

Sheen Monitoring Report #27

Period: 04/21/2014 through 04/27/2014

Monitoring Days: 04/24/2014*

*Weekly sheen monitoring started on 03/11/2014.

Summary of Rainfall: A qualifying storm is defined as at least 0.25-inch rainfall in 3 hours and at least 72 hours since the previous qualifying storm.

Date	Maximum 3-hr Precipitation	Qualifying Storm
4/21/2014	0.23 inches	No
4/22/2014	0.01 inches	No
4/23/2014	0.00 inches	No
4/24/2014	0.09 inches	No
4/25/2014	0.00 inches	No
4/26/2014	0.00 inches	No
4/27/2014	0.89 inches	Yes**

**Post-rainfall monitoring and removal event will be addressed in next sheen monitoring report.

Mitigation: Suspected petrogenic sheens were removed using absorbent materials.

Observations in Cove Inlet Channel:

- Two covers (no particular structure) of silver gray sheen and one cover of metallic sheen observed. Sheens broke apart when disturbed ("brittle")¹.
- One patch and one patch/streamer of rainbow/silver gray sheen, and one patch/streamer of silver gray sheen observed. Sheens did not break when disturbed ("non-brittle")².

Observations in Cove:

- Two patches of non-brittle² rainbow sheen (one with 0.1- to 0.5-inch wide oil spots) and two patches/streamers of non-brittle² silver gray sheen (one with 0.1- to 0.25-inch wide oil spots) observed.

Path Forward for 04/28/2014 to 05/04/2014:

- Conduct sheen monitoring in Cove.

Notes:

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

Mayflower Pipeline Incident Response

Mayflower, Arkansas

Legend:

Green Line – No Sheen

Aqua Circle – Brittle Sheen Location

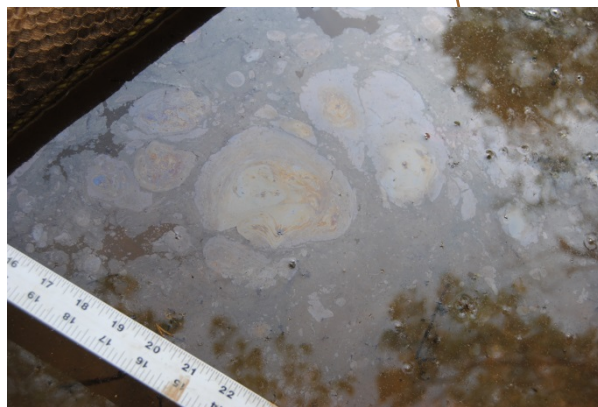
Orange Circle – Non-Brittle Sheen with Oil Spot Location

Pink Circle – Non-Brittle Sheen Location

OW-1 – Shoreline Observation Location



Cove (Summary of Observations from 04/21/2014 through 04/27/2014)



Rainbow Sheen Patches with Oil Spots (0.1- to 0.5-inch Wide) Observation on 04/24/2014