FORMER TIERNAN PROPERTY, NEW RIVER CROSSING **ISGS #57**
POTENTIAL WETLAND COMPENSATION SITE
FAP 999
Sequence #33G
Saint Clair County, near Cahokia, Illinois
Primary Project Manager: Steven E. Benton
Secondary Project Manager: Charles W. Knight

SITE HISTORY

- July 2000: The ISGS was tasked to perform a Level II hydrogeologic assessment of the site.

- July 2005: A Level II hydrogeologic characterization report was submitted to IDOT (ISGS Open-File Series 2005–11).

WETLAND HYDROLOGY CALCULATION FOR 2009

The area that satisfied wetland hydrology criteria (Environmental Laboratory 1987) in 2009 for greater than 5% of the growing season was estimated to be 20.7 ha (51.2 ac) out of a total site area of 26.4 ha (65.3 ac). The area that satisfied wetland hydrology criteria for greater than 12.5% of the growing season was estimated to be 20.5 ha (50.6 ac). Using new guidance proposed by the U. S. Army Corps of Engineers (2008), we estimate that 20.7 ha (51.2 ac) satisfied wetland hydrology criteria for 14 or more consecutive days during the growing season. These estimates are based on the following factors:

- According to the MRCC, the median date that the growing season begins in nearby Cahokia, Illinois, is April 2 and the season lasts 214 days; 5% of the growing season is 11 days and 12.5% of the growing season is 27 days. According to methods outlined in the Midwestern Regional Supplement (U. S. Army Corps of Engineers 2008), we estimate that March 8 was the starting date of the 2009 growing season based on both vegetation growth and development and soil temperatures measured at the wetland compensation site.

- Total precipitation recorded at the Belleville, Illinois weather station during the monitoring period was 110% of normal. Precipitation was at or above normal in September and December 2008, in February 2009, and from April through August 2009. Total precipitation in the spring (April through June) was 140% of normal.

- In 2009, water levels measured in all of the wells except 6S, 23VS, and 23S, satisfied wetland hydrology criteria for more than 5% of the growing season and for 14 or more consecutive days during the growing season. In addition, all of the monitoring wells except 6S, 11S, 23VS, and 23S, satisfied wetland hydrology criteria for more than 12.5% of the growing season.

- Surface-water elevation at gauge D was at or above 121.20 m (397.66 ft) for a period long enough during the growing season to satisfy jurisdictional wetland hydrology criteria for more that 5% of the growing season and for 14 or more consecutive days. Surface water was at or above 121.00 m (397.00 ft) long enough to satisfy wetland hydrology criteria for 12.5% of the growing season.

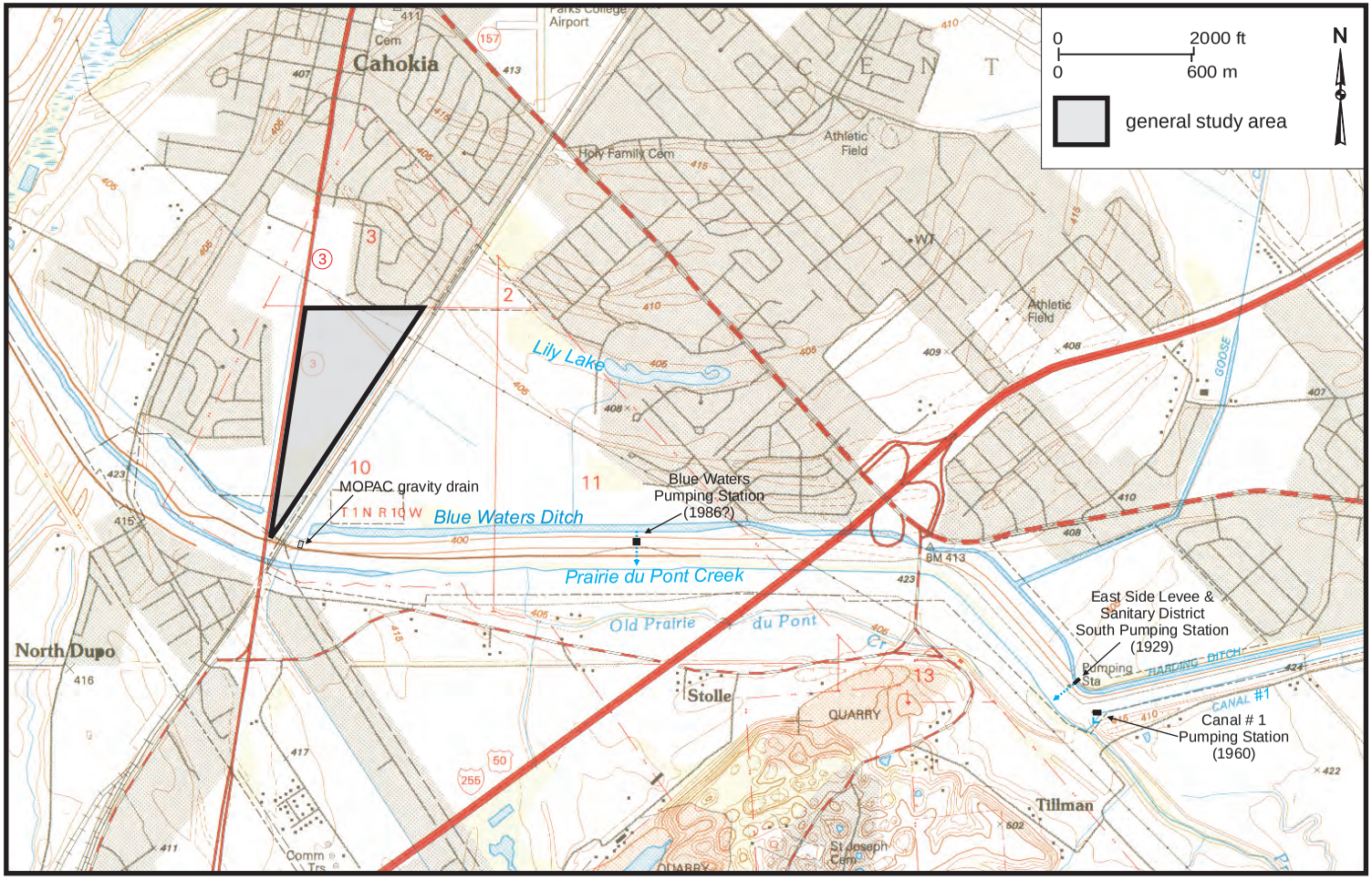
PLANNED FUTURE ACTIVITIES

- Monitoring will continue until no longer required by IDOT.

Former Tiernan Property (Cahokia) Potential Wetland Compensation Site (FAP 999)

General Study Area and Vicinity

from the USGS Topographic Series, Cahokia, IL 7.5-minute Quadrangle (USGS 1993)
contour interval is 3 m (10 ft)

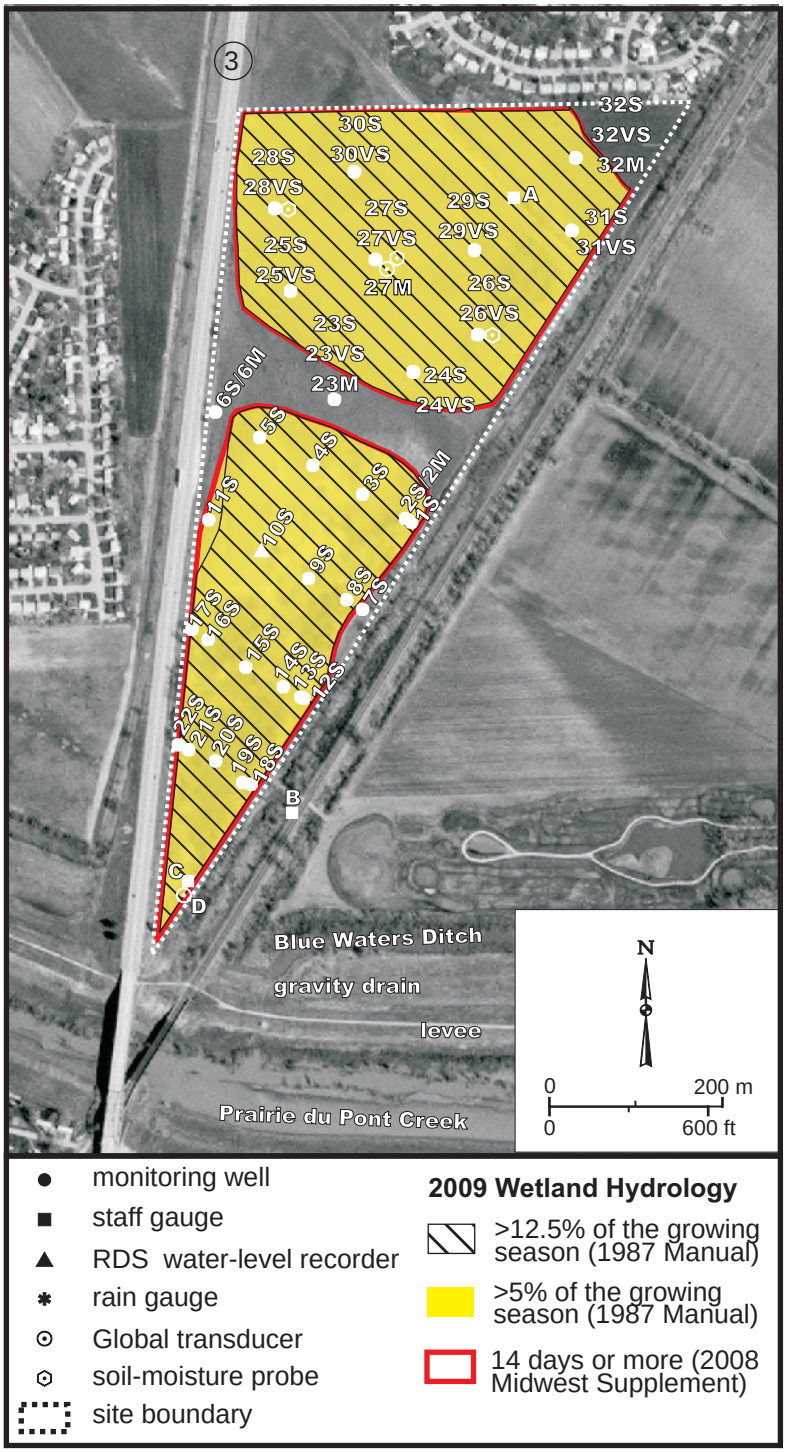


Former Tiernan Property, New River Crossing
Potential Wetland Compensation Site
(FAP 999)

Estimated Areal Extent of 2009 Wetland Hydrology

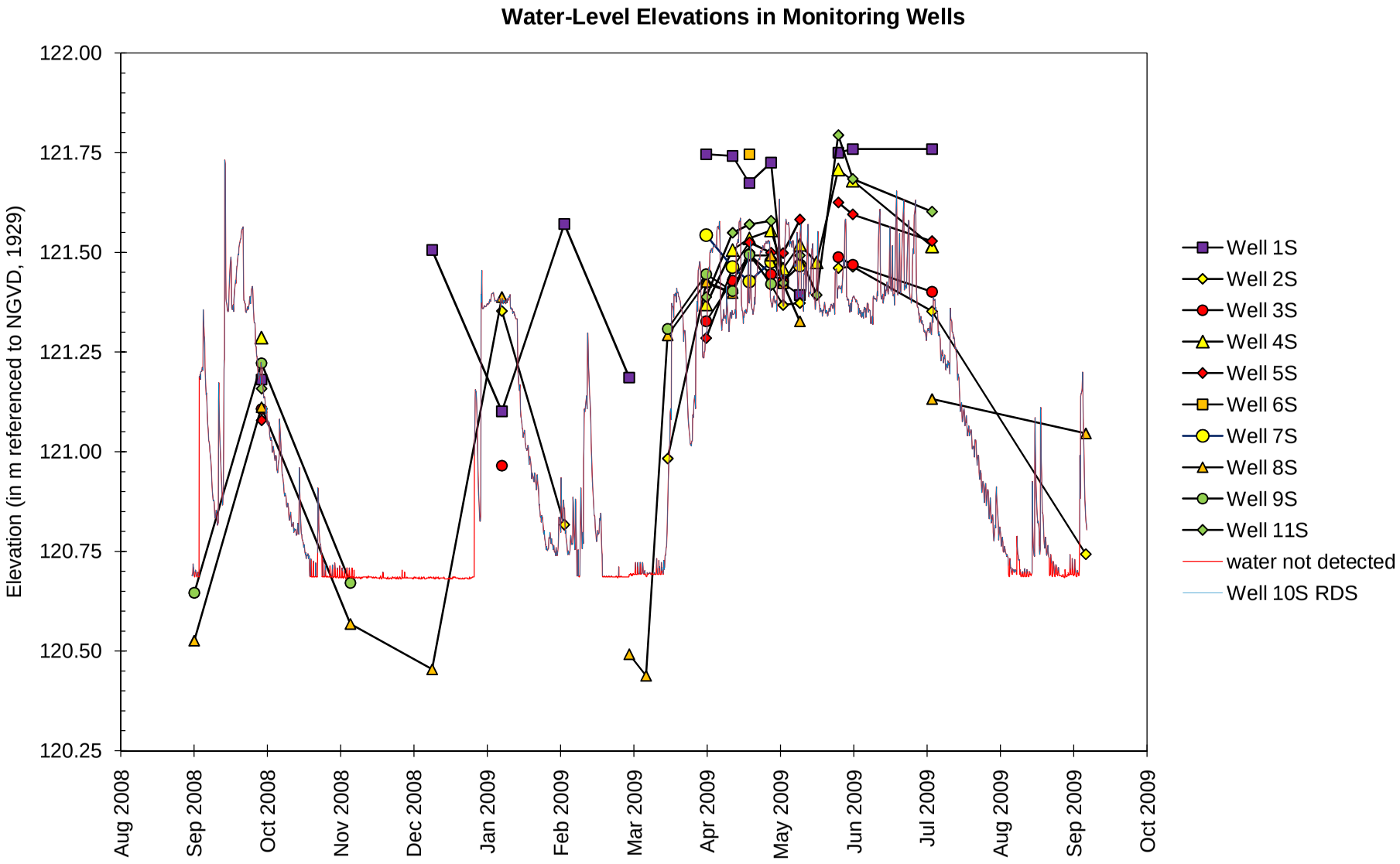
September 1, 2008 through August 31, 2009

Map based on USGS digital orthophotograph, Cahokia SW quarter quadrangle
produced from 04/02/98 aerial photography (ISGS 2000)



Former Tiernan Property, New River Crossing Potential Wetland Compensation Site

September 1, 2008 through August 31, 2009



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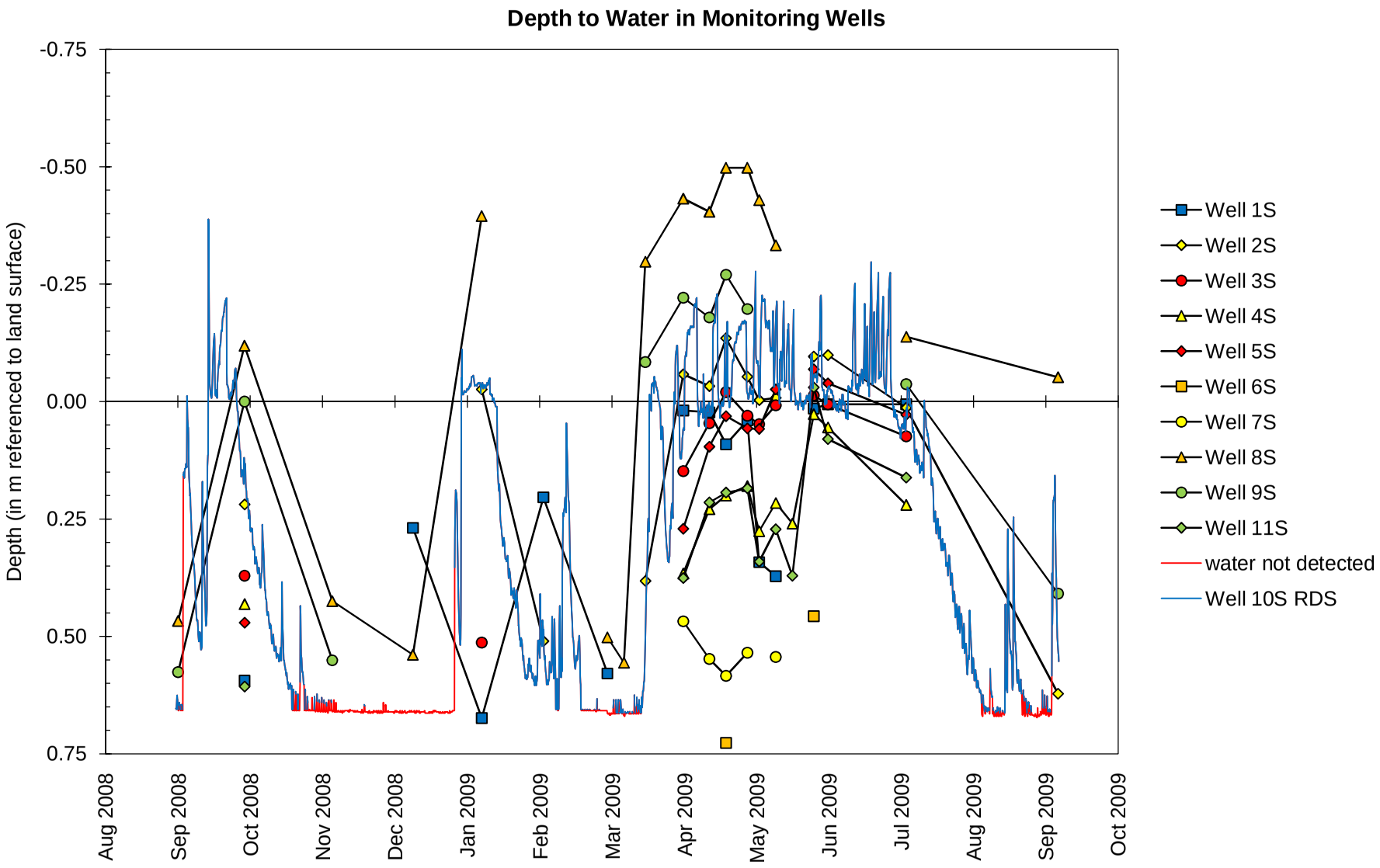

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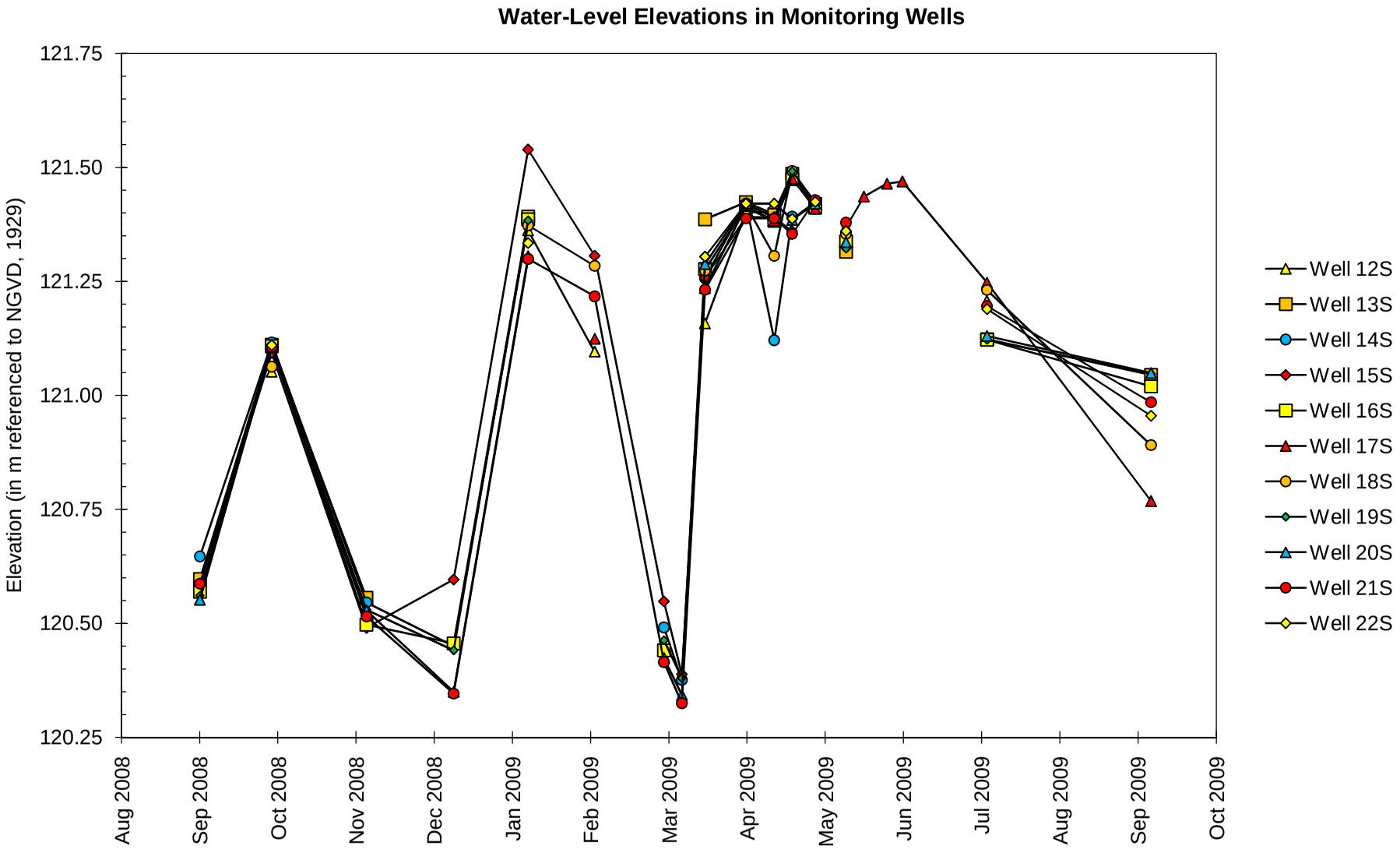

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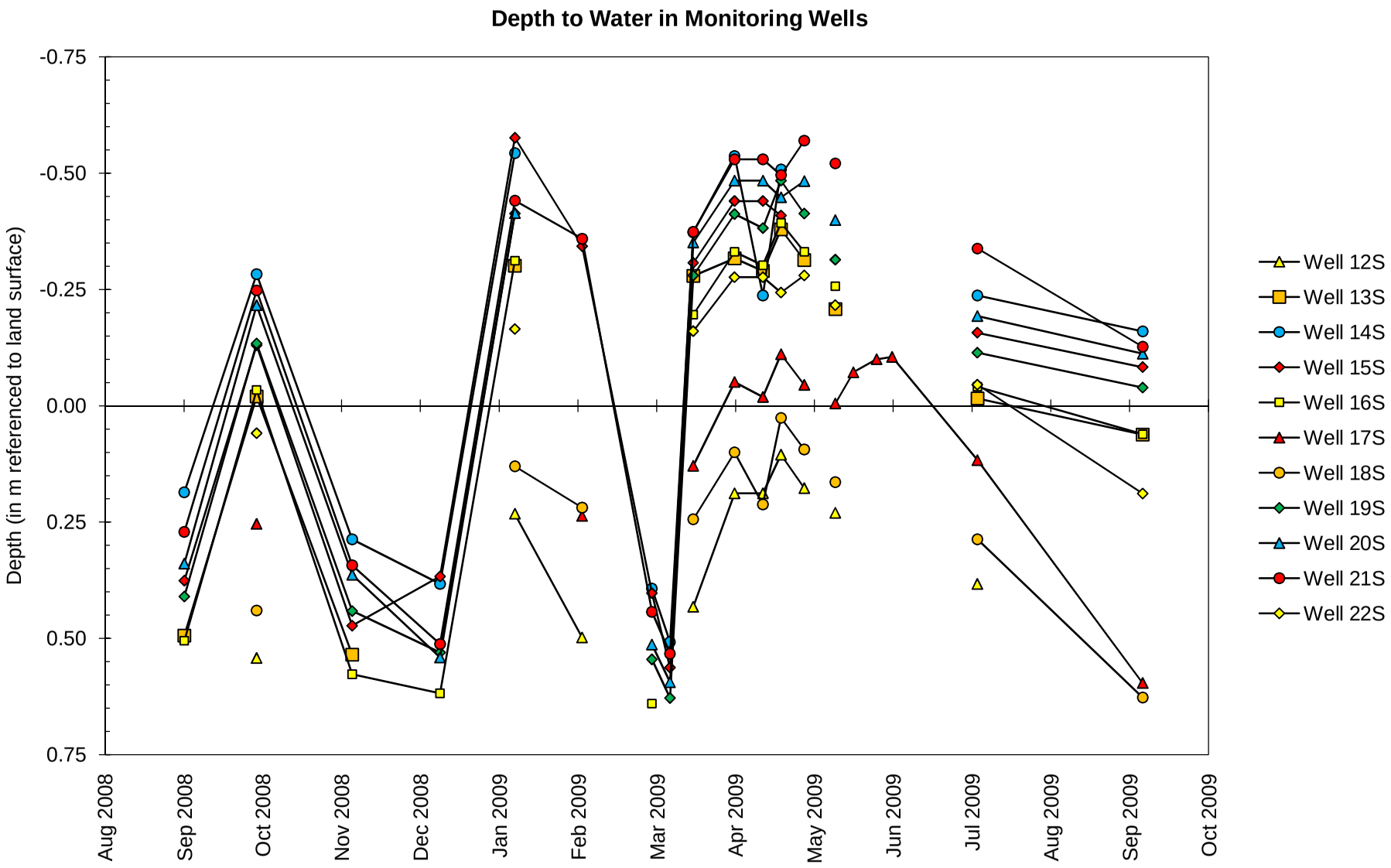

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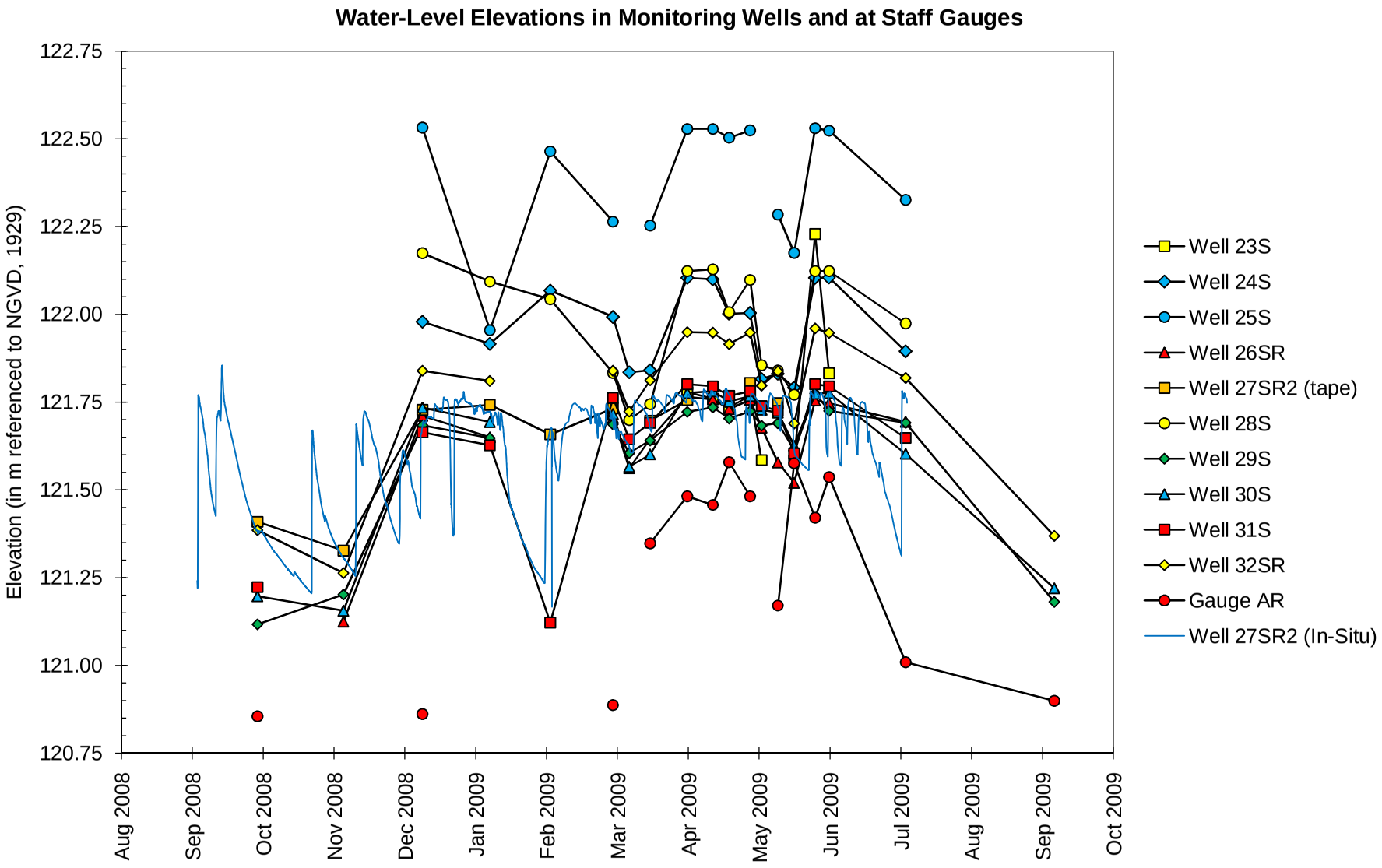

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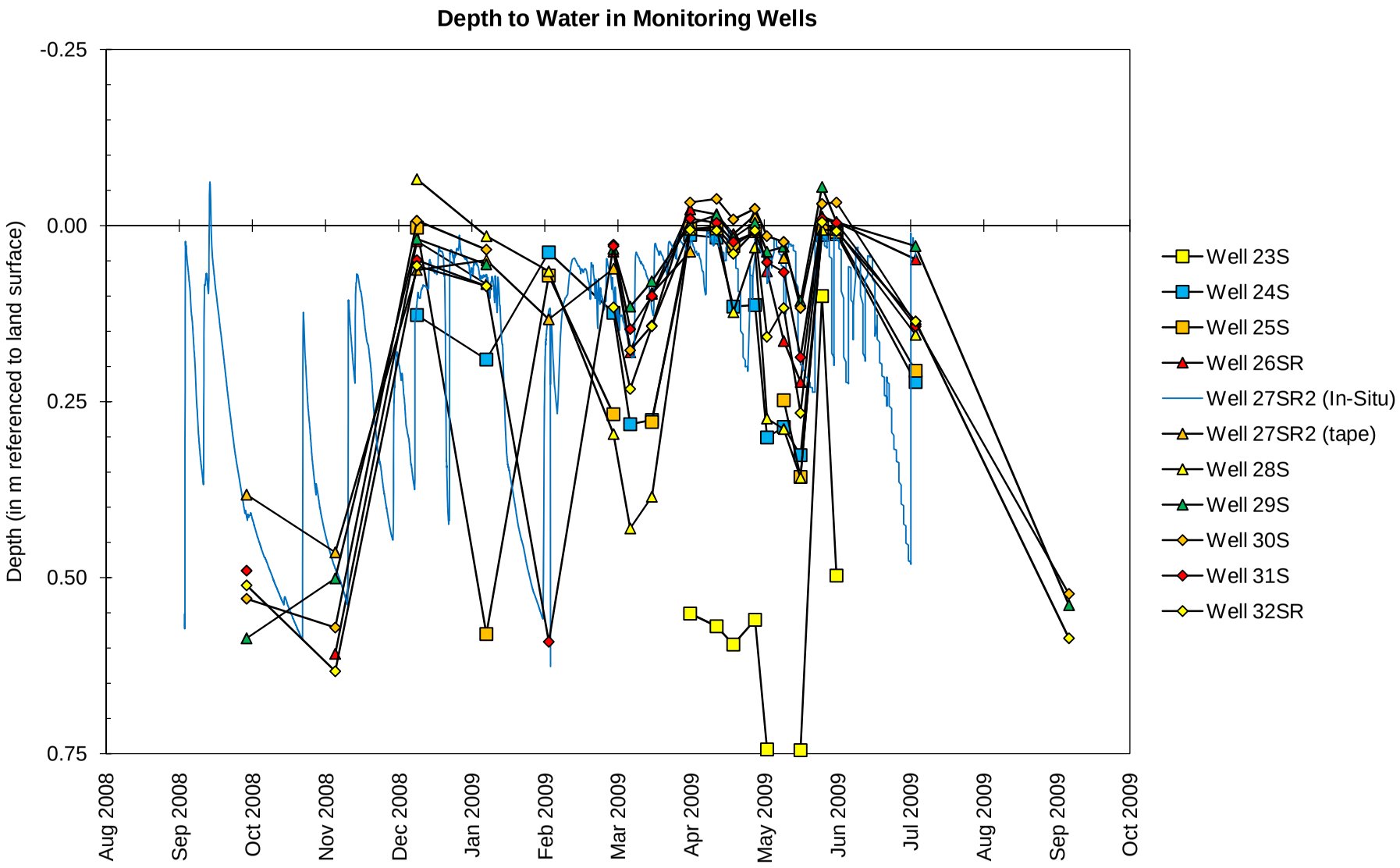

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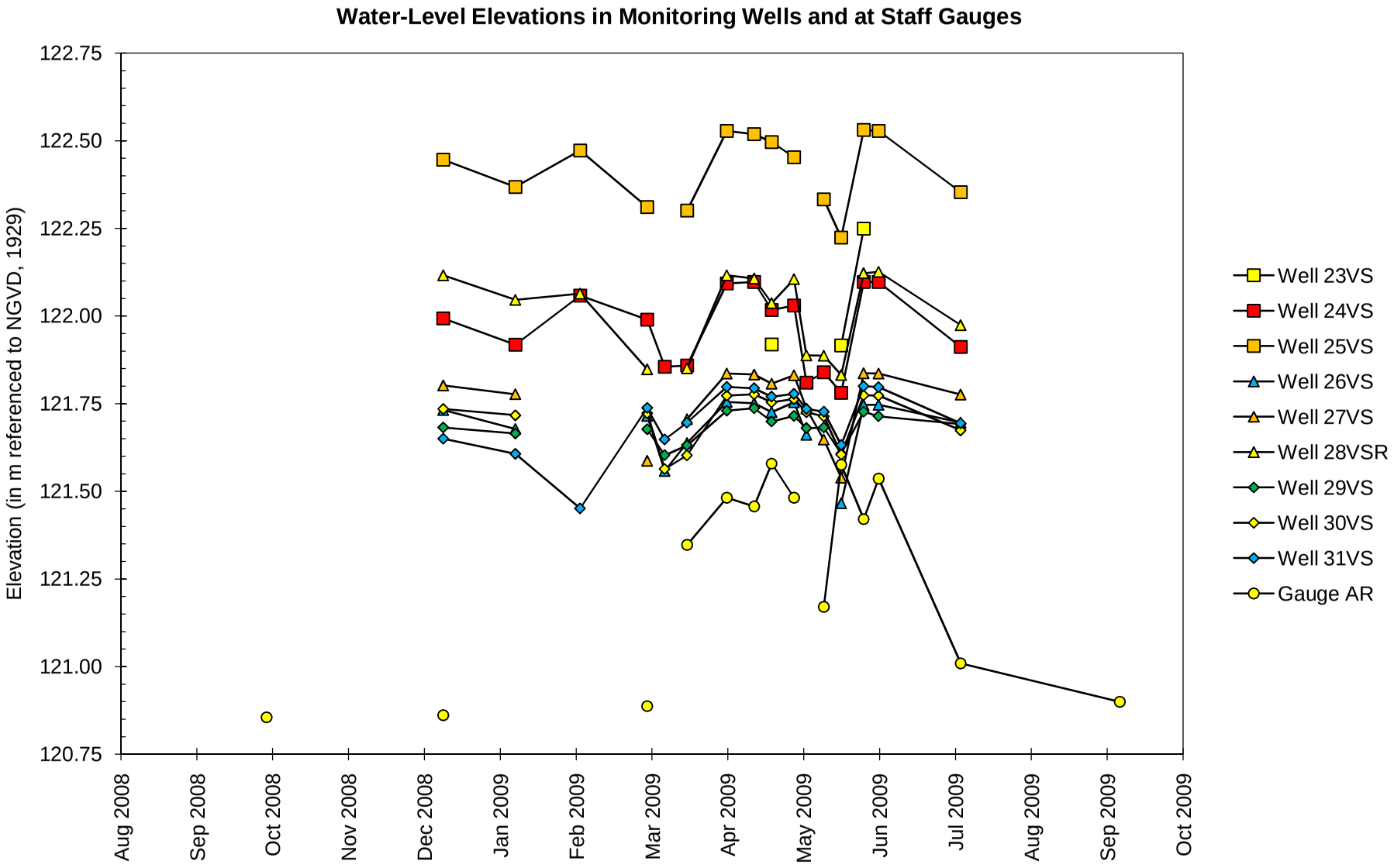

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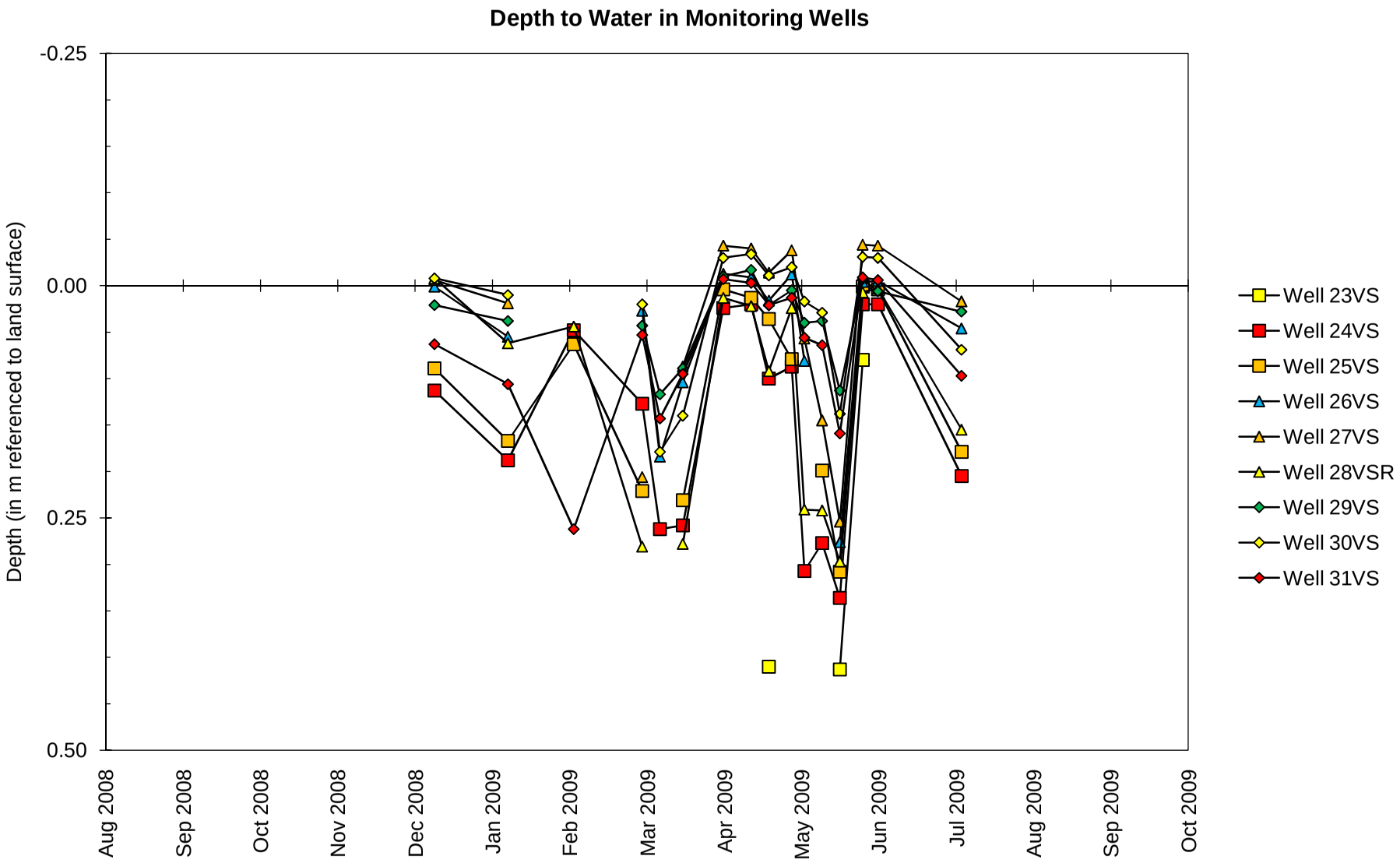

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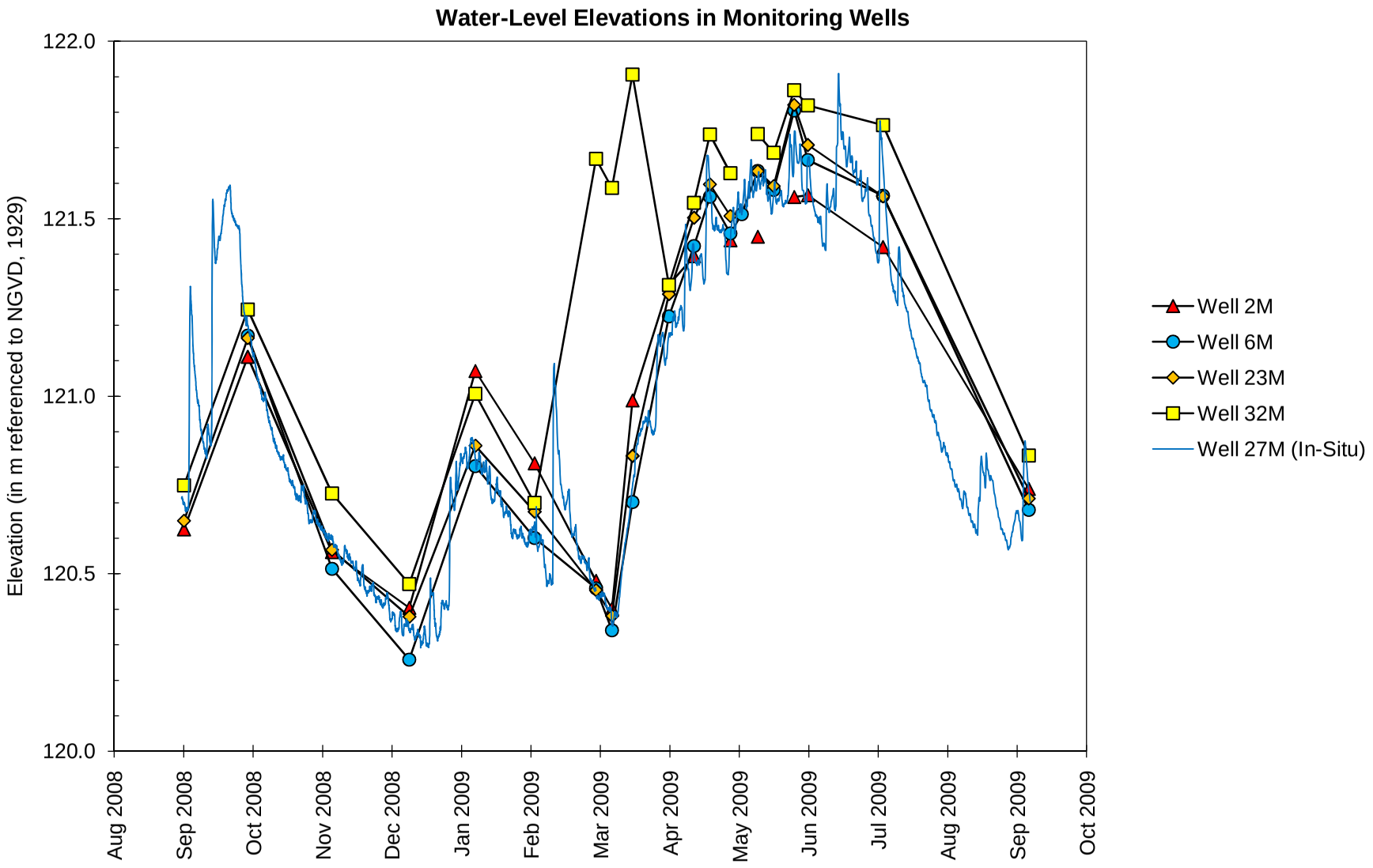

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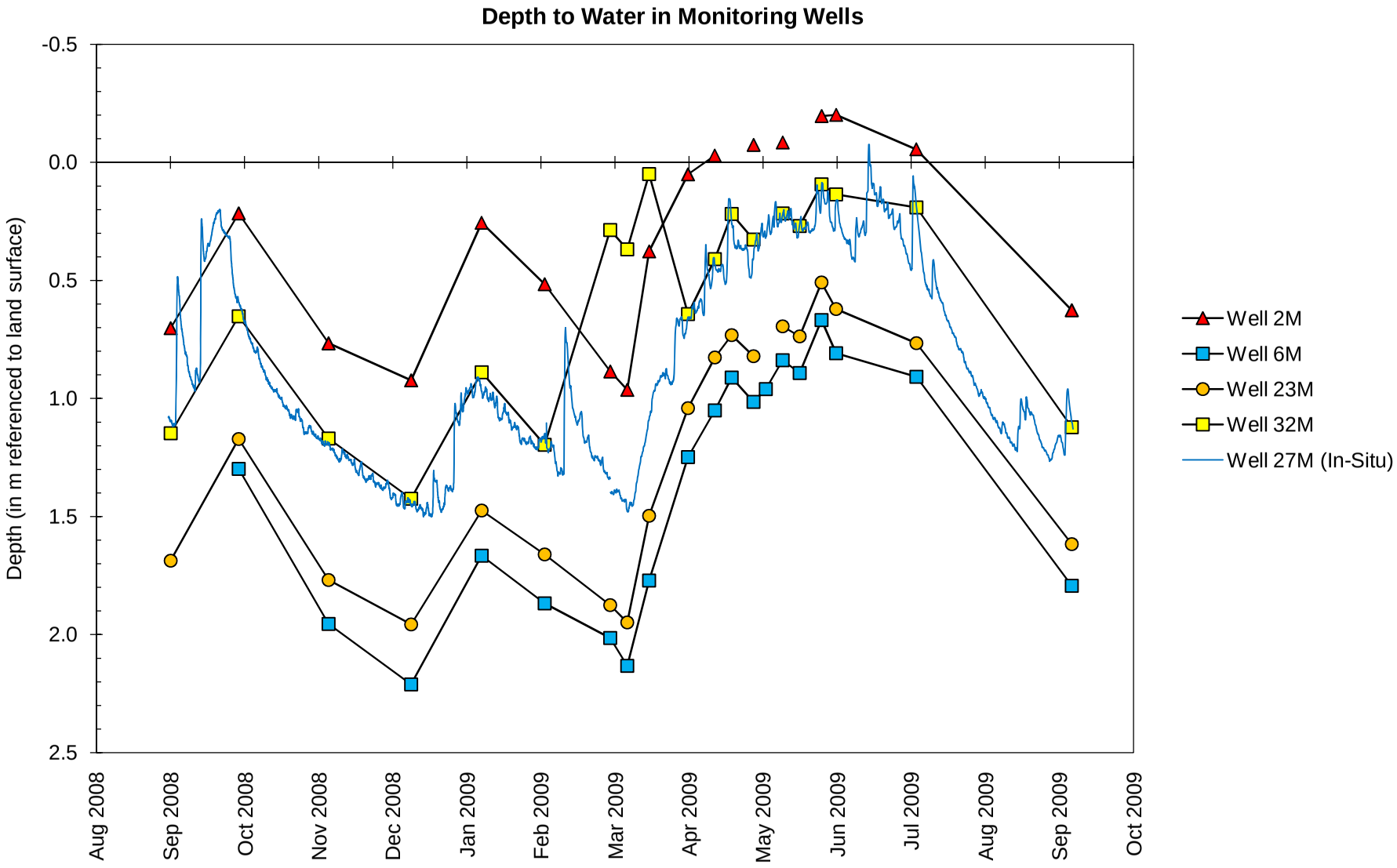

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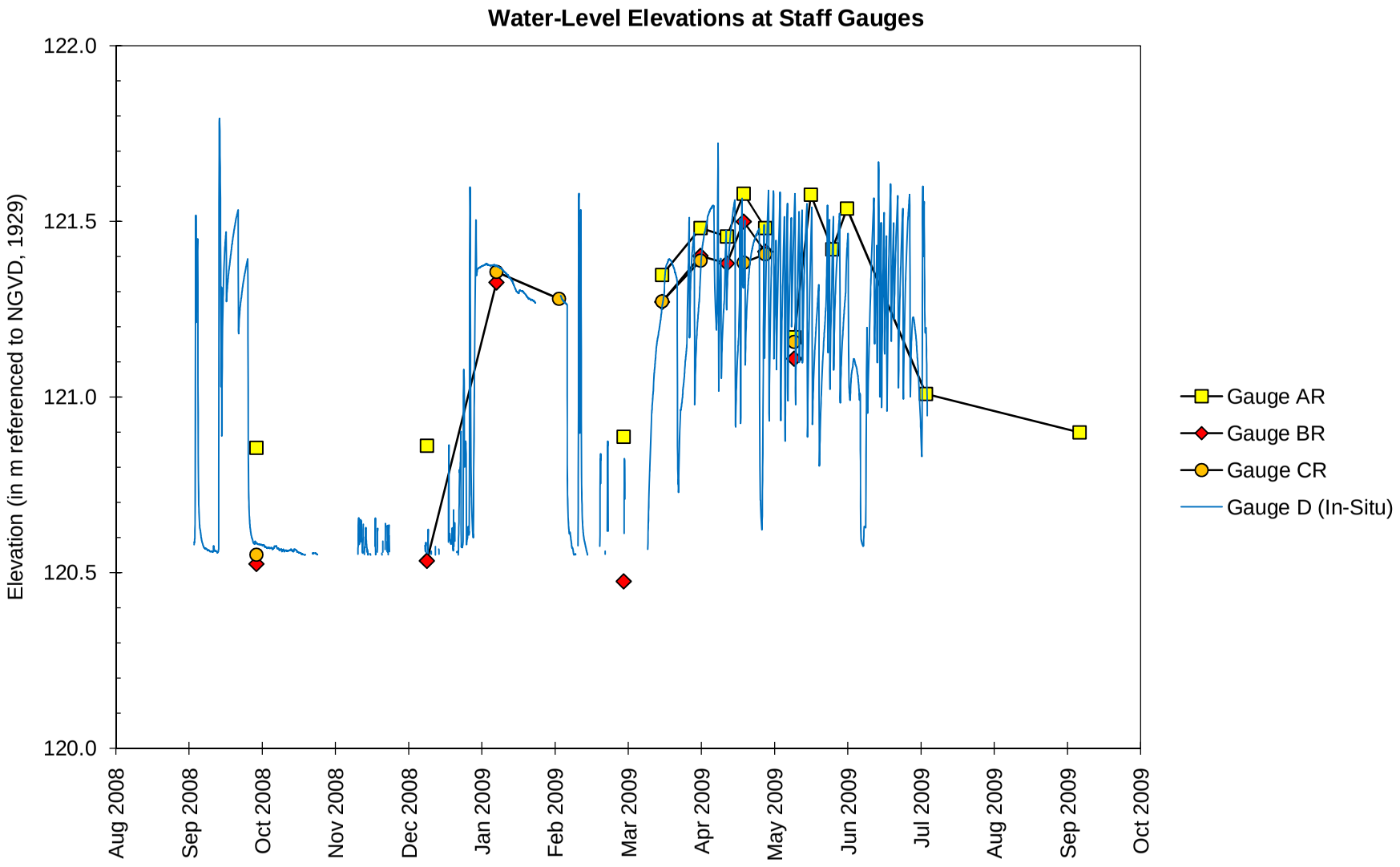
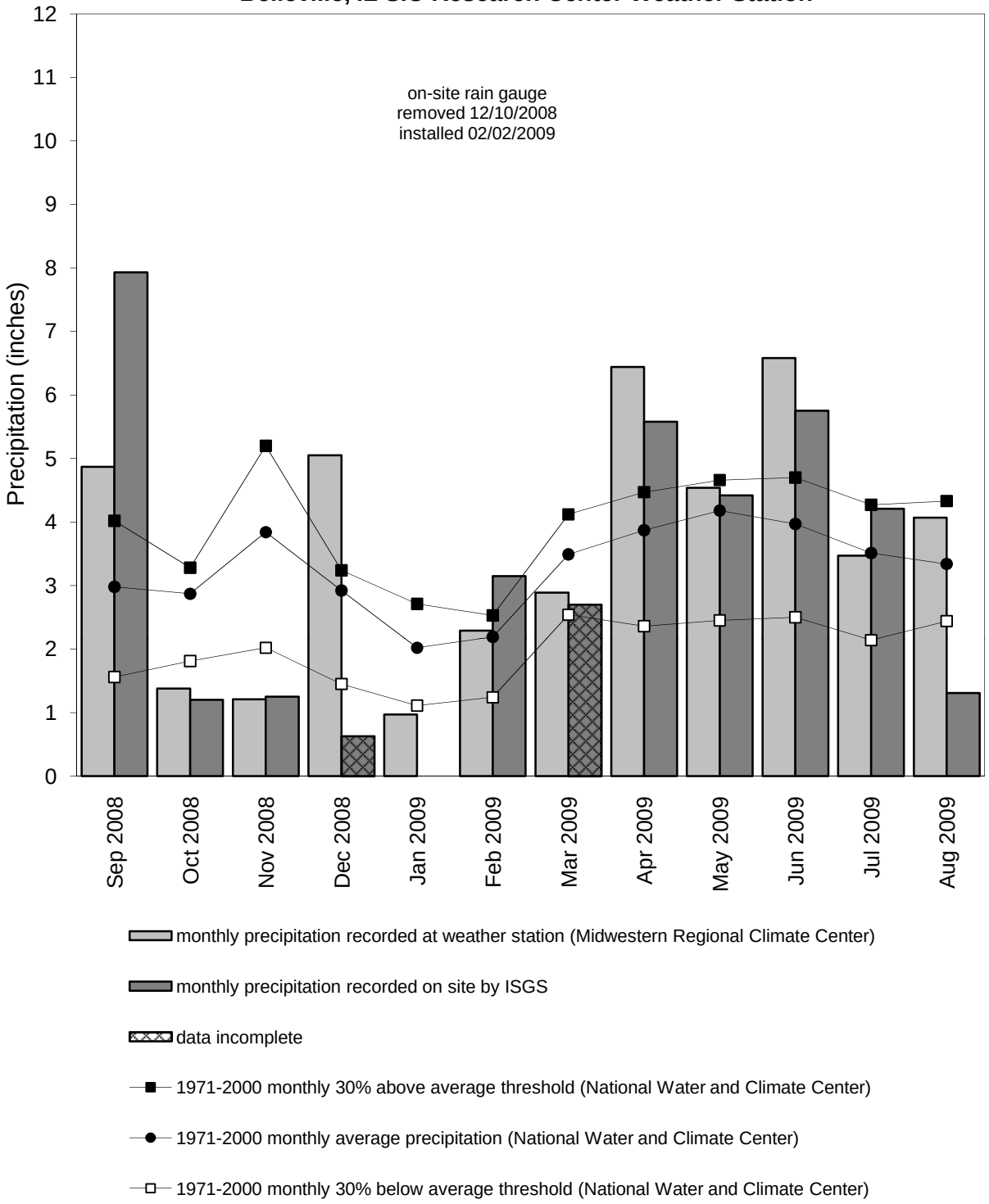


Former Tiernan Property, New River Crossing
Potential Wetland Compensation Site
September 2008 through August 2009
Total Monthly Precipitation Recorded On Site and at the Belleville, IL SIU Research Center Weather Station



Graph last updated October 15, 2009