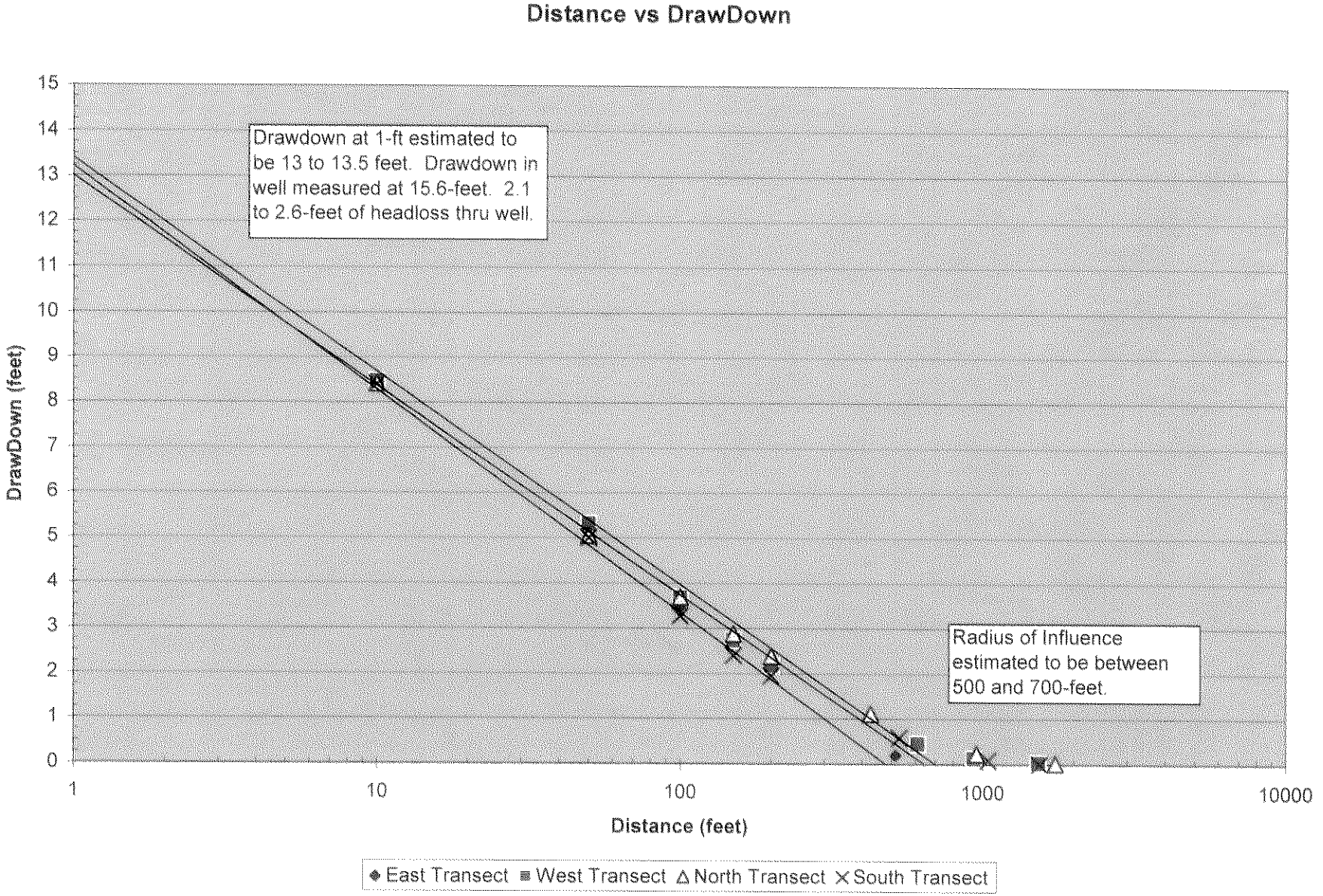
Distance vs Drawdown Plot


Distance vs DrawDown
Drawdown at 1-ft estimated to be 13 to 13.5 feet. Drawdown in well measured at 15.6-feet. 2.1 to 2.6-feet of headloss thru well.
Radius of Influence estimated to be between 500 and 700-feet.
DrawDown (feet)
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
1
10
100
1000
10000
Distance (feet)
East Transect
West Transect
North Transect
South Transect

Permeability Computations – North Transect Observation Wells

PROJECT

SUBJECT

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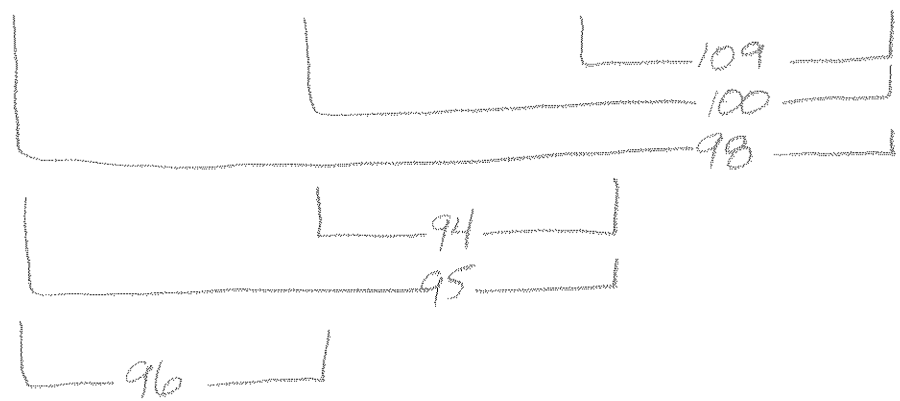
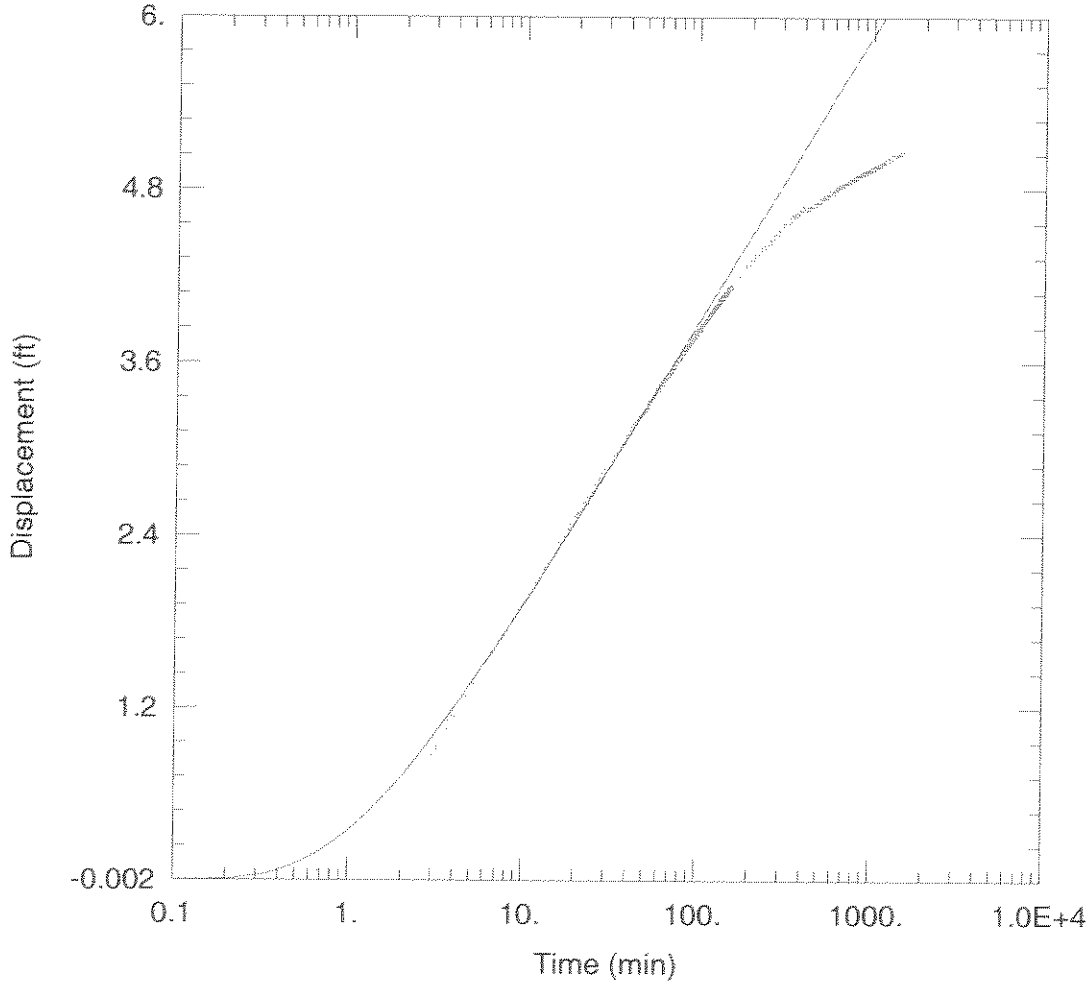
COMPUTED BY	DATE
CHECKED BY	DATE

North Transect

	(50') n10	(100') n11	(150') n12	(200') n13
Theis	108	113	136	156
Coop Jac	113	120	149	163
Theim				
Recovery (Theis)	136	136	156	179





WELL TEST ANALYSIS

Data Set: W:\...\North transect n12 at1 1480 minutes Theis.aqt
Date: 04/06/06 Time: 15:48:44

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

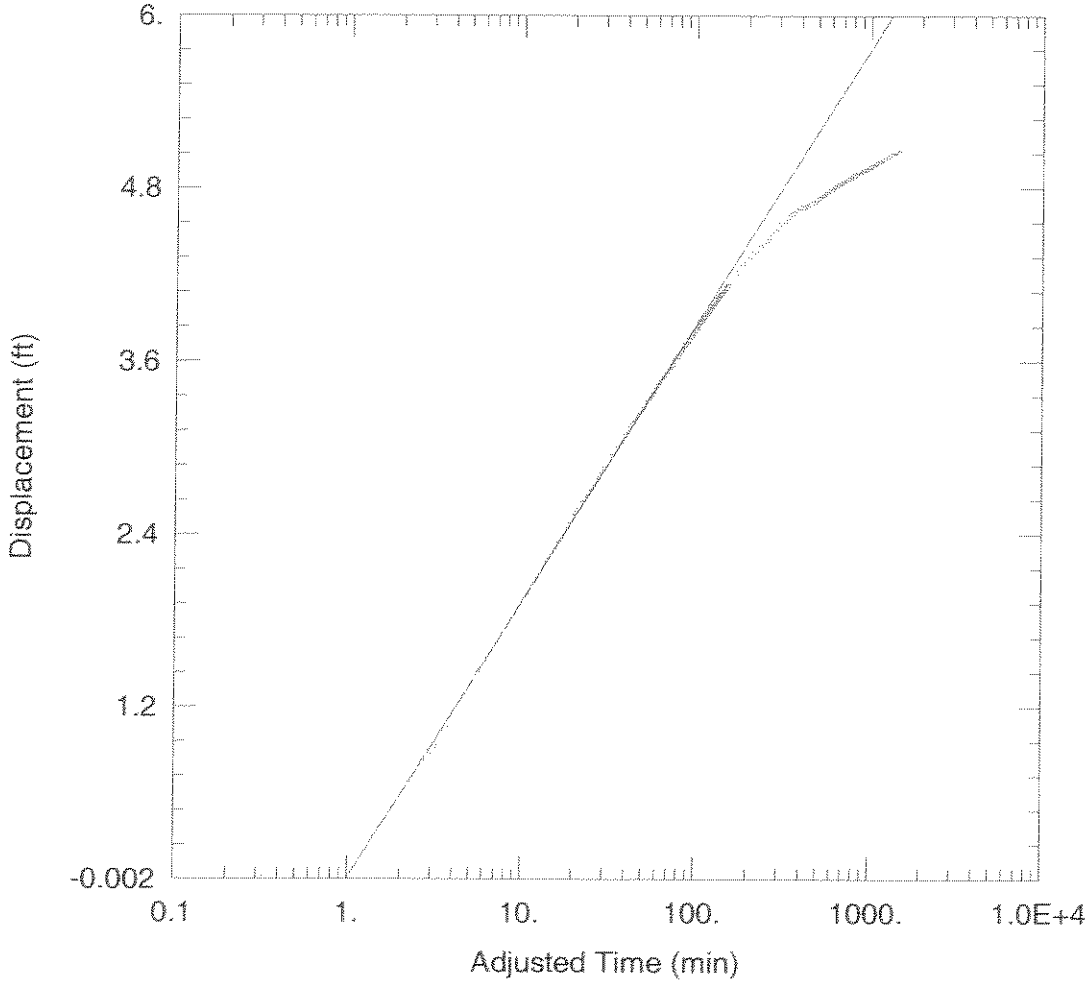
Well Name	X (ft)	Y (ft)
n10	50	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 9.235 cm^2/sec
S = 0.0006406
Kz/Kr = 1.
b = 28. ft

K = 108 x 10^{-4} cm/s



WELL TEST ANALYSIS

Data Set: W:\...\North transect n10 at1 1480 minutes Theis.aqt
Date: 04/06/06 Time: 15:49:45

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

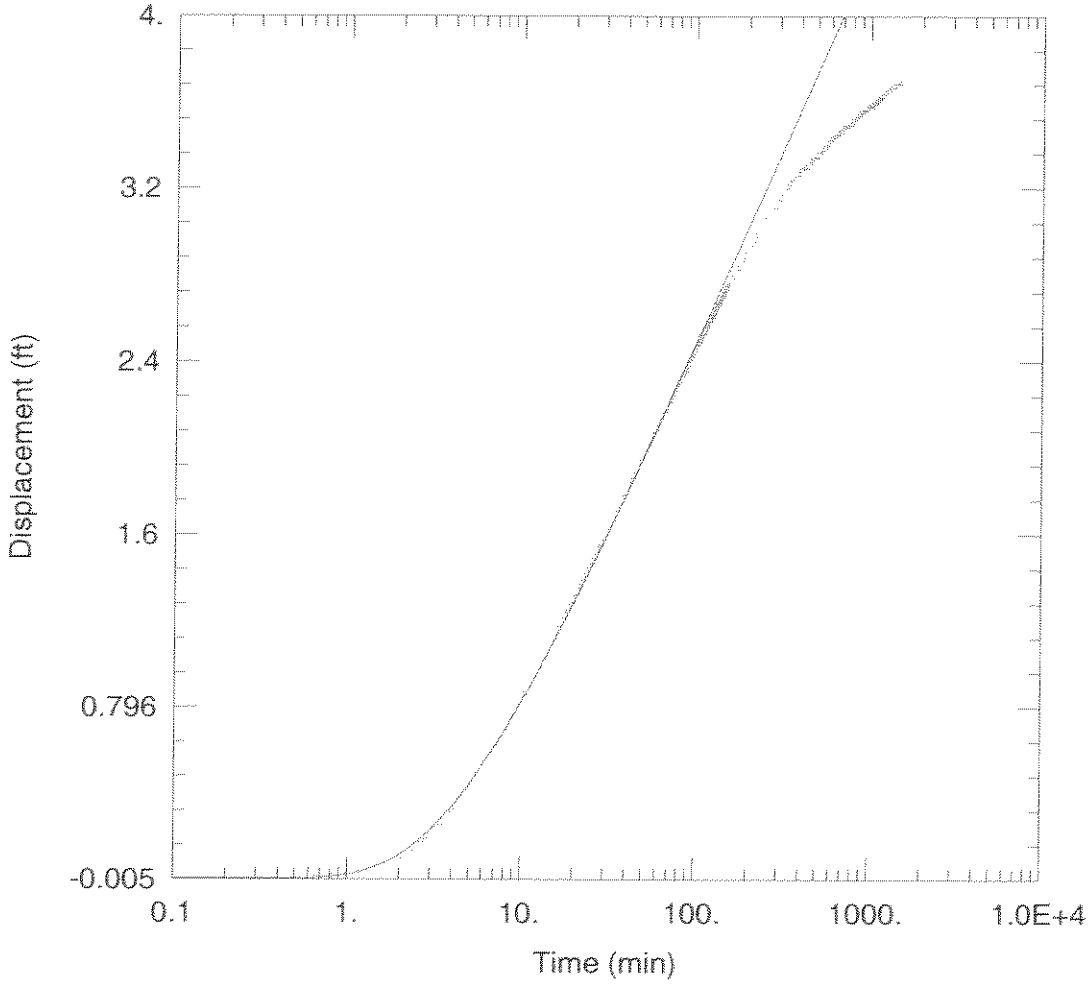
Well Name	X (ft)	Y (ft)
n10	50	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 9.671 cm^2/sec S = 0.0005579

$K = 113 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\North transect n11 at1 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 15:52:39

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

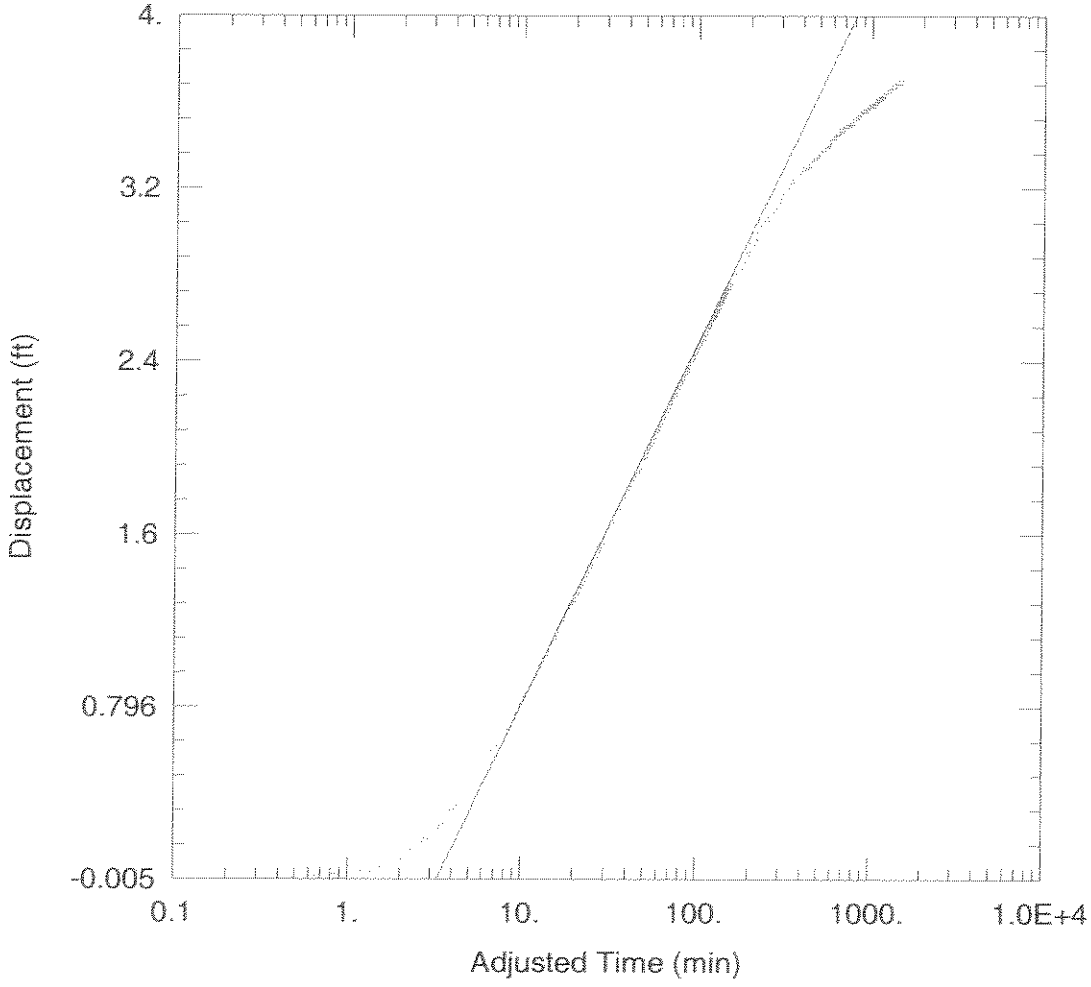
Well Name	X (ft)	Y (ft)
n11	100	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 10.13 cm^2/sec
S = 0.0006707
Kz/Kr = 1.
b = 28. ft

$K = 1.18 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\North transect n10 at1 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 15:51:45

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

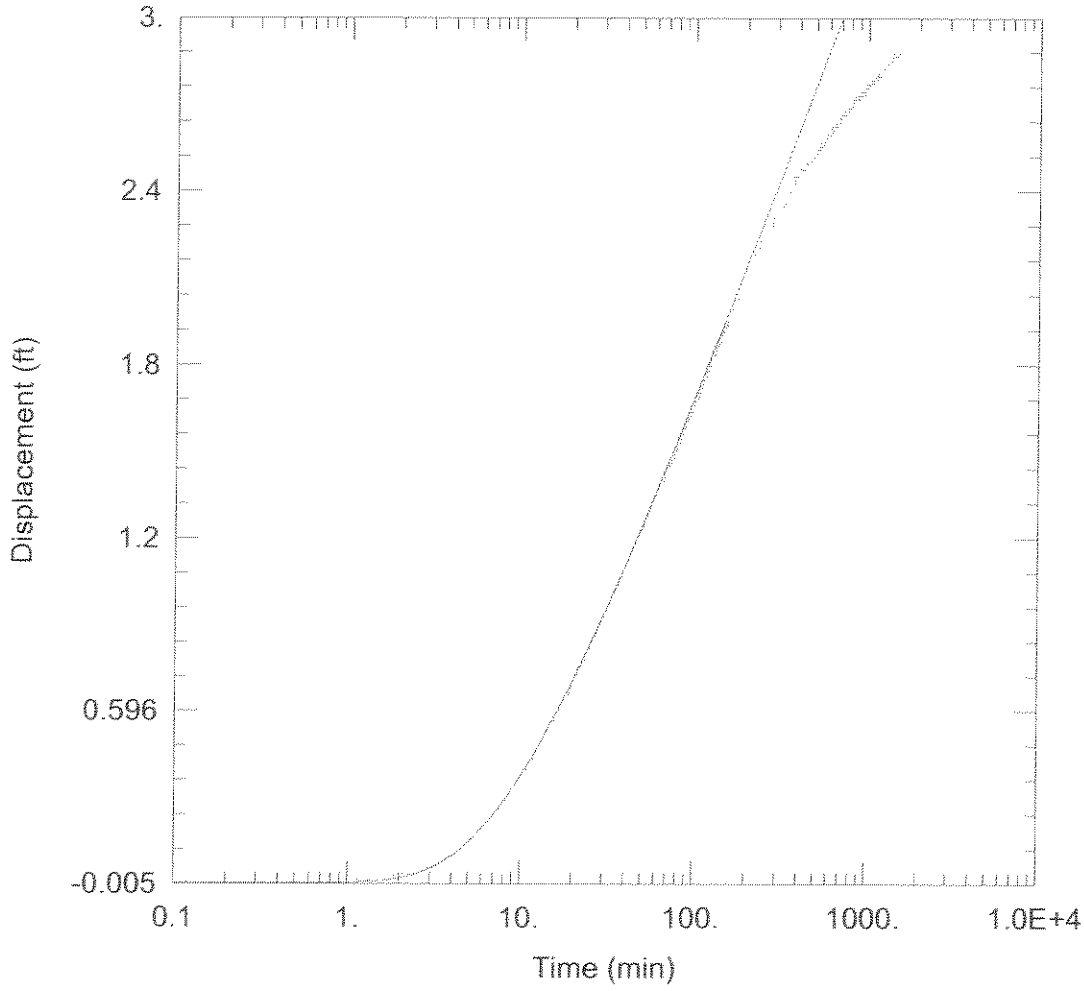
Well Name	X (ft)	Y (ft)
n11	100	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 11.1 cm^2/sec S = 0.0005328

$K = 130 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: C:\...\North transect n12 at1 1480 minutes Theis.aqt
Date: 03/07/06 Time: 20:23:38

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
n12	150	0

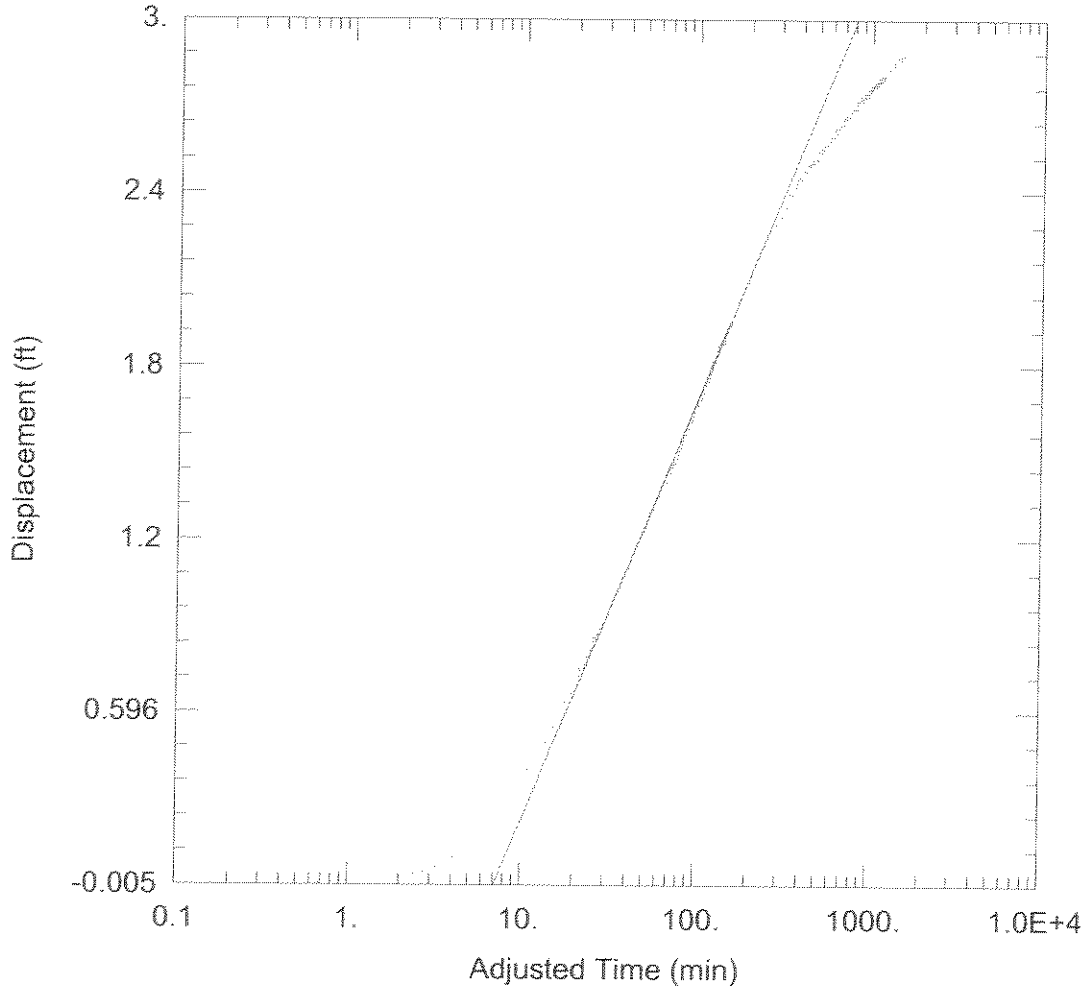
SOLUTION

Aquifer Model: Confined
T = 11.63 cm^2/sec
Kz/Kr = 1.

Solution Method: Theis
S = 0.0007024
b = 28. ft

$b = 853.44 cm$

$K = 136 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: C:\...\North transect n12 at 1480 minutes CoopJac.aqt
Date: 03/07/06 Time: 20:23:26

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

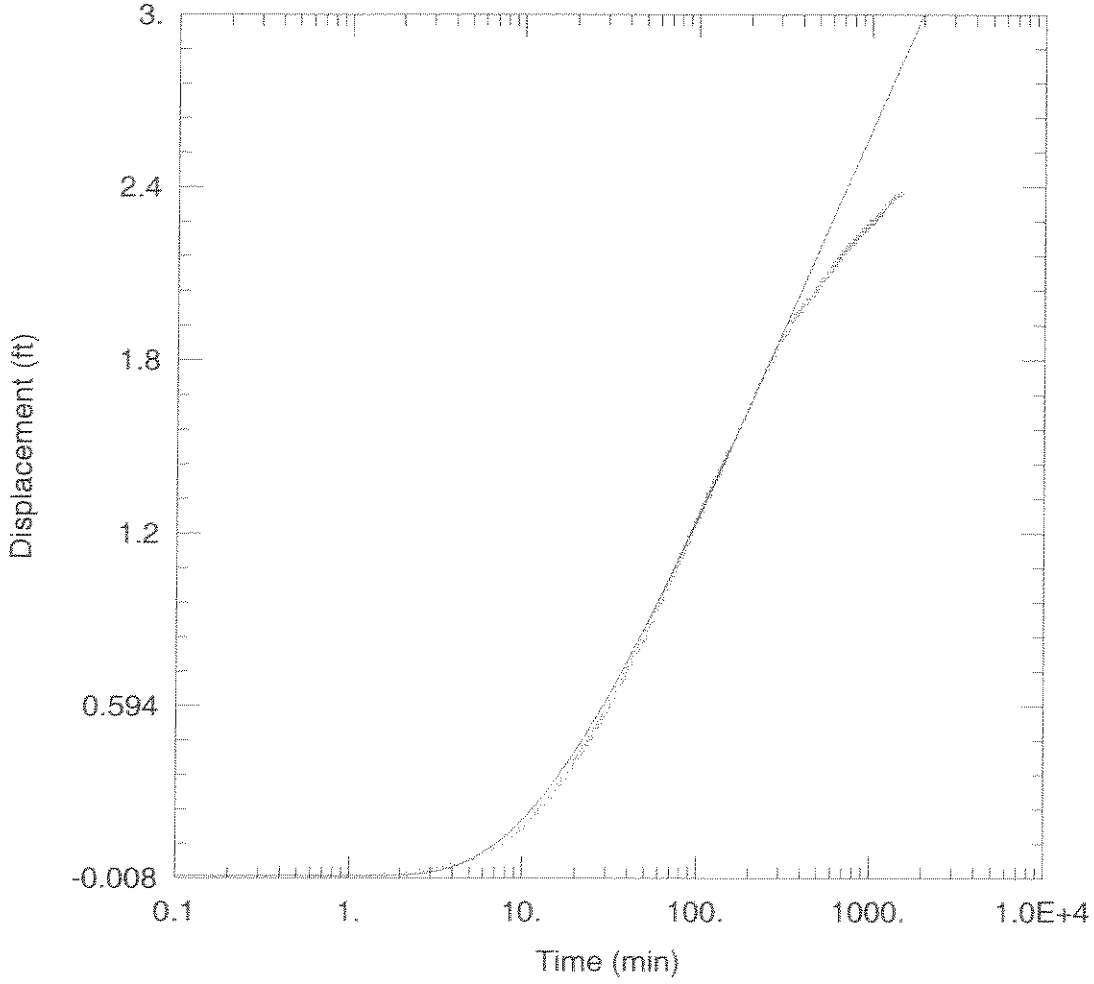
Well Name	X (ft)	Y (ft)
n12	150	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 12.75 cm^2/sec S = 0.0005842

K = 12.75 / 853.44 = 1.49×10^{-4} cm/s



WELL TEST ANALYSIS

Data Set: W:\...\North transect n11 at1 1480 minutes Theis.aqt
Date: 04/06/06 Time: 15:55:31

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

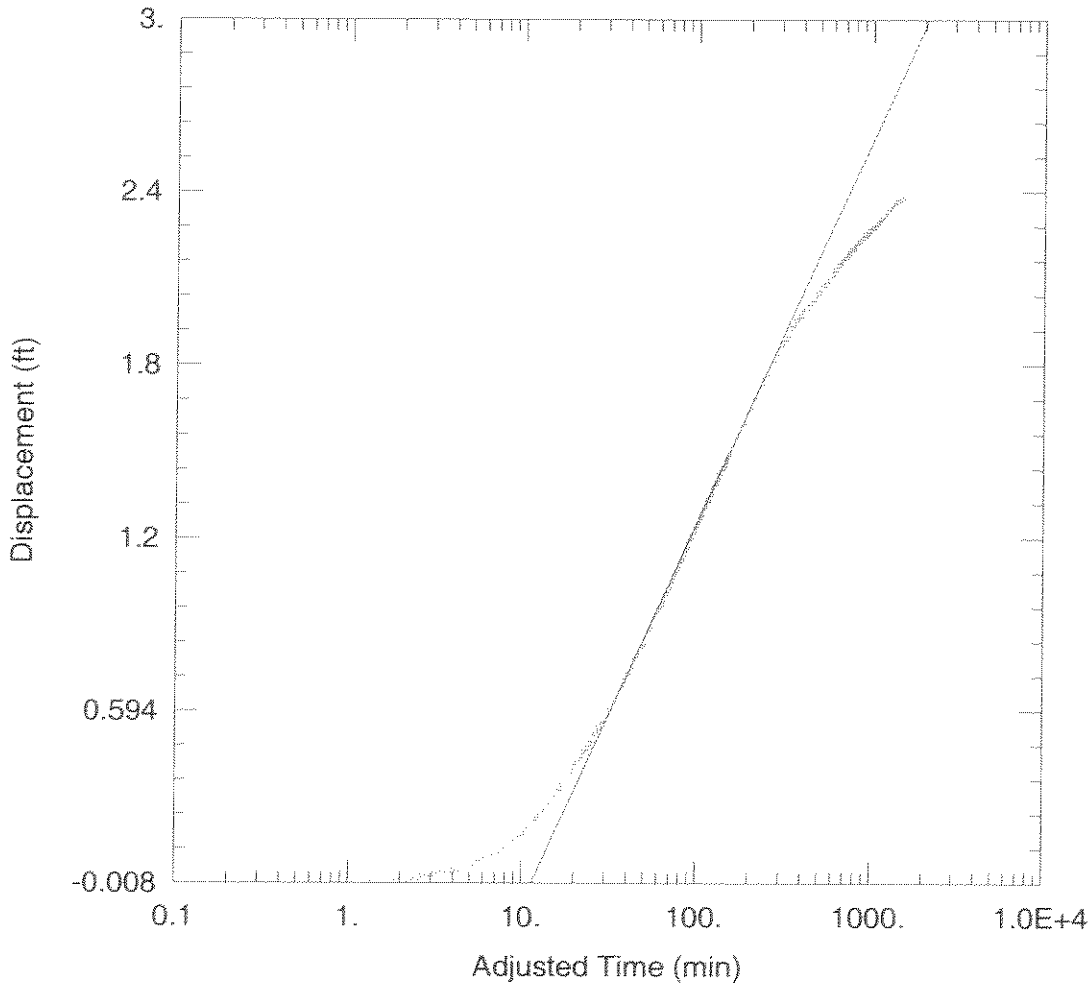
Well Name	X (ft)	Y (ft)
n13	200	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 13.35 cm^2/sec
S = 0.0006707
Kz/Kr = 1.
b = 28. ft

$K = 156 \times 10^{-4}$ c/s



WELL TEST ANALYSIS

Data Set: W:\...\North transect n13 at1 1480 minutes Theis.aqt
Date: 04/06/06 Time: 15:56:13

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

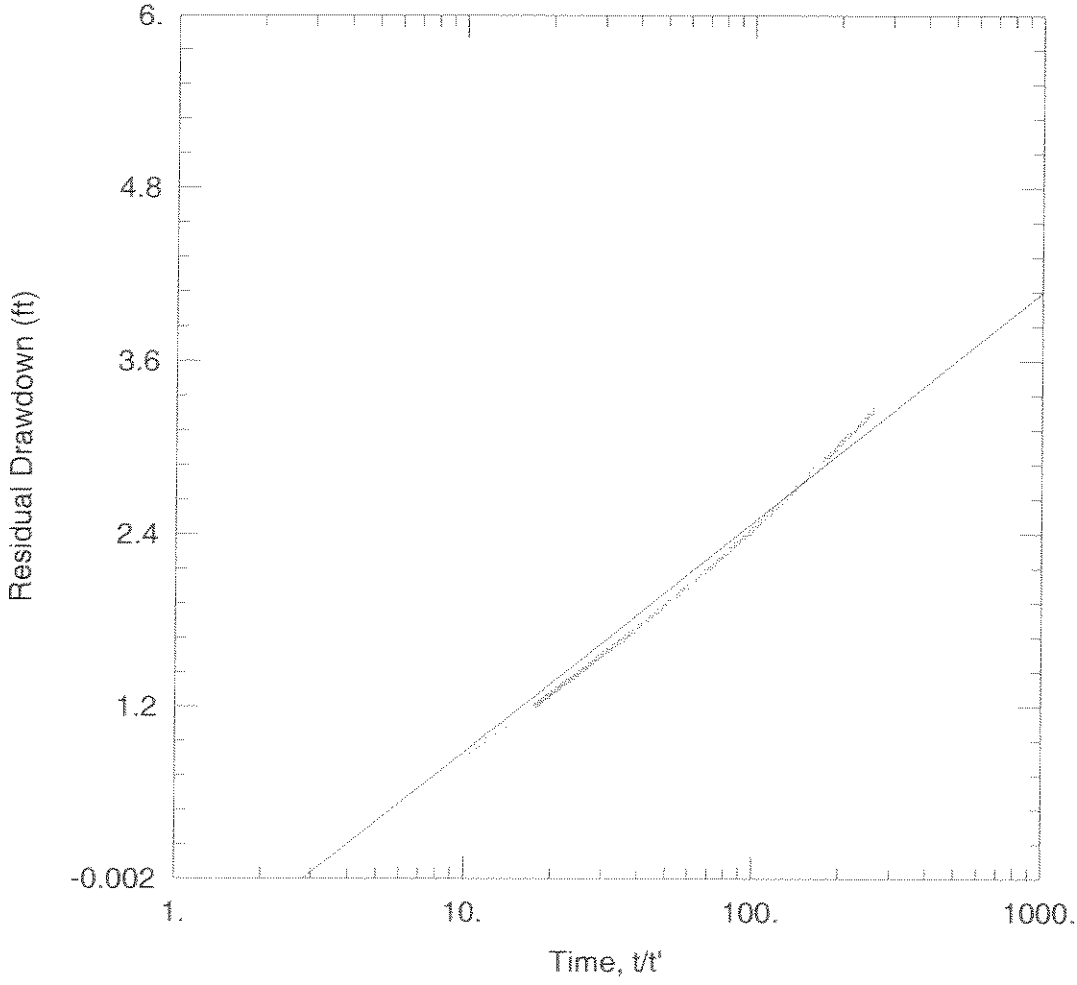
Well Name	X (ft)	Y (ft)
n13	200	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 13.98 cm^2/sec S = 0.0005842

$K = 1.63 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\North transect n12 at1 300 minutes recovery Theis.aqt
Date: 04/07/06 Time: 07:39:44

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

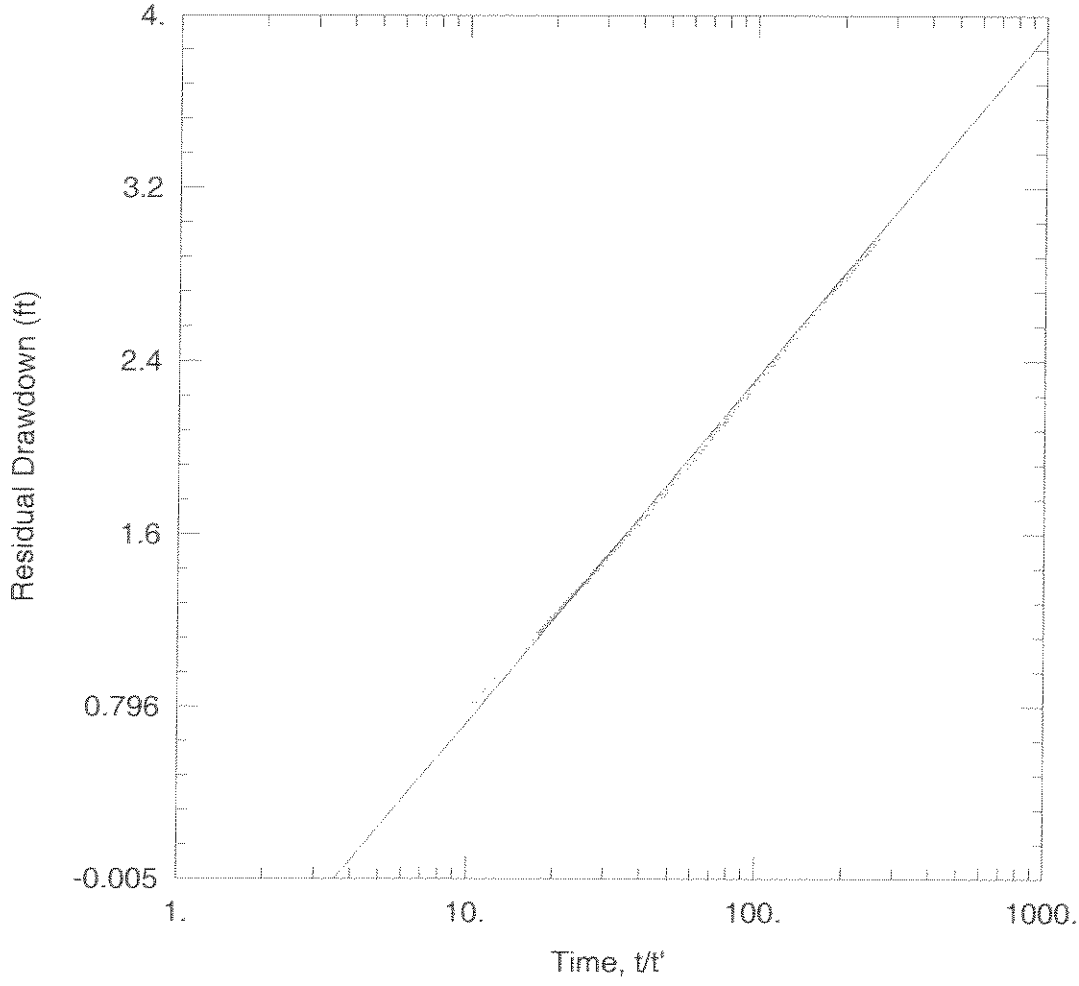
Well Name	X (ft)	Y (ft)
n10	50	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 11.63 cm^2/sec S/S' = 2.818

$K = 136 \times 10^{-4}$



WELL TEST ANALYSIS

Data Set: W:\...\North transect n10 at1 300 minutes recovery Theis.aqt
Date: 04/07/06 Time: 07:40:48

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

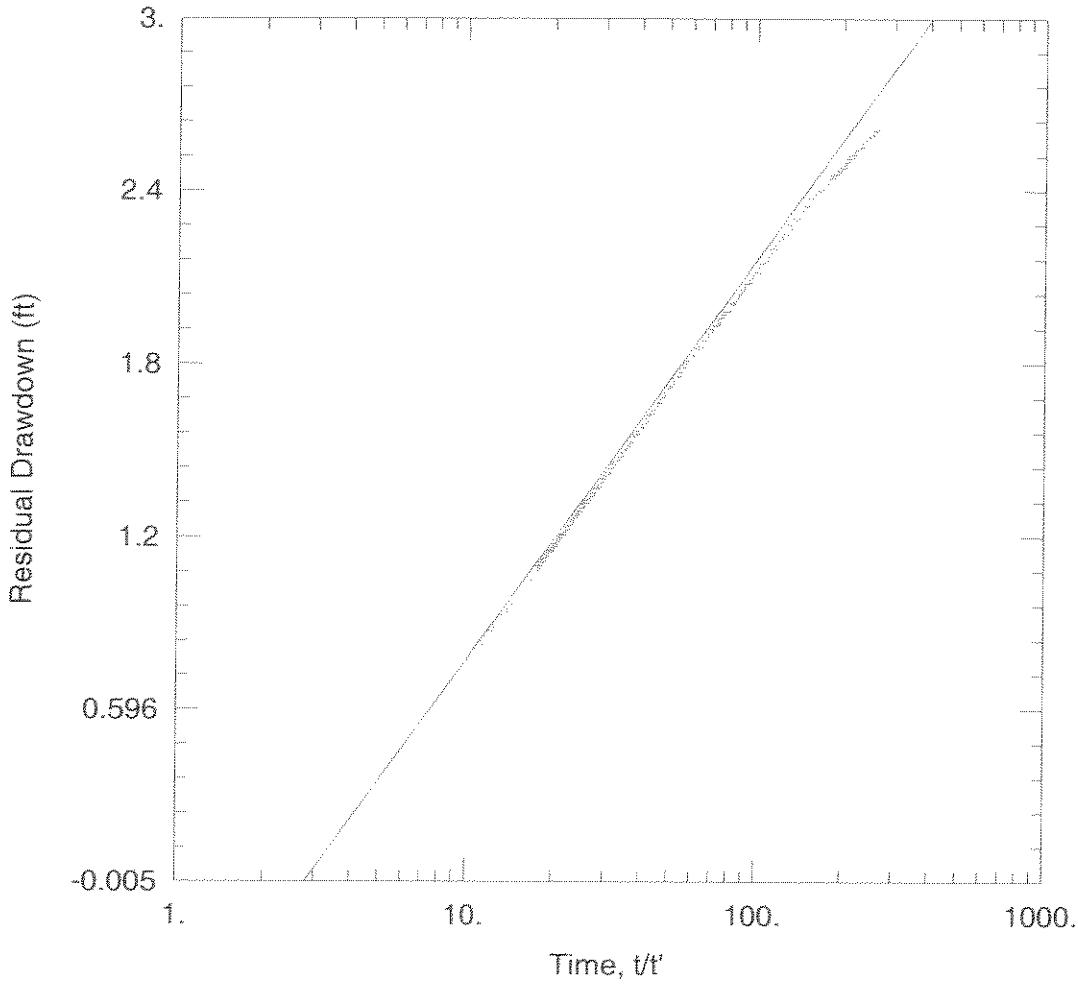
Well Name	X (ft)	Y (ft)
n11	100	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 11.63 cm^2/sec S/S' = 3.548

$K = 136 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\North transect n12 at1 300 minutes recovery Theis.aqt
Date: 04/07/06 Time: 07:38:31

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

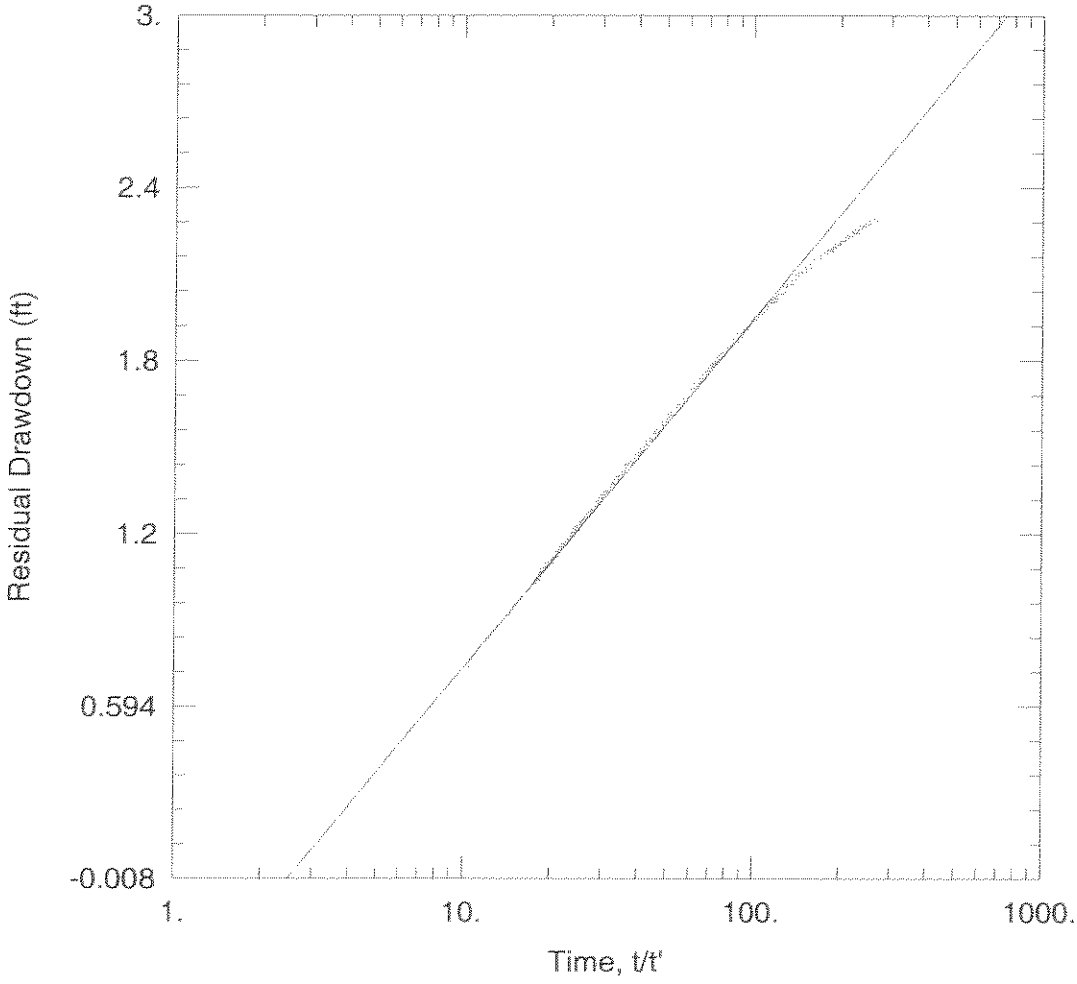
Well Name	X (ft)	Y (ft)
n12	150	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 13.35 cm^2/sec S/S' = 2.818

$K = 1.56 \times 10^{-1}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\North transect n11 at1 300 minutes recovery Theis.aqt
Date: 04/07/06 Time: 07:41:58

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
n13	200	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

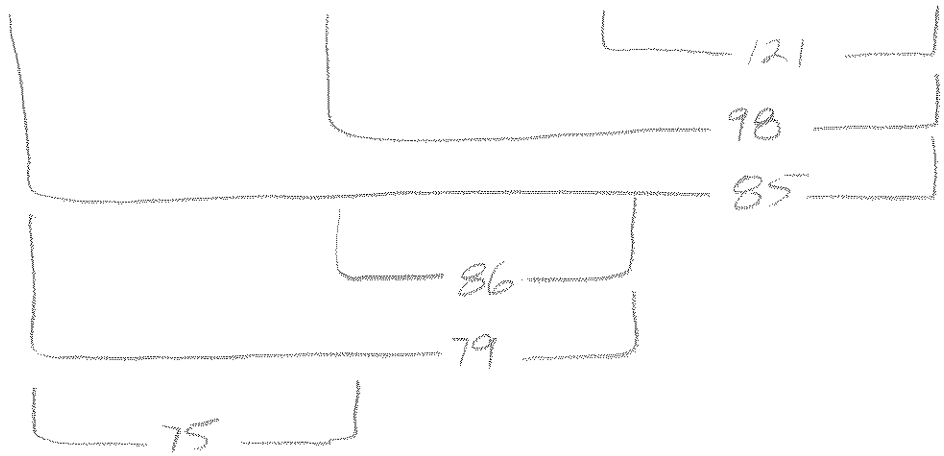
T = 15.33 cm^2/sec S/S' = 2.512

$K = 179 \times 10^{-4}$ c/s

Permeability Computations – South Transect Observation Wells

South Trasect

	(50) S26	(100) S27	(150) S28	(200) S29
Theis	103	136	171	236
Cooper Jac	113	149	179	226
Theim				
Theis Recovery	130	156	179	206
Theim				



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DATE
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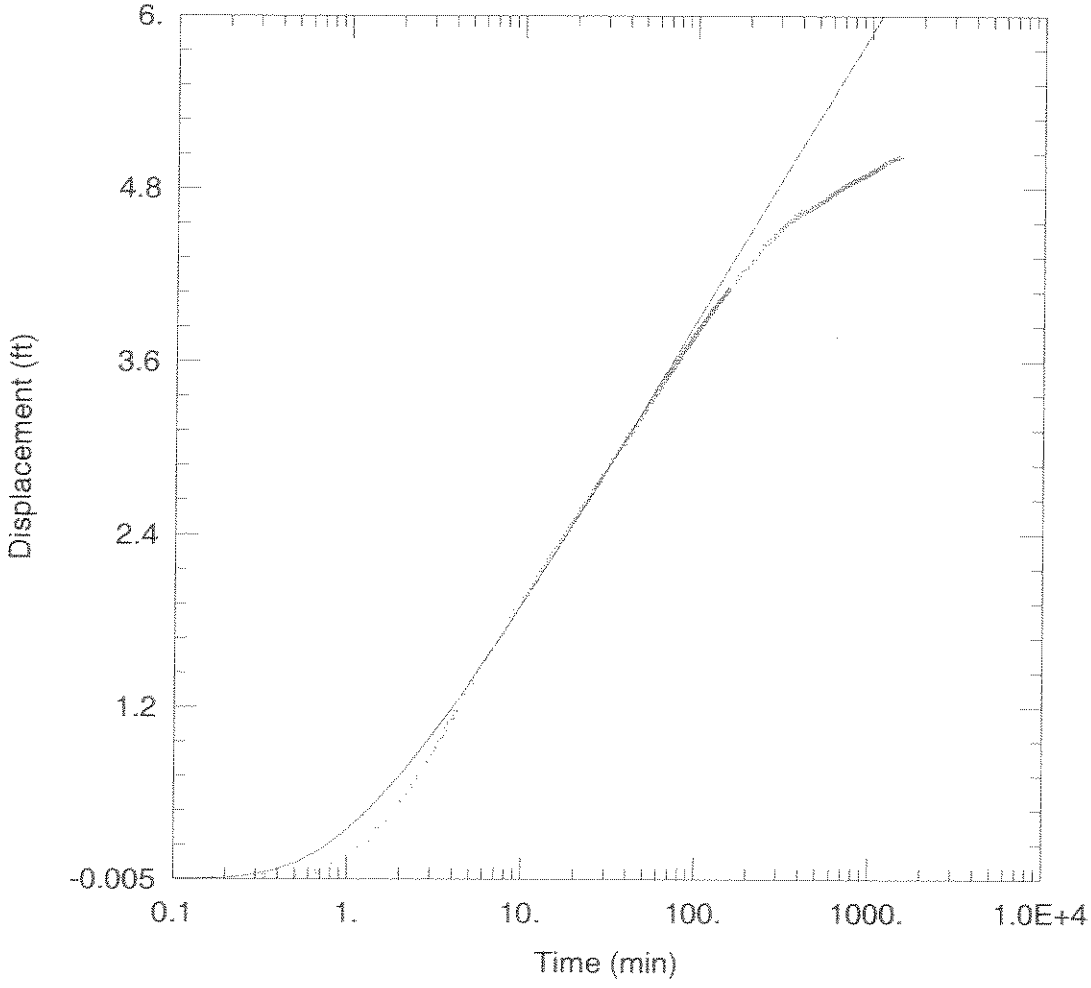
DATE

COMPUTATION SHEET
IBM FORM 10276-S



WELL TEST ANALYSIS

Data Set: W:\...\South transect s26 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:18:18

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

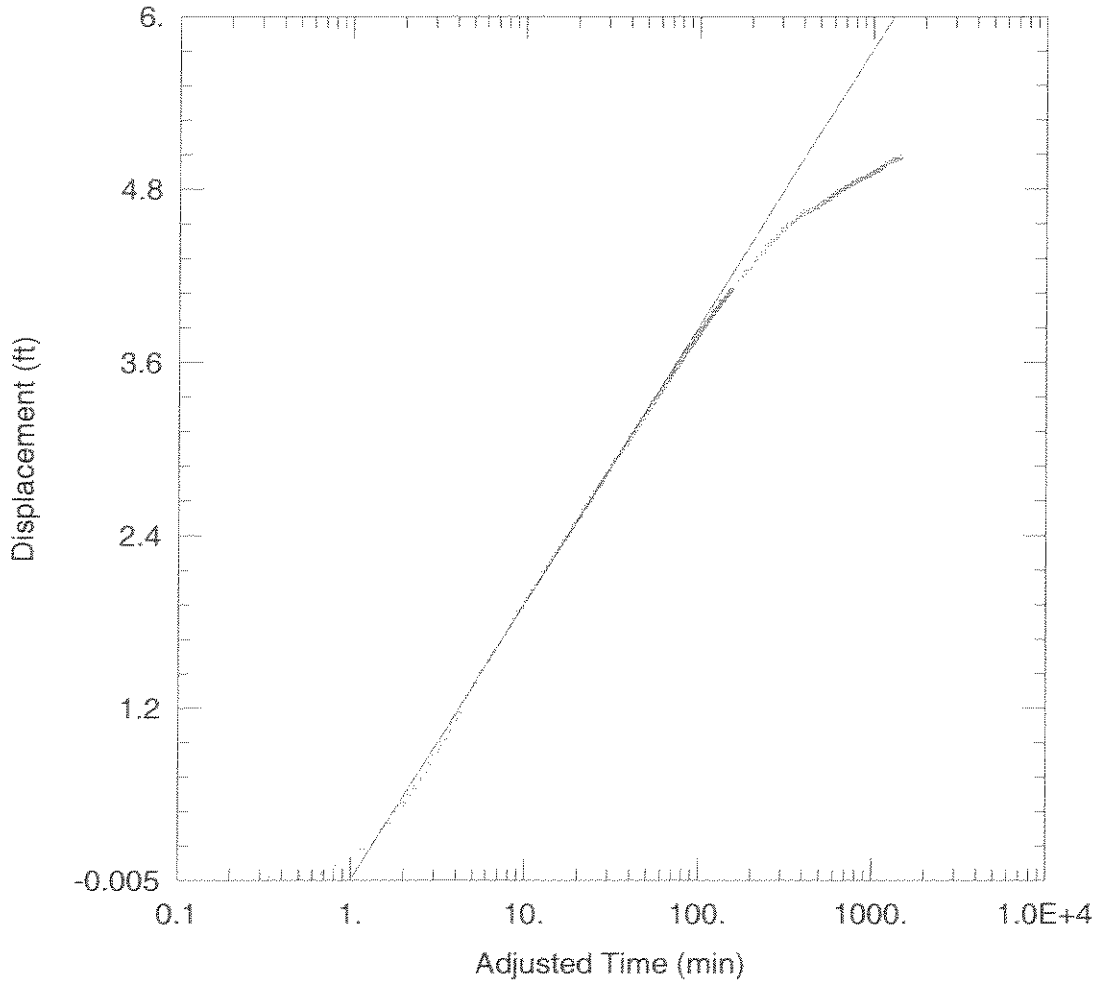
Well Name	X (ft)	Y (ft)
s26	50	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 9.235 cm^2/sec
S = 0.0006406
Kz/Kr = 1.
b = 28. ft

K = 108 x 10^{-4}



WELL TEST ANALYSIS

Data Set: W:\...\South transect s28 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:17:18

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

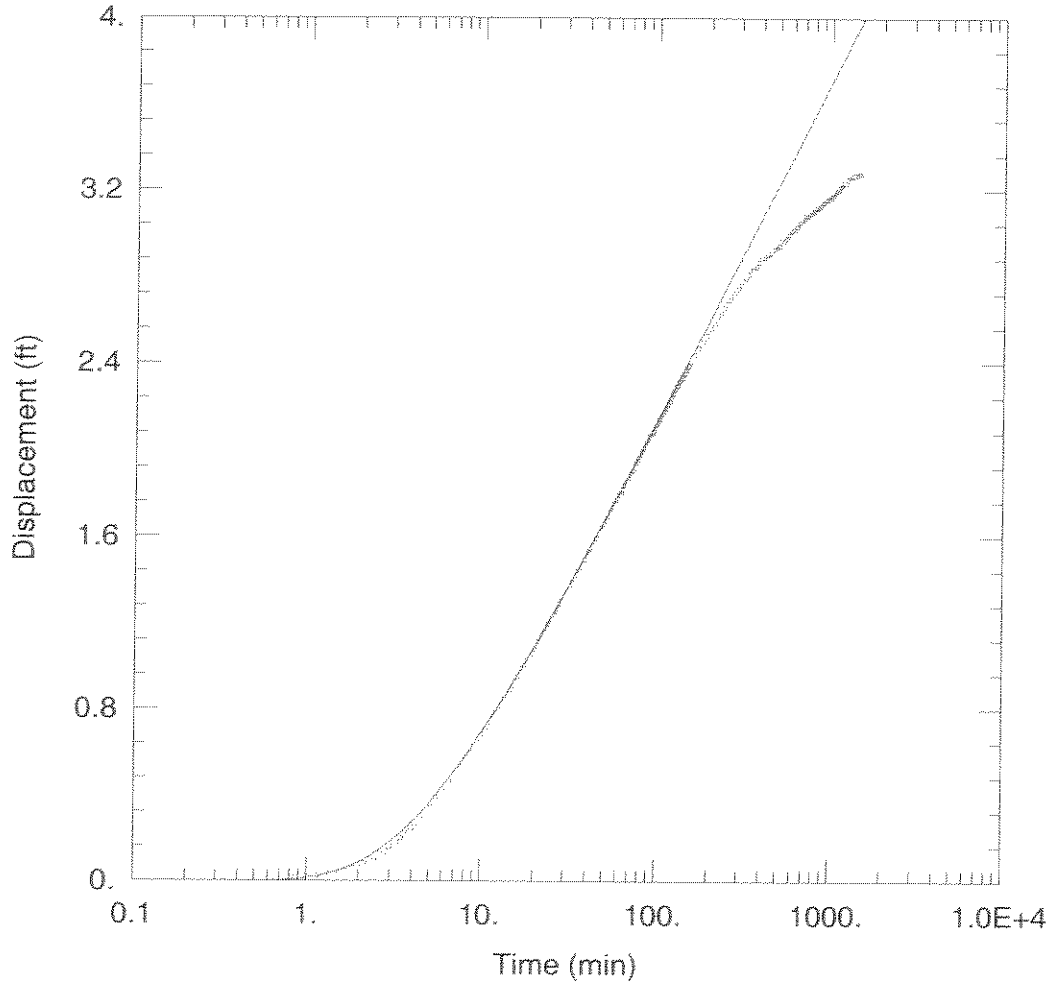
Well Name	X (ft)	Y (ft)
s26	50	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

$T = 9.671$ cm^2/sec $S = 0.0005579$

$K = 1.13 \times 10^{-1}$



WELL TEST ANALYSIS

Data Set: W:\...\South transect s26 at 1480 minutes Theis.aqt
Date: 04/06/06 Time: 16:19:31

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

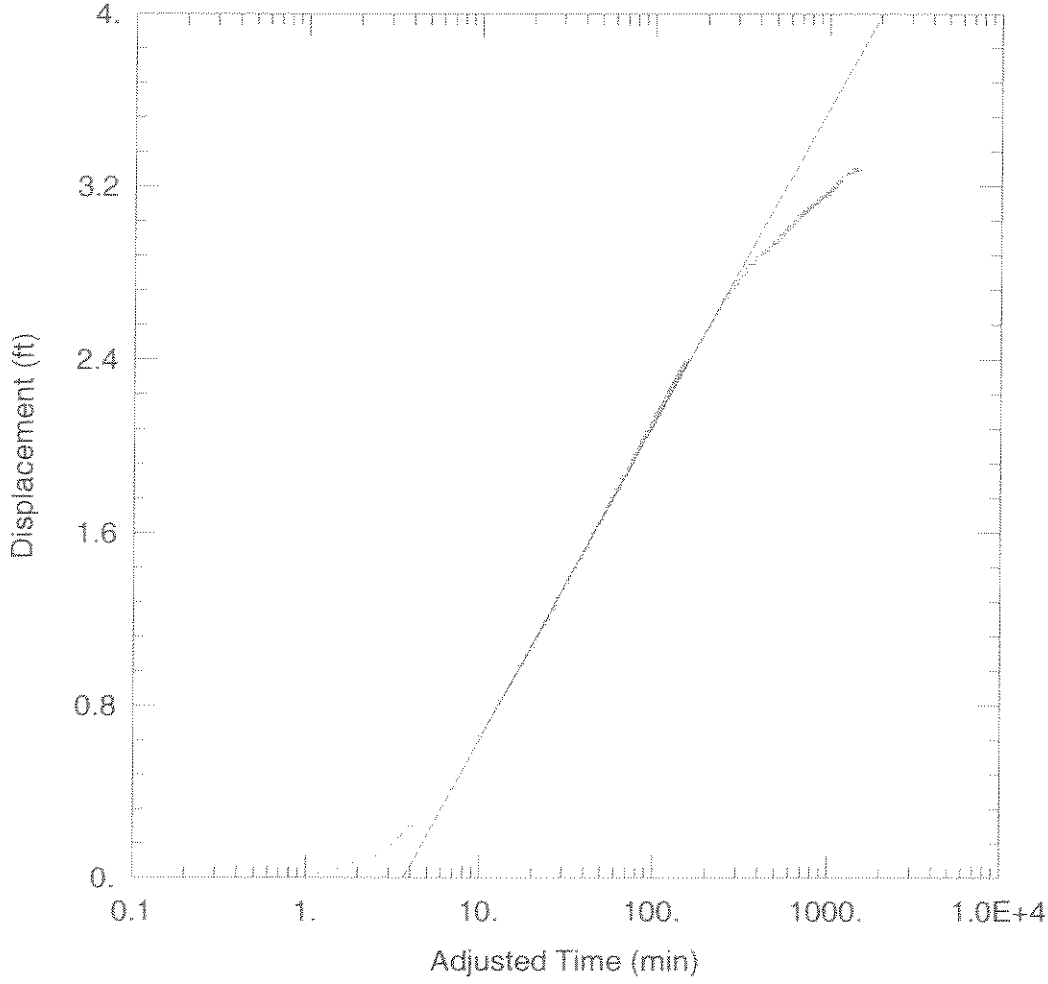
Well Name	X (ft)	Y (ft)
s27	100	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 11.63 cm^2/sec
S = 0.0008064
Kz/Kr = 1.
b = 28. ft

$K = 136 \times 10^{-4}$ c/s



WELL TEST ANALYSIS

Data Set: W:\...\South transect s27 at 1480 minutes Theis.aqt
Date: 04/06/06 Time: 16:20:07

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

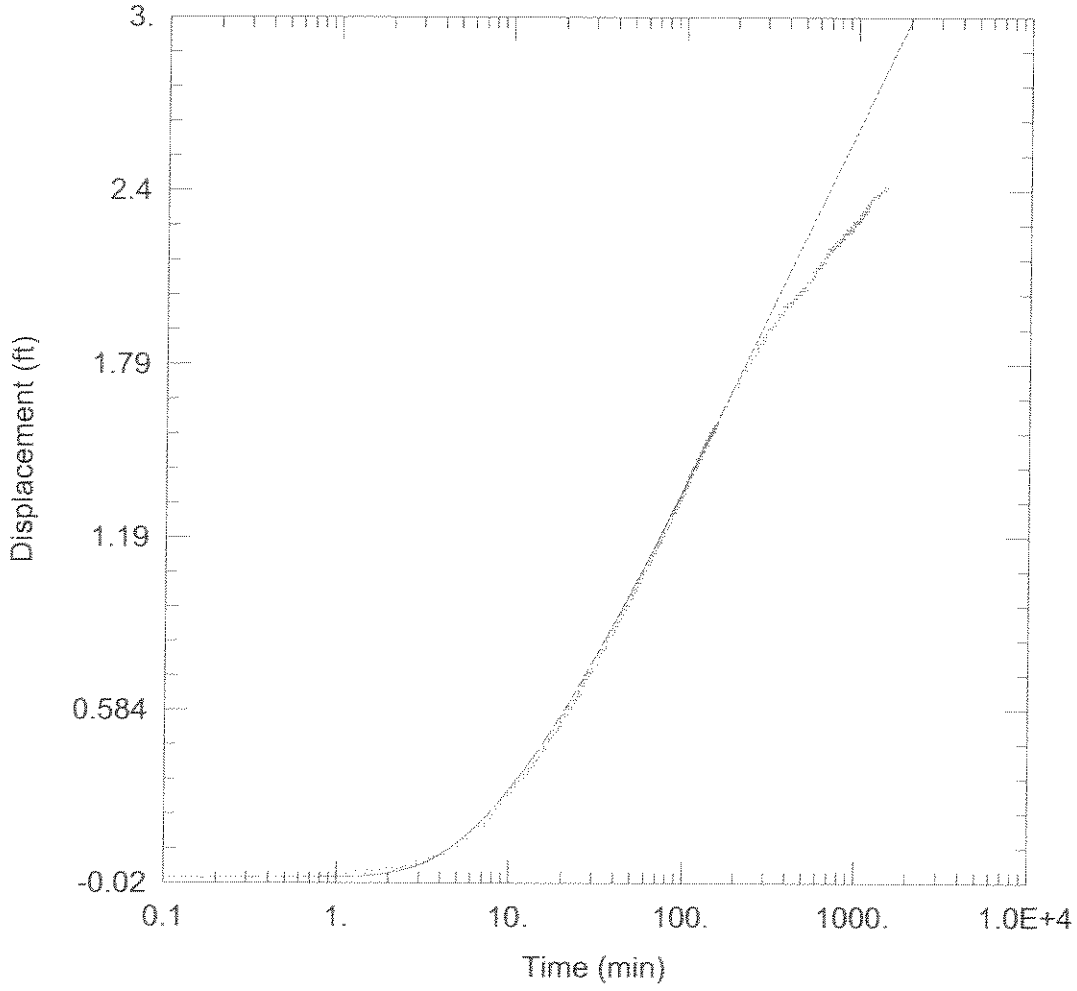
Well Name	X (ft)	Y (ft)
s27	100	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 12.75 cm^2/sec S = 0.0006707

K = 1.19 x 10^{-4} cm/s



WELL TEST ANALYSIS

Data Set: C:\...\South transect s28at 1480 minutes Theis.aqt
Date: 03/07/06 Time: 20:24:04

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
s28	150	0

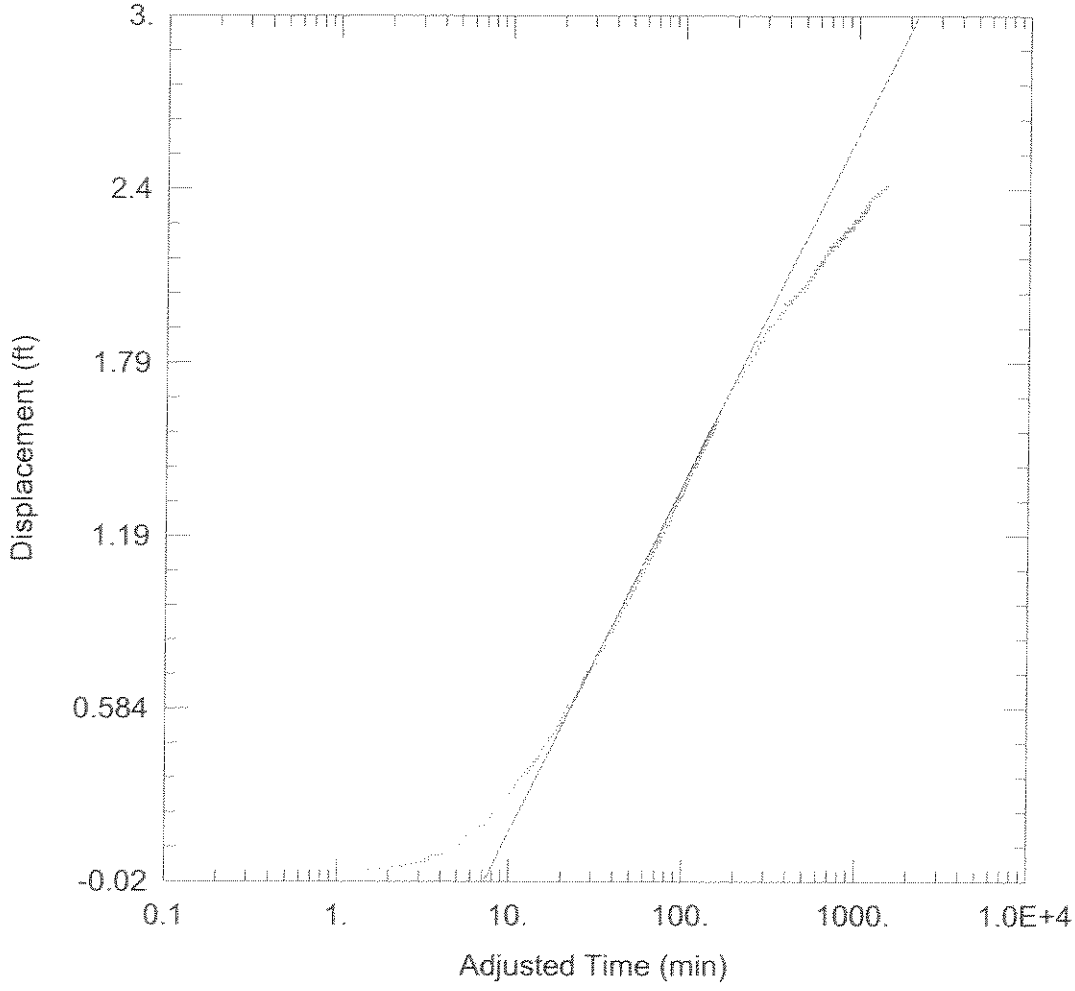
SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 14.64 cm^2/sec
S = 0.0008444
Kz/Kr = 1.
b = 28. ft

$b = 28' = 853.44\ cm$

$K = 14.64 / 853.44 = 1.71 \times 10^{-4}\ cm/sec$



WELL TEST ANALYSIS

Data Set: C:\...\South transect s28 at 1480 minutes CoopJac.aqt
Date: 03/07/06 Time: 20:23:50

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

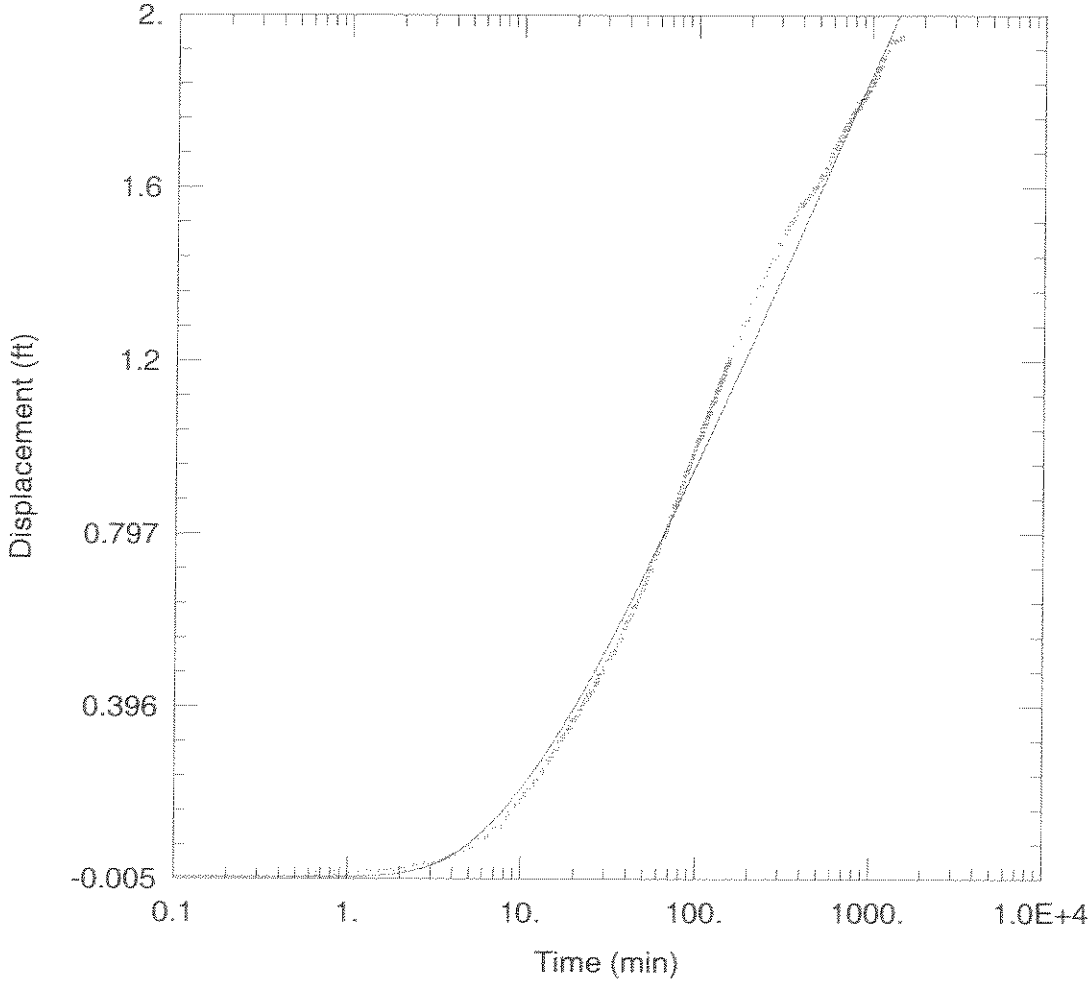
Well Name	X (ft)	Y (ft)
s28	150	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 15.33 cm^2/sec S = 0.0007355

$K = 15.33/853.44 = 179 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\South transect s29 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:22:10

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

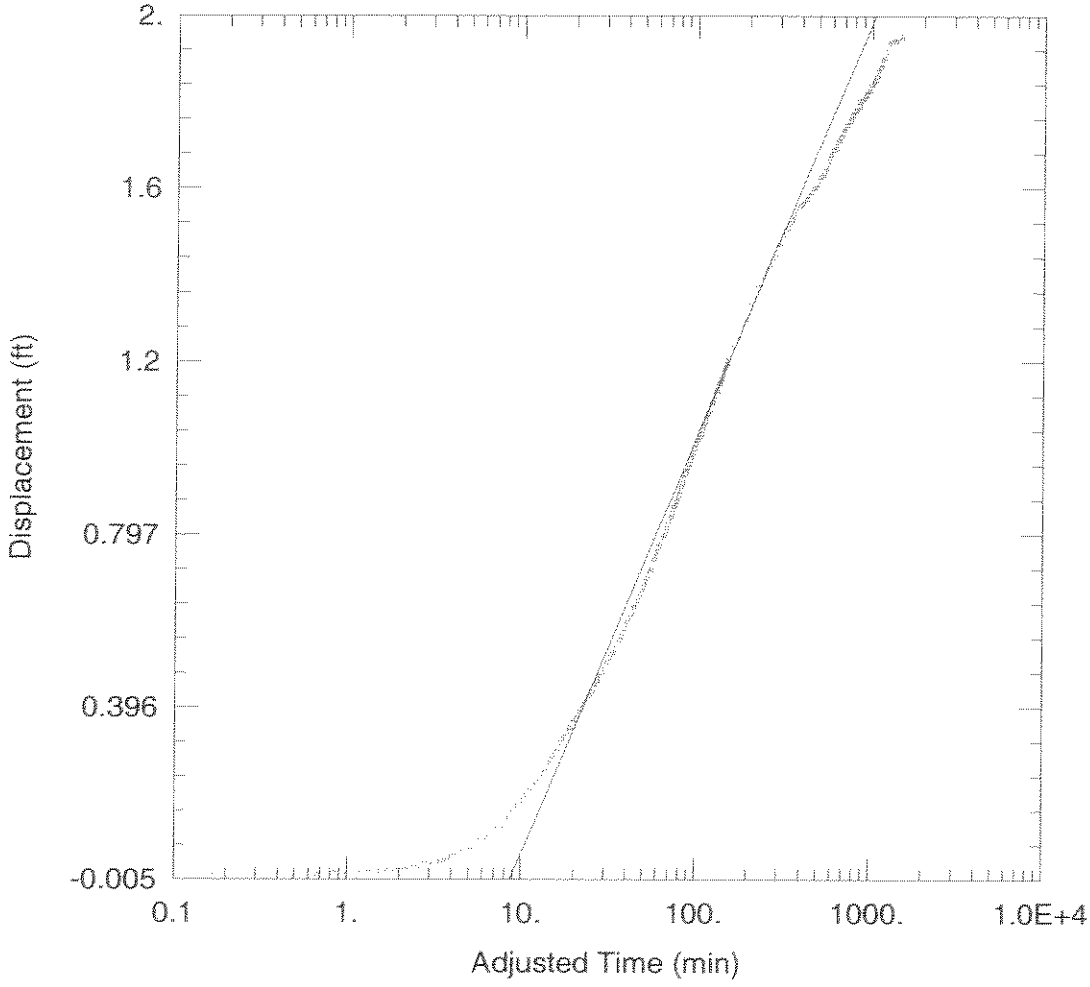
Well Name	X (ft)	Y (ft)
s29	200	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 20.2 cm^2/sec
S = 0.0007024
Kz/Kr = 1.
b = 28. ft

$K = 2.36 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\South transect s27 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:21:28

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

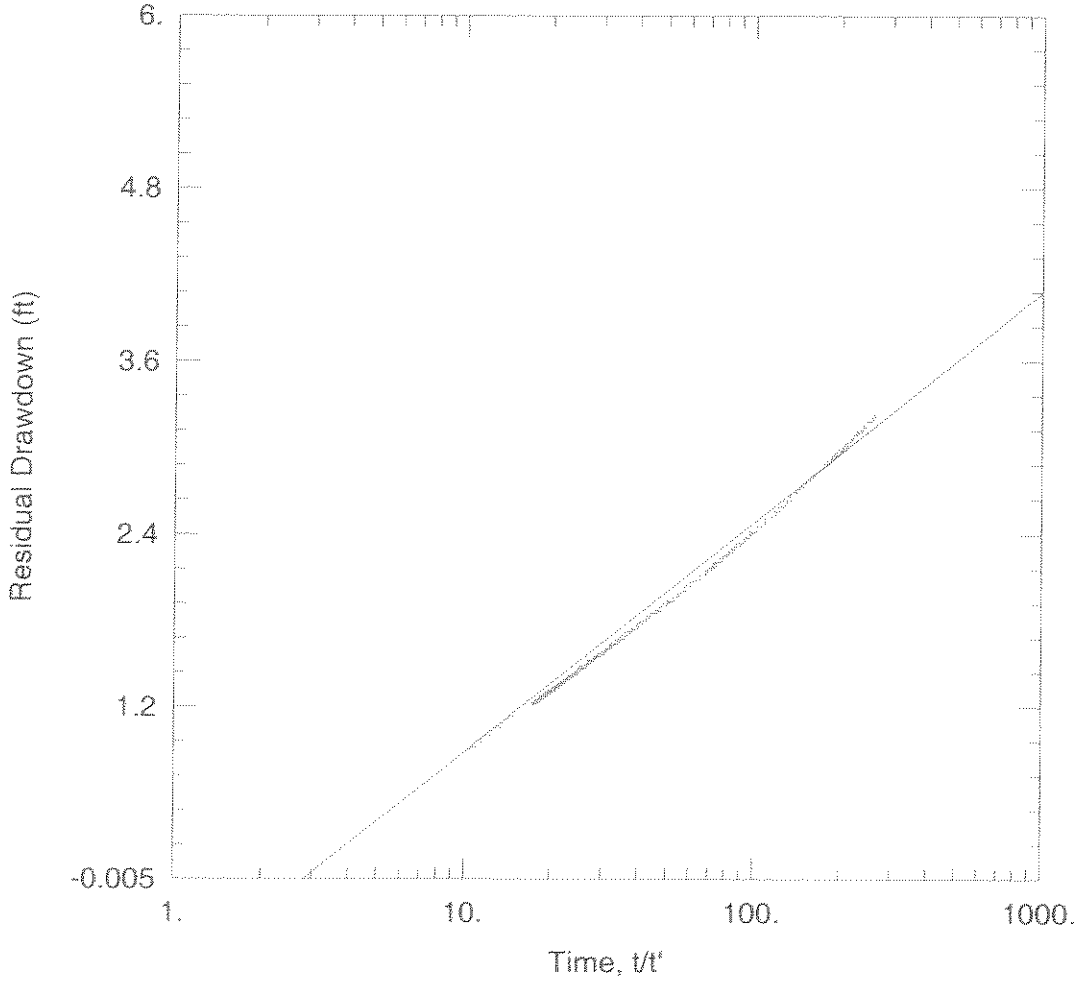
Well Name	X (ft)	Y (ft)
s29	200	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 19.3 cm^2/sec S = 0.0006117

$K = 226 \times 10^{-9}$



WELL TEST ANALYSIS

Data Set: W:\...\South transect s28at 300 minutes recovery Theis.aqt
Date: 04/07/06 Time: 08:04:56

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

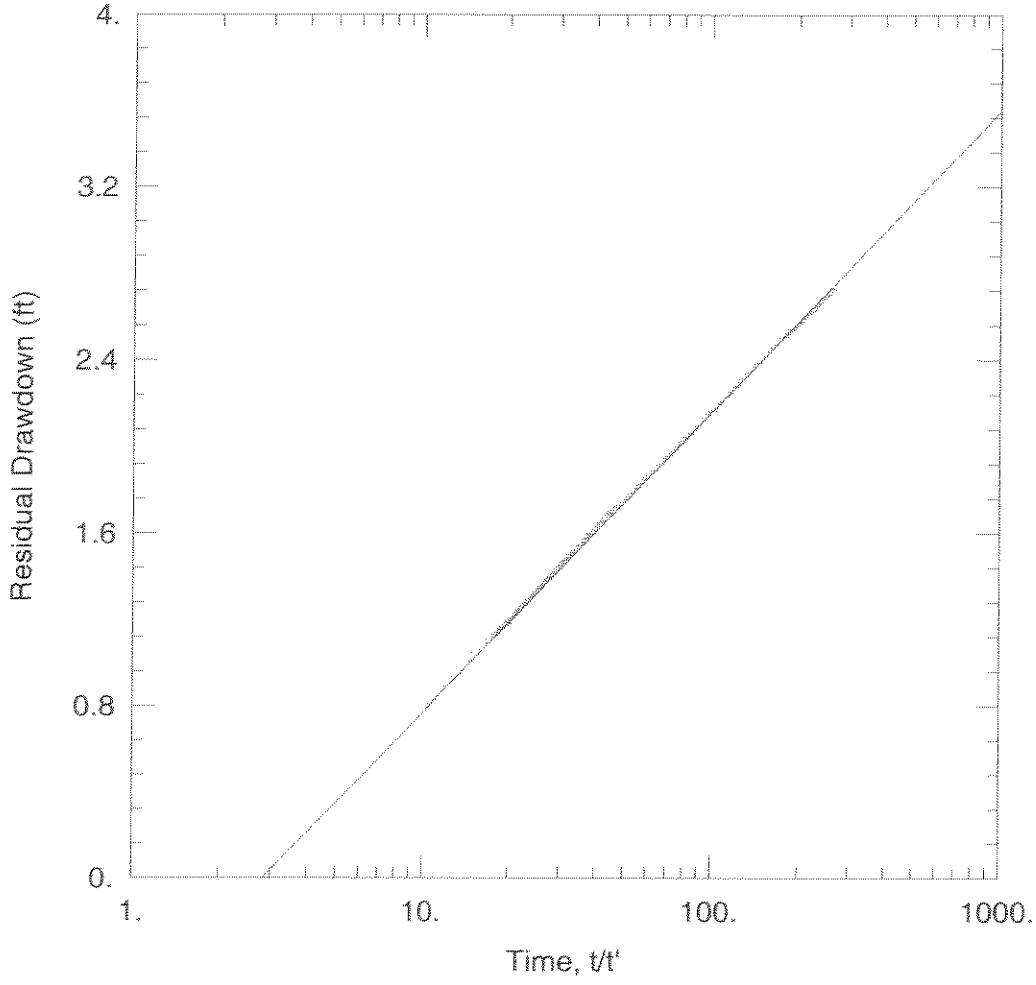
Well Name	X (ft)	Y (ft)
s26	50	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 11.63 cm^2/sec S/S' = 2.818

K = 1.36×10^{-1} cm/s



WELL TEST ANALYSIS

Data Set: W:\...\South transect s26 at 300 minutes recovery Theis.aqt
Date: 04/07/06 Time: 08:06:42

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

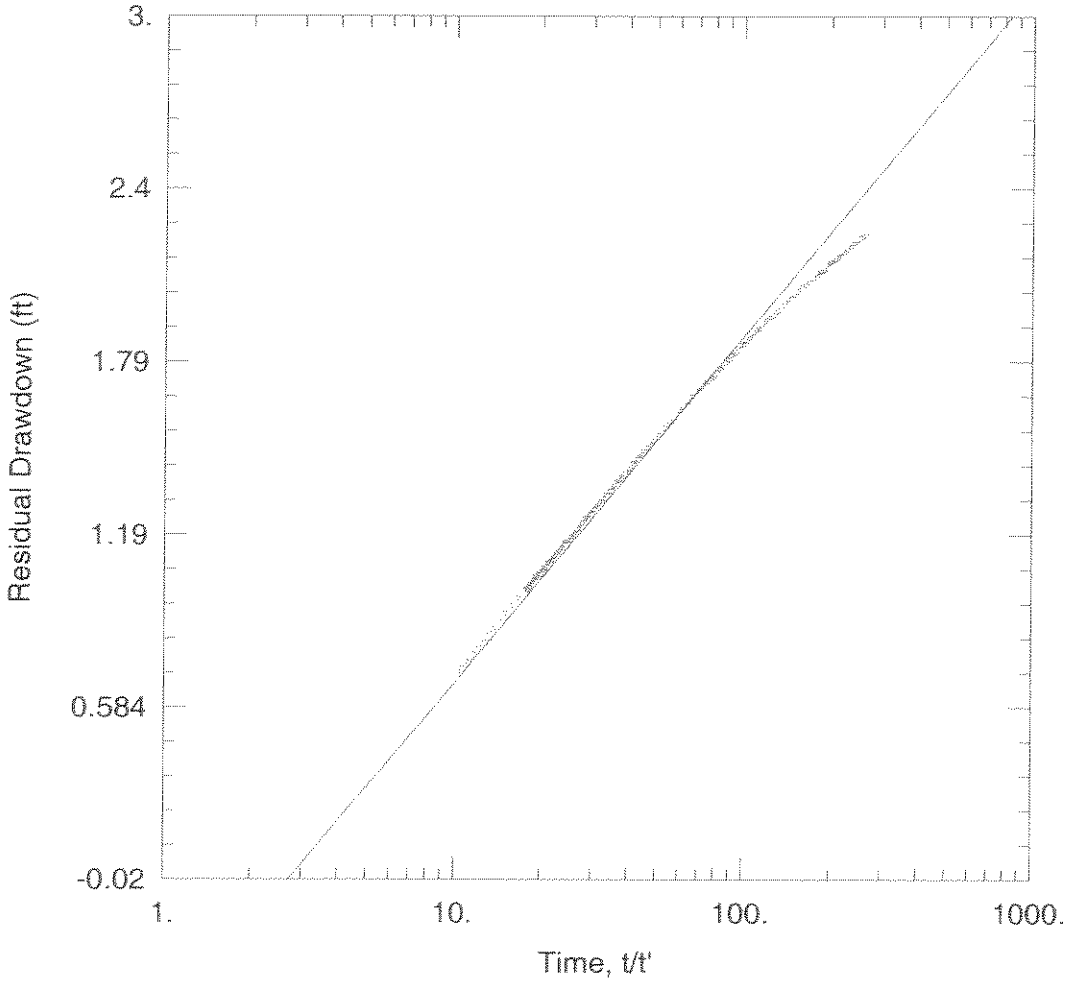
Well Name	X (ft)	Y (ft)
s27	100	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 13.35 cm^2/sec S/S' = 2.818

$K = 1.56 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\South transect s28at 300 minutes recovery Theis.aqt
Date: 04/07/06 Time: 08:02:36

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
s28	150	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 15.33 cm^2/sec S/S' = 2.818

$K = 1.79 \times 10^{-1}$ cm/s

Permeability Computations – East Transect Observation Wells

PROJECT London Ave | Page __ of __ | COMPUTED BY | DATE

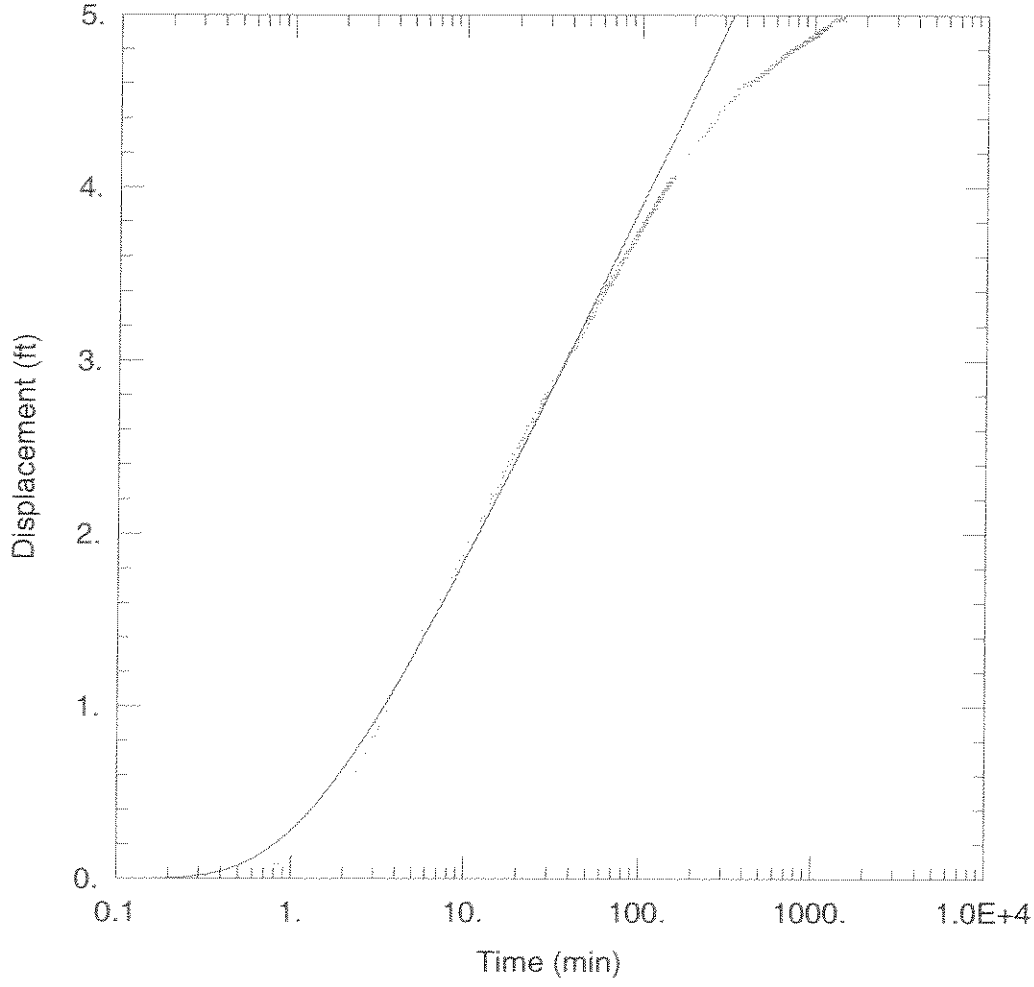
SUBJECT | CHECKED BY | DATE

East transect

	(50') e02	(100') e03	(150') e04	(200') e05
Theis: Coop Jac	103 113	124 136	149 163	171 206
Hantush	120	137	159	185
Recovery (Theis)	136	149	179	206

Theis

- e04–e05: 94
- e03–e05: 95
- e02–e05: 91
- e03–e04: 95
- e02–e04: 89
- e02–e03: 87



WELL TEST ANALYSIS

Data Set: W:\...\East transect e02 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:01:59

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

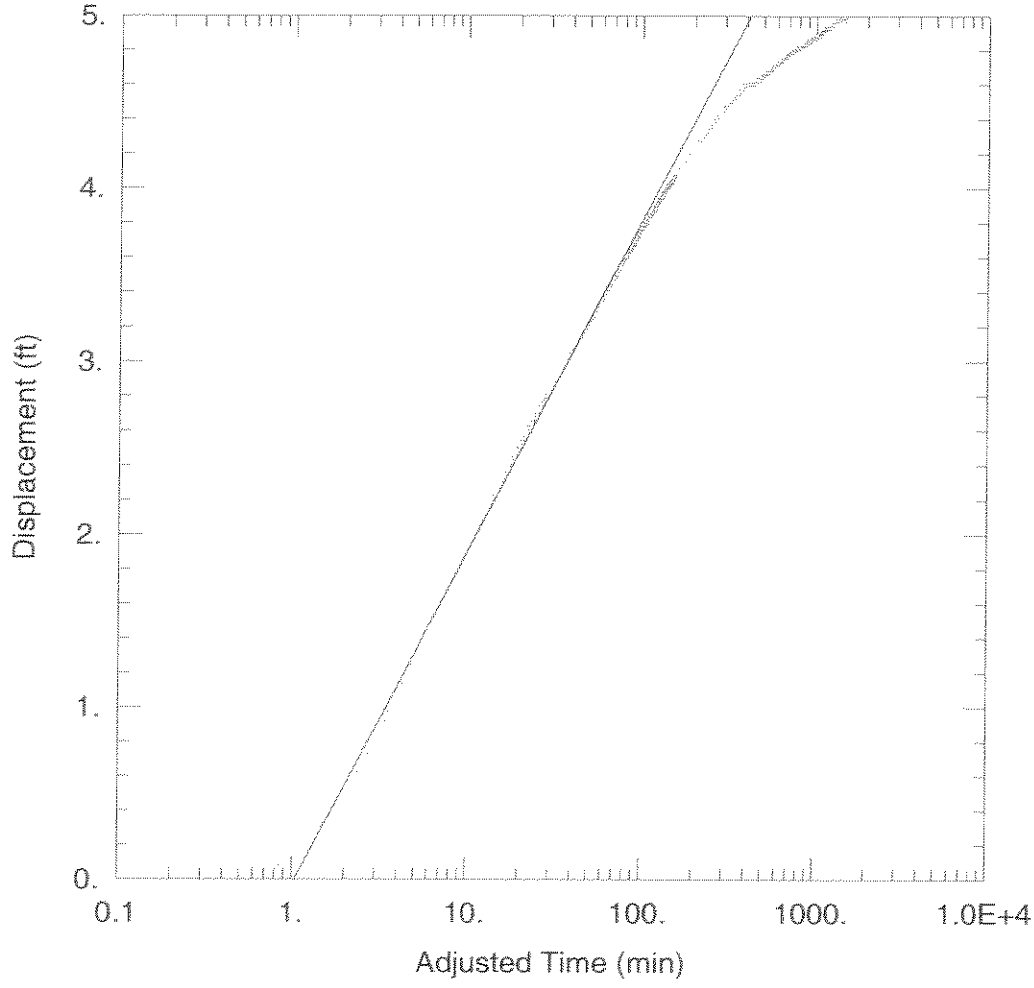
Well Name	X (ft)	Y (ft)
e02	50	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 8.82 cm^2/sec
S = 0.0007355
Kz/Kr = 1.
b = 28. ft

$K = 103 \times 10^{-4}$ cfs



WELL TEST ANALYSIS

Data Set: W:\...\East transect e04 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:00:59

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

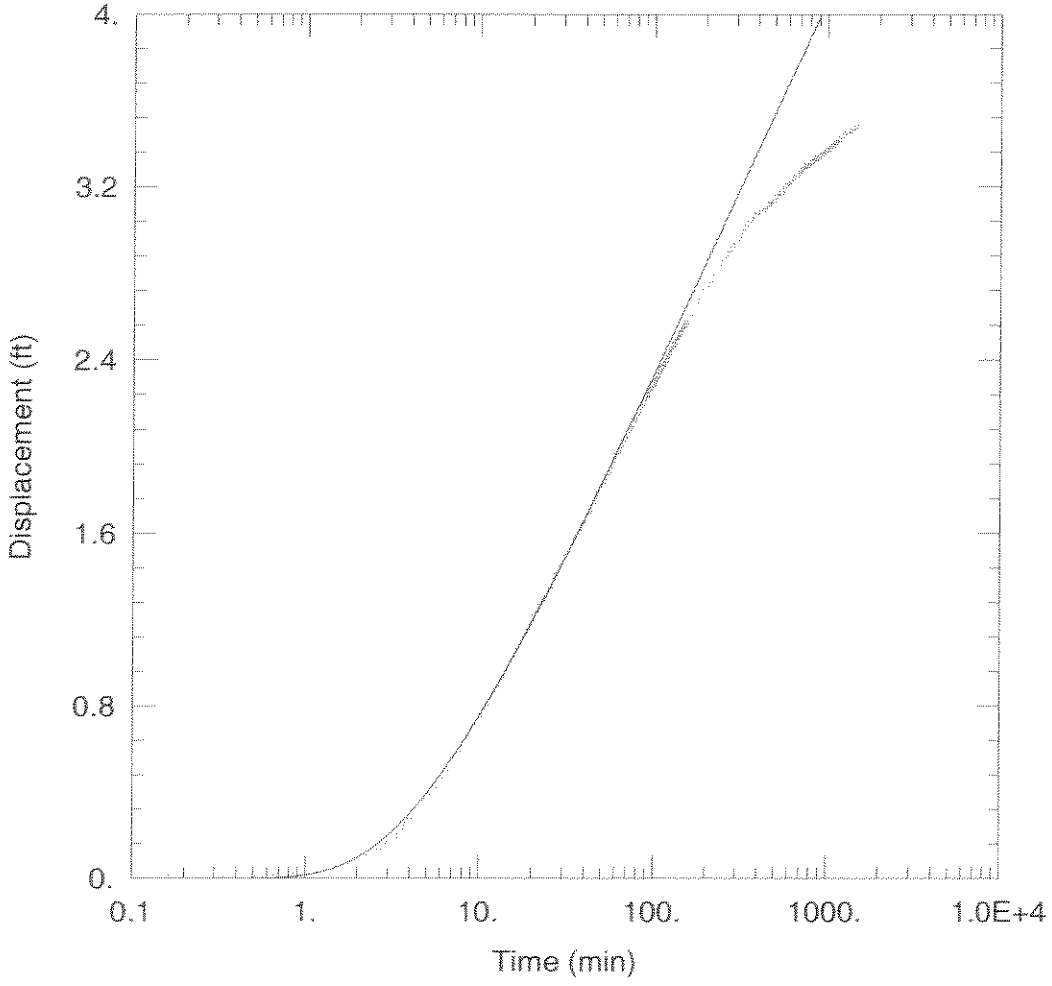
Well Name	X (ft)	Y (ft)
e02	50	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 9.671 cm^2/sec S = 0.0005842

$K = 1.13 \times 10^{-4}$ c/s



WELL TEST ANALYSIS

Data Set: W:\...\East transect e02 at 1480 minutes Theis.aqt
Date: 04/06/06 Time: 16:03:34

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

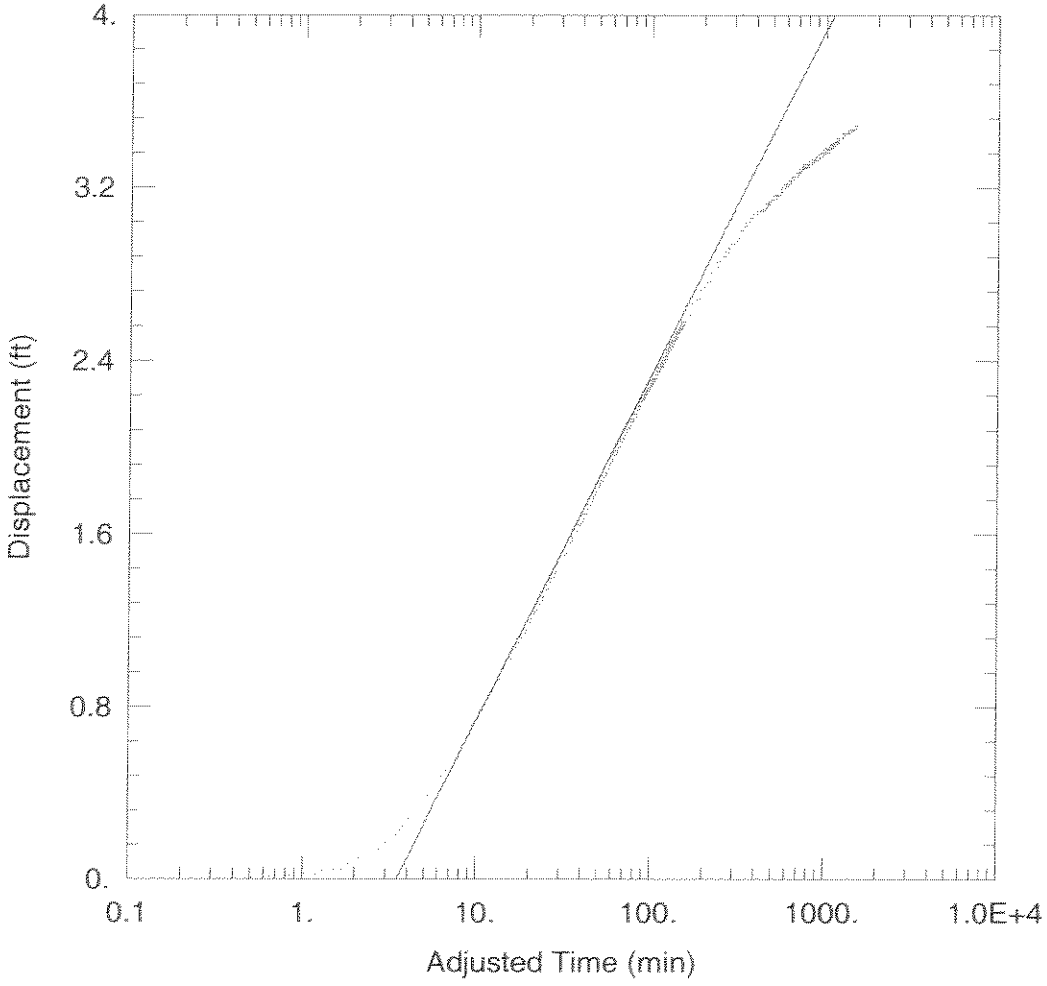
Well Name	X (ft)	Y (ft)
e03	100	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 10.6 cm^2/sec
S = 0.0007355
Kz/Kr = 1.
b = 28. ft

$K = 1.24 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\East transect e03 at 1480 minutes Theis.aqt
Date: 04/06/06 Time: 16:04:17

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

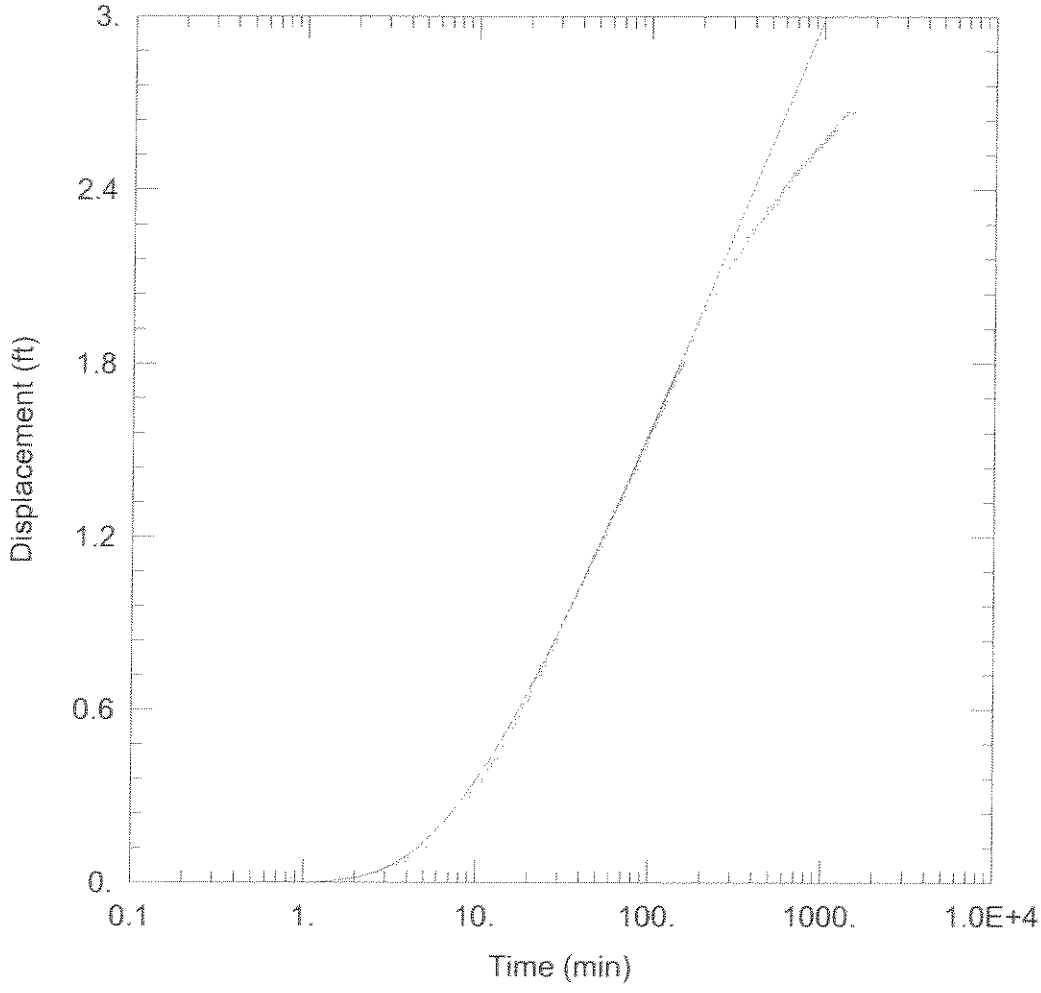
Well Name	X (ft)	Y (ft)
e03	100	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 11.63 cm^2/sec S = 0.0005842

$K = 1.36 \times 10^{-4} cm/s$



WELL TEST ANALYSIS

Data Set: C:\...\East transect e04 at 1480 minutes Theis.aqt
Date: 03/07/06 Time: 20:23:04

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

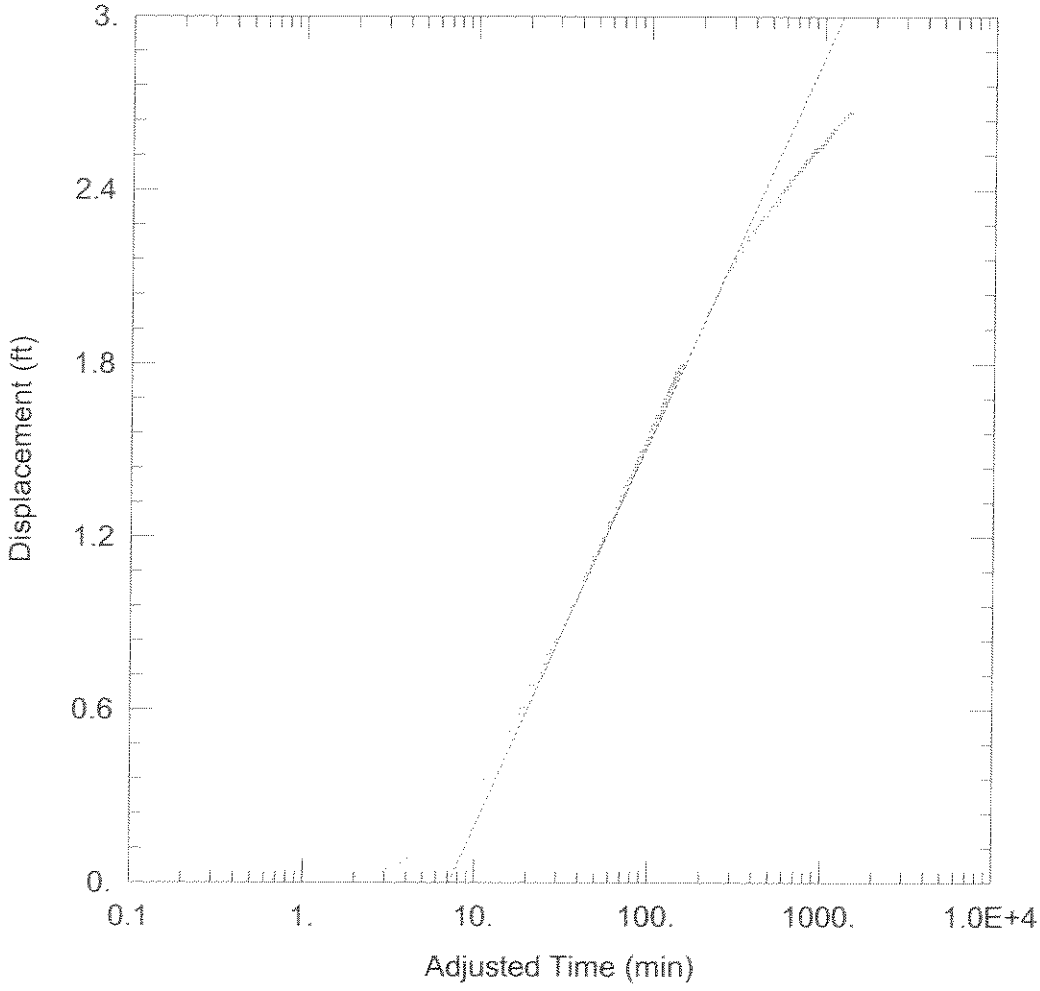
Well Name	X (ft)	Y (ft)
e04	150	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 12.75 cm^2/sec
S = 0.0007355
Kz/Kr = 1.
b = 28. ft

K = 12.75/853.44 = 1.49×10^{-4} cm/s



WELL TEST ANALYSIS

Data Set: C:\...\East transect e04 at 1480 minutes CoopJac.aqt
Date: 03/07/06 Time: 20:54:09

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

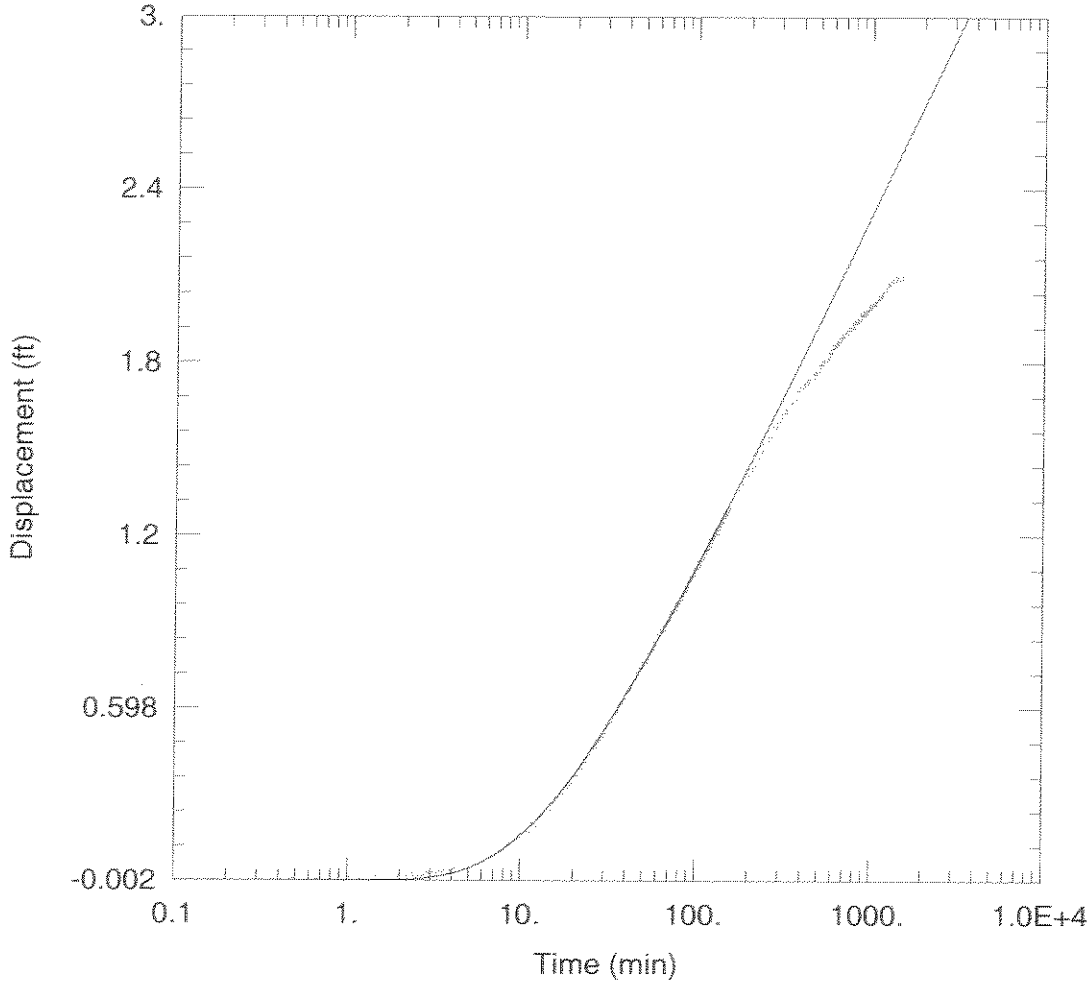
Well Name	X (ft)	Y (ft)
e04	150	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 13.98 cm^2/sec S = 0.0006406

$K = 13.98/85544 = 163 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\East transect e05 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:06:26

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

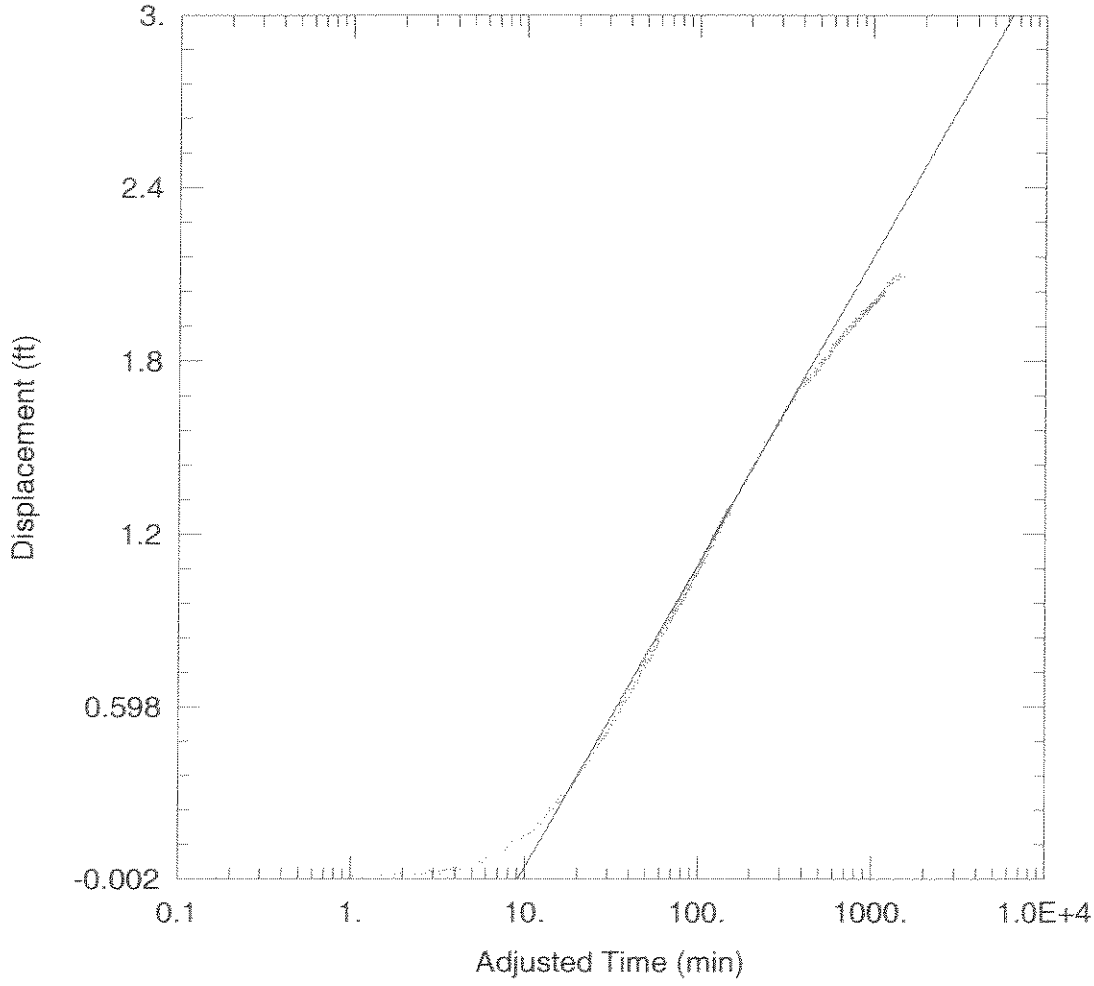
Well Name	X (ft)	Y (ft)
e05	200	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 14.64 cm^2/sec
S = 0.0008064
Kz/Kr = 1.
b = 28. ft

$K = 1.71 \times 10^{-1}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\East transect e03 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:05:39

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

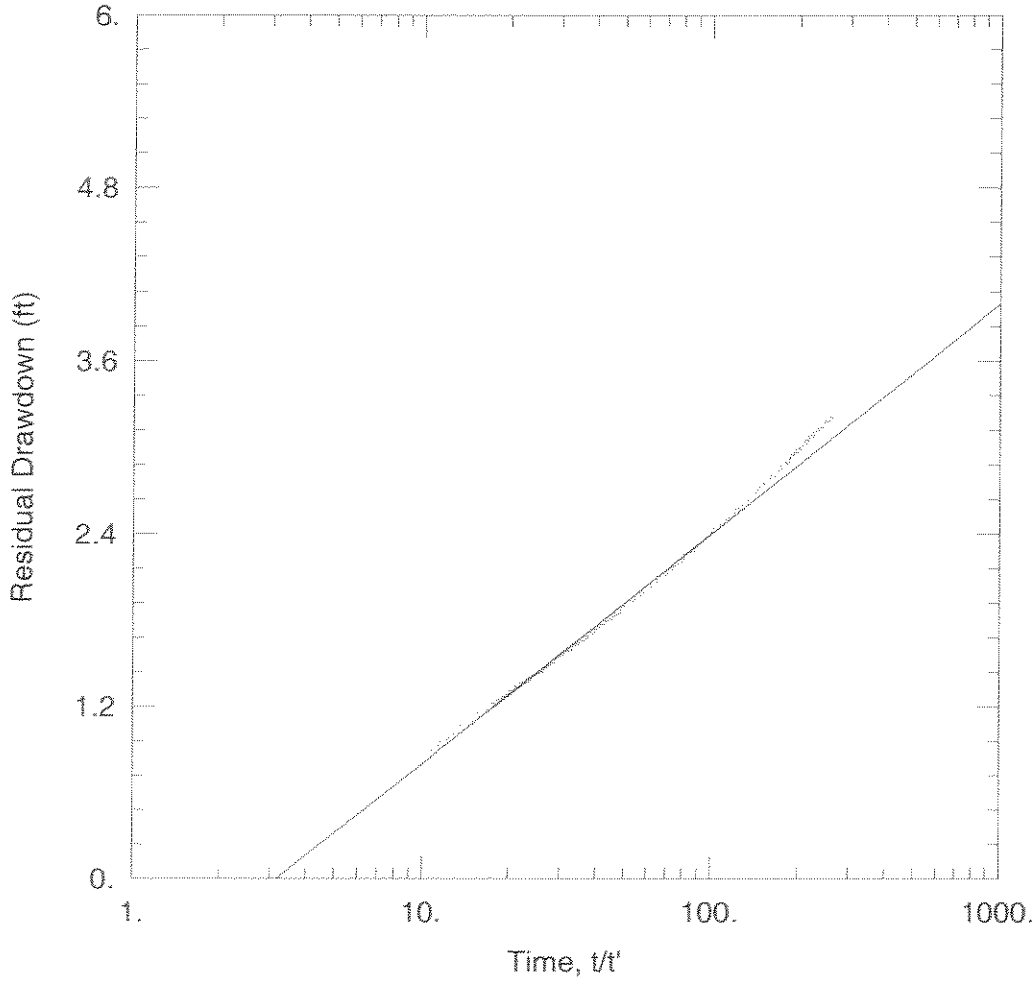
Well Name	X (ft)	Y (ft)
e05	200	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 17.6 cm^2/sec S = 0.0005842

$K = 206 \times 10^{-1}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\East transect e02 at 300-minutes recovery Theis.aqt
Date: 04/07/06 Time: 07:31:06

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

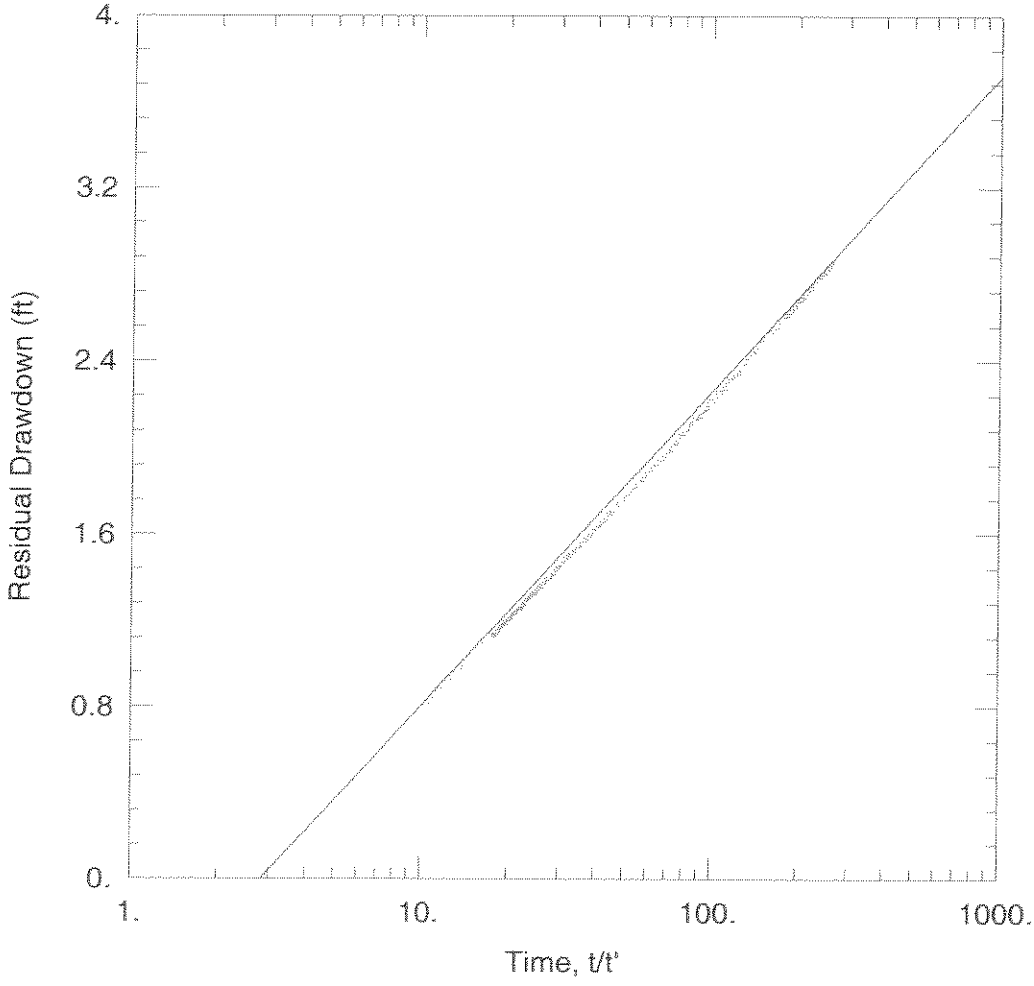
Well Name	X (ft)	Y (ft)
e02	50	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 11.63 cm^2/sec S/S' = 3.162

$K = 1.36 \times 10^{-1}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\East transect e02 at 300-minutes recovery Theis.aqt
Date: 04/07/06 Time: 07:32:13

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

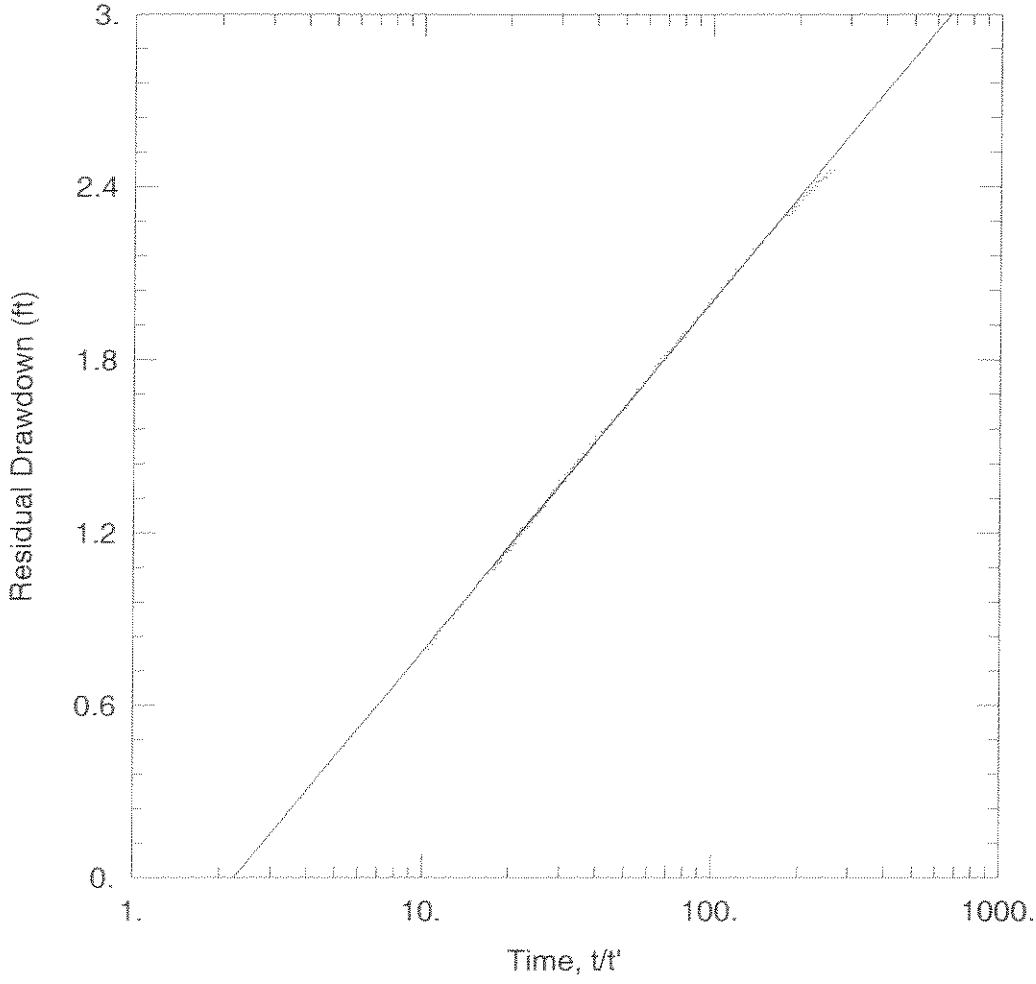
Well Name	X (ft)	Y (ft)
e03	100	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 12.75 cm^2/sec S/S' = 2.818

$K = 1.49 \times 10^{-4}$ cfs



WELL TEST ANALYSIS

Data Set: W:\...\East transect e04 at 300-minutes recovery Theis.aqt
Date: 04/07/06 Time: 07:33:54

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

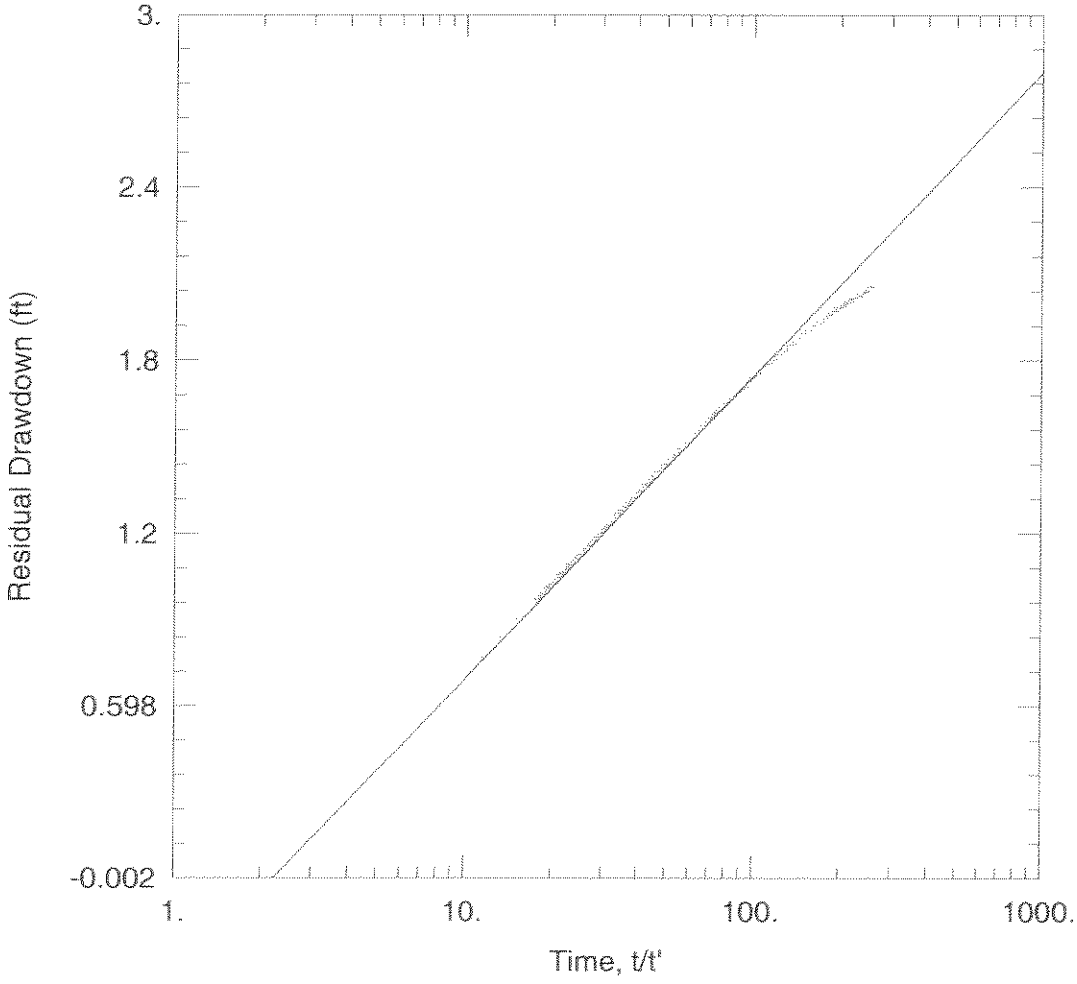
Well Name	X (ft)	Y (ft)
e04	150	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 15.33 cm^2/sec S/S' = 2.239

$K = 1.79 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\East transect e03 at 300-minutes recovery Theis.aqt
Date: 04/07/06 Time: 07:33:29

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
e05	200	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 17.6 cm^2/sec S/S' = 2.239

$K = 2.06 \times 10^{-4}$ cfs

Permeability Computations – West Transect Observation Wells

PROJECT
SUBJECT
COMPUTED BY
DATE
CHECKED BY
DATE
Page of

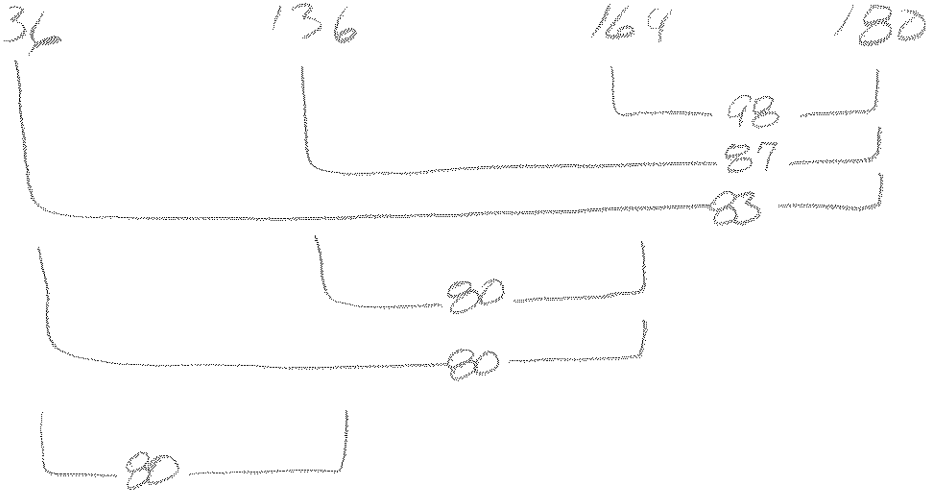
COMPUTATION SHEET
EMW FORM 1678-R

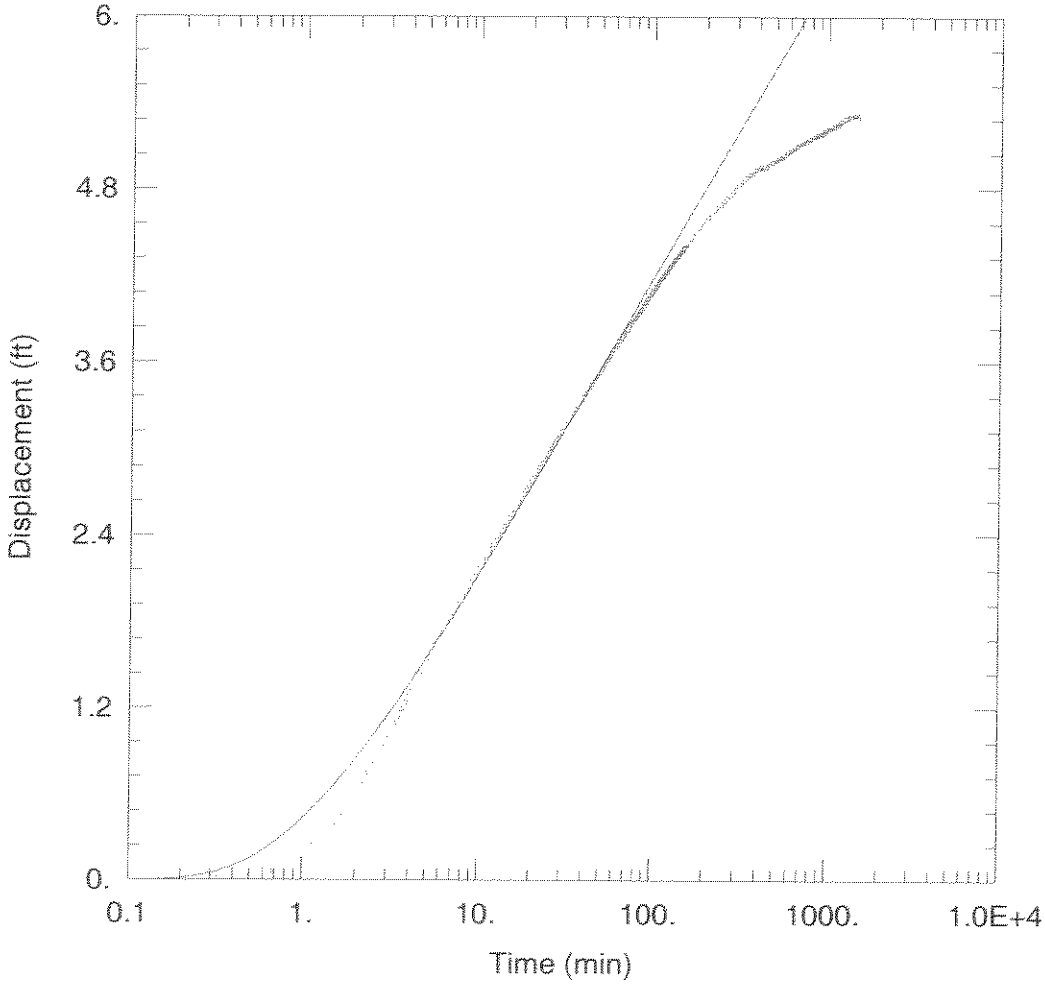
West Transect

	(50') W18	(100') W19	(150') W20	(200') W21
Theis	103	118	136	149
Cooper Jac	103	130	156	171

Therm

Theis Recovery





WELL TEST ANALYSIS

Data Set: W:\...\West transect w18 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:10:30

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

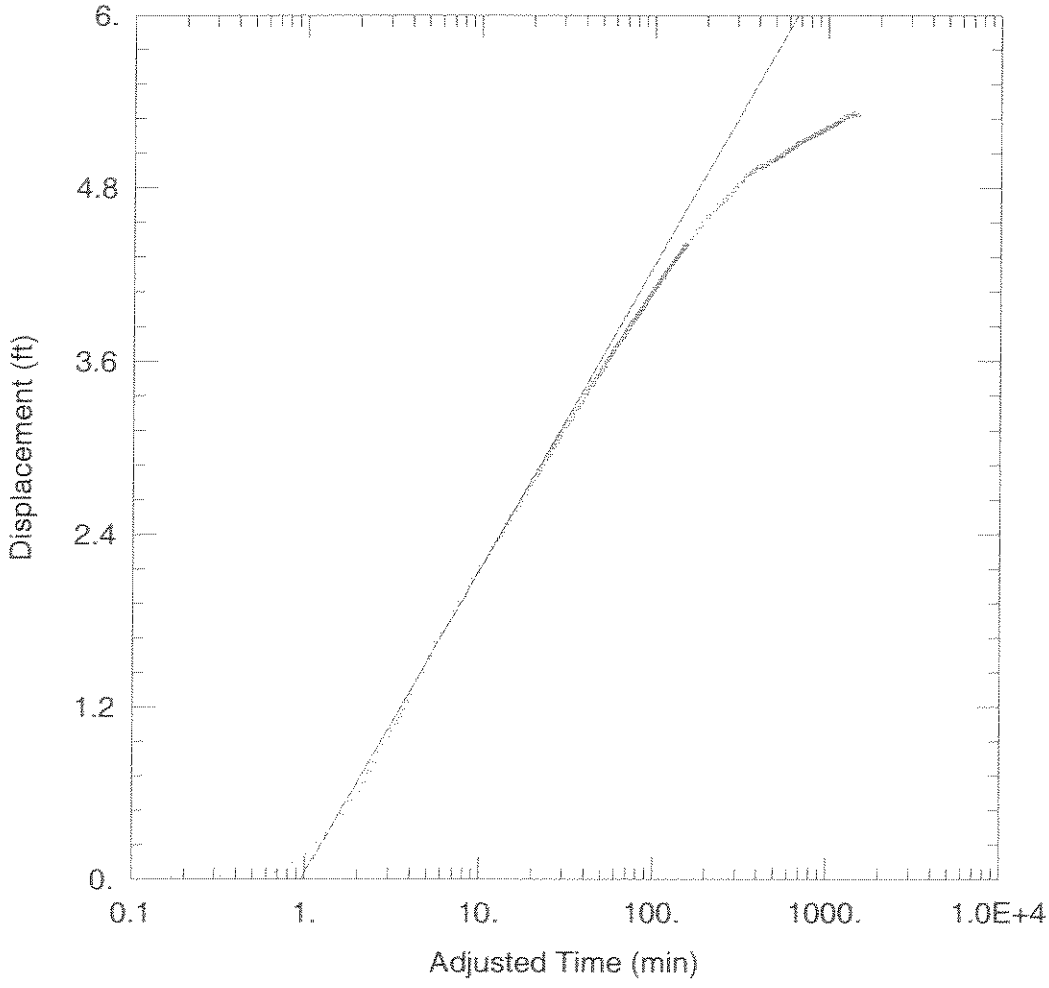
Well Name	X (ft)	Y (ft)
w18	50	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 8.82 cm^2/sec
S = 0.0005328
Kz/Kr = 1.
b = 28. ft

K = 1.03×10^{-4} c/s



WELL TEST ANALYSIS

Data Set: W:\...\West transect w20 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:09:29

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

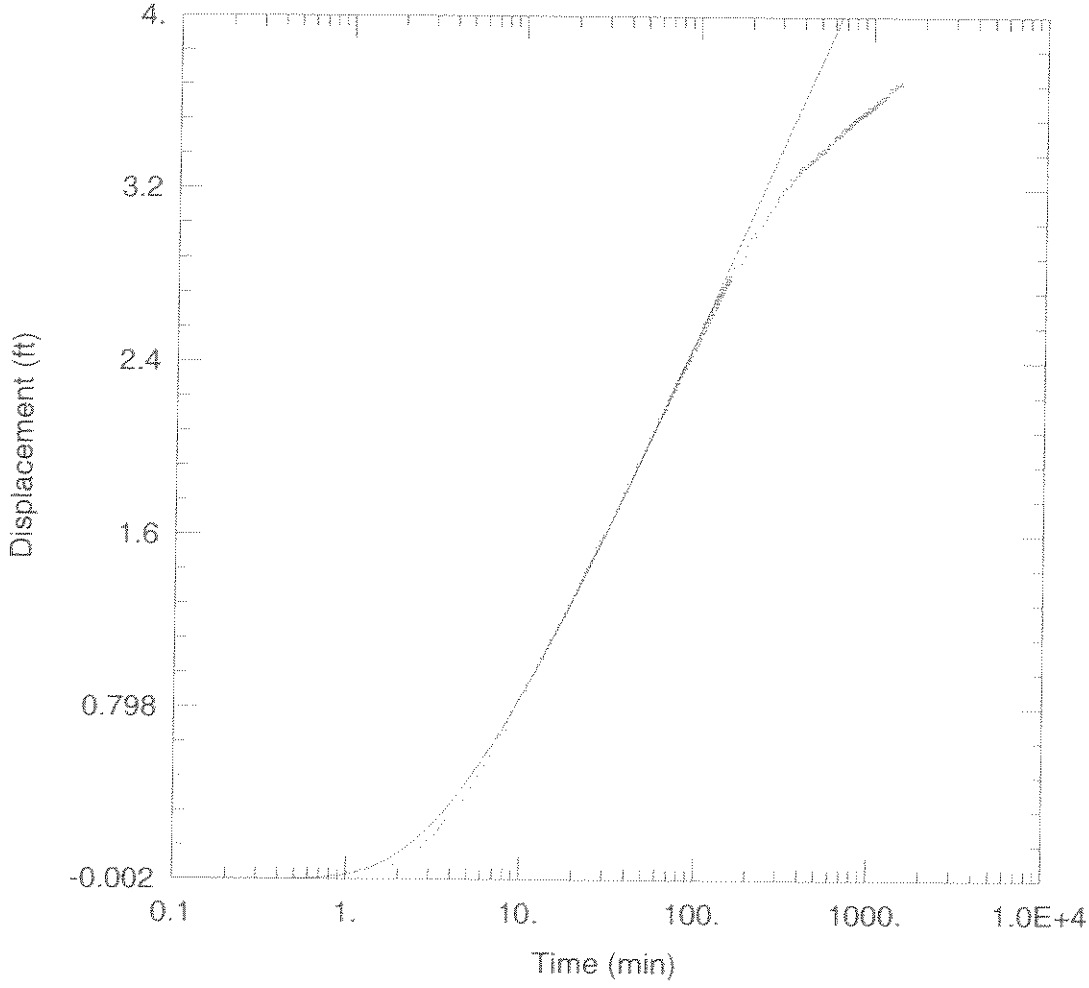
Well Name	X (ft)	Y (ft)
w18	50	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

$T = 8.82\ cm^2/sec$ S = 0.0004859

$K = 1.03 \times 10^{-4}\ cm/s$



WELL TEST ANALYSIS

Data Set: W:\...\West transect w18 at 1480 minutes Thies.aqt
Date: 04/06/06 Time: 16:11:49

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

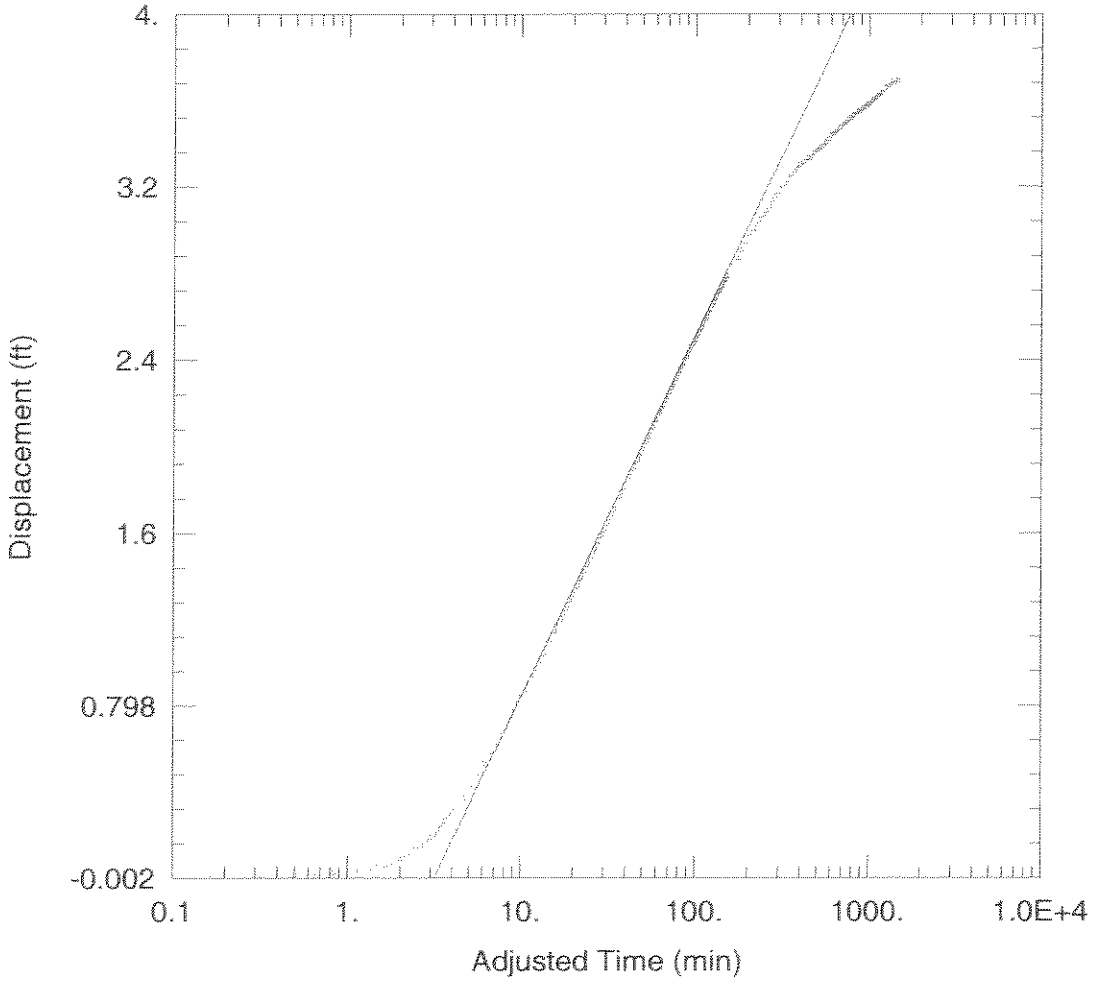
Well Name	X (ft)	Y (ft)
w19	100	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 10.13 cm^2/sec
S = 0.0006406
Kz/Kr = 1.
b = 28. ft

$K = 1.18 \times 10^{-9}$ c/s



WELL TEST ANALYSIS

Data Set: W:\...\West transect w19 at 1480 minutes Thies.aqt
Date: 04/06/06 Time: 16:12:19

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

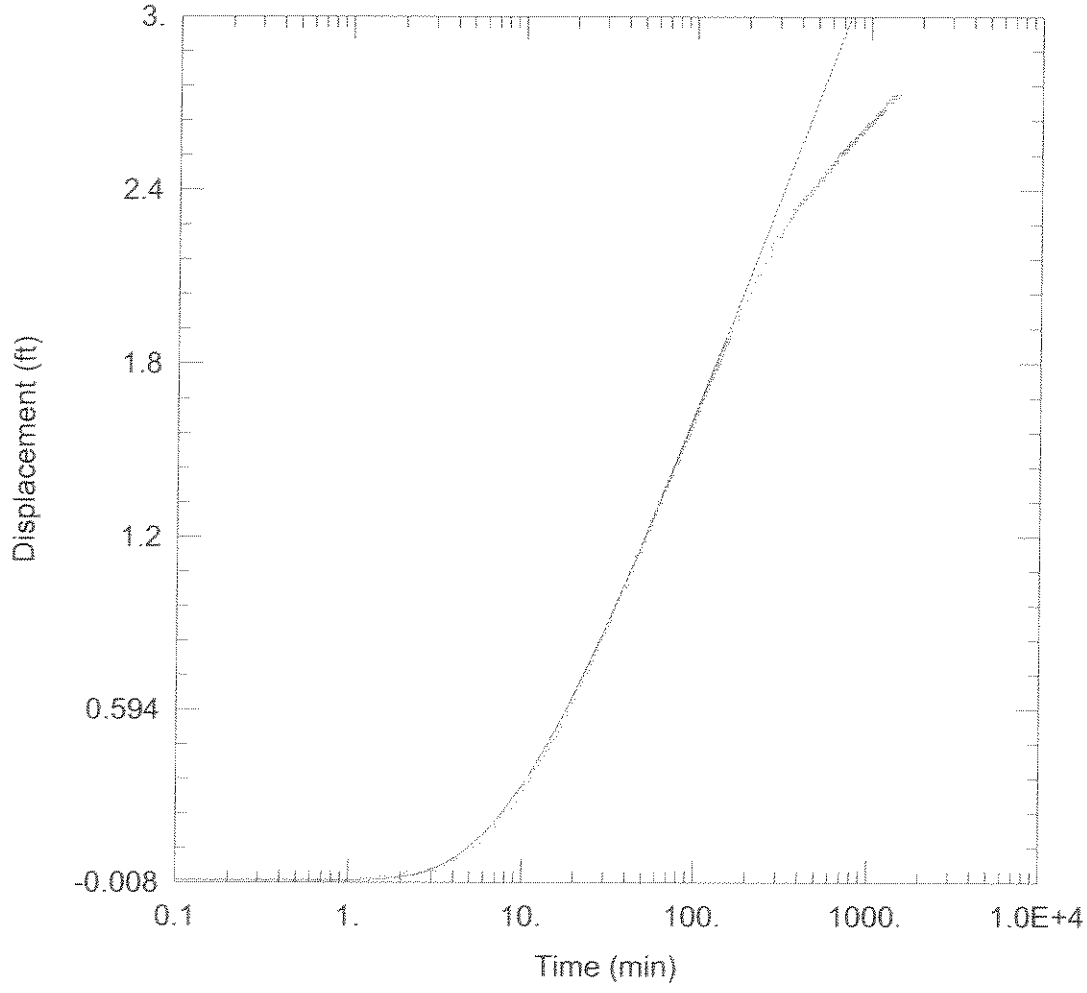
Well Name	X (ft)	Y (ft)
w19	100	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 11.1 cm^2/sec S = 0.0005088

$K = 1.30 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: C:\...\West transect w20 at 1480 minutes Theis.aqt
Date: 03/07/06 Time: 20:24:33

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

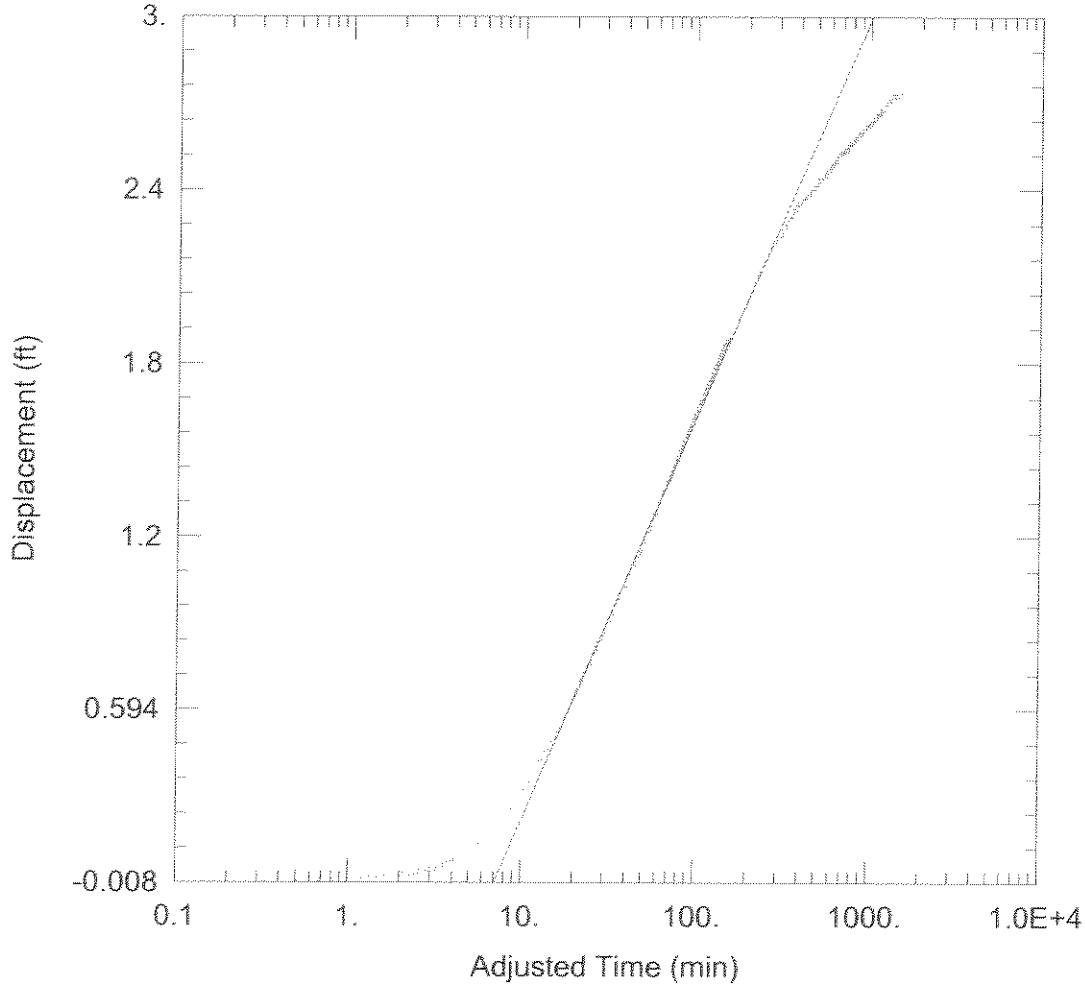
Well Name	X (ft)	Y (ft)
w20	150	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 11.63 cm^2/sec
S = 0.0007701
Kz/Kr = 1.
b = 28. ft

$K = 11.63/853.44 = 136 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: C:\...\West transect w20 at 1480 minutes CoopJac.aqt
Date: 03/07/06 Time: 20:24:17

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

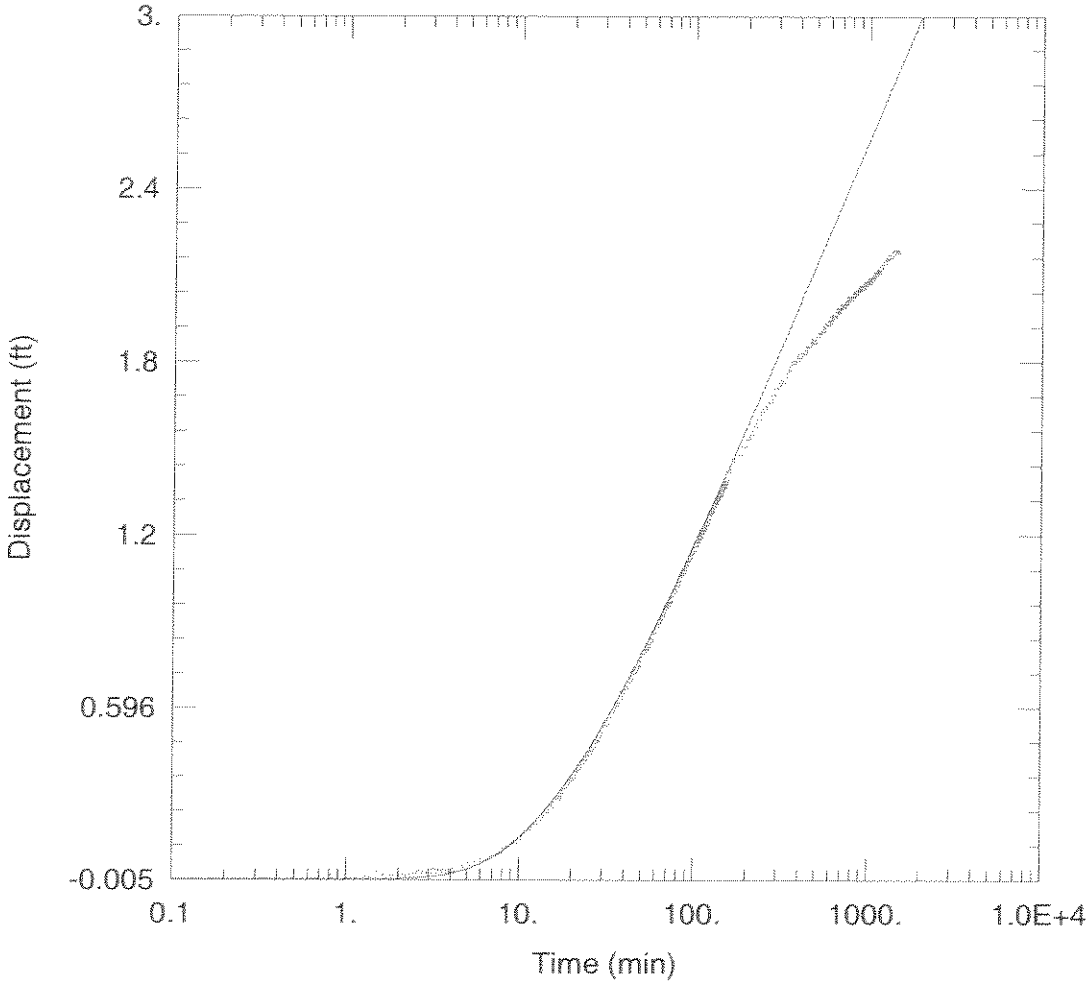
Well Name	X (ft)	Y (ft)
w20	150	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 13.35 cm^2/sec S = 0.0006117

$K = 13.35/853.44 = 1.56 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\West transect w21 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:14:14

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

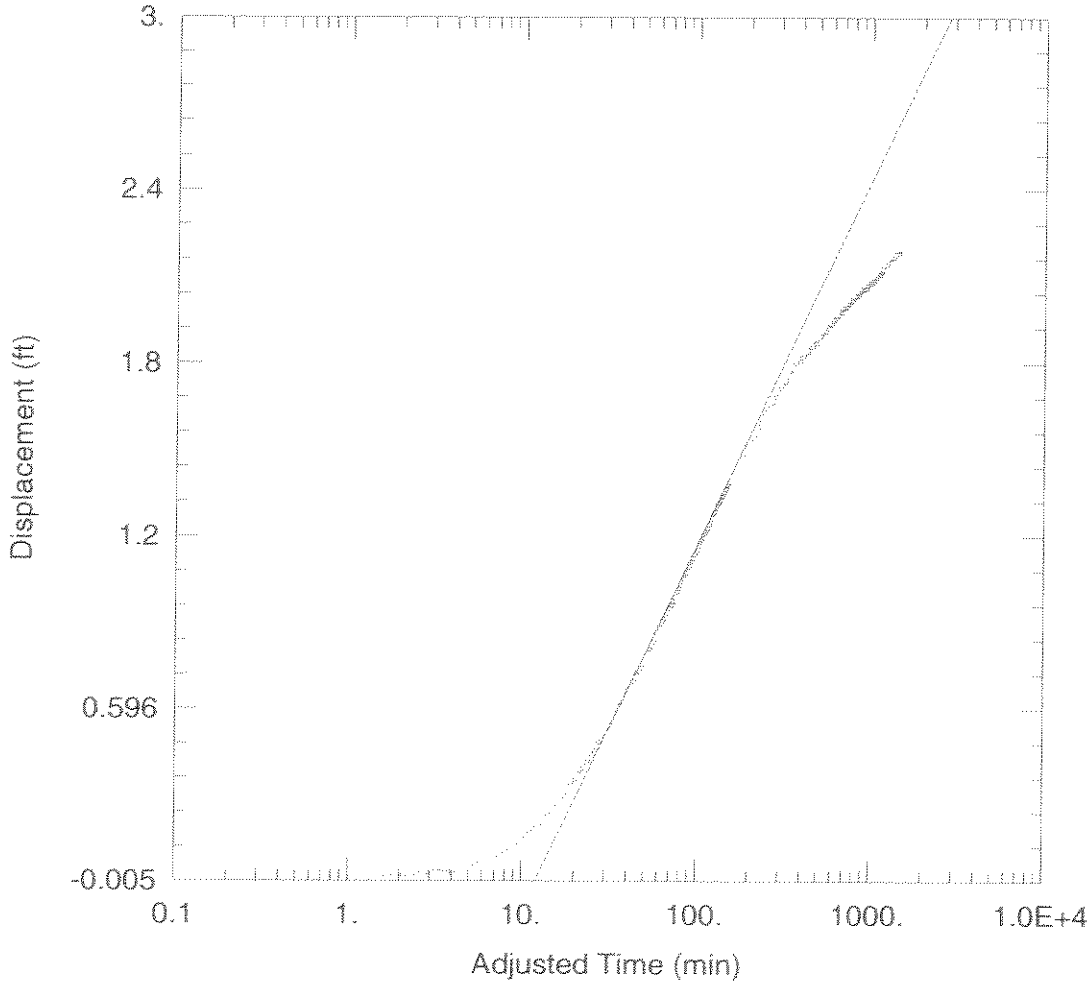
Well Name	X (ft)	Y (ft)
w21	200	0

SOLUTION

Aquifer Model: Confined
Solution Method: Theis

T = 12.75 cm^2/sec
S = 0.0008064
Kz/Kr = 1.
b = 28. ft

K = 1.49×10^{-9} cm/s



WELL TEST ANALYSIS

Data Set: W:\...\West transect w19 at 1480 minutes CoopJac.aqt
Date: 04/06/06 Time: 16:13:28

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

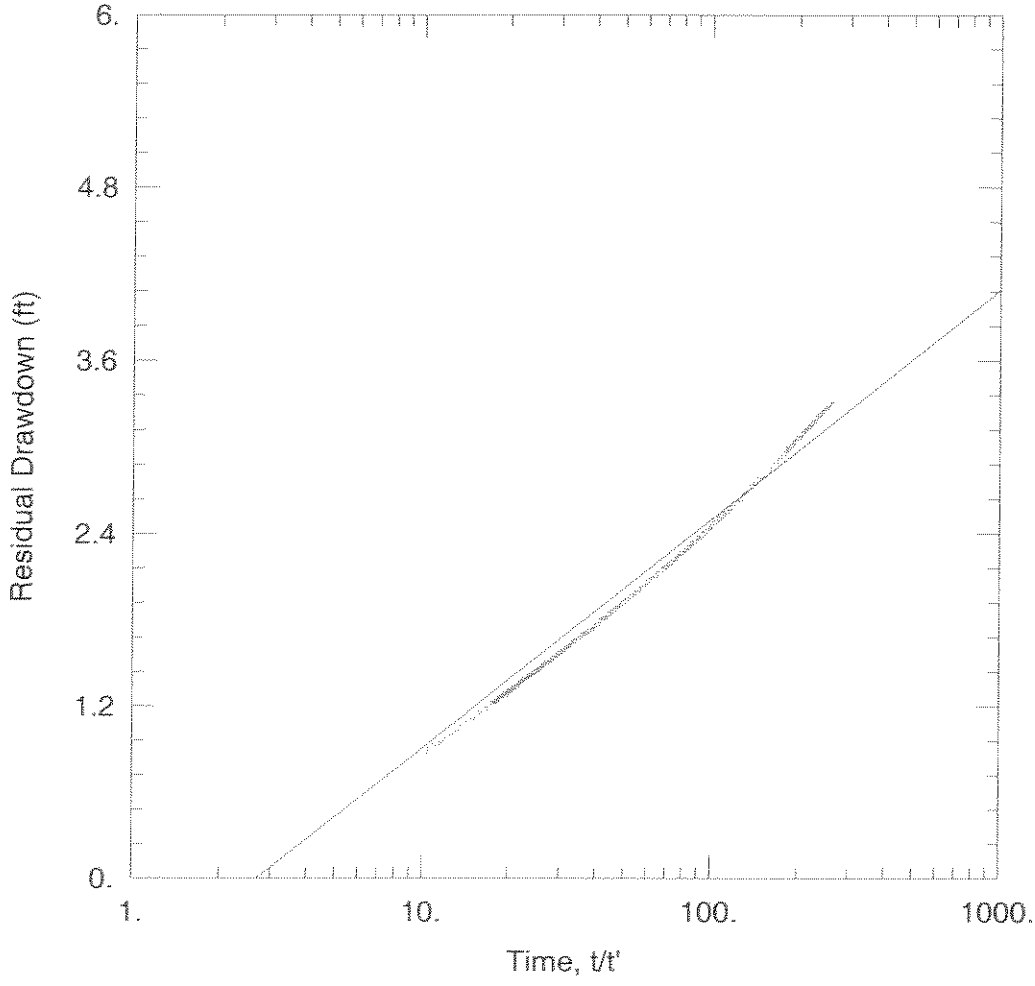
Well Name	X (ft)	Y (ft)
w21	200	0

SOLUTION

Aquifer Model: Confined Solution Method: Cooper-Jacob

T = 14.64 cm^2/sec S = 0.0006406

$K = 1.71 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\West transect w20 at 300 minutes recovery Theis.aqt
Date: 04/07/06 Time: 07:57:51

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

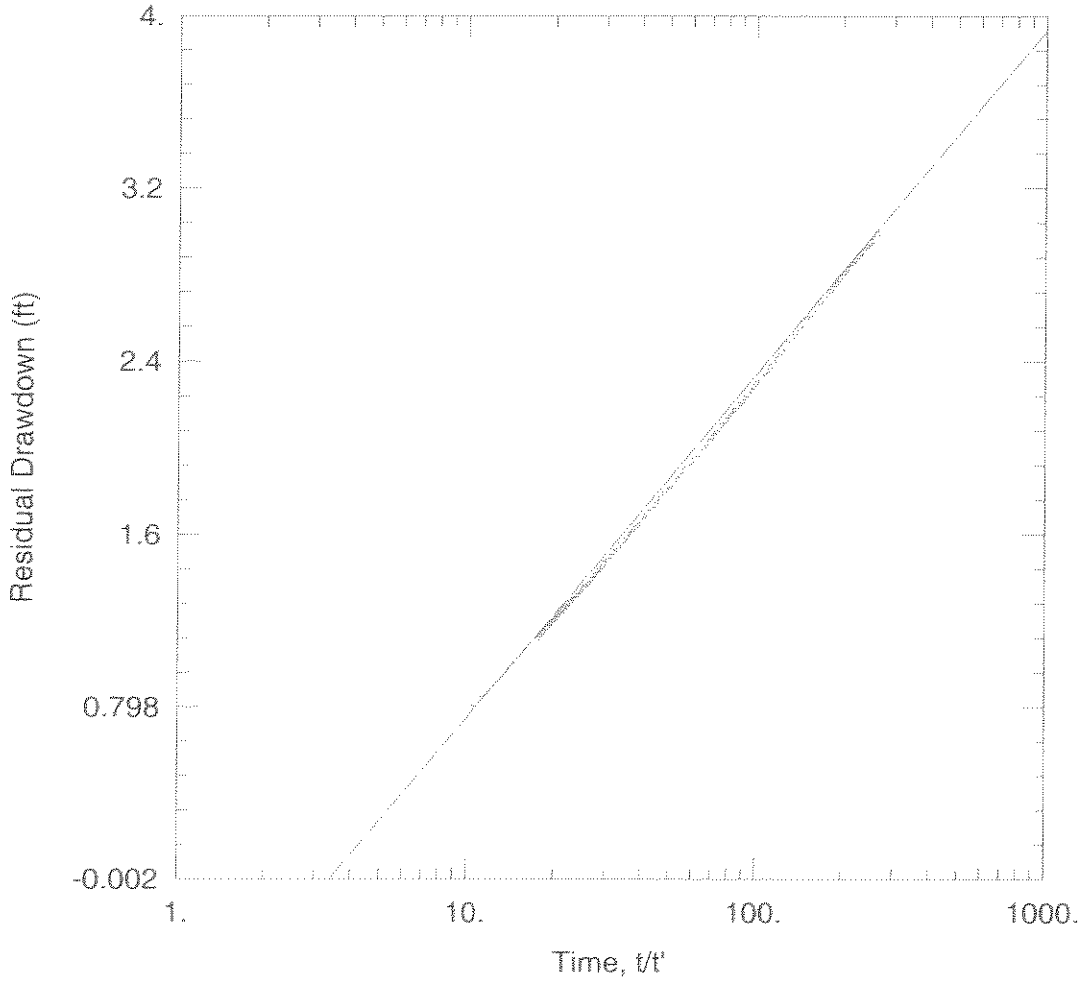
Well Name	X (ft)	Y (ft)
w18	50	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 11.68 cm^2/sec S/S' = 2.696

$K = 1.36 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\West transect w18 at 300 minutes recovery Theis.aqt
Date: 04/07/06 Time: 07:58:59

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

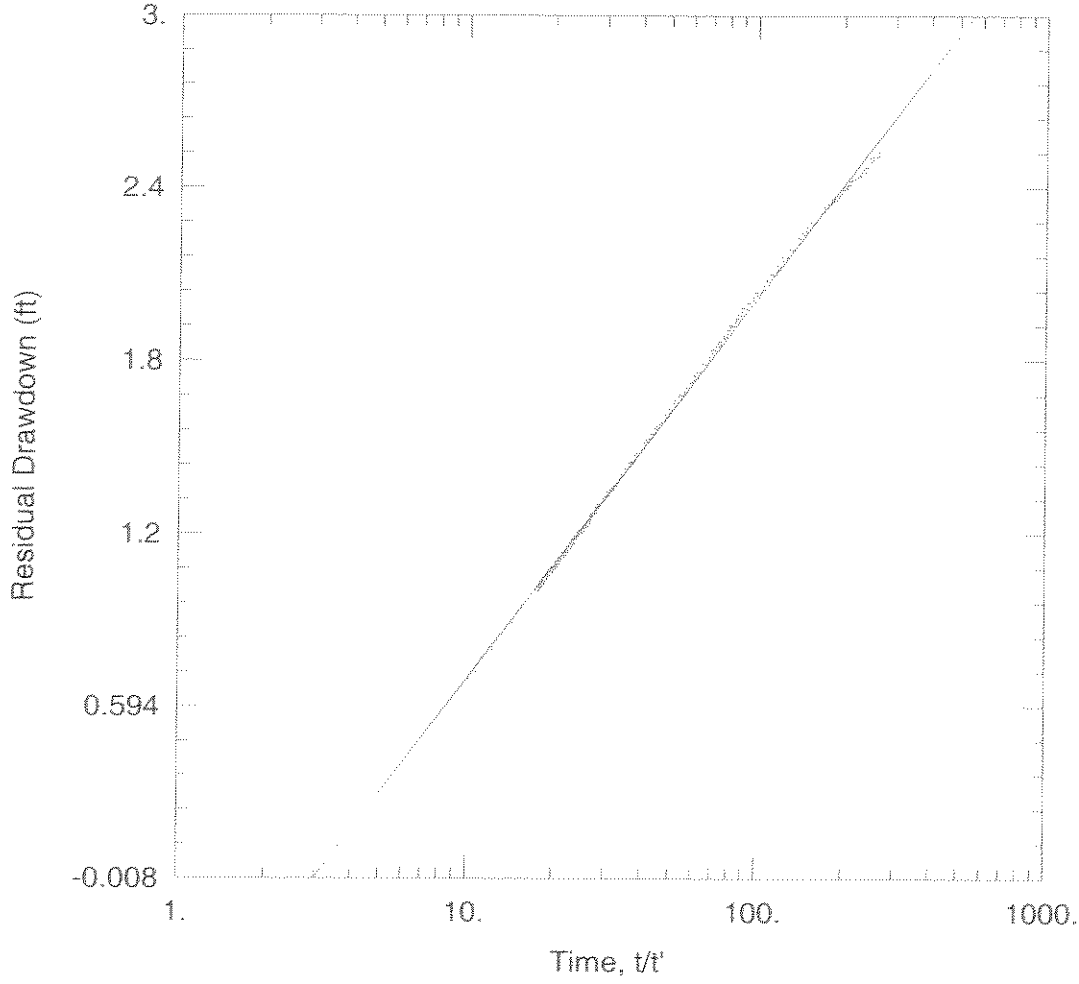
Well Name	X (ft)	Y (ft)
w19	100	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 11.68 cm^2/sec S/S' = 3.394

$K = 1.36 \times 10^{-4}$ c/s



WELL TEST ANALYSIS

Data Set: W:\...\West transect w20 at 300 minutes recovery Theis.aqt
Date: 04/07/06 Time: 07:56:48

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

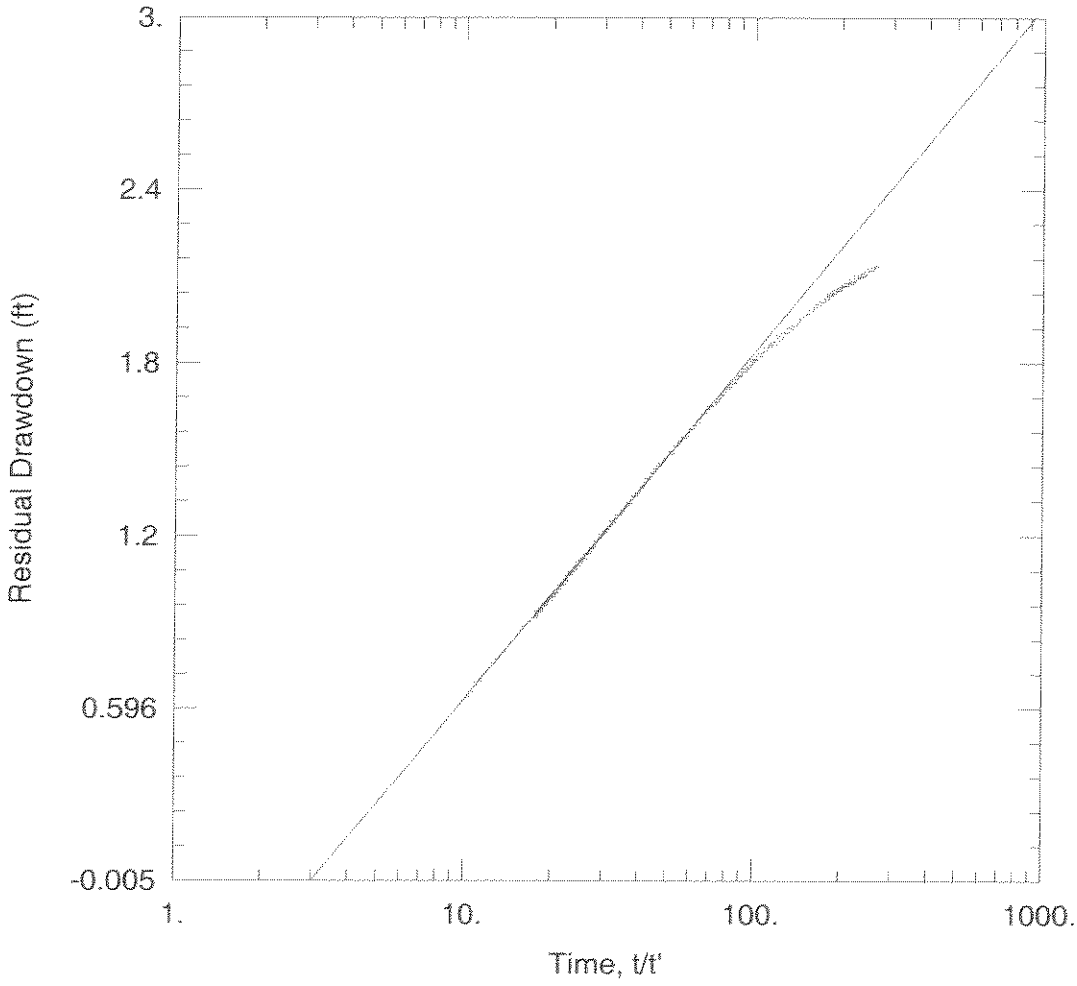
Well Name	X (ft)	Y (ft)
w20	150	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 14.04 cm^2/sec S/S' = 3.025

$K = 1.64 \times 10^{-4}$ cm/s



WELL TEST ANALYSIS

Data Set: W:\...\West transect w19 at 300 minutes recovery Theis.aqt
Date: 04/07/06 Time: 08:00:03

AQUIFER DATA

Saturated Thickness: 28. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
London	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
w21	200	0

SOLUTION

Aquifer Model: Confined Solution Method: Theis (Recovery)

T = 15.39 cm^2/sec S/S' = 3.025

$K = 180 \times 10^{-4}$ c/s

Ordering of Computed Permeability

London Pumping Test

Piezo	Perm
s29	236
s29	226
e05	206
e05	206
s29	206
w21	180
s28	179
e04	179
n13	179
s28	179
e05	171
s28	171
w21	171
w20	164
e04	163
n13	163
n13	156 ← 2/3
w20	156
n12	156
s27	156
e04	149
w21	149
n12	149
s27	149
e03	149
n12	136
w20	136
s27	136
e03	136
e02	136
n10	136
n11	136
w18	136 ← 1/3
w19	136
s26	136
n11	130
w19	130
e03	124
n11	118
w19	118
e02	113
n10	113
s26	113
n10	108
s26	108
e02	103
w18	103
w18	103

London Pumping Test				
		Theis	CoopJac	Recovery
	e02	103	113	136
	e03	124	136	149
	e04	149	163	179
	e05	171	206	206
	n10	108	113	136
	n11	118	130	136
	n12	136	149	156
	n13	156	163	179
	w18	103	103	136
	w19	118	130	136
	w20	136	156	164
	w21	149	171	180
	s26	108	113	136
	s27	136	149	156
	s28	171	179	179
	s29	236	226	206
	Avg	139	150	161
	Max	236	226	206
	Min	103	103	136
	Avg All	152		
	Max All	236		
	Mn All	103		

London Pumping Test - Order Theis			
		Theis	
	s29	236	
	e05	171	
	s28	171	
	n13	156	
	e04	149	
	w21	149	
	n12	136	
	w20	136	
	s27	136	
	e03	124	
	n11	118	
	w19	118	
	n10	108	
	s26	108	
	e02	103	
	w18	103	

← 2/3

← 1/3

London Pumping Test - Order Cooper Jacob			
		CoopJac	
	s29	226	
	e05	206	
	s28	179	
	w21	171	
	e04	163	
	n13	163	← 2/3
	w20	156	
	n12	149	
	s27	149	
	e03	136	
	n11	130	← 1/3
	w19	130	
	e02	113	
	n10	113	
	s26	113	
	w18	103	

London Pumping Test - Ordered Recovery			
		Recovery	
	e05	206	
	s29	206	
	w21	180	
	e04	179	
	n13	179	
	s28	179	
	w20	164	
	n12	156	
	s27	156	
	e03	149	
	e02	136	
	n10	136	
	n11	136	
	w18	136	
	w19	136	
	s26	136