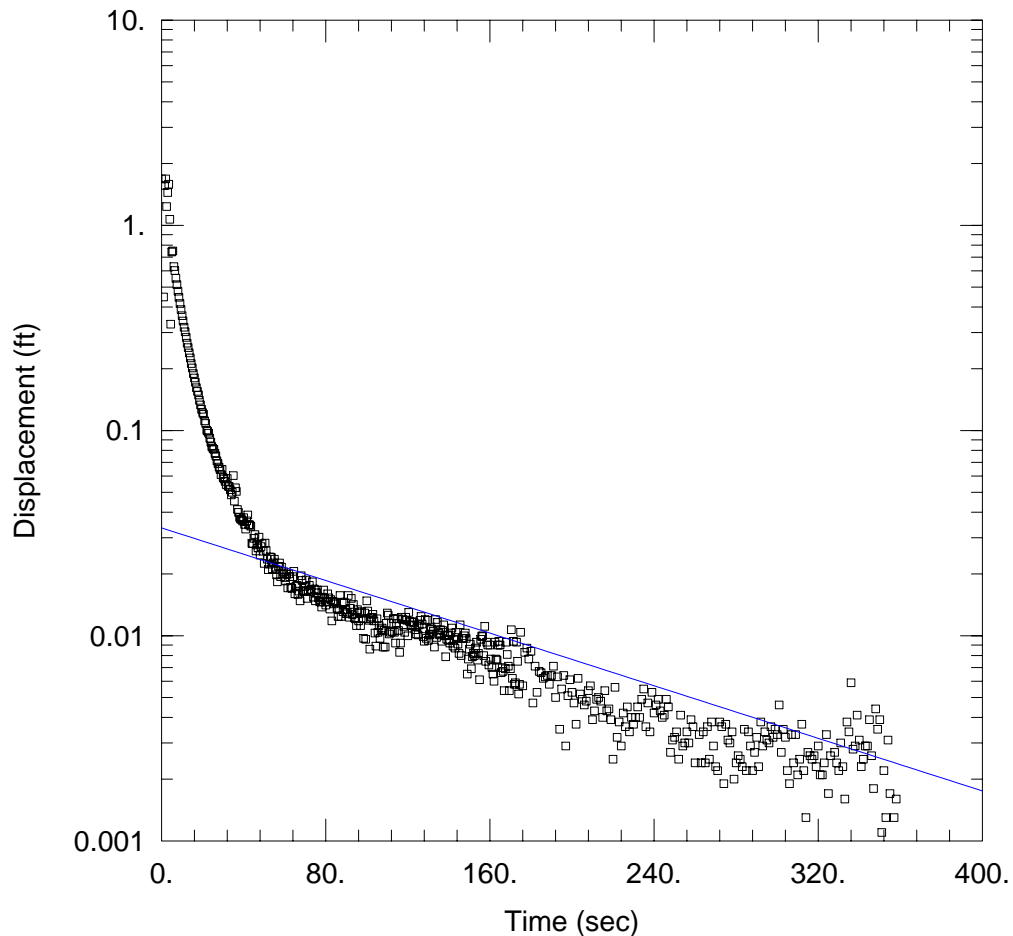


APPENDIX B
SLUG TEST EVALUATION DATA



5A - SLUG IN

Data Set: P:\...\5A - Slug In_NK.aqt
 Date: 01/30/09

Time: 12:03:58

PROJECT INFORMATION

Company: MACTEC
 Client: Dominion
 Project: 3552081210
 Location: Battlefield GC
 Test Well: 5A
 Test Date: 12-3-08

AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (5A)

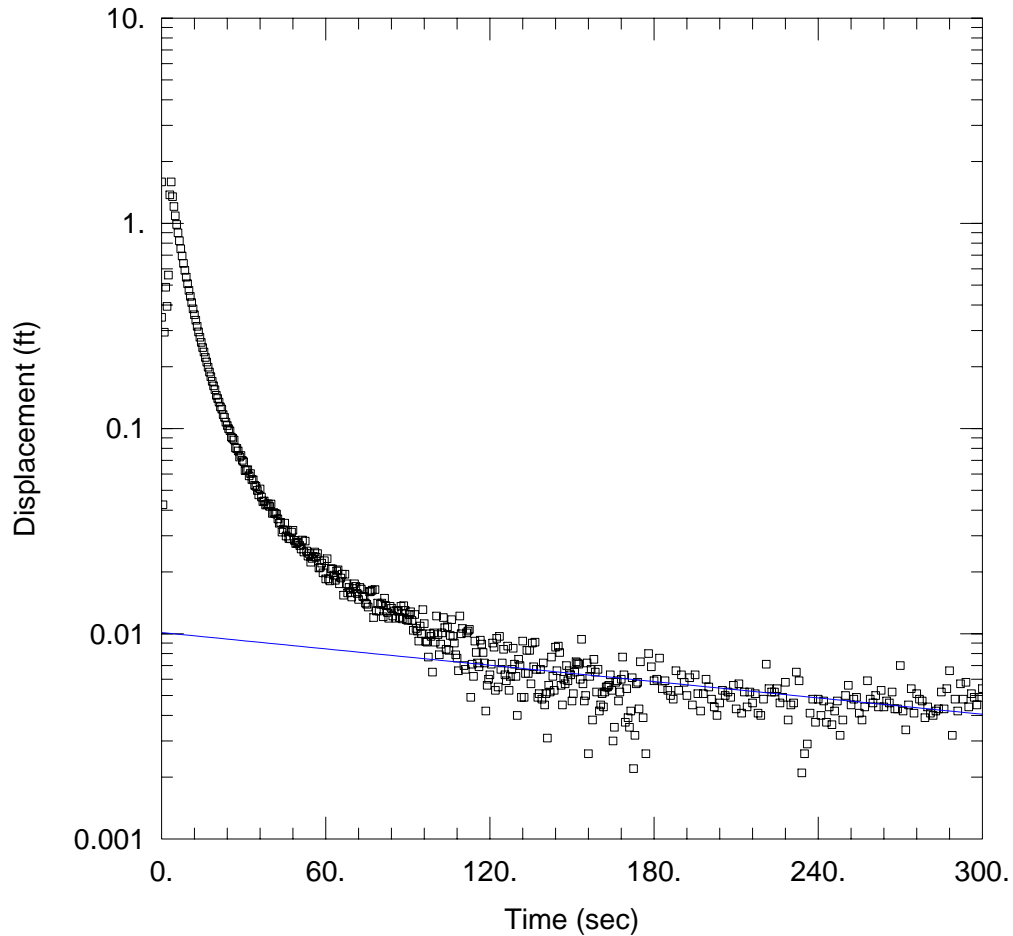
Initial Displacement: 1.684 ft
 Total Well Penetration Depth: 13.82 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 13.82 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.1 ft

SOLUTION

Aquifer Model: Unconfined
 K = 1.029 ft/day

Solution Method: Bower-Rice
 y0 = 0.03353 ft



5A - SLUG OUT

Data Set: P:\...\5A - Slug Out_NK.aqt
 Date: 01/30/09

Time: 11:01:09

PROJECT INFORMATION

Company: MACTEC
 Client: Dominion
 Project: 3552081210
 Location: Battlefield GC
 Test Well: 5A - Slug Out
 Test Date: 12-3-08

AQUIFER DATA

Saturated Thickness: 40. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (5A)

Initial Displacement: 1.591 ft
 Total Well Penetration Depth: 13.82 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 13.82 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.1 ft

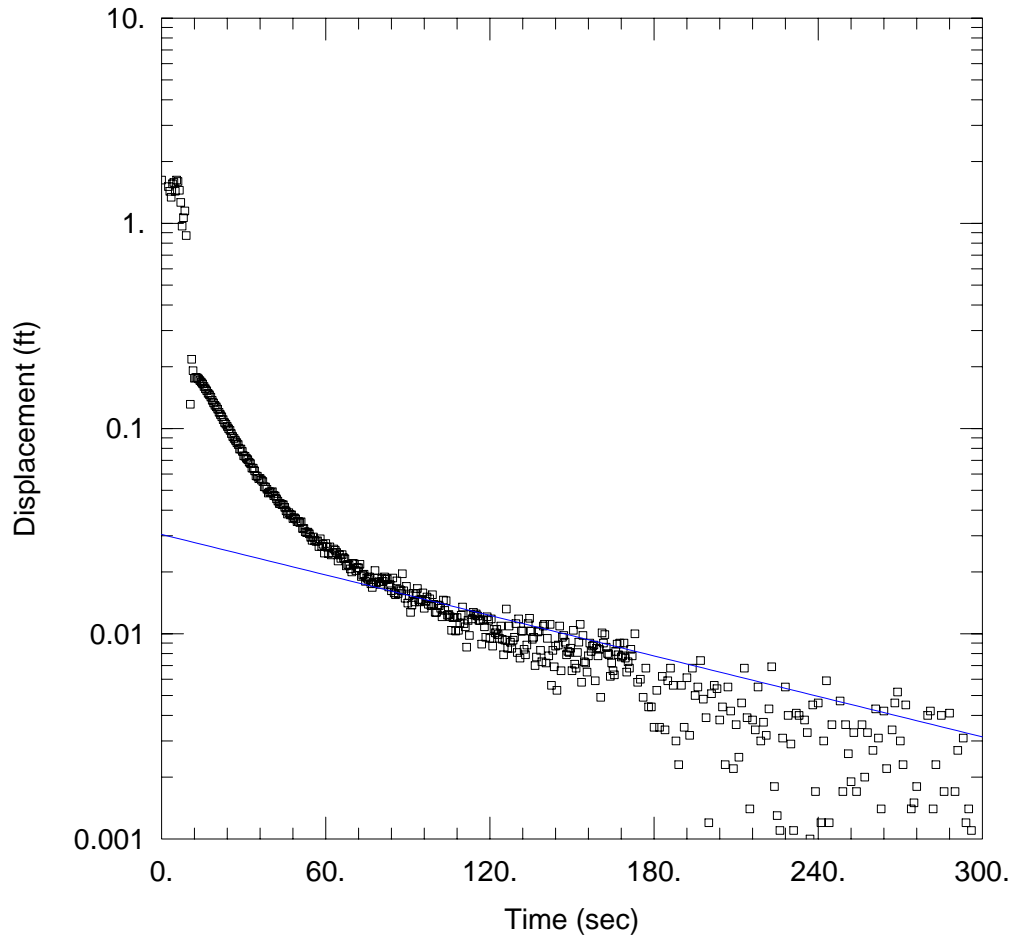
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

K = 0.4296 ft/day

y0 = 0.01013 ft



5B - SLUG IN

Data Set: P:\...\5B - Slug In.aqt
 Date: 01/30/09

Time: 11:02:03

PROJECT INFORMATION

Company: MACTEC
 Client: Dominion
 Project: 3552081210
 Location: Battlefield GC
 Test Well: 5B
 Test Date: 12-3-08

AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (5B)

Initial Displacement: 1.625 ft
 Total Well Penetration Depth: 33.93 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 33.93 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.1 ft

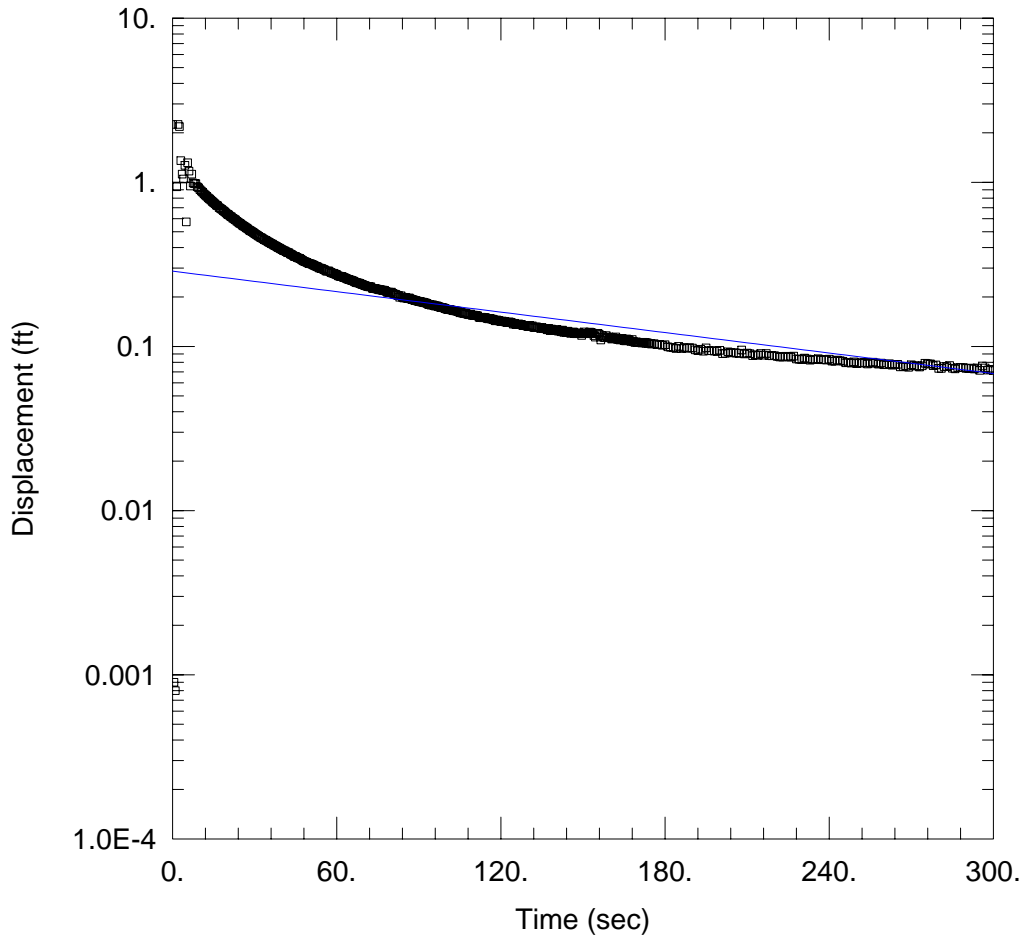
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

K = 1.214 ft/day

y0 = 0.03046 ft



6A - SLUG IN

Data Set: P:\...\6A - SLUG IN_NK.aqt
 Date: 01/30/09

Time: 12:05:47

PROJECT INFORMATION

Company: MACTEC
 Client: Dominion
 Project: 3552081208
 Location: Battlefield
 Test Well: 6A

AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (OW 1)

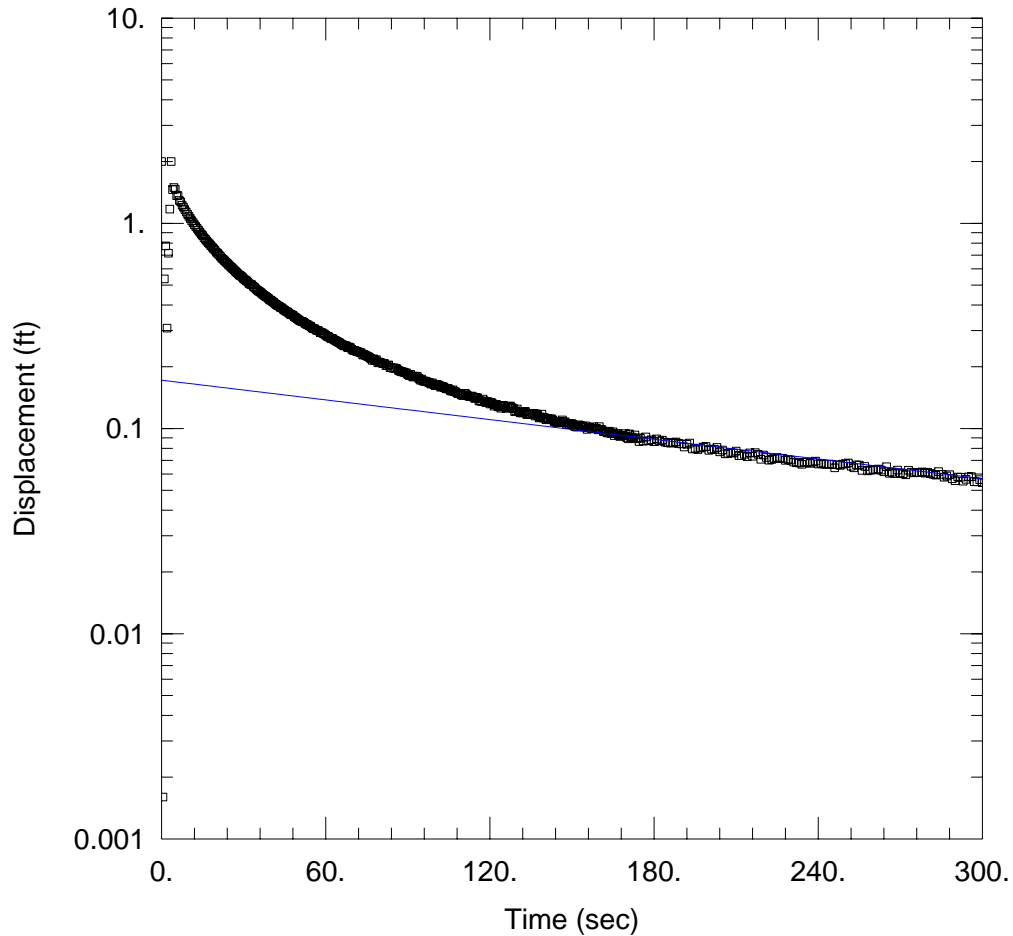
Initial Displacement: 2.252 ft
 Total Well Penetration Depth: 13.43 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 13.43 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.1 ft

SOLUTION

Aquifer Model: Unconfined
 K = 0.6643 ft/day

Solution Method: Bower-Rice
 y0 = 0.2874 ft



6A - SLUG OUT

Data Set: P:\...\6A - SLUG OUT_NK.aqt
 Date: 01/30/09

Time: 09:13:26

PROJECT INFORMATION

Company: MACTEC
 Client: Dominion
 Project: 3552081208
 Location: Battlefield
 Test Well: 6A

AQUIFER DATA

Saturated Thickness: 40. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (6A - OUT)

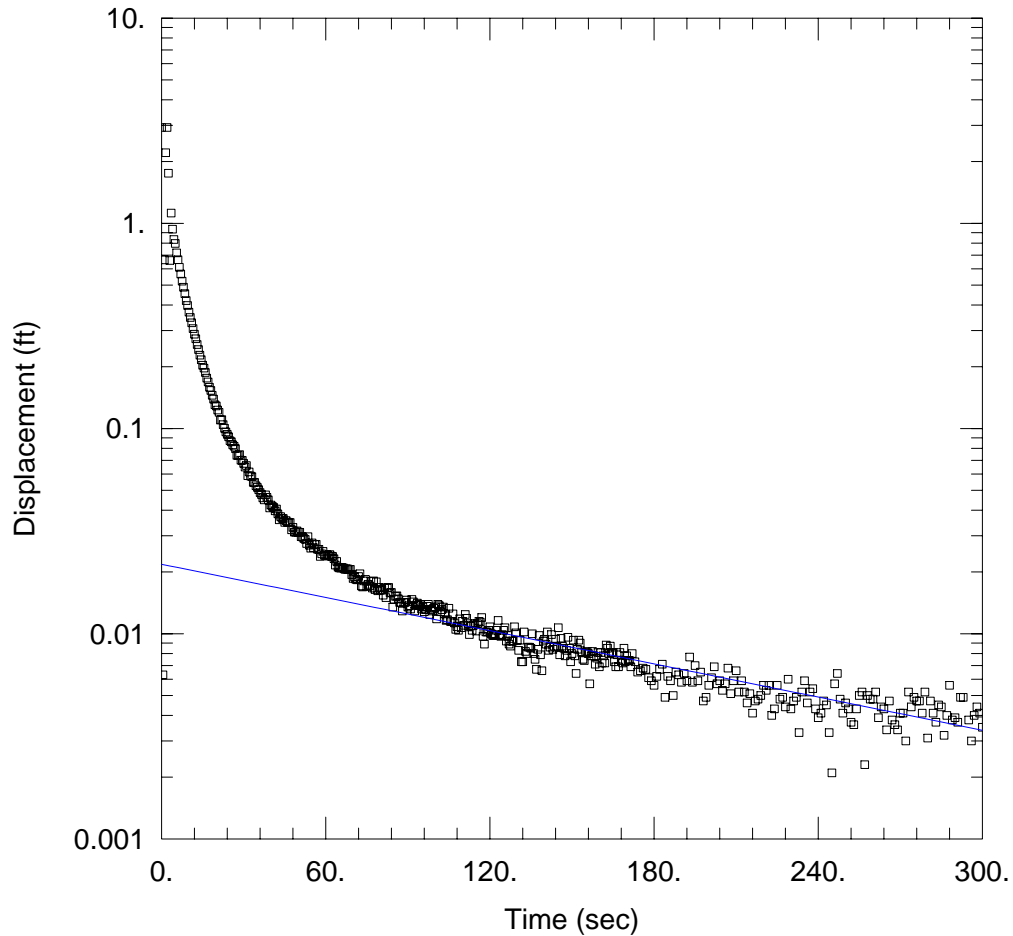
Initial Displacement: 2. ft
 Total Well Penetration Depth: 13.43 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 13.43 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.1 ft

SOLUTION

Aquifer Model: Unconfined
 K = 0.5155 ft/day

Solution Method: Bouwer-Rice
 y0 = 0.172 ft



11A - SLUG IN

Data Set: P:\...\11A - Slug In.aqt
 Date: 01/30/09

Time: 10:57:43

PROJECT INFORMATION

Company: MACTEC
 Client: Dominion
 Project: 3552081210
 Location: Battlefield G.C.
 Test Well: 11A
 Test Date: 12-3-08

AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (11A)

Initial Displacement: 2.93 ft
 Total Well Penetration Depth: 14.37 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 14.37 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.1 ft

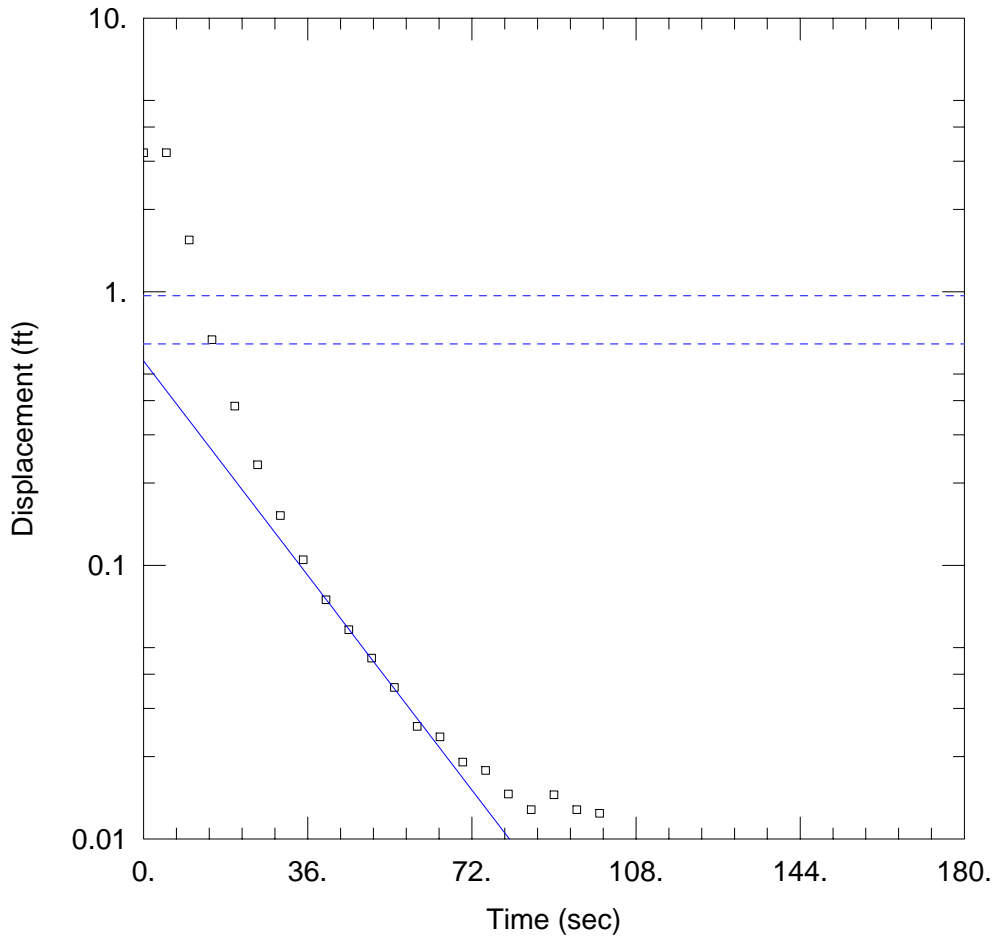
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

K = 0.8713 ft/day

y0 = 0.0218 ft



MW- BGC-8A SLUG IN

Data Set: P:\...\MW-BGC-8A - SLUG IN.aqt
 Date: 09/08/09

Time: 16:00:45

PROJECT INFORMATION

Company: MACTEC
 Client: BGC
 Project: 3552-09-1263
 Location: Chesapeake
 Test Well: MW-BGC-8A
 Test Date: 7-15-09

AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-BGC-8A)

Initial Displacement: 3.223 ft
 Total Well Penetration Depth: 13.04 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 13.04 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.4 ft

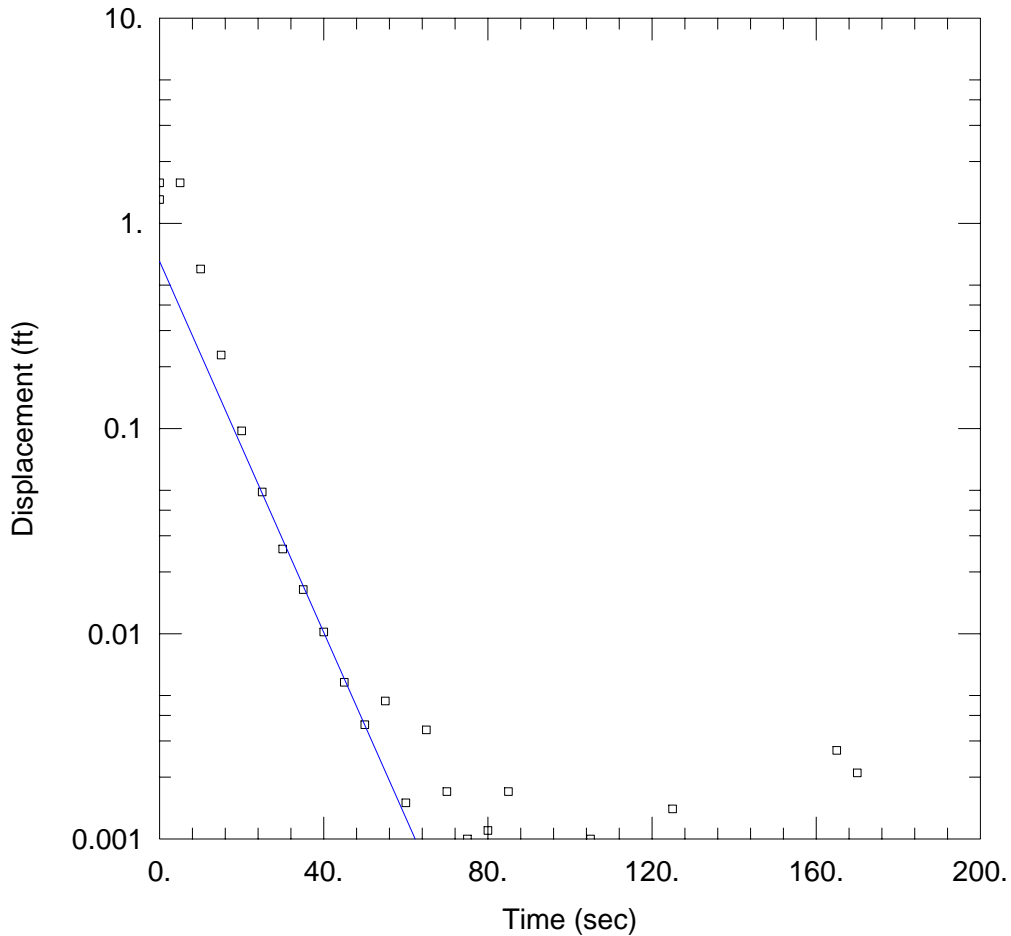
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

K = 0.001611 cm/sec

y0 = 0.5583 ft



MW-BGC-8A SLUG OUT

Data Set: P:\...\MW-BGC-8A - SLUG OUT.aqt
 Date: 09/08/09

Time: 16:01:17

PROJECT INFORMATION

Company: MACTEC
 Client: BGC
 Project: 3552-09-1263
 Location: Chesapeake
 Test Well: MW-BGC-8A
 Test Date: 7-15-09

AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-BGC-8A)

Initial Displacement: 1.576 ft
 Total Well Penetration Depth: 13.04 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 13.04 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.4 ft

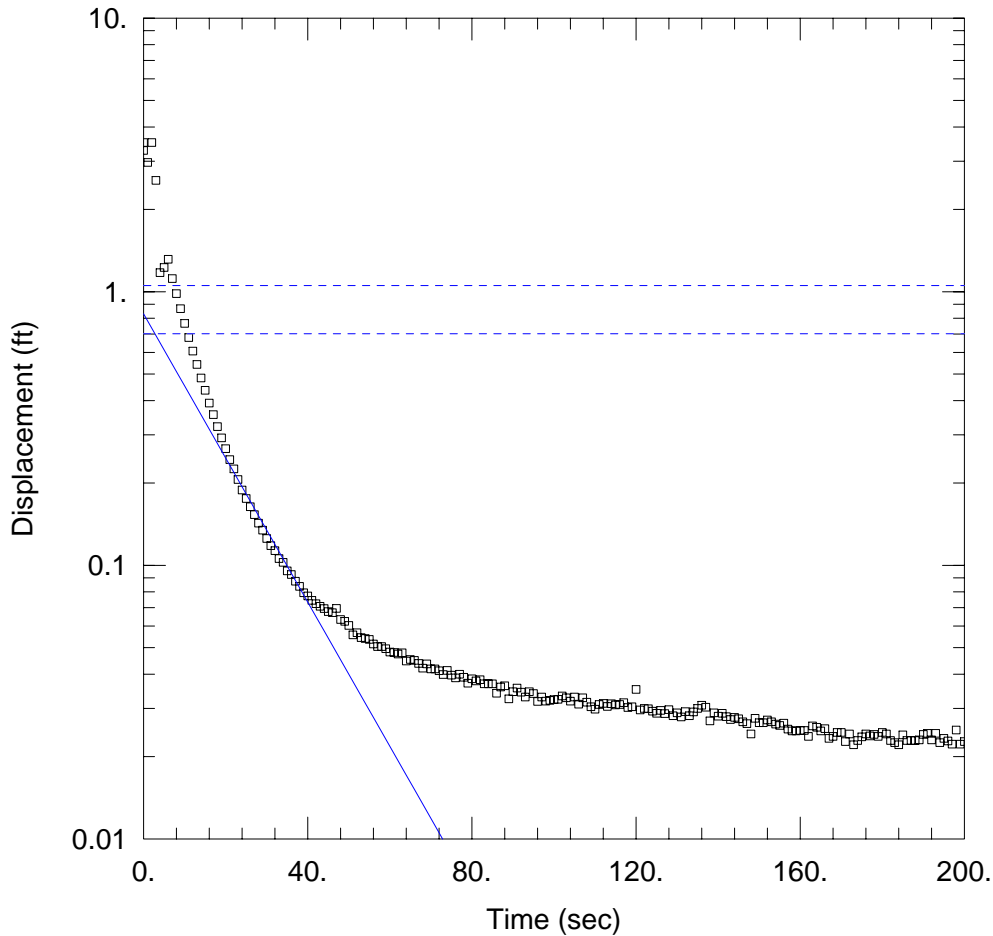
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

K = 0.003344 cm/sec

y0 = 0.6518 ft



MW-BGC-13 SLUG IN

Data Set: P:\...\MW-BGC-13 - SLUG IN.aqt
 Date: 09/08/09

Time: 16:02:12

PROJECT INFORMATION

Company: MACTEC
 Client: BGC
 Project: 3552-09-1263
 Location: Chesapeake
 Test Well: MW-BGC-13
 Test Date: 7-15-2009

AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (K_z/K_r): 1.

WELL DATA (MW-BGC-13)

Initial Displacement: 3.51 ft
 Total Well Penetration Depth: 15.08 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 15.08 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.4 ft

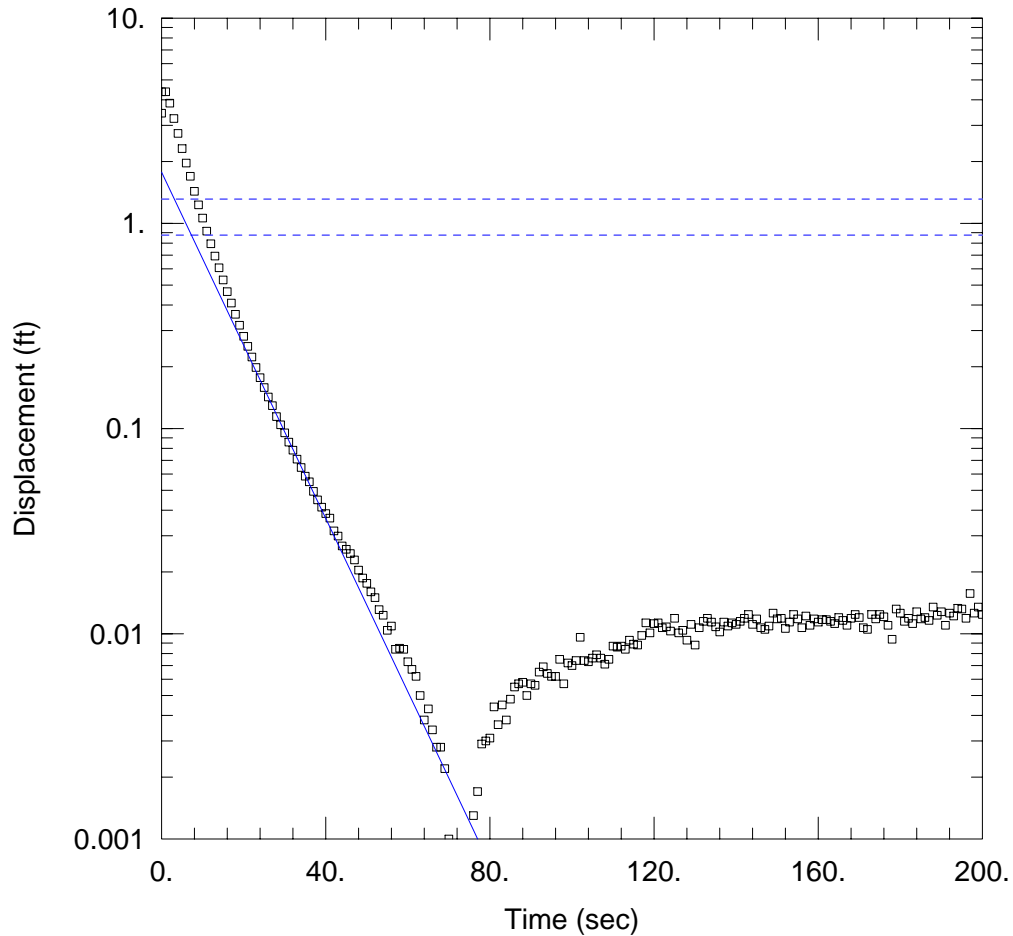
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

K = 0.002006 cm/sec

y_0 = 0.8299 ft



MW-BGC-13 SLUG OUT

Data Set: P:\...\MW-BGC-13 - SLUG OUT.aqt
 Date: 09/08/09

Time: 16:02:36

PROJECT INFORMATION

Company: MACTEC
 Client: BGC
 Project: 3552-09-1263
 Location: Chesapeake
 Test Well: MW-BGC-13
 Test Date: 7-15-2009

AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-BGC-13)

Initial Displacement: 4.379 ft
 Total Well Penetration Depth: 15.08 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 15.08 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.4 ft

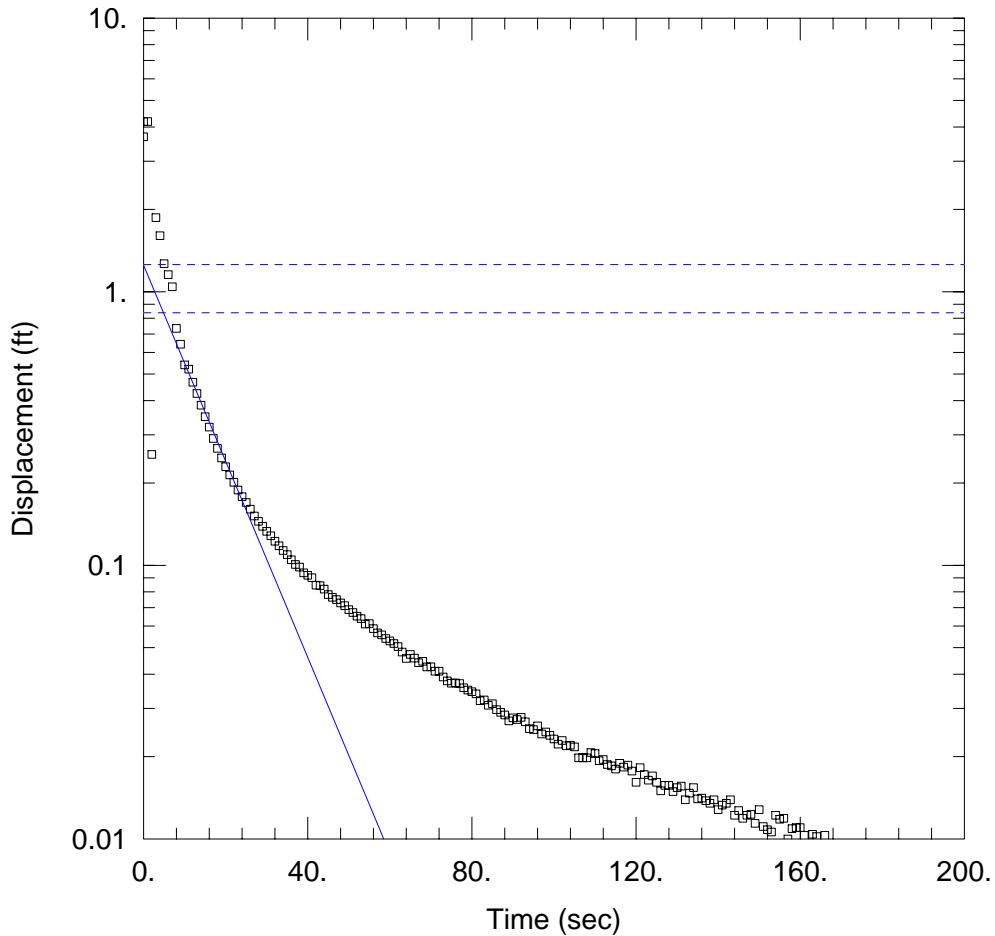
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

K = 0.003213 cm/sec

y0 = 1.774 ft



MW-BGC-15 SLUG IN

Data Set: P:\...\MW-BGC-15 SLUG IN.aqt
 Date: 09/08/09

Time: 16:05:07

PROJECT INFORMATION

Company: MACTEC
 Client: BGC
 Project: 3552-09-1263
 Location: Chesapeake
 Test Well: MW-BGC-15
 Test Date: 7-17-09

AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-BGC-15)

Initial Displacement: 4.188 ft
 Total Well Penetration Depth: 11.09 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 11.09 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.4 ft

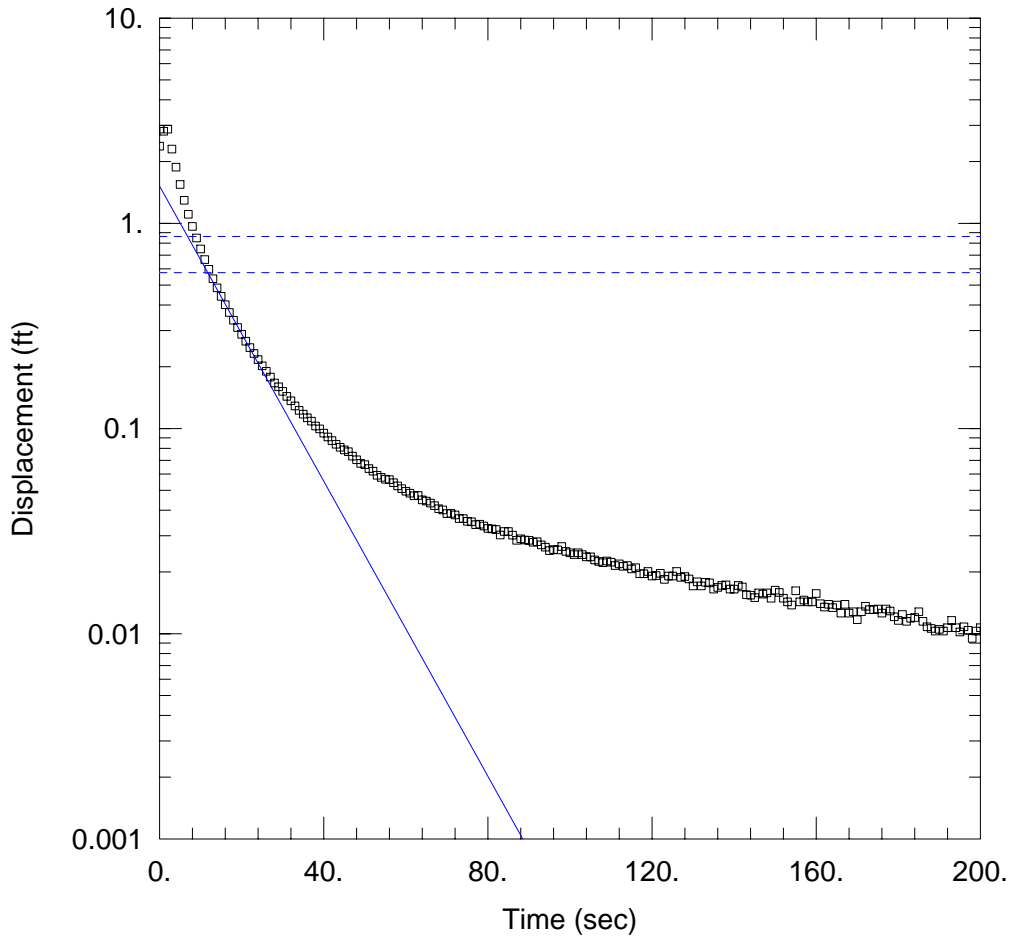
SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

K = 0.002565 cm/sec

y0 = 1.251 ft



MW-BGC-15 SLUG OUT

Data Set: P:\...\MW-BGC-15 SLUG OUT.aqt
 Date: 09/08/09

Time: 16:05:32

PROJECT INFORMATION

Company: MACTEC
 Client: BGC
 Project: 3552-09-1263
 Location: Chesapeake
 Test Well: MW-BGC-15
 Test Date: 7-17-09

AQUIFER DATA

Saturated Thickness: 50. ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (MW-BGC-15)

Initial Displacement: 2.875 ft
 Total Well Penetration Depth: 11.09 ft
 Casing Radius: 0.1 ft

Static Water Column Height: 11.09 ft
 Screen Length: 10. ft
 Wellbore Radius: 0.4 ft

SOLUTION

Aquifer Model: Unconfined

Solution Method: Bower-Rice

K = 0.002573 cm/sec

y0 = 1.518 ft