

## Sheen Monitoring Report #17

# Mayflower Pipeline Incident Response

## Mayflower, Arkansas

**Monitoring Period:** Daily from 02/10/2014 through 02/16/2014

**Mitigation:** Suspected petrogenic sheens were removed using absorbent materials.

### Observations in Drainage Ways:

- A-Main
  - Seven covers (no particular structure) and three patches of silver gray sheens; and one cover/patch of metallic/silver gray sheens observed. Sheens broke apart when disturbed ("brittle")<sup>1</sup>.
  - One patch of silver gray sheens observed. Sheens did not break when disturbed ("non-brittle")<sup>2</sup>.
- A-365W
  - One cover (no particular structure) of brittle<sup>1</sup> metallic/silver gray sheens; four covers and two patches of brittle<sup>1</sup> silver gray sheens; and one patch of brittle<sup>1</sup> rainbow/silver gray sheens observed.
  - One patch of brittle<sup>1</sup> and non-brittle<sup>2</sup> silver gray sheens observed (shown as non-brittle<sup>2</sup> on figure).
- A-365E
  - Two covers (no particular structure) and one patch of brittle<sup>1</sup> metallic sheens; eight covers and one patch of brittle<sup>1</sup> silver gray sheens; and one patch of brittle<sup>1</sup> rainbow/silver gray sheens observed.
  - One cover (no particular structure) of non-brittle<sup>2</sup> silver gray sheens observed.
  - One cover (no particular structure) of brittle<sup>1</sup> and non-brittle<sup>2</sup> silver gray sheens observed (shown as non-brittle<sup>2</sup> on figure).

### Observations in Dawson Cove Inlet Channel:

- Fourteen covers (no particular structure) and one cover/patch of brittle<sup>1</sup> silver gray sheens; two covers of brittle<sup>1</sup> metallic/silver gray sheens; one cover of brittle<sup>1</sup> metallic/rainbow sheens; two covers of brittle<sup>1</sup> rainbow/silver gray sheens; and one cover of brittle<sup>1</sup> metallic sheens observed.
- One cover (no particular structure) of brittle<sup>1</sup> and non-brittle<sup>2</sup> silver gray sheens observed (shown as non-brittle<sup>2</sup> on figure).

**Notes:**

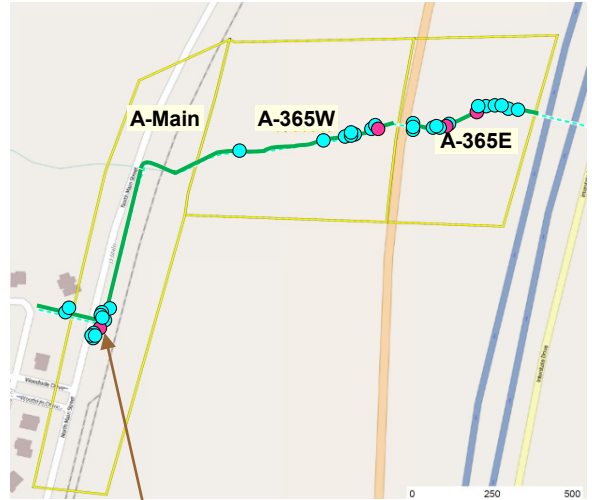
1. Brittle sheens are often of natural biogenic origin.
2. Non-brittle sheens are often related to anthropogenic sources, including petrogenic sources (e.g., petroleum hydrocarbons).
3. Laboratory testing is required to distinguish sheen sources (e.g., crude oil, roadway runoff, natural biologic activity).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

**Legend:**

Green Line – No Sheen

Aqua Circle – Brittle Sheen Location

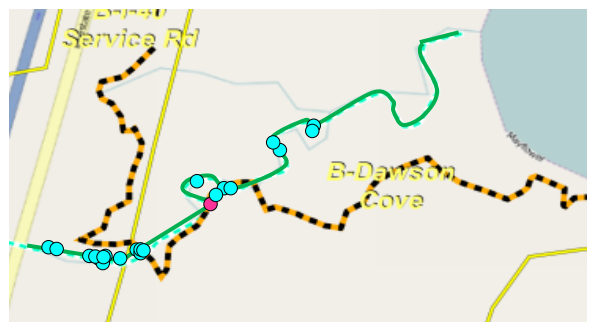
Pink Circle – Non-Brittle Sheen Location



**Drainage Ways (Summary of Observations from 02/10/2014 through 02/16/2014)**



**Silver Gray Sheen Patch Observation on 02/12/2014**



**Dawson Cove Inlet Channel (Summary of Observations from 02/10/2014 through 02/16/2014)**

## Sheen Monitoring Report #17 (continued)

### Mayflower, Arkansas

**Monitoring Period:** Daily from 02/10/2014 through 02/16/2014

#### Observations in Dawson Cove:

- One cover (no particular structure) of brittle<sup>1</sup> silver gray sheens observed.
- Two patches/streamers (with 0.25- to 0.5-inch wide oil spots), three streamers (with 0.1- to 1-inch wide oil spots), and one patch (with 0.5-inch wide oil spot) of non-brittle<sup>2</sup> rainbow/silver gray sheens; and two patches (with 0.05- to 0.25-inch wide oil spots), two streamers (one with 0.1- to 0.25-inch wide oil spots), three patches/streamers (two with 0.1- to 0.25-inch wide oil spots); and one cover (no particular structure) of non-brittle<sup>2</sup> silver gray sheens observed.



**Rainbow/Silver Gray Sheen Streamer with Oil Spots (0.1- to 1-inch Wide) Observation on 02/13/2014**

#### Legend:

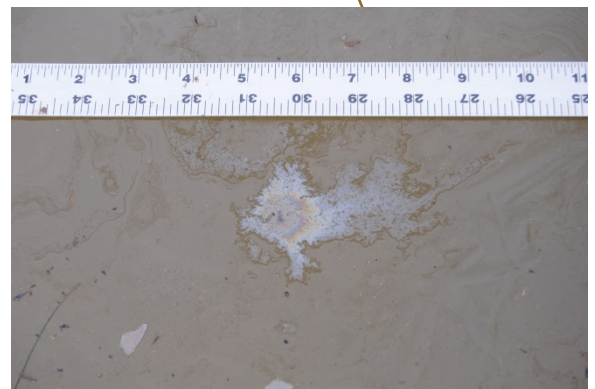
- Aqua Circle – Brittle Sheen Location
- Pink Circle – Non-Brittle Sheen Location
- Orange Circle – Non-Brittle Sheen with Oil Spot Location
- OW-1 – Shoreline Observation Location



**Dawson Cove (Summary of Observations from 02/10/2014 through 02/16/2014)**

#### Path Forward for 02/17/2014 to 02/23/2014:

- Continue sheen monitoring in all areas.



**Rainbow/Silver Gray Sheen Streamer with Oil Spots (0.25- to 1-inch Wide) Observation on 02/12/2014**

#### 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.