Driftline — Probabilistic Drift Simulation Report

oil1

Launched by: test test

Organization: TheOrganization

Incident Inputs

- Last Known Position (WGS84): 58.973309°, 10.193253°
- Last Known Time (UTC): 2026-02-10 00:00:00
- Initial Uncertainty Radius: 5000.0 m
- Object Type: Oil spill (GENERIC MEDIUM CRUDE)
- Ensemble Size: 1,001 particles

Key Results

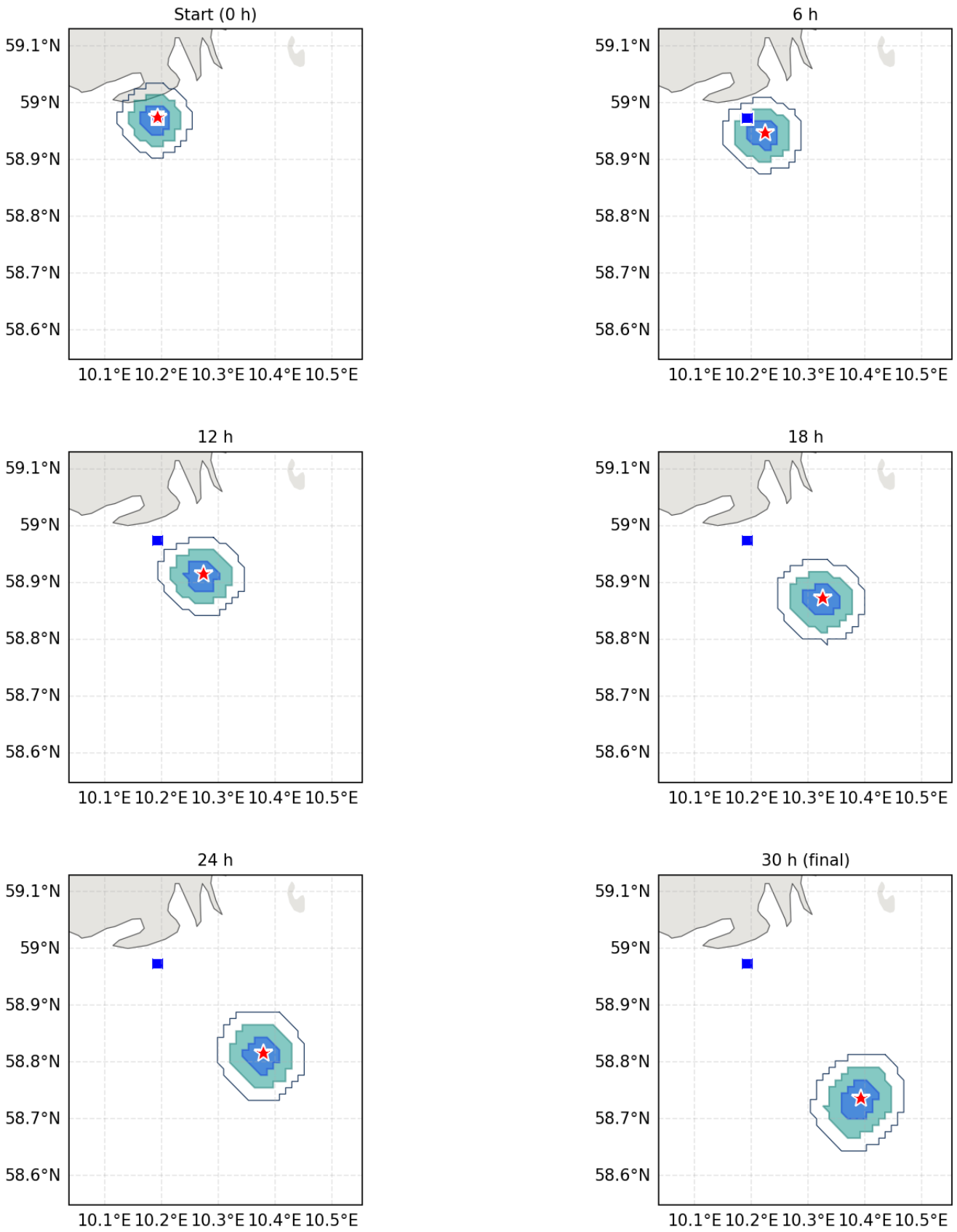
- Most Likely Position (Centroid): 58.735438°, 10.393251°
- Time of Estimate: 2026-02-11 06:00 UTC
- Drift Distance: 28.90 km
- Average Drift Speed: 0.96 km/h
- Mean Drift Direction: 156.4° True

Probability Areas

- 50% Probability Area: 21.26 km²
- 90% Probability Area: 68.99 km²

Operational Note: The 50% contour contains half of modeled outcomes and represents the highest-probability search region.

Probability Map — Start, every 6 h, and Final



Summary by time slice

Time (UTC)	Hours	Centroid Lon	Centroid Lat	50% Area	90% Area	Dist. from LKP	Stranded %
2026-02-10 00:00	0.0h	10.193004°	58.973387°	13.61 km²	40.18 km²	0.02 km	0.0%
2026-02-10 06:00	6.0h	10.224224°	58.947041°	13.72 km²	45.38 km²	3.43 km	0.0%
2026-02-10 12:00	12.0h	10.274523°	58.915124°	15.53 km²	51.02 km²	7.99 km	0.0%
2026-02-10 18:00	18.0h	10.326308°	58.871615°	17.41 km²	56.39 km²	13.68 km	0.0%
2026-02-11 00:00	24.0h	10.380304°	58.815942°	18.33 km²	61.23 km²	20.58 km	0.0%
2026-02-11 06:00	30.0h	10.393251°	58.735438°	21.26 km²	68.99 km²	28.90 km	0.0%

Simulation & Forcing Details

Model Declaration

- Model Engine: OpenDrift — OpenOil v1.14.8
- Numerical Method: Lagrangian particle tracking
- Ensemble Size: 1,001 particles
- Time Step: 60 minutes
- Coastline Interaction: Stranding on land
- Stranding Treatment: Particles marked stranded, excluded from active count

Environmental Forcing Data

- Ocean Currents: From mission forcing (dataset not recorded in report)
- Wind: From mission forcing (dataset not recorded in report)
- Forecast run and temporal resolution: See mission execution time

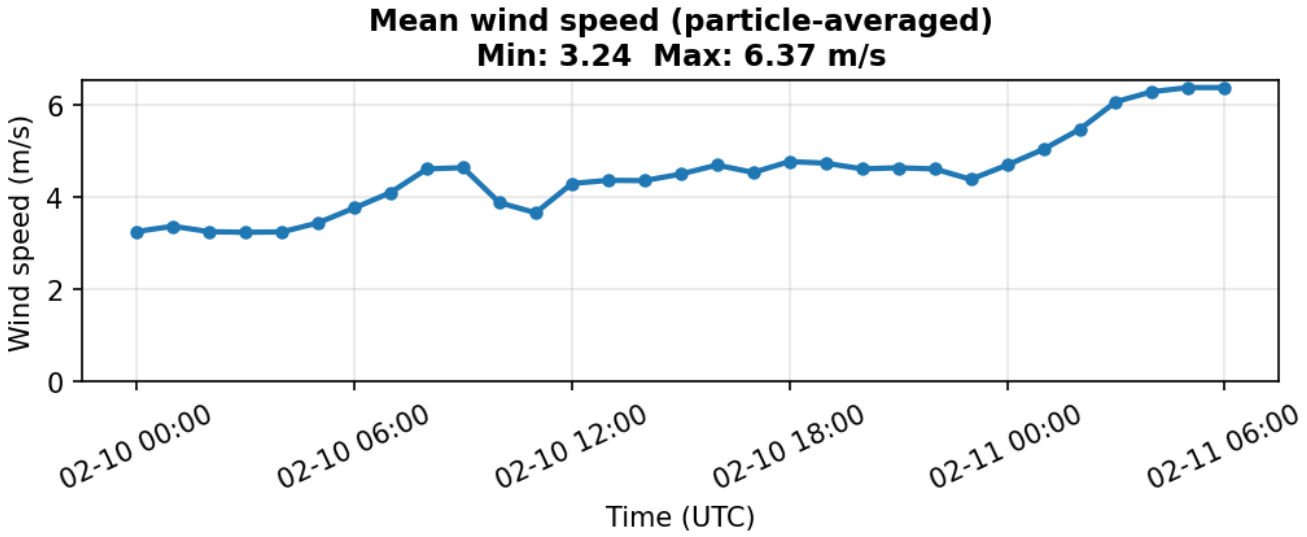
Simulation Summary

- Active Particles: 1,001
- Stranded Particles: 0 (0.0%)
- Spatial Spread (Std Dev): 2.05 km
- Drift Direction: 156.4° True

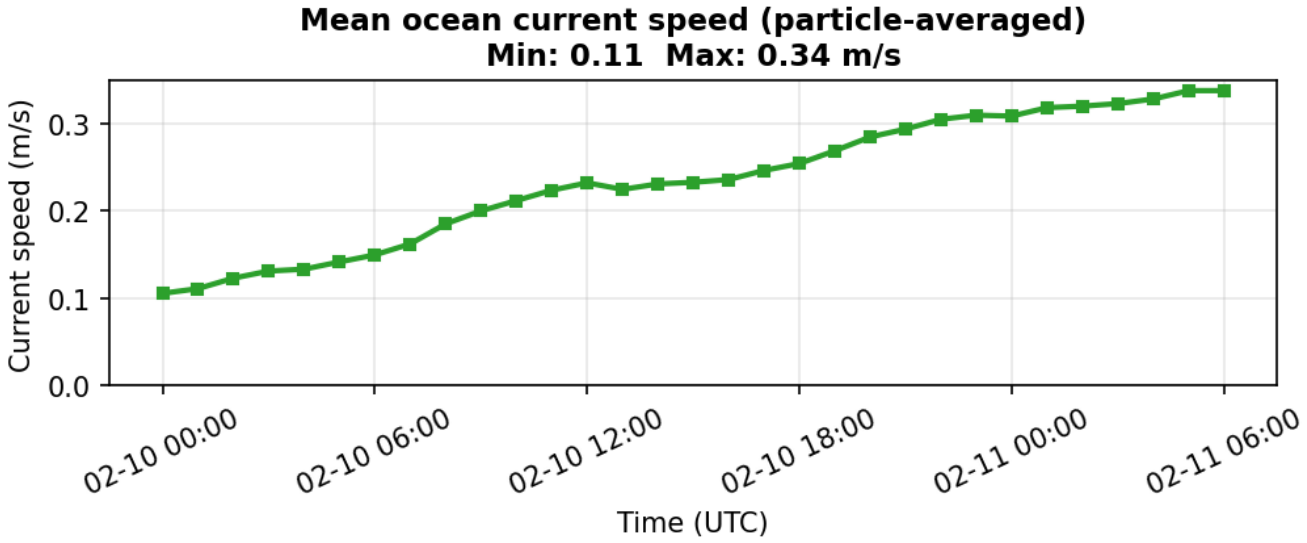
Environmental Forcing During Simulation

Time series of wind speed, ocean current speed and significant wave height averaged over particles at each time step.

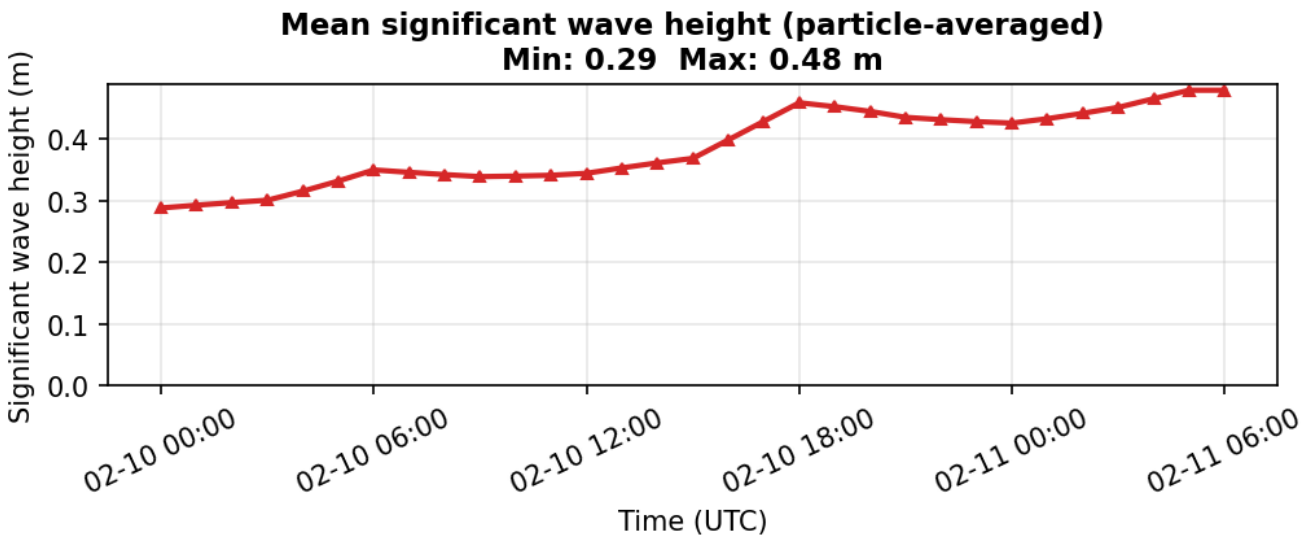
Mean wind speed



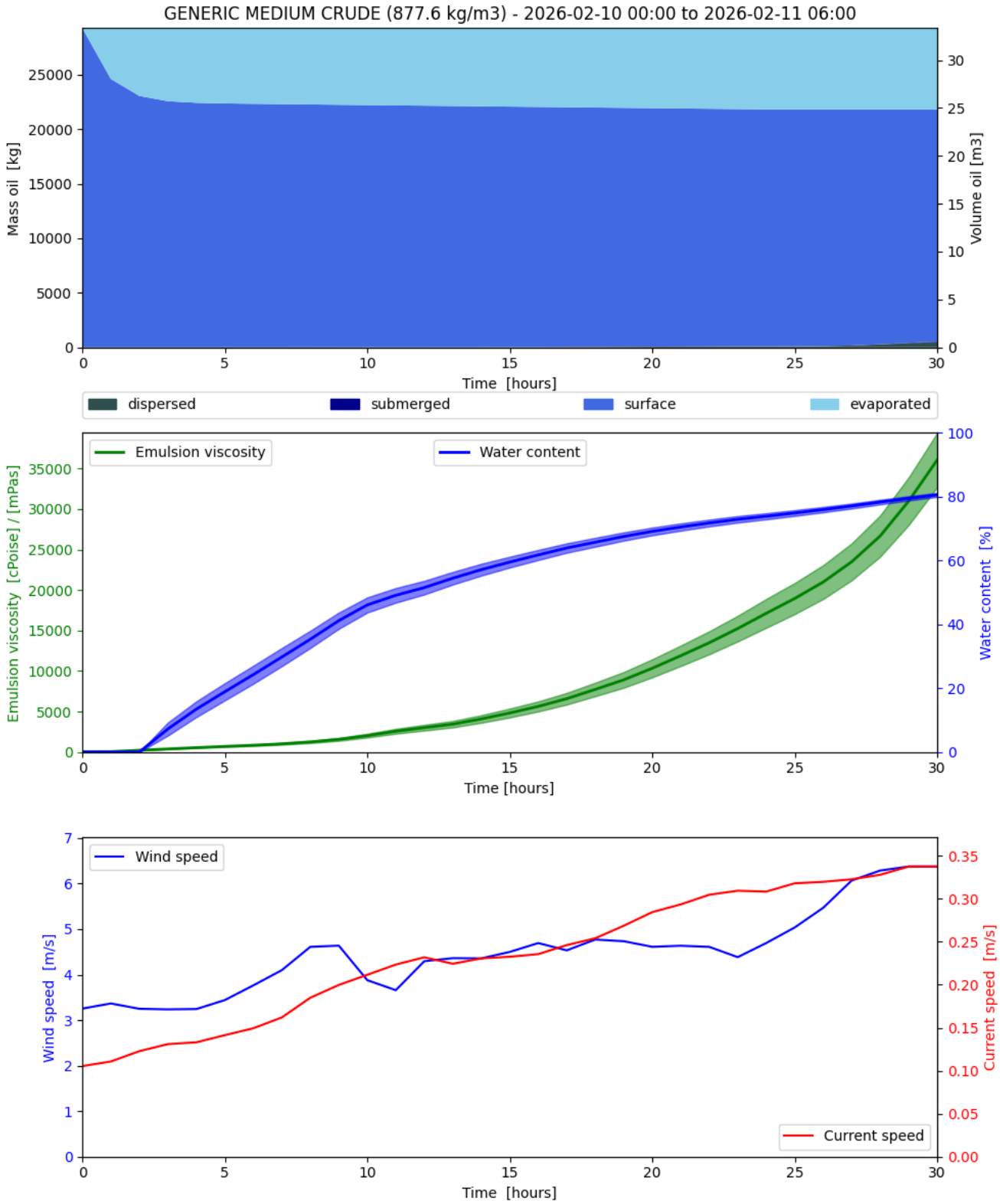
Mean ocean current speed



Mean significant wave height



Oil Budget Summary



Appendix — Polygon coordinates (audit/GIS)

Start (0 h)

Point	50% Longitude	50% Latitude	90% Longitude	90% Latitude
1	10.203207°	58.993698°	10.203207°	59.014015°
2	10.193005°	58.993698°	10.172598°	59.014015°
3	10.182801°	58.993698°	10.152192°	59.003860°
4	10.172598°	58.993698°	10.141989°	58.983543°
5	10.172598°	58.983543°	10.152192°	58.953072°
6	10.162395°	58.983543°	10.162395°	58.932758°
7	10.162395°	58.973389°	10.182801°	58.922600°
8	10.162395°	58.963230°	10.203207°	58.932758°
9	10.172598°	58.953072°	10.223614°	58.942917°
10	10.172598°	58.953072°	10.233816°	58.963230°
11	10.182801°	58.942917°	10.233816°	58.983543°
12	10.193005°	58.942917°	10.223614°	59.003860°

6 h

Point	50% Longitude	50% Latitude	90% Longitude	90% Latitude
1	10.234366°	58.967758°	10.234366°	58.988487°
2	10.223780°	58.967758°	10.202608°	58.988487°
3	10.213194°	58.967758°	10.181435°	58.978119°
4	10.202608°	58.967758°	10.170849°	58.957397°
5	10.202608°	58.957397°	10.170849°	58.926304°
6	10.192020°	58.957397°	10.192020°	58.905579°
7	10.192020°	58.947029°	10.213194°	58.895210°
8	10.192020°	58.936668°	10.234366°	58.905579°
9	10.202608°	58.926304°	10.255539°	58.915939°
10	10.213194°	58.926304°	10.266126°	58.936668°
11	10.213194°	58.926304°	10.266126°	58.967758°
12	10.223780°	58.915939°	10.255539°	58.978119°

12 h

Point	50% Longitude	50% Latitude	90% Longitude	90% Latitude
1	10.280775°	58.936810°	10.291658°	58.957977°
2	10.269892°	58.936810°	10.259007°	58.957977°
3	10.259007°	58.936810°	10.237241°	58.947395°
4	10.248124°	58.936810°	10.226357°	58.926224°
5	10.248124°	58.926224°	10.215473°	58.905060°
6	10.248124°	58.915642°	10.226357°	58.883888°
7	10.237241°	58.915642°	10.248124°	58.873306°
8	10.248124°	58.905060°	10.280775°	58.862724°
9	10.248124°	58.905060°	10.302542°	58.873306°
10	10.248124°	58.894474°	10.313425°	58.894474°
11	10.259007°	58.883888°	10.324309°	58.915642°
12	10.269892°	58.883888°	10.313425°	58.936810°

18 h

Point	50% Longitude	50% Latitude	90% Longitude	90% Latitude
1	10.333868°	58.897148°	10.333868°	58.918686°
2	10.322932°	58.897148°	10.301062°	58.918686°
3	10.311996°	58.897148°	10.279190°	58.907913°
4	10.311996°	58.886375°	10.268253°	58.886375°
5	10.301062°	58.886375°	10.268253°	58.854065°
6	10.290125°	58.886375°	10.290125°	58.832527°
7	10.290125°	58.875607°	10.311996°	58.821762°
8	10.290125°	58.864838°	10.333868°	58.810989°

Point	50% Longitude	50% Latitude	90% Longitude	90% Latitude
9	10.301062°	58.854065°	10.355740°	58.821762°
10	10.301062°	58.854065°	10.366674°	58.843300°
11	10.311996°	58.843300°	10.377611°	58.864838°
12	10.322932°	58.843300°	10.377611°	58.886375°

24 h

Point	50% Longitude	50% Latitude	90% Longitude	90% Latitude
1	10.385998°	58.843323°	10.396917°	58.865524°
2	10.364161°	58.843323°	10.364161°	58.865524°
3	10.353241°	58.832230°	10.342323°	58.854424°
4	10.342323°	58.821129°	10.331404°	58.832230°
5	10.353241°	58.798935°	10.320484°	58.810036°
6	10.364161°	58.787838°	10.331404°	58.787838°
7	10.375079°	58.776741°	10.353241°	58.765640°
8	10.385998°	58.787838°	10.375079°	58.754547°
9	10.396917°	58.798935°	10.396917°	58.765640°
10	10.407835°	58.810036°	10.418755°	58.776741°
11	10.407835°	58.821129°	10.429674°	58.798935°
12	10.396917°	58.832230°	10.429674°	58.832230°

30 h (final)

Point	50% Longitude	50% Latitude	90% Longitude	90% Latitude
1	10.402609°	58.767845°	10.424547°	58.790520°
2	10.380671°	58.767845°	10.391640°	58.790520°
3	10.369701°	58.756512°	10.369701°	58.779182°
4	10.358732°	58.745178°	10.347763°	58.767845°
5	10.358732°	58.722504°	10.336793°	58.745178°
6	10.369701°	58.699837°	10.325824°	58.722504°
7	10.391640°	58.699837°	10.336793°	58.699837°
8	10.402609°	58.711170°	10.358732°	58.677162°
9	10.413578°	58.722504°	10.380671°	58.665829°
10	10.424547°	58.733841°	10.402609°	58.677162°
11	10.424547°	58.745178°	10.424547°	58.688499°
12	10.413578°	58.756512°	10.435516°	58.711170°

Assumptions, Limitations & Reproducibility

Scope Statement

This report presents a probabilistic drift simulation based on user-provided inputs and forecast environmental forcing data. It does not constitute a full incident investigation.

Model Assumptions

- No active propulsion modeled
- No survivor behavior modeling
- No manual environmental correction
- No real-time search data assimilation
- Environmental forcing limited to forecast resolution

Known Limitations

- Sub-grid variability not resolved
- Wind/current forecast uncertainty
- Object-specific drift variability
- Coastal boundary discretization effects

Reproducibility Metadata

- Mission ID: 3950aa7f-5685-4f7f-892e-e06dbe9380d6
- Model Engine: OpenDrift — OpenOil v1.14.8
- Object Type: Oil spill (GENERIC MEDIUM CRUDE)
- Simulation Duration: 30.0 hours
- Report Generated: 2026-02-19 23:17 UTC
- Dataset Versions: Not recorded in results
- Software Build Version: See deployment

Closing Statement

Results represent probabilistic model estimates and should be interpreted within the stated assumptions and environmental uncertainties.