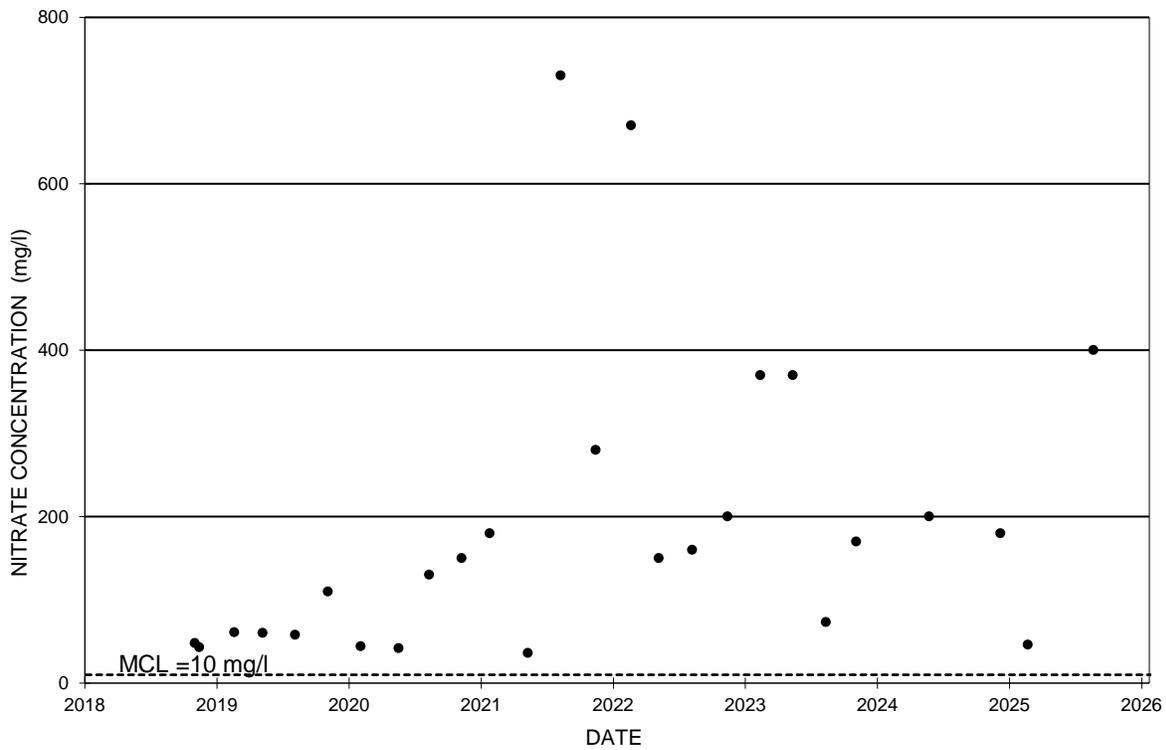


Shallow Aquifer Monitor Well PB-2A

FIGURE A-32. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL PB-2A



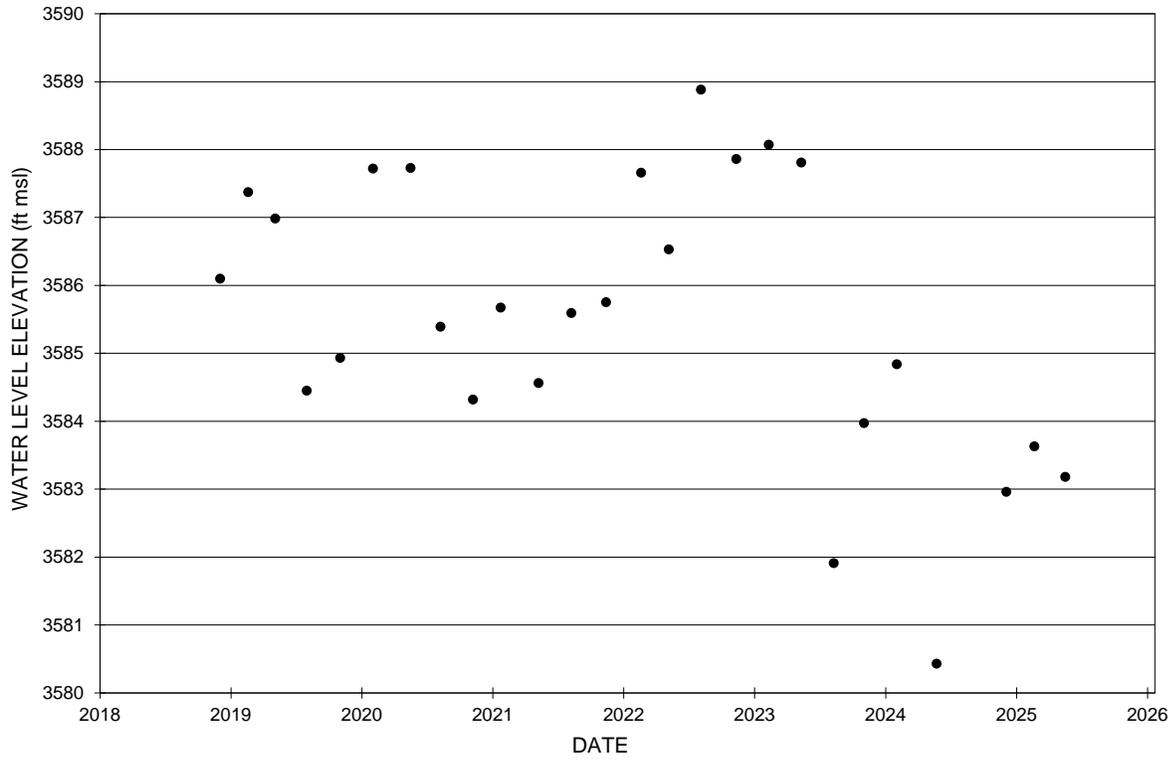
Shallow Aquifer Monitor Well PB-4



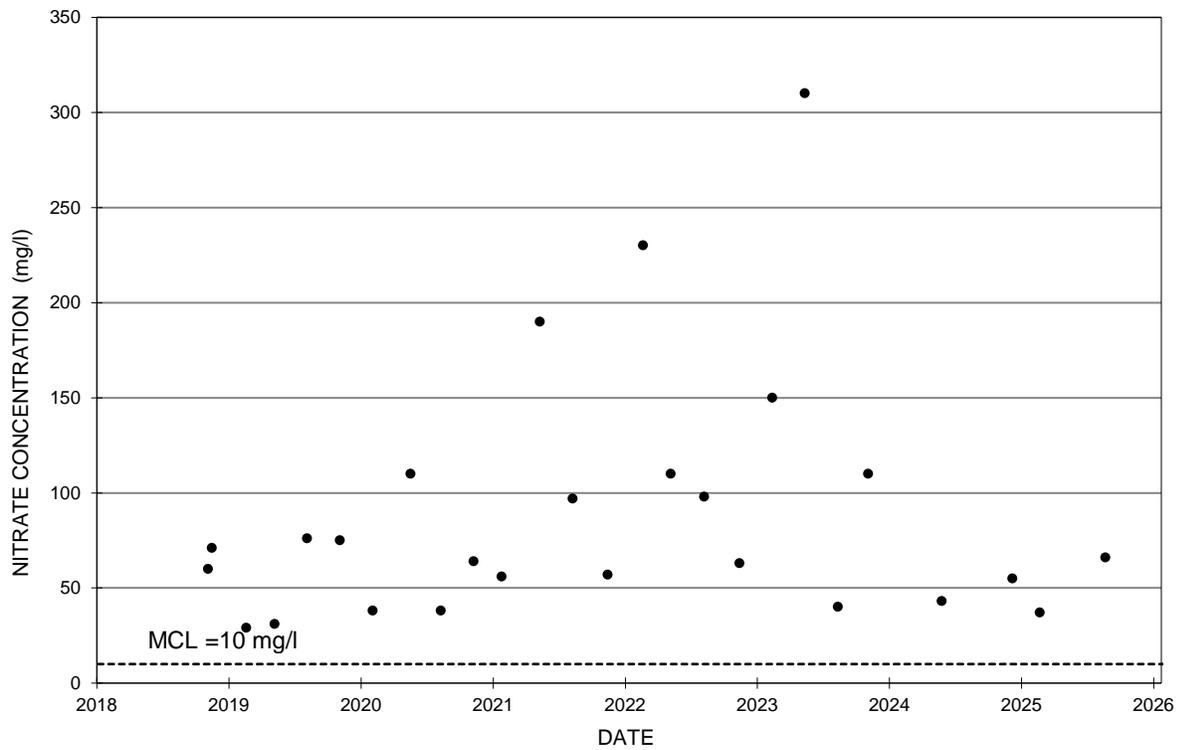
Shallow Aquifer Monitor Well PB-4

Nitrate concentration from 5/29/2024 depicted on graph was collected at 65 feet below ground surface

FIGURE A-33. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL PB-4



Shallow Aquifer Monitor Well PB-7



Shallow Aquifer Monitor Well PB-7

Nitrate concentration from 5/29/2024 depicted on graph was collected at 60 feet below ground surface

FIGURE A-34. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER MONITOR WELL PB-7

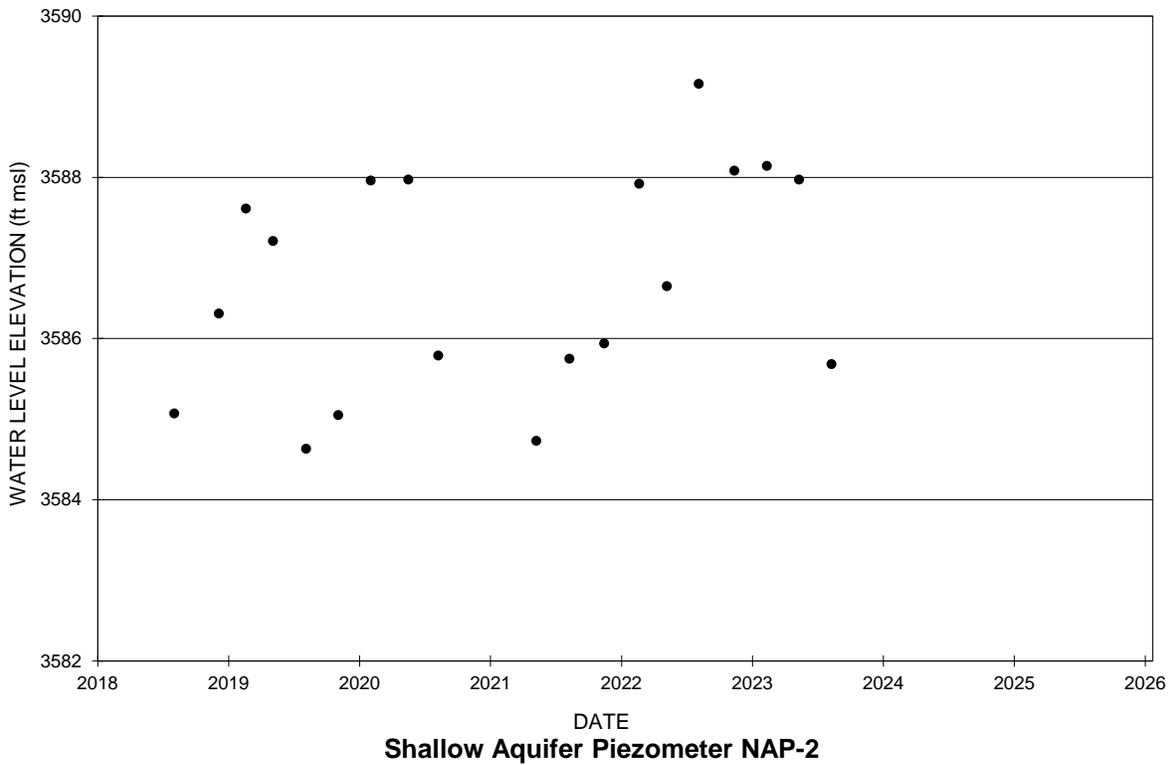
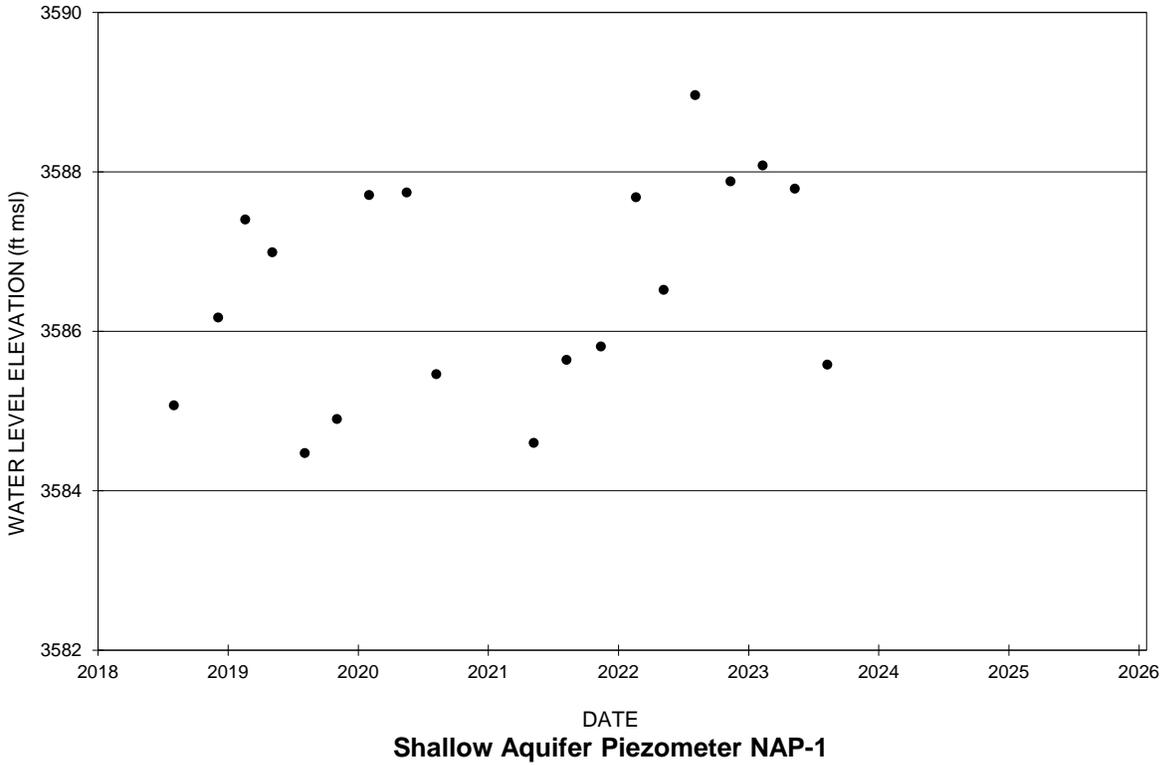


FIGURE A-35. WATER LEVEL HYDROGRAPHS FOR NORTHERN AREA SHALLOW AQUIFER PIEZOMETERS NAP-1 AND NAP-2

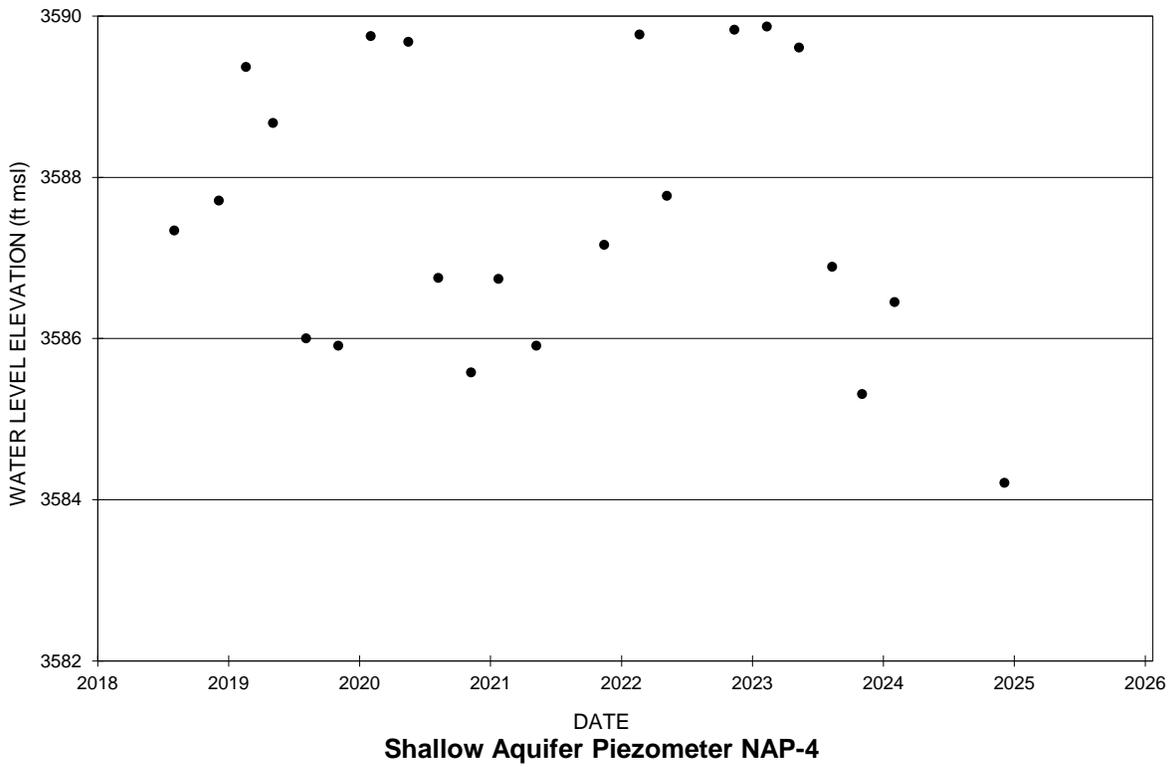
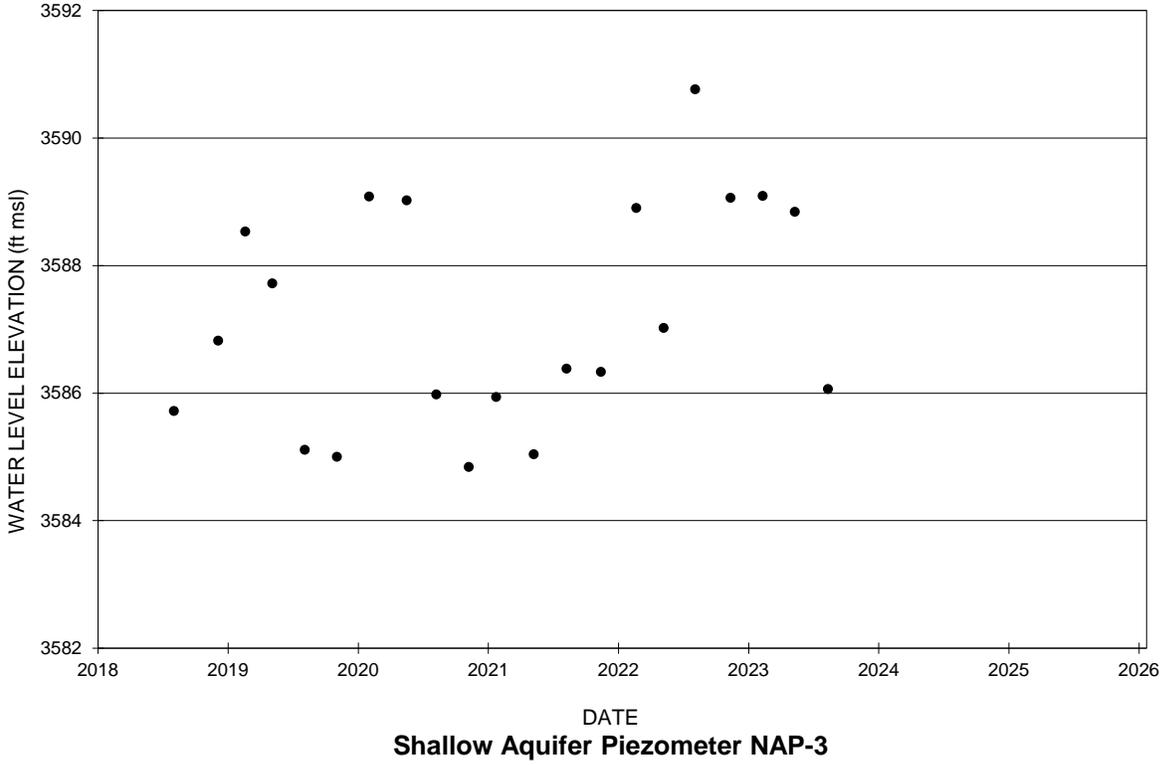


FIGURE A-36. WATER LEVEL HYDROGRAPHS FOR NORTHERN AREA SHALLOW AQUIFER PIEZOMETERS NAP-3 AND NAP-4

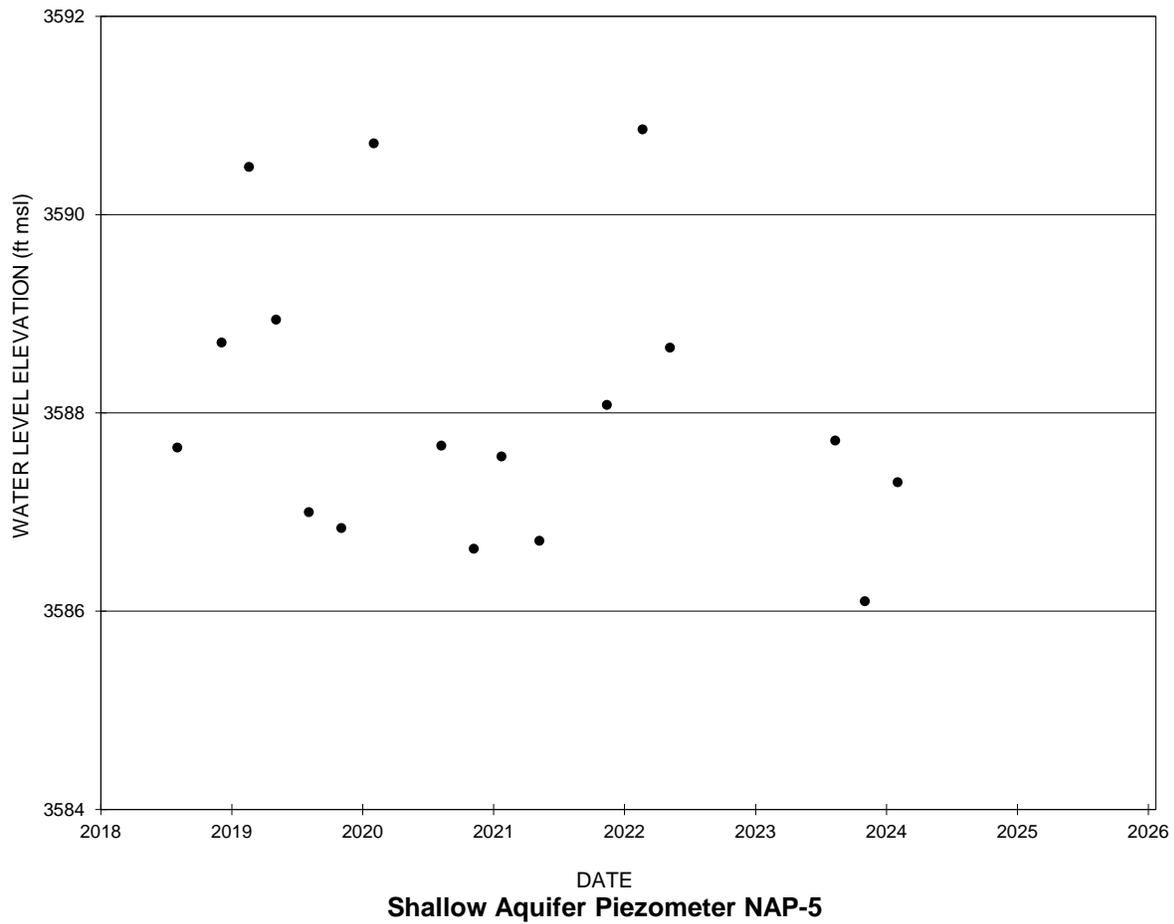


FIGURE A-37. WATER LEVEL HYDROGRAPHS FOR NORTHERN AREA SHALLOW AQUIFER PIEZOMETER NAP-5

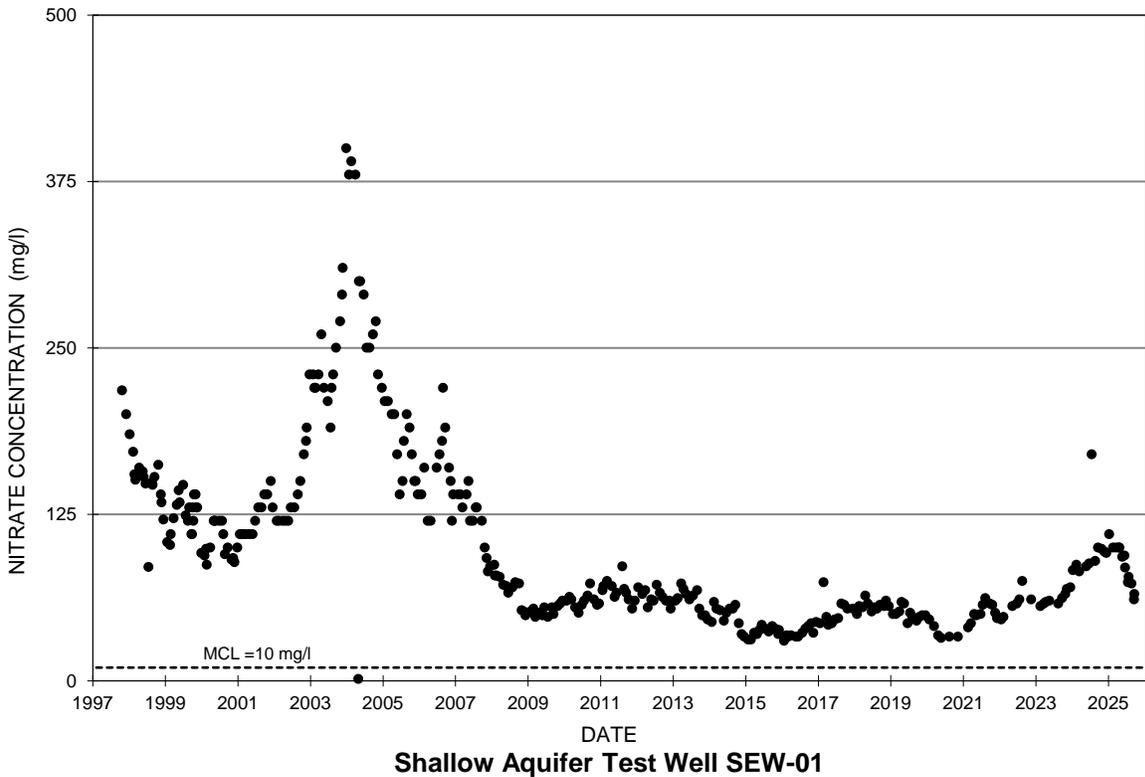
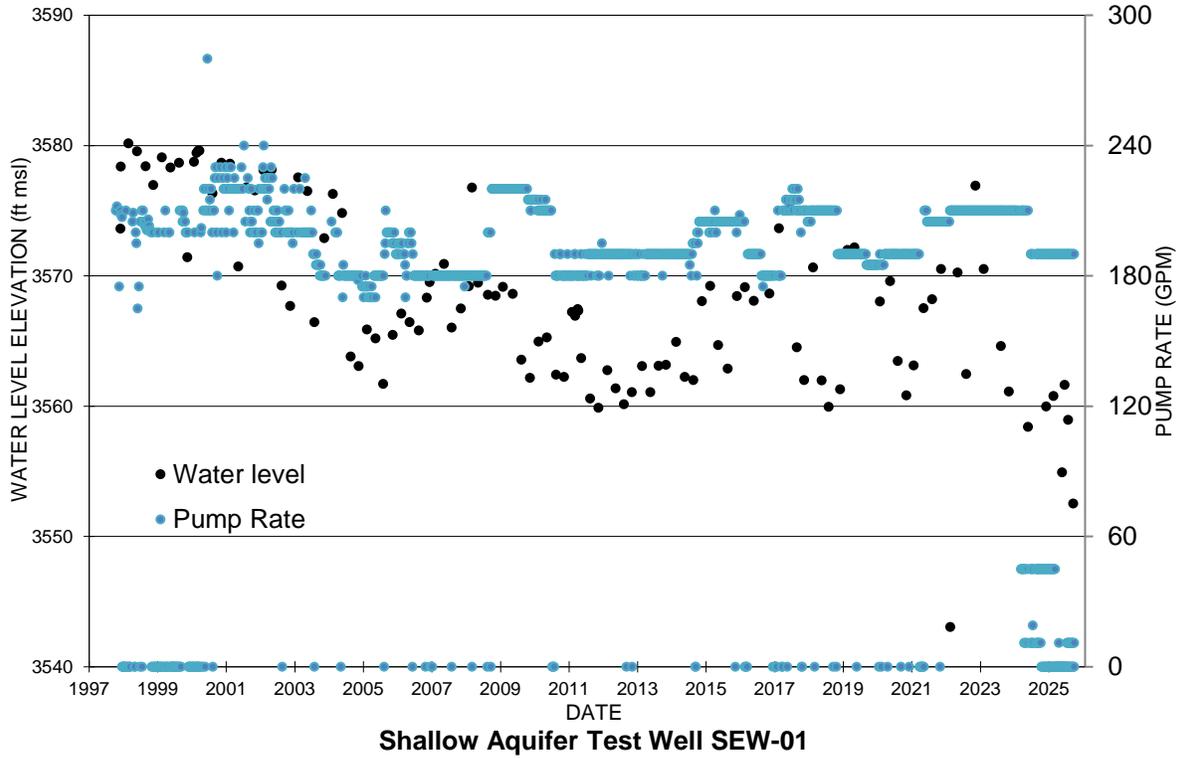


FIGURE A-38. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER EXTRACTION WELL SEW-01

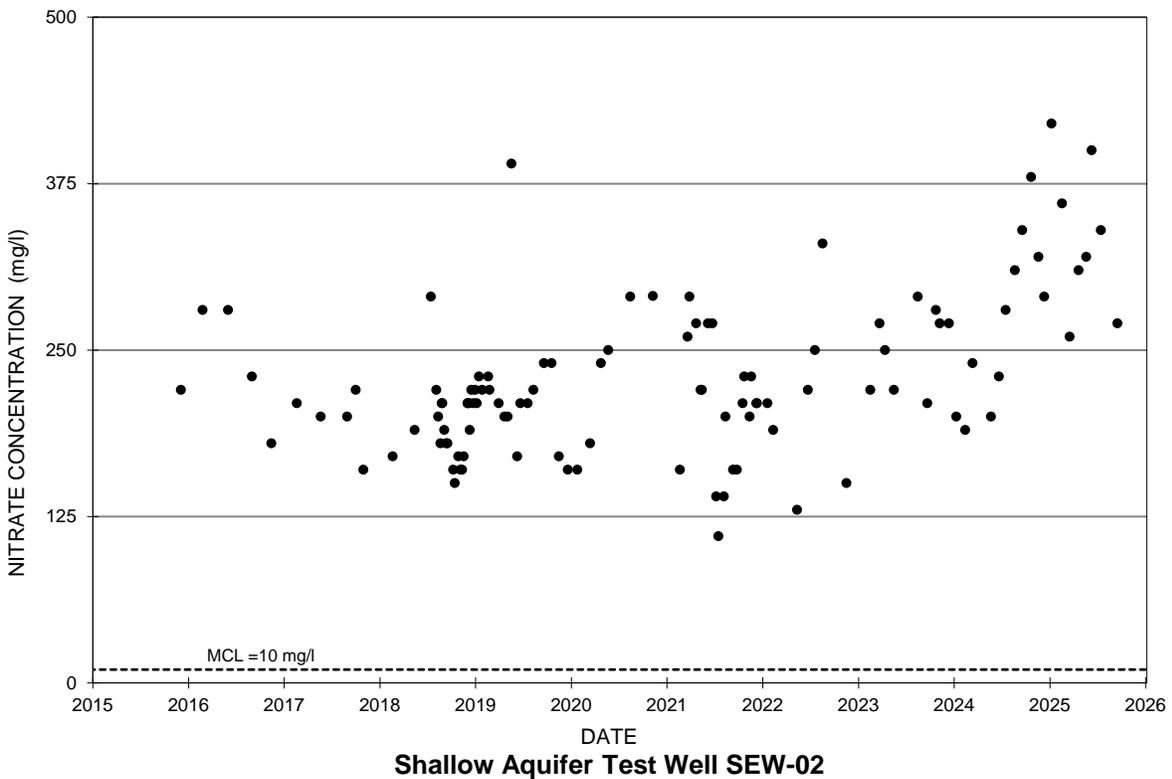
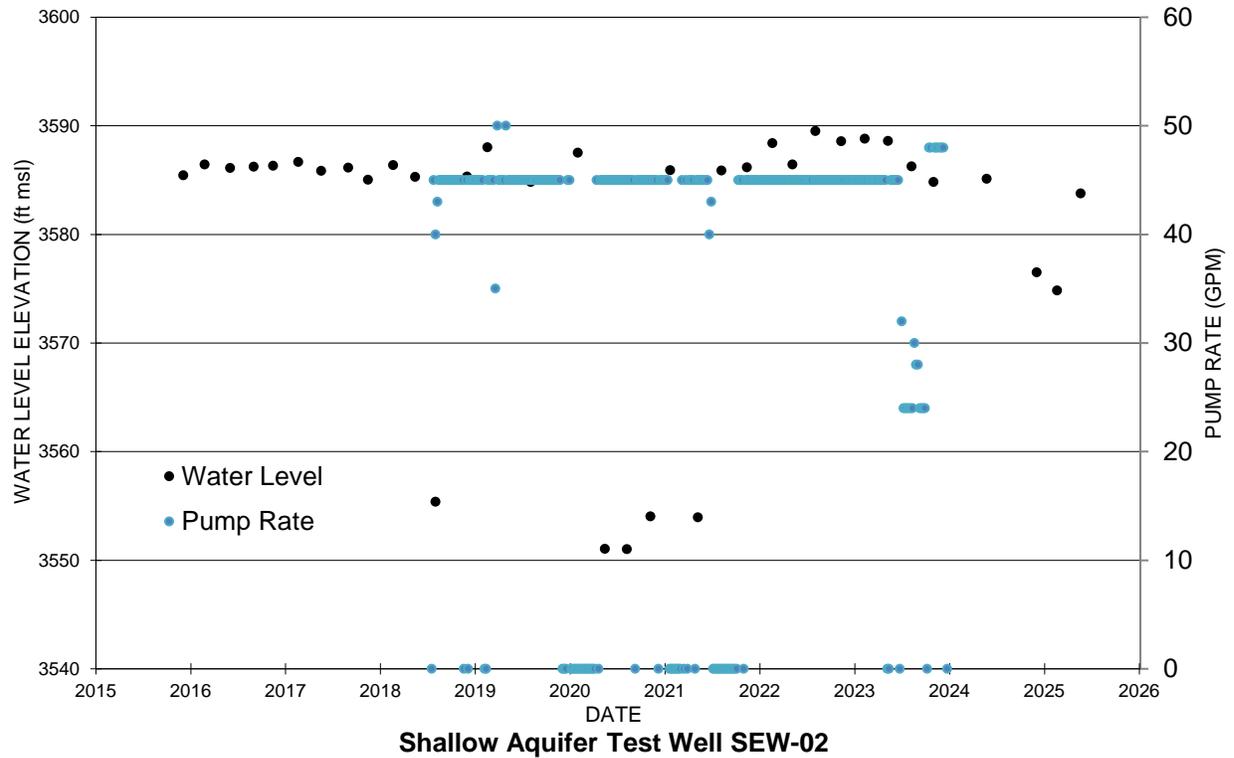


FIGURE A-39. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR SHALLOW AQUIFER EXTRACTION WELL SEW-02

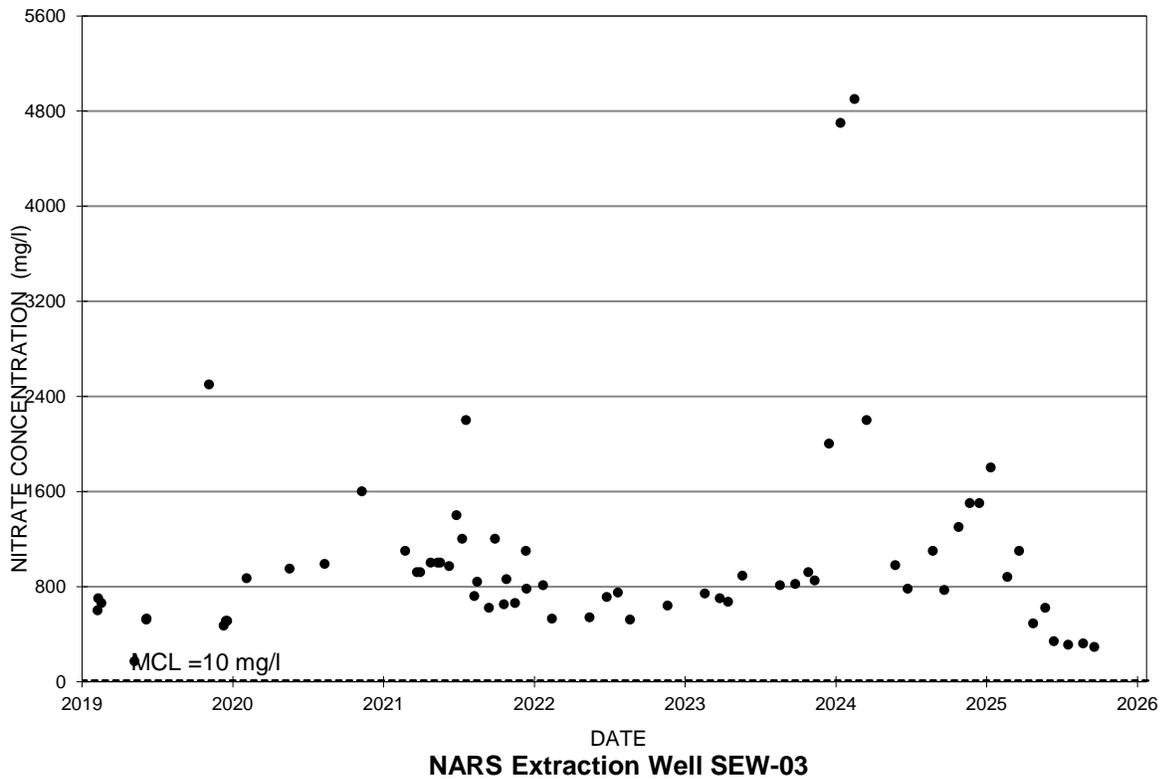
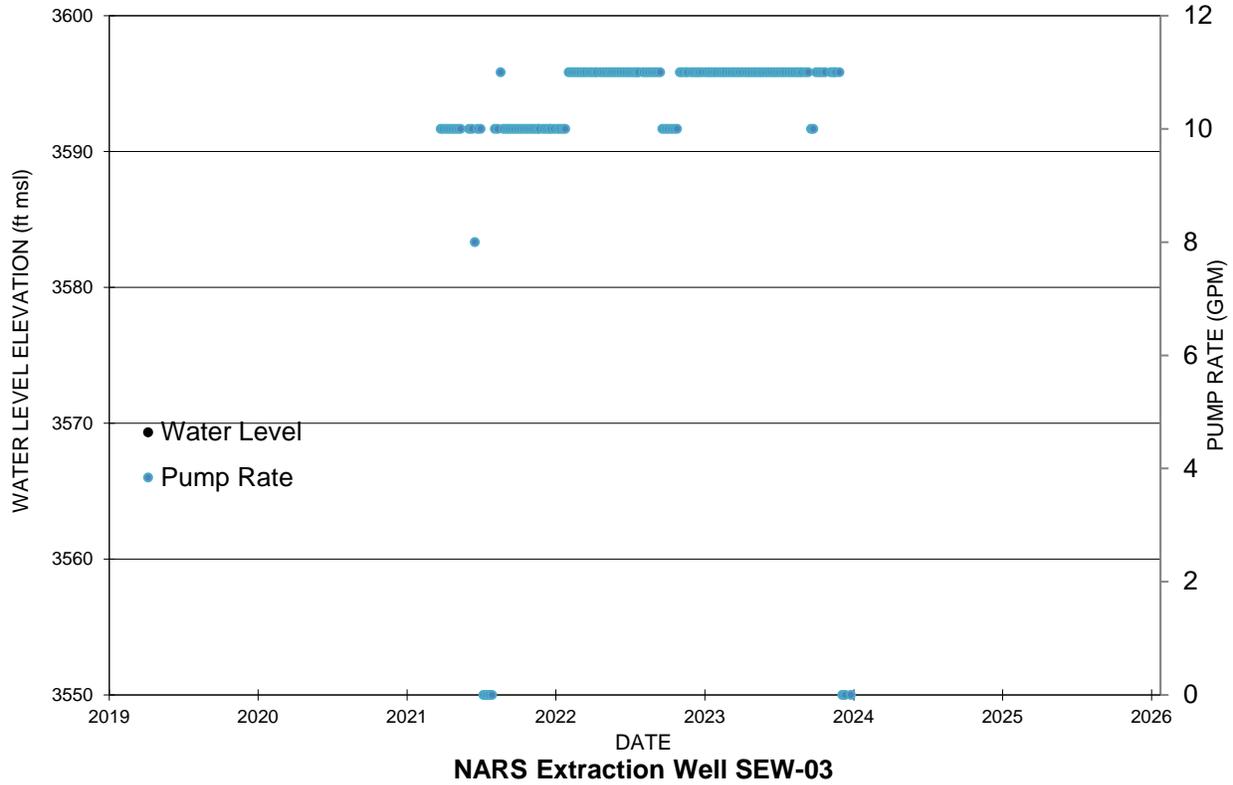


FIGURE A-40. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR NARS EXTRACTION WELL SEW-03

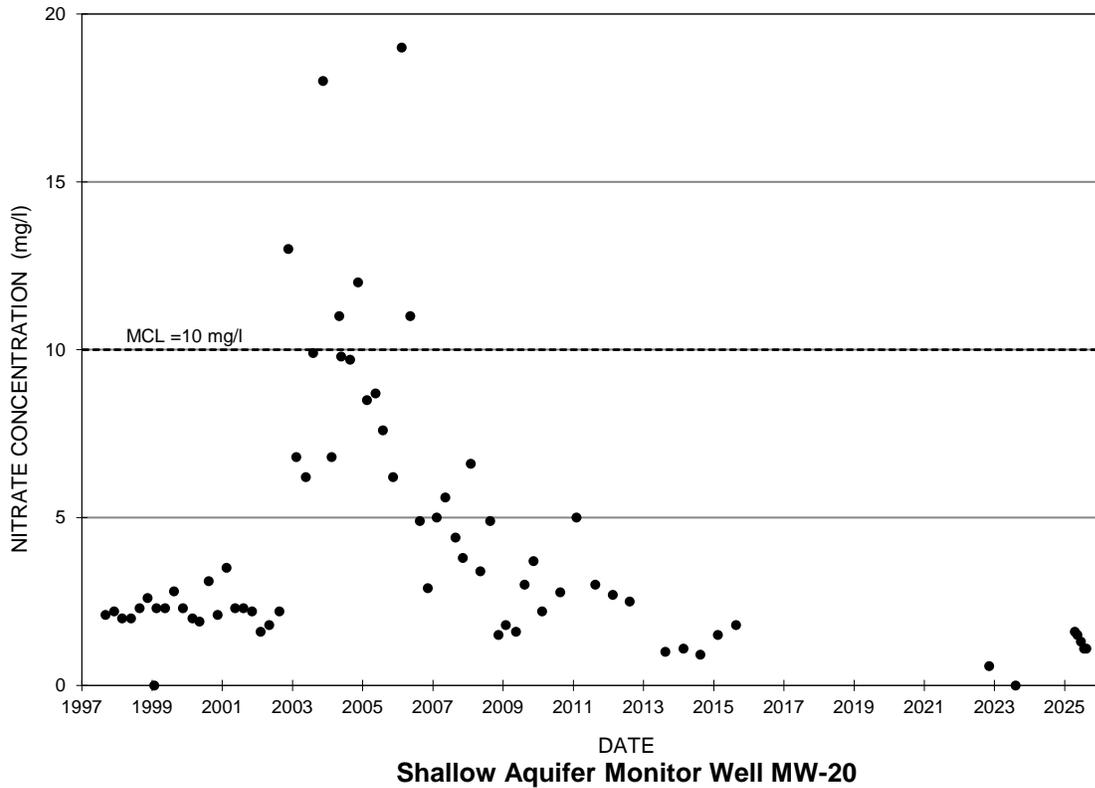
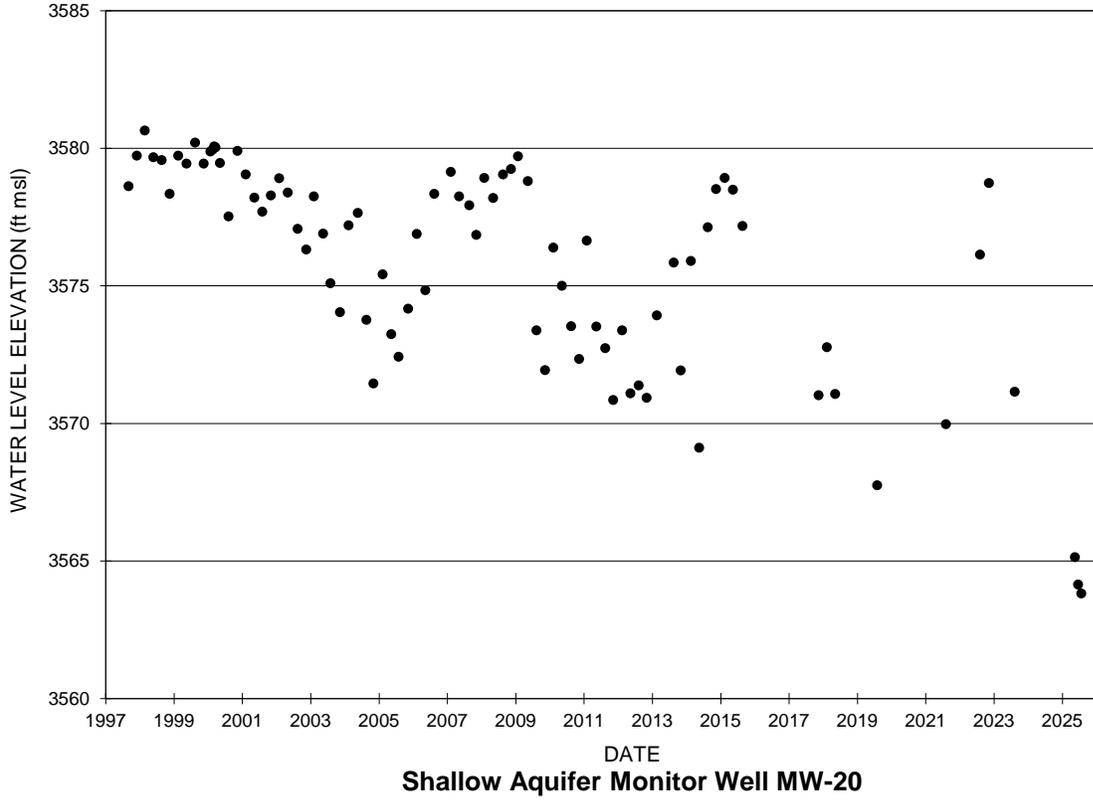
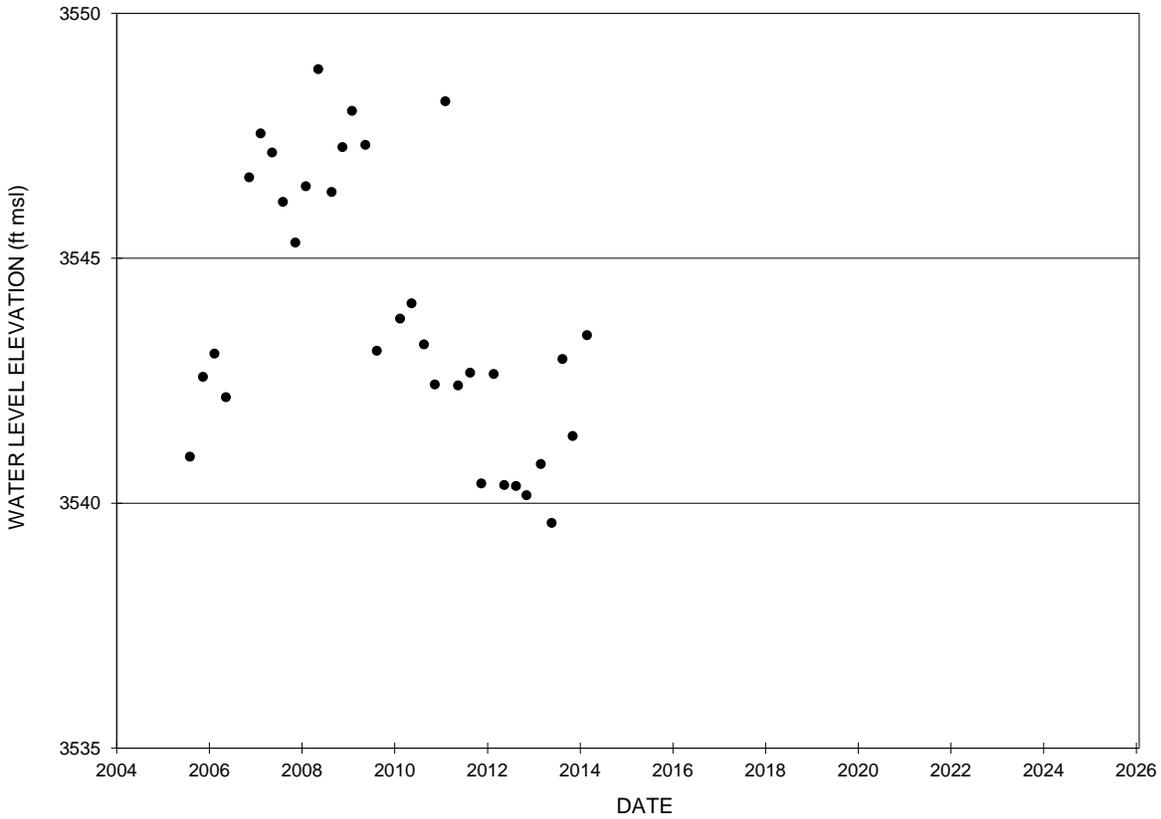
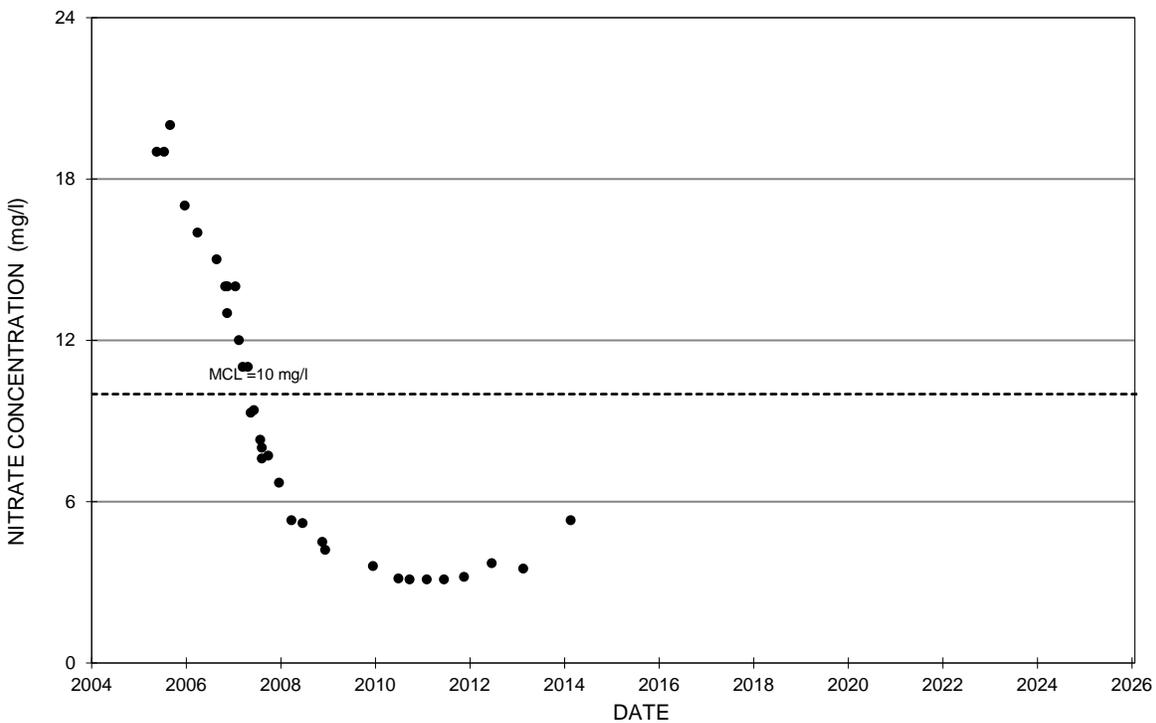


FIGURE A-41. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR NORTHERN AREA MANAGEMENT ZONE MONITOR WELL MW-20

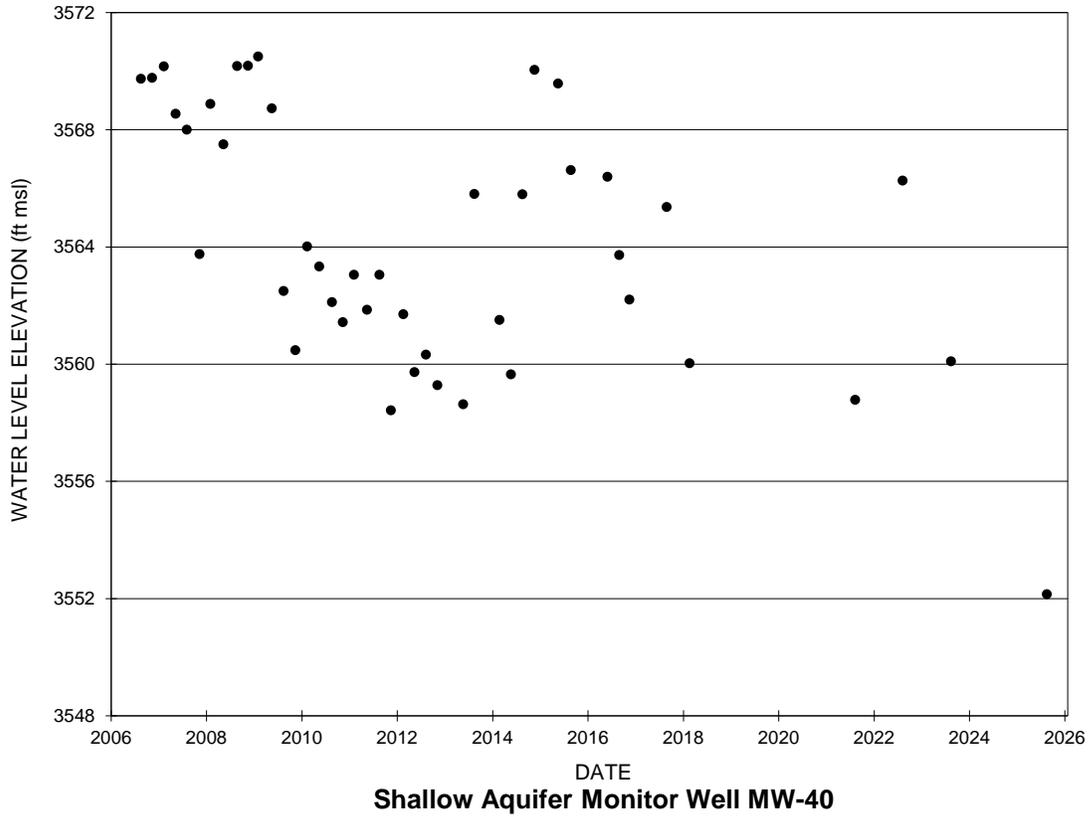


Shallow Aquifer Monitor Well MW-38



Shallow Aquifer Monitor Well MW-38

FIGURE A-42. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR NORTHERN AREA MANAGEMENT ZONE MONITOR WELL MW-38



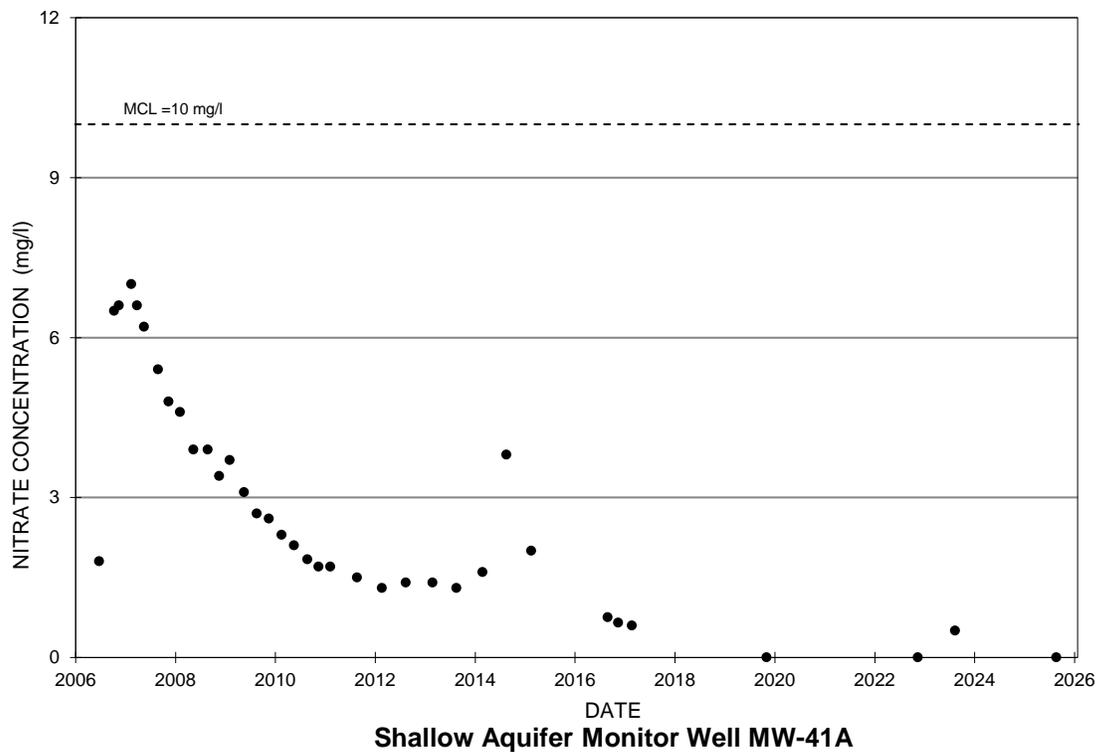
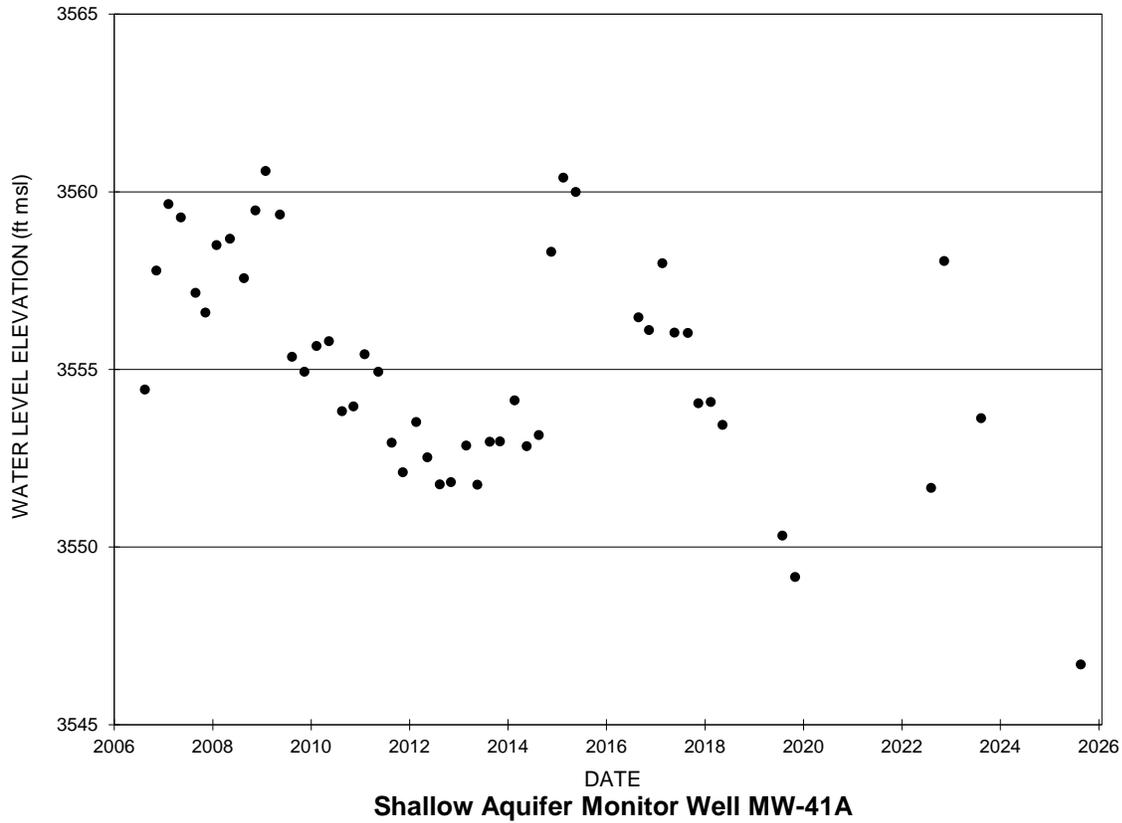


FIGURE A-44. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR NORTHERN AREA MANAGEMENT ZONE MONITOR WELL MW-41A

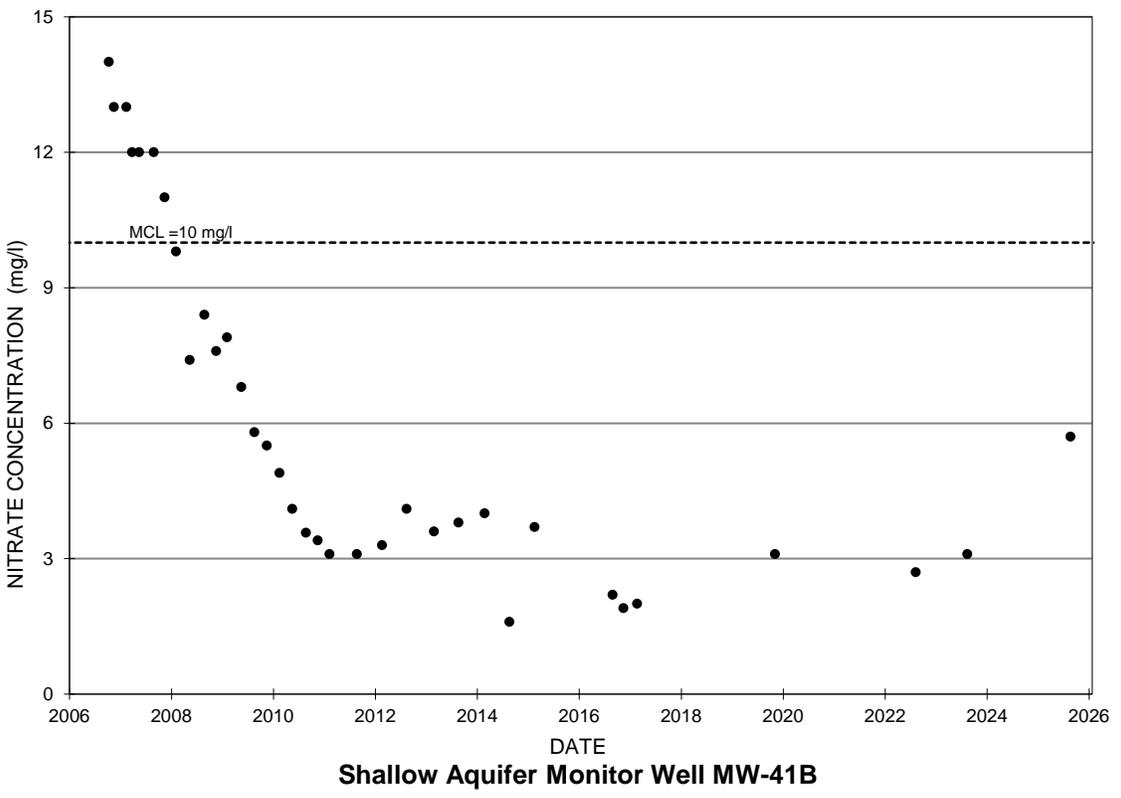
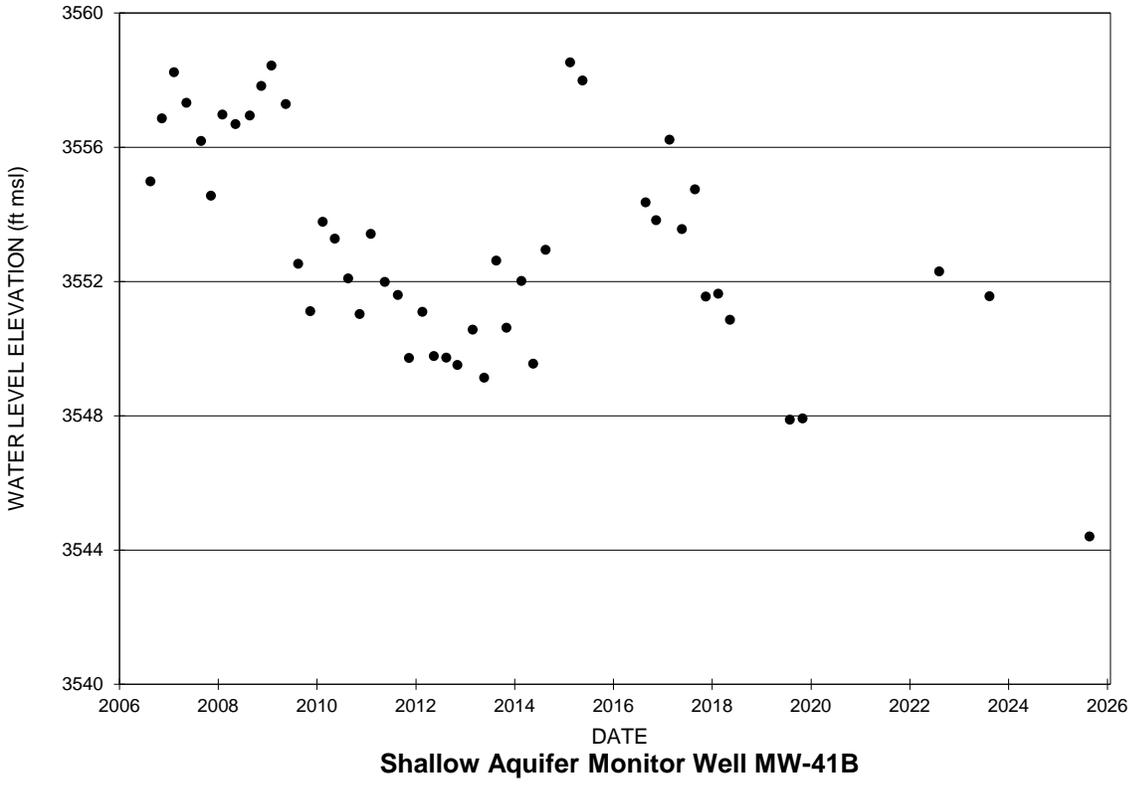


FIGURE A-45. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR NORTHERN AREA MANAGEMENT ZONE MONITOR WELL MW-41B

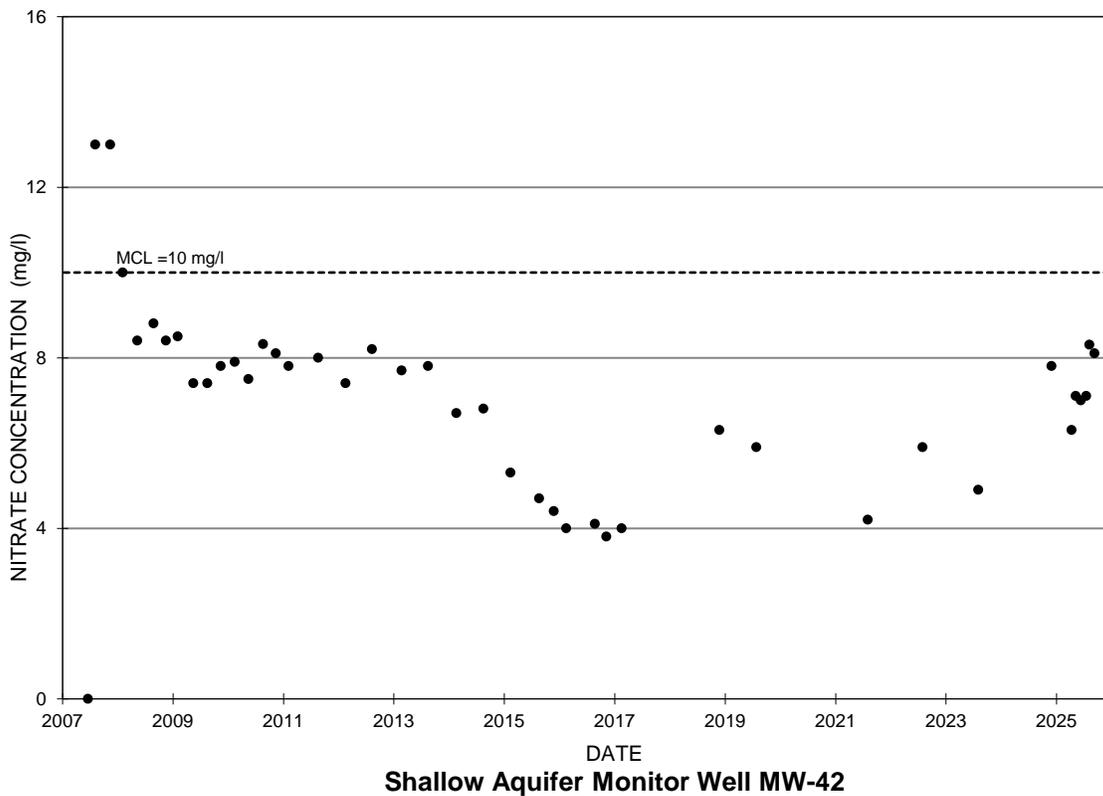
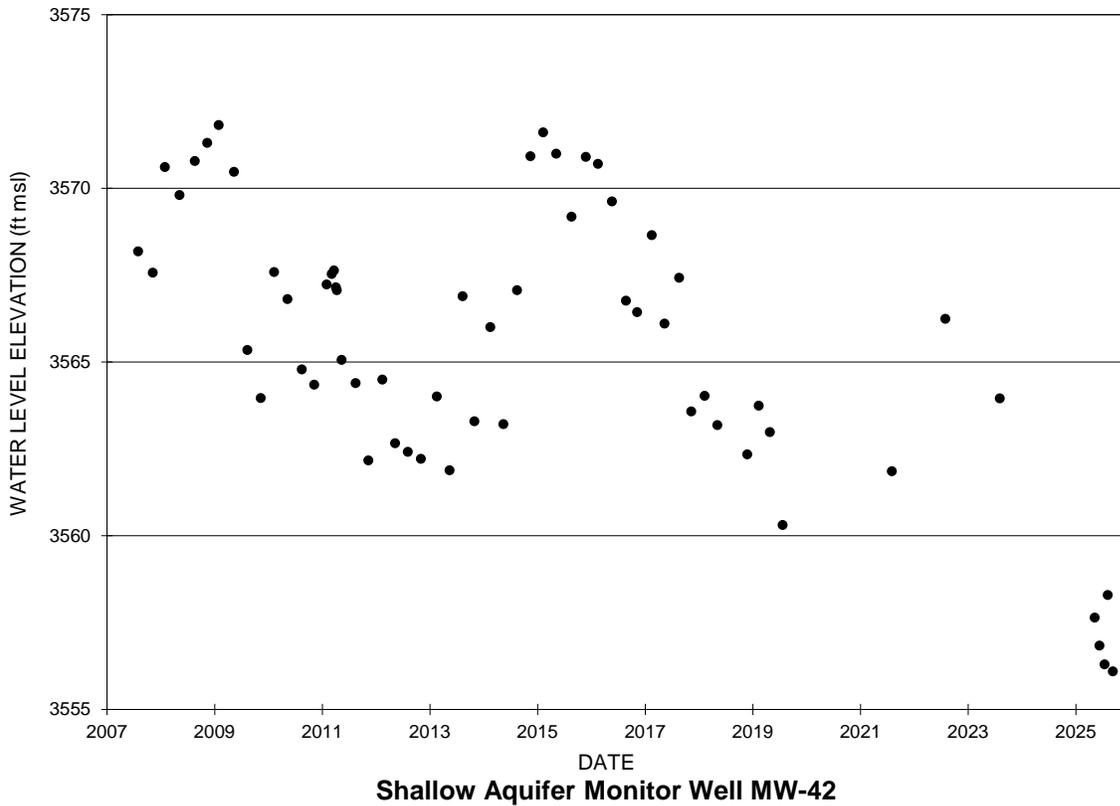


FIGURE A-46. WATER LEVEL AND WATER QUALITY HYDROGRAPHS FOR NORTHERN AREA MANAGEMENT ZONE MONITOR WELL MW-42

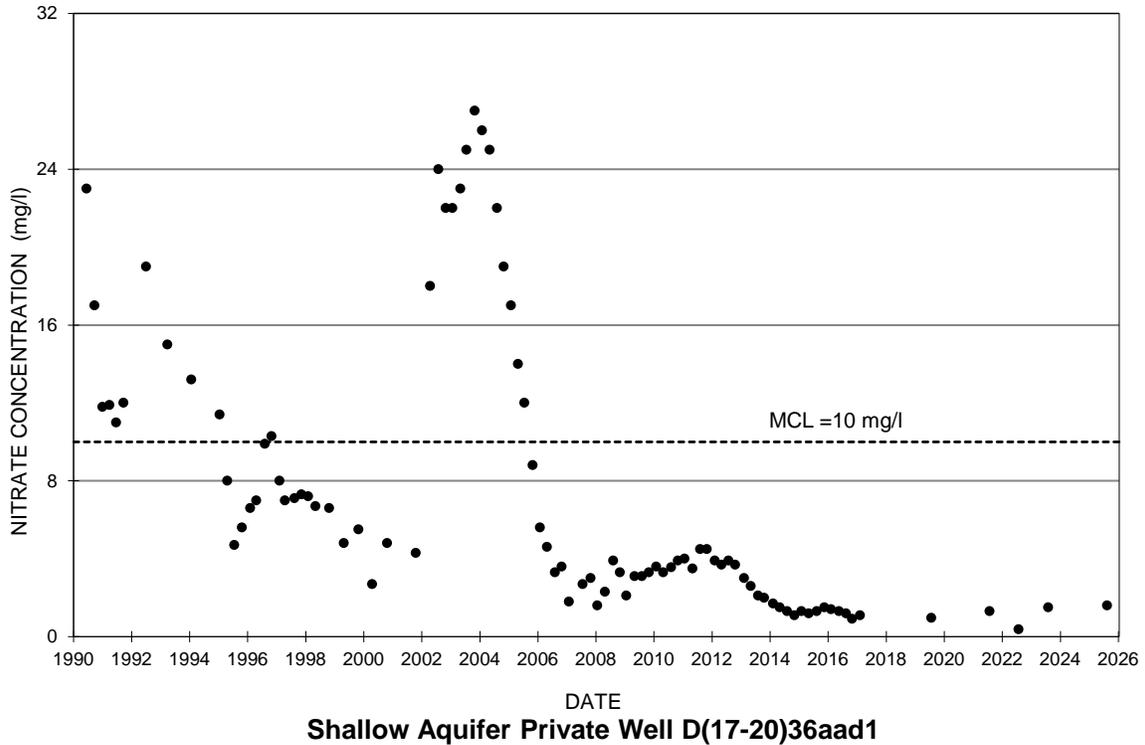
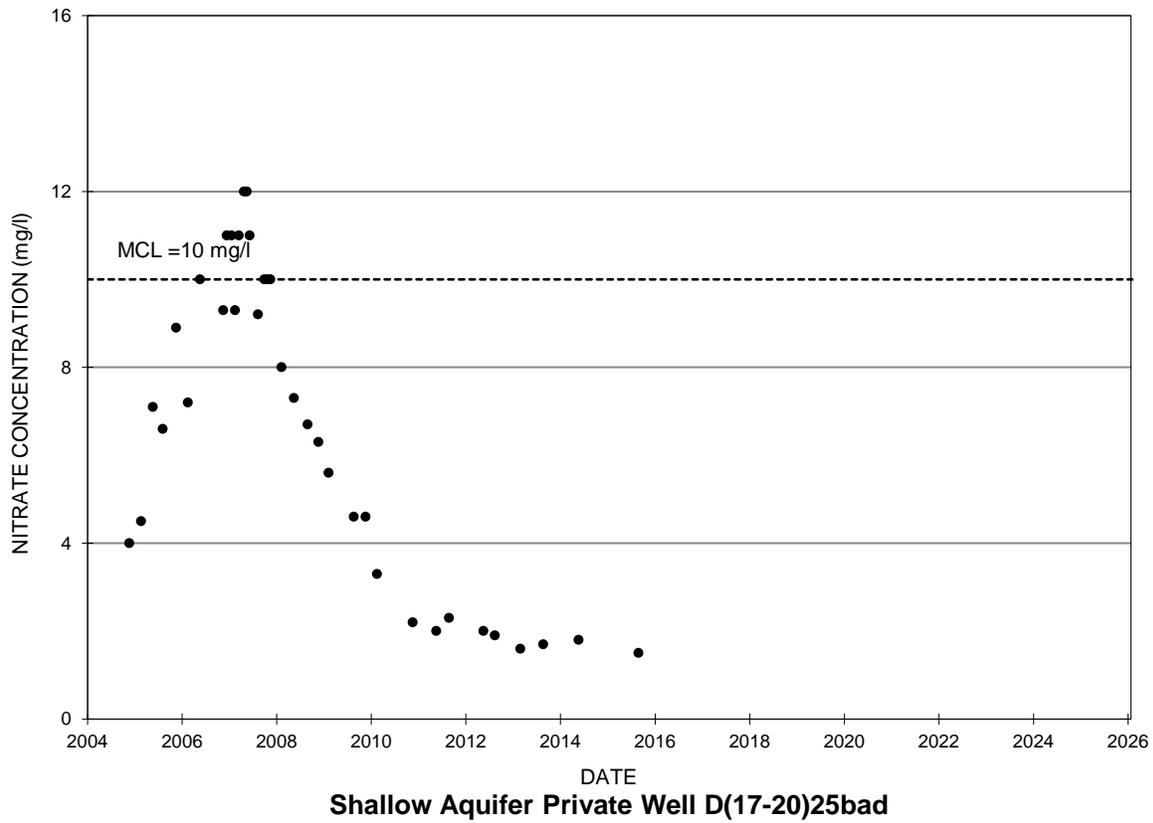


FIGURE A-47. WATER QUALITY HYDROGRAPHS FOR NORTHERN AREA MANAGEMENT ZONE PRIVATE WELLS D(17-20)25bad AND D(17-20)36aad1

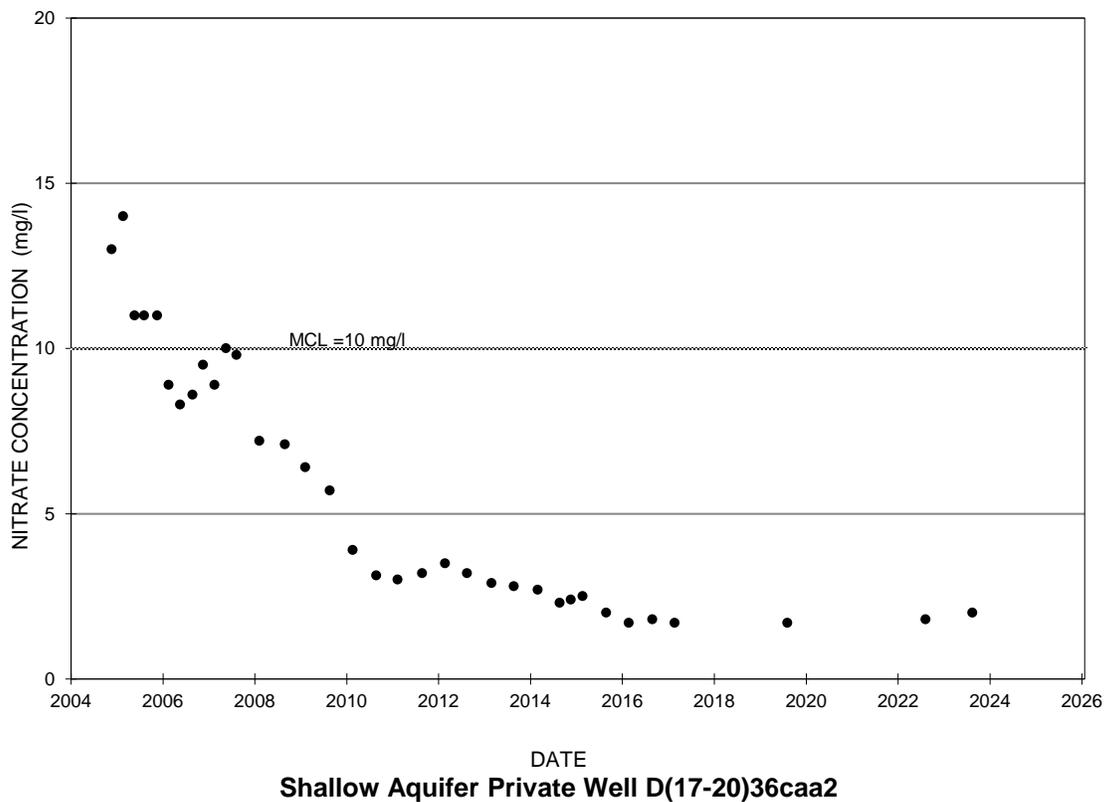
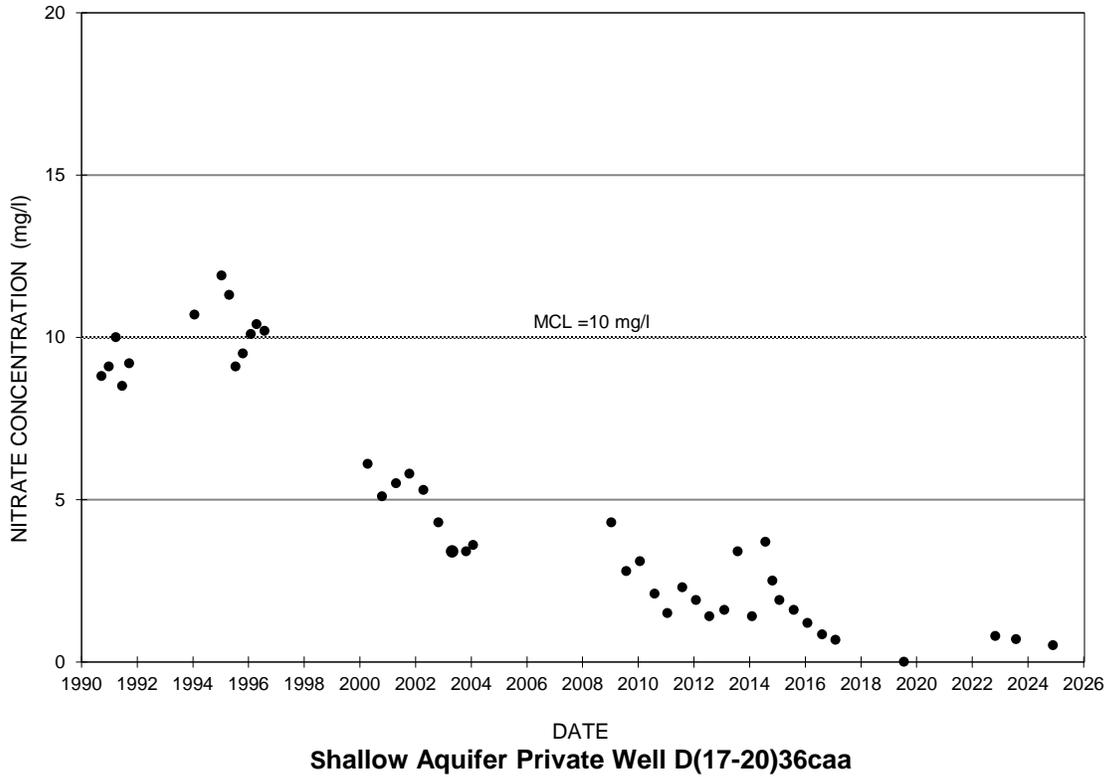


FIGURE A-48. WATER QUALITY HYDROGRAPHS FOR NORTHERN AREA MANAGEMENT ZONE PRIVATE WELLS D(17-20)36caa AND D(17-20)36caa2

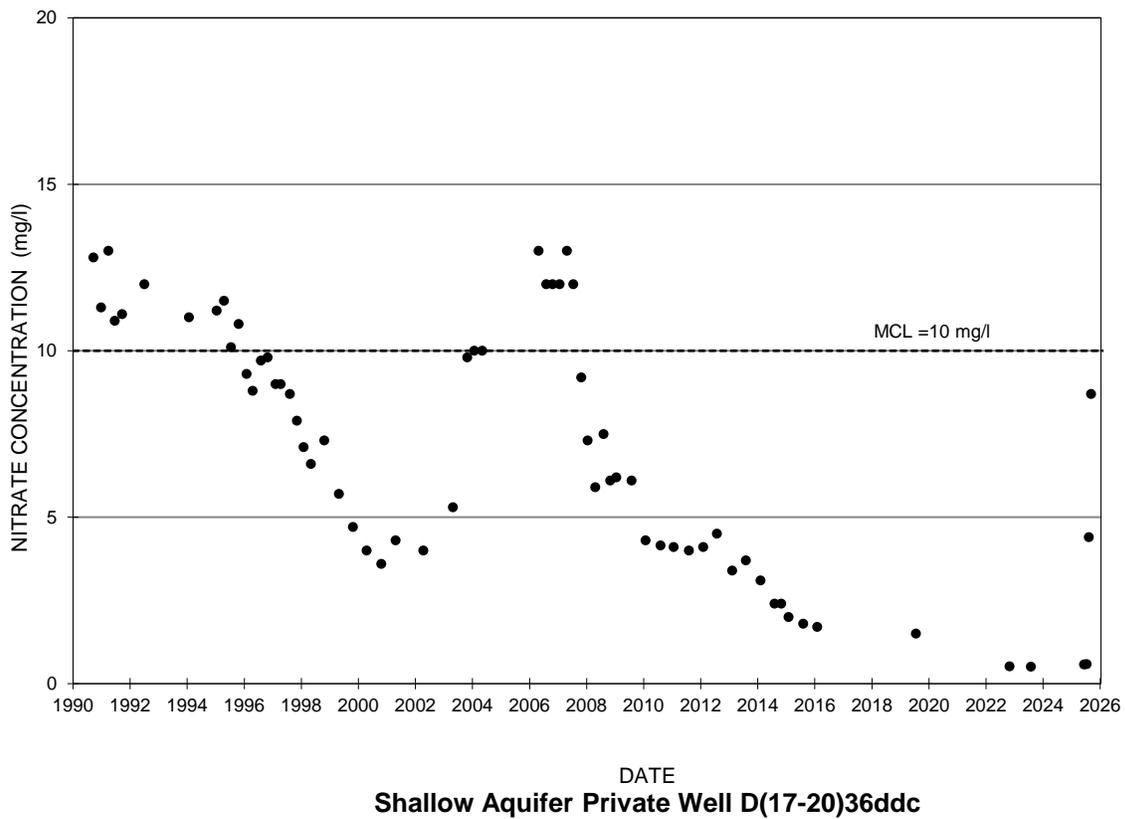
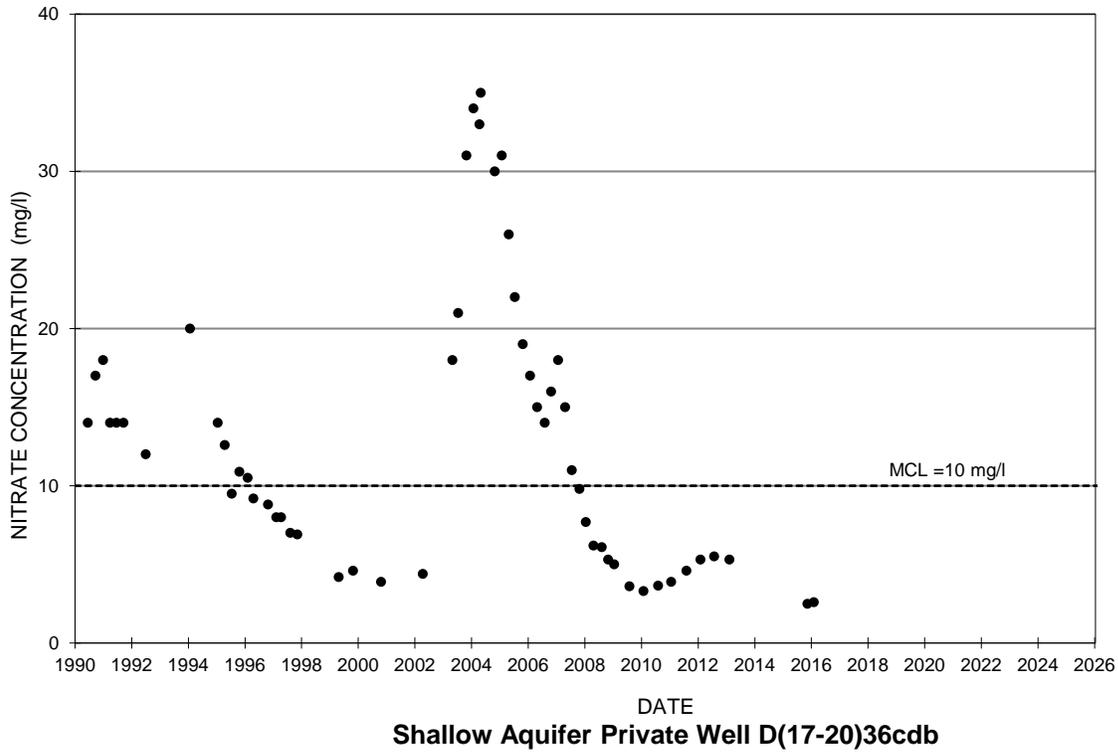


FIGURE A-49. WATER QUALITY HYDROGRAPHS FOR NORTHERN AREA MANAGEMENT ZONE PRIVATE WELLS D(17-20)36cdb AND D(17-20)36ddc

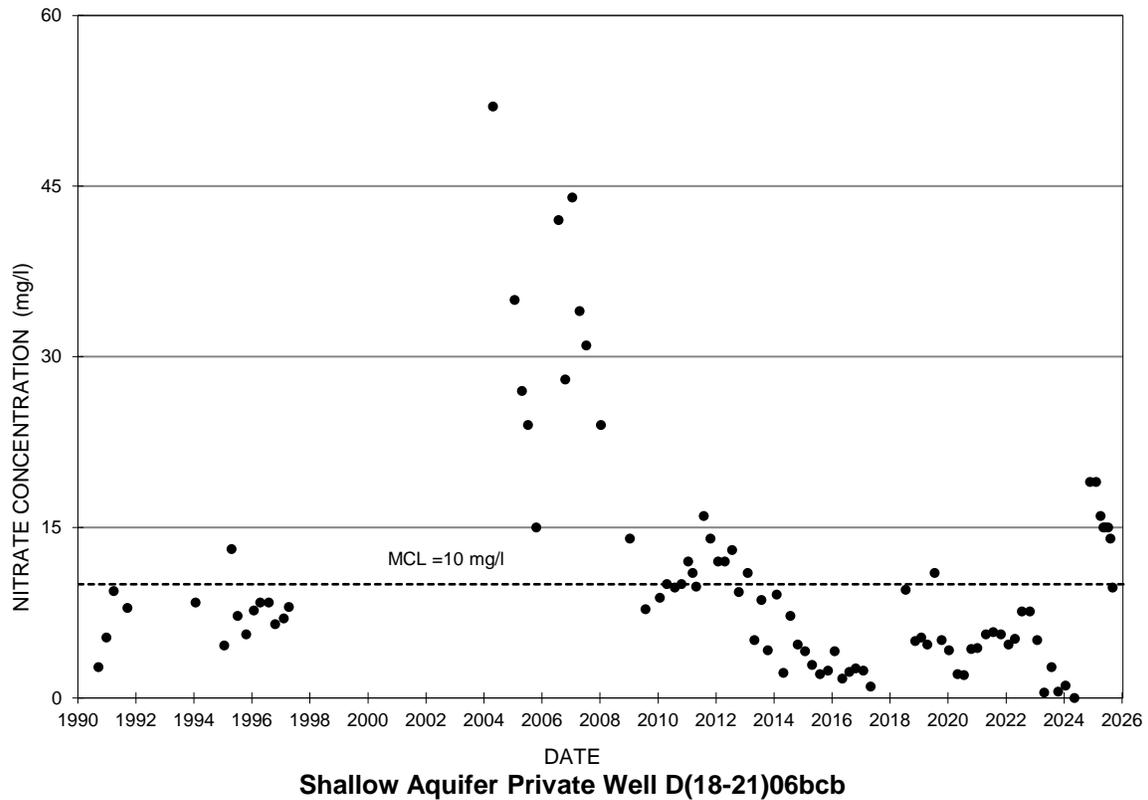
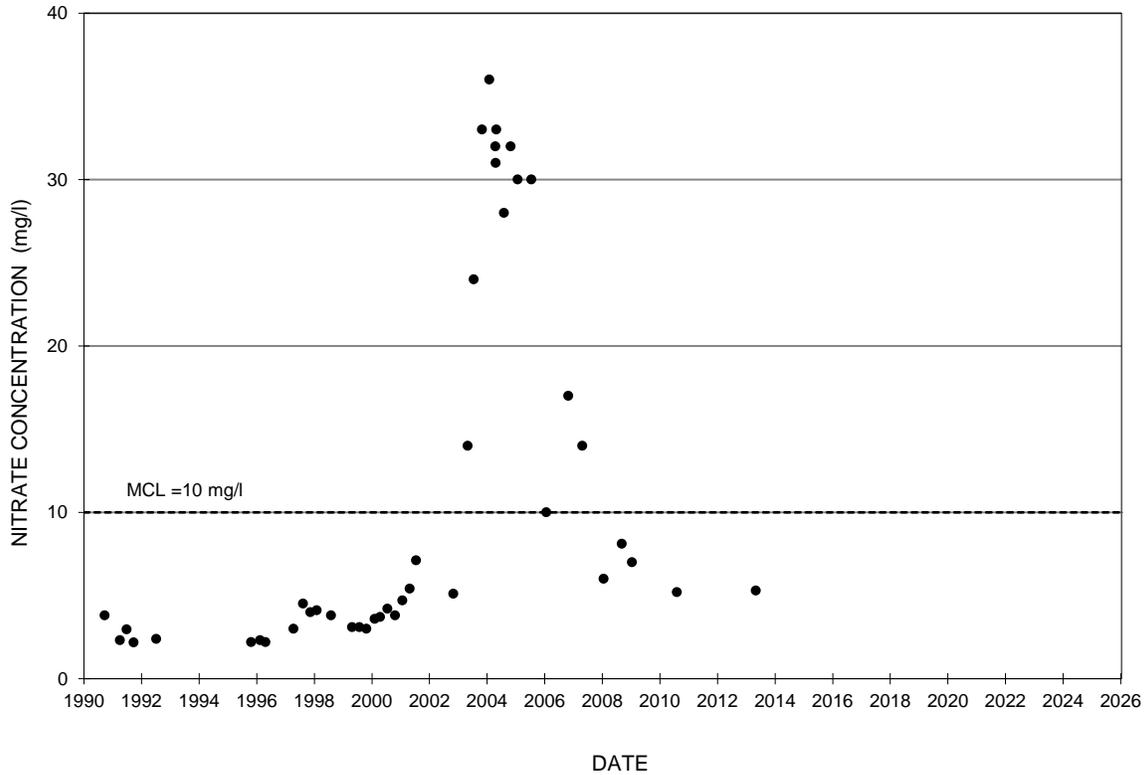


FIGURE A-50. WATER QUALITY HYDROGRAPHS FOR NORTHERN AREA MANAGEMENT ZONE PRIVATE WELLS D(18-20)01aad AND D(18-21)06bcb

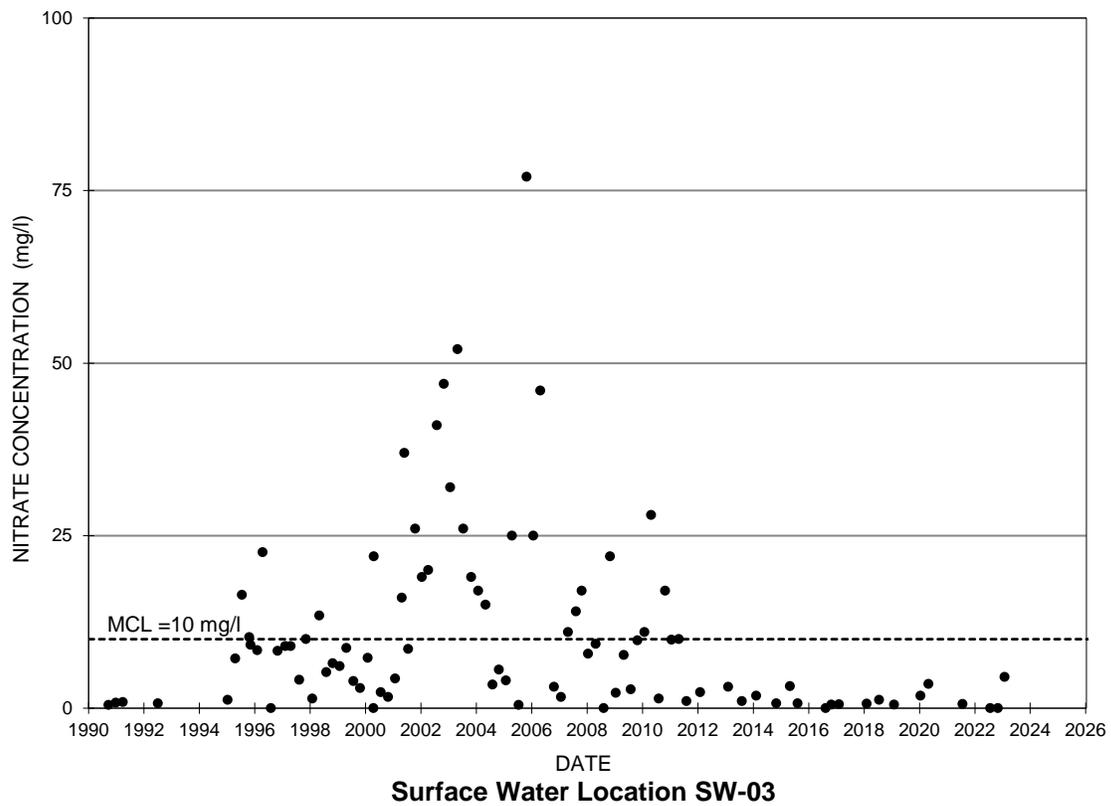
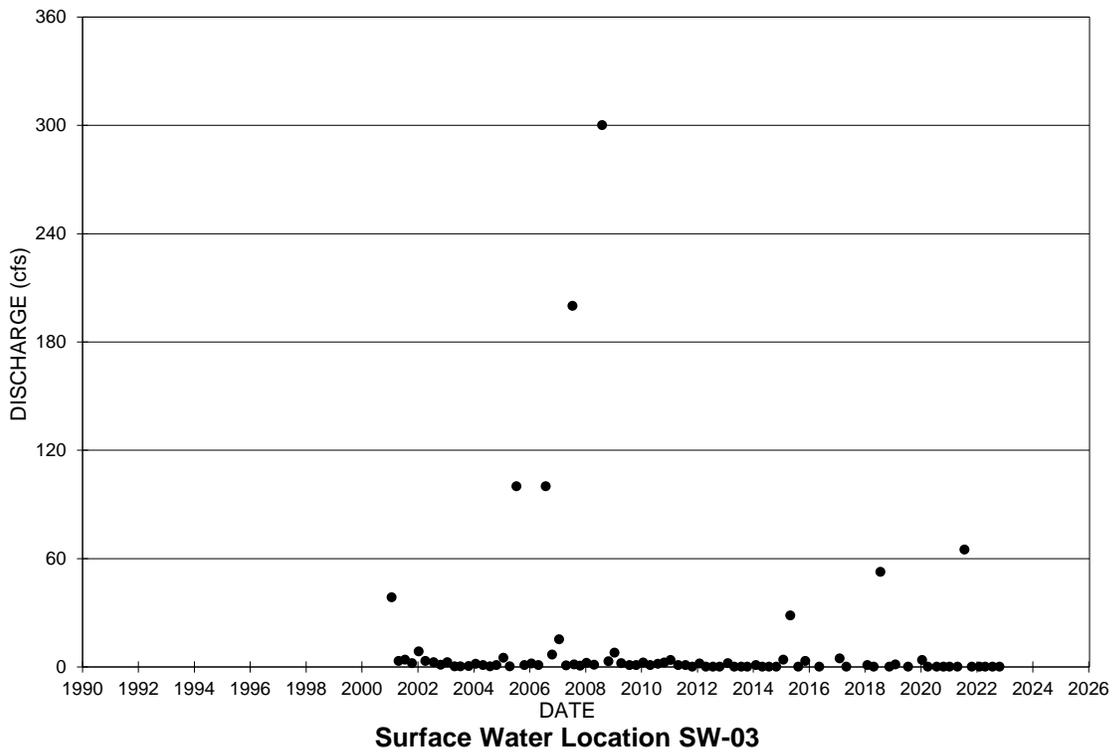


FIGURE A-51. SURFACE FLOW AND WATER QUALITY HYDROGRAPHS FOR SURFACE WATER LOCATION SW-03

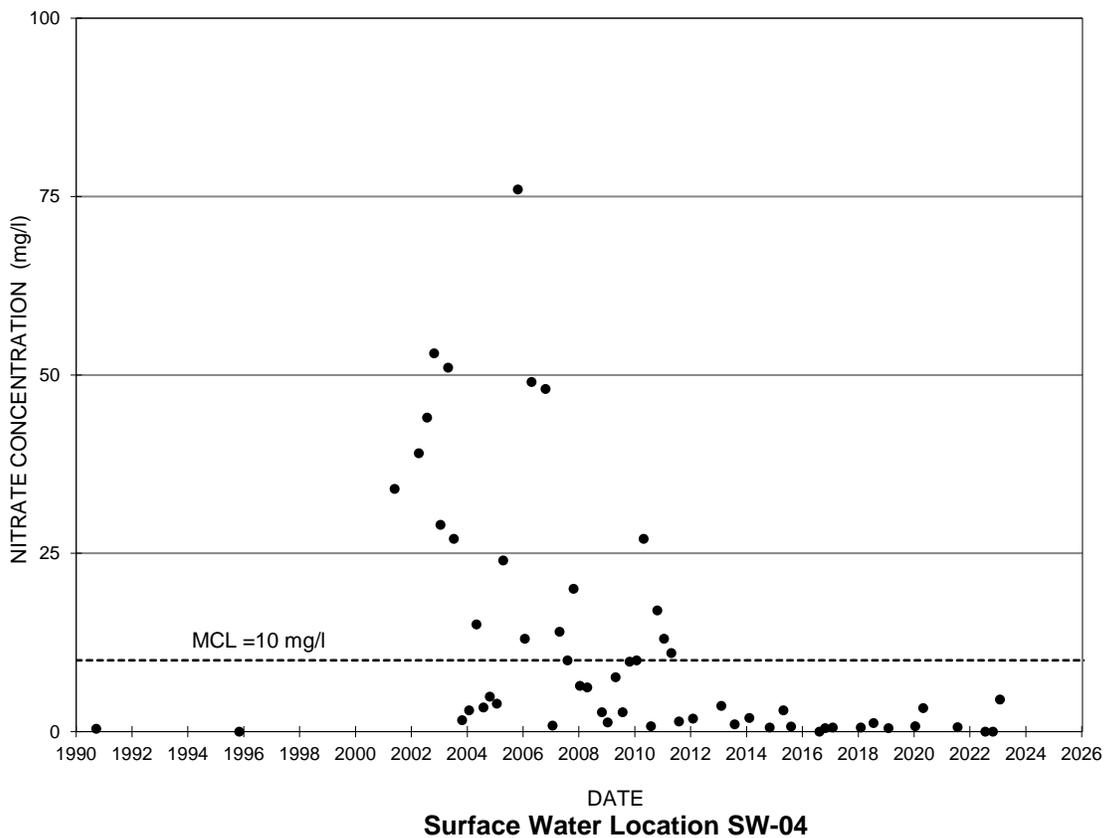
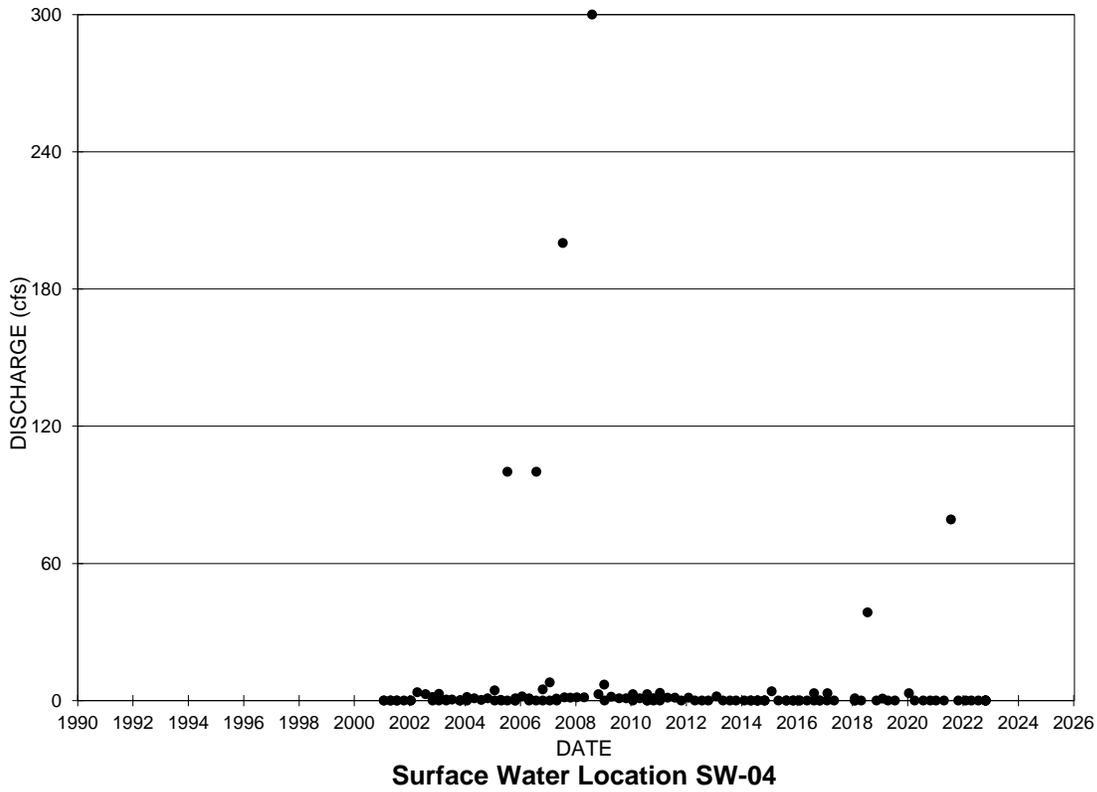


FIGURE A-52. SURFACE FLOW AND WATER QUALITY HYDROGRAPHS FOR SURFACE WATER LOCATION SW-04

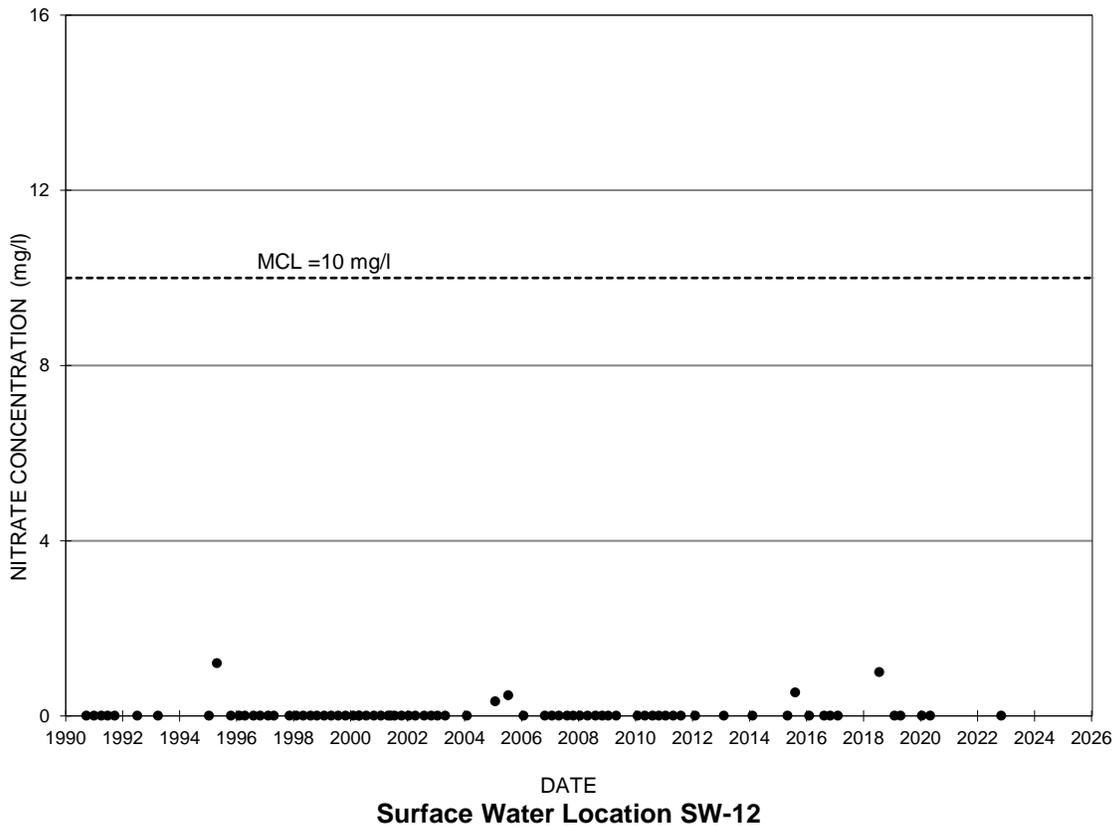
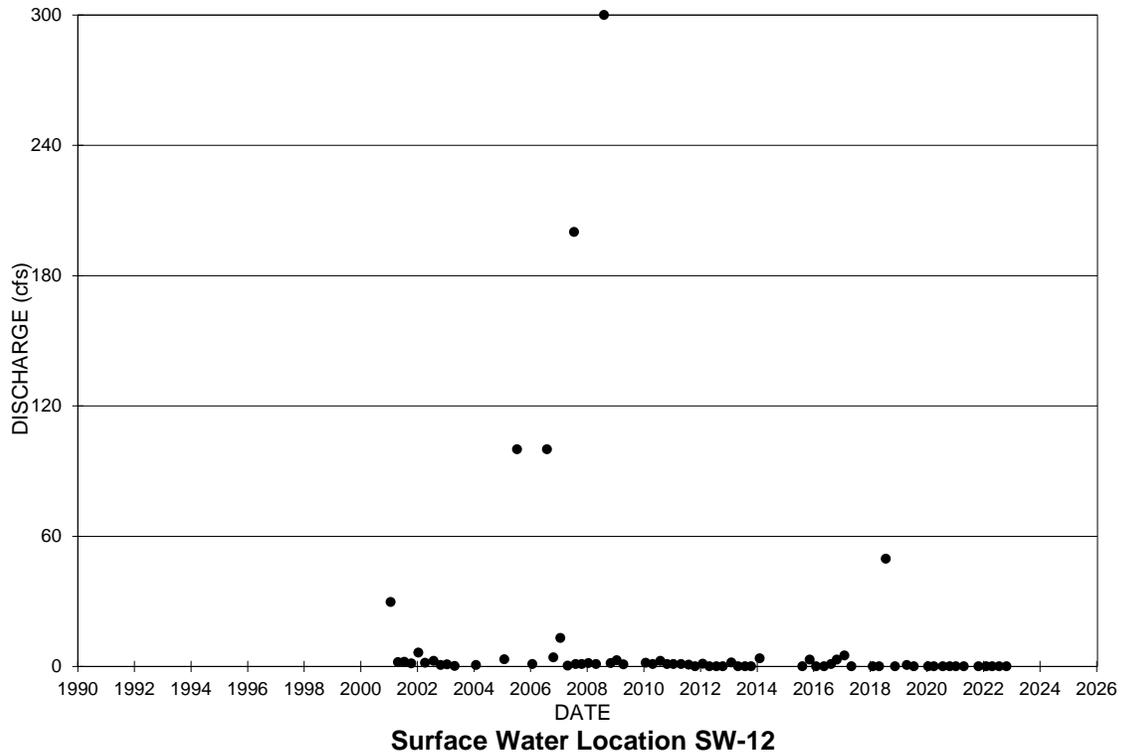


FIGURE A-53. SURFACE FLOW AND WATER QUALITY HYDROGRAPHS FOR SURFACE WATER LOCATION SW-12

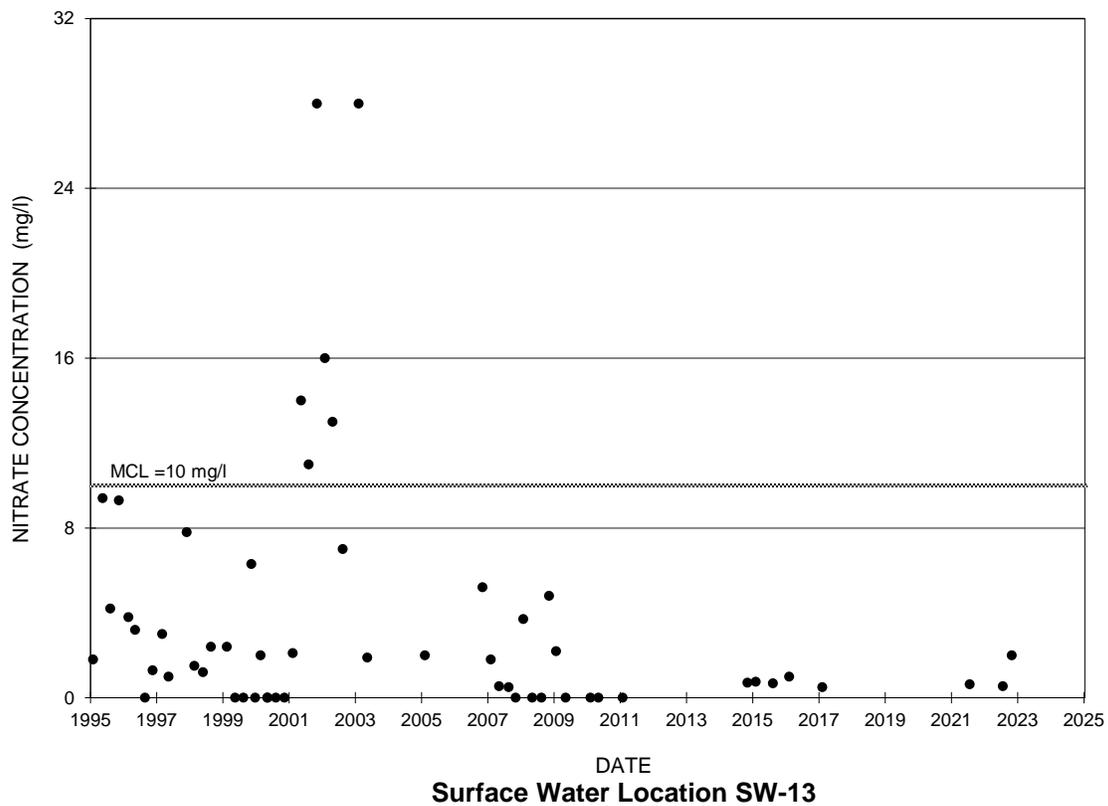
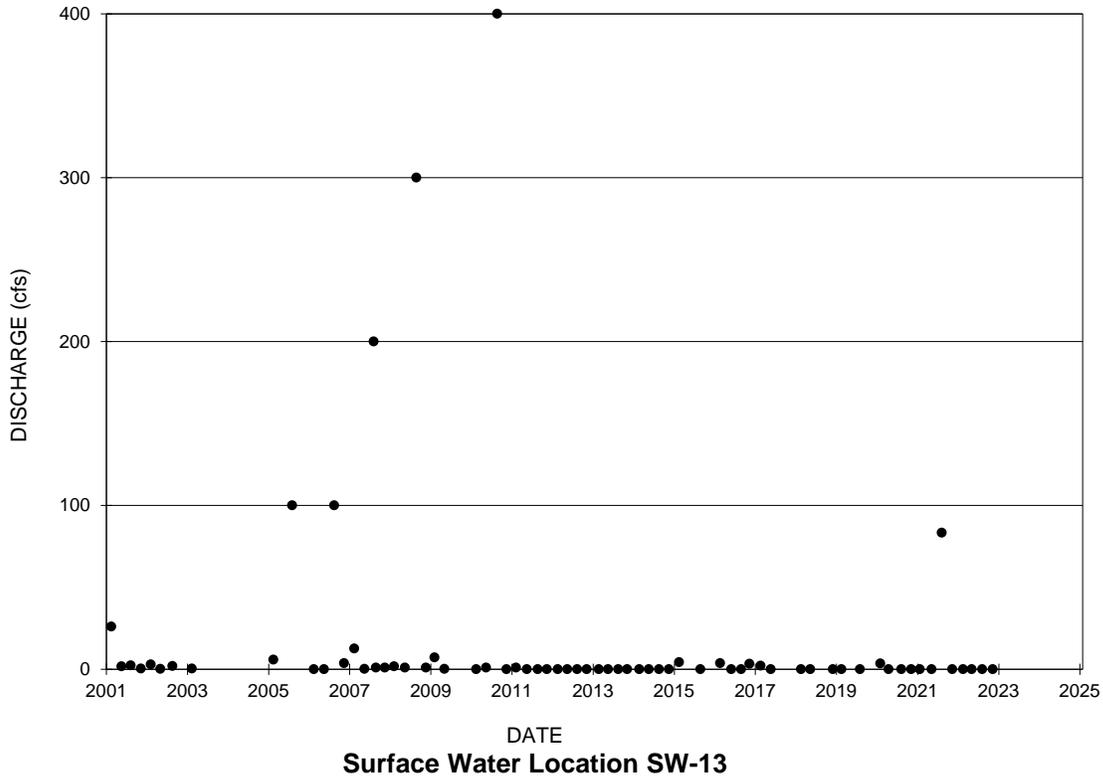


FIGURE A-54. SURFACE FLOW AND WATER QUALITY HYDROGRAPHS FOR SURFACE WATER LOCATION SW-13

