

Sheen Monitoring Report #19

Mayflower Pipeline Incident Response

Mayflower, Arkansas

Monitoring Period: Daily from 02/24/2014 through 03/02/2014

Mitigation: Suspected petrogenic sheens were removed using absorbent materials.

Observations in Drainage Ways:

- A-Main
 - Fourteen covers (no particular structure) and one cover/patch of silver gray sheens observed. Sheens broke apart when disturbed ("brittle")¹.
- A-365W
 - Five covers (no particular structure) of brittle¹ silver gray and one cover of brittle¹ rainbow/silver gray sheens observed.
 - One patch/streamer of silver gray sheens observed. Sheens did not break when disturbed ("non-brittle")².
- A-365E
 - Fifteen covers (no particular structure) and two covers/patches of brittle¹ silver gray sheens; four covers of brittle¹ rainbow/silver gray sheens; one cover of brittle¹ metallic sheens; and one cover of brittle¹ metallic/silver gray sheens observed.

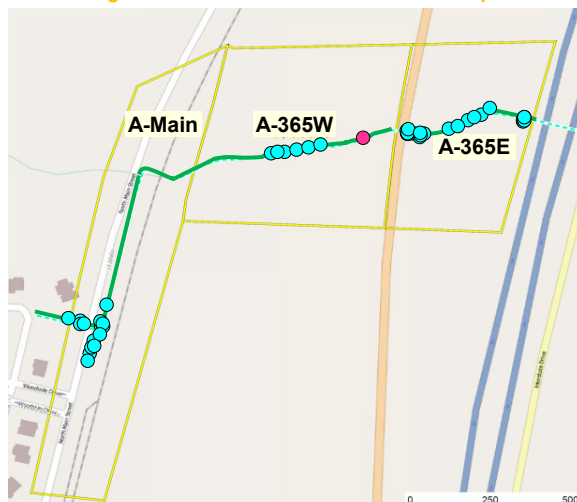
Legend:

Green Line – No Sheen

Aqua Circle – Brittle Sheen Location

Pink Circle – Non-Brittle Sheen Location

Orange Circle – Non-Brittle Sheen with Oil Spot Location



Drainage Ways (Summary of Observations from 02/24/2014 through 03/02/2014)

Observations in Dawson Cove Inlet Channel:

- Twelve covers (no particular structure) and one streamer of brittle¹ silver gray sheens; seven covers of brittle¹ rainbow/silver gray sheens; one cover of brittle¹ rainbow sheens; and one cover of brittle¹ metallic/silver gray sheens observed.
- One cover (no particular structure), three streamers, two patches/streamers, and two patches (one with 0.5-inch wide oil spots) of non-brittle² silver gray sheens observed.



Silver Gray Sheen Patch with Oil Spots (0.5-inch wide) Observation on 03/02/2014



Dawson Cove Inlet Channel (Summary of Observations from 02/24/2014 through 03/02/2014)

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.

Sheen Monitoring Report #19 (continued)

Mayflower, Arkansas

Monitoring Period: Daily from 02/24/2014 through 03/02/2014

Observations in Dawson Cove:

- Twelve covers (no particular structure) and one patch/cover of brittle¹ silver gray sheens observed.
- Five patches/streamers (three with 0.25-inch wide oil spots), one patch, and two streamers (with 0.1- to 2-inch wide oil spots) of non-brittle² rainbow/silver gray sheens; three streamers (with 0.25-inch wide oil spots), one patch, and four patches/streamers of non-brittle² silver gray sheens; and one patch/streamer of non-brittle² metallic/rainbow/silver gray sheens (with 0.5-inch wide oil spots) observed.
- One patch of brittle¹ and non-brittle² silver gray sheens observed (shown as non-brittle² on figure).



Silver Gray Sheen Cover Observation on 02/25/2014

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 02/24/2014 through 03/02/2014)

Path Forward for 03/03/2014 to 03/09/2014:

- Continue sheen monitoring in all areas.

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.



Rainbow/Silver Gray Sheen Streamer with Oil Spots (0.1- to 0.2-inch Wide) Observation on 02/28/2014