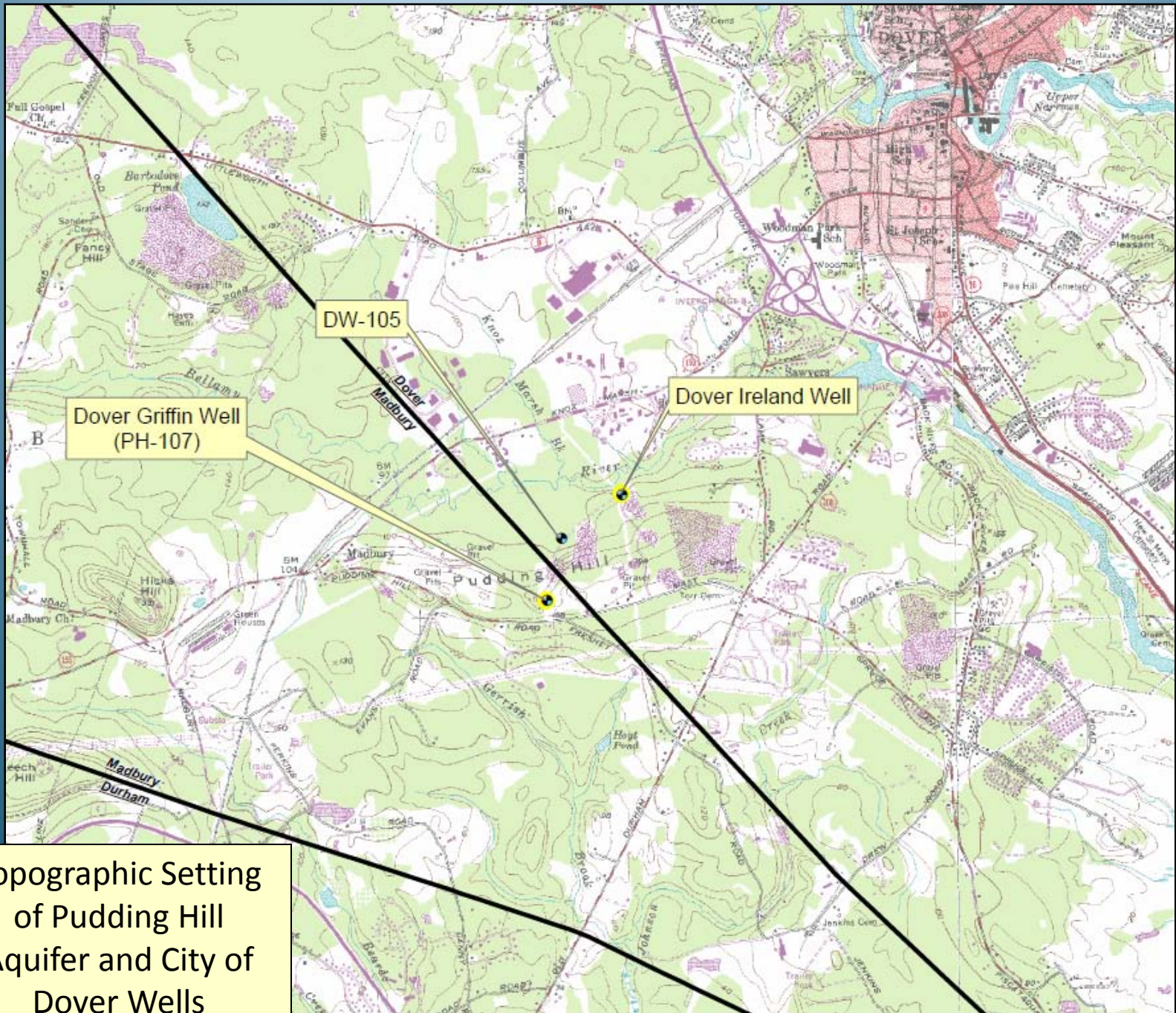


**Ireland and Griffin Well Field
Pudding Hill Aquifer Assessment
Phase I**

Emery & Garrett Groundwater

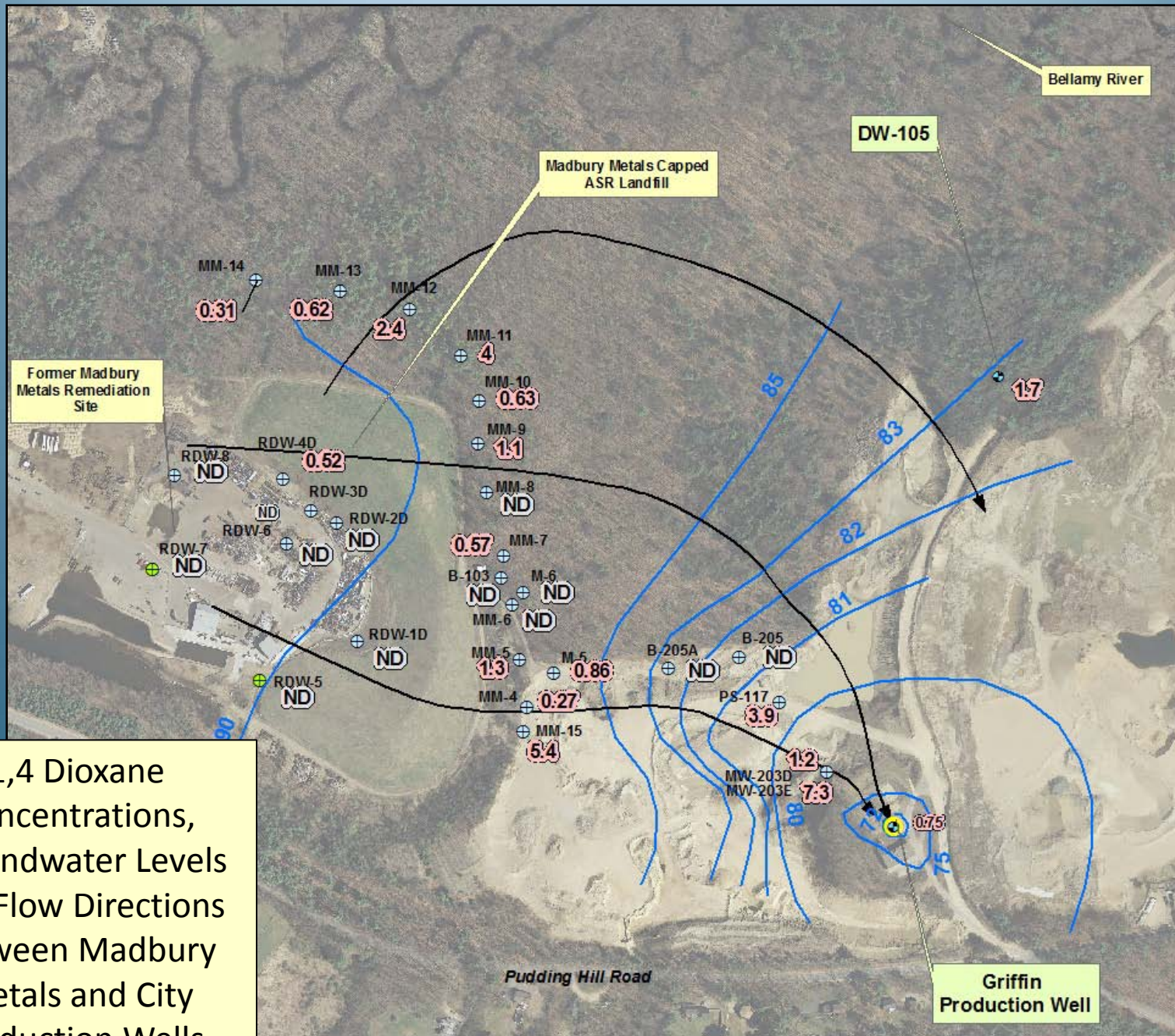


Dover Griffin Well
(PH-107)

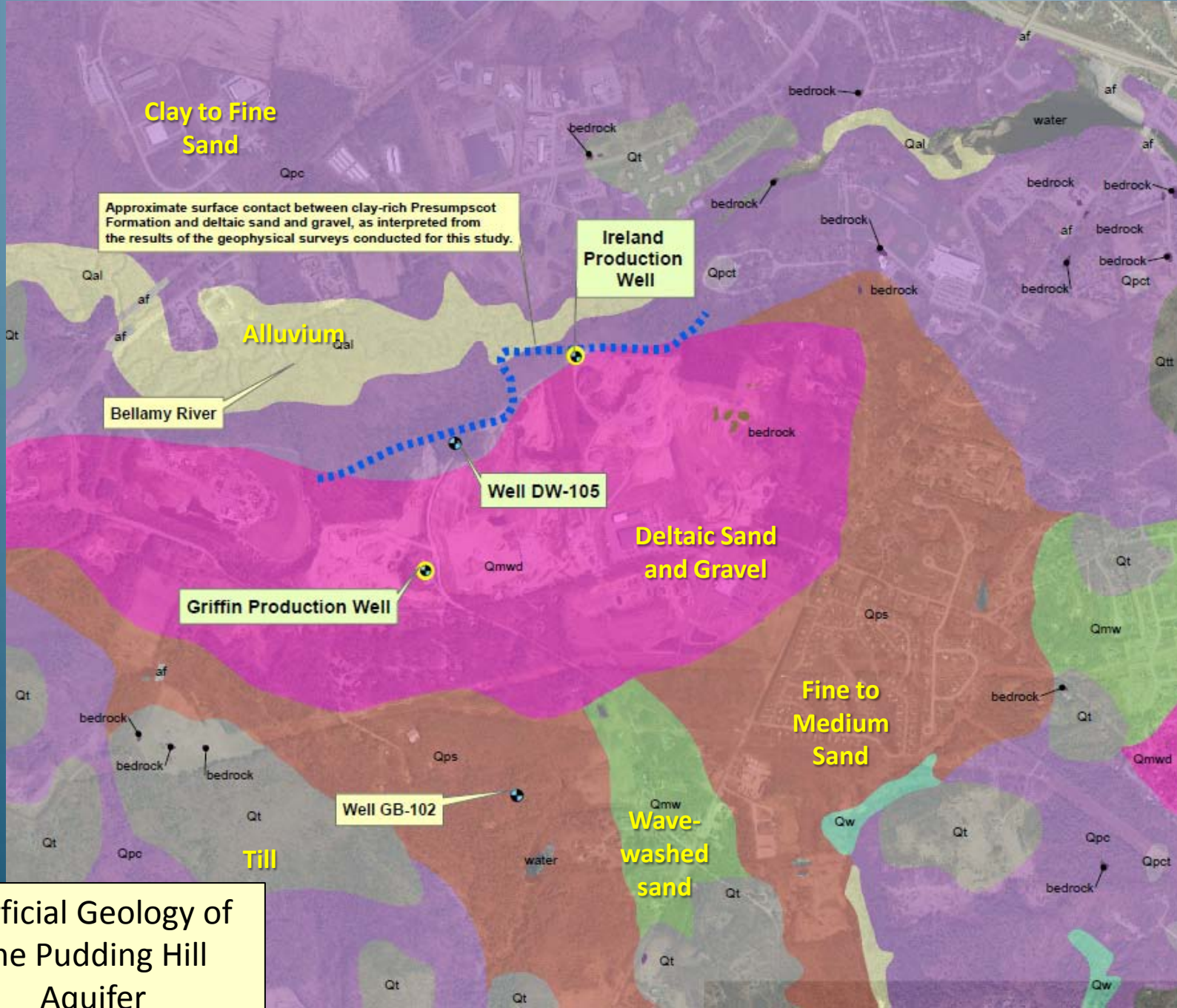
DW-105

Dover Ireland Well

Topographic Setting
of Pudding Hill
Aquifer and City of
Dover Wells



**1,4 Dioxane
Concentrations,
Groundwater Levels
and Flow Directions
between Madbury
Metals and City
Production Wells**



Clay to Fine Sand

Approximate surface contact between clay-rich Presumpsfoot Formation and deltaic sand and gravel, as interpreted from the results of the geophysical surveys conducted for this study.

Ireland Production Well

Alluvium

Bellamy River

Well DW-105

Deltaic Sand and Gravel

Griffin Production Well

Fine to Medium Sand

Wave-washed sand

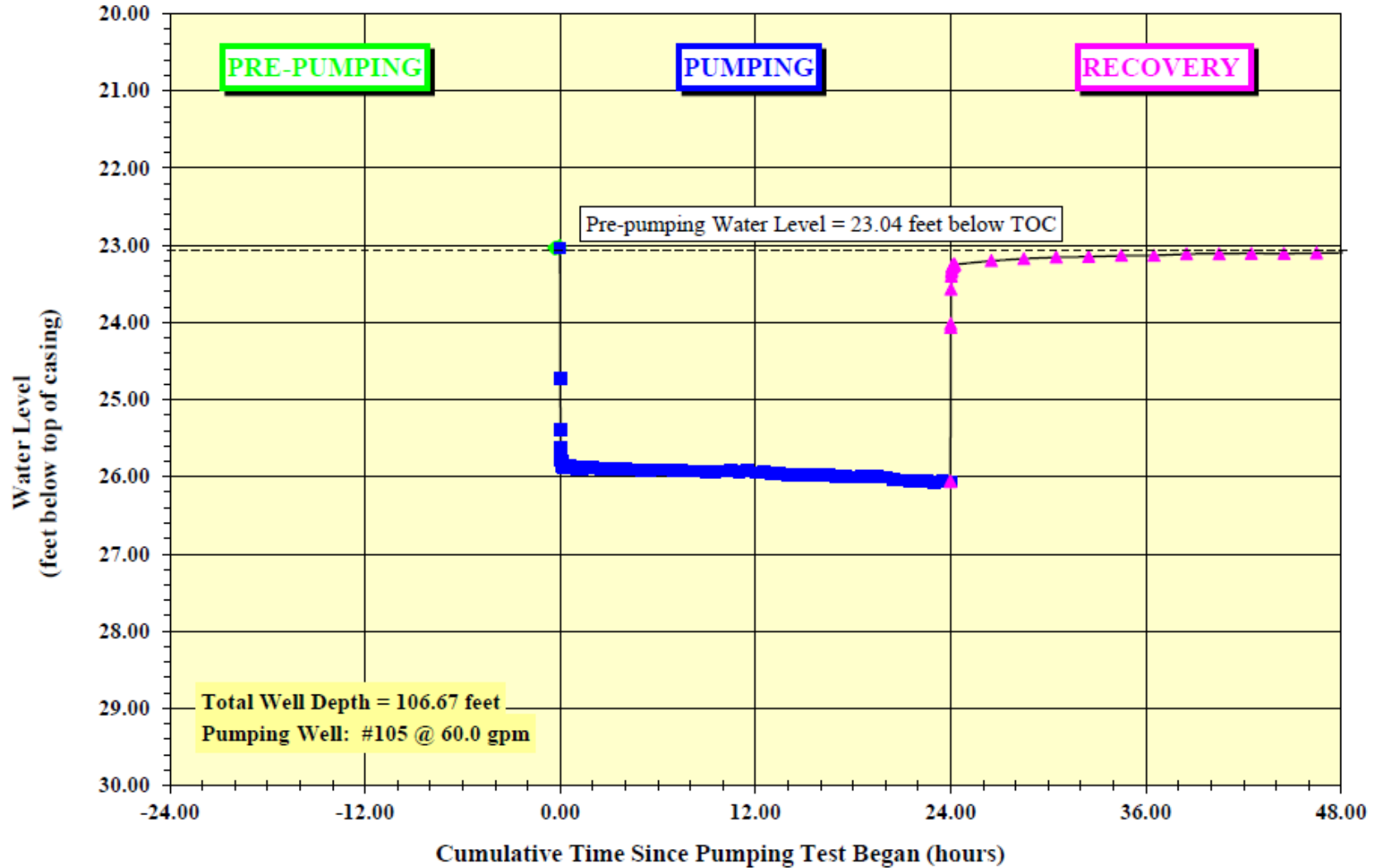
Well GB-102

Till

Surficial Geology of the Pudding Hill Aquifer

Arithmetic Plot of Pumping Test Data for Well DW-105

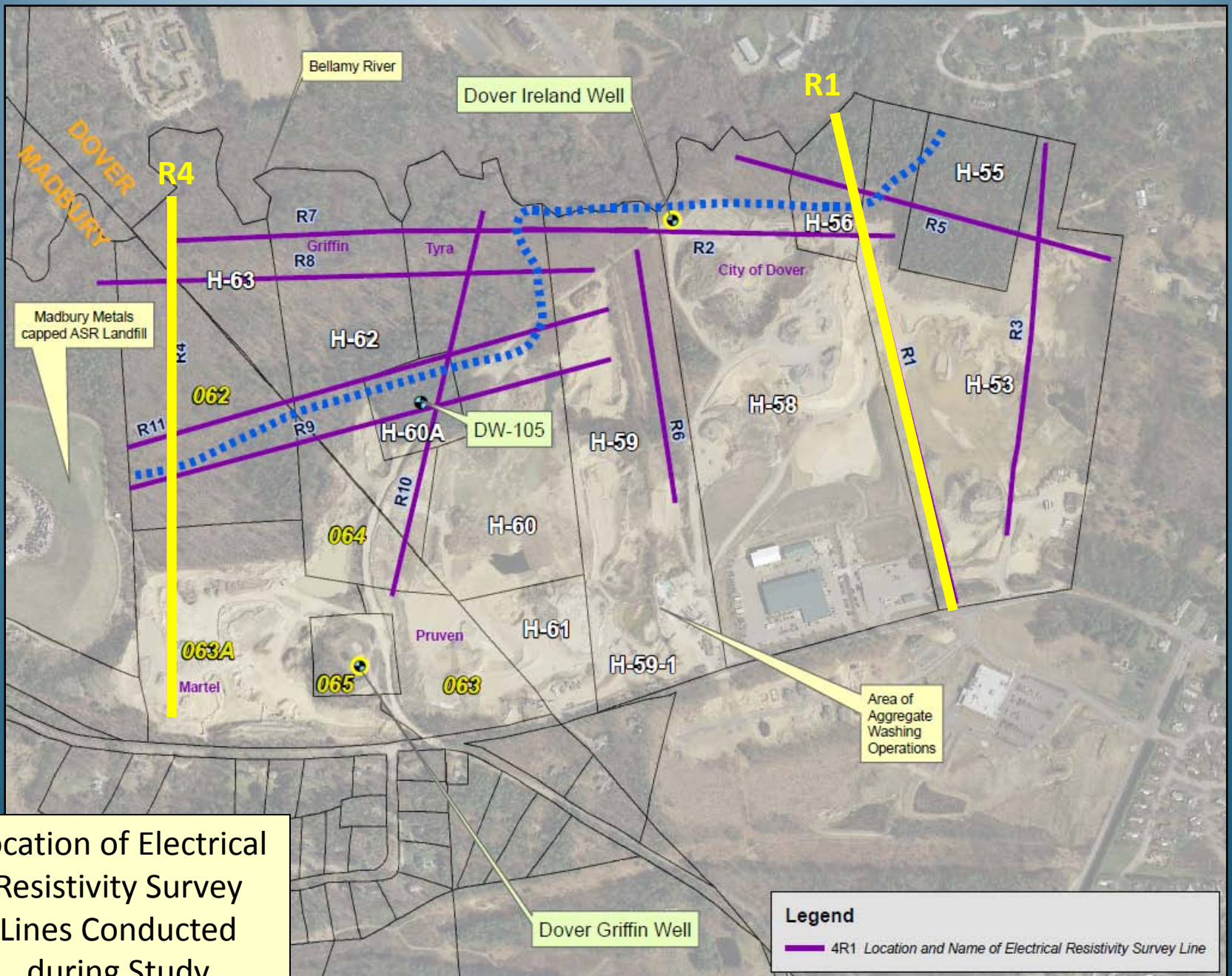
Maximum Drawdown Observed During Pumping Test = 3.02 feet



Plot of Water Level versus Time for February 6 to February 8, 2013

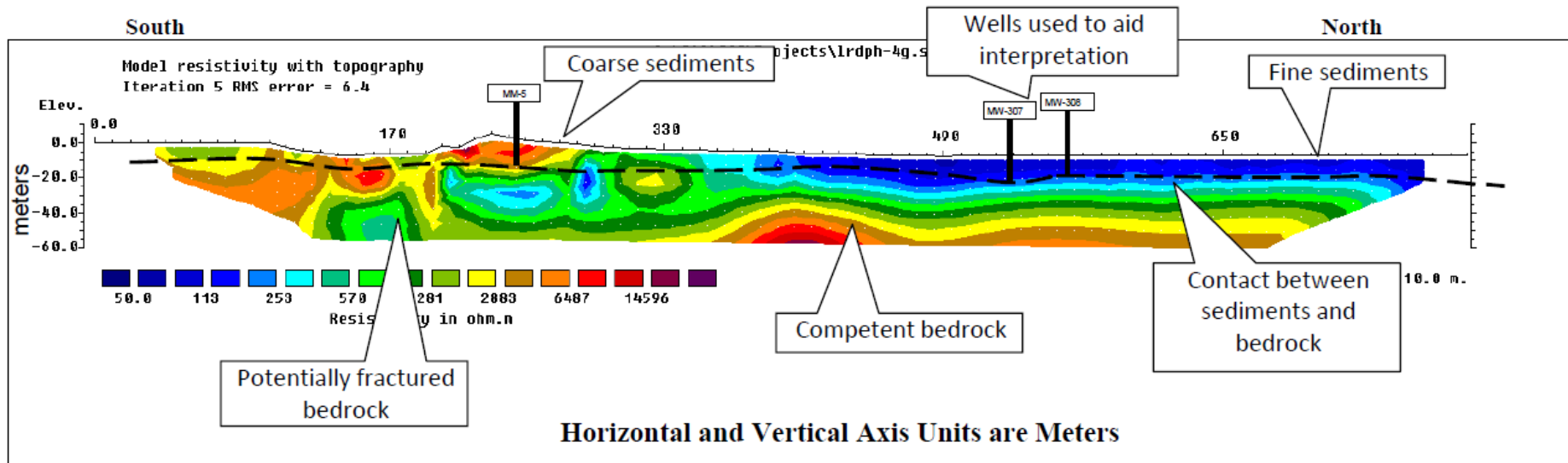
Pudding Hill Aquifer Assessment

Dover, New Hampshire



Example Interpretation of an ABEM Electrical Resistivity Model

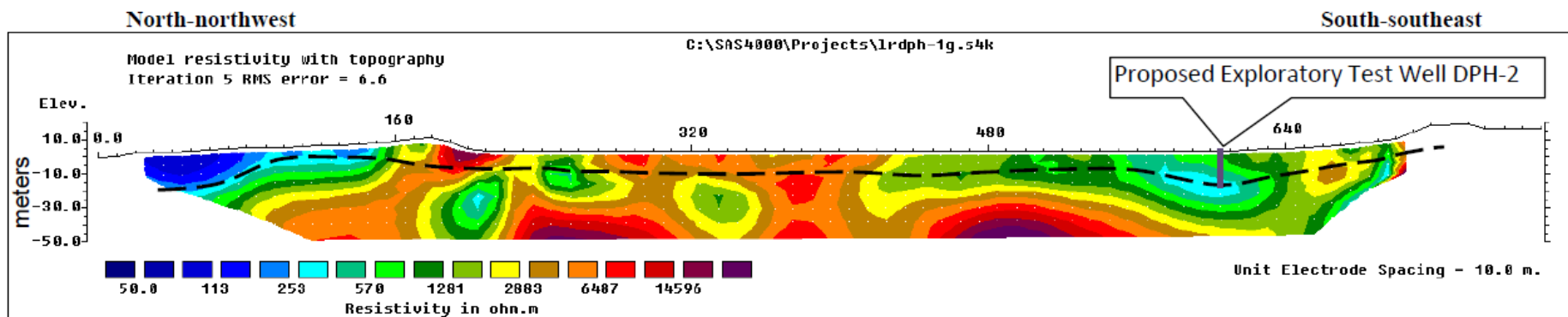
Electrical Resistivity Survey Line R4 - Gradient Method
Dover - Pudding Hill Aquifer
Dover, New Hampshire



Electrical Resistivity Survey Line R1 - Gradient Method

Dover - Pudding Hill Aquifer

Dover, New Hampshire



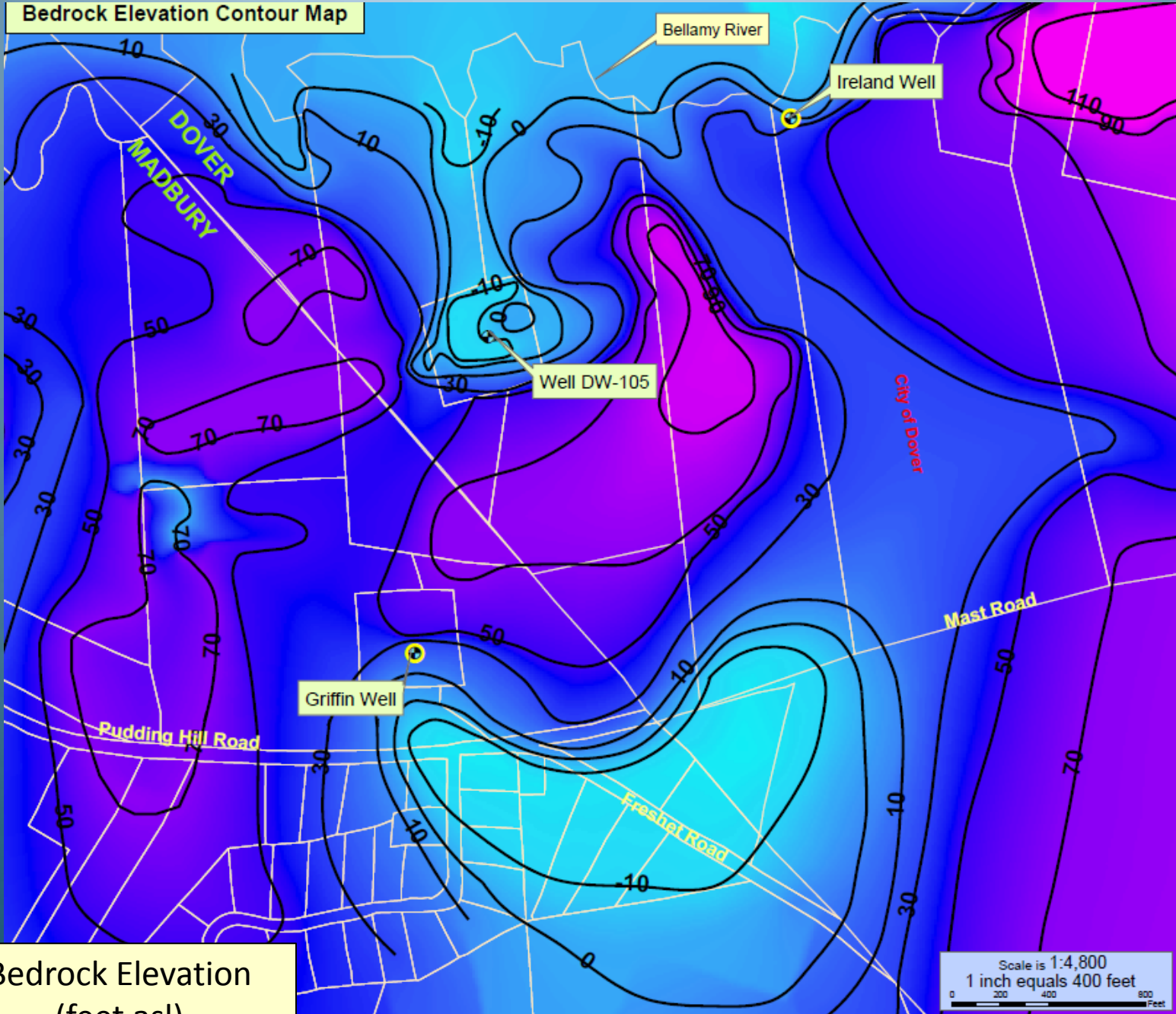
Horizontal and Vertical Axis Units are Meters

Survey Type: Gradient
 Electrode Spacing (m.): 10
 Vertical Exaggeration: 1
 Line orientation (geographic degrees): 167

Raw Data Quality		
Error Percent		
Minimum	Maximum	Average
0.000	38.661892	0.1337195

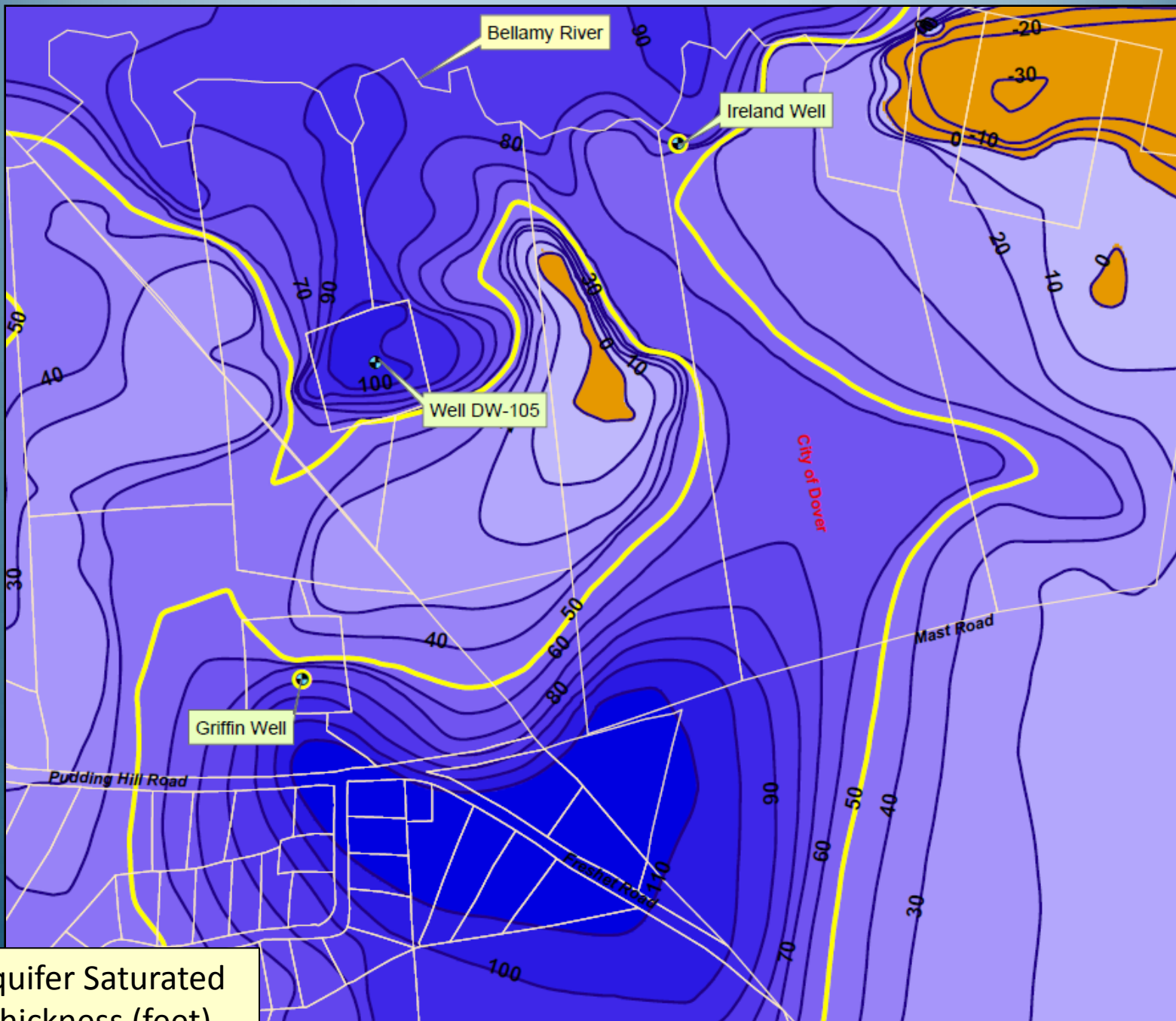
Number of Data Points		
Surveyed	After Modeling	Number Removed
899	837	62

Bedrock Elevation Contour Map



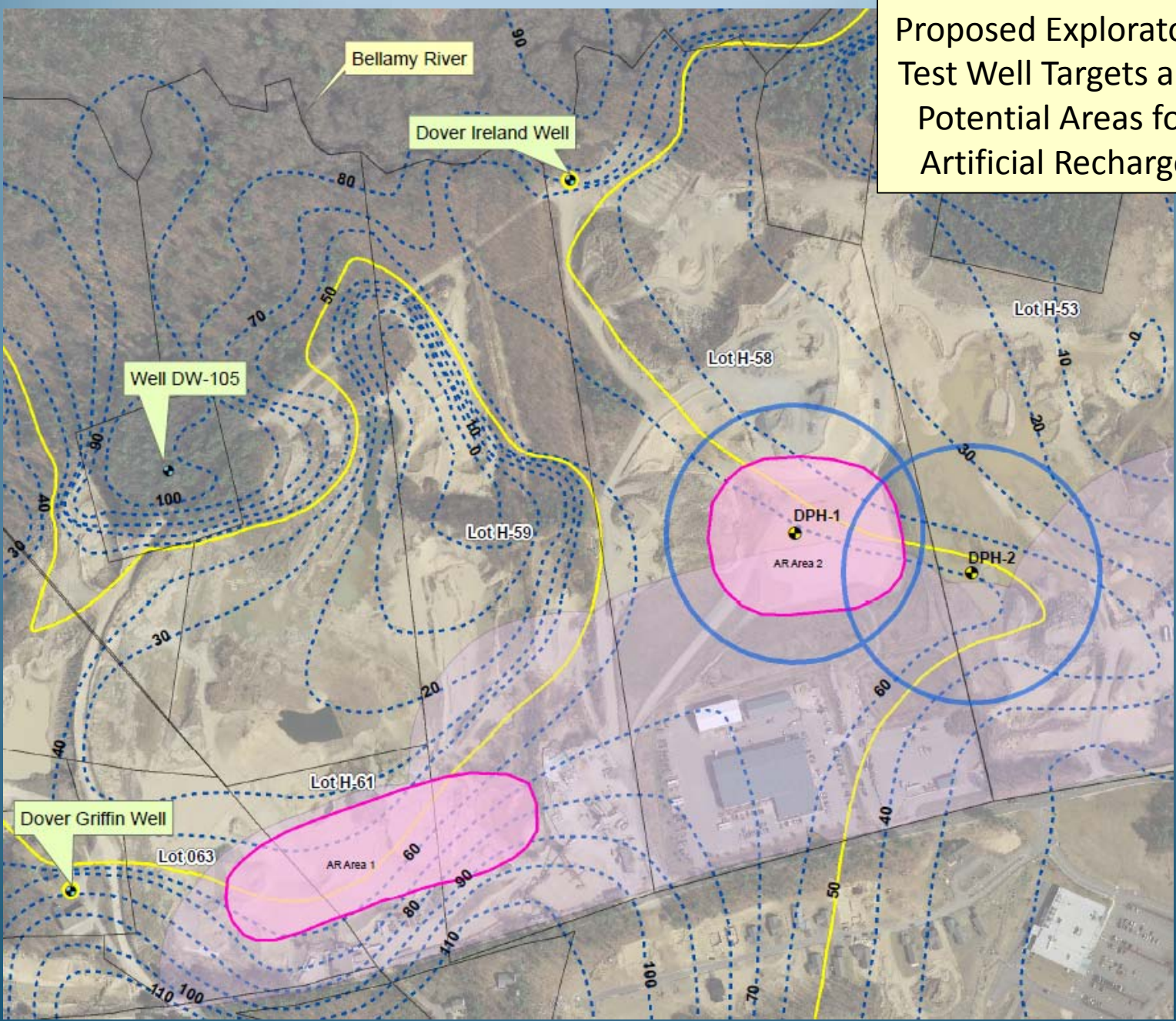
Bedrock Elevation
(feet asl)

Scale is 1:4,800
1 inch equals 400 feet
0 200 400 800 Feet

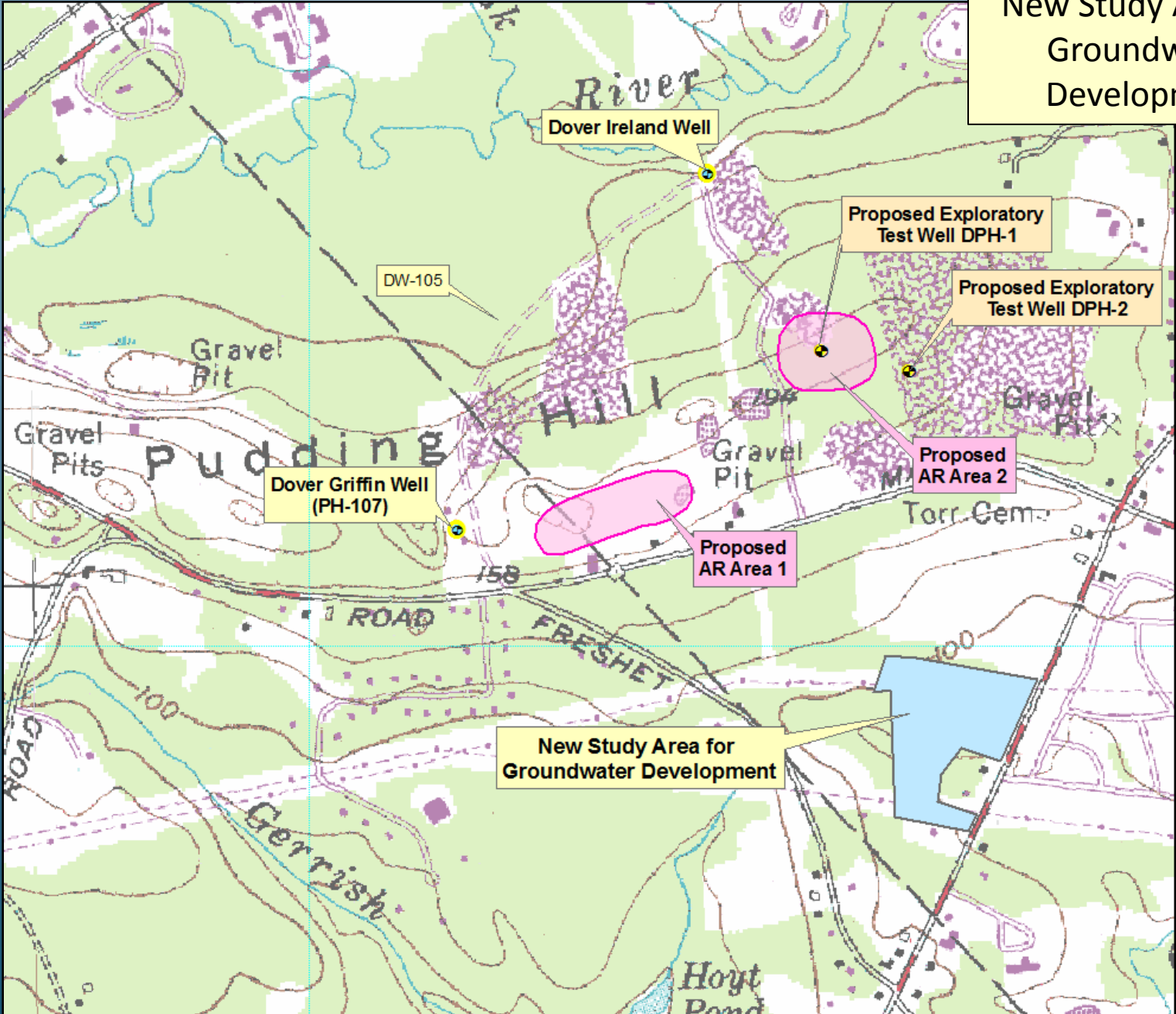


Aquifer Saturated Thickness (feet)

Proposed Exploratory
Test Well Targets and
Potential Areas for
Artificial Recharge



New Study Area for Groundwater Development

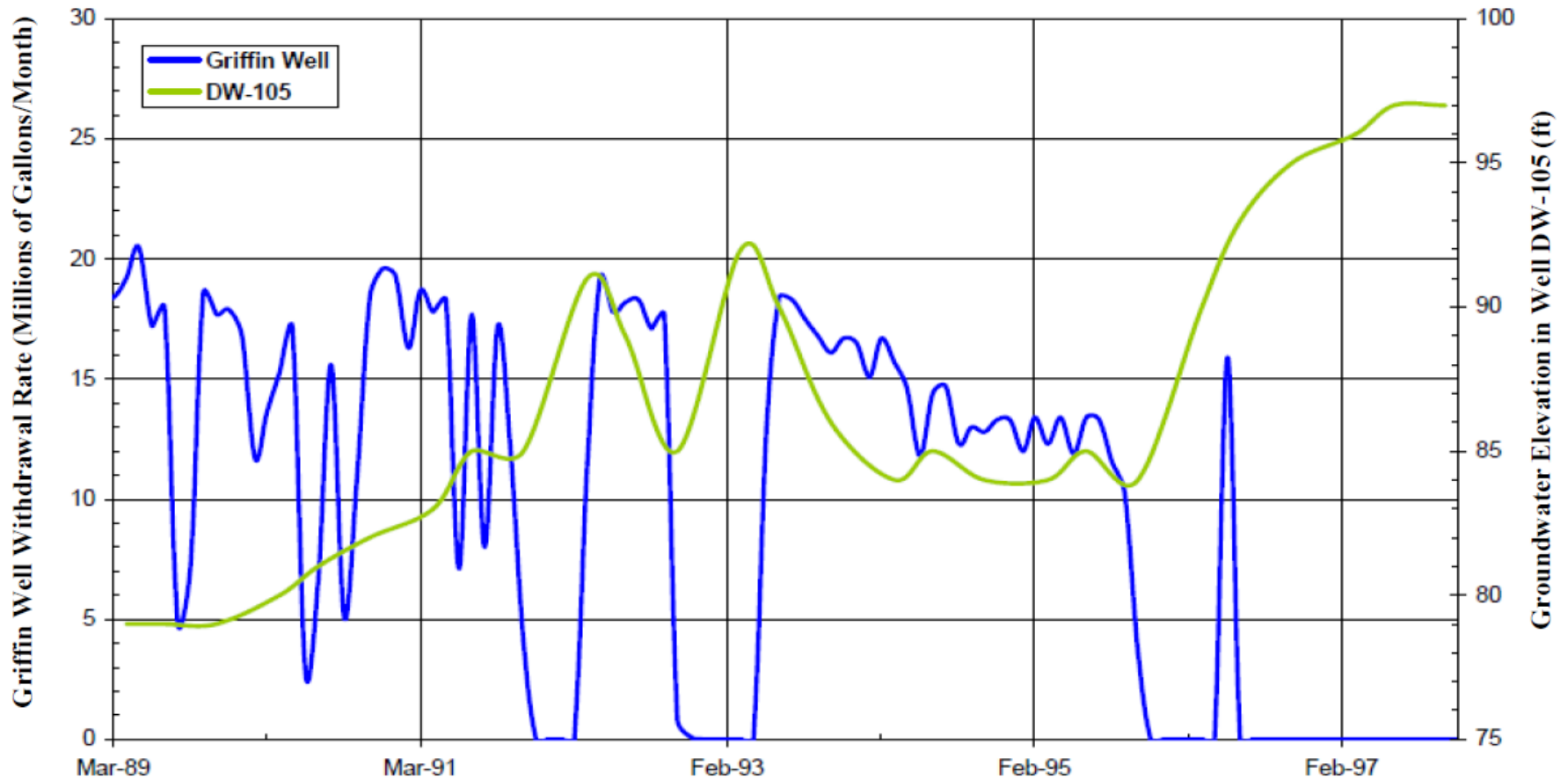


END



Figure 3 - Long-Term Water Use and Water Levels from the Griffin Production Well

Withdrawal Rate from the Griffin Production Well versus Groundwater Elevation in Well DW-105



**SUMMARY REPORT
IRELAND AND GRIFFIN WELL FIELD
PUDDING HILL AQUIFER ASSESSMENT
PHASE I**

**CITY OF DOVER PUBLIC WORKS
DOVER, NEW HAMPSHIRE**



Ireland Production Well



Interlayered sand and gravel

**Report Submitted
May 2013**



Well DW-105

EMERY & GARRETT GROUNDWATER, INC.

Emery & Garrett Groundwater