

# **Tesoro Alaska Company LLC**

Kenai Refinery 54741 Energy Way Kenai, AK 99611 Tel: 907-776-8191

January 26, 2022

Ms. Janice E. Palumbo Environmental Compliance Specialist Office of Solid Waste and Emergency Response RCRA Permitting Unit U.S. Environmental Protection Agency, Region 10 1200 Sixth Avenue Seattle, WA 98101

Submitted via email Palumbo.jan@epa.gov

### RE: KLNG Gravity Rock Retaining Wall – Completion Report Tesoro Alaska Company LLC Kenai Refinery EPA ID# AKD 048679682

Dear Ms. Palumbo:

Tesoro Alaska, LLC (Tesoro) is submitting this Rock Wall Completion Report to update the status of Cook Inlet bluff erosion and sluffing mitigation. The gravity stack boulder rock wall (wall) was constructed at the Kenai Liquified Natural Gas facility (KLNG) bluff from October 28 to November 5, 2021 (Figure 1). An unmanned aerial vehicle (UAV), or drone, survey was conducted on November 16, 2021 to update topographic information from the bluff erosion and compare to a similar survey conducted on October 1 and 2, 2020. A comparison of UAV surveys from 2020 and 2021 is included on Figure 2 along with bluff material loss estimates from topography comparisons.

The rock wall stabilization project was completed to help slow bluff erosion, protect existing infrastructure, and better control beach sheen release events. Aerial imagery presented on Figure 2 shows extent of rock placement after project completion in November 2021. Rock placement extended beyond planned footprint detailed in the project work plan to better cover extent of erosion. The wall will be reassessed in the spring of 2022 for any needed repairs.

### PURPOSE

The Cook Inlet bluff section was stabilized just north of an existing KLNG sheet pile wall in an area that has been eroding and sluffing at an accelerated rated over the last 2 years. The 1987 Hot Oil Pipeline Release has had episodic release events on the Cook Inlet beach in approximately the same location as the planned rock wall since 1987, and after more than 10-years of no noted events, sheen appeared again at the beach in the fall of 2019. A Conceptual Site Model and Remedial Alternatives Report (CSM/RA) was submitted to the US EPA on April 22, 2021 presenting a summary of currently understood site model data and remedy alternatives.

The CSM/RA recommended a bio-sparge system be installed to speed natural source-zone depletion at the site. Planning is currently underway to implement pilot scale testing, but large and frequent bluff

erosion/sluffing events have created uncertainty with planned well and system installation close to active bluff movement.

The rock wall is not intended to stop bluff erosion but is an attempt to slow recent sluffing, provide additional bluff stability for planned pilot test installation activities, and slow migration of 1987 hot oil return pipeline release. The UAV surveys from 2020 and 2021 suggest approximately 7,200 cubic yards of bluff material sloughed from the bluff between October 2020 and November 2021 in the approximate 550-foot stretch of surveyed beach length (Figure 2).

## CONSTRUCTION

Large rocks (2-foot diameter minimum) were placed in a stack to approximately 10- to 15-feet above the beach level. Rocks were placed to 'lock' with each other, as practical, to mimic the effect of a monolithic gravity retaining wall.

Slope of rocks were placed at a maximum slope of approximately 2:1.

Rocks were placed using an excavator with a thumb attachment. Once ice is free from the beach in the spring of 2022, we anticipate rock wall maintenance to reposition rocks that have moved and fill in gaps opened up from winter beach dynamics.

If you have questions or comments please contact me at (907) 776-2090 or SPlate@Marathonpetroleum.com.

Sincerely,

Stephanie Plate, PE Environmental Engineer

Enclosed - Figures

cc: Trihydro Pete Campbell, ADEC FIGURES



EXISTING B-AQUIFER MONITORING WELL LOCATION AND NUMBER EXISTING A-AQUIFER MONITORING WELL LOCATION AND NUMBER

EXISTING/HISTORICAL FUEL PIPE CORRIDOR (SEE DETAIL BELOW)

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