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Investor Webinar Presentation

SYDNEY, AUSTRALIA (20 December 2023)

Melbana Energy Limited (**ASX: MAY, Melbana**) is pleased to advise it will host an investor webinar at 11:00 AM AEST on Wednesday, 20 December 2023.

Melbana will be providing further updates on the latest progress and ongoing operations at the Alameda-3 Appraisal Well in Cuba.

The briefing will be followed by a Q&A session.

Questions can be submitted now to alex@investorstream.com.au or in written form during the webinar.

Anyone wishing to attend the webinar must register using the below link.

Webinar Details

Date and time: 11:00 AM AEST (9:00 AM AWST) on Wednesday, 20 December 2023

Register via: https://attendee.gotowebinar.com/register/1008957385489472604

ENDS.

For and on Behalf of the Board of Directors:

Andrew Purcell
Executive Chairman

For further information please contact

Dr Chris McKeown
Chief Commercial Officer
+61 2 83 23 66 00

Melbana Energy

Webinar

20 December 2023

Disclaimer

Summary of information: This presentation contains general and background information about Melbana Energy's activities current as at the date of the presentation and should not be considered to be comprehensive or to comprise all the information that an investor should consider when making an investment decision. The information is provided in summary form, and should not be considered to be comprehensive or complete.

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Contingent and Prospective Resources: Unless otherwise specified, the information that relates to Contingent Resources and Prospective Resources for Melbana is based on, and fairly represents, information and supporting documentation compiled by Mr. Peter Stickland, who is a Director of the company and has more than 30 years of relevant experience. Mr. Stickland is a member of the European Association of Geoscientists & Engineers and the Petroleum and Exploration Society of Australia. Mr. Stickland consents to the publication of the resource assessments contained herein. The Contingent Resource and Prospective Resource estimates are consistent with the definitions of hydrocarbon resources that appear in the Listing Rules. Conversion factors: 6 Bscf gas equals 1 MMboe; 1 bbl condensate equals 1 boe; "MMstb" means million stock tank barrels of oil.

Prospective Resources Cautionary Statement (PRCS): The estimated quantities of petroleum that may potentially be recovered by the application of a future development project(s) relate to undiscovered accumulations. These estimates have both an associated risk of discovery and a risk of development. Future exploration appraisal and evaluation is required to determine the existence of a significant quantity of potentially moveable hydrocarbons.

Transformational year

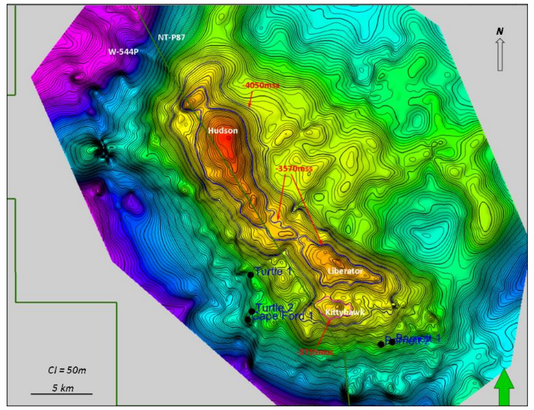
A lot has happened since last year

Corporate

- Strategy focused to become
  $1b company
  within 3 years
- **$31m** cash in bank
  fully funded for appraisal drilling
- Experienced General Counsel, Exploration Manager, CFO, CCO and COO appointed

Cuba

- Alameda-2 confirms shallow, high quality development project
- Alameda-2 early production project ironing out logistics
- Alameda-3 deep well targeting 179 million barrel best estimate prospective resource commenced
- Internal development studies and resource assessment progressing prior to third party review



Australia

- Billion-barrel Beehive prospect to be drilled as early as 2024 by major
- Adjacent billion-barrel Hudson prospect farm-out project underway
- AC/P70 interpretation project underway

2023 appraisal operation success

First Appraisal Well

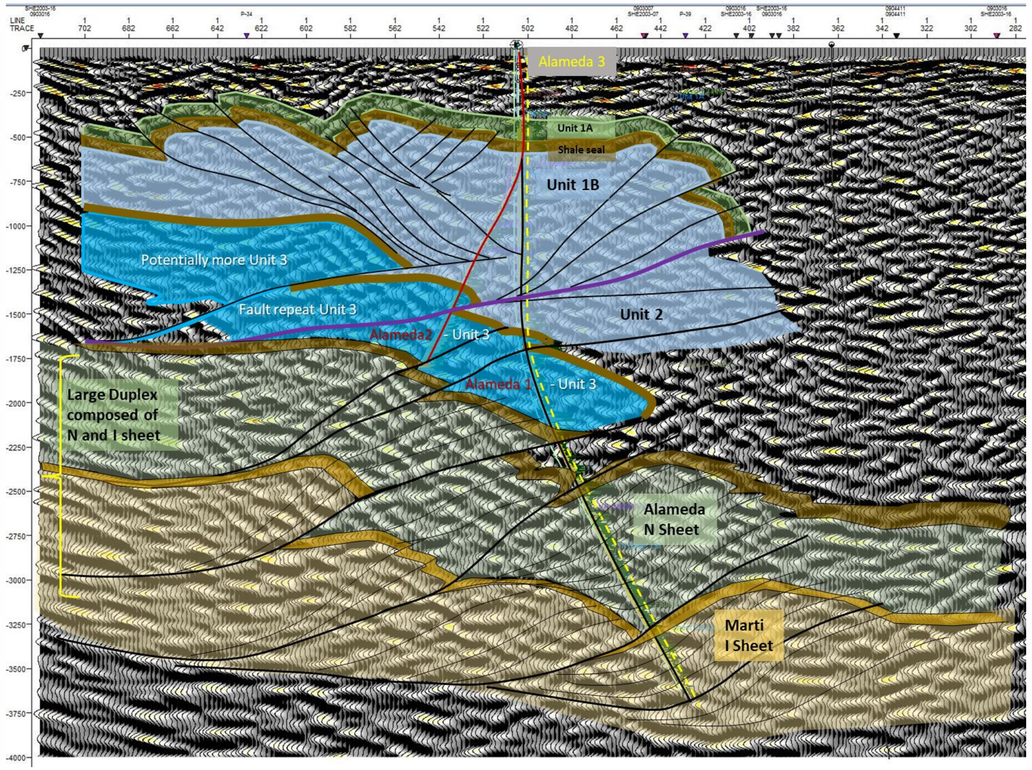
Alameda-2

- Goal was to log, core and test all three units of the Amistad formation, intersected during the drilling of Alameda-1 between 450m and ~2,000m, targeting 88 million barrels of Prospective Resource *
- Alameda-2 drilling commenced June 2023 and reached TD (1975m) ahead of schedule on 31 July 2023
- Unit 1B: 19° API, 30cP, low S oil
- Observed net pay increased to 615m (incl. fractures)

Second Appraisal Well

Alameda-3

- Drilling commenced
- Test the Alameda and Marti formations
- **179** million barrels of Prospective Resource*

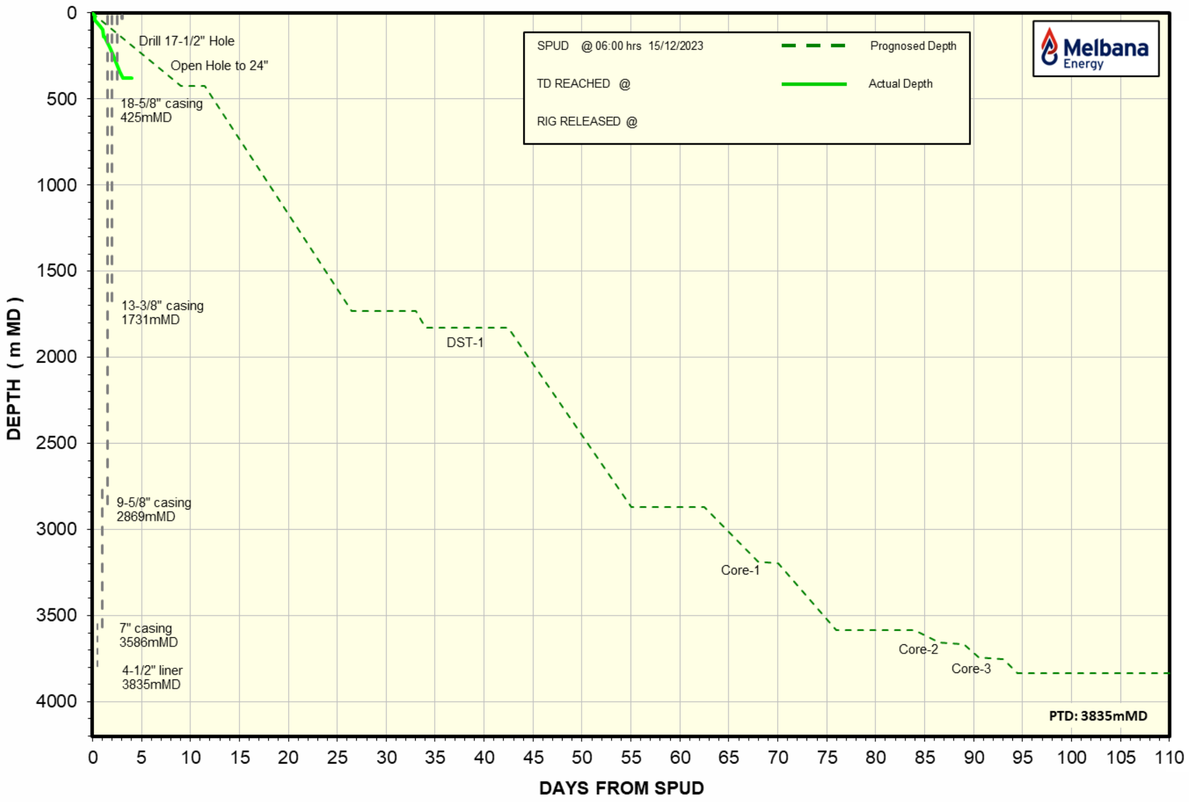


Alameda-2 drilled and completed in Unit 1B. Early production brought online in October. Alameda-3 commenced 15 December 2023.

Same project management team and same contractors, thus leveraging the hard-earned experience they gained drilling Melbana's first two exploration wells in Cuba

* Gross unrisked best estimate Prospective Resource, see PRCS on page 2

Alameda-3 time vs depth plan



10,000 psi BOP

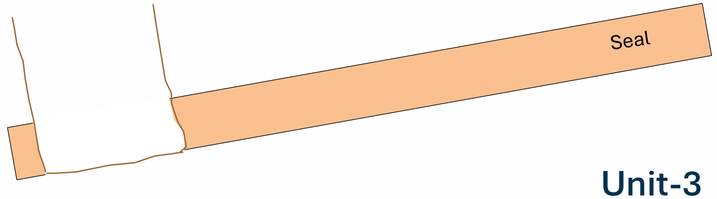
Installed after setting 18-5/8” casing to drill 17-1/2” section

Upgraded wellhead

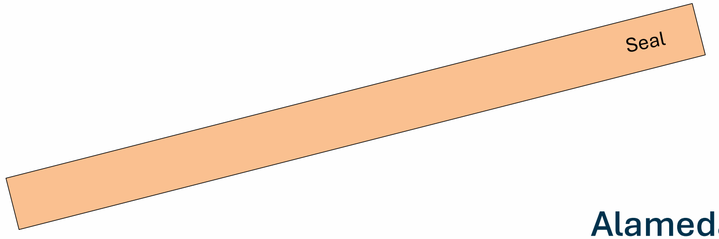
Built to handle 18 5/8” casing at up to 10,000 psi

Alameda-3 operations / test sequence

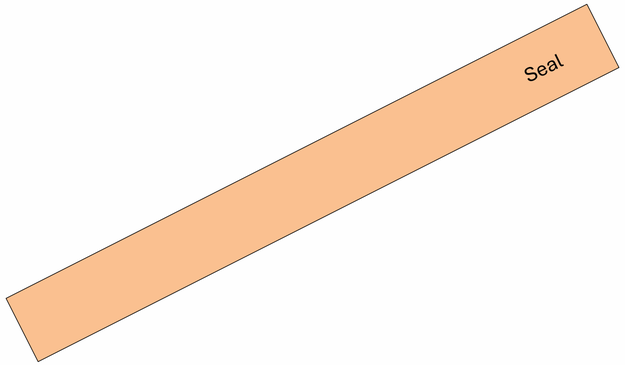
- Drill 17-1/2” Hole to top of Unit-3



Unit-3



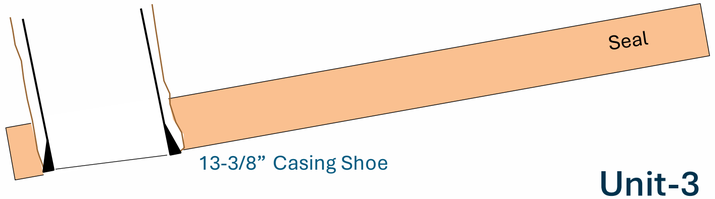
Alameda Reservoir



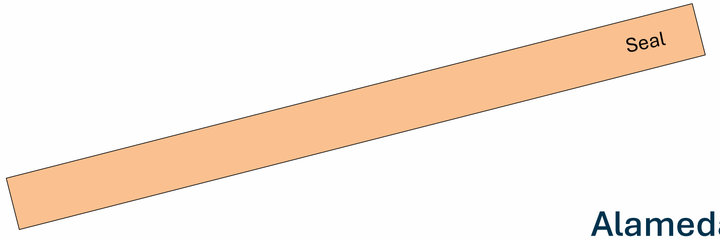
Marti Reservoir

Alameda-3 operations / test sequence

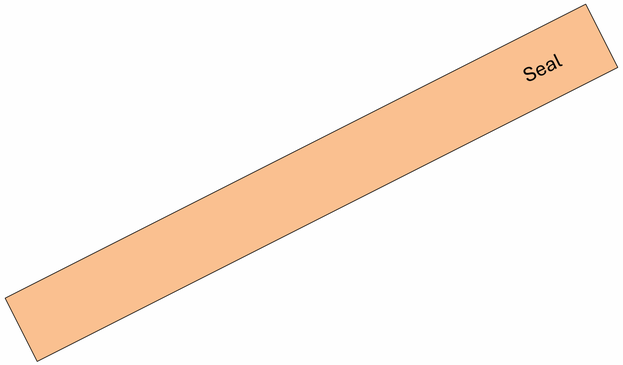
- Run and Cement 13-3/8” Casing to isolate higher pressure intervals from shallower zones
- Once 13-3/8” casing cemented production can continue in Alameda-2



Unit-3



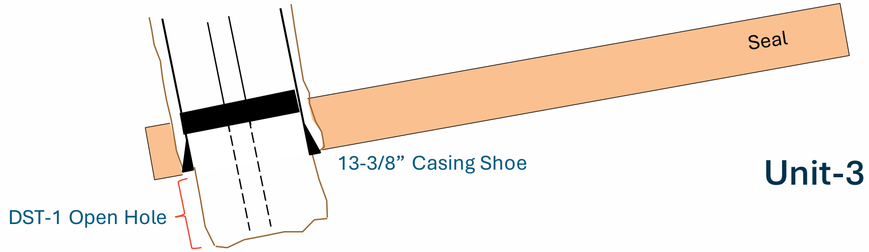
Alameda Reservoir



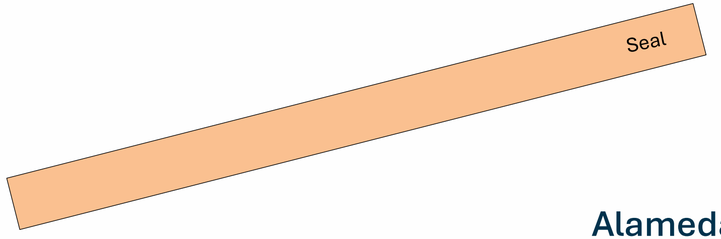
Marti Reservoir

Alameda-3 operations / test sequence

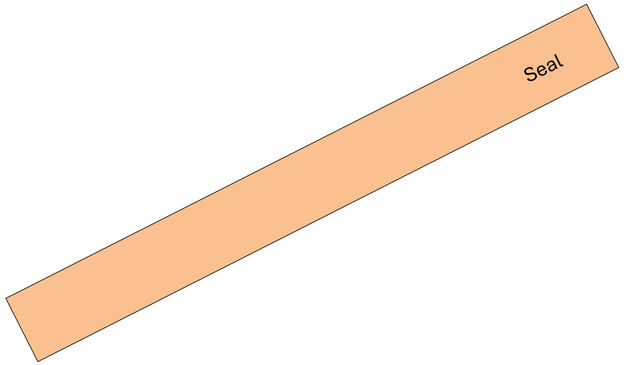
- Drill ~100m into Unit-3 and run Test-1 in open hole



Unit-3



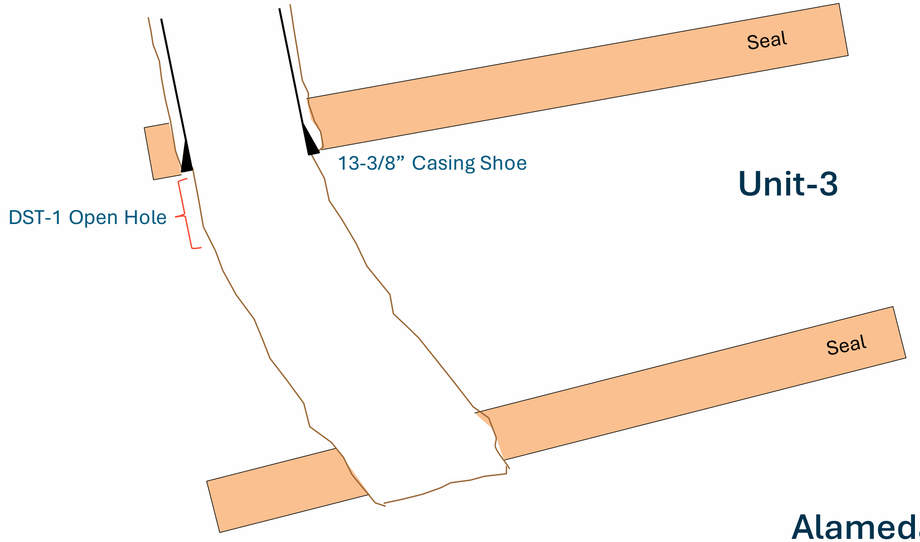
Alameda Reservoir

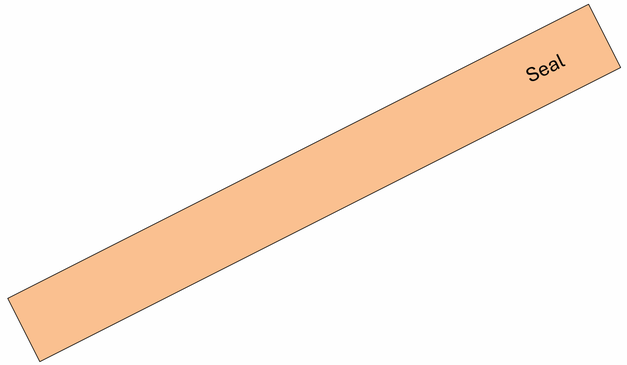


Marti Reservoir

Alameda-3 operations / test sequence

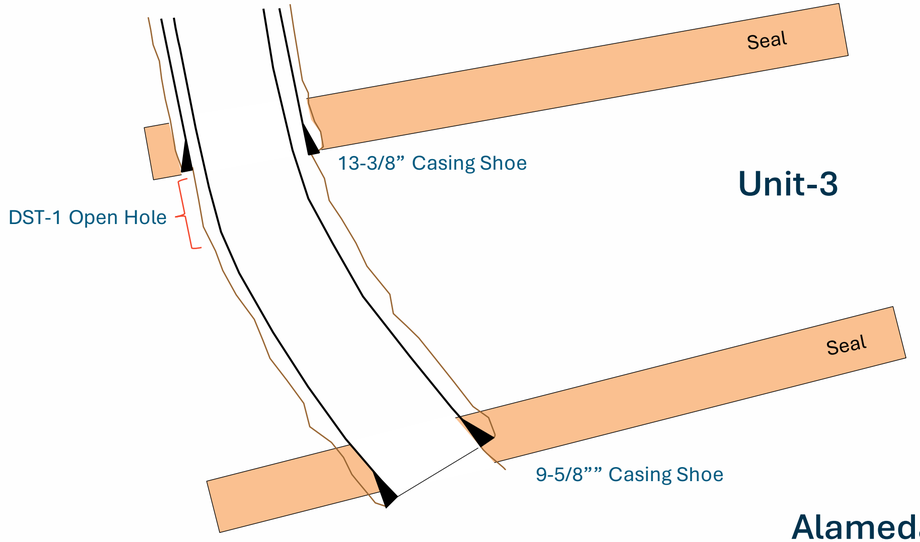
- Drill 12-1/4” hole to top of Alameda Reservoir Interval

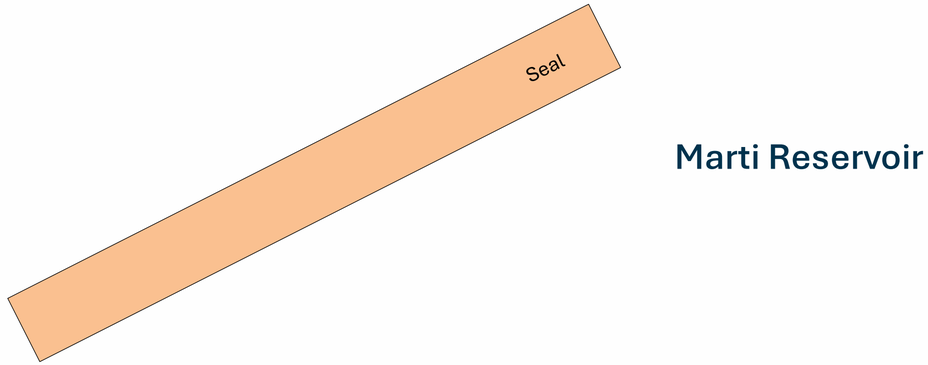




Alameda-3 operations / test sequence

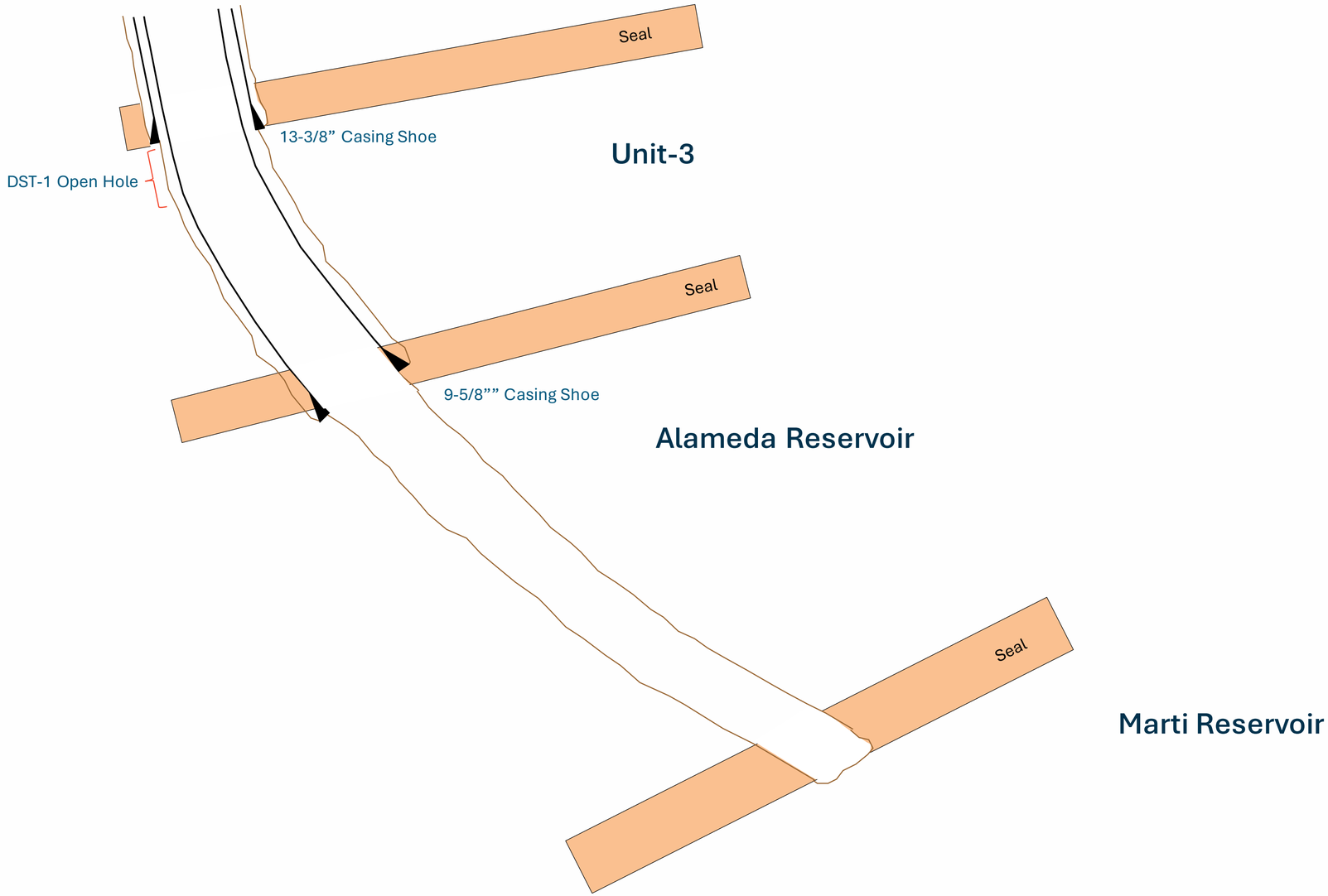
- Set 9-5/8” Casing to secure the well and protect intervals already drilled from higher pressure





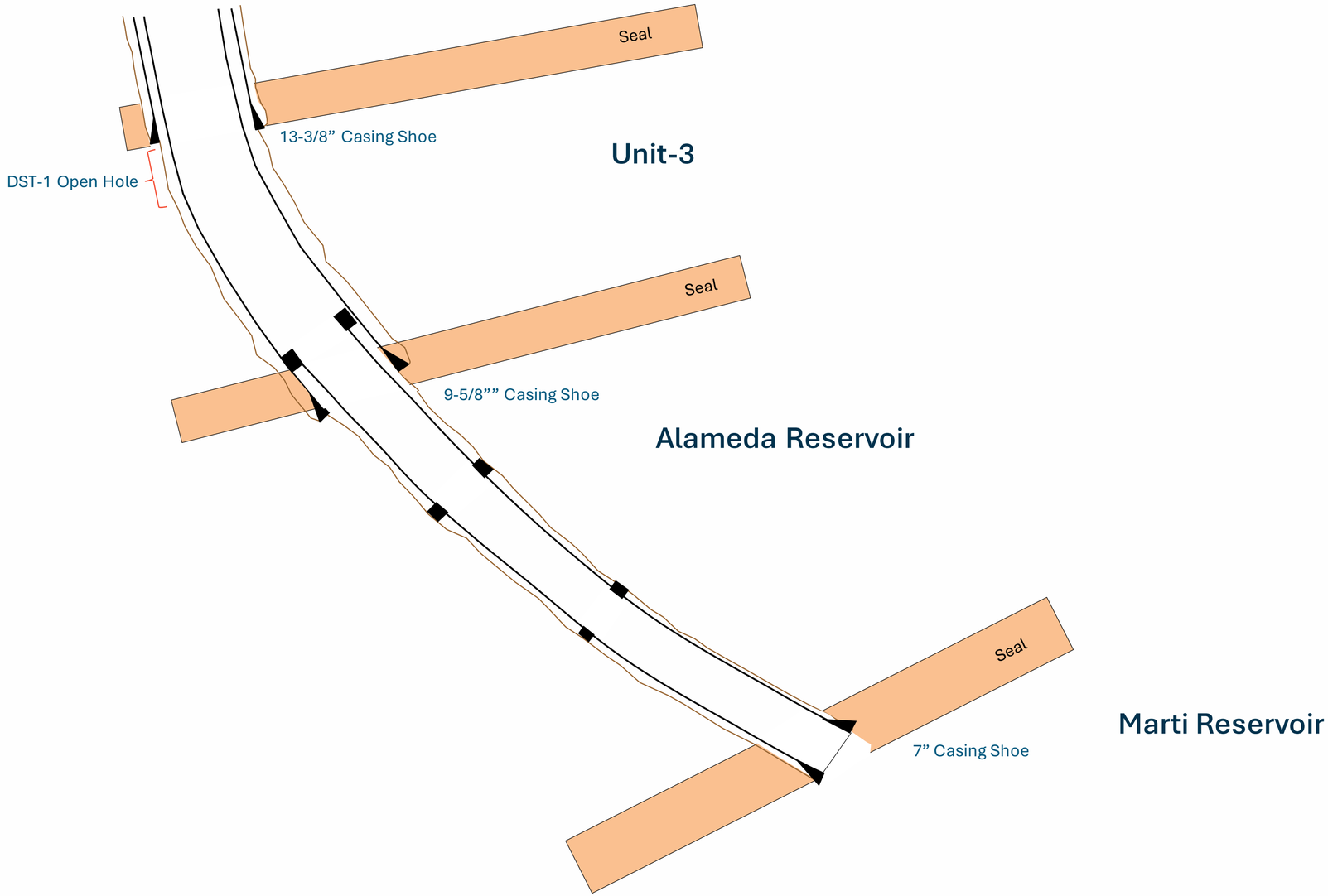
Alameda-3 operations / test sequence

- Drill 8-1/2” hole to base of Alameda Reservoir Interval



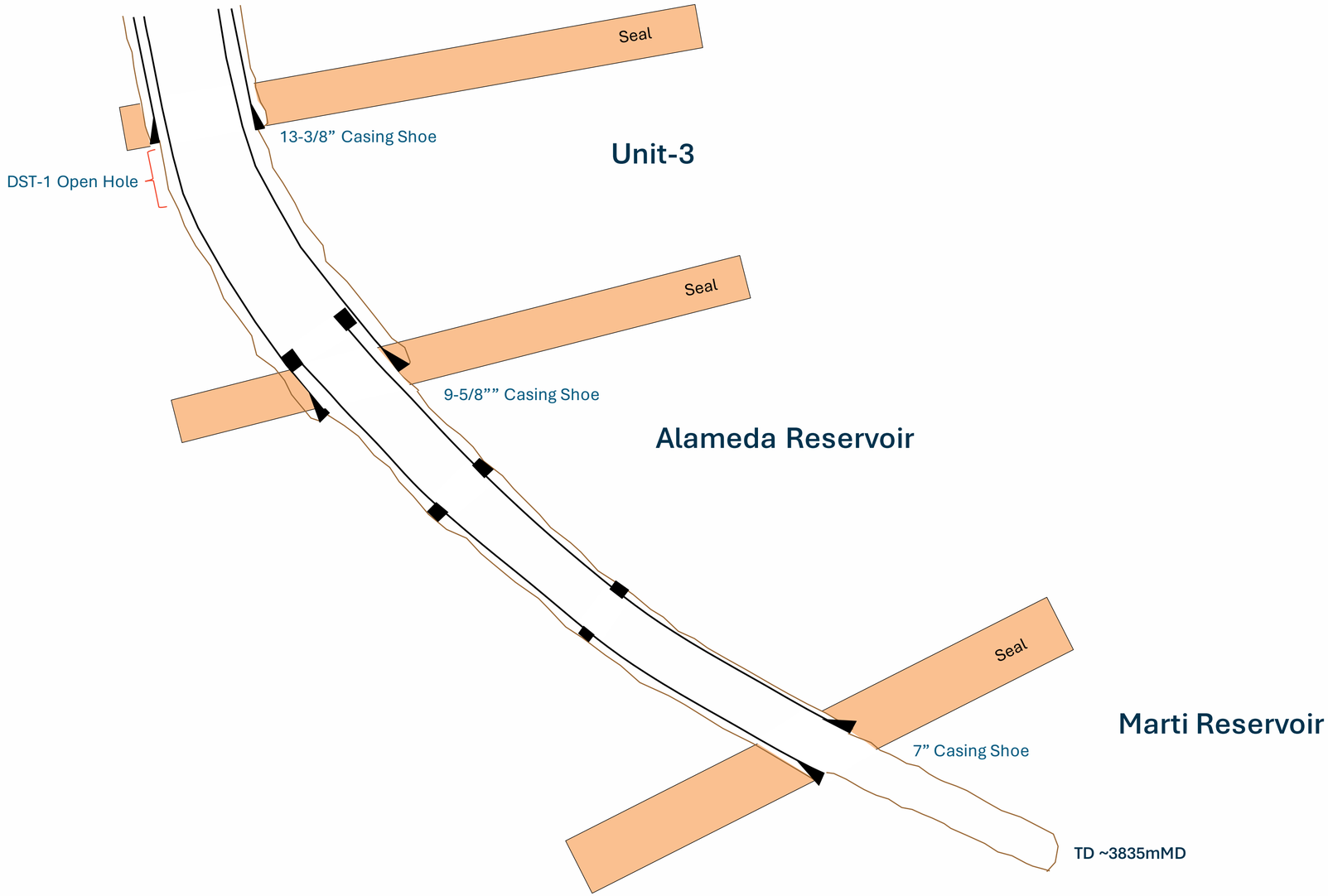
Alameda-3 operations / test sequence

- Set 7” Liner with open annulus and external casing packers to isolate potentially 3 zones within the Alameda Reservoir Interval



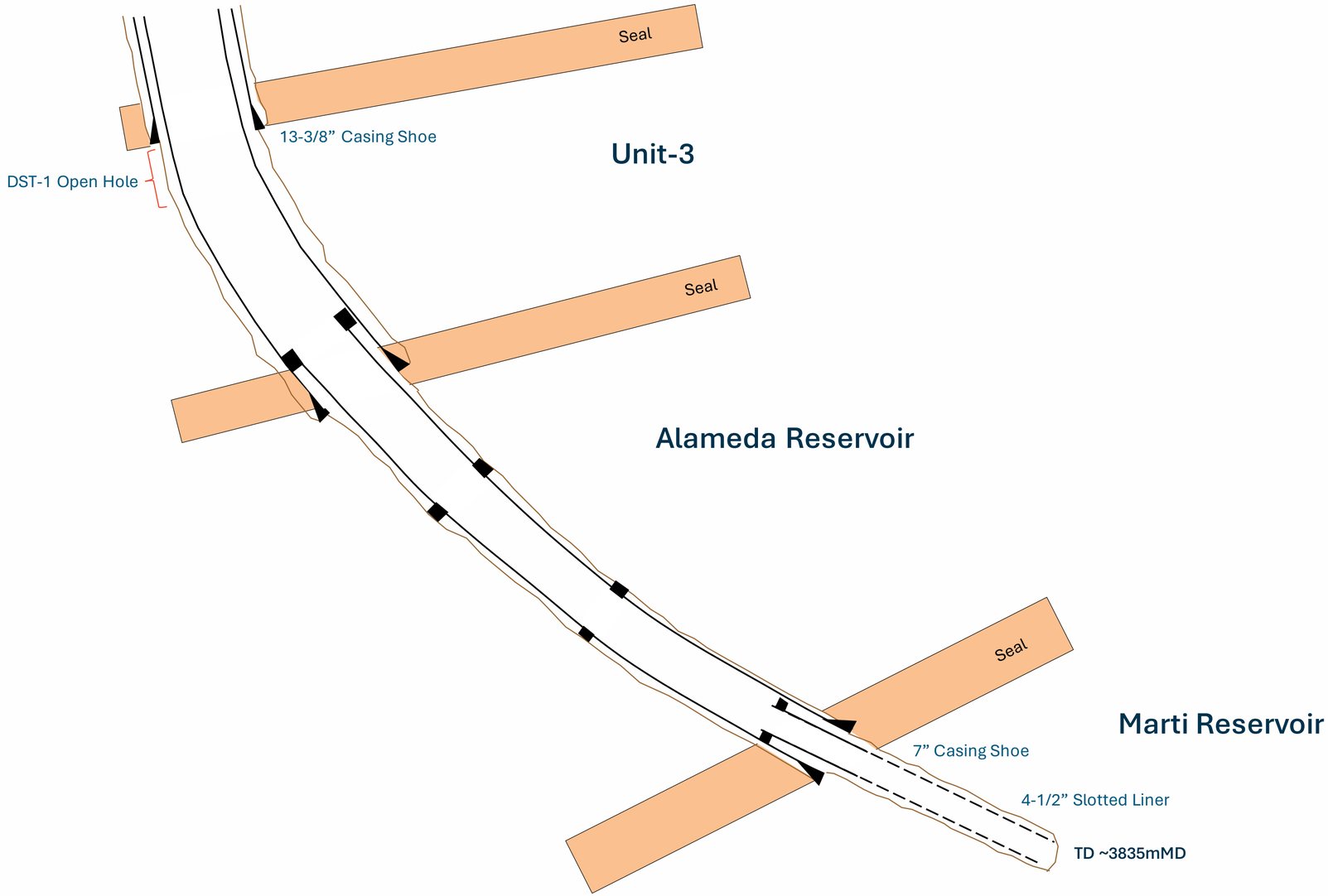
Alameda-3 operations / test sequence

- Drill to Total depth within the Marti Reservoir Interval



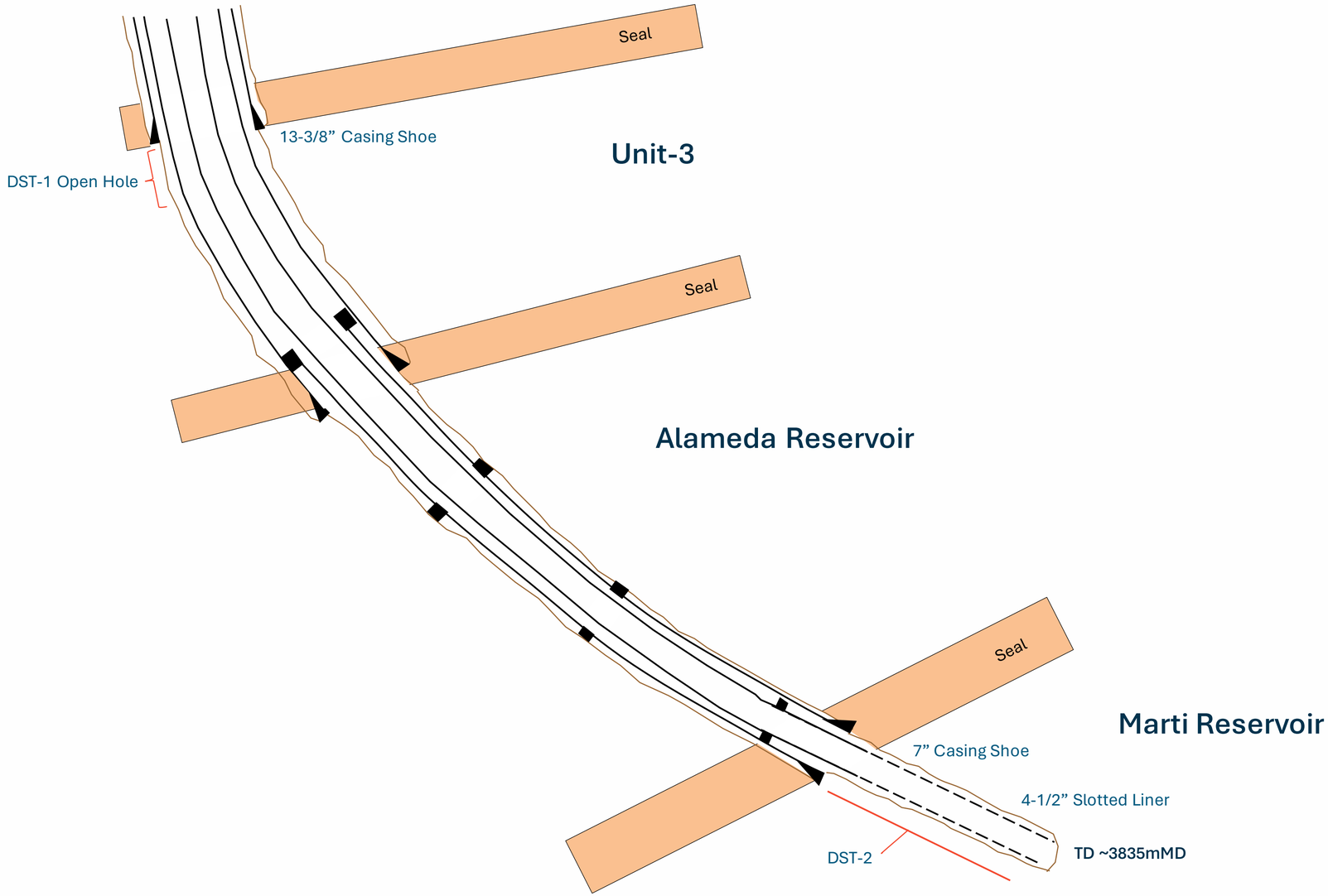
Alameda-3 operations / test sequence

- Set 4-1/2” Slotted liner over Marti Reservoir Interval



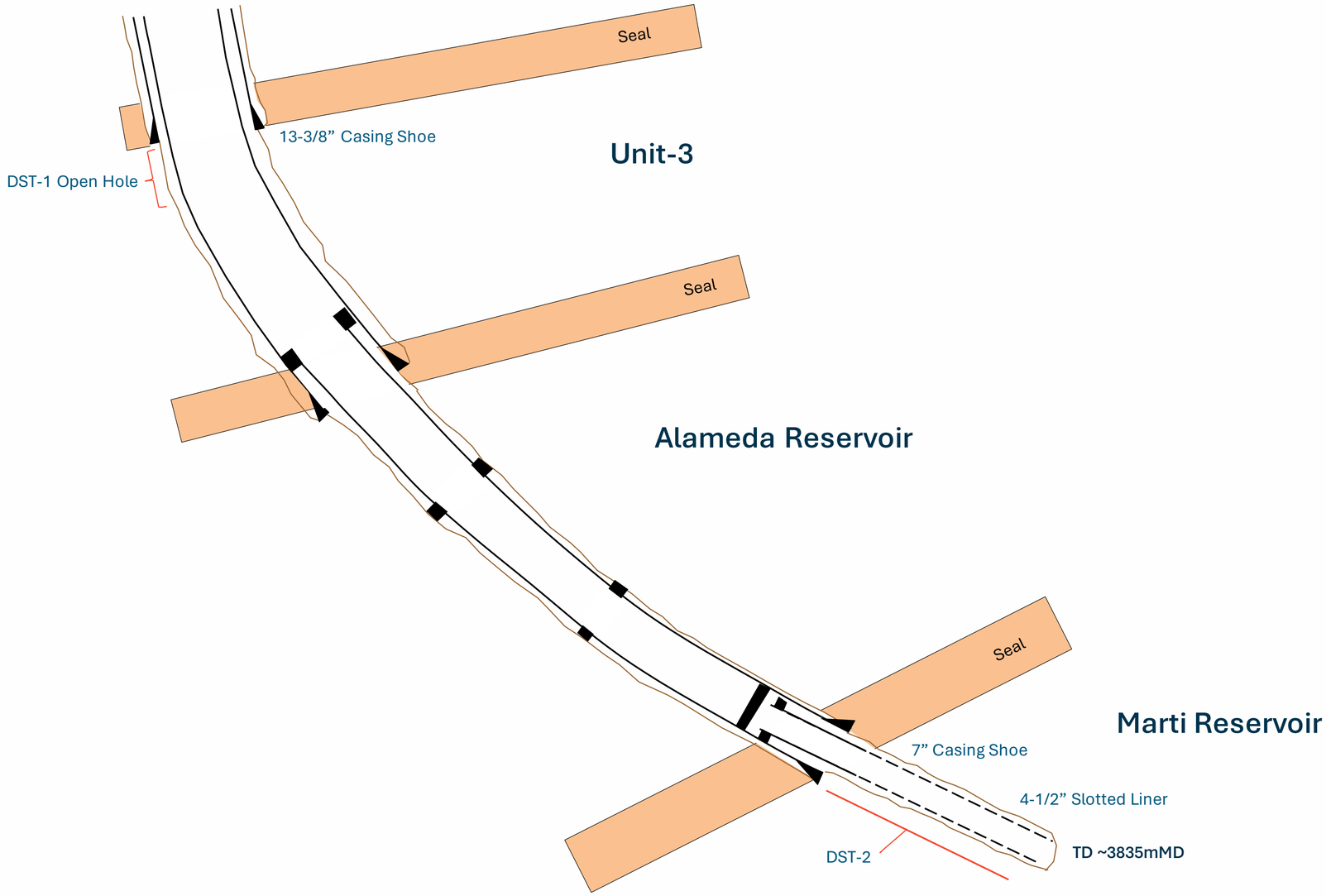
Alameda-3 operations / test sequence

- Run Test-2 in the Marti Reservoir Interval through the slotted liner



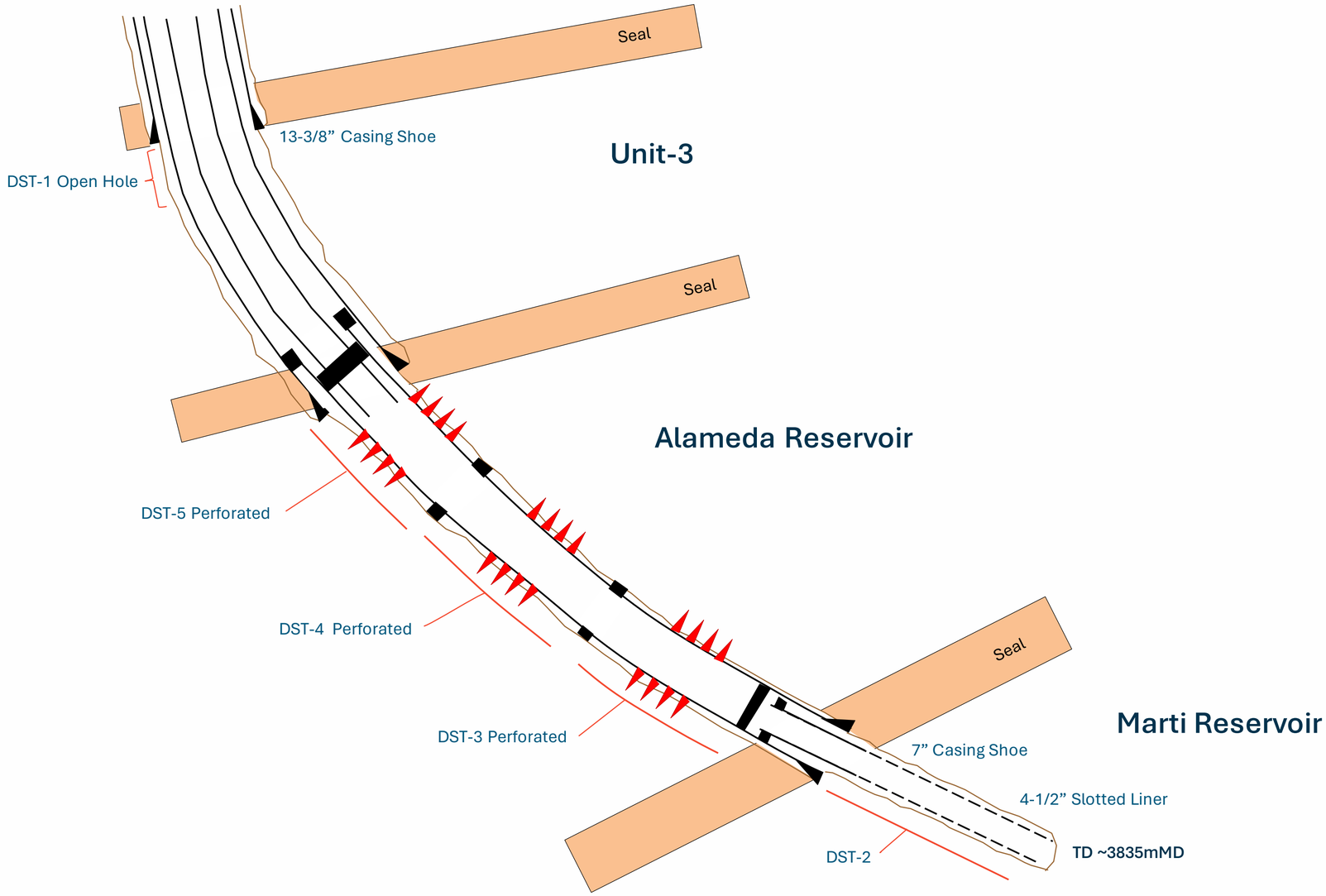
Alameda-3 operations / test sequence

- Set a removable bridge plug to isolate Marti Reservoir Interval from lower pressured Alameda Reservoir Interval



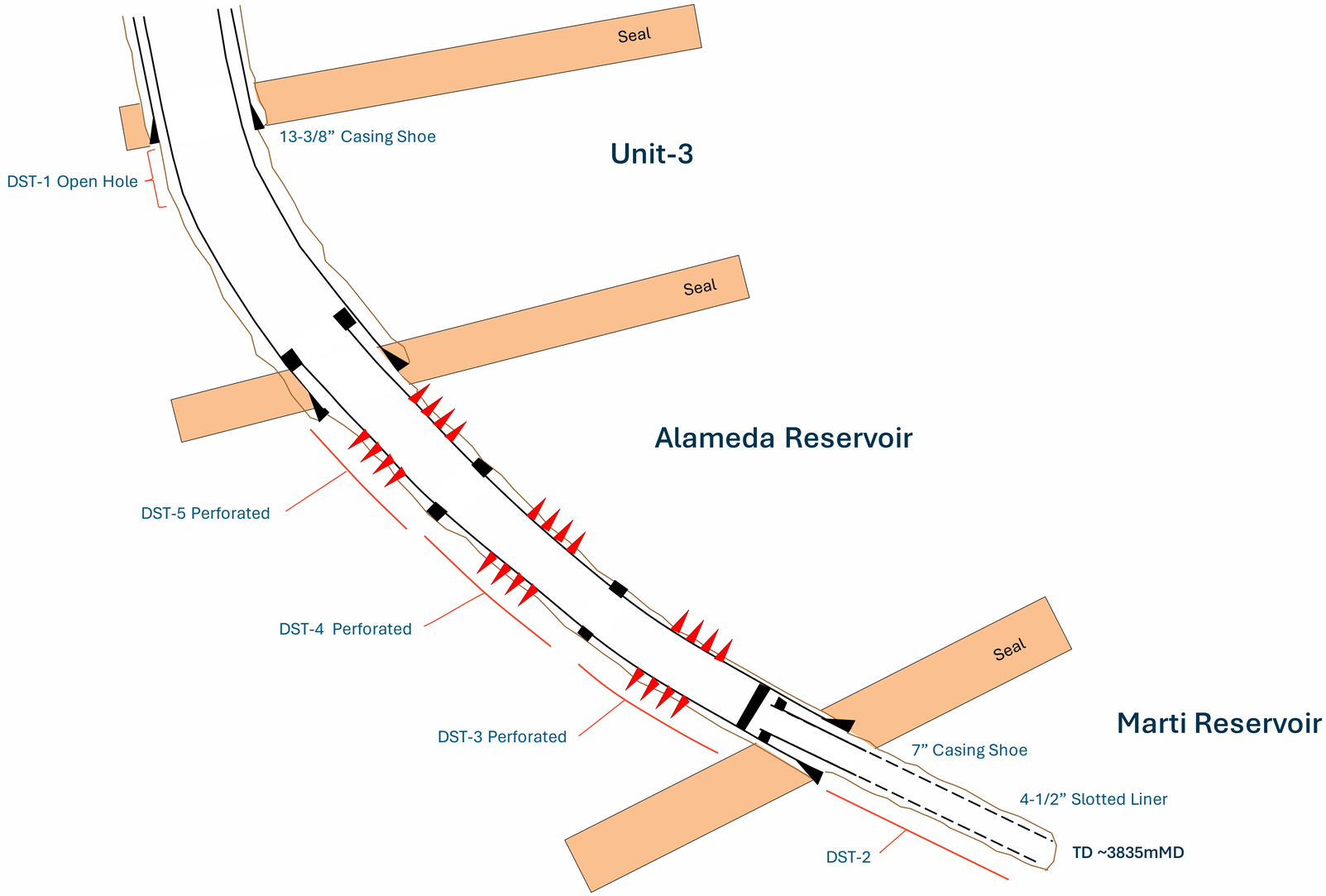
Alameda-3 operations / test sequence

- Provision to perforate and test up to 3 Alameda Reservoir Interval zones either separately or comingled depending on well results



Alameda-3 operations / test sequence

- Complete Best zone for Production

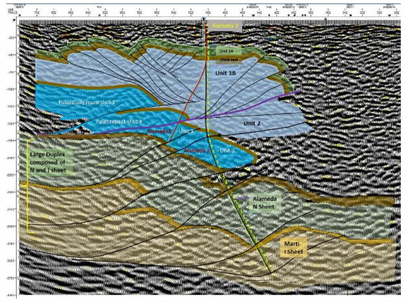


Melbana Energy

Field Development Planning

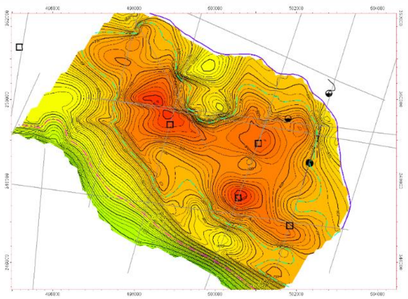
Forward plan

Step 1
Studies Underway
2023



- Geological, engineering, commercial & marketing studies and planning
- Work with regulator to facilitate oil exports
- Continue production and discussions with oil offtakers

Step 2
Field Appraisal
2023 / 2024

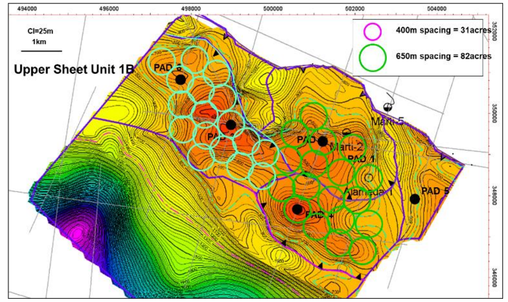


- Appraisal drilling (including Alameda-3), integrate results into reserves
- Further technical data acquisition and integration
- Continue to bring oil production to market

Step 3
Near term development
2024 / 2025

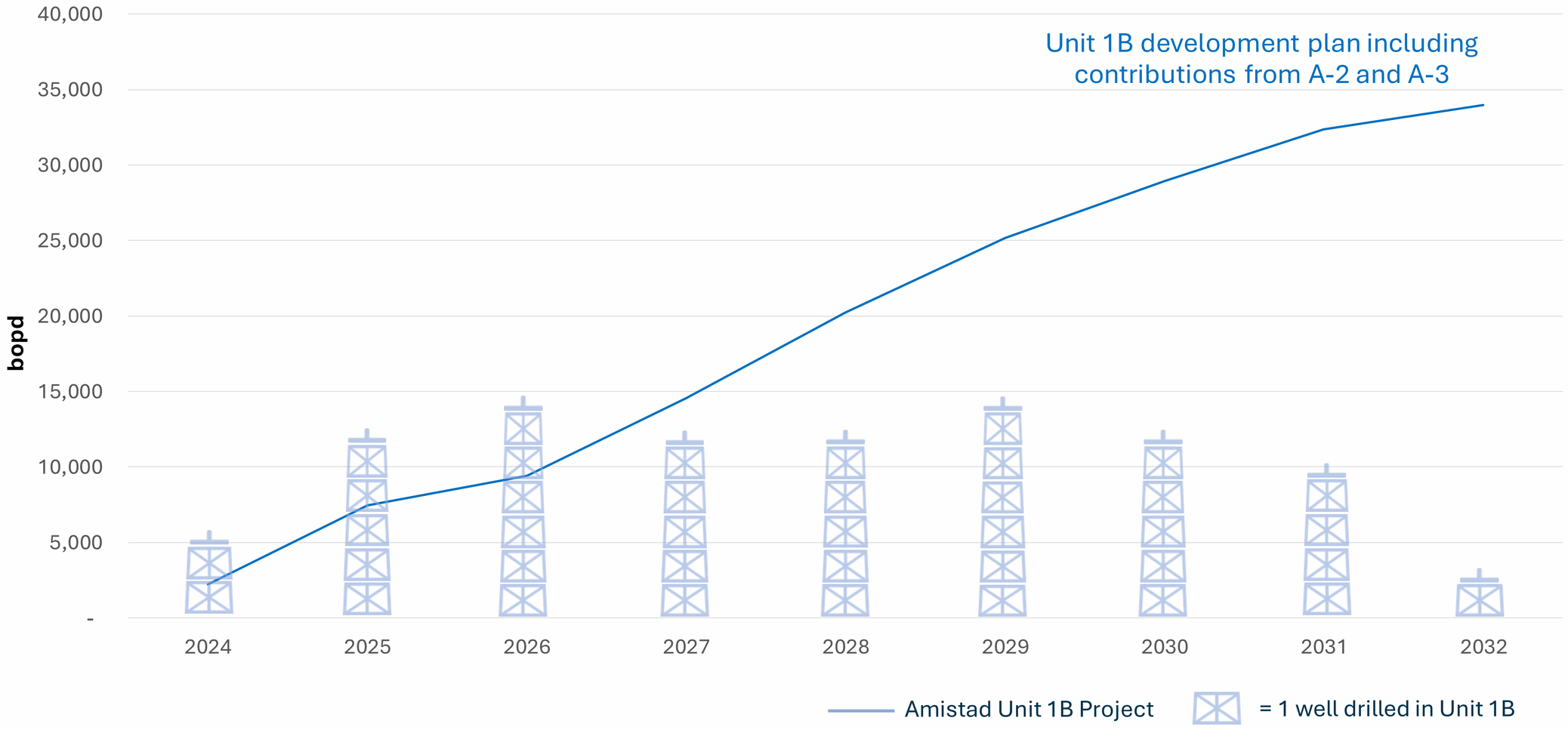
- Convert appraisal wells to production
- Technical data acquisition, interpretation and integration
- Drill development wells and bring oil to market

Step 4
Full field development
2025 / 2026



- Drill further development wells to increase production
- Define exploration targets
- Upgrade facilities as required to increase to plateau production

Amistad Unit 1B conceptual development *



** Conceptual plan, assumes 100% working interest, JV and regulatory approval*

Unit 1B oil qualities export grade

Next six months

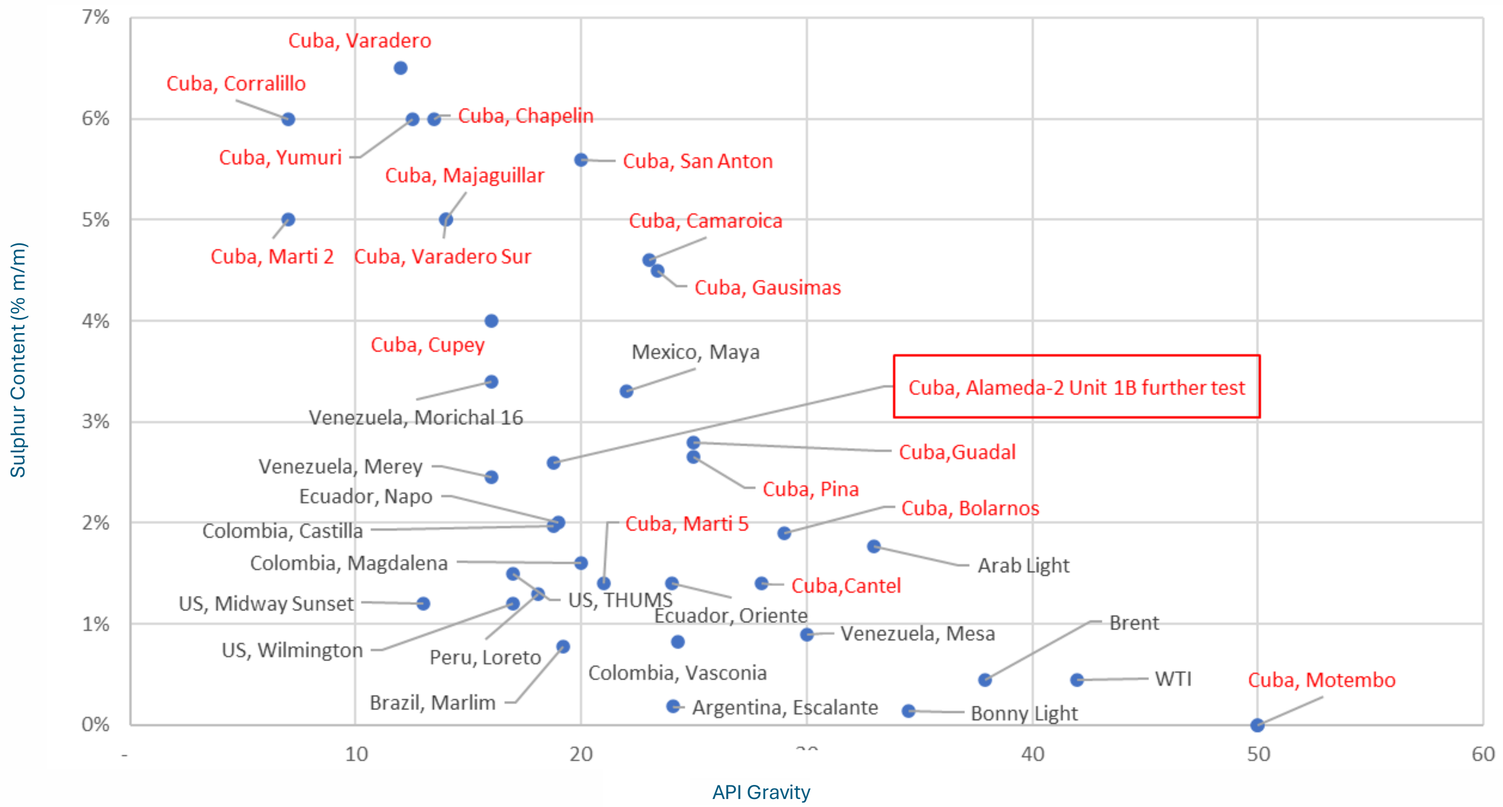
- Unit 1B favourable characteristics of lighter density, low sulphur and low viscosity
- Oil characteristics study underway to understand price against regional oil price markers
- Discussions underway with potential oil buyers
- Similar oils in region include, Escalante, Castilla, Merey, Marlim & Maya.
- Talking to oil traders to investigate potential to pre-fund development

Test	Unit	Results	☑ or ☒
API	API	18.7	☑
Sulphur	% (m/m)	~ 2.6	☑

° API	Classification
> 31.1	Light
22.3 – 31.1	Medium
10 – 22.3	Heavy
< 10	Ultra heavy

Sulphur (%)	Classification
< 0.5	Low sulphurous
0.5 a 1.5	Medium sulphurous
1.5 a 3.0	Sulphurous
> 3.0	High sulphurous

API Gravity V Sulphur Content



https://www.mckinseyenergyinsights.com/resources/refinery-reference-desk/crude-grades/

Pathway to market being clarified

- Utilise facilities at Alameda
- Existing trucking from Alameda to Varadero Tank Battery (VTB)
- Conclude exclusive storage at VTB
- Pre-FEED study of pipeline routes to VTB
- Pre-FEED study of pipeline from Alameda to Port Matanzas
- Batch from VTB to Matanzas using existing pipeline
- Potential to install tanks at Matanzas

Oil export options

Existing Matanzas Supertanker Port

- Import and export facilities
- Deep water channel
- Situated at the mouth of the River Yumuri and River San Juan in Matanzas Bay, northern Cuba
- Port is formed by an inlet length of 8km and a width of 6km
- Deep water is located 120m from shore;
- Depth in the fairway is over 180m
- Approx 40 vessels visit the port annually
- Max size: LOA 295m, draught 17.0m, 150,000DWT

Matanzas Port and Refinery facilities as seen from the bay

Questions?

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