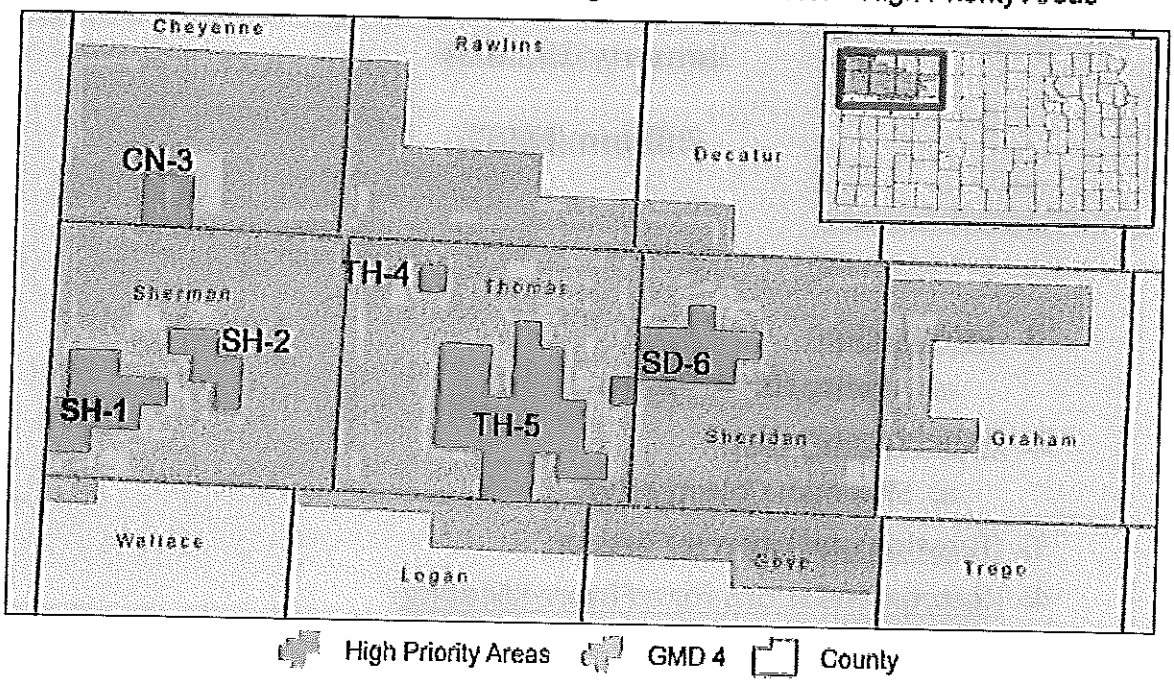
Northwest Kansas Groundwater Management District No. 4 High Priority Areas



Groundwater Management District No. 4

1290 West 4th Street.

Colby, Kansas

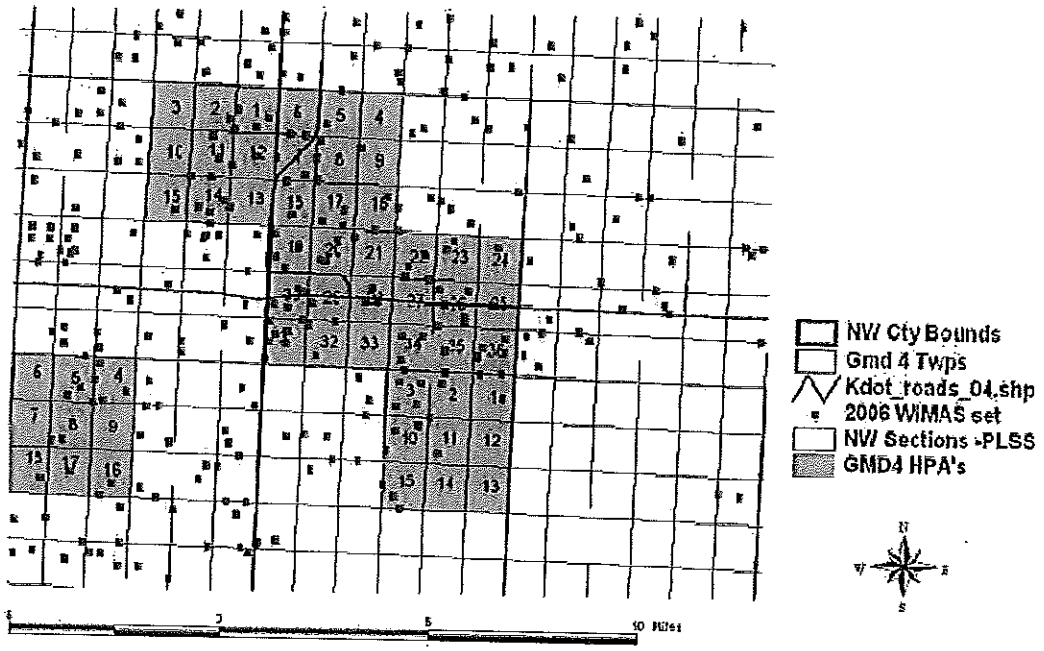
67701

During the June, 2004 board meeting the board decided that the priority areas should be designated as such: LOW = any section declining less than 6% between 1996 and 2002; MEDIUM = any section declining between 6% and 8.999% between 1996 and 2002; and HIGH = any section declining 9% or more between 1996 and 2002. 2) To smooth out the data fluctuations, for the 1996 values the board uses the 1995, 1996 and 1997 values averaged. Likewise they use the 2001, 2002 and 2003 values averaged for the 2002 values.

During the May and June 2006 board meetings the Task 2 decision was revisited. The board wanted to incorporate reported water use density into at least the HIGH priority sub-units. After being provided a new data set from the Kansas Geological Survey (KGS) for reported water use density values at the section centers, and considering several combinations of trigger parameters, the board at their June 8, 2006 meeting adopted a new HIGH priority trigger - any section declining 9% or more between 1996 and 2002 OR any section with a 2-mile reported average water use density between the years 1990 and 2000 of greater than or equal to 275 acrefeet - except for those sections with less than 15 feet of saturated thickness or less than 25 acrefeet of reported water use density.

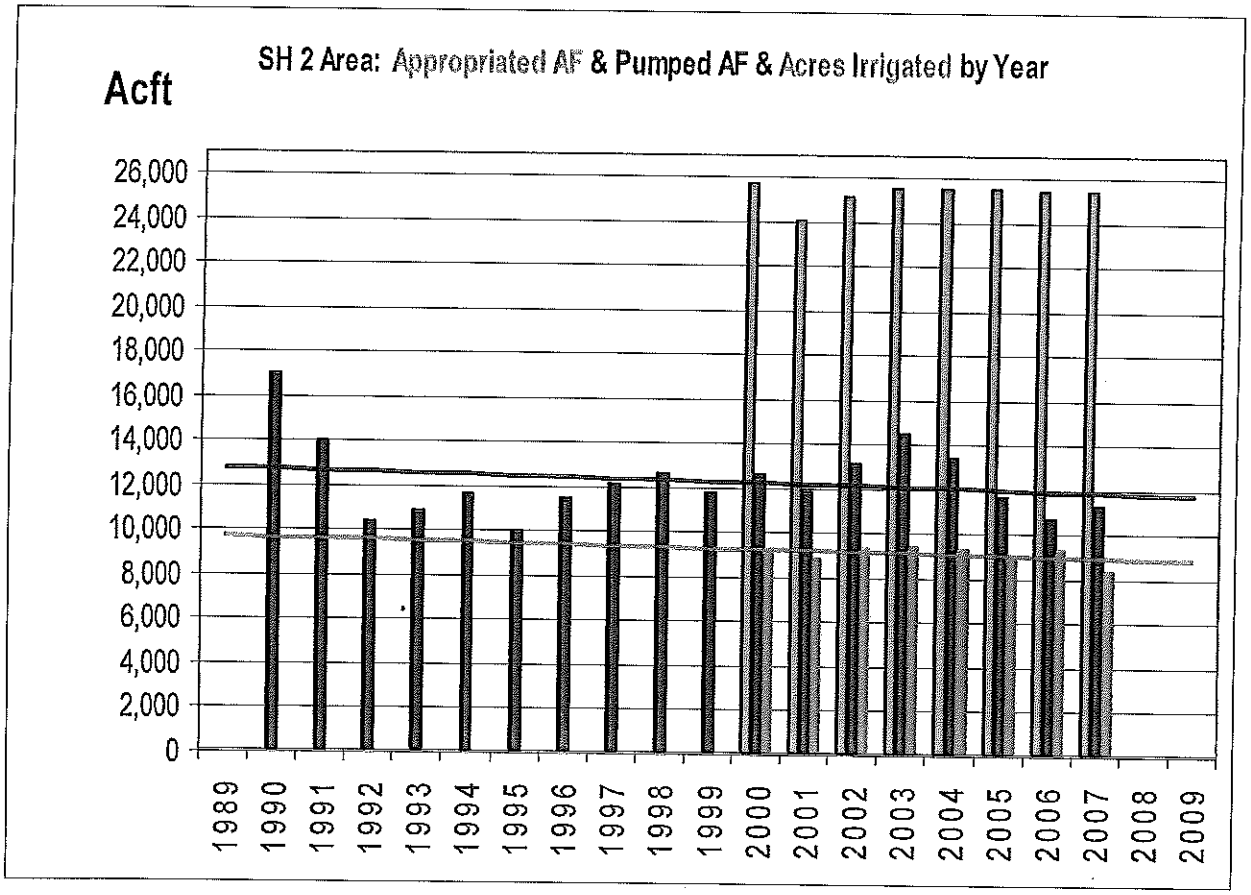
Finally, in March, 2007 the board incorporated their final criteria - that of dividing the district into 1/4 township areas and any 1/4 township area having 2 or more high priority sections, would be considered a high priority 1/4 township.

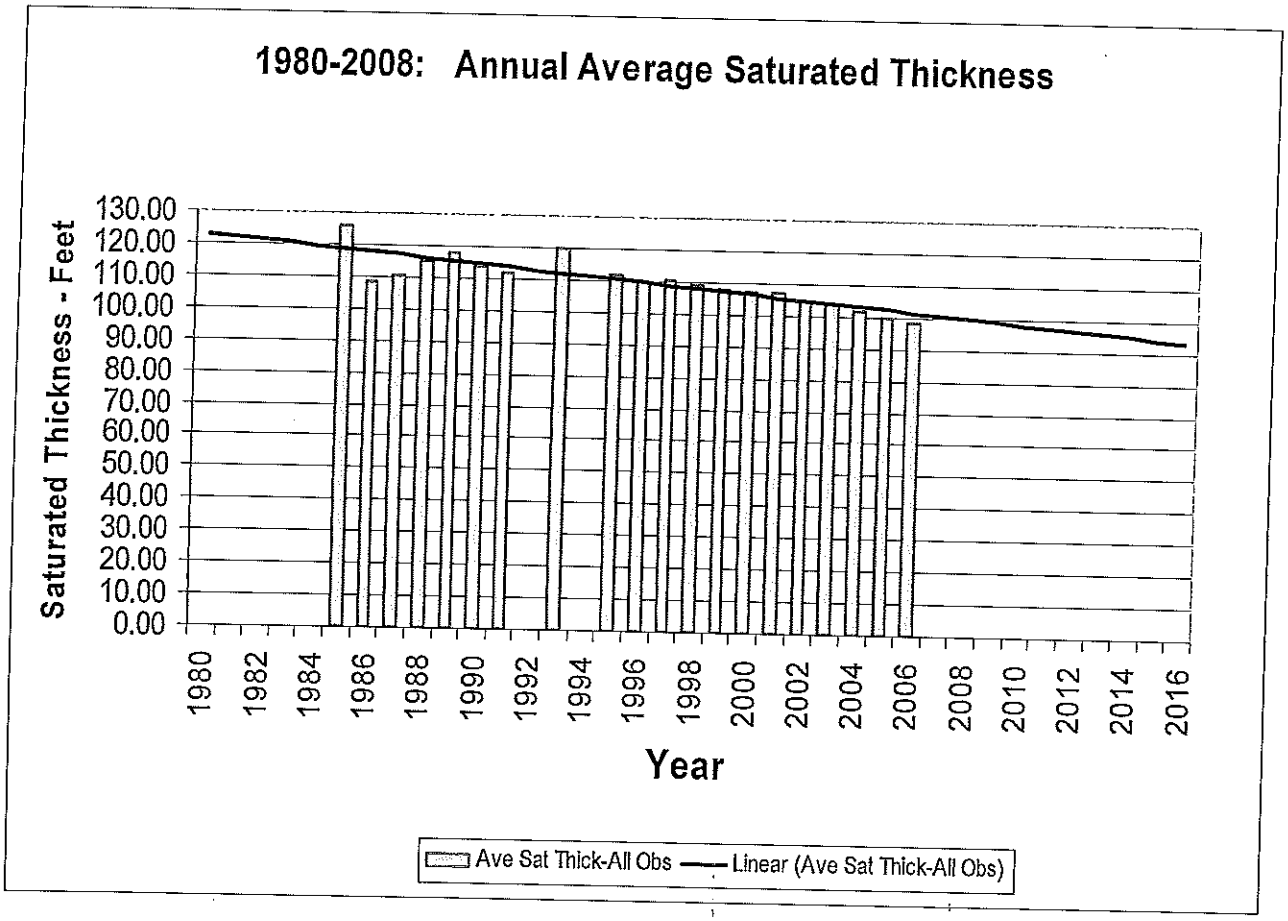
SH-2 Wells

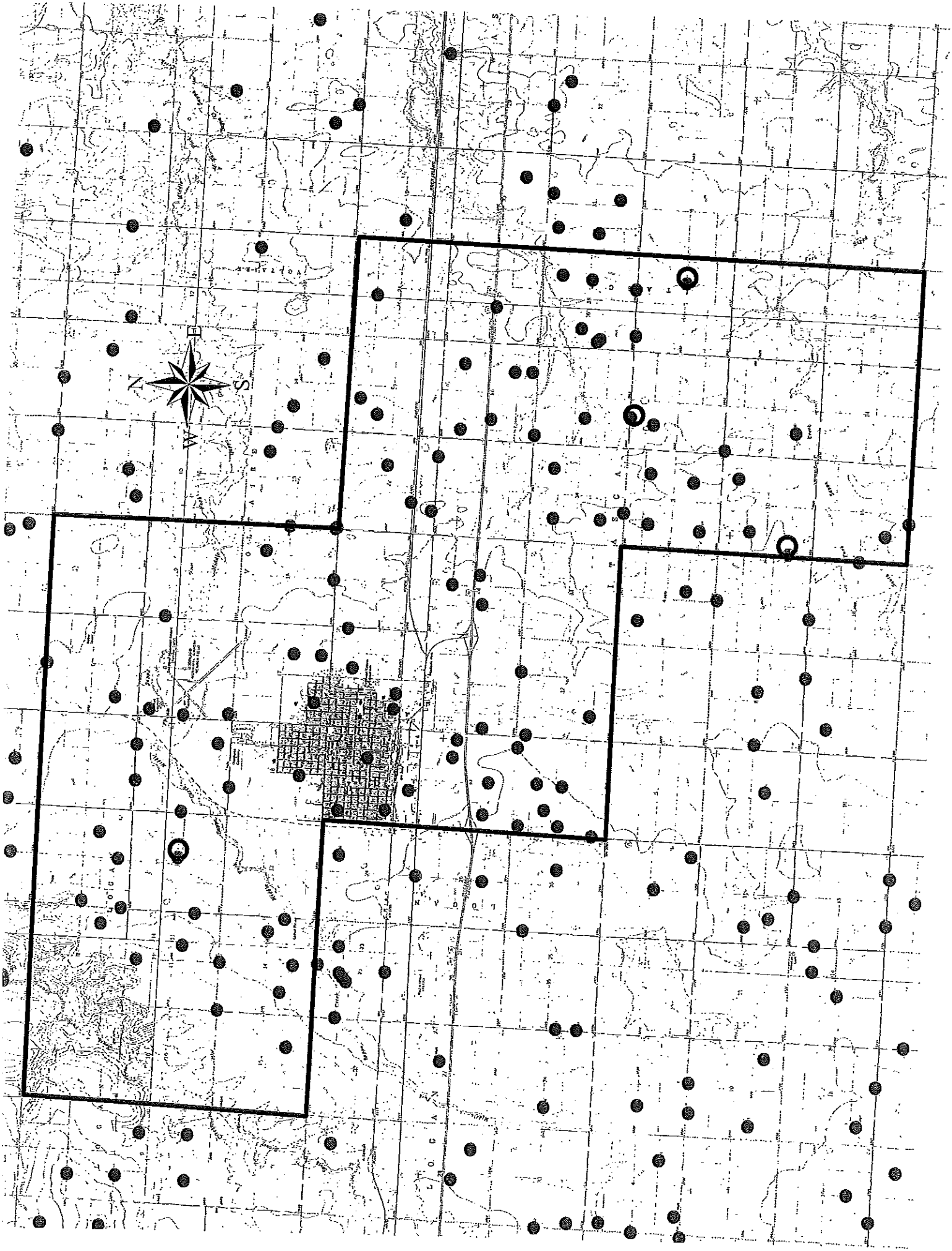


45 Sections; 29,862 Acres; 4 Obs Wells; 98 Permitted Wells;

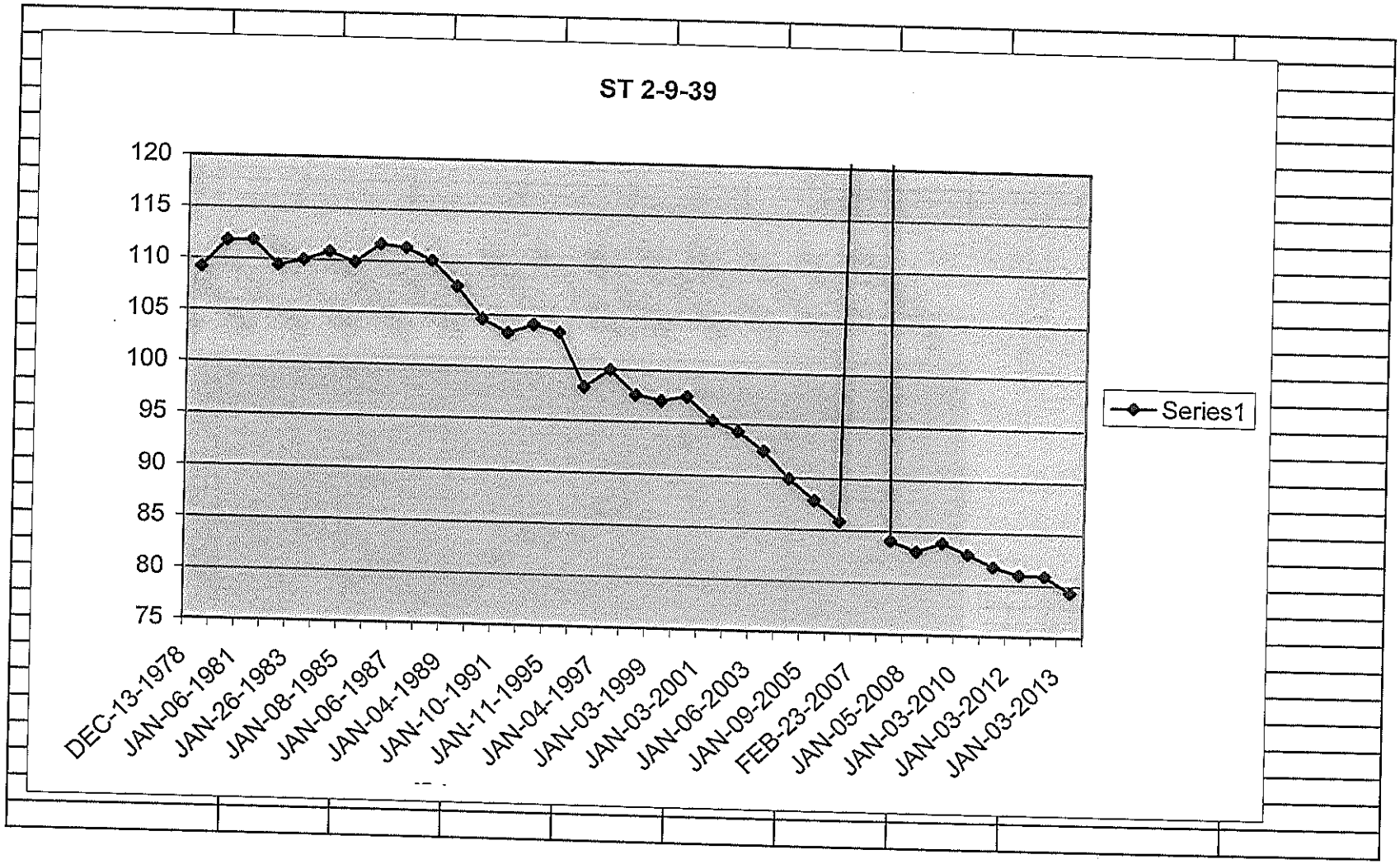
25,435 AF Appropriated; 11,354 AF Pumped; 8,409 Ac Irrigated


SH 2 Area: Appropriated AF & Pumped AF & Acres Irrigated by Year
Acft
26,000
24,000
22,000
20,000
18,000
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009


1980-2008: Annual Average Saturated Thickness
Saturated Thickness - Feet
130.00
120.00
110.00
100.00
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
Year
Ave Sat Thick-All Obs
Linear (Ave Sat Thick-All Obs)


E
N
S
W

ST 12-8-40
95
105
115
125
135
145
155
165
175
SEP-14-1965
JAN-15-1966
MAY-31-1966
SEP-30-1966
JAN-25-1967
MAY-20-1967
SEP-15-1967
JAN-10-1968
MAY-05-1968
AUG-31-1968
MAR-25-1969
JUL-20-1969
NOV-10-1969
MAR-05-1970
JUN-30-1970
OCT-25-1970
FEB-20-1971
JUN-15-1971
OCT-10-1971
FEB-05-1972
MAY-31-1972
SEP-25-1972
MAY-20-1973
NOV-20-1973
APR-02-1981
MAR-04-1987
JAN-28-1993
APR-03-2007
Series1


ST 2-9-39
120
115
110
105
100
95
90
85
80
75
DEC-13-1978
JAN-06-1981
JAN-26-1983
JAN-08-1985
JAN-06-1987
JAN-04-1989
JAN-10-1991
JAN-11-1995
JAN-04-1997
JAN-03-1999
JAN-03-2001
JAN-06-2003
JAN-09-2005
FEB-23-2007
JAN-05-2008
JAN-03-2010
JAN-03-2012
JAN-03-2013
Series1

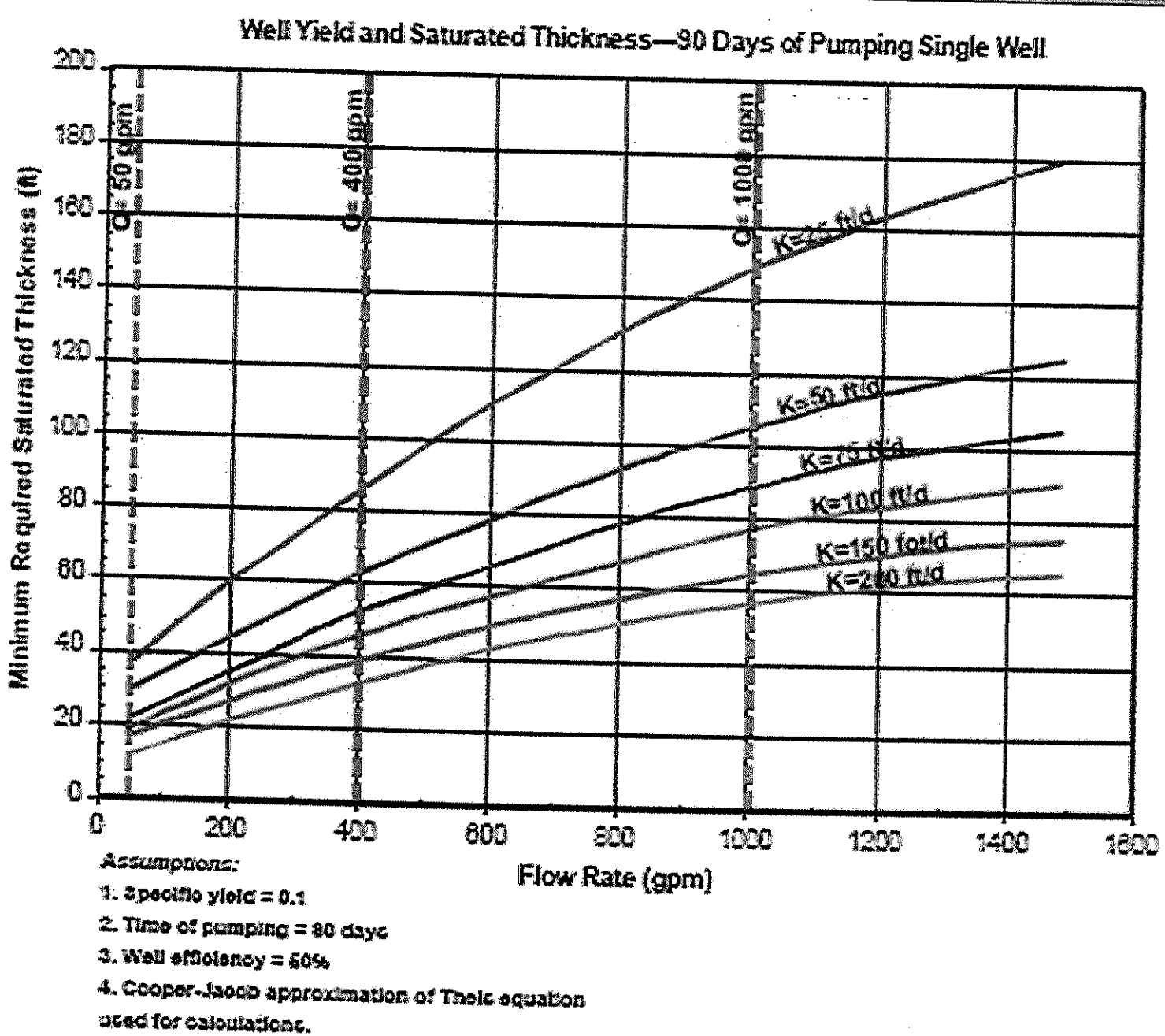
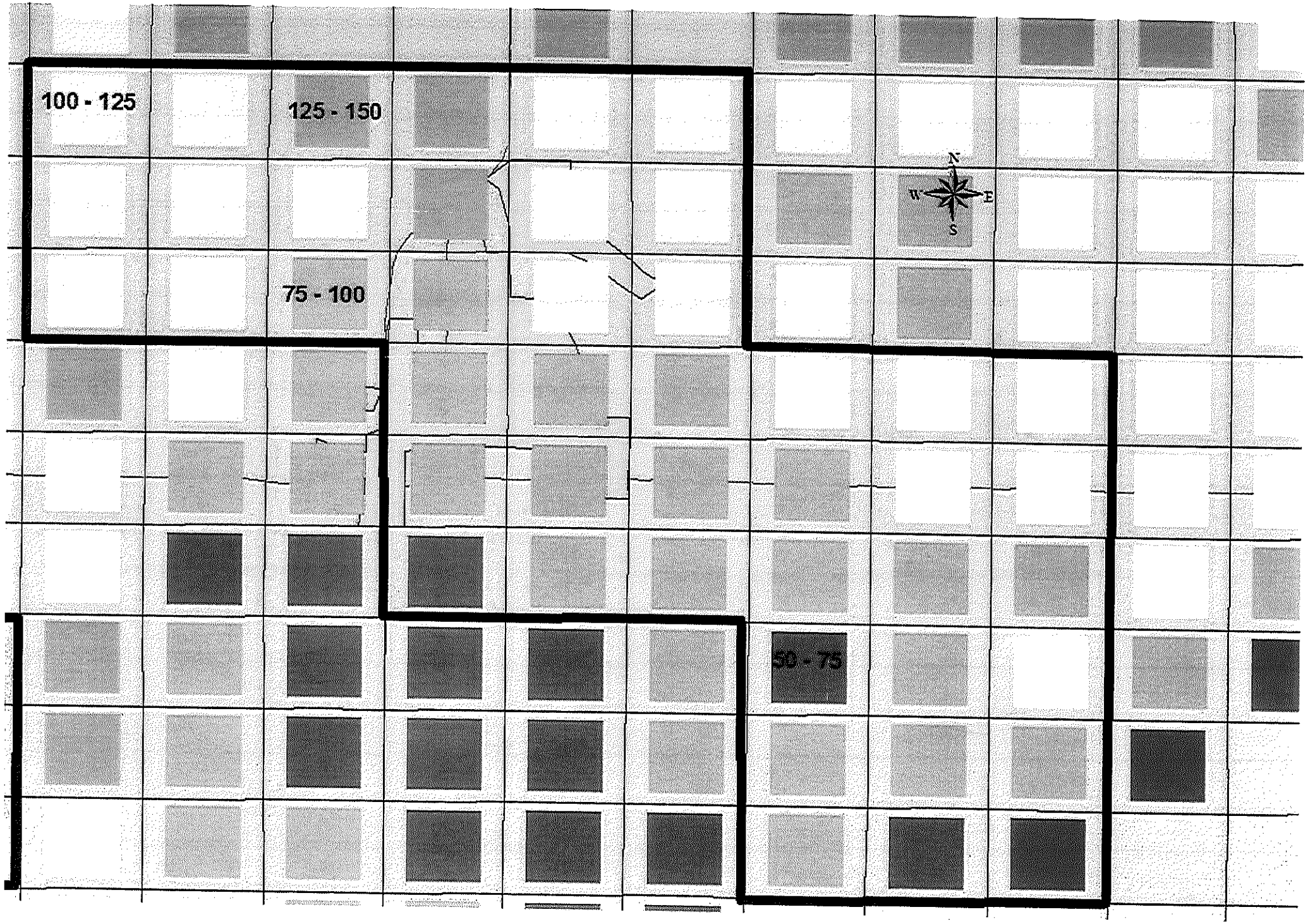


Figure 4. Relationship between Well Yield and Saturated Thickness for Various Hydraulic Conductivity Values, 90 Days of Pumping Single Well


100 - 125
125 - 150
75 - 100
50 - 75
N
W
E
S