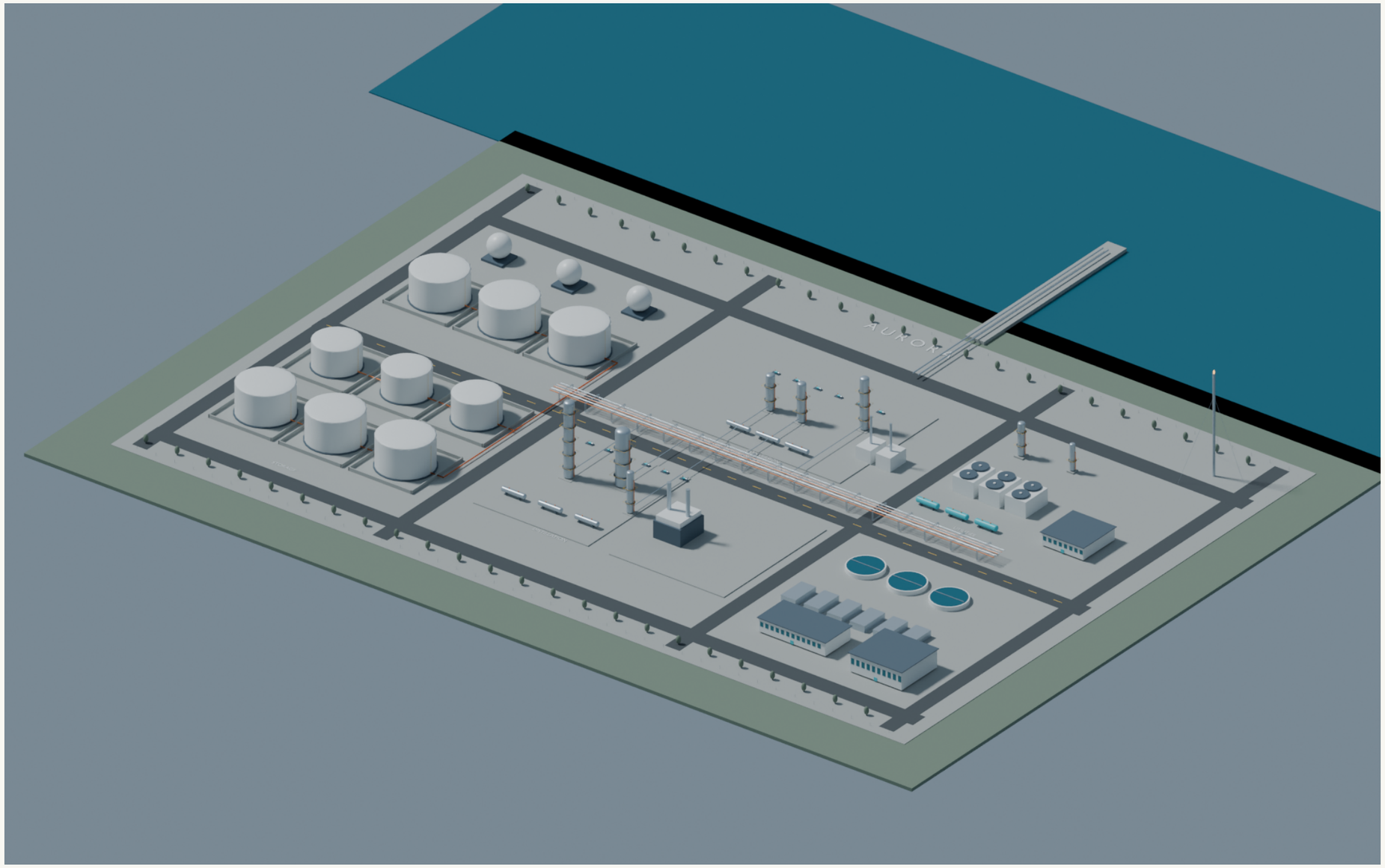
Complete facility

Modello 3D effettivamente generato / Actual generated 3D model



CASE DATA

Coastal refinery

Plot 760 x 520 m

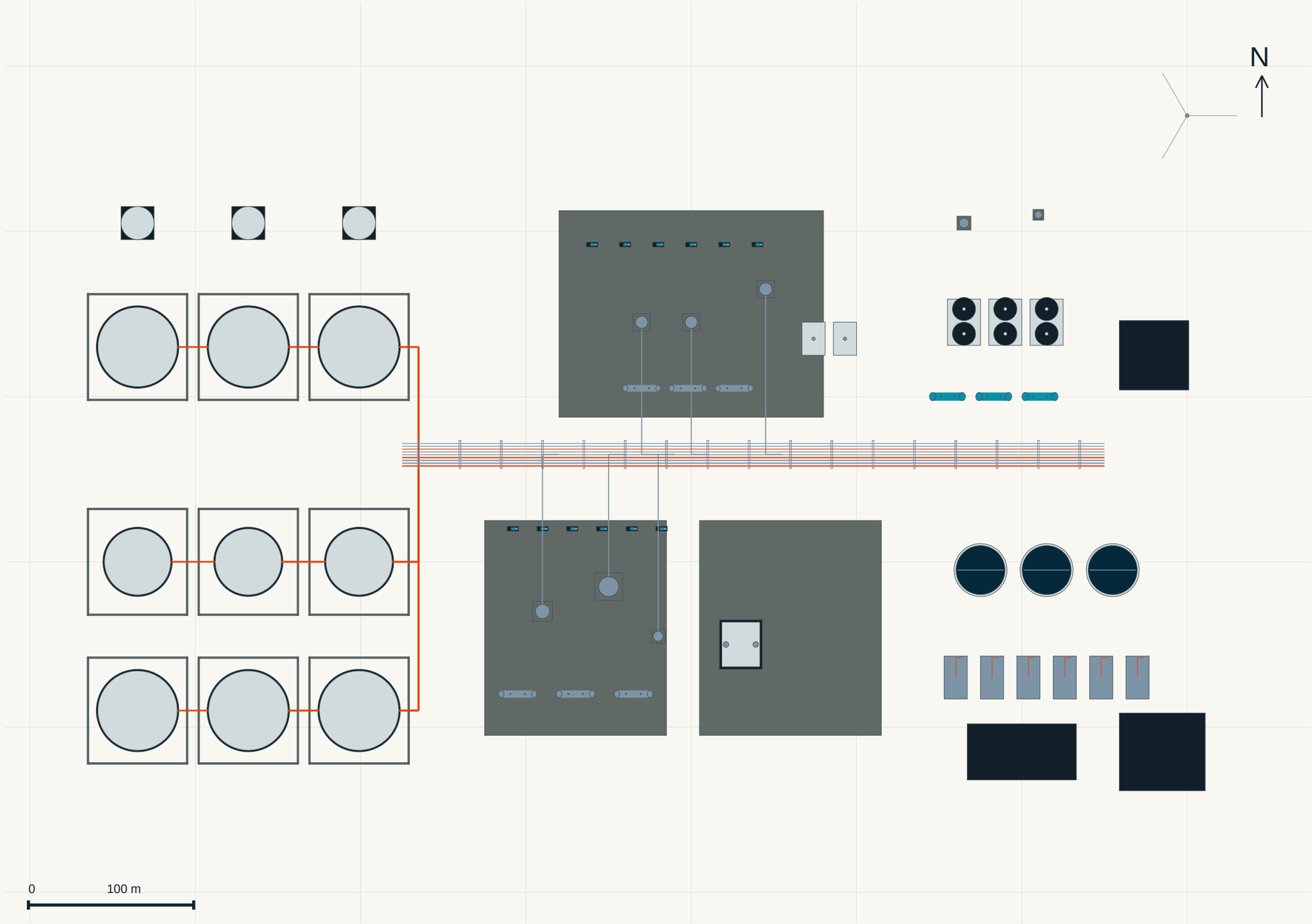
100,000 bbl/day assumed

Storage, distillation, conversion, utilities, loading and jetty.

Capacities are narrative assumptions, not process simulator results.

Model plan

Proiezione vettoriale dei solidi principali | Local coordinates in metres



ENVELOPES

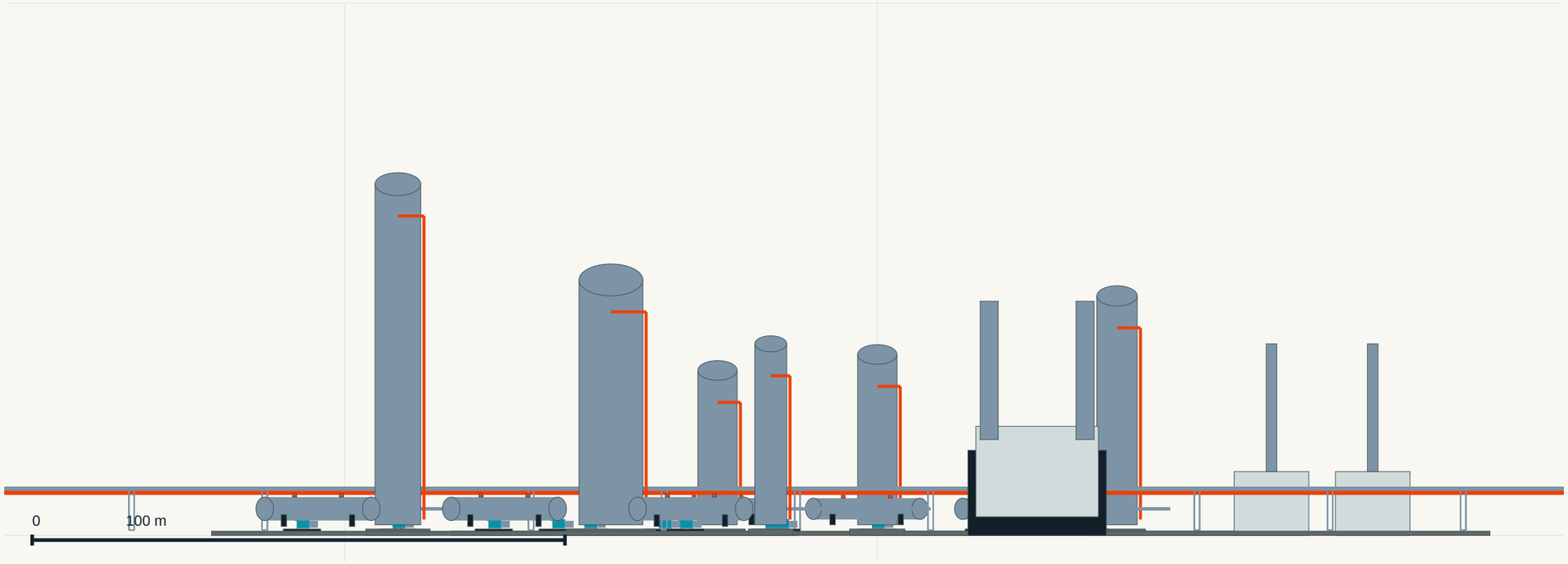
Process plot 760 x 520 m. Jetty and coastal context lie outside the plot.

Arbitrary local north. No EPSG reference or real cadastral position.

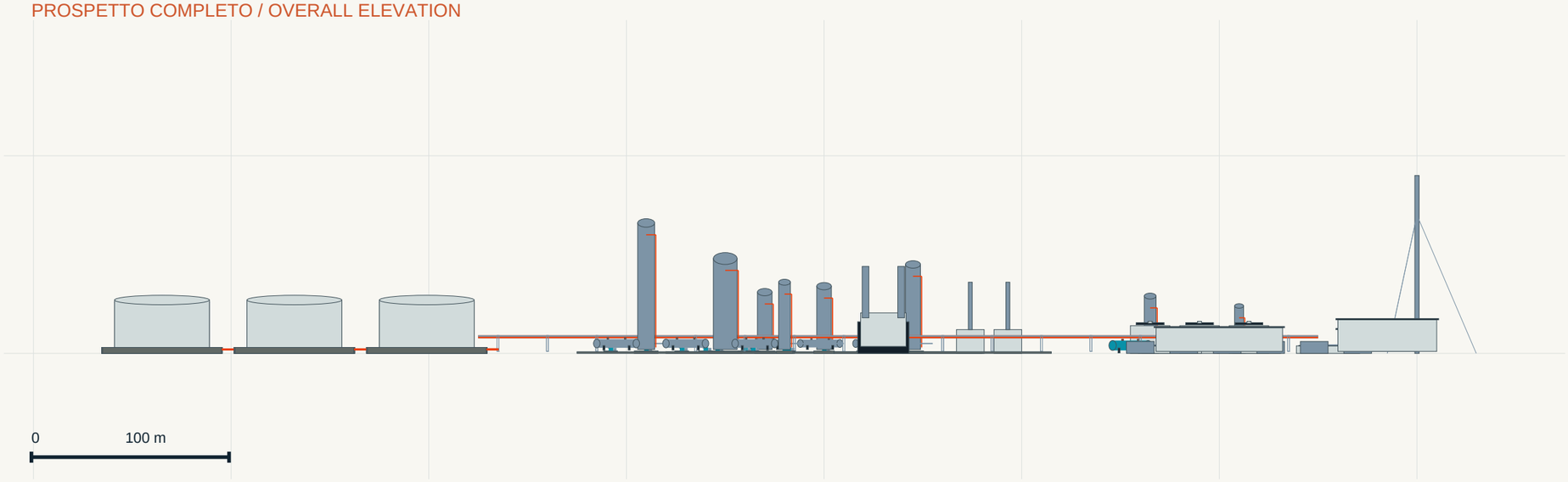
South elevation

Proiezione volumetrica | Schematic envelope projection

DISTILLAZIONE / DISTILLATION - x 275..490 m



PROSPETTO COMPLETO / OVERALL ELEVATION



LEVELS

Reference ground +0.00 m

C-201 shell top +66 m

FL-701 flare stem top +90 m

Geometry does not verify loads, vibration, wind, seismic action or structural resistance.

Machinery and systems

Vista di dettaglio + conteggio geometrie | Detail view + geometry counts



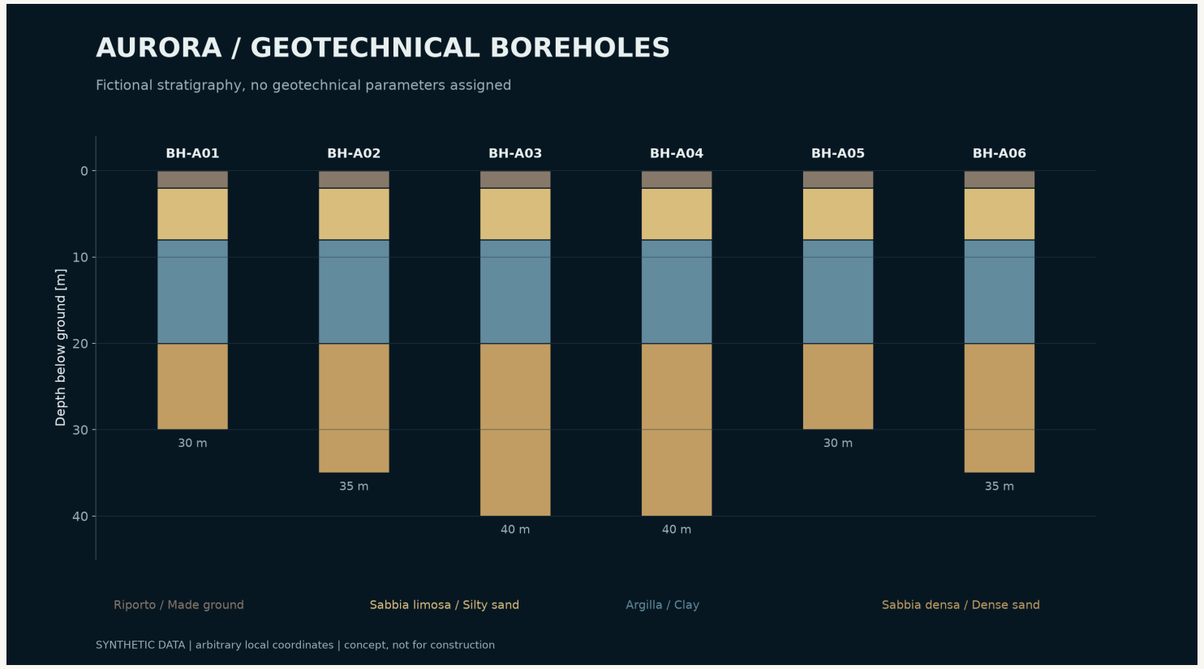
SISTEMI / SYSTEMS

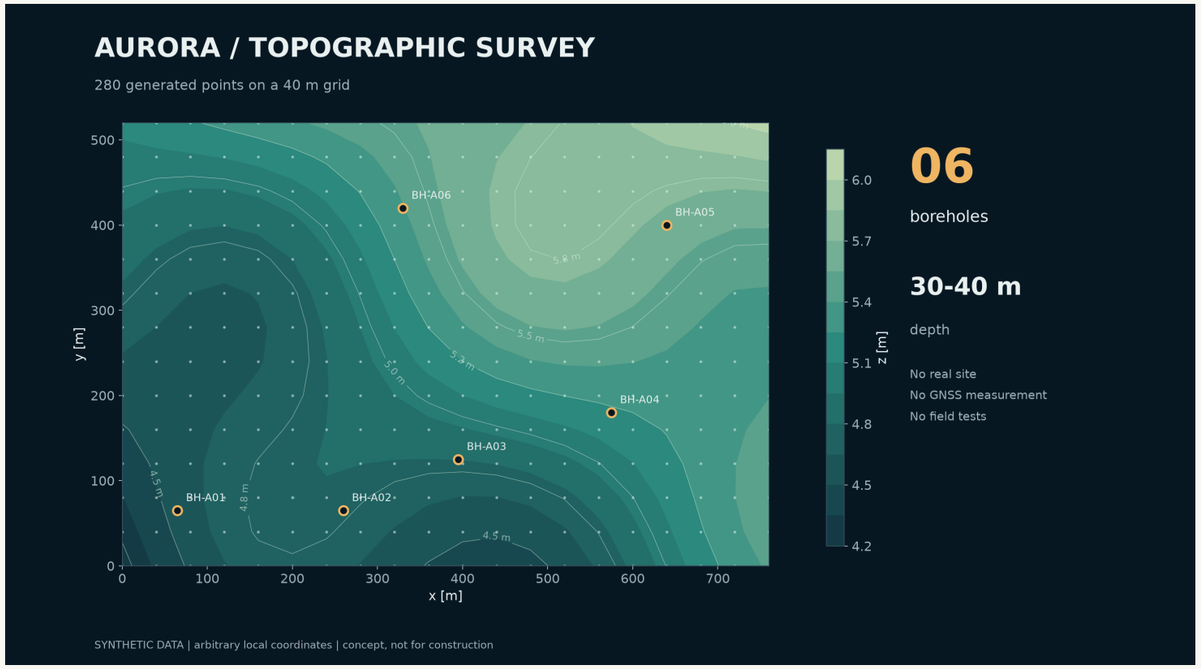
10 STORAGE	**87**
20 DISTILLATION	**67**
30 CONVERSION	**64**
40 PIPE RACK	**225**
50 UTILITIES	**55**
60 BUILDINGS	**24**
70 FLARE	**4**

Counts are solids, not equipment quantities. CSV files separate components from functional references.

Synthetic surveys and drilling concepts

Dati sintetici dichiarati | Explicitly synthetic datasets





Topography and geotechnical boreholes are synthetic. Drilling within the refinery plot denotes ground investigation, not producing wells; extraction belongs to the upstream supply chain.

Data, interoperability and limitations

Legenda del pacchetto | Package legend

RVT	Revit: DirectShape envelope solids, levels and views; no calculated MEP networks.
IAM / IPT / STEP	Inventor: conceptual geometric assembly and parts; no manufacturing verification.
IFC / GLB / BLEND	BIM exchange and 3D presentation. Decorative detail may vary by representation.
CSV / JSON	Geometry, survey samples and assumptions are recorded separately.
REVIEW	No HAZOP, CFD, FEA, fire design, pipe sizing or regulatory verification.

Revit was observed running in NON-COMMERCIAL trial mode. Check Autodesk licensing terms before commercial reuse.

FONTI PRIMARIE / PRIMARY SOURCES

EIA - The refining process	https://www.eia.gov/energyexplained/oil-and-petroleum-products/refining-crude-oil-the-refining-process.php
EIA - Crude oil distillation and refinery capacity	https://www.eia.gov/TodayinEnergy/detail.php?id=6970
EPA AP-42 - Petroleum Refining	https://www.epa.gov/sites/production/files/2020-09/documents/5.1_petroleum_refining.pdf
OSHA Technical Manual - Petroleum Refining	https://www.osha.gov/otm/section-4-safety-hazards/chapter-2
BSEE - General Life Cycle of Offshore Oil and Gas Exploration and Pr	https://www.boem.gov/sites/default/files/documents/oil-gas-energy/national-program/BSEE%20Lifecycle%20of%20Oil%20and%20Gas%20Offshore%20Explorati
BSEE - Decommissioning	https://www.bsee.gov/decommissioning
NOAA - Hydrographic Survey Equipment	https://nauticalcharts.noaa.gov/learn/hydrographic-survey-equipment.html
SLB - Directional drilling and measured depth	https://glossary.slb.com/en/terms/d/directional_drilling