

Injectivity Testing

Location/Well ID	IRZ-31
Date	5/26/2020
Screened Interval Tested	Lower (92 to 121 feet bgs)
Packer Set Depth	87.5-91.5 feet btoc
Packer Seal Test	Confirmed packer to be watertight before test
Tests Conducted	Four-step injectivity test (6.5, 13, 19.5, and 26 gpm)
Purpose	Well performance test
Summary	Specific injectivity: 3.36 to 4.30 gpm/foot
Injection Water Source	Fresh water from construction water supply system
Notes	Water levels fluctuated rapidly during second and third steps. Stabilization was not achieved.
Oversight Signature	
Date	9/29/2020

Acronyms & Abbreviations

bgs = below ground surface

btoc = below top of casing

gpm = gallons per minute

Injectivity Test

Location/Well ID	IRZ-31 Lower
Date	5/26/2020
Screened Interval	92 to 121 feet bgs
Injection Depth (feet btoc)	116.00
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 92 to 121 feet btoc	46.81
Initial Water Level Within 48 to 77 feet btoc	46.92
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	7821.98
Approx Injected Volume (gal)	7821.98
Calculated Volume Purged (gal)	7821.79
Difference in Volume Pumped vs. Calculated	0.19
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 26 gpm

Step 1 - Time (HR:MN:SEC)	Elapsed Time (min)	Injection Rate (gpm)	Total Volume Injected (gal)	Depth to Water (feet)	Water Level Change (feet)
9:30:00	0.00	0.00	0.00	46.81	0.00
9:30:20	0.33	4.30	1.43	46.61	0.20
9:30:40	0.67	5.96	3.42	46.61	0.20
9:31:00	1.00	6.30	5.52	46.42	0.39
9:32:00	2.00	6.58	12.10	46.13	0.68
9:33:00	3.00	6.56	18.66	45.98	0.83
9:34:00	4.00	6.57	25.23	45.85	0.96
9:35:00	5.00	6.56	31.79	45.78	1.03
9:36:00	6.00	6.57	38.36	45.70	1.11
9:37:00	7.00	6.56	44.92	45.74	1.07
9:38:00	8.00	6.56	51.48	45.58	1.23
9:39:00	9.00	6.54	58.02	45.55	1.26
9:40:00	10.00	6.54	64.56	45.51	1.30
9:42:00	12.00	6.54	77.64	45.48	1.33
9:44:00	14.00	6.54	90.72	45.44	1.37
9:46:00	16.00	6.54	103.80	45.41	1.40
9:48:00	18.00	6.54	116.88	45.40	1.41
9:50:00	20.00	6.56	130.00	45.39	1.42
9:52:00	22.00	6.56	143.12	45.39	1.42
9:54:00	24.00	6.56	156.24	45.39	1.42
9:56:00	26.00	6.52	169.28	45.39	1.42
9:58:00	28.00	6.57	182.42	45.37	1.44
10:00:00	30.00	6.57	195.56	45.37	1.44
10:05:00	35.00	6.54	228.26	45.37	1.44
10:10:00	40.00	6.54	260.96	45.36	1.45
10:15:00	45.00	6.52	293.56	45.34	1.47
10:20:00	50.00	6.52	326.16	45.34	1.47
10:25:00	55.00	6.49	358.61	45.34	1.47
10:30:00	60.00	6.49	391.06	45.36	1.45
10:40:00	70.00	6.48	455.86	45.34	1.47
10:50:00	80.00	6.44	520.26	45.36	1.45
11:00:00	90.00	6.56	585.86	45.31	1.50
11:10:00	100.00	6.56	651.46	45.31	1.50
11:20:00	110.00	6.54	716.86	45.31	1.50
11:30:00	120.00	6.52	782.06	45.31	1.50
Total Volume Injected During Step (gal):			782.06		
Average Injection Rate (gpm):			6.45		
Specific Injectivity (gpm/foot):			4.30		

Injectivity Test

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Date	5/26/2020
Screened Interval	92 to 121 feet bgs
Injection Depth (feet btoc)	116.00
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 92 to 121 feet btoc	46.81
Initial Water Level Within 48 to 77 feet btoc	46.92
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	7821.98
Approx Injected Volume (gal)	7821.98
Calculated Volume Purged (gal)	7821.79
Difference in Volume Pumped vs. Calculated	0.19
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 26 gpm

Step 2 - Time (HR:MN:SEC)	Elapsed Time (min)	Injection Rate (gpm)	Total Volume Injected (gal)	Depth to Water (feet)	Water Level Change (feet)	Elapsed Time from Step 2 Start (min)
11:30:20	120.33	11.90	786.03	45.01	1.80	0.33
11:30:40	120.67	13.04	790.37	44.82	1.99	0.67
11:31:00	121.00	13.14	794.75	44.71	2.10	1.00
11:32:00	122.00	13.12	807.87	44.47	2.34	2.00
11:33:00	123.00	13.10	820.97	44.34	2.47	3.00
11:34:00	124.00	13.10	834.07	44.23	2.58	4.00
11:35:00	125.00	13.08	847.15	44.14	2.67	5.00
11:36:00	126.00	13.08	860.23	44.05	2.76	6.00
11:37:00	127.00	13.08	873.31	43.98	2.83	7.00
11:38:00	128.00	13.10	886.41	43.93	2.88	8.00
11:39:00	129.00	13.12	899.53	43.89	2.92	9.00
11:40:00	130.00	13.10	912.63	43.86	2.95	10.00
11:42:00	132.00	13.10	938.83	43.80	3.01	12.00
11:44:00	134.00	13.10	965.03	43.77	3.04	14.00
11:46:00	136.00	13.07	991.17	43.74	3.07	16.00
11:48:00	138.00	13.06	1017.29	43.72	3.09	18.00
11:50:00	140.00	13.06	1043.41	43.71	3.10	20.00
11:52:00	142.00	13.06	1069.53	43.70	3.11	22.00
11:54:00	144.00	13.06	1095.65	43.70	3.11	24.00
11:56:00	146.00	13.07	1121.79	43.70	3.11	26.00
11:58:00	148.00	13.08	1147.95	43.69	3.12	28.00
12:00:00	150.00	13.07	1174.09	43.69	3.12	30.00
12:05:00	155.00	13.06	1239.39	43.68	3.13	35.00
12:10:00	160.00	13.07	1304.74	43.68	3.13	40.00
12:15:00	165.00	13.06	1370.04	43.68	3.13	45.00
12:20:00	170.00	13.04	1435.24	42.96	3.85	50.00
12:25:00	175.00	13.04	1500.44	42.97	3.84	55.00
12:30:00	180.00	13.02	1565.54	43.14	3.67	60.00
12:40:00	190.00	13.04	1695.94	42.80	4.01	70.00
12:50:00	200.00	13.06	1826.54	42.80	4.01	80.00
13:00:00	210.00	13.02	1956.74	42.92	3.89	90.00
13:10:00	220.00	13.02	2086.94	43.02	3.79	100.00
13:20:00	230.00	12.91	2216.04	42.92	3.89	110.00
13:30:00	240.00	13.07	2346.74	42.93	3.88	120.00
Total Volume Injected During Step (gal):			1564.68			
Average Injection Rate (gpm):			13.03			
Specific Injectivity (gpm/foot):			3.36			

Injectivity Test

Location/Well ID	IRZ-31 Lower
Date	5/26/2020
Screened Interval	92 to 121 feet bgs
Injection Depth (feet btoc)	116.00
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 92 to 121 feet btoc	46.81
Initial Water Level Within 48 to 77 feet btoc	46.92
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	7821.98
Approx Injected Volume (gal)	7821.98
Calculated Volume Purged (gal)	7821.79
Difference in Volume Pumped vs. Calculated	0.19
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 26 gpm

Step 3 - Time (HR:MN:SEC)	Elapsed Time (min)	Injection Rate (gpm)	Total Volume Injected (gal)	Depth to Water (feet)	Water Level Change (feet)	Elapsed Time from Step 3 Start (min)
13:30:20	240.33	19.20	2353.14	42.01	4.80	0.33
13:30:40	240.67	19.53	2359.65	42.60	4.21	0.67
13:31:00	241.00	19.61	2366.19	42.32	4.49	1.00
13:32:00	242.00	19.61	2385.80	41.85	4.96	2.00
13:33:00	243.00	19.60	2405.40	42.61	4.20	3.00
13:34:00	244.00	19.60	2425.00	41.69	5.12	4.00
13:35:00	245.00	19.61	2444.61	41.93	4.88	5.00
13:36:00	246.00	19.53	2464.14	41.85	4.96	6.00
13:37:00	247.00	19.53	2483.67	41.33	5.48	7.00
13:38:00	248.00	19.53	2503.20	41.82	4.99	8.00
13:39:00	249.00	19.53	2522.73	41.25	5.56	9.00
13:40:00	250.00	19.53	2542.26	41.18	5.63	10.00
13:42:00	252.00	19.53	2581.32	41.40	5.41	12.00
13:44:00	254.00	19.52	2620.36	42.10	4.71	14.00
13:46:00	256.00	19.52	2659.40	42.08	4.73	16.00
13:48:00	258.00	19.52	2698.44	41.58	5.23	18.00
13:50:00	260.00	19.50	2737.44	41.35	5.46	20.00
13:52:00	262.00	19.52	2776.48	41.25	5.56	22.00
13:54:00	264.00	19.53	2815.54	42.00	4.81	24.00
13:56:00	266.00	19.50	2854.54	41.39	5.42	26.00
13:58:00	268.00	19.53	2893.60	41.11	5.70	28.00
14:00:00	270.00	19.53	2932.66	41.50	5.31	30.00
14:05:00	275.00	19.53	3030.31	41.16	5.65	35.00
14:10:00	280.00	19.60	3128.31	41.25	5.56	40.00
14:15:00	285.00	19.58	3226.21	40.62	6.19	45.00
14:20:00	290.00	19.60	3324.21	41.33	5.48	50.00
14:25:00	295.00	19.56	3422.01	41.30	5.51	55.00
14:30:00	300.00	19.58	3519.91	41.94	4.87	60.00
14:40:00	310.00	19.56	3715.51	41.22	5.59	70.00
14:50:00	320.00	19.58	3911.31	41.94	4.87	80.00
15:00:00	330.00	19.56	4106.91	40.51	6.30	90.00
15:10:00	340.00	19.54	4302.31	41.33	5.48	100.00
15:20:00	350.00	19.54	4497.71	41.13	5.68	110.00
15:30:00	360.00	19.54	4693.11	41.95	4.86	120.00
Total Volume Injected During Step (gal):			2346.37			
Average Injection Rate (gpm):			19.54			
Specific Injectivity (gpm/foot):			4.02			

Injectivity Test

Location/Well ID	IRZ-31 Lower
Date	5/26/2020
Screened Interval	92 to 121 feet bgs
Injection Depth (feet btoc)	116.00
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 92 to 121 feet btoc	46.81
Initial Water Level Within 48 to 77 feet btoc	46.92
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	7821.98
Approx Injected Volume (gal)	7821.98
Calculated Volume Purged (gal)	7821.79
Difference in Volume Pumped vs. Calculated	0.19
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 26 gpm

Step 4 - Time (HR:MN:SEC)	Elapsed Time (min)	Injection Rate (gpm)	Total Volume Injected (gal)	Depth to Water (feet)	Water Level Change (feet)	Elapsed Time from Step 4 Start (min)
15:30:20	360.33	24.75	4701.36	41.49	5.32	0.33
15:30:40	360.67	26.24	4710.11	41.42	5.39	0.67
15:31:00	361.00	26.18	4718.83	41.35	5.46	1.00
15:32:00	362.00	26.16	4744.99	41.16	5.65	2.00
15:33:00	363.00	26.15	4771.14	41.01	5.80	3.00
15:34:00	364.00	26.12	4797.26	40.90	5.91	4.00
15:35:00	365.00	26.12	4823.38	40.80	6.01	5.00
15:36:00	366.00	26.10	4849.48	40.72	6.09	6.00
15:37:00	367.00	26.10	4875.58	40.65	6.16	7.00
15:38:00	368.00	26.08	4901.66	40.62	6.19	8.00
15:39:00	369.00	26.10	4927.76	40.57	6.24	9.00
15:40:00	370.00	26.08	4953.84	40.55	6.26	10.00
15:42:00	372.00	26.10	5006.04	40.50	6.31	12.00
15:44:00	374.00	26.08	5058.20	40.47	6.34	14.00
15:46:00	376.00	26.08	5110.36	40.45	6.36	16.00
15:48:00	378.00	26.08	5162.52	40.43	6.38	18.00
15:50:00	380.00	26.07	5214.66	40.42	6.39	20.00
15:52:00	382.00	26.07	5266.80	40.41	6.40	22.00
15:54:00	384.00	26.10	5319.00	40.41	6.40	24.00
15:56:00	386.00	26.10	5371.20	40.40	6.41	26.00
15:58:00	388.00	26.12	5423.44	40.39	6.42	28.00
16:00:00	390.00	26.10	5475.64	40.39	6.42	30.00
16:05:00	395.00	26.10	5606.14	40.38	6.43	35.00
16:10:00	400.00	26.10	5736.64	40.37	6.44	40.00
16:15:00	405.00	26.10	5867.14	40.37	6.44	45.00
16:20:00	410.00	26.08	5997.54	40.36	6.45	50.00
16:25:00	415.00	26.08	6127.94	40.35	6.46	55.00
16:30:00	420.00	26.07	6258.29	40.35	6.46	60.00
16:40:00	430.00	26.07	6518.99	40.34	6.47	70.00
16:50:00	440.00	26.07	6779.69	40.33	6.48	80.00
17:00:00	450.00	26.06	7040.29	40.32	6.49	90.00
17:10:00	460.00	26.06	7300.89	40.32	6.49	100.00
17:20:00	470.00	26.07	7561.59	40.30	6.51	110.00
17:30:00	480.00	26.02	7821.79	40.30	6.51	120.00
17:31:00	481.00	0.00	7821.79	42.88	3.93	121.00
17:32:00	482.00	0.00	7821.79	42.65	4.16	122.00
17:33:00	483.00	0.00	7821.79	43.71	3.10	123.00
17:34:00	484.00	0.00	7821.79	44.86	1.95	124.00
17:35:00	485.00	0.00	7821.79	44.18	2.63	125.00
17:36:00	486.00	0.00	7821.79	45.57	1.24	126.00

Injectivity Test

Location/Well ID	IRZ-31 Lower
Date	5/26/2020
Screened Interval	92 to 121 feet bgs
Injection Depth (feet btoc)	116.00
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 92 to 121 feet btoc	46.81
Initial Water Level Within 48 to 77 feet btoc	46.92
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	7821.98
Approx Injected Volume (gal)	7821.98
Calculated Volume Purged (gal)	7821.79
Difference in Volume Pumped vs. Calculated	0.19
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 26 gpm

17:37:00	487.00	0.00	7821.79	45.70	1.11	127.00
17:38:00	488.00	0.00	7821.79	45.87	0.94	128.00
17:39:00	489.00	0.00	7821.79	45.35	1.46	129.00
17:40:00	490.00	0.00	7821.79	46.15	0.66	130.00
17:41:00	491.00	0.00	7821.79	46.22	0.59	131.00
17:42:00	492.00	0.00	7821.79	46.30	0.51	132.00
17:43:00	493.00	0.00	7821.79	46.35	0.46	133.00
17:44:00	494.00	0.00	7821.79	46.41	0.40	134.00
17:45:00	495.00	0.00	7821.79	46.44	0.37	135.00
Total Volume Injected During Step (gal):			3128.68			
Average Injection Rate (gpm):			26.06			
Specific Injectivity (gpm/foot):			4.00			

Acronyms & Abbreviations

bgs = below ground surface

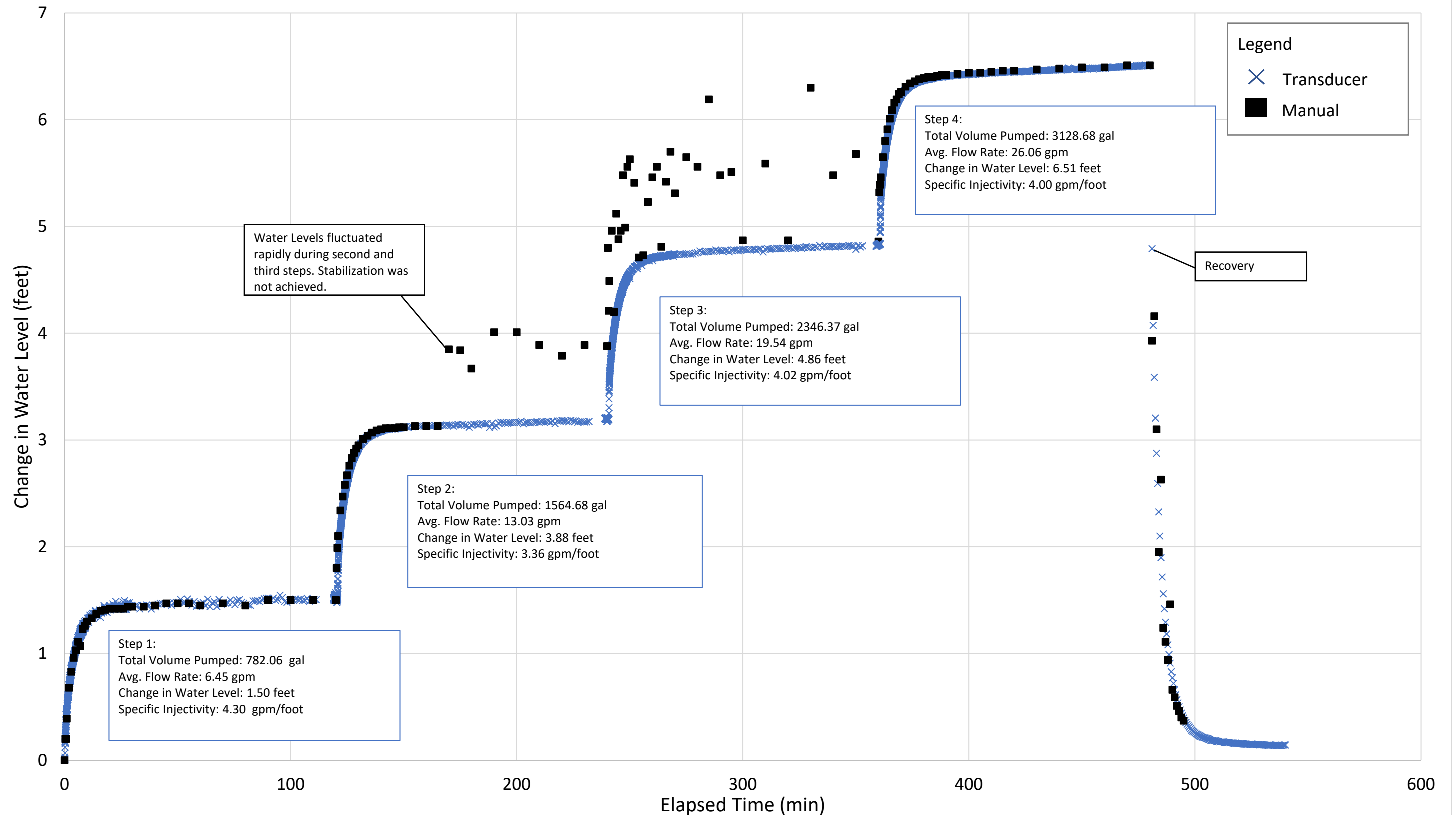
btoc = below top of casing

gal = gallons

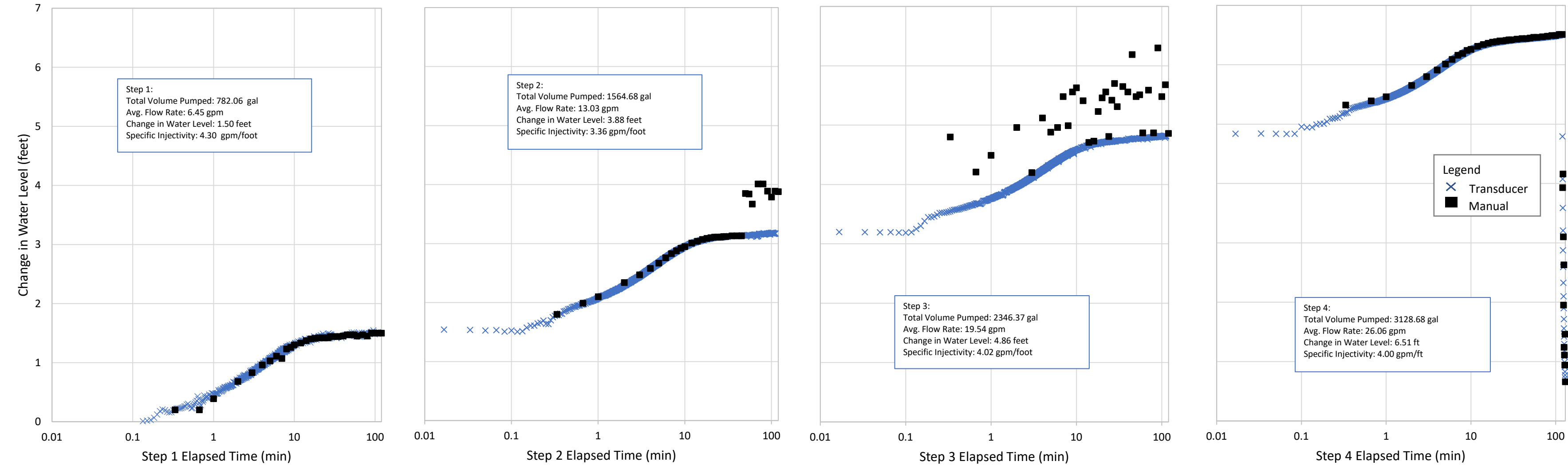
gpm = gallons per minute

min = minutes

IRZ-31 Lower Screen (92 to 121 feet) Linear Change in Water Level Plot



IRZ-31 Lower Screen (92 to 121 feet) Semi-Log Change in Water Level Plot



Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-26
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	34 feet

Date	Time	Date and Time	Depth to Water
5/26/2020	8:21	5/26/20 8:21	46.68
5/26/2020	10:00	5/26/20 10:00	46.62
5/26/2020	11:12	5/26/20 11:12	46.59
5/26/2020	12:01	5/26/20 12:01	46.56
5/26/2020	13:12	5/26/20 13:12	46.53
5/26/2020	14:01	5/26/20 14:01	46.50
5/26/2020	15:16	5/26/20 15:16	46.47
5/26/2020	16:00	5/26/20 16:00	46.43
5/26/2020	17:14	5/26/20 17:14	46.40
5/26/2020	17:47	5/26/20 17:47	46.44
5/27/2020	7:13	5/27/20 7:13	46.60
5/27/2020	8:44	5/27/20 8:44	46.42
5/27/2020	9:21	5/27/20 9:21	46.38
5/27/2020	10:34	5/27/20 10:34	46.32
5/27/2020	11:21	5/27/20 11:21	46.14
5/27/2020	12:35	5/27/20 12:35	46.02
5/27/2020	13:21	5/27/20 13:21	45.85
5/27/2020	14:35	5/27/20 14:35	45.72
5/27/2020	15:20	5/27/20 15:20	45.52
5/27/2020	16:34	5/27/20 16:34	45.41
5/27/2020	17:06	5/27/20 17:06	45.85
5/28/2020	7:22	5/28/20 7:22	46.66
5/28/2020	7:50	5/28/20 7:50	46.66
5/28/2020	9:05	5/28/20 9:05	46.65

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-51
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	48 feet

Date	Time	Date and Time	Depth to Water
5/26/2020	8:23	5/26/20 8:23	46.11
5/26/2020	10:01	5/26/20 10:01	45.58
5/26/2020	11:13	5/26/20 11:13	45.57
5/26/2020	12:03	5/26/20 12:03	45.05
5/26/2020	13:13	5/26/20 13:13	45.03
5/26/2020	14:01	5/26/20 14:01	44.55
5/26/2020	15:16	5/26/20 15:16	44.52
5/26/2020	16:01	5/26/20 16:01	44.02
5/26/2020	17:14	5/26/20 17:14	44.00
5/26/2020	17:49	5/26/20 17:49	45.89
5/27/2020	7:16	5/27/20 7:16	46.11
5/27/2020	8:43	5/27/20 8:43	46.08
5/27/2020	9:21	5/27/20 9:21	46.07
5/27/2020	10:35	5/27/20 10:35	46.05
5/27/2020	11:21	5/27/20 11:21	46.04
5/27/2020	12:36	5/27/20 12:36	45.98
5/27/2020	13:21	5/27/20 13:21	45.95
5/27/2020	14:36	5/27/20 14:36	45.90
5/27/2020	15:21	5/27/20 15:21	45.56
5/27/2020	16:35	5/27/20 16:35	45.84
5/27/2020	17:08	5/27/20 17:08	45.88
5/28/2020	7:30	5/28/20 7:30	46.12
5/28/2020	7:57	5/28/20 7:57	46.10
5/28/2020	9:10	5/28/20 9:10	46.10

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-79-060
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	50 feet

Date	Time	Date and Time	Depth to Water
5/26/2020	8:28	5/26/20 8:28	46.00
5/26/2020	10:01	5/26/20 10:01	45.94
5/26/2020	11:14	5/26/20 11:14	45.91
5/26/2020	12:02	5/26/20 12:02	45.89
5/26/2020	13:15	5/26/20 13:15	45.85
5/26/2020	14:01	5/26/20 14:01	45.84
5/26/2020	15:18	5/26/20 15:18	45.80
5/26/2020	16:02	5/26/20 16:02	45.78
5/26/2020	17:19	5/26/20 17:19	45.76
5/26/2020	17:48	5/26/20 17:48	45.77
5/27/2020	7:18	5/27/20 7:18	45.97
5/27/2020	8:46	5/27/20 8:46	45.86
5/27/2020	9:21	5/27/20 9:21	45.85
5/27/2020	10:35	5/27/20 10:35	45.79
5/27/2020	11:27	5/27/20 11:27	45.71
5/27/2020	12:36	5/27/20 12:36	45.62
5/27/2020	13:21	5/27/20 13:21	45.56
5/27/2020	14:36	5/27/20 14:36	45.45
5/27/2020	15:21	5/27/20 15:21	45.37
5/27/2020	16:35	5/27/20 16:35	45.27
5/27/2020	17:08	5/27/20 17:08	45.35
5/28/2020	8:05	5/28/20 8:05	45.90
5/28/2020	8:32	5/28/20 8:32	45.91

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

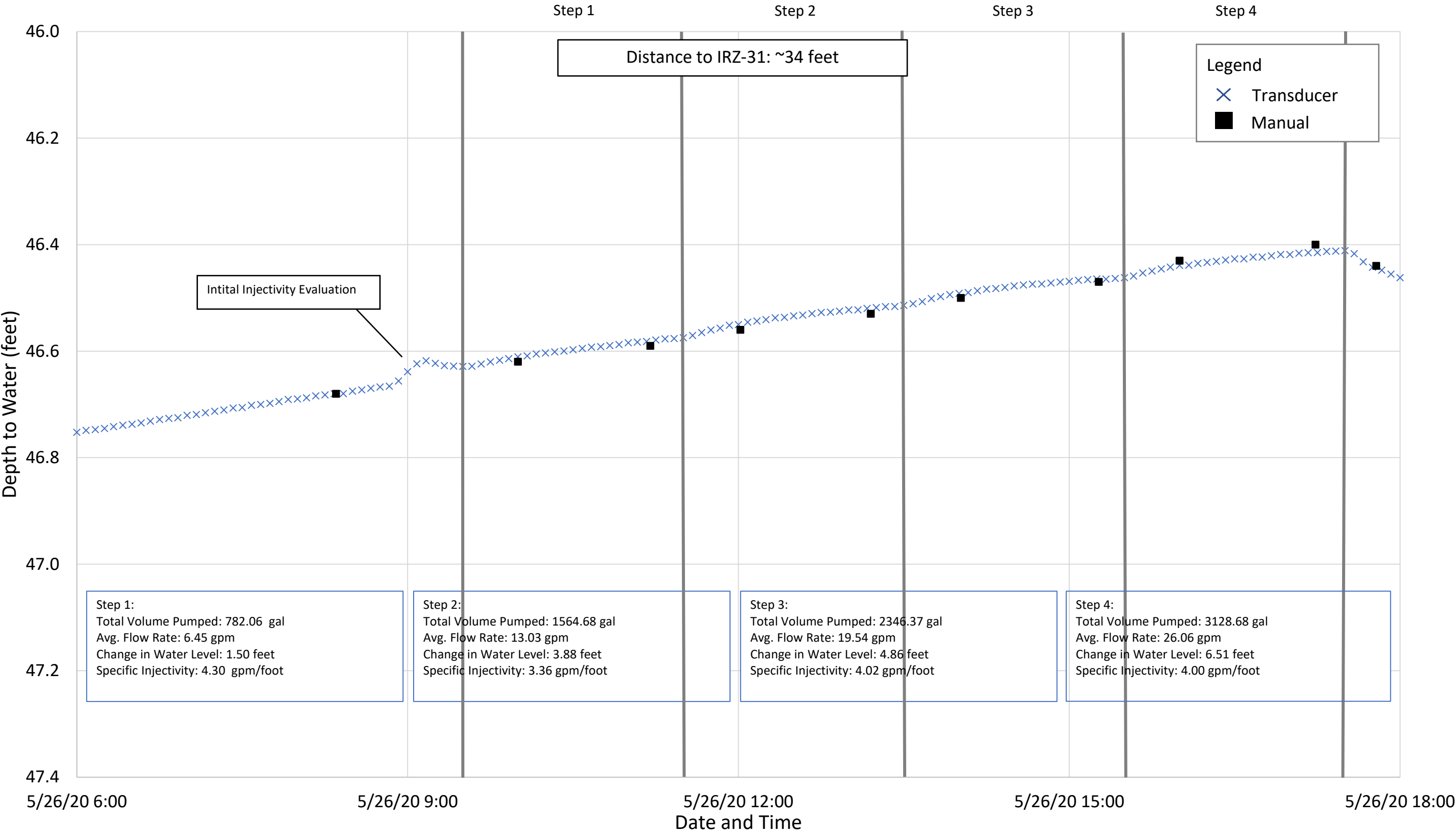
Location/Well ID	MW-79-104
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	50 feet

Date	Time	Date and Time	Depth to Water
5/26/2020	8:26	5/26/20 8:26	45.87
5/26/2020	10:02	5/26/20 10:02	45.71
5/26/2020	11:14	5/26/20 11:14	45.68
5/26/2020	12:02	5/26/20 12:02	45.56
5/26/2020	13:13	5/26/20 13:13	45.54
5/26/2020	14:02	5/26/20 14:02	45.42
5/26/2020	15:17	5/26/20 15:17	45.41
5/26/2020	16:03	5/26/20 16:03	45.28
5/26/2020	17:17	5/26/20 17:17	45.28
5/26/2020	17:49	5/26/20 17:49	45.67
5/27/2020	7:20	5/27/20 7:20	45.82
5/27/2020	8:45	5/27/20 8:45	45.77
5/27/2020	9:22	5/27/20 9:22	45.75
5/27/2020	10:35	5/27/20 10:35	45.71
5/27/2020	11:28	5/27/20 11:28	45.67
5/27/2020	12:35	5/27/20 12:35	45.63
5/27/2020	13:21	5/27/20 13:21	45.57
5/27/2020	14:35	5/27/20 14:35	45.54
5/27/2020	15:21	5/27/20 15:21	45.49
5/27/2020	16:34	5/27/20 16:34	45.46
5/27/2020	17:08	5/27/20 17:08	45.55
5/28/2020	8:02	5/28/20 8:02	45.78
5/28/2020	8:35	5/28/20 8:35	45.77

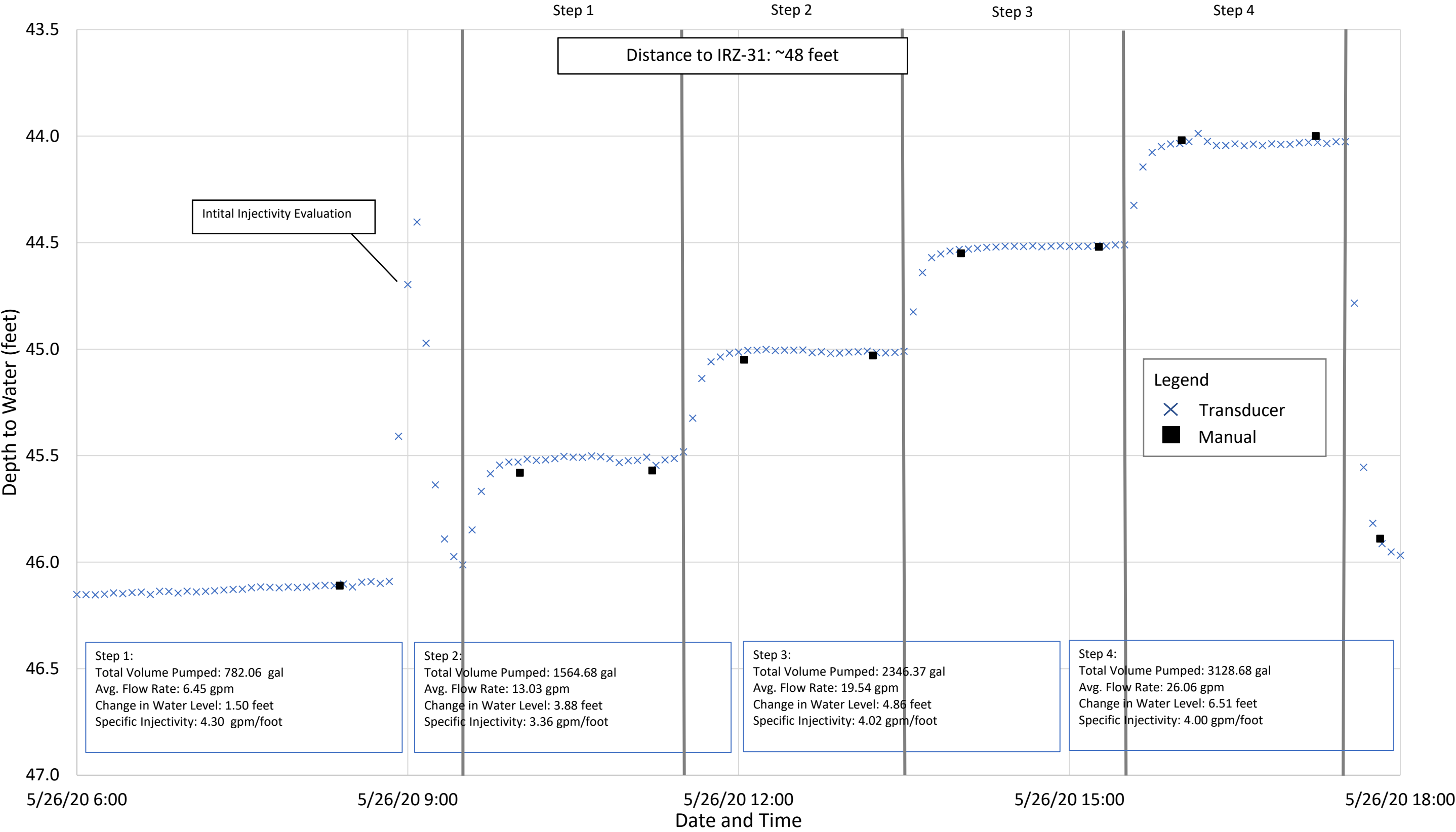
Acronyms & Abbreviations

bgs = below ground surface

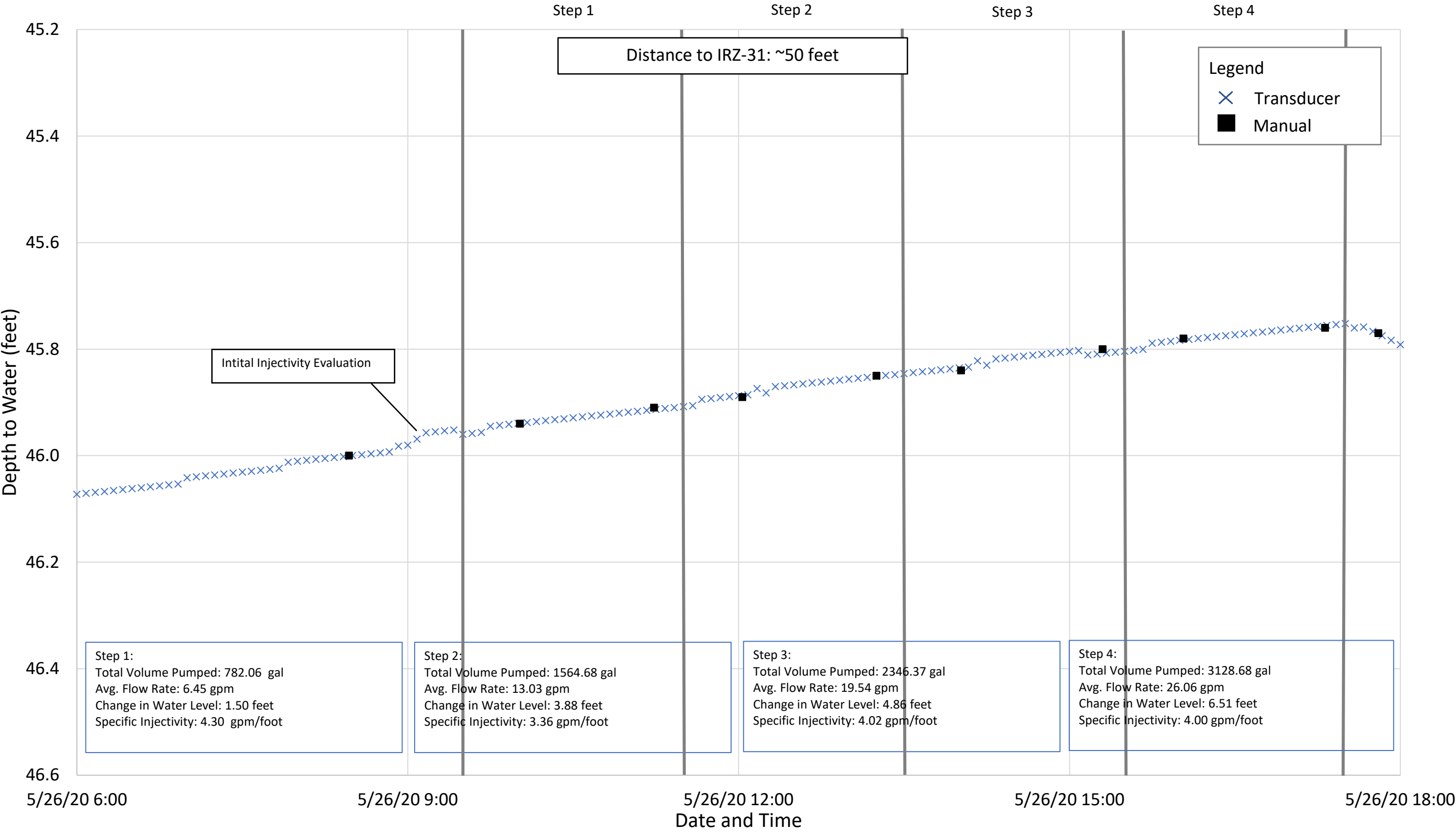
MW-26 During IRZ-31 Lower Screen (92 to 121 feet) Injectivity Test



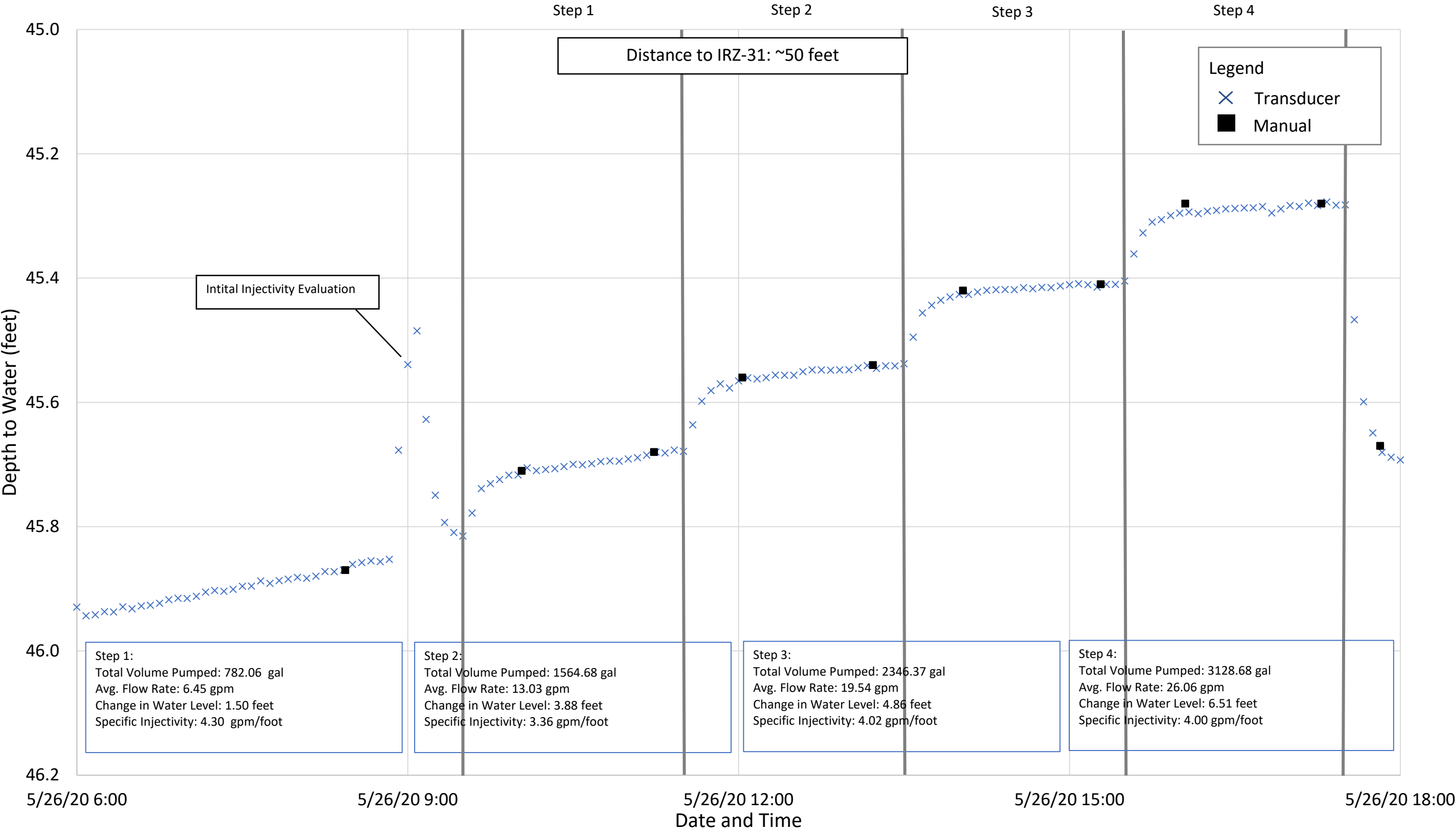
MW-51 During IRZ-31 Lower Screen (92 to 121 feet) Injectivity Test



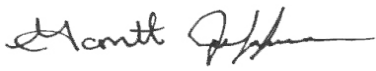
MW-79-060 During IRZ-31 Lower Screen (92 to 121 feet) Injectivity Test



MW-79-104 During IRZ-31 Lower Screen (92 to 121 feet) Injectivity Test



Specific Capacity Testing

Location/Well ID	IRZ-31
Date	5/21/2020
Screened Interval Tested	Lower (92 to 121 feet bgs)
Packer Set Depth	87.5 to 91.5 feet btoc
Packer Seal Test	Confirmed packer to be watertight before test
Tests Conducted	Four-step specific capacity test (6.5, 13, 19.5, and 43.5 gpm)
Purpose	Well performance test
Summary	Specific capacity: 4.20 to 4.86 gpm/foot
Notes	At 14:30 IM3 shutdown for 18 minutes.
Oversight Signature	
Date	9/29/2020

Acronyms & Abbreviations

bgs = below ground surface

btoc = below top of casing

gpm = gallons per minute

Specific Capacity Test

Location/Well ID	IRZ-31 Lower
Date	5/21/2020
Screened Interval	92 to 121 feet bgs
Pump Depth (feet btoc)	118.33
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 92 to 121 feet btoc	47.09
Initial Water Level Within 48 to 77 feet btoc	47.05
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	10718.10
Approx Pumped Volume (gal)	10718.10
Calculated Volume Purged (gal)	10716.08
Difference in Volume Pumped vs. Calculated	2.02
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 43.5 gpm

Step 1 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time (min)	Pumping Rate (gpm)	Total Volume pumped (gal)	Depth to Water (feet)	Drawdown (feet)
7:30:00	0	0	0.00	0.00	47.09	0.00
7:30:20	0.3	0.33	5.19	1.73	47.70	0.61
7:30:40	0.3	0.67	5.82	3.67	47.85	0.76
7:31:00	0.3	1.00	6.56	5.86	47.85	0.76
7:32:00	1.0	2.00	6.72	12.58	47.95	0.86
7:33:00	1.0	3.00	6.46	19.04	48.03	0.94
7:34:00	1.0	4.00	6.63	25.67	48.11	1.02
7:35:00	1.0	5.00	6.62	32.29	48.17	1.08
7:36:00	1.0	6.00	6.68	38.97	48.22	1.13
7:37:00	1.0	7.00	6.62	45.59	48.25	1.16
7:38:00	1.0	8.00	6.58	52.17	48.29	1.20
7:39:00	1.0	9.00	6.62	58.79	48.33	1.24
7:40:00	1.0	10.00	6.62	65.41	48.34	1.25
7:42:00	2.0	12.00	6.62	78.65	48.37	1.28
7:44:00	2.0	14.00	6.63	91.91	48.39	1.30
7:46:00	2.0	16.00	6.53	104.97	48.40	1.31
7:48:00	2.0	18.00	6.68	118.33	48.43	1.34
7:50:00	2.0	20.00	6.72	131.77	48.43	1.34
7:52:00	2.0	22.00	6.65	145.07	48.44	1.35
7:54:00	2.0	24.00	6.68	158.43	48.44	1.35
7:56:00	2.0	26.00	6.68	171.79	48.45	1.36
7:58:00	2.0	28.00	6.65	185.09	48.45	1.36
8:00:00	2.0	30.00	6.66	198.41	48.45	1.36
8:05:00	5.0	35.00	6.65	231.66	48.45	1.36
8:10:00	5.0	40.00	6.63	264.81	48.45	1.36
8:15:00	5.0	45.00	6.63	297.96	48.45	1.36
8:20:00	5.0	50.00	6.63	331.11	48.44	1.35
8:25:00	5.0	55.00	6.62	364.21	48.45	1.36
8:30:00	5.0	60.00	6.63	397.36	48.45	1.36
8:40:00	10.0	70.00	6.62	463.56	48.45	1.36
8:50:00	10.0	80.00	6.62	529.76	48.45	1.36
9:00:00	10.0	90.00	6.62	595.96	48.44	1.35
9:10:00	10.0	100.00	6.62	662.16	48.43	1.34
9:20:00	10.0	110.00	6.58	727.96	48.44	1.35
9:30:00	10.0	120.00	6.56	793.56	48.44	1.35
Total Volume Pumped for Step 1 (gal)			793.56			
Average Pumping Rate (gpm)			6.56			
Specific Capacity (gpm/foot)			4.86			

Specific Capacity Test

Location/Well ID	IRZ-31 Lower
Date	5/21/2020
Screened Interval	92 to 121 feet bgs
Pump Depth (feet btoc)	118.33
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 92 to 121 feet btoc	47.09
Initial Water Level Within 48 to 77 feet btoc	47.05
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	10718.10
Approx Pumped Volume (gal)	10718.10
Calculated Volume Purged (gal)	10716.08
Difference in Volume Pumped vs. Calculated	2.02
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 43.5 gpm

Step 2 - Time (HR:MN:SEC)	Change in Time Between measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (gal)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 2 Start (min)
9:30:20	0.3	120.33	12.74	797.80	48.81	1.72	0.33
9:30:40	0.3	120.67	13.30	802.24	48.94	1.85	0.67
9:31:00	0.3	121.00	13.30	806.67	48.97	1.88	1.00
9:32:00	1.0	122.00	13.04	819.71	49.14	2.05	2.00
9:33:00	1.0	123.00	13.48	833.19	49.29	2.20	3.00
9:34:00	1.0	124.00	13.59	846.78	49.41	2.32	4.00
9:35:00	1.0	125.00	12.80	859.58	49.47	2.38	5.00
9:36:00	1.0	126.00	13.10	872.68	49.53	2.44	6.00
9:37:00	1.0	127.00	13.08	885.76	49.58	2.49	7.00
9:38:00	1.0	128.00	13.10	898.86	49.62	2.53	8.00
9:39:00	1.0	129.00	13.01	911.87	49.66	2.57	9.00
9:40:00	1.0	130.00	12.98	924.85	49.71	2.62	10.00
9:42:00	2.0	132.00	12.98	950.81	49.73	2.64	12.00
9:44:00	2.0	134.00	13.06	976.93	49.76	2.67	14.00
9:46:00	2.0	136.00	13.00	1002.93	49.78	2.69	16.00
9:48:00	2.0	138.00	13.10	1029.13	49.80	2.71	18.00
9:50:00	2.0	140.00	13.08	1055.29	49.82	2.73	20.00
9:52:00	2.0	142.00	13.08	1081.45	49.82	2.73	22.00
9:54:00	2.0	144.00	13.04	1107.53	49.83	2.74	24.00
9:56:00	2.0	146.00	13.06	1133.65	49.83	2.74	26.00
9:58:00	2.0	148.00	13.03	1159.71	49.84	2.75	28.00
10:00:00	2.0	150.00	13.08	1185.87	49.84	2.75	30.00
10:05:00	5.0	155.00	13.08	1251.27	49.84	2.75	35.00
10:10:00	5.0	160.00	13.08	1316.67	49.85	2.76	40.00
10:15:00	5.0	165.00	13.06	1381.97	49.85	2.76	45.00
10:20:00	5.0	170.00	13.06	1447.27	49.84	2.75	50.00
10:25:00	5.0	175.00	13.04	1512.47	49.84	2.75	55.00
10:30:00	5.0	180.00	13.04	1577.67	49.84	2.75	60.00
10:40:00	10.0	190.00	13.00	1707.67	49.83	2.74	70.00
10:50:00	10.0	200.00	13.06	1838.27	49.83	2.74	80.00
11:00:00	10.0	210.00	13.06	1968.87	49.83	2.74	90.00
11:10:00	10.0	220.00	13.04	2099.27	49.82	2.73	100.00
11:20:00	10.0	230.00	13.00	2229.27	49.82	2.73	110.00
11:30:00	10.0	240.00	13.00	2359.27	49.82	2.73	120.00
Total Volume Pumped for Step 2 (gal)			1565.71				
Average Pumping Rate (gpm)			13.08				
Specific Capacity (gpm/foot)			4.79				

Specific Capacity Test

Location/Well ID	IRZ-31 Lower
Date	5/21/2020
Screened Interval	92 to 121 feet bgs
Pump Depth (feet btoc)	118.33
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 92 to 121 feet btoc	47.09
Initial Water Level Within 48 to 77 feet btoc	47.05
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	10718.10
Approx Pumped Volume (gal)	10718.10
Calculated Volume Purged (gal)	10716.08
Difference in Volume Pumped vs. Calculated	2.02
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 43.5 gpm

Step 3 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (Gallons)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 3 Start (min)
11:30:20	0.3	240.33	18.38	2365.40	50.12	3.03	0.33
11:30:40	0.3	240.67	19.16	2371.78	50.25	3.16	0.67
11:31:00	0.3	241.00	19.51	2378.29	50.35	3.26	1.00
11:32:00	1.0	242.00	19.64	2397.93	50.51	3.42	2.00
11:33:00	1.0	243.00	19.60	2417.53	50.64	3.55	3.00
11:34:00	1.0	244.00	19.64	2437.17	50.76	3.67	4.00
11:35:00	1.0	245.00	19.61	2456.78	50.86	3.77	5.00
11:36:00	1.0	246.00	19.64	2476.42	50.93	3.84	6.00
11:37:00	1.0	247.00	19.62	2496.04	50.99	3.90	7.00
11:38:00	1.0	248.00	19.61	2515.65	51.04	3.95	8.00
11:39:00	1.0	249.00	19.61	2535.26	51.07	3.98	9.00
11:40:00	1.0	250.00	19.60	2554.86	51.07	3.98	10.00
11:42:00	2.0	252.00	19.60	2594.06	51.15	4.06	12.00
11:44:00	2.0	254.00	19.56	2633.18	51.18	4.09	14.00
11:46:00	2.0	256.00	19.56	2672.30	51.22	4.13	16.00
11:48:00	2.0	258.00	19.56	2711.42	51.23	4.14	18.00
11:50:00	2.0	260.00	19.58	2750.58	51.24	4.15	20.00
11:52:00	2.0	262.00	19.56	2789.70	51.25	4.16	22.00
11:54:00	2.0	264.00	19.54	2828.78	51.26	4.17	24.00
11:56:00	2.0	266.00	19.51	2867.80	51.26	4.17	26.00
11:58:00	2.0	268.00	19.60	2907.00	51.27	4.18	28.00
12:00:00	2.0	270.00	19.60	2946.20	51.27	4.18	30.00
12:05:00	5.0	275.00	19.60	3044.20	51.28	4.19	35.00
12:10:00	5.0	280.00	19.58	3142.10	51.28	4.19	40.00
12:15:00	5.0	285.00	19.58	3240.00	51.28	4.19	45.00
12:20:00	5.0	290.00	19.58	3337.90	51.28	4.19	50.00
12:25:00	5.0	295.00	19.51	3435.45	51.28	4.19	55.00
12:30:00	5.0	300.00	19.51	3533.00	51.28	4.19	60.00
12:40:00	10.0	310.00	19.50	3728.00	51.28	4.19	70.00
12:50:00	10.0	320.00	19.50	3923.00	51.28	4.19	80.00
13:00:00	10.0	330.00	19.50	4118.00	51.27	4.18	90.00
13:10:00	10.0	340.00	19.48	4312.80	51.27	4.18	100.00
13:20:00	10.0	350.00	19.50	4507.80	51.27	4.18	110.00
13:30:00	10.0	360.00	19.48	4702.60	51.25	4.16	120.00
Total Volume Pumped for Step 3 (gal)			2343.33				
Average Pumping Rate (gpm)			19.52				
Specific Capacity (gpm/foot)			4.69				

Specific Capacity Test

Location/Well ID	IRZ-31 Lower
Date	5/21/2020
Screened Interval	92 to 121 feet bgs
Pump Depth (feet btoc)	118.33
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 92 to 121 feet btoc	47.09
Initial Water Level Within 48 to 77 feet btoc	47.05
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	10718.10
Approx Pumped Volume (gal)	10718.10
Calculated Volume Purged (gal)	10716.08
Difference in Volume Pumped vs. Calculated	2.02
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 43.5 gpm

Step 4 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (Gallons)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 4 Start (min)
13:30:20	0.3	360.33	48.76	4718.85	53.04	5.95	0.33
13:30:40	0.3	360.67	50.00	4735.52	53.55	6.46	0.67
13:31:00	0.3	361.00	50.28	4752.28	53.78	6.69	1.00
13:32:00	1.0	362.00	50.14	4802.42	54.62	7.53	2.00
13:33:00	1.0	363.00	50.00	4852.42	55.30	8.21	3.00
13:34:00	1.0	364.00	50.14	4902.56	55.79	8.70	4.00
13:35:00	1.0	365.00	50.09	4952.65	56.19	9.10	5.00
13:36:00	1.0	366.00	50.12	5002.77	56.55	9.46	6.00
13:37:00	1.0	367.00	50.09	5052.86	56.88	9.79	7.00
13:38:00	1.0	368.00	50.10	5102.96	57.12	10.03	8.00
13:39:00	1.0	369.00	50.06	5153.02	57.34	10.25	9.00
13:40:00	1.0	370.00	50.02	5203.04	57.53	10.44	10.00
13:41:00	1.0	371.00	50.22	5253.26	57.72	10.63	11.00
13:44:00	3.0	374.00	50.14	5403.68	58.09	11.00	14.00
13:46:00	2.0	376.00	50.12	5503.92	58.28	11.19	16.00
13:48:00	2.0	378.00	50.12	5604.16	58.41	11.32	18.00
13:50:00	2.0	380.00	50.09	5704.34	58.52	11.43	20.00
13:52:00	2.0	382.00	50.07	5804.48	58.59	11.50	22.00
13:54:00	2.0	384.00	50.10	5904.68	58.68	11.59	24.00
13:56:00	2.0	386.00	50.09	6004.86	58.71	11.62	26.00
13:58:00	2.0	388.00	50.07	6105.00	58.75	11.66	28.00
14:00:00	2.0	390.00	50.09	6205.18	58.78	11.69	30.00
14:05:00	5.0	395.00	50.07	6455.53	58.83	11.74	35.00
14:10:00	5.0	400.00	50.09	6705.98	58.87	11.78	40.00
14:15:00	5.0	405.00	50.12	6956.58	58.90	11.81	45.00
14:20:00	5.0	410.00	50.10	7207.08	58.92	11.83	50.00
14:25:00	5.0	415.00	50.12	7457.68	58.93	11.84	55.00
14:30:00	5.0	420.00	50.12	7708.28	58.92	11.83	60.00
14:40:00	10.0	430.00	50.12	8209.48	58.91	11.82	70.00
14:50:00	10.0	440.00	50.14	8710.88	58.93	11.84	80.00
15:00:00	10.0	450.00	50.12	9212.08	58.97	11.88	90.00
15:10:00	10.0	460.00	50.14	9713.48	59.00	11.91	100.00
15:20:00	10.0	470.00	50.12	10214.68	59.02	11.93	110.00
15:30:00	10.0	480.00	50.14	10716.08	59.02	11.93	120.00
15:31:00	1.0	481.00	0.00	10716.08	54.60	7.51	121.00
15:32:00	1.0	482.00	0.00	10716.08	53.64	6.55	122.00
15:33:00	1.0	483.00	0.00	10716.08	52.42	5.33	123.00
15:34:00	1.0	484.00	0.00	10716.08	51.65	4.56	124.00
15:35:00	1.0	485.00	0.00	10716.08	50.87	3.78	125.00

Specific Capacity Test

Location/Well ID	IRZ-31 Lower
Date	5/21/2020
Screened Interval	92 to 121 feet bgs
Pump Depth (feet btoc)	118.33
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 92 to 121 feet btoc	47.09
Initial Water Level Within 48 to 77 feet btoc	47.05
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	10718.10
Approx Pumped Volume (gal)	10718.10
Calculated Volume Purged (gal)	10716.08
Difference in Volume Pumped vs. Calculated	2.02
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 43.5 gpm

15:36:00	1.0	486.00	0.00	10716.08	50.26	3.17	126.00
15:37:00	1.0	487.00	0.00	10716.08	49.69	2.60	127.00
15:38:00	1.0	488.00	0.00	10716.08	49.26	2.17	128.00
15:39:00	1.0	489.00	0.00	10716.08	48.89	1.80	129.00
15:40:00	1.0	490.00	0.00	10716.08	48.58	1.49	130.00
15:41:00	1.0	491.00	0.00	10716.08	48.32	1.23	131.00
15:42:00	1.0	492.00	0.00	10716.08	48.12	1.03	132.00
15:43:00	1.0	493.00	0.00	10716.08	47.95	0.86	133.00
15:44:00	1.0	494.00	0.00	10716.08	47.79	0.70	134.00
15:45:00	1.0	495.00	0.00	10716.08	47.66	0.57	135.00
Total Volume Pumped for Step 4 (gal)		6013.48					
Average Pumping Rate (gpm)		50.07					
Specific Capacity (gpm/foot)		4.20					

Acronyms & Abbreviations

bgs = below ground surface

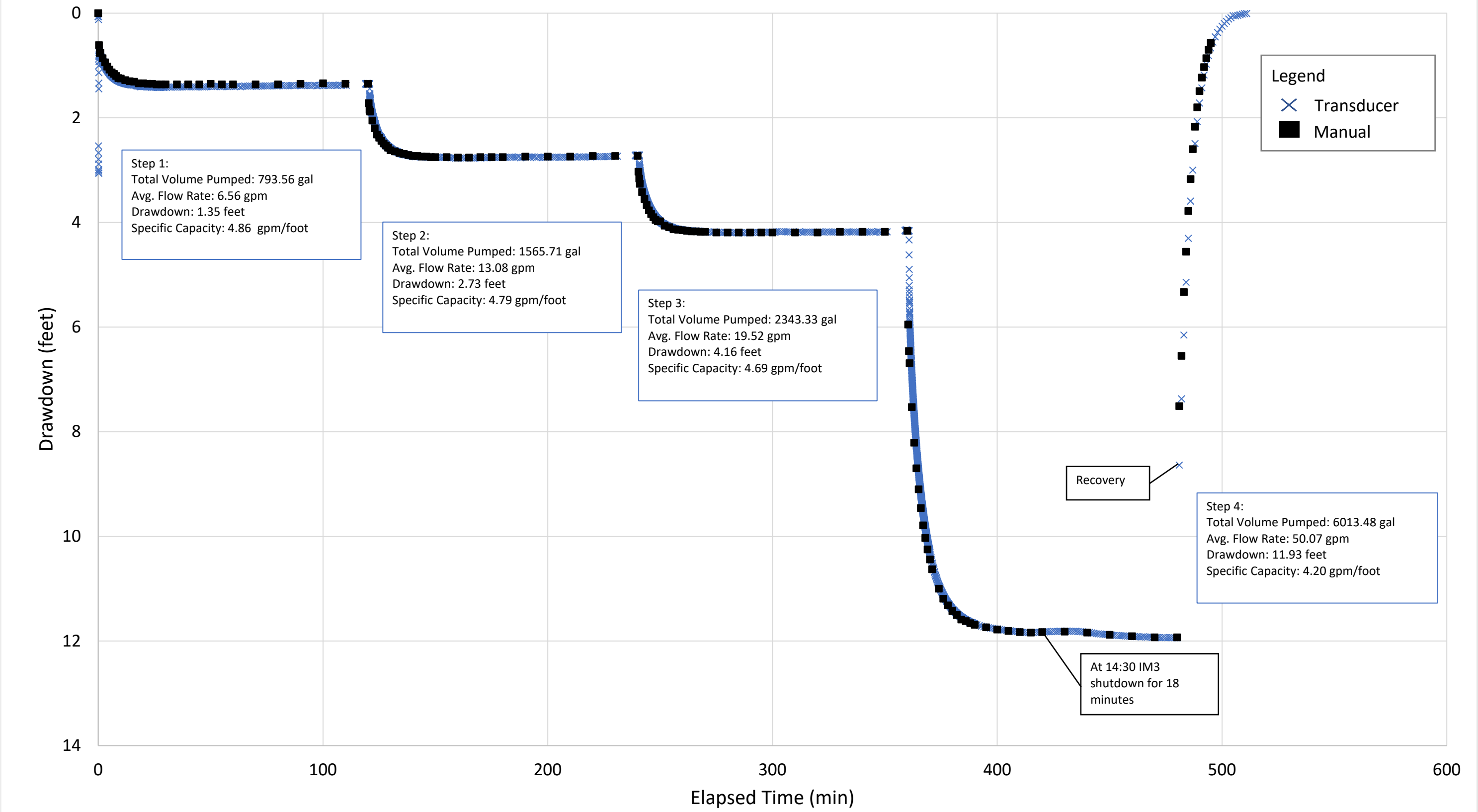
btoc = below top of casing

gal = gallons

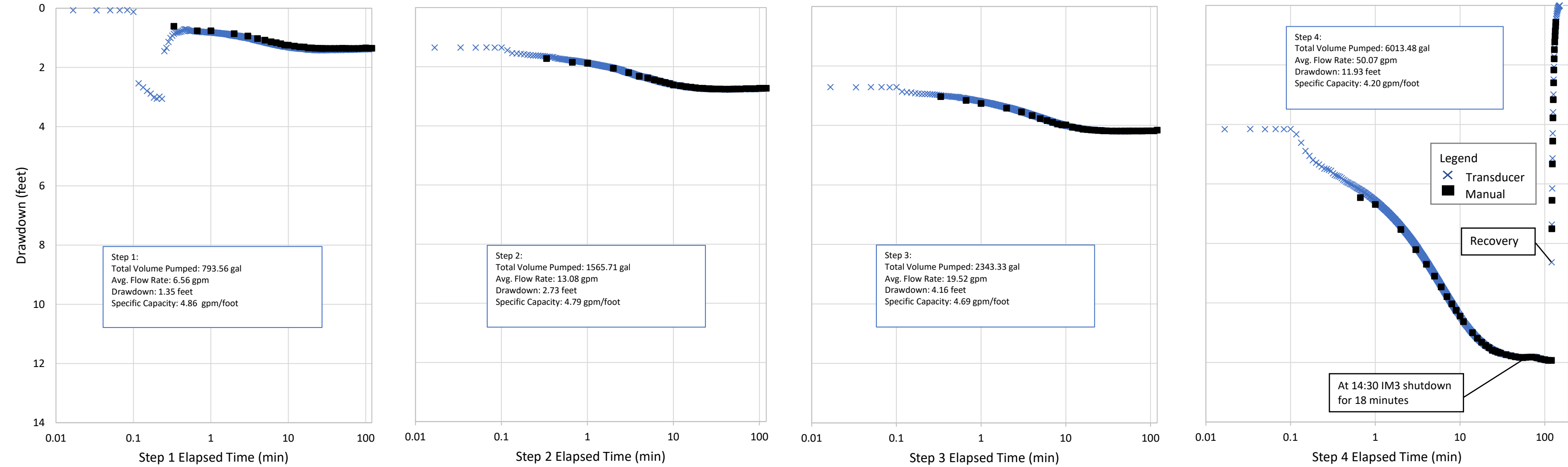
gpm = gallons per minute

min = minutes

IRZ-31 Lower Screen (92 to 121 feet) Linear Drawdown Plot



IRZ-31 Lower Screen (92 to 121 feet) Semi-Log Drawdown Plot



Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-79-060
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	50 feet

Date	Time	Date and Time	Depth to Water
5/21/2020	7:11	5/21/20 7:11	46.09
5/21/2020	8:01	5/21/20 8:01	46.08
5/21/2020	9:12	5/21/20 9:12	46.08
5/21/2020	10:01	5/21/20 10:01	46.08
5/21/2020	11:12	5/21/20 11:12	46.08
5/21/2020	12:01	5/21/20 12:01	46.08
5/21/2020	13:13	5/21/20 13:13	46.07
5/21/2020	14:01	5/21/20 14:01	46.11
5/21/2020	15:07	5/21/20 15:07	46.15
5/21/2020	15:47	5/21/20 15:47	46.15
5/22/2020	6:13	5/22/20 6:13	46.07
5/22/2020	7:12	5/22/20 7:12	46.09
5/22/2020	8:22	5/22/20 8:22	46.15
5/22/2020	9:11	5/22/20 9:11	46.20
5/22/2020	10:22	5/22/20 10:22	46.26
5/22/2020	11:11	5/22/20 11:11	46.31
5/22/2020	12:22	5/22/20 12:22	46.37
5/22/2020	13:11	5/22/20 13:11	46.55
5/22/2020	15:12	5/22/20 15:12	46.84
5/22/2020	15:57	5/22/20 15:57	46.67

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-79-104
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	50 feet

Date	Time	Date and Time	Depth to Water
5/21/2020	7:09	5/21/20 7:09	45.97
5/21/2020	8:02	5/21/20 8:02	46.04
5/21/2020	9:11	5/21/20 9:11	46.03
5/21/2020	10:02	5/21/20 10:02	46.12
5/21/2020	11:11	5/21/20 11:11	46.11
5/21/2020	12:01	5/21/20 12:01	46.19
5/21/2020	13:13	5/21/20 13:13	46.18
5/21/2020	14:01	5/21/20 14:01	46.55
5/21/2020	15:06	5/21/20 15:06	46.57
5/21/2020	15:49	5/21/20 15:49	46.98
5/22/2020	6:15	5/22/20 6:15	45.91
5/22/2020	7:12	5/22/20 7:12	45.94
5/22/2020	8:21	5/22/20 8:21	45.95
5/22/2020	9:11	5/22/20 9:11	45.96
5/22/2020	10:21	5/22/20 10:21	45.99
5/22/2020	11:11	5/22/20 11:11	46.01
5/22/2020	12:21	5/22/20 12:21	46.02
5/22/2020	13:12	5/22/20 13:12	46.14
5/22/2020	15:11	5/22/20 15:11	46.21
5/22/2020	15:58	5/22/20 15:58	46.07

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-51
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	48 feet

Date	Time	Date and Time	Depth to Water
5/21/2020	7:07	5/21/20 7:07	46.24
5/21/2020	8:05	5/21/20 8:05	46.66
5/21/2020	9:12	5/21/20 9:12	46.66
5/21/2020	10:01	5/21/20 10:01	47.13
5/21/2020	11:11	5/21/20 11:11	47.14
5/21/2020	12:01	5/21/20 12:01	47.58
5/21/2020	13:11	5/21/20 13:11	47.58
5/21/2020	14:01	5/21/20 14:01	49.80
5/21/2020	15:06	5/21/20 15:06	49.90
5/21/2020	15:45	5/21/20 15:45	46.65
5/22/2020	6:12	5/22/20 6:12	46.22
5/22/2020	7:11	5/22/20 7:11	46.22
5/22/2020	8:21	5/22/20 8:21	46.22
5/22/2020	9:11	5/22/20 9:11	46.25
5/22/2020	10:21	5/22/20 10:21	46.25
5/22/2020	11:11	5/22/20 11:11	46.28
5/22/2020	12:21	5/22/20 12:21	46.27
5/22/2020	13:11	5/22/20 13:11	46.34
5/22/2020	15:11	5/22/20 15:11	46.38
5/22/2020	15:55	5/22/20 15:55	46.35

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

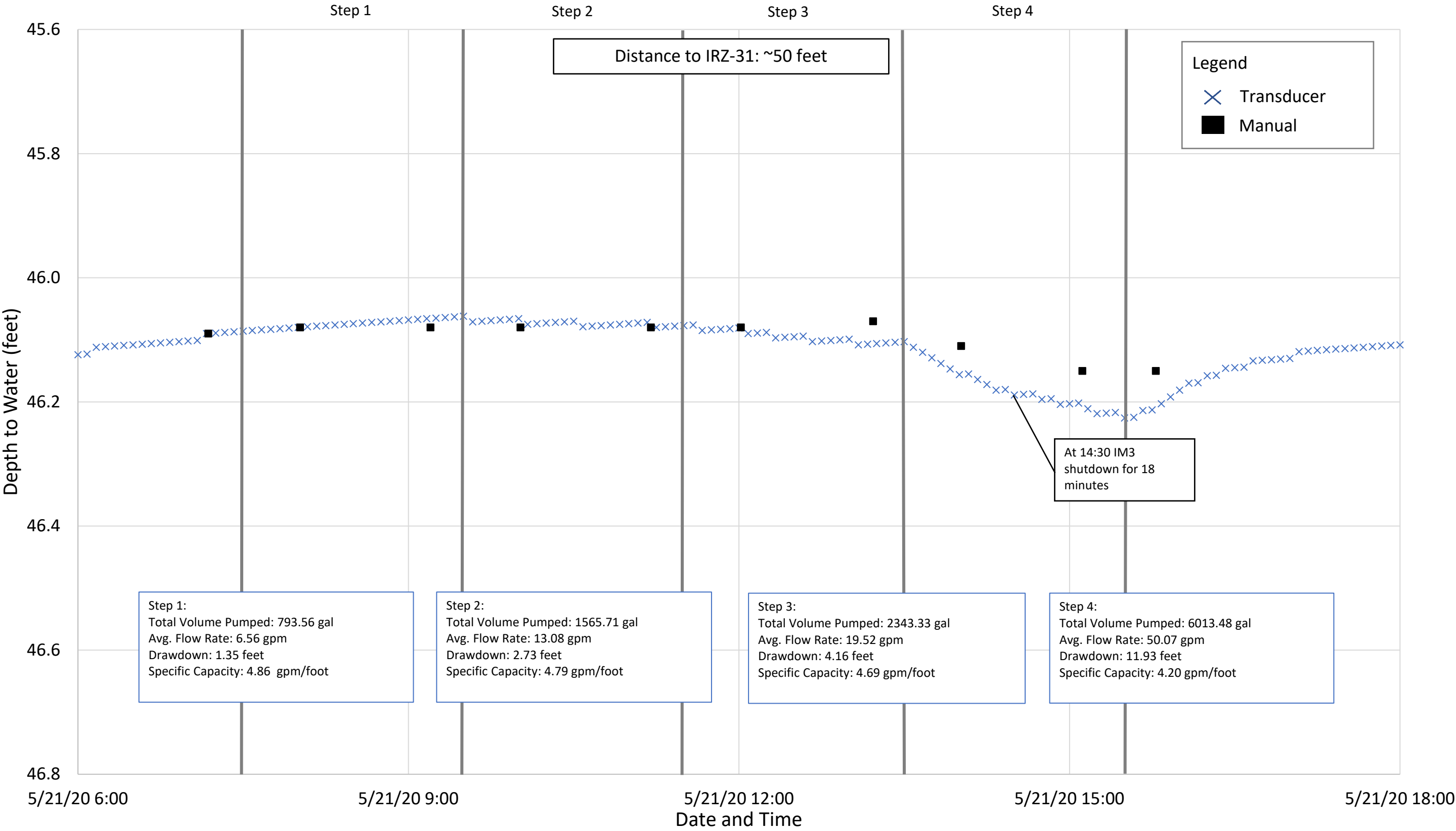
Location/Well ID	MW-26
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	34 feet

Date	Time	Date and Time	Depth to Water
5/21/2020	7:05	5/21/20 7:05	46.75
5/21/2020	8:04	5/21/20 8:04	46.75
5/21/2020	9:11	5/21/20 9:11	46.75
5/21/2020	10:01	5/21/20 10:01	46.75
5/21/2020	11:12	5/21/20 11:12	46.76
5/21/2020	12:00	5/21/20 12:00	46.76
5/21/2020	13:12	5/21/20 13:12	46.76
5/21/2020	14:00	5/21/20 14:00	46.82
5/21/2020	15:00	5/21/20 15:00	46.86
5/21/2020	15:41	5/21/20 15:41	46.82
5/22/2020	6:09	5/22/20 6:09	46.70
5/22/2020	7:10	5/22/20 7:10	46.84
5/22/2020	8:20	5/22/20 8:20	46.91
5/22/2020	9:10	5/22/20 9:10	47.05
5/22/2020	10:21	5/22/20 10:21	47.14
5/22/2020	11:10	5/22/20 11:10	47.30
5/22/2020	12:20	5/22/20 12:20	47.38
5/22/2020	13:11	5/22/20 13:11	47.98
5/22/2020	15:11	5/22/20 15:11	48.32
5/22/2020	15:53	5/22/20 15:53	47.49

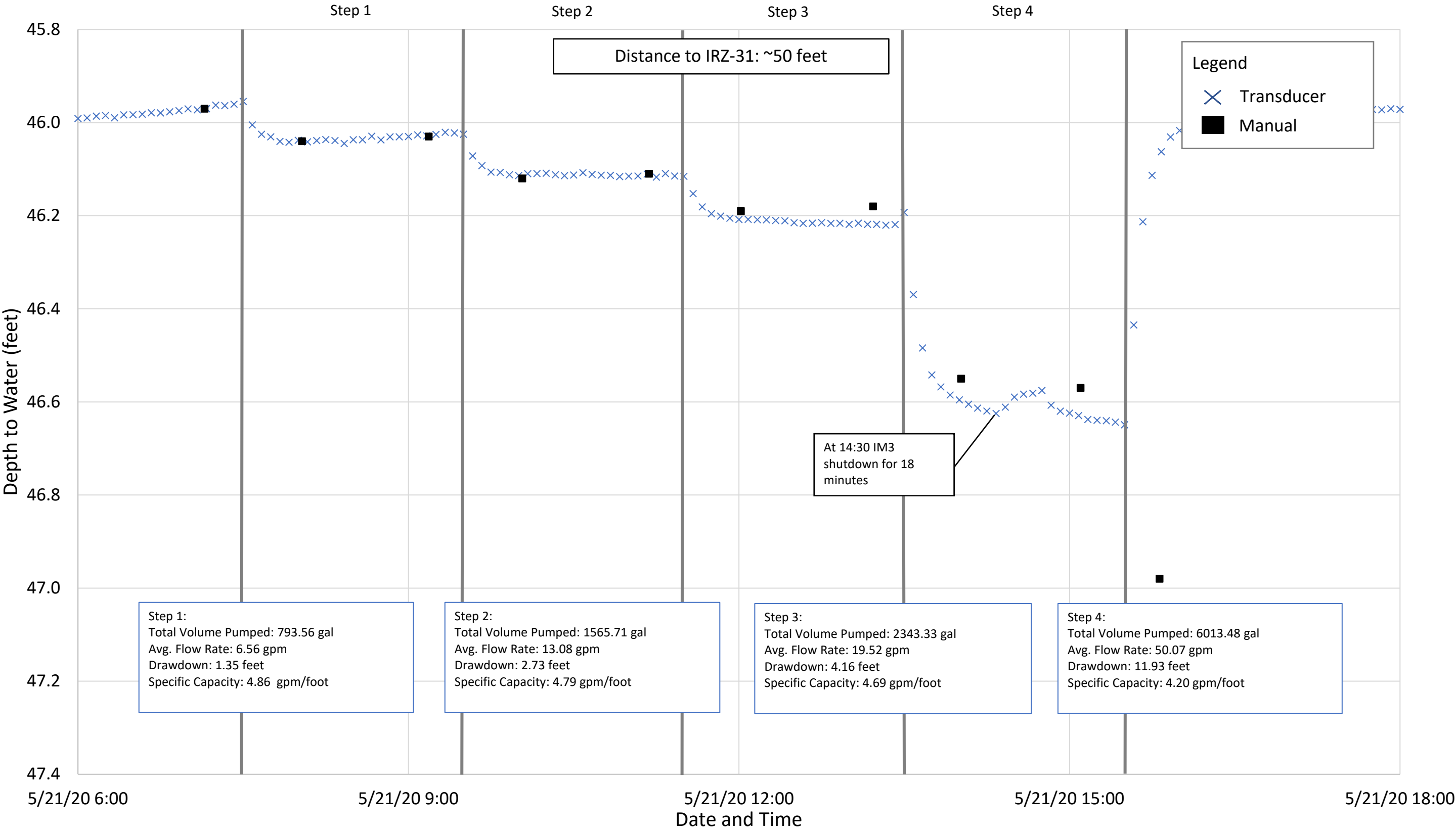
Acronyms & Abbreviations

bgs = below ground surface

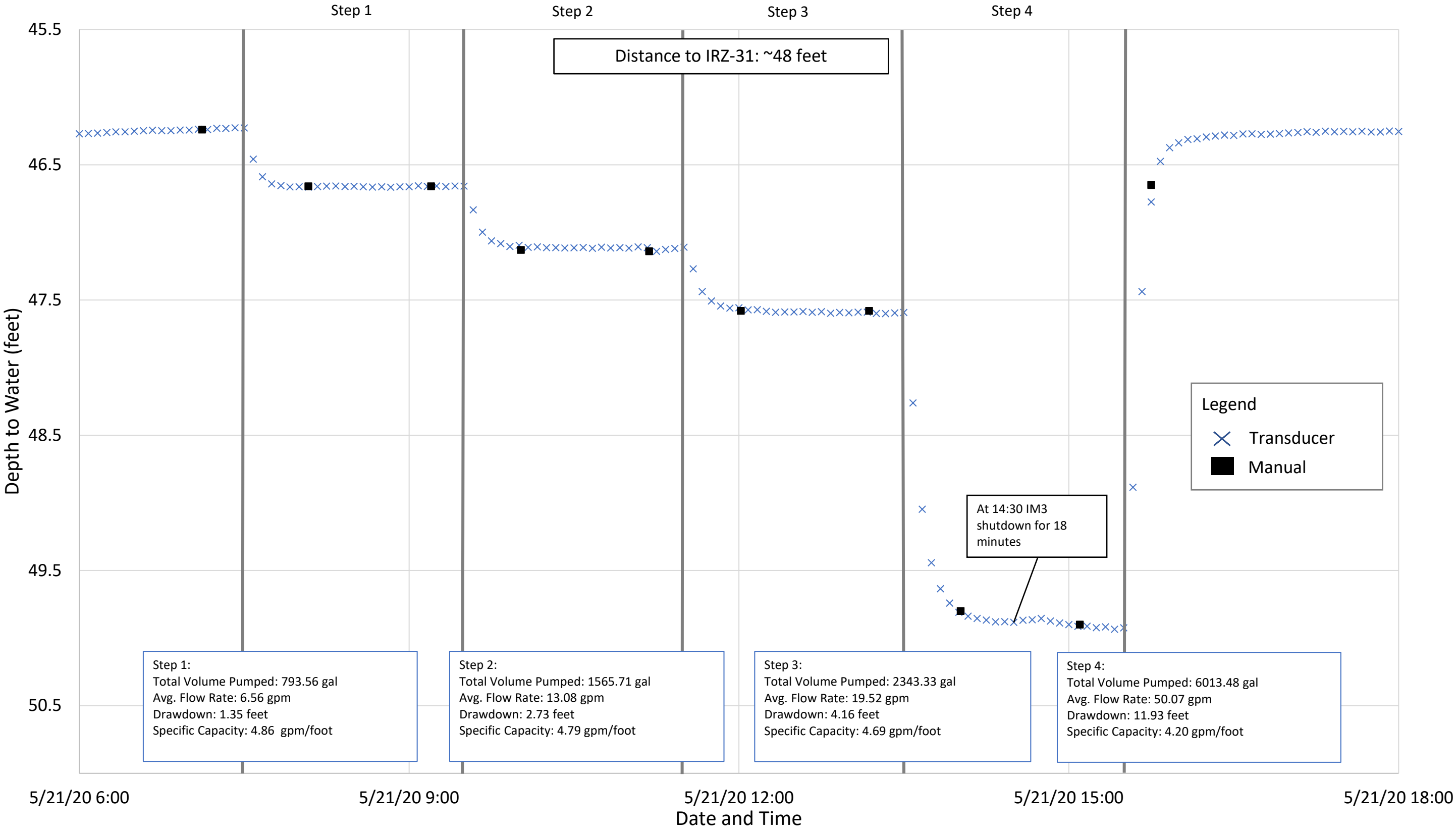
MW-79-060 During IRZ-31 Lower Screen (92 to 121 feet) Specific Capacity Test



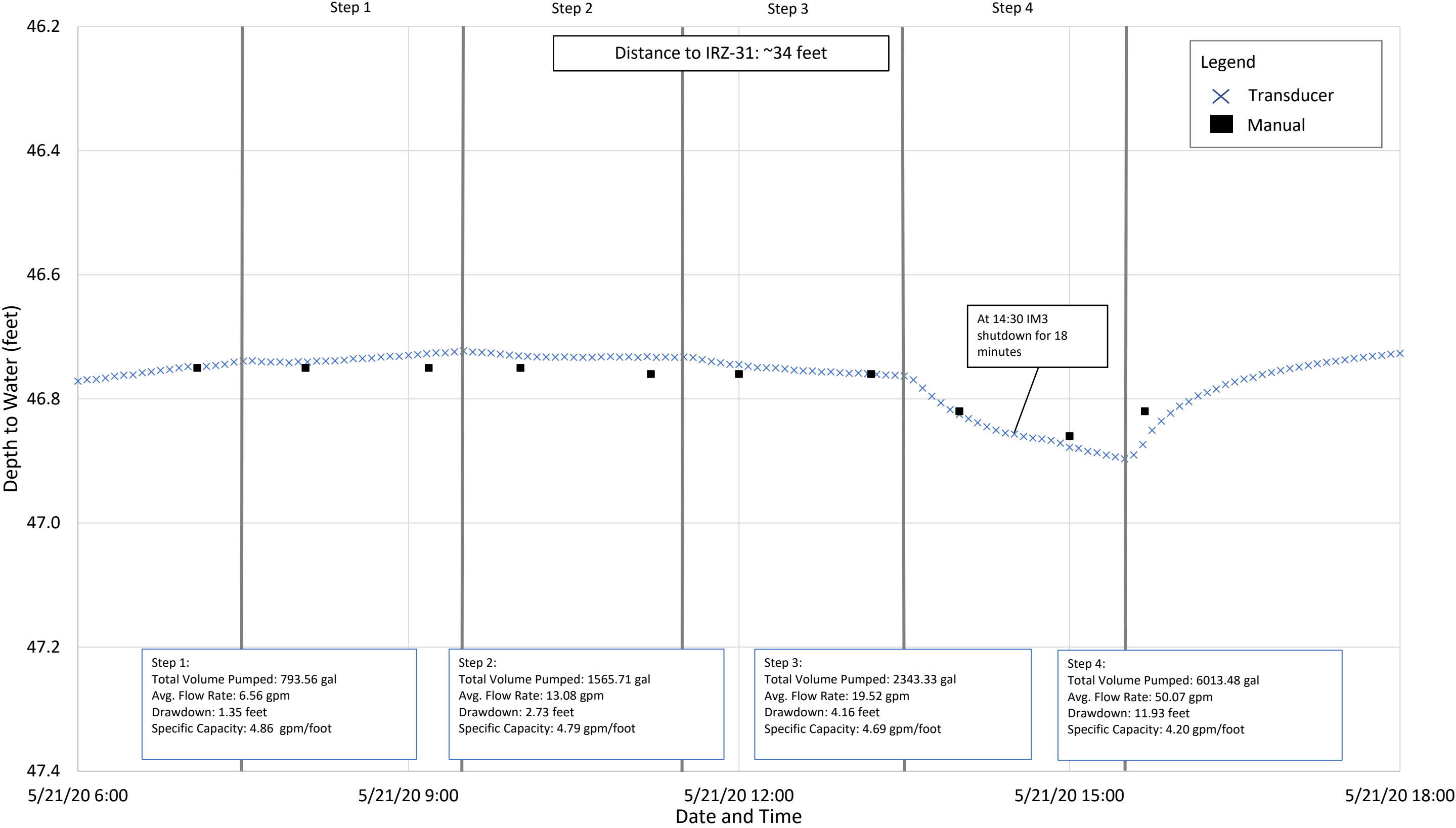
MW-79-104 During IRZ-31 Lower Screen (92 to 121 feet) Specific Capacity Test



MW-51 During IRZ-31 Lower Screen (92 to 121 feet) Specific Capacity Test



MW-26 During IRZ-31 Lower Screen (92 to 121 feet) Specific Capacity Test



Injectivity Testing

Location/Well ID	IRZ-31
Date	5/27/2020
Screened Interval Tested	Upper (48 to 77 feet bgs)
Packer Set Depth	87.5-91.5 feet btoc
Packer Seal Test	Confirmed packer to be watertight before test
Tests Conducted	Four-step injectivity test (6.5, 13, 19.5, and 26 gpm)
Purpose	Well performance test
Summary	Specific injectivity: 4.92 to 5.19 gpm/foot
Injection Water Source	Fresh water from construction water supply system
Notes	
Oversight Signature	
Date	9/29/2020

Acronyms & Abbreviations

bgs = below ground surface

btoc = below top of casing

gpm = gallons per minute

Injectivity Test

Location/Well ID	IRZ-31 Upper
Date	5/27/2020
Screened Interval	48 to 77 feet bgs
Injection Depth (feet btoc)	60.00
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 48 to 77 feet btoc	46.67
Initial Water Level Within 92 to 121 feet btoc	46.73
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	7852.41
Approx Injected Volume (gal)	7852.41
Calculated Volume Purged (gal)	7844.37
Difference in Volume Pumped vs. Calculated	8.04
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5 and 26 gpm

Step 1 - Time (HR:MN:SEC)	Elapsed Time (min)	Injection Rate (gpm)	Total Volume Injected (gal)	Depth to Water (feet)	Water Level Change (feet)
8:50:00	0.00	0.00	0.00	46.67	0.00
8:50:20	0.33	3.54	1.18	46.54	0.13
8:50:40	0.67	6.08	3.21	46.38	0.29
8:51:00	1.00	6.54	5.39	46.18	0.49
8:52:00	2.00	6.57	11.96	45.81	0.86
8:53:00	3.00	6.57	18.53	45.67	1.00
8:54:00	4.00	6.60	25.13	45.59	1.08
8:55:00	5.00	6.56	31.69	45.54	1.13
8:56:00	6.00	6.58	38.27	45.47	1.20
8:58:00	8.00	6.58	51.43	45.44	1.23
8:59:00	9.00	6.60	58.03	45.42	1.25
9:00:00	10.00	6.60	64.63	45.41	1.26
9:02:00	12.00	6.56	77.75	45.40	1.27
9:04:00	14.00	6.56	90.87	45.39	1.28
9:06:00	16.00	6.52	103.91	45.38	1.29
9:08:00	18.00	6.54	116.99	45.37	1.30
9:10:00	20.00	6.57	130.13	45.37	1.30
9:12:00	22.00	6.56	143.25	45.36	1.31
9:14:00	24.00	6.56	156.37	45.36	1.31
9:16:00	26.00	6.56	169.49	45.35	1.32
9:18:00	28.00	6.60	182.69	45.35	1.32
9:20:00	30.00	6.36	195.41	45.37	1.30
9:25:00	35.00	6.56	228.21	45.35	1.32
9:30:00	40.00	6.56	261.01	45.34	1.33
9:35:00	45.00	6.56	293.81	45.34	1.33
9:40:00	50.00	6.56	326.61	45.34	1.33
9:45:00	55.00	6.51	359.16	45.34	1.33
9:50:00	60.00	6.54	391.86	45.34	1.33
10:00:00	70.00	6.54	457.26	45.35	1.32
10:10:00	80.00	6.54	522.66	45.35	1.32
10:20:00	90.00	6.57	588.36	45.34	1.33
10:30:00	100.00	6.54	653.76	45.35	1.32
10:40:00	110.00	6.54	719.16	45.35	1.32
10:50:00	120.00	6.54	784.56	45.36	1.31
Total Volume Injected During Step (gal):			784.56		
Average Injection Rate (gpm):			6.45		
Specific Injectivity (gpm/foot):			4.92		

Injectivity Test

Location/Well ID	IRZ-31 Upper
Date	5/27/2020
Screened Interval	48 to 77 feet bgs
Injection Depth (feet btoc)	60.00
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 48 to 77 feet btoc	46.67
Initial Water Level Within 92 to 121 feet btoc	46.73
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	7852.41
Approx Injected Volume (gal)	7852.41
Calculated Volume Purged (gal)	7844.37
Difference in Volume Pumped vs. Calculated	8.04
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5 and 26 gpm

Step 2 - Time (HR:MN:SEC)	Elapsed Time (min)	Injection Rate (gpm)	Total Volume Injected (gal)	Depth to Water (feet)	Water Level Change (feet)	Elapsed Time from Step 2 Start (min)
10:50:20	120.33	13.16	788.94	44.99	1.68	0.33
10:50:40	120.67	13.28	793.37	44.79	1.88	0.67
10:51:00	121.00	13.13	797.75	44.74	1.93	1.00
10:52:00	122.00	13.12	810.87	44.45	2.22	2.00
10:53:00	123.00	13.10	823.97	44.34	2.33	3.00
10:54:00	124.00	13.12	837.09	44.28	2.39	4.00
10:55:00	125.00	13.13	850.22	44.24	2.43	5.00
10:56:00	126.00	13.12	863.34	44.20	2.47	6.00
10:57:00	127.00	13.12	876.46	44.18	2.49	7.00
10:58:00	128.00	13.12	889.58	44.16	2.51	8.00
10:59:00	129.00	13.08	902.66	44.14	2.53	9.00
11:00:00	130.00	13.13	915.79	44.12	2.55	10.00
11:02:00	132.00	13.16	942.11	44.11	2.56	12.00
11:04:00	134.00	13.16	968.43	44.09	2.58	14.00
11:06:00	136.00	13.13	994.69	44.07	2.60	16.00
11:08:00	138.00	13.18	1021.05	44.05	2.62	18.00
11:10:00	140.00	13.16	1047.37	44.05	2.62	20.00
11:12:00	142.00	13.18	1073.73	44.03	2.64	22.00
11:14:00	144.00	13.18	1100.09	44.03	2.64	24.00
11:16:00	146.00	13.21	1126.51	44.02	2.65	26.00
11:18:00	148.00	13.20	1152.91	44.02	2.65	28.00
11:20:00	150.00	13.20	1179.31	44.01	2.66	30.00
11:25:00	155.00	13.16	1245.11	44.01	2.66	35.00
11:30:00	160.00	13.20	1311.11	44.00	2.67	40.00
11:35:00	165.00	13.16	1376.91	44.00	2.67	45.00
11:40:00	170.00	13.20	1442.91	43.99	2.68	50.00
11:45:00	175.00	13.12	1508.51	43.99	2.68	55.00
11:50:00	180.00	13.12	1574.11	43.98	2.69	60.00
12:00:00	190.00	13.13	1705.41	43.99	2.68	70.00
12:10:00	200.00	13.10	1836.41	44.00	2.67	80.00
12:20:00	210.00	13.08	1967.21	44.00	2.67	90.00
12:30:00	220.00	13.02	2097.41	44.00	2.67	100.00
12:40:00	230.00	13.04	2227.81	44.00	2.67	110.00
12:50:00	240.00	13.06	2358.41	44.00	2.67	120.00
Total Volume Injected During Step (gal):			1573.85			
Average Injection Rate (gpm):			13.14			
Specific Injectivity (gpm/foot):			4.92			

Injectivity Test

Location/Well ID	IRZ-31 Upper
Date	5/27/2020
Screened Interval	48 to 77 feet bgs
Injection Depth (feet btoc)	60.00
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 48 to 77 feet btoc	46.67
Initial Water Level Within 92 to 121 feet btoc	46.73
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	7852.41
Approx Injected Volume (gal)	7852.41
Calculated Volume Purged (gal)	7844.37
Difference in Volume Pumped vs. Calculated	8.04
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5 and 26 gpm

Step 3 - Time (HR:MN:SEC)	Elapsed Time (min)	Injection Rate (gpm)	Total Volume Injected (gal)	Depth to Water (feet)	Water Level Change (feet)	Elapsed Time from Step 3 Start (min)
12:50:20	240.33	19.64	2364.95	43.67	3.00	0.33
12:50:40	240.67	19.24	2371.37	43.53	3.14	0.67
12:51:00	241.00	19.66	2377.92	43.40	3.27	1.00
12:52:00	242.00	19.60	2397.52	43.20	3.47	2.00
12:53:00	243.00	19.60	2417.12	43.11	3.56	3.00
12:54:00	244.00	19.58	2436.70	43.06	3.61	4.00
12:55:00	245.00	19.58	2456.28	43.03	3.64	5.00
12:56:00	246.00	19.58	2475.86	43.00	3.67	6.00
12:57:00	247.00	19.58	2495.44	42.96	3.71	7.00
12:58:00	248.00	19.58	2515.02	42.95	3.72	8.00
12:59:00	249.00	19.56	2534.58	42.94	3.73	9.00
13:00:00	250.00	19.58	2554.16	42.92	3.75	10.00
13:02:00	252.00	19.64	2593.44	42.90	3.77	12.00
13:04:00	254.00	19.60	2632.64	42.89	3.78	14.00
13:06:00	256.00	19.56	2671.76	42.88	3.79	16.00
13:08:00	258.00	19.54	2710.84	42.87	3.80	18.00
13:10:00	260.00	19.56	2749.96	42.86	3.81	20.00
13:12:00	262.00	19.56	2789.08	42.85	3.82	22.00
13:14:00	264.00	19.70	2828.48	42.84	3.83	24.00
13:16:00	266.00	19.68	2867.84	42.83	3.84	26.00
13:18:00	268.00	19.68	2907.20	42.82	3.85	28.00
13:20:00	270.00	19.67	2946.54	42.82	3.85	30.00
13:25:00	275.00	19.67	3044.89	42.81	3.86	35.00
13:30:00	280.00	19.66	3143.19	42.80	3.87	40.00
13:35:00	285.00	19.66	3241.49	42.80	3.87	45.00
13:40:00	290.00	19.68	3339.89	42.79	3.88	50.00
13:45:00	295.00	19.67	3438.24	42.79	3.88	55.00
13:50:00	300.00	19.67	3536.59	42.79	3.88	60.00
14:00:00	310.00	19.67	3733.29	42.78	3.89	70.00
14:10:00	320.00	19.66	3929.89	42.79	3.88	80.00
14:20:00	330.00	19.64	4126.29	42.79	3.88	90.00
14:30:00	340.00	19.62	4322.49	42.79	3.88	100.00
14:40:00	350.00	19.56	4518.09	42.79	3.88	110.00
14:50:00	360.00	19.62	4714.29	42.80	3.87	120.00
Total Volume Injected During Step (gal):			2355.88			
Average Injection Rate (gpm):			19.61			
Specific Injectivity (gpm/foot):			5.07			

Injectivity Test

Location/Well ID	IRZ-31 Upper
Date	5/27/2020
Screened Interval	48 to 77 feet bgs
Injection Depth (feet btoc)	60.00
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 48 to 77 feet btoc	46.67
Initial Water Level Within 92 to 121 feet btoc	46.73
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	7852.41
Approx Injected Volume (gal)	7852.41
Calculated Volume Purged (gal)	7844.37
Difference in Volume Pumped vs. Calculated	8.04
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5 and 26 gpm

Step 4 - Time (HR:MN:SEC)	Elapsed Time (min)	Injection Rate (gpm)	Total Volume Injected (gal)	Depth to Water (feet)	Water Level Change (feet)	Elapsed Time from Step 4 Start (min)
14:50:20	360.33	25.16	4722.68	42.50	4.17	0.33
14:50:40	360.67	27.56	4731.86	42.27	4.40	0.67
14:51:00	361.00	25.64	4740.41	42.22	4.45	1.00
14:52:00	362.00	26.14	4766.55	42.07	4.60	2.00
14:53:00	363.00	26.15	4792.70	41.99	4.68	3.00
14:54:00	364.00	26.14	4818.84	41.94	4.73	4.00
14:55:00	365.00	26.14	4844.98	41.90	4.77	5.00
14:56:00	366.00	26.12	4871.10	41.86	4.81	6.00
14:57:00	367.00	26.15	4897.25	41.85	4.82	7.00
14:58:00	368.00	26.14	4923.39	41.82	4.85	8.00
14:59:00	369.00	26.14	4949.53	41.81	4.86	9.00
15:00:00	370.00	26.12	4975.65	41.80	4.87	10.00
15:02:00	372.00	26.14	5027.93	41.78	4.89	12.00
15:04:00	374.00	26.10	5080.13	41.76	4.91	14.00
15:06:00	376.00	26.12	5132.37	41.75	4.92	16.00
15:08:00	378.00	26.10	5184.57	41.74	4.93	18.00
15:10:00	380.00	26.10	5236.77	41.73	4.94	20.00
15:12:00	382.00	26.10	5288.97	41.72	4.95	22.00
15:14:00	384.00	26.10	5341.17	41.69	4.98	24.00
15:16:00	386.00	26.08	5393.33	41.69	4.98	26.00
15:18:00	388.00	26.10	5445.53	41.69	4.98	28.00
15:20:00	390.00	26.07	5497.67	41.69	4.98	30.00
15:25:00	395.00	26.07	5628.02	41.69	4.98	35.00
15:30:00	400.00	26.10	5758.52	41.68	4.99	40.00
15:35:00	405.00	26.08	5888.92	41.68	4.99	45.00
15:40:00	410.00	26.10	6019.42	41.67	5.00	50.00
15:45:00	415.00	26.08	6149.82	41.66	5.01	55.00
15:50:00	420.00	26.07	6280.17	41.66	5.01	60.00
16:00:00	430.00	26.04	6540.57	41.66	5.01	70.00
16:10:00	440.00	26.10	6801.57	41.64	5.03	80.00
16:20:00	450.00	26.08	7062.37	41.64	5.03	90.00
16:30:00	460.00	26.07	7323.07	41.64	5.03	100.00
16:40:00	470.00	26.07	7583.77	41.65	5.02	110.00
16:50:00	480.00	26.06	7844.37	41.64	5.03	120.00
16:51:00	481.00	0.00	7844.37	43.97	2.70	121.00
16:52:00	482.00	0.00	7844.37	44.54	2.13	122.00
16:53:00	483.00	0.00	7844.37	44.87	1.80	123.00
16:54:00	484.00	0.00	7844.37	45.10	1.57	124.00
16:55:00	485.00	0.00	7844.37	45.44	1.23	125.00
16:56:00	486.00	0.00	7844.37	45.37	1.30	126.00
16:57:00	487.00	0.00	7844.37	45.45	1.22	127.00

Injectivity Test

Location/Well ID	IRZ-31 Upper
Date	5/27/2020
Screened Interval	48 to 77 feet bgs
Injection Depth (feet btoc)	60.00
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 48 to 77 feet btoc	46.67
Initial Water Level Within 92 to 121 feet btoc	46.73
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	7852.41
Approx Injected Volume (gal)	7852.41
Calculated Volume Purged (gal)	7844.37
Difference in Volume Pumped vs. Calculated	8.04
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5 and 26 gpm

16:58:00	488.00	0.00	7844.37	45.55	1.12	128.00
16:59:00	489.00	0.00	7844.37	45.81	0.86	129.00
17:00:00	490.00	0.00	7844.37	45.67	1.00	130.00
17:01:00	491.00	0.00	7844.37	45.73	0.94	131.00
17:02:00	492.00	0.00	7844.37	45.78	0.89	132.00
17:03:00	493.00	0.00	7844.37	45.81	0.86	133.00
17:04:00	494.00	0.00	7844.37	45.84	0.83	134.00
17:05:00	495.00	0.00	7844.37	45.88	0.79	135.00
Total Volume Injected During Step (gal):			3130.08			
Average Injection Rate (gpm):			26.10			
Specific Injectivity (gpm/foot):			5.19			

Acronyms & Abbreviations

bgs = below ground surface

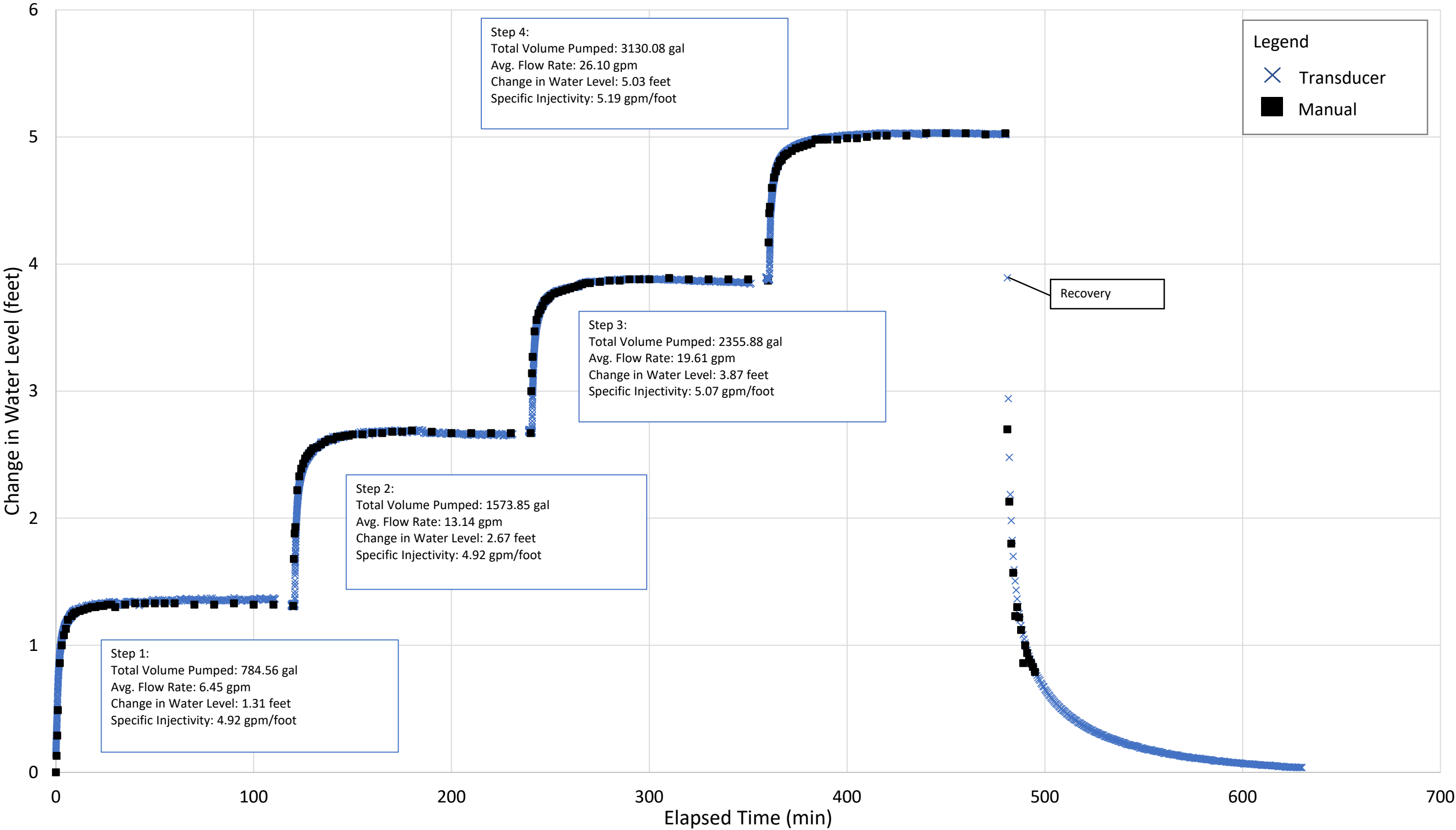
btoc = below top of casing

gal = gallons

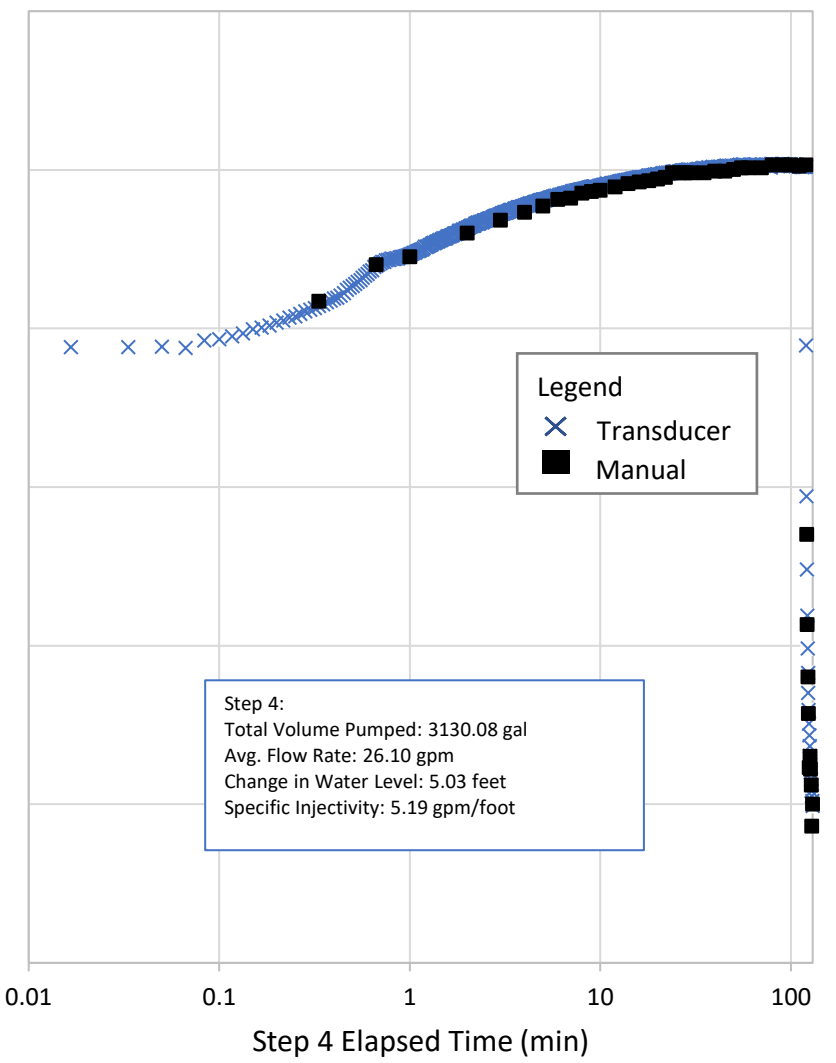
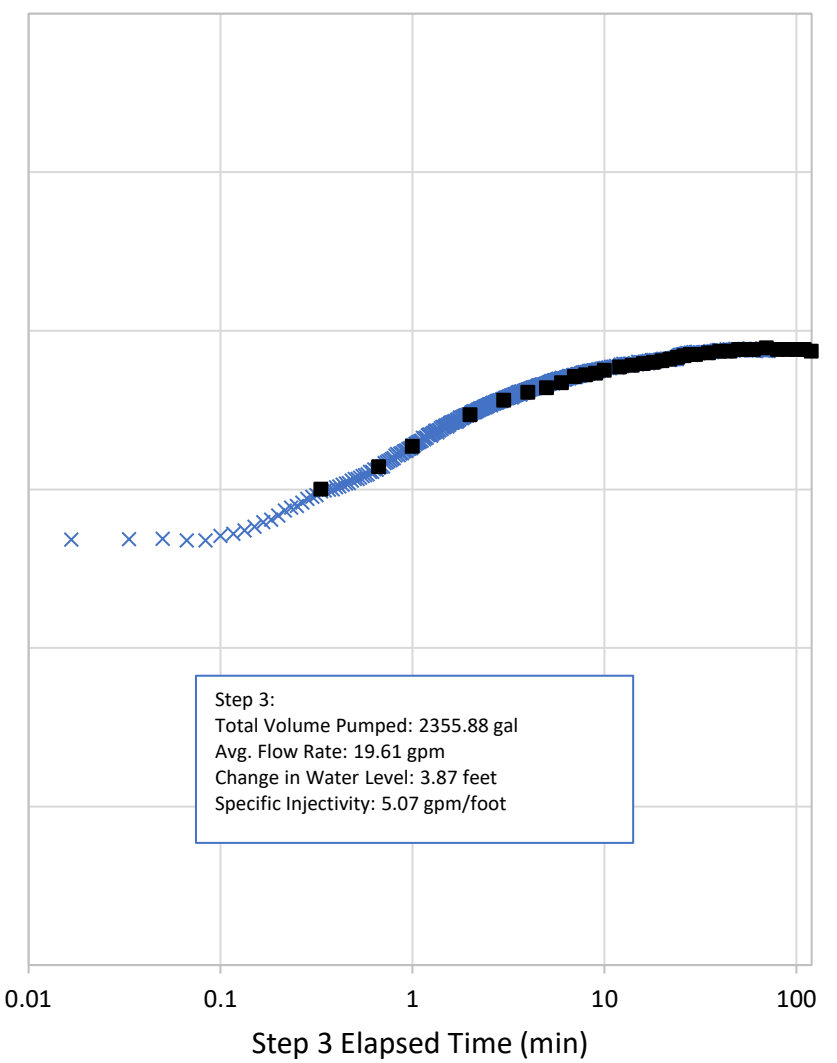
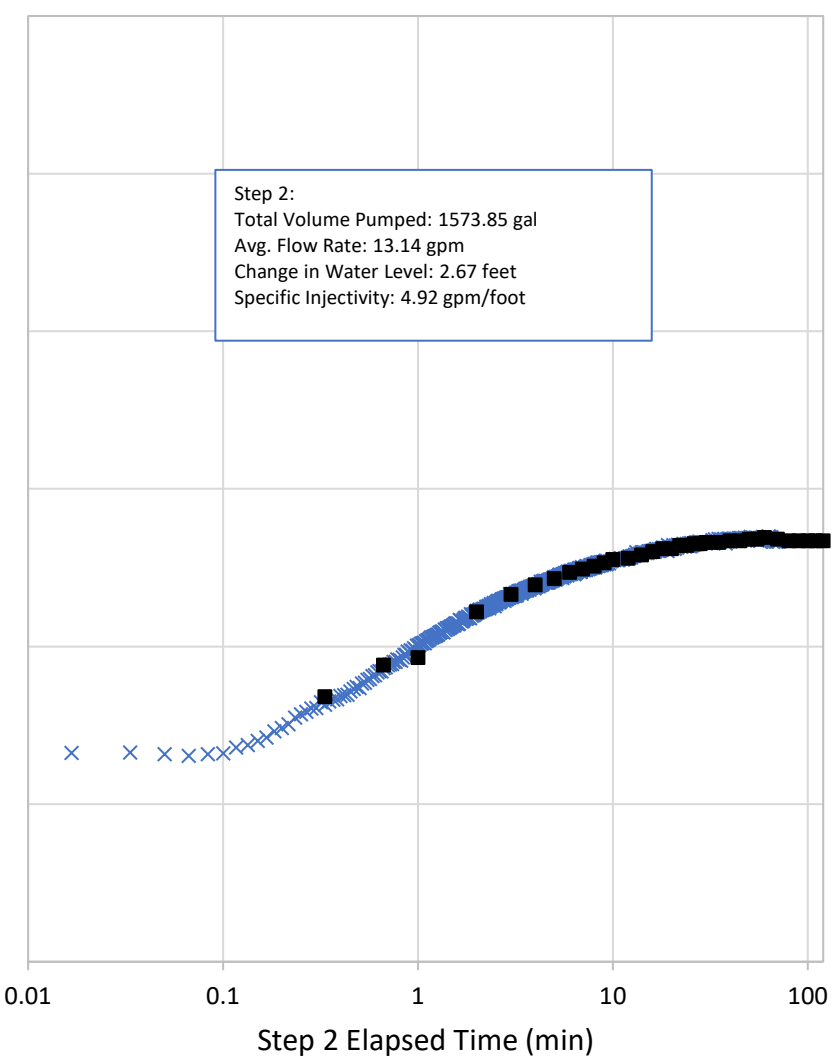
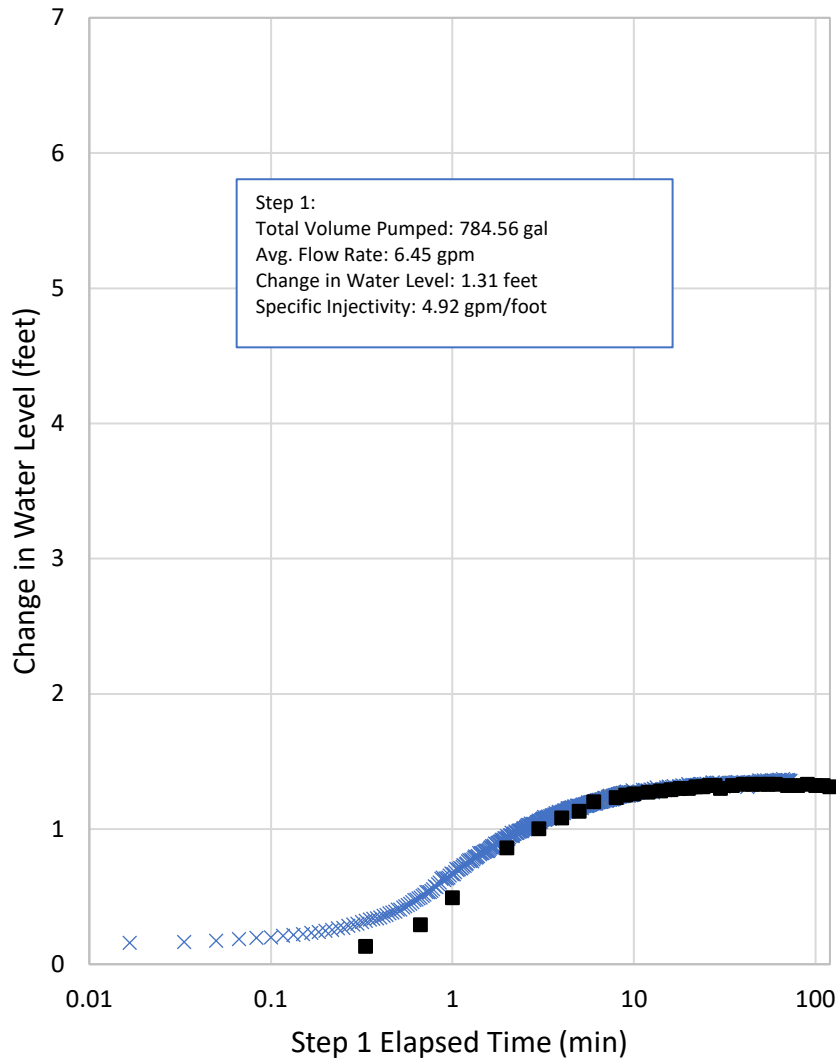
gpm = gallons per minute

min = minutes

IRZ-31 Upper Screen (48 to 77 feet) Linear Change in Water Level Plot



IRZ-31 Upper Screen (48 to 77 feet) Semi-Log Change in Water Level Plot



Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-26
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	34 feet

Date	Time	Date and Time	Depth to Water
5/26/2020	8:21	5/26/20 8:21	46.68
5/26/2020	10:00	5/26/20 10:00	46.62
5/26/2020	11:12	5/26/20 11:12	46.59
5/26/2020	12:01	5/26/20 12:01	46.56
5/26/2020	13:12	5/26/20 13:12	46.53
5/26/2020	14:01	5/26/20 14:01	46.50
5/26/2020	15:16	5/26/20 15:16	46.47
5/26/2020	16:00	5/26/20 16:00	46.43
5/26/2020	17:14	5/26/20 17:14	46.40
5/26/2020	17:47	5/26/20 17:47	46.44
5/27/2020	7:13	5/27/20 7:13	46.60
5/27/2020	8:44	5/27/20 8:44	46.42
5/27/2020	9:21	5/27/20 9:21	46.38
5/27/2020	10:34	5/27/20 10:34	46.32
5/27/2020	11:21	5/27/20 11:21	46.14
5/27/2020	12:35	5/27/20 12:35	46.02
5/27/2020	13:21	5/27/20 13:21	45.85
5/27/2020	14:35	5/27/20 14:35	45.72
5/27/2020	15:20	5/27/20 15:20	45.52
5/27/2020	16:34	5/27/20 16:34	45.41
5/27/2020	17:06	5/27/20 17:06	45.85
5/28/2020	7:22	5/28/20 7:22	46.66
5/28/2020	7:50	5/28/20 7:50	46.66
5/28/2020	9:05	5/28/20 9:05	46.65

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-51
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	48 feet

Date	Time	Date and Time	Depth to Water
5/26/2020	8:23	5/26/20 8:23	46.11
5/26/2020	10:01	5/26/20 10:01	45.58
5/26/2020	11:13	5/26/20 11:13	45.57
5/26/2020	12:03	5/26/20 12:03	45.05
5/26/2020	13:13	5/26/20 13:13	45.03
5/26/2020	14:01	5/26/20 14:01	44.55
5/26/2020	15:16	5/26/20 15:16	44.52
5/26/2020	16:01	5/26/20 16:01	44.02
5/26/2020	17:14	5/26/20 17:14	44.00
5/26/2020	17:49	5/26/20 17:49	45.89
5/27/2020	7:16	5/27/20 7:16	46.11
5/27/2020	8:43	5/27/20 8:43	46.08
5/27/2020	9:21	5/27/20 9:21	46.07
5/27/2020	10:35	5/27/20 10:35	46.05
5/27/2020	11:21	5/27/20 11:21	46.04
5/27/2020	12:36	5/27/20 12:36	45.98
5/27/2020	13:21	5/27/20 13:21	45.95
5/27/2020	14:36	5/27/20 14:36	45.90
5/27/2020	15:21	5/27/20 15:21	45.56
5/27/2020	16:35	5/27/20 16:35	45.84
5/27/2020	17:08	5/27/20 17:08	45.88
5/28/2020	7:30	5/28/20 7:30	46.12
5/28/2020	7:57	5/28/20 7:57	46.10
5/28/2020	9:10	5/28/20 9:10	46.10

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-79-060
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	50 feet

Date	Time	Date and Time	Depth to Water
5/26/2020	8:28	5/26/20 8:28	46.00
5/26/2020	10:01	5/26/20 10:01	45.94
5/26/2020	11:14	5/26/20 11:14	45.91
5/26/2020	12:02	5/26/20 12:02	45.89
5/26/2020	13:15	5/26/20 13:15	45.85
5/26/2020	14:01	5/26/20 14:01	45.84
5/26/2020	15:18	5/26/20 15:18	45.80
5/26/2020	16:02	5/26/20 16:02	45.78
5/26/2020	17:19	5/26/20 17:19	45.76
5/26/2020	17:48	5/26/20 17:48	45.77
5/27/2020	7:18	5/27/20 7:18	45.97
5/27/2020	8:46	5/27/20 8:46	45.86
5/27/2020	9:21	5/27/20 9:21	45.85
5/27/2020	10:35	5/27/20 10:35	45.79
5/27/2020	11:27	5/27/20 11:27	45.71
5/27/2020	12:36	5/27/20 12:36	45.62
5/27/2020	13:21	5/27/20 13:21	45.56
5/27/2020	14:36	5/27/20 14:36	45.45
5/27/2020	15:21	5/27/20 15:21	45.37
5/27/2020	16:35	5/27/20 16:35	45.27
5/27/2020	17:08	5/27/20 17:08	45.35
5/28/2020	8:05	5/28/20 8:05	45.90
5/28/2020	8:32	5/28/20 8:32	45.91

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

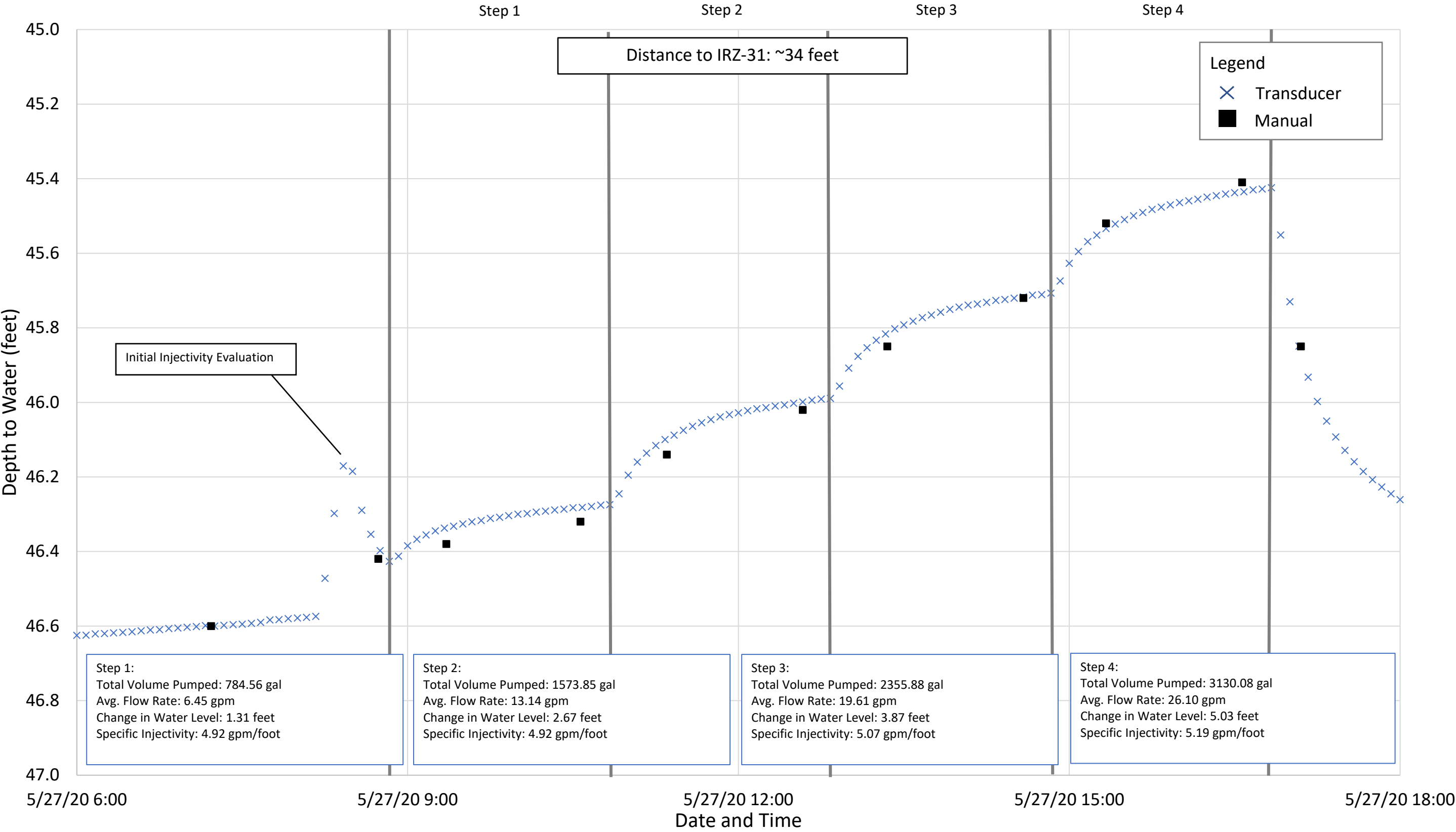
Location/Well ID	MW-79-104
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	50 feet

Date	Time	Date and Time	Depth to Water
5/26/2020	8:26	5/26/20 8:26	45.87
5/26/2020	10:02	5/26/20 10:02	45.71
5/26/2020	11:14	5/26/20 11:14	45.68
5/26/2020	12:02	5/26/20 12:02	45.56
5/26/2020	13:13	5/26/20 13:13	45.54
5/26/2020	14:02	5/26/20 14:02	45.42
5/26/2020	15:17	5/26/20 15:17	45.41
5/26/2020	16:03	5/26/20 16:03	45.28
5/26/2020	17:17	5/26/20 17:17	45.28
5/26/2020	17:49	5/26/20 17:49	45.67
5/27/2020	7:20	5/27/20 7:20	45.82
5/27/2020	8:45	5/27/20 8:45	45.77
5/27/2020	9:22	5/27/20 9:22	45.75
5/27/2020	10:35	5/27/20 10:35	45.71
5/27/2020	11:28	5/27/20 11:28	45.67
5/27/2020	12:35	5/27/20 12:35	45.63
5/27/2020	13:21	5/27/20 13:21	45.57
5/27/2020	14:35	5/27/20 14:35	45.54
5/27/2020	15:21	5/27/20 15:21	45.49
5/27/2020	16:34	5/27/20 16:34	45.46
5/27/2020	17:08	5/27/20 17:08	45.55
5/28/2020	8:02	5/28/20 8:02	45.78
5/28/2020	8:35	5/28/20 8:35	45.77

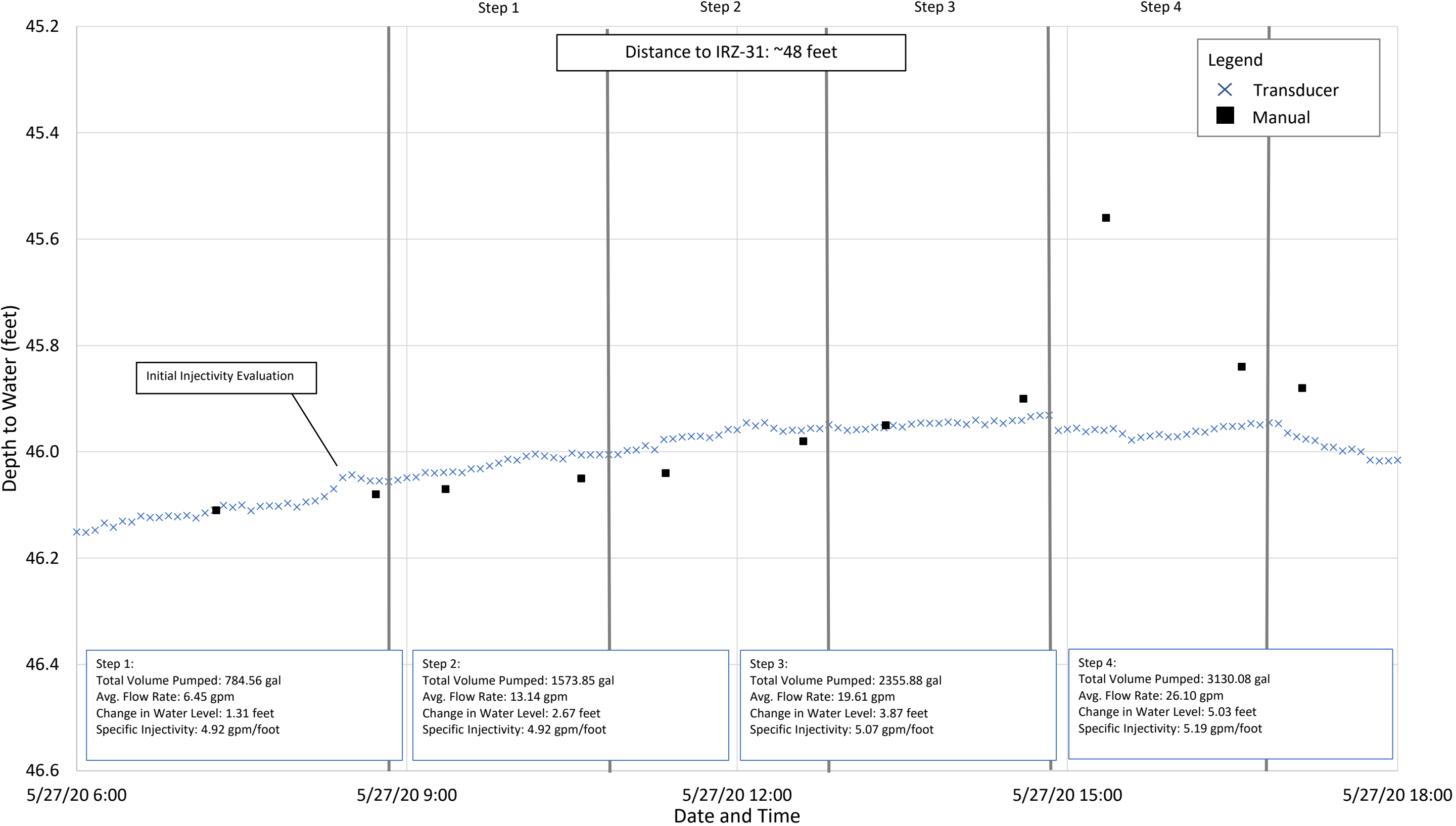
Acronyms & Abbreviations

bgs = below ground surface

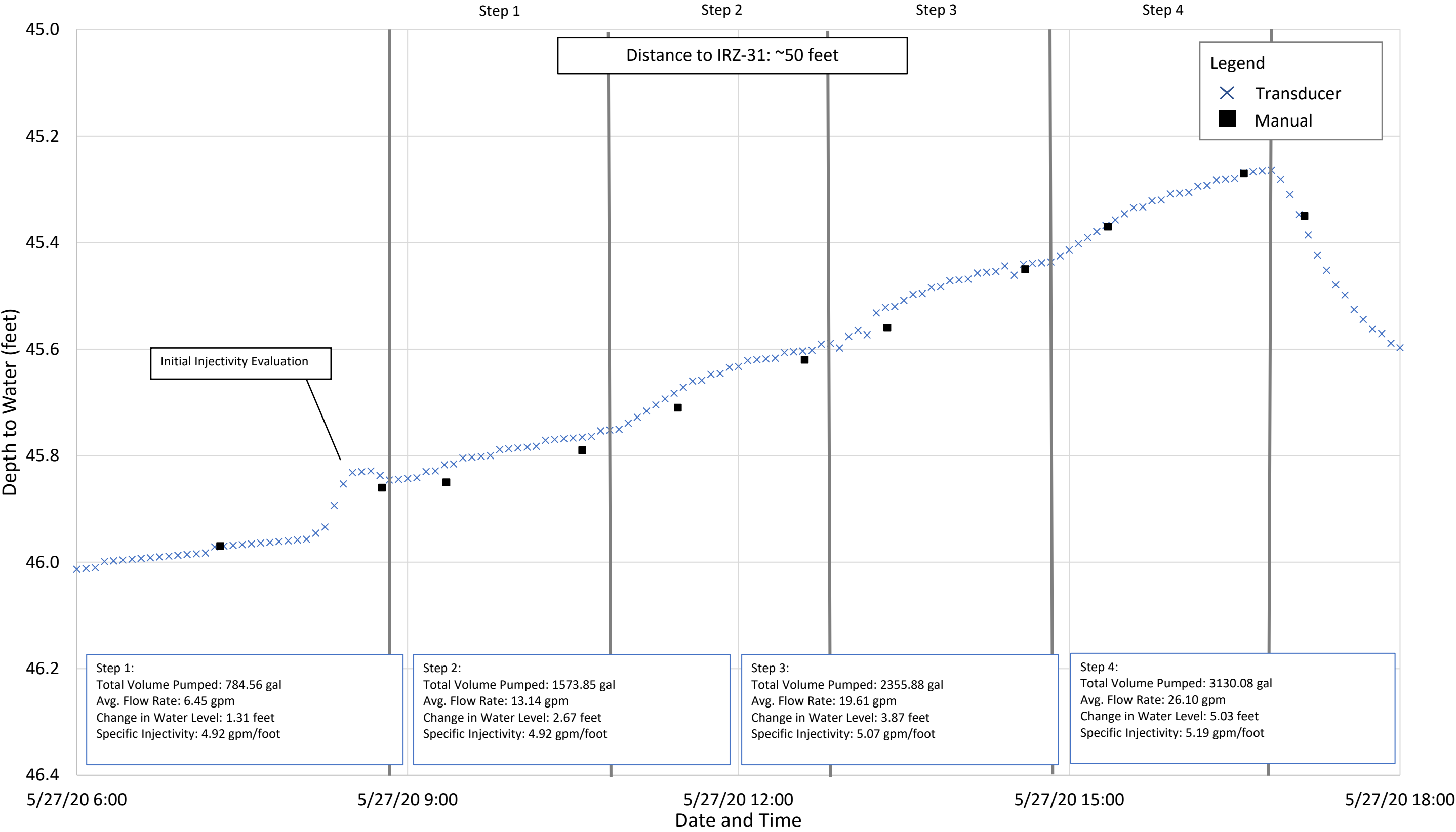
MW-26 During IRZ-31 Upper Screen (48 to 77 feet) Injectivity Test



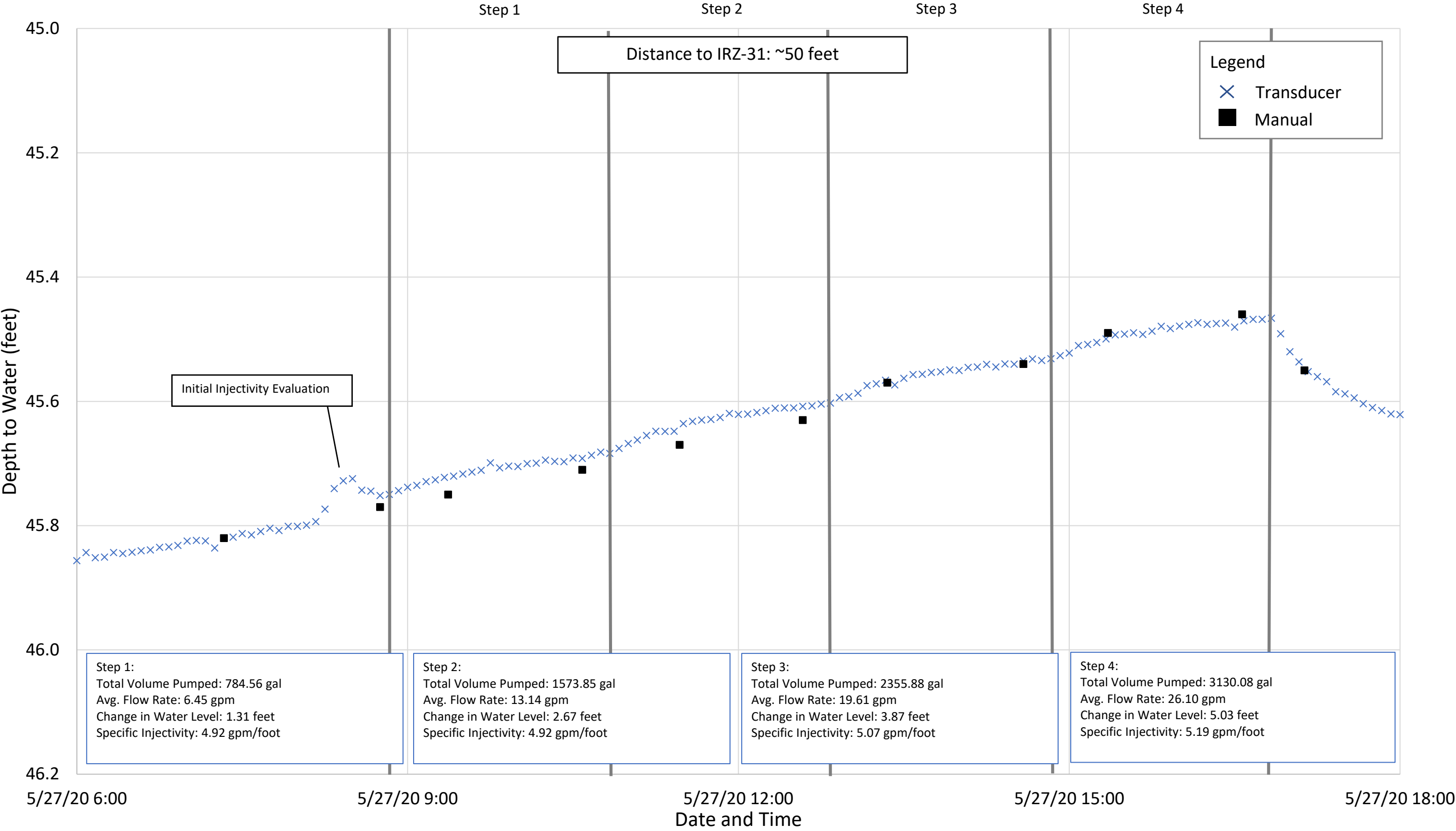
MW-51 During IRZ-31 Upper Screen (48 to 77 feet) Injectivity Test



MW-79-060 During IRZ-31 Upper Screen (48 to 77 feet) Injectivity Test



MW-79-104 During IRZ-31 Upper Screen (48 to 77 feet) Injectivity Test



Specific Capacity Testing

Location/Well ID	RB-3
Date	6/17/2020
Screened Interval Tested	Lower (111 to 193 feet bgs)
Packer Set Depth	103.5 to 107.5 feet btoc
Packer Seal Test	Confirmed packer to be watertight before test
Tests Conducted	Four-step specific capacity test (25, 50, 75, and 100 gpm)
Purpose	Well performance test
Summary	Specific capacity: 4.35 to 4.72 gpm/foot
Notes	Transducer data not collected during first hour of Step 1 due to computer time settings error.
	Transducer data collected during Step 1 and 2 were off by 1 hour and adjusted on plotted data.
	All monitoring well transducers were off by 1 hour and adjusted on plotted data.
Oversight Signature	
Date	9/29/2020

Acronyms & Abbreviations

bgs = below ground surface

btoc = below top of casing

gpm = gallons per minute

Specific Capacity Test

Location/Well ID	RB-3 Lower
Date	6/17/2020
Screened Interval	111 to 193.5 feet bgs
Pump Depth (feet btoc)	190.00
Packer Depth (feet btoc)	103.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 111 to 193.5 feet btoc	10.55
Initial Water Level Within 25 to 53 and 63 to 91 feet btoc	10.18
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	30198.10
Approx Pumped Volume (gal)	30198.10
Calculated Volume Purged (gal)	30224.79
Difference in Volume Pumped vs. Calculated	26.69
Number of Specific Capacity Steps	4
Pumping Rates (in order)	25, 50, 75, and 100 gpm

Step 1 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time (min)	Pumping Rate (gpm)	Total Volume pumped (gal)	Depth to Water (feet)	Drawdown (feet)
8:50:00	0	0	0.00	0.00	10.55	0.00
8:50:20	0.3	0.33	44.90	14.97	13.90	3.35
8:50:40	0.3	0.67	18.84	21.25	14.10	3.55
8:51:00	0.3	1.00	24.46	29.40	15.40	4.85
8:52:00	1.0	2.00	25.44	54.84	15.41	4.86
8:53:00	1.0	3.00	25.44	80.28	15.51	4.96
8:54:00	1.0	4.00	25.28	105.56	15.53	4.98
8:55:00	1.0	5.00	25.12	130.68	15.58	5.03
8:56:00	1.0	6.00	25.12	155.80	15.60	5.05
8:57:00	1.0	7.00	25.12	180.92	15.64	5.09
8:58:00	1.0	8.00	24.95	205.87	15.61	5.06
8:59:00	1.0	9.00	25.61	231.48	15.75	5.20
9:00:00	1.0	10.00	25.28	256.76	15.71	5.16
9:02:00	2.0	12.00	25.28	307.32	15.73	5.18
9:04:00	2.0	14.00	25.12	357.56	15.72	5.17
9:06:00	2.0	16.00	25.44	408.44	15.78	5.23
9:08:00	2.0	18.00	25.44	459.32	15.78	5.23
9:10:00	2.0	20.00	25.12	509.56	15.79	5.24
9:12:00	2.0	22.00	25.12	559.80	15.81	5.26
9:14:00	2.0	24.00	25.44	610.68	15.83	5.28
9:16:00	2.0	26.00	25.44	661.56	15.81	5.26
9:18:00	2.0	28.00	25.28	712.12	15.81	5.26
9:20:00	2.0	30.00	25.44	763.00	15.82	5.27
9:25:00	5.0	35.00	25.28	889.40	15.84	5.29
9:30:00	5.0	40.00	25.44	1016.60	15.85	5.30
9:35:00	5.0	45.00	25.44	1143.80	15.91	5.36
9:40:00	5.0	50.00	25.28	1270.20	15.89	5.34
9:45:00	5.0	55.00	25.28	1396.60	15.91	5.36
9:50:00	5.0	60.00	25.12	1522.20	15.92	5.37
10:00:00	10.0	70.00	24.95	1771.70	15.93	5.38
10:10:00	10.0	80.00	24.95	2021.20	15.94	5.39
10:20:00	10.0	90.00	25.12	2272.40	15.94	5.39
10:30:00	10.0	100.00	24.95	2521.90	15.97	5.42
10:40:00	10.0	110.00	25.28	2774.70	15.96	5.41
10:50:00	10.0	120.00	25.12	3025.90	15.98	5.43
Total Volume Pumped for Step 1 (gal)			3025.90			
Average Pumping Rate (gpm)			25.61			
Specific Capacity (gpm/foot)			4.72			

Specific Capacity Test

Location/Well ID	RB-3 Lower
Date	6/17/2020
Screened Interval	111 to 193.5 feet bgs
Pump Depth (feet btoc)	190.00
Packer Depth (feet btoc)	103.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 111 to 193.5 feet btoc	10.55
Initial Water Level Within 25 to 53 and 63 to 91 feet btoc	10.18
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	30198.10
Approx Pumped Volume (gal)	30198.10
Calculated Volume Purged (gal)	30224.79
Difference in Volume Pumped vs. Calculated	26.69
Number of Specific Capacity Steps	4
Pumping Rates (in order)	25, 50, 75, and 100 gpm

Step 2 - Time (HR:MN:SEC)	Change in Time Between measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (gal)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 2 Start (min)
10:50:20	0.3	120.33	47.33	3041.68	20.20	9.65	0.33
10:50:40	0.3	120.67	50.57	3058.53	20.58	10.03	0.67
10:51:00	0.3	121.00	50.57	3075.39	20.64	10.09	1.00
10:52:00	1.0	122.00	50.40	3125.79	20.82	10.27	2.00
10:53:00	1.0	123.00	50.57	3176.36	20.90	10.35	3.00
10:54:00	1.0	124.00	50.73	3227.09	20.94	10.39	4.00
10:55:00	1.0	125.00	50.57	3277.66	20.98	10.43	5.00
10:56:00	1.0	126.00	50.73	3328.39	21.04	10.49	6.00
10:57:00	1.0	127.00	50.24	3378.63	21.06	10.51	7.00
10:58:00	1.0	128.00	50.57	3429.20	21.09	10.54	8.00
10:59:00	1.0	129.00	50.40	3479.60	21.11	10.56	9.00
11:00:00	1.0	130.00	50.57	3530.17	21.13	10.58	10.00
11:02:00	2.0	132.00	50.57	3631.31	21.17	10.62	12.00
11:04:00	2.0	134.00	50.57	3732.45	21.19	10.64	14.00
11:06:00	2.0	136.00	50.73	3833.91	21.21	10.66	16.00
11:08:00	2.0	138.00	50.57	3935.05	21.23	10.68	18.00
11:10:00	2.0	140.00	50.57	4036.19	21.24	10.69	20.00
11:12:00	2.0	142.00	50.57	4137.33	21.26	10.71	22.00
11:14:00	2.0	144.00	50.73	4238.79	21.27	10.72	24.00
11:16:00	2.0	146.00	50.57	4339.93	21.28	10.73	26.00
11:18:00	2.0	148.00	50.73	4441.39	21.30	10.75	28.00
11:20:00	2.0	150.00	50.57	4542.53	21.31	10.76	30.00
11:25:00	5.0	155.00	50.24	4793.73	21.34	10.79	35.00
11:30:00	5.0	160.00	50.40	5045.73	21.35	10.80	40.00
11:35:00	5.0	165.00	50.73	5299.38	21.37	10.82	45.00
11:40:00	5.0	170.00	50.57	5552.23	21.38	10.83	50.00
11:45:00	5.0	175.00	50.57	5805.08	21.41	10.86	55.00
11:50:00	5.0	180.00	50.40	6057.08	21.42	10.87	60.00
12:00:00	10.0	190.00	50.40	6561.08	21.44	10.89	70.00
12:10:00	10.0	200.00	50.40	7065.08	21.46	10.91	80.00
12:20:00	10.0	210.00	50.57	7570.78	21.49	10.94	90.00
12:30:00	10.0	220.00	50.73	8078.08	21.52	10.97	100.00
12:40:00	10.0	230.00	50.40	8582.08	21.55	11.00	110.00
12:50:00	10.0	240.00	50.40	9086.08	21.55	11.00	120.00
Total Volume Pumped for Step 2 (gal)			6060.18				
Average Pumping Rate (gpm)			50.45				
Specific Capacity (gpm/foot)			4.59				

Specific Capacity Test

Location/Well ID	RB-3 Lower
Date	6/17/2020
Screened Interval	111 to 193.5 feet bgs
Pump Depth (feet btoc)	190.00
Packer Depth (feet btoc)	103.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 111 to 193.5 feet btoc	10.55
Initial Water Level Within 25 to 53 and 63 to 91 feet btoc	10.18
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	30198.10
Approx Pumped Volume (gal)	30198.10
Calculated Volume Purged (gal)	30224.79
Difference in Volume Pumped vs. Calculated	26.69
Number of Specific Capacity Steps	4
Pumping Rates (in order)	25, 50, 75, and 100 gpm

Step 3 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (Gallons)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 3 Start (min)
12:50:20	0.3	240.33	69.15	9109.13	27.90	17.35	0.33
12:50:40	0.3	240.67	75.76	9134.38	26.25	15.70	0.67
12:51:00	0.3	241.00	75.28	9159.48	26.34	15.79	1.00
12:52:00	1.0	242.00	75.12	9234.60	26.51	15.96	2.00
12:53:00	1.0	243.00	74.81	9309.41	26.60	16.05	3.00
12:54:00	1.0	244.00	75.28	9384.69	26.66	16.11	4.00
12:55:00	1.0	245.00	75.12	9459.81	26.71	16.16	5.00
12:56:00	1.0	246.00	75.44	9535.25	26.75	16.20	6.00
12:57:00	1.0	247.00	75.28	9610.53	26.78	16.23	7.00
12:58:00	1.0	248.00	75.44	9685.97	26.80	16.25	8.00
12:59:00	1.0	249.00	75.12	9761.09	26.82	16.27	9.00
13:00:00	1.0	250.00	75.28	9836.37	26.84	16.29	10.00
13:02:00	2.0	252.00	75.28	9986.93	26.87	16.32	12.00
13:04:00	2.0	254.00	75.12	10137.17	26.90	16.35	14.00
13:06:00	2.0	256.00	75.44	10288.05	26.92	16.37	16.00
13:08:00	2.0	258.00	74.95	10437.95	26.93	16.38	18.00
13:10:00	2.0	260.00	75.12	10588.19	26.98	16.43	20.00
13:12:00	2.0	262.00	75.60	10739.39	27.02	16.47	22.00
13:14:00	2.0	264.00	75.44	10890.27	27.05	16.50	24.00
13:16:00	2.0	266.00	75.44	11041.15	27.06	16.51	26.00
13:18:00	2.0	268.00	75.60	11192.35	27.09	16.54	28.00
13:20:00	2.0	270.00	75.60	11343.55	27.09	16.54	30.00
13:25:00	5.0	275.00	75.44	11720.75	27.12	16.57	35.00
13:30:00	5.0	280.00	75.44	12097.95	27.15	16.60	40.00
13:35:00	5.0	285.00	75.60	12475.95	27.18	16.63	45.00
13:40:00	5.0	290.00	75.44	12853.15	27.19	16.64	50.00
13:45:00	5.0	295.00	75.28	13229.55	27.21	16.66	55.00
13:50:00	5.0	300.00	75.60	13607.55	27.23	16.68	60.00
14:00:00	10.0	310.00	75.76	14365.15	27.26	16.71	70.00
14:10:00	10.0	320.00	75.60	15121.15	27.30	16.75	80.00
14:20:00	10.0	330.00	75.60	15877.15	27.33	16.78	90.00
14:30:00	10.0	340.00	75.60	16633.15	27.35	16.80	100.00
14:40:00	10.0	350.00	75.60	17389.15	27.40	16.85	110.00
14:50:00	10.0	360.00	75.60	18145.15	27.41	16.86	120.00
Total Volume Pumped for Step 3 (gal)			9059.07				
Average Pumping Rate (gpm)			75.21				
Specific Capacity (gpm/foot)			4.46				

Specific Capacity Test

Location/Well ID	RB-3 Lower
Date	6/17/2020
Screened Interval	111 to 193.5 feet bgs
Pump Depth (feet btoc)	190.00
Packer Depth (feet btoc)	103.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 111 to 193.5 feet btoc	10.55
Initial Water Level Within 25 to 53 and 63 to 91 feet btoc	10.18
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	30198.10
Approx Pumped Volume (gal)	30198.10
Calculated Volume Purged (gal)	30224.79
Difference in Volume Pumped vs. Calculated	26.69
Number of Specific Capacity Steps	4
Pumping Rates (in order)	25, 50, 75, and 100 gpm

Step 4 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (Gallons)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 4 Start (min)
14:50:20	0.3	360.33	97.98	18177.81	31.75	21.20	0.33
14:50:40	0.3	360.67	99.98	18211.13	32.25	21.70	0.67
14:51:00	0.3	361.00	99.94	18244.45	32.42	21.87	1.00
14:52:00	1.0	362.00	99.94	18344.39	32.71	22.16	2.00
14:53:00	1.0	363.00	100.26	18444.65	32.83	22.28	3.00
14:54:00	1.0	364.00	100.26	18544.91	32.92	22.37	4.00
14:55:00	1.0	365.00	100.74	18645.65	32.97	22.42	5.00
14:56:00	1.0	366.00	100.42	18746.07	33.00	22.45	6.00
14:57:00	1.0	367.00	100.42	18846.49	33.05	22.50	7.00
14:58:00	1.0	368.00	100.58	18947.07	33.07	22.52	8.00
14:59:00	1.0	369.00	100.90	19047.97	33.10	22.55	9.00
15:00:00	1.0	370.00	100.58	19148.55	33.12	22.57	10.00
15:02:00	2.0	372.00	100.74	19350.03	33.13	22.58	12.00
15:04:00	2.0	374.00	100.58	19551.19	33.17	22.62	14.00
15:06:00	2.0	376.00	100.32	19751.83	33.20	22.65	16.00
15:08:00	2.0	378.00	100.58	19952.99	33.22	22.67	18.00
15:10:00	2.0	380.00	100.74	20154.47	33.23	22.68	20.00
15:12:00	2.0	382.00	100.26	20354.99	33.24	22.69	22.00
15:14:00	2.0	384.00	100.58	20556.15	33.27	22.72	24.00
15:16:00	2.0	386.00	100.42	20756.99	33.28	22.73	26.00
15:18:00	2.0	388.00	100.42	20957.83	33.32	22.77	28.00
15:20:00	2.0	390.00	100.58	21158.99	33.32	22.77	30.00
15:25:00	5.0	395.00	100.58	21661.89	33.36	22.81	35.00
15:30:00	5.0	400.00	100.74	22165.59	33.39	22.84	40.00
15:35:00	5.0	405.00	100.58	22668.49	33.41	22.86	45.00
15:40:00	5.0	410.00	100.74	23172.19	33.43	22.88	50.00
15:45:00	5.0	415.00	100.58	23675.09	33.46	22.91	55.00
15:50:00	5.0	420.00	100.74	24178.79	33.47	22.92	60.00
16:00:00	10.0	430.00	100.74	25186.19	33.51	22.96	70.00
16:10:00	10.0	440.00	100.58	26191.99	33.54	22.99	80.00
16:20:00	10.0	450.00	100.90	27200.99	33.57	23.02	90.00
16:30:00	10.0	460.00	100.74	28208.39	33.62	23.07	100.00
16:40:00	10.0	470.00	100.90	29217.39	33.65	23.10	110.00
16:50:00	10.0	480.00	100.74	30224.79	33.66	23.11	120.00
16:51:00	1.0	481.00	0.00	30224.79			121.00
16:52:00	1.0	482.00	0.00	30224.79			122.00
16:53:00	1.0	483.00	0.00	30224.79	13.28	2.73	123.00
16:54:00	1.0	484.00	0.00	30224.79	13.00	2.45	124.00
16:55:00	1.0	485.00	0.00	30224.79	12.79	2.24	125.00
16:56:00	1.0	486.00	0.00	30224.79	12.65	2.10	126.00

Specific Capacity Test

Location/Well ID	RB-3 Lower
Date	6/17/2020
Screened Interval	111 to 193.5 feet bgs
Pump Depth (feet btoc)	190.00
Packer Depth (feet btoc)	103.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 111 to 193.5 feet btoc	10.55
Initial Water Level Within 25 to 53 and 63 to 91 feet btoc	10.18
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	30198.10
Approx Pumped Volume (gal)	30198.10
Calculated Volume Purged (gal)	30224.79
Difference in Volume Pumped vs. Calculated	26.69
Number of Specific Capacity Steps	4
Pumping Rates (in order)	25, 50, 75, and 100 gpm

16:57:00	1.0	487.00	0.00	30224.79	12.53	1.98	127.00
16:58:00	1.0	488.00	0.00	30224.79	12.43	1.88	128.00
16:59:00	1.0	489.00	0.00	30224.79	12.35	1.80	129.00
17:00:00	1.0	490.00	0.00	30224.79	12.28	1.73	130.00

Total Volume Pumped for Step 4 (gal)	12079.64
Average Pumping Rate (gpm)	100.46
Specific Capacity (gpm/foot)	4.35

Acronyms & Abbreviations

bgs = below ground surface

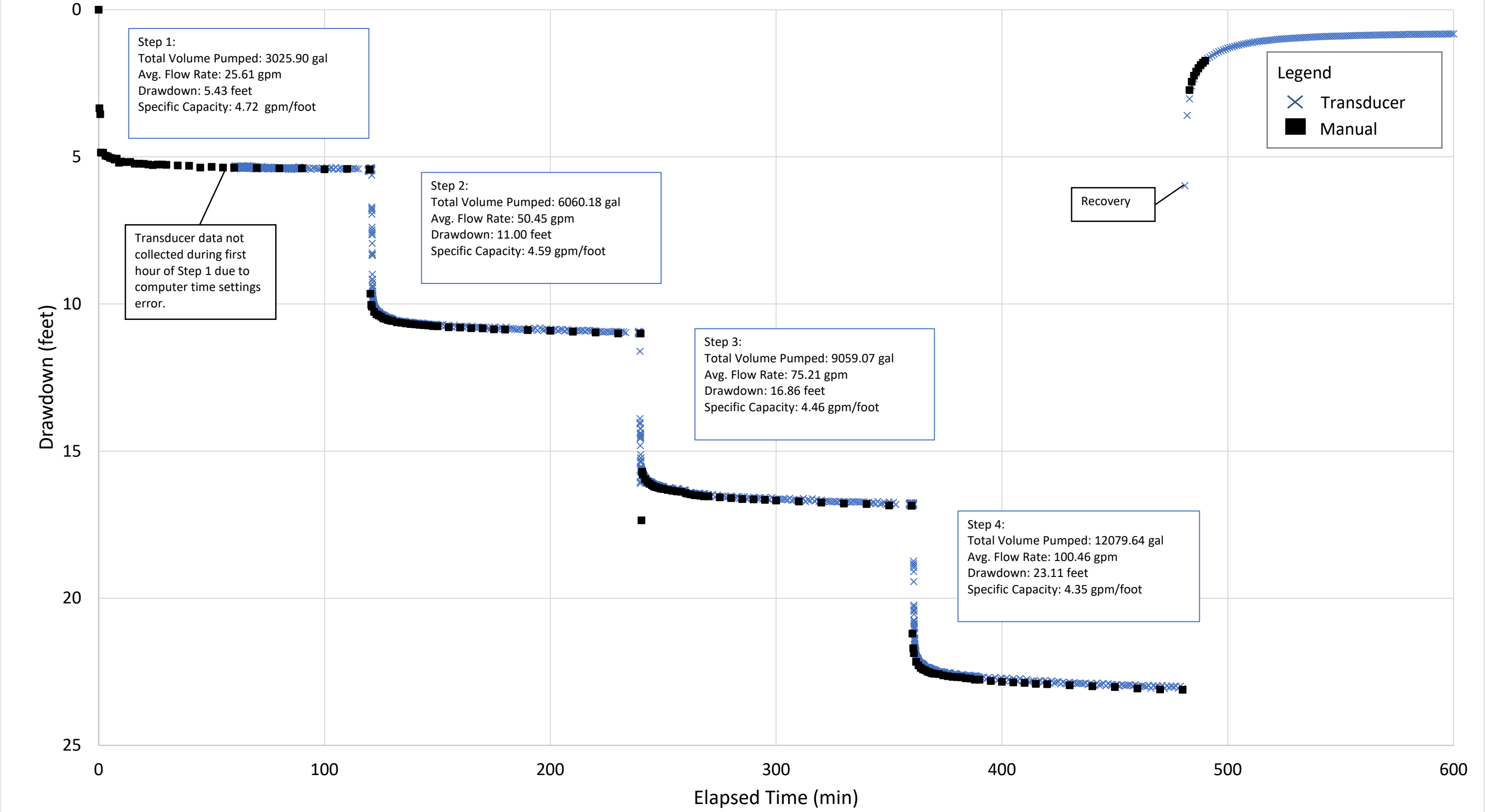
btoc = below top of casing

gal = gallons

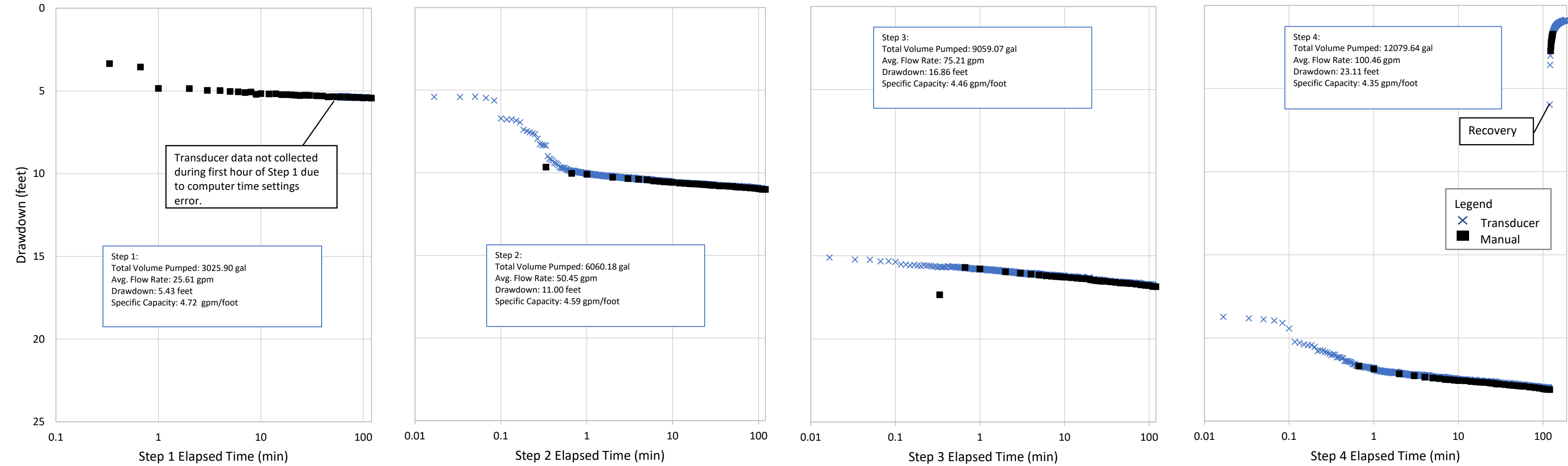
gpm = gallons per minute

min = minutes

RB-3 Lower Screen (111 to 193 feet) Linear Drawdown Plot



RB-3 Lower Screen (111 to 193 feet) Semi-Log Drawdown Plot



Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-28-025
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	185 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:58	6/17/20 7:58	9.95
6/17/2020	9:22	6/17/20 9:22	10.01
6/17/2020	10:36	6/17/20 10:36	10.10
6/17/2020	11:21	6/17/20 11:21	10.19
6/17/2020	12:33	6/17/20 12:33	10.32
6/17/2020	13:21	6/17/20 13:21	10.43
6/17/2020	14:32	6/17/20 14:32	10.59
6/17/2020	15:21	6/17/20 15:21	10.71
6/17/2020	16:33	6/17/20 16:33	10.85
6/17/2020	17:03	6/17/20 17:03	10.87
6/18/2020	6:58	6/18/20 6:58	10.41
6/18/2020	8:02	6/18/20 8:02	10.50
6/18/2020	9:12	6/18/20 9:12	10.58
6/18/2020	10:02	6/18/20 10:02	10.64
6/18/2020	11:17	6/18/20 11:17	10.77
6/18/2020	12:03	6/18/20 12:03	10.84
6/18/2020	13:12	6/18/20 13:12	10.92
6/18/2020	14:01	6/18/20 14:01	10.99
6/18/2020	15:13	6/18/20 15:13	11.04
6/18/2020	15:42	6/18/20 15:42	11.01
6/23/2020	9:01	6/23/20 9:01	10.24

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-28-090
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	185 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:56	6/17/20 7:56	10.82
6/17/2020	9:22	6/17/20 9:22	11.10
6/17/2020	10:35	6/17/20 10:35	11.25
6/17/2020	11:22	6/17/20 11:22	11.54
6/17/2020	12:32	6/17/20 12:32	11.73
6/17/2020	13:22	6/17/20 13:22	12.05
6/17/2020	14:32	6/17/20 14:32	12.26
6/17/2020	15:22	6/17/20 15:22	12.57
6/17/2020	16:32	6/17/20 16:32	12.76
6/17/2020	17:04	6/17/20 17:04	12.16
6/18/2020	6:59	6/18/20 6:59	11.22
6/18/2020	8:01	6/18/20 8:01	11.47
6/18/2020	9:12	6/18/20 9:12	11.57
6/18/2020	10:01	6/18/20 10:01	11.68
6/18/2020	11:18	6/18/20 11:18	11.83
6/18/2020	12:04	6/18/20 12:04	11.92
6/18/2020	13:11	6/18/20 13:11	12.06
6/18/2020	14:02	6/18/20 14:02	12.13
6/18/2020	15:12	6/18/20 15:12	12.21
6/18/2020	15:43	6/18/20 15:43	12.10
6/23/2020	8:53	6/23/20 8:53	11.31

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-86-030
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	186 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:58	6/17/20 7:58	11.34
6/17/2020	9:24	6/17/20 9:24	11.35
6/17/2020	10:38	6/17/20 10:38	11.39
6/17/2020	11:23	6/17/20 11:23	11.42
6/17/2020	12:33	6/17/20 12:33	11.50
6/17/2020	13:23	6/17/20 13:23	11.58
6/17/2020	14:33	6/17/20 14:33	11.66
6/17/2020	15:25	6/17/20 15:25	11.74
6/17/2020	16:33	6/17/20 16:33	11.85
6/17/2020	17:04	6/17/20 17:04	11.87
6/18/2020	6:53	6/18/20 6:53	11.69
6/18/2020	8:03	6/18/20 8:03	11.71
6/18/2020	9:13	6/18/20 9:13	11.76
6/18/2020	10:03	6/18/20 10:03	11.79
6/18/2020	11:13	6/18/20 11:13	11.85
6/18/2020	12:03	6/18/20 12:03	11.91
6/18/2020	13:13	6/18/20 13:13	11.97
6/18/2020	14:03	6/18/20 14:03	12.01
6/18/2020	15:13	6/18/20 15:13	12.04
6/18/2020	15:45	6/18/20 15:45	12.15
6/23/2020	8:15	6/23/20 8:15	11.45

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-86-066
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	186 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:58	6/17/20 7:58	10.95
6/17/2020	9:23	6/17/20 9:23	11.07
6/17/2020	10:38	6/17/20 10:38	11.23
6/17/2020	11:23	6/17/20 11:23	11.36
6/17/2020	12:33	6/17/20 12:33	11.55
6/17/2020	13:23	6/17/20 13:23	11.72
6/17/2020	14:33	6/17/20 14:33	11.94
6/17/2020	15:25	6/17/20 15:25	12.10
6/17/2020	16:33	6/17/20 16:33	12.29
6/17/2020	17:04	6/17/20 17:04	12.32
6/18/2020	6:54	6/18/20 6:54	11.53
6/18/2020	8:03	6/18/20 8:03	11.75
6/18/2020	9:13	6/18/20 9:13	11.75
6/18/2020	10:03	6/18/20 10:03	11.87
6/18/2020	11:13	6/18/20 11:13	11.98
6/18/2020	12:03	6/18/20 12:03	12.11
6/18/2020	13:13	6/18/20 13:13	12.24
6/18/2020	14:03	6/18/20 14:03	12.33
6/18/2020	15:13	6/18/20 15:13	12.42
6/18/2020	15:45	6/18/20 15:45	12.46
6/23/2020	8:15	6/23/20 8:15	11.47

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-86-120
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	186 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:58	6/17/20 7:58	12.00
6/17/2020	9:23	6/17/20 9:23	12.43
6/17/2020	10:38	6/17/20 10:38	12.59
6/17/2020	11:23	6/17/20 11:23	13.03
6/17/2020	12:33	6/17/20 12:33	13.21
6/17/2020	13:23	6/17/20 13:23	13.70
6/17/2020	14:33	6/17/20 14:33	13.91
6/17/2020	15:25	6/17/20 15:25	14.41
6/17/2020	16:33	6/17/20 16:33	14.59
6/17/2020	17:04	6/17/20 17:04	13.40
6/18/2020	6:54	6/18/20 6:54	12.28
6/18/2020	8:03	6/18/20 8:03	12.53
6/18/2020	9:13	6/18/20 9:13	12.61
6/18/2020	10:03	6/18/20 10:03	12.71
6/18/2020	11:13	6/18/20 11:13	12.80
6/18/2020	12:03	6/18/20 12:03	12.89
6/18/2020	13:13	6/18/20 13:13	13.00
6/18/2020	14:03	6/18/20 14:03	13.07
6/18/2020	15:13	6/18/20 15:13	13.13
6/18/2020	15:45	6/18/20 15:45	13.03
6/23/2020	8:15	6/23/20 8:15	12.34

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

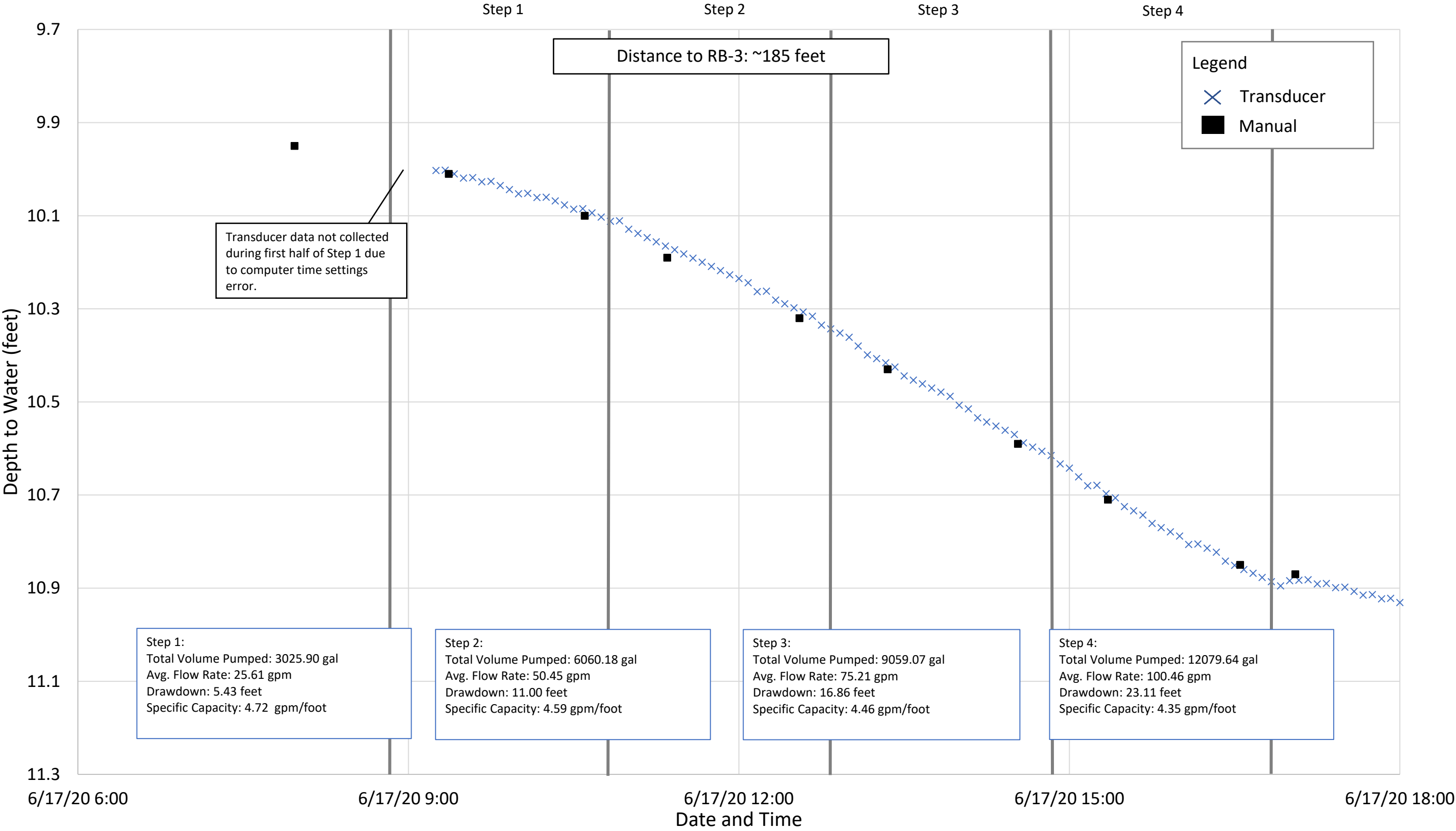
Location/Well ID	MW-86-140
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	186 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:58	6/17/20 7:58	12.00
6/17/2020	9:23	6/17/20 9:23	12.67
6/17/2020	10:38	6/17/20 10:38	12.82
6/17/2020	11:23	6/17/20 11:23	13.52
6/17/2020	12:33	6/17/20 12:33	13.69
6/17/2020	13:23	6/17/20 13:23	14.42
6/17/2020	14:33	6/17/20 14:33	14.60
6/17/2020	15:25	6/17/20 15:25	15.35
6/17/2020	16:33	6/17/20 16:33	15.53
6/17/2020	17:04	6/17/20 17:04	13.44
6/18/2020	6:54	6/18/20 6:54	12.34
6/18/2020	8:03	6/18/20 8:03	12.45
6/18/2020	9:13	6/18/20 9:13	12.53
6/18/2020	10:03	6/18/20 10:03	12.60
6/18/2020	11:13	6/18/20 11:13	12.69
6/18/2020	12:03	6/18/20 12:03	12.75
6/18/2020	13:13	6/18/20 13:13	12.85
6/18/2020	14:03	6/18/20 14:03	12.91
6/18/2020	15:13	6/18/20 15:13	12.94
6/18/2020	15:45	6/18/20 15:45	12.91
6/23/2020	8:15	6/23/20 8:15	12.29

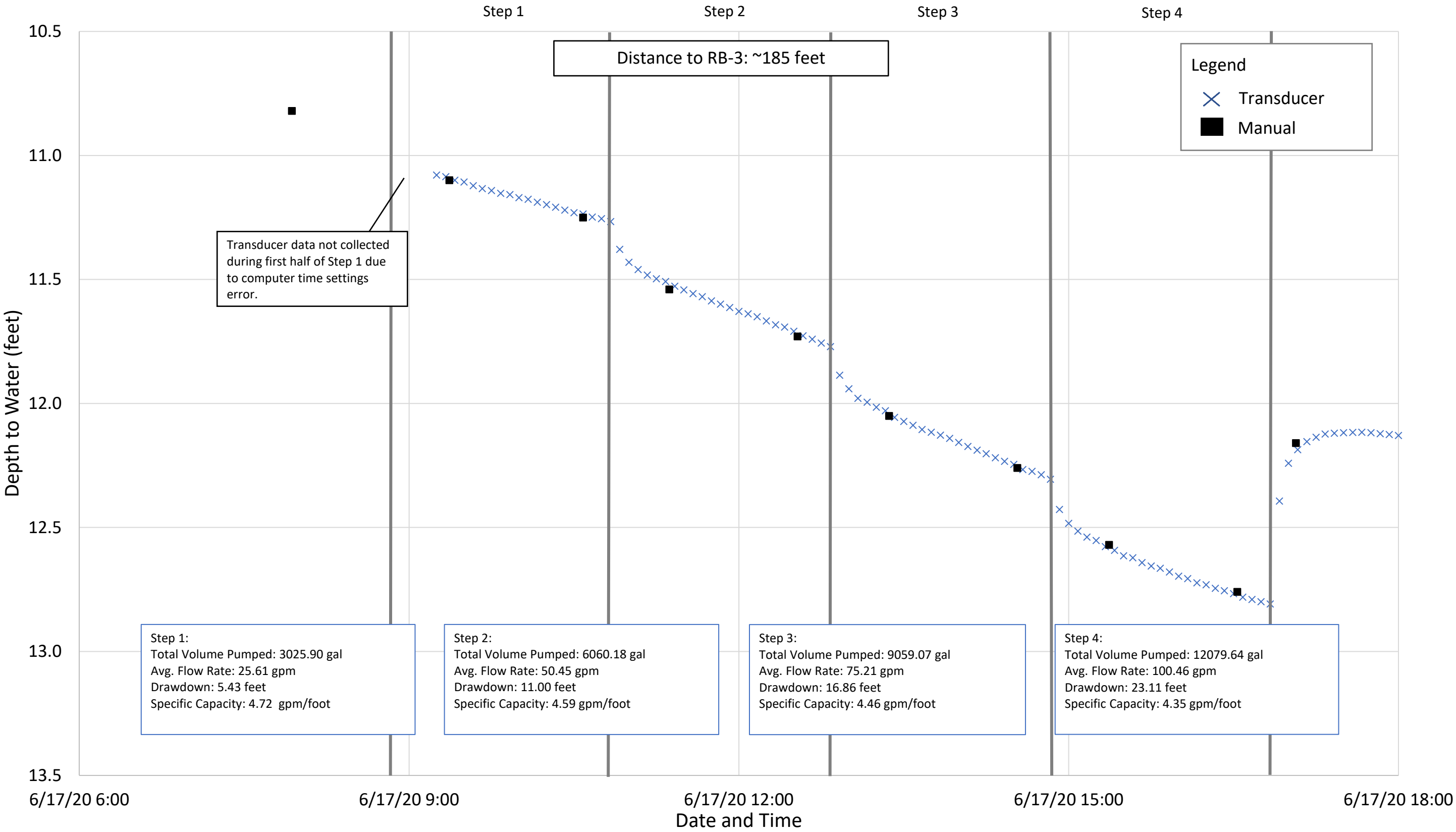
Acronyms & Abbreviations

bgs = below ground surface

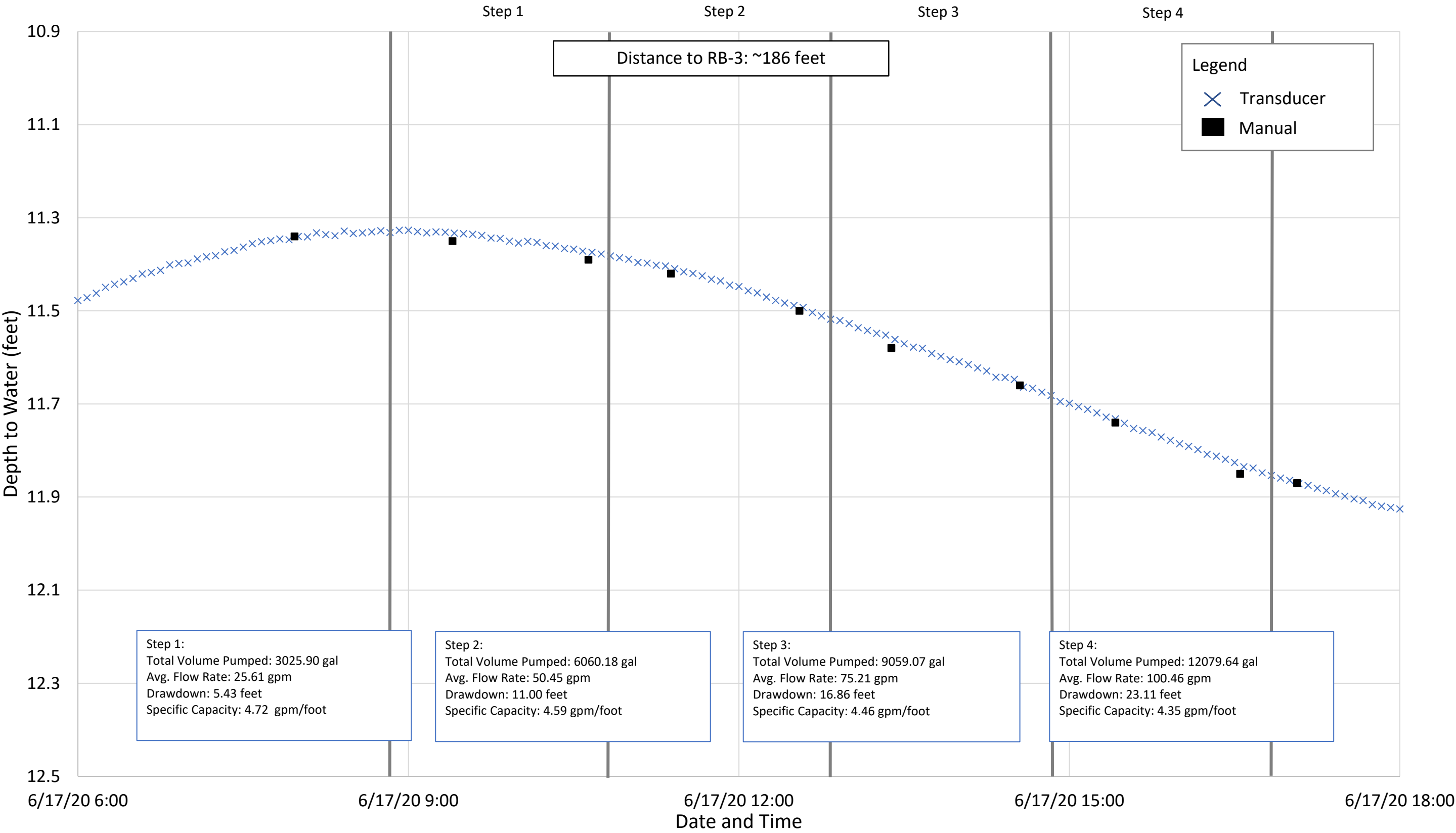
MW-28-025 During RB-3 Lower Screen (111 to 193 feet) Specific Capacity Test



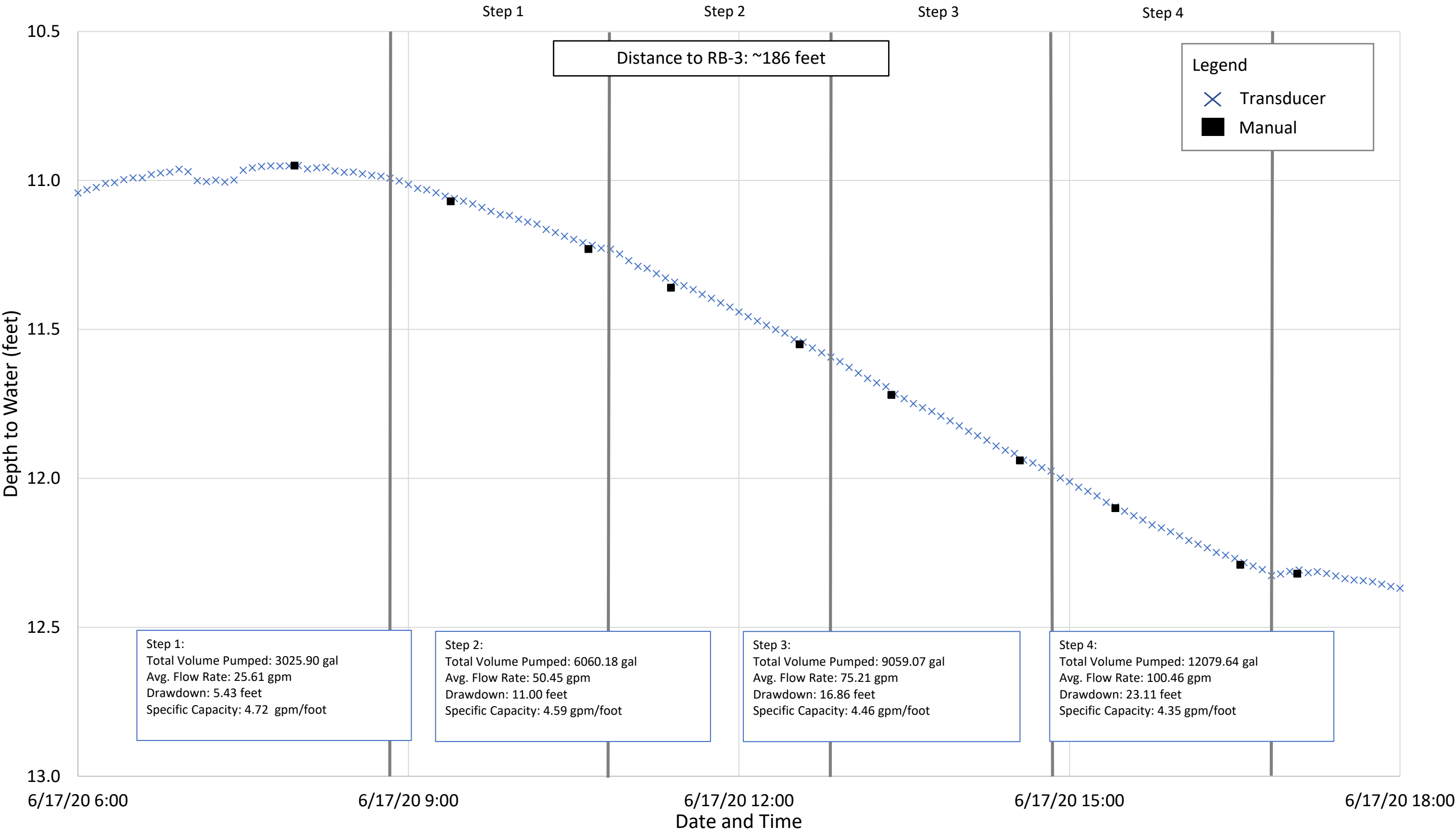
MW-28-090 During RB-3 Lower Screen (111 to 193 feet) Specific Capacity Test



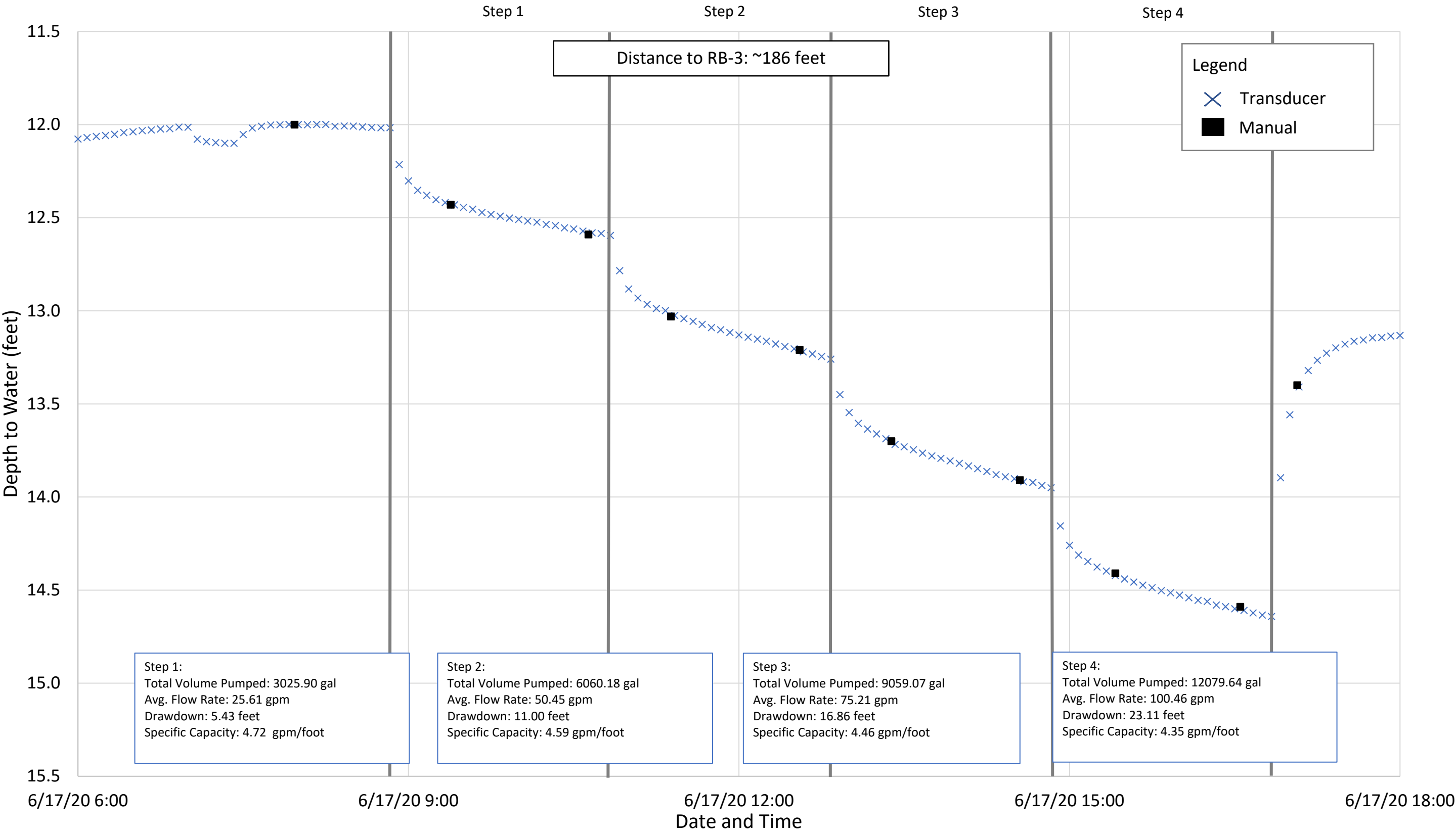
MW-86-030 During RB-3 Lower Screen (111 to 193 feet) Specific Capacity Test



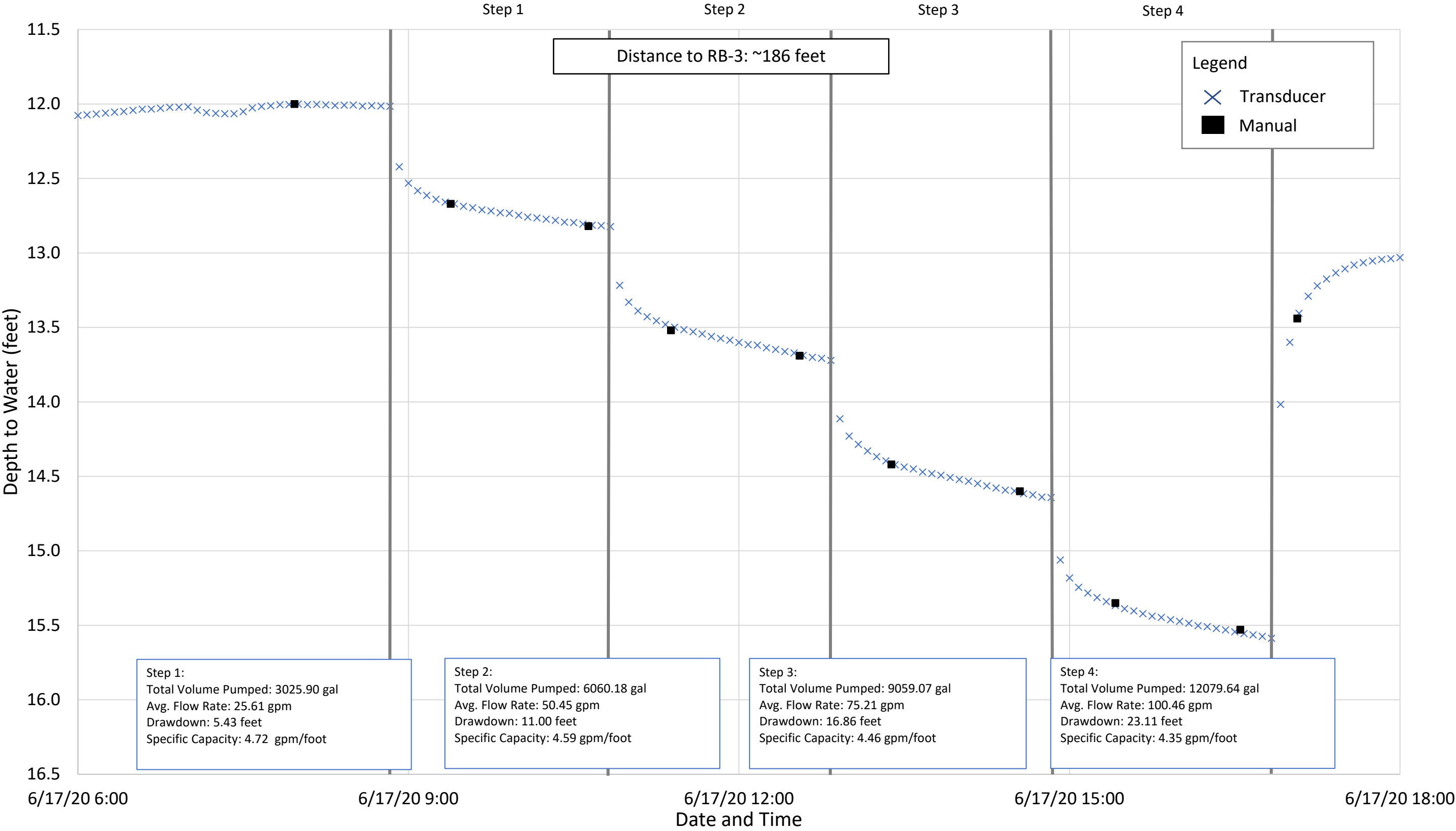
MW-86-066 During RB-3 Lower Screen (111 to 193 feet) Specific Capacity Test



MW-86-120 During RB-3 Lower Screen (111 to 193 feet) Specific Capacity Test



MW-86-140 During RB-3 Lower Screen (111 to 193 feet) Specific Capacity Test



Specific Capacity Testing

Location/Well ID	RB-3
Date	6/18/2020
Screened Interval Tested	Upper (25 to 91 feet bgs)
Packer Set Depth	103.5 to 107.5 feet btoc
Packer Seal Test	Confirmed packer to be watertight before test
Tests Conducted	Four-step specific capacity test (7.5, 15, 22.5, and 30 GPM)
Purpose	Well performance test
Summary	Specific capacity: 9.81 to 10.54 gpm/ft
Notes	All monitoring well transducers were off by 1 hour and adjusted on plotted data.
Oversight Signature	
Date	9/29/2020

Acronyms & Abbreviations

bgs = below ground surface

btoc = below top of casing

gpm = gallons per minute

Specific Capacity Test

Location/Well ID	RB-3 Upper
Date	6/18/2020
Screened Interval	25 to 53 and 63 to 91 feet bgs
Pump Depth (feet btoc)	87.25
Packer Depth (feet btoc)	103.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 25 to 53 and 63 to 91 feet btoc	10.79
Initial Water Level Within 111 to 193.5 feet btoc	10.86
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	9040.75
Approx Pumped Volume (gal)	9040.75
Calculated Volume Purged (gal)	9039.79
Difference in Volume Pumped vs. Calculated	0.96
Number of Specific Capacity Steps	4
Pumping Rates (in order)	7.5, 15, 22.5, and 30 gpm

Step 1 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time (min)	Pumping Rate (gpm)	Total Volume pumped (gal)	Depth to Water (feet)	Drawdown (feet)
7:30:00	0	0	0.00	0.00	10.79	0.00
7:30:20	0.3	0.33	7.32	2.44	11.40	0.61
7:30:40	0.3	0.67	7.60	4.97	11.28	0.49
7:31:00	0.3	1.00	7.52	7.48	11.30	0.51
7:32:00	1.0	2.00	7.63	15.11	11.32	0.53
7:33:00	1.0	3.00	7.60	22.71	11.32	0.53
7:34:00	1.0	4.00	7.60	30.31	11.33	0.54
7:35:00	1.0	5.00	7.61	37.92	11.34	0.55
7:36:00	1.0	6.00	7.60	45.52	11.34	0.55
7:37:00	1.0	7.00	7.60	53.12	11.34	0.55
7:38:00	1.0	8.00	7.60	60.72	11.35	0.56
7:39:00	1.0	9.00	7.58	68.30	11.35	0.56
7:40:00	1.0	10.00	7.58	75.88	11.35	0.56
7:42:00	2.0	12.00	7.58	91.04	11.35	0.56
7:44:00	2.0	14.00	7.60	106.24	11.35	0.56
7:46:00	2.0	16.00	7.60	121.44	11.35	0.56
7:48:00	2.0	18.00	7.60	136.64	11.36	0.57
7:50:00	2.0	20.00	7.60	151.84	11.36	0.57
7:52:00	2.0	22.00	7.60	167.04	11.37	0.58
7:54:00	2.0	24.00	7.60	182.24	11.37	0.58
7:56:00	2.0	26.00	7.60	197.44	11.37	0.58
7:58:00	2.0	28.00	7.60	212.64	11.38	0.59
8:00:00	2.0	30.00	7.60	227.84	11.38	0.59
8:05:00	5.0	35.00	7.60	265.84	11.38	0.59
8:10:00	5.0	40.00	7.60	303.84	11.39	0.60
8:15:00	5.0	45.00	7.61	341.89	11.40	0.61
8:20:00	5.0	50.00	7.56	379.69	11.41	0.62
8:25:00	5.0	55.00	7.58	417.59	11.41	0.62
8:30:00	5.0	60.00	7.61	455.64	11.42	0.63
8:40:00	10.0	70.00	7.61	531.74	11.44	0.65
8:50:00	10.0	80.00	7.61	607.84	11.45	0.66
9:00:00	10.0	90.00	7.61	683.94	11.48	0.69
9:10:00	10.0	100.00	7.61	760.04	11.49	0.70
9:20:00	10.0	110.00	7.63	836.34	11.50	0.71
9:30:00	10.0	120.00	7.58	912.14	11.51	0.72
Total Volume Pumped for Step 1 (gal)			912.14			
Average Pumping Rate (gpm)			7.59			
Specific Capacity (gpm/foot)			10.54			

Specific Capacity Test

Location/Well ID	RB-3 Upper
Date	6/18/2020
Screened Interval	25 to 53 and 63 to 91 feet bgs
Pump Depth (feet btoc)	87.25
Packer Depth (feet btoc)	103.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 25 to 53 and 63 to 91 feet btoc	10.79
Initial Water Level Within 111 to 193.5 feet btoc	10.86
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	9040.75
Approx Pumped Volume (gal)	9040.75
Calculated Volume Purged (gal)	9039.79
Difference in Volume Pumped vs. Calculated	0.96
Number of Specific Capacity Steps	4
Pumping Rates (in order)	7.5, 15, 22.5, and 30 gpm

Step 2 - Time (HR:MN:SEC)	Change in Time Between measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (gal)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 2 Start (min)
9:30:20	0.3	120.33	13.14	916.52	11.80	1.01	0.33
9:30:40	0.3	120.67	15.51	921.69	12.03	1.24	0.67
9:31:00	0.3	121.00	15.38	926.82	12.08	1.29	1.00
9:32:00	1.0	122.00	15.33	942.15	12.06	1.27	2.00
9:33:00	1.0	123.00	15.15	957.30	12.07	1.28	3.00
9:34:00	1.0	124.00	15.10	972.40	12.08	1.29	4.00
9:35:00	1.0	125.00	15.06	987.46	12.08	1.29	5.00
9:36:00	1.0	126.00	15.03	1002.49	12.08	1.29	6.00
9:37:00	1.0	127.00	15.03	1017.52	12.08	1.29	7.00
9:38:00	1.0	128.00	15.02	1032.54	12.08	1.29	8.00
9:39:00	1.0	129.00	14.98	1047.52	12.08	1.29	9.00
9:40:00	1.0	130.00	14.98	1062.50	12.09	1.30	10.00
9:42:00	2.0	132.00	15.23	1092.96	12.10	1.31	12.00
9:44:00	2.0	134.00	15.16	1123.28	12.10	1.31	14.00
9:46:00	2.0	136.00	15.16	1153.60	12.10	1.31	16.00
9:48:00	2.0	138.00	15.15	1183.90	12.10	1.31	18.00
9:50:00	2.0	140.00	15.12	1214.14	12.10	1.31	20.00
9:52:00	2.0	142.00	15.10	1244.34	12.11	1.32	22.00
9:54:00	2.0	144.00	15.10	1274.54	12.11	1.32	24.00
9:56:00	2.0	146.00	15.03	1304.60	12.11	1.32	26.00
9:58:00	2.0	148.00	15.08	1334.76	12.12	1.33	28.00
10:00:00	2.0	150.00	15.06	1364.88	12.13	1.34	30.00
10:05:00	5.0	155.00	15.03	1440.03	12.13	1.34	35.00
10:10:00	5.0	160.00	15.02	1515.13	12.15	1.36	40.00
10:15:00	5.0	165.00	15.02	1590.23	12.15	1.36	45.00
10:20:00	5.0	170.00	15.02	1665.33	12.17	1.38	50.00
10:25:00	5.0	175.00	15.02	1740.43	12.18	1.39	55.00
10:30:00	5.0	180.00	15.03	1815.58	12.19	1.40	60.00
10:40:00	10.0	190.00	15.02	1965.78	12.21	1.42	70.00
10:50:00	10.0	200.00	14.95	2115.28	12.22	1.43	80.00
11:00:00	10.0	210.00	15.12	2266.48	12.25	1.46	90.00
11:10:00	10.0	220.00	15.08	2417.28	12.28	1.49	100.00
11:20:00	10.0	230.00	15.08	2568.08	12.30	1.51	110.00
11:30:00	10.0	240.00	15.08	2718.88	12.31	1.52	120.00
Total Volume Pumped for Step 2 (gal)			1806.74				
Average Pumping Rate (gpm)			15.04				
Specific Capacity (gpm/foot)			9.89				

Specific Capacity Test

Location/Well ID	RB-3 Upper
Date	6/18/2020
Screened Interval	25 to 53 and 63 to 91 feet bgs
Pump Depth (feet btoc)	87.25
Packer Depth (feet btoc)	103.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 25 to 53 and 63 to 91 feet btoc	10.79
Initial Water Level Within 111 to 193.5 feet btoc	10.86
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	9040.75
Approx Pumped Volume (gal)	9040.75
Calculated Volume Purged (gal)	9039.79
Difference in Volume Pumped vs. Calculated	0.96
Number of Specific Capacity Steps	4
Pumping Rates (in order)	7.5, 15, 22.5, and 30 gpm

Step 3 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (Gallons)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 3 Start (min)
11:30:20	0.3	240.33	22.72	2726.45	12.81	2.02	0.33
11:30:40	0.3	240.67	22.61	2733.99	12.83	2.04	0.67
11:31:00	0.3	241.00	22.60	2741.52	12.84	2.05	1.00
11:32:00	1.0	242.00	22.60	2764.12	12.85	2.06	2.00
11:33:00	1.0	243.00	22.56	2786.68	12.85	2.06	3.00
11:34:00	1.0	244.00	22.56	2809.24	12.86	2.07	4.00
11:35:00	1.0	245.00	22.54	2831.78	12.86	2.07	5.00
11:36:00	1.0	246.00	22.53	2854.31	12.87	2.08	6.00
11:37:00	1.0	247.00	22.54	2876.85	12.87	2.08	7.00
11:38:00	1.0	248.00	22.53	2899.38	12.87	2.08	8.00
11:39:00	1.0	249.00	22.53	2921.91	12.87	2.08	9.00
11:40:00	1.0	250.00	22.54	2944.45	12.88	2.09	10.00
11:42:00	2.0	252.00	22.54	2989.53	12.88	2.09	12.00
11:44:00	2.0	254.00	22.51	3034.55	12.89	2.10	14.00
11:46:00	2.0	256.00	22.51	3079.57	12.89	2.10	16.00
11:48:00	2.0	258.00	22.48	3124.53	12.90	2.11	18.00
11:50:00	2.0	260.00	22.61	3169.75	12.90	2.11	20.00
11:52:00	2.0	262.00	22.63	3215.01	12.91	2.12	22.00
11:54:00	2.0	264.00	22.60	3260.21	12.92	2.13	24.00
11:56:00	2.0	266.00	22.61	3305.43	12.93	2.14	26.00
11:58:00	2.0	268.00	22.60	3350.63	12.93	2.14	28.00
12:00:00	2.0	270.00	22.60	3395.83	12.93	2.14	30.00
12:05:00	5.0	275.00	22.60	3508.83	12.93	2.14	35.00
12:10:00	5.0	280.00	22.60	3621.83	12.94	2.15	40.00
12:15:00	5.0	285.00	22.60	3734.83	12.94	2.15	45.00
12:20:00	5.0	290.00	22.58	3847.73	12.96	2.17	50.00
12:25:00	5.0	295.00	22.60	3960.73	12.98	2.19	55.00
12:30:00	5.0	300.00	22.60	4073.73	12.98	2.19	60.00
12:40:00	10.0	310.00	22.54	4299.13	13.01	2.22	70.00
12:50:00	10.0	320.00	22.54	4524.53	13.02	2.23	80.00
13:00:00	10.0	330.00	22.54	4749.93	13.04	2.25	90.00
13:10:00	10.0	340.00	22.54	4975.33	13.06	2.27	100.00
13:20:00	10.0	350.00	22.53	5200.63	13.06	2.27	110.00
13:30:00	10.0	360.00	22.53	5425.93	13.09	2.30	120.00
Total Volume Pumped for Step 3 (gal)			2707.05				
Average Pumping Rate (gpm)			22.57				
Specific Capacity (gpm/foot)			9.81				

Specific Capacity Test

Location/Well ID	RB-3 Upper
Date	6/18/2020
Screened Interval	25 to 53 and 63 to 91 feet bgs
Pump Depth (feet btoc)	87.25
Packer Depth (feet btoc)	103.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 25 to 53 and 63 to 91 feet btoc	10.79
Initial Water Level Within 111 to 193.5 feet btoc	10.86
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	9040.75
Approx Pumped Volume (gal)	9040.75
Calculated Volume Purged (gal)	9039.79
Difference in Volume Pumped vs. Calculated	0.96
Number of Specific Capacity Steps	4
Pumping Rates (in order)	7.5, 15, 22.5, and 30 gpm

Step 4 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (Gallons)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 4 Start (min)
13:30:20	0.3	360.33	29.04	5435.61	13.46	2.67	0.33
13:30:40	0.3	360.67	30.16	5445.66	13.59	2.80	0.67
13:31:00	0.3	361.00	30.16	5455.72	13.61	2.82	1.00
13:32:00	1.0	362.00	30.16	5485.88	13.63	2.84	2.00
13:33:00	1.0	363.00	30.16	5516.04	13.64	2.85	3.00
13:34:00	1.0	364.00	30.16	5546.20	13.65	2.86	4.00
13:35:00	1.0	365.00	30.17	5576.37	13.65	2.86	5.00
13:36:00	1.0	366.00	30.16	5606.53	13.65	2.86	6.00
13:37:00	1.0	367.00	30.12	5636.65	13.66	2.87	7.00
13:38:00	1.0	368.00	30.12	5666.77	13.66	2.87	8.00
13:39:00	1.0	369.00	30.14	5696.91	13.66	2.87	9.00
13:40:00	1.0	370.00	30.10	5727.01	13.66	2.87	10.00
13:42:00	2.0	372.00	30.12	5787.25	13.66	2.87	12.00
13:44:00	2.0	374.00	30.12	5847.49	13.66	2.87	14.00
13:46:00	2.0	376.00	30.10	5907.69	13.66	2.87	16.00
13:48:00	2.0	378.00	30.12	5967.93	13.66	2.87	18.00
13:50:00	2.0	380.00	30.12	6028.17	13.67	2.88	20.00
13:52:00	2.0	382.00	30.10	6088.37	13.67	2.88	22.00
13:54:00	2.0	384.00	30.10	6148.57	13.67	2.88	24.00
13:56:00	2.0	386.00	30.12	6208.81	13.68	2.89	26.00
13:58:00	2.0	388.00	30.12	6269.05	13.68	2.89	28.00
14:00:00	2.0	390.00	30.12	6329.29	13.69	2.90	30.00
14:05:00	5.0	395.00	30.12	6479.89	13.69	2.90	35.00
14:10:00	5.0	400.00	30.12	6630.49	13.70	2.91	40.00
14:15:00	5.0	405.00	30.10	6780.99	13.70	2.91	45.00
14:20:00	5.0	410.00	30.12	6931.59	13.71	2.92	50.00
14:25:00	5.0	415.00	30.12	7082.19	13.71	2.92	55.00
14:30:00	5.0	420.00	30.12	7232.79	13.71	2.92	60.00
14:40:00	10.0	430.00	30.12	7533.99	13.72	2.93	70.00
14:50:00	10.0	440.00	30.12	7835.19	13.73	2.94	80.00
15:00:00	10.0	450.00	30.10	8136.19	13.74	2.95	90.00
15:10:00	10.0	460.00	30.12	8437.39	13.75	2.96	100.00
15:20:00	10.0	470.00	30.12	8738.59	13.75	2.96	110.00
15:30:00	10.0	480.00	30.12	9039.79	13.75	2.96	120.00
15:31:00	1.0	481.00	0.00	9039.79	11.63		121.00
15:32:00	1.0	482.00	0.00	9039.79	11.60		122.00
15:33:00	1.0	483.00	0.00	9039.79	11.58	0.79	123.00
15:34:00	1.0	484.00	0.00	9039.79	11.57	0.78	124.00

Specific Capacity Test

Location/Well ID	RB-3 Upper
Date	6/18/2020
Screened Interval	25 to 53 and 63 to 91 feet bgs
Pump Depth (feet btoc)	87.25
Packer Depth (feet btoc)	103.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 25 to 53 and 63 to 91 feet btoc	10.79
Initial Water Level Within 111 to 193.5 feet btoc	10.86
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	9040.75
Approx Pumped Volume (gal)	9040.75
Calculated Volume Purged (gal)	9039.79
Difference in Volume Pumped vs. Calculated	0.96
Number of Specific Capacity Steps	4
Pumping Rates (in order)	7.5, 15, 22.5, and 30 gpm

15:35:00	1.0	485.00	0.00	9039.79	11.57	0.78	125.00
15:36:00	1.0	486.00	0.00	9039.79	11.56	0.77	126.00
15:37:00	1.0	487.00	0.00	9039.79	11.57	0.78	127.00
15:38:00	1.0	488.00	0.00	9039.79	11.58	0.79	128.00
15:39:00	1.0	489.00	0.00	9039.79	11.57	0.78	129.00
15:40:00	1.0	490.00	0.00	9039.79	11.57	0.78	130.00
Total Volume Pumped for Step 4 (gal)				3613.86			
Average Pumping Rate (gpm)				30.09			
Specific Capacity (gpm/foot)				10.17			

Acronyms & Abbreviations

bgs = below ground surface

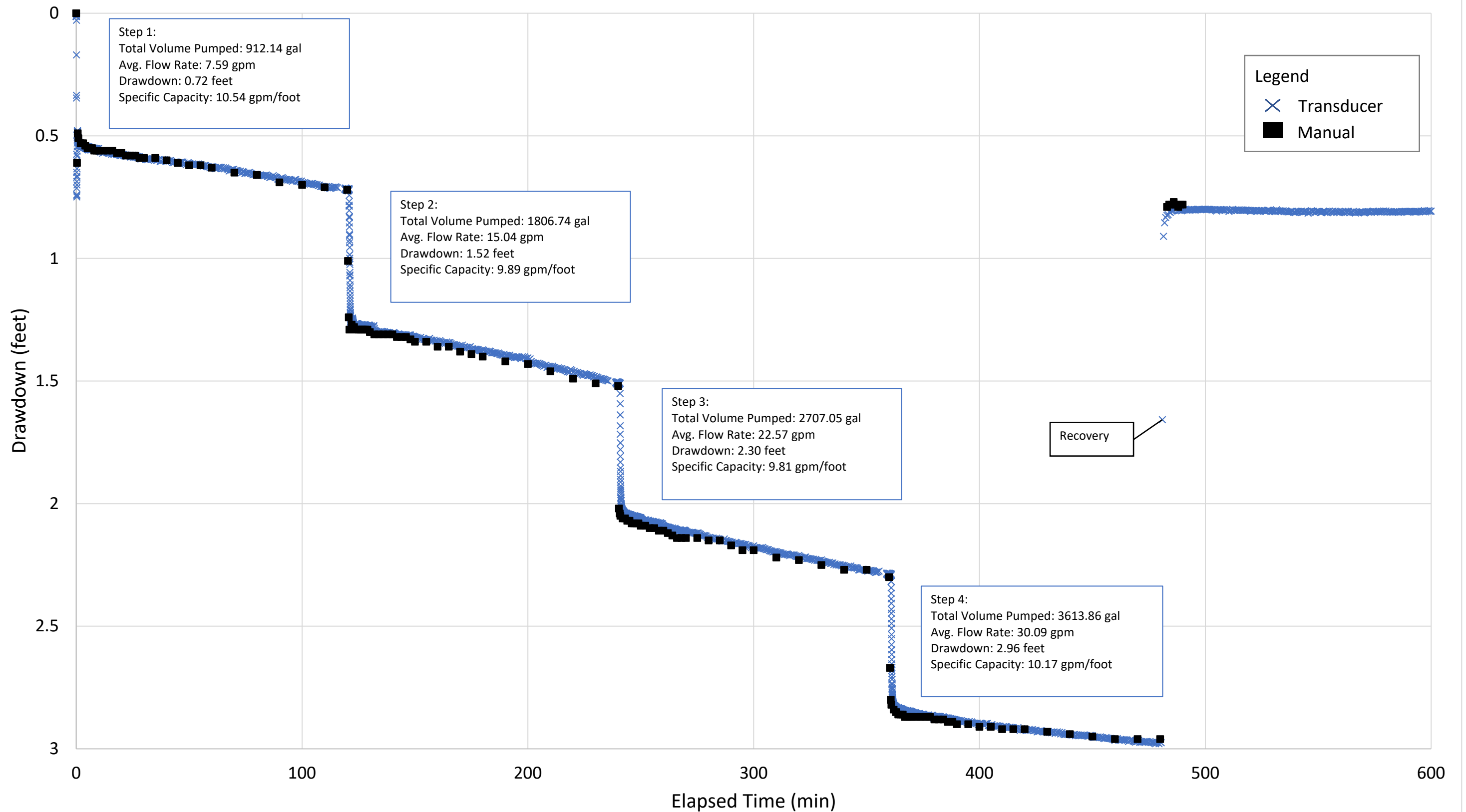
btoc = below top of casing

gal = gallons

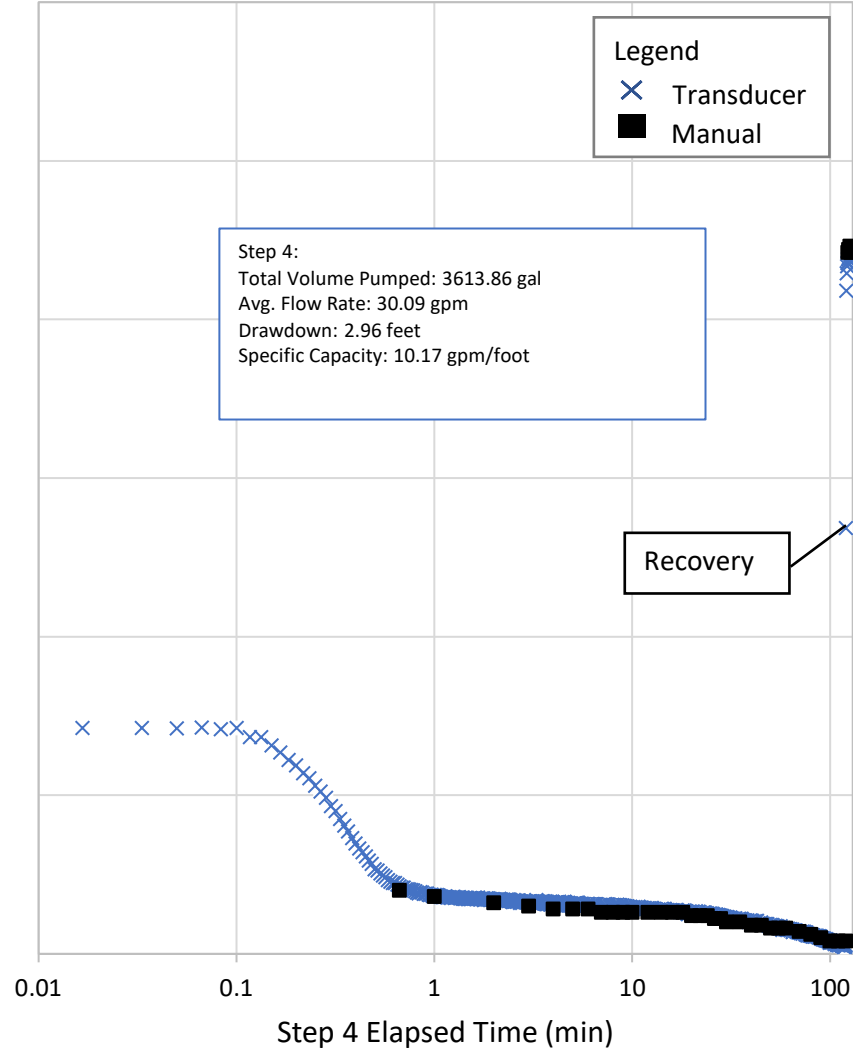
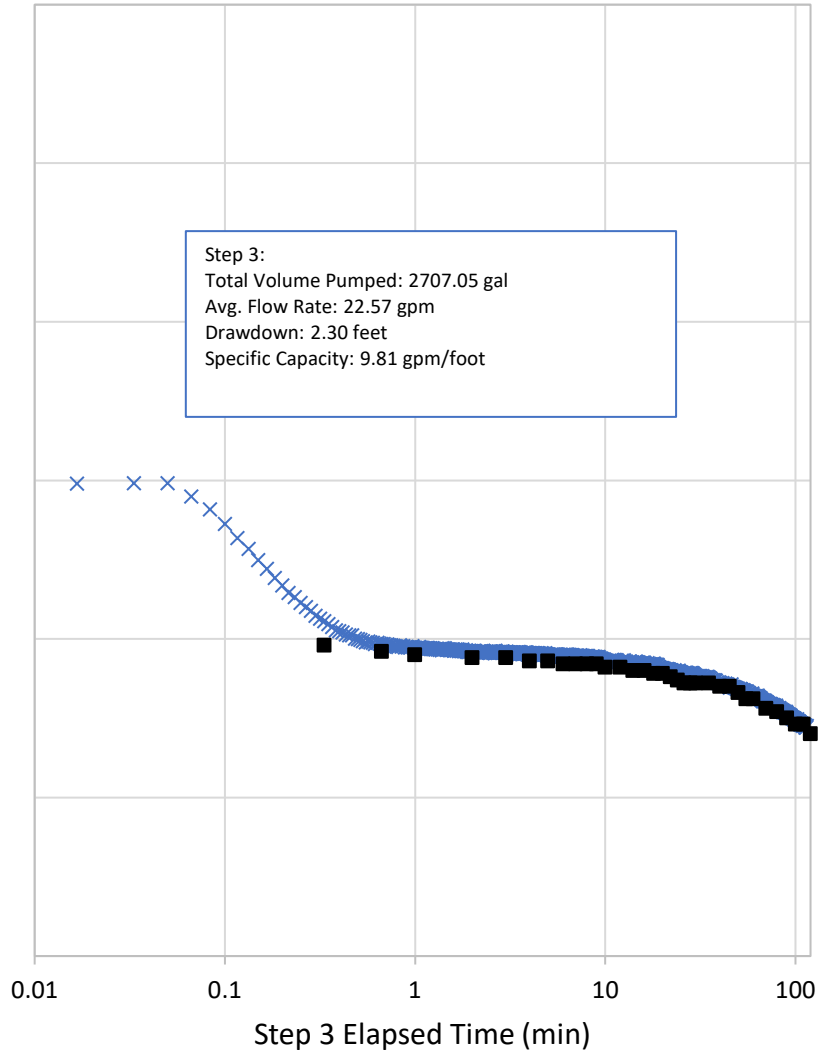
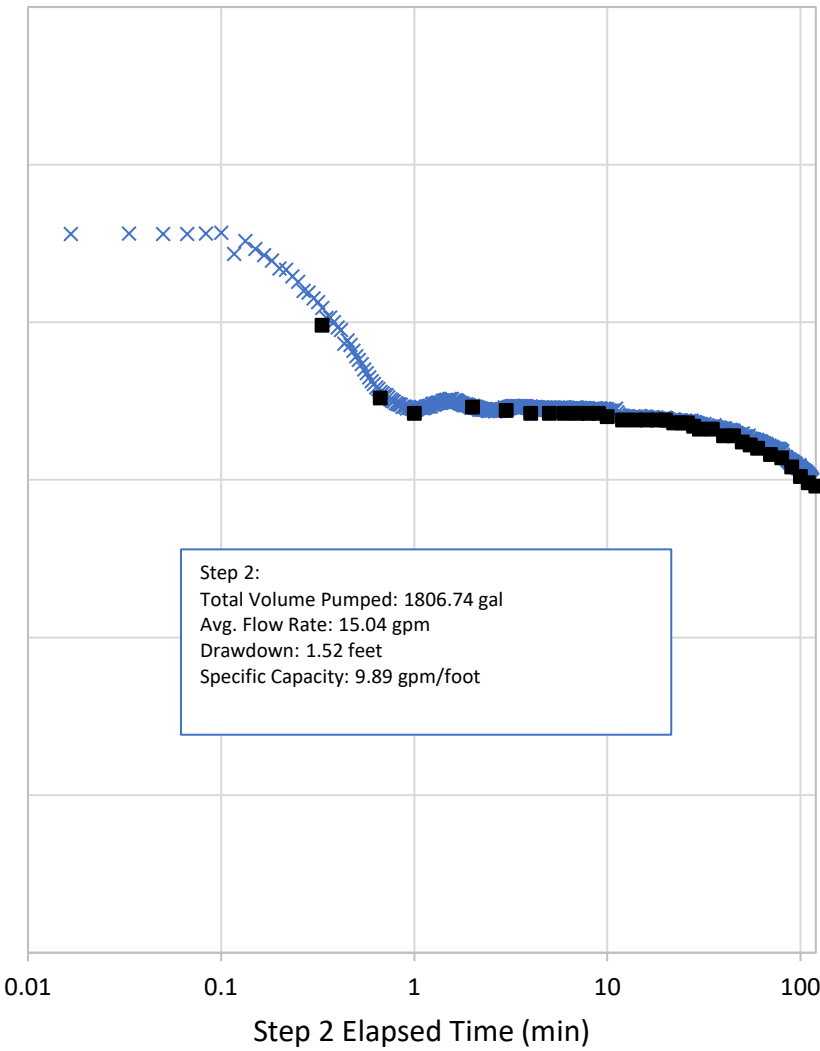
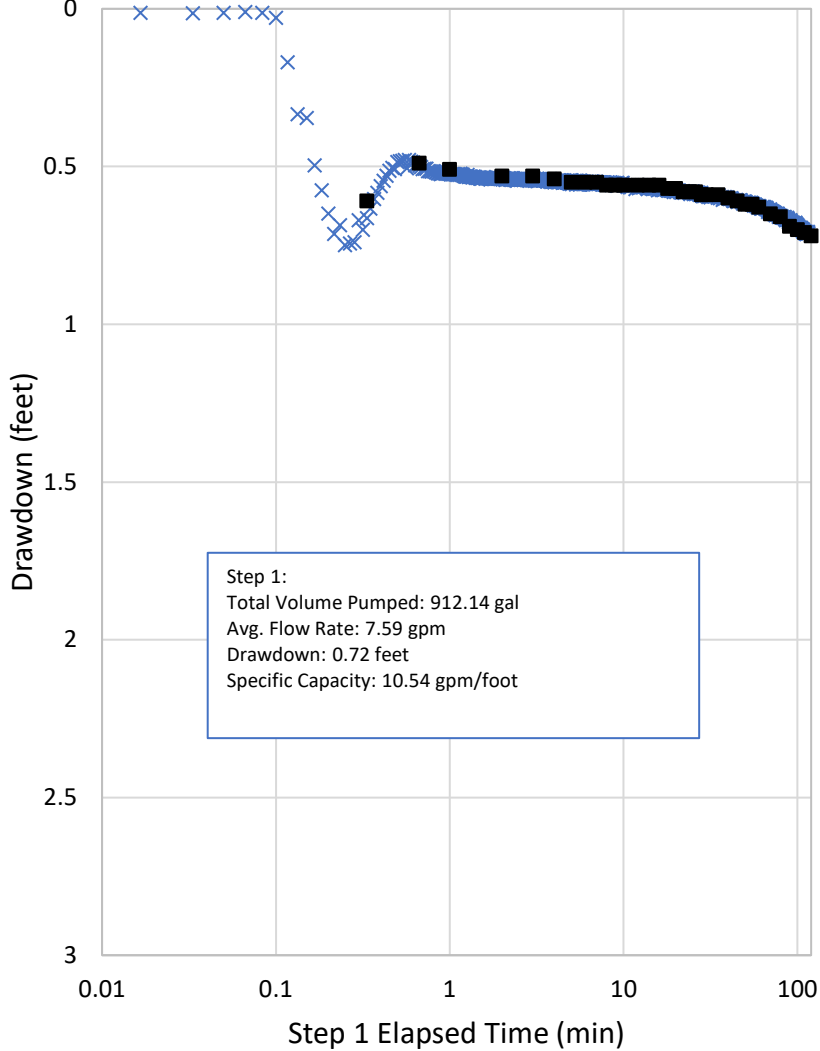
gpm = gallons per minute

min = minutes

RB-3 Upper Screen (25 to 91 feet) Linear Drawdown Plot



RB-3 Upper Screen (25 to 91 feet) Semi-Log Drawdown Plot



Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-28-025
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	185 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:58	6/17/20 7:58	9.95
6/17/2020	9:22	6/17/20 9:22	10.01
6/17/2020	10:36	6/17/20 10:36	10.10
6/17/2020	11:21	6/17/20 11:21	10.19
6/17/2020	12:33	6/17/20 12:33	10.32
6/17/2020	13:21	6/17/20 13:21	10.43
6/17/2020	14:32	6/17/20 14:32	10.59
6/17/2020	15:21	6/17/20 15:21	10.71
6/17/2020	16:33	6/17/20 16:33	10.85
6/17/2020	17:03	6/17/20 17:03	10.87
6/18/2020	6:58	6/18/20 6:58	10.41
6/18/2020	8:02	6/18/20 8:02	10.50
6/18/2020	9:12	6/18/20 9:12	10.58
6/18/2020	10:02	6/18/20 10:02	10.64
6/18/2020	11:17	6/18/20 11:17	10.77
6/18/2020	12:03	6/18/20 12:03	10.84
6/18/2020	13:12	6/18/20 13:12	10.92
6/18/2020	14:01	6/18/20 14:01	10.99
6/18/2020	15:13	6/18/20 15:13	11.04
6/18/2020	15:42	6/18/20 15:42	11.01
6/23/2020	9:01	6/23/20 9:01	10.24

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-28-090
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	185 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:56	6/17/20 7:56	10.82
6/17/2020	9:22	6/17/20 9:22	11.10
6/17/2020	10:35	6/17/20 10:35	11.25
6/17/2020	11:22	6/17/20 11:22	11.54
6/17/2020	12:32	6/17/20 12:32	11.73
6/17/2020	13:22	6/17/20 13:22	12.05
6/17/2020	14:32	6/17/20 14:32	12.26
6/17/2020	15:22	6/17/20 15:22	12.57
6/17/2020	16:32	6/17/20 16:32	12.76
6/17/2020	17:04	6/17/20 17:04	12.16
6/18/2020	6:59	6/18/20 6:59	11.22
6/18/2020	8:01	6/18/20 8:01	11.47
6/18/2020	9:12	6/18/20 9:12	11.57
6/18/2020	10:01	6/18/20 10:01	11.68
6/18/2020	11:18	6/18/20 11:18	11.83
6/18/2020	12:04	6/18/20 12:04	11.92
6/18/2020	13:11	6/18/20 13:11	12.06
6/18/2020	14:02	6/18/20 14:02	12.13
6/18/2020	15:12	6/18/20 15:12	12.21
6/18/2020	15:43	6/18/20 15:43	12.10
6/23/2020	8:53	6/23/20 8:53	11.31

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-86-030
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	186 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:58	6/17/20 7:58	11.34
6/17/2020	9:24	6/17/20 9:24	11.35
6/17/2020	10:38	6/17/20 10:38	11.39
6/17/2020	11:23	6/17/20 11:23	11.42
6/17/2020	12:33	6/17/20 12:33	11.50
6/17/2020	13:23	6/17/20 13:23	11.58
6/17/2020	14:33	6/17/20 14:33	11.66
6/17/2020	15:25	6/17/20 15:25	11.74
6/17/2020	16:33	6/17/20 16:33	11.85
6/17/2020	17:04	6/17/20 17:04	11.87
6/18/2020	6:53	6/18/20 6:53	11.69
6/18/2020	8:03	6/18/20 8:03	11.71
6/18/2020	9:13	6/18/20 9:13	11.76
6/18/2020	10:03	6/18/20 10:03	11.79
6/18/2020	11:13	6/18/20 11:13	11.85
6/18/2020	12:03	6/18/20 12:03	11.91
6/18/2020	13:13	6/18/20 13:13	11.97
6/18/2020	14:03	6/18/20 14:03	12.01
6/18/2020	15:13	6/18/20 15:13	12.04
6/18/2020	15:45	6/18/20 15:45	12.15
6/23/2020	8:15	6/23/20 8:15	11.45

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-86-066
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	186 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:58	6/17/20 7:58	10.95
6/17/2020	9:23	6/17/20 9:23	11.07
6/17/2020	10:38	6/17/20 10:38	11.23
6/17/2020	11:23	6/17/20 11:23	11.36
6/17/2020	12:33	6/17/20 12:33	11.55
6/17/2020	13:23	6/17/20 13:23	11.72
6/17/2020	14:33	6/17/20 14:33	11.94
6/17/2020	15:25	6/17/20 15:25	12.10
6/17/2020	16:33	6/17/20 16:33	12.29
6/17/2020	17:04	6/17/20 17:04	12.32
6/18/2020	6:54	6/18/20 6:54	11.53
6/18/2020	8:03	6/18/20 8:03	11.75
6/18/2020	9:13	6/18/20 9:13	11.75
6/18/2020	10:03	6/18/20 10:03	11.87
6/18/2020	11:13	6/18/20 11:13	11.98
6/18/2020	12:03	6/18/20 12:03	12.11
6/18/2020	13:13	6/18/20 13:13	12.24
6/18/2020	14:03	6/18/20 14:03	12.33
6/18/2020	15:13	6/18/20 15:13	12.42
6/18/2020	15:45	6/18/20 15:45	12.46
6/23/2020	8:15	6/23/20 8:15	11.47

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-86-120
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	186 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:58	6/17/20 7:58	12.00
6/17/2020	9:23	6/17/20 9:23	12.43
6/17/2020	10:38	6/17/20 10:38	12.59
6/17/2020	11:23	6/17/20 11:23	13.03
6/17/2020	12:33	6/17/20 12:33	13.21
6/17/2020	13:23	6/17/20 13:23	13.70
6/17/2020	14:33	6/17/20 14:33	13.91
6/17/2020	15:25	6/17/20 15:25	14.41
6/17/2020	16:33	6/17/20 16:33	14.59
6/17/2020	17:04	6/17/20 17:04	13.40
6/18/2020	6:54	6/18/20 6:54	12.28
6/18/2020	8:03	6/18/20 8:03	12.53
6/18/2020	9:13	6/18/20 9:13	12.61
6/18/2020	10:03	6/18/20 10:03	12.71
6/18/2020	11:13	6/18/20 11:13	12.80
6/18/2020	12:03	6/18/20 12:03	12.89
6/18/2020	13:13	6/18/20 13:13	13.00
6/18/2020	14:03	6/18/20 14:03	13.07
6/18/2020	15:13	6/18/20 15:13	13.13
6/18/2020	15:45	6/18/20 15:45	13.03
6/23/2020	8:15	6/23/20 8:15	12.34

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

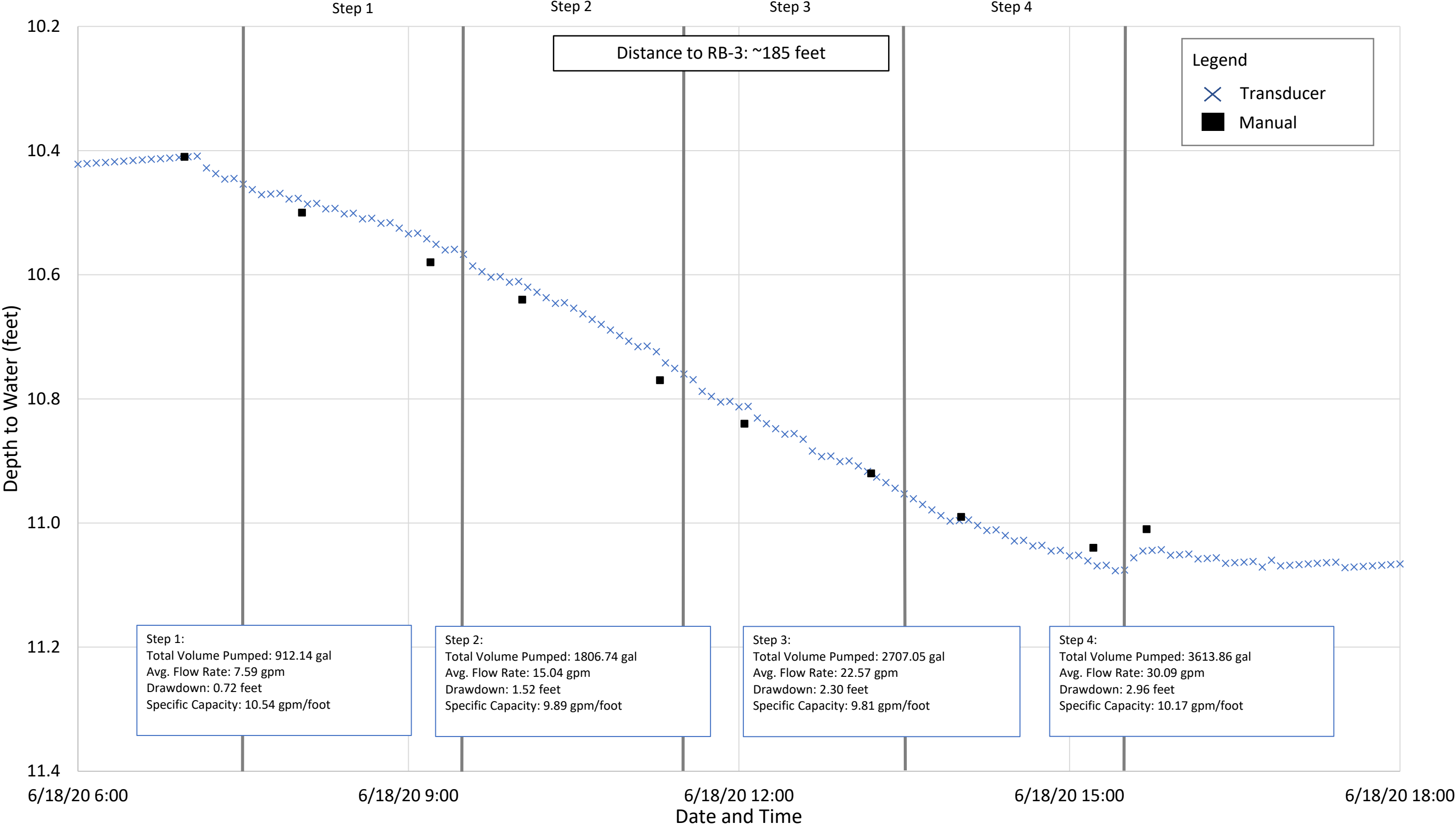
Location/Well ID	MW-86-140
Well Being Tested	RB-3
Screened Interval of Well Being Tested	111 to 193.5 feet bgs
Approximate Distance from Testing Well	186 feet

Date	Time	Date and Time	Depth to Water
6/17/2020	7:58	6/17/20 7:58	12.00
6/17/2020	9:23	6/17/20 9:23	12.67
6/17/2020	10:38	6/17/20 10:38	12.82
6/17/2020	11:23	6/17/20 11:23	13.52
6/17/2020	12:33	6/17/20 12:33	13.69
6/17/2020	13:23	6/17/20 13:23	14.42
6/17/2020	14:33	6/17/20 14:33	14.60
6/17/2020	15:25	6/17/20 15:25	15.35
6/17/2020	16:33	6/17/20 16:33	15.53
6/17/2020	17:04	6/17/20 17:04	13.44
6/18/2020	6:54	6/18/20 6:54	12.34
6/18/2020	8:03	6/18/20 8:03	12.45
6/18/2020	9:13	6/18/20 9:13	12.53
6/18/2020	10:03	6/18/20 10:03	12.60
6/18/2020	11:13	6/18/20 11:13	12.69
6/18/2020	12:03	6/18/20 12:03	12.75
6/18/2020	13:13	6/18/20 13:13	12.85
6/18/2020	14:03	6/18/20 14:03	12.91
6/18/2020	15:13	6/18/20 15:13	12.94
6/18/2020	15:45	6/18/20 15:45	12.91
6/23/2020	8:15	6/23/20 8:15	12.29

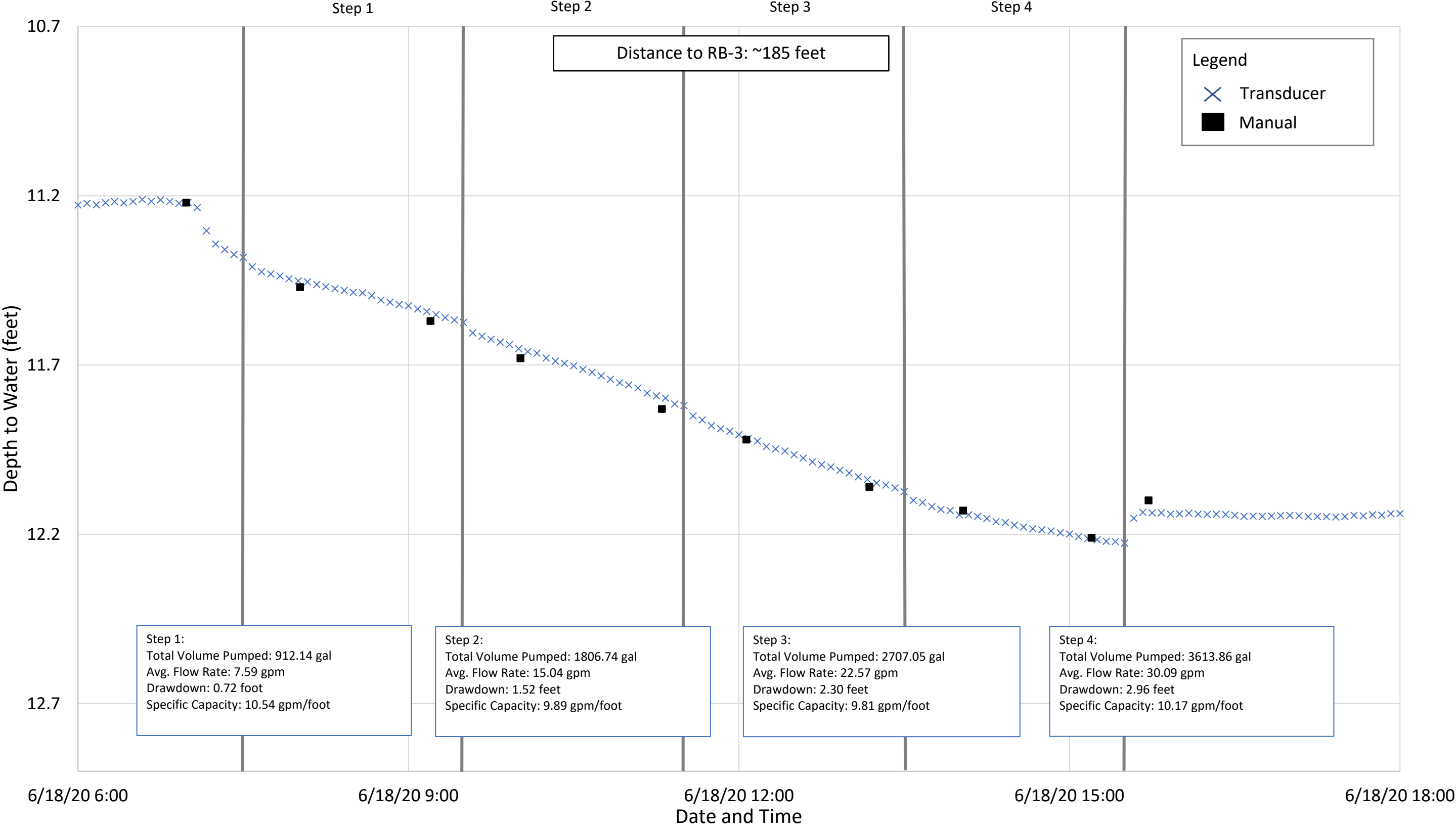
Acronyms & Abbreviations

bgs = below ground surface

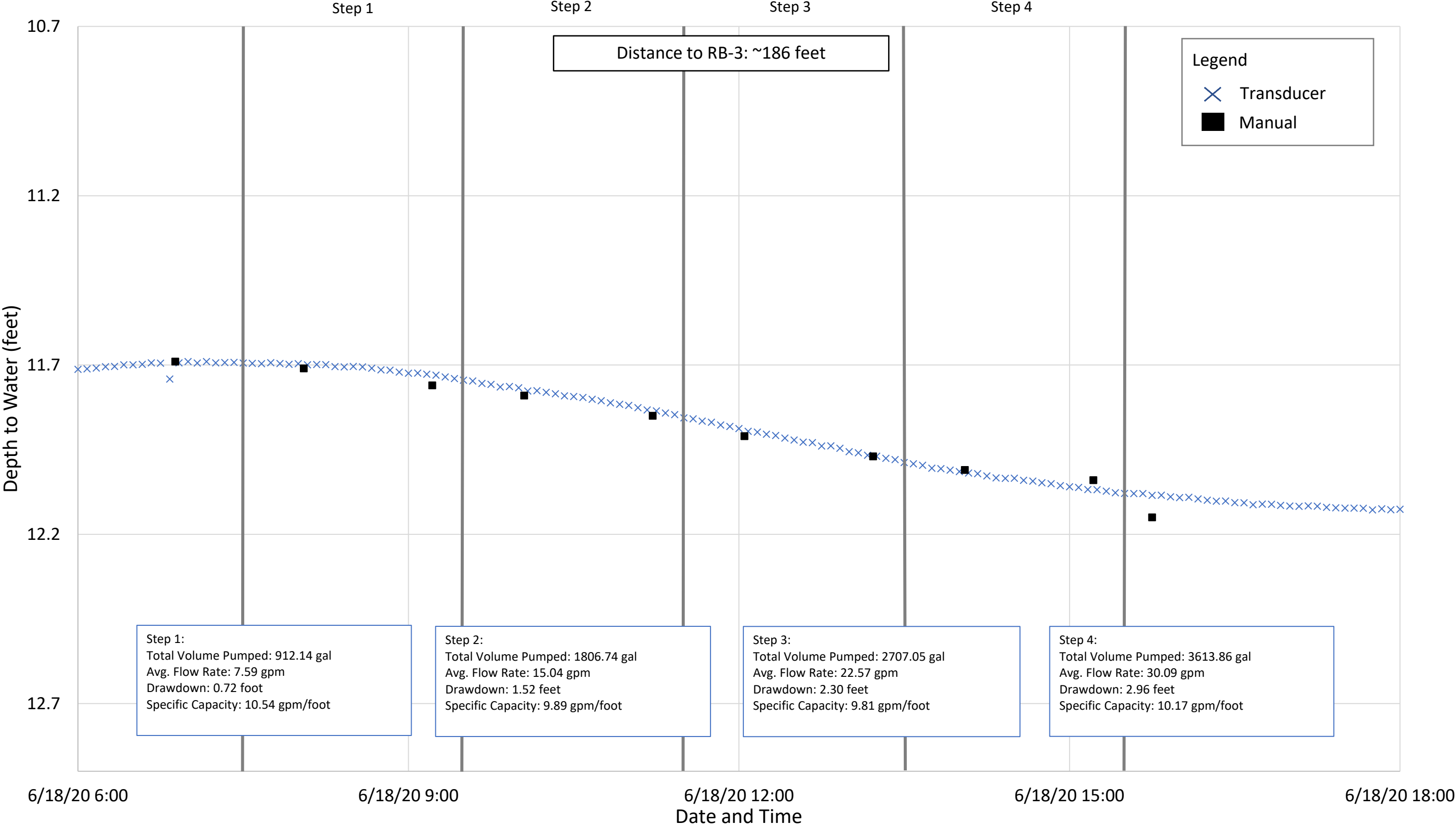
MW-28-025 During RB-3 Upper Screen (25 to 91 feet) Specific Capacity Test



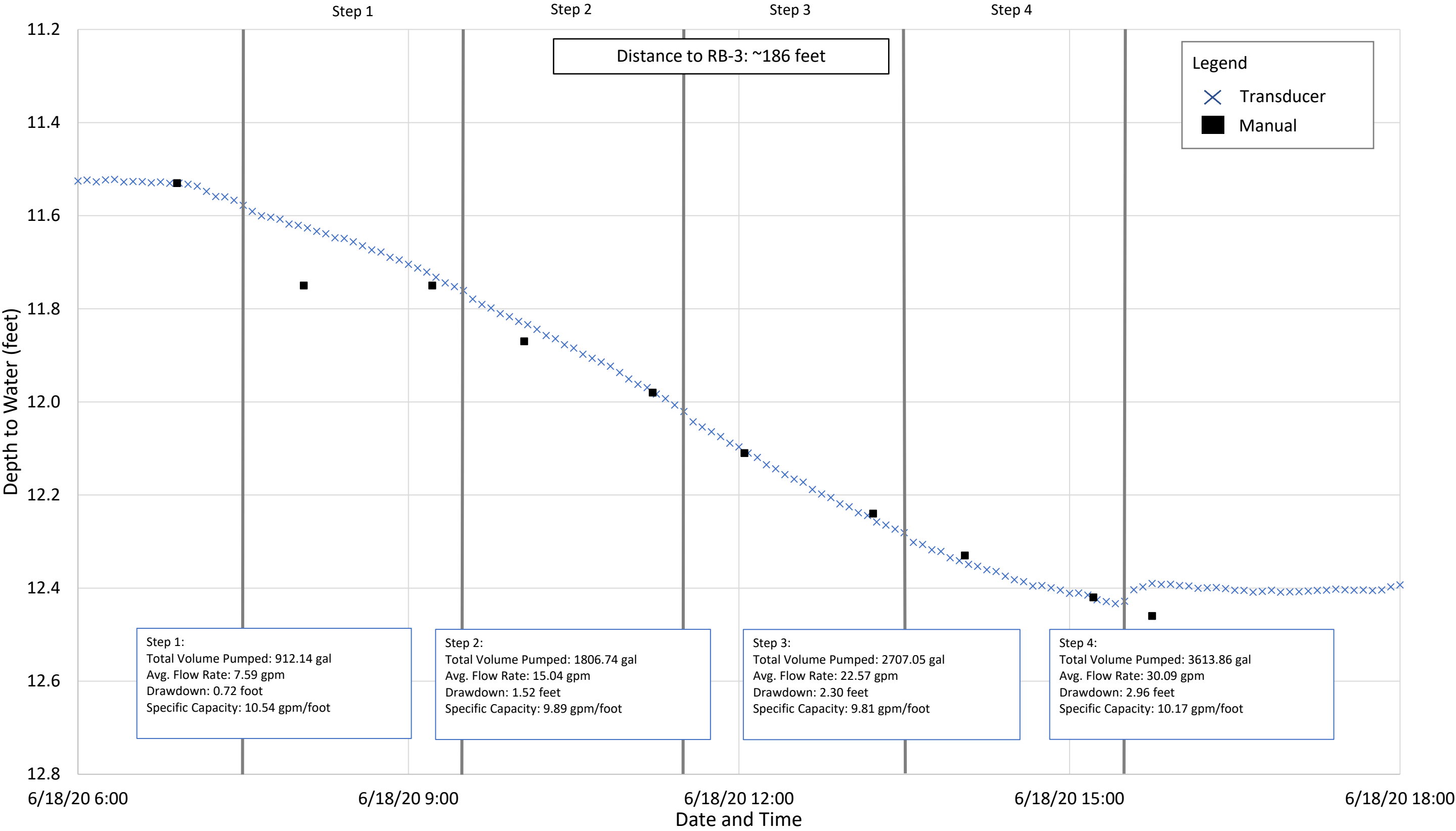
MW-28-090 During RB-3 Upper Screen (25 to 91 feet) Specific Capacity Test



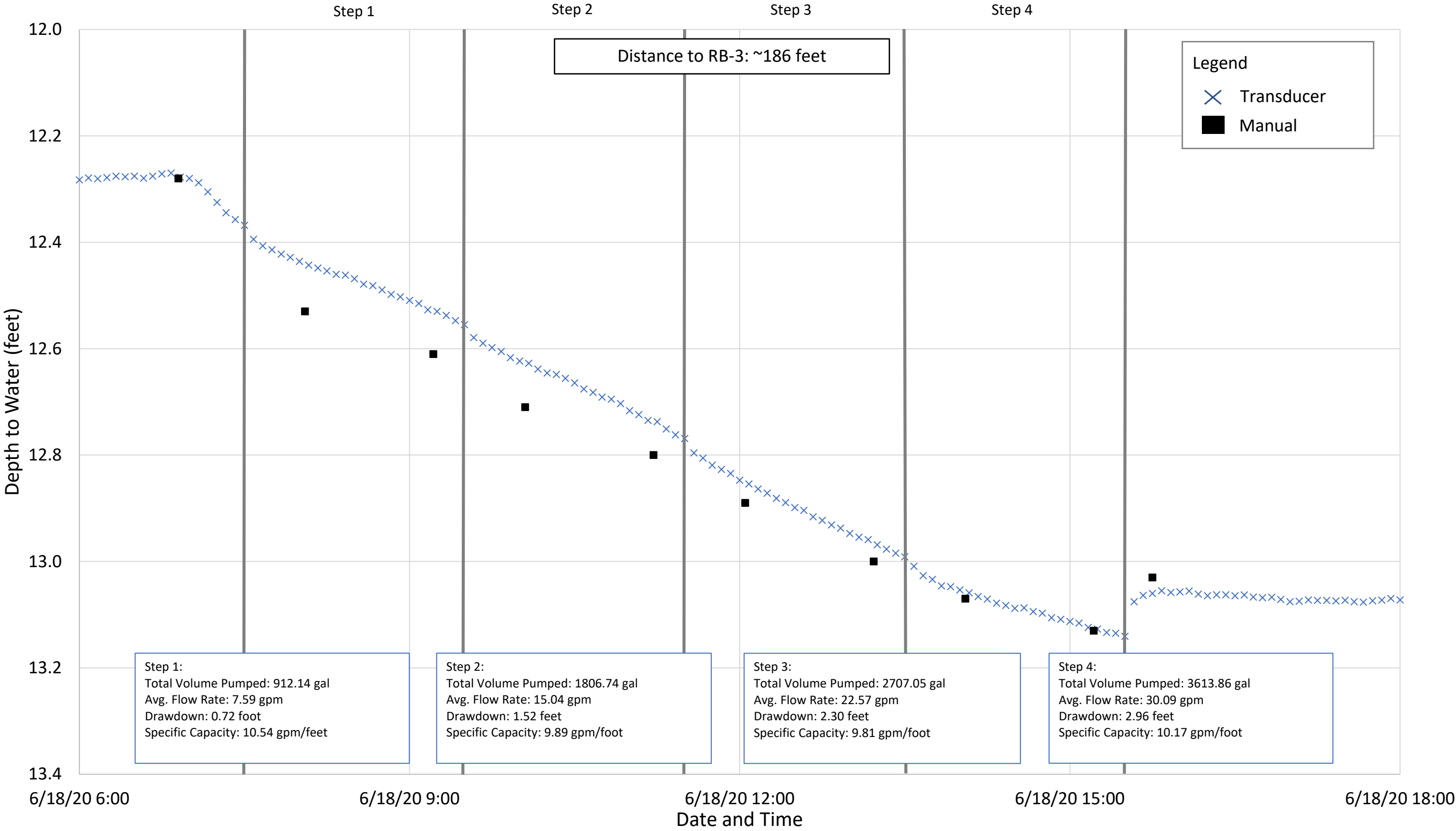
MW-86-030 During RB-3 Upper Screen (25 to 91 feet) Specific Capacity Test



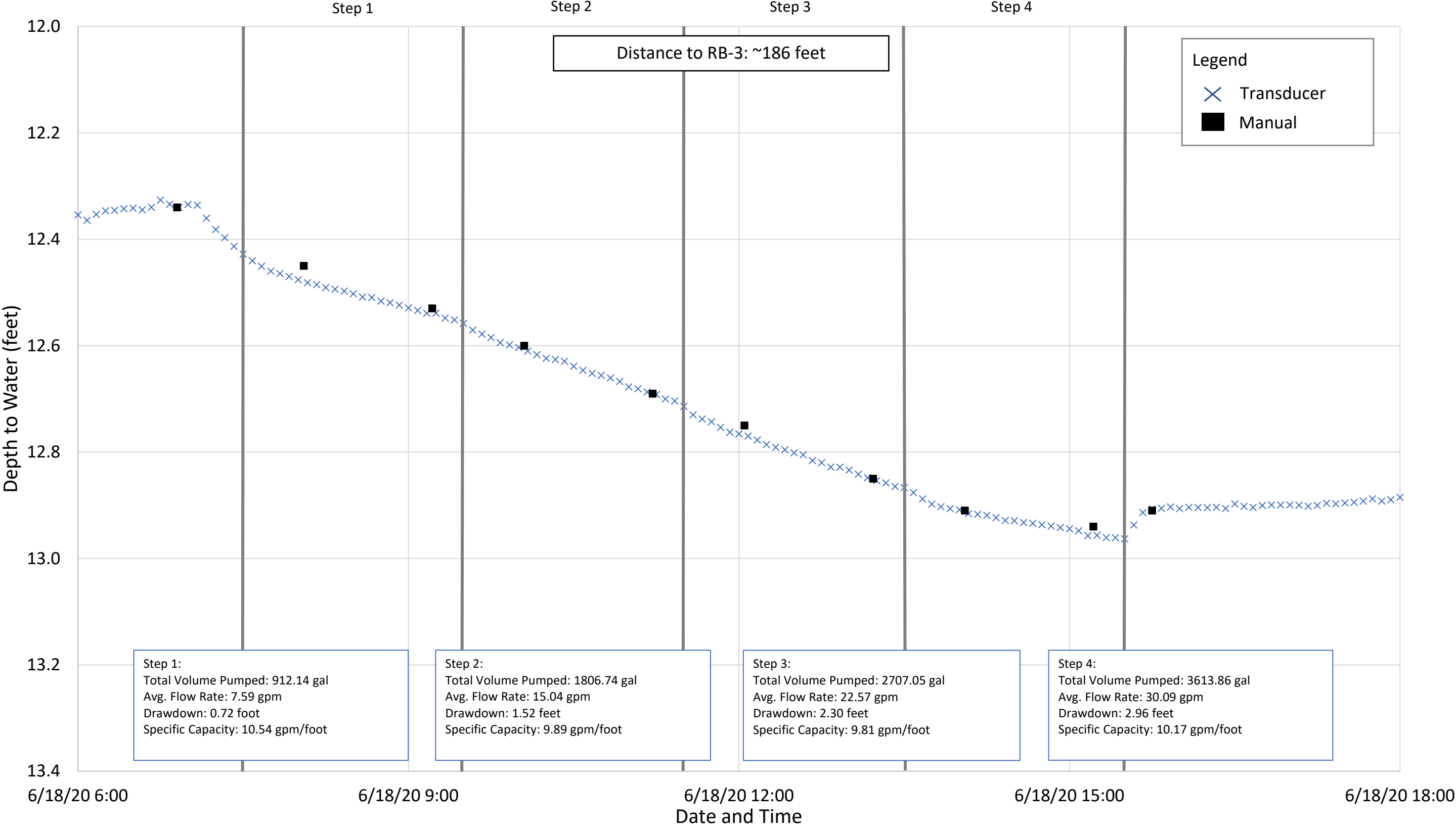
MW-86-066 During RB-3 Upper Screen (25 to 91 feet) Specific Capacity Test



MW-86-120 During RB-3 Upper Screen (25 to 91 feet) Specific Capacity Test



MW-86-140 During RB-3 Upper Screen (25 to 91 feet) Specific Capacity Test



Specific Capacity Testing

Location/Well ID	IRZ-31
Date	5/22/2020
Screened Interval Tested	Upper (48 to 77 feet bgs)
Packer Set Depth	87.5 to 91.5 feet btoc
Packer Seal Test	Confirmed packer to be watertight before test
Tests Conducted	Four-step specific capacity test (6.5, 13, 19.5, and 43.5 gpm)
Purpose	Well performance test
Summary	Specific capacity: 2.38 to 4.22 gpm/foot
Notes	Step 4 extended due to stabilization deficiency. Step 4 stopped before stabilization due to time constants.
Oversight Signature	
Date	9/29/2020

Acronyms & Abbreviations

bgs = below ground surface

btoc = below top of casing

gpm = gallons per minute

Specific Capacity Test

Location/Well ID	IRZ-31 Upper
Date	5/22/2020
Screened Interval	48 to 77 feet bgs
Pump Depth (feet btoc)	72.66
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 48 to 77 feet btoc	47.02
Initial Water Level Within 92 to 121 feet btoc	47.01
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	12106.70
Approx Pumped Volume (gal)	12106.70
Calculated Volume Purged (gal)	12104.61
Difference in Volume Pumped vs. Calculated	2.09
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 43.5 gpm

Step 1 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time (min)	Pumping Rate (gpm)	Total Volume pumped (gal)	Depth to Water (feet)	Drawdown (feet)
6:40:00	0	0	0.00	0.00	47.02	0.00
6:40:20	0.3	0.33	5.93	1.98	47.60	0.58
6:40:40	0.3	0.67	6.16	4.03	47.66	0.64
6:41:00	0.3	1.00	6.32	6.14	47.75	0.73
6:42:00	1.0	2.00	6.65	12.79	47.96	0.94
6:43:00	1.0	3.00	6.63	19.42	48.07	1.05
6:44:00	1.0	4.00	6.62	26.04	48.12	1.10
6:45:00	1.0	5.00	6.60	32.64	48.17	1.15
6:46:00	1.0	6.00	6.58	39.22	48.20	1.18
6:47:00	1.0	7.00	6.76	45.98	48.24	1.22
6:48:00	1.0	8.00	7.30	53.28	48.33	1.31
6:49:00	1.0	9.00	6.70	59.98	48.35	1.33
6:50:00	1.0	10.00	6.53	66.51	48.31	1.29
6:52:00	2.0	12.00	6.56	79.63	48.34	1.32
6:54:00	2.0	14.00	6.53	92.69	48.36	1.34
6:56:00	2.0	16.00	6.60	105.89	48.38	1.36
6:58:00	2.0	18.00	6.58	119.05	48.40	1.38
7:00:00	2.0	20.00	6.58	132.21	48.41	1.39
7:02:00	2.0	22.00	6.54	145.29	48.42	1.40
7:04:00	2.0	24.00	6.65	158.59	48.45	1.43
7:06:00	2.0	26.00	6.63	171.85	48.46	1.44
7:08:00	2.0	28.00	6.63	185.11	48.47	1.45
7:10:00	2.0	30.00	6.62	198.35	48.47	1.45
7:15:00	5.0	35.00	6.62	231.45	48.48	1.46
7:20:00	5.0	40.00	6.62	264.55	48.50	1.48
7:25:00	5.0	45.00	6.62	297.65	48.52	1.50
7:30:00	5.0	50.00	6.60	330.65	48.53	1.51
7:35:00	5.0	55.00	6.60	363.65	48.54	1.52
7:40:00	5.0	60.00	6.60	396.65	48.54	1.52
7:50:00	10.0	70.00	6.60	462.65	48.55	1.53
8:00:00	10.0	80.00	6.60	528.65	48.56	1.54
8:10:00	10.0	90.00	6.58	594.45	48.57	1.55
8:20:00	10.0	100.00	6.58	660.25	48.57	1.55
8:30:00	10.0	110.00	6.58	726.05	48.58	1.56
8:40:00	10.0	120.00	6.58	791.85	48.58	1.56
Total Volume Pumped for Step 1 (gal)			791.85			
Average Pumping Rate (gpm)			6.58			
Specific Capacity (gpm/foot)			4.22			

Specific Capacity Test

Location/Well ID	IRZ-31 Upper
Date	5/22/2020
Screened Interval	48 to 77 feet bgs
Pump Depth (feet btoc)	72.66
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 48 to 77 feet btoc	47.02
Initial Water Level Within 92 to 121 feet btoc	47.01
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	12106.70
Approx Pumped Volume (gal)	12106.70
Calculated Volume Purged (gal)	12104.61
Difference in Volume Pumped vs. Calculated	2.09
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 43.5 gpm

Step 2 - Time (HR:MN:SEC)	Change in Time Between measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (gal)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 2 Start (min)
8:40:20	0.3	120.33	13.28	796.27	49.00	1.98	0.33
8:40:40	0.3	120.67	13.18	800.67	49.18	2.16	0.67
8:41:00	0.3	121.00	13.21	805.07	49.34	2.32	1.00
8:42:00	1.0	122.00	13.10	818.17	49.58	2.56	2.00
8:43:00	1.0	123.00	13.03	831.20	49.70	2.68	3.00
8:44:00	1.0	124.00	13.14	844.34	49.80	2.78	4.00
8:45:00	1.0	125.00	13.13	857.47	49.87	2.85	5.00
8:46:00	1.0	126.00	13.13	870.60	49.92	2.90	6.00
8:47:00	1.0	127.00	13.11	883.71	49.97	2.95	7.00
8:48:00	1.0	128.00	13.11	896.82	50.00	2.98	8.00
8:49:00	1.0	129.00	13.10	909.92	50.03	3.01	9.00
8:50:00	1.0	130.00	13.06	922.98	50.05	3.03	10.00
8:52:00	2.0	132.00	13.08	949.14	50.09	3.07	12.00
8:54:00	2.0	134.00	13.08	975.30	50.12	3.10	14.00
8:56:00	2.0	136.00	13.11	1001.52	50.15	3.13	16.00
8:58:00	2.0	138.00	13.10	1027.72	50.17	3.15	18.00
9:00:00	2.0	140.00	13.01	1053.74	50.19	3.17	20.00
9:02:00	2.0	142.00	13.04	1079.82	50.20	3.18	22.00
9:04:00	2.0	144.00	13.03	1105.88	50.23	3.21	24.00
9:06:00	2.0	146.00	13.03	1131.94	50.23	3.21	26.00
9:08:00	2.0	148.00	13.04	1158.02	50.24	3.22	28.00
9:10:00	2.0	150.00	13.04	1184.10	50.25	3.23	30.00
9:15:00	5.0	155.00	13.03	1249.25	50.29	3.27	35.00
9:20:00	5.0	160.00	13.04	1314.45	50.30	3.28	40.00
9:25:00	5.0	165.00	13.04	1379.65	50.31	3.29	45.00
9:30:00	5.0	170.00	13.03	1444.80	50.33	3.31	50.00
9:35:00	5.0	175.00	13.03	1509.95	50.34	3.32	55.00
9:40:00	5.0	180.00	13.03	1575.10	50.35	3.33	60.00
9:50:00	10.0	190.00	13.03	1705.40	50.38	3.36	70.00
10:00:00	10.0	200.00	13.01	1835.50	50.39	3.37	80.00
10:10:00	10.0	210.00	13.03	1965.80	50.41	3.39	90.00
10:20:00	10.0	220.00	13.03	2096.10	50.42	3.40	100.00
10:30:00	10.0	230.00	13.01	2226.20	50.45	3.43	110.00
10:40:00	10.0	240.00	13.01	2356.30	50.45	3.43	120.00
Total Volume Pumped for Step 2 (gal)			1564.45				
Average Pumping Rate (gpm)			13.07				
Specific Capacity (gpm/foot)			3.81				

Specific Capacity Test

Location/Well ID	IRZ-31 Upper
Date	5/22/2020
Screened Interval	48 to 77 feet bgs
Pump Depth (feet btoc)	72.66
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 48 to 77 feet btoc	47.02
Initial Water Level Within 92 to 121 feet btoc	47.01
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	12106.70
Approx Pumped Volume (gal)	12106.70
Calculated Volume Purged (gal)	12104.61
Difference in Volume Pumped vs. Calculated	2.09
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 43.5 gpm

Step 3 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (Gallons)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 3 Start (min)
10:40:20	0.3	240.33	15.12	2361.34	50.75	3.73	0.33
10:40:40	0.3	240.67	18.56	2367.53	50.90	3.88	0.67
10:41:00	0.3	241.00	19.62	2374.07	51.08	4.06	1.00
10:42:00	1.0	242.00	19.61	2393.68	51.49	4.47	2.00
10:43:00	1.0	243.00	19.60	2413.28	51.65	4.63	3.00
10:44:00	1.0	244.00	19.60	2432.88	51.78	4.76	4.00
10:45:00	1.0	245.00	19.61	2452.49	51.86	4.84	5.00
10:46:00	1.0	246.00	19.61	2472.10	51.93	4.91	6.00
10:47:00	1.0	247.00	19.62	2491.72	51.98	4.96	7.00
10:48:00	1.0	248.00	19.62	2511.34	52.02	5.00	8.00
10:49:00	1.0	249.00	19.62	2530.96	52.05	5.03	9.00
10:50:00	1.0	250.00	19.64	2550.60	52.09	5.07	10.00
10:52:00	2.0	252.00	19.61	2589.82	52.14	5.12	12.00
10:54:00	2.0	254.00	19.61	2629.04	52.19	5.17	14.00
10:56:00	2.0	256.00	19.60	2668.24	52.21	5.19	16.00
10:58:00	2.0	258.00	19.60	2707.44	52.24	5.22	18.00
11:00:00	2.0	260.00	19.60	2746.64	52.27	5.25	20.00
11:02:00	2.0	262.00	19.60	2785.84	52.29	5.27	22.00
11:04:00	2.0	264.00	19.60	2825.04	52.30	5.28	24.00
11:06:00	2.0	266.00	19.60	2864.24	52.32	5.30	26.00
11:10:00	4.0	270.00	19.58	2942.56	52.35	5.33	30.00
11:15:00	5.0	275.00	19.60	3040.56	52.39	5.37	35.00
11:20:00	5.0	280.00	19.58	3138.46	52.42	5.40	40.00
11:25:00	5.0	285.00	19.58	3236.36	52.44	5.42	45.00
11:30:00	5.0	290.00	19.58	3334.26	52.46	5.44	50.00
11:35:00	5.0	295.00	19.58	3432.16	52.49	5.47	55.00
11:40:00	5.0	300.00	19.58	3530.06	52.50	5.48	60.00
11:50:00	10.0	310.00	19.56	3725.66	52.54	5.52	70.00
12:00:00	10.0	320.00	19.56	3921.26	52.57	5.55	80.00
12:10:00	10.0	330.00	19.56	4116.86	52.59	5.57	90.00
12:20:00	10.0	340.00	19.56	4312.46	52.61	5.59	100.00
12:30:00	10.0	350.00	19.58	4508.26	52.65	5.63	110.00
12:40:00	10.0	360.00	19.54	4703.66	52.66	5.64	120.00
Total Volume Pumped for Step 3 (gal)			2347.36				
Average Pumping Rate (gpm)			19.43				
Specific Capacity (gpm/foot)			3.44				

Specific Capacity Test

Location/Well ID	IRZ-31 Upper
Date	5/22/2020
Screened Interval	48 to 77 feet bgs
Pump Depth (feet btoc)	72.66
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 48 to 77 feet btoc	47.02
Initial Water Level Within 92 to 121 feet btoc	47.01
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	12106.70
Approx Pumped Volume (gal)	12106.70
Calculated Volume Purged (gal)	12104.61
Difference in Volume Pumped vs. Calculated	2.09
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 43.5 gpm

Step 4 - Time (HR:MN:SEC)	Change in Time Between Measurements (min)	Elapsed Time from Test Start (min)	Pumping Rate (gpm)	Total Volume Pumped (Gallons)	Depth to Water (feet)	Drawdown (feet)	Elapsed Time from Step 4 Start (min)
12:40:20	0.3	360.33	44.63	4718.53	54.01	6.99	0.33
12:40:40	0.3	360.67	44.34	4733.31	55.11	8.09	0.67
12:41:00	0.3	361.00	44.18	4748.04	55.82	8.80	1.00
12:42:00	1.0	362.00	44.02	4792.06	57.38	10.36	2.00
12:43:00	1.0	363.00	43.87	4835.93	58.31	11.29	3.00
12:44:00	1.0	364.00	43.80	4879.73	59.05	12.03	4.00
12:45:00	1.0	365.00	43.74	4923.47	59.55	12.53	5.00
12:46:00	1.0	366.00	43.72	4967.19	59.98	12.96	6.00
12:47:00	1.0	367.00	43.68	5010.87	60.22	13.20	7.00
12:48:00	1.0	368.00	43.66	5054.53	60.59	13.57	8.00
12:49:00	1.0	369.00	43.64	5098.17	60.80	13.78	9.00
12:50:00	1.0	370.00	43.60	5141.77	60.99	13.97	10.00
12:52:00	2.0	372.00	43.58	5228.93	61.29	14.27	12.00
12:54:00	2.0	374.00	43.57	5316.07	61.54	14.52	14.00
12:56:00	2.0	376.00	43.57	5403.21	61.74	14.72	16.00
12:58:00	2.0	378.00	43.56	5490.33	61.91	14.89	18.00
13:00:00	2.0	380.00	43.56	5577.45	62.07	15.05	20.00
13:02:00	2.0	382.00	43.54	5664.53	62.19	15.17	22.00
13:04:00	2.0	384.00	43.52	5751.57	62.31	15.29	24.00
13:06:00	2.0	386.00	43.52	5838.61	62.42	15.40	26.00
13:08:00	2.0	388.00	43.50	5925.61	62.52	15.50	28.00
13:10:00	2.0	390.00	43.50	6012.61	62.61	15.59	30.00
13:15:00	5.0	395.00	43.48	6230.01	62.80	15.78	35.00
13:20:00	5.0	400.00	43.50	6447.51	63.00	15.98	40.00
13:25:00	5.0	405.00	43.17	6663.36	63.16	16.14	45.00
13:30:00	5.0	410.00	43.47	6880.71	63.30	16.28	50.00
13:35:00	5.0	415.00	43.47	7098.06	63.44	16.42	55.00
13:40:00	5.0	420.00	43.47	7315.41	63.57	16.55	60.00
13:50:00	10.0	430.00	43.48	7750.21	63.79	16.77	70.00
14:00:00	10.0	440.00	43.50	8185.21	64.01	16.99	80.00
14:10:00	10.0	450.00	43.52	8620.41	64.20	17.18	90.00
14:20:00	10.0	460.00	43.52	9055.61	64.39	17.37	100.00
14:30:00	10.0	470.00	43.52	9490.81	64.55	17.53	110.00
14:40:00	10.0	480.00	43.56	9926.41	64.69	17.67	120.00
14:50:00	10.0	490.00	43.56	10362.01	64.84	17.82	130.00
15:00:00	10.0	500.00	43.57	10797.71	64.98	17.96	140.00
15:10:00	10.0	510.00	43.56	11233.31	65.12	18.10	150.00
15:20:00	10.0	520.00	43.56	11668.91	65.25	18.23	160.00
15:30:00	10.0	530.00	43.57	12104.61	65.39	18.37	170.00

Specific Capacity Test

Location/Well ID	IRZ-31 Upper
Date	5/22/2020
Screened Interval	48 to 77 feet bgs
Pump Depth (feet btoc)	72.66
Packer Depth (feet btoc)	87.50
Packer Leak Test (Pass/Fail)	Pass
Initial Water Level Within 48 to 77 feet btoc	47.02
Initial Water Level Within 92 to 121 feet btoc	47.01
Initial Totalizer Reading (gal)	0.00
Final Totalizer Reading (gal)	12106.70
Approx Pumped Volume (gal)	12106.70
Calculated Volume Purged (gal)	12104.61
Difference in Volume Pumped vs. Calculated	2.09
Number of Specific Capacity Steps	4
Pumping Rates (in order)	6.5, 13, 19.5, and 43.5 gpm

15:31:00	1.0	531.00	0.00	12104.61	57.65	10.63	171.00
15:32:00	1.0	532.00	0.00	12104.61	54.00	6.98	172.00
15:33:00	1.0	533.00	0.00	12104.61	52.35	5.33	173.00
15:34:00	1.0	534.00	0.00	12104.61	51.31	4.29	174.00
15:35:00	1.0	535.00	0.00	12104.61	50.64	3.62	175.00
15:36:00	1.0	536.00	0.00	12104.61	50.19	3.17	176.00
15:37:00	1.0	537.00	0.00	12104.61	49.86	2.84	177.00
15:38:00	1.0	538.00	0.00	12104.61	49.58	2.56	178.00
15:39:00	1.0	539.00	0.00	12104.61	49.35	2.33	179.00
15:40:00	1.0	540.00	0.00	12104.61	49.17	2.15	180.00
15:41:00	1.0	541.00	0.00	12104.61	49.00	1.98	181.00
15:42:00	1.0	542.00	0.00	12104.61	48.87	1.85	182.00
15:43:00	1.0	543.00	0.00	12104.61	48.76	1.74	183.00
15:44:00	1.0	544.00	0.00	12104.61	48.68	1.66	184.00
15:45:00	1.0	545.00	0.00	12104.61	48.59	1.57	185.00
Total Volume Pumped for Step 4 (gal)			7400.95				
Average Pumping Rate (gpm)			43.64				
Specific Capacity (gpm/foot)			2.38				

Acronyms & Abbreviations

bgs = below ground surface

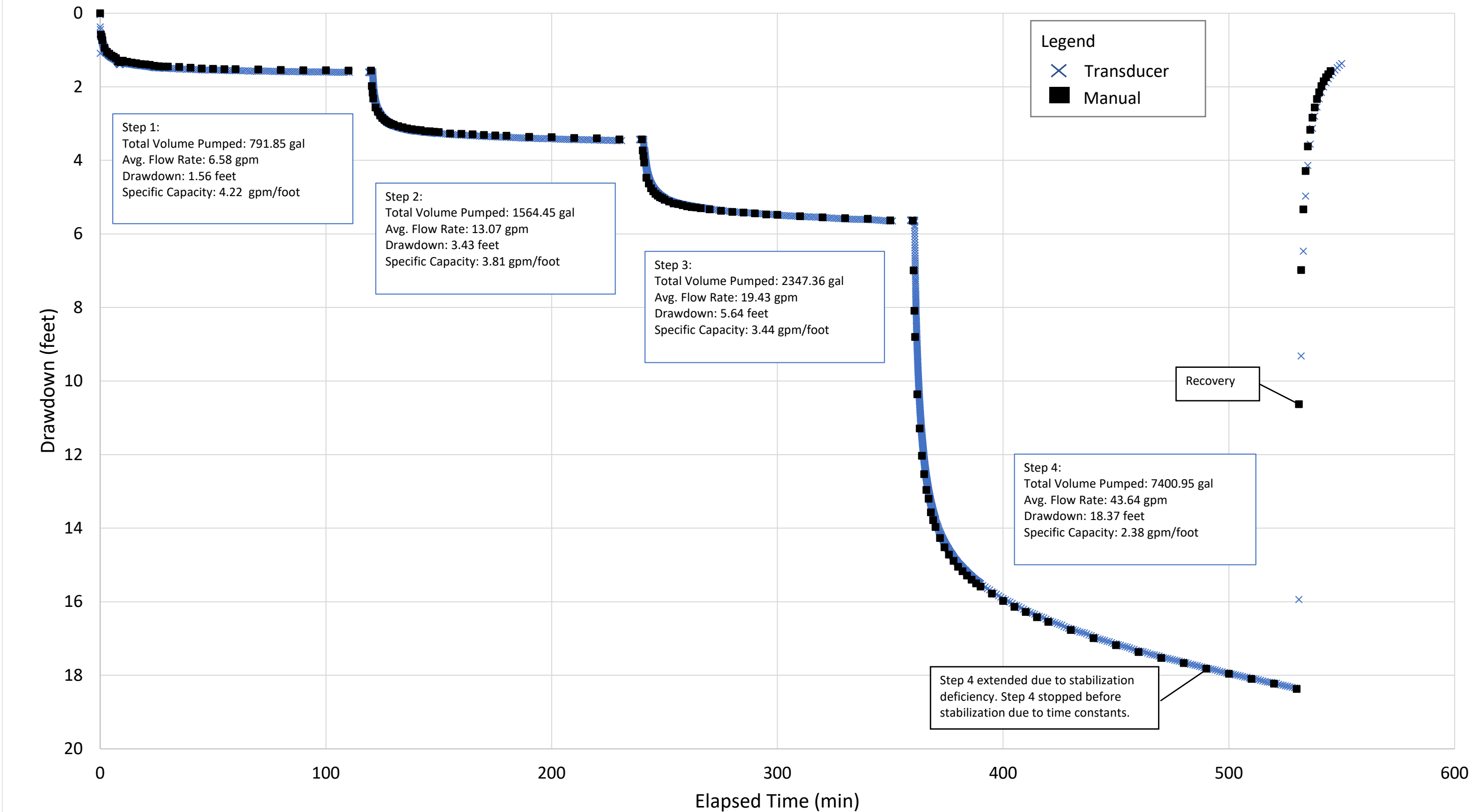
btoc = below top of casing

gal = gallons

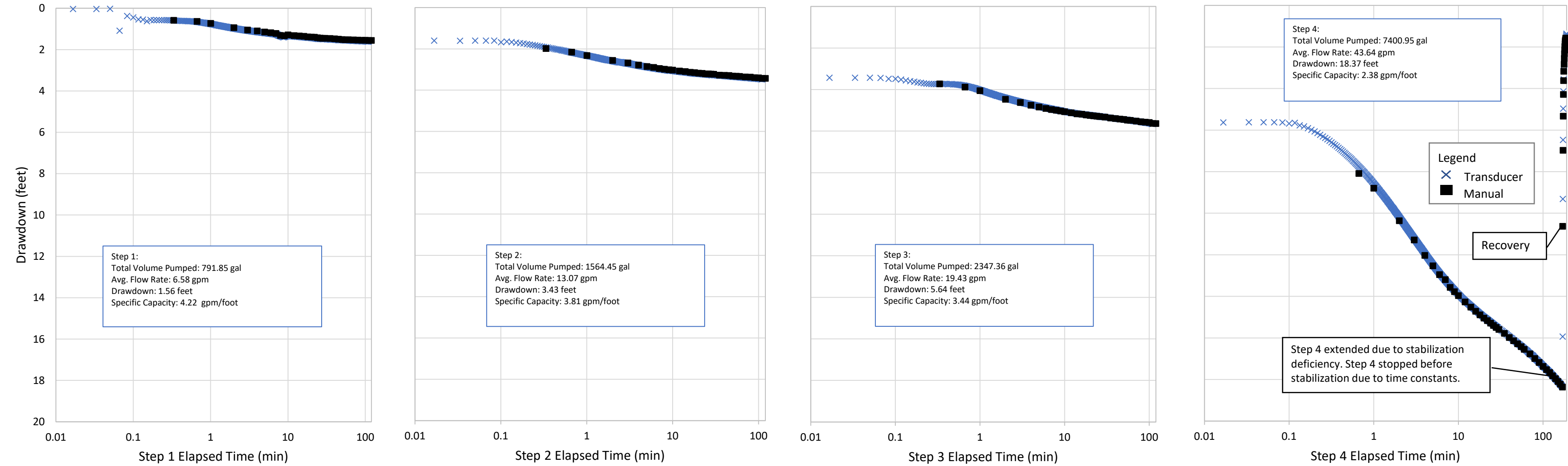
gpm = gallons per minute

min = minutes

IRZ-31 Upper Screen (48 to 77 feet) Linear Drawdown Plot



IRZ-31 Upper Screen (48 to 77 feet) Semi-Log Drawdown Plot



Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-79-060
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	50 feet

Date	Time	Date and Time	Depth to Water
5/21/2020	7:11	5/21/20 7:11	46.09
5/21/2020	8:01	5/21/20 8:01	46.08
5/21/2020	9:12	5/21/20 9:12	46.08
5/21/2020	10:01	5/21/20 10:01	46.08
5/21/2020	11:12	5/21/20 11:12	46.08
5/21/2020	12:01	5/21/20 12:01	46.08
5/21/2020	13:13	5/21/20 13:13	46.07
5/21/2020	14:01	5/21/20 14:01	46.11
5/21/2020	15:07	5/21/20 15:07	46.15
5/21/2020	15:47	5/21/20 15:47	46.15
5/22/2020	6:13	5/22/20 6:13	46.07
5/22/2020	7:12	5/22/20 7:12	46.09
5/22/2020	8:22	5/22/20 8:22	46.15
5/22/2020	9:11	5/22/20 9:11	46.20
5/22/2020	10:22	5/22/20 10:22	46.26
5/22/2020	11:11	5/22/20 11:11	46.31
5/22/2020	12:22	5/22/20 12:22	46.37
5/22/2020	13:11	5/22/20 13:11	46.55
5/22/2020	15:12	5/22/20 15:12	46.84
5/22/2020	15:57	5/22/20 15:57	46.67

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-79-104
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	50 feet

Date	Time	Date and Time	Depth to Water
5/21/2020	7:09	5/21/20 7:09	45.97
5/21/2020	8:02	5/21/20 8:02	46.04
5/21/2020	9:11	5/21/20 9:11	46.03
5/21/2020	10:02	5/21/20 10:02	46.12
5/21/2020	11:11	5/21/20 11:11	46.11
5/21/2020	12:01	5/21/20 12:01	46.19
5/21/2020	13:13	5/21/20 13:13	46.18
5/21/2020	14:01	5/21/20 14:01	46.55
5/21/2020	15:06	5/21/20 15:06	46.57
5/21/2020	15:49	5/21/20 15:49	46.98
5/22/2020	6:15	5/22/20 6:15	45.91
5/22/2020	7:12	5/22/20 7:12	45.94
5/22/2020	8:21	5/22/20 8:21	45.95
5/22/2020	9:11	5/22/20 9:11	45.96
5/22/2020	10:21	5/22/20 10:21	45.99
5/22/2020	11:11	5/22/20 11:11	46.01
5/22/2020	12:21	5/22/20 12:21	46.02
5/22/2020	13:12	5/22/20 13:12	46.14
5/22/2020	15:11	5/22/20 15:11	46.21
5/22/2020	15:58	5/22/20 15:58	46.07

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

Location/Well ID	MW-51
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	48 feet

Date	Time	Date and Time	Depth to Water
5/21/2020	7:07	5/21/20 7:07	46.24
5/21/2020	8:05	5/21/20 8:05	46.66
5/21/2020	9:12	5/21/20 9:12	46.66
5/21/2020	10:01	5/21/20 10:01	47.13
5/21/2020	11:11	5/21/20 11:11	47.14
5/21/2020	12:01	5/21/20 12:01	47.58
5/21/2020	13:11	5/21/20 13:11	47.58
5/21/2020	14:01	5/21/20 14:01	49.80
5/21/2020	15:06	5/21/20 15:06	49.90
5/21/2020	15:45	5/21/20 15:45	46.65
5/22/2020	6:12	5/22/20 6:12	46.22
5/22/2020	7:11	5/22/20 7:11	46.22
5/22/2020	8:21	5/22/20 8:21	46.22
5/22/2020	9:11	5/22/20 9:11	46.25
5/22/2020	10:21	5/22/20 10:21	46.25
5/22/2020	11:11	5/22/20 11:11	46.28
5/22/2020	12:21	5/22/20 12:21	46.27
5/22/2020	13:11	5/22/20 13:11	46.34
5/22/2020	15:11	5/22/20 15:11	46.38
5/22/2020	15:55	5/22/20 15:55	46.35

Acronyms & Abbreviations

bgs = below ground surface

Specific Capacity/ Injection Test Monitoring Point

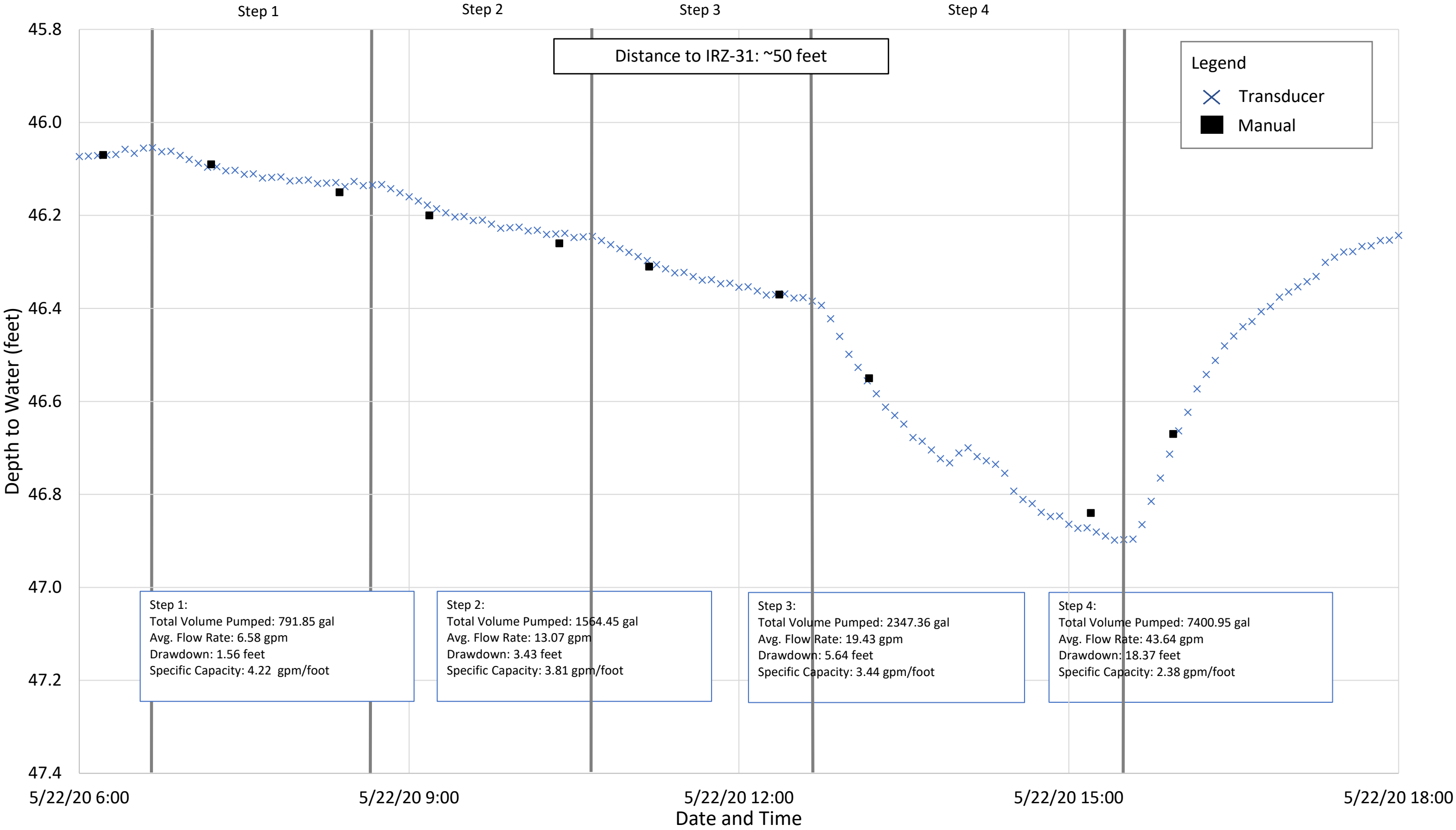
Location/Well ID	MW-26
Well Being Tested	IRZ-31
Screened Interval of Well Being Tested	92 to 121 feet bgs
Approximate Distance from Testing Well	34 feet

Date	Time	Date and Time	Depth to Water
5/21/2020	7:05	5/21/20 7:05	46.75
5/21/2020	8:04	5/21/20 8:04	46.75
5/21/2020	9:11	5/21/20 9:11	46.75
5/21/2020	10:01	5/21/20 10:01	46.75
5/21/2020	11:12	5/21/20 11:12	46.76
5/21/2020	12:00	5/21/20 12:00	46.76
5/21/2020	13:12	5/21/20 13:12	46.76
5/21/2020	14:00	5/21/20 14:00	46.82
5/21/2020	15:00	5/21/20 15:00	46.86
5/21/2020	15:41	5/21/20 15:41	46.82
5/22/2020	6:09	5/22/20 6:09	46.70
5/22/2020	7:10	5/22/20 7:10	46.84
5/22/2020	8:20	5/22/20 8:20	46.91
5/22/2020	9:10	5/22/20 9:10	47.05
5/22/2020	10:21	5/22/20 10:21	47.14
5/22/2020	11:10	5/22/20 11:10	47.30
5/22/2020	12:20	5/22/20 12:20	47.38
5/22/2020	13:11	5/22/20 13:11	47.98
5/22/2020	15:11	5/22/20 15:11	48.32
5/22/2020	15:53	5/22/20 15:53	47.49

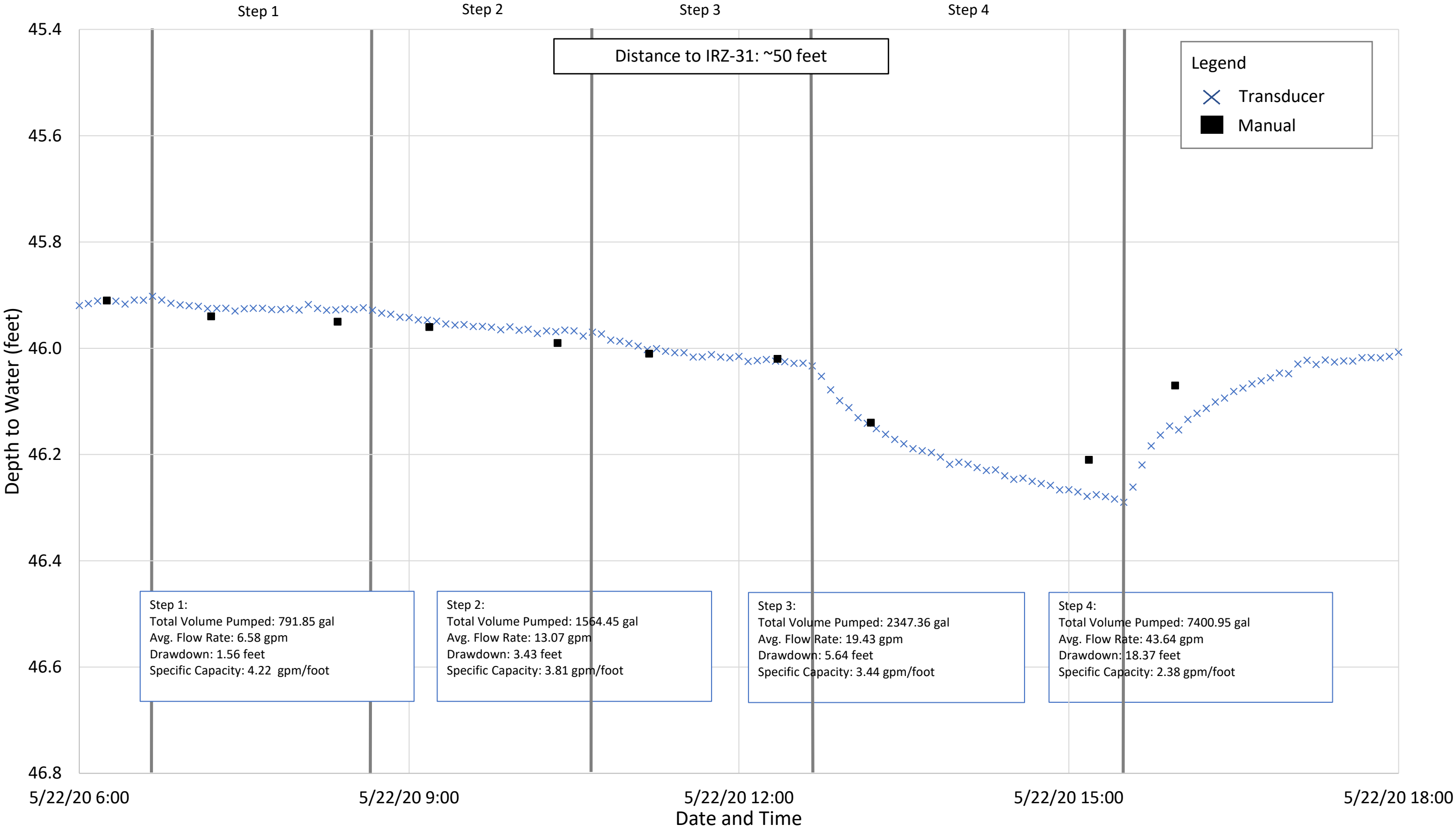
Acronyms & Abbreviations

bgs = below ground surface

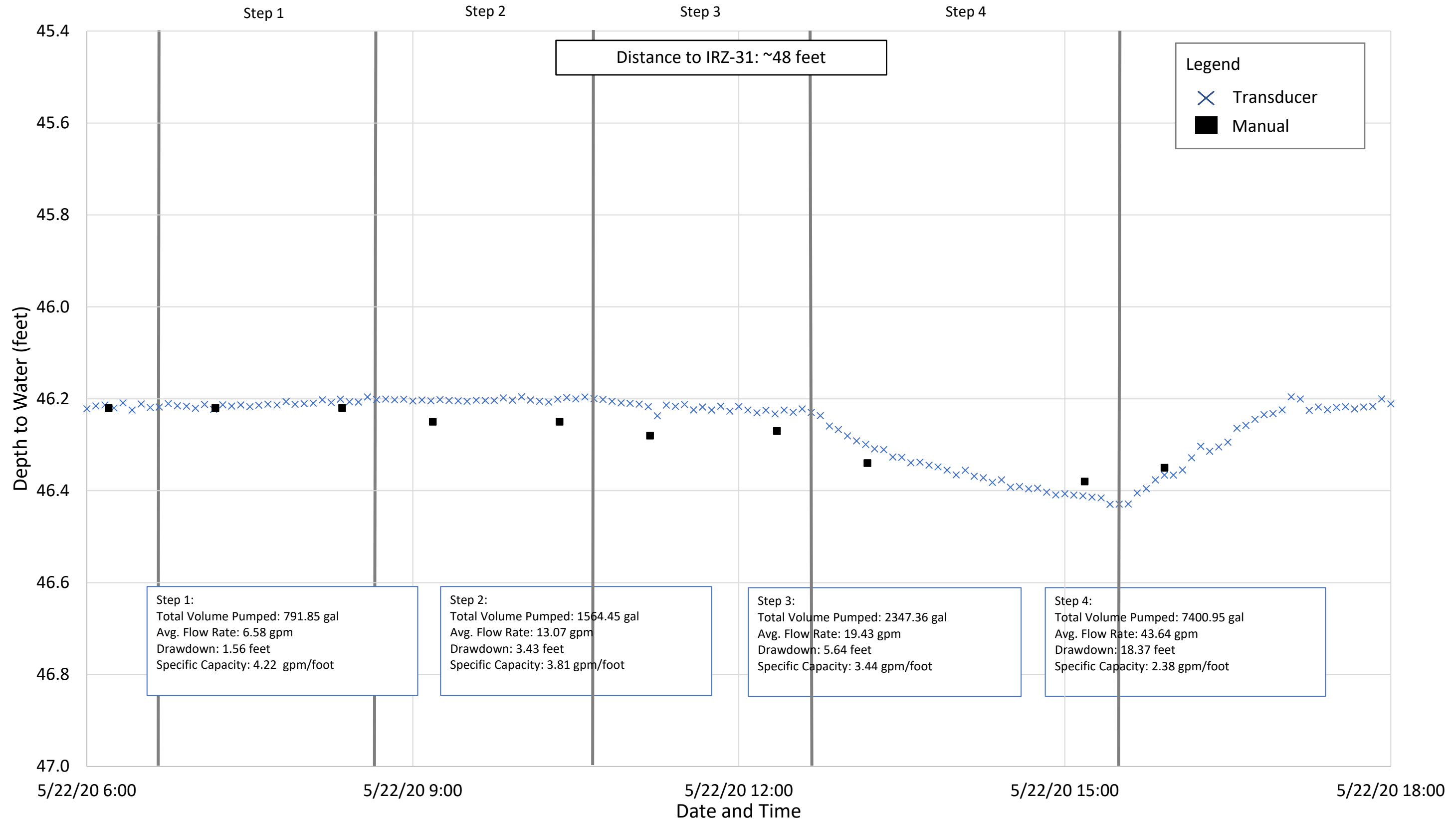
MW-79-060 During IRZ-31 Lower Screen (92 to 121 feet) Specific Capacity Test



MW-79-104 During IRZ-31 Lower Screen (92 to 121 feet) Specific Capacity Test



MW-51 During IRZ-31 Lower Screen (92 to 121 feet) Specific Capacity Test



MW-26 During IRZ-31 Lower Screen (92 to 121 feet) Specific Capacity Test

