

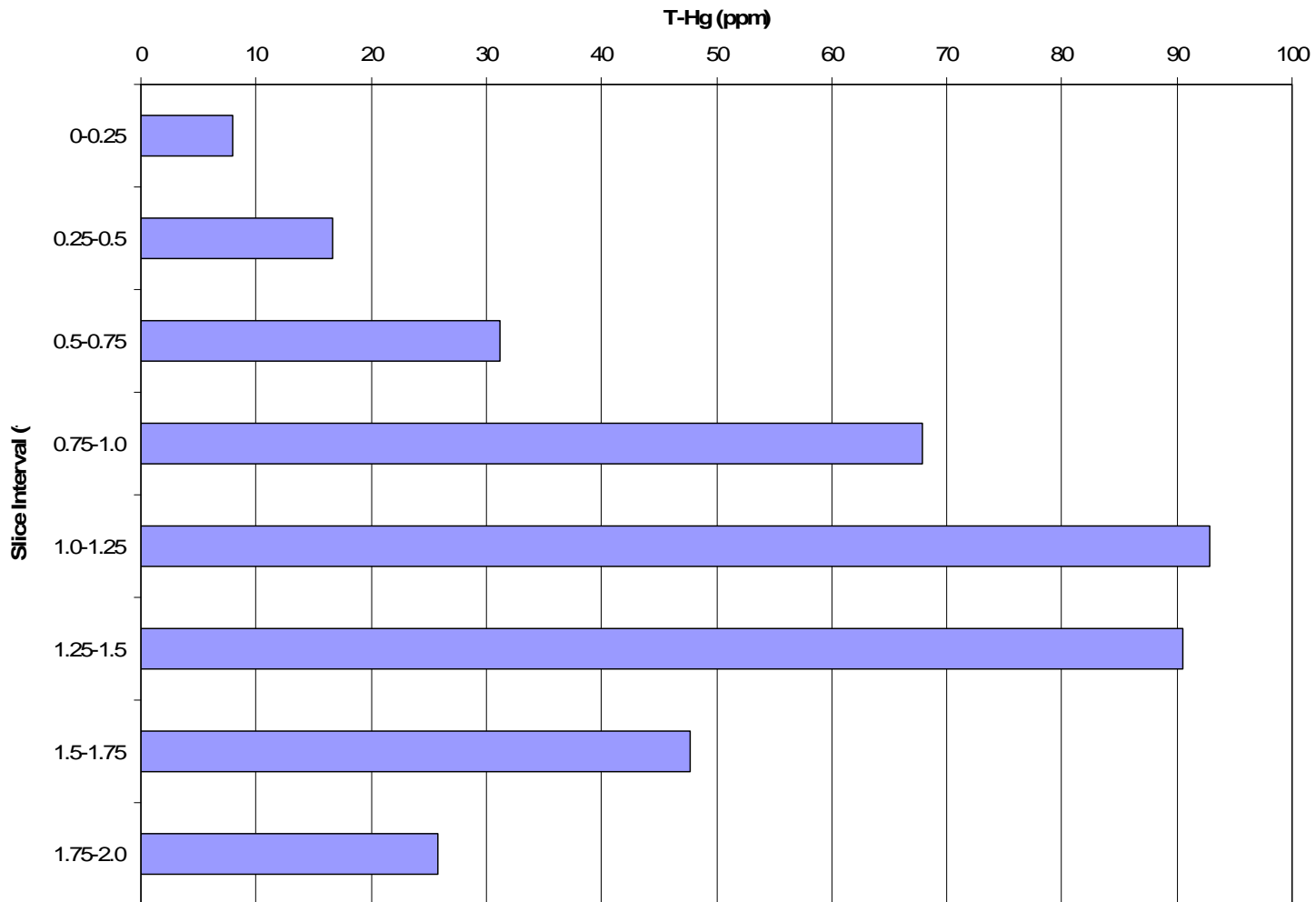
Jan/Feb 2005 Activities

Turner/Turner/Jensen

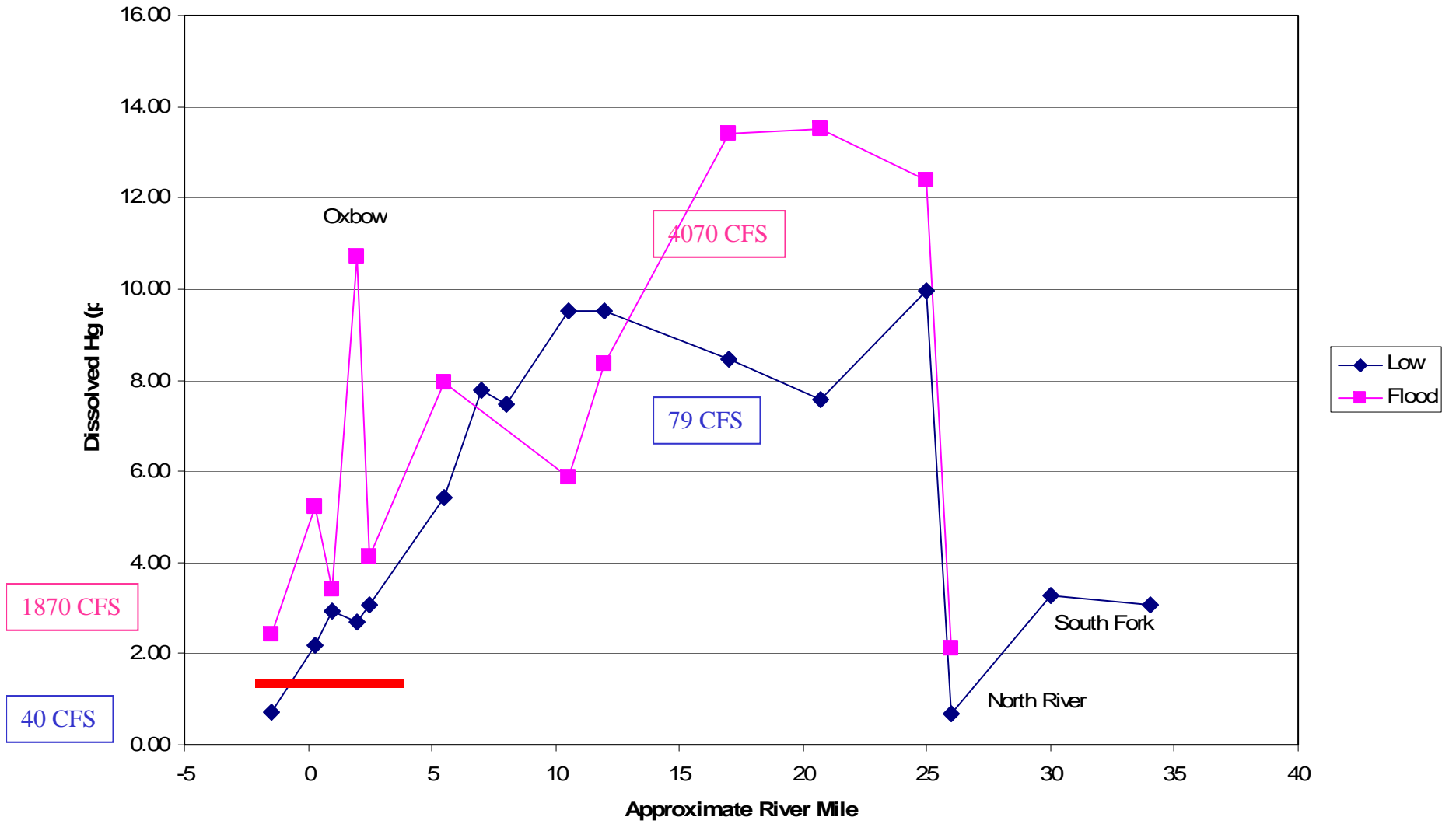
- Sediment Core from Oxbow Streambed
- Completed Floodplain Sampling (6/04)
 - Waynesboro Hopeman property
- Soil Core from Waynesboro Hopeman
 - for Lumex scouting
- Sampled Rockfish Run and O.F. 001
- Sampled SW on 1000 ft Interval to Dooms
- Repeated SR series for Hg-T and Me-Hg

Hopeman Core

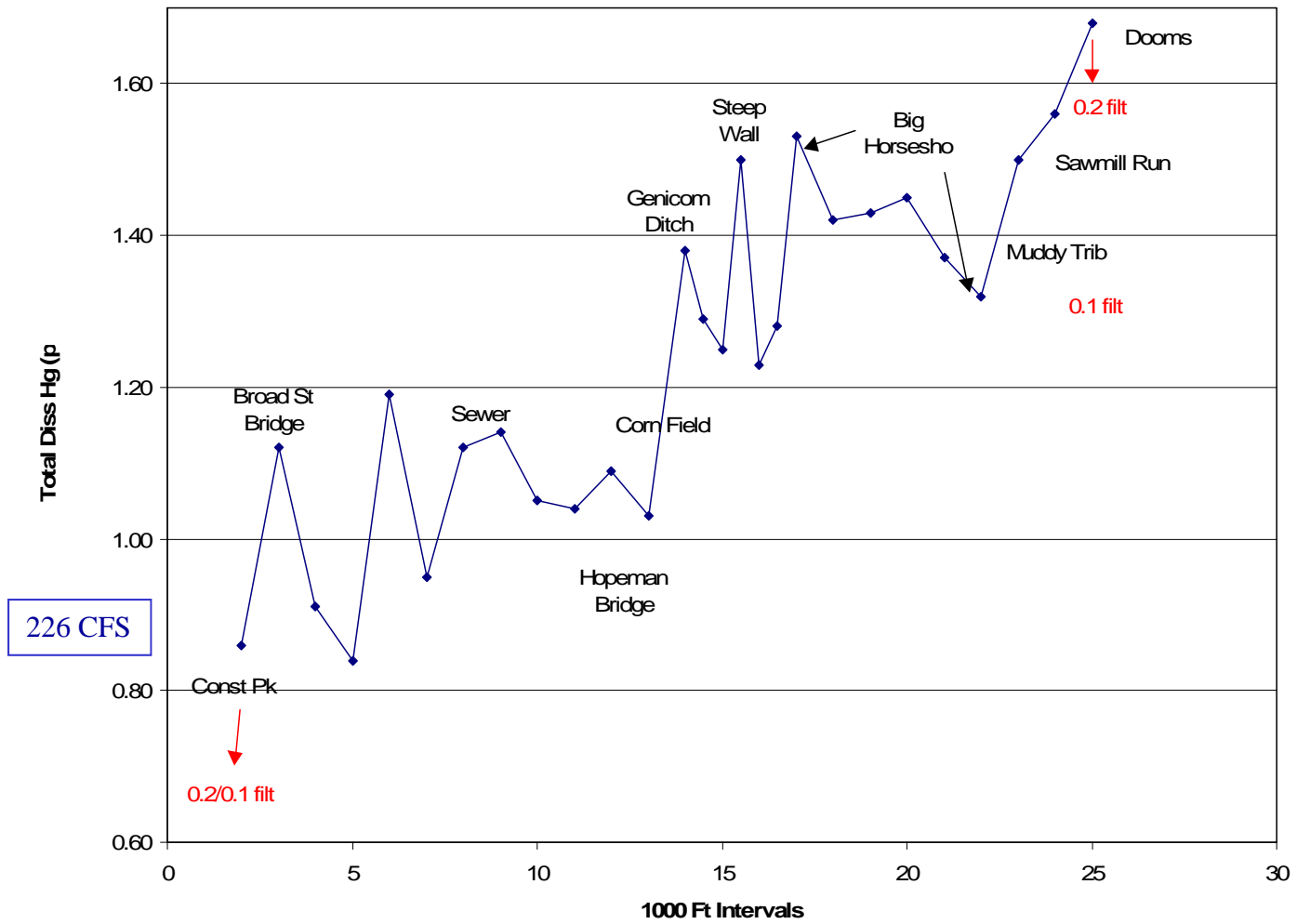
Jan 05



Dissolved Comparison



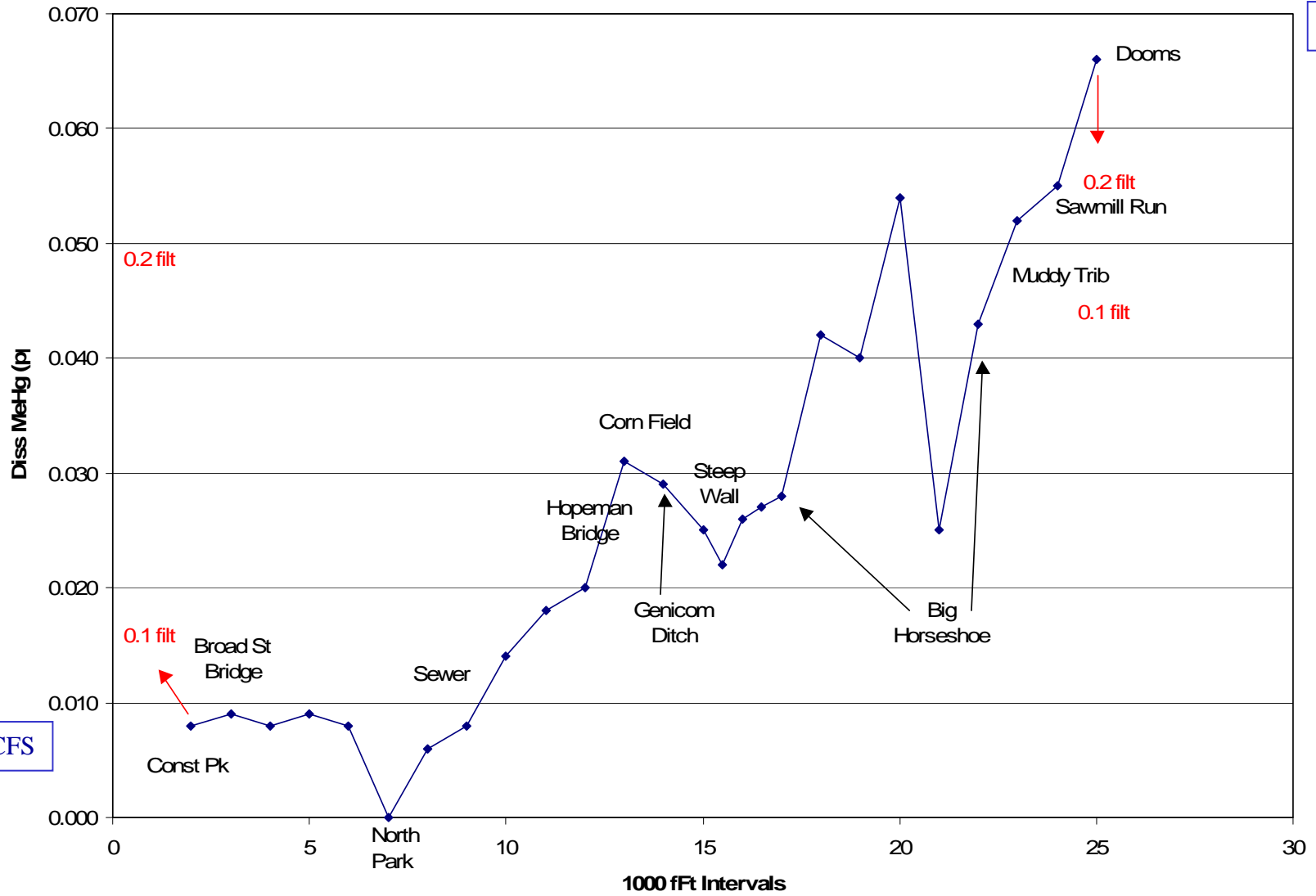
Total Dissolved vs 1000 Ft Intervals



226 CFS

380 CFS

Dissolved MeHg vs 1000 Ft Intervals



380 CFS

226 CFS

Possible Reasons for Low Dissolved Values in Jan 05

- August high values associated with very low, clear flow (40 CFS at USGS)
- Flood high values associated with very high, muddy flows (1870 CFS)
- January low dissolved values associated with elevated, clear flows (226 CFS, 5.5X Aug)
- Increased January dilution outstrips dissolution enhancement of 5.5X flow?

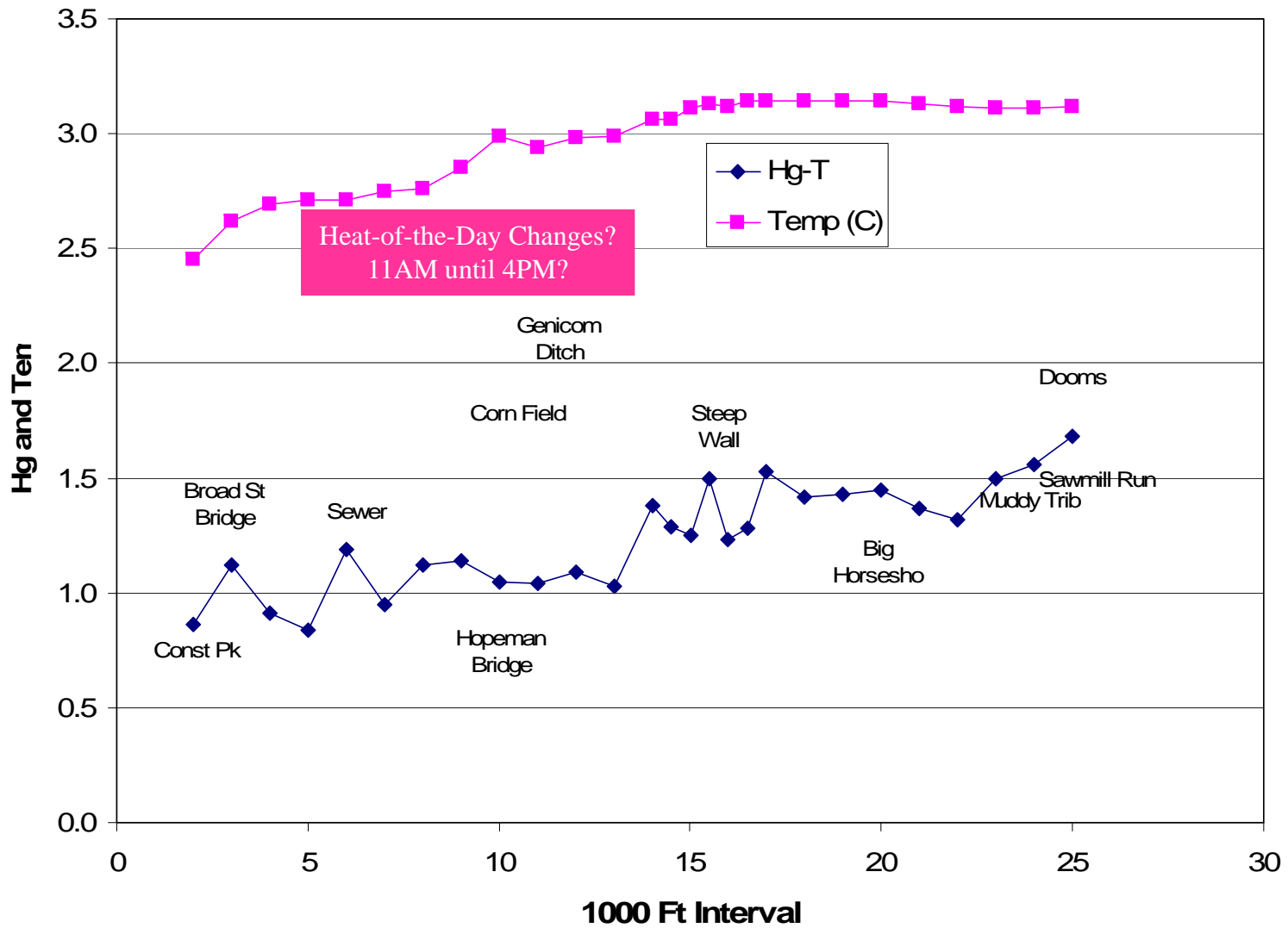
Possible Reasons for Localized Variable Data

- Probably not analytical
- More likely sampling/river variation related
 - Single point at river transect, not well mixed
 - Clean water input, not well-mixed (high prob.)
 - Water-Hg input, not well-mixed (? prob.)
- Variable data: probably something going on. Not clear exactly what.

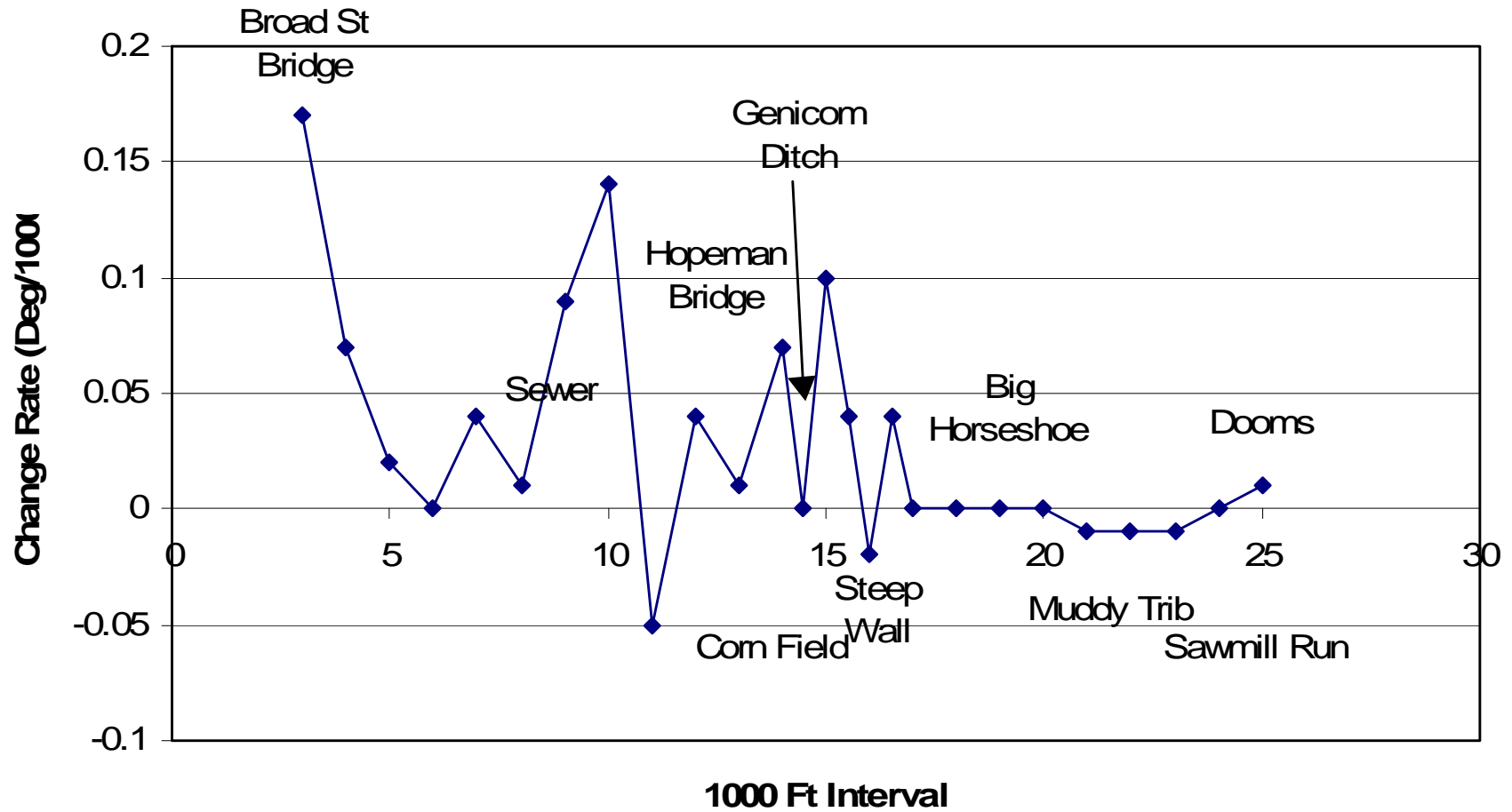
Influence of Gaining Stream

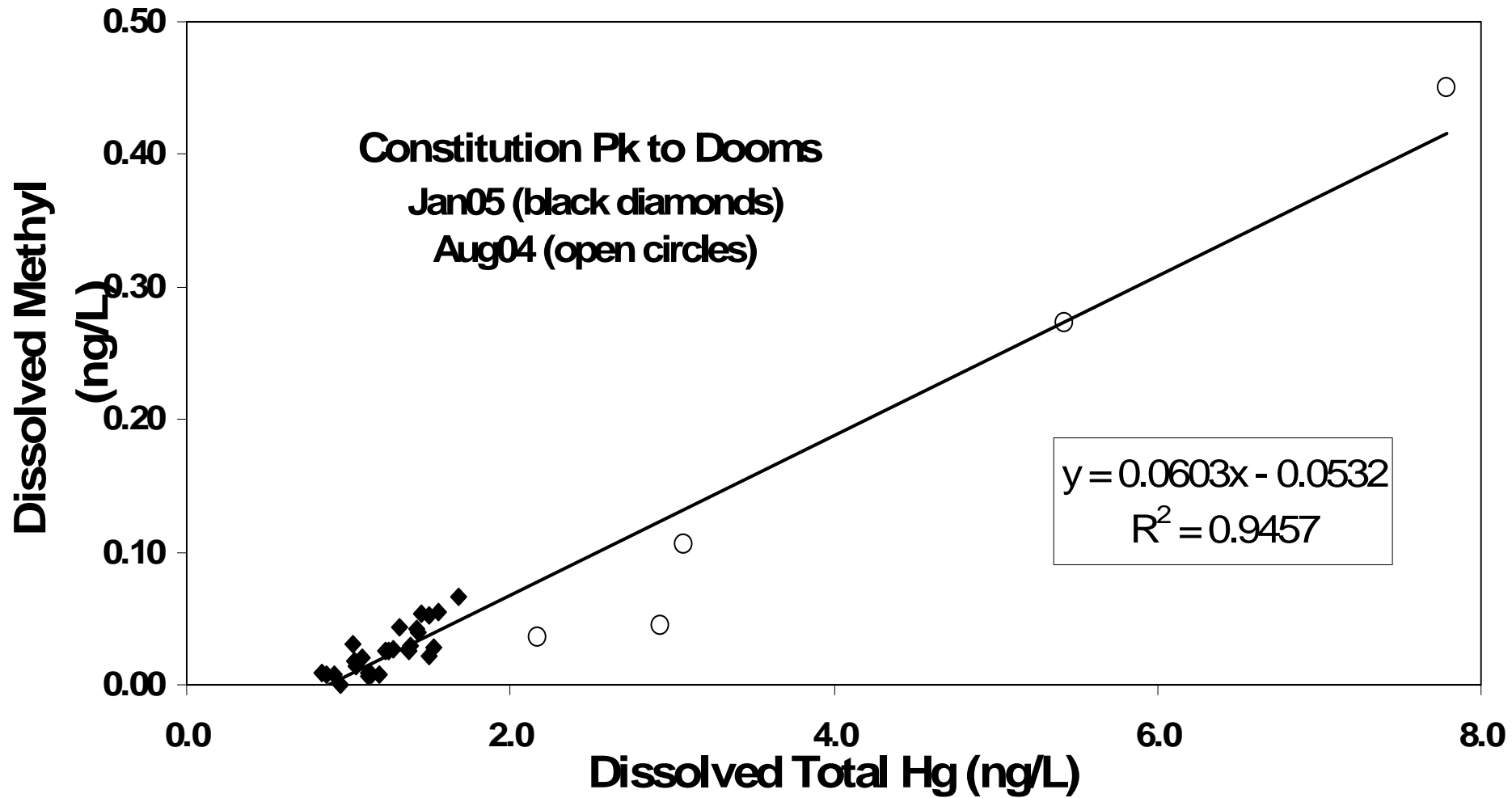
- Significant flow gains, USGS to Harriston
 - Aug: 40 to 79; Sep: 1870 to 4070; Jan: 226 to 380
- Offsetting Hg inputs would be required to maintain a constant profile.
- Gaging river at more locations would allow better Hg input calculations/mappings.

Hg-T and Temp vs 1000 Ft Interval



Rate of Temperature Change





Near-Term Plans

- Explore variations downstream of Genicom
- Guzzler work at old millrace return
- Material balance around plant
- Conceive manipulative experiments to test hypotheses