Appendix G

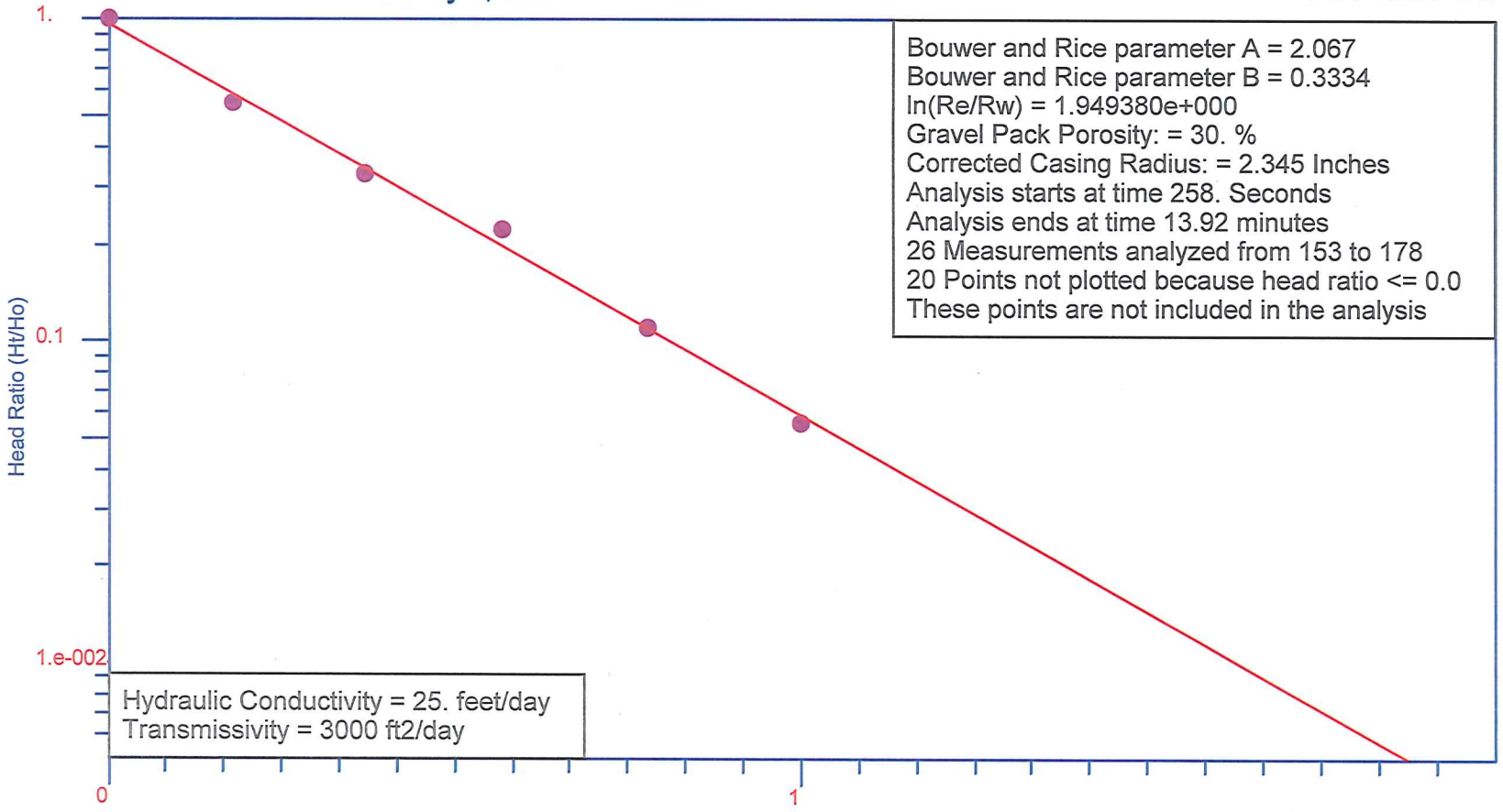
Hydraulic Conductivity Calculations (electronic only)

FW-MW-06 Test 1 06/18/08

Fulton Former MGP Brooklyn, NY

Bouwer and Rice Graph

FW-MW-06



Ho is 0.18 feet at 258. Seconds

Client:: National Grid

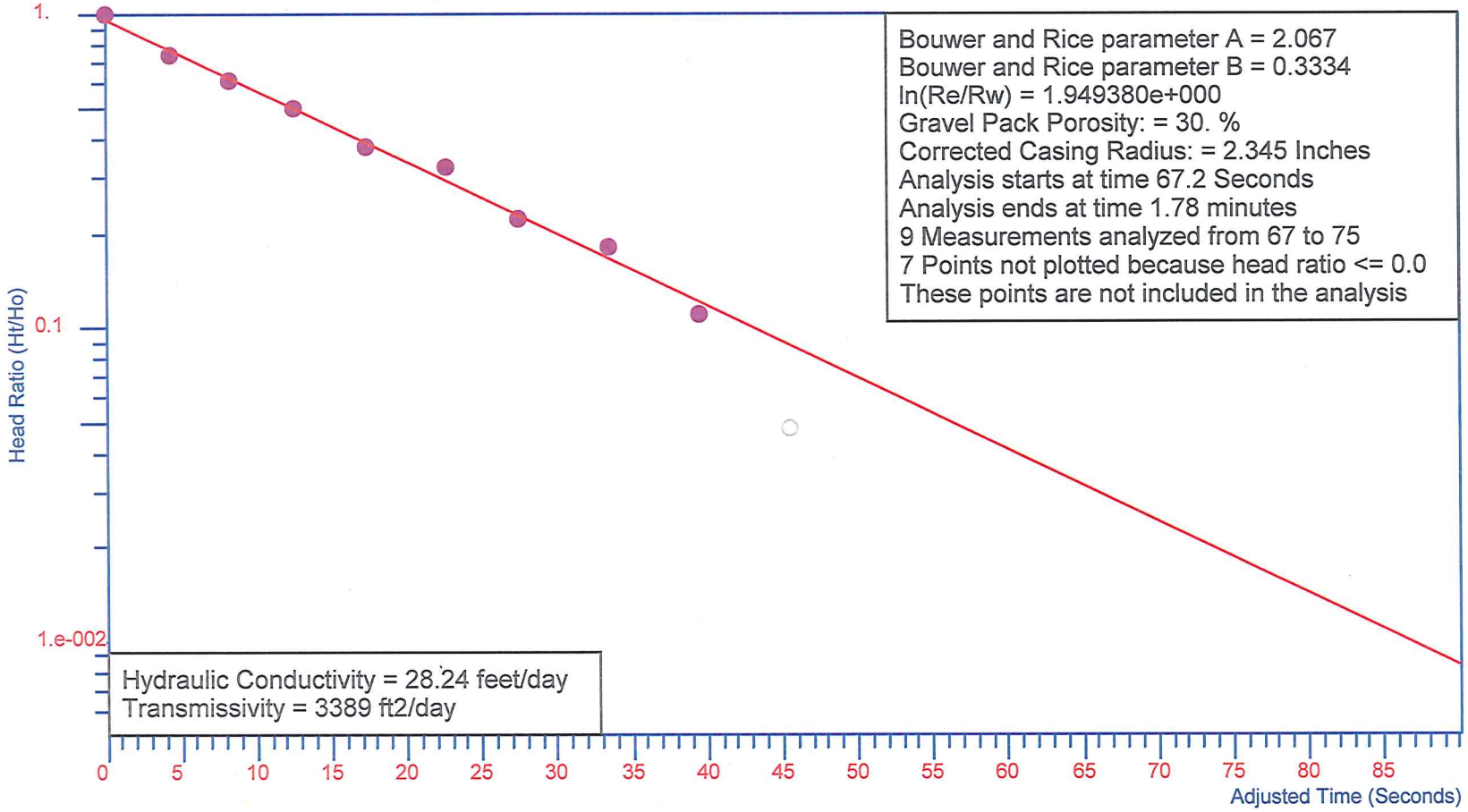
Analysis by Starpoint Software

FW-MW-06 Test 2 06/18/08

Fulton Former MGP Brooklyn, NY

Bouwer and Rice Graph

FW-MW-06



Client:: National Grid

Analysis by Starpoint Software

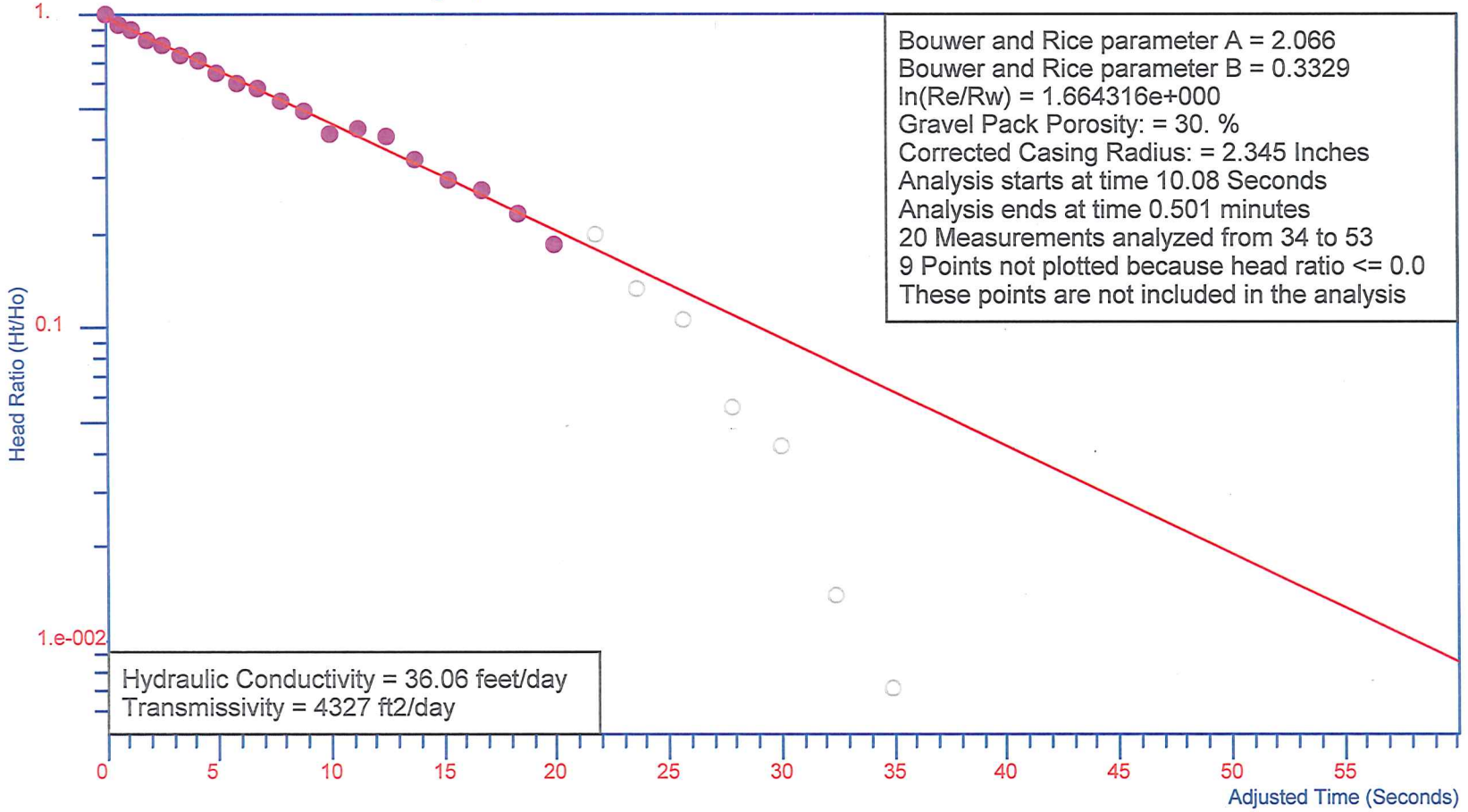
Ho is 0.145 feet at 67.2 Seconds

FW-MW-06 Test 3 06/19/08

Fulton Former MGP Brooklyn, NY

Bouwer and Rice Graph

FW-MW-06



Client:: National Grid

Analysis by Starpoint Software

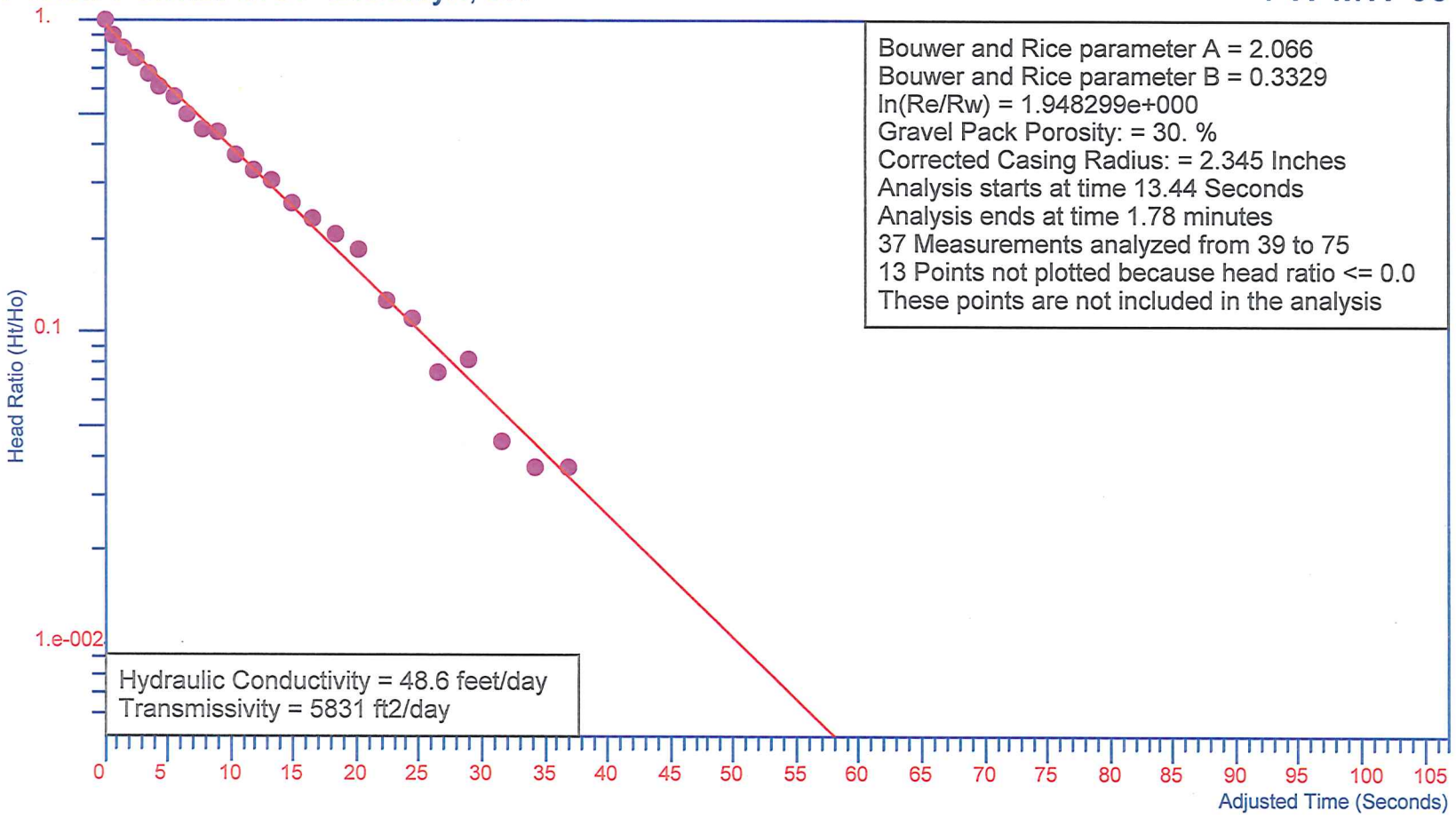
Ho is 0.142 feet at 10.08 Seconds

FW-MW-06 Test 4 06/19/08

Fulton Former MGP Brooklyn, NY

Bouwer and Rice Graph

FW-MW-06



Bouwer and Rice parameter A = 2.066
Bouwer and Rice parameter B = 0.3329
ln(Re/Rw) = 1.948299e+000
Gravel Pack Porosity: = 30. %
Corrected Casing Radius: = 2.345 Inches
Analysis starts at time 13.44 Seconds
Analysis ends at time 1.78 minutes
37 Measurements analyzed from 39 to 75
13 Points not plotted because head ratio <= 0.0
These points are not included in the analysis

Hydraulic Conductivity = 48.6 feet/day
Transmissivity = 5831 ft2/day

Client:: National Grid

Analysis by Starpoint Software

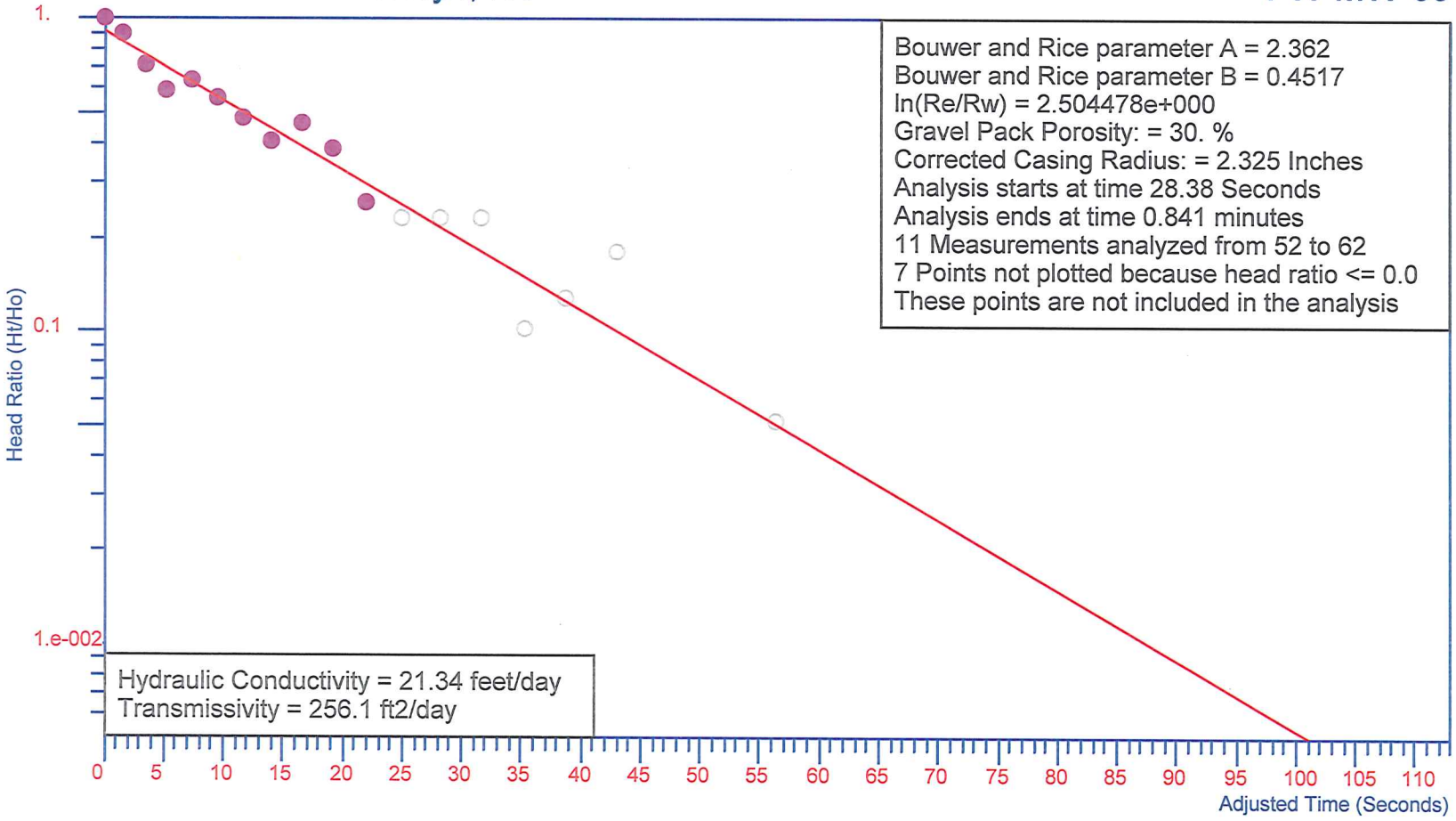
Ho is 0.135 feet at 13.44 Seconds

FW-MW-09 Test 1 06/19/08

Fulton Former MGP Brooklyn, NY

Bouwer and Rice Graph

FW-MW-09



Client:: National Grid

Analysis by Starpoint Software

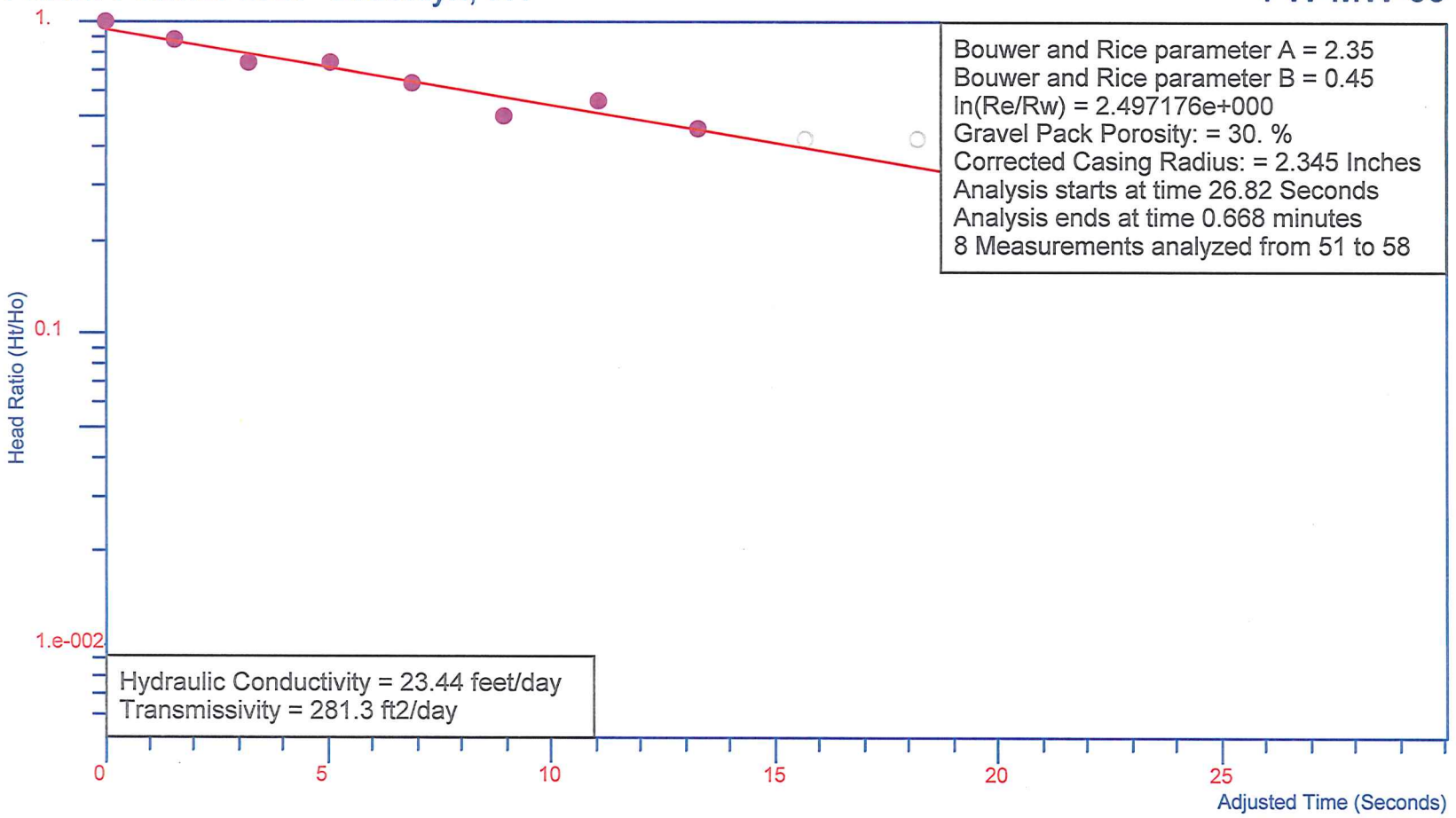
Ho is 3.9e-002 feet at 28.38 Seconds

FW-MW-09 Test 2 06/19/08

Fulton Former MGP Brooklyn, NY

Bouwer and Rice Graph

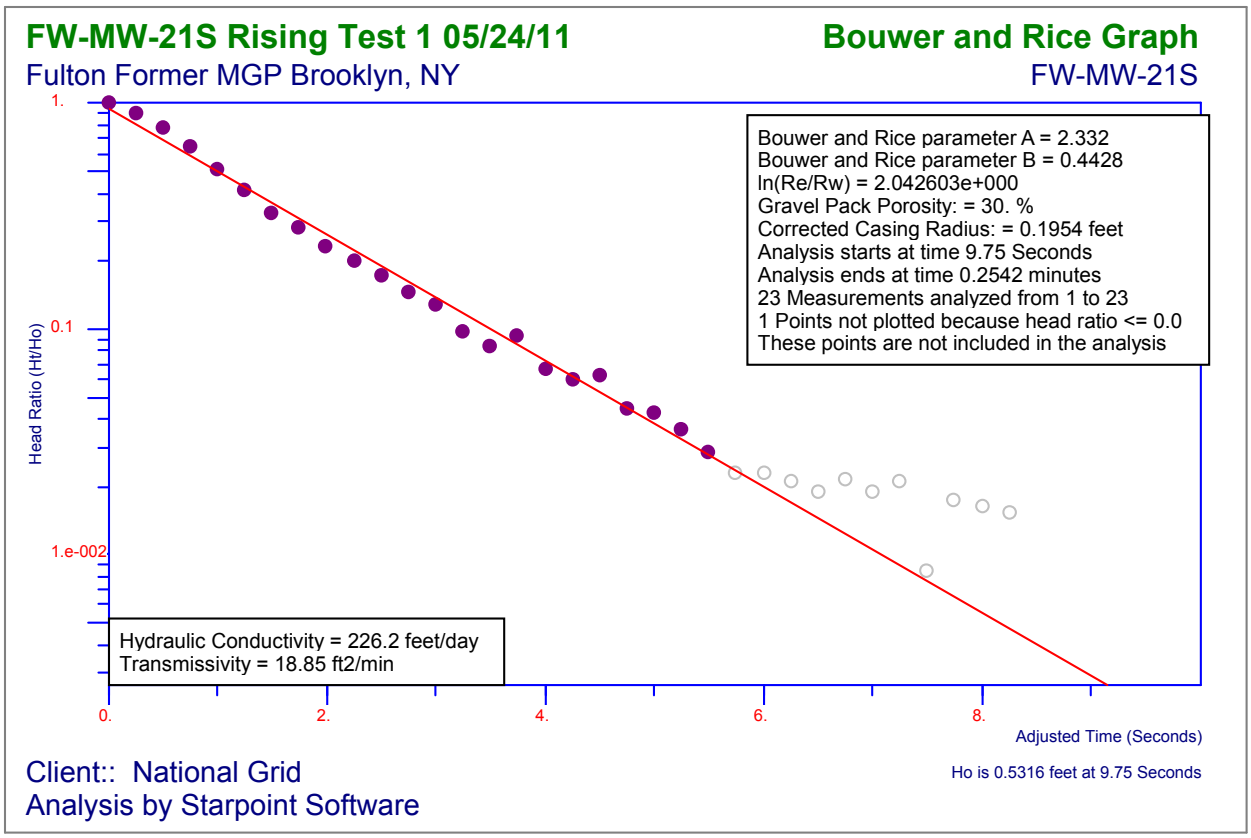
FW-MW-09

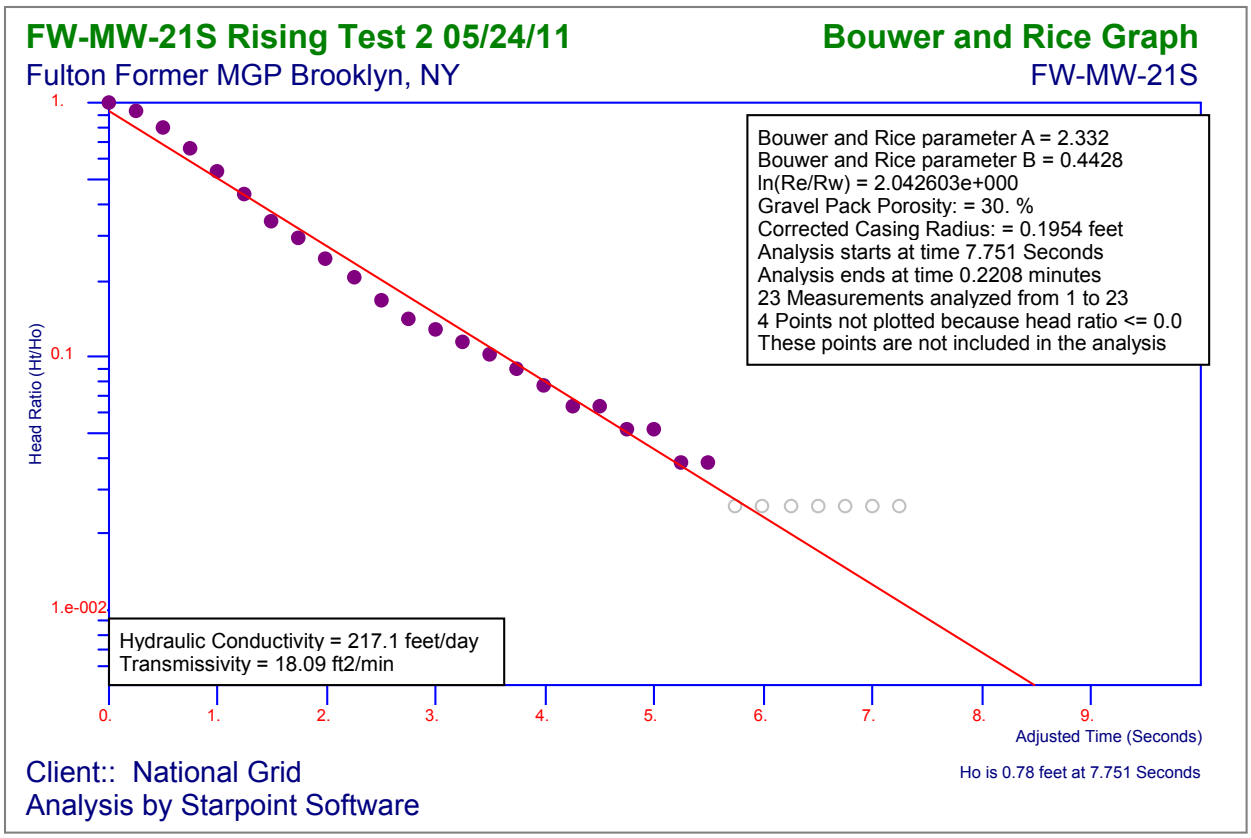


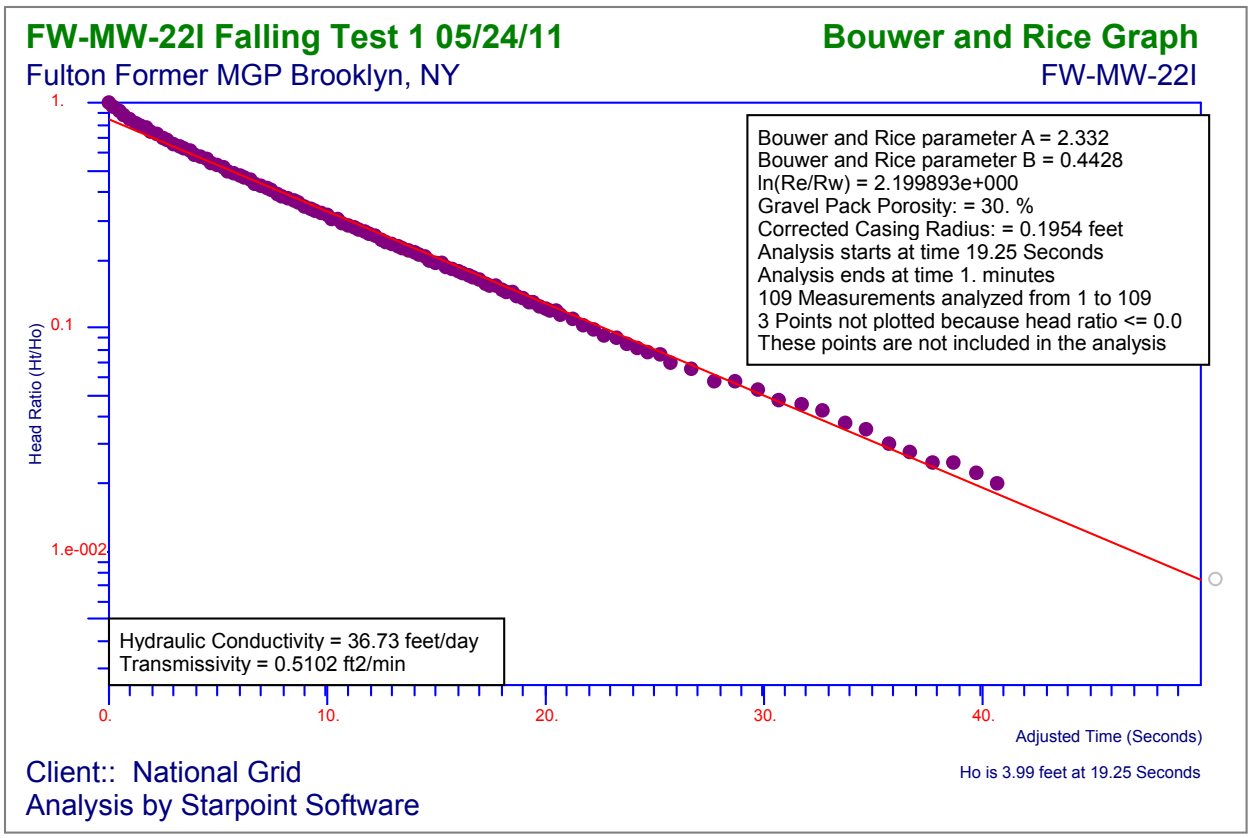
Client:: National Grid

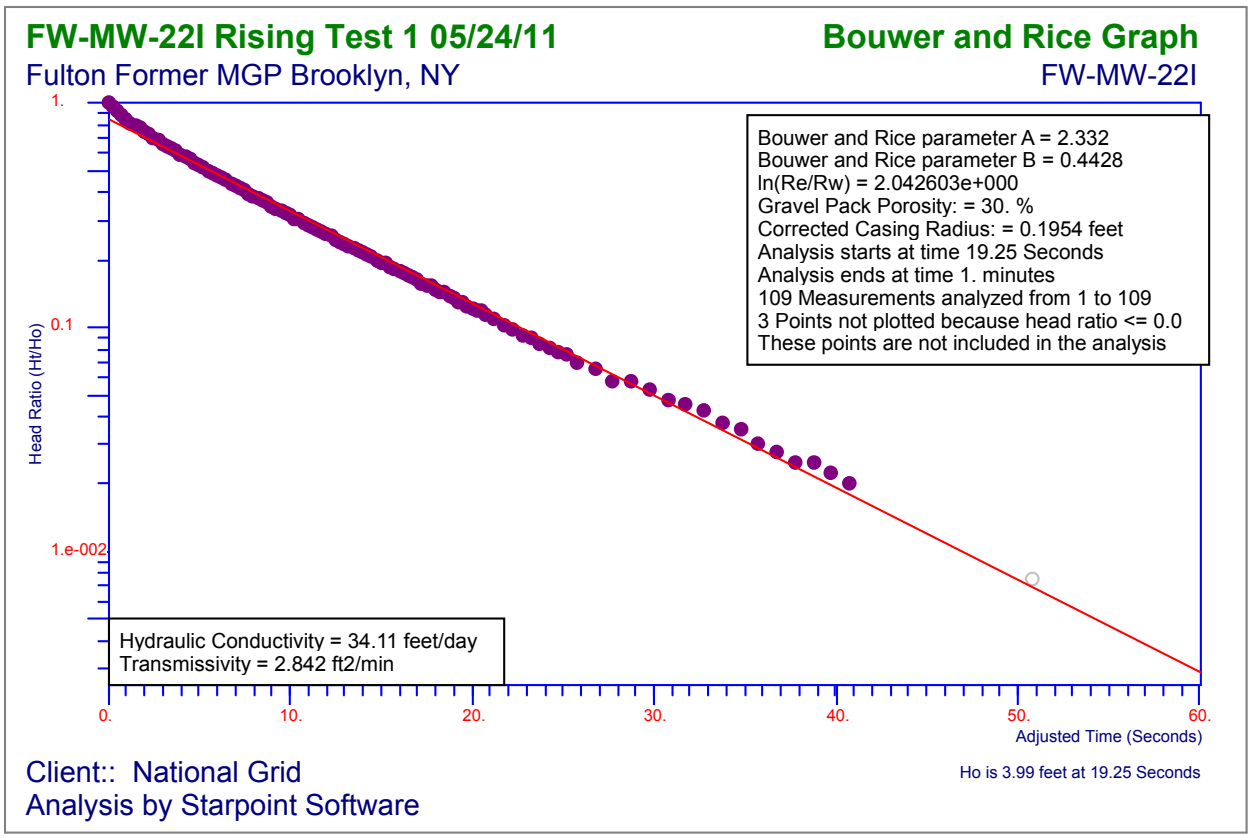
Analysis by Starpoint Software

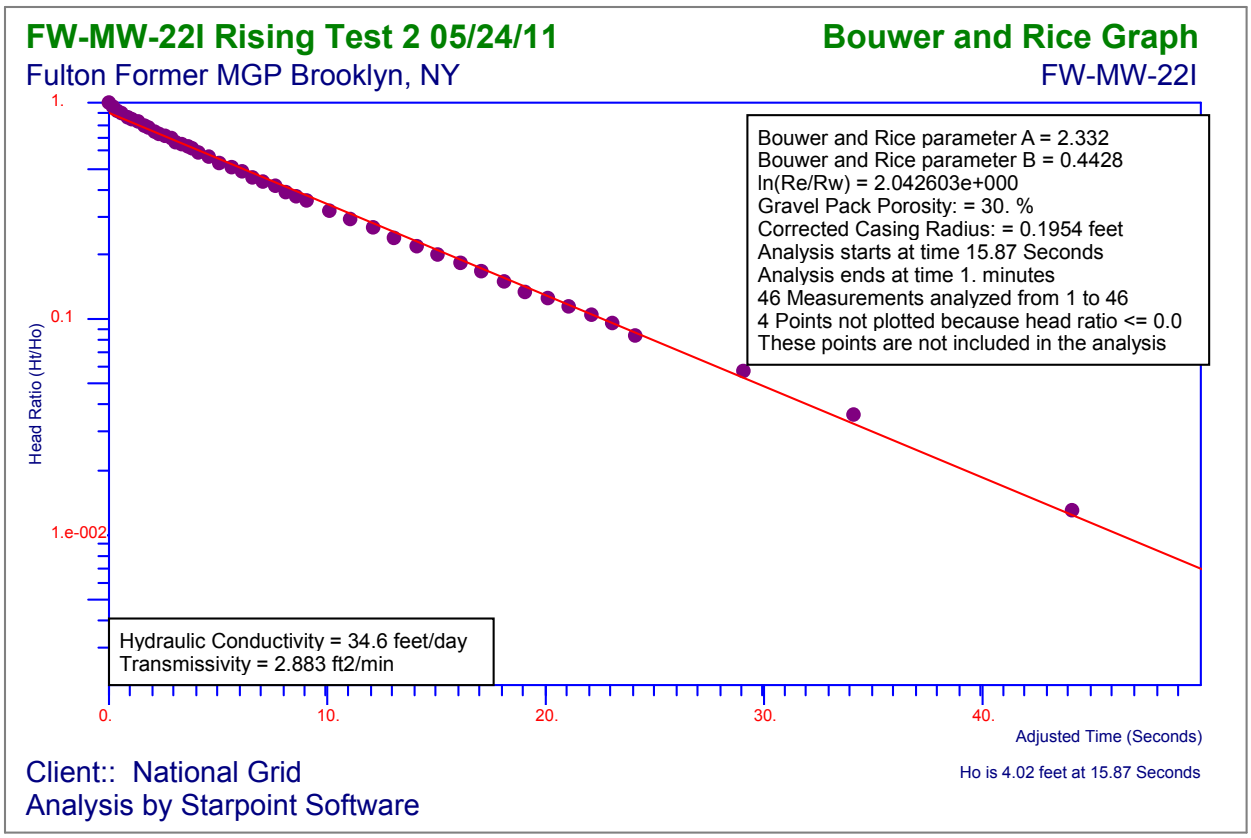
Ho is 5.e-002 feet at 26.82 Seconds


FW-MW-21S Rising Test 1 05/24/11
Bouwer and Rice Graph
Fulton Former MGP Brooklyn, NY
FW-MW-21S
Bouwer and Rice parameter A = 2.332
Bouwer and Rice parameter B = 0.4428
ln(Re/Rw) = 2.042603e+000
Gravel Pack Porosity: = 30. %
Corrected Casing Radius: = 0.1954 feet
Analysis starts at time 9.75 Seconds
Analysis ends at time 0.2542 minutes
23 Measurements analyzed from 1 to 23
1 Points not plotted because head ratio <= 0.0
These points are not included in the analysis
Hydraulic Conductivity = 226.2 feet/day
Transmissivity = 18.85 ft2/min
Head Ratio (Ht/Ho)
1.
0.1
1.e-002
0.
2.
4.
6.
8.
Adjusted Time (Seconds)
Client:: National Grid
Ho is 0.5316 feet at 9.75 Seconds
Analysis by Starpoint Software


FW-MW-21S Rising Test 2 05/24/11
Bouwer and Rice Graph
Fulton Former MGP Brooklyn, NY
FW-MW-21S
Bouwer and Rice parameter A = 2.332
Bouwer and Rice parameter B = 0.4428
ln(Re/Rw) = 2.042603e+000
Gravel Pack Porosity: = 30. %
Corrected Casing Radius: = 0.1954 feet
Analysis starts at time 7.751 Seconds
Analysis ends at time 0.2208 minutes
23 Measurements analyzed from 1 to 23
4 Points not plotted because head ratio <= 0.0
These points are not included in the analysis
Head Ratio (Ht/Ho)
1.
0.1
1.e-002
Hydraulic Conductivity = 217.1 feet/day
Transmissivity = 18.09 ft2/min
0.
1.
2.
3.
4.
5.
6.
7.
8.
9.
Adjusted Time (Seconds)
Client:: National Grid
Ho is 0.78 feet at 7.751 Seconds
Analysis by Starpoint Software


FW-MW-22I Falling Test 1 05/24/11
Bouwer and Rice Graph
Fulton Former MGP Brooklyn, NY
FW-MW-22I
Bouwer and Rice parameter A = 2.332
Bouwer and Rice parameter B = 0.4428
ln(Re/Rw) = 2.199893e+000
Gravel Pack Porosity: = 30. %
Corrected Casing Radius: = 0.1954 feet
Analysis starts at time 19.25 Seconds
Analysis ends at time 1. minutes
109 Measurements analyzed from 1 to 109
3 Points not plotted because head ratio <= 0.0
These points are not included in the analysis
Hydraulic Conductivity = 36.73 feet/day
Transmissivity = 0.5102 ft2/min
Head Ratio (Ht/Ho)
1.
0.1
1.e-002
0.
10.
20.
30.
40.
Adjusted Time (Seconds)
Client:: National Grid
Ho is 3.99 feet at 19.25 Seconds
Analysis by Starpoint Software


FW-MW-22I Rising Test 1 05/24/11
Bouwer and Rice Graph
Fulton Former MGP Brooklyn, NY
FW-MW-22I
Bouwer and Rice parameter A = 2.332
Bouwer and Rice parameter B = 0.4428
ln(Re/Rw) = 2.042603e+000
Gravel Pack Porosity: = 30. %
Corrected Casing Radius: = 0.1954 feet
Analysis starts at time 19.25 Seconds
Analysis ends at time 1. minutes
109 Measurements analyzed from 1 to 109
3 Points not plotted because head ratio <= 0.0
These points are not included in the analysis
Hydraulic Conductivity = 34.11 feet/day
Transmissivity = 2.842 ft2/min
Head Ratio (Ht/Ho)
1.
0.1
1.e-002
0.
10.
20.
30.
40.
50.
60.
Adjusted Time (Seconds)
Client:: National Grid
Ho is 3.99 feet at 19.25 Seconds
Analysis by Starpoint Software

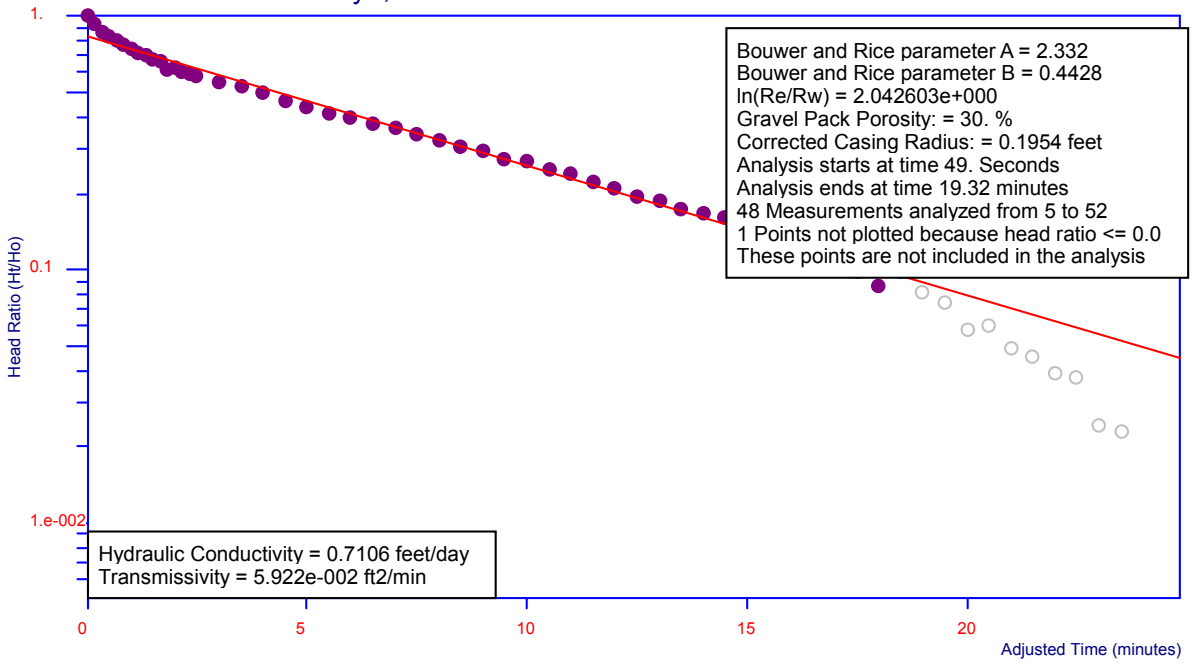

FW-MW-22I Rising Test 2 05/24/11
Bouwer and Rice Graph
Fulton Former MGP Brooklyn, NY
FW-MW-22I
Bouwer and Rice parameter A = 2.332
Bouwer and Rice parameter B = 0.4428
ln(Re/Rw) = 2.042603e+000
Gravel Pack Porosity: = 30. %
Corrected Casing Radius: = 0.1954 feet
Analysis starts at time 15.87 Seconds
Analysis ends at time 1. minutes
46 Measurements analyzed from 1 to 46
4 Points not plotted because head ratio <= 0.0
These points are not included in the analysis
Hydraulic Conductivity = 34.6 feet/day
Transmissivity = 2.883 ft2/min
Head Ratio (Ht/Ho)
1.
0.1
1.e-002
0.
10.
20.
30.
40.
Adjusted Time (Seconds)
Client:: National Grid
Ho is 4.02 feet at 15.87 Seconds
Analysis by Starpoint Software

FW-MW-22S Rising Test 1 05/24/11

Bouwer and Rice Graph

Fulton Former MGP Brooklyn, NY

FW-MW-22S



Client:: National Grid

Ho is 0.616 feet at 49. Seconds

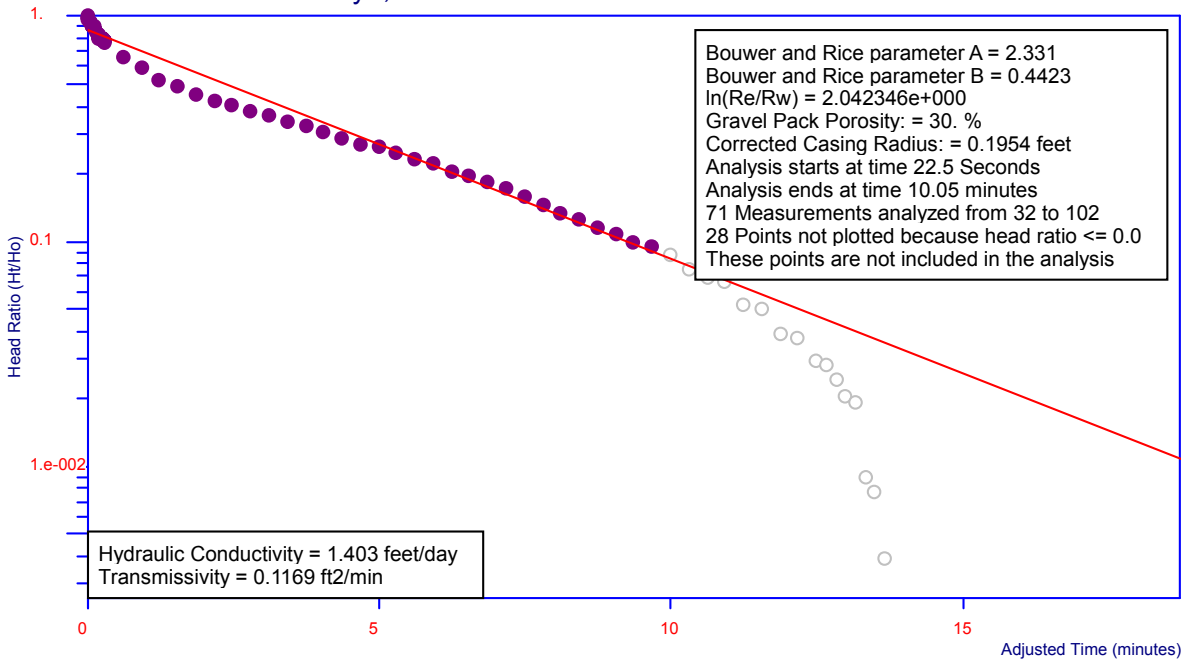
Analysis by Starpoint Software

FW-MW-22S Rising Test 2 05/24/11

Bouwer and Rice Graph

Fulton Former MGP Brooklyn, NY

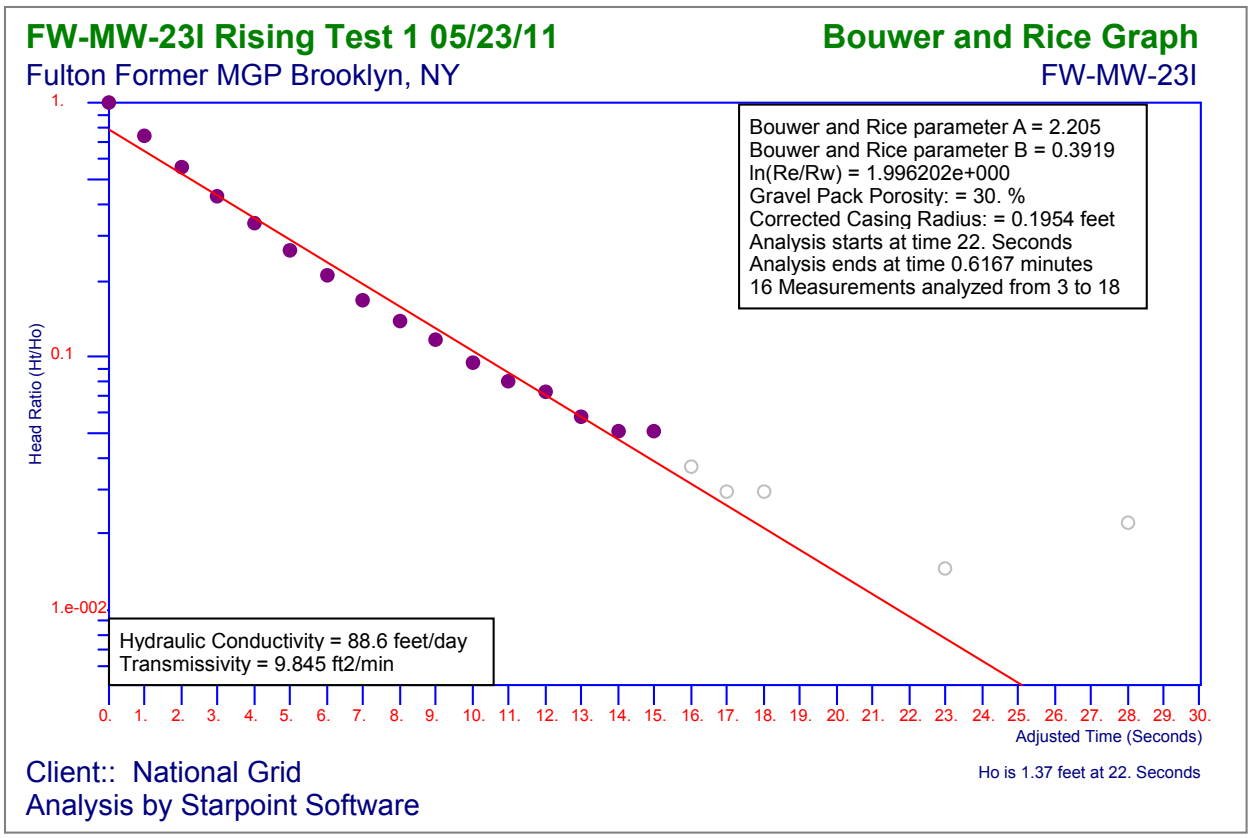
FW-MW-22S



Client:: National Grid

Ho is 0.775 feet at 22.5 Seconds

Analysis by Starpoint Software

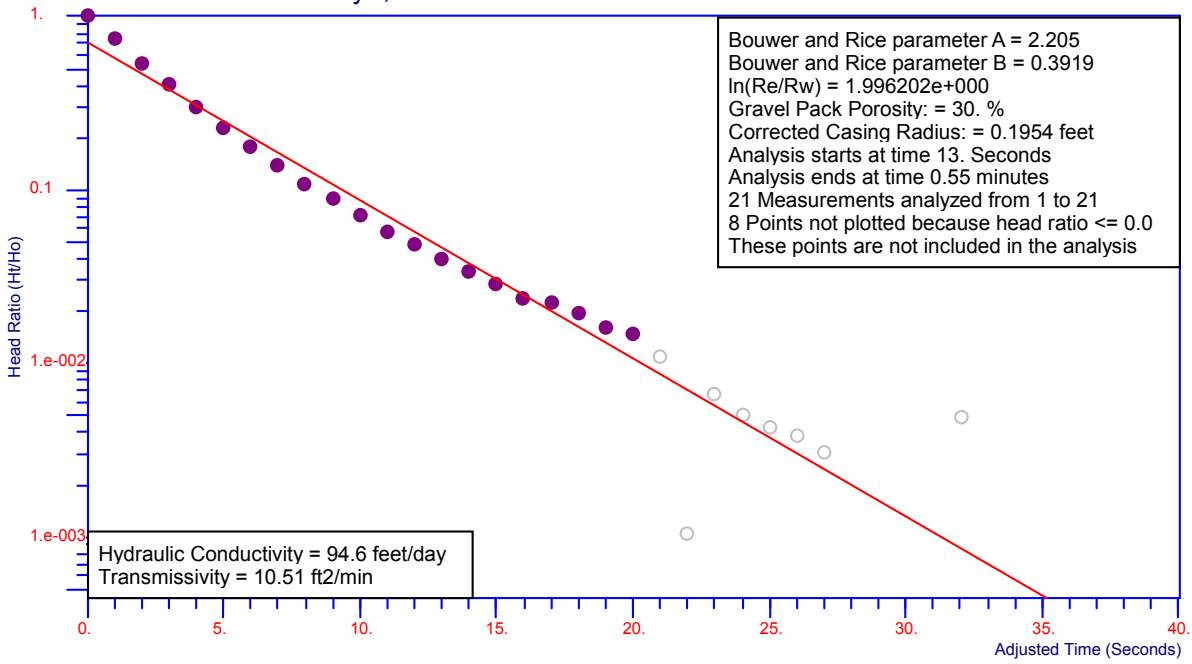

FW-MW-23I Rising Test 1 05/23/11
Bouwer and Rice Graph
Fulton Former MGP Brooklyn, NY
FW-MW-23I
Bouwer and Rice parameter A = 2.205
Bouwer and Rice parameter B = 0.3919
ln(Re/Rw) = 1.996202e+000
Gravel Pack Porosity: = 30. %
Corrected Casing Radius: = 0.1954 feet
Analysis starts at time 22. Seconds
Analysis ends at time 0.6167 minutes
16 Measurements analyzed from 3 to 18
Head Ratio (Ht/Ho)
1.
0.1
1.e-002
Hydraulic Conductivity = 88.6 feet/day
Transmissivity = 9.845 ft2/min
0. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30.
Adjusted Time (Seconds)
Client:: National Grid
Ho is 1.37 feet at 22. Seconds
Analysis by Starpoint Software

FW-MW-23I Rising Test 2 05/23/11

Bouwer and Rice Graph

Fulton Former MGP Brooklyn, NY

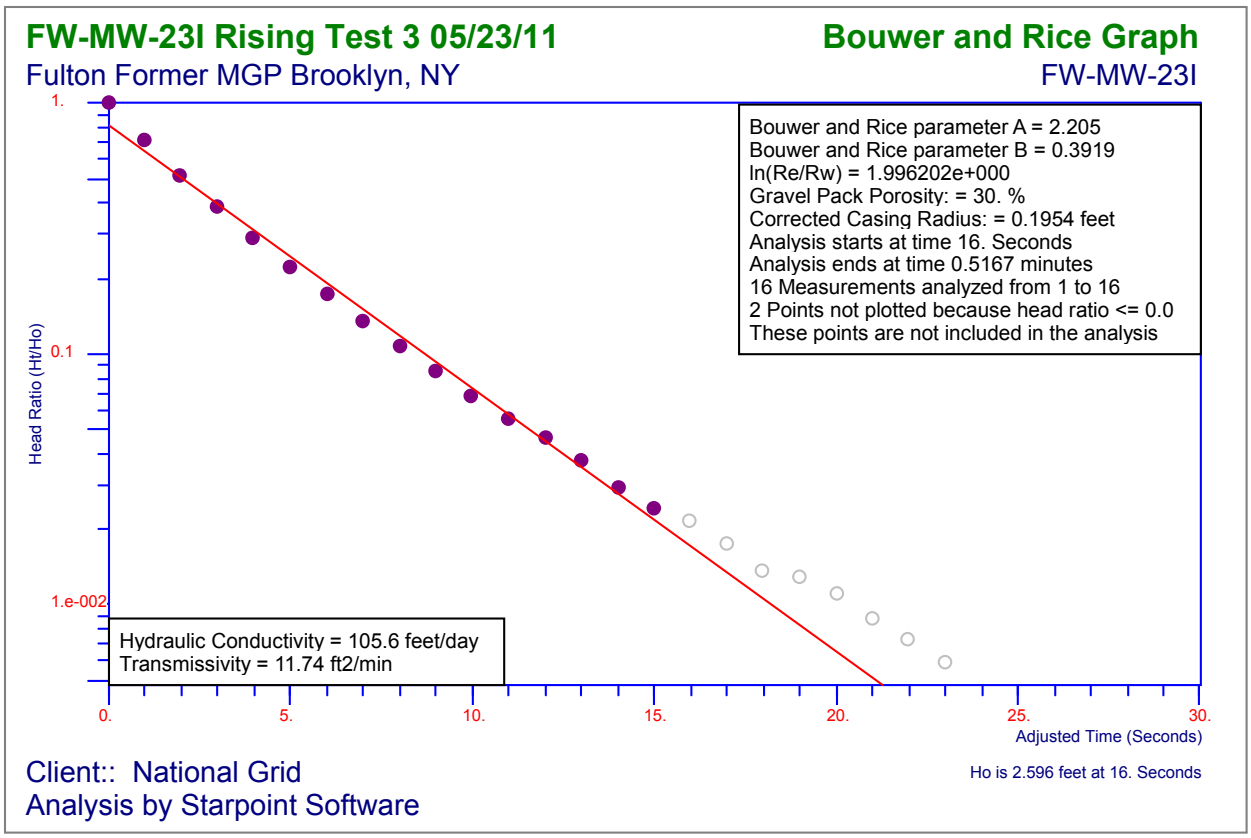
FW-MW-23I

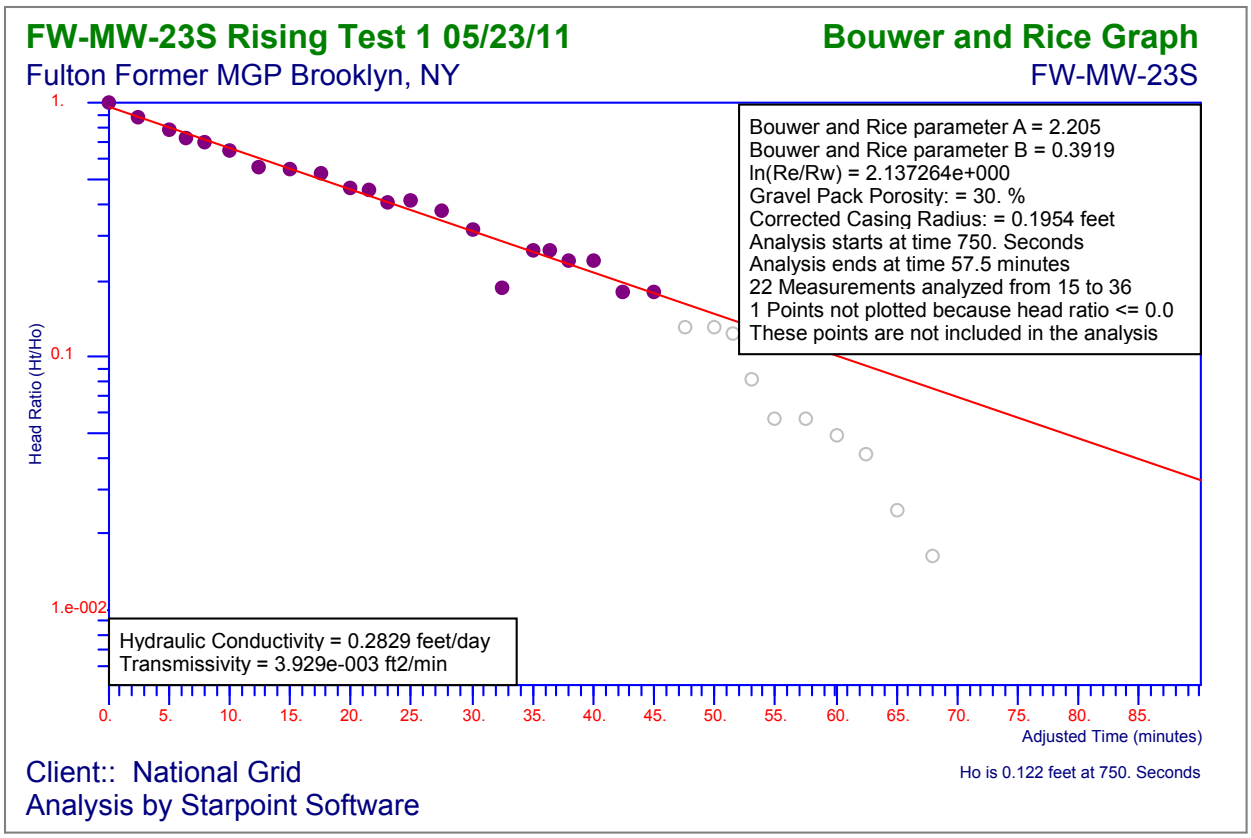


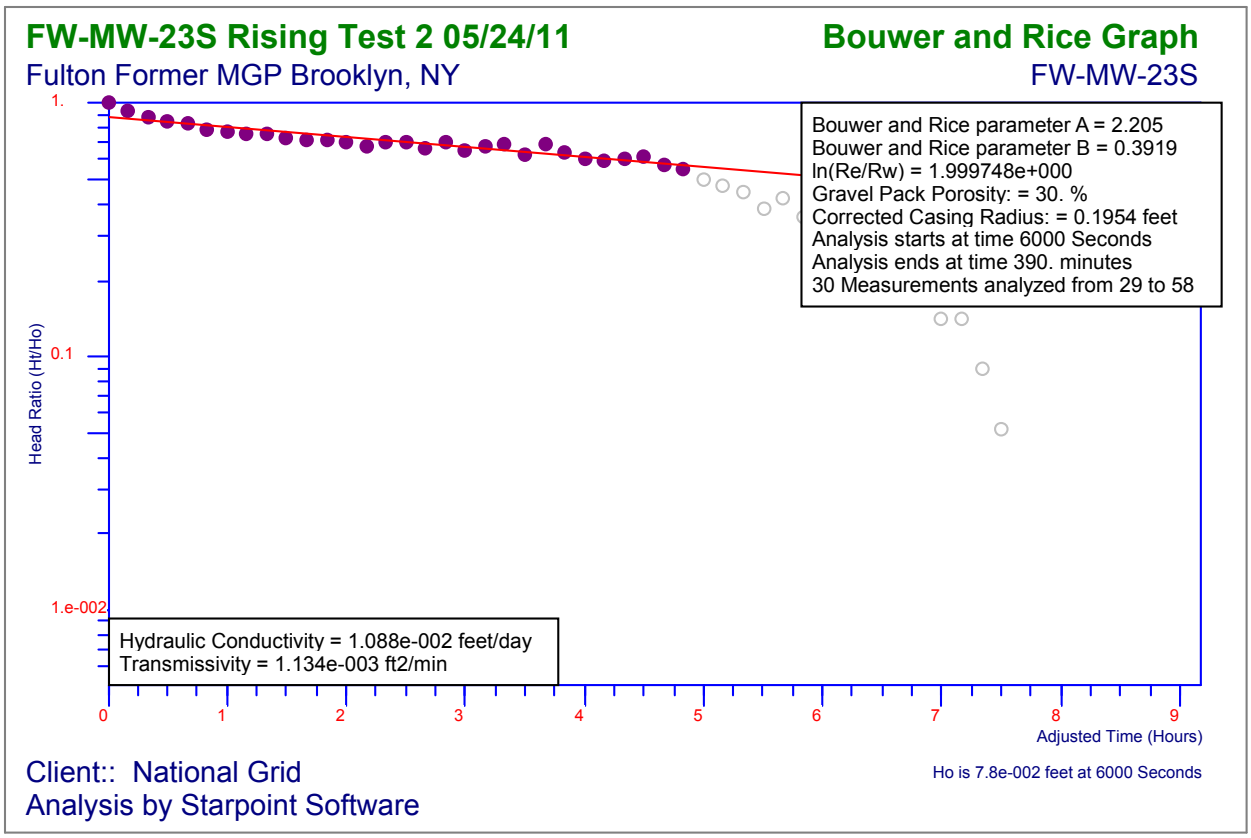
Client:: National Grid

Ho is 2.878 feet at 13. Seconds

Analysis by Starpoint Software


FW-MW-23I Rising Test 3 05/23/11
Bouwer and Rice Graph
Fulton Former MGP Brooklyn, NY
FW-MW-23I
Bouwer and Rice parameter A = 2.205
Bouwer and Rice parameter B = 0.3919
ln(Re/Rw) = 1.996202e+000
Gravel Pack Porosity: = 30. %
Corrected Casing Radius: = 0.1954 feet
Analysis starts at time 16. Seconds
Analysis ends at time 0.5167 minutes
16 Measurements analyzed from 1 to 16
2 Points not plotted because head ratio <= 0.0
These points are not included in the analysis
Head Ratio (Ht/Ho)
1.
0.1
1.e-002
Hydraulic Conductivity = 105.6 feet/day
Transmissivity = 11.74 ft2/min
0.
5.
10.
15.
20.
25.
30.
Adjusted Time (Seconds)
Client:: National Grid
Ho is 2.596 feet at 16. Seconds
Analysis by Starpoint Software


FW-MW-23S Rising Test 1 05/23/11
Bouwer and Rice Graph
Fulton Former MGP Brooklyn, NY
FW-MW-23S
Bouwer and Rice parameter A = 2.205
Bouwer and Rice parameter B = 0.3919
ln(Re/Rw) = 2.137264e+000
Gravel Pack Porosity: = 30. %
Corrected Casing Radius: = 0.1954 feet
Analysis starts at time 750. Seconds
Analysis ends at time 57.5 minutes
22 Measurements analyzed from 15 to 36
1 Points not plotted because head ratio <= 0.0
These points are not included in the analysis
Head Ratio (Ht/Ho)
1.
0.1
1.e-002
Hydraulic Conductivity = 0.2829 feet/day
Transmissivity = 3.929e-003 ft2/min
0. 5. 10. 15. 20. 25. 30. 35. 40. 45. 50. 55. 60. 65. 70. 75. 80. 85.
Adjusted Time (minutes)
Client:: National Grid
Ho is 0.122 feet at 750. Seconds
Analysis by Starpoint Software


FW-MW-23S Rising Test 2 05/24/11
Bouwer and Rice Graph
Fulton Former MGP Brooklyn, NY
FW-MW-23S
Bouwer and Rice parameter A = 2.205
Bouwer and Rice parameter B = 0.3919
ln(Re/Rw) = 1.999748e+000
Gravel Pack Porosity: = 30. %
Corrected Casing Radius: = 0.1954 feet
Analysis starts at time 6000 Seconds
Analysis ends at time 390. minutes
30 Measurements analyzed from 29 to 58
Head Ratio (Ht/Ho)
1.
0.1
1.e-002
Hydraulic Conductivity = 1.088e-002 feet/day
Transmissivity = 1.134e-003 ft2/min
0
1
2
3
4
5
6
7
8
9
Adjusted Time (Hours)
Client:: National Grid
Ho is 7.8e-002 feet at 6000 Seconds
Analysis by Starpoint Software