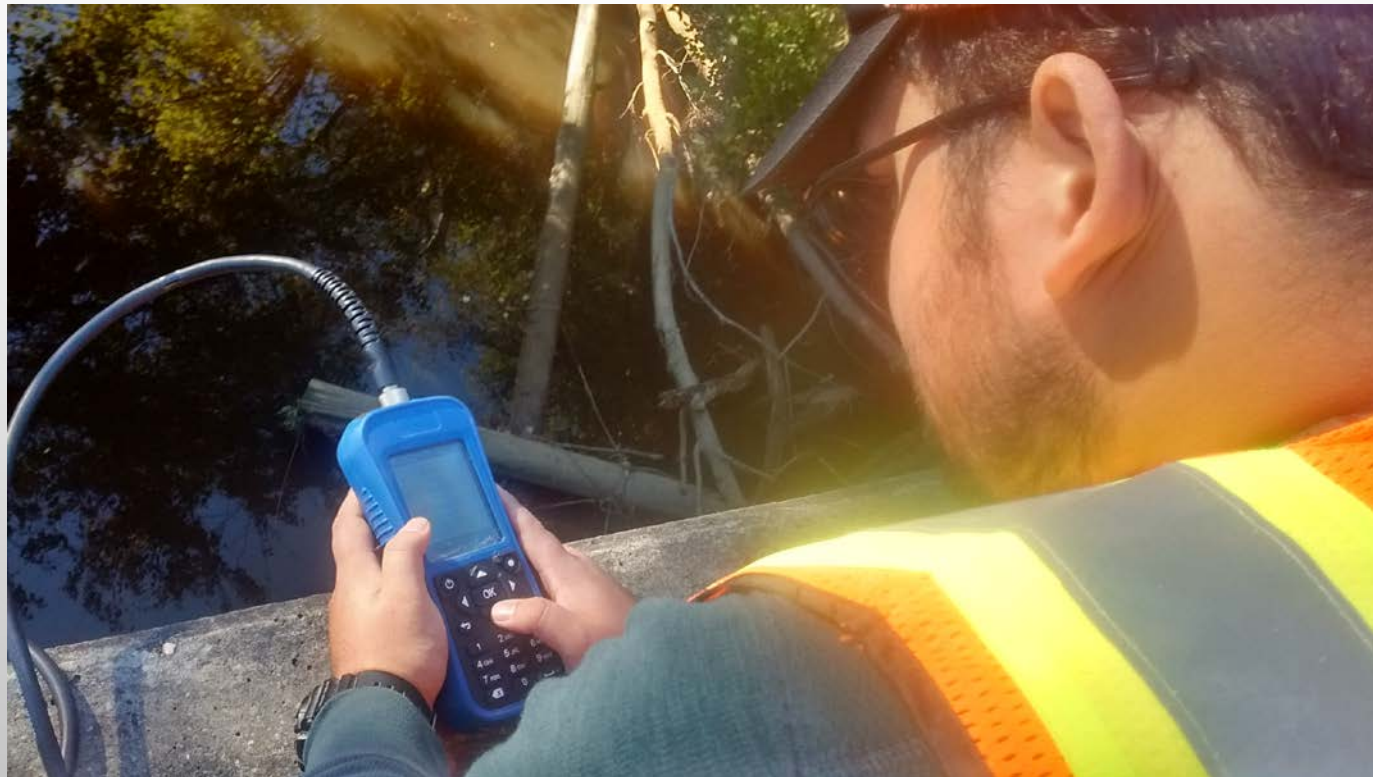


WATER QUALITY AND E. COLI MONITORING FOR A GULF OF MEXICO COMMUNITY'S DECISION MAKERS

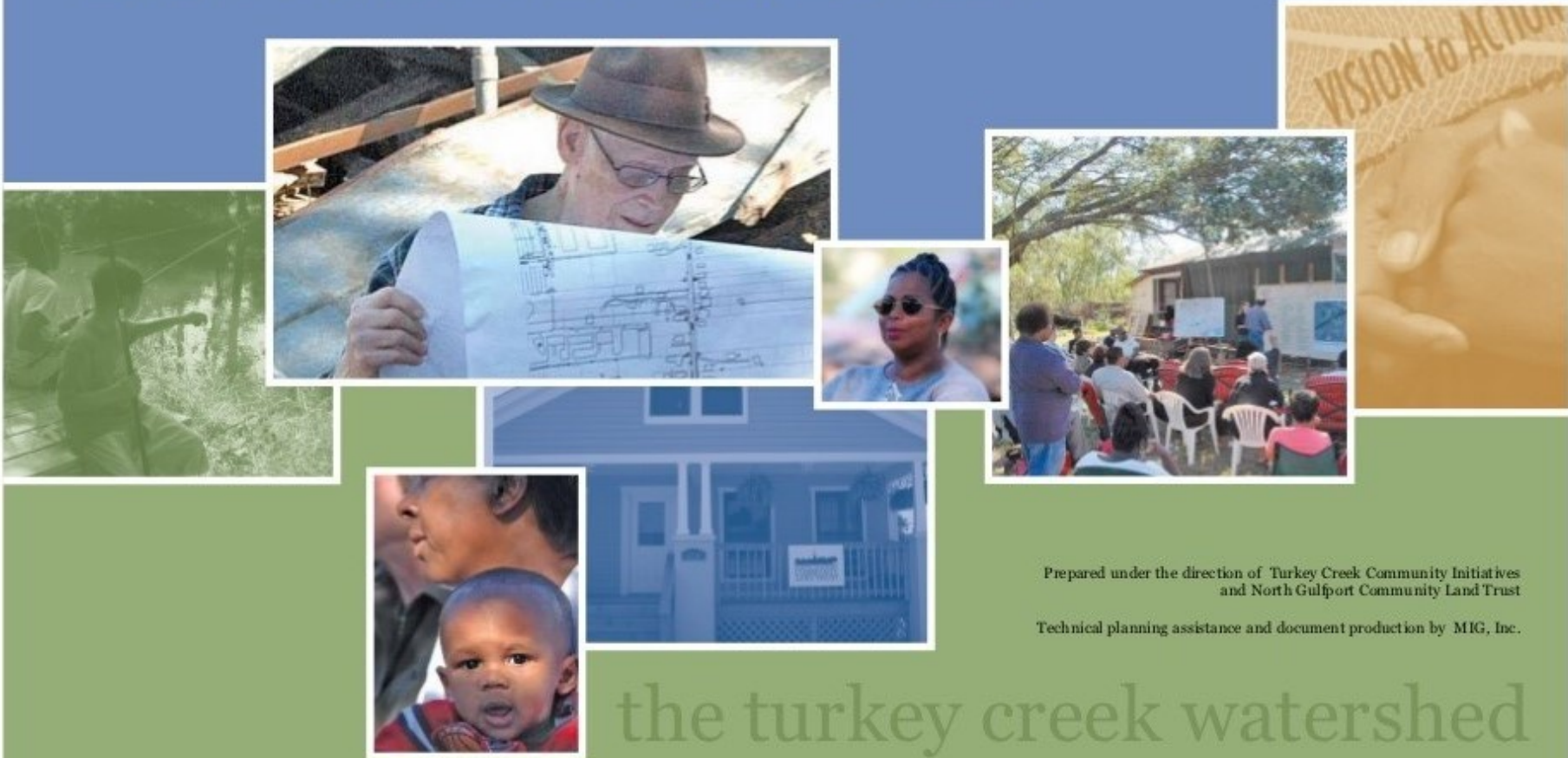
EPA, MDEQ, MGCCC STUDENTS & FACULTY, NORTH GULFPORT 8TH GRADE



August 2011

the community's plan

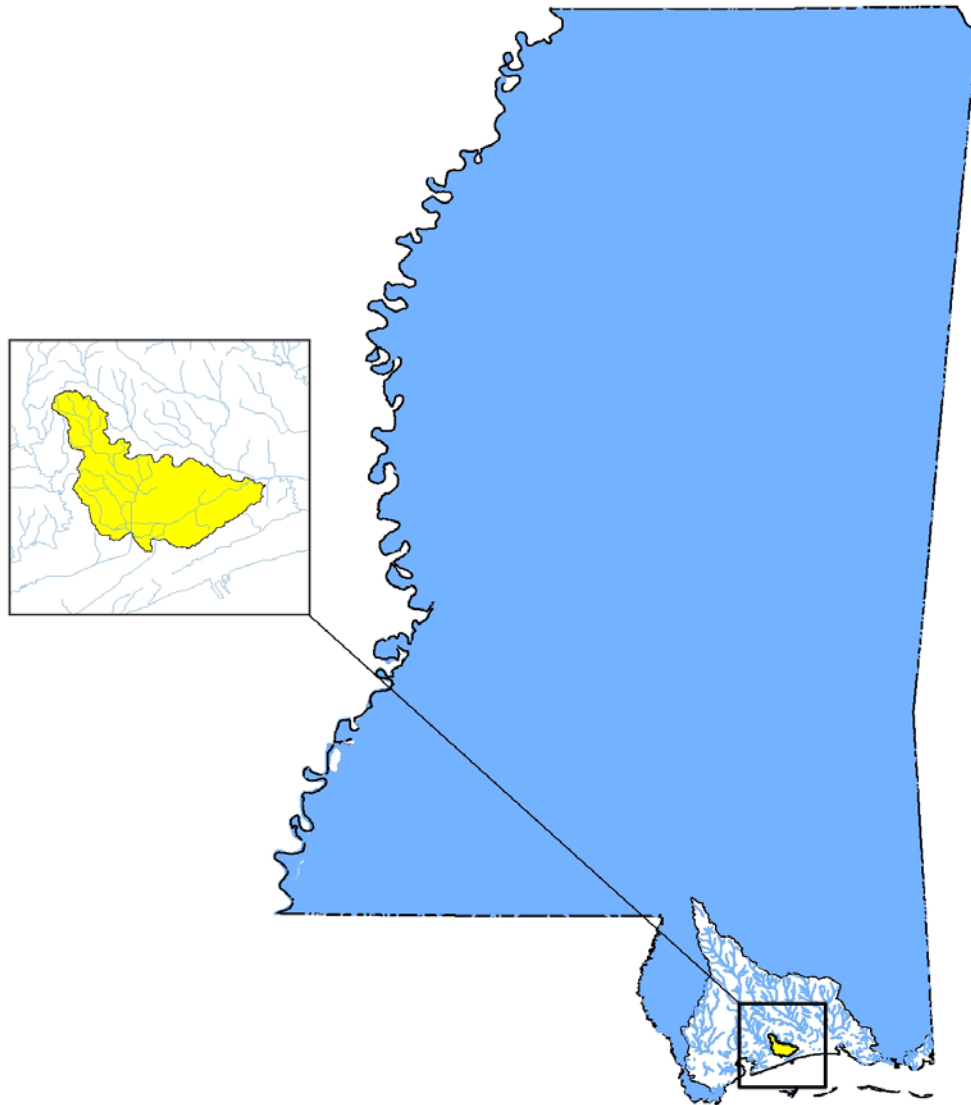
for the Turkey Creek and North Gulfport Neighborhoods



Prepared under the direction of Turkey Creek Community Initiatives
and North Gulfport Community Land Trust

Technical planning assistance and document production by MIG, Inc.

the turkey creek watershed



Critical for us:

--Known concern: high fecal

--Cooperate with state and local partners

--Take quality assured data with local residents/students

--Provide data back to local Gulf decision makers in a usable form and provide assistance/follow-up



Measure Stream Height



Collecting Water Samples

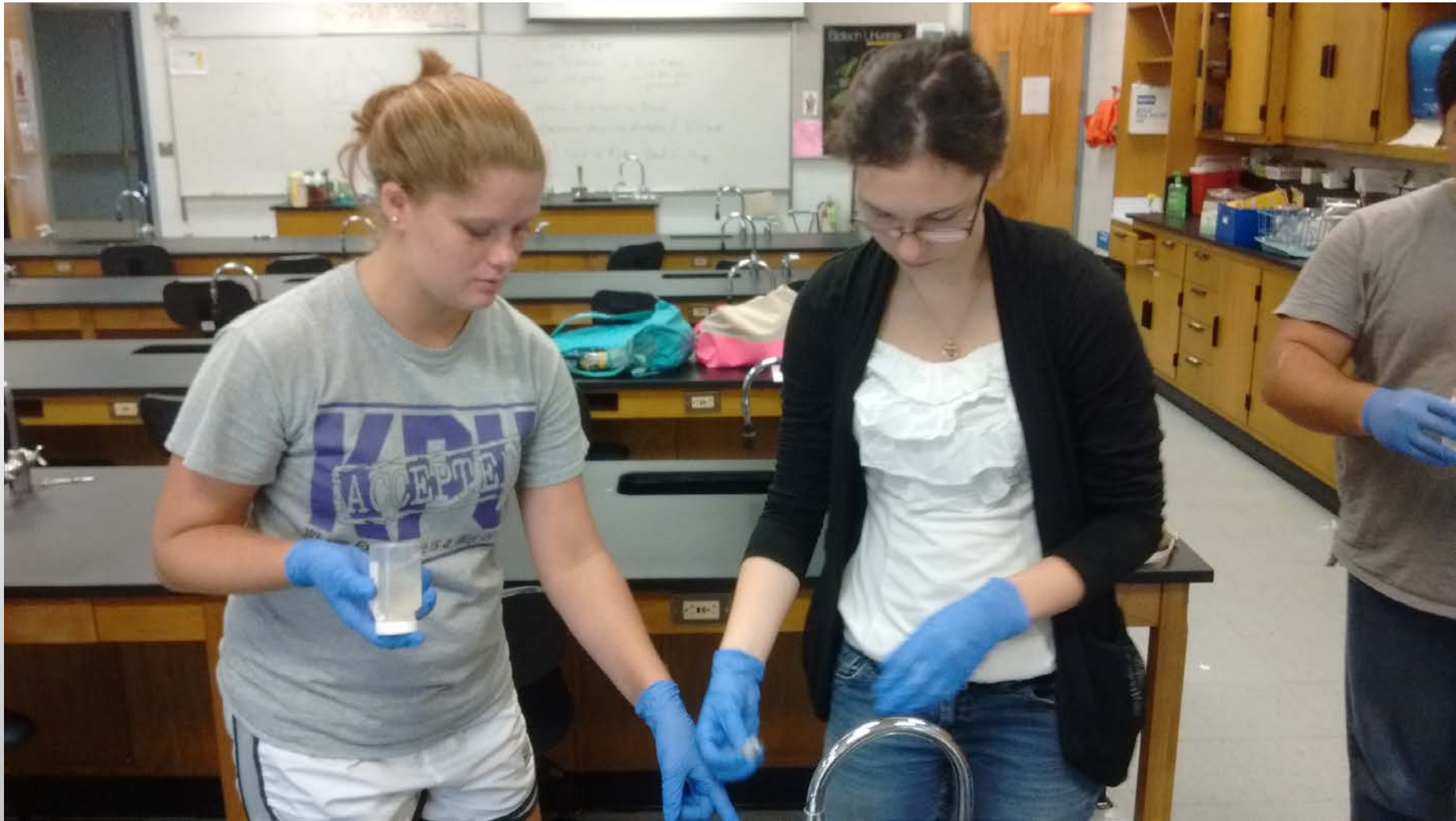


Sterile bottle sample collection.





Add bacterial growth media (food) to 100 ml sample



Mixing water sample with bacterial growth media



Transfer sample to IDEXX analysis tray; seal tray

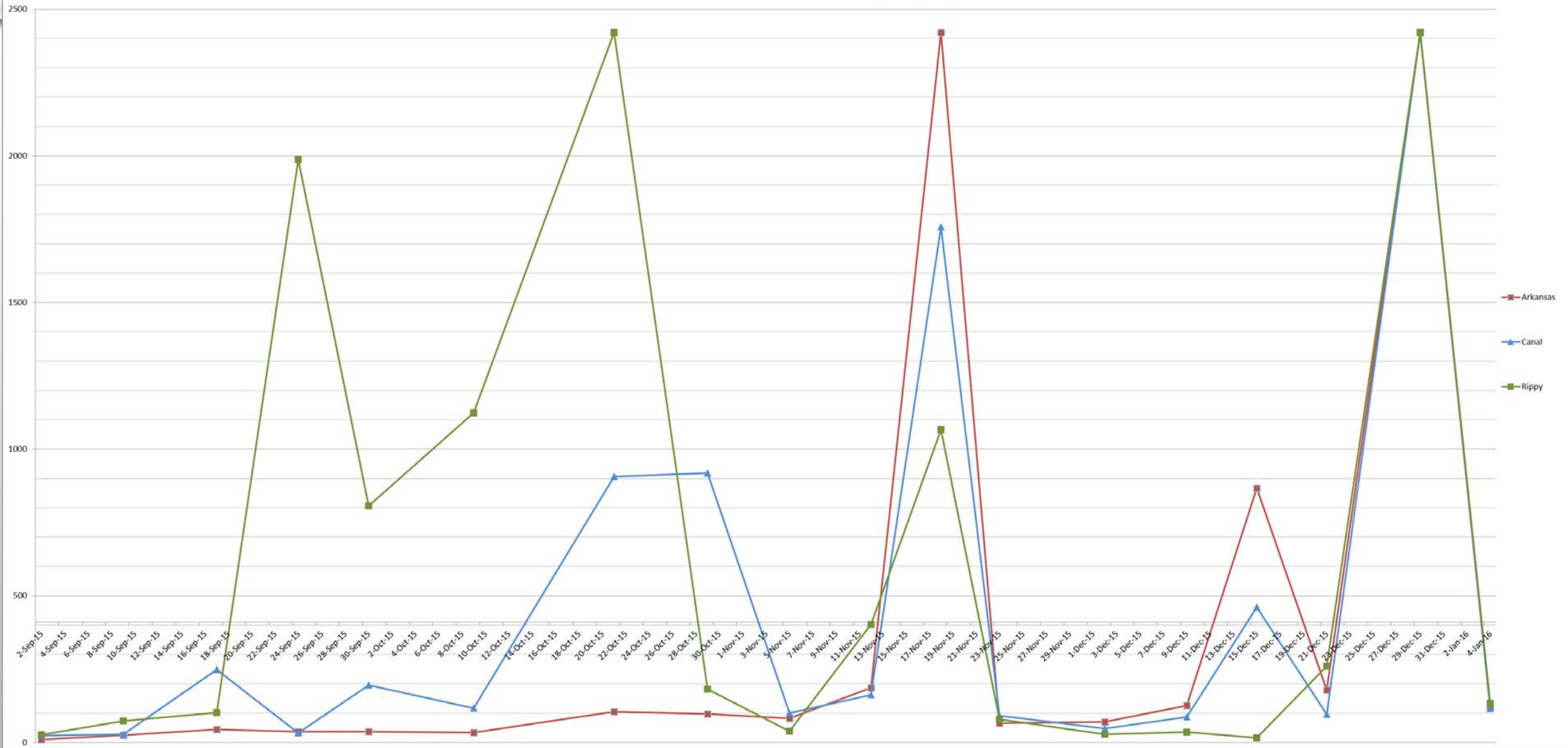


Trays incubated 24 hours and read for positive results.

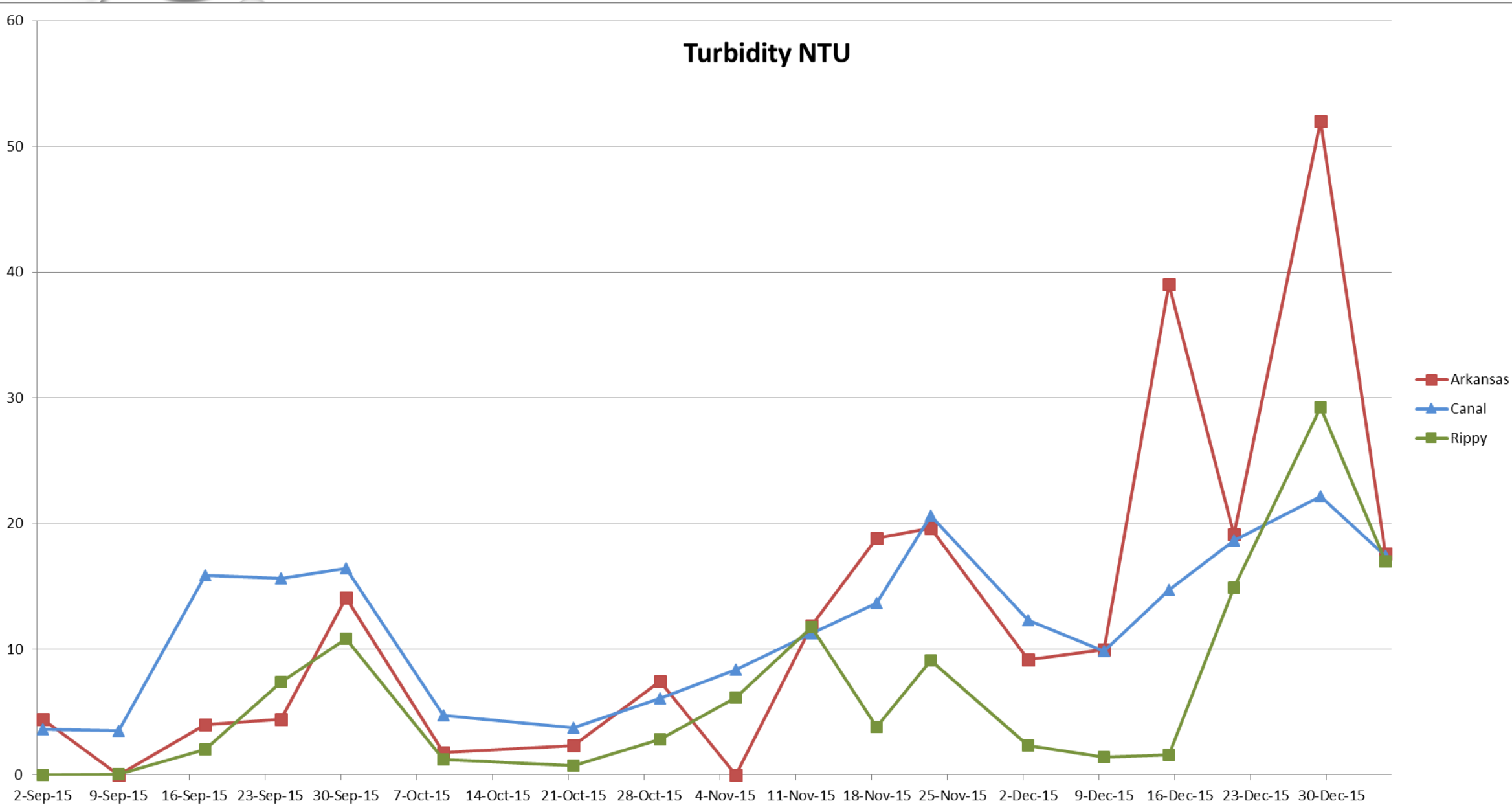


Wells positive for *E. coli* fluoresce (glow) under UV light

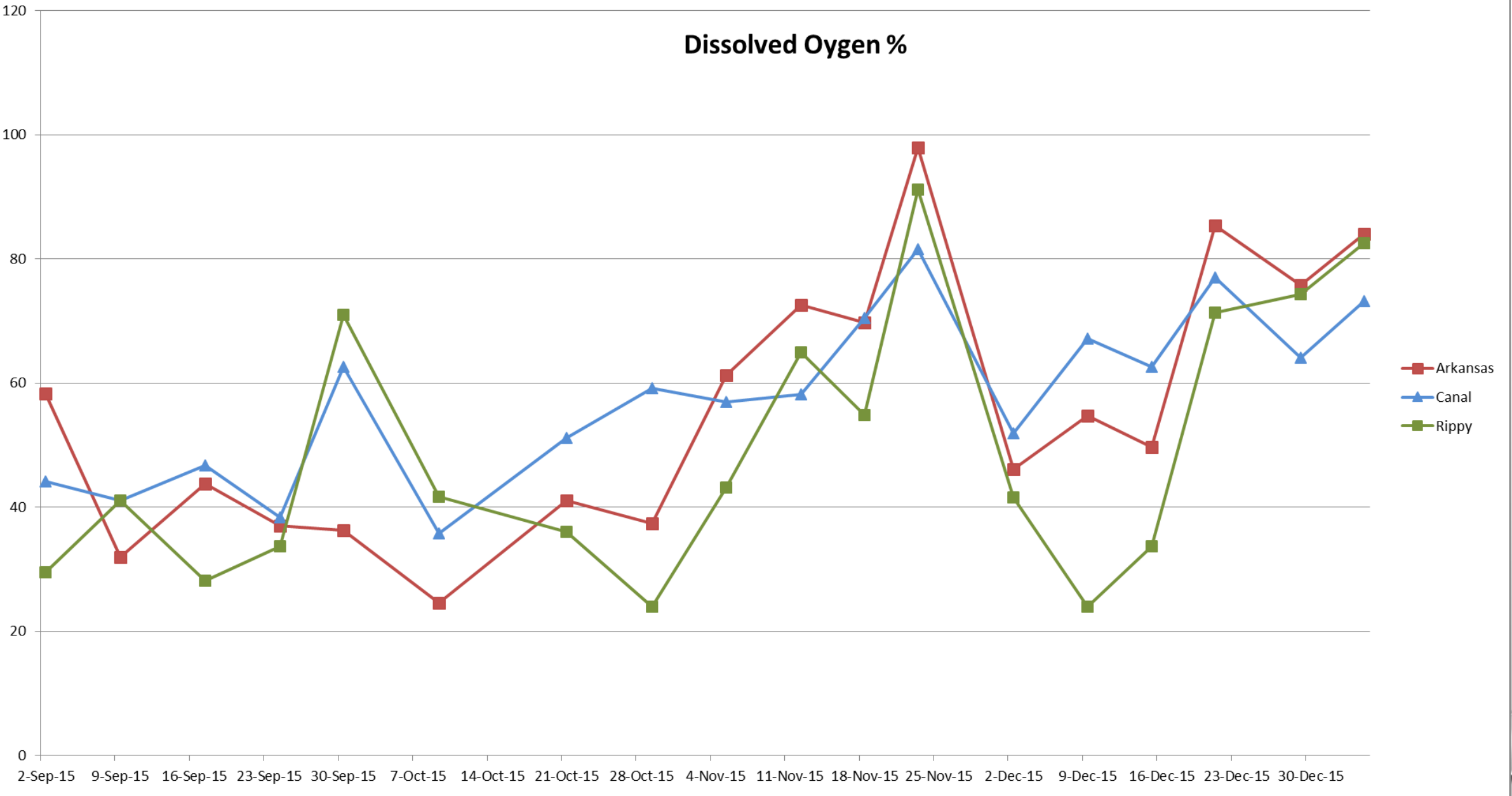
Most Probable Number of *E. coli* colonies by sampling event



Turbidity NTU



Dissolved Oxygen %



NEXT STEPS

- ADDING A SITE TO BETTER ISOLATE WHERE HIGH *E. COLI* IS OCCURRING
- PARTNER WILL RUN SOURCE TRACKING ON BACTERIAL SAMPLES
- PRESENT INITIAL SOURCE TRACKING RESULTS TO STEERING COMMITTEE
- CONTINUE WEEKLY MONITORING UNTIL SEPTEMBER 2016; REASSESS NEED
- NUTRIENT & PHYTOPLANKTON STUDY IS EXPECTED TO BEGIN THIS MONTH
- START SIMILAR PROGRAMS IN OTHER GULF COMMUNITY WATERSHEDS



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