

January 27, 2023

Stephen Amberg (*via email*)
San Diego County Air Pollution Control District
10124 Old Grove Rd, San Diego, CA 92131

Subject: Martin Marietta San Diego Aggregates, LLC (formally Hanson Aggregates Pacific
Southwest, LLC) Emission Inventory ID 9165
Santee Aggregate Facility
Risk Reduction Audit and Plan

Dear Stephen:

On August 2nd, 2022, Martin Marietta San Diego Aggregates, LLC (formally Hanson Aggregates Pacific Southwest, LLC) received the Health Risk Assessment (HRA) approval letter. The approval letter indicated the Maximum Residential and Occupational Cancer Risk was above 10 in a million as well as the occupational chronic and 8-hour risk was above 1.0. As a result, a public notice and a risk reduction audit and plan is required. Attached you will find the risk reduction and audit plan. This plan includes an application to modify the Permit to Operate to establish enforceable permit limits to relocate the unpaved haul road.

Martin Marietta has paid the application fee of \$5,014.00 to modify the Permit to Operate.

We trust this submittal meets your approval. If you have any questions, please do not hesitate to contact us at 714-587-2595 x102.

Regards,



Susana Mitchell
Taylor Environmental Services, Inc

Cc: Martin Marietta, Erika Guerra (*via email*)
Martin Marietta, Scott Storms (*via email*)

**SAN DIEGO COUNTY
AIR POLLUTION CONTROL DISTRICT**
10124 Old Grove Rd.
San Diego, CA 92131

**MARTIN MARIETTA SAN DIEGO AGGREGATES, LLC
SANTEE FACILITY
SITE ID 01824
RISK REDUCTION AUDIT AND PLAN
REPORTING YEAR 2019**

Prepared For:

Martin Marietta
P.O. Box 639069
San Diego, CA 92145

Project No.: HANSN-20-2781
Contact: Susana Mitchell
Date: January 27, 2023



**TAYLOR
ENVIRONMENTAL
SERVICES, INC.**

5122 Bolsa Avenue, Suite 101
Huntington Beach, CA 92649
Phone: (714) 587-2595 Fax: (714) 587-2598
www.tayloresinc.com

Internal Use Only	
APP ID: APCD	-APP/CER-
SITE ID: APCD	-SITE-

GENERAL PERMIT OR REGISTRATION APPLICATION FORM



San Diego County
Air Pollution
Control District

Submittal of this application does not grant permission to construct or to operate equipment except as specified in Rule 24(c).

REASON FOR SUBMITTAL OF APPLICATION:

- | | | |
|--|---|--|
| <input type="checkbox"/> New Installation | <input type="checkbox"/> Existing Unpermitted Equipment or Rule 11 Change | <input type="checkbox"/> Modification of Existing Permitted Equipment |
| <input type="checkbox"/> Amendment to Existing Authority to Construct or Application | <input type="checkbox"/> Change of Equipment Location | <input type="checkbox"/> Change of Equipment Ownership (please provide proof of ownership) |
| <input checked="" type="checkbox"/> Change of Permit Conditions | <input type="checkbox"/> Change Permit to Operate Status to Inactive | <input type="checkbox"/> Banking Emissions |
| <input type="checkbox"/> Registration of Portable Equipment | <input type="checkbox"/> Other (Specify) _____ | |

List affected APP/PTO Record ID(s): 2009-PTO-979270

APPLICANT INFORMATION

Name of Business (DBA) Martin Marietta San Diego Aggregates, LLC.

Does this organization own or operate any other APCD permitted equipment at this or any other adjacent locations? ☒ Yes ☐ No

If yes, list assigned Site Record IDs listed on your Permits APCD2003-SITE-04824

Name of Legal Owner (if different from DBA) Martin Marietta San Diego Aggregates, LLC.

Equipment Owner

Authority to Construct Mailing Address

Name: Martin Marietta San Diego Aggregates, LLC.	Name: Martin Marietta San Diego Aggregates, LLC.
Mailing Address: 4211 Ponderosa Ave, #C	Mailing Address: 4211 Ponderosa Ave. #C
City: San Diego State: CA Zip: 92123	City: San Diego State: CA Zip: 92123
Phone: (858) 723-1264	Phone: (858) 723-1264
E-Mail Address: Scott.Storms@martinmarietta.com	E-Mail Address: Scott.Storms@martinmarietta.com

Permit To Operate Mailing Address

Invoice Mailing Address

Name: Martin Marietta San Diego Aggregates, LLC.	Name: Martin Marietta San Diego Aggregates, LLC.
Mailing Address: 4211 Ponderosa Ave, #C	Mailing Address: 4211 Ponderosa Ave. #C
City: San Diego State: CA Zip: 92123	City: San Diego State: CA Zip: 92123
Phone: (858) 723-1264	Phone: (858) 723-1264
E-Mail Address: Scott.Storms@martinmarietta.com	E-Mail Address: Scott.Storms@martinmarietta.com

EQUIPMENT/PROCESS INFORMATION: Type of Equipment: ☒ Stationary ☐ Portable, *if portable please enter below the equipment storage address.* If portable, will operation exceed 12 consecutive months at the same location ☐ Yes ☐ No

Equipment Location Address 8514 Mast Blvd. City San Diego State: CA

Parcel No. 366-041-02-00 Zip _____ Phone () _____ E-mail: justin.noble@martinmarietta.com

Site Contact Justin Noble Phone (858) 598-1851

General Description of Equipment/Process Aggregate Processing

Application Submitted by ☐ Owner ☐ Operator ☐ Contractor ☒ Consultant Affiliation Taylor Environmental Services, Inc.

EXPEDITED APPLICATION PROCESSING: ☐ I hereby request Expedited Application Processing and understand that:

a) Expedited processing will incur additional fees and permits will not be issued until the additional fees are paid in full (see Rule 40(d)(8)(iv) for details) b) Expedited processing is contingent on the availability of qualified staff c) Once engineering review has begun this request cannot be cancelled d) Expedited processing does not guarantee action by any specific date nor does it guarantee permit approval.

☐ **This application contains trade secret or confidential information (see reverse for instructions)**

I hereby certify that all information provided on this application is true and correct.

Date January 27, 2023

Print Name Erika Guerra Company Martin Marietta

Phone (925) 365-0004 E-mail Address erika.guerra.@martinmarietta.com

Internal Use Only

Date _____	Staff Initials: _____	Amt Rec'd \$ _____	Fee Schedule _____
RNP: _____	EMF: _____	NBF: _____	TA: _____

GEN_APP_Form_Rev Date: Aug. 2017

10124 Old Grove Rd. – San Diego - California 92131-1649 – (858) 586-2600

www.sdapcd.org

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Part I EXECUTIVE SUMMARY

This application, prepared by Taylor Environmental Services, on behalf of Martin Marietta San Diego Aggregates LLC. (Martin Marietta) details the Risk Reduction Audit and Plan (RRAP) for the Aggregate facility located at 8514 Mast Blvd, Santee, CA 92071. Please note, Martin Marietta San Diego Aggregates LLC. has acquired Hanson Aggregates Pacific Southwest, LLC. Therefore, the Risk Reduction Audit and Plan reflects this change.

On August 2nd, 2022, Martin Marietta received approval of the 2019 Health Risk Assessment (HRA). The resulting HRA determined a residential cancer risk of 14.7, occupational cancer risk of 19.7, occupational chronic non cancer Health Hazard Index of 8.0 and an 8-hour occupational cancer risk of 3.0. Pursuant to Rule 1210 (e)1, since the HRA resulted in risk above the significant risk threshold equal to or greater than 10 in a million for maximum individual cancer risk and a total chronic noncancer health hazard index greater than 1.0 a Risk Reduction Audit and Plan is required.

In accordance with San Diego Air Pollution Control District Rule 2010 (e) (1)

(1) Within 180 days of receipt of written notice from the Air Pollution Control Officer that a stationary source's most recent approved health risk assessment indicates health risks at or above the significant risk threshold(s), the owner or operator shall submit to the Air Pollution Control Officer, for completeness review and approval, a risk reduction audit and plan. For the purpose of this section, the significant risk threshold for maximum individual cancer risk shall be:

- (i) equal to or greater than 10 in one million for emissions inventory years 2018 and later, or*
- (ii) equal to or greater than 100 in one million for emissions inventory years prior to 2018.*

The risk reduction audit and plan shall comply with the requirements of Subsection (e)(2). Such risk reductions shall be accomplished within five years of the date the plan is approved by the Air Pollution Control Officer unless an extension has been granted pursuant to Subsections (e)(4) or (e)(5).

(2) The risk reduction audit and plan submitted by the owner or operator shall be accompanied by appropriate application(s) to implement the plan and contain all of the following:

- (i) The name and location of the stationary source.*
- (ii) A facility risk characterization which includes an updated emissions inventory report and health risk assessment, if the risk due to total facility emissions has increased to above or decreased to below the levels indicated in the previously approved health risk assessment.*
- (iii) The identification of all the emission unit(s) for which the owner or operator proposes to reduce toxic air contaminant emissions and the identification of the*

airborne toxic risk reduction measures proposed for implementation to reduce such emissions, and the anticipated emission and health risk reductions.

- (iv) A schedule for implementing the proposed airborne toxic risk reduction measures within five years. The schedule shall include specific increments of progress towards implementing the airborne toxic risk reduction measures.*
- (v) A demonstration, including supporting documentation such as emission calculations, that the proposed airborne toxic risk reduction measures will reduce or eliminate toxic air contaminant emissions from the stationary source. The demonstration shall be made through analogy with the approved health risk assessment for the stationary source or by submission of a revised forecast risk assessment. The demonstration also shall include any foreseeable new or increased emissions of toxic air contaminants from the stationary source and the estimated health risks resulting from such new or increased emissions during the period approved for implementation of the risk reduction audit and plan.*
- (vi) A schedule for providing progress reports on reductions in emissions of toxic air contaminants and estimated health risks achieved under the implemented plan. Progress reports shall include a technology review, as applicable, that provides an update on new emissions reducing technologies, and shall be provided not less frequently than within 12 months from when the plan is approved, and annually thereafter, and may be incorporated into emission inventory report updates required pursuant to Section 44344 of the California Health and Safety Code.*

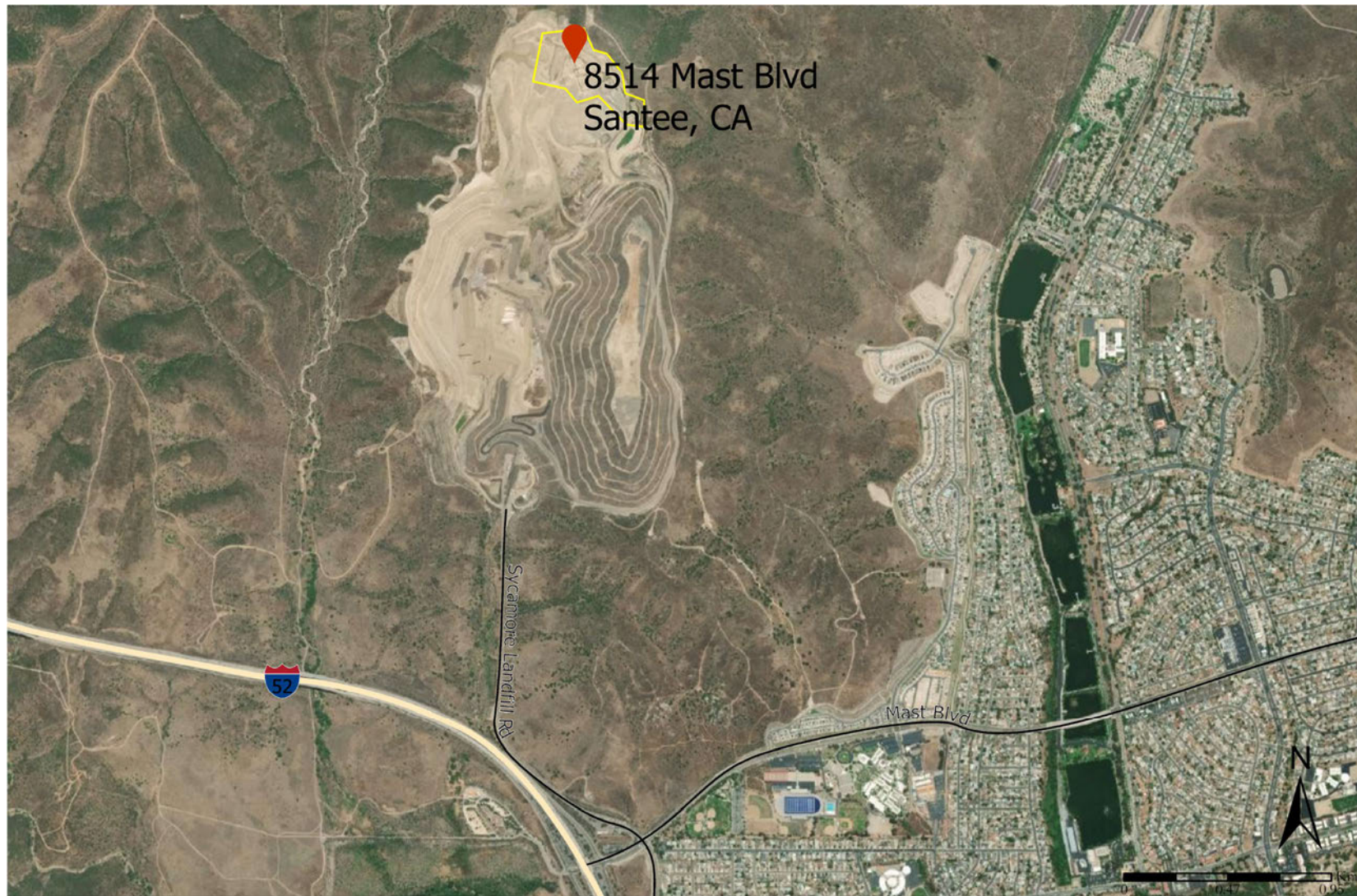
Part II Project Description

A. Business Background

- | | | |
|----|----------------------|---|
| 1. | Name | Martin Marietta San Diego Aggregates, LLC. |
| 2. | Owner | Martin Marietta San Diego Aggregates, LLC. |
| 3. | Contact | Erika Guerra - Environmental Director
Martin Marietta
4211 Ponderosa Ave, #C
San Diego, CA 92123
(925) 365-0004 |
| 4. | Facility Address | 8514 Mast Blvd.
Santee, CA 92071
(Site ID 04824) |
| 5. | Business Description | Aggregate Processing Facility |

B. Description of Facility

Martin Marietta San Diego Aggregates, LLC., operates an Aggregate Crushing and Screening facility located at 8514 Mast Blvd. Santee, CA 92071 (Site ID 04824). Refer to Figure 1 below for a vicinity map detailing the location of the site. The facility produces sand and gravel to supply the construction needs of the San Diego area. Sand and Gravel are key components in a number of critical building materials. It is used as base, in foundations for homes, in sidewalks, buildings and roads. The facility provides construction materials for wholesale delivery.



(Source: Google Maps)

Figure 1 - Vicinity Map

Part III Risk Reduction

A. Emission Sources

Martin Marietta San Diego Aggregates, LLC. Santee Facility contains the following emission units that contribute to public health risks above the significant mitigation levels:

- Aggregate Conveying and Screening (volume source)
- Unpaved and Paved haul roads (line volume sources)

B. Risk Contribution

According to the 2019 HRA approval, dated August 2, 2022, the unpaved haul roads contribute the most to the total health risk at the facility, as seen in Table 1.

Table 1 - Emission Unit Health Risk Contribution

Source	Risk Scenario	Maximum % Contribution
Unpaved Haul Road	Maximum Residential Cancer Risk	92%
Unpaved Haul Road	Maximum Worker Cancer Risk	99%
Unpaved Haul Road	Worker Non-Cancer Health Hazard Index	99%
Unpaved Haul Road	Worker 8-hr Non-Cancer Health Hazard Index	99%

Specific toxic air contaminants (TACs) that contribute the most to overall health risk under the risk scenarios are details in Table 2.

Table 2 - Specific TAC Health Risk Contribution

Risk Scenario	TAC	Maximum % Contribution
Maximum Residential Cancer Risk	Arsenic	96%
Maximum Worker Cancer Risk	Arsenic	91%
Worker Non-Cancer Health Hazard Index	Arsenic	81%
Worker 8-hr Non-Cancer Health Hazard Index	Manganese	67%

The largest contributing source is non-volatile emissions (metals) from the unpaved haul roads. These metals are naturally present in the soil. The RRAP is required due to the cancer risks below 10 for both resident and worker and the non-cancer health hazard index below 1.0 for worker and the non-cancer health hazard index below 1.0. The focus of the RRAP will be from the unpaved haul road segment Device D33 as this device is the driving risk.

C. Risk Reduction Evaluation

Table 1 presents the main contributor to the risk are the unpaved haul roads. The focus of this risk reduction plan is the main unpaved haul road Device D33. The current unpaved haul road is utilized by Martin Marietta and the property owners. Since the 2019 Health Risk Assessment, the main unpaved haul road Device D33 has been relocated further away from the residence to the east side of the property.

The relocated haul road has been evaluated in this Risk Reduction Audit and Plan is at a distance of 3.0 miles round trip for Device D33. Attachment A shows the map detailing the location of the unpaved road. Martin Marietta will modify the Permit to Operate to include a condition to establish a distance from a residential receptor and offsite worker receptor.

The emissions have been recalculated for Device D33 and are included with this reduction plan (Refer to Attachment "B"). As you will find in Part III D, this control reduces the risk below the risk thresholds.

D. Risk Reduction Schedule

A revised health risk assessment was completed to determine the risk for the relocated unpaved haul road. Based on this analysis it was determined the results in a residential and work cancer risk are below 10 in a million and a health hazard index below 1.0. Table 3 is the summary of the Risk Analysis for Reporting Year 2019.

Table 3 - Existing Risk Analysis for Reporting Year 2019

Risk Scenario- Cancer Risk	Risk (in 1 million)	Receptor Location	
		X	Y
		(m)	(m)
Point of Maximum Impact Cancer Risk (PMI)	295	497264.6	3635700.8
Maximum Exposed Individual Resident Cancer Risk (MEIR)	14.7	498642.52	3636006.24
Maximum Exposed Individual Worker Cancer Risk (MEIW)	19.7	497239.6	3635625.8

Risk Scenario- Non- Cancer Chronic Health Hazard Index	Health Hazard Index	Receptor Location	
		X	Y
		(m)	(m)
Maximum Non-Cancer Chronic HHI (PMI)	18.2	497264.6	3635700.8
Maximum Residential Non-Cancer Chronic HHI (MEIR)	0.9	498642.52	3636006.24
Maximum Worker Non-Cancer Chronic HHI (MEIW)	8.3	497239.6	3635625.8
Maximum Worker 8-Hour Non-Cancer Chronic HHI (MEIW)	3	497239.6	3635625.8

<i>Risk Scenario- Acute</i>	<i>Health Hazard Index</i>	<i>Receptor Location</i>	
		<i>X</i>	<i>Y</i>
		<i>(m)</i>	<i>(m)</i>
Maximum Acute Health Hazard Index (PMI)	0.8	497839.6	3636125.8
Maximum Residential Acute HHI (MEIR)	0.2	497834.9	3634206.5
Maximum Worker Acute Health Hazard Index (MEIW)	0.7	497214.6	3635450.8

Table 4 details the summary of the revised Risk Analysis after the change in haul road location.

Table 4 - Revised Risk Analysis After change in Haul Road Location

<i>Risk Scenario- Cancer Risk</i>	<i>Risk (in 1 million)</i>	<i>Receptor Location</i>	
		<i>X</i>	<i>Y</i>
		<i>(m)</i>	<i>(m)</i>
Point of Maximum Impact Cancer Risk (PMI)	172.85	497264.6	3635700.8
Maximum Exposed Individual Resident Cancer Risk (MEIR)	8.79	498642.52	3636006.24
Maximum Exposed Individual Worker Cancer Risk (MEIW)*	0.78	497609.92	3634181.54

<i>Risk Scenario- Non- Cancer Chronic Health Hazard Index</i>	<i>Health Hazard Index</i>	<i>Receptor Location</i>	
		<i>X</i>	<i>Y</i>
		<i>(m)</i>	<i>(m)</i>
Maximum Non-Cancer Chronic HHI (PMI)	10.66	497264.6	3635700.8
Maximum Residential Non-Cancer Chronic HHI (MEIR)	0.55	498642.52	3636006.24
Maximum Worker Non-Cancer Chronic HHI (MEIW)*	0.33	497609.92	3634181.54
Maximum Worker 8-Hour Non-Cancer Chronic HHI (MEIW)*	0.12	497609.92	3634181.54

<i>Risk Scenario- Acute</i>	<i>Health Hazard Index</i>	<i>X</i>	<i>Y</i>
		<i>(m)</i>	<i>(m)</i>
Maximum Acute Health Hazard Index (PMI)	0.79	497214.6	3635500.8
Maximum Residential Acute HHI (MEIR)	0.13	498642.52	3636006.24
Maximum Worker Acute Health Hazard Index (MEIW)*	0.14	497609.92	3634181.54

*Per email from Jim Swaney dated June 24, 2023, the risk assessment does not need to evaluate personnel at Sycamore Landfill and Sycamore Energy. As a result, the worker receptor has been changed to Quiroz Recycling. This receptor has never exceeded the worker receptor threshold.

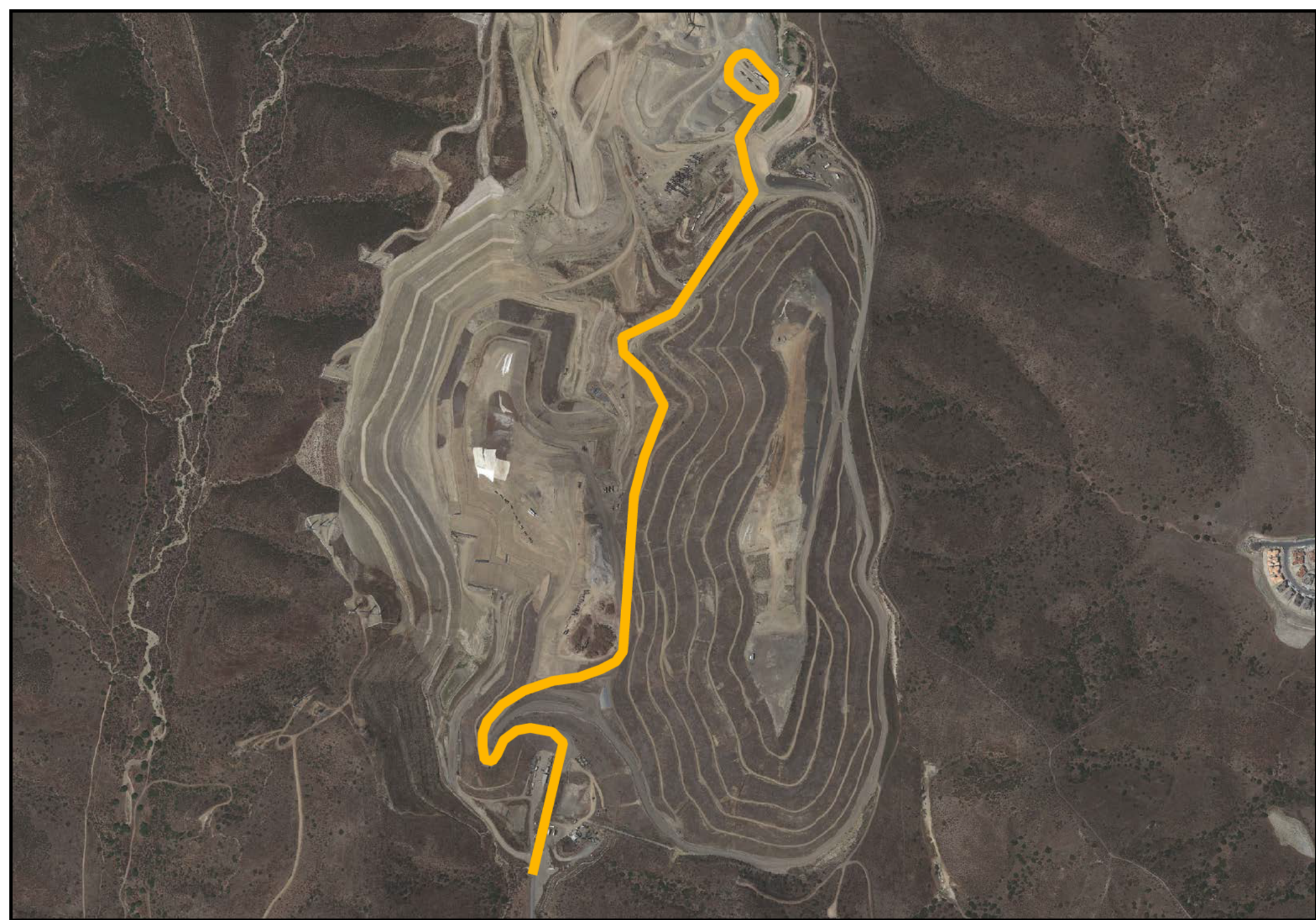
E. Permit Modification

Martin Marietta is requesting to modify the Permit to Operate to include an enforceable permit limit to establish a distance for the location of the unpaved haul road Device D33 from a residential receptor.

No portion of the main haul road (Device D33) will be located any closer than 1,060 meters from a residential receptor as represented in Attachment "A".

ATTACHMENT "A"

ROAD LOCATION



Prepared For: Martin Marietta Santee
Job Number: HANSN-21-2781
CRS: NAD83 / UTM zone 11N
Date: 01/25/2023

D33 Unpaved Haul Road



0

300

600 m



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ATTACHMENT "B"
HAUL ROAD CALCULATIONS

D33: Unpaved Haul Road (3 Miles Round Trip)

$$E_a = (\text{VMT}) \times [(k) \times (5.9) \times (s/12) \times (S/30) \times (W/3)^{0.7} \times (w/4)^{0.5} \times ((365-p)/365)] \times (C_i) (1-e)$$

$$E_h = E_a / (D_a \times H)$$

VMT =	77,177.52	Vehicle miles traveled on site (miles/yr)
k =	0.36	Particle size multiplier (dimensionless)
s =	15	Unpaved haul road surface material silt content (weight %)
S =	10	Mean vehicle speed (miles/hr)
W =	27.5	Mean vehicle weight (tons)
w =	18	Number of vehicle wheels (dimensionless)
p =	40	Days with precipitation (days/yr)
C _i =	1	Concentration of each listed substance in the haul road dust (lbs/lb)
D _a =	260	Active days during reporting period (days/yr)
H =	9	Hours of operation (hours/day)
e =	0.8	Control efficiency, if applicable (%)

$$E_a = 121677.0988 \quad \text{Annual emissions of PM}_{10} \text{ (lbs/year)}$$

$$E_h = 51.99876017 \quad \text{Maximum hourly emissions of PM}_{10} \text{ (lbs/hour)}$$

$$\begin{aligned} \text{Arsenic District Emission Factor (ppmw)} &= 21 \\ &= 0.000021 \text{ lb/lb PM}_{10} \end{aligned}$$

$$\begin{aligned} 121677.1 \text{ lb PM}_{10}/\text{yr} \times 0.000021 \text{ lb Arsenic/lb PM}_{10} &= 2.5552 \text{ lb Arsenic/yr} \\ 52 \text{ lb PM}_{10}/\text{hr} \times 0.000021 \text{ lb Arsenic/lb PM}_{10} &= 0.00109 \text{ lb Arsenic/hr} \end{aligned}$$