Oil on the Gulf's War Waterline: What the Spill Record Proves—and What It Does Not



A tranquil ocean scene with rippling waves under a vast blue sky, capturing the essence of open sea beauty. · Photo: Daniel P · License: Pexels license

On October 30, the UAE said the oil leaking from GEM NO. 2 had stopped. Yet the same official statement described an unfinished operation: teams were repairing the tanker, assessing its structure, monitoring the sea and cleaning polluted coastal areas. Source control had been achieved; resolution had not. (wam.ae)

That distinction runs through the Gulf's wartime pollution record. Some incidents have clear vessel damage, petroleum releases and oil on shore. Others are satellite-observed anomalies, disputed reports or pollution whose source has not been identified. The register can document consequences more confidently than it can assign causes or calculate scale.

This report asks what the public record through November 4 establishes about oil pollution and tanker damage, which cases can be tied to particular vessels or attacks, and what remains an unquantified risk. Its strongest conclusion is a combination of demonstrated coastal harm, unresolved attribution and continuing exposure from damaged vessels carrying substantial cargo.

Oil Reached the Shore, but the War Record Is Uneven

On October 30, UAE authorities said no new oil was leaking from GEM NO. 2. That did not mean the incident was over. Coastal surveying, cleaning and remediation continued; the slick remained concentrated off Umm Al Quwain and extended towards Ras Al Khaimah, Ajman and Sharjah; and technical teams were still assessing the tanker's hull. The official account captures the central finding of this report: containment can stop a source without resolving the coastal damage, the vessel risk or the final cost. (wam.ae)

Focal Post's inventory contains 13 entries from February 28 through November 4. It includes confirmed petroleum releases, oil documented on shore, suspected slicks visible in satellite imagery, disputed observations and vessels damaged without a confirmed release. The record establishes that petroleum pollution reached coastlines in Oman, the UAE, Iran and Pakistan. It does not establish that every entry was caused by hostilities, or provide a defensible total for the volume released.

Oman's Environment Authority said oil from Caroline Bezengi reached Ras Madrakah, affecting up to 40 kilometres of coastline; authorities also estimated the slick at nearly 400 square kilometres. In Pakistan, officials documented crude oil across about 20 kilometres of Gwadar's western coast, but the source remained under investigation. On Iran's Qeshm Island, verified imagery and local official accounts showed oil on beaches and clean-up activity, while the IMO continued to classify pollution from the nearby damaged Minoan Pioneer as unconfirmed. (aljazeera.com)

A University of South Florida research team separately reported that the weighted area covered by Gulf oil slicks in March 2026 was roughly four times the March 2025 level. The work used radar, optical and thermal satellite sensors, but the underlying paper was still undergoing peer review. It supports a finding of an enlarged surface-oil footprint—not a calculation of oil volume or proof that each detected slick came from a wartime attack. (usf.edu)

> The record proves shoreline harm. It does not prove one causal chain across all 13 entries.

> **Evidence note**
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> The inventory's 13 entries have different evidence thresholds; they are not 13 confirmed war-caused spills.

Key numbers

13

Mixed-confidence inventory entries

The February 28–November 4 inventory includes confirmed releases, coastal pollution, suspected slicks, disputes and non-spill vessel incidents; it is not a count of confirmed war-caused spills.

125

Dated IMO attack figure reported on November 2

The National's article body reported 125 while its summary said 123. A later IMO list recorded 131 as of November 9, so the November 2 number is an attributed snapshot, not a fixed cutoff total. (thenationalnews.com)

About 800,000 barrels

Estimated cargo aboard Caroline Bezengi

Cargo aboard is not the quantity released. (aljazeera.com)

About 390 km²

Omani estimate of Caroline Bezengi's slick

A surface-area estimate reported in August; it does not measure oil volume. (aljazeera.com)

About 400 km²

Slick possibly associated with Riesco

Greenpeace's September 10 estimate; the vessel attribution remained unresolved. (arabnews.com)

About 70%

Saudi drinking water supplied by desalination

Associated Press estimate, illustrating exposure rather than documented spill impact. (apnews.com)

Three Tanker Cases Define the High-End Risk

Caroline Bezengi presents the clearest combination of demonstrated shoreline damage and residual vessel risk. The tanker was disabled in June and later grounded near Oman's Al Hallaniyat Islands. On August 13, Al Jazeera reported the Omani authority's finding that oil had reached Ras Madrakah and its estimate of a slick measuring nearly 400 square kilometres. The ship was reported to be carrying about 800,000 barrels of crude. That figure describes cargo aboard, not oil released. (ea.gov.om)

The later status was more stable but not final. Analysis published by The Maritime Executive on October 28 said satellite imagery from October 26 no longer showed even slight traces of leakage. It also reported that an offtake tanker had not yet arrived and that oil remained aboard. The article judged that the wreck was likely to remain on the rocks even after unloading. These were reported assessments, not an official declaration that salvage or cargo removal had been completed. (maritime-executive.com)

GEM NO. 2 was struck on October 9 and is listed by the IMO as a confirmed damaged vessel with pollution reported. Reuters reporting described it as fully laden, but the examined sources do not establish how much crude escaped. The UAE's October 30 statement said the spill had stopped at its source and that pollution concentrations had declined significantly, while hull assessment, monitoring and remediation continued. The case therefore demonstrates a successful source-control step without evidence of complete environmental recovery or a secured long-term vessel outcome. (imo.org)

The Riesco case sits at the opposite end of the attribution scale. Greenpeace said a slick on the eastern side of the Strait of Hormuz expanded from about 200 square kilometres on September 9 to 400 square kilometres on September 10. The organisation identified Riesco only as a possible source because its last detected location was near the apparent origin and its signal had disappeared. Days later, Greenpeace reported five large slicks and described a sunken, continuously leaking Riesco as one possible scenario. Slick area measures visible surface spread; it does not establish how much oil entered the water. (arabnews.com)

> Cargo aboard, slick area and oil released are different measures.

> **Evidence note**
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> No available source establishes the total volume released from any of the three cases.

When the Source Is Unclear, Responsibility Fractures

The attribution problem is not uniform. Gwadar had confirmed crude oil on shore but no confirmed source. Kharg had a satellite-observed slick, an official denial of a facility leak and a competing explanation involving tanker wastewater. Qeshm had confirmed coastal pollution and a foreign bulk

carrier identified by Iran as the preliminary source, but the connection to Minoan Pioneer remained an analyst assessment that the IMO did not confirm. These are different evidentiary states, not variations of the same finding. (dawn.com)

Even the overall attack count changes with reporting and validation. The National's November 2 article carried a summary figure of 123 ships but reported an IMO count of 125 in the body. A later official IMO list, updated November 9, recorded 131 confirmed incidents, including two dated after this report's November 4 cutoff and potentially retrospectively validated earlier events. It is therefore useful for checking vessel identities and classifications, but not as a clean replacement for the cutoff count. (thenationalnews.com)

Legal uncertainty compounds the operational problem. The 1992 Civil Liability Convention allows a tanker owner to claim exemption when pollution damage resulted from war or hostilities. IOPC Funds guidance says the 1992 Fund does not pay when pollution resulted from an act of war or hostilities, or when claimants cannot prove that persistent oil came from a qualifying tanker. This can remove the usual treaty-backed compensation route, though it does not rule out every possible claim against other parties under other law. (iopcfunds.org)

> Attribution determines not only blame, but who cleans, who pays and whether treaty compensation applies.

> **Evidence note**
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> The vessel responsible for a slick must often be identified before ordinary liability and compensation mechanisms can operate.

A War-Spill Register Is Not a Causal Ledger

The strongest alternative reading is that the inventory overstates the war's role by grouping confirmed releases with satellite anomalies, disputed classifications and damaged vessels that did not necessarily pollute. Oil was a chronic Gulf pollutant before February 2026. At Kharg Island, imagery analysts described a roughly 45-square-kilometre slick as visually consistent with oil, while Iranian officials denied a terminal leak and attributed the pollution to contaminated wastewater discharged by a foreign tanker. The cause remained unresolved. (investing.com)

The IMO record also supplies direct counterevidence. It classifies GFS Pride as sunk with no pollution, Minoan Pioneer's pollution as unconfirmed and TMO Barakah as damaged without pollution. The Barakah entry conflicts with a later Reuters report quoting its operator as acknowledging a small bunker-fuel release. Such discrepancies do not erase the pollution officially documented in Oman and the UAE, but they show why the 13 entries cannot be treated as 13 equivalent, war-caused oil spills. (imo.org)

The Next Test Is at the Coast—and the Water Intake

The Gulf's geography raises the stakes of every unresolved slick. IUCN assessed that shallow waters and an arid climate promote the long-term persistence of contaminants and make large pollution events potentially transboundary. UNEP warned that major oil fires and spills can produce extensive contamination and that attacks on desalination plants risk catastrophic consequences for communities dependent on them. These are institutional risk assessments, not findings that a specific Saudi intake was affected. (iucn.org)

The examined record contains no confirmed oil pollution on Saudi shores through November 4. It should not be read as proof that no pollution was observed or assessed elsewhere. The exposure is nevertheless material: Associated Press reporting put desalination's share of Saudi drinking water at about 70%. The 1991 Gulf War showed the mechanism by which oil can threaten seawater intakes, as workers deployed booms to protect facilities from a massive slick. Saudi Arabia has since invested in pipelines, storage and other redundancies, according to the AP. (apnews.com)

Preparedness exercises show planning, not guaranteed performance. In April, Saudi Arabia's National Center for Environmental Compliance said a Jazan exercise modelled a hypothetical 35,000-barrel spill with 28 public and private entities. It was conducted on the Red Sea and cannot establish how an actual Gulf spill would be contained. The observable tests now are narrower: removal of Caroline Bezengi's remaining cargo; safe handling of GEM NO. 2; authoritative identification or chemical fingerprinting of suspected slicks; and any documented pollution near sensitive shorelines or seawater intakes. (al-madina.com)

> The next test is not another alarming satellite image; it is whether pollution reaches sensitive shores or water intakes.

> **Evidence note**
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> The examined record contains no confirmed Saudi shoreline spill through November 4; it does not establish what may have been assessed outside that record.

Documented Damage, Unresolved Scale

The supportable judgment is narrower than the most alarming descriptions. Oil reached multiple coastlines during the war, and some damaged vessels released petroleum. Caroline Bezengi and GEM NO. 2 demonstrate that a tanker can stop visibly leaking while cargo, hull integrity and coastal remediation remain unresolved. (wam.ae)

The record does not support adding the 13 entries into a regional spill total, assigning each to a wartime attack or estimating the aggregate volume released. Continuing exposure is real but conditional. Confidence should rise only with completed cargo removal, secured hulls, laboratory source identification, authoritative shoreline assessments and documented effects—if any—on desalination intakes.

Confidence: Moderate: high confidence in documented shoreline pollution and the UAE's dated containment status; lower confidence in causal attribution, released volumes and the final status of damaged vessels.

Methodology

- Focal Post classified the 13 entries by evidence status, separating confirmed releases, confirmed shoreline pollution with an unresolved source, suspected slicks, disputed reports and vessel incidents without an announced spill.
- Open-source checks consulted official UAE, Omani, IMO, UNEP, IUCN and IOPC Funds records, alongside wire, local and satellite-analysis reporting. Reviewing multiple pages from one institution was not treated as independent corroboration.
- The incident inventory remains bounded at November 4, 2026. The IMO list updated on November 9 was used only as a clearly labelled post-cutoff check of vessel names and earlier incident classifications, not to extend the reporting period.
- Cargo aboard, oil released, visible slick area, affected shoreline length and desalination capacity were kept as separate measures. No aggregate release volume or percentage of cargo spilled was calculated.
- The reporting did not include field observation, interviews, laboratory results, raw satellite files or direct access to vessels and response teams. Satellite assessments were therefore attributed to the organisations or analysts that produced them.

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