

Mayflower Pipeline Incident Response

Post-Construction Sheen Monitoring Monthly Report #8: November 2015

Mayflower, Arkansas

Period: 11/01/2015 through 11/30/2015

Monitoring Days: 11/09/2015 and 11/23/2015

Legend:

Green Line – No Sheen

Pink Circle – Non-Brittle Sheen Location

Yellow Box – September 2015 Additional Organoclay Placement

Observations in Inlet Channel:

- No sheen observed in the Inlet Channel.

Observations in Cove:

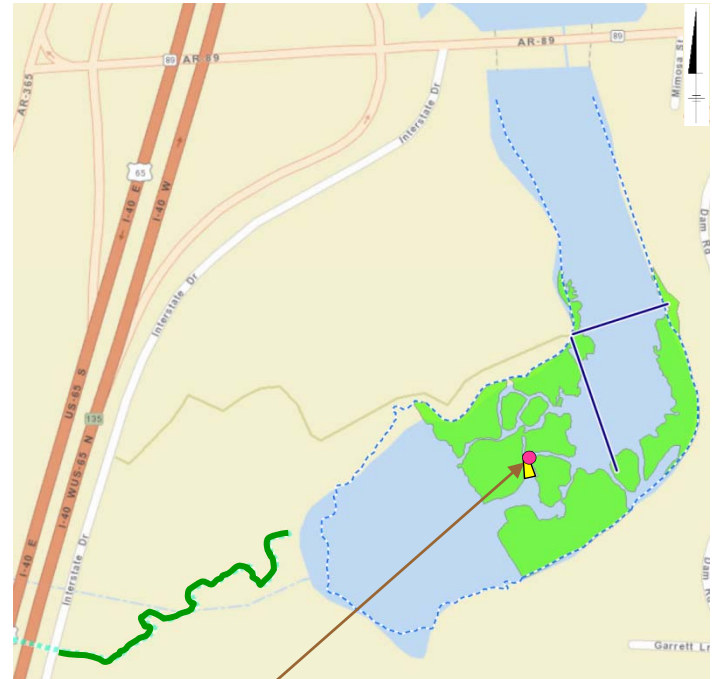
- No sheen observed in Open Water Area and downstream of Heavily Vegetated Area.
- November 23, 2015: Streamers of silver gray sheen observed in Heavily Vegetated Area, within the additional organoclay placement area (covering less than 1% of a 20' x 30' at the downstream end). Sheen did not break when disturbed ("non-brittle")¹. A sheen net sample was collected for laboratory analysis. Laboratory results will be reported in the next monthly report.

Sheen Sampling Results from Previous Monthly Report³:

- The laboratory analysis of sheen net samples collected from Heavily Vegetated Area and downstream of Heavily Vegetated Area on October 28, 2015 indicated a combination of very degraded crude oil from the Pegasus Pipeline and potential background anthropogenic sources along with the potential contributions from the sheen nets.

Path Forward for December 2015:

- Continue biweekly sheen monitoring in Cove.



Cove (Summary of Observations from November 2015)



Silver Gray Sheen Patch/Streamer Observation on 11/23/2015

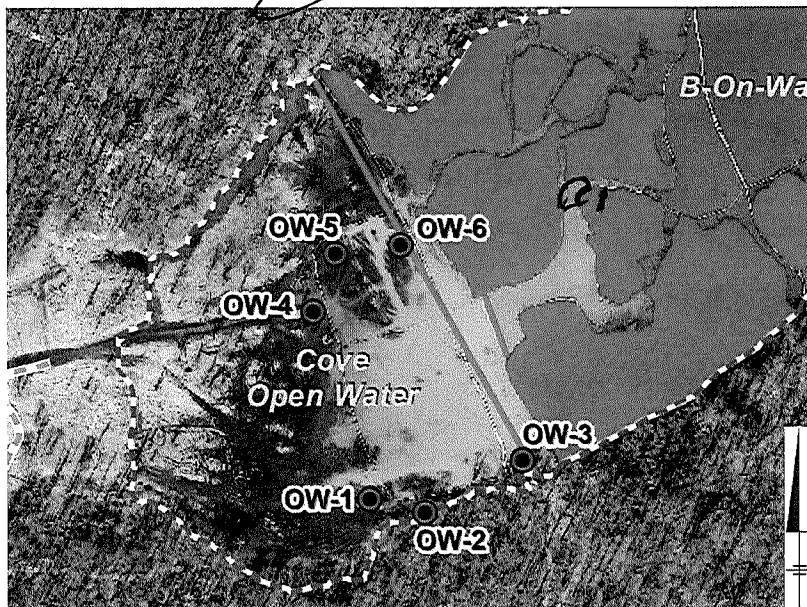
Notes:

- Non-brittle sheens are often related to anthropogenic sources, including petrogenic sources (e.g., petroleum hydrocarbons).
- Brittle sheens are often of natural biogenic origin.
- Laboratory testing is required to distinguish sheen sources (e.g., crude oil, roadway runoff, natural biogenic activity).
- Sheen color (dark/metallic/rainbow/silver gray) and structure (patches/streamers/cover) terminology reference: NOAA 2007. NOAA Open Water Oil Identification Job Aid.

Sheen Observation Form

Personnel: Z. Panos J. Claassen Date: 11/23/15

Wind Conditions: Windy/Light Breeze/Calm Temperature: 35F Sky Conditions: Sup Clouds/Part Sun/Part Clouds



LOCATION: 1 TIME: 0908

Sketch on Figure 1 to show approximate location	
Approximate size (dimensions) <u>20'x30'</u>	
Over what percentage of surface? Trace <1% <input checked="" type="checkbox"/> 1-10% <input type="checkbox"/>	
11-30% <input type="checkbox"/>	31-50% <input type="checkbox"/> 50-70% <input type="checkbox"/> >70% <input type="checkbox"/>
Color of sheen: Dark / Metallic / Rainbow / Silver Gray	
Sheen structure: No structure / Patches / Streamers / Tar Balls / Windrows	
Observations when sheen is disturbed: Breaks Apart/Brittle <input type="checkbox"/> Does not Break/Non-Brittle <input checked="" type="checkbox"/>	
If streamers are present, what is their orientation? <u>NA</u>	
Is sheen blossoming? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
If yes, what is the frequency (per 15 minutes)? <u>NA</u>	
Sheen origination (if noticable)? <u>NA</u>	
Picture taken <u>24, 25, 26</u>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Flow Condition: <u>open water</u>	
Action taken: <u>sample 1</u>	
Notes <u>sample 1D:</u>	
<u>SHN-CRUG-022(NB)112315</u>	

LOCATION:	TIME:
If yes, sketch on Figure 1 to show approximate location	
Approximate size (dimensions)	
Over what percentage of surface? Trace <1% <input type="checkbox"/> 1-10% <input type="checkbox"/>	
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If yes, what is the frequency (per 15 minutes)?	
Sheen origination (if noticable)?	
Flow Condition:	
Picture taken Yes <input type="checkbox"/> No <input type="checkbox"/>	
Action taken:	
Notes	

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