Ryan Chouest Data Summary
Deepwater Horizon Oil Spill
Cruise 6/29/2010

Review Date 6/30/2010

Summary:

This sampling report presents data collected from the Ryan Chouest for the period of 6/29/2010. The Ryan Chouest sailed on the original cruise track (shown in Figure 1) until the underway pump failed at approximately on the evening of 6/28/2010. After this occurred, the pump was removed. Since the Ryan Chouest did not have a spare, they sailed directly back to port. This cruise track deviated from that originally planned due to strong swells and currents.

Science results and preliminary interpretation:

The Chelsea, Trios and Contros fluorometry data show low to medium infrared hydrocarbon concentrations based on the current scale setting over the short interval sampled. The Chelsea data show the lowest values, whereas the Trios and Contros show relatively higher medium-level values. The Chelsea data did not seem to show an obvious correlation with the potential oiling footprint for 6/28; however, both the Contros and Trios show higher readings as the ship headed toward the spill site.

A relatively active zone with diverse oil slicks was observed with brown oil, orange pancakes and streamers. No photographs were taken because these oil slicks were observed at night.

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Planned versus actual route taken for Cruise 5:

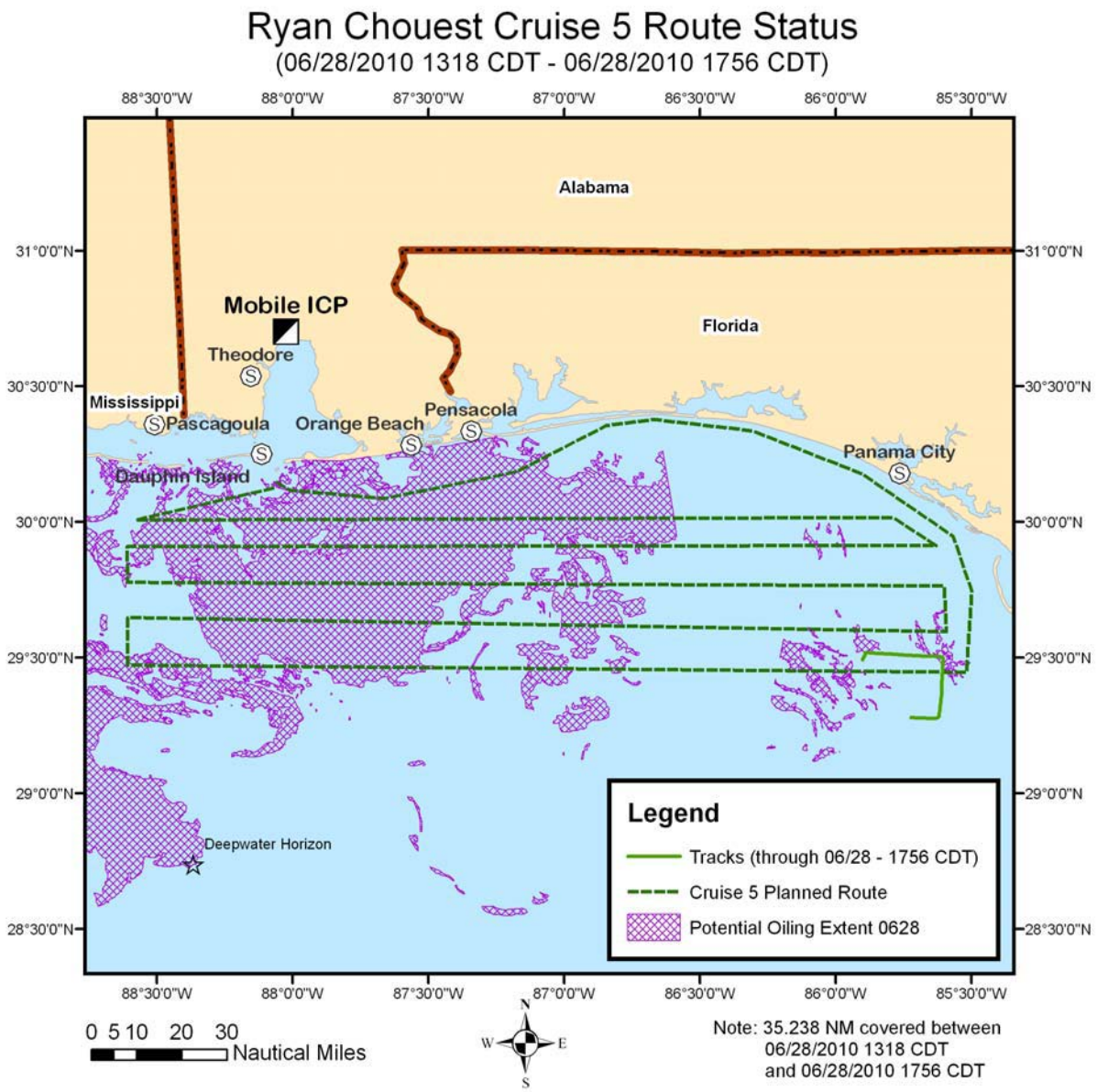

Figure 1: Planned versus actual route course plotted between 06/28/2010 –06/28/2010. Purple shaded area represents outline extent of the slick from 06/28 ERMA composite.

Vessel Science Operations:

Fluorometer measurements were logged throughout a small portion of the survey period due to failure of both of the water pumps. Without a spare, the Ryan Chouest sailed to port for repairs and a crew change. They continue to make sea-surface observations while underway. They also continued to perform liquid-liquid extractions on seawater samples/mousses and analyze the extracted material by GCMS.

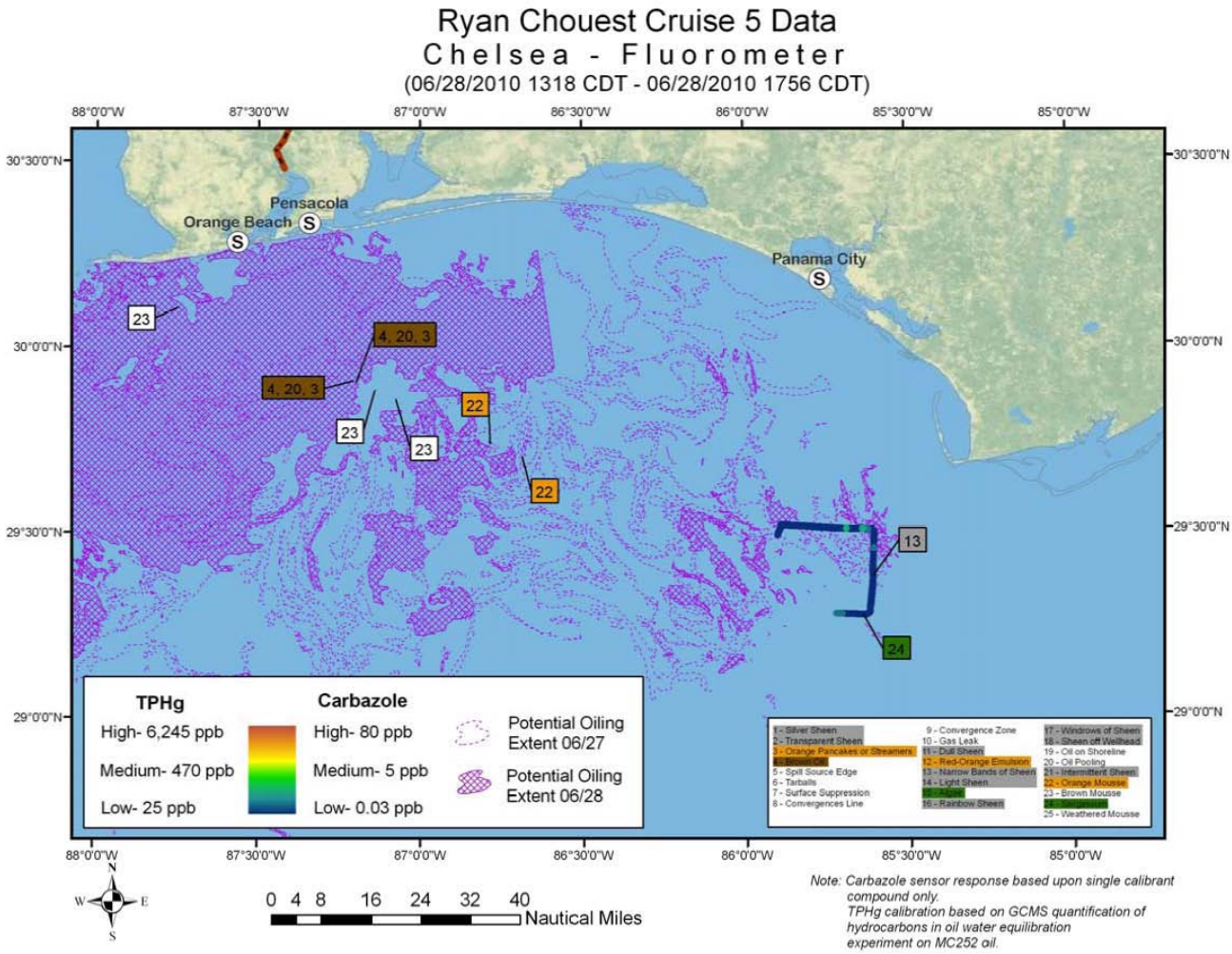

Figure 2: Chelsea fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

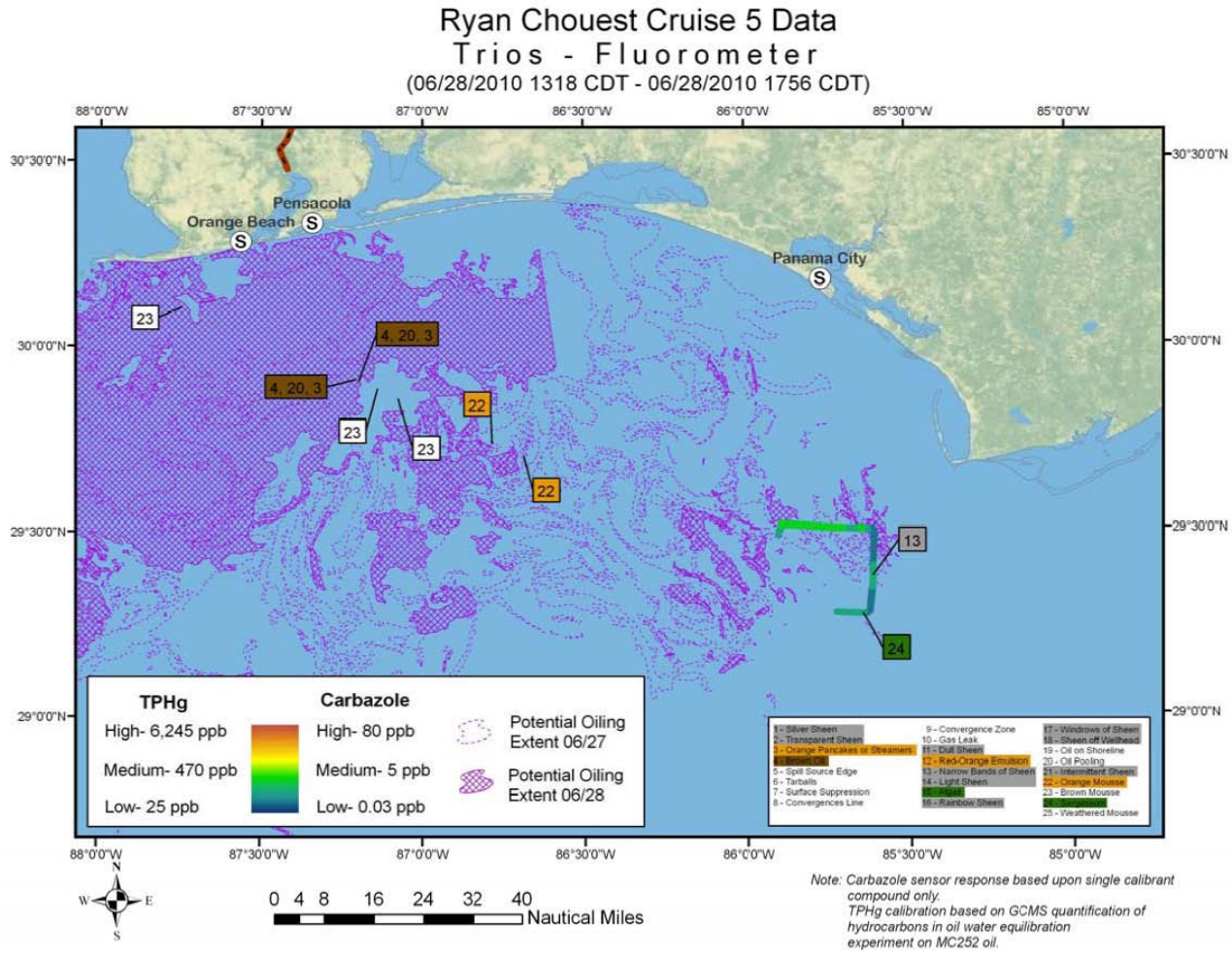

Figure 3: Trios fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

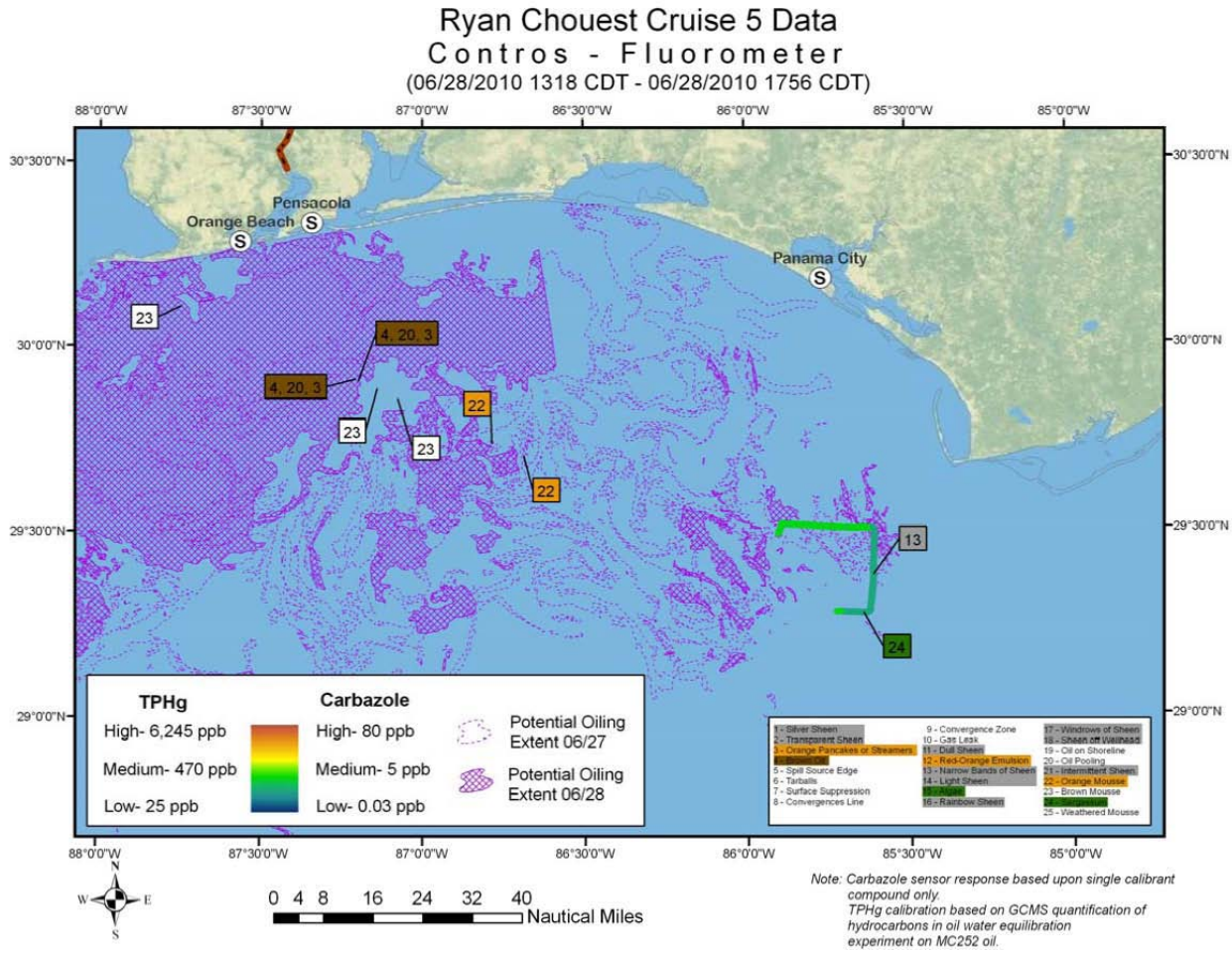

Figure 4: Contros fluorometer results plotted with location on cruise 5 track. Breaks in data occur when either data quality is poor or the systems were turned off due to pump problems.

Problems/Operational Issues:

The two submersible pumps have been repaired, and one passed the initial testing. Both pumps are still subject to deployment testing. A back up pump has been ordered and is supposed to get delivered tomorrow. The new office contained was loaded and the plans to fix the jib crane wheel blocks were given to machinists. The relief crew has also arrived and will stay onboard tonight. The Stratos communications technician will arrive at 0600 hours to set up phone/Ethernet ports in the new container to increase the bandwidth of the internet communications.

Planned activities for next 24 hours:

The Ryan Chouest will remain in port for approximately 24 hours while new equipment is connected, personnel are changed, groceries are delivered and equipment repairs are tested. Weather delays are uncertain at this time, but may be expected if Tropical Storm Alex continues to churn in the southwestern Gulf of Mexico.