
KLEINFELDER

January 25, 2008
Project No: 90735

Ranajit (Ron) Sahu, Ph.D., CEM
Director of Environmental Services
Basic Remediation Company
875 West Warm Springs Road
Henderson, Nevada 89011

**Subject: Slug Test Results
 CAMU Area
 Henderson, Nevada**

Dear Dr. Sahu:

This letter report describes the results of slug tests performed in ten monitoring wells located within the CAMU Area. The slug tests were conducted using the SOP guidelines outlined in the Aquifer Testing Work Plan submitted to the Nevada Department of Environmental Protection in 2006.

Kleinfelder performed aquifer slug tests in ten locations selected to allow coverage along the length of the southern border of the CAMU area (Figure 1). The locations for the monitoring wells tested were determined based on their locations in the study area. The monitoring wells proposed for testing under this scope of work, the wells actually tested, and the dates of each test, are listed in Table 1.

The slug tests were performed using a 5.5-foot displacement slug. These displacement slugs were made by filling 2-inch diameter PVC pipe with sand and sealing both ends. The slug was quickly lowered into the wells and then quickly removed, which created rapid changes in groundwater levels that were recorded until groundwater levels had returned to or near the original or pre-test levels. Both the slug-in and slug-out responses to groundwater level changes were recorded. Two or three complete slug-in and slug-out test cycles were completed on the monitoring wells.

An In-Situ Troll 700 data logger was used to record the water level changes occurring in the well during the test. The data logger was programmed to record water level changes once per second during the testing period. The groundwater level changes recorded by the data logger during the tests were uploaded for analysis into Aquifer Test Pro software from Waterloo Hydrogeologic. The Bouwer-Rice solution in Aquifer Test Pro was used to calculate the hydraulic conductivities listed in Table 2. Plots of the test data are shown in Appendix A.

The Bouwer & Rice Equation is:

$$K = \frac{R_c \cdot R_c \cdot \ln(R_e/R_w)}{2 \cdot L_e} \cdot \frac{1}{T} \cdot \ln(Y_1/Y_2)$$

A) For partially penetrating wells the term $\ln(R_e/R_w)$ is:

$$\ln(R_e/R_w) = \frac{1}{\left(\frac{1.1}{\ln(L_w/R_w)} + \frac{A + B \cdot \ln\{(H - L_w)/R_w\}}{L_e/R_w} \right)}$$

B) For fully penetrating wells the term $\ln(R_e/R_w)$ is:

$$\ln(R_e/R_w) = \frac{1}{\left(\frac{1.1}{\ln(L_w/R_w)} + \frac{C}{L_e/R_w} \right)}$$

where K = hydraulic conductivity
 R_c = radius of well/screen casing
 R_e = effective radial distance over which delta-y is dissipated
 R_w = borehole radius
 H = saturated thickness of aquifer
 A = the Bouwer and Rice 'A' parameter
 B = the Bouwer and Rice 'B' parameter
 C = the Bouwer and Rice 'C' parameter
 L_w = depth below water table to bottom of screen
 L_e = length of wetted screen
 Y₁ = drawdown (or up) at time T₁
 Y₂ = drawdown (or up) at time T₂
 T = time between T₁ and T₂

Comparison of the slug-in and slug-out test results indicates consistent results with only small variations in the resultant hydraulic conductivities.

Average linear groundwater velocities were calculated for each monitoring well, based on an assumed groundwater gradient of 0.0192 and an assumed soil porosity of 30% for the aquifer at the CAMU area. Average linear velocities are calculated based on the following formula:

$$V_x = \frac{K}{n_e} \left(\frac{dh}{dl} \right)$$

V_x – Average linear velocity

K – Hydraulic conductivity

n_e – Effective Porosity

$\frac{dh}{dl}$ – Hydraulic gradient

The resulting average linear velocities are presented in Table 3:

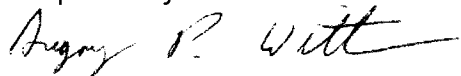
As shown on Figure 2, the direction of groundwater flow across the CAMU area is north-northeast, with the greatest average linear velocity found in monitoring well B-14R. The average linear velocity in this well was approximately 4.416 feet per day. If this well is selected as the location to inject dye for a tracer test, the dye is calculated to reach monitoring well AA-BW-02A in approximately 235 days.

We sincerely appreciate the opportunity to be of service. If you have any questions regarding the enclosed information, please contact us.

Respectfully submitted,

KLEINFELDER

Prepared by:

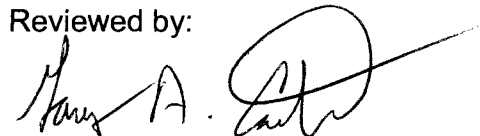


Gregory P. Wittman, P.G.
Senior Hydrogeologist



Karin F. Hagan
Staff Geologist

Reviewed by:



Gary A. Carter, P.E., C.E.M.
C.E.M. #1909, exp. 1/26/09
Environmental Department Manager

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and to the best of my knowledge comply with all applicable federal, state and local statutes, regulations and ordinances.

Table 1	Monitoring Wells and Test Dates
Table 2	Slug Test Results
Table 3	Average Linear Velocities
Figure 1	Project Site and Tested Monitoring Well Location Map
Figure 2	Monitoring Wells Showing Groundwater Average Linear Velocity
Appendix A	Plots of Test Data

TABLES

Table 1. Monitoring Wells and Test Dates for the CAMU Area, Henderson, Nevada

Well Number	Slug Test Date	Notes
H-39	Not tested	Top of well casing ~12' above ground surface
MCF-BW-10A	01/04/2008	
MCF-BW-11A	01/06/2008	
B-18	01/03/2008	
B-17	01/03/2008	
MCF-BW-12A	01/04/2008	
B-20	Not tested	Four-inch pump inside well; could not remove
H-41	Not tested	Unable to locate
EC-2	Not tested	Unable to locate
B-15	Not tested	Unable to locate
MCF-BW-08A	01/04/2008	AA-BW-08A
MCF-BW-09A	Not tested	Unable to open lock on well cap
EC-1	01/05/2008	
AA-MW-07	01/07/2008	Labeled as AA-BW-07A in field
AA-BW-01	01/05/2008	Not originally proposed
B-14R	01/06/2008	Not originally proposed

Table 2. Slug Test Results for the CAMU Area, Henderson, Nevada

Well Number	Test	Slug Length	Hydraulic Conductivity (feet/day)	Average Hydraulic Conductivity (feet/day)
AA-BW-01	Slug In 1	5.5 feet	4.50	4.75
AA-BW-01	Slug Out 1		5.00	
AA-BW-01	Slug In 2		4.50	
AA-BW-01	Slug Out 2		5.00	
AA-BW-07A	Slug In 1	5.5 feet	4.50	4.92
AA-BW-07A	Slug Out 1		5.00	
AA-BW-07A	Slug In 2		4.70	
AA-BW-07A	Slug Out 2		5.10	
AA-BW-07A	Slug In 3		4.90	
AA-BW-07A	Slug Out 3		5.30	
B-17	Slug In 1	5.5 feet	6.40	7.74
B-17	Slug Out 1		9.50	
B-17	Slug In 2		6.10	
B-17	Slug Out 2		8.70	
B-17	Slug In 3		6.25	
B-17	Slug Out 3		9.50	
B-18	Slug In 1	5.5 feet	2.02	2.18
B-18	Slug Out 1		2.00	
B-18	Slug In 2		2.20	
B-18	Slug Out 2		2.42	
B-18	Slug In 3		2.00	
B-18	Slug Out 3		2.45	
B-14R	Slug In 1	5.5 feet	72.5	69.00
B-14R	Slug Out 1		80.0	
B-14R	Slug In 2		62.5	
B-14R	Slug Out 2		65.0	
B-14R	Slug In 3		67.0	
B-14R	Slug Out 3		67.0	
MCF-BW-12A	Slug In 1	5.5 feet	20.8	26.53
MCF-BW-12A	Slug Out 1		23.1	
MCF-BW-12A	Slug In 2		38.0	
MCF-BW-12A	Slug Out 2		27.5	
MCF-BW-12A	Slug In 3		22.0	
MCF-BW-12A	Slug Out 3		31.0	
MCF-BW-12A	Slug In 4		31.0	
MCF-BW-12A	Slug Out 4		18.8	

Table 2. (Continued)

Well Number	Test	Slug Length	Hydraulic Conductivity (feet/day)	Average Hydraulic Conductivity (feet/day)
AA-BW-08A	Slug In 1	5.5 feet	22.6	28.02
AA-BW-08A	Slug Out 1		26.0	
AA-BW-08A	Slug In 2		31.0	
AA-BW-08A	Slug Out 2		32.0	
AA-BW-08A	Slug In 3		30.5	
AA-BW-08A	Slug Out 3		26.0	
MCF-BW-10A	Slug In 1	5.5 feet	2.50	2.77
MCF-BW-10A	Slug Out 1		2.82	
MCF-BW-10A	Slug In 2		2.85	
MCF-BW-10A	Slug Out 2		2.90	
MCF-BW-11A	Slug In 1	5.5 feet	1.01	1.04
MCF-BW-11A	Slug Out 1		1.00	
MCF-BW-11A	Slug In 2		1.10	
MCF-BW-11A	Slug Out 2		1.05	
EC-1	Slug In 1	5.5 feet	0.652	0.65
EC-1	Slug Out 1		0.650	
EC-1	Slug In 2		0.608	
EC-1	Slug Out 2		0.680	

Table 3. Average Linear Velocities for the CAMU Area, Henderson Nevada

Well Number	Average Hydraulic Conductivity (feet/day)	Average Linear Velocity (feet/day)
AA-BW-01	4.75	0.304
AA-BW-07A	4.92	0.315
B-17	7.74	0.495
B-18	2.18	0.140
B-14R	69.00	4.416
MCF-BW-12A	26.53	1.698
AA-BW-08A	28.02	1.793
MCF-BW-10A	2.77	0.177
MCF-BW-11A	1.04	0.066
EC-1	0.65	0.041

FIGURES



Figure 1



Groundwater Gradient (I) - 0.0192 ft/ft
 Assumed Porosity (n) - 30%
 Hydraulic Conductivity (K) - Average for Well from Slug Testing

Average Linear Velocity = $K \cdot I / n$

Figure 2

APPENDIX A

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 1

Test Well: MCF-BW-11A

Test conducted by: David Neidigh

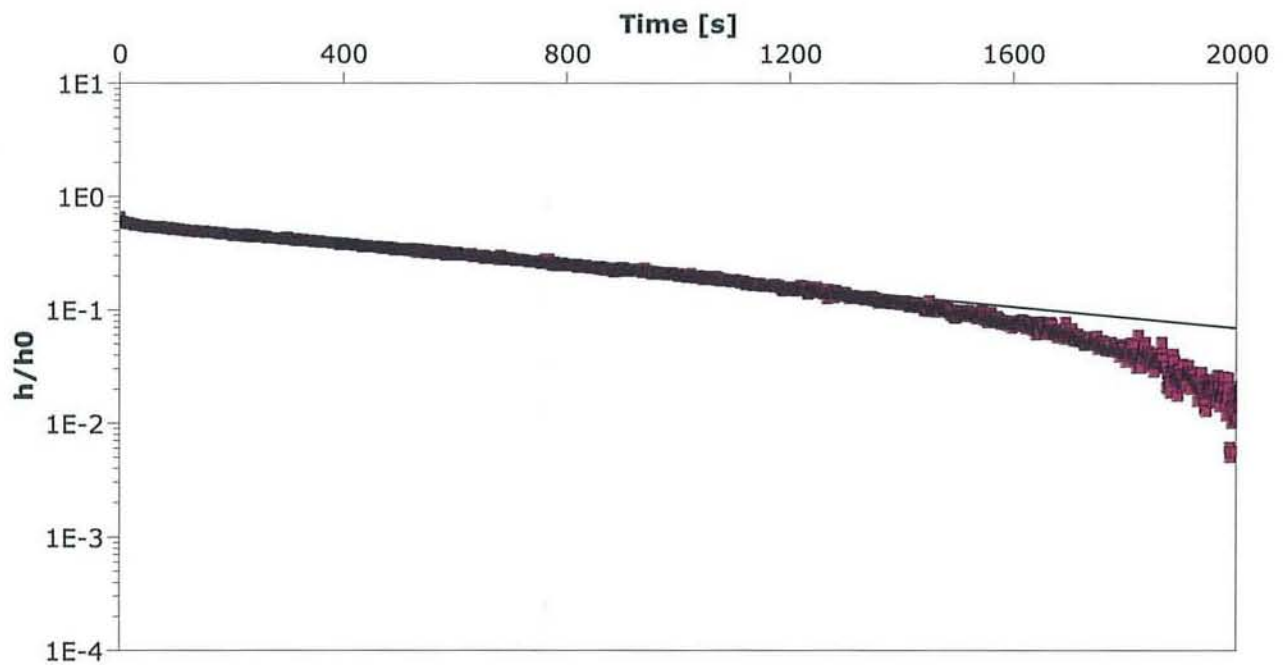
Test date: 1/6/2008

Analysis performed by: G. P. Wittman

MCF-BW-11A Re-run

Date: 1/17/2008

Aquifer Thickness: 26.21 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-11A

1.00×10^0

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2315 S. Cobalt Point Way
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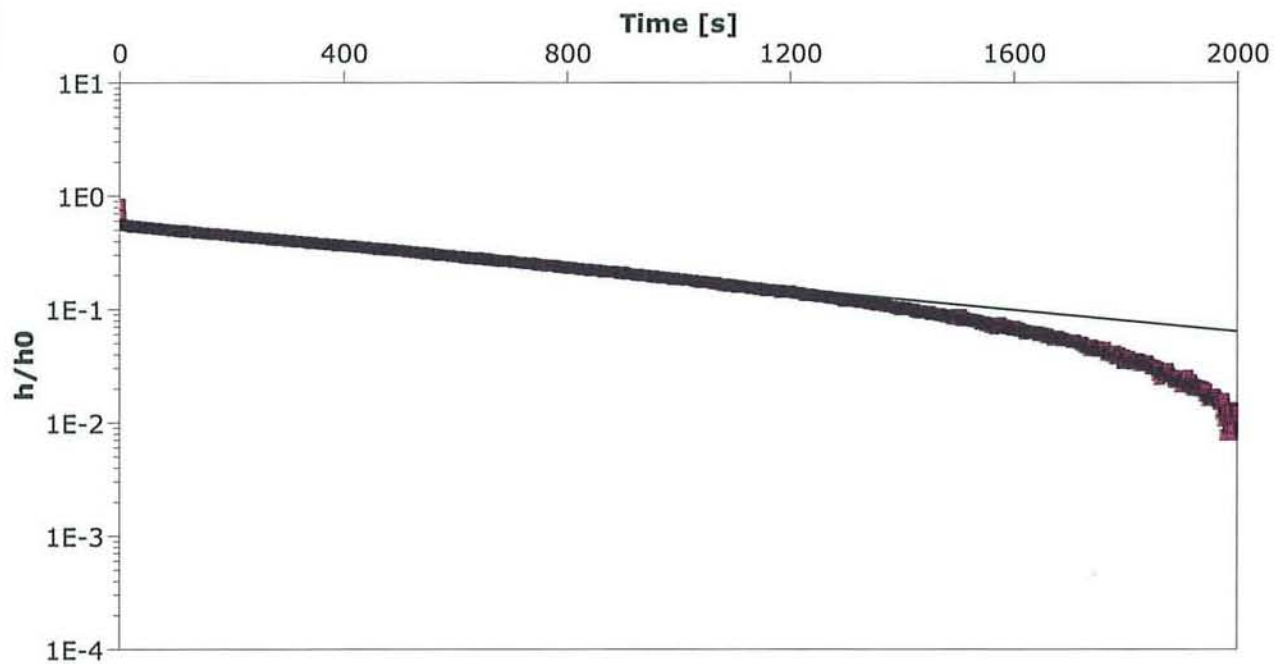
Test date: 1/6/2008

Analysis performed by: G. P. Wittman

MCF-BW-11A Re-run

Date: 1/17/2008

Aquifer Thickness: 26.21 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-11A

1.01×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 2

Test Well: MCF-BW-11A

Test conducted by: David Neidigh

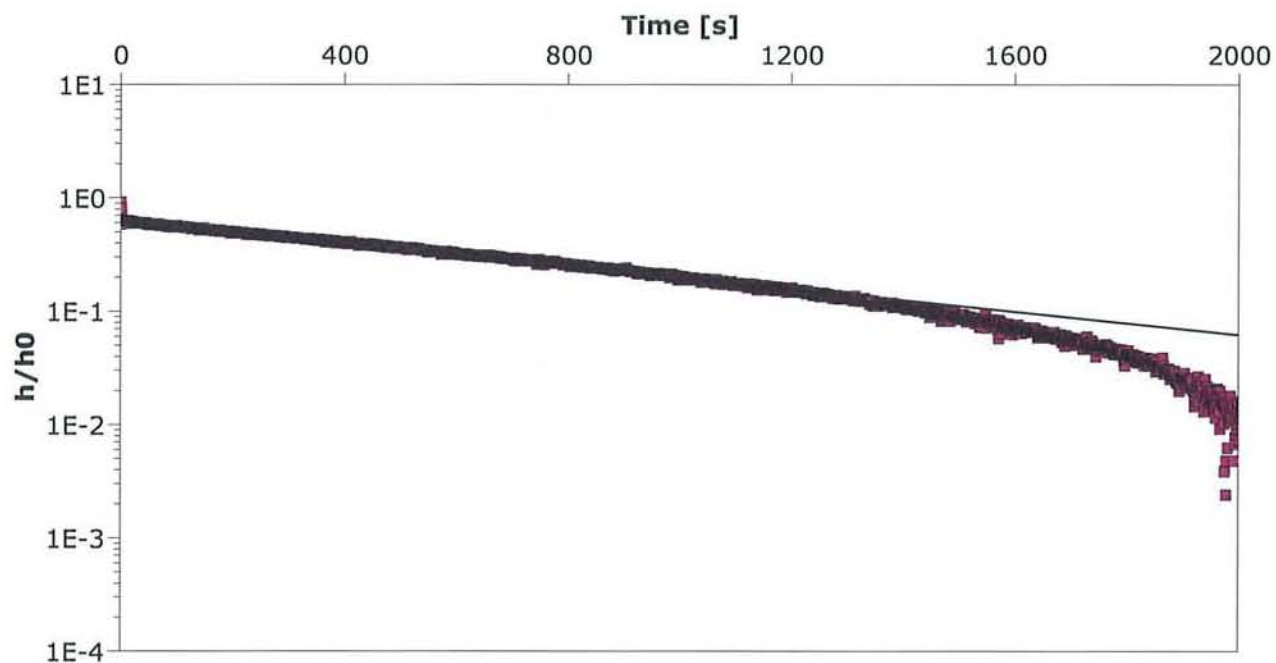
Test date: 1/6/2008

Analysis performed by: G. P. Wittman

MCF-BW-11A Re-run

Date: 1/17/2008

Aquifer Thickness: 26.21 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-11A

1.10×10^0

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2315 S. Cobalt Point Way
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(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 2

Test Well: MCF-BW-11A

Test conducted by: David Neidigh

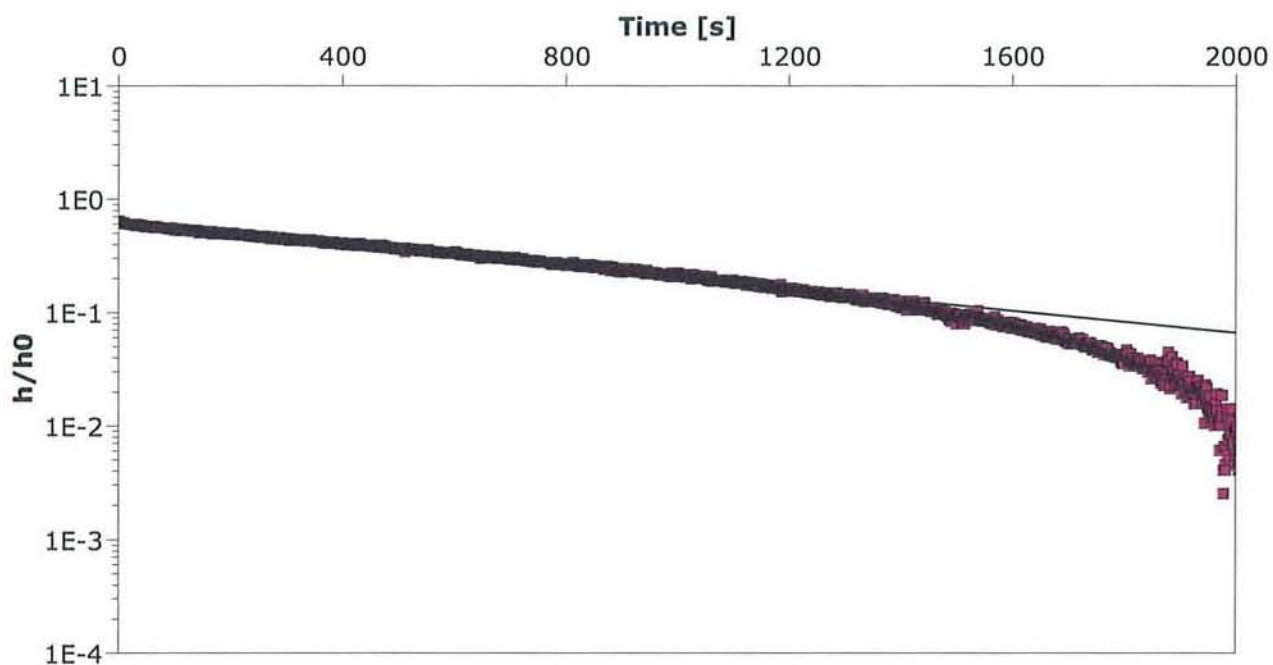
Test date: 1/6/2008

Analysis performed by: G. P. Wittman

MCF-BW-11A Re-run

Date: 1/17/2008

Aquifer Thickness: 26.21 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-11A

1.05×10^0

Kleinfelder West, Inc
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Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

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Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 1

Test Well: MCF-BW-11A

Test conducted by: Dadid Neidigh

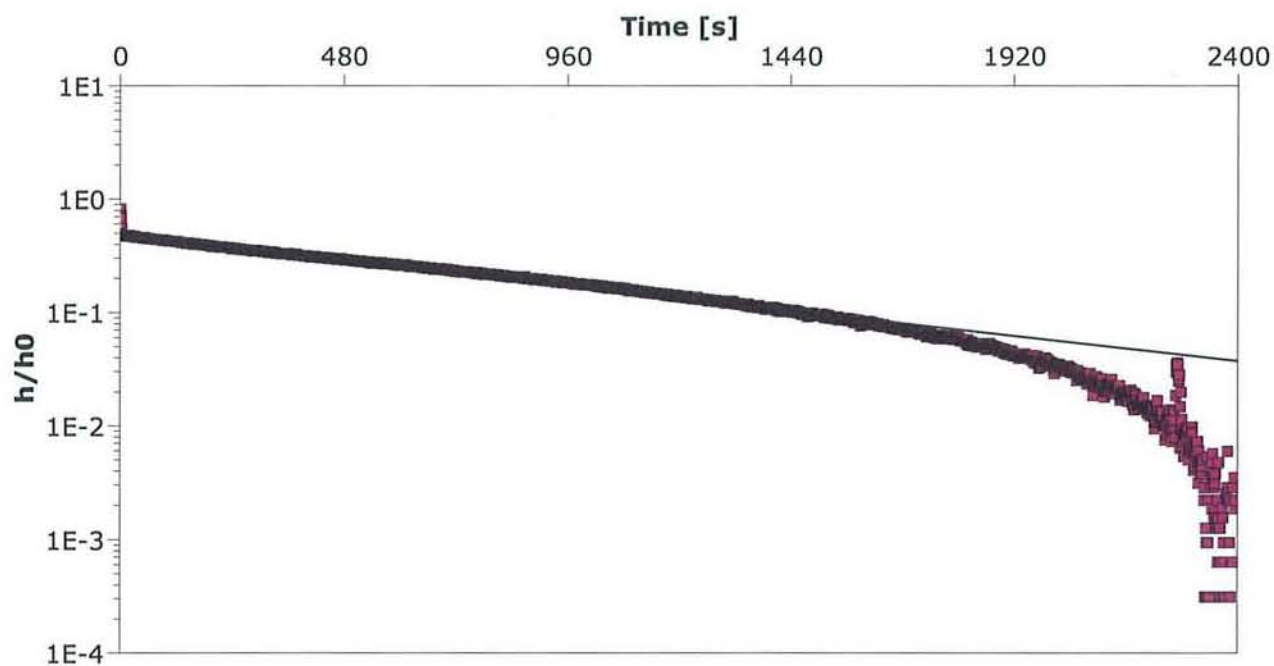
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-11A

Date: 1/7/2008

Aquifer Thickness: 26.25 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-11A

9.90×10^{-1}

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: -Slug Out 1

Test Well: MCF-BW-11A

Test conducted by: David Neidigh

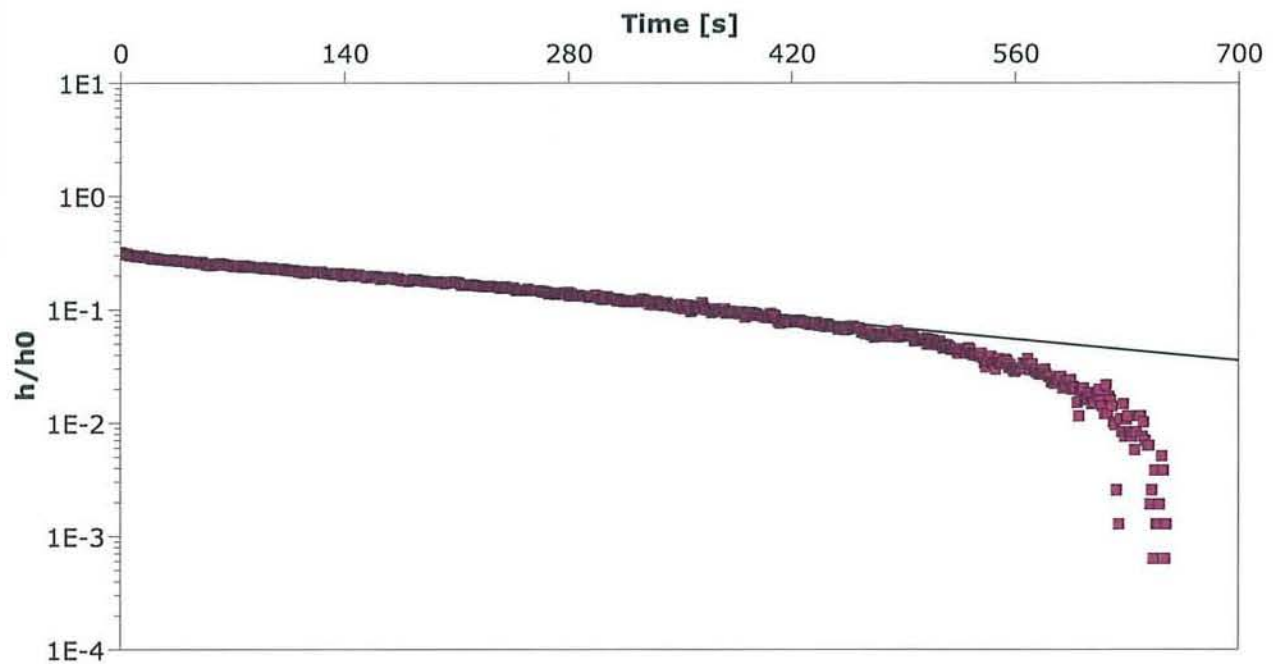
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-11A

Date: 1/7/2008

Aquifer Thickness: 26.25 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-11A

2.90×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 2

Test Well: MCF-BW-11A

Test conducted by: David Neidigh

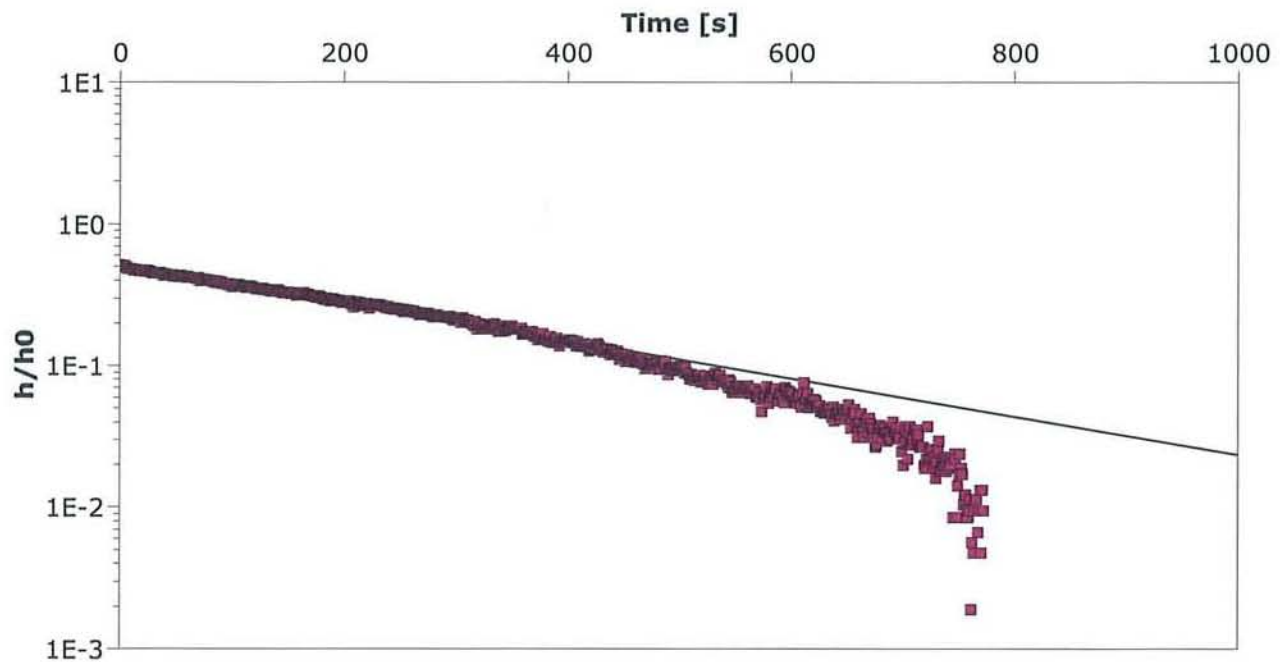
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-11A

Date: 1/7/2008

Aquifer Thickness: 26.25 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-11A

2.90×10^0

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Slug Test Analysis Report

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Location: Henderson, Nevada

Slug Test: - Slug Out 2

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Test conducted by: David Neidigh

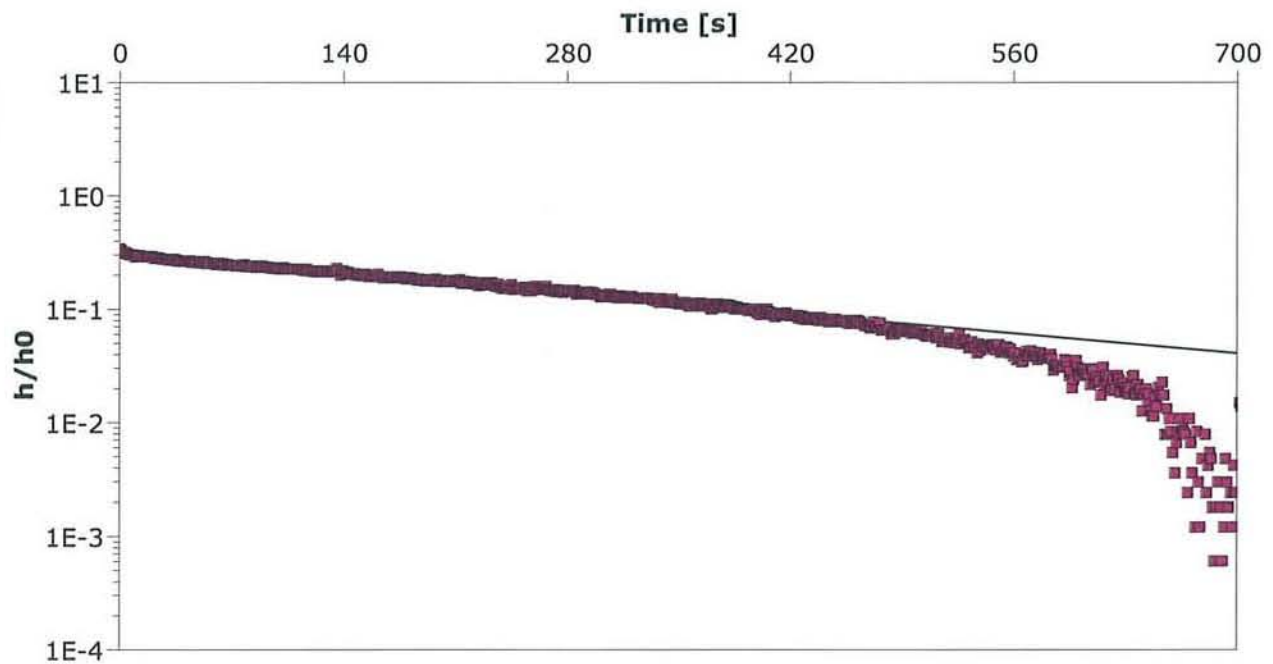
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Analysis performed by: G. P. Wittman

MCF-BW-11A

Date: 1/7/2008

Aquifer Thickness: 26.25 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-11A

2.70×10^0

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(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 1

Test Well: AA-BW-01

Test conducted by: David Neidigh

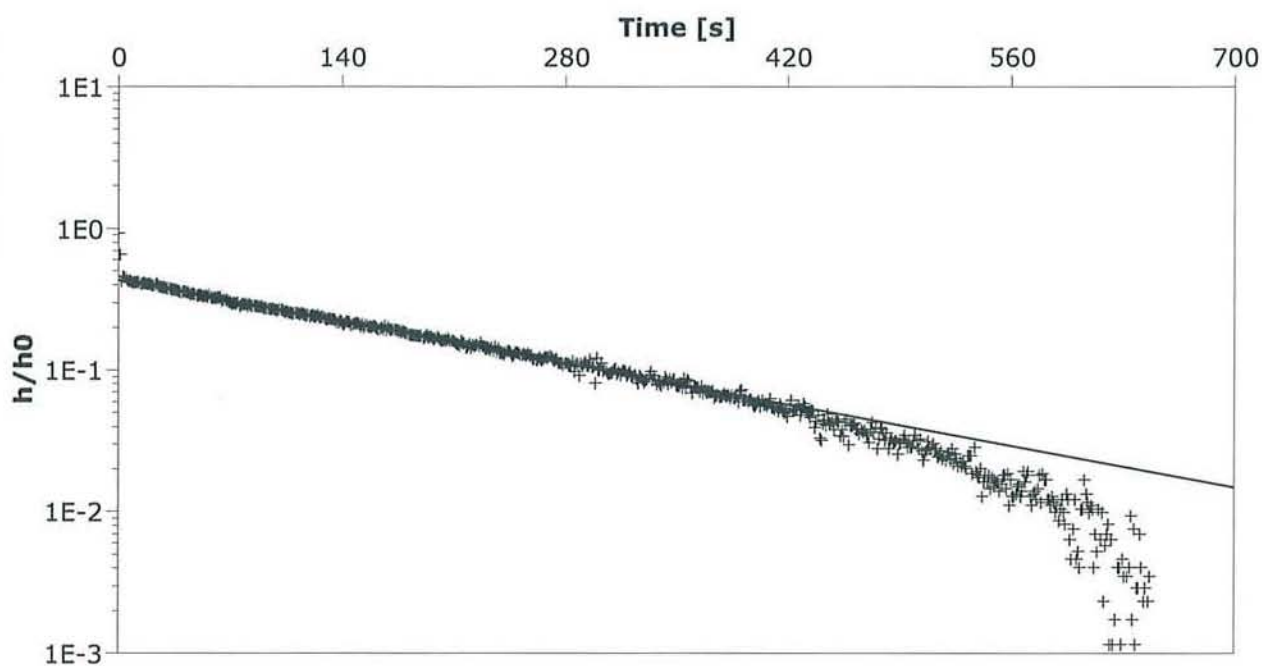
Test date: 1/5/2008

Analysis performed by: G. P. Wittman

AA-BW-01A

Date: 1/16/2008

Aquifer Thickness: 15.64 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-01

4.50×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 1

Test Well: AA-BW-01

Test conducted by: DavidNeidigh

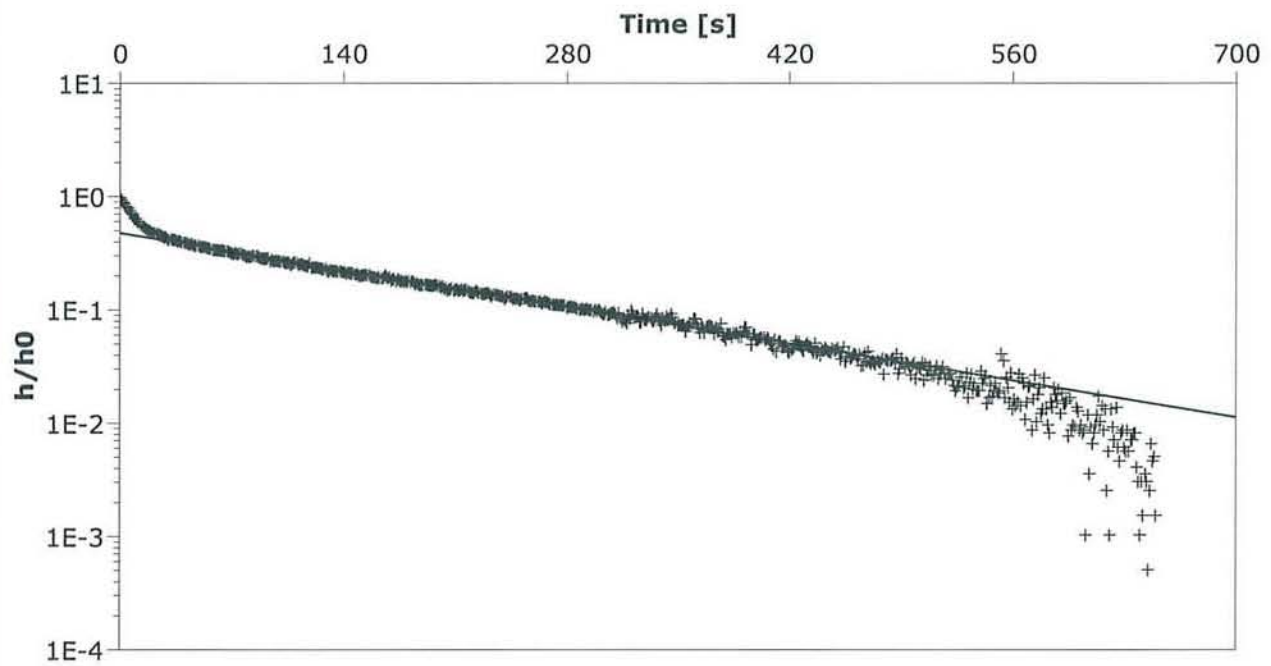
Test date: 1/5/2008

Analysis performed by: G. P. Wittman

AA-BW-01A

Date: 1/16/2008

Aquifer Thickness: 15.64 ft



Calculation after Bouwer & Rice

Observation well

K
[ft/d]

AA-BW-01

5.00×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 2

Test Well: AA-BW-01

Test conducted by: David Neidigh

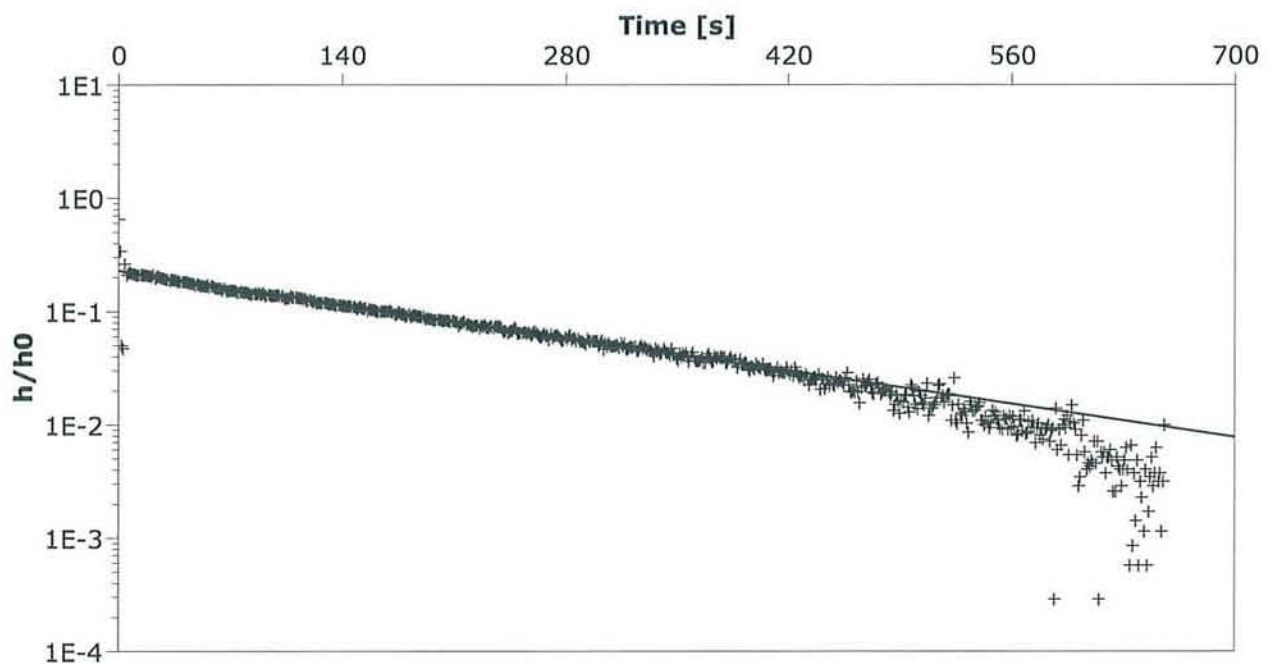
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Date: 1/16/2008

Aquifer Thickness: 15.64 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-01

4.50×10^0

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Slug Test Analysis Report

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Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 2

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Test conducted by: David Neidigh

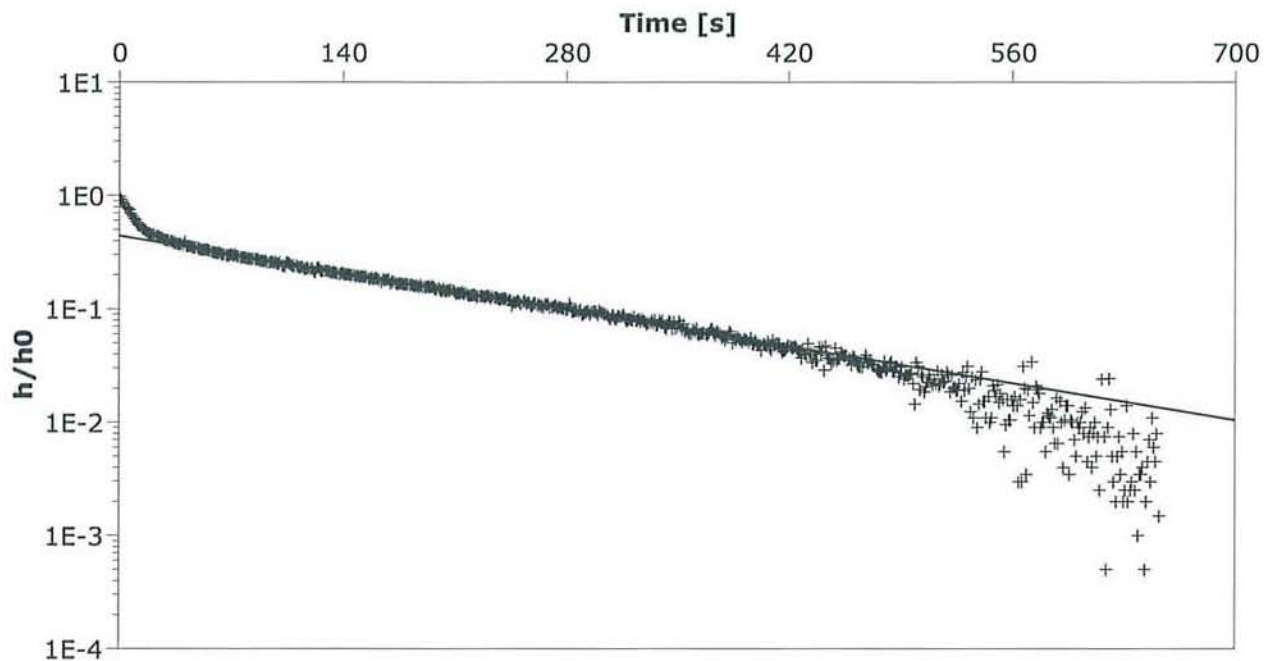
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Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-01

5.00×10^0

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Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 1

Test Well: AA-BW-07A

Test conducted by: David Neidigh

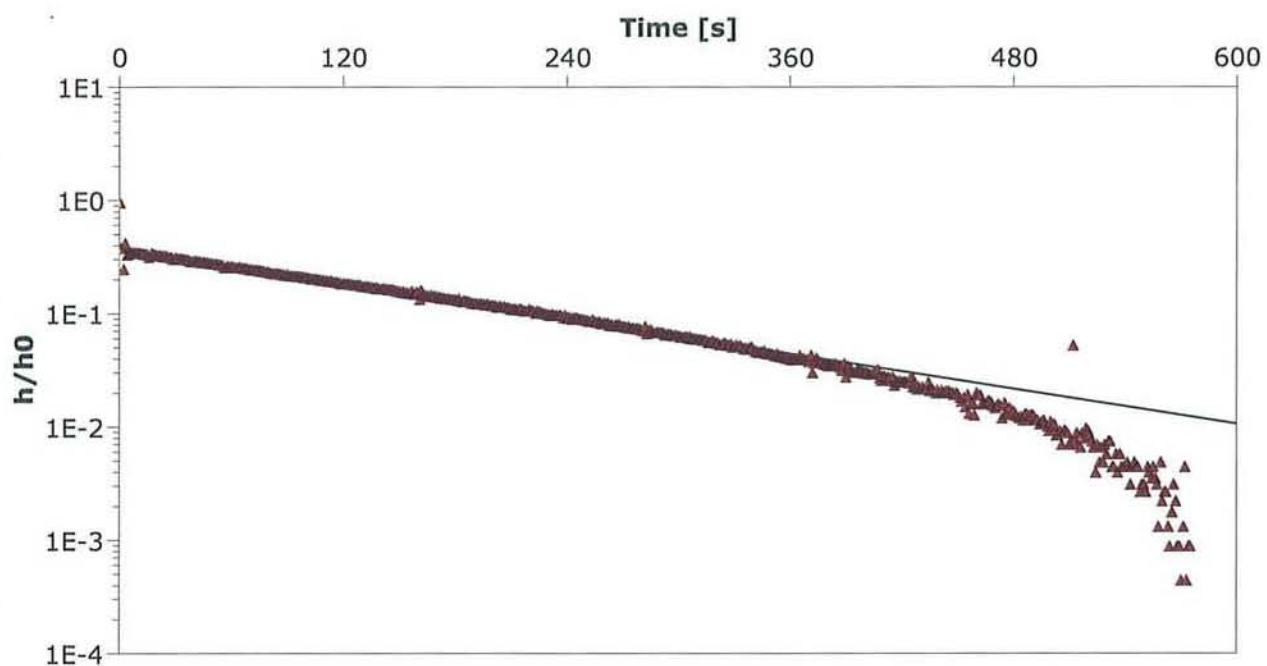
Test date: 1/7/2008

Analysis performed by: G. P. Wittman

AA-BW-07A

Date: 1/16/2008

Aquifer Thickness: 37.03 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-07A

4.50×10^0

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Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 1

Test Well: AA-BW-07A

Test conducted by: David Neidigh

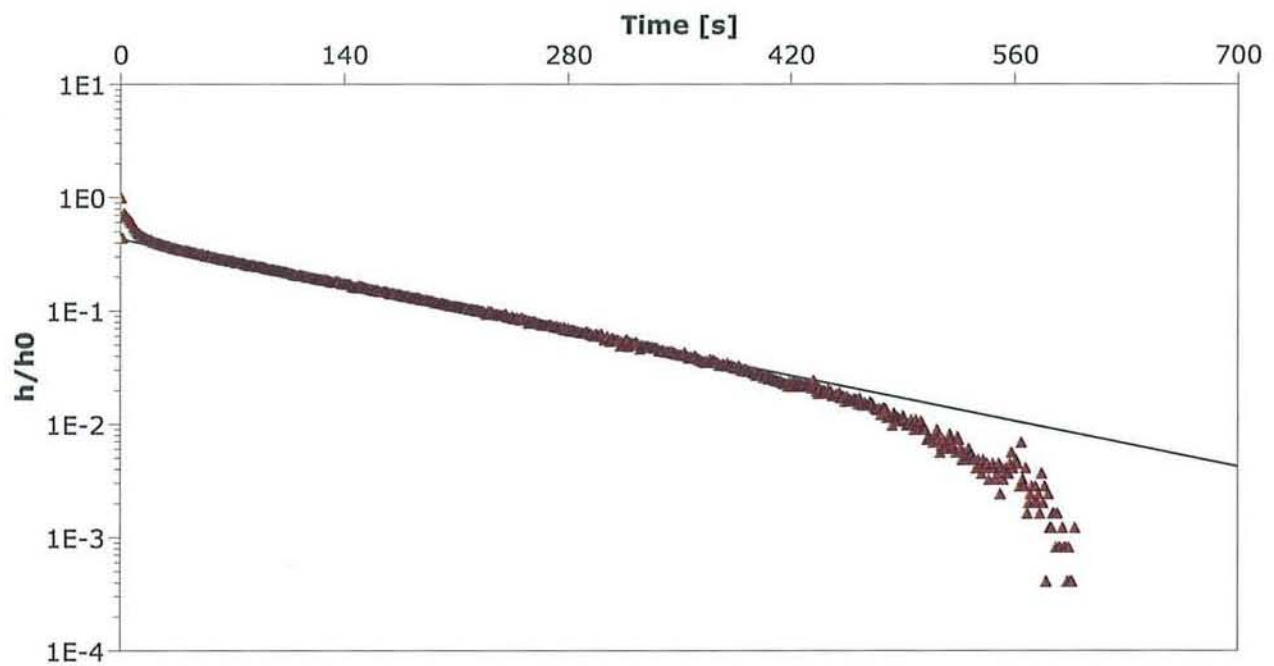
Test date: 1/7/2008

Analysis performed by: G. P. Wittman

AA-BW-07A

Date: 1/16/2008

Aquifer Thickness: 37.03 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-07A

5.00×10^0

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Slug Test Analysis Report

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Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 2

Test Well: AA-BW-07A

Test conducted by: David Neidigh

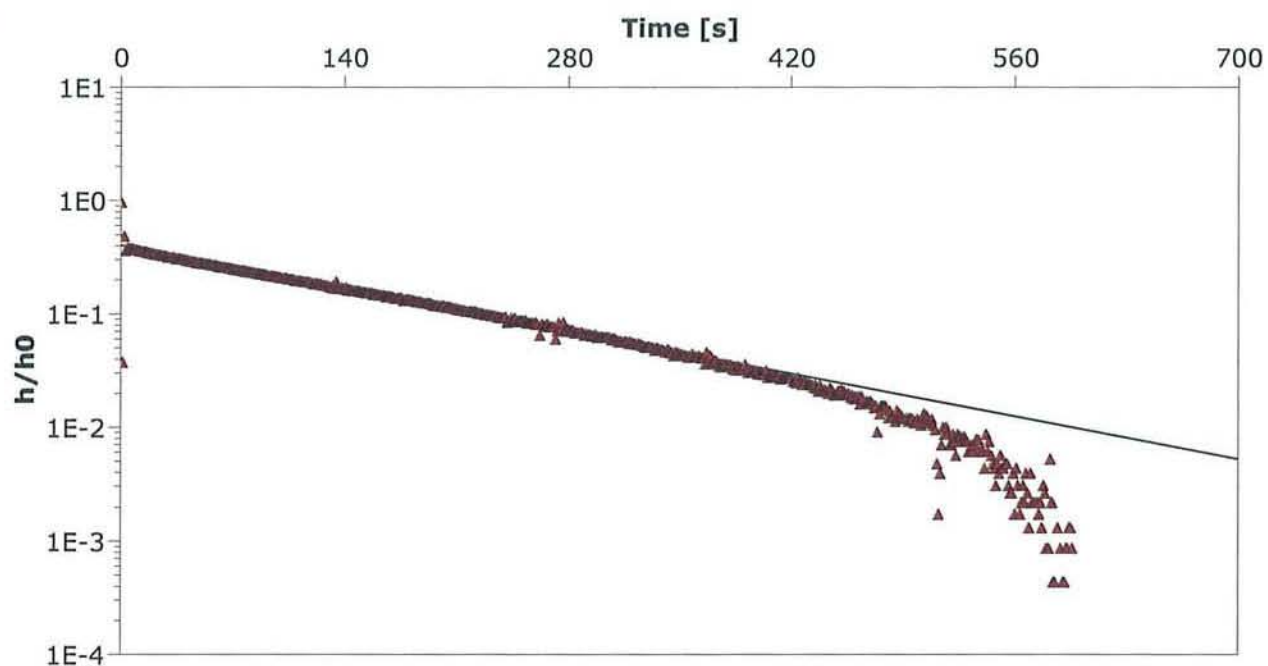
Test date: 1/7/2008

Analysis performed by: G. P. Wittman

AA-BW-07A

Date: 1/16/2008

Aquifer Thickness: 37.03 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-07A

4.70×10^0

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Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 2

Test Well: AA-BW-07A

Test conducted by: David Neidigh

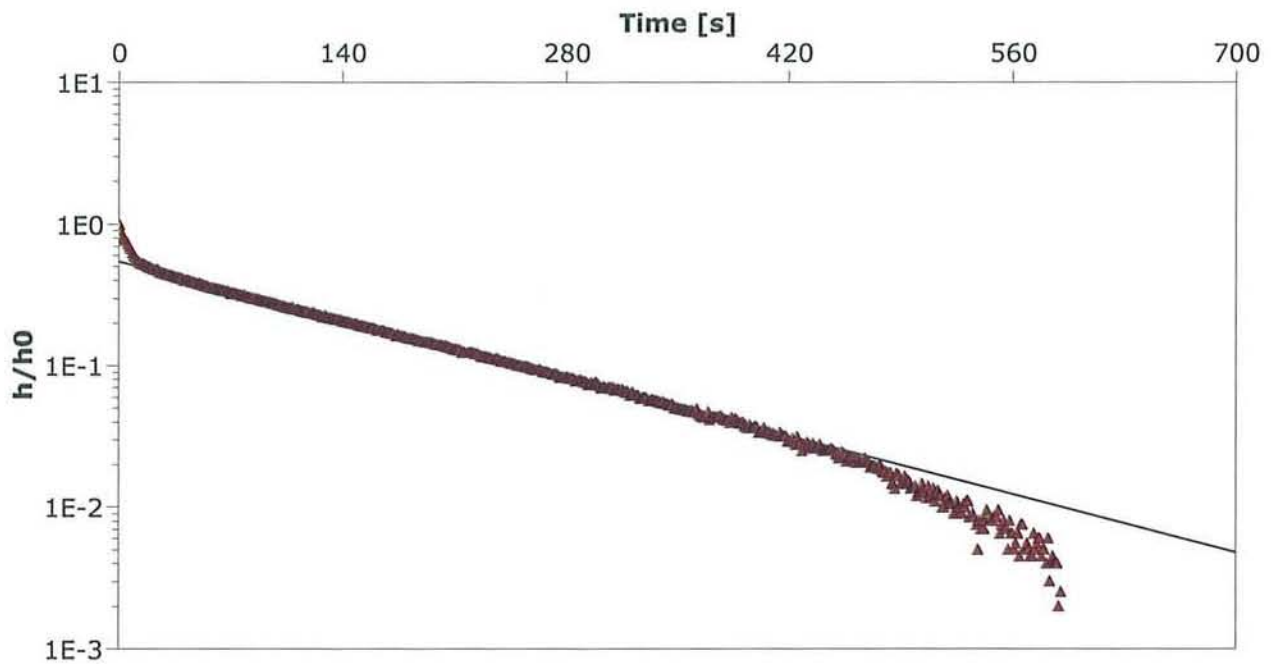
Test date: 1/7/2008

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Date: 1/16/2008

Aquifer Thickness: 37.03 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-07A

5.10×10^0

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Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 3

Test Well: AA-BW-07A

Test conducted by: David Neidigh

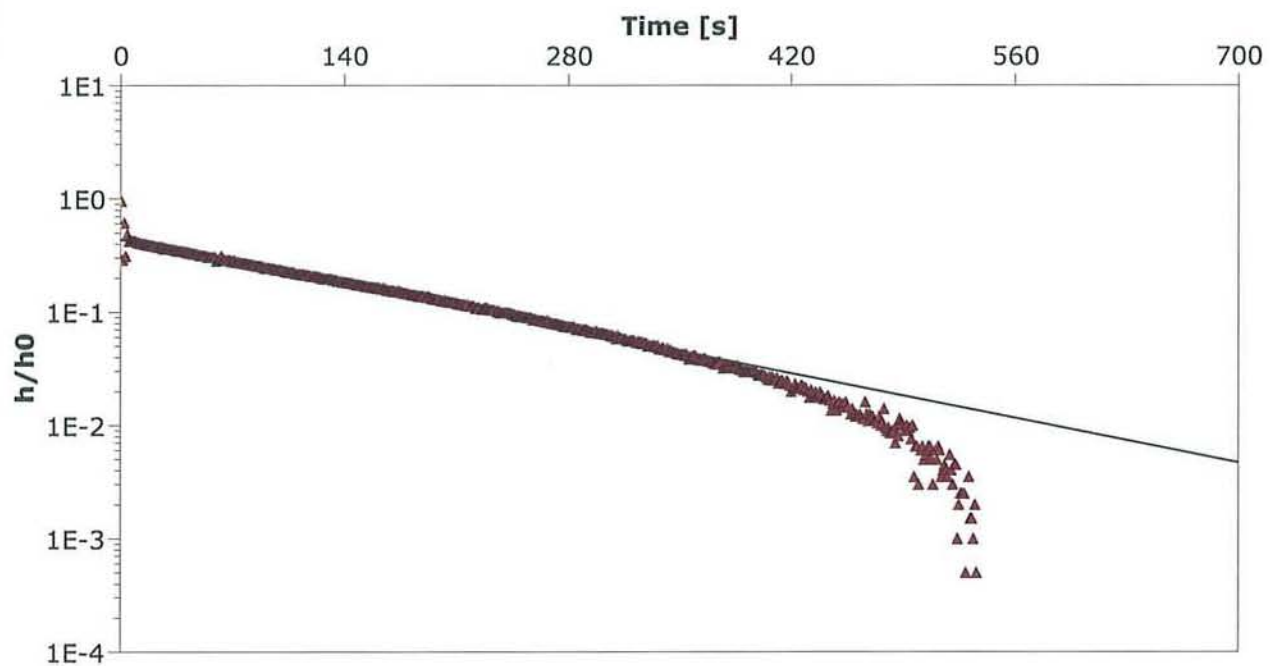
Test date: 1/7/2008

Analysis performed by: G. P. Wittman

AA-BW-07A

Date: 1/16/2008

Aquifer Thickness: 37.03 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-07A

4.90×10^0

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Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 3

Test Well: AA-BW-07A

Test conducted by: David Neidigh

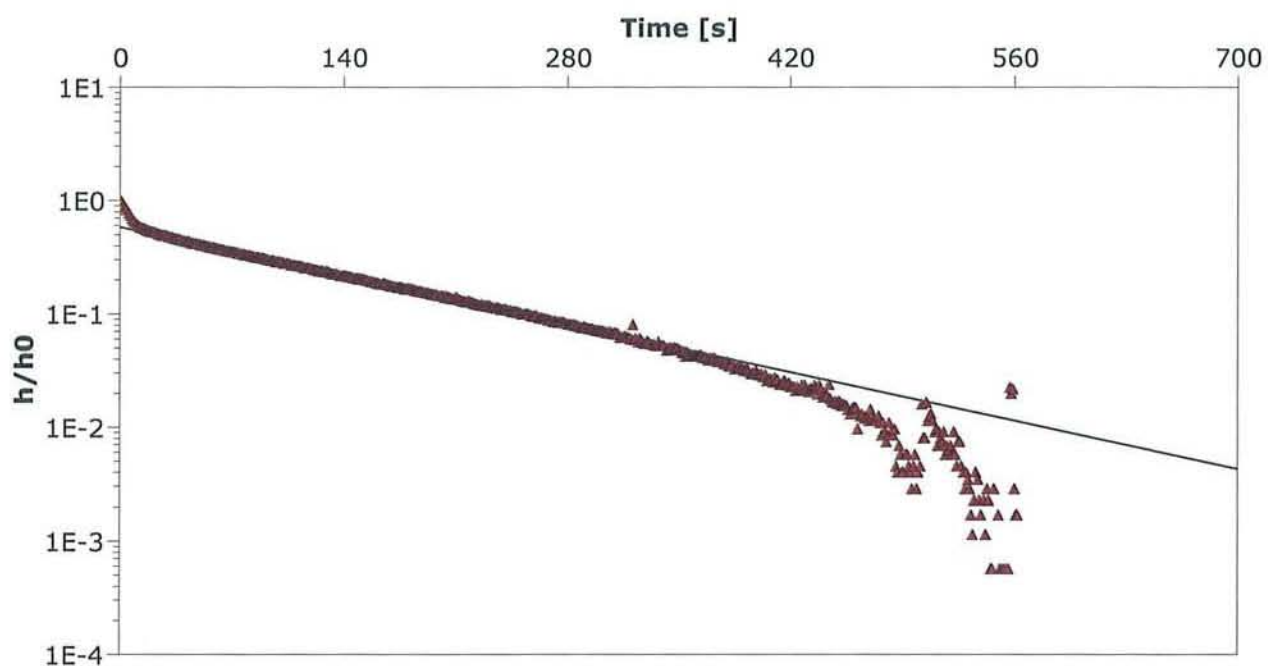
Test date: 1/7/2008

Analysis performed by: G. P. Wittman

AA-BW-07A

Date: 1/16/2008

Aquifer Thickness: 37.03 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-07A

5.30×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 1

Test Well: B17

Test conducted by: David Neidigh

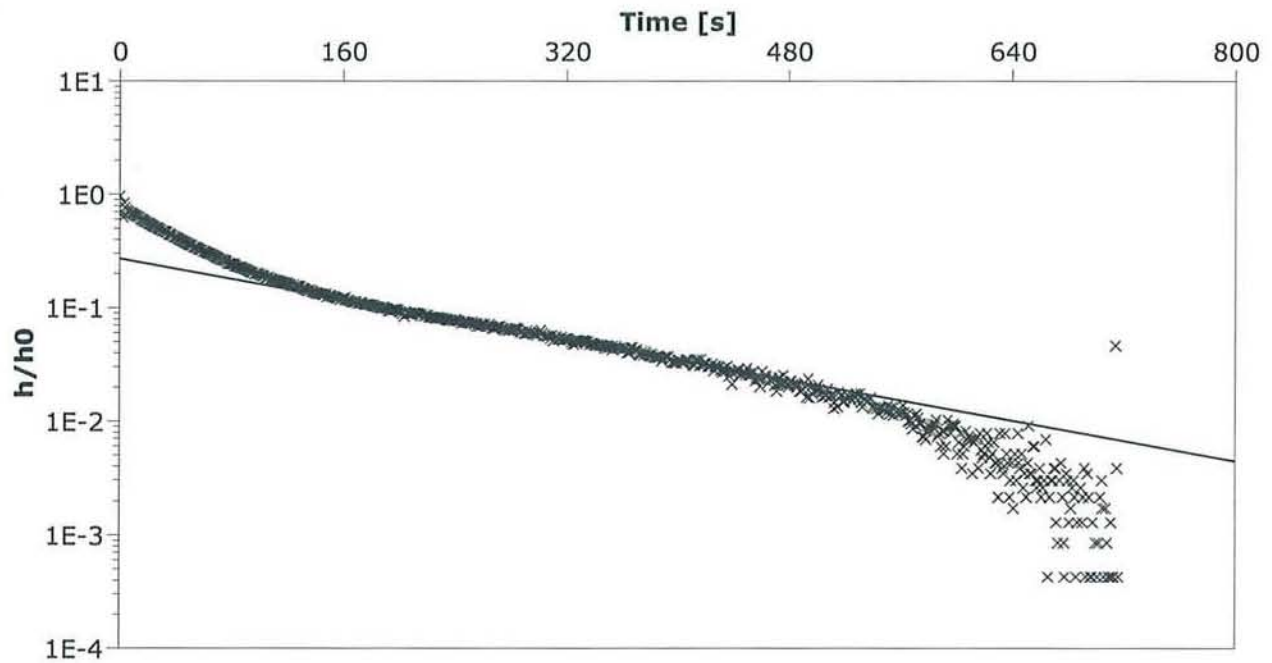
Test date: 1/3/2008

Analysis performed by: G. P. Wittman

B-17

Date: 1/14/2008

Aquifer Thickness: 17.78 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B17

6.40×10^0

Kleinfelder West, Inc
 2315 S. Cobalt Point Way
 Meridian, Idaho 83642
 (208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 1

Test Well: B17

Test conducted by: David Neidigh

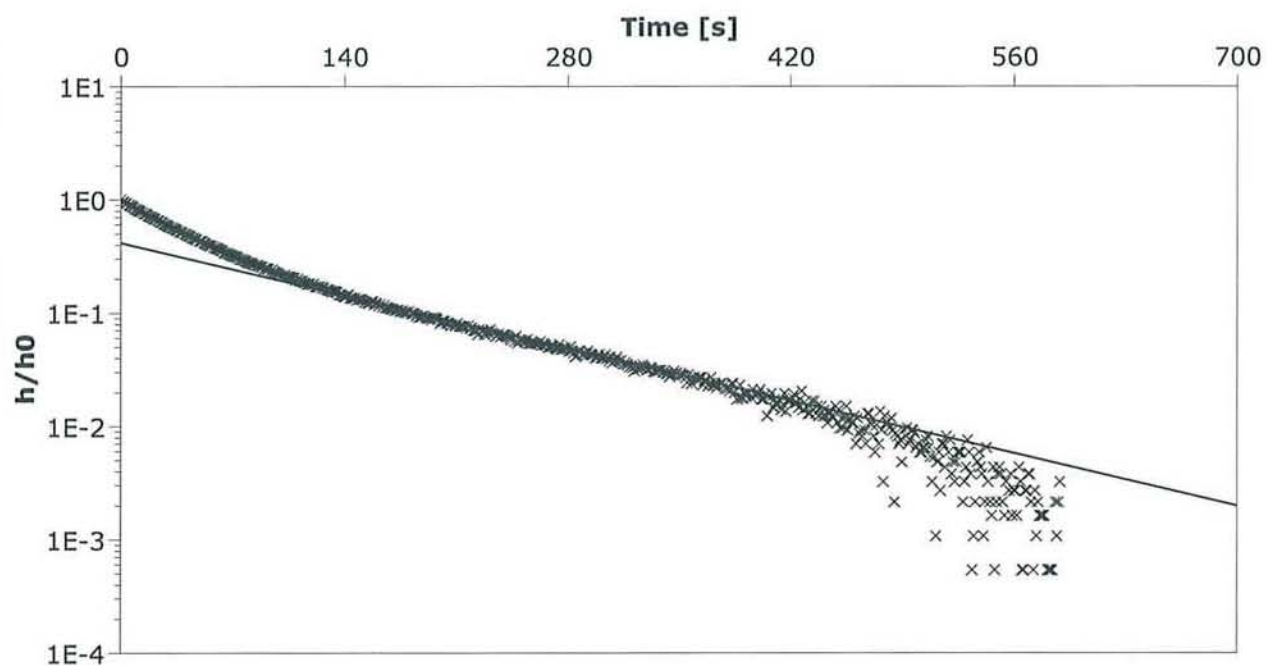
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

B-17

Date: 1/14/2008

Aquifer Thickness: 17.78 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B17

9.50×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 2

Test Well: B17

Test conducted by: David Neidigh

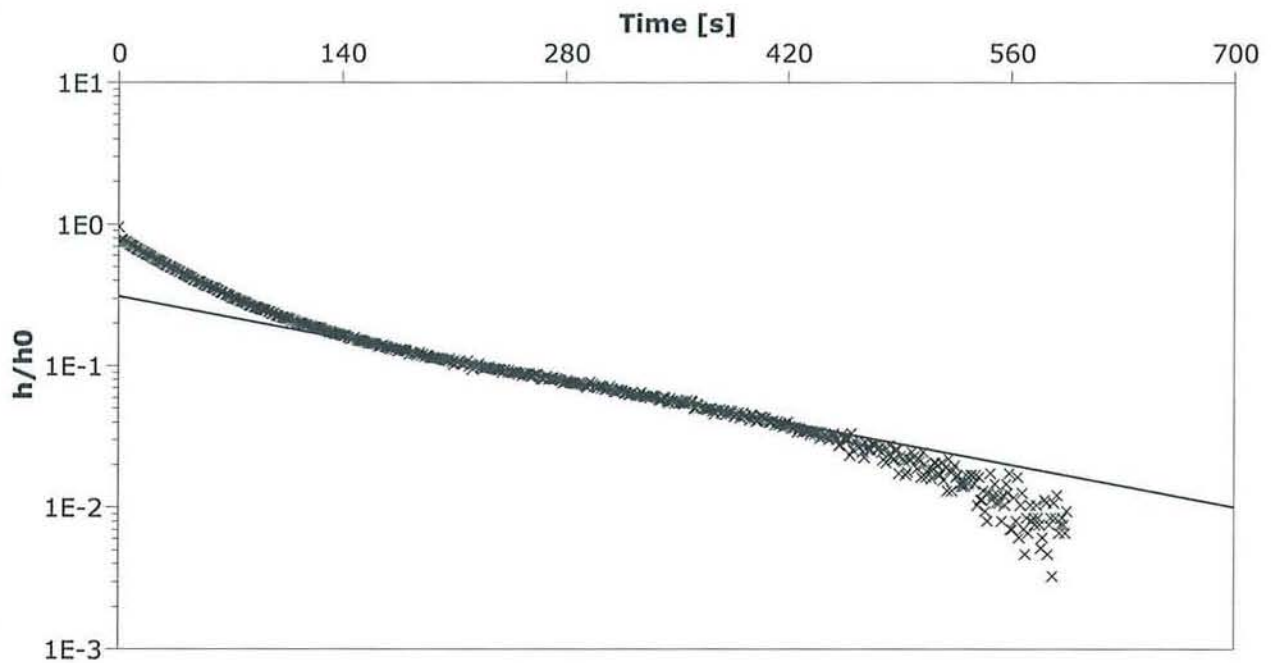
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

B-17

Date: 1/14/2008

Aquifer Thickness: 17.78 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B17

6.10×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 2

Test Well: B17

Test conducted by: David Neidigh

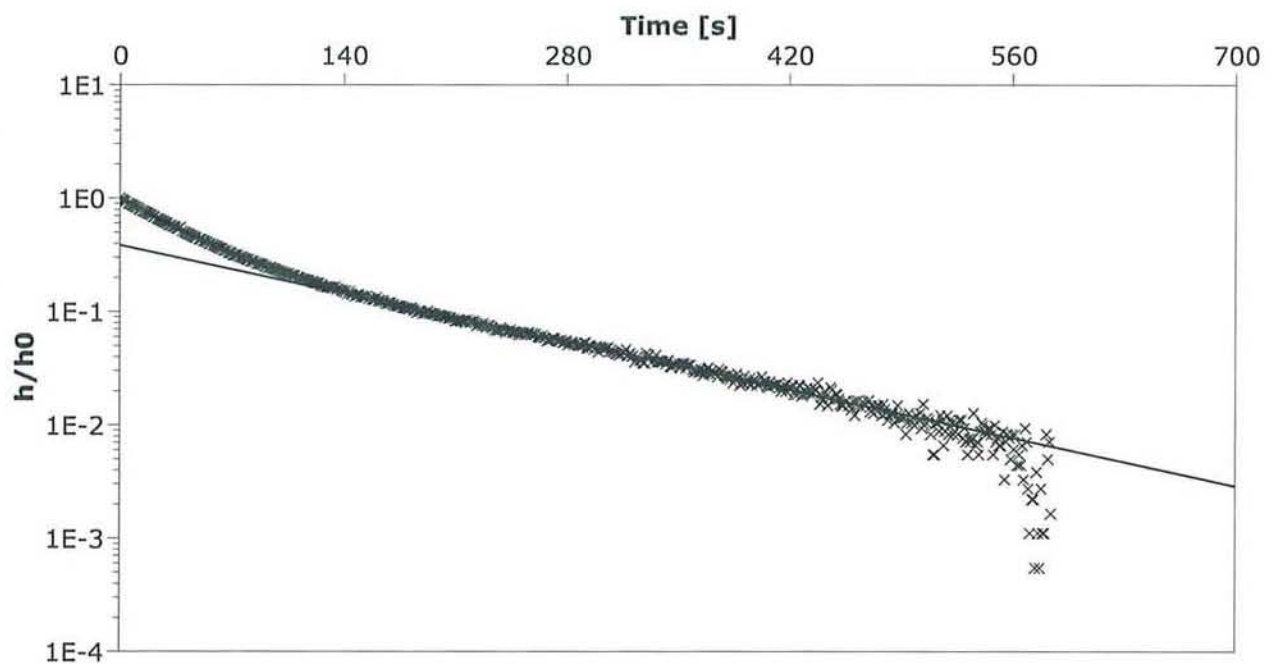
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

B-17

Date: 1/14/2008

Aquifer Thickness: 17.78 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B17

8.70×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 3

Test Well: B17

Test conducted by: David Neidigh

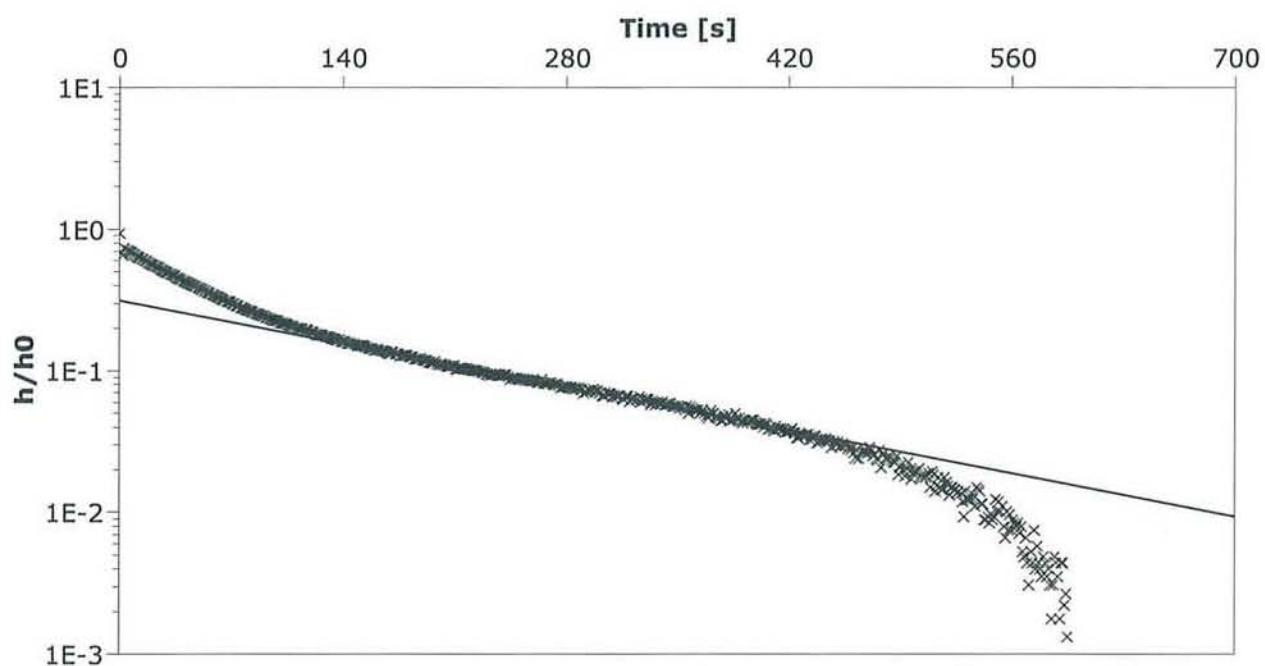
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

B-17

Date: 1/14/2008

Aquifer Thickness: 17.78 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B17

6.25×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 3

Test Well: B17

Test conducted by: David Neidigh

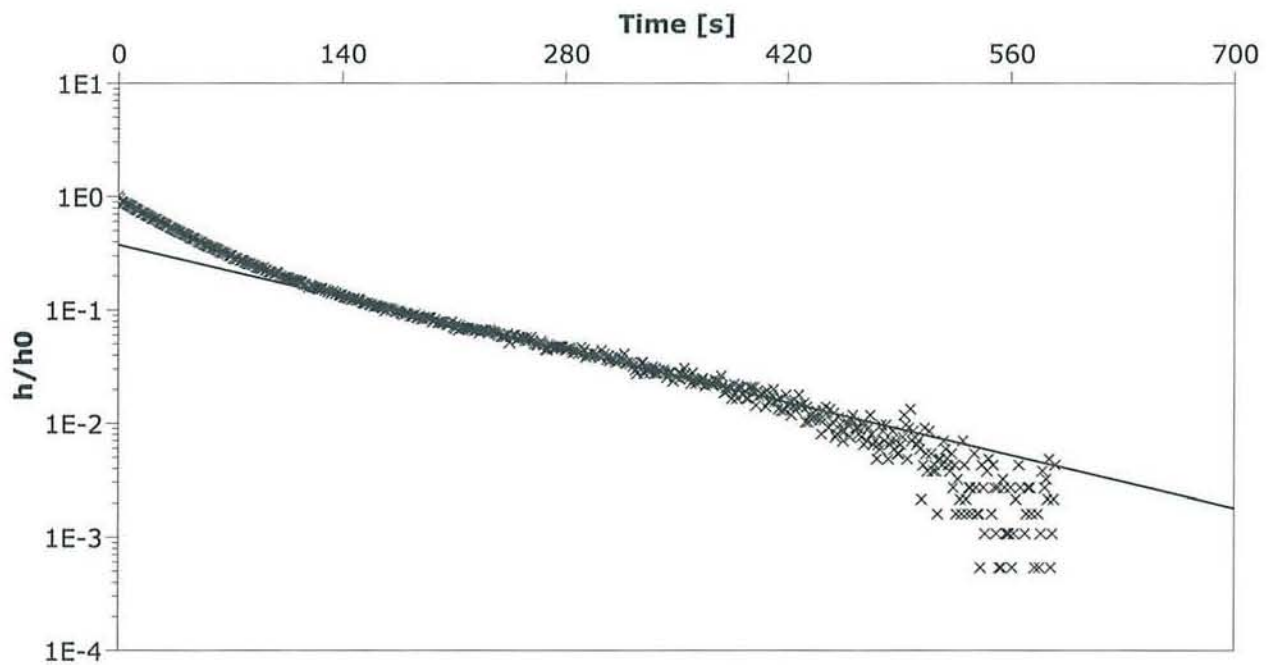
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

B-17

Date: 1/14/2008

Aquifer Thickness: 17.78 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B17

9.50×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 1

Test Well: B-18

Test conducted by: David Neidigh

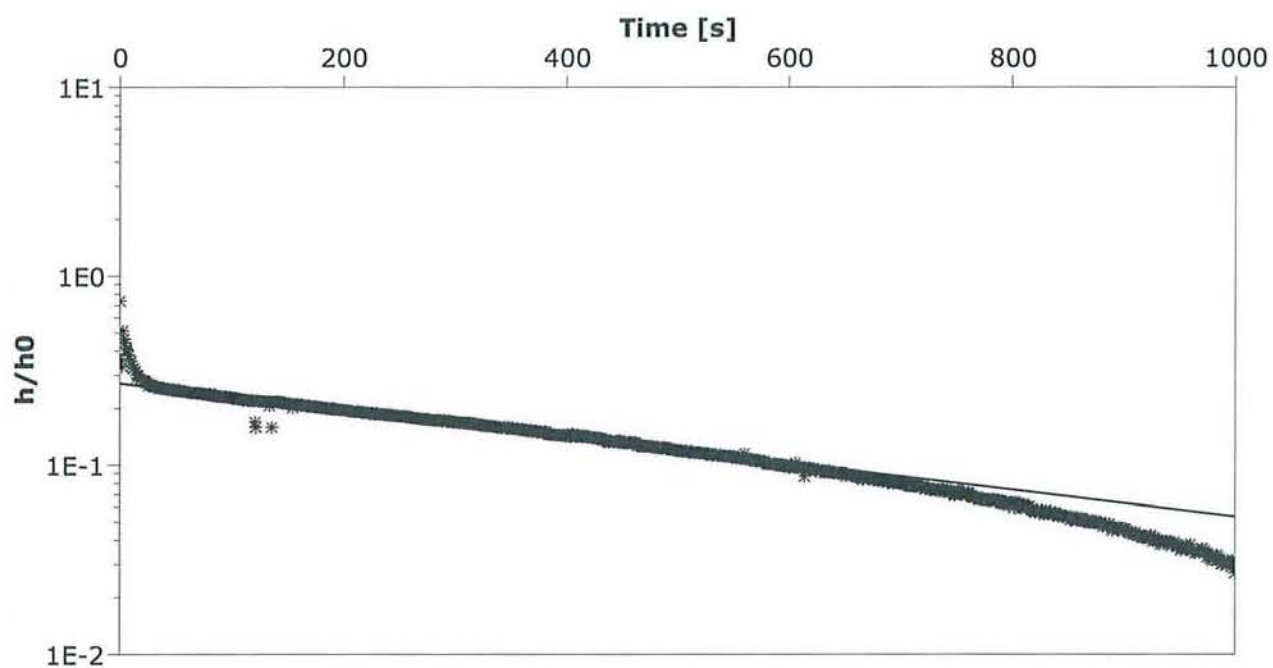
Test date: 1/3/2008

Analysis performed by: G. P. Wittman

B-18

Date: 1/15/2008

Aquifer Thickness: 15.38 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B-18

2.02×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 1

Test Well: B-18

Test conducted by: David Neidigh

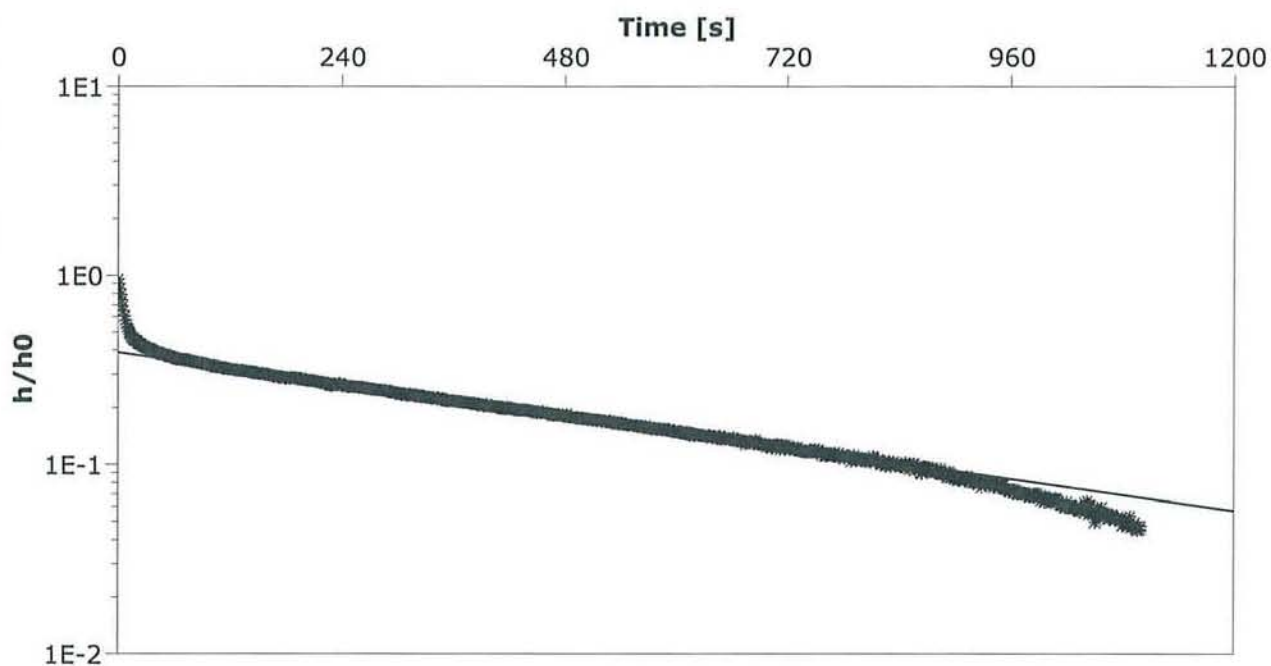
Test date: 1/3/2008

Analysis performed by: G. P. Wittman

B-18

Date: 1/15/2008

Aquifer Thickness: 15.38 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B-18

2.00×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 2

Test Well: B-18

Test conducted by: David Neidigh

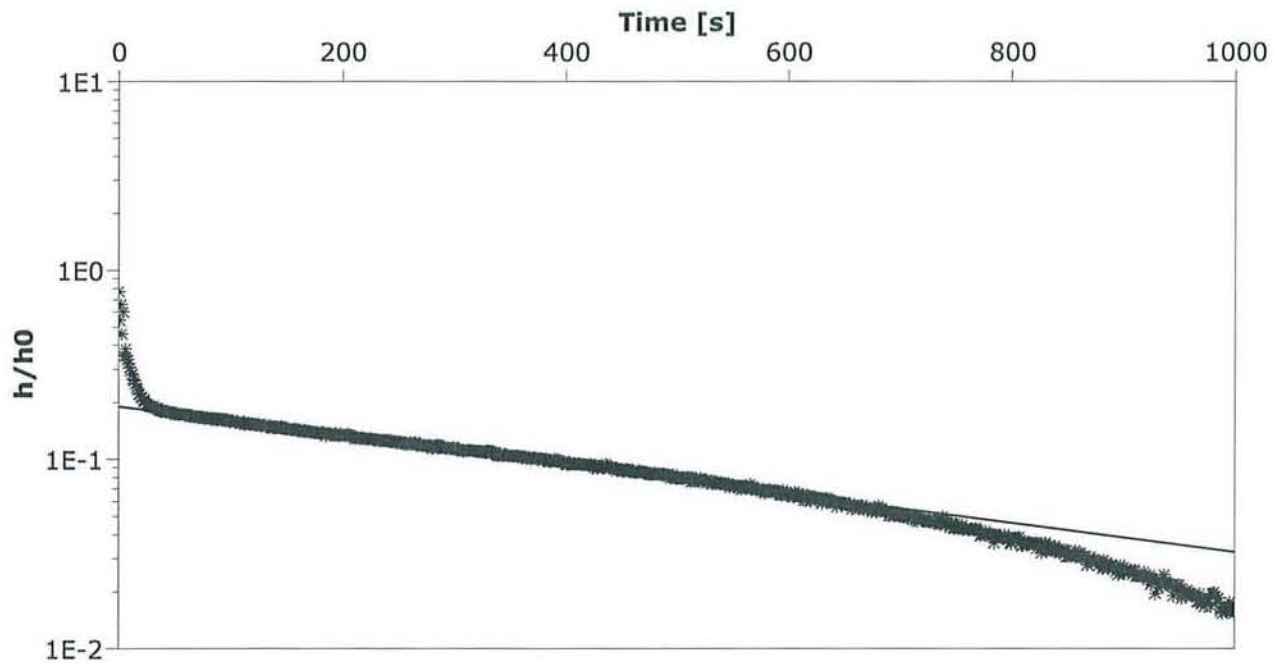
Test date: 1/3/2008

Analysis performed by: G. P. Wittman

B-18

Date: 1/15/2008

Aquifer Thickness: 15.38 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B-18

2.20×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 2

Test Well: B-18

Test conducted by: David Neidigh

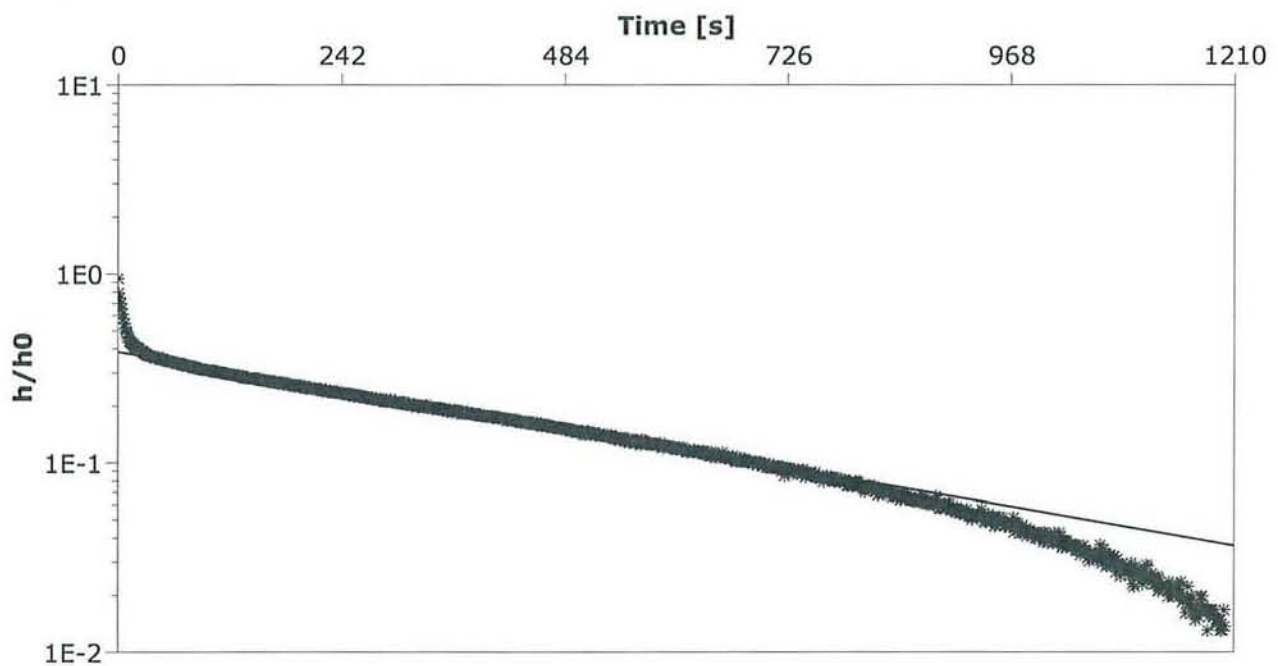
Test date: 1/3/2008

Analysis performed by: G. P. Wittman

B-18

Date: 1/15/2008

Aquifer Thickness: 15.38 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B-18

2.42×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 3

Test Well: B-18

Test conducted by: David Neidigh

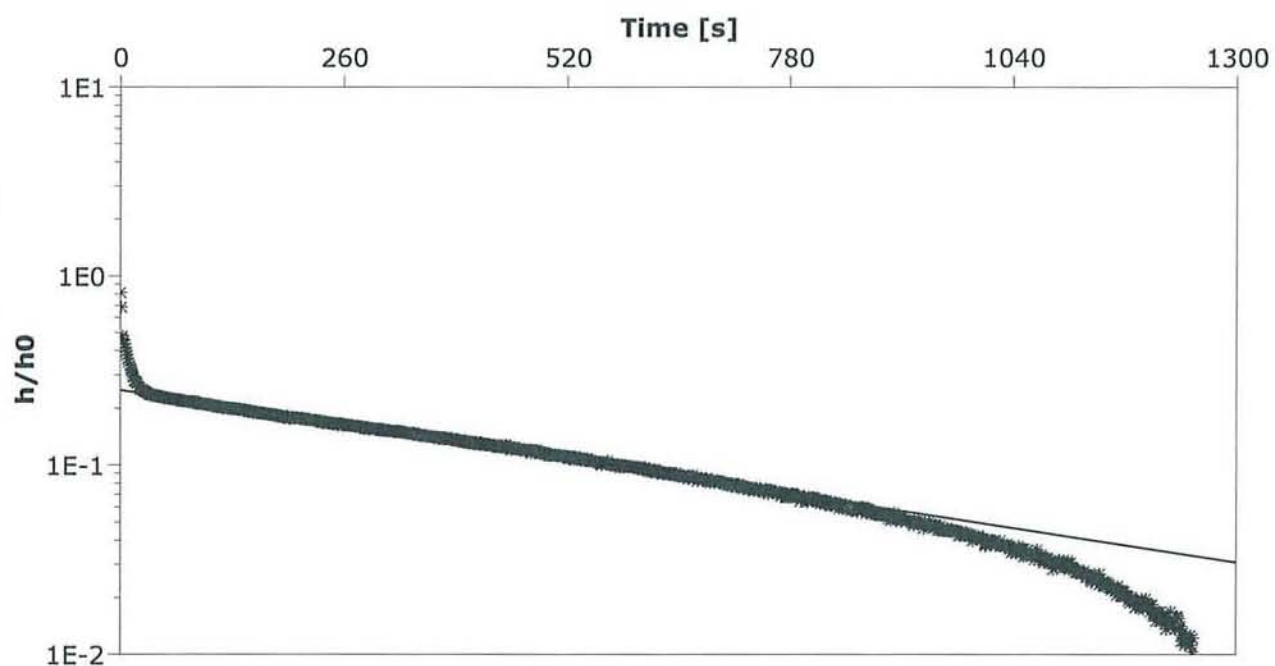
Test date: 1/3/2008

Analysis performed by: G. P. Wittman

B-18

Date: 1/15/2008

Aquifer Thickness: 15.38 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B-18

2.00×10^0

Kleinfelder West, Inc
 2315 S. Cobalt Point Way
 Meridian, Idaho 83642
 (208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 3

Test Well: B-18

Test conducted by: David Neidigh

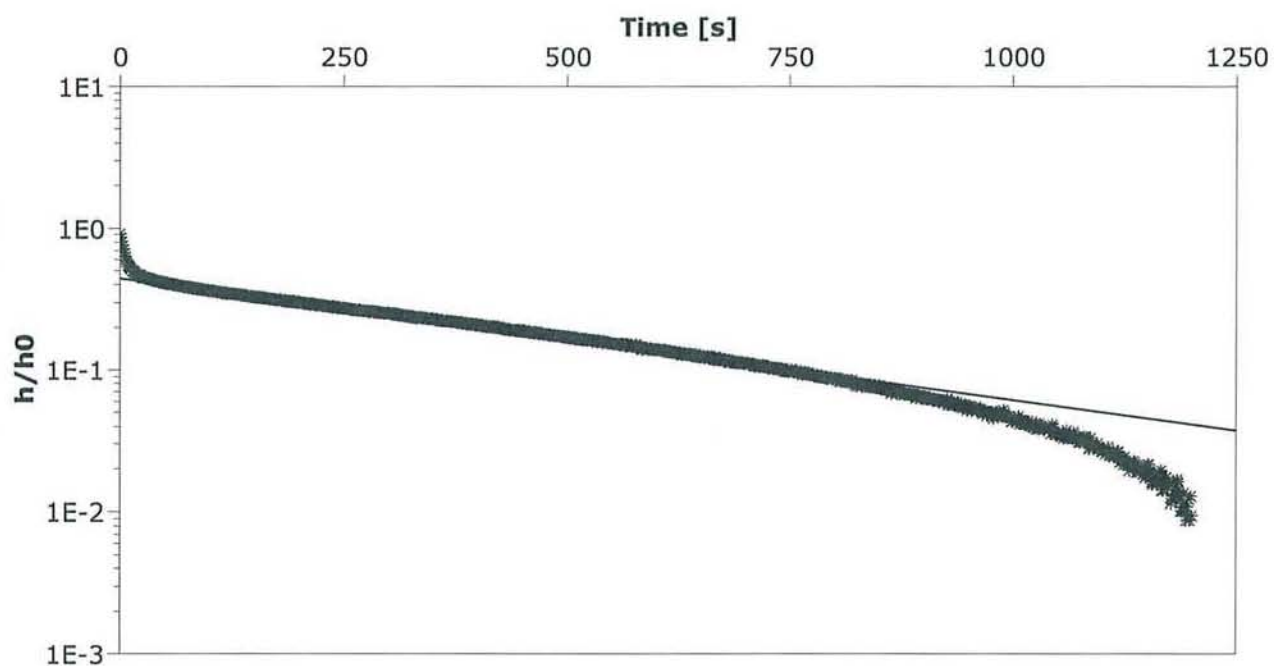
Test date: 1/3/2008

Analysis performed by: G. P. Wittman

B-18

Date: 1/15/2008

Aquifer Thickness: 15.38 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B-18

2.45×10^0

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 1

Test Well: B-14R

Test conducted by: David Neidigh

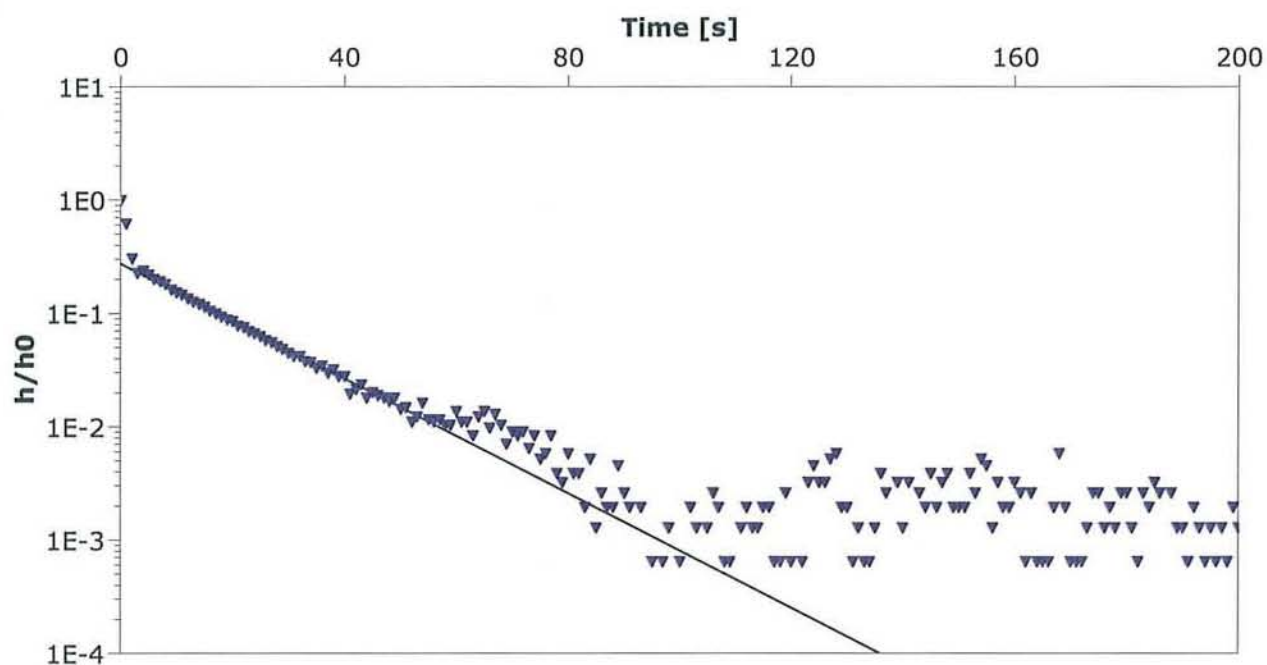
Test date: 1/6/2008

Analysis performed by: G. P. Wittman

B-14R

Date: 1/16/2008

Aquifer Thickness: 26.21 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B-14R

7.25×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 1

Test Well: B-14R

Test conducted by: David Neidigh

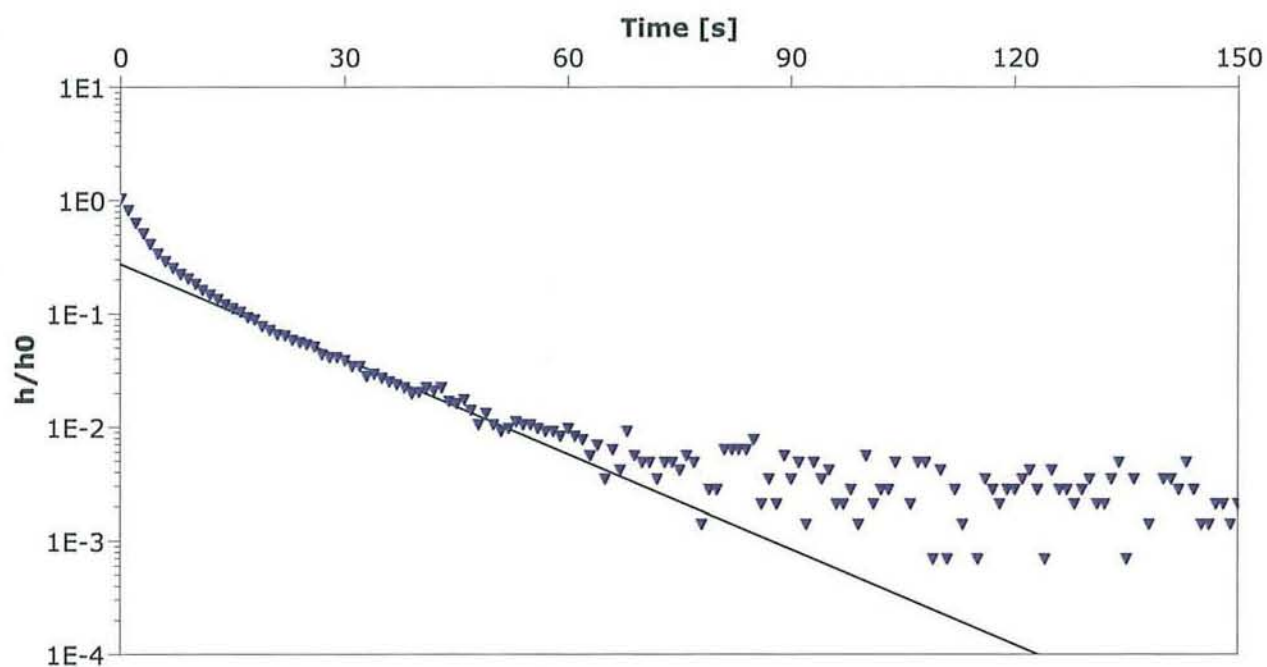
Test date: 1/6/2008

Analysis performed by: G. P. Wittman

B-14R

Date: 1/16/2008

Aquifer Thickness: 26.21 ft



Calculation after Bouwer & Rice

Observation well

K
[ft/d]

B-14R

8.00×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 2

Test Well: B-14R

Test conducted by: David Neidigh

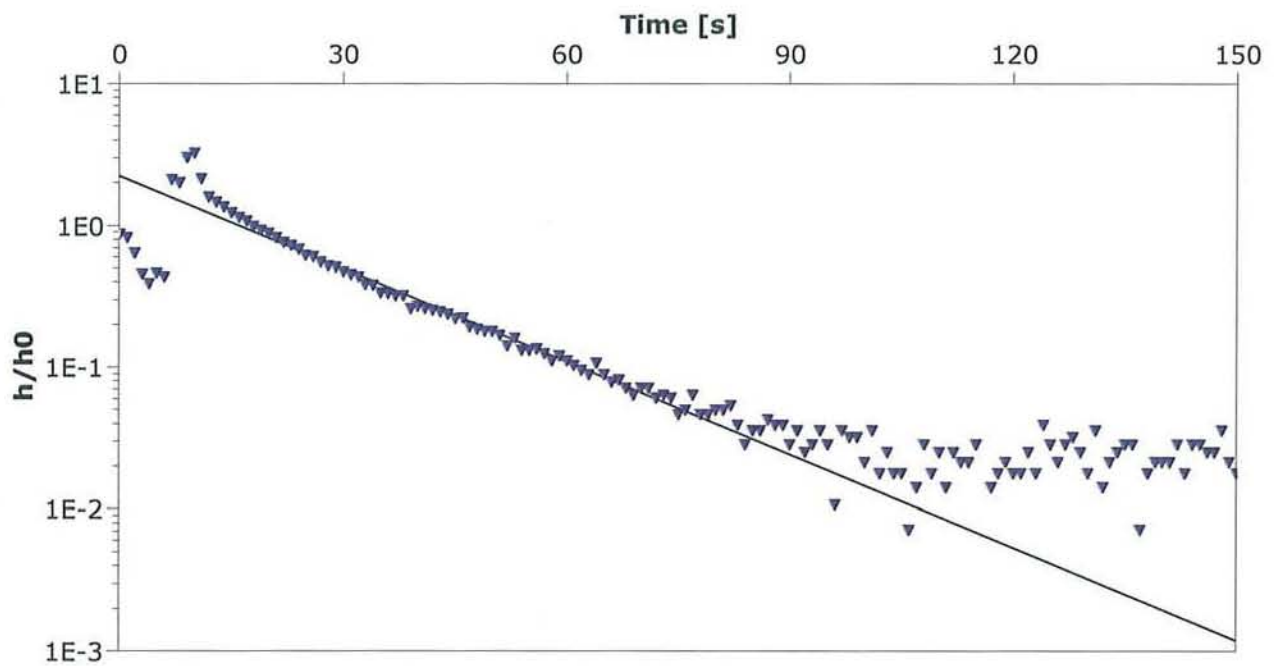
Test date: 1/6/2008

Analysis performed by: G. P. Wittman

B-14R

Date: 1/16/2008

Aquifer Thickness: 26.21 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B-14R

6.25×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 2

Test Well: B-14R

Test conducted by: David Neidigh

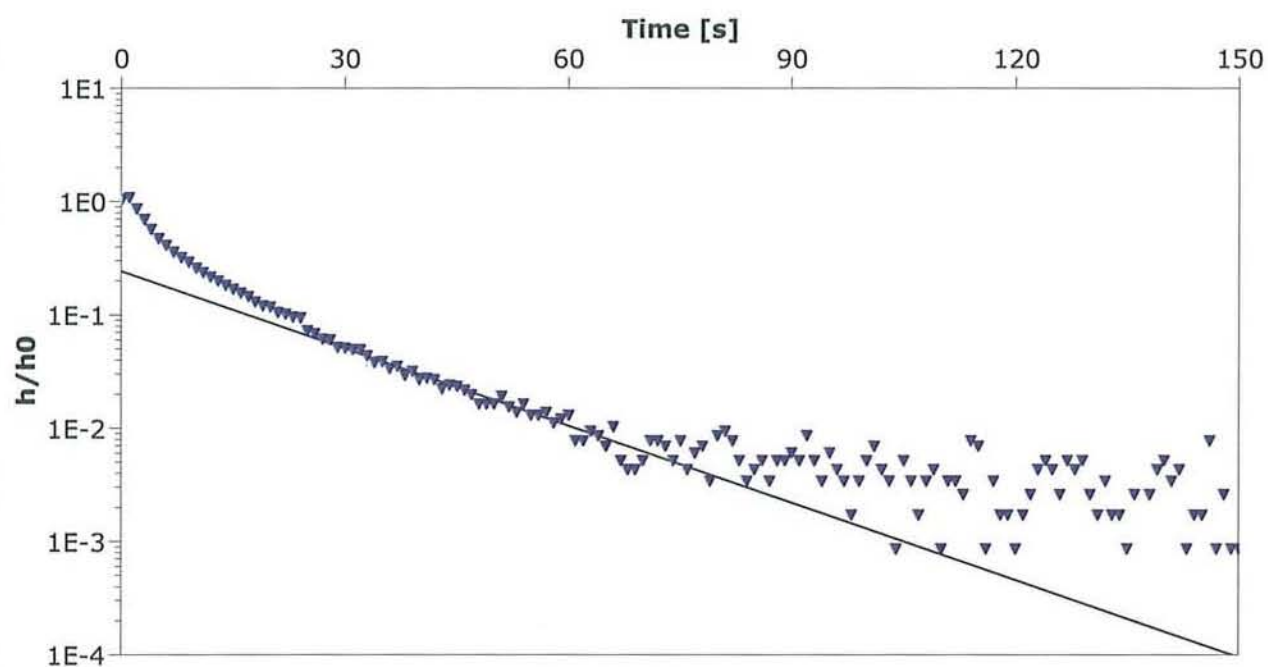
Test date: 1/6/2008

Analysis performed by: G. P. Wittman

B-14R

Date: 1/16/2008

Aquifer Thickness: 26.21 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B-14R

6.50×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 3

Test Well: B-14R

Test conducted by: David Neidigh

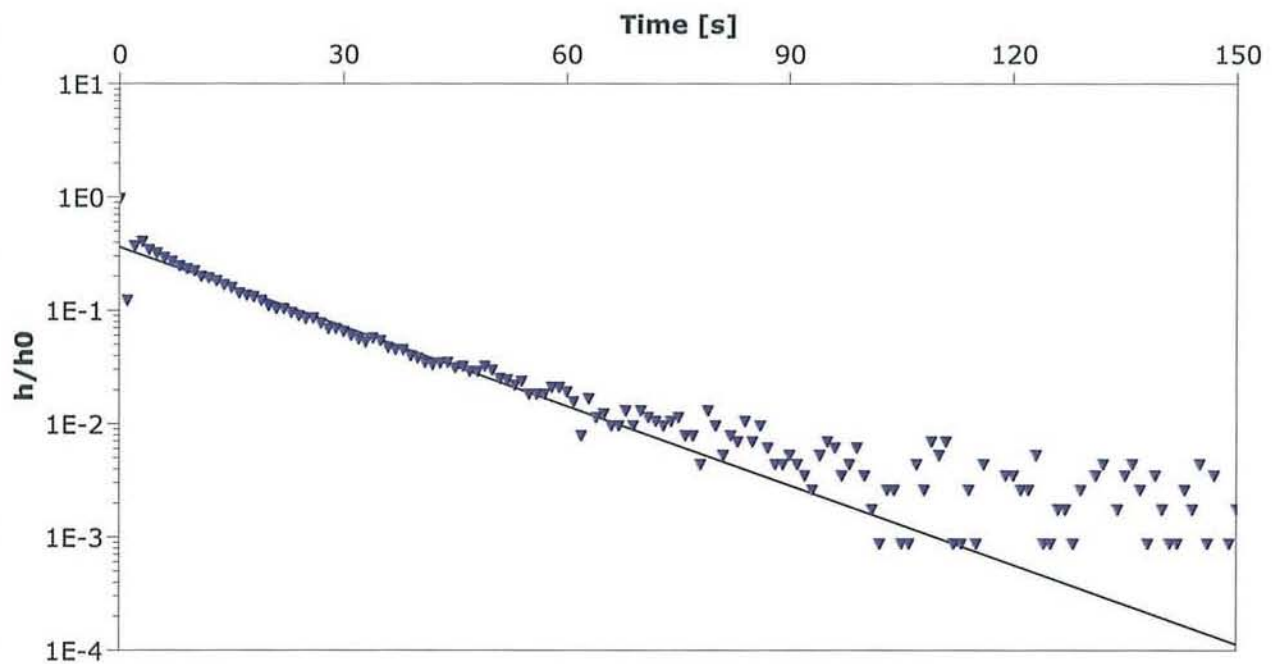
Test date: 1/6/2008

Analysis performed by: G. P. Wittman

B-14R

Date: 1/16/2008

Aquifer Thickness: 26.21 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B-14R

6.70×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 3

Test Well: B-14R

Test conducted by: David Neidigh

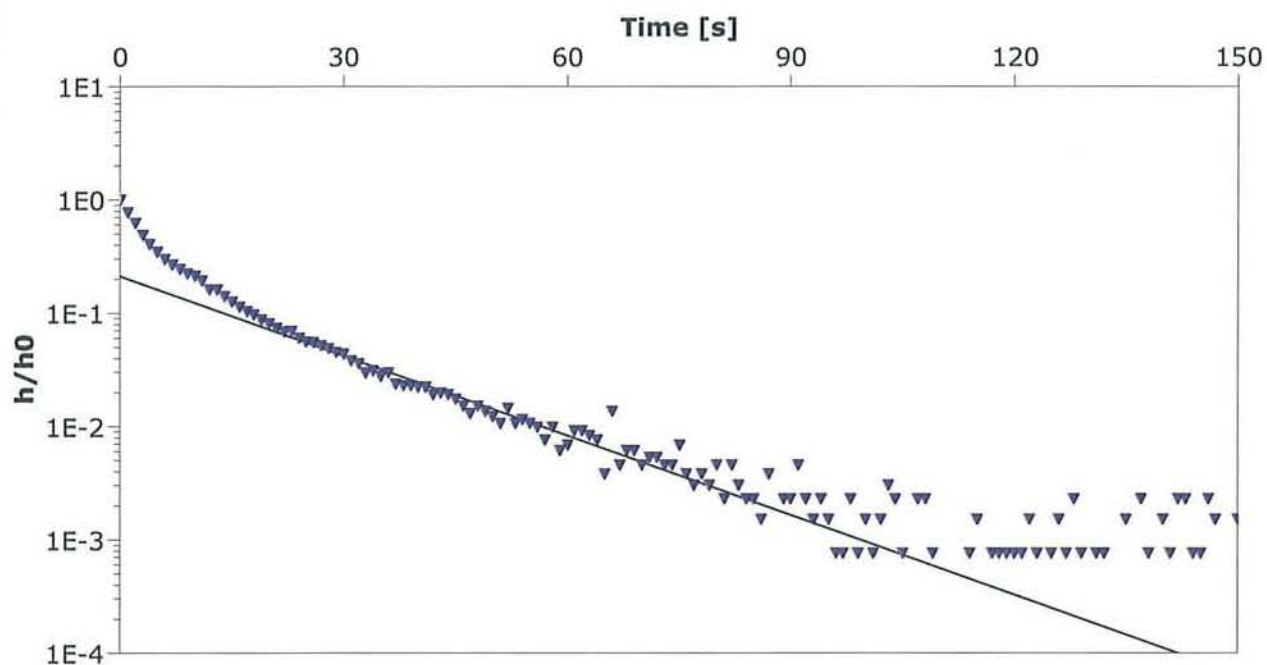
Test date: 1/6/2008

Analysis performed by: G. P. Wittman

B-14R

Date: 1/16/2008

Aquifer Thickness: 26.21 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

B-14R

6.70×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 1

Test Well: MCF-BW-12A

Test conducted by: David Neidigh

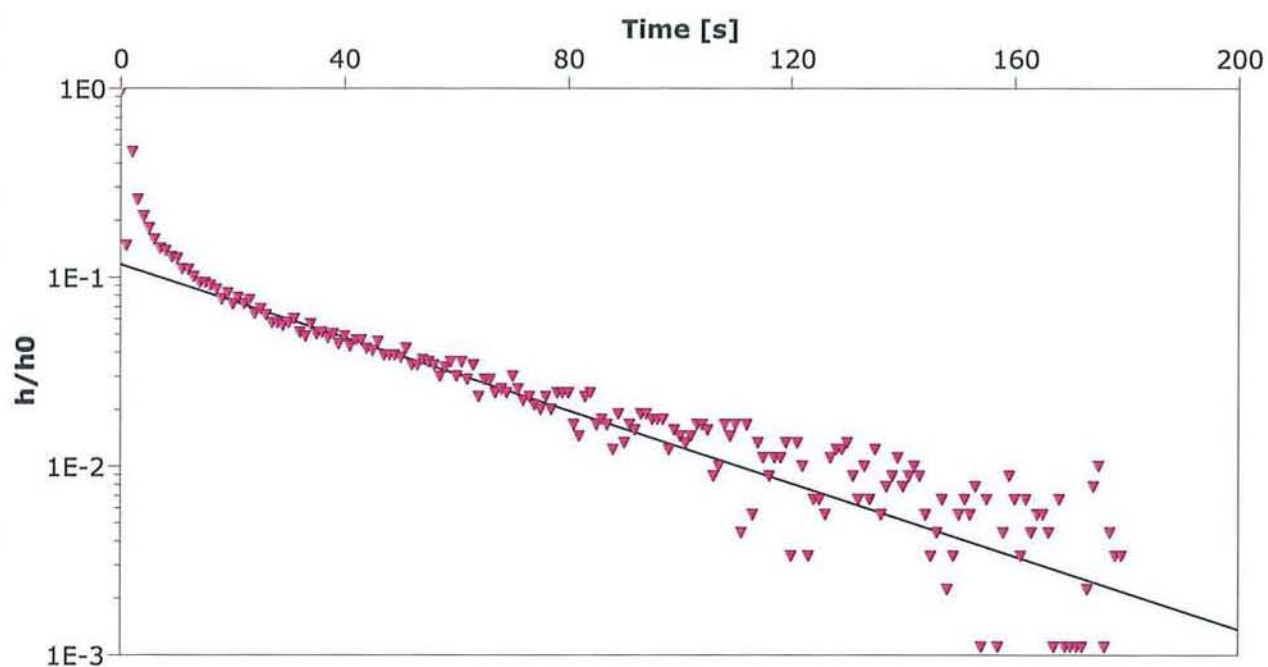
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-12A Slug In 1

Date: 1/7/2008

Aquifer Thickness: 19.95 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-12A

2.08×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 1

Test Well: MCF-BW-12A

Test conducted by: David Neidigh

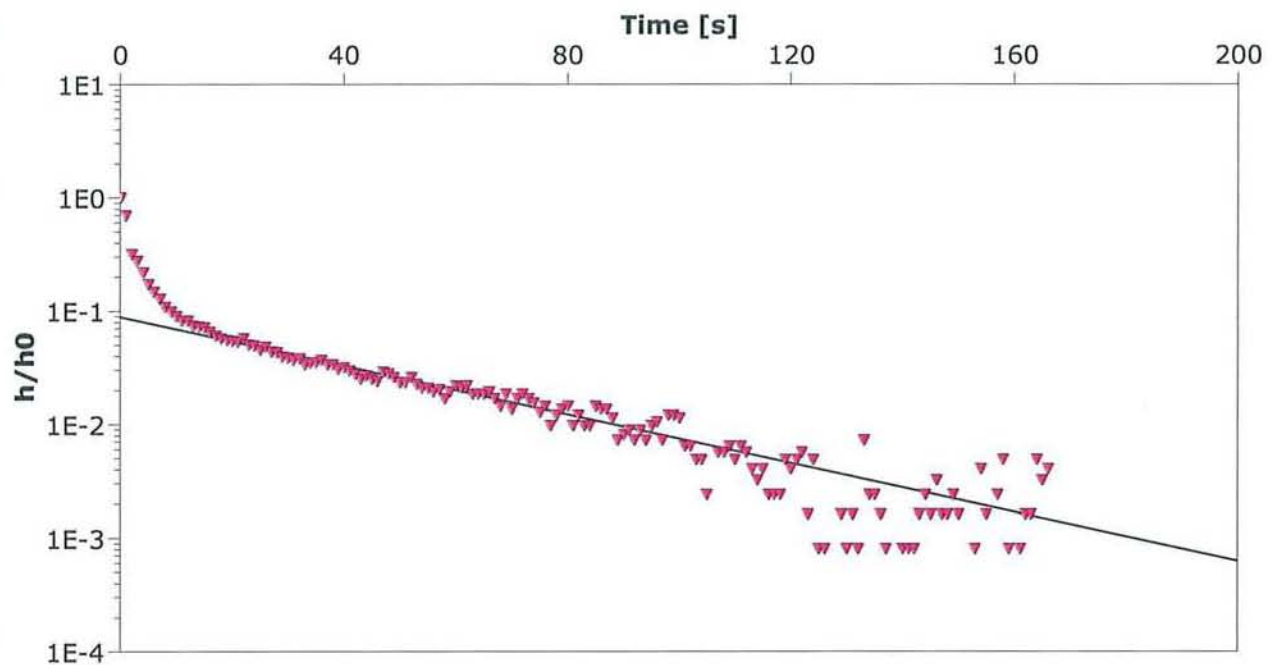
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-12A

Date: 1/16/2008

Aquifer Thickness: 19.95 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-12A

2.31×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 2

Test Well: MCF-BW-12A

Test conducted by: David Neidigh

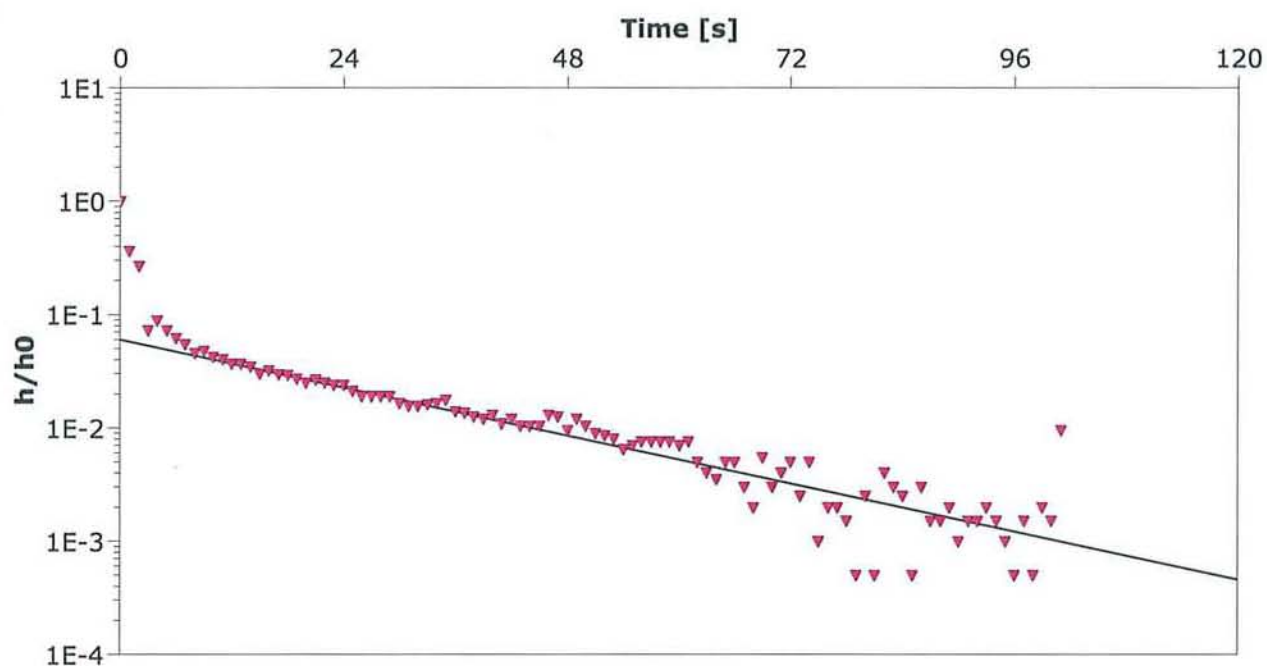
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-12A

Date: 1/16/2008

Aquifer Thickness: 19.95 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-12A

3.80×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 2

Test Well: MCF-BW-12A

Test conducted by: David Neidigh

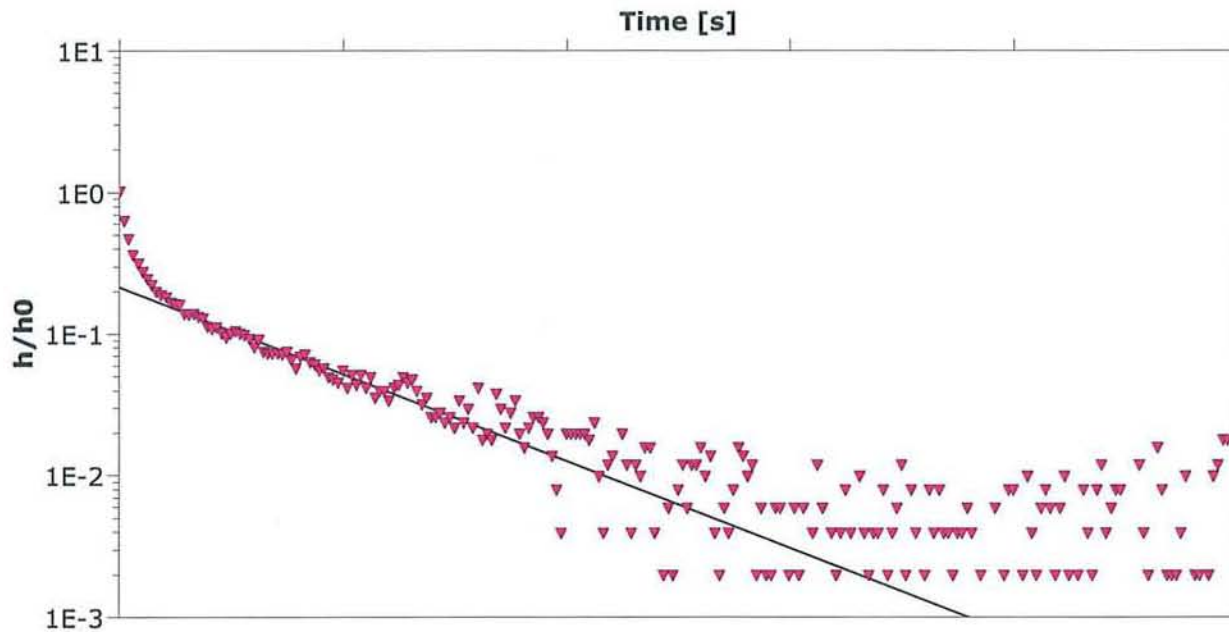
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-12A

Date: 1/16/2008

Aquifer Thickness: 19.95 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-12A

2.75×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 3

Test Well: MCF-BW-12A

Test conducted by: David Neidigh

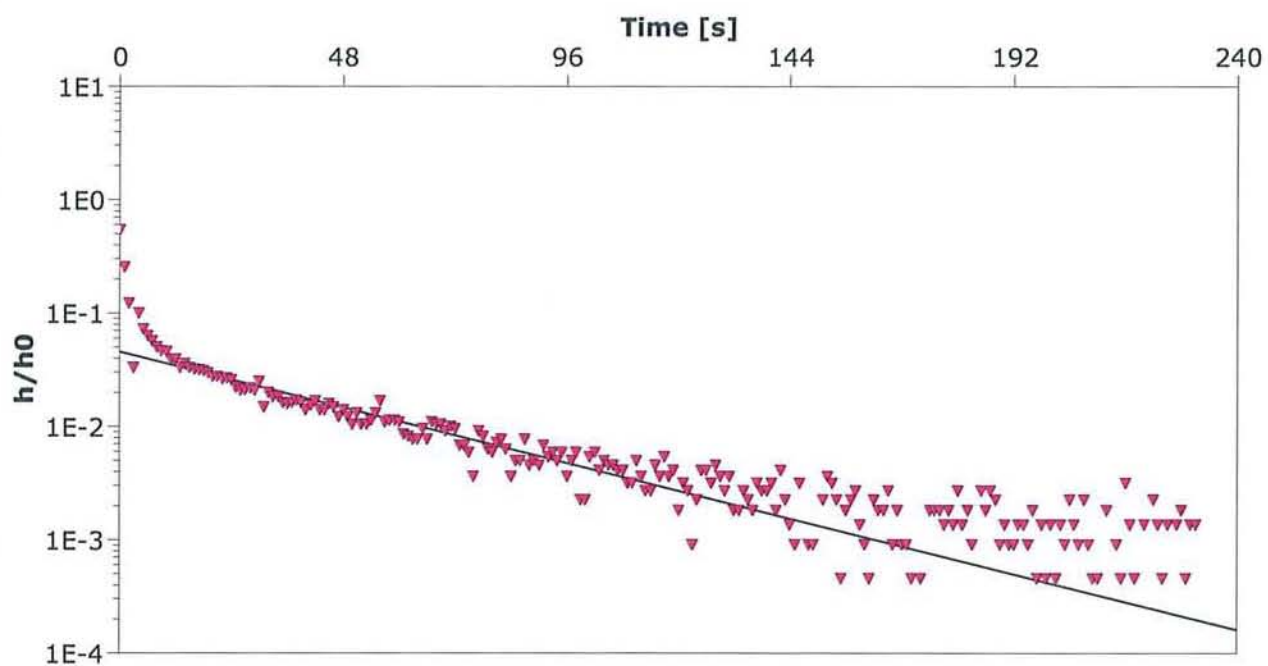
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-12A

Date: 1/16/2008

Aquifer Thickness: 19.95 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-12A

2.20×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 3

Test Well: MCF-BW-12A

Test conducted by: David Neidigh

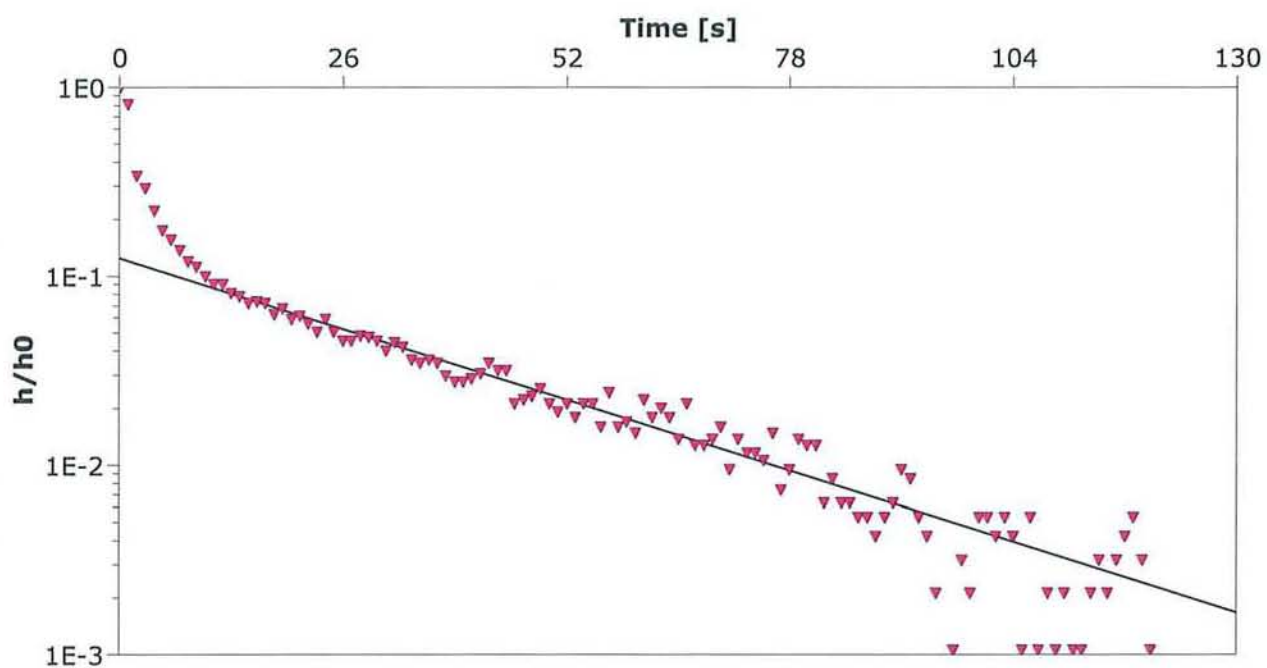
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-12A

Date: 1/16/2008

Aquifer Thickness: 19.95 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-12A

3.10×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 4

Test Well: MCF-BW-12A

Test conducted by: David Neidigh

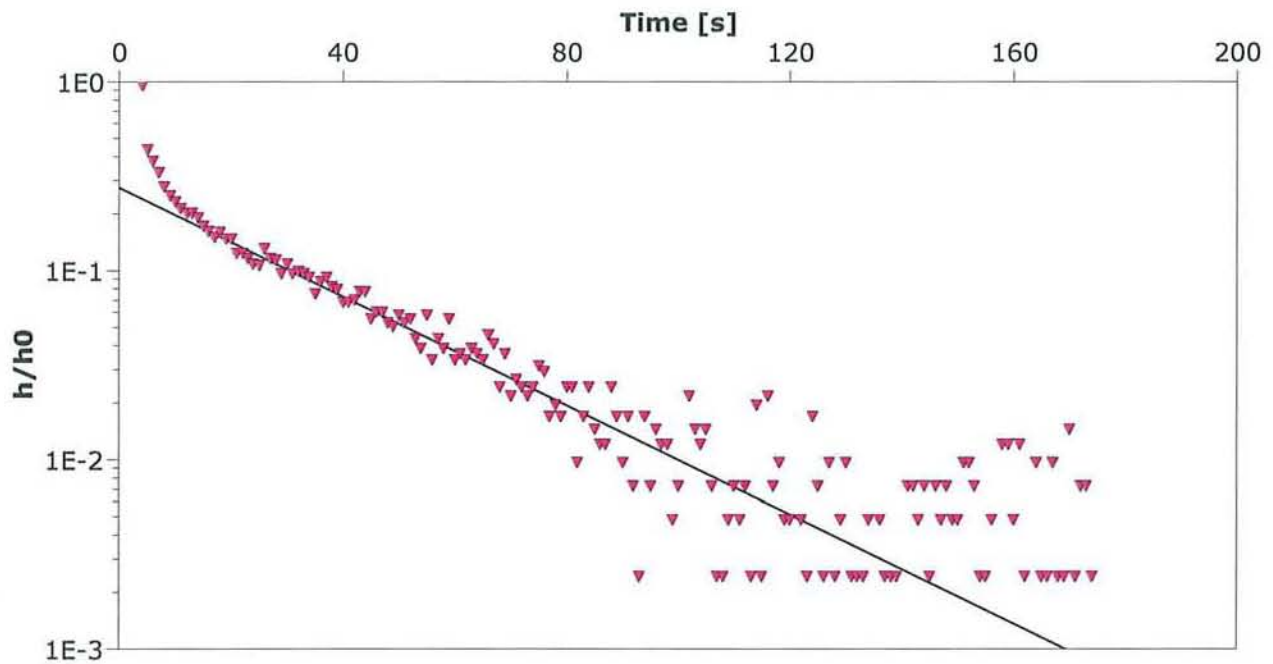
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-12A

Date: 1/16/2008

Aquifer Thickness: 19.95 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-12A

3.10×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 4

Test Well: MCF-BW-12A

Test conducted by: David Neidigh

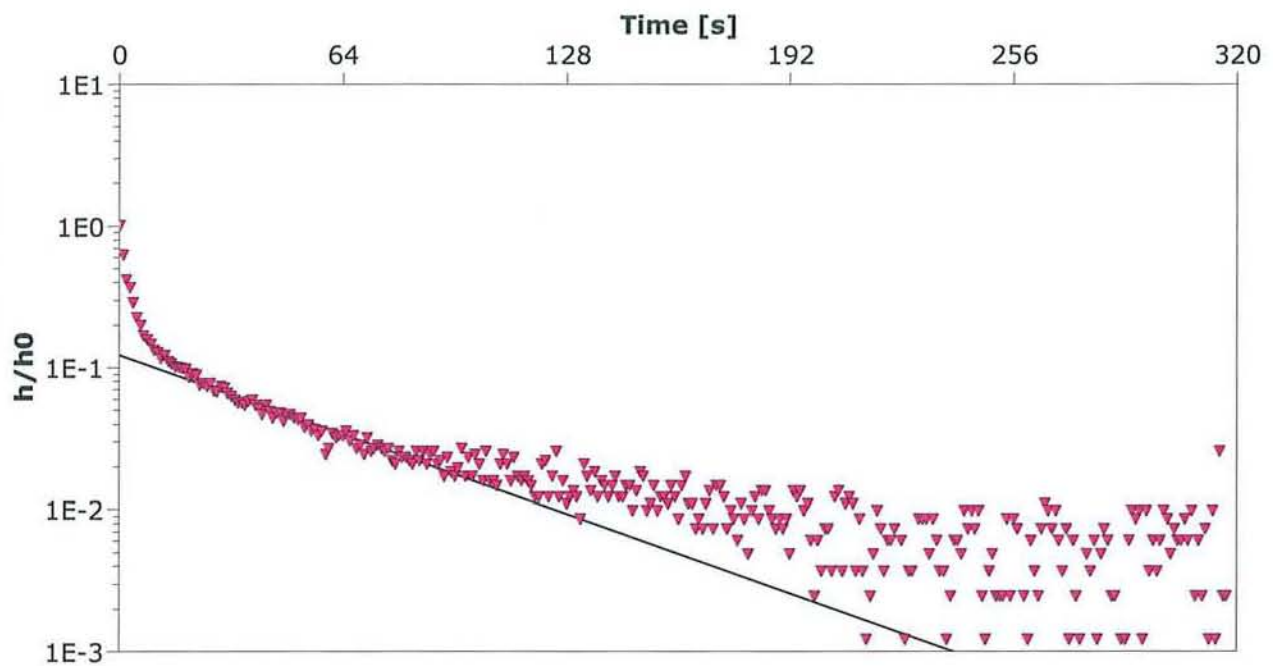
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-12A

Date: 1/16/2008

Aquifer Thickness: 19.95 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-12A

1.88×10^1

Kleinfelder West, Inc
 2315 S. Cobalt Point Way
 Meridian, Idaho 83642
 (208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 1

Test Well: AA-BW-08A

Test conducted by: David Neidigh

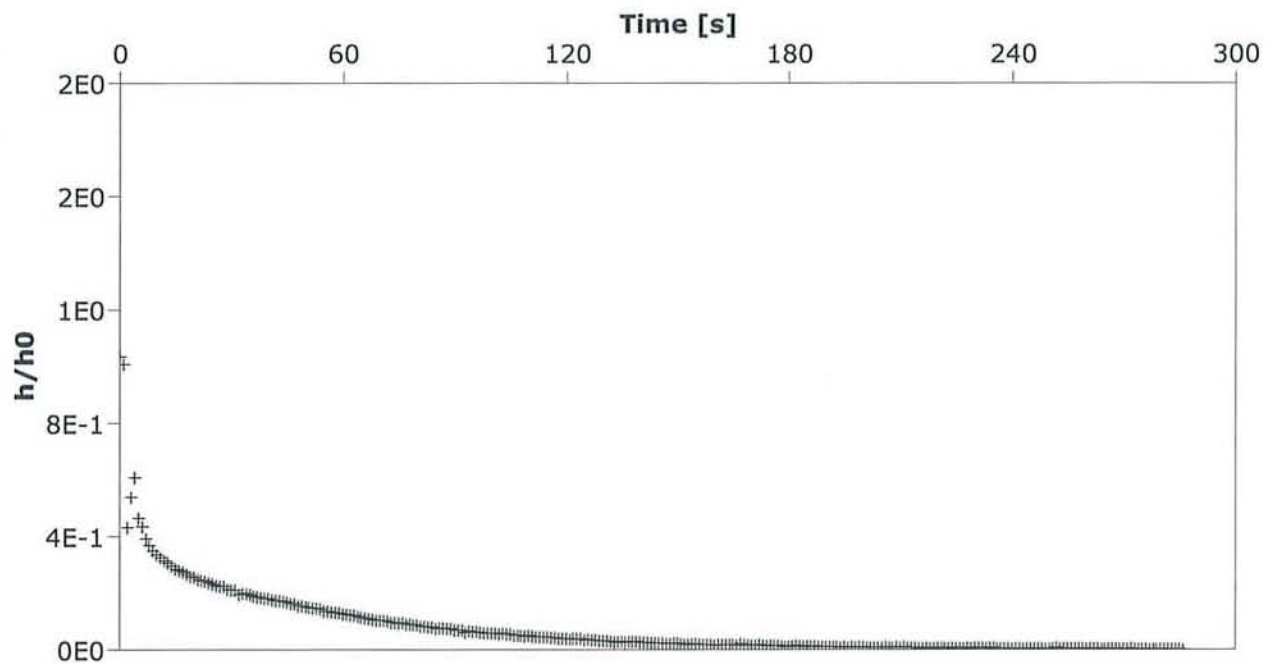
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

AA-BW-08A

Date: 1/7/2008

Aquifer Thickness: 9.40 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-08A

2.26×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 1

Test Well: AA-BW-08A

Test conducted by: David Neidigh

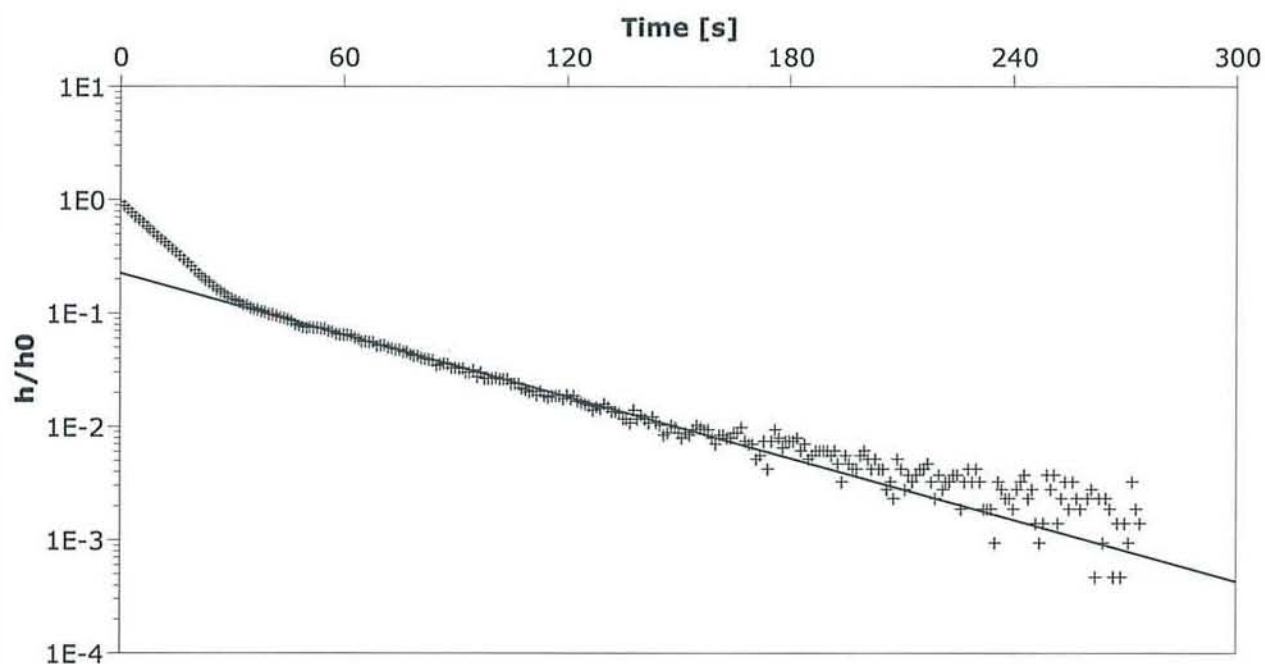
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

AA-BW-08A

Date: 1/14/2008

Aquifer Thickness: 9.40 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-08A

2.60×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 2

Test Well: AA-BW-08A

Test conducted by: David Neidigh

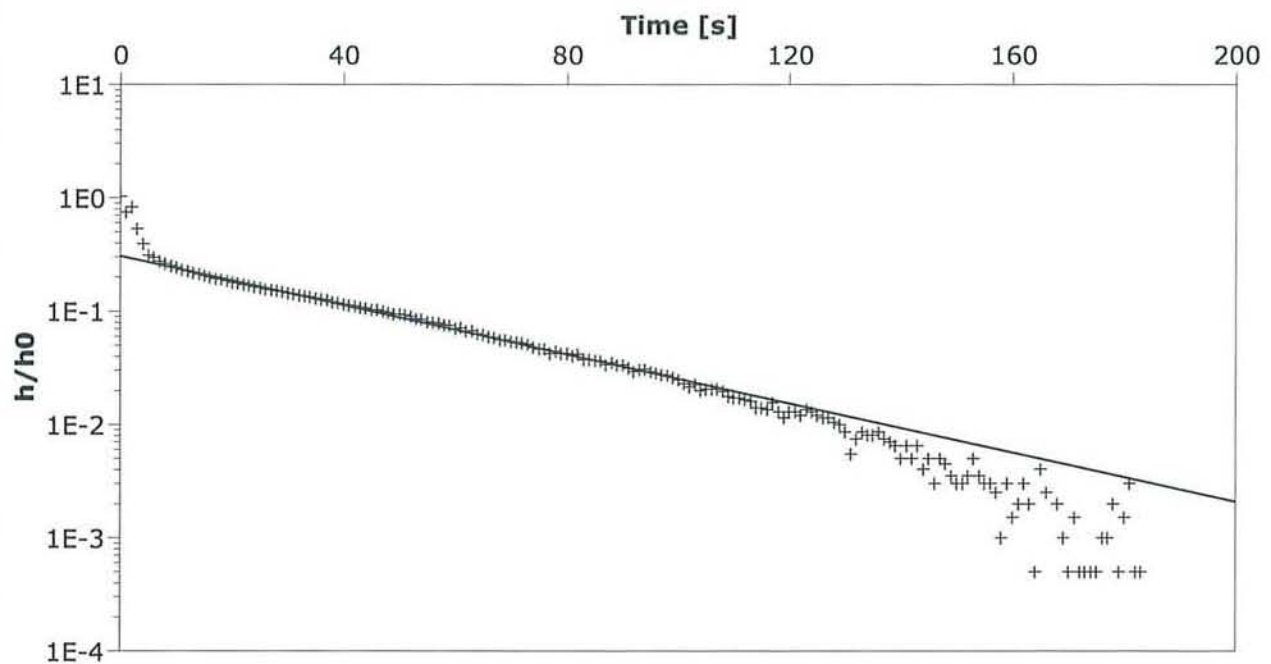
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

AA-BW-08A

Date: 1/14/2008

Aquifer Thickness: 9.40 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-08A

3.10×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 2

Test Well: AA-BW-08A

Test conducted by: Davis Neidigh

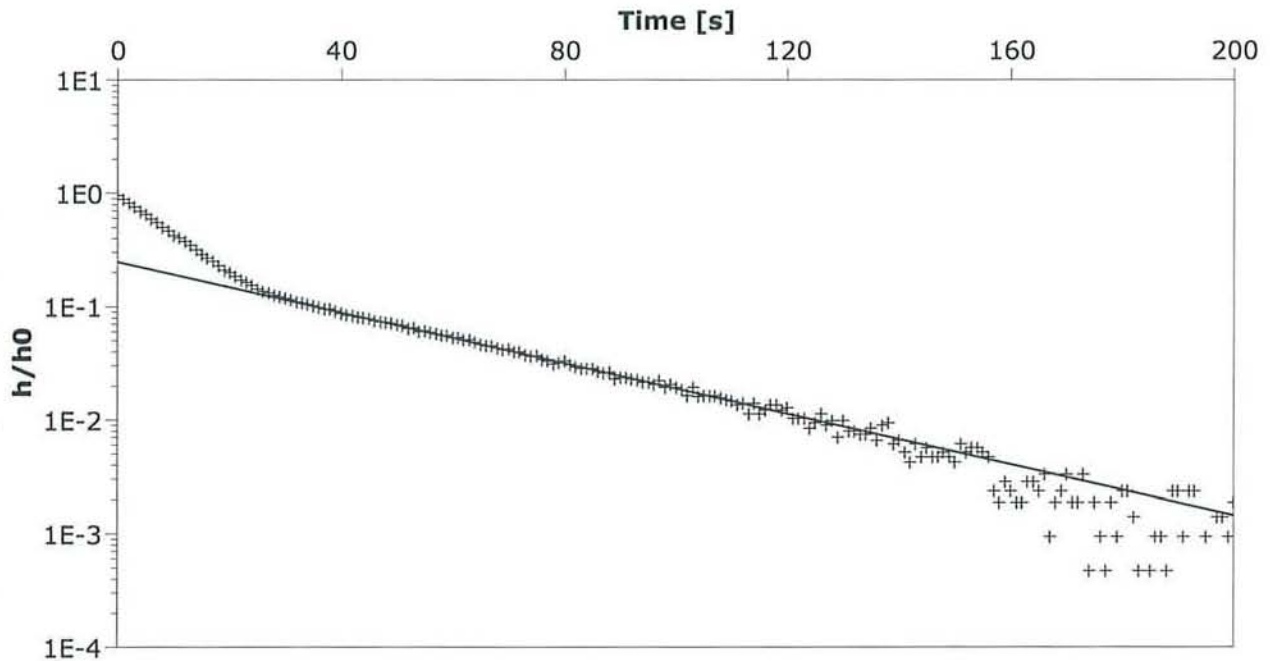
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

AA-BW-08A

Date: 1/14/2008

Aquifer Thickness: 9.40 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-08A

3.20×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 3

Test Well: AA-BW-08A

Test conducted by: David Neidigh

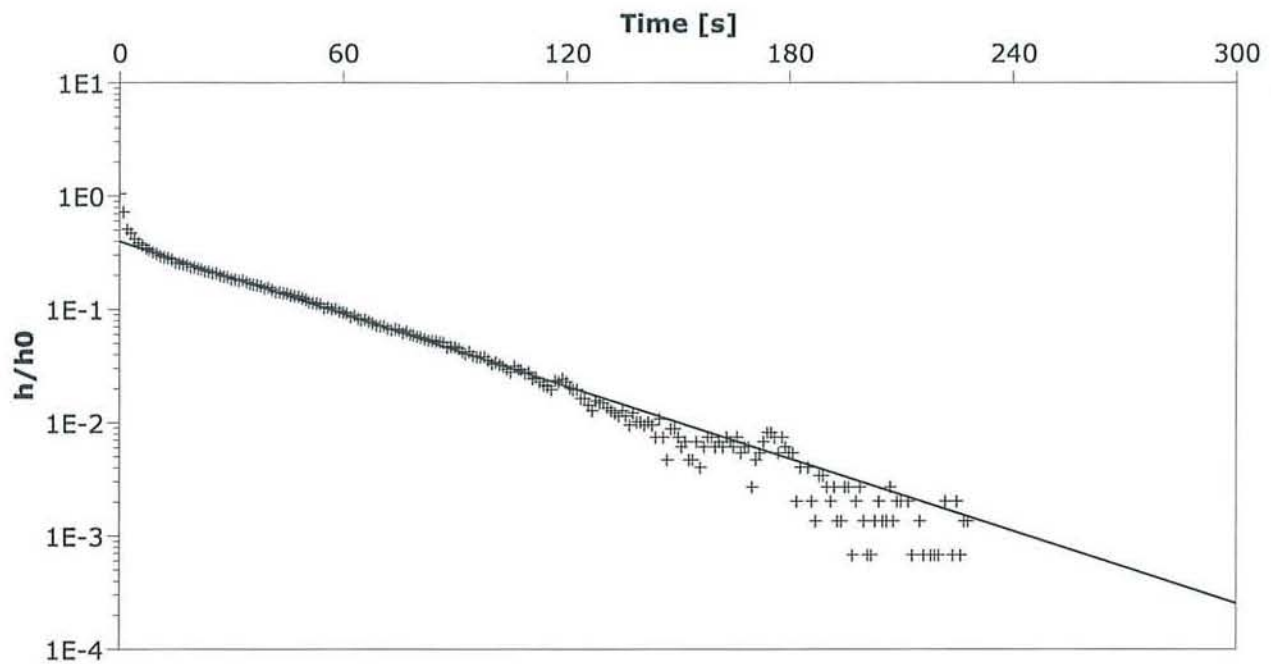
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

AA-BW-08A

Date: 1/14/2008

Aquifer Thickness: 9.40 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-08A

3.05×10^1

Kleinfelder West, Inc
2315 S. Cobalt Point Way
Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 3

Test Well: AA-BW-08A

Test conducted by: David Neidigh

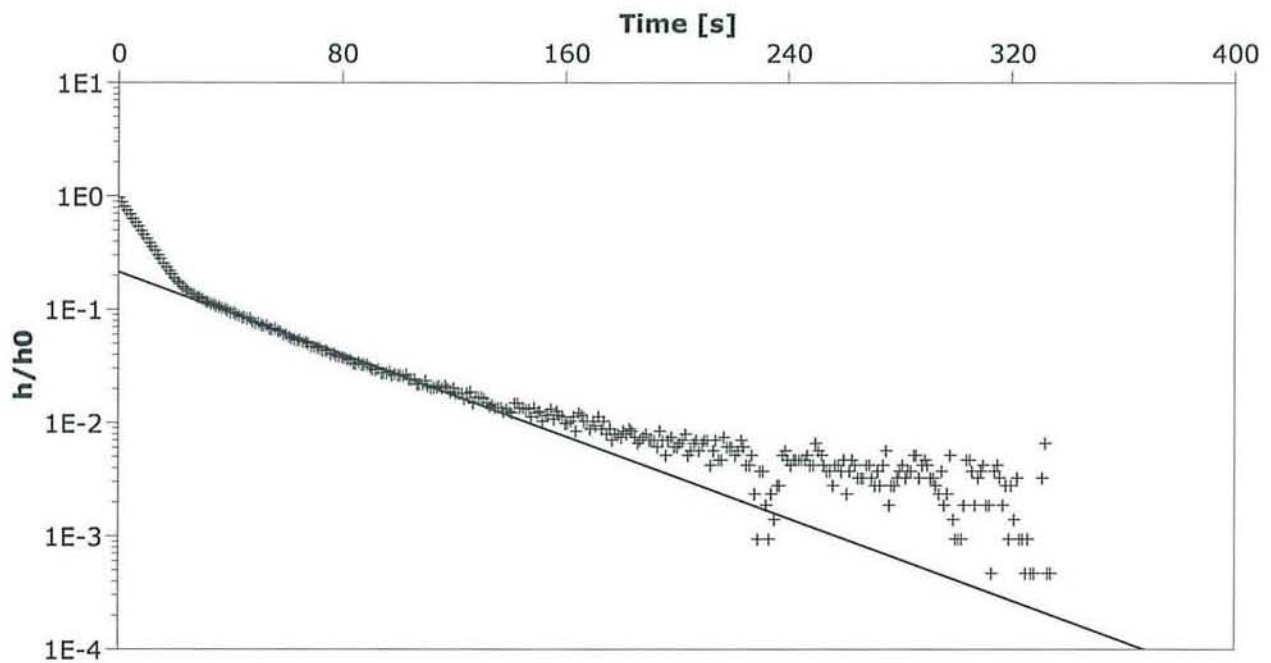
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

AA-BW-08A

Date: 1/14/2008

Aquifer Thickness: 9.40 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

AA-BW-08A

2.60×10^1

Kleinfelder West, Inc
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Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 1

Test Well: MCF-BW-10A

Test conducted by: David Neidigh

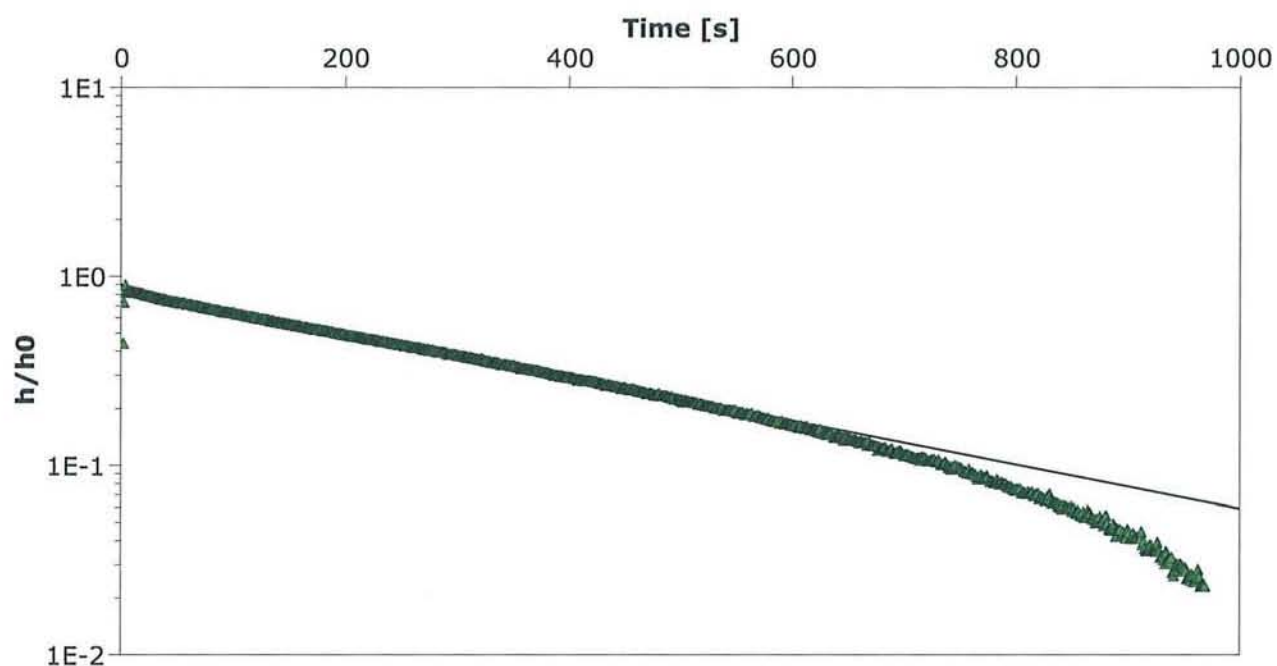
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-10A

Date: 1/7/2008

Aquifer Thickness: 29.26 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-10A

2.50×10^0

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Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 1

Test Well: MCF-BW-10A

Test conducted by: David Neidigh

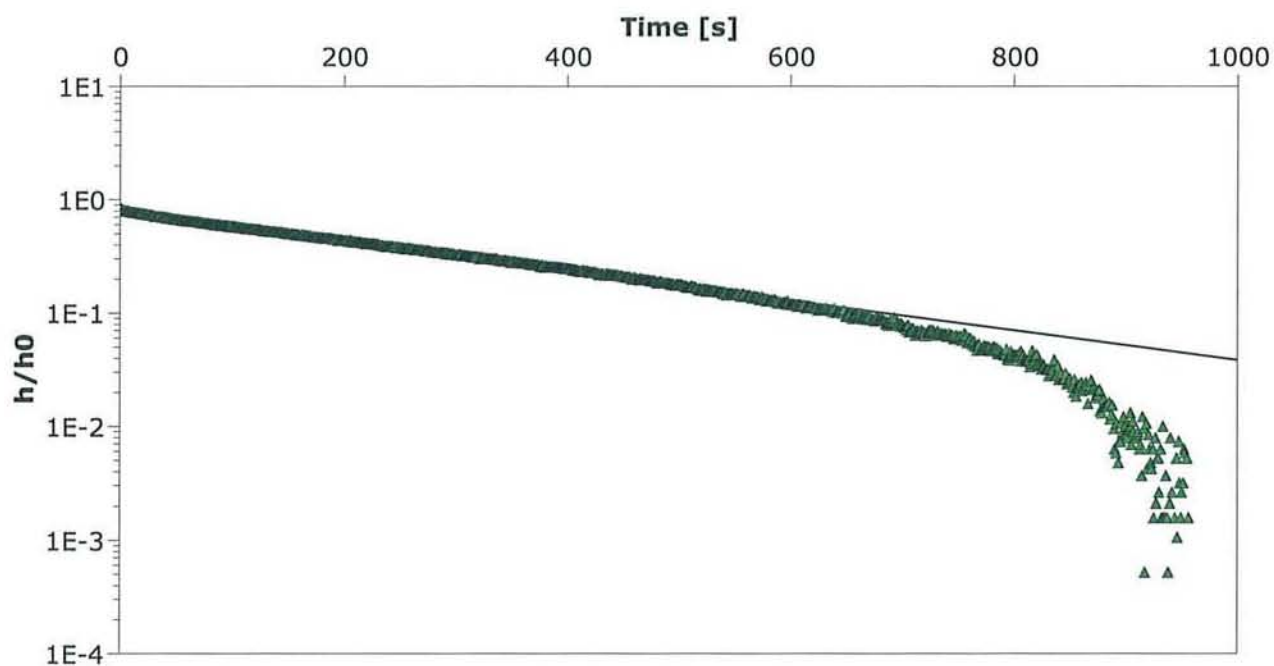
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-10A

Date: 1/7/2008

Aquifer Thickness: 29.26 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-10A

2.82×10^0

Kleinfelder West, Inc
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Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 2

Test Well: MCF-BW-10A

Test conducted by: David Neidigh

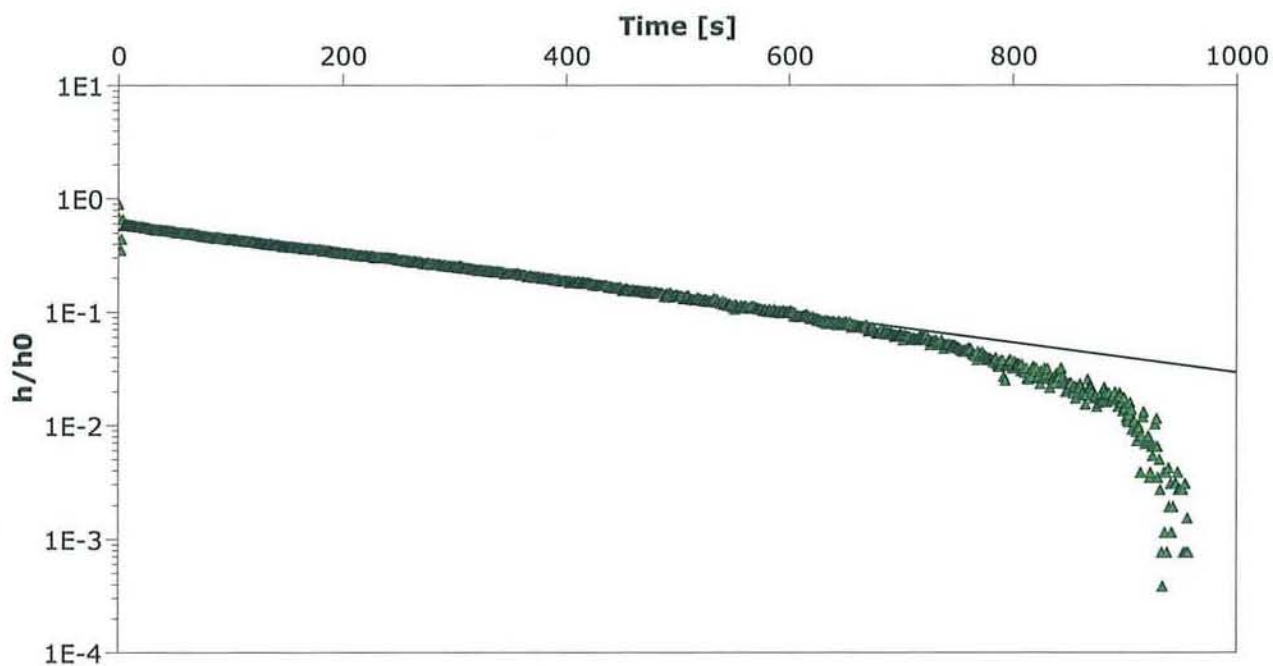
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-10A

Date: 1/7/2008

Aquifer Thickness: 29.26 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-10A

2.85×10^0

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Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 2

Test Well: MCF-BW-10A

Test conducted by: David Neidigh

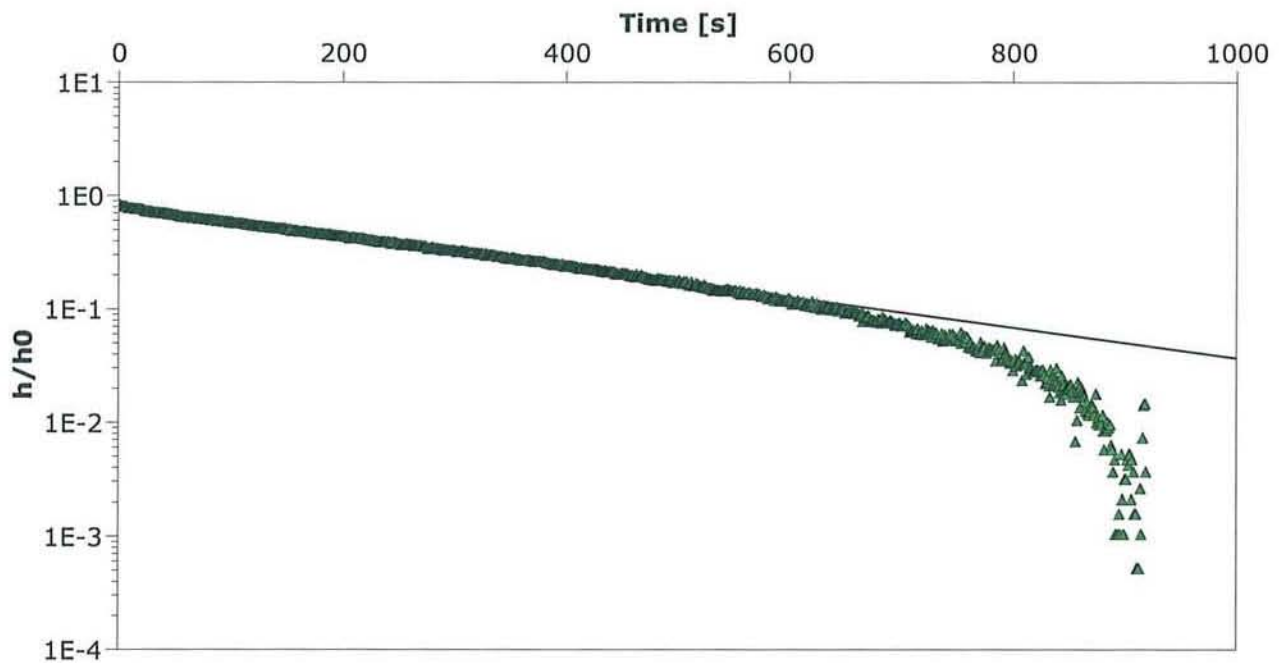
Test date: 1/4/2008

Analysis performed by: G. P. Wittman

MCF-BW-10A

Date: 1/7/2008

Aquifer Thickness: 29.26 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

MCF-BW-10A

2.90×10^0

Kleinfelder West, Inc
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Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 1

Test Well: EC-1

Test conducted by: David Neidigh

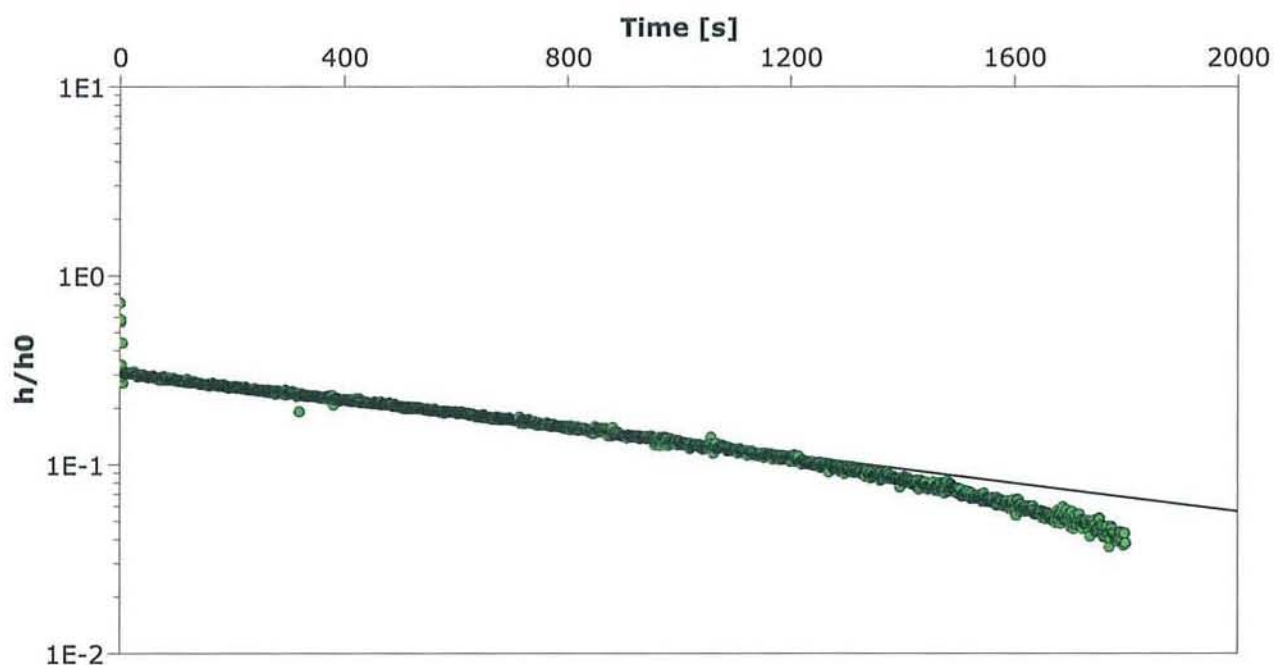
Test date: 1/5/2008

Analysis performed by: G. P. Wittman

EC-1 Slug In 1

Date: 1/7/2008

Aquifer Thickness: 15.27 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

EC-1

6.52×10^{-1}

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Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 1

Test Well: EC-1

Test conducted by: David Neidigh

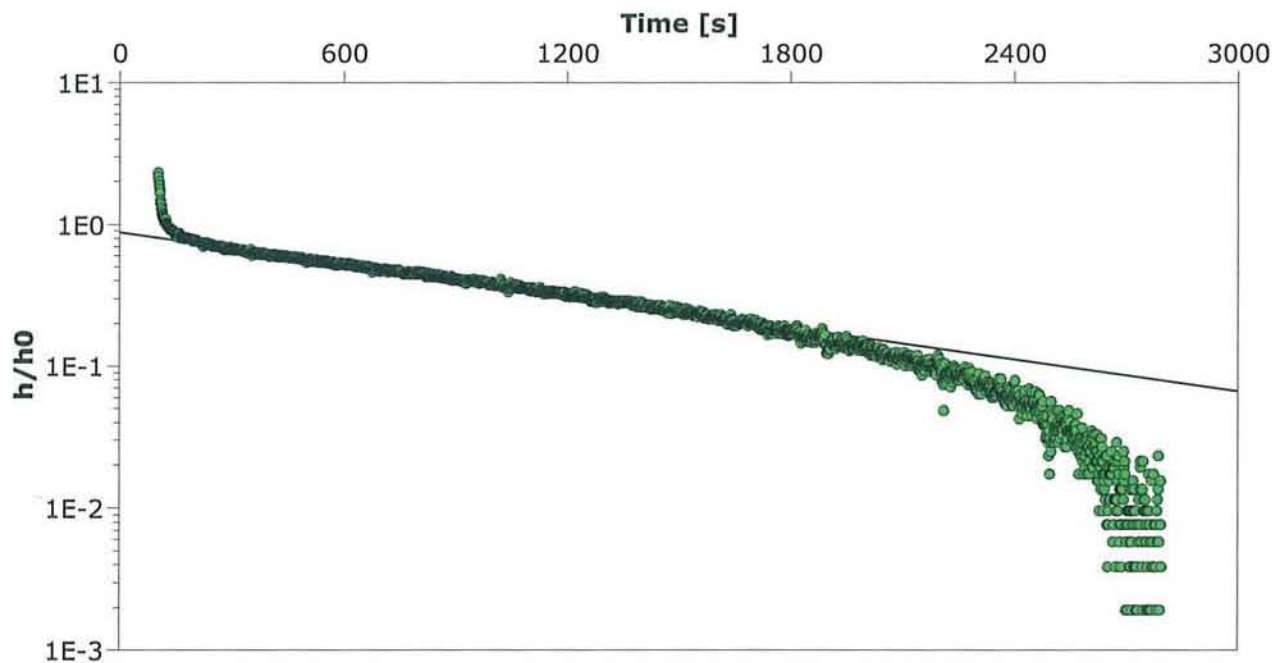
Test date: 1/5/2008

Analysis performed by: G. P. Wittman

EC-1 Slug Out 1

Date: 1/7/2008

Aquifer Thickness: 15.27 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

EC-1

6.50×10^{-1}

Kleinfelder West, Inc
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Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug In 2

Test Well: EC-1

Test conducted by: David Neidigh

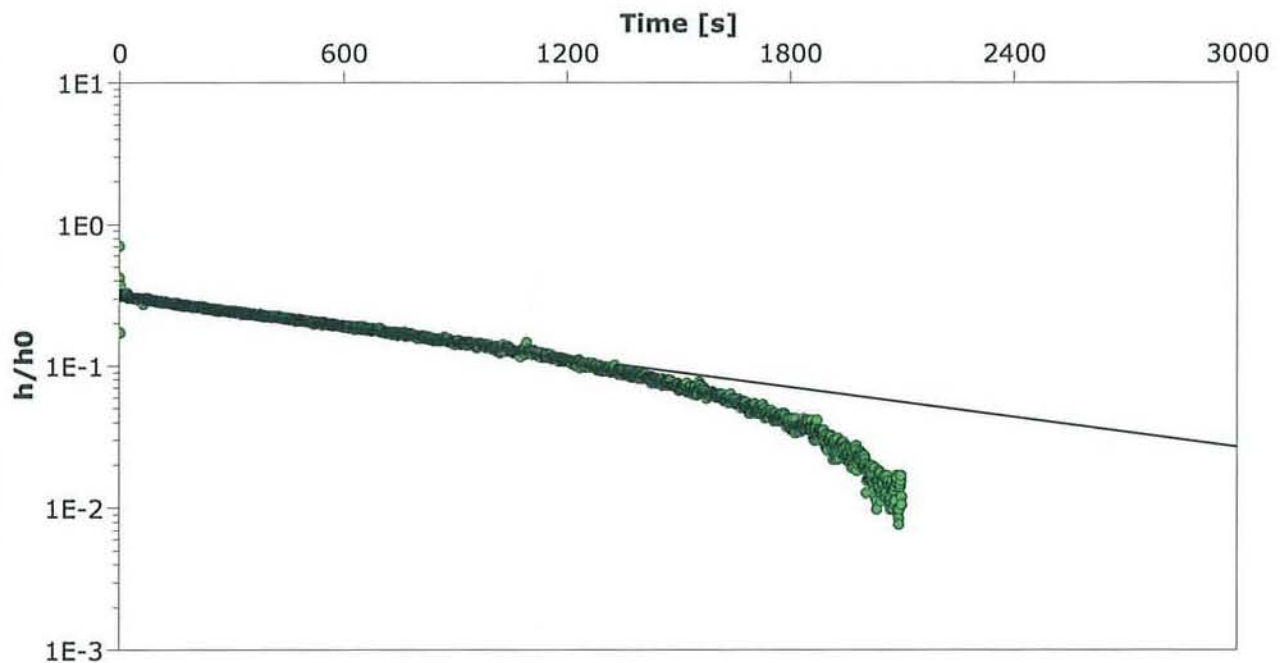
Test date: 1/5/2008

Analysis performed by: G. P. Wittman

EC-1 Slug In 2

Date: 1/7/2008

Aquifer Thickness: 15.27 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

EC-1

6.08×10^{-1}

Kleinfelder West, Inc
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Meridian, Idaho 83642
(208) 893-9700

Slug Test Analysis Report

Project: CAMU

Number: 90735

Client: BMI

Location: Henderson, Nevada

Slug Test: - Slug Out 2

Test Well: EC-1

Test conducted by: David Neidigh

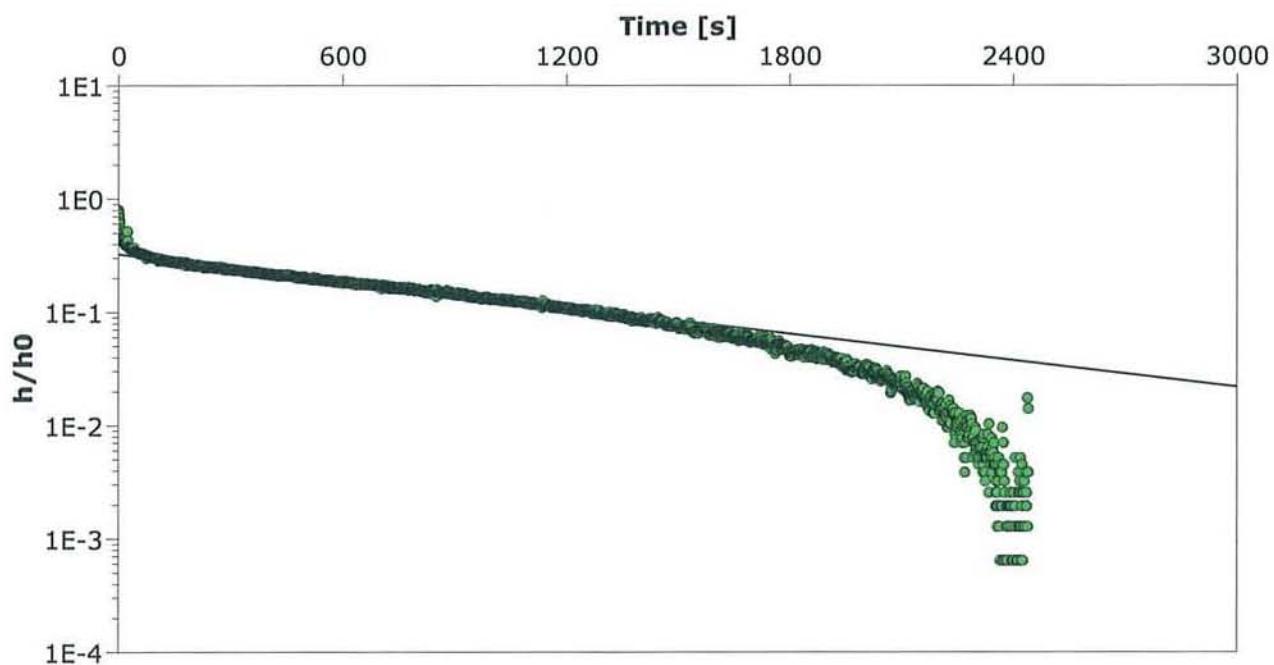
Test date: 1/5/2008

Analysis performed by: G. P. Wittman

EC-1 Slug Out 2

Date: 1/7/2008

Aquifer Thickness: 15.27 ft



Calculation after Bouwer & Rice

Observation well

K

[ft/d]

EC-1

6.80×10^{-1}