

Appendix C

CalEEMod Reports

PG&E's California Desert Gas Pipeline Operation and Maintenance Program
Mojave Desert Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - O&M schedule from Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

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Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Trips and VMT - Estimates based on equipment list and project area.

On-road Fugitive Dust - Estimates based on project area.

Grading - Three acres distrubed per year. Activities entered here span 7 years total.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

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[illegible]

[illegible]

[illegible]

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tblOffRoadEquipment	PhaseName		HPR Deactivation
tblOffRoadEquipment	PhaseName		Installation of Deep Well Anodes/Thermoelectric Generators
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tblOffRoadEquipment	PhaseName		Pipeline Patrols
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[illegible]

[illegible]

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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					
2018	6.6181	61.7953	58.7543	0.1218	53.3915	3.5614	53.5708	5.6081	3.3825	6.0025	0.0000	10,564.9199	10,564.9199	1.4584	0.0000	10,595.5454
Total	6.6181	61.7953	58.7543	0.1218	53.3915	3.5614	53.5708	5.6081	3.3825	6.0025	0.0000	10,564.9199	10,564.9199	1.4584	0.0000	10,595.5454

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					
2018	6.6181	61.7953	58.7543	0.1218	25.0596	3.5614	25.2388	2.7812	3.3825	4.7910	0.0000	10,564.9198	10,564.9198	1.4584	0.0000	10,595.5454
Total	6.6181	61.7953	58.7543	0.1218	25.0596	3.5614	25.2388	2.7812	3.3825	4.7910	0.0000	10,564.9198	10,564.9198	1.4584	0.0000	10,595.5454

	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	53.06	0.00	52.89	50.41	0.00	20.18	0.00	0.00	0.00	0.00	0.00	0.00

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	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

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	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

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3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Pipeline Patrols	Building Construction	1/1/2018	1/1/2018	6	1	
2	Valve Inspections and Lubrication	Building Construction	1/2/2018	1/2/2018	6	1	
3	Integrity Management	Building Construction	1/3/2018	1/3/2018	6	1	
4	Telecommunication Site Inspections	Building Construction	1/4/2018	1/4/2018	6	1	
5	Road Surface Maintenance	Grading	1/5/2018	1/5/2018	6	1	
6	Right-of-Way and Access Road Repair	Building Construction	1/6/2018	1/6/2018	6	1	
7	Erosion Control	Building Construction	1/7/2018	1/8/2018	6	1	
8	Telecommunications Site Maintenance	Building Construction	1/9/2018	1/9/2018	6	1	
9	Span Painting/Air to Soil Corrosion Protection	Building Construction	1/10/2018	1/10/2018	6	1	
10	Below-Grade Pipe and Coating Inspection	Building Construction	1/11/2018	1/11/2018	6	1	
11	Internal Pipeline Inspection	Building Construction	1/12/2018	1/12/2018	6	1	
12	Installation of Pig Launcher Facilities	Building Construction	1/13/2018	1/13/2018	6	1	
13	Valve/Pipeline Excavation and Recoating	Building Construction	1/14/2018	1/15/2018	6	1	
14	Installation of Mg Anodes	Building Construction	1/16/2018	1/16/2018	6	1	
15	Installation of Deep Well Anodes/Thermoelectric Generators	Building Construction	1/17/2018	1/17/2018	6	1	
16	Installation of Flex Anodes	Building Construction	1/18/2018	1/18/2018	6	1	
17	Installation or Replacement of Horizontal Anode Beds	Building Construction	1/19/2018	1/19/2018	6	1	
18	Electronic Test System Station	Building Construction	1/20/2018	1/20/2018	6	1	
19	Cathodic Test Station Insallations	Building Construction	1/21/2018	1/22/2018	6	1	
20	Valve Replacement/Automation	Building Construction	1/23/2018	1/23/2018	6	1	
21	Hydrostatic Testing	Building Construction	1/24/2018	1/24/2018	6	1	
22	Pipeline Segment Replacement	Building Construction	1/25/2018	1/25/2018	6	1	
23	HPR Deactivation	Building Construction	1/26/2018	1/26/2018	6	1	

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
Pipeline Patrols	Concrete/Industrial Saws	0	8.00	81	0.73
Pipeline Patrols	Cranes	0	4.00	226	0.29
Pipeline Patrols	Forklifts	0	6.00	89	0.20
Pipeline Patrols	Rubber Tired Dozers	0	1.00	255	0.40
Pipeline Patrols	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Valve Inspections and Lubrication	Cranes	0	4.00	226	0.29
Valve Inspections and Lubrication	Forklifts	0	6.00	89	0.20
Valve Inspections and Lubrication	Graders	0	8.00	174	0.41
Valve Inspections and Lubrication	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Integrity Management	Concrete/Industrial Saws	0	8.00	81	0.73
Integrity Management	Cranes	0	4.00	226	0.29
Integrity Management	Forklifts	0	6.00	89	0.20
Integrity Management	Rubber Tired Dozers	0	1.00	255	0.40
Integrity Management	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Telecommunication Site Inspections	Cranes	0	4.00	226	0.29
Telecommunication Site Inspections	Forklifts	0	6.00	89	0.20
Telecommunication Site Inspections	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Road Surface Maintenance	Concrete/Industrial Saws	0	8.00	81	0.73
Road Surface Maintenance	Cranes	0	4.00	226	0.29
Road Surface Maintenance	Forklifts	0	6.00	89	0.20
Road Surface Maintenance	Graders	1	8.00	174	0.41

Road Surface Maintenance	Rubber Tired Dozers	0	1.00	255	0.40
Road Surface Maintenance	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Right-of-Way and Access Road Repair	Cranes	0	4.00	226	0.29
Right-of-Way and Access Road Repair	Forklifts	0	6.00	89	0.20
Right-of-Way and Access Road Repair	Graders	1	8.00	174	0.41
Right-of-Way and Access Road Repair	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Erosion Control	Cranes	0	4.00	226	0.29
Erosion Control	Forklifts	0	6.00	89	0.20
Erosion Control	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Telecommunications Site Maintenance	Cranes	0	4.00	226	0.29
Telecommunications Site Maintenance	Forklifts	0	6.00	89	0.20
Telecommunications Site Maintenance	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Span Painting/Air to Soil Corrosion Protection	Cranes	0	4.00	226	0.29
Span Painting/Air to Soil Corrosion Protection	Excavators	1	8.00	162	0.38
Span Painting/Air to Soil Corrosion Protection	Forklifts	0	6.00	89	0.20
Span Painting/Air to Soil Corrosion Protection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Below-Grade Pipe and Coating Inspection	Air Compressors	1	8.00	78	0.48
Below-Grade Pipe and Coating Inspection	Cranes	0	4.00	226	0.29
Below-Grade Pipe and Coating Inspection	Forklifts	0	6.00	89	0.20
Below-Grade Pipe and Coating Inspection	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Internal Pipeline Inspection	Air Compressors	0	6.00	78	0.48
Internal Pipeline Inspection	Cement and Mortar Mixers	0	6.00	9	0.56
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29

Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Excavators	1	8.00	162	0.38
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Pavers	0	7.00	125	0.42
Internal Pipeline Inspection	Rollers	0	7.00	80	0.38
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Installation of Pig Launcher Facilities	Air Compressors	2	8.00	78	0.48
Installation of Pig Launcher Facilities	Cranes	1	4.00	226	0.29
Installation of Pig Launcher Facilities	Excavators	1	8.00	162	0.38
Installation of Pig Launcher Facilities	Forklifts	0	6.00	89	0.20
Installation of Pig Launcher Facilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Valve/Pipeline Excavation and Recoating	Air Compressors	2	8.00	78	0.48
Valve/Pipeline Excavation and Recoating	Cranes	1	8.00	226	0.29
Valve/Pipeline Excavation and Recoating	Excavators	2	8.00	162	0.38

Valve/Pipeline Excavation and Recoating	Forklifts	0	6.00	89	0.20
Valve/Pipeline Excavation and Recoating	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Installation of Mg Anodes	Cranes	0	4.00	226	0.29
Installation of Mg Anodes	Forklifts	0	6.00	89	0.20
Installation of Mg Anodes	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Installation of Deep Well Anodes/Thermoelectric Generators	Bore/Drill Rigs	1	8.00	205	0.50
Installation of Deep Well Anodes/Thermoelectric Generators	Cranes	0	4.00	226	0.29
Installation of Deep Well Anodes/Thermoelectric Generators	Forklifts	0	6.00	89	0.20
Installation of Deep Well Anodes/Thermoelectric Generators	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Installation of Flex Anodes	Cranes	0	4.00	226	0.29
Installation of Flex Anodes	Forklifts	0	6.00	89	0.20
Installation of Flex Anodes	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Installation of Flex Anodes	Trenchers	1	8.00	80	0.50
Installation or Replacement of Horizontal Anode Beds	Cranes	0	4.00	226	0.29
Installation or Replacement of Horizontal Anode Beds	Forklifts	0	6.00	89	0.20
Installation or Replacement of Horizontal Anode Beds	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Electronic Test System Station	Cranes	0	4.00	226	0.29
Electronic Test System Station	Forklifts	0	6.00	89	0.20
Electronic Test System Station	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Cathodic Test Station Insallations	Cranes	0	4.00	226	0.29
Cathodic Test Station Insallations	Forklifts	2	6.00	89	0.20
Cathodic Test Station Insallations	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Valve Replacement/Automation	Air Compressors	3	8.00	78	0.48
Valve Replacement/Automation	Cranes	1	8.00	226	0.29
Valve Replacement/Automation	Excavators	2	8.00	162	0.38
Valve Replacement/Automation	Forklifts	0	6.00	89	0.20

Valve Replacement/Automation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Hydrostatic Testing	Cranes	1	8.00	226	0.29
Hydrostatic Testing	Forklifts	0	6.00	89	0.20
Hydrostatic Testing	Generator Sets	4	8.00	84	0.74
Hydrostatic Testing	Graders	1	8.00	174	0.41
Hydrostatic Testing	Pumps	1	8.00	84	0.74
Hydrostatic Testing	Rubber Tired Dozers	1	8.00	255	0.40
Hydrostatic Testing	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Hydrostatic Testing	Trenchers	1	8.00	80	0.50
Pipeline Segment Replacement	Air Compressors	4	8.00	78	0.48
Pipeline Segment Replacement	Bore/Drill Rigs	1	8.00	205	0.50
Pipeline Segment Replacement	Cranes	2	8.00	226	0.29
Pipeline Segment Replacement	Excavators	2	8.00	162	0.38
Pipeline Segment Replacement	Forklifts	0	6.00	89	0.20
Pipeline Segment Replacement	Tractors/Loaders/Backhoes	1	8.00	97	0.37
HPR Deactivation	Air Compressors	2	8.00	78	0.48
HPR Deactivation	Cranes	0	4.00	226	0.29
HPR Deactivation	Forklifts	0	6.00	89	0.20
HPR Deactivation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Pipeline Patrols	0	4.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Below-Grade Pipe and Coating Inspection	2	6.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Internal Pipeline Inspection	1	3.00	0.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Installation of Pig Launcher Facilities	6	21.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Valve/Pipeline Excavation and Record	11	12.00	2.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Installation of Mg Anodes	1	4.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Installation of Deep Well Anodes/Thermal	1	11.00	0.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Installation of Flex Anodes	1	5.00	0.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Installation or Replacement of Horizontal	1	7.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Electronic Test Station	0	2.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Cathodic Test Station Installations	2	7.00	1.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Valve Inspections and Lubrication	0	5.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Valve Replacement/Automatic	8	20.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Hydrostatic Testing	12	17.00	2.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Pipeline Segment Replacement	19	68.00	2.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
HPR Deactivation	3	8.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Integrity Management	0	4.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Telecommunication Site Inspections	0	4.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Road Surface Maintenance	3	4.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Right-of-Way and Access Road Repair	3	2.00	0.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Erosion Control	0	5.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Telecommunications Site Maintenance	0	7.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Span Painting/Air to Soil Corrosion Protection	1	8.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Pipeline Patrols - 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					
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

3.2 Pipeline Patrols - 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	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	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161
Total	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161

Mitigated Construction On-Site

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3.2 Pipeline Patrols - 2018

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	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161
Total	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161

3.3 Valve Inspections and Lubrication - 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					
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

3.3 Valve Inspections and Lubrication - 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	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	0.0655	0.1980	2.3341	4.7500e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		362.4985	362.4985	0.0189		362.8951
Total	0.0655	0.1980	2.3341	4.7500e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		362.4985	362.4985	0.0189		362.8951

Mitigated Construction On-Site

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3.3 Valve Inspections and Lubrication - 2018**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	0.0655	0.1980	2.3341	4.7500e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		362.4985	362.4985	0.0189		362.8951
Total	0.0655	0.1980	2.3341	4.7500e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		362.4985	362.4985	0.0189		362.8951

3.4 Integrity Management - 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					
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

3.4 Integrity Management - 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	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	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161
Total	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161

Mitigated Construction On-Site

[illegible]

3.4 Integrity Management - 2018

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	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161
Total	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161

3.5 Telecommunication Site Inspections - 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					
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

3.5 Telecommunication Site Inspections - 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	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	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161
Total	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161

Mitigated Construction On-Site

[illegible]

3.5 Telecommunication Site Inspections - 2018**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	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161
Total	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161

3.6 Road Surface Maintenance - 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					22.2705	0.0000	22.2705	2.4047	0.0000	2.4047			0.0000			0.0000
Off-Road	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726		1,251.3623	1,251.3623	0.3896		1,259.5432
Total	1.3644	13.5696	9.3409	0.0124	22.2705	0.8398	23.1103	2.4047	0.7726	3.1773		1,251.3623	1,251.3623	0.3896		1,259.5432

3.6 Road Surface Maintenance - 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	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	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161
Total	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161

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					10.0217	0.0000	10.0217	1.0821	0.0000	1.0821			0.0000			0.0000
Off-Road	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726	0.0000	1,251.3623	1,251.3623	0.3896		1,259.5432
Total	1.3644	13.5696	9.3409	0.0124	10.0217	0.8398	10.8615	1.0821	0.7726	1.8547	0.0000	1,251.3623	1,251.3623	0.3896		1,259.5432

3.6 Road Surface Maintenance - 2018**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	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161
Total	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161

3.7 Right-of-Way and Access Road Repair - 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					
Off-Road	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726		1,251.3623	1,251.3623	0.3896		1,259.5432
Total	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726		1,251.3623	1,251.3623	0.3896		1,259.5432

3.7 Right-of-Way and Access Road Repair - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
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	0.0262	0.0792	0.9336	1.9000e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		144.9994	144.9994	7.5500e-003		145.1580
Total	0.0732	0.7558	1.4158	5.3800e-003	7.5952	0.0249	7.6200	0.7978	0.0229	0.8206		485.2191	485.2191	9.2400e-003		485.4132

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	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726	0.0000	1,251.3623	1,251.3623	0.3896		1,259.5432
Total	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726	0.0000	1,251.3623	1,251.3623	0.3896		1,259.5432

3.7 Right-of-Way and Access Road Repair - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
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	0.0262	0.0792	0.9336	1.9000e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		144.9994	144.9994	7.5500e-003		145.1580
Total	0.0732	0.7558	1.4158	5.3800e-003	3.5477	0.0249	3.5726	0.3939	0.0229	0.4168		485.2191	485.2191	9.2400e-003		485.4132

3.8 Erosion Control - 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					
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

3.8 Erosion Control - 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	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	0.0655	0.1980	2.3341	4.7500e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		362.4985	362.4985	0.0189		362.8951
Total	0.0655	0.1980	2.3341	4.7500e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		362.4985	362.4985	0.0189		362.8951

Mitigated Construction On-Site

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3.8 Erosion Control - 2018**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	0.0655	0.1980	2.3341	4.7500e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		362.4985	362.4985	0.0189		362.8951
Total	0.0655	0.1980	2.3341	4.7500e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		362.4985	362.4985	0.0189		362.8951

3.9 Telecommunications Site Maintenance - 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					
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

3.9 Telecommunications Site Maintenance - 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	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	0.0918	0.2771	3.2677	6.6500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		507.4979	507.4979	0.0264		508.0531
Total	0.0918	0.2771	3.2677	6.6500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		507.4979	507.4979	0.0264		508.0531

Mitigated Construction On-Site

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3.9 Telecommunications Site Maintenance - 2018**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	0.0918	0.2771	3.2677	6.6500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		507.4979	507.4979	0.0264		508.0531
Total	0.0918	0.2771	3.2677	6.6500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		507.4979	507.4979	0.0264		508.0531

3.10 Span Painting/Air to Soil Corrosion Protection - 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					
Off-Road	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416		532.7391	532.7391	0.1659		536.2219
Total	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416		532.7391	532.7391	0.1659		536.2219

3.10 Span Painting/Air to Soil Corrosion Protection - 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	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	0.1049	0.3167	3.7345	7.6000e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		579.9977	579.9977	0.0302		580.6321
Total	0.1049	0.3167	3.7345	7.6000e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		579.9977	579.9977	0.0302		580.6321

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	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416	0.0000	532.7391	532.7391	0.1659		536.2219
Total	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416	0.0000	532.7391	532.7391	0.1659		536.2219

3.10 Span Painting/Air to Soil Corrosion Protection - 2018**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	0.1049	0.3167	3.7345	7.6000e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		579.9977	579.9977	0.0302		580.6321
Total	0.1049	0.3167	3.7345	7.6000e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		579.9977	579.9977	0.0302		580.6321

3.11 Below-Grade Pipe and Coating Inspection - 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					
Off-Road	0.6643	5.3041	4.8090	7.0700e-003		0.3870	0.3870		0.3721	0.3721		688.0407	688.0407	0.1330		690.8343
Total	0.6643	5.3041	4.8090	7.0700e-003		0.3870	0.3870		0.3721	0.3721		688.0407	688.0407	0.1330		690.8343

3.11 Below-Grade Pipe and Coating Inspection - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.0786	0.2375	2.8009	5.7000e-003	0.4559	2.7800e-003	0.4587	0.1209	2.5700e-003	0.1234		434.9982	434.9982	0.0227		435.4741
Total	0.1586	1.4518	3.6386	0.0113	15.3461	0.0431	15.3892	1.6384	0.0397	1.6781		976.8986	976.8986	0.0252		977.4286

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	0.6643	5.3041	4.8090	7.0700e-003		0.3870	0.3870		0.3721	0.3721	0.0000	688.0407	688.0407	0.1330		690.8343
Total	0.6643	5.3041	4.8090	7.0700e-003		0.3870	0.3870		0.3721	0.3721	0.0000	688.0407	688.0407	0.1330		690.8343

3.11 Below-Grade Pipe and Coating Inspection - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3713		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.0786	0.2375	2.8009	5.7000e-003	0.4559	2.7800e-003	0.4587	0.1209	2.5700e-003	0.1234		434.9982	434.9982	0.0227		435.4741
Total	0.1586	1.4518	3.6386	0.0113	7.2513	0.0431	7.2944	0.8307	0.0397	0.8704		976.8986	976.8986	0.0252		977.4286

3.12 Internal Pipeline Inspection - 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					
Off-Road	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416		532.7391	532.7391	0.1659		536.2219
Total	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416		532.7391	532.7391	0.1659		536.2219

3.12 Internal Pipeline Inspection - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	51.9737	0.0239	51.9976	5.2556	0.0220	5.2776		340.2197	340.2197	1.6900e-003		340.2552
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	0.0393	0.1188	1.4005	2.8500e-003	1.4178	1.3900e-003	1.4192	0.3525	1.2800e-003	0.3538		217.4991	217.4991	0.0113		217.7371
Total	0.0863	0.7954	1.8827	6.3300e-003	53.3915	0.0253	53.4168	5.6081	0.0233	5.6314		557.7188	557.7188	0.0130		557.9922

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	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416	0.0000	532.7391	532.7391	0.1659		536.2219
Total	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416	0.0000	532.7391	532.7391	0.1659		536.2219

3.12 Internal Pipeline Inspection - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	23.6417	0.0239	23.6657	2.4287	0.0220	2.4507		340.2197	340.2197	1.6900e-003		340.2552
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	0.0393	0.1188	1.4005	2.8500e-003	1.4178	1.3900e-003	1.4192	0.3525	1.2800e-003	0.3538		217.4991	217.4991	0.0113		217.7371
Total	0.0863	0.7954	1.8827	6.3300e-003	25.0596	0.0253	25.0849	2.7812	0.0233	2.8045		557.7188	557.7188	0.0130		557.9922

3.13 Installation of Pig Launcher Facilities - 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					
Off-Road	1.9042	17.1189	14.2102	0.0223		1.0724	1.0724		1.0188	1.0188		2,192.8359	2,192.8359	0.5203		2,203.7627
Total	1.9042	17.1189	14.2102	0.0223		1.0724	1.0724		1.0188	1.0188		2,192.8359	2,192.8359	0.5203		2,203.7627

3.13 Installation of Pig Launcher Facilities - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.2752	0.8314	9.8031	0.0200	1.5956	9.7200e-003	1.6053	0.4230	8.9800e-003	0.4320		1,522.4938	1,522.4938	0.0793		1,524.1593
Total	0.3552	2.0456	10.6408	0.0255	16.4858	0.0501	16.5359	1.9406	0.0461	1.9867		2,064.3942	2,064.3942	0.0819		2,066.1139

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	1.9042	17.1189	14.2102	0.0223		1.0724	1.0724		1.0188	1.0188	0.0000	2,192.8359	2,192.8359	0.5203		2,203.7627
Total	1.9042	17.1189	14.2102	0.0223		1.0724	1.0724		1.0188	1.0188	0.0000	2,192.8359	2,192.8359	0.5203		2,203.7627

3.13 Installation of Pig Launcher Facilities - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3713		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.2752	0.8314	9.8031	0.0200	1.5956	9.7200e-003	1.6053	0.4230	8.9800e-003	0.4320		1,522.4938	1,522.4938	0.0793		1,524.1593
Total	0.3552	2.0456	10.6408	0.0255	8.3910	0.0501	8.4410	1.1329	0.0461	1.1790		2,064.3942	2,064.3942	0.0819		2,066.1139

3.14 Valve/Pipeline Excavation and Recoating - 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					
Off-Road	2.2138	21.0001	16.4657	0.0273		1.1845	1.1845		1.1219	1.1219		2,696.8145	2,696.8145	0.6772		2,711.0361
Total	2.2138	21.0001	16.4657	0.0273		1.1845	1.1845		1.1219	1.1219		2,696.8145	2,696.8145	0.6772		2,711.0361

3.14 Valve/Pipeline Excavation and Recoating - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0660	1.0752	0.7109	4.1600e-003	14.8940	0.0328	14.9269	1.5202	0.0302	1.5504		403.3614	403.3614	1.7800e-003		403.3988
Worker	0.1573	0.4751	5.6018	0.0114	0.9118	5.5500e-003	0.9173	0.2417	5.1300e-003	0.2469		869.9965	869.9965	0.0453		870.9482
Total	0.2702	2.2269	6.7949	0.0190	23.2490	0.0623	23.3113	2.5194	0.0574	2.5767		1,613.5776	1,613.5776	0.0488		1,614.6021

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	2.2138	21.0001	16.4657	0.0273		1.1845	1.1845		1.1219	1.1219	0.0000	2,696.8145	2,696.8145	0.6772		2,711.0361
Total	2.2138	21.0001	16.4657	0.0273		1.1845	1.1845		1.1219	1.1219	0.0000	2,696.8145	2,696.8145	0.6772		2,711.0361

3.14 Valve/Pipeline Excavation and Recoating - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0660	1.0752	0.7109	4.1600e-003	6.7992	0.0328	6.8320	0.7125	0.0302	0.7427		403.3614	403.3614	1.7800e-003		403.3988
Worker	0.1573	0.4751	5.6018	0.0114	0.9118	5.5500e-003	0.9173	0.2417	5.1300e-003	0.2469		869.9965	869.9965	0.0453		870.9482
Total	0.2702	2.2269	6.7949	0.0190	11.1067	0.0623	11.1691	1.3078	0.0574	1.3652		1,613.5776	1,613.5776	0.0488		1,614.6021

3.15 Installation of Mg Anodes - 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					
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		314.8208
Total	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		314.8208

3.15 Installation of Mg Anodes - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161
Total	0.1324	1.3726	2.7049	9.3600e-003	15.1941	0.0422	15.2363	1.5981	0.0388	1.6370		831.8992	831.8992	0.0177		832.2706

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	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		314.8208
Total	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		314.8208

3.15 Installation of Mg Anodes - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3713		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.0524	0.1584	1.8673	3.8000e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		289.9988	289.9988	0.0151		290.3161
Total	0.1324	1.3726	2.7049	9.3600e-003	7.0993	0.0422	7.1415	0.7904	0.0388	0.8293		831.8992	831.8992	0.0177		832.2706

3.16 Installation of Deep Well Anodes/Thermoelectric Generators - 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					
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		0.1100	0.1100		0.1012	0.1012		875.9839	875.9839	0.2727		881.7108

3.16 Installation of Deep Well Anodes/Thermoelectric Generators - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
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	0.1442	0.4355	5.1350	0.0105	0.8358	5.0900e-003	0.8409	0.2216	4.7000e-003	0.2263		797.4968	797.4968	0.0415		798.3692
Total	0.1911	1.1121	5.6172	0.0139	8.2790	0.0290	8.3080	0.9790	0.0267	1.0058		1,137.7164	1,137.7164	0.0432		1,138.6243

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	0.2794	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		0.1100	0.1100		0.1012	0.1012	0.0000	875.9839	875.9839	0.2727		881.7108

3.16 Installation of Deep Well Anodes/Thermoelectric Generators - 2018

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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
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	0.1442	0.4355	5.1350	0.0105	0.8358	5.0900e-003	0.8409	0.2216	4.7000e-003	0.2263		797.4968	797.4968	0.0415		798.3692
Total	0.1911	1.1121	5.6172	0.0139	4.2316	0.0290	4.2606	0.5752	0.0267	0.6019		1,137.7164	1,137.7164	0.0432		1,138.6243

3.17 Installation of Flex Anodes - 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					
Off-Road	0.4643	4.1731	2.7195	3.4600e-003		0.3174	0.3174		0.2920	0.2920		348.3057	348.3057	0.1084		350.5828
Total	0.4643	4.1731	2.7195	3.4600e-003		0.3174	0.3174		0.2920	0.2920		348.3057	348.3057	0.1084		350.5828

3.17 Installation of Flex Anodes - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
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	0.0655	0.1980	2.3341	4.7500e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		362.4985	362.4985	0.0189		362.8951
Total	0.1125	0.8746	2.8163	8.2300e-003	7.8231	0.0263	7.8494	0.8582	0.0242	0.8824		702.7182	702.7182	0.0206		703.1503

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	0.4643	4.1731	2.7195	3.4600e-003		0.3174	0.3174		0.2920	0.2920	0.0000	348.3057	348.3057	0.1084		350.5828
Total	0.4643	4.1731	2.7195	3.4600e-003		0.3174	0.3174		0.2920	0.2920	0.0000	348.3057	348.3057	0.1084		350.5828

3.17 Installation of Flex Anodes - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
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	0.0655	0.1980	2.3341	4.7500e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		362.4985	362.4985	0.0189		362.8951
Total	0.1125	0.8746	2.8163	8.2300e-003	3.7757	0.0263	3.8019	0.4543	0.0242	0.4785		702.7182	702.7182	0.0206		703.1503

3.18 Installation or Replacement of Horizontal Anode Beds - 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					
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		314.8208
Total	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		314.8208

3.18 Installation or Replacement of Horizontal Anode Beds - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.0918	0.2771	3.2677	6.6500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		507.4979	507.4979	0.0264		508.0531
Total	0.1717	1.4914	4.1054	0.0122	15.4221	0.0436	15.4657	1.6586	0.0401	1.6987		1,049.3983	1,049.3983	0.0290		1,050.0077

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	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		314.8208
Total	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		314.8208

3.18 Installation or Replacement of Horizontal Anode Beds - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3713		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.0918	0.2771	3.2677	6.6500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		507.4979	507.4979	0.0264		508.0531
Total	0.1717	1.4914	4.1054	0.0122	7.3272	0.0436	7.3708	0.8509	0.0401	0.8910		1,049.3983	1,049.3983	0.0290		1,050.0077

3.19 Electronic Test System Station - 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					
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

3.19 Electronic Test System Station - 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	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	0.0262	0.0792	0.9336	1.9000e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		144.9994	144.9994	7.5500e-003		145.1580
Total	0.0262	0.0792	0.9336	1.9000e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		144.9994	144.9994	7.5500e-003		145.1580

Mitigated Construction On-Site

[illegible]

3.19 Electronic Test System Station - 2018**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	0.0262	0.0792	0.9336	1.9000e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		144.9994	144.9994	7.5500e-003		145.1580
Total	0.0262	0.0792	0.9336	1.9000e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		144.9994	144.9994	7.5500e-003		145.1580

3.20 Cathodic Test Station Insallations - 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					
Off-Road	0.2672	2.3617	1.8169	2.2900e-003		0.1885	0.1885		0.1734	0.1734		230.6814	230.6814	0.0718		232.1895
Total	0.2672	2.3617	1.8169	2.2900e-003		0.1885	0.1885		0.1734	0.1734		230.6814	230.6814	0.0718		232.1895

3.20 Cathodic Test Station Insallations - 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	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	0.0330	0.5376	0.3554	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.0918	0.2771	3.2677	6.6500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		507.4979	507.4979	0.0264		508.0531
Total	0.1248	0.8147	3.6232	8.7300e-003	7.9789	0.0197	7.9985	0.9011	0.0181	0.9192		709.1787	709.1787	0.0273		709.7525

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	0.2672	2.3617	1.8169	2.2900e-003		0.1885	0.1885		0.1734	0.1734	0.0000	230.6814	230.6814	0.0718		232.1895
Total	0.2672	2.3617	1.8169	2.2900e-003		0.1885	0.1885		0.1734	0.1734	0.0000	230.6814	230.6814	0.0718		232.1895

3.20 Cathodic Test Station Insallations - 2018**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	0.0330	0.5376	0.3554	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3713		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.0918	0.2771	3.2677	6.6500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		507.4979	507.4979	0.0264		508.0531
Total	0.1248	0.8147	3.6232	8.7300e-003	3.9315	0.0197	3.9511	0.4972	0.0181	0.5153		709.1787	709.1787	0.0273		709.7525

3.21 Valve Replacement/Automation - 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					
Off-Road	2.8781	26.3041	21.2747	0.0343		1.5715	1.5715		1.4940	1.4940		3,384.8552	3,384.8552	0.8103		3,401.8704
Total	2.8781	26.3041	21.2747	0.0343		1.5715	1.5715		1.4940	1.4940		3,384.8552	3,384.8552	0.8103		3,401.8704

3.21 Valve Replacement/Automation - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.2621	0.7918	9.3363	0.0190	1.5196	9.2600e-003	1.5289	0.4029	8.5500e-003	0.4114		1,449.9941	1,449.9941	0.0755		1,451.5803
Total	0.3421	2.0060	10.1740	0.0246	16.4098	0.0496	16.4594	1.9204	0.0457	1.9661		1,991.8945	1,991.8945	0.0781		1,993.5349

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	2.8781	26.3041	21.2747	0.0343		1.5715	1.5715		1.4940	1.4940	0.0000	3,384.8552	3,384.8552	0.8103		3,401.8704
Total	2.8781	26.3041	21.2747	0.0343		1.5715	1.5715		1.4940	1.4940	0.0000	3,384.8552	3,384.8552	0.8103		3,401.8704

3.21 Valve Replacement/Automation - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3713		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.2621	0.7918	9.3363	0.0190	1.5196	9.2600e-003	1.5289	0.4029	8.5500e-003	0.4114		1,449.9941	1,449.9941	0.0755		1,451.5803
Total	0.3421	2.0060	10.1740	0.0246	8.3150	0.0496	8.3646	1.1127	0.0457	1.1584		1,991.8945	1,991.8945	0.0781		1,993.5349

3.22 Hydrostatic Testing - 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					
Off-Road	6.2823	59.3704	44.6211	0.0664		3.4968	3.4968		3.3230	3.3230		6,491.8708	6,491.8708	1.2782		6,518.7119
Total	6.2823	59.3704	44.6211	0.0664		3.4968	3.4968		3.3230	3.3230		6,491.8708	6,491.8708	1.2782		6,518.7119

3.22 Hydrostatic Testing - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0660	1.0752	0.7109	4.1600e-003	14.8940	0.0328	14.9269	1.5202	0.0302	1.5504		403.3614	403.3614	1.7800e-003		403.3988
Worker	0.2228	0.6730	7.9359	0.0162	1.2917	7.8700e-003	1.2996	0.3424	7.2700e-003	0.3497		1,232.4950	1,232.4950	0.0642		1,233.8433
Total	0.3358	2.4248	9.1290	0.0238	23.6289	0.0646	23.6935	2.6201	0.0595	2.6796		1,976.0761	1,976.0761	0.0677		1,977.4972

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	6.2823	59.3704	44.6211	0.0664		3.4968	3.4968		3.3230	3.3230	0.0000	6,491.8708	6,491.8708	1.2782		6,518.7119
Total	6.2823	59.3704	44.6211	0.0664		3.4968	3.4968		3.3230	3.3230	0.0000	6,491.8708	6,491.8708	1.2782		6,518.7119

3.22 Hydrostatic Testing - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0660	1.0752	0.7109	4.1600e-003	6.7992	0.0328	6.8320	0.7125	0.0302	0.7427		403.3614	403.3614	1.7800e-003		403.3988
Worker	0.2228	0.6730	7.9359	0.0162	1.2917	7.8700e-003	1.2996	0.3424	7.2700e-003	0.3497		1,232.4950	1,232.4950	0.0642		1,233.8433
Total	0.3358	2.4248	9.1290	0.0238	11.4866	0.0646	11.5513	1.4085	0.0595	1.4680		1,976.0761	1,976.0761	0.0677		1,977.4972

3.23 Pipeline Segment Replacement - 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					
Off-Road	3.8479	36.9142	25.8178	0.0495		1.9848	1.9848		1.8902	1.8902		4,891.3587	4,891.3587	1.1981		4,916.5184
Total	3.8479	36.9142	25.8178	0.0495		1.9848	1.9848		1.8902	1.8902		4,891.3587	4,891.3587	1.1981		4,916.5184

3.23 Pipeline Segment Replacement - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0660	1.0752	0.7109	4.1600e-003	14.8940	0.0328	14.9269	1.5202	0.0302	1.5504		403.3614	403.3614	1.7800e-003		403.3988
Worker	0.8913	2.6921	31.7435	0.0646	5.1667	0.0315	5.1982	1.3697	0.0291	1.3988		4,929.9800	4,929.9800	0.2568		4,935.3731
Total	1.0042	4.4439	32.9366	0.0722	27.5039	0.0882	27.5922	3.6474	0.0813	3.7287		5,673.5611	5,673.5611	0.2603		5,679.0270

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	3.8479	36.9142	25.8178	0.0495		1.9848	1.9848		1.8902	1.8902	0.0000	4,891.3587	4,891.3587	1.1981		4,916.5184
Total	3.8479	36.9142	25.8178	0.0495		1.9848	1.9848		1.8902	1.8902	0.0000	4,891.3587	4,891.3587	1.1981		4,916.5184

3.23 Pipeline Segment Replacement - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0660	1.0752	0.7109	4.1600e-003	6.7992	0.0328	6.8320	0.7125	0.0302	0.7427		403.3614	403.3614	1.7800e-003		403.3988
Worker	0.8913	2.6921	31.7435	0.0646	5.1667	0.0315	5.1982	1.3697	0.0291	1.3988		4,929.9800	4,929.9800	0.2568		4,935.3731
Total	1.0042	4.4439	32.9366	0.0722	15.3617	0.0882	15.4499	2.4358	0.0813	2.5171		5,673.5611	5,673.5611	0.2603		5,679.0270

3.24 HPR Deactivation - 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					
Off-Road	1.0625	7.9784	7.2813	0.0110		0.5878	0.5878		0.5729	0.5729		1,063.3054	1,063.3054	0.1687		1,066.8478
Total	1.0625	7.9784	7.2813	0.0110		0.5878	0.5878		0.5729	0.5729		1,063.3054	1,063.3054	0.1687		1,066.8478

3.24 HPR Deactivation - 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	lb/day										lb/day					
Hauling	0.0470	0.6766	0.4822	3.4800e-003	7.4432	0.0239	7.4671	0.7575	0.0220	0.7795		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.1049	0.3167	3.7345	7.6000e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		579.9977	579.9977	0.0302		580.6321
Total	0.1848	1.5309	4.5722	0.0132	15.4981	0.0441	15.5421	1.6787	0.0406	1.7193		1,121.8980	1,121.8980	0.0328		1,122.5867

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	1.0625	7.9784	7.2813	0.0110		0.5878	0.5878		0.5729	0.5729	0.0000	1,063.3054	1,063.3054	0.1687		1,066.8478
Total	1.0625	7.9784	7.2813	0.0110		0.5878	0.5878		0.5729	0.5729	0.0000	1,063.3054	1,063.3054	0.1687		1,066.8478

3.24 HPR Deactivation - 2018**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	0.0470	0.6766	0.4822	3.4800e-003	3.3958	0.0239	3.4197	0.3536	0.0220	0.3757		340.2197	340.2197	1.6900e-003		340.2552
Vendor	0.0330	0.5376	0.3554	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3713		201.6807	201.6807	8.9000e-004		201.6994
Worker	0.1049	0.3167	3.7345	7.6000e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		579.9977	579.9977	0.0302		580.6321
Total	0.1848	1.5309	4.5722	0.0132	7.4032	0.0441	7.4473	0.8710	0.0406	0.9116		1,121.8980	1,121.8980	0.0328		1,122.5867

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile****4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

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

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.431834	0.067464	0.179235	0.158194	0.055243	0.008787	0.007056	0.074987	0.001136	0.001015	0.009786	0.000662	0.004601

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	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

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
Consumer Products	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

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
Consumer Products	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

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

PG&E's California Desert Gas Pipeline Operation and Maintenance Program
Mojave Desert Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2019
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - O&M schedule from Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Off-road Equipment - From Chapter 2 - Project Description.

Trips and VMT - Estimates based on equipment list and project area.

On-road Fugitive Dust - Estimates based on project area.

Grading - Three acres distrubed per year. Activities entered here span 7 years total.

Vehicle Emission Factors -

Vehicle Emission Factors -

Vehicle Emission Factors -

Construction Off-road Equipment Mitigation -

Mobile Land Use Mitigation -

Table Name	Column Name	Default Value	New Value
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tblConstructionPhase	NumDays	0.00	1.00
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[illegible]

[illegible]

[illegible]

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tblOffRoadEquipment	PhaseName		Valve/Pipeline Excavation and Recoating
tblOffRoadEquipment	PhaseName		Valve Replacement/Automation
tblOffRoadEquipment	PhaseName		Pipeline Segment Replacement
tblOffRoadEquipment	PhaseName		HPR Deactivation
tblOffRoadEquipment	PhaseName		Installation of Deep Well Anodes/Thermoelectric Generators
tblOffRoadEquipment	PhaseName		Pipeline Segment Replacement
tblOffRoadEquipment	PhaseName		Internal Pipeline Inspection
tblOffRoadEquipment	PhaseName		Pipeline Patrols
tblOffRoadEquipment	PhaseName		Integrity Management
tblOffRoadEquipment	PhaseName		Road Surface Maintenance
tblOffRoadEquipment	PhaseName		Internal Pipeline Inspection
tblOffRoadEquipment	PhaseName		Installation of Pig Launcher Facilities
tblOffRoadEquipment	PhaseName		Valve/Pipeline Excavation and Recoating
tblOffRoadEquipment	PhaseName		Valve Replacement/Automation
tblOffRoadEquipment	PhaseName		Pipeline Segment Replacement
tblOffRoadEquipment	PhaseName		Span Painting/Air to Soil Corrosion Protection
tblOffRoadEquipment	PhaseName		Road Surface Maintenance
tblOffRoadEquipment	PhaseName		Hydrostatic Testing
tblOffRoadEquipment	PhaseName		Valve Inspections and Lubrication
tblOffRoadEquipment	PhaseName		Hydrostatic Testing
tblOffRoadEquipment	PhaseName		Road Surface Maintenance

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

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tblTripsAndVMT	WorkerVehicleClass		LD_Mix
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tblTripsAndVMT	WorkerVehicleClass		LD_Mix

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					
2018	6.5839	61.9134	51.8946	0.1141	53.3915	3.5614	53.5708	5.6081	3.3825	6.0026	0.0000	9,983.9433	9,983.9433	1.4584	0.0000	10,014.5690
Total	6.5839	61.9134	51.8946	0.1141	53.3915	3.5614	53.5708	5.6081	3.3825	6.0026	0.0000	9,983.9433	9,983.9433	1.4584	0.0000	10,014.5690

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					
2018	6.5839	61.9134	51.8946	0.1141	25.0596	3.5614	25.2389	2.7812	3.3825	4.7910	0.0000	9,983.9433	9,983.9433	1.4584	0.0000	10,014.5690
Total	6.5839	61.9134	51.8946	0.1141	25.0596	3.5614	25.2389	2.7812	3.3825	4.7910	0.0000	9,983.9433	9,983.9433	1.4584	0.0000	10,014.5690

	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	53.06	0.00	52.89	50.41	0.00	20.18	0.00	0.00	0.00	0.00	0.00	0.00

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	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

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	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

[illegible]

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Pipeline Patrols	Building Construction	1/1/2018	1/1/2018	6	1	
2	Valve Inspections and Lubrication	Building Construction	1/2/2018	1/2/2018	6	1	
3	Integrity Management	Building Construction	1/3/2018	1/3/2018	6	1	
4	Telecommunication Site Inspections	Building Construction	1/4/2018	1/4/2018	6	1	
5	Road Surface Maintenance	Grading	1/5/2018	1/5/2018	6	1	
6	Right-of-Way and Access Road Repair	Building Construction	1/6/2018	1/6/2018	6	1	
7	Erosion Control	Building Construction	1/7/2018	1/8/2018	6	1	
8	Telecommunications Site Maintenance	Building Construction	1/9/2018	1/9/2018	6	1	
9	Span Painting/Air to Soil Corrosion Protection	Building Construction	1/10/2018	1/10/2018	6	1	
10	Below-Grade Pipe and Coating Inspection	Building Construction	1/11/2018	1/11/2018	6	1	
11	Internal Pipeline Inspection	Building Construction	1/12/2018	1/12/2018	6	1	
12	Installation of Pig Launcher Facilities	Building Construction	1/13/2018	1/13/2018	6	1	
13	Valve/Pipeline Excavation and Recoating	Building Construction	1/14/2018	1/15/2018	6	1	
14	Installation of Mg Anodes	Building Construction	1/16/2018	1/16/2018	6	1	
15	Installation of Deep Well Anodes/Thermoelectric Generators	Building Construction	1/17/2018	1/17/2018	6	1	
16	Installation of Flex Anodes	Building Construction	1/18/2018	1/18/2018	6	1	
17	Installation or Replacement of Horizontal Anode Beds	Building Construction	1/19/2018	1/19/2018	6	1	
18	Electronic Test System Station	Building Construction	1/20/2018	1/20/2018	6	1	
19	Cathodic Test Station Insallations	Building Construction	1/21/2018	1/22/2018	6	1	
20	Valve Replacement/Automation	Building Construction	1/23/2018	1/23/2018	6	1	
21	Hydrostatic Testing	Building Construction	1/24/2018	1/24/2018	6	1	
22	Pipeline Segment Replacement	Building Construction	1/25/2018	1/25/2018	6	1	
23	HPR Deactivation	Building Construction	1/26/2018	1/26/2018	6	1	

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
Pipeline Patrols	Concrete/Industrial Saws	0	8.00	81	0.73
Pipeline Patrols	Cranes	0	4.00	226	0.29
Pipeline Patrols	Forklifts	0	6.00	89	0.20
Pipeline Patrols	Rubber Tired Dozers	0	1.00	255	0.40
Pipeline Patrols	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Valve Inspections and Lubrication	Cranes	0	4.00	226	0.29
Valve Inspections and Lubrication	Forklifts	0	6.00	89	0.20
Valve Inspections and Lubrication	Graders	0	8.00	174	0.41
Valve Inspections and Lubrication	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Integrity Management	Concrete/Industrial Saws	0	8.00	81	0.73
Integrity Management	Cranes	0	4.00	226	0.29
Integrity Management	Forklifts	0	6.00	89	0.20
Integrity Management	Rubber Tired Dozers	0	1.00	255	0.40
Integrity Management	Tractors/Loaders/Backhoes	0	6.00	97	0.37
Telecommunication Site Inspections	Cranes	0	4.00	226	0.29
Telecommunication Site Inspections	Forklifts	0	6.00	89	0.20
Telecommunication Site Inspections	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Road Surface Maintenance	Concrete/Industrial Saws	0	8.00	81	0.73
Road Surface Maintenance	Cranes	0	4.00	226	0.29
Road Surface Maintenance	Forklifts	0	6.00	89	0.20
Road Surface Maintenance	Graders	1	8.00	174	0.41

Road Surface Maintenance	Rubber Tired Dozers	0	1.00	255	0.40
Road Surface Maintenance	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Right-of-Way and Access Road Repair	Cranes	0	4.00	226	0.29
Right-of-Way and Access Road Repair	Forklifts	0	6.00	89	0.20
Right-of-Way and Access Road Repair	Graders	1	8.00	174	0.41
Right-of-Way and Access Road Repair	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Erosion Control	Cranes	0	4.00	226	0.29
Erosion Control	Forklifts	0	6.00	89	0.20
Erosion Control	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Telecommunications Site Maintenance	Cranes	0	4.00	226	0.29
Telecommunications Site Maintenance	Forklifts	0	6.00	89	0.20
Telecommunications Site Maintenance	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Span Painting/Air to Soil Corrosion Protection	Cranes	0	4.00	226	0.29
Span Painting/Air to Soil Corrosion Protection	Excavators	1	8.00	162	0.38
Span Painting/Air to Soil Corrosion Protection	Forklifts	0	6.00	89	0.20
Span Painting/Air to Soil Corrosion Protection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Below-Grade Pipe and Coating Inspection	Air Compressors	1	8.00	78	0.48
Below-Grade Pipe and Coating Inspection	Cranes	0	4.00	226	0.29
Below-Grade Pipe and Coating Inspection	Forklifts	0	6.00	89	0.20
Below-Grade Pipe and Coating Inspection	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Internal Pipeline Inspection	Air Compressors	0	6.00	78	0.48
Internal Pipeline Inspection	Cement and Mortar Mixers	0	6.00	9	0.56
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29

Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Cranes	0	4.00	226	0.29
Internal Pipeline Inspection	Excavators	1	8.00	162	0.38
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Forklifts	0	6.00	89	0.20
Internal Pipeline Inspection	Pavers	0	7.00	125	0.42
Internal Pipeline Inspection	Rollers	0	7.00	80	0.38
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Internal Pipeline Inspection	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Installation of Pig Launcher Facilities	Air Compressors	2	8.00	78	0.48
Installation of Pig Launcher Facilities	Cranes	1	4.00	226	0.29
Installation of Pig Launcher Facilities	Excavators	1	8.00	162	0.38
Installation of Pig Launcher Facilities	Forklifts	0	6.00	89	0.20
Installation of Pig Launcher Facilities	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Valve/Pipeline Excavation and Recoating	Air Compressors	2	8.00	78	0.48
Valve/Pipeline Excavation and Recoating	Cranes	1	8.00	226	0.29
Valve/Pipeline Excavation and Recoating	Excavators	2	8.00	162	0.38

Valve/Pipeline Excavation and Recoating	Forklifts	0	6.00	89	0.20
Valve/Pipeline Excavation and Recoating	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Installation of Mg Anodes	Cranes	0	4.00	226	0.29
Installation of Mg Anodes	Forklifts	0	6.00	89	0.20
Installation of Mg Anodes	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Installation of Deep Well Anodes/Thermoelectric Generators	Bore/Drill Rigs	1	8.00	205	0.50
Installation of Deep Well Anodes/Thermoelectric Generators	Cranes	0	4.00	226	0.29
Installation of Deep Well Anodes/Thermoelectric Generators	Forklifts	0	6.00	89	0.20
Installation of Deep Well Anodes/Thermoelectric Generators	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Installation of Flex Anodes	Cranes	0	4.00	226	0.29
Installation of Flex Anodes	Forklifts	0	6.00	89	0.20
Installation of Flex Anodes	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Installation of Flex Anodes	Trenchers	1	8.00	80	0.50
Installation or Replacement of Horizontal Anode Beds	Cranes	0	4.00	226	0.29
Installation or Replacement of Horizontal Anode Beds	Forklifts	0	6.00	89	0.20
Installation or Replacement of Horizontal Anode Beds	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Electronic Test System Station	Cranes	0	4.00	226	0.29
Electronic Test System Station	Forklifts	0	6.00	89	0.20
Electronic Test System Station	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Cathodic Test Station Insallations	Cranes	0	4.00	226	0.29
Cathodic Test Station Insallations	Forklifts	2	6.00	89	0.20
Cathodic Test Station Insallations	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Valve Replacement/Automation	Air Compressors	3	8.00	78	0.48
Valve Replacement/Automation	Cranes	1	8.00	226	0.29
Valve Replacement/Automation	Excavators	2	8.00	162	0.38
Valve Replacement/Automation	Forklifts	0	6.00	89	0.20

Valve Replacement/Automation	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Hydrostatic Testing	Cranes	1	8.00	226	0.29
Hydrostatic Testing	Forklifts	0	6.00	89	0.20
Hydrostatic Testing	Generator Sets	4	8.00	84	0.74
Hydrostatic Testing	Graders	1	8.00	174	0.41
Hydrostatic Testing	Pumps	1	8.00	84	0.74
Hydrostatic Testing	Rubber Tired Dozers	1	8.00	255	0.40
Hydrostatic Testing	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Hydrostatic Testing	Trenchers	1	8.00	80	0.50
Pipeline Segment Replacement	Air Compressors	4	8.00	78	0.48
Pipeline Segment Replacement	Bore/Drill Rigs	1	8.00	205	0.50
Pipeline Segment Replacement	Cranes	2	8.00	226	0.29
Pipeline Segment Replacement	Excavators	2	8.00	162	0.38
Pipeline Segment Replacement	Forklifts	0	6.00	89	0.20
Pipeline Segment Replacement	Tractors/Loaders/Backhoes	1	8.00	97	0.37
HPR Deactivation	Air Compressors	2	8.00	78	0.48
HPR Deactivation	Cranes	0	4.00	226	0.29
HPR Deactivation	Forklifts	0	6.00	89	0.20
HPR Deactivation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

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
Pipeline Patrols	0	4.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Below-Grade Pipe and Coating Inspection	2	6.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Internal Pipeline Inspection	1	3.00	0.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Installation of Pig Launcher Facilities	6	21.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Valve/Pipeline Excavation and Record	11	12.00	2.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Installation of Mg Anodes	1	4.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Installation of Deep Well Anodes/Thermal	1	11.00	0.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Installation of Flex Anodes	1	5.00	0.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Installation or Replacement of Horizontal	1	7.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Electronic Test Station	0	2.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Cathodic Test Station Installations	2	7.00	1.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Valve Inspections and Lubrication	0	5.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Valve Replacement/Automation	8	20.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Hydrostatic Testing	12	17.00	2.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Pipeline Segment Replacement	19	68.00	2.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
HPR Deactivation	3	8.00	1.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Integrity Management	0	4.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Telecommunication Site Inspections	0	4.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Road Surface Maintenance	3	4.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Right-of-Way and Access Road Repair	3	2.00	0.00	1.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Erosion Control	0	5.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Telecommunications Site Maintenance	0	7.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT
Span Painting/Air to Soil Corrosion Protection	1	8.00	0.00	0.00	100.00	100.00	100.00	LD_Mix	MHDT	HHDT

3.1 Mitigation Measures Construction

Use Soil Stabilizer

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Pipeline Patrols - 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					
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

3.2 Pipeline Patrols - 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	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	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727
Total	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727

Mitigated Construction On-Site

[illegible]

3.2 Pipeline Patrols - 2018

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	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727
Total	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727

3.3 Valve Inspections and Lubrication - 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					
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

3.3 Valve Inspections and Lubrication - 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	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	0.0550	0.2059	1.7762	4.1800e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		319.8193	319.8193	0.0189		320.2158
Total	0.0550	0.2059	1.7762	4.1800e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		319.8193	319.8193	0.0189		320.2158

Mitigated Construction On-Site

[illegible]

3.3 Valve Inspections and Lubrication - 2018

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	0.0550	0.2059	1.7762	4.1800e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		319.8193	319.8193	0.0189		320.2158
Total	0.0550	0.2059	1.7762	4.1800e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		319.8193	319.8193	0.0189		320.2158

3.4 Integrity Management - 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					
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

3.4 Integrity Management - 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	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	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727
Total	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727

Mitigated Construction On-Site

[illegible]

3.4 Integrity Management - 2018

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	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727
Total	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727

3.5 Telecommunication Site Inspections - 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					
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

3.5 Telecommunication Site Inspections - 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	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	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727
Total	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727

Mitigated Construction On-Site

[illegible]

3.5 Telecommunication Site Inspections - 2018

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	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727
Total	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727

3.6 Road Surface Maintenance - 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					22.2705	0.0000	22.2705	2.4047	0.0000	2.4047			0.0000			0.0000
Off-Road	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726		1,251.3623	1,251.3623	0.3896		1,259.5432
Total	1.3644	13.5696	9.3409	0.0124	22.2705	0.8398	23.1103	2.4047	0.7726	3.1773		1,251.3623	1,251.3623	0.3896		1,259.5432

3.6 Road Surface Maintenance - 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	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	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727
Total	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727

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					10.0217	0.0000	10.0217	1.0821	0.0000	1.0821			0.0000			0.0000
Off-Road	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726	0.0000	1,251.3623	1,251.3623	0.3896		1,259.5432
Total	1.3644	13.5696	9.3409	0.0124	10.0217	0.8398	10.8615	1.0821	0.7726	1.8547	0.0000	1,251.3623	1,251.3623	0.3896		1,259.5432

3.6 Road Surface Maintenance - 2018**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	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727
Total	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727

3.7 Right-of-Way and Access Road Repair - 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					
Off-Road	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726		1,251.3623	1,251.3623	0.3896		1,259.5432
Total	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726		1,251.3623	1,251.3623	0.3896		1,259.5432

3.7 Right-of-Way and Access Road Repair - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
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	0.0220	0.0824	0.7105	1.6700e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		127.9277	127.9277	7.5500e-003		128.0863
Total	0.0702	0.7911	1.2290	5.1400e-003	7.5952	0.0249	7.6200	0.7978	0.0229	0.8207		467.9762	467.9762	9.2500e-003		468.1705

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	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726	0.0000	1,251.3623	1,251.3623	0.3896		1,259.5432
Total	1.3644	13.5696	9.3409	0.0124		0.8398	0.8398		0.7726	0.7726	0.0000	1,251.3623	1,251.3623	0.3896		1,259.5432

3.7 Right-of-Way and Access Road Repair - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
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	0.0220	0.0824	0.7105	1.6700e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		127.9277	127.9277	7.5500e-003		128.0863
Total	0.0702	0.7911	1.2290	5.1400e-003	3.5477	0.0249	3.5726	0.3939	0.0229	0.4168		467.9762	467.9762	9.2500e-003		468.1705

3.8 Erosion Control - 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					
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

3.8 Erosion Control - 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	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	0.0550	0.2059	1.7762	4.1800e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		319.8193	319.8193	0.0189		320.2158
Total	0.0550	0.2059	1.7762	4.1800e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		319.8193	319.8193	0.0189		320.2158

Mitigated Construction On-Site

[illegible]

3.8 Erosion Control - 2018**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	0.0550	0.2059	1.7762	4.1800e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		319.8193	319.8193	0.0189		320.2158
Total	0.0550	0.2059	1.7762	4.1800e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		319.8193	319.8193	0.0189		320.2158

3.9 Telecommunications Site Maintenance - 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					
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

3.9 Telecommunications Site Maintenance - 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	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	0.0771	0.2883	2.4867	5.8500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		447.7470	447.7470	0.0264		448.3022
Total	0.0771	0.2883	2.4867	5.8500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		447.7470	447.7470	0.0264		448.3022

Mitigated Construction On-Site

[illegible]

3.9 Telecommunications Site Maintenance - 2018**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	0.0771	0.2883	2.4867	5.8500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		447.7470	447.7470	0.0264		448.3022
Total	0.0771	0.2883	2.4867	5.8500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		447.7470	447.7470	0.0264		448.3022

3.10 Span Painting/Air to Soil Corrosion Protection - 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					
Off-Road	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416		532.7391	532.7391	0.1659		536.2219
Total	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416		532.7391	532.7391	0.1659		536.2219

3.10 Span Painting/Air to Soil Corrosion Protection - 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	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	0.0881	0.3295	2.8420	6.6900e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		511.7109	511.7109	0.0302		512.3453
Total	0.0881	0.3295	2.8420	6.6900e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		511.7109	511.7109	0.0302		512.3453

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	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416	0.0000	532.7391	532.7391	0.1659		536.2219
Total	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416	0.0000	532.7391	532.7391	0.1659		536.2219

3.10 Span Painting/Air to Soil Corrosion Protection - 2018**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	0.0881	0.3295	2.8420	6.6900e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		511.7109	511.7109	0.0302		512.3453
Total	0.0881	0.3295	2.8420	6.6900e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		511.7109	511.7109	0.0302		512.3453

3.11 Below-Grade Pipe and Coating Inspection - 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					
Off-Road	0.6643	5.3041	4.8090	7.0700e-003		0.3870	0.3870		0.3721	0.3721		688.0407	688.0407	0.1330		690.8343
Total	0.6643	5.3041	4.8090	7.0700e-003		0.3870	0.3870		0.3721	0.3721		688.0407	688.0407	0.1330		690.8343

3.11 Below-Grade Pipe and Coating Inspection - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.0660	0.2471	2.1315	5.0200e-003	0.4559	2.7800e-003	0.4587	0.1209	2.5700e-003	0.1234		383.7831	383.7831	0.0227		384.2590
Total	0.1474	1.5229	3.0079	0.0106	15.3461	0.0432	15.3892	1.6384	0.0397	1.6781		925.3285	925.3285	0.0253		925.8587

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	0.6643	5.3041	4.8090	7.0700e-003		0.3870	0.3870		0.3721	0.3721	0.0000	688.0407	688.0407	0.1330		690.8343
Total	0.6643	5.3041	4.8090	7.0700e-003		0.3870	0.3870		0.3721	0.3721	0.0000	688.0407	688.0407	0.1330		690.8343

3.11 Below-Grade Pipe and Coating Inspection - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3714		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.0660	0.2471	2.1315	5.0200e-003	0.4559	2.7800e-003	0.4587	0.1209	2.5700e-003	0.1234		383.7831	383.7831	0.0227		384.2590
Total	0.1474	1.5229	3.0079	0.0106	7.2513	0.0432	7.2944	0.8307	0.0397	0.8704		925.3285	925.3285	0.0253		925.8587

3.12 Internal Pipeline Inspection - 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					
Off-Road	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416		532.7391	532.7391	0.1659		536.2219
Total	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416		532.7391	532.7391	0.1659		536.2219

3.12 Internal Pipeline Inspection - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	51.9737	0.0240	51.9976	5.2556	0.0220	5.2776		340.0485	340.0485	1.7000e-003		340.0842
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	0.0330	0.1236	1.0658	2.5100e-003	1.4178	1.3900e-003	1.4192	0.3525	1.2800e-003	0.3538		191.8916	191.8916	0.0113		192.1295
Total	0.0813	0.8323	1.5843	5.9800e-003	53.3915	0.0253	53.4168	5.6081	0.0233	5.6314		531.9401	531.9401	0.0130		532.2137

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	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416	0.0000	532.7391	532.7391	0.1659		536.2219
Total	0.2965	3.1743	3.3586	5.3000e-003		0.1540	0.1540		0.1416	0.1416	0.0000	532.7391	532.7391	0.1659		536.2219

3.12 Internal Pipeline Inspection - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	23.6417	0.0240	23.6657	2.4287	0.0220	2.4507		340.0485	340.0485	1.7000e-003		340.0842
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	0.0330	0.1236	1.0658	2.5100e-003	1.4178	1.3900e-003	1.4192	0.3525	1.2800e-003	0.3538		191.8916	191.8916	0.0113		192.1295
Total	0.0813	0.8323	1.5843	5.9800e-003	25.0596	0.0253	25.0849	2.7812	0.0233	2.8045		531.9401	531.9401	0.0130		532.2137

3.13 Installation of Pig Launcher Facilities - 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					
Off-Road	1.9042	17.1189	14.2102	0.0223		1.0724	1.0724		1.0188	1.0188		2,192.8359	2,192.8359	0.5203		2,203.7627
Total	1.9042	17.1189	14.2102	0.0223		1.0724	1.0724		1.0188	1.0188		2,192.8359	2,192.8359	0.5203		2,203.7627

3.13 Installation of Pig Launcher Facilities - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.2312	0.8649	7.4602	0.0176	1.5956	9.7200e-003	1.6053	0.4230	8.9800e-003	0.4320		1,343.2410	1,343.2410	0.0793		1,344.9065
Total	0.3125	2.1407	8.3366	0.0231	16.4858	0.0501	16.5359	1.9406	0.0461	1.9867		1,884.7864	1,884.7864	0.0819		1,886.5063

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	1.9042	17.1189	14.2102	0.0223		1.0724	1.0724		1.0188	1.0188	0.0000	2,192.8359	2,192.8359	0.5203		2,203.7627
Total	1.9042	17.1189	14.2102	0.0223		1.0724	1.0724		1.0188	1.0188	0.0000	2,192.8359	2,192.8359	0.5203		2,203.7627

3.13 Installation of Pig Launcher Facilities - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3714		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.2312	0.8649	7.4602	0.0176	1.5956	9.7200e-003	1.6053	0.4230	8.9800e-003	0.4320		1,343.2410	1,343.2410	0.0793		1,344.9065
Total	0.3125	2.1407	8.3366	0.0231	8.3910	0.0501	8.4411	1.1329	0.0461	1.1790		1,884.7864	1,884.7864	0.0819		1,886.5063

3.14 Valve/Pipeline Excavation and Recoating - 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					
Off-Road	2.2138	21.0001	16.4657	0.0273		1.1845	1.1845		1.1219	1.1219		2,696.8145	2,696.8145	0.6772		2,711.0361
Total	2.2138	21.0001	16.4657	0.0273		1.1845	1.1845		1.1219	1.1219		2,696.8145	2,696.8145	0.6772		2,711.0361

3.14 Valve/Pipeline Excavation and Recoating - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0662	1.1341	0.7157	4.1600e-003	14.8940	0.0329	14.9269	1.5202	0.0302	1.5504		402.9937	402.9937	1.7800e-003		403.0311
Worker	0.1321	0.4942	4.2630	0.0100	0.9118	5.5500e-003	0.9173	0.2417	5.1300e-003	0.2469		767.5663	767.5663	0.0453		768.5180
Total	0.2465	2.3370	5.4972	0.0177	23.2490	0.0624	23.3114	2.5194	0.0574	2.5768		1,510.6085	1,510.6085	0.0488		1,511.6333

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	2.2138	21.0001	16.4657	0.0273		1.1845	1.1845		1.1219	1.1219	0.0000	2,696.8145	2,696.8145	0.6772		2,711.0361
Total	2.2138	21.0001	16.4657	0.0273		1.1845	1.1845		1.1219	1.1219	0.0000	2,696.8145	2,696.8145	0.6772		2,711.0361

3.14 Valve/Pipeline Excavation and Recoating - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0662	1.1341	0.7157	4.1600e-003	6.7992	0.0329	6.8320	0.7125	0.0302	0.7427		402.9937	402.9937	1.7800e-003		403.0311
Worker	0.1321	0.4942	4.2630	0.0100	0.9118	5.5500e-003	0.9173	0.2417	5.1300e-003	0.2469		767.5663	767.5663	0.0453		768.5180
Total	0.2465	2.3370	5.4972	0.0177	11.1067	0.0624	11.1691	1.3078	0.0574	1.3652		1,510.6085	1,510.6085	0.0488		1,511.6333

3.15 Installation of Mg Anodes - 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					
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		314.8208
Total	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		314.8208

3.15 Installation of Mg Anodes - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727
Total	0.1254	1.4405	2.2974	8.9000e-003	15.1941	0.0422	15.2364	1.5981	0.0389	1.6370		797.4008	797.4008	0.0177		797.7724

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	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		314.8208
Total	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		314.8208

3.15 Installation of Mg Anodes - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3714		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.0440	0.1647	1.4210	3.3500e-003	0.3039	1.8500e-003	0.3058	0.0806	1.7100e-003	0.0823		255.8554	255.8554	0.0151		256.1727
Total	0.1254	1.4405	2.2974	8.9000e-003	7.0993	0.0422	7.1415	0.7904	0.0389	0.8293		797.4008	797.4008	0.0177		797.7724

3.16 Installation of Deep Well Anodes/Thermoelectric Generators - 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					
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		0.1100	0.1100		0.1012	0.1012		875.9839	875.9839	0.2727		881.7108

3.16 Installation of Deep Well Anodes/Thermoelectric Generators - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
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	0.1211	0.4531	3.9077	9.2000e-003	0.8358	5.0900e-003	0.8409	0.2216	4.7000e-003	0.2263		703.6024	703.6024	0.0415		704.4748
Total	0.1693	1.1618	4.4262	0.0127	8.2790	0.0290	8.3080	0.9790	0.0267	1.0058		1,043.6509	1,043.6509	0.0432		1,044.5590

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	0.2794	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		0.1100	0.1100		0.1012	0.1012	0.0000	875.9839	875.9839	0.2727		881.7108

3.16 Installation of Deep Well Anodes/Thermoelectric Generators - 2018

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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
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	0.1211	0.4531	3.9077	9.2000e-003	0.8358	5.0900e-003	0.8409	0.2216	4.7000e-003	0.2263		703.6024	703.6024	0.0415		704.4748
Total	0.1693	1.1618	4.4262	0.0127	4.2316	0.0290	4.2606	0.5752	0.0267	0.6019		1,043.6509	1,043.6509	0.0432		1,044.5590

3.17 Installation of Flex Anodes - 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					
Off-Road	0.4643	4.1731	2.7195	3.4600e-003		0.3174	0.3174		0.2920	0.2920		348.3057	348.3057	0.1084		350.5828
Total	0.4643	4.1731	2.7195	3.4600e-003		0.3174	0.3174		0.2920	0.2920		348.3057	348.3057	0.1084		350.5828

3.17 Installation of Flex Anodes - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
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	0.0550	0.2059	1.7762	4.1800e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		319.8193	319.8193	0.0189		320.2158
Total	0.1033	0.9146	2.2947	7.6500e-003	7.8231	0.0263	7.8494	0.8582	0.0242	0.8824		659.8678	659.8678	0.0206		660.3000

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	0.4643	4.1731	2.7195	3.4600e-003		0.3174	0.3174		0.2920	0.2920	0.0000	348.3057	348.3057	0.1084		350.5828
Total	0.4643	4.1731	2.7195	3.4600e-003		0.3174	0.3174		0.2920	0.2920	0.0000	348.3057	348.3057	0.1084		350.5828

3.17 Installation of Flex Anodes - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
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	0.0550	0.2059	1.7762	4.1800e-003	0.3799	2.3100e-003	0.3822	0.1007	2.1400e-003	0.1029		319.8193	319.8193	0.0189		320.2158
Total	0.1033	0.9146	2.2947	7.6500e-003	3.7757	0.0263	3.8019	0.4543	0.0242	0.4785		659.8678	659.8678	0.0206		660.3000

3.18 Installation or Replacement of Horizontal Anode Beds - 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					
Off-Road	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		314.8208
Total	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714		312.7760	312.7760	0.0974		314.8208

3.18 Installation or Replacement of Horizontal Anode Beds - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.0771	0.2883	2.4867	5.8500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		447.7470	447.7470	0.0264		448.3022
Total	0.1584	1.5641	3.3631	0.0114	15.4221	0.0436	15.4657	1.6586	0.0401	1.6987		989.2924	989.2924	0.0290		989.9019

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	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		314.8208
Total	0.2661	2.6297	2.3367	3.1100e-003		0.1863	0.1863		0.1714	0.1714	0.0000	312.7760	312.7760	0.0974		314.8208

3.18 Installation or Replacement of Horizontal Anode Beds - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3714		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.0771	0.2883	2.4867	5.8500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		447.7470	447.7470	0.0264		448.3022
Total	0.1584	1.5641	3.3631	0.0114	7.3272	0.0436	7.3709	0.8509	0.0401	0.8910		989.2924	989.2924	0.0290		989.9019

3.19 Electronic Test System Station - 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					
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

3.19 Electronic Test System Station - 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	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	0.0220	0.0824	0.7105	1.6700e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		127.9277	127.9277	7.5500e-003		128.0863
Total	0.0220	0.0824	0.7105	1.6700e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		127.9277	127.9277	7.5500e-003		128.0863

Mitigated Construction On-Site

[illegible]

3.19 Electronic Test System Station - 2018**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	0.0220	0.0824	0.7105	1.6700e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		127.9277	127.9277	7.5500e-003		128.0863
Total	0.0220	0.0824	0.7105	1.6700e-003	0.1520	9.3000e-004	0.1529	0.0403	8.6000e-004	0.0411		127.9277	127.9277	7.5500e-003		128.0863

3.20 Cathodic Test Station Insallations - 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					
Off-Road	0.2672	2.3617	1.8169	2.2900e-003		0.1885	0.1885		0.1734	0.1734		230.6814	230.6814	0.0718		232.1895
Total	0.2672	2.3617	1.8169	2.2900e-003		0.1885	0.1885		0.1734	0.1734		230.6814	230.6814	0.0718		232.1895

3.20 Cathodic Test Station Insallations - 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	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	0.5670	0.3579	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.0771	0.2883	2.4867	5.8500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		447.7470	447.7470	0.0264		448.3022
Total	0.1102	0.8553	2.8446	7.9300e-003	7.9789	0.0197	7.9986	0.9011	0.0181	0.9192		649.2439	649.2439	0.0273		649.8177

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	0.2672	2.3617	1.8169	2.2900e-003		0.1885	0.1885		0.1734	0.1734	0.0000	230.6814	230.6814	0.0718		232.1895
Total	0.2672	2.3617	1.8169	2.2900e-003		0.1885	0.1885		0.1734	0.1734	0.0000	230.6814	230.6814	0.0718		232.1895

3.20 Cathodic Test Station Insallations - 2018**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	0.5670	0.3579	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3714		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.0771	0.2883	2.4867	5.8500e-003	0.5319	3.2400e-003	0.5351	0.1410	2.9900e-003	0.1440		447.7470	447.7470	0.0264		448.3022
Total	0.1102	0.8553	2.8446	7.9300e-003	3.9315	0.0197	3.9511	0.4972	0.0181	0.5153		649.2439	649.2439	0.0273		649.8177

3.21 Valve Replacement/Automation - 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					
Off-Road	2.8781	26.3041	21.2747	0.0343		1.5715	1.5715		1.4940	1.4940		3,384.8552	3,384.8552	0.8103		3,401.8704
Total	2.8781	26.3041	21.2747	0.0343		1.5715	1.5715		1.4940	1.4940		3,384.8552	3,384.8552	0.8103		3,401.8704

3.21 Valve Replacement/Automation - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.2202	0.8237	7.1050	0.0167	1.5196	9.2600e-003	1.5289	0.4029	8.5500e-003	0.4114		1,279.2772	1,279.2772	0.0755		1,280.8633
Total	0.3015	2.0995	7.9813	0.0223	16.4098	0.0496	16.4595	1.9204	0.0457	1.9661		1,820.8225	1,820.8225	0.0781		1,822.4631

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	2.8781	26.3041	21.2747	0.0343		1.5715	1.5715		1.4940	1.4940	0.0000	3,384.8552	3,384.8552	0.8103		3,401.8704
Total	2.8781	26.3041	21.2747	0.0343		1.5715	1.5715		1.4940	1.4940	0.0000	3,384.8552	3,384.8552	0.8103		3,401.8704

3.21 Valve Replacement/Automation - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3714		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.2202	0.8237	7.1050	0.0167	1.5196	9.2600e-003	1.5289	0.4029	8.5500e-003	0.4114		1,279.2772	1,279.2772	0.0755		1,280.8633
Total	0.3015	2.0995	7.9813	0.0223	8.3150	0.0496	8.3646	1.1127	0.0457	1.1584		1,820.8225	1,820.8225	0.0781		1,822.4631

3.22 Hydrostatic Testing - 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					
Off-Road	6.2823	59.3704	44.6211	0.0664		3.4968	3.4968		3.3230	3.3230		6,491.8708	6,491.8708	1.2782		6,518.7119
Total	6.2823	59.3704	44.6211	0.0664		3.4968	3.4968		3.3230	3.3230		6,491.8708	6,491.8708	1.2782		6,518.7119

3.22 Hydrostatic Testing - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0662	1.1341	0.7157	4.1600e-003	14.8940	0.0329	14.9269	1.5202	0.0302	1.5504		402.9937	402.9937	1.7800e-003		403.0311
Worker	0.1871	0.7002	6.0392	0.0142	1.2917	7.8700e-003	1.2996	0.3424	7.2700e-003	0.3497		1,087.3856	1,087.3856	0.0642		1,088.7338
Total	0.3016	2.5430	7.2735	0.0219	23.6289	0.0647	23.6936	2.6201	0.0595	2.6796		1,830.4278	1,830.4278	0.0677		1,831.8491

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	6.2823	59.3704	44.6211	0.0664		3.4968	3.4968		3.3230	3.3230	0.0000	6,491.8708	6,491.8708	1.2782		6,518.7119
Total	6.2823	59.3704	44.6211	0.0664		3.4968	3.4968		3.3230	3.3230	0.0000	6,491.8708	6,491.8708	1.2782		6,518.7119

3.22 Hydrostatic Testing - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0662	1.1341	0.7157	4.1600e-003	6.7992	0.0329	6.8320	0.7125	0.0302	0.7427		402.9937	402.9937	1.7800e-003		403.0311
Worker	0.1871	0.7002	6.0392	0.0142	1.2917	7.8700e-003	1.2996	0.3424	7.2700e-003	0.3497		1,087.3856	1,087.3856	0.0642		1,088.7338
Total	0.3016	2.5430	7.2735	0.0219	11.4866	0.0647	11.5513	1.4085	0.0595	1.4681		1,830.4278	1,830.4278	0.0677		1,831.8491

3.23 Pipeline Segment Replacement - 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					
Off-Road	3.8479	36.9142	25.8178	0.0495		1.9848	1.9848		1.8902	1.8902		4,891.3587	4,891.3587	1.1981		4,916.5184
Total	3.8479	36.9142	25.8178	0.0495		1.9848	1.9848		1.8902	1.8902		4,891.3587	4,891.3587	1.1981		4,916.5184

3.23 Pipeline Segment Replacement - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0662	1.1341	0.7157	4.1600e-003	14.8940	0.0329	14.9269	1.5202	0.0302	1.5504		402.9937	402.9937	1.7800e-003		403.0311
Worker	0.7485	2.8007	24.1569	0.0569	5.1667	0.0315	5.1982	1.3697	0.0291	1.3988		4,349.5423	4,349.5423	0.2568		4,354.9354
Total	0.8629	4.6435	25.3911	0.0645	27.5039	0.0883	27.5922	3.6474	0.0813	3.7287		5,092.5845	5,092.5845	0.2603		5,098.0507

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	3.8479	36.9142	25.8178	0.0495		1.9848	1.9848		1.8902	1.8902	0.0000	4,891.3587	4,891.3587	1.1981		4,916.5184
Total	3.8479	36.9142	25.8178	0.0495		1.9848	1.9848		1.8902	1.8902	0.0000	4,891.3587	4,891.3587	1.1981		4,916.5184

3.23 Pipeline Segment Replacement - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0662	1.1341	0.7157	4.1600e-003	6.7992	0.0329	6.8320	0.7125	0.0302	0.7427		402.9937	402.9937	1.7800e-003		403.0311
Worker	0.7485	2.8007	24.1569	0.0569	5.1667	0.0315	5.1982	1.3697	0.0291	1.3988		4,349.5423	4,349.5423	0.2568		4,354.9354
Total	0.8629	4.6435	25.3911	0.0645	15.3617	0.0883	15.4500	2.4358	0.0813	2.5172		5,092.5845	5,092.5845	0.2603		5,098.0507

3.24 HPR Deactivation - 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					
Off-Road	1.0625	7.9784	7.2813	0.0110		0.5878	0.5878		0.5729	0.5729		1,063.3054	1,063.3054	0.1687		1,066.8478
Total	1.0625	7.9784	7.2813	0.0110		0.5878	0.5878		0.5729	0.5729		1,063.3054	1,063.3054	0.1687		1,066.8478

3.24 HPR Deactivation - 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	lb/day										lb/day					
Hauling	0.0482	0.7087	0.5185	3.4700e-003	7.4432	0.0240	7.4671	0.7575	0.0220	0.7795		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	7.4470	0.0164	7.4634	0.7601	0.0151	0.7752		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.0881	0.3295	2.8420	6.6900e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		511.7109	511.7109	0.0302		512.3453
Total	0.1694	1.6052	3.7184	0.0122	15.4981	0.0441	15.5421	1.6787	0.0406	1.7193		1,053.2562	1,053.2562	0.0328		1,053.9451

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	1.0625	7.9784	7.2813	0.0110		0.5878	0.5878		0.5729	0.5729	0.0000	1,063.3054	1,063.3054	0.1687		1,066.8478
Total	1.0625	7.9784	7.2813	0.0110		0.5878	0.5878		0.5729	0.5729	0.0000	1,063.3054	1,063.3054	0.1687		1,066.8478

3.24 HPR Deactivation - 2018**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	0.0482	0.7087	0.5185	3.4700e-003	3.3958	0.0240	3.4197	0.3536	0.0220	0.3757		340.0485	340.0485	1.7000e-003		340.0842
Vendor	0.0331	0.5670	0.3579	2.0800e-003	3.3996	0.0164	3.4160	0.3562	0.0151	0.3714		201.4969	201.4969	8.9000e-004		201.5156
Worker	0.0881	0.3295	2.8420	6.6900e-003	0.6079	3.7000e-003	0.6116	0.1611	3.4200e-003	0.1646		511.7109	511.7109	0.0302		512.3453
Total	0.1694	1.6052	3.7184	0.0122	7.4032	0.0441	7.4473	0.8710	0.0406	0.9116		1,053.2562	1,053.2562	0.0328		1,053.9451

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile****4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

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

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.431834	0.067464	0.179235	0.158194	0.055243	0.008787	0.007056	0.074987	0.001136	0.001015	0.009786	0.000662	0.004601

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

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	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

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					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	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

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
Consumer Products	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

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

PG&E's California Desert Gas Pipeline Operation and Maintenance Program

Mojave Desert Air Basin, Mitigation Report

Construction Mitigation Summary

[illegible]

Span Painting/Air to Soil Corrosion Protection	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telecommunication Site Inspections	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telecommunications Site Maintenance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Valve Inspections and Lubrication	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Valve Replacement/Automation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Valve/Pipeline Excavation and Recoating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	19	No Change	0.00
Bore/Drill Rigs	Diesel	No Change	0	2	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	0	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	0	No Change	0.00
Cranes	Diesel	No Change	0	9	No Change	0.00
Excavators	Diesel	No Change	0	13	No Change	0.00
Forklifts	Diesel	No Change	0	2	No Change	0.00
Generator Sets	Diesel	No Change	0	4	No Change	0.00
Graders	Diesel	No Change	0	3	No Change	0.00
Pavers	Diesel	No Change	0	0	No Change	0.00
Pumps	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	0	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	19	No Change	0.00
Trenchers	Diesel	No Change	0	2	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	2.79000E-003	1.87200E-002	1.73100E-002	3.00000E-005	1.41000E-003	1.41000E-003	0.00000E+000	2.38304E+000	2.38304E+000	2.30000E-004	0.00000E+000	2.38780E+000
Bore/Drill Rigs	2.80000E-004	3.89000E-003	1.94000E-003	1.00000E-005	1.10000E-004	1.00000E-004	0.00000E+000	7.94680E-001	7.94680E-001	2.50000E-004	0.00000E+000	7.99870E-001
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	1.54000E-003	1.83500E-002	6.78000E-003	2.00000E-005	7.90000E-004	7.30000E-004	0.00000E+000	1.41710E+000	1.41710E+000	4.40000E-004	0.00000E+000	1.42636E+000
Excavators	1.33000E-003	1.42800E-002	1.51100E-002	2.00000E-005	6.90000E-004	6.40000E-004	0.00000E+000	2.17482E+000	2.17482E+000	6.80000E-004	0.00000E+000	2.18904E+000
Forklifts	1.30000E-004	1.18000E-003	9.10000E-004	0.00000E+000	9.00000E-005	9.00000E-005	0.00000E+000	1.04640E-001	1.04640E-001	3.00000E-005	0.00000E+000	1.05320E-001
Generator Sets	1.01000E-003	8.23000E-003	7.49000E-003	1.00000E-005	5.20000E-004	5.20000E-004	0.00000E+000	1.13041E+000	1.13041E+000	8.00000E-005	0.00000E+000	1.13213E+000
Graders	1.25000E-003	1.24700E-002	7.00000E-003	1.00000E-005	7.00000E-004	6.40000E-004	0.00000E+000	8.51590E-001	8.51590E-001	2.70000E-004	0.00000E+000	8.57160E-001
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Pumps	2.70000E-004	2.09000E-003	1.90000E-003	0.00000E+000	1.40000E-004	1.40000E-004	0.00000E+000	2.82600E-001	2.82600E-001	2.00000E-005	0.00000E+000	2.83050E-001
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	5.40000E-004	5.85000E-003	4.48000E-003	0.00000E+000	2.70000E-004	2.50000E-004	0.00000E+000	4.06520E-001	4.06520E-001	1.30000E-004	0.00000E+000	4.09180E-001
Tractors/Loaders/Backhoes	2.26000E-003	2.23500E-002	1.98600E-002	3.00000E-005	1.58000E-003	1.46000E-003	0.00000E+000	2.41184E+000	2.41184E+000	7.50000E-004	0.00000E+000	2.42760E+000
Trenchers	4.60000E-004	4.17000E-003	2.72000E-003	0.00000E+000	3.20000E-004	2.90000E-004	0.00000E+000	3.15980E-001	3.15980E-001	1.00000E-004	0.00000E+000	3.18040E-001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	2.79000E-003	1.87200E-002	1.73100E-002	3.00000E-005	1.41000E-003	1.41000E-003	0.00000E+000	2.38304E+000	2.38304E+000	2.30000E-004	0.00000E+000	2.38779E+000
Bore/Drill Rigs	2.80000E-004	3.89000E-003	1.94000E-003	1.00000E-005	1.10000E-004	1.00000E-004	0.00000E+000	7.94680E-001	7.94680E-001	2.50000E-004	0.00000E+000	7.99870E-001
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	1.54000E-003	1.83500E-002	6.78000E-003	2.00000E-005	7.90000E-004	7.30000E-004	0.00000E+000	1.41710E+000	1.41710E+000	4.40000E-004	0.00000E+000	1.42636E+000
Excavators	1.33000E-003	1.42800E-002	1.51100E-002	2.00000E-005	6.90000E-004	6.40000E-004	0.00000E+000	2.17481E+000	2.17481E+000	6.80000E-004	0.00000E+000	2.18903E+000
Forklifts	1.30000E-004	1.18000E-003	9.10000E-004	0.00000E+000	9.00000E-005	9.00000E-005	0.00000E+000	1.04640E-001	1.04640E-001	3.00000E-005	0.00000E+000	1.05320E-001
Generator Sets	1.01000E-003	8.23000E-003	7.49000E-003	1.00000E-005	5.20000E-004	5.20000E-004	0.00000E+000	1.13041E+000	1.13041E+000	8.00000E-005	0.00000E+000	1.13213E+000
Graders	1.25000E-003	1.24700E-002	7.00000E-003	1.00000E-005	7.00000E-004	6.40000E-004	0.00000E+000	8.51590E-001	8.51590E-001	2.70000E-004	0.00000E+000	8.57150E-001
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Pumps	2.70000E-004	2.09000E-003	1.90000E-003	0.00000E+000	1.40000E-004	1.40000E-004	0.00000E+000	2.82600E-001	2.82600E-001	2.00000E-005	0.00000E+000	2.83050E-001
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	5.40000E-004	5.85000E-003	4.48000E-003	0.00000E+000	2.70000E-004	2.50000E-004	0.00000E+000	4.06520E-001	4.06520E-001	1.30000E-004	0.00000E+000	4.09180E-001
Tractors/Loaders/Balckhoes	2.26000E-003	2.23500E-002	1.98600E-002	3.00000E-005	1.58000E-003	1.46000E-003	0.00000E+000	2.41183E+000	2.41183E+000	7.50000E-004	0.00000E+000	2.42760E+000
Trenchers	4.60000E-004	4.17000E-003	2.72000E-003	0.00000E+000	3.20000E-004	2.90000E-004	0.00000E+000	3.15980E-001	3.15980E-001	1.00000E-004	0.00000E+000	3.18040E-001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	4.18796E-006
Bore/Drill Rigs	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	4.59808E-006	4.59808E-006	0.00000E+000	0.00000E+000	4.56821E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.16664E-005
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Pumps	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	4.14621E-006	4.14621E-006	0.00000E+000	0.00000E+000	0.00000E+000
Trenchers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000

Fugitive Dust Mitigation

Yes/No Mitigation Measure Mitigation Input Mitigation Input Mitigation Input

Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	55.00	PM2.5 Reduction	55.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		

Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
Yes	Unpaved Road Mitigation	Moisture Content %	0.50	Vehicle Speed (mph)	40.00		
Yes	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Below-Grade Pipe and Coating Inspection	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Below-Grade Pipe and Coating Inspection	Roads	0.01	0.00	0.00	0.00	0.53	0.50
Cathodic Test Station Insallations	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Cathodic Test Station Insallations	Roads	0.00	0.00	0.00	0.00	0.50	0.45
Electronic Test System Station	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Electronic Test System Station	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Erosion Control	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Erosion Control	Roads	0.00	0.00	0.00	0.00	0.00	0.00
HPR Deactivation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
HPR Deactivation	Roads	0.01	0.00	0.00	0.00	0.52	0.49
Hydrostatic Testing	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Hydrostatic Testing	Roads	0.01	0.00	0.01	0.00	0.51	0.46
Installation of Deep Well Anodes/Thermoelectric Generators	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Installation of Deep Well Anodes/Thermoelectric Generators	Roads	0.00	0.00	0.00	0.00	0.48	0.41
Installation of Flex Anodes	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Installation of Flex Anodes	Roads	0.00	0.00	0.00	0.00	0.51	0.48
Installation of Mg Anodes	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00

Installation of Mg Anodes	Roads	0.01	0.00	0.00	0.00	0.53	0.51
Installation of Pig Launcher Facilities	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Installation of Pig Launcher Facilities	Roads	0.01	0.00	0.00	0.00	0.49	0.42
Installation or Replacement of Horizontal Anode Beds	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Installation or Replacement of Horizontal Anode Beds	Roads	0.01	0.00	0.00	0.00	0.52	0.49
Integrity Management	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Integrity Management	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Internal Pipeline Inspection	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Internal Pipeline Inspection	Roads	0.02	0.00	0.01	0.00	0.53	0.50
Pipeline Patrols	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Pipeline Patrols	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Pipeline Segment Replacement	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Pipeline Segment Replacement	Roads	0.01	0.00	0.01	0.00	0.43	0.33
Right-of-Way and Access Road Repair	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Right-of-Way and Access Road Repair	Roads	0.00	0.00	0.00	0.00	0.53	0.51
Road Surface Maintenance	Fugitive Dust	0.01	0.00	0.01	0.00	0.55	0.55
Road Surface Maintenance	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Span Painting/Air to Soil Corrosion Protection	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Span Painting/Air to Soil Corrosion Protection	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Telecommunication Site Inspections	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Telecommunication Site Inspections	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Telecommunications Site Maintenance	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Telecommunications Site Maintenance	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Valve Inspections and Lubrication	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00

Valve Inspections and Lubrication	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Valve Replacement/Automation	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Valve Replacement/Automation	Roads	0.01	0.00	0.00	0.00	0.49	0.42
Valve/Pipeline Excavation and Recoating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Valve/Pipeline Excavation and Recoating	Roads	0.01	0.00	0.01	0.00	0.52	0.48

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Urban

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			

No	Land Use	Increase Diversity	0.00	0.15		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	7.70			
No	Commute	Workplace Parking Charge				

No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	15.00			
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
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No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Attachment A

On-Road CalEEMod Simulation – February 8, 2021

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

PG&E Mojave ITP
Mojave Desert Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2021
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 -

Construction Phase - Assume one day per vehicle type

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Vehicle trip set to 100 miles per phase

On-road Fugitive Dust - Assume worker trip are 100% paved, rest are 95% paved

Construction Off-road Equipment Mitigation -

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	0.00	1.00
tblConstructionPhase	NumDays	0.00	1.00
tblConstructionPhase	NumDays	0.00	1.00
tblConstructionPhase	PhaseEndDate	2/7/2021	2/8/2021
tblConstructionPhase	PhaseEndDate	2/7/2021	2/10/2021
tblConstructionPhase	PhaseEndDate	2/7/2021	2/9/2021
tblConstructionPhase	PhaseStartDate	2/8/2021	2/10/2021
tblConstructionPhase	PhaseStartDate	2/8/2021	2/9/2021
tblOnRoadDust	HaulingPercentPave	100.00	95.00
tblOnRoadDust	HaulingPercentPave	100.00	95.00
tblOnRoadDust	HaulingPercentPave	100.00	95.00
tblOnRoadDust	VendorPercentPave	100.00	95.00
tblOnRoadDust	VendorPercentPave	100.00	95.00
tblOnRoadDust	VendorPercentPave	100.00	95.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	100.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	100.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripLength	10.80	100.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00

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tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	1.00

2.0 Emissions Summary

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

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					
2021	0.8028	8.5674	7.5370	0.0146	7.4477	0.4501	7.8971	0.7601	0.4142	1.1736	0.0000	1,439.277 6	1,439.277 6	0.3627	0.0000	1,448.345 4
Maximum	0.8028	8.5674	7.5370	0.0146	7.4477	0.4501	7.8971	0.7601	0.4142	1.1736	0.0000	1,439.277 6	1,439.277 6	0.3627	0.0000	1,448.345 4

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					
2021	0.8028	8.5674	7.5370	0.0146	2.1166	0.4501	2.5660	0.2278	0.4142	0.6414	0.0000	1,439.277 6	1,439.277 6	0.3627	0.0000	1,448.345 4
Maximum	0.8028	8.5674	7.5370	0.0146	2.1166	0.4501	2.5660	0.2278	0.4142	0.6414	0.0000	1,439.277 6	1,439.277 6	0.3627	0.0000	1,448.345 4

	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	71.58	0.00	67.51	70.02	0.00	45.35	0.00	0.00	0.00	0.00	0.00	0.00

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
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	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
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	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

	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	Worker Commute	Building Construction	2/8/2021	2/8/2021	5	1	Worker Commute
2	Vendor Trip	Building Construction	2/9/2021	2/9/2021	5	1	Vendor Trip
3	Haul Trip	Building Construction	2/10/2021	2/10/2021	5	1	Haul Trip

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; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

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Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Worker Commute	Cranes	1	4.00	231	0.29
Vendor Trip	Cranes	1	4.00	231	0.29
Haul Trip	Cranes	1	4.00	231	0.29
Worker Commute	Forklifts	2	6.00	89	0.20
Vendor Trip	Forklifts	2	6.00	89	0.20
Haul Trip	Forklifts	2	6.00	89	0.20
Worker Commute	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Haul Trip	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Vendor Trip	Tractors/Loaders/Backhoes	2	8.00	97	0.37

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
Worker Commute	5	1.00	0.00	0.00	100.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Vendor Trip	5	0.00	1.00	0.00	0.00	100.00	0.00	LD_Mix	HDT_Mix	HHDT
Haul Trip	5	0.00	0.00	1.00	0.00	0.00	100.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Reduce Vehicle Speed on Unpaved Roads

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3.2 Worker Commute - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0278	0.0224	0.2733	7.4000e-004	0.0760	4.3000e-004	0.0764	0.0201	4.0000e-004	0.0205		73.9148	73.9148	2.2300e-003		73.9705
Total	0.0278	0.0224	0.2733	7.4000e-004	0.0760	4.3000e-004	0.0764	0.0201	4.0000e-004	0.0205		73.9148	73.9148	2.2300e-003		73.9705

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

3.2 Worker Commute - 2021**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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0278	0.0224	0.2733	7.4000e-004	0.0760	4.3000e-004	0.0764	0.0201	4.0000e-004	0.0205		73.9148	73.9148	2.2300e-003		73.9705
Total	0.0278	0.0224	0.2733	7.4000e-004	0.0760	4.3000e-004	0.0764	0.0201	4.0000e-004	0.0205		73.9148	73.9148	2.2300e-003		73.9705

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

3.3 Vendor Trip - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0167	0.4070	0.1068	2.7500e-003	7.4477	1.9100e-003	7.4496	0.7601	1.8300e-003	0.7619		287.6119	287.6119	3.8100e-003		287.7072
Worker	0.0000	0.0000	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	0.0167	0.4070	0.1068	2.7500e-003	7.4477	1.9100e-003	7.4496	0.7601	1.8300e-003	0.7619		287.6119	287.6119	3.8100e-003		287.7072

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

3.3 Vendor Trip - 2021**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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0167	0.4070	0.1068	2.7500e-003	2.1166	1.9100e-003	2.1185	0.2278	1.8300e-003	0.2297		287.6119	287.6119	3.8100e-003		287.7072
Worker	0.0000	0.0000	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	0.0167	0.4070	0.1068	2.7500e-003	2.1166	1.9100e-003	2.1185	0.2278	1.8300e-003	0.2297		287.6119	287.6119	3.8100e-003		287.7072

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

3.4 Haul Trip - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0164	0.5825	0.0928	3.2100e-003	7.4427	2.5500e-003	7.4453	0.7575	2.4400e-003	0.7599		336.0619	336.0619	5.9100e-003		336.2096
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	0.0000	0.0000	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	0.0164	0.5825	0.0928	3.2100e-003	7.4427	2.5500e-003	7.4453	0.7575	2.4400e-003	0.7599		336.0619	336.0619	5.9100e-003		336.2096

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

3.4 Haul Trip - 2021**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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0164	0.5825	0.0928	3.2100e-003	2.1116	2.5500e-003	2.1142	0.2253	2.4400e-003	0.2277		336.0619	336.0619	5.9100e-003		336.2096
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	0.0000	0.0000	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	0.0164	0.5825	0.0928	3.2100e-003	2.1116	2.5500e-003	2.1142	0.2253	2.4400e-003	0.2277		336.0619	336.0619	5.9100e-003		336.2096

4.0 Operational Detail - Mobile

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.538376	0.035701	0.171234	0.109086	0.018811	0.005511	0.010251	0.096845	0.001613	0.002045	0.008490	0.000880	0.001158

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

5.0 Energy Detail

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

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

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					
User Defined Industrial	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

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					
User Defined Industrial	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**

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

	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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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 Stationary Equipment**Fire Pumps and Emergency Generators**

PG&E Mojave ITP - Mojave Desert Air Basin, Summer

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

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

Equipment Type	Number
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11.0 Vegetation

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

PG&E Mojave ITP
Mojave Desert Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	31
Climate Zone	10			Operational Year	2021
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 -

Construction Phase - Assume one day per vehicle type

Off-road Equipment -

Off-road Equipment -

Off-road Equipment -

Trips and VMT - Vehicle trip set to 100 miles per phase

On-road Fugitive Dust - Assume worker trip are 100% paved, rest are 95% paved

Construction Off-road Equipment Mitigation -

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

Table Name	Column Name	Default Value	New Value
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	0.5
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	0.00	1.00
tblConstructionPhase	NumDays	0.00	1.00
tblConstructionPhase	NumDays	0.00	1.00
tblConstructionPhase	PhaseEndDate	2/7/2021	2/8/2021
tblConstructionPhase	PhaseEndDate	2/7/2021	2/10/2021
tblConstructionPhase	PhaseEndDate	2/7/2021	2/9/2021
tblConstructionPhase	PhaseStartDate	2/8/2021	2/10/2021
tblConstructionPhase	PhaseStartDate	2/8/2021	2/9/2021
tblOnRoadDust	HaulingPercentPave	100.00	95.00
tblOnRoadDust	HaulingPercentPave	100.00	95.00
tblOnRoadDust	HaulingPercentPave	100.00	95.00
tblOnRoadDust	VendorPercentPave	100.00	95.00
tblOnRoadDust	VendorPercentPave	100.00	95.00
tblOnRoadDust	VendorPercentPave	100.00	95.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	0.00
tblTripsAndVMT	HaulingTripLength	20.00	100.00
tblTripsAndVMT	HaulingTripNumber	0.00	1.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripLength	7.30	100.00
tblTripsAndVMT	VendorTripLength	7.30	0.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripLength	10.80	100.00
tblTripsAndVMT	WorkerTripLength	10.80	0.00

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

tblTripsAndVMT	WorkerTripLength	10.80	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	1.00

2.0 Emissions Summary

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

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					
2021	0.8044	8.5835	7.4689	0.0146	7.4477	0.4501	7.8971	0.7601	0.4142	1.1736	0.0000	1,436.309 0	1,436.309 0	0.3634	0.0000	1,445.393 3
Maximum	0.8044	8.5835	7.4689	0.0146	7.4477	0.4501	7.8971	0.7601	0.4142	1.1736	0.0000	1,436.309 0	1,436.309 0	0.3634	0.0000	1,445.393 3

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					
2021	0.8044	8.5835	7.4689	0.0146	2.1166	0.4501	2.5660	0.2278	0.4142	0.6414	0.0000	1,436.308 9	1,436.308 9	0.3634	0.0000	1,445.393 3
Maximum	0.8044	8.5835	7.4689	0.0146	2.1166	0.4501	2.5660	0.2278	0.4142	0.6414	0.0000	1,436.308 9	1,436.308 9	0.3634	0.0000	1,445.393 3

	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	71.58	0.00	67.51	70.02	0.00	45.35	0.00	0.00	0.00	0.00	0.00	0.00

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
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	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
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	1.0000e-005	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000	0.0000	2.3000e-004

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

	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	Worker Commute	Building Construction	2/8/2021	2/8/2021	5	1	Worker Commute
2	Vendor Trip	Building Construction	2/9/2021	2/9/2021	5	1	Vendor Trip
3	Haul Trip	Building Construction	2/10/2021	2/10/2021	5	1	Haul Trip

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; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Worker Commute	Cranes	1	4.00	231	0.29
Vendor Trip	Cranes	1	4.00	231	0.29
Haul Trip	Cranes	1	4.00	231	0.29
Worker Commute	Forklifts	2	6.00	89	0.20
Vendor Trip	Forklifts	2	6.00	89	0.20
Haul Trip	Forklifts	2	6.00	89	0.20
Worker Commute	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Haul Trip	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Vendor Trip	Tractors/Loaders/Backhoes	2	8.00	97	0.37

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
Worker Commute	5	1.00	0.00	0.00	100.00	0.00	0.00	LD_Mix	HDT_Mix	HHDT
Vendor Trip	5	0.00	1.00	0.00	0.00	100.00	0.00	LD_Mix	HDT_Mix	HHDT
Haul Trip	5	0.00	0.00	1.00	0.00	0.00	100.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Reduce Vehicle Speed on Unpaved Roads

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

3.2 Worker Commute - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0294	0.0230	0.2052	6.5000e-004	0.0760	4.3000e-004	0.0764	0.0201	4.0000e-004	0.0205		64.8461	64.8461	1.8500e-003		64.8925
Total	0.0294	0.0230	0.2052	6.5000e-004	0.0760	4.3000e-004	0.0764	0.0201	4.0000e-004	0.0205		64.8461	64.8461	1.8500e-003		64.8925

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

3.2 Worker Commute - 2021**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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0294	0.0230	0.2052	6.5000e-004	0.0760	4.3000e-004	0.0764	0.0201	4.0000e-004	0.0205		64.8461	64.8461	1.8500e-003		64.8925
Total	0.0294	0.0230	0.2052	6.5000e-004	0.0760	4.3000e-004	0.0764	0.0201	4.0000e-004	0.0205		64.8461	64.8461	1.8500e-003		64.8925

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

3.3 Vendor Trip - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0170	0.4209	0.1094	2.7400e-003	7.4477	1.9100e-003	7.4496	0.7601	1.8300e-003	0.7619		286.1086	286.1086	4.1300e-003		286.2118
Worker	0.0000	0.0000	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	0.0170	0.4209	0.1094	2.7400e-003	7.4477	1.9100e-003	7.4496	0.7601	1.8300e-003	0.7619		286.1086	286.1086	4.1300e-003		286.2118

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

3.3 Vendor Trip - 2021**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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0170	0.4209	0.1094	2.7400e-003	2.1166	1.9100e-003	2.1185	0.2278	1.8300e-003	0.2297		286.1086	286.1086	4.1300e-003		286.2118
Worker	0.0000	0.0000	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	0.0170	0.4209	0.1094	2.7400e-003	2.1166	1.9100e-003	2.1185	0.2278	1.8300e-003	0.2297		286.1086	286.1086	4.1300e-003		286.2118

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

3.4 Haul Trip - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117		1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0168	0.5986	0.0989	3.1800e-003	7.4427	2.5600e-003	7.4453	0.7575	2.4500e-003	0.7599		333.0932	333.0932	6.5700e-003		333.2575
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	0.0000	0.0000	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	0.0168	0.5986	0.0989	3.1800e-003	7.4427	2.5600e-003	7.4453	0.7575	2.4500e-003	0.7599		333.0932	333.0932	6.5700e-003		333.2575

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

3.4 Haul Trip - 2021**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	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358
Total	0.7750	7.9850	7.2637	0.0114		0.4475	0.4475		0.4117	0.4117	0.0000	1,103.2158	1,103.2158	0.3568		1,112.1358

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	0.0168	0.5986	0.0989	3.1800e-003	2.1116	2.5600e-003	2.1142	0.2253	2.4500e-003	0.2277		333.0932	333.0932	6.5700e-003		333.2575
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	0.0000	0.0000	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	0.0168	0.5986	0.0989	3.1800e-003	2.1116	2.5600e-003	2.1142	0.2253	2.4500e-003	0.2277		333.0932	333.0932	6.5700e-003		333.2575

4.0 Operational Detail - Mobile

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

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

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.538376	0.035701	0.171234	0.109086	0.018811	0.005511	0.010251	0.096845	0.001613	0.002045	0.008490	0.000880	0.001158

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

5.0 Energy Detail

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

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

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					
User Defined Industrial	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

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					
User Defined Industrial	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**

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

	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	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

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 Stationary Equipment**Fire Pumps and Emergency Generators**

PG&E Mojave ITP - Mojave Desert Air Basin, Winter

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

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

Equipment Type	Number
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11.0 Vegetation

Attachment B

Updated Modeling Results – February 9, 2021

Attachment 35-B: Updated Modeling Results

The methods used to calculate the anticipated criteria air pollutant and greenhouse gas (GHG) emissions from ongoing operations and maintenance (O&M) activities are documented in the tables that follow. The following tables have been included:

- Table 1: O&M Activity Durations
- Table 2: Equipment List
- Table 3: Off-Road Emissions
- Table 4: Uncontrolled On-Road Emissions
- Table 5: Controlled On-Road Emissions
- Table 6: Helicopter Emission Factors
- Table 7: Helicopter Emissions
- Table 8: Earthwork Emission Factors
- Table 9: Earthwork Emissions
- Table 10: Average Daily Controlled Criteria Air Pollutant Emissions
- Table 11: Annual Uncontrolled Criteria Air Pollutant Emissions
- Table 12: Annual Controlled Criteria Air Pollutant Emissions
- Table 13: GHG Emissions

Table 1: O&M Activity Durations

Activity Number	O&M Activity	Frequency (Low)	Frequency (High)	Duration (Low)	Duration (High)	Annual Days	Notes
1	Pipeline Patrols	--	--	--	--	30	
2	Valve Inspections	--	--	--	--	45	
3	Integrity Management	6	6	10	10	72	
4	Telecommunication Site Inspections	--	--	--	--	20	
5	Road Surface Maintenance	--	--	--	--	60	
6	Right-of-Way Access Road Repair	1	1	60	60	60	
7	Erosion Control	1	1	12	15	15	
8	Telecommunications Site Maintenance	--	--	--	--	20	
9	Span Painting/Air to Soil Corrosion Protection	1	1	36	36	36	
10	Below-Grade Pipe Inspection	10	10	2	10	60	
11	Internal Pipeline Inspection - Inspection	--	--	--	--	105	Inspection occurs up to once per year for 37 days. Calibration occurs five to 10 times per year and between 5 to 10 days each time. Total duration for this activity is 105 days.
12	Installation Pig Launcher	4	6	36	48	210	
13	Valve/Pipeline Excavation and Recoating	0	25	12	24	225	
14	Installation of Magnesium Anodes	0	10	1	3	10	

Activity Number	O&M Activity	Frequency (Low)	Frequency (High)	Duration (Low)	Duration (High)	Annual Days	Notes
15	Installation of Deep Well Anodes/Thermoelectric	0	11	12	24	99	
16	Installation of Flex Anodes	0	1	24	24	12	
17	Installation or Replacement of Horizontal Anode Beds	0	1	30	42	18	
18	Electronic Test System Station	5	10	5	5	38	
19	Cathodic Test Station Installations	0	100	1	2	75	
20	Valve Replacement/Automation	0	10	24	30	135	
21	Hydrostatic Testing	0	6	48	48	144	
22	Pipeline Segment Replacement	0	5	24	144	210	
23	High-Pressure Regulator (HPR) Deactivation	0	10	6	6	30	
24	Soil Stabilization	--	--	--	--	15	
25	Water Diversion Channels	0	2	2	2	2	
26	Fire Response	--	--	--	--	5	

Notes:

- The values presented in this table were prepared to support the assumptions for the criteria air pollutant and GHG modeling.
- Frequency reports the anticipated number of times each activity would occur.
- Duration reports the anticipated number of days required to complete each activity.
- Annual Days reports the estimated number of days each activity would occur annually. When variations existed in frequency and duration, this was determined by multiplying the average duration by the average frequency. In some instances, the total number of anticipated days was provided without defining frequency or duration.

Table 2: Equipment List

Activity Number	O&M Activity	Equipment Name	Approximate Quantity	Daily Use (Hours)	Equipment Category	CalEEMod Equipment Type	Engine Output (Horsepower)	On-Road Vehicle Type	Trips Per Day
1	Pipeline Patrols	Pickup Truck/Sport Utility Vehicle	2	--	On	--	--	Passenger	2
2	Valve Inspections and Lubrication	Pickup Truck	2	--	On	--	--	Passenger	2
3	Integrity Management	Pickup Truck	2	--	On	--	--	Passenger	2
4	Telecommunication Site Inspections	Pickup Truck	2	--	On	--	--	Passenger	2
4	Telecommunication Site Inspections	Helicopter	2	8	Helicopter	--	--	--	--
5	Road Surface Maintenance	Grader	1	8	Off	Graders	187	--	--
5	Road Surface Maintenance	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
5	Road Surface Maintenance	Front Loader	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
6	Right-of-Way and Access Road Repair	Grader	1	8	Off	Graders	187	--	--
6	Right-of-Way and Access Road Repair	Water Truck	1	--	On	--	--	Heavy	1
6	Right-of-Way and Access Road Repair	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
6	Right-of-Way and Access Road Repair	Front Loader	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
7	Erosion Control	Pickup Truck	2	--	On	--	--	Passenger	2
8	Telecommunications Site Maintenance	Pickup Truck	2	--	On	--	--	Passenger	2
8	Telecommunications Site Maintenance	Helicopter	1	8	Helicopter	--	--	--	--
9	Span Painting/Air to Soil Corrosion Protection	Pickup Truck	2	--	On	--	--	Passenger	2
9	Span Painting/Air to Soil Corrosion Protection	Excavator	1	8	Off	Excavators	158	--	--
10	Below-Grade Pipe and Coating Inspection	Pickup Truck	2	--	On	--	--	Passenger	2
10	Below-Grade Pipe and Coating Inspection	Flatbed Truck/Trailer	1	--	On	--	--	Medium	1
10	Below-Grade Pipe and Coating Inspection	Dump Truck	1	--	On	--	--	Heavy	1
10	Below-Grade Pipe and Coating Inspection	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
10	Below-Grade Pipe and Coating Inspection	Water Truck	1	--	On	--	--	Heavy	1
10	Below-Grade Pipe and Coating Inspection	Trailer-Mounted Compressor	1	8	Off	Air Compressors	78	--	--
11	Internal Pipeline Inspection	Pickup Truck	1	--	On	--	--	Passenger	1
11	Internal Pipeline Inspection	Excavator	1	8	Off	Excavators	158	--	--
11	Internal Pipeline Inspection	Water Truck	1	--	On	--	--	Heavy	1
12	Installation of Pig Launcher/Receiver Facilities	Pickup Truck	4	--	On	--	--	Passenger	4
12	Installation of Pig Launcher/Receiver Facilities	Flatbed Truck/Trailer	1	--	On	--	--	Medium	1

Activity Number	O&M Activity	Equipment Name	Approximate Quantity	Daily Use (Hours)	Equipment Category	CalEEMod Equipment Type	Engine Output (Horsepower)	On-Road Vehicle Type	Trips Per Day
12	Installation of Pig Launcher/Receiver Facilities	Dump Truck	1	--	On	--	--	Heavy	1
12	Installation of Pig Launcher/Receiver Facilities	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
12	Installation of Pig Launcher/Receiver Facilities	Excavator	1	8	Off	Excavators	158	--	--
12	Installation of Pig Launcher/Receiver Facilities	Trailer-Mounted Compressor	2	8	Off	Air Compressors	78	--	--
12	Installation of Pig Launcher/Receiver Facilities	Truck-Mounted Crane	1	8	Off	Cranes	231	--	--
12	Installation of Pig Launcher/Receiver Facilities	Water Truck	1	--	On	--	--	Heavy	1
12	Installation of Pig Launcher/Receiver Facilities	Side Boom	1	8	Off	Cranes	231	--	--
12	Installation of Pig Launcher/Receiver Facilities	Welding Truck	2	--	On	--	--	Passenger	2
13	Valve/Pipeline Excavation and Recoating	Pickup Truck	2	--	On	--	--	Passenger	2
13	Valve/Pipeline Excavation and Recoating	Flatbed Truck/Trailer	2	--	On	--	--	Medium	2
13	Valve/Pipeline Excavation and Recoating	Dump Truck	2	--	On	--	--	Heavy	2
13	Valve/Pipeline Excavation and Recoating	Backhoe	2	8	Off	Tractors/Loaders/Backhoes	97	--	--
13	Valve/Pipeline Excavation and Recoating	Excavator	2	8	Off	Excavators	158	--	--
13	Valve/Pipeline Excavation and Recoating	Water Truck	2	--	On	--	--	Heavy	2
13	Valve/Pipeline Excavation and Recoating	Vacuum Excavator	2	8	Off	Excavators	158	--	--
13	Valve/Pipeline Excavation and Recoating	Trailer-Mounted Compressor	2	8	Off	Air Compressors	78	--	--
13	Valve/Pipeline Excavation and Recoating	Portable Sand Blaster	2	8	Off	Air Compressors	78	--	--
13	Valve/Pipeline Excavation and Recoating	Truck-Mounted Crane	2	8	Off	Cranes	231		--
14	Installation of Magnesium Anodes	Pickup Truck	1	--	On	--	--	Passenger	1
14	Installation of Magnesium Anodes	Flatbed Truck/Trailer	1	--	On	--	--	Medium	1
14	Installation of Magnesium Anodes	Dump Truck	1	--	On	--	--	Heavy	1
14	Installation of Magnesium Anodes	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
14	Installation of Magnesium Anodes	Water Truck	1	--	On	--	--	Heavy	1
15	Installation of Deep Well Anodes/Thermoelectric Generators	Drilling Rig	1	8	Off	Bore/Drill Rigs	221	--	--
15	Installation of Deep Well Anodes/Thermoelectric Generators	Pickup Truck	3	--	On	--	--	Passenger	3

Activity Number	O&M Activity	Equipment Name	Approximate Quantity	Daily Use (Hours)	Equipment Category	CalEEMod Equipment Type	Engine Output (Horsepower)	On-Road Vehicle Type	Trips Per Day
15	Installation of Deep Well Anodes/Thermoelectric Generators	Water Truck	1	--	On	--	--	Heavy	1
16	Installation of Flex Anodes	Pickup Truck	1	--	On	--	--	Passenger	1
16	Installation of Flex Anodes	Trailer	1	--	NA	--	--	--	--
16	Installation of Flex Anodes	Water Truck	1	--	On	--	--	Heavy	1
16	Installation of Flex Anodes	Trencher	1	8	Off	Trenchers	78	--	--
17	Installation or Replacement of Horizontal Anode Beds	Pickup Truck	2	--	On	--	--	Passenger	2
17	Installation or Replacement of Horizontal Anode Beds	Flatbed Truck/Trailer	1	--	On	--	--	Medium	1
17	Installation or Replacement of Horizontal Anode Beds	Dump Truck	1	--	On	--	--	Heavy	1
17	Installation or Replacement of Horizontal Anode Beds	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
17	Installation or Replacement of Horizontal Anode Beds	Water Truck	1	--	On	--	--	Heavy	1
18	Electronic Test System Station	Pickup Truck	1	--	On	--	--	Passenger	1
19	Cathodic Test Station Installations	Pickup Truck	2	--	On	--	--	Passenger	2
19	Cathodic Test Station Installations	Truck With Trailer	1	--	On	--	--	Medium	1
19	Cathodic Test Station Installations	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
20	Valve Replacement/Automation	Pickup Truck	4	--	On	--	--	Passenger	4
20	Valve Replacement/Automation	Flatbed Truck/Trailer	1	--	On	--	--	Medium	1
20	Valve Replacement/Automation	Dump Truck	1	--	On	--	--	Heavy	1
20	Valve Replacement/Automation	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
20	Valve Replacement/Automation	Excavator	1	8	Off	Excavators	158	--	--
20	Valve Replacement/Automation	Water Truck	1	--	On	--	--	Heavy	1
20	Valve Replacement/Automation	Vacuum Excavator	1	8	Off	Excavators	158	--	--
20	Valve Replacement/Automation	Welding Truck	3	--	On	--	--	Passenger	3
20	Valve Replacement/Automation	Trailer-Mounted Compressor	3	8	Off	Air Compressors	78	--	--
20	Valve Replacement/Automation	Truck-Mounted Crane	1	8	Off	Cranes	231	--	--
20	Valve Replacement/Automation	Front Loader	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
21	Hydrostatic Testing	Air Compressor	2	8	Off	Air Compressors	78	--	--
21	Hydrostatic Testing	Crane	1	8	Off	Cranes	231	--	--
21	Hydrostatic Testing	Flatbed Truck/Trailer	2	--	On	--	--	Medium	2

Activity Number	O&M Activity	Equipment Name	Approximate Quantity	Daily Use (Hours)	Equipment Category	CalEEMod Equipment Type	Engine Output (Horsepower)	On-Road Vehicle Type	Trips Per Day
21	Hydrostatic Testing	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
21	Hydrostatic Testing	Track Hoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
21	Hydrostatic Testing	Excavator	1	8	Off	Excavators	158	--	--
21	Hydrostatic Testing	Pickup Truck	3	--	On	--	--	Passenger	3
21	Hydrostatic Testing	Side Boom	2	8	Off	Cranes	231	--	--
21	Hydrostatic Testing	Water Pump	1	8	Off	Pumps	84	--	--
21	Hydrostatic Testing	Welding Truck	4	--	On	--	--	Passenger	4
21	Hydrostatic Testing	Bulldozer	1	8	Off	Rubber Tired Dozers	247	--	--
21	Hydrostatic Testing	Generator	4	8	Off	Generator Sets	84	--	--
21	Hydrostatic Testing	Grader	1	8	Off	Graders	187	--	--
21	Hydrostatic Testing	Trencher	1	8	Off	Trenchers	78	--	--
21	Hydrostatic Testing	Water Truck	1	--	On	--	--	Heavy	1
22	Pipeline Segment Replacement	Pickup Truck	12	--	On	--	--	Passenger	12
22	Pipeline Segment Replacement	Flatbed Truck/Trailer	2	--	On	--	--	Medium	2
22	Pipeline Segment Replacement	Dump Truck	2	--	On	--	--	Heavy	2
22	Pipeline Segment Replacement	Backhoe	2	8	Off	Tractors/Loaders/Backhoes	97	--	--
22	Pipeline Segment Replacement	Excavator	4	8	Off	Excavators	158	--	--
22	Pipeline Segment Replacement	Trailer-Mounted Compressor	8	8	Off	Air Compressors	78	--	--
22	Pipeline Segment Replacement	Truck-Mounted Crane	4	8	Off	Cranes	231	--	--
22	Pipeline Segment Replacement	Side Boom	6	8	Off	Cranes	231	--	--
22	Pipeline Segment Replacement	Welding Truck	8	--	On	--	--	Passenger	8
22	Pipeline Segment Replacement	Water Truck	4	--	On	--	--	Heavy	4
22	Pipeline Segment Replacement	Drilling Rig	1	8	Off	Bore/Drill Rigs	221	--	--
23	HPR Deactivation	Pickup Truck	3	--	On	--	--	Passenger	3
23	HPR Deactivation	Flatbed Truck/Trailer	1	--	On	--	--	Medium	1
23	HPR Deactivation	Dump Truck	1	--	On	--	--	Heavy	1
23	HPR Deactivation	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
23	HPR Deactivation	Trailer-Mounted Compressor	1	8	Off	Air Compressors	78	--	--
23	HPR Deactivation	Portable Sand Blaster	1	8	Off	Air Compressors	78	--	--
23	HPR Deactivation	Water Truck	1	--	On	--	--	Heavy	1
24	Soil Stabilization	Grader	1	8	Off	Graders	187	--	--
24	Soil Stabilization	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--

Activity Number	O&M Activity	Equipment Name	Approximate Quantity	Daily Use (Hours)	Equipment Category	CalEEMod Equipment Type	Engine Output (Horsepower)	On-Road Vehicle Type	Trips Per Day
24	Soil Stabilization	Front Loader	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
24	Soil Stabilization	Hydroseeder	1	8	Off	Pumps	84	--	--
25	Water diversion channels	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
25	Water diversion channels	Front Loader	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
26	Fire Response	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	--	--
26	Fire Response	Grader	1	8	Off	Graders	187	--	--
1	Pipeline Patrols	Worker Commute	2	--	On	--	--	Passenger	2
2	Valve Inspections and Lubrication	Worker Commute	3	--	On	--	--	Passenger	3
3	Integrity Management	Worker Commute	2	--	On	--	--	Passenger	2
4	Telecommunication Site Inspections	Worker Commute	2	--	On	--	--	Passenger	2
5	Road Surface Maintenance	Worker Commute	4	--	On	--	--	Passenger	4
6	Right-of-Way and Access Road Repair	Worker Commute	2	--	On	--	--	Passenger	2
7	Erosion Control	Worker Commute	3	--	On	--	--	Passenger	3
8	Telecommunications Site Maintenance	Worker Commute	5	--	On	--	--	Passenger	5
9	Span Painting/Air to Soil Corrosion Protection	Worker Commute	6	--	On	--	--	Passenger	6
10	Below-Grade Pipe and Coating Inspection	Worker Commute	4	--	On	--	--	Passenger	4
11	Internal Pipeline Inspection	Worker Commute	2	--	On	--	--	Passenger	2
12	Installation of Pig Launcher/Receiver Facilities	Worker Commute	15	--	On	--	--	Passenger	15
13	Valve/Pipeline Excavation and Recoating	Worker Commute	10	--	On	--	--	Passenger	10
14	Installation of Magnesium Anodes	Worker Commute	3	--	On	--	--	Passenger	3
15	Installation of Deep Well Anodes/Thermoelectric Generators	Worker Commute	8	--	On	--	--	Passenger	8
16	Installation of Flex Anodes	Worker Commute	4	--	On	--	--	Passenger	4
17	Installation or Replacement of Horizontal Anode Beds	Worker Commute	5	--	On	--	--	Passenger	5
18	Electronic Test System Station	Worker Commute	1	--	On	--	--	Passenger	1
19	Cathodic Test Station Installations	Worker Commute	5	--	On	--	--	Passenger	5
20	Valve Replacement/Automation	Worker Commute	13	--	On	--	--	Passenger	13
21	Hydrostatic Testing	Worker Commute	10	--	On	--	--	Passenger	10
22	Pipeline Segment Replacement	Worker Commute	48	--	On	--	--	Passenger	48
23	HPR Deactivation	Worker Commute	5	--	On	--	--	Passenger	5

Activity Number	O&M Activity	Equipment Name	Approximate Quantity	Daily Use (Hours)	Equipment Category	CalEEMod Equipment Type	Engine Output (Horsepower)	On-Road Vehicle Type	Trips Per Day
24	Soil Stabilization	Worker Commute	3	--	On	--	--	Passenger	1
25	Water Diversion Channels	Worker Commute	3	--	On	--	--	Passenger	1
26	Fire Response	Worker Commute	2	--	On	--	--	Passenger	1

Table 3: Off-Road Emissions

Activity Number	O&M Activity	Equipment Name	Approximate Quantity	Daily Use (Hours)	Emissions (Pounds per Day)							
					ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂	CH ₄
5	Road Surface Maintenance	Grader	1	8	0.453	1.767	5.925	0.007	0.188	0.173	641.683	0.207
5	Road Surface Maintenance	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
5	Road Surface Maintenance	Front Loader	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
6	Right-of-Way and Access Road Repair	Grader	1	8	0.453	1.767	5.925	0.007	0.188	0.173	641.683	0.207
6	Right-of-Way and Access Road Repair	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
6	Right-of-Way and Access Road Repair	Front Loader	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
9	Span Painting/Air to Soil Corrosion Protection	Excavator	1	8	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162
10	Below-Grade Pipe and Coating Inspection	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
10	Below-Grade Pipe and Coating Inspection	Trailer-Mounted Compressor	1	8	0.292	2.423	2.036	0.004	0.125	0.125	375.264	0.026
11	Internal Pipeline Inspection	Excavator	1	8	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162
12	Installation of Pig Launcher/Receiver Facilities	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
12	Installation of Pig Launcher/Receiver Facilities	Excavator	1	8	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162
12	Installation of Pig Launcher/Receiver Facilities	Trailer-Mounted Compressor	2	8	0.584	4.847	4.072	0.008	0.251	0.251	750.527	0.052
12	Installation of Pig Launcher/Receiver Facilities	Truck-Mounted Crane	1	8	0.412	1.983	4.849	0.006	0.197	0.181	558.738	0.181
12	Installation of Pig Launcher/Receiver Facilities	Side Boom	1	8	0.412	1.983	4.849	0.006	0.197	0.181	558.738	0.181
13	Valve/Pipeline Excavation and Recoating	Backhoe	2	8	0.375	4.520	3.792	0.006	0.224	0.205	601.799	0.195
13	Valve/Pipeline Excavation and Recoating	Excavator	2	8	0.457	6.544	4.307	0.011	0.210	0.193	1,000.383	0.324
13	Valve/Pipeline Excavation and Recoating	Vacuum Excavator	2	8	0.457	6.544	4.307	0.011	0.210	0.193	1,000.383	0.324
13	Valve/Pipeline Excavation and Recoating	Trailer-Mounted Compressor	2	8	0.584	4.847	4.072	0.008	0.251	0.251	750.527	0.052
13	Valve/Pipeline Excavation and Recoating	Portable Sand Blaster	2	8	0.584	4.847	4.072	0.008	0.251	0.251	750.527	0.052
13	Valve/Pipeline Excavation and Recoating	Truck-Mounted Crane	2	8	0.825	3.966	9.699	0.012	0.395	0.362	1,117.476	0.362
14	Installation of Magnesium Anodes	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
15	Installation of Deep Well Anodes/Thermoelectric Generators	Drilling Rig	1	8	0.257	2.074	3.023	0.010	0.092	0.084	912.061	0.294
16	Installation of Flex Anodes	Trencher	1	8	0.382	2.606	3.512	0.003	0.255	0.235	326.922	0.106
17	Installation or Replacement of Horizontal Anode Beds	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
19	Cathodic Test Station Installations	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
20	Valve Replacement/Automation	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
20	Valve Replacement/Automation	Excavator	1	8	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162
20	Valve Replacement/Automation	Vacuum Excavator	1	8	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162

Activity Number	O&M Activity	Equipment Name	Approximate Quantity	Daily Use (Hours)	Emissions (Pounds per Day)							
					ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂	CH ₄
20	Valve Replacement/Automation	Trailer-Mounted Compressor	3	8	0.876	7.270	6.107	0.012	0.376	0.376	1,125.791	0.077
20	Valve Replacement/Automation	Truck-Mounted Crane	1	8	0.412	1.983	4.849	0.006	0.197	0.181	558.738	0.181
20	Valve Replacement/Automation	Front Loader	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
21	Hydrostatic Testing	Air Compressor	2	8	0.584	4.847	4.072	0.008	0.251	0.251	750.527	0.052
21	Hydrostatic Testing	Crane	1	8	0.412	1.983	4.849	0.006	0.197	0.181	558.738	0.181
21	Hydrostatic Testing	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
21	Hydrostatic Testing	Track Hoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
21	Hydrostatic Testing	Excavator	1	8	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162
21	Hydrostatic Testing	Side Boom	2	8	0.825	3.966	9.699	0.012	0.395	0.362	1,117.476	0.362
21	Hydrostatic Testing	Water Pump	1	8	0.380	3.741	3.210	0.007	0.178	0.178	623.035	0.034
21	Hydrostatic Testing	Bulldozer	1	8	1.046	4.038	10.971	0.009	0.533	0.490	827.351	0.268
21	Hydrostatic Testing	Generator	4	8	1.430	14.739	12.665	0.026	0.671	0.671	2,492.135	0.127
21	Hydrostatic Testing	Grader	1	8	0.453	1.767	5.925	0.007	0.188	0.173	641.683	0.207
21	Hydrostatic Testing	Trencher	1	8	0.382	2.606	3.512	0.003	0.255	0.235	326.922	0.106
22	Pipeline Segment Replacement	Backhoe	2	8	0.375	4.520	3.792	0.006	0.224	0.205	601.799	0.195
22	Pipeline Segment Replacement	Excavator	4	8	0.915	13.087	8.614	0.021	0.419	0.385	2,000.766	0.648
22	Pipeline Segment Replacement	Trailer-Mounted Compressor	8	8	2.335	19.387	16.286	0.032	1.004	1.004	3,002.109	0.206
22	Pipeline Segment Replacement	Truck-Mounted Crane	4	8	1.649	7.931	19.397	0.024	0.789	0.723	2,234.952	0.723
22	Pipeline Segment Replacement	Side Boom	6	8	2.474	11.897	29.096	0.035	1.184	1.085	3,352.428	1.085
22	Pipeline Segment Replacement	Drilling Rig	1	8	0.257	2.074	3.023	0.010	0.092	0.084	912.061	0.294
23	HPR Deactivation	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
23	HPR Deactivation	Trailer-Mounted Compressor	1	8	0.292	2.423	2.036	0.004	0.125	0.125	375.264	0.026
23	HPR Deactivation	Portable Sand Blaster	1	8	0.292	2.423	2.036	0.004	0.125	0.125	375.264	0.026
24	Soil Stabilization	Grader	1	8	0.453	1.767	5.925	0.007	0.188	0.173	641.683	0.207
24	Soil Stabilization	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
24	Soil Stabilization	Front Loader	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
24	Soil Stabilization	Hydroseeder	1	8	0.380	3.741	3.210	0.007	0.178	0.178	623.035	0.034
25	Water Diversion Channels	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
25	Water Diversion Channels	Front Loader	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
26	Fire Response	Backhoe	1	8	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
26	Fire Response	Grader	1	8	0.453	1.767	5.925	0.007	0.188	0.173	641.683	0.207

Note: Mitigation for off-road equipment has not been proposed; therefore, uncontrolled and controlled emissions are identical.

Table 4: Uncontrolled On-Road Emissions

Activity Number	O&M Activity	Equipment Name	On-Road Vehicle Type	Trips Per Day	Emissions (Pounds per Day)							
					ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂	CH ₄
1	Pipeline Patrols	Pickup Truck/Sport Utility Vehicle	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
2	Valve Inspections and Lubrication	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
3	Integrity Management	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
4	Telecommunication Site Inspections	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
6	Right-of-Way and Access Road Repair	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
7	Erosion Control	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
8	Telecommunications Site Maintenance	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
9	Span Painting/Air to Soil Corrosion Protection	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
10	Below-Grade Pipe and Coating Inspection	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
10	Below-Grade Pipe and Coating Inspection	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
10	Below-Grade Pipe and Coating Inspection	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
10	Below-Grade Pipe and Coating Inspection	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
11	Internal Pipeline Inspection	Pickup Truck	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
11	Internal Pipeline Inspection	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Pickup Truck	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
12	Installation of Pig Launcher/Receiver Facilities	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
12	Installation of Pig Launcher/Receiver Facilities	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Welding Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
13	Valve/Pipeline Excavation and Recoating	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
13	Valve/Pipeline Excavation and Recoating	Flatbed Truck/Trailer	Medium	2	0.033	0.214	0.814	0.006	14.899	1.524	575.224	0.008
13	Valve/Pipeline Excavation and Recoating	Dump Truck	Heavy	2	0.033	0.186	1.165	0.006	14.891	1.520	672.124	0.012
13	Valve/Pipeline Excavation and Recoating	Water Truck	Heavy	2	0.033	0.186	1.165	0.006	14.891	1.520	672.124	0.012
14	Installation of Magnesium Anodes	Pickup Truck	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
14	Installation of Magnesium Anodes	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
14	Installation of Magnesium Anodes	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
14	Installation of Magnesium Anodes	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
15	Installation of Deep Well Anodes/Thermoelectric Generators	Pickup Truck	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007

Activity Number	O&M Activity	Equipment Name	On-Road Vehicle Type	Trips Per Day	Emissions (Pounds per Day)							
					ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂	CH ₄
15	Installation of Deep Well Anodes/Thermoelectric Generators	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
16	Installation of Flex Anodes	Pickup Truck	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
16	Installation of Flex Anodes	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
17	Installation or Replacement of Horizontal Anode Beds	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
17	Installation or Replacement of Horizontal Anode Beds	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
17	Installation or Replacement of Horizontal Anode Beds	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
17	Installation or Replacement of Horizontal Anode Beds	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
18	Electronic Test System Station	Pickup Truck	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
19	Cathodic Test Station Installations	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
19	Cathodic Test Station Installations	Truck with Trailer	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
20	Valve Replacement/Automation	Pickup Truck	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
20	Valve Replacement/Automation	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
20	Valve Replacement/Automation	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
20	Valve Replacement/Automation	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
20	Valve Replacement/Automation	Welding Truck	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
21	Hydrostatic Testing	Flatbed Truck/Trailer	Medium	2	0.033	0.214	0.814	0.006	14.899	1.524	575.224	0.008
21	Hydrostatic Testing	Pickup Truck	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
21	Hydrostatic Testing	Welding Truck	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
21	Hydrostatic Testing	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
22	Pipeline Segment Replacement	Pickup Truck	Passenger	12	0.334	3.280	0.269	0.009	0.917	0.246	886.978	0.027
22	Pipeline Segment Replacement	Flatbed Truck/Trailer	Medium	2	0.033	0.214	0.814	0.006	14.899	1.524	575.224	0.008
22	Pipeline Segment Replacement	Dump Truck	Heavy	2	0.033	0.186	1.165	0.006	14.891	1.520	672.124	0.012
22	Pipeline Segment Replacement	Welding Truck	Passenger	8	0.222	2.186	0.179	0.006	0.611	0.164	591.318	0.018
22	Pipeline Segment Replacement	Water Truck	Heavy	4	0.066	0.371	2.330	0.013	29.781	3.040	1,344.248	0.024
23	HPR Deactivation	Pickup Truck	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
23	HPR Deactivation	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
23	HPR Deactivation	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006

Activity Number	O&M Activity	Equipment Name	On-Road Vehicle Type	Trips Per Day	Emissions (Pounds per Day)							
					ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂	CH ₄
23	HPR Deactivation	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
1	Pipeline Patrols	Worker Commute	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
2	Valve Inspections and Lubrication	Worker Commute	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
3	Integrity Management	Worker Commute	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
4	Telecommunication Site Inspections	Worker Commute	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
5	Road Surface Maintenance	Worker Commute	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
6	Right-of-Way and Access Road Repair	Worker Commute	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
7	Erosion Control	Worker Commute	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
8	Telecommunications Site Maintenance	Worker Commute	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
9	Span Painting/Air to Soil Corrosion Protection	Worker Commute	Passenger	6	0.167	1.640	0.134	0.004	0.458	0.123	443.489	0.013
10	Below-Grade Pipe and Coating Inspection	Worker Commute	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
11	Internal Pipeline Inspection	Worker Commute	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
12	Installation of Pig Launcher/Receiver Facilities	Worker Commute	Passenger	15	0.417	4.100	0.336	0.011	1.146	0.308	1,108.722	0.033
13	Valve/Pipeline Excavation and Recoating	Worker Commute	Passenger	10	0.278	2.733	0.224	0.007	0.764	0.205	739.148	0.022
14	Installation of Magnesium Anodes	Worker Commute	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
15	Installation of Deep Well Anodes/Thermoelectric Generators	Worker Commute	Passenger	8	0.222	2.186	0.179	0.006	0.611	0.164	591.318	0.018
16	Installation of Flex Anodes	Worker Commute	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
17	Installation or Replacement of Horizontal Anode Beds	Worker Commute	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
18	Electronic Test System Station	Worker Commute	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
19	Cathodic Test Station Installations	Worker Commute	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
20	Valve Replacement/Automation	Worker Commute	Passenger	13	0.361	3.553	0.291	0.010	0.993	0.267	960.892	0.029
21	Hydrostatic Testing	Worker Commute	Passenger	10	0.278	2.733	0.224	0.007	0.764	0.205	739.148	0.022
22	Pipeline Segment Replacement	Worker Commute	Passenger	48	1.334	13.118	1.075	0.036	3.667	0.984	3,547.910	0.107
23	HPR Deactivation	Worker Commute	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
24	Soil Stabilization	Worker Commute	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
25	Water Diversion Channels	Worker Commute	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
26	Fire Response	Worker Commute	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002

Table 5: Controlled On-Road Emissions

Activity Number	O&M Activity	Equipment Name	On-Road Vehicle Type	Trips Per Day	Emissions (Pounds per Day)							
					ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂	CH ₄
1	Pipeline Patrols	Pickup Truck/Sport Utility Vehicle	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
2	Valve Inspections and Lubrication	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
3	Integrity Management	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
4	Telecommunication Site Inspections	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
6	Right-of-Way and Access Road Repair	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
7	Erosion Control	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
8	Telecommunications Site Maintenance	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
9	Span Painting/Air to Soil Corrosion Protection	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
10	Below-Grade Pipe and Coating Inspection	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
10	Below-Grade Pipe and Coating Inspection	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
10	Below-Grade Pipe and Coating Inspection	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
10	Below-Grade Pipe and Coating Inspection	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
11	Internal Pipeline Inspection	Pickup Truck	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
11	Internal Pipeline Inspection	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Pickup Truck	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
12	Installation of Pig Launcher/Receiver Facilities	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
12	Installation of Pig Launcher/Receiver Facilities	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Welding Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
13	Valve/Pipeline Excavation and Recoating	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
13	Valve/Pipeline Excavation and Recoating	Flatbed Truck/Trailer	Medium	2	0.033	0.214	0.814	0.006	4.237	0.459	575.224	0.008
13	Valve/Pipeline Excavation and Recoating	Dump Truck	Heavy	2	0.033	0.186	1.165	0.006	4.228	0.455	672.124	0.012
13	Valve/Pipeline Excavation and Recoating	Water Truck	Heavy	2	0.033	0.186	1.165	0.006	4.228	0.455	672.124	0.012
14	Installation of Magnesium Anodes	Pickup Truck	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
14	Installation of Magnesium Anodes	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
14	Installation of Magnesium Anodes	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
14	Installation of Magnesium Anodes	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
15	Installation of Deep Well Anodes/Thermoelectric Generators	Pickup Truck	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007

Activity Number	O&M Activity	Equipment Name	On-Road Vehicle Type	Trips Per Day	Emissions (Pounds per Day)							
					ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂	CH ₄
15	Installation of Deep Well Anodes/Thermoelectric Generators	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
16	Installation of Flex Anodes	Pickup Truck	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
16	Installation of Flex Anodes	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
17	Installation or Replacement of Horizontal Anode Beds	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
17	Installation or Replacement of Horizontal Anode Beds	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
17	Installation or Replacement of Horizontal Anode Beds	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
17	Installation or Replacement of Horizontal Anode Beds	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
18	Electronic Test System Station	Pickup Truck	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
19	Cathodic Test Station Installations	Pickup Truck	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
19	Cathodic Test Station Installations	Truck with Trailer	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
20	Valve Replacement/Automation	Pickup Truck	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
20	Valve Replacement/Automation	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
20	Valve Replacement/Automation	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
20	Valve Replacement/Automation	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
20	Valve Replacement/Automation	Welding Truck	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
21	Hydrostatic Testing	Flatbed Truck/Trailer	Medium	2	0.033	0.214	0.814	0.006	4.237	0.459	575.224	0.008
21	Hydrostatic Testing	Pickup Truck	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
21	Hydrostatic Testing	Welding Truck	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
21	Hydrostatic Testing	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
22	Pipeline Segment Replacement	Pickup Truck	Passenger	12	0.334	3.280	0.269	0.009	0.917	0.246	886.978	0.027
22	Pipeline Segment Replacement	Flatbed Truck/Trailer	Medium	2	0.033	0.214	0.814	0.006	4.237	0.459	575.224	0.008
22	Pipeline Segment Replacement	Dump Truck	Heavy	2	0.033	0.186	1.165	0.006	4.228	0.455	672.124	0.012
22	Pipeline Segment Replacement	Welding Truck	Passenger	8	0.222	2.186	0.179	0.006	0.611	0.164	591.318	0.018
22	Pipeline Segment Replacement	Water Truck	Heavy	4	0.066	0.371	2.330	0.013	8.457	0.911	1,344.248	0.024
23	HPR Deactivation	Pickup Truck	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
23	HPR Deactivation	Flatbed Truck/Trailer	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
23	HPR Deactivation	Dump Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006

Activity Number	O&M Activity	Equipment Name	On-Road Vehicle Type	Trips Per Day	Emissions (Pounds per Day)							
					ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂	CH ₄
23	HPR Deactivation	Water Truck	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
1	Pipeline Patrols	Worker Commute	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
2	Valve Inspections and Lubrication	Worker Commute	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
3	Integrity Management	Worker Commute	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
4	Telecommunication Site Inspections	Worker Commute	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
5	Road Surface Maintenance	Worker Commute	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
6	Right-of-Way and Access Road Repair	Worker Commute	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
7	Erosion Control	Worker Commute	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
8	Telecommunications Site Maintenance	Worker Commute	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
9	Span Painting/Air to Soil Corrosion Protection	Worker Commute	Passenger	6	0.167	1.640	0.134	0.004	0.458	0.123	443.489	0.013
10	Below-Grade Pipe and Coating Inspection	Worker Commute	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
11	Internal Pipeline Inspection	Worker Commute	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
12	Installation of Pig Launcher/Receiver Facilities	Worker Commute	Passenger	15	0.417	4.100	0.336	0.011	1.146	0.308	1,108.722	0.033
13	Valve/Pipeline Excavation and Recoating	Worker Commute	Passenger	10	0.278	2.733	0.224	0.007	0.764	0.205	739.148	0.022
14	Installation of Magnesium Anodes	Worker Commute	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
15	Installation of Deep Well Anodes/Thermoelectric Generators	Worker Commute	Passenger	8	0.222	2.186	0.179	0.006	0.611	0.164	591.318	0.018
16	Installation of Flex Anodes	Worker Commute	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
17	Installation or Replacement of Horizontal Anode Beds	Worker Commute	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
18	Electronic Test System Station	Worker Commute	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
19	Cathodic Test Station Installations	Worker Commute	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
20	Valve Replacement/Automation	Worker Commute	Passenger	13	0.361	3.553	0.291	0.010	0.993	0.267	960.892	0.029
21	Hydrostatic Testing	Worker Commute	Passenger	10	0.278	2.733	0.224	0.007	0.764	0.205	739.148	0.022
22	Pipeline Segment Replacement	Worker Commute	Passenger	48	1.334	13.118	1.075	0.036	3.667	0.984	3,547.910	0.107
23	HPR Deactivation	Worker Commute	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
24	Soil Stabilization	Worker Commute	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
25	Water Diversion Channels	Worker Commute	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
26	Fire Response	Worker Commute	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002

Table 6: Helicopter Emission Factors

Cycle	Daily Use (Hours)	Fuel Consumption (Kilograms per Hour)	Emission Factor (Grams per Hour)							
			ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂	CH ₄
Helicopter Landing and Takeoff	0.675	16.448	1.956	2.587	0.267	0.009	0.009	0.008	51.034	0.001
Helicopter Operation	7.325	98.836	0.955	1.200	0.484	0.053	0.016	0.014	0.010	0.218

- Notes:
- Each 8-hour day would require approximately three landing and takeoff cycles, each lasting approximately 13.5 minutes.
 - All remaining time assigned to the operation cycle.
 - Assumes 100 percent of particulate matter (PM) is PM₁₀, 90 percent of PM₁₀ is PM_{2.5}.
 - Emission factors for CO₂ and CH₄ taken from California Climate Action Registry General Reporting Protocol version 3.1, Table C.3 and Table C.6.
 - Jet A fuel assumed to have a density of 6.8 pounds per gallon.

Table 7: Helicopter Emissions

Activity Number	O&M Activity	Approximate Quantity	Daily Use (Hours)	Emissions (Pounds per Day)							
				ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}	CO ₂	CH ₄
4	Telecommunication Site Inspections	2	8	36.674	46.451	16.419	1.750	0.545	0.491	152.209	7.042
8	Telecommunications Site Maintenance	1	8	18.337	23.225	8.209	0.875	0.273	0.245	76.105	3.521

Table 8: Earthwork Emission Factors

Earthwork Category	Type	Emission Factor (Pounds per Hour)	
		PM ₁₀	PM _{2.5}
Grading	Uncontrolled	0.139	0.125
Grading	Controlled	0.063	0.056

Notes:

- Assumes 90 percent of PM₁₀ is PM_{2.5}.
- Assumes a control efficiency of 55 percent.

Table 9: Earthwork Emissions

Earthwork Category	Type	Emissions (Pounds per Day)	
		PM ₁₀	PM _{2.5}
Grading	Uncontrolled	0.047	0.042
Grading	Controlled	0.021	0.019

Notes:

- Assumes 82 total 8-hour days of grading.

Table 10: Average Daily Controlled Criteria Air Pollutant Emissions

Emissions Source/Metric	Emissions (Pounds per Day)					
	ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}
Off-Road Equipment	13.54	109.19	132.65	0.22	6.41	6.03
On-Road Vehicles	3.03	28.75	10.98	0.12	42.86	5.84
Helicopters	3.53	4.47	1.58	0.17	0.05	0.05
Earthwork	0.00	0.00	0.00	0.00	0.14	0.12
Total	20.10	142.40	145.21	0.51	49.45	12.04
Mojave Desert Air Quality Management District (MDAQMD)						
Applicable Threshold	137	548	137	137	82	65
Threshold Exceeded?	No	No	Yes	No	No	No
Eastern Kern Air Pollution Control District (EKAPCD)						
Applicable Threshold	137	NA	137	NA	NA	NA
Threshold Exceeded?	NA	NA	Yes	No	No	NA

Notes:

- Average daily emissions were achieved by dividing the annual emissions by the total number of anticipated working days (approximately 312 days per year).
- The EKAPCD's Guidelines for Implementation of the California Environmental Quality Act of 1970, As Amended require that on-road vehicle sources be compared to daily thresholds for NO_x and ROG during the operation phase of projects.

Table 11: Annual Uncontrolled Criteria Air Pollutant Emissions

Emission Source/Metric	Emissions (Tons per Year)					
	ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}
MDAQMD						
Off- and On-Road Equipment	2.20	18.29	19.05	0.05	18.32	2.75
Helicopters	0.47	0.59	0.21	0.02	0.01	0.01
Earthwork	0.00	0.00	0.00	0.00	0.04	0.04
Total	2.67	18.88	19.26	0.07	18.37	2.79
Applicable Threshold	25	NA	25	27	15	15
Threshold Exceeded?	No	NA	No	No	Yes	No
EKAPCD						
Off- and On-Road Equipment	0.39	3.23	3.36	0.01	3.23	0.49
Helicopters	0.08	0.10	0.04	0.00	0.00	0.00
Earthwork	0.00	0.00	0.00	0.00	0.01	0.01
Total	0.47	3.33	3.40	0.01	3.24	0.49
Applicable Threshold	25	NA	25	27	15	NA
Threshold Exceeded?	No	NA	No	No	No	NA

Table 12: Annual Controlled Criteria Air Pollutant Emissions

Emission Source/Metric	Emissions (Tons per Year)					
	ROG	CO	NO _x	SO _x	PM ₁₀	PM _{2.5}
MDAQMD						
Off- and On-Road Equipment	2.20	18.29	19.05	0.05	6.53	1.57
Helicopters	0.47	0.59	0.21	0.02	0.01	0.01
Earthwork	0.00	0.00	0.00	0.00	0.02	0.02
Total	2.67	18.88	19.26	0.07	6.56	1.60
Applicable Threshold	25	NA	25	27	15	15
Threshold Exceeded?	No	NA	No	No	No	No
EKAPCD						
Off- and On-Road Equipment	0.39	3.23	3.36	0.01	1.15	0.28
Helicopters	0.08	0.10	0.04	0.00	0.00	0.00
Earthwork	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.47	3.33	3.40	0.01	1.16	0.28
Applicable Threshold	25	NA	25	27	15	NA
Threshold Exceeded?	No	NA	No	No	No	NA

Table 13: GHG Emissions

Source/Metric	Emissions (Tons per Year)		
	CO ₂	CH ₄	CO ₂ e
MDAQMD			
On- and Off-Road Equipment	4,395.4	0.7	4,410.3
Helicopters	1.9	0.1	3.8
Blowdowns	--	--	72,506.7
Total	4,397.3	0.8	76,920.9
Applicable Threshold	--	--	100,000
Threshold Exceeded?	--	--	No
EKAPCD			
On- and Off-Road Equipment	775.7	0.1	778.3
Helicopters	0.3	<0.1	0.7
Blowdowns	--	--	12,795.3
Total	1,250.2	0.1	13,574.3
Applicable Threshold	--	--	NA
Threshold Exceeded?	--	--	NA

Notes:

- Approximately 85 percent of the pipelines in with the program area are located within areas under the jurisdiction of the MDAQMD; the remaining 15 percent are in areas under the jurisdiction of the EKAPCD.
- CH₄ has a global warming potential of 21.
- Blowdowns are highly variable from year to year. PG&E does not conduct any blowdowns during some years. The emissions presented are likely an overestimate of annual emissions because O&M activities requiring blowdowns would not occur during some years.

Attachment C

Calculations - April 5, 2021

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Crushing/Proc. Equipment	2020	176	250	6 176_250	4.222	0.289	1.125	2.014	0.006	0.065	0.065	568.299	0.026	Crushing/Proc. Equipment_2020_6				
Crushing/Proc. Equipment	2020	251	500	7 251_500	6.283	0.281	1.078	1.799	0.005	0.063	0.063	568.299	0.025	Crushing/Proc. Equipment_2020_7				
Crushing/Proc. Equipment	2020	501	750	8 501_750	9.884	0.281	1.077	1.835	0.005	0.063	0.063	568.299	0.025	Crushing/Proc. Equipment_2020_8				
Crushing/Proc. Equipment	2020	1001	9999	10 1001_9999	25.755	0.329	1.153	3.699	0.005	0.089	0.089	568.299	0.029	Crushing/Proc. Equipment_2020_10				
Crushing/Proc. Equipment	2021	26	50	3 26_50	2.265	0.862	5.136	4.211	0.007	0.201	0.201	568.299	0.077	Crushing/Proc. Equipment_2021_3				
Crushing/Proc. Equipment	2021	51	120	4 51_120	2.176	0.438	3.711	2.989	0.006	0.178	0.178	568.299	0.039	Crushing/Proc. Equipment_2021_4				
Crushing/Proc. Equipment	2021	121	175	5 121_175	3.442	0.344	3.235	2.114	0.006	0.109	0.109	568.299	0.031	Crushing/Proc. Equipment_2021_5				
Crushing/Proc. Equipment	2021	176	250	6 176_250	4.009	0.274	1.119	1.756	0.006	0.057	0.057	568.299	0.024	Crushing/Proc. Equipment_2021_6				
Crushing/Proc. Equipment	2021	251	500	7 251_500	5.988	0.268	1.072	1.574	0.005	0.055	0.055	568.3	0.024	Crushing/Proc. Equipment_2021_7				
Crushing/Proc. Equipment	2021	501	750	8 501_750	9.434	0.268	1.072	1.606	0.005	0.055	0.055	568.299	0.024	Crushing/Proc. Equipment_2021_8				
Crushing/Proc. Equipment	2021	1001	9999	10 1001_9999	24.586	0.314	1.136	3.487	0.005	0.08	0.08	568.299	0.028	Crushing/Proc. Equipment_2021_10				
Crushing/Proc. Equipment	2022	26	50	3 26_50	2.09	0.795	5.081	4.083	0.007	0.172	0.172	568.299	0.071	Crushing/Proc. Equipment_2022_3				
Crushing/Proc. Equipment	2022	51	120	4 51_120	2.036	0.41	3.704	2.758	0.006	0.154	0.154	568.299	0.037	Crushing/Proc. Equipment_2022_4				
Crushing/Proc. Equipment	2022	121	175	5 121_175	3.231	0.323	3.237	1.861	0.006	0.095	0.095	568.299	0.029	Crushing/Proc. Equipment_2022_5				
Crushing/Proc. Equipment	2022	176	250	6 176_250	3.808	0.26	1.114	1.521	0.006	0.05	0.05	568.299	0.023	Crushing/Proc. Equipment_2022_6				
Crushing/Proc. Equipment	2022	251	500	7 251_500	5.706	0.255	1.067	1.389	0.005	0.048	0.048	568.299	0.023	Crushing/Proc. Equipment_2022_7				
Crushing/Proc. Equipment	2022	501	750	8 501_750	9.002	0.256	1.067	1.416	0.005	0.048	0.048	568.299	0.023	Crushing/Proc. Equipment_2022_8				
Crushing/Proc. Equipment	2022	1001	9999	10 1001_9999	23.492	0.3	1.121	3.31	0.005	0.073	0.073	568.299	0.027	Crushing/Proc. Equipment_2022_10				
Crushing/Proc. Equipment	2023	26	50	3 26_50	1.944	0.739	5.039	3.962	0.007	0.146	0.146	568.299	0.066	Crushing/Proc. Equipment_2023_3				
Crushing/Proc. Equipment	2023	51	120	4 51_120	1.914	0.385	3.7	2.552	0.006	0.132	0.132	568.299	0.034	Crushing/Proc. Equipment_2023_4				
Crushing/Proc. Equipment	2023	121	175	5 121_175	3.042	0.304	3.24	1.654	0.006	0.083	0.083	568.299	0.027	Crushing/Proc. Equipment_2023_5				
Crushing/Proc. Equipment	2023	176	250	6 176_250	3.623	0.248	1.111	1.33	0.006	0.043	0.043	568.299	0.022	Crushing/Proc. Equipment_2023_6				
Crushing/Proc. Equipment	2023	251	500	7 251_500	5.444	0.244	1.064	1.227	0.005	0.042	0.042	568.299	0.022	Crushing/Proc. Equipment_2023_7				
Crushing/Proc. Equipment	2023	501	750	8 501_750	8.598	0.244	1.065	1.251	0.005	0.042	0.042	568.3	0.022	Crushing/Proc. Equipment_2023_8				
Crushing/Proc. Equipment	2023	1001	9999	10 1001_9999	22.463	0.287	1.107	3.16	0.005	0.066	0.066	568.299	0.025	Crushing/Proc. Equipment_2023_10				
Crushing/Proc. Equipment	2024	26	50	3 26_50	1.825	0.694	5.008	3.85	0.007	0.125	0.125	568.299	0.062	Crushing/Proc. Equipment_2024_3				
Crushing/Proc. Equipment	2024	51	120	4 51_120	1.81	0.364	3.697	2.389	0.006	0.112	0.112	568.299	0.032	Crushing/Proc. Equipment_2024_4				
Crushing/Proc. Equipment	2024	121	175	5 121_175	2.866	0.287	3.243	1.472	0.006	0.071	0.071	568.299	0.025	Crushing/Proc. Equipment_2024_5				
Crushing/Proc. Equipment	2024	176	250	6 176_250	3.448	0.236	1.109	1.165	0.006	0.036	0.036	568.299	0.021	Crushing/Proc. Equipment_2024_6				
Crushing/Proc. Equipment	2024	251	500	7 251_500	5.193	0.232	1.062	1.077	0.005	0.035	0.035	568.299	0.021	Crushing/Proc. Equipment_2024_7				
Crushing/Proc. Equipment	2024	501	750	8 501_750	8.207	0.233	1.063	1.098	0.005	0.036	0.036	568.299	0.021	Crushing/Proc. Equipment_2024_8				
Crushing/Proc. Equipment	2024	1001	9999	10 1001_9999	21.454	0.274	1.096	3.029	0.005	0.059	0.059	568.299	0.024	Crushing/Proc. Equipment_2024_10				
Crushing/Proc. Equipment	2025	26	50	3 26_50	1.724	0.656	4.982	3.742	0.007	0.107	0.107	568.299	0.059	Crushing/Proc. Equipment_2025_3				
Crushing/Proc. Equipment	2025	51	120	4 51_120	1.716	0.345	3.694	2.248	0.006	0.095	0.095	568.299	0.031	Crushing/Proc. Equipment_2025_4				
Crushing/Proc. Equipment	2025	121	175	5 121_175	2.696	0.27	3.246	1.301	0.006	0.06	0.06	568.299	0.024	Crushing/Proc. Equipment_2025_5				
Crushing/Proc. Equipment	2025	176	250	6 176_250	3.279	0.224	1.108	1.012	0.006	0.031	0.031	568.299	0.02	Crushing/Proc. Equipment_2025_6				
Crushing/Proc. Equipment	2025	251	500	7 251_500	4.95	0.221	1.061	0.937	0.005	0.03	0.03	568.299	0.02	Crushing/Proc. Equipment_2025_7				
Crushing/Proc. Equipment	2025	501	750	8 501_750	7.826	0.222	1.061	0.955	0.005	0.03	0.03	568.299	0.02	Crushing/Proc. Equipment_2025_8				
Crushing/Proc. Equipment	2025	1001	9999	10 1001_9999	20.429	0.261	1.087	2.91	0.005	0.053	0.053	568.299	0.023	Crushing/Proc. Equipment_2025_10				
Crushing/Proc. Equipment	2030	26	50	3 26_50	1.381	0.525	4.857	3.351	0.007	0.043	0.043	568.299	0.047	Crushing/Proc. Equipment_2030_3				
Crushing/Proc. Equipment	2030	51	120	4 51_120	1.35	0.272	3.673	1.708	0.006	0.038	0.038	568.299	0.024	Crushing/Proc. Equipment_2030_4				
Crushing/Proc. Equipment	2030	121	175	5 121_175	1.976	0.197	3.244	0.6	0.006	0.025	0.025	568.299	0.017	Crushing/Proc. Equipment_2030_5				
Crushing/Proc. Equipment	2030	176	250	6 176_250	2.701	0.185	1.105	0.502	0.006	0.017	0.017	568.299	0.016	Crushing/Proc. Equipment_2030_6				
Crushing/Proc. Equipment	2030	251	500	7 251_500	4.113	0.184	1.058	0.476	0.005	0.017	0.017	568.299	0.016	Crushing/Proc. Equipment_2030_7				
Crushing/Proc. Equipment	2030	501	750	8 501_750	6.473	0.184	1.058	0.478	0.005	0.017	0.017	568.299	0.016	Crushing/Proc. Equipment_2030_8				
Crushing/Proc. Equipment	2030	1001	9999	10 1001_9999	15.345	0.196	1.059	2.59	0.005	0.032	0.032	568.299	0.017	Crushing/Proc. Equipment_2030_10				
Crushing/Proc. Equipment	2035	26	50	3 26_50	1.282	0.487	4.819	3.237	0.007	0.023	0.023	568.299	0.044	Crushing/Proc. Equipment_2035_3				
Crushing/Proc. Equipment	2035	51	120	4 51_120	1.236	0.249	3.665	1.531	0.006	0.02	0.02	568.299	0.022	Crushing/Proc. Equipment_2035_4				
Crushing/Proc. Equipment	2035	121	175	5 121_175	1.76	0.176	3.242	0.382	0.006	0.015	0.015	568.299	0.015	Crushing/Proc. Equipment_2035_5				
Crushing/Proc. Equipment	2035	176	250	6 176_250	2.521	0.172	1.104	0.342	0.006	0.012	0.012	568.3	0.015	Crushing/Proc. Equipment_2035_6				
Crushing/Proc. Equipment	2035	251	500	7 251_500	3.852	0.172	1.058	0.338	0.005	0.012	0.012	568.299	0.015	Crushing/Proc. Equipment_2035_7				
Crushing/Proc. Equipment	2035	501	750	8 501_750	6.064	0.172	1.058	0.338	0.005	0.012	0.012	568.299	0.015	Crushing/Proc. Equipment_2035_8				
Crushing/Proc. Equipment	2035	1001	9999	10 1001_9999	13.865	0.177	1.058	2.482	0.005	0.026	0.026	568.299	0.016	Crushing/Proc. Equipment_2035_10				
Crushing/Proc. Equipment	2040	26	50	3 26_50	1.284	0.488	4.833	3.194	0.007	0.017	0.017	568.299	0.044	Crushing/Proc. Equipment_2040_3				
Crushing/Proc. Equipment	2040	51	120	4 51_120	1.219	0.245	3.67	1.477	0.006	0.015	0.015	568.299	0.022	Crushing/Proc. Equipment_2040_4				
Crushing/Proc. Equipment	2040	121	175	5 121_175	1.698	0.17	3.246	0.306	0.006	0.012	0.012	568.299	0.015	Crushing/Proc. Equipment_2040_5				
Crushing/Proc. Equipment	2040	176	250	6 176_250	2.464	0.168	1.106	0.292	0.006	0.011	0.011	568.299	0.015	Crushing/Proc. Equipment_2040_6				
Crushing/Proc. Equipment	2040	251	500	7 251_500	3.766	0.168	1.059	0.292	0.005	0.011	0.011	568.299	0.015	Crushing/Proc. Equipment_2040_7				
Crushing/Proc. Equipment	2040	501	750	8 501_750	5.941	0.169	1.059	0.292	0.005	0.011	0.011	568.299	0.015	Crushing/Proc. Equipment_2040_8				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Excavators	2020	176	250	6 176_250	0.211076	0.177	1.11778	2.02738	0.005	0.061	0.056	471.8828	0.153	Excavators_2020_6				
Excavators	2020	251	500	7 251_500	0.182542	0.153	1.1016	1.57199	0.005	0.052	0.048	470.2956	0.152	Excavators_2020_7				
Excavators	2020	501	750	8 501_750	0.202011	0.17	1.14543	1.79718	0.005	0.061	0.056	468.8706	0.152	Excavators_2020_8				
Excavators	2021	16	25	2 16_25	0.669315	0.562	4.46094	3.91866	0.005	0.202	0.186	525.3774	0.17	Excavators_2021_2				
Excavators	2021	26	50	3 26_50	0.669315	0.562	4.46094	3.91866	0.005	0.202	0.186	525.3774	0.17	Excavators_2021_3				
Excavators	2021	51	120	4 51_120	0.327314	0.275	3.49196	2.84891	0.005	0.161	0.148	467.7906	0.151	Excavators_2021_4				
Excavators	2021	121	175	5 121_175	0.257574	0.216	3.08975	2.03357	0.005	0.099	0.091	472.3586	0.153	Excavators_2021_5				
Excavators	2021	176	250	6 176_250	0.193738	0.163	1.10324	1.70572	0.005	0.052	0.048	471.7931	0.153	Excavators_2021_6				
Excavators	2021	251	500	7 251_500	0.170127	0.143	1.08777	1.33174	0.005	0.045	0.041	469.6156	0.152	Excavators_2021_7				
Excavators	2021	501	750	8 501_750	0.196683	0.165	1.14978	1.61856	0.005	0.056	0.052	469.547	0.152	Excavators_2021_8				
Excavators	2022	16	25	2 16_25	0.568779	0.478	4.27341	3.70039	0.005	0.16	0.147	525.4468	0.17	Excavators_2022_2				
Excavators	2022	26	50	3 26_50	0.568779	0.478	4.27341	3.70039	0.005	0.16	0.147	525.4468	0.17	Excavators_2022_3				
Excavators	2022	51	120	4 51_120	0.299503	0.252	3.47329	2.60649	0.005	0.138	0.127	467.6256	0.151	Excavators_2022_4				
Excavators	2022	121	175	5 121_175	0.22749	0.191	3.074	1.6781	0.005	0.081	0.075	472.1917	0.153	Excavators_2022_5				
Excavators	2022	176	250	6 176_250	0.176606	0.148	1.09157	1.38616	0.005	0.044	0.04	472.0412	0.153	Excavators_2022_6				
Excavators	2022	251	500	7 251_500	0.152263	0.128	1.06126	1.03988	0.005	0.035	0.032	469.7105	0.152	Excavators_2022_7				
Excavators	2022	501	750	8 501_750	0.178436	0.15	1.144	1.2865	0.005	0.047	0.043	469.2892	0.152	Excavators_2022_8				
Excavators	2023	16	25	2 16_25	0.535724	0.45	4.23393	3.59356	0.005	0.139	0.128	525.4286	0.17	Excavators_2023_2				
Excavators	2023	26	50	3 26_50	0.535724	0.45	4.23393	3.59356	0.005	0.139	0.128	525.4286	0.17	Excavators_2023_3				
Excavators	2023	51	120	4 51_120	0.273823	0.23	3.45367	2.38066	0.005	0.116	0.107	467.1573	0.151	Excavators_2023_4				
Excavators	2023	121	175	5 121_175	0.212046	0.178	3.07648	1.46245	0.005	0.072	0.066	472.277	0.153	Excavators_2023_5				
Excavators	2023	176	250	6 176_250	0.168964	0.142	1.08965	1.20943	0.005	0.039	0.036	472.2131	0.153	Excavators_2023_6				
Excavators	2023	251	500	7 251_500	0.145171	0.122	1.05093	0.89311	0.005	0.03	0.028	469.8892	0.152	Excavators_2023_7				
Excavators	2023	501	750	8 501_750	0.171247	0.144	1.13199	1.15865	0.005	0.043	0.04	468.6826	0.152	Excavators_2023_8				
Excavators	2024	16	25	2 16_25	0.495634	0.416	4.20529	3.50816	0.005	0.12	0.11	525.979	0.17	Excavators_2024_2				
Excavators	2024	26	50	3 26_50	0.495634	0.416	4.20529	3.50816	0.005	0.12	0.11	525.979	0.17	Excavators_2024_3				
Excavators	2024	51	120	4 51_120	0.258544	0.217	3.45322	2.24781	0.005	0.102	0.094	467.3843	0.151	Excavators_2024_4				
Excavators	2024	121	175	5 121_175	0.202572	0.17	3.08336	1.32479	0.005	0.065	0.06	472.4279	0.153	Excavators_2024_5				
Excavators	2024	176	250	6 176_250	0.165297	0.139	1.0899	1.10808	0.005	0.036	0.033	472.4415	0.153	Excavators_2024_6				
Excavators	2024	251	500	7 251_500	0.144133	0.121	1.05369	0.83129	0.005	0.029	0.026	469.7108	0.152	Excavators_2024_7				
Excavators	2024	501	750	8 501_750	0.169017	0.142	1.13421	1.10467	0.005	0.041	0.037	468.652	0.152	Excavators_2024_8				
Excavators	2025	16	25	2 16_25	0.47994	0.403	4.21941	3.45298	0.005	0.107	0.099	525.7772	0.17	Excavators_2025_2				
Excavators	2025	26	50	3 26_50	0.47994	0.403	4.21941	3.45298	0.005	0.107	0.099	525.7772	0.17	Excavators_2025_3				
Excavators	2025	51	120	4 51_120	0.23878	0.201	3.43876	2.08246	0.005	0.085	0.078	466.7376	0.151	Excavators_2025_4				
Excavators	2025	121	175	5 121_175	0.187811	0.158	3.078	1.15367	0.005	0.057	0.052	472.4964	0.153	Excavators_2025_5				
Excavators	2025	176	250	6 176_250	0.155588	0.131	1.08136	0.96211	0.005	0.032	0.029	472.5599	0.153	Excavators_2025_6				
Excavators	2025	251	500	7 251_500	0.137039	0.115	1.05072	0.72641	0.005	0.026	0.024	470.2915	0.152	Excavators_2025_7				
Excavators	2025	501	750	8 501_750	0.165305	0.139	1.13484	1.02571	0.005	0.038	0.035	468.5582	0.152	Excavators_2025_8				
Excavators	2030	16	25	2 16_25	1.838	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Excavators_2030_2				
Excavators	2030	26	50	3 26_50	2.458	0.602	5.309	3.393	0.007	0.038	0.038	568.299	0.054	Excavators_2030_3				
Excavators	2030	51	120	4 51_120	3.618	0.301	3.806	1.676	0.006	0.034	0.034	568.299	0.027	Excavators_2030_4				
Excavators	2030	121	175	5 121_175	3.914	0.213	3.362	0.525	0.006	0.023	0.023	568.299	0.019	Excavators_2030_5				
Excavators	2030	176	250	6 176_250	5.258	0.203	1.145	0.452	0.006	0.016	0.016	568.299	0.018	Excavators_2030_6				
Excavators	2030	251	500	7 251_500	7.722	0.202	1.088	0.433	0.005	0.016	0.016	568.299	0.018	Excavators_2030_7				
Excavators	2030	501	750	8 501_750	12.807	0.202	1.088	0.437	0.005	0.016	0.016	568.299	0.018	Excavators_2030_8				
Excavators	2035	16	25	2 16_25	1.838	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Excavators_2035_2				
Excavators	2035	26	50	3 26_50	2.333	0.572	5.287	3.323	0.007	0.024	0.024	568.299	0.051	Excavators_2035_3				
Excavators	2035	51	120	4 51_120	3.411	0.284	3.802	1.551	0.006	0.021	0.021	568.299	0.025	Excavators_2035_4				
Excavators	2035	121	175	5 121_175	3.622	0.197	3.363	0.365	0.006	0.015	0.015	568.299	0.017	Excavators_2035_5				
Excavators	2035	176	250	6 176_250	5.059	0.195	1.145	0.342	0.006	0.013	0.013	568.3	0.017	Excavators_2035_6				
Excavators	2035	251	500	7 251_500	7.45	0.195	1.089	0.337	0.005	0.013	0.013	568.299	0.017	Excavators_2035_7				
Excavators	2035	501	750	8 501_750	12.348	0.195	1.088	0.338	0.005	0.013	0.013	568.299	0.017	Excavators_2035_8				
Excavators	2040	16	25	2 16_25	1.838	0.685	2.339	4.332	0.007	0.161	0.161	568.3	0.061	Excavators_2040_2				
Excavators	2040	26	50	3 26_50	2.314	0.567	5.283	3.29	0.007	0.019	0.019	568.299	0.051	Excavators_2040_3				
Excavators	2040	51	120	4 51_120	3.36	0.279	3.802	1.507	0.006	0.017	0.017	568.299	0.025	Excavators_2040_4				
Excavators	2040	121	175	5 121_175	3.532	0.193	3.363	0.311	0.006	0.013	0.013	568.299	0.017	Excavators_2040_5				
Excavators	2040	176	250	6 176_250	4.971	0.192	1.145	0.3	0.006	0.011	0.011	568.299	0.017	Excavators_2040_6				
Excavators	2040	251	500	7 251_500	7.322	0.192	1.089	0.3	0.005	0.011	0.011	568.299	0.017	Excavators_2040_7				
Excavators	2040	501	750	8 501_750	12.137	0.192	1.089	0.3	0.005	0.011	0.011	568.299	0.017	Excavators_2040_8				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Forklifts	1990	26	50	3 26_50	11.848	4.826	9.773	7.952	0.692	1.266	1.266	568.299	0.435	Forklifts_1990_3				
Forklifts	1990	51	120	4 51_120	12.154	2.326	5.638	14.699	0.628	1.32	1.32	568.3	0.209	Forklifts_1990_4				
Forklifts	1990	121	175	5 121_175	14.423	1.537	4.938	12.932	0.602	0.849	0.849	568.299	0.138	Forklifts_1990_5				
Forklifts	1990	176	250	6 176_250	19.845	1.537	4.938	12.932	0.602	0.849	0.849	568.299	0.138	Forklifts_1990_6				
Forklifts	1990	251	500	7 251_500	25.356	1.365	10.853	12.267	0.525	0.73	0.73	568.299	0.123	Forklifts_1990_7				
Forklifts	2000	26	50	3 26_50	10.952	4.461	9.216	7.035	0.065	0.934	0.934	568.3	0.402	Forklifts_2000_3				
Forklifts	2000	51	120	4 51_120	9.146	1.75	4.459	9.75	0.059	0.882	0.882	568.299	0.157	Forklifts_2000_4				
Forklifts	2000	121	175	5 121_175	11.149	1.188	3.519	9.001	0.057	0.502	0.502	568.299	0.107	Forklifts_2000_5				
Forklifts	2000	176	250	6 176_250	11.958	0.926	2.534	8.546	0.057	0.372	0.372	568.299	0.083	Forklifts_2000_6				
Forklifts	2000	251	500	7 251_500	15.747	0.848	3.255	8.126	0.049	0.333	0.333	568.299	0.076	Forklifts_2000_7				
Forklifts	2005	26	50	3 26_50	10.087	4.108	8.778	6.62	0.065	0.891	0.891	568.299	0.37	Forklifts_2005_3				
Forklifts	2005	51	120	4 51_120	8.425	1.612	4.35	8.602	0.059	0.876	0.876	568.299	0.145	Forklifts_2005_4				
Forklifts	2005	121	175	5 121_175	9.959	1.061	3.418	7.94	0.057	0.475	0.475	568.299	0.095	Forklifts_2005_5				
Forklifts	2005	176	250	6 176_250	8.606	0.666	1.693	7.367	0.057	0.253	0.253	568.299	0.06	Forklifts_2005_6				
Forklifts	2005	251	500	7 251_500	10.976	0.591	1.803	6.611	0.049	0.23	0.23	568.299	0.053	Forklifts_2005_7				
Forklifts	2010	26	50	3 26_50	2.846117	2.392	7.62516	6.31187	0.005	0.729	0.671	583.8704	0.17	Forklifts_2010_3				
Forklifts	2010	51	120	4 51_120	1.045472	0.878	4.10764	7.63494	0.005	0.625	0.575	523.9205	0.153	Forklifts_2010_4				
Forklifts	2010	121	175	5 121_175	0.764801	0.643	3.54812	7.24303	0.005	0.389	0.357	524.5625	0.153	Forklifts_2010_5				
Forklifts	2010	176	250	6 176_250	0.852639	0.716	2.88991	8.49545	0.005	0.398	0.366	525.9172	0.153	Forklifts_2010_6				
Forklifts	2010	251	500	7 251_500	0.814667	0.685	5.79345	8.13812	0.005	0.381	0.351	526.239	0.153	Forklifts_2010_7				
Forklifts	2011	26	50	3 26_50	2.771689	2.329	7.5619	6.26642	0.005	0.715	0.657	582.4107	0.17	Forklifts_2011_3				
Forklifts	2011	51	120	4 51_120	1.023636	0.86	4.10232	7.45983	0.005	0.617	0.568	522.6107	0.153	Forklifts_2011_4				
Forklifts	2011	121	175	5 121_175	0.759385	0.638	3.55732	7.14122	0.005	0.385	0.355	523.2511	0.153	Forklifts_2011_5				
Forklifts	2011	176	250	6 176_250	0.819463	0.689	2.77115	8.17495	0.005	0.381	0.35	524.6024	0.153	Forklifts_2011_6				
Forklifts	2011	251	500	7 251_500	0.787175	0.661	5.42187	7.84	0.005	0.368	0.338	524.9234	0.153	Forklifts_2011_7				
Forklifts	2012	26	50	3 26_50	2.800937	2.354	7.68036	6.27736	0.005	0.72	0.663	580.951	0.17	Forklifts_2012_3				
Forklifts	2012	51	120	4 51_120	1.026513	0.863	4.13104	7.43066	0.005	0.62	0.571	521.3009	0.153	Forklifts_2012_4				
Forklifts	2012	121	175	5 121_175	0.764904	0.643	3.58413	7.11981	0.005	0.387	0.356	521.9397	0.153	Forklifts_2012_5				
Forklifts	2012	176	250	6 176_250	0.82428	0.693	2.77846	8.14199	0.005	0.381	0.35	523.2876	0.153	Forklifts_2012_6				
Forklifts	2012	251	500	7 251_500	0.795085	0.668	5.42806	7.85628	0.005	0.369	0.34	523.6078	0.153	Forklifts_2012_7				
Forklifts	2013	26	50	3 26_50	2.655997	2.232	7.4937	6.14743	0.005	0.689	0.634	578.0317	0.17	Forklifts_2013_3				
Forklifts	2013	51	120	4 51_120	0.996839	0.838	4.11855	7.21545	0.005	0.603	0.555	518.6813	0.153	Forklifts_2013_4				
Forklifts	2013	121	175	5 121_175	0.743778	0.625	3.57971	6.90229	0.005	0.375	0.345	519.3169	0.153	Forklifts_2013_5				
Forklifts	2013	176	250	6 176_250	0.786493	0.661	2.67477	7.77338	0.005	0.36	0.332	520.658	0.153	Forklifts_2013_6				
Forklifts	2013	251	500	7 251_500	0.686735	0.577	4.6871	6.91072	0.005	0.314	0.289	520.9766	0.153	Forklifts_2013_7				
Forklifts	2014	26	50	3 26_50	2.515249	2.114	7.32058	6.00609	0.005	0.656	0.604	575.1123	0.17	Forklifts_2014_3				
Forklifts	2014	51	120	4 51_120	0.945485	0.794	4.07936	6.84833	0.005	0.574	0.528	516.0617	0.153	Forklifts_2014_4				
Forklifts	2014	121	175	5 121_175	0.688099	0.578	3.52073	6.35205	0.005	0.345	0.317	516.694	0.153	Forklifts_2014_5				
Forklifts	2014	176	250	6 176_250	0.731475	0.615	2.50114	7.27612	0.005	0.33	0.304	518.0284	0.153	Forklifts_2014_6				
Forklifts	2014	251	500	7 251_500	0.644228	0.541	4.25186	6.35258	0.005	0.289	0.266	518.3454	0.153	Forklifts_2014_7				
Forklifts	2015	26	50	3 26_50	2.466892	2.073	7.29982	5.93143	0.005	0.643	0.591	569.2736	0.17	Forklifts_2015_3				
Forklifts	2015	51	120	4 51_120	0.914509	0.768	4.06346	6.60091	0.005	0.555	0.51	510.8225	0.153	Forklifts_2015_4				
Forklifts	2015	121	175	5 121_175	0.673169	0.566	3.51969	6.13482	0.005	0.335	0.308	511.4484	0.153	Forklifts_2015_5				
Forklifts	2015	176	250	6 176_250	0.672054	0.565	2.32501	6.69668	0.005	0.298	0.274	512.7693	0.153	Forklifts_2015_6				
Forklifts	2015	251	500	7 251_500	0.539875	0.454	3.29951	5.33227	0.005	0.237	0.218	513.083	0.153	Forklifts_2015_7				
Forklifts	2016	26	50	3 26_50	2.217878	1.864	6.93473	5.66211	0.005	0.583	0.537	563.4349	0.17	Forklifts_2016_3				
Forklifts	2016	51	120	4 51_120	0.860278	0.723	4.02311	6.22192	0.005	0.52	0.479	505.5833	0.153	Forklifts_2016_4				
Forklifts	2016	121	175	5 121_175	0.630613	0.53	3.47253	5.67466	0.005	0.31	0.285	506.2028	0.153	Forklifts_2016_5				
Forklifts	2016	176	250	6 176_250	0.641979	0.539	2.22626	6.35303	0.005	0.28	0.257	507.5101	0.153	Forklifts_2016_6				
Forklifts	2016	251	500	7 251_500	0.419581	0.353	2.57209	4.04212	0.005	0.174	0.16	507.8206	0.153	Forklifts_2016_7				
Forklifts	2017	26	50	3 26_50	2.026819	1.703	6.67251	5.45035	0.005	0.536	0.493	554.6769	0.17	Forklifts_2017_3				
Forklifts	2017	51	120	4 51_120	0.799635	0.672	3.97881	5.81772	0.005	0.48	0.442	497.7245	0.153	Forklifts_2017_4				
Forklifts	2017	121	175	5 121_175	0.604568	0.508	3.45188	5.36215	0.005	0.294	0.27	498.3344	0.153	Forklifts_2017_5				
Forklifts	2017	176	250	6 176_250	0.589964	0.496	2.0923	5.75116	0.005	0.252	0.232	499.6213	0.153	Forklifts_2017_6				
Forklifts	2017	251	500	7 251_500	0.401897	0.338	2.50803	3.7797	0.005	0.161	0.148	499.927	0.153	Forklifts_2017_7				
Forklifts	2018	26	50	3 26_50	1.658295	1.393	6.10276	5.05181	0.005	0.447	0.411	545.9188	0.17	Forklifts_2018_3				
Forklifts	2018	51	120	4 51_120	0.675301	0.567	3.85819	5.0153	0.005	0.4	0.368	489.8657	0.153	Forklifts_2018_4				
Forklifts	2018	121	175	5 121_175	0.508414	0.427	3.33646	4.42984	0.005	0.241	0.222	490.4659	0.153	Forklifts_2018_5				
Forklifts	2018	176	250	6 176_250	0.506009	0.425	1.83475	4.93757	0.005	0.207	0.191	491.7326	0.153	Forklifts_2018_6				

Attachment C																		
Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Forklifts	2018	251	500	7 251_500	0.335655	0.282	1.87814	3.01864	0.005	0.125	0.115	492.0335	0.153	Forklifts_2018_7				
Forklifts	2019	26	50	3 26_50	1.480074	1.244	5.88034	4.86189	0.005	0.401	0.369	537.1608	0.17	Forklifts_2019_3				
Forklifts	2019	51	120	4 51_120	0.606336	0.509	3.80391	4.54965	0.005	0.352	0.324	482.0069	0.153	Forklifts_2019_4				
Forklifts	2019	121	175	5 121_175	0.454984	0.382	3.28831	3.86458	0.005	0.21	0.193	482.5975	0.153	Forklifts_2019_5				
Forklifts	2019	176	250	6 176_250	0.445406	0.374	1.6773	4.2498	0.005	0.175	0.161	483.8438	0.153	Forklifts_2019_6				
Forklifts	2019	251	500	7 251_500	0.31829	0.267	1.814	2.75148	0.005	0.112	0.103	484.1399	0.153	Forklifts_2019_7				
Forklifts	2020	26	50	3 26_50	1.337399	1.124	5.70563	4.68572	0.005	0.36	0.331	525.4833	0.17	Forklifts_2020_3				
Forklifts	2020	51	120	4 51_120	0.545921	0.459	3.75954	4.13299	0.005	0.308	0.283	471.5285	0.153	Forklifts_2020_4				
Forklifts	2020	121	175	5 121_175	0.402357	0.338	3.24885	3.3196	0.005	0.18	0.165	472.1062	0.153	Forklifts_2020_5				
Forklifts	2020	176	250	6 176_250	0.348476	0.293	1.44178	3.24149	0.005	0.126	0.116	473.3255	0.153	Forklifts_2020_6				
Forklifts	2020	251	500	7 251_500	0.299035	0.251	1.47807	2.43991	0.005	0.097	0.089	473.6151	0.153	Forklifts_2020_7				
Forklifts	2021	26	50	3 26_50	1.192536	1.002	5.53477	4.5202	0.005	0.318	0.292	525.4833	0.17	Forklifts_2021_3				
Forklifts	2021	51	120	4 51_120	0.490261	0.412	3.72	3.75592	0.005	0.267	0.245	471.5285	0.153	Forklifts_2021_4				
Forklifts	2021	121	175	5 121_175	0.366939	0.308	3.23128	2.9207	0.005	0.158	0.145	472.1062	0.153	Forklifts_2021_5				
Forklifts	2021	176	250	6 176_250	0.296154	0.249	1.33672	2.58195	0.005	0.099	0.091	473.3255	0.153	Forklifts_2021_6				
Forklifts	2021	251	500	7 251_500	0.301833	0.254	1.48481	2.30266	0.005	0.094	0.086	473.6151	0.153	Forklifts_2021_7				
Forklifts	2022	26	50	3 26_50	1.02259	0.859	5.30418	4.31214	0.005	0.27	0.248	525.4833	0.17	Forklifts_2022_3				
Forklifts	2022	51	120	4 51_120	0.430627	0.362	3.67507	3.36021	0.005	0.223	0.205	471.5285	0.153	Forklifts_2022_4				
Forklifts	2022	121	175	5 121_175	0.324265	0.272	3.19749	2.47982	0.005	0.132	0.122	472.1062	0.153	Forklifts_2022_5				
Forklifts	2022	176	250	6 176_250	0.280841	0.236	1.3171	2.31941	0.005	0.09	0.083	473.3255	0.153	Forklifts_2022_6				
Forklifts	2022	251	500	7 251_500	0.275829	0.232	1.21922	1.99119	0.005	0.077	0.071	473.6151	0.153	Forklifts_2022_7				
Forklifts	2023	26	50	3 26_50	0.911766	0.766	5.16597	4.15219	0.005	0.232	0.213	525.4833	0.17	Forklifts_2023_3				
Forklifts	2023	51	120	4 51_120	0.388709	0.327	3.64655	3.0569	0.005	0.189	0.174	471.5285	0.153	Forklifts_2023_4				
Forklifts	2023	121	175	5 121_175	0.289923	0.244	3.1799	2.11214	0.005	0.111	0.102	472.1062	0.153	Forklifts_2023_5				
Forklifts	2023	176	250	6 176_250	0.242474	0.204	1.23515	1.80718	0.005	0.069	0.063	473.3255	0.153	Forklifts_2023_6				
Forklifts	2023	251	500	7 251_500	0.261765	0.22	1.21596	1.78772	0.005	0.069	0.063	473.6151	0.153	Forklifts_2023_7				
Forklifts	2024	26	50	3 26_50	0.823848	0.692	5.0885	4.03948	0.005	0.203	0.187	525.4833	0.17	Forklifts_2024_3				
Forklifts	2024	51	120	4 51_120	0.357083	0.3	3.62907	2.81432	0.005	0.163	0.15	471.5285	0.153	Forklifts_2024_4				
Forklifts	2024	121	175	5 121_175	0.266701	0.224	3.17389	1.86129	0.005	0.096	0.088	472.1062	0.153	Forklifts_2024_5				
Forklifts	2024	176	250	6 176_250	0.232645	0.195	1.21846	1.6253	0.005	0.061	0.056	473.3255	0.153	Forklifts_2024_6				
Forklifts	2024	251	500	7 251_500	0.258844	0.218	1.21901	1.72336	0.005	0.065	0.06	473.6151	0.153	Forklifts_2024_7				
Forklifts	2025	26	50	3 26_50	0.757155	0.636	5.02929	3.93206	0.005	0.178	0.164	525.4833	0.17	Forklifts_2025_3				
Forklifts	2025	51	120	4 51_120	0.329382	0.277	3.61138	2.60732	0.005	0.14	0.128	471.5285	0.153	Forklifts_2025_4				
Forklifts	2025	121	175	5 121_175	0.248361	0.209	3.17013	1.653	0.005	0.084	0.078	472.1062	0.153	Forklifts_2025_5				
Forklifts	2025	176	250	6 176_250	0.226669	0.19	1.2143	1.46623	0.005	0.056	0.052	473.3255	0.153	Forklifts_2025_6				
Forklifts	2025	251	500	7 251_500	0.255656	0.215	1.22207	1.65848	0.005	0.062	0.057	473.6151	0.153	Forklifts_2025_7				
Forklifts	2030	26	50	3 26_50	1.388	0.565	5.272	3.33	0.007	0.023	0.023	568.299	0.051	Forklifts_2030_3				
Forklifts	2030	51	120	4 51_120	1.48	0.283	3.799	1.555	0.006	0.021	0.021	568.299	0.025	Forklifts_2030_4				
Forklifts	2030	121	175	5 121_175	1.875	0.199	3.36	0.391	0.006	0.015	0.015	568.299	0.018	Forklifts_2030_5				
Forklifts	2030	176	250	6 176_250	2.524	0.195	1.144	0.341	0.006	0.012	0.012	568.299	0.017	Forklifts_2030_6				
Forklifts	2030	251	500	7 251_500	3.633	0.195	1.088	0.341	0.005	0.012	0.012	568.299	0.017	Forklifts_2030_7				
Forklifts	2035	26	50	3 26_50	1.371	0.558	5.234	3.268	0.007	0.017	0.017	568.299	0.05	Forklifts_2035_3				
Forklifts	2035	51	120	4 51_120	1.438	0.275	3.787	1.495	0.006	0.016	0.016	568.299	0.024	Forklifts_2035_4				
Forklifts	2035	121	175	5 121_175	1.775	0.189	3.35	0.299	0.006	0.012	0.012	568.3	0.017	Forklifts_2035_5				
Forklifts	2035	176	250	6 176_250	2.433	0.188	1.141	0.29	0.006	0.011	0.011	568.3	0.017	Forklifts_2035_6				
Forklifts	2035	251	500	7 251_500	3.502	0.188	1.085	0.29	0.005	0.011	0.011	568.299	0.017	Forklifts_2035_7				
Forklifts	2040	26	50	3 26_50	1.38	0.562	5.256	3.272	0.007	0.017	0.017	568.299	0.05	Forklifts_2040_3				
Forklifts	2040	51	120	4 51_120	1.444	0.276	3.794	1.491	0.006	0.016	0.016	568.299	0.024	Forklifts_2040_4				
Forklifts	2040	121	175	5 121_175	1.777	0.189	3.356	0.288	0.006	0.012	0.012	568.299	0.017	Forklifts_2040_5				
Forklifts	2040	176	250	6 176_250	2.445	0.189	1.143	0.288	0.006	0.011	0.011	568.299	0.017	Forklifts_2040_6				
Forklifts	2040	251	500	7 251_500	3.518	0.189	1.087	0.288	0.005	0.011	0.011	568.299	0.017	Forklifts_2040_7				
Generator Sets	1990	6	15	1 6_15	4.791	1.804	4.999	10	1.018	0.974	0.974	568.299	0.162	Generator Sets_1990_1				
Generator Sets	1990	16	25	2 16_25	10.151	2.213	4.999	6.919	0.83	0.74	0.74	568.299	0.199	Generator Sets_1990_2				
Generator Sets	1990	26	50	3 26_50	24.936	3.13	6.681	7.325	0.846	0.928	0.928	568.299	0.282	Generator Sets_1990_3				
Generator Sets	1990	51	120	4 51_120	38.362	1.891	4.97	13.19	0.768	0.985	0.985	568.299	0.17	Generator Sets_1990_4				
Generator Sets	1990	121	175	5 121_175	47.754	1.292	4.395	11.864	0.736	0.653	0.653	568.3	0.116	Generator Sets_1990_5				
Generator Sets	1990	176	250	6 176_250	71.475	1.292	4.395	11.864	0.736	0.653	0.653	568.299	0.116	Generator Sets_1990_6				
Generator Sets	1990	251	500	7 251_500	104.891	1.196	6.53	11.613	0.642	0.596	0.596	568.299	0.107	Generator Sets_1990_7				
Generator Sets	1990	501	750	8 501_750	169.323	1.196	6.53	11.612	0.658	0.596	0.596	568.299	0.107	Generator Sets_1990_8				

Equipment Type	Year	Low HP	High HP	Bin Number	Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Generator Sets	1990	1001	9999	10	1001_9999	326.002	1.195	6.53	11.612	0.658	0.594	0.594	568.299	0.107	Generator Sets_1990_10				
Generator Sets	2000	6	15	1	6_15	4.033	1.518	4.875	8.846	0.079	0.613	0.613	568.299	0.137	Generator Sets_2000_1				
Generator Sets	2000	16	25	2	16_25	7.648	1.667	4.783	6.405	0.065	0.51	0.51	568.299	0.15	Generator Sets_2000_2				
Generator Sets	2000	26	50	3	26_50	23.582	2.96	6.415	6.55	0.066	0.692	0.692	568.299	0.267	Generator Sets_2000_3				
Generator Sets	2000	51	120	4	51_120	31.137	1.535	4.158	9.468	0.06	0.686	0.686	568.299	0.138	Generator Sets_2000_4				
Generator Sets	2000	121	175	5	121_175	38.027	1.029	3.381	8.612	0.057	0.404	0.404	568.299	0.092	Generator Sets_2000_5				
Generator Sets	2000	176	250	6	176_250	46.981	0.849	2.656	8.277	0.057	0.325	0.325	568.299	0.076	Generator Sets_2000_6				
Generator Sets	2000	251	500	7	251_500	70.308	0.802	3.7	8.102	0.05	0.301	0.301	568.299	0.072	Generator Sets_2000_7				
Generator Sets	2000	501	750	8	501_750	113.5	0.802	3.7	8.102	0.051	0.301	0.301	568.3	0.072	Generator Sets_2000_8				
Generator Sets	2000	1001	9999	10	1001_9999	251.503	0.921	4.274	8.686	0.051	0.344	0.344	568.299	0.083	Generator Sets_2000_10				
Generator Sets	2005	6	15	1	6_15	3.219	1.212	4.38	7.615	0.079	0.505	0.505	568.299	0.109	Generator Sets_2005_1				
Generator Sets	2005	16	25	2	16_25	5.748	1.253	3.922	6.014	0.065	0.432	0.432	568.299	0.113	Generator Sets_2005_2				
Generator Sets	2005	26	50	3	26_50	20.78	2.608	5.919	6.099	0.066	0.64	0.64	568.3	0.235	Generator Sets_2005_3				
Generator Sets	2005	51	120	4	51_120	26.634	1.313	3.853	7.987	0.06	0.634	0.634	568.299	0.118	Generator Sets_2005_4				
Generator Sets	2005	121	175	5	121_175	31.579	0.854	3.067	7.306	0.057	0.35	0.35	568.299	0.077	Generator Sets_2005_5				
Generator Sets	2005	176	250	6	176_250	33.443	0.604	1.801	6.892	0.057	0.229	0.229	568.299	0.054	Generator Sets_2005_6				
Generator Sets	2005	251	500	7	251_500	47.834	0.545	2.206	6.465	0.05	0.211	0.211	568.299	0.049	Generator Sets_2005_7				
Generator Sets	2005	501	750	8	501_750	79.444	0.561	2.206	6.609	0.051	0.214	0.214	568.3	0.05	Generator Sets_2005_8				
Generator Sets	2005	1001	9999	10	1001_9999	195.712	0.717	2.719	7.582	0.051	0.255	0.255	568.299	0.064	Generator Sets_2005_10				
Generator Sets	2010	6	15	1	6_15	2.532	0.953	4.027	6.387	0.008	0.38	0.38	568.299	0.086	Generator Sets_2010_1				
Generator Sets	2010	16	25	2	16_25	4.408	0.961	3.309	5.477	0.007	0.342	0.342	568.299	0.086	Generator Sets_2010_2				
Generator Sets	2010	26	50	3	26_50	16.299	2.045	5.353	5.68	0.007	0.522	0.522	568.299	0.184	Generator Sets_2010_3				
Generator Sets	2010	51	120	4	51_120	20.399	1.005	3.677	6.573	0.006	0.516	0.516	568.299	0.09	Generator Sets_2010_4				
Generator Sets	2010	121	175	5	121_175	24.447	0.661	2.986	5.87	0.006	0.286	0.286	568.299	0.059	Generator Sets_2010_5				
Generator Sets	2010	176	250	6	176_250	23.668	0.428	1.333	5.501	0.006	0.163	0.163	568.299	0.038	Generator Sets_2010_6				
Generator Sets	2010	251	500	7	251_500	33.685	0.384	1.482	5.015	0.005	0.153	0.153	568.299	0.034	Generator Sets_2010_7				
Generator Sets	2010	501	750	8	501_750	56.116	0.396	1.482	5.147	0.005	0.155	0.155	568.299	0.035	Generator Sets_2010_8				
Generator Sets	2010	1001	9999	10	1001_9999	147.466	0.54	1.93	6.544	0.005	0.193	0.193	568.299	0.048	Generator Sets_2010_10				
Generator Sets	2011	6	15	1	6_15	2.413	0.908	3.952	6.134	0.008	0.358	0.358	568.299	0.081	Generator Sets_2011_1				
Generator Sets	2011	16	25	2	16_25	4.22	0.92	3.179	5.36	0.007	0.325	0.325	568.299	0.083	Generator Sets_2011_2				
Generator Sets	2011	26	50	3	26_50	15.152	1.901	5.2	5.585	0.007	0.495	0.495	568.3	0.171	Generator Sets_2011_3				
Generator Sets	2011	51	120	4	51_120	19.003	0.937	3.64	6.226	0.006	0.493	0.493	568.299	0.084	Generator Sets_2011_4				
Generator Sets	2011	121	175	5	121_175	22.889	0.619	2.974	5.544	0.006	0.274	0.274	568.299	0.055	Generator Sets_2011_5				
Generator Sets	2011	176	250	6	176_250	21.62	0.391	1.249	5.125	0.006	0.147	0.147	568.299	0.035	Generator Sets_2011_6				
Generator Sets	2011	251	500	7	251_500	30.74	0.35	1.36	4.654	0.005	0.138	0.138	568.299	0.031	Generator Sets_2011_7				
Generator Sets	2011	501	750	8	501_750	51.271	0.362	1.36	4.784	0.005	0.14	0.14	568.299	0.032	Generator Sets_2011_8				
Generator Sets	2011	1001	9999	10	1001_9999	137.042	0.502	1.784	6.202	0.005	0.18	0.18	568.299	0.045	Generator Sets_2011_10				
Generator Sets	2012	6	15	1	6_15	2.298	0.865	3.874	5.874	0.008	0.338	0.338	568.299	0.078	Generator Sets_2012_1				
Generator Sets	2012	16	25	2	16_25	4.059	0.884	3.043	5.239	0.007	0.307	0.307	568.299	0.079	Generator Sets_2012_2				
Generator Sets	2012	26	50	3	26_50	13.912	1.746	5.03	5.485	0.007	0.466	0.466	568.299	0.157	Generator Sets_2012_3				
Generator Sets	2012	51	120	4	51_120	17.544	0.865	3.603	5.848	0.006	0.46	0.46	568.299	0.078	Generator Sets_2012_4				
Generator Sets	2012	121	175	5	121_175	21.243	0.575	2.963	5.198	0.006	0.254	0.254	568.299	0.051	Generator Sets_2012_5				
Generator Sets	2012	176	250	6	176_250	19.998	0.361	1.196	4.77	0.006	0.133	0.133	568.3	0.032	Generator Sets_2012_6				
Generator Sets	2012	251	500	7	251_500	28.44	0.324	1.275	4.315	0.005	0.125	0.125	568.299	0.029	Generator Sets_2012_7				
Generator Sets	2012	501	750	8	501_750	47.464	0.335	1.275	4.441	0.005	0.127	0.127	568.299	0.03	Generator Sets_2012_8				
Generator Sets	2012	1001	9999	10	1001_9999	126.39	0.463	1.639	5.849	0.005	0.166	0.166	568.3	0.041	Generator Sets_2012_10				
Generator Sets	2013	6	15	1	6_15	2.187	0.823	3.796	5.616	0.008	0.318	0.318	568.299	0.074	Generator Sets_2013_1				
Generator Sets	2013	16	25	2	16_25	3.907	0.851	2.907	5.117	0.007	0.289	0.289	568.299	0.076	Generator Sets_2013_2				
Generator Sets	2013	26	50	3	26_50	12.634	1.585	4.854	5.263	0.007	0.428	0.428	568.299	0.143	Generator Sets_2013_3				
Generator Sets	2013	51	120	4	51_120	16.078	0.792	3.567	5.478	0.006	0.424	0.424	568.299	0.071	Generator Sets_2013_4				
Generator Sets	2013	121	175	5	121_175	19.587	0.53	2.953	4.873	0.006	0.233	0.233	568.299	0.047	Generator Sets_2013_5				
Generator Sets	2013	176	250	6	176_250	18.602	0.336	1.16	4.428	0.006	0.122	0.122	568.299	0.03	Generator Sets_2013_6				
Generator Sets	2013	251	500	7	251_500	26.484	0.302	1.211	3.989	0.005	0.114	0.114	568.299	0.027	Generator Sets_2013_7				
Generator Sets	2013	501	750	8	501_750	44.22	0.312	1.211	4.113	0.005	0.116	0.116	568.299	0.028	Generator Sets_2013_8				
Generator Sets	2013	1001	9999	10	1001_9999	115.946	0.425	1.502	5.494	0.005	0.152	0.152	568.299	0.038	Generator Sets_2013_10				
Generator Sets	2014	6	15	1	6_15	2.081	0.783	3.723	5.369	0.008	0.298	0.298	568.299	0.07	Generator Sets_2014_1				
Generator Sets	2014	16	25	2	16_25	3.767	0.821	2.78	5	0.007	0.272	0.272	568.299	0.074	Generator Sets_2014_2				
Generator Sets	2014	26	50	3	26_50	11.368	1.427	4.683	5.048	0.007	0.389	0.389	568.299	0.128	Generator Sets_2014_3				
Generator Sets	2014	51	120	4	51_120	14.638	0.721	3.532	5.147	0.006	0.385	0.385	568.299	0.065	Generator Sets_2014_4				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Generator Sets	2014	121	175	5 121_175	17.974	0.486	2.945	4.565	0.006	0.212	0.212	568.299	0.043	Generator Sets_2014_5				
Generator Sets	2014	176	250	6 176_250	17.205	0.311	1.13	4.025	0.006	0.111	0.111	568.3	0.028	Generator Sets_2014_6				
Generator Sets	2014	251	500	7 251_500	24.516	0.279	1.157	3.603	0.005	0.104	0.104	568.299	0.025	Generator Sets_2014_7				
Generator Sets	2014	501	750	8 501_750	40.956	0.289	1.157	3.724	0.005	0.106	0.106	568.299	0.026	Generator Sets_2014_8				
Generator Sets	2014	1001	9999	10 1001_9999	106.127	0.389	1.377	5.15	0.005	0.138	0.138	568.299	0.035	Generator Sets_2014_10				
Generator Sets	2015	6	15	1 6_15	1.984	0.747	3.658	5.141	0.008	0.28	0.28	568.299	0.067	Generator Sets_2015_1				
Generator Sets	2015	16	25	2 16_25	3.639	0.793	2.666	4.89	0.007	0.256	0.256	568.299	0.071	Generator Sets_2015_2				
Generator Sets	2015	26	50	3 26_50	10.213	1.281	4.538	4.858	0.007	0.353	0.353	568.299	0.115	Generator Sets_2015_3				
Generator Sets	2015	51	120	4 51_120	13.208	0.651	3.499	4.769	0.006	0.347	0.347	568.299	0.058	Generator Sets_2015_4				
Generator Sets	2015	121	175	5 121_175	16.277	0.44	2.938	4.138	0.006	0.191	0.191	568.299	0.039	Generator Sets_2015_5				
Generator Sets	2015	176	250	6 176_250	15.884	0.287	1.104	3.633	0.006	0.1	0.1	568.3	0.025	Generator Sets_2015_6				
Generator Sets	2015	251	500	7 251_500	22.677	0.258	1.114	3.231	0.005	0.094	0.094	568.299	0.023	Generator Sets_2015_7				
Generator Sets	2015	501	750	8 501_750	37.88	0.267	1.114	3.347	0.005	0.096	0.096	568.299	0.024	Generator Sets_2015_8				
Generator Sets	2015	1001	9999	10 1001_9999	95.984	0.351	1.269	4.822	0.005	0.124	0.124	568.299	0.031	Generator Sets_2015_10				
Generator Sets	2016	6	15	1 6_15	1.914	0.72	3.622	4.978	0.008	0.264	0.264	568.299	0.065	Generator Sets_2016_1				
Generator Sets	2016	16	25	2 16_25	3.548	0.773	2.604	4.803	0.007	0.244	0.244	568.299	0.069	Generator Sets_2016_2				
Generator Sets	2016	26	50	3 26_50	9.132	1.146	4.41	4.685	0.007	0.318	0.318	568.299	0.103	Generator Sets_2016_3				
Generator Sets	2016	51	120	4 51_120	11.84	0.583	3.469	4.41	0.006	0.309	0.309	568.299	0.052	Generator Sets_2016_4				
Generator Sets	2016	121	175	5 121_175	14.658	0.396	2.934	3.731	0.006	0.17	0.17	568.299	0.035	Generator Sets_2016_5				
Generator Sets	2016	176	250	6 176_250	14.652	0.265	1.081	3.259	0.006	0.09	0.09	568.299	0.023	Generator Sets_2016_6				
Generator Sets	2016	251	500	7 251_500	21.002	0.239	1.077	2.882	0.005	0.084	0.084	568.299	0.021	Generator Sets_2016_7				
Generator Sets	2016	501	750	8 501_750	35.041	0.247	1.077	2.989	0.005	0.086	0.086	568.3	0.022	Generator Sets_2016_8				
Generator Sets	2016	1001	9999	10 1001_9999	88.441	0.324	1.204	4.542	0.005	0.113	0.113	568.299	0.029	Generator Sets_2016_10				
Generator Sets	2017	6	15	1 6_15	1.857	0.699	3.599	4.847	0.008	0.25	0.25	568.299	0.063	Generator Sets_2017_1				
Generator Sets	2017	16	25	2 16_25	3.476	0.757	2.564	4.729	0.007	0.233	0.233	568.299	0.068	Generator Sets_2017_2				
Generator Sets	2017	26	50	3 26_50	8.107	1.017	4.292	4.522	0.007	0.285	0.285	568.299	0.091	Generator Sets_2017_3				
Generator Sets	2017	51	120	4 51_120	10.557	0.52	3.442	4.072	0.006	0.274	0.274	568.299	0.046	Generator Sets_2017_4				
Generator Sets	2017	121	175	5 121_175	13.162	0.356	2.931	3.347	0.006	0.151	0.151	568.299	0.032	Generator Sets_2017_5				
Generator Sets	2017	176	250	6 176_250	13.548	0.245	1.063	2.91	0.006	0.081	0.081	568.299	0.022	Generator Sets_2017_6				
Generator Sets	2017	251	500	7 251_500	19.649	0.224	1.048	2.579	0.005	0.076	0.076	568.299	0.02	Generator Sets_2017_7				
Generator Sets	2017	501	750	8 501_750	32.544	0.23	1.048	2.66	0.005	0.077	0.077	568.299	0.02	Generator Sets_2017_8				
Generator Sets	2017	1001	9999	10 1001_9999	82.27	0.301	1.161	4.293	0.005	0.104	0.104	568.299	0.027	Generator Sets_2017_10				
Generator Sets	2018	6	15	1 6_15	1.805	0.679	3.58	4.728	0.008	0.237	0.237	568.299	0.061	Generator Sets_2018_1				
Generator Sets	2018	16	25	2 16_25	3.412	0.744	2.531	4.661	0.007	0.224	0.224	568.299	0.067	Generator Sets_2018_2				
Generator Sets	2018	26	50	3 26_50	7.133	0.895	4.182	4.366	0.007	0.253	0.253	568.299	0.08	Generator Sets_2018_3				
Generator Sets	2018	51	120	4 51_120	9.356	0.461	3.418	3.752	0.006	0.239	0.239	568.299	0.041	Generator Sets_2018_4				
Generator Sets	2018	121	175	5 121_175	11.794	0.319	2.93	2.989	0.006	0.133	0.133	568.299	0.028	Generator Sets_2018_5				
Generator Sets	2018	176	250	6 176_250	12.549	0.226	1.048	2.582	0.006	0.072	0.072	568.299	0.02	Generator Sets_2018_6				
Generator Sets	2018	251	500	7 251_500	18.523	0.211	1.028	2.31	0.005	0.069	0.069	568.299	0.019	Generator Sets_2018_7				
Generator Sets	2018	501	750	8 501_750	30.476	0.215	1.028	2.37	0.005	0.07	0.07	568.299	0.019	Generator Sets_2018_8				
Generator Sets	2018	1001	9999	10 1001_9999	76.62	0.28	1.128	4.058	0.005	0.095	0.095	568.299	0.025	Generator Sets_2018_10				
Generator Sets	2019	6	15	1 6_15	1.758	0.662	3.562	4.617	0.008	0.224	0.224	568.299	0.059	Generator Sets_2019_1				
Generator Sets	2019	16	25	2 16_25	3.356	0.731	2.501	4.596	0.007	0.214	0.214	568.299	0.066	Generator Sets_2019_2				
Generator Sets	2019	26	50	3 26_50	6.208	0.779	4.076	4.215	0.007	0.222	0.222	568.299	0.07	Generator Sets_2019_3				
Generator Sets	2019	51	120	4 51_120	8.233	0.405	3.396	3.446	0.006	0.206	0.206	568.299	0.036	Generator Sets_2019_4				
Generator Sets	2019	121	175	5 121_175	10.727	0.29	2.929	2.669	0.006	0.118	0.118	568.299	0.026	Generator Sets_2019_5				
Generator Sets	2019	176	250	6 176_250	11.695	0.211	1.036	2.285	0.006	0.064	0.064	568.299	0.019	Generator Sets_2019_6				
Generator Sets	2019	251	500	7 251_500	17.492	0.199	1.015	2.056	0.005	0.062	0.062	568.299	0.018	Generator Sets_2019_7				
Generator Sets	2019	501	750	8 501_750	28.675	0.202	1.015	2.104	0.005	0.062	0.062	568.299	0.018	Generator Sets_2019_8				
Generator Sets	2019	1001	9999	10 1001_9999	71.228	0.261	1.103	3.829	0.005	0.087	0.087	568.299	0.023	Generator Sets_2019_10				
Generator Sets	2020	6	15	1 6_15	1.715	0.646	3.546	4.516	0.008	0.212	0.212	568.299	0.058	Generator Sets_2020_1				
Generator Sets	2020	16	25	2 16_25	3.307	0.721	2.473	4.538	0.007	0.205	0.205	568.299	0.065	Generator Sets_2020_2				
Generator Sets	2020	26	50	3 26_50	5.508	0.691	3.995	4.075	0.007	0.194	0.194	568.299	0.062	Generator Sets_2020_3				
Generator Sets	2020	51	120	4 51_120	7.383	0.364	3.38	3.173	0.006	0.179	0.179	568.299	0.032	Generator Sets_2020_4				
Generator Sets	2020	121	175	5 121_175	9.884	0.267	2.93	2.38	0.006	0.105	0.105	568.299	0.024	Generator Sets_2020_5				
Generator Sets	2020	176	250	6 176_250	10.963	0.198	1.026	2.016	0.006	0.057	0.057	568.299	0.017	Generator Sets_2020_6				
Generator Sets	2020	251	500	7 251_500	16.528	0.188	1.005	1.816	0.005	0.055	0.055	568.299	0.017	Generator Sets_2020_7				
Generator Sets	2020	501	750	8 501_750	27.045	0.191	1.005	1.858	0.005	0.056	0.056	568.299	0.017	Generator Sets_2020_8				
Generator Sets	2020	1001	9999	10 1001_9999	66.08	0.242	1.082	3.608	0.005	0.079	0.079	568.3	0.021	Generator Sets_2020_10				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Generator Sets	2021	6	15	1 6_15	1.683	0.634	3.531	4.441	0.008	0.201	0.201	568.299	0.057	Generator Sets_2021_1				
Generator Sets	2021	16	25	2 16_25	3.268	0.712	2.446	4.497	0.007	0.196	0.196	568.299	0.064	Generator Sets_2021_2				
Generator Sets	2021	26	50	3 26_50	4.884	0.613	3.905	3.916	0.007	0.165	0.165	568.299	0.055	Generator Sets_2021_3				
Generator Sets	2021	51	120	4 51_120	6.62	0.326	3.361	2.888	0.006	0.153	0.153	568.299	0.029	Generator Sets_2021_4				
Generator Sets	2021	121	175	5 121_175	8.995	0.243	2.925	2.068	0.006	0.091	0.091	568.299	0.021	Generator Sets_2021_5				
Generator Sets	2021	176	250	6 176_250	10.146	0.183	1.016	1.73	0.006	0.049	0.049	568.299	0.016	Generator Sets_2021_6				
Generator Sets	2021	251	500	7 251_500	15.395	0.175	0.996	1.562	0.005	0.048	0.048	568.299	0.015	Generator Sets_2021_7				
Generator Sets	2021	501	750	8 501_750	25.135	0.177	0.996	1.596	0.005	0.048	0.048	568.299	0.016	Generator Sets_2021_8				
Generator Sets	2021	1001	9999	10 1001_9999	60.247	0.22	1.06	3.372	0.005	0.07	0.07	568.3	0.019	Generator Sets_2021_10				
Generator Sets	2022	6	15	1 6_15	1.662	0.626	3.519	4.39	0.008	0.193	0.193	568.299	0.056	Generator Sets_2022_1				
Generator Sets	2022	16	25	2 16_25	3.242	0.706	2.426	4.47	0.007	0.188	0.188	568.299	0.063	Generator Sets_2022_2				
Generator Sets	2022	26	50	3 26_50	4.466	0.56	3.858	3.796	0.007	0.143	0.143	568.299	0.05	Generator Sets_2022_3				
Generator Sets	2022	51	120	4 51_120	6.113	0.301	3.353	2.671	0.006	0.134	0.134	568.299	0.027	Generator Sets_2022_4				
Generator Sets	2022	121	175	5 121_175	8.363	0.226	2.926	1.83	0.006	0.081	0.081	568.299	0.02	Generator Sets_2022_5				
Generator Sets	2022	176	250	6 176_250	9.575	0.173	1.01	1.508	0.006	0.043	0.043	568.299	0.015	Generator Sets_2022_6				
Generator Sets	2022	251	500	7 251_500	14.616	0.166	0.99	1.384	0.005	0.042	0.042	568.299	0.015	Generator Sets_2022_7				
Generator Sets	2022	501	750	8 501_750	23.822	0.168	0.99	1.412	0.005	0.043	0.043	568.299	0.015	Generator Sets_2022_8				
Generator Sets	2022	1001	9999	10 1001_9999	56.346	0.206	1.045	3.202	0.005	0.063	0.063	568.299	0.018	Generator Sets_2022_10				
Generator Sets	2023	6	15	1 6_15	1.643	0.618	3.508	4.345	0.008	0.186	0.186	568.299	0.055	Generator Sets_2023_1				
Generator Sets	2023	16	25	2 16_25	3.219	0.701	2.407	4.447	0.007	0.182	0.182	568.299	0.063	Generator Sets_2023_2				
Generator Sets	2023	26	50	3 26_50	4.102	0.514	3.819	3.685	0.007	0.124	0.124	568.299	0.046	Generator Sets_2023_3				
Generator Sets	2023	51	120	4 51_120	5.671	0.279	3.347	2.477	0.006	0.117	0.117	568.299	0.025	Generator Sets_2023_4				
Generator Sets	2023	121	175	5 121_175	7.812	0.211	2.927	1.635	0.006	0.071	0.071	568.299	0.019	Generator Sets_2023_5				
Generator Sets	2023	176	250	6 176_250	9.077	0.164	1.006	1.328	0.006	0.038	0.038	568.299	0.014	Generator Sets_2023_6				
Generator Sets	2023	251	500	7 251_500	13.922	0.158	0.986	1.228	0.005	0.037	0.037	568.299	0.014	Generator Sets_2023_7				
Generator Sets	2023	501	750	8 501_750	22.664	0.16	0.986	1.253	0.005	0.037	0.037	568.299	0.014	Generator Sets_2023_8				
Generator Sets	2023	1001	9999	10 1001_9999	53.06	0.194	1.031	3.058	0.005	0.058	0.058	568.299	0.017	Generator Sets_2023_10				
Generator Sets	2024	6	15	1 6_15	1.627	0.612	3.499	4.305	0.008	0.181	0.181	568.299	0.055	Generator Sets_2024_1				
Generator Sets	2024	16	25	2 16_25	3.2	0.697	2.39	4.426	0.007	0.178	0.178	568.299	0.062	Generator Sets_2024_2				
Generator Sets	2024	26	50	3 26_50	3.789	0.475	3.787	3.582	0.007	0.107	0.107	568.299	0.042	Generator Sets_2024_3				
Generator Sets	2024	51	120	4 51_120	5.287	0.26	3.342	2.321	0.006	0.101	0.101	568.299	0.023	Generator Sets_2024_4				
Generator Sets	2024	121	175	5 121_175	7.312	0.197	2.929	1.462	0.006	0.062	0.062	568.299	0.017	Generator Sets_2024_5				
Generator Sets	2024	176	250	6 176_250	8.611	0.155	1.003	1.169	0.006	0.033	0.033	568.299	0.014	Generator Sets_2024_6				
Generator Sets	2024	251	500	7 251_500	13.26	0.151	0.983	1.082	0.005	0.032	0.032	568.3	0.013	Generator Sets_2024_7				
Generator Sets	2024	501	750	8 501_750	21.567	0.152	0.983	1.104	0.005	0.032	0.032	568.299	0.013	Generator Sets_2024_8				
Generator Sets	2024	1001	9999	10 1001_9999	50.108	0.183	1.018	2.929	0.005	0.052	0.052	568.3	0.016	Generator Sets_2024_10				
Generator Sets	2025	6	15	1 6_15	1.613	0.607	3.491	4.269	0.008	0.178	0.178	568.299	0.054	Generator Sets_2025_1				
Generator Sets	2025	16	25	2 16_25	3.185	0.694	2.376	4.407	0.007	0.175	0.175	568.299	0.062	Generator Sets_2025_2				
Generator Sets	2025	26	50	3 26_50	3.511	0.44	3.758	3.481	0.007	0.093	0.093	568.3	0.039	Generator Sets_2025_3				
Generator Sets	2025	51	120	4 51_120	4.942	0.243	3.338	2.185	0.006	0.087	0.087	568.299	0.021	Generator Sets_2025_4				
Generator Sets	2025	121	175	5 121_175	6.832	0.184	2.93	1.297	0.006	0.053	0.053	568.299	0.016	Generator Sets_2025_5				
Generator Sets	2025	176	250	6 176_250	8.168	0.147	1	1.02	0.006	0.028	0.028	568.299	0.013	Generator Sets_2025_6				
Generator Sets	2025	251	500	7 251_500	12.627	0.144	0.981	0.945	0.005	0.027	0.027	568.3	0.013	Generator Sets_2025_7				
Generator Sets	2025	501	750	8 501_750	20.518	0.145	0.981	0.964	0.005	0.027	0.027	568.299	0.013	Generator Sets_2025_8				
Generator Sets	2025	1001	9999	10 1001_9999	47.32	0.173	1.008	2.812	0.005	0.047	0.047	568.299	0.015	Generator Sets_2025_10				
Generator Sets	2030	6	15	1 6_15	1.573	0.592	3.47	4.164	0.008	0.166	0.166	568.299	0.053	Generator Sets_2030_1				
Generator Sets	2030	16	25	2 16_25	3.15	0.686	2.34	4.347	0.007	0.165	0.165	568.299	0.061	Generator Sets_2030_2				
Generator Sets	2030	26	50	3 26_50	2.512	0.315	3.64	3.107	0.007	0.038	0.038	568.299	0.028	Generator Sets_2030_3				
Generator Sets	2030	51	120	4 51_120	3.616	0.178	3.316	1.645	0.006	0.034	0.034	568.299	0.016	Generator Sets_2030_4				
Generator Sets	2030	121	175	5 121_175	4.837	0.13	2.929	0.601	0.006	0.023	0.023	568.299	0.011	Generator Sets_2030_5				
Generator Sets	2030	176	250	6 176_250	6.637	0.12	0.998	0.504	0.006	0.016	0.016	568.299	0.01	Generator Sets_2030_6				
Generator Sets	2030	251	500	7 251_500	10.441	0.119	0.978	0.476	0.005	0.015	0.015	568.299	0.01	Generator Sets_2030_7				
Generator Sets	2030	501	750	8 501_750	16.888	0.119	0.978	0.482	0.005	0.015	0.015	568.299	0.01	Generator Sets_2030_8				
Generator Sets	2030	1001	9999	10 1001_9999	35.17	0.128	0.979	2.483	0.005	0.029	0.029	568.299	0.011	Generator Sets_2030_10				
Generator Sets	2035	6	15	1 6_15	1.565	0.589	3.47	4.143	0.008	0.162	0.162	568.299	0.053	Generator Sets_2035_1				
Generator Sets	2035	16	25	2 16_25	3.144	0.685	2.34	4.332	0.007	0.162	0.162	568.299	0.061	Generator Sets_2035_2				
Generator Sets	2035	26	50	3 26_50	2.206	0.276	3.607	2.991	0.007	0.018	0.018	568.299	0.024	Generator Sets_2035_3				
Generator Sets	2035	51	120	4 51_120	3.176	0.156	3.31	1.458	0.006	0.016	0.016	568.299	0.014	Generator Sets_2035_4				
Generator Sets	2035	121	175	5 121_175	4.187	0.113	2.929	0.373	0.006	0.013	0.013	568.299	0.01	Generator Sets_2035_5				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Generator Sets	2035	176	250	6 176_250	6.1	0.11	0.998	0.331	0.006	0.011	0.011	568.299	0.009	Generator Sets_2035_6				
Generator Sets	2035	251	500	7 251_500	9.666	0.11	0.978	0.328	0.005	0.011	0.011	568.299	0.009	Generator Sets_2035_7				
Generator Sets	2035	501	750	8 501_750	15.606	0.11	0.978	0.328	0.005	0.011	0.011	568.299	0.009	Generator Sets_2035_8				
Generator Sets	2035	1001	9999	10 1001_9999	31.223	0.114	0.978	2.362	0.005	0.022	0.022	568.299	0.01	Generator Sets_2035_10				
Generator Sets	2040	6	15	1 6_15	1.565	0.589	3.469	4.142	0.008	0.161	0.161	568.299	0.053	Generator Sets_2040_1				
Generator Sets	2040	16	25	2 16_25	3.144	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Generator Sets_2040_2				
Generator Sets	2040	26	50	3 26_50	2.182	0.273	3.601	2.941	0.007	0.012	0.012	568.3	0.024	Generator Sets_2040_3				
Generator Sets	2040	51	120	4 51_120	3.086	0.152	3.308	1.399	0.006	0.012	0.012	568.299	0.013	Generator Sets_2040_4				
Generator Sets	2040	121	175	5 121_175	3.958	0.107	2.928	0.293	0.006	0.01	0.01	568.299	0.009	Generator Sets_2040_5				
Generator Sets	2040	176	250	6 176_250	5.86	0.106	0.997	0.277	0.006	0.009	0.009	568.299	0.009	Generator Sets_2040_6				
Generator Sets	2040	251	500	7 251_500	9.29	0.106	0.978	0.277	0.005	0.009	0.009	568.299	0.009	Generator Sets_2040_7				
Generator Sets	2040	501	750	8 501_750	14.997	0.106	0.978	0.277	0.005	0.009	0.009	568.3	0.009	Generator Sets_2040_8				
Generator Sets	2040	1001	9999	10 1001_9999	29.36	0.107	0.978	2.33	0.005	0.02	0.02	568.299	0.009	Generator Sets_2040_10				
Graders	1990	26	50	3 26_50	10.997	4.776	9.678	7.935	0.871	1.265	1.265	568.3	0.431	Graders_1990_3				
Graders	1990	51	120	4 51_120	14.614	2.332	5.658	14.78	0.791	1.325	1.325	568.299	0.21	Graders_1990_4				
Graders	1990	121	175	5 121_175	17.684	1.707	5.007	13.838	0.758	0.946	0.946	568.299	0.154	Graders_1990_5				
Graders	1990	176	250	6 176_250	24.561	1.707	5.007	13.838	0.758	0.946	0.946	568.299	0.154	Graders_1990_6				
Graders	1990	251	500	7 251_500	29.01	1.512	10.95	13.128	0.662	0.811	0.811	568.299	0.136	Graders_1990_7				
Graders	1990	501	750	8 501_750	61.406	1.512	10.95	13.128	1.018	0.826	0.826	568.3	0.136	Graders_1990_8				
Graders	2000	26	50	3 26_50	10.331	4.487	9.239	7.082	0.066	0.935	0.935	568.299	0.404	Graders_2000_3				
Graders	2000	51	120	4 51_120	11.628	1.855	4.675	10.486	0.06	0.904	0.904	568.3	0.167	Graders_2000_4				
Graders	2000	121	175	5 121_175	13.017	1.256	3.786	9.601	0.057	0.531	0.531	568.299	0.113	Graders_2000_5				
Graders	2000	176	250	6 176_250	15.266	1.061	3.039	9.264	0.057	0.437	0.437	568.299	0.095	Graders_2000_6				
Graders	2000	251	500	7 251_500	18.455	0.961	4.848	8.805	0.05	0.384	0.384	568.3	0.086	Graders_2000_7				
Graders	2000	501	750	8 501_750	39.064	0.961	4.848	8.805	0.052	0.384	0.384	568.299	0.086	Graders_2000_8				
Graders	2005	26	50	3 26_50	9.193	3.993	8.559	6.612	0.066	0.868	0.868	568.299	0.36	Graders_2005_3				
Graders	2005	51	120	4 51_120	10.174	1.623	4.406	9.021	0.06	0.849	0.849	568.3	0.146	Graders_2005_4				
Graders	2005	121	175	5 121_175	11.01	1.062	3.522	8.238	0.057	0.469	0.469	568.299	0.095	Graders_2005_5				
Graders	2005	176	250	6 176_250	11.283	0.784	2.17	7.837	0.057	0.314	0.314	568.299	0.07	Graders_2005_6				
Graders	2005	251	500	7 251_500	13.286	0.692	2.913	7.117	0.05	0.279	0.279	568.299	0.062	Graders_2005_7				
Graders	2005	501	750	8 501_750	28.569	0.703	2.909	7.284	0.052	0.282	0.282	568.299	0.063	Graders_2005_8				
Graders	2010	26	50	3 26_50	3.618169	3.04	8.828	6.50487	0.005	0.852	0.783	547.2284	0.159	Graders_2010_3				
Graders	2010	51	120	4 51_120	1.572744	1.322	4.95239	10.4805	0.005	0.854	0.786	523.7684	0.152	Graders_2010_4				
Graders	2010	121	175	5 121_175	1.025452	0.862	3.90428	8.98998	0.005	0.496	0.456	536.7031	0.156	Graders_2010_5				
Graders	2010	176	250	6 176_250	0.425787	0.358	1.43786	5.73143	0.005	0.182	0.167	530.3343	0.154	Graders_2010_6				
Graders	2010	251	500	7 251_500	0.323814	0.272	1.81115	3.80781	0.005	0.142	0.13	525.6597	0.153	Graders_2010_7				
Graders	2010	501	750	8 501_750	21.764	0.535	1.861	5.386	0.005	0.202	0.202	568.299	0.048	Graders_2010_8				
Graders	2011	26	50	3 26_50	3.655035	3.071	8.9223	6.52829	0.005	0.86	0.791	545.8822	0.159	Graders_2011_3				
Graders	2011	51	120	4 51_120	1.554125	1.306	4.9423	10.3495	0.005	0.847	0.78	522.5082	0.152	Graders_2011_4				
Graders	2011	121	175	5 121_175	1.019798	0.857	3.91881	8.91245	0.005	0.494	0.455	535.2864	0.156	Graders_2011_5				
Graders	2011	176	250	6 176_250	0.436805	0.367	1.44556	5.74733	0.005	0.183	0.169	529.0473	0.154	Graders_2011_6				
Graders	2011	251	500	7 251_500	0.341103	0.287	1.83104	3.81827	0.005	0.144	0.132	524.3479	0.153	Graders_2011_7				
Graders	2011	501	750	8 501_750	20.697	0.509	1.744	4.992	0.005	0.184	0.184	568.299	0.045	Graders_2011_8				
Graders	2012	26	50	3 26_50	3.689945	3.101	9.01183	6.55055	0.005	0.867	0.798	544.5383	0.159	Graders_2012_3				
Graders	2012	51	120	4 51_120	1.550155	1.303	4.94871	10.2881	0.005	0.848	0.78	521.1967	0.152	Graders_2012_4				
Graders	2012	121	175	5 121_175	1.022941	0.86	3.94251	8.89699	0.005	0.496	0.456	533.878	0.156	Graders_2012_5				
Graders	2012	176	250	6 176_250	0.449323	0.378	1.45898	5.777	0.005	0.185	0.171	527.8224	0.154	Graders_2012_6				
Graders	2012	251	500	7 251_500	0.355329	0.299	1.82432	3.8123	0.005	0.145	0.133	522.8547	0.153	Graders_2012_7				
Graders	2012	501	750	8 501_750	19.697	0.485	1.642	4.624	0.005	0.168	0.168	568.299	0.043	Graders_2012_8				
Graders	2013	26	50	3 26_50	3.722893	3.128	9.0966	6.57166	0.005	0.874	0.804	541.8285	0.159	Graders_2013_3				
Graders	2013	51	120	4 51_120	1.548648	1.301	4.95898	10.2424	0.005	0.849	0.781	518.5552	0.152	Graders_2013_4				
Graders	2013	121	175	5 121_175	1.020021	0.857	3.95423	8.8338	0.005	0.495	0.455	530.9753	0.156	Graders_2013_5				
Graders	2013	176	250	6 176_250	0.455824	0.383	1.45924	5.74577	0.005	0.185	0.17	525.0407	0.154	Graders_2013_6				
Graders	2013	251	500	7 251_500	0.359627	0.302	1.7965	3.71231	0.005	0.141	0.13	520.0526	0.153	Graders_2013_7				
Graders	2013	501	750	8 501_750	18.765	0.462	1.556	4.281	0.005	0.152	0.152	568.299	0.041	Graders_2013_8				
Graders	2014	26	50	3 26_50	3.681797	3.094	9.06534	6.54967	0.005	0.867	0.798	539.1216	0.159	Graders_2014_3				
Graders	2014	51	120	4 51_120	1.510465	1.269	4.91977	9.98567	0.005	0.832	0.765	515.3819	0.152	Graders_2014_4				
Graders	2014	121	175	5 121_175	1.007876	0.847	3.95083	8.70206	0.005	0.488	0.449	527.8337	0.156	Graders_2014_5				
Graders	2014	176	250	6 176_250	0.463867	0.39	1.46245	5.73998	0.005	0.185	0.171	522.3298	0.154	Graders_2014_6				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number	Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Graders	2014	251	500	7	251_500	0.373775	0.314	1.79096	3.71371	0.005	0.143	0.131	517.3766	0.153	Graders_2014_7				
Graders	2014	501	750	8	501_750	17.784	0.437	1.483	3.876	0.005	0.138	0.138	568.299	0.039	Graders_2014_8				
Graders	2015	26	50	3	26_50	3.711306	3.119	9.14399	6.56967	0.005	0.874	0.804	533.6812	0.159	Graders_2015_3				
Graders	2015	51	120	4	51_120	1.474627	1.239	4.88439	9.73775	0.005	0.813	0.748	509.597	0.152	Graders_2015_4				
Graders	2015	121	175	5	121_175	1.004333	0.844	3.95849	8.63742	0.005	0.486	0.447	522.2182	0.156	Graders_2015_5				
Graders	2015	176	250	6	176_250	0.471304	0.396	1.46577	5.72754	0.005	0.186	0.171	517.1275	0.154	Graders_2015_6				
Graders	2015	251	500	7	251_500	0.388063	0.326	1.79107	3.72122	0.005	0.144	0.133	512.0975	0.153	Graders_2015_7				
Graders	2015	501	750	8	501_750	16.846	0.414	1.42	3.501	0.005	0.124	0.124	568.299	0.037	Graders_2015_8				
Graders	2016	26	50	3	26_50	3.670899	3.085	9.10623	6.51973	0.005	0.864	0.795	528.2444	0.159	Graders_2016_3				
Graders	2016	51	120	4	51_120	1.419659	1.193	4.82948	9.41488	0.005	0.78	0.718	503.1614	0.152	Graders_2016_4				
Graders	2016	121	175	5	121_175	0.963567	0.81	3.91624	8.24966	0.005	0.463	0.426	516.1305	0.156	Graders_2016_5				
Graders	2016	176	250	6	176_250	0.473996	0.398	1.45911	5.6628	0.005	0.184	0.169	511.6959	0.154	Graders_2016_6				
Graders	2016	251	500	7	251_500	0.397787	0.334	1.77374	3.6858	0.005	0.144	0.132	506.5064	0.153	Graders_2016_7				
Graders	2016	501	750	8	501_750	15.959	0.393	1.367	3.154	0.005	0.112	0.112	568.299	0.035	Graders_2016_8				
Graders	2017	26	50	3	26_50	3.5783	3.007	8.97826	6.423	0.005	0.843	0.776	520.0747	0.159	Graders_2017_3				
Graders	2017	51	120	4	51_120	1.385767	1.164	4.81041	9.19125	0.005	0.759	0.698	495.9186	0.152	Graders_2017_4				
Graders	2017	121	175	5	121_175	0.901	0.757	3.84518	7.66265	0.005	0.43	0.396	506.7478	0.155	Graders_2017_5				
Graders	2017	176	250	6	176_250	0.471391	0.396	1.44905	5.52488	0.005	0.18	0.166	503.8022	0.154	Graders_2017_6				
Graders	2017	251	500	7	251_500	0.397706	0.334	1.70747	3.55709	0.005	0.139	0.128	498.5996	0.153	Graders_2017_7				
Graders	2017	501	750	8	501_750	15.127	0.372	1.323	2.835	0.005	0.1	0.1	568.299	0.033	Graders_2017_8				
Graders	2018	26	50	3	26_50	3.342571	2.809	8.62631	6.17962	0.005	0.79	0.726	511.9098	0.159	Graders_2018_3				
Graders	2018	51	120	4	51_120	1.27956	1.075	4.69711	8.51954	0.005	0.697	0.641	487.6979	0.152	Graders_2018_4				
Graders	2018	121	175	5	121_175	0.78708	0.661	3.70957	6.60465	0.005	0.371	0.342	497.3767	0.155	Graders_2018_5				
Graders	2018	176	250	6	176_250	0.457376	0.384	1.41595	5.27094	0.005	0.171	0.158	495.431	0.154	Graders_2018_6				
Graders	2018	251	500	7	251_500	0.385909	0.324	1.56446	3.34465	0.005	0.129	0.119	490.5758	0.153	Graders_2018_7				
Graders	2018	501	750	8	501_750	14.353	0.353	1.286	2.543	0.005	0.09	0.09	568.299	0.031	Graders_2018_8				
Graders	2019	26	50	3	26_50	3.11378	2.616	8.27912	5.94463	0.005	0.737	0.678	503.7509	0.159	Graders_2019_3				
Graders	2019	51	120	4	51_120	1.228249	1.032	4.6424	8.1592	0.005	0.665	0.612	479.9011	0.152	Graders_2019_4				
Graders	2019	121	175	5	121_175	0.724541	0.609	3.65586	6.01354	0.005	0.337	0.31	489.0419	0.155	Graders_2019_5				
Graders	2019	176	250	6	176_250	0.428358	0.36	1.35927	4.86575	0.005	0.156	0.144	486.3288	0.154	Graders_2019_6				
Graders	2019	251	500	7	251_500	0.384059	0.323	1.52849	3.21794	0.005	0.124	0.114	482.5879	0.153	Graders_2019_7				
Graders	2019	501	750	8	501_750	13.635	0.335	1.255	2.276	0.005	0.08	0.08	568.299	0.03	Graders_2019_8				
Graders	2020	26	50	3	26_50	2.994737	2.516	8.13394	5.82549	0.005	0.709	0.652	492.8615	0.159	Graders_2020_3				
Graders	2020	51	120	4	51_120	1.161574	0.976	4.56142	7.72513	0.005	0.622	0.572	469.3371	0.152	Graders_2020_4				
Graders	2020	121	175	5	121_175	0.674427	0.567	3.62102	5.53045	0.005	0.309	0.284	478.0403	0.155	Graders_2020_5				
Graders	2020	176	250	6	176_250	0.41877	0.352	1.34183	4.67787	0.005	0.15	0.138	475.3037	0.154	Graders_2020_6				
Graders	2020	251	500	7	251_500	0.383198	0.322	1.5256	3.10731	0.005	0.121	0.111	471.9795	0.153	Graders_2020_7				
Graders	2020	501	750	8	501_750	12.961	0.319	1.229	2.031	0.005	0.072	0.072	568.299	0.028	Graders_2020_8				
Graders	2021	26	50	3	26_50	2.660206	2.235	7.62621	5.48468	0.005	0.631	0.581	492.9352	0.159	Graders_2021_3				
Graders	2021	51	120	4	51_120	1.072144	0.901	4.45175	7.12535	0.005	0.57	0.524	469.0701	0.152	Graders_2021_4				
Graders	2021	121	175	5	121_175	0.601372	0.505	3.55896	4.83947	0.005	0.27	0.248	478.5289	0.155	Graders_2021_5				
Graders	2021	176	250	6	176_250	0.398657	0.335	1.30687	4.38134	0.005	0.139	0.128	474.5386	0.153	Graders_2021_6				
Graders	2021	251	500	7	251_500	0.383194	0.322	1.46044	3.01257	0.005	0.117	0.108	471.8981	0.153	Graders_2021_7				
Graders	2021	501	750	8	501_750	12.333	0.303	1.207	1.808	0.005	0.064	0.064	568.299	0.027	Graders_2021_8				
Graders	2022	26	50	3	26_50	2.506375	2.106	7.42848	5.33188	0.005	0.595	0.547	493.0249	0.159	Graders_2022_3				
Graders	2022	51	120	4	51_120	0.947815	0.796	4.32966	6.36004	0.005	0.493	0.453	469.6301	0.152	Graders_2022_4				
Graders	2022	121	175	5	121_175	0.524016	0.44	3.49283	4.12488	0.005	0.229	0.211	478.5664	0.155	Graders_2022_5				
Graders	2022	176	250	6	176_250	0.365229	0.307	1.27327	3.8881	0.005	0.124	0.114	474.239	0.153	Graders_2022_6				
Graders	2022	251	500	7	251_500	0.370143	0.311	1.38967	2.80191	0.005	0.108	0.1	471.9278	0.153	Graders_2022_7				
Graders	2022	501	750	8	501_750	11.747	0.289	1.187	1.606	0.005	0.057	0.057	568.299	0.026	Graders_2022_8				
Graders	2023	26	50	3	26_50	2.316861	1.947	7.19094	5.14799	0.005	0.549	0.505	494.0202	0.16	Graders_2023_3				
Graders	2023	51	120	4	51_120	0.855685	0.719	4.22811	5.74006	0.005	0.436	0.401	469.2859	0.152	Graders_2023_4				
Graders	2023	121	175	5	121_175	0.463941	0.39	3.45006	3.54785	0.005	0.195	0.18	478.4629	0.155	Graders_2023_5				
Graders	2023	176	250	6	176_250	0.337478	0.284	1.25173	3.44101	0.005	0.111	0.103	473.9256	0.153	Graders_2023_6				
Graders	2023	251	500	7	251_500	0.367269	0.309	1.38481	2.70451	0.005	0.105	0.097	471.0306	0.152	Graders_2023_7				
Graders	2023	501	750	8	501_750	11.215	0.276	1.17	1.425	0.005	0.051	0.051	568.3	0.024	Graders_2023_8				
Graders	2024	26	50	3	26_50	2.201935	1.85	7.05059	5.0278	0.005	0.52	0.479	493.7913	0.16	Graders_2024_3				
Graders	2024	51	120	4	51_120	0.812369	0.683	4.20033	5.43389	0.005	0.408	0.375	469.8208	0.152	Graders_2024_4				
Graders	2024	121	175	5	121_175	0.433005	0.364	3.43239	3.20219	0.005	0.177	0.163	478.4966	0.155	Graders_2024_5				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Graders	2024	176	250	6 176_250	0.312074	0.262	1.22497	3.07323	0.005	0.1	0.092	473.6685	0.153	Graders_2024_6				
Graders	2024	251	500	7 251_500	0.348233	0.293	1.35613	2.43171	0.005	0.095	0.088	470.2664	0.152	Graders_2024_7				
Graders	2024	501	750	8 501_750	10.734	0.264	1.155	1.265	0.005	0.046	0.046	568.3	0.023	Graders_2024_8				
Graders	2025	26	50	3 26_50	2.21878	1.864	7.12535	5.04301	0.005	0.522	0.48	493.5322	0.16	Graders_2025_3				
Graders	2025	51	120	4 51_120	0.759044	0.638	4.14911	5.07379	0.005	0.371	0.342	468.3155	0.151	Graders_2025_4				
Graders	2025	121	175	5 121_175	0.391287	0.329	3.41759	2.77396	0.005	0.152	0.14	478.5084	0.155	Graders_2025_5				
Graders	2025	176	250	6 176_250	0.273788	0.23	1.17888	2.55629	0.005	0.082	0.076	473.4704	0.153	Graders_2025_6				
Graders	2025	251	500	7 251_500	0.332717	0.28	1.31461	2.26485	0.005	0.088	0.081	470.7533	0.152	Graders_2025_7				
Graders	2025	501	750	8 501_750	10.301	0.253	1.141	1.125	0.005	0.041	0.041	568.3	0.022	Graders_2025_8				
Graders	2030	26	50	3 26_50	1.493	0.648	5.239	3.53	0.007	0.065	0.065	568.299	0.058	Graders_2030_3				
Graders	2030	51	120	4 51_120	2.028	0.323	3.775	1.903	0.006	0.058	0.058	568.299	0.029	Graders_2030_4				
Graders	2030	121	175	5 121_175	2.458	0.237	3.326	0.815	0.006	0.038	0.038	568.3	0.021	Graders_2030_5				
Graders	2030	176	250	6 176_250	3.114	0.216	1.148	0.684	0.006	0.024	0.024	568.299	0.019	Graders_2030_6				
Graders	2030	251	500	7 251_500	4.115	0.214	1.097	0.647	0.005	0.023	0.023	568.299	0.019	Graders_2030_7				
Graders	2030	501	750	8 501_750	8.717	0.214	1.097	0.654	0.005	0.023	0.023	568.299	0.019	Graders_2030_8				
Graders	2035	26	50	3 26_50	1.367	0.593	5.189	3.356	0.007	0.037	0.037	568.299	0.053	Graders_2035_3				
Graders	2035	51	120	4 51_120	1.837	0.293	3.767	1.661	0.006	0.034	0.034	568.299	0.026	Graders_2035_4				
Graders	2035	121	175	5 121_175	2.136	0.206	3.326	0.506	0.006	0.022	0.022	568.3	0.018	Graders_2035_5				
Graders	2035	176	250	6 176_250	2.822	0.196	1.137	0.452	0.006	0.016	0.016	568.299	0.017	Graders_2035_6				
Graders	2035	251	500	7 251_500	3.746	0.195	1.083	0.434	0.005	0.016	0.016	568.299	0.017	Graders_2035_7				
Graders	2035	501	750	8 501_750	7.933	0.195	1.083	0.438	0.005	0.016	0.016	568.299	0.017	Graders_2035_8				
Graders	2040	26	50	3 26_50	1.297	0.563	5.161	3.298	0.007	0.026	0.026	568.3	0.05	Graders_2040_3				
Graders	2040	51	120	4 51_120	1.747	0.278	3.764	1.56	0.006	0.024	0.024	568.299	0.025	Graders_2040_4				
Graders	2040	121	175	5 121_175	2.002	0.193	3.326	0.38	0.006	0.017	0.017	568.299	0.017	Graders_2040_5				
Graders	2040	176	250	6 176_250	2.719	0.188	1.133	0.36	0.006	0.013	0.013	568.299	0.017	Graders_2040_6				
Graders	2040	251	500	7 251_500	3.619	0.188	1.079	0.351	0.005	0.013	0.013	568.299	0.017	Graders_2040_7				
Graders	2040	501	750	8 501_750	7.663	0.188	1.079	0.353	0.005	0.013	0.013	568.299	0.017	Graders_2040_8				
Off-Highway Tractors	1990	51	120	4 51_120	7.901	2.432	5.842	15.285	0.791	1.384	1.384	568.299	0.219	Off-Highway Tractors_1990_4				
Off-Highway Tractors	1990	121	175	5 121_175	8.363	1.85	5.217	14.647	0.758	1.033	1.033	568.299	0.166	Off-Highway Tractors_1990_5				
Off-Highway Tractors	1990	176	250	6 176_250	8.363	1.85	5.217	14.647	0.758	1.033	1.033	568.299	0.166	Off-Highway Tractors_1990_6				
Off-Highway Tractors	1990	501	750	8 501_750	32.077	1.629	11.847	13.849	1.018	0.896	0.896	568.3	0.147	Off-Highway Tractors_1990_8				
Off-Highway Tractors	1990	751	1000	9 751_1000	45.779	1.622	11.847	13.849	1.018	0.888	0.888	568.3	0.146	Off-Highway Tractors_1990_9				
Off-Highway Tractors	2000	51	120	4 51_120	6.648	2.047	5.046	11.606	0.06	0.972	0.972	568.299	0.184	Off-Highway Tractors_2000_4				
Off-Highway Tractors	2000	121	175	5 121_175	6.386	1.413	4.213	10.675	0.057	0.602	0.602	568.299	0.127	Off-Highway Tractors_2000_5				
Off-Highway Tractors	2000	176	250	6 176_250	5.736	1.269	3.665	10.426	0.057	0.532	0.532	568.299	0.114	Off-Highway Tractors_2000_6				
Off-Highway Tractors	2000	501	750	8 501_750	22.339	1.134	6.836	9.864	0.052	0.461	0.461	568.299	0.102	Off-Highway Tractors_2000_8				
Off-Highway Tractors	2000	751	1000	9 751_1000	33.036	1.17	7.259	10.29	0.052	0.444	0.444	568.299	0.105	Off-Highway Tractors_2000_9				
Off-Highway Tractors	2005	51	120	4 51_120	6.042	1.86	4.801	10.379	0.06	0.932	0.932	568.299	0.167	Off-Highway Tractors_2005_4				
Off-Highway Tractors	2005	121	175	5 121_175	5.63	1.246	3.943	9.479	0.057	0.547	0.547	568.299	0.112	Off-Highway Tractors_2005_5				
Off-Highway Tractors	2005	176	250	6 176_250	4.641	1.027	2.923	9.16	0.057	0.425	0.425	568.299	0.092	Off-Highway Tractors_2005_6				
Off-Highway Tractors	2005	501	750	8 501_750	17.978	0.913	4.992	8.543	0.052	0.372	0.372	568.299	0.082	Off-Highway Tractors_2005_8				
Off-Highway Tractors	2005	751	1000	9 751_1000	27.525	0.975	5.369	9.293	0.052	0.359	0.359	568.299	0.088	Off-Highway Tractors_2005_9				
Off-Highway Tractors	2010	51	120	4 51_120	1.004164	0.844	4.06859	7.39576	0.005	0.61	0.561	529.8898	0.154	Off-Highway Tractors_2010_4				
Off-Highway Tractors	2010	121	175	5 121_175	0.623556	0.524	3.25207	6.19445	0.005	0.322	0.297	526.0485	0.153	Off-Highway Tractors_2010_5				
Off-Highway Tractors	2010	176	250	6 176_250	0.540439	0.454	1.80076	6.56823	0.005	0.241	0.222	522.8212	0.152	Off-Highway Tractors_2010_6				
Off-Highway Tractors	2010	501	750	8 501_750	0.353776	0.297	1.65183	4.74911	0.005	0.163	0.15	526.6401	0.153	Off-Highway Tractors_2010_8				
Off-Highway Tractors	2010	751	1000	9 751_1000	1.235451	1.038	13.844	12.2723	0.005	0.624	0.574	524.505	0.153	Off-Highway Tractors_2010_9				
Off-Highway Tractors	2011	51	120	4 51_120	0.958318	0.805	4.04749	7.12201	0.005	0.588	0.541	528.6123	0.154	Off-Highway Tractors_2011_4				
Off-Highway Tractors	2011	121	175	5 121_175	0.588696	0.495	3.25718	5.88095	0.005	0.307	0.282	524.5528	0.153	Off-Highway Tractors_2011_5				
Off-Highway Tractors	2011	176	250	6 176_250	0.522937	0.439	1.73271	6.3706	0.005	0.23	0.212	521.5328	0.152	Off-Highway Tractors_2011_6				
Off-Highway Tractors	2011	501	750	8 501_750	0.366196	0.308	1.66137	4.77936	0.005	0.166	0.153	525.3172	0.153	Off-Highway Tractors_2011_8				
Off-Highway Tractors	2011	751	1000	9 751_1000	1.235451	1.038	13.844	12.2723	0.005	0.624	0.574	523.1938	0.153	Off-Highway Tractors_2011_9				
Off-Highway Tractors	2012	51	120	4 51_120	0.956826	0.804	4.07302	7.07175	0.005	0.588	0.541	527.1281	0.154	Off-Highway Tractors_2012_4				
Off-Highway Tractors	2012	121	175	5 121_175	0.573556	0.482	3.27598	5.70904	0.005	0.299	0.276	523.1986	0.153	Off-Highway Tractors_2012_5				
Off-Highway Tractors	2012	176	250	6 176_250	0.51645	0.434	1.70131	6.26836	0.005	0.225	0.207	520.2636	0.152	Off-Highway Tractors_2012_6				
Off-Highway Tractors	2012	501	750	8 501_750	0.3785	0.318	1.67078	4.80904	0.005	0.169	0.155	523.9941	0.153	Off-Highway Tractors_2012_8				
Off-Highway Tractors	2012	751	1000	9 751_1000	1.235451	1.038	13.844	12.2723	0.005	0.624	0.574	521.8825	0.153	Off-Highway Tractors_2012_9				
Off-Highway Tractors	2013	51	120	4 51_120	0.915141	0.769	4.04714	6.79599	0.005	0.564	0.519	524.1555	0.154	Off-Highway Tractors_2013_4				
Off-Highway Tractors	2013	121	175	5 121_175	0.54434	0.457	3.28016	5.42114	0.005	0.281	0.258	520.6151	0.153	Off-Highway Tractors_2013_5				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Off-Highway Trucks	2030	751	1000	9 751_1000	3.55	0.22	1.107	2.651	0.005	0.033	0.033	568.3	0.019	Off-Highway Trucks_2030_9				
Off-Highway Trucks	2035	121	175	5 121_175	0.68	0.211	3.425	0.38	0.006	0.016	0.016	568.299	0.019	Off-Highway Trucks_2035_5				
Off-Highway Trucks	2035	176	250	6 176_250	0.894	0.208	1.167	0.353	0.006	0.013	0.013	568.299	0.018	Off-Highway Trucks_2035_6				
Off-Highway Trucks	2035	251	500	7 251_500	1.461	0.208	1.105	0.348	0.005	0.013	0.013	568.299	0.018	Off-Highway Trucks_2035_7				
Off-Highway Trucks	2035	501	750	8 501_750	2.371	0.208	1.105	0.348	0.005	0.013	0.013	568.299	0.018	Off-Highway Trucks_2035_8				
Off-Highway Trucks	2035	751	1000	9 751_1000	3.368	0.209	1.105	2.565	0.005	0.028	0.028	568.299	0.018	Off-Highway Trucks_2035_9				
Off-Highway Trucks	2040	121	175	5 121_175	0.662	0.205	3.426	0.318	0.006	0.013	0.013	568.299	0.018	Off-Highway Trucks_2040_5				
Off-Highway Trucks	2040	176	250	6 176_250	0.877	0.204	1.167	0.305	0.006	0.012	0.012	568.3	0.018	Off-Highway Trucks_2040_6				
Off-Highway Trucks	2040	251	500	7 251_500	1.434	0.204	1.105	0.305	0.005	0.012	0.012	568.299	0.018	Off-Highway Trucks_2040_7				
Off-Highway Trucks	2040	501	750	8 501_750	2.327	0.204	1.105	0.305	0.005	0.012	0.012	568.299	0.018	Off-Highway Trucks_2040_8				
Off-Highway Trucks	2040	751	1000	9 751_1000	3.296	0.205	1.105	2.532	0.005	0.026	0.026	568.299	0.018	Off-Highway Trucks_2040_9				
Other Construction Equipment	1990	6	15	1 6_15	5.348	1.804	4.999	9.999	1.049	0.975	0.975	568.3	0.162	Other Construction Equipment_1990_1				
Other Construction Equipment	1990	16	25	2 16_25	8.578	2.213	4.999	6.919	0.855	0.741	0.741	568.299	0.199	Other Construction Equipment_1990_2				
Other Construction Equipment	1990	26	50	3 26_50	39.33	4.791	9.693	7.947	0.871	1.267	1.267	568.299	0.432	Other Construction Equipment_1990_3				
Other Construction Equipment	1990	51	120	4 51_120	56.637	2.388	5.782	15.176	0.791	1.343	1.343	568.299	0.215	Other Construction Equipment_1990_4				
Other Construction Equipment	1990	121	175	5 121_175	60.86	1.948	5.191	15.112	0.758	1.085	1.085	568.299	0.175	Other Construction Equipment_1990_5				
Other Construction Equipment	1990	251	500	7 251_500	128.26	1.72	11.412	14.332	0.662	0.927	0.927	568.299	0.155	Other Construction Equipment_1990_7				
Other Construction Equipment	2000	6	15	1 6_15	4.374	1.475	4.49	8.242	0.079	0.676	0.676	568.299	0.133	Other Construction Equipment_2000_1				
Other Construction Equipment	2000	16	25	2 16_25	7.591	1.958	4.53	6.358	0.065	0.563	0.563	568.3	0.176	Other Construction Equipment_2000_2				
Other Construction Equipment	2000	26	50	3 26_50	30.619	3.73	7.85	6.784	0.066	0.816	0.816	568.299	0.336	Other Construction Equipment_2000_3				
Other Construction Equipment	2000	51	120	4 51_120	38.817	1.636	4.283	9.507	0.06	0.786	0.786	568.3	0.147	Other Construction Equipment_2000_4				
Other Construction Equipment	2000	121	175	5 121_175	34.573	1.106	3.417	8.749	0.057	0.453	0.453	568.299	0.099	Other Construction Equipment_2000_5				
Other Construction Equipment	2000	251	500	7 251_500	61.92	0.83	3.67	8.069	0.05	0.321	0.321	568.299	0.074	Other Construction Equipment_2000_7				
Other Construction Equipment	2005	6	15	1 6_15	2.271	0.766	3.469	5.228	0.079	0.361	0.361	568.299	0.069	Other Construction Equipment_2005_1				
Other Construction Equipment	2005	16	25	2 16_25	3.564	0.919	2.642	5.412	0.065	0.347	0.347	568.3	0.082	Other Construction Equipment_2005_2				
Other Construction Equipment	2005	26	50	3 26_50	26.204	3.192	7.102	6.226	0.066	0.739	0.739	568.299	0.288	Other Construction Equipment_2005_3				
Other Construction Equipment	2005	51	120	4 51_120	33.145	1.397	4.043	8.067	0.06	0.725	0.725	568.299	0.126	Other Construction Equipment_2005_4				
Other Construction Equipment	2005	121	175	5 121_175	28.235	0.903	3.208	7.379	0.057	0.392	0.392	568.299	0.081	Other Construction Equipment_2005_5				
Other Construction Equipment	2005	251	500	7 251_500	41.035	0.55	2.051	6.334	0.05	0.22	0.22	568.299	0.049	Other Construction Equipment_2005_7				
Other Construction Equipment	2010	6	15	1 6_15	1.52864	1.284	5.29076	5.55407	0.005	0.497	0.457	587.5495	0.171	Other Construction Equipment_2010_1				
Other Construction Equipment	2010	16	25	2 16_25	1.52864	1.284	5.29076	5.55407	0.005	0.497	0.457	587.5495	0.171	Other Construction Equipment_2010_2				
Other Construction Equipment	2010	26	50	3 26_50	1.52864	1.284	5.29076	5.55407	0.005	0.497	0.457	587.5495	0.171	Other Construction Equipment_2010_3				
Other Construction Equipment	2010	51	120	4 51_120	0.92739	0.779	3.89903	7.11752	0.005	0.549	0.505	523.1661	0.152	Other Construction Equipment_2010_4				
Other Construction Equipment	2010	121	175	5 121_175	0.769602	0.647	3.47406	7.30949	0.005	0.38	0.349	522.1244	0.152	Other Construction Equipment_2010_5				
Other Construction Equipment	2010	251	500	7 251_500	0.480247	0.404	3.20434	5.78616	0.005	0.219	0.201	530.8514	0.155	Other Construction Equipment_2010_7				
Other Construction Equipment	2011	6	15	1 6_15	1.531741	1.287	5.36962	5.5686	0.005	0.499	0.459	586.0703	0.171	Other Construction Equipment_2011_1				
Other Construction Equipment	2011	16	25	2 16_25	1.531741	1.287	5.36962	5.5686	0.005	0.499	0.459	586.0703	0.171	Other Construction Equipment_2011_2				
Other Construction Equipment	2011	26	50	3 26_50	1.531741	1.287	5.36962	5.5686	0.005	0.499	0.459	586.0703	0.171	Other Construction Equipment_2011_3				
Other Construction Equipment	2011	51	120	4 51_120	0.909764	0.764	3.89723	6.98332	0.005	0.542	0.498	521.5282	0.152	Other Construction Equipment_2011_4				
Other Construction Equipment	2011	121	175	5 121_175	0.725704	0.61	3.41832	6.92098	0.005	0.361	0.332	520.664	0.152	Other Construction Equipment_2011_5				
Other Construction Equipment	2011	251	500	7 251_500	0.449646	0.378	2.91483	5.42766	0.005	0.204	0.188	529.9639	0.155	Other Construction Equipment_2011_7				
Other Construction Equipment	2012	6	15	1 6_15	1.548775	1.301	5.47004	5.58169	0.005	0.503	0.463	584.6639	0.171	Other Construction Equipment_2012_1				
Other Construction Equipment	2012	16	25	2 16_25	1.548775	1.301	5.47004	5.58169	0.005	0.503	0.463	584.6639	0.171	Other Construction Equipment_2012_2				
Other Construction Equipment	2012	26	50	3 26_50	1.548775	1.301	5.47004	5.58169	0.005	0.503	0.463	584.6639	0.171	Other Construction Equipment_2012_3				
Other Construction Equipment	2012	51	120	4 51_120	0.910724	0.765	3.91674	6.95644	0.005	0.543	0.5	519.9075	0.152	Other Construction Equipment_2012_4				
Other Construction Equipment	2012	121	175	5 121_175	0.730754	0.614	3.4429	6.91612	0.005	0.363	0.334	519.3479	0.152	Other Construction Equipment_2012_5				
Other Construction Equipment	2012	251	500	7 251_500	0.458869	0.386	2.95715	5.42334	0.005	0.206	0.189	528.6246	0.155	Other Construction Equipment_2012_7				
Other Construction Equipment	2013	6	15	1 6_15	1.571874	1.321	5.57699	5.60361	0.005	0.509	0.468	581.8471	0.171	Other Construction Equipment_2013_1				
Other Construction Equipment	2013	16	25	2 16_25	1.571874	1.321	5.57699	5.60361	0.005	0.509	0.468	581.8471	0.171	Other Construction Equipment_2013_2				
Other Construction Equipment	2013	26	50	3 26_50	1.571874	1.321	5.57699	5.60361	0.005	0.509	0.468	581.8471	0.171	Other Construction Equipment_2013_3				
Other Construction Equipment	2013	51	120	4 51_120	0.892781	0.75	3.91866	6.82868	0.005	0.532	0.489	517.5939	0.152	Other Construction Equipment_2013_4				
Other Construction Equipment	2013	121	175	5 121_175	0.708053	0.595	3.41257	6.69102	0.005	0.351	0.323	516.9857	0.152	Other Construction Equipment_2013_5				
Other Construction Equipment	2013	251	500	7 251_500	0.440093	0.37	2.79519	5.14317	0.005	0.194	0.179	525.1086	0.154	Other Construction Equipment_2013_7				
Other Construction Equipment	2014	6	15	1 6_15	1.547867	1.301	5.60223	5.56546	0.005	0.502	0.462	578.9591	0.171	Other Construction Equipment_2014_1				
Other Construction Equipment	2014	16	25	2 16_25	1.547867	1.301	5.60223	5.56546	0.005	0.502	0.462	578.9591	0.171	Other Construction Equipment_2014_2				
Other Construction Equipment	2014	26	50	3 26_50	1.547867	1.301	5.60223	5.56546	0.005	0.502	0.462	578.9591	0.171	Other Construction Equipment_2014_3				
Other Construction Equipment	2014	51	120	4 51_120	0.866935	0.728	3.90558	6.63282	0.005	0.518	0.476	515.2847	0.152	Other Construction Equipment_2014_4				
Other Construction Equipment	2014	121	175	5 121_175	0.674237	0.567	3.38516	6.37185	0.005	0.333	0.307	514.5518	0.152	Other Construction Equipment_2014_5				
Other Construction Equipment	2014	251	500	7 251_500	0.392211	0.33	2.47571	4.5608	0.005	0.168	0.155	520.9444	0.154	Other Construction Equipment_2014_7				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Other Construction Equipment	2015	6	15	1 6_15	1.557753	1.309	5.68113	5.56397	0.005	0.503	0.463	573.0198	0.171	Other Construction Equipment_2015_1				
Other Construction Equipment	2015	16	25	2 16_25	1.557753	1.309	5.68113	5.56397	0.005	0.503	0.463	573.0198	0.171	Other Construction Equipment_2015_2				
Other Construction Equipment	2015	26	50	3 26_50	1.557753	1.309	5.68113	5.56397	0.005	0.503	0.463	573.0198	0.171	Other Construction Equipment_2015_3				
Other Construction Equipment	2015	51	120	4 51_120	0.860334	0.723	3.9159	6.53649	0.005	0.512	0.471	510.1706	0.152	Other Construction Equipment_2015_4				
Other Construction Equipment	2015	121	175	5 121_175	0.66302	0.557	3.38183	6.2305	0.005	0.326	0.3	509.3069	0.152	Other Construction Equipment_2015_5				
Other Construction Equipment	2015	251	500	7 251_500	0.386006	0.324	2.40724	4.41519	0.005	0.163	0.15	515.1953	0.154	Other Construction Equipment_2015_7				
Other Construction Equipment	2016	6	15	1 6_15	1.524032	1.281	5.67687	5.49921	0.005	0.492	0.453	566.9782	0.171	Other Construction Equipment_2016_1				
Other Construction Equipment	2016	16	25	2 16_25	1.524032	1.281	5.67687	5.49921	0.005	0.492	0.453	566.9782	0.171	Other Construction Equipment_2016_2				
Other Construction Equipment	2016	26	50	3 26_50	1.524032	1.281	5.67687	5.49921	0.005	0.492	0.453	566.9782	0.171	Other Construction Equipment_2016_3				
Other Construction Equipment	2016	51	120	4 51_120	0.837049	0.703	3.90894	6.32533	0.005	0.496	0.456	505.349	0.152	Other Construction Equipment_2016_4				
Other Construction Equipment	2016	121	175	5 121_175	0.62413	0.524	3.35672	5.81763	0.005	0.306	0.281	503.9641	0.152	Other Construction Equipment_2016_5				
Other Construction Equipment	2016	251	500	7 251_500	0.366005	0.308	2.28488	4.08972	0.005	0.151	0.139	509.7062	0.154	Other Construction Equipment_2016_7				
Other Construction Equipment	2017	6	15	1 6_15	1.480652	1.244	5.65509	5.42066	0.005	0.477	0.439	558.0007	0.171	Other Construction Equipment_2017_1				
Other Construction Equipment	2017	16	25	2 16_25	1.480652	1.244	5.65509	5.42066	0.005	0.477	0.439	558.0007	0.171	Other Construction Equipment_2017_2				
Other Construction Equipment	2017	26	50	3 26_50	1.480652	1.244	5.65509	5.42066	0.005	0.477	0.439	558.0007	0.171	Other Construction Equipment_2017_3				
Other Construction Equipment	2017	51	120	4 51_120	0.804436	0.676	3.88542	6.06955	0.005	0.475	0.437	497.3832	0.152	Other Construction Equipment_2017_4				
Other Construction Equipment	2017	121	175	5 121_175	0.595557	0.5	3.33767	5.49424	0.005	0.29	0.267	495.9311	0.152	Other Construction Equipment_2017_5				
Other Construction Equipment	2017	251	500	7 251_500	0.3449	0.29	2.12114	3.77706	0.005	0.138	0.127	501.1295	0.154	Other Construction Equipment_2017_7				
Other Construction Equipment	2018	6	15	1 6_15	1.39068	1.169	5.54108	5.27161	0.005	0.449	0.413	548.9388	0.171	Other Construction Equipment_2018_1				
Other Construction Equipment	2018	16	25	2 16_25	1.39068	1.169	5.54108	5.27161	0.005	0.449	0.413	548.9388	0.171	Other Construction Equipment_2018_2				
Other Construction Equipment	2018	26	50	3 26_50	1.39068	1.169	5.54108	5.27161	0.005	0.449	0.413	548.9388	0.171	Other Construction Equipment_2018_3				
Other Construction Equipment	2018	51	120	4 51_120	0.711314	0.598	3.79863	5.44123	0.005	0.417	0.383	490.018	0.153	Other Construction Equipment_2018_4				
Other Construction Equipment	2018	121	175	5 121_175	0.519398	0.436	3.26346	4.75499	0.005	0.25	0.23	487.9859	0.152	Other Construction Equipment_2018_5				
Other Construction Equipment	2018	251	500	7 251_500	0.298599	0.251	1.81261	3.16693	0.005	0.115	0.105	493.36	0.154	Other Construction Equipment_2018_7				
Other Construction Equipment	2019	6	15	1 6_15	1.370834	1.152	5.54123	5.20338	0.005	0.437	0.402	539.7349	0.171	Other Construction Equipment_2019_1				
Other Construction Equipment	2019	16	25	2 16_25	1.370834	1.152	5.54123	5.20338	0.005	0.437	0.402	539.7349	0.171	Other Construction Equipment_2019_2				
Other Construction Equipment	2019	26	50	3 26_50	1.370834	1.152	5.54123	5.20338	0.005	0.437	0.402	539.7349	0.171	Other Construction Equipment_2019_3				
Other Construction Equipment	2019	51	120	4 51_120	0.655004	0.55	3.7535	5.04831	0.005	0.379	0.349	482.2177	0.153	Other Construction Equipment_2019_4				
Other Construction Equipment	2019	121	175	5 121_175	0.490382	0.412	3.25619	4.4331	0.005	0.233	0.215	480.4518	0.152	Other Construction Equipment_2019_5				
Other Construction Equipment	2019	251	500	7 251_500	0.277883	0.233	1.66739	2.85547	0.005	0.103	0.094	485.4127	0.154	Other Construction Equipment_2019_7				
Other Construction Equipment	2020	6	15	1 6_15	1.276029	1.072	5.40446	5.03626	0.005	0.405	0.373	527.9656	0.171	Other Construction Equipment_2020_1				
Other Construction Equipment	2020	16	25	2 16_25	1.276029	1.072	5.40446	5.03626	0.005	0.405	0.373	527.9656	0.171	Other Construction Equipment_2020_2				
Other Construction Equipment	2020	26	50	3 26_50	1.276029	1.072	5.40446	5.03626	0.005	0.405	0.373	527.9656	0.171	Other Construction Equipment_2020_3				
Other Construction Equipment	2020	51	120	4 51_120	0.617777	0.519	3.73189	4.7712	0.005	0.354	0.325	472.2162	0.153	Other Construction Equipment_2020_4				
Other Construction Equipment	2020	121	175	5 121_175	0.461441	0.388	3.23528	4.11203	0.005	0.217	0.2	469.9837	0.152	Other Construction Equipment_2020_5				
Other Construction Equipment	2020	251	500	7 251_500	0.266788	0.224	1.6338	2.63672	0.005	0.096	0.088	475.2326	0.154	Other Construction Equipment_2020_7				
Other Construction Equipment	2021	6	15	1 6_15	1.201423	1.01	5.30749	4.90234	0.005	0.382	0.351	527.7834	0.171	Other Construction Equipment_2021_1				
Other Construction Equipment	2021	16	25	2 16_25	1.201423	1.01	5.30749	4.90234	0.005	0.382	0.351	527.7834	0.171	Other Construction Equipment_2021_2				
Other Construction Equipment	2021	26	50	3 26_50	1.201423	1.01	5.30749	4.90234	0.005	0.382	0.351	527.7834	0.171	Other Construction Equipment_2021_3				
Other Construction Equipment	2021	51	120	4 51_120	0.573212	0.482	3.70304	4.4558	0.005	0.323	0.298	472.275	0.153	Other Construction Equipment_2021_4				
Other Construction Equipment	2021	121	175	5 121_175	0.392185	0.33	3.18275	3.43847	0.005	0.18	0.165	469.7642	0.152	Other Construction Equipment_2021_5				
Other Construction Equipment	2021	251	500	7 251_500	0.256006	0.215	1.59874	2.42822	0.005	0.09	0.082	475.2124	0.154	Other Construction Equipment_2021_7				
Other Construction Equipment	2022	6	15	1 6_15	1.094466	0.92	5.16732	4.74117	0.005	0.348	0.32	529.1825	0.171	Other Construction Equipment_2022_1				
Other Construction Equipment	2022	16	25	2 16_25	1.094466	0.92	5.16732	4.74117	0.005	0.348	0.32	529.1825	0.171	Other Construction Equipment_2022_2				
Other Construction Equipment	2022	26	50	3 26_50	1.094466	0.92	5.16732	4.74117	0.005	0.348	0.32	529.1825	0.171	Other Construction Equipment_2022_3				
Other Construction Equipment	2022	51	120	4 51_120	0.523663	0.44	3.66623	4.09846	0.005	0.288	0.265	472.3178	0.153	Other Construction Equipment_2022_4				
Other Construction Equipment	2022	121	175	5 121_175	0.351187	0.295	3.15539	2.99437	0.005	0.156	0.144	469.6126	0.152	Other Construction Equipment_2022_5				
Other Construction Equipment	2022	251	500	7 251_500	0.223796	0.188	1.43828	1.97544	0.005	0.074	0.068	475.9983	0.154	Other Construction Equipment_2022_7				
Other Construction Equipment	2023	6	15	1 6_15	1.030598	0.866	5.07368	4.59446	0.005	0.322	0.296	529.3389	0.171	Other Construction Equipment_2023_1				
Other Construction Equipment	2023	16	25	2 16_25	1.030598	0.866	5.07368	4.59446	0.005	0.322	0.296	529.3389	0.171	Other Construction Equipment_2023_2				
Other Construction Equipment	2023	26	50	3 26_50	1.030598	0.866	5.07368	4.59446	0.005	0.322	0.296	529.3389	0.171	Other Construction Equipment_2023_3				
Other Construction Equipment	2023	51	120	4 51_120	0.482844	0.406	3.63188	3.79013	0.005	0.259	0.238	471.9899	0.153	Other Construction Equipment_2023_4				
Other Construction Equipment	2023	121	175	5 121_175	0.325455	0.273	3.14152	2.69821	0.005	0.14	0.129	469.5579	0.152	Other Construction Equipment_2023_5				
Other Construction Equipment	2023	251	500	7 251_500	0.214667	0.18	1.39596	1.81226	0.005	0.069	0.063	476.1847	0.154	Other Construction Equipment_2023_7				
Other Construction Equipment	2024	6	15	1 6_15	0.984979	0.828	5.03181	4.51017	0.005	0.305	0.28	529.2094	0.171	Other Construction Equipment_2024_1				
Other Construction Equipment	2024	16	25	2 16_25	0.984979	0.828	5.03181	4.51017	0.005	0.305	0.28	529.2094	0.171	Other Construction Equipment_2024_2				
Other Construction Equipment	2024	26	50	3 26_50	0.984979	0.828	5.03181	4.51017	0.005	0.305	0.28	529.2094	0.171	Other Construction Equipment_2024_3				
Other Construction Equipment	2024	51	120	4 51_120	0.454266	0.382	3.61958	3.58173	0.005	0.237	0.218	472.1254	0.153	Other Construction Equipment_2024_4				
Other Construction Equipment	2024	121	175	5 121_175	0.310043	0.261	3.14951	2.52019	0.005	0.13	0.12	469.5445	0.152	Other Construction Equipment_2024_5				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Other Construction Equipment	2024	251	500	7 251_500	0.208244	0.175	1.38248	1.67692	0.005	0.064	0.059	476.4838	0.154	Other Construction Equipment_2024_7				
Other Construction Equipment	2025	6	15	1 6_15	0.901061	0.757	4.87388	4.30575	0.005	0.268	0.246	528.9535	0.171	Other Construction Equipment_2025_1				
Other Construction Equipment	2025	16	25	2 16_25	0.901061	0.757	4.87388	4.30575	0.005	0.268	0.246	528.9535	0.171	Other Construction Equipment_2025_2				
Other Construction Equipment	2025	26	50	3 26_50	0.901061	0.757	4.87388	4.30575	0.005	0.268	0.246	528.9535	0.171	Other Construction Equipment_2025_3				
Other Construction Equipment	2025	51	120	4 51_120	0.40612	0.341	3.58397	3.25221	0.005	0.203	0.187	472.7482	0.153	Other Construction Equipment_2025_4				
Other Construction Equipment	2025	121	175	5 121_175	0.279358	0.235	3.13647	2.16742	0.005	0.112	0.103	469.843	0.152	Other Construction Equipment_2025_5				
Other Construction Equipment	2025	251	500	7 251_500	0.200431	0.168	1.3582	1.55241	0.005	0.059	0.055	476.2959	0.154	Other Construction Equipment_2025_7				
Other Construction Equipment	2030	6	15	1 6_15	1.96	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Other Construction Equipment_2030_1				
Other Construction Equipment	2030	16	25	2 16_25	2.657	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Other Construction Equipment_2030_2				
Other Construction Equipment	2030	26	50	3 26_50	3.526	0.429	4.39	3.19	0.007	0.03	0.03	568.299	0.038	Other Construction Equipment_2030_3				
Other Construction Equipment	2030	51	120	4 51_120	5.348	0.225	3.538	1.576	0.006	0.027	0.027	568.3	0.02	Other Construction Equipment_2030_4				
Other Construction Equipment	2030	121	175	5 121_175	5.057	0.161	3.127	0.459	0.006	0.019	0.019	568.299	0.014	Other Construction Equipment_2030_5				
Other Construction Equipment	2030	251	500	7 251_500	11.523	0.154	1.028	0.391	0.005	0.014	0.014	568.3	0.013	Other Construction Equipment_2030_7				
Other Construction Equipment	2035	6	15	1 6_15	1.96	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Other Construction Equipment_2035_1				
Other Construction Equipment	2035	16	25	2 16_25	2.657	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Other Construction Equipment_2035_2				
Other Construction Equipment	2035	26	50	3 26_50	3.367	0.41	4.377	3.124	0.007	0.018	0.018	568.299	0.037	Other Construction Equipment_2035_3				
Other Construction Equipment	2035	51	120	4 51_120	5.057	0.213	3.536	1.474	0.006	0.017	0.017	568.299	0.019	Other Construction Equipment_2035_4				
Other Construction Equipment	2035	121	175	5 121_175	4.686	0.15	3.128	0.334	0.006	0.013	0.013	568.299	0.013	Other Construction Equipment_2035_5				
Other Construction Equipment	2035	251	500	7 251_500	11.034	0.147	1.029	0.311	0.005	0.011	0.011	568.299	0.013	Other Construction Equipment_2035_7				
Other Construction Equipment	2040	6	15	1 6_15	1.96	0.661	3.47	4.142	0.008	0.161	0.161	568.3	0.059	Other Construction Equipment_2040_1				
Other Construction Equipment	2040	16	25	2 16_25	2.657	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Other Construction Equipment_2040_2				
Other Construction Equipment	2040	26	50	3 26_50	3.359	0.409	4.377	3.096	0.007	0.015	0.015	568.3	0.036	Other Construction Equipment_2040_3				
Other Construction Equipment	2040	51	120	4 51_120	4.992	0.21	3.536	1.441	0.006	0.014	0.014	568.299	0.018	Other Construction Equipment_2040_4				
Other Construction Equipment	2040	121	175	5 121_175	4.556	0.145	3.128	0.29	0.006	0.011	0.011	568.299	0.013	Other Construction Equipment_2040_5				
Other Construction Equipment	2040	251	500	7 251_500	10.825	0.145	1.029	0.282	0.005	0.01	0.01	568.299	0.013	Other Construction Equipment_2040_7				
Other General Industrial Equipment	1990	6	15	1 6_15	4.264	1.804	4.999	9.999	0.833	0.968	0.968	568.299	0.162	Other General Industrial Equipment_1990_1				
Other General Industrial Equipment	1990	16	25	2 16_25	12.555	2.213	4.999	6.919	0.679	0.735	0.735	568.299	0.199	Other General Industrial Equipment_1990_2				
Other General Industrial Equipment	1990	26	50	3 26_50	38.808	4.828	9.768	7.957	0.692	1.266	1.266	568.299	0.435	Other General Industrial Equipment_1990_3				
Other General Industrial Equipment	1990	51	120	4 51_120	54.2	2.363	5.72	14.962	0.628	1.331	1.331	568.299	0.213	Other General Industrial Equipment_1990_4				
Other General Industrial Equipment	1990	121	175	5 121_175	57.106	1.61	5.066	13.434	0.602	0.88	0.88	568.299	0.145	Other General Industrial Equipment_1990_5				
Other General Industrial Equipment	1990	176	250	6 176_250	80.71	1.61	5.066	13.434	0.602	0.88	0.88	568.299	0.145	Other General Industrial Equipment_1990_6				
Other General Industrial Equipment	1990	251	500	7 251_500	139.861	1.425	11.207	12.743	0.525	0.756	0.756	568.299	0.128	Other General Industrial Equipment_1990_7				
Other General Industrial Equipment	1990	501	750	8 501_750	230.516	1.425	11.207	12.743	0.538	0.756	0.756	568.299	0.128	Other General Industrial Equipment_1990_8				
Other General Industrial Equipment	1990	751	1000	9 751_1000	293.256	1.417	11.207	12.743	0.538	0.746	0.746	568.299	0.127	Other General Industrial Equipment_1990_9				
Other General Industrial Equipment	2000	6	15	1 6_15	2.475	1.047	4.258	7.362	0.079	0.428	0.428	568.299	0.094	Other General Industrial Equipment_2000_1				
Other General Industrial Equipment	2000	16	25	2 16_25	5.83	1.027	4.322	6.284	0.064	0.431	0.431	568.299	0.092	Other General Industrial Equipment_2000_2				
Other General Industrial Equipment	2000	26	50	3 26_50	36.086	4.49	9.236	7.09	0.065	0.935	0.935	568.299	0.405	Other General Industrial Equipment_2000_3				
Other General Industrial Equipment	2000	51	120	4 51_120	43.196	1.883	4.733	10.664	0.059	0.91	0.91	568.299	0.169	Other General Industrial Equipment_2000_4				
Other General Industrial Equipment	2000	121	175	5 121_175	44.74	1.261	3.852	9.686	0.057	0.536	0.536	568.299	0.113	Other General Industrial Equipment_2000_5				
Other General Industrial Equipment	2000	176	250	6 176_250	53	1.057	3.072	9.325	0.057	0.438	0.438	568.299	0.095	Other General Industrial Equipment_2000_6				
Other General Industrial Equipment	2000	251	500	7 251_500	93.834	0.956	5.179	8.862	0.049	0.385	0.385	568.299	0.086	Other General Industrial Equipment_2000_7				
Other General Industrial Equipment	2000	501	750	8 501_750	154.656	0.956	5.179	8.862	0.051	0.385	0.385	568.3	0.086	Other General Industrial Equipment_2000_8				
Other General Industrial Equipment	2000	751	1000	9 751_1000	214.063	1.034	5.791	9.479	0.051	0.385	0.385	568.299	0.093	Other General Industrial Equipment_2000_9				
Other General Industrial Equipment	2005	6	15	1 6_15	1.674	0.708	3.469	4.985	0.079	0.35	0.35	568.299	0.063	Other General Industrial Equipment_2005_1				
Other General Industrial Equipment	2005	16	25	2 16_25	4.288	0.755	2.4	5.226	0.064	0.315	0.315	568.299	0.068	Other General Industrial Equipment_2005_2				
Other General Industrial Equipment	2005	26	50	3 26_50	33.133	4.122	8.765	6.676	0.065	0.888	0.888	568.299	0.371	Other General Industrial Equipment_2005_3				
Other General Industrial Equipment	2005	51	120	4 51_120	37.812	1.649	4.418	9.041	0.059	0.867	0.867	568.299	0.148	Other General Industrial Equipment_2005_4				
Other General Industrial Equipment	2005	121	175	5 121_175	38.439	1.084	3.513	8.273	0.057	0.479	0.479	568.299	0.097	Other General Industrial Equipment_2005_5				
Other General Industrial Equipment	2005	176	250	6 176_250	38.228	0.762	2.065	7.795	0.057	0.301	0.301	568.299	0.068	Other General Industrial Equipment_2005_6				
Other General Industrial Equipment	2005	251	500	7 251_500	66.246	0.675	2.681	7.094	0.049	0.269	0.269	568.299	0.06	Other General Industrial Equipment_2005_7				
Other General Industrial Equipment	2005	501	750	8 501_750	110.94	0.686	2.681	7.252	0.051	0.272	0.272	568.3	0.061	Other General Industrial Equipment_2005_8				
Other General Industrial Equipment	2005	751	1000	9 751_1000	166.893	0.806	3.276	8.322	0.051	0.28	0.28	568.299	0.072	Other General Industrial Equipment_2005_9				
Other General Industrial Equipment	2010	6	15	1 6_15	1.873274	1.574	6.00712	5.68505	0.005	0.563	0.518	584.6401	0.17	Other General Industrial Equipment_2010_1				
Other General Industrial Equipment	2010	16	25	2 16_25	1.873274	1.574	6.00712	5.68505	0.005	0.563	0.518	584.6401	0.17	Other General Industrial Equipment_2010_2				
Other General Industrial Equipment	2010	26	50	3 26_50	1.873274	1.574	6.00712	5.68505	0.005	0.563	0.518	584.6401	0.17	Other General Industrial Equipment_2010_3				
Other General Industrial Equipment	2010	51	120	4 51_120	1.01726	0.855	4.0773	7.36447	0.005	0.611	0.562	522.222	0.152	Other General Industrial Equipment_2010_4				
Other General Industrial Equipment	2010	121	175	5 121_175	0.746027	0.627	3.51505	7.0202	0.005	0.379	0.349	524.278	0.153	Other General Industrial Equipment_2010_5				
Other General Industrial Equipment	2010	176	250	6 176_250	0.769173	0.646	2.61803	8.04899	0.005	0.359	0.33	525.8035	0.153	Other General Industrial Equipment_2010_6				
Other General Industrial Equipment	2010	251	500	7 251_500	0.489206	0.411	2.96412	5.68219	0.005	0.219	0.202	525.4767	0.153	Other General Industrial Equipment_2010_7				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Other General Industrial Equipment	2023	751	1000	9 751_1000	0.229255	0.193	1.04852	3.95649	0.005	0.08	0.073	472.0545	0.153	Other General Industrial Equipment_2023_9				
Other General Industrial Equipment	2024	6	15	1 6_15	0.649743	0.546	4.78022	3.85892	0.005	0.165	0.152	526.1761	0.17	Other General Industrial Equipment_2024_1				
Other General Industrial Equipment	2024	16	25	2 16_25	0.649743	0.546	4.78022	3.85892	0.005	0.165	0.152	526.1761	0.17	Other General Industrial Equipment_2024_2				
Other General Industrial Equipment	2024	26	50	3 26_50	0.649743	0.546	4.78022	3.85892	0.005	0.165	0.152	526.1761	0.17	Other General Industrial Equipment_2024_3				
Other General Industrial Equipment	2024	51	120	4 51_120	0.341745	0.287	3.63929	2.70778	0.005	0.146	0.134	469.9998	0.152	Other General Industrial Equipment_2024_4				
Other General Industrial Equipment	2024	121	175	5 121_175	0.226791	0.191	3.18534	1.44774	0.005	0.073	0.067	471.8502	0.153	Other General Industrial Equipment_2024_5				
Other General Industrial Equipment	2024	176	250	6 176_250	0.205547	0.173	1.14124	1.31888	0.005	0.046	0.042	473.2231	0.153	Other General Industrial Equipment_2024_6				
Other General Industrial Equipment	2024	251	500	7 251_500	0.187509	0.158	1.1102	1.15288	0.005	0.04	0.036	472.929	0.153	Other General Industrial Equipment_2024_7				
Other General Industrial Equipment	2024	501	750	8 501_750	0.137014	0.115	1.11228	0.62782	0.005	0.023	0.021	473.4638	0.153	Other General Industrial Equipment_2024_8				
Other General Industrial Equipment	2024	751	1000	9 751_1000	0.235434	0.198	1.05779	3.97098	0.005	0.08	0.074	472.0545	0.153	Other General Industrial Equipment_2024_9				
Other General Industrial Equipment	2025	6	15	1 6_15	0.585572	0.492	4.67981	3.71721	0.005	0.136	0.125	526.1761	0.17	Other General Industrial Equipment_2025_1				
Other General Industrial Equipment	2025	16	25	2 16_25	0.585572	0.492	4.67981	3.71721	0.005	0.136	0.125	526.1761	0.17	Other General Industrial Equipment_2025_2				
Other General Industrial Equipment	2025	26	50	3 26_50	0.585572	0.492	4.67981	3.71721	0.005	0.136	0.125	526.1761	0.17	Other General Industrial Equipment_2025_3				
Other General Industrial Equipment	2025	51	120	4 51_120	0.306396	0.257	3.61204	2.43889	0.005	0.118	0.109	469.9998	0.152	Other General Industrial Equipment_2025_4				
Other General Industrial Equipment	2025	121	175	5 121_175	0.224974	0.189	3.20434	1.36379	0.005	0.07	0.065	471.8502	0.153	Other General Industrial Equipment_2025_5				
Other General Industrial Equipment	2025	176	250	6 176_250	0.184121	0.155	1.13176	1.02801	0.005	0.036	0.033	473.2231	0.153	Other General Industrial Equipment_2025_6				
Other General Industrial Equipment	2025	251	500	7 251_500	0.180295	0.151	1.10932	1.05334	0.005	0.035	0.032	472.929	0.153	Other General Industrial Equipment_2025_7				
Other General Industrial Equipment	2025	501	750	8 501_750	0.139282	0.117	1.1152	0.629	0.005	0.023	0.021	473.4638	0.153	Other General Industrial Equipment_2025_8				
Other General Industrial Equipment	2025	751	1000	9 751_1000	0.241613	0.203	1.06706	3.98546	0.005	0.081	0.074	472.0545	0.153	Other General Industrial Equipment_2025_9				
Other General Industrial Equipment	2030	6	15	1 6_15	1.393	0.589	3.469	4.142	0.008	0.161	0.161	568.299	0.053	Other General Industrial Equipment_2030_1				
Other General Industrial Equipment	2030	16	25	2 16_25	3.889	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Other General Industrial Equipment_2030_2				
Other General Industrial Equipment	2030	26	50	3 26_50	4.896	0.609	5.299	3.46	0.007	0.048	0.048	568.299	0.054	Other General Industrial Equipment_2030_3				
Other General Industrial Equipment	2030	51	120	4 51_120	7.091	0.309	3.802	1.766	0.006	0.043	0.043	568.299	0.027	Other General Industrial Equipment_2030_4				
Other General Industrial Equipment	2030	121	175	5 121_175	7.93	0.223	3.357	0.641	0.006	0.028	0.028	568.299	0.02	Other General Industrial Equipment_2030_5				
Other General Industrial Equipment	2030	176	250	6 176_250	10.485	0.209	1.143	0.536	0.006	0.018	0.018	568.299	0.018	Other General Industrial Equipment_2030_6				
Other General Industrial Equipment	2030	251	500	7 251_500	20.447	0.208	1.087	0.506	0.005	0.018	0.018	568.299	0.018	Other General Industrial Equipment_2030_7				
Other General Industrial Equipment	2030	501	750	8 501_750	33.725	0.208	1.087	0.512	0.005	0.018	0.018	568.299	0.018	Other General Industrial Equipment_2030_8				
Other General Industrial Equipment	2030	751	1000	9 751_1000	44.002	0.212	1.088	2.66	0.005	0.035	0.035	568.299	0.019	Other General Industrial Equipment_2030_9				
Other General Industrial Equipment	2035	6	15	1 6_15	1.393	0.589	3.469	4.142	0.008	0.161	0.161	568.299	0.053	Other General Industrial Equipment_2035_1				
Other General Industrial Equipment	2035	16	25	2 16_25	3.889	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Other General Industrial Equipment_2035_2				
Other General Industrial Equipment	2035	26	50	3 26_50	4.535	0.564	5.255	3.334	0.007	0.025	0.025	568.299	0.05	Other General Industrial Equipment_2035_3				
Other General Industrial Equipment	2035	51	120	4 51_120	6.486	0.282	3.794	1.567	0.006	0.022	0.022	568.3	0.025	Other General Industrial Equipment_2035_4				
Other General Industrial Equipment	2035	121	175	5 121_175	7.079	0.199	3.355	0.399	0.006	0.016	0.016	568.3	0.018	Other General Industrial Equipment_2035_5				
Other General Industrial Equipment	2035	176	250	6 176_250	9.803	0.195	1.143	0.355	0.006	0.013	0.013	568.299	0.017	Other General Industrial Equipment_2035_6				
Other General Industrial Equipment	2035	251	500	7 251_500	19.187	0.195	1.087	0.351	0.005	0.013	0.013	568.299	0.017	Other General Industrial Equipment_2035_7				
Other General Industrial Equipment	2035	501	750	8 501_750	31.624	0.195	1.087	0.351	0.005	0.013	0.013	568.299	0.017	Other General Industrial Equipment_2035_8				
Other General Industrial Equipment	2035	751	1000	9 751_1000	40.723	0.196	1.087	2.532	0.005	0.028	0.028	568.299	0.017	Other General Industrial Equipment_2035_9				
Other General Industrial Equipment	2040	6	15	1 6_15	1.393	0.589	3.47	4.142	0.008	0.161	0.161	568.299	0.053	Other General Industrial Equipment_2040_1				
Other General Industrial Equipment	2040	16	25	2 16_25	3.889	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Other General Industrial Equipment_2040_2				
Other General Industrial Equipment	2040	26	50	3 26_50	4.521	0.562	5.257	3.283	0.007	0.019	0.019	568.299	0.05	Other General Industrial Equipment_2040_3				
Other General Industrial Equipment	2040	51	120	4 51_120	6.373	0.277	3.794	1.506	0.006	0.017	0.017	568.299	0.025	Other General Industrial Equipment_2040_4				
Other General Industrial Equipment	2040	121	175	5 121_175	6.806	0.191	3.356	0.315	0.006	0.012	0.012	568.299	0.017	Other General Industrial Equipment_2040_5				
Other General Industrial Equipment	2040	176	250	6 176_250	9.551	0.19	1.143	0.299	0.006	0.011	0.011	568.299	0.017	Other General Industrial Equipment_2040_6				
Other General Industrial Equipment	2040	251	500	7 251_500	18.696	0.19	1.087	0.299	0.005	0.011	0.011	568.299	0.017	Other General Industrial Equipment_2040_7				
Other General Industrial Equipment	2040	501	750	8 501_750	30.815	0.19	1.087	0.299	0.005	0.011	0.011	568.299	0.017	Other General Industrial Equipment_2040_8				
Other General Industrial Equipment	2040	751	1000	9 751_1000	39.521	0.191	1.087	2.5	0.005	0.025	0.025	568.299	0.017	Other General Industrial Equipment_2040_9				
Other Material Handling Equipment	1990	26	50	3 26_50	12.278	4.763	9.649	7.932	0.692	1.252	1.252	568.3	0.429	Other Material Handling Equipment_1990_3				
Other Material Handling Equipment	1990	51	120	4 51_120	12.096	2.346	5.692	14.896	0.628	1.317	1.317	568.299	0.211	Other Material Handling Equipment_1990_4				
Other Material Handling Equipment	1990	121	175	5 121_175	16.59	1.599	5.041	13.377	0.602	0.872	0.872	568.299	0.144	Other Material Handling Equipment_1990_5				
Other Material Handling Equipment	1990	176	250	6 176_250	19.708	1.599	5.041	13.377	0.602	0.872	0.872	568.3	0.144	Other Material Handling Equipment_1990_6				
Other Material Handling Equipment	1990	251	500	7 251_500	23.083	1.417	11.046	12.702	0.525	0.75	0.75	568.299	0.127	Other Material Handling Equipment_1990_7				
Other Material Handling Equipment	1990	1001	9999	10 1001_9999	88.844	1.41	11.046	12.702	0.525	0.741	0.741	568.3	0.127	Other Material Handling Equipment_1990_10				
Other Material Handling Equipment	2000	26	50	3 26_50	11.414	4.428	9.121	7.068	0.065	0.925	0.925	568.299	0.399	Other Material Handling Equipment_2000_3				
Other Material Handling Equipment	2000	51	120	4 51_120	9.647	1.871	4.712	10.623	0.059	0.901	0.901	568.299	0.168	Other Material Handling Equipment_2000_4				
Other Material Handling Equipment	2000	121	175	5 121_175	13	1.253	3.836	9.648	0.057	0.531	0.531	568.299	0.113	Other Material Handling Equipment_2000_5				
Other Material Handling Equipment	2000	176	250	6 176_250	12.957	1.051	3.061	9.289	0.057	0.435	0.435	568.3	0.094	Other Material Handling Equipment_2000_6				
Other Material Handling Equipment	2000	251	500	7 251_500	15.5	0.951	5.171	8.836	0.049	0.383	0.383	568.299	0.085	Other Material Handling Equipment_2000_7				
Other Material Handling Equipment	2000	1001	9999	10 1001_9999	65.006	1.031	5.779	9.45	0.049	0.384	0.384	568.299	0.093	Other Material Handling Equipment_2000_10				
Other Material Handling Equipment	2005	26	50	3 26_50	10.467	4.06	8.646	6.65	0.065	0.878	0.878	568.299	0.366	Other Material Handling Equipment_2005_3				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Pavers	2030	121	175	5 121_175	5.577	0.3	3.326	1.425	0.006	0.074	0.074	568.299	0.027	Pavers_2030_5				
Pavers	2030	176	250	6 176_250	7.306	0.259	1.192	1.246	0.006	0.045	0.045	568.299	0.023	Pavers_2030_6				
Pavers	2030	251	500	7 251_500	8.558	0.253	1.181	1.141	0.005	0.043	0.043	568.299	0.022	Pavers_2030_7				
Pavers	2035	16	25	2 16_25	1.849	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Pavers_2035_2				
Pavers	2035	26	50	3 26_50	2.812	0.694	5.26	3.555	0.007	0.076	0.076	568.299	0.062	Pavers_2035_3				
Pavers	2035	51	120	4 51_120	3.386	0.338	3.774	1.986	0.006	0.069	0.069	568.299	0.03	Pavers_2035_4				
Pavers	2035	121	175	5 121_175	4.543	0.244	3.319	0.889	0.006	0.043	0.043	568.299	0.022	Pavers_2035_5				
Pavers	2035	176	250	6 176_250	6.219	0.221	1.157	0.772	0.006	0.027	0.027	568.3	0.019	Pavers_2035_6				
Pavers	2035	251	500	7 251_500	7.364	0.218	1.111	0.722	0.005	0.026	0.026	568.299	0.019	Pavers_2035_7				
Pavers	2040	16	25	2 16_25	1.849	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Pavers_2040_2				
Pavers	2040	26	50	3 26_50	2.504	0.618	5.189	3.393	0.007	0.047	0.047	568.299	0.055	Pavers_2040_3				
Pavers	2040	51	120	4 51_120	3.03	0.302	3.763	1.731	0.006	0.043	0.043	568.299	0.027	Pavers_2040_4				
Pavers	2040	121	175	5 121_175	3.958	0.213	3.319	0.583	0.006	0.027	0.027	568.299	0.019	Pavers_2040_5				
Pavers	2040	176	250	6 176_250	5.625	0.2	1.138	0.525	0.006	0.018	0.018	568.299	0.018	Pavers_2040_6				
Pavers	2040	251	500	7 251_500	6.703	0.198	1.085	0.498	0.005	0.018	0.018	568.299	0.017	Pavers_2040_7				
Paving Equipment	1990	16	25	2 16_25	5.257	2.213	4.999	6.919	0.855	0.741	0.741	568.299	0.199	Paving Equipment_1990_2				
Paving Equipment	1990	26	50	3 26_50	21.788	4.84	9.783	7.965	0.871	1.277	1.277	568.299	0.436	Paving Equipment_1990_3				
Paving Equipment	1990	51	120	4 51_120	24.593	2.398	5.796	15.202	0.791	1.352	1.352	568.299	0.216	Paving Equipment_1990_4				
Paving Equipment	1990	121	175	5 121_175	35.738	1.88	5.196	14.821	0.758	1.044	1.044	568.3	0.169	Paving Equipment_1990_5				
Paving Equipment	1990	176	250	6 176_250	43.262	1.88	5.196	14.821	0.758	1.044	1.044	568.299	0.169	Paving Equipment_1990_6				
Paving Equipment	2000	16	25	2 16_25	4.652	1.958	4.53	6.358	0.065	0.563	0.563	568.299	0.176	Paving Equipment_2000_2				
Paving Equipment	2000	26	50	3 26_50	19.86	4.412	9.076	7.101	0.066	0.921	0.921	568.299	0.398	Paving Equipment_2000_3				
Paving Equipment	2000	51	120	4 51_120	19.826	1.933	4.844	11.122	0.06	0.909	0.909	568.299	0.174	Paving Equipment_2000_4				
Paving Equipment	2000	121	175	5 121_175	25.015	1.316	4.018	10.15	0.057	0.553	0.553	568.299	0.118	Paving Equipment_2000_5				
Paving Equipment	2000	176	250	6 176_250	26.974	1.172	3.458	9.895	0.057	0.486	0.486	568.299	0.105	Paving Equipment_2000_6				
Paving Equipment	2005	16	25	2 16_25	2.184	0.919	2.642	5.412	0.065	0.347	0.347	568.299	0.082	Paving Equipment_2005_2				
Paving Equipment	2005	26	50	3 26_50	18.352	4.077	8.626	6.73	0.066	0.875	0.875	568.299	0.367	Paving Equipment_2005_3				
Paving Equipment	2005	51	120	4 51_120	17.633	1.719	4.557	9.754	0.06	0.86	0.86	568.299	0.155	Paving Equipment_2005_4				
Paving Equipment	2005	121	175	5 121_175	21.589	1.135	3.705	8.873	0.057	0.494	0.494	568.299	0.102	Paving Equipment_2005_5				
Paving Equipment	2005	176	250	6 176_250	21.201	0.921	2.655	8.548	0.057	0.38	0.38	568.299	0.083	Paving Equipment_2005_6				
Paving Equipment	2010	16	25	2 16_25	1.378997	1.159	4.92203	5.35696	0.005	0.47	0.433	578.6236	0.168	Paving Equipment_2010_2				
Paving Equipment	2010	26	50	3 26_50	1.378997	1.159	4.92203	5.35696	0.005	0.47	0.433	578.6236	0.168	Paving Equipment_2010_3				
Paving Equipment	2010	51	120	4 51_120	0.934999	0.786	3.90118	7.23593	0.005	0.553	0.508	526.5834	0.153	Paving Equipment_2010_4				
Paving Equipment	2010	121	175	5 121_175	0.573407	0.482	3.13688	6.09511	0.005	0.295	0.271	523.4127	0.152	Paving Equipment_2010_5				
Paving Equipment	2010	176	250	6 176_250	0.486641	0.409	1.69744	6.03614	0.005	0.224	0.206	524.3728	0.153	Paving Equipment_2010_6				
Paving Equipment	2011	16	25	2 16_25	1.380687	1.16	4.99687	5.36974	0.005	0.472	0.434	577.1303	0.168	Paving Equipment_2011_2				
Paving Equipment	2011	26	50	3 26_50	1.380687	1.16	4.99687	5.36974	0.005	0.472	0.434	577.1303	0.168	Paving Equipment_2011_3				
Paving Equipment	2011	51	120	4 51_120	0.895349	0.752	3.87125	6.99544	0.005	0.536	0.493	524.9269	0.153	Paving Equipment_2011_4				
Paving Equipment	2011	121	175	5 121_175	0.56507	0.475	3.14337	5.97526	0.005	0.29	0.267	522.1549	0.152	Paving Equipment_2011_5				
Paving Equipment	2011	176	250	6 176_250	0.466258	0.392	1.64572	5.77978	0.005	0.213	0.196	523.0323	0.153	Paving Equipment_2011_6				
Paving Equipment	2012	16	25	2 16_25	1.384947	1.164	5.06516	5.34363	0.005	0.47	0.432	575.687	0.168	Paving Equipment_2012_2				
Paving Equipment	2012	26	50	3 26_50	1.384947	1.164	5.06516	5.34363	0.005	0.47	0.432	575.687	0.168	Paving Equipment_2012_3				
Paving Equipment	2012	51	120	4 51_120	0.910401	0.765	3.90635	7.04165	0.005	0.546	0.503	523.5886	0.153	Paving Equipment_2012_4				
Paving Equipment	2012	121	175	5 121_175	0.56544	0.475	3.15801	5.9326	0.005	0.29	0.267	520.7286	0.152	Paving Equipment_2012_5				
Paving Equipment	2012	176	250	6 176_250	0.474854	0.399	1.657	5.81292	0.005	0.215	0.198	521.7154	0.153	Paving Equipment_2012_6				
Paving Equipment	2013	16	25	2 16_25	1.327494	1.115	5.02677	5.2986	0.005	0.459	0.422	572.4644	0.168	Paving Equipment_2013_2				
Paving Equipment	2013	26	50	3 26_50	1.327494	1.115	5.02677	5.2986	0.005	0.459	0.422	572.4644	0.168	Paving Equipment_2013_3				
Paving Equipment	2013	51	120	4 51_120	0.845445	0.71	3.86369	6.6576	0.005	0.507	0.467	520.6724	0.153	Paving Equipment_2013_4				
Paving Equipment	2013	121	175	5 121_175	0.532035	0.447	3.1205	5.60344	0.005	0.271	0.249	517.6606	0.152	Paving Equipment_2013_5				
Paving Equipment	2013	176	250	6 176_250	0.40741	0.342	1.48037	5.25206	0.005	0.18	0.166	519.5215	0.153	Paving Equipment_2013_6				
Paving Equipment	2014	16	25	2 16_25	1.253528	1.053	4.95215	5.18385	0.005	0.437	0.402	569.4822	0.168	Paving Equipment_2014_2				
Paving Equipment	2014	26	50	3 26_50	1.253528	1.053	4.95215	5.18385	0.005	0.437	0.402	569.4822	0.168	Paving Equipment_2014_3				
Paving Equipment	2014	51	120	4 51_120	0.805438	0.677	3.83664	6.36952	0.005	0.486	0.447	518.0756	0.153	Paving Equipment_2014_4				
Paving Equipment	2014	121	175	5 121_175	0.494038	0.415	3.09686	5.21567	0.005	0.249	0.229	515.0343	0.152	Paving Equipment_2014_5				
Paving Equipment	2014	176	250	6 176_250	0.369032	0.31	1.37011	4.78232	0.005	0.158	0.146	516.8998	0.153	Paving Equipment_2014_6				
Paving Equipment	2015	16	25	2 16_25	1.166929	0.981	4.86895	5.02757	0.005	0.407	0.374	563.5534	0.168	Paving Equipment_2015_2				
Paving Equipment	2015	26	50	3 26_50	1.166929	0.981	4.86895	5.02757	0.005	0.407	0.374	563.5534	0.168	Paving Equipment_2015_3				
Paving Equipment	2015	51	120	4 51_120	0.786628	0.661	3.83329	6.14454	0.005	0.471	0.433	513.1672	0.153	Paving Equipment_2015_4				
Paving Equipment	2015	121	175	5 121_175	0.48887	0.411	3.10403	4.96561	0.005	0.242	0.223	509.8942	0.152	Paving Equipment_2015_5				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Paving Equipment	2035	121	175	5 121_175	4.485	0.235	3.303	0.832	0.006	0.04	0.04	568.299	0.021	Paving Equipment_2035_5				
Paving Equipment	2035	176	250	6 176_250	4.886	0.212	1.14	0.714	0.006	0.024	0.024	568.299	0.019	Paving Equipment_2035_6				
Paving Equipment	2040	16	25	2 16_25	1.628	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Paving Equipment_2040_2				
Paving Equipment	2040	26	50	3 26_50	2.651	0.589	5.111	3.361	0.007	0.042	0.042	568.3	0.053	Paving Equipment_2040_3				
Paving Equipment	2040	51	120	4 51_120	2.989	0.291	3.744	1.687	0.006	0.039	0.039	568.299	0.026	Paving Equipment_2040_4				
Paving Equipment	2040	121	175	5 121_175	3.901	0.205	3.304	0.536	0.006	0.025	0.025	568.299	0.018	Paving Equipment_2040_5				
Paving Equipment	2040	176	250	6 176_250	4.452	0.193	1.127	0.485	0.006	0.017	0.017	568.299	0.017	Paving Equipment_2040_6				
Plate Compactors	1990	6	15	1 6_15	2.156	1.804	4.999	9.999	1.049	0.975	0.975	568.299	0.162	Plate Compactors_1990_1				
Plate Compactors	2000	6	15	1 6_15	1.852	1.55	4.606	8.519	0.079	0.708	0.708	568.299	0.139	Plate Compactors_2000_1				
Plate Compactors	2005	6	15	1 6_15	0.955	0.799	3.503	5.435	0.079	0.377	0.377	568.299	0.072	Plate Compactors_2005_1				
Plate Compactors	2010	6	15	1 6_15	0.794	0.664	3.469	4.178	0.008	0.198	0.198	568.299	0.059	Plate Compactors_2010_1				
Plate Compactors	2011	6	15	1 6_15	0.791	0.662	3.469	4.15	0.008	0.172	0.172	568.299	0.059	Plate Compactors_2011_1				
Plate Compactors	2012	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.165	0.165	568.3	0.059	Plate Compactors_2012_1				
Plate Compactors	2013	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.162	0.162	568.3	0.059	Plate Compactors_2013_1				
Plate Compactors	2014	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2014_1				
Plate Compactors	2015	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2015_1				
Plate Compactors	2016	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2016_1				
Plate Compactors	2017	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2017_1				
Plate Compactors	2018	6	15	1 6_15	0.79	0.661	3.47	4.142	0.008	0.161	0.161	568.3	0.059	Plate Compactors_2018_1				
Plate Compactors	2019	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2019_1				
Plate Compactors	2020	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2020_1				
Plate Compactors	2021	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2021_1				
Plate Compactors	2022	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2022_1				
Plate Compactors	2023	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2023_1				
Plate Compactors	2024	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2024_1				
Plate Compactors	2025	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2025_1				
Plate Compactors	2030	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2030_1				
Plate Compactors	2035	6	15	1 6_15	0.79	0.661	3.47	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2035_1				
Plate Compactors	2040	6	15	1 6_15	0.79	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Plate Compactors_2040_1				
Pressure Washers	1990	6	15	1 6_15	4.972	1.804	4.999	9.999	1.018	0.974	0.974	568.299	0.162	Pressure Washers_1990_1				
Pressure Washers	1990	16	25	2 16_25	8.915	2.213	5	6.92	0.83	0.74	0.74	568.3	0.199	Pressure Washers_1990_2				
Pressure Washers	1990	26	50	3 26_50	20.959	2.601	5.721	7.129	0.846	0.821	0.821	568.299	0.234	Pressure Washers_1990_3				
Pressure Washers	1990	51	120	4 51_120	23.659	1.743	4.735	12.634	0.768	0.874	0.874	568.299	0.157	Pressure Washers_1990_4				
Pressure Washers	1990	121	175	5 121_175	82.001	1.272	4.353	11.763	1.123	0.649	0.649	568.299	0.114	Pressure Washers_1990_5				
Pressure Washers	1990	176	250	6 176_250	77.237	0.953	3.084	9.035	1.077	0.476	0.476	568.299	0.086	Pressure Washers_1990_6				
Pressure Washers	2000	6	15	1 6_15	4.186	1.518	4.875	8.846	0.079	0.613	0.613	568.299	0.137	Pressure Washers_2000_1				
Pressure Washers	2000	16	25	2 16_25	6.717	1.667	4.783	6.405	0.065	0.51	0.51	568.299	0.15	Pressure Washers_2000_2				
Pressure Washers	2000	26	50	3 26_50	19.934	2.474	5.524	6.381	0.066	0.615	0.615	568.3	0.223	Pressure Washers_2000_3				
Pressure Washers	2000	51	120	4 51_120	19.23	1.417	3.967	9.062	0.06	0.613	0.613	568.3	0.127	Pressure Washers_2000_4				
Pressure Washers	2000	121	175	5 121_175	66.055	1.024	3.38	8.685	0.059	0.399	0.399	568.299	0.092	Pressure Washers_2000_5				
Pressure Washers	2000	176	250	6 176_250	35.508	0.438	1.005	6.315	0.058	0.143	0.143	568.299	0.039	Pressure Washers_2000_6				
Pressure Washers	2005	6	15	1 6_15	3.341	1.212	4.38	7.615	0.079	0.505	0.505	568.3	0.109	Pressure Washers_2005_1				
Pressure Washers	2005	16	25	2 16_25	5.048	1.253	3.922	6.014	0.065	0.432	0.432	568.299	0.113	Pressure Washers_2005_2				
Pressure Washers	2005	26	50	3 26_50	17.362	2.154	5.075	5.932	0.066	0.566	0.566	568.299	0.194	Pressure Washers_2005_3				
Pressure Washers	2005	51	120	4 51_120	16.424	1.21	3.682	7.651	0.06	0.566	0.566	568.299	0.109	Pressure Washers_2005_4				
Pressure Washers	2005	121	175	5 121_175	55.65	0.863	3.072	7.441	0.059	0.349	0.349	568.299	0.077	Pressure Washers_2005_5				
Pressure Washers	2005	176	250	6 176_250	21.871	0.27	0.986	4.822	0.058	0.111	0.111	568.299	0.024	Pressure Washers_2005_6				
Pressure Washers	2010	6	15	1 6_15	2.628	0.953	4.027	6.387	0.008	0.38	0.38	568.299	0.086	Pressure Washers_2010_1				
Pressure Washers	2010	16	25	2 16_25	3.872	0.961	3.309	5.477	0.007	0.342	0.342	568.299	0.086	Pressure Washers_2010_2				
Pressure Washers	2010	26	50	3 26_50	13.073	1.622	4.517	5.501	0.007	0.453	0.453	568.299	0.146	Pressure Washers_2010_3				
Pressure Washers	2010	51	120	4 51_120	12.296	0.906	3.503	6.273	0.006	0.451	0.451	568.299	0.081	Pressure Washers_2010_4				
Pressure Washers	2010	121	175	5 121_175	41.062	0.637	2.967	5.773	0.006	0.275	0.275	568.299	0.057	Pressure Washers_2010_5				
Pressure Washers	2010	176	250	6 176_250	16.502	0.203	0.986	2.5	0.006	0.1	0.1	568.299	0.018	Pressure Washers_2010_6				
Pressure Washers	2011	6	15	1 6_15	2.504	0.908	3.952	6.134	0.008	0.358	0.358	568.299	0.081	Pressure Washers_2011_1				
Pressure Washers	2011	16	25	2 16_25	3.706	0.92	3.179	5.36	0.007	0.325	0.325	568.299	0.083	Pressure Washers_2011_2				
Pressure Washers	2011	26	50	3 26_50	12.056	1.496	4.382	5.405	0.007	0.428	0.428	568.299	0.135	Pressure Washers_2011_3				
Pressure Washers	2011	51	120	4 51_120	11.392	0.839	3.468	5.939	0.006	0.43	0.43	568.299	0.075	Pressure Washers_2011_4				
Pressure Washers	2011	121	175	5 121_175	38.303	0.594	2.953	5.441	0.006	0.263	0.263	568.299	0.053	Pressure Washers_2011_5				
Pressure Washers	2011	176	250	6 176_250	15.247	0.188	0.986	2.086	0.006	0.072	0.072	568.299	0.016	Pressure Washers_2011_6				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Pressure Washers	2012	6	15	1 6_15	2.385	0.865	3.874	5.874	0.008	0.338	0.338	568.299	0.078	Pressure Washers_2012_1				
Pressure Washers	2012	16	25	2 16_25	3.564	0.884	3.043	5.239	0.007	0.307	0.307	568.299	0.079	Pressure Washers_2012_2				
Pressure Washers	2012	26	50	3 26_50	10.983	1.363	4.238	5.306	0.007	0.402	0.402	568.299	0.123	Pressure Washers_2012_3				
Pressure Washers	2012	51	120	4 51_120	10.457	0.77	3.433	5.578	0.006	0.4	0.4	568.299	0.069	Pressure Washers_2012_4				
Pressure Washers	2012	121	175	5 121_175	35.56	0.551	2.941	5.109	0.006	0.244	0.244	568.299	0.049	Pressure Washers_2012_5				
Pressure Washers	2012	176	250	6 176_250	13.887	0.171	0.986	1.749	0.006	0.046	0.046	568.299	0.015	Pressure Washers_2012_6				
Pressure Washers	2013	6	15	1 6_15	2.27	0.823	3.796	5.616	0.008	0.318	0.318	568.299	0.074	Pressure Washers_2013_1				
Pressure Washers	2013	16	25	2 16_25	3.431	0.851	2.907	5.117	0.007	0.289	0.289	568.299	0.076	Pressure Washers_2013_2				
Pressure Washers	2013	26	50	3 26_50	9.897	1.228	4.092	5.086	0.007	0.367	0.367	568.299	0.11	Pressure Washers_2013_3				
Pressure Washers	2013	51	120	4 51_120	9.523	0.701	3.399	5.226	0.006	0.366	0.366	568.299	0.063	Pressure Washers_2013_4				
Pressure Washers	2013	121	175	5 121_175	32.885	0.51	2.931	4.803	0.006	0.225	0.225	568.299	0.046	Pressure Washers_2013_5				
Pressure Washers	2013	176	250	6 176_250	12.508	0.154	0.986	1.468	0.006	0.021	0.021	568.299	0.013	Pressure Washers_2013_6				
Pressure Washers	2014	6	15	1 6_15	2.16	0.783	3.723	5.369	0.008	0.298	0.298	568.299	0.07	Pressure Washers_2014_1				
Pressure Washers	2014	16	25	2 16_25	3.308	0.821	2.78	5	0.007	0.272	0.272	568.299	0.074	Pressure Washers_2014_2				
Pressure Washers	2014	26	50	3 26_50	8.833	1.096	3.951	4.873	0.007	0.332	0.332	568.299	0.098	Pressure Washers_2014_3				
Pressure Washers	2014	51	120	4 51_120	8.608	0.634	3.367	4.912	0.006	0.332	0.332	568.299	0.057	Pressure Washers_2014_4				
Pressure Washers	2014	121	175	5 121_175	30.292	0.469	2.923	4.513	0.006	0.206	0.206	568.299	0.042	Pressure Washers_2014_5				
Pressure Washers	2014	176	250	6 176_250	11.167	0.137	0.986	1.047	0.006	0.014	0.014	568.299	0.012	Pressure Washers_2014_6				
Pressure Washers	2015	6	15	1 6_15	2.059	0.747	3.657	5.141	0.008	0.28	0.28	568.299	0.067	Pressure Washers_2015_1				
Pressure Washers	2015	16	25	2 16_25	3.196	0.793	2.666	4.89	0.007	0.256	0.256	568.299	0.071	Pressure Washers_2015_2				
Pressure Washers	2015	26	50	3 26_50	7.868	0.976	3.833	4.685	0.007	0.3	0.3	568.299	0.088	Pressure Washers_2015_3				
Pressure Washers	2015	51	120	4 51_120	7.703	0.567	3.336	4.551	0.006	0.297	0.297	568.299	0.051	Pressure Washers_2015_4				
Pressure Washers	2015	121	175	5 121_175	27.567	0.427	2.917	4.115	0.006	0.187	0.187	568.299	0.038	Pressure Washers_2015_5				
Pressure Washers	2015	176	250	6 176_250	9.864	0.121	0.986	0.69	0.006	0.01	0.01	568.299	0.01	Pressure Washers_2015_6				
Pressure Washers	2016	6	15	1 6_15	1.986	0.72	3.622	4.978	0.008	0.264	0.264	568.299	0.065	Pressure Washers_2016_1				
Pressure Washers	2016	16	25	2 16_25	3.116	0.773	2.604	4.803	0.007	0.244	0.244	568.299	0.069	Pressure Washers_2016_2				
Pressure Washers	2016	26	50	3 26_50	6.97	0.865	3.729	4.515	0.007	0.269	0.269	568.299	0.078	Pressure Washers_2016_3				
Pressure Washers	2016	51	120	4 51_120	6.839	0.504	3.308	4.209	0.006	0.264	0.264	568.299	0.045	Pressure Washers_2016_4				
Pressure Washers	2016	121	175	5 121_175	24.906	0.386	2.913	3.726	0.006	0.168	0.168	568.299	0.034	Pressure Washers_2016_5				
Pressure Washers	2016	176	250	6 176_250	8.667	0.107	0.986	0.399	0.006	0.009	0.009	568.299	0.009	Pressure Washers_2016_6				
Pressure Washers	2017	6	15	1 6_15	1.927	0.699	3.599	4.847	0.008	0.25	0.25	568.299	0.063	Pressure Washers_2017_1				
Pressure Washers	2017	16	25	2 16_25	3.053	0.757	2.564	4.729	0.007	0.233	0.233	568.299	0.068	Pressure Washers_2017_2				
Pressure Washers	2017	26	50	3 26_50	6.126	0.76	3.632	4.355	0.007	0.24	0.24	568.299	0.068	Pressure Washers_2017_3				
Pressure Washers	2017	51	120	4 51_120	6.031	0.444	3.283	3.888	0.006	0.233	0.233	568.3	0.04	Pressure Washers_2017_4				
Pressure Washers	2017	121	175	5 121_175	22.349	0.346	2.91	3.349	0.006	0.149	0.149	568.299	0.031	Pressure Washers_2017_5				
Pressure Washers	2017	176	250	6 176_250	8.288	0.102	0.986	0.317	0.006	0.009	0.009	568.299	0.009	Pressure Washers_2017_6				
Pressure Washers	2018	6	15	1 6_15	1.874	0.679	3.58	4.728	0.008	0.237	0.237	568.299	0.061	Pressure Washers_2018_1				
Pressure Washers	2018	16	25	2 16_25	2.997	0.744	2.531	4.661	0.007	0.224	0.224	568.299	0.067	Pressure Washers_2018_2				
Pressure Washers	2018	26	50	3 26_50	5.332	0.661	3.542	4.202	0.007	0.212	0.212	568.299	0.059	Pressure Washers_2018_3				
Pressure Washers	2018	51	120	4 51_120	5.276	0.388	3.26	3.584	0.006	0.203	0.203	568.299	0.035	Pressure Washers_2018_4				
Pressure Washers	2018	121	175	5 121_175	19.96	0.309	2.908	2.989	0.006	0.132	0.132	568.299	0.027	Pressure Washers_2018_5				
Pressure Washers	2018	176	250	6 176_250	8.072	0.099	0.986	0.277	0.006	0.009	0.009	568.299	0.008	Pressure Washers_2018_6				
Pressure Washers	2019	6	15	1 6_15	1.824	0.662	3.562	4.617	0.008	0.224	0.224	568.299	0.059	Pressure Washers_2019_1				
Pressure Washers	2019	16	25	2 16_25	2.947	0.731	2.501	4.596	0.007	0.214	0.214	568.299	0.066	Pressure Washers_2019_2				
Pressure Washers	2019	26	50	3 26_50	4.585	0.569	3.457	4.053	0.007	0.184	0.184	568.299	0.051	Pressure Washers_2019_3				
Pressure Washers	2019	51	120	4 51_120	4.575	0.337	3.24	3.295	0.006	0.174	0.174	568.299	0.03	Pressure Washers_2019_4				
Pressure Washers	2019	121	175	5 121_175	18.102	0.28	2.907	2.67	0.006	0.117	0.117	568.299	0.025	Pressure Washers_2019_5				
Pressure Washers	2019	176	250	6 176_250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	Pressure Washers_2019_6				
Pressure Washers	2020	6	15	1 6_15	1.78	0.646	3.546	4.516	0.008	0.212	0.212	568.299	0.058	Pressure Washers_2020_1				
Pressure Washers	2020	16	25	2 16_25	2.904	0.721	2.473	4.538	0.007	0.205	0.205	568.299	0.065	Pressure Washers_2020_2				
Pressure Washers	2020	26	50	3 26_50	4.025	0.499	3.393	3.917	0.007	0.161	0.161	568.299	0.045	Pressure Washers_2020_3				
Pressure Washers	2020	51	120	4 51_120	4.048	0.298	3.225	3.036	0.006	0.151	0.151	568.299	0.026	Pressure Washers_2020_4				
Pressure Washers	2020	121	175	5 121_175	16.638	0.258	2.907	2.383	0.006	0.104	0.104	568.299	0.023	Pressure Washers_2020_5				
Pressure Washers	2020	176	250	6 176_250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	Pressure Washers_2020_6				
Pressure Washers	2021	6	15	1 6_15	1.747	0.634	3.531	4.441	0.008	0.201	0.201	568.299	0.057	Pressure Washers_2021_1				
Pressure Washers	2021	16	25	2 16_25	2.87	0.712	2.446	4.497	0.007	0.196	0.196	568.299	0.064	Pressure Washers_2021_2				
Pressure Washers	2021	26	50	3 26_50	3.542	0.439	3.329	3.765	0.007	0.136	0.136	568.299	0.039	Pressure Washers_2021_3				
Pressure Washers	2021	51	120	4 51_120	3.592	0.264	3.21	2.766	0.006	0.129	0.129	568.299	0.023	Pressure Washers_2021_4				
Pressure Washers	2021	121	175	5 121_175	15.389	0.238	2.907	2.118	0.006	0.093	0.093	568.299	0.021	Pressure Washers_2021_5				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Pressure Washers	2021	176	250	6 176_250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	Pressure Washers_2021_6				
Pressure Washers	2022	6	15	1 6_15	1.725	0.626	3.519	4.39	0.008	0.193	0.193	568.299	0.056	Pressure Washers_2022_1				
Pressure Washers	2022	16	25	2 16_25	2.847	0.706	2.426	4.47	0.007	0.188	0.188	568.299	0.063	Pressure Washers_2022_2				
Pressure Washers	2022	26	50	3 26_50	3.213	0.398	3.291	3.649	0.007	0.117	0.117	568.3	0.035	Pressure Washers_2022_3				
Pressure Washers	2022	51	120	4 51_120	3.281	0.241	3.202	2.56	0.006	0.112	0.112	568.299	0.021	Pressure Washers_2022_4				
Pressure Washers	2022	121	175	5 121_175	14.252	0.221	2.907	1.871	0.006	0.082	0.082	568.299	0.019	Pressure Washers_2022_5				
Pressure Washers	2022	176	250	6 176_250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	Pressure Washers_2022_6				
Pressure Washers	2023	6	15	1 6_15	1.706	0.618	3.508	4.345	0.008	0.186	0.186	568.299	0.055	Pressure Washers_2023_1				
Pressure Washers	2023	16	25	2 16_25	2.827	0.701	2.407	4.447	0.007	0.182	0.182	568.299	0.063	Pressure Washers_2023_2				
Pressure Washers	2023	26	50	3 26_50	2.928	0.363	3.26	3.541	0.007	0.101	0.101	568.299	0.032	Pressure Washers_2023_3				
Pressure Washers	2023	51	120	4 51_120	3.012	0.222	3.196	2.377	0.006	0.097	0.097	568.299	0.02	Pressure Washers_2023_4				
Pressure Washers	2023	121	175	5 121_175	13.244	0.205	2.907	1.665	0.006	0.072	0.072	568.299	0.018	Pressure Washers_2023_5				
Pressure Washers	2023	176	250	6 176_250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	Pressure Washers_2023_6				
Pressure Washers	2024	6	15	1 6_15	1.689	0.612	3.499	4.305	0.008	0.181	0.181	568.299	0.055	Pressure Washers_2024_1				
Pressure Washers	2024	16	25	2 16_25	2.811	0.697	2.39	4.426	0.007	0.178	0.178	568.299	0.062	Pressure Washers_2024_2				
Pressure Washers	2024	26	50	3 26_50	2.685	0.333	3.233	3.441	0.007	0.087	0.087	568.299	0.03	Pressure Washers_2024_3				
Pressure Washers	2024	51	120	4 51_120	2.78	0.204	3.191	2.229	0.006	0.084	0.084	568.299	0.018	Pressure Washers_2024_4				
Pressure Washers	2024	121	175	5 121_175	12.332	0.191	2.907	1.482	0.006	0.062	0.062	568.299	0.017	Pressure Washers_2024_5				
Pressure Washers	2024	176	250	6 176_250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	Pressure Washers_2024_6				
Pressure Washers	2025	6	15	1 6_15	1.674	0.607	3.491	4.269	0.008	0.178	0.178	568.299	0.054	Pressure Washers_2025_1				
Pressure Washers	2025	16	25	2 16_25	2.797	0.694	2.376	4.407	0.007	0.175	0.175	568.299	0.062	Pressure Washers_2025_2				
Pressure Washers	2025	26	50	3 26_50	2.472	0.306	3.21	3.344	0.007	0.075	0.075	568.299	0.027	Pressure Washers_2025_3				
Pressure Washers	2025	51	120	4 51_120	2.575	0.189	3.186	2.1	0.006	0.072	0.072	568.299	0.017	Pressure Washers_2025_4				
Pressure Washers	2025	121	175	5 121_175	11.476	0.178	2.907	1.31	0.006	0.053	0.053	568.299	0.016	Pressure Washers_2025_5				
Pressure Washers	2025	176	250	6 176_250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	Pressure Washers_2025_6				
Pressure Washers	2030	6	15	1 6_15	1.632	0.592	3.47	4.164	0.008	0.166	0.166	568.3	0.053	Pressure Washers_2030_1				
Pressure Washers	2030	16	25	2 16_25	2.766	0.686	2.34	4.347	0.007	0.165	0.165	568.299	0.061	Pressure Washers_2030_2				
Pressure Washers	2030	26	50	3 26_50	1.735	0.215	3.124	2.989	0.007	0.03	0.03	568.299	0.019	Pressure Washers_2030_3				
Pressure Washers	2030	51	120	4 51_120	1.821	0.134	3.167	1.594	0.006	0.028	0.028	568.3	0.012	Pressure Washers_2030_4				
Pressure Washers	2030	121	175	5 121_175	8.178	0.126	2.907	0.619	0.006	0.024	0.024	568.299	0.011	Pressure Washers_2030_5				
Pressure Washers	2030	176	250	6 176_250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	Pressure Washers_2030_6				
Pressure Washers	2035	6	15	1 6_15	1.624	0.589	3.47	4.143	0.008	0.162	0.162	568.3	0.053	Pressure Washers_2035_1				
Pressure Washers	2035	16	25	2 16_25	2.761	0.685	2.34	4.332	0.007	0.162	0.162	568.299	0.061	Pressure Washers_2035_2				
Pressure Washers	2035	26	50	3 26_50	1.515	0.188	3.101	2.882	0.007	0.015	0.015	568.299	0.016	Pressure Washers_2035_3				
Pressure Washers	2035	51	120	4 51_120	1.58	0.116	3.161	1.421	0.006	0.014	0.014	568.299	0.01	Pressure Washers_2035_4				
Pressure Washers	2035	121	175	5 121_175	7.052	0.109	2.907	0.382	0.006	0.013	0.013	568.299	0.009	Pressure Washers_2035_5				
Pressure Washers	2035	176	250	6 176_250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	Pressure Washers_2035_6				
Pressure Washers	2040	6	15	1 6_15	1.624	0.589	3.469	4.142	0.008	0.161	0.161	568.299	0.053	Pressure Washers_2040_1				
Pressure Washers	2040	16	25	2 16_25	2.761	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Pressure Washers_2040_2				
Pressure Washers	2040	26	50	3 26_50	1.5	0.186	3.098	2.836	0.007	0.01	0.01	568.299	0.016	Pressure Washers_2040_3				
Pressure Washers	2040	51	120	4 51_120	1.54	0.113	3.16	1.365	0.006	0.01	0.01	568.299	0.01	Pressure Washers_2040_4				
Pressure Washers	2040	121	175	5 121_175	6.649	0.103	2.907	0.293	0.006	0.01	0.01	568.299	0.009	Pressure Washers_2040_5				
Pressure Washers	2040	176	250	6 176_250	8.005	0.098	0.986	0.265	0.006	0.009	0.009	568.299	0.008	Pressure Washers_2040_6				
Pumps	1990	6	15	1 6_15	3.929	1.804	4.999	10	1.018	0.974	0.974	568.299	0.162	Pumps_1990_1				
Pumps	1990	16	25	2 16_25	12.652	2.213	4.999	6.92	0.83	0.74	0.74	568.299	0.199	Pumps_1990_2				
Pumps	1990	26	50	3 26_50	33.318	3.307	7.004	7.391	0.846	0.964	0.964	568.299	0.298	Pumps_1990_3				
Pumps	1990	51	120	4 51_120	44.398	1.941	5.049	13.378	0.768	1.022	1.022	568.299	0.175	Pumps_1990_4				
Pumps	1990	121	175	5 121_175	54.599	1.328	4.466	12.036	0.736	0.678	0.678	568.299	0.119	Pumps_1990_5				
Pumps	1990	176	250	6 176_250	78.462	1.328	4.466	12.036	0.736	0.678	0.678	568.299	0.119	Pumps_1990_6				
Pumps	1990	251	500	7 251_500	123.784	1.222	7.034	11.736	0.642	0.614	0.614	568.3	0.11	Pumps_1990_7				
Pumps	1990	501	750	8 501_750	204.643	1.222	7.034	11.736	0.658	0.614	0.614	568.299	0.11	Pumps_1990_8				
Pumps	1990	1001	9999	10 1001_9999	484.933	1.22	7.034	11.736	0.658	0.612	0.612	568.299	0.11	Pumps_1990_10				
Pumps	2000	6	15	1 6_15	3.754	1.723	4.875	9.08	0.079	0.747	0.747	568.299	0.155	Pumps_2000_1				
Pumps	2000	16	25	2 16_25	11.979	2.095	4.783	6.405	0.065	0.569	0.569	568.299	0.189	Pumps_2000_2				
Pumps	2000	26	50	3 26_50	31.461	3.123	6.715	6.608	0.066	0.718	0.718	568.299	0.281	Pumps_2000_3				
Pumps	2000	51	120	4 51_120	36.02	1.575	4.223	9.604	0.06	0.711	0.711	568.3	0.142	Pumps_2000_4				
Pumps	2000	121	175	5 121_175	43.406	1.055	3.435	8.734	0.057	0.419	0.419	568.299	0.095	Pumps_2000_5				
Pumps	2000	176	250	6 176_250	51.67	0.874	2.707	8.397	0.057	0.339	0.339	568.299	0.078	Pumps_2000_6				
Pumps	2000	251	500	7 251_500	83.09	0.82	3.956	8.188	0.05	0.311	0.311	568.299	0.074	Pumps_2000_7				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Pumps	2000	501	750	8 501_750	137.368	0.82	3.956	8.188	0.051	0.311	0.311	568.299	0.074	Pumps_2000_8				
Pumps	2000	1001	9999	10 1001_9999	372.377	0.936	4.533	8.775	0.051	0.351	0.351	568.299	0.084	Pumps_2000_10				
Pumps	2005	6	15	1 6_15	3.036	1.394	4.38	7.817	0.079	0.621	0.621	568.299	0.125	Pumps_2005_1				
Pumps	2005	16	25	2 16_25	9.278	1.622	3.922	6.014	0.065	0.483	0.483	568.299	0.146	Pumps_2005_2				
Pumps	2005	26	50	3 26_50	27.809	2.76	6.203	6.155	0.066	0.664	0.664	568.299	0.249	Pumps_2005_3				
Pumps	2005	51	120	4 51_120	30.825	1.348	3.91	8.1	0.06	0.657	0.657	568.3	0.121	Pumps_2005_4				
Pumps	2005	121	175	5 121_175	36.106	0.878	3.114	7.408	0.057	0.363	0.363	568.299	0.079	Pumps_2005_5				
Pumps	2005	176	250	6 176_250	36.853	0.623	1.836	6.99	0.057	0.239	0.239	568.299	0.056	Pumps_2005_6				
Pumps	2005	251	500	7 251_500	56.766	0.56	2.32	6.535	0.05	0.219	0.219	568.299	0.05	Pumps_2005_7				
Pumps	2005	501	750	8 501_750	96.43	0.575	2.32	6.679	0.051	0.221	0.221	568.299	0.051	Pumps_2005_8				
Pumps	2005	1001	9999	10 1001_9999	289.357	0.728	2.838	7.658	0.051	0.258	0.258	568.299	0.065	Pumps_2005_10				
Pumps	2010	6	15	1 6_15	2.449	1.124	4.027	6.554	0.008	0.473	0.473	568.299	0.101	Pumps_2010_1				
Pumps	2010	16	25	2 16_25	7.245	1.267	3.309	5.477	0.007	0.384	0.384	568.299	0.114	Pumps_2010_2				
Pumps	2010	26	50	3 26_50	22.041	2.188	5.634	5.74	0.007	0.545	0.545	568.3	0.197	Pumps_2010_3				
Pumps	2010	51	120	4 51_120	23.77	1.039	3.735	6.675	0.006	0.538	0.538	568.299	0.093	Pumps_2010_4				
Pumps	2010	121	175	5 121_175	28.171	0.685	3.033	5.961	0.006	0.298	0.298	568.299	0.061	Pumps_2010_5				
Pumps	2010	176	250	6 176_250	26.273	0.444	1.359	5.586	0.006	0.17	0.17	568.299	0.04	Pumps_2010_6				
Pumps	2010	251	500	7 251_500	40.384	0.398	1.536	5.074	0.005	0.158	0.158	568.299	0.035	Pumps_2010_7				
Pumps	2010	501	750	8 501_750	68.724	0.41	1.536	5.207	0.005	0.161	0.161	568.299	0.037	Pumps_2010_8				
Pumps	2010	1001	9999	10 1001_9999	218.911	0.55	1.991	6.617	0.005	0.196	0.196	568.299	0.049	Pumps_2010_10				
Pumps	2011	6	15	1 6_15	2.324	1.067	3.952	6.283	0.008	0.441	0.441	568.299	0.096	Pumps_2011_1				
Pumps	2011	16	25	2 16_25	6.815	1.192	3.179	5.36	0.007	0.361	0.361	568.299	0.107	Pumps_2011_2				
Pumps	2011	26	50	3 26_50	20.53	2.038	5.474	5.645	0.007	0.518	0.518	568.299	0.183	Pumps_2011_3				
Pumps	2011	51	120	4 51_120	22.177	0.969	3.698	6.322	0.006	0.514	0.514	568.299	0.087	Pumps_2011_4				
Pumps	2011	121	175	5 121_175	26.426	0.642	3.02	5.63	0.006	0.286	0.286	568.299	0.058	Pumps_2011_5				
Pumps	2011	176	250	6 176_250	24.051	0.407	1.272	5.206	0.006	0.153	0.153	568.299	0.036	Pumps_2011_6				
Pumps	2011	251	500	7 251_500	36.969	0.365	1.405	4.71	0.005	0.143	0.143	568.299	0.032	Pumps_2011_7				
Pumps	2011	501	750	8 501_750	62.964	0.376	1.405	4.841	0.005	0.145	0.145	568.299	0.033	Pumps_2011_8				
Pumps	2011	1001	9999	10 1001_9999	203.755	0.512	1.835	6.273	0.005	0.183	0.183	568.299	0.046	Pumps_2011_10				
Pumps	2012	6	15	1 6_15	2.194	1.007	3.874	5.999	0.008	0.407	0.407	568.299	0.09	Pumps_2012_1				
Pumps	2012	16	25	2 16_25	6.363	1.113	3.043	5.239	0.007	0.337	0.337	568.299	0.1	Pumps_2012_2				
Pumps	2012	26	50	3 26_50	18.887	1.875	5.296	5.545	0.007	0.488	0.488	568.299	0.169	Pumps_2012_3				
Pumps	2012	51	120	4 51_120	20.51	0.896	3.66	5.939	0.006	0.481	0.481	568.299	0.08	Pumps_2012_4				
Pumps	2012	121	175	5 121_175	24.576	0.597	3.009	5.28	0.006	0.265	0.265	568.299	0.053	Pumps_2012_5				
Pumps	2012	176	250	6 176_250	22.301	0.377	1.218	4.846	0.006	0.139	0.139	568.299	0.034	Pumps_2012_6				
Pumps	2012	251	500	7 251_500	34.322	0.338	1.311	4.367	0.005	0.13	0.13	568.299	0.03	Pumps_2012_7				
Pumps	2012	501	750	8 501_750	58.469	0.349	1.311	4.495	0.005	0.132	0.132	568.299	0.031	Pumps_2012_8				
Pumps	2012	1001	9999	10 1001_9999	188.287	0.473	1.682	5.916	0.005	0.168	0.168	568.299	0.042	Pumps_2012_10				
Pumps	2013	6	15	1 6_15	2.065	0.948	3.796	5.716	0.008	0.373	0.373	568.299	0.085	Pumps_2013_1				
Pumps	2013	16	25	2 16_25	5.914	1.034	2.907	5.117	0.007	0.314	0.314	568.3	0.093	Pumps_2013_2				
Pumps	2013	26	50	3 26_50	17.185	1.706	5.11	5.323	0.007	0.448	0.448	568.299	0.153	Pumps_2013_3				
Pumps	2013	51	120	4 51_120	18.831	0.823	3.623	5.563	0.006	0.443	0.443	568.299	0.074	Pumps_2013_4				
Pumps	2013	121	175	5 121_175	22.712	0.552	2.998	4.949	0.006	0.244	0.244	568.299	0.049	Pumps_2013_5				
Pumps	2013	176	250	6 176_250	20.801	0.352	1.181	4.498	0.006	0.127	0.127	568.3	0.031	Pumps_2013_6				
Pumps	2013	251	500	7 251_500	32.081	0.316	1.241	4.037	0.005	0.119	0.119	568.299	0.028	Pumps_2013_7				
Pumps	2013	501	750	8 501_750	54.658	0.326	1.241	4.163	0.005	0.121	0.121	568.299	0.029	Pumps_2013_8				
Pumps	2013	1001	9999	10 1001_9999	173.151	0.435	1.538	5.558	0.005	0.154	0.154	568.299	0.039	Pumps_2013_10				
Pumps	2014	6	15	1 6_15	1.942	0.891	3.723	5.445	0.008	0.341	0.341	568.299	0.08	Pumps_2014_1				
Pumps	2014	16	25	2 16_25	5.492	0.96	2.78	5	0.007	0.291	0.291	568.299	0.086	Pumps_2014_2				
Pumps	2014	26	50	3 26_50	15.493	1.538	4.929	5.107	0.007	0.409	0.409	568.299	0.138	Pumps_2014_3				
Pumps	2014	51	120	4 51_120	17.179	0.751	3.587	5.226	0.006	0.403	0.403	568.299	0.067	Pumps_2014_4				
Pumps	2014	121	175	5 121_175	20.895	0.508	2.989	4.635	0.006	0.222	0.222	568.299	0.045	Pumps_2014_5				
Pumps	2014	176	250	6 176_250	19.3	0.326	1.149	4.09	0.006	0.115	0.115	568.299	0.029	Pumps_2014_6				
Pumps	2014	251	500	7 251_500	29.829	0.294	1.181	3.648	0.005	0.108	0.108	568.299	0.026	Pumps_2014_7				
Pumps	2014	501	750	8 501_750	50.824	0.303	1.181	3.77	0.005	0.11	0.11	568.299	0.027	Pumps_2014_8				
Pumps	2014	1001	9999	10 1001_9999	158.959	0.399	1.406	5.21	0.005	0.141	0.141	568.299	0.036	Pumps_2014_10				
Pumps	2015	6	15	1 6_15	1.831	0.84	3.658	5.196	0.008	0.311	0.311	568.299	0.075	Pumps_2015_1				
Pumps	2015	16	25	2 16_25	5.112	0.894	2.666	4.89	0.007	0.27	0.27	568.299	0.08	Pumps_2015_2				
Pumps	2015	26	50	3 26_50	13.946	1.384	4.775	4.916	0.007	0.371	0.371	568.3	0.124	Pumps_2015_3				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Pumps	2015	51	120	4 51_120	15.537	0.679	3.554	4.842	0.006	0.364	0.364	568.3	0.061	Pumps_2015_4				
Pumps	2015	121	175	5 121_175	18.983	0.461	2.983	4.202	0.006	0.2	0.2	568.299	0.041	Pumps_2015_5				
Pumps	2015	176	250	6 176_250	17.881	0.302	1.122	3.693	0.006	0.104	0.104	568.299	0.027	Pumps_2015_6				
Pumps	2015	251	500	7 251_500	27.722	0.273	1.134	3.272	0.005	0.097	0.097	568.299	0.024	Pumps_2015_7				
Pumps	2015	501	750	8 501_750	47.213	0.281	1.134	3.389	0.005	0.099	0.099	568.299	0.025	Pumps_2015_8				
Pumps	2015	1001	9999	10 1001_9999	144.304	0.363	1.293	4.878	0.005	0.127	0.127	568.299	0.032	Pumps_2015_10				
Pumps	2016	6	15	1 6_15	1.762	0.809	3.622	5.023	0.008	0.289	0.289	568.299	0.073	Pumps_2016_1				
Pumps	2016	16	25	2 16_25	4.893	0.855	2.604	4.803	0.007	0.255	0.255	568.299	0.077	Pumps_2016_2				
Pumps	2016	26	50	3 26_50	12.497	1.24	4.64	4.742	0.007	0.335	0.335	568.299	0.111	Pumps_2016_3				
Pumps	2016	51	120	4 51_120	13.964	0.61	3.523	4.478	0.006	0.325	0.325	568.299	0.055	Pumps_2016_4				
Pumps	2016	121	175	5 121_175	17.155	0.417	2.978	3.789	0.006	0.179	0.179	568.299	0.037	Pumps_2016_5				
Pumps	2016	176	250	6 176_250	16.558	0.28	1.099	3.313	0.006	0.094	0.094	568.299	0.025	Pumps_2016_6				
Pumps	2016	251	500	7 251_500	25.804	0.254	1.093	2.919	0.005	0.088	0.088	568.299	0.022	Pumps_2016_7				
Pumps	2016	501	750	8 501_750	43.884	0.262	1.093	3.028	0.005	0.089	0.089	568.299	0.023	Pumps_2016_8				
Pumps	2016	1001	9999	10 1001_9999	133.448	0.335	1.223	4.596	0.005	0.116	0.116	568.3	0.03	Pumps_2016_10				
Pumps	2017	6	15	1 6_15	1.713	0.786	3.599	4.887	0.008	0.272	0.272	568.299	0.07	Pumps_2017_1				
Pumps	2017	16	25	2 16_25	4.745	0.83	2.564	4.729	0.007	0.243	0.243	568.299	0.074	Pumps_2017_2				
Pumps	2017	26	50	3 26_50	11.12	1.104	4.514	4.578	0.007	0.301	0.301	568.299	0.099	Pumps_2017_3				
Pumps	2017	51	120	4 51_120	12.49	0.546	3.495	4.134	0.006	0.287	0.287	568.299	0.049	Pumps_2017_4				
Pumps	2017	121	175	5 121_175	15.466	0.376	2.975	3.4	0.006	0.159	0.159	568.299	0.033	Pumps_2017_5				
Pumps	2017	176	250	6 176_250	15.375	0.26	1.08	2.958	0.006	0.084	0.084	568.299	0.023	Pumps_2017_6				
Pumps	2017	251	500	7 251_500	24.243	0.239	1.062	2.613	0.005	0.079	0.079	568.299	0.021	Pumps_2017_7				
Pumps	2017	501	750	8 501_750	40.958	0.244	1.062	2.695	0.005	0.08	0.08	568.299	0.022	Pumps_2017_8				
Pumps	2017	1001	9999	10 1001_9999	124.604	0.313	1.177	4.343	0.005	0.106	0.106	568.299	0.028	Pumps_2017_10				
Pumps	2018	6	15	1 6_15	1.669	0.766	3.58	4.762	0.008	0.256	0.256	568.299	0.069	Pumps_2018_1				
Pumps	2018	16	25	2 16_25	4.618	0.807	2.531	4.661	0.007	0.232	0.232	568.299	0.072	Pumps_2018_2				
Pumps	2018	26	50	3 26_50	9.809	0.973	4.397	4.422	0.007	0.267	0.267	568.299	0.087	Pumps_2018_3				
Pumps	2018	51	120	4 51_120	11.107	0.485	3.471	3.808	0.006	0.252	0.252	568.299	0.043	Pumps_2018_4				
Pumps	2018	121	175	5 121_175	13.918	0.338	2.974	3.035	0.006	0.14	0.14	568.299	0.03	Pumps_2018_5				
Pumps	2018	176	250	6 176_250	14.304	0.242	1.065	2.624	0.006	0.075	0.075	568.299	0.021	Pumps_2018_6				
Pumps	2018	251	500	7 251_500	22.927	0.226	1.041	2.34	0.005	0.071	0.071	568.299	0.02	Pumps_2018_7				
Pumps	2018	501	750	8 501_750	38.511	0.23	1.041	2.401	0.005	0.072	0.072	568.299	0.02	Pumps_2018_8				
Pumps	2018	1001	9999	10 1001_9999	116.529	0.293	1.144	4.105	0.005	0.098	0.098	568.299	0.026	Pumps_2018_10				
Pumps	2019	6	15	1 6_15	1.63	0.748	3.562	4.647	0.008	0.241	0.241	568.3	0.067	Pumps_2019_1				
Pumps	2019	16	25	2 16_25	4.503	0.787	2.501	4.596	0.007	0.222	0.222	568.3	0.071	Pumps_2019_2				
Pumps	2019	26	50	3 26_50	8.56	0.849	4.284	4.269	0.007	0.235	0.235	568.299	0.076	Pumps_2019_3				
Pumps	2019	51	120	4 51_120	9.812	0.429	3.449	3.497	0.006	0.217	0.217	568.299	0.038	Pumps_2019_4				
Pumps	2019	121	175	5 121_175	12.706	0.309	2.974	2.711	0.006	0.124	0.124	568.299	0.027	Pumps_2019_5				
Pumps	2019	176	250	6 176_250	13.378	0.226	1.052	2.323	0.006	0.067	0.067	568.299	0.02	Pumps_2019_6				
Pumps	2019	251	500	7 251_500	21.711	0.214	1.027	2.084	0.005	0.064	0.064	568.3	0.019	Pumps_2019_7				
Pumps	2019	501	750	8 501_750	36.35	0.217	1.027	2.133	0.005	0.065	0.065	568.299	0.019	Pumps_2019_8				
Pumps	2019	1001	9999	10 1001_9999	108.825	0.273	1.118	3.873	0.005	0.089	0.089	568.299	0.024	Pumps_2019_10				
Pumps	2020	6	15	1 6_15	1.593	0.731	3.546	4.542	0.008	0.227	0.227	568.299	0.066	Pumps_2020_1				
Pumps	2020	16	25	2 16_25	4.396	0.769	2.473	4.538	0.007	0.212	0.212	568.299	0.069	Pumps_2020_2				
Pumps	2020	26	50	3 26_50	7.613	0.755	4.197	4.128	0.007	0.206	0.206	568.299	0.068	Pumps_2020_3				
Pumps	2020	51	120	4 51_120	8.832	0.386	3.432	3.219	0.006	0.189	0.189	568.299	0.034	Pumps_2020_4				
Pumps	2020	121	175	5 121_175	11.744	0.285	2.974	2.418	0.006	0.111	0.111	568.299	0.025	Pumps_2020_5				
Pumps	2020	176	250	6 176_250	12.575	0.212	1.042	2.05	0.006	0.06	0.06	568.299	0.019	Pumps_2020_6				
Pumps	2020	251	500	7 251_500	20.565	0.203	1.017	1.841	0.005	0.057	0.057	568.3	0.018	Pumps_2020_7				
Pumps	2020	501	750	8 501_750	34.373	0.205	1.017	1.884	0.005	0.058	0.058	568.299	0.018	Pumps_2020_8				
Pumps	2020	1001	9999	10 1001_9999	101.462	0.255	1.096	3.649	0.005	0.081	0.081	568.3	0.023	Pumps_2020_10				
Pumps	2021	6	15	1 6_15	1.563	0.717	3.531	4.462	0.008	0.214	0.214	568.299	0.064	Pumps_2021_1				
Pumps	2021	16	25	2 16_25	4.302	0.752	2.446	4.497	0.007	0.201	0.201	568.299	0.067	Pumps_2021_2				
Pumps	2021	26	50	3 26_50	6.761	0.671	4.099	3.966	0.007	0.175	0.175	568.299	0.06	Pumps_2021_3				
Pumps	2021	51	120	4 51_120	7.94	0.347	3.412	2.928	0.006	0.162	0.162	568.3	0.031	Pumps_2021_4				
Pumps	2021	121	175	5 121_175	10.713	0.26	2.968	2.101	0.006	0.096	0.096	568.299	0.023	Pumps_2021_5				
Pumps	2021	176	250	6 176_250	11.658	0.197	1.031	1.759	0.006	0.052	0.052	568.299	0.017	Pumps_2021_6				
Pumps	2021	251	500	7 251_500	19.186	0.189	1.007	1.584	0.005	0.05	0.05	568.299	0.017	Pumps_2021_7				
Pumps	2021	501	750	8 501_750	32.005	0.191	1.007	1.618	0.005	0.05	0.05	568.299	0.017	Pumps_2021_8				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Pumps	2040	121	175	5 121_175	4.771	0.116	2.971	0.295	0.006	0.01	0.01	568.299	0.01	Pumps_2040_5				
Pumps	2040	176	250	6 176_250	6.779	0.114	1.012	0.279	0.006	0.009	0.009	568.299	0.01	Pumps_2040_6				
Pumps	2040	251	500	7 251_500	11.622	0.114	0.989	0.279	0.005	0.009	0.009	568.299	0.01	Pumps_2040_7				
Pumps	2040	501	750	8 501_750	19.214	0.114	0.989	0.279	0.005	0.009	0.009	568.299	0.01	Pumps_2040_8				
Pumps	2040	1001	9999	10 1001_9999	46.343	0.116	0.989	2.347	0.005	0.02	0.02	568.299	0.01	Pumps_2040_10				
Rollers	1990	6	15	1 6_15	4.21	1.804	4.999	9.999	1.049	0.975	0.975	568.299	0.162	Rollers_1990_1				
Rollers	1990	16	25	2 16_25	10.903	2.213	4.999	6.919	0.855	0.741	0.741	568.299	0.199	Rollers_1990_2				
Rollers	1990	26	50	3 26_50	45.466	4.738	9.598	7.927	0.871	1.256	1.256	568.299	0.427	Rollers_1990_3				
Rollers	1990	51	120	4 51_120	51.677	2.372	5.756	15.111	0.791	1.332	1.332	568.3	0.214	Rollers_1990_4				
Rollers	1990	121	175	5 121_175	75.451	1.889	5.165	14.858	0.758	1.046	1.046	568.299	0.17	Rollers_1990_5				
Rollers	1990	176	250	6 176_250	106.808	1.889	5.165	14.858	0.758	1.046	1.046	568.299	0.17	Rollers_1990_6				
Rollers	1990	251	500	7 251_500	135.093	1.669	11.266	14.103	0.662	0.896	0.896	568.299	0.15	Rollers_1990_7				
Rollers	2000	6	15	1 6_15	3.444	1.475	4.49	8.242	0.079	0.676	0.676	568.3	0.133	Rollers_2000_1				
Rollers	2000	16	25	2 16_25	9.648	1.958	4.53	6.358	0.065	0.563	0.563	568.299	0.176	Rollers_2000_2				
Rollers	2000	26	50	3 26_50	38.643	4.027	8.379	6.941	0.066	0.861	0.861	568.299	0.363	Rollers_2000_3				
Rollers	2000	51	120	4 51_120	39.062	1.793	4.585	10.425	0.06	0.844	0.844	568.299	0.161	Rollers_2000_4				
Rollers	2000	121	175	5 121_175	48.357	1.21	3.749	9.501	0.057	0.503	0.503	568.299	0.109	Rollers_2000_5				
Rollers	2000	176	250	6 176_250	59.24	1.047	3.108	9.211	0.057	0.427	0.427	568.299	0.094	Rollers_2000_6				
Rollers	2000	251	500	7 251_500	77.413	0.956	5.254	8.821	0.05	0.379	0.379	568.299	0.086	Rollers_2000_7				
Rollers	2005	6	15	1 6_15	1.788	0.766	3.469	5.228	0.079	0.361	0.361	568.299	0.069	Rollers_2005_1				
Rollers	2005	16	25	2 16_25	4.53	0.919	2.642	5.412	0.065	0.347	0.347	568.299	0.082	Rollers_2005_2				
Rollers	2005	26	50	3 26_50	34.997	3.647	7.864	6.51	0.066	0.808	0.808	568.299	0.329	Rollers_2005_3				
Rollers	2005	51	120	4 51_120	34.046	1.563	4.289	8.963	0.06	0.79	0.79	568.299	0.141	Rollers_2005_4				
Rollers	2005	121	175	5 121_175	40.854	1.023	3.44	8.18	0.057	0.441	0.441	568.299	0.092	Rollers_2005_5				
Rollers	2005	176	250	6 176_250	44.594	0.788	2.262	7.822	0.057	0.319	0.319	568.299	0.071	Rollers_2005_6				
Rollers	2005	251	500	7 251_500	56.466	0.697	3.183	7.196	0.05	0.282	0.282	568.299	0.062	Rollers_2005_7				
Rollers	2010	6	15	1 6_15	1.637529	1.376	5.19619	5.58863	0.005	0.516	0.475	584.6125	0.17	Rollers_2010_1				
Rollers	2010	16	25	2 16_25	1.637529	1.376	5.19619	5.58863	0.005	0.516	0.475	584.6125	0.17	Rollers_2010_2				
Rollers	2010	26	50	3 26_50	1.637529	1.376	5.19619	5.58863	0.005	0.516	0.475	584.6125	0.17	Rollers_2010_3				
Rollers	2010	51	120	4 51_120	0.983879	0.827	3.91429	7.50147	0.005	0.56	0.516	527.6279	0.154	Rollers_2010_4				
Rollers	2010	121	175	5 121_175	0.511697	0.43	3.00505	5.60543	0.005	0.264	0.243	524.1952	0.153	Rollers_2010_5				
Rollers	2010	176	250	6 176_250	0.616159	0.518	2.19572	7.34127	0.005	0.268	0.247	526.2539	0.153	Rollers_2010_6				
Rollers	2010	251	500	7 251_500	0.682816	0.574	4.92169	7.52047	0.005	0.313	0.288	533.878	0.155	Rollers_2010_7				
Rollers	2011	6	15	1 6_15	1.599963	1.344	5.18315	5.5647	0.005	0.508	0.467	583.1085	0.17	Rollers_2011_1				
Rollers	2011	16	25	2 16_25	1.599963	1.344	5.18315	5.5647	0.005	0.508	0.467	583.1085	0.17	Rollers_2011_2				
Rollers	2011	26	50	3 26_50	1.599963	1.344	5.18315	5.5647	0.005	0.508	0.467	583.1085	0.17	Rollers_2011_3				
Rollers	2011	51	120	4 51_120	0.924436	0.777	3.86451	7.13388	0.005	0.533	0.491	525.9391	0.153	Rollers_2011_4				
Rollers	2011	121	175	5 121_175	0.498798	0.419	3.00845	5.44712	0.005	0.257	0.237	522.9396	0.153	Rollers_2011_5				
Rollers	2011	176	250	6 176_250	0.556319	0.467	2.03431	6.69107	0.005	0.242	0.222	524.8924	0.153	Rollers_2011_6				
Rollers	2011	251	500	7 251_500	0.597293	0.502	4.46947	6.64358	0.005	0.275	0.253	529.5965	0.155	Rollers_2011_7				
Rollers	2012	6	15	1 6_15	1.624226	1.365	5.26844	5.568	0.005	0.511	0.471	581.6678	0.17	Rollers_2012_1				
Rollers	2012	16	25	2 16_25	1.624226	1.365	5.26844	5.568	0.005	0.511	0.471	581.6678	0.17	Rollers_2012_2				
Rollers	2012	26	50	3 26_50	1.624226	1.365	5.26844	5.568	0.005	0.511	0.471	581.6678	0.17	Rollers_2012_3				
Rollers	2012	51	120	4 51_120	0.924087	0.776	3.87893	7.08604	0.005	0.534	0.491	524.5269	0.153	Rollers_2012_4				
Rollers	2012	121	175	5 121_175	0.497788	0.418	3.02294	5.38313	0.005	0.255	0.235	521.5511	0.153	Rollers_2012_5				
Rollers	2012	176	250	6 176_250	0.555818	0.467	2.02691	6.64215	0.005	0.241	0.222	523.5608	0.153	Rollers_2012_6				
Rollers	2012	251	500	7 251_500	0.604557	0.508	4.53336	6.66671	0.005	0.278	0.256	528.1357	0.155	Rollers_2012_7				
Rollers	2013	6	15	1 6_15	1.5981	1.343	5.27142	5.50162	0.005	0.5	0.46	578.8662	0.17	Rollers_2013_1				
Rollers	2013	16	25	2 16_25	1.5981	1.343	5.27142	5.50162	0.005	0.5	0.46	578.8662	0.17	Rollers_2013_2				
Rollers	2013	26	50	3 26_50	1.5981	1.343	5.27142	5.50162	0.005	0.5	0.46	578.8662	0.17	Rollers_2013_3				
Rollers	2013	51	120	4 51_120	0.873627	0.734	3.84356	6.74964	0.005	0.504	0.464	521.8163	0.153	Rollers_2013_4				
Rollers	2013	121	175	5 121_175	0.468308	0.394	3.00794	5.11335	0.005	0.238	0.219	519.0689	0.153	Rollers_2013_5				
Rollers	2013	176	250	6 176_250	0.495332	0.416	1.86858	5.94235	0.005	0.213	0.196	520.4083	0.153	Rollers_2013_6				
Rollers	2013	251	500	7 251_500	0.470274	0.395	3.53436	5.43748	0.005	0.213	0.196	524.7654	0.154	Rollers_2013_7				
Rollers	2014	6	15	1 6_15	1.556684	1.308	5.24275	5.39309	0.005	0.484	0.445	575.7953	0.17	Rollers_2014_1				
Rollers	2014	16	25	2 16_25	1.556684	1.308	5.24275	5.39309	0.005	0.484	0.445	575.7953	0.17	Rollers_2014_2				
Rollers	2014	26	50	3 26_50	1.556684	1.308	5.24275	5.39309	0.005	0.484	0.445	575.7953	0.17	Rollers_2014_3				
Rollers	2014	51	120	4 51_120	0.827072	0.695	3.80915	6.39036	0.005	0.476	0.438	518.7866	0.153	Rollers_2014_4				
Rollers	2014	121	175	5 121_175	0.43778	0.368	2.99804	4.72375	0.005	0.219	0.202	516.591	0.153	Rollers_2014_5				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin
Rollers	2014	176	250	6 176_250	0.453642	0.381	1.75988	5.40344	0.005	0.191	0.176	517.8111	0.153	Rollers_2014_6
Rollers	2014	251	500	7 251_500	0.449616	0.378	3.3182	5.18322	0.005	0.202	0.185	522.0518	0.154	Rollers_2014_7
Rollers	2015	6	15	1 6_15	1.559602	1.31	5.29043	5.36547	0.005	0.481	0.443	569.9207	0.17	Rollers_2015_1
Rollers	2015	16	25	2 16_25	1.559602	1.31	5.29043	5.36547	0.005	0.481	0.443	569.9207	0.17	Rollers_2015_2
Rollers	2015	26	50	3 26_50	1.559602	1.31	5.29043	5.36547	0.005	0.481	0.443	569.9207	0.17	Rollers_2015_3
Rollers	2015	51	120	4 51_120	0.813228	0.683	3.80891	6.27158	0.005	0.467	0.43	513.5052	0.153	Rollers_2015_4
Rollers	2015	121	175	5 121_175	0.433087	0.364	3.00605	4.63035	0.005	0.215	0.198	511.3935	0.153	Rollers_2015_5
Rollers	2015	176	250	6 176_250	0.41293	0.347	1.65049	4.93191	0.005	0.171	0.157	512.8234	0.153	Rollers_2015_6
Rollers	2015	251	500	7 251_500	0.441373	0.371	3.24549	5.03147	0.005	0.195	0.179	517.2848	0.154	Rollers_2015_7
Rollers	2016	6	15	1 6_15	1.498736	1.259	5.23066	5.2356	0.005	0.459	0.423	563.9722	0.17	Rollers_2016_1
Rollers	2016	16	25	2 16_25	1.498736	1.259	5.23066	5.2356	0.005	0.459	0.423	563.9722	0.17	Rollers_2016_2
Rollers	2016	26	50	3 26_50	1.498736	1.259	5.23066	5.2356	0.005	0.459	0.423	563.9722	0.17	Rollers_2016_3
Rollers	2016	51	120	4 51_120	0.747631	0.628	3.75537	5.80563	0.005	0.428	0.393	508.1987	0.153	Rollers_2016_4
Rollers	2016	121	175	5 121_175	0.402004	0.338	2.99334	4.23872	0.005	0.197	0.181	505.9041	0.153	Rollers_2016_5
Rollers	2016	176	250	6 176_250	0.366563	0.308	1.50673	4.39492	0.005	0.15	0.138	507.6939	0.153	Rollers_2016_6
Rollers	2016	251	500	7 251_500	0.397483	0.334	2.95647	4.45617	0.005	0.173	0.159	513.4154	0.155	Rollers_2016_7
Rollers	2017	6	15	1 6_15	1.425352	1.198	5.14727	5.09771	0.005	0.436	0.401	555.0199	0.17	Rollers_2017_1
Rollers	2017	16	25	2 16_25	1.425352	1.198	5.14727	5.09771	0.005	0.436	0.401	555.0199	0.17	Rollers_2017_2
Rollers	2017	26	50	3 26_50	1.425352	1.198	5.14727	5.09771	0.005	0.436	0.401	555.0199	0.17	Rollers_2017_3
Rollers	2017	51	120	4 51_120	0.690109	0.58	3.71315	5.4114	0.005	0.392	0.361	500.1525	0.153	Rollers_2017_4
Rollers	2017	121	175	5 121_175	0.373471	0.314	2.98069	3.87384	0.005	0.18	0.166	497.9088	0.153	Rollers_2017_5
Rollers	2017	176	250	6 176_250	0.326364	0.274	1.40849	3.92097	0.005	0.129	0.119	499.7021	0.153	Rollers_2017_6
Rollers	2017	251	500	7 251_500	0.353236	0.297	2.68487	3.84047	0.005	0.15	0.138	505.8318	0.155	Rollers_2017_7
Rollers	2018	6	15	1 6_15	1.26668	1.064	4.92335	4.8416	0.005	0.387	0.356	546.2905	0.17	Rollers_2018_1
Rollers	2018	16	25	2 16_25	1.26668	1.064	4.92335	4.8416	0.005	0.387	0.356	546.2905	0.17	Rollers_2018_2
Rollers	2018	26	50	3 26_50	1.26668	1.064	4.92335	4.8416	0.005	0.387	0.356	546.2905	0.17	Rollers_2018_3
Rollers	2018	51	120	4 51_120	0.572467	0.481	3.60981	4.65049	0.005	0.32	0.294	492.2118	0.153	Rollers_2018_4
Rollers	2018	121	175	5 121_175	0.315632	0.265	2.94895	3.18126	0.005	0.147	0.135	490.1805	0.153	Rollers_2018_5
Rollers	2018	176	250	6 176_250	0.251419	0.211	1.24341	2.99492	0.005	0.094	0.086	491.6643	0.153	Rollers_2018_6
Rollers	2018	251	500	7 251_500	0.291314	0.245	2.23145	3.09814	0.005	0.119	0.11	497.9962	0.155	Rollers_2018_7
Rollers	2019	6	15	1 6_15	1.156606	0.972	4.77841	4.64491	0.005	0.349	0.321	537.546	0.17	Rollers_2019_1
Rollers	2019	16	25	2 16_25	1.156606	0.972	4.77841	4.64491	0.005	0.349	0.321	537.546	0.17	Rollers_2019_2
Rollers	2019	26	50	3 26_50	1.156606	0.972	4.77841	4.64491	0.005	0.349	0.321	537.546	0.17	Rollers_2019_3
Rollers	2019	51	120	4 51_120	0.502836	0.423	3.55726	4.17949	0.005	0.275	0.253	484.3362	0.153	Rollers_2019_4
Rollers	2019	121	175	5 121_175	0.27475	0.231	2.93251	2.69941	0.005	0.124	0.114	482.4531	0.153	Rollers_2019_5
Rollers	2019	176	250	6 176_250	0.250477	0.21	1.24854	2.88327	0.005	0.092	0.084	483.7769	0.153	Rollers_2019_6
Rollers	2019	251	500	7 251_500	0.278634	0.234	2.10142	2.90839	0.005	0.111	0.102	489.9774	0.155	Rollers_2019_7
Rollers	2020	6	15	1 6_15	1.102095	0.926	4.72504	4.53426	0.005	0.329	0.303	525.8798	0.17	Rollers_2020_1
Rollers	2020	16	25	2 16_25	1.102095	0.926	4.72504	4.53426	0.005	0.329	0.303	525.8798	0.17	Rollers_2020_2
Rollers	2020	26	50	3 26_50	1.102095	0.926	4.72504	4.53426	0.005	0.329	0.303	525.8798	0.17	Rollers_2020_3
Rollers	2020	51	120	4 51_120	0.462004	0.388	3.53135	3.88153	0.005	0.247	0.228	473.8594	0.153	Rollers_2020_4
Rollers	2020	121	175	5 121_175	0.256128	0.215	2.93333	2.45176	0.005	0.113	0.104	471.9177	0.153	Rollers_2020_5
Rollers	2020	176	250	6 176_250	0.248138	0.209	1.25343	2.75095	0.005	0.089	0.082	473.3669	0.153	Rollers_2020_6
Rollers	2020	251	500	7 251_500	0.279691	0.235	2.11346	2.82823	0.005	0.109	0.101	479.3254	0.155	Rollers_2020_7
Rollers	2021	6	15	1 6_15	1.008559	0.847	4.59681	4.35097	0.005	0.294	0.27	525.7908	0.17	Rollers_2021_1
Rollers	2021	16	25	2 16_25	1.008559	0.847	4.59681	4.35097	0.005	0.294	0.27	525.7908	0.17	Rollers_2021_2
Rollers	2021	26	50	3 26_50	1.008559	0.847	4.59681	4.35097	0.005	0.294	0.27	525.7908	0.17	Rollers_2021_3
Rollers	2021	51	120	4 51_120	0.42061	0.353	3.50719	3.5889	0.005	0.219	0.202	473.9012	0.153	Rollers_2021_4
Rollers	2021	121	175	5 121_175	0.229571	0.193	2.9256	2.11691	0.005	0.097	0.09	471.9799	0.153	Rollers_2021_5
Rollers	2021	176	250	6 176_250	0.23384	0.196	1.22849	2.49332	0.005	0.081	0.075	473.4704	0.153	Rollers_2021_6
Rollers	2021	251	500	7 251_500	0.26246	0.221	1.94995	2.58936	0.005	0.1	0.092	479.3294	0.155	Rollers_2021_7
Rollers	2022	6	15	1 6_15	0.878567	0.738	4.40241	4.12773	0.005	0.25	0.23	525.691	0.17	Rollers_2022_1
Rollers	2022	16	25	2 16_25	0.878567	0.738	4.40241	4.12773	0.005	0.25	0.23	525.691	0.17	Rollers_2022_2
Rollers	2022	26	50	3 26_50	0.878567	0.738	4.40241	4.12773	0.005	0.25	0.23	525.691	0.17	Rollers_2022_3
Rollers	2022	51	120	4 51_120	0.369089	0.31	3.46973	3.21896	0.005	0.186	0.171	473.9291	0.153	Rollers_2022_4
Rollers	2022	121	175	5 121_175	0.195547	0.164	2.91331	1.71408	0.005	0.079	0.072	471.9475	0.153	Rollers_2022_5
Rollers	2022	176	250	6 176_250	0.221959	0.187	1.22821	2.2116	0.005	0.077	0.071	473.5135	0.153	Rollers_2022_6
Rollers	2022	251	500	7 251_500	0.259221	0.218	1.95495	2.46341	0.005	0.097	0.089	478.9817	0.155	Rollers_2022_7
Rollers	2023	6	15	1 6_15	0.786211	0.661	4.25236	3.9211	0.005	0.212	0.195	525.8616	0.17	Rollers_2023_1

Bin Number	Min	Max	Bin Name
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Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Rollers	2023	16	25	2 16_25	0.786211	0.661	4.25236	3.9211	0.005	0.212	0.195	525.8616	0.17	Rollers_2023_2				
Rollers	2023	26	50	3 26_50	0.786211	0.661	4.25236	3.9211	0.005	0.212	0.195	525.8616	0.17	Rollers_2023_3				
Rollers	2023	51	120	4 51_120	0.341189	0.287	3.45461	3.00302	0.005	0.165	0.152	473.9363	0.153	Rollers_2023_4				
Rollers	2023	121	175	5 121_175	0.1784	0.15	2.90949	1.4833	0.005	0.068	0.062	471.9351	0.153	Rollers_2023_5				
Rollers	2023	176	250	6 176_250	0.223864	0.188	1.23448	2.17272	0.005	0.076	0.07	473.5164	0.153	Rollers_2023_6				
Rollers	2023	251	500	7 251_500	0.25159	0.211	1.95626	2.29003	0.005	0.093	0.085	478.3028	0.155	Rollers_2023_7				
Rollers	2024	6	15	1 6_15	0.738433	0.62	4.20667	3.82449	0.005	0.192	0.177	525.9565	0.17	Rollers_2024_1				
Rollers	2024	16	25	2 16_25	0.738433	0.62	4.20667	3.82449	0.005	0.192	0.177	525.9565	0.17	Rollers_2024_2				
Rollers	2024	26	50	3 26_50	0.738433	0.62	4.20667	3.82449	0.005	0.192	0.177	525.9565	0.17	Rollers_2024_3				
Rollers	2024	51	120	4 51_120	0.323417	0.272	3.45055	2.843	0.005	0.15	0.138	474.0072	0.153	Rollers_2024_4				
Rollers	2024	121	175	5 121_175	0.168235	0.141	2.91426	1.32428	0.005	0.061	0.056	472.012	0.153	Rollers_2024_5				
Rollers	2024	176	250	6 176_250	0.213553	0.179	1.21417	1.97675	0.005	0.07	0.064	473.512	0.153	Rollers_2024_6				
Rollers	2024	251	500	7 251_500	0.24978	0.21	1.96121	2.21612	0.005	0.09	0.083	477.9001	0.155	Rollers_2024_7				
Rollers	2025	6	15	1 6_15	0.677074	0.569	4.12543	3.68893	0.005	0.167	0.154	526.1406	0.17	Rollers_2025_1				
Rollers	2025	16	25	2 16_25	0.677074	0.569	4.12543	3.68893	0.005	0.167	0.154	526.1406	0.17	Rollers_2025_2				
Rollers	2025	26	50	3 26_50	0.677074	0.569	4.12543	3.68893	0.005	0.167	0.154	526.1406	0.17	Rollers_2025_3				
Rollers	2025	51	120	4 51_120	0.303987	0.255	3.44432	2.69137	0.005	0.135	0.125	473.851	0.153	Rollers_2025_4				
Rollers	2025	121	175	5 121_175	0.150791	0.127	2.90859	1.10088	0.005	0.049	0.045	471.9696	0.153	Rollers_2025_5				
Rollers	2025	176	250	6 176_250	0.205768	0.173	1.21477	1.78252	0.005	0.066	0.06	473.6813	0.153	Rollers_2025_6				
Rollers	2025	251	500	7 251_500	0.251787	0.212	1.96754	2.19998	0.005	0.09	0.083	477.5732	0.154	Rollers_2025_7				
Rollers	2030	6	15	1 6_15	1.543	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Rollers_2030_1				
Rollers	2030	16	25	2 16_25	3.377	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Rollers_2030_2				
Rollers	2030	26	50	3 26_50	5.638	0.587	4.784	3.48	0.007	0.073	0.073	568.299	0.053	Rollers_2030_3				
Rollers	2030	51	120	4 51_120	6.528	0.299	3.639	1.95	0.006	0.066	0.066	568.299	0.027	Rollers_2030_4				
Rollers	2030	121	175	5 121_175	8.923	0.223	3.203	0.907	0.006	0.042	0.042	568.299	0.02	Rollers_2030_5				
Rollers	2030	176	250	6 176_250	11.047	0.195	1.099	0.745	0.006	0.024	0.024	568.299	0.017	Rollers_2030_6				
Rollers	2030	251	500	7 251_500	15.637	0.193	1.056	0.697	0.005	0.023	0.023	568.299	0.017	Rollers_2030_7				
Rollers	2035	6	15	1 6_15	1.543	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Rollers_2035_1				
Rollers	2035	16	25	2 16_25	3.377	0.685	2.34	4.332	0.007	0.161	0.161	568.3	0.061	Rollers_2035_2				
Rollers	2035	26	50	3 26_50	4.867	0.507	4.711	3.28	0.007	0.038	0.038	568.299	0.045	Rollers_2035_3				
Rollers	2035	51	120	4 51_120	5.632	0.258	3.629	1.65	0.006	0.035	0.035	568.299	0.023	Rollers_2035_4				
Rollers	2035	121	175	5 121_175	7.351	0.184	3.204	0.523	0.006	0.023	0.023	568.299	0.016	Rollers_2035_5				
Rollers	2035	176	250	6 176_250	9.79	0.173	1.091	0.465	0.006	0.016	0.016	568.299	0.015	Rollers_2035_6				
Rollers	2035	251	500	7 251_500	13.949	0.172	1.048	0.442	0.005	0.016	0.016	568.3	0.015	Rollers_2035_7				
Rollers	2040	6	15	1 6_15	1.543	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Rollers_2040_1				
Rollers	2040	16	25	2 16_25	3.377	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Rollers_2040_2				
Rollers	2040	26	50	3 26_50	4.508	0.469	4.682	3.207	0.007	0.024	0.024	568.299	0.042	Rollers_2040_3				
Rollers	2040	51	120	4 51_120	5.228	0.24	3.625	1.525	0.006	0.021	0.021	568.299	0.021	Rollers_2040_4				
Rollers	2040	121	175	5 121_175	6.731	0.168	3.205	0.373	0.006	0.015	0.015	568.299	0.015	Rollers_2040_5				
Rollers	2040	176	250	6 176_250	9.355	0.165	1.092	0.348	0.006	0.012	0.012	568.299	0.014	Rollers_2040_6				
Rollers	2040	251	500	7 251_500	13.378	0.165	1.048	0.341	0.005	0.012	0.012	568.299	0.014	Rollers_2040_7				
Rough Terrain Forklifts	1990	26	50	3 26_50	13.299	5.191	10.416	8.098	0.871	1.348	1.348	568.299	0.468	Rough Terrain Forklifts_1990_3				
Rough Terrain Forklifts	1990	51	120	4 51_120	11.91	2.52	6.008	15.753	0.791	1.432	1.432	568.299	0.227	Rough Terrain Forklifts_1990_4				
Rough Terrain Forklifts	1990	121	175	5 121_175	19.775	2.092	5.422	15.888	0.758	1.178	1.178	568.299	0.188	Rough Terrain Forklifts_1990_5				
Rough Terrain Forklifts	1990	176	250	6 176_250	27.042	2.092	5.422	15.888	0.758	1.178	1.178	568.299	0.188	Rough Terrain Forklifts_1990_6				
Rough Terrain Forklifts	1990	251	500	7 251_500	35.607	1.834	12.637	14.986	0.662	0.998	0.998	568.299	0.165	Rough Terrain Forklifts_1990_7				
Rough Terrain Forklifts	2000	26	50	3 26_50	11.216	4.378	9.045	7.041	0.066	0.919	0.919	568.3	0.395	Rough Terrain Forklifts_2000_3				
Rough Terrain Forklifts	2000	51	120	4 51_120	8.517	1.802	4.574	10.225	0.06	0.881	0.881	568.299	0.162	Rough Terrain Forklifts_2000_4				
Rough Terrain Forklifts	2000	121	175	5 121_175	11.484	1.215	3.676	9.36	0.057	0.511	0.511	568.3	0.109	Rough Terrain Forklifts_2000_5				
Rough Terrain Forklifts	2000	176	250	6 176_250	13.186	1.02	2.927	9.021	0.057	0.418	0.418	568.299	0.092	Rough Terrain Forklifts_2000_6				
Rough Terrain Forklifts	2000	251	500	7 251_500	18.049	0.929	4.415	8.59	0.05	0.37	0.37	568.299	0.083	Rough Terrain Forklifts_2000_7				
Rough Terrain Forklifts	2005	26	50	3 26_50	9.835	3.839	8.285	6.528	0.066	0.844	0.844	568.299	0.346	Rough Terrain Forklifts_2005_3				
Rough Terrain Forklifts	2005	51	120	4 51_120	7.351	1.555	4.289	8.677	0.06	0.82	0.82	568.299	0.14	Rough Terrain Forklifts_2005_4				
Rough Terrain Forklifts	2005	121	175	5 121_175	9.61	1.016	3.403	7.941	0.057	0.447	0.447	568.3	0.091	Rough Terrain Forklifts_2005_5				
Rough Terrain Forklifts	2005	176	250	6 176_250	9.418	0.728	1.995	7.52	0.057	0.289	0.289	568.299	0.065	Rough Terrain Forklifts_2005_6				
Rough Terrain Forklifts	2005	251	500	7 251_500	12.496	0.643	2.406	6.82	0.05	0.258	0.258	568.299	0.058	Rough Terrain Forklifts_2005_7				
Rough Terrain Forklifts	2010	26	50	3 26_50	1.514602	1.273	4.9076	5.57504	0.005	0.495	0.455	583.8316	0.17	Rough Terrain Forklifts_2010_3				
Rough Terrain Forklifts	2010	51	120	4 51_120	0.607871	0.511	3.47103	5.81073	0.005	0.386	0.355	525.5318	0.153	Rough Terrain Forklifts_2010_4				
Rough Terrain Forklifts	2010	121	175	5 121_175	0.37661	0.316	2.9137	4.78775	0.005	0.212	0.195	524.1127	0.153	Rough Terrain Forklifts_2010_5				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Rough Terrain Forklifts	2010	176	250	6 176_250	0.759196	0.638	2.86785	7.87723	0.005	0.351	0.323	527.6921	0.154	Rough Terrain Forklifts_2010_6				
Rough Terrain Forklifts	2010	251	500	7 251_500	0.386691	0.325	1.82955	5.79984	0.005	0.168	0.155	518.8116	0.151	Rough Terrain Forklifts_2010_7				
Rough Terrain Forklifts	2011	26	50	3 26_50	1.444446	1.214	4.83823	5.52279	0.005	0.48	0.442	582.3751	0.17	Rough Terrain Forklifts_2011_3				
Rough Terrain Forklifts	2011	51	120	4 51_120	0.549079	0.461	3.4365	5.4371	0.005	0.352	0.324	524.0504	0.153	Rough Terrain Forklifts_2011_4				
Rough Terrain Forklifts	2011	121	175	5 121_175	0.339518	0.285	2.87624	4.45534	0.005	0.193	0.177	522.735	0.153	Rough Terrain Forklifts_2011_5				
Rough Terrain Forklifts	2011	176	250	6 176_250	0.686556	0.577	2.63351	7.1588	0.005	0.317	0.292	525.8441	0.153	Rough Terrain Forklifts_2011_6				
Rough Terrain Forklifts	2011	251	500	7 251_500	0.390538	0.328	1.84589	5.81691	0.005	0.17	0.156	517.5182	0.151	Rough Terrain Forklifts_2011_7				
Rough Terrain Forklifts	2012	26	50	3 26_50	1.441034	1.211	4.88018	5.49331	0.005	0.476	0.438	580.9231	0.17	Rough Terrain Forklifts_2012_3				
Rough Terrain Forklifts	2012	51	120	4 51_120	0.530399	0.446	3.43501	5.29115	0.005	0.34	0.312	522.6299	0.153	Rough Terrain Forklifts_2012_4				
Rough Terrain Forklifts	2012	121	175	5 121_175	0.336361	0.283	2.88643	4.38447	0.005	0.189	0.174	521.4414	0.153	Rough Terrain Forklifts_2012_5				
Rough Terrain Forklifts	2012	176	250	6 176_250	0.693119	0.582	2.65596	7.11155	0.005	0.319	0.293	524.4406	0.153	Rough Terrain Forklifts_2012_6				
Rough Terrain Forklifts	2012	251	500	7 251_500	0.394706	0.332	1.86253	5.83389	0.005	0.171	0.157	516.2249	0.151	Rough Terrain Forklifts_2012_7				
Rough Terrain Forklifts	2013	26	50	3 26_50	1.427232	1.199	4.88715	5.34043	0.005	0.454	0.417	578.2559	0.17	Rough Terrain Forklifts_2013_3				
Rough Terrain Forklifts	2013	51	120	4 51_120	0.469882	0.395	3.39906	4.92337	0.005	0.299	0.275	519.906	0.153	Rough Terrain Forklifts_2013_4				
Rough Terrain Forklifts	2013	121	175	5 121_175	0.283862	0.239	2.86094	3.90677	0.005	0.153	0.141	518.7027	0.153	Rough Terrain Forklifts_2013_5				
Rough Terrain Forklifts	2013	176	250	6 176_250	0.418518	0.352	1.88921	4.79966	0.005	0.184	0.169	521.6392	0.153	Rough Terrain Forklifts_2013_6				
Rough Terrain Forklifts	2013	251	500	7 251_500	0.334838	0.281	1.86541	4.62017	0.005	0.141	0.129	514.2815	0.151	Rough Terrain Forklifts_2013_7				
Rough Terrain Forklifts	2014	26	50	3 26_50	1.40671	1.182	4.88713	5.22634	0.005	0.436	0.401	575.3526	0.17	Rough Terrain Forklifts_2014_3				
Rough Terrain Forklifts	2014	51	120	4 51_120	0.417386	0.351	3.36705	4.46728	0.005	0.261	0.24	517.2602	0.153	Rough Terrain Forklifts_2014_4				
Rough Terrain Forklifts	2014	121	175	5 121_175	0.263476	0.221	2.85182	3.59442	0.005	0.139	0.128	516.0907	0.153	Rough Terrain Forklifts_2014_5				
Rough Terrain Forklifts	2014	176	250	6 176_250	0.221616	0.186	1.21218	2.98369	0.005	0.087	0.08	517.7663	0.153	Rough Terrain Forklifts_2014_6				
Rough Terrain Forklifts	2014	251	500	7 251_500	0.202465	0.17	0.95399	3.49973	0.005	0.076	0.07	511.6567	0.151	Rough Terrain Forklifts_2014_7				
Rough Terrain Forklifts	2015	26	50	3 26_50	1.414803	1.189	4.93325	5.18984	0.005	0.431	0.397	569.4875	0.17	Rough Terrain Forklifts_2015_3				
Rough Terrain Forklifts	2015	51	120	4 51_120	0.401892	0.338	3.36619	4.28003	0.005	0.247	0.228	512.0859	0.153	Rough Terrain Forklifts_2015_4				
Rough Terrain Forklifts	2015	121	175	5 121_175	0.25808	0.217	2.85917	3.42042	0.005	0.133	0.122	510.8541	0.153	Rough Terrain Forklifts_2015_5				
Rough Terrain Forklifts	2015	176	250	6 176_250	0.166466	0.14	1.01164	2.4626	0.005	0.058	0.054	512.1638	0.153	Rough Terrain Forklifts_2015_6				
Rough Terrain Forklifts	2015	251	500	7 251_500	0.207111	0.174	0.95822	3.52067	0.005	0.077	0.071	506.4349	0.151	Rough Terrain Forklifts_2015_7				
Rough Terrain Forklifts	2016	26	50	3 26_50	1.378654	1.158	4.91773	5.09924	0.005	0.415	0.382	563.3598	0.17	Rough Terrain Forklifts_2016_3				
Rough Terrain Forklifts	2016	51	120	4 51_120	0.358928	0.302	3.34169	3.84005	0.005	0.213	0.196	507.0659	0.153	Rough Terrain Forklifts_2016_4				
Rough Terrain Forklifts	2016	121	175	5 121_175	0.248476	0.209	2.865	3.2087	0.005	0.124	0.114	505.596	0.153	Rough Terrain Forklifts_2016_5				
Rough Terrain Forklifts	2016	176	250	6 176_250	0.171278	0.144	1.0177	2.46843	0.005	0.059	0.054	506.8956	0.153	Rough Terrain Forklifts_2016_6				
Rough Terrain Forklifts	2016	251	500	7 251_500	0.211667	0.178	0.96236	3.54169	0.005	0.078	0.072	501.2134	0.151	Rough Terrain Forklifts_2016_7				
Rough Terrain Forklifts	2017	26	50	3 26_50	1.318488	1.108	4.83344	4.90253	0.005	0.382	0.352	554.6234	0.17	Rough Terrain Forklifts_2017_3				
Rough Terrain Forklifts	2017	51	120	4 51_120	0.322506	0.271	3.31778	3.41759	0.005	0.182	0.167	499.1682	0.153	Rough Terrain Forklifts_2017_4				
Rough Terrain Forklifts	2017	121	175	5 121_175	0.231401	0.194	2.86636	2.90167	0.005	0.112	0.103	497.7766	0.153	Rough Terrain Forklifts_2017_5				
Rough Terrain Forklifts	2017	176	250	6 176_250	0.175965	0.148	1.02362	2.47389	0.005	0.059	0.054	499.0007	0.153	Rough Terrain Forklifts_2017_6				
Rough Terrain Forklifts	2017	251	500	7 251_500	0.216551	0.182	0.96636	3.56771	0.005	0.079	0.073	493.3362	0.151	Rough Terrain Forklifts_2017_7				
Rough Terrain Forklifts	2018	26	50	3 26_50	1.273116	1.07	4.76839	4.73469	0.005	0.359	0.33	545.8693	0.17	Rough Terrain Forklifts_2018_3				
Rough Terrain Forklifts	2018	51	120	4 51_120	0.264415	0.222	3.26976	2.84496	0.005	0.136	0.125	491.2107	0.153	Rough Terrain Forklifts_2018_4				
Rough Terrain Forklifts	2018	121	175	5 121_175	0.194786	0.164	2.84245	2.34168	0.005	0.088	0.081	489.9869	0.153	Rough Terrain Forklifts_2018_5				
Rough Terrain Forklifts	2018	176	250	6 176_250	0.181003	0.152	1.02948	2.48748	0.005	0.06	0.055	491.0997	0.153	Rough Terrain Forklifts_2018_6				
Rough Terrain Forklifts	2018	251	500	7 251_500	0.172771	0.145	0.95802	2.70063	0.005	0.06	0.055	485.9543	0.151	Rough Terrain Forklifts_2018_7				
Rough Terrain Forklifts	2019	26	50	3 26_50	1.200779	1.009	4.67405	4.55745	0.005	0.328	0.301	537.3287	0.17	Rough Terrain Forklifts_2019_3				
Rough Terrain Forklifts	2019	51	120	4 51_120	0.240277	0.202	3.25848	2.6222	0.005	0.117	0.107	483.3105	0.153	Rough Terrain Forklifts_2019_4				
Rough Terrain Forklifts	2019	121	175	5 121_175	0.177689	0.149	2.84092	2.05752	0.005	0.075	0.069	482.1188	0.153	Rough Terrain Forklifts_2019_5				
Rough Terrain Forklifts	2019	176	250	6 176_250	0.130153	0.109	0.97423	1.63905	0.005	0.036	0.033	483.0882	0.153	Rough Terrain Forklifts_2019_6				
Rough Terrain Forklifts	2019	251	500	7 251_500	0.138302	0.116	0.95034	1.96109	0.005	0.043	0.039	477.2539	0.151	Rough Terrain Forklifts_2019_7				
Rough Terrain Forklifts	2020	26	50	3 26_50	1.188595	0.999	4.68594	4.4946	0.005	0.316	0.291	525.6222	0.17	Rough Terrain Forklifts_2020_3				
Rough Terrain Forklifts	2020	51	120	4 51_120	0.225188	0.189	3.25575	2.45218	0.005	0.103	0.094	472.9842	0.153	Rough Terrain Forklifts_2020_4				
Rough Terrain Forklifts	2020	121	175	5 121_175	0.170092	0.143	2.84466	1.86888	0.005	0.068	0.063	471.7152	0.153	Rough Terrain Forklifts_2020_5				
Rough Terrain Forklifts	2020	176	250	6 176_250	0.132727	0.112	0.97848	1.60906	0.005	0.037	0.034	472.5671	0.153	Rough Terrain Forklifts_2020_6				
Rough Terrain Forklifts	2020	251	500	7 251_500	0.105484	0.089	0.94184	1.30199	0.005	0.028	0.026	465.7709	0.151	Rough Terrain Forklifts_2020_7				
Rough Terrain Forklifts	2021	26	50	3 26_50	1.152538	0.968	4.65658	4.41145	0.005	0.304	0.279	525.3844	0.17	Rough Terrain Forklifts_2021_3				
Rough Terrain Forklifts	2021	51	120	4 51_120	0.207836	0.175	3.25191	2.28534	0.005	0.089	0.081	473.11	0.153	Rough Terrain Forklifts_2021_4				
Rough Terrain Forklifts	2021	121	175	5 121_175	0.154972	0.13	2.8447	1.61661	0.005	0.06	0.055	471.7575	0.153	Rough Terrain Forklifts_2021_5				
Rough Terrain Forklifts	2021	176	250	6 176_250	0.136824	0.115	0.98379	1.61186	0.005	0.037	0.034	472.5469	0.153	Rough Terrain Forklifts_2021_6				
Rough Terrain Forklifts	2021	251	500	7 251_500	0.109168	0.092	0.94604	1.30199	0.005	0.028	0.026	465.7442	0.151	Rough Terrain Forklifts_2021_7				
Rough Terrain Forklifts	2022	26	50	3 26_50	0.93878	0.789	4.3038	4.04131	0.005	0.238	0.219	525.0151	0.17	Rough Terrain Forklifts_2022_3				
Rough Terrain Forklifts	2022	51	120	4 51_120	0.18871	0.159	3.24374	2.0983	0.005	0.073	0.067	473.089	0.153	Rough Terrain Forklifts_2022_4				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Rough Terrain Forklifts	2022	121	175	5 121_175	0.142314	0.12	2.84439	1.40475	0.005	0.051	0.047	471.6773	0.153	Rough Terrain Forklifts_2022_5				
Rough Terrain Forklifts	2022	176	250	6 176_250	0.140994	0.118	0.98924	1.61688	0.005	0.037	0.034	472.5408	0.153	Rough Terrain Forklifts_2022_6				
Rough Terrain Forklifts	2022	251	500	7 251_500	0.081218	0.068	0.93709	0.55798	0.005	0.009	0.008	466.5598	0.151	Rough Terrain Forklifts_2022_7				
Rough Terrain Forklifts	2023	26	50	3 26_50	0.82158	0.69	4.12519	3.85338	0.005	0.204	0.187	524.8024	0.17	Rough Terrain Forklifts_2023_3				
Rough Terrain Forklifts	2023	51	120	4 51_120	0.178416	0.15	3.24217	1.9836	0.005	0.064	0.059	473.1584	0.153	Rough Terrain Forklifts_2023_4				
Rough Terrain Forklifts	2023	121	175	5 121_175	0.132417	0.111	2.84289	1.21796	0.005	0.043	0.04	471.6217	0.153	Rough Terrain Forklifts_2023_5				
Rough Terrain Forklifts	2023	176	250	6 176_250	0.137509	0.116	0.98987	1.47399	0.005	0.034	0.032	472.7784	0.153	Rough Terrain Forklifts_2023_6				
Rough Terrain Forklifts	2023	251	500	7 251_500	0.082146	0.069	0.93788	0.55845	0.005	0.009	0.008	466.554	0.151	Rough Terrain Forklifts_2023_7				
Rough Terrain Forklifts	2024	26	50	3 26_50	0.678189	0.57	3.91822	3.65343	0.005	0.166	0.152	524.9235	0.17	Rough Terrain Forklifts_2024_3				
Rough Terrain Forklifts	2024	51	120	4 51_120	0.172725	0.145	3.24468	1.91392	0.005	0.058	0.054	473.0631	0.153	Rough Terrain Forklifts_2024_4				
Rough Terrain Forklifts	2024	121	175	5 121_175	0.122467	0.103	2.83416	1.04413	0.005	0.039	0.035	471.5346	0.153	Rough Terrain Forklifts_2024_5				
Rough Terrain Forklifts	2024	176	250	6 176_250	0.141528	0.119	0.99524	1.48012	0.005	0.035	0.032	472.8527	0.153	Rough Terrain Forklifts_2024_6				
Rough Terrain Forklifts	2024	251	500	7 251_500	0.078846	0.066	0.93746	0.47582	0.005	0.009	0.008	466.5479	0.151	Rough Terrain Forklifts_2024_7				
Rough Terrain Forklifts	2025	26	50	3 26_50	0.542352	0.456	3.74002	3.47668	0.005	0.128	0.118	525.027	0.17	Rough Terrain Forklifts_2025_3				
Rough Terrain Forklifts	2025	51	120	4 51_120	0.16354	0.137	3.23971	1.82053	0.005	0.051	0.047	473.0366	0.153	Rough Terrain Forklifts_2025_4				
Rough Terrain Forklifts	2025	121	175	5 121_175	0.103861	0.087	2.82091	0.78628	0.005	0.03	0.028	471.4745	0.152	Rough Terrain Forklifts_2025_5				
Rough Terrain Forklifts	2025	176	250	6 176_250	0.145736	0.122	1.00073	1.48888	0.005	0.035	0.033	472.9267	0.153	Rough Terrain Forklifts_2025_6				
Rough Terrain Forklifts	2025	251	500	7 251_500	0.081817	0.069	0.94151	0.47663	0.005	0.009	0.008	466.5414	0.151	Rough Terrain Forklifts_2025_7				
Rough Terrain Forklifts	2030	26	50	3 26_50	1.404	0.548	5.031	3.359	0.007	0.039	0.039	568.299	0.049	Rough Terrain Forklifts_2030_3				
Rough Terrain Forklifts	2030	51	120	4 51_120	1.321	0.279	3.725	1.671	0.006	0.034	0.034	568.299	0.025	Rough Terrain Forklifts_2030_4				
Rough Terrain Forklifts	2030	121	175	5 121_175	1.898	0.2	3.291	0.537	0.006	0.023	0.023	568.299	0.018	Rough Terrain Forklifts_2030_5				
Rough Terrain Forklifts	2030	176	250	6 176_250	2.47	0.191	1.121	0.463	0.006	0.016	0.016	568.299	0.017	Rough Terrain Forklifts_2030_6				
Rough Terrain Forklifts	2030	251	500	7 251_500	3.702	0.19	1.07	0.443	0.005	0.016	0.016	568.3	0.017	Rough Terrain Forklifts_2030_7				
Rough Terrain Forklifts	2035	26	50	3 26_50	1.335	0.521	5.011	3.267	0.007	0.022	0.022	568.299	0.047	Rough Terrain Forklifts_2035_3				
Rough Terrain Forklifts	2035	51	120	4 51_120	1.24	0.262	3.722	1.53	0.006	0.02	0.02	568.299	0.023	Rough Terrain Forklifts_2035_4				
Rough Terrain Forklifts	2035	121	175	5 121_175	1.742	0.184	3.292	0.364	0.006	0.015	0.015	568.299	0.016	Rough Terrain Forklifts_2035_5				
Rough Terrain Forklifts	2035	176	250	6 176_250	2.346	0.181	1.121	0.334	0.006	0.012	0.012	568.299	0.016	Rough Terrain Forklifts_2035_6				
Rough Terrain Forklifts	2035	251	500	7 251_500	3.524	0.181	1.071	0.331	0.005	0.012	0.012	568.3	0.016	Rough Terrain Forklifts_2035_7				
Rough Terrain Forklifts	2040	26	50	3 26_50	1.331	0.519	5.01	3.228	0.007	0.017	0.017	568.3	0.046	Rough Terrain Forklifts_2040_3				
Rough Terrain Forklifts	2040	51	120	4 51_120	1.222	0.258	3.722	1.485	0.006	0.016	0.016	568.299	0.023	Rough Terrain Forklifts_2040_4				
Rough Terrain Forklifts	2040	121	175	5 121_175	1.687	0.178	3.292	0.303	0.006	0.012	0.012	568.3	0.016	Rough Terrain Forklifts_2040_5				
Rough Terrain Forklifts	2040	176	250	6 176_250	2.296	0.177	1.121	0.292	0.006	0.011	0.011	568.299	0.016	Rough Terrain Forklifts_2040_6				
Rough Terrain Forklifts	2040	251	500	7 251_500	3.449	0.177	1.071	0.292	0.005	0.011	0.011	568.299	0.016	Rough Terrain Forklifts_2040_7				
Rubber Tired Dozers	1990	121	175	5 121_175	6.172	1.886	5.29	14.831	0.758	1.059	1.059	568.299	0.17	Rubber Tired Dozers_1990_5				
Rubber Tired Dozers	1990	176	250	6 176_250	8.746	1.886	5.29	14.831	0.758	1.059	1.059	568.299	0.17	Rubber Tired Dozers_1990_6				
Rubber Tired Dozers	1990	251	500	7 251_500	11.084	1.655	12.26	13.986	0.662	0.899	0.899	568.299	0.149	Rubber Tired Dozers_1990_7				
Rubber Tired Dozers	1990	501	750	8 501_750	16.688	1.655	12.26	13.986	1.018	0.915	0.915	568.3	0.149	Rubber Tired Dozers_1990_8				
Rubber Tired Dozers	1990	751	1000	9 751_1000	24.619	1.645	12.26	13.986	1.018	0.903	0.903	568.299	0.148	Rubber Tired Dozers_1990_9				
Rubber Tired Dozers	2000	121	175	5 121_175	4.761	1.454	4.295	10.881	0.057	0.624	0.624	568.299	0.131	Rubber Tired Dozers_2000_5				
Rubber Tired Dozers	2000	176	250	6 176_250	6.043	1.303	3.733	10.625	0.057	0.548	0.548	568.299	0.117	Rubber Tired Dozers_2000_6				
Rubber Tired Dozers	2000	251	500	7 251_500	7.775	1.161	6.982	10.023	0.05	0.474	0.474	568.299	0.104	Rubber Tired Dozers_2000_7				
Rubber Tired Dozers	2000	501	750	8 501_750	11.706	1.161	6.982	10.023	0.052	0.474	0.474	568.3	0.104	Rubber Tired Dozers_2000_8				
Rubber Tired Dozers	2000	751	1000	9 751_1000	17.842	1.192	7.415	10.456	0.052	0.451	0.451	568.3	0.107	Rubber Tired Dozers_2000_9				
Rubber Tired Dozers	2005	121	175	5 121_175	4.21	1.286	4.026	9.666	0.057	0.567	0.567	568.299	0.116	Rubber Tired Dozers_2005_5				
Rubber Tired Dozers	2005	176	250	6 176_250	4.912	1.059	2.99	9.344	0.057	0.437	0.437	568.299	0.095	Rubber Tired Dozers_2005_6				
Rubber Tired Dozers	2005	251	500	7 251_500	6.277	0.937	5.159	8.574	0.05	0.38	0.38	568.299	0.084	Rubber Tired Dozers_2005_7				
Rubber Tired Dozers	2005	501	750	8 501_750	9.496	0.942	5.15	8.694	0.052	0.382	0.382	568.299	0.085	Rubber Tired Dozers_2005_8				
Rubber Tired Dozers	2005	751	1000	9 751_1000	14.937	0.998	5.524	9.444	0.052	0.369	0.369	568.299	0.09	Rubber Tired Dozers_2005_9				
Rubber Tired Dozers	2010	121	175	5 121_175	1.12265	0.943	4.17063	9.78349	0.005	0.555	0.511	526.3128	0.153	Rubber Tired Dozers_2010_5				
Rubber Tired Dozers	2010	176	250	6 176_250	0.840919	0.707	2.68761	8.22344	0.005	0.394	0.362	527.9126	0.154	Rubber Tired Dozers_2010_6				
Rubber Tired Dozers	2010	251	500	7 251_500	0.88356	0.742	6.7191	8.70703	0.005	0.406	0.374	533.1476	0.155	Rubber Tired Dozers_2010_7				
Rubber Tired Dozers	2010	501	750	8 501_750	0.619996	0.521	3.1214	7.42352	0.005	0.269	0.248	525.7054	0.153	Rubber Tired Dozers_2010_8				
Rubber Tired Dozers	2010	751	1000	9 751_1000	12.178	0.814	4.027	8.149	0.005	0.29	0.29	568.299	0.073	Rubber Tired Dozers_2010_9				
Rubber Tired Dozers	2011	121	175	5 121_175	1.128595	0.948	4.18594	9.7992	0.005	0.557	0.513	524.9639	0.153	Rubber Tired Dozers_2011_5				
Rubber Tired Dozers	2011	176	250	6 176_250	0.852039	0.716	2.69892	8.24976	0.005	0.396	0.364	526.5967	0.154	Rubber Tired Dozers_2011_6				
Rubber Tired Dozers	2011	251	500	7 251_500	0.878525	0.738	6.65601	8.60406	0.005	0.402	0.37	532.0871	0.155	Rubber Tired Dozers_2011_7				
Rubber Tired Dozers	2011	501	750	8 501_750	0.62921	0.529	3.13084	7.4622	0.005	0.272	0.25	524.3841	0.153	Rubber Tired Dozers_2011_8				
Rubber Tired Dozers	2011	751	1000	9 751_1000	11.693	0.781	3.772	7.805	0.005	0.276	0.276	568.299	0.07	Rubber Tired Dozers_2011_9				
Rubber Tired Dozers	2012	121	175	5 121_175	1.133798	0.953	4.1998	9.81194	0.005	0.559	0.515	523.6318	0.153	Rubber Tired Dozers_2012_5				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Rubber Tired Dozers	2012	176	250	6 176_250	0.862577	0.725	2.70943	8.27234	0.005	0.398	0.366	525.281	0.154	Rubber Tired Dozers_2012_6				
Rubber Tired Dozers	2012	251	500	7 251_500	0.883165	0.742	6.62489	8.58436	0.005	0.401	0.369	530.6589	0.155	Rubber Tired Dozers_2012_7				
Rubber Tired Dozers	2012	501	750	8 501_750	0.635938	0.534	3.13648	7.48052	0.005	0.274	0.252	523.0626	0.153	Rubber Tired Dozers_2012_8				
Rubber Tired Dozers	2012	751	1000	9 751_1000	11.228	0.75	3.531	7.474	0.005	0.262	0.262	568.299	0.067	Rubber Tired Dozers_2012_9				
Rubber Tired Dozers	2013	121	175	5 121_175	1.138698	0.957	4.21297	9.82334	0.005	0.561	0.516	520.9836	0.153	Rubber Tired Dozers_2013_5				
Rubber Tired Dozers	2013	176	250	6 176_250	0.859983	0.723	2.71092	8.10695	0.005	0.395	0.363	522.6456	0.154	Rubber Tired Dozers_2013_6				
Rubber Tired Dozers	2013	251	500	7 251_500	0.864011	0.726	6.42295	8.33658	0.005	0.39	0.359	527.9093	0.155	Rubber Tired Dozers_2013_7				
Rubber Tired Dozers	2013	501	750	8 501_750	0.641687	0.539	3.14069	7.49129	0.005	0.275	0.253	520.4266	0.153	Rubber Tired Dozers_2013_8				
Rubber Tired Dozers	2013	751	1000	9 751_1000	10.78	0.72	3.306	7.155	0.005	0.249	0.249	568.299	0.065	Rubber Tired Dozers_2013_9				
Rubber Tired Dozers	2014	121	175	5 121_175	1.143391	0.961	4.22564	9.83401	0.005	0.563	0.518	518.335	0.153	Rubber Tired Dozers_2014_5				
Rubber Tired Dozers	2014	176	250	6 176_250	0.858402	0.721	2.71199	7.97218	0.005	0.392	0.361	520.0105	0.154	Rubber Tired Dozers_2014_6				
Rubber Tired Dozers	2014	251	500	7 251_500	0.841688	0.707	6.16471	8.05819	0.005	0.376	0.346	524.6758	0.155	Rubber Tired Dozers_2014_7				
Rubber Tired Dozers	2014	501	750	8 501_750	0.610646	0.513	2.75605	7.14705	0.005	0.258	0.237	517.7903	0.153	Rubber Tired Dozers_2014_8				
Rubber Tired Dozers	2014	751	1000	9 751_1000	10.347	0.691	3.096	6.849	0.005	0.236	0.236	568.3	0.062	Rubber Tired Dozers_2014_9				
Rubber Tired Dozers	2015	121	175	5 121_175	1.147937	0.965	4.23794	9.84425	0.005	0.564	0.519	513.0549	0.153	Rubber Tired Dozers_2015_5				
Rubber Tired Dozers	2015	176	250	6 176_250	0.866859	0.728	2.7204	7.9837	0.005	0.394	0.362	514.7359	0.154	Rubber Tired Dozers_2015_6				
Rubber Tired Dozers	2015	251	500	7 251_500	0.842228	0.708	6.10151	7.99736	0.005	0.373	0.343	519.1472	0.155	Rubber Tired Dozers_2015_7				
Rubber Tired Dozers	2015	501	750	8 501_750	0.616719	0.518	2.76062	7.15777	0.005	0.259	0.238	512.5253	0.153	Rubber Tired Dozers_2015_8				
Rubber Tired Dozers	2015	751	1000	9 751_1000	9.895	0.661	2.901	6.556	0.005	0.222	0.222	568.299	0.059	Rubber Tired Dozers_2015_9				
Rubber Tired Dozers	2016	121	175	5 121_175	1.152013	0.968	4.24901	9.85328	0.005	0.566	0.52	507.7744	0.153	Rubber Tired Dozers_2016_5				
Rubber Tired Dozers	2016	176	250	6 176_250	0.875531	0.736	2.72943	7.99508	0.005	0.395	0.364	509.4615	0.154	Rubber Tired Dozers_2016_6				
Rubber Tired Dozers	2016	251	500	7 251_500	0.819146	0.688	5.82829	7.71034	0.005	0.359	0.33	513.3109	0.155	Rubber Tired Dozers_2016_7				
Rubber Tired Dozers	2016	501	750	8 501_750	0.622662	0.523	2.7651	7.16821	0.005	0.26	0.239	507.2601	0.153	Rubber Tired Dozers_2016_8				
Rubber Tired Dozers	2016	751	1000	9 751_1000	9.45	0.631	2.723	6.277	0.005	0.208	0.208	568.3	0.057	Rubber Tired Dozers_2016_9				
Rubber Tired Dozers	2017	121	175	5 121_175	1.074198	0.903	4.14895	9.12915	0.005	0.525	0.483	499.4096	0.153	Rubber Tired Dozers_2017_5				
Rubber Tired Dozers	2017	176	250	6 176_250	0.840865	0.707	2.65514	7.67081	0.005	0.375	0.345	501.5475	0.154	Rubber Tired Dozers_2017_6				
Rubber Tired Dozers	2017	251	500	7 251_500	0.787455	0.662	5.52569	7.33345	0.005	0.341	0.313	505.8493	0.155	Rubber Tired Dozers_2017_7				
Rubber Tired Dozers	2017	501	750	8 501_750	0.625767	0.526	2.76746	7.17226	0.005	0.26	0.239	499.3665	0.153	Rubber Tired Dozers_2017_8				
Rubber Tired Dozers	2017	751	1000	9 751_1000	9.018	0.602	2.56	6.013	0.005	0.195	0.195	568.299	0.054	Rubber Tired Dozers_2017_9				
Rubber Tired Dozers	2018	121	175	5 121_175	0.954751	0.802	3.98965	8.02079	0.005	0.46	0.424	491.4921	0.153	Rubber Tired Dozers_2018_5				
Rubber Tired Dozers	2018	176	250	6 176_250	0.796398	0.669	2.51156	7.20787	0.005	0.35	0.322	493.6337	0.154	Rubber Tired Dozers_2018_6				
Rubber Tired Dozers	2018	251	500	7 251_500	0.71175	0.598	4.98205	6.50184	0.005	0.3	0.276	498.1862	0.155	Rubber Tired Dozers_2018_7				
Rubber Tired Dozers	2018	501	750	8 501_750	0.602699	0.506	2.75902	6.72652	0.005	0.248	0.228	491.4726	0.153	Rubber Tired Dozers_2018_8				
Rubber Tired Dozers	2018	751	1000	9 751_1000	8.6	0.574	2.413	5.764	0.005	0.183	0.183	568.299	0.051	Rubber Tired Dozers_2018_9				
Rubber Tired Dozers	2019	121	175	5 121_175	0.90312	0.759	3.94854	7.52037	0.005	0.433	0.398	483.5585	0.153	Rubber Tired Dozers_2019_5				
Rubber Tired Dozers	2019	176	250	6 176_250	0.774882	0.651	2.45855	6.92923	0.005	0.338	0.311	485.172	0.154	Rubber Tired Dozers_2019_6				
Rubber Tired Dozers	2019	251	500	7 251_500	0.680848	0.572	4.74309	6.14335	0.005	0.283	0.26	490.383	0.155	Rubber Tired Dozers_2019_7				
Rubber Tired Dozers	2019	501	750	8 501_750	0.541107	0.455	2.59814	6.12249	0.005	0.218	0.201	483.5786	0.153	Rubber Tired Dozers_2019_8				
Rubber Tired Dozers	2019	751	1000	9 751_1000	8.196	0.547	2.281	5.528	0.005	0.171	0.171	568.299	0.049	Rubber Tired Dozers_2019_9				
Rubber Tired Dozers	2020	121	175	5 121_175	0.864425	0.726	3.89288	7.18525	0.005	0.411	0.378	473.0116	0.153	Rubber Tired Dozers_2020_5				
Rubber Tired Dozers	2020	176	250	6 176_250	0.737248	0.619	2.37104	6.50332	0.005	0.318	0.293	474.7928	0.154	Rubber Tired Dozers_2020_6				
Rubber Tired Dozers	2020	251	500	7 251_500	0.636621	0.535	4.41134	5.64089	0.005	0.259	0.238	479.7569	0.155	Rubber Tired Dozers_2020_7				
Rubber Tired Dozers	2020	501	750	8 501_750	0.543245	0.456	2.60108	6.12255	0.005	0.218	0.201	473.0562	0.153	Rubber Tired Dozers_2020_8				
Rubber Tired Dozers	2020	751	1000	9 751_1000	7.811	0.522	2.164	5.306	0.005	0.16	0.16	568.299	0.047	Rubber Tired Dozers_2020_9				
Rubber Tired Dozers	2021	121	175	5 121_175	0.822557	0.691	3.84814	6.79037	0.005	0.386	0.355	472.9751	0.153	Rubber Tired Dozers_2021_5				
Rubber Tired Dozers	2021	176	250	6 176_250	0.714624	0.6	2.31719	6.29617	0.005	0.306	0.281	474.7984	0.154	Rubber Tired Dozers_2021_6				
Rubber Tired Dozers	2021	251	500	7 251_500	0.585817	0.492	4.04107	5.081	0.005	0.232	0.214	478.9868	0.155	Rubber Tired Dozers_2021_7				
Rubber Tired Dozers	2021	501	750	8 501_750	0.545338	0.458	2.60396	6.12254	0.005	0.218	0.201	473.0459	0.153	Rubber Tired Dozers_2021_8				
Rubber Tired Dozers	2021	751	1000	9 751_1000	7.448	0.497	2.057	5.095	0.005	0.15	0.15	568.299	0.044	Rubber Tired Dozers_2021_9				
Rubber Tired Dozers	2022	121	175	5 121_175	0.714312	0.6	3.75194	5.80781	0.005	0.326	0.3	473.9122	0.153	Rubber Tired Dozers_2022_5				
Rubber Tired Dozers	2022	176	250	6 176_250	0.571708	0.48	2.05563	5.04648	0.005	0.24	0.22	474.6166	0.154	Rubber Tired Dozers_2022_6				
Rubber Tired Dozers	2022	251	500	7 251_500	0.565033	0.475	3.89489	4.80775	0.005	0.22	0.202	479.3107	0.155	Rubber Tired Dozers_2022_7				
Rubber Tired Dozers	2022	501	750	8 501_750	0.547387	0.46	2.60677	6.12245	0.005	0.218	0.201	473.035	0.153	Rubber Tired Dozers_2022_8				
Rubber Tired Dozers	2022	751	1000	9 751_1000	7.106	0.475	1.961	4.896	0.005	0.14	0.14	568.299	0.042	Rubber Tired Dozers_2022_9				
Rubber Tired Dozers	2023	121	175	5 121_175	0.700073	0.588	3.7664	5.65638	0.005	0.316	0.291	473.9009	0.153	Rubber Tired Dozers_2023_5				
Rubber Tired Dozers	2023	176	250	6 176_250	0.467601	0.393	1.78266	4.09011	0.005	0.184	0.169	474.5967	0.153	Rubber Tired Dozers_2023_6				
Rubber Tired Dozers	2023	251	500	7 251_500	0.531484	0.447	3.68617	4.40835	0.005	0.202	0.185	479.4678	0.155	Rubber Tired Dozers_2023_7				
Rubber Tired Dozers	2023	501	750	8 501_750	0.502999	0.423	2.59131	5.33389	0.005	0.196	0.18	473.0234	0.153	Rubber Tired Dozers_2023_8				
Rubber Tired Dozers	2023	751	1000	9 751_1000	6.786	0.453	1.874	4.709	0.005	0.131	0.131	568.299	0.04	Rubber Tired Dozers_2023_9				

Attachment C																		
Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Rubber Tired Dozers	2024	121	175	5 121_175	0.633623	0.532	3.69636	5.0144	0.005	0.279	0.257	473.5147	0.153	Rubber Tired Dozers_2024_5				
Rubber Tired Dozers	2024	176	250	6 176_250	0.474702	0.399	1.79685	4.0904	0.005	0.184	0.17	474.5854	0.153	Rubber Tired Dozers_2024_6				
Rubber Tired Dozers	2024	251	500	7 251_500	0.495724	0.417	3.45746	4.03046	0.005	0.182	0.168	479.3938	0.155	Rubber Tired Dozers_2024_7				
Rubber Tired Dozers	2024	501	750	8 501_750	0.506146	0.425	2.59604	5.33372	0.005	0.196	0.18	473.0111	0.153	Rubber Tired Dozers_2024_8				
Rubber Tired Dozers	2024	751	1000	9 751_1000	6.485	0.433	1.796	4.532	0.005	0.123	0.123	568.299	0.039	Rubber Tired Dozers_2024_9				
Rubber Tired Dozers	2025	121	175	5 121_175	0.548636	0.461	3.61238	4.22886	0.005	0.23	0.212	474.1029	0.153	Rubber Tired Dozers_2025_5				
Rubber Tired Dozers	2025	176	250	6 176_250	0.442605	0.372	1.72032	3.80547	0.005	0.167	0.153	474.5734	0.153	Rubber Tired Dozers_2025_6				
Rubber Tired Dozers	2025	251	500	7 251_500	0.436562	0.367	2.95895	3.36957	0.005	0.151	0.139	479.0915	0.155	Rubber Tired Dozers_2025_7				
Rubber Tired Dozers	2025	501	750	8 501_750	0.509225	0.428	2.60066	5.33346	0.005	0.196	0.18	472.9981	0.153	Rubber Tired Dozers_2025_8				
Rubber Tired Dozers	2025	751	1000	9 751_1000	6.203	0.414	1.725	4.365	0.005	0.115	0.115	568.299	0.037	Rubber Tired Dozers_2025_9				
Rubber Tired Dozers	2030	121	175	5 121_175	1.303	0.398	3.496	2.034	0.006	0.111	0.111	568.299	0.035	Rubber Tired Dozers_2030_5				
Rubber Tired Dozers	2030	176	250	6 176_250	1.556	0.335	1.322	1.828	0.006	0.069	0.069	568.299	0.03	Rubber Tired Dozers_2030_6				
Rubber Tired Dozers	2030	251	500	7 251_500	2.16	0.322	1.401	1.658	0.005	0.064	0.064	568.299	0.029	Rubber Tired Dozers_2030_7				
Rubber Tired Dozers	2030	501	750	8 501_750	3.261	0.323	1.401	1.694	0.005	0.064	0.064	568.299	0.029	Rubber Tired Dozers_2030_8				
Rubber Tired Dozers	2030	751	1000	9 751_1000	5.063	0.338	1.465	3.676	0.005	0.082	0.082	568.299	0.03	Rubber Tired Dozers_2030_9				
Rubber Tired Dozers	2035	121	175	5 121_175	1.054	0.322	3.481	1.345	0.006	0.071	0.071	568.299	0.029	Rubber Tired Dozers_2035_5				
Rubber Tired Dozers	2035	176	250	6 176_250	1.326	0.286	1.262	1.203	0.006	0.046	0.046	568.299	0.025	Rubber Tired Dozers_2035_6				
Rubber Tired Dozers	2035	251	500	7 251_500	1.868	0.279	1.279	1.107	0.005	0.043	0.043	568.3	0.025	Rubber Tired Dozers_2035_7				
Rubber Tired Dozers	2035	501	750	8 501_750	2.816	0.279	1.279	1.126	0.005	0.043	0.043	568.299	0.025	Rubber Tired Dozers_2035_8				
Rubber Tired Dozers	2035	751	1000	9 751_1000	4.306	0.287	1.312	3.204	0.005	0.06	0.06	568.299	0.025	Rubber Tired Dozers_2035_9				
Rubber Tired Dozers	2040	121	175	5 121_175	0.9	0.275	3.47	0.903	0.006	0.045	0.045	568.299	0.024	Rubber Tired Dozers_2040_5				
Rubber Tired Dozers	2040	176	250	6 176_250	1.176	0.253	1.225	0.81	0.006	0.031	0.031	568.299	0.022	Rubber Tired Dozers_2040_6				
Rubber Tired Dozers	2040	251	500	7 251_500	1.672	0.249	1.198	0.758	0.005	0.029	0.029	568.299	0.022	Rubber Tired Dozers_2040_7				
Rubber Tired Dozers	2040	501	750	8 501_750	2.519	0.25	1.198	0.767	0.005	0.029	0.029	568.3	0.022	Rubber Tired Dozers_2040_8				
Rubber Tired Dozers	2040	751	1000	9 751_1000	3.814	0.254	1.218	2.91	0.005	0.045	0.045	568.3	0.023	Rubber Tired Dozers_2040_9				
Rubber Tired Loaders	1990	16	25	2 16_25	5.92	2.213	4.999	6.919	0.855	0.741	0.741	568.299	0.199	Rubber Tired Loaders_1990_2				
Rubber Tired Loaders	1990	26	50	3 26_50	23.869	4.848	9.805	7.964	0.871	1.279	1.279	568.299	0.437	Rubber Tired Loaders_1990_3				
Rubber Tired Loaders	1990	51	120	4 51_120	22.055	2.368	5.728	14.978	0.791	1.345	1.345	568.299	0.213	Rubber Tired Loaders_1990_4				
Rubber Tired Loaders	1990	121	175	5 121_175	30.1	1.791	5.094	14.294	0.758	0.995	0.995	568.299	0.161	Rubber Tired Loaders_1990_5				
Rubber Tired Loaders	1990	176	250	6 176_250	42.179	1.791	5.094	14.294	0.758	0.995	0.995	568.3	0.161	Rubber Tired Loaders_1990_6				
Rubber Tired Loaders	1990	251	500	7 251_500	59.295	1.583	11.282	13.545	0.662	0.851	0.851	568.3	0.142	Rubber Tired Loaders_1990_7				
Rubber Tired Loaders	1990	501	750	8 501_750	121.471	1.583	11.282	13.545	1.018	0.867	0.867	568.299	0.142	Rubber Tired Loaders_1990_8				
Rubber Tired Loaders	1990	751	1000	9 751_1000	147.851	1.575	11.282	13.545	1.018	0.858	0.858	568.299	0.142	Rubber Tired Loaders_1990_9				
Rubber Tired Loaders	2000	16	25	2 16_25	5.105	1.908	4.438	6.326	0.065	0.555	0.555	568.299	0.172	Rubber Tired Loaders_2000_2				
Rubber Tired Loaders	2000	26	50	3 26_50	21.853	4.439	9.15	7.065	0.066	0.928	0.928	568.299	0.4	Rubber Tired Loaders_2000_3				
Rubber Tired Loaders	2000	51	120	4 51_120	17.155	1.842	4.652	10.433	0.06	0.896	0.896	568.299	0.166	Rubber Tired Loaders_2000_4				
Rubber Tired Loaders	2000	121	175	5 121_175	20.951	1.246	3.765	9.552	0.057	0.526	0.526	568.299	0.112	Rubber Tired Loaders_2000_5				
Rubber Tired Loaders	2000	176	250	6 176_250	24.776	1.052	3.019	9.216	0.057	0.433	0.433	568.299	0.094	Rubber Tired Loaders_2000_6				
Rubber Tired Loaders	2000	251	500	7 251_500	35.779	0.955	4.797	8.766	0.05	0.381	0.381	568.299	0.086	Rubber Tired Loaders_2000_7				
Rubber Tired Loaders	2000	501	750	8 501_750	73.296	0.955	4.797	8.766	0.052	0.381	0.381	568.299	0.086	Rubber Tired Loaders_2000_8				
Rubber Tired Loaders	2000	751	1000	9 751_1000	95.549	1.018	5.369	9.342	0.052	0.372	0.372	568.299	0.091	Rubber Tired Loaders_2000_9				
Rubber Tired Loaders	2005	16	25	2 16_25	2.273	0.849	2.519	5.321	0.065	0.333	0.333	568.299	0.076	Rubber Tired Loaders_2005_2				
Rubber Tired Loaders	2005	26	50	3 26_50	19.43	3.947	8.471	6.59	0.066	0.86	0.86	568.299	0.356	Rubber Tired Loaders_2005_3				
Rubber Tired Loaders	2005	51	120	4 51_120	14.973	1.608	4.379	8.954	0.06	0.841	0.841	568.3	0.145	Rubber Tired Loaders_2005_4				
Rubber Tired Loaders	2005	121	175	5 121_175	17.677	1.052	3.496	8.183	0.057	0.464	0.464	568.299	0.094	Rubber Tired Loaders_2005_5				
Rubber Tired Loaders	2005	176	250	6 176_250	18.23	0.774	2.143	7.781	0.057	0.31	0.31	568.3	0.069	Rubber Tired Loaders_2005_6				
Rubber Tired Loaders	2005	251	500	7 251_500	25.602	0.683	2.836	7.066	0.05	0.275	0.2							

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Rubber Tired Loaders	2011	51	120	4 51_120	1.113092	0.935	4.28739	7.68957	0.005	0.671	0.618	517.9363	0.151	Rubber Tired Loaders_2011_4				
Rubber Tired Loaders	2011	121	175	5 121_175	0.757164	0.636	3.57219	6.81375	0.005	0.378	0.348	522.5315	0.152	Rubber Tired Loaders_2011_5				
Rubber Tired Loaders	2011	176	250	6 176_250	0.481296	0.404	1.50155	5.87694	0.005	0.197	0.181	520.9732	0.152	Rubber Tired Loaders_2011_6				
Rubber Tired Loaders	2011	251	500	7 251_500	0.501144	0.421	2.56846	5.5868	0.005	0.209	0.192	520.154	0.152	Rubber Tired Loaders_2011_7				
Rubber Tired Loaders	2011	501	750	8 501_750	0.472712	0.397	2.12943	5.09397	0.005	0.2	0.184	505.881	0.148	Rubber Tired Loaders_2011_8				
Rubber Tired Loaders	2011	751	1000	9 751_1000	0.476526	0.4	1.47057	6.69396	0.005	0.191	0.176	521.9232	0.152	Rubber Tired Loaders_2011_9				
Rubber Tired Loaders	2012	16	25	2 16_25	2.730745	2.295	7.96233	6.30427	0.005	0.724	0.666	579.9785	0.17	Rubber Tired Loaders_2012_2				
Rubber Tired Loaders	2012	26	50	3 26_50	2.730745	2.295	7.96233	6.30427	0.005	0.724	0.666	579.9785	0.17	Rubber Tired Loaders_2012_3				
Rubber Tired Loaders	2012	51	120	4 51_120	1.113822	0.936	4.31845	7.65616	0.005	0.671	0.617	516.6239	0.151	Rubber Tired Loaders_2012_4				
Rubber Tired Loaders	2012	121	175	5 121_175	0.765409	0.643	3.60616	6.79567	0.005	0.38	0.349	521.0995	0.152	Rubber Tired Loaders_2012_5				
Rubber Tired Loaders	2012	176	250	6 176_250	0.492248	0.414	1.51119	5.85805	0.005	0.198	0.182	519.646	0.152	Rubber Tired Loaders_2012_6				
Rubber Tired Loaders	2012	251	500	7 251_500	0.515336	0.433	2.59983	5.58714	0.005	0.211	0.194	518.7236	0.152	Rubber Tired Loaders_2012_7				
Rubber Tired Loaders	2012	501	750	8 501_750	0.485752	0.408	2.14848	5.07921	0.005	0.201	0.185	504.6824	0.148	Rubber Tired Loaders_2012_8				
Rubber Tired Loaders	2012	751	1000	9 751_1000	0.48616	0.409	1.47877	6.73245	0.005	0.194	0.178	520.592	0.152	Rubber Tired Loaders_2012_9				
Rubber Tired Loaders	2013	16	25	2 16_25	2.60616	2.19	7.83573	6.18494	0.005	0.695	0.64	577.0156	0.17	Rubber Tired Loaders_2013_2				
Rubber Tired Loaders	2013	26	50	3 26_50	2.60616	2.19	7.83573	6.18494	0.005	0.695	0.64	577.0156	0.17	Rubber Tired Loaders_2013_3				
Rubber Tired Loaders	2013	51	120	4 51_120	1.087575	0.914	4.31523	7.47698	0.005	0.654	0.602	513.9368	0.151	Rubber Tired Loaders_2013_4				
Rubber Tired Loaders	2013	121	175	5 121_175	0.750707	0.631	3.60722	6.6063	0.005	0.369	0.339	518.3787	0.152	Rubber Tired Loaders_2013_5				
Rubber Tired Loaders	2013	176	250	6 176_250	0.496511	0.417	1.5142	5.75293	0.005	0.196	0.181	516.9736	0.152	Rubber Tired Loaders_2013_6				
Rubber Tired Loaders	2013	251	500	7 251_500	0.517428	0.435	2.55447	5.4738	0.005	0.208	0.191	515.9429	0.152	Rubber Tired Loaders_2013_7				
Rubber Tired Loaders	2013	501	750	8 501_750	0.49047	0.412	2.0823	4.99146	0.005	0.199	0.183	502.8589	0.148	Rubber Tired Loaders_2013_8				
Rubber Tired Loaders	2013	751	1000	9 751_1000	0.484243	0.407	1.45163	6.66719	0.005	0.193	0.178	517.9506	0.152	Rubber Tired Loaders_2013_9				
Rubber Tired Loaders	2014	16	25	2 16_25	2.51646	2.115	7.7699	6.10324	0.005	0.676	0.622	573.5218	0.169	Rubber Tired Loaders_2014_2				
Rubber Tired Loaders	2014	26	50	3 26_50	2.51646	2.115	7.7699	6.10324	0.005	0.676	0.622	573.5218	0.169	Rubber Tired Loaders_2014_3				
Rubber Tired Loaders	2014	51	120	4 51_120	1.032758	0.868	4.26762	7.12932	0.005	0.619	0.569	510.0099	0.151	Rubber Tired Loaders_2014_4				
Rubber Tired Loaders	2014	121	175	5 121_175	0.720145	0.605	3.58536	6.27196	0.005	0.35	0.322	515.7685	0.152	Rubber Tired Loaders_2014_5				
Rubber Tired Loaders	2014	176	250	6 176_250	0.483874	0.407	1.48551	5.49539	0.005	0.187	0.172	514.2167	0.152	Rubber Tired Loaders_2014_6				
Rubber Tired Loaders	2014	251	500	7 251_500	0.501158	0.421	2.40656	5.19438	0.005	0.196	0.18	512.5095	0.151	Rubber Tired Loaders_2014_7				
Rubber Tired Loaders	2014	501	750	8 501_750	0.483251	0.406	1.94616	4.81047	0.005	0.19	0.175	499.6952	0.148	Rubber Tired Loaders_2014_8				
Rubber Tired Loaders	2014	751	1000	9 751_1000	0.492279	0.414	1.45724	6.69249	0.005	0.195	0.179	515.307	0.152	Rubber Tired Loaders_2014_9				
Rubber Tired Loaders	2015	16	25	2 16_25	2.508512	2.108	7.83443	6.11232	0.005	0.675	0.621	567.672	0.169	Rubber Tired Loaders_2015_2				
Rubber Tired Loaders	2015	26	50	3 26_50	2.508512	2.108	7.83443	6.11232	0.005	0.675	0.621	567.672	0.169	Rubber Tired Loaders_2015_3				
Rubber Tired Loaders	2015	51	120	4 51_120	1.018295	0.856	4.27362	7.01153	0.005	0.606	0.558	505.0231	0.151	Rubber Tired Loaders_2015_4				
Rubber Tired Loaders	2015	121	175	5 121_175	0.708161	0.595	3.58815	6.09735	0.005	0.341	0.313	510.4677	0.152	Rubber Tired Loaders_2015_5				
Rubber Tired Loaders	2015	176	250	6 176_250	0.482642	0.406	1.47986	5.36927	0.005	0.183	0.169	508.9127	0.152	Rubber Tired Loaders_2015_6				
Rubber Tired Loaders	2015	251	500	7 251_500	0.494223	0.415	2.33208	5.0195	0.005	0.19	0.174	506.3723	0.151	Rubber Tired Loaders_2015_7				
Rubber Tired Loaders	2015	501	750	8 501_750	0.469822	0.395	1.78908	4.55578	0.005	0.179	0.165	495.31	0.148	Rubber Tired Loaders_2015_8				
Rubber Tired Loaders	2015	751	1000	9 751_1000	0.499538	0.42	1.46167	6.71262	0.005	0.197	0.181	510.0449	0.152	Rubber Tired Loaders_2015_9				
Rubber Tired Loaders	2016	16	25	2 16_25	2.445921	2.055	7.79111	6.05258	0.005	0.66	0.607	561.9032	0.169	Rubber Tired Loaders_2016_2				
Rubber Tired Loaders	2016	26	50	3 26_50	2.445921	2.055	7.79111	6.05258	0.005	0.66	0.607	561.9032	0.169	Rubber Tired Loaders_2016_3				
Rubber Tired Loaders	2016	51	120	4 51_120	0.955142	0.803	4.21236	6.58334	0.005	0.565	0.52	499.5935	0.151	Rubber Tired Loaders_2016_4				
Rubber Tired Loaders	2016	121	175	5 121_175	0.67267	0.565	3.56236	5.72558	0.005	0.319	0.294	505.1308	0.152	Rubber Tired Loaders_2016_5				
Rubber Tired Loaders	2016	176	250	6 176_250	0.468005	0.393	1.45212	5.1151	0.005	0.174	0.16	503.6542	0.152	Rubber Tired Loaders_2016_6				
Rubber Tired Loaders	2016	251	500	7 251_500	0.465473	0.391	2.15506	4.62743	0.005	0.174	0.16	500.4314	0.151	Rubber Tired Loaders_2016_7				
Rubber Tired Loaders	2016	501	750	8 501_750	0.443728	0.373	1.70263	4.17165	0.005	0.164	0.151	491.9183	0.148	Rubber Tired Loaders_2016_8				
Rubber Tired Loaders	2016	751	1000	9 751_1000	0.505153	0.424	1.46404	6.72411	0.005	0.198	0.182	504.7801	0.152	Rubber Tired Loaders_2016_9				
Rubber Tired Loaders	2017	16	25	2 16_25	2.32856	1.957	7.65953	5.95377	0.005	0.633	0.582	553.5831	0.17	Rubber Tired Loaders_2017_2				
Rubber Tired Loaders	2017	26	50	3 26_50	2.32856	1.957	7.65953	5.95377	0.005	0.633	0.582	553.5831	0.17	Rubber Tired Loaders_2017_3				
Rubber Tired Loaders	2017	51	120	4 51_120	0.900842	0.757	4.17083	6.23569	0.005	0.53	0.487	491.8531	0.151	Rubber Tired Loaders_2017_4				
Rubber Tired Loaders	2017	121	175	5 121_175	0.620654	0.522	3.5175	5.19525	0.005	0.289	0.266	497.3533	0.152	Rubber Tired Loaders_2017_5				
Rubber Tired Loaders	2017	176	250	6 176_250	0.443532	0.373	1.4172	4.75473	0.005	0.162	0.149	495.9499	0.152	Rubber Tired Loaders_2017_6				
Rubber Tired Loaders	2017	251	500	7 251_500	0.439436	0.369	2.06046	4.25314	0.005	0.16	0.147	492.2764	0.151	Rubber Tired Loaders_2017_7				
Rubber Tired Loaders	2017	501	750	8 501_750	0.436922	0.367	1.70044	4.05049	0.005	0.16	0.147	484.3661	0.148	Rubber Tired Loaders_2017_8				
Rubber Tired Loaders	2017	751	1000	9 751_1000	0.493245	0.414	1.45641	6.55319	0.005	0.192	0.176	496.8966	0.152	Rubber Tired Loaders_2017_9				
Rubber Tired Loaders	2018	16	25	2 16_25	2.100538	1.765	7.29915	5.67925	0.005	0.576	0.53	545.0529	0.17	Rubber Tired Loaders_2018_2				
Rubber Tired Loaders	2018	26	50	3 26_50	2.100538	1.765	7.29915	5.67925	0.005	0.576	0.53	545.0529	0.17	Rubber Tired Loaders_2018_3				
Rubber Tired Loaders	2018	51	120	4 51_120	0.779856	0.655	4.04742	5.47032	0.005	0.452	0.416	484.0931	0.151	Rubber Tired Loaders_2018_4				
Rubber Tired Loaders	2018	121	175	5 121_175	0.533198	0.448	3.42332	4.36814	0.005	0.242	0.223	489.5114	0.152	Rubber Tired Loaders_2018_5				
Rubber Tired Loaders	2018	176	250	6 176_250	0.396861	0.333	1.34644	4.13133	0.005	0.14	0.129	487.9023	0.152	Rubber Tired Loaders_2018_6				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Scrapers	2014	51	120	4 51_120	0.855598	0.719	4.09983	7.0654	0.005	0.526	0.484	529.9445	0.157	Scrapers_2014_4				
Scrapers	2014	121	175	5 121_175	0.85473	0.718	3.80661	7.90715	0.005	0.419	0.385	524.1709	0.155	Scrapers_2014_5				
Scrapers	2014	176	250	6 176_250	0.882887	0.742	3.06131	8.81494	0.005	0.403	0.371	512.8529	0.152	Scrapers_2014_6				
Scrapers	2014	251	500	7 251_500	0.569739	0.479	3.89824	6.23299	0.005	0.251	0.231	517.3608	0.153	Scrapers_2014_7				
Scrapers	2014	501	750	8 501_750	0.438954	0.369	2.84564	5.01248	0.005	0.19	0.174	517.3937	0.153	Scrapers_2014_8				
Scrapers	2015	51	120	4 51_120	0.869823	0.731	4.13678	7.10509	0.005	0.535	0.492	524.5601	0.157	Scrapers_2015_4				
Scrapers	2015	121	175	5 121_175	0.849601	0.714	3.80865	7.76471	0.005	0.415	0.382	518.8294	0.155	Scrapers_2015_5				
Scrapers	2015	176	250	6 176_250	0.868271	0.73	3.00753	8.66317	0.005	0.395	0.364	507.5699	0.152	Scrapers_2015_6				
Scrapers	2015	251	500	7 251_500	0.561967	0.472	3.788	6.08577	0.005	0.246	0.226	511.9471	0.153	Scrapers_2015_7				
Scrapers	2015	501	750	8 501_750	0.427981	0.36	2.68469	4.83862	0.005	0.182	0.167	512.0837	0.153	Scrapers_2015_8				
Scrapers	2016	51	120	4 51_120	0.883537	0.742	4.17273	7.14312	0.005	0.543	0.5	519.1668	0.157	Scrapers_2016_4				
Scrapers	2016	121	175	5 121_175	0.818244	0.688	3.78062	7.3844	0.005	0.397	0.365	513.4363	0.155	Scrapers_2016_5				
Scrapers	2016	176	250	6 176_250	0.814194	0.684	2.8398	8.10864	0.005	0.367	0.338	502.255	0.151	Scrapers_2016_6				
Scrapers	2016	251	500	7 251_500	0.538344	0.452	3.60633	5.75749	0.005	0.232	0.213	506.3503	0.153	Scrapers_2016_7				
Scrapers	2016	501	750	8 501_750	0.404454	0.34	2.48181	4.48425	0.005	0.167	0.154	506.6381	0.153	Scrapers_2016_8				
Scrapers	2017	51	120	4 51_120	0.896722	0.753	4.20744	7.17946	0.005	0.551	0.507	511.1123	0.157	Scrapers_2017_4				
Scrapers	2017	121	175	5 121_175	0.748819	0.629	3.70478	6.67066	0.005	0.359	0.331	505.3309	0.155	Scrapers_2017_5				
Scrapers	2017	176	250	6 176_250	0.74607	0.627	2.64676	7.39867	0.005	0.333	0.306	494.5231	0.152	Scrapers_2017_6				
Scrapers	2017	251	500	7 251_500	0.505877	0.425	3.33699	5.33951	0.005	0.214	0.197	498.4571	0.153	Scrapers_2017_7				
Scrapers	2017	501	750	8 501_750	0.386598	0.325	2.29479	4.21648	0.005	0.156	0.143	498.6929	0.153	Scrapers_2017_8				
Scrapers	2018	51	120	4 51_120	0.881019	0.74	4.20429	7.03577	0.005	0.543	0.499	502.8288	0.157	Scrapers_2018_4				
Scrapers	2018	121	175	5 121_175	0.640866	0.539	3.56847	5.64105	0.005	0.303	0.279	497.3396	0.155	Scrapers_2018_5				
Scrapers	2018	176	250	6 176_250	0.662403	0.557	2.40704	6.56304	0.005	0.29	0.267	486.9908	0.152	Scrapers_2018_6				
Scrapers	2018	251	500	7 251_500	0.439318	0.369	2.82811	4.56771	0.005	0.18	0.166	490.7734	0.153	Scrapers_2018_7				
Scrapers	2018	501	750	8 501_750	0.349618	0.294	1.96493	3.74582	0.005	0.135	0.124	490.5775	0.153	Scrapers_2018_8				
Scrapers	2019	51	120	4 51_120	0.854498	0.718	4.19661	6.84136	0.005	0.525	0.483	494.1	0.156	Scrapers_2019_4				
Scrapers	2019	121	175	5 121_175	0.606989	0.51	3.53297	5.26356	0.005	0.283	0.261	489.2546	0.155	Scrapers_2019_5				
Scrapers	2019	176	250	6 176_250	0.596624	0.501	2.23321	5.83102	0.005	0.257	0.236	479.0317	0.152	Scrapers_2019_6				
Scrapers	2019	251	500	7 251_500	0.40804	0.343	2.59466	4.15646	0.005	0.163	0.15	482.7319	0.153	Scrapers_2019_7				
Scrapers	2019	501	750	8 501_750	0.329384	0.277	1.82903	3.43103	0.005	0.123	0.113	482.5963	0.153	Scrapers_2019_8				
Scrapers	2020	51	120	4 51_120	0.834143	0.701	4.19756	6.6767	0.005	0.51	0.469	483.745	0.156	Scrapers_2020_4				
Scrapers	2020	121	175	5 121_175	0.568453	0.478	3.50114	4.86851	0.005	0.262	0.241	478.6077	0.155	Scrapers_2020_5				
Scrapers	2020	176	250	6 176_250	0.531032	0.446	2.06469	5.089	0.005	0.223	0.205	468.9883	0.152	Scrapers_2020_6				
Scrapers	2020	251	500	7 251_500	0.380326	0.32	2.40063	3.78254	0.005	0.148	0.136	472.1751	0.153	Scrapers_2020_7				
Scrapers	2020	501	750	8 501_750	0.311991	0.262	1.72502	3.12592	0.005	0.113	0.104	471.7776	0.153	Scrapers_2020_8				
Scrapers	2021	51	120	4 51_120	0.837922	0.704	4.21819	6.65882	0.005	0.512	0.471	483.7128	0.156	Scrapers_2021_4				
Scrapers	2021	121	175	5 121_175	0.514014	0.432	3.45599	4.34133	0.005	0.232	0.213	478.654	0.155	Scrapers_2021_5				
Scrapers	2021	176	250	6 176_250	0.464853	0.391	1.88374	4.36706	0.005	0.189	0.174	469.1258	0.152	Scrapers_2021_6				
Scrapers	2021	251	500	7 251_500	0.356021	0.299	2.25454	3.44481	0.005	0.134	0.123	472.4636	0.153	Scrapers_2021_7				
Scrapers	2021	501	750	8 501_750	0.298025	0.25	1.65772	2.88702	0.005	0.105	0.097	471.7859	0.153	Scrapers_2021_8				
Scrapers	2022	51	120	4 51_120	0.809995	0.681	4.20484	6.45548	0.005	0.494	0.454	483.4481	0.156	Scrapers_2022_4				
Scrapers	2022	121	175	5 121_175	0.463814	0.39	3.41662	3.83296	0.005	0.204	0.187	478.7411	0.155	Scrapers_2022_5				
Scrapers	2022	176	250	6 176_250	0.406319	0.341	1.74265	3.66905	0.005	0.16	0.147	469.2686	0.152	Scrapers_2022_6				
Scrapers	2022	251	500	7 251_500	0.313802	0.264	2.05212	2.87856	0.005	0.112	0.103	473.2304	0.153	Scrapers_2022_7				
Scrapers	2022	501	750	8 501_750	0.266627	0.224	1.50816	2.47537	0.005	0.09	0.083	471.2788	0.152	Scrapers_2022_8				
Scrapers	2023	51	120	4 51_120	0.7496	0.63	4.14443	6.02603	0.005	0.458	0.421	483.0296	0.156	Scrapers_2023_4				
Scrapers	2023	121	175	5 121_175	0.430003	0.361	3.39533	3.47913	0.005	0.184	0.169	478.6814	0.155	Scrapers_2023_5				
Scrapers	2023	176	250	6 176_250	0.37772	0.317	1.67839	3.2838	0.005	0.144	0.133	469.5597	0.152	Scrapers_2023_6				
Scrapers	2023	251	500	7 251_500	0.301363	0.253	1.97527	2.66611	0.005	0.105	0.096	473.1772	0.153	Scrapers_2023_7				
Scrapers	2023	501	750	8 501_750	0.26361	0.222	1.51295	2.38587	0.005	0.087	0.08	471.2953	0.152	Scrapers_2023_8				
Scrapers	2024	51	120	4 51_120	0.683919	0.575	4.09486	5.63222	0.005	0.414	0.381	482.7009	0.156	Scrapers_2024_4				
Scrapers	2024	121	175	5 121_175	0.399992	0.336	3.37249	3.15631	0.005	0.166	0.153	478.8089	0.155	Scrapers_2024_5				
Scrapers	2024	176	250	6 176_250	0.358714	0.301	1.62739	3.01379	0.005	0.133	0.122	469.3521	0.152	Scrapers_2024_6				
Scrapers	2024	251	500	7 251_500	0.291137	0.245	1.92055	2.47694	0.005	0.098	0.09	472.8455	0.153	Scrapers_2024_7				
Scrapers	2024	501	750	8 501_750	0.253257	0.213	1.46065	2.18653	0.005	0.081	0.074	471.4291	0.152	Scrapers_2024_8				
Scrapers	2025	51	120	4 51_120	0.673967	0.566	4.09423	5.50259	0.005	0.405	0.372	482.3629	0.156	Scrapers_2025_4				
Scrapers	2025	121	175	5 121_175	0.34526	0.29	3.3209	2.63098	0.005	0.137	0.126	478.9476	0.155	Scrapers_2025_5				
Scrapers	2025	176	250	6 176_250	0.346529	0.291	1.60249	2.80326	0.005	0.125	0.115	469.4459	0.152	Scrapers_2025_6				
Scrapers	2025	251	500	7 251_500	0.257328	0.216	1.7318	2.05051	0.005	0.081	0.074	472.5394	0.153	Scrapers_2025_7				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Scrapers	2025	501	750	8 501_750	0.218534	0.184	1.33825	1.71287	0.005	0.064	0.059	472.115	0.153	Scrapers_2025_8				
Scrapers	2030	51	120	4 51_120	1.248	0.41	3.866	2.384	0.006	0.111	0.111	568.299	0.037	Scrapers_2030_4				
Scrapers	2030	121	175	5 121_175	1.445	0.301	3.389	1.32	0.006	0.068	0.068	568.299	0.027	Scrapers_2030_5				
Scrapers	2030	176	250	6 176_250	1.794	0.264	1.206	1.149	0.006	0.042	0.042	568.299	0.023	Scrapers_2030_6				
Scrapers	2030	251	500	7 251_500	2.697	0.259	1.184	1.057	0.005	0.04	0.04	568.299	0.023	Scrapers_2030_7				
Scrapers	2030	501	750	8 501_750	4.666	0.259	1.184	1.075	0.005	0.04	0.04	568.299	0.023	Scrapers_2030_8				
Scrapers	2035	51	120	4 51_120	1.058	0.348	3.842	1.943	0.006	0.064	0.064	568.299	0.031	Scrapers_2035_4				
Scrapers	2035	121	175	5 121_175	1.199	0.25	3.382	0.824	0.006	0.04	0.04	568.299	0.022	Scrapers_2035_5				
Scrapers	2035	176	250	6 176_250	1.553	0.229	1.175	0.717	0.006	0.026	0.026	568.299	0.02	Scrapers_2035_6				
Scrapers	2035	251	500	7 251_500	2.356	0.226	1.123	0.674	0.005	0.025	0.025	568.3	0.02	Scrapers_2035_7				
Scrapers	2035	501	750	8 501_750	4.075	0.226	1.123	0.682	0.005	0.025	0.025	568.299	0.02	Scrapers_2035_8				
Scrapers	2040	51	120	4 51_120	0.962	0.316	3.833	1.715	0.006	0.04	0.04	568.299	0.028	Scrapers_2040_4				
Scrapers	2040	121	175	5 121_175	1.063	0.221	3.381	0.549	0.006	0.026	0.026	568.299	0.02	Scrapers_2040_5				
Scrapers	2040	176	250	6 176_250	1.425	0.21	1.159	0.498	0.006	0.018	0.018	568.3	0.018	Scrapers_2040_6				
Scrapers	2040	251	500	7 251_500	2.175	0.209	1.1	0.475	0.005	0.017	0.017	568.299	0.018	Scrapers_2040_7				
Scrapers	2040	501	750	8 501_750	3.76	0.209	1.1	0.48	0.005	0.017	0.017	568.299	0.018	Scrapers_2040_8				
Signal Boards	1990	6	15	1 6_15	2.838	1.804	4.999	9.999	1.049	0.975	0.975	568.299	0.162	Signal Boards_1990_1				
Signal Boards	1990	26	50	3 26_50	33.688	3.65	7.626	7.518	0.871	1.035	1.035	568.299	0.329	Signal Boards_1990_3				
Signal Boards	1990	51	120	4 51_120	41.675	2.037	5.201	13.738	0.791	1.095	1.095	568.3	0.183	Signal Boards_1990_4				
Signal Boards	1990	121	175	5 121_175	54.982	1.395	4.603	12.364	0.758	0.728	0.728	568.3	0.125	Signal Boards_1990_5				
Signal Boards	1990	176	250	6 176_250	90.827	1.685	5.563	14.94	0.917	0.88	0.88	686.695	0.152	Signal Boards_1990_6				
Signal Boards	2000	6	15	1 6_15	2.085	1.325	4.257	7.675	0.079	0.61	0.61	568.299	0.119	Signal Boards_2000_1				
Signal Boards	2000	26	50	3 26_50	31.608	3.424	7.268	6.709	0.066	0.765	0.765	568.299	0.309	Signal Boards_2000_3				
Signal Boards	2000	51	120	4 51_120	33.68	1.646	4.338	9.835	0.06	0.756	0.756	568.299	0.148	Signal Boards_2000_4				
Signal Boards	2000	121	175	5 121_175	43.484	1.103	3.53	8.941	0.057	0.447	0.447	568.299	0.099	Signal Boards_2000_5				
Signal Boards	2000	176	250	6 176_250	59.587	1.105	3.359	10.385	0.069	0.438	0.438	686.695	0.099	Signal Boards_2000_6				
Signal Boards	2005	6	15	1 6_15	1.168	0.742	3.469	4.981	0.079	0.35	0.35	568.299	0.066	Signal Boards_2005_1				
Signal Boards	2005	26	50	3 26_50	27.711	3.002	6.663	6.227	0.066	0.704	0.704	568.299	0.27	Signal Boards_2005_3				
Signal Boards	2005	51	120	4 51_120	28.596	1.398	4	8.234	0.06	0.695	0.695	568.299	0.126	Signal Boards_2005_4				
Signal Boards	2005	121	175	5 121_175	35.881	0.91	3.185	7.528	0.057	0.383	0.383	568.3	0.082	Signal Boards_2005_5				
Signal Boards	2005	176	250	6 176_250	41.93	0.778	2.245	8.577	0.069	0.303	0.303	686.695	0.07	Signal Boards_2005_6				
Signal Boards	2010	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.155	0.155	568.299	0.059	Signal Boards_2010_1				
Signal Boards	2010	26	50	3 26_50	21.63	2.343	6.009	5.792	0.007	0.571	0.571	568.299	0.211	Signal Boards_2010_3				
Signal Boards	2010	51	120	4 51_120	21.667	1.059	3.811	6.693	0.006	0.56	0.56	568.299	0.095	Signal Boards_2010_4				
Signal Boards	2010	121	175	5 121_175	27.641	0.701	3.102	5.958	0.006	0.311	0.311	568.299	0.063	Signal Boards_2010_5				
Signal Boards	2010	176	250	6 176_250	29.698	0.551	1.651	6.749	0.007	0.212	0.212	686.695	0.049	Signal Boards_2010_6				
Signal Boards	2011	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.156	0.156	568.299	0.059	Signal Boards_2011_1				
Signal Boards	2011	26	50	3 26_50	20.109	2.178	5.834	5.698	0.007	0.541	0.541	568.299	0.196	Signal Boards_2011_3				
Signal Boards	2011	51	120	4 51_120	20.187	0.986	3.774	6.327	0.006	0.535	0.535	568.299	0.089	Signal Boards_2011_4				
Signal Boards	2011	121	175	5 121_175	25.933	0.658	3.09	5.615	0.006	0.298	0.298	568.299	0.059	Signal Boards_2011_5				
Signal Boards	2011	176	250	6 176_250	27.264	0.506	1.548	6.272	0.007	0.19	0.19	686.695	0.045	Signal Boards_2011_6				
Signal Boards	2012	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.16	0.16	568.299	0.059	Signal Boards_2012_1				
Signal Boards	2012	26	50	3 26_50	18.413	1.995	5.632	5.596	0.007	0.508	0.508	568.299	0.18	Signal Boards_2012_3				
Signal Boards	2012	51	120	4 51_120	18.605	0.909	3.733	5.923	0.006	0.498	0.498	568.299	0.082	Signal Boards_2012_4				
Signal Boards	2012	121	175	5 121_175	24.082	0.611	3.077	5.246	0.006	0.275	0.275	568.3	0.055	Signal Boards_2012_5				
Signal Boards	2012	176	250	6 176_250	25.308	0.469	1.483	5.81	0.007	0.171	0.171	686.695	0.042	Signal Boards_2012_6				
Signal Boards	2013	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2013_1				
Signal Boards	2013	26	50	3 26_50	16.687	1.808	5.427	5.362	0.007	0.465	0.465	568.299	0.163	Signal Boards_2013_3				
Signal Boards	2013	51	120	4 51_120	17.043	0.833	3.694	5.532	0.006	0.456	0.456	568.299	0.075	Signal Boards_2013_4				
Signal Boards	2013	121	175	5 121_175	22.253	0.564	3.067	4.903	0.006	0.252	0.252	568.3	0.05	Signal Boards_2013_5				
Signal Boards	2013	176	250	6 176_250	23.66	0.439	1.439	5.369	0.007	0.156	0.156	686.695	0.039	Signal Boards_2013_6				
Signal Boards	2014	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2014_1				
Signal Boards	2014	26	50	3 26_50	15.005	1.625	5.231	5.139	0.007	0.422	0.422	568.299	0.146	Signal Boards_2014_3				
Signal Boards	2014	51	120	4 51_120	15.539	0.759	3.658	5.186	0.006	0.414	0.414	568.299	0.068	Signal Boards_2014_4				
Signal Boards	2014	121	175	5 121_175	20.512	0.52	3.058	4.582	0.006	0.228	0.228	568.299	0.046	Signal Boards_2014_5				
Signal Boards	2014	176	250	6 176_250	22.034	0.408	1.402	4.857	0.007	0.141	0.141	686.695	0.036	Signal Boards_2014_6				
Signal Boards	2015	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2015_1				
Signal Boards	2015	26	50	3 26_50	13.489	1.461	5.068	4.943	0.007	0.382	0.382	568.299	0.131	Signal Boards_2015_3				
Signal Boards	2015	51	120	4 51_120	14.067	0.687	3.624	4.791	0.006	0.371	0.371	568.299	0.062	Signal Boards_2015_4				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Signal Boards	2015	121	175	5 121_175	18.694	0.474	3.052	4.136	0.006	0.205	0.205	568.299	0.042	Signal Boards_2015_5				
Signal Boards	2015	176	250	6 176_250	20.523	0.38	1.371	4.365	0.007	0.127	0.127	686.695	0.034	Signal Boards_2015_6				
Signal Boards	2016	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2016_1				
Signal Boards	2016	26	50	3 26_50	12.061	1.306	4.921	4.761	0.007	0.343	0.343	568.299	0.117	Signal Boards_2016_3				
Signal Boards	2016	51	120	4 51_120	12.653	0.618	3.594	4.414	0.006	0.33	0.33	568.299	0.055	Signal Boards_2016_4				
Signal Boards	2016	121	175	5 121_175	16.949	0.43	3.047	3.708	0.006	0.183	0.183	568.299	0.038	Signal Boards_2016_5				
Signal Boards	2016	176	250	6 176_250	19.106	0.354	1.344	3.894	0.007	0.114	0.114	686.695	0.031	Signal Boards_2016_6				
Signal Boards	2017	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2017_1				
Signal Boards	2017	26	50	3 26_50	10.695	1.158	4.785	4.59	0.007	0.306	0.306	568.299	0.104	Signal Boards_2017_3				
Signal Boards	2017	51	120	4 51_120	11.32	0.553	3.566	4.059	0.006	0.29	0.29	568.299	0.049	Signal Boards_2017_4				
Signal Boards	2017	121	175	5 121_175	15.322	0.388	3.044	3.305	0.006	0.161	0.161	568.299	0.035	Signal Boards_2017_5				
Signal Boards	2017	176	250	6 176_250	17.83	0.33	1.323	3.452	0.007	0.101	0.101	686.695	0.029	Signal Boards_2017_6				
Signal Boards	2018	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2018_1				
Signal Boards	2018	26	50	3 26_50	9.4	1.018	4.657	4.427	0.007	0.27	0.27	568.299	0.091	Signal Boards_2018_3				
Signal Boards	2018	51	120	4 51_120	10.078	0.492	3.541	3.723	0.006	0.252	0.252	568.299	0.044	Signal Boards_2018_4				
Signal Boards	2018	121	175	5 121_175	13.836	0.351	3.043	2.93	0.006	0.141	0.141	568.299	0.031	Signal Boards_2018_5				
Signal Boards	2018	176	250	6 176_250	16.678	0.309	1.306	3.04	0.007	0.09	0.09	686.695	0.027	Signal Boards_2018_6				
Signal Boards	2019	6	15	1 6_15	1.04	0.661	3.47	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2019_1				
Signal Boards	2019	26	50	3 26_50	8.189	0.887	4.538	4.272	0.007	0.236	0.236	568.3	0.08	Signal Boards_2019_3				
Signal Boards	2019	51	120	4 51_120	8.938	0.437	3.519	3.41	0.006	0.216	0.216	568.299	0.039	Signal Boards_2019_4				
Signal Boards	2019	121	175	5 121_175	12.677	0.321	3.043	2.601	0.006	0.125	0.125	568.299	0.029	Signal Boards_2019_5				
Signal Boards	2019	176	250	6 176_250	15.682	0.291	1.292	2.676	0.007	0.08	0.08	686.695	0.026	Signal Boards_2019_6				
Signal Boards	2020	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2020_1				
Signal Boards	2020	26	50	3 26_50	7.28	0.788	4.448	4.132	0.007	0.206	0.206	568.299	0.071	Signal Boards_2020_3				
Signal Boards	2020	51	120	4 51_120	8.081	0.395	3.504	3.134	0.006	0.187	0.187	568.299	0.035	Signal Boards_2020_4				
Signal Boards	2020	121	175	5 121_175	11.756	0.298	3.043	2.309	0.006	0.11	0.11	568.299	0.026	Signal Boards_2020_5				
Signal Boards	2020	176	250	6 176_250	14.813	0.274	1.281	2.35	0.007	0.071	0.071	686.695	0.024	Signal Boards_2020_6				
Signal Boards	2021	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2021_1				
Signal Boards	2021	26	50	3 26_50	6.598	0.714	4.38	4.002	0.007	0.179	0.179	568.299	0.064	Signal Boards_2021_3				
Signal Boards	2021	51	120	4 51_120	7.434	0.363	3.493	2.889	0.006	0.162	0.162	568.299	0.032	Signal Boards_2021_4				
Signal Boards	2021	121	175	5 121_175	10.965	0.278	3.043	2.043	0.006	0.098	0.098	568.299	0.025	Signal Boards_2021_5				
Signal Boards	2021	176	250	6 176_250	14.033	0.26	1.273	2.053	0.007	0.063	0.063	686.695	0.023	Signal Boards_2021_6				
Signal Boards	2022	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.3	0.059	Signal Boards_2022_1				
Signal Boards	2022	26	50	3 26_50	6.047	0.655	4.325	3.88	0.007	0.154	0.154	568.299	0.059	Signal Boards_2022_3				
Signal Boards	2022	51	120	4 51_120	6.908	0.337	3.484	2.668	0.006	0.141	0.141	568.299	0.03	Signal Boards_2022_4				
Signal Boards	2022	121	175	5 121_175	10.249	0.26	3.044	1.801	0.006	0.086	0.086	568.299	0.023	Signal Boards_2022_5				
Signal Boards	2022	176	250	6 176_250	13.317	0.247	1.266	1.782	0.007	0.055	0.055	686.695	0.022	Signal Boards_2022_6				
Signal Boards	2023	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2023_1				
Signal Boards	2023	26	50	3 26_50	5.57	0.603	4.282	3.767	0.007	0.132	0.132	568.299	0.054	Signal Boards_2023_3				
Signal Boards	2023	51	120	4 51_120	6.449	0.315	3.478	2.472	0.006	0.122	0.122	568.299	0.028	Signal Boards_2023_4				
Signal Boards	2023	121	175	5 121_175	9.619	0.244	3.045	1.602	0.006	0.075	0.075	568.299	0.022	Signal Boards_2023_5				
Signal Boards	2023	176	250	6 176_250	12.678	0.235	1.263	1.562	0.007	0.048	0.048	686.695	0.021	Signal Boards_2023_6				
Signal Boards	2024	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2024_1				
Signal Boards	2024	26	50	3 26_50	5.168	0.559	4.247	3.662	0.007	0.114	0.114	568.299	0.05	Signal Boards_2024_3				
Signal Boards	2024	51	120	4 51_120	6.055	0.296	3.474	2.315	0.006	0.105	0.105	568.299	0.026	Signal Boards_2024_4				
Signal Boards	2024	121	175	5 121_175	9.047	0.229	3.047	1.427	0.006	0.065	0.065	568.299	0.02	Signal Boards_2024_5				
Signal Boards	2024	176	250	6 176_250	12.079	0.224	1.259	1.37	0.007	0.041	0.041	686.695	0.02	Signal Boards_2024_6				
Signal Boards	2025	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2025_1				
Signal Boards	2025	26	50	3 26_50	4.819	0.522	4.217	3.561	0.007	0.098	0.098	568.299	0.047	Signal Boards_2025_3				
Signal Boards	2025	51	120	4 51_120	5.705	0.278	3.47	2.179	0.006	0.089	0.089	568.299	0.025	Signal Boards_2025_4				
Signal Boards	2025	121	175	5 121_175	8.5	0.215	3.049	1.262	0.006	0.055	0.055	568.299	0.019	Signal Boards_2025_5				
Signal Boards	2025	176	250	6 176_250	11.509	0.213	1.257	1.192	0.007	0.035	0.035	686.695	0.019	Signal Boards_2025_6				
Signal Boards	2030	6	15	1 6_15	1.04	0.661	3.47	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2030_1				
Signal Boards	2030	26	50	3 26_50	3.631	0.393	4.099	3.193	0.007	0.04	0.04	568.299	0.035	Signal Boards_2030_3				
Signal Boards	2030	51	120	4 51_120	4.366	0.213	3.451	1.657	0.006	0.035	0.035	568.3	0.019	Signal Boards_2030_4				
Signal Boards	2030	121	175	5 121_175	6.201	0.157	3.048	0.586	0.006	0.024	0.024	568.299	0.014	Signal Boards_2030_5				
Signal Boards	2030	176	250	6 176_250	9.484	0.176	1.255	0.594	0.007	0.019	0.019	686.695	0.015	Signal Boards_2030_6				
Signal Boards	2035	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2035_1				
Signal Boards	2035	26	50	3 26_50	3.294	0.356	4.067	3.082	0.007	0.02	0.02	568.299	0.032	Signal Boards_2035_3				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Signal Boards	2035	51	120	4 51_120	3.929	0.192	3.445	1.482	0.006	0.018	0.018	568.299	0.017	Signal Boards_2035_4				
Signal Boards	2035	121	175	5 121_175	5.439	0.138	3.048	0.372	0.006	0.014	0.014	568.299	0.012	Signal Boards_2035_5				
Signal Boards	2035	176	250	6 176_250	8.75	0.162	1.254	0.401	0.007	0.014	0.014	686.695	0.014	Signal Boards_2035_6				
Signal Boards	2040	6	15	1 6_15	1.04	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Signal Boards_2040_1				
Signal Boards	2040	26	50	3 26_50	3.289	0.356	4.074	3.037	0.007	0.014	0.014	568.299	0.032	Signal Boards_2040_3				
Signal Boards	2040	51	120	4 51_120	3.848	0.188	3.447	1.428	0.006	0.013	0.013	568.299	0.016	Signal Boards_2040_4				
Signal Boards	2040	121	175	5 121_175	5.177	0.131	3.05	0.296	0.006	0.011	0.011	568.299	0.011	Signal Boards_2040_5				
Signal Boards	2040	176	250	6 176_250	8.473	0.157	1.255	0.341	0.007	0.012	0.012	686.695	0.014	Signal Boards_2040_6				
Skid Steer Loaders	1990	16	25	2 16_25	4.928	2.213	4.999	6.919	0.855	0.741	0.741	568.299	0.199	Skid Steer Loaders_1990_2				
Skid Steer Loaders	1990	26	50	3 26_50	18.4	4.466	9.113	7.821	0.871	1.202	1.202	568.299	0.403	Skid Steer Loaders_1990_3				
Skid Steer Loaders	1990	51	120	4 51_120	15.551	2.252	5.536	14.506	0.791	1.262	1.262	568.299	0.203	Skid Steer Loaders_1990_4				
Skid Steer Loaders	2000	16	25	2 16_25	4.659	2.092	4.777	6.403	0.065	0.568	0.568	568.299	0.188	Skid Steer Loaders_2000_2				
Skid Steer Loaders	2000	26	50	3 26_50	15.338	3.723	7.849	6.733	0.066	0.816	0.816	568.299	0.335	Skid Steer Loaders_2000_3				
Skid Steer Loaders	2000	51	120	4 51_120	10.902	1.579	4.162	9.028	0.06	0.779	0.779	568.299	0.142	Skid Steer Loaders_2000_4				
Skid Steer Loaders	2005	16	25	2 16_25	3.352	1.505	3.709	5.913	0.065	0.461	0.461	568.299	0.135	Skid Steer Loaders_2005_2				
Skid Steer Loaders	2005	26	50	3 26_50	12.458	3.024	6.864	6.068	0.066	0.716	0.716	568.3	0.272	Skid Steer Loaders_2005_3				
Skid Steer Loaders	2005	51	120	4 51_120	9.248	1.339	3.988	7.653	0.06	0.712	0.712	568.299	0.12	Skid Steer Loaders_2005_4				
Skid Steer Loaders	2010	16	25	2 16_25	1.189544	1	4.48486	5.29745	0.005	0.435	0.401	586.3356	0.171	Skid Steer Loaders_2010_2				
Skid Steer Loaders	2010	26	50	3 26_50	1.189544	1	4.48486	5.29745	0.005	0.435	0.401	586.3356	0.171	Skid Steer Loaders_2010_3				
Skid Steer Loaders	2010	51	120	4 51_120	0.504832	0.424	3.40768	5.19396	0.005	0.344	0.317	525.6915	0.153	Skid Steer Loaders_2010_4				
Skid Steer Loaders	2011	16	25	2 16_25	1.055747	0.887	4.32754	5.2163	0.005	0.402	0.37	584.7285	0.171	Skid Steer Loaders_2011_2				
Skid Steer Loaders	2011	26	50	3 26_50	1.055747	0.887	4.32754	5.2163	0.005	0.402	0.37	584.7285	0.171	Skid Steer Loaders_2011_3				
Skid Steer Loaders	2011	51	120	4 51_120	0.460213	0.387	3.38539	4.88341	0.005	0.316	0.291	524.0915	0.153	Skid Steer Loaders_2011_4				
Skid Steer Loaders	2012	16	25	2 16_25	1.031332	0.867	4.33156	5.12974	0.005	0.388	0.357	583.1258	0.171	Skid Steer Loaders_2012_2				
Skid Steer Loaders	2012	26	50	3 26_50	1.031332	0.867	4.33156	5.12974	0.005	0.388	0.357	583.1258	0.171	Skid Steer Loaders_2012_3				
Skid Steer Loaders	2012	51	120	4 51_120	0.443294	0.372	3.38462	4.73478	0.005	0.303	0.279	522.5357	0.153	Skid Steer Loaders_2012_4				
Skid Steer Loaders	2013	16	25	2 16_25	0.908612	0.763	4.17576	4.84472	0.005	0.337	0.31	580.0144	0.171	Skid Steer Loaders_2013_2				
Skid Steer Loaders	2013	26	50	3 26_50	0.908612	0.763	4.17576	4.84472	0.005	0.337	0.31	580.0144	0.171	Skid Steer Loaders_2013_3				
Skid Steer Loaders	2013	51	120	4 51_120	0.404938	0.34	3.36337	4.44237	0.005	0.271	0.249	519.6388	0.153	Skid Steer Loaders_2013_4				
Skid Steer Loaders	2014	16	25	2 16_25	0.790746	0.664	4.01585	4.54075	0.005	0.286	0.263	577.0757	0.171	Skid Steer Loaders_2014_2				
Skid Steer Loaders	2014	26	50	3 26_50	0.790746	0.664	4.01585	4.54075	0.005	0.286	0.263	577.0757	0.171	Skid Steer Loaders_2014_3				
Skid Steer Loaders	2014	51	120	4 51_120	0.361873	0.304	3.33829	4.0133	0.005	0.235	0.216	517.0621	0.153	Skid Steer Loaders_2014_4				
Skid Steer Loaders	2015	16	25	2 16_25	0.760751	0.639	4.00436	4.43612	0.005	0.267	0.246	571.4195	0.171	Skid Steer Loaders_2015_2				
Skid Steer Loaders	2015	26	50	3 26_50	0.760751	0.639	4.00436	4.43612	0.005	0.267	0.246	571.4195	0.171	Skid Steer Loaders_2015_3				
Skid Steer Loaders	2015	51	120	4 51_120	0.349713	0.294	3.33751	3.8106	0.005	0.22	0.203	511.595	0.153	Skid Steer Loaders_2015_4				
Skid Steer Loaders	2016	16	25	2 16_25	0.713135	0.599	3.95661	4.26784	0.005	0.241	0.221	565.2281	0.17	Skid Steer Loaders_2016_2				
Skid Steer Loaders	2016	26	50	3 26_50	0.713135	0.599	3.95661	4.26784	0.005	0.241	0.221	565.2281	0.17	Skid Steer Loaders_2016_3				
Skid Steer Loaders	2016	51	120	4 51_120	0.325064	0.273	3.32767	3.53439	0.005	0.197	0.182	506.2971	0.153	Skid Steer Loaders_2016_4				
Skid Steer Loaders	2017	16	25	2 16_25	0.676461	0.568	3.91907	4.11272	0.005	0.217	0.2	556.7144	0.171	Skid Steer Loaders_2017_2				
Skid Steer Loaders	2017	26	50	3 26_50	0.676461	0.568	3.91907	4.11272	0.005	0.217	0.2	556.7144	0.171	Skid Steer Loaders_2017_3				
Skid Steer Loaders	2017	51	120	4 51_120	0.303772	0.255	3.31863	3.28618	0.005	0.177	0.162	498.3256	0.153	Skid Steer Loaders_2017_4				
Skid Steer Loaders	2018	16	25	2 16_25	0.579635	0.487	3.78725	3.88962	0.005	0.178	0.164	547.5575	0.17	Skid Steer Loaders_2018_2				
Skid Steer Loaders	2018	26	50	3 26_50	0.579635	0.487	3.78725	3.88962	0.005	0.178	0.164	547.5575	0.17	Skid Steer Loaders_2018_3				
Skid Steer Loaders	2018	51	120	4 51_120	0.256853	0.216	3.28204	2.86	0.005	0.14	0.129	490.0935	0.153	Skid Steer Loaders_2018_4				
Skid Steer Loaders	2019	16	25	2 16_25	0.531282	0.446	3.73957	3.75009	0.005	0.154	0.141	539.2667	0.171	Skid Steer Loaders_2019_2				
Skid Steer Loaders	2019	26	50	3 26_50	0.531282	0.446	3.73957	3.75009	0.005	0.154	0.141	539.2667	0.171	Skid Steer Loaders_2019_3				
Skid Steer Loaders	2019	51	120	4 51_120	0.2373	0.199	3.27736	2.65586	0.005	0.122	0.112	482.3844	0.153	Skid Steer Loaders_2019_4				
Skid Steer Loaders	2020	16	25	2 16_25	0.522771	0.439	3.76397	3.69113	0.005	0.145	0.133	527.7577	0.171	Skid Steer Loaders_2020_2				
Skid Steer Loaders	2020	26	50	3 26_50	0.522771	0.439	3.76397	3.69113	0.005	0.145	0.133	527.7577	0.171	Skid Steer Loaders_2020_3				
Skid Steer Loaders	2020	51	120	4 51_120	0.224183	0.188	3.2771	2.5046	0.005	0.108	0.1	471.9075	0.153	Skid Steer Loaders_2020_4				
Skid Steer Loaders	2021	16	25	2 16_25	0.486515	0.409	3.73158	3.57304	0.005	0.126	0.116	527.4501	0.171	Skid Steer Loaders_2021_2				
Skid Steer Loaders	2021	26	50	3 26_50	0.486515	0.409	3.73158	3.57304	0.005	0.126	0.116	527.4501	0.171	Skid Steer Loaders_2021_3				
Skid Steer Loaders	2021	51	120	4 51_120	0.211817	0.178	3.27687	2.36588	0.005	0.096	0.089	471.9774	0.153	Skid Steer Loaders_2021_4				
Skid Steer Loaders	2022	16	25	2 16_25	0.434318	0.365	3.65597	3.43256	0.005	0.103	0.095	527.2726	0.171	Skid Steer Loaders_2022_2				
Skid Steer Loaders	2022	26	50	3 26_50	0.434318	0.365	3.65597	3.43256	0.005	0.103	0.095	527.2726	0.171	Skid Steer Loaders_2022_3				
Skid Steer Loaders	2022	51	120	4 51_120	0.195311	0.164	3.27037	2.18922	0.005	0.081	0.075	472.4321	0.153	Skid Steer Loaders_2022_4				
Skid Steer Loaders	2023	16	25	2 16_25	0.420524	0.353	3.65358	3.37057	0.005	0.093	0.086	527.4231	0.171	Skid Steer Loaders_2023_2				
Skid Steer Loaders	2023	26	50	3 26_50	0.420524	0.353	3.65358	3.37057	0.005	0.093	0.086	527.4231	0.171	Skid Steer Loaders_2023_3				
Skid Steer Loaders	2023	51	120	4 51_120	0.182613	0.153	3.26613	2.03854	0.005	0.069	0.063	472.656	0.153	Skid Steer Loaders_2023_4				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Skid Steer Loaders	2024	16	25	2 16_25	0.415881	0.349	3.67076	3.34552	0.005	0.089	0.082	527.8005	0.171	Skid Steer Loaders_2024_2				
Skid Steer Loaders	2024	26	50	3 26_50	0.415881	0.349	3.67076	3.34552	0.005	0.089	0.082	527.8005	0.171	Skid Steer Loaders_2024_3				
Skid Steer Loaders	2024	51	120	4 51_120	0.174841	0.147	3.26403	1.94841	0.005	0.063	0.058	472.847	0.153	Skid Steer Loaders_2024_4				
Skid Steer Loaders	2025	16	25	2 16_25	0.406183	0.341	3.6601	3.30934	0.005	0.084	0.077	527.8608	0.171	Skid Steer Loaders_2025_2				
Skid Steer Loaders	2025	26	50	3 26_50	0.406183	0.341	3.6601	3.30934	0.005	0.084	0.077	527.8608	0.171	Skid Steer Loaders_2025_3				
Skid Steer Loaders	2025	51	120	4 51_120	0.166357	0.14	3.25156	1.86736	0.005	0.057	0.052	472.6295	0.153	Skid Steer Loaders_2025_4				
Skid Steer Loaders	2030	16	25	2 16_25	1.526	0.685	2.34	4.332	0.007	0.162	0.162	568.299	0.061	Skid Steer Loaders_2030_2				
Skid Steer Loaders	2030	26	50	3 26_50	1.694	0.411	4.386	3.128	0.007	0.018	0.018	568.299	0.037	Skid Steer Loaders_2030_3				
Skid Steer Loaders	2030	51	120	4 51_120	1.478	0.214	3.538	1.477	0.006	0.017	0.017	568.299	0.019	Skid Steer Loaders_2030_4				
Skid Steer Loaders	2035	16	25	2 16_25	1.526	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Skid Steer Loaders_2035_2				
Skid Steer Loaders	2035	26	50	3 26_50	1.694	0.411	4.39	3.097	0.007	0.015	0.015	568.299	0.037	Skid Steer Loaders_2035_3				
Skid Steer Loaders	2035	51	120	4 51_120	1.459	0.211	3.54	1.442	0.006	0.014	0.014	568.299	0.019	Skid Steer Loaders_2035_4				
Skid Steer Loaders	2040	16	25	2 16_25	1.526	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Skid Steer Loaders_2040_2				
Skid Steer Loaders	2040	26	50	3 26_50	1.696	0.411	4.392	3.093	0.007	0.014	0.014	568.299	0.037	Skid Steer Loaders_2040_3				
Skid Steer Loaders	2040	51	120	4 51_120	1.456	0.211	3.54	1.435	0.006	0.013	0.013	568.3	0.019	Skid Steer Loaders_2040_4				
Surfacing Equipment	1990	26	50	3 26_50	8.011	4.203	8.629	7.726	0.871	1.147	1.147	568.299	0.379	Surfacing Equipment_1990_3				
Surfacing Equipment	1990	51	120	4 51_120	18.985	2.203	5.473	14.403	0.791	1.214	1.214	568.299	0.198	Surfacing Equipment_1990_4				
Surfacing Equipment	1990	121	175	5 121_175	19.781	1.707	4.883	13.91	0.758	0.927	0.927	568.3	0.154	Surfacing Equipment_1990_5				
Surfacing Equipment	1990	176	250	6 176_250	31.103	1.707	4.883	13.91	0.758	0.927	0.927	568.299	0.154	Surfacing Equipment_1990_6				
Surfacing Equipment	1990	251	500	7 251_500	45.625	1.526	9.66	13.316	0.662	0.805	0.805	568.299	0.137	Surfacing Equipment_1990_7				
Surfacing Equipment	1990	501	750	8 501_750	71.58	1.526	9.66	13.316	1.018	0.82	0.82	568.299	0.137	Surfacing Equipment_1990_8				
Surfacing Equipment	2000	26	50	3 26_50	6.689	3.509	7.426	6.755	0.066	0.779	0.779	568.299	0.316	Surfacing Equipment_2000_3				
Surfacing Equipment	2000	51	120	4 51_120	14.399	1.671	4.385	9.991	0.06	0.768	0.768	568.299	0.15	Surfacing Equipment_2000_4				
Surfacing Equipment	2000	121	175	5 121_175	13.132	1.133	3.583	9.132	0.057	0.458	0.458	568.299	0.102	Surfacing Equipment_2000_5				
Surfacing Equipment	2000	176	250	6 176_250	17.689	0.97	2.937	8.84	0.057	0.385	0.385	568.299	0.087	Surfacing Equipment_2000_6				
Surfacing Equipment	2000	251	500	7 251_500	26.875	0.899	4.584	8.551	0.05	0.347	0.347	568.299	0.081	Surfacing Equipment_2000_7				
Surfacing Equipment	2000	501	750	8 501_750	42.164	0.899	4.584	8.551	0.052	0.347	0.347	568.299	0.081	Surfacing Equipment_2000_8				
Surfacing Equipment	2005	26	50	3 26_50	6.001	3.148	6.936	6.318	0.066	0.727	0.727	568.3	0.284	Surfacing Equipment_2005_3				
Surfacing Equipment	2005	51	120	4 51_120	12.568	1.458	4.122	8.636	0.06	0.718	0.718	568.299	0.131	Surfacing Equipment_2005_4				
Surfacing Equipment	2005	121	175	5 121_175	11.032	0.952	3.316	7.874	0.057	0.402	0.402	568.3	0.085	Surfacing Equipment_2005_5				
Surfacing Equipment	2005	176	250	6 176_250	13.31	0.73	2.16	7.529	0.057	0.29	0.29	568.299	0.065	Surfacing Equipment_2005_6				
Surfacing Equipment	2005	251	500	7 251_500	19.448	0.65	3.023	6.988	0.05	0.26	0.26	568.299	0.058	Surfacing Equipment_2005_7				
Surfacing Equipment	2005	501	750	8 501_750	31.164	0.664	3.019	7.132	0.052	0.262	0.262	568.299	0.059	Surfacing Equipment_2005_8				
Surfacing Equipment	2010	26	50	3 26_50	1.528976	1.285	4.99949	5.66618	0.005	0.479	0.44	593.0498	0.173	Surfacing Equipment_2010_3				
Surfacing Equipment	2010	51	120	4 51_120	0.730908	0.614	3.59404	6.16537	0.005	0.437	0.402	524.0289	0.153	Surfacing Equipment_2010_4				
Surfacing Equipment	2010	121	175	5 121_175	0.662829	0.557	3.09066	6.60554	0.005	0.318	0.292	522.4909	0.152	Surfacing Equipment_2010_5				
Surfacing Equipment	2010	176	250	6 176_250	0.488779	0.411	1.7501	6.37687	0.005	0.212	0.195	530.3611	0.154	Surfacing Equipment_2010_6				
Surfacing Equipment	2010	251	500	7 251_500	0.29849	0.251	1.5491	4.43284	0.005	0.144	0.133	522.9659	0.152	Surfacing Equipment_2010_7				
Surfacing Equipment	2010	501	750	8 501_750	0.208991	0.176	1.09654	3.5514	0.005	0.112	0.103	524.8847	0.153	Surfacing Equipment_2010_8				
Surfacing Equipment	2011	26	50	3 26_50	1.476255	1.24	4.95391	5.62022	0.005	0.467	0.43	590.2612	0.172	Surfacing Equipment_2011_3				
Surfacing Equipment	2011	51	120	4 51_120	0.710662	0.597	3.58797	5.98734	0.005	0.427	0.393	522.8446	0.153	Surfacing Equipment_2011_4				
Surfacing Equipment	2011	121	175	5 121_175	0.6472	0.544	3.07389	6.46356	0.005	0.312	0.287	521.1883	0.152	Surfacing Equipment_2011_5				
Surfacing Equipment	2011	176	250	6 176_250	0.481299	0.404	1.72048	6.2863	0.005	0.207	0.191	529.0217	0.154	Surfacing Equipment_2011_6				
Surfacing Equipment	2011	251	500	7 251_500	0.289572	0.243	1.48634	4.26701	0.005	0.136	0.125	520.4212	0.152	Surfacing Equipment_2011_7				
Surfacing Equipment	2011	501	750	8 501_750	0.214952	0.181	1.10325	3.56055	0.005	0.113	0.104	523.5482	0.153	Surfacing Equipment_2011_8				
Surfacing Equipment	2012	26	50	3 26_50	1.500607	1.261	5.03037	5.63914	0.005	0.473	0.435	588.7118	0.172	Surfacing Equipment_2012_3				
Surfacing Equipment	2012	51	120	4 51_120	0.709653	0.596	3.59999	5.94999	0.005	0.426	0.392	521.4233	0.153	Surfacing Equipment_2012_4				
Surfacing Equipment	2012	121	175	5 121_175	0.653605	0.549	3.0893	6.48747	0.005	0.315	0.29	519.886	0.152	Surfacing Equipment_2012_5				
Surfacing Equipment	2012	176	250	6 176_250	0.481696	0.405	1.72816	6.22653	0.005	0.207	0.191	527.6815	0.154	Surfacing Equipment_2012_6				
Surfacing Equipment	2012	251	500	7 251_500	0.290035	0.244	1.49574	4.20283	0.005	0.134	0.124	519.0487	0.152	Surfacing Equipment_2012_7				
Surfacing Equipment	2012	501	750	8 501_750	0.210249	0.177	1.04051	3.45723	0.005	0.109	0.1	521.0672	0.152	Surfacing Equipment_2012_8				
Surfacing Equipment	2013	26	50	3 26_50	1.455428	1.223	4.99596	5.53803	0.005	0.457	0.421	585.7193	0.172	Surfacing Equipment_2013_3				
Surfacing Equipment	2013	51	120	4 51_120	0.69949	0.588	3.60266	5.8163	0.005	0.415	0.382	518.7481	0.153	Surfacing Equipment_2013_4				
Surfacing Equipment	2013	121	175	5 121_175	0.588968	0.495	3.00889	5.94134	0.005	0.286	0.263	518.4738	0.152	Surfacing Equipment_2013_5				
Surfacing Equipment	2013	176	250	6 176_250	0.441295	0.371	1.62196	5.8812	0.005	0.187	0.172	524.5301	0.154	Surfacing Equipment_2013_6				
Surfacing Equipment	2013	251	500	7 251_500	0.288988	0.243	1.50462	4.09243	0.005	0.131	0.121	516.1488	0.152	Surfacing Equipment_2013_7				
Surfacing Equipment	2013	501	750	8 501_750	0.215353	0.181	1.04387	3.46124	0.005	0.11	0.101	518.3853	0.152	Surfacing Equipment_2013_8				
Surfacing Equipment	2014	26	50	3 26_50	1.358041	1.141	4.87668	5.42525	0.005	0.434	0.399	582.7249	0.172	Surfacing Equipment_2014_3				
Surfacing Equipment	2014	51	120	4 51_120	0.665267	0.559	3.58043	5.52029	0.005	0.391	0.36	516.3377	0.153	Surfacing Equipment_2014_4				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Surfacing Equipment	2014	121	175	5 121_175	0.561853	0.472	3.01212	5.71146	0.005	0.273	0.251	515.8203	0.152	Surfacing Equipment_2014_5				
Surfacing Equipment	2014	176	250	6 176_250	0.364211	0.306	1.43363	5.10182	0.005	0.149	0.137	521.4518	0.154	Surfacing Equipment_2014_6				
Surfacing Equipment	2014	251	500	7 251_500	0.2821	0.237	1.50147	3.8952	0.005	0.125	0.115	513.6157	0.152	Surfacing Equipment_2014_7				
Surfacing Equipment	2014	501	750	8 501_750	0.206755	0.174	1.02007	3.28435	0.005	0.103	0.095	516.3212	0.153	Surfacing Equipment_2014_8				
Surfacing Equipment	2015	26	50	3 26_50	1.223408	1.028	4.69178	5.25471	0.005	0.402	0.37	576.7706	0.172	Surfacing Equipment_2015_3				
Surfacing Equipment	2015	51	120	4 51_120	0.651534	0.547	3.57496	5.37414	0.005	0.378	0.348	510.1417	0.152	Surfacing Equipment_2015_4				
Surfacing Equipment	2015	121	175	5 121_175	0.568	0.477	3.02727	5.73307	0.005	0.276	0.254	510.5481	0.152	Surfacing Equipment_2015_5				
Surfacing Equipment	2015	176	250	6 176_250	0.36864	0.31	1.44156	5.11205	0.005	0.151	0.139	516.058	0.154	Surfacing Equipment_2015_6				
Surfacing Equipment	2015	251	500	7 251_500	0.286581	0.241	1.51303	3.90037	0.005	0.126	0.116	508.3985	0.152	Surfacing Equipment_2015_7				
Surfacing Equipment	2015	501	750	8 501_750	0.211433	0.178	1.02353	3.28678	0.005	0.104	0.096	511.1157	0.153	Surfacing Equipment_2015_8				
Surfacing Equipment	2016	26	50	3 26_50	1.243319	1.045	4.7626	5.27275	0.005	0.406	0.374	570.8145	0.172	Surfacing Equipment_2016_3				
Surfacing Equipment	2016	51	120	4 51_120	0.621267	0.522	3.54977	5.05142	0.005	0.349	0.321	505.0873	0.152	Surfacing Equipment_2016_4				
Surfacing Equipment	2016	121	175	5 121_175	0.544572	0.458	3.00649	5.45794	0.005	0.265	0.244	504.5576	0.152	Surfacing Equipment_2016_5				
Surfacing Equipment	2016	176	250	6 176_250	0.365495	0.307	1.42946	5.04791	0.005	0.148	0.136	510.7058	0.154	Surfacing Equipment_2016_6				
Surfacing Equipment	2016	251	500	7 251_500	0.258417	0.217	1.42484	3.46816	0.005	0.111	0.102	502.4709	0.152	Surfacing Equipment_2016_7				
Surfacing Equipment	2016	501	750	8 501_750	0.192579	0.162	0.99966	2.87955	0.005	0.093	0.085	506.967	0.153	Surfacing Equipment_2016_8				
Surfacing Equipment	2017	26	50	3 26_50	1.10469	0.928	4.60324	5.0643	0.006	0.365	0.336	564.4772	0.173	Surfacing Equipment_2017_3				
Surfacing Equipment	2017	51	120	4 51_120	0.604716	0.508	3.55587	4.94212	0.005	0.337	0.31	498.36	0.153	Surfacing Equipment_2017_4				
Surfacing Equipment	2017	121	175	5 121_175	0.541755	0.455	3.00273	5.39296	0.005	0.264	0.243	496.2741	0.152	Surfacing Equipment_2017_5				
Surfacing Equipment	2017	176	250	6 176_250	0.325463	0.273	1.3431	4.46793	0.005	0.129	0.119	501.8465	0.154	Surfacing Equipment_2017_6				
Surfacing Equipment	2017	251	500	7 251_500	0.242435	0.204	1.3962	3.10636	0.005	0.103	0.094	496.885	0.152	Surfacing Equipment_2017_7				
Surfacing Equipment	2017	501	750	8 501_750	0.190932	0.16	1.00272	2.76955	0.005	0.09	0.083	499.7117	0.153	Surfacing Equipment_2017_8				
Surfacing Equipment	2018	26	50	3 26_50	0.927049	0.779	4.35302	4.81982	0.006	0.32	0.294	555.7363	0.173	Surfacing Equipment_2018_3				
Surfacing Equipment	2018	51	120	4 51_120	0.49279	0.414	3.48871	4.28388	0.005	0.268	0.247	491.3172	0.153	Surfacing Equipment_2018_4				
Surfacing Equipment	2018	121	175	5 121_175	0.44632	0.375	2.97609	4.47527	0.005	0.215	0.198	488.4406	0.152	Surfacing Equipment_2018_5				
Surfacing Equipment	2018	176	250	6 176_250	0.286758	0.241	1.234	3.98866	0.005	0.113	0.104	494.1388	0.154	Surfacing Equipment_2018_6				
Surfacing Equipment	2018	251	500	7 251_500	0.187325	0.157	1.22557	2.20389	0.005	0.076	0.07	487.8722	0.152	Surfacing Equipment_2018_7				
Surfacing Equipment	2018	501	750	8 501_750	0.169556	0.142	0.99347	2.26863	0.005	0.078	0.072	488.86	0.152	Surfacing Equipment_2018_8				
Surfacing Equipment	2019	26	50	3 26_50	0.765383	0.643	4.0998	4.41999	0.006	0.25	0.23	547.0462	0.173	Surfacing Equipment_2019_3				
Surfacing Equipment	2019	51	120	4 51_120	0.42278	0.355	3.44856	3.82306	0.005	0.226	0.208	484.0757	0.153	Surfacing Equipment_2019_4				
Surfacing Equipment	2019	121	175	5 121_175	0.425034	0.357	2.97177	4.23866	0.005	0.204	0.187	479.6717	0.152	Surfacing Equipment_2019_5				
Surfacing Equipment	2019	176	250	6 176_250	0.257694	0.217	1.21576	3.39993	0.005	0.101	0.093	486.8417	0.154	Surfacing Equipment_2019_6				
Surfacing Equipment	2019	251	500	7 251_500	0.173135	0.145	1.2143	1.89944	0.005	0.068	0.063	481.8965	0.152	Surfacing Equipment_2019_7				
Surfacing Equipment	2019	501	750	8 501_750	0.168821	0.142	0.99372	2.17879	0.005	0.076	0.07	480.166	0.152	Surfacing Equipment_2019_8				
Surfacing Equipment	2020	26	50	3 26_50	0.637406	0.536	3.93357	4.23906	0.006	0.216	0.199	535.5275	0.173	Surfacing Equipment_2020_3				
Surfacing Equipment	2020	51	120	4 51_120	0.392345	0.33	3.43932	3.61216	0.005	0.206	0.19	473.8188	0.153	Surfacing Equipment_2020_4				
Surfacing Equipment	2020	121	175	5 121_175	0.365927	0.307	2.93068	3.67232	0.005	0.175	0.161	469.2079	0.152	Surfacing Equipment_2020_5				
Surfacing Equipment	2020	176	250	6 176_250	0.252128	0.212	1.21774	3.22243	0.005	0.097	0.089	476.4261	0.154	Surfacing Equipment_2020_6				
Surfacing Equipment	2020	251	500	7 251_500	0.173203	0.146	1.21902	1.83755	0.005	0.067	0.062	471.6331	0.153	Surfacing Equipment_2020_7				
Surfacing Equipment	2020	501	750	8 501_750	0.168871	0.142	0.99569	2.09374	0.005	0.074	0.068	469.6252	0.152	Surfacing Equipment_2020_8				
Surfacing Equipment	2021	26	50	3 26_50	0.60314	0.507	3.93231	4.18875	0.006	0.204	0.188	535.784	0.173	Surfacing Equipment_2021_3				
Surfacing Equipment	2021	51	120	4 51_120	0.370907	0.312	3.43619	3.46112	0.005	0.191	0.175	474.0906	0.153	Surfacing Equipment_2021_4				
Surfacing Equipment	2021	121	175	5 121_175	0.307112	0.258	2.91895	3.09858	0.005	0.145	0.134	469.1687	0.152	Surfacing Equipment_2021_5				
Surfacing Equipment	2021	176	250	6 176_250	0.245986	0.207	1.21854	2.99364	0.005	0.092	0.085	476.8023	0.154	Surfacing Equipment_2021_6				
Surfacing Equipment	2021	251	500	7 251_500	0.167588	0.141	1.20226	1.75282	0.005	0.064	0.058	471.7484	0.153	Surfacing Equipment_2021_7				
Surfacing Equipment	2021	501	750	8 501_750	0.148862	0.125	0.99181	1.59712	0.005	0.062	0.057	470.4087	0.152	Surfacing Equipment_2021_8				
Surfacing Equipment	2022	26	50	3 26_50	0.509163	0.428	3.77243	3.9114	0.006	0.154	0.142	535.8364	0.173	Surfacing Equipment_2022_3				
Surfacing Equipment	2022	51	120	4 51_120	0.34882	0.293	3.40936	3.24974	0.005	0.175	0.161	473.6362	0.153	Surfacing Equipment_2022_4				
Surfacing Equipment	2022	121	175	5 121_175	0.283918	0.239	2.90957	2.70137	0.005	0.13	0.12	469.1259	0.152	Surfacing Equipment_2022_5				
Surfacing Equipment	2022	176	250	6 176_250	0.233135	0.196	1.21737	2.66709	0.005	0.085	0.078	476.9511	0.154	Surfacing Equipment_2022_6				
Surfacing Equipment	2022	251	500	7 251_500	0.157417	0.132	1.16047	1.5573	0.005	0.057	0.053	470.5248	0.152	Surfacing Equipment_2022_7				
Surfacing Equipment	2022	501	750	8 501_750	0.136805	0.115	0.98819	1.35503	0.005	0.052	0.048	470.4004	0.152	Surfacing Equipment_2022_8				
Surfacing Equipment	2023	26	50	3 26_50	0.51987	0.437	3.83184	3.92432	0.006	0.155	0.143	535.9295	0.173	Surfacing Equipment_2023_3				
Surfacing Equipment	2023	51	120	4 51_120	0.321277	0.27	3.39556	3.05811	0.005	0.157	0.144	474.4698	0.153	Surfacing Equipment_2023_4				
Surfacing Equipment	2023	121	175	5 121_175	0.267066	0.224	2.91383	2.45516	0.005	0.119	0.11	470.0141	0.152	Surfacing Equipment_2023_5				
Surfacing Equipment	2023	176	250	6 176_250	0.22795	0.192	1.21946	2.50162	0.005	0.082	0.075	476.9606	0.154	Surfacing Equipment_2023_6				
Surfacing Equipment	2023	251	500	7 251_500	0.156473	0.131	1.16329	1.47556	0.005	0.056	0.051	470.3746	0.152	Surfacing Equipment_2023_7				
Surfacing Equipment	2023	501	750	8 501_750	0.119512	0.1	0.98543	1.08063	0.005	0.04	0.037	472.4466	0.153	Surfacing Equipment_2023_8				
Surfacing Equipment	2024	26	50	3 26_50	0.396453	0.333	3.66193	3.72069	0.006	0.116	0.107	536.0304	0.173	Surfacing Equipment_2024_3				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Surfacing Equipment	2024	51	120	4 51_120	0.29879	0.251	3.3893	2.8828	0.005	0.142	0.131	475.3806	0.154	Surfacing Equipment_2024_4				
Surfacing Equipment	2024	121	175	5 121_175	0.271298	0.228	2.92962	2.46372	0.005	0.12	0.111	470.0767	0.152	Surfacing Equipment_2024_5				
Surfacing Equipment	2024	176	250	6 176_250	0.209166	0.176	1.18272	2.23638	0.005	0.071	0.065	477.096	0.154	Surfacing Equipment_2024_6				
Surfacing Equipment	2024	251	500	7 251_500	0.159183	0.134	1.16767	1.47769	0.005	0.056	0.051	470.2521	0.152	Surfacing Equipment_2024_7				
Surfacing Equipment	2024	501	750	8 501_750	0.112194	0.094	0.98493	0.94669	0.005	0.034	0.032	472.9833	0.153	Surfacing Equipment_2024_8				
Surfacing Equipment	2025	26	50	3 26_50	0.279239	0.235	3.53733	3.57642	0.006	0.082	0.075	536.14	0.173	Surfacing Equipment_2025_3				
Surfacing Equipment	2025	51	120	4 51_120	0.276433	0.232	3.38535	2.6591	0.005	0.124	0.114	476.7656	0.154	Surfacing Equipment_2025_4				
Surfacing Equipment	2025	121	175	5 121_175	0.222452	0.187	2.92602	1.9987	0.005	0.094	0.087	471.0403	0.152	Surfacing Equipment_2025_5				
Surfacing Equipment	2025	176	250	6 176_250	0.176026	0.148	1.14337	1.74736	0.005	0.055	0.051	477.11	0.154	Surfacing Equipment_2025_6				
Surfacing Equipment	2025	251	500	7 251_500	0.152175	0.128	1.16861	1.3268	0.005	0.051	0.047	470.2827	0.152	Surfacing Equipment_2025_7				
Surfacing Equipment	2025	501	750	8 501_750	0.101486	0.085	0.9776	0.76806	0.005	0.027	0.025	470.5508	0.152	Surfacing Equipment_2025_8				
Surfacing Equipment	2030	26	50	3 26_50	0.988	0.518	4.295	3.4	0.007	0.075	0.075	568.299	0.046	Surfacing Equipment_2030_3				
Surfacing Equipment	2030	51	120	4 51_120	2.281	0.264	3.492	1.959	0.006	0.068	0.068	568.299	0.023	Surfacing Equipment_2030_4				
Surfacing Equipment	2030	121	175	5 121_175	2.286	0.197	3.071	0.939	0.006	0.043	0.043	568.299	0.017	Surfacing Equipment_2030_5				
Surfacing Equipment	2030	176	250	6 176_250	3.134	0.172	1.064	0.789	0.006	0.026	0.026	568.299	0.015	Surfacing Equipment_2030_6				
Surfacing Equipment	2030	251	500	7 251_500	5.062	0.169	1.032	0.738	0.005	0.025	0.025	568.299	0.015	Surfacing Equipment_2030_7				
Surfacing Equipment	2030	501	750	8 501_750	7.953	0.169	1.032	0.749	0.005	0.025	0.025	568.299	0.015	Surfacing Equipment_2030_8				
Surfacing Equipment	2035	26	50	3 26_50	0.836	0.439	4.221	3.193	0.007	0.041	0.041	568.299	0.039	Surfacing Equipment_2035_3				
Surfacing Equipment	2035	51	120	4 51_120	1.954	0.226	3.482	1.659	0.006	0.038	0.038	568.299	0.02	Surfacing Equipment_2035_4				
Surfacing Equipment	2035	121	175	5 121_175	1.887	0.162	3.072	0.567	0.006	0.025	0.025	568.299	0.014	Surfacing Equipment_2035_5				
Surfacing Equipment	2035	176	250	6 176_250	2.725	0.149	1.05	0.497	0.006	0.016	0.016	568.299	0.013	Surfacing Equipment_2035_6				
Surfacing Equipment	2035	251	500	7 251_500	4.436	0.148	1.018	0.471	0.005	0.016	0.016	568.299	0.013	Surfacing Equipment_2035_7				
Surfacing Equipment	2035	501	750	8 501_750	6.967	0.148	1.018	0.477	0.005	0.016	0.016	568.3	0.013	Surfacing Equipment_2035_8				
Surfacing Equipment	2040	26	50	3 26_50	0.753	0.395	4.183	3.114	0.007	0.025	0.025	568.299	0.035	Surfacing Equipment_2040_3				
Surfacing Equipment	2040	51	120	4 51_120	1.782	0.206	3.477	1.521	0.006	0.024	0.024	568.299	0.018	Surfacing Equipment_2040_4				
Surfacing Equipment	2040	121	175	5 121_175	1.691	0.146	3.073	0.397	0.006	0.017	0.017	568.299	0.013	Surfacing Equipment_2040_5				
Surfacing Equipment	2040	176	250	6 176_250	2.566	0.14	1.047	0.37	0.006	0.013	0.013	568.299	0.012	Surfacing Equipment_2040_6				
Surfacing Equipment	2040	251	500	7 251_500	4.197	0.14	1.015	0.358	0.005	0.012	0.012	568.299	0.012	Surfacing Equipment_2040_7				
Surfacing Equipment	2040	501	750	8 501_750	6.59	0.14	1.015	0.361	0.005	0.013	0.013	568.299	0.012	Surfacing Equipment_2040_8				
Sweepers/Scrubbers	1990	6	15	1 6_15	4.971	1.804	5	9.999	0.833	0.968	0.968	568.299	0.162	Sweepers/Scrubbers_1990_1				
Sweepers/Scrubbers	1990	16	25	2 16_25	10.019	2.213	5	6.92	0.679	0.735	0.735	568.299	0.199	Sweepers/Scrubbers_1990_2				
Sweepers/Scrubbers	1990	26	50	3 26_50	32.867	4.512	9.199	7.836	0.692	1.202	1.202	568.299	0.407	Sweepers/Scrubbers_1990_3				
Sweepers/Scrubbers	1990	51	120	4 51_120	39.044	2.254	5.53	14.467	0.628	1.259	1.259	568.299	0.203	Sweepers/Scrubbers_1990_4				
Sweepers/Scrubbers	1990	121	175	5 121_175	48.318	1.505	4.861	12.813	0.602	0.818	0.818	568.299	0.135	Sweepers/Scrubbers_1990_5				
Sweepers/Scrubbers	1990	176	250	6 176_250	56.322	1.505	4.861	12.813	0.602	0.818	0.818	568.299	0.135	Sweepers/Scrubbers_1990_6				
Sweepers/Scrubbers	2000	6	15	1 6_15	2.886	1.047	4.258	7.362	0.079	0.428	0.428	568.299	0.094	Sweepers/Scrubbers_2000_1				
Sweepers/Scrubbers	2000	16	25	2 16_25	4.933	1.089	4.438	6.325	0.064	0.442	0.442	568.299	0.098	Sweepers/Scrubbers_2000_2				
Sweepers/Scrubbers	2000	26	50	3 26_50	30.182	4.144	8.622	6.934	0.065	0.882	0.882	568.299	0.373	Sweepers/Scrubbers_2000_3				
Sweepers/Scrubbers	2000	51	120	4 51_120	29.565	1.706	4.394	9.702	0.059	0.84	0.84	568.299	0.154	Sweepers/Scrubbers_2000_4				
Sweepers/Scrubbers	2000	121	175	5 121_175	37.084	1.155	3.49	8.929	0.057	0.481	0.481	568.299	0.104	Sweepers/Scrubbers_2000_5				
Sweepers/Scrubbers	2000	176	250	6 176_250	34.578	0.924	2.598	8.516	0.057	0.371	0.371	568.3	0.083	Sweepers/Scrubbers_2000_6				
Sweepers/Scrubbers	2005	6	15	1 6_15	1.951	0.708	3.469	4.985	0.079	0.35	0.35	568.299	0.063	Sweepers/Scrubbers_2005_1				
Sweepers/Scrubbers	2005	16	25	2 16_25	3.505	0.774	2.526	5.326	0.064	0.323	0.323	568.299	0.069	Sweepers/Scrubbers_2005_2				
Sweepers/Scrubbers	2005	26	50	3 26_50	28.008	3.845	8.25	6.52	0.065	0.844	0.844	568.299	0.346	Sweepers/Scrubbers_2005_3				
Sweepers/Scrubbers	2005	51	120	4 51_120	27.009	1.559	4.253	8.538	0.059	0.826	0.826	568.299	0.14	Sweepers/Scrubbers_2005_4				
Sweepers/Scrubbers	2005	121	175	5 121_175	32.779	1.021	3.349	7.851	0.057	0.45	0.45	568.3	0.092	Sweepers/Scrubbers_2005_5				
Sweepers/Scrubbers	2005	176	250	6 176_250	25.002	0.668	1.76	7.318	0.057	0.258	0.258	568.299	0.06	Sweepers/Scrubbers_2005_6				
Sweepers/Scrubbers	2010	6	15	1 6_15	2.154395	1.81	6.34286	5.8263	0.005	0.615	0.566	583.6982	0.17	Sweepers/Scrubbers_2010_1				
Sweepers/Scrubbers	2010	16	25	2 16_25	2.154395	1.81	6.34286	5.8263	0.005	0.615	0.566	583.6982	0.17	Sweepers/Scrubbers_2010_2				
Sweepers/Scrubbers	2010	26	50	3 26_50	2.154395	1.81	6.34286	5.8263	0.005	0.615	0.566	583.6982	0.17	Sweepers/Scrubbers_2010_3				
Sweepers/Scrubbers	2010	51	120	4 51_120	1.093749	0.919	4.10149	7.68967	0.005	0.657	0.604	526.7953	0.153	Sweepers/Scrubbers_2010_4				
Sweepers/Scrubbers	2010	121	175	5 121_175	1.189152	0.999	4.21032	10.3895	0.005	0.578	0.532	525.6912	0.153	Sweepers/Scrubbers_2010_5				
Sweepers/Scrubbers	2010	176	250	6 176_250	0.69332	0.583	2.35018	7.47446	0.005	0.319	0.294	522.3625	0.152	Sweepers/Scrubbers_2010_6				
Sweepers/Scrubbers	2011	6	15	1 6_15	2.104606	1.768	6.34227	5.80317	0.005	0.606	0.557	582.239	0.17	Sweepers/Scrubbers_2011_1				
Sweepers/Scrubbers	2011	16	25	2 16_25	2.104606	1.768	6.34227	5.80317	0.005	0.606	0.557	582.239	0.17	Sweepers/Scrubbers_2011_2				
Sweepers/Scrubbers	2011	26	50	3 26_50	2.104606	1.768	6.34227	5.80317	0.005	0.606	0.557	582.239	0.17	Sweepers/Scrubbers_2011_3				
Sweepers/Scrubbers	2011	51	120	4 51_120	1.070043	0.899	4.08877	7.49949	0.005	0.651	0.599	525.4783	0.153	Sweepers/Scrubbers_2011_4				
Sweepers/Scrubbers	2011	121	175	5 121_175	1.134336	0.953	4.14616	9.92737	0.005	0.554	0.509	524.377	0.153	Sweepers/Scrubbers_2011_5				
Sweepers/Scrubbers	2011	176	250	6 176_250	0.623199	0.524	2.16425	7.01091	0.005	0.284	0.261	521.0566	0.152	Sweepers/Scrubbers_2011_6				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Sweepers/Scrubbers	2012	6	15	1 6_15	2.177617	1.83	6.54958	5.85015	0.005	0.621	0.571	580.7797	0.17	Sweepers/Scrubbers_2012_1				
Sweepers/Scrubbers	2012	16	25	2 16_25	2.177617	1.83	6.54958	5.85015	0.005	0.621	0.571	580.7797	0.17	Sweepers/Scrubbers_2012_2				
Sweepers/Scrubbers	2012	26	50	3 26_50	2.177617	1.83	6.54958	5.85015	0.005	0.621	0.571	580.7797	0.17	Sweepers/Scrubbers_2012_3				
Sweepers/Scrubbers	2012	51	120	4 51_120	1.078889	0.907	4.12474	7.50259	0.005	0.659	0.606	524.1613	0.153	Sweepers/Scrubbers_2012_4				
Sweepers/Scrubbers	2012	121	175	5 121_175	1.141423	0.959	4.16243	9.95689	0.005	0.558	0.513	523.0627	0.153	Sweepers/Scrubbers_2012_5				
Sweepers/Scrubbers	2012	176	250	6 176_250	0.63315	0.532	2.17716	7.05573	0.005	0.286	0.264	519.7507	0.152	Sweepers/Scrubbers_2012_6				
Sweepers/Scrubbers	2013	6	15	1 6_15	2.124198	1.785	6.54294	5.78778	0.005	0.608	0.559	577.8612	0.17	Sweepers/Scrubbers_2013_1				
Sweepers/Scrubbers	2013	16	25	2 16_25	2.124198	1.785	6.54294	5.78778	0.005	0.608	0.559	577.8612	0.17	Sweepers/Scrubbers_2013_2				
Sweepers/Scrubbers	2013	26	50	3 26_50	2.124198	1.785	6.54294	5.78778	0.005	0.608	0.559	577.8612	0.17	Sweepers/Scrubbers_2013_3				
Sweepers/Scrubbers	2013	51	120	4 51_120	1.019559	0.857	4.07918	7.14773	0.005	0.626	0.576	521.5273	0.153	Sweepers/Scrubbers_2013_4				
Sweepers/Scrubbers	2013	121	175	5 121_175	1.122038	0.943	4.12302	9.76352	0.005	0.547	0.503	520.4343	0.153	Sweepers/Scrubbers_2013_5				
Sweepers/Scrubbers	2013	176	250	6 176_250	0.590836	0.496	2.05413	6.66337	0.005	0.263	0.242	517.1389	0.152	Sweepers/Scrubbers_2013_6				
Sweepers/Scrubbers	2014	6	15	1 6_15	2.103399	1.767	6.59249	5.75157	0.005	0.603	0.555	574.9427	0.17	Sweepers/Scrubbers_2014_1				
Sweepers/Scrubbers	2014	16	25	2 16_25	2.103399	1.767	6.59249	5.75157	0.005	0.603	0.555	574.9427	0.17	Sweepers/Scrubbers_2014_2				
Sweepers/Scrubbers	2014	26	50	3 26_50	2.103399	1.767	6.59249	5.75157	0.005	0.603	0.555	574.9427	0.17	Sweepers/Scrubbers_2014_3				
Sweepers/Scrubbers	2014	51	120	4 51_120	0.990916	0.833	4.07085	6.93387	0.005	0.61	0.562	518.8933	0.153	Sweepers/Scrubbers_2014_4				
Sweepers/Scrubbers	2014	121	175	5 121_175	1.041854	0.875	4.04161	9.10792	0.005	0.503	0.463	517.8058	0.153	Sweepers/Scrubbers_2014_5				
Sweepers/Scrubbers	2014	176	250	6 176_250	0.600544	0.505	2.06593	6.70399	0.005	0.265	0.244	514.5271	0.152	Sweepers/Scrubbers_2014_6				
Sweepers/Scrubbers	2015	6	15	1 6_15	2.151059	1.807	6.75408	5.77191	0.005	0.611	0.562	569.1058	0.17	Sweepers/Scrubbers_2015_1				
Sweepers/Scrubbers	2015	16	25	2 16_25	2.151059	1.807	6.75408	5.77191	0.005	0.611	0.562	569.1058	0.17	Sweepers/Scrubbers_2015_2				
Sweepers/Scrubbers	2015	26	50	3 26_50	2.151059	1.807	6.75408	5.77191	0.005	0.611	0.562	569.1058	0.17	Sweepers/Scrubbers_2015_3				
Sweepers/Scrubbers	2015	51	120	4 51_120	0.991855	0.833	4.09682	6.8863	0.005	0.61	0.561	513.6254	0.153	Sweepers/Scrubbers_2015_4				
Sweepers/Scrubbers	2015	121	175	5 121_175	0.998266	0.839	3.98239	8.69682	0.005	0.479	0.441	512.5489	0.153	Sweepers/Scrubbers_2015_5				
Sweepers/Scrubbers	2015	176	250	6 176_250	0.610252	0.513	2.07774	6.7446	0.005	0.268	0.246	509.3035	0.152	Sweepers/Scrubbers_2015_6				
Sweepers/Scrubbers	2016	6	15	1 6_15	2.119969	1.781	6.78514	5.72609	0.005	0.603	0.555	563.2688	0.17	Sweepers/Scrubbers_2016_1				
Sweepers/Scrubbers	2016	16	25	2 16_25	2.119969	1.781	6.78514	5.72609	0.005	0.603	0.555	563.2688	0.17	Sweepers/Scrubbers_2016_2				
Sweepers/Scrubbers	2016	26	50	3 26_50	2.119969	1.781	6.78514	5.72609	0.005	0.603	0.555	563.2688	0.17	Sweepers/Scrubbers_2016_3				
Sweepers/Scrubbers	2016	51	120	4 51_120	0.931404	0.783	4.05916	6.45405	0.005	0.571	0.525	508.3574	0.153	Sweepers/Scrubbers_2016_4				
Sweepers/Scrubbers	2016	121	175	5 121_175	0.887319	0.746	3.83865	7.78746	0.005	0.419	0.385	507.292	0.153	Sweepers/Scrubbers_2016_5				
Sweepers/Scrubbers	2016	176	250	6 176_250	0.61965	0.521	2.08905	6.78244	0.005	0.27	0.248	504.0799	0.152	Sweepers/Scrubbers_2016_6				
Sweepers/Scrubbers	2017	6	15	1 6_15	2.037349	1.712	6.7185	5.62558	0.005	0.582	0.535	554.5133	0.17	Sweepers/Scrubbers_2017_1				
Sweepers/Scrubbers	2017	16	25	2 16_25	2.037349	1.712	6.7185	5.62558	0.005	0.582	0.535	554.5133	0.17	Sweepers/Scrubbers_2017_2				
Sweepers/Scrubbers	2017	26	50	3 26_50	2.037349	1.712	6.7185	5.62558	0.005	0.582	0.535	554.5133	0.17	Sweepers/Scrubbers_2017_3				
Sweepers/Scrubbers	2017	51	120	4 51_120	0.857444	0.72	4.01005	6.0202	0.005	0.52	0.479	500.4555	0.153	Sweepers/Scrubbers_2017_4				
Sweepers/Scrubbers	2017	121	175	5 121_175	0.845582	0.711	3.78429	7.42433	0.005	0.395	0.363	499.4066	0.153	Sweepers/Scrubbers_2017_5				
Sweepers/Scrubbers	2017	176	250	6 176_250	0.610026	0.513	2.08973	6.50894	0.005	0.264	0.243	496.2444	0.152	Sweepers/Scrubbers_2017_6				
Sweepers/Scrubbers	2018	6	15	1 6_15	1.838607	1.545	6.4442	5.39866	0.005	0.531	0.488	545.7578	0.17	Sweepers/Scrubbers_2018_1				
Sweepers/Scrubbers	2018	16	25	2 16_25	1.838607	1.545	6.4442	5.39866	0.005	0.531	0.488	545.7578	0.17	Sweepers/Scrubbers_2018_2				
Sweepers/Scrubbers	2018	26	50	3 26_50	1.838607	1.545	6.4442	5.39866	0.005	0.531	0.488	545.7578	0.17	Sweepers/Scrubbers_2018_3				
Sweepers/Scrubbers	2018	51	120	4 51_120	0.713411	0.599	3.88173	5.13595	0.005	0.428	0.394	492.5536	0.153	Sweepers/Scrubbers_2018_4				
Sweepers/Scrubbers	2018	121	175	5 121_175	0.700892	0.589	3.58832	6.07101	0.005	0.32	0.294	491.5213	0.153	Sweepers/Scrubbers_2018_5				
Sweepers/Scrubbers	2018	176	250	6 176_250	0.415916	0.349	1.60478	4.30158	0.005	0.169	0.156	488.409	0.152	Sweepers/Scrubbers_2018_6				
Sweepers/Scrubbers	2019	6	15	1 6_15	1.703052	1.431	6.26782	5.22487	0.005	0.491	0.452	537.0023	0.17	Sweepers/Scrubbers_2019_1				
Sweepers/Scrubbers	2019	16	25	2 16_25	1.703052	1.431	6.26782	5.22487	0.005	0.491	0.452	537.0023	0.17	Sweepers/Scrubbers_2019_2				
Sweepers/Scrubbers	2019	26	50	3 26_50	1.703052	1.431	6.26782	5.22487	0.005	0.491	0.452	537.0023	0.17	Sweepers/Scrubbers_2019_3				
Sweepers/Scrubbers	2019	51	120	4 51_120	0.654062	0.55	3.84602	4.77259	0.005	0.387	0.356	484.6516	0.153	Sweepers/Scrubbers_2019_4				
Sweepers/Scrubbers	2019	121	175	5 121_175	0.62277	0.523	3.4491	5.30082	0.005	0.277	0.255	483.6359	0.153	Sweepers/Scrubbers_2019_5				
Sweepers/Scrubbers	2019	176	250	6 176_250	0.279258	0.235	1.23013	2.86598	0.005	0.099	0.091	480.5735	0.152	Sweepers/Scrubbers_2019_6				
Sweepers/Scrubbers	2020	6	15	1 6_15	1.599203	1.344	6.1554	5.09515	0.005	0.463	0.426	525.3284	0.17	Sweepers/Scrubbers_2020_1				
Sweepers/Scrubbers	2020	16	25	2 16_25	1.599203	1.344	6.1554	5.09515	0.005	0.463	0.426	525.3284	0.17	Sweepers/Scrubbers_2020_2				
Sweepers/Scrubbers	2020	26	50	3 26_50	1.599203	1.344	6.1554	5.09515	0.005	0.463	0.426	525.3284	0.17	Sweepers/Scrubbers_2020_3				
Sweepers/Scrubbers	2020	51	120	4 51_120	0.618762	0.52	3.82752	4.4821	0.005	0.36	0.331	474.1157	0.153	Sweepers/Scrubbers_2020_4				
Sweepers/Scrubbers	2020	121	175	5 121_175	0.549287	0.462	3.35909	4.60809	0.005	0.237	0.218	473.1221	0.153	Sweepers/Scrubbers_2020_5				
Sweepers/Scrubbers	2020	176	250	6 176_250	0.246498	0.207	1.13655	2.4856	0.005	0.079	0.073	470.1263	0.152	Sweepers/Scrubbers_2020_6				
Sweepers/Scrubbers	2021	6	15	1 6_15	1.450842	1.219	5.89996	4.84946	0.005	0.412	0.379	525.3284	0.17	Sweepers/Scrubbers_2021_1				
Sweepers/Scrubbers	2021	16	25	2 16_25	1.450842	1.219	5.89996	4.84946	0.005	0.412	0.379	525.3284	0.17	Sweepers/Scrubbers_2021_2				
Sweepers/Scrubbers	2021	26	50	3 26_50	1.450842	1.219	5.89996	4.84946	0.005	0.412	0.379	525.3284	0.17	Sweepers/Scrubbers_2021_3				
Sweepers/Scrubbers	2021	51	120	4 51_120	0.523878	0.44	3.75746	3.96194	0.005	0.291	0.268	474.1157	0.153	Sweepers/Scrubbers_2021_4				
Sweepers/Scrubbers	2021	121	175	5 121_175	0.457963	0.385	3.24726	3.70723	0.005	0.187	0.172	473.1221	0.153	Sweepers/Scrubbers_2021_5				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Sweepers/Scrubbers	2021	176	250	6 176_250	0.195441	0.164	1.1084	1.75821	0.005	0.055	0.051	470.1263	0.152	Sweepers/Scrubbers_2021_6				
Sweepers/Scrubbers	2022	6	15	1 6_15	1.199805	1.008	5.45118	4.49049	0.005	0.335	0.308	525.3284	0.17	Sweepers/Scrubbers_2022_1				
Sweepers/Scrubbers	2022	16	25	2 16_25	1.199805	1.008	5.45118	4.49049	0.005	0.335	0.308	525.3284	0.17	Sweepers/Scrubbers_2022_2				
Sweepers/Scrubbers	2022	26	50	3 26_50	1.199805	1.008	5.45118	4.49049	0.005	0.335	0.308	525.3284	0.17	Sweepers/Scrubbers_2022_3				
Sweepers/Scrubbers	2022	51	120	4 51_120	0.443216	0.372	3.69196	3.47218	0.005	0.232	0.214	474.1157	0.153	Sweepers/Scrubbers_2022_4				
Sweepers/Scrubbers	2022	121	175	5 121_175	0.382446	0.321	3.22176	3.00243	0.005	0.145	0.133	473.1221	0.153	Sweepers/Scrubbers_2022_5				
Sweepers/Scrubbers	2022	176	250	6 176_250	0.181362	0.152	1.10147	1.60484	0.005	0.05	0.046	470.1263	0.152	Sweepers/Scrubbers_2022_6				
Sweepers/Scrubbers	2023	6	15	1 6_15	0.903476	0.759	4.97095	4.12735	0.005	0.248	0.229	525.3284	0.17	Sweepers/Scrubbers_2023_1				
Sweepers/Scrubbers	2023	16	25	2 16_25	0.903476	0.759	4.97095	4.12735	0.005	0.248	0.229	525.3284	0.17	Sweepers/Scrubbers_2023_2				
Sweepers/Scrubbers	2023	26	50	3 26_50	0.903476	0.759	4.97095	4.12735	0.005	0.248	0.229	525.3284	0.17	Sweepers/Scrubbers_2023_3				
Sweepers/Scrubbers	2023	51	120	4 51_120	0.417244	0.351	3.69499	3.28536	0.005	0.21	0.193	474.1157	0.153	Sweepers/Scrubbers_2023_4				
Sweepers/Scrubbers	2023	121	175	5 121_175	0.347747	0.292	3.22298	2.60853	0.005	0.126	0.116	473.1221	0.153	Sweepers/Scrubbers_2023_5				
Sweepers/Scrubbers	2023	176	250	6 176_250	0.188622	0.158	1.11413	1.61028	0.005	0.05	0.046	470.1263	0.152	Sweepers/Scrubbers_2023_6				
Sweepers/Scrubbers	2024	6	15	1 6_15	0.887865	0.746	5.00321	4.0788	0.005	0.239	0.219	525.3284	0.17	Sweepers/Scrubbers_2024_1				
Sweepers/Scrubbers	2024	16	25	2 16_25	0.887865	0.746	5.00321	4.0788	0.005	0.239	0.219	525.3284	0.17	Sweepers/Scrubbers_2024_2				
Sweepers/Scrubbers	2024	26	50	3 26_50	0.887865	0.746	5.00321	4.0788	0.005	0.239	0.219	525.3284	0.17	Sweepers/Scrubbers_2024_3				
Sweepers/Scrubbers	2024	51	120	4 51_120	0.395131	0.332	3.69288	3.09846	0.005	0.188	0.173	474.1157	0.153	Sweepers/Scrubbers_2024_4				
Sweepers/Scrubbers	2024	121	175	5 121_175	0.316819	0.266	3.23374	2.2533	0.005	0.107	0.099	473.1221	0.153	Sweepers/Scrubbers_2024_5				
Sweepers/Scrubbers	2024	176	250	6 176_250	0.195631	0.164	1.12729	1.61357	0.005	0.051	0.046	470.1263	0.152	Sweepers/Scrubbers_2024_6				
Sweepers/Scrubbers	2025	6	15	1 6_15	0.740656	0.622	4.76791	3.85568	0.005	0.191	0.176	525.3284	0.17	Sweepers/Scrubbers_2025_1				
Sweepers/Scrubbers	2025	16	25	2 16_25	0.740656	0.622	4.76791	3.85568	0.005	0.191	0.176	525.3284	0.17	Sweepers/Scrubbers_2025_2				
Sweepers/Scrubbers	2025	26	50	3 26_50	0.740656	0.622	4.76791	3.85568	0.005	0.191	0.176	525.3284	0.17	Sweepers/Scrubbers_2025_3				
Sweepers/Scrubbers	2025	51	120	4 51_120	0.360743	0.303	3.66402	2.81733	0.005	0.16	0.147	474.1157	0.153	Sweepers/Scrubbers_2025_4				
Sweepers/Scrubbers	2025	121	175	5 121_175	0.25385	0.213	3.201	1.63811	0.005	0.072	0.066	473.1221	0.153	Sweepers/Scrubbers_2025_5				
Sweepers/Scrubbers	2025	176	250	6 176_250	0.202235	0.17	1.14005	1.61588	0.005	0.051	0.047	470.1263	0.152	Sweepers/Scrubbers_2025_6				
Sweepers/Scrubbers	2030	6	15	1 6_15	1.624	0.589	3.47	4.142	0.008	0.161	0.161	568.299	0.053	Sweepers/Scrubbers_2030_1				
Sweepers/Scrubbers	2030	16	25	2 16_25	3.103	0.685	2.34	4.332	0.007	0.161	0.161	568.299	0.061	Sweepers/Scrubbers_2030_2				
Sweepers/Scrubbers	2030	26	50	3 26_50	3.714	0.509	4.947	3.294	0.007	0.026	0.026	568.299	0.046	Sweepers/Scrubbers_2030_3				
Sweepers/Scrubbers	2030	51	120	4 51_120	4.528	0.261	3.703	1.569	0.006	0.023	0.023	568.299	0.023	Sweepers/Scrubbers_2030_4				
Sweepers/Scrubbers	2030	121	175	5 121_175	6.02	0.187	3.275	0.431	0.006	0.017	0.017	568.299	0.016	Sweepers/Scrubbers_2030_5				
Sweepers/Scrubbers	2030	176	250	6 176_250	6.813	0.182	1.116	0.37	0.006	0.013	0.013	568.299	0.016	Sweepers/Scrubbers_2030_6				
Sweepers/Scrubbers	2035	6	15	1 6_15	1.624	0.589	3.47	4.142	0.008	0.161	0.161	568.299	0.053	Sweepers/Scrubbers_2035_1				
Sweepers/Scrubbers	2035	16	25	2 16_25	3.103	0.685	2.34	4.332	0.007	0.161	0.161	568.3	0.061	Sweepers/Scrubbers_2035_2				
Sweepers/Scrubbers	2035	26	50	3 26_50	3.681	0.505	4.929	3.214	0.007	0.017	0.017	568.299	0.045	Sweepers/Scrubbers_2035_3				
Sweepers/Scrubbers	2035	51	120	4 51_120	4.386	0.253	3.698	1.486	0.006	0.016	0.016	568.299	0.022	Sweepers/Scrubbers_2035_4				
Sweepers/Scrubbers	2035	121	175	5 121_175	5.628	0.175	3.271	0.313	0.006	0.012	0.012	568.299	0.015	Sweepers/Scrubbers_2035_5				
Sweepers/Scrubbers	2035	176	250	6 176_250	6.501	0.173	1.114	0.294	0.006	0.011	0.011	568.299	0.015	Sweepers/Scrubbers_2035_6				
Sweepers/Scrubbers	2040	6	15	1 6_15	1.624	0.589	3.47	4.142	0.008	0.161	0.161	568.3	0.053	Sweepers/Scrubbers_2040_1				
Sweepers/Scrubbers	2040	16	25	2 16_25	3.103	0.685	2.34	4.332	0.007	0.161	0.161	568.299	0.061	Sweepers/Scrubbers_2040_2				
Sweepers/Scrubbers	2040	26	50	3 26_50	3.675	0.504	4.925	3.203	0.007	0.016	0.016	568.3	0.045	Sweepers/Scrubbers_2040_3				
Sweepers/Scrubbers	2040	51	120	4 51_120	4.354	0.251	3.697	1.469	0.006	0.015	0.015	568.299	0.022	Sweepers/Scrubbers_2040_4				
Sweepers/Scrubbers	2040	121	175	5 121_175	5.537	0.172	3.27	0.284	0.006	0.011	0.011	568.299	0.015	Sweepers/Scrubbers_2040_5				
Sweepers/Scrubbers	2040	176	250	6 176_250	6.454	0.172	1.114	0.284	0.006	0.011	0.011	568.299	0.015	Sweepers/Scrubbers_2040_6				
Tractors/Loaders/Backhoes	1990	16	25	2 16_25	5.699	2.213	4.999	6.919	0.855	0.741	0.741	568.299	0.199	Tractors/Loaders/Backhoes_1990_2				
Tractors/Loaders/Backhoes	1990	26	50	3 26_50	23.587	4.787	9.698	7.939	0.871	1.267	1.267	568.299	0.431	Tractors/Loaders/Backhoes_1990_3				
Tractors/Loaders/Backhoes	1990	51	120	4 51_120	19.595	2.333	5.659	14.779	0.791	1.327	1.327	568.299	0.21	Tractors/Loaders/Backhoes_1990_4				
Tractors/Loaders/Backhoes	1990	121	175	5 121_175	28.833	1.751	5.008	14.021	0.758	0.974	0.974	568.299	0.158	Tractors/Loaders/Backhoes_1990_5				
Tractors/Loaders/Backhoes	1990	176	250	6 176_250	48.841	1.751	5.008	14.021	0.758	0.974	0.974	568.299	0.158	Tractors/Loaders/Backhoes_1990_6				
Tractors/Loaders/Backhoes	1990	251	500	7 251_500	86.854	1.551	10.967	13.298	0.758	0.834	0.834	568.3	0.139	Tractors/Loaders/Backhoes_1990_7				
Tractors/Loaders/Backhoes	1990	501	750	8 501_750	130.281	1.551	10.967	13.298	1.139	0.85	0.85	568.299	0.139	Tractors/Loaders/Backhoes_1990_8				
Tractors/Loaders/Backhoes	2000	16	25	2 16_25	5.225	2.029	4.66	6.391	0.065	0.57	0.57	568.299	0.183	Tractors/Loaders/Backhoes_2000_2				
Tractors/Loaders/Backhoes	2000	26	50	3 26_50	21.043	4.271	8.855	6.964	0.066	0.903	0.903	568.299	0.385	Tractors/Loaders/Backhoes_2000_3				
Tractors/Loaders/Backhoes	2000	51	120	4 51_120	14.597	1.738	4.448	9.784	0.06	0.862	0.862	568.299	0.156	Tractors/Loaders/Backhoes_2000_4				
Tractors/Loaders/Backhoes	2000	121	175	5 121_175	19.393	1.178	3.534	9.027	0.057	0.494	0.494	568.299	0.106	Tractors/Loaders/Backhoes_2000_5				
Tractors/Loaders/Backhoes	2000	176	250	6 176_250	26.283	0.942	2.634	8.625	0.057	0.38	0.38	568.299	0.085	Tractors/Loaders/Backhoes_2000_6				
Tractors/Loaders/Backhoes	2000	251	500	7 251_500	48.341	0.863	3.629	8.225	0.057	0.339	0.339	568.299	0.077	Tractors/Loaders/Backhoes_2000_7				
Tractors/Loaders/Backhoes	2000	501	750	8 501_750	72.512	0.863	3.629	8.225	0.059	0.339	0.339	568.299	0.077	Tractors/Loaders/Backhoes_2000_8				
Tractors/Loaders/Backhoes	2005	16	25	2 16_25	3.067	1.191	3.137	5.648	0.065	0.404	0.404	568.299	0.107	Tractors/Loaders/Backhoes_2005_2				
Tractors/Loaders/Backhoes	2005	26	50	3 26_50	18.069	3.667	8.018	6.405	0.066	0.819	0.819	568.299	0.33	Tractors/Loaders/Backhoes_2005_3				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Tractors/Loaders/Backhoes	2005	51	120	4 51_120	12.595	1.499	4.22	8.325	0.06	0.802	0.802	568.299	0.135	Tractors/Loaders/Backhoes_2005_4				
Tractors/Loaders/Backhoes	2005	121	175	5 121_175	16.035	0.974	3.341	7.629	0.057	0.432	0.432	568.3	0.087	Tractors/Loaders/Backhoes_2005_5				
Tractors/Loaders/Backhoes	2005	176	250	6 176_250	18.392	0.659	1.774	7.181	0.057	0.256	0.256	568.3	0.059	Tractors/Loaders/Backhoes_2005_6				
Tractors/Loaders/Backhoes	2005	251	500	7 251_500	32.511	0.58	1.993	6.451	0.057	0.23	0.23	568.299	0.052	Tractors/Loaders/Backhoes_2005_7				
Tractors/Loaders/Backhoes	2005	501	750	8 501_750	49.91	0.594	1.99	6.656	0.059	0.234	0.234	568.299	0.053	Tractors/Loaders/Backhoes_2005_8				
Tractors/Loaders/Backhoes	2010	16	25	2 16_25	1.894649	1.592	5.95576	5.63221	0.005	0.561	0.516	569.9866	0.166	Tractors/Loaders/Backhoes_2010_2				
Tractors/Loaders/Backhoes	2010	26	50	3 26_50	1.894649	1.592	5.95576	5.63221	0.005	0.561	0.516	569.9866	0.166	Tractors/Loaders/Backhoes_2010_3				
Tractors/Loaders/Backhoes	2010	51	120	4 51_120	0.792369	0.666	3.83197	6.31224	0.005	0.504	0.464	533.5879	0.155	Tractors/Loaders/Backhoes_2010_4				
Tractors/Loaders/Backhoes	2010	121	175	5 121_175	0.559066	0.47	3.20391	5.68573	0.005	0.285	0.263	521.9624	0.152	Tractors/Loaders/Backhoes_2010_5				
Tractors/Loaders/Backhoes	2010	176	250	6 176_250	0.408454	0.343	1.44044	5.58586	0.005	0.178	0.163	522.8516	0.152	Tractors/Loaders/Backhoes_2010_6				
Tractors/Loaders/Backhoes	2010	251	500	7 251_500	0.391383	0.329	2.07689	5.18517	0.005	0.172	0.158	526.5923	0.153	Tractors/Loaders/Backhoes_2010_7				
Tractors/Loaders/Backhoes	2010	501	750	8 501_750	0.330642	0.278	1.80487	4.39795	0.005	0.153	0.141	517.4169	0.151	Tractors/Loaders/Backhoes_2010_8				
Tractors/Loaders/Backhoes	2011	16	25	2 16_25	1.788969	1.503	5.86306	5.58613	0.005	0.54	0.497	569.4176	0.166	Tractors/Loaders/Backhoes_2011_2				
Tractors/Loaders/Backhoes	2011	26	50	3 26_50	1.788969	1.503	5.86306	5.58613	0.005	0.54	0.497	569.4176	0.166	Tractors/Loaders/Backhoes_2011_3				
Tractors/Loaders/Backhoes	2011	51	120	4 51_120	0.766159	0.644	3.83083	6.12981	0.005	0.491	0.451	531.2907	0.155	Tractors/Loaders/Backhoes_2011_4				
Tractors/Loaders/Backhoes	2011	121	175	5 121_175	0.544391	0.457	3.21464	5.49667	0.005	0.277	0.255	520.8772	0.152	Tractors/Loaders/Backhoes_2011_5				
Tractors/Loaders/Backhoes	2011	176	250	6 176_250	0.400263	0.336	1.41416	5.38873	0.005	0.172	0.158	521.7143	0.152	Tractors/Loaders/Backhoes_2011_6				
Tractors/Loaders/Backhoes	2011	251	500	7 251_500	0.383321	0.322	2.01155	4.98779	0.005	0.167	0.154	525.0356	0.153	Tractors/Loaders/Backhoes_2011_7				
Tractors/Loaders/Backhoes	2011	501	750	8 501_750	0.337174	0.283	1.80098	4.35896	0.005	0.153	0.14	516.0241	0.151	Tractors/Loaders/Backhoes_2011_8				
Tractors/Loaders/Backhoes	2012	16	25	2 16_25	1.778006	1.494	5.92961	5.57167	0.005	0.537	0.494	568.1171	0.166	Tractors/Loaders/Backhoes_2012_2				
Tractors/Loaders/Backhoes	2012	26	50	3 26_50	1.778006	1.494	5.92961	5.57167	0.005	0.537	0.494	568.1171	0.166	Tractors/Loaders/Backhoes_2012_3				
Tractors/Loaders/Backhoes	2012	51	120	4 51_120	0.765477	0.643	3.85825	6.07938	0.005	0.49	0.45	529.8013	0.155	Tractors/Loaders/Backhoes_2012_4				
Tractors/Loaders/Backhoes	2012	121	175	5 121_175	0.55208	0.464	3.24733	5.48812	0.005	0.279	0.257	519.5807	0.152	Tractors/Loaders/Backhoes_2012_5				
Tractors/Loaders/Backhoes	2012	176	250	6 176_250	0.408595	0.343	1.42415	5.3794	0.005	0.173	0.159	520.5233	0.152	Tractors/Loaders/Backhoes_2012_6				
Tractors/Loaders/Backhoes	2012	251	500	7 251_500	0.391545	0.329	2.03631	4.9585	0.005	0.168	0.154	523.6066	0.153	Tractors/Loaders/Backhoes_2012_7				
Tractors/Loaders/Backhoes	2012	501	750	8 501_750	0.34578	0.291	1.81138	4.30593	0.005	0.153	0.141	514.6158	0.151	Tractors/Loaders/Backhoes_2012_8				
Tractors/Loaders/Backhoes	2013	16	25	2 16_25	1.710175	1.437	5.8983	5.50692	0.005	0.52	0.478	566.4101	0.167	Tractors/Loaders/Backhoes_2013_2				
Tractors/Loaders/Backhoes	2013	26	50	3 26_50	1.710175	1.437	5.8983	5.50692	0.005	0.52	0.478	566.4101	0.167	Tractors/Loaders/Backhoes_2013_3				
Tractors/Loaders/Backhoes	2013	51	120	4 51_120	0.736849	0.619	3.85259	5.88177	0.005	0.468	0.431	526.7149	0.155	Tractors/Loaders/Backhoes_2013_4				
Tractors/Loaders/Backhoes	2013	121	175	5 121_175	0.53894	0.453	3.25593	5.32658	0.005	0.269	0.248	516.748	0.152	Tractors/Loaders/Backhoes_2013_5				
Tractors/Loaders/Backhoes	2013	176	250	6 176_250	0.404183	0.34	1.40715	5.22143	0.005	0.168	0.155	517.9916	0.152	Tractors/Loaders/Backhoes_2013_6				
Tractors/Loaders/Backhoes	2013	251	500	7 251_500	0.386263	0.325	1.98237	4.77348	0.005	0.162	0.149	520.6472	0.153	Tractors/Loaders/Backhoes_2013_7				
Tractors/Loaders/Backhoes	2013	501	750	8 501_750	0.357231	0.3	1.8218	4.31599	0.005	0.155	0.143	511.8955	0.151	Tractors/Loaders/Backhoes_2013_8				
Tractors/Loaders/Backhoes	2014	16	25	2 16_25	1.58953	1.336	5.77182	5.36869	0.005	0.488	0.449	564.0421	0.167	Tractors/Loaders/Backhoes_2014_2				
Tractors/Loaders/Backhoes	2014	26	50	3 26_50	1.58953	1.336	5.77182	5.36869	0.005	0.488	0.449	564.0421	0.167	Tractors/Loaders/Backhoes_2014_3				
Tractors/Loaders/Backhoes	2014	51	120	4 51_120	0.692813	0.582	3.82724	5.58081	0.005	0.438	0.403	523.0168	0.155	Tractors/Loaders/Backhoes_2014_4				
Tractors/Loaders/Backhoes	2014	121	175	5 121_175	0.503298	0.423	3.23863	4.93788	0.005	0.248	0.228	513.8903	0.152	Tractors/Loaders/Backhoes_2014_5				
Tractors/Loaders/Backhoes	2014	176	250	6 176_250	0.389056	0.327	1.37555	4.92175	0.005	0.159	0.146	515.1747	0.152	Tractors/Loaders/Backhoes_2014_6				
Tractors/Loaders/Backhoes	2014	251	500	7 251_500	0.371559	0.312	1.87787	4.48819	0.005	0.152	0.14	517.1237	0.153	Tractors/Loaders/Backhoes_2014_7				
Tractors/Loaders/Backhoes	2014	501	750	8 501_750	0.362599	0.305	1.8331	4.24344	0.005	0.154	0.141	511.3367	0.151	Tractors/Loaders/Backhoes_2014_8				
Tractors/Loaders/Backhoes	2015	16	25	2 16_25	1.555682	1.307	5.79091	5.32019	0.005	0.477	0.439	558.7085	0.167	Tractors/Loaders/Backhoes_2015_2				
Tractors/Loaders/Backhoes	2015	26	50	3 26_50	1.555682	1.307	5.79091	5.32019	0.005	0.477	0.439	558.7085	0.167	Tractors/Loaders/Backhoes_2015_3				
Tractors/Loaders/Backhoes	2015	51	120	4 51_120	0.677539	0.569	3.83198	5.4221	0.005	0.424	0.39	517.3652	0.154	Tractors/Loaders/Backhoes_2015_4				
Tractors/Loaders/Backhoes	2015	121	175	5 121_175	0.501434	0.421	3.2559	4.83599	0.005	0.244	0.225	508.6819	0.152	Tractors/Loaders/Backhoes_2015_5				
Tractors/Loaders/Backhoes	2015	176	250	6 176_250	0.387795	0.326	1.37366	4.7831	0.005	0.155	0.143	509.6269	0.152	Tractors/Loaders/Backhoes_2015_6				
Tractors/Loaders/Backhoes	2015	251	500	7 251_500	0.371246	0.312	1.88403	4.34833	0.005	0.149	0.137	511.8685	0.153	Tractors/Loaders/Backhoes_2015_7				
Tractors/Loaders/Backhoes	2015	501	750	8 501_750	0.36596	0.308	1.823	4.1848	0.005	0.152	0.14	506.1469	0.151	Tractors/Loaders/Backhoes_2015_8				
Tractors/Loaders/Backhoes	2016	16	25	2 16_25	1.488115	1.25	5.74113	5.21373	0.005	0.455	0.418	553.3996	0.167	Tractors/Loaders/Backhoes_2016_2				
Tractors/Loaders/Backhoes	2016	26	50	3 26_50	1.488115	1.25	5.74113	5.21373	0.005	0.455	0.418	553.3996	0.167	Tractors/Loaders/Backhoes_2016_3				
Tractors/Loaders/Backhoes	2016	51	120	4 51_120	0.640315	0.538	3.81146	5.14235	0.005	0.396	0.364	511.3456	0.154	Tractors/Loaders/Backhoes_2016_4				
Tractors/Loaders/Backhoes	2016	121	175	5 121_175	0.46319	0.389	3.23229	4.37945	0.005	0.222	0.204	502.6294	0.152	Tractors/Loaders/Backhoes_2016_5				
Tractors/Loaders/Backhoes	2016	176	250	6 176_250	0.369743	0.311	1.34719	4.42611	0.005	0.145	0.133	504.4014	0.152	Tractors/Loaders/Backhoes_2016_6				
Tractors/Loaders/Backhoes	2016	251	500	7 251_500	0.337794	0.284	1.78642	3.7866	0.005	0.131	0.121	505.2698	0.152	Tractors/Loaders/Backhoes_2016_7				
Tractors/Loaders/Backhoes	2016	501	750	8 501_750	0.357237	0.3	1.67424	4.0216	0.005	0.144	0.133	500.955	0.151	Tractors/Loaders/Backhoes_2016_8				
Tractors/Loaders/Backhoes	2017	16	25	2 16_25	1.421071	1.194	5.68921	5.10958	0.005	0.433	0.398	544.9286	0.167	Tractors/Loaders/Backhoes_2017_2				
Tractors/Loaders/Backhoes	2017	26	50	3 26_50	1.421071	1.194	5.68921	5.10958	0.005	0.433	0.398	544.9286	0.167	Tractors/Loaders/Backhoes_2017_3				
Tractors/Loaders/Backhoes	2017	51	120	4 51_120	0.595595	0.5	3.7818	4.8087	0.005	0.362	0.333	502.7952	0.154	Tractors/Loaders/Backhoes_2017_4				
Tractors/Loaders/Backhoes	2017	121	175	5 121_175	0.420865	0.354	3.19961	3.87876	0.005	0.197	0.181	493.912	0.151	Tractors/Loaders/Backhoes_2017_5				
Tractors/Loaders/Backhoes	2017	176	250	6 176_250	0.346619	0.291	1.30369	4.04062	0.005	0.132	0.121	496.8449	0.152	Tractors/Loaders/Backhoes_2017_6				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Tractors/Loaders/Backhoes	2017	251	500	7 251_500	0.323689	0.272	1.73851	3.48988	0.005	0.122	0.112	497.1129	0.152	Tractors/Loaders/Backhoes_2017_7				
Tractors/Loaders/Backhoes	2017	501	750	8 501_750	0.35268	0.296	1.64567	3.86196	0.005	0.139	0.128	492.9529	0.151	Tractors/Loaders/Backhoes_2017_8				
Tractors/Loaders/Backhoes	2018	16	25	2 16_25	1.180685	0.992	5.31043	4.76441	0.005	0.363	0.334	536.1115	0.167	Tractors/Loaders/Backhoes_2018_2				
Tractors/Loaders/Backhoes	2018	26	50	3 26_50	1.180685	0.992	5.31043	4.76441	0.005	0.363	0.334	536.1115	0.167	Tractors/Loaders/Backhoes_2018_3				
Tractors/Loaders/Backhoes	2018	51	120	4 51_120	0.5003	0.42	3.69155	4.15444	0.005	0.294	0.271	494.1237	0.154	Tractors/Loaders/Backhoes_2018_4				
Tractors/Loaders/Backhoes	2018	121	175	5 121_175	0.353485	0.297	3.13727	3.16806	0.005	0.16	0.147	485.7754	0.151	Tractors/Loaders/Backhoes_2018_5				
Tractors/Loaders/Backhoes	2018	176	250	6 176_250	0.308076	0.259	1.24197	3.45965	0.005	0.112	0.103	489.4562	0.152	Tractors/Loaders/Backhoes_2018_6				
Tractors/Loaders/Backhoes	2018	251	500	7 251_500	0.264454	0.222	1.44545	2.66877	0.005	0.092	0.085	486.2939	0.151	Tractors/Loaders/Backhoes_2018_7				
Tractors/Loaders/Backhoes	2018	501	750	8 501_750	0.322751	0.271	1.60068	3.40235	0.005	0.124	0.114	485.0099	0.151	Tractors/Loaders/Backhoes_2018_8				
Tractors/Loaders/Backhoes	2019	16	25	2 16_25	1.095082	0.92	5.20327	4.60928	0.005	0.33	0.304	527.6843	0.167	Tractors/Loaders/Backhoes_2019_2				
Tractors/Loaders/Backhoes	2019	26	50	3 26_50	1.095082	0.92	5.20327	4.60928	0.005	0.33	0.304	527.6843	0.167	Tractors/Loaders/Backhoes_2019_3				
Tractors/Loaders/Backhoes	2019	51	120	4 51_120	0.437701	0.368	3.63777	3.69257	0.005	0.247	0.227	485.8548	0.154	Tractors/Loaders/Backhoes_2019_4				
Tractors/Loaders/Backhoes	2019	121	175	5 121_175	0.321856	0.27	3.12158	2.78412	0.005	0.14	0.129	477.9151	0.151	Tractors/Loaders/Backhoes_2019_5				
Tractors/Loaders/Backhoes	2019	176	250	6 176_250	0.291458	0.245	1.22027	3.14683	0.005	0.102	0.094	481.4206	0.152	Tractors/Loaders/Backhoes_2019_6				
Tractors/Loaders/Backhoes	2019	251	500	7 251_500	0.245176	0.206	1.38918	2.34458	0.005	0.082	0.075	479.0826	0.152	Tractors/Loaders/Backhoes_2019_7				
Tractors/Loaders/Backhoes	2019	501	750	8 501_750	0.311873	0.262	1.6025	3.12046	0.005	0.117	0.107	478.9216	0.152	Tractors/Loaders/Backhoes_2019_8				
Tractors/Loaders/Backhoes	2020	16	25	2 16_25	0.987255	0.83	5.03491	4.39784	0.005	0.288	0.265	515.874	0.167	Tractors/Loaders/Backhoes_2020_2				
Tractors/Loaders/Backhoes	2020	26	50	3 26_50	0.987255	0.83	5.03491	4.39784	0.005	0.288	0.265	515.874	0.167	Tractors/Loaders/Backhoes_2020_3				
Tractors/Loaders/Backhoes	2020	51	120	4 51_120	0.393883	0.331	3.60147	3.32571	0.005	0.21	0.193	475.1543	0.154	Tractors/Loaders/Backhoes_2020_4				
Tractors/Loaders/Backhoes	2020	121	175	5 121_175	0.29217	0.246	3.10518	2.41467	0.005	0.122	0.112	467.5132	0.151	Tractors/Loaders/Backhoes_2020_5				
Tractors/Loaders/Backhoes	2020	176	250	6 176_250	0.268036	0.225	1.19592	2.73794	0.005	0.09	0.083	470.4998	0.152	Tractors/Loaders/Backhoes_2020_6				
Tractors/Loaders/Backhoes	2020	251	500	7 251_500	0.230511	0.194	1.35815	2.07976	0.005	0.073	0.067	468.2447	0.151	Tractors/Loaders/Backhoes_2020_7				
Tractors/Loaders/Backhoes	2020	501	750	8 501_750	0.318709	0.268	1.60984	3.11926	0.005	0.117	0.108	468.6602	0.152	Tractors/Loaders/Backhoes_2020_8				
Tractors/Loaders/Backhoes	2021	16	25	2 16_25	0.899672	0.756	4.90172	4.22643	0.005	0.254	0.234	515.1213	0.167	Tractors/Loaders/Backhoes_2021_2				
Tractors/Loaders/Backhoes	2021	26	50	3 26_50	0.899672	0.756	4.90172	4.22643	0.005	0.254	0.234	515.1213	0.167	Tractors/Loaders/Backhoes_2021_3				
Tractors/Loaders/Backhoes	2021	51	120	4 51_120	0.35209	0.296	3.57072	2.995	0.005	0.177	0.162	475.3621	0.154	Tractors/Loaders/Backhoes_2021_4				
Tractors/Loaders/Backhoes	2021	121	175	5 121_175	0.263016	0.221	3.0907	2.06221	0.005	0.104	0.096	467.5285	0.151	Tractors/Loaders/Backhoes_2021_5				
Tractors/Loaders/Backhoes	2021	176	250	6 176_250	0.249239	0.209	1.18606	2.36922	0.005	0.08	0.074	470.5716	0.152	Tractors/Loaders/Backhoes_2021_6				
Tractors/Loaders/Backhoes	2021	251	500	7 251_500	0.213479	0.179	1.34147	1.776	0.005	0.064	0.059	469.3025	0.152	Tractors/Loaders/Backhoes_2021_7				
Tractors/Loaders/Backhoes	2021	501	750	8 501_750	0.294477	0.247	1.43254	2.75417	0.005	0.104	0.096	466.4564	0.151	Tractors/Loaders/Backhoes_2021_8				
Tractors/Loaders/Backhoes	2022	16	25	2 16_25	0.818675	0.688	4.75954	4.03024	0.005	0.218	0.2	514.4613	0.166	Tractors/Loaders/Backhoes_2022_2				
Tractors/Loaders/Backhoes	2022	26	50	3 26_50	0.818675	0.688	4.75954	4.03024	0.005	0.218	0.2	514.4613	0.166	Tractors/Loaders/Backhoes_2022_3				
Tractors/Loaders/Backhoes	2022	51	120	4 51_120	0.309669	0.26	3.53551	2.64718	0.005	0.142	0.131	475.8975	0.154	Tractors/Loaders/Backhoes_2022_4				
Tractors/Loaders/Backhoes	2022	121	175	5 121_175	0.237945	0.2	3.07944	1.75274	0.005	0.089	0.082	467.8004	0.151	Tractors/Loaders/Backhoes_2022_5				
Tractors/Loaders/Backhoes	2022	176	250	6 176_250	0.222521	0.187	1.16248	1.94251	0.005	0.067	0.062	470.1236	0.152	Tractors/Loaders/Backhoes_2022_6				
Tractors/Loaders/Backhoes	2022	251	500	7 251_500	0.190771	0.16	1.28026	1.43694	0.005	0.053	0.049	469.2562	0.152	Tractors/Loaders/Backhoes_2022_7				
Tractors/Loaders/Backhoes	2022	501	750	8 501_750	0.276438	0.232	1.35272	2.4532	0.005	0.094	0.087	466.6327	0.151	Tractors/Loaders/Backhoes_2022_8				
Tractors/Loaders/Backhoes	2023	16	25	2 16_25	0.738634	0.621	4.62935	3.85698	0.005	0.185	0.17	513.7962	0.166	Tractors/Loaders/Backhoes_2023_2				
Tractors/Loaders/Backhoes	2023	26	50	3 26_50	0.738634	0.621	4.62935	3.85698	0.005	0.185	0.17	513.7962	0.166	Tractors/Loaders/Backhoes_2023_3				
Tractors/Loaders/Backhoes	2023	51	120	4 51_120	0.284572	0.239	3.52504	2.42607	0.005	0.12	0.11	476.4307	0.154	Tractors/Loaders/Backhoes_2023_4				
Tractors/Loaders/Backhoes	2023	121	175	5 121_175	0.219196	0.184	3.0777	1.52095	0.005	0.077	0.07	468.821	0.152	Tractors/Loaders/Backhoes_2023_5				
Tractors/Loaders/Backhoes	2023	176	250	6 176_250	0.201205	0.169	1.14809	1.58768	0.005	0.058	0.053	469.7518	0.152	Tractors/Loaders/Backhoes_2023_6				
Tractors/Loaders/Backhoes	2023	251	500	7 251_500	0.180818	0.152	1.27923	1.24708	0.005	0.047	0.043	469.4652	0.152	Tractors/Loaders/Backhoes_2023_7				
Tractors/Loaders/Backhoes	2023	501	750	8 501_750	0.278685	0.234	1.36081	2.41861	0.005	0.095	0.087	466.6756	0.151	Tractors/Loaders/Backhoes_2023_8				
Tractors/Loaders/Backhoes	2024	16	25	2 16_25	0.701609	0.59	4.60899	3.76811	0.005	0.166	0.153	513.8517	0.166	Tractors/Loaders/Backhoes_2024_2				
Tractors/Loaders/Backhoes	2024	26	50	3 26_50	0.701609	0.59	4.60899	3.76811	0.005	0.166	0.153	513.8517	0.166	Tractors/Loaders/Backhoes_2024_3				
Tractors/Loaders/Backhoes	2024	51	120	4 51_120	0.270597	0.227	3.5318	2.28795	0.005	0.105	0.097	476.7313	0.154	Tractors/Loaders/Backhoes_2024_4				
Tractors/Loaders/Backhoes	2024	121	175	5 121_175	0.209421	0.176	3.08913	1.37643	0.005	0.068	0.063	469.4029	0.152	Tractors/Loaders/Backhoes_2024_5				
Tractors/Loaders/Backhoes	2024	176	250	6 176_250	0.199431	0.168	1.15125	1.49113	0.005	0.054	0.05	469.9143	0.152	Tractors/Loaders/Backhoes_2024_6				
Tractors/Loaders/Backhoes	2024	251	500	7 251_500	0.178929	0.15	1.277	1.16321	0.005	0.044	0.041	470.0841	0.152	Tractors/Loaders/Backhoes_2024_7				
Tractors/Loaders/Backhoes	2024	501	750	8 501_750	0.262816	0.221	1.31051	2.21548	0.005	0.085	0.079	466.6381	0.151	Tractors/Loaders/Backhoes_2024_8				
Tractors/Loaders/Backhoes	2025	16	25	2 16_25	0.654585	0.55	4.55974	3.66186	0.005	0.145	0.133	513.8025	0.166	Tractors/Loaders/Backhoes_2025_2				
Tractors/Loaders/Backhoes	2025	26	50	3 26_50	0.654585	0.55	4.55974	3.66186	0.005	0.145	0.133	513.8025	0.166	Tractors/Loaders/Backhoes_2025_3				
Tractors/Loaders/Backhoes	2025	51	120	4 51_120	0.248412	0.209	3.52242	2.10918	0.005	0.085	0.079	477.188	0.154	Tractors/Loaders/Backhoes_2025_4				
Tractors/Loaders/Backhoes	2025	121	175	5 121_175	0.192617	0.162	3.08323	1.18039	0.005	0.058	0.054	469.3289	0.152	Tractors/Loaders/Backhoes_2025_5				
Tractors/Loaders/Backhoes	2025	176	250	6 176_250	0.183368	0.154	1.14554	1.23458	0.005	0.047	0.044	470.5976	0.152	Tractors/Loaders/Backhoes_2025_6				
Tractors/Loaders/Backhoes	2025	251	500	7 251_500	0.171862	0.144	1.23405	1.04575	0.005	0.039	0.036	470.9102	0.152	Tractors/Loaders/Backhoes_2025_7				
Tractors/Loaders/Backhoes	2025	501	750	8 501_750	0.222943	0.187	1.26139	1.64868	0.005	0.067	0.062	466.4517	0.151	Tractors/Loaders/Backhoes_2025_8				
Tractors/Loaders/Backhoes	2030	16	25	2 16_25	1.765	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Tractors/Loaders/Backhoes_2030_2				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Tractors/Loaders/Backhoes	2030	26	50	3 26_50	2.657	0.539	4.966	3.299	0.007	0.033	0.033	568.299	0.048	Tractors/Loaders/Backhoes_2030_3				
Tractors/Loaders/Backhoes	2030	51	120	4 51_120	2.285	0.272	3.705	1.624	0.006	0.03	0.03	568.299	0.024	Tractors/Loaders/Backhoes_2030_4				
Tractors/Loaders/Backhoes	2030	121	175	5 121_175	3.178	0.193	3.273	0.485	0.006	0.02	0.02	568.299	0.017	Tractors/Loaders/Backhoes_2030_5				
Tractors/Loaders/Backhoes	2030	176	250	6 176_250	5.112	0.183	1.115	0.418	0.006	0.014	0.014	568.299	0.016	Tractors/Loaders/Backhoes_2030_6				
Tractors/Loaders/Backhoes	2030	251	500	7 251_500	10.236	0.182	1.066	0.403	0.006	0.014	0.014	568.299	0.016	Tractors/Loaders/Backhoes_2030_7				
Tractors/Loaders/Backhoes	2030	501	750	8 501_750	15.363	0.182	1.066	0.407	0.006	0.014	0.014	568.299	0.016	Tractors/Loaders/Backhoes_2030_8				
Tractors/Loaders/Backhoes	2035	16	25	2 16_25	1.765	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Tractors/Loaders/Backhoes_2035_2				
Tractors/Loaders/Backhoes	2035	26	50	3 26_50	2.538	0.515	4.949	3.244	0.007	0.022	0.022	568.299	0.046	Tractors/Loaders/Backhoes_2035_3				
Tractors/Loaders/Backhoes	2035	51	120	4 51_120	2.17	0.258	3.703	1.521	0.006	0.02	0.02	568.299	0.023	Tractors/Loaders/Backhoes_2035_4				
Tractors/Loaders/Backhoes	2035	121	175	5 121_175	2.956	0.179	3.275	0.348	0.006	0.015	0.015	568.299	0.016	Tractors/Loaders/Backhoes_2035_5				
Tractors/Loaders/Backhoes	2035	176	250	6 176_250	4.945	0.177	1.115	0.331	0.006	0.012	0.012	568.299	0.016	Tractors/Loaders/Backhoes_2035_6				
Tractors/Loaders/Backhoes	2035	251	500	7 251_500	9.922	0.177	1.066	0.326	0.006	0.012	0.012	568.299	0.015	Tractors/Loaders/Backhoes_2035_7				
Tractors/Loaders/Backhoes	2035	501	750	8 501_750	14.886	0.177	1.066	0.327	0.006	0.012	0.012	568.299	0.015	Tractors/Loaders/Backhoes_2035_8				
Tractors/Loaders/Backhoes	2040	16	25	2 16_25	1.765	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Tractors/Loaders/Backhoes_2040_2				
Tractors/Loaders/Backhoes	2040	26	50	3 26_50	2.506	0.508	4.946	3.22	0.007	0.018	0.018	568.299	0.045	Tractors/Loaders/Backhoes_2040_3				
Tractors/Loaders/Backhoes	2040	51	120	4 51_120	2.135	0.254	3.703	1.485	0.006	0.016	0.016	568.299	0.022	Tractors/Loaders/Backhoes_2040_4				
Tractors/Loaders/Backhoes	2040	121	175	5 121_175	2.891	0.175	3.276	0.305	0.006	0.012	0.012	568.299	0.015	Tractors/Loaders/Backhoes_2040_5				
Tractors/Loaders/Backhoes	2040	176	250	6 176_250	4.877	0.174	1.116	0.297	0.006	0.011	0.011	568.3	0.015	Tractors/Loaders/Backhoes_2040_6				
Tractors/Loaders/Backhoes	2040	251	500	7 251_500	9.794	0.174	1.066	0.297	0.006	0.011	0.011	568.299	0.015	Tractors/Loaders/Backhoes_2040_7				
Tractors/Loaders/Backhoes	2040	501	750	8 501_750	14.69	0.174	1.066	0.297	0.006	0.011	0.011	568.299	0.015	Tractors/Loaders/Backhoes_2040_8				
Trenchers	1990	6	15	1 6_15	3.844	1.804	4.999	9.999	1.049	0.975	0.975	568.299	0.162	Trenchers_1990_1				
Trenchers	1990	16	25	2 16_25	18.341	2.213	4.999	6.919	0.855	0.741	0.741	568.3	0.199	Trenchers_1990_2				
Trenchers	1990	26	50	3 26_50	37.589	4.535	9.232	7.849	0.871	1.215	1.215	568.3	0.409	Trenchers_1990_3				
Trenchers	1990	51	120	4 51_120	37.519	2.296	5.621	14.752	0.791	1.284	1.284	568.299	0.207	Trenchers_1990_4				
Trenchers	1990	121	175	5 121_175	63.364	1.748	5.014	14.125	0.758	0.96	0.96	568.299	0.157	Trenchers_1990_5				
Trenchers	1990	176	250	6 176_250	98.152	1.748	5.014	14.125	0.758	0.96	0.96	568.299	0.157	Trenchers_1990_6				
Trenchers	1990	251	500	7 251_500	121.775	1.553	10.572	13.45	0.662	0.827	0.827	568.299	0.14	Trenchers_1990_7				
Trenchers	1990	501	750	8 501_750	229.57	1.553	10.572	13.45	1.018	0.843	0.843	568.299	0.14	Trenchers_1990_8				
Trenchers	2000	6	15	1 6_15	2.824	1.325	4.257	7.675	0.079	0.61	0.61	568.299	0.119	Trenchers_2000_1				
Trenchers	2000	16	25	2 16_25	15.815	1.908	4.438	6.326	0.065	0.555	0.555	568.299	0.172	Trenchers_2000_2				
Trenchers	2000	26	50	3 26_50	34.945	4.216	8.713	7.029	0.066	0.89	0.89	568.299	0.38	Trenchers_2000_3				
Trenchers	2000	51	120	4 51_120	30.939	1.893	4.777	10.98	0.06	0.882	0.882	568.299	0.17	Trenchers_2000_4				
Trenchers	2000	121	175	5 121_175	46.959	1.296	3.969	10.057	0.057	0.541	0.541	568.299	0.116	Trenchers_2000_5				
Trenchers	2000	176	250	6 176_250	64.645	1.151	3.402	9.8	0.057	0.474	0.474	568.299	0.103	Trenchers_2000_6				
Trenchers	2000	251	500	7 251_500	81.678	1.042	6.221	9.354	0.05	0.416	0.416	568.299	0.094	Trenchers_2000_7				
Trenchers	2000	501	750	8 501_750	153.98	1.042	6.221	9.354	0.052	0.416	0.416	568.299	0.094	Trenchers_2000_8				
Trenchers	2005	6	15	1 6_15	1.582	0.742	3.469	4.981	0.079	0.35	0.35	568.299	0.066	Trenchers_2005_1				
Trenchers	2005	16	25	2 16_25	7.043	0.849	2.519	5.321	0.065	0.333	0.333	568.3	0.076	Trenchers_2005_2				
Trenchers	2005	26	50	3 26_50	32.497	3.921	8.33	6.674	0.066	0.849	0.849	568.299	0.353	Trenchers_2005_3				
Trenchers	2005	51	120	4 51_120	27.751	1.698	4.526	9.727	0.06	0.839	0.839	568.299	0.153	Trenchers_2005_4				
Trenchers	2005	121	175	5 121_175	40.799	1.126	3.695	8.861	0.057	0.487	0.487	568.299	0.101	Trenchers_2005_5				
Trenchers	2005	176	250	6 176_250	51.63	0.92	2.668	8.545	0.057	0.379	0.379	568.299	0.083	Trenchers_2005_6				
Trenchers	2005	251	500	7 251_500	63.694	0.812	4.395	7.903	0.05	0.332	0.332	568.299	0.073	Trenchers_2005_7				
Trenchers	2005	501	750	8 501_750	121.568	0.822	4.387	8.023	0.052	0.333	0.333	568.299	0.074	Trenchers_2005_8				
Trenchers	2010	6	15	1 6_15	1.531711	1.287	5.11336	5.52761	0.005	0.509	0.468	586.297	0.171	Trenchers_2010_1				
Trenchers	2010	16	25	2 16_25	1.531711	1.287	5.11336	5.52761	0.005	0.509	0.468	586.297	0.171	Trenchers_2010_2				
Trenchers	2010	26	50	3 26_50	1.531711	1.287	5.11336	5.52761	0.005	0.509	0.468	586.297	0.171	Trenchers_2010_3				
Trenchers	2010	51	120	4 51_120	1.099287	0.924	4.07421	7.99924	0.005	0.62	0.571	529.306	0.154	Trenchers_2010_4				
Trenchers	2010	121	175	5 121_175	0.922781	0.775	3.7406	8.65095	0.005	0.441	0.406	519.6876	0.151	Trenchers_2010_5				
Trenchers	2010	176	250	6 176_250	0.705197	0.593	2.36576	7.86432	0.005	0.314	0.288	527.3537	0.154	Trenchers_2010_6				
Trenchers	2010	251	500	7 251_500	0.380701	0.32	2.10547	4.85363	0.005	0.176	0.162	523.7828	0.152	Trenchers_2010_7				
Trenchers	2010	501	750	8 501_750	0.194919	0.164	1.33412	3.20501	0.005	0.113	0.104	525.788	0.153	Trenchers_2010_8				
Trenchers	2011	6	15	1 6_15	1.520162	1.277	5.14932	5.52336	0.005	0.507	0.467	585.033	0.171	Trenchers_2011_1				
Trenchers	2011	16	25	2 16_25	1.520162	1.277	5.14932	5.52336	0.005	0.507	0.467	585.033	0.171	Trenchers_2011_2				
Trenchers	2011	26	50	3 26_50	1.520162	1.277	5.14932	5.52336	0.005	0.507	0.467	585.033	0.171	Trenchers_2011_3				
Trenchers	2011	51	120	4 51_120	1.045215	0.878	4.02646	7.67483	0.005	0.598	0.55	527.7187	0.154	Trenchers_2011_4				
Trenchers	2011	121	175	5 121_175	0.916044	0.77	3.73004	8.56359	0.005	0.438	0.403	518.4008	0.151	Trenchers_2011_5				
Trenchers	2011	176	250	6 176_250	0.655301	0.551	2.19702	7.41222	0.005	0.29	0.267	525.9543	0.153	Trenchers_2011_6				
Trenchers	2011	251	500	7 251_500	0.372561	0.313	2.04569	4.66474	0.005	0.171	0.158	522.8418	0.153	Trenchers_2011_7				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Trenchers	2011	501	750	8 501_750	0.180473	0.152	1.33856	2.67369	0.005	0.097	0.089	525.691	0.153	Trenchers_2011_8				
Trenchers	2012	6	15	1 6_15	1.545009	1.298	5.24421	5.53504	0.005	0.512	0.471	583.5639	0.171	Trenchers_2012_1				
Trenchers	2012	16	25	2 16_25	1.545009	1.298	5.24421	5.53504	0.005	0.512	0.471	583.5639	0.171	Trenchers_2012_2				
Trenchers	2012	26	50	3 26_50	1.545009	1.298	5.24421	5.53504	0.005	0.512	0.471	583.5639	0.171	Trenchers_2012_3				
Trenchers	2012	51	120	4 51_120	1.052636	0.885	4.05076	7.69459	0.005	0.604	0.556	526.3562	0.154	Trenchers_2012_4				
Trenchers	2012	121	175	5 121_175	0.907539	0.763	3.7162	8.45762	0.005	0.436	0.401	517.1147	0.151	Trenchers_2012_5				
Trenchers	2012	176	250	6 176_250	0.662356	0.557	2.20863	7.44867	0.005	0.293	0.27	524.572	0.153	Trenchers_2012_6				
Trenchers	2012	251	500	7 251_500	0.369046	0.31	2.03349	4.58546	0.005	0.168	0.155	521.6264	0.153	Trenchers_2012_7				
Trenchers	2012	501	750	8 501_750	0.135931	0.114	0.95532	2.04792	0.005	0.069	0.064	524.8533	0.154	Trenchers_2012_8				
Trenchers	2013	6	15	1 6_15	1.53809	1.292	5.2883	5.51013	0.005	0.509	0.469	580.7693	0.171	Trenchers_2013_1				
Trenchers	2013	16	25	2 16_25	1.53809	1.292	5.2883	5.51013	0.005	0.509	0.469	580.7693	0.171	Trenchers_2013_2				
Trenchers	2013	26	50	3 26_50	1.53809	1.292	5.2883	5.51013	0.005	0.509	0.469	580.7693	0.171	Trenchers_2013_3				
Trenchers	2013	51	120	4 51_120	1.010936	0.849	4.02389	7.45031	0.005	0.582	0.536	523.4236	0.154	Trenchers_2013_4				
Trenchers	2013	121	175	5 121_175	0.916392	0.77	3.73732	8.49431	0.005	0.441	0.406	514.53	0.151	Trenchers_2013_5				
Trenchers	2013	176	250	6 176_250	0.626949	0.527	2.13383	7.03951	0.005	0.276	0.254	520.4335	0.153	Trenchers_2013_6				
Trenchers	2013	251	500	7 251_500	0.376293	0.316	2.04997	4.60225	0.005	0.17	0.156	519.043	0.153	Trenchers_2013_7				
Trenchers	2013	501	750	8 501_750	0.144323	0.121	0.96183	2.05561	0.005	0.07	0.065	522.2778	0.154	Trenchers_2013_8				
Trenchers	2014	6	15	1 6_15	1.508934	1.268	5.29329	5.45539	0.005	0.501	0.46	577.7275	0.171	Trenchers_2014_1				
Trenchers	2014	16	25	2 16_25	1.508934	1.268	5.29329	5.45539	0.005	0.501	0.46	577.7275	0.171	Trenchers_2014_2				
Trenchers	2014	26	50	3 26_50	1.508934	1.268	5.29329	5.45539	0.005	0.501	0.46	577.7275	0.171	Trenchers_2014_3				
Trenchers	2014	51	120	4 51_120	0.973633	0.818	3.99876	7.2172	0.005	0.563	0.518	520.7658	0.154	Trenchers_2014_4				
Trenchers	2014	121	175	5 121_175	0.824366	0.693	3.66799	7.69921	0.005	0.395	0.364	512.1475	0.151	Trenchers_2014_5				
Trenchers	2014	176	250	6 176_250	0.591196	0.497	2.07009	6.48427	0.005	0.258	0.237	517.7188	0.153	Trenchers_2014_6				
Trenchers	2014	251	500	7 251_500	0.364023	0.306	2.03515	4.37019	0.005	0.161	0.148	513.7439	0.152	Trenchers_2014_7				
Trenchers	2014	501	750	8 501_750	0.140019	0.118	0.96403	1.825	0.005	0.061	0.056	519.6576	0.154	Trenchers_2014_8				
Trenchers	2015	6	15	1 6_15	1.498018	1.259	5.32346	5.40567	0.005	0.493	0.454	571.6674	0.171	Trenchers_2015_1				
Trenchers	2015	16	25	2 16_25	1.498018	1.259	5.32346	5.40567	0.005	0.493	0.454	571.6674	0.171	Trenchers_2015_2				
Trenchers	2015	26	50	3 26_50	1.498018	1.259	5.32346	5.40567	0.005	0.493	0.454	571.6674	0.171	Trenchers_2015_3				
Trenchers	2015	51	120	4 51_120	0.972367	0.817	4.01434	7.17857	0.005	0.562	0.517	515.3955	0.154	Trenchers_2015_4				
Trenchers	2015	121	175	5 121_175	0.829448	0.697	3.68389	7.67382	0.005	0.396	0.364	506.9434	0.151	Trenchers_2015_5				
Trenchers	2015	176	250	6 176_250	0.597101	0.502	2.0797	6.50988	0.005	0.26	0.239	512.4325	0.153	Trenchers_2015_6				
Trenchers	2015	251	500	7 251_500	0.370644	0.311	2.05093	4.38344	0.005	0.163	0.15	508.3296	0.152	Trenchers_2015_7				
Trenchers	2015	501	750	8 501_750	0.135272	0.114	0.96532	1.62336	0.005	0.053	0.049	514.4002	0.154	Trenchers_2015_8				
Trenchers	2016	6	15	1 6_15	1.450442	1.219	5.28497	5.29818	0.005	0.475	0.437	565.9942	0.171	Trenchers_2016_1				
Trenchers	2016	16	25	2 16_25	1.450442	1.219	5.28497	5.29818	0.005	0.475	0.437	565.9942	0.171	Trenchers_2016_2				
Trenchers	2016	26	50	3 26_50	1.450442	1.219	5.28497	5.29818	0.005	0.475	0.437	565.9942	0.171	Trenchers_2016_3				
Trenchers	2016	51	120	4 51_120	0.937737	0.788	3.98822	6.90219	0.005	0.541	0.498	509.9027	0.154	Trenchers_2016_4				
Trenchers	2016	121	175	5 121_175	0.693219	0.582	3.50717	6.50303	0.005	0.328	0.302	501.7809	0.151	Trenchers_2016_5				
Trenchers	2016	176	250	6 176_250	0.58008	0.487	2.03007	6.31168	0.005	0.251	0.231	507.1448	0.153	Trenchers_2016_6				
Trenchers	2016	251	500	7 251_500	0.351818	0.296	1.96649	4.09912	0.005	0.15	0.138	504.4103	0.152	Trenchers_2016_7				
Trenchers	2016	501	750	8 501_750	0.142468	0.12	0.97148	1.63008	0.005	0.054	0.05	509.1433	0.154	Trenchers_2016_8				
Trenchers	2017	6	15	1 6_15	1.367315	1.149	5.19682	5.16614	0.005	0.449	0.413	557.4601	0.171	Trenchers_2017_1				
Trenchers	2017	16	25	2 16_25	1.367315	1.149	5.19682	5.16614	0.005	0.449	0.413	557.4601	0.171	Trenchers_2017_2				
Trenchers	2017	26	50	3 26_50	1.367315	1.149	5.19682	5.16614	0.005	0.449	0.413	557.4601	0.171	Trenchers_2017_3				
Trenchers	2017	51	120	4 51_120	0.906302	0.762	3.96827	6.67876	0.005	0.523	0.481	501.9916	0.154	Trenchers_2017_4				
Trenchers	2017	121	175	5 121_175	0.638299	0.536	3.43391	5.92725	0.005	0.3	0.276	493.7642	0.151	Trenchers_2017_5				
Trenchers	2017	176	250	6 176_250	0.577948	0.486	2.03655	6.19428	0.005	0.25	0.23	499.2281	0.153	Trenchers_2017_6				
Trenchers	2017	251	500	7 251_500	0.315778	0.265	1.96603	3.44157	0.005	0.129	0.119	497.0197	0.152	Trenchers_2017_7				
Trenchers	2017	501	750	8 501_750	0.135465	0.114	0.97168	1.42958	0.005	0.046	0.042	501.1831	0.154	Trenchers_2017_8				
Trenchers	2018	6	15	1 6_15	1.236195	1.039	5.01831	4.95997	0.005	0.409	0.377	548.3607	0.171	Trenchers_2018_1				
Trenchers	2018	16	25	2 16_25	1.236195	1.039	5.01831	4.95997	0.005	0.409	0.377	548.3607	0.171	Trenchers_2018_2				
Trenchers	2018	26	50	3 26_50	1.236195	1.039	5.01831	4.95997	0.005	0.409	0.377	548.3607	0.171	Trenchers_2018_3				
Trenchers	2018	51	120	4 51_120	0.78315	0.658	3.85487	5.91527	0.005	0.45	0.414	493.715	0.154	Trenchers_2018_4				
Trenchers	2018	121	175	5 121_175	0.559787	0.47	3.33134	5.12742	0.005	0.261	0.24	485.9254	0.151	Trenchers_2018_5				
Trenchers	2018	176	250	6 176_250	0.498602	0.419	1.84856	5.29554	0.005	0.212	0.195	491.5649	0.153	Trenchers_2018_6				
Trenchers	2018	251	500	7 251_500	0.30464	0.256	1.97444	3.21114	0.005	0.121	0.112	489.6281	0.152	Trenchers_2018_7				
Trenchers	2018	501	750	8 501_750	0.111849	0.094	0.96632	1.02523	0.005	0.029	0.026	494.6426	0.154	Trenchers_2018_8				
Trenchers	2019	6	15	1 6_15	1.136688	0.955	4.89183	4.78464	0.005	0.377	0.347	539.1037	0.171	Trenchers_2019_1				
Trenchers	2019	16	25	2 16_25	1.136688	0.955	4.89183	4.78464	0.005	0.377	0.347	539.1037	0.171	Trenchers_2019_2				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Trenchers	2019	26	50	3 26_50	1.136688	0.955	4.89183	4.78464	0.005	0.377	0.347	539.1037	0.171	Trenchers_2019_3				
Trenchers	2019	51	120	4 51_120	0.751452	0.631	3.83677	5.69508	0.005	0.431	0.396	485.3635	0.154	Trenchers_2019_4				
Trenchers	2019	121	175	5 121_175	0.547248	0.46	3.34151	4.95976	0.005	0.255	0.234	478.1294	0.151	Trenchers_2019_5				
Trenchers	2019	176	250	6 176_250	0.481784	0.405	1.81019	5.04653	0.005	0.203	0.187	484.1167	0.153	Trenchers_2019_6				
Trenchers	2019	251	500	7 251_500	0.302803	0.254	1.98689	3.12824	0.005	0.118	0.109	482.1648	0.153	Trenchers_2019_7				
Trenchers	2019	501	750	8 501_750	0.09296	0.078	0.95644	0.70662	0.005	0.015	0.014	484.5422	0.153	Trenchers_2019_8				
Trenchers	2020	6	15	1 6_15	1.076913	0.905	4.8331	4.67651	0.005	0.356	0.328	527.0962	0.17	Trenchers_2020_1				
Trenchers	2020	16	25	2 16_25	1.076913	0.905	4.8331	4.67651	0.005	0.356	0.328	527.0962	0.17	Trenchers_2020_2				
Trenchers	2020	26	50	3 26_50	1.076913	0.905	4.8331	4.67651	0.005	0.356	0.328	527.0962	0.17	Trenchers_2020_3				
Trenchers	2020	51	120	4 51_120	0.726229	0.61	3.83272	5.51952	0.005	0.413	0.38	475.1265	0.154	Trenchers_2020_4				
Trenchers	2020	121	175	5 121_175	0.500709	0.421	3.32968	4.46042	0.005	0.228	0.21	467.7348	0.151	Trenchers_2020_5				
Trenchers	2020	176	250	6 176_250	0.466499	0.392	1.77405	4.8091	0.005	0.195	0.179	473.5951	0.153	Trenchers_2020_6				
Trenchers	2020	251	500	7 251_500	0.276702	0.233	1.85932	2.775	0.005	0.105	0.097	470.6367	0.152	Trenchers_2020_7				
Trenchers	2020	501	750	8 501_750	0.083454	0.07	0.95004	0.56006	0.005	0.009	0.008	472.6556	0.153	Trenchers_2020_8				
Trenchers	2021	6	15	1 6_15	0.962829	0.809	4.66576	4.45891	0.005	0.313	0.288	527.0165	0.17	Trenchers_2021_1				
Trenchers	2021	16	25	2 16_25	0.962829	0.809	4.66576	4.45891	0.005	0.313	0.288	527.0165	0.17	Trenchers_2021_2				
Trenchers	2021	26	50	3 26_50	0.962829	0.809	4.66576	4.45891	0.005	0.313	0.288	527.0165	0.17	Trenchers_2021_3				
Trenchers	2021	51	120	4 51_120	0.661739	0.556	3.78912	5.10594	0.005	0.371	0.341	475.287	0.154	Trenchers_2021_4				
Trenchers	2021	121	175	5 121_175	0.483838	0.407	3.30363	4.27237	0.005	0.219	0.201	467.7343	0.151	Trenchers_2021_5				
Trenchers	2021	176	250	6 176_250	0.42408	0.356	1.66826	4.36036	0.005	0.172	0.158	473.8538	0.153	Trenchers_2021_6				
Trenchers	2021	251	500	7 251_500	0.263326	0.221	1.86493	2.49105	0.005	0.1	0.092	470.701	0.152	Trenchers_2021_7				
Trenchers	2021	501	750	8 501_750	0.078358	0.066	0.94677	0.47513	0.005	0.009	0.008	472.5289	0.153	Trenchers_2021_8				
Trenchers	2022	6	15	1 6_15	0.859634	0.722	4.51833	4.26873	0.005	0.275	0.253	527.0258	0.17	Trenchers_2022_1				
Trenchers	2022	16	25	2 16_25	0.859634	0.722	4.51833	4.26873	0.005	0.275	0.253	527.0258	0.17	Trenchers_2022_2				
Trenchers	2022	26	50	3 26_50	0.859634	0.722	4.51833	4.26873	0.005	0.275	0.253	527.0258	0.17	Trenchers_2022_3				
Trenchers	2022	51	120	4 51_120	0.629528	0.529	3.77843	4.91345	0.005	0.348	0.32	475.3262	0.154	Trenchers_2022_4				
Trenchers	2022	121	175	5 121_175	0.470645	0.395	3.31289	4.10333	0.005	0.211	0.195	467.7337	0.151	Trenchers_2022_5				
Trenchers	2022	176	250	6 176_250	0.398562	0.335	1.66329	3.85292	0.005	0.16	0.148	473.8512	0.153	Trenchers_2022_6				
Trenchers	2022	251	500	7 251_500	0.252168	0.212	1.87233	2.21226	0.005	0.094	0.086	470.5845	0.152	Trenchers_2022_7				
Trenchers	2022	501	750	8 501_750	0.067683	0.057	0.94489	0.30138	0.005	0.009	0.008	474.2887	0.153	Trenchers_2022_8				
Trenchers	2023	6	15	1 6_15	0.763609	0.642	4.30164	3.95873	0.005	0.22	0.202	527.0954	0.17	Trenchers_2023_1				
Trenchers	2023	16	25	2 16_25	0.763609	0.642	4.30164	3.95873	0.005	0.22	0.202	527.0954	0.17	Trenchers_2023_2				
Trenchers	2023	26	50	3 26_50	0.763609	0.642	4.30164	3.95873	0.005	0.22	0.202	527.0954	0.17	Trenchers_2023_3				
Trenchers	2023	51	120	4 51_120	0.599816	0.504	3.76842	4.70045	0.005	0.326	0.3	475.6903	0.154	Trenchers_2023_4				
Trenchers	2023	121	175	5 121_175	0.427489	0.359	3.29061	3.65725	0.005	0.185	0.171	467.7332	0.151	Trenchers_2023_5				
Trenchers	2023	176	250	6 176_250	0.390278	0.328	1.6386	3.7365	0.005	0.155	0.143	473.8485	0.153	Trenchers_2023_6				
Trenchers	2023	251	500	7 251_500	0.236268	0.199	1.72273	2.00504	0.005	0.085	0.078	471.6125	0.153	Trenchers_2023_7				
Trenchers	2023	501	750	8 501_750	0.071688	0.06	0.95111	0.30278	0.005	0.009	0.008	474.4705	0.153	Trenchers_2023_8				
Trenchers	2024	6	15	1 6_15	0.714783	0.601	4.23326	3.83415	0.005	0.197	0.181	527.0216	0.17	Trenchers_2024_1				
Trenchers	2024	16	25	2 16_25	0.714783	0.601	4.23326	3.83415	0.005	0.197	0.181	527.0216	0.17	Trenchers_2024_2				
Trenchers	2024	26	50	3 26_50	0.714783	0.601	4.23326	3.83415	0.005	0.197	0.181	527.0216	0.17	Trenchers_2024_3				
Trenchers	2024	51	120	4 51_120	0.588274	0.494	3.76854	4.59319	0.005	0.318	0.292	475.6324	0.154	Trenchers_2024_4				
Trenchers	2024	121	175	5 121_175	0.432612	0.364	3.31073	3.66715	0.005	0.187	0.172	467.7326	0.151	Trenchers_2024_5				
Trenchers	2024	176	250	6 176_250	0.370794	0.312	1.59847	3.48285	0.005	0.145	0.134	473.8455	0.153	Trenchers_2024_6				
Trenchers	2024	251	500	7 251_500	0.228039	0.192	1.66789	1.85871	0.005	0.08	0.074	469.9942	0.152	Trenchers_2024_7				
Trenchers	2024	501	750	8 501_750	0.076605	0.064	0.95838	0.30435	0.005	0.009	0.008	474.4782	0.153	Trenchers_2024_8				
Trenchers	2025	6	15	1 6_15	0.645012	0.542	4.11956	3.65681	0.005	0.163	0.15	527.1603	0.17	Trenchers_2025_1				
Trenchers	2025	16	25	2 16_25	0.645012	0.542	4.11956	3.65681	0.005	0.163	0.15	527.1603	0.17	Trenchers_2025_2				
Trenchers	2025	26	50	3 26_50	0.645012	0.542	4.11956	3.65681	0.005	0.163	0.15	527.1603	0.17	Trenchers_2025_3				
Trenchers	2025	51	120	4 51_120	0.5433	0.457	3.73437	4.279	0.005	0.285	0.262	475.9014	0.154	Trenchers_2025_4				
Trenchers	2025	121	175	5 121_175	0.426125	0.358	3.30907	3.54907	0.005	0.179	0.165	467.732	0.151	Trenchers_2025_5				
Trenchers	2025	176	250	6 176_250	0.365033	0.307	1.60076	3.31521	0.005	0.144	0.132	473.9168	0.153	Trenchers_2025_6				
Trenchers	2025	251	500	7 251_500	0.227307	0.191	1.67595	1.82613	0.005	0.079	0.072	470.4394	0.152	Trenchers_2025_7				
Trenchers	2025	501	750	8 501_750	0.079299	0.067	0.96233	0.30526	0.005	0.009	0.008	474.4863	0.153	Trenchers_2025_8				
Trenchers	2030	6	15	1 6_15	1.409	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Trenchers_2030_1				
Trenchers	2030	16	25	2 16_25	5.681	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Trenchers_2030_2				
Trenchers	2030	26	50	3 26_50	7.055	0.851	5.208	3.835	0.007	0.144	0.144	568.299	0.076	Trenchers_2030_3				
Trenchers	2030	51	120	4 51_120	6.697	0.409	3.743	2.559	0.006	0.132	0.132	568.299	0.036	Trenchers_2030_4				
Trenchers	2030	121	175	5 121_175	10.904	0.3	3.273	1.529	0.006	0.08	0.08	568.3	0.027	Trenchers_2030_5				

Attachment C

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Trenchers	2030	176	250	6 176_250	14.406	0.256	1.188	1.348	0.006	0.049	0.049	568.3	0.023	Trenchers_2030_6				
Trenchers	2030	251	500	7 251_500	19.534	0.249	1.209	1.231	0.005	0.046	0.046	568.299	0.022	Trenchers_2030_7				
Trenchers	2030	501	750	8 501_750	36.902	0.249	1.209	1.254	0.005	0.047	0.047	568.299	0.022	Trenchers_2030_8				
Trenchers	2035	6	15	1 6_15	1.409	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Trenchers_2035_1				
Trenchers	2035	16	25	2 16_25	5.681	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Trenchers_2035_2				
Trenchers	2035	26	50	3 26_50	5.645	0.681	5.055	3.548	0.007	0.084	0.084	568.299	0.061	Trenchers_2035_3				
Trenchers	2035	51	120	4 51_120	5.437	0.332	3.713	2.049	0.006	0.076	0.076	568.3	0.03	Trenchers_2035_4				
Trenchers	2035	121	175	5 121_175	8.756	0.241	3.264	0.966	0.006	0.048	0.048	568.299	0.021	Trenchers_2035_5				
Trenchers	2035	176	250	6 176_250	12.171	0.216	1.149	0.847	0.006	0.031	0.031	568.299	0.019	Trenchers_2035_6				
Trenchers	2035	251	500	7 251_500	16.707	0.213	1.126	0.79	0.005	0.029	0.029	568.299	0.019	Trenchers_2035_7				
Trenchers	2035	501	750	8 501_750	31.529	0.213	1.126	0.801	0.005	0.029	0.029	568.3	0.019	Trenchers_2035_8				
Trenchers	2040	6	15	1 6_15	1.409	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Trenchers_2040_1				
Trenchers	2040	16	25	2 16_25	5.681	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Trenchers_2040_2				
Trenchers	2040	26	50	3 26_50	4.961	0.598	4.98	3.374	0.007	0.052	0.052	568.299	0.054	Trenchers_2040_3				
Trenchers	2040	51	120	4 51_120	4.791	0.293	3.699	1.767	0.006	0.047	0.047	568.299	0.026	Trenchers_2040_4				
Trenchers	2040	121	175	5 121_175	7.533	0.207	3.26	0.639	0.006	0.03	0.03	568.3	0.018	Trenchers_2040_5				
Trenchers	2040	176	250	6 176_250	10.853	0.193	1.126	0.573	0.006	0.02	0.02	568.3	0.017	Trenchers_2040_6				
Trenchers	2040	251	500	7 251_500	15.011	0.191	1.081	0.542	0.005	0.02	0.02	568.3	0.017	Trenchers_2040_7				
Trenchers	2040	501	750	8 501_750	28.323	0.191	1.081	0.549	0.005	0.02	0.02	568.299	0.017	Trenchers_2040_8				
Welders	1990	6	15	1 6_15	4.525	1.804	4.999	9.999	1.018	0.974	0.974	568.299	0.162	Welders_1990_1				
Welders	1990	16	25	2 16_25	10.092	2.213	4.999	6.919	0.83	0.74	0.74	568.299	0.199	Welders_1990_2				
Welders	1990	26	50	3 26_50	40.899	3.899	8.078	7.611	0.846	1.085	1.085	568.3	0.351	Welders_1990_3				
Welders	1990	51	120	4 51_120	33.632	2.107	5.312	13.999	0.768	1.146	1.146	568.3	0.19	Welders_1990_4				
Welders	1990	121	175	5 121_175	57.219	1.442	4.703	12.598	0.736	0.761	0.761	568.299	0.13	Welders_1990_5				
Welders	1990	176	250	6 176_250	69.387	1.442	4.703	12.598	0.736	0.761	0.761	568.299	0.13	Welders_1990_6				
Welders	1990	251	500	7 251_500	88.323	1.304	8.704	12.141	0.642	0.672	0.672	568.3	0.117	Welders_1990_7				
Welders	2000	6	15	1 6_15	4.323	1.723	4.875	9.08	0.079	0.747	0.747	568.299	0.155	Welders_2000_1				
Welders	2000	16	25	2 16_25	9.556	2.095	4.783	6.405	0.065	0.569	0.569	568.299	0.189	Welders_2000_2				
Welders	2000	26	50	3 26_50	38.432	3.664	7.708	6.797	0.066	0.803	0.803	568.299	0.33	Welders_2000_3				
Welders	2000	51	120	4 51_120	27.201	1.704	4.433	10.046	0.06	0.791	0.791	568.3	0.153	Welders_2000_4				
Welders	2000	121	175	5 121_175	45.269	1.14	3.61	9.126	0.057	0.468	0.468	568.299	0.102	Welders_2000_5				
Welders	2000	176	250	6 176_250	45.901	0.954	2.869	8.783	0.057	0.384	0.384	568.299	0.086	Welders_2000_6				
Welders	2000	251	500	7 251_500	59.514	0.878	4.719	8.466	0.05	0.344	0.344	568.299	0.079	Welders_2000_7				
Welders	2005	6	15	1 6_15	3.497	1.394	4.38	7.817	0.079	0.621	0.621	568.299	0.125	Welders_2005_1				
Welders	2005	16	25	2 16_25	7.401	1.622	3.922	6.014	0.065	0.483	0.483	568.299	0.146	Welders_2005_2				
Welders	2005	26	50	3 26_50	34.243	3.264	7.144	6.342	0.066	0.746	0.746	568.299	0.294	Welders_2005_3				
Welders	2005	51	120	4 51_120	23.288	1.459	4.096	8.459	0.06	0.733	0.733	568.299	0.131	Welders_2005_4				
Welders	2005	121	175	5 121_175	37.837	0.953	3.26	7.736	0.057	0.405	0.405	568.299	0.086	Welders_2005_5				
Welders	2005	176	250	6 176_250	32.839	0.682	1.941	7.302	0.057	0.268	0.268	568.299	0.061	Welders_2005_6				
Welders	2005	251	500	7 251_500	41.097	0.606	2.566	6.755	0.05	0.241	0.241	568.299	0.054	Welders_2005_7				
Welders	2010	6	15	1 6_15	2.82	1.124	4.027	6.554	0.008	0.473	0.473	568.3	0.101	Welders_2010_1				
Welders	2010	16	25	2 16_25	5.78	1.267	3.309	5.477	0.007	0.384	0.384	568.299	0.114	Welders_2010_2				
Welders	2010	26	50	3 26_50	27.885	2.658	6.571	5.944	0.007	0.623	0.623	568.299	0.239	Welders_2010_3				
Welders	2010	51	120	4 51_120	18.341	1.149	3.928	6.999	0.006	0.61	0.61	568.299	0.103	Welders_2010_4				
Welders	2010	121	175	5 121_175	30.26	0.762	3.185	6.255	0.006	0.338	0.338	568.299	0.068	Welders_2010_5				
Welders	2010	176	250	6 176_250	23.908	0.496	1.433	5.857	0.006	0.189	0.189	568.299	0.044	Welders_2010_6				
Welders	2010	251	500	7 251_500	30.15	0.445	1.621	5.26	0.005	0.174	0.174	568.299	0.04	Welders_2010_7				
Welders	2011	6	15	1 6_15	2.677	1.067	3.952	6.283	0.008	0.441	0.441	568.299	0.096	Welders_2011_1				
Welders	2011	16	25	2 16_25	5.436	1.192	3.179	5.36	0.007	0.361	0.361	568.3	0.107	Welders_2011_2				
Welders	2011	26	50	3 26_50	26.104	2.488	6.392	5.85	0.007	0.593	0.593	568.299	0.224	Welders_2011_3				
Welders	2011	51	120	4 51_120	17.199	1.077	3.891	6.632	0.006	0.584	0.584	568.3	0.097	Welders_2011_4				
Welders	2011	121	175	5 121_175	28.559	0.719	3.173	5.91	0.006	0.325	0.325	568.299	0.064	Welders_2011_5				
Welders	2011	176	250	6 176_250	22.03	0.457	1.34	5.462	0.006	0.17	0.17	568.299	0.041	Welders_2011_6				
Welders	2011	251	500	7 251_500	27.869	0.411	1.473	4.886	0.005	0.157	0.157	568.299	0.037	Welders_2011_7				
Welders	2012	6	15	1 6_15	2.527	1.007	3.874	5.999	0.008	0.407	0.407	568.299	0.09	Welders_2012_1				
Welders	2012	16	25	2 16_25	5.076	1.113	3.043	5.239	0.007	0.337	0.337	568.299	0.1	Welders_2012_2				
Welders	2012	26	50	3 26_50	24.122	2.299	6.185	5.749	0.007	0.56	0.56	568.299	0.207	Welders_2012_3				
Welders	2012	51	120	4 51_120	15.992	1.001	3.852	6.232	0.006	0.549	0.549	568.299	0.09	Welders_2012_4				
Welders	2012	121	175	5 121_175	26.736	0.673	3.161	5.543	0.006	0.303	0.303	568.299	0.06	Welders_2012_5				

Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Welders	2012	176	250	6 176_250	20.583	0.427	1.281	5.087	0.006	0.154	0.154	568.299	0.038	Welders_2012_6				
Welders	2012	251	500	7 251_500	26.151	0.386	1.369	4.532	0.005	0.144	0.144	568.299	0.034	Welders_2012_7				
Welders	2013	6	15	1 6_15	2.378	0.948	3.796	5.716	0.008	0.373	0.373	568.299	0.085	Welders_2013_1				
Welders	2013	16	25	2 16_25	4.718	1.034	2.907	5.117	0.007	0.314	0.314	568.299	0.093	Welders_2013_2				
Welders	2013	26	50	3 26_50	22.037	2.101	5.967	5.526	0.007	0.517	0.517	568.299	0.189	Welders_2013_3				
Welders	2013	51	120	4 51_120	14.766	0.925	3.813	5.836	0.006	0.507	0.507	568.3	0.083	Welders_2013_4				
Welders	2013	121	175	5 121_175	24.884	0.627	3.151	5.195	0.006	0.279	0.279	568.299	0.056	Welders_2013_5				
Welders	2013	176	250	6 176_250	19.36	0.402	1.241	4.723	0.006	0.141	0.141	568.299	0.036	Welders_2013_6				
Welders	2013	251	500	7 251_500	24.728	0.365	1.291	4.191	0.005	0.131	0.131	568.299	0.032	Welders_2013_7				
Welders	2014	6	15	1 6_15	2.237	0.891	3.723	5.445	0.008	0.341	0.341	568.3	0.08	Welders_2014_1				
Welders	2014	16	25	2 16_25	4.381	0.96	2.78	5	0.007	0.291	0.291	568.299	0.086	Welders_2014_2				
Welders	2014	26	50	3 26_50	19.935	1.9	5.749	5.308	0.007	0.473	0.473	568.3	0.171	Welders_2014_3				
Welders	2014	51	120	4 51_120	13.552	0.849	3.774	5.481	0.006	0.464	0.464	568.299	0.076	Welders_2014_4				
Welders	2014	121	175	5 121_175	23.067	0.581	3.141	4.862	0.006	0.255	0.255	568.299	0.052	Welders_2014_5				
Welders	2014	176	250	6 176_250	18.135	0.376	1.207	4.297	0.006	0.128	0.128	568.299	0.034	Welders_2014_6				
Welders	2014	251	500	7 251_500	23.294	0.343	1.227	3.788	0.005	0.119	0.119	568.299	0.031	Welders_2014_7				
Welders	2015	6	15	1 6_15	2.109	0.84	3.658	5.196	0.008	0.311	0.311	568.299	0.075	Welders_2015_1				
Welders	2015	16	25	2 16_25	4.078	0.894	2.666	4.89	0.007	0.27	0.27	568.299	0.08	Welders_2015_2				
Welders	2015	26	50	3 26_50	17.994	1.715	5.562	5.113	0.007	0.43	0.43	568.3	0.154	Welders_2015_3				
Welders	2015	51	120	4 51_120	12.337	0.772	3.738	5.077	0.006	0.419	0.419	568.299	0.069	Welders_2015_4				
Welders	2015	121	175	5 121_175	21.139	0.532	3.133	4.408	0.006	0.23	0.23	568.299	0.048	Welders_2015_5				
Welders	2015	176	250	6 176_250	16.976	0.352	1.178	3.88	0.006	0.116	0.116	568.299	0.031	Welders_2015_6				
Welders	2015	251	500	7 251_500	21.953	0.324	1.176	3.398	0.005	0.108	0.108	568.299	0.029	Welders_2015_7				
Welders	2016	6	15	1 6_15	2.03	0.809	3.622	5.023	0.008	0.289	0.289	568.299	0.073	Welders_2016_1				
Welders	2016	16	25	2 16_25	3.903	0.855	2.604	4.803	0.007	0.255	0.255	568.299	0.077	Welders_2016_2				
Welders	2016	26	50	3 26_50	16.155	1.54	5.395	4.936	0.007	0.389	0.389	568.299	0.138	Welders_2016_3				
Welders	2016	51	120	4 51_120	11.165	0.699	3.705	4.692	0.006	0.375	0.375	568.3	0.063	Welders_2016_4				
Welders	2016	121	175	5 121_175	19.285	0.486	3.128	3.973	0.006	0.206	0.206	568.299	0.043	Welders_2016_5				
Welders	2016	176	250	6 176_250	15.901	0.33	1.153	3.481	0.006	0.104	0.104	568.299	0.029	Welders_2016_6				
Welders	2016	251	500	7 251_500	20.731	0.306	1.134	3.032	0.005	0.097	0.097	568.299	0.027	Welders_2016_7				
Welders	2017	6	15	1 6_15	1.973	0.786	3.599	4.887	0.008	0.272	0.272	568.299	0.07	Welders_2017_1				
Welders	2017	16	25	2 16_25	3.785	0.83	2.564	4.729	0.007	0.243	0.243	568.299	0.074	Welders_2017_2				
Welders	2017	26	50	3 26_50	14.392	1.372	5.239	4.768	0.007	0.35	0.35	568.299	0.123	Welders_2017_3				
Welders	2017	51	120	4 51_120	10.06	0.63	3.675	4.328	0.006	0.332	0.332	568.299	0.056	Welders_2017_4				
Welders	2017	121	175	5 121_175	17.561	0.442	3.124	3.562	0.006	0.183	0.183	568.299	0.039	Welders_2017_5				
Welders	2017	176	250	6 176_250	14.942	0.31	1.133	3.105	0.006	0.094	0.094	568.299	0.028	Welders_2017_6				
Welders	2017	251	500	7 251_500	19.705	0.29	1.102	2.713	0.005	0.088	0.088	568.299	0.026	Welders_2017_7				
Welders	2018	6	15	1 6_15	1.923	0.766	3.58	4.762	0.008	0.256	0.256	568.3	0.069	Welders_2018_1				
Welders	2018	16	25	2 16_25	3.684	0.807	2.531	4.661	0.007	0.232	0.232	568.299	0.072	Welders_2018_2				
Welders	2018	26	50	3 26_50	12.698	1.21	5.092	4.607	0.007	0.311	0.311	568.299	0.109	Welders_2018_3				
Welders	2018	51	120	4 51_120	9.016	0.564	3.648	3.98	0.006	0.29	0.29	568.299	0.05	Welders_2018_4				
Welders	2018	121	175	5 121_175	15.966	0.402	3.123	3.176	0.006	0.162	0.162	568.299	0.036	Welders_2018_5				
Welders	2018	176	250	6 176_250	14.068	0.292	1.118	2.751	0.006	0.084	0.084	568.299	0.026	Welders_2018_6				
Welders	2018	251	500	7 251_500	18.804	0.277	1.08	2.43	0.005	0.08	0.08	568.299	0.025	Welders_2018_7				
Welders	2019	6	15	1 6_15	1.877	0.748	3.562	4.647	0.008	0.241	0.241	568.299	0.067	Welders_2019_1				
Welders	2019	16	25	2 16_25	3.592	0.787	2.501	4.596	0.007	0.222	0.222	568.299	0.071	Welders_2019_2				
Welders	2019	26	50	3 26_50	11.071	1.055	4.95	4.449	0.007	0.273	0.273	568.299	0.095	Welders_2019_3				
Welders	2019	51	120	4 51_120	8.032	0.503	3.623	3.648	0.006	0.25	0.25	568.299	0.045	Welders_2019_4				
Welders	2019	121	175	5 121_175	14.693	0.37	3.122	2.832	0.006	0.143	0.143	568.3	0.033	Welders_2019_5				
Welders	2019	176	250	6 176_250	13.284	0.276	1.104	2.432	0.006	0.075	0.075	568.299	0.024	Welders_2019_6				
Welders	2019	251	500	7 251_500	17.937	0.264	1.065	2.163	0.005	0.072	0.072	568.3	0.023	Welders_2019_7				
Welders	2020	6	15	1 6_15	1.835	0.731	3.546	4.542	0.008	0.227	0.227	568.299	0.066	Welders_2020_1				
Welders	2020	16	25	2 16_25	3.507	0.769	2.473	4.538	0.007	0.212	0.212	568.299	0.069	Welders_2020_2				
Welders	2020	26	50	3 26_50	9.83	0.937	4.84	4.304	0.007	0.238	0.238	568.299	0.084	Welders_2020_3				
Welders	2020	51	120	4 51_120	7.278	0.455	3.605	3.351	0.006	0.216	0.216	568.299	0.041	Welders_2020_4				
Welders	2020	121	175	5 121_175	13.663	0.344	3.122	2.523	0.006	0.127	0.127	568.299	0.031	Welders_2020_5				
Welders	2020	176	250	6 176_250	12.577	0.261	1.093	2.143	0.006	0.066	0.066	568.299	0.023	Welders_2020_6				
Welders	2020	251	500	7 251_500	17.094	0.252	1.055	1.91	0.005	0.064	0.064	568.299	0.022	Welders_2020_7				
Welders	2021	6	15	1 6_15	1.8	0.717	3.531	4.462	0.008	0.214	0.214	568.299	0.064	Welders_2021_1				

Attachment C																		
Equipment Type	Year	Low HP	High HP	Bin Number Low-High	TOG	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	Equip_Year_Bin	Bin Number	Min	Max	Bin Name
Welders	2021	16	25	2 16_25	3.431	0.752	2.446	4.497	0.007	0.201	0.201	568.299	0.067	Welders_2021_2				
Welders	2021	26	50	3 26_50	8.704	0.829	4.708	4.133	0.007	0.203	0.203	568.299	0.074	Welders_2021_3				
Welders	2021	51	120	4 51_120	6.572	0.411	3.579	3.042	0.006	0.184	0.184	568.299	0.037	Welders_2021_4				
Welders	2021	121	175	5 121_175	12.512	0.315	3.112	2.189	0.006	0.11	0.11	568.299	0.028	Welders_2021_5				
Welders	2021	176	250	6 176_250	11.711	0.243	1.081	1.836	0.006	0.057	0.057	568.299	0.021	Welders_2021_6				
Welders	2021	251	500	7 251_500	15.998	0.236	1.044	1.642	0.005	0.055	0.055	568.299	0.021	Welders_2021_7				
Welders	2022	6	15	1 6_15	1.774	0.707	3.519	4.408	0.008	0.203	0.203	568.3	0.063	Welders_2022_1				
Welders	2022	16	25	2 16_25	3.374	0.739	2.426	4.47	0.007	0.193	0.193	568.299	0.066	Welders_2022_2				
Welders	2022	26	50	3 26_50	7.959	0.758	4.645	4.007	0.007	0.175	0.175	568.299	0.068	Welders_2022_3				
Welders	2022	51	120	4 51_120	6.112	0.382	3.57	2.808	0.006	0.16	0.16	568.299	0.034	Welders_2022_4				
Welders	2022	121	175	5 121_175	11.714	0.295	3.113	1.935	0.006	0.097	0.097	568.3	0.026	Welders_2022_5				
Welders	2022	176	250	6 176_250	11.128	0.231	1.074	1.598	0.006	0.05	0.05	568.299	0.02	Welders_2022_6				
Welders	2022	251	500	7 251_500	15.267	0.225	1.038	1.454	0.005	0.049	0.049	568.3	0.02	Welders_2022_7				
Welders	2023	6	15	1 6_15	1.751	0.698	3.508	4.359	0.008	0.194	0.194	568.3	0.063	Welders_2023_1				
Welders	2023	16	25	2 16_25	3.322	0.728	2.407	4.447	0.007	0.186	0.186	568.299	0.065	Welders_2023_2				
Welders	2023	26	50	3 26_50	7.318	0.697	4.596	3.891	0.007	0.151	0.151	568.299	0.062	Welders_2023_3				
Welders	2023	51	120	4 51_120	5.713	0.357	3.564	2.599	0.006	0.139	0.139	568.299	0.032	Welders_2023_4				
Welders	2023	121	175	5 121_175	11.013	0.277	3.115	1.726	0.006	0.085	0.085	568.299	0.025	Welders_2023_5				
Welders	2023	176	250	6 176_250	10.606	0.22	1.071	1.404	0.006	0.044	0.044	568.299	0.019	Welders_2023_6				
Welders	2023	251	500	7 251_500	14.602	0.215	1.034	1.289	0.005	0.042	0.042	568.299	0.019	Welders_2023_7				
Welders	2024	6	15	1 6_15	1.731	0.69	3.499	4.316	0.008	0.188	0.188	568.299	0.062	Welders_2024_1				
Welders	2024	16	25	2 16_25	3.276	0.718	2.39	4.426	0.007	0.181	0.181	568.299	0.064	Welders_2024_2				
Welders	2024	26	50	3 26_50	6.78	0.646	4.557	3.782	0.007	0.13	0.13	568.299	0.058	Welders_2024_3				
Welders	2024	51	120	4 51_120	5.366	0.336	3.56	2.43	0.006	0.12	0.12	568.299	0.03	Welders_2024_4				
Welders	2024	121	175	5 121_175	10.369	0.261	3.118	1.541	0.006	0.074	0.074	568.299	0.023	Welders_2024_5				
Welders	2024	176	250	6 176_250	10.107	0.21	1.068	1.234	0.006	0.038	0.038	568.299	0.018	Welders_2024_6				
Welders	2024	251	500	7 251_500	13.957	0.206	1.032	1.135	0.005	0.037	0.037	568.299	0.018	Welders_2024_7				
Welders	2025	6	15	1 6_15	1.713	0.683	3.491	4.278	0.008	0.183	0.183	568.3	0.061	Welders_2025_1				
Welders	2025	16	25	2 16_25	3.237	0.709	2.376	4.407	0.007	0.177	0.177	568.299	0.064	Welders_2025_2				
Welders	2025	26	50	3 26_50	6.315	0.602	4.524	3.676	0.007	0.112	0.112	568.299	0.054	Welders_2025_3				
Welders	2025	51	120	4 51_120	5.055	0.316	3.557	2.283	0.006	0.102	0.102	568.299	0.028	Welders_2025_4				
Welders	2025	121	175	5 121_175	9.743	0.245	3.121	1.365	0.006	0.063	0.063	568.299	0.022	Welders_2025_5				
Welders	2025	176	250	6 176_250	9.621	0.199	1.065	1.075	0.006	0.032	0.032	568.299	0.018	Welders_2025_6				
Welders	2025	251	500	7 251_500	13.325	0.196	1.029	0.99	0.005	0.031	0.031	568.299	0.017	Welders_2025_7				
Welders	2030	6	15	1 6_15	1.665	0.663	3.47	4.164	0.008	0.166	0.166	568.299	0.059	Welders_2030_1				
Welders	2030	16	25	2 16_25	3.133	0.687	2.34	4.347	0.007	0.165	0.165	568.299	0.061	Welders_2030_2				
Welders	2030	26	50	3 26_50	4.719	0.449	4.387	3.273	0.007	0.045	0.045	568.299	0.04	Welders_2030_3				
Welders	2030	51	120	4 51_120	3.827	0.239	3.535	1.707	0.006	0.04	0.04	568.299	0.021	Welders_2030_4				
Welders	2030	121	175	5 121_175	7.011	0.176	3.121	0.628	0.006	0.027	0.027	568.299	0.015	Welders_2030_5				
Welders	2030	176	250	6 176_250	7.829	0.162	1.063	0.525	0.006	0.017	0.017	568.299	0.014	Welders_2030_6				
Welders	2030	251	500	7 251_500	10.967	0.161	1.027	0.495	0.005	0.017	0.017	568.299	0.014	Welders_2030_7				
Welders	2035	6	15	1 6_15	1.659	0.661	3.469	4.143	0.008	0.162	0.162	568.299	0.059	Welders_2035_1				
Welders	2035	16	25	2 16_25	3.126	0.685	2.339	4.332	0.007	0.162	0.162	568.299	0.061	Welders_2035_2				
Welders	2035	26	50	3 26_50	4.262	0.406	4.349	3.147	0.007	0.022	0.022	568.299	0.036	Welders_2035_3				
Welders	2035	51	120	4 51_120	3.418	0.214	3.528	1.509	0.006	0.019	0.019	568.299	0.019	Welders_2035_4				
Welders	2035	121	175	5 121_175	6.087	0.153	3.121	0.387	0.006	0.015	0.015	568.299	0.013	Welders_2035_5				
Welders	2035	176	250	6 176_250	7.189	0.149	1.063	0.343	0.006	0.012	0.012	568.299	0.013	Welders_2035_6				
Welders	2035	251	500	7 251_500	10.118	0.149	1.027	0.339	0.005	0.012	0.012	568.299	0.013	Welders_2035_7				
Welders	2040	6	15	1 6_15	1.659	0.661	3.469	4.142	0.008	0.161	0.161	568.299	0.059	Welders_2040_1				
Welders	2040	16	25	2 16_25	3.126	0.685	2.339	4.332	0.007	0.161	0.161	568.299	0.061	Welders_2040_2				
Welders	2040	26	50	3 26_50	4.218	0.402	4.336	3.093	0.007	0.015	0.015	568.3	0.036	Welders_2040_3				
Welders	2040	51	120	4 51_120	3.322	0.208	3.524	1.447	0.006	0.014	0.014	568.299	0.018	Welders_2040_4				
Welders	2040	121	175	5 121_175	5.753	0.145	3.118	0.303	0.006	0.011	0.011	568.299	0.013	Welders_2040_5				
Welders	2040	176	250	6 176_250	6.911	0.143	1.062	0.287	0.006	0.01	0.01	568.3	0.012	Welders_2040_6				
Welders	2040	251	500	7 251_500	9.728	0.143	1.026	0.287	0.005	0.01	0.01	568.299	0.012	Welders_2040_7				

OFFROAD Equipment Type	Load Factor
Aerial Lifts	0.31
Air Compressors	0.48
Bore/Drill Rigs	0.5
Cement and Mortar Mixers	0.56
Concrete/Industrial Saws	0.73
Cranes	0.29
Crawler Tractors	0.43
Crushing/Proc. Equipment	0.78
Dumpers/Tenders	0.38
Excavators	0.38
Forklifts	0.2
Generator Sets	0.74
Graders	0.41
Off-Highway Tractors	0.44
Off-Highway Trucks	0.38
Other Construction Equipment	0.42
Other General Industrial Equipment	0.34
Other Material Handling Equipment	0.4
Pavers	0.42
Paving Equipment	0.36
Plate Compactors	0.43
Pressure Washers	0.3
Pumps	0.74
Rollers	0.38
Rough Terrain Forklifts	0.4
Rubber Tired Dozers	0.4
Rubber Tired Loaders	0.36
Scrapers	0.48
Signal Boards	0.82
Skid Steer Loaders	0.37
Surfacing Equipment	0.3
Sweepers/Scrubbers	0.46
Tractors/Loaders/Backhoes	0.37
Trenchers	0.5
Welders	0.45

Class	Type	Concat	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
Heavy	Uncontrolled	U_Heavy	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
Medium	Uncontrolled	U_Medium	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
Passenger	Uncontrolled	U_Passenger	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
Heavy	Controlled	C_Heavy	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
Medium	Controlled	C_Medium	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
Passenger	Controlled	C_Passenger	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002

Notes:

1. A sample CalEEMod Run was prepared
2. 100 mile trips were assumed for each vehicle class
3. Emission factors represent lbs/100 miles

Earthwork EFs (pounds/acre)

Category	Type	PM10	PM25
Grading	Uncontrolled	0.139394963	0.125455467
Grading	Controlled	0.062727733	0.05645496

Notes:

Assume 55% control efficiency

Assume 90 of PM10 is PM2.5

EF 0.139394963

EF Controlled 0.062727733

FOCA Guidance on Determination of Helicopter Emissions, Edition 2, December 2015 Fuel Usage and Emission Factor Data

Phase	Fuel Consumption (kg/hour)	NOx (kg/hr)	HC (kg/hr)	CO (kg/hr)	PM non volatile (kg/hr)	
Helicopter LTO		16.448	0.060	0.446	0.582	0.002
Helicopter Operation		98.836	0.484	0.955	1.200	0.016

Emission Factor - CAP - kg/hour

Phase	Hours per Day	kg/hour Fuel Consumption	kg/hour ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
Helicopter LTO		0.675	16.448	1.981	2.587	0.266	0.009	0.010	0.009	0.036
Helicopter Operation		7.325	98.836	0.955	1.200	0.484	0.053	0.016	0.014	0.218

Notes:
Each day of operation would require 3 LTOs lasting 13.5 minutes each
All remaining time considered operational
*Assume 90% of PM = PM2.5 and 100% of PM is PM10
Jet fuel density = 6.8 pounds/gallon
Jet fuel averages 0.054% sulfur (FAA's Aviation Emissions, Impacts & Mitigation: a Primer, dated January 2015)

Emission Factor - GHG - kg/hr

Phase	Hours per Day	Fuel Consumption - kg/hr	Fuel Consumption lbs/hr	Fuel Consumption gal/hr	CO2 kg/hr	Ch4 kg/hr
Helicopter LTO		0.675	16.45	36.26	5.33	0.04
Helicopter Operation		7.325	98.84	217.90	32.04	0.22

grams CO₂ per Gallon of Jet A Fuel - Helicopters 9570 grams per gallon CCAR GRP v3.1 Table C.3
grams CH₄ per Gallon of Jet A Fuel - Helicopters 0.27 grams per gallon CCAR GRP v3.1 Table C.6

Daily Emission Factors - lbs

Type	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
Helicopter	18.375	23.225	8.209	0.875	0.275	0.247	3.573	3.573

Pollutant	GWP
CO2	1
CH4	21
SF6	23900

LTO Emissions

One hour emissions

Aircraft_ICA0	Aircraft_Name	Engine_Name	Max SHP per engine	Number_of_Engines	LTO fuel (kg)	LTO NOx (g)	LTO HC (g)	LTO CO (g)	LTO PM non volatile (g)	One hour fuel (kg)	One hour NOx (kg)	One hour HC (kg)	One hour CO (kg)	One hour PM non vol. (kg)
A109	AGUSTA A109	DDA250-C20R/1	450	2	33.8	139	952	1252	5	210	1.11	1.74	2.17	0.036
A109	AGUSTA A109E	PW206C	550	2	37.1	172	841	1100	6	209	1.24	1.40	1.74	0.039
A109	AGUSTA A109	PW207C	650	2	41.6	212	779	1013	7	237	1.55	1.32	1.63	0.047
A109	AGUSTA A109 K2	ARRIEL1K1	738	2	44.4	245	720	933	8	255	1.79	1.24	1.53	0.053
A109	AGUSTA A109 Power	ARRIUS 2K	670	2	42.2	220	765	993	7	241	1.60	1.30	1.60	0.048
A109	AGUSTA A109A II	DDA250-C20B	420	2	32.8	130	994	1310	5	204	1.04	1.82	2.28	0.034
A109	AGUSTA A109C	DDA250-C20R	450	2	33.8	139	952	1252	5	210	1.11	1.74	2.17	0.036
A119	AGUSTA A119	PT6B-37	900	1	28.5	193	241	305	6	192	1.70	0.60	0.73	0.048
A139	AGUSTA A139	PT6C-67C	1100	2	60.3	376	753	968	12	412	3.54	1.37	1.67	0.101
ALO2	ALOUETTE II	ARTOUSTE IIC5	402	1	18.2	76	384	498	3	110	0.61	0.82	1.02	0.019
ALO2	ALOUETTE II	ARTOUSTE IIC6	402	1	18.2	76	384	498	3	110	0.61	0.82	1.02	0.019
ALO3	SA316B ALOUETTE III	ARTOUSTE IIIB	563	1	21.4	109	312	401	4	135	0.91	0.70	0.87	0.027
ALO3	SA316B ALOUETTE III	ASTAZOU XIVB	590	1	21.9	115	303	389	4	139	0.97	0.69	0.85	0.029
AS32	SUPER PUMA	MAKILA 1A1	1820	2	77.4	652	540	683	19	491	5.60	0.95	1.14	0.153
AS35	AS 350 B3	ARRIEL 2B	848	1	27.5	179	249	316	6	152	1.30	0.51	0.62	0.037
AS35	AS 350 B3	ARRIEL 2B1	848	1	27.5	179	249	316	6	152	1.30	0.51	0.62	0.037
AS35	AS 350 ECUREUIL	ARRIEL 1B	641	1	23.5	129	294	375	4	133	0.97	0.60	0.74	0.029
AS35	AS 350B ECUREUIL	ARRIEL 1D1	732	1	25.2	150	271	346	5	147	1.15	0.57	0.70	0.033
AS50	AS 550 FENNEC	ARRIEL 1D1	732	1	25.2	150	271	346	5	147	1.15	0.57	0.70	0.033
AS55	AS 355	DDA250-C20F	420	2	32.8	130	994	1310	5	204	1.04	1.82	2.28	0.034
AS55	AS 355 N	ARRIUS 1A	480	2	34.8	149	914	1200	5	216	1.19	1.67	2.08	0.038
AS55	AS 555 FENNEC	ARRIEL 1D1	712	2	43.6	235	736	955	8	277	1.91	1.40	1.73	0.057
AS65	AS 365 C1 DAUPHIN	ARRIEL 1A1	641	2	41.3	209	786	1023	7	261	1.69	1.48	1.83	0.051
AS65	AS 365 C2 DAUPHIN	ARRIEL 1A2	641	2	41.3	209	786	1023	7	261	1.69	1.48	1.83	0.051
AS65	AS 365 N DAUPHIN	ARRIEL 1C	660	2	41.9	216	772	1003	7	265	1.75	1.45	1.80	0.053
AS65	AS 365 N1 DAUPHIN	ARRIEL 1C1	700	2	43.2	231	744	965	8	274	1.87	1.41	1.74	0.056
AS65	AS 365 N3 DAUPHIN	ARRIEL 2C	839	2	47.7	285	667	860	9	309	2.34	1.31	1.60	0.068
B06	BELL 206B	DDA250-C20	400	1	18.2	75	385	499	3	109	0.61	0.82	1.03	0.019
B06	BELL 206B	DDA250-C20B	420	1	18.6	79	373	484	3	101	0.58	0.72	0.90	0.018
B06	BELL 206B	DDA250-C20J	420	1	18.6	79	373	484	3	101	0.58	0.72	0.90	0.018
B06	BELL 206B	DDA250-C20R	450	1	19.2	85	358	463	3	105	0.63	0.70	0.86	0.019
B06	BELL 206B	DDA250-C20R/4	450	1	19.2	85	358	463	3	105	0.63	0.70	0.86	0.019
B06	BELL 206L	DDA250-C20R	450	1	19.2	85	358	463	3	117	0.70	0.77	0.96	0.022

Aircraft_ ICAO	Aircraft_Name	Engine_Name	Max SHP per engine	Number_of_ Engines	LTO Emissions					One hour emissions				
					LTO fuel (kg)	LTO NOx (g)	LTO HC (g)	LTO CO (g)	LTO PM non volatile (g)	One hour fuel (kg)	One hour NOx (kg)	One hour HC (kg)	One hour CO (kg)	One hour PM non vol. (kg)
B06	BELL 206L	DDA250-C30	650	1	23.7	131	291	372	4	149	1.10	0.66	0.82	0.032
B06	BELL 206L	DDA250-C30P	650	1	23.7	131	291	372	4	149	1.10	0.66	0.82	0.032
B06T	BeII TWIN RANGER	DDA250-C20R	450	2	33.8	139	952	1252	5	210	1.11	1.74	2.17	0.036
B105	BO 105	DDA250-C20	400	2	32.1	123	1025	1353	5	200	0.99	1.88	2.36	0.033
B105	BO 105	DDA250-C20B	420	2	32.8	130	994	1310	5	204	1.04	1.82	2.28	0.034
B222	BELL 222	DDA250-C40B	715	2	43.7	236	734	952	8	278	1.92	1.40	1.72	0.057
B222	BELL 222	LTS101-750C.1	735	2	44.3	244	722	935	8	283	1.98	1.38	1.70	0.059

Attachment C

Aircraft_ ICAO	Aircraft_Name	Engine_Name	Max SHP per engine	Number_of_Engines	LTO Emissions					One hour emissions				
					LTO fuel (kg)	LTO NOx (g)	LTO HC (g)	LTO CO (g)	LTO PM non volatile (g)	One hour fuel (kg)	One hour NOx (kg)	One hour HC (kg)	One hour CO (kg)	One hour PM non vol. (kg)
B407	Bell 407	DDA250-C47B	650	1	23.7	131	291	372	4	149	1.10	0.66	0.82	0.032
B412	Bell 412	PT6T-3	1800	2	77.0	644	544	688	19	541	6.14	1.06	1.27	0.168
B430	Bell 430	DDA250-C40B	715	2	43.7	236	734	952	8	278	1.92	1.40	1.72	0.057
BK17	BK117	ARRIEL 1E2	738	2	44.4	245	720	933	8	283	1.99	1.38	1.70	0.059
BK17	BK117 C-2	ARRIEL 1E2	738	2	44.4	245	720	933	8	283	1.99	1.38	1.70	0.059
BK17	BK117B	LTS101-750B.1	727	2	44.1	241	727	942	8	281	1.96	1.39	1.71	0.058
EC20	EC 120	ARRIUS 2F	432	1	18.8	82	367	475	3	114	0.67	0.79	0.98	0.021
EC30	EC 130 B4	ARRIEL 2B1	848	1	27.5	179	249	316	6	183	1.56	0.61	0.74	0.045
EC35	EC 135	ARRIUS 2B1	633	2	41.1	206	792	1031	7	259	1.67	1.49	1.84	0.051
EC35	EC 135	ARRIUS 2B2	633	2	41.1	206	792	1031	7	259	1.67	1.49	1.84	0.051
EC55	EC 155 B	ARRIEL 2C1	839	2	47.7	285	667	860	9	309	2.34	1.31	1.60	0.068
EC55	EC 155 B1	ARRIEL 2C2	944	2	51.0	328	622	800	10	337	2.73	1.26	1.54	0.079
EN48	ENSTROM 480	DDA250-C20W	420	1	18.6	79	373	484	3	112	0.64	0.80	1.00	0.020
EXPL	MD 900	PW206A	621	2	40.7	202	802	1045	7	257	1.64	1.50	1.86	0.050
GAZL	SA341 GAZELLE	ASTAZOU IIIA	644	1	23.5	130	293	374	4	148	1.09	0.67	0.82	0.032
GAZL	SA341 GAZELLE	ASTAZOU IIIN2	644	1	23.5	130	293	374	4	148	1.09	0.67	0.82	0.032
GAZL	SA342 GAZELLE	ASTAZOU XIVG	590	1	21.9	115	303	389	4	139	0.97	0.69	0.85	0.029
GAZL	SA342 GAZELLE	ASTAZOU XIVH	590	1	21.9	115	303	389	4	139	0.97	0.69	0.85	0.029
H500	HUGHES 500	DDA250-C18	317	1	16.4	60	446	582	2	99	0.48	0.96	1.20	0.016
H500	HUGHES 501	DDA250-C20B	420	1	18.6	79	373	484	3	112	0.64	0.80	1.00	0.020
H500	MD 500N	DDA250-C20R	450	1	19.2	85	358	463	3	117	0.70	0.77	0.96	0.022
H53	SIKORSKY CH-53G (S-65)	T 64-GE-7	3925	2	125.4	1690	351	433	41	977	17.27	0.82	0.96	0.388
H53S	SIKORSKY SUPER STALLION	T 64-GE-7	3925	3	188.0	2535	526	649	62	1332	21.99	1.27	1.50	0.523
H60	SIKORSKY BLACK HAWK	T700-GE-700	1622	2	72.8	573	581	737	17	508	5.43	1.11	1.34	0.150
KA27	KA-32A12	TV3-117VMA	2200	2	86.2	815	481	605	23	621	7.90	0.98	1.17	0.211
KMAX	K-1200	T53 17A-1	1500	1	43.4	391	210	261	11	284	3.36	0.51	0.61	0.091
LAMA	SA315B LAMA	ARTOUSTE IIIB	563	1	21.4	109	312	401	4	159	1.08	0.83	1.02	0.032
MD52	MD 520N	DDA250-C20	400	1	18.2	75	385	499	3	109	0.61	0.82	1.03	0.019
MD60	MD 600N	DDA250-C47M	650	1	23.7	131	291	372	4	149	1.10	0.66	0.82	0.032
Mi8	MIL MI-8	TV2-117	1500	2	70.0	525	611	778	16	485	4.97	1.15	1.39	0.138
S76	SIKORSKY S76	DDA250-C30S	650	2	41.6	212	779	1013	7	263	1.72	1.46	1.81	0.052
S76	SIKORSKY S76	PT6B-36A	981	2	52.2	343	609	782	11	348	2.87	1.24	1.52	0.082
S76	SIKORSKY S-76 C+	ARRIEL 2S1	856	2	48.2	291	659	850	9	313	2.40	1.30	1.59	0.070
S92	SIKORSKY S92A	GE CT7-8A	2740	2	98.5	1066	424	529	29	735	10.59	0.91	1.08	0.271
UH1	BELL UH-1H	T53 L13	1400	1	41.8	361	218	273	10	271	3.09	0.53	0.63	0.084
UH12	HILLER UH-12A	VO-540-1B	320	1	12.3	26	157	12310	1	82	0.16	0.91	82.33	0.006
B47G	Bell 47G	LYC TVO-435-B1A	270	1	9.9	21	134	9873	1	65	0.13	0.76	64.62	0.005
B47G	Bell 47G-3B	LYC VO-435-A1D	220	1	7.8	16	114	7759	1	50	0.10	0.63	49.94	0.003
EN28	ENSTROM 280C	HIO-360	190	1	6.6	14	102	6591	0	42	0.08	0.56	42.00	0.003
EXEC	ROTORWAY EXEC 90	ROTORWAY RI-162	150	1	5.1	11	87	5118	0	32	0.06	0.46	32.07	0.002
H269	SCHWEIZER 269C	HIO-360	190	1	6.6	14	102	6591	0	42	0.08	0.56	42.00	0.003

					LTO Emissions					One hour emissions				
Aircraft_ ICAO	Aircraft_Name	Engine_Name	Max SHP per engine	Number_of_Engines	LTO fuel (kg)	LTO NOx (g)	LTO HC (g)	LTO CO (g)	LTO PM non volatile (g)	One hour fuel (kg)	One hour NOx (kg)	One hour HC (kg)	One hour CO (kg)	One hour PM non vol. (kg)
HU30	HUGHES 300	HIO-360	190	1	6.6	14	102	6591	0	42	0.08	0.56	42.00	0.003
R22	R22 BETA	HO-360	180	1	6.2	13	98	6214	0	39	0.08	0.53	39.46	0.003
R44	R44 RAVEN	HIO-540	245	1	8.8	18	124	8785	1	57	0.11	0.69	57.00	0.004
SCOR	ROTORWAY SCORPION	ROTORWAY RW 133	133	1	4.5	9	80	4519	0	28	0.06	0.42	28.04	0.002
SYCA	BRISTOL SYCAMORE	ALVIS LEONIDES	550	1	34.8	63	349	34826	3	277	0.55	2.52	276.80	0.019

Attachment C

Tier	Bin	Tier-Bin	Low	High	ROG	CO	NOX	PM10	PM25
1	1	1 1-1	25	49	1.74	4.1	5.26	0.48	0.48
1	2	2 1-2	50	74	1.19	6.9	6.54	0.552	0.552
1	3	3 1-3	75	119	1.19	6.9	6.54	0.552	0.552
1	4	4 1-4	120	174	0.82	6.9	6.54	0.274	0.274
1	5	5 1-5	175	299	0.38	6.9	5.93	0.108	0.108
1	6	6 1-6	300	599	0.38	6.9	5.93	0.108	0.108
1	7	7 1-7	600	750	0.38	6.9	5.93	0.108	0.108
1	8	8 1-8	751	2000	0.38	6.9	5.93	0.108	0.108
2	1	1 2-1	25	49	0.29	4.1	4.63	0.28	0.28
2	2	2 2-2	50	74	0.23	3.7	4.75	0.192	0.192
2	3	3 2-3	75	119	0.23	3.7	4.75	0.192	0.192
2	4	4 2-4	120	174	0.19	3.7	4.17	0.128	0.128
2	5	5 2-5	175	299	0.12	2.6	4.15	0.088	0.088
2	6	6 2-6	300	599	0.12	2.6	3.79	0.088	0.088
2	7	7 2-7	600	750	0.12	2.6	3.79	0.088	0.088
2	8	8 2-8	751	2000	0.12	2.6	3.79	0.088	0.088
3	1	1 3-1	25	49	0.29	4.1	4.63	0.28	0.28
3	2	2 3-2	50	74	0.12	3.7	2.74	0.192	0.192
3	3	3 3-3	75	119	0.12	3.7	2.74	0.192	0.192
3	4	4 3-4	120	174	0.12	3.7	2.32	0.112	0.112
3	5	5 3-5	175	299	0.12	2.6	2.32	0.088	0.088
3	6	6 3-6	300	599	0.12	2.6	2.32	0.088	0.088
3	7	7 3-7	600	750	0.12	2.6	2.32	0.088	0.088
3	8	8 3-8	751	2000	0.12	2.6	2.32	0.088	0.088
4	1	1 4-1	25	49	0.12	4.1	2.75	0.008	0.008
4	2	2 4-2	50	74	0.12	3.7	2.74	0.008	0.008
4	3	3 4-3	75	119	0.12	3.7	0.26	0.008	0.008
4	4	4 4-4	120	174	0.06	3.7	0.26	0.008	0.008
4	5	5 4-5	175	299	0.06	2.2	0.26	0.008	0.008
4	6	6 4-6	300	599	0.06	2.2	0.26	0.008	0.008
4	7	7 4-7	600	750	0.06	2.2	0.26	0.008	0.008
4	8	8 4-8	751	2000	0.06	2.6	2.24	0.016	0.016

Act Num	O&M Activity	Frequency (Low)	Frequency (High)	Duration (Low)	Duration (High)	Annual Days	Notes
1	Pipeline Patrols	--	--	--	--	30	
2	Valve Inspections	--	--	--	--	45	
3	Integrity Mgmt	6	6	10	10	72	
4	Telecom Site Inspections	--	--	--	--	20	
5	Road Surface Maintenance	--	--	--	--	60	
6	ROW Access Rd Repair	1	1	60	60	60	
7	Erosion Control	1	1	12	15	15	
8	Telecomm Site Maintenance	--	--	--	--	20	
9	Span Painting/Air to Soil Corrosion Protection	1	1	36	36	36	
10	Below-grade Pipe Inspection	10	10	2	10	60	
11	Internal Pipeline Inspection - Inspection	--	--	--	--	105	Inspection occurs up to 1x per year for 37 days. Calibration occurs 5x - 10x per year and between 5 to 10 days each time. Total for Inspection is 105 days
12	Installation Pig Launcher	4	6	36	48	210	
13	Valve/Pipeline Excavation and Recoating	0	25	12	24	225	
14	Installation of Mg Anodes	0	10	1	3	10	
15	Installation of Deep Well Anodes/Thermoelectric	0	11	12	24	99	
16	Installation of Flex Anodes	0	1	24	24	12	
17	Installation or Replacement of Horizontal Anode Beds	0	1	30	42	18	
18	Electronic Test System Station	5	10	5	5	38	
19	Cathodic Test Station Installations	0	100	1	2	75	
20	Valve Replacement/Automation	0	10	24	30	135	
21	Hydrostatic Testing	0	6	48	48	144	
22	Pipeline Segment Replacement	0	5	24	144	210	
23	HPR Deactivation	0	10	6	6	30	
24	Soil Stabilization	--	--	--	--	15	
25	Water diversion channels	0	2	2	2	2	
26	Fire Response	--	--	--	--	5	

Notes:
Frequency reports the anticipated number of times each activity would occur on a yearly basis
Duration reports the anticipated number of days required to complete each activity
Annual Days reports the estimated number of days each activity would occur annually. This estimate was determined by multiplying the average duration by the average frequency, then adding 20%.

Act Num	O&M Activity	Type of Equipment	Fixed Equip Name	Quantity	Hours Per Day	On-Off	CalEEModType	HP	CalEEMod Bin	Controlled Bin	On Type	Trips Per Day	Trips Per Day Fixed	Trip Length	Total Miles
1	Pipeline Patrols	Pickup Truck/Sport Utility Vehicle	Pickup Truck/Sport Utility Vehicle	2	On						Passenger	1	2	100	
2	Valve Inspections and Lubrication	Pickup Truck	Pickup Truck	2	On						Passenger	1	2	100	
3	Integrity Management	Pickup Truck	Pickup Truck	2	On						Passenger	1	2	100	
4	Telecommunication Site Inspections	Pickup Truck	Pickup Truck	2	On						Passenger	1	2	100	
4	Telecommunication Site Inspections	Helicopter	Helicopter	2	8	Helicopter									
5	Road Surface Maintenance	Motor Grader	Grader	1	8	Off	Graders	187	6	5					
5	Road Surface Maintenance	Backhoe	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	3					
5	Road Surface Maintenance	Front loader	Front loader	1	8	Off	Tractors/Loaders/Backhoes	97	4	3					
6	Right-of-Way and Access Road Repair	Motor Grader	Grader	1	8	Off	Graders	187	6	5					
6	Right-of-Way and Access Road Repair	Water Truck	Water Truck	1	On						Heavy	1	1	100	100
6	Right-of-Way and Access Road Repair	Backhoe	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	3					
6	Right-of-Way and Access Road Repair	Front loader	Front loader	1	8	Off	Tractors/Loaders/Backhoes	97	4	3					
7	Erosion Control	Pickup Truck	Pickup Truck	2	On						Passenger	1	2	100	
8	Telecommunications Site Maintenance	Pickup Truck	Pickup Truck	2	On						Passenger	1	2	100	
8	Telecommunications Site Maintenance	Helicopter	Helicopter	1	8	Helicopter									
9	Span Painting/Air to Soil Corrosion Protection	Pickup Truck	Pickup Truck	2	On						Passenger	1	2	100	
9	Span Painting/Air to Soil Corrosion Protection	Excavator	Excavator	1	8	Off	Excavators	158	5	4					
10	Below-Grade Pipe and Coating Inspection	Pickup Truck	Pickup Truck	2	On						Passenger	1	2	100	
10	Below-Grade Pipe and Coating Inspection	Flatbed Truck/Trailer	Flatbed Truck/Trailer	1	On						Medium	1	1	100	
10	Below-Grade Pipe and Coating Inspection	Dump Truck with Trailer	Dump Truck	1	On						Heavy	1	1	100	100
10	Below-Grade Pipe and Coating Inspection	Backhoe	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	3					
10	Below-Grade Pipe and Coating Inspection	Water Truck	Water Truck	1	On						Heavy	1	1	100	100
10	Below-Grade Pipe and Coating Inspection	Trailer-mounted compressor	Trailer-mounted compressor	1	8	Off	Air Compressors	78	4	3					
11	Internal Pipeline Inspection	Pickup Truck	Pickup Truck	1	On						Passenger	1	1	100	
11	Internal Pipeline Inspection	Excavator	Excavator	1	8	Off	Excavators	158	5	4					
11	Internal Pipeline Inspection	Water Truck	Water Truck	1	On						Heavy	1	1	100	100
12	Installation of Pig Launcher/Receiver Facilities	Pickup Truck	Pickup Truck	4	On						Passenger	1	4	100	
12	Installation of Pig Launcher/Receiver Facilities	Flatbed Truck	Flatbed Truck/Trailer	1	On						Medium	1	1	100	
12	Installation of Pig Launcher/Receiver Facilities	Dump Truck with Trailer	Dump Truck	1	On						Heavy	1	1	100	100
12	Installation of Pig Launcher/Receiver Facilities	Backhoe	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	3					
12	Installation of Pig Launcher/Receiver Facilities	Excavator	Excavator	1	8	Off	Excavators	158	5	4					
12	Installation of Pig Launcher/Receiver Facilities	Truck- or Trailer-mounted compressor	Trailer-mounted compressor	2	8	Off	Air Compressors	78	4	3					
12	Installation of Pig Launcher/Receiver Facilities	Truck-mounted crane	Truck-mounted crane	1	8	Off	Cranes	231	6	5					
12	Installation of Pig Launcher/Receiver Facilities	Water truck	Water Truck	1	On						Heavy	1	1	100	100
12	Installation of Pig Launcher/Receiver Facilities	Side Boom	Side Boom	1	8	Off	Cranes	231	6	5					
12	Installation of Pig Launcher/Receiver Facilities	Welding Trucks	Welding Truck	2	On						Passenger	1	2	100	
13	Valve/Pipeline Excavation and Recoating	Pickup Truck	Pickup Truck	2	On						Passenger	1	2	100	
13	Valve/Pipeline Excavation and Recoating	Flatbed Truck	Flatbed Truck/Trailer	2	On						Medium	1	2	100	
13	Valve/Pipeline Excavation and Recoating	Dump Truck with Trailer	Dump Truck	2	On						Heavy	1	2	100	200
13	Valve/Pipeline Excavation and Recoating	Backhoe	Backhoe	2	8	Off	Tractors/Loaders/Backhoes	97	4	3					
13	Valve/Pipeline Excavation and Recoating	Excavator	Excavator	2	8	Off	Excavators	158	5	4					
13	Valve/Pipeline Excavation and Recoating	Water Truck	Water Truck	2	On						Heavy	1	2	100	200
13	Valve/Pipeline Excavation and Recoating	Vacuum Excavator	Vacuum Excavator	2	8	Off	Excavators	158	5	4					
13	Valve/Pipeline Excavation and Recoating	Truck- or Trailer-mounted compressor	Trailer-mounted compressor	2	8	Off	Air Compressors	78	4	3					
13	Valve/Pipeline Excavation and Recoating	Portable Sand Blaster	Portable Sand Blaster	2	8	Off	Air Compressors	78	4	3					
13	Valve/Pipeline Excavation and Recoating	Truck-mounted crane	Truck-mounted crane	2	8	Off	Cranes	231	6	5					
14	Installation of Magnesium Anodes	Pickup Truck	Pickup Truck	1	On						Passenger	1	1	100	
14	Installation of Magnesium Anodes	Flatbed Truck	Flatbed Truck/Trailer	1	On						Medium	1	1	100	
14	Installation of Magnesium Anodes	Dump Truck with Trailer	Dump Truck	1	On						Heavy	1	1	100	100
14	Installation of Magnesium Anodes	Backhoe	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	3					
14	Installation of Magnesium Anodes	Water Truck	Water Truck	1	On						Heavy	1	1	100	100
15	Installation of Deep Well Anodes/Thermoelectric Generators	Drilling Rig	Drilling Rig	1	8	Off	Bore/Drill Rigs	221	6	5					
15	Installation of Deep Well Anodes/Thermoelectric Generators	Pickup Truck	Pickup Truck	3	On						Passenger	1	3	100	
15	Installation of Deep Well Anodes/Thermoelectric Generators	Water Truck	Water Truck	1	On						Heavy	1	1	100	100
16	Installation of Flex Anodes	Pickup Truck	Pickup Truck	1	On						Passenger	1	1	100	
16	Installation of Flex Anodes	Trailer	Trailer	1	NA										
16	Installation of Flex Anodes	Water Truck	Water Truck	1	On						Heavy	1	1	100	100
16	Installation of Flex Anodes	Trencher	Trencher	1	8	Off	Trenchers	78	4	3					
17	Installation or Replacement of Horizontal Anode Beds	Pickup Truck	Pickup Truck	2	On						Passenger	1	2	100	
17	Installation or Replacement of Horizontal Anode Beds	Flatbed Truck/Trailer	Flatbed Truck/Trailer	1	On						Medium	1	1	100	
17	Installation or Replacement of Horizontal Anode Beds	Dump Truck with Trailer	Dump Truck	1	On						Heavy	1	1	100	100
17	Installation or Replacement of Horizontal Anode Beds	Backhoe	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	3					
17	Installation or Replacement of Horizontal Anode Beds	Water Truck	Water Truck	1	On						Heavy	1	1	100	100
18	Electronic Test System Station	Pickup Truck	Pickup Truck	1	On						Passenger	1	1	100	
19	Cathodic Test Station Installations	Pickup Truck	Pickup Truck	2	On						Passenger	1	2	100	
19	Cathodic Test Station Installations	Truck with Trailer	Truck with Trailer	1	On						Medium	1	1	100	
19	Cathodic Test Station Installations	Backhoe	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	3					
20	Valve Replacement/Automation	Pickup Truck	Pickup Truck	4	On						Passenger	1	4	100	
20	Valve Replacement/Automation	Flatbed Truck	Flatbed Truck/Trailer	1	On						Medium	1	1	100	
20	Valve Replacement/Automation	Dump Truck with Trailer	Dump Truck	1	On						Heavy	1	1	100	100
20	Valve Replacement/Automation	Backhoe	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	3					

Act Num	O&M Activity	Type of Equipment	Fixed Equip Name	Quantity	Hours Per Day	On-Off	CalEEModType	HP	CalEEMod Bin	Controlled Bin	On Type	Trips Per Day	Trips Per Day Fixed	Trip Length	Total Miles
	20 Valve Replacement/Automation	Excavator	Excavator	1	8 Off		Excavators	158	5	4					
	20 Valve Replacement/Automation	Water Truck	Water Truck	1	On						Heavy	1	1	100	100
	20 Valve Replacement/Automation	Vacuum Excavator	Vacuum Excavator	1	8 Off		Excavators	158	5	4					
	20 Valve Replacement/Automation	Welding Trucks	Welding Truck	3	On						Passenger	1	3	100	
	20 Valve Replacement/Automation	Truck- or Trailer-mounted compressor	Trailer-mounted compressor	3	8 Off		Air Compressors	78	4	3					
	20 Valve Replacement/Automation	Truck-mounted crane	Truck-mounted crane	1	8 Off		Cranes	231	6	5					
	20 Valve Replacement/Automation	Front loader	Front loader	1	8 Off		Tractors/Loaders/Backhoes	97	4	3					
	21 Hydrostatic Testing	Air Compressor	Air Compressor	2	8 Off		Air Compressors	78	4	3					
	21 Hydrostatic Testing	Crane	Crane	1	8 Off		Cranes	231	6	5					
	21 Hydrostatic Testing	Flatbed Truck/Trailer	Flatbed Truck/Trailer	2	On						Medium	1	2	100	
	21 Hydrostatic Testing	Backhoe	Backhoe	1	8 Off		Tractors/Loaders/Backhoes	97	4	3					
	21 Hydrostatic Testing	Track hoe	Track hoe	1	8 Off		Tractors/Loaders/Backhoes	97	4	3					
	21 Hydrostatic Testing	Excavator	Excavator	1	8 Off		Excavators	158	5	4					
	21 Hydrostatic Testing	Pick-up Truck	Pickup Truck	3	On						Passenger	1	3	100	
	21 Hydrostatic Testing	Side Boom	Side Boom	2	8 Off		Cranes	231	6	5					
	21 Hydrostatic Testing	Water Pump	Water Pump	1	8 Off		Pumps	84	4	3					
	21 Hydrostatic Testing	Welding Truck	Welding Truck	4	On						Passenger	1	4	100	
	21 Hydrostatic Testing	Bulldozer	Bulldozer	1	8 Off		Rubber Tired Dozers	247	6	5					
	21 Hydrostatic Testing	Generator	Generator	4	8 Off		Generator Sets	84	4	3					
	21 Hydrostatic Testing	Grader	Grader	1	8 Off		Graders	187	6	5					
	21 Hydrostatic Testing	Trencher	Trencher	1	8 Off		Trenchers	78	4	3					
	21 Hydrostatic Testing	Water Truck	Water Truck	1	On						Heavy	1	1	100	100
	22 Pipeline Segment Replacement	Pickup Truck	Pickup Truck	12	On						Passenger	1	12	100	
	22 Pipeline Segment Replacement	Flatbed Truck	Flatbed Truck/Trailer	2	On						Medium	1	2	100	
	22 Pipeline Segment Replacement	Dump Truck with Trailer	Dump Truck	2	On						Heavy	1	2	100	200
	22 Pipeline Segment Replacement	Backhoe	Backhoe	2	8 Off		Tractors/Loaders/Backhoes	97	4	3					
	22 Pipeline Segment Replacement	Excavator	Excavator	4	8 Off		Excavators	158	5	4					
	22 Pipeline Segment Replacement	Trailer-mounted compressor	Trailer-mounted compressor	8	8 Off		Air Compressors	78	4	3					
	22 Pipeline Segment Replacement	Truck-mounted crane	Truck-mounted crane	4	8 Off		Cranes	231	6	5					
	22 Pipeline Segment Replacement	Side Boom	Side Boom	6	8 Off		Cranes	231	6	5					
	22 Pipeline Segment Replacement	Welding Trucks	Welding Truck	8	On						Passenger	1	8	100	
	22 Pipeline Segment Replacement	Water Truck	Water Truck	4	On						Heavy	1	4	100	400
	22 Pipeline Segment Replacement	HDD Machine	Drilling Rig	1	8 Off		Bore/Drill Rigs	221	6	5					
	23 HPR Deactivation	Pickup Truck	Pickup Truck	3	On						Passenger	1	3	100	
	23 HPR Deactivation	Flatbed truck/trailer	Flatbed Truck/Trailer	1	On						Medium	1	1	100	
	23 HPR Deactivation	Dump Truck with a Trailer	Dump Truck	1	On						Heavy	1	1	100	100
	23 HPR Deactivation	Backhoe	Backhoe	1	8 Off		Tractors/Loaders/Backhoes	97	4	3					
	23 HPR Deactivation	Trailer-mounted compressor	Trailer-mounted compressor	1	8 Off		Air Compressors	78	4	3					
	23 HPR Deactivation	Portable sand-blaster	Portable Sand Blaster	1	8 Off		Air Compressors	78	4	3					
	23 HPR Deactivation	Water truck	Water Truck	1	On						Heavy	1	1	100	100
	24 Soil Stabilization	Motor Grader	Grader	1	8 Off		Graders	187	6	5					
	24 Soil Stabilization	Backhoe	Backhoe	1	8 Off		Tractors/Loaders/Backhoes	97	4	3					
	24 Soil Stabilization	Front loader	Front loader	1	8 Off		Tractors/Loaders/Backhoes	97	4	3					
	24 Soil Stabilization	Hydro Seeder	HydroSeeder	1	8 Off		Pumps	84	4	3					
	25 Water diversion channels	Backhoe	Backhoe	1	8 Off		Tractors/Loaders/Backhoes	97	4	3					
	25 Water diversion channels	Front loader	Front loader	1	8 Off		Tractors/Loaders/Backhoes	97	4	3					
	26 Fire Response	Backhoe	Backhoe	1	8 Off		Tractors/Loaders/Backhoes	97	4	3					
	26 Fire Response	Motor Grader	Grader	1	8 Off		Graders	187	6	5					
	1 Pipeline Patrols	Worker Commute	Worker Commute	2	On						Passenger	1	2	100	
	2 Valve Inspections and Lubrication	Worker Commute	Worker Commute	3	On						Passenger	1	3	100	
	3 Integrity Management	Worker Commute	Worker Commute	2	On						Passenger	1	2	100	
	4 Telecommunication Site Inspections	Worker Commute	Worker Commute	2	On						Passenger	1	2	100	
	5 Road Surface Maintenance	Worker Commute	Worker Commute	4	On						Passenger	1	4	100	
	6 Right-of-Way and Access Road Repair	Worker Commute	Worker Commute	2	On						Passenger	1	2	100	
	7 Erosion Control	Worker Commute	Worker Commute	3	On						Passenger	1	3	100	
	8 Telecommunications Site Maintenance	Worker Commute	Worker Commute	5	On						Passenger	1	5	100	
	9 Span Painting/Air to Soil Corrosion Protection	Worker Commute	Worker Commute	6	On						Passenger	1	6	100	
	10 Below-Grade Pipe and Coating Inspection	Worker Commute	Worker Commute	4	On						Passenger	1	4	100	
	11 Internal Pipeline Inspection	Worker Commute	Worker Commute	2	On						Passenger	1	2	100	
	12 Installation of Pig Launcher/Receiver Facilities	Worker Commute	Worker Commute	15	On						Passenger	1	15	100	
	13 Valve/Pipeline Excavation and Recoating	Worker Commute	Worker Commute	10	On						Passenger	1	10	100	
	14 Installation of Magnesium Anodes	Worker Commute	Worker Commute	3	On						Passenger	1	3	100	
	15 Installation of Deep Well Anodes/Thermoelectric Generators	Worker Commute	Worker Commute	8	On						Passenger	1	8	100	
	16 Installation of Flex Anodes	Worker Commute	Worker Commute	4	On						Passenger	1	4	100	
	17 Installation or Replacement of Horizontal Anode Beds	Worker Commute	Worker Commute	5	On						Passenger	1	5	100	
	18 Electronic Test System Station	Worker Commute	Worker Commute	1	On						Passenger	1	1	100	
	19 Cathodic Test Station Installations	Worker Commute	Worker Commute	5	On						Passenger	1	5	100	
	20 Valve Replacement/Automation	Worker Commute	Worker Commute	13	On						Passenger	1	13	100	
	21 Hydrostatic Testing	Worker Commute	Worker Commute	10	On						Passenger	1	10	100	
	22 Pipeline Segment Replacement	Worker Commute	Worker Commute	48	On						Passenger	1	48	100	
	23 HPR Deactivation	Worker Commute	Worker Commute	5	On						Passenger	1	5	100	

Act Num	O&M Activity	Type of Equipment	Fixed Equip Name	Quantity	Hours Per Day	On-Off	CalEEModType	HP	CalEEMod Bin	Controlled Bin	On Type	Trips Per Day	Trips Per Day Fixed	Trip Length	Total Miles
24	Soil Stabilization	Worker Commute	Worker Commute	3		On					Passenger	1	1	100	
25	Water diversion channels	Worker Commute	Worker Commute	3		On					Passenger	1	1	100	
26	Fire Response	Worker Commute	Worker Commute	2		On					Passenger	1	1	100	

Act Num	O&M Activity	Fixed Equip Name	Quantity	Hours Per Day	On-Off	CalEEModType	HP	CalEEMod Bin	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
5	Road Surface Maintenance	Grader	1	8	Off	Graders	187	6	0.453	1.767	5.925	0.007	0.188	0.173	641.683	0.207
5	Road Surface Maintenance	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
5	Road Surface Maintenance	Front loader	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
6	Right-of-Way and Access Road Repair	Grader	1	8	Off	Graders	187	6	0.453	1.767	5.925	0.007	0.188	0.173	641.683	0.207
6	Right-of-Way and Access Road Repair	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
6	Right-of-Way and Access Road Repair	Front loader	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
9	Span Painting/Air to Soil Corrosion Protection	Excavator	1	8	Off	Excavators	158	5	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162
10	Below-Grade Pipe and Coating Inspection	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
10	Below-Grade Pipe and Coating Inspection	Trailer-mounted compressor	1	8	Off	Air Compressors	78	4	0.292	2.423	2.036	0.004	0.125	0.125	375.264	0.026
11	Internal Pipeline Inspection	Excavator	1	8	Off	Excavators	158	5	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162
12	Installation of Pig Launcher/Receiver Facilities	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
12	Installation of Pig Launcher/Receiver Facilities	Excavator	1	8	Off	Excavators	158	5	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162
12	Installation of Pig Launcher/Receiver Facilities	Trailer-mounted compressor	2	8	Off	Air Compressors	78	4	0.584	4.847	4.072	0.008	0.251	0.251	750.527	0.052
12	Installation of Pig Launcher/Receiver Facilities	Truck-mounted crane	1	8	Off	Cranes	231	6	0.412	1.983	4.849	0.006	0.197	0.181	558.738	0.181
12	Installation of Pig Launcher/Receiver Facilities	Side Boom	1	8	Off	Cranes	231	6	0.412	1.983	4.849	0.006	0.197	0.181	558.738	0.181
13	Valve/Pipeline Excavation and Recoating	Backhoe	2	8	Off	Tractors/Loaders/Backhoes	97	4	0.375	4.520	3.792	0.006	0.224	0.205	601.799	0.195
13	Valve/Pipeline Excavation and Recoating	Excavator	2	8	Off	Excavators	158	5	0.457	6.544	4.307	0.011	0.210	0.193	1000.383	0.324
13	Valve/Pipeline Excavation and Recoating	Vacuum Excavator	2	8	Off	Excavators	158	5	0.457	6.544	4.307	0.011	0.210	0.193	1000.383	0.324
13	Valve/Pipeline Excavation and Recoating	Trailer-mounted compressor	2	8	Off	Air Compressors	78	4	0.584	4.847	4.072	0.008	0.251	0.251	750.527	0.052
13	Valve/Pipeline Excavation and Recoating	Portable Sand Blaster	2	8	Off	Air Compressors	78	4	0.584	4.847	4.072	0.008	0.251	0.251	750.527	0.052
13	Valve/Pipeline Excavation and Recoating	Truck-mounted crane	2	8	Off	Cranes	231	6	0.825	3.966	9.699	0.012	0.395	0.362	1117.476	0.362
14	Installation of Magnesium Anodes	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
Installation of Deep Well Anodes/Thermoelectric																
15	Generators	Drilling Rig	1	8	Off	Bore/Drill Rigs	221	6	0.257	2.074	3.023	0.010	0.092	0.084	912.061	0.294
16	Installation of Flex Anodes	Trencher	1	8	Off	Trenchers	78	4	0.382	2.606	3.512	0.003	0.255	0.235	326.922	0.106
17	Installation or Replacement of Horizontal Anode Beds	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
19	Cathodic Test Station Installations	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
20	Valve Replacement/Automation	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
20	Valve Replacement/Automation	Excavator	1	8	Off	Excavators	158	5	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162
20	Valve Replacement/Automation	Vacuum Excavator	1	8	Off	Excavators	158	5	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162
20	Valve Replacement/Automation	Trailer-mounted compressor	3	8	Off	Air Compressors	78	4	0.876	7.270	6.107	0.012	0.376	0.376	1125.791	0.077
20	Valve Replacement/Automation	Truck-mounted crane	1	8	Off	Cranes	231	6	0.412	1.983	4.849	0.006	0.197	0.181	558.738	0.181
20	Valve Replacement/Automation	Front loader	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
21	Hydrostatic Testing	Air Compressor	2	8	Off	Air Compressors	78	4	0.584	4.847	4.072	0.008	0.251	0.251	750.527	0.052
21	Hydrostatic Testing	Crane	1	8	Off	Cranes	231	6	0.412	1.983	4.849	0.006	0.197	0.181	558.738	0.181
21	Hydrostatic Testing	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
21	Hydrostatic Testing	Track hoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
21	Hydrostatic Testing	Excavator	1	8	Off	Excavators	158	5	0.229	3.272	2.153	0.005	0.105	0.096	500.191	0.162
21	Hydrostatic Testing	Side Boom	2	8	Off	Cranes	231	6	0.825	3.966	9.699	0.012	0.395	0.362	1117.476	0.362
21	Hydrostatic Testing	Water Pump	1	8	Off	Pumps	84	4	0.380	3.741	3.210	0.007	0.178	0.178	623.035	0.034
21	Hydrostatic Testing	Bulldozer	1	8	Off	Rubber Tired Dozers	247	6	1.046	4.038	10.971	0.009	0.533	0.490	827.351	0.268
21	Hydrostatic Testing	Generator	4	8	Off	Generator Sets	84	4	1.430	14.739	12.665	0.026	0.671	0.671	2492.135	0.127
21	Hydrostatic Testing	Grader	1	8	Off	Graders	187	6	0.453	1.767	5.925	0.007	0.188	0.173	641.683	0.207
21	Hydrostatic Testing	Trencher	1	8	Off	Trenchers	78	4	0.382	2.606	3.512	0.003	0.255	0.235	326.922	0.106
22	Pipeline Segment Replacement	Backhoe	2	8	Off	Tractors/Loaders/Backhoes	97	4	0.375	4.520	3.792	0.006	0.224	0.205	601.799	0.195
22	Pipeline Segment Replacement	Excavator	4	8	Off	Excavators	158	5	0.915	13.087	8.614	0.021	0.419	0.385	2000.766	0.648
22	Pipeline Segment Replacement	Trailer-mounted compressor	8	8	Off	Air Compressors	78	4	2.335	19.387	16.286	0.032	1.004	1.004	3002.109	0.206
22	Pipeline Segment Replacement	Truck-mounted crane	4	8	Off	Cranes	231	6	1.649	7.931	19.397	0.024	0.789	0.723	2234.952	0.723
22	Pipeline Segment Replacement	Side Boom	6	8	Off	Cranes	231	6	2.474	11.897	29.096	0.035	1.184	1.085	3352.428	1.085
22	Pipeline Segment Replacement	Drilling Rig	1	8	Off	Bore/Drill Rigs	221	6	0.257	2.074	3.023	0.010	0.092	0.084	912.061	0.294
23	HPR Deactivation	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
23	HPR Deactivation	Trailer-mounted compressor	1	8	Off	Air Compressors	78	4	0.292	2.423	2.036	0.004	0.125	0.125	375.264	0.026
23	HPR Deactivation	Portable Sand Blaster	1	8	Off	Air Compressors	78	4	0.292	2.423	2.036	0.004	0.125	0.125	375.264	0.026
24	Soil Stabilization	Grader	1	8	Off	Graders	187	6	0.453	1.767	5.925	0.007	0.188	0.173	641.683	0.207
24	Soil Stabilization	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
24	Soil Stabilization	Front loader	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
24	Soil Stabilization	HydroSeeder	1	8	Off	Pumps	84	4	0.380	3.741	3.210	0.007	0.178	0.178	623.035	0.034
25	Water diversion channels	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
25	Water diversion channels	Front loader	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
26	Fire Response	Backhoe	1	8	Off	Tractors/Loaders/Backhoes	97	4	0.187	2.260	1.896	0.003	0.112	0.103	300.900	0.097
26	Fire Response	Grader	1	8	Off	Graders	187	6	0.453	1.767	5.925	0.007	0.188	0.173	641.683	0.207

Note: Emissions are in pounds/day

Act Num	O&M Activity	Fixed Equip Name	Quantity	Hours Per Day	On-Off	CalEEModType	HP	Controlled Bin	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
5	Road Surface Maintenance	Grader	1		8 Off	Graders	187	5	0.453	1.767	5.925	0.007	0.188	0.173	647.079	0.210
5	Road Surface Maintenance	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
5	Road Surface Maintenance	Front loader	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
6	Right-of-Way and Access Road Repair	Grader	1		8 Off	Graders	187	5	0.453	1.767	5.925	0.007	0.188	0.173	647.079	0.210
6	Right-of-Way and Access Road Repair	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
6	Right-of-Way and Access Road Repair	Front loader	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
9	Span Painting/Air to Soil Corrosion Protection	Excavator	1		8 Off	Excavators	158	4	0.229	3.272	2.153	0.005	0.105	0.096	495.354	0.160
10	Below-Grade Pipe and Coating Inspection	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
10	Below-Grade Pipe and Coating Inspection	Trailer-mounted compressor	1		8 Off	Air Compressors	78	3	0.292	2.423	2.036	0.005	0.125	0.125	375.264	0.053
11	Internal Pipeline Inspection	Excavator	1		8 Off	Excavators	158	4	0.229	3.272	2.153	0.005	0.105	0.096	495.354	0.160
12	Installation of Pig Launcher/Receiver Facilities	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
12	Installation of Pig Launcher/Receiver Facilities	Excavator	1		8 Off	Excavators	158	4	0.229	3.272	2.153	0.005	0.105	0.096	495.354	0.160
12	Installation of Pig Launcher/Receiver Facilities	Trailer-mounted compressor	2		8 Off	Air Compressors	78	3	0.584	4.847	4.072	0.009	0.251	0.251	750.527	0.106
12	Installation of Pig Launcher/Receiver Facilities	Truck-mounted crane	1		8 Off	Cranes	231	5	0.142	3.072	2.741	0.006	0.104	0.104	560.676	0.181
12	Installation of Pig Launcher/Receiver Facilities	Side Boom	1		8 Off	Cranes	231	5	0.142	3.072	2.741	0.006	0.104	0.104	560.676	0.181
13	Valve/Pipeline Excavation and Recoating	Backhoe	2		8 Off	Tractors/Loaders/Backhoes	97	3	0.375	4.520	3.792	0.006	0.224	0.205	652.134	0.211
13	Valve/Pipeline Excavation and Recoating	Excavator	2		8 Off	Excavators	158	4	0.457	6.544	4.307	0.011	0.210	0.193	990.709	0.320
13	Valve/Pipeline Excavation and Recoating	Vacuum Excavator	2		8 Off	Excavators	158	4	0.457	6.544	4.307	0.011	0.210	0.193	990.709	0.320
13	Valve/Pipeline Excavation and Recoating	Trailer-mounted compressor	2		8 Off	Air Compressors	78	3	0.584	4.847	4.072	0.009	0.251	0.251	750.527	0.106
13	Valve/Pipeline Excavation and Recoating	Portable Sand Blaster	2		8 Off	Air Compressors	78	3	0.584	4.847	4.072	0.009	0.251	0.251	750.527	0.106
13	Valve/Pipeline Excavation and Recoating	Truck-mounted crane	2		8 Off	Cranes	231	5	0.284	6.144	5.482	0.012	0.208	0.208	1121.352	0.362
14	Installation of Magnesium Anodes	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
15	Installation of Deep Well Anodes/Thermoelectric Generators	Drilling Rig	1		8 Off	Bore/Drill Rigs	221	5	0.257	2.074	3.023	0.010	0.092	0.084	929.712	0.300
16	Installation of Flex Anodes	Trencher	1		8 Off	Trenchers	78	3	0.382	2.606	3.512	0.003	0.255	0.235	362.504	0.117
17	Installation or Replacement of Horizontal Anode Beds	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
19	Cathodic Test Station Installations	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
20	Valve Replacement/Automation	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
20	Valve Replacement/Automation	Excavator	1		8 Off	Excavators	158	4	0.229	3.272	2.153	0.005	0.105	0.096	495.354	0.160
20	Valve Replacement/Automation	Vacuum Excavator	1		8 Off	Excavators	158	4	0.229	3.272	2.153	0.005	0.105	0.096	495.354	0.160
20	Valve Replacement/Automation	Trailer-mounted compressor	3		8 Off	Air Compressors	78	3	0.876	7.270	6.107	0.014	0.376	0.376	1125.791	0.158
20	Valve Replacement/Automation	Truck-mounted crane	1		8 Off	Cranes	231	5	0.142	3.072	2.741	0.006	0.104	0.104	560.676	0.181
20	Valve Replacement/Automation	Front loader	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
21	Hydrostatic Testing	Air Compressor	2		8 Off	Air Compressors	78	3	0.584	4.847	4.072	0.009	0.251	0.251	750.527	0.106
21	Hydrostatic Testing	Crane	1		8 Off	Cranes	231	5	0.142	3.072	2.741	0.006	0.104	0.104	560.676	0.181
21	Hydrostatic Testing	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
21	Hydrostatic Testing	Track hoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
21	Hydrostatic Testing	Excavator	1		8 Off	Excavators	158	4	0.229	3.272	2.153	0.005	0.105	0.096	495.354	0.160
21	Hydrostatic Testing	Side Boom	2		8 Off	Cranes	231	5	0.284	6.144	5.482	0.012	0.208	0.208	1121.352	0.362
21	Hydrostatic Testing	Water Pump	1		8 Off	Pumps	84	3	0.380	3.741	3.210	0.008	0.178	0.178	623.034	0.066
21	Hydrostatic Testing	Bulldozer	1		8 Off	Rubber Tired Dozers	247	5	0.209	4.531	4.043	0.009	0.153	0.153	824.174	0.267
21	Hydrostatic Testing	Generator	4		8 Off	Generator Sets	84	3	1.430	14.739	12.665	0.031	0.671	0.671	2492.135	0.241
21	Hydrostatic Testing	Grader	1		8 Off	Graders	187	5	0.453	1.767	5.925	0.007	0.188	0.173	647.079	0.210
21	Hydrostatic Testing	Trencher	1		8 Off	Trenchers	78	3	0.382	2.606	3.512	0.003	0.255	0.235	362.504	0.117
22	Pipeline Segment Replacement	Backhoe	2		8 Off	Tractors/Loaders/Backhoes	97	3	0.375	4.520	3.792	0.006	0.224	0.205	652.134	0.211
22	Pipeline Segment Replacement	Excavator	4		8 Off	Excavators	158	4	0.915	13.087	8.614	0.021	0.419	0.385	1981.417	0.640
22	Pipeline Segment Replacement	Trailer-mounted compressor	8		8 Off	Air Compressors	78	3	2.335	19.387	16.286	0.037	1.004	1.004	3002.109	0.423
22	Pipeline Segment Replacement	Truck-mounted crane	4		8 Off	Cranes	231	5	0.567	12.288	10.964	0.024	0.416	0.416	2242.703	0.723
22	Pipeline Segment Replacement	Side Boom	6		8 Off	Cranes	231	5	0.851	18.431	16.446	0.035	0.624	0.624	3364.055	1.085
22	Pipeline Segment Replacement	Drilling Rig	1		8 Off	Bore/Drill Rigs	221	5	0.257	2.074	3.023	0.010	0.092	0.084	929.712	0.300
23	HPR Deactivation	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
23	HPR Deactivation	Trailer-mounted compressor	1		8 Off	Air Compressors	78	3	0.292	2.423	2.036	0.005	0.125	0.125	375.264	0.053
23	HPR Deactivation	Portable Sand Blaster	1		8 Off	Air Compressors	78	3	0.292	2.423	2.036	0.005	0.125	0.125	375.264	0.053
24	Soil Stabilization	Grader	1		8 Off	Graders	187	5	0.453	1.767	5.925	0.007	0.188	0.173	647.079	0.210
24	Soil Stabilization	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
24	Soil Stabilization	Front loader	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
24	Soil Stabilization	HydroSeeder	1		8 Off	Pumps	84	3	0.380	3.741	3.210	0.008	0.178	0.178	623.034	0.066
25	Water diversion channels	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
25	Water diversion channels	Front loader	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
26	Fire Response	Backhoe	1		8 Off	Tractors/Loaders/Backhoes	97	3	0.187	2.260	1.896	0.003	0.112	0.103	326.067	0.106
26	Fire Response	Grader	1		8 Off	Graders	187	5	0.453	1.767	5.925	0.007	0.188	0.173	647.079	0.210

Note: Emissions provided in pounds per day; all equipment >= 230 HP assumed to be Tier 3; if no Tier 3 EF available, use uncontrolled

Act Num	O&M Activity	Fixed Equip Name	On-Off	On Type	Trips Per Day Fixed	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
1	Pipeline Patrols	Pickup Truck/Sport Utility Vehicle	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
2	Valve Inspections and Lubrication	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
3	Integrity Management	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
4	Telecommunication Site Inspections	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
6	Right-of-Way and Access Road Repair	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
7	Erosion Control	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
8	Telecommunications Site Maintenance	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
9	Span Painting/Air to Soil Corrosion Protection	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
10	Below-Grade Pipe and Coating Inspection	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
10	Below-Grade Pipe and Coating Inspection	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
10	Below-Grade Pipe and Coating Inspection	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
10	Below-Grade Pipe and Coating Inspection	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
11	Internal Pipeline Inspection	Pickup Truck	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
11	Internal Pipeline Inspection	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Pickup Truck	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
12	Installation of Pig Launcher/Receiver Facilities	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
12	Installation of Pig Launcher/Receiver Facilities	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Welding Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
13	Valve/Pipeline Excavation and Recoating	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
13	Valve/Pipeline Excavation and Recoating	Flatbed Truck/Trailer	On	Medium	2	0.033	0.214	0.814	0.006	14.899	1.524	575.224	0.008
13	Valve/Pipeline Excavation and Recoating	Dump Truck	On	Heavy	2	0.033	0.186	1.165	0.006	14.891	1.520	672.124	0.012
13	Valve/Pipeline Excavation and Recoating	Water Truck	On	Heavy	2	0.033	0.186	1.165	0.006	14.891	1.520	672.124	0.012
14	Installation of Magnesium Anodes	Pickup Truck	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
14	Installation of Magnesium Anodes	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
14	Installation of Magnesium Anodes	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
14	Installation of Magnesium Anodes	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
15	Installation of Deep Well Anodes/Thermoelectric Generators	Pickup Truck	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
15	Installation of Deep Well Anodes/Thermoelectric Generators	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
16	Installation of Flex Anodes	Pickup Truck	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
16	Installation of Flex Anodes	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
17	Installation or Replacement of Horizontal Anode Beds	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
17	Installation or Replacement of Horizontal Anode Beds	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
17	Installation or Replacement of Horizontal Anode Beds	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
17	Installation or Replacement of Horizontal Anode Beds	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
18	Electronic Test System Station	Pickup Truck	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
19	Cathodic Test Station Installations	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
19	Cathodic Test Station Installations	Truck with Trailer	On	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
20	Valve Replacement/Automation	Pickup Truck	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
20	Valve Replacement/Automation	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
20	Valve Replacement/Automation	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
20	Valve Replacement/Automation	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
20	Valve Replacement/Automation	Welding Truck	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
21	Hydrostatic Testing	Flatbed Truck/Trailer	On	Medium	2	0.033	0.214	0.814	0.006	14.899	1.524	575.224	0.008
21	Hydrostatic Testing	Pickup Truck	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
21	Hydrostatic Testing	Welding Truck	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
21	Hydrostatic Testing	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
22	Pipeline Segment Replacement	Pickup Truck	On	Passenger	12	0.334	3.280	0.269	0.009	0.917	0.246	886.978	0.027
22	Pipeline Segment Replacement	Flatbed Truck/Trailer	On	Medium	2	0.033	0.214	0.814	0.006	14.899	1.524	575.224	0.008
22	Pipeline Segment Replacement	Dump Truck	On	Heavy	2	0.033	0.186	1.165	0.006	14.891	1.520	672.124	0.012
22	Pipeline Segment Replacement	Welding Truck	On	Passenger	8	0.222	2.186	0.179	0.006	0.611	0.164	591.318	0.018
22	Pipeline Segment Replacement	Water Truck	On	Heavy	4	0.066	0.371	2.330	0.013	29.781	3.040	1344.248	0.024
23	HPR Deactivation	Pickup Truck	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
23	HPR Deactivation	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	7.450	0.762	287.612	0.004
23	HPR Deactivation	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
23	HPR Deactivation	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	7.445	0.760	336.062	0.006
1	Pipeline Patrols	Worker Commute	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
2	Valve Inspections and Lubrication	Worker Commute	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
3	Integrity Management	Worker Commute	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
4	Telecommunication Site Inspections	Worker Commute	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
5	Road Surface Maintenance	Worker Commute	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
6	Right-of-Way and Access Road Repair	Worker Commute	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
7	Erosion Control	Worker Commute	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
8	Telecommunications Site Maintenance	Worker Commute	On	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011

Act Num	O&M Activity	Fixed Equip Name	On-Off	On Type	Trips Per Day Fixed	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
9	Span Painting/Air to Soil Corrosion Protection	Worker Commute	On	Passenger	6	0.167	1.640	0.134	0.004	0.458	0.123	443.489	0.013
10	Below-Grade Pipe and Coating Inspection	Worker Commute	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
11	Internal Pipeline Inspection	Worker Commute	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
12	Installation of Pig Launcher/Receiver Facilities	Worker Commute	On	Passenger	15	0.417	4.100	0.336	0.011	1.146	0.308	1108.722	0.033
13	Valve/Pipeline Excavation and Recoating	Worker Commute	On	Passenger	10	0.278	2.733	0.224	0.007	0.764	0.205	739.148	0.022
14	Installation of Magnesium Anodes	Worker Commute	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
15	Installation of Deep Well Anodes/Thermoelectric Generator:	Worker Commute	On	Passenger	8	0.222	2.186	0.179	0.006	0.611	0.164	591.318	0.018
16	Installation of Flex Anodes	Worker Commute	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
17	Installation or Replacement of Horizontal Anode Beds	Worker Commute	On	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
18	Electronic Test System Station	Worker Commute	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
19	Cathodic Test Station Installations	Worker Commute	On	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
20	Valve Replacement/Automation	Worker Commute	On	Passenger	13	0.361	3.553	0.291	0.010	0.993	0.267	960.892	0.029
21	Hydrostatic Testing	Worker Commute	On	Passenger	10	0.278	2.733	0.224	0.007	0.764	0.205	739.148	0.022
22	Pipeline Segment Replacement	Worker Commute	On	Passenger	48	1.334	13.118	1.075	0.036	3.667	0.984	3547.910	0.107
23	HPR Deactivation	Worker Commute	On	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
24	Soil Stabilization	Worker Commute	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
25	Water diversion channels	Worker Commute	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
26	Fire Response	Worker Commute	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002

Note: Emissions in pounds per day

Act Num	O&M Activity	Fixed Equip Name	On-Off	On Type	Trips Per Day Fixed	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
1	Pipeline Patrols	Pickup Truck/Sport Utility Vehicle	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
2	Valve Inspections and Lubrication	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
3	Integrity Management	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
4	Telecommunication Site Inspections	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
6	Right-of-Way and Access Road Repair	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
7	Erosion Control	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
8	Telecommunications Site Maintenance	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
9	Span Painting/Air to Soil Corrosion Protection	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
10	Below-Grade Pipe and Coating Inspection	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
10	Below-Grade Pipe and Coating Inspection	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
10	Below-Grade Pipe and Coating Inspection	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
10	Below-Grade Pipe and Coating Inspection	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
11	Internal Pipeline Inspection	Pickup Truck	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
11	Internal Pipeline Inspection	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Pickup Truck	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
12	Installation of Pig Launcher/Receiver Facilities	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
12	Installation of Pig Launcher/Receiver Facilities	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
12	Installation of Pig Launcher/Receiver Facilities	Welding Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
13	Valve/Pipeline Excavation and Recoating	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
13	Valve/Pipeline Excavation and Recoating	Flatbed Truck/Trailer	On	Medium	2	0.033	0.214	0.814	0.006	4.237	0.459	575.224	0.008
13	Valve/Pipeline Excavation and Recoating	Dump Truck	On	Heavy	2	0.033	0.186	1.165	0.006	4.228	0.455	672.124	0.012
13	Valve/Pipeline Excavation and Recoating	Water Truck	On	Heavy	2	0.033	0.186	1.165	0.006	4.228	0.455	672.124	0.012
14	Installation of Magnesium Anodes	Pickup Truck	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
14	Installation of Magnesium Anodes	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
14	Installation of Magnesium Anodes	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
14	Installation of Magnesium Anodes	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
15	Installation of Deep Well Anodes/Thermoelectric Generators	Pickup Truck	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
15	Installation of Deep Well Anodes/Thermoelectric Generators	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
16	Installation of Flex Anodes	Pickup Truck	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
16	Installation of Flex Anodes	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
17	Installation or Replacement of Horizontal Anode Beds	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
17	Installation or Replacement of Horizontal Anode Beds	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
17	Installation or Replacement of Horizontal Anode Beds	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
17	Installation or Replacement of Horizontal Anode Beds	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
18	Electronic Test System Station	Pickup Truck	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
19	Cathodic Test Station Installations	Pickup Truck	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
19	Cathodic Test Station Installations	Truck with Trailer	On	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
20	Valve Replacement/Automation	Pickup Truck	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
20	Valve Replacement/Automation	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
20	Valve Replacement/Automation	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
20	Valve Replacement/Automation	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
20	Valve Replacement/Automation	Welding Truck	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
21	Hydrostatic Testing	Flatbed Truck/Trailer	On	Medium	2	0.033	0.214	0.814	0.006	4.237	0.459	575.224	0.008
21	Hydrostatic Testing	Pickup Truck	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
21	Hydrostatic Testing	Welding Truck	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
21	Hydrostatic Testing	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
22	Pipeline Segment Replacement	Pickup Truck	On	Passenger	12	0.334	3.280	0.269	0.009	0.917	0.246	886.978	0.027
22	Pipeline Segment Replacement	Flatbed Truck/Trailer	On	Medium	2	0.033	0.214	0.814	0.006	4.237	0.459	575.224	0.008
22	Pipeline Segment Replacement	Dump Truck	On	Heavy	2	0.033	0.186	1.165	0.006	4.228	0.455	672.124	0.012
22	Pipeline Segment Replacement	Welding Truck	On	Passenger	8	0.222	2.186	0.179	0.006	0.611	0.164	591.318	0.018
22	Pipeline Segment Replacement	Water Truck	On	Heavy	4	0.066	0.371	2.330	0.013	8.457	0.911	1344.248	0.024
23	HPR Deactivation	Pickup Truck	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
23	HPR Deactivation	Flatbed Truck/Trailer	On	Medium	1	0.017	0.107	0.407	0.003	2.119	0.230	287.612	0.004
23	HPR Deactivation	Dump Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
23	HPR Deactivation	Water Truck	On	Heavy	1	0.016	0.093	0.583	0.003	2.114	0.228	336.062	0.006
1	Pipeline Patrols	Worker Commute	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004

Act Num	O&M Activity	Fixed Equip Name	On-Off	On Type	Trips Per Day Fixed	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
2	Valve Inspections and Lubrication	Worker Commute	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
3	Integrity Management	Worker Commute	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
4	Telecommunication Site Inspections	Worker Commute	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
5	Road Surface Maintenance	Worker Commute	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
6	Right-of-Way and Access Road Repair	Worker Commute	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
7	Erosion Control	Worker Commute	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
8	Telecommunications Site Maintenance	Worker Commute	On	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
9	Span Painting/Air to Soil Corrosion Protection	Worker Commute	On	Passenger	6	0.167	1.640	0.134	0.004	0.458	0.123	443.489	0.013
10	Below-Grade Pipe and Coating Inspection	Worker Commute	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
11	Internal Pipeline Inspection	Worker Commute	On	Passenger	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
12	Installation of Pig Launcher/Receiver Facilities	Worker Commute	On	Passenger	15	0.417	4.100	0.336	0.011	1.146	0.308	1108.722	0.033
13	Valve/Pipeline Excavation and Recoating	Worker Commute	On	Passenger	10	0.278	2.733	0.224	0.007	0.764	0.205	739.148	0.022
14	Installation of Magnesium Anodes	Worker Commute	On	Passenger	3	0.083	0.820	0.067	0.002	0.229	0.062	221.744	0.007
15	Installation of Deep Well Anodes/Thermoelectric Generato	Worker Commute	On	Passenger	8	0.222	2.186	0.179	0.006	0.611	0.164	591.318	0.018
16	Installation of Flex Anodes	Worker Commute	On	Passenger	4	0.111	1.093	0.090	0.003	0.306	0.082	295.659	0.009
17	Installation or Replacement of Horizontal Anode Beds	Worker Commute	On	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
18	Electronic Test System Station	Worker Commute	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
19	Cathodic Test Station Installations	Worker Commute	On	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
20	Valve Replacement/Automation	Worker Commute	On	Passenger	13	0.361	3.553	0.291	0.010	0.993	0.267	960.892	0.029
21	Hydrostatic Testing	Worker Commute	On	Passenger	10	0.278	2.733	0.224	0.007	0.764	0.205	739.148	0.022
22	Pipeline Segment Replacement	Worker Commute	On	Passenger	48	1.334	13.118	1.075	0.036	3.667	0.984	3547.910	0.107
23	HPR Deactivation	Worker Commute	On	Passenger	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011
24	Soil Stabilization	Worker Commute	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
25	Water diversion channels	Worker Commute	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002
26	Fire Response	Worker Commute	On	Passenger	1	0.028	0.273	0.022	0.001	0.076	0.021	73.915	0.002

Note: Emissions in pounds per day

Act Num	O&M Activity	Type of Equipment	Fixed Equip Name	Quantity	Hours Per Day	On-Off	Days	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
4	Telecommunication Site Inspections	Helicopter	Helicopter	2	8	Helicopter	20	36.750	46.451	16.418	1.750	0.550	0.495	7.145	7.145
8	Telecommunications Site Maintenance	Helicopter	Helicopter	1	8	Helicopter	20	18.375	23.225	8.209	0.875	0.275	0.247	3.573	3.573

Note: Emissions in pounds per day

Attachment C

Type	Days of Grading	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
Uncontrolled	84	0	0	0	0	0.047	0.042	0	0
Controlled	84	0	0	0	0	0.021	0.019	0	0

Note: Emissions in tons per year

Annual On and Off - Tons

Act Num	O&M Activity	Annual Days	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
1	Pipeline Patrols	30	0.0017	0.0164	0.0013	0.0000	0.0046	0.0012	4.4349	0.0001
2	Valve Inspections	45	0.0031	0.0307	0.0025	0.0001	0.0086	0.0023	8.3154	0.0003
3	Integrity Mgmt	72	0.0040	0.0394	0.0032	0.0001	0.0110	0.0030	10.6437	0.0003
4	Telecom Site Inspections	20	0.0011	0.0109	0.0009	0.0000	0.0031	0.0008	2.9566	0.0001
5	Road Surface Maintenance	60	0.0282	0.2214	0.2942	0.0005	0.0215	0.0138	46.1743	0.0123
6	ROW Access Rd Repair	60	0.0270	0.2078	0.3103	0.0005	0.2403	0.0354	51.8212	0.0124
7	Erosion Control	15	0.0010	0.0102	0.0008	0.0000	0.0029	0.0008	2.7718	0.0001
8	Telecomm Site Maintenance	20	0.0019	0.0191	0.0016	0.0001	0.0053	0.0014	5.1740	0.0002
9	Span Painting/Air to Soil Corrosion Protection	36	0.0081	0.0982	0.0420	0.0002	0.0129	0.0047	19.6472	0.0032
10	Below-grade Pipe Inspection	60	0.0209	0.1985	0.1691	0.0006	0.6911	0.0790	62.3816	0.0046
11	Internal Pipeline Inspection - Inspection	105	0.0172	0.2197	0.1472	0.0006	0.4084	0.0482	55.5449	0.0092
12	Installation Pig Launcher	210	0.2581	2.1395	2.0855	0.0056	2.6047	0.3700	544.0093	0.0772
13	Valve/Pipeline Excavation and Recoating	225	0.4179	3.9523	3.7867	0.0093	5.3029	0.7046	903.0988	0.1536
14	Installation of Mg Anodes	10	0.0017	0.0182	0.0178	0.0001	0.1138	0.0123	7.7815	0.0006
15	Installation of Deep Well Anodes/Thermoelectric	99	0.0287	0.2561	0.1907	0.0010	0.4147	0.0529	102.0287	0.0161
16	Installation of Flex Anodes	12	0.0032	0.0244	0.0252	0.0001	0.0485	0.0066	6.1953	0.0007
17	Installation or Replacement of Horizontal Anode Beds	18	0.0039	0.0402	0.0326	0.0002	0.2069	0.0227	16.0024	0.0012
18	Electronic Test System Station	38	0.0011	0.0104	0.0009	0.0000	0.0029	0.0008	2.8088	0.0001
19	Cathodic Test Station Installations	75	0.0149	0.1605	0.0922	0.0004	0.3036	0.0378	41.4718	0.0044
20	Valve Replacement/Automation	135	0.1840	1.7601	1.4226	0.0040	1.6791	0.2462	386.4201	0.0565
21	Hydrostatic Testing	144	0.4779	3.6310	4.5090	0.0079	1.9181	0.3940	763.7541	0.1256
22	Pipeline Segment Replacement	210	1.0529	8.2165	9.0342	0.0213	7.1902	1.1511	2070.8013	0.3513
23	HPR Deactivation	30	0.0156	0.1438	0.1158	0.0004	0.3497	0.0420	39.0372	0.0027
24	Soil Stabilization	15	0.0093	0.0773	0.0971	0.0002	0.0050	0.0043	14.5532	0.0033
25	Water diversion channels	2	0.0004	0.0048	0.0038	0.0000	0.0003	0.0002	0.6757	0.0002
26	Fire Response	5	0.0017	0.0108	0.0196	0.0000	0.0009	0.0007	2.5412	0.0008

Daily On - Pounds

Act Num	O&M Activity	Annual Days	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
1	Pipeline Patrols	30	3.336	32.796	2.688	0.089	9.168	2.460	8869.776	0.268
2	Valve Inspections	45	6.255	61.493	5.040	0.167	17.190	4.613	16630.830	0.502
3	Integrity Mgmt	72	8.006	78.710	6.451	0.213	22.003	5.904	21287.462	0.642
4	Telecom Site Inspections	20	2.224	21.864	1.792	0.059	6.112	1.640	5913.184	0.178
5	Road Surface Maintenance	60	6.672	65.592	5.376	0.178	18.336	4.920	17739.552	0.535
6	ROW Access Rd Repair	60	4.320	38.364	37.638	0.281	455.886	48.054	29033.490	0.622
7	Erosion Control	15	2.085	20.498	1.680	0.056	5.730	1.538	5543.610	0.167
8	Telecomm Site Maintenance	20	3.892	38.262	3.136	0.104	10.696	2.870	10348.072	0.312
9	Span Painting/Air to Soil Corrosion Protection	36	8.006	78.710	6.451	0.213	22.003	5.904	21287.462	0.642
10	Below-grade Pipe Inspection	60	12.978	115.932	102.384	0.817	1367.916	144.282	84193.470	1.741
11	Internal Pipeline Inspection - Inspection	105	10.479	95.834	68.219	0.570	805.823	86.247	58569.662	1.323
12	Installation Pig Launcher	210	132.993	1266.657	428.904	5.189	5028.366	569.562	527508.765	13.117
13	Valve/Pipeline Excavation and Recoating	225	97.335	869.490	767.880	6.125	10259.370	1082.115	631451.025	13.055
14	Installation of Mg Anodes	10	1.607	13.856	16.616	0.121	226.458	23.637	12553.949	0.246
15	Installation of Deep Well Anodes/Thermoelectric	99	31.898	306.811	82.061	1.124	820.284	97.555	113763.345	3.014
16	Installation of Flex Anodes	12	1.865	17.512	8.334	0.083	93.928	10.349	8467.631	0.205
17	Installation or Replacement of Horizontal Anode Beds	18	4.394	39.699	31.118	0.258	411.750	43.654	26588.507	0.562
18	Electronic Test System Station	38	2.113	20.771	1.702	0.056	5.806	1.558	5617.525	0.169
19	Cathodic Test Station Installations	75	15.848	151.493	42.285	0.595	598.830	67.905	60376.163	1.457
20	Valve Replacement/Automation	135	81.743	777.384	272.700	3.236	3222.207	363.380	329134.280	8.131
21	Hydrostatic Testing	144	75.226	713.160	255.931	3.066	3404.635	379.037	312168.571	7.407
22	Pipeline Segment Replacement	210	424.662	4064.508	1224.762	15.767	13600.902	1570.212	1599738.336	40.891
23	HPR Deactivation	30	8.157	74.364	52.536	0.453	688.542	73.371	46531.623	1.004
24	Soil Stabilization	15	0.417	4.100	0.336	0.011	1.146	0.308	1108.722	0.033
25	Water diversion channels	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
26	Fire Response	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011

Daily Off - Pounds

Act Num	O&M Activity	Annual Days	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
1	Pipeline Patrols	30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	Valve Inspections	45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	Integrity Mgmt	72	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	Telecom Site Inspections	20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	Road Surface Maintenance	60	49.664	377.259	582.970	0.785	24.722	22.690	74608.961	24.111
6	ROW Access Rd Repair	60	49.664	377.259	582.970	0.785	24.722	22.690	74608.961	24.111
7	Erosion Control	15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	Telecomm Site Maintenance	20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	Span Painting/Air to Soil Corrosion Protection	36	8.234	117.785	77.522	0.191	3.774	3.469	18006.891	5.833
10	Below-grade Pipe Inspection	60	28.754	281.018	235.896	0.428	14.250	13.680	40569.799	7.394
11	Internal Pipeline Inspection - Inspection	105	24.016	343.540	226.106	0.556	11.008	10.118	52520.099	17.012
12	Installation Pig Launcher	210	383.147	3012.351	3742.086	5.922	181.108	170.388	560509.839	141.233
13	Valve/Pipeline Excavation and Recoating	225	738.402	7035.072	6805.581	12.414	346.474	327.133	1174746.525	294.204
14	Installation of Mg Anodes	10	1.874	22.602	18.958	0.032	1.120	1.025	3008.997	0.975
15	Installation of Deep Well Anodes/Thermoelectric	99	25.468	205.322	299.253	0.965	9.068	8.296	90294.077	29.134
16	Installation of Flex Anodes	12	4.589	31.276	42.145	0.041	3.062	2.815	3923.065	1.271
17	Installation or Replacement of Horizontal Anode Beds	18	3.373	40.684	34.125	0.057	2.017	1.846	5416.194	1.755
18	Electronic Test System Station	38	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	Cathodic Test Station Installations	75	14.052	169.517	142.185	0.237	8.403	7.691	22567.477	7.311
20	Valve Replacement/Automation	135	286.217	2742.812	2572.440	4.686	136.005	128.921	443706.004	104.898
21	Hydrostatic Testing	144	880.587	6548.880	8761.987	12.827	431.522	409.035	1215339.710	243.809
22	Pipeline Segment Replacement	210	1681.102	12368.430	16843.604	26.885	779.481	732.004	2541864.362	661.714
23	HPR Deactivation	30	23.133	213.211	179.022	0.333	10.889	10.604	31542.808	4.470
24	Soil Stabilization	15	18.122	150.424	193.893	0.295	8.845	8.337	27997.764	6.538
25	Water diversion channels	2	0.749	9.041	7.583	0.013	0.448	0.410	1203.599	0.390
26	Fire Response	5	3.202	20.137	39.102	0.050	1.500	1.378	4712.915	1.522

Annual On and Off - Tons

Act Num	O&M Activity	Annual Days	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
1	Pipeline Patrols	30	0.0017	0.0164	0.0013	0.0000	0.0046	0.0012	4.4349	0.0001
2	Valve Inspections	45	0.0031	0.0307	0.0025	0.0001	0.0086	0.0023	8.3154	0.0003
3	Integrity Mgmt	72	0.0040	0.0394	0.0032	0.0001	0.0110	0.0030	10.6437	0.0003
4	Telecom Site Inspections	20	0.0011	0.0109	0.0009	0.0000	0.0031	0.0008	2.9566	0.0001
5	Road Surface Maintenance	60	0.0282	0.2214	0.2942	0.0005	0.0215	0.0138	47.8462	0.0129
6	ROW Access Rd Repair	60	0.0270	0.2078	0.3103	0.0005	0.0804	0.0194	53.4931	0.0129
7	Erosion Control	15	0.0010	0.0102	0.0008	0.0000	0.0029	0.0008	2.7718	0.0001
8	Telecomm Site Maintenance	20	0.0019	0.0191	0.0016	0.0001	0.0053	0.0014	5.1740	0.0002
9	Span Painting/Air to Soil Corrosion Protection	36	0.0081	0.0982	0.0420	0.0002	0.0129	0.0047	19.5601	0.0032
10	Below-grade Pipe Inspection	60	0.0209	0.1985	0.1691	0.0006	0.2113	0.0311	63.1367	0.0056
11	Internal Pipeline Inspection - Inspection	105	0.0172	0.2197	0.1472	0.0006	0.1285	0.0202	55.2909	0.0091
12	Installation Pig Launcher	210	0.2013	2.3682	1.6428	0.0057	0.9058	0.1862	546.5509	0.0835
13	Valve/Pipeline Excavation and Recoating	225	0.3570	4.1973	3.3124	0.0096	1.6834	0.3281	907.0207	0.1667
14	Installation of Mg Anodes	10	0.0017	0.0182	0.0178	0.0001	0.0338	0.0043	7.9073	0.0007
15	Installation of Deep Well Anodes/Thermoelectric	99	0.0287	0.2561	0.1907	0.0010	0.1508	0.0266	102.9024	0.0164
16	Installation of Flex Anodes	12	0.0032	0.0244	0.0252	0.0001	0.0165	0.0034	6.4088	0.0008
17	Installation or Replacement of Horizontal Anode Beds	18	0.0039	0.0402	0.0326	0.0002	0.0629	0.0084	16.2289	0.0012
18	Electronic Test System Station	38	0.0011	0.0104	0.0009	0.0000	0.0029	0.0008	2.8088	0.0001
19	Cathodic Test Station Installations	75	0.0149	0.1605	0.0922	0.0004	0.1037	0.0178	42.4156	0.0047
20	Valve Replacement/Automation	135	0.1657	1.8336	1.2803	0.0041	0.5933	0.1332	389.2955	0.0628
21	Hydrostatic Testing	144	0.3592	3.9017	3.5547	0.0084	0.7190	0.2383	770.1700	0.1419
22	Pipeline Segment Replacement	210	0.7688	9.3600	6.8205	0.0219	2.6141	0.6234	2077.9428	0.3755
23	HPR Deactivation	30	0.0156	0.1438	0.1158	0.0004	0.1098	0.0180	39.4147	0.0037
24	Soil Stabilization	15	0.0093	0.0773	0.0971	0.0002	0.0050	0.0043	14.9712	0.0037
25	Water diversion channels	2	0.0004	0.0048	0.0038	0.0000	0.0003	0.0002	0.7260	0.0002
26	Fire Response	5	0.0017	0.0108	0.0196	0.0000	0.0009	0.0007	2.6177	0.0008

Daily On - Pounds

Act Num	O&M Activity	Annual Days	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
1	Pipeline Patrols	30	3.336	32.796	2.688	0.089	9.168	2.460	8869.776	0.268
2	Valve Inspections	45	6.255	61.493	5.040	0.167	17.190	4.613	16630.830	0.502
3	Integrity Mgmt	72	8.006	78.710	6.451	0.213	22.003	5.904	21287.462	0.642
4	Telecom Site Inspections	20	2.224	21.864	1.792	0.059	6.112	1.640	5913.184	0.178
5	Road Surface Maintenance	60	6.672	65.592	5.376	0.178	18.336	4.920	17739.552	0.535
6	ROW Access Rd Repair	60	4.320	38.364	37.638	0.281	136.020	16.122	29033.490	0.622
7	Erosion Control	15	2.085	20.498	1.680	0.056	5.730	1.538	5543.610	0.167
8	Telecomm Site Maintenance	20	3.892	38.262	3.136	0.104	10.696	2.870	10348.072	0.312
9	Span Painting/Air to Soil Corrosion Protection	36	8.006	78.710	6.451	0.213	22.003	5.904	21287.462	0.642
10	Below-grade Pipe Inspection	60	12.978	115.932	102.384	0.817	408.318	48.486	84193.470	1.741
11	Internal Pipeline Inspection - Inspection	105	10.479	95.834	68.219	0.570	246.057	30.366	58569.662	1.323
12	Installation Pig Launcher	210	132.993	1266.657	428.904	5.189	1669.773	234.276	527508.765	13.117
13	Valve/Pipeline Excavation and Recoating	225	97.335	869.490	767.880	6.125	3062.385	363.645	631451.025	13.055
14	Installation of Mg Anodes	10	1.607	13.856	16.616	0.121	66.525	7.671	12553.949	0.246
15	Installation of Deep Well Anodes/Thermoelectric	99	31.898	306.811	82.061	1.124	292.505	44.867	113763.345	3.014
16	Installation of Flex Anodes	12	1.865	17.512	8.334	0.083	29.954	3.962	8467.631	0.205
17	Installation or Replacement of Horizontal Anode Beds	18	4.394	39.699	31.118	0.258	123.871	14.915	26588.507	0.562
18	Electronic Test System Station	38	2.113	20.771	1.702	0.056	5.806	1.558	5617.525	0.169
19	Cathodic Test Station Installations	75	15.848	151.493	42.285	0.595	198.998	27.990	60376.163	1.457
20	Valve Replacement/Automation	135	81.743	777.384	272.700	3.236	1063.112	147.839	329134.280	8.131
21	Hydrostatic Testing	144	75.226	713.160	255.931	3.066	1101.600	149.126	312168.571	7.407
22	Pipeline Segment Replacement	210	424.662	4064.508	1224.762	15.767	4644.654	676.116	1599738.336	40.891
23	HPR Deactivation	30	8.157	74.364	52.536	0.453	208.743	25.473	46531.623	1.004
24	Soil Stabilization	15	0.417	4.100	0.336	0.011	1.146	0.308	1108.722	0.033
25	Water diversion channels	2	0.056	0.547	0.045	0.001	0.153	0.041	147.830	0.004
26	Fire Response	5	0.139	1.367	0.112	0.004	0.382	0.103	369.574	0.011

Daily Off - Pounds

Act Num	O&M Activity	Annual Days	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4
1	Pipeline Patrols	30	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
2	Valve Inspections	45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3	Integrity Mgmt	72	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4	Telecom Site Inspections	20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5	Road Surface Maintenance	60	49.664	377.259	582.970	0.785	24.722	22.690	77952.772	25.261
6	ROW Access Rd Repair	60	49.664	377.259	582.970	0.785	24.722	22.690	77952.772	25.261
7	Erosion Control	15	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
8	Telecomm Site Maintenance	20	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
9	Span Painting/Air to Soil Corrosion Protection	36	8.234	117.785	77.522	0.191	3.774	3.469	17832.753	5.756
10	Below-grade Pipe Inspection	60	28.754	281.018	235.896	0.467	14.250	13.680	42079.830	9.512
11	Internal Pipeline Inspection - Inspection	105	24.016	343.540	226.106	0.556	11.008	10.118	52012.198	16.789
12	Installation Pig Launcher	210	269.510	3469.755	2856.618	6.199	141.906	138.133	565593.013	153.888
13	Valve/Pipeline Excavation and Recoating	225	616.648	7525.149	5856.865	13.008	304.471	292.574	1182590.319	320.367
14	Installation of Mg Anodes	10	1.874	22.602	18.958	0.032	1.120	1.025	3260.669	1.057
15	Installation of Deep Well Anodes/Thermoelectric	99	25.468	205.322	299.253	0.965	9.068	8.296	92041.453	29.713
16	Installation of Flex Anodes	12	4.589	31.276	42.145	0.041	3.062	2.815	4350.045	1.403
17	Installation or Replacement of Horizontal Anode Beds	18	3.373	40.684	34.125	0.057	2.017	1.846	5869.204	1.903
18	Electronic Test System Station	38	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19	Cathodic Test Station Installations	75	14.052	169.517	142.185	0.237	8.403	7.691	24455.016	7.928
20	Valve Replacement/Automation	135	249.691	2889.835	2287.825	4.954	123.404	118.553	449456.714	117.512
21	Hydrostatic Testing	144	643.260	7090.317	6853.501	13.806	336.498	327.430	1228171.520	276.391
22	Pipeline Segment Replacement	210	1112.918	14655.455	12416.265	27.994	583.470	570.729	2556147.259	710.103
23	HPR Deactivation	30	23.133	213.211	179.022	0.372	10.889	10.604	32297.824	6.341
24	Soil Stabilization	15	18.122	150.424	193.893	0.311	8.845	8.337	28833.700	7.302
25	Water diversion channels	2	0.749	9.041	7.583	0.013	0.448	0.410	1304.268	0.423
26	Fire Response	5	3.202	20.137	39.102	0.050	1.500	1.378	4865.730	1.577

Total Uncontrolled Emissions (tons/year)

Source	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	CO2E
On- and Off-Road Equipment	2.586	21.518	22.407	0.053	21.551	3.237	5171.045	0.837	5188.621
Helicopters	0.551	0.697	0.246	0.026	0.008	0.007	0.107	0.107	2.358
Fugitive Dust	0.000	0.000	0.000	0.000	0.047	0.042	0.000	0.000	0.000
Total	3.137	22.215	22.653	0.079	21.606	3.286	5171.152	0.944	5190.979

Total Controlled Emissions (tons/year)

Source	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	CO2E
On- and Off-Road Equipment	2.047	23.480	18.179	0.055	7.492	1.693	5201.005	0.907	5220.059
Helicopters	0.551	0.697	0.246	0.026	0.008	0.007	0.107	0.107	2.358
Fugitive Dust	0.000	0.000	0.000	0.000	0.021	0.019	0.000	0.000	0.000
Total	2.598	24.176	18.426	0.081	7.522	1.719	5201.112	1.015	5222.417

Total Uncontrolled Emissions - MDAQMD (tons/year)

Source	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	CO2E
On- and Off-Road Equipment	2.20	18.29	19.05	0.05	18.32	2.75	4395.39	0.71	4410.33
Helicopters	0.47	0.59	0.21	0.02	0.01	0.01	0.09	0.09	2.00
Fugitive Dust	0.00	0.00	0.00	0.00	0.04	0.04	0.00	0.00	0.00
Total	2.67	18.88	19.26	0.07	18.37	2.79	4395.48	0.80	4412.33

Total Controlled Emissions - MDAQMD (tons/year)

Source	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	CO2E
On- and Off-Road Equipment	1.74	19.96	15.45	0.05	6.37	1.44	4420.9	0.8	4437.1
Helicopters	0.47	0.59	0.21	0.02	0.01	0.01	0.1	0.1	2.0
Fugitive Dust	0.00	0.00	0.00	0.00	0.02	0.02	0.0	0.0	0.0
Total	2.21	20.55	15.66	0.07	6.39	1.46	4420.9	0.9	4439.1

Total Uncontrolled Emissions - EKAPCD (tons/year)

Source	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	CO2E
On- and Off-Road Equipment	0.39	3.23	3.36	0.01	3.23	0.49	775.66	0.13	778.29
Helicopters	0.08	0.10	0.04	0.00	0.00	0.00	0.02	0.02	0.35

Total Uncontrolled Emissions - EKAPCD (tons/year)

Source	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	CO2E
Fugitive Dust	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00
Total	0.47	3.33	3.40	0.01	3.24	0.49	775.67	0.14	778.65

Total Controlled Emissions - EKAPCD (tons/year)

Source	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	CO2E
On- and Off-Road Equipment	0.31	3.52	2.73	0.01	1.12	0.25	780.2	0.1	783.0
Helicopters	0.08	0.10	0.04	0.00	0.00	0.00	0.0	0.0	0.4
Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.0
Total	0.39	3.63	2.76	0.01	1.13	0.26	780.2	0.2	783.4

Uncontrolled Average Daily

Source	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	CO2E
Off Road	13.54	109.19	132.65	0.22	6.41	6.03	20471.63	5.06	1.13
On Road	3.03	28.75	10.98	0.12	131.74	14.72	12676.10	0.31	1.13
Helicopter	3.53	4.47	1.58	0.17	0.05	0.05	0.69	0.69	0.77
Fugitive Dust	0.00	0.00	0.00	0.00	0.30	0.27	0.00	0.00	0.00
Total	20.11	142.40	145.21	0.51	138.50	21.07	33148.41	6.05	3.02

Controlled Average Daily

Source	ROG	CO	NOX	SOX	PM10	PM25	CO2	CH4	CO2E
Off Road	10.09	121.76	105.55	0.23	5.17	5.01	20663.68	5.51	1.13
On Road	3.03	28.75	10.98	0.12	42.86	5.84	12676.10	0.31	1.13
Helicopter	3.53	4.47	1.58	0.17	0.05	0.05	0.69	0.69	0.77
Fugitive Dust	0.00	0.00	0.00	0.00	0.14	0.12	0.00	0.00	0.00
Total	16.65	154.98	118.11	0.52	48.22	11.02	33340.46	6.50	3.02

Note: Controlled assumes Tier 3 for all off-road use >= 230 HP

Name	Constant
g to lbs	0.002205
lbs to tons	0.0005
kg to lbs	2.20462