

Sheen Monitoring Report #21

Period: 03/10/2014 through 03/16/2014

Monitoring Days: 03/10/14 and 03/11/2014*

*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?
3/10/2014	0.00 inches	No
3/11/2014	0.00 inches	No
3/12/2014	0.00 inches	No
3/13/2014	0.00 inches	No
3/14/2014	0.00 inches	No
3/15/2014	0.21 inches	No
3/16/2014	0.23 inches	No

Mitigation: Suspected petrogenic sheens were removed using absorbent materials.

Observations in Drainage Ways:

- A-Main
 - Three covers (no particular structure) of silver gray sheens observed. Sheens broke apart when disturbed ("brittle")¹.
- A-365W
 - Seven covers (no particular structure) of brittle¹ silver gray sheens observed.
- A-365E
 - Four covers (no particular structure) of brittle¹ silver gray sheens observed.

Observations in Dawson Cove Inlet Channel:

- Six covers (no particular structure) of brittle¹ silver gray sheens, one cover of brittle¹ metallic/rainbow sheens, and one cover of brittle¹ rainbow/silver gray sheens observed.

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

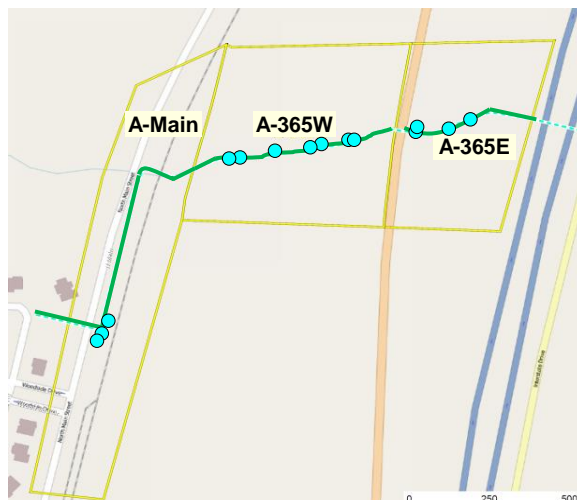
Mayflower, Arkansas

Legend:

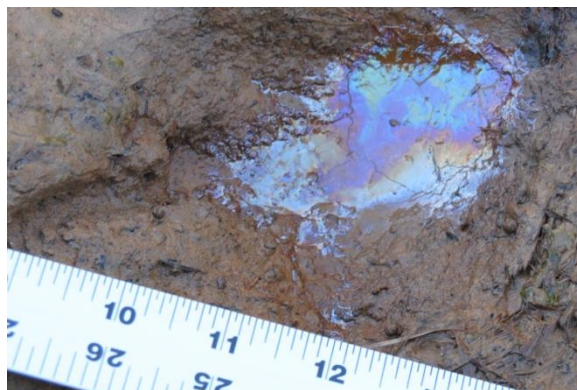
Green Line – No Sheen

Aqua Circle – Brittle Sheen Location

Pink Circle – Non-Brittle Sheen Location



Drainage Ways (Summary of Observations from 03/10/2014 through 03/16/2014)



Metallic/Rainbow Sheen Cover Observation on 03/10/2014



Dawson Cove Inlet Channel (Summary of Observations from 03/10/2014 through 03/16/2014)

Sheen Monitoring Report #21 (continued)

Period: 03/10/2014 through 03/16/2014

Monitoring Days: 03/10/14 and 03/11/2014*

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

Observations in Dawson Cove:

- Three streamers and five patches/streamers (one with 0.25-inch wide oil spots) of silver gray sheens, and one patch/streamer (with 0.1- to 0.5-inch wide oil spots) of rainbow/silver gray sheens observed. Sheens did not break when disturbed ("non-brittle")².



Silver Gray Sheen Streamer Observation on 03/10/2014

Path Forward for 03/17/2014 to 03/23/2014:

- Conduct sheen monitoring in Dawson Cove

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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

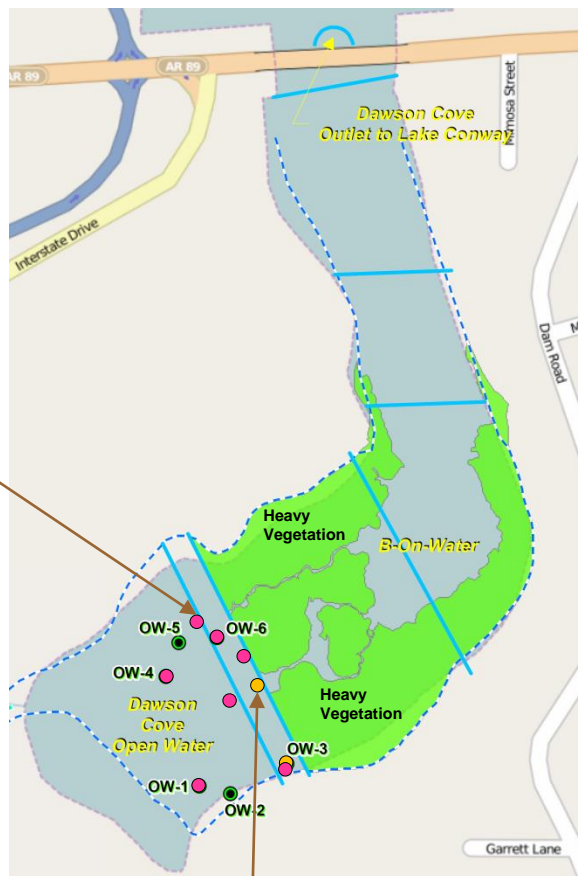
Legend:

Aqua Circle – Brittle Sheen Location

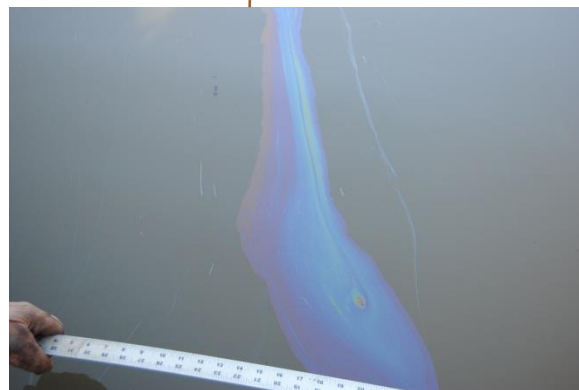
Pink Circle – Non-Brittle Sheen Location

Orange Circle – Non-Brittle Sheen with Oil Spot Location

OW-1 – Shoreline Observation Location



Dawson Cove (Summary of Observations from 03/10/2014 through 03/16/2014)



Rainbow/Silver Gray Sheen Patch/Streamer with Oil Spots (0.1- to 0.5-inch wide) Observation on 03/11/2014