

March 30, 2025

Mr. Guy McCardle
Florida Department of Environmental Protection
Northeast District Office
8800 Bay Meadows Way West, Suite 100
Jacksonville, Florida 32256

**RE: Engineering Control and Engineering Control Maintenance Plan
Murphy USA Store No. 6686
1495 County Road 220
Fleming Island, Florida 32003
FDEP Facility ID No. 10/9804186
Discharge Date: November 30, 2021
Non-Program Site
PPM Project No. 75080043.CC1**

Dear Mr. McCardle:

PPM Consultants, Inc. (PPM) is submitting this Engineering Control and Engineering Control Maintenance Plan on behalf of Murphy Oil USA, Inc. (Murphy). PPM previously submitted a Site Assessment Report Addendum/No Further Action with Controls (NFAC) Request on January 12, 2024. The Florida Department of Environmental Protection (FDEP) approved the NFAC Request on December 18, 2024, and requested submittal of applicable institutional/engineering control documents for the site. This submittal is for the Engineering Control and Engineering Control Maintenance Plan.

As detailed in previous report submittals, soil data was collected during five soil sampling events conducted between September 2012 and February 2023, as follows:

- Regular unleaded (RUL) No. 1 spill bucket closure assessment (September 2012) – clean closure after excavation of impacted pea gravel with all confirmation samples below Soil Cleanup Target Levels (SCTL).
- Premium unleaded (PUL) spill bucket closure assessment (February 2020) – clean closure with closure sample below STCLs.
- **Diesel (DSL) spill bucket closure assessment (November 2021) – Closure sample above SCTLs resulting in a petroleum discharge reported on November 30, 2021.**

- Site Assessment (July 2022) – Four soil samples collected from assessment wells (MW-1 to MW-4) were below SCTLs.
- Dispenser 5/6 and 7/8 closure assessment (February 2023) – clean closure with closure samples below STCLs.

In summary, these soil assessment activities indicated that only hydrocarbon concentrations at the diesel spill bucket (November 2021) exceeded SCTLs and were above leachability criteria of the Groundwater Cleanup Target Levels (GCTL). Soil concentrations exceeding SCTLs and/or leachability SCTLs at the diesel spill bucket included total xylenes and total recoverable petroleum hydrocarbons (TRPH) and are limited to the immediate area surrounding the diesel spill bucket. The November 30, 2021 Discharge Report Form was submitted as result of the November 18, 2021 soil results from the DSL spill bucket closure assessment. Historical soil results and the extent of hydrocarbon impacts exceeding SCTLs at the DSL spill bucket are shown in **Figure 1, Engineering Control Area**, in **Attachment A, Figure**.

Groundwater assessment was completed to assess the groundwater quality around the tank pit and determine groundwater flow direction, which was determined to flow to the north. Two groundwater sampling events were conducted in 2022 and 2023. Groundwater analytical results from the July 2022 and December 2023 sampling event indicated no concentrations above their respective GCTLs in monitoring wells MW-1, MW-2, MW-3, and MW-4.

1.0 ENGINEERING CONTROL

As shown in **Figure 1, Engineering Control Area**, in **Attachment A**, the concrete cover surrounding the tank pit, inclusive of the DSL spill bucket, will serve as an engineering control to prevent human exposure to the soil and to prevent infiltration of rain water to the subsurface. These concrete areas form a continuous barrier to direct exposure and water infiltration. This concrete is nominally at least six inches thick. There are no storm water catch basins or curb inlets within the engineering control area.

2.0 ENGINEERING CONTROL MAINTENANCE PLAN

The restricted area will be inspected annually by Murphy personnel to ensure that the engineering control is properly maintained and does not exhibit any substantial fissures,

damage, or cracks. Murphy personnel will visually inspect the concrete areas and document if patching or other repairs are required. A copy of the inspection form is included in **Table 1, Engineering Control Inspection and Maintenance Log**, in **Attachment B, Table**. If the concrete appears to be compromised, repair of the concrete or sealant should be applied to maintain the engineering control.

3.0 REPAIR MAINTENANCE METHODS AND TIMELINES

In the event that fissures or cracks are noted to the restricted area concrete slab that would compromise the intent of the engineering control, Murphy will schedule concrete patching or concrete repair activities to be conducted within 90 days of identifying the damage. Murphy will inform the FDEP in writing within 60 days of identifying damage to the engineering control and provide information on the repair methods and corrective actions.

If you have any questions or comments regarding this report, please contact the undersigned at (407) 240-1127 or (352) 227-8098.

Sincerely,
PPM Consultants, Inc.



Roy H. Therrien, P.G.
Senior Geologist
Roy.therrien@ppmco.com



Michael D. Lockett, P.E.
Senior Engineer

PE Certification

Attachments: Attachment A – Figure
Attachment B – Table

cc: Mr. Ryan Pederson, P.G., PMP, Maintenance Department/Remediation and Environmental Risk Manager, Murphy USA, Inc., 200 E Peach Street, El Dorado, Arkansas 71730, Ryan.Pederson@murphyusa.com


STATEMENT OF PROFESSIONAL REVIEW

PROFESSIONAL ENGINEER LICENSED IN THE STATE OF FLORIDA

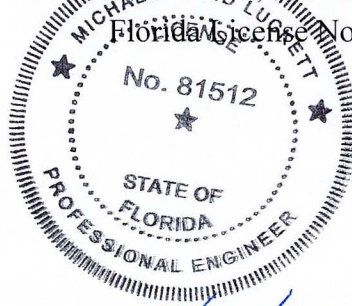
ENGINEERING CONTROL MAINTENANCE PLAN

Owner: Murphy Oil USA, Inc.
Site Name: Murphy USA No. 6686
Address: 1495 County Road 220
Fleming Island, Clay County, Florida 32003
FDEP Facility ID Number 10/9804186
Clay County Property Appraiser Parcel ID: 04-05-26-014190-005-03

In accordance with Chapter 471, Florida Statutes, Chapter 62-780, Florida Administrative Code, I hereby certify that, to the best of my knowledge, the engineering control is consistent with commonly accepted engineering practices, is appropriately designed and constructed for its intended purpose, and has been implemented. I certify that the impermeable pavement overlying the soil contamination in the specified area will prevent human exposure and limit water infiltration. Moreover, I certify that PPM Consultants, Inc. holds an active Certificate of Authorization No. 8314 to provide engineering services.



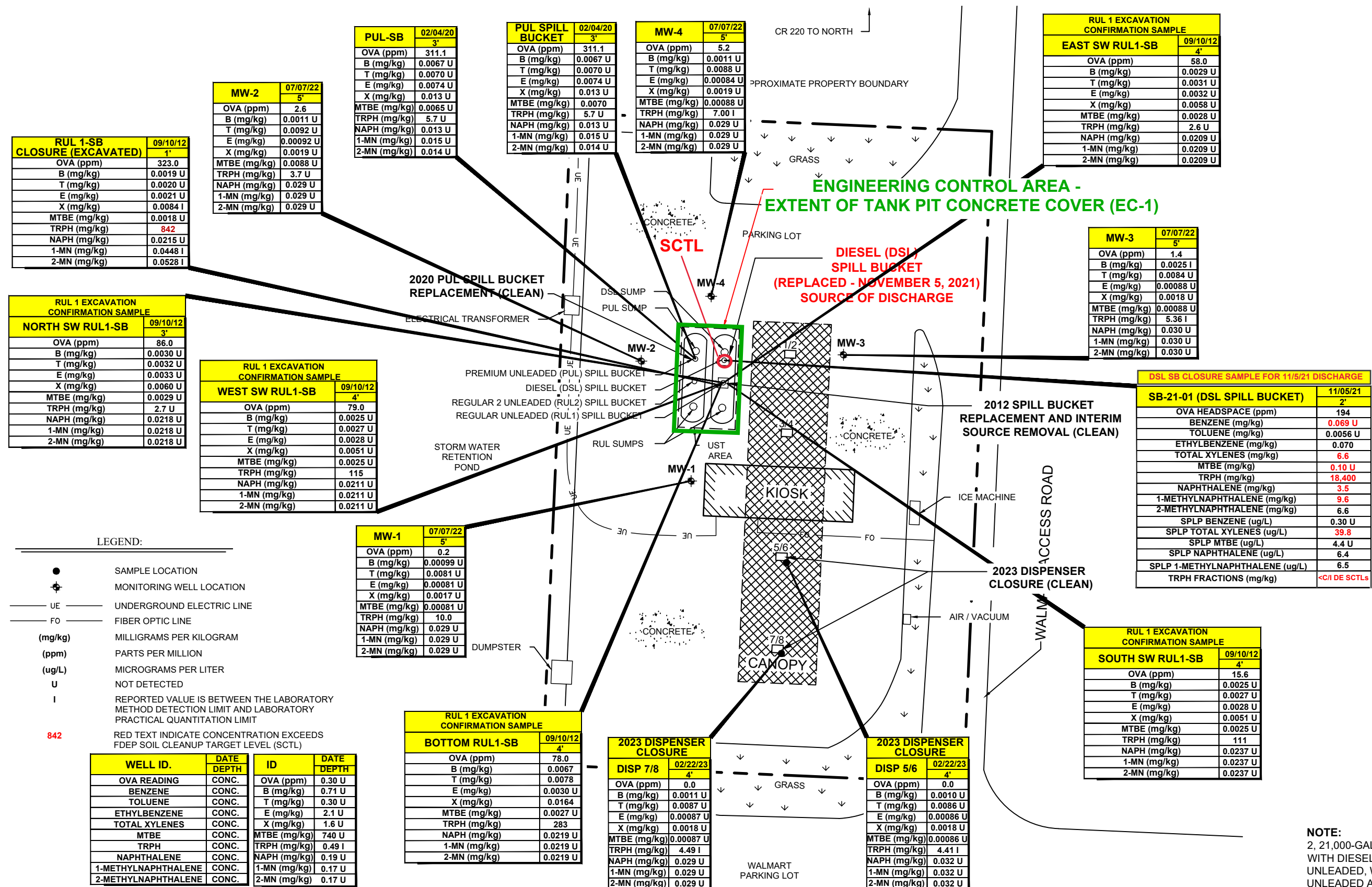
Michael D. Lockett, Professional Engineer
Florida License No. 81512



3/30/25
Date

ATTACHMENTS

ATTACHMENT A – FIGURE



NOTE:
2, 21,000-GALLON USTs, EAST UST
WITH DIESEL AND REGULAR
UNLEADED, WEST UST WITH PREMIUM
UNLEADED AND REGULAR UNLEADED

ATTACHMENT B – TABLE

Table 1: Engineering Control Inspection and Maintenance Log

Site: Murphy USA 6686

FDEP Facility ID 10-9804186, Clay County Parcel ID: 04-05-26-014190-005-03

Engineering Control Designation: EC-1. Engineering Control: Concrete Cap over Tank Pit

Date: _____ Inspector: _____



EC-1 was visually inspected in accordance with the ECMP

Yes / No Were any damaged areas observed (circle one)?

If NO, skip to the Engineer Control Integrity Statement at the end of this form



All damaged areas have been repaired in accordance with the ECMP and are described below.

Inspect all concrete surfaces for fissures, cracks, or damage. Typical descriptors for concrete surfaces include:

Surficial cracks less than 1/2-inch deep

Surficial cracks/fissures greater than 1/2 inch deep - specify depth of crack

(Report any cracks greater than 2-inches deep or any significant concrete damage on the form below)

Damage Area	Observations of Damage/Wear & Tear (describe and included dimension)	Repairs Performed	Personnel / Contractor Performing Repairs	Start Date of Repair	Completion Date of Repair
A	Exterior saw cut around west and south sided of tank pit				
B	Tank pit interior saw cut				
C	Spill bucket replacement areas where there was settling of concrete and cracks at edge of pour area				
D	Observation wells at NE and SW corners of tank pit				

Date _____