

Post-Construction Sheen Monitoring Monthly Report #6: September 2015

Period: 09/01/2015 through 09/30/2015

Monitoring Days: 09/01/2015, 09/15/2015, and 09/28/2015

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.
- September 1, 2015: One patch of silver gray sheen observed in Heavily Vegetated Area. Sheen did not break when disturbed ("non-brittle")¹. A sheen sample was collected for laboratory analysis.
- September 1, 2015: One patch of silver gray sheen observed in Heavily Vegetated Area. Sheen broke apart when disturbed ("brittle")².
- September 15, 2015: One cover (no particular structure) of brittle² silver gray sheen observed in Heavily Vegetated Area.

Mitigation:

- Non-brittle sheens were removed by sampling.
- Additional organoclay placement was completed within a small portion of Heavily Vegetated Area on September 15 and 16, 2015.

Sheen Sampling Results³:

 The laboratory analysis of sheen net sample collected from Heavily Vegetated Area on September 1, 2015 indicated that the sheen resembles crude oil from the Pegasus Pipeline.

Path Forward for October 2015:

Continue biweekly sheen monitoring in Cove.

09.01.2015 11:21

Silver Gray Sheen Patch Observation on 09/01/2015

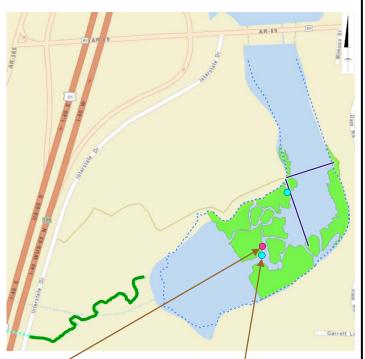
Mayflower Pipeline Incident Response

Mayflower, Arkansas

Legend:

Green Line - No Sheen

Aqua Circle – Brittle Sheen Location
Pink Circle – Non-Brittle Sheen Location



Cove (Summary of Observations from September 2015)



Silver Gray Sheen Cover Observation on 09/15/2015

Notes:

- 1. Non-brittle sheens are often related to anthropogenic sources, including petrogenic sources (e.g., petroleum hydrocarbons).
- 2. Brittle sheens are often of natural biogenic origin.
- 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.

Personnel: ZML State Date: State Conditions WindyLight Breeze Camp Temperature: Stay Conditions Supplicates Part SunPart Clouds LOCATION:	Sheen Observation Form	
COATION: TIME:	Personnel: ZAY JRC Date: 9/1/20/5	
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Sheen origination (if noticable)? Flow Condition: Flow Condit	Colve	If yes, what is the frequency (per 15 miputes)?
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COCATION: TIME: COCATION:		Flow Condition:
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Action taken: Action taken:	Picture taken 4 5 Yes No	Picture taken Yes No No
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Notes N 34 37 30.0 Notes	Notes K) 34°57'58.82"	Notes
W -92° 24' 54. 39"	W -92 - 24' 54. 39"	

Sheen Observation Form Personnel: ZAP JRC Date: 9/1/2015	
Wind Conditions: Windy/Light Breeze/Calm Temperature: 90 F Sky Conditions: Sunic fouds/	Part Sun/Part Clouds
	LOCATION: TIME:
	If yes, sketch on Figure 1 to show approximate location
	Approximate size (dimensions)
	Over what percentage of surface? Trace <1%
	11-30% 🗍 31-50% 🗍 50-70% 🗍 >78% 🗍
	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 Does not Break/Non-Brittle
	If streamers are present, what is their orientation?
	Is sheen blossoming? Yes No
	If yes, what is the frequency (per 15 minutes)?
	Sheen origination (if noticable)?
Bton-Water 🚄 👪	Flow Condition:
	Picture taken Yes No
	Action taken:
	Notes
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Sketch on Figure 1 to show approximate location	If yes, sketch on Figure 1 to show approximate location
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Over what percentage of surface? Trace <1% 1-10%	Over what percentage of surface? Trace <1% 1-10%
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Color of sheen: Dark / Metallic / Rainbow / Silver Gray	Color of sheen: Dark / Metallic / Rainbow / Silver Gray
Sheen structure: No structure Patches / Streamers / Tar Balls / Windrows	Sheen structure: No structure / Patches / Streamers / Tar Balls / Windrows
Observations when sheen is disturbed: Breaks Apart/Brittle Does not Break/Non-Brittle	Observations when sheen is disturbed: Breaks Apart/Brittle Does not Break/Non-Brittle
If streamers are present, what is their orientation?	If streamers are present, what is their orientation?
Is sheen blossoming? Yes No No	Is sheen blossoming?
If yes, what is the frequency (per 15 minutes)?	If yes, what is the frequency (per 15 minutes)?
Sheen origination (if noticable)?	Sheen origination (if noticable)?
Picture taken /, Z, 3 Yes No	Picture taken Yes No No
Flow Condition: Open water	Flow Condition:
Action taken: AQL	Action taken:
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Sheen Observation Form L. Paule 5 Date: 7/15/15

EliCalm Temperature: 70-80 Sky Conditions: Sun/Clouds/Part Sun/Part Clouds Personnel: Z. Pour T Wind Conditions: Windy/Light Breeze/Calm LOCATION: TIME: If yes, sketch on Figure 1 to show approximate location B-On-Wa Approximate size (dimensions) 1-10% Over what percentage of surface? Trace <1% 31-50% 50-70% >70% 11-30% Color of sheen: Dark / Metallic / Rainbow / Silver Gray OW-5 **OW-6** Sheen structure: No structure / Patches / Streamers / Tar Balls / Windrows Observations when sheen is disturbed: Breaks Apart/Britle Does not Break/Non-Brittle If streamers are present, what is their orientation? No 🔲 Is sheen blossoming? Yes 🗂 If yes, what is the frequency (per 15 prinutes)? Sheen origination (if noticable)? Flow Condition: OW-3 Yes 🗀 No 🔲 Picture taken Action taken: Notes TIME: 1027 LOCATION: 1 LOCATION: TIME: Sketch on Figure 1 to show approximate location If yes, sketch on Figure 1 to show approximate location Approximate size (dimensions) 🇳 Approximate size (dimensions) Over what percentage of surface? 1-10% Trace <1% Trace <1% Over what percentage of surface? 50-70% >70% 31-50% 50-70% 11-30% 31-50% 11-30% Color of sheen: Dark / Metallic / Rainbow Kilver Grav Color of sheen: Dark / Metallic / Rainbow / Silver Gray Sheen structure: No structure / Patches / Streamers / Tar Balls / Windrows Sheen structure: No structure / Patches / Streamers / Tar Balls / Windrows Observations when sheen is disturbed: Breaks Apart/Brittle Does not Break/Non-Brittle Observations when sheen is disturbed: Breaks Apart/Brittle Does not Break/Non-Brittle If streamers are present, what is their orientation? 🗚 🖊 🗛 If streamers are present, what is their orientation? No 🔲 Yes 🗔 Is sheen blossoming? Is sheen blossoming? If yes, what is the frequency (per 15 minutes)? If yes, what is the frequency (per 15 minutes)? Sheen origination (if noticable)? Sheen origination (if noticable)? Yes 🕅 No 🗔 Yes No 🗍 Picture taken Picture taken Flow Condition: Flow Condition: Action taken: Action taken: Aou

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