



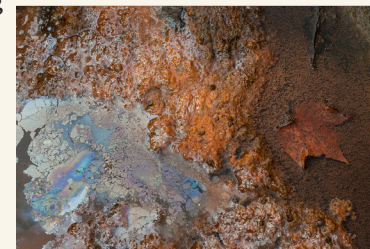
# Decoding Nature's Illusions: Identifying Natural vs Man-Made Water Phenomena

Walking through a parking lot after a rainstorm, it's not uncommon to see iridescent or rainbow-like puddles. This appearance can seem almost extraterrestrial, transforming a bleak parking lot into a cascade of colors. Experience with such occurrences teaches us that this iridescent sheen is caused by a petroleum film sitting on top of the water. We know this film comes from the vehicles that briefly visit the parking lot.

Often, we take our knowledge of oily sheens and mistakenly make broad assumptions about the world around us. Many people are unaware that there are sheens that don't originate from petroleum but occur naturally.

Organic sheens are created by decomposing plant and animal matter in slow-moving or stagnant surface waters. They resemble oily sheens due to their iridescence, but they can be distinguished by a few key qualities. If you stir the film with a stick or other device, an organic sheen breaks apart into irregular-shaped pieces that resist reforming. In contrast, a petroleum sheen will return to one piece after the swirling stops.

Another natural phenomenon people often mistake for something unnatural is the presence of neon-orange, fuzzy slime found in slow-moving or stagnant water. This is caused by microscopic organisms that combine iron and oxygen to form deposits of "rust." These organisms, called iron-oxidizing bacteria, break down iron in a natural and non-toxic process, posing no threat to the environment or human health. This phenomenon typically occurs in areas with water during higher stream flows but becomes isolated when water levels drop.



**"Iron-oxidizing bacteria create orange, rust-like slime in slow-moving water, a natural and harmless process."**

The final unnatural-looking phenomenon commonly seen in surface water is foam. Anyone who has accidentally added too much laundry detergent to a washing machine knows the sight of white, billowing foam. That foam is clean, free of debris, and often has bubbles that float away. However, natural foam found in streams and rivers is more brown in color, has bits of debris on top, and doesn't produce bubbles that break away.

One way to test the foam is by taking a half to one-liter sample, sealing it, and shaking it vigorously for 30 seconds. Natural foam will dissipate after the "shake test," while detergent foam will increase. It's easy to assume any foam in the water is caused by a failing septic system upstream, but this is often not the case.

Whenever you see or smell something unusual in a surface water body, we encourage you to take pictures, write notes about what you observe, and notify the appropriate authority. Refer to the contact list pictured to the left for guidance based on your location and the nature of what you observe.

We hope the information in this article helps you understand some natural phenomena that might look unnatural. With this knowledge, you can better assess whether an issue exists in the body of water and decide your next steps. If you observe one of the phenomena mentioned above, keep in mind that these can be natural occurrences with no negative impact on the environment. However, always remember that surface water may not be safe for consumption, and the CCWSA and Ga EPD do not recommend ingesting untreated surface water.

## Who to call when you spot a problem

	Stormwater	Sewer/Wastewater
	Cherokee County Stormwater 678-493-6060 <a href="https://www.cherokee.com/Stormwater-Management/report-a-complaint/">https://www.cherokee.com/Stormwater-Management/report-a-complaint/</a>	(770) 479-1813
	770-720-7674 <a href="mailto:tellus@cantonga.gov">tellus@cantonga.gov</a>	M-F 8-5:770-704-1502 After hours:770-479-2392
	770-592-6000 <a href="mailto:requests@woodstockga.gov">requests@woodstockga.gov</a>	During business hours : 770-592-6006 After business hours : 770-926-7871
	(770)345-5533 <a href="https://hollyspringsga.us/citizen_request_center/index.php">https://hollyspringsga.us/citizen_request_center/index.php</a>	(770) 479-1813
	M - F 9:00 AM - 5:00 PM (770) 735-2123 After hours: (470) 505-1281 / (770) 533-1112 <a href="https://cityofballground.com/report-concern/">https://cityofballground.com/report-concern/</a>	

Another distinguishing feature is the smell. Oily sheens usually smell like gasoline, diesel, or other petroleum products, while organic sheens tend to have no odor or smell like potting soil.