

# **APPENDICES**

# APPENDIX 5

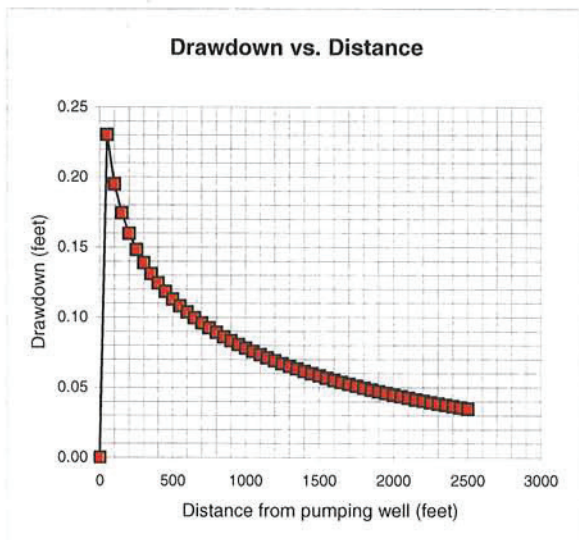
This Analysis

Program to calculate drawdown at different distances from a pumping well using the method of Theis (1935).  
 The method assumes one-dimensional steady-state flow with no lateral boundaries or vertical leakage.  
 Drawdown is calculated at different distances from the pumping well.  
 A time value is input for these calculations.

Transmissivity (ft<sup>2</sup>/day)                      7500.000 (K=150ft/day)  
 Storativity                                              1.500E-01  
 Well pumping rate (gpm)                      12.500  
 Time (days)                                              184.000

Distance to calculate drawdown (feet)              4500.000  
 Increment to calculate drawdown (feet)              50.000

Distance (feet)	u	W(u)	Drawdown (feet)	Drawdown (inches)
0				
50	6.8E-05	9.02	0.23	2.76
100	2.7E-04	7.63	0.19	2.34
150	6.1E-04	6.82	0.17	2.09
200	1.1E-03	6.25	0.16	1.91
250	1.7E-03	5.80	0.15	1.78
300	2.4E-03	5.44	0.14	1.67
350	3.3E-03	5.13	0.13	1.57
400	4.3E-03	4.87	0.12	1.49
450	5.5E-03	4.63	0.12	1.42
500	6.8E-03	4.42	0.11	1.35
550	8.2E-03	4.23	0.11	1.30
600	9.8E-03	4.06	0.10	1.24
650	1.1E-02	3.90	0.10	1.20
700	1.3E-02	3.75	0.10	1.15
750	1.5E-02	3.62	0.09	1.11
800	1.7E-02	3.49	0.09	1.07
850	2.0E-02	3.37	0.09	1.03
900	2.2E-02	3.26	0.08	1.00
950	2.5E-02	3.16	0.08	0.97
1000	2.7E-02	3.06	0.08	0.94
1050	3.0E-02	2.96	0.08	0.91
1100	3.3E-02	2.87	0.07	0.88
1150	3.6E-02	2.78	0.07	0.85
1200	3.9E-02	2.70	0.07	0.83
1250	4.2E-02	2.62	0.07	0.80
1300	4.6E-02	2.55	0.07	0.78
1350	5.0E-02	2.48	0.06	0.76
1400	5.3E-02	2.41	0.06	0.74
1450	5.7E-02	2.34	0.06	0.72
1500	6.1E-02	2.28	0.06	0.70
1550	6.5E-02	2.22	0.06	0.68
1600	7.0E-02	2.16	0.06	0.66
1650	7.4E-02	2.10	0.05	0.64
1700	7.9E-02	2.04	0.05	0.63
1750	8.3E-02	1.99	0.05	0.61
1800	8.8E-02	1.94	0.05	0.59
1850	9.3E-02	1.89	0.05	0.58
1900	9.8E-02	1.84	0.05	0.56
1950	1.0E-01	1.79	0.05	0.55
2000	1.1E-01	1.75	0.04	0.54
2050	1.1E-01	1.70	0.04	0.52
2100	1.2E-01	1.66	0.04	0.51
2150	1.3E-01	1.62	0.04	0.50
2200	1.3E-01	1.58	0.04	0.48
2250	1.4E-01	1.54	0.04	0.47
2300	1.4E-01	1.50	0.04	0.46
2350	1.5E-01	1.46	0.04	0.45
2400	1.6E-01	1.43	0.04	0.44
2450	1.6E-01	1.39	0.04	0.43
2500	1.7E-01	1.36	0.03	0.42
2550	1.8E-01	1.33	0.03	0.41
2600	1.8E-01	1.29	0.03	0.40
2650	1.9E-01	1.26	0.03	0.39
2700	2.0E-01	1.23	0.03	0.38
2750	2.1E-01	1.20	0.03	0.37
2800	2.1E-01	1.17	0.03	0.36
2850	2.2E-01	1.14	0.03	0.35
2900	2.3E-01	1.11	0.03	0.34
2950	2.4E-01	1.09	0.03	0.33



Distance (feet)	u	W(u)	Drawdown (feet)	Drawdown (inches)
3000	2.4E-01	1.06	0.03	0.33
3050	2.5E-01	1.04	0.03	0.32
3100	2.6E-01	1.01	0.03	0.31
3150	2.7E-01	0.99	0.03	0.30
3200	2.8E-01	0.96	0.02	0.29
3250	2.9E-01	0.94	0.02	0.29
3300	3.0E-01	0.92	0.02	0.28
3350	3.0E-01	0.89	0.02	0.27
3400	3.1E-01	0.87	0.02	0.27
3450	3.2E-01	0.85	0.02	0.26
3500	3.3E-01	0.83	0.02	0.25
3550	3.4E-01	0.81	0.02	0.25
3600	3.5E-01	0.79	0.02	0.24
3650	3.6E-01	0.77	0.02	0.24
3700	3.7E-01	0.75	0.02	0.23
3750	3.8E-01	0.73	0.02	0.22
3800	3.9E-01	0.72	0.02	0.22
3850	4.0E-01	0.70	0.02	0.21
3900	4.1E-01	0.68	0.02	0.21
3950	4.2E-01	0.66	0.02	0.20
4000	4.3E-01	0.65	0.02	0.20
4050	4.5E-01	0.63	0.02	0.19
4100	4.6E-01	0.62	0.02	0.19
4150	4.7E-01	0.60	0.02	0.18
4200	4.8E-01	0.59	0.01	0.18
4250	4.9E-01	0.57	0.01	0.17
4300	5.0E-01	0.56	0.01	0.17
4350	5.1E-01	0.54	0.01	0.17
4400	5.3E-01	0.53	0.01	0.16
4450	5.4E-01	0.52	0.01	0.16
4500	5.5E-01	0.50	0.01	0.15