

YAKIMA REGIONAL CLEAN AIR AGENCY

Order of Approval Permit Number NSRP-03-DTGEI-22

**New Source Review Order of Approval for a Limited Purpose Landfill (LPL) for DTG Enterprises Inc. Dba; DTG Recycle - Yakima
(After the Fact)**

IN THE MATTER OF approving a project which establishes a new air contaminant source at DTG Enterprises Inc. at 41 Rocky Top Road, in Yakima, WA. **THIS ORDER OF APPROVAL IS HEREBY ISSUED TO:**

Applicant/Permittee: DTG Enterprises Inc. Dba; DTG Recycle - Yakima
Limited Purpose Landfill with Materials Recovery Facility
Formerly known as:
Anderson Rock and Demolition Pits
Limited Purpose Landfill

Located at: 41 Rocky Top Road
Yakima, WA 98908

Contact: DTG Enterprises Inc.
Attn: Ian Sutton, Director of Engineering
41 Rocky Top Road
Yakima, WA 98908
(425) 529-0854

IN COMPLIANCE WITH THE PROVISIONS OF THE STATE OF WASHINGTON CLEAN AIR ACT (Revised Code of Washington (RCW) CHAPTER 70A.15.2210, WASHINGTON ADMINISTRATIVE CODE (WAC) 173-400-110, WAC 173-460-040, and WAC 173-350-400.

ISSUE DATE: *March 8*, 2024

**THIS ORDER OF APPROVAL PERMIT IS SUBJECT TO THE FOLLOWING
CONDITIONS:**

Modification or construction of the project must be conducted in compliance with all data and specifications including all additional information submitted subsequent to the New Source Review (NSR) application under which this Order of Approval is issued unless otherwise specified herein. The conditions and limitations of this NSR Order of Approval are attached as follows:

1.0 DESCRIPTION OF THE SOURCE

- 1.1 DTG Enterprises Inc. Dba; DTG Recycle - Yakima, hereafter referred to as the Permittee, the Facility, DTG or the Source, purchased Anderson Rock and Demolition Pits on November 1, 2019 at 41 Rocky Top Road, Yakima, WA. The Facility site plan and location are shown below in Figures 1 and 2, respectively.
- 1.2 This Facility is a Limited Purpose Landfill (LPL) and has been operating under a Yakima Health District (YHD) permit prior and after its purchase by DTG on November 1, 2019. Phase #1 which is also called Cell #1 began filling while the Facility was under the Anderson's ownership and completed filling of the cell under DTG's ownership (around December of 2022). The Facility submitted a New Source Review (NSR) application for expansion to Phase #2 which is also called cell #2 on 2020 and was eventually determined complete on June 29, 2023 for the Phase 2/Cell #2 of LPL operations including a Materials Recovery Facility (MRF), a Wood Chipper/Grinder and Crushed Rock Exportation as part of the LPL operations. On August 9, 2023 the Facility submitted additional information at the request of the Yakima Regional Clean Air Agency (YRCAA), to include Phase #1 /Cell #1 so that the Hydrogen Sulfide (H₂S) emissions from this cell #1 can be included in this NSR Order of Approval (Order/Permit) as YRCAA could not find the original permit, if any.
- 1.3 For the purpose of this Order, Phase #1 or Cell #1 means the entire area shown Figure 1 below; the same is true and applicable for Phase #2 or Cell #2 as the entire area shown in the same figure. The dimensions and the areas of the cells 1 and 2 are as shown in Table 1, below.
- 1.4 Part of Cell # 1 caught fire. As of the time of writing this Order the fire still believed to be burning beneath the surface, however, based on some data and the feedback from the consultant, the fire is in its way to go out. The Facility hired a consultant for the main purpose to extinguishing the fire. As a result, DTG also entered into an agreement under Agreed Order (AO) Number DE 21624 with the Department of Ecology (Ecology) under the Model Toxic Control Act (MTCA) Chapter 70A.305 Revised Code of Washington (RCW) and the Cleanup Regulation of Washington Administrative Code (WAC) 173-340. Because of the AO and pursuant to the regulations of MTCA, that part of Cell # 1 shown in Figure 3 is not included in this NSR process and evaluation, including air emissions. Cell # 1 site location map and the approximate area of the MTCA area are shown in Figure 3 below.
- 1.5 The AO requires the owner of the land; East Mountain Investments, Inc., and DTG Enterprises, Inc. (collectively referred to as the Potentially Liable Parties or PLPs) as stated to "...provide for remedial action at a facility where there has been a release or threatened release of hazardous substances...". The AO further "...requires the PLPs to complete a limited Remedial Investigation and Interim Actions as necessary...". "Ecology believes the actions required by the "...Agreed Order" are in the public interest...".

- 1.6 East mountain Investments, Inc. is the “owner or operator” of a “facility” as defined in the RCW 70A.305.020 (8) and (22), respectively. According to County Assessor records, East Mountain Investments, Inc. is the owner of the property (Parcel Nos. 17131023003 and 17131031003). The Landfill is permitted and operated by DTG Enterprises, Inc. as an LPL.
- 1.7 The Facility previously operated under a Solid Waste Permit, from the YHD, for inert demolition waste materials, including drywall waste, wood waste and wood chipper/grinder. The wood chips are for resale or at times used as LPL surface daily cover.
- 1.8 The YHD did not renew the Facility’s permit which expired on June 30, 2023. Hence, the Facility is currently not accepting demolition waste until all requirements are met by the Facility as indicated in the YHD letter dated June 27th, 2023. This letter states that DTG must cease accepting all solid waste effective on July 1, 2023, until all required conditions are approved by the YHD. The YRCAA office could not find the original permit for the Facility, if any issued. Thus, this expansion for Phase #2/Cell #2, the MRF Wood Chipper/Grinder and the Crushed Rock Exportation are subject to NSR requirements and considered after the fact.
- 1.9 This Order is to permit the LPL’s operations in Cell #2/Phase #2, currently under construction, the MRF, Wood Chipper/Grinder, Crushed Rock Exportation and the already closed/filled up Cell # 1, except the area under the AO for the reasons stated above. Cell #2/Phase #2 will have a Geosynthetic Clay Liner (GCL) in addition to the lined 60-mil High-Density Polyethylene (HDPE) welded geomembrane liner in accordance with the agreement among YHD, Ecology, and DTG. The MRF will be located on a location with an impervious floor at minimum and as required by YHD. In addition, Cell # 2 and the MRF will have a leachate collection system that runs off to a lined leachate pond. Locations of these operations are show in Figure 4.
- 1.10 Rock crushing operations are not part of this NSR Order of Approval. However, when the Facility has stock piles of crushed rock, by a third entity, the fugitive air emissions from the transportation of crushed rock out of the Facility are part of this Order and air emissions are calculated.
- 1.11 The Facility ceased accepting Petroleum Contaminated Soil (PCS) for treatment as a result of this NSR application on November 16, 2021. The PCS operation is not part of this Order and the Facility will not accept any PCS without a prior written order of approval permit from our agency.
- 1.12 The LPL operations and modifications are considered a new source of air contaminants requiring a NSR permit pursuant to RCW 70A.15.2210 and the WAC 173-400-110, 173-460-040.

- 1.13 Yakima County Planning Department issued a Determination of Non-Significance (DNS) for a new 64 acres expansion to the existing 61 acres LPL pursuant to the State Environment Policy Act (SEPA) with SEPA number SEP2015-00024 and signed by the County in September 9, 2015. After the Public Hearing held by YRCAA on September 26th, 2023, YRCAA reached out to Yakima County and it was concluded that the SEPA of 2015 determination is still valid for this project and satisfies SEPA's requirements. In addition, a Conditional Use Permit (CUP) was issued by Yakima County on November 27, 2015; CUP2015-00051.
- 1.14 Air emissions from the LPL operations being permitted stated above are mainly Particulate Matter with small aerodynamic diameters (PM₁₀ and PM_{2.5}) and H₂S a Toxic Air Pollutant (TAP) in accordance with the Federal Clean Air Act (FCAA) and the WAC 173-460-150, respectively.
- 1.15 Air emissions from MTCA's area (shown in Figure 3 below) are not included in this Order for the reasons stated above. However, YRCAA will consider the air permitting issue for that area upon the conclusion of the MTCA project, if and when required. In which all documentation and air emissions to be submitted to YRCAA during MTCA project.
- 1.16 Air emissions from the Facility include fugitive emissions from; the LPL and MRF ancillary equipment on the waste deposition areas, paved and unpaved road use, tub grinder, wood chip piles, transport of occasional crushed rock, and the addition of H₂S primarily from sheetrock disposed of in both cells of the LPL.
- 1.17 Cell #1 volume is about 2.5 million cubic yards (yd³) while Cell #2 disposal capacity will be about 2.2 million yd³. This will give a design capacity of 875,000 tons for cell #1 and 770,000 tons for cell #2 based on a compacted density of 0.35 tons per cubic yard (tons/yd³). Figures 5 and 6 show Phase/Cell #1 and Phase/Cell #2.
- 1.18 A 30-day Public Notice, and an extended 60-day Public Comment Period and a Public Hearing for this NSR were published and held in accordance with the RCW 70A.15.2210 and WAC 173-400-171.
- 1.19 As stated above, Cell #2 is under construction and the Facility is currently not accepting demolition waste until all requirements specified by YHD are met by the Facility.
- 1.20 The Facility is allowed to operate a maximum of 3,744 hours per year (allowed) by the County of Yakima, YHD. Allowable operating hours are Monday through Saturday 6 a.m. to 6 p.m. as the allowable. Actual operating hours for waste disposal are Monday through Friday 7 a.m. to 5 p.m. based also on the NSR application. If these hours are not in compliance with the County's hours, they shall be adjusted to the more stringent one (the lesser one).

2.0 DETERMINATION

In relation to the above modification/construction, YRCAA determines that the Permittee shall comply with all federal, state and local rules, regulations and laws including but not limited to the following determination:

- 2.1 The Facility is located in an area that is in attainment with all criteria pollutants;
- 2.2 The Facility is not a major stationary Source nor is this construction/ modification is subject to the Prevention of Significant Deterioration (PSD) permitting requirements of the WAC 173-400-700 through 173-400-750;
- 2.3 The Facility is required to register with YRCAA and it will be classified based on the approved YRCAA registration classification. This modification/construction or any proposed future modification is subject to NSR requirements pursuant to WAC 173-400-110 and WAC 173-460-040;
- 2.4 The Facility is subject to WAC 173-400-099 – Registration Program and to the YRCAA Regulation 1, 4.01 – Annual Registration Program;
- 2.5 The Facility is not subject to 40 CFR Part 61, Subpart M- National Emission Standard for Asbestos as the facility is not permitted or allowed to receive any asbestos materials;
- 2.6 Part of Cell # 1 shown in Figure 3, below is under an AO Number DE 21624 with the Ecology under the MTCA Chapter 70A.305 RCW and the Cleanup Regulation of WAC 173-340. Thus, it is determined that part shown in Figure 3 is not included in this NSR process and evaluation, including air emissions;
- 2.7 It is further determined that the area under the AO shall meet all substantive requirements for air, water, and other regulations;
- 2.8 Upon the completion of the MTCA’ project, The Facility is also required to submit a closure plan and be approved by YHD. The YRCAA shall be copied with all documents submitted to YHD including any approval. A NSR from this agency may be required;
- 2.9 During the MTCA project, all documentation in relation to air emissions shall be submitted to YRCAA;
- 2.10 The recommended model by U.S. Environmental Protection Agency (US EPA) AERSCREEN and AERMOD Models were used for modeling the ambient air emissions impact. The model results showed that all potential air emissions for this NSR will comply with the NAAQS and the Acceptable Source Impact Level (ASIL) of WAC 173-460-150; and
- 2.11 This LPL’s modification and operation are considered a new source of air contaminants requiring a NSR permit pursuant to the RCW 70A.15.2210 and the WAC 173-400-110, 173-460-040.

THEREFORE, it is hereby ordered that the project as described above, in the NSR application, and in the submitted plans, specifications and other additional information submitted in reference thereto, is **APPROVED** for operation, **PROVIDED** those specifications and information's submitted in relation to the application and the following conditions are met:

3.0 OPERATING APPROVAL CONDITIONS

- 3.1 This Order is for the LPL's operations in the new Cell #2 (under construction), the MRF, Wood Chipper/Grinder, and Crushed Rock Exportation. This Order includes air emissions for H₂S from the already closed/filled-up Cell #1, except the area under the AO of Ecology. The Facility is located at 41 Rocky Top Road, Yakima, WA, in accordance with the plan and specifications submitted with the NSR application to YRCAA and specified in Table 1 and shown in the Figures 1 to 3 below.
- 3.2. Pursuant to RCW 70A.15.2210, WAC 173-400-113 and WAC 173-460-060, Best Available Control Technology (BACT) and toxic-BACT (t-BACT), respectively, are required to control all air emissions from any proposed new Facility or modified Source. YRCAA finds BACT and t-BACT analysis to be satisfied as follows:
 - 3.2.1 All TAP emissions include H₂S shall always be below the ASILs at the property boundary;
 - 3.2.2 MTCA's area at Cell #1 shall meet all the substantive requirement of a NSR air emissions as indicated by the rules and regulation of WAC 173-400-110 (1)(e) and the MTCA's Regulation of RCW 70A.305 and WAC 173-340-710(9);
 - 3.2.3 The Facility ceased accepting PCS for treatment and is not accepting any as indicated above. The Facility shall not accept any PCS at the facility site prior to any written order of approval to be issued by YRCAA, even if other agencies or department issues the facility a permit for accepting or treating PCS;
 - 3.2.4 Dust palliative material or water shall be applied on unpaved roads i.e., shown in Figure 7 and unpaved areas as needed, to minimize airborne dust emissions, so that no visible dust is entrained by moving vehicles;
 - 3.2.5 Vehicle speeds shall be limited to 10 mph on unpaved roads and unpaved areas, unless the roads or areas are sufficiently treated with dust palliative or water so that no visible dust is entrained by the moving vehicles, in such cases the speed may exceed the 10 mph, without visible emissions;
 - 3.2.6 Cover soil shall be applied on the working face area and other areas as needed to control moisture and reduce any odors at the active cell/working area in the landfill as required by rules and regulations;
 - 3.2.7 Windbreaks or vegetative cover may be used to reduce fugitive dust emissions;

- 3.2.8 The Permittee shall develop, maintain and implement an Operation and Maintenance (O&M) plan including appropriate training for all operators and include the specific operation hours;
 - 3.2.9 Dust from the tub grinder and wood chip piles shall be controlled at all times;
 - 3.2.10 The Facility shall not accept or receive any asbestos containing material;
 - 3.2.11 Air emissions shall meet the NAAQS of 40 CFR Part 50 and as specified in this Order at all times;
 - 3.2.12 The Permittee shall minimize odors through the regular and timely placement of waste into the working face area in Cell #2 without prolonged exposure to the surrounding environment. The working face area shall be minimized in size to a small area to minimize odors; and
 - 3.2.13 The Permittee shall accept only the type of waste identified by the YHD Solid Waste Permit, thus, no materials containing municipal solid waste shall be accepted for disposal.
- 3.3 The Permittee must develop and implement a site specific Operation and Maintenance (O&M) Plan based on the owners/operators experience as part of BACT and t-BACT. The O&M Plan shall contain at least four sections: general information, operation plan (i.e., key operating parameters), maintenance plan and any other additional information. The Permittee must develop the O&M plan within 60 days of the issuance of this Order if it is not developed yet, and shall include the development of a Dust Control Plan for the LPL and the MRF and an Odor Control Plan and a Landfill Gas Response Action Plan for H₂S, CH₄ and odors which shall include at minimum, the following:
- 3.3.1 Receiving complaints: Log the off-site complaint or any odors detection by staff, and report it to YRCAA within 24 hours via email, phone and mail the written complaint by mail;
 - 3.3.2 Investigation and air monitoring: Investigate the complaint to determine the source and extent of the odors within 24 hours of receiving the complaints. Conduct ambient H₂S and CH₄ air monitoring at the landfill gas source and at or beyond the boundary line prior to any corrective actions. This information shall be logged and kept on site for a period of at least 5 years to track where the odors come from and its concentration and take corrective and preventive actions when needed;
 - 3.3.3 Immediate corrective actions: If the odor problems is not resolved within the next 48 hours after determining the source and extent, then consider whether to cease acceptance of any material that has the potential to contribute to odorous, or apply additional cover soil to the areas emitting or causing the odor;

- 3.3.4 **Monitoring after corrective actions:** Conduct ambient H₂S and CH₄ air monitoring at the landfill gas source and at or beyond the boundary line after corrective actions are taken. This information shall be logged and kept on site for a period of at least 5 years to maintain a record of the concentration of landfill gases.
- 3.3.5 **Recordkeeping:** Record the corrective actions that were taken to resolve the issue as well as the ambient air monitoring results before and after the corrective actions taken to show how the issue has been addressed.
- 3.3.6 **Continuous air monitoring:** Conduct periodic ambient H₂S and CH₄ air monitoring at or beyond the boundary lines, especially near downwind area, low-lying areas, surface level, receptor locations or where multiple complaints have been addressed in the past as also specified in this Order and Section 6.0;
- 3.3.7 **Continuous recordkeeping:** Record all measured H₂S and CH₄ concentrations and the locations where they were measured;
- 3.3.8 **Emergency Odor/Dust Report:** Inform YRCAA within 24 hours if during any ambient air monitoring procedures, the concentrations of H₂S or CH₄ are within the Lower Explosive Limit (LEL) or higher; and
- 3.3.9 If CH₄ is detected as specified in the emission limits section, the Facility must inform the agency immediately but in no later than 12 hours of detection. Landfill collection system may be required and be must be installed immediately within a period to be identified and specified by the agency and the Facility in a compliance order.
- 3.4 Within 60 days from the date of issuance of this Order, the Permittee shall submit a letter notifying YRCAA that the required YRCAA O&M plan stated above is completed and in place. If the Permittee needs to make any future modification to the facility and their operating procedures, an approval in writing from YRCAA which may require NSR, must be issued before such modification takes place. The O&M documents must be updated and implemented to reflect such modification.
- 3.5 The O&M plan must include the immediate specific steps to be taken, if methane or hydrogen sulfide is detected above the emissions limits to protect human health.
- 3.6 If and when CH₄ is detected to be above the specified limit in this Order, the Facility immediately must take the necessary steps to protect human health and notify YRCAA as stated above.
- 3.7 The Permittee shall accept only the permitted wastes as specified in the NSR application and approved by the rules and regulation. i.e., cured concrete, asphaltic materials, brick and masonry, ceramic materials, glass, stainless steel, aluminum, spent lime/hydrated lime, gypsum, scrap drywall, dirt and rock, construction and demolition (C&D), and land clearing debris, wood waste and ash (other than special incinerator ash).

- 3.8 The maximum allowable demolition waste shall not exceed one million cubic yard per year as a haul /bulk density.
- 3.9 The Facility ceased accepting Petroleum Contaminated Soil (PCS) for treatment. This permit does not authorize air emissions from the treatment of PCS. The remaining PCS at the site from previous years shall not be actively treated or moved. The remaining PCS shall be stored in the designated PCS area shown in Figure 9 below only for no more than 364 days from the issuance of this Order. No other non PCS soils (regular soils) shall be stored or mixed with the PCS soils in this PCS designated area.
- 3.10 If, within 364 days of the issuance of this permit, the present PCS soils are not permitted to be treated by the YHD and the YRCCA, and the soils do not meet the facility's LPL disposal criteria, the PCS soils shall be removed from the site to another facility that will accept PCS for treatment or disposal.
- 3.11 For the MRF operations which was issued a permit by YHD on June 16, 2022, it shall be only for materials like cured concrete, asphaltic materials, metal, construction, demolition, and land clearing debris, wood and cardboard and as specified in the NSR application and allowed by WAC 173-350.
- 3.12 There must be no fallout, materials, fugitive emissions or odors from this Facility beyond the property boundary. Hence, the Facility shall not accept purely plastic materials, and shall minimize any plastic materials that are combined with the C&D materials. Purely plastic, means loads of just only plastic materials i.e., plastic containers, shopping bags, plastic cover. Plastics combined or part of the C&D materials is accepted. The HDPE 60-mil or the GCL liners are not part of this plastic in this condition.
- 3.13 There shall be no burning allowed anywhere within DTG Yakima site.
- 3.14 The O&M plan and all records including this Order and other permits, if any, must be maintained at the Facility's site or accessible place and be made available to the Air Pollution Control Officer (APCO) of the YRCAA or his designated staff during inspections or upon request pursuant to RCW 70A.15.2500.
- 3.15 The Permittee must conduct visible emission inspections of the facility at least once per month. Inspections are to be performed while the facility is in operation during daylight hours. If during the monthly visible emissions inspection, visible emissions other than uncombined water are observed from the activity, the Permittee must as soon as practicable but within 24 hours of the initial observation:
 - 3.15.1 Take corrective action, which may include shutting down the activity until there are no visible emissions (or until the unit or activity is demonstrated to be in compliance with all applicable opacity limitations in the permit using the reference test method); or

- 3.15.2 Alternatively, determine the opacity using the reference test method. If visible emissions are observed from a point source make sure that the source is being operated and maintained properly and either shut it down within 3 hours or observe visible emissions using 40 CFR Method 9 for the point source or Method 22 for nonpoint source/fugitive within 72 hours. Opacity for point source shall not exceed (5%) five percent and (10%) for none point (fugitive). All observations using the opacity reference test method must be kept on-site and made available to YRCAA staff upon inspection.
- 3.16 There must be no fallout, fugitive emissions or odors from this Facility beyond the property boundary lines in a quantity that interferes unreasonably with the use and enjoyment of the property owner upon which the material deposited or odor is detected, or is detrimental to the health, safety or welfare of any person, or causes damage to any property or business.
- 3.17 This Facility shall not receive or accept any asbestos materials. All received demolishing materials shall have a certificate/manifest that asbestos survey was done on the structure prior to demolishing. This survey or manifest must be kept at the facility site and be made available to the APCO of the YRCAA or his designated staff during inspections or upon request pursuant to RCW 70A.15.2500 and submit a copy to YRCAA with the annual registration program to YRCAA.
- 3.18 If and when the structural materials were demolished due to fire, the structure must also have a manifest or asbestos survey with a Notification of Demolition and Renovation (NODR) to proof no asbestos were found, before they are being accepted at the Facility.
- 3.19 All C&D materials received from outside the country, i.,e. Canada must have and show that materials has been inspected by the appropriate authorities i.,e. Ministry of Environment or has been certified by a professional abatement company or equivalent regulations by the country to proof no asbestos were found prior to demolition.
- 3.20 This Order authorizes the LPL's operations as specified herein this Order. The construction and operation of a lined Cell #2 with 60-mil High-Density Polyethylene welded geomembrane liner, the MRF, Wood Chipper/Grinder, Cell #1 (is full, but air emissions for hydrogen sulfide is included in this Order, except the AO area shown in Figure 3 below) and the Crushed Rock Export as specified in Table 1 below.

3.21 This Order authorizes the use and operation of the following equipment and process listed in Tables 1 and 2 as submitted by the Permittee:

Table 1: Authorized and specified operations of the LPL

Unit No	Description	Size
1	Cell # 2/Phase #2	Approximate dimensions: 91,302.28 m ² x 17.5 m high Approximate volume: 2.2 million yd ³
2	Cell # 1/Phase #1 (closed) with MTCA's Area	Approximate dimensions: 169.92 m radius by 23.71 m high Approximate volume: 2.5 million yd ³
3	Materials Recovery Facility (MRF)	-
4	Tub Grinder	-

Table 2: Authorized Equipment List.

Unit No	Unit Type	Make	Size
-----	<i>Equipment</i>	<i>Make/Manufacturer</i>	<i>Model</i>
2	Fuel/lube truck	Peterbuilt	PB335
3	Water truck	Ford	F550
4	Pressure clean truck	Ford	F250
5	Pickup	Ford	F250
6	Pickup	Chevrolet	1500
7	Pickup	Chevrolet	Silverado
8	Van	Ford	Econoline
9	Side by side	Polaris	Ranger Crew XP1000
10	Excavator	Caterpillar	320
11	Haul truck	Caterpillar	740 B
12	Haul truck	Caterpillar	740 B
13	Dump truck	Chevrolet	C3500
14	Loader	Caterpillar	980M
15	Dozer	Caterpillar	D-8T
16	Compactor	Caterpillar	836K
17	Tipper (LPL)	Columbia Industries	New horizon 65 ton
18	Tipper (MRF)	Columbia Industries	New horizon 65 ton
19	Loader	Caterpillar	962K
20	Backhoe	John Deere	510D
21	Screen plant	CEC	Screen-1t

22	Portable sort line, power source	Perkins	403F-11 / 25 hp
23	Portable sort line, power source	Perkins	403F-11 / 25 hp
24	Tub grinder	CW Mill	TCII 1564P
25	Sweeper	Broce	RC300
26	Excavator	Luigong	CLG906
27	Water truck	Kenworth	K20
28	Motor grader	Caterpillar	120G
29	Tractor	KW	10-1043
30	Tracked jaw crusher (not used)	Pioneer	FT2640

- 3.22 Waste disposal operating hours shall also follow Yakima County restriction, thus, LPL’s operations in Cell #2 and MRF operations numbers are 10 hours (7 a.m. to 5 p.m.) per day Monday through Friday for the actual operation and 12 hours (6 a.m. to 6 p.m.) per day Monday through Saturday is the allowable hours of operation. No waste acceptance shall be done out of these specified hours and days. If the Permittee would like to change the hours of operation, an approval from the County and YHD shall be submitted to YRCAA in writing for approval.
- 3.23 Maximum trips per day shall adhere to Yakima County restriction, if any.
- 3.24 The Facility shall submit in writing that the PCS has been removed from the site within 364 days from the issuance of this order. If the PCS is tested and meets the Facility’s LPL disposal criteria within the 364 days, a certification from the YHD must be submitted to YRCAA prior to any disposal.
- 3.25 If the Permittee decides to accept appliances as part of the LPL’s operations and it is approved by the pertinent federal, state and local regulatory agencies, the Permittee shall inform YRCAA and a New Source Review may be required pursuant WAC 173-400-110 and will be subject to 40 CFR 82 Subpart F, RCW 70A.15.6410(2) and RCW 70A.15.6410(4).
- 3.26 When closure for Cell #2 becomes required, the Permittee shall submit a closure plan and be approved by YHD and YRCAA and a NSR shall be required. In addition, the Permittee shall maintain and operate a gas collection system for CH₄ if, and at the time when it becomes a requirement.
- 3.27 All operations being permitted in this LPL Order mentioned above shall follow all federal, state and local rules and regulations, this may include, but not limited to, the proper maximum slope i.e., 2:1, setback from neighbors wells (1000 feet), vegetative screen and the most up to date Sampling and Analysis Plan (GW SAP) i.e., GW SAP 2023 plan. Thus, the LPL and MRF operations shall always have a Solid Waste Permit from YHD in addition to other Departments as required. This Order by itself does not grant permission to operate, if the other required permits are not granted by the responsible entity.

4.0 GENERAL APPROVAL CONDITIONS

- 4.1 Modification/establishment of this Facility must comply with all applicable Federal, State, and Local laws and regulations, including, but not limited to, RCW 70A.15.2210 (Washington Clean Air Act), WAC 173-400 (General Regulations for Air Pollution Sources), WAC 173-350 (Solid Waste Handling Standards), and the YRCAA Regulation 1.
- 4.2 All plans, specifications, other information and any further authorizations or approvals or denials in relation to this modification, shall be incorporated herein and made part of YRCAA file.
- 4.3 Except as specified in this Order, any new or additional construction, modifications or alterations not covered in this review process which will affect air emissions in this Facility are subject to a NSR permitting process before it takes place or the start of construction as required by RCW 70A.15.2210, WAC 173-400-110 and WAC 173-460-040.
- 4.4 The YRCAA staff shall be allowed to enter and inspect the Facility at reasonable times and inspect equipment and/or records specific to the control, recovery, and/or release of contaminants into the atmosphere, in accordance with RCW 70A.15.2500 and YRCAA Regulation 1.
- 4.5 Nothing in this approval shall be construed as preventing compliance with any other requirement(s) of law including those imposed pursuant to the federal and state CAA, and rules and regulations thereunder. Any violation(s) of such rules and regulations are subject to enforcement and penalty action in accordance with RCW 70A.15.3150 and YRCAA Regulation 1, Article 5.
- 4.6 This Order (NSRP-03-DTGEI-22) may be modified, suspended or revoked in whole or part for cause including, but not limited to, the following:
 - 4.6.1 Violation of any terms or conditions of this authorization; or
 - 4.6.2 If this authorization has been obtained by misrepresentation or failure to disclose fully all relevant facts.
- 4.7 The provisions of this authorization are severable and, if any provision or application of any provision of this authorization to any circumstance is held invalid, the application of such provision to their circumstances, and the remainder of this authorization, shall not be affected thereby.
- 4.8 Deviations from these conditions are violations subject to penalties in accordance with RCW 70A.15.3150 and 3160, WAC 173-400-230 and YRCAA Regulation 1, Article 5, Section 5.02.

- 4.9 The requirements of this Order apply to the Facility owner and/or operator(s) and any contractor or subcontractor performing any activity authorized under this Order. Any person(s), including contractor(s) and subcontractor(s), not in compliance with the applicable Order requirements are in violation of State and Local laws and subject to appropriate civil and criminal penalties. The Facility owner and/or operator, and all contractor(s) or subcontractor(s) are liable for the actions and violations of their employee(s). Any violation committed by a contractor or subcontractor shall be considered a violation by the Facility owner and/or operator, and is also a violation by the contractor and/or any subcontractor(s).
- 4.10 Applicable laws and regulations may be superseded or revised without notice. It is the Permittee's responsibility to stay current with rules and regulations governing their business and therefore is expected to comply with all new rules and regulations immediately upon their effective date. Rules and regulation updates will be incorporated into the existing Permits or upon renewal or modification of said Permits.
- 4.11 If, or whenever the Permittee wants to modify the operation, expand, install new equipment/operation or change limits in this Permit, another NSR application must be filed and approved by YRCAA before the changes take place and BACT and t-BACT requirements must be satisfied.

5.0 EMISSION LIMITS

- 5.1 Hydrogen sulfide concentrations in ambient air at the property boundary line of LPL for the 24-hour averaged concentrations shall not exceed the ASIL level of 2 microgram per cubic meter ($\mu\text{g}/\text{m}^3$) or 1.44 parts per billions by volume (ppbv). All other air emission limits are as shown in Appendix A.
- 5.2 Visible emission from the Facility's non-working area shall not exceed ten (10%) percent opacity for more than three minutes in any one hour for any operation.
- 5.3 In addition to the approval conditions and limits specified in this Order, the Permittee shall comply with all other applicable general standards for maximum air emissions as specified in WAC 173-400-040, WAC 173-460, and WAC 173-400-075.
- 5.4 Methane concentration shall always be below 5% of the LEL by volume at the boundary property line of the facility and 25% of the Explosive Limit (EL) within any of the facility structure which is 1.25% by volume at any time. In addition, Methane alarm shall be installed in all structures within the facility. If at any time, CH_4 is above this limit, a gas collection system shall be installed abruptly as it will be specified in YRCAA compliance order. Other emission limits specified in WAC 173-350-400 may also apply.
- 5.5 Toxic air emissions shall not exceed the ASIL at any time beyond the boundary line of the facility.
- 5.6 The maximum allowable received material wastes (including demolishing materials) shall not exceed one million cubic yard per year as a bulk/haul density.

5.7 All air emissions limitation in the AO issued by the Ecology for the MTCA's area must be enforced by Ecology and shall always meet all federal and state ambient air emissions standards.

6.0 MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

- 6.1 The Permittee shall keep all records including this Order on site or at the nearest office. Records shall include, at minimum, daily records of solid wastes received, and any outgoing material such as crushed rock and recycled materials, which shall include the following information:
- 6.1.1 Records of actual weight and volume, kind of materials, dates, operator name, etc.
 - 6.1.2 Records of any O&M items performed during operation or off operating hours.
 - 6.1.3 The permittee shall include any corrective action taken at the Facility's site.
 - 6.1.4 Keep record of all required air monitoring.
- 6.2 The Permittee shall keep a record of any waste shipments that was rejected by the facility and for what reason.
- 6.3 Total air emissions from this Facility for Criteria Pollutants, and all other air emissions must be calculated and submitted to YRCAA annually with the Annual Registration Program including the annual required fees. Air emissions shall not exceed any specified allowable limit in Appendix A of this Order.
- 6.4 The Permittee shall log all complaints received, and any corrective action taken.
- 6.5 The Permittee shall monitor hydrogen sulfide concentration daily for the first three months. If H₂S is not detected in any reading, then the monitoring shall be done weekly for the next three months. If no H₂S detected in this three months, the monitoring shall be done at minimum monthly. However, if one reading of the H₂S is detected within the first three months, monitoring schedule shall revert back to daily monitoring.
- 6.6 Take weekly Methane ambient air readings at the property boundary in which the concentration shall not exceed 5% by volume and 25% of the EL within any of the facility structure which is 1.25% by volume at any time. In addition, Methane alarm shall be installed in all structures within the facility. If Methane is not detected in any reading during the first month of the weekly reading, then the monitoring shall be done monthly for the next three months. If no CH₄ is detected within these three months, the monitoring shall be done at minimum quarterly. However, if one reading of the methane is detected at any time including those within the first three months, monitoring schedule shall revert back to weekly monitoring. If at any time, CH₄ is above this limit YRCAA shall be informed as stated above within the specified period.

- 6.7 All required records shall be maintained and kept at the site for a rolling average of five years period, and be made available to the APCO of the YRCAA or his designated staff during inspections or upon request.
- 6.8 Any application form, report, or compliance certification, monthly record and the annual report submitted to YRCAA pursuant to this Order must be signed by a responsible official.
- 6.9 This Order and its conditions shall remain in effect in the event of any change in control or ownership of the Facility. In the event of any such change in control or ownership of the subject Facility, the Permittee shall notify the succeeding owner of this Order and conditions and shall notify the YRCAA of the change in control or ownership by filing an “Ownership or Name Change” form within fifteen (15) days of that change. The form can be obtained from YRCAA website or requested from the agency.

6.10 Pursuant to RCW 70A.15.2210, this Order shall be void without full payment of all actual YRCAA cost within thirty days after the issuance date.


You may appeal this Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process and applicable requirements is governed by Chapter 43.21B RCW. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do all of the following within 30 days of the date of receipt of this Order:

- File your appeal and a copy of this Order with the PCHB, P.O. Box 40903, Olympia, WA, 98504-0903. Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order to YRCAA in paper form - by mail or in person. E-mail is not accepted.

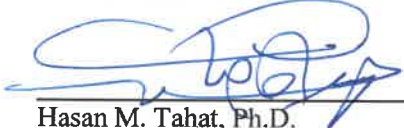
DATED at the City of Yakima, Washington on this 8th day of March, 2024

PREPARED BY:





Elizel Reynoso
Engineer Specialist
Yakima Regional Clean Air Agency

REVIEWED BY:



Hasan M. Tahat, Ph.D.
Engineering and Planning Division Supervisor
Yakima Regional Clean Air Agency
for
Marc Thornsburry
Air Pollution Control Officer
Yakima Regional Clean Air Agency

REVIEWED BY:



Norman Hepner, P.E.
Nth Degree Engineering Solutions

OPERATING HOURS

Operating Schedule:	hrs/day	day/wk	wk/yr	holidays	hrs/yr
Actual operating hours	10	5	52	4	2560
Allowable operating hours	12	6	52	4	3696
Potential operating hours	24	7	52	0	8760

DESIGN CAPACITY

Cell #2 Dimensions (ft) ¹	Length	Width	Height
	2125	522	57

¹ Approximate cell dimensions based on Permittee's diagrams and calculations submitted with the application.

	Calculated	Proposed ²
Disposal Capacity (yd ³)	2,352,704	2,200,000
Disposal Capacity (ton)	823,446	770,000

² Proposed by the Permittee. Discrepance between Calculated and Proposed Disposal Capacity due to the actual shape of the cell.

In-place Density (ton/yd ³) ³	0.35
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³ Waste compacted density considered as a conservative average of grinded and not grinded materials.

MATERIAL ACCEPTANCE

	Demo (Imported and placed on LPL)	Wood (Imported and grinded)	Mixed C&D Recyclable (Imported and sorted)		Total (Imported)
			Mixed C&D Recyclable (Exported)	Mixed C&D Residuals (Placed on LPL)	
Actual (yd ³ /yr) ¹	690,276	31,967	41,483	22,671	786,397
Actual (ton/yr) ^{2,3}	165,666	4,795	9,956	5,441	185,858
Maximum allowable (yd ³ /yr) ⁴	877,771	40,650	52,751	28,829	1,000,000
Maximum allowable (ton/yr)	210,665	6,097	12,660	6,919	236,342
Haul Density (ton/yd ³) ⁵	0.24	0.15	-	-	-

¹ Maximum LPL Disposal (Demo) from Registration 2023.

² Maximum Wood Waste from NSR Application.

³ Maximum Mixed C&D (Recyclable and Residuals) from Registration 2023.

⁴ Maximum allowable material acceptance based on limit proposed by the Permittee (1,000,000 yd³/yr total materials received).

⁵ Assuming a haul density of 0.24 ton/yd³ for Demo waste and 0.15 ton/yd³ for Wood waste as per NSR Application.

LIMITED PURPOSE LANDFILL LIFESPAN

Maximum allowable annual material accepted and placed on LPL (ton/yr)	217,584
LPL Lifespan (years)	3.5

FUGITIVE EMISSIONS - (PM, PM₁₀, PM_{2.5})

Unpaved Roads (Gravel Road and Work Areas)

Gravel Road: Haul trucks (Cell 2), Rock haul trucks (Quarry) // Work Areas: Haul trucks (Cell 2), Rock haul trucks (Quarry), Loader, Dozer - Equation 1a, Section 13.2.2, AP-42

$$E = k (a/12)^a (W/3)^b$$

E = Size-Specific Emission Factor (lb/VMT)

Constants for Equation 1a ¹	PM _{2.5}	PM ₁₀	PM
k, lb/VMT	0.15	1.5	4.9
a	0.9	0.9	0.7
b	0.45	0.45	0.45

¹ Table 13.2.2-2, Section 13.2.2, AP-42.

Gravel Road: Haul trucks - Cell 2

Silt content (s), %	5.7	From site testing (Avg RS2 and RS3)
Haul truck weight, tons	14	Truck weight + Empty 40yd ³ dumpster
Haul truck capacity, ton/trip	7.68	Estimated tons material per trip (avg 32yd ³ per dumpster)
Average vehicle weight (W), tons	17.84	One way full, one way empty
Unpaved Gravel Road length, miles	1.52	Round trip
Trips/yr	32,422	Total trips per year required for Total Imported and Exported Mixed C&D Recyclable Material
VMT/yr	49,282	Vehicle miles traveled per year

Gravel Road: Rock haul trucks - Quarry

Silt content (s), %	4.9	From site testing (Avg RS1 and RS2)
Rock haul truck weight, tons	13	Empty Dump Truck
Rock haul truck capacity, ton/trip	15	Estimated tons material per trip (avg 10yd ³ per truck, haul density of 1.5ton/yd ³)
Average vehicle weight (W), tons	20.50	One way full, one way empty
Unpaved Gravel Road length, miles	1.14	Round trip
Trips/yr	8,194	Total trips per year required for 122,912 ton rock crushed exported from Registration 2023
VMT/yr	9,341	Vehicle miles traveled per year

Work Area: Haul trucks - Cell 2

Silt content (s), %	2.4	From site testing (WAS1)
Haul truck weight, tons	14	Truck weight + Empty 40yd ³ dumpster
Haul truck capacity, ton/trip	7.68	Estimated tons material per trip (avg 32yd ³ per dumpster)
Average vehicle weight (W), tons	17.84	One way full, one way empty
Unpaved Work Area length, miles	0.10	Round trip
Trips/yr	30,774	Total trips per year required for Total Imported
VMT/yr	3,077	Vehicle miles traveled per year

Work Area: Rock haul trucks - Quarry

Silt content (s), %	3.6	From site testing (WAS2)
Haul truck weight, tons	13	Empty Dump Truck
Haul truck capacity, ton/trip	15	Estimated tons material per trip (avg 10yd ³ per truck, haul density of 1.5ton/yd ³)
Average vehicle weight (W), tons	20.50	One way full, one way empty
Unpaved Work Area length, miles	0.10	Round trip
Trips/yr	8194	Total trips per year required for 122,912 ton rock crushed exported from Registration 2023
VMT/yr	819	<u>Vehicle miles traveled per year</u>

Work Area: Loader - Cell 2

Silt content (s), %	2.4	From site testing (WAS1)
Loader weight, tons	37.30	Average loader weight
Loader capacity, ton/trip	2	Estimated bucket capacity of Loader
Average vehicle weight (W), tons	38.30	One way full, one way empty
Loader speed, mph	5	Average speed of Loader onsite.
Hours/yr	924	Loader operates 25% of the time LPL is open
VMT/yr (Speed x hours/yr)	4620	<u>miles/yr</u>

Work Area: Dozer - Cell 2

Silt content (s), %	2.4	From site testing (WAS1)
Dozer weight (W), tons	42.3	Estimated weight of D-8T Caterpillar
Dozer speed, mph	2	Average speed of Bull Dozer onsite.
Hours/yr	1848	Bull Dozer operates half the time LPL is open (Work Area + Compacting C&D debris)
VMT/yr (Speed x hours/yr)	3696	<u>miles/yr</u>

Haul Road: Light Trucks - Equation 1b, Section 13.2.2, AP-42

$$E = \frac{k (a/12)^b (S/30)^c}{(M/0.5)^d} - C$$

E = Size-Specific Emission Factor (lb/VMT)

Constants for Equation 1b ¹	PM _{2.5}	PM ₁₀	PM
k, lb/VMT	0.18	1.8	6
a	1	1	1
c	0.2	0.2	0.3
d	0.5	0.5	0.3
C	0.00036	0.00047	0.00047

¹ Table 13.2.2-2, Section 13.2.2, AP-42.

Gravel Road: Light trucks

Silt content (s), %	4.5	From on-site silt testing (RS2)
Surface material moisture content (M), %	3.2	From on-site silt testing (RS2)
Mean vehicle speed (S), mph	7	Average speed of Light truck onsite.
Hours/yr	369.6	Light truck operates 10% of the time LPL is open
VMT/yr	2587.2	<u>miles/yr</u>

Work Area: Light trucks

Silt content (s), %	6.1	From site testing (Avg RS1 and RS3)
Surface material moisture content (M), %	4.1	From site testing (Avg RS1 and RS3)
Mean vehicle speed (S), mph	7	Average speed of Light truck onsite.
Hours/yr	369.6	Light truck operates 10% of the time LPL is open
VMT/yr	2587.2	<u>miles/yr</u>

Emission factors and Total Emissions from Unpaved Roads

Source	Emission Factors (lb/VMT)			VMT/yr Unpaved Road	Uncontrolled Emissions (lb/yr)		
	PM _{2.5}	PM ₁₀	PM		PM _{2.5}	PM ₁₀	PM
Gravel Road: Haul trucks - Cell 2	0.17	1.70	6.45	49,281.6	8,371.0	83,710.5	317,915.1
Gravel Road: Rock haul trucks - Quarry	0.16	1.59	6.22	9,341.3	1,485.9	14,859.3	58,062.9
Work Area: Haul trucks - Cell 2	0.08	0.79	3.54	3,077.4	241.9	2,418.9	10,902.3
Work Area: Rock haul trucks - Quarry	0.12	1.21	5.01	819.4	98.8	987.6	4,104.6
Work Area: Loader - Cell 2	0.11	1.11	5.00	4,620.0	512.1	5,121.5	23,083.1
Work Area: Dozer - Cell 2	0.12	1.16	5.22	3,696.0	428.4	4,284.5	19,310.7
Gravel Road: Light trucks	0.02	0.22	0.83	2,587.2	57.3	580.7	2,154.3
Work Area: Light trucks	0.03	0.29	1.04	2,587.2	73.5	743.3	2,689.1

Emission Factor natural mitigation reduction on Unpaved Roads

$$E_{\text{net}} = E [(365 - P)/365]$$

E.F. reduction due to natural mitigation; P is equal to the number of days with rainfall greater than 0.01 inch per day.

$$P = \frac{70}{\text{day in at site}} = \frac{70}{80.82\%}$$

Source	Emission Factors (lb/VMT)			VMT/yr Unpaved Road	Uncontrolled Emissions (lb/yr)		
	PM _{2.5}	PM ₁₀	PM		PM _{2.5}	PM ₁₀	PM
Gravel Road: Haul trucks - Cell 2	0.14	1.37	5.21	49281.6	6,765.6	67,656.4	256,945.1
Gravel Road: Rock haul trucks - Quarry	0.13	1.29	5.02	9341.3	1,201.0	12,009.5	46,927.6
Work Area: Haul trucks - Cell 2	0.06	0.64	2.86	3077.4	195.5	1,955.0	8,811.5
Work Area: Rock haul trucks - Quarry	0.10	0.97	4.05	819.4	79.8	798.2	3,317.4
Work Area: Loader - Cell 2	0.09	0.90	4.04	4620.0	413.9	4,139.3	18,656.2
Work Area: Dozer - Cell 2	0.09	0.94	4.22	3696.0	346.3	3,462.8	15,607.3
Gravel Road: Light trucks	0.02	0.18	0.67	2587.2	46.3	469.4	1,741.1

Controlled Emissions (Site watering) from Unpaved Roads

Control Efficiency = 80%

Source	Controlled Emissions (lbs/yr)		
	PM _{2.5}	PM ₁₀	PM
Gravel Road: Haul trucks - Cell 2	1,353.1	13,531.3	51,389.0
Gravel Road: Rock haul trucks - Quarry	240.2	2,401.9	9,385.5
Work Area: Haul trucks - Cell 2	39.1	391.0	1,762.3
Work Area: Rock haul trucks - Quarry	16.0	159.6	663.5
Work Area: Loader - Cell 2	82.8	827.9	3,731.2
Work Area: Dozer - Cell 2	69.3	692.6	3,121.5
Gravel Road: Light trucks	9.3	93.9	348.2

Controlled Emissions (tpy)		
PM _{2.5}	PM ₁₀	PM
0.677	6.766	25.695
0.120	1.201	4.693
0.020	0.196	0.881
0.008	0.080	0.332
0.041	0.414	1.866
0.035	0.346	1.561
0.005	0.047	0.174

TOTAL Unpaved roads (tpy)	0.905	9.049	35.201
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Paved Roads - Haul trucks (Cell 2), Rock haul trucks (Quarry), Light trucks - Equation 1, Section 13.2.1, AP-42.

$$E = k (sL)^{0.91} \times (W)^{1.02}$$

E = Size-Specific Emission Factor (lb/VMT)

Constants for Equation 1 ¹ k, lb/VMT	PM _{2.5}	PM ₁₀	PM
	0.00054	0.0022	0.011

¹ Table 13.2.1-1, Section 13.2.1, AP-42.

Paved Road: Haul trucks - Cell 2

Road surface silt loading (sL), g/m ²	8.2	From site testing (RS2)
Haul truck weight, tons	14	Truck weight + Empty 40yd ³ dumpster
Haul truck capacity, ton/trip	7.68	Estimated tons material per trip (avg 32yd ³ per dumpster)
Average vehicle weight (W), tons	17.84	One way full, one way empty
Unpaved Gravel Road length, miles	1.26	Round trip
Trips/yr	30,774	Total trips per year required
VMT/yr	38,775	Vehicle miles traveled per year

Paved Road: Rock haul trucks - Quarry

Road surface silt loading (sL), g/m ²	8.2	From site testing (RS2)
Rock haul truck weight, tons	13	Empty Dump Truck
Rock haul truck capacity, ton/trip	15	Estimated tons material per trip (avg 10yd ³ per truck, haul density of 1.5ton/yd ³)
Average vehicle weight (W), tons	20.50	One way full, one way empty
Unpaved Gravel Road length, miles	1.26	Round trip
Trips/yr	8194	Total trips per year required for 122,912 ton rock crushed exported from Registration 2023
VMT/yr	10,325	Vehicle miles traveled per year

Paved Road: Light trucks

Road surface silt loading (sL), g/m ²	8.2	From site testing (RS2)
Light truck weight (W), tons	2.80	Empty Dump Truck
Mean vehicle speed (S), mph	7	Average speed of Light truck onsite.
Hours/yr	369.6	Light truck operates 10% of the time LPL is open
VMT/yr	2587.2	miles/yr

Emission factors and Total Emissions from Paved Roads

Source	Emission Factors (lb/VMT)			VMT/yr Unpaved Road	Uncontrolled Emissions (lb/yr)		
	PM _{2.5}	PM ₁₀	PM		PM _{2.5}	PM ₁₀	PM
Paved Road: Haul trucks - Cell 2	0.07	0.28	1.41	38,775	2,685.0	10,938.7	54,693.5
Paved Road: Rock haul trucks - Quarry	0.08	0.33	1.63	10,325	823.8	3,356.3	16,781.3
Paved Road: Light trucks	0.01	0.04	0.21	2,587	27.1	110.4	551.9

Emission Factor natural mitigation reduction on Unpaved Roads - Equation 2, Section 13.2.1, AP-42.

$$E_{ext} = [k (sL)^{0.91} \times (W)^{1.02}] (1 - P/4N)$$

E.F. reduction due to natural mitigation; P is equal to the number of days with rainfall greater than 0.01 inch per day.

P = 70 days at site
N = 365 days in the avg period

Source	Emission Factors (lb/VTM)			VMT/yr	Uncontrolled Emissions (lb/yr)		
	PM _{2.5}	PM ₁₀	PM		Unpaved Road	PM _{2.5}	PM ₁₀
Paved Road: Haul trucks - Cell 2	0.07	0.27	1.34	38774.8	2,556.2	10,414.2	52,071.2
Paved Road: Rock haul trucks - Quarry	0.08	0.31	1.55	10324.6	784.3	3,195.3	15,976.7
Paved Road: Light trucks	0.01	0.04	0.20	2587.2	25.8	105.1	525.5

Controlled Emissions (Site watering) from Paved Roads

Control Efficiency = 80%

Source	Controlled Emissions (lbs/yr)		
	PM _{2.5}	PM ₁₀	PM
Paved Road: Haul trucks - Cell 2	511.2	2,082.8	10,414.2
Paved Road: Rock haul trucks - Quarry	156.9	639.1	3,195.3
Paved Road: Light trucks	5.2	21.0	105.1

Controlled Emissions (tpy)		
PM _{2.5}	PM ₁₀	PM
0.256	1,041	5,207
0.078	0.320	1,598
0.003	0.011	0.053

TOTAL Paved roads (tpy)	0.34	1.37	6.86
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Woodwaste Tub Grinder

Emission Factor, lb PM/ton woodwaste 0.024

-Emission factor for "Log Debarking" from a previous edition of EPA Document AP-42, Table 10.3-1 (0.024 lb PM/ton) was used to estimate total PM emissions.

-The tub grinder will be equipped with a water suppression system. Thus, control efficiency of 50% was assumed for the particulate emission in accordance with BAAQMD Permit Handbook Chapter 11.13 "Tub Grinders".

-60% of the total PM to be PM10 according to BAAQMD Permit Handbook Chapter 11.13 "Tub Grinders".

-PM2.5 was assumed to be 60% of PM10

Woodwaste, ton/yr 6,097.4 50% Control Efficiency

	PM _{2.5}	PM ₁₀	PM
PM Emission Factors:	0.009	0.014	0.024
lb/yr (uncontrolled)	52.68	87.80	146.34
lb/yr (controlled)	26.34	43.90	73.17
ton/yr (controlled)	0.013	0.022	0.037

Wood chip pile - Equation 1, Section 13.2.4.3, AP-42

-The E.F. used are for aggregate piles, but some of the wind-blown dust emitted here will be due to dirt in the wood chips.

$$E = k(0.0032) \left(\frac{U}{5} \right)^{1.3} \left(\frac{M}{2} \right)^{1.4}$$

E = Emission factor, lb/ton

Constants	PM _{2.5}	PM ₁₀	PM
k, particle size multiplier	0.053	0.35	0.74

Assumed values

U, wind speed, mph 15 High value taken from Section 13.2.4-3, AP-42
M, material moisture, % 11 Misc. fill materials at municipal solid waste landfill.
Control Efficiency - Same as Grinder 50%

	PM _{2.5}	PM ₁₀	PM
Emission factor, lb/ton	0.000065	0.00043	0.00091
Uncontrolled emissions, lb/yr	0.397	2.619	5.537
Controlled emissions, lb/yr	0.198	1.309	2.769
Controlled emissions, tpy	9.91E-05	6.55E-04	1.38E-03

All Fugitive controlled emissions

Emissions	Allowable Uncontrolled (ton/yr)	Allowable Controlled (ton/yr)	Significant Emission Threshold Levels
PM _{2.5}	7.4	1.3	10
PM ₁₀	63.6	10.4	15
PM	255.2	42.1	25

HYDROGEN SULFIDE (H_2S) EMISSIONS - PHASE 1 & 2

H₂S emission factor 0.976 mg/m²-day from permittee NSR application section 4.3.4

Phase 2 total area 91,302 m²

Phase 2 H₂S emission rate 89,111 mg/day

0.196 lb/day

	CAS #	De Minimis (lb/Day)	SQER (lb/Day)	ASIL (µg/m ³)	Phase 2 H ₂ S emission rate (lb/day)	Phase 2 H ₂ S emission rate > SQER
Hydrogen Sulfide	7783-06-4	0.0074	0.15	2	0.196	Yes

Emission rate for H₂S exceeds the SQER, thus requires modeling.

Area Source Modeling; Phase 2 - Rectangular Source

Scaled 24-hr area modeling concentration results for 1 lb/hour @ 1000' from source 81.47 µg/m³ per lb/hr

Phase 2 H₂S modeled concentration 0.667 µg/m³

Area Source Modeling; Phase 1 - Circular Source

Phase 1 total area 90,705 m²

Phase 1 H₂S emission rate 88,528 mg/day

0.195 lb/day

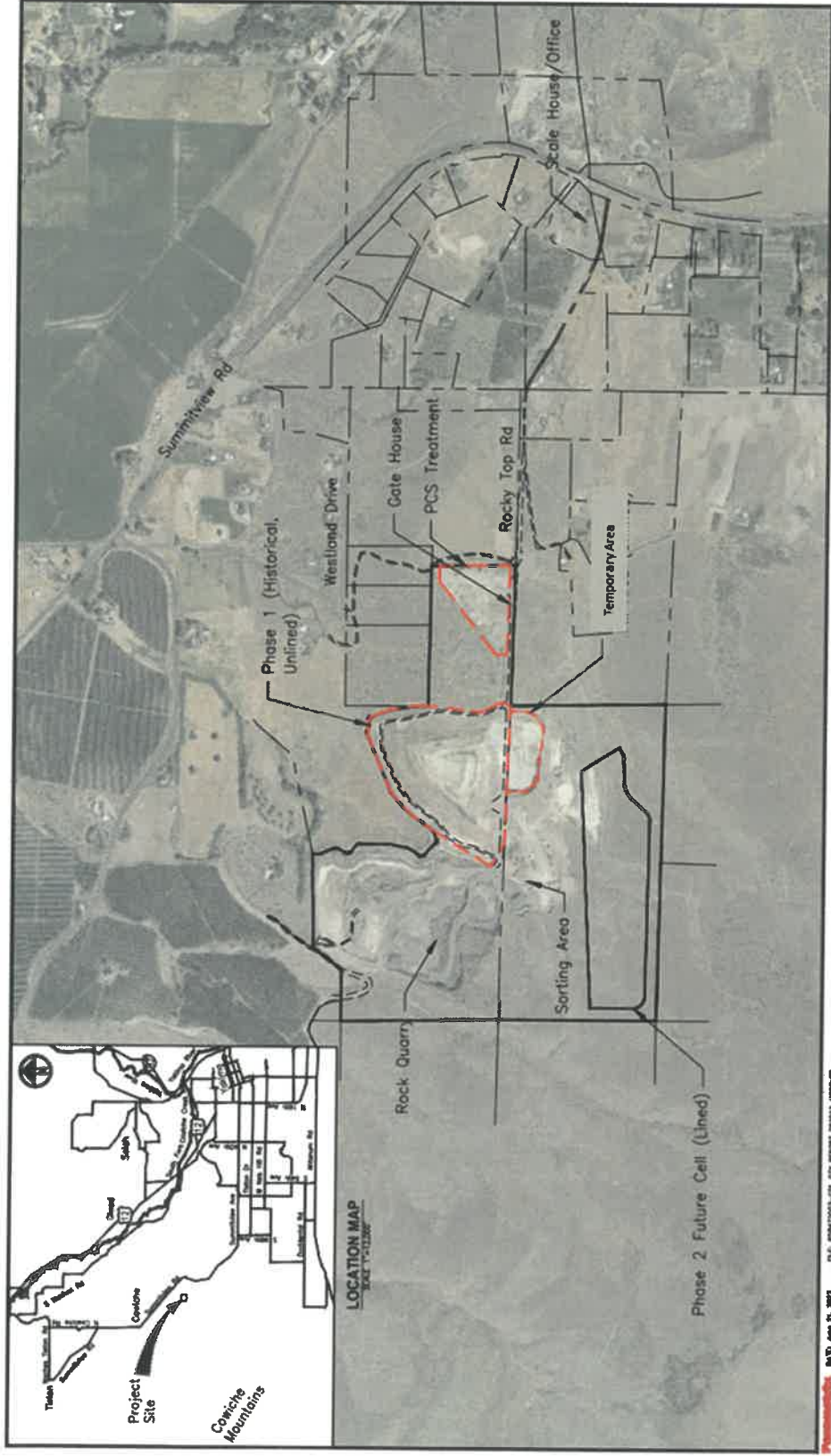
Scaled 24-hr area modeling concentration results for 1 lb/hour @ 568' from source 20.51 µg/m³ per lb/hr

Phase 1 H₂S modeled concentration 0.167 µg/m³

Phase 1 and 2 (Cell 1 & 2) H₂S Emission

Maximum modeled concentration (Phase 1 + Phase 2) 0.834 µg/m³

Maximum modeled concentration for H₂S is below ASIL, thus it is okay. 41.68% of ASIL - okay



Site Vicinity Map
DTG Yakima Limited Purpose Landfill

Figure 1: Site Vicinity Map submitted by the Permittee showing Phase 1 (Cell #1), Phase 2 (Cell #2-under construction), Rock Quarry area, Temporary area and old PCS Treatment area.

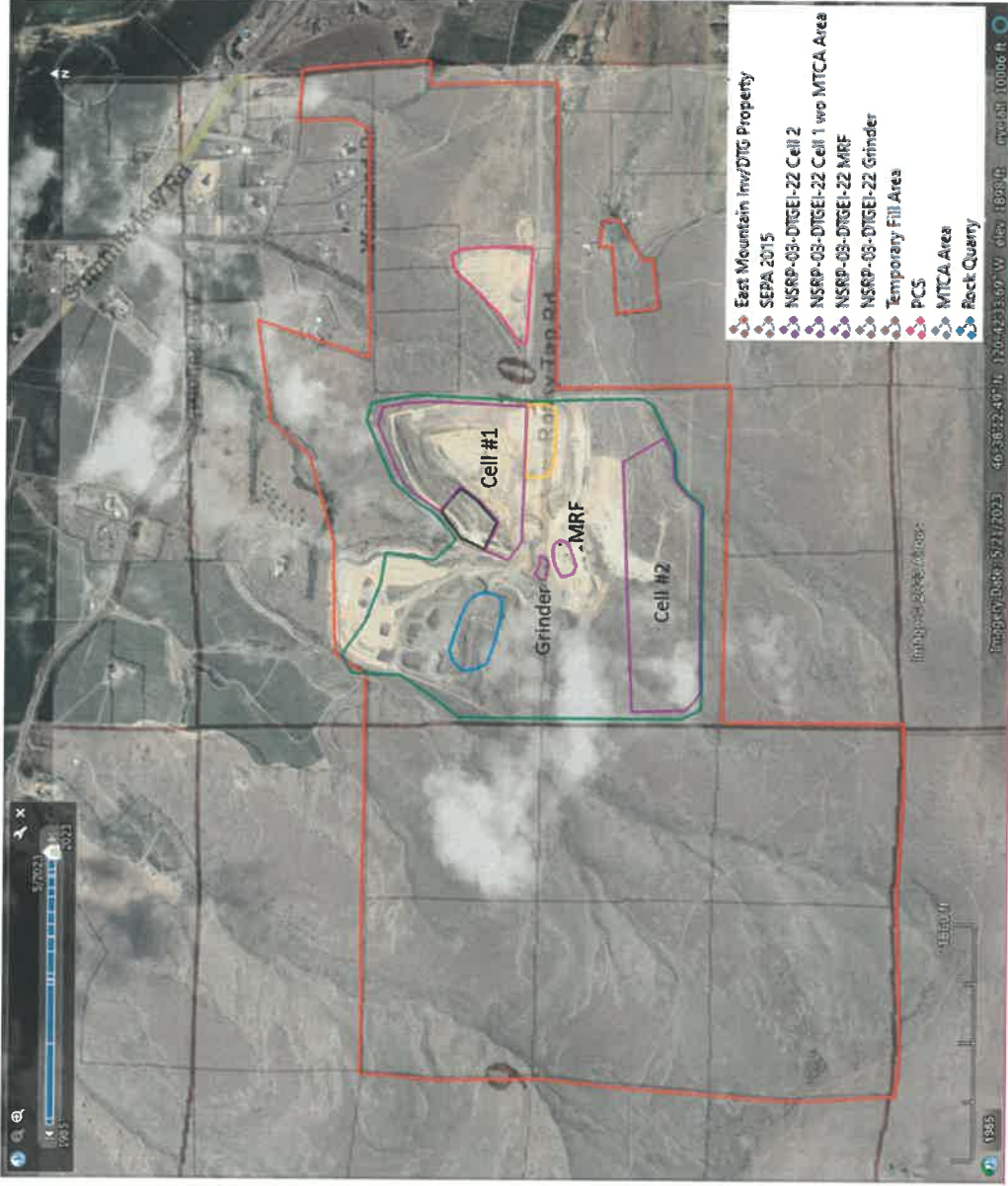
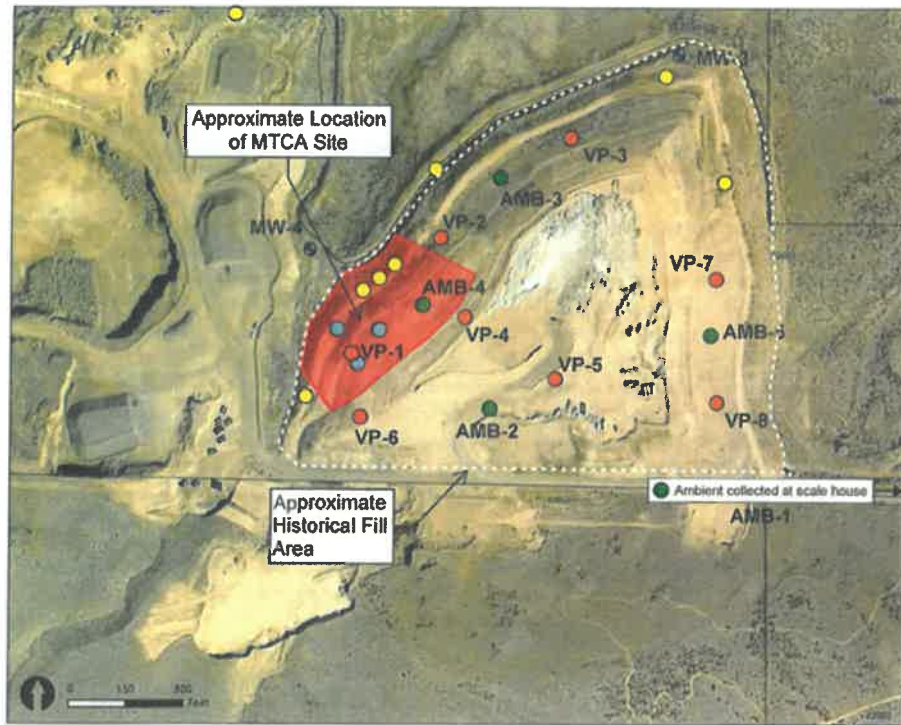


Figure 2: DTG's Site Plan showing LPL's operations outlined in purple, Cell #1/Phase #1 (without MTCA area), Cell #2/Phase #2, MRF area and Grinder area. Other LPL's areas are shown according to the legend. All locations are approximate.



Parametrix

Basemap from Yakima Planning GIS (2021 Aerials)

- December '21 Soil Gas ● Existing Monitoring Well
- July '22 Soil Gas
- January '22 Ambient Air
- July '22 Ambient Air
- * all locations approximate

East Mountain Investments, Inc. and DTG
 Enterprises, Inc. Agreed Order

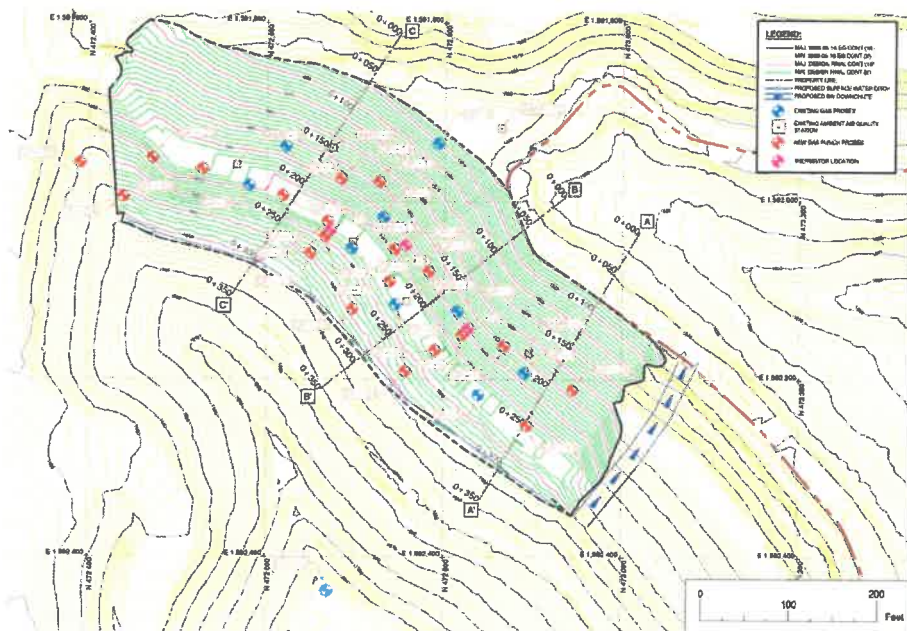


Figure 3: Approximate location of thermistors and gas probes on MTCA’s area as of October, 2023.



Figure 4: Operations being permitted in this Order outlined in purple. All locations are approximate.

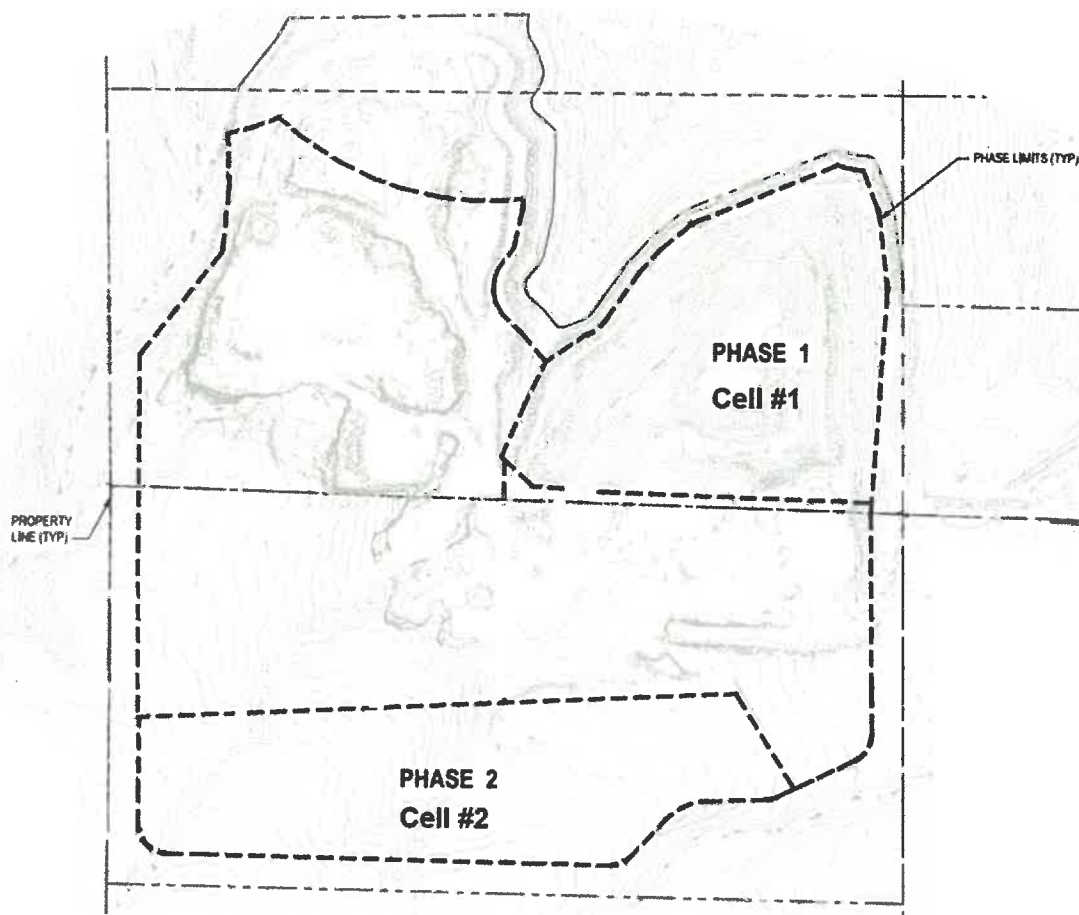


Figure 5: Conceptual Phasing showing Phase 1 (Cell #1) and Phase 2 (Cell #2) and Property Line.

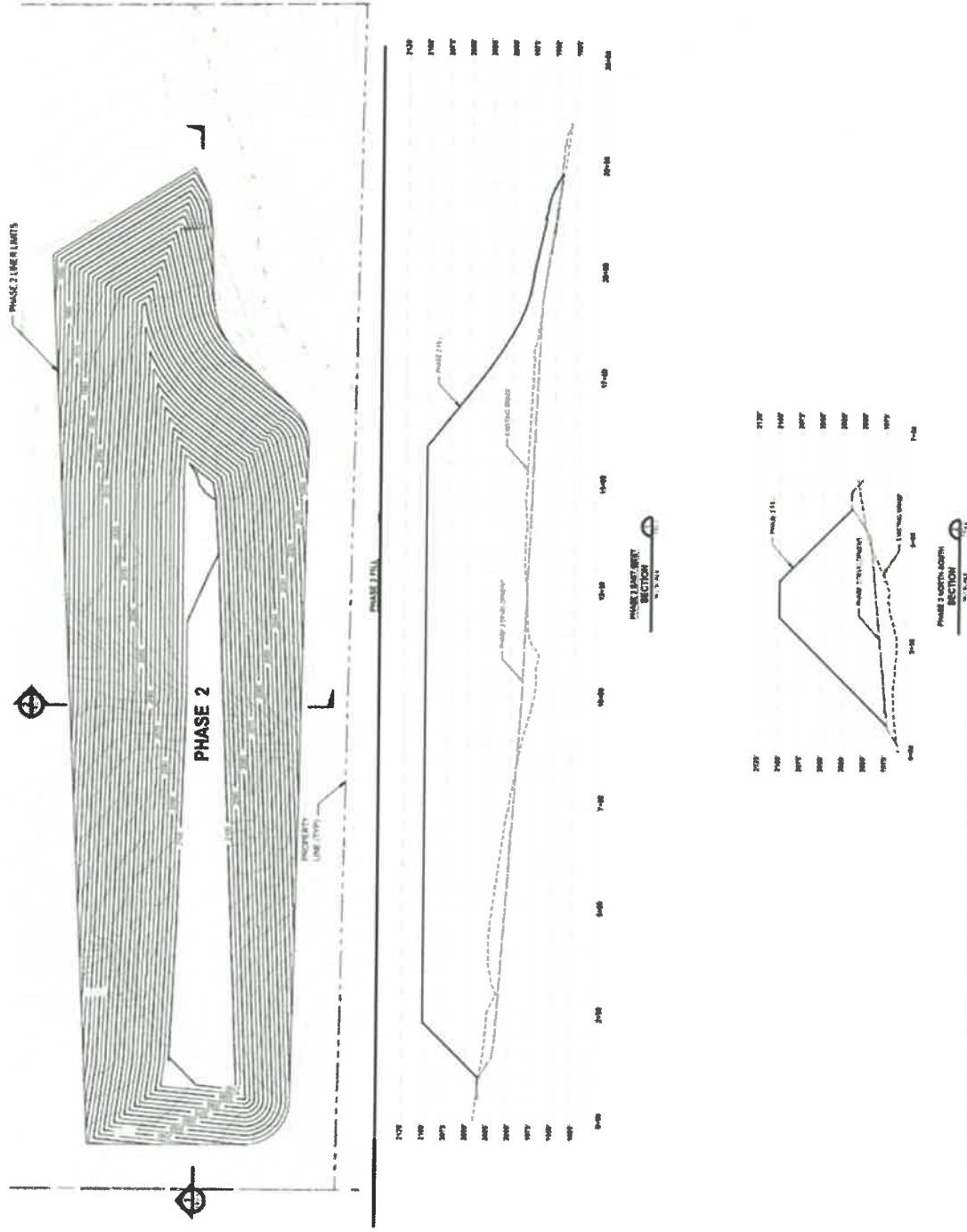


Figure 6: Phase 2 (Cell #2) Fill diagrams with fill sections.



Figure 7: Paved and unpaved Cell #2 and Quarry distances.



Figure 8: PCS area showing PCS piles, as of March, 2020 and May, 2023.