

Appendix C

CalEEMod Emissions Calculations

Topock Soils EIR - Soil Investigation
San Bernardino-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	20.00	Acre	20.00	871,200.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - No structures to be constructed to used "Parking" as representative land use. 20 acres potentially disturbed as conservative estimate.

Construction Phase - As worse case, assumed that the up to 12 months of soil sampling would occur, including contingency sampling (9 months project + 3 months contingency)

Off-road Equipment - Equipment type/number based on Project Description

Trips and VMT - Conservative daily roundtrips: 13 workers, 4 Tribal monitors, 10 passenger vehicle deliveries; 20 vendor + 4 haul truck deliveries (assumed all HHDT); 30 mile average one-way triplength

On-road Fugitive Dust - Assumes 1% of roadway travel are unpaved

Grading - Total Acres Disturbed = 20 acres

Consumer Products - construction only

Area Coating - no architectural coatings

Landscape Equipment - construction only

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	435600	0
tblAreaCoating	Area_Nonresidential_Interior	1306800	0
tblConstructionPhase	NumDays	30.00	261.00
tblGrading	AcresOfGrading	0.00	20.00
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripNumber	0.00	48.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	54.00

2.0 Emissions Summary

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	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

	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

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2015	12/31/2015	5	261	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	205	0.50
Grading	Graders	1	0.00	174	0.41
Grading	Off-Highway Trucks	1	8.00	400	0.38
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Other Construction Equipment	1	8.00	171	0.42

Trips and VMT

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
Grading	5	54.00	48.00	0.00	30.00	30.00	20.00	LD_Mix	HHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2015**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					0.0106	0.0000	0.0106	1.1500e-003	0.0000	1.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3239	3.8462	1.8661	4.0700e-003		0.1730	0.1730		0.1592	0.1592	0.0000	387.2642	387.2642	0.1156	0.0000	389.6921
Total	0.3239	3.8462	1.8661	4.0700e-003	0.0106	0.1730	0.1836	1.1500e-003	0.1592	0.1603	0.0000	387.2642	387.2642	0.1156	0.0000	389.6921

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	0.2035	2.2382	2.5791	6.5900e-003	2.6840	0.0634	2.7474	0.2960	0.0584	0.3543	0.0000	607.2371	607.2371	3.3500e-003	0.0000	607.3074
Worker	0.0572	0.1448	1.2739	1.8100e-003	2.9950	1.1000e-003	2.9961	0.3248	1.0000e-003	0.3258	0.0000	140.2243	140.2243	9.6800e-003	0.0000	140.4274
Total	0.2607	2.3830	3.8530	8.4000e-003	5.6790	0.0645	5.7435	0.6207	0.0594	0.6801	0.0000	747.4613	747.4613	0.0130	0.0000	747.7348

3.2 Grading - 2015

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					0.0106	0.0000	0.0106	1.1500e-003	0.0000	1.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3239	3.8462	1.8661	4.0700e-003		0.1730	0.1730		0.1592	0.1592	0.0000	387.2637	387.2637	0.1156	0.0000	389.6917
Total	0.3239	3.8462	1.8661	4.0700e-003	0.0106	0.1730	0.1836	1.1500e-003	0.1592	0.1603	0.0000	387.2637	387.2637	0.1156	0.0000	389.6917

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	0.2035	2.2382	2.5791	6.5900e-003	2.6840	0.0634	2.7474	0.2960	0.0584	0.3543	0.0000	607.2371	607.2371	3.3500e-003	0.0000	607.3074
Worker	0.0572	0.1448	1.2739	1.8100e-003	2.9950	1.1000e-003	2.9961	0.3248	1.0000e-003	0.3258	0.0000	140.2243	140.2243	9.6800e-003	0.0000	140.4274
Total	0.2607	2.3830	3.8530	8.4000e-003	5.6790	0.0645	5.7435	0.6207	0.0594	0.6801	0.0000	747.4613	747.4613	0.0130	0.0000	747.7348

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	0.0000	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.437400	0.069829	0.182151	0.159278	0.045374	0.007657	0.006581	0.075385	0.000855	0.001116	0.010212	0.000590	0.003573

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Non-Asphalt Surfaces	0	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
Total		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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Topock Soils EIR - Soil Investigation
San Bernardino-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	20.00	Acre	20.00	871,200.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - No structures to be constructed to used "Parking" as representative land use. 20 acres potentially disturbed as conservative estimate.

Construction Phase - As worse case, assumed that the up to 12 months of soil sampling would occur, including contingency sampling (9 months project + 3 months contingency)

Off-road Equipment - Equipment type/number based on Project Description

Trips and VMT - Conservative daily roundtrips: 13 workers, 4 Tribal monitors, 10 passenger vehicle deliveries; 20 vendor + 4 haul truck deliveries (assumed all HHDT); 30 mile average one-way triplength

On-road Fugitive Dust - Assumes 1% of roadway travel are unpaved

Grading - Total Acres Disturbed = 20 acres

Consumer Products - construction only

Area Coating - no architectural coatings

Landscape Equipment - construction only

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	435600	0
tblAreaCoating	Area_Nonresidential_Interior	1306800	0
tblConstructionPhase	NumDays	30.00	261.00
tblGrading	AcresOfGrading	0.00	20.00
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripNumber	0.00	48.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	54.00

2.0 Emissions Summary

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	lb/day										lb/day					
Area	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003
Energy	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
Mobile	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
Total	2.0000e-004	2.0000e-005	2.0900e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005	0.0000	4.6400e-003

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	lb/day										lb/day					
Area	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003
Energy	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
Mobile	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
Total	2.0000e-004	2.0000e-005	2.0900e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005	0.0000	4.6400e-003

	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

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2015	12/31/2015	5	261	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	205	0.50
Grading	Graders	1	0.00	174	0.41
Grading	Off-Highway Trucks	1	8.00	400	0.38
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Other Construction Equipment	1	8.00	171	0.42

Trips and VMT

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
Grading	5	54.00	48.00	0.00	30.00	30.00	20.00	LD_Mix	HHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2015

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	lb/day										lb/day					
Fugitive Dust					0.0813	0.0000	0.0813	8.7700e-003	0.0000	8.7700e-003			0.0000			0.0000
Off-Road	2.4823	29.4729	14.2996	0.0312		1.3257	1.3257		1.2197	1.2197		3,271.1549	3,271.1549	0.9766		3,291.6630
Total	2.4823	29.4729	14.2996	0.0312	0.0813	1.3257	1.4070	8.7700e-003	1.2197	1.2284		3,271.1549	3,271.1549	0.9766		3,291.6630

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	lb/day										lb/day					
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
Vendor	1.4109	16.1388	16.3927	0.0504	22.4459	0.4858	22.9317	2.4584	0.4469	2.9053		5,132.8305	5,132.8305	0.0281		5,133.4211
Worker	0.4895	0.9931	11.5296	0.0153	25.0635	8.4100e-003	25.0719	2.7029	7.6300e-003	2.7105		1,308.4575	1,308.4575	0.0817		1,310.1738
Total	1.9004	17.1319	27.9223	0.0658	47.5094	0.4942	48.0036	5.1613	0.4545	5.6158		6,441.2879	6,441.2879	0.1099		6,443.5949

3.2 Grading - 2015

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	lb/day										lb/day					
Fugitive Dust					0.0813	0.0000	0.0813	8.7700e-003	0.0000	8.7700e-003			0.0000			0.0000
Off-Road	2.4823	29.4729	14.2996	0.0312		1.3257	1.3257		1.2197	1.2197	0.0000	3,271.1549	3,271.1549	0.9766		3,291.6630
Total	2.4823	29.4729	14.2996	0.0312	0.0813	1.3257	1.4070	8.7700e-003	1.2197	1.2284	0.0000	3,271.1549	3,271.1549	0.9766		3,291.6630

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	lb/day										lb/day					
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
Vendor	1.4109	16.1388	16.3927	0.0504	22.4459	0.4858	22.9317	2.4584	0.4469	2.9053		5,132.8305	5,132.8305	0.0281		5,133.4211
Worker	0.4895	0.9931	11.5296	0.0153	25.0635	8.4100e-003	25.0719	2.7029	7.6300e-003	2.7105		1,308.4575	1,308.4575	0.0817		1,310.1738
Total	1.9004	17.1319	27.9223	0.0658	47.5094	0.4942	48.0036	5.1613	0.4545	5.6158		6,441.2879	6,441.2879	0.1099		6,443.5949

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.437400	0.069829	0.182151	0.159278	0.045374	0.007657	0.006581	0.075385	0.000855	0.001116	0.010212	0.000590	0.003573

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	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
Total		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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	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
Total		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

6.0 Area Detail

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	lb/day										lb/day					
Mitigated	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003
Unmitigated	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003
Total	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003

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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003
Total	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Topock Soils EIR - Soil Investigation
San Bernardino-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	20.00	Acre	20.00	871,200.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2016
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - No structures to be constructed to used "Parking" as representative land use. 20 acres potentially disturbed as conservative estimate.

Construction Phase - As worse case, assumed that the up to 12 months of soil sampling would occur, including contingency sampling (9 months project + 3 months contingency)

Off-road Equipment - Equipment type/number based on Project Description

Trips and VMT - Conservative daily roundtrips: 13 workers, 4 Tribal monitors, 10 passenger vehicle deliveries; 20 vendor + 4 haul truck deliveries (assumed all HHDT); 30 mile average one-way triplength

On-road Fugitive Dust - Assumes 1% of roadway travel are unpaved

Grading - Total Acres Disturbed = 20 acres

Consumer Products - construction only

Area Coating - no architectural coatings

Landscape Equipment - construction only

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	435600	0
tblAreaCoating	Area_Nonresidential_Interior	1306800	0
tblConstructionPhase	NumDays	30.00	261.00
tblGrading	AcresOfGrading	0.00	20.00
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2016
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripNumber	0.00	48.00
tblTripsAndVMT	VendorVehicleClass	HDT_Mix	HHDT
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripNumber	13.00	54.00

2.0 Emissions Summary

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	lb/day										lb/day					
Area	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003
Energy	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
Mobile	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
Total	2.0000e-004	2.0000e-005	2.0900e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005	0.0000	4.6400e-003

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	lb/day										lb/day					
Area	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003
Energy	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
Mobile	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
Total	2.0000e-004	2.0000e-005	2.0900e-003	0.0000	0.0000	1.0000e-005	1.0000e-005	0.0000	1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005	0.0000	4.6400e-003

	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

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	1/1/2015	12/31/2015	5	261	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 20

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Bore/Drill Rigs	1	8.00	205	0.50
Grading	Graders	1	0.00	174	0.41
Grading	Off-Highway Trucks	1	8.00	400	0.38
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Other Construction Equipment	1	8.00	171	0.42

Trips and VMT

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
Grading	5	54.00	48.00	0.00	30.00	30.00	20.00	LD_Mix	HHDT	HHDT

3.1 Mitigation Measures Construction

3.2 Grading - 2015

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	lb/day										lb/day					
Fugitive Dust					0.0813	0.0000	0.0813	8.7700e-003	0.0000	8.7700e-003			0.0000			0.0000
Off-Road	2.4823	29.4729	14.2996	0.0312		1.3257	1.3257		1.2197	1.2197		3,271.1549	3,271.1549	0.9766		3,291.6630
Total	2.4823	29.4729	14.2996	0.0312	0.0813	1.3257	1.4070	8.7700e-003	1.2197	1.2284		3,271.1549	3,271.1549	0.9766		3,291.6630

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	lb/day										lb/day					
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
Vendor	1.5086	16.8711	18.1229	0.0504	22.4459	0.4864	22.9323	2.4584	0.4474	2.9058		5,124.2538	5,124.2538	0.0285		5,124.8518
Worker	0.4315	1.0377	9.0147	0.0134	25.0635	8.4100e-003	25.0719	2.7029	7.6300e-003	2.7105		1,148.0465	1,148.0465	0.0817		1,149.7628
Total	1.9401	17.9088	27.1376	0.0638	47.5094	0.4948	48.0042	5.1613	0.4550	5.6163		6,272.3003	6,272.3003	0.1102		6,274.6146

3.2 Grading - 2015

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	lb/day										lb/day					
Fugitive Dust					0.0813	0.0000	0.0813	8.7700e-003	0.0000	8.7700e-003			0.0000			0.0000
Off-Road	2.4823	29.4729	14.2996	0.0312		1.3257	1.3257		1.2197	1.2197	0.0000	3,271.1549	3,271.1549	0.9766		3,291.6630
Total	2.4823	29.4729	14.2996	0.0312	0.0813	1.3257	1.4070	8.7700e-003	1.2197	1.2284	0.0000	3,271.1549	3,271.1549	0.9766		3,291.6630

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	lb/day										lb/day					
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
Vendor	1.5086	16.8711	18.1229	0.0504	22.4459	0.4864	22.9323	2.4584	0.4474	2.9058		5,124.2538	5,124.2538	0.0285		5,124.8518
Worker	0.4315	1.0377	9.0147	0.0134	25.0635	8.4100e-003	25.0719	2.7029	7.6300e-003	2.7105		1,148.0465	1,148.0465	0.0817		1,149.7628
Total	1.9401	17.9088	27.1376	0.0638	47.5094	0.4948	48.0042	5.1613	0.4550	5.6163		6,272.3003	6,272.3003	0.1102		6,274.6146

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.437400	0.069829	0.182151	0.159278	0.045374	0.007657	0.006581	0.075385	0.000855	0.001116	0.010212	0.000590	0.003573

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	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
Total		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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	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
Total		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

6.0 Area Detail

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	lb/day										lb/day					
Mitigated	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003
Unmitigated	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003
Total	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003

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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003
Total	2.0000e-004	2.0000e-005	2.0900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005		4.3800e-003	4.3800e-003	1.0000e-005		4.6400e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Topock Soils EIR - Other Tests
San Bernardino-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	5.00	Acre	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - No structures to be constructed to used "Parking" as representative land use. 5 acres potentially disturbed assumed.

Construction Phase - Testing activities based on Project Description, assumes 17 month total duration

Off-road Equipment - Equipment type/number based on Project Description

Trips and VMT - Trips based on Project Description. Increased default triplength to 30 miles.

On-road Fugitive Dust - Assumes 1% of roadway travel are unpaved

Grading - Assumes 5 acres total disturbed

Construction Off-road Equipment Mitigation -

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Consumer Products - Construction Only

Area Coating - Construction Only

Landscape Equipment - Construction Only

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	108900	0
tblAreaCoating	Area_Nonresidential_Interior	326700	0
tblConstructionPhase	NumDays	8.00	174.00
tblConstructionPhase	NumDays	5.00	21.00
tblConstructionPhase	NumDays	8.00	174.00
tblConstructionPhase	NumDays	5.00	44.00
tblConstructionPhase	NumDays	5.00	30.00
tblConstructionPhase	PhaseEndDate	8/31/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	10/12/2017	3/1/2018
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016

tblConstructionPhase	PhaseEndDate	8/11/2017	2/11/2017
tblConstructionPhase	PhaseStartDate	1/1/2017	11/1/2016
tblConstructionPhase	PhaseStartDate	2/12/2017	7/1/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	1/1/2017
tblGrading	AcresOfGrading	0.00	2.50
tblGrading	AcresOfGrading	0.00	2.50
tblGrading	PhaseName		Bat Cave Pilot Test
tblGrading	PhaseName		Station Pilot Test
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Station Pilot Test
tblOffRoadEquipment	PhaseName		Bench Tests
tblOffRoadEquipment	PhaseName		Biota Sampling
tblOffRoadEquipment	PhaseName		Geotech Studies
tblOffRoadEquipment	PhaseName		Bat Cave Pilot Test
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00

tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	PhaseName		Bench Tests
tblTripsAndVMT	PhaseName		Biota Sampling
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00

tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00

2.0 Emissions Summary

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					
2016	0.0191	0.2594	0.1573	5.3000e-004	0.1504	7.5500e-003	0.1580	0.0164	6.9400e-003	0.0234	0.0000	47.9688	47.9688	0.0113	0.0000	48.2059
2017	0.0507	0.6675	0.4459	1.5700e-003	0.4712	0.0191	0.4903	0.0514	0.0175	0.0689	0.0000	140.3235	140.3235	0.0333	0.0000	141.0234
2018	7.5700e-003	0.0967	0.0699	2.6000e-004	0.0763	2.7400e-003	0.0791	8.3200e-003	2.5200e-003	0.0108	0.0000	23.0655	23.0655	5.6000e-003	0.0000	23.1831
Total	0.0774	1.0236	0.6730	2.3600e-003	0.6980	0.0294	0.7273	0.0761	0.0270	0.1031	0.0000	211.3578	211.3578	0.0502	0.0000	212.4123

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					
2016	0.0191	0.2594	0.1573	5.3000e-004	0.1504	7.5500e-003	0.1580	0.0164	6.9400e-003	0.0234	0.0000	47.9687	47.9687	0.0113	0.0000	48.2058
2017	0.0507	0.6675	0.4459	1.5700e-003	0.4712	0.0191	0.4903	0.0514	0.0175	0.0689	0.0000	140.3233	140.3233	0.0333	0.0000	141.0233
2018	7.5700e-003	0.0967	0.0699	2.6000e-004	0.0763	2.7400e-003	0.0791	8.3200e-003	2.5200e-003	0.0108	0.0000	23.0655	23.0655	5.6000e-003	0.0000	23.1830
Total	0.0774	1.0236	0.6730	2.3600e-003	0.6980	0.0294	0.7273	0.0761	0.0270	0.1031	0.0000	211.3576	211.3576	0.0502	0.0000	212.4121

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Energy	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
Mobile	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
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	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

	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

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Bench Tests	Site Preparation	10/1/2016	10/31/2016	5	21	
2	Geotech Studies	Site Preparation	11/1/2016	12/31/2016	5	44	
3	Bat Cave Pilot Test	Grading	11/1/2016	6/30/2017	5	174	
4	Biota Sampling	Site Preparation	1/1/2017	2/11/2017	5	30	
5	Station Pilot Test	Grading	7/1/2017	3/1/2018	5	174	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Station Pilot Test	Bore/Drill Rigs	1	8.00	205	0.50
Bat Cave Pilot Test	Graders	1	0.00	174	0.41
Station Pilot Test	Graders	1	0.00	174	0.41
Bench Tests	Other Construction Equipment	1	0.00	171	0.42
Biota Sampling	Other Construction Equipment	1	0.00	171	0.42
Geotech Studies	Bore/Drill Rigs	1	8.00	205	0.50
Bat Cave Pilot Test	Bore/Drill Rigs	1	8.00	205	0.50

Trips and VMT

3.2 Bench Tests - 2016

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	2.9000e-004	7.7000e-004	6.7300e-003	1.0000e-005	0.0179	1.0000e-005	0.0179	1.9400e-003	1.0000e-005	1.9400e-003	0.0000	0.8056	0.8056	5.0000e-005	0.0000	0.8067
Total	2.9000e-004	7.7000e-004	6.7300e-003	1.0000e-005	0.0179	1.0000e-005	0.0179	1.9400e-003	1.0000e-005	1.9400e-003	0.0000	0.8056	0.8056	5.0000e-005	0.0000	0.8067

3.3 Geotech Studies - 2016

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	7.6600e-003	0.1154	0.0451	1.9000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	18.1168	18.1168	5.4600e-003	0.0000	18.2315
Total	7.6600e-003	0.1154	0.0451	1.9000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	18.1168	18.1168	5.4600e-003	0.0000	18.2315

3.3 Geotech Studies - 2016

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	0.0000
Vendor	9.6000e-004	0.0119	0.0126	4.0000e-005	0.0189	3.7000e-004	0.0193	2.1000e-003	3.4000e-004	2.4300e-003	0.0000	3.3549	3.3549	2.0000e-005	0.0000	0.0000	3.3553
Worker	6.1000e-004	1.6200e-003	0.0141	2.0000e-005	0.0374	1.0000e-005	0.0374	4.0600e-003	1.0000e-005	4.0700e-003	0.0000	1.6879	1.6879	1.1000e-004	0.0000	0.0000	1.6902
Total	1.5700e-003	0.0135	0.0267	6.0000e-005	0.0563	3.8000e-004	0.0567	6.1600e-003	3.5000e-004	6.5000e-003	0.0000	5.0428	5.0428	1.3000e-004	0.0000	0.0000	5.0455

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	7.6600e-003	0.1154	0.0451	1.9000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	18.1168	18.1168	5.4600e-003	0.0000	0.0000	18.2315
Total	7.6600e-003	0.1154	0.0451	1.9000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	18.1168	18.1168	5.4600e-003	0.0000	0.0000	18.2315

3.3 Geotech Studies - 2016

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	9.6000e-004	0.0119	0.0126	4.0000e-005	0.0189	3.7000e-004	0.0193	2.1000e-003	3.4000e-004	2.4300e-003	0.0000	3.3549	3.3549	2.0000e-005	0.0000	3.3553
Worker	6.1000e-004	1.6200e-003	0.0141	2.0000e-005	0.0374	1.0000e-005	0.0374	4.0600e-003	1.0000e-005	4.0700e-003	0.0000	1.6879	1.6879	1.1000e-004	0.0000	1.6902
Total	1.5700e-003	0.0135	0.0267	6.0000e-005	0.0563	3.8000e-004	0.0567	6.1600e-003	3.5000e-004	6.5000e-003	0.0000	5.0428	5.0428	1.3000e-004	0.0000	5.0455

3.4 Bat Cave Pilot Test - 2016

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					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6600e-003	0.1154	0.0451	1.9000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	18.1168	18.1168	5.4600e-003	0.0000	18.2315
Total	7.6600e-003	0.1154	0.0451	1.9000e-004	1.3300e-003	3.3900e-003	4.7200e-003	1.4000e-004	3.1200e-003	3.2600e-003	0.0000	18.1168	18.1168	5.4600e-003	0.0000	18.2315

3.4 Bat Cave Pilot Test - 2016

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	9.6000e-004	0.0119	0.0126	4.0000e-005	0.0189	3.7000e-004	0.0193	2.1000e-003	3.4000e-004	2.4300e-003	0.0000	3.3549	3.3549	2.0000e-005	0.0000	3.3553
Worker	9.1000e-004	2.4300e-003	0.0211	3.0000e-005	0.0561	2.0000e-005	0.0561	6.0800e-003	2.0000e-005	6.1000e-003	0.0000	2.5319	2.5319	1.7000e-004	0.0000	2.5354
Total	1.8700e-003	0.0143	0.0337	7.0000e-005	0.0750	3.9000e-004	0.0754	8.1800e-003	3.6000e-004	8.5300e-003	0.0000	5.8868	5.8868	1.9000e-004	0.0000	5.8906

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					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.6600e-003	0.1154	0.0451	1.9000e-004		3.3900e-003	3.3900e-003		3.1200e-003	3.1200e-003	0.0000	18.1168	18.1168	5.4600e-003	0.0000	18.2315
Total	7.6600e-003	0.1154	0.0451	1.9000e-004	1.3300e-003	3.3900e-003	4.7200e-003	1.4000e-004	3.1200e-003	3.2600e-003	0.0000	18.1168	18.1168	5.4600e-003	0.0000	18.2315

3.4 Bat Cave Pilot Test - 2016

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	0.0000
Vendor	9.6000e-004	0.0119	0.0126	4.0000e-005	0.0189	3.7000e-004	0.0193	2.1000e-003	3.4000e-004	2.4300e-003	0.0000	3.3549	3.3549	2.0000e-005	0.0000	3.3553	
Worker	9.1000e-004	2.4300e-003	0.0211	3.0000e-005	0.0561	2.0000e-005	0.0561	6.0800e-003	2.0000e-005	6.1000e-003	0.0000	2.5319	2.5319	1.7000e-004	0.0000	2.5354	
Total	1.8700e-003	0.0143	0.0337	7.0000e-005	0.0750	3.9000e-004	0.0754	8.1800e-003	3.6000e-004	8.5300e-003	0.0000	5.8868	5.8868	1.9000e-004	0.0000	5.8906	

3.4 Bat Cave Pilot Test - 2017

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					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2963	0.1295	5.7000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	52.6751	52.6751	0.0161	0.0000	53.0141
Total	0.0204	0.2963	0.1295	5.7000e-004	1.3300e-003	8.5200e-003	9.8500e-003	1.4000e-004	7.8400e-003	7.9800e-003	0.0000	52.6751	52.6751	0.0161	0.0000	53.0141

3.4 Bat Cave Pilot Test - 2017

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	0.0000
Vendor	2.5500e-003	0.0306	0.0341	1.1000e-004	0.0558	9.6000e-004	0.0568	6.2000e-003	8.8000e-004	7.0800e-003	0.0000	9.7474	9.7474	4.0000e-005	0.0000	9.7484	
Worker	2.2600e-003	6.4200e-003	0.0551	1.0000e-004	0.1658	5.0000e-005	0.1658	0.0180	5.0000e-005	0.0180	0.0000	7.1864	7.1864	4.5000e-004	0.0000	7.1958	
Total	4.8100e-003	0.0370	0.0892	2.1000e-004	0.2215	1.0100e-003	0.2226	0.0242	9.3000e-004	0.0251	0.0000	16.9338	16.9338	4.9000e-004	0.0000	16.9441	

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					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2963	0.1295	5.7000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	52.6751	52.6751	0.0161	0.0000	53.0140
Total	0.0204	0.2963	0.1295	5.7000e-004	1.3300e-003	8.5200e-003	9.8500e-003	1.4000e-004	7.8400e-003	7.9800e-003	0.0000	52.6751	52.6751	0.0161	0.0000	53.0140

3.5 Biota Sampling - 2017

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	3.5000e-004	9.9000e-004	8.4800e-003	2.0000e-005	0.0255	1.0000e-005	0.0255	2.7700e-003	1.0000e-005	2.7700e-003	0.0000	1.1056	1.1056	7.0000e-005	0.0000	1.1070
Total	3.5000e-004	9.9000e-004	8.4800e-003	2.0000e-005	0.0255	1.0000e-005	0.0255	2.7700e-003	1.0000e-005	2.7700e-003	0.0000	1.1056	1.1056	7.0000e-005	0.0000	1.1070

3.6 Station Pilot Test - 2017

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					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2963	0.1295	5.7000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	52.6751	52.6751	0.0161	0.0000	53.0141
Total	0.0204	0.2963	0.1295	5.7000e-004	1.3300e-003	8.5200e-003	9.8500e-003	1.4000e-004	7.8400e-003	7.9800e-003	0.0000	52.6751	52.6751	0.0161	0.0000	53.0141

3.6 Station Pilot Test - 2017

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	2.5500e-003	0.0306	0.0341	1.1000e-004	0.0558	9.6000e-004	0.0568	6.2000e-003	8.8000e-004	7.0800e-003	0.0000	9.7474	9.7474	4.0000e-005	0.0000	9.7484
Worker	2.2600e-003	6.4200e-003	0.0551	1.0000e-004	0.1658	5.0000e-005	0.1658	0.0180	5.0000e-005	0.0180	0.0000	7.1864	7.1864	4.5000e-004	0.0000	7.1958
Total	4.8100e-003	0.0370	0.0892	2.1000e-004	0.2215	1.0100e-003	0.2226	0.0242	9.3000e-004	0.0251	0.0000	16.9338	16.9338	4.9000e-004	0.0000	16.9441

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					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0204	0.2963	0.1295	5.7000e-004		8.5200e-003	8.5200e-003		7.8400e-003	7.8400e-003	0.0000	52.6751	52.6751	0.0161	0.0000	53.0140
Total	0.0204	0.2963	0.1295	5.7000e-004	1.3300e-003	8.5200e-003	9.8500e-003	1.4000e-004	7.8400e-003	7.9800e-003	0.0000	52.6751	52.6751	0.0161	0.0000	53.0140

3.6 Station Pilot Test - 2017

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	2.5500e-003	0.0306	0.0341	1.1000e-004	0.0558	9.6000e-004	0.0568	6.2000e-003	8.8000e-004	7.0800e-003	0.0000	9.7474	9.7474	4.0000e-005	0.0000	9.7484
Worker	2.2600e-003	6.4200e-003	0.0551	1.0000e-004	0.1658	5.0000e-005	0.1658	0.0180	5.0000e-005	0.0180	0.0000	7.1864	7.1864	4.5000e-004	0.0000	7.1958
Total	4.8100e-003	0.0370	0.0892	2.1000e-004	0.2215	1.0100e-003	0.2226	0.0242	9.3000e-004	0.0251	0.0000	16.9338	16.9338	4.9000e-004	0.0000	16.9441

3.6 Station Pilot Test - 2018

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					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1500e-003	0.0856	0.0427	1.9000e-004		2.4200e-003	2.4200e-003		2.2300e-003	2.2300e-003	0.0000	17.4829	17.4829	5.4400e-003	0.0000	17.5972
Total	6.1500e-003	0.0856	0.0427	1.9000e-004	1.3300e-003	2.4200e-003	3.7500e-003	1.4000e-004	2.2300e-003	2.3700e-003	0.0000	17.4829	17.4829	5.4400e-003	0.0000	17.5972

3.6 Station Pilot Test - 2018

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	7.9000e-004	9.1100e-003	0.0106	4.0000e-005	0.0189	3.0000e-004	0.0192	2.1000e-003	2.8000e-004	2.3800e-003	0.0000	3.2421	3.2421	1.0000e-005	0.0000	3.2424
Worker	6.4000e-004	1.9600e-003	0.0166	3.0000e-005	0.0561	2.0000e-005	0.0561	6.0800e-003	2.0000e-005	6.1000e-003	0.0000	2.3405	2.3405	1.4000e-004	0.0000	2.3434
Total	1.4300e-003	0.0111	0.0272	7.0000e-005	0.0750	3.2000e-004	0.0753	8.1800e-003	3.0000e-004	8.4800e-003	0.0000	5.5826	5.5826	1.5000e-004	0.0000	5.5858

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					1.3300e-003	0.0000	1.3300e-003	1.4000e-004	0.0000	1.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.1500e-003	0.0856	0.0427	1.9000e-004		2.4200e-003	2.4200e-003		2.2300e-003	2.2300e-003	0.0000	17.4829	17.4829	5.4400e-003	0.0000	17.5972
Total	6.1500e-003	0.0856	0.0427	1.9000e-004	1.3300e-003	2.4200e-003	3.7500e-003	1.4000e-004	2.2300e-003	2.3700e-003	0.0000	17.4829	17.4829	5.4400e-003	0.0000	17.5972

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.433723	0.068979	0.183157	0.159578	0.045778	0.007720	0.006780	0.077795	0.000831	0.001129	0.010289	0.000587	0.003654

5.0 Energy Detail

~~4.4 Fleet Mix~~

Historical Energy Use: N

5.1 Mitigation Measures Energy

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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	
Land Use	kBTU/yr	tons/yr										MT/yr						
Other Non-Asphalt Surfaces	0	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
Total		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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Topock Soils EIR - Other Tests
San Bernardino-Mojave Desert County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	5.00	Acre	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - No structures to be constructed to used "Parking" as representative land use. 5 acres potentially disturbed assumed.

Construction Phase - Testing activities based on Project Description, assumes 17 month total duration

Off-road Equipment - Equipment type/number based on Project Description

Trips and VMT - Trips based on Project Description. Increased default triplength to 30 miles.

On-road Fugitive Dust - Assumes 1% of roadway travel are unpaved

Grading - Assumes 5 acres total disturbed

Construction Off-road Equipment Mitigation -

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Consumer Products - Construction Only

Area Coating - Construction Only

Landscape Equipment - Construction Only

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	108900	0
tblAreaCoating	Area_Nonresidential_Interior	326700	0
tblConstructionPhase	NumDays	8.00	174.00
tblConstructionPhase	NumDays	5.00	21.00
tblConstructionPhase	NumDays	8.00	174.00
tblConstructionPhase	NumDays	5.00	44.00
tblConstructionPhase	NumDays	5.00	30.00
tblConstructionPhase	PhaseEndDate	8/31/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	10/12/2017	3/1/2018
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016

tblConstructionPhase	PhaseEndDate	8/11/2017	2/11/2017
tblConstructionPhase	PhaseStartDate	1/1/2017	11/1/2016
tblConstructionPhase	PhaseStartDate	2/12/2017	7/1/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	1/1/2017
tblGrading	AcresOfGrading	0.00	2.50
tblGrading	AcresOfGrading	0.00	2.50
tblGrading	PhaseName		Bat Cave Pilot Test
tblGrading	PhaseName		Station Pilot Test
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Station Pilot Test
tblOffRoadEquipment	PhaseName		Bench Tests
tblOffRoadEquipment	PhaseName		Biota Sampling
tblOffRoadEquipment	PhaseName		Geotech Studies
tblOffRoadEquipment	PhaseName		Bat Cave Pilot Test
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00

tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	PhaseName		Bench Tests
tblTripsAndVMT	PhaseName		Biota Sampling
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00

tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2016	0.8553	11.6691	6.9773	0.0237	6.5297	0.3427	6.8725	0.7088	0.3153	1.0240	0.0000	2,385.598 2	2,385.598 2	0.5631	0.0000	2,397.422 6
2017	0.4160	5.1470	4.1235	0.0133	5.5932	0.1471	5.7404	0.6055	0.1354	0.7408	0.0000	1,283.218 9	1,283.218 9	0.2871	0.0000	1,289.247 5
2018	0.3460	4.3609	3.2501	0.0121	3.7367	0.1245	3.8612	0.4053	0.1146	0.5198	0.0000	1,168.191 2	1,168.191 2	0.2804	0.0000	1,174.079 6
Total	1.6172	21.1770	14.3510	0.0490	15.8596	0.6144	16.4740	1.7195	0.5652	2.2847	0.0000	4,837.008 2	4,837.008 2	1.1306	0.0000	4,860.749 7

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	lb/day										lb/day					
2016	0.8553	11.6691	6.9773	0.0237	6.5297	0.3427	6.8725	0.7088	0.3153	1.0240	0.0000	2,385.598 2	2,385.598 2	0.5631	0.0000	2,397.422 6
2017	0.4160	5.1470	4.1235	0.0133	5.5932	0.1471	5.7404	0.6055	0.1354	0.7408	0.0000	1,283.218 9	1,283.218 9	0.2871	0.0000	1,289.247 4
2018	0.3460	4.3609	3.2501	0.0121	3.7367	0.1245	3.8612	0.4053	0.1146	0.5198	0.0000	1,168.191 2	1,168.191 2	0.2804	0.0000	1,174.079 6
Total	1.6172	21.1770	14.3510	0.0490	15.8596	0.6144	16.4740	1.7195	0.5652	2.2847	0.0000	4,837.008 2	4,837.008 2	1.1306	0.0000	4,860.749 7

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	lb/day										lb/day					
Area	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Energy	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
Mobile	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
Total	5.0000e-005	0.0000	5.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003

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	lb/day										lb/day					
Area	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Energy	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
Mobile	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
Total	5.0000e-005	0.0000	5.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003

	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

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Bench Tests	Site Preparation	10/1/2016	10/31/2016	5	21	
2	Geotech Studies	Site Preparation	11/1/2016	12/31/2016	5	44	
3	Bat Cave Pilot Test	Grading	11/1/2016	6/30/2017	5	174	
4	Biota Sampling	Site Preparation	1/1/2017	2/11/2017	5	30	
5	Station Pilot Test	Grading	7/1/2017	3/1/2018	5	174	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Station Pilot Test	Bore/Drill Rigs	1	8.00	205	0.50
Bat Cave Pilot Test	Graders	1	0.00	174	0.41
Station Pilot Test	Graders	1	0.00	174	0.41
Bench Tests	Other Construction Equipment	1	0.00	171	0.42
Biota Sampling	Other Construction Equipment	1	0.00	171	0.42
Geotech Studies	Bore/Drill Rigs	1	8.00	205	0.50
Bat Cave Pilot Test	Bore/Drill Rigs	1	8.00	205	0.50

Trips and VMT

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
Bat Cave Pilot Test	2	6.00	2.00	0.00	30.00	30.00	20.00	LD_Mix	HDT_Mix	HHDT
Station Pilot Test	2	6.00	2.00	0.00	30.00	30.00	20.00	LD_Mix	HDT_Mix	HHDT
Bench Tests	1	4.00	0.00	0.00	30.00	30.00	20.00	LD_Mix	HDT_Mix	HHDT
Geotech Studies	1	4.00	2.00	0.00	30.00	30.00	20.00	LD_Mix	HDT_Mix	HHDT
Biota Sampling	1	4.00	0.00	0.00	30.00	30.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Bench Tests - 2016

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	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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	lb/day										lb/day					
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
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
Worker	0.0312	0.0659	0.7605	1.1300e-003	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		93.4447	93.4447	5.5200e-003		93.5606
Total	0.0312	0.0659	0.7605	1.1300e-003	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		93.4447	93.4447	5.5200e-003		93.5606

3.2 Bench Tests - 2016

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	lb/day										lb/day					
Off-Road	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
Total	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

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	lb/day										lb/day					
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
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
Worker	0.0312	0.0659	0.7605	1.1300e-003	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		93.4447	93.4447	5.5200e-003		93.5606
Total	0.0312	0.0659	0.7605	1.1300e-003	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		93.4447	93.4447	5.5200e-003		93.5606

3.3 Geotech Studies - 2016

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	lb/day										lb/day					
Off-Road	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417		907.7422	907.7422	0.2738		913.4921
Total	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417		907.7422	907.7422	0.2738		913.4921

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	lb/day										lb/day					
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
Vendor	0.0406	0.5058	0.4899	1.6800e-003	0.9366	0.0166	0.9532	0.1033	0.0153	0.1186		168.2511	168.2511	8.2000e-004		168.2684
Worker	0.0312	0.0659	0.7605	1.1300e-003	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		93.4447	93.4447	5.5200e-003		93.5606
Total	0.0718	0.5717	1.2504	2.8100e-003	2.7931	0.0172	2.8103	0.3035	0.0158	0.3193		261.6958	261.6958	6.3400e-003		261.8290

3.3 Geotech Studies - 2016

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	lb/day										lb/day					
Off-Road	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417	0.0000	907.7422	907.7422	0.2738		913.4921
Total	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417	0.0000	907.7422	907.7422	0.2738		913.4921

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	lb/day										lb/day					
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
Vendor	0.0406	0.5058	0.4899	1.6800e-003	0.9366	0.0166	0.9532	0.1033	0.0153	0.1186		168.2511	168.2511	8.2000e-004		168.2684
Worker	0.0312	0.0659	0.7605	1.1300e-003	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		93.4447	93.4447	5.5200e-003		93.5606
Total	0.0718	0.5717	1.2504	2.8100e-003	2.7931	0.0172	2.8103	0.3035	0.0158	0.3193		261.6958	261.6958	6.3400e-003		261.8290

3.4 Bat Cave Pilot Test - 2016

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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417		907.7422	907.7422	0.2738		913.4921
Total	0.3481	5.2464	2.0482	8.7500e-003	0.0152	0.1540	0.1692	1.6500e-003	0.1417	0.1433		907.7422	907.7422	0.2738		913.4921

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	lb/day										lb/day					
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
Vendor	0.0406	0.5058	0.4899	1.6800e-003	0.9366	0.0166	0.9532	0.1033	0.0153	0.1186		168.2511	168.2511	8.2000e-004		168.2684
Worker	0.0468	0.0988	1.1407	1.7000e-003	2.7848	8.8000e-004	2.7857	0.3003	8.0000e-004	0.3011		140.1670	140.1670	8.2800e-003		140.3409
Total	0.0874	0.6047	1.6306	3.3800e-003	3.7214	0.0175	3.7389	0.4036	0.0161	0.4197		308.4181	308.4181	9.1000e-003		308.6093

3.4 Bat Cave Pilot Test - 2016

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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417	0.0000	907.7422	907.7422	0.2738		913.4921
Total	0.3481	5.2464	2.0482	8.7500e-003	0.0152	0.1540	0.1692	1.6500e-003	0.1417	0.1433	0.0000	907.7422	907.7422	0.2738		913.4921

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	lb/day										lb/day					
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
Vendor	0.0406	0.5058	0.4899	1.6800e-003	0.9366	0.0166	0.9532	0.1033	0.0153	0.1186		168.2511	168.2511	8.2000e-004		168.2684
Worker	0.0468	0.0988	1.1407	1.7000e-003	2.7848	8.8000e-004	2.7857	0.3003	8.0000e-004	0.3011		140.1670	140.1670	8.2800e-003		140.3409
Total	0.0874	0.6047	1.6306	3.3800e-003	3.7214	0.0175	3.7389	0.4036	0.0161	0.4197		308.4181	308.4181	9.1000e-003		308.6093

3.4 Bat Cave Pilot Test - 2017**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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.3136	4.5583	1.9924	8.7400e-003		0.1310	0.1310		0.1206	0.1206		893.2982	893.2982	0.2737		899.0460
Total	0.3136	4.5583	1.9924	8.7400e-003	0.0152	0.1310	0.1463	1.6500e-003	0.1206	0.1222		893.2982	893.2982	0.2737		899.0460

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	lb/day										lb/day					
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
Vendor	0.0364	0.4410	0.4441	1.6700e-003	0.9366	0.0147	0.9513	0.1033	0.0135	0.1168		165.4540	165.4540	7.6000e-004		165.4699
Worker	0.0396	0.0886	1.0123	1.7000e-003	2.7848	8.3000e-004	2.7857	0.3003	7.6000e-004	0.3011		134.6800	134.6800	7.5700e-003		134.8389
Total	0.0759	0.5296	1.4563	3.3700e-003	3.7214	0.0156	3.7370	0.4036	0.0143	0.4179		300.1340	300.1340	8.3300e-003		300.3088

3.4 Bat Cave Pilot Test - 2017

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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.3136	4.5583	1.9924	8.7400e-003		0.1310	0.1310		0.1206	0.1206	0.0000	893.2982	893.2982	0.2737		899.0460
Total	0.3136	4.5583	1.9924	8.7400e-003	0.0152	0.1310	0.1463	1.6500e-003	0.1206	0.1222	0.0000	893.2982	893.2982	0.2737		899.0460

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	lb/day										lb/day					
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
Vendor	0.0364	0.4410	0.4441	1.6700e-003	0.9366	0.0147	0.9513	0.1033	0.0135	0.1168		165.4540	165.4540	7.6000e-004		165.4699
Worker	0.0396	0.0886	1.0123	1.7000e-003	2.7848	8.3000e-004	2.7857	0.3003	7.6000e-004	0.3011		134.6800	134.6800	7.5700e-003		134.8389
Total	0.0759	0.5296	1.4563	3.3700e-003	3.7214	0.0156	3.7370	0.4036	0.0143	0.4179		300.1340	300.1340	8.3300e-003		300.3088

3.5 Biota Sampling - 2017

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	lb/day										lb/day						
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

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	lb/day										lb/day						
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
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
Worker	0.0264	0.0591	0.6748	1.1300e-003	1.8566	5.5000e-004	1.8571	0.2002	5.1000e-004	0.2007		89.7867	89.7867	5.0400e-003			89.8926
Total	0.0264	0.0591	0.6748	1.1300e-003	1.8566	5.5000e-004	1.8571	0.2002	5.1000e-004	0.2007		89.7867	89.7867	5.0400e-003			89.8926

3.5 Biota Sampling - 2017

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	lb/day										lb/day					
Off-Road	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
Total	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

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	lb/day										lb/day					
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
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
Worker	0.0264	0.0591	0.6748	1.1300e-003	1.8566	5.5000e-004	1.8571	0.2002	5.1000e-004	0.2007		89.7867	89.7867	5.0400e-003		89.8926
Total	0.0264	0.0591	0.6748	1.1300e-003	1.8566	5.5000e-004	1.8571	0.2002	5.1000e-004	0.2007		89.7867	89.7867	5.0400e-003		89.8926

3.6 Station Pilot Test - 2017**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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.3136	4.5583	1.9924	8.7400e-003		0.1310	0.1310		0.1206	0.1206		893.2982	893.2982	0.2737		899.0460
Total	0.3136	4.5583	1.9924	8.7400e-003	0.0152	0.1310	0.1463	1.6500e-003	0.1206	0.1222		893.2982	893.2982	0.2737		899.0460

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	lb/day										lb/day					
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
Vendor	0.0364	0.4410	0.4441	1.6700e-003	0.9366	0.0147	0.9513	0.1033	0.0135	0.1168		165.4540	165.4540	7.6000e-004		165.4699
Worker	0.0396	0.0886	1.0123	1.7000e-003	2.7848	8.3000e-004	2.7857	0.3003	7.6000e-004	0.3011		134.6800	134.6800	7.5700e-003		134.8389
Total	0.0759	0.5296	1.4563	3.3700e-003	3.7214	0.0156	3.7370	0.4036	0.0143	0.4179		300.1340	300.1340	8.3300e-003		300.3088

3.6 Station Pilot Test - 2017**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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.3136	4.5583	1.9924	8.7400e-003		0.1310	0.1310		0.1206	0.1206	0.0000	893.2982	893.2982	0.2737		899.0460
Total	0.3136	4.5583	1.9924	8.7400e-003	0.0152	0.1310	0.1463	1.6500e-003	0.1206	0.1222	0.0000	893.2982	893.2982	0.2737		899.0460

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	lb/day										lb/day					
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
Vendor	0.0364	0.4410	0.4441	1.6700e-003	0.9366	0.0147	0.9513	0.1033	0.0135	0.1168		165.4540	165.4540	7.6000e-004		165.4699
Worker	0.0396	0.0886	1.0123	1.7000e-003	2.7848	8.3000e-004	2.7857	0.3003	7.6000e-004	0.3011		134.6800	134.6800	7.5700e-003		134.8389
Total	0.0759	0.5296	1.4563	3.3700e-003	3.7214	0.0156	3.7370	0.4036	0.0143	0.4179		300.1340	300.1340	8.3300e-003		300.3088

3.6 Station Pilot Test - 2018

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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.2794	3.8923	1.9403	8.7100e-003		0.1100	0.1100		0.1012	0.1012		875.9839	875.9839	0.2727		881.7108
Total	0.2794	3.8923	1.9403	8.7100e-003	0.0152	0.1100	0.1252	1.6500e-003	0.1012	0.1028		875.9839	875.9839	0.2727		881.7108

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	lb/day										lb/day					
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
Vendor	0.0331	0.3886	0.4059	1.6700e-003	0.9366	0.0137	0.9503	0.1033	0.0126	0.1159		162.5958	162.5958	7.3000e-004		162.6110
Worker	0.0335	0.0800	0.9040	1.7000e-003	2.7848	8.0000e-004	2.7856	0.3003	7.4000e-004	0.3011		129.6115	129.6115	6.9700e-003		129.7579
Total	0.0666	0.4686	1.3099	3.3700e-003	3.7214	0.0145	3.7359	0.4036	0.0134	0.4170		292.2072	292.2072	7.7000e-003		292.3689

3.6 Station Pilot Test - 2018

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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.2794	3.8923	1.9403	8.7100e-003		0.1100	0.1100		0.1012	0.1012	0.0000	875.9839	875.9839	0.2727		881.7108
Total	0.2794	3.8923	1.9403	8.7100e-003	0.0152	0.1100	0.1252	1.6500e-003	0.1012	0.1028	0.0000	875.9839	875.9839	0.2727		881.7108

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	lb/day										lb/day					
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
Vendor	0.0331	0.3886	0.4059	1.6700e-003	0.9366	0.0137	0.9503	0.1033	0.0126	0.1159		162.5958	162.5958	7.3000e-004		162.6110
Worker	0.0335	0.0800	0.9040	1.7000e-003	2.7848	8.0000e-004	2.7856	0.3003	7.4000e-004	0.3011		129.6115	129.6115	6.9700e-003		129.7579
Total	0.0666	0.4686	1.3099	3.3700e-003	3.7214	0.0145	3.7359	0.4036	0.0134	0.4170		292.2072	292.2072	7.7000e-003		292.3689

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day					
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.433723	0.068979	0.183157	0.159578	0.045778	0.007720	0.006780	0.077795	0.000831	0.001129	0.010289	0.000587	0.003654

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	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
Total		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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	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
Total		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

6.0 Area Detail

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	lb/day										lb/day					
Mitigated	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Unmitigated	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-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	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Total	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003

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	lb/day										lb/day					
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

Topock Soils EIR - Other Tests
San Bernardino-Mojave Desert County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	5.00	Acre	5.00	217,800.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	32
Climate Zone	10			Operational Year	2018
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - No structures to be constructed to used "Parking" as representative land use. 5 acres potentially disturbed assumed.

Construction Phase - Testing activities based on Project Description, assumes 17 month total duration

Off-road Equipment - Equipment type/number based on Project Description

Trips and VMT - Trips based on Project Description. Increased default triplength to 30 miles.

On-road Fugitive Dust - Assumes 1% of roadway travel are unpaved

Grading - Assumes 5 acres total disturbed

Construction Off-road Equipment Mitigation -

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Off-road Equipment - Equipment based on Project Description

Consumer Products - Construction Only

Area Coating - Construction Only

Landscape Equipment - Construction Only

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	108900	0
tblAreaCoating	Area_Nonresidential_Interior	326700	0
tblConstructionPhase	NumDays	8.00	174.00
tblConstructionPhase	NumDays	5.00	21.00
tblConstructionPhase	NumDays	8.00	174.00
tblConstructionPhase	NumDays	5.00	44.00
tblConstructionPhase	NumDays	5.00	30.00
tblConstructionPhase	PhaseEndDate	8/31/2017	6/30/2017
tblConstructionPhase	PhaseEndDate	10/12/2017	3/1/2018
tblConstructionPhase	PhaseEndDate	12/30/2016	12/31/2016

tblConstructionPhase	PhaseEndDate	8/11/2017	2/11/2017
tblConstructionPhase	PhaseStartDate	1/1/2017	11/1/2016
tblConstructionPhase	PhaseStartDate	2/12/2017	7/1/2017
tblConstructionPhase	PhaseStartDate	7/1/2017	1/1/2017
tblGrading	AcresOfGrading	0.00	2.50
tblGrading	AcresOfGrading	0.00	2.50
tblGrading	PhaseName		Bat Cave Pilot Test
tblGrading	PhaseName		Station Pilot Test
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Station Pilot Test
tblOffRoadEquipment	PhaseName		Bench Tests
tblOffRoadEquipment	PhaseName		Biota Sampling
tblOffRoadEquipment	PhaseName		Geotech Studies
tblOffRoadEquipment	PhaseName		Bat Cave Pilot Test
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00

tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	HaulingPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	VendorPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblOnRoadDust	WorkerPercentPave	100.00	99.00
tblProjectCharacteristics	OperationalYear	2014	2018
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	PhaseName		Bench Tests
tblTripsAndVMT	PhaseName		Biota Sampling
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00

tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00
tblTripsAndVMT	WorkerTripNumber	3.00	4.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

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	lb/day										lb/day					
2016	0.8500	11.7242	6.6440	0.0233	6.5297	0.3428	6.8725	0.7088	0.3153	1.0241	0.0000	2,356.1787	2,356.1787	0.5631	0.0000	2,368.0035
2017	0.4092	5.1737	3.7881	0.0129	5.5932	0.1472	5.7404	0.6055	0.1354	0.7409	0.0000	1,255.2446	1,255.2446	0.2871	0.0000	1,261.2734
2018	0.3430	4.3820	3.0880	0.0119	3.7367	0.1245	3.8612	0.4053	0.1146	0.5198	0.0000	1,151.8711	1,151.8711	0.2804	0.0000	1,157.7597
Total	1.6022	21.2799	13.5201	0.0481	15.8596	0.6145	16.4741	1.7195	0.5653	2.2848	0.0000	4,763.2943	4,763.2943	1.1306	0.0000	4,787.0367

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	lb/day										lb/day					
2016	0.8500	11.7242	6.6440	0.0233	6.5297	0.3428	6.8725	0.7088	0.3153	1.0241	0.0000	2,356.1787	2,356.1787	0.5631	0.0000	2,368.0035
2017	0.4092	5.1737	3.7881	0.0129	5.5932	0.1472	5.7404	0.6055	0.1354	0.7409	0.0000	1,255.2446	1,255.2446	0.2871	0.0000	1,261.2734
2018	0.3430	4.3820	3.0880	0.0119	3.7367	0.1245	3.8612	0.4053	0.1146	0.5198	0.0000	1,151.8711	1,151.8711	0.2804	0.0000	1,157.7597
Total	1.6022	21.2799	13.5201	0.0481	15.8596	0.6145	16.4741	1.7195	0.5653	2.2848	0.0000	4,763.2943	4,763.2943	1.1306	0.0000	4,787.0367

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	lb/day										lb/day					
Area	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Energy	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
Mobile	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
Total	5.0000e-005	0.0000	5.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003

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	lb/day										lb/day					
Area	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Energy	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
Mobile	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
Total	5.0000e-005	0.0000	5.2000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000	0.0000	1.1600e-003

	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

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Bench Tests	Site Preparation	10/1/2016	10/31/2016	5	21	
2	Geotech Studies	Site Preparation	11/1/2016	12/31/2016	5	44	
3	Bat Cave Pilot Test	Grading	11/1/2016	6/30/2017	5	174	
4	Biota Sampling	Site Preparation	1/1/2017	2/11/2017	5	30	
5	Station Pilot Test	Grading	7/1/2017	3/1/2018	5	174	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Station Pilot Test	Bore/Drill Rigs	1	8.00	205	0.50
Bat Cave Pilot Test	Graders	1	0.00	174	0.41
Station Pilot Test	Graders	1	0.00	174	0.41
Bench Tests	Other Construction Equipment	1	0.00	171	0.42
Biota Sampling	Other Construction Equipment	1	0.00	171	0.42
Geotech Studies	Bore/Drill Rigs	1	8.00	205	0.50
Bat Cave Pilot Test	Bore/Drill Rigs	1	8.00	205	0.50

Trips and VMT

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
Bat Cave Pilot Test	2	6.00	2.00	0.00	30.00	30.00	20.00	LD_Mix	HDT_Mix	HHDT
Station Pilot Test	2	6.00	2.00	0.00	30.00	30.00	20.00	LD_Mix	HDT_Mix	HHDT
Bench Tests	1	4.00	0.00	0.00	30.00	30.00	20.00	LD_Mix	HDT_Mix	HHDT
Geotech Studies	1	4.00	2.00	0.00	30.00	30.00	20.00	LD_Mix	HDT_Mix	HHDT
Biota Sampling	1	4.00	0.00	0.00	30.00	30.00	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Bench Tests - 2016**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	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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	lb/day										lb/day					
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
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
Worker	0.0273	0.0687	0.5920	9.9000e-004	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		81.9690	81.9690	5.5200e-003		82.0850
Total	0.0273	0.0687	0.5920	9.9000e-004	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		81.9690	81.9690	5.5200e-003		82.0850

3.2 Bench Tests - 2016

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	lb/day										lb/day					
Off-Road	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
Total	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

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	lb/day										lb/day					
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
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
Worker	0.0273	0.0687	0.5920	9.9000e-004	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		81.9690	81.9690	5.5200e-003		82.0850
Total	0.0273	0.0687	0.5920	9.9000e-004	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		81.9690	81.9690	5.5200e-003		82.0850

3.3 Geotech Studies - 2016

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	lb/day										lb/day					
Off-Road	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417		907.7422	907.7422	0.2738		913.4921
Total	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417		907.7422	907.7422	0.2738		913.4921

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	lb/day										lb/day					
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
Vendor	0.0428	0.5298	0.5337	1.6700e-003	0.9366	0.0167	0.9532	0.1033	0.0153	0.1186		167.8859	167.8859	8.3000e-004		167.9034
Worker	0.0273	0.0687	0.5920	9.9000e-004	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		81.9690	81.9690	5.5200e-003		82.0850
Total	0.0701	0.5985	1.1258	2.6600e-003	2.7931	0.0172	2.8104	0.3035	0.0159	0.3194		249.8549	249.8549	6.3500e-003		249.9884

3.3 Geotech Studies - 2016

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	lb/day										lb/day					
Off-Road	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417	0.0000	907.7422	907.7422	0.2738		913.4921
Total	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417	0.0000	907.7422	907.7422	0.2738		913.4921

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	lb/day										lb/day					
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
Vendor	0.0428	0.5298	0.5337	1.6700e-003	0.9366	0.0167	0.9532	0.1033	0.0153	0.1186		167.8859	167.8859	8.3000e-004		167.9034
Worker	0.0273	0.0687	0.5920	9.9000e-004	1.8566	5.8000e-004	1.8571	0.2002	5.3000e-004	0.2008		81.9690	81.9690	5.5200e-003		82.0850
Total	0.0701	0.5985	1.1258	2.6600e-003	2.7931	0.0172	2.8104	0.3035	0.0159	0.3194		249.8549	249.8549	6.3500e-003		249.9884

3.4 Bat Cave Pilot Test - 2016

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	lb/day										lb/day						
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000				0.0000
Off-Road	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417		907.7422	907.7422	0.2738			913.4921
Total	0.3481	5.2464	2.0482	8.7500e-003	0.0152	0.1540	0.1692	1.6500e-003	0.1417	0.1433		907.7422	907.7422	0.2738			913.4921

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	lb/day										lb/day						
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
Vendor	0.0428	0.5298	0.5337	1.6700e-003	0.9366	0.0167	0.9532	0.1033	0.0153	0.1186		167.8859	167.8859	8.3000e-004			167.9034
Worker	0.0410	0.1031	0.8881	1.4900e-003	2.7848	8.8000e-004	2.7857	0.3003	8.0000e-004	0.3011		122.9536	122.9536	8.2800e-003			123.1275
Total	0.0838	0.6329	1.4218	3.1600e-003	3.7214	0.0175	3.7389	0.4036	0.0161	0.4197		290.8394	290.8394	9.1100e-003			291.0309

3.4 Bat Cave Pilot Test - 2016

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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.3481	5.2464	2.0482	8.7500e-003		0.1540	0.1540		0.1417	0.1417	0.0000	907.7422	907.7422	0.2738		913.4921
Total	0.3481	5.2464	2.0482	8.7500e-003	0.0152	0.1540	0.1692	1.6500e-003	0.1417	0.1433	0.0000	907.7422	907.7422	0.2738		913.4921

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	lb/day										lb/day					
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
Vendor	0.0428	0.5298	0.5337	1.6700e-003	0.9366	0.0167	0.9532	0.1033	0.0153	0.1186		167.8859	167.8859	8.3000e-004		167.9034
Worker	0.0410	0.1031	0.8881	1.4900e-003	2.7848	8.8000e-004	2.7857	0.3003	8.0000e-004	0.3011		122.9536	122.9536	8.2800e-003		123.1275
Total	0.0838	0.6329	1.4218	3.1600e-003	3.7214	0.0175	3.7389	0.4036	0.0161	0.4197		290.8394	290.8394	9.1100e-003		291.0309

3.4 Bat Cave Pilot Test - 2017

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	lb/day										lb/day						
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000				0.0000
Off-Road	0.3136	4.5583	1.9924	8.7400e-003		0.1310	0.1310		0.1206	0.1206		893.2982	893.2982	0.2737			899.0460
Total	0.3136	4.5583	1.9924	8.7400e-003	0.0152	0.1310	0.1463	1.6500e-003	0.1206	0.1222		893.2982	893.2982	0.2737			899.0460

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	lb/day										lb/day						
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
Vendor	0.0384	0.4616	0.4888	1.6700e-003	0.9366	0.0147	0.9513	0.1033	0.0136	0.1169		165.0938	165.0938	7.7000e-004			165.1099
Worker	0.0343	0.0922	0.7842	1.4900e-003	2.7848	8.3000e-004	2.7857	0.3003	7.6000e-004	0.3011		118.1116	118.1116	7.5700e-003			118.2705
Total	0.0727	0.5538	1.2730	3.1600e-003	3.7214	0.0156	3.7370	0.4036	0.0143	0.4179		283.2054	283.2054	8.3400e-003			283.3804

3.4 Bat Cave Pilot Test - 2017

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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.3136	4.5583	1.9924	8.7400e-003		0.1310	0.1310		0.1206	0.1206	0.0000	893.2982	893.2982	0.2737		899.0460
Total	0.3136	4.5583	1.9924	8.7400e-003	0.0152	0.1310	0.1463	1.6500e-003	0.1206	0.1222	0.0000	893.2982	893.2982	0.2737		899.0460

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	lb/day										lb/day					
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
Vendor	0.0384	0.4616	0.4888	1.6700e-003	0.9366	0.0147	0.9513	0.1033	0.0136	0.1169		165.0938	165.0938	7.7000e-004		165.1099
Worker	0.0343	0.0922	0.7842	1.4900e-003	2.7848	8.3000e-004	2.7857	0.3003	7.6000e-004	0.3011		118.1116	118.1116	7.5700e-003		118.2705
Total	0.0727	0.5538	1.2730	3.1600e-003	3.7214	0.0156	3.7370	0.4036	0.0143	0.4179		283.2054	283.2054	8.3400e-003		283.3804

3.5 Biota Sampling - 2017

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	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

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	lb/day										lb/day					
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
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
Worker	0.0229	0.0615	0.5228	9.9000e-004	1.8566	5.5000e-004	1.8571	0.2002	5.1000e-004	0.2007		78.7410	78.7410	5.0400e-003		78.8470
Total	0.0229	0.0615	0.5228	9.9000e-004	1.8566	5.5000e-004	1.8571	0.2002	5.1000e-004	0.2007		78.7410	78.7410	5.0400e-003		78.8470

3.5 Biota Sampling - 2017

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	lb/day										lb/day						
Off-Road	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
Total	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

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	lb/day										lb/day						
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
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
Worker	0.0229	0.0615	0.5228	9.9000e-004	1.8566	5.5000e-004	1.8571	0.2002	5.1000e-004	0.2007		78.7410	78.7410	5.0400e-003			78.8470
Total	0.0229	0.0615	0.5228	9.9000e-004	1.8566	5.5000e-004	1.8571	0.2002	5.1000e-004	0.2007		78.7410	78.7410	5.0400e-003			78.8470

3.6 Station Pilot Test - 2017**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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.3136	4.5583	1.9924	8.7400e-003		0.1310	0.1310		0.1206	0.1206		893.2982	893.2982	0.2737		899.0460
Total	0.3136	4.5583	1.9924	8.7400e-003	0.0152	0.1310	0.1463	1.6500e-003	0.1206	0.1222		893.2982	893.2982	0.2737		899.0460

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	lb/day										lb/day					
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
Vendor	0.0384	0.4616	0.4888	1.6700e-003	0.9366	0.0147	0.9513	0.1033	0.0136	0.1169		165.0938	165.0938	7.7000e-004		165.1099
Worker	0.0343	0.0922	0.7842	1.4900e-003	2.7848	8.3000e-004	2.7857	0.3003	7.6000e-004	0.3011		118.1116	118.1116	7.5700e-003		118.2705
Total	0.0727	0.5538	1.2730	3.1600e-003	3.7214	0.0156	3.7370	0.4036	0.0143	0.4179		283.2054	283.2054	8.3400e-003		283.3804

3.6 Station Pilot Test - 2017**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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.3136	4.5583	1.9924	8.7400e-003		0.1310	0.1310		0.1206	0.1206	0.0000	893.2982	893.2982	0.2737		899.0460
Total	0.3136	4.5583	1.9924	8.7400e-003	0.0152	0.1310	0.1463	1.6500e-003	0.1206	0.1222	0.0000	893.2982	893.2982	0.2737		899.0460

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	lb/day										lb/day					
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
Vendor	0.0384	0.4616	0.4888	1.6700e-003	0.9366	0.0147	0.9513	0.1033	0.0136	0.1169		165.0938	165.0938	7.7000e-004		165.1099
Worker	0.0343	0.0922	0.7842	1.4900e-003	2.7848	8.3000e-004	2.7857	0.3003	7.6000e-004	0.3011		118.1116	118.1116	7.5700e-003		118.2705
Total	0.0727	0.5538	1.2730	3.1600e-003	3.7214	0.0156	3.7370	0.4036	0.0143	0.4179		283.2054	283.2054	8.3400e-003		283.3804

3.6 Station Pilot Test - 2018**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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.2794	3.8923	1.9403	8.7100e-003		0.1100	0.1100		0.1012	0.1012		875.9839	875.9839	0.2727		881.7108
Total	0.2794	3.8923	1.9403	8.7100e-003	0.0152	0.1100	0.1252	1.6500e-003	0.1012	0.1028		875.9839	875.9839	0.2727		881.7108

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	lb/day										lb/day					
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
Vendor	0.0349	0.4066	0.4511	1.6700e-003	0.9366	0.0138	0.9503	0.1033	0.0127	0.1160		162.2408	162.2408	7.4000e-004		162.2563
Worker	0.0287	0.0832	0.6966	1.4800e-003	2.7848	8.0000e-004	2.7856	0.3003	7.4000e-004	0.3011		113.6463	113.6463	6.9700e-003		113.7927
Total	0.0636	0.4897	1.1477	3.1500e-003	3.7214	0.0146	3.7360	0.4036	0.0134	0.4170		275.8871	275.8871	7.7100e-003		276.0490

3.6 Station Pilot Test - 2018**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	lb/day										lb/day					
Fugitive Dust					0.0152	0.0000	0.0152	1.6500e-003	0.0000	1.6500e-003			0.0000			0.0000
Off-Road	0.2794	3.8923	1.9403	8.7100e-003		0.1100	0.1100		0.1012	0.1012	0.0000	875.9839	875.9839	0.2727		881.7108
Total	0.2794	3.8923	1.9403	8.7100e-003	0.0152	0.1100	0.1252	1.6500e-003	0.1012	0.1028	0.0000	875.9839	875.9839	0.2727		881.7108

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	lb/day										lb/day					
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
Vendor	0.0349	0.4066	0.4511	1.6700e-003	0.9366	0.0138	0.9503	0.1033	0.0127	0.1160		162.2408	162.2408	7.4000e-004		162.2563
Worker	0.0287	0.0832	0.6966	1.4800e-003	2.7848	8.0000e-004	2.7856	0.3003	7.4000e-004	0.3011		113.6463	113.6463	6.9700e-003		113.7927
Total	0.0636	0.4897	1.1477	3.1500e-003	3.7214	0.0146	3.7360	0.4036	0.0134	0.4170		275.8871	275.8871	7.7100e-003		276.0490

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	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	lb/day										lb/day						
Mitigated	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
Unmitigated	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

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

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
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.433723	0.068979	0.183157	0.159578	0.045778	0.007720	0.006780	0.077795	0.000831	0.001129	0.010289	0.000587	0.003654

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	lb/day										lb/day					
NaturalGas Mitigated	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
NaturalGas Unmitigated	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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	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
Total		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

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	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
Land Use	kBTU/yr	lb/day										lb/day					
Other Non-Asphalt Surfaces	0	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
Total		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

6.0 Area Detail

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	lb/day										lb/day					
Mitigated	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-003
Unmitigated	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000		1.1600e-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	lb/day										lb/day						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000			1.1600e-003
Total	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000			1.1600e-003

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	lb/day										lb/day						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000				0.0000
Landscaping	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000			1.1600e-003
Total	5.0000e-005	0.0000	5.2000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.0900e-003	1.0900e-003	0.0000			1.1600e-003

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation
