

APPENDIX G – HUDSON RANCH GREENHOUSE GAS SCREENING LETTER



June 6, 2021

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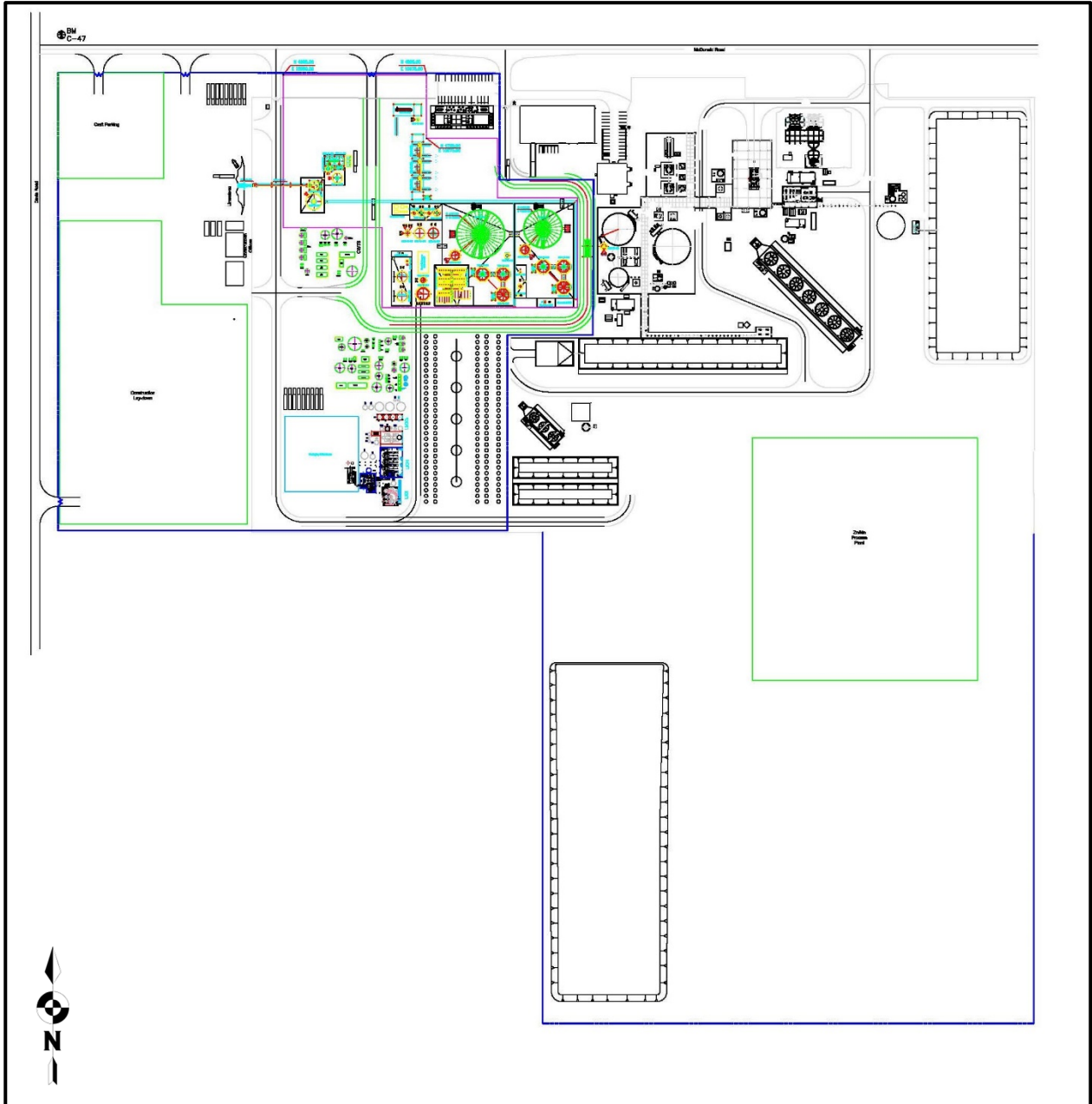
RE: Hudson Ranch Greenhouse Gas (GHG) Screening Letter – County of Imperial

The purpose of this GHG screening letter is to identify potential GHG impacts, if any, which may be created from the construction and operation of the proposed Hudson Ranch Mineral Extraction project. The site is located about 3 miles west-southwest of the community of Niland near the southwest corner of the existing HR1 power plant site, on Imperial County parcel APN 020-100-044 (about 65.12 acres). The proposed ATLiS plant site and associated plant facilities would be built within an existing approximately 37-acre project area, with the addition of the 15 acres located at the southeast corner of Davis Rd. and McDonald Rd. Primary highway access to the proposed plant site will be via State Highway 111.

The location of the ATLiS project is on the existing HR 1 site which was previously permitted for the Geothermal Plant. The site is zoned manufacturing (medium industrial) (M2G-PE), and is located entirely within the existing Salton Sea Geothermal Overlay Zone. In addition to the actual power plant, the rest of the land has been used for lay down areas, storage areas and storm water management. The site configuration is provided in Figure 1.

The facility will process geothermal brine from HR1 to produce lithium hydroxide (LiOH), zinc (Zn), and manganese (Mn) products which will be sold commercially. The proposed Project seeks to construct and operate a facility capable of extracting and producing viable lithium (Li), Mn and Zn and other commercially viable substances from geothermal brine. The facility will include a brine supply and return pipeline system and other associated interconnection facilities, infrastructure and systems linking to the HR1 power plant as well as a shipping and receiving area. Additionally, the project would construct a primary access road from McDonald Road as well as an emergency access entrance from Davis Road. Finally, a laydown yard will be constructed with temporary offices which will be utilized during construction.

Figure 1: Project Area Overview Map



Source: (Energy Source LLC, 2020)

Based on discussions with the Project applicant, the total combined facility area is not known at this time but would be expected to be no more than 100,000 square Feet (SF) also, paving quantities are not known at this time but would be expected to be less than 10 acres of asphalt and includes paving McDonald Road from SR-111 to English Road. The ATLIS plant site will include construction of the following buildings and structures:

- Plant offices (which will house offices and meeting rooms) [Note: offices for both plants may be incorporated into one building].
- Operations and employee facilities (which will house offices for supervisors, meeting rooms, breakroom/lunchroom, locker/shower rooms); [Note: these may all be in one building with the main offices]
- Maintenance shop, materials warehouse (which will house plant maintenance equipment and supplies, and shops such as machine, paint, welding and electronic);
- Materials warehouse (which will store equipment, reagents, etc.);
- Electrical building(s) (which will house motor control centers, electric power switchgear and metering to provide power for plant operations);
- Emergency generator building;
- Two reagent storage and preparation buildings;
- Chemical laboratory building (which will contain a wet chemistry laboratory and analytical instruments for analysis of in-process and finished products);
- Filter press sheds (which will house filter presses. Li product production building (which will house the proprietary technology for manufacturing the lithium carbonate and lithium hydroxide products);
- Li product handling, packaging and warehouse buildings (which will house the filtration and drying equipment for the Li products and bagging and palletizing of finished products);
- Manganese product handling, production, and warehouse building (which will house the filtration and drying equipment for the Mn product and bagging and palletizing of finished products);
- Zn product handling, production, and warehouse building (which will house the filtration and drying equipment for the Zn product and bagging and palletizing and storage of finished products);
- Calcium oxide (CaO) silo and slacker;
- Limestone stockpile and solution tanks
- HCL offloading and storage tank(s)
- Gate (guard) house; and
- Cooling tower
- The sewage from this plant will be processed by the HR 1 sewer treatment plant, hence no further permitting is required.

Production Plant Operations

The ATLiS plant will utilize post-secondary clarifier brine produced from the geothermal fluid management activities on the neighboring HR1 power plant site as the resource process stream for the commercial production of LiOH, Zn and Mn products.

Impurity Removal

Post heat extraction geothermal brine from the secondary clarifier of the HR1 power plant site will be transported via pipeline to the impurity removal process area on the ATLiS plant site. A nominal 7,000 gallons per minute (gpm) of the brine will be processed by the facility. This process rate is used as the basis for the estimates provided throughout this Project description, but the actual rate of brine eventually processed on the site will be optimized to take advantage of the available facilities on the HR1 and ATLiS plant sites.

Iron (Fe) and silica (SiO₂) will be removed from the brine followed by the removal of the Mn and Zn in a two-stage process. The separated Fe-SiO₂ material, and the Mn-Zn material will be dewatered in the Filter Press sheds. The mineral depleted brine will then be transported via pipeline to the Li Extraction process area.

The separated Fe-SiO₂ material will be initially managed as a waste stream. The waste material will be collected and analyzed in conformance with appropriate laboratory testing protocols to ensure that it is handled and disposed of in an appropriate manner. If and when in the future, opportunities exist to use this material, ATLiS plans to market iron-silica material as an additional product(s) to be shipped to a third party(ies) for use in other industrial processes. Based on average production rates at the target nominal process rate of 7,000 gpm, approximately 136,200 metric tons of iron-silica material will be produced annually.

Lithium Chloride Extraction

The treated brine will be fed to a Li extraction process located within the Li Extraction process area on the ATLiS plant site. This area will be outside on a concrete pad. The area will contain proprietary Li extraction media. Li from the brine will be retained on the extraction media. A lithium chloride (LiCl) product stream will be produced from the extraction process. The LiCl will be transported via pipeline from the Li Extraction area into the Li Purification process area. Impurities will be removed from the LiCl product stream and handled as nonhazardous waste. The purified LiCl will then be concentrated and transported via pipeline to a Li Product

Production Building where the materials will be processed into a usable product which will consist of a packaged palletized unit ready of shipping.

The dried Li products will be packaged, palletized, staged, and loaded into trucks for distribution in the Li Product Handling, Production and Warehouse buildings. The dried Li products will be loaded into bulk bags in a bagging station. Packaging is expected to be 1,000 kg super sacks.

Extraction of Zink and Manganese

Zn/Mn filter cake will be acid leached, separated and purified into a two-part solvent extraction process. The separated streams will each then be dried and packaged for further processing by others.

Manganese Extraction and Processing

The SiO₂-, -Fe -depleted brine from the impurity removal process will be transported to the Mn Extraction and Production Area. Mn will be precipitated from the brine into Mn oxides/hydroxides by adding reagents, then dewatered in filter presses into wet cake product. The products will be transported to the Mn Product Handling, Production and Warehouse building for further handling, packaging, and offsite shipment to market.

Product Shipping to Offsite Markets

The ATLIS plant may produce multiple products for offsite shipment to market by truck. The average annual amount of product shipped out of the plant is estimated at 19,000 metric tons of Li product 10,000 to 20,000 metric tons of Zn product(s), and up to 60,000 metric tons of Mn product(s). Products will be transported by freight truck on existing roadways to shipping distribution point(s). Other products of the production operations may be generated by the proprietary technology on the plant site and would also be shipped offsite to market by truck.

Construction

Construction activities for the project would occur over a two year period starting in 2021 and completing in 2023. The worst case construction schedule is shown in Table 1. GHG impacts related to construction and daily operations were calculated using the latest CalEEMod 2016.3.2 air quality model, which was developed by BREEZE Software for South Coast Air Quality Management District (SCAQMD) in 2017. The project construction model is provided as **Attachment A** to this letter.

Table 1: Expected Construction Equipment

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Demolition	03/01/2021	03/12/2021	
Concrete/Industrial Saws			1
Excavators			3
Rubber Tired Dozers			2
Grading	03/01/2021	05/07/2021	
Graders			1
Off-Highway Trucks			7
Rollers			1
Rubber Tired Dozers			2
Scrapers			4
Tractors/Loaders/Backhoes			1
Building Construction	04/12/2021	04/07/2023	
Aerial Lifts			7
Air Compressors			4
Bore/Drill Rigs			1
Cranes			7
Excavators			2
Forklifts			7
Generator Sets			4
Off-Highway Trucks			1
Tractors/Loaders/Backhoes			13
Welders			1
Trenching	04/19/2021	10/08/2021	
Excavators			2
Off-Highway Trucks			3
Rollers			1
Skid Steer Loaders			1
Tractors/Loaders/Backhoes			3
Paving	09/30/2022	03/10/2023	
Graders			2
Pavers			1
Rollers			2
Rubber Tired Dozers			2
Tractors/Loaders/Backhoes			3
Architectural Coating	12/05/2022	03/31/2023	
Air Compressors			1

Operations

Based on the projected traffic volumes estimated by the Project Traffic Engineer, the proposed project would generate as much as 104 regular employee and miscellaneous average daily trips (ADT) and as many as 30 ADT truck trips without correcting for passenger car equivalence (PCE) once fully operational (LLG Engineers, 2020). The first full year of operations is expected in 2024 which is used for the basis of this analysis.

Operational air quality emission sources would include area sources such as landscaping, consumer products and architectural coatings during maintenance, energy sources from electrical usage, mobile sources from vehicular traffic to include trucks and passenger vehicles, solid waste from trash generation, and water uses, which are calculated within CalEEMod. Additionally, the project would purchase and use two propane powered forklifts each with rated less than 50 HP onsite. These units were also modeled within CalEEMod. Area Sources include landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as electricity and natural gas usage though Natural Gas usage onsite is not expected or being delivered to the site.

The project operations are both energy and water intensive and would consume 51,840 Mega Watt Hours (MWH) of electricity and 3,400 Acre Feet of water as disclosed by the project applicant. The water will be then pumped back into the Geothermal wells. CalEEMod was manually updated to include these inputs. Water will be supplied from Imperial Irrigation District canals. Utilizing CalEEMod 2016.3.2 A GHG operational model was prepared for these trip quantities and scenario and is also shown as **Attachment A** to this report.

The largest source of GHG emissions for this project would be from both water pumping and electrical usage which ultimately comes from offsite electrical resources. The project will receive electricity and water from the Imperial Irrigation District (IID). The State of California requires that utility providers provide renewable energy to their customers. Based on Senate Bill (SB) X1-2 and SB 350 make up what is known as the Renewable Portfolio Standards (RPS). Under the law, utility providers are required to maintain up to a 33% RPS in 2020 and up to 60% RPS in 2030. IID provides achieved a 48.8% RPS in 2020. In order to achieve a 60% RPS requirement by 2030, the project will require adding at least 1.12% per year.

GHG Regulations

The State of California Greenhouse Gas laws are based on the "the California Global Warming Solutions Act of 2006" (AB32), requires the California Air Resources Board (CARB) to adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020 and is outlined by the California Air Resource Board (ARB) (California Air Resource Board, 2014). As part of AB32 (Section 38562-A), the state board shall adopt greenhouse gas emission limits and emission reduction measures before January 1, 2011 and enforce these measures starting January 1, 2012. Currently, greenhouse gas emission limits for industrial projects such as the proposed project, have not been adopted by the State or Imperial County.

The California Air Pollution Control Officers Association (CAPCOA) published a white paper which suggested screening criteria of 900 metric tons (MT) of GHGs (CAPCOA, 2010). Projects creating more than 900 metric tons of GHGs generally are considered significant and would require reduction measures from business as usual with a goal of 28.3%. For purposes of this analysis in Imperial County, these screening and reduction thresholds will be utilized.

Greenhouse Gasses contributed from the proposed project are Carbon Dioxide (CO₂), Methane (CH₄), and Nitrous Oxide (N₂O). For purposes of analysis, both CH₄ and N₂O can be converted to an equivalent amount of CO₂ (CO₂e) by multiplying the calculated levels of CH₄ and N₂O by a Global Warming Potential (GWP). The U.S. Environmental Protection Agency publishes GWPs for various GHGs and reports that the GWP for CH₄ and N₂O is 21 and 310, respectively.

In addition, ICAPCD has a potential to emit rule (Rule 903) which as it pertains to GHG emissions would require additional notification requirements for stationary sources whenever a project exceeds 100 MT without considering global warming potential (ICAPCD, 2011). Should this rule be exceeded, the additional requirements will be discussed.

Project Related Construction Emissions

Construction activities for the project would occur over a two year timeframe. Utilizing the CalEEMod inputs for the model as discussed above, grading and construction of the Project will produce approximately 8,043.37 MT of CO₂e. Based on SQAQMD methodology, it is recommended to average the construction emissions over the Project life, which is assumed to be 30 years (SCAQMD, 2008). Given this, the annual construction emission for the proposed Project is 218.66 MT of CO₂e per year and is shown in Table 2.

Table 2: Proposed Project Construction CO₂e Emissions Summary MT/Year

Year	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
2021	0.00	3,329.28	3,329.28	0.71	0.00	3,346.92
2022	0.00	3,613.71	3,613.71	0.67	0.00	3,630.35
2023	0.00	1,061.10	1,061.10	0.20	0.00	1,066.10
Total						8,043.37
Yearly Average Construction Emissions (Metric Tons/year over 30 years)						268.11

Project Related Operational Emissions

Based on the CalEEMod analysis, the proposed Project buildout would generate 16,651 MT CO₂e annually, which is shown in Table 3. These emissions include the design as identified within this report and assume all emissions are offset with renewable sources. The emissions generated do not Exceed the US EPAs reporting thresholds and would therefore not be required to annually report GHGs to the EPA. The project would exceed the 900 MT GHG screening threshold and is required to show at least a 28.3% reduction over BAU.

Table 3: Operational GHG Emissions (MT/Year)

Source	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e (MT/Yr)
Area	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	13,961.81	13,961.81	0.33	0.07	13,991.06
Mobile	0.00	415.54	415.54	0.02	0.00	416.03
Onsite Forklifts	0.00	30.69	30.69	0.01	0.00	30.94
Stationary Emissions	0.00	20.17	20.17	0.00	0.00	20.24
Waste	14.60	0.00	14.60	0.86	0.00	36.17
Water	351.48	379.54	731.03	36.11	0.85	1,888.36
Construction Emissions						268.11
Project Total GHG Emissions						16,650.91
Data is presented in decimal format and may have rounding errors.						

BAU emissions for the operational year of 2024 would be appropriate. As can be seen from GHG emissions in Table 3 almost all GHG emissions are from energy usage which is entirely electrical and water conveyance which is also dependent on offsite electrical generation. Under the BAU setting it would be appropriate to utilize default IID electrical energy intensities. Table 4 below shows what emissions in 2024 would be without RPS. The model is shown as **Attachment B** to this report.

Table 4: BAU Operational GHG Emissions (MT/Year)

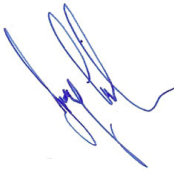
Source	Bio-CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e (MT/Yr)
Area	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	29,884.23	29,884.23	0.68	0.14	29,943.32
Mobile	0.00	415.54	415.54	0.02	0.00	416.03
Onsite Forklifts	0.00	30.69	30.69	0.01	0.00	30.94
Stationary Emissions	0.00	20.17	20.17	0.00	0.00	20.24
Waste	14.60	0.00	14.60	0.86	0.00	36.17
Water	351.48	812.39	1,163.87	36.12	0.86	2,322.02
Construction Emissions						268.11
Project (BAU) Total GHG Emissions						32,987
Proposed Project Emissions						16,651
Difference						16,386
Percentage Reduction over BAU (%)						49.5
Data is presented in decimal format and may have rounding errors.						

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Based on these findings, the project would have a 49.5 percent reduction in GHG emissions when compared to the BAU scenario without RPS. Since a 28.3% reduction is required, a less than significant GHG impact is expected. Furthermore, the stationary sources would not exceed 100 MT of GHGs and would not require additional notification with respect to ICAPCD Rule 903. Finally, the proposed project has been developed to be consistent with the existing site zoning designation for industrial uses. If you have any questions, please do not hesitate to contact me directly at (760) 473-1253.

Sincerely,
Ldn Consulting, Inc.



Jeremy Loudon

Attachment A: CalEEMod Model Results (Proposed Project)

Attachment B: CalEEMod Model Results (BAU)

References:

California Air Resource Board. (2014, August 5). *Assembly Bill 32 Overview*. Retrieved 2016, from <http://www.arb.ca.gov/>: <http://www.arb.ca.gov/cc/ab32/ab32.htm>

CAPCOA. (2010). *www.CAPCOA.ORG*. Retrieved 2016, from <http://capcoa.org/wp-content/uploads/downloads/2010/05/CAPCOA-White-Paper.pdf>

Energy Source LLC. (2020). *Altis Project Site Layout*.

ICAPCD. (2011). *Rule 903 Potential to Emit*. Retrieved from <https://apcd.imperialcounty.org/wp-content/uploads/2020/05/1RULE903.pdf>

LLG Engineers. (2020). *TRANSPORTATION IMPACT ANALYSIS - HUDSON RANCH MINERAL RECOVERY*.

SCAQMD. (2008). Interim CEQA GHG Significance Threshold for Stationary. Retrieved from [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2)

Hudson Ranch Minerals - Imperial County, Annual

**Hudson Ranch Minerals
Imperial County, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	100.00	1000sqft	27.00	100,000.00	0
Other Asphalt Surfaces	10.00	Acre	10.00	435,600.00	0
Other Non-Asphalt Surfaces	15.00	Acre	15.00	653,400.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	12
Climate Zone	15			Operational Year	2024
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MWhr)	593.76	CH4 Intensity (lb/MWhr)	0.014	N2O Intensity (lb/MWhr)	0.003

1.3 User Entered Comments & Non-Default Data

Project Characteristics - <https://www.iid.com/energy/renewable-energy> 2020 48.8% RPS since 2030. To meet 2030 60% requirement, IID will add 11.2% by 2030 (48.8+11.2=60) or 1.12% per year (1.12%*10 years = 11.2%. For 2024 the IID Renewable should be 53.3%

Land Use - 37 acre construction site and 15 acre laydown area

Construction Phase - Construction dates estimated by Project Engineer

Off-road Equipment - Equipment List provided by project applicant

Off-road Equipment - Equipment List provided by project applicant

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Off-road Equipment - Equipment List provided by project applicant
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Trips and VMT -

On-road Fugitive Dust - Trips use 111 and McDonald all paved except 2 miles at McDonald. prior to const. this area will be improved with 12-18" base and would have dedicated water truck. The City wants to wait to pave McDonald till construction is complete.

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Trip Gen for Operations per TS excludes PCE adjustments 134 ADT

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust - Roadways are paved

Woodstoves -

Area Coating -

Energy Use - Energy Use - Project would consume 51,840 MWH per year

Water And Wastewater - Project will use 3,400 afy of water from IID canals.

Construction Off-road Equipment Mitigation - T4 Equipment

Operational Off-Road Equipment - 2 forklifts less than 50HP will be used onsite

Fleet Mix - Truck Trips would be 22%. Remainder of vehicles would be Passenger Cars

Stationary Sources - Emergency Generators and Fire Pumps - 50 hours per year on average would be used 80 hours on average assumed

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	40
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	5.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

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tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	70.00	10.00
tblConstructionPhase	NumDays	110.00	50.00
tblConstructionPhase	NumDays	1,110.00	520.00
tblConstructionPhase	NumDays	75.00	116.00
tblConstructionPhase	NumDays	75.00	85.00
tblEnergyUse	LightingElect	2.93	0.00
tblEnergyUse	NT24E	5.02	518.40
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	T24E	2.20	0.00
tblEnergyUse	T24NG	15.36	0.00
tblFleetMix	HHD	0.12	0.22
tblFleetMix	LDA	0.52	0.38
tblFleetMix	LDT1	0.03	0.15
tblFleetMix	LDT2	0.16	0.10
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	4.6900e-003	0.00
tblFleetMix	MCY	5.2480e-003	0.00
tblFleetMix	MDV	0.11	0.15
tblFleetMix	MH	6.0000e-004	0.00
tblFleetMix	MHD	0.02	0.00
tblFleetMix	OBUS	3.6150e-003	0.00
tblFleetMix	SBUS	7.2500e-004	0.00
tblFleetMix	UBUS	1.2560e-003	0.00

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tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	89.00	50.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CH4IntensityFactor	0.029	0.014
tblProjectCharacteristics	CO2IntensityFactor	1270.9	593.76
tblProjectCharacteristics	N2OIntensityFactor	0.006	0.003
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	100
tblSolidWaste	SolidWasteGenerationRate	124.00	71.92
tblVehicleTrips	ST_TR	1.50	1.34
tblVehicleTrips	SU_TR	1.50	1.34
tblVehicleTrips	WD_TR	1.50	1.34
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	23,125,000.00	1,107,894,868.00

2.0 Emissions Summary

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2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	2.0102	18.2276	15.9194	0.0374	1.0174	0.7452	1.7627	0.3406	0.6957	1.0363	0.0000	3,329.278 1	3,329.278 1	0.7059	0.0000	3,346.926 3
2022	2.2233	17.5456	17.1288	0.0405	0.7919	0.6863	1.4782	0.2165	0.6434	0.8599	0.0000	3,613.709 4	3,613.709 4	0.6658	0.0000	3,630.353 5
2023	1.2800	4.7132	5.0332	0.0119	0.2393	0.1841	0.4234	0.0652	0.1723	0.2375	0.0000	1,061.102 6	1,061.102 6	0.1998	0.0000	1,066.098 2
Maximum	2.2233	18.2276	17.1288	0.0405	1.0174	0.7452	1.7627	0.3406	0.6957	1.0363	0.0000	3,613.709 4	3,613.709 4	0.7059	0.0000	3,630.353 5

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.7511	4.5156	18.1655	0.0374	0.7820	0.0507	0.8326	0.2418	0.0502	0.2920	0.0000	3,329.275 4	3,329.275 4	0.7059	0.0000	3,346.923 6
2022	1.0743	5.2798	19.2467	0.0405	0.7919	0.0509	0.8428	0.2165	0.0503	0.2668	0.0000	3,613.706 7	3,613.706 7	0.6658	0.0000	3,630.350 8
2023	0.9580	1.2655	5.7387	0.0119	0.2393	0.0141	0.2533	0.0652	0.0139	0.0791	0.0000	1,061.101 8	1,061.101 8	0.1998	0.0000	1,066.097 4
Maximum	1.0743	5.2798	19.2467	0.0405	0.7919	0.0509	0.8428	0.2418	0.0503	0.2920	0.0000	3,613.706 7	3,613.706 7	0.7059	0.0000	3,630.350 8

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	49.52	72.68	-13.31	0.00	11.49	92.84	47.36	15.87	92.43	70.10	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	1-28-2021	4-27-2021	3.7013	0.5684
3	4-28-2021	7-27-2021	6.6029	1.7903
4	7-28-2021	10-27-2021	6.0142	1.7271
5	10-28-2021	1-27-2022	4.9995	1.5612
6	1-28-2022	4-27-2022	4.4746	1.4794
7	4-28-2022	7-27-2022	4.5258	1.4973
8	7-28-2022	10-27-2022	5.0021	1.5506
9	10-28-2022	1-27-2023	6.2269	2.0141
10	1-28-2023	4-27-2023	4.1560	1.5589
		Highest	6.6029	2.0141

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2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	13,961.8083	13,961.8083	0.3292	0.0705	13,991.0600
Mobile	0.0762	0.7252	1.0493	4.4600e-003	0.2462	1.8600e-003	0.2481	0.0659	1.7400e-003	0.0676	0.0000	415.5387	415.5387	0.0195	0.0000	416.0257
Offroad	0.0446	0.2600	0.3276	3.5000e-004		0.0131	0.0131		0.0120	0.0120	0.0000	30.6882	30.6882	9.9300e-003	0.0000	30.9364
Stationary	0.0435	0.1234	0.1152	2.1000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	20.1670	20.1670	2.8300e-003	0.0000	20.2377
Waste						0.0000	0.0000		0.0000	0.0000	14.5991	0.0000	14.5991	0.8628	0.0000	36.1687
Water						0.0000	0.0000		0.0000	0.0000	351.4839	379.5442	731.0281	36.1097	0.8543	1,888.3629
Total	0.7175	1.1086	1.4932	5.0200e-003	0.2462	0.0219	0.2682	0.0659	0.0208	0.0866	366.0830	14,807.7486	15,173.8317	37.3340	0.9249	16,382.7938

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	13,961.8083	13,961.8083	0.3292	0.0705	13,991.0600
Mobile	0.0762	0.7252	1.0493	4.4600e-003	0.2462	1.8600e-003	0.2481	0.0659	1.7400e-003	0.0676	0.0000	415.5387	415.5387	0.0195	0.0000	416.0257
Offroad	0.0446	0.2600	0.3276	3.5000e-004		0.0131	0.0131		0.0120	0.0120	0.0000	30.6882	30.6882	9.9300e-003	0.0000	30.9364
Stationary	0.0435	0.1234	0.1152	2.1000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	20.1670	20.1670	2.8300e-003	0.0000	20.2377
Waste						0.0000	0.0000		0.0000	0.0000	14.5991	0.0000	14.5991	0.8628	0.0000	36.1687
Water						0.0000	0.0000		0.0000	0.0000	351.4839	379.5442	731.0281	36.1097	0.8543	1,888.3629
Total	0.7175	1.1086	1.4932	5.0200e-003	0.2462	0.0219	0.2682	0.0659	0.0208	0.0866	366.0830	14,807.7486	15,173.8317	37.3340	0.9249	16,382.7938

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2021	3/12/2021	5	10	
2	Grading	Grading	3/1/2021	5/7/2021	5	50	
3	Building Construction	Building Construction	4/12/2021	4/7/2023	5	520	
4	trenching	Trenching	4/19/2021	10/8/2021	5	125	
5	Paving	Paving	9/30/2022	3/10/2023	5	116	
6	Architectural Coating	Architectural Coating	12/5/2022	3/31/2023	5	85	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 225

Acres of Paving: 25

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 65,340 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	7	8.00	402	0.38
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Aerial Lifts	7	8.00	63	0.31

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Building Construction	Air Compressors	4	8.00	78	0.48
Building Construction	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction	Cranes	7	7.00	231	0.29
Building Construction	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	7	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	15	0.74
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Graders	1	8.00	187	0.41
Building Construction	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	13	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
trenching	Excavators	2	8.00	158	0.38
trenching	Off-Highway Trucks	3	8.00	402	0.38
trenching	Rollers	1	8.00	80	0.38
trenching	Skid Steer Loaders	1	8.00	65	0.37
trenching	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Graders	2	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Rubber Tired Dozers	2	8.00	247	0.40
Paving	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	68.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	40.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	50	499.00	195.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
trenching	10	25.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	25.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	100.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.6700e-003	0.0000	7.6700e-003	1.1600e-003	0.0000	1.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1572	0.1078	1.9000e-004		7.7600e-003	7.7600e-003		7.2100e-003	7.2100e-003	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200
Total	0.0158	0.1572	0.1078	1.9000e-004	7.6700e-003	7.7600e-003	0.0154	1.1600e-003	7.2100e-003	8.3700e-003	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200

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3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	7.4400e-003	1.0400e-003	3.0000e-005	5.9000e-004	2.0000e-005	6.1000e-004	1.6000e-004	2.0000e-005	1.8000e-004	0.0000	2.4712	2.4712	1.0000e-004	0.0000	2.4737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	4.1000e-004	3.6800e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.4646	0.4646	3.0000e-005	0.0000	0.4654
Total	6.7000e-004	7.8500e-003	4.7200e-003	4.0000e-005	1.1700e-003	2.0000e-005	1.1900e-003	3.1000e-004	2.0000e-005	3.4000e-004	0.0000	2.9358	2.9358	1.3000e-004	0.0000	2.9392

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.4500e-003	0.0000	3.4500e-003	5.2000e-004	0.0000	5.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3100e-003	0.0100	0.1164	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200
Total	2.3100e-003	0.0100	0.1164	1.9000e-004	3.4500e-003	3.1000e-004	3.7600e-003	5.2000e-004	3.1000e-004	8.3000e-004	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200

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3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	7.4400e-003	1.0400e-003	3.0000e-005	5.9000e-004	2.0000e-005	6.1000e-004	1.6000e-004	2.0000e-005	1.8000e-004	0.0000	2.4712	2.4712	1.0000e-004	0.0000	2.4737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	4.1000e-004	3.6800e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.4646	0.4646	3.0000e-005	0.0000	0.4654
Total	6.7000e-004	7.8500e-003	4.7200e-003	4.0000e-005	1.1700e-003	2.0000e-005	1.1900e-003	3.1000e-004	2.0000e-005	3.4000e-004	0.0000	2.9358	2.9358	1.3000e-004	0.0000	2.9392

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4204	0.0000	0.4204	0.1784	0.0000	0.1784	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2720	2.7836	1.6808	4.5600e-003		0.1125	0.1125		0.1035	0.1035	0.0000	400.8097	400.8097	0.1296	0.0000	404.0505
Total	0.2720	2.7836	1.6808	4.5600e-003	0.4204	0.1125	0.5329	0.1784	0.1035	0.2819	0.0000	400.8097	400.8097	0.1296	0.0000	404.0505

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3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7200e-003	5.4200e-003	0.0490	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	6.1942	6.1942	4.6000e-004	0.0000	6.2058
Total	6.7200e-003	5.4200e-003	0.0490	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	6.1942	6.1942	4.6000e-004	0.0000	6.2058

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1892	0.0000	0.1892	0.0803	0.0000	0.0803	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0559	0.2424	2.0950	4.5600e-003		7.4600e-003	7.4600e-003		7.4600e-003	7.4600e-003	0.0000	400.8093	400.8093	0.1296	0.0000	404.0500
Total	0.0559	0.2424	2.0950	4.5600e-003	0.1892	7.4600e-003	0.1966	0.0803	7.4600e-003	0.0877	0.0000	400.8093	400.8093	0.1296	0.0000	404.0500

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3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7200e-003	5.4200e-003	0.0490	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	6.1942	6.1942	4.6000e-004	0.0000	6.2058
Total	6.7200e-003	5.4200e-003	0.0490	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	6.1942	6.1942	4.6000e-004	0.0000	6.2058

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1089	11.0580	9.3630	0.0178		0.5361	0.5361		0.5030	0.5030	0.0000	1,550.5535	1,550.5535	0.4044	0.0000	1,560.6641
Total	1.1089	11.0580	9.3630	0.0178		0.5361	0.5361		0.5030	0.5030	0.0000	1,550.5535	1,550.5535	0.4044	0.0000	1,560.6641

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3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0833	2.1556	0.6006	7.3500e-003	0.2032	6.3400e-003	0.2096	0.0586	6.0700e-003	0.0646	0.0000	697.3340	697.3340	0.0303	0.0000	698.0903
Worker	0.3184	0.2570	2.3239	3.2700e-003	0.3652	2.2800e-003	0.3675	0.0969	2.1000e-003	0.0990	0.0000	293.6381	293.6381	0.0220	0.0000	294.1870
Total	0.4017	2.4126	2.9245	0.0106	0.5684	8.6200e-003	0.5771	0.1555	8.1700e-003	0.1636	0.0000	990.9721	990.9721	0.0522	0.0000	992.2773

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2227	1.5509	10.6370	0.0178		0.0276	0.0276		0.0276	0.0276	0.0000	1,550.5517	1,550.5517	0.4044	0.0000	1,560.6622
Total	0.2227	1.5509	10.6370	0.0178		0.0276	0.0276		0.0276	0.0276	0.0000	1,550.5517	1,550.5517	0.4044	0.0000	1,560.6622

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3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0833	2.1556	0.6006	7.3500e-003	0.2032	6.3400e-003	0.2096	0.0586	6.0700e-003	0.0646	0.0000	697.3340	697.3340	0.0303	0.0000	698.0903
Worker	0.3184	0.2570	2.3239	3.2700e-003	0.3652	2.2800e-003	0.3675	0.0969	2.1000e-003	0.0990	0.0000	293.6381	293.6381	0.0220	0.0000	294.1870
Total	0.4017	2.4126	2.9245	0.0106	0.5684	8.6200e-003	0.5771	0.1555	8.1700e-003	0.1636	0.0000	990.9721	990.9721	0.0522	0.0000	992.2773

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3553	13.1856	12.5783	0.0244		0.6177	0.6177		0.5800	0.5800	0.0000	2,122.4353	2,122.4353	0.5517	0.0000	2,136.2273
Total	1.3553	13.1856	12.5783	0.0244		0.6177	0.6177		0.5800	0.5800	0.0000	2,122.4353	2,122.4353	0.5517	0.0000	2,136.2273

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3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1057	2.7378	0.7476	9.9800e-003	0.2781	7.3700e-003	0.2855	0.0801	7.0500e-003	0.0872	0.0000	946.8650	946.8650	0.0391	0.0000	947.8423
Worker	0.4076	0.3225	2.9132	4.3100e-003	0.4997	2.9900e-003	0.5027	0.1326	2.7500e-003	0.1354	0.0000	387.1519	387.1519	0.0275	0.0000	387.8404
Total	0.5133	3.0604	3.6608	0.0143	0.7778	0.0104	0.7882	0.2127	9.8000e-003	0.2225	0.0000	1,334.0169	1,334.0169	0.0666	0.0000	1,335.6827

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3047	2.1222	14.5559	0.0244		0.0377	0.0377		0.0377	0.0377	0.0000	2,122.4327	2,122.4327	0.5517	0.0000	2,136.2248
Total	0.3047	2.1222	14.5559	0.0244		0.0377	0.0377		0.0377	0.0377	0.0000	2,122.4327	2,122.4327	0.5517	0.0000	2,136.2248

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3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1057	2.7378	0.7476	9.9800e-003	0.2781	7.3700e-003	0.2855	0.0801	7.0500e-003	0.0872	0.0000	946.8650	946.8650	0.0391	0.0000	947.8423
Worker	0.4076	0.3225	2.9132	4.3100e-003	0.4997	2.9900e-003	0.5027	0.1326	2.7500e-003	0.1354	0.0000	387.1519	387.1519	0.0275	0.0000	387.8404
Total	0.5133	3.0604	3.6608	0.0143	0.7778	0.0104	0.7882	0.2127	9.8000e-003	0.2225	0.0000	1,334.0169	1,334.0169	0.0666	0.0000	1,335.6827

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3367	3.2150	3.3464	6.5700e-003		0.1442	0.1442		0.1354	0.1354	0.0000	571.6230	571.6230	0.1480	0.0000	575.3227
Total	0.3367	3.2150	3.3464	6.5700e-003		0.1442	0.1442		0.1354	0.1354	0.0000	571.6230	571.6230	0.1480	0.0000	575.3227

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3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0230	0.5263	0.1745	2.6300e-003	0.0749	7.9000e-004	0.0757	0.0216	7.6000e-004	0.0223	0.0000	249.7032	249.7032	7.7700e-003	0.0000	249.8975
Worker	0.1030	0.0800	0.7214	1.1200e-003	0.1345	7.7000e-004	0.1353	0.0357	7.1000e-004	0.0364	0.0000	100.2791	100.2791	6.8200e-003	0.0000	100.4496
Total	0.1259	0.6063	0.8959	3.7500e-003	0.2094	1.5600e-003	0.2110	0.0573	1.4700e-003	0.0588	0.0000	349.9824	349.9824	0.0146	0.0000	350.3471

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0821	0.5714	3.9189	6.5700e-003		0.0102	0.0102		0.0102	0.0102	0.0000	571.6223	571.6223	0.1480	0.0000	575.3220
Total	0.0821	0.5714	3.9189	6.5700e-003		0.0102	0.0102		0.0102	0.0102	0.0000	571.6223	571.6223	0.1480	0.0000	575.3220

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3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0230	0.5263	0.1745	2.6300e-003	0.0749	7.9000e-004	0.0757	0.0216	7.6000e-004	0.0223	0.0000	249.7032	249.7032	7.7700e-003	0.0000	249.8975
Worker	0.1030	0.0800	0.7214	1.1200e-003	0.1345	7.7000e-004	0.1353	0.0357	7.1000e-004	0.0364	0.0000	100.2791	100.2791	6.8200e-003	0.0000	100.4496
Total	0.1259	0.6063	0.8959	3.7500e-003	0.2094	1.5600e-003	0.2110	0.0573	1.4700e-003	0.0588	0.0000	349.9824	349.9824	0.0146	0.0000	350.3471

3.5 trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1939	1.7945	1.7130	4.0000e-003		0.0801	0.0801		0.0737	0.0737	0.0000	351.1338	351.1338	0.1136	0.0000	353.9729
Total	0.1939	1.7945	1.7130	4.0000e-003		0.0801	0.0801		0.0737	0.0737	0.0000	351.1338	351.1338	0.1136	0.0000	353.9729

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3.5 trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0105	8.4700e-003	0.0766	1.1000e-004	0.0120	8.0000e-005	0.0121	3.1900e-003	7.0000e-005	3.2600e-003	0.0000	9.6785	9.6785	7.2000e-004	0.0000	9.6966
Total	0.0105	8.4700e-003	0.0766	1.1000e-004	0.0120	8.0000e-005	0.0121	3.1900e-003	7.0000e-005	3.2600e-003	0.0000	9.6785	9.6785	7.2000e-004	0.0000	9.6966

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0506	0.2780	2.2623	4.0000e-003		6.5300e-003	6.5300e-003		6.5300e-003	6.5300e-003	0.0000	351.1334	351.1334	0.1136	0.0000	353.9725
Total	0.0506	0.2780	2.2623	4.0000e-003		6.5300e-003	6.5300e-003		6.5300e-003	6.5300e-003	0.0000	351.1334	351.1334	0.1136	0.0000	353.9725

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3.5 trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0105	8.4700e-003	0.0766	1.1000e-004	0.0120	8.0000e-005	0.0121	3.1900e-003	7.0000e-005	3.2600e-003	0.0000	9.6785	9.6785	7.2000e-004	0.0000	9.6966
Total	0.0105	8.4700e-003	0.0766	1.1000e-004	0.0120	8.0000e-005	0.0121	3.1900e-003	7.0000e-005	3.2600e-003	0.0000	9.6785	9.6785	7.2000e-004	0.0000	9.6966

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1168	1.2764	0.7896	1.6400e-003		0.0574	0.0574		0.0528	0.0528	0.0000	143.8122	143.8122	0.0465	0.0000	144.9750
Paving	7.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1242	1.2764	0.7896	1.6400e-003		0.0574	0.0574		0.0528	0.0528	0.0000	143.8122	143.8122	0.0465	0.0000	144.9750

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3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1800e-003	4.1000e-003	0.0371	5.0000e-005	6.3600e-003	4.0000e-005	6.3900e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.9237	4.9237	3.5000e-004	0.0000	4.9325
Total	5.1800e-003	4.1000e-003	0.0371	5.0000e-005	6.3600e-003	4.0000e-005	6.3900e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.9237	4.9237	3.5000e-004	0.0000	4.9325

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0201	0.0869	0.9297	1.6400e-003		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	143.8120	143.8120	0.0465	0.0000	144.9748
Paving	7.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0275	0.0869	0.9297	1.6400e-003		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	143.8120	143.8120	0.0465	0.0000	144.9748

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3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1800e-003	4.1000e-003	0.0371	5.0000e-005	6.3600e-003	4.0000e-005	6.3900e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.9237	4.9237	3.5000e-004	0.0000	4.9325
Total	5.1800e-003	4.1000e-003	0.0371	5.0000e-005	6.3600e-003	4.0000e-005	6.3900e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.9237	4.9237	3.5000e-004	0.0000	4.9325

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0772	0.8318	0.5720	1.2400e-003		0.0359	0.0359		0.0330	0.0330	0.0000	108.9500	108.9500	0.0352	0.0000	109.8309
Paving	5.6500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0829	0.8318	0.5720	1.2400e-003		0.0359	0.0359		0.0330	0.0330	0.0000	108.9500	108.9500	0.0352	0.0000	109.8309

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3.6 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6800e-003	2.8600e-003	0.0258	4.0000e-005	4.8100e-003	3.0000e-005	4.8400e-003	1.2800e-003	3.0000e-005	1.3000e-003	0.0000	3.5886	3.5886	2.4000e-004	0.0000	3.5947
Total	3.6800e-003	2.8600e-003	0.0258	4.0000e-005	4.8100e-003	3.0000e-005	4.8400e-003	1.2800e-003	3.0000e-005	1.3000e-003	0.0000	3.5886	3.5886	2.4000e-004	0.0000	3.5947

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0152	0.0658	0.7043	1.2400e-003		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	108.9499	108.9499	0.0352	0.0000	109.8308
Paving	5.6500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0208	0.0658	0.7043	1.2400e-003		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	108.9499	108.9499	0.0352	0.0000	109.8308

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3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6800e-003	2.8600e-003	0.0258	4.0000e-005	4.8100e-003	3.0000e-005	4.8400e-003	1.2800e-003	3.0000e-005	1.3000e-003	0.0000	3.5886	3.5886	2.4000e-004	0.0000	3.5947
Total	3.6800e-003	2.8600e-003	0.0258	4.0000e-005	4.8100e-003	3.0000e-005	4.8400e-003	1.2800e-003	3.0000e-005	1.3000e-003	0.0000	3.5886	3.5886	2.4000e-004	0.0000	3.5947

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2170					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	0.2191	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2800e-003	4.9700e-003	0.0449	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	5.9681	5.9681	4.2000e-004	0.0000	5.9787
Total	6.2800e-003	4.9700e-003	0.0449	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	5.9681	5.9681	4.2000e-004	0.0000	5.9787

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2170					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	0.2173	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2800e-003	4.9700e-003	0.0449	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	5.9681	5.9681	4.2000e-004	0.0000	5.9787
Total	6.2800e-003	4.9700e-003	0.0449	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	5.9681	5.9681	4.2000e-004	0.0000	5.9787

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7054					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2300e-003	0.0424	0.0589	1.0000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3105
Total	0.7116	0.0424	0.0589	1.0000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3105

Hudson Ranch Minerals - Imperial County, Annual

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0192	0.0149	0.1342	2.1000e-004	0.0250	1.4000e-004	0.0252	6.6400e-003	1.3000e-004	6.7800e-003	0.0000	18.6606	18.6606	1.2700e-003	0.0000	18.6923
Total	0.0192	0.0149	0.1342	2.1000e-004	0.0250	1.4000e-004	0.0252	6.6400e-003	1.3000e-004	6.7800e-003	0.0000	18.6606	18.6606	1.2700e-003	0.0000	18.6923

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7054					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7000e-004	4.1800e-003	0.0596	1.0000e-004		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3105
Total	0.7063	4.1800e-003	0.0596	1.0000e-004		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3105

Hudson Ranch Minerals - Imperial County, Annual

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0192	0.0149	0.1342	2.1000e-004	0.0250	1.4000e-004	0.0252	6.6400e-003	1.3000e-004	6.7800e-003	0.0000	18.6606	18.6606	1.2700e-003	0.0000	18.6923
Total	0.0192	0.0149	0.1342	2.1000e-004	0.0250	1.4000e-004	0.0252	6.6400e-003	1.3000e-004	6.7800e-003	0.0000	18.6606	18.6606	1.2700e-003	0.0000	18.6923

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Hudson Ranch Minerals - Imperial County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0762	0.7252	1.0493	4.4600e-003	0.2462	1.8600e-003	0.2481	0.0659	1.7400e-003	0.0676	0.0000	415.5387	415.5387	0.0195	0.0000	416.0257
Unmitigated	0.0762	0.7252	1.0493	4.4600e-003	0.2462	1.8600e-003	0.2481	0.0659	1.7400e-003	0.0676	0.0000	415.5387	415.5387	0.0195	0.0000	416.0257

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	134.00	134.00	134.00	631,595	631,595
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	134.00	134.00	134.00	631,595	631,595

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.40	9.50	11.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.40	9.50	11.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.40	9.50	11.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Hudson Ranch Minerals - Imperial County, Annual

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	5.184e+007	13,961.8083	0.3292	0.0705	13,991.0600
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		13,961.8083	0.3292	0.0705	13,991.0600

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	5.184e+007	13,961.8083	0.3292	0.0705	13,991.0600
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		13,961.8083	0.3292	0.0705	13,991.0600

6.0 Area Detail

Hudson Ranch Minerals - Imperial County, Annual

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Unmitigated	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0922					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4609					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Total	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003

Hudson Ranch Minerals - Imperial County, Annual

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0922					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4609					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Total	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Hudson Ranch Minerals - Imperial County, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	731.0281	36.1097	0.8543	1,888.3629
Unmitigated	731.0281	36.1097	0.8543	1,888.3629

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	1107.89 / 0	731.0281	36.1097	0.8543	1,888.3629
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		731.0281	36.1097	0.8543	1,888.3629

Hudson Ranch Minerals - Imperial County, Annual

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	1107.89 / 0	731.0281	36.1097	0.8543	1,888.3629
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		731.0281	36.1097	0.8543	1,888.3629

8.0 Waste Detail

8.1 Mitigation Measures Waste

Hudson Ranch Minerals - Imperial County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	14.5991	0.8628	0.0000	36.1687
Unmitigated	14.5991	0.8628	0.0000	36.1687

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	71.92	14.5991	0.8628	0.0000	36.1687
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		14.5991	0.8628	0.0000	36.1687

Hudson Ranch Minerals - Imperial County, Annual

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	71.92	14.5991	0.8628	0.0000	36.1687
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		14.5991	0.8628	0.0000	36.1687

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	2	8.00	365	50	0.20	CNG

Hudson Ranch Minerals - Imperial County, Annual

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0446	0.2600	0.3276	3.5000e-004		0.0131	0.0131		0.0120	0.0120	0.0000	30.6882	30.6882	9.9300e-003	0.0000	30.9364
Total	0.0446	0.2600	0.3276	3.5000e-004		0.0131	0.0131		0.0120	0.0120	0.0000	30.6882	30.6882	9.9300e-003	0.0000	30.9364

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	2	80	600	0.73	Diesel
Fire Pump	1	2	80	62	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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Hudson Ranch Minerals - Imperial County, Annual

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (600 - 750 HP)	0.0394	0.1101	0.1004	1.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	18.2783	18.2783	2.5600e-003	0.0000	18.3423
Fire Pump - Diesel (50 - 75 HP)	4.0700e-003	0.0133	0.0148	2.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	1.8888	1.8888	2.6000e-004	0.0000	1.8954
Total	0.0435	0.1234	0.1152	2.1000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	20.1670	20.1670	2.8200e-003	0.0000	20.2377

11.0 Vegetation

Hudson Ranch Minerals (BAU) - Imperial County, Annual

Hudson Ranch Minerals (BAU)
Imperial County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Heavy Industry	100.00	1000sqft	27.00	100,000.00	0
Other Asphalt Surfaces	10.00	Acre	10.00	435,600.00	0
Other Non-Asphalt Surfaces	15.00	Acre	15.00	653,400.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	3.4	Precipitation Freq (Days)	12
Climate Zone	15			Operational Year	2024
Utility Company	Imperial Irrigation District				
CO2 Intensity (lb/MW hr)	1270.9	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Hudson Ranch Minerals (BAU) - Imperial County, Annual

Project Characteristics - BAU

Land Use - 37 acre construction site and 15 acre laydown area

Construction Phase - Construction dates estimated by Project Engineer

Off-road Equipment - Equipment List provided by project applicant

Off-road Equipment - Equipment List provided by project applicant

Off-road Equipment - Equipment List provided by project applicant

Off-road Equipment - Equipment List provided by project applicant

Off-road Equipment - Equipment List provided by project applicant

Off-road Equipment - Equipment List provided by project applicant

Trips and VMT -

On-road Fugitive Dust - Trips use 111 and McDonald all paved except 2 miles at McDonald. prior to const. this area will be improved with 12-18" base and would have dedicated water truck. The City wants to wait to pave McDonald till construction is complete.

Demolition -

Grading -

Architectural Coating -

Vehicle Trips - Trip Gen for Operations per TS excludes PCE adjustments 134 ADT

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Road Dust - Roadways are paved

Area Coating -

Energy Use - Energy Use - Project would consume 51,840 MWH per year

Water And Wastewater - Project will use 3,400 afy of water from IID canals.

Construction Off-road Equipment Mitigation - T3+ Equipment

Operational Off-Road Equipment - 2 forklifts less than 50HP will be used onsite

Fleet Mix - Truck Trips would be 22%. Remainder of vehicles would be Passenger Cars

Stationary Sources - Emergency Generators and Fire Pumps - 50 hours per year on average would be used 80 hours on average assumed

Hudson Ranch Minerals (BAU) - Imperial County, Annual

tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstructionPhase	NumDays	70.00	10.00
tblConstructionPhase	NumDays	110.00	50.00
tblConstructionPhase	NumDays	1,110.00	520.00
tblConstructionPhase	NumDays	75.00	116.00
tblConstructionPhase	NumDays	75.00	85.00
tblEnergyUse	LightingElect	2.93	0.00
tblEnergyUse	NT24E	5.02	518.40
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	T24E	2.20	0.00
tblEnergyUse	T24NG	15.36	0.00
tblFleetMix	HHD	0.12	0.22
tblFleetMix	LDA	0.52	0.38
tblFleetMix	LDT1	0.03	0.15
tblFleetMix	LDT2	0.16	0.10
tblFleetMix	LHD1	0.01	0.00
tblFleetMix	LHD2	4.6900e-003	0.00
tblFleetMix	MCY	5.2480e-003	0.00

Hudson Ranch Minerals (BAU) - Imperial County, Annual

tblOnRoadDust	VendorPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOnRoadDust	WorkerPercentPave	50.00	100.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	89.00	50.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblRoadDust	RoadPercentPave	50	100
tblSolidWaste	SolidWasteGenerationRate	124.00	71.92
tblVehicleTrips	ST_TR	1.50	1.34
tblVehicleTrips	SU_TR	1.50	1.34
tblVehicleTrips	WD_TR	1.50	1.34
tblWater	ElectricityIntensityFactorForWastewaterTreatment	1,911.00	0.00
tblWater	ElectricityIntensityFactorToSupply	9,727.00	0.00
tblWater	ElectricityIntensityFactorToTreat	111.00	0.00
tblWater	IndoorWaterUseRate	23,125,000.00	1,107,894,868.00

2.0 Emissions Summary

Hudson Ranch Minerals (BAU) - Imperial County, Annual

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	2.0102	18.2276	15.9194	0.0374	1.0174	0.7452	1.7627	0.3406	0.6957	1.0363	0.0000	3,329.278 1	3,329.278 1	0.7059	0.0000	3,346.926 3
2022	2.2233	17.5456	17.1288	0.0405	0.7919	0.6863	1.4782	0.2165	0.6434	0.8599	0.0000	3,613.709 4	3,613.709 4	0.6658	0.0000	3,630.353 5
2023	1.2800	4.7132	5.0332	0.0119	0.2393	0.1841	0.4234	0.0652	0.1723	0.2375	0.0000	1,061.102 6	1,061.102 6	0.1998	0.0000	1,066.098 2
Maximum	2.2233	18.2276	17.1288	0.0405	1.0174	0.7452	1.7627	0.3406	0.6957	1.0363	0.0000	3,613.709 4	3,613.709 4	0.7059	0.0000	3,630.353 5

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.7511	4.5156	18.1655	0.0374	1.0174	0.0507	1.0681	0.3406	0.0502	0.3908	0.0000	3,329.275 4	3,329.275 4	0.7059	0.0000	3,346.923 6
2022	1.0743	5.2798	19.2467	0.0405	0.7919	0.0509	0.8428	0.2165	0.0503	0.2668	0.0000	3,613.706 7	3,613.706 7	0.6658	0.0000	3,630.350 8
2023	0.9580	1.2655	5.7387	0.0119	0.2393	0.0141	0.2533	0.0652	0.0139	0.0791	0.0000	1,061.101 8	1,061.101 8	0.1998	0.0000	1,066.097 4
Maximum	1.0743	5.2798	19.2467	0.0405	1.0174	0.0509	1.0681	0.3406	0.0503	0.3908	0.0000	3,613.706 7	3,613.706 7	0.7059	0.0000	3,630.350 8

Hudson Ranch Minerals (BAU) - Imperial County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	49.52	72.68	-13.31	0.00	0.00	92.84	40.94	0.00	92.43	65.47	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
2	1-28-2021	4-27-2021	3.7013	0.5684
3	4-28-2021	7-27-2021	6.6029	1.7903
4	7-28-2021	10-27-2021	6.0142	1.7271
5	10-28-2021	1-27-2022	4.9995	1.5612
6	1-28-2022	4-27-2022	4.4746	1.4794
7	4-28-2022	7-27-2022	4.5258	1.4973
8	7-28-2022	10-27-2022	5.0021	1.5506
9	10-28-2022	1-27-2023	6.2269	2.0141
10	1-28-2023	4-27-2023	4.1560	1.5589
		Highest	6.6029	2.0141

Hudson Ranch Minerals (BAU) - Imperial County, Annual

2.2 Overall Operational
Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	29,884.2330	29,884.2330	0.6819	0.1411	29,943.3242
Mobile	0.0762	0.7252	1.0493	4.4600e-003	0.2462	1.8600e-003	0.2481	0.0659	1.7400e-003	0.0676	0.0000	415.5387	415.5387	0.0195	0.0000	416.0257
Offroad	0.0446	0.2600	0.3276	3.5000e-004		0.0131	0.0131		0.0120	0.0120	0.0000	30.6882	30.6882	9.9300e-003	0.0000	30.9364
Stationary	0.0435	0.1234	0.1152	2.1000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	20.1670	20.1670	2.8300e-003	0.0000	20.2377
Waste						0.0000	0.0000		0.0000	0.0000	14.5991	0.0000	14.5991	0.8628	0.0000	36.1687
Water						0.0000	0.0000		0.0000	0.0000	351.4839	812.3867	1,163.8706	36.1193	0.8563	2,322.0166
Total	0.7175	1.1086	1.4932	5.0200e-003	0.2462	0.0219	0.2682	0.0659	0.0208	0.0866	366.0830	31,163.0158	31,529.0988	37.6963	0.9973	32,768.7116

Hudson Ranch Minerals (BAU) - Imperial County, Annual

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	29,884.2330	29,884.2330	0.6819	0.1411	29,943.3242
Mobile	0.0762	0.7252	1.0493	4.4600e-003	0.2462	1.8600e-003	0.2481	0.0659	1.7400e-003	0.0676	0.0000	415.5387	415.5387	0.0195	0.0000	416.0257
Offroad	0.0446	0.2600	0.3276	3.5000e-004		0.0131	0.0131		0.0120	0.0120	0.0000	30.6882	30.6882	9.9300e-003	0.0000	30.9364
Stationary	0.0435	0.1234	0.1152	2.1000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	20.1670	20.1670	2.8300e-003	0.0000	20.2377
Waste						0.0000	0.0000		0.0000	0.0000	14.5991	0.0000	14.5991	0.8628	0.0000	36.1687
Water						0.0000	0.0000		0.0000	0.0000	351.4839	812.3867	1,163.8706	36.1193	0.8563	2,322.0166
Total	0.7175	1.1086	1.4932	5.0200e-003	0.2462	0.0219	0.2682	0.0659	0.0208	0.0866	366.0830	31,163.0158	31,529.0988	37.6963	0.9973	32,768.7116

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	3/1/2021	3/12/2021	5	10	
2	Grading	Grading	3/1/2021	5/7/2021	5	50	
3	Building Construction	Building Construction	4/12/2021	4/7/2023	5	520	
4	trenching	Trenching	4/19/2021	10/8/2021	5	125	
5	Paving	Paving	9/30/2022	3/10/2023	5	116	
6	Architectural Coating	Architectural Coating	12/5/2022	3/31/2023	5	85	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 225

Acres of Paving: 25

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 150,000; Non-Residential Outdoor: 50,000; Striped Parking Area: 65,340 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Graders	1	8.00	187	0.41
Grading	Off-Highway Trucks	7	8.00	402	0.38
Grading	Rollers	1	8.00	80	0.38
Grading	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Scrapers	4	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Aerial Lifts	7	8.00	63	0.31

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Building Construction	Air Compressors	4	8.00	78	0.48
Building Construction	Bore/Drill Rigs	1	8.00	221	0.50
Building Construction	Cranes	7	7.00	231	0.29
Building Construction	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	7	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	15	0.74
Building Construction	Generator Sets	4	8.00	84	0.74
Building Construction	Graders	1	8.00	187	0.41
Building Construction	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	13	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
trenching	Excavators	2	8.00	158	0.38
trenching	Off-Highway Trucks	3	8.00	402	0.38
trenching	Rollers	1	8.00	80	0.38
trenching	Skid Steer Loaders	1	8.00	65	0.37
trenching	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Graders	2	8.00	187	0.41
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Paving	Rubber Tired Dozers	2	8.00	247	0.40
Paving	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	68.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	16	40.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	50	499.00	195.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
trenching	10	25.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	10	25.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	100.00	0.00	0.00	10.20	11.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.6700e-003	0.0000	7.6700e-003	1.1600e-003	0.0000	1.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0158	0.1572	0.1078	1.9000e-004		7.7600e-003	7.7600e-003		7.2100e-003	7.2100e-003	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200
Total	0.0158	0.1572	0.1078	1.9000e-004	7.6700e-003	7.7600e-003	0.0154	1.1600e-003	7.2100e-003	8.3700e-003	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200

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3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	7.4400e-003	1.0400e-003	3.0000e-005	5.9000e-004	2.0000e-005	6.1000e-004	1.6000e-004	2.0000e-005	1.8000e-004	0.0000	2.4712	2.4712	1.0000e-004	0.0000	2.4737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	4.1000e-004	3.6800e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.4646	0.4646	3.0000e-005	0.0000	0.4654
Total	6.7000e-004	7.8500e-003	4.7200e-003	4.0000e-005	1.1700e-003	2.0000e-005	1.1900e-003	3.1000e-004	2.0000e-005	3.4000e-004	0.0000	2.9358	2.9358	1.3000e-004	0.0000	2.9392

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.6700e-003	0.0000	7.6700e-003	1.1600e-003	0.0000	1.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3100e-003	0.0100	0.1164	1.9000e-004		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200
Total	2.3100e-003	0.0100	0.1164	1.9000e-004	7.6700e-003	3.1000e-004	7.9800e-003	1.1600e-003	3.1000e-004	1.4700e-003	0.0000	17.0004	17.0004	4.7800e-003	0.0000	17.1200

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3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.7000e-004	7.4400e-003	1.0400e-003	3.0000e-005	5.9000e-004	2.0000e-005	6.1000e-004	1.6000e-004	2.0000e-005	1.8000e-004	0.0000	2.4712	2.4712	1.0000e-004	0.0000	2.4737
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	4.1000e-004	3.6800e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.4646	0.4646	3.0000e-005	0.0000	0.4654
Total	6.7000e-004	7.8500e-003	4.7200e-003	4.0000e-005	1.1700e-003	2.0000e-005	1.1900e-003	3.1000e-004	2.0000e-005	3.4000e-004	0.0000	2.9358	2.9358	1.3000e-004	0.0000	2.9392

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4204	0.0000	0.4204	0.1784	0.0000	0.1784	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2720	2.7836	1.6808	4.5600e-003		0.1125	0.1125		0.1035	0.1035	0.0000	400.8097	400.8097	0.1296	0.0000	404.0505
Total	0.2720	2.7836	1.6808	4.5600e-003	0.4204	0.1125	0.5329	0.1784	0.1035	0.2819	0.0000	400.8097	400.8097	0.1296	0.0000	404.0505

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3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7200e-003	5.4200e-003	0.0490	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	6.1942	6.1942	4.6000e-004	0.0000	6.2058
Total	6.7200e-003	5.4200e-003	0.0490	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	6.1942	6.1942	4.6000e-004	0.0000	6.2058

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.4204	0.0000	0.4204	0.1784	0.0000	0.1784	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0559	0.2424	2.0950	4.5600e-003		7.4600e-003	7.4600e-003		7.4600e-003	7.4600e-003	0.0000	400.8093	400.8093	0.1296	0.0000	404.0500
Total	0.0559	0.2424	2.0950	4.5600e-003	0.4204	7.4600e-003	0.4279	0.1784	7.4600e-003	0.1859	0.0000	400.8093	400.8093	0.1296	0.0000	404.0500

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3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7200e-003	5.4200e-003	0.0490	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	6.1942	6.1942	4.6000e-004	0.0000	6.2058
Total	6.7200e-003	5.4200e-003	0.0490	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	6.1942	6.1942	4.6000e-004	0.0000	6.2058

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1089	11.0580	9.3630	0.0178		0.5361	0.5361		0.5030	0.5030	0.0000	1,550.5535	1,550.5535	0.4044	0.0000	1,560.6641
Total	1.1089	11.0580	9.3630	0.0178		0.5361	0.5361		0.5030	0.5030	0.0000	1,550.5535	1,550.5535	0.4044	0.0000	1,560.6641

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3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0833	2.1556	0.6006	7.3500e-003	0.2032	6.3400e-003	0.2096	0.0586	6.0700e-003	0.0646	0.0000	697.3340	697.3340	0.0303	0.0000	698.0903
Worker	0.3184	0.2570	2.3239	3.2700e-003	0.3652	2.2800e-003	0.3675	0.0969	2.1000e-003	0.0990	0.0000	293.6381	293.6381	0.0220	0.0000	294.1870
Total	0.4017	2.4126	2.9245	0.0106	0.5684	8.6200e-003	0.5771	0.1555	8.1700e-003	0.1636	0.0000	990.9721	990.9721	0.0522	0.0000	992.2773

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2227	1.5509	10.6370	0.0178		0.0276	0.0276		0.0276	0.0276	0.0000	1,550.5517	1,550.5517	0.4044	0.0000	1,560.6622
Total	0.2227	1.5509	10.6370	0.0178		0.0276	0.0276		0.0276	0.0276	0.0000	1,550.5517	1,550.5517	0.4044	0.0000	1,560.6622

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3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0833	2.1556	0.6006	7.3500e-003	0.2032	6.3400e-003	0.2096	0.0586	6.0700e-003	0.0646	0.0000	697.3340	697.3340	0.0303	0.0000	698.0903
Worker	0.3184	0.2570	2.3239	3.2700e-003	0.3652	2.2800e-003	0.3675	0.0969	2.1000e-003	0.0990	0.0000	293.6381	293.6381	0.0220	0.0000	294.1870
Total	0.4017	2.4126	2.9245	0.0106	0.5684	8.6200e-003	0.5771	0.1555	8.1700e-003	0.1636	0.0000	990.9721	990.9721	0.0522	0.0000	992.2773

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.3553	13.1856	12.5783	0.0244		0.6177	0.6177		0.5800	0.5800	0.0000	2,122.4353	2,122.4353	0.5517	0.0000	2,136.2273
Total	1.3553	13.1856	12.5783	0.0244		0.6177	0.6177		0.5800	0.5800	0.0000	2,122.4353	2,122.4353	0.5517	0.0000	2,136.2273

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3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1057	2.7378	0.7476	9.9800e-003	0.2781	7.3700e-003	0.2855	0.0801	7.0500e-003	0.0872	0.0000	946.8650	946.8650	0.0391	0.0000	947.8423
Worker	0.4076	0.3225	2.9132	4.3100e-003	0.4997	2.9900e-003	0.5027	0.1326	2.7500e-003	0.1354	0.0000	387.1519	387.1519	0.0275	0.0000	387.8404
Total	0.5133	3.0604	3.6608	0.0143	0.7778	0.0104	0.7882	0.2127	9.8000e-003	0.2225	0.0000	1,334.0169	1,334.0169	0.0666	0.0000	1,335.6827

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3047	2.1222	14.5559	0.0244		0.0377	0.0377		0.0377	0.0377	0.0000	2,122.4327	2,122.4327	0.5517	0.0000	2,136.2248
Total	0.3047	2.1222	14.5559	0.0244		0.0377	0.0377		0.0377	0.0377	0.0000	2,122.4327	2,122.4327	0.5517	0.0000	2,136.2248

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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1057	2.7378	0.7476	9.9800e-003	0.2781	7.3700e-003	0.2855	0.0801	7.0500e-003	0.0872	0.0000	946.8650	946.8650	0.0391	0.0000	947.8423
Worker	0.4076	0.3225	2.9132	4.3100e-003	0.4997	2.9900e-003	0.5027	0.1326	2.7500e-003	0.1354	0.0000	387.1519	387.1519	0.0275	0.0000	387.8404
Total	0.5133	3.0604	3.6608	0.0143	0.7778	0.0104	0.7882	0.2127	9.8000e-003	0.2225	0.0000	1,334.0169	1,334.0169	0.0666	0.0000	1,335.6827

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3367	3.2150	3.3464	6.5700e-003		0.1442	0.1442		0.1354	0.1354	0.0000	571.6230	571.6230	0.1480	0.0000	575.3227
Total	0.3367	3.2150	3.3464	6.5700e-003		0.1442	0.1442		0.1354	0.1354	0.0000	571.6230	571.6230	0.1480	0.0000	575.3227

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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0230	0.5263	0.1745	2.6300e-003	0.0749	7.9000e-004	0.0757	0.0216	7.6000e-004	0.0223	0.0000	249.7032	249.7032	7.7700e-003	0.0000	249.8975
Worker	0.1030	0.0800	0.7214	1.1200e-003	0.1345	7.7000e-004	0.1353	0.0357	7.1000e-004	0.0364	0.0000	100.2791	100.2791	6.8200e-003	0.0000	100.4496
Total	0.1259	0.6063	0.8959	3.7500e-003	0.2094	1.5600e-003	0.2110	0.0573	1.4700e-003	0.0588	0.0000	349.9824	349.9824	0.0146	0.0000	350.3471

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0821	0.5714	3.9189	6.5700e-003		0.0102	0.0102		0.0102	0.0102	0.0000	571.6223	571.6223	0.1480	0.0000	575.3220
Total	0.0821	0.5714	3.9189	6.5700e-003		0.0102	0.0102		0.0102	0.0102	0.0000	571.6223	571.6223	0.1480	0.0000	575.3220

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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0230	0.5263	0.1745	2.6300e-003	0.0749	7.9000e-004	0.0757	0.0216	7.6000e-004	0.0223	0.0000	249.7032	249.7032	7.7700e-003	0.0000	249.8975
Worker	0.1030	0.0800	0.7214	1.1200e-003	0.1345	7.7000e-004	0.1353	0.0357	7.1000e-004	0.0364	0.0000	100.2791	100.2791	6.8200e-003	0.0000	100.4496
Total	0.1259	0.6063	0.8959	3.7500e-003	0.2094	1.5600e-003	0.2110	0.0573	1.4700e-003	0.0588	0.0000	349.9824	349.9824	0.0146	0.0000	350.3471

3.5 trenching - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1939	1.7945	1.7130	4.0000e-003		0.0801	0.0801		0.0737	0.0737	0.0000	351.1338	351.1338	0.1136	0.0000	353.9729
Total	0.1939	1.7945	1.7130	4.0000e-003		0.0801	0.0801		0.0737	0.0737	0.0000	351.1338	351.1338	0.1136	0.0000	353.9729

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3.5 trenching - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0105	8.4700e-003	0.0766	1.1000e-004	0.0120	8.0000e-005	0.0121	3.1900e-003	7.0000e-005	3.2600e-003	0.0000	9.6785	9.6785	7.2000e-004	0.0000	9.6966
Total	0.0105	8.4700e-003	0.0766	1.1000e-004	0.0120	8.0000e-005	0.0121	3.1900e-003	7.0000e-005	3.2600e-003	0.0000	9.6785	9.6785	7.2000e-004	0.0000	9.6966

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0506	0.2780	2.2623	4.0000e-003		6.5300e-003	6.5300e-003		6.5300e-003	6.5300e-003	0.0000	351.1334	351.1334	0.1136	0.0000	353.9725
Total	0.0506	0.2780	2.2623	4.0000e-003		6.5300e-003	6.5300e-003		6.5300e-003	6.5300e-003	0.0000	351.1334	351.1334	0.1136	0.0000	353.9725

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3.5 trenching - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0105	8.4700e-003	0.0766	1.1000e-004	0.0120	8.0000e-005	0.0121	3.1900e-003	7.0000e-005	3.2600e-003	0.0000	9.6785	9.6785	7.2000e-004	0.0000	9.6966
Total	0.0105	8.4700e-003	0.0766	1.1000e-004	0.0120	8.0000e-005	0.0121	3.1900e-003	7.0000e-005	3.2600e-003	0.0000	9.6785	9.6785	7.2000e-004	0.0000	9.6966

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1168	1.2764	0.7896	1.6400e-003		0.0574	0.0574		0.0528	0.0528	0.0000	143.8122	143.8122	0.0465	0.0000	144.9750
Paving	7.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.1242	1.2764	0.7896	1.6400e-003		0.0574	0.0574		0.0528	0.0528	0.0000	143.8122	143.8122	0.0465	0.0000	144.9750

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3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1800e-003	4.1000e-003	0.0371	5.0000e-005	6.3600e-003	4.0000e-005	6.3900e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.9237	4.9237	3.5000e-004	0.0000	4.9325
Total	5.1800e-003	4.1000e-003	0.0371	5.0000e-005	6.3600e-003	4.0000e-005	6.3900e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.9237	4.9237	3.5000e-004	0.0000	4.9325

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0201	0.0869	0.9297	1.6400e-003		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	143.8120	143.8120	0.0465	0.0000	144.9748
Paving	7.4500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0275	0.0869	0.9297	1.6400e-003		2.6700e-003	2.6700e-003		2.6700e-003	2.6700e-003	0.0000	143.8120	143.8120	0.0465	0.0000	144.9748

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Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1800e-003	4.1000e-003	0.0371	5.0000e-005	6.3600e-003	4.0000e-005	6.3900e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.9237	4.9237	3.5000e-004	0.0000	4.9325
Total	5.1800e-003	4.1000e-003	0.0371	5.0000e-005	6.3600e-003	4.0000e-005	6.3900e-003	1.6900e-003	3.0000e-005	1.7200e-003	0.0000	4.9237	4.9237	3.5000e-004	0.0000	4.9325

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0772	0.8318	0.5720	1.2400e-003		0.0359	0.0359		0.0330	0.0330	0.0000	108.9500	108.9500	0.0352	0.0000	109.8309
Paving	5.6500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0829	0.8318	0.5720	1.2400e-003		0.0359	0.0359		0.0330	0.0330	0.0000	108.9500	108.9500	0.0352	0.0000	109.8309

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Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6800e-003	2.8600e-003	0.0258	4.0000e-005	4.8100e-003	3.0000e-005	4.8400e-003	1.2800e-003	3.0000e-005	1.3000e-003	0.0000	3.5886	3.5886	2.4000e-004	0.0000	3.5947
Total	3.6800e-003	2.8600e-003	0.0258	4.0000e-005	4.8100e-003	3.0000e-005	4.8400e-003	1.2800e-003	3.0000e-005	1.3000e-003	0.0000	3.5886	3.5886	2.4000e-004	0.0000	3.5947

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0152	0.0658	0.7043	1.2400e-003		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	108.9499	108.9499	0.0352	0.0000	109.8308
Paving	5.6500e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0208	0.0658	0.7043	1.2400e-003		2.0200e-003	2.0200e-003		2.0200e-003	2.0200e-003	0.0000	108.9499	108.9499	0.0352	0.0000	109.8308

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3.6 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6800e-003	2.8600e-003	0.0258	4.0000e-005	4.8100e-003	3.0000e-005	4.8400e-003	1.2800e-003	3.0000e-005	1.3000e-003	0.0000	3.5886	3.5886	2.4000e-004	0.0000	3.5947
Total	3.6800e-003	2.8600e-003	0.0258	4.0000e-005	4.8100e-003	3.0000e-005	4.8400e-003	1.2800e-003	3.0000e-005	1.3000e-003	0.0000	3.5886	3.5886	2.4000e-004	0.0000	3.5947

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2170					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	0.2191	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2800e-003	4.9700e-003	0.0449	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	5.9681	5.9681	4.2000e-004	0.0000	5.9787
Total	6.2800e-003	4.9700e-003	0.0449	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	5.9681	5.9681	4.2000e-004	0.0000	5.9787

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.2170					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	0.2173	1.2900e-003	0.0183	3.0000e-005		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574

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3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2800e-003	4.9700e-003	0.0449	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	5.9681	5.9681	4.2000e-004	0.0000	5.9787
Total	6.2800e-003	4.9700e-003	0.0449	7.0000e-005	7.7000e-003	5.0000e-005	7.7500e-003	2.0400e-003	4.0000e-005	2.0900e-003	0.0000	5.9681	5.9681	4.2000e-004	0.0000	5.9787

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7054					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.2300e-003	0.0424	0.0589	1.0000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3105
Total	0.7116	0.0424	0.0589	1.0000e-004		2.3000e-003	2.3000e-003		2.3000e-003	2.3000e-003	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3105

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3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0192	0.0149	0.1342	2.1000e-004	0.0250	1.4000e-004	0.0252	6.6400e-003	1.3000e-004	6.7800e-003	0.0000	18.6606	18.6606	1.2700e-003	0.0000	18.6923
Total	0.0192	0.0149	0.1342	2.1000e-004	0.0250	1.4000e-004	0.0252	6.6400e-003	1.3000e-004	6.7800e-003	0.0000	18.6606	18.6606	1.2700e-003	0.0000	18.6923

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7054					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.7000e-004	4.1800e-003	0.0596	1.0000e-004		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3105
Total	0.7063	4.1800e-003	0.0596	1.0000e-004		1.3000e-004	1.3000e-004		1.3000e-004	1.3000e-004	0.0000	8.2981	8.2981	5.0000e-004	0.0000	8.3105

Hudson Ranch Minerals (BAU) - Imperial County, Annual

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0192	0.0149	0.1342	2.1000e-004	0.0250	1.4000e-004	0.0252	6.6400e-003	1.3000e-004	6.7800e-003	0.0000	18.6606	18.6606	1.2700e-003	0.0000	18.6923
Total	0.0192	0.0149	0.1342	2.1000e-004	0.0250	1.4000e-004	0.0252	6.6400e-003	1.3000e-004	6.7800e-003	0.0000	18.6606	18.6606	1.2700e-003	0.0000	18.6923

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0762	0.7252	1.0493	4.4600e-003	0.2462	1.8600e-003	0.2481	0.0659	1.7400e-003	0.0676	0.0000	415.5387	415.5387	0.0195	0.0000	416.0257
Unmitigated	0.0762	0.7252	1.0493	4.4600e-003	0.2462	1.8600e-003	0.2481	0.0659	1.7400e-003	0.0676	0.0000	415.5387	415.5387	0.0195	0.0000	416.0257

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Heavy Industry	134.00	134.00	134.00	631,595	631,595
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	134.00	134.00	134.00	631,595	631,595

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Heavy Industry	16.40	9.50	11.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.40	9.50	11.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.40	9.50	11.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	5.184e+007	29,884.2330	0.6819	0.1411	29,943.3242
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		29,884.2330	0.6819	0.1411	29,943.3242

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Heavy Industry	5.184e+007	29,884.2330	0.6819	0.1411	29,943.3242
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		29,884.2330	0.6819	0.1411	29,943.3242

6.0 Area Detail

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6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Unmitigated	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0922					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4609					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Total	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003

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6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0922					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4609					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003
Total	0.5533	1.0000e-005	1.1500e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.2300e-003	2.2300e-003	1.0000e-005	0.0000	2.3800e-003

7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	1,163.870 6	36.1193	0.8563	2,322.016 6
Unmitigated	1,163.870 6	36.1193	0.8563	2,322.016 6

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	1107.89 / 0	1,163.870 6	36.1193	0.8563	2,322.016 6
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1,163.870 6	36.1193	0.8563	2,322.016 6

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7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Heavy Industry	1107.89 / 0	1,163.8706	36.1193	0.8563	2,322.0166
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		1,163.8706	36.1193	0.8563	2,322.0166

8.0 Waste Detail

8.1 Mitigation Measures Waste

Hudson Ranch Minerals (BAU) - Imperial County, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	14.5991	0.8628	0.0000	36.1687
Unmitigated	14.5991	0.8628	0.0000	36.1687

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	71.92	14.5991	0.8628	0.0000	36.1687
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		14.5991	0.8628	0.0000	36.1687

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8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Heavy Industry	71.92	14.5991	0.8628	0.0000	36.1687
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		14.5991	0.8628	0.0000	36.1687

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	2	8.00	365	50	0.20	CNG

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UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	0.0446	0.2600	0.3276	3.5000e-004		0.0131	0.0131		0.0120	0.0120	0.0000	30.6882	30.6882	9.9300e-003	0.0000	30.9364
Total	0.0446	0.2600	0.3276	3.5000e-004		0.0131	0.0131		0.0120	0.0120	0.0000	30.6882	30.6882	9.9300e-003	0.0000	30.9364

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	2	80	600	0.73	Diesel
Fire Pump	1	2	80	62	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (600 - 750 HP)	0.0394	0.1101	0.1004	1.9000e-004		5.7900e-003	5.7900e-003		5.7900e-003	5.7900e-003	0.0000	18.2783	18.2783	2.5600e-003	0.0000	18.3423
Fire Pump - Diesel (50 - 75 HP)	4.0700e-003	0.0133	0.0148	2.0000e-005		1.2000e-003	1.2000e-003		1.2000e-003	1.2000e-003	0.0000	1.8888	1.8888	2.6000e-004	0.0000	1.8954
Total	0.0435	0.1234	0.1152	2.1000e-004		6.9900e-003	6.9900e-003		6.9900e-003	6.9900e-003	0.0000	20.1670	20.1670	2.8200e-003	0.0000	20.2377

11.0 Vegetation
