



TEST REPORT

TEST OF A CATALYTIC WOOD HEATER FOR EMISSIONS AND EFFICIENCY
PER EPA METHODS ALT-125, ASTM E2515, ASTM E3053 and CSA B415.1,

Client:

Wolf Steel Ltd.

24 Napoleon Road, Barrie,
Ont. L4M 0G8

Model Name: NZ3000H & TZ 3000H

Attention: Rafael Sanchez

TESTED BY:

Services Polytests inc.

695-B Gaudette

St-jean-sur-Richelieu, QC, J3B 7S7

TEST DATES: December 9th and 10th 2019


REPORT DATE: December 16th 2019

Project number: PI-20214

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Tested: 

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Verified by third party certifier (CSA):

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1 INTRODUCTION

1.1 GENERAL

Laboratory

- Location: Services Polytests Inc., 695-B Gaudette St-jean-sur-Richelieu QC, Canada J3B 7S7
- Elevation: 100 feet above sea level

Test program

- Purpose: unit qualification NSPS 2020 cord wood
- Test dates: December 9th and 10th 2019
- Test methods used:
 - Particulate emissions: ASTM E3053-17; ASTM E2515-11 methods ALT-125 as referred into 40 CFR Part 60 Subpart AAA
 - Efficiency: CSA B415.1-10

1.2 TEST UNIT INFORMATION

General

- Manufacturer: Wolf Steel ltd
- Product type: Zero Clearances wood fireplace
- Combustion system: catalytic
- Unit tested: NZ3000H

Particularities: Model: TZ3000H, should be included into the certification. There is no physical difference between products, only name will differ.

1.3 RESULTS

Emission results obtained

- Weighted Average Emissions Rate: 1.38 g/hr
- Weighted Average Overall Efficiency: 67.9 %

Conformity: NSPS Phase 2020 cord wood.

1.4 PRETEST INFORMATION

Unit condition: The unit was received by carrier in July 2019 in good condition. The 50hrs of aging was done by Polytests Services.

Set up

- Venting system type: diameter 7-inch steel pipe and insulated chimney
- System height from floor: 15 feet
- Particularities: Optional convection fan can be provided with the heater

2 SUMMARY OF TEST RESULTS

2.1 MODEL IDENTIFICATION

Model name number	NZ 3000
Manufacturer	Wolf Steel Ltd
address	24 Napoleon Road, Barrie, Ont. L4M 0G8
appliance category	wood fireplace
Usable Firebox Volume - ft3	2.30
Catalytic/Non-Cat	Cat
convection air fan (no, standard, Optional)	optional

2.2 LABORATORY INFORMATION

Testing laboratory	Polytests Services
address	695-B Gaudette, St-jean-sur-richelieu
ISO/ Accreditation info	17025
Dates tested	December 9 th and 10 th 2019
Test Methods / Standard	ALT-125
Dilution Tunnel Inside diameter - in	8
Filter diameter	47
Filter material	PTFE Pall

2.3 TEST CONDITION SUMMARY

Model Name(s) / number(s)	NZ 3000		
Usable firebox Volume-ft3	2.30		
Convection Air Fan (No, Standard, Optional)	OPTION		
Test runs #	1,1	1,2	2.1
Date tested	December 9 th 2019	December 9 th 2019	December 10 th 2019
test run category (L,M,H)	H	L	M
average barometric pressure – in Hg	29,91	29,91	29,41
Max observe Ambient temp. °F	75,62	76,32	80,09
Min observe Ambient Temp °F	69,44	75,00	74,58
Max observe Filter temp °F	89,28	89,73	88,29
Run air settings			
Primary (measured up from minimum)	Maximum	minimum	medium
Secondary (measured up from minimum)	Fix	fix	fix
Convection air setting	Maximum	Minimum	On

Test fuel load			
Cordwood fuel species	Oak	Oak	Oak
specific Gravity (from Table 1)	0,66	0,66	0,66
Higher heating value - Btu/lb (from Annex A1)	8690	8690	8690
Nom. Test fuel piece length - in	21	21	21
Number of test fuel pieces	5	5	5
Test fuel Weight			
Kindling - as fired lb.	4,30	NA	NA
Kindling Wt. - as % of test fuel load	18,1%	NA	NA
Kindling Moisture % Db	9,0	NA	NA
Kindling Kg DB	1,79	NA	NA
SU Fuel Wt- as fired lb	7,00	NA	NA
SU Fuel wt. - as % of test fuel load	29,5%	NA	NA
SU Fuel moisture - % DB	20,0	NA	NA
SU fuel- Kg DB	2,65	NA	NA
Test Fuel Load - As Fired lb	23,74	28,19	27,65
Ave. Test Fuel Load MC % DB	21,74	22,95	23,22
Test Fuel Load - kg DB	8,85	10,40	10,18
Test fuel Loading density lb./ft ³	10,32	12,26	12,02
Residual SU fuel wt. - as fired lb.	4	NA	NA
Residual SU fuel wt.- as % of test fuel load	16,8%	NA	NA
Test run duration - minutes	190	555	467
Test run duration - h	3,17	9,25	7,78
Test fuel load wt at the end of the test - as fired lb	2,2	0	0
total fuel burned kg Db	10,47	10,40	10,18
% test fuel load wt at end of the test	9,3%	0,0%	0,0%

2.4 TEST RUN RESULTS SUMMARY

Model name / number	NZ 3000		
Usable Firebox volume	2.30		
Convection air Fan (no, Standard, option)	OPTION		
Test runs nu.	1,1	1,2	2,1
Date tested	December 9 th 2019	December 9 th 2019	December 10 th 2019
Test run category	H	L	M
Burn rate - Kg/hr DB	3,29	1,12	1,31
Burn rate as % of low to high Midpoint	NA	34,1%	39,7%
Burn duration - h	3,17	9,25	8
Heat output btu/hr	42 203	14 215	17 158
Average Dilution Tunnel Flow Rate - dscfm	326,8	330,2	339,7
Average Sample Flow Rates - dscfm			
Train 1	0,1668	0,1693	0,1617
train 2	0,1607	0,1642	0,1566
Total PM Emissions - g			
Train 1 g	7,84	10,78	8,25
train 2 g	7,93	11,12	7,66
Average	7,89	10,95	7,96
PM emission train precision %	0,60%	1,54%	3,71%
PM emission g/kg	0,75	1,05	0,78
PM emission rate g/h	2,49	1,18	1,02
Total Co Emission g	59,2	242,2	211,2
Co emission Rate g/h	24,8	26,2	27,1
1 st hour emission rate g/h	5,7	2,9	5,0
Overall Efficiency - CSA B415,1			
% HHV Basis	67,73%	67,39%	68,52%
% LHV Basis	72,88%	72,51%	73,72%

2.5 WEIGHTED AVERAGE SUMMARY

Model name / number	NZ 3000		
Usable Firebox volume	2.30		
Convection air Fan (no, Standard, option)	OPTION		
average for each test run category	L	M	H
burn rate kg/h DB	1,12	1,31	3,29
PM Emission rate - g/h	1,18	1,02	2,49
Co emission rate - g/h	26,19	27,14	24,85
Overall Efficiency - CSA B 415,1			
% HHV Basis	67,4%	68,5%	67,7%
% LHV Basis	72,5%	73,7%	72,9%
Heat output - Btu/hr	14215	17158	42203
Category weighting	0,4	0,4	0,2

2.6 WEIGHTED AVERAGE FINAL RESULTS

ASTM E 3053 Weighted averages			
PM Emission Rate - g/h	1,38		
CO Emission Rate g/h	26,3		
Overall Efficiency - CSA B415,1			
% HHV Basis	67,91%		
% LHV Basis	73,07%		
Heat output range - Btu/h	14 215	to	42 203
Co Arithmetic average g/min	0,43		

2.7 TEST FACILITY CONDITIONS

Run Number	Room Temperature		Barometric pressure		Relative humidity		Air Velocity	
	Before	After	Before	After	Before	After	Before	After
	(F)	(F)	(in.Hg)	(in.Hg)	(%)	(%)	(ft/min)	(ft/min)
1	73	81	29,83	30,00	31,4	26,3	0	0
2	79	81	29,38	29,44	32,5	31,3	0	0

2.8 DILUTION TUNNEL FLOW RATE MEASUREMENTS AND SAMPLING DATA (ASTM E2515)

Average dilution tunnel measurements				Sample Data			
Run Number/ test category	Burn Rate (Min)	Volumetric Flow Rate (dscf/min)	Total Temperatures (°R)	Volume sampled (DSCF)		Particulate catch (mg)	
				1	2	1	2
high Fire test	190	326,76	575,59	31,683	30,525	4,00	3,90
Low fire test	555	330,23	560,78	93,938	91,129	5,60	5,60
medium fire test	467	339,74	557,35	75,535	73,118	4,00	3,60

2.9 DILUTION TUNNEL DUAL TRAIN PRECISION

Run Number/ test category	Sample Ratio		Total Emission (g)		
	Train 1	Train 2	Train 1	Train 2	% Deviation
high Fire test	1959,51	2033,84	7,84	7,93	0,60%
Low fire test	1951,04	2011,16	10,78	11,12	1,54%
medium fire test	2100,44	2169,88	8,25	7,66	3,71%

3 PROCESS DESCRIPTION

3.1 DISCUSSION

The heater was received in a good shape by a carrier in July 2019. Pre-burn was done as preliminary testing with cord wood at Polytests facility. The firebox is lined with Refractory cement panels. The secondary air inlet is fixed and the primary air damper is located at the underneath the firebox. Post combustion is ensured by the secondary tubes located at the top of the firebox. Above the tubes a is a deflector made of Ceramic fiber.

3.2 UNIT DIMENSIONS

Baffle

- Location: top of firebox
- Restriction: catalyst dimensions
- Dimensions: 15.25-inch X 12-inch X 1 inch thick
- Material: Ceramic fiber

Bricks

- Location: surrounding combustion chamber
- Dimensions: Between 2 & ¾ inches thick
- Material: Refractory cement panel

Flue gas exhaust

- Location: top
- Dimensions: 7 or 8 inches
- Material: steel

Gasket

- Gasket between glass & door: 7/8" channel gasket, black woven fiberglass, 5/32" thickness, thermal protection up to 1000F, pressure sensitive adhesive backing.
- Gasket between door & unit: 0.625 diameter glass rope gasket, medium density, cemented to inner door frame, create a tight seal up against the front of the firebox.
- Bypass door gasket: We are using a 0.500 diameter ceramic rope gasket, soft density, cemented to the baffle.
- Baffle: ¼" diameter rope fiberglass rope gasket, medium density, cemented to the baffle.
- CAT: We are using one 0.063" layer of Interam gasket between the ceramic monolith and the metal can. Also, we are using a layer around the can and the catalytic insert area.
- Dilution: ½" ceramic twisted rope, 20-33 pcf density, suitable for use up to 2300F.
- Secondary Manifold to Unit: 1/8" Kaowool gasket, 6-9 lb/ft cu density, suitable for use up to 1800F.
- Refer to drawing appendix 6 for all position details

Overall unit dimension

- Firebox dimensions: 26 1/8 to 21 3/8 inches wide X 13 3/4 inches depth X 11 ¾ inches high
- Usable volume: 2.3 cuft
- Overall dimension: Width 42, Depth 26 inches, Height 43 inches

Convection fan

- optional blower fan

- model: ebmpapst D2E146-HT65-14 Centrifugal Blower, 441 CFM, 115Volt , 2.84 Amps

Catalyst

- yes
- 25cell / sq inch
- Dimension: 13inch long X 2.5 Width X 2.5 high

3.3 AIR SUPPLY SYSTEM

Description

- Primary air: Bottom front of the heater
- Secondary air: sides of the heater Refer appendix 6 for drawing details

Characterization

The following table shows the inlet and outlet sections of each system. The air introduction system number is referred to on a set of drawings in Appendix 6.

AIR INTRODUCTION SYSTEM		INLET (1) sq. in.			OUTLET (sq. in.)
Identification	Type	Imin	Imax	Controlled	
A *	Primary	0.171	2.352	Yes	6.45
B *	Secondary	1	1	Fix	1.048
C *	Pilot	0.11	0.11	Fix	0.028

* This section would be filled by measuring and comparing with the manufacturer’s drawings included in the test report.

Legend

Identification: Tag name referred to on drawings in Appendix 14, section airflow pattern

Type: Characterization of air intake

Imin: Minimum air intake of a particular air channel

Imax: Maximum air intake of a particular air channel

Controlled: Determines if a provision for air control is present

Outlet: Total air outlet of a particular air channel

3.4 OPERATION DURING TEST

Run #1.1

This run was performed on December 9th 2019. It lasted 190 minutes and a maximum burn rate was obtained at 3.29 kg/hr & emission at 2.5 gr/hr. The air inlet damper was at the maximum opening.

Run #1.2

This run was performed on December 9th 2019 as a continuation of the maximum burn rate (run1.1). It lasted 555 minutes and a Minimum burn rate was obtained at 1.12 kg/hr & emission at 1.18 gr/hr. The air inlet damper was at the minimum setting.

Run #21

This run was performed on December 10th 2019. It lasted 467 minutes and a medium burn rate was obtained at 1.31 kg/hr & emission at 1.02 gr/hr. The air inlet damper was at the medium setting.

- Details: Refer to the front page of each test run data sheets found in appendix for the detailed test sequence showing air supply settings and adjustments, fuel bed adjustments and operational specifics of the test unit.

Test fuel cribs

- Type of wood: Red Oak, 18 to 28% dry basis moisture content
- Description: for each test, description of the fuel crib is found on the front page of each test run data sheet together with photograph in appendix.

3.5 START-UP OPERATION

The complete manufacturer's firing procedure of each burn rate category is fully described in appendix 13.

3.6 SAMPLING LOCATIONS

Particulate samples are collected from the dilution tunnel at a point 15 feet from the tunnel entrance. The tunnel has two elbows in the system ahead of the sampling section. The sampling section is a continuous 20-foot section of 8-inch diameter pipe straight over its entire length. Tunnel velocity pressure is determined by a standard pitot tube located 48 inches from the beginning of the sampling section. Thermocouple is installed on the pitot tube to measure the dry bulb temperature. MC is assumed, as allowed, to be 4%. Tunnel samplers are located 56 inches downstream of the pitot tube and 24 inches upstream from the end of this section.

3.7 DRAWINGS

Various drawings of the stack gas sampling train and of dilution tunnel system are found in Appendix 6.

3.8 EMISSIONS EFFICIENCY TESTING EQUIPMENT LIST

The complete test equipment list together with all corresponding calibration data can be found in Appendix 3.

4 SAMPLING METHODS

4.1 PARTICULATE SAMPLING

Particulates were sampled in strict accordance with ASTM E2515. This method uses two identical sampling systems with Gelman A/E 61631 binder free (or equivalent), 47 mm diameter EMFAB TX40H 120-WW Pall filters. The dryers used in the sample systems are filled with "Drierite" before each test run.

5 QUALITY ASSURANCE

5.1 INSTRUMENT CALIBRATION

5.1.1 GAS METERS

At the conclusion of each test program the gas meters are verified using the reference dry gas meter. This process involves sampling the train operation for 1 cubic foot of volume. With readings made to .01 fr', the resolution is 1 %, giving an accuracy higher than the 2% required by the standard.

5.1.2 SCALES

Before each test program, the different scales used are checked with traceable calibration weights to ensure their accuracy.

5.1.3 GAS ANALYZERS

The continuous analyzers are zeroed and spanned before each test with NBS traceable gases. A mid-scale multi-component calibration gas is then analyzed (values are recorded). At the conclusion of a test, the instruments are checked again with zero, span and calibration gases (values are recorded only). The drift in each meter is then calculated and must not exceed 5% of the scale used for the test.

5.2 TEST METHOD PROCEDURES

5.2.1 LEAK CHECK PROCEDURES

Before and after each test, each sample train is tested for leaks. Leakage rates are measured and must not exceed 0.02 CFM or 4% of the sampling rate. Leak checks are performed checking the entire sampling train. Pre-test and post-test leak checks are conducted with a vacuum of 5 inches of mercury. Vacuum is monitored during each test and the highest vacuum reached is then used for the post-test vacuum value. If leakage limits are not met, the test run is rejected. During these tests, the vacuum is typically less than 2 inches of mercury. Thus, leakage rates reported are expected to be much higher than actual leakage during the tests.

5.2.2 TUNNEL VELOCITY FLOW MEASUREMENT

The tunnel velocity is calculated from a center point pitot tube signal multiplied by an adjustment factor. This factor is determined by a traverse of the tunnel as prescribed in EPA Method 1. Final tunnel velocities and flow rates are calculated from EPA Method 2, Equation 6.9 and 6.10. (Tunnel cross sectional area is the average from both lines of traverse.)

Pitot tubes are cleaned before each test and leak checks are conducted after each test.

5.2.3 PM SAMPLING PROPORTIONALITY (ASTM E2515)

Proportionalities were calculated in accordance with ASTM E2515. The data and results are found in appendix.

APPENDIX 1: Raw data, forms and results

Paramètres

Tous les facteurs de corrections et autres paramètres qui peuvent être modifiés par l'utilisateur du fichier sont regroupés ici.

Code verrouillage:

Description du test

Test standard	EPA
Run #	1
Date	09-12-2019
Technicien	M.M
Project #	PI 20214

Description de l'unité

Manufacturier	WOLF STEEL	
Modèle	NZ 3000	
Combustion system	Cat	
Appliance type	FIREPLACE	
Firebox volume	2,3	cu ft.
Appliance weight empty	n.a	lbs
Fan (no, Standard, Option)	Option	

Paramètres du test

Logging time	1	min
Manufacturer's rated heat output	n.a	BTU/h Donnée fournie par le manufacturier
Targeted category	1	
Targeted output	n.a	BTU/h
Cp steel	n.a	BTU/lb-°F

Échantillonnage

Blank sampling rate	0,20	cuft/min
Internal probe diameter	0,18	in.
Calibration Factor (DGM #1):	0,995	Dimensionless
Equipment number (DGM #1):	EM 178	
Calibration Factor (DGM #2):	0,990	Dimensionless
Equipment number (DGM #2):	EM 179	
Calibration Factor (DGM #3):	0,997	Dimensionless
Equipment number (DGM #3):	EM 070	

Tunnel

Targeted tunnel flow rate	300	scfm
Tunnel diameter	8	in.
Molecular weight	28,78	May be assumed to be 28,78 (EPA) Si B-415 = 29
Pitot tube type	Standard	
Pitot tube coefficient	0,99	Dimensionless

Project nu.	PI 20214
Date	09-12-2019
Technicien	<input type="text" value="m.m"/>

Fuel data

Fuel type	Cord	
Fuel specie	Oak	
HHV	20207,0	kJ/kg
%C	49,5	
%H	6,6	
%O	43,7	
%Ash	0,2	
HHV	8689,9	Btu/lb
LHV	7600,4	Btu/lb

Default Fuel Values		
	D. Fir	Oak/Maple
HHV	19 810	20 207
%C	48,73	49,5
%H	6,87	6,62
%O	43,9	43,7
%Ash	0,5	0,2
HHV (Btu/lb)	8519	8690
LHV (Btu/lb)	7451	7600

Adjunct to ASTM E XXXX Wood Heater Corawood Test Method - May 10, 2017 Version
 Corwood Fuel Load Calculators - 10 lb/ft³ Nominal Load Density
 Core 45-65% of Total Load Weight, Remainder 35-55% of Total Load Weight
 Values to be input manually

For All Usable Firebox Volumes - High Fire Test Only

Nominal Required Load Density (wet basis)	10 lb/ft ³
Usable Firebox Volume	2,30 ft ³
Total Nom. Load Wt. Target	23,00 lb
Total Load Wt. Allowable Range	21,90 to 24,20 lb
Core Target Wt. Allowable Range	10,40 to 15,00 lb
Remainder Load Wt. Allowable Range	8,10 to 12,70 lb
Core Load Pc. Wt. Allowable Range	3,50 to 5,80 lb
Remainder Load Pc. Wt. Allowable Range	2,30 to 12,70 lb
	Mid-Point 4,65 7,50
Core Load Piece Wt. Actual	Pc. # 1 4,70 lb 2 4,57 lb 3 4,27 lb In Range In Range In Range In Range
Core Load Total. Wt. Actual	13,54 lb
Remainder Load Piece Wt. (1 to 3 Pcs.)	Pc. # 1 5,31 lb 2 4,89 lb 3 10,20 lb In Range In Range NA In Range
Remainder Load Tot. Wt. Act	23,74 lb
Total Load Wt. Actual	37,28 lb
Core % of Total Wt.	57%
Remainder % of Total Wt.	43%
Actual Load % of Nominal Target	103%
Actual Fuel Load Density	10,3 lb/ft ³
Kindling and Start-up Fuel	
Maximum Kindling Wt. (20% of Tot. Load Wt.)	4,75 lb
Actual Kindling Wt.	4,30 lb
Maximum Start-up Fuel Wt. (30% of Tot. Load Wt.)	7,12 lb
Actual Start-up Fuel Wt.	7,00 lb
Allowable Residual Start-up Fuel Wt. Range	2,4 to 4,7 lb
Actual Residual Start-up Fuel Wt.	4 lb
Total Wt. All Fuel Added (wet basis)	35,04 lb
High Fire Test Run End Point Range Based on Fuel Load Wt. (w/tares)	Low 2,1 to 2,6 lb
Actual Fuel Load Ending Wt.	2,2 lb
Mid-Point	2,4

Load pieces Length in. **21** in.

Fuel Piece Moisture Reading (%-dry basis)			Ave.	Pc. Wt. Dry Basis
1	2	3		
22,6	24,8	19,6	22,3	3,84 lb
20,3	22,7	19,1	20,7	3,79 lb
21,4	24,5	19	21,6	3,51 lb
				1,74 kg
				1,72 kg
				1,59 kg
20,4	27,7	19,8	22,6	4,33 lb
20	24,5	19,3	21,3	4,03 lb
			NA	NA lb
			21,7	NA kg
			17,9	8,85 kg
Total Load Ave. MC (%-dry basis)				
Total Load Ave. MC % (wet basis)				
Total Test Load Weight (dry basis)				
Kindling Moisture (%-dry basis)				
9	9	9	9,0	3,94 lb
Start-up Fuel Moisture Readings (%-dry basis)				
20	20	20	20,0	5,83 lb
Total Wt. All Fuel Added (dry basis)				
Total Wt. All Fuel Burned (dry basis)				
				29,28 lb
				23,1 lb
				10,5 kg

Adjunct to ASTM E XXXX Wood Heater Cordwood Test Method - May 10, 2017 Version
 Cordwood Fuel Load Calculators - 12 lb/ft³ Nominal Load Density
 Core 45-65% of Total Load Weight, Remainder 35-55% of Total Load Weight
 Values to be input manually

For Usable Firebox Volumes up to 3.0 ft³ - Low and Medium Fire

Nominal Required Load Density (wet basis)	12 lb/ft ³	
Usable Firebox Volume	2.30 ft ³	
Total Nom. Load Wt. Target	27.6 lb	
Total Load Wt. Allowable Range	26.22 to 29.98 lb	
Core Target Wt. Allowable Range	12.42 to 17.94 lb	
Remainder Load Wt. Allowable Range	9.66 to 15.18 lb	
Core Load Fuel Pc. Wt. Allowable Range	4.14 to 6.90 lb	Mid-Point 5.52
Remainder Load Pc. Wt. Allowable Range	2.76 to 8.28 lb	5.52
Core Load Piece Wt. Actual	1 5.44 lb	In Range
	2 5.48 lb	In Range
	3 5.68 lb	In Range
Core Load Total. Wt. Actual	16.58 lb	In Range
Remainder Load Piece Wt.	1 8.17 lb	In Range
(2 or 3 Pcs.)	2 3.44 lb	In Range
	3 NA	NA
Remainder Load Piece Weight Ratio - Small/Large	42%	≤ 67%
Remainder Load Tot. Wt. Act	11.61 lb	In Range
Total Load Wt. Actual	28.19 lb	In Range
Core % of Total Wt.	59%	45-65%
Remainder % of Total Wt.	41%	35-55%
Actual Load % of Nominal Target	102%	95-105%
Actual Fuel Load Density	12.3 lb/ft ³	
Allowable Charcoal Bed Wt. Range (lb)	2.9 to 5.6 lb	Mid-Point 4.2
Actual Charcoal Bed Wt.	3.8 lb	In Range
Actual Fuel Load Ending Wt.	28.2 lb	Valid Test ≥ 90%
Total Wt. of Fuel Burned During Test Run lb.	28.2 lb	
Load pieces Length in.	21 in.	

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Fuel Piece Moisture Reading (%-dry basis)	1	2	3	Ave.	Pc. Wt. Dry Basis
	20.3	24.8	19.8	21.6	4.47 lb
	22.6	27.9	19.9	23.5	4.42 lb
	23.1	27.9	20.3	23.8	4.59 lb
	22.3	27.7	20.9	23.6	6.61 lb
	20.6	22.7	20.7	21.3	2.84 lb
				NA	NA lb
Total Load Ave. MC % (dry basis)				NA	
Total Load Ave. MC % (wet basis)				23.0	
Total Test Load Weight (dry basis)				18.7	
Total Fuel Weight Burned During Test Run (dry basis)				22.93	10.40 lb
					22.9 lb

For Usable Firebox Volumes above 3.0 ft³ - Low and Medium Fire

Nominal Required Load Density (wet basis)	12 lb/ft ³	
Usable Firebox Volume	0 ft ³	
Total Nom. Load Wt. Target	0 lb	
Total Load Wt. Allowable Range	0.00 to 0.00 lb	
Core Target Wt. Allowable Range	0.00 to 0.00 lb	
Remainder Load Wt. Allowable Range	0.00 to 0.00 lb	
Core Load Fuel Pc. Wt. Allowable Range	0.00 to 0.00 lb	Mid-Point 0.00
Remainder Load Pc. Wt. Allowable Range	0.00 to 0.00 lb	0.00
Core Load Piece Wt. Actual	1 0.00 lb	In Range
	2 0.00 lb	In Range
	3 0.00 lb	In Range
Core Load Total. Wt. Actual	0.00 lb	In Range
Remainder Load Piece Wt.	1 0.00 lb	In Range
(3 or 4 Pcs.)	2 0.00 lb	In Range
	3 0.00 lb	In Range
	4 0.00 lb	NA
Remainder Load Piece Weight Ratio - Small/Large	#NOMBRE!	≤ 67%
Remainder Load Tot. Wt. Act	0.00 lb	In Range
Total Load Wt. Actual	0.00 lb	In Range
Core % of Total Wt.	#DIV/0!	45-65%
Remainder % of Total Wt.	#DIV/0!	35-55%
Actual Load % of Nominal Target	#DIV/0!	95-105%
Actual Fuel Load Density	#DIV/0!	
Allowable Charcoal Bed Wt. Range (lb)	0.1 to -0.1 lb	Mid-Point 0.0
Actual Charcoal Bed Wt.	0 lb	Out of Range
Actual Fuel Load Ending Wt.	0.0 lb	Valid Test ≥ 90%
Total Wt. of Fuel Burned During Test Run lb.	0.0 lb	

Fuel Piece Moisture Reading (%-dry basis)	1	2	3	Ave.	Pc. Wt. Dry Basis
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0! kg
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0! kg
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0! kg
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0! kg
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0! kg
	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0! kg
Total Load Ave. MC % (dry basis)				NA	
Total Load Ave. MC % (wet basis)				NA	
Total Test Load Weight (dry basis)				#DIV/0!	
Total Fuel Weight Burned During Test Run (dry basis)				#DIV/0!	#DIV/0! lb
					#DIV/0! lb

	Start	End
Barometer (kPa):	101	101,6
Barometer (in.Hg):	29,825289	30,00246871
Dry Bulb (F):	72,7	80,6
Humidity (%):	31,4	26,3
Air velocity (ft/min)	0	0

High fire test				
DGM #1	Final:	2918,585 cuft	Final:	82645,120 Liter
	Initial:	2885,402 cuft	Initial:	81705,490 Liter
DGM #2	Final:	977,094 cuft	Final:	27668,220 Liter
	Initial:	944,558 cuft	Initial:	26746,900 Liter
DGM room			Final:	892,550 cuft
			Initial:	847,920 cuft

min or med burnrate				
DGM #1	Final:	3017,746 cuft	Final:	85453,040 Liter
	Initial:	2918,701 cuft	Initial:	82648,400 Liter
DGM #2	Final:	1075,094 cuft	Final:	30443,280 Liter
	Initial:	977,241 cuft	Initial:	27672,370 Liter
DGM room			Final:	1023,320 cuft
			Initial:	892,550 cuft

Numéro de la ligne dans "Raw data" à partir duquel les données du test commence	159
Numéro de la ligne dans "Raw data" à partir duquel les données du highfire test commence	206
Numéro de la ligne dans "Raw data" à partir duquel les données du min ou medium fire test commence	412

Autres données à rentrer: dans preload data, load data, traverse et filter set weight

Project nu.	PI 20214
Date	09-12-2019
Technicien	M.M

Filter set weight highfire

Number	System 1 (g) 1st. hour				System 1 (g)				System 2 (g)				Ambient blank (g)	Date	Heure
	probe	front	back	gasket	probe	front	back	gasket	probe	front	back	gasket			
Before (1)	20	400	401	1	41	402	403	12	60	404	405	45	406		
Before (2)															
Before (3)															
Before (4)															
Before (5)	108,8434	0,1820		35,3050	110,3663	0,1839		35,1515	103,9576	0,1854		34,1908	0,0920	2019-12-05	17:00
Before (6)	108,8434	0,1819		35,3049	110,3664	0,1839		35,1516	103,9577	0,1855		34,1909	0,0920	2019-12-09	09:00
After (1)	108,8442	0,1848		35,3057	110,3666	0,1848		35,1531	103,9599	0,1891		34,1925	0,0921	2019-12-09	16:00
After (2)	108,8438	0,1844		35,3049	110,3665	0,1848		35,1517	103,9581	0,1889		34,1910	0,0920	2019-12-16	15:00
After (3)	108,8438	0,1844		35,3049	110,3665	0,1848		35,1517	103,9581	0,1889		34,1910	0,0920	2019-12-17	08:00
After (4)															
After (5)															
After (6)	108,8438	0,1844		35,3049	110,3665	0,1848		35,1517	103,9581	0,1889		34,1910	0,0920	2019-12-17	08:00

Difference	0,0004	0,0025	0,0000	0,0000	0,0001	0,0009	0,0000	0,0001	0,0004	0,0034	0,0000	0,0001	0,0000	0,0000	0,0000
Total (mg)		2,9				4									0
Total ajusté (mg)		2,90				4,00									3,90

Project nu. PI 20214
 Date 09-12-2019
 Technicien M.M

Filter set weight Low/ medium fire

Number	System 1 (g) 1st. hour			System 1 (g)			System 2 (g)			Ambient blank (g)	Date	Heure
	probe	front	back	probe	front	back	probe	front	back			
Before (1)	3	407	408	15	409	410	32	411	412	33	413	
Before (2)												
Before (3)												
Before (4)												
Before (5)	61,4551	0,1810		34,5880	61,4466	0,1829	35,2749	109,2840	0,1832	34,6696	0,8980	2019-12-05 17:00
Before (6)	61,4552	0,1811		34,5881	61,4465	0,1830	35,2750	109,2839	0,1833	34,6697	0,0899	2019-12-09 13:00
After (1)	61,4557	0,1827		34,5898	61,4474	0,1871	35,2766	109,2850	0,1885	34,6717	0,0900	2019-12-09 23:45
After (2)	61,4552	0,1826		34,5881	61,4467	0,1868	35,2751	109,2843	0,1883	34,6699	0,0900	2019-12-16 15:00
After (3)	61,4552	0,1826		34,5881	61,4467	0,1868	35,2751	109,2843	0,1883	34,6699	0,0900	2019-12-17 08:00
After (4)												
After (5)												
After (6)	61,4552	0,1826		34,5881	61,4467	0,1868	35,2751	109,2843	0,1883	34,6699	0,0900	2019-12-17 08:00

Difference	0,0000	0,0015	0,0000	0,0000	0,0002	0,0038	0,0000	0,0001	0,0004	0,0050	0,0000	0,0002	0,0001
Total (mg)		1,5				5,6				5,6			0,1
Total ajusté (mg)		1,40				5,50				5,50			

Project nu. PI 20214
 Date 09-12-2019
 Technicien M.M

Elapsed Time min	Raw data row	Weights Remaining lbs	CO %	CO ₂ %	Flue Gas Temp °F	Room Temp °F	Tunnel Dry Bulb °F	Unit Top °F	Unit Back °F	Unit R. Side °F	Unit L. Side °F	Unit Bottom °F	Catalyst °F	Reading °F	Inlet T °F	Outlet T °F	Temp °F	Reading °F	Inlet T °F	Outlet T °F	Temp °F	
																						Unit Top °F
0.00	195.00	11.2	0.0	0.0	125.8	69.4	106.2	68.2	66.0	66.8	67.1	66.8	68.5	79.85	79.69	79.42	79.38	86.82	79.55	79.49	79.38	83.73
1.0	160.0	11.1	0.0	0.9	204.4	69.5	101.0	73.6	66.0	66.9	67.1	66.9	81.3	79.42	79.42	79.42	79.38	86.16	79.49	79.49	79.38	83.13
2.0	161.0	10.9	0.2	2.7	324.0	69.7	122.6	73.6	66.1	67.0	67.2	66.9	120.3	79.42	79.42	79.42	79.38	85.56	79.49	79.49	79.38	83.06
3.0	162.0	10.7	0.4	5.4	444.0	69.8	100.6	139.8	66.7	67.1	67.3	66.9	150.9	79.42	79.42	79.42	79.38	84.97	79.49	79.49	79.38	82.68
4.0	163.0	10.5	0.6	8.0	564.0	69.9	100.6	178.8	66.7	67.1	67.3	66.9	180.9	79.42	79.42	79.42	79.38	84.47	79.49	79.49	79.38	82.30
5.0	164.0	10.4	0.2	8.8	260.4	70.1	100.3	174.8	67.5	69.9	70.2	67.1	220.9	79.42	79.42	79.42	79.38	83.93	79.49	79.49	79.38	81.92
6.0	165.0	10.2	0.1	8.6	299.6	70.0	101.5	210.7	68.8	72.8	72.9	67.2	280.9	79.42	79.42	79.42	79.38	83.44	79.49	79.49	79.38	81.54
7.0	166.0	10.1	0.1	7.9	327.0	70.3	103.7	238.1	70.6	77.0	76.7	67.3	340.9	79.42	79.42	79.42	79.38	83.02	79.49	79.49	79.38	81.16
8.0	167.0	9.9	0.1	8.8	351.3	70.3	106.8	256.1	72.9	82.8	81.6	67.4	400.9	79.42	79.42	79.42	79.38	82.60	79.49	79.49	79.38	80.78
9.0	168.0	9.7	0.1	7.3	367.3	70.2	109.9	268.1	75.7	90.0	87.5	67.6	460.9	79.42	79.42	79.42	79.38	82.20	79.49	79.49	79.38	80.40
10.0	169.0	9.4	0.1	8.2	381.7	70.4	112.7	286.2	78.7	99.4	94.0	67.8	520.9	79.42	79.42	79.42	79.38	81.80	79.49	79.49	79.38	80.02
11.0	170.0	9.2	0.1	9.6	398.7	70.3	114.8	311.3	82.9	110.3	101.6	68.1	580.9	79.42	79.42	79.42	79.38	81.40	79.49	79.49	79.38	79.64
12.0	171.0	9.1	0.1	8.4	416.3	70.3	117.5	332.6	85.9	119.8	110.4	68.4	640.9	79.42	79.42	79.42	79.38	81.00	79.49	79.49	79.38	79.26
13.0	172.0	8.8	0.3	9.6	428.8	70.6	119.4	353.9	90.1	127.4	122.1	68.7	700.9	79.42	79.42	79.42	79.38	80.60	79.49	79.49	79.38	78.88
14.0	173.0	8.5	0.1	8.5	443.8	70.7	121.6	375.2	94.2	135.7	127.5	69.0	760.9	79.42	79.42	79.42	79.38	80.20	79.49	79.49	79.38	78.50
15.0	174.0	8.2	0.1	8.5	459.3	70.6	123.6	396.5	98.2	144.1	137.6	69.3	820.9	79.42	79.42	79.42	79.38	79.80	79.49	79.49	79.38	78.12
16.0	175.0	8.3	0.1	8.1	449.6	70.9	120.5	408.5	102.8	140.8	144.4	70.1	880.9	79.42	79.42	79.42	79.38	79.40	79.49	79.49	79.38	77.74
17.0	176.0	8.1	0.1	8.3	431.1	70.6	115.6	429.6	107.2	144.5	149.6	70.6	940.9	79.42	79.42	79.42	79.38	79.00	79.49	79.49	79.38	77.36
18.0	177.0	8.0	0.0	8.3	430.8	70.8	114.1	450.6	103.6	147.8	153.2	71.3	1000.9	79.42	79.42	79.42	79.38	78.60	79.49	79.49	79.38	76.98
19.0	178.0	7.8	0.0	7.7	434.4	70.8	113.0	467.7	116.1	150.8	156.6	71.3	1060.9	79.42	79.42	79.42	79.38	78.20	79.49	79.49	79.38	76.60
20.0	179.0	7.7	0.0	7.7	437.8	70.8	112.2	482.4	120.8	152.9	160.9	73.0	1120.9	79.42	79.42	79.42	79.38	77.80	79.49	79.49	79.38	76.22
21.0	180.0	7.6	0.0	7.7	442.3	71.0	111.5	496.8	125.5	154.9	164.4	73.9	1180.9	79.42	79.42	79.42	79.38	77.40	79.49	79.49	79.38	75.84
22.0	181.0	7.4	0.0	7.7	446.4	70.9	110.6	511.5	130.1	157.3	168.7	74.9	1240.9	79.42	79.42	79.42	79.38	77.00	79.49	79.49	79.38	75.46
23.0	182.0	7.3	0.0	7.5	450.9	71.0	110.2	525.9	134.7	164.2	172.5	75.9	1300.9	79.42	79.42	79.42	79.38	76.60	79.49	79.49	79.38	75.08
24.0	183.0	7.1	0.1	7.4	455.3	71.0	110.2	532.2	139.4	168.7	181.4	77.0	1360.9	79.42	79.42	79.42	79.38	76.20	79.49	79.49	79.38	74.70
25.0	184.0	6.9	0.1	7.4	460.8	70.9	109.5	539.5	144.1	173.5	187.3	79.0	1420.9	79.42	79.42	79.42	79.38	75.80	79.49	79.49	79.38	74.32
26.0	185.0	6.8	0.1	7.3	465.3	70.7	108.9	539.4	148.9	180.7	192.4	80.1	1480.9	79.42	79.42	79.42	79.38	75.40	79.49	79.49	79.38	73.94
27.0	186.0	6.7	0.1	6.3	465.6	71.1	109.9	539.4	153.8	186.7	198.2	80.1	1540.9	79.42	79.42	79.42	79.38	75.00	79.49	79.49	79.38	73.56
28.0	187.0	6.6	0.1	6.4	465.6	71.1	110.0	540.6	158.6	193.0	203.5	81.2	1600.9	79.42	79.42	79.42	79.38	74.60	79.49	79.49	79.38	73.18
29.0	188.0	6.4	0.1	6.8	468.1	71.2	110.2	543.6	163.2	199.0	208.9	82.3	1660.9	79.42	79.42	79.42	79.38	74.20	79.49	79.49	79.38	72.80
30.0	189.0	6.2	0.1	7.2	472.8	71.3	110.2	550.1	167.8	205.0	214.0	83.4	1720.9	79.42	79.42	79.42	79.38	73.80	79.49	79.49	79.38	72.42
31.0	190.0	6.1	0.0	7.5	476.7	71.4	110.4	560.4	172.2	212.1	219.3	84.6	1780.9	79.42	79.42	79.42	79.38	73.40	79.49	79.49	79.38	72.04
32.0	191.0	5.9	0.0	7.4	481.5	71.2	110.8	568.4	176.7	218.3	224.3	85.7	1840.9	79.42	79.42	79.42	79.38	73.00	79.49	79.49	79.38	71.66
33.0	192.0	5.8	0.1	7.0	485.6	71.0	111.1	573.2	180.9	224.8	229.4	86.9	1900.9	79.42	79.42	79.42	79.38	72.60	79.49	79.49	79.38	71.28
34.0	193.0	5.6	0.1	7.0	489.2	70.9	111.4	577.2	185.0	230.9	234.6	88.1	1960.9	79.42	79.42	79.42	79.38	72.20	79.49	79.49	79.38	70.90
35.0	194.0	5.5	0.1	7.5	493.5	71.4	111.8	579.9	189.4	237.1	239.4	89.4	2020.9	79.42	79.42	79.42	79.38	71.80	79.49	79.49	79.38	70.52
36.0	195.0	5.4	0.1	8.4	496.9	71.4	112.2	588.8	193.2	243.8	244.5	90.7	2080.9	79.42	79.42	79.42	79.38	71.40	79.49	79.49	79.38	70.14
37.0	196.0	5.2	0.0	9.0	500.9	71.3	112.2	595.9	197.2	250.2	249.5	92.1	2140.9	79.42	79.42	79.42	79.38	71.00	79.49	79.49	79.38	69.76
38.0	197.0	5.0	0.1	8.4	504.9	71.3	112.2	603.0	201.0	256.7	254.5	93.5	2200.9	79.42	79.42	79.42	79.38	70.60	79.49	79.49	79.38	69.38
39.0	198.0	4.9	0.1	7.3	509.4	71.5	112.7	601.1	204.9	261.8	261.5	95.2	2260.9	79.42	79.42	79.42	79.38	70.20	79.49	79.49	79.38	69.00
40.0	199.0	4.8	0.1	7.4	511.8	71.7	113.6	609.8	208.4	266.8	268.0	96.9	2320.9	79.42	79.42	79.42	79.38	69.80	79.49	79.49	79.38	68.62
41.0	200.0	4.6	0.0	7.8	513.6	71.6	113.7	609.8	211.8	271.9	274.4	98.8	2380.9	79.42	79.42	79.42	79.38	69.40	79.49	79.49	79.38	68.24
42.0	201.0	4.5	0.0	8.2	515.1	71.6	114.1	617.0	215.3	276.8	281.0	100.8	2440.9	79.42	79.42	79.42	79.38	69.00	79.49	79.49	79.38	67.86
43.0	202.0	4.3	0.1	8.2	517.4	71.7	114.6	623.0	218.6	282.1	287.7	102.9	2500.9	79.42	79.42	79.42	79.38	68.60	79.49	79.49	79.38	67.48
44.0	203.0	4.1	0.1	7.8	519.9	72.1	114.6	627.1	222.0	287.8	293.4	105.1	2560.9	79.42	79.42	79.42	79.38	68.20	79.49	79.49	79.38	67.10
45.0	204.0	4.0	0.1	7.4	521.3	71.8	114.8	629.6	225.4	293.6	299.4	107.2	2620.9	79.42	79.42	79.42	79.38	67.80	79.49	79.49	79.38	66.72
46.0	205.0	4.0	0.1	7.2	523.0	71.7	115.1	628.6	228.9	299.2	304.3	109.4	2680.9	79.42	79.42	79.42	79.38	67.40	79.49	79.49	79.38	66.34
47.0	206.0	2.7	0.1	7.0	514.0	72.1	116.9	623.7	232.3	304.3	308.6	111.7	2740.9	79.42	79.42	79.42	79.38	67.00	79.49	79.49	79.38	65.96
48.0	207.0	2.6	0.4	7.0	513.0	72.0	117.0	624.5	235.7	310.5	312.9	113.8	2800.9	79.42	79.42	79.42	79.38	66.60	79.49	79.49	79.38	65.58
49.0	208.0	2.4	0.1	7.0	514.0	72.0	117.0	624.5	239.1	316.5	317.3	115.9	2860.9	79.42	79.42	79.42	79.38	66.20	79.49	79.49	79.38	65.20
50.0	209.0	2.6	0.1	5.6	503.5	71.2	127.1	614.9	241.5	322.3	319.3	118.3	2920.9	79.42	79.42	79.42	79.38	65.80	79.49	79.49	79.38	64.82
51.0	210.0	2.6	0.1	5.5	504.6	72.0	125.1	607.9	244.4	327.8	321.7	120.6	2980.9	79.42	79.42	79.42	79.38	65.40	79.49	79.49	79.38	64.44
52.0	211.0	2.6	0.1	5.3	503.4	71.7																

89.0	248.0	19.7	0.0	8.5	534.4	73.2	118.4	593.6	100.0	368.9	332.6	180.0	1047.2	0.17	79.62	78.37	83.45	79.00	78.36	84.72
90.0	249.0	19.5	0.0	8.6	532.5	73.2	118.0	591.0	99.3	370.5	333.3	180.8	1050.3	0.17	79.71	78.43	83.37	79.10	78.41	84.74
91.0	250.0	19.3	0.0	8.7	531.2	72.9	117.9	589.4	98.6	371.8	334.1	181.7	1052.6	0.16	79.81	78.47	83.30	79.22	78.47	84.77
92.0	251.0	19.2	0.0	8.7	528.8	73.0	117.8	586.5	98.0	373.4	334.9	182.6	1056.6	0.17	79.88	78.51	83.31	79.26	78.50	84.79
93.0	252.0	19.0	0.0	8.7	527.0	73.0	117.5	583.7	97.5	375.0	335.9	183.6	1060.6	0.16	79.97	78.55	83.30	79.36	78.54	84.80
94.0	253.0	18.8	0.0	8.7	525.2	73.0	117.2	581.0	97.0	376.7	337.0	185.1	1064.7	0.16	80.07	78.60	83.29	79.46	78.59	84.82
95.0	254.0	18.6	0.0	8.9	527.0	73.3	117.4	588.1	97.0	379.2	338.5	186.2	1068.9	0.17	80.11	78.64	83.29	79.56	78.66	84.84
96.0	255.0	18.4	0.0	9.1	526.7	73.2	117.2	586.6	96.6	380.5	339.0	187.0	1073.1	0.17	80.19	78.67	83.22	79.61	78.69	84.84
97.0	256.0	18.2	0.0	9.2	526.8	73.5	117.2	589.6	96.2	382.5	340.0	187.8	1076.9	0.16	80.25	78.72	83.18	79.69	78.72	84.85
98.0	257.0	18.0	0.0	9.4	527.2	73.4	117.0	592.5	96.2	384.5	340.0	188.8	1115.0	0.16	80.31	78.77	83.18	79.76	78.76	84.84
99.0	258.0	17.8	0.1	9.6	528.3	73.3	116.8	595.8	96.1	386.7	341.5	188.8	1115.0	0.16	80.38	78.80	83.15	79.82	78.78	84.85
100.0	259.0	17.6	0.1	9.6	529.8	73.5	116.8	599.4	96.1	388.5	342.4	189.9	1136.7	0.17	80.42	78.84	83.13	79.87	78.83	84.84
101.0	260.0	17.5	0.1	9.6	531.2	73.6	116.8	602.9	96.0	390.9	343.2	191.3	1136.7	0.16	80.51	78.85	83.07	79.93	78.87	84.81
102.0	261.0	17.3	0.1	9.4	532.2	73.7	116.6	606.0	95.9	393.4	343.9	192.4	1139.1	0.17	80.55	78.90	83.02	79.98	78.90	84.81
103.0	262.0	17.1	0.0	8.9	532.4	74.0	116.7	609.8	95.9	395.7	344.9	193.4	1143.7	0.16	80.58	78.93	83.02	79.98	78.90	84.80
104.0	263.0	16.9	0.0	8.6	534.4	73.9	116.9	613.6	96.0	397.6	346.0	194.1	1147.8	0.16	80.63	78.95	83.01	80.03	78.93	84.84
105.0	264.0	16.8	0.0	8.7	534.4	73.9	116.9	617.4	96.0	399.6	347.0	195.1	1151.9	0.17	80.68	78.98	83.01	80.08	78.96	84.83
106.0	265.0	16.7	0.0	8.5	528.1	73.9	116.7	606.2	96.0	401.6	348.1	196.1	1092.8	0.16	80.66	78.97	82.96	80.12	79.01	84.83
107.0	266.0	16.4	0.0	8.5	526.7	73.8	116.7	609.7	95.9	402.6	348.6	197.1	1087.1	0.16	80.72	79.03	82.93	80.16	79.04	84.82
108.0	267.0	16.3	0.0	8.5	525.5	74.0	116.9	613.6	95.9	404.1	350.0	198.1	1076.2	0.16	80.79	79.06	82.90	80.21	79.07	84.83
109.0	268.0	16.1	0.0	8.4	524.2	73.8	116.6	616.6	95.9	405.3	350.9	199.2	1070.7	0.16	80.85	79.08	82.88	80.25	79.09	84.83
110.0	269.0	16.0	0.0	8.4	522.9	73.9	116.5	619.4	95.9	407.8	352.3	200.5	1071.3	0.16	80.92	79.11	82.86	80.29	79.14	84.84
111.0	270.0	15.8	0.0	8.4	521.8	74.1	116.1	622.8	96.1	409.1	353.2	201.4	1069.9	0.17	80.86	79.14	82.86	80.32	79.16	84.84
112.0	271.0	15.7	0.0	8.4	520.8	74.0	116.2	626.1	96.1	409.1	354.6	202.3	1066.2	0.16	80.94	79.17	82.85	80.37	79.18	84.84
113.0	272.0	15.6	0.0	8.4	519.6	73.9	116.1	629.4	96.2	410.2	356.3	203.4	1064.8	0.16	80.94	79.20	82.83	80.40	79.21	84.83
114.0	273.0	15.4	0.0	8.4	518.7	74.2	115.7	632.7	96.6	411.5	357.2	204.9	1060.5	0.16	80.97	79.22	82.83	80.41	79.23	84.83
115.0	274.0	15.2	0.0	8.4	518.2	74.3	115.7	636.0	96.6	412.3	358.7	205.2	1056.2	0.17	80.95	79.25	82.77	80.42	79.28	84.83
116.0	275.0	15.0	0.0	8.4	517.4	74.4	115.4	639.3	96.6	413.1	360.2	206.5	1051.9	0.16	81.03	79.27	82.73	80.46	79.31	84.85
117.0	276.0	14.9	0.0	8.5	516.7	74.2	115.4	642.6	96.7	413.2	361.7	207.8	1047.6	0.16	81.03	79.30	82.73	80.46	79.31	84.85
118.0	277.0	14.7	0.0	8.6	516.4	74.5	115.6	645.9	96.7	413.3	363.3	209.6	1043.3	0.16	81.06	79.34	82.69	80.50	79.34	84.84
119.0	278.0	14.6	0.0	8.7	516.0	74.3	115.4	649.2	96.6	414.1	365.5	210.5	1039.0	0.16	81.07	79.34	82.70	80.51	79.38	84.85
120.0	279.0	14.4	0.0	8.2	515.7	74.0	115.1	652.6	97.5	414.7	367.3	211.6	1034.9	0.16	81.09	79.36	82.71	80.54	79.38	84.82
121.0	280.0	14.3	0.0	7.8	514.6	74.2	114.7	655.9	97.4	417.1	368.9	213.0	1030.7	0.16	81.12	79.40	82.69	80.57	79.40	84.81
122.0	281.0	14.2	0.0	7.7	513.9	74.3	114.6	659.4	97.4	417.6	370.5	214.1	1026.5	0.16	81.14	79.41	82.65	80.59	79.43	84.83
123.0	282.0	14.0	0.0	7.7	512.8	74.7	114.5	662.8	97.2	418.0	372.0	215.1	1022.3	0.16	81.10	79.46	82.66	80.61	79.44	84.81
124.0	283.0	13.9	0.0	7.7	511.9	74.6	114.4	666.3	97.4	418.2	373.9	216.4	1018.5	0.16	81.14	79.46	82.64	80.64	79.49	84.81
125.0	284.0	13.8	0.0	7.7	510.7	74.4	114.2	669.7	97.2	418.5	375.5	217.5	1014.8	0.16	81.16	79.48	82.61	80.62	79.49	84.79
126.0	285.0	13.6	0.0	7.7	509.7	74.4	114.4	673.2	97.3	418.2	376.9	218.6	1011.0	0.16	81.16	79.48	82.59	80.63	79.51	84.80
127.0	286.0	13.5	0.0	7.7	508.7	74.4	114.4	676.7	97.3	418.5	378.5	219.7	1007.2	0.16	81.16	79.48	82.57	80.65	79.51	84.80
128.0	287.0	13.4	0.0	7.4	508.6	74.4	113.8	680.2	97.4	418.7	380.0	221.4	1003.4	0.16	81.20	79.51	82.56	80.65	79.52	84.79
129.0	288.0	13.3	0.0	7.8	507.5	74.4	113.5	683.7	97.5	419.7	381.6	222.4	1000.5	0.16	81.21	79.52	82.54	80.66	79.55	84.76
130.0	289.0	13.1	0.0	7.8	506.1	74.4	113.7	687.2	97.5	419.9	383.3	223.9	996.7	0.16	81.24	79.53	82.52	80.68	79.58	84.70
131.0	290.0	13.0	0.0	7.7	504.6	73.9	113.8	690.7	97.4	416.8	384.3	225.3	992.9	0.16	81.22	79.53	82.47	80.67	79.58	84.70
132.0	291.0	12.9	0.0	7.6	503.0	74.2	113.5	694.2	97.4	417.1	385.9	226.8	989.1	0.16	81.25	79.56	82.45	80.69	79.60	84.70
133.0	292.0	12.8	0.0	7.5	501.0	74.2	113.6	697.7	97.4	417.6	387.9	228.0	985.4	0.16	81.22	79.55	82.41	80.69	79.61	84.63
134.0	293.0	12.6	0.0	7.3	499.7	74.6	113.3	701.2	97.4	418.2	389.2	229.3	981.6	0.16	81.25	79.58	82.42	80.71	79.65	84.62
135.0	294.0	12.5	0.0	7.2	498.3	74.7	113.2	704.7	97.5	418.8	390.9	230.6	977.8	0.16	81.23	79.60	82.40	80.70	79.65	84.60
136.0	295.0	12.4	0.0	7.2	497.2	74.2	113.0	708.2	97.3	418.2	392.9	232.5	974.1	0.16	81.16	79.60	82.36	80.69	79.64	84.58
137.0	296.0	12.2	0.0	7.3	496.0	73.4	113.1	711.7	96.6	418.5	391.6	234.4	970.4	0.16	81.06	79.59	82.35	80.65	79.64	84.52
138.0	297.0	12.1	0.0	7.4	494.8	73.4	112.9	715.2	96.7	418.8	391.6	236.3	966.7	0.16	81.06	79.59	82.33	80.65	79.64	84.52
139.0	298.0	12.0	0.0	7.4	494.8	71.5	112.7	718.7	95.2	419.1	393.3	238.8	963.0	0.16	80.81	79.60	81.95	80.45	79.63	84.47
140.0	299.0	11.9	0.0	7.5	494.0	72.7	112.3	722.2	95.7	419.7	394.4	239.9	959.4	0.16	80.70	79.60	81.85	80.43	79.62	84.07
141.0	300.0	11.7	0.0	7.5	493.1	73.2	112.0	725.7	96.0	419.9	395.0	239.4	955.2	0.16	80.64	79.58	81.83	80.38	79.60	84.02
142.0	301.0	11.7	0.0	7.5	492.3	73.4	112.0	729.2	96.3	420.5	396.5	240.7	951.5	0.16	80.66	79.58	81.82	80.37	79.60	84.01
143.0	302.0	11.5	0.0	7.4	491.3	73.7	111.9	732.7	96.4	420.9	397.6	242.2	947.8	0.16	80.71	79.62	81.80	80.37	79.63	83.99
144.0	303.0	11.4	0.0	7.3	490.4	73.8	112.0	736.2	96.4	420.9	398.4	243.3	944.3	0.16	80.74	79.60	81.77	80.36	79.64	83.95
145.0	304.0	11.2	0.0	7.1	489.4	74.1	112.0	739.7	96.4	420.9	399.5	244.9	940.6	0.16	80.78	79.61	81.77	80.38	79.64	83.92
146.0	305.0	11.1	0.0	6.9	488.2	74.0	111.6	743.2	96.5	420.5	400.6	246.3	936.9	0.16	80.80	79.60	81.74	80.38	79.66	83.92
147.0	306.0	11.1	0.0	6.9	487.0	73.9	111.6	746.7	96.6	420.6	401.9	247.5	933.8	0.16	80.83	79.60	81.72	80.39	79.67	83.92
148.0	307.0	10.9	0.0</																	

181.0	340.0	7.2	0.0	8.0	466.4	75.1	119.3	483.4	97.5	411.9	461.7	284.0	924.1	0.17	83.46	80.88	81.73	0.16	82.45	80.94	84.49
182.0	341.0	7.1	0.0	8.1	466.3	75.2	119.6	484.5	97.7	412.7	463.7	284.7	926.3	0.17	83.69	81.06	81.80	0.16	82.70	81.12	84.64
183.0	342.0	7.0	0.0	7.8	466.5	75.2	120.2	485.8	97.7	413.0	465.2	284.8	930.5	0.17	83.94	81.28	81.87	0.16	82.99	81.33	84.78
184.0	343.0	6.9	0.1	7.9	466.7	75.1	120.5	487.1	98.0	414.0	466.9	285.8	936.5	0.17	84.13	81.43	81.92	0.16	83.21	81.51	84.92
185.0	344.0	6.7	0.1	8.1	466.8	75.4	121.2	490.4	98.1	415.6	470.4	287.6	945.7	0.17	84.23	81.59	82.06	0.16	83.44	81.61	85.05
186.0	345.0	6.7	0.1	8.1	466.8	75.4	121.2	490.4	98.1	415.6	470.4	287.6	945.7	0.17	84.23	81.59	82.06	0.16	83.44	81.61	85.05
187.0	346.0	6.5	0.1	8.2	469.7	75.5	121.5	503.7	98.5	415.5	473.4	287.5	974.6	0.17	84.67	81.95	82.16	0.16	83.86	82.02	85.32
188.0	347.0	6.4	0.1	7.8	471.3	75.4	121.2	503.7	98.8	415.9	476.9	287.4	981.8	0.17	84.82	82.11	82.25	0.16	84.04	82.21	85.43
189.0	348.0	6.3	0.0	7.3	471.7	75.4	119.8	502.9	98.9	416.0	479.1	287.9	975.3	0.17	84.87	82.23	82.33	0.16	84.15	82.29	85.53
190.0	349.0	6.2	0.0	6.8	471.1	75.4	118.8	498.4	99.4	416.4	481.9	288.1	965.9	0.17	84.83	82.28	82.41	0.16	84.18	82.37	85.58

Elapsed Time min	Raw data row	Weights Remaining lbs	CO %	CO ₂ %	Flue Gas	Room Temp °F	Tunnel Dry Bulb °F	Unit Top °F	Unit R. Side °F	Unit L. Side °F	Unit Bottom °F	Catalyst Reading °F	Inlet T °F	Outlet T °F	Temp °F	Reading cuft/min	Inlet T °F	Outlet T °F	Temp °F	Reading cuft/min	Inlet T °F	Outlet T °F	Temp °F
0.00	412.00	27.6	0.1	3.1	372.1	371.6	449.5	440.5	331.9	738.8	84.09	84.45	84.59	84.25	86.35								
1.0	413.00	27.6	0.3	2.6	446.3	445.8	449.5	449.5	331.9	741.9	84.09	84.45	84.59	84.25	86.35								
2.0	414.00	27.2	0.1	5.8	468.6	468.1	449.5	449.5	331.9	801.9	84.09	84.45	84.59	84.25	86.35								
3.0	415.00	27.2	0.1	8.7	502.9	502.4	449.5	449.5	331.9	861.9	84.09	84.45	84.59	84.25	86.35								
4.0	416.00	26.8	0.1	8.7	502.9	502.4	449.5	449.5	331.9	861.9	84.09	84.45	84.59	84.25	86.35								
5.0	417.00	26.5	0.1	8.7	507.8	507.3	449.5	449.5	331.9	901.9	84.09	84.45	84.59	84.25	86.35								
6.0	418.00	26.4	0.1	8.7	499.1	498.6	449.5	449.5	331.9	1043.4	84.09	84.45	84.59	84.25	86.35								
7.0	419.00	26.2	0.1	8.1	503.2	502.7	449.5	449.5	331.9	1062.3	84.09	84.45	84.59	84.25	86.35								
8.0	420.00	26.1	0.1	8.1	506.9	506.4	449.5	449.5	331.9	1065.0	84.09	84.45	84.59	84.25	86.35								
9.0	421.00	25.9	0.1	8.3	510.7	510.2	449.5	449.5	331.9	1069.6	84.09	84.45	84.59	84.25	86.35								
10.0	422.00	25.7	0.1	7.9	515.1	514.6	449.5	449.5	331.9	1077.9	84.09	84.45	84.59	84.25	86.35								
11.0	423.00	25.5	0.0	7.8	519.6	519.1	449.5	449.5	331.9	1084.6	84.09	84.45	84.59	84.25	86.35								
12.0	424.00	25.4	0.0	7.8	523.3	522.8	449.5	449.5	331.9	1089.6	84.09	84.45	84.59	84.25	86.35								
13.0	425.00	25.2	0.0	7.7	525.2	524.7	449.5	449.5	331.9	1094.9	84.09	84.45	84.59	84.25	86.35								
14.0	426.00	25.0	0.0	7.7	525.2	524.7	449.5	449.5	331.9	1094.9	84.09	84.45	84.59	84.25	86.35								
15.0	427.00	25.0	0.0	7.7	531.6	531.1	449.5	449.5	331.9	1094.9	84.09	84.45	84.59	84.25	86.35								
16.0	428.00	24.9	0.1	6.2	481.5	481.0	449.5	449.5	331.9	1019.4	84.09	84.45	84.59	84.25	86.35								
17.0	429.00	24.8	0.1	5.4	477.3	476.8	449.5	449.5	331.9	1036.6	84.09	84.45	84.59	84.25	86.35								
18.0	430.00	24.7	0.1	5.4	477.3	476.8	449.5	449.5	331.9	1036.6	84.09	84.45	84.59	84.25	86.35								
19.0	431.00	24.6	0.1	4.8	474.7	474.2	449.5	449.5	331.9	1079.9	84.09	84.45	84.59	84.25	86.35								
20.0	432.00	24.5	0.1	4.8	474.7	474.2	449.5	449.5	331.9	1088.9	84.09	84.45	84.59	84.25	86.35								
21.0	433.00	24.4	0.1	4.7	471.6	471.1	449.5	449.5	331.9	1088.9	84.09	84.45	84.59	84.25	86.35								
22.0	434.00	24.3	0.1	4.7	470.4	469.9	449.5	449.5	331.9	1088.9	84.09	84.45	84.59	84.25	86.35								
23.0	435.00	24.3	0.1	4.7	468.6	468.1	449.5	449.5	331.9	1067.6	84.09	84.45	84.59	84.25	86.35								
24.0	436.00	24.2	0.1	4.7	468.6	468.1	449.5	449.5	331.9	1067.6	84.09	84.45	84.59	84.25	86.35								
25.0	437.00	24.1	0.1	4.7	468.6	468.1	449.5	449.5	331.9	1067.6	84.09	84.45	84.59	84.25	86.35								
26.0	438.00	24.0	0.1	4.7	463.1	462.6	449.5	449.5	331.9	1051.7	84.09	84.45	84.59	84.25	86.35								
27.0	439.00	23.9	0.1	4.8	462.0	461.5	449.5	449.5	331.9	1048.3	84.09	84.45	84.59	84.25	86.35								
28.0	440.00	23.8	0.1	4.8	460.9	460.4	449.5	449.5	331.9	1046.9	84.09	84.45	84.59	84.25	86.35								
29.0	441.00	23.8	0.1	4.8	459.3	458.8	449.5	449.5	331.9	1045.5	84.09	84.45	84.59	84.25	86.35								
30.0	442.00	23.7	0.1	4.9	458.0	457.5	449.5	449.5	331.9	1045.5	84.09	84.45	84.59	84.25	86.35								
31.0	443.00	23.6	0.1	4.9	456.9	456.4	449.5	449.5	331.9	1044.1	84.09	84.45	84.59	84.25	86.35								
32.0	444.00	23.5	0.1	4.9	455.9	455.4	449.5	449.5	331.9	1044.1	84.09	84.45	84.59	84.25	86.35								
33.0	445.00	23.4	0.1	5.0	455.3	454.8	449.5	449.5	331.9	1045.0	84.09	84.45	84.59	84.25	86.35								
34.0	446.00	23.4	0.1	5.0	454.5	454.0	449.5	449.5	331.9	1047.2	84.09	84.45	84.59	84.25	86.35								
35.0	447.00	23.3	0.1	5.1	454.0	453.5	449.5	449.5	331.9	1047.2	84.09	84.45	84.59	84.25	86.35								
36.0	448.00	23.2	0.1	5.1	453.1	452.6	449.5	449.5	331.9	1046.6	84.09	84.45	84.59	84.25	86.35								
37.0	449.00	23.1	0.1	5.2	452.9	452.4	449.5	449.5	331.9	1045.6	84.09	84.45	84.59	84.25	86.35								
38.0	450.00	23.0	0.1	5.2	452.9	452.4	449.5	449.5	331.9	1045.6	84.09	84.45	84.59	84.25	86.35								
39.0	451.00	23.0	0.1	5.4	454.1	453.6	449.5	449.5	331.9	1071.3	84.09	84.45	84.59	84.25	86.35								
40.0	452.00	22.9	0.1	5.6	454.7	454.2	449.5	449.5	331.9	1081.5	84.09	84.45	84.59	84.25	86.35								
41.0	453.00	22.8	0.1	5.6	454.7	454.2	449.5	449.5	331.9	1081.5	84.09	84.45	84.59	84.25	86.35								
42.0	454.00	22.6	0.1	6.0	457.9	457.4	449.5	449.5	331.9	1112.4	84.09	84.45	84.59	84.25	86.35								
43.0	455.00	22.5	0.1	6.5	460.5	460.0	449.5	449.5	331.9	1125.4	84.09	84.45	84.59	84.25	86.35								
44.0	456.00	22.4	0.1	7.1	463.6	463.1	449.5	449.5	331.9	1205.6	84.09	84.45	84.59	84.25	86.35								
45.0	457.00	22.3	0.3	7.8	468.6	468.1	449.5	449.5	331.9	1229.6	84.09	84.45	84.59	84.25	86.35								
46.0	458.00	22.1	0.9	7.9	472.8	472.3	449.5	449.5	331.9	1238.4	84.09	84.45	84.59	84.25	86.35								
47.0	459.00	22.0	1.1	7.8	478.8	478.3	449.5	449.5	331.9	1238.4	84.09	84.45	84.59	84.25	86.35								
48.0	460.00	21.9	0.9	7.6	481.0	480.5	449.5	449.5	331.9	1244.5	84.09	84.45	84.59	84.25	86.35								
49.0	461.00	21.8	0.9	7.6	481.0	480.5	449.5	449.5	331.9	1244.5	84.09	84.45	84.59	84.25	86.35								
50.0	462.00	21.7	0.2	6.9	485.8	485.3	449.5	449.5	331.9	1263.3	84.09	84.45	84.59	84.25	86.35								
51.0	463.00	21.6	0.2	6.4	487.9	487.4	449.5	449.5	331.9	1282.9	84.09	84.45	84.59	84.25	86.35								
52.0	464.00	21.5	0.2	6.5	489.9	489.4	449.5	449.5	331.9	1282.9	84.09	84.45	84.59	84.25	86.35								
53.0	465.00	21.4	0.1	6.0	489.2	488.7	449.5	449.5	331.9	1282.9	84.09	84.45	84.59	84.25	86.35								
54.0	466.00	21.3	0.1	5.8	486.5	486.0	449.5	449.5	331.9	1154.0	84.09	84.45	84.59	84.25	86.35								
55.0	467.00	21.3	0.1	5.7	483.4	482.9	449.5	449.5	331.9	1112.1	84.09	84.45	84.59	84.25	86.35								
56.0	468.00	21.1	0.1	5.6	476.8	476.3	449.5	449.5	331.9	1079.9	84.09	84.45	84.59	84.25	86.35								
57.0	469.00	21.1	0.1	5.6	471.2	470.7	449.5	449.5	331.9	1059.1	84.09	84.45	84.59	84.25	86.35								
58.0	470.00	21.0	0.1	5.3	466.0	465.5	449.5	449.5	331.9	1029.6	84.09	84.45	84.59	84.25	86.35								
59.0	471.00	20.9	0.1	5.3	461.5	461.0	449.5	449.5	331.9	1044.5	84.09	84.45	84.59	84.25	86.35								
60.0	472.00	20.8	0.1	5.4	455.5	455.0	449.5	449.5	331.9	1048.0	84.09	84.45	84.59	84.25	86.35								
61.0	473.00	20.8	0.1	5.4	455.5	455.0	449.5	449.5	331.9	1048.0	84.09	84.45	84.59	84.25	86.35								
62.0	474.00	20.7	0.1	5.5	452.0	451.5	449.5	449.5	331.9	1051.4	84.09	84.45	84.59	84.25	86.35								
63.0	475.00	20.6	0.1	5.5	449.6	449.1	449.5	449.5	331.9	1054.8	84.09	84.45	84.59	84.25	86.35								
64.0	476.00	20.5	0.1	5.5	447.5	447.0	449.5	449.5	331.9	1057.3	84.09	84.45	84.59	84.25	86.35								
65.0	477.00	20.5	0.1	5.5	445.7	445.2	449.5	449.5	331.9	1057.3	84.09	84.45	84.59	84.25	86.35								
66.0	478.00	20.4	0.1	5.4	443.3	442.8	449.5	449.5	331.9	1055.4	84.09	84.45	84.59	84.25	86.35								
67.0	479.00	20.3	0.1	5.4	441.2	440.7	449.5	449.5	331.9	1055.4	84.09	84.45	84.59	84.25	86.35								
68.0	480.00	20.2	0.1	5.4	438.0	437.5	449.5	449.5	331.9	1051.5	84.09	84.45	84.59	84.25	86.35								
69.0	481.00	20.2	0.1	5.3	436.8	436.3	449.5	449.5	331.9	1046.6	84.09	84.45	84.59	84.25	86.35								
70.0	482.00	20.1	0.1	5.3	434.7	434.2	449.5	449.5	331.9	1040.5	84.09	84.45	84.59	84.25	86.35								
71.0	483.00	20.0	0.1	5.2	432.6	432.1	449.5	449.5	331.9	1037.0	84.09	84.45	84.59	84.25	86.35								
72.0	484.00	20.0	0.1	5.2	429.9	429.4	449.5	449.5	331.9	1037.0	84.09	84.45	84.59	84.25	86.35								
73.0	485.00	19.9	0.1	5.2	427.2	426.7	449.5	449.5	331.9	1019.4	84.09	84.45	84.59	84.25	86.35								

89.0	501.0	18.7	0.1	5.1	401.9	76.0	104.1	467.3	127.0	326.8	334.2	298.0	987.6	0.17	83.65	83.50	84.45	0.16	83.55	83.50	82.48
90.0	502.0	18.6	0.1	5.1	401.7	75.9	103.8	465.4	126.8	325.2	332.5	297.1	985.9	0.17	83.50	83.47	84.39	0.16	83.47	83.47	82.48
91.0	503.0	18.6	0.1	5.2	400.6	76.1	103.5	465.9	126.8	326.4	332.8	297.1	991.9	0.17	83.35	83.44	84.32	0.16	83.37	83.47	82.47
92.0	504.0	18.5	0.1	5.2	400.8	75.8	103.2	462.7	126.7	324.8	331.5	296.9	995.3	0.17	83.24	83.42	84.27	0.16	83.27	83.43	82.44
93.0	505.0	18.4	0.1	5.2	400.9	75.7	102.9	461.4	126.5	323.9	330.1	296.5	998.7	0.17	83.15	83.35	84.19	0.16	83.19	83.40	82.43
94.0	506.0	18.4	0.1	5.3	401.4	75.5	102.2	459.6	126.1	321.9	328.0	295.3	1004.0	0.17	83.02	83.31	84.06	0.16	83.08	83.31	82.43
95.0	507.0	18.3	0.1	5.3	401.3	75.5	102.2	459.6	126.1	321.9	328.0	295.3	1010.0	0.17	83.02	83.31	84.06	0.16	83.08	83.31	82.43
96.0	508.0	18.2	0.1	5.3	401.9	75.5	102.2	459.6	126.1	321.9	327.2	294.9	1014.9	0.17	82.94	83.28	83.99	0.16	83.01	83.29	82.39
97.0	509.0	18.1	0.1	5.4	402.8	75.3	102.0	457.7	124.6	320.6	326.2	294.7	1021.2	0.17	82.83	83.25	83.91	0.16	82.96	83.25	82.34
98.0	510.0	18.0	0.1	5.4	403.1	75.1	102.0	456.9	123.7	319.7	325.5	293.9	1025.5	0.17	82.76	83.21	83.85	0.16	82.89	83.25	82.34
99.0	511.0	17.9	0.1	5.5	403.8	75.2	101.9	456.0	123.0	319.4	324.5	293.8	1031.8	0.17	82.67	83.18	83.78	0.16	82.82	83.17	82.32
100.0	512.0	17.9	0.1	5.5	404.8	75.1	101.6	455.5	122.5	318.5	323.7	292.5	1038.9	0.17	82.58	83.15	83.73	0.16	82.77	83.14	82.32
101.0	513.0	17.8	0.1	5.6	405.9	75.0	101.6	455.3	122.0	318.2	322.9	292.5	1046.2	0.17	82.53	83.12	83.67	0.16	82.71	83.10	82.28
102.0	514.0	17.7	0.1	5.6	407.0	75.3	101.6	455.4	121.6	317.5	321.4	292.1	1054.6	0.17	82.49	83.08	83.63	0.16	82.67	83.08	82.24
103.0	515.0	17.6	0.1	5.7	408.0	75.1	101.4	455.6	121.3	316.8	320.4	291.7	1064.2	0.17	82.47	83.05	83.53	0.16	82.62	83.07	82.22
104.0	516.0	17.5	0.1	5.8	409.8	75.2	101.5	455.9	121.0	316.2	320.4	291.7	1074.2	0.17	82.40	83.00	83.47	0.16	82.54	83.05	82.20
105.0	517.0	17.4	0.1	5.8	411.4	75.1	101.4	456.2	120.6	315.6	319.5	291.3	1084.2	0.17	82.34	82.99	83.41	0.16	82.49	83.04	82.16
106.0	518.0	17.4	0.1	6.0	413.4	75.2	101.4	457.7	120.6	315.3	318.0	290.4	1101.6	0.17	82.24	82.93	83.31	0.16	82.40	82.96	82.12
107.0	519.0	17.3	0.1	6.0	416.2	75.1	101.4	460.1	120.5	314.6	317.3	290.0	1121.5	0.17	82.12	82.82	83.30	0.16	82.34	82.89	82.11
108.0	520.0	17.2	0.2	7.4	420.0	75.4	101.3	463.8	120.6	314.0	316.2	289.8	1149.2	0.17	82.06	82.87	83.20	0.16	82.30	82.83	82.06
109.0	521.0	17.1	0.3	7.5	424.3	75.5	101.3	469.5	120.5	314.0	315.7	289.6	1175.4	0.17	82.01	82.82	83.13	0.16	82.23	82.80	82.01
110.0	522.0	17.0	0.2	7.2	427.8	75.2	101.3	476.3	120.6	313.3	314.7	289.0	1194.7	0.17	82.05	82.82	83.06	0.16	82.23	82.78	81.97
111.0	523.0	17.0	0.2	6.7	431.5	75.2	101.3	482.3	120.4	313.0	314.1	288.9	1203.0	0.17	82.02	82.76	83.02	0.16	82.20	82.72	81.95
112.0	524.0	16.9	0.2	6.3	434.4	75.3	101.6	487.2	120.5	312.8	313.7	288.2	1200.8	0.17	81.98	82.75	83.01	0.16	82.16	82.73	81.93
113.0	525.0	16.8	0.2	6.2	438.2	75.4	101.6	490.5	120.4	312.3	313.3	287.8	1197.1	0.17	81.88	82.72	82.93	0.16	82.13	82.71	81.91
114.0	526.0	16.7	0.1	6.1	436.6	75.2	101.6	493.7	120.4	311.8	312.4	287.4	1191.5	0.17	81.78	82.68	82.90	0.16	82.05	82.67	81.89
115.0	527.0	16.6	0.1	6.0	435.7	75.1	101.6	495.7	120.1	311.7	311.3	286.9	1172.1	0.17	81.72	82.65	82.90	0.16	82.05	82.65	81.85
116.0	528.0	16.5	0.1	6.0	437.4	75.1	101.6	497.7	120.1	311.7	311.3	286.9	1182.1	0.17	81.72	82.65	82.90	0.16	82.05	82.65	81.85
117.0	529.0	16.5	0.1	6.0	436.5	75.0	101.4	498.4	120.4	311.7	310.0	286.1	1157.3	0.17	81.53	82.57	82.75	0.16	81.84	82.55	81.81
118.0	530.0	16.4	0.1	6.0	436.5	75.2	101.6	499.0	120.2	312.0	309.3	286.0	1152.3	0.17	81.54	82.55	82.67	0.16	81.81	82.54	81.85
119.0	531.0	16.4	0.1	6.1	436.5	75.5	101.4	499.3	120.1	311.3	308.9	285.5	1149.8	0.17	81.49	82.50	82.64	0.16	81.76	82.51	81.85
120.0	532.0	16.2	0.1	6.1	435.9	75.1	101.4	499.5	120.0	310.5	308.0	284.8	1148.8	0.17	81.44	82.46	82.56	0.16	81.70	82.48	81.84
121.0	533.0	16.1	0.1	6.2	436.9	75.1	101.4	499.8	119.9	310.2	307.5	284.3	1151.3	0.17	81.41	82.45	82.53	0.16	81.67	82.44	81.86
122.0	534.0	16.0	0.1	6.4	437.4	75.5	101.6	500.1	120.0	310.6	307.0	284.4	1154.8	0.17	81.39	82.42	82.49	0.16	81.65	82.43	81.87
123.0	535.0	15.9	0.1	6.5	437.8	75.5	102.9	500.8	120.3	310.9	306.5	283.7	1159.3	0.17	81.54	82.43	82.48	0.16	81.76	82.46	81.85
124.0	536.0	15.8	0.2	6.6	439.9	75.6	104.5	502.0	120.4	311.1	306.4	283.6	1167.9	0.17	81.76	82.47	82.46	0.16	81.90	82.50	81.83
125.0	537.0	15.7	0.2	6.8	441.1	75.6	106.2	503.4	120.4	311.1	306.0	283.4	1175.4	0.17	82.03	82.52	82.47	0.16	82.08	82.57	81.84
126.0	538.0	15.6	0.2	7.0	443.8	75.7	107.7	505.7	120.6	311.1	305.8	282.6	1185.9	0.17	82.29	82.54	82.47	0.16	82.32	82.56	81.86
127.0	539.0	15.5	0.2	7.1	446.9	75.8	108.5	508.2	120.9	311.3	305.5	282.1	1201.1	0.17	82.54	82.58	82.46	0.16	82.57	82.58	81.87
128.0	540.0	15.3	0.2	7.1	446.9	75.5	108.5	511.9	120.9	311.3	305.1	282.5	1207.2	0.17	82.68	82.63	82.56	0.16	82.69	82.80	81.88
129.0	541.0	15.2	0.2	7.0	449.3	75.2	107.8	516.6	121.0	311.6	305.0	282.3	1215.3	0.17	82.78	82.69	82.60	0.16	82.79	82.85	81.86
130.0	542.0	15.1	0.2	6.9	451.0	75.4	107.3	520.1	121.1	311.8	304.5	281.7	1217.4	0.17	82.82	82.91	82.62	0.16	82.84	83.01	81.85
131.0	543.0	15.0	0.2	6.7	452.2	75.5	106.7	523.4	121.2	311.5	304.4	281.6	1217.0	0.17	82.80	82.94	82.62	0.16	82.85	83.03	81.85
132.0	544.0	14.8	0.2	6.6	452.7	75.3	106.2	526.1	121.4	311.9	304.1	280.8	1213.5	0.17	82.74	82.94	82.64	0.16	82.86	83.03	81.83
133.0	545.0	14.7	0.2	6.5	453.3	75.4	105.8	528.0	121.5	312.4	303.8	280.9	1208.6	0.17	82.67	82.92	82.64	0.16	82.83	83.01	81.86
134.0	546.0	14.6	0.2	6.3	453.4	75.5	105.5	529.5	121.3	312.5	303.6	280.8	1202.7	0.17	82.56	82.91	82.66	0.16	82.77	83.00	81.71
135.0	547.0	14.4	0.2	6.2	453.5	75.4	104.9	530.8	121.3	312.7	303.8	280.3	1196.7	0.17	82.48	82.91	82.70	0.16	82.70	82.99	81.57
136.0	548.0	14.3	0.2	6.1	453.0	75.1	104.7	530.3	121.3	313.3	303.5	279.8	1191.1	0.17	82.36	82.87	82.65	0.16	82.64	82.96	81.43
137.0	549.0	14.2	0.2	6.0	452.3	75.2	104.4	530.1	121.5	313.5	303.3	279.1	1185.5	0.17	82.30	82.86	82.69	0.16	82.58	82.92	81.28
138.0	550.0	14.1	0.1	5.9	451.4	75.1	104.6	529.6	121.7	313.9	303.3	279.1	1179.1	0.17	82.25	82.85	82.65	0.16	82.53	82.92	81.24
139.0	551.0	14.0	0.1	5.9	450.7	75.1	104.6	528.6	121.7	313.9	303.3	279.1	1175.1	0.17	82.09	82.78	82.65	0.16	82.45	82.86	81.02
140.0	552.0	13.8	0.1	5.9	450.7	75.2	104.4	527.5	121.7	314.2	303.4	279.0	1170.1	0.17	81.99	82.76	82.65	0.16	82.38	82.82	81.02
141.0	553.0	13.7	0.1	5.9	449.5	75.2	103.6	526.2	121.9	314.2	303.2	278.3	1165.4	0.17	81.93	82.74	82.63	0.16	82.31	82.78	81.02
142.0	554.0	13.6	0.1	5.9	449.1	75.2	103.5	526.2	122.0	314.6	303.2	278.0	1165.0	0.17	81.87	82.69	82.60	0.16	82.25	82.74	81.02
143.0	555.0	13.5	0.1	5.9	448.5	75.2	103.4	523.4	122.1	314.9	303.2	277.9	1157.0	0.17	81.83	82.65	82.61	0.16	82.21	82.72	81.02
144.0	556.0	13.4	0.1	5.9	447.9	75.1	103.2	521.6	122.2	315.1	303.1	277.5	1153.2	0.17	81.78	82.64	82.58	0.16	82.16	82.69	81.02
145.0	557.0	13.2	0.1	5.8	447.6	75.1	103.0	520.0	12												

181.0	593.0	10.4	0.1	5.3	392.0	75.3	103.3	462.4	123.7	326.5	304.1	268.8	926.5	0.17	82.98	83.56	83.35	0.16	83.67	83.71	82.79
182.0	594.0	10.4	0.1	5.3	391.0	75.3	102.8	460.8	123.5	326.6	304.2	268.7	924.8	0.17	82.89	83.54	83.40	0.16	83.59	83.70	82.81
183.0	595.0	10.4	0.1	5.3	389.1	75.3	102.4	459.5	123.4	326.7	304.3	268.6	922.0	0.17	82.79	83.50	83.41	0.16	83.51	83.64	82.80
184.0	596.0	10.2	0.1	5.3	388.8	75.4	102.2	458.3	123.2	327.0	304.5	268.3	920.4	0.17	82.68	83.45	83.37	0.16	83.42	83.60	82.80
185.0	597.0	10.2	0.1	5.3	388.1	75.4	102.1	457.1	123.1	327.1	304.6	268.2	918.6	0.17	82.58	83.40	83.36	0.16	83.37	83.59	82.80
186.0	598.0	10.1	0.1	5.3	387.6	75.7	101.9	456.1	123.0	327.0	304.7	268.1	916.8	0.17	82.48	83.35	83.35	0.16	83.32	83.58	82.81
187.0	599.0	10.1	0.1	5.3	387.8	75.7	101.7	455.1	122.8	327.1	304.1	267.3	915.1	0.17	82.36	83.32	83.40	0.16	83.27	83.66	82.81
188.0	600.0	10.1	0.1	5.3	388.2	75.5	101.7	454.2	122.7	327.8	303.9	267.3	913.9	0.17	82.25	83.32	83.43	0.16	83.22	83.71	82.82
189.0	601.0	9.9	0.1	5.3	382.6	75.6	101.7	450.7	122.6	327.5	303.9	267.0	913.6	0.17	82.15	83.36	83.48	0.16	83.19	83.79	82.83
190.0	602.0	9.9	0.1	5.3	382.6	75.5	101.8	449.2	122.7	327.1	303.6	266.7	915.9	0.17	82.05	83.37	83.52	0.16	83.06	83.90	82.83
191.0	603.0	9.8	0.1	5.3	382.1	75.5	101.9	447.8	123.0	326.8	303.3	266.4	919.3	0.17	81.94	83.37	83.55	0.16	83.06	84.03	82.87
192.0	604.0	9.8	0.1	5.3	382.1	75.4	101.9	446.9	123.2	327.1	303.4	266.2	922.1	0.17	81.84	83.40	83.59	0.16	83.26	84.14	82.91
193.0	605.0	9.7	0.1	5.3	382.2	75.8	101.8	445.7	123.5	327.3	303.6	265.9	925.7	0.17	81.79	83.49	83.60	0.16	84.29	84.22	82.92
194.0	606.0	9.7	0.1	5.4	382.0	75.5	101.7	444.7	123.7	327.9	303.3	265.9	928.5	0.17	81.70	84.20	83.64	0.16	84.53	84.26	82.93
195.0	607.0	9.6	0.1	5.4	382.1	75.7	101.6	444.2	124.0	328.1	303.4	265.9	930.2	0.17	81.64	84.14	83.67	0.16	84.61	84.29	82.96
196.0	608.0	9.6	0.1	5.3	382.2	75.4	101.5	443.7	124.2	328.2	303.2	265.4	932.5	0.17	81.60	84.16	83.67	0.16	84.56	84.28	82.95
197.0	609.0	9.5	0.1	5.3	382.1	75.6	101.5	443.1	124.1	328.2	303.2	265.4	934.8	0.17	81.54	84.14	83.68	0.16	84.54	84.25	82.97
198.0	610.0	9.4	0.1	5.4	382.8	75.6	101.4	442.5	124.1	327.7	302.7	265.1	935.9	0.17	81.49	84.11	83.68	0.16	84.44	84.23	82.97
199.0	611.0	9.4	0.1	5.4	382.7	75.6	101.3	441.9	124.0	327.7	302.6	264.6	938.0	0.17	81.44	84.08	83.70	0.16	84.34	84.23	82.97
200.0	612.0	9.3	0.1	5.4	383.5	75.5	101.2	441.4	123.9	327.8	302.4	264.9	940.8	0.17	81.39	84.08	83.68	0.16	84.23	84.19	82.96
201.0	613.0	9.3	0.1	5.4	383.4	75.6	101.2	440.9	123.9	327.8	302.3	264.7	944.0	0.17	81.38	84.03	83.67	0.16	84.12	84.15	82.97
202.0	614.0	9.2	0.1	5.4	384.1	75.5	102.4	440.8	123.6	327.8	302.1	264.1	946.8	0.17	81.35	84.00	83.65	0.16	84.04	84.14	82.97
203.0	615.0	9.1	0.1	5.5	384.1	75.5	102.2	440.4	123.4	330.4	301.8	264.2	949.6	0.17	81.34	83.94	83.64	0.16	83.93	84.08	82.93
204.0	616.0	9.1	0.1	5.4	385.0	75.6	101.9	440.4	123.6	328.2	302.2	263.9	951.1	0.17	81.32	83.92	83.63	0.16	83.84	84.03	82.93
205.0	617.0	9.0	0.1	5.5	385.1	75.5	101.8	440.2	123.8	328.0	301.9	263.5	953.0	0.17	81.31	83.91	83.61	0.16	83.75	84.01	82.94
206.0	618.0	9.0	0.1	5.5	385.3	75.4	101.4	440.7	123.8	327.9	301.7	263.1	954.7	0.17	81.29	83.87	83.61	0.16	83.67	83.99	82.90
207.0	619.0	8.9	0.1	5.6	385.0	75.4	101.2	441.5	123.8	328.4	301.8	263.2	957.4	0.17	81.28	83.84	83.59	0.16	83.57	83.93	82.90
208.0	620.0	8.9	0.1	5.6	385.2	75.4	101.2	441.5	123.8	328.4	301.8	263.2	959.4	0.17	81.27	83.84	83.59	0.16	83.48	83.93	82.89
209.0	621.0	8.8	0.1	5.7	387.9	75.5	101.1	444.6	123.9	328.5	301.9	262.7	964.8	0.17	81.26	83.74	83.53	0.16	83.42	83.82	82.88
210.0	622.0	8.7	0.1	5.9	389.0	75.5	101.0	446.5	123.9	328.7	301.7	262.4	966.0	0.17	81.26	83.71	83.50	0.16	83.35	83.82	82.83
211.0	623.0	8.7	0.1	5.7	390.6	75.4	100.7	448.5	123.7	329.9	301.7	262.1	960.8	0.17	81.24	83.65	83.45	0.16	83.27	83.78	82.81
212.0	624.0	8.6	0.1	5.9	389.8	76.0	101.0	450.1	123.5	329.6	302.1	262.2	964.6	0.17	81.23	83.62	83.43	0.16	83.25	83.74	82.81
213.0	625.0	8.5	0.1	6.1	391.4	75.8	102.6	451.6	123.4	330.4	302.2	262.0	970.0	0.17	81.22	83.62	83.41	0.16	83.24	83.74	82.78
214.0	626.0	8.5	0.1	6.0	391.8	75.8	104.3	453.4	124.4	330.3	302.5	262.0	973.7	0.17	81.20	83.66	83.40	0.16	83.41	83.79	82.77
215.0	627.0	8.4	0.1	6.4	394.9	75.7	105.8	454.8	123.2	330.2	302.6	261.6	980.2	0.17	81.25	83.72	83.44	0.16	83.55	83.85	82.78
216.0	628.0	8.3	0.1	6.4	396.0	75.8	107.1	456.9	123.2	329.9	302.7	261.2	987.4	0.17	81.15	83.78	83.45	0.16	83.69	83.91	82.78
217.0	629.0	8.3	0.1	6.5	400.4	75.7	108.7	459.2	123.0	330.1	302.7	261.2	994.3	0.17	81.10	83.79	83.47	0.16	83.89	84.03	82.79
218.0	630.0	8.2	0.1	6.4	401.1	75.8	108.8	462.4	123.0	329.9	303.1	260.9	998.1	0.17	81.05	83.81	83.51	0.16	84.09	84.16	82.81
219.0	631.0	8.1	0.1	6.6	404.6	75.8	109.4	465.1	123.1	330.6	303.2	260.5	1001.5	0.17	81.04	83.81	83.51	0.16	84.16	84.23	82.81
220.0	632.0	8.1	0.1	6.6	399.7	76.0	107.0	465.1	123.1	330.6	303.0	260.5	1019.5	0.17	81.03	84.15	83.55	0.16	84.31	84.23	82.81
221.0	633.0	8.1	0.1	6.8	400.8	75.9	106.2	466.3	123.1	331.0	304.4	260.6	1049.8	0.17	81.02	84.17	83.57	0.16	84.33	84.33	82.85
222.0	634.0	8.0	0.1	6.7	404.0	75.8	105.4	468.0	123.1	331.1	304.7	260.6	1082.0	0.17	81.00	84.21	83.59	0.16	84.32	84.34	82.85
223.0	635.0	7.9	0.2	6.5	408.2	75.7	105.0	470.2	123.1	331.1	304.7	260.2	1108.6	0.17	81.00	84.16	83.55	0.16	84.26	84.31	82.83
224.0	636.0	7.8	0.2	6.5	411.4	75.7	104.3	473.0	123.1	331.2	304.9	260.5	1134.5	0.17	81.00	84.16	83.56	0.16	84.20	84.31	82.86
225.0	637.0	7.7	0.2	6.5	415.2	75.7	104.3	476.4	124.4	331.2	305.5	260.5	1163.7	0.17	81.00	84.15	83.59	0.16	84.20	84.31	82.86
226.0	638.0	7.7	0.2	6.5	418.5	75.7	103.9	480.2	124.4	331.1	305.4	260.2	1199.8	0.17	81.00	84.11	83.54	0.16	84.05	84.28	82.86
227.0	639.0	7.6	0.2	6.6	421.6	75.7	103.8	484.3	124.7	331.4	305.8	260.5	1234.0	0.17	81.00	84.08	83.58	0.16	83.27	84.23	82.86
228.0	640.0	7.5	0.2	6.7	425.9	75.7	103.6	487.9	125.0	331.4	305.7	260.1	1268.0	0.17	81.00	84.07	83.55	0.16	83.90	84.21	82.87
229.0	641.0	7.5	0.2	6.9	426.6	75.6	103.5	492.0	125.0	331.4	306.1	260.3	1298.0	0.17	81.00	84.04	83.54	0.16	83.91	84.18	82.86
230.0	642.0	7.5	0.2	6.9	431.0	75.8	103.5	496.1	125.4	331.9	306.2	260.4	1328.0	0.17	81.00	84.04	83.54	0.16	83.91	84.18	82.86
231.0	643.0	7.4	0.2	7.0	431.0	75.8	103.2	500.6	125.4	331.9	306.2	260.2	1358.0	0.17	81.00	84.03	83.55	0.16	83.93	84.15	82.84
232.0	644.0	7.3	0.2	6.9	432.9	75.8	103.1	504.6	125.5	332.2	306.5	260.1	1387.1	0.17	81.00	84.03	83.55	0.16	83.93	84.15	82.84
233.0	645.0	7.2	0.2	6.8	434.9	75.6	103.0	508.9	125.7	332.4	306.9	259.8	1417.8	0.17	81.00	83.97	83.51	0.16	83.96	84.02	82.84
234.0	646.0	7.1	0.2	6.5	436.6	75.7	103.0	512.3	126.2	332.4	307.1	259.8	1448.0	0.17	81.00	83.84	83.50	0.16	83.99	83.99	82.80
235.0	647.0	7.0	0.2	6.2	437.9	75.7	102.8	514.9	126.6	332.9	307.4	259.8	1478.2	0.17	81.00	83.79	83.47	0.16	83.99	83.99	82.80
236.0	648.0	6.9	0.1	6.0	437.6	75.6	102.6	516.8	126.9	333.0	307.5	259.8	1508.2	0.17	81.00	83.76	83.45	0.16	83.24	83.89	82.80
237.0	649.0	6.9	0.1	5.8	437.8	75.6	102.5	517.4	127.0	333.5	307.6	259.7	1538.5	0.17	81.00	8					

2730	685.0	4.6	0.1	5.2	377.8	76.1	103.9	446.3	129.1	343.7	317.2	257.4	917.6	0.17	82.44	83.56	83.31	0.16	83.07	83.71	82.70
2740	686.0	4.6	0.1	5.2	378.0	75.9	105.0	447.9	129.1	343.6	316.9	257.1	919.4	0.17	82.65	83.63	83.31	0.16	83.19	83.77	82.70
2750	687.0	4.6	0.1	5.1	378.3	75.8	106.1	449.7	128.9	343.4	316.9	257.1	921.3	0.17	82.68	83.70	83.34	0.16	83.37	83.85	82.69
2760	688.0	4.5	0.1	5.0	378.4	75.8	107.2	448.8	129.0	343.4	317.0	257.1	921.0	0.17	83.12	83.81	83.35	0.16	83.58	83.94	82.71
2770	689.0	4.5	0.1	4.9	378.5	75.8	108.3	447.4	128.7	343.3	317.0	257.3	916.0	0.17	83.23	83.86	83.38	0.16	83.74	84.04	82.72
2780	690.0	4.5	0.1	4.8	378.6	75.7	109.4	446.1	128.7	343.3	317.0	257.3	916.0	0.17	83.34	83.88	83.40	0.16	83.89	84.14	82.74
2790	691.0	4.4	0.1	4.7	378.7	76.0	104.7	438.6	128.7	343.3	317.5	257.4	896.7	0.17	83.44	83.88	83.40	0.16	83.98	84.14	82.74
2800	692.0	4.4	0.1	4.7	378.6	76.0	103.8	436.8	129.0	343.3	317.5	257.4	896.7	0.17	83.44	84.00	83.40	0.16	83.98	84.14	82.72
2810	693.0	4.4	0.1	4.6	379.7	76.0	103.0	434.9	129.3	343.4	317.5	257.3	895.0	0.17	83.35	83.98	83.41	0.16	83.86	84.16	82.74
2820	694.0	4.4	0.1	4.5	368.0	75.9	102.3	433.2	129.6	343.3	317.3	257.2	889.1	0.17	83.25	83.98	83.40	0.16	83.80	84.15	82.73
2830	695.0	4.3	0.1	4.5	365.0	75.9	101.6	431.0	129.9	343.2	317.1	257.1	889.2	0.17	83.13	83.97	83.36	0.16	83.74	84.13	82.73
2840	696.0	4.3	0.1	4.4	362.3	75.9	101.1	428.6	129.9	342.9	317.0	257.4	884.0	0.17	83.04	83.94	83.35	0.16	83.68	84.11	82.72
2850	697.0	4.3	0.1	4.3	358.4	75.9	100.5	426.4	130.1	342.6	316.8	257.1	889.5	0.17	82.91	83.91	83.34	0.16	83.61	84.08	82.72
2860	698.0	4.2	0.1	4.3	355.6	75.9	100.0	423.5	130.0	342.4	316.7	257.3	794.8	0.17	82.81	83.87	83.31	0.16	83.52	84.05	82.71
2870	699.0	4.2	0.0	4.2	351.9	75.9	99.5	420.6	129.8	342.2	316.5	257.2	781.1	0.17	82.70	83.85	83.33	0.16	83.43	84.04	82.71
2880	700.0	4.2	0.0	4.2	348.5	75.8	99.1	417.5	129.7	342.0	316.4	257.4	686.9	0.17	81.88	83.72	83.29	0.16	82.90	83.92	82.68
2890	701.0	4.2	0.0	4.1	345.1	75.8	98.4	415.2	129.7	341.9	316.4	257.3	686.9	0.17	81.88	83.72	83.29	0.16	82.90	83.92	82.68
2900	702.0	4.2	0.0	4.1	341.6	75.8	98.0	411.7	129.7	341.7	316.3	257.3	743.7	0.17	82.45	83.73	83.28	0.16	83.71	83.88	82.64
2910	703.0	4.1	0.0	4.2	338.6	75.6	98.4	408.1	129.6	341.0	316.0	256.9	732.8	0.17	82.40	83.68	83.22	0.16	83.13	83.85	82.61
2920	704.0	4.1	0.0	4.2	335.1	75.7	97.7	405.3	129.6	340.7	315.8	257.2	723.8	0.17	82.32	83.63	83.18	0.16	83.04	83.80	82.61
2930	705.0	4.1	0.0	4.2	332.3	75.7	97.4	402.2	129.6	340.8	315.8	257.5	716.3	0.17	82.27	83.61	83.15	0.16	83.04	83.75	82.57
2940	706.0	4.1	0.0	4.2	329.3	75.7	97.1	399.4	130.1	340.6	315.7	257.4	709.3	0.17	82.18	83.56	83.09	0.16	82.91	83.71	82.54
2950	707.0	4.0	0.0	4.2	326.8	75.7	96.8	396.7	130.5	340.4	315.7	257.5	703.6	0.17	82.12	83.52	83.08	0.16	82.84	83.68	82.51
2960	708.0	4.0	0.0	4.2	324.5	75.7	96.5	394.1	130.9	340.3	315.4	257.4	698.2	0.17	82.05	83.47	83.00	0.16	82.78	83.64	82.48
2970	709.0	4.0	0.0	4.2	322.0	75.7	96.2	391.6	131.2	340.2	315.6	257.5	694.7	0.17	81.97	83.44	82.97	0.16	82.71	83.58	82.42
2980	710.0	4.0	0.0	4.2	320.0	75.6	95.9	389.1	131.4	339.9	315.5	257.4	690.1	0.17	81.88	83.42	82.91	0.16	82.64	83.56	82.40
2990	711.0	3.9	0.0	4.2	318.0	75.6	95.6	386.7	131.7	340.0	315.9	258.6	672.0	0.17	83.21	83.78	82.79	0.16	83.65	83.93	82.45
3000	712.0	3.9	0.0	4.2	316.0	75.6	95.3	384.2	132.6	339.8	315.9	258.6	672.0	0.17	83.18	83.78	82.79	0.16	83.62	83.95	82.45
3010	713.0	3.9	0.0	4.2	314.0	75.8	95.0	381.7	133.1	340.0	315.9	258.9	669.1	0.17	82.97	83.76	82.74	0.16	83.54	83.93	82.42
3020	714.0	3.9	0.0	4.3	311.1	75.8	94.7	379.7	133.1	337.1	315.9	258.9	669.1	0.17	82.97	83.76	82.74	0.16	83.54	83.93	82.42
3030	715.0	3.9	0.0	4.3	311.4	75.8	94.2	376.7	133.4	336.8	316.0	259.4	668.3	0.17	82.90	83.75	82.72	0.16	83.52	83.91	82.29
3040	716.0	3.8	0.0	4.3	310.3	75.8	94.0	375.0	133.8	336.6	316.0	259.3	667.0	0.17	82.78	83.74	82.70	0.16	83.43	83.89	82.20
3050	717.0	3.8	0.0	4.3	310.3	75.8	93.9	375.0	133.7	336.6	316.1	259.4	666.0	0.17	82.67	83.71	82.69	0.16	83.34	83.88	82.18
3060	718.0	3.8	0.0	4.3	311.6	75.9	93.7	374.0	133.8	336.2	316.0	259.4	665.1	0.17	82.58	83.68	82.68	0.16	83.29	83.84	82.15
3070	719.0	3.8	0.0	4.3	312.2	75.9	93.6	372.6	133.7	335.8	316.0	259.4	664.2	0.17	82.48	83.65	82.63	0.16	83.20	83.80	82.15
3080	720.0	3.8	0.1	4.3	312.2	75.9	93.5	371.5	133.9	335.7	316.1	259.5	663.5	0.17	82.42	83.61	82.62	0.16	83.14	83.76	82.11
3090	721.0	3.7	0.1	4.3	311.7	75.8	93.4	370.8	134.0	335.4	316.2	259.7	662.9	0.17	82.34	83.56	82.59	0.16	83.06	83.73	82.10
3100	722.0	3.7	0.1	4.4	308.7	75.7	93.4	367.2	134.0	335.4	316.2	259.7	662.9	0.17	82.34	83.56	82.59	0.16	83.06	83.73	82.10
3110	723.0	3.5	0.1	4.4	304.7	75.7	93.4	362.2	134.0	335.4	316.2	259.7	662.9	0.17	82.34	83.56	82.59	0.16	83.06	83.73	82.10
3120	724.0	3.5	0.1	4.4	304.7	75.7	93.4	362.2	134.0	335.4	316.2	259.7	662.9	0.17	82.34	83.56	82.59	0.16	83.06	83.73	82.10
3130	725.0	3.4	0.1	4.4	303.6	75.6	93.4	359.5	134.9	334.4	316.7	259.9	661.8	0.17	82.03	83.40	82.41	0.16	82.95	83.62	81.96
3140	726.0	3.4	0.1	4.4	302.6	75.6	93.4	359.5	134.9	334.4	316.7	259.9	661.8	0.17	82.03	83.40	82.41	0.16	82.95	83.62	81.96
3150	727.0	3.4	0.1	4.4	301.6	75.5	94.2	358.7	134.9	334.0	316.6	260.2	660.9	0.17	81.87	83.32	82.35	0.16	82.70	83.49	81.96
3160	728.0	3.4	0.1	4.4	301.6	75.5	94.1	358.3	135.1	334.0	316.6	260.2	660.9	0.17	81.87	83.32	82.35	0.16	82.70	83.49	81.96
3170	729.0	3.4	0.1	4.5	300.9	75.6	93.9	357.9	135.3	333.8	316.7	260.1	659.5	0.17	81.82	83.29	82.32	0.16	82.56	83.42	81.87
3180	730.0	3.4	0.1	4.5	300.8	75.6	93.7	357.7	135.2	333.9	316.8	260.5	659.5	0.17	81.80	83.24	82.26	0.16	82.49	83.36	81.81
3190	731.0	3.5	0.1	4.5	299.7	75.6	93.7	357.3	135.2	333.8	317.2	260.7	661.0	0.17	81.74	83.20	82.20	0.16	82.44	83.33	81.78
3200	732.0	3.3	0.1	4.5	299.7	75.8	94.6	357.3	135.9	334.3	317.7	260.8	662.0	0.17	81.69	83.16	82.16	0.16	82.38	83.28	81.74
3210	733.0	3.3	0.1	4.5	299.3	75.8	94.6	357.1	136.5	334.7	317.7	260.9	662.0	0.17	81.73	83.14	82.12	0.16	82.37	83.24	81.73
3220	734.0	3.3	0.1	4.5	298.2	75.8	94.6	357.1	137.0	334.7	317.8	261.2	664.8	0.17	81.86	83.14	82.11	0.16	82.48	83.24	81.70
3230	735.0	3.3	0.1	4.5	298.2	75.8	94.6	357.1	137.0	334.7	317.8	261.2	664.8	0.17	81.86	83.14	82.11	0.16	82.48	83.24	81.70
3240	736.0	3.4	0.1	4.5	298.6	75.7	94.6	357.1	137.3	334.5	318.1	261.4	667.4	0.17	82.38	83.27	82.11	0.16	82.96	83.26	81.67
3250	737.0	3.4	0.1	4.5	298.6	75.7	94.6	357.1	137.3	334.5	318.1	261.4	667.4	0.17	82.38	83.27	82.11	0.16	82.96	83.26	81.67
3260	738.0	3.2	0.1	4.5	297.7	75.6	95.2	355.8	137.5	334.2	318.1	261.7	669.5	0.17	82.59	83.36	82.16	0.16	83.01	83.48	81.69
3270	739.0	3.2	0.1	4.5	297.7	75.6	95.2	355.8	137.5	334.2	318.1	261.7	669.5	0.17	82.59	83.36	82.16	0.16	83.01	83.48	81.69
3280	740.0	3.2	0.1	4.5	297.4	75.7	101.8	357.1	137.6	334.3	318.6	262.0	670.0	0.17	82.81	83.45	82.19	0.16	83.20	83.59	81.68
3290	741.0	3.1	0.1	4.5	297.4	75.7	100.6	356.8	137.7	334.5	318.6	262.2	670.0	0.17	82.93	83.53	82.19	0.16	83.32	83.64	81.69
3300	742.0	3.1	0.1	4.5	297.7	75.8	99														

365.0	777.0	2.6	0.1	4.6	290.8	76.1	100.1	350.0	136.8	329.5	329.6	264.2	657.6	0.17	82.83	83.37	81.88	0.16	83.20	83.53	81.42
366.0	778.0	2.6	0.1	4.6	290.6	75.8	99.0	349.5	136.7	329.3	330.1	264.3	657.5	0.17	82.88	83.42	81.90	0.16	83.27	83.56	81.43
367.0	779.0	2.6	0.1	4.6	290.4	75.9	98.0	349.2	136.5	329.5	330.3	264.2	657.9	0.17	82.88	83.44	81.92	0.16	83.27	83.57	81.43
368.0	780.0	2.6	0.1	4.6	290.1	75.8	97.2	348.9	136.4	328.5	331.0	264.3	655.9	0.17	82.81	83.45	81.92	0.16	83.25	83.59	81.45
369.0	781.0	2.5	0.1	4.5	289.8	75.8	96.6	348.5	136.3	328.4	331.0	264.1	657.4	0.17	82.81	83.45	81.92	0.16	83.25	83.57	81.45
370.0	782.0	2.5	0.1	4.5	289.6	75.7	95.5	348.2	136.1	327.5	332.1	264.1	652.6	0.17	82.57	83.39	81.92	0.16	83.12	83.55	81.44
371.0	783.0	2.5	0.1	4.4	289.0	75.7	95.1	347.9	135.9	327.2	332.6	264.3	651.7	0.17	82.45	83.36	81.90	0.16	83.06	83.51	81.44
372.0	784.0	2.5	0.1	4.4	288.6	75.7	94.4	347.5	135.7	326.3	333.1	264.0	649.8	0.17	82.37	83.33	81.90	0.16	82.98	83.49	81.44
373.0	785.0	2.5	0.1	4.4	288.2	75.7	94.4	347.5	135.5	326.3	333.1	264.0	649.8	0.17	82.37	83.33	81.90	0.16	82.98	83.46	81.44
374.0	786.0	2.4	0.1	4.4	287.5	75.6	94.0	347.1	135.2	325.9	333.9	264.2	647.9	0.17	82.19	83.27	81.87	0.16	82.84	83.42	81.43
375.0	787.0	2.4	0.1	4.4	287.1	75.6	94.0	347.1	135.2	325.9	333.9	264.2	647.9	0.17	82.19	83.27	81.87	0.16	82.84	83.38	81.43
376.0	788.0	2.4	0.1	4.4	286.8	75.7	93.6	346.3	135.3	325.6	334.6	264.2	645.9	0.17	82.05	83.19	81.84	0.16	82.72	83.30	81.39
377.0	789.0	2.4	0.1	4.4	286.3	75.6	93.5	345.9	135.5	325.6	334.9	264.3	645.6	0.17	81.95	83.14	81.78	0.16	82.63	83.34	81.37
378.0	790.0	2.4	0.1	4.4	286.3	75.6	93.5	345.9	135.5	325.6	334.9	264.3	645.6	0.17	81.95	83.14	81.78	0.16	82.63	83.30	81.37
379.0	791.0	2.4	0.1	4.4	286.4	75.6	93.3	345.6	135.7	325.2	335.9	264.3	643.8	0.17	81.90	83.09	81.79	0.16	82.55	83.26	81.36
380.0	792.0	2.3	0.1	4.4	286.8	75.6	93.1	345.4	135.9	325.2	336.5	264.5	642.4	0.17	81.82	83.08	81.76	0.16	82.47	83.23	81.35
381.0	793.0	2.3	0.1	4.4	286.6	75.5	92.5	345.2	136.2	324.7	337.2	264.6	640.5	0.17	81.71	83.00	81.70	0.16	82.38	83.14	81.29
382.0	794.0	2.3	0.1	4.4	286.1	75.6	92.7	344.9	136.0	324.7	337.7	264.6	639.9	0.17	81.71	83.00	81.70	0.16	82.38	83.14	81.29
383.0	795.0	2.3	0.1	4.4	286.4	75.5	92.5	344.9	136.0	324.2	338.0	264.3	638.6	0.17	81.66	82.98	81.67	0.16	82.31	83.09	81.25
384.0	796.0	2.3	0.1	4.3	284.3	75.6	92.4	341.9	136.1	323.9	338.5	264.8	637.3	0.17	81.59	82.94	81.63	0.16	82.27	83.07	81.24
385.0	797.0	2.3	0.1	4.4	284.0	75.6	92.4	341.3	136.1	323.9	339.5	265.0	636.8	0.17	81.55	82.88	81.59	0.16	82.19	83.01	81.23
386.0	798.0	2.2	0.1	4.3	283.2	75.9	92.8	341.0	136.2	324.3	340.0	264.8	636.8	0.17	81.53	82.85	81.55	0.16	82.16	82.98	81.18
387.0	799.0	2.2	0.1	4.3	283.5	75.8	94.7	340.6	136.2	324.1	340.4	264.8	637.1	0.17	81.63	82.85	81.55	0.16	82.23	82.98	81.18
388.0	800.0	2.2	0.1	4.4	283.7	76.2	96.6	340.1	136.3	323.8	340.5	265.1	637.8	0.17	81.77	82.89	81.57	0.16	82.34	83.00	81.18
389.0	801.0	2.2	0.1	4.3	281.7	75.9	97.8	339.8	136.2	323.6	340.6	265.2	638.2	0.17	81.93	82.90	81.59	0.16	82.45	83.06	81.18
390.0	802.0	2.2	0.1	4.4	281.3	75.8	99.1	339.4	136.2	323.0	340.4	265.1	638.2	0.17	82.11	82.98	81.61	0.16	82.60	83.12	81.20
391.0	803.0	2.1	0.1	4.4	281.1	75.9	100.3	338.9	135.9	322.3	340.4	265.0	637.0	0.17	82.05	83.05	81.63	0.16	82.76	83.19	81.22
392.0	804.0	2.1	0.1	4.4	280.8	75.7	101.6	338.4	136.2	321.8	340.2	265.1	635.7	0.17	81.95	83.04	81.61	0.16	82.76	83.19	81.22
393.0	805.0	2.1	0.1	4.4	280.2	75.7	100.6	338.5	136.2	321.8	340.2	265.1	635.7	0.17	81.95	83.04	81.61	0.16	82.76	83.19	81.22
394.0	806.0	2.1	0.1	4.4	280.4	76.1	99.2	338.1	136.3	321.8	340.9	265.7	636.8	0.17	82.05	83.14	81.73	0.16	83.21	83.45	81.27
395.0	807.0	2.1	0.1	4.4	280.2	75.7	98.1	338.0	136.2	321.8	340.6	265.6	635.9	0.17	82.05	83.14	81.73	0.16	83.25	83.50	81.30
396.0	808.0	2.1	0.1	4.4	280.0	75.9	97.2	337.4	136.3	321.2	340.5	265.9	635.1	0.17	82.05	83.14	81.73	0.16	83.25	83.50	81.30
397.0	809.0	2.0	0.1	4.4	279.9	75.7	96.4	337.3	136.3	320.4	340.1	265.4	634.3	0.17	82.81	83.35	81.76	0.16	83.25	83.51	81.30
398.0	810.0	2.0	0.1	4.4	279.7	75.8	95.8	336.7	135.8	319.8	339.8	265.8	633.5	0.17	81.83	83.06	81.66	0.16	82.56	83.20	81.27
399.0	811.0	2.0	0.1	4.4	279.4	75.8	95.3	336.7	135.8	319.8	339.8	265.8	633.5	0.17	81.83	83.06	81.66	0.16	82.56	83.20	81.27
400.0	812.0	2.0	0.1	4.4	279.3	75.7	94.8	336.1	135.4	318.0	339.2	265.7	631.8	0.17	82.65	83.34	81.75	0.16	83.16	83.50	81.29
401.0	813.0	2.0	0.1	4.4	278.6	75.7	94.4	335.7	135.2	317.6	338.9	265.7	631.1	0.17	82.55	83.30	81.72	0.16	83.09	83.47	81.29
402.0	814.0	2.0	0.1	4.3	278.5	75.7	94.0	335.4	135.2	317.6	338.9	265.7	631.1	0.17	82.46	83.29	81.76	0.16	83.05	83.44	81.30
403.0	815.0	2.0	0.1	4.3	278.5	75.7	94.0	335.4	135.2	317.6	338.9	265.7	631.1	0.17	82.46	83.29	81.76	0.16	83.05	83.44	81.30
404.0	816.0	1.9	0.1	4.3	278.6	75.6	93.6	334.9	134.9	316.0	338.6	265.2	629.1	0.17	82.19	83.19	81.74	0.16	82.76	83.35	81.30
405.0	817.0	1.9	0.1	4.2	278.5	75.7	93.1	334.1	134.9	315.3	338.5	265.2	628.2	0.17	82.11	83.19	81.71	0.16	82.75	83.31	81.29
406.0	818.0	1.9	0.1	4.2	278.0	75.7	93.1	333.7	135.0	315.1	338.6	265.7	627.1	0.17	82.05	83.14	81.69	0.16	82.68	83.29	81.25
407.0	819.0	1.9	0.1	4.2	277.9	75.6	92.8	333.4	135.0	314.8	338.5	265.2	625.7	0.17	81.98	83.09	81.69	0.16	82.62	83.25	81.26
408.0	820.0	1.9	0.1	4.2	277.1	75.6	92.7	332.9	135.0	314.0	338.4	265.1	624.3	0.17	81.89	83.06	81.66	0.16	82.56	83.20	81.27
409.0	821.0	1.9	0.1	4.2	276.9	75.6	92.5	332.6	135.1	313.8	338.2	265.3	623.0	0.17	81.83	83.02	81.64	0.16	82.47	83.14	81.22
410.0	822.0	1.8	0.1	4.2	276.8	75.6	92.4	332.3	135.1	313.8	338.2	265.3	623.0	0.17	81.83	83.02	81.64	0.16	82.47	83.14	81.22
411.0	823.0	1.8	0.1	4.2	276.5	75.6	92.2	332.0	135.0	313.5	338.4	264.9	621.7	0.17	81.79	82.98	81.61	0.16	82.42	83.12	81.21
412.0	824.0	1.8	0.1	4.2	276.0	75.6	92.0	331.5	134.9	312.7	338.3	264.9	620.6	0.17	81.71	82.93	81.59	0.16	82.36	83.08	81.20
413.0	825.0	1.8	0.1	4.2	275.3	75.5	92.0	331.5	134.9	312.7	338.3	264.9	620.6	0.17	81.65	82.90	81.56	0.16	82.29	83.05	81.17
414.0	826.0	1.8	0.1	4.2	275.3	75.5	92.0	331.5	134.9	312.7	338.3	264.9	620.6	0.17	81.65	82.90	81.56	0.16	82.29	83.05	81.17
415.0	827.0	1.8	0.1	4.2	275.4	75.9	92.3	331.4	134.7	312.2	338.5	265.7	619.5	0.17	81.59	82.86	81.52	0.16	82.24	82.98	81.16
416.0	828.0	1.8	0.1	4.2	274.9	75.9	92.3	331.4	134.7	312.2	338.5	265.7	619.5	0.17	81.54	82.80	81.47	0.16	82.14	82.95	81.11
417.0	829.0	1.7	0.1	4.2	274.4	75.7	94.2	329.4	134.7	311.8	338.4	265.3	618.2	0.17	81.64	82.79	81.44	0.16	82.15	82.92	81.10
418.0	830.0	1.7	0.1	4.2	274.1	76.1	96.2	329.1	134.3	311.6	338.4	265.6	618.2	0.17	81.80	82.83	81.45	0.16	82.32	82.93	81.10
419.0	831.0	1.7	0.1	4.2	273.1	75.9	97.4	328.5	134.2	311.3	338.2	265.2	616.8	0.17	81.93	82.86	81.47	0.16	82.44	83.00	81.09
420.0	832.0	1.7	0.1	4.2	272.0	75.8	98.6	328.0	134.0	310.7	338.0	265.3	615.6	0.17	82.10	82.93	81.53	0.16	82.57	83.07	81.12
421.0	833.0	1.7	0.1	4.2	271.8	75.8	99.7	327.6	133.8	310.1	337.8	265.1	614.7	0.17	82.31	82.98	81.56	0.16	82.72	83.14	81.11
422.0	834.0</																				

457.0	8659.0	1.1	0.1	3.8	2637.7	7517.7	938.8	3200.0	136.4	2968.8	3377.7	2648.8	594.2	0.17	82.43	83.10	81.49	0.16	82.93	83.28	81.08
458.0	8700.0	1.1	0.1	3.8	2640.0	7517.7	934.4	3197.7	136.4	2968.8	3377.7	2646.6	594.2	0.17	82.34	83.09	81.49	0.16	82.87	83.26	81.09
459.0	8710.0	1.1	0.1	3.8	2636.6	7517.7	931.0	3192.0	136.4	2968.8	3375.0	2644.0	594.2	0.17	82.34	83.05	81.49	0.16	82.78	83.23	81.08
460.0	8720.0	1.1	0.1	3.8	2641.0	7517.7	928.8	3188.8	136.3	2954.4	3372.2	2644.0	594.3	0.17	82.16	82.86	81.46	0.16	82.71	83.19	81.09
461.0	8730.0	1.1	0.1	3.8	2637.7	7517.7	925.4	3182.0	136.3	2954.4	3368.8	2646.6	594.3	0.17	82.01	82.80	81.45	0.16	82.66	83.16	81.10
462.0	8740.0	1.1	0.1	3.8	2637.7	7517.7	922.0	3177.0	135.3	2940.0	3362.0	2648.8	593.4	0.17	81.85	82.63	81.45	0.16	82.50	83.06	81.07
463.0	8750.0	1.1	0.1	3.8	2633.3	7516.6	918.8	3167.7	135.0	2940.0	3357.0	2646.6	592.6	0.17	81.68	82.53	81.39	0.16	82.46	83.06	81.05
464.0	8760.0	1.0	0.1	3.7	2634.4	7516.6	915.4	3162.0	134.8	2933.1	3354.8	2643.3	591.6	0.17	81.70	82.60	81.38	0.16	82.37	83.00	81.01
465.0	8770.0	1.0	0.1	3.7	2633.3	7516.6	912.0	3158.8	134.9	2933.1	3348.8	2643.3	590.5	0.17	81.84	82.80	81.37	0.16	82.30	82.97	81.01
466.0	8780.0	1.0	0.1	3.7	2631.0	7516.6	908.8	3154.4	134.7	2929.0	3342.0	2641.0	589.5	0.17	81.68	82.78	81.33	0.16	82.24	82.93	80.99
467.0	8800.0	1.0	0.1	3.7	2627.7	7515.5	905.4	3150.0	134.7	2926.6	3336.6	2636.6	588.4	0.17	81.61	82.74	81.30	0.16	82.20	82.88	80.97
468.0	8810.0	1.0	0.1	3.7	2628.8	7515.5	902.0	3147.0	134.8	2922.0	3332.0	2637.7	587.2	0.17	81.56	82.71	81.27	0.16	82.14	82.85	80.98
469.0	8820.0	1.0	0.1	3.7	2623.3	7515.5	898.8	3142.0	134.7	2922.0	3326.6	2635.5	585.8	0.17	81.49	82.68	81.24	0.16	82.07	82.79	80.95
470.0	8830.0	1.0	0.1	3.7	2617.7	7516.6	895.4	3137.0	134.8	2922.0	3322.0	2636.6	584.2	0.17	81.44	82.63	81.21	0.16	82.02	82.77	80.92
471.0	8840.0	0.9	0.1	3.7	2618.8	7516.6	892.0	3133.3	134.6	2922.0	3317.7	2636.6	582.6	0.17	81.44	82.63	81.19	0.16	82.02	82.74	80.98
472.0	8850.0	0.9	0.1	3.7	2614.0	7516.6	888.8	3128.8	134.6	2922.0	3312.0	2635.5	581.0	0.17	81.59	82.60	81.19	0.16	82.02	82.74	80.98
473.0	8860.0	0.9	0.1	3.6	2609.0	7516.6	885.4	3124.4	133.6	2922.0	3307.7	2635.5	579.2	0.17	81.72	82.64	81.21	0.16	82.21	82.75	80.88
474.0	8870.0	0.9	0.1	3.6	2599.6	7516.6	882.0	3119.0	133.3	2922.0	3303.0	2638.8	577.3	0.17	81.87	82.69	81.24	0.16	82.33	82.85	80.88
475.0	8880.0	0.9	0.1	3.6	2587.7	7517.7	878.8	3116.0	133.1	2920.0	3299.0	2635.5	575.8	0.17	82.07	82.77	81.25	0.16	82.47	82.91	80.89
476.0	8890.0	0.9	0.1	3.6	2581.0	7517.7	875.4	3098.8	132.9	2914.4	3295.0	2633.3	573.5	0.17	82.30	82.86	81.30	0.16	82.65	83.02	80.91
477.0	8900.0	0.8	0.1	3.6	2573.3	7516.6	872.0	3091.0	132.5	2910.0	3291.0	2633.3	572.2	0.17	82.49	82.96	81.33	0.16	82.81	83.10	80.94
478.0	8910.0	0.8	0.1	3.6	2569.0	7515.5	868.8	3083.3	132.1	2909.0	3289.0	2636.6	570.6	0.17	82.66	83.02	81.38	0.16	82.95	83.18	80.96
479.0	8920.0	0.8	0.1	3.6	2565.4	7515.5	865.4	3076.6	131.8	2905.0	3282.0	2634.0	569.4	0.17	82.72	83.06	81.38	0.16	83.04	83.21	81.00
480.0	8930.0	0.8	0.1	3.6	2562.0	7518.8	862.0	3069.0	131.8	2905.0	3275.0	2632.0	568.0	0.17	82.70	83.08	81.38	0.16	83.04	83.24	80.99
481.0	8940.0	0.8	0.1	3.6	2556.2	7518.8	858.8	3063.3	131.5	2899.4	3271.0	2631.0	566.7	0.17	82.66	83.09	81.40	0.16	83.01	83.25	81.02
482.0	8950.0	0.8	0.1	3.6	2551.9	7518.8	855.4	3056.3	131.2	2894.4	3265.0	2631.0	565.6	0.17	82.58	83.09	81.42	0.16	83.00	83.24	81.02
483.0	8960.0	0.8	0.1	3.6	2548.4	7517.7	852.0	3049.0	131.0	2889.4	3259.0	2632.0	564.4	0.17	82.58	83.08	81.42	0.16	83.00	83.24	81.02
484.0	8970.0	0.8	0.1	3.5	2544.0	7517.7	848.8	3042.0	130.9	2887.8	3252.0	2632.0	563.2	0.17	82.41	83.04	81.43	0.16	82.88	83.20	81.01
485.0	8980.0	0.8	0.1	3.5	2540.0	7516.6	845.4	3035.2	130.5	2887.0	3252.0	2625.5	562.0	0.17	82.32	83.02	81.41	0.16	82.82	83.18	81.01
486.0	8990.0	0.8	0.1	3.6	2540.0	7516.6	842.0	3029.0	130.4	2886.4	3248.8	2621.0	561.8	0.17	82.23	83.00	81.37	0.16	82.76	83.13	81.00
487.0	9000.0	0.7	0.1	3.5	2538.8	7516.6	838.8	3022.0	130.3	2885.8	3243.3	2622.0	560.9	0.17	82.15	82.97	81.40	0.16	82.70	83.11	81.01
488.0	9010.0	0.7	0.1	3.5	2534.4	7516.6	835.4	3015.0	129.9	2884.4	3239.0	2617.0	559.1	0.17	82.06	82.95	81.38	0.16	82.65	83.10	81.00
489.0	9020.0	0.7	0.1	3.5	2529.0	7516.6	832.0	3009.0	129.6	2883.0	3235.0	2615.5	558.0	0.17	81.98	82.92	81.38	0.16	82.57	83.07	81.01
490.0	9030.0	0.7	0.1	3.5	2525.0	7515.5	828.8	3003.3	129.3	2882.0	3230.0	2613.0	557.2	0.17	81.89	82.87	81.35	0.16	82.49	83.01	80.99
491.0	9040.0	0.7	0.1	3.5	2520.0	7516.6	825.4	2996.6	129.1	2883.2	3227.0	2613.0	556.2	0.17	81.81	82.83	81.34	0.16	82.42	82.98	80.99
492.0	9050.0	0.7	0.1	3.5	2519.0	7515.5	822.0	2992.0	128.8	2882.4	3221.0	2610.0	555.6	0.17	81.72	82.81	81.29	0.16	82.35	82.95	80.94
493.0	9060.0	0.7	0.1	3.5	2516.6	7516.6	818.8	2989.0	128.6	2882.2	3219.0	2610.0	555.4	0.17	81.66	82.75	81.27	0.16	82.28	82.91	80.95
494.0	9070.0	0.7	0.1	3.5	2514.0	7516.6	815.4	2982.0	128.2	2881.0	3215.0	2608.8	554.6	0.17	81.57	82.70	81.27	0.16	82.21	82.83	80.95
495.0	9080.0	0.7	0.1	3.4	2509.0	7515.5	812.0	2976.0	128.1	2880.5	3211.0	2608.8	553.5	0.17	81.50	82.70	81.21	0.16	82.16	82.80	80.90
496.0	9090.0	0.6	0.1	3.4	2505.4	7515.5	808.8	2969.0	127.8	2880.5	3211.0	2603.0	552.0	0.17	81.44	82.68	81.21	0.16	82.12	82.80	80.90
497.0	9100.0	0.6	0.1	3.4	2498.8	7515.5	805.4	2965.5	128.1	2880.2	3209.0	2603.0	550.6	0.17	81.37	82.60	81.18	0.16	82.06	82.77	80.86
498.0	9110.0	0.6	0.1	3.4	2494.0	7515.5	802.0	2958.8	128.1	2879.2	3206.6	2604.0	549.0	0.17	81.37	82.60	81.12	0.16	81.99	82.74	80.83
499.0	9120.0	0.6	0.1	3.4	2487.7	7516.6	798.8	2954.6	128.1	2880.0	3207.0	2603.0	547.4	0.17	81.34	82.63	81.09	0.16	81.96	82.71	80.81
500.0	9130.0	0.6	0.1	3.4	2481.0	7518.8	795.4	2949.0	128.1	2879.7	3206.6	2601.0	545.7	0.17	81.41	82.56	81.10	0.16	81.99	82.70	80.80
501.0	9140.0	0.6	0.1	3.4	2474.4	7518.8	792.0	2943.4	127.8	2878.8	3201.0	2599.0	544.2	0.17	81.53	82.58	81.10	0.16	82.07	82.71	80.79
502.0	9150.0	0.6	0.1	3.4	2468.8	7516.6	788.8	2939.0	127.4	2878.8	3200.0	2599.0	542.8	0.17	81.66	82.60	81.11	0.16	82.17	82.75	80.79
503.0	9160.0	0.6	0.1	3.4	2460.0	7516.6	785.4	2935.0	127.1	2878.4	3195.0	2596.6	541.2	0.17	81.82	82.67	81.14	0.16	82.29	82.80	80.78
504.0	9170.0	0.6	0.1	3.4	2453.3	7518.8	782.0	2931.2	126.8	2877.8	3191.0	2596.6	539.9	0.17	81.94	82.74	81.18	0.16	82.44	82.80	80.81
505.0	9180.0	0.5	0.1	3.4	2448.8	7518.8	778.8	2927.0	126.7	2878.0	3186.0	2596.6	538.7	0.17	82.06	82.82	81.21	0.16	82.58	82.83	80.85
506.0	9190.0	0.5	0.1	3.4	2443.0	7518.8	775.4	2923.0	126.3	2876.8	3182.0	2592.0	537.7	0.17	82.16	82.85	81.26	0.16	82.71	83.09	80.85
507.0	9200.0	0.5	0.1	3.4	2438.8	7519.0	772.0	2919.0	126.0	2876.0	3178.0	2593.0	536.7	0.17	82.25	82.94	81.26	0.16	82.85	83.13	80.85
508.0	9210.0	0.5	0.1	3.4	2431.0	7518.8	768.8	2915.0	125.8	2875.8	3175.0	2592.0	535.7	0.17	82.30	82.99	81.27	0.16	82.93	83.16	80.87
509.0	9220.0	0.5	0.1	3.3	2425.0	7517.7	765.4	2912.0	125.6	2875.0	3170.0	2591.0	534.7	0.17	82.38	83.00	81.27	0.16	83.03	83.18	80.88
510.0	9230.0	0.5	0.1	3.3	2420.0	7517.7	762.0	2908.8	125.5	2874.5	3167.0	2588.8	533.9	0.17	82.55	83.00	81.29	0.16	83.18	83.18	80.88
511.0	9240.0	0.5	0.1	3.3	2412.0	7517.7	758.8	2904.6	125.5	2874.0	3166.0	2587.0	533.0	0.17	82.48	82.99	81.28				

549.0	961.0	0.1	0.1	3.4	232.0	75.5	89.9	274.1	125.7	259.5	305.6	254.0	513.1	0.17	81.69	82.66	81.02	0.16	82.20	82.80	80.70
550.0	962.0	0.1	0.1	3.3	232.0	75.4	89.8	273.8	125.4	259.2	305.3	254.0	513.4	0.17	81.59	82.63	81.01	0.16	82.15	82.77	80.68
551.0	963.0	0.1	0.1	3.3	231.1	75.4	89.6	273.6	125.1	258.9	304.8	253.9	513.5	0.17	81.54	82.58	81.00	0.16	82.09	82.71	80.68
552.0	964.0	0.1	0.1	3.2	231.6	75.4	89.4	273.4	124.9	258.8	304.6	253.8	513.3	0.17	81.48	82.55	80.94	0.16	82.03	82.68	80.68
553.0	965.0	0.1	0.1	3.2	231.7	75.4	89.3	273.3	124.8	258.7	304.5	253.6	513.1	0.17	81.43	82.53	80.90	0.16	81.98	82.65	80.68
554.0	966.0	0.1	0.1	3.2	231.4	75.4	89.2	273.2	124.7	258.6	304.4	253.5	512.9	0.17	81.38	82.51	80.86	0.16	81.93	82.63	80.68
555.0	967.0	0.0	0.1	3.2	231.4	75.4	89.0	272.9	124.5	257.9	303.9	253.2	512.0	0.17	81.28	82.44	80.86	0.16	81.86	82.58	80.56

Date: 2019-12-09 Manufacturer: Wolf Steel Model: NZ 3000
 Project #: PI 2014 Run: 1 Tech: mm Reviewer: [Signature]

- Kindling 11.3 LBS Start Fire 1 min torch
- At 3 min close bypass
- At 17 min close Door
- At 39 LBS insert load
- At 1 min close bypass
- 5 min close Door
- At 21.5 LBS open Fan High
- At 62 LBS stop pump
- RAKE Bed (unburn in front)
- At 38 LBS insert load
- At 1 min close bypass
- At 5 min close Door
- At 15 min close air inlet

TEST LOAD CONFIGURATION

PRE / POST CHECKS

Date: 2019 12-09 Manufacturer: Wolf Steel Model: M2 320
 Project #: PT 20214 Run: 1 Tech: MM Reviewer: SP

Moisture Meter Calibration Check:

Equipment #	Time	12%	22%
EM-192	7:20	ok	ok

Pre-Test

Post-Test

Facility Conditions:

Air Velocity from less than 2 feet

0 (max 50 Fpm)	0 (max 50 Fpm)
----------------	----------------

Smoke Capture Check (Tunnel velocity).....

ok	NA
----	----

Picture.....

4 sides ok	ok
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Wood Heater Conditions:

Date Wood Heater Stack Cleaned.....

2019 12-09

Date Dilution Tunnel Cleaned.....

2019 12-09

Induced Draft Check (max 0.005 H2O).....

ok

Traverse before ignition.....

ok

Temperature System:

Ambient (65°-90°F).....

61	°F
----	----

Proportional Checks:

Thermocouple check.....

ok

Pitot Clean.....

ok

Pitot verification.....

ok

Sampling Train ID Numbers:

	High fire test			Medium low fire test		
	1 st hour	Train 1	Train 2	1 st hour	Train 1	Train 2
Probe.....	20	41	60	03	09	35
Filter Front.....	400	402	404	407	409	411
Filter Back.....	401	403	405	408	410	412
Filter Thermocouple.....	11	11	12	11	11	12
Filter (80°F ≥ <90°F).....	ok	ok	ok	ok	ok	ok

SAMPLING EQUIPMENT CHECK OUT

 Date: 2019-12-09

 Manufacturer: Wolf Steel

 Model: N^o 3000

 Project #: PT 20219

 Run: 1

 Tech: MM

 Reviewer: [Signature]

Leakage Checks Tunnel Samplers

High fire test	System 1 st hour		System 1		System 2	
	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (max test)	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (Max test)	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (Max test)
Unplugged Flow Rate = .25cfm						
Vacuum (inches Hg.)	-15	-15	-15	-15	-15	-15
Final 1minute DGM (Liter)	081709 60	082646 22	081709 95	082646 28	026746 50	027669 90
Initial 1minute DGM (Liter)	081704 55	082646 24	081709 90	082646 34	026746 30	027669 70
Change © (Liter)	005	001	005	004	020	020
Allowable leakage .04 x Sample rate or 0.28Lpm CSA B415 (0.56)						
Check OK	OK	OK	OK	OK	OK	OK

Low medium fire test	System 1 st hour		System 1		System 2	
	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (max test)	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (Max test)	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (Max test)
Unplugged Flow Rate = .25cfm						
Vacuum (inches Hg.)	-15	-15	-15	-15	-15	-15
Final 1minute DGM (Liter)	082647 65	085454 30	082647 70	085454 45	027671 65	030445 55
Initial 1minute DGM (Liter)	082647 62	085454 20	082647 68	085454 36	027671 51	030445 35
Change © (Liter)	003	010	002	009	014	020
Allowable leakage .04 x Sample rate or 0.28Lpm CSA B415 (0.56)						
Check OK	OK	OK	OK	OK	OK	OK



SAMPLING EQUIPMENT CHECK OUT

Date: 2019-12-09 Manufacturer: Wolf Steel Model: N2300
 Project #: PI 20 Run: 1 Tech: mm Reviewer: DP

Leakage Checks Flue Gas Sampler

	Pre-Test	Post Test
Plugged Probe		
Vacuum (inches Hg.)	-5	-5
Rotameter Reading (mml/min.)	0	0
Flow Rate (lpm)	1.5	1.5
Allowable (.02 x Sample Rate)	30	30
Check OK	ok	ok

Leakage Checks Pitot

	Pre Test 3 H ₂ O static	Pre Test 0.4-0.5 H ₂ O velocity	Post Test 3 H ₂ O Static	Post Test 0.4-0.5 H ₂ O velocity
Plugged Probe				
Vacuum (inches Hg.)	3	.4	3	.4
Check OK (no change after 15 sec.)	ok	ok	ok	ok

Date: 2019-12-09 Manufacturer: wolfsteel ~~not~~ MM Model: NZ 3000
 Project #: pJ 2019 Run: 1 Tech: MM Reviewer: DO

Scale Type	Audit		Measured Weight
	Equipment #	Weight	
Platform	EM-090	44 lbs, Class F	44 lbs
Wood	EM-090	44 lbs, Class F	44 lbs
Analytical	EM-128	100 mg, Class S	100 mg
Analytical	EM-129	200 g, Class S	200 g

LIMITS OF WEIGHT RANGES

ANALYTICAL SCALE: 50%-150% of dry filter weight, ± 0.1 mg
PLATFORM SCALE: 20%-80% of ideal test load weight, ± 0.1 lbs or 1%
WOOD SCALE: 20%-80% of ideal test load weight, ± 0.01 lbs or 1%

Date: 2019-12-09 Manufacturer: wolfs feel Model: NZ 3000
 Project #: PI 20214 Run: 1 Tech: MM Reviewer: [Signature]

FOR TUNNELS < 12 in

 Barometric pressure (P_{bar}) 1010 (KPa.) Static pressure (P_q) 0.19 (inches w.c.)
 Inside diameter: Port A _____ Port B _____
 Tunnel cross sectional area: .1963Ft²
 Pitot tube type: Standard

Traverse Point	Position (inches)			Velocity Head Δ_p (inches H ₂ O)	Tunnel Temperature (°F)
	6 po	7 po	8 po		
A- Centroid	3.00	3.50	4	0072	9869
B - Centroid	3.00	3.50	4	0071	9741
A-1	0.40	0.50	0.50	0063	9849
A-2	1.50	1.75	2	0073	9831
A-3	4.50	5.25	6	0067	9791
A-4	5.60	6.5	7.5	0061	9751
B-1	0.40	0.50	0.50	0058	9731
B-2	1.50	1.75	2	0073	9729
B-3	4.50	5.25	6	0062	9727
B-4	5.60	6.5	7.5	0061	9727
				AVERAGE	

$$v_s = K_p C_p (\sqrt{\Delta_p})_{avg} \sqrt{\frac{(T_s)_{avg}}{P_s M_s}}$$

Where,

 C_p = pitot tube coefficient, dimension less = 0.99 for standard pitot.

 Δ_p = manometer reading (inches H₂O)

 T_s = average absolute dilution tunnel temperature (°F + 460)

 P_s = absolute dilution tunnel gas pressure or $P_{bar} + P_{qg}$
 P_q = static pressure in. H₂O
 { 13.6 }

 M_s = 28.56, wet molecular weight of stack gas (alternatively, it may be measured)

 K_p = 85.49 pitot tube constant, (conversion factor for English units)

 $\Delta_p, avg.$ = average of the square roots of the velocity heads (Δ_p) measured at each traverse point.

CONTINUOUS ANALYZERS

Date: 2019-12-09 Manufacturer: WolfSteel Model: NZ 3000
 Project #: PI 20214 Run: 1 Tech: MM Reviewer: BP

Pre-Test (Adjust and Record)

	ZERO		SPAN		CAL. (Record Only)	
	Actual	Should Be	Actual	Should Be	Actual	Should Be
CO	0	0	2990	3000	0996	1000
Tolerance CO		+/- 0.02		+/- 0.15		+/- 0.05
CO ₂	0	0	1791	1800	974	1000
Tolerance CO ₂		+/- 0.02		+/- 0.5		+/- 0.5
O ₂ informative CSA B415 calculated value	na	na	na	na	na	na
	Actual	Should Be	Actual	Should Be	Actual	Should Be

Post Test (Record Only)

	Zero	Span	Cal.	Zero Drift	Limit	Span Drift	Limit	Cal. Drift	Limit	OK?	Not OK*
CO	0	2985	1000	0	0.02	0.005	0.15	0.005	0.05	✓	
CO ₂	0	1792	976	0	0.02	0.01	0.5	0.02	0.5	✓	

TEST DATA LOG

Date: 2019-12-09 Manufacturer: Wolfstead Model: N23000
 Project #: PI 20214 Run: 1 Tech: MM Reviewer: SD

RAW DRY GAS METER READINGS

		System 1	System 2	Blank
High fire test	Final (Liter)	082645.12	027668.22	892.55
	Initial (Liter)	081705.49	026746.90	847.92
Low medium fire test	Final (Liter)	085453.04	030443.28	023.32
	Initial (Liter)	082648.40	027672.37	892.55

AMBIENT CONDITIONS

	Before	After
Barometer (kPa):	1010	1016
Dry Bulb (F):	31.4	80.6
Humidity (%):	72.7	26.3

FUEL DATA

Date: 2019-12-09 Manufacturer: Wolfstead Model: NZ 3000
 Project #: PJ 20214 Run: 1 Tech: MM Reviewer: [Signature]

FUEL DESCRIPTION:

Type of wood:

KINDLING AND START-UP LOAD

Piece Size			Weight		Meter Moisture Content (% dry)			
X	X	21 in.	430	lbs.	9		9	9
X	X	in.		lbs.				
X	X	21 in.	700	lbs.	20		20	20
X	X	in.		lbs.				
X	X	in.		lbs.				
X	X	in.		lbs.				
X	X	in.		lbs.				
X	X	in.		lbs.				
X	X	in.		lbs.				

HIGHFIRE TEST LOAD

Piece Size			Weight		Meter Moisture Content (% dry)			
430	X 300	X 21 in.	470	lbs.	226		248	196
350	X 375	X 21 in.	457	lbs.	203		227	191
425	X 300	X 20 in.	427	lbs.	214		245	190
	X	X in.		lbs.				
300	X 375	X 20 in.	531	lbs.	204		277	198
414	X 300	X 20 in.	489	lbs.	200		245	193
	X	X in.		lbs.				
	X	X in.		lbs.				
	X	X in.		lbs.				

FUEL DATA

Date: 2019-12-09 Manufacturer: wolf steel Model: NZ 3000
 Project #: PJ 20214 Run: 1 Tech: M.M Reviewer: [Signature]

FUEL DESCRIPTION:

Type of wood:

LOW OR MEDIUM TEST LOAD

Piece Size		Weight		Meter Moisture Content (% dry)			
4.00	x 3.75 x 2.0 in.	5.44	lbs.	206		248	198
4.50	x 3.00 x 2.0 in.	5.46	lbs.	226		279	199
3.50	x 4.00 x 2.0 in.	5.68	lbs.	231		279	203
4.75	x x in.		lbs.				
4.75	x 5.00 x 2.0 in.	8.17	lbs.	223		277	209
3.00	x 3.00 x 2.0 in.	3.44	lbs.	206		227	204
x	x in.		lbs.				
x	x in.		lbs.				
x	x in.		lbs.				
x	x in.		lbs.				
x	x in.		lbs.				
x	x in.		lbs.				
x	x in.		lbs.				
x	x in.		lbs.				



DILUTION TUNNEL PARTICULATE SAMPLER DATA

Date: 2019-12-05

Project #: PJ 202 M Run: 1

Manufacturer: ~~test steel~~ ^{WOLF STEEL}

Technician: *MM*

Reviewer: *JD*

Model: MZ 3000

HIGHFIRE TEST FILTERS

		SYSTEM 1 - 1 st hour				SYSTEM 1			
Pre-test Weight Record	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Blanck
	20	400	401	1	41	402	403	12	406
2019-12-05 17:00	108 8434	0 1820		35 3050	110 3663	0 1839		35 1515	00 920
2019-12-09 9:00	108 8434	0 1819		35 3049	110 3664	0 1839		35 1516	00 920

		SYSTEM 1 - 1 st hour				SYSTEM 1			
Post-test Weight Record	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Blanck
	20	400	401	1	41	402	403	12	406
2019-12-09 16:00	108 8442	0 1848		35 3057	110 3666	0 1848		35 1531	00 921
2019-12-16 15:00	108 8438	0 1844		35 3049	110 3665	0 1848		35 1517	00 920
2019-12-17 8:00	108 8438	0 1844		35 3049	110 3665	0 1848		35 1517	00 920

Date: 2019-12-05 Manufacturer: Wolfstedt Model: MZ3000

Project #: PT 20214 Run: 1 Tech: MM Reviewer: DP

HIGH FIRE TEST FILTERS				
SYSTEM 2				
Pre-test Weight Record	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets
	60	404	405	45
2019-12-05 17:00	103 9576	0 1854		34 1908
2019-12-05 19:00	103 9577	0 1855		34 1909

HIGH FIRE TEST FILTERS				
SYSTEM 2				
Post-test Weight Record	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets
	60	404	405	45
2019-12-09 16:00	103 9579	0 1891		34 1925
2019-12-16 15:00	103 9581	0 1889		34 1910
2019-12-17 8:00	103 9581	0 1889		34 1910



DILUTION TUNNEL PARTICULATE SAMPLER DATA

Date: 2019-12-05 Manufacturer: WOLF Steel Model: MZ 3000
 Project #: PI 2019 Tech: MM Reviewer: DD

MEDIUM / LOW FIRE TEST FILTERS

Pre-test Weight Record		SYSTEM 1 - 1 st hour				SYSTEM 1				
Date	Time	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Blanc
2019-12-05	17:00	614551	01810	408	345880	614466	01829	410	352749	00898
2019-12-09	13:00	614552	01811	408	345881	614465	01830	410	352750	00899

Post-test Weight Record		SYSTEM 1 - 1 st hour				SYSTEM 1				
Date	Time	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Blanc
2019-12-09	11:45	614557	01827	408	345898	614474	01871	410	352766	00900
2019-12-16	15:00	614552	01826	408	345881	614467	01868	410	352751	00900
2019-12-17	8:00	614552	01826	408	345881	614467	01868	410	352751	00900

Paramètres

Tous les facteurs de corrections et autres paramètres qui peuvent être modifiés par l'utilisateur du fichier sont regroupés ici.

Code verrouillage:

Description du test

Test standard	EPA
Run #	2
Date	10-12-2019
Technicien	M.M
Project #	PI 20214

Description de l'unité

Manufacturier	WOLF STEEL	
Modèle	NZ 3000H	
Combustion system	Cat	
Appliance type	FIREPLACE	
Firebox volume	2,3	cu ft.
Appliance weight empty	n.a	lbs
Fan (no, Standard, Option)	STANDARD	

Paramètres du test

Logging time	1	min
Manufacturer's rated heat output	n.a	BTU/h Donnée fournie par le manufacturier
Targeted category	1	
Targeted output	n.a	BTU/h
Cp steel	n.a	BTU/lb-°F

Échantillonnage

Blank sampling rate	0,20	cuft/min
Internal probe diameter	0,18	in.
Calibration Factor (DGM #1):	0,995	Dimensionless
Equipment number (DGM #1):	EM 178	
Calibration Factor (DGM #2):	0,990	Dimensionless
Equipment number (DGM #2):	EM 179	
Calibration Factor (DGM #3):	0,997	Dimensionless
Equipment number (DGM #3):	EM 070	

Tunnel

Targeted tunnel flow rate	300	scfm
Tunnel diameter	8	in.
Molecular weight	28,78	May be assumed to be 28,78 (EPA) Si B-415 = 29
Pitot tube type	Standard	
Pitot tube coefficient	0,99	Dimensionless

Project nu.	PI 20214
Date	10-12-2019
Technicien	<input type="text" value="m.m"/>

Fuel data

Fuel type	Cord	
Fuel specie	Oak	
HHV	20207,0	kJ/kg
%C	49,5	
%H	6,6	
%O	43,7	
%Ash	0,2	
HHV	8689,9	Btu/lb
LHV	7600,4	Btu/lb

Default Fuel Values		
	D. Fir	Oak/Maple
HHV	19 810	20 207
%C	48,73	49,5
%H	6,87	6,62
%O	43,9	43,7
%Ash	0,5	0,2
HHV (Btu/lb)	8519	8690
LHV (Btu/lb)	7451	7600

Adjunct to ASTM E XXXX Wood Heater Corawood Test Method - May 10, 2017 Version
 Corawood Fuel Load Calculators - 10 lb/ft³ Nominal Load Density
 Core 45-65% of Total Load Weight, Remainder 35-55% of Total Load Weight
 Values to be input manually

For All Usable Firebox Volumes - High Fire Test Only

Nominal Required Load Density (wet basis)	10 lb/ft ³
Usable Firebox Volume	2,30 ft ³
Total Nom. Load Wt. Target	23,00 lb
Total Load Wt. Allowable Range	21,90 to 24,20 lb
Core Target Wt. Allowable Range	10,40 to 15,00 lb
Remainder Load Wt. Allowable Range	8,10 to 12,70 lb
Core Load Pc. Wt. Allowable Range	3,50 to 5,80 lb
Remainder Load Pc. Wt. Allowable Range	2,30 to 12,70 lb
	Mid-Point 4,65 7,50
Core Load Piece Wt. Actual	Pc. # 1 4,48 lb In Range 2 4,58 lb In Range 3 4,40 lb In Range 13,46 lb In Range
Core Load Total. Wt. Actual	Pc. # 1 4,84 lb In Range 2 5,20 lb In Range 3 10,04 lb NA 23,50 lb In Range
Remainder Load Piece Wt. (1 to 3 Pcs.)	10,04 lb In Range 23,50 lb In Range
Remainder Load Tot. Wt. Act	57% In Range
Total Load Wt. Actual	43% In Range
Core % of Total Wt.	102% In Range
Remainder % of Total Wt.	45-65%
Actual Load % of Nominal Target	35-55%
Actual Fuel Load Density	10,2 lb/ft ³
Kindling and Start-up Fuel	
Maximum Kindling Wt. (20% of Tot. Load Wt.)	4,70 lb In Range
Actual Kindling Wt.	4,30 lb In Range
Maximum Start-up Fuel Wt. (30% of Tot. Load Wt.)	7,05 lb In Range
Actual Start-up Fuel Wt.	7,00 lb In Range
Allowable Residual Start-up Fuel Wt. Range	2,4 to 4,7 lb In Range
Actual Residual Start-up Fuel Wt.	3,9 lb In Range
Total Wt. All Fuel Added (wet basis)	34,80 lb
High Fire Test Run End Point Range Based on Fuel Load Wt. (w/tares)	Low 2,1 to 2,6 lb In Range Mid-Point 2,4
Actual Fuel Load Ending Wt.	2,5 lb In Range

Load pieces Length in.

21 in.

Fuel Piece Moisture Reading (%-dry basis)		Ave.		Pc. Wt. Dry Basis	
1	2	3	24,4	3,60 lb	1,63 kg
27,9	22,3	23	In Range	3,68 lb	1,67 kg
21,3	24,5	27,9	In Range	3,63 lb	1,65 kg
21,5	22,9	19	In Range		
21,9	21,8	19,5	In Range	4,00 lb	1,81 kg
27,9	25,1	23,6	In Range	4,14 lb	1,88 kg
Total Load Ave. MC (%-dry basis)		21,1	In Range	NA lb	NA kg
Total Load Ave. MC % (wet basis)		25,5	NA	NA lb	NA kg
Total Test Load Weight (dry basis)		23,4	In Range	19,05 lb	8,64 kg
		18,9			
Kindling Moisture (%-dry basis)					
		9	In Range	3,94 lb	1,79 kg
Start-up Fuel Moisture Readings (%-dry basis)		20	In Range	5,83 lb	2,65 kg
		20			
Total Wt. All Fuel Added (dry basis)				28,83 lb	13,08 kg
Total Wt. All Fuel Burned (dry basis)				22,4 lb	10,2 kg

	Start	End
Barometer (kPa):	99,5	99,7
Barometer (in.Hg):	29,382339	29,44139892
Dry Bulb (F):	79	81
Humidity (%):	32,5	31,3
Air velocity (ft/min)	0	0

High fire test						
DGM #1	Final:	0,000	cuft	Final:		Liter
	Initial:	0,000	cuft	Initial:		Liter
DGM #2	Final:	0,000	cuft	Final:		Liter
	Initial:	0,000	cuft	Initial:		Liter
DGM room				Final:		cuft
				Initial:		cuft

min or med burnrate						
DGM #1	Final:	3098,500	cuft	Final:	87739,750	Liter
	Initial:	3017,876	cuft	Initial:	85456,730	Liter
DGM #2	Final:	1153,593	cuft	Final:	32666,120	Liter
	Initial:	1075,261	cuft	Initial:	30448,000	Liter
DGM room				Final:	132,400	cuft
				Initial:	23,320	cuft

Numéro de la ligne dans "Raw data" à partir duquel les données du test commence 280
 Numéro de la ligne dans "Raw data" à partir duquel les données du highfire test commence
 Numéro de la ligne dans "Raw data" à partir duquel les données du min ou medium fire test commence 280

Autres données à rentrer: dans preload data, load data, traverse et filter set weight

Project nu.	PI 20214
Date	10-12-2019
Technicien	M.M

Filter set weight Low/ medium fire

Number	System 1 (g) 1st. hour			System 1 (g)			System 2 (g)			Ambient blank (g)	Date	Heure
	probe	front / back	gasket	probe	front / back	gasket	probe	front / back	gasket			
Before (1)	18	416 / 417	3	32	418 / 419	29	40	420 / 421	42	422		
Before (2)												
Before (3)												
Before (4)												
Before (5)	108,9490	0,1831	35,2425	110,1786	0,1817	35,2350	110,1022	0,1822	34,5826	0,0921	2019-12-09	17:00
Before (6)	108,9491	0,1832	35,2426	110,1787	0,1818	35,2351	110,1023	0,1823	34,5826	0,0922	2019-12-10	09:00
After (1)	108,9499	0,1854	35,2433	110,1791	0,1833	35,2353	110,1026	0,1859	34,5834	0,0923	2019-12-10	23:45
After (2)	108,9493	0,1854	35,2426	110,1788	0,1833	35,2351	110,1024	0,1858	34,5826	0,0923	2019-12-16	15:00
After (3)	108,9493	0,1854	35,2426	110,1788	0,1833	35,2351	110,1024	0,1858	34,5826	0,0923	2019-12-17	08:00
After (4)												
After (5)												
After (6)	108,9493	0,1854	35,2426	110,1788	0,1833	35,2351	110,1024	0,1858	34,5826	0,0923	2019-12-17	08:00

Difference	0,0002	0,0022	0,0000	0,0000	0,0015	0,0000	0,0001	0,0035	0,0000	0,0000	0,0001	0,0001
Total (mg)		2,4			4			3,6				0,1
Total ajusté (mg)		2,30			3,90			3,50				

Project nu. PI 20214
 Date 10-12-2019
 Technicien M.M

Weight Remaining lbs	CO %	CO ₂ %	Flue Gas %	Room Temp °F	Tunnel Dry Bulb °F	Unit Top °F	Unit Back °F	Unit R.Side °F	Unit L.Side °F	Unit Bottom °F	Catalyst °F	Reading cuft/min	Inlet T °F	Outlet T °F	Temp °F	Reading cuft/min	Inlet T °F	Outlet T °F	Temp °F	Reading cuft/min	Inlet T °F	Outlet T °F	Temp °F
27.6	0.1	3.4	371.0	79.0	160.6	452.2	298.1	426.3	435.8	305.0	752.4	0.16	83.70	84.11	83.51	0.16	84.24	84.22	83.90	0.16	84.24	84.22	83.90
27.3	0.3	27.1	421.8	78.4	124.1	482.7	299.4	425.7	435.1	305.9	752.0	0.16	83.64	84.05	83.67	0.16	84.21	84.20	83.52	0.16	84.21	84.20	83.52
27.1	0.1	5.8	443.7	78.5	119.2	495.9	300.3	425.0	434.0	306.5	821.1	0.16	83.59	84.03	83.69	0.16	84.16	84.21	83.52	0.16	84.16	84.21	83.52
26.8	0.1	6.4	458.9	78.7	117.4	505.4	300.1	424.1	432.6	307.2	890.5	0.16	83.55	84.02	83.73	0.16	84.11	84.21	83.50	0.16	84.11	84.21	83.50
26.5	0.1	6.8	471.9	78.7	117.6	516.6	301.5	422.9	430.7	307.7	953.9	0.16	83.54	84.00	83.81	0.16	84.11	84.21	83.50	0.16	84.11	84.21	83.50
26.3	0.1	7.2	475.8	78.8	115.9	530.1	301.6	421.1	428.8	308.2	988.9	0.16	83.54	83.99	83.89	0.16	84.11	84.21	83.53	0.16	84.11	84.21	83.53
26.0	0.1	7.2	482.7	79.1	115.7	544.6	302.2	419.6	426.2	308.6	1022.1	0.16	83.56	83.98	83.98	0.16	84.11	84.21	83.58	0.16	84.11	84.21	83.58
25.8	0.1	7.3	490.5	79.0	116.0	557.8	303.6	417.3	423.3	309.0	1049.1	0.16	83.55	83.98	84.08	0.16	84.12	84.23	83.64	0.16	84.12	84.23	83.64
25.5	0.1	7.4	495.9	78.8	116.2	569.6	304.3	415.2	420.1	309.6	1051.1	0.16	83.56	83.99	84.17	0.16	84.12	84.25	83.71	0.16	84.12	84.25	83.71
25.4	0.1	7.5	500.8	78.9	116.4	582.4	304.0	413.2	417.0	309.6	1043.5	0.16	83.52	84.00	84.25	0.16	84.12	84.25	83.76	0.16	84.12	84.25	83.76
25.3	0.1	7.5	505.1	79.0	117.5	594.5	303.9	410.8	413.9	310.1	1051.2	0.16	83.53	84.00	84.37	0.16	84.12	84.25	83.84	0.16	84.12	84.25	83.84
25.0	0.1	7.6	510.1	78.9	117.3	605.5	303.9	408.5	410.4	310.0	1059.7	0.16	83.53	83.99	84.47	0.16	84.14	84.28	83.94	0.16	84.14	84.28	83.94
24.8	0.1	7.8	515.3	78.5	117.4	616.2	304.1	406.8	407.3	310.4	1068.2	0.16	83.53	83.99	84.60	0.16	84.13	84.30	84.05	0.16	84.13	84.30	84.05
24.6	0.1	8.0	508.0	79.0	115.6	627.5	304.2	404.6	404.2	310.7	1067.0	0.16	83.51	83.99	84.68	0.16	84.15	84.30	84.08	0.16	84.15	84.30	84.08
24.5	0.1	7.9	487.5	79.0	113.3	635.2	305.1	402.5	401.5	310.9	1066.8	0.16	83.56	84.00	84.77	0.16	84.15	84.30	84.16	0.16	84.15	84.30	84.16
24.6	0.1	7.2	487.5	79.0	111.9	636.1	304.0	400.3	398.7	311.4	1071.9	0.16	83.55	84.00	84.76	0.16	84.14	84.32	84.24	0.16	84.14	84.32	84.24
24.4	0.1	6.5	484.7	78.7	110.9	633.2	304.5	398.4	396.4	310.9	1086.6	0.16	83.58	84.04	84.86	0.16	84.15	84.35	84.37	0.16	84.15	84.35	84.37
24.2	0.1	6.1	483.8	78.9	111.6	629.3	303.5	396.1	393.9	311.2	1093.3	0.16	83.60	84.04	84.96	0.16	84.18	84.36	84.43	0.16	84.18	84.36	84.43
24.0	0.1	5.9	483.3	79.2	111.8	624.9	303.6	394.2	389.1	311.0	1097.1	0.16	83.61	84.02	85.15	0.16	84.17	84.37	84.51	0.16	84.17	84.37	84.51
23.9	0.1	5.7	483.2	79.1	111.7	620.8	302.9	392.6	389.1	310.8	1100.4	0.16	83.63	84.03	85.26	0.16	84.16	84.37	84.61	0.16	84.16	84.37	84.61
23.8	0.1	5.7	483.2	79.1	111.5	617.7	302.3	390.4	386.8	310.6	1101.9	0.16	83.61	84.01	85.32	0.16	84.15	84.37	84.67	0.16	84.15	84.37	84.67
23.6	0.1	5.7	483.0	79.0	111.2	615.1	302.1	388.5	384.4	310.4	1099.0	0.16	83.61	84.02	85.40	0.16	84.15	84.38	84.80	0.16	84.15	84.38	84.80
23.4	0.1	5.7	482.6	78.9	111.2	613.3	302.6	386.6	381.9	310.3	1093.5	0.16	83.58	84.02	85.47	0.16	84.14	84.38	84.86	0.16	84.14	84.38	84.86
23.2	0.1	5.8	482.0	79.0	111.0	611.9	302.5	384.6	379.8	310.5	1086.7	0.16	83.55	84.01	85.53	0.16	84.13	84.37	84.91	0.16	84.13	84.37	84.91
23.0	0.1	5.7	482.0	78.8	111.2	611.0	302.0	383.0	377.7	310.1	1080.4	0.16	83.55	84.01	85.59	0.16	84.10	84.38	84.91	0.16	84.10	84.38	84.91
22.9	0.1	5.9	481.7	79.0	110.5	610.7	300.4	380.9	375.2	309.9	1075.3	0.16	83.46	84.00	85.65	0.16	84.02	84.36	84.97	0.16	84.02	84.36	84.97
22.8	0.1	6.0	481.6	79.1	110.9	610.4	301.5	378.7	373.3	309.9	1070.3	0.16	83.46	84.00	85.70	0.16	84.02	84.36	85.01	0.16	84.02	84.36	85.01
22.7	0.1	6.0	480.9	79.2	110.6	609.9	300.1	376.8	371.8	309.6	1067.5	0.16	83.42	84.00	85.72	0.16	83.99	84.35	85.04	0.16	83.99	84.35	85.04
22.6	0.1	5.9	480.3	79.2	110.3	608.8	299.6	374.8	370.0	309.8	1065.5	0.16	83.43	83.99	85.78	0.16	83.98	84.35	85.08	0.16	83.98	84.35	85.08
22.5	0.1	5.9	480.3	79.3	111.4	607.9	299.0	373.2	368.3	309.3	1065.2	0.16	83.45	83.96	85.81	0.16	83.96	84.32	85.12	0.16	83.96	84.32	85.12
22.5	0.1	6.0	480.2	79.2	110.6	606.5	299.0	371.4	366.5	309.3	1065.6	0.16	83.47	83.97	85.85	0.16	83.96	84.32	85.12	0.16	83.96	84.32	85.12
22.4	0.1	5.9	480.2	78.9	110.5	605.2	298.3	369.5	364.6	308.7	1066.6	0.16	83.49	84.00	85.87	0.16	83.99	84.33	85.19	0.16	83.99	84.33	85.19
22.3	0.1	5.9	480.4	78.9	110.9	604.1	297.4	367.8	363.2	308.6	1069.2	0.16	83.49	83.99	85.92	0.16	83.99	84.33	85.21	0.16	83.99	84.33	85.21
22.1	0.1	5.9	480.3	79.0	110.4	602.8	297.4	366.0	361.9	308.5	1073.0	0.16	83.49	83.99	85.97	0.16	84.00	84.34	85.25	0.16	84.00	84.34	85.25
22.0	0.1	5.9	480.6	79.5	111.2	602.3	296.2	364.4	360.4	308.1	1073.1	0.16	83.50	84.01	86.01	0.16	84.03	84.36	85.30	0.16	84.03	84.36	85.30
21.9	0.1	5.9	480.4	79.0	110.8	601.2	296.5	363.2	358.9	308.0	1073.2	0.16	83.51	84.03	86.06	0.16	84.04	84.38	85.32	0.16	84.04	84.38	85.32
21.8	0.1	5.9	480.3	78.9	110.7	600.5	295.9	361.9	356.1	307.5	1073.6	0.16	83.49	84.01	86.07	0.16	84.01	84.37	85.33	0.16	84.01	84.37	85.33
21.8	0.1	5.9	480.3	79.1	110.9	599.8	294.8	360.1	356.1	307.5	1072.3	0.16	83.46	84.04	86.08	0.16	84.01	84.36	85.33	0.16	84.01	84.36	85.33
21.7	0.1	5.9	480.2	79.1	110.8	598.8	292.4	358.5	355.0	307.1	1072.7	0.16	83.47	84.04	86.11	0.16	84.02	84.39	85.37	0.16	84.02	84.39	85.37
21.6	0.1	5.9	479.3	79.1	110.2	596.9	280.8	356.9	354.0	307.3	1072.1	0.16	83.48	84.06	86.11	0.16	84.05	84.40	85.39	0.16	84.05	84.40	85.39
21.5	0.1	5.9	479.2	79.1	110.4	597.1	281.4	355.9	353.0	306.8	1071.9	0.16	83.50	84.06	86.16	0.16	84.06	84.40	85.40	0.16	84.06	84.40	85.40
21.4	0.1	6.0	478.7	79.1	110.9	597.4	281.6	354.6	351.8	306.3	1069.2	0.16	83.50	84.04	86.17	0.16	84.04	84.41	85.41	0.16	84.04	84.41	85.41
21.3	0.1	6.0	478.7	79.0	110.5	597.6	284.5	353.7	350.3	305.7	1065.3	0.16	83.52	84.06	86.19	0.16	84.06	84.42	85.46	0.16	84.06	84.42	85.46
21.2	0.1	6.0	478.3	79.3	111.2	598.5	285.3	352.2	349.6	305.8	1060.4	0.16	83.52	84.07	86.21	0.16	84.05	84.42	85.46	0.16	84.05	84.42	85.46
21.1	0.1	6.0	477.7	79.2	110.7	599.6	286.0	351.2	348.7	305.4	1053.4	0.16	83.54	84.09	86.26	0.16	84.09	84.44	85.47	0.16	84.09	84.44	85.47
21.0	0.1	6.0	476.8	79.6	111.3	601.2	286.7	350.3	347.9	305.1	1044.6	0.16	83.56	84.08	86.28	0.16	84.10	84.46	85.52	0.16	84.10	84.46	85.52
20.9	0.1	6.1	475.9	79.6	111.1	603.7	286.3	348.7	346.7	304.8	1035.7	0.16	83.58	84.09	86.29	0.16	84.10	84.46	85.54	0.16	84.10	84.46	85.54
20.9	0.1	6.1	475.0	79.8	110.5	606.0	286.9	347.7	346.0	304.5	1029.9	0.16	83.64	84.08	86.32	0.16	84.14	84.45	85.57	0.16	84.14	84.45	85.57
20.8	0.1	6.1	474.7	79.8	111.1	610.4	287.3	346.9	346.0	304.5	1023.7	0.16	83.64	84.12	86.35	0.16	84.16	84.47	85.59	0.16	84.16	84.47	85.59
20.7	0.1	6.7	473.3	79.5	110.8	618.6	286.8	346.2	345.2	303.9	1015.5	0.16	83.71	84.15	86.37	0.16	84.19	84.50	85.64	0.16	84.19	84.50	85.64
20.5	0.1	6.9	471.9	79.4	110.6	624.6																	

17.8	0.1	444.3	79.9	105.0	556.7	138.1	325.7	332.6	290.0	1099.0	0.16	83.78	84.30	86.20	0.16	84.32	84.58	85.55
17.7	0.1	446.1	79.6	105.2	551.6	137.9	326.0	332.3	289.5	1108.7	0.16	83.74	84.31	86.20	0.16	84.31	84.59	85.53
17.6	0.1	447.3	80.1	105.0	547.3	137.5	325.0	332.0	289.2	1112.2	0.16	83.73	84.31	86.18	0.16	84.31	84.60	85.49
17.5	0.1	448.4	79.7	105.2	544.6	137.2	324.4	331.9	289.0	1115.9	0.16	83.72	84.32	86.16	0.16	84.32	84.62	85.47
17.4	0.1	448.8	79.5	105.1	541.7	137.0	324.1	331.2	288.6	1115.1	0.16	83.71	84.31	86.12	0.16	84.31	84.60	85.47
17.3	0.1	449.4	79.5	105.1	539.6	136.5	323.5	330.8	288.1	1116.4	0.16	83.71	84.31	86.14	0.16	84.31	84.62	85.47
17.2	0.1	450.1	79.2	105.2	537.7	136.0	323.0	330.7	287.8	1117.1	0.16	83.73	84.33	86.13	0.16	84.34	84.65	85.45
17.1	0.1	450.9	79.1	105.4	535.8	135.5	322.6	330.2	287.5	1120.8	0.16	83.69	84.33	86.12	0.16	84.31	84.62	85.44
17.0	0.1	451.7	79.3	105.3	534.7	135.1	321.7	329.8	286.6	1131.8	0.16	83.71	84.33	86.12	0.16	84.32	84.64	85.43
16.9	0.1	453.2	79.3	105.2	534.1	134.8	321.0	329.8	286.6	1131.8	0.16	83.71	84.31	86.08	0.16	84.31	84.63	85.41
16.8	0.1	455.9	79.5	105.1	534.0	134.4	320.9	329.3	286.4	1174.8	0.16	83.73	84.32	86.09	0.16	84.32	84.64	85.39
16.7	0.1	458.1	79.1	105.5	535.5	134.4	320.4	328.9	286.0	1198.6	0.16	83.72	84.31	86.05	0.16	84.30	84.64	85.38
16.6	0.2	461.4	79.7	105.5	537.6	134.2	319.8	328.8	285.8	1221.5	0.16	83.70	84.32	86.06	0.16	84.31	84.63	85.37
16.5	0.2	465.3	79.5	105.5	541.3	134.1	319.0	328.9	285.4	1244.1	0.16	83.71	84.32	86.02	0.16	84.29	84.64	85.34
16.4	0.2	469.7	79.3	105.7	546.3	133.8	319.0	328.2	285.5	1264.0	0.16	83.72	84.30	85.99	0.16	84.29	84.63	85.32
16.3	0.2	473.2	79.2	106.0	552.4	133.8	318.3	328.0	285.2	1280.0	0.16	83.69	84.30	86.00	0.16	84.27	84.63	85.31
16.2	0.3	476.9	79.3	105.9	558.9	133.8	318.3	327.5	285.2	1293.7	0.16	83.70	84.30	85.99	0.16	84.27	84.63	85.32
16.1	0.4	481.0	79.1	105.9	566.2	133.6	317.5	327.4	284.8	1304.8	0.16	83.67	84.31	85.99	0.16	84.28	84.61	85.32
16.0	0.5	483.6	79.4	106.3	574.2	133.5	316.6	327.2	284.4	1313.8	0.16	83.65	84.30	85.96	0.16	84.27	84.61	85.31
15.9	0.6	487.4	79.3	106.4	582.1	133.6	316.6	327.3	284.3	1322.2	0.16	83.64	84.30	85.95	0.16	84.23	84.59	85.29
15.8	0.7	489.2	79.2	106.6	590.0	133.7	316.5	327.1	284.5	1332.7	0.16	83.61	84.27	85.92	0.16	84.21	84.55	85.27
15.7	0.9	491.7	79.1	106.7	597.8	133.5	316.3	326.8	284.2	1330.1	0.16	83.58	84.27	85.91	0.16	84.15	84.49	85.25
15.6	1.1	493.6	79.0	106.9	605.6	133.6	316.3	327.0	283.9	1330.9	0.16	83.58	84.26	85.90	0.16	84.13	84.48	85.22
15.5	0.3	494.4	79.0	107.1	613.3	133.8	316.1	326.9	283.6	1329.8	0.16	83.57	84.26	85.89	0.16	84.14	84.46	85.21
15.4	0.3	496.2	79.2	107.3	620.6	134.0	316.2	326.9	283.5	1326.7	0.16	83.52	84.25	85.89	0.16	84.13	84.45	85.21
15.3	0.3	497.3	79.0	107.4	627.1	134.2	315.9	327.3	283.1	1322.0	0.16	83.50	84.25	85.88	0.16	84.12	84.45	85.20
15.2	0.4	498.4	79.0	107.6	633.4	134.2	316.0	327.6	282.9	1317.1	0.16	83.48	84.18	85.88	0.16	84.10	84.47	85.19
15.1	0.4	498.7	79.0	107.7	639.0	134.2	316.2	327.8	282.8	1312.5	0.16	83.47	84.23	85.87	0.16	84.10	84.46	85.19
15.0	0.4	502.0	79.1	108.1	646.2	134.2	316.2	328.0	282.6	1308.6	0.16	83.44	84.23	85.87	0.16	84.07	84.47	85.21
14.9	0.3	503.0	79.1	108.1	650.0	134.2	317.1	328.5	282.3	1268.5	0.16	83.43	84.23	85.89	0.16	84.07	84.46	85.21
14.8	0.3	506.6	79.1	108.8	660.9	134.1	317.3	328.8	282.1	1194.2	0.16	83.42	84.22	85.90	0.16	84.06	84.46	85.20
14.7	0.3	509.5	79.2	108.8	671.1	134.2	318.1	329.0	281.8	1143.1	0.16	83.42	84.21	85.94	0.16	84.06	84.45	85.20
14.6	0.3	512.9	79.3	109.1	682.1	134.1	318.7	329.7	281.4	1111.9	0.16	83.41	84.19	85.94	0.16	84.05	84.46	85.19
14.5	0.4	517.1	79.3	109.1	692.2	134.1	319.7	330.1	281.1	1089.7	0.16	83.41	84.21	85.91	0.16	84.05	84.46	85.19
14.4	0.4	519.3	79.3	109.1	699.2	134.4	319.7	330.1	280.9	1073.6	0.16	83.37	84.18	85.96	0.16	84.02	84.45	85.21
14.3	0.5	521.6	79.2	109.2	707.2	134.3	320.0	330.0	280.7	1058.8	0.16	83.35	84.18	85.96	0.16	84.00	84.46	85.19
14.2	0.5	524.9	79.4	108.9	715.1	134.3	321.8	332.0	280.2	1044.0	0.16	83.32	84.18	85.96	0.16	83.98	84.46	85.19
14.1	0.4	529.9	79.4	108.6	724.4	134.4	323.2	333.1	280.2	1030.4	0.16	83.32	84.16	85.96	0.16	83.98	84.46	85.19
14.0	0.3	534.4	79.5	108.2	734.1	134.5	325.2	334.1	279.7	1016.8	0.16	83.29	84.16	85.94	0.16	83.96	84.44	85.25
13.9	0.3	539.1	79.8	107.8	744.6	134.6	326.3	335.6	279.7	1003.9	0.16	83.30	84.16	85.93	0.16	83.97	84.44	85.22
13.8	0.2	540.7	79.5	107.7	750.0	134.8	327.7	337.2	279.2	1047.2	0.16	83.33	84.16	85.92	0.16	83.96	84.43	85.23
13.7	0.2	542.8	79.4	107.5	756.9	135.0	329.6	338.2	279.5	1055.6	0.16	83.39	84.16	85.91	0.16	83.97	84.41	85.19
13.6	0.3	546.5	79.3	107.5	764.5	135.5	331.2	339.7	279.2	1060.4	0.16	83.39	84.16	85.86	0.16	83.96	84.40	85.20
13.5	0.3	550.9	79.3	107.3	771.5	135.7	332.4	341.2	279.2	1060.8	0.16	83.39	84.14	85.86	0.16	83.95	84.39	85.19
13.4	0.3	556.1	79.3	107.3	779.4	136.2	334.0	342.6	278.9	1061.1	0.16	83.40	84.14	85.86	0.16	83.97	84.38	85.18
13.3	0.4	562.9	79.3	107.0	788.1	136.5	335.9	343.9	278.9	1060.8	0.16	83.38	84.15	85.84	0.16	83.95	84.37	85.18
13.2	0.4	570.4	79.3	106.9	797.5	137.1	336.5	345.1	278.7	1062.2	0.16	83.36	84.15	85.84	0.16	83.96	84.36	85.16
13.1	0.4	578.9	79.3	106.7	807.4	137.5	337.6	346.5	278.7	1063.4	0.16	83.37	84.11	85.84	0.16	83.96	84.36	85.16
13.0	0.5	588.1	79.3	106.7	818.1	137.5	338.6	347.7	278.6	1063.4	0.16	83.37	84.12	85.85	0.16	83.95	84.37	85.19
12.9	0.5	598.4	79.4	106.7	829.6	137.9	339.6	349.1	278.5	1062.3	0.16	83.37	84.12	85.85	0.16	83.95	84.38	85.16
12.8	0.5	609.9	79.4	106.7	842.4	138.0	340.7	350.3	278.4	1058.5	0.16	83.36	84.11	85.78	0.16	83.97	84.38	85.15
12.7	0.1	623.1	79.1	106.4	856.8	138.2	341.7	351.3	277.7	1053.0	0.16	83.32	84.10	85.70	0.16	83.94	84.37	85.15
12.6	0.1	637.4	79.1	106.1	872.4	138.2	342.4	352.5	277.7	1055.8	0.16	83.20	84.06	81.66	0.16	83.91	84.34	85.12
12.5	0.1	652.9	79.1	106.1	889.4	138.9	343.7	353.8	277.7	1053.0	0.16	83.20	84.06	81.66	0.16	83.84	84.30	85.08
12.4	0.1	669.9	79.1	106.1	907.4	139.0	344.1	355.4	277.4	1046.8	0.16	83.20	84.05	86.91	0.16	83.80	84.29	85.01
12.3	0.0	688.4	79.6	105.8	927.1	139.9	344.9	356.9	277.3	1039.5	0.16	83.22	84.05	86.88	0.16	83.82	84.29	84.95
12.2	0.0	708.4	79.6	105.8	948.4	141.7	346.0	358.0	276.9	1033.1	0.16	83.24	84.05	86.77	0.16	83.80	84.29	84.94
12.1	0.0	730.4	79.4	105.4	972.5	141.6	346.0	358.0	276.9	1027.5	0.16	83.25	84.05	86.80	0.16	83.80	84.27	84.95
12.0	0.0	754.9	79.3	105.4	1000.4	141.6	346.0	358.0	276.9	1022.0	0.16	83.25	84.05	86.80	0.16	83.81	84.26	84.97
11.9	0.0	781.4	79.8	105.3	1031.4	141.7	346.9	359.1	276.8	1010.4	0.16	83.26	84.04	87.59	0.16	83.81	84.29	84.97
11.8	0.0	810.4	79.8	105.2	1065.4	141.7	347.5	360.4	276.5	1002.6	0.16	83.26	84.04	87.59	0.16	83.79	84.28	84.97
11.7	0.0	842.4	79.6	105.2	1103.4	140.1	348.5	361.3	276.4	1024.2	0.16	83.24	84.03	87.17	0.16	83.79	84.26	84.96
11.6	0.0	878.4	79.7	105.2	1154.4	140.5	349.0	362.9	276.3	1021.0	0.16	83.26	84.03	87.06	0.16	83.81	84.28	84.95
11.5	0.0	924.4	79.4	104.9	1219.4	140.8	349.8	364.2	276.2	1016.7	0.16	83.27	84.04	86.98	0.16	83.81	84.28	84.93
11.4	0.0	984.4	79.3	104.8	1300.4	141.2	350.4	365.0	276.0	1012.1	0.16</							

6,0	0,0	364,8	78,6	97,4	496,5	132,8	365,4	373,2	277,4	822,9	0,16	82,31	83,07	84,86	0,16	82,69	83,15	83,18
5,9	0,0	363,7	78,4	97,4	494,4	133,9	366,6	373,5	277,5	820,4	0,16	82,32	83,09	84,84	0,16	82,69	83,12	83,14
5,8	0,0	363,0	78,4	97,3	492,0	133,9	367,5	373,8	277,5	820,4	0,16	82,32	83,09	84,84	0,16	82,69	83,12	83,14
5,7	0,0	361,8	78,4	97,2	490,4	133,7	368,2	374,0	277,7	815,7	0,16	82,14	83,01	84,80	0,16	82,58	83,04	83,06
5,7	0,0	360,8	78,6	97,1	488,7	133,5	368,8	374,6	278,1	813,5	0,16	82,14	83,01	84,76	0,16	82,55	83,04	83,07
5,7	0,0	359,8	78,2	97,0	486,5	134,2	370,6	374,4	278,2	812,0	0,16	82,09	82,98	84,70	0,16	82,49	82,99	83,02
5,6	0,0	359,5	78,6	96,9	484,6	134,3	370,6	375,8	278,1	810,7	0,16	82,03	82,94	84,68	0,16	82,48	82,99	83,01
5,5	0,0	358,5	78,4	96,7	483,2	134,8	372,4	376,5	278,5	808,8	0,16	81,98	82,91	84,60	0,16	82,42	82,98	82,95
5,4	0,0	357,5	78,1	96,6	482,2	135,4	372,4	376,5	279,0	806,7	0,16	81,98	82,90	84,56	0,16	82,43	82,98	82,93
5,4	0,0	356,5	78,5	96,6	481,3	136,2	372,9	377,2	279,2	804,5	0,16	81,98	82,90	84,52	0,16	82,40	82,96	82,89
5,3	0,0	355,8	78,5	96,4	480,2	136,6	373,8	377,8	279,6	802,7	0,16	81,97	82,88	84,47	0,16	82,38	82,92	82,86
5,3	0,0	354,6	78,2	96,4	479,3	137,1	374,6	378,3	279,8	799,8	0,16	81,96	82,86	84,46	0,16	82,37	82,89	82,83
5,2	0,0	353,0	78,5	96,3	478,6	137,4	375,3	378,6	280,0	797,7	0,16	81,93	82,83	84,42	0,16	82,33	82,89	82,80
5,2	0,0	352,5	78,7	96,1	476,6	137,9	376,1	379,4	280,5	798,8	0,16	81,94	82,83	84,37	0,16	82,33	82,87	82,76
5,2	0,0	351,8	78,5	96,0	467,9	138,3	376,6	379,8	280,8	797,9	0,16	81,94	82,83	84,34	0,16	82,34	82,87	82,73
5,1	0,0	350,8	78,5	96,0	463,8	138,5	377,7	380,1	281,2	793,6	0,16	81,96	82,83	84,34	0,16	82,34	82,87	82,73
5,1	0,0	349,8	78,1	95,9	459,9	138,4	378,6	380,4	281,4	787,9	0,16	81,97	82,79	84,26	0,16	82,34	82,85	82,68
5,0	0,0	347,9	78,6	95,8	456,4	138,3	379,0	381,0	282,0	781,4	0,16	81,93	82,79	84,24	0,16	82,27	82,81	82,63
5,0	0,0	346,1	78,4	95,6	452,8	138,3	379,6	381,3	282,0	774,0	0,16	81,86	82,74	84,18	0,16	82,23	82,79	82,60
4,9	0,0	344,4	78,4	95,5	449,8	138,2	379,8	381,6	282,1	768,7	0,16	81,80	82,72	84,12	0,16	82,21	82,80	82,57
4,9	0,0	342,5	78,0	95,4	446,4	138,3	380,6	382,2	282,2	765,7	0,16	81,76	82,71	84,15	0,16	82,20	82,76	82,54
4,8	0,0	340,4	78,1	95,3	443,2	138,3	381,6	383,0	282,8	751,0	0,16	81,76	82,70	84,09	0,16	82,18	82,75	82,52
4,8	0,0	338,9	78,1	95,1	440,1	138,3	382,4	383,1	283,0	743,9	0,16	81,72	82,68	84,03	0,16	82,14	82,73	82,47
4,7	0,0	337,0	78,2	94,9	438,9	138,2	382,7	383,9	283,3	736,3	0,16	81,69	82,66	84,01	0,16	82,13	82,73	82,44
4,7	0,0	334,9	78,2	94,8	433,9	138,0	382,7	384,7	283,5	731,3	0,16	81,70	82,65	83,94	0,16	82,10	82,68	82,40
4,7	0,0	333,9	77,9	94,6	430,7	137,8	383,6	385,0	283,8	726,3	0,16	81,67	82,63	83,93	0,16	82,11	82,69	82,38
4,6	0,0	331,2	77,7	94,6	427,2	137,5	382,7	385,9	284,0	722,3	0,16	81,64	82,59	83,85	0,16	82,04	82,65	82,33
4,6	0,0	329,8	77,9	94,5	423,8	137,3	383,3	386,2	284,3	719,0	0,16	81,63	82,56	83,83	0,16	82,00	82,61	82,29
4,5	0,0	328,3	78,0	94,3	420,7	137,3	383,9	386,6	284,3	715,2	0,16	81,60	82,55	83,78	0,16	81,98	82,59	82,24
4,5	0,0	326,6	78,0	94,2	417,8	137,3	384,0	387,2	284,4	711,5	0,16	81,56	82,52	83,75	0,16	81,94	82,55	82,22
4,4	0,0	325,2	77,9	94,1	414,8	137,3	383,7	387,5	284,6	706,4	0,16	81,56	82,51	83,74	0,16	81,92	82,54	82,21
4,4	0,0	324,0	78,0	94,0	412,0	137,1	383,4	388,2	284,9	701,8	0,16	81,55	82,48	83,68	0,16	81,90	82,53	82,18
4,4	0,0	322,3	77,6	93,9	409,2	136,9	383,5	388,7	285,2	697,2	0,16	81,53	82,46	83,62	0,16	81,89	82,47	82,13
4,4	0,0	320,9	77,8	93,8	406,8	137,0	383,3	389,2	285,4	693,1	0,16	81,53	82,44	83,58	0,16	81,82	82,43	82,09
4,5	0,0	319,2	77,8	93,7	404,6	136,9	383,5	389,4	285,7	689,6	0,16	81,51	82,44	83,51	0,16	81,80	82,41	82,04
4,5	0,0	317,9	77,7	93,6	402,3	136,7	383,1	389,8	286,0	686,3	0,16	81,49	82,40	83,49	0,16	81,81	82,40	82,00
4,5	0,0	316,2	77,8	93,4	400,0	136,4	383,0	390,1	286,1	682,6	0,16	81,46	82,36	83,43	0,16	81,76	82,34	81,94
4,5	0,0	314,9	77,8	93,4	397,8	136,2	383,2	390,1	286,3	680,0	0,16	81,44	82,31	83,37	0,16	81,74	82,33	81,88
4,2	0,0	313,8	77,7	93,2	395,8	136,0	382,6	390,6	286,6	677,4	0,16	81,35	82,27	83,33	0,16	81,65	82,26	81,86
4,2	0,0	312,7	77,7	93,2	393,8	135,7	382,4	391,2	286,7	674,9	0,16	81,34	82,25	83,29	0,16	81,62	82,22	81,82
4,1	0,0	311,4	77,8	93,1	391,8	135,4	382,1	391,2	286,9	673,1	0,16	81,31	82,23	83,24	0,16	81,60	82,20	81,81
4,1	0,0	310,8	77,7	92,9	390,0	135,5	381,8	391,3	287,1	670,7	0,16	81,30	82,21	83,22	0,16	81,57	82,17	81,76
4,1	0,0	309,7	77,6	92,9	388,1	135,4	381,4	388,1	287,4	669,1	0,16	81,30	82,19	83,14	0,16	81,58	82,16	81,71
4,1	0,0	308,6	77,5	92,7	386,4	135,2	381,2	387,5	287,5	666,9	0,16	81,32	82,19	83,12	0,16	81,58	82,16	81,71
4,5	0,0	307,3	77,5	92,6	384,9	135,2	381,2	387,9	287,9	665,4	0,16	81,30	82,17	83,06	0,16	81,57	82,13	81,69
4,0	0,0	306,7	77,5	92,6	383,6	135,3	380,8	391,2	288,1	663,9	0,16	81,30	82,17	83,06	0,16	81,57	82,13	81,69
4,0	0,0	305,7	77,5	92,5	382,5	135,2	380,5	391,2	288,3	662,6	0,16	81,32	82,16	83,04	0,16	81,40	81,92	81,33
4,5	0,0	305,2	77,5	92,4	380,5	134,9	380,1	391,1	288,5	660,8	0,16	81,30	82,12	83,01	0,16	81,56	82,10	81,62
4,5	0,0	304,6	77,4	92,4	379,4	134,9	379,5	390,9	288,8	659,4	0,16	81,29	82,13	82,98	0,16	81,59	82,11	81,62
3,9	0,0	303,6	77,4	92,2	378,3	134,9	379,5	390,9	288,8	659,4	0,16	81,28	82,11	82,94	0,16	81,56	82,07	81,58
4,5	0,0	303,2	77,6	92,2	377,0	134,9	378,9	390,6	289,1	658,4	0,16	81,25	82,09	82,88	0,16	81,55	82,06	81,52
3,8	0,0	302,5	77,5	92,1	376,1	134,9	378,5	390,4	289,4	657,2	0,16	81,24	82,08	82,84	0,16	81,51	82,02	81,48
3,8	0,0	302,2	77,4	92,0	375,1	134,9	377,9	390,2	289,5	656,2	0,16	81,24	82,06	82,81	0,16	81,50	82,02	81,49
3,8	0,0	301,2	77,4	91,9	374,0	135,0	377,5	390,1	289,7	655,2	0,16	81,21	82,03	82,75	0,16	81,45	81,99	81,42
3,8	0,0	300,9	77,3	91,9	372,6	134,7	376,6	390,0	290,0	653,7	0,16	81,20	82,01	82,68	0,16	81,44	81,96	81,38
3,7	0,0	300,2	77,3	91,7	371,2	134,5	376,4	389,6	290,2	652,2	0,16	81,15	81,97	82,63	0,16	81,40	81,92	81,33
4,5	0,0	299,8	77,2	91,5	370,1	134,2	375,2	389,3	290,5	650,7	0,16	81,10	81,96	82,59	0,16	81,35	81,90	81,30
3,7	0,0	299,3	77,3	91,6	368,9	133,9	374,8	389,0	290,5	648,9	0,16	81,06	81,92	82,54	0,16	81,29	81,87	81,26
3,7	0,0	298,9	77,3	91,6	368,1	134,0	374,0	388,8	290,7	647,2	0,16	81,04	81,91	82,49	0,16	81,26	81,85	81,20
3,6	0,0	298,5	77,1	91,4	367,1	133,6	373,5	388,3	291,0	646,5	0,16	80,96	81,86	84,44	0,16	81,24	81,84	84,13
4,5	0,0	297,9	77,2	91,4	366,2	133,5	373,1	388,0	291,1	645,2	0,16	80,91	81,84	84,41	0,16	81,19	81,80	84,15
3,6	0,0	297,7	77,2	91,3	365,2	133,4	372,2	387,6	291,2	644,7	0,16	80,88	81,80	84,35	0,16	81,14	81,76	84,09
3,6	0,0	297,4	77,3	91,2	364,5	133,3	371,6	387,4	291,5	643,9	0,16	80,86	81,78	84,32	0,16	81,11	81,74	84,07
3,5	0,0	297,0	77,1	91,1	364,1	133,2	371,5	387,0	291,5	643,8	0,16	80,83	81,74	84,25	0,16	81,05	81,70	84,00
3,5	0,0	296,9	77,2	91,2	363,5	133,2	370,6	386,8	291,5	644,8	0,16	80,77	81,72	84,22	0,16	81,02	81,67	83,96
3,5	0,0	296,3	77,2	91,0	362,9	133,5	370,4	386,2	291,8	644,6	0,16	80,71						

3.2	0.0	4.6	292.8	76.9	90.4	356.9	132.1	365.3	382.4	292.7	639.8	0.16	80.58	81.46	83.78	0.16	80.79	81.42	83.57
3.2	0.0	4.6	292.5	76.9	90.3	356.4	131.9	364.6	382.1	292.8	639.6	0.16	80.56	81.46	83.76	0.16	80.78	81.38	83.55
3.2	0.0	4.6	292.3	76.9	90.4	355.9	131.9	364.3	381.7	292.9	639.1	0.16	80.56	81.42	83.71	0.16	80.78	81.35	83.53
3.1	0.0	4.6	292.4	76.9	90.3	355.4	132.0	363.8	381.3	292.9	638.7	0.16	80.54	81.40	83.72	0.16	80.75	81.33	83.49
3.1	0.0	4.6	291.8	76.8	90.3	355.0	132.0	363.2	381.0	293.0	639.1	0.16	80.52	81.39	83.67	0.16	80.72	81.32	83.49
3.1	0.0	4.6	291.9	76.8	90.3	354.7	132.0	362.3	380.6	293.2	638.9	0.16	80.49	81.38	83.63	0.16	80.71	81.30	83.46
3.1	0.0	4.6	291.6	76.7	90.1	354.2	132.3	362.2	380.2	293.0	639.5	0.16	80.48	81.35	83.62	0.16	80.68	81.26	83.43
3.1	0.0	4.6	291.0	76.7	90.1	354.4	132.3	361.9	379.9	293.1	639.0	0.16	80.46	81.33	83.58	0.16	80.68	81.24	83.39
3.0	0.0	4.6	291.1	76.8	90.1	353.8	132.1	361.3	379.5	293.2	638.1	0.16	80.48	81.28	83.54	0.16	80.63	81.22	83.38
3.0	0.0	4.6	290.8	76.7	90.1	353.5	132.2	361.1	379.2	293.0	637.7	0.16	80.45	81.26	83.54	0.16	80.64	81.19	83.36
3.0	0.0	4.6	291.0	76.9	89.9	352.9	132.1	360.6	378.9	293.4	638.9	0.16	80.45	81.24	83.49	0.16	80.62	81.20	83.32
3.0	0.0	4.6	291.3	76.8	90.0	352.5	131.7	360.3	378.4	293.4	638.2	0.16	80.40	81.22	83.50	0.16	80.61	81.17	84.32
2.9	0.0	4.5	291.1	76.8	90.1	352.5	131.6	360.0	378.0	293.6	638.3	0.16	80.40	81.20	83.50	0.16	80.58	81.14	84.26
2.9	0.0	4.3	290.7	76.7	90.0	352.4	131.7	359.4	377.4	293.6	638.5	0.16	80.40	81.19	83.43	0.16	80.58	81.14	84.23
2.9	0.0	4.3	290.6	76.7	90.0	352.2	131.8	359.2	377.2	293.7	639.6	0.16	80.36	81.18	83.40	0.16	80.55	81.11	84.23
2.9	0.0	4.3	290.5	76.7	89.9	352.3	131.7	358.5	376.6	293.6	639.2	0.16	80.35	81.16	83.35	0.16	80.52	81.09	84.17
2.8	0.0	4.3	290.5	76.7	89.9	351.8	131.7	358.4	376.3	293.7	639.3	0.16	80.31	81.14	83.33	0.16	80.54	81.07	84.13
2.8	0.0	4.3	290.1	76.7	89.9	351.5	131.6	357.7	376.1	293.8	638.6	0.16	80.31	81.14	83.33	0.16	80.54	81.07	84.13
2.8	0.0	4.2	289.8	76.7	89.7	350.9	131.5	357.1	375.8	293.8	638.1	0.16	80.29	81.12	83.31	0.16	80.49	81.06	84.09
2.8	0.0	4.2	289.5	76.7	89.8	350.9	131.6	356.7	375.8	293.6	637.5	0.16	80.26	81.10	83.26	0.16	80.46	81.05	84.06
2.7	0.0	4.2	289.4	76.7	89.6	350.4	131.6	356.9	375.6	293.6	637.5	0.16	80.24	81.09	83.25	0.16	80.46	81.03	84.06
2.7	0.0	4.2	289.1	76.7	89.6	350.3	132.1	356.3	375.3	293.9	636.4	0.16	80.21	81.06	83.19	0.16	80.44	81.00	84.01
2.7	0.0	4.2	289.0	76.7	89.6	350.3	132.1	356.3	375.3	293.9	636.4	0.16	80.16	81.04	83.16	0.16	80.43	80.98	83.96
2.7	0.0	4.2	289.0	76.7	89.6	350.3	132.6	356.0	375.1	293.9	634.7	0.16	80.15	81.03	83.13	0.16	80.40	80.97	83.93
2.7	0.0	4.2	288.5	76.6	89.4	350.0	132.7	355.0	374.8	294.1	634.2	0.16	80.10	81.01	83.08	0.16	80.37	80.94	83.87
2.6	0.0	4.2	288.5	76.6	89.4	349.6	132.8	355.0	374.8	294.1	634.3	0.16	80.06	80.99	83.03	0.16	80.30	80.83	83.85
2.6	0.0	4.2	288.5	76.6	89.5	349.4	132.7	354.2	374.4	294.2	632.3	0.16	80.03	80.95	83.04	0.16	80.27	80.80	83.82
2.6	0.0	4.2	288.5	76.6	89.2	348.8	132.7	354.0	374.5	294.2	632.1	0.16	80.03	80.93	83.00	0.16	80.28	80.88	83.77
2.6	0.0	4.2	288.2	76.6	89.2	348.8	132.3	353.5	374.2	294.1	631.0	0.16	80.03	80.91	82.95	0.16	80.26	80.86	83.78
2.6	0.0	4.2	287.9	76.7	89.3	348.0	132.3	353.1	374.1	294.1	630.8	0.16	79.99	80.88	82.92	0.16	80.25	80.85	83.73
2.6	0.0	4.2	287.8	76.7	89.2	347.6	132.2	353.1	373.8	294.3	628.5	0.16	79.97	80.87	82.89	0.16	80.23	80.84	83.70
2.5	0.0	4.2	287.1	76.6	89.2	347.3	132.1	352.6	373.5	294.3	627.2	0.16	79.93	80.85	82.88	0.16	80.19	80.82	83.66
2.5	0.0	4.2	286.6	76.6	89.1	346.9	132.0	352.0	373.1	294.2	626.1	0.16	79.92	80.81	82.83	0.16	80.14	80.79	83.65
2.5	0.0	4.2	286.7	76.6	89.2	346.2	131.7	351.5	372.9	294.1	624.5	0.16	79.89	80.78	82.79	0.16	80.13	80.76	83.61
2.4	0.0	4.2	286.7	76.6	89.1	345.6	131.7	350.8	372.4	294.2	624.5	0.16	79.89	80.77	82.77	0.16	80.10	80.73	83.58
2.4	0.0	4.2	286.1	76.5	89.0	345.5	131.8	350.3	372.0	294.3	623.1	0.16	79.88	80.75	82.75	0.16	80.08	80.69	83.58
2.4	0.0	4.2	285.9	76.5	89.0	345.3	131.8	349.9	371.7	294.2	622.1	0.16	79.85	80.73	82.71	0.16	80.08	80.71	83.55
2.4	0.0	4.2	285.4	76.6	89.0	345.0	131.8	349.7	371.6	294.2	621.0	0.16	79.84	80.71	82.70	0.16	80.08	80.69	83.55
2.4	0.0	4.2	285.0	76.6	88.9	344.7	131.7	349.6	371.2	294.2	620.9	0.16	79.80	80.68	82.65	0.16	80.01	80.64	83.51
2.4	0.0	4.2	284.8	76.4	88.9	344.7	131.5	349.0	370.7	294.1	619.8	0.16	79.78	80.66	82.61	0.16	80.01	80.64	83.46
2.3	0.0	4.2	284.7	76.5	88.9	344.3	131.1	348.7	370.3	294.1	618.6	0.16	79.79	80.64	82.58	0.16	79.98	80.63	83.46
2.3	0.0	4.1	284.2	76.5	88.9	343.7	130.9	348.0	369.6	294.2	617.4	0.16	79.77	80.63	82.58	0.16	79.99	80.62	83.43
2.3	0.0	4.1	284.1	76.4	88.7	342.5	130.5	347.9	369.1	294.3	616.9	0.16	79.74	80.58	82.55	0.16	79.97	80.58	83.37
2.3	0.0	4.1	283.8	76.4	88.7	342.1	130.4	347.3	368.5	294.0	616.8	0.16	79.72	80.57	82.51	0.16	79.94	80.56	83.37
2.2	0.0	4.1	283.3	76.4	88.7	341.7	130.2	347.0	368.0	293.8	615.2	0.16	79.68	80.54	82.49	0.16	79.91	80.55	83.34
2.2	0.0	4.1	283.1	76.4	88.7	341.3	130.1	346.1	367.6	293.9	613.9	0.16	79.67	80.53	82.46	0.16	79.90	80.54	83.31
2.2	0.0	4.1	282.4	76.4	88.6	340.8	129.9	345.7	367.5	293.7	612.4	0.16	79.66	80.50	82.43	0.16	79.90	80.52	83.28
2.2	0.0	4.1	282.1	76.3	88.6	340.2	129.8	345.4	366.9	293.6	611.7	0.16	79.64	80.49	82.41	0.16	79.88	80.50	83.28
2.2	0.0	4.1	281.8	76.4	88.6	339.8	129.7	345.1	366.4	293.5	610.5	0.16	79.64	80.47	82.38	0.16	79.84	80.47	83.22
2.1	0.0	4.1	281.6	76.3	88.6	339.4	129.7	344.5	366.0	293.5	609.8	0.16	79.61	80.44	82.36	0.16	79.82	80.43	83.22
2.1	0.0	4.1	281.0	76.3	88.5	338.7	129.5	343.8	365.3	293.4	609.1	0.16	79.63	80.42	82.35	0.16	79.82	80.42	83.18
2.1	0.0	4.1	281.2	76.3	88.5	338.5	129.4	343.4	365.0	293.3	608.1	0.16	79.62	80.40	82.31	0.16	79.80	80.41	83.18
2.1	0.0	4.2	280.6	76.3	88.4	337.8	129.5	343.3	364.6	293.2	607.4	0.16	79.58	80.39	82.29	0.16	79.78	80.39	83.13
2.0	0.0	4.1	280.6	76.3	88.4	337.8	129.5	343.0	364.4	293.2	606.7	0.16	79.54	80.35	82.25	0.16	79.75	80.35	83.11
2.0	0.0	4.1	280.4	76.2	88.4	337.1	129.2	342.7	363.9	293.1	606.5	0.16	79.53	80.33	82.25	0.16	79.75	80.35	83.10
2.0	0.0	4.2	280.0	76.3	88.3	336.5	128.8	341.7	363.4	293.0	606.2	0.16	79.54	80.32	82.27	0.16	79.74	80.31	83.10
2.0	0.0	4.2	280.2	76.2	88.3	336.0	128.5	341.5	362.9	292.9	605.2	0.16	79.52	80.30	82.21	0.16	79.72	80.29	83.07
2.0	0.0	4.2	280.1	76.3	88.3	335.5	128.3	341.0	362.4	292.9	605.2	0.16	79.50	80.27	82.19	0.16	79.71	80.25	83.07
1.9	0.0	4.2	279.5	76.2	88.3	335.2	128.1	340.9	362.2	292.9	605.0	0.16	79.48	80.25	82.16	0.16	79.70	80.26	83.03
1.9	0.0	4.2	279.4	76.2	88.2	334.8	127.8	340.6	361.4	292.6	604.3	0.16	79.47	80.24	82.14	0.16	79.69	80.25	83.02
1.9	0.0	4.1	279.0	76.2	88.2	334.1	127.6	340.0	361.1	292.5	604.0	0.16	79.45	80.22	82.13	0.16	79.66	80.24	82.98
1.9	0.0	4.0	278.6	76.2	88.1	333.5	127.4	339.5	360.8	292.2	603.3	0.16	79.47	80.21	82.10	0.16	79.65	80.23	82.96
1.9	0.0	4.0	278.5	76.1	88.2	333.2	127.4	339.1	360.4	292.3	603.6	0.16	79.48	80.20	82.09	0.16	79.65	80.23	82.96</

1.6	0.0	3.8	273.8	75.9	87.4	325.1	126.0	329.7	352.9	290.3	594.4	0.16	79.11	79.89	81.73	0.16	79.34	79.95	82.66
1.6	0.0	3.8	273.7	75.9	87.4	324.5	125.9	328.4	352.2	290.1	593.4	0.16	79.10	79.88	81.72	0.16	79.33	79.93	82.65
1.5	0.0	3.8	273.1	76.0	87.4	324.1	126.1	327.6	351.7	290.2	592.3	0.16	79.06	79.84	81.70	0.16	79.29	79.89	82.62
1.5	0.0	3.8	272.9	75.9	87.4	323.8	126.4	327.0	351.3	290.0	592.7	0.16	79.05	79.82	81.69	0.16	79.27	79.88	82.59
1.5	0.0	3.8	272.3	75.8	87.3	323.3	126.4	326.7	350.7	290.1	592.1	0.16	79.04	79.78	81.66	0.16	79.27	79.87	82.55
1.5	0.0	3.8	271.8	75.8	87.3	322.6	126.4	325.8	349.6	290.0	590.8	0.16	79.01	79.77	81.62	0.16	79.23	79.83	82.56
1.5	0.0	3.8	271.2	75.8	87.2	322.3	126.3	325.1	348.6	289.6	589.0	0.16	78.96	79.75	81.59	0.16	79.20	79.79	82.53
1.5	0.0	3.9	271.2	75.8	87.2	321.9	126.3	324.6	348.0	289.5	589.0	0.16	78.93	79.71	81.56	0.16	79.16	79.78	82.49
1.4	0.0	3.9	271.2	75.8	87.2	321.4	126.2	324.2	347.3	289.4	589.3	0.16	78.90	79.71	81.53	0.16	79.13	79.74	82.46
1.4	0.0	3.9	270.6	75.8	87.1	321.0	126.1	323.0	346.3	289.2	588.5	0.16	78.87	79.71	81.53	0.16	79.10	79.74	82.45
1.4	0.0	3.9	270.5	75.7	87.1	320.4	126.0	322.7	345.5	289.3	587.8	0.16	78.86	79.67	81.47	0.16	79.10	79.70	82.42
1.4	0.0	3.9	270.3	75.7	87.1	320.0	125.9	322.6	344.7	289.1	587.0	0.16	78.86	79.66	81.45	0.16	79.09	79.70	82.39
1.3	0.0	3.9	269.6	75.6	87.0	319.6	125.9	322.0	344.3	288.8	586.2	0.16	78.83	79.63	81.41	0.16	79.03	79.67	82.34
1.3	0.0	3.9	269.5	75.6	87.0	319.3	126.0	321.2	343.2	288.5	586.0	0.16	78.80	79.60	81.39	0.16	79.02	79.65	82.34
1.3	0.0	3.9	268.9	75.6	86.8	318.8	126.2	320.9	342.5	288.3	585.5	0.16	78.76	79.58	81.34	0.16	78.99	79.61	82.32
1.3	0.0	3.9	269.0	75.6	86.8	318.4	126.2	320.7	341.9	288.2	584.9	0.16	78.72	79.55	81.33	0.16	78.99	79.59	82.28
1.3	0.0	4.0	268.6	75.6	86.8	318.1	126.3	320.7	341.1	288.0	584.4	0.16	78.69	79.54	81.32	0.16	78.99	79.58	82.25
1.3	0.0	4.0	268.5	75.6	86.8	317.9	126.4	320.1	340.3	287.8	584.9	0.16	78.67	79.51	81.32	0.16	78.91	79.53	82.23
1.2	0.0	4.0	268.3	75.5	86.7	317.9	126.6	320.0	339.7	287.8	584.9	0.16	78.66	79.49	81.32	0.16	78.92	79.51	82.22
1.2	0.0	4.0	268.7	75.6	86.7	317.5	126.8	319.4	339.3	287.8	585.2	0.16	78.66	79.49	81.32	0.16	78.90	79.48	82.21
1.2	0.0	4.0	268.3	75.6	86.7	317.2	126.7	318.9	338.9	287.5	585.2	0.16	78.65	79.44	81.32	0.16	78.88	79.46	82.15
1.2	0.0	4.1	267.9	75.6	86.6	317.0	126.7	318.2	337.7	287.2	585.2	0.16	78.65	79.42	81.31	0.16	78.87	79.46	82.15
1.2	0.0	4.1	268.0	75.6	86.6	316.8	126.7	316.9	336.9	287.3	586.2	0.16	78.65	79.41	81.31	0.16	78.85	79.46	82.13
1.1	0.0	4.1	268.3	75.6	86.6	316.3	126.6	316.9	336.2	287.0	587.7	0.16	78.63	79.37	81.30	0.16	78.84	79.40	82.13
1.1	0.0	4.1	268.4	75.6	86.6	316.3	126.6	316.4	335.7	287.2	587.2	0.16	78.61	79.35	81.30	0.16	78.84	79.36	82.09
1.1	0.0	4.1	268.2	75.5	86.5	316.2	126.6	316.8	335.2	287.1	588.0	0.16	78.65	79.35	81.30	0.16	78.83	79.37	82.07
1.1	0.0	4.1	268.2	75.5	86.5	316.2	126.6	316.6	335.2	287.1	588.0	0.16	78.65	79.35	81.30	0.16	78.83	79.37	82.07
1.1	0.0	4.1	268.6	75.5	86.5	316.0	126.5	316.9	334.4	286.7	588.5	0.16	78.64	79.33	81.30	0.16	78.83	79.36	82.07
1.1	0.0	4.1	268.0	75.4	86.5	317.3	126.5	316.9	334.0	286.6	588.5	0.16	78.64	79.32	81.30	0.16	78.83	79.34	82.03
1.1	0.0	4.1	268.4	75.4	86.5	315.9	126.6	316.9	333.2	286.4	589.3	0.16	78.61	79.32	81.30	0.16	78.78	79.34	82.00
1.1	0.0	4.1	268.1	75.4	86.5	315.9	126.8	316.9	332.8	286.4	589.3	0.16	78.54	79.28	81.30	0.16	78.74	79.30	81.98
1.0	0.0	4.1	268.3	75.4	86.4	315.8	126.9	317.0	332.8	286.4	589.3	0.16	78.54	79.28	81.30	0.16	78.74	79.28	81.98
1.0	0.0	4.1	268.5	75.4	86.4	315.7	126.9	317.0	332.7	286.3	590.5	0.16	78.47	79.24	81.29	0.16	78.68	79.25	81.96
1.0	0.0	4.1	268.3	75.4	86.4	315.7	126.9	316.9	332.7	286.3	590.5	0.16	78.46	79.22	81.29	0.16	78.67	79.24	81.94
1.0	0.0	4.1	268.7	75.4	86.4	315.8	127.0	316.1	330.8	286.1	592.5	0.16	78.45	79.21	81.29	0.16	78.65	79.22	81.93
1.0	0.0	4.1	268.9	75.4	86.4	315.7	127.1	315.9	330.1	286.0	592.5	0.16	78.44	79.21	81.29	0.16	78.64	79.20	81.91
1.0	0.0	4.1	268.9	75.4	86.4	315.7	127.1	315.9	330.1	286.0	592.5	0.16	78.44	79.21	81.29	0.16	78.64	79.20	81.91
0.9	0.0	4.1	268.5	75.3	86.3	315.3	126.6	315.8	329.5	285.9	592.7	0.16	78.39	79.19	81.28	0.16	78.62	79.19	81.88
0.9	0.0	4.1	268.7	75.3	86.3	315.3	126.6	315.9	328.8	285.9	592.7	0.16	78.35	79.15	81.28	0.16	78.60	79.17	81.83
0.9	0.0	4.1	268.6	75.1	86.2	315.3	126.6	315.5	328.6	285.8	592.6	0.16	78.35	79.15	81.28	0.16	78.60	79.17	81.83
0.9	0.0	4.1	268.6	75.1	86.2	315.3	126.6	315.5	328.6	285.8	592.6	0.16	78.35	79.15	81.28	0.16	78.60	79.17	81.83
0.9	0.0	4.1	268.4	75.1	86.2	315.4	126.5	315.8	328.2	285.5	592.4	0.16	78.30	79.13	81.27	0.16	78.55	79.13	81.81
0.9	0.0	4.1	268.4	75.1	86.2	315.4	126.5	315.8	328.2	285.5	592.4	0.16	78.30	79.13	81.27	0.16	78.55	79.13	81.81
0.9	0.0	4.1	268.7	75.2	86.2	315.2	126.3	317.0	327.7	285.2	592.4	0.16	78.18	79.10	81.26	0.16	78.47	79.10	81.74
0.8	0.0	4.1	268.4	75.2	86.2	315.2	126.3	316.2	327.1	285.3	593.6	0.16	78.13	79.08	81.26	0.16	78.43	79.07	81.72
0.8	0.0	4.1	268.5	75.2	86.2	315.2	126.3	316.2	327.1	285.3	593.6	0.16	78.13	79.08	81.26	0.16	78.43	79.07	81.72
0.8	0.0	4.1	268.4	75.2	86.1	315.2	126.3	316.5	325.9	284.8	593.6	0.16	78.07	79.07	81.26	0.16	78.40	79.05	81.70
0.8	0.0	4.1	268.4	75.2	86.1	315.2	126.3	316.5	325.9	284.8	593.6	0.16	78.07	79.07	81.26	0.16	78.40	79.05	81.70
0.8	0.0	4.1	268.3	75.2	86.2	315.3	126.6	316.3	325.0	284.7	593.5	0.16	78.05	79.03	81.26	0.16	78.40	79.03	81.68
0.8	0.0	4.1	268.3	75.2	86.2	315.3	126.6	316.3	325.0	284.7	593.5	0.16	78.05	79.03	81.26	0.16	78.40	79.03	81.68
0.8	0.0	4.1	268.2	75.2	86.0	315.4	127.0	316.7	325.1	284.6	593.2	0.16	78.00	78.99	81.25	0.16	78.35	79.00	81.65
0.8	0.0	4.1	268.2	75.2	86.0	315.4	127.0	316.7	325.1	284.6	593.2	0.16	78.00	78.99	81.25	0.16	78.35	79.00	81.65
0.8	0.0	4.0	267.9	75.2	86.0	315.4	127.3	317.1	324.4	284.5	592.4	0.16	78.01	78.97	81.25	0.16	78.34	78.98	81.62
0.8	0.0	4.0	268.0	75.2	85.9	315.5	127.5	316.6	323.9	284.0	592.7	0.16	78.00	78.97	81.25	0.16	78.32	78.96	81.60
0.7	0.0	4.0	268.0	75.2	85.9	315.5	127.5	316.6	323.9	284.0	592.7	0.16	78.00	78.97	81.25	0.16	78.32	78.96	81.60
0.7	0.0	4.0	268.5	75.1	85.9	315.4	127.6	317.0	323.3	284.2	592.9	0.16	77.96	78.93	81.24	0.16	78.30	78.95	81.55
0.7	0.0	4.0	268.1	75.1	85.8	315.3	127.6	316.9	322.7	284.1	592.9	0.16	77.94	78.90	81.24	0.16	78.27	78.91	81.54
0.7	0.0	4.0	268.5	75.1	85.9	315.2	127.4	317.2	322.4	284.1	594.9	0.16	77.95	78.85	81.24	0.16	78.24	78.87	81.53
0.7	0.0	4.0	268.5	75.1	85.9	315.2	127.4	317.2	322.4	284.1	594.9	0.16	77.95	78.85	81.24	0.16	78.24	78.87	81.53
0.7	0.0	4.0	268.7	75.1	85.9	314.9	127.3	317.3	322.1	284.1	594.9	0.16	77.91	78.84	81.23	0.16	78.18	78.85	81.48
0.7	0.0	4.0	268.7	75.1	85.9	314.9	127.3	317.3	322.1	284.1	594.9	0.16	77.91	78.84	81.23	0.16	78.18	78.85	81.48
0.7	0.0	4.0	268.7	75.0	85.9	314.7	127.5	317.0	322.0	284.1	595.4	0.16	77.90	78.80	81.23	0.16	78.17	78.80	81.47
0.6	0.0	4.0	268.9	75.0	86.0	314.7	127.5	317.0	322.0	284.1	595.4	0.16	77.90	78.80	81.23	0.16	78.17	78.80	81.47</

0,3	0,0	3,8	268,8	74,8	85,2	312,0	126,7	318,4	311,2	280,0	591,3	0,16	77,26	78,30	81,77	0,16	77,65	78,36	80,99
0,2	0,0	3,8	268,8	74,8	85,0	311,9	126,4	317,7	310,8	279,9	590,2	0,16	77,27	78,29	81,74	0,16	77,64	78,33	80,98
0,2	0,0	3,8	268,5	74,8	85,1	311,9	126,0	318,1	310,3	279,6	588,6	0,16	77,26	78,28	81,72	0,16	77,61	78,30	80,96
0,2	0,0	3,8	268,1	74,7	85,1	312,0	125,7	318,3	309,6	279,3	587,8	0,16	77,26	78,29	81,73	0,16	77,61	78,29	80,92
0,2	0,0	3,8	267,8	74,8	85,1	312,0	125,4	317,8	309,5	279,1	586,9	0,16	77,25	78,24	81,73	0,16	77,62	78,28	80,97
0,2	0,0	3,8	267,6	74,7	85,0	312,5	126,2	318,0	309,3	279,0	585,7	0,16	77,24	78,22	81,71	0,16	77,59	78,28	80,91
0,2	0,0	3,8	267,7	74,7	85,0	312,8	126,8	317,9	309,3	278,9	586,4	0,16	77,20	78,21	81,66	0,16	77,57	78,24	80,87
0,2	0,0	3,9	267,4	74,7	85,0	313,0	127,0	318,1	309,0	278,8	586,8	0,16	77,18	78,18	81,66	0,16	77,54	78,22	80,87
0,1	0,0	3,9	267,5	74,7	84,9	313,2	127,4	318,2	308,8	278,8	587,1	0,16	77,17	78,15	81,61	0,16	77,54	78,21	80,87
0,1	0,0	3,8	267,4	74,7	84,9	313,4	127,7	318,3	308,1	278,6	588,0	0,16	77,17	78,13	81,59	0,16	77,52	78,16	80,86
0,1	0,0	3,8	267,5	74,8	84,9	313,8	128,0	318,0	308,4	278,7	589,1	0,16	77,18	78,14	81,57	0,16	77,51	78,17	80,84
0,1	0,0	3,8	267,4	74,7	84,9	313,9	128,1	318,0	307,8	278,6	588,7	0,16	77,14	78,10	81,58	0,16	77,51	78,16	80,84
0,1	0,0	3,8	267,6	74,7	84,8	314,3	128,3	318,0	307,9	278,5	589,2	0,16	77,12	78,08	81,56	0,16	77,48	78,16	80,83
0,1	0,0	3,8	267,7	74,6	84,9	314,4	128,5	317,9	307,9	278,4	590,0	0,16	77,07	78,08	81,55	0,16	77,46	78,14	80,79
0,0	0,0	3,8	268,2	74,6	84,8	314,7	128,5	317,7	307,3	278,2	590,2	0,16	77,03	78,04	81,46	0,16	77,42	78,13	80,78

Date: 2019-12-10

Manufacturer: WolfSlat

Model: NZ 3000

Project #: PI 2014

Run: 2

Tech: mm

Reviewer: DP

- kindling 113 LBS start FIRE (1 min touch)
- At 3 min close bypass
- At 16 min close Door
- At 30 LBS insert load
- At 1 min close bypass
- At 2 min close Door
- At 203 LBS Open Fan (High)
- At 600 Rate coal Bed and stop Fan
- At 45 LBS insert load
- At 2 minutes close bypass
- At 5 min close Door
- At 15 min close air inlet
- At 20 LBS open Fan low

TEST LOAD CONFIGURATION

Date: 2019-12-10 Manufacturer: Wall Steel Model: NZ 3000
 Project #: PI 20714 Run: 2 Tech: MM Reviewer: TJ

Moisture Meter Calibration Check:

Equipment #	Time	12%	22%
EM-191	7:00	OK	OK

Facility Conditions:

Air Velocity from less than 2 feet
 Smoke Capture Check (Tunnel velocity).....
 Picture.....

Pre-Test	Post-Test
0 (max 50 Fpm)	0 (max 50 Fpm)
OK	NA
4 sides OK	OK

Wood Heater Conditions:

Date Wood Heater Stack Cleaned.....
 Date Dilution Tunnel Cleaned.....
 Induced Draft Check (max 0.005 H2O).....
 Traverse before ignition.....

2019-12-09
2019-12-09
OK
OK

Temperature System:

Ambient (65°-90°F).....

OK	°F
----	----

Proportional Checks:

Thermocouple check.....
 Pitot Clean.....
 Pitot verification.....

OK
OK
OK

Sampling Train ID Numbers:

	High fire test			Medium low fire test		
	1 st hour	Train 1	Train 2	1 st hour	Train 1	Train 2
Probe.....				18	32	40
Filter Front.....				416	418	420
Filter Back.....				417	419	421
Filter Thermocouple.....				11	11	12
Filter (80°F ≥ <90°F).....				OK	OK	OK

Date: 2019-12-10

Manufacturer: Wolf Steel

Model: NZ 3000

Project #: PI 2024

Run: 2

Tech: MM

Reviewer: [Signature]

Leakage Checks Tunnel Samplers

High fire test	System 1 st hour		System 1		System 2	
	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (max test)	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (Max test)	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (Max test)
Unplugged Flow Rate = .25cfm						
Vacuum (inches Hg.)						
Final 1minute DGM (Liter)						
Initial 1minute DGM (Liter)						
Change © (Liter)						
Allowable leakage .04 x Sample rate or 0.28Lpm CSA B415 (0.56)			NA			
Check OK						

Low medium fire test	System 1 st hour		System 1		System 2	
	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (max test)	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (Max test)	Pre-Test ASTM (-15) CSA B415 (-5)	Post-Test (Max test)
Unplugged Flow Rate = .25cfm						
Vacuum (inches Hg.)	-15	-15	-15	-15	-15	-15
Final 1minute DGM (Liter)	085445.75	087741.01	085456.07	087741.12	030448.10	032668.30
Initial 1minute DGM (Liter)	085455.70	087741.01	085456.02	087741.10	030447.90	032668.20
Change © (Liter)	0.05	0	0.05	0.07	0.20	0.10
Allowable leakage .04 x Sample rate or 0.28Lpm CSA B415 (0.56)						
Check OK	OK	OK	OK	OK	OK	OK

SAMPLING EQUIPMENT CHECK OUT

Date: 2019-12-10 Manufacturer: Wolff + Berol Model: NZ 300
 Project #: pI 20214 Run: 1 Tech: mm Reviewer: DP

Leakage Checks Flue Gas Sampler

	Pre-Test	Post Test
Plugged Probe		
Vacuum (inches Hg.)	-5	-5
Rotameter Reading (mml/min.)	0	0
Flow Rate (lpm)	1.5	1.5
Allowable (.02 x Sample Rate)	30	30
Check OK	ok	ok

Leakage Checks Pitot

	Pre Test 3 H ₂ O static	Pre Test 0.4-0.5 H ₂ O velocity	Post Test 3 H ₂ O Static	Post Test 0.4-0.5 H ₂ O velocity
Plugged Probe				
Vacuum (inches Hg.)	3	.4	3	.5
Check OK (no change after 15 sec.)	ok	ok	ok	ok

Date: 2019-12-10 Manufacturer: Wolf Steel Model: NZ 3000
 Project #: PI 20214 Run: 2 Tech: MM Reviewer: DP

Scale Type	Audit		Measured Weight
	Equipment #	Weight	
Platform	EM-090	44 lbs, Class F	44 lbs
Wood	EM-090	44 lbs, Class F	44 lbs
Analytical	EM-128	100 mg, Class S	100 mg
Analytical	EM-129	200 g, Class S	200 g

LIMITS OF WEIGHT RANGES

ANALYTICAL SCALE: 50%-150% of dry filter weight, ± 0.1 mg
PLATFORM SCALE: 20%-80% of ideal test load weight, ± 0.1 lbs or 1%
WOOD SCALE: 20%-80% of ideal test load weight, ± 0.01 lbs or 1%

Date: 2019-12-10 Manufacturer: Wolf Steel Model: NZ 3000
 Project #: PI 20214 Run: 2 Tech: MR Reviewer: DP

FOR TUNNELS < 12 in

Barometric pressure (P_{bar}) 99.5 (KPa.) Static pressure (P_q) 0.20 (inches w.c.)
 Inside diameter: Port A _____ Port B _____
 Tunnel cross sectional area: .1963 Ft²
 Pitot tube type: Standard

Traverse Point	Position (inches)			Velocity Head Δ_p (inches H ₂ O)	Tunnel Temperature (°F)
	6 po	7 po	8 po		
A- Centroid	3.00	3.50	4	0.77	83.50
B - Centroid	3.00	3.50	4	0.76	83.18
A-1	0.40	0.50	0.50	0.69	83.50
A-2	1.50	1.75	2	0.80	83.66
A-3	4.50	5.25	6	0.76	83.35
A-4	5.60	6.5	7.5	0.67	83.34
B-1	0.40	0.50	0.50	0.64	83.21
B-2	1.50	1.75	2	0.73	83.21
B-3	4.50	5.25	6	0.63	83.30
B-4	5.60	6.5	7.5	0.64	83.30
AVERAGE					

$$v_s = K_p C_p (\sqrt{\Delta p})_{avg} \sqrt{\frac{T_s}{P_s M_s}}$$

Where,

C_p = pitot tube coefficient, dimension less = 0.99 for standard pitot.

Δ_p = manometer reading (inches H₂O)

T_s = average absolute dilution tunnel temperature (°F + 460)

P_s = absolute dilution tunnel gas pressure or $P_{bar} + P_{og}$

P_q = static pressure in. H₂O
 { 13.6 }

M_s = 28.56, wet molecular weight of stack gas (alternatively, it may be measured)

K_p = 85.49 pitot tube constant, (conversion factor for English units)

$\Delta_p, avg.$ = average of the square roots of the velocity heads (Δ_p) measured at each traverse point.

Date: 2019-12-10 Manufacturer: Wolf Steel Model: NZ 3000
 Project #: PI 2019 Run: 2 Tech: MM Reviewer: DP

Pre-Test (Adjust and Record)

	ZERO		SPAN		CAL. (Record Only)	
	Actual	Should Be	Actual	Should Be	Actual	Should Be
CO	0	0	2924	3000	1009	1000
Tolerance CO		+/- 0.02		+/- 0.15		+/- 0.05
CO ₂	0	0	1809	1800	976	1800
Tolerance CO ₂		+/- 0.02		+/- 0.5		+/- 0.5
O ₂ informative CSA B415 calculated value	na	na	na	na	na	na

Post Test (Record Only)

	Zero	Span	Cal.	Zero Drift	Limit	Span Drift	Limit	Cal. Drift	Limit	OK?	Not OK*
CO	0	2990	1002	0	0.02	0.004	0.15	0.007	0.05	✓	
CO ₂	0	1801	983	0	0.02	0.08	0.5	0.07	0.5	✓	

TEST DATA LOG

Date: 2019-12-16 Manufacturer: WolfSteel Model: NZ 3000
 Project #: PI 2024 Run: 2 Tech: MM Reviewer: [Signature]

RAW DRY GAS METER READINGS

		System 1	System 2	Blank
High fire test	Final (Liter)			
	Initial (Liter)			
Low medium fire test	Final (Liter)	087739,75	032666,12	132,40
	Initial (Liter)	085456,73	030448,59	023,32

AMBIENT CONDITIONS

	Before	After
Barometer (kPa):	99,5	99,7
Dry Bulb (F):	79,0	81,00
Humidity (%):	32,5	31,3

FUEL DATA

Date: 2019-12-10 Manufacturer: Wolf Steel Model: NZ 3000
 Project #: PI 20214 Run: 2 Tech: MM Reviewer: DP

FUEL DESCRIPTION:

Type of wood:

KINDLING AND START-UP LOAD

Piece Size			Weight		Meter Moisture Content (% dry)			
X	X	2 in.	4.30	lbs.	9		9	
X	X	in.		lbs.				
X	X	2 in.	7.00	lbs.	20		20	20
X	X	in.		lbs.				
X	X	in.		lbs.				
X	X	in.		lbs.				
X	X	in.		lbs.				
X	X	in.		lbs.				

HIGHFIRE TEST LOAD

Piece Size			Weight		Meter Moisture Content (% dry)			
3 1/4	X 3 3/4 X 2	in.	4.48	lbs.	2.70		2.2	2.5
3 1/4	X 4.00 X 2	in.	4.58	lbs.	2.3		2.5	2.70
3.00	X 3 1/2 X 2	in.	4.90	lbs.	2.5		2.2	1.90
X	X	in.		lbs.				
3 3/4	X 3 3/4 X 2	in.	4.84	lbs.	2.9		2.8	1.95
3 3/4	X 3 3/4 X 2	in.	5.20	lbs.	2.70		2.5	2.2
X	X	in.		lbs.				
X	X	in.		lbs.				
X	X	in.		lbs.				

FUEL DATA

Date: 2019-12-10 Manufacturer: Wolf Steel Model: NZ 3000
 Project #: PI 20214 Run: 2 Tech: MM Reviewer: DL

FUEL DESCRIPTION:

Type of wood:

LOW OR MEDIUM TEST LOAD

Piece Size		Weight		Meter Moisture Content (% dry)			
3 1/4	x 3 1/4 x 20 in.	549	lbs.	227		234	191
3 1/4	x 400 x 20 in.	538	lbs.	235		207	257
4 1/4	x 300 x 20 in.	540	lbs.	219		248	191
	x x in.		lbs.				
4 5/8	x 500 x 20 in.	822	lbs.	207		207 238	252
2 1/2	x 300 x 20 in.	316	lbs.	229		223	251
	x x in.		lbs.				
	x x in.		lbs.				
	x x in.		lbs.				
	x x in.		lbs.				
	x x in.		lbs.				
	x x in.		lbs.				
	x x in.		lbs.				
	x x in.		lbs.				
	x x in.		lbs.				



DILUTION TUNNEL PARTICULATE SAMPLER DATA

Date: _____ Manufacturer: _____ Model: _____

Project #: _____ Run: _____ Tech: _____ Reviewer: _____

HIGHFIRE TEST FILTERS

Pre-test Weight Record		SYSTEM 1 - 1 st hour				SYSTEM 1				
Date	Time	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Blauck

Post-test Weight Record		SYSTEM 1 - 1 st hour				SYSTEM 1				
Date	Time	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Blauck

Date: _____ Manufacturer: _____ Model: _____

Project #: _____ Run: _____ Tech: _____ Reviewer: _____

HIGH FIRE TEST FILTERS			
SYSTEM 2			
Pre-test Weight Record	Probe & Housing Number	Front Filter Number	Back Filter Number
			gaskets
Date	Time		

HIGH FIRE TEST FILTERS			
SYSTEM 2			
Post-test Weight Record	Probe & Housing Number	Front Filter Number	Back Filter Number
			gaskets
Date	Time		NA



DILUTION TUNNEL PARTICULATE SAMPLER DATA

Date: 2019-12-09 ^{12:00} Manufacturer: Wolff Steel Model: MZ 300
 Project #: PI 20214 Run: 2 Tech: MM Reviewer: [Signature]

MEDIUM / LOW FIRE TEST FILTERS										
SYSTEM 1 - 1 st hour					SYSTEM 1					
Pre-test Weight Record	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Blank	
Date	Time	18	416	417	3	32	418	419	29	422
2019-12-09	17:00	108 9490	0 1831	35 2425	110 1786	0 1817		35 2350	00 921	
2019-12-10	9:00	108 9491	0 1832	35 2426	110 1787	0 1818		35 2351	00 922	

MEDIUM / LOW FIRE TEST FILTERS										
SYSTEM 1 - 1 st hour					SYSTEM 1					
Post-test Weight Record	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Probe & Housing Number	Front Filter Number	Back Filter Number	gaskets	Blank	
Date	Time	18	416	417	3	32	418	419	29	422
2019-12-10	23:45	108 9499	0 1854	35 2433	110 1791	0 1833		35 2353	00 923	
2019-12-16	15:00	108 9493	0 1854	35 2426	110 1788	0 1833		35 2351	00 923	
2019-12-17	8:00	108 9493	0 1854	35 2426	110 1788	0 1833		35 2351	00 923	



DILUTION TUNNEL PARTICULATE SAMPLER DATA

Date: 2019-12-09 Manufacturer: Wolf Steel Model: MZ 3000

Project #: PT 20214 Run: 2 Tech: MM Reviewer: DP

MEDIUM / LOW FIRE TEST FILTERS			
SYSTEM 2			
Pre-test Weight Record	Probe & Housing Number	Front Filter Number	Back Filter Number
	40	420	421
2019-12-09 13:20	110 1022	0 1822	34 5826
2019-12-10 9:00	110 1023	0 1823	34 5826

MEDIUM / LOW FIRE TEST FILTERS			
SYSTEM 2			
Post-test Weight Record	Probe & Housing Number	Front Filter Number	Back Filter Number
	40	420	421
2019-12-10 23:45	110 1026	0 1859	34 5834
2019-12-16 15:00	110 1024	0 1858	34 5826
2019-12-17 8:00	110 1024	0 1858	34 5826

APPENDIX 2: Proportionality results

Average	Average	Average	Proportional	Highfire				Average
17,35	Inlet +	Inlet +						0,261
	Outlet	Outlet	Average	Average	#1	#2		
Tunnel	Temp.	Temp.	102,69	102,42	System 1	System 2		SQRT
Velocity	Meter 1	Meter 2	Proportional Rates		Vol.Std.	Vol.Std.		Delta-P
			PR1	PR2			Time	
Ft/Sec	Deg. R	Deg. R	%	%	(ft3)	(ft3)	min	(in H2O)2
17,695	539,4	539,6			0,166	0,159	0	0,269538
17,383	539,0	539,3	100,56	100,19	0,166	0,159	1	0,2635706
17,383	538,6	539,0	103,52	103,06	0,166	0,159	2	0,2598453
17,496	538,4	538,7	99,57	99,18	0,167	0,159	3	0,2658951
17,200	538,1	538,5	100,69	100,40	0,167	0,159	4	0,2622244
17,450	537,9	538,3	99,46	98,96	0,167	0,159	5	0,2659605
17,401	537,7	538,1	99,87	99,48	0,167	0,159	6	0,2649288
17,319	537,6	538,0	100,81	100,47	0,167	0,159	7	0,2631808
17,264	537,6	538,0	101,74	101,36	0,167	0,159	8	0,2616165
17,194	537,7	538,0	102,62	102,28	0,167	0,159	9	0,2598472
17,328	537,8	538,1	102,40	101,95	0,167	0,159	10	0,2612248
17,489	537,9	538,2	101,76	101,43	0,167	0,159	11	0,2631808
17,308	538,1	538,3	103,30	102,94	0,167	0,159	12	0,2598463
17,337	538,3	538,5	103,45	102,98	0,167	0,159	13	0,2598467
17,373	538,5	538,7	103,63	103,17	0,167	0,159	14	0,259847
17,248	538,6	538,8	104,58	104,34	0,167	0,159	15	0,2576929
17,521	538,7	538,9	102,52	102,15	0,167	0,159	16	0,2623707
17,346	538,7	538,9	102,77	102,33	0,167	0,159	17	0,2608323
17,322	538,6	538,9	102,61	102,27	0,167	0,159	18	0,2608321
17,306	538,5	538,8	102,56	102,14	0,167	0,159	19	0,2608379
17,307	538,5	538,7	102,42	102,05	0,167	0,159	20	0,2610207
17,309	538,4	538,6	102,27	101,93	0,167	0,159	21	0,2612265
17,270	538,3	538,5	102,40	102,01	0,167	0,160	22	0,2608327
17,249	538,2	538,5	102,38	102,03	0,167	0,159	23	0,2606089
17,289	538,1	538,4	102,22	101,80	0,167	0,159	24	0,2612057
17,310	538,1	538,3	102,07	101,66	0,167	0,160	25	0,2616183
17,438	538,0	538,2	101,30	101,02	0,167	0,160	26	0,2635733
17,281	537,9	538,1	102,28	101,78	0,167	0,160	27	0,2611778
17,286	537,8	538,0	102,28	101,93	0,167	0,160	28	0,2612264
17,289	537,7	538,0	102,32	101,94	0,167	0,160	29	0,2612265
17,445	537,7	537,9	101,42	100,93	0,167	0,160	30	0,2635732
17,423	537,6	537,8	101,59	101,30	0,167	0,160	31	0,2631883
17,299	537,5	537,8	102,40	102,03	0,167	0,160	32	0,2612294
17,304	537,5	537,7	102,48	102,07	0,167	0,160	33	0,2612258
17,308	537,4	537,7	102,48	102,00	0,167	0,160	34	0,2612263
17,470	537,4	537,6	101,61	101,24	0,167	0,160	35	0,2635716
17,408	537,4	537,6	102,03	101,67	0,167	0,160	36	0,2625705
17,294	537,4	537,6	102,71	102,27	0,167	0,160	37	0,2608318
17,325	537,4	537,5	102,59	102,23	0,167	0,160	38	0,2612255
17,327	537,4	537,5	102,60	102,36	0,167	0,160	39	0,2612256
17,269	537,4	537,5	103,11	102,75	0,167	0,160	40	0,2601487
17,342	537,4	537,5	102,69	102,34	0,167	0,160	41	0,2612257
17,348	537,4	537,5	102,73	102,41	0,167	0,160	42	0,2612251
17,355	537,4	537,5	102,77	102,42	0,167	0,160	43	0,2612254
17,330	537,4	537,5	102,91	102,57	0,167	0,160	44	0,2608527
17,333	537,4	537,5	103,00	102,72	0,167	0,160	45	0,2608317
17,363	537,4	537,5	102,81	102,49	0,167	0,160	46	0,2612253
17,097	537,4	537,4	113,96	113,49	0,167	0,160	47	0,2463712
17,101	537,4	537,4	110,76	110,51	0,167	0,160	48	0,2497795
17,479	537,5	537,5	105,07	104,73	0,167	0,160	49	0,2592518
17,570	537,5	537,5	103,71	103,37	0,167	0,160	50	0,2616169
17,514	537,5	537,5	103,68	103,35	0,167	0,160	51	0,2612252
17,472	537,5	537,5	103,50	103,16	0,167	0,160	52	0,2608313
17,358	537,6	537,5	104,35	103,54	0,167	0,159	53	0,2592527

17,431	537,6	537,6	103,48	102,19	0,167	0,159	54	0,2608323
17,460	537,6	537,6	103,30	102,98	0,167	0,159	55	0,2612881
17,318	537,7	537,6	104,07	103,74	0,167	0,160	56	0,2592531
17,288	537,7	537,6	104,32	103,87	0,167	0,160	57	0,2588585
17,408	537,7	537,9	103,46	103,83	0,167	0,160	58	0,2608313
17,320	537,7	537,7	103,87	103,61	0,167	0,160	59	0,2594892
17,520	537,7	537,7	102,61	102,41	0,167	0,160	60	0,2625866
17,172	537,8	537,7	104,61	104,41	0,167	0,160	61	0,2574663
17,430	537,8	537,6	103,08	102,95	0,167	0,160	62	0,2612253
17,433	537,8	537,7	103,20	102,97	0,167	0,160	63	0,2612256
17,437	537,8	537,7	103,30	102,99	0,167	0,160	64	0,261225
17,277	537,8	537,7	104,22	103,88	0,167	0,160	65	0,2588549
17,212	537,9	537,7	104,55	104,32	0,167	0,160	66	0,2578636
17,393	537,9	537,7	103,38	103,13	0,167	0,160	67	0,2606177
17,364	537,9	537,7	103,76	103,47	0,167	0,160	68	0,2600667
17,445	537,9	537,7	103,19	103,02	0,167	0,160	69	0,2612232
17,350	538,0	537,7	103,79	103,55	0,167	0,160	70	0,2598473
17,384	538,0	537,8	103,61	103,43	0,167	0,160	71	0,2602411
17,599	538,0	537,7	102,43	102,20	0,167	0,160	72	0,2634228
17,362	538,0	537,8	103,78	103,49	0,167	0,160	73	0,2598464
17,325	538,0	537,8	104,03	103,86	0,167	0,160	74	0,2592522
17,279	538,0	537,8	104,39	104,22	0,167	0,160	75	0,2584609
17,300	538,1	537,8	104,31	104,03	0,167	0,160	76	0,2588552
17,436	538,1	537,8	103,48	103,26	0,167	0,160	77	0,2608306
17,184	538,1	537,8	104,93	104,72	0,167	0,160	78	0,2570718
17,356	538,1	537,8	103,74	103,57	0,167	0,160	79	0,2598469
17,218	538,1	537,9	104,49	104,32	0,167	0,160	80	0,2578726
17,343	538,2	537,9	103,69	103,49	0,167	0,160	81	0,2598263
17,157	538,3	538,0	104,73	104,57	0,167	0,160	82	0,2570684
17,248	538,4	538,1	104,20	103,91	0,167	0,160	83	0,2584611
16,905	538,5	538,2	106,24	105,89	0,167	0,160	84	0,2533888
17,295	538,6	538,3	103,72	103,56	0,167	0,160	85	0,2592835
17,514	538,7	538,4	102,37	102,22	0,167	0,160	86	0,2625963
17,420	538,8	538,5	102,88	102,65	0,167	0,160	87	0,2612253
17,353	538,9	538,6	103,21	103,06	0,167	0,160	88	0,2602737
17,347	539,0	538,7	103,19	102,94	0,167	0,160	89	0,2602421
17,342	539,1	538,8	103,15	103,00	0,167	0,160	90	0,2602417
17,222	539,2	538,8	103,83	103,68	0,167	0,160	91	0,2584623
17,404	539,2	538,9	102,83	102,50	0,167	0,160	92	0,2612259
17,426	539,3	539,0	102,52	102,35	0,167	0,160	93	0,2616182
17,398	539,3	539,0	102,65	102,50	0,167	0,160	94	0,2612264
17,307	539,4	539,1	103,22	103,01	0,167	0,160	95	0,2598493
17,237	539,4	539,1	103,63	103,31	0,167	0,159	96	0,2588596
17,375	539,4	539,1	102,73	102,57	0,167	0,159	97	0,2609312
17,235	539,5	539,2	103,57	103,37	0,167	0,160	98	0,2588584
17,232	539,5	539,3	103,51	103,34	0,167	0,159	99	0,2588609
17,364	539,6	539,3	102,71	102,55	0,167	0,159	100	0,2608343
17,297	539,6	539,4	103,08	102,92	0,167	0,159	101	0,2598492
17,414	539,7	539,4	102,35	102,24	0,167	0,159	102	0,2616396
17,165	539,7	539,4	103,82	103,70	0,167	0,159	103	0,2578674
17,391	539,8	539,5	102,53	102,37	0,167	0,159	104	0,2612292
17,510	539,8	539,5	101,79	101,63	0,167	0,159	105	0,2630642
17,608	539,8	539,6	101,21	101,05	0,167	0,159	106	0,2645467
17,389	539,9	539,6	102,50	102,34	0,166	0,159	107	0,2612288
16,911	539,9	539,6	105,53	105,15	0,167	0,159	108	0,2540239
17,360	539,9	539,7	102,62	102,34	0,167	0,159	109	0,2608352
17,410	540,0	539,7	102,29	102,13	0,166	0,159	110	0,2616198
17,376	540,0	539,7	102,51	102,27	0,167	0,159	111	0,2611801
17,510	540,0	539,8	101,65	101,49	0,167	0,159	112	0,2631858
17,508	540,1	539,8	101,75	101,58	0,167	0,159	113	0,2631854
17,373	540,1	539,8	102,36	102,20	0,167	0,159	114	0,2612306

17,372	540,1	539,9	102,38	102,19	0,166	0,159	115	0,2612293
17,307	540,1	539,9	102,72	102,59	0,166	0,159	116	0,2602665
17,524	540,2	539,9	101,51	101,25	0,166	0,159	117	0,2635753
17,240	540,2	539,9	103,10	102,92	0,166	0,159	118	0,2592574
17,375	540,2	539,9	102,26	102,10	0,166	0,159	119	0,2613373
17,337	540,2	540,0	102,49	102,27	0,166	0,159	120	0,2608353
17,266	540,3	540,0	102,78	102,61	0,166	0,159	121	0,2598584
17,382	540,3	540,0	102,16	101,91	0,166	0,159	122	0,2616214
17,289	540,3	540,0	102,72	102,44	0,167	0,159	123	0,260245
17,382	540,3	540,1	102,06	101,87	0,166	0,159	124	0,2616212
17,259	540,3	540,1	102,80	102,61	0,166	0,159	125	0,2598517
17,169	540,3	540,1	103,29	103,12	0,166	0,159	126	0,2584661
17,347	540,3	540,1	102,19	102,00	0,166	0,159	127	0,2612288
17,564	540,4	540,1	100,95	100,73	0,166	0,159	128	0,2645474
17,586	540,4	540,1	100,79	100,52	0,167	0,159	129	0,2649351
17,277	540,4	540,1	102,62	102,36	0,167	0,159	130	0,260246
17,370	540,4	540,1	102,10	101,81	0,167	0,159	131	0,2616221
17,278	540,4	540,1	102,59	102,30	0,167	0,159	132	0,2603015
17,315	540,4	540,2	102,32	102,10	0,166	0,159	133	0,2608354
17,492	540,4	540,2	101,29	101,01	0,166	0,159	134	0,2635765
17,335	540,4	540,2	102,17	101,92	0,167	0,159	135	0,2612304
17,423	540,4	540,2	101,62	101,36	0,166	0,159	136	0,2626007
17,150	540,3	540,1	103,32	102,99	0,167	0,159	137	0,2584658
17,078	540,3	540,1	103,67	103,37	0,167	0,159	138	0,2574711
17,450	540,2	540,0	101,33	101,09	0,167	0,159	139	0,2631855
17,296	540,1	540,0	102,27	102,01	0,167	0,159	140	0,2608449
17,498	540,1	540,0	101,08	100,83	0,167	0,159	141	0,263965
17,465	540,1	540,0	101,26	100,97	0,167	0,159	142	0,2634755
17,443	540,2	540,0	101,36	101,08	0,167	0,159	143	0,2631597
17,316	540,2	540,0	102,15	101,83	0,167	0,159	144	0,2612306
17,472	540,2	540,0	101,22	100,93	0,167	0,159	145	0,2635754
17,582	540,2	540,0	100,52	100,32	0,167	0,159	146	0,2653236
17,310	540,2	540,0	102,08	101,84	0,167	0,159	147	0,2612299
17,244	540,2	540,0	102,41	102,19	0,167	0,159	148	0,2602441
17,490	540,2	540,0	100,98	100,73	0,167	0,159	149	0,2639651
17,244	540,2	540,0	102,40	102,11	0,167	0,159	150	0,2603178
17,303	540,2	540,1	102,00	101,80	0,167	0,159	151	0,2611578
17,235	540,3	540,1	102,28	102,11	0,166	0,159	152	0,2602437
17,321	540,3	540,1	101,74	101,53	0,166	0,159	153	0,261622
17,049	540,3	540,1	103,45	103,19	0,166	0,159	154	0,2574731
17,269	540,4	540,1	102,00	101,86	0,166	0,159	155	0,26083
17,270	540,4	540,1	102,02	101,84	0,166	0,159	156	0,2608361
17,541	540,4	540,2	100,50	100,26	0,166	0,159	157	0,2649361
17,158	540,4	540,2	102,62	102,39	0,166	0,159	158	0,2591908
17,421	540,5	540,2	101,17	101,01	0,166	0,159	159	0,2631856
17,265	540,4	540,2	102,08	101,82	0,167	0,159	160	0,2608365
17,089	540,4	540,2	103,09	102,87	0,167	0,159	161	0,2582282
17,104	540,5	540,2	102,96	102,73	0,166	0,159	162	0,2584452
17,511	540,5	540,2	100,63	100,28	0,166	0,159	163	0,2645494
17,377	540,5	540,2	101,29	101,16	0,166	0,159	164	0,262602
17,461	540,5	540,2	100,78	100,57	0,166	0,159	165	0,2638675
17,312	540,5	540,2	101,73	101,45	0,166	0,159	166	0,261623
17,375	540,5	540,2	101,30	101,00	0,166	0,159	167	0,2626022
17,412	540,5	540,3	100,98	100,78	0,166	0,159	168	0,263188
17,470	540,6	540,3	100,64	100,48	0,166	0,159	169	0,264068
17,373	540,6	540,3	101,20	101,05	0,166	0,159	170	0,2626027
17,281	540,6	540,3	101,74	101,60	0,166	0,159	171	0,261232
17,287	540,6	540,3	101,88	101,60	0,166	0,159	172	0,2612269
17,382	540,7	540,4	101,35	101,20	0,166	0,159	173	0,2626018
17,435	540,8	540,4	101,19	100,93	0,166	0,159	174	0,2631888
17,305	540,9	540,5	102,23	101,97	0,166	0,159	175	0,2608388

17,160	541,1	540,7	103,28	103,14	0,166	0,159	176	0,2582279
17,251	541,3	540,9	102,99	102,83	0,166	0,159	177	0,2592618
17,397	541,5	541,1	102,35	102,17	0,166	0,159	178	0,2612333
16,935	541,8	541,3	105,26	105,09	0,166	0,159	179	0,2540648
17,414	542,0	541,5	102,39	102,17	0,166	0,159	180	0,2611837
17,558	542,2	541,7	101,63	101,48	0,166	0,159	181	0,2631918
17,608	542,4	541,9	101,37	101,13	0,166	0,159	182	0,2638668
17,370	542,6	542,2	102,71	102,58	0,166	0,159	183	0,260156
17,287	542,8	542,4	103,32	103,08	0,166	0,159	184	0,258862
17,324	543,0	542,6	103,25	103,06	0,166	0,159	185	0,2592641
17,551	543,1	542,8	101,86	101,61	0,166	0,159	186	0,2626054
17,460	543,3	542,9	102,38	102,04	0,166	0,158	187	0,2612353
17,297	543,5	543,1	103,20	102,99	0,166	0,158	188	0,2588668
17,409	543,5	543,2	102,31	102,03	0,165	0,158	189	0,2608434
17,394	543,6	543,3	102,19	101,98	0,165	0,158	190	0,2608426

Average	Average	Average	Proportional Rates Medium/low fire					Average
17,08	Inlet +	Inlet +						0,260
	Outlet	Outlet	Average	Average	#1	#2		
Tunnel	Temp.	Temp.	101,22	100,21	System 1	System 2		SQRT
Velocity	Meter 1	Meter 2	Proportional Rates		Vol.Std.	Vol.Std.		Delta-P
			PR1	PR2			Time	
Ft/Sec	Deg. R	Deg. R	%	%	(ft3)	(ft3)	min	(in H2O)2
17,614	544,2	544,4			0,165	0,158	0	0,2560827
17,513	544,3	544,5	104,37	103,36	0,165	0,158	1	0,2588725
17,515	544,3	544,6	103,59	102,57	0,165	0,158	2	0,2598621
17,488	544,3	544,5	103,46	102,47	0,165	0,158	3	0,2598617
17,433	544,2	544,5	103,71	102,57	0,165	0,158	4	0,2592682
17,498	544,2	544,4	102,86	101,73	0,165	0,158	5	0,2608473
17,375	544,0	544,4	102,94	101,89	0,165	0,158	6	0,2598572
17,324	544,0	544,3	103,09	102,06	0,165	0,158	7	0,2593087
17,315	543,9	544,2	103,07	102,05	0,165	0,158	8	0,2592871
17,571	543,8	544,1	101,59	100,54	0,165	0,158	9	0,263157
17,353	543,7	544,0	102,87	101,85	0,165	0,158	10	0,2598626
17,312	543,7	543,9	103,11	102,21	0,165	0,158	11	0,2592691
17,319	543,6	543,9	103,30	102,18	0,165	0,158	12	0,2592203
17,209	543,6	543,8	103,93	102,92	0,165	0,158	13	0,2574815
17,409	543,6	543,7	102,26	101,15	0,165	0,158	14	0,2612408
17,385	543,5	543,7	101,82	100,73	0,166	0,158	15	0,2616327
17,269	543,5	543,6	102,10	101,25	0,165	0,158	16	0,2602566
17,235	543,5	543,6	102,24	101,23	0,165	0,158	17	0,2599543
17,301	543,5	543,5	101,65	100,68	0,166	0,158	18	0,2612404
17,238	543,4	543,5	102,06	101,09	0,166	0,158	19	0,2602556
17,226	543,4	543,4	102,16	101,08	0,166	0,158	20	0,260042
17,305	543,3	543,3	101,70	100,63	0,166	0,158	21	0,2612379
17,208	543,3	543,3	102,17	101,21	0,166	0,158	22	0,2598623
17,106	543,3	543,2	102,69	101,67	0,166	0,158	23	0,2584921
17,156	543,2	543,2	102,38	101,43	0,166	0,158	24	0,259268
17,156	543,2	543,2	102,29	101,32	0,166	0,158	25	0,2592676
17,252	543,2	543,1	101,72	100,78	0,166	0,158	26	0,2608461
17,256	543,2	543,1	101,75	100,81	0,166	0,158	27	0,2608459
17,139	543,2	543,1	102,41	101,50	0,166	0,158	28	0,2591204
17,092	543,2	543,1	102,60	101,70	0,166	0,158	29	0,2584677
17,202	543,4	543,2	102,16	101,12	0,166	0,158	30	0,2598616
17,254	543,6	543,3	102,19	101,21	0,166	0,158	31	0,2602546
17,269	543,7	543,5	102,15	101,27	0,166	0,158	32	0,2602554
17,279	543,9	543,7	102,20	101,27	0,165	0,158	33	0,2602544
17,286	544,1	543,9	102,20	101,30	0,165	0,158	34	0,2602545
17,238	544,3	544,0	102,33	101,43	0,165	0,158	35	0,2596917
17,171	544,4	544,1	102,57	101,66	0,165	0,158	36	0,2588724
17,186	544,4	544,1	102,34	101,39	0,165	0,158	37	0,2592679
17,247	544,4	544,1	101,94	101,08	0,165	0,158	38	0,2602546
17,256	544,3	544,1	101,73	100,82	0,165	0,158	39	0,2605902
17,155	544,3	544,0	102,30	101,44	0,165	0,158	40	0,2591272
17,161	544,2	544,0	102,23	101,31	0,165	0,158	41	0,2592701
17,199	544,1	543,9	102,01	101,08	0,165	0,158	42	0,2598613
17,223	544,1	543,9	101,85	100,83	0,165	0,158	43	0,2602521
17,219	544,0	543,8	101,84	100,92	0,165	0,158	44	0,2602504
17,286	544,0	543,8	101,35	100,56	0,165	0,158	45	0,2612398
17,378	543,9	543,7	100,96	100,03	0,165	0,158	46	0,2626109
17,155	543,9	543,7	102,26	101,34	0,165	0,158	47	0,2592614
17,305	543,8	543,6	101,31	100,40	0,165	0,158	48	0,2616301
17,005	543,7	543,6	103,12	102,19	0,166	0,158	49	0,2570819
17,211	543,7	543,5	101,85	100,90	0,166	0,158	50	0,2602549
17,323	543,6	543,4	101,24	100,23	0,166	0,158	51	0,2619123
17,305	543,6	543,4	101,35	100,44	0,166	0,158	52	0,2616313
17,523	543,5	543,3	100,10	99,07	0,166	0,158	53	0,2649437
17,277	543,4	543,3	101,52	100,48	0,166	0,158	54	0,2612387

17,231	543,4	543,2	101,52	100,61	0,166	0,158	55	0,2608969
17,372	543,3	543,2	100,58	99,67	0,166	0,158	56	0,2631951
17,235	543,3	543,1	101,31	100,39	0,166	0,158	57	0,2612279
17,258	543,3	543,1	101,15	100,22	0,166	0,158	58	0,2616305
17,160	543,3	543,1	101,63	100,71	0,166	0,158	59	0,260255
17,492	543,2	543,1	99,67	98,76	0,166	0,158	60	0,2653321
17,103	543,3	543,0	101,89	100,91	0,166	0,158	61	0,259495
17,217	543,2	543,0	101,20	100,29	0,166	0,158	62	0,2612388
17,216	543,2	543,0	101,25	100,19	0,166	0,158	63	0,2612391
17,345	543,2	543,0	100,45	99,55	0,166	0,158	64	0,2631947
17,299	543,2	543,0	100,63	99,73	0,166	0,158	65	0,2626092
17,180	543,2	543,0	101,30	100,38	0,166	0,158	66	0,2608448
17,293	543,2	543,0	100,60	99,70	0,166	0,158	67	0,2626093
17,331	543,2	542,9	100,33	99,45	0,166	0,158	68	0,2631953
17,146	543,1	542,9	101,44	100,52	0,166	0,158	69	0,2604224
17,196	543,1	542,9	101,01	100,19	0,166	0,158	70	0,2612388
17,217	543,0	542,9	100,94	99,90	0,166	0,158	71	0,2616306
17,393	543,0	542,9	99,87	98,95	0,166	0,158	72	0,2643822
16,940	543,0	542,8	102,56	101,62	0,166	0,158	73	0,2574731
17,160	542,9	542,8	101,23	100,29	0,166	0,158	74	0,260853
17,335	542,9	542,8	100,16	99,19	0,166	0,158	75	0,2635843
16,996	542,8	542,7	102,10	101,16	0,166	0,158	76	0,2585049
17,174	542,8	542,7	101,03	100,10	0,166	0,158	77	0,2612385
17,179	542,9	542,7	101,05	100,13	0,166	0,158	78	0,261237
17,200	542,9	542,8	101,16	100,16	0,166	0,158	79	0,2612388
17,161	543,1	542,9	101,63	100,70	0,166	0,158	80	0,2603093
17,115	543,3	543,1	102,14	101,21	0,166	0,158	81	0,2592661
17,198	543,4	543,2	101,82	100,90	0,166	0,158	82	0,2602532
17,042	543,6	543,4	102,74	101,81	0,166	0,158	83	0,2578775
17,098	543,7	543,5	102,27	101,23	0,166	0,158	84	0,2588611
17,176	543,7	543,6	101,68	100,71	0,166	0,158	85	0,2602548
17,257	543,7	543,6	101,03	100,12	0,166	0,158	86	0,261632
17,143	543,7	543,6	101,59	100,71	0,166	0,158	87	0,2600769
17,023	543,7	543,6	102,14	101,19	0,166	0,158	88	0,2584747
17,172	543,6	543,5	101,18	100,23	0,166	0,158	89	0,2608457
17,194	543,5	543,5	101,02	100,07	0,166	0,158	90	0,2612382
17,287	543,4	543,4	100,43	99,46	0,166	0,158	91	0,2627449
16,937	543,3	543,3	102,47	101,50	0,166	0,158	92	0,2574808
17,269	543,2	543,3	100,45	99,50	0,166	0,158	93	0,2626088
17,201	543,2	543,2	100,82	99,75	0,166	0,158	94	0,261631
17,146	543,2	543,2	101,07	100,12	0,166	0,158	95	0,260884
17,170	543,1	543,1	100,94	99,98	0,166	0,158	96	0,2612577
17,165	543,0	543,1	100,93	99,95	0,166	0,158	97	0,2612396
17,293	543,0	543,0	100,19	99,15	0,166	0,158	98	0,2631952
16,858	542,9	543,0	102,78	101,69	0,166	0,158	99	0,2565816
16,887	542,9	543,0	102,57	101,57	0,166	0,158	100	0,2570818
17,349	542,8	542,9	99,76	98,87	0,166	0,158	101	0,2641263
17,022	542,8	542,9	101,74	100,73	0,166	0,158	102	0,2591387
17,156	542,8	542,8	100,94	99,86	0,166	0,158	103	0,2612315
17,067	542,7	542,8	101,49	100,51	0,166	0,158	104	0,2598606
16,910	542,6	542,7	102,43	101,46	0,166	0,158	105	0,2574794
17,307	542,6	542,7	100,02	99,10	0,166	0,158	106	0,2635846
17,158	542,5	542,6	100,90	100,00	0,166	0,159	107	0,2612674
17,026	542,5	542,6	101,75	100,68	0,166	0,158	108	0,2592664
17,308	542,5	542,5	100,08	99,13	0,166	0,158	109	0,2635852
16,933	542,4	542,5	102,24	101,32	0,166	0,159	110	0,2578773
17,154	542,4	542,5	100,94	99,91	0,166	0,158	111	0,2612381
16,958	542,4	542,4	102,21	101,19	0,166	0,158	112	0,2581941
17,377	542,3	542,4	99,77	98,81	0,166	0,159	113	0,2645567
17,288	542,2	542,4	100,25	99,33	0,166	0,159	114	0,2631949
17,095	542,2	542,3	101,44	100,46	0,166	0,159	115	0,2602542
17,286	542,1	542,3	100,31	99,34	0,166	0,159	116	0,2631934

17,245	542,1	542,2	100,55	99,59	0,166	0,159	117	0,2625795
16,939	542,0	542,2	102,40	101,40	0,166	0,159	118	0,2578921
17,247	542,0	542,1	100,55	99,47	0,166	0,159	119	0,2626074
16,975	542,0	542,1	102,27	101,20	0,166	0,159	120	0,258473
17,138	541,9	542,1	101,20	100,23	0,166	0,159	121	0,2609544
17,186	541,9	542,0	100,96	99,98	0,166	0,159	122	0,2616294
17,178	542,0	542,1	101,25	100,24	0,166	0,159	123	0,2612376
17,204	542,1	542,2	101,33	100,37	0,166	0,159	124	0,2612371
17,099	542,3	542,3	102,22	101,26	0,166	0,159	125	0,2592646
17,252	542,5	542,5	101,56	100,60	0,166	0,159	126	0,2612348
17,110	542,6	542,7	102,47	101,45	0,166	0,158	127	0,25887
17,016	542,8	542,8	103,05	102,08	0,166	0,158	128	0,2574783
17,186	542,8	542,9	101,90	100,93	0,166	0,158	129	0,2602056
17,245	542,9	542,9	101,44	100,41	0,166	0,158	130	0,2612381
17,237	542,9	542,9	101,35	100,42	0,166	0,158	131	0,2612381
17,050	542,8	542,9	102,33	101,44	0,166	0,158	132	0,2585042
17,156	542,8	542,9	101,71	100,74	0,166	0,158	133	0,2602306
17,063	542,7	542,9	102,23	101,13	0,166	0,158	134	0,2588707
17,210	542,7	542,8	101,26	100,30	0,166	0,158	135	0,2612382
16,867	542,6	542,8	103,29	102,29	0,166	0,158	136	0,2560802
16,929	542,6	542,8	102,87	101,76	0,166	0,158	137	0,2570815
17,290	542,5	542,7	100,71	99,73	0,166	0,158	138	0,2626085
17,170	542,4	542,7	101,38	100,34	0,166	0,158	139	0,2608451
17,031	542,4	542,6	102,13	101,11	0,166	0,158	140	0,2587341
17,098	542,3	542,5	101,74	100,75	0,166	0,158	141	0,2598597
17,213	542,3	542,5	101,05	100,01	0,166	0,158	142	0,2616295
17,220	542,2	542,5	101,01	100,02	0,166	0,158	143	0,2617491
17,209	542,2	542,4	101,05	99,94	0,166	0,158	144	0,2616294
17,119	542,2	542,4	101,58	100,51	0,166	0,158	145	0,2602552
17,270	542,1	542,4	100,62	99,68	0,166	0,159	146	0,2626089
16,996	542,1	542,3	102,27	101,27	0,166	0,159	147	0,2584718
16,839	542,0	542,3	103,21	102,23	0,166	0,159	148	0,2560782
16,865	542,0	542,2	103,02	102,07	0,166	0,159	149	0,2564804
17,175	542,0	542,2	101,19	100,08	0,166	0,159	150	0,261237
17,150	541,9	542,1	101,20	100,33	0,166	0,159	151	0,2608859
17,172	541,9	542,1	101,07	100,20	0,166	0,159	152	0,261236
16,925	541,8	542,1	102,68	101,67	0,166	0,159	153	0,2574781
17,259	541,8	542,0	100,55	99,67	0,166	0,159	154	0,2626079
17,042	541,8	542,0	101,91	100,80	0,166	0,159	155	0,2593546
17,257	541,7	541,9	100,66	99,67	0,166	0,159	156	0,2626078
17,192	541,7	541,9	101,06	100,02	0,166	0,159	157	0,2616296
17,080	541,7	541,9	101,78	100,67	0,166	0,159	158	0,2598146
17,286	541,8	542,0	100,82	99,83	0,166	0,159	159	0,2626072
17,062	541,9	542,1	102,31	101,27	0,166	0,159	160	0,2588692
17,152	542,1	542,2	102,05	101,07	0,166	0,158	161	0,2598582
17,192	542,3	542,4	101,96	101,03	0,166	0,159	162	0,2602518
17,276	542,5	542,6	101,60	100,65	0,166	0,158	163	0,2612369
17,037	542,7	542,8	103,20	102,21	0,166	0,158	164	0,2574791
17,173	542,9	543,0	102,55	101,57	0,166	0,158	165	0,2592653
17,243	543,1	543,2	102,05	101,19	0,166	0,158	166	0,2602528
17,290	543,3	543,4	101,92	100,83	0,166	0,158	167	0,2608446
17,323	543,5	543,6	101,73	100,81	0,166	0,158	168	0,2612383
17,238	543,7	543,8	102,31	101,28	0,165	0,158	169	0,25986
17,246	543,9	544,0	102,10	101,17	0,165	0,158	170	0,2600796
17,453	543,9	544,1	100,64	99,66	0,165	0,158	171	0,2635854
17,280	544,0	544,2	101,44	100,45	0,165	0,158	172	0,2612397
17,170	543,9	544,1	101,88	100,77	0,165	0,158	173	0,2598603
17,248	543,8	544,1	101,18	100,27	0,165	0,158	174	0,2612397
16,979	543,8	544,1	102,74	101,72	0,165	0,158	175	0,2573566
17,376	543,7	544,0	100,24	99,24	0,166	0,158	176	0,2635867
17,143	543,6	544,0	101,42	100,39	0,165	0,158	177	0,2601732
16,799	543,5	543,9	103,52	102,48	0,165	0,158	178	0,2550732

17,286	543,4	543,8	100,51	99,50	0,166	0,158	179	0,2626112
17,189	543,3	543,8	101,02	99,94	0,166	0,158	180	0,26124
17,029	543,3	543,7	101,93	100,86	0,166	0,158	181	0,2588724
17,357	543,2	543,6	99,93	98,91	0,166	0,158	182	0,2639733
17,415	543,1	543,6	99,54	98,49	0,166	0,158	183	0,2649448
17,259	543,1	543,5	100,35	99,28	0,166	0,158	184	0,2626106
17,118	543,1	543,5	101,38	100,35	0,166	0,158	185	0,260301
16,888	543,1	543,5	102,91	101,93	0,166	0,158	186	0,2565021
16,749	543,2	543,6	104,08	103,03	0,166	0,158	187	0,2540708
17,054	543,4	543,7	102,27	101,28	0,166	0,158	188	0,2584758
17,227	543,5	543,8	101,51	100,49	0,165	0,158	189	0,2608496
17,134	543,7	544,0	102,17	101,15	0,166	0,158	190	0,2592682
17,367	543,9	544,2	100,90	99,90	0,165	0,158	191	0,2626123
17,251	544,0	544,3	101,56	100,64	0,165	0,158	192	0,2608474
17,261	544,1	544,4	101,29	100,18	0,165	0,158	193	0,2612418
17,243	544,2	544,4	101,18	100,09	0,165	0,158	194	0,2612401
16,957	544,1	544,4	102,75	101,73	0,165	0,158	195	0,2570832
16,878	544,1	544,4	103,09	102,05	0,165	0,158	196	0,2560825
17,142	544,0	544,4	101,36	100,36	0,165	0,158	197	0,2602552
17,111	543,9	544,3	101,51	100,47	0,165	0,158	198	0,2598633
16,854	543,9	544,3	102,98	101,93	0,165	0,158	199	0,2560834
16,917	543,8	544,2	102,50	101,45	0,166	0,158	200	0,2571876
17,177	543,7	544,1	100,88	99,75	0,166	0,158	201	0,2612415
17,172	543,6	544,1	100,87	99,83	0,166	0,158	202	0,2612423
17,104	543,5	544,0	101,13	100,21	0,165	0,158	203	0,2602572
17,324	543,5	543,9	99,92	98,78	0,165	0,158	204	0,2636745
17,034	543,4	543,9	101,62	100,57	0,166	0,158	205	0,2592694
17,156	543,3	543,8	100,73	99,73	0,166	0,158	206	0,2612414
17,063	543,3	543,8	101,30	100,37	0,166	0,158	207	0,2598622
17,028	543,2	543,7	101,55	100,58	0,166	0,158	208	0,2592676
17,280	543,2	543,6	100,08	99,06	0,166	0,158	209	0,2631906
17,278	543,1	543,6	100,07	99,04	0,166	0,158	210	0,2631976
17,016	543,1	543,5	101,58	100,54	0,166	0,158	211	0,259269
17,305	543,1	543,5	99,95	98,93	0,166	0,158	212	0,2635876
17,264	543,1	543,5	100,45	99,36	0,166	0,158	213	0,2626112
17,178	543,2	543,6	101,31	100,26	0,166	0,158	214	0,2608468
17,042	543,3	543,7	102,30	101,27	0,166	0,158	215	0,2584775
17,112	543,5	543,8	102,08	100,99	0,166	0,158	216	0,2592678
17,177	543,7	544,0	101,96	100,86	0,166	0,158	217	0,259862
17,295	543,8	544,1	101,25	100,12	0,165	0,158	218	0,2616334
17,231	543,9	544,2	101,46	100,39	0,165	0,158	219	0,2608473
17,153	544,0	544,3	101,76	100,75	0,165	0,158	220	0,2598615
17,384	544,0	544,3	100,20	99,23	0,165	0,158	221	0,2635886
17,127	544,0	544,3	101,60	100,59	0,165	0,158	222	0,2598635
17,236	543,9	544,3	100,78	99,88	0,165	0,158	223	0,261621
17,333	543,9	544,3	100,26	99,25	0,165	0,158	224	0,2631969
17,201	543,8	544,2	101,11	99,93	0,166	0,158	225	0,261242
17,195	543,7	544,2	100,87	99,84	0,166	0,158	226	0,2612412
17,219	543,7	544,1	100,85	99,80	0,165	0,158	227	0,2616337
17,126	543,6	544,1	101,36	100,32	0,166	0,158	228	0,2602581
17,278	543,5	544,0	100,45	99,42	0,166	0,158	229	0,2626129
17,276	543,5	543,9	100,45	99,33	0,166	0,158	230	0,2626122
17,050	543,4	543,9	101,77	100,73	0,166	0,158	231	0,259201
17,091	543,3	543,8	101,52	100,48	0,166	0,158	232	0,2598589
17,116	543,3	543,7	101,27	100,33	0,166	0,158	233	0,2602566
17,166	543,2	543,7	101,08	99,98	0,166	0,158	234	0,2610154
17,114	543,2	543,6	101,39	100,36	0,166	0,158	235	0,2602627
17,175	543,1	543,6	100,98	99,95	0,166	0,158	236	0,2612411
17,165	543,0	543,5	101,04	100,00	0,166	0,158	237	0,2611071
17,148	543,0	543,5	101,15	100,12	0,166	0,158	238	0,2608368
17,172	543,0	543,4	101,00	100,01	0,166	0,158	239	0,261241
17,205	542,9	543,4	100,82	99,79	0,166	0,158	240	0,2617504

17,191	543,0	543,4	101,11	100,10	0,166	0,158	241	0,2612265
16,975	543,1	543,4	102,65	101,62	0,166	0,158	242	0,2576062
17,176	543,2	543,6	101,74	100,71	0,166	0,158	243	0,2602589
17,229	543,3	543,7	101,58	100,59	0,166	0,158	244	0,2608475
16,802	543,5	543,8	104,36	103,27	0,166	0,158	245	0,2540767
17,014	543,7	544,0	103,19	102,04	0,166	0,158	246	0,2570828
17,192	543,9	544,1	102,01	101,00	0,165	0,158	247	0,2598642
17,292	543,9	544,2	101,21	100,21	0,165	0,158	248	0,2616333
17,070	544,0	544,3	102,25	101,36	0,165	0,158	249	0,2585027
17,084	543,9	544,3	102,13	101,08	0,165	0,158	250	0,2588738
17,006	543,9	544,2	102,46	101,43	0,165	0,158	251	0,257881
16,749	543,8	544,2	103,97	102,98	0,165	0,158	252	0,2540734
17,210	543,8	544,2	101,06	100,04	0,166	0,158	253	0,2612412
17,170	543,7	544,1	101,22	100,20	0,166	0,158	254	0,2607471
17,105	543,6	544,1	101,63	100,60	0,166	0,158	255	0,2598668
17,121	543,6	544,0	101,34	100,31	0,166	0,158	256	0,2602567
17,050	543,5	543,9	101,74	100,67	0,166	0,158	257	0,2592695
16,902	543,4	543,9	102,55	101,50	0,166	0,158	258	0,2570827
17,296	543,4	543,8	100,25	99,20	0,166	0,158	259	0,2631962
17,099	543,3	543,8	101,36	100,22	0,166	0,158	260	0,2602568
17,006	543,2	543,7	101,76	100,72	0,166	0,158	261	0,2589268
17,090	543,2	543,7	101,23	100,19	0,166	0,158	262	0,2602543
16,903	543,1	543,6	102,33	101,25	0,166	0,158	263	0,2574818
17,033	543,1	543,5	101,50	100,46	0,166	0,158	264	0,2594989
16,924	543,0	543,5	102,13	101,09	0,166	0,158	265	0,25788
17,267	543,0	543,4	100,05	99,02	0,166	0,158	266	0,2631943
16,954	542,9	543,4	101,86	100,82	0,166	0,158	267	0,2584767
16,952	542,9	543,3	101,86	100,82	0,166	0,158	268	0,2584755
16,792	542,8	543,2	102,80	101,75	0,166	0,158	269	0,2560874
17,257	542,8	543,2	100,06	99,00	0,166	0,158	270	0,2631993
17,301	542,8	543,2	99,98	98,96	0,166	0,158	271	0,2635865
16,732	542,9	543,3	103,70	102,67	0,166	0,158	272	0,2545938
16,975	543,0	543,4	102,43	101,40	0,166	0,158	273	0,2578882
17,121	543,1	543,5	101,68	100,71	0,166	0,158	274	0,2598618
16,755	543,3	543,6	104,11	103,07	0,166	0,158	275	0,254072
17,153	543,5	543,8	101,86	100,85	0,166	0,158	276	0,259853
16,899	543,6	543,9	103,31	102,28	0,166	0,158	277	0,2560808
17,224	543,7	544,0	101,15	100,15	0,166	0,158	278	0,2612406
17,141	543,7	544,0	101,43	100,43	0,166	0,158	279	0,2602564
17,128	543,7	544,0	101,35	100,34	0,166	0,158	280	0,2602566
16,776	543,7	544,0	103,34	102,31	0,166	0,158	281	0,2550863
17,170	543,6	544,0	100,85	99,84	0,166	0,158	282	0,2612418
17,068	543,5	543,9	101,34	100,31	0,166	0,158	283	0,2598626
16,969	543,5	543,9	101,85	100,79	0,166	0,158	284	0,2584745
16,897	543,4	543,8	102,21	101,27	0,166	0,158	285	0,2574823
17,161	543,3	543,8	100,55	99,41	0,166	0,158	286	0,2616326
17,218	543,3	543,7	100,15	99,12	0,166	0,158	287	0,2626119
17,226	543,2	543,7	100,11	98,97	0,166	0,158	288	0,2628411
16,871	543,1	543,6	102,10	101,06	0,166	0,158	289	0,2574815
16,981	543,1	543,5	101,38	100,34	0,166	0,158	290	0,2592477
17,137	543,0	543,5	100,39	99,36	0,166	0,158	291	0,2617399
16,630	543,0	543,4	103,41	102,30	0,166	0,158	292	0,2540513
17,120	542,9	543,4	100,39	99,36	0,166	0,158	293	0,2616328
16,753	542,9	543,3	102,55	101,60	0,166	0,158	294	0,2560829
17,000	542,8	543,3	101,01	99,98	0,166	0,158	295	0,2599329
17,234	542,8	543,2	99,60	98,58	0,166	0,158	296	0,2635823
16,831	542,7	543,1	101,94	100,91	0,166	0,158	297	0,2574818
17,098	542,6	543,1	100,31	99,23	0,166	0,158	298	0,2616323
17,181	542,6	543,1	99,78	98,76	0,166	0,158	299	0,2629692
17,073	542,6	543,0	100,48	99,45	0,166	0,158	300	0,2612366
17,074	542,6	543,1	100,77	99,70	0,166	0,158	301	0,2608466
17,076	542,7	543,1	101,04	100,01	0,166	0,158	302	0,2605101

17,236	542,8	543,2	100,31	99,30	0,166	0,158	303	0,2626399
17,069	543,0	543,3	101,45	100,32	0,166	0,158	304	0,2598619
17,086	543,1	543,4	101,52	100,50	0,166	0,158	305	0,2598623
17,335	543,3	543,6	100,16	99,14	0,166	0,158	306	0,2635149
17,043	543,4	543,7	101,67	100,67	0,166	0,158	307	0,2592715
17,156	543,5	543,8	100,89	99,80	0,166	0,158	308	0,2612393
17,166	543,5	543,8	100,50	99,45	0,166	0,158	309	0,2616328
17,102	543,5	543,8	100,75	99,70	0,166	0,158	310	0,2608466
16,810	543,4	543,8	102,40	101,37	0,166	0,158	311	0,2565831
16,676	543,4	543,7	103,12	102,08	0,166	0,158	312	0,2546774
16,852	543,3	543,7	101,95	100,97	0,166	0,158	313	0,2574819
16,820	543,3	543,7	102,09	101,05	0,166	0,158	314	0,2570825
17,085	543,2	543,6	100,44	99,42	0,166	0,158	315	0,2612404
17,169	543,1	543,6	99,89	98,77	0,166	0,158	316	0,2626119
17,075	543,1	543,5	100,35	99,37	0,166	0,158	317	0,2612411
17,286	543,0	543,5	99,13	98,01	0,166	0,158	318	0,2645444
16,848	542,9	543,4	101,68	100,56	0,166	0,158	319	0,2578824
16,819	542,9	543,3	101,82	100,79	0,166	0,158	320	0,2574818
16,995	542,8	543,3	100,73	99,70	0,166	0,158	321	0,2602558
17,071	542,8	543,2	100,25	99,23	0,166	0,158	322	0,2614658
17,142	542,7	543,2	99,81	98,79	0,166	0,158	323	0,262611
16,870	542,7	543,1	101,37	100,27	0,166	0,158	324	0,2584754
17,009	542,6	543,0	100,46	99,50	0,166	0,158	325	0,2606651
17,044	542,6	543,0	100,31	99,23	0,166	0,158	326	0,2612401
17,258	542,5	542,9	98,93	97,96	0,166	0,158	327	0,2645565
17,167	542,5	542,9	99,48	98,48	0,166	0,158	328	0,2631965
16,729	542,4	542,8	102,15	101,01	0,166	0,158	329	0,2565004
17,078	542,4	542,8	100,23	99,22	0,166	0,158	330	0,2616322
17,169	542,5	542,9	100,00	99,00	0,166	0,158	331	0,2626109
16,889	542,6	542,9	101,99	101,08	0,166	0,159	332	0,2578972
17,035	542,7	543,0	101,30	100,29	0,166	0,158	333	0,2598622
17,052	542,8	543,1	101,37	100,37	0,166	0,158	334	0,2598619
16,939	543,0	543,2	102,23	101,25	0,166	0,158	335	0,2578789
16,598	543,1	543,4	104,33	103,29	0,166	0,158	336	0,2526554
17,144	543,2	543,5	100,80	99,76	0,166	0,158	337	0,2612401
16,947	543,3	543,5	101,74	100,77	0,166	0,158	338	0,2584766
17,112	543,3	543,6	100,58	99,63	0,166	0,158	339	0,2612408
17,191	543,3	543,6	99,99	99,01	0,166	0,158	340	0,2626024
17,002	543,2	543,5	101,01	99,99	0,166	0,158	341	0,2598624
17,212	543,2	543,5	99,69	98,69	0,166	0,158	342	0,263197
16,921	543,1	543,5	101,27	100,25	0,166	0,158	343	0,258852
17,155	543,0	543,4	99,88	98,88	0,166	0,158	344	0,2625333
16,847	543,0	543,4	101,67	100,64	0,166	0,158	345	0,2578796
17,098	542,9	543,3	100,14	99,00	0,166	0,158	346	0,2617947
16,902	542,8	543,2	101,25	100,22	0,166	0,158	347	0,2588726
16,989	542,8	543,2	100,64	99,67	0,166	0,158	348	0,2602628
17,075	542,7	543,1	100,16	99,16	0,166	0,158	349	0,2616326
16,826	542,6	543,1	101,61	100,64	0,166	0,158	350	0,2578791
16,952	542,6	543,0	100,83	99,80	0,166	0,158	351	0,2598623
16,950	542,5	543,0	100,83	99,87	0,166	0,158	352	0,2598608
16,766	542,4	542,9	101,91	100,87	0,166	0,158	353	0,2570826
17,060	542,4	542,8	100,13	99,11	0,166	0,158	354	0,2616319
17,054	542,4	542,8	100,15	99,13	0,166	0,158	355	0,2615743
17,004	542,3	542,7	100,42	99,34	0,166	0,158	356	0,2608496
17,027	542,3	542,7	100,26	99,25	0,166	0,158	357	0,26124
17,045	542,3	542,7	100,36	99,35	0,166	0,158	358	0,2612398
17,075	542,4	542,7	100,53	99,52	0,166	0,158	359	0,261238
16,919	542,4	542,8	101,74	100,70	0,166	0,158	360	0,2584748
16,937	542,6	542,9	101,88	100,81	0,166	0,158	361	0,2584749
16,980	542,7	543,0	101,75	100,73	0,166	0,158	362	0,2588731
16,722	542,8	543,1	103,50	102,47	0,166	0,158	363	0,254675
17,334	543,0	543,3	99,77	98,85	0,166	0,158	364	0,2639753

17,002	543,1	543,4	101,55	100,43	0,166	0,158	365	0,2591807
17,211	543,2	543,4	100,10	99,01	0,166	0,158	366	0,2626443
17,079	543,2	543,4	100,61	99,71	0,166	0,158	367	0,2608466
16,846	543,1	543,4	101,84	100,94	0,166	0,158	368	0,2574813
17,083	543,1	543,4	100,43	99,41	0,166	0,158	369	0,2612591
16,984	543,0	543,4	100,93	99,81	0,166	0,158	370	0,2598669
17,195	543,0	543,3	99,57	98,56	0,166	0,158	371	0,2631971
16,879	542,9	543,3	101,42	100,32	0,166	0,158	372	0,2584654
16,869	542,8	543,2	101,42	100,35	0,166	0,158	373	0,2584017
16,739	542,8	543,2	102,04	101,10	0,166	0,158	374	0,2564837
16,774	542,7	543,1	101,86	100,84	0,166	0,158	375	0,257082
16,978	542,7	543,1	100,66	99,52	0,166	0,158	376	0,2602564
17,063	542,6	543,0	100,11	99,08	0,166	0,158	377	0,2616325
16,815	542,5	543,0	101,56	100,52	0,166	0,158	378	0,2578793
17,219	542,5	542,9	99,16	98,10	0,166	0,158	379	0,2641123
17,054	542,5	542,9	100,09	99,00	0,166	0,158	380	0,2616324
17,204	542,4	542,8	99,16	98,16	0,166	0,158	381	0,2639753
17,176	542,4	542,8	99,31	98,32	0,166	0,158	382	0,2635867
17,045	542,3	542,7	100,06	99,02	0,166	0,158	383	0,2616321
17,176	542,3	542,7	99,18	98,23	0,166	0,158	384	0,2636625
16,773	542,2	542,6	101,61	100,54	0,166	0,158	385	0,257483
16,689	542,2	542,6	102,29	101,31	0,166	0,158	386	0,2560813
16,730	542,2	542,6	102,36	101,31	0,166	0,159	387	0,2562831
17,118	542,3	542,7	100,31	99,29	0,166	0,158	388	0,261771
16,947	542,4	542,8	101,59	100,58	0,166	0,158	389	0,2588714
17,095	542,5	542,9	100,81	99,91	0,166	0,158	390	0,260846
17,139	542,7	543,0	100,84	99,84	0,166	0,158	391	0,2612398
17,152	542,9	543,1	100,89	99,89	0,166	0,158	392	0,2612395
16,833	543,0	543,3	102,69	101,67	0,166	0,158	393	0,2564827
17,250	543,1	543,3	99,92	98,94	0,166	0,158	394	0,2631962
17,073	543,1	543,4	100,81	99,66	0,166	0,158	395	0,2607225
17,092	543,1	543,4	100,39	99,52	0,166	0,158	396	0,261242
16,900	543,1	543,4	101,56	100,41	0,166	0,158	397	0,2584755
17,223	543,0	543,4	99,43	98,41	0,166	0,158	398	0,2635868
16,882	543,0	543,3	101,41	100,39	0,166	0,158	399	0,2584752
17,029	542,9	543,3	100,35	99,45	0,166	0,158	400	0,2608473
17,049	542,9	543,2	100,22	99,27	0,166	0,158	401	0,2612406
17,018	542,8	543,2	100,41	99,37	0,166	0,158	402	0,2608517
16,795	542,7	543,1	101,71	100,68	0,166	0,158	403	0,2574814
17,011	542,7	543,1	100,39	99,37	0,166	0,158	404	0,2608469
17,032	542,6	543,0	100,13	99,21	0,166	0,158	405	0,2612409
17,160	542,6	543,0	99,37	98,44	0,166	0,158	406	0,2632532
17,152	542,5	542,9	99,45	98,41	0,166	0,158	407	0,2631972
17,175	542,5	542,9	99,20	98,26	0,166	0,158	408	0,2635864
16,618	542,4	542,8	102,60	101,51	0,166	0,158	409	0,2550791
16,838	542,4	542,8	101,26	100,24	0,166	0,158	410	0,2584745
17,231	542,3	542,7	98,92	97,92	0,166	0,158	411	0,2645565
17,013	542,3	542,7	100,18	99,16	0,166	0,158	412	0,2612403
16,921	542,2	542,6	100,60	99,65	0,166	0,158	413	0,2598523
17,162	542,2	542,6	99,28	98,25	0,166	0,158	414	0,2635845
16,863	542,2	542,5	101,14	100,12	0,166	0,158	415	0,2588722
17,017	542,2	542,6	100,55	99,46	0,166	0,158	416	0,2608002
17,102	542,3	542,6	100,39	99,35	0,166	0,158	417	0,2616313
16,692	542,4	542,7	103,07	101,94	0,166	0,158	418	0,2550787
16,551	542,5	542,8	104,15	103,04	0,166	0,158	419	0,2526541
16,607	542,6	542,9	103,97	102,94	0,166	0,158	420	0,2532618
16,986	542,8	543,1	101,74	100,67	0,166	0,158	421	0,2588712
17,098	543,0	543,2	100,82	99,86	0,166	0,158	422	0,260846
17,080	543,0	543,3	100,67	99,64	0,166	0,158	423	0,2608467
16,951	543,0	543,3	101,21	100,24	0,166	0,158	424	0,2590968
17,255	543,0	543,3	99,37	98,36	0,166	0,158	425	0,2639732
17,091	543,0	543,3	100,10	99,21	0,166	0,158	426	0,2616318

17,056	542,9	543,3	100,31	99,25	0,166	0,158	427	0,2612379
16,830	542,9	543,2	101,59	100,50	0,166	0,158	428	0,2578783
16,641	542,8	543,2	102,68	101,50	0,166	0,158	429	0,2550772
17,127	542,8	543,1	99,71	98,60	0,166	0,158	430	0,2626111
17,184	542,7	543,1	99,31	98,19	0,166	0,158	431	0,2635874
17,357	542,7	543,0	98,29	97,20	0,166	0,158	432	0,266297
17,113	542,6	543,0	99,66	98,65	0,166	0,158	433	0,2626109
17,173	542,6	542,9	99,28	98,27	0,166	0,158	434	0,2635871
17,099	542,5	542,9	99,63	98,67	0,166	0,158	435	0,2625076
17,229	542,5	542,8	98,87	97,89	0,166	0,158	436	0,2645578
16,702	542,4	542,8	102,00	100,98	0,166	0,158	437	0,2564833
16,737	542,4	542,7	101,76	100,74	0,166	0,158	438	0,2570661
16,978	542,3	542,7	100,32	99,27	0,166	0,158	439	0,2607839
17,093	542,3	542,6	99,61	98,60	0,166	0,158	440	0,2626095
16,667	542,2	542,6	102,15	101,12	0,166	0,159	441	0,2560808
17,026	542,2	542,5	99,98	98,89	0,166	0,158	442	0,2616307
16,846	542,1	542,5	101,05	100,15	0,166	0,159	443	0,2588715
16,838	542,1	542,5	101,42	100,29	0,166	0,159	444	0,2584745
17,071	542,2	542,5	100,30	99,33	0,166	0,159	445	0,2615873
17,052	542,3	542,6	100,76	99,71	0,166	0,159	446	0,2608456
16,915	542,4	542,7	101,73	100,72	0,166	0,158	447	0,2584697
16,841	542,5	542,8	102,46	101,35	0,166	0,158	448	0,2570812
16,907	542,6	542,9	102,10	101,09	0,166	0,158	449	0,2578785
16,662	542,8	543,0	103,72	102,63	0,166	0,158	450	0,2540476
17,112	542,9	543,1	100,64	99,60	0,166	0,158	451	0,2612438
17,223	542,9	543,2	99,79	98,72	0,166	0,158	452	0,2631956
16,834	543,0	543,2	101,97	100,90	0,166	0,158	453	0,2574803
17,143	542,9	543,2	99,93	98,94	0,166	0,158	454	0,2623987
17,030	542,9	543,2	100,47	99,47	0,166	0,158	455	0,2608457
16,711	542,8	543,1	102,30	101,26	0,166	0,158	456	0,2560836
16,730	542,8	543,1	102,11	101,02	0,166	0,158	457	0,2564822
17,034	542,7	543,1	100,22	99,22	0,166	0,158	458	0,2612393
17,003	542,6	543,0	100,35	99,38	0,166	0,158	459	0,2608456
17,060	542,6	543,0	99,98	98,97	0,166	0,158	460	0,2617839
17,020	542,5	542,9	100,17	99,16	0,166	0,158	461	0,2612391
17,169	542,5	542,8	99,26	98,27	0,166	0,158	462	0,2635881
17,012	542,4	542,8	100,19	99,14	0,166	0,158	463	0,2612403
16,920	542,4	542,8	100,67	99,65	0,166	0,158	464	0,2598618
17,095	542,3	542,7	99,61	98,58	0,166	0,158	465	0,2626102
17,005	542,3	542,6	100,13	99,13	0,166	0,158	466	0,2612361
17,177	542,2	542,6	99,09	98,10	0,166	0,159	467	0,2639384
16,930	542,2	542,5	100,54	99,63	0,166	0,159	468	0,2601647
17,086	542,1	542,5	99,59	98,59	0,166	0,159	469	0,2626078
16,996	542,1	542,4	100,19	99,11	0,166	0,159	470	0,2612389
16,994	542,0	542,4	100,11	99,11	0,166	0,159	471	0,2612387
17,033	542,0	542,4	100,10	99,11	0,166	0,159	472	0,2615482
17,041	542,1	542,4	100,35	99,32	0,166	0,159	473	0,2612394
17,072	542,2	542,5	100,57	99,48	0,166	0,158	474	0,2612388
17,088	542,3	542,6	100,63	99,63	0,166	0,158	475	0,2612299
17,080	542,4	542,7	100,87	99,77	0,166	0,158	476	0,2608451
16,903	542,6	542,8	102,08	101,08	0,166	0,158	477	0,2578776
16,790	542,7	543,0	102,80	101,71	0,166	0,158	478	0,2560814
17,080	542,8	543,1	100,66	99,66	0,166	0,158	479	0,2608466
16,884	542,9	543,1	101,72	100,72	0,166	0,158	480	0,2581186
17,200	542,9	543,1	99,67	98,61	0,166	0,158	481	0,2631965
16,722	542,9	543,1	102,31	101,33	0,166	0,158	482	0,2560799
17,138	542,8	543,1	99,76	98,69	0,166	0,158	483	0,262611
16,939	542,8	543,1	100,85	99,78	0,166	0,158	484	0,2596767
17,033	542,7	543,0	100,15	99,16	0,166	0,158	485	0,2612399
17,179	542,7	543,0	99,29	98,34	0,166	0,158	486	0,2635867
17,147	542,6	542,9	99,38	98,42	0,166	0,158	487	0,2631967
16,797	542,6	542,9	101,41	100,33	0,166	0,158	488	0,2578776

17,099	542,5	542,9	99,51	98,60	0,166	0,158	489	0,2626006
16,853	542,5	542,8	101,03	99,94	0,166	0,158	490	0,258872
16,977	542,4	542,8	100,25	99,24	0,166	0,158	491	0,2608458
17,000	542,3	542,7	100,11	99,10	0,166	0,158	492	0,2612183
17,023	542,3	542,7	99,83	98,87	0,166	0,158	493	0,2616308
17,210	542,2	542,6	98,71	97,83	0,166	0,158	494	0,2645575
16,928	542,2	542,5	100,38	99,44	0,166	0,159	495	0,2602517
17,142	542,1	542,5	99,17	98,17	0,166	0,159	496	0,2635762
16,769	542,1	542,5	101,36	100,34	0,166	0,159	497	0,2578775
16,895	542,0	542,4	100,59	99,57	0,166	0,159	498	0,2598607
16,675	542,0	542,4	101,89	100,87	0,166	0,159	499	0,2565134
16,561	542,0	542,3	102,66	101,62	0,166	0,159	500	0,254684
16,830	542,0	542,3	101,23	100,26	0,166	0,159	501	0,2584741
16,951	542,1	542,4	100,92	99,91	0,166	0,159	502	0,2598594
16,938	542,1	542,5	101,28	100,16	0,166	0,158	503	0,2592683
16,931	542,2	542,5	101,47	100,50	0,166	0,158	504	0,2588749
17,104	542,4	542,7	100,69	99,58	0,166	0,158	505	0,2612396
17,124	542,5	542,8	100,70	99,71	0,166	0,158	506	0,2613477
17,137	542,7	542,9	100,53	99,54	0,166	0,158	507	0,2616313
17,089	542,7	543,0	100,54	99,45	0,166	0,158	508	0,26124
17,198	542,8	543,0	99,62	98,58	0,166	0,158	509	0,2631963
17,056	542,8	543,1	100,28	99,34	0,166	0,158	510	0,2612394
17,069	542,8	543,0	100,00	99,05	0,166	0,158	511	0,2616313
17,161	542,7	543,0	99,35	98,44	0,166	0,158	512	0,2631952
17,114	542,7	543,0	99,60	98,64	0,166	0,158	513	0,2626106
16,690	542,6	543,0	102,07	100,97	0,166	0,158	514	0,2562021
17,100	542,6	542,9	99,53	98,58	0,166	0,158	515	0,2626099
16,980	542,5	542,9	100,19	99,23	0,166	0,158	516	0,2608458
16,975	542,5	542,8	100,22	99,23	0,166	0,158	517	0,260846
16,519	542,4	542,8	102,95	101,93	0,166	0,158	518	0,2538815
16,567	542,4	542,7	102,62	101,60	0,166	0,158	519	0,2546748
16,926	542,3	542,6	100,30	99,34	0,166	0,158	520	0,2602549
17,139	542,2	542,6	99,14	98,14	0,166	0,158	521	0,2635863
16,802	542,2	542,5	101,10	100,09	0,166	0,159	522	0,2584477
16,893	542,1	542,5	100,55	99,46	0,166	0,158	523	0,2598625
16,579	542,1	542,4	102,43	101,33	0,166	0,158	524	0,2550783
16,709	542,0	542,4	101,62	100,48	0,166	0,158	525	0,2571093
16,885	542,0	542,3	100,54	99,48	0,166	0,158	526	0,2598605
17,061	541,9	542,3	99,48	98,48	0,166	0,159	527	0,2626092
17,059	541,9	542,2	99,48	98,48	0,166	0,159	528	0,2626095
17,007	541,9	542,2	99,92	98,92	0,166	0,159	529	0,2616308
16,925	541,9	542,2	100,86	99,81	0,166	0,159	530	0,2598644
16,953	542,0	542,3	100,94	99,93	0,166	0,159	531	0,2598601
16,726	542,1	542,4	102,54	101,52	0,166	0,159	532	0,2560811
16,945	542,2	542,5	101,43	100,43	0,166	0,159	533	0,2591193
17,037	542,3	542,6	101,12	100,08	0,166	0,159	534	0,2602545
17,047	542,5	542,7	101,11	100,11	0,166	0,158	535	0,2602547
17,187	542,6	542,8	100,09	99,01	0,166	0,158	536	0,2626099
17,011	542,7	542,9	100,85	99,89	0,166	0,158	537	0,2602566
16,904	542,7	542,9	101,24	100,29	0,166	0,158	538	0,2588714
16,979	542,7	542,9	100,67	99,67	0,166	0,158	539	0,2602547
16,721	542,6	542,9	102,07	100,99	0,166	0,158	540	0,256482
16,932	542,6	542,9	100,73	99,62	0,166	0,158	541	0,2598584
17,166	542,6	542,8	99,23	98,25	0,166	0,158	542	0,2635855
17,006	542,5	542,8	100,09	99,10	0,166	0,158	543	0,2612392
16,913	542,5	542,8	100,52	99,61	0,166	0,158	544	0,259895
16,997	542,4	542,7	100,06	99,06	0,166	0,158	545	0,2612419
17,118	542,3	542,7	99,29	98,30	0,166	0,158	546	0,2631963
17,102	542,3	542,6	99,36	98,36	0,166	0,158	547	0,263005
16,766	542,2	542,6	101,33	100,41	0,166	0,159	548	0,2578777
16,940	542,2	542,5	100,24	99,24	0,166	0,159	549	0,2606185
17,074	542,1	542,5	99,54	98,44	0,166	0,159	550	0,262715

16,850	542,1	542,4	100,73	99,72	0,166	0,159	551	0,2593218
16,972	542,0	542,4	99,98	99,02	0,166	0,159	552	0,2612408
16,700	542,0	542,3	101,57	100,66	0,166	0,159	553	0,2570808
16,659	541,9	542,3	101,83	100,81	0,166	0,159	554	0,2564823
16,786	541,9	542,2	101,04	100,03	0,166	0,159	555	0,2584743

Average	Average	Average	Proportional Rates Medium/low fire					Average
17,76	Inlet +	Inlet +						0,269
	Outlet	Outlet	Average	Average	#1	#2		
Tunnel	Temp.	Temp.	101,67	100,71	System 1	System 2		SQRT
Velocity	Meter 1	Meter 2	Proportional Rates		Vol.Std.	Vol.Std.		Delta-P
			PR1	PR2			Time	
Ft/Sec	Deg. R	Deg. R	%	%	(ft3)	(ft3)	min	(in H2O)2
18,309	543,9	544,2			0,156	0,149	0	0,2626128
17,644	543,8	544,2	106,68	105,57	0,156	0,149	1	0,2608486
17,977	543,8	544,2	103,91	102,92	0,156	0,149	2	0,2668775
17,844	543,8	544,2	104,26	103,23	0,156	0,149	3	0,2653386
18,041	543,8	544,2	103,25	102,26	0,156	0,149	4	0,2682214
17,886	543,8	544,2	103,85	102,74	0,156	0,149	5	0,266301
18,047	543,8	544,2	102,88	101,89	0,156	0,149	6	0,2687507
18,259	543,8	544,2	101,74	100,82	0,156	0,149	7	0,2718315
18,224	543,8	544,2	101,97	100,96	0,156	0,149	8	0,2712654
17,958	543,8	544,2	103,64	102,52	0,156	0,149	9	0,2672606
17,911	543,8	544,2	103,99	102,99	0,156	0,149	10	0,2663048
17,947	543,8	544,2	103,87	102,74	0,156	0,149	11	0,2668789
17,999	543,8	544,2	103,51	102,58	0,156	0,149	12	0,2676374
17,921	543,8	544,2	103,62	102,72	0,156	0,149	13	0,266877
17,909	543,8	544,2	103,36	102,24	0,156	0,149	14	0,2672622
17,914	543,8	544,2	103,09	102,08	0,156	0,149	15	0,2676553
17,898	543,8	544,2	102,98	101,99	0,156	0,149	16	0,2676465
18,124	543,8	544,3	101,80	100,84	0,156	0,149	17	0,2708589
17,913	543,8	544,3	103,08	102,07	0,156	0,149	18	0,2676467
18,237	543,8	544,3	101,23	100,30	0,156	0,149	19	0,2725083
17,805	543,8	544,3	103,64	102,63	0,156	0,149	20	0,2661145
18,119	543,8	544,3	101,79	100,80	0,156	0,149	21	0,2708867
17,967	543,8	544,3	102,66	101,55	0,156	0,149	22	0,268604
17,964	543,8	544,2	102,64	101,60	0,156	0,149	23	0,2686034
17,878	543,8	544,2	103,18	102,17	0,156	0,149	24	0,267265
18,108	543,7	544,2	101,74	100,75	0,156	0,149	25	0,2708868
17,847	543,7	544,2	103,31	102,30	0,156	0,149	26	0,2668784
17,867	543,7	544,2	103,21	102,13	0,156	0,149	27	0,2672622
17,900	543,7	544,2	102,90	101,90	0,156	0,149	28	0,2678135
18,035	543,7	544,1	102,34	101,34	0,156	0,149	29	0,2695612
17,958	543,7	544,1	102,62	101,68	0,156	0,149	30	0,2686039
18,107	543,7	544,2	101,77	100,76	0,156	0,149	31	0,270874
18,051	543,7	544,2	102,14	101,15	0,156	0,149	32	0,2699385
18,106	543,7	544,2	101,73	100,80	0,156	0,149	33	0,2708866
18,119	543,8	544,2	101,80	100,81	0,156	0,149	34	0,2708861
17,845	543,8	544,2	103,29	102,29	0,156	0,149	35	0,2668779
18,111	543,7	544,2	101,76	100,77	0,156	0,149	36	0,2708863
17,627	543,7	544,2	104,60	103,58	0,156	0,149	37	0,2635887
17,935	543,8	544,2	102,78	101,78	0,156	0,149	38	0,2682212
18,116	543,8	544,2	101,64	100,73	0,156	0,149	39	0,271079
17,954	543,8	544,2	102,71	101,64	0,156	0,149	40	0,2685991
17,847	543,8	544,2	103,31	102,30	0,156	0,149	41	0,2668779
17,761	543,8	544,2	103,73	102,72	0,156	0,149	42	0,2656803
18,120	543,8	544,2	101,85	100,82	0,156	0,149	43	0,2708862
17,959	543,8	544,3	102,61	101,68	0,156	0,149	44	0,2686036
18,042	543,8	544,3	102,07	101,08	0,156	0,149	45	0,2699372
17,946	543,8	544,3	102,76	101,76	0,156	0,149	46	0,2683153
17,930	543,9	544,3	102,73	101,73	0,156	0,149	47	0,2682221
17,902	543,9	544,3	103,05	102,01	0,156	0,149	48	0,2676468
17,879	543,9	544,3	103,08	102,16	0,156	0,149	49	0,2673868
17,893	543,9	544,4	102,95	102,00	0,156	0,149	50	0,2676455
18,070	544,0	544,4	101,49	100,51	0,156	0,149	51	0,2708875
18,123	544,0	544,4	101,08	100,10	0,156	0,149	52	0,2718328
18,078	544,0	544,4	101,28	100,37	0,156	0,149	53	0,2712242
17,745	544,0	544,4	103,13	102,12	0,156	0,149	54	0,2663007

18,048	544,0	544,4	101,37	100,38	0,156	0,149	55	0,270887
18,049	544,0	544,4	101,42	100,38	0,156	0,149	56	0,2708872
17,780	544,0	544,4	102,87	101,88	0,156	0,149	57	0,2668785
17,871	544,0	544,4	102,48	101,37	0,156	0,149	58	0,2682257
18,107	544,0	544,4	101,09	100,09	0,156	0,149	59	0,2718321
17,891	544,0	544,4	102,19	101,23	0,156	0,149	60	0,2686039
17,956	544,0	544,4	101,84	100,82	0,156	0,149	61	0,2695977
17,951	544,0	544,5	101,81	100,83	0,156	0,149	62	0,2695597
17,945	544,0	544,4	101,78	100,90	0,156	0,149	63	0,269557
18,036	544,0	544,4	101,38	100,33	0,156	0,149	64	0,2708871
17,884	544,0	544,5	102,15	101,24	0,156	0,149	65	0,2686035
17,701	544,0	544,5	103,16	102,15	0,156	0,149	66	0,2659194
17,941	544,0	544,5	101,75	100,87	0,156	0,149	67	0,2695576
17,871	544,0	544,5	102,04	101,20	0,156	0,149	68	0,2685662
17,769	544,0	544,5	102,68	101,68	0,156	0,149	69	0,2670404
18,118	544,0	544,5	100,79	99,76	0,156	0,149	70	0,2722083
18,055	544,1	544,5	101,22	100,13	0,156	0,149	71	0,2712666
17,958	544,1	544,5	101,67	100,62	0,156	0,149	72	0,2699383
18,046	544,0	544,5	101,17	100,10	0,156	0,149	73	0,2712656
17,847	544,0	544,5	102,23	101,27	0,156	0,149	74	0,2682217
18,020	544,0	544,5	101,32	100,33	0,156	0,149	75	0,2708868
17,718	544,0	544,5	102,97	101,99	0,156	0,149	76	0,2663007
18,085	544,0	544,5	100,86	99,88	0,156	0,149	77	0,2718342
17,717	544,0	544,5	102,96	101,95	0,156	0,149	78	0,2663001
17,649	544,0	544,5	103,37	102,48	0,156	0,149	79	0,2652528
17,811	544,0	544,5	102,49	101,46	0,156	0,149	80	0,2676468
18,025	544,0	544,5	101,35	100,34	0,156	0,149	81	0,2708866
17,873	544,0	544,5	102,09	101,09	0,156	0,149	82	0,2686031
18,023	544,0	544,5	101,21	100,23	0,156	0,149	83	0,2708868
17,962	544,0	544,5	101,58	100,70	0,156	0,149	84	0,2699367
18,026	544,0	544,5	101,26	100,27	0,156	0,149	85	0,2708476
17,698	544,0	544,5	103,23	102,13	0,156	0,149	86	0,2659156
17,816	544,0	544,5	102,60	101,57	0,156	0,149	87	0,2676466
17,969	544,0	544,4	101,76	100,78	0,156	0,149	88	0,2698739
18,036	544,0	544,4	101,29	100,30	0,156	0,149	89	0,2708871
17,575	544,0	544,4	103,94	102,92	0,156	0,149	90	0,263978
17,859	544,0	544,4	102,41	101,37	0,156	0,149	91	0,2681384
17,712	544,0	544,4	103,35	102,23	0,156	0,149	92	0,2659152
17,831	543,9	544,3	102,71	101,71	0,156	0,149	93	0,2676466
17,871	543,9	544,3	102,38	101,51	0,156	0,149	94	0,2682213
17,884	543,9	544,3	102,33	101,46	0,156	0,149	95	0,2683889
17,812	543,9	544,3	102,81	101,91	0,156	0,149	96	0,2672619
17,817	543,9	544,3	102,86	101,94	0,156	0,149	97	0,2672626
17,817	543,9	544,3	102,85	101,91	0,156	0,149	98	0,2672527
18,150	543,9	544,3	100,97	100,05	0,156	0,149	99	0,2722084
17,822	543,9	544,3	102,92	101,93	0,156	0,149	100	0,2672597
17,976	543,8	544,3	102,17	101,06	0,156	0,149	101	0,2694583
17,935	543,8	544,3	102,47	101,36	0,156	0,149	102	0,2687552
17,813	543,8	544,3	103,10	102,14	0,156	0,149	103	0,2668789
17,903	543,8	544,3	102,69	101,59	0,156	0,149	104	0,26822
17,753	543,8	544,3	103,50	102,49	0,156	0,149	105	0,2659149
17,740	543,8	544,3	103,59	102,57	0,156	0,149	106	0,2657107
17,847	543,8	544,2	103,00	102,04	0,156	0,149	107	0,267267
17,778	543,8	544,2	103,47	102,34	0,156	0,149	108	0,2663005
17,746	543,7	544,2	103,50	102,51	0,156	0,149	109	0,2659154
17,894	543,7	544,2	102,65	101,66	0,156	0,149	110	0,2682212
17,799	543,7	544,2	103,03	102,14	0,156	0,149	111	0,2668779
17,993	543,7	544,2	101,93	100,96	0,156	0,149	112	0,2698383
18,023	543,8	544,2	101,80	100,78	0,156	0,149	113	0,2703252
17,819	543,8	544,2	102,93	101,85	0,156	0,149	114	0,2672629
17,751	543,8	544,2	103,27	102,20	0,156	0,149	115	0,2663003
17,994	543,8	544,2	101,81	100,85	0,156	0,149	116	0,2699379

18,000	543,8	544,2	101,73	100,86	0,156	0,149	117	0,2700918
17,989	543,7	544,2	101,78	100,87	0,156	0,149	118	0,2699397
17,779	543,8	544,2	103,08	101,97	0,156	0,149	119	0,2668176
18,020	543,7	544,2	101,67	100,70	0,156	0,149	120	0,2704666
17,959	543,7	544,2	101,94	100,92	0,156	0,149	121	0,2695556
17,739	543,7	544,2	103,26	102,13	0,156	0,149	122	0,2662991
17,834	543,7	544,1	102,82	101,70	0,157	0,149	123	0,2677415
17,732	543,6	544,1	103,16	102,23	0,156	0,149	124	0,2662891
17,860	543,6	544,0	102,39	101,50	0,156	0,149	125	0,2682203
17,768	543,6	544,0	102,98	101,99	0,156	0,149	126	0,2668954
17,894	543,6	544,0	102,16	101,14	0,156	0,149	127	0,2687942
17,849	543,7	544,0	102,45	101,45	0,156	0,149	128	0,2681941
17,876	543,6	544,0	102,25	101,20	0,156	0,149	129	0,2686031
18,026	543,6	544,0	101,39	100,43	0,156	0,149	130	0,2708857
17,654	543,6	544,0	103,52	102,41	0,156	0,149	131	0,2653344
17,719	543,6	544,0	103,03	102,04	0,156	0,149	132	0,2662995
17,804	543,7	544,0	102,54	101,53	0,156	0,149	133	0,2676458
17,715	543,7	544,1	103,06	102,09	0,156	0,149	134	0,2663001
17,623	543,6	544,1	103,53	102,52	0,156	0,149	135	0,2649464
17,684	543,6	544,0	103,25	102,19	0,156	0,149	136	0,2659143
18,011	543,7	544,0	101,21	100,24	0,156	0,149	137	0,270885
17,769	543,7	544,0	102,61	101,60	0,156	0,149	138	0,2672612
17,766	543,7	544,0	102,67	101,61	0,156	0,149	139	0,2672614
17,853	543,6	544,0	102,16	101,06	0,156	0,149	140	0,2686024
17,941	543,6	544,0	101,60	100,66	0,156	0,149	141	0,2699372
17,822	543,6	544,0	102,24	101,28	0,156	0,149	142	0,268108
18,003	543,6	544,0	101,24	100,24	0,156	0,149	143	0,2708852
17,789	543,6	544,0	102,50	101,42	0,156	0,149	144	0,2676465
17,673	543,6	544,0	103,02	102,16	0,156	0,149	145	0,2660001
17,998	543,6	544,0	101,16	100,19	0,156	0,149	146	0,270886
17,936	543,6	543,9	101,51	100,57	0,156	0,149	147	0,2699376
17,844	543,6	543,9	101,99	101,02	0,156	0,149	148	0,2686028
17,954	543,6	543,9	101,51	100,42	0,156	0,149	149	0,2702356
17,927	543,6	543,9	101,59	100,60	0,156	0,149	150	0,2699359
17,776	543,6	543,9	102,34	101,48	0,156	0,149	151	0,2676461
17,906	543,6	543,9	101,58	100,72	0,156	0,149	152	0,2696359
17,988	543,6	543,9	101,13	100,28	0,156	0,149	153	0,2708505
17,773	543,6	543,9	102,39	101,46	0,156	0,149	154	0,2676454
17,898	543,5	543,9	101,60	100,63	0,156	0,149	155	0,2695565
17,868	543,5	543,9	101,80	100,80	0,156	0,149	156	0,2691003
17,982	543,5	543,9	101,08	100,11	0,156	0,149	157	0,2708787
17,740	543,5	543,8	102,44	101,41	0,156	0,149	158	0,2672619
17,746	543,5	543,8	102,50	101,50	0,156	0,149	159	0,2672615
17,976	543,5	543,8	101,05	100,13	0,156	0,149	160	0,2708861
17,978	543,5	543,8	101,06	100,10	0,156	0,149	161	0,2708846
17,912	543,5	543,8	101,40	100,55	0,156	0,149	162	0,2699375
17,670	543,5	543,8	102,89	101,80	0,156	0,149	163	0,2662997
18,023	543,5	543,8	100,86	99,90	0,156	0,149	164	0,2716102
18,036	543,5	543,8	100,80	99,84	0,156	0,149	165	0,2718316
17,793	543,5	543,8	101,98	101,05	0,156	0,149	166	0,2682203
17,793	543,5	543,8	102,02	101,08	0,156	0,149	167	0,2682315
17,757	543,4	543,8	102,28	101,27	0,156	0,149	168	0,2676446
17,668	543,4	543,8	102,78	101,83	0,156	0,149	169	0,2662998
17,730	543,4	543,7	102,40	101,43	0,156	0,149	170	0,2672609
17,970	543,4	543,7	101,06	100,10	0,156	0,149	171	0,2708848
17,731	543,4	543,7	102,41	101,38	0,156	0,149	172	0,2672621
17,882	543,4	543,7	101,53	100,56	0,156	0,149	173	0,2695553
17,906	543,4	543,7	101,38	100,42	0,156	0,149	174	0,2699371
18,032	543,3	543,7	100,64	99,71	0,156	0,149	175	0,2718487
17,902	543,3	543,7	101,37	100,33	0,156	0,149	176	0,2699341
17,848	543,3	543,7	101,73	100,69	0,156	0,149	177	0,2690948
17,876	543,3	543,6	101,51	100,49	0,156	0,149	178	0,2695558

17,961	543,3	543,6	101,00	100,03	0,156	0,149	179	0,2708854
17,873	543,3	543,6	101,50	100,47	0,156	0,149	180	0,269556
17,632	543,3	543,6	102,89	101,95	0,156	0,149	181	0,265914
17,710	543,3	543,6	102,53	101,57	0,156	0,149	182	0,2669814
17,771	543,3	543,6	102,09	101,12	0,156	0,149	183	0,2680175
17,962	543,2	543,5	101,02	99,94	0,156	0,149	184	0,270885
17,898	543,2	543,5	101,40	100,41	0,156	0,149	185	0,2699373
17,547	543,2	543,5	103,40	102,42	0,156	0,149	186	0,2646467
17,719	543,2	543,5	102,44	101,41	0,156	0,149	187	0,26727
17,868	543,2	543,5	101,50	100,53	0,156	0,149	188	0,2695546
17,982	543,1	543,4	100,87	99,90	0,156	0,149	189	0,2712643
17,873	543,1	543,4	101,54	100,55	0,156	0,149	190	0,2696016
17,809	543,1	543,4	101,92	100,92	0,156	0,149	191	0,2686013
17,810	543,1	543,4	101,90	100,93	0,156	0,149	192	0,2686005
17,823	543,1	543,4	101,94	100,86	0,156	0,149	193	0,268799
18,025	543,0	543,4	100,70	99,74	0,156	0,149	194	0,2718306
17,786	543,0	543,4	102,06	101,14	0,156	0,149	195	0,2682193
17,785	543,0	543,3	102,06	101,08	0,156	0,149	196	0,2682196
17,872	543,0	543,3	101,55	100,55	0,156	0,149	197	0,2695561
17,808	543,0	543,3	101,91	100,86	0,156	0,149	198	0,2686017
18,017	543,0	543,3	100,67	99,71	0,156	0,149	199	0,2718294
17,939	543,0	543,3	101,08	100,22	0,156	0,149	200	0,2706843
18,036	543,0	543,3	100,49	99,46	0,156	0,149	201	0,2722079
17,940	543,0	543,3	101,00	100,00	0,156	0,149	202	0,2708087
17,725	543,0	543,3	102,17	101,20	0,156	0,149	203	0,267642
17,722	543,0	543,3	102,15	101,18	0,156	0,149	204	0,2676451
17,872	543,0	543,2	101,26	100,31	0,156	0,149	205	0,2699367
18,027	543,0	543,2	100,31	99,40	0,156	0,149	206	0,2722902
17,928	542,9	543,2	100,92	99,92	0,156	0,149	207	0,2708841
17,775	542,9	543,2	101,64	100,77	0,156	0,149	208	0,2686009
17,772	542,9	543,2	101,73	100,84	0,156	0,149	209	0,2685734
17,642	542,9	543,2	102,43	101,47	0,156	0,149	210	0,2666818
17,921	542,9	543,1	100,85	99,90	0,156	0,149	211	0,2708796
17,706	542,8	543,1	102,07	101,11	0,156	0,149	212	0,2676446
17,742	542,9	543,1	101,85	100,89	0,156	0,149	213	0,2682014
17,701	542,8	543,1	102,07	101,11	0,156	0,149	214	0,2676175
18,004	542,8	543,1	100,34	99,42	0,156	0,149	215	0,2722098
17,914	542,9	543,1	100,82	99,90	0,156	0,149	216	0,2708841
17,650	542,8	543,0	102,34	101,38	0,156	0,149	217	0,2668763
17,672	542,8	543,0	102,24	101,22	0,157	0,149	218	0,2672598
17,823	542,8	543,0	101,35	100,36	0,157	0,149	219	0,2695511
17,971	542,8	543,0	100,56	99,51	0,157	0,149	220	0,27183
18,070	542,8	543,0	99,86	99,04	0,157	0,149	221	0,2733752
17,905	542,7	543,0	100,87	99,84	0,157	0,149	222	0,2708843
17,599	542,7	543,0	102,51	101,55	0,157	0,149	223	0,2662975
17,813	542,7	542,9	101,24	100,31	0,156	0,149	224	0,2695537
17,828	542,7	542,9	101,17	100,34	0,156	0,149	225	0,2697983
17,596	542,7	542,9	102,49	101,53	0,157	0,149	226	0,2663003
17,923	542,7	542,9	100,62	99,68	0,157	0,149	227	0,2712625
17,785	542,6	542,8	101,42	100,44	0,157	0,149	228	0,2692077
17,796	542,6	542,8	101,31	100,36	0,157	0,149	229	0,2694018
17,830	542,5	542,7	101,13	100,16	0,157	0,149	230	0,2699349
17,677	542,5	542,7	101,98	101,03	0,157	0,149	231	0,2676434
17,888	542,4	542,7	100,74	99,79	0,157	0,149	232	0,2708829
17,672	542,4	542,7	101,99	100,99	0,157	0,149	233	0,2676434
17,948	542,4	542,7	100,41	99,44	0,157	0,149	234	0,2718293
17,909	542,4	542,7	100,59	99,65	0,157	0,149	235	0,2712626
17,579	542,4	542,6	102,46	101,50	0,157	0,149	236	0,2662886
17,642	542,4	542,6	102,08	101,19	0,157	0,149	237	0,2672615
18,089	542,4	542,6	99,52	98,60	0,157	0,149	238	0,2740853
18,018	542,4	542,6	99,91	99,06	0,157	0,149	239	0,2730091
17,511	542,4	542,6	102,80	101,85	0,157	0,149	240	0,2653326

17,938	542,4	542,6	100,34	99,38	0,157	0,149	241	0,2718289
17,723	542,4	542,5	101,53	100,59	0,157	0,149	242	0,2686027
17,664	542,3	542,5	101,85	100,90	0,157	0,149	243	0,2677581
17,715	542,3	542,5	101,54	100,59	0,157	0,149	244	0,2685614
17,779	542,2	542,5	101,16	100,21	0,157	0,149	245	0,2695538
17,890	542,2	542,5	100,51	99,62	0,157	0,149	246	0,2712633
17,775	542,2	542,4	101,14	100,20	0,157	0,149	247	0,2695539
17,754	542,2	542,4	101,23	100,28	0,157	0,149	248	0,2692769
17,713	542,2	542,4	101,53	100,50	0,157	0,149	249	0,2686879
17,702	542,1	542,4	101,47	100,52	0,157	0,149	250	0,2685825
17,941	542,1	542,3	100,07	99,19	0,157	0,149	251	0,272206
17,764	542,1	542,3	101,14	100,16	0,157	0,149	252	0,2695528
17,596	542,1	542,3	102,05	101,13	0,157	0,149	253	0,267035
17,910	542,0	542,2	100,25	99,32	0,157	0,149	254	0,2718209
17,759	542,0	542,2	101,08	100,14	0,157	0,149	255	0,2695541
17,694	542,0	542,2	101,47	100,59	0,157	0,150	256	0,2686002
17,692	542,0	542,2	101,43	100,49	0,157	0,150	257	0,2685998
17,753	542,0	542,1	101,06	100,20	0,157	0,150	258	0,269554
17,839	542,0	542,1	100,56	99,70	0,157	0,150	259	0,2708828
17,621	541,9	542,1	101,78	100,85	0,157	0,150	260	0,2676007
17,378	541,9	542,0	103,20	102,13	0,157	0,149	261	0,2639555
17,921	541,9	542,0	100,05	99,14	0,157	0,149	262	0,2722056
17,831	541,9	542,0	100,53	99,61	0,157	0,150	263	0,2708827
17,980	541,8	542,0	99,70	98,79	0,157	0,150	264	0,2731467
17,742	541,8	541,9	101,07	100,11	0,157	0,150	265	0,269553
17,675	541,8	541,9	101,41	100,57	0,157	0,150	266	0,2685877
17,613	541,8	541,9	101,74	100,81	0,157	0,150	267	0,2676421
17,885	541,8	541,9	100,21	99,21	0,157	0,150	268	0,271828
17,824	541,8	541,9	100,49	99,57	0,157	0,150	269	0,2709108
17,822	541,7	541,9	100,50	99,58	0,157	0,150	270	0,2708829
17,606	541,7	541,8	101,71	100,78	0,157	0,150	271	0,2676432
17,942	541,7	541,8	99,79	98,88	0,157	0,150	272	0,2727711
17,812	541,7	541,8	100,52	99,62	0,157	0,150	273	0,2707852
17,816	541,7	541,8	100,48	99,56	0,157	0,150	274	0,2708822
17,602	541,7	541,8	101,69	100,76	0,157	0,150	275	0,2676415
17,900	541,7	541,8	99,99	99,07	0,157	0,150	276	0,2722051
17,812	541,6	541,8	100,53	99,55	0,157	0,150	277	0,270882
17,747	541,6	541,7	100,82	99,90	0,157	0,150	278	0,2699218
17,810	541,6	541,7	100,46	99,55	0,157	0,150	279	0,2708815
17,746	541,6	541,7	100,81	99,89	0,157	0,150	280	0,2699334
17,769	541,5	541,6	100,65	99,73	0,157	0,150	281	0,2703359
17,830	541,5	541,6	100,31	99,40	0,157	0,150	282	0,2712589
17,592	541,5	541,6	101,60	100,75	0,157	0,150	283	0,2676409
17,688	541,4	541,5	101,07	100,07	0,157	0,150	284	0,2691305
17,640	541,4	541,5	101,38	100,46	0,157	0,150	285	0,2684105
17,626	541,3	541,4	101,46	100,53	0,157	0,150	286	0,2682162
17,561	541,3	541,4	101,81	100,89	0,157	0,150	287	0,2672559
17,623	541,3	541,4	101,51	100,52	0,157	0,150	288	0,2682165
17,508	541,2	541,3	102,13	101,20	0,157	0,150	289	0,2664543
17,736	541,2	541,3	100,86	99,88	0,157	0,150	290	0,2699564
17,856	541,2	541,3	100,22	99,18	0,157	0,150	291	0,2718261
17,794	541,2	541,3	100,45	99,65	0,157	0,150	292	0,2708806
17,642	541,1	541,2	101,30	100,26	0,157	0,150	293	0,2685963
17,880	541,1	541,2	99,97	99,05	0,157	0,150	294	0,2722041
17,641	541,1	541,2	101,30	100,36	0,157	0,150	295	0,2685978
17,641	541,1	541,2	101,30	100,37	0,157	0,150	296	0,268597
17,667	541,1	541,2	101,16	100,21	0,157	0,150	297	0,2689877
17,552	541,1	541,2	101,81	100,77	0,157	0,150	298	0,2672543
17,613	541,1	541,2	101,44	100,47	0,157	0,150	299	0,2682152
17,724	541,0	541,1	100,79	99,87	0,157	0,150	300	0,2699315
17,718	541,0	541,1	100,83	99,80	0,157	0,150	301	0,2698366
17,723	541,0	541,1	100,76	99,82	0,157	0,150	302	0,2699312

17,786	541,0	541,1	100,44	99,53	0,157	0,150	303	0,2708793
17,846	541,0	541,0	100,04	99,18	0,157	0,150	304	0,2718115
17,846	541,0	541,0	100,06	99,08	0,157	0,150	305	0,2718236
17,571	540,9	541,0	101,61	100,73	0,157	0,150	306	0,2676388
17,804	540,9	541,0	100,26	99,38	0,157	0,150	307	0,2712422
17,833	540,9	541,0	100,13	99,23	0,157	0,150	308	0,2716743
17,632	540,9	540,9	101,29	100,30	0,157	0,150	309	0,268597
17,631	540,9	540,9	101,28	100,37	0,157	0,150	310	0,2685984
17,515	540,8	540,9	101,91	100,99	0,157	0,150	311	0,2668718
17,604	540,8	540,9	101,43	100,45	0,157	0,150	312	0,2682143
17,780	540,8	540,9	100,45	99,54	0,157	0,150	313	0,2708722
17,630	540,8	540,9	101,21	100,37	0,157	0,150	314	0,2686053
17,805	540,8	540,8	100,27	99,40	0,157	0,150	315	0,2712585
17,615	540,8	540,8	101,27	100,45	0,157	0,150	316	0,2683987
17,713	540,7	540,8	100,73	99,90	0,157	0,150	317	0,2698843
17,779	540,7	540,8	100,45	99,54	0,157	0,150	318	0,2708795
17,713	540,7	540,8	100,79	99,88	0,157	0,150	319	0,2699296
17,855	540,7	540,7	100,00	99,09	0,157	0,150	320	0,2720794
17,773	540,6	540,7	100,43	99,43	0,157	0,150	321	0,2708792
17,623	540,6	540,7	101,29	100,36	0,157	0,150	322	0,2685968
17,686	540,6	540,7	100,94	100,02	0,157	0,150	323	0,2695495
17,520	540,6	540,7	101,79	101,01	0,157	0,150	324	0,2670319
17,595	540,5	540,6	101,43	100,39	0,157	0,150	325	0,2682139
17,706	540,5	540,6	100,78	99,87	0,157	0,150	326	0,2699309
17,767	540,5	540,6	100,43	99,50	0,157	0,150	327	0,2708786
17,768	540,5	540,6	100,43	99,39	0,157	0,150	328	0,2708788
17,768	540,4	540,5	100,44	99,52	0,157	0,150	329	0,2708794
17,592	540,4	540,5	101,44	100,51	0,157	0,150	330	0,268213
17,705	540,4	540,5	100,80	99,91	0,157	0,150	331	0,269929
17,533	540,4	540,5	101,77	100,81	0,157	0,150	332	0,2673366
17,705	540,3	540,4	100,81	99,86	0,157	0,150	333	0,2699265
17,528	540,3	540,4	101,81	100,88	0,157	0,150	334	0,267253
17,840	540,3	540,4	100,02	99,11	0,157	0,150	335	0,2720278
17,760	540,3	540,4	100,41	99,49	0,157	0,150	336	0,2708297
17,613	540,3	540,4	101,30	100,44	0,157	0,150	337	0,2685943
17,849	540,2	540,3	99,96	98,98	0,157	0,150	338	0,2722
17,762	540,2	540,3	100,40	99,53	0,157	0,150	339	0,2708779
17,461	540,2	540,3	102,18	101,21	0,157	0,150	340	0,2662911
17,499	540,2	540,3	101,96	101,02	0,157	0,150	341	0,2668692
17,552	540,2	540,3	101,52	100,65	0,157	0,150	342	0,2677272
17,608	540,1	540,3	101,29	100,26	0,157	0,150	343	0,2685947
17,584	540,1	540,2	101,45	100,48	0,157	0,150	344	0,268212
17,696	540,1	540,2	100,80	99,88	0,157	0,150	345	0,2699294
17,669	540,1	540,2	100,95	100,02	0,157	0,150	346	0,2695293
17,768	540,1	540,2	100,38	99,46	0,157	0,150	347	0,2710431
17,519	540,1	540,2	101,81	100,88	0,157	0,150	348	0,2672532
17,494	540,0	540,1	101,96	101,13	0,157	0,150	349	0,2668697
17,455	540,0	540,1	102,18	101,25	0,157	0,150	350	0,266289
17,606	540,0	540,1	101,30	100,33	0,157	0,150	351	0,2685934
17,454	540,0	540,1	102,18	101,16	0,157	0,150	352	0,2662908
17,753	539,9	540,1	100,45	99,43	0,157	0,150	353	0,2708772
17,715	539,9	540,1	100,67	99,66	0,157	0,150	354	0,2702868
17,875	539,9	540,0	99,75	98,84	0,157	0,150	355	0,2727653
17,665	539,9	540,0	100,90	100,03	0,157	0,150	356	0,2695462
17,539	539,9	540,0	101,67	100,74	0,157	0,150	357	0,2676368
17,743	539,9	540,0	100,51	99,59	0,157	0,150	358	0,2707438
17,660	539,9	540,0	100,96	100,06	0,157	0,150	359	0,2694996
17,513	539,8	540,0	101,70	100,88	0,157	0,150	360	0,2672519
17,714	539,8	539,9	100,65	99,73	0,157	0,150	361	0,2703323
17,722	539,8	539,9	100,54	99,69	0,157	0,150	362	0,2704533
17,384	539,8	539,9	102,55	101,53	0,157	0,150	363	0,2653255
17,574	539,8	539,9	101,44	100,52	0,157	0,150	364	0,268212

17,453	539,8	539,9	102,14	101,21	0,157	0,150	365	0,2663806
17,572	539,8	539,9	101,37	100,52	0,157	0,150	366	0,2682105
17,596	539,7	539,9	101,18	100,37	0,157	0,150	367	0,268593
17,595	539,7	539,8	101,30	100,27	0,157	0,150	368	0,2685929
17,507	539,7	539,8	101,79	100,88	0,157	0,150	369	0,2672517
17,830	539,7	539,8	99,95	99,04	0,157	0,150	370	0,2721995
17,481	539,6	539,8	101,96	100,90	0,157	0,150	371	0,2668722
17,594	539,6	539,7	101,28	100,35	0,157	0,150	372	0,2685926
17,682	539,6	539,7	100,68	99,87	0,157	0,150	373	0,2699483
17,602	539,6	539,7	101,19	100,19	0,157	0,150	374	0,268751
17,653	539,6	539,7	100,94	99,97	0,157	0,150	375	0,2695457
17,764	539,5	539,7	100,21	99,39	0,157	0,150	376	0,2712549
17,671	539,5	539,6	100,83	99,90	0,157	0,150	377	0,269851
17,527	539,5	539,6	101,66	100,72	0,157	0,150	378	0,2676484
17,650	539,5	539,6	100,88	100,00	0,157	0,150	379	0,2695448
17,500	539,4	539,6	101,76	100,88	0,157	0,150	380	0,2672518
17,473	539,4	539,6	101,84	100,90	0,157	0,150	381	0,2668677
17,798	539,4	539,5	99,99	99,13	0,157	0,150	382	0,2718205
17,371	539,4	539,5	102,56	101,61	0,157	0,150	383	0,2653241
17,371	539,3	539,5	102,54	101,61	0,157	0,150	384	0,2653243
17,569	539,3	539,4	101,40	100,47	0,157	0,150	385	0,268356
17,794	539,3	539,4	100,02	99,08	0,157	0,150	386	0,2718232
17,527	539,3	539,4	101,64	100,70	0,157	0,150	387	0,2677368
17,469	539,3	539,4	101,95	101,03	0,157	0,150	388	0,266867
17,519	539,2	539,4	101,67	100,65	0,157	0,150	389	0,2676354
17,582	539,2	539,3	101,32	100,39	0,158	0,150	390	0,2685914
17,491	539,2	539,3	101,81	100,84	0,158	0,150	391	0,267251
17,466	539,1	539,3	101,97	101,03	0,158	0,150	392	0,2668658
17,574	539,1	539,3	101,32	100,40	0,158	0,150	393	0,2685349
17,466	539,1	539,2	101,95	100,92	0,158	0,150	394	0,2668675
17,726	539,1	539,2	100,45	99,59	0,158	0,150	395	0,270874
17,553	539,1	539,2	101,43	100,42	0,158	0,150	396	0,26821
17,513	539,0	539,2	101,66	100,63	0,158	0,150	397	0,2676349
17,575	539,0	539,2	101,20	100,38	0,157	0,150	398	0,2685902
17,409	539,0	539,2	102,28	101,22	0,157	0,150	399	0,2660536
17,527	539,0	539,1	101,51	100,58	0,158	0,150	400	0,2678478
17,488	539,0	539,1	101,82	100,79	0,158	0,150	401	0,2672493
17,661	539,0	539,1	100,77	99,88	0,158	0,150	402	0,2699256
17,461	539,0	539,1	101,97	100,99	0,158	0,150	403	0,2668661
17,537	539,0	539,1	101,53	100,50	0,158	0,150	404	0,2680264
17,423	538,9	539,0	102,17	101,23	0,158	0,150	405	0,266289
17,749	538,9	539,0	100,23	99,30	0,158	0,150	406	0,2712543
17,805	538,9	539,0	99,92	98,97	0,157	0,150	407	0,2721515
17,543	538,8	539,0	101,44	100,51	0,158	0,150	408	0,2681503
17,459	538,8	538,9	101,98	100,99	0,158	0,150	409	0,2668662
17,484	538,8	538,9	101,81	100,86	0,158	0,150	410	0,2672494
17,459	538,8	538,9	101,92	100,95	0,158	0,150	411	0,2668583
17,508	538,8	538,9	101,61	100,65	0,158	0,150	412	0,2676426
17,545	538,7	538,9	101,36	100,43	0,157	0,150	413	0,2682072
17,480	538,7	538,8	101,84	100,89	0,158	0,150	414	0,2672488
17,651	538,6	538,8	100,76	99,83	0,158	0,150	415	0,2698455
17,543	538,6	538,8	101,49	100,44	0,158	0,150	416	0,2682076
17,567	538,6	538,7	101,34	100,42	0,158	0,150	417	0,2685909
17,718	538,5	538,7	100,45	99,58	0,158	0,150	418	0,2708732
17,426	538,5	538,7	102,07	101,21	0,158	0,150	419	0,2664266
17,541	538,5	538,7	101,50	100,57	0,158	0,150	420	0,2682088
17,800	538,5	538,7	99,91	98,99	0,158	0,150	421	0,2721977
17,836	538,5	538,6	99,68	98,87	0,158	0,150	422	0,2727616
17,413	538,4	538,6	102,11	101,28	0,158	0,150	423	0,2662876
17,774	538,4	538,6	100,14	99,11	0,158	0,150	424	0,2718184
17,412	538,4	538,6	102,12	101,29	0,158	0,150	425	0,2662869
17,714	538,4	538,5	100,42	99,54	0,158	0,150	426	0,270873

17,651	538,4	538,5	100,86	99,88	0,158	0,150	427	0,2699251
17,414	538,4	538,5	102,20	101,30	0,158	0,150	428	0,2662909
17,415	538,3	538,5	102,26	101,21	0,158	0,150	429	0,2662876
17,578	538,3	538,4	101,27	100,26	0,158	0,150	430	0,2688487
17,648	538,3	538,4	100,87	99,84	0,158	0,150	431	0,2699146
17,536	538,3	538,4	101,48	100,56	0,158	0,150	432	0,2682089
17,409	538,3	538,4	102,24	101,19	0,158	0,150	433	0,2662862
17,410	538,2	538,4	102,19	101,20	0,158	0,150	434	0,2662872
17,732	538,2	538,3	100,37	99,33	0,158	0,150	435	0,2712503
17,534	538,1	538,3	101,41	100,56	0,158	0,150	436	0,2682074
17,296	538,1	538,3	102,86	101,93	0,158	0,150	437	0,2645467
17,689	538,0	538,3	100,57	99,62	0,158	0,150	438	0,2705957
17,344	538,0	538,2	102,64	101,57	0,158	0,150	439	0,2653232
17,445	538,0	538,2	101,94	100,99	0,158	0,150	440	0,266864
17,530	538,0	538,2	101,44	100,50	0,158	0,150	441	0,2681773
17,469	537,9	538,2	101,82	100,93	0,158	0,150	442	0,2672483
17,524	537,9	538,1	101,56	100,58	0,158	0,150	443	0,2681008
17,705	537,9	538,1	100,44	99,50	0,158	0,150	444	0,2708714
17,530	537,9	538,1	101,52	100,48	0,158	0,150	445	0,2682071
17,404	537,9	538,1	102,18	101,26	0,158	0,150	446	0,2662859
17,440	537,9	538,1	101,93	100,98	0,158	0,150	447	0,2668641
17,341	537,9	538,1	102,65	101,53	0,158	0,150	448	0,2653226
17,501	537,8	538,1	101,59	100,64	0,158	0,150	449	0,2677942
17,490	537,8	538,1	101,74	100,82	0,158	0,151	450	0,2676337
17,489	537,8	538,1	101,65	100,75	0,158	0,151	451	0,2676325
17,638	537,8	538,0	100,84	99,84	0,158	0,150	452	0,2699232
17,464	537,8	538,0	101,92	100,85	0,158	0,150	453	0,2672476
17,524	537,8	538,0	101,42	100,48	0,158	0,150	454	0,268206
17,488	537,8	538,0	101,65	100,77	0,158	0,150	455	0,2676312
17,616	537,8	537,9	101,03	100,09	0,158	0,151	456	0,269592
17,761	537,7	537,9	100,09	99,16	0,158	0,151	457	0,2718121
17,461	537,7	537,9	101,85	100,88	0,158	0,150	458	0,2672465
17,548	537,7	537,9	101,42	100,47	0,158	0,151	459	0,2685687
17,549	537,7	537,9	101,30	100,47	0,158	0,151	460	0,2685884
17,524	537,7	537,9	101,43	100,60	0,158	0,151	461	0,2682218
17,397	537,6	537,8	102,29	101,23	0,158	0,151	462	0,2662847
17,484	537,7	537,8	101,65	100,83	0,158	0,151	463	0,2676309
17,696	537,6	537,8	100,47	99,53	0,158	0,151	464	0,2708704
17,633	537,6	537,8	100,89	99,85	0,158	0,151	465	0,2699222
17,522	537,6	537,8	101,54	100,56	0,158	0,151	466	0,2682069
17,631	537,5	537,8	100,92	99,94	0,158	0,151	467	0,2698947

APPENDIX 3: Calibration data

APPENDIX 4: Unit pre burn

EPA Aging

Time minutes	Flue	Room	catalyst center	weight	right	back	bottom	top	left
1	71,77	68,47	70,72	10,30	70,53	70,52	72,436	70,5	70,8842
2	91,76	68,55	105,95	10,20	70,53	70,52	72,366	80,6	70,8530
3	132,95	68,47	137,15	10,10	70,56	70,50	72,291	113,2	70,9554
4	173,74	68,47	146,87	9,90	70,95	70,56	72,236	141,3	71,5090
5	164,46	68,32	353,59	9,80	71,73	70,61	72,160	163,5	72,6164
6	197,48	68,38	572,57	9,70	73,06	70,86	72,132	185,8	74,2489
7	244,32	68,43	716,61	9,50	74,96	71,28	72,129	206,7	76,3531
8	289,43	68,57	779,83	9,30	77,36	72,01	72,116	226,5	79,0783
9	325,71	68,53	826,82	9,10	81,08	73,15	72,113	248,6	82,5607
10	357,12	68,46	881,47	8,90	85,84	74,76	72,216	277,2	86,8405
11	386,26	68,42	886,03	8,80	91,36	76,81	72,265	297,3	91,9107
12	408,25	68,41	864,84	8,60	97,81	79,26	72,360	314,6	97,6088
13	425,96	68,42	855,19	8,40	105,16	81,87	72,521	335,0	104,4455
14	443,33	68,47	858,02	8,20	113,79	84,91	72,701	355,3	112,5578
15	459,42	68,46	864,77	8,00	122,24	88,24	72,958	373,1	121,5147
16	453,65	68,45	873,51	7,90	129,73	91,58	73,291	388,6	128,4055
17	445,43	68,48	894,57	7,80	133,51	95,10	73,707	397,1	132,3981
18	448,01	68,50	885,64	7,70	137,00	98,66	74,243	401,3	134,4960
19	452,40	68,40	885,65	7,50	142,05	102,26	74,849	415,1	138,4171
20	461,00	68,44	921,11	7,30	146,05	105,98	75,600	436,8	142,0452
21	472,25	68,48	961,42	7,10	150,57	109,87	76,378	458,1	144,4179
22	481,65	68,51	969,75	7,00	154,77	113,94	77,211	476,4	147,9529
23	488,94	68,51	971,92	6,80	158,55	118,15	78,076	494,8	152,6920
24	496,52	68,46	972,81	6,60	162,32	122,64	78,989	509,1	157,8132
25	503,65	68,53	971,76	6,50	164,87	127,11	79,891	519,4	163,3707
26	509,47	68,54	978,84	6,30	167,74	131,97	80,847	531,9	170,3156
27	516,26	68,57	982,12	6,10	173,52	137,26	81,842	542,8	176,2895
28	522,69	68,51	983,29	6,00	180,19	141,90	82,829	551,0	182,7485
29	527,96	68,49	979,73	5,80	186,53	147,05	83,840	554,4	188,9511
30	533,61	68,51	977,41	5,70	192,65	152,14	84,955	557,5	195,2598
31	538,30	68,50	977,38	5,50	198,48	157,30	86,074	563,9	201,4306
32	544,40	68,53	987,62	5,30	204,43	162,39	87,333	573,0	207,6905
33	549,22	68,56	999,32	5,20	210,36	167,62	88,656	584,1	214,0845
34	554,36	68,43	1005,72	5,00	216,96	172,74	90,118	592,5	220,6960
35	558,87	68,52	999,53	4,90	223,45	177,39	91,689	598,2	227,8905
36	561,44	68,55	981,99	4,70	230,11	182,43	93,296	598,6	234,6373
37	563,34	68,53	968,93	4,60	237,00	187,16	94,929	596,4	241,3423
38	565,78	68,63	965,08	4,40	243,85	191,81	96,761	596,2	247,4808
39	567,36	68,44	963,41	4,30	250,05	196,64	98,616	599,0	253,6602
40	569,68	68,49	963,94	4,10	256,55	201,54	100,481	603,6	259,8463
41	572,99	68,49	965,38	4,00	263,06	206,00	102,407	608,8	265,5663
42	575,98	68,60	970,41	2,70	269,19	210,75	104,441	615,6	271,6472
43	789,08	68,67	965,36	26,99	275,32	215,16	106,587	613,6	276,9879
44	683,71	68,56	1028,20	26,69	282,59	219,95	108,717	624,9	282,9490
45	654,02	68,64	1096,82	26,49	289,28	224,36	111,026	651,5	288,7802
46	649,31	68,70	1131,20	26,39	296,14	228,95	113,342	669,9	294,1290
47	648,42	68,76	1158,80	26,19	302,23	232,96	115,776	686,3	299,0450
48	650,63	68,76	1187,61	25,89	307,62	237,18	118,081	704,1	303,1035
49	653,74	68,73	1211,99	25,69	312,06	240,97	120,466	721,7	306,3813
50	657,72	68,44	1219,53	25,49	315,37	244,60	123,012	736,2	309,9303
51	661,41	68,43	1214,41	25,29	318,22	248,25	125,507	751,5	312,2469
52	664,58	68,56	1227,35	25,09	320,66	251,22	127,905	764,3	314,4327
53	668,91	68,60	1250,10	24,89	322,50	253,83	130,165	776,3	316,1012
54	672,85	68,73	1258,01	24,69	323,80	256,50	132,418	787,7	317,6106
55	676,83	68,49	1260,80	24,49	325,17	258,91	134,975	797,5	319,0008
56	680,88	68,60	1264,88	24,29	326,69	261,38	137,190	805,9	320,1749
57	684,49	68,53	1265,78	24,09	327,94	263,51	139,467	813,3	321,7032
58	687,18	68,44	1266,26	23,89	329,54	265,60	141,722	819,6	322,5832
59	691,27	68,37	1267,00	23,69	326,55	222,91	143,786	810,9	322,7248
60	693,15	68,57	1265,91	23,49	321,73	157,33	144,885	793,1	321,1414
61	691,12	68,70	1259,30	23,29	318,47	128,43	145,796	777,6	319,9739
62	689,12	68,82	1244,37	23,09	315,79	114,79	146,333	763,7	320,1122
63	686,85	68,92	1229,57	22,89	315,09	108,12	147,481	750,3	319,9586
64	684,23	68,94	1218,04	22,79	313,89	104,29	148,122	737,2	320,0672
65	681,30	69,19	1205,44	22,59	313,33	102,01	149,250	726,8	320,7926
66	677,93	69,14	1197,56	22,39	313,94	100,32	150,222	717,2	321,3472
67	675,04	69,26	1191,13	22,19	313,42	98,94	151,306	707,6	322,2942
68	671,80	69,26	1188,28	22,09	313,70	97,88	152,212	699,6	323,0981
69	668,52	69,26	1189,45	21,89	314,81	97,07	152,886	692,3	324,0803
70	665,73	69,28	1186,54	21,69	316,36	96,28	153,736	684,3	324,5847
71	663,00	69,32	1180,31	21,49	316,58	95,70	154,391	677,2	325,7089
72	659,65	69,43	1173,03	21,39	317,37	95,07	155,781	670,0	326,3802
73	656,49	69,47	1166,79	21,19	318,33	94,60	156,582	663,7	327,4299
74	654,11	69,48	1164,58	20,99	318,58	94,11	157,789	658,2	328,3635
75	651,74	69,56	1163,54	20,89	319,99	93,80	158,972	653,8	328,8878
76	649,96	69,51	1163,99	20,69	321,04	93,35	160,001	651,0	330,0362
77	647,93	69,58	1168,39	20,49	320,75	93,01	161,143	648,40	331,0949
78	646,43	69,49	1163,71	20,39	321,34	92,67	162,045	644,60	331,7705
79	644,57	69,55	1152,81	20,19	322,87	92,314	163,499	641,44	332,4850
80	642,34	69,57	1139,23	19,99	323,39	92,034	164,714	636,84	333,4182
81	640,15	69,63	1116,02	19,89	324,47	91,757	166,021	630,89	334,5158
82	637,02	69,55	1087,88	19,69	325,36	91,517	167,216	622,64	335,1486
83	633,10	69,64	1063,20	19,49	325,76	91,208	168,471	612,97	336,5321
84	629,17	69,72	1042,25	19,39	328,00	91,026	169,600	603,68	337,4290
85	625,45	69,59	1026,62	19,19	328,84	90,716	170,571	595,49	339,0951
86	621,01	69,71	1017,25	18,99	330,37	90,521	171,537	588,06	340,7631
87	617,94	69,72	1010,18	18,89	331,43	90,356	172,673	581,53	342,2638
88	614,22	69,78	1005,10	18,69	332,86	90,200	173,784	575,74	343,8001
89	611,57	69,78	1002,33	18,59	334,10	90,100	174,851	571,26	345,7097
90	608,94	69,88	999,50	18,39	336,11	90,031	176,249	567,27	347,3339
91	606,73	69,97	998,09	18,19	336,88	89,817	177,492	564,13	349,1341
92	604,28	70,00	1003,27	18,09	339,62	89,764	178,913	563,04	350,1291
93	602,73	69,99	1008,25	17,89	341,54	89,662	180,495	562,62	352,0888
94	601,63	70,14	1005,71	17,79	343,28	89,546	182,040	560,32	354,2604
95	600,16	70,21	1004,97	17,59	345,99	89,662	183,344	559,35	356,6969
96	599,82	70,23	1030,39	17,49	348,99	89,699	184,632	564,24	357,4239
97	599,95	69,33	1052,36	17,29	349,88	88,348	185,558	568,63	359,1340

EPA Aging

97	600,29	69,36	1064,92	17,09	350,67	87,380	186,725	572,27	360,7966
98	600,73	69,59	1065,20	16,99	351,90	87,595	187,449	575,54	362,5305
99	600,82	69,79	1073,60	16,89	353,02	88,079	189,016	577,50	364,1129
100	600,55	69,90	1071,10	16,69	353,89	88,478	190,829	577,88	365,1806
101	599,65	70,09	1064,30	16,59	354,48	88,815	192,183	577,93	367,2768
102	598,79	70,13	1060,75	16,39	354,92	89,095	193,403	576,39	368,7067
103	597,92	70,42	1055,90	16,29	356,70	89,222	194,452	573,00	370,2538
104	596,96	70,40	1046,34	16,09	358,24	89,358	196,082	568,70	371,6084
105	595,89	70,41	1040,19	15,99	360,24	89,575	197,201	564,87	372,7177
106	595,32	70,49	1035,54	15,79	360,51	89,665	198,459	560,50	374,0045
107	594,33	70,53	1031,76	15,69	362,68	89,874	199,927	556,70	374,8734
108	593,83	70,56	1026,25	15,49	363,11	90,007	201,519	552,30	376,5917
109	592,38	70,69	1014,32	15,39	364,04	90,135	203,034	548,70	377,7926
110	591,42	69,86	1012,79	15,19	365,00	89,912	204,496	547,58	379,1107
111	591,48	68,17	1017,09	15,09	364,97	87,107	205,532	546,65	379,7896
112	590,77	68,80	1017,32	14,99	365,20	87,332	206,910	544,69	381,5511
113	590,45	69,26	1016,96	14,79	366,27	88,271	207,486	542,74	383,2507
114	590,46	69,59	1014,87	14,69	366,94	89,095	209,242	541,88	384,4565
115	589,73	69,95	1013,06	14,49	368,17	89,827	210,611	540,89	385,8206
116	588,98	70,13	1015,47	14,39	369,28	90,320	211,893	540,35	386,8678
117	589,74	70,33	1013,45	14,19	370,07	90,747	213,302	538,87	387,9278
118	589,07	70,43	1010,37	14,09	371,27	91,136	214,617	538,10	388,5780
119	589,22	70,58	1005,56	13,89	374,05	91,584	216,495	537,29	390,3459
120	589,02	70,65	1001,42	13,79	374,40	91,800	217,957	537,32	391,6562
121	588,81	70,80	1001,25	13,59	375,64	92,077	218,795	537,96	393,3856
122	588,83	70,89	999,26	13,40	377,48	92,302	220,917	538,33	394,5424
123	588,84	70,93	998,53	13,29	379,11	92,575	222,173	539,15	396,2542
124	589,44	71,01	999,90	13,10	379,76	92,795	223,030	540,34	397,8045
125	589,66	71,20	1002,62	13,00	380,99	93,046	224,777	541,73	399,3026
126	591,02	71,19	1008,34	12,80	381,96	93,134	225,924	543,93	401,1889
127	591,48	71,21	1015,20	12,70	382,52	93,308	227,002	546,72	402,3282
128	592,78	71,32	1020,92	12,50	384,48	93,397	228,815	549,39	403,9392
129	594,08	71,36	1026,92	12,30	385,25	93,739	229,957	552,35	405,8749
130	594,82	71,42	1029,18	12,20	387,57	93,935	231,431	554,12	407,9508
131	595,73	71,48	1029,72	12,00	389,17	94,133	232,572	555,50	409,5598
132	595,93	71,47	1031,67	11,90	390,95	94,393	233,427	557,04	411,0420
133	596,71	71,50	1033,46	11,70	392,28	94,649	235,315	559,55	412,7432
134	597,45	71,56	1035,96	11,59	394,38	94,949	236,973	562,30	414,5845
135	598,61	71,52	1039,17	11,40	396,23	95,104	237,559	565,33	415,5018
136	599,94	71,56	1041,27	11,30	397,70	95,349	239,745	567,98	417,0017
137	600,65	71,63	1040,16	11,10	400,39	95,508	241,833	569,51	418,4047
138	601,25	71,68	1034,29	11,00	400,96	95,690	243,912	569,67	420,2199
139	601,96	71,74	1028,11	10,80	402,71	95,937	244,788	569,58	422,0834
140	603,11	71,61	1026,41	10,70	404,51	95,986	245,630	569,26	422,7995
141	603,50	71,77	1023,16	10,50	406,15	96,239	246,781	568,31	424,2216
142	602,68	71,83	1015,39	10,40	408,15	96,396	249,357	565,09	425,7878
143	601,12	71,83	1003,28	10,30	410,09	96,595	250,107	560,70	427,6989
144	599,16	71,82	989,80	10,20	410,38	96,842	251,025	555,51	429,2899
145	596,15	71,87	978,49	10,10	413,96	97,047	252,500	550,10	430,2625
146	593,19	71,94	967,51	10,00	416,48	97,328	253,879	544,25	431,3479
147	590,33	71,98	956,61	9,80	418,07	97,370	255,328	538,80	432,2664
148	587,07	71,96	949,81	9,70	421,67	97,419	256,715	533,58	433,1922
149	584,14	71,97	945,71	9,60	423,15	97,625	257,265	528,96	434,1488
150	582,08	72,08	943,08	9,50	424,86	97,726	258,465	524,09	435,2458
151	579,38	72,09	945,52	9,40	427,41	97,892	260,747	519,93	436,3513
152	577,85	72,16	952,78	9,30	428,99	98,017	262,736	516,76	436,2447
153	576,15	72,23	956,13	9,20	430,02	98,106	264,732	514,06	437,0287
154	574,02	72,25	960,00	9,10	431,66	98,160	266,644	510,49	437,4661
155	572,64	72,29	956,67	9,00	433,28	98,314	266,294	507,73	437,2265
156	570,99	72,31	953,83	8,90	433,17	98,354	267,993	504,55	437,7790
157	568,71	72,30	948,54	8,80	434,84	98,396	269,403	502,13	437,8907
158	566,34	72,33	944,13	8,70	436,58	98,526	270,797	499,15	438,2469
159	564,45	72,36	940,04	8,60	436,66	98,488	270,280	496,24	438,4259
160	562,24	72,39	935,36	8,50	438,28	98,683	272,280	493,08	438,3140
161	560,19	72,32	930,26	8,40	440,29	98,831	274,526	490,23	438,6121
162	557,79	72,43	924,48	8,40	440,12	98,646	275,352	486,58	438,2148
163	555,64	72,40	916,52	8,30	441,29	98,668	277,307	482,37	437,8779
164	553,16	72,44	907,91	8,20	441,27	98,765	276,667	478,05	436,8832
165	550,34	72,37	900,28	8,10	440,87	98,681	277,991	474,79	436,5722
166	547,97	72,42	893,77	8,00	442,29	98,800	279,875	471,37	436,5858
167	545,51	72,54	888,40	7,90	443,13	98,741	281,189	467,66	437,0254
168	543,98	72,56	884,72	7,90	443,98	98,912	282,173	464,34	436,8230
169	541,53	72,57	881,49	7,80	443,94	98,845	283,062	461,39	436,9521
170	539,30	72,60	878,03	7,70	443,61	99,033	284,386	457,81	436,5553
171	537,74	72,69	874,84	7,60	443,52	98,969	285,798	455,00	436,9221
172	535,70	72,71	871,43	7,50	443,44	99,001	287,785	452,78	436,6905
173	533,73	72,70	865,65	7,40	443,25	98,977	287,637	449,62	436,8701
174	531,53	72,74	859,44	7,40	443,44	98,911	289,582	446,77	437,0037
175	529,55	72,77	855,82	7,30	443,70	98,802	290,251	444,34	436,7539
176	528,17	72,76	855,22	7,20	443,10	98,801	291,271	442,48	437,1577
177	526,09	72,69	854,83	7,10	443,00	98,931	291,597	440,42	437,2175
178	524,53	72,77	852,93	7,00	442,66	98,906	294,082	437,75	437,2256
179	523,11	72,84	849,77	7,00	441,72	98,887	295,470	435,23	437,6441
180	521,11	72,88	845,34	6,90	441,32	98,974	296,122	432,41	437,7036
181	518,95	72,83	840,26	6,80	440,21	98,908	298,894	430,04	437,5274
182	517,04	72,89	835,24	6,70	439,05	98,994	300,646	427,87	437,4910
183	515,05	72,87	830,88	6,70	438,41	98,948	300,877	425,33	437,1288
184	513,03	72,94	826,07	6,60	437,99	98,976	303,056	423,11	436,8145
185	511,06	72,97	820,37	6,50	435,93	98,943	303,917	420,31	436,4914
186	509,15	72,91	812,64	6,50	435,32	99,100	304,670	416,65	436,3565
187	507,03	72,98	805,22	6,40	433,26	99,038	306,986	413,09	436,0934
188	505,10	73,14	799,20	6,30	433,27	101,482	309,515	415,00	436,0108
189	525,70	72,92	801,73	7,30	436,03	122,803	313,212	430,44	439,8903
190	517,45	72,96	856,35	6,00	437,88	141,311	317,719	456,66	442,0355
191	523,28	72,87	938,85	5,90	439,73	158,441	323,129	489,00	443,5145
192	534,09	72,75	989,21	5,70	441,47	173,506	328,025	516,65	444,3484
193	542,57	72,75	1015,24	5,60	443,59	186,907	332,374	540,61	445,1530
194	549,53	72,78	1027,14	5,50	445,52	198,852	336,004	560,44	445,9120

EPA Aging

195	555,07	72,72	1030,33	5,40	447,06	209,653	338,573	576,67	446,6430
196	559,92	72,70	1028,06	5,20	449,11	219,369	341,871	590,77	447,3358
197	563,79	72,76	1023,11	5,10	450,83	228,562	344,374	602,06	448,1946
198	566,69	72,69	1017,27	5,00	453,09	236,518	346,428	611,03	448,6018
199	569,12	72,66	1010,40	4,90	455,58	244,006	348,803	619,26	449,5587
200	571,42	72,61	1004,72	4,80	457,54	251,400	350,956	626,14	450,3754
201	573,50	72,66	1000,99	4,70	459,72	258,001	352,336	631,83	451,0504
202	575,44	72,51	996,40	4,60	461,56	264,835	354,964	637,15	452,1529
203	577,29	72,49	991,87	4,50	463,78	270,413	355,919	641,59	452,7232
204	579,09	72,43	989,70	4,50	466,07	275,525	357,611	645,70	453,5033
205	580,16	72,52	987,64	4,40	468,85	280,665	359,046	649,59	454,0481
206	581,51	72,51	984,37	4,30	470,76	285,850	359,359	652,11	454,5684
207	582,82	72,48	980,96	4,20	472,53	291,070	360,643	654,52	455,2915
208	582,99	72,51	978,90	4,10	473,96	295,686	360,995	656,35	456,0668
209	584,39	72,46	978,06	4,00	475,69	299,972	361,940	658,57	457,0765
210	584,93	72,47	975,68	4,00	477,94	303,323	362,404	659,80	458,2562
211	585,55	72,45	968,16	3,90	479,88	307,385	363,243	659,58	458,6707
212	585,52	72,37	957,08	0,00	481,32	310,981	363,508	657,45	459,0923
213	472,11	72,46	943,13	27,43	483,06	314,327	364,206	649,70	459,9365
214	619,14	72,44	898,44	27,89	483,79	317,032	364,235	637,61	460,9120
215	596,67	72,55	896,79	27,69	484,71	320,293	364,819	631,4	460,9014
216	588,57	72,51	908,24	27,49	484,58	322,741	364,995	627,9	460,3961
217	589,54	72,48	926,61	27,39	484,75	325,673	365,493	626,0	459,9518
218	592,87	72,56	945,36	27,19	484,07	327,380	366,447	625,0	458,4881
219	596,51	72,55	965,73	26,99	483,25	329,996	366,906	626,5	455,7695
220	600,22	72,53	986,52	26,79	482,65	331,663	367,352	631,8	453,7552
221	604,04	72,53	1002,23	26,59	481,61	333,684	367,573	639,5	450,9713
222	607,46	72,56	1015,80	26,39	480,21	334,533	367,988	648,7	448,1654
223	611,77	72,39	1027,44	26,19	478,57	336,488	367,987	658,5	444,3866
224	615,84	72,43	1036,02	25,99	476,84	337,484	368,011	667,7	441,0602
225	619,98	72,49	1043,19	25,79	474,99	337,763	368,490	675,1	438,6070
226	610,42	72,47	1039,73	25,59	472,99	338,881	367,839	682,7	434,8072
227	604,23	72,50	1041,74	25,49	470,37	339,274	367,824	688,7	432,0986
228	590,06	72,53	1036,94	25,29	468,57	339,998	367,449	689,5	429,4640
229	583,75	72,30	1054,26	25,19	467,26	340,372	366,914	686,5	425,8682
230	581,13	72,29	1085,48	25,09	464,37	339,958	366,389	678,8	423,5577
231	579,81	72,16	1108,01	24,99	462,40	340,592	365,749	670,6	420,5569
232	578,99	72,23	1114,31	24,89	460,20	340,091	365,416	662,3	418,0715
233	578,60	72,25	1107,99	24,79	457,68	339,363	364,439	655,1	415,0762
234	577,14	72,32	1094,42	24,69	454,49	339,994	362,800	648,7	412,3941
235	575,44	72,22	1078,33	24,59	452,19	339,025	362,591	642,4	410,2572
236	574,06	72,36	1064,74	24,49	448,78	338,648	362,539	637,0	408,2214
237	571,86	72,39	1054,89	24,39	446,49	337,610	361,672	631,6	406,3483
238	570,09	72,43	1047,83	24,29	443,77	336,004	360,551	626,4	403,2029
239	567,62	72,48	1042,91	24,29	440,83	335,120	359,531	621,6	401,0961
240	565,75	72,43	1039,20	24,19	438,21	334,279	359,520	616,9	398,3459
241	563,75	72,44	1036,82	24,09	435,06	333,229	357,985	612,0	395,9223
242	561,80	72,39	1035,42	23,99	432,06	332,489	357,378	607,6	394,0883
243	559,97	72,38	1034,87	23,89	429,05	331,856	356,619	603,3	391,6413
244	558,57	72,39	1034,36	23,79	426,28	329,818	356,216	599,2	389,2910
245	556,36	72,39	1035,86	23,69	423,56	328,133	355,978	595,1	386,8751
246	554,02	72,36	1038,22	23,59	420,41	328,576	354,415	591,4	384,4469
247	553,33	72,43	1040,59	23,49	417,79	325,995	353,910	587,8	382,2918
248	552,73	72,38	1039,78	23,39	415,26	324,880	352,803	585,5	380,4344
249	550,08	72,29	1032,07	23,39	412,50	324,128	351,679	584,6	378,3824
250	548,55	72,37	1036,69	23,29	409,33	322,605	351,074	582,0	376,4835
251	549,16	72,41	1045,11	23,19	407,01	321,425	350,163	579,3	374,8323
252	548,40	72,37	1056,04	23,09	404,49	319,143	349,667	576,8	373,1851
253	547,25	72,36	1067,58	22,99	402,36	317,628	349,526	574,4	371,0699
254	548,26	72,29	1061,78	22,89	400,34	317,524	348,100	576,8	369,0668
255	548,49	72,33	1041,57	22,79	398,07	315,293	347,826	583,5	367,4619
256	545,33	72,29	1022,65	22,69	395,61	314,954	346,690	592,1	365,6880
257	543,49	72,34	1019,83	22,59	393,59	313,009	346,582	600,8	364,005
258	543,40	72,34	1063,38	22,49	391,53	311,773	345,205	601,1	362,367
259	544,89	72,39	1115,57	22,39	389,79	310,172	344,920	601,5	360,616
260	548,64	72,36	1135,73	22,29	388,08	308,703	344,815	610,7	359,223
261	548,55	72,26	1107,11	22,09	386,13	307,541	343,820	626,4	357,265
262	548,61	72,21	1078,95	21,99	384,49	307,597	342,768	647,4	355,434
263	549,35	72,20	1070,25	21,89	382,68	306,315	341,434	669,0	354,919
264	548,98	72,28	1071,65	21,79	381,13	304,853	341,115	688,6	353,255
265	548,95	72,26	1077,71	21,59	379,77	303,426	340,744	705,9	352,503
266	548,67	72,34	1084,00	21,49	378,50	302,605	340,351	720,3	351,308
267	548,23	72,29	1088,55	21,29	377,17	301,243	339,268	732,2	350,553
268	548,67	72,27	1089,79	21,19	376,16	300,991	338,762	740,5	350,336
269	547,47	72,29	1085,62	21,09	375,28	300,379	338,507	745,7	349,652
270	547,49	72,22	1079,92	20,99	374,15	299,597	338,510	743,9	349,360
271	547,30	72,26	1078,25	20,89	373,18	298,810	337,811	734,1	349,162
272	547,08	72,31	1072,19	20,79	372,29	298,514	336,536	721,9	348,411
273	546,99	72,26	1062,67	20,79	370,50	255,439	336,564	704,1	348,020
274	545,16	72,30	1050,56	20,69	369,51	225,617	335,725	690,5	347,828
275	542,88	72,31	1039,30	20,59	368,33	203,963	334,900	677,3	347,004
276	541,01	72,29	1029,79	20,59	366,21	188,494	333,875	665,0	346,557
277	538,18	72,38	1024,04	20,49	365,04	177,555	332,748	652,7	345,567
278	534,61	72,39	1014,21	20,39	364,01	169,356	331,744	640,9	345,065
279	531,20	72,44	1003,83	20,29	362,63	163,024	329,989	629,8	344,315
280	528,59	72,46	995,34	20,19	361,59	158,513	328,953	619,4	343,469
281	524,83	72,46	989,12	20,19	360,57	154,775	327,610	609,7	342,736
282	521,67	72,54	983,70	20,09	358,94	151,394	326,572	599,2	342,109
283	518,29	72,56	978,94	19,99	359,02	148,479	325,573	589,7	341,123
284	515,97	72,54	974,36	19,99	357,81	146,089	324,382	580,6	340,385
285	513,02	72,57	971,05	19,89	357,10	144,082	323,260	572,3	339,828
286	510,63	72,58	970,45	19,79	356,91	142,164	322,369	564,7	339,170
287	508,38	72,64	970,50	19,69	356,49	140,385	321,323	557,8	338,209
288	505,84	72,70	971,51	19,69	356,26	138,854	320,072	552,3	337,182
289	503,21	72,65	973,01	19,59	355,11	137,548	319,295	546,8	337,303
290	501,86	72,55	972,50	19,49	354,62	136,221	318,135	542,3	336,534
291	499,73	72,59	970,81	19,39	353,88	135,083	317,818	537,6	335,958
292	498,34	72,61	968,11	19,39	353,25	133,827	316,734	533,2	334,854

EPA Aging

293	496,78	72,58	965,75	19,29	352,81	132,878	316,086	529,4	333,910
294	494,77	72,55	963,53	19,19	352,05	131,845	315,172	525,1	332,847
295	492,96	72,55	961,25	19,09	350,66	131,202	314,533	521,8	331,921
296	490,86	72,58	958,74	19,09	350,06	130,430	313,557	518,4	331,702
297	489,53	72,55	956,94	18,99	349,06	129,805	312,880	514,9	330,824
298	487,79	72,60	955,58	18,89	347,81	129,112	312,457	511,9	329,886
299	486,58	72,59	954,69	18,79	347,56	128,621	311,189	509,1	329,189
300	485,21	72,68	954,25	18,79	346,29	127,779	310,962	506,2	328,190
301	483,68	72,63	954,42	18,69	345,26	126,748	310,598	503,3	327,855
302	481,93	72,67	954,89	18,59	343,80	125,939	309,882	500,4	327,159
303	480,76	72,71	955,42	18,59	342,36	125,173	309,289	497,8	326,164
304	479,79	72,77	959,08	18,49	342,59	124,349	308,864	495,4	325,363
305	479,04	72,78	960,45	18,39	341,16	123,722	308,480	493,1	324,316
306	478,36	72,80	963,05	18,29	341,22	123,148	307,655	491,2	323,800
307	477,21	72,78	965,40	18,29	340,72	122,723	306,863	489,4	323,480
308	476,62	72,80	968,70	18,19	339,90	122,055	306,291	487,6	322,340
309	476,84	72,82	973,08	18,09	338,53	121,591	305,829	485,6	322,389
310	476,52	72,88	979,29	17,99	337,83	121,371	305,165	484,3	320,938
311	476,30	72,88	985,54	17,89	336,57	121,001	304,881	483,0	320,164
312	475,50	72,82	990,70	17,89	336,73	120,612	304,494	482,1	318,906
313	476,21	72,76	995,93	17,79	335,56	120,225	304,055	480,9	318,745
314	476,31	72,78	997,89	17,69	334,36	119,810	303,793	480,2	317,550
315	476,85	72,81	1003,75	17,59	333,40	119,545	303,552	479,8	316,625
316	477,44	72,86	1006,77	17,49	332,36	118,976	303,151	479,1	315,896
317	477,84	72,83	1012,67	17,49	331,14	118,596	302,852	478,6	315,341
318	478,03	72,80	1016,00	17,39	331,30	118,381	302,139	478,7	314,605
319	478,50	72,81	1021,70	17,29	331,17	118,162	301,850	478,7	314,208
320	478,71	72,81	1027,79	17,19	330,69	117,798	301,550	478,8	313,297
321	480,34	72,88	1038,18	17,09	329,87	117,423	301,211	477,9	313,030
322	481,93	72,85	1042,18	16,99	329,45	117,061	300,952	477,9	312,311
323	482,94	72,89	1040,07	16,99	329,03	116,872	300,461	479,2	311,734
324	482,99	72,87	1028,92	16,89	327,85	116,830	299,978	480,5	311,182
325	481,91	72,87	1014,04	16,79	327,01	116,771	299,500	481,3	311,000
326	481,26	72,88	1015,53	16,69	326,21	116,504	299,383	479,4	310,788
327	481,90	72,89	1033,22	16,59	326,45	116,349	298,811	477,5	309,870
328	483,01	72,91	1057,52	16,59	325,49	116,198	298,390	475,2	309,806
329	485,15	72,93	1078,79	16,49	325,16	115,995	298,037	473,5	309,551
330	486,92	72,90	1098,90	16,39	324,36	115,763	297,691	472,2	308,953
331	490,69	72,92	1115,25	16,29	323,74	115,550	297,875	472,5	308,761
332	493,70	73,01	1124,09	16,19	323,77	115,394	296,720	473,6	308,569
333	497,02	72,90	1130,52	16,09	322,76	115,301	296,494	474,9	308,504
334	500,31	72,90	1134,93	15,99	321,81	115,297	296,073	477,4	309,152
335	502,79	72,97	1133,79	15,89	321,57	115,223	295,578	480,8	308,772
336	506,15	72,97	1138,67	15,79	321,18	115,250	295,508	484,8	308,248
337	507,65	72,89	1159,14	15,69	321,18	115,292	295,252	487,9	308,435
338	509,79	72,93	1189,82	15,59	321,33	115,664	295,490	491,2	308,144
339	513,30	72,84	1225,24	15,49	321,36	115,763	295,363	496,0	308,383
340	518,33	72,94	1256,81	15,29	320,74	115,870	294,878	503,0	308,516
341	523,57	72,94	1284,40	15,19	320,09	115,773	294,779	510,9	308,271
342	528,91	72,97	1308,41	15,09	319,69	115,957	295,042	521,7	308,128
343	534,39	72,98	1326,87	14,99	320,37	115,949	294,906	532,8	307,804
344	541,39	72,95	1338,48	14,79	319,31	116,152	294,607	548,5	308,485
345	547,82	72,94	1313,24	14,69	318,79	116,420	293,792	578,9	308,276
346	549,60	73,05	1234,04	14,59	318,19	116,574	293,834	607,1	308,353
347	546,59	73,02	1164,62	14,39	318,30	116,909	293,348	630,9	308,874
348	542,34	72,99	1119,10	14,29	318,18	117,158	292,816	650,0	309,363
349	538,98	73,07	1091,41	14,19	318,11	116,703	292,383	663,5	309,313
350	536,05	73,09	1075,15	14,09	317,95	116,423	291,616	673,3	309,868
351	533,29	73,10	1062,85	13,99	318,74	116,321	291,979	679,2	309,846
352	530,82	73,07	1052,65	13,79	319,45	116,274	291,659	682,3	310,436
353	529,13	73,10	1046,52	13,69	319,39	116,359	291,087	684,3	311,525
354	527,16	73,16	1042,05	13,59	319,58	117,486	290,920	686,8	313,100
355	525,41	73,01	1039,49	13,49	321,00	118,389	290,500	689,0	313,936
356	524,19	73,08	1038,39	13,39	322,54	119,003	290,022	690,5	314,997
357	523,12	73,14	1038,46	13,19	323,60	119,575	289,549	693,0	316,164
358	522,09	73,16	1039,20	13,09	323,87	120,008	290,008	695,2	317,665
359	521,26	73,21	1039,80	12,99	324,88	120,374	289,875	696,5	319,125
360	520,85	73,17	1038,18	12,89	326,26	120,710	289,637	698,2	320,693
361	519,46	73,16	1034,78	12,79	328,09	121,054	289,485	698,8	321,977
362	517,82	73,20	1029,69	12,70	328,49	121,473	289,027	698,7	323,684
363	517,15	73,19	1023,47	12,60	329,77	121,735	288,772	697,7	325,073
364	516,15	73,28	1017,10	12,50	330,52	122,043	288,662	696,1	326,603
365	514,89	73,22	1010,15	12,40	331,61	122,151	288,323	693,5	328,337
366	512,99	73,31	1004,11	12,30	332,17	122,410	288,039	690,6	329,857
367	511,08	73,28	998,52	12,20	333,85	122,772	287,916	686,1	331,447
368	510,16	73,18	992,55	12,10	334,68	123,121	287,732	681,7	333,185
369	508,32	73,21	986,35	12,00	336,06	123,440	287,465	677,2	334,920
370	506,24	73,19	979,89	11,90	337,39	123,852	287,392	671,7	336,617
371	504,99	73,16	972,91	11,80	337,68	124,140	286,831	666,3	338,082
372	503,03	73,17	965,38	11,80	337,96	124,413	287,009	659,7	339,220
373	501,23	73,16	958,14	11,70	339,24	124,761	286,367	651,7	340,348
374	498,73	73,26	950,62	11,59	340,13	125,036	286,381	642,5	341,819
375	496,90	73,23	940,85	11,59	341,44	125,358	285,264	633,2	342,672
376	494,07	73,29	929,66	11,50	341,64	125,581	285,527	624,9	343,920
377	491,80	73,25	918,43	11,40	343,02	125,887	284,843	616,7	344,477
378	488,44	73,22	909,30	11,40	343,43	126,295	285,068	609,6	345,863
379	486,45	73,27	900,82	11,30	345,06	126,360	284,347	603,3	346,107
380	484,66	73,26	894,34	11,20	346,28	126,496	283,345	596,3	346,149
381	482,03	73,23	889,74	11,20	345,56	126,502	283,351	588,4	347,670
382	479,35	73,35	884,51	11,10	346,21	126,585	283,422	581,7	348,019
383	476,99	73,42	879,86	11,00	346,29	126,787	283,673	574,9	348,567
384	474,62	73,35	875,08	11,00	347,13	127,091	283,104	569,6	348,535
385	472,45	73,25	870,76	10,90	348,09	127,349	283,163	564,0	348,871
386	470,20	73,18	866,93	10,80	347,71	127,557	282,694	558,7	349,539
387	467,76	73,28	863,31	10,80	347,98	127,799	282,772	554,0	349,834
388	465,78	73,31	860,14	10,70	347,59	127,858	282,622	549,2	349,427
389	463,81	73,33	857,29	10,60	347,56	127,898	282,172	545,1	350,335
390	462,26	73,41	854,61	10,60	347,35	127,973	282,024	540,9	350,407

EPA Aging

391	460,52	73,36	852,27	10,50	347,26	128,198	281,760	537,5	350,443
392	458,25	73,36	850,61	10,50	347,65	128,444	281,547	534,5	350,683
393	457,10	73,45	849,43	10,40	347,92	128,451	281,170	531,0	350,616
394	455,33	73,39	848,18	10,40	348,18	128,532	280,868	527,9	350,275
395	453,88	73,49	847,36	10,30	348,34	128,518	280,632	524,8	350,170
396	452,43	73,45	846,89	10,20	348,24	128,518	280,792	522,0	350,208
397	450,83	73,41	846,14	10,20	348,77	128,622	280,701	518,8	349,984
398	450,26	73,41	846,35	10,10	348,91	128,788	280,392	516,0	349,948
399	448,79	73,41	845,75	10,10	349,29	128,861	279,890	513,4	349,685
400	448,28	73,51	844,36	10,00	349,16	128,754	279,968	510,2	349,667
401	447,16	73,46	842,93	9,90	349,41	128,706	279,721	507,8	349,699
402	445,71	73,48	841,31	9,90	349,71	128,789	279,638	505,6	349,390
403	444,78	73,48	839,10	9,80	350,64	128,793	278,909	503,3	349,179
404	443,57	73,45	837,43	9,80	350,80	128,753	278,954	500,9	349,112
405	442,92	73,52	836,16	9,70	351,17	128,857	278,929	499,1	348,596
406	441,18	73,45	835,45	9,70	351,39	128,666	278,428	497,5	348,527
407	439,87	73,50	834,94	9,60	351,51	128,508	278,439	496,3	348,270
408	438,95	73,45	834,26	9,60	352,89	128,279	278,226	494,7	347,509
409	437,80	73,54	834,61	9,50	353,06	128,182	278,012	493,7	347,847
410	437,13	73,52	834,07	9,40	352,97	128,213	277,862	492,3	347,521
411	436,34	73,54	834,37	9,40	353,22	128,322	277,683	491,3	346,924
412	435,13	73,54	834,48	9,30	353,64	128,328	278,003	490,4	346,685
413	434,73	73,52	833,93	9,30	354,21	128,439	277,692	489,6	346,250
414	434,56	73,54	833,51	9,20	354,27	128,777	277,582	489,1	345,897
415	433,68	73,53	833,54	9,10	354,32	128,732	277,252	488,7	345,938
416	433,25	73,55	833,08	9,10	353,77	128,778	277,370	487,8	345,800
417	432,46	73,58	833,75	9,00	353,56	128,996	277,264	487,4	345,885
418	432,00	73,59	833,50	9,00	353,94	129,204	276,949	487,2	345,919
419	431,52	73,63	832,84	8,90	353,57	129,368	276,819	486,9	345,550
420	431,67	73,63	831,70	8,90	354,16	129,382	276,850	486,7	345,263
421	430,39	73,59	831,81	8,80	354,77	129,137	275,995	487,1	344,892
422	430,24	73,62	832,11	8,70	354,08	129,139	276,010	487,0	344,383
423	430,20	73,71	832,33	8,70	354,60	129,186	275,735	487,9	343,839
424	429,59	73,68	832,84	8,60	355,11	129,262	276,348	488,4	343,339
425	429,32	73,64	832,83	8,50	354,75	129,375	276,588	489,2	343,427
426	429,03	72,69	832,71	8,50	355,49	129,474	276,227	490,1	342,580
427	429,32	70,12	833,12	8,40	355,11	128,154	275,436	490,8	342,879
428	428,86	71,50	834,91	8,30	354,77	127,796	275,430	491,3	343,008
429	429,40	71,49	836,16	8,30	355,12	127,700	274,969	491,6	342,994
430	429,32	71,89	838,22	8,20	354,67	127,799	274,443	492,0	343,456
431	429,61	71,99	840,73	8,20	354,52	128,027	274,619	493,1	343,229
432	429,27	72,14	843,77	8,10	354,18	128,476	274,654	494,5	343,507
433	429,85	72,28	846,95	8,00	353,87	128,863	274,525	495,4	343,701
434	429,74	72,41	850,40	8,00	353,81	129,141	274,679	496,6	343,976
435	430,07	72,55	854,68	7,90	353,61	129,414	274,463	498,0	343,915
436	430,80	72,63	858,81	7,80	353,53	129,728	274,387	499,5	343,940
437	431,60	72,76	863,44	7,70	353,60	129,634	274,479	500,8	343,538
438	432,52	72,84	868,88	7,70	353,34	129,964	274,384	501,9	343,828
439	433,45	72,84	874,42	7,60	353,30	129,964	274,024	503,2	343,851
440	434,17	72,90	879,02	7,50	354,06	130,219	273,846	504,5	344,263
441	435,34	72,97	882,55	7,50	354,33	130,374	273,698	506,1	344,539
442	435,82	72,94	886,55	7,40	354,47	130,612	273,538	507,8	344,765
443	436,24	73,07	888,64	7,30	355,50	130,543	273,594	510,0	344,434
444	437,25	73,05	890,55	7,20	354,98	130,695	273,434	512,0	344,463
445	438,28	73,10	892,44	7,20	355,72	130,762	273,338	513,5	344,695
446	439,35	73,10	894,50	7,10	355,20	130,923	273,073	515,4	344,850
447	440,18	73,17	896,45	7,00	355,43	131,152	272,954	517,7	344,892
448	440,44	73,19	897,69	6,90	355,73	131,549	273,231	520,0	344,676
449	441,09	73,19	898,92	6,90	355,64	131,728	273,203	522,1	344,884
450	442,24	73,16	900,20	6,80	355,65	132,207	273,100	524,7	344,800
451	442,49	73,04	900,90	6,70	356,26	132,584	272,361	527,6	344,350
452	443,63	73,07	900,84	6,60	356,45	132,880	272,647	530,0	344,759
453	445,01	73,05	900,05	6,60	357,09	133,172	272,762	532,5	344,405
454	445,27	73,09	900,00	6,50	356,89	133,710	272,718	534,6	345,211
455	445,11	73,05	900,83	6,40	357,38	133,908	272,230	536,8	345,055
456	445,10	73,11	901,16	6,30	357,46	134,077	272,578	539,0	345,204
457	446,52	73,18	901,59	6,30	358,02	134,294	272,143	539,9	345,228
458	447,02	73,21	902,97	6,20	358,62	134,520	272,549	539,8	345,306
459	446,25	73,24	903,22	6,10	357,74	134,843	272,296	538,8	345,720
460	446,92	73,27	902,86	6,10	357,21	135,099	272,678	538,6	346,223
461	447,38	73,20	900,44	6,00	357,80	134,303	271,925	537,1	345,856
462	447,03	73,21	899,80	5,90	357,79	134,025	272,316	536,6	345,729
463	447,32	73,24	897,64	5,80	358,97	133,737	272,086	536,7	345,188
464	447,67	73,31	895,94	5,80	358,18	133,598	271,991	536,3	346,064
465	447,60	73,28	894,19	5,70	358,24	133,869	272,168	537,3	346,362
466	447,98	73,27	892,22	5,60	357,44	134,321	271,890	537,9	346,921
467	448,09	73,27	890,33	5,60	357,41	134,759	271,577	540,0	347,358
468	448,25	73,12	889,26	5,50	357,22	135,171	271,042	542,4	347,093
469	447,88	73,10	889,67	5,40	357,24	135,282	270,875	545,1	347,626
470	448,27	73,08	891,75	5,30	357,07	135,354	270,996	548,8	347,958
471	449,29	73,05	893,96	5,20	356,81	135,532	271,485	553,7	348,886
472	449,67	73,12	897,61	5,10	356,54	135,514	271,445	559,0	349,613
473	449,21	73,02	901,75	5,10	357,43	135,660	271,087	564,3	349,904
474	449,48	73,17	905,72	5,00	357,39	136,056	271,079	568,1	350,331
475	449,68	73,18	910,34	5,00	357,95	136,162	270,845	567,1	350,456
476	450,04	73,21	913,19	4,90	357,27	136,577	270,782	559,9	351,005
477	450,09	73,20	910,78	4,90	357,63	136,667	270,781	551,3	351,564
478	449,07	73,22	901,66	4,80	357,72	136,814	271,000	542,7	352,307
479	448,94	73,22	899,22	4,80	357,62	136,967	270,832	534,1	352,718
480	446,73	73,19	875,96	4,80	357,57	137,359	270,587	526,4	353,198
481	444,51	73,24	862,10	4,70	357,58	138,007	270,284	519,4	353,696
482	442,84	73,24	849,15	4,70	357,45	138,331	270,110	512,8	354,233
483	439,88	73,26	836,60	4,70	357,34	138,710	270,053	506,8	354,826
484	437,36	73,28	825,57	4,60	357,00	138,833	269,852	501,2	355,239
485	435,11	73,27	815,28	4,60	356,60	138,918	269,820	495,5	355,822
486	432,68	73,28	806,16	4,60	356,21	139,186	269,528	490,4	356,357
487	430,01	73,25	798,92	4,60	356,08	139,403	269,415	485,1	356,637
488	427,76	73,33	792,46	4,50	355,95	139,408	269,380	480,5	357,013

EPA Aging

489	426,11	73,32	785,91	4,50	355,79	139,367	269,390	476,0	357,214
490	423,30	73,33	780,40	4,50	355,38	139,664	269,293	471,4	357,295
491	421,19	73,31	774,94	4,40	354,77	139,867	269,251	466,7	357,634
492	418,47	73,31	769,69	4,40	354,82	140,163	269,237	463,3	358,126
493	416,23	73,29	764,41	4,40	354,13	140,415	269,270	459,2	357,944
494	413,25	73,30	760,03	4,40	353,32	140,530	269,146	455,5	358,305
495	411,34	73,32	755,09	4,30	353,01	140,879	269,265	452,1	358,367
496	408,93	73,30	750,82	4,30	352,57	141,017	269,150	448,7	358,898
497	407,31	73,31	746,62	4,30	352,26	141,025	269,164	445,6	358,851
498	404,54	73,29	743,10	4,20	351,56	141,387	269,142	442,5	358,898
499	402,71	73,27	739,01	4,20	350,87	141,649	269,326	439,5	359,117
500	401,32	73,25	736,27	4,20	350,41	141,937	269,315	436,8	359,354
501	398,99	73,25	733,14	4,20	349,93	142,074	269,417	434,1	359,295
502	397,18	73,26	731,29	4,20	349,50	142,264	269,363	431,3	359,216
503	394,88	73,24	728,93	4,10	349,05	142,423	269,606	428,9	359,314
504	393,20	73,21	726,14	4,10	348,72	142,467	269,622	426,4	359,283
505	391,06	73,21	724,48	4,10	348,31	142,394	269,809	424,0	359,390
506	390,24	73,23	721,78	4,10	347,71	142,140	269,795	421,7	359,376
507	388,27	73,22	720,54	4,00	347,09	142,043	269,752	419,1	359,409
508	386,09	73,20	719,13	4,00	346,35	141,908	270,024	416,9	359,397
509	385,30	73,20	717,13	4,00	345,79	141,978	269,986	414,7	359,271
510	382,96	73,24	715,67	4,00	345,10	141,865	270,238	412,8	359,457
511	381,40	73,21	714,24	3,90	344,20	142,008	270,287	410,8	359,385
512	380,92	73,21	712,42	3,90	344,09	142,104	270,383	409,3	359,398
513	379,60	73,15	711,02	3,90	343,70	142,038	270,623	407,3	359,356
514	378,05	73,21	709,32	3,90	342,94	142,152	270,479	405,6	359,654
515	377,10	73,18	707,82	3,90	342,66	142,226	270,636	403,9	359,669
516	375,81	73,13	705,73	3,80	342,41	142,246	270,762	402,4	359,908
517	374,64	73,13	704,20	3,80	341,88	142,222	270,850	400,6	359,690
518	373,32	73,13	702,66	3,80	341,07	141,962	271,109	399,0	359,832
519	371,72	73,09	701,16	3,80	340,54	141,921	271,208	397,3	359,905
520	370,16	73,11	700,10	3,70	340,43	142,216	271,091	396,1	359,889
521	368,90	73,12	698,61	3,70	340,02	142,899	271,455	395,1	359,704
522	367,99	73,14	697,67	3,70	339,74	143,533	271,620	393,9	359,464
523	367,28	73,11	696,23	3,70	339,52	143,852	271,823	392,8	359,534
524	366,98	73,07	694,23	3,70	339,13	144,188	271,848	391,9	359,321
525	365,30	73,06	694,06	3,60	338,89	144,306	272,017	390,7	359,315
526	364,06	73,04	693,24	3,60	338,48	144,436	272,464	389,8	359,012
527	363,90	73,04	691,64	3,60	337,91	144,746	272,618	388,8	359,078
528	362,64	73,07	691,03	3,60	337,23	144,822	272,918	387,6	359,063
529	361,73	72,99	690,11	3,60	336,99	145,248	273,351	387,0	358,931
530	361,05	72,98	688,77	3,50	337,06	145,393	273,077	386,0	358,889
531	360,89	73,01	687,69	3,50	336,86	145,404	273,287	385,1	358,670
532	360,01	73,01	686,54	3,50	336,53	145,395	273,717	384,1	358,555
533	359,06	72,95	686,37	3,50	336,22	145,122	273,844	383,1	358,259
534	358,43	72,94	685,36	3,50	335,87	145,089	274,154	382,4	358,134
535	357,82	72,95	684,54	3,40	335,10	144,705	274,422	381,4	357,870
536	356,73	72,94	683,33	3,40	334,94	144,320	274,479	380,3	357,603
537	356,25	72,92	682,09	3,40	334,66	144,282	274,388	379,4	357,247
538	355,87	72,96	680,22	3,40	334,26	144,128	274,394	378,6	357,052
539	354,67	72,93	679,88	3,40	334,06	143,930	274,863	377,6	356,662
540	354,60	72,97	678,58	3,30	333,84	143,787	274,994	376,7	356,387
541	353,82	72,92	677,40	3,30	333,35	143,780	275,074	376,0	356,153
542	353,17	72,93	675,56	3,30	333,33	143,714	275,101	375,3	355,936
543	351,80	72,92	674,36	3,30	332,99	143,650	275,293	374,3	355,882
544	351,65	72,91	673,44	3,30	332,77	143,686	275,581	373,5	355,546
545	350,69	72,82	672,47	3,20	332,76	143,734	275,309	372,9	355,155
546	350,49	72,85	670,85	3,20	332,36	143,434	275,766	372,1	354,824
547	350,40	72,84	669,01	3,20	332,42	143,175	275,580	371,3	354,511
548	348,80	72,85	668,84	3,20	332,04	143,133	275,817	370,4	354,272
549	349,02	72,86	667,64	3,20	331,52	142,896	276,243	369,8	354,209
550	347,87	72,84	667,06	3,10	331,61	142,603	275,997	369,1	353,535
551	347,26	72,85	666,06	3,10	331,52	142,402	275,991	368,1	353,437
552	346,70	72,85	664,93	3,10	331,35	142,149	275,930	367,6	353,074
553	346,69	72,84	662,89	3,10	331,34	141,828	276,268	366,6	352,792
554	345,85	72,84	662,25	3,10	330,94	141,644	276,023	366,0	352,610
555	344,98	72,82	661,83	3,00	330,82	141,610	276,122	365,0	352,237
556	344,12	72,80	660,92	3,00	330,55	141,314	276,186	364,4	352,146
557	344,02	72,76	659,57	3,00	330,43	141,330	276,261	363,8	351,877
558	342,90	72,75	659,00	3,00	329,89	141,043	276,429	363,0	351,799
559	343,36	72,74	657,05	3,00	330,08	140,984	276,495	362,5	351,752
560	342,94	72,71	657,19	2,90	329,91	140,835	276,348	361,9	351,292
561	342,57	72,74	656,15	2,90	329,50	140,601	276,607	361,2	351,085
562	341,50	72,75	656,58	2,90	329,17	140,412	276,660	360,5	350,765
563	341,26	72,72	655,73	2,90	328,99	140,362	276,496	360,1	350,448
564	340,35	72,74	655,60	2,90	328,91	140,083	276,714	359,4	350,218
565	340,52	72,71	653,74	2,80	328,57	139,797	276,821	358,6	349,603
566	340,44	72,71	653,35	2,80	328,66	139,602	276,846	357,9	349,156
567	339,82	72,74	653,96	2,80	328,26	139,331	276,860	357,5	348,924
568	339,70	72,68	653,63	2,80	328,29	139,284	276,726	356,9	348,354
569	339,27	72,69	653,60	2,80	328,39	139,132	276,217	356,6	347,729
570	339,47	72,69	652,61	2,80	328,26	139,120	276,226	356,5	347,460
571	339,09	72,64	653,26	2,70	327,90	139,079	276,261	355,9	347,385
572	338,50	72,69	653,25	2,70	327,54	138,934	276,496	355,4	347,002
573	337,80	72,68	652,35	2,70	327,74	138,886	276,369	355,3	346,494
574	337,93	72,70	651,31	2,70	327,58	138,835	276,396	354,7	346,398
575	337,73	72,67	651,65	2,70	327,47	138,690	276,219	354,3	345,839
576	337,28	72,65	651,64	2,60	327,60	138,510	276,337	354,1	345,493
577	337,01	72,60	651,26	2,60	327,35	138,376	276,341	353,6	345,149
578	336,85	72,66	650,25	2,60	327,22	138,197	276,408	353,4	344,869
579	336,96	72,63	650,01	2,60	326,68	137,853	276,374	352,9	344,556
580	336,35	72,63	650,65	2,60	326,36	137,551	276,078	351,9	344,282
581	336,41	72,62	651,55	2,50	326,38	137,502	275,906	351,0	343,998
582	336,75	72,61	652,83	2,50	325,99	137,181	275,970	350,1	343,598
583	336,41	72,59	654,54	2,50	326,05	136,921	275,686	349,5	343,348
584	336,19	72,62	655,93	2,50	325,94	136,709	275,996	348,8	343,065
585	336,36	72,60	656,34	2,50	325,96	136,546	275,684	348,2	342,808
586	335,79	72,59	655,33	2,50	326,29	136,530	275,821	347,7	342,691

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587	336,34	72,56	654,52	2,40	326,47	136,928	275,865	347,5	342,648
588	336,68	72,54	652,94	2,40	326,60	137,137	275,358	347,2	342,725
589	336,65	72,57	651,12	2,40	326,66	137,248	275,616	346,8	342,667
590	335,87	72,57	648,51	2,40	326,85	137,567	275,630	346,7	342,427
591	335,35	72,53	647,70	2,40	326,49	137,609	275,488	346,2	342,686
592	335,10	72,51	646,88	2,30	326,55	137,645	275,889	346,2	342,652
593	334,49	72,53	645,13	2,30	326,45	137,595	275,756	345,7	342,721
594	333,80	72,53	644,23	2,30	326,52	137,299	275,557	345,1	342,777
595	333,61	72,50	642,67	2,30	326,34	136,846	275,776	344,5	342,999
596	333,49	72,49	640,89	2,30	326,65	136,693	275,490	344,2	342,857
597	333,06	72,51	640,12	2,30	326,46	136,537	275,281	343,8	342,948
598	332,85	72,51	638,53	2,20	326,50	136,418	275,389	343,5	342,979
599	332,29	72,51	637,42	2,20	326,28	136,269	275,227	342,9	342,983
600	332,23	72,52	636,19	2,20	326,17	135,974	275,280	342,7	342,947
601	331,79	72,51	635,60	2,20	326,11	135,771	275,218	342,2	342,706
602	331,67	72,46	633,74	2,20	326,30	135,710	274,948	341,8	342,786
603	331,32	72,48	632,91	2,10	326,05	135,531	274,875	341,3	342,853
604	330,55	72,43	632,25	2,10	326,04	135,352	274,876	340,7	342,695
605	330,34	72,43	631,18	2,10	325,81	135,528	274,830	340,5	342,803
606	329,72	72,46	630,50	2,10	325,58	135,298	274,598	339,8	342,892
607	328,89	72,46	629,64	2,10	325,54	134,933	274,940	339,2	343,069
608	328,71	72,40	628,71	2,10	325,28	134,709	274,898	338,8	342,781
609	328,37	72,42	627,93	2,00	325,20	134,645	274,770	338,5	342,993
610	328,16	72,41	627,83	2,00	324,73	134,294	274,568	337,8	342,994
611	328,39	72,40	627,47	2,00	324,53	134,093	274,822	337,2	343,228
612	327,95	72,38	626,49	2,00	324,17	133,770	274,620	336,6	342,924
613	327,70	72,37	625,81	2,00	323,71	133,278	274,346	336,0	342,493
614	327,37	72,36	625,13	2,00	323,39	133,068	273,967	335,5	342,647
615	326,94	72,35	623,96	1,90	322,86	132,822	274,153	335,0	342,679
616	326,59	72,38	623,05	1,90	322,68	132,677	273,580	334,6	342,470
617	326,18	72,37	622,15	1,90	322,24	132,636	273,980	333,9	342,232
618	325,61	72,32	621,37	1,90	321,87	132,618	273,686	333,5	342,372
619	325,24	72,35	620,44	1,90	321,56	132,695	273,183	333,2	342,144
620	325,08	72,30	618,95	1,90	320,99	132,642	273,449	332,9	342,221
621	324,11	72,31	618,46	1,90	320,81	132,706	273,361	332,5	342,112
622	323,94	72,29	617,15	1,80	320,22	132,537	273,639	332,0	342,120
623	323,84	72,29	616,22	1,80	319,75	132,430	273,129	331,7	342,028
624	323,40	72,27	615,50	1,80	319,26	132,298	272,866	331,4	341,860
625	323,71	72,28	614,68	1,80	318,82	132,019	272,966	330,8	341,502
626	322,78	72,28	614,49	1,80	318,27	131,661	272,834	330,2	341,379
627	322,54	72,25	613,91	1,80	317,96	131,392	272,790	329,7	341,165
628	322,37	72,28	613,57	1,70	317,34	131,217	272,526	329,2	341,087
629	321,85	72,30	612,82	1,70	316,91	130,927	272,590	328,7	341,007
630	321,06	72,29	612,88	1,70	316,49	130,542	272,488	328,2	340,702
631	320,74	72,24	611,24	1,70	316,24	130,321	272,330	327,6	340,171
632	320,44	72,19	610,93	1,70	315,55	130,380	272,311	327,1	340,227
633	320,44	72,22	610,41	1,70	315,31	130,311	272,212	326,7	339,939
634	320,23	72,17	609,05	1,60	314,89	130,334	272,076	326,1	339,750
635	319,90	72,17	608,09	1,60	314,54	130,061	271,960	325,7	339,550
636	319,33	72,18	607,54	1,60	313,80	129,882	271,940	325,2	339,870
637	319,00	72,19	606,89	1,60	313,56	129,481	271,661	324,5	339,464
638	318,59	72,19	605,63	1,60	313,28	129,293	271,677	324,0	339,247
639	318,37	72,22	604,86	1,60	312,95	128,880	271,291	323,4	338,637
640	318,19	72,21	605,19	1,50	312,62	128,478	271,237	322,8	338,271
641	318,15	72,15	604,81	1,50	312,25	128,277	270,978	322,3	338,128
642	318,38	72,19	603,70	1,50	312,12	128,224	270,917	321,9	337,997
643	317,21	72,13	603,70	1,50	311,68	127,987	270,921	321,5	337,835
644	317,02	72,11	603,76	1,50	311,39	127,847	270,712	321,0	337,266
645	316,17	72,13	602,94	1,50	310,98	127,650	270,477	320,3	337,274
646	316,51	72,13	601,60	1,40	310,84	127,507	270,599	319,8	337,270
647	316,40	72,17	599,78	1,40	310,42	127,309	270,315	319,3	336,827
648	315,51	72,14	599,03	1,40	310,37	127,106	270,335	318,7	336,725
649	314,75	72,17	597,18	1,40	309,78	126,856	270,286	317,9	336,666
650	314,25	72,11	595,65	1,40	309,43	126,595	270,322	317,4	336,310
651	314,02	72,08	593,10	1,40	309,22	126,379	270,170	316,9	336,063
652	313,25	72,12	591,83	1,40	309,06	126,163	269,984	316,2	335,691
653	312,97	72,09	591,05	1,30	308,44	125,924	269,177	315,4	335,160
654	312,23	72,12	590,08	1,30	307,92	125,761	269,772	314,7	334,829
655	311,75	72,08	588,81	1,30	307,77	125,545	269,670	313,9	334,482
656	311,39	72,17	585,64	1,30	307,47	125,272	269,038	313,1	334,253
657	310,82	72,06	583,80	1,30	306,95	125,219	269,274	312,3	333,522
658	310,45	71,98	581,36	1,30	306,56	125,037	269,133	311,4	333,379
659	309,85	72,00	577,73	1,30	306,14	124,960	269,120	310,6	332,730
660	308,81	72,05	575,84	1,20	305,61	124,749	268,859	309,8	332,082
661	307,97	71,98	574,50	1,20	305,01	124,497	268,793	308,9	331,565
662	307,33	72,00	573,99	1,20	304,18	124,376	268,429	307,9	330,990
663	306,97	72,03	573,60	1,20	303,62	124,060	268,381	307,2	330,160
664	306,66	72,01	574,34	1,20	303,05	123,798	268,407	306,1	329,407
665	306,13	71,97	574,10	1,20	302,27	123,585	268,349	305,4	328,703
666	305,57	71,98	574,03	1,20	301,61	123,387	268,119	304,5	328,162
667	305,27	71,98	572,85	1,20	301,02	123,133	267,863	303,7	327,153
668	304,97	71,97	571,88	1,10	300,68	123,048	267,720	302,9	326,054
669	304,37	71,91	571,53	1,10	299,87	122,775	267,412	302,2	325,665
670	303,75	71,93	570,66	1,10	299,44	122,573	267,332	301,4	324,823
671	303,58	71,92	569,24	1,10	299,09	122,468	267,067	300,8	324,293
672	303,07	71,93	568,77	1,10	298,51	122,273	266,735	300,2	323,347
673	302,45	71,89	568,24	1,10	298,26	123,116	266,656	299,8	322,788
674	301,80	71,90	566,26	1,10	297,72	123,239	266,692	299,4	322,538
675	301,26	71,85	565,35	1,10	297,59	123,792	266,519	299,2	321,600
676	301,06	71,87	564,00	1,00	297,05	124,086	265,926	298,7	321,581
677	300,53	71,83	562,49	1,00	296,81	124,057	266,226	298,2	320,672
678	299,62	71,80	561,55	1,00	296,55	124,072	266,056	297,8	320,258
679	299,24	71,84	560,21	1,00	295,98	123,918	265,910	297,2	319,703
680	299,02	71,85	558,37	1,00	295,47	123,899	265,917	296,8	319,154
681	298,35	71,85	557,63	1,00	294,81	123,773	265,803	296,2	318,536
682	297,92	71,76	556,10	1,00	294,41	123,553	265,624	295,6	318,048
683	297,55	71,77	554,41	1,00	293,85	123,492	265,053	295,1	317,567
684	297,00	71,76	554,72	0,90	293,36	123,275	264,563	294,5	316,940

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685	296,50	71,75	552,62	0,90	292,89	123,076	264,964	294,2	316,345
686	296,27	71,66	551,23	0,90	292,32	122,833	264,522	293,5	315,770
687	295,70	71,62	550,44	0,90	291,75	122,756	263,981	293,1	315,071
688	295,02	71,66	548,01	0,90	291,27	122,568	263,908	292,3	314,373
689	294,63	71,62	547,90	0,90	290,49	122,492	263,208	291,8	313,970
690	294,38	71,65	548,04	0,90	290,33	122,409	263,330	291,5	313,323
691	293,68	71,59	547,00	0,80	289,47	122,112	263,538	290,8	313,134
692	293,39	71,61	545,80	0,80	288,68	121,903	263,150	290,2	312,718
693	292,81	71,63	544,98	0,80	288,10	121,613	263,302	289,6	312,208
694	292,09	71,58	544,32	0,80	287,53	121,501	263,254	289,0	311,891
695	292,09	71,52	543,32	0,80	286,93	121,035	262,937	288,3	310,968
696	291,46	71,54	542,09	0,80	286,35	120,572	262,150	287,5	310,394
697	290,94	71,59	540,41	0,80	285,67	120,176	261,681	286,6	309,636
698	290,44	71,55	540,28	0,80	285,24	119,684	261,657	285,9	309,029
699	290,12	71,48	538,14	0,80	284,63	119,479	261,588	285,1	308,532
700	289,65	71,51	535,70	0,70	283,89	119,073	261,143	284,3	308,099
701	288,88	71,49	534,99	0,70	283,20	118,668	261,493	283,3	308,280
702	288,62	71,41	534,06	0,70	282,51	118,398	261,245	282,6	307,916
703	287,97	71,49	532,40	0,70	281,81	118,234	260,932	281,8	307,044
704	287,23	71,47	530,99	0,70	281,10	118,244	260,843	281,0	306,707
705	286,57	71,42	529,70	0,70	280,71	118,036	260,755	280,3	306,755
706	286,19	71,44	527,44	0,70	280,01	117,812	260,249	279,5	306,064
707	285,70	71,47	526,02	0,70	279,35	117,500	260,190	278,7	305,607
708	285,12	71,46	525,00	0,70	278,95	117,292	259,934	277,9	305,431
709	284,52	71,40	524,40	0,60	278,56	117,094	259,428	277,1	304,501
710	283,62	71,46	523,70	0,60	278,18	116,935	259,340	276,5	304,490
711	283,14	71,45	522,58	0,60	277,17	116,534	259,036	275,6	303,687
712	282,89	71,44	521,11	0,60	276,32	116,152	259,069	274,7	303,499
713	282,75	71,36	519,40	0,60	276,28	116,119	258,264	274,0	302,796
714	282,14	71,40	519,10	0,60	275,33	115,757	258,402	273,3	302,513
715	281,31	71,34	518,73	0,60	274,77	115,549	257,941	272,5	302,364
716	281,00	71,31	517,95	0,60	274,09	115,299	257,777	271,7	302,057
717	280,56	71,33	517,01	0,60	273,21	115,073	257,484	271,0	301,410
718	280,55	71,33	516,07	0,50	272,78	115,047	257,218	270,3	301,089
719	279,65	71,32	514,64	0,50	272,40	114,950	256,983	269,7	300,470
720	279,19	71,32	513,58	0,50	271,82	114,770	256,749	269,0	300,221
721	278,74	71,37	511,60	0,50	271,25	114,759	256,492	268,4	300,082
722	278,36	71,33	511,02	0,50	270,66	114,606	256,213	267,7	299,625
723	277,87	71,31	510,87	0,50	270,04	114,361	255,874	267,2	299,249
724	277,26	71,34	509,53	0,50	269,56	114,262	255,566	266,5	298,808
725	276,78	71,28	509,27	0,50	268,89	113,974	255,424	265,8	298,547
726	276,27	71,34	508,12	0,50	268,39	113,650	255,184	265,0	297,919
727	276,03	71,31	506,60	0,40	267,78	113,352	254,715	264,3	297,373
728	275,88	71,24	505,26	0,40	267,45	113,226	254,062	263,7	296,766
729	275,41	71,22	504,75	0,40	267,04	113,202	253,463	263,1	296,080
730	274,98	71,21	503,20	0,40	266,34	113,095	253,719	262,5	296,033
731	274,33	71,20	501,66	0,40	266,02	113,125	253,137	261,8	295,389
732	274,23	71,17	500,14	0,40	265,69	113,103	252,905	261,4	295,150
733	273,65	71,23	499,08	0,40	264,99	113,009	252,949	260,7	295,023
734	272,62	71,25	498,19	0,40	264,42	112,963	252,773	260,2	294,450
735	272,58	71,21	496,74	0,40	263,80	112,962	252,562	259,6	294,642
736	271,86	71,22	495,31	0,40	263,34	112,781	252,282	259,1	293,922
737	271,50	71,15	494,57	0,30	262,72	112,704	252,183	258,4	293,893
738	271,09	71,17	492,94	0,30	262,34	112,411	251,672	257,8	293,462
739	270,34	71,14	491,75	0,30	261,97	112,140	251,500	257,1	292,555
740	269,77	71,18	491,44	0,30	261,33	111,780	251,200	256,4	292,647
741	269,47	71,17	490,31	0,30	260,78	111,560	250,817	255,6	292,350
742	269,28	71,19	489,30	0,30	260,08	111,140	250,620	254,8	291,858
743	268,20	71,20	487,99	0,30	259,49	110,919	250,226	254,1	291,242
744	267,45	71,08	486,93	0,30	258,73	110,611	249,963	253,3	290,945
745	267,19	71,10	486,99	0,30	258,09	110,625	249,705	252,8	290,622
746	267,08	71,14	485,46	0,30	257,78	110,616	249,219	252,2	290,443
747	266,56	71,15	485,06	0,20	257,34	110,587	248,921	251,6	289,813
748	265,93	71,05	483,49	0,20	256,69	110,515	248,590	251,0	289,544
749	265,82	71,09	482,63	0,20	256,12	110,409	248,400	250,4	289,026
750	265,22	71,08	480,76	0,20	255,66	110,419	247,667	249,8	288,185
751	264,67	71,08	479,46	0,20	255,29	110,326	247,630	249,2	287,692
752	264,40	71,12	478,59	0,20	254,63	110,169	247,263	248,6	287,289
753	264,04	71,02	477,48	0,20	254,00	109,957	246,999	248,0	286,796
754	263,80	71,03	476,44	0,20	253,39	109,959	246,919	247,5	286,501
755	263,29	70,99	475,86	0,20	252,92	109,736	246,667	247,0	285,929
756	263,02	70,97	474,50	0,20	252,42	109,716	246,391	246,4	285,622
757	262,24	71,00	473,43	0,10	252,39	109,507	245,814	245,9	284,771
758	261,80	71,00	472,48	0,10	251,60	109,341	245,978	245,3	284,373
759	260,75	70,99	471,66	0,10	251,13	109,370	245,830	244,9	283,936
760	260,72	70,97	470,54	0,10	250,64	109,285	245,578	244,3	283,748
761	260,15	70,96	469,68	0,10	250,10	109,106	245,329	243,8	283,186
762	259,93	71,01	468,85	0,10	249,80	108,953	244,813	243,3	282,447
763	259,91	70,97	467,99	0,10	249,68	109,161	244,228	243,0	281,809
764	259,38	70,92	467,31	0,10	249,02	109,392	244,216	242,8	281,466
765	258,78	70,98	467,04	0,10	248,90	109,819	243,571	242,5	280,915
766	258,37	70,95	465,67	0,10	248,58	109,978	243,762	242,2	280,407
767	258,06	70,93	464,70	0,00	247,84	110,135	243,791	242,0	279,860
768	87,29	74,15	82,04	10,70	82,76	84,815	88,133	82,0	83,212
769	242,61	74,03	90,59	10,00	82,69	84,735	87,972	82,6	83,121
770	492,11	74,14	140,44	9,80	82,62	84,627	87,641	94,0	83,038
771	530,05	74,06	248,02	9,40	82,76	84,729	87,231	114,1	83,165
772	378,59	74,10	528,26	9,10	83,92	85,004	86,912	149,1	84,681
773	382,59	74,03	752,01	8,80	87,59	86,077	86,715	186,6	88,587
774	386,60	73,89	818,68	8,70	93,56	88,015	86,534	213,5	93,844
775	419,39	73,70	829,11	8,50	102,26	90,601	86,388	235,9	99,896
776	438,52	73,72	824,92	8,30	110,66	93,679	86,318	261,1	107,529
777	453,09	73,81	833,40	8,00	118,94	97,174	86,291	286,1	116,269
778	466,55	73,78	822,59	7,80	125,95	100,861	86,286	306,2	124,830
779	476,06	73,77	815,81	7,60	132,50	104,931	86,377	326,2	131,507
780	484,31	73,68	837,99	7,40	139,87	109,088	86,483	347,5	137,427
781	496,75	73,81	873,98	7,20	147,53	113,468	86,717	369,6	142,022
782	508,24	73,73	878,32	7,00	152,40	117,823	86,994	385,8	143,615

EPA Aging

783	505.77	73.79	873.19	6.80	157.17	122.381	87,493	399,4	147,117
784	492.66	73.75	876.52	6.70	161.13	126.944	88,087	410,2	151,041
785	492.02	73.84	871.18	6.50	164.39	131.668	88,798	417,9	154,969
786	493.02	73.76	858.19	6.40	169.02	136.446	89,652	423,6	159,227
787	494.41	73.77	850.97	6.30	176.66	141,069	90,698	428,9	164,571
788	496.53	73.81	853.97	6.10	184.49	145,494	91,844	434,3	168,909
789	499.07	73.69	857.85	6.00	191.78	149,998	93,023	440,5	173,192
790	501.73	73.68	860.83	5.90	198.45	154,727	94,226	447,4	177,366
791	503.38	73.59	862.02	5.70	205.07	159,067	95,483	454,6	181,313
792	505.47	73.69	862.13	5.60	211.45	163,367	96,672	462,9	185,362
793	507.06	73.71	860.84	5.50	217.62	167,663	97,912	469,4	189,385
794	509.39	73.71	862.65	5.40	224.09	171,86	99,19	474,8	193,425
795	512.42	73.75	871.30	5.20	230.87	176.43	100,46	479,3	197,404
796	516.15	73.62	882.65	5.10	237.71	180.51	101,76	482,4	201,351
797	522.04	73.72	901.61	5.00	244.04	184.63	103.00	482,9	205,150
798	526.10	73.74	891.55	4.90	250.19	188.08	104.28	484,7	208,995
799	528.18	73.84	878.17	4.80	256.45	192.29	105.50	487,0	212,816
800	531.90	73.82	902.17	4.60	262.29	196.04	106.78	499,8	217,273
801	537.23	73.76	937.13	4.40	268.19	199.82	108.06	513,6	222,601
802	542.01	73.70	943.63	4.30	273.62	203.39	109.29	523,0	228,249
803	545.69	73.49	941.06	4.10	278.54	207.03	110.69	530,2	234,994
804	550.43	73.65	935.89	9.90	282.96	210.83	112.17	535,9	241,823
805	639.58	73.71	909.46	26.69	285.54	214.22	113.77	533,0	248,241
806	598.30	73.78	902.66	26.49	289.48	217.31	115.43	536,6	255,437
807	596.78	73.81	924.17	26.29	293.09	220.35	117.27	541,8	262,347
808	601.02	73.88	930.95	26.09	295.99	223.35	119.25	546.2	268,793
809	606.75	73.89	943.44	25.89	299.43	225.94	121.18	553,4	274,054
810	591.23	73.89	968.70	25.79	301.83	229.08	123.22	565,8	278,870
811	589.67	73.85	1001.28	25.59	303.88	232.13	125.18	572,4	283,181
812	590.25	73.90	994.62	25.49	305.92	234.33	127.20	579,0	286,595
813	590.26	73.94	989.50	25.29	307.35	236.29	129.21	588,6	289,405
814	589.44	73.91	994.34	25.19	308.65	239.22	131.20	597,2	291,605
815	590.93	73.96	1006.91	24.99	309.61	240.72	133.19	605,4	293,265
816	593.91	73.81	1022.98	24.79	310.94	242.83	135.27	613,5	294,688
817	597.32	73.85	1029.12	24.59	311.83	243.45	137.13	619,3	296,044
818	600.31	73.99	1029.76	24.49	313.15	245.53	138.81	625,4	298,952
819	603.13	73.92	1033.95	24.29	314.19	246.35	140.74	631,4	298,247
820	604.61	74.10	1038.45	24.09	315.71	247.57	142.50	636,9	298,955
821	607.40	74.23	1046.71	23.89	317.98	249.03	144.26	643,5	299,451
822	609.79	74.21	1066.14	23.79	319.87	250.20	146.06	652,9	300,225
823	612.08	74.34	1074.51	23.59	321.56	251.06	147.64	661,1	301,038
824	614.88	74.44	1067.30	23.39	323.74	251.91	149.16	665,6	302,030
825	616.11	74.44	1051.94	23.29	325.89	253.59	150.93	666,9	303,155
826	617.05	74.48	1036.05	23.09	327.33	254.75	152.31	667,6	304,728
827	617.25	74.48	1024.40	22.89	328.37	255.42	153.82	666,3	306,529
828	617.60	74.51	1016.41	22.79	329.53	256.09	155.42	665,6	308,666
829	617.78	74.53	1011.66	22.59	330.52	257.77	157.10	665,4	310,958
830	618.05	74.54	1010.77	22.49	331.21	259.38	158.42	665,5	313,619
831	618.77	74.57	1011.71	22.29	332.26	260.51	159.84	666,1	316,678
832	620.01	74.51	1016.92	22.09	333.59	262.05	161.28	667,0	319,498
833	621.57	74.52	1021.62	21.89	334.33	263.32	162.55	667,5	322,834
834	623.63	74.42	1023.65	21.79	334.95	263.86	163.83	668,0	326,377
835	625.10	74.48	1024.86	21.59	335.41	265.04	165.17	668,5	330,056
836	626.16	74.52	1023.60	21.39	336.23	266.24	166.66	669,3	333,695
837	626.66	74.54	1021.07	21.29	337.47	267.47	167.95	670,1	337,380
838	627.50	74.52	1020.11	21.09	338.36	268.28	169.31	671,3	341,518
839	628.34	74.49	1017.38	20.89	340.12	270.26	170.62	672,9	345,424
840	628.93	74.57	1025.07	20.69	340.43	271.22	171.77	678,4	349,610
841	630.90	74.57	1051.35	20.49	342.10	272.56	173.16	687,9	353,333
842	633.44	74.66	1077.18	20.39	343.73	273.64	174.52	697,5	356,997
843	636.72	74.58	1090.19	20.19	346.10	275.12	176.00	704,2	360,172
844	639.84	74.63	1092.58	19.99	348.70	276.98	177.31	707,8	363,162
845	641.92	74.63	1089.47	19.79	352.27	277.42	178.47	710,0	365,236
846	643.67	74.68	1085.32	19.59	356.03	279.13	179.91	711,5	367,444
847	645.50	74.66	1084.00	19.49	360.06	280.54	181.07	713,2	369,010
848	646.31	74.68	1084.13	19.29	364.61	282.17	182.51	717,6	370,868
849	647.71	74.55	1082.54	19.09	369.28	283.62	183.71	721,4	372,070
850	648.83	74.55	1081.77	18.89	374.54	285.67	185.05	724,3	372,850
851	649.99	74.58	1082.08	18.79	379.39	286.82	186.34	726,1	374,058
852	650.97	74.54	1081.76	18.59	384.78	288.50	187.67	729,1	374,768
853	652.11	74.47	1081.04	18.39	389.17	288.91	189.08	731,7	376,335
854	653.52	74.49	1086.42	18.19	394.53	291.68	190.38	735,5	376,806
855	654.89	74.50	1092.12	18.09	391.26	194.28	190.43	710,7	374,322
856	653.57	74.76	1096.16	17.89	391.27	149.76	190.71	695,8	372,502
857	650.76	74.87	1098.89	17.69	391.94	129.41	190.32	682,6	371,309
858	648.81	75.05	1093.04	17.59	393.61	119.45	189.69	670,6	370,973
859	645.78	75.10	1088.54	17.39	395.07	113.98	189.57	661,0	370,601
860	642.67	75.36	1083.26	17.19	396.76	110.67	189.24	651,7	371,131
861	640.40	75.38	1074.64	17.09	398.40	108.50	189.07	643,1	371,446
862	637.06	75.26	1067.04	16.89	400.71	106.93	188.68	635,2	371,838
863	634.53	75.29	1062.75	16.79	402.50	105.73	188.82	627,8	372,768
864	632.22	75.41	1059.72	16.59	405.65	104.62	189.13	621,3	373,686
865	629.51	75.24	1060.23	16.39	408.75	103.75	189.05	616,2	373,766
866	627.61	75.56	1061.91	16.19	411.91	102.98	189.79	612,4	374,802
867	626.37	75.39	1063.08	16.09	414.75	102.31	190.06	609,6	375,365
868	624.45	75.37	1064.29	15.89	417.25	101.81	190.75	606,1	375,777
869	622.42	75.24	1064.09	15.69	419.67	101.32	191.01	603,5	376,681
870	620.58	75.21	1064.42	15.59	423.07	100.81	191.81	601,0	377,218
871	619.59	75.34	1063.56	15.39	425.05	100.49	192.24	597,9	377,938
872	617.81	75.43	1063.08	15.29	427.11	100.19	193.09	595,6	379,495
873	616.05	75.38	1062.14	15.09	428.63	99.88	193.37	593,2	380,340
874	614.14	75.40	1057.02	14.99	431.31	99.69	194.29	589,8	381,472
875	613.32	75.46	1049.76	14.79	433.19	99.53	195.41	585,8	382,295
876	611.70	75.58	1046.28	14.69	435.66	99.28	196.11	583,0	383,501
877	609.61	75.65	1041.95	14.49	437.87	99.15	196.88	580,1	383,623
878	607.88	75.41	1038.07	14.29	440.27	99.04	197.82	577,0	384,930
879	606.74	75.65	1035.90	14.19	442.33	99.10	198.18	574,5	385,733
880	604.79	75.70	1035.35	14.09	444.12	99.22	198.57	573,1	386,577

EPA Aging

881	603,76	75,66	1038,22	13,89	445,81	99,15	199,92	571,2	387,536
882	602,95	75,40	1044,06	13,69	447,32	99,01	200,59	570,8	388,762
883	603,21	75,34	1051,55	13,60	449,44	99,10	201,83	570,8	390,120
884	602,34	75,36	1057,60	13,40	450,85	98,95	202,57	572,6	390,489
885	602,50	75,04	1063,30	13,30	453,26	98,75	203,66	573,4	391,535
886	602,56	75,42	1067,56	13,10	455,12	98,85	204,85	574,0	392,675
887	602,35	75,17	1069,86	13,00	455,77	98,68	206,15	574,6	393,498
888	601,82	75,01	1072,44	12,80	457,66	98,73	206,76	575,4	394,433
889	602,39	75,34	1073,80	12,70	458,81	98,79	208,68	576,7	395,492
890	603,34	75,12	1083,54	12,50	460,72	98,76	209,79	578,4	397,066
891	603,66	75,02	1086,80	12,40	460,76	98,86	209,87	579,2	398,297
892	603,51	74,81	1079,17	12,20	462,19	99,02	211,40	579,3	400,033
893	603,24	74,85	1064,22	12,10	462,18	98,94	213,38	576,8	401,859
894	602,47	75,21	1050,59	12,00	461,93	98,88	214,29	574,6	403,815
895	600,66	75,03	1039,31	11,90	462,99	98,89	215,17	571,5	405,666
896	598,97	75,15	1025,01	11,70	464,03	98,82	215,99	566,8	407,307
897	596,46	75,13	1007,95	11,60	464,54	98,81	217,43	561,4	410,016
898	594,16	75,39	990,64	11,50	463,66	98,80	217,83	556,2	412,381
899	592,05	75,13	981,31	11,40	462,77	98,74	219,25	551,7	414,680
900	589,81	75,48	973,22	11,30	462,50	98,84	219,67	547,1	417,076
901	587,67	75,37	965,86	11,10	462,25	98,74	221,67	542,5	419,928
902	585,51	75,54	962,25	11,00	461,02	98,68	222,75	539,4	422,210
903	584,17	75,41	960,71	10,90	459,77	98,68	223,16	536,0	424,229
904	582,66	75,76	958,65	10,80	459,94	98,77	225,02	533,4	426,752
905	581,21	75,54	956,78	10,70	459,19	98,59	226,23	530,7	428,646
906	579,69	75,60	955,37	10,50	457,44	98,62	227,63	528,8	430,586
907	578,33	75,65	953,25	10,40	456,54	98,62	228,92	525,8	432,199
908	577,17	75,50	951,46	10,30	456,37	98,46	230,52	523,5	434,381
909	576,97	75,53	952,80	10,20	456,29	98,52	232,13	521,5	436,398
910	575,95	75,43	953,78	10,00	454,79	98,48	232,95	519,2	437,184
911	575,57	75,72	955,72	9,90	453,39	98,44	234,06	516,5	439,281
912	574,66	75,60	954,78	9,80	452,12	98,43	235,14	514,0	441,118
913	573,29	75,19	953,36	9,70	451,82	98,52	236,81	511,4	443,358
914	571,98	75,45	950,00	9,60	451,48	98,54	238,36	509,2	445,481
915	570,93	75,46	949,37	9,40	449,26	98,60	238,97	507,1	447,859
916	569,72	75,29	947,48	9,30	448,05	98,74	240,55	505,2	450,259
917	568,45	75,31	944,62	9,20	447,85	98,61	242,61	503,2	452,386
918	567,42	75,42	942,22	9,10	446,57	98,72	243,86	501,0	454,693
919	566,52	75,42	938,10	9,00	444,60	98,67	244,11	498,5	456,726
920	565,90	75,31	935,53	8,90	444,02	98,75	245,86	497,0	458,386
921	564,56	75,69	935,61	8,80	442,46	98,67	247,49	495,9	460,571
922	563,87	75,57	932,59	8,70	440,21	98,71	248,49	493,8	462,480
923	562,62	75,53	925,55	8,50	438,92	98,80	249,15	492,4	463,646
924	561,19	75,68	919,64	8,40	437,31	98,91	250,64	490,9	464,892
925	559,88	75,72	915,61	8,30	436,81	98,90	252,94	489,0	466,385
926	558,99	75,67	914,28	8,20	435,54	98,94	253,46	487,9	466,990
927	557,40	75,77	912,21	8,10	434,10	98,99	254,10	486,8	467,433
928	555,90	75,95	908,16	8,00	433,63	98,97	256,08	484,9	468,291
929	554,47	75,74	905,97	7,90	432,70	99,06	257,94	483,9	468,944
930	553,33	75,74	904,71	7,80	431,80	98,97	259,04	481,8	469,779
931	551,90	75,90	902,83	7,80	429,98	98,97	261,03	478,9	470,925
932	551,42	75,44	900,49	7,70	428,73	98,98	261,57	475,6	470,877
933	550,13	75,68	897,07	7,60	427,05	98,95	263,84	470,9	471,569
934	549,01	75,60	893,37	7,50	425,03	98,93	265,60	467,0	471,994
935	548,22	75,41	888,93	7,40	425,02	98,83	267,32	463,5	471,296
936	546,68	75,71	885,77	7,30	424,15	98,78	268,58	459,8	470,863
937	545,04	75,18	883,23	7,20	422,37	98,76	270,12	456,7	470,620
938	544,00	75,38	879,70	7,10	421,18	98,64	271,82	454,0	470,041
939	542,55	75,27	876,51	7,00	419,10	98,54	273,37	450,8	469,015
940	541,25	75,69	872,79	6,90	417,78	98,31	274,56	447,2	467,541
941	539,84	75,19	869,02	6,90	417,36	98,33	276,77	444,3	467,204
942	538,49	75,09	867,31	6,80	416,26	98,22	278,09	441,8	466,080
943	536,91	75,03	869,48	6,70	413,49	98,23	279,16	439,7	464,923
944	535,44	75,23	872,84	6,60	413,03	98,19	279,40	437,8	463,992
945	535,28	75,17	876,42	6,50	411,63	97,98	279,99	435,9	462,523
946	533,49	75,08	877,79	6,40	410,85	97,94	281,45	434,2	461,969
947	532,68	75,11	875,28	6,40	408,99	97,93	282,27	432,3	460,981
948	531,47	75,00	870,89	6,30	408,92	97,83	284,30	430,0	460,948
949	530,29	75,25	864,81	6,20	407,21	97,75	284,45	427,7	458,834
950	529,17	74,97	859,11	6,10	404,82	97,58	285,94	425,4	457,453
951	528,24	75,18	855,31	6,00	404,14	97,51	286,19	423,2	457,149
952	526,27	75,25	850,78	5,90	402,84	97,90	287,69	421,8	456,557
953	544,80	75,08	854,88	5,80	408,45	117,52	292,51	442,3	460,878
954	531,66	74,93	902,18	5,70	411,17	135,27	296,96	473,4	463,370
955	535,38	74,83	969,92	5,50	413,64	151,54	301,18	506,1	465,348
956	542,72	75,02	1008,96	5,40	415,63	165,54	305,17	532,6	465,997
957	549,40	74,77	1022,76	5,30	417,77	178,22	308,72	553,7	466,005
958	554,62	74,86	1025,85	5,20	419,69	189,77	312,82	570,8	467,315
959	559,08	74,75	1025,68	5,10	421,73	199,77	316,20	586,6	468,475
960	562,65	74,81	1024,19	5,00	423,83	209,59	318,90	599,5	468,453
961	566,32	74,89	1021,19	4,90	426,71	218,20	321,09	610,3	468,127
962	568,85	74,85	1019,25	4,70	429,42	225,88	323,68	620,3	468,112
963	571,50	74,91	1014,83	4,60	431,80	233,84	326,14	628,5	468,725
964	573,34	74,76	1007,53	4,60	434,85	240,15	328,99	634,3	468,875
965	574,85	74,68	998,76	4,50	437,26	247,37	330,14	638,8	468,840
966	577,03	74,71	990,56	4,40	440,86	252,88	332,18	642,4	469,257
967	577,72	74,71	982,70	4,30	442,77	259,02	334,12	644,6	470,202
968	578,41	74,69	973,90	4,20	445,44	264,54	335,69	645,7	469,976
969	579,00	74,83	964,51	4,20	447,95	269,78	336,97	645,4	470,739
970	578,96	74,45	955,93	4,10	449,64	274,91	337,81	644,7	469,779
971	579,22	74,66	948,83	4,00	452,31	279,33	339,15	643,4	470,039
972	578,86	74,64	942,56	4,00	453,99	283,68	340,69	641,4	470,401
973	578,71	74,70	937,46	3,90	456,16	288,10	341,63	639,1	470,050
974	578,49	74,75	932,69	0,00	457,61	292,69	342,96	637,1	469,731
975	505,24	74,86	910,42	30,29	459,70	297,07	343,96	630,0	470,149
976	575,89	74,81	902,04	27,29	461,21	300,47	345,79	623,2	470,010
977	575,00	74,87	928,18	27,09	463,41	304,35	346,96	619,5	469,538
978	578,09	74,85	947,24	26,89	463,50	307,89	348,12	617,4	468,209

EPA Aging

979	574,33	74,92	952,88	26,79	463,74	310,72	349,25	617,6	466,628
980	567,69	74,86	966,29	26,59	461,78	313,51	349,54	619,9	464,598
981	568,05	74,86	988,21	26,49	460,36	316,26	349,34	619,9	461,644
982	569,15	74,78	995,55	26,29	459,02	318,82	350,51	620,4	458,418
983	570,26	74,76	998,78	26,19	457,00	320,93	351,01	622,9	454,898
984	566,84	74,51	995,49	25,99	453,98	322,62	351,30	627,7	451,453
985	552,44	74,71	1006,59	25,89	450,84	323,55	351,63	631,4	447,485
986	548,42	74,69	1057,27	25,79	448,21	324,29	351,77	627,2	443,347
987	548,40	74,73	1102,67	25,69	446,05	325,58	350,93	621,2	439,999
988	548,44	74,75	1127,35	25,59	443,31	326,43	350,35	615,4	435,518
989	549,61	74,73	1140,43	25,49	440,88	326,55	350,57	610,9	432,131
990	551,16	74,81	1150,00	25,39	437,52	327,01	350,17	607,9	428,589
991	553,05	74,84	1161,22	25,19	434,42	327,73	350,78	606,2	425,100
992	554,68	74,74	1171,51	25,09	431,86	327,19	349,48	606,4	421,865
993	555,02	74,80	1177,74	24,99	428,80	326,39	349,93	607,1	418,150
994	556,87	74,84	1182,51	24,89	425,43	326,05	348,83	607,5	414,972
995	559,26	74,88	1185,89	24,79	422,39	325,58	349,01	608,8	412,157
996	560,89	74,95	1182,01	24,69	419,52	324,44	348,56	611,9	408,993
997	561,73	74,86	1175,26	24,59	417,00	324,35	348,32	614,9	405,238
998	562,39	74,98	1166,40	24,49	414,41	323,88	347,71	617,9	402,126
999	561,40	74,93	1147,78	24,39	411,76	323,13	346,51	624,1	399,501
1000	561,55	74,93	1118,70	24,29	409,32	322,95	346,05	633,1	396,663
1001	560,92	74,89	1090,21	24,19	407,39	322,19	345,51	641,5	393,436
1002	557,95	74,87	1067,01	23,99	405,07	320,56	344,06	650,6	391,027
1003	555,40	74,97	1049,42	23,89	402,03	320,42	343,19	659,1	387,841
1004	551,91	74,97	1038,49	23,79	399,69	318,13	342,85	666,3	386,218
1005	550,01	75,05	1032,08	23,69	397,66	316,99	342,11	672,0	384,323
1006	547,27	75,09	1029,05	23,59	395,15	316,13	340,78	676,0	381,772
1007	545,22	75,14	1026,72	23,49	393,19	315,43	340,29	679,1	380,079
1008	543,94	75,04	1024,89	23,39	391,50	313,80	339,78	682,5	377,885
1009	542,65	74,97	1022,77	23,29	389,16	313,14	339,14	684,1	376,414
1010	541,62	75,00	1020,99	23,09	387,43	312,80	338,11	686,3	375,028
1011	540,44	75,02	1017,29	22,99	385,68	311,18	337,32	688,0	373,145
1012	540,22	74,98	1014,34	22,89	383,97	310,18	336,80	688,8	371,551
1013	539,36	75,00	1012,25	22,79	382,25	309,34	336,43	689,0	370,681
1014	538,39	75,04	1010,88	22,69	381,36	308,37	335,11	689,1	368,665
1015	537,25	75,15	1010,30	22,59	379,16	306,97	335,17	688,7	368,176
1016	536,64	75,23	1009,87	22,49	377,78	305,60	334,31	688,6	366,902
1017	535,74	75,21	1009,49	22,39	377,43	305,86	334,06	688,8	365,083
1018	533,69	75,18	1010,29	22,29	375,37	303,74	333,27	687,9	363,884
1019	533,47	75,13	1010,35	22,19	374,15	303,35	332,88	687,2	363,195
1020	533,56	75,19	1009,84	21,99	373,26	302,48	331,66	686,5	362,406
1021	532,51	75,31	1008,71	21,89	371,98	300,77	331,44	684,4	361,550
1022	531,50	75,37	1007,48	21,79	371,09	300,13	329,68	682,3	360,714
1023	530,89	75,49	1005,52	21,69	369,76	299,48	329,74	680,9	359,772
1024	529,84	75,58	1004,39	21,59	368,46	298,54	328,93	679,3	359,027
1025	529,72	75,55	1002,99	21,49	367,49	298,09	327,99	676,6	358,264
1026	528,65	75,55	1000,70	21,39	366,74	297,71	326,91	675,6	357,349
1027	528,64	75,25	999,34	21,29	366,00	296,90	326,30	674,3	357,103
1028	527,46	75,55	998,14	21,19	364,13	271,51	326,41	669,9	356,516
1029	527,35	75,47	995,50	21,09	362,70	237,61	325,86	664,5	355,130
1030	526,22	75,62	993,23	20,99	361,62	212,21	324,18	659,3	353,634
1031	523,78	75,72	991,50	20,89	360,74	194,46	323,08	655,0	352,888
1032	522,58	75,81	990,99	20,79	359,10	181,72	322,30	651,3	351,725
1033	520,52	75,91	991,37	20,69	358,45	172,71	321,42	647,7	350,604
1034	519,31	75,89	991,13	20,59	357,38	165,86	320,42	644,8	349,956
1035	517,67	75,99	990,50	20,49	356,15	160,91	319,48	642,7	349,778
1036	516,45	76,04	989,36	20,39	355,34	156,82	318,47	643,5	349,244
1037	514,62	76,07	990,57	20,29	354,65	153,39	317,30	648,3	348,350
1038	513,12	76,07	994,70	20,19	353,82	150,60	316,29	654,1	347,802
1039	511,58	76,06	999,89	20,09	352,77	148,02	315,11	658,1	346,751
1040	510,51	76,20	1003,68	19,99	352,30	145,99	313,97	659,8	346,190
1041	509,59	76,17	1004,27	19,89	351,60	144,23	312,88	659,4	345,867
1042	508,46	76,23	1002,49	19,79	351,10	142,76	311,88	658,6	345,515
1043	507,14	76,33	999,97	19,69	350,45	141,15	311,07	655,7	345,514
1044	506,10	76,34	997,28	19,59	349,85	139,90	310,43	650,9	345,574
1045	504,73	76,30	994,59	19,49	349,14	138,84	309,03	644,0	345,462
1046	504,38	76,29	989,79	19,39	348,72	137,77	308,16	635,8	344,616
1047	502,32	76,36	984,65	19,29	348,46	136,91	307,71	627,5	343,740
1048	501,11	76,38	978,55	19,29	347,57	136,00	306,92	619,3	343,528
1049	499,53	76,37	973,17	19,19	346,90	135,34	306,05	611,9	343,365
1050	498,39	76,39	968,85	19,09	346,32	134,69	305,60	607,4	342,665
1051	496,70	76,40	966,09	18,99	345,82	133,89	304,76	603,2	342,314
1052	494,40	76,33	962,82	18,89	344,85	133,23	304,15	599,7	341,931
1053	492,48	76,27	958,68	18,79	344,77	132,51	303,46	596,3	341,387
1054	490,78	76,32	952,98	18,79	343,61	131,98	302,41	592,8	341,539
1055	489,47	76,43	948,19	18,69	342,92	131,44	301,82	589,0	340,719
1056	487,47	76,33	945,53	18,59	342,00	130,77	301,53	584,6	339,725
1057	486,28	76,40	943,32	18,49	341,61	130,42	300,86	580,0	339,283
1058	485,41	76,44	942,02	18,39	341,10	129,92	300,03	575,4	338,809
1059	484,44	76,30	940,72	18,39	340,26	129,51	299,43	570,6	338,316
1060	481,73	76,45	938,91	18,29	339,51	129,07	298,57	565,0	338,153
1061	480,52	76,48	937,69	18,19	338,64	128,51	298,25	559,3	338,154
1062	478,29	76,53	933,72	18,19	338,21	128,16	297,70	553,1	338,518
1063	476,97	76,56	929,26	18,09	337,48	127,59	297,04	546,5	338,451
1064	475,31	76,53	923,88	17,99	337,02	127,22	296,39	540,0	337,774
1065	473,30	76,50	919,52	17,99	336,30	127,06	295,82	533,4	337,711
1066	471,09	76,57	915,97	17,89	335,75	126,59	295,31	526,7	337,408
1067	469,17	76,43	910,37	17,79	335,93	126,26	294,89	521,0	336,402
1068	467,59	76,48	904,07	17,79	334,96	125,77	294,57	515,0	336,169
1069	465,37	76,54	897,31	17,69	334,22	125,47	294,23	510,0	335,685
1070	463,44	76,53	891,47	17,59	333,13	125,12	293,69	505,0	335,096
1071	461,26	76,59	887,30	17,59	332,46	124,77	293,15	500,0	334,308
1072	459,15	76,52	883,37	17,49	331,56	124,46	292,96	495,5	333,437
1073	456,80	76,60	879,46	17,49	330,73	124,35	293,11	491,2	332,547
1074	454,83	76,56	875,79	17,39	330,20	123,99	292,57	487,0	332,234
1075	453,15	76,63	871,69	17,39	329,28	123,55	292,49	482,8	331,417
1076	451,23	76,63	868,84	17,29	328,39	123,12	292,15	478,9	330,662

EPA Aging

1077	449,50	76,68	867,51	17,19	327,76	122,77	291,54	474,7	330,541
1078	448,50	76,68	865,05	17,19	327,34	122,31	291,36	470,9	330,163
1079	446,42	76,67	863,83	17,09	326,35	122,01	290,61	466,8	329,454
1080	444,57	76,66	867,86	17,09	325,30	121,71	290,22	463,0	329,292
1081	443,65	76,66	871,52	16,99	324,67	121,36	290,17	458,8	328,684
1082	443,54	76,63	873,56	16,99	323,61	121,05	289,79	454,9	328,067
1083	442,44	76,60	874,92	16,89	322,41	120,72	289,51	451,4	326,950
1084	441,79	76,60	872,50	16,79	321,44	120,42	289,16	447,7	326,544
1085	440,33	76,62	870,61	16,79	320,74	120,14	288,64	444,6	325,591
1086	438,62	76,48	868,98	16,69	319,78	120,02	288,28	441,6	324,734
1087	437,95	76,61	864,68	16,69	319,03	119,63	288,60	438,6	323,932
1088	436,89	76,63	863,38	16,59	318,83	119,38	287,50	436,0	323,400
1089	435,24	76,56	861,10	16,59	318,18	118,97	287,55	433,3	322,939
1090	434,21	76,53	857,49	16,49	317,58	118,63	287,38	430,8	322,383
1091	433,25	76,51	853,50	16,49	316,48	118,33	287,09	428,8	321,578
1092	432,05	76,39	850,16	16,39	315,54	118,04	286,85	426,4	321,057
1093	430,72	76,48	846,22	16,39	314,89	117,72	286,50	424,2	320,087
1094	429,80	76,46	843,84	16,29	314,08	117,35	286,52	422,1	319,365
1095	428,01	76,31	839,81	16,29	312,76	117,07	285,79	419,8	318,832
1096	426,64	76,50	839,17	16,19	312,43	116,78	285,40	417,9	318,572
1097	425,67	76,23	837,70	16,09	311,76	116,62	284,93	416,2	317,980
1098	424,89	76,43	835,97	16,09	310,78	116,28	285,01	414,1	317,279
1099	423,85	76,26	836,89	15,99	309,68	116,02	284,79	411,9	317,113
1100	422,85	76,36	839,11	15,99	309,11	115,83	284,35	410,2	316,726
1101	421,97	76,39	840,41	15,89	308,61	115,69	283,93	408,7	316,394
1102	421,89	76,12	842,56	15,89	307,27	115,30	283,44	406,7	315,919
1103	421,52	76,34	845,99	15,79	306,64	115,10	282,73	405,5	315,420
1104	421,38	76,36	849,93	15,79	306,24	114,88	282,62	403,7	315,060
1105	420,83	76,42	852,13	15,69	305,27	114,67	282,08	402,2	314,570
1106	420,92	76,34	857,74	15,59	304,71	114,40	282,06	401,1	313,811
1107	421,46	76,34	863,55	15,59	303,59	114,20	281,65	400,1	313,136
1108	422,10	76,29	870,98	15,49	303,00	114,06	281,02	399,2	312,541
1109	422,74	76,28	879,92	15,39	302,18	113,93	280,67	398,6	311,767
1110	423,82	76,25	889,68	15,39	301,81	113,80	280,87	398,2	311,132
1111	426,04	76,25	900,17	15,29	301,42	113,64	280,66	398,0	310,420
1112	427,82	76,19	910,89	15,19	300,40	113,57	280,79	398,3	310,314
1113	429,86	76,21	924,02	15,19	299,75	113,43	280,33	398,9	309,876
1114	432,04	76,02	936,15	15,09	299,37	113,22	280,32	399,7	309,174
1115	434,55	76,14	949,24	14,99	299,53	113,05	280,16	401,0	308,306
1116	437,16	76,13	962,03	14,89	298,88	112,88	280,15	402,2	308,086
1117	440,50	76,13	974,12	14,89	298,60	112,85	279,60	404,1	307,878
1118	443,25	76,15	985,46	14,79	298,15	112,70	279,31	405,4	307,374
1119	446,03	76,20	1000,39	14,69	297,47	112,66	279,24	407,0	307,292
1120	447,70	76,15	1017,42	14,59	296,97	112,70	278,87	408,9	307,032
1121	451,76	76,12	1036,52	14,49	296,11	112,72	278,07	411,1	307,281
1122	455,19	76,13	1054,16	14,49	296,04	112,80	278,37	414,0	307,343
1123	459,11	76,16	1072,77	14,39	295,74	112,74	277,99	417,0	306,902
1124	463,05	76,22	1089,52	14,29	295,48	112,84	277,99	420,5	306,821
1125	466,95	76,25	1107,97	14,19	295,36	112,87	277,80	424,6	306,777
1126	471,15	76,31	1123,50	14,09	294,79	113,01	277,87	429,1	306,358
1127	475,48	76,28	1139,38	13,99	295,08	113,17	277,51	434,5	306,297
1128	479,52	76,27	1152,90	13,89	294,51	113,11	277,67	439,6	305,698
1129	483,00	76,29	1165,17	13,79	294,32	113,21	277,62	445,2	305,758
1130	486,84	76,32	1172,59	13,69	294,06	113,09	277,60	450,2	305,768
1131	490,85	76,30	1177,04	13,69	293,91	113,05	276,98	455,4	305,761
1132	493,27	76,25	1180,38	13,60	293,59	113,05	276,88	460,2	305,769
1133	494,63	76,23	1184,04	13,50	293,31	113,05	276,62	464,6	305,738
1134	497,99	76,36	1188,17	13,40	293,29	113,15	276,45	468,3	305,893
1135	500,92	76,27	1191,01	13,30	292,98	113,15	276,62	472,2	306,318
1136	502,98	76,32	1195,12	13,20	292,95	113,30	275,83	475,8	306,455
1137	505,90	76,26	1198,97	13,10	292,40	113,41	275,51	479,2	306,525
1138	508,32	76,19	1203,22	13,00	292,24	113,46	275,48	482,8	306,750
1139	511,20	76,17	1207,04	13,00	292,61	113,66	275,10	485,9	306,968
1140	514,00	76,24	1208,90	12,90	292,70	113,73	274,99	489,0	307,232
1141	516,70	76,18	1210,52	12,80	292,85	113,87	274,42	492,0	307,324
1142	519,38	76,22	1210,59	12,70	292,75	114,04	274,41	494,7	307,556
1143	520,82	76,07	1210,58	12,60	292,98	114,16	273,97	497,1	307,780
1144	523,90	75,76	1210,91	12,50	293,78	114,23	273,80	499,8	307,697
1145	525,19	76,10	1209,12	12,40	293,71	114,35	272,98	501,9	308,014
1146	526,20	76,08	1207,57	12,40	294,53	114,51	272,31	503,8	308,354
1147	528,33	76,06	1205,26	12,30	294,24	114,74	272,76	505,4	308,599
1148	529,29	75,82	1202,73	12,20	294,89	114,86	272,55	506,7	308,328
1149	530,13	75,88	1200,55	12,10	294,89	115,01	272,70	507,7	309,045
1150	531,76	75,96	1200,82	12,00	294,80	115,33	272,63	509,3	309,146
1151	532,89	75,74	1202,54	11,90	295,15	115,59	272,66	510,2	310,136
1152	533,89	75,88	1206,47	11,80	295,56	115,91	272,37	511,6	310,489
1153	534,71	75,77	1211,53	11,80	296,48	116,04	271,99	512,8	310,388
1154	535,37	75,82	1217,40	11,70	295,97	116,06	271,83	514,6	310,918
1155	536,64	75,74	1223,60	11,59	296,74	116,31	271,65	516,6	310,772
1156	538,64	75,66	1229,49	11,50	297,08	116,41	271,51	518,6	310,988
1157	540,73	75,79	1234,23	11,40	297,13	116,49	271,60	520,6	311,613
1158	542,60	75,89	1238,06	11,30	297,54	116,70	271,75	523,2	311,544
1159	544,00	75,87	1239,20	11,20	298,08	116,77	271,58	525,2	311,636
1160	545,37	75,80	1239,50	11,10	298,64	117,04	271,63	527,7	311,708
1161	546,11	75,83	1237,91	11,10	299,02	117,28	271,68	529,6	312,118
1162	547,85	75,81	1233,53	11,00	299,39	117,43	271,60	531,0	312,363
1163	549,45	75,89	1225,59	10,90	299,63	117,61	271,38	532,0	312,513
1164	549,59	75,84	1216,41	10,80	299,70	117,43	271,56	531,8	312,782
1165	549,45	75,93	1206,78	10,70	300,05	117,07	271,58	531,3	313,040
1166	549,77	75,82	1197,81	10,70	300,26	117,07	270,96	530,8	313,181
1167	550,28	75,65	1187,32	10,60	300,49	117,14	270,93	529,8	313,889
1168	549,32	75,79	1165,78	10,50	300,96	117,21	270,74	529,1	314,539
1169	547,48	75,74	1133,38	10,40	301,23	117,32	270,21	529,5	314,328
1170	544,43	75,87	1082,77	10,40	301,95	117,45	270,45	530,5	315,125
1171	539,42	75,88	1026,34	10,30	302,56	117,40	270,28	531,1	315,226
1172	532,60	75,92	979,27	10,20	303,15	117,55	270,20	531,1	315,365
1173	526,03	75,98	945,08	10,10	303,75	117,66	270,29	531,2	315,617
1174	519,35	75,85	922,27	10,00	304,47	117,61	270,16	530,8	316,078

EPA Aging

1175	513,72	75,81	909,13	9,90	305,04	117,92	269,80	530,7	316,202
1176	508,95	75,89	902,90	9,90	305,38	118,09	268,99	531,3	316,629
1177	504,94	75,90	900,69	9,80	306,21	118,43	269,33	532,4	317,304
1178	501,66	75,94	901,30	9,70	307,37	118,76	269,36	533,9	317,424
1179	498,02	75,98	903,03	9,60	307,98	119,05	268,27	535,9	317,886
1180	494,96	75,72	905,40	9,50	308,25	119,34	268,89	538,5	318,466
1181	493,60	75,70	907,22	9,40	309,49	119,81	268,71	541,2	318,896
1182	491,29	75,81	909,65	9,30	310,07	120,36	267,67	544,1	319,635
1183	489,34	75,83	912,32	9,20	311,26	120,79	266,93	546,4	320,423
1184	486,80	75,68	914,10	9,10	311,65	121,19	267,80	548,5	321,170
1185	484,56	75,66	915,34	9,00	312,50	121,66	268,02	549,9	321,821
1186	483,12	75,81	915,73	8,90	313,03	122,36	268,62	550,8	322,838
1187	481,33	75,75	914,81	8,90	314,53	122,94	268,69	550,2	323,475
1188	479,97	75,66	912,81	8,80	315,90	123,50	268,36	549,3	324,329
1189	478,56	75,55	910,20	8,70	317,47	123,93	267,84	547,5	325,058
1190	476,88	75,55	906,74	8,60	318,09	124,21	267,38	544,9	325,706
1191	475,97	75,52	902,32	8,50	319,15	124,72	267,14	542,5	326,366
1192	474,67	75,50	898,57	8,50	320,01	125,17	267,01	540,3	326,982
1193	473,07	75,57	895,96	8,40	320,73	125,44	267,11	537,9	327,869
1194	472,42	75,24	893,15	8,30	322,13	125,66	266,44	535,6	328,516
1195	471,03	75,45	890,75	8,30	323,07	126,20	266,00	533,5	329,531
1196	469,60	75,44	887,49	8,20	323,52	126,82	266,00	531,3	330,427
1197	468,34	75,43	884,00	8,10	324,06	127,34	266,27	529,3	331,066
1198	466,58	75,38	879,96	8,10	324,98	127,89	266,32	527,2	331,471
1199	465,01	75,44	875,68	8,00	325,50	128,62	265,77	525,3	332,384
1200	463,00	75,36	871,69	7,90	326,05	129,14	265,34	522,9	333,025
1201	461,43	75,32	867,52	7,90	326,84	129,37	265,78	520,7	333,776
1202	459,46	75,40	863,23	7,80	327,20	129,74	264,78	518,6	334,681
1203	457,42	75,38	859,30	7,70	326,97	130,47	264,94	516,8	335,277
1204	456,17	75,45	855,14	7,70	326,86	130,81	265,31	515,3	335,458
1205	454,71	75,34	851,02	7,60	327,63	129,89	265,40	512,4	336,143
1206	453,27	75,38	848,40	7,60	327,43	129,46	265,00	510,1	336,385
1207	451,54	75,34	847,68	7,50	327,71	129,36	264,27	507,5	336,802
1208	449,58	75,32	847,50	7,40	327,61	129,48	264,46	505,0	336,929
1209	448,63	75,27	847,72	7,40	327,95	129,55	264,05	502,3	337,477
1210	447,72	75,29	847,22	7,30	327,95	129,65	264,26	499,6	338,014
1211	447,55	75,24	846,34	7,30	328,12	129,83	264,25	497,1	338,482
1212	445,86	75,24	845,55	7,20	328,17	130,16	264,09	494,7	338,804
1213	445,04	75,18	842,87	7,10	328,44	130,34	264,09	492,8	339,343
1214	443,32	75,26	840,47	7,10	328,49	130,54	264,13	491,3	339,418
1215	441,76	75,15	838,53	7,00	328,51	130,87	263,59	489,8	340,345
1216	440,62	75,05	835,94	7,00	328,01	130,98	264,74	488,2	340,454
1217	440,03	75,07	833,83	6,90	328,07	130,94	264,90	487,1	340,925
1218	439,78	75,12	832,10	6,90	328,05	131,32	264,75	486,3	340,999
1219	438,58	75,12	829,60	6,80	327,98	131,47	264,56	485,3	341,341
1220	437,91	75,03	826,31	6,80	328,34	131,51	264,78	484,3	341,461
1221	436,56	75,04	823,28	6,70	328,31	131,57	264,46	483,2	341,552
1222	434,73	75,06	821,06	6,60	328,40	131,54	264,66	482,0	342,263
1223	434,43	75,07	819,16	6,60	328,41	131,58	264,18	480,9	342,794
1224	433,31	75,08	819,22	6,50	328,53	131,57	263,90	478,9	343,070
1225	432,28	75,03	821,77	6,50	328,48	131,41	264,09	476,9	343,305
1226	431,60	75,06	823,42	6,40	328,17	131,21	264,16	474,6	343,548
1227	430,79	74,98	826,03	6,40	327,74	131,20	264,55	472,6	344,042
1228	430,55	75,02	828,30	6,30	327,42	131,21	264,52	471,2	344,302
1229	429,81	74,98	830,39	6,30	327,25	131,26	263,91	469,8	344,535
1230	429,12	74,95	833,93	6,20	327,04	131,25	264,64	468,5	344,710
1231	428,61	74,89	836,16	6,20	326,76	131,40	265,48	467,5	345,388
1232	427,40	74,99	838,63	6,10	327,15	131,52	265,92	466,9	346,062
1233	427,25	75,26	837,37	6,10	327,23	131,66	266,34	466,3	347,024
1234	427,02	75,56	835,72	6,00	327,18	132,01	266,78	466,1	347,943
1235	426,68	75,66	836,08	6,00	327,22	132,44	266,72	465,5	349,031
1236	426,47	75,82	836,69	5,90	327,57	132,82	267,28	465,5	349,260
1237	425,46	76,04	836,22	5,90	328,07	133,09	267,19	465,6	349,760
1238	424,70	76,36	835,34	5,80	328,04	133,26	267,66	465,6	350,362
1239	424,10	76,56	833,36	5,80	327,64	133,18	267,75	465,7	351,280
1240	423,57	76,65	829,54	5,70	327,53	133,13	268,05	466,0	351,922
1241	422,26	76,69	827,50	5,70	327,60	133,12	268,34	466,3	352,476
1242	421,65	76,79	828,68	5,60	327,81	132,39	268,41	466,3	352,666
1243	421,79	76,81	832,27	5,60	327,48	131,90	268,65	466,1	352,876
1244	421,13	76,96	837,04	5,50	327,69	131,44	268,99	465,9	352,473
1245	421,85	77,05	838,80	5,50	327,98	131,22	269,08	466,1	352,752
1246	422,26	77,16	840,14	5,40	328,24	131,12	269,00	465,9	353,064
1247	421,95	77,25	842,33	5,40	328,30	130,98	269,44	465,0	353,566
1248	421,45	77,20	856,24	5,30	328,48	130,90	269,40	462,3	353,207
1249	422,93	77,36	880,89	5,30	328,52	130,75	269,58	459,6	352,778
1250	424,72	77,55	908,57	5,20	328,66	130,72	269,86	457,8	353,388
1251	428,11	77,71	924,91	5,20	328,62	130,85	270,03	458,2	354,287
1252	429,93	77,72	927,39	5,10	328,97	131,04	270,38	459,9	354,433
1253	431,35	77,82	918,02	5,10	328,31	131,05	270,83	460,4	354,910
1254	431,34	77,85	904,61	5,00	328,31	131,34	271,20	460,6	355,315
1255	430,39	77,97	889,75	5,00	328,29	131,48	271,46	460,3	354,687
1256	429,53	78,14	874,85	5,00	327,96	131,58	271,89	459,3	355,084
1257	427,96	78,20	860,81	4,90	328,00	131,67	272,13	457,8	355,072
1258	426,42	78,20	851,08	4,90	327,87	131,85	272,39	456,0	354,692
1259	424,84	78,31	843,21	4,80	327,96	131,81	272,29	453,4	354,515
1260	423,30	78,20	836,47	4,80	328,05	132,07	272,62	450,4	354,680
1261	422,54	78,12	830,66	4,80	327,84	132,25	273,03	447,8	355,195
1262	421,49	77,91	826,33	4,70	327,83	132,57	273,23	444,6	355,272
1263	419,94	77,90	821,62	4,70	328,20	132,91	273,33	441,8	354,506
1264	418,76	77,90	817,29	4,70	327,98	133,07	273,57	438,8	354,623
1265	418,10	77,83	813,39	4,60	328,13	133,42	273,91	435,9	355,047
1266	416,92	77,82	809,87	4,60	328,34	133,59	273,85	433,2	355,533
1267	416,55	77,79	806,00	4,60	328,05	133,81	274,12	430,4	355,431
1268	415,78	77,87	802,66	4,50	327,90	134,08	274,48	428,1	355,401
1269	414,70	77,79	799,33	4,50	328,18	134,30	274,77	425,7	355,573
1270	413,85	77,80	795,42	4,50	328,25	134,40	275,22	423,6	355,890
1271	411,94	77,77	792,50	4,40	328,74	134,43	275,32	421,1	355,874
1272	411,08	77,68	789,38	4,40	329,00	134,69	275,69	419,2	355,904

EPA Aging

1273	410,23	77,57	787,00	4,30	329,51	134,77	276,17	417,1	356,244
1274	408,74	77,64	784,69	4,30	330,09	135,06	276,77	415,3	356,272
1275	408,36	77,55	782,61	4,30	330,26	134,89	277,16	413,3	356,512
1276	407,71	77,54	780,54	4,20	330,26	134,65	277,49	411,4	356,380
1277	406,80	77,51	778,28	4,20	330,43	133,82	277,92	409,1	356,391
1278	405,54	77,40	774,38	4,20	330,45	133,55	278,06	407,3	356,609
1279	404,53	77,38	769,27	4,10	330,31	133,21	278,42	405,0	356,417
1280	402,91	77,32	762,67	4,10	330,29	132,95	278,63	402,8	356,714
1281	401,16	77,36	755,92	4,10	330,17	132,88	278,75	401,2	356,446
1282	399,52	77,33	748,73	4,10	330,23	132,78	278,91	399,1	356,584
1283	397,54	77,19	740,98	4,00	330,09	132,83	279,12	397,3	356,583
1284	394,86	77,22	733,12	4,00	330,04	132,55	279,23	395,1	356,456
1285	392,54	77,16	726,44	4,00	329,91	132,23	279,39	393,2	356,591
1286	389,60	77,09	719,78	4,00	329,92	132,18	279,55	391,7	356,488
1287	387,55	77,04	713,57	3,90	329,83	131,95	279,54	389,5	356,389
1288	384,63	77,07	708,35	3,90	329,76	131,74	279,60	387,6	355,700
1289	382,64	76,96	703,49	3,90	329,65	131,81	279,63	385,9	355,334
1290	380,12	76,95	699,09	3,90	329,67	131,91	279,89	384,2	355,645
1291	378,28	76,86	695,25	3,80	329,55	131,95	280,15	382,4	355,775
1292	376,57	76,84	690,55	3,80	329,75	132,11	280,34	381,0	355,537
1293	373,96	76,85	686,98	3,80	329,86	132,15	280,66	379,6	355,339
1294	372,45	76,71	681,57	3,80	330,06	132,28	280,70	378,2	355,205
1295	369,91	76,73	678,04	3,80	330,11	132,20	281,29	376,8	355,748
1296	368,23	76,66	674,70	3,70	330,40	132,33	281,90	375,6	356,056
1297	366,18	76,58	671,67	3,70	330,55	132,29	282,29	374,3	356,394
1298	364,54	76,60	669,31	3,70	330,63	132,09	282,62	373,1	356,324
1299	363,17	76,52	668,17	3,60	330,79	131,87	282,70	371,8	356,171
1300	361,54	76,50	666,60	3,60	330,83	131,52	283,46	370,6	356,173
1301	359,61	76,40	664,93	3,60	331,02	131,23	283,59	369,3	356,163
1302	359,05	76,36	663,94	3,60	331,47	131,13	284,00	368,2	356,429
1303	357,35	76,41	664,41	3,60	331,54	130,85	284,53	367,0	356,498
1304	356,63	76,29	663,62	3,50	331,73	130,65	284,86	366,1	356,819
1305	355,42	76,18	663,12	3,50	331,71	130,40	285,20	365,1	356,494
1306	354,24	76,22	662,72	3,50	332,22	131,45	285,47	364,9	357,039
1307	352,77	76,13	662,69	3,50	332,49	132,19	285,74	364,3	357,036
1308	352,43	76,14	662,32	3,40	332,92	132,60	286,12	364,0	357,189
1309	351,70	76,15	660,65	3,40	333,42	132,91	286,80	363,4	357,080
1310	350,77	76,12	660,93	3,40	333,88	133,08	286,98	362,9	357,279
1311	349,30	76,09	661,55	3,40	334,00	132,99	287,47	362,4	357,233
1312	348,77	76,02	661,62	3,40	334,26	133,10	287,92	362,0	357,333
1313	348,14	75,98	661,36	3,30	334,63	133,08	288,05	361,3	357,247
1314	347,46	76,03	660,82	3,30	334,92	133,06	288,47	361,1	357,386
1315	347,10	75,93	660,78	3,30	335,32	132,96	289,00	360,4	357,163
1316	346,27	75,94	661,42	3,30	335,49	132,99	289,32	360,0	356,963
1317	345,95	75,92	661,07	3,20	335,84	133,04	289,75	359,6	356,936
1318	345,29	75,86	660,91	3,20	335,96	133,16	289,92	359,6	356,749
1319	345,04	75,87	661,25	3,20	336,47	133,23	290,18	359,1	357,047
1320	344,77	75,82	660,50	3,20	336,77	133,31	290,52	358,6	356,868
1321	344,49	75,77	659,92	3,20	337,02	133,56	290,84	358,3	356,727
1322	343,62	75,68	660,26	3,10	337,38	133,74	291,10	358,2	356,500
1323	343,42	75,61	659,05	3,10	337,52	134,07	291,48	357,9	356,333
1324	342,72	75,66	659,08	3,10	337,80	133,89	291,59	357,4	356,329
1325	342,81	75,68	658,42	3,10	338,12	133,97	291,97	357,1	356,029
1326	342,04	75,61	657,26	3,10	338,52	134,11	292,39	356,9	355,731
1327	341,83	75,61	656,94	3,00	338,97	134,10	292,41	356,5	355,466
1328	340,60	75,51	657,05	3,00	339,24	134,02	292,73	356,0	355,040
1329	340,66	75,49	656,23	3,00	339,51	133,94	293,11	355,5	355,199
1330	340,30	75,45	655,69	3,00	339,74	134,04	293,34	355,4	354,954
1331	340,11	75,38	655,62	3,00	340,03	134,08	293,42	355,0	354,857
1332	339,90	75,33	655,69	2,90	340,35	134,08	293,83	354,7	354,772
1333	340,04	75,19	655,25	2,90	340,58	134,07	294,15	354,4	354,639
1334	339,25	75,23	655,77	2,90	340,70	134,30	294,12	354,3	354,538
1335	338,80	75,18	654,32	2,90	340,77	134,47	294,50	354,0	354,379
1336	339,23	75,13	653,97	2,80	340,96	134,58	294,90	353,6	354,056
1337	339,23	75,13	653,53	2,80	341,24	134,72	294,97	353,5	354,095
1338	338,91	75,10	653,06	2,80	341,33	134,77	295,26	353,4	354,006
1339	338,45	75,12	652,89	2,80	341,56	134,88	295,54	353,1	354,006
1340	338,08	75,07	653,40	2,80	341,74	134,97	295,86	352,9	352,927
1341	337,78	75,05	653,26	2,80	342,19	134,84	296,21	352,3	353,773
1342	337,38	75,02	653,46	2,70	342,24	134,68	296,54	351,8	353,642
1343	337,11	74,99	654,28	2,70	342,42	134,50	296,56	351,3	353,455
1344	337,86	74,94	654,74	2,70	342,55	134,11	296,76	350,8	353,326
1345	337,75	74,83	655,84	2,70	342,47	134,05	296,82	350,5	352,926
1346	337,55	74,73	655,55	2,70	342,64	133,91	296,65	349,9	352,995
1347	337,57	74,73	655,17	2,60	342,66	133,82	297,19	349,4	352,704
1348	337,21	74,67	653,96	2,60	342,63	133,83	296,78	349,1	352,422
1349	337,38	74,66	652,75	2,60	342,58	133,88	297,04	348,7	352,299
1350	337,61	74,64	651,08	2,60	342,41	134,00	297,66	348,3	352,277
1351	337,36	74,58	649,49	2,60	342,28	134,08	297,84	347,9	352,047
1352	336,53	74,62	648,91	2,50	342,08	134,07	298,34	347,6	352,019
1353	336,12	74,46	646,87	2,50	341,93	133,95	298,34	347,1	351,970
1354	335,69	74,55	646,07	2,50	341,78	133,59	298,48	346,7	351,750
1355	334,60	74,51	645,78	2,50	341,59	133,48	298,09	346,2	351,216
1356	334,52	74,42	643,25	2,50	341,60	133,27	298,76	346,0	351,318
1357	334,28	74,42	642,95	2,50	341,42	133,01	298,63	345,5	351,288
1358	334,28	74,37	641,64	2,40	341,01	132,66	298,79	345,1	350,810
1359	333,78	74,40	640,20	2,40	340,82	132,33	299,03	344,7	350,634
1360	333,32	74,29	638,86	2,40	340,61	132,06	299,06	344,2	350,706
1361	333,28	74,26	638,37	2,40	340,37	131,79	299,20	343,9	350,566
1362	333,01	74,11	638,06	2,40	340,12	131,55	299,00	343,6	350,217
1363	332,78	74,14	637,06	2,30	339,94	131,37	299,07	343,2	350,109
1364	332,53	74,02	636,78	2,30	339,71	131,21	298,82	342,8	349,954
1365	332,47	74,04	635,53	2,30	339,05	130,97	299,05	342,4	349,695
1366	332,02	74,06	635,58	2,30	338,84	130,76	299,38	342,1	349,448
1367	331,28	73,98	634,58	2,30	338,72	130,47	299,38	341,7	349,354
1368	330,80	74,07	634,11	2,30	338,23	130,27	299,54	341,4	349,076
1369	330,66	74,03	632,97	2,20	338,01	130,13	299,34	341,3	348,881
1370	330,20	73,95	631,78	2,20	337,49	130,03	299,74	340,7	348,471

EPA Aging

1371	329,31	73,91	631,46	2,20	337,12	129,80	299,90	340,2	348,268
1372	329,75	73,89	629,86	2,20	336,78	129,35	299,89	339,6	348,171
1373	329,22	73,86	629,37	2,20	336,73	129,01	299,55	339,1	347,870
1374	328,88	73,85	628,83	2,20	336,10	128,85	300,26	338,8	347,635
1375	328,94	73,80	626,17	2,10	336,05	128,70	300,00	338,1	347,178
1376	328,68	73,77	626,25	2,10	335,89	128,55	299,47	337,5	347,053
1377	328,33	73,72	625,70	2,10	335,69	128,33	300,25	336,7	346,505
1378	328,55	73,73	626,93	2,10	335,46	127,90	300,09	336,0	346,096
1379	328,16	73,69	626,59	2,10	335,14	127,54	300,34	335,4	345,675
1380	327,04	73,64	627,22	2,00	334,69	127,12	300,28	334,7	345,380
1381	326,77	73,66	627,07	2,00	334,61	126,92	300,07	334,2	344,937
1382	326,39	73,64	626,10	2,00	334,50	126,69	299,83	333,4	344,456
1383	326,13	73,66	626,09	2,00	334,26	126,50	299,89	332,8	344,122
1384	326,43	73,61	624,66	2,00	333,94	126,26	299,45	332,2	343,824
1385	326,47	73,59	623,50	2,00	333,89	126,38	298,97	331,8	343,577
1386	325,98	73,48	623,30	2,00	333,94	126,46	299,37	331,3	342,928
1387	325,14	73,55	622,45	1,90	333,75	126,50	298,96	330,9	342,469
1388	325,54	73,43	621,65	1,90	333,56	126,49	298,24	330,4	341,623
1389	324,45	73,51	621,58	1,90	333,68	126,39	298,95	330,1	341,397
1390	324,62	73,38	620,75	1,90	333,73	126,42	298,58	329,5	340,721
1391	324,50	73,39	619,72	1,90	333,47	126,24	298,69	329,1	340,405
1392	324,34	73,36	618,48	1,80	333,38	126,01	298,24	328,6	340,236
1393	323,65	73,34	618,46	1,80	333,56	125,84	298,34	328,3	339,606
1394	323,33	73,32	618,41	1,80	333,80	125,71	298,04	327,6	338,972
1395	323,67	73,28	617,43	1,80	333,64	125,47	298,23	327,1	338,586
1396	323,69	73,31	616,57	1,80	333,37	125,13	297,63	326,6	338,115
1397	323,16	73,37	616,75	1,80	333,10	125,11	297,77	326,2	337,664
1398	322,99	73,22	615,44	1,80	333,08	124,91	297,53	325,7	337,426
1399	322,38	73,22	614,76	1,70	333,00	124,53	297,09	325,2	336,860
1400	322,35	73,18	614,05	1,70	332,79	124,35	297,28	324,5	336,225
1401	322,74	73,19	613,41	1,70	332,41	124,37	296,52	324,1	336,239
1402	321,78	73,13	613,18	1,70	332,20	124,38	296,56	323,7	335,773
1403	321,93	73,16	612,62	1,70	331,96	124,40	296,67	323,4	335,488
1404	321,49	73,05	612,85	1,70	331,55	124,35	296,18	323,0	335,078
1405	320,54	73,09	611,49	1,60	331,35	124,32	295,83	322,9	334,670
1406	320,54	73,02	609,89	1,60	330,98	124,20	296,15	322,3	334,465
1407	320,46	73,03	609,37	1,60	330,65	124,01	295,74	321,9	334,133
1408	320,43	73,15	609,07	1,60	330,25	123,94	295,59	321,4	333,832
1409	319,71	73,09	609,37	1,60	330,00	123,90	295,85	321,0	333,664
1410	319,28	73,05	608,32	1,50	329,47	123,74	295,50	320,5	333,371
1411	319,03	73,00	607,20	1,50	329,16	123,56	295,09	320,0	332,939
1412	318,67	73,04	606,20	1,50	328,94	123,32	295,08	319,2	332,751
1413	318,34	73,06	606,05	1,50	328,60	123,29	295,35	318,8	332,597
1414	318,61	72,92	605,94	1,50	328,16	123,17	295,08	318,1	332,200
1415	318,34	72,95	606,27	1,50	327,89	123,05	294,81	317,5	331,883
1416	318,83	72,94	605,40	1,40	327,57	122,95	294,58	317,0	331,602
1417	318,71	72,89	604,92	1,40	327,27	122,87	294,68	316,3	331,259
1418	317,18	72,83	604,45	1,40	326,97	122,88	294,83	315,7	331,194
1419	317,05	72,81	603,56	1,40	326,73	122,75	294,12	315,1	330,763
1420	316,79	72,84	602,18	1,40	326,46	122,77	293,96	314,6	330,440
1421	315,98	72,80	601,28	1,40	326,15	122,74	293,66	313,8	330,154
1422	315,91	72,85	599,82	1,40	325,96	122,41	293,85	313,3	329,522
1423	315,60	72,80	598,15	1,30	325,78	122,23	293,95	312,5	329,227
1424	315,42	72,78	596,29	1,30	325,57	122,25	293,71	312,0	329,136
1425	314,95	72,79	595,79	1,30	325,25	122,00	293,31	311,6	328,728
1426	314,52	72,75	595,58	1,30	325,28	121,86	293,62	310,8	328,388
1427	314,34	72,66	595,72	1,30	324,74	121,51	293,27	310,1	328,274
1428	313,93	72,72	595,11	1,30	324,57	121,32	293,58	309,5	327,700
1429	313,69	72,70	595,22	1,20	324,42	121,05	293,50	308,8	327,371
1430	313,58	72,68	594,45	1,20	324,30	120,80	293,35	308,1	326,867
1431	313,60	72,60	595,04	1,20	324,51	120,71	292,65	307,7	326,435
1432	313,19	72,57	593,97	1,20	324,58	121,33	292,76	307,4	325,876
1433	313,08	72,47	592,07	1,20	324,71	121,68	292,20	307,3	325,408
1434	312,37	72,41	589,86	1,20	324,78	122,04	292,49	306,7	325,016
1435	312,12	72,41	588,17	1,20	324,89	122,14	292,61	306,3	324,727
1436	311,84	72,40	587,70	1,10	325,00	122,38	292,60	306,1	324,507
1437	311,39	72,41	586,54	1,10	324,87	122,12	292,34	305,7	323,697
1438	310,54	72,32	584,28	1,10	324,91	122,00	292,83	305,2	323,182
1439	310,32	72,38	582,37	1,10	324,88	121,98	292,16	304,7	322,763
1440	310,03	72,34	580,56	1,10	325,09	121,90	291,94	304,1	321,656
1441	309,35	72,33	578,66	1,10	324,85	121,97	292,10	303,4	321,474
1442	308,48	72,29	577,56	1,00	324,80	122,02	292,02	303,0	321,184
1443	308,46	72,30	575,69	1,00	324,70	121,98	291,31	302,4	320,130
1444	308,02	72,18	574,80	1,00	324,72	121,78	291,78	301,8	319,314
1445	307,42	72,20	573,24	1,00	325,02	121,66	291,35	301,0	318,755
1446	306,58	72,16	572,86	1,00	325,23	121,48	291,12	300,6	318,062
1447	306,12	72,06	572,21	1,00	325,20	121,38	291,50	300,1	317,490
1448	305,28	72,07	571,86	1,00	325,30	121,35	290,94	299,6	316,570
1449	305,22	72,01	571,22	0,90	325,47	121,16	290,83	299,1	315,930
1450	304,98	72,04	570,87	0,90	325,66	121,11	290,81	298,6	315,043
1451	305,06	71,99	570,18	0,90	325,89	120,98	289,99	298,1	314,364
1452	304,75	71,97	568,62	0,90	325,99	121,04	289,84	297,7	313,492
1453	304,35	71,95	568,11	0,90	326,33	121,08	289,47	297,5	312,958
1454	304,20	71,93	567,86	0,90	326,71	120,98	289,46	296,9	312,294
1455	303,43	71,95	567,26	0,80	327,10	121,11	289,11	296,9	311,352
1456	303,41	71,89	567,37	0,80	327,56	121,17	288,92	296,6	311,338
1457	302,83	71,97	566,98	0,80	327,55	121,17	288,52	296,4	310,517
1458	303,28	71,94	566,60	0,80	327,89	121,29	288,37	296,2	309,730
1459	303,16	71,92	566,92	0,80	328,15	121,30	288,46	296,0	309,164
1460	302,89	71,94	565,93	0,80	328,67	121,35	287,98	295,9	308,641
1461	302,06	71,91	565,26	0,70	328,76	121,35	287,92	295,8	307,781
1462	301,53	71,83	564,70	0,70	329,09	121,53	287,26	295,8	307,040
1463	301,54	71,88	564,46	0,70	329,54	121,50	287,29	295,7	306,719
1464	301,80	71,85	564,01	0,70	329,83	121,44	287,10	295,4	306,201
1465	301,72	71,84	563,00	0,70	329,97	121,37	287,13	295,4	305,379
1466	301,73	71,76	562,13	0,70	330,01	121,18	287,13	295,1	305,120
1467	301,34	71,81	561,11	0,70	330,21	121,17	286,87	294,9	304,545
1468	300,93	71,74	559,99	0,70	330,42	121,17	286,37	294,5	304,129

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1469	300,42	71,69	558,57	0,60	330,47	121,10	286,19	294,4	303,482
1470	299,86	71,71	558,20	0,60	330,58	121,18	285,83	294,2	303,176
1471	299,69	71,64	557,92	0,60	330,52	121,32	285,54	293,9	302,455
1472	298,58	71,60	557,81	0,60	330,56	121,40	285,17	293,7	302,076
1473	298,14	71,61	556,77	0,60	330,80	121,30	284,87	293,6	301,238
1474	298,55	71,64	556,50	0,60	330,72	121,28	285,05	293,3	301,114
1475	297,72	71,58	556,40	0,50	330,64	121,21	284,97	293,0	300,487
1476	298,04	71,49	556,21	0,50	330,31	121,08	284,25	292,9	299,853
1477	297,54	71,49	556,37	0,50	330,22	121,01	283,93	292,7	299,442
1478	297,44	71,44	556,15	0,50	329,97	121,12	284,14	292,5	298,898
1479	297,33	71,50	555,34	0,50	329,88	121,12	284,10	292,1	298,281
1480	297,20	71,45	553,98	0,50	330,01	121,04	283,61	291,5	298,180
1481	296,51	71,29	552,55	0,50	329,64	120,81	283,68	291,2	297,499
1482	295,96	71,26	551,34	0,50	329,67	120,70	283,04	290,4	297,086
1483	295,52	71,29	549,32	0,40	329,29	120,41	282,93	289,8	296,779
1484	294,64	71,25	547,98	0,40	329,52	120,13	282,77	289,3	296,280
1485	294,64	71,25	545,80	0,40	329,07	119,74	282,47	288,6	295,860
1486	294,16	71,24	545,59	0,40	328,95	119,42	282,14	288,0	295,240
1487	294,40	71,11	544,59	0,40	328,47	118,98	281,72	287,1	294,626
1488	293,32	71,02	544,20	0,40	328,41	118,64	281,24	286,5	294,099
1489	293,00	71,03	543,08	0,40	328,14	118,42	280,50	285,8	293,574
1490	292,58	71,09	542,72	0,40	327,84	118,11	280,40	285,1	293,062
1491	292,21	71,01	541,26	0,30	327,72	117,89	279,57	284,5	292,400
1492	291,64	71,02	540,93	0,30	327,12	117,60	279,40	283,9	291,778
1493	291,51	70,99	539,93	0,30	326,81	117,38	279,22	283,2	291,375
1494	291,09	70,93	539,93	0,30	326,56	117,14	278,92	282,4	291,203
1495	290,78	71,00	538,67	0,30	326,24	117,09	278,17	281,9	290,337
1496	290,27	70,87	538,19	0,30	326,07	116,96	278,03	281,2	289,948
1497	290,32	70,73	536,28	0,30	326,12	116,84	277,43	280,7	289,088
1498	289,39	70,74	535,97	0,30	325,55	116,49	277,22	280,0	288,729
1499	289,61	70,63	534,88	0,20	325,10	116,19	276,89	279,4	288,235
1500	289,22	70,69	534,89	0,20	324,73	115,91	276,49	278,7	287,585
1501	289,30	70,70	534,10	0,20	324,28	115,65	276,12	278,1	287,215
1502	288,90	70,69	534,50	0,20	323,95	115,38	275,90	277,5	286,988
1503	288,58	70,72	533,33	0,20	323,72	115,37	275,55	276,9	286,127
1504	288,70	70,64	532,24	0,20	323,73	115,24	275,05	276,6	285,504
1505	288,26	70,60	531,50	0,20	323,49	115,08	274,78	276,0	284,843
1506	287,51	70,58	530,95	0,20	323,16	114,93	274,62	275,4	284,782
1507	287,38	70,52	530,04	0,10	322,68	114,78	274,42	274,9	284,294
1508	287,06	70,43	529,28	0,10	322,36	114,77	273,91	274,5	283,834
1509	286,73	70,44	528,12	0,10	322,35	114,78	273,33	274,1	283,308
1510	285,86	70,43	527,64	0,10	322,09	114,86	273,33	273,6	282,629
1511	286,22	70,47	525,66	0,10	321,78	114,69	272,79	273,1	282,148
1512	285,95	70,42	525,19	0,10	321,49	114,76	272,28	272,7	281,824
1513	286,02	70,45	524,01	0,10	320,92	114,86	272,16	272,2	281,350
1514	285,97	70,47	522,27	0,10	320,89	114,70	271,54	271,6	280,843
1515	285,34	70,35	522,20	0,00	320,66	114,44	271,37	271,3	280,131
1516	80,06	68,55	67,63	10,30	64,88	64,21	64,66	66,3	65,016
1517	88,03	68,64	71,44	11,30	64,95	64,26	64,63	68,5	65,054
1518	86,34	68,70	76,87	10,30	65,07	64,34	64,71	70,5	65,211
1519	85,08	68,79	81,10	10,30	65,30	64,39	64,74	72,4	65,435
1520	86,81	68,95	83,37	10,20	65,54	64,44	64,78	74,4	65,742
1521	87,68	68,88	84,65	10,20	65,83	64,54	64,80	75,5	66,053
1522	87,63	69,03	85,46	10,20	66,14	64,62	64,85	76,8	66,402
1523	87,88	69,03	87,32	10,20	66,47	64,73	64,88	78,4	66,729
1524	93,99	69,11	91,40	10,20	66,76	64,87	64,91	80,4	67,096
1525	96,48	69,20	96,10	10,20	67,08	64,99	64,95	81,9	67,538
1526	121,61	69,32	105,85	10,10	67,38	65,22	65,00	83,6	67,920
1527	188,51	69,51	114,41	10,00	67,64	65,40	65,04	89,0	68,402
1528	289,35	69,58	143,38	9,80	68,10	65,71	65,15	103,5	69,111
1529	231,80	69,70	264,44	9,70	68,99	66,03	65,18	119,7	70,741
1530	220,87	69,79	400,81	9,60	70,42	66,68	65,23	137,2	73,109
1531	242,66	69,87	523,54	9,40	72,55	67,65	65,39	156,6	76,625
1532	272,06	69,91	595,00	9,30	75,18	68,98	65,52	171,6	80,892
1533	297,59	70,01	627,06	9,10	78,62	70,71	65,67	186,2	86,057
1534	320,54	70,24	666,55	9,00	83,00	72,79	65,86	201,9	91,715
1535	345,63	70,13	710,94	8,80	88,65	75,14	66,08	218,0	97,948
1536	369,76	70,27	749,21	8,60	95,95	77,79	66,31	236,8	104,506
1537	394,22	70,41	784,00	8,40	104,80	80,88	66,71	256,7	110,792
1538	414,38	70,51	810,30	8,30	113,06	84,21	67,14	277,2	116,554
1539	433,70	70,56	832,54	8,10	120,40	87,79	67,63	301,0	122,132
1540	422,03	70,69	833,69	8,00	126,00	91,46	68,23	323,4	125,852
1541	419,69	70,71	843,32	7,80	130,70	95,19	68,83	341,5	127,128
1542	424,02	70,87	854,76	7,70	135,75	98,91	69,55	357,8	128,133
1543	430,05	70,90	849,80	7,60	140,60	102,51	70,31	369,4	129,567
1544	434,64	70,92	834,75	7,50	144,83	106,20	71,11	378,2	131,308
1545	438,45	70,97	823,14	7,40	148,03	109,78	71,93	387,0	133,720
1546	441,57	70,73	818,97	7,20	151,04	113,33	72,76	395,2	136,421
1547	445,94	70,90	820,66	7,10	154,16	116,72	73,64	403,0	139,306
1548	451,00	71,03	823,45	7,00	157,11	120,17	74,54	409,8	142,322
1549	456,34	71,10	829,51	6,90	161,59	123,67	75,47	416,6	145,699
1550	462,30	71,05	850,97	6,70	167,78	127,10	76,40	422,3	150,174
1551	468,40	71,05	859,32	6,60	174,30	130,63	77,37	426,7	154,824
1552	473,18	70,73	857,52	6,50	180,11	133,80	78,35	430,2	159,512
1553	477,06	70,84	855,91	6,30	185,86	137,06	79,48	433,5	164,733
1554	481,39	70,82	860,75	6,20	191,53	140,64	80,57	437,1	169,713
1555	487,38	70,79	868,94	6,00	197,19	144,02	81,70	443,5	174,544
1556	493,19	70,85	870,06	5,90	202,89	147,38	82,86	449,6	179,208
1557	496,82	71,08	872,08	5,80	208,66	150,81	84,10	454,2	183,845
1558	501,53	71,05	872,53	5,60	214,56	154,22	85,34	458,2	188,290
1559	505,00	71,11	876,50	5,50	220,32	157,69	86,64	462,5	192,576
1560	509,57	71,24	881,14	5,40	226,15	161,02	87,97	466,2	196,629
1561	511,45	71,31	884,49	5,30	231,71	164,29	89,41	470,4	200,608
1562	513,91	71,41	886,92	5,10	237,33	167,99	90,81	475,3	204,342
1563	517,23	71,59	886,17	5,00	242,80	171,57	92,37	480,2	207,952
1564	518,63	71,72	880,23	4,90	247,86	174,79	93,89	485,5	211,701
1565	522,10	71,71	885,30	4,70	253,46	178,53	95,57	496,0	215,843
1566	526,33	71,86	906,33	4,50	259,02	182,05	97,30	505,2	220,644

EPA Aging

1567	532,05	72,04	919,24	4,40	264,00	185,79	99,08	511,9	226,292
1568	537,39	72,01	926,27	4,20	269,08	189,62	100,85	518,5	233,036
1569	542,78	71,70	930,04	4,10	273,72	193,33	102,68	525,7	240,382
1570	655,02	72,00	943,16	14,69	277,77	197,03	104,72	531,6	247,956
1571	681,94	71,98	940,47	22,49	281,91	200,86	106,68	535,3	255,834
1572	635,11	71,96	1012,94	22,19	286,20	204,13	108,69	553,0	264,083
1573	636,62	71,92	1075,31	21,99	290,25	207,61	110,89	574,1	271,612
1574	644,85	71,67	1116,95	21,69	294,95	211,15	113,22	595,6	278,632
1575	653,06	71,70	1143,68	21,39	298,84	214,88	115,61	613,2	284,371
1576	642,52	71,74	1156,29	21,19	303,15	219,18	118,08	633,3	289,668
1577	642,73	71,70	1164,51	20,99	306,83	222,35	120,32	653,6	294,075
1578	644,39	71,48	1147,64	20,79	310,24	226,16	122,63	668,1	297,828
1579	644,68	71,51	1116,62	20,59	313,68	229,79	124,72	676,6	300,781
1580	644,27	71,60	1084,64	20,49	317,43	233,17	126,86	680,2	303,274
1581	643,18	71,38	1059,80	20,29	320,30	236,65	128,95	682,6	305,206
1582	642,48	71,50	1045,47	20,09	323,82	239,51	130,76	684,0	306,377
1583	642,05	71,78	1038,67	19,89	326,79	242,23	132,56	686,3	308,118
1584	641,70	71,82	1033,18	19,79	329,57	245,44	134,46	687,7	309,833
1585	640,55	71,94	1030,58	19,59	332,82	248,78	136,11	690,1	310,721
1586	641,00	72,04	1030,76	19,39	335,57	250,86	137,73	692,2	312,282
1587	641,11	71,78	1031,82	19,29	338,31	253,42	139,63	694,6	313,570
1588	641,61	72,03	1030,51	19,09	341,29	256,35	141,23	694,9	314,491
1589	641,34	72,36	1029,04	18,89	344,00	258,98	142,82	695,9	316,081
1590	642,22	72,42	1030,15	18,79	346,91	260,88	144,42	697,1	316,906
1591	643,61	72,26	1033,10	18,59	349,84	263,44	146,09	698,7	318,275
1592	644,62	72,41	1036,25	18,39	352,43	265,84	147,52	700,6	319,160
1593	645,79	72,03	1040,10	18,19	355,35	267,66	149,00	702,3	320,583
1594	648,16	72,15	1042,89	18,09	358,65	269,36	150,52	703,3	321,528
1595	648,91	72,04	1044,89	17,89	361,26	271,95	152,14	704,8	322,993
1596	649,16	72,30	1044,72	17,69	363,67	274,16	153,56	706,3	324,564
1597	650,15	72,06	1045,73	17,59	366,15	276,39	155,00	708,0	326,630
1598	651,25	72,19	1048,38	17,39	368,84	278,34	156,42	709,9	328,647
1599	652,36	72,38	1055,84	17,19	371,68	280,17	157,94	712,3	329,491
1600	653,68	72,45	1065,21	16,99	373,96	282,11	159,25	714,9	331,213
1601	654,10	72,66	1076,35	16,89	376,05	283,90	160,63	720,0	333,098
1602	655,17	72,71	1088,12	16,69	377,75	285,17	162,05	725,5	334,992
1603	657,05	72,72	1096,36	16,49	380,33	286,64	163,57	731,1	336,721
1604	658,38	73,01	1101,18	16,39	382,19	288,44	165,06	736,0	338,664
1605	660,20	72,91	1103,54	16,19	384,59	289,92	166,67	740,0	340,177
1606	661,17	73,12	1101,23	15,99	386,85	291,88	168,00	742,6	342,081
1607	662,20	73,13	1098,16	15,89	388,93	293,14	169,49	744,3	344,105
1608	662,75	73,15	1093,07	15,69	391,13	294,20	171,04	745,2	345,910
1609	662,31	73,38	1088,25	15,49	393,23	295,74	172,36	745,8	347,644
1610	663,64	73,38	1083,87	15,39	395,01	297,20	173,71	746,3	349,835
1611	663,17	73,52	1081,16	15,19	396,82	298,55	175,01	747,0	351,770
1612	663,98	73,63	1078,94	15,09	398,86	299,64	176,33	747,4	354,252
1613	664,15	73,93	1077,20	14,89	400,20	260,69	178,10	741,8	355,808
1614	663,01	74,12	1076,54	14,79	401,75	233,23	179,31	738,7	357,331
1615	660,98	74,27	1076,96	14,59	403,46	212,64	180,27	735,3	358,800
1616	659,49	74,36	1077,23	14,49	404,80	197,62	180,97	732,3	360,594
1617	658,42	74,52	1081,13	14,29	406,02	187,04	181,91	729,6	362,273
1618	657,26	74,71	1085,22	14,19	407,68	179,47	182,70	727,6	363,828
1619	656,21	74,70	1086,10	14,00	409,08	173,76	183,72	724,8	365,300
1620	654,80	74,85	1083,69	13,90	410,61	169,60	184,61	722,1	366,838
1621	653,38	75,07	1077,71	13,70	411,75	165,95	185,44	718,8	368,900
1622	651,73	75,05	1071,98	13,60	412,89	163,03	186,52	715,2	370,494
1623	650,22	74,97	1065,38	13,50	413,70	162,41	187,36	713,3	373,441
1624	648,34	74,86	1062,09	13,30	415,30	162,10	188,56	710,4	375,828
1625	647,27	75,16	1058,51	13,20	416,38	161,30	189,44	707,4	377,092
1626	645,03	75,41	1053,09	13,00	417,01	160,60	190,38	704,7	379,744
1627	642,75	75,59	1048,15	12,90	417,97	159,89	191,36	701,8	383,008
1628	641,37	75,51	1043,90	12,80	418,55	159,10	192,50	697,7	385,344
1629	639,56	75,37	1038,03	12,60	419,57	158,40	193,56	692,3	388,939
1630	637,72	74,84	1028,44	12,50	420,17	158,02	194,50	687,2	392,937
1631	635,55	75,05	1018,60	12,40	420,76	157,30	195,71	681,9	395,859
1632	633,16	75,17	1009,76	12,30	421,10	156,75	196,73	676,9	399,349
1633	630,23	75,16	1000,31	12,10	420,97	156,41	197,95	672,0	401,674
1634	628,24	75,45	993,93	12,00	421,89	156,04	199,08	667,0	404,796
1635	625,32	75,49	987,78	11,90	422,97	155,45	200,14	661,5	407,168
1636	622,94	75,70	981,88	11,80	423,26	154,89	201,03	656,2	409,565
1637	620,25	75,89	977,95	11,60	423,70	154,31	202,09	651,1	410,644
1638	618,32	75,94	974,98	11,50	424,44	153,65	203,15	646,4	411,651
1639	616,40	76,02	971,43	11,40	424,74	153,25	204,25	641,6	412,274
1640	613,97	76,02	968,62	11,30	424,75	152,60	205,38	637,3	412,846
1641	611,73	76,05	969,62	11,20	425,10	151,97	206,58	633,7	413,649
1642	610,28	76,06	969,57	11,00	425,97	151,25	207,74	629,5	414,277
1643	608,80	76,17	968,16	10,90	427,16	150,80	209,01	626,1	415,761
1644	607,30	76,35	966,21	10,80	427,52	150,75	210,37	622,5	416,846
1645	605,77	76,30	963,83	10,70	428,96	150,24	211,90	618,9	416,685
1646	604,59	76,61	960,78	10,60	429,46	150,38	212,93	615,5	417,822
1647	603,13	76,39	960,63	10,40	430,13	150,12	214,33	612,2	417,359
1648	602,22	76,65	964,74	10,30	430,74	150,07	215,97	609,2	418,196
1649	601,72	76,52	969,01	10,20	431,38	149,98	217,49	606,3	418,350
1650	601,13	76,60	971,21	10,10	432,53	149,68	218,85	603,5	417,541
1651	601,10	76,66	972,34	9,90	433,67	149,67	220,29	601,6	418,082
1652	600,40	76,89	973,84	9,80	434,67	149,43	222,02	599,9	418,055
1653	600,02	76,96	974,28	9,70	435,27	149,43	223,63	599,5	419,293
1654	599,68	77,09	974,87	9,60	436,62	149,38	225,38	599,7	419,037
1655	599,60	77,28	975,43	9,40	437,32	149,45	226,96	598,6	420,468
1656	600,36	77,04	975,14	9,30	438,81	149,41	228,54	598,8	420,295
1657	600,49	76,96	976,38	9,10	440,73	149,56	230,47	601,8	421,527
1658	601,37	76,63	982,30	9,00	441,73	149,40	232,06	605,0	423,334
1659	602,76	76,63	985,27	8,80	442,85	149,55	233,71	608,0	423,842
1660	603,94	75,59	986,90	8,70	444,34	149,65	235,45	610,0	423,848
1661	604,48	75,56	988,25	8,60	444,96	149,62	237,33	610,0	424,861
1662	604,11	75,47	986,87	8,40	445,85	149,52	238,79	609,0	426,500
1663	603,72	75,49	983,13	8,30	447,54	149,61	240,12	606,7	426,492
1664	602,68	76,10	978,00	8,20	448,42	149,91	241,36	605,7	428,357

EPA Aging

1665	601,51	76,28	976,17	8,10	449,17	149,92	243,05	606,3	429,521
1666	601,50	76,64	982,18	7,90	449,70	150,15	244,36	607,5	428,603
1667	600,47	76,80	982,43	7,80	450,10	150,11	245,88	609,3	428,931
1668	600,85	77,04	988,78	7,70	450,92	150,41	246,91	612,1	429,368
1669	600,53	77,22	988,90	7,50	451,38	150,83	248,17	615,3	429,937
1670	600,35	77,25	993,44	7,40	451,61	151,05	249,22	617,4	430,560
1671	599,68	77,31	991,74	7,30	451,48	151,48	250,74	618,4	431,974
1672	597,90	77,36	983,65	7,20	451,78	151,90	251,95	617,7	433,428
1673	596,33	77,51	974,24	7,10	452,16	152,06	253,20	615,6	434,753
1674	594,97	77,90	964,61	7,00	452,11	152,29	254,57	613,3	435,940
1675	593,61	77,53	961,85	6,80	452,02	152,29	255,52	612,4	437,005
1676	593,46	77,51	967,16	6,70	451,70	152,30	256,53	612,8	438,249
1677	593,65	77,52	967,16	6,60	451,99	152,45	257,64	611,8	439,846
1678	593,53	77,22	969,51	6,47	451,64	152,52	258,59	611,3	442,625
1679	593,70	77,25	969,42	6,30	451,07	152,73	259,58	610,7	444,731
1680	593,67	77,23	967,94	6,20	450,97	152,78	260,22	609,7	445,503
1681	593,31	77,39	968,26	6,10	450,88	152,86	261,36	607,5	445,830
1682	592,26	77,25	965,26	6,00	450,72	152,85	262,05	604,5	446,265
1683	591,65	77,24	958,47	5,90	450,85	153,18	262,92	601,5	446,802
1684	590,40	77,15	950,47	5,80	451,01	153,00	263,89	597,6	448,016
1685	588,03	77,35	946,10	5,70	451,85	153,40	264,72	595,1	449,937
1686	587,40	77,30	944,87	5,60	452,23	153,54	265,54	592,7	450,325
1687	586,46	77,18	945,19	5,40	452,27	154,04	266,40	591,0	451,196
1688	585,76	77,20	945,97	5,30	452,97	154,05	267,07	588,6	450,135
1689	584,85	77,07	945,99	5,20	452,89	154,64	267,89	586,7	449,649
1690	584,28	77,03	943,70	5,10	453,21	154,33	268,65	584,3	448,977
1691	583,16	77,06	940,16	5,00	453,05	154,32	269,47	582,0	449,459
1692	581,95	76,96	935,50	4,90	453,53	154,25	270,11	579,7	449,333
1693	580,33	76,94	931,72	4,80	453,69	154,26	270,93	577,6	448,490
1694	579,54	76,93	928,71	4,70	454,34	154,18	271,50	575,6	448,055
1695	578,13	77,04	927,96	4,60	454,74	153,91	272,60	574,0	446,929
1696	576,80	76,93	927,64	4,50	455,04	153,88	273,55	573,1	447,453
1697	576,12	77,15	927,18	4,40	455,78	153,93	274,89	572,5	447,297
1698	574,65	77,04	924,92	4,30	455,62	154,16	275,34	572,0	446,235
1699	573,53	76,96	922,52	4,20	455,60	154,36	276,09	572,1	446,143
1700	572,20	76,92	922,41	4,10	455,48	154,32	276,93	572,8	445,100
1701	571,46	76,75	923,02	4,00	455,93	154,36	278,22	573,3	444,986
1702	569,96	76,81	921,21	3,90	455,63	154,28	279,17	573,2	444,507
1703	568,61	76,94	917,22	3,80	455,36	154,09	280,00	571,7	444,653
1704	567,20	76,65	913,16	3,70	454,98	154,08	280,81	570,3	444,410
1705	565,89	76,73	911,49	3,60	454,51	153,88	281,71	568,9	445,084
1706	564,42	76,89	910,85	3,50	454,59	153,89	282,42	567,2	444,244
1707	563,41	76,85	907,21	3,40	454,49	154,24	283,39	564,9	445,139
1708	562,27	76,78	901,21	3,30	454,01	154,08	284,59	562,1	444,703
1709	560,64	76,71	894,73	3,20	454,20	153,72	285,51	559,7	444,636
1710	559,32	76,85	888,84	3,20	453,68	153,40	286,51	557,5	445,942
1711	557,85	76,68	886,24	3,10	452,96	153,53	287,25	556,1	446,135
1712	557,11	76,58	887,62	3,00	452,44	153,67	287,98	555,2	446,506
1713	556,95	76,68	889,86	2,90	452,13	153,40	289,20	554,7	446,332
1714	556,31	76,83	890,38	2,80	451,48	153,22	290,11	553,9	446,669
1715	555,96	76,78	889,93	2,70	447,26	139,40	289,27	542,1	445,908
1716	555,01	76,90	888,83	2,60	442,35	123,01	287,62	528,3	443,032
1717	553,53	77,08	889,12	2,50	438,34	114,56	285,87	517,3	441,091
1718	551,75	77,12	890,13	2,40	434,49	110,45	284,13	508,5	440,130
1719	549,86	77,24	890,99	2,40	431,04	108,11	282,82	500,0	440,603
1720	548,70	77,26	892,47	2,30	427,16	106,56	281,58	493,0	440,516
1721	546,33	77,47	892,79	2,20	425,44	105,60	280,58	486,0	441,319
1722	544,94	77,45	893,81	2,10	423,28	104,71	280,06	478,3	440,553
1723	543,09	77,42	889,78	2,00	421,93	104,02	279,75	470,8	440,846
1724	541,25	77,38	885,42	2,00	420,30	103,35	279,14	463,7	440,866
1725	539,24	77,26	883,57	1,90	421,97	114,88	281,57	471,4	443,593
1726	544,85	77,03	873,61	1,70	424,99	136,80	284,10	484,2	447,532
1727	540,76	76,88	893,52	1,60	426,32	155,51	287,50	503,7	450,898
1728	544,10	76,73	917,69	1,50	428,08	172,14	291,20	521,2	453,237
1729	549,13	76,40	927,58	1,40	429,48	187,21	294,89	535,2	455,045
1730	552,84	76,45	926,89	1,30	430,35	199,63	298,33	546,1	457,700
1731	555,32	76,42	922,23	1,20	431,74	210,72	301,65	555,8	459,655
1732	556,92	76,21	914,64	1,10	432,97	220,78	304,87	563,1	462,763
1733	558,60	76,32	906,22	1,00	434,78	229,77	307,30	568,6	464,509
1734	559,28	76,24	898,37	0,90	435,92	237,87	310,15	573,3	466,984
1735	559,93	76,17	890,07	0,90	437,68	244,87	311,53	576,2	469,451
1736	559,95	76,13	881,07	0,80	439,69	251,78	314,00	578,2	470,338
1737	560,10	76,24	874,17	0,70	441,50	257,79	316,33	579,1	473,051
1738	560,45	76,04	868,83	0,70	443,83	263,57	317,79	579,8	473,925
1739	560,49	76,01	865,92	0,60	445,28	269,13	319,53	580,7	475,396
1740	559,70	76,04	865,14	0,50	447,38	274,18	321,01	580,6	476,108
1741	560,00	76,02	863,42	0,50	449,57	279,34	322,18	580,7	477,445
1742	559,87	76,15	860,32	0,40	451,12	283,23	323,82	580,3	478,149
1743	559,46	76,02	856,91	0,40	452,85	287,46	324,82	580,1	478,031
1744	559,27	75,99	852,05	0,30	454,92	290,71	325,66	579,6	477,556
1745	558,87	76,00	849,04	0,20	456,00	294,41	326,83	578,9	478,440
1746	558,76	76,03	846,75	0,20	457,83	298,15	327,76	578,3	478,208
1747	558,63	75,91	844,90	0,10	458,88	301,12	328,70	577,6	477,845
1748	557,90	75,85	843,09	0,10	460,62	304,46	328,97	576,9	477,339
1749	558,10	76,21	841,89	0,00	461,95	306,52	329,73	576,3	476,260
1750	557,13	76,23	841,01	0,00	464,09	309,85	330,42	576,0	475,190
1751	556,30	76,70	840,95	0,00	464,33	312,87	331,25	575,5	474,931
1752	556,03	76,67	840,98	0,00	464,64	314,68	330,91	575,6	474,694
1753	556,59	76,72	839,08	0,00	465,99	316,72	331,38	575,8	474,489
1754	522,86	76,99	830,28	26,49	466,84	317,81	332,76	571,4	474,324
1755	562,77	77,00	852,58	26,29	467,34	319,74	333,55	575,4	472,969
1756	556,99	76,85	895,26	26,19	468,08	322,02	334,50	586,7	471,960
1757	559,51	77,01	935,95	25,99	468,05	324,67	335,59	597,9	469,908
1758	566,24	77,06	967,58	25,79	466,11	325,56	335,90	609,5	468,419
1759	573,76	76,93	996,95	25,59	465,17	327,06	336,00	622,4	466,037
1760	581,08	76,88	1023,48	25,39	463,02	328,45	336,82	635,3	462,729
1761	588,05	76,77	1043,99	25,19	461,51	329,67	337,62	647,7	460,038
1762	595,28	76,97	1058,60	24,99	459,31	331,26	337,68	659,6	457,043

EPA Aging

1763	602.03	76.73	1066.74	24.79	457.39	332.54	338.20	670.3	452.859
1764	604.76	76.72	1075.96	24.59	456.29	333.44	338.15	681.7	449,844
1765	596.51	76.64	1078.54	24.39	454.68	334.56	339.52	692.9	446,828
1766	592.59	76.58	1074.36	24.19	452.93	335.81	339.12	700.2	443,445
1767	577.66	76.46	1051.61	24.09	451.89	335.64	338.95	703.4	440,112
1768	570.95	76.45	1041.61	23.99	450.58	336.26	338.43	703.9	436,651
1769	567.08	76.46	1036.04	23.89	449.80	335.88	338.59	700.3	434,602
1770	563.44	76.33	1030.10	23.69	448.41	335.81	338.52	696.4	431,200
1771	560.68	76.33	1025.04	23.59	446.27	336.75	338.82	691.8	427,840
1772	558.39	76.20	1022.03	23.49	445.17	337.52	338.17	687.5	424,595
1773	556.47	76.19	1019.82	23.39	442.64	336.49	337.51	682.5	422,292
1774	554.44	76.18	1018.92	23.29	440.83	335.51	336.65	677.9	420,252
1775	552.80	76.06	1018.79	23.19	438.24	336.04	336.53	673.8	416,903
1776	551.39	76.12	1020.44	23.09	436.08	335.13	336.38	669.5	414,113
1777	550.14	75.97	1024.20	22.99	433.70	334.56	335.69	665.2	411,157
1778	548.79	76.02	1030.37	22.89	431.32	333.57	334.77	660.9	408,917
1779	548.19	75.83	1040.14	22.79	428.78	332.95	334.30	656.1	406,452
1780	547.52	75.87	1050.68	22.69	426.48	331.95	333.35	651.6	403,765
1781	547.33	75.88	1060.38	22.59	423.72	330.82	332.52	647.3	401,649
1782	547.40	75.90	1070.65	22.49	421.34	330.67	331.85	642.8	398,440
1783	547.76	75.84	1080.00	22.39	418.60	329.55	330.85	638.7	396,279
1784	546.94	75.83	1085.10	22.29	416.20	327.79	330.56	635.5	394,051
1785	547.12	75.79	1088.56	22.19	413.51	326.52	329.65	632.9	391,534
1786	547.01	75.81	1090.75	22.09	411.23	326.02	328.80	630.8	388,735
1787	547.91	75.69	1091.27	21.99	409.61	324.81	328.92	628.9	386,420
1788	548.22	75.75	1091.09	21.89	407.57	323.92	328.50	627.4	383,814
1789	549.38	76.06	1092.96	21.79	404.29	322.69	327.60	625.9	382,577
1790	550.04	75.94	1096.11	21.69	401.34	302.66	327.56	621.1	379,723
1791	550.01	76.01	1100.06	21.59	399.02	266.72	327.71	615.9	376,155
1792	550.36	76.34	1104.77	21.49	396.54	238.39	326.97	610.9	374,187
1793	549.05	76.59	1109.94	21.39	393.88	216.34	325.53	606.2	372,100
1794	547.42	76.74	1116.45	21.29	391.50	200.44	324.33	601.5	369,775
1795	547.23	76.86	1122.38	21.09	388.99	189.11	323.45	597.2	367,828
1796	546.87	77.06	1126.79	20.99	386.45	180.79	321.87	593.4	365,270
1797	546.73	77.19	1132.14	20.89	384.16	175.09	321.06	590.3	364,349
1798	545.69	77.04	1135.10	20.79	381.68	170.01	319.41	587.2	361,520
1799	546.41	77.03	1136.43	20.69	379.61	166.12	318.34	585.5	360,781
1800	546.37	76.99	1133.23	20.59	377.47	162.93	317.00	583.6	359,270
1801	545.56	76.78	1133.92	20.49	375.40	160.20	316.05	581.9	356,710
1802	545.55	76.76	1132.17	20.39	373.22	157.97	315.32	580.7	355,053
1803	545.06	76.72	1134.57	20.19	371.53	156.38	314.24	579.6	353,362
1804	544.85	76.74	1137.26	20.09	369.09	153.24	312.84	577.9	352,194
1805	544.96	76.54	1136.55	19.99	367.22	150.61	311.97	577.3	350,490
1806	544.02	76.49	1150.57	19.89	365.72	148.44	310.75	574.3	348,983
1807	543.74	76.53	1181.03	19.79	364.17	146.93	309.65	571.7	346,496
1808	545.52	76.33	1213.58	19.59	362.44	145.25	308.39	569.5	345,996
1809	547.21	76.44	1242.43	19.49	360.79	143.64	307.65	568.7	344,660
1810	550.85	76.30	1264.18	19.39	359.63	142.26	306.80	569.1	343,509
1811	552.98	76.37	1281.58	19.29	358.09	141.04	305.79	571.4	341,589
1812	555.30	76.20	1291.69	19.19	356.53	139.74	305.11	574.7	339,850
1813	557.05	76.11	1295.05	18.99	354.89	138.69	304.13	578.1	337,832
1814	557.85	76.08	1289.19	18.89	353.83	137.66	303.56	580.3	336,920
1815	559.45	76.20	1279.35	18.79	353.22	136.91	302.87	581.7	335,860
1816	560.45	76.11	1267.44	18.69	352.17	136.13	301.67	583.1	334,745
1817	560.69	76.01	1259.49	18.59	351.13	135.48	300.88	583.8	333,634
1818	560.53	76.20	1253.09	18.49	349.53	134.81	300.39	584.3	332,707
1819	560.44	76.19	1247.44	18.39	347.75	134.15	299.40	584.3	331,463
1820	560.38	76.07	1241.00	18.29	346.60	133.66	298.42	583.5	330,880
1821	560.48	76.12	1233.14	18.19	345.21	133.22	297.47	582.8	329,890
1822	560.07	76.09	1224.94	18.09	344.42	132.85	297.14	581.5	329,308
1823	559.42	76.05	1218.21	17.99	343.82	132.39	296.80	579.8	328,787
1824	558.96	75.96	1212.46	17.89	343.21	131.68	295.79	578.1	327,587
1825	558.02	75.87	1208.42	17.79	341.79	131.14	294.88	576.2	326,820
1826	557.78	75.88	1206.06	17.69	340.80	130.70	294.30	574.3	326,091
1827	557.37	75.88	1205.81	17.59	340.18	130.47	294.06	572.0	325,475
1828	558.08	75.80	1201.37	17.49	339.61	129.97	293.76	572.7	324,854
1829	558.65	75.75	1179.71	17.39	339.01	129.79	293.11	575.8	323,924
1830	555.80	75.70	1167.83	17.29	338.47	129.45	292.70	574.6	323,999
1831	554.02	75.87	1174.80	17.19	338.14	129.35	292.28	572.5	323,235
1832	552.88	76.07	1191.42	17.09	337.49	129.38	291.27	570.8	322,369
1833	553.25	76.36	1208.25	16.99	336.13	129.31	290.70	569.8	321,885
1834	553.35	76.49	1222.25	16.89	334.96	128.92	290.12	569.3	321,639
1835	553.94	76.45	1236.50	16.79	333.97	128.13	289.59	569.4	321,613
1836	554.64	76.68	1247.99	16.69	333.30	128.30	289.26	570.7	320,923
1837	555.69	76.70	1260.40	16.59	332.57	128.38	288.67	572.8	321,288
1838	556.98	76.72	1273.95	16.39	332.25	128.19	288.51	575.9	320,810
1839	559.52	76.64	1288.10	16.29	331.82	128.00	288.35	579.7	320,423
1840	561.75	76.64	1303.62	16.19	331.23	127.77	287.70	584.4	320,463
1841	564.27	76.63	1317.15	16.09	330.93	127.65	287.55	590.3	319,839
1842	566.77	76.53	1328.16	15.89	330.27	127.75	286.90	596.7	319,597
1843	568.92	76.43	1332.81	15.79	329.67	127.56	286.64	604.2	318,819
1844	573.97	76.32	1335.23	15.59	329.09	127.43	286.25	614.5	319,560
1845	578.18	76.37	1307.41	15.49	328.58	127.49	285.70	633.6	318,337
1846	578.16	76.17	1229.33	15.29	328.28	127.37	285.32	651.5	318,932
1847	575.62	76.30	1158.18	15.19	328.58	127.21	284.93	666.3	319,705
1848	571.56	76.19	1110.53	14.99	328.74	127.14	284.42	677.3	319,766
1849	567.84	76.09	1080.41	14.79	328.79	126.94	284.17	685.9	319,661
1850	564.24	76.18	1063.87	14.59	329.16	126.91	283.54	693.2	320,264
1851	560.94	76.18	1056.09	14.49	329.74	126.73	283.37	700.1	321,539
1852	557.63	76.13	1053.84	14.29	330.60	126.63	283.06	705.7	322,318
1853	555.17	75.92	1054.07	14.19	331.48	126.60	282.95	710.6	323,257
1854	552.96	75.80	1054.71	13.99	332.37	126.29	282.48	713.9	324,342
1855	551.43	75.74	1055.83	13.89	333.14	126.03	282.06	717.0	325,768
1856	548.74	75.88	1058.33	13.69	334.42	125.94	281.68	719.7	326,874
1857	547.64	75.80	1061.21	13.59	335.46	126.09	280.93	721.7	328,555
1858	546.55	75.87	1062.86	13.50	336.68	126.18	280.48	724.2	330,062
1859	544.14	75.88	1063.54	13.30	337.75	126.34	280.22	725.9	331,416
1860	542.66	75.81	1060.79	13.20	339.17	126.30	279.67	726.5	333,396

EPA Aging

1861	541,10	75,90	1056,33	13,10	340,57	126,46	279,39	726,3	334,773
1862	539,29	75,87	1048,88	13,00	341,81	126,43	278,79	724,7	336,589
1863	537,78	75,90	1039,81	12,90	343,40	126,27	278,89	722,2	338,309
1864	534,86	75,76	1028,04	12,80	344,78	126,36	278,43	718,6	340,217
1865	532,43	75,77	1016,18	12,60	345,98	126,44	277,63	714,8	341,364
1866	529,94	75,80	1006,19	12,50	346,96	126,48	276,84	710,4	343,162
1867	527,50	75,84	999,03	12,40	348,60	126,66	276,47	705,8	343,916
1868	525,30	75,98	991,96	12,30	349,89	126,74	276,16	700,6	345,291
1869	522,28	76,28	985,98	12,30	350,06	126,86	275,32	693,8	346,531
1870	519,40	76,50	980,78	12,20	350,74	127,29	274,65	687,3	347,885
1871	517,34	76,56	975,92	12,10	351,10	127,62	273,78	680,6	348,382
1872	514,95	76,70	972,03	12,00	351,98	127,95	273,20	673,4	349,295
1873	513,11	76,84	969,74	11,90	352,88	128,17	272,94	665,7	351,486
1874	510,59	76,79	968,09	11,80	353,81	128,35	272,53	657,9	351,609
1875	509,28	76,83	967,96	11,70	354,31	128,42	272,14	648,6	352,845
1876	507,55	76,51	967,20	11,59	355,46	128,44	271,74	640,7	353,155
1877	505,69	76,58	965,39	11,59	355,93	128,46	271,53	632,6	353,279
1878	504,23	76,49	963,35	11,50	356,53	128,23	271,27	624,4	353,628
1879	502,54	76,45	958,46	11,40	357,67	128,11	270,75	617,0	354,130
1880	501,11	76,42	952,47	11,30	358,29	127,92	270,43	610,6	354,818
1881	498,95	76,42	945,07	11,20	358,72	127,73	270,14	604,0	355,595
1882	497,46	76,28	940,50	11,10	359,21	127,60	270,01	598,5	355,966
1883	496,01	76,26	935,39	11,10	360,07	127,45	269,93	593,5	356,262
1884	493,94	76,18	931,61	11,00	360,95	126,63	269,47	588,2	356,581
1885	492,32	76,05	927,08	10,90	361,51	126,31	269,41	583,8	356,506
1886	491,59	76,12	922,85	10,80	361,93	125,74	268,88	579,1	356,492
1887	489,77	76,05	920,19	10,70	362,23	126,34	268,40	575,9	356,602
1888	487,77	75,94	918,91	10,60	362,90	126,57	268,08	572,5	356,711
1889	486,17	75,94	916,06	10,50	363,73	126,56	267,87	569,7	356,554
1890	485,17	75,87	915,02	10,50	364,32	126,44	267,69	567,2	356,574
1891	484,46	75,91	912,95	10,40	364,74	126,04	267,03	565,5	356,220
1892	483,20	75,87	910,22	10,30	364,92	125,63	266,98	565,1	356,402
1893	482,08	75,83	907,94	10,20	365,44	125,16	266,39	565,9	355,695
1894	481,21	75,77	906,94	10,10	366,01	125,36	266,12	567,7	356,220
1895	480,14	75,84	910,24	10,00	366,35	125,74	265,75	570,9	356,324
1896	479,31	75,73	911,88	9,90	367,14	126,15	265,67	577,6	356,691
1897	478,61	75,72	916,86	9,80	367,54	126,33	265,10	587,5	356,868
1898	479,15	75,67	925,88	9,70	367,66	126,48	265,14	596,7	356,906
1899	479,33	75,61	935,79	9,60	367,98	126,76	264,75	605,8	357,329
1900	479,83	75,54	945,84	9,40	368,09	127,04	264,78	614,5	357,635
1901	480,22	75,68	954,73	9,40	368,14	127,45	264,16	623,2	356,887
1902	480,93	75,74	962,10	9,20	368,42	127,71	264,09	632,0	357,004
1903	480,91	76,19	970,14	9,10	367,74	128,11	263,41	639,8	356,988
1904	481,69	76,14	974,95	9,00	367,34	128,33	263,35	646,0	358,540
1905	481,70	76,16	978,01	8,90	366,87	128,56	262,64	650,6	357,922
1906	481,79	76,47	977,65	8,90	366,83	128,68	262,40	654,0	358,202
1907	482,93	76,57	976,48	8,80	366,75	128,94	262,22	655,6	359,169
1908	482,70	76,45	973,88	8,70	367,12	128,96	261,78	656,7	359,261
1909	482,72	76,41	971,11	8,60	366,99	129,07	261,75	657,5	360,164
1910	482,69	76,38	968,94	8,50	367,16	129,24	261,49	658,7	360,739
1911	483,20	76,27	967,21	8,40	367,66	129,34	261,38	659,7	360,940
1912	483,61	76,29	965,98	8,30	367,82	129,46	261,18	660,4	361,545
1913	483,99	76,24	965,10	8,20	368,39	129,38	260,94	660,9	363,003
1914	483,89	76,13	964,39	8,10	368,63	129,29	260,75	661,0	363,721
1915	483,61	76,18	963,43	8,00	369,19	129,15	260,94	659,6	364,551
1916	482,80	76,05	960,58	7,90	369,36	128,87	260,71	658,4	365,659
1917	482,65	76,06	955,55	7,80	369,83	128,89	261,01	655,7	366,430
1918	482,04	76,05	950,38	7,70	370,44	128,83	260,80	652,2	366,795
1919	481,16	75,95	944,89	7,70	371,16	128,92	260,57	648,0	367,540
1920	480,71	75,90	940,53	7,60	371,72	128,98	260,52	642,3	368,401
1921	480,33	75,82	938,88	7,50	372,32	128,98	260,05	636,1	369,013
1922	480,11	75,93	935,49	7,40	372,48	129,46	259,67	629,8	369,564
1923	479,32	75,74	931,18	7,40	372,46	129,74	259,37	622,6	369,902
1924	478,38	75,71	926,82	7,30	372,78	130,04	259,25	616,2	370,097
1925	477,09	75,64	922,52	7,20	373,40	130,04	259,15	609,1	371,078
1926	475,71	75,60	917,52	7,20	373,25	130,37	258,75	602,7	370,971
1927	474,80	75,59	912,94	7,10	373,70	130,60	258,47	596,4	371,565
1928	474,00	75,60	907,11	7,10	374,04	130,76	258,37	590,3	371,871
1929	473,01	75,57	900,70	7,00	373,92	130,94	258,23	584,0	371,785
1930	470,87	75,51	892,95	6,90	373,86	131,01	257,82	578,2	372,278
1931	468,96	75,44	885,66	6,90	373,83	131,04	257,78	572,4	372,500
1932	467,98	75,49	876,62	6,80	374,01	131,16	257,61	567,4	372,100
1933	465,73	75,65	868,04	6,80	373,39	131,34	257,43	562,7	371,740
1934	463,68	75,85	860,75	6,70	372,89	131,58	257,07	558,1	371,932
1935	462,23	76,07	853,94	6,70	371,79	131,60	256,48	553,1	371,989
1936	459,65	76,07	848,44	6,60	370,75	131,72	256,25	548,9	371,368
1937	458,60	76,28	844,02	6,60	369,90	131,70	255,77	544,8	371,137
1938	456,29	76,46	840,62	6,50	369,36	131,71	255,87	540,6	371,005
1939	454,20	76,47	839,09	6,50	368,80	131,74	255,77	537,6	371,880
1940	453,17	76,49	837,15	6,40	367,77	131,83	255,63	534,9	371,361
1941	451,87	76,48	836,67	6,40	367,78	132,10	255,59	532,3	371,575
1942	450,66	76,32	837,04	6,30	367,31	132,30	255,49	529,1	371,791
1943	449,54	76,26	838,25	6,30	366,89	132,35	255,54	525,6	371,525
1944	448,86	76,16	840,44	6,20	366,02	132,30	255,70	522,7	371,970
1945	448,23	76,18	842,90	6,20	365,34	132,23	255,88	519,5	372,627
1946	447,15	76,04	841,80	6,20	365,02	132,33	255,94	516,2	372,984
1947	445,84	75,94	842,47	6,10	364,28	132,40	256,10	512,9	373,094
1948	444,99	75,97	839,07	6,10	364,15	132,54	256,26	509,7	373,049
1949	443,04	75,83	835,23	6,00	363,99	132,63	256,71	505,9	373,504
1950	441,04	75,92	830,03	6,00	363,97	132,76	256,74	502,3	373,383
1951	439,21	75,84	824,52	6,00	363,32	132,78	256,68	498,6	373,291
1952	437,42	75,85	818,66	5,90	363,12	133,00	256,96	494,8	373,656
1953	434,60	75,76	815,88	5,90	363,09	133,00	257,04	490,8	373,364
1954	433,50	75,79	812,06	5,90	361,97	133,08	256,81	486,7	372,946
1955	431,11	75,60	810,49	5,80	361,62	133,04	257,06	482,2	372,875
1956	429,74	75,65	808,73	5,80	360,88	132,92	256,88	478,0	372,132
1957	428,63	75,63	806,56	5,80	360,83	132,75	257,11	473,8	372,433
1958	426,31	75,53	804,38	5,70	360,02	132,80	257,05	469,4	371,829

EPA Aging

1959	425,10	75,47	801,41	5,70	359,61	132,86	257,08	465,2	371,716
1960	422,72	75,50	801,48	5,70	359,41	133,04	257,34	461,1	372,001
1961	421,26	75,50	801,95	5,60	359,08	133,04	257,65	457,5	371,615
1962	420,85	75,56	802,90	5,60	359,17	133,43	257,67	453,8	370,998
1963	419,19	75,43	803,64	5,60	358,00	133,73	257,76	450,6	369,947
1964	417,98	75,56	803,07	5,60	357,68	133,99	258,41	447,6	369,806
1965	415,93	75,98	801,80	5,50	356,67	134,31	258,25	444,8	369,906
1966	414,01	75,93	799,18	5,50	355,68	134,31	258,35	441,7	369,937
1967	412,61	76,06	796,57	5,50	354,67	134,36	258,54	439,0	369,613
1968	410,70	76,25	793,48	5,50	354,11	134,24	258,51	436,5	369,457
1969	409,07	76,20	789,77	5,40	353,20	134,35	258,93	434,2	369,875
1970	407,64	76,38	786,18	5,40	352,70	134,41	259,35	431,8	370,082
1971	405,92	76,25	782,82	5,40	352,44	134,31	259,55	429,6	370,298
1972	404,83	76,19	779,35	5,40	351,75	134,45	260,14	427,3	370,894
1973	404,22	76,09	775,94	5,30	351,13	134,61	260,39	425,2	371,649
1974	402,65	75,97	772,11	5,30	350,70	134,52	260,91	422,8	371,693
1975	401,82	75,90	767,80	5,30	350,29	134,72	261,30	421,1	371,974
1976	399,73	75,99	764,89	5,20	349,78	134,65	261,85	418,9	372,223
1977	398,59	75,98	760,77	5,20	349,32	134,49	262,47	417,0	372,448
1978	397,22	75,81	757,44	5,20	349,00	134,27	262,77	414,5	373,598
1979	395,51	75,77	754,23	5,20	349,16	134,12	263,50	412,2	374,439
1980	393,75	75,81	751,14	5,10	349,07	133,91	263,99	410,2	374,682
1981	392,23	75,71	747,92	5,10	348,72	133,66	264,21	408,0	375,080
1982	391,18	75,77	744,65	5,10	348,61	133,83	264,31	406,3	375,341
1983	389,68	75,69	742,60	5,10	348,64	135,58	264,67	405,5	376,049
1984	388,05	75,49	740,32	5,00	348,26	136,88	265,17	404,3	376,343
1985	386,97	75,46	738,03	5,00	347,88	136,93	265,69	402,8	376,884
1986	386,41	75,39	735,21	5,00	347,37	136,97	266,10	401,5	376,465
1987	384,79	75,33	733,90	4,90	347,00	137,24	266,53	399,7	377,209
1988	384,22	75,43	731,02	4,90	346,71	137,63	267,04	398,8	377,861
1989	383,38	75,30	728,50	4,90	346,60	137,80	267,67	397,6	378,388
1990	382,21	75,22	726,33	4,90	346,29	137,99	268,07	396,6	378,514
1991	380,53	75,38	724,68	4,80	346,10	138,28	268,49	395,4	378,266
1992	379,90	75,25	722,67	4,80	345,31	138,75	269,35	394,7	378,008
1993	378,52	75,55	720,01	4,80	345,01	139,04	269,77	393,7	377,791
1994	377,54	75,80	717,70	4,80	344,14	139,45	270,03	393,0	378,468
1995	377,87	75,77	714,77	4,80	342,95	139,52	270,75	392,0	377,862
1996	376,52	75,92	712,42	4,70	342,09	139,70	270,75	391,0	377,452
1997	375,10	75,96	709,62	4,70	341,56	139,83	271,79	390,1	377,502
1998	374,46	76,02	707,50	4,70	340,90	139,92	272,20	389,5	378,453
1999	373,56	76,23	706,98	4,70	340,44	140,32	272,44	388,7	378,449
2000	372,54	75,92	706,19	4,60	340,33	140,48	272,69	387,9	378,109
2001	372,09	76,00	704,95	4,60	340,09	140,74	273,33	387,3	378,782
2002	371,91	75,77	704,71	4,60	339,88	140,96	274,13	386,7	379,313
2003	370,69	75,76	703,74	4,60	339,40	141,25	274,43	386,0	378,728
2004	370,22	75,75	702,93	4,50	339,14	141,43	274,76	385,3	379,187
2005	369,07	75,68	702,12	4,50	338,89	141,70	275,01	384,5	379,693
2006	369,34	75,66	702,05	4,50	338,55	141,72	275,87	383,7	379,522
2007	368,76	75,44	701,30	4,50	338,31	141,67	276,03	383,1	380,295
2008	367,74	75,50	700,34	4,50	338,56	141,72	277,12	382,6	381,289
2009	367,31	75,42	699,28	4,40	338,73	141,82	277,77	381,8	381,456
2010	366,34	75,36	698,62	4,40	338,64	141,74	277,78	380,9	381,775
2011	366,18	75,21	697,58	4,40	338,76	141,84	278,35	380,6	381,815
2012	365,21	75,28	696,79	4,40	338,74	141,73	278,84	379,6	382,088
2013	364,45	75,22	696,27	4,30	338,65	141,81	278,98	378,9	382,131
2014	364,52	75,11	695,69	4,30	338,78	141,78	279,52	378,2	382,028
2015	364,19	75,18	695,56	4,30	338,64	141,55	279,85	377,4	382,062
2016	363,58	75,13	695,75	4,30	338,39	141,25	279,96	376,5	382,230
2017	363,88	75,03	695,83	4,20	338,00	141,03	280,20	375,6	381,992
2018	363,37	75,25	694,95	4,20	338,05	140,83	280,26	375,0	381,435
2019	362,73	75,05	692,83	4,20	337,62	140,78	280,37	374,2	380,770
2020	362,58	75,14	691,27	4,20	337,49	140,83	280,85	373,6	380,477
2021	361,75	75,56	688,95	4,10	336,77	140,96	281,18	372,9	380,479
2022	361,12	75,53	687,38	4,10	336,47	140,95	281,48	372,3	381,005
2023	360,83	75,63	684,75	4,10	335,85	141,23	281,50	371,9	380,071
2024	359,86	75,76	683,60	4,10	335,64	141,28	281,85	371,3	379,855
2025	359,76	75,86	682,33	4,10	335,42	141,08	281,83	370,8	379,593
2026	359,15	76,31	681,05	4,00	334,99	141,01	281,95	370,5	379,517
2027	358,86	75,95	679,00	4,00	334,79	140,90	282,20	370,0	379,204
2028	358,92	75,93	678,90	4,00	334,74	140,70	282,68	369,6	379,963
2029	358,23	75,79	678,04	4,00	334,69	140,43	282,50	369,1	379,804
2030	357,62	75,73	678,39	4,00	334,53	140,30	282,93	368,8	379,474
2031	356,99	75,66	678,29	3,90	334,36	140,17	283,18	368,7	379,504
2032	356,43	75,59	678,55	3,90	334,56	140,01	283,14	368,3	380,038
2033	356,64	75,50	679,00	3,90	334,09	139,89	283,49	368,2	379,980
2034	356,34	75,49	679,65	3,90	334,56	139,82	283,54	368,1	380,744
2035	356,08	75,46	679,52	3,80	334,43	139,42	283,99	367,7	381,129
2036	356,42	75,39	680,10	3,80	334,75	139,34	284,38	367,4	381,001
2037	355,96	75,44	680,19	3,80	335,04	139,10	284,74	367,0	381,621
2038	355,60	75,31	679,94	3,80	334,96	138,91	284,82	366,8	381,934
2039	355,44	75,19	679,61	3,70	335,30	138,65	285,28	366,2	381,952
2040	355,27	75,26	679,75	3,70	335,43	138,48	285,47	366,2	381,933
2041	355,27	75,00	680,17	3,70	335,54	138,49	285,60	366,1	381,602
2042	354,99	75,07	680,30	3,70	335,67	138,36	285,59	365,6	381,678
2043	355,25	74,88	679,92	3,70	335,68	138,28	285,91	365,6	381,857
2044	355,39	74,88	679,60	3,60	335,63	138,29	286,15	365,3	381,484
2045	354,82	75,26	679,96	3,60	335,66	138,64	286,14	365,2	380,439
2046	354,66	75,13	679,36	3,60	335,95	138,55	286,58	365,2	380,000
2047	354,13	75,68	678,58	3,60	335,49	138,54	286,42	365,0	379,916
2048	354,17	75,51	678,84	3,60	334,73	138,90	286,45	365,0	379,994
2049	354,26	75,60	677,73	3,50	334,26	138,91	286,45	365,1	378,855
2050	353,54	75,76	676,56	3,50	333,80	138,80	286,24	364,9	378,347
2051	353,40	75,88	675,95	3,50	333,67	138,58	286,57	364,7	378,044
2052	353,10	76,07	675,90	3,50	333,68	138,28	286,56	364,4	378,421
2053	353,12	75,93	676,46	3,40	333,61	138,14	286,58	364,3	378,006
2054	353,02	75,88	676,23	3,40	333,06	137,88	286,47	364,2	377,320
2055	352,24	75,88	676,42	3,40	333,36	137,86	286,53	364,2	376,955
2056	352,26	75,66	677,22	3,40	333,45	137,85	286,97	364,1	376,819

EPA Aging

2057	352.77	75.63	675.74	3.40	333.72	137.68	287.43	363.9	376.486
2058	352.69	75.65	676.21	3.30	333.51	137.66	287.15	363.9	376.501
2059	352.38	75.54	676.36	3.30	333.63	137.61	287.16	363.7	376.839
2060	352.42	75.44	676.55	3.30	333.65	137.72	287.23	363.9	376.652
2061	352.37	75.42	676.87	3.30	333.92	138.40	287.72	363.8	377.639
2062	352.35	75.36	677.67	3.20	334.56	138.93	287.89	364.0	378.278
2063	351.99	75.26	678.46	3.20	335.23	139.76	288.23	364.5	378.744
2064	352.74	75.18	679.64	3.20	335.79	140.26	288.49	365.1	378.629
2065	352.51	75.16	680.09	3.20	336.26	140.41	288.54	365.3	378.694
2066	352.40	75.18	682.06	3.10	336.81	140.62	289.08	365.4	378.804
2067	352.76	75.08	681.78	3.10	337.00	141.39	288.86	366.1	378.614
2068	352.97	75.06	682.27	3.10	337.37	141.71	289.25	366.1	378.561
2069	352.72	75.06	681.88	3.10	337.62	142.07	289.65	366.6	378.487
2070	352.98	74.99	681.70	3.10	338.21	142.41	289.59	367.0	378.352
2071	353.06	75.12	681.91	3.00	338.62	142.43	289.92	367.1	377.939
2072	352.92	74.98	681.79	3.00	338.30	142.66	290.35	367.2	376.744
2073	352.31	75.11	680.39	3.00	338.94	142.81	290.49	367.5	376.067
2074	351.77	75.43	679.20	3.00	338.25	142.79	289.91	367.6	376.064
2075	352.50	75.50	678.75	3.00	338.32	142.84	290.30	367.6	375.422
2076	352.16	75.57	678.12	2.90	337.94	143.05	289.78	367.8	375.024
2077	351.96	75.73	676.82	2.90	337.96	143.18	290.21	368.0	374.393
2078	351.19	75.82	676.60	2.90	338.26	143.11	290.33	368.1	374.096
2079	351.39	76.05	675.77	2.90	338.66	143.13	290.58	368.1	374.871
2080	351.36	75.80	675.27	2.90	338.78	143.00	290.32	368.2	373.999
2081	351.60	75.87	675.66	2.80	339.07	142.96	290.92	368.3	374.004
2082	351.56	75.73	674.97	2.80	339.11	142.92	290.98	368.5	373.755
2083	351.14	75.55	674.65	2.80	339.50	142.56	291.40	368.3	373.139
2084	351.07	75.55	674.69	2.80	339.62	142.48	291.23	368.0	373.042
2085	351.14	75.53	674.78	2.70	339.72	142.27	291.32	367.9	372.486
2086	350.97	75.37	674.27	2.70	339.90	142.03	290.98	367.8	372.645
2087	350.81	75.26	673.30	2.70	339.94	142.07	291.31	367.7	373.549
2088	350.67	75.24	673.45	2.70	340.41	142.16	291.67	367.5	372.900
2089	350.43	75.13	673.82	2.70	340.54	142.15	291.92	367.8	373.025
2090	349.72	75.16	673.16	2.60	340.88	142.11	292.05	367.4	373.359
2091	349.88	75.20	673.02	2.60	341.28	142.16	291.98	367.6	373.395
2092	348.91	75.15	672.42	2.60	341.28	141.88	292.13	367.4	373.366
2093	348.74	75.12	671.71	2.60	341.76	142.00	292.61	367.1	373.543
2094	348.44	75.02	670.77	2.50	341.89	141.89	292.66	366.8	373.300
2095	348.64	75.00	669.84	2.50	342.26	141.76	292.57	367.0	372.982
2096	348.20	74.90	667.88	2.50	342.48	141.60	292.70	366.6	372.736
2097	347.91	75.14	666.27	2.50	342.66	141.51	292.78	366.5	371.863
2098	347.61	74.89	665.22	2.50	342.60	141.61	293.03	366.5	370.888
2099	346.99	75.10	664.67	2.50	342.99	141.52	293.33	366.4	369.699
2100	346.60	75.66	664.71	2.40	342.65	141.39	293.03	365.7	369.225
2101	346.74	75.47	663.83	2.40	342.23	141.25	293.30	364.9	368.333
2102	345.85	75.64	665.05	2.40	341.56	140.89	293.22	363.9	367.688
2103	345.52	75.67	665.70	2.40	341.55	140.66	293.28	363.3	366.951
2104	346.12	75.98	667.78	2.40	341.23	140.38	292.91	362.6	366.305
2105	346.34	76.11	668.85	2.30	341.43	140.18	293.25	362.0	366.257
2106	346.50	75.82	670.50	2.30	341.06	139.70	293.14	361.4	365.185
2107	346.31	75.86	671.86	2.30	341.05	139.49	293.40	360.8	364.409
2108	346.31	75.81	672.36	2.30	341.06	139.29	293.19	360.2	363.847
2109	346.17	75.67	671.86	2.30	341.25	139.07	293.43	359.6	363.005
2110	346.10	75.58	670.99	2.20	341.36	138.84	293.45	358.9	362.275
2111	345.87	75.50	670.10	2.20	341.31	138.52	293.32	358.4	361.332
2112	345.37	75.39	669.15	2.20	341.31	138.08	293.43	357.9	360.905
2113	345.37	75.34	667.48	2.20	341.73	137.88	293.45	357.6	360.966
2114	345.20	75.25	666.16	2.20	342.03	138.06	293.20	357.4	360.343
2115	344.73	75.35	664.87	2.10	342.06	138.15	293.75	357.1	360.280
2116	344.64	75.20	663.98	2.10	342.86	138.09	293.94	356.8	360.143
2117	344.13	75.10	663.05	2.10	343.09	138.17	293.68	356.5	359.131
2118	344.15	75.13	661.67	2.10	343.52	138.37	293.53	356.3	358.809
2119	343.93	75.15	661.09	2.10	344.04	138.38	293.79	356.0	358.813
2120	343.53	75.02	660.25	2.00	344.09	138.61	293.47	355.9	357.799
2121	342.90	75.01	659.44	2.00	344.57	138.64	293.57	355.7	357.676
2122	342.04	74.92	658.42	2.00	344.60	138.95	293.85	355.5	357.206
2123	341.88	74.89	658.03	2.00	344.98	138.97	293.95	355.2	356.643
2124	342.09	75.03	656.88	2.00	345.21	139.01	294.02	354.8	355.073
2125	341.62	75.02	656.59	1.90	345.29	138.96	294.10	354.7	353.664
2126	341.39	75.31	655.28	1.90	345.32	138.98	293.56	354.3	353.097
2127	341.85	75.37	653.97	1.90	344.96	138.69	293.56	353.9	351.711
2128	341.12	75.47	653.04	1.90	344.52	138.44	293.30	353.6	350.800
2129	340.80	75.66	652.18	1.90	344.43	138.29	293.20	353.3	349.775
2130	340.50	75.83	650.52	1.80	344.81	138.11	293.12	353.0	348.944
2131	340.30	75.91	649.34	1.80	344.74	137.72	292.91	352.4	348.721
2132	339.90	75.79	648.58	1.80	344.42	137.69	293.09	352.0	347.736
2133	339.26	75.83	648.49	1.80	344.93	137.86	292.81	351.7	346.800
2134	339.53	75.71	646.84	1.80	344.83	137.64	292.78	351.1	346.306
2135	339.29	75.63	645.69	1.80	344.98	137.59	292.57	350.9	345.537
2136	339.24	75.54	644.42	1.70	345.47	137.40	292.69	350.0	344.497
2137	338.92	75.54	642.08	1.70	345.29	137.09	292.48	349.6	343.901
2138	337.94	75.40	642.23	1.70	345.31	136.79	292.41	349.0	343.488
2139	337.72	75.36	641.08	1.70	345.69	136.61	292.61	348.7	343.270
2140	337.19	75.24	639.92	1.70	345.32	136.39	292.62	348.2	342.390
2141	336.73	75.23	639.31	1.60	345.80	136.05	292.89	347.6	342.784
2142	336.22	75.27	639.53	1.60	345.90	136.03	292.83	347.3	342.650
2143	336.44	75.28	639.60	1.60	346.19	135.73	292.71	346.8	342.616
2144	335.40	74.98	639.27	1.60	346.29	135.69	292.66	346.4	342.652
2145	335.17	75.11	637.80	1.60	346.58	135.44	292.43	345.8	342.271
2146	335.04	75.05	636.38	1.60	346.72	135.32	292.47	345.3	342.140
2147	334.61	75.11	635.55	1.50	346.76	135.16	292.16	344.8	342.192
2148	334.76	74.94	634.16	1.50	346.85	134.84	292.30	344.1	341.552
2149	334.10	74.97	633.27	1.50	346.78	134.51	291.60	343.4	341.081
2150	333.60	75.09	631.97	1.50	347.25	134.17	291.69	342.9	340.735
2151	333.41	74.96	630.37	1.50	346.88	134.10	291.74	342.4	340.382
2152	332.89	75.24	628.98	1.50	346.97	133.67	291.52	341.6	339.371
2153	332.43	75.45	627.17	1.40	346.65	133.42	290.98	341.0	338.258
2154	332.03	75.49	626.36	1.40	345.43	132.97	290.83	340.2	337.585

EPA Aging

2155	331,80	75,50	624,98	1,40	344,94	132,53	290,51	339,4	336,896
2156	331,23	75,68	622,86	1,40	344,36	132,24	290,04	338,4	336,341
2157	331,50	75,86	621,54	1,40	343,56	131,95	289,49	337,8	335,862
2158	330,54	75,97	620,17	1,40	343,66	132,64	289,75	337,6	335,877
2159	330,10	75,83	618,82	1,30	343,18	133,04	289,54	337,1	335,375
2160	330,19	75,83	617,65	1,30	343,03	133,27	289,09	336,6	334,989
2161	329,49	75,73	616,14	1,30	342,94	133,40	288,99	336,0	334,436
2162	328,86	75,48	615,51	1,30	342,53	133,32	289,12	335,6	333,974
2163	328,72	75,49	614,36	1,30	342,24	133,46	289,21	335,3	333,358
2164	328,18	75,43	613,94	1,30	342,01	133,86	288,94	334,9	333,185
2165	327,87	75,41	612,82	1,20	341,58	134,02	288,77	334,8	332,881
2166	327,66	75,22	611,85	1,20	341,27	134,03	288,34	334,4	332,549
2167	327,16	75,25	611,43	1,20	340,42	134,11	288,31	333,9	332,581
2168	326,91	75,23	610,76	1,20	340,37	134,03	288,29	333,5	333,035
2169	327,20	75,28	610,21	1,20	340,40	134,05	288,15	333,0	333,657
2170	326,20	75,07	609,15	1,20	340,01	133,72	288,26	332,8	333,440
2171	326,08	75,18	608,06	1,20	340,03	133,70	288,21	332,4	333,125
2172	325,40	74,95	607,25	1,10	339,78	133,56	287,93	332,0	333,099
2173	325,01	74,96	606,34	1,10	339,69	133,46	287,76	331,4	332,910
2174	324,31	74,97	605,37	1,10	339,18	133,04	287,52	330,7	332,514
2175	324,10	74,92	604,72	1,10	338,49	132,69	287,21	330,1	331,753
2176	323,43	74,83	603,30	1,10	338,25	132,42	287,11	329,6	331,469
2177	323,41	74,86	602,19	1,00	337,65	132,43	286,76	329,2	330,601
2178	322,75	74,74	600,69	1,00	337,28	132,28	286,42	328,6	329,297
2179	322,08	75,16	599,72	1,00	336,42	132,33	286,13	328,2	328,775
2180	321,74	75,35	598,88	1,00	335,57	132,34	285,88	327,6	328,470
2181	321,80	75,36	597,23	1,00	334,32	132,15	285,59	326,9	327,598
2182	321,20	75,51	597,45	1,00	333,55	131,88	284,93	326,6	326,530
2183	320,71	75,68	596,19	1,00	333,07	131,67	285,21	326,1	326,181
2184	320,21	75,73	596,45	1,00	332,45	131,48	284,90	325,6	325,576
2185	320,06	75,91	594,92	0,90	331,70	131,23	284,36	325,0	324,931
2186	319,92	75,72	593,92	0,90	331,31	131,20	283,88	324,5	324,363
2187	319,54	75,79	592,36	0,90	330,76	131,06	283,85	323,7	324,148
2188	319,07	75,44	591,90	0,90	330,23	130,89	283,80	323,2	323,523
2189	319,29	75,52	588,70	0,90	329,88	130,88	283,73	322,4	322,958
2190	318,84	75,46	586,10	0,90	329,44	130,68	283,38	321,6	322,571
2191	318,28	75,37	584,99	0,90	329,19	130,46	282,86	320,7	322,317
2192	318,12	75,42	583,08	0,80	328,39	130,11	282,83	319,7	321,962
2193	317,08	75,37	582,11	0,80	327,44	129,80	282,51	318,9	321,612
2194	316,38	75,33	580,96	0,80	327,20	129,50	282,66	318,0	322,066
2195	316,19	75,25	579,15	0,80	326,64	129,05	282,45	317,0	322,199
2196	315,46	75,14	578,88	0,80	326,13	128,63	282,17	316,0	322,069
2197	315,53	75,12	577,32	0,80	325,55	128,18	281,87	315,1	321,448
2198	314,99	75,00	577,01	0,80	325,00	127,80	281,56	314,1	320,885
2199	314,15	74,93	575,41	0,70	324,50	127,70	281,22	313,3	320,807
2200	313,45	74,91	574,98	0,70	323,85	127,91	280,87	312,6	319,927
2201	313,32	74,88	573,62	0,70	323,23	127,92	280,73	311,9	319,916
2202	312,32	74,82	573,01	0,70	322,32	127,68	280,77	311,3	319,472
2203	311,55	75,13	572,30	0,70	321,96	127,67	280,45	310,5	318,365
2204	311,62	74,74	571,80	0,70	321,12	127,58	280,44	309,8	317,172
2205	310,98	75,44	569,42	0,70	320,49	127,47	280,04	309,0	316,025
2206	310,63	75,43	568,62	0,60	319,47	127,31	279,93	308,4	315,206
2207	309,71	75,42	567,31	0,60	318,01	127,26	279,56	307,7	314,144
2208	309,19	75,50	566,85	0,60	316,92	127,30	279,01	307,1	313,229
2209	308,48	75,62	566,01	0,60	316,04	127,16	278,29	306,5	312,415
2210	308,26	75,81	564,45	0,60	315,23	126,98	278,38	305,8	311,634
2211	307,88	76,06	563,50	0,60	314,60	126,72	278,40	305,0	311,359
2212	307,65	75,90	562,87	0,60	313,87	126,47	277,81	304,2	310,323
2213	307,14	75,81	563,00	0,60	313,21	126,25	277,71	303,5	309,626
2214	306,92	75,72	561,81	0,50	312,75	126,15	277,20	303,0	308,670
2215	306,47	75,53	561,14	0,50	312,11	125,74	277,33	302,0	307,742
2216	306,01	75,49	561,07	0,50	311,51	125,56	276,96	301,3	306,950
2217	305,92	75,25	558,89	0,50	310,65	125,30	276,66	300,5	306,182
2218	305,40	75,45	557,62	0,50	310,54	125,18	276,44	299,9	306,255
2219	305,15	75,25	557,44	0,50	310,11	125,18	276,48	299,1	305,659
2220	304,77	75,28	556,84	0,50	309,90	126,58	276,38	299,1	305,794
2221	303,98	75,22	554,88	0,40	309,58	126,45	276,16	298,2	305,455
2222	303,92	75,13	554,25	0,40	309,25	126,05	275,79	297,2	305,118
2223	303,99	75,16	553,70	0,40	309,14	125,69	275,89	296,3	304,757
2224	303,28	74,93	552,02	0,40	308,67	125,51	275,60	295,4	304,003
2225	303,22	75,01	550,48	0,40	308,36	125,30	274,95	294,5	303,126
2226	302,37	74,78	551,12	0,40	307,87	125,11	274,64	293,7	302,404
2227	301,92	74,74	549,87	0,40	307,26	125,03	274,36	293,0	302,512
2228	301,41	74,72	549,86	0,40	306,91	125,04	274,24	292,4	301,998
2229	300,83	74,85	548,91	0,30	306,44	124,84	273,70	291,5	301,393
2230	300,22	74,76	546,65	0,30	305,63	124,95	273,75	290,7	300,342
2231	299,71	75,09	545,67	0,30	305,01	124,85	273,62	290,0	299,099
2232	299,51	75,29	544,09	0,30	304,21	124,73	272,84	289,2	298,216
2233	299,21	75,33	542,09	0,30	303,13	124,64	272,74	288,5	297,252
2234	299,35	75,50	540,77	0,30	301,99	124,62	272,05	287,9	296,412
2235	298,94	75,59	539,96	0,30	301,15	124,55	271,84	287,2	295,219
2236	298,40	75,58	538,52	0,30	300,55	124,28	271,23	286,6	294,599
2237	297,89	75,81	538,03	0,30	299,71	124,07	270,89	286,0	294,275
2238	297,54	75,68	539,32	0,30	298,76	123,82	270,43	285,4	293,465
2239	297,67	75,66	539,43	0,20	298,10	123,70	270,08	284,8	292,519
2240	297,91	75,63	538,45	0,20	297,41	123,38	269,70	284,1	291,814
2241	297,48	75,48	538,22	0,20	296,84	123,31	269,55	283,6	290,992
2242	297,38	75,51	536,80	0,20	296,39	123,23	269,30	282,9	290,084
2243	296,93	75,37	537,15	0,20	295,66	123,18	268,65	282,3	289,599
2244	297,17	75,23	537,52	0,20	294,93	123,01	268,26	281,8	289,202
2245	296,73	75,22	537,78	0,20	294,37	122,76	268,25	281,2	288,514
2246	296,20	75,25	537,67	0,20	293,77	122,52	267,90	280,5	288,227
2247	296,26	75,10	536,71	0,10	293,44	122,35	267,56	279,9	288,264
2248	295,60	75,10	536,25	0,10	293,22	122,32	266,88	279,4	288,194
2249	295,25	75,14	534,14	0,10	292,72	122,07	266,82	278,7	287,634
2250	295,12	75,00	534,77	0,10	292,11	121,87	266,56	278,1	287,275
2251	294,62	75,00	534,25	0,10	291,62	121,66	265,98	277,7	286,294
2252	294,51	74,91	534,93	0,10	291,18	121,47	265,31	277,1	286,141

EPA Aging

2253	294,20	74,89	534,93	0,10	290,75	121,36	265,24	276,7	285,874
2254	294,19	74,87	535,06	0,00	290,18	121,19	264,96	276,1	285,392
2255	83,47	64,91	77,11	10,50	77,11	80,94	81,18	77,1	77,690
2256	108,14	65,09	79,80	10,40	77,02	80,82	81,05	77,6	77,566
2257	148,08	64,94	88,03	10,30	76,98	80,78	80,77	80,4	77,488
2258	204,91	65,01	103,13	10,20	76,90	80,62	80,48	86,9	77,446
2259	194,77	64,90	190,71	10,10	77,08	80,60	80,14	97,6	77,760
2260	195,55	64,64	355,28	9,90	77,70	80,57	79,97	114,3	78,589
2261	235,88	64,80	535,52	9,70	79,00	80,71	79,75	139,7	79,937
2262	286,05	64,82	696,53	9,50	81,18	81,30	79,67	172,0	82,662
2263	332,50	64,93	805,29	9,20	84,98	82,43	79,56	205,5	87,415
2264	376,12	65,07	884,81	9,00	90,93	84,06	79,53	238,7	94,602
2265	412,76	65,11	935,98	8,70	99,26	86,26	79,48	272,7	103,539
2266	444,09	65,11	964,51	8,40	108,88	88,88	79,49	304,6	114,212
2267	473,96	65,06	964,14	8,10	118,44	91,96	79,56	332,0	124,787
2268	497,40	65,12	948,39	7,90	125,78	95,32	79,67	357,9	133,587
2269	514,71	65,23	955,27	7,40	133,11	98,90	79,92	386,4	141,177
2270	497,00	65,13	956,84	7,20	139,17	102,93	80,18	412,3	146,050
2271	492,07	65,19	976,03	7,30	143,83	107,28	80,66	436,4	147,346
2272	496,92	65,18	979,28	7,10	148,10	111,52	81,17	454,5	151,398
2273	500,51	65,10	962,34	7,00	150,54	115,99	81,94	469,6	155,982
2274	504,94	65,06	950,01	6,80	151,97	120,78	82,79	484,8	161,461
2275	508,76	65,13	950,53	6,60	153,75	125,95	83,73	499,7	169,320
2276	513,13	65,09	950,03	6,40	158,23	131,09	84,78	512,8	176,970
2277	517,43	65,08	945,99	6,30	163,54	136,36	85,86	522,0	184,763
2278	520,91	65,15	936,63	6,10	170,49	141,77	87,01	527,6	192,046
2279	524,89	65,16	931,21	6,00	176,52	147,26	88,13	534,6	198,871
2280	529,36	65,04	929,63	5,80	182,47	152,40	89,34	541,2	205,290
2281	534,29	65,18	931,91	5,70	188,59	157,53	90,57	546,1	211,465
2282	537,23	65,25	930,25	5,50	194,76	163,14	91,85	549,8	217,424
2283	540,27	65,32	929,44	5,40	200,84	167,85	93,26	554,3	223,299
2284	544,14	65,37	933,86	5,20	206,62	172,12	94,67	559,9	229,129
2285	548,29	65,47	940,60	5,10	212,62	176,81	96,23	566,8	234,770
2286	553,24	65,57	944,75	4,90	218,38	181,73	97,79	572,8	240,458
2287	557,42	65,68	948,32	4,80	224,55	186,05	99,48	579,8	246,059
2288	561,70	65,63	957,11	4,60	230,70	189,76	101,14	587,1	251,474
2289	566,38	65,58	966,48	4,40	237,11	194,32	102,93	594,0	256,724
2290	571,77	65,20	973,69	4,20	243,65	198,16	104,82	600,6	261,930
2291	576,50	65,33	980,02	4,10	250,25	202,57	106,72	605,7	267,311
2292	670,67	65,66	988,81	14,20	256,64	207,30	109,00	608,7	271,861
2293	651,65	65,69	938,22	25,99	261,91	211,02	111,31	600,4	276,306
2294	647,43	65,69	903,40	25,79	267,30	214,84	113,50	592,3	281,139
2295	622,48	65,85	911,82	25,59	272,82	218,90	115,88	586,5	285,857
2296	629,76	65,89	889,19	25,49	278,77	222,55	118,54	580,9	290,639
2297	627,84	65,46	860,58	25,29	283,19	226,25	121,32	579,1	295,090
2298	616,96	65,25	857,01	25,09	287,76	229,88	124,11	577,7	298,588
2299	598,72	65,23	885,02	24,99	291,23	233,05	126,93	575,7	301,224
2300	596,10	65,37	912,46	24,89	294,63	235,67	129,54	569,4	303,272
2301	595,12	65,37	917,74	24,79	297,46	238,14	131,98	561,8	304,826
2302	593,58	65,09	919,13	24,69	299,52	240,51	134,31	554,8	305,784
2303	592,54	65,26	920,39	24,59	301,21	242,01	136,56	548,5	306,511
2304	592,15	65,16	926,77	24,49	302,78	243,52	138,99	542,5	306,483
2305	591,63	65,35	936,84	24,29	304,53	245,01	141,30	536,9	305,620
2306	592,62	65,49	946,57	24,19	305,34	246,21	143,57	531,7	304,802
2307	593,64	65,52	951,47	24,09	306,52	245,92	145,64	528,0	303,962
2308	593,28	65,55	949,27	23,99	307,49	247,08	147,75	524,5	302,840
2309	592,81	65,66	942,20	23,89	308,36	247,63	149,65	521,1	301,655
2310	592,30	65,74	934,15	23,69	309,17	247,91	151,53	518,7	300,353
2311	591,57	65,86	930,04	23,59	309,93	247,66	153,33	516,4	299,129
2312	590,70	65,85	924,40	23,49	310,51	247,42	155,17	514,6	297,992
2313	587,76	65,80	900,33	23,39	311,30	247,29	156,83	515,2	296,657
2314	583,40	65,79	886,83	23,19	312,28	247,00	158,58	518,6	295,348
2315	580,83	65,87	889,29	23,09	312,94	246,51	160,34	524,5	294,185
2316	580,96	65,94	904,53	22,89	313,76	246,94	161,99	532,4	292,944
2317	582,28	65,94	921,39	22,69	315,09	245,53	163,64	541,3	291,898
2318	584,28	65,93	933,71	22,59	316,25	245,45	165,20	549,3	291,383
2319	585,81	65,87	937,92	22,39	317,95	246,58	166,71	556,3	290,970
2320	587,20	65,80	937,63	22,29	319,30	246,05	168,27	561,9	290,662
2321	587,80	65,93	936,02	22,09	321,00	245,63	169,79	566,4	290,787
2322	588,31	65,92	936,29	21,99	322,70	245,82	171,36	570,7	291,001
2323	588,91	65,97	935,14	21,79	324,46	246,63	172,86	575,0	291,370
2324	589,74	65,94	937,02	21,59	326,30	246,92	174,13	579,3	291,675
2325	591,03	65,55	945,24	21,49	328,25	247,30	175,42	585,1	291,883
2326	592,32	65,69	958,05	21,29	330,15	247,67	176,73	592,0	291,969
2327	593,97	65,38	966,16	21,19	332,35	248,89	178,23	597,2	292,520
2328	595,32	65,60	967,57	20,99	334,19	248,47	179,54	600,9	293,791
2329	596,36	65,63	965,98	20,89	337,07	250,74	181,13	603,8	294,291
2330	598,37	65,80	966,44	20,69	339,77	251,58	182,54	606,5	295,341
2331	600,26	65,94	970,22	20,49	342,38	252,20	183,73	609,2	296,391
2332	602,83	65,97	974,59	20,39	345,24	253,06	185,21	612,1	297,859
2333	605,28	66,03	977,64	20,19	348,63	254,98	186,68	615,5	298,932
2334	607,52	66,10	980,26	19,99	351,78	255,11	188,09	618,2	300,355
2335	609,04	66,24	982,79	19,79	355,48	257,18	189,34	622,1	302,002
2336	610,54	66,25	986,08	19,69	359,07	258,03	190,76	626,3	303,205
2337	612,20	66,21	989,54	19,49	362,80	258,85	192,05	630,5	305,014
2338	614,37	66,22	995,58	19,29	367,21	261,23	193,38	635,8	306,327
2339	616,39	66,29	1004,63	19,09	370,90	262,22	194,72	641,5	308,170
2340	620,03	66,32	1015,20	18,99	374,94	263,39	195,83	646,6	309,887
2341	622,74	66,24	1025,82	18,79	379,04	264,95	197,26	653,7	311,619
2342	626,39	66,28	1035,56	18,59	383,02	265,06	198,56	660,1	313,475
2343	629,00	66,17	1042,86	18,39	387,44	268,01	200,03	666,7	315,686
2344	632,02	66,18	1048,56	18,29	388,21	232,03	200,47	660,9	316,253
2345	632,94	66,19	1051,37	18,09	386,34	159,20	200,48	642,8	315,418
2346	632,32	66,09	1050,22	17,89	385,69	127,94	200,20	630,2	315,506
2347	630,88	66,07	1048,47	17,69	385,55	113,36	199,57	619,0	316,339
2348	628,80	66,14	1045,44	17,59	386,55	106,22	198,93	610,2	317,028
2349	626,42	66,10	1042,09	17,39	387,42	102,24	198,21	601,5	318,387
2350	623,79	66,18	1036,27	17,29	389,53	100,04	198,49	593,3	319,461

EPA Aging

2351	622.02	66.30	1028.54	17.09	387.73	98.30	198.10	584.5	321,765
2352	618.88	66.41	1020.70	16.89	390.17	97.11	198.45	577.5	323,122
2353	615.97	66.32	1015.48	16.79	390.86	96.20	198.53	570.3	324,313
2354	613.62	66.25	1013.38	16.59	392.75	95.45	198.34	564.6	325,677
2355	611.20	66.29	1010.02	16.49	393.93	94.62	198.56	558.7	327,132
2356	608.84	66.37	1006.46	16.29	394.71	94.16	198.48	553.6	328,613
2357	606.57	66.45	1002.50	16.19	395.26	93.68	198.83	548.8	330,502
2358	603.82	66.55	999.99	15.99	395.55	93.26	199.24	544.4	332,322
2359	602.16	66.58	998.44	15.89	397.38	93.00	199.35	540.4	333,836
2360	600.61	66.48	998.01	15.69	399.11	92.63	199.41	537.4	335,257
2361	598.90	66.78	996.63	15.59	399.91	92.41	200.04	534.4	336,670
2362	597.53	66.82	998.25	15.39	401.62	92.15	201.13	532.2	337,556
2363	596.50	66.68	1002.32	15.29	402.85	91.99	201.93	532.6	338,513
2364	596.56	66.76	1003.19	15.09	404.37	91.81	202.33	532.7	339,856
2365	595.45	66.82	999.26	14.99	405.11	91.68	202.66	531.1	340,796
2366	594.58	66.59	990.75	14.79	406.52	91.58	203.45	528.1	341,861
2367	592.15	66.58	982.15	14.69	407.53	91.47	203.78	524.6	343,333
2368	590.25	66.66	976.10	14.49	408.77	91.42	204.67	521.2	344,432
2369	588.23	66.72	972.88	14.39	409.15	91.43	205.53	518.6	345,226
2370	586.40	66.80	970.39	14.29	411.48	91.48	206.59	515.6	345,422
2371	585.04	66.93	966.54	14.10	413.36	91.56	207.72	513.0	346,344
2372	583.43	66.98	960.86	14.00	414.95	91.53	208.68	511.0	346,923
2373	581.79	66.95	956.81	13.80	414.96	91.44	209.56	509.9	348,069
2374	580.46	66.83	956.55	13.70	416.10	91.39	210.44	509.0	349,036
2375	578.94	66.94	957.11	13.50	417.19	91.35	211.34	508.9	349,907
2376	578.50	66.80	959.31	13.40	416.84	91.28	211.36	509.1	352,395
2377	578.11	66.86	959.95	13.30	417.76	91.33	211.58	509.1	354,551
2378	577.54	66.82	958.81	13.10	418.85	91.24	212.42	508.7	357,203
2379	576.31	66.87	958.44	13.00	419.61	91.21	213.21	508.1	359,688
2380	574.19	66.76	957.44	12.90	420.25	91.11	213.91	507.4	362,111
2381	572.89	66.84	956.50	12.70	420.91	91.00	214.57	507.2	364,643
2382	571.33	66.87	956.84	12.60	422.10	91.04	215.38	506.6	366,454
2383	570.18	66.91	959.16	12.50	422.95	90.99	215.73	505.8	368,699
2384	569.60	67.08	964.26	12.40	422.92	90.90	215.97	505.3	369,812
2385	569.42	66.68	966.11	12.20	424.21	90.78	216.71	504.0	371,138
2386	569.12	66.70	960.66	12.10	424.85	90.79	217.38	501.2	372,184
2387	568.06	66.66	951.85	12.00	425.02	90.67	217.88	498.5	373,003
2388	566.56	66.80	944.28	11.90	426.15	90.76	219.15	495.3	374,605
2389	565.26	66.89	935.73	11.80	425.74	90.83	219.27	492.3	375,036
2390	563.50	66.92	928.94	11.70	426.72	90.88	220.28	490.2	376,076
2391	561.20	66.97	923.68	11.50	428.12	90.87	221.86	487.6	376,039
2392	559.39	67.01	919.64	11.40	428.63	90.87	222.86	485.1	376,340
2393	558.16	66.91	916.51	11.30	428.03	90.80	223.58	483.7	377,295
2394	556.96	66.97	915.67	11.20	429.38	90.85	224.61	481.8	376,779
2395	555.76	66.99	916.76	11.10	430.26	90.92	225.51	479.3	377,156
2396	556.32	66.98	921.16	11.00	429.31	90.82	225.96	477.1	378,753
2397	556.11	66.99	925.62	10.80	429.19	90.74	226.80	476.5	379,633
2398	556.71	67.05	926.16	10.70	430.28	90.84	228.25	476.3	380,093
2399	557.04	67.09	926.18	10.60	430.17	90.96	229.39	475.6	381,929
2400	557.07	67.06	924.45	10.40	429.32	91.07	229.97	475.1	384,647
2401	556.84	67.04	925.70	10.30	428.17	91.05	230.62	475.6	387,240
2402	556.94	67.08	927.62	10.20	428.37	91.18	232.01	476.0	389,531
2403	556.87	67.15	928.84	10.10	428.08	91.35	233.30	476.1	392,860
2404	557.04	67.27	930.60	9.90	426.55	91.39	233.64	476.3	397,164
2405	557.26	67.14	932.68	9.80	425.32	91.44	234.41	477.0	400,827
2406	556.84	67.05	932.43	9.70	423.57	91.51	235.62	475.9	404,428
2407	556.63	67.09	926.73	9.60	423.88	91.56	237.20	474.2	407,623
2408	556.51	67.14	923.14	9.50	422.40	91.62	238.29	473.0	410,813
2409	556.03	67.17	923.68	9.40	420.95	91.67	239.45	473.0	413,661
2410	555.06	67.22	922.75	9.20	419.51	91.77	240.35	471.9	416,847
2411	554.08	67.20	921.14	9.10	419.34	91.76	241.10	470.3	419,383
2412	553.00	67.18	917.51	9.00	417.98	91.87	242.58	467.6	421,298
2413	552.19	67.16	912.12	8.90	416.71	91.93	243.65	464.4	423,368
2414	550.36	67.21	905.86	8.80	414.14	91.89	243.81	461.2	425,379
2415	549.47	67.10	900.64	8.70	412.46	91.93	245.54	458.5	427,394
2416	547.73	67.14	893.42	8.60	412.78	92.08	246.75	455.5	429,372
2417	546.16	66.73	888.61	8.50	411.10	91.96	247.73	452.6	430,525
2418	545.03	66.98	886.56	8.40	408.46	91.94	248.31	450.2	432,156
2419	543.43	67.01	882.22	8.30	407.93	91.94	249.93	448.5	432,792
2420	542.20	67.11	876.57	8.30	407.15	92.16	250.46	446.2	433,219
2421	540.49	67.22	870.86	8.20	405.84	92.28	251.33	443.6	433,493
2422	539.42	67.23	866.67	8.10	403.36	92.27	252.00	441.4	433,909
2423	538.24	67.31	865.64	8.00	401.79	92.35	253.13	439.9	433,537
2424	537.94	67.22	866.30	7.90	400.91	92.31	254.70	438.3	433,121
2425	537.00	67.23	865.66	7.80	400.69	92.39	255.78	437.6	432,823
2426	535.94	67.26	866.95	7.70	399.79	92.40	256.85	436.9	431,955
2427	535.32	67.32	869.53	7.60	398.41	92.26	257.86	436.2	431,346
2428	534.05	67.34	871.71	7.50	398.65	92.29	258.75	435.3	430,143
2429	533.54	67.36	870.91	7.40	396.88	92.21	260.22	433.3	429,420
2430	532.50	67.35	868.11	7.40	396.58	92.24	261.61	431.6	428,443
2431	531.28	67.36	864.35	7.30	396.13	92.20	262.68	430.0	427,458
2432	529.96	67.28	861.82	7.20	395.43	92.27	263.90	428.1	426,361
2433	528.99	67.33	859.13	7.10	394.42	92.25	263.99	427.0	425,410
2434	527.74	67.43	857.98	7.00	394.26	92.30	265.51	425.9	423,678
2435	525.92	67.40	856.16	6.90	394.37	92.22	266.33	424.7	422,765
2436	524.22	67.39	851.43	6.90	393.94	92.14	267.23	422.6	421,628
2437	522.40	67.37	846.14	6.80	393.12	92.01	267.81	420.6	420,461
2438	520.40	67.11	841.38	6.70	393.10	91.83	269.38	418.5	418,989
2439	518.45	67.23	837.30	6.70	392.48	91.88	269.84	416.8	418,565
2440	516.31	67.26	834.16	6.60	392.10	91.79	270.48	415.1	417,158
2441	515.41	67.22	831.91	6.50	391.47	91.81	270.42	413.7	416,036
2442	513.13	67.20	830.28	6.40	391.06	91.77	272.33	411.9	415,354
2443	511.51	66.83	828.91	6.40	390.54	91.66	272.94	409.9	413,853
2444	510.36	66.78	827.43	6.30	390.38	91.53	273.72	408.4	412,638
2445	509.11	66.96	826.99	6.20	390.40	91.55	273.94	406.7	411,798
2446	508.28	67.06	827.37	6.10	389.58	91.75	274.96	405.7	409,952
2447	507.13	67.08	828.55	6.10	389.00	91.79	275.81	404.7	409,467
2448	506.04	67.65	828.08	6.00	388.04	91.78	276.06	403.2	408,129

EPA Aging

2449	505,33	67,22	825,00	5,90	392,51	107,50	278,92	420,3	410,957
2450	505,31	68,01	821,91	5,80	396,50	125,62	282,45	431,5	412,674
2451	505,99	67,41	821,65	5,80	399,56	142,54	285,30	440,1	414,165
2452	506,33	67,26	822,45	5,70	401,85	157,15	288,17	448,4	415,025
2453	507,59	67,25	822,91	5,60	403,22	170,05	291,53	455,1	415,512
2454	508,79	67,23	824,17	5,50	404,50	181,70	294,50	462,3	415,650
2455	510,16	67,27	824,77	5,50	406,26	192,17	297,34	468,5	415,807
2456	510,80	66,89	823,71	5,40	407,26	201,48	299,66	474,0	415,440
2457	512,08	66,92	822,58	5,30	408,06	209,94	302,19	479,8	415,843
2458	521,52	67,06	830,24	5,20	408,58	217,89	304,97	487,1	416,153
2459	522,35	67,05	881,19	5,10	409,81	224,78	307,69	504,1	416,119
2460	530,21	67,05	932,90	5,00	410,46	231,84	310,07	521,1	417,199
2461	538,32	67,10	959,28	4,90	411,23	237,20	312,85	534,8	417,976
2462	544,22	67,03	964,26	4,80	412,11	242,48	314,84	544,6	419,247
2463	548,79	67,00	958,80	4,70	413,57	247,68	316,72	553,1	421,015
2464	550,10	67,13	950,28	4,60	415,01	252,87	318,64	559,6	423,369
2465	552,02	66,94	934,40	4,50	416,60	257,53	320,20	562,3	425,071
2466	553,21	66,81	910,31	4,50	418,49	262,02	322,62	562,5	427,786
2467	553,50	67,00	891,26	4,40	420,22	265,87	323,58	562,1	429,406
2468	553,58	66,76	878,38	4,30	422,79	270,03	325,09	562,9	431,002
2469	553,87	66,84	869,39	4,20	424,75	272,44	326,58	561,5	432,058
2470	554,80	66,85	866,04	4,20	426,16	277,18	327,63	561,6	434,018
2471	554,86	66,64	865,65	4,10	428,37	279,70	328,86	561,6	435,144
2472	555,44	66,77	866,98	4,10	430,41	282,94	330,43	561,5	436,072
2473	555,82	66,76	868,25	4,00	432,29	285,65	331,93	562,1	436,594
2474	556,38	66,88	869,41	3,90	433,75	288,41	332,81	562,3	437,203
2475	557,33	67,06	866,99	3,90	436,25	291,53	333,74	560,8	437,656
2476	557,68	66,91	863,61	0,00	437,98	292,61	334,42	559,8	438,062
2477	563,30	67,07	786,28	26,72	440,28	296,72	336,61	555,3	438,053
2478	566,34	67,02	771,45	26,39	441,60	298,70	338,62	551,1	437,249
2479	575,18	66,97	792,77	26,19	442,61	299,68	340,17	551,4	436,617
2480	588,66	67,13	856,93	25,99	443,10	301,94	342,17	558,0	436,598
2481	602,43	67,21	949,09	25,69	442,92	304,42	343,81	570,4	434,851
2482	586,83	67,06	1009,85	25,49	442,39	306,87	344,60	587,4	432,872
2483	592,79	67,08	1055,64	25,29	441,34	308,92	345,39	597,9	430,369
2484	599,02	66,88	1070,38	25,09	439,99	310,04	345,35	609,5	428,053
2485	604,93	66,92	1078,96	24,89	439,23	312,16	345,61	622,3	424,878
2486	610,61	67,02	1095,17	24,69	438,42	313,17	346,96	637,3	422,041
2487	616,82	67,10	1123,05	24,39	436,66	313,86	346,97	656,1	419,667
2488	623,90	67,13	1151,92	24,19	436,06	315,47	346,65	675,6	417,141
2489	630,79	67,20	1173,37	23,99	435,10	315,37	347,47	693,2	413,750
2490	638,22	67,14	1191,56	23,79	433,89	316,42	347,15	710,2	411,268
2491	633,74	67,05	1194,61	23,59	433,18	317,52	347,31	727,5	408,347
2492	617,72	67,02	1185,63	23,39	431,60	317,58	347,00	741,4	406,428
2493	611,63	67,04	1167,34	23,19	431,24	318,46	346,65	752,0	403,730
2494	607,37	67,02	1145,44	23,09	430,18	319,64	346,28	758,0	401,536
2495	604,35	67,11	1129,58	22,89	428,64	319,91	345,32	761,8	399,720
2496	602,51	67,25	1119,10	22,79	428,00	320,02	344,39	763,9	397,429
2497	600,52	67,21	1111,85	22,59	426,71	319,95	343,29	765,5	395,068
2498	598,87	67,26	1105,14	22,49	424,78	320,54	342,82	769,0	393,499
2499	598,31	67,14	1100,18	22,39	423,35	321,08	341,71	770,6	391,936
2500	597,02	67,20	1095,48	22,19	421,86	321,18	340,87	772,4	389,948
2501	596,19	67,04	1092,57	22,09	419,29	321,18	339,56	774,1	387,561
2502	594,89	67,28	1091,30	21,89	417,42	321,65	338,51	774,9	385,645
2503	594,47	67,30	1090,15	21,79	415,90	321,47	338,34	775,7	383,835
2504	594,69	67,23	1092,07	21,59	414,59	322,95	337,08	778,1	382,855
2505	594,80	67,18	1098,47	21,49	412,72	322,96	336,33	781,5	381,539
2506	594,13	67,12	1107,73	21,39	411,24	321,54	334,99	786,1	380,052
2507	595,12	67,21	1118,61	21,19	409,51	322,21	334,37	790,4	378,748
2508	595,67	66,95	1127,75	21,09	407,81	321,83	333,60	795,0	377,054
2509	595,80	67,12	1131,83	20,89	405,65	322,11	332,23	799,2	375,664
2510	595,88	67,18	1130,95	20,79	404,76	322,09	331,43	801,7	373,608
2511	596,37	67,27	1126,71	20,69	402,91	322,14	330,33	801,9	372,460
2512	595,87	67,38	1120,61	20,49	401,66	321,70	329,43	802,6	371,375
2513	595,61	67,36	1117,53	20,39	400,27	322,12	328,70	803,9	370,399
2514	596,07	67,25	1117,11	20,19	398,57	321,07	327,35	805,6	369,223
2515	595,52	66,93	1118,09	20,09	397,19	321,63	326,65	807,1	368,619
2516	596,40	67,19	1119,48	19,99	395,72	321,81	326,31	808,8	367,850
2517	596,53	66,97	1120,67	19,79	394,68	321,25	325,09	809,6	367,058
2518	596,88	67,11	1119,83	19,69	393,38	321,16	323,78	809,9	366,329
2519	596,43	67,21	1117,60	19,49	392,27	320,98	323,15	809,6	366,088
2520	595,95	67,26	1114,43	19,39	391,11	321,30	321,96	810,9	365,120
2521	595,77	67,37	1112,52	19,29	390,42	321,08	321,02	811,1	364,907
2522	595,48	67,28	1110,77	19,19	388,35	269,18	320,84	801,8	363,555
2523	594,63	67,45	1107,75	19,09	387,84	240,01	319,75	796,8	362,833
2524	593,21	67,25	1105,03	18,89	387,31	218,60	319,09	791,9	362,960
2525	590,31	67,51	1100,64	18,79	386,31	203,40	316,97	786,9	361,791
2526	588,33	67,32	1093,21	18,69	386,02	191,82	316,02	779,9	360,694
2527	585,61	67,27	1082,90	18,59	385,05	183,49	314,74	771,3	360,259
2528	582,43	67,38	1072,91	18,49	384,31	176,85	313,02	759,2	359,632
2529	579,66	67,13	1064,27	18,39	383,87	171,73	311,36	746,3	358,938
2530	577,03	67,29	1054,59	18,29	383,12	167,30	309,43	734,7	358,370
2531	574,02	67,36	1045,12	18,19	381,96	163,65	308,03	724,9	357,959
2532	570,94	67,49	1037,13	18,09	381,39	160,71	306,46	717,0	357,225
2533	568,16	67,52	1029,67	17,99	380,90	158,09	304,78	708,6	356,475
2534	564,96	67,53	1022,98	17,89	379,80	156,07	304,07	701,5	355,456
2535	561,91	67,65	1017,64	17,79	378,83	154,17	302,27	693,7	354,506
2536	559,14	67,50	1013,13	17,69	378,48	152,49	300,92	685,7	353,643
2537	556,65	67,46	1009,73	17,59	377,62	151,06	300,54	677,5	353,412
2538	553,66	67,30	1007,74	17,49	377,84	149,79	298,81	668,9	352,318
2539	551,21	67,37	1006,50	17,39	378,12	148,77	298,10	660,2	351,886
2540	549,14	67,29	1005,95	17,29	377,76	147,66	297,05	651,5	351,316
2541	546,94	67,44	1006,02	17,19	378,32	146,61	295,74	642,5	350,526
2542	544,85	67,52	1006,34	17,09	377,97	145,76	295,09	633,5	349,940
2543	543,45	67,38	1013,49	16,99	378,48	144,77	293,48	624,7	349,277
2544	542,11	67,48	1024,33	16,89	378,57	143,55	292,78	615,2	348,135
2545	541,13	67,39	1031,90	16,79	378,91	142,29	291,77	606,3	347,314
2546	540,57	67,57	1033,86	16,69	379,14	141,32	290,86	598,9	346,719

EPA Aging

2547	538,99	67,56	1032,34	16,59	379,99	140,52	289,98	592,5	345,725
2548	538,27	67,48	1028,79	16,49	380,30	139,74	288,31	586,7	344,774
2549	536,96	67,56	1025,24	16,39	380,36	139,10	287,22	581,4	343,882
2550	536,05	67,47	1022,48	16,29	381,12	138,43	287,01	576,7	342,635
2551	534,52	67,60	1019,03	16,19	381,54	137,64	286,14	572,8	342,206
2552	533,40	67,57	1016,33	16,09	382,27	137,50	285,39	569,2	341,238
2553	532,22	67,50	1014,35	16,09	382,68	137,23	284,74	565,7	340,708
2554	531,36	67,43	1012,48	15,99	383,12	136,82	283,27	562,6	339,668
2555	530,27	67,48	1010,58	15,89	384,03	136,52	281,91	559,6	338,366
2556	529,07	67,50	1008,51	15,79	384,27	136,45	282,08	557,4	337,408
2557	528,54	67,41	1004,58	15,69	384,49	136,32	281,56	555,6	336,894
2558	527,40	67,39	1000,14	15,59	385,13	135,96	280,33	554,8	335,763
2559	525,94	67,53	996,36	15,49	385,51	135,66	280,46	554,8	335,281
2560	524,64	67,61	994,75	15,39	385,60	135,33	279,62	555,9	334,942
2561	523,88	67,55	994,75	15,29	386,22	135,02	278,89	557,2	334,085
2562	523,28	67,62	997,89	15,19	386,52	134,83	278,34	558,0	333,044
2563	522,39	67,59	1000,45	15,09	386,76	134,27	277,29	558,6	332,328
2564	522,29	67,50	1005,55	14,99	387,28	132,81	276,84	557,7	331,277
2565	522,16	67,59	1012,12	14,89	387,26	131,78	275,67	556,5	330,590
2566	521,83	67,56	1010,29	14,79	387,35	131,10	275,30	557,7	329,860
2567	521,18	67,18	1001,18	14,69	387,95	130,82	275,08	561,0	329,172
2568	519,04	67,51	996,76	14,59	387,76	130,75	274,15	561,6	328,603
2569	517,63	67,46	997,48	14,49	388,05	130,42	273,69	560,9	328,184
2570	516,71	67,56	1000,86	14,39	387,87	130,12	272,50	558,6	328,021
2571	516,42	67,65	1003,25	14,29	387,84	129,98	272,29	555,5	327,637
2572	516,59	67,84	1003,07	14,19	387,33	129,75	271,07	553,3	327,130
2573	516,83	67,95	1007,35	14,09	386,91	129,26	271,55	551,1	326,654
2574	516,20	67,90	1008,18	14,09	385,94	128,59	271,30	549,4	326,769
2575	516,63	68,00	1014,22	13,99	385,31	128,00	270,59	547,3	326,846
2576	516,48	67,96	1015,51	13,90	384,76	127,55	270,18	545,8	326,539
2577	516,67	67,95	1016,43	13,80	384,13	126,09	269,98	543,4	326,722
2578	516,18	67,97	1014,75	13,70	383,61	126,55	269,31	542,3	327,193
2579	515,52	68,17	1011,32	13,60	382,85	126,80	268,62	541,6	327,773
2580	515,22	68,15	1011,46	13,60	383,07	126,99	268,09	540,7	327,998
2581	515,71	68,09	1022,10	13,50	382,59	127,12	267,27	540,0	328,360
2582	516,37	67,98	1035,31	13,40	382,72	127,13	265,56	538,8	328,202
2583	517,12	67,90	1054,35	13,30	382,24	127,27	265,84	537,5	328,549
2584	518,88	67,96	1075,20	13,20	381,82	127,27	266,12	536,1	328,634
2585	520,64	67,93	1102,13	13,10	381,34	127,21	265,76	534,3	329,139
2586	523,67	68,02	1117,83	13,00	380,79	127,15	265,20	535,4	329,554
2587	526,60	67,97	1111,45	12,90	380,64	126,93	265,09	538,2	329,661
2588	525,94	67,72	1086,68	12,90	379,71	126,72	264,91	541,3	329,827
2589	524,45	67,82	1058,28	12,80	379,99	126,41	264,33	544,1	329,677
2590	522,48	67,90	1027,61	12,70	379,60	125,99	263,82	546,7	329,764
2591	519,25	67,81	999,80	12,60	379,43	125,64	263,96	549,0	330,251
2592	515,65	67,73	980,00	12,50	378,82	125,35	262,58	551,5	329,832
2593	512,97	67,68	968,09	12,40	378,64	125,24	262,79	553,7	329,640
2594	510,59	67,68	961,84	12,40	378,20	125,27	262,32	556,2	329,764
2595	508,17	67,72	957,89	12,30	377,80	125,20	262,28	558,6	330,037
2596	506,63	67,67	955,41	12,20	377,18	125,18	261,60	561,9	330,097
2597	504,84	67,74	955,38	12,10	376,87	125,13	261,54	565,3	330,142
2598	503,06	67,84	957,17	12,00	376,39	125,04	261,35	568,2	330,314
2599	502,18	67,73	959,87	11,90	376,62	125,08	260,67	572,2	330,645
2600	501,90	67,72	963,61	11,80	376,86	125,56	260,75	577,2	330,464
2601	500,76	67,77	969,14	11,70	376,81	125,52	260,08	581,9	331,064
2602	500,46	67,53	974,69	11,60	376,59	125,60	259,53	585,9	330,663
2603	500,15	67,56	978,69	11,50	376,33	125,61	258,77	587,9	330,640
2604	500,37	67,59	981,33	11,50	376,46	125,52	259,12	589,6	330,965
2605	500,20	67,69	982,03	11,40	376,43	125,65	258,99	591,1	331,575
2606	499,70	67,72	981,66	11,30	376,38	125,69	258,67	592,1	331,401
2607	499,34	67,47	980,76	11,20	375,81	125,32	259,02	592,4	331,635
2608	499,52	67,62	978,98	11,10	375,78	125,21	258,98	592,2	332,340
2609	498,51	67,67	975,94	11,00	375,81	124,86	258,57	591,5	332,987
2610	497,75	67,75	972,28	10,90	375,98	124,80	258,17	590,8	333,089
2611	497,76	67,73	969,49	10,80	375,69	124,78	257,81	589,2	333,658
2612	497,37	67,72	966,34	10,80	375,07	124,77	257,61	586,6	334,085
2613	497,02	67,67	964,01	10,70	375,51	124,67	257,19	584,2	334,661
2614	495,89	67,65	962,11	10,60	375,26	124,77	257,22	582,4	334,959
2615	495,43	67,70	960,61	10,50	375,33	124,85	256,74	581,1	335,642
2616	495,46	67,71	960,70	10,40	375,29	124,72	256,64	579,9	335,872
2617	494,44	67,66	961,06	10,30	376,27	124,86	256,46	579,7	335,672
2618	494,98	67,73	961,75	10,29	376,15	124,90	256,30	580,8	336,783
2619	494,31	67,66	962,66	10,20	376,24	125,30	256,34	582,9	337,290
2620	494,58	67,72	963,67	10,10	376,16	125,53	256,26	586,3	337,745
2621	494,86	67,74	965,30	10,00	376,23	126,14	255,73	590,9	338,505
2622	494,82	67,74	967,11	9,90	376,95	126,53	255,35	595,5	338,848
2623	495,17	67,63	969,25	9,80	377,39	126,67	255,55	600,5	339,578
2624	495,17	67,60	972,25	9,70	377,76	126,76	255,58	605,5	339,734
2625	495,68	67,65	975,57	9,60	378,04	126,71	255,72	609,4	340,715
2626	495,93	67,61	978,09	9,50	378,58	126,29	255,55	611,4	341,133
2627	496,77	67,71	979,71	9,40	378,78	125,99	255,20	611,4	341,859
2628	496,73	67,81	979,24	9,30	379,28	125,78	255,29	611,1	342,231
2629	496,95	67,87	976,72	9,20	379,94	125,63	254,69	610,5	342,779
2630	496,42	63,27	973,16	9,10	380,91	124,98	253,83	609,2	343,360
2631	496,51	61,91	970,51	9,00	379,68	123,09	253,70	606,5	343,340
2632	496,20	62,86	965,87	9,00	378,55	122,52	253,21	601,2	344,826
2633	495,35	63,78	956,73	8,90	378,77	122,64	253,02	594,2	346,079
2634	494,08	64,13	944,97	8,90	378,69	122,69	252,63	587,2	346,850
2635	492,35	63,20	935,16	8,80	378,59	121,99	251,88	580,1	347,192
2636	490,33	64,06	925,85	8,80	378,66	122,00	251,54	573,8	348,168
2637	488,56	64,45	916,03	8,70	378,79	122,16	251,77	568,2	349,190
2638	486,61	64,90	907,60	8,60	379,18	122,44	251,62	563,5	348,988
2639	484,42	65,41	900,54	8,60	379,30	123,29	251,79	559,0	350,104
2640	482,39	65,68	893,32	8,50	379,67	124,06	251,89	555,1	350,747
2641	480,35	65,89	885,20	8,40	379,97	124,64	251,27	551,3	351,218
2642	478,39	66,05	881,17	8,40	379,84	125,26	251,23	547,5	352,082
2643	476,55	66,09	879,26	8,30	380,73	125,64	251,45	543,6	352,617
2644	474,67	66,31	881,62	8,30	381,40	126,05	250,96	539,6	353,318

EPA Aging

2645	473.90	66.48	885.12	8.20	381.20	126.25	251.12	536.6	354,089
2646	472.91	66.44	887.84	8.10	381.48	125.83	251.32	533.6	354,902
2647	471.89	66.57	889.61	8.10	381.58	125.53	250.63	530.6	355,791
2648	471.56	66.69	890.12	8.00	381.08	125.18	250.99	527.9	356,604
2649	470.94	66.62	889.40	8.00	381.19	125.65	250.83	526.8	358,494
2650	470.07	66.71	887.72	7.90	381.79	125.80	250.28	526.3	358,460
2651	469.26	66.72	885.84	7.90	382.36	125.95	250.04	525.4	358,808
2652	468.28	66.65	886.38	7.80	382.30	125.86	250.23	524.6	359,585
2653	467.93	66.90	889.14	7.70	382.73	125.87	249.40	523.5	359,715
2654	467.23	66.88	890.10	7.60	382.43	126.07	249.74	522.3	360,230
2655	466.61	66.84	891.40	7.60	382.00	126.13	250.04	521.4	361,082
2656	466.39	66.60	891.44	7.50	380.53	126.01	250.10	520.3	361,847
2657	465.92	66.56	888.75	7.50	380.70	126.03	249.73	520.4	362,915
2658	465.64	66.69	886.49	7.40	379.64	126.15	249.57	521.2	363,084
2659	464.24	66.57	886.57	7.30	379.20	126.15	249.28	522.0	364,084
2660	463.62	66.82	886.68	7.30	378.78	126.21	249.38	522.1	365,077
2661	462.87	66.97	888.98	7.20	378.29	125.94	249.35	519.3	365,677
2662	462.86	67.01	890.82	7.20	378.74	125.72	249.62	515.5	366,325
2663	461.54	66.95	890.78	7.10	378.65	125.45	250.18	510.7	367,017
2664	461.42	67.03	888.69	7.00	379.30	125.23	250.10	505.0	367,794
2665	460.69	66.98	888.16	7.00	379.28	125.28	249.91	500.0	368,304
2666	460.18	66.87	885.98	6.90	378.86	125.07	249.95	495.6	368,601
2667	459.21	66.78	884.52	6.90	379.21	124.79	250.00	491.1	368,937
2668	458.66	66.93	884.44	6.80	379.56	124.89	249.96	487.4	369,266
2669	458.04	66.66	883.76	6.80	379.92	124.83	249.80	483.9	369,621
2670	457.62	67.03	883.85	6.70	379.88	124.59	249.96	480.7	370,042
2671	456.50	67.09	882.67	6.70	379.51	124.28	250.28	477.5	369,891
2672	455.77	67.02	881.19	6.60	379.56	124.16	250.14	474.3	370,150
2673	455.60	66.99	878.72	6.60	379.32	123.61	250.57	471.8	370,677
2674	454.61	67.04	876.64	6.60	379.25	123.53	250.10	469.4	370,525
2675	453.40	66.90	875.22	6.50	378.90	123.35	250.09	466.4	370,378
2676	452.59	66.84	873.81	6.50	378.51	123.25	251.21	464.0	370,830
2677	452.19	66.99	871.57	6.40	379.11	123.17	251.15	461.8	371,087
2678	450.81	67.02	869.76	6.40	379.71	123.10	251.03	460.0	371,173
2679	450.32	67.18	868.54	6.30	379.31	122.95	251.13	457.8	371,770
2680	449.81	67.39	867.45	6.30	379.46	122.85	251.22	455.8	372,368
2681	448.46	67.33	865.70	6.20	379.62	123.06	251.30	454.2	372,307
2682	447.35	67.25	863.56	6.20	380.11	123.08	251.58	452.3	371,773
2683	446.48	67.27	861.91	6.10	380.05	122.92	251.22	450.6	371,674
2684	445.89	67.08	859.95	6.10	379.59	122.82	251.53	448.8	371,060
2685	444.82	67.27	857.89	6.00	379.25	122.77	251.40	447.5	371,302
2686	444.38	67.05	854.95	6.00	379.65	122.71	251.44	445.9	370,887
2687	443.59	66.94	853.26	5.90	378.86	121.86	251.88	444.5	370,914
2688	441.87	66.74	851.27	5.90	378.38	121.84	252.02	443.2	371,248
2689	440.62	66.84	849.61	5.90	378.67	121.74	251.82	442.1	371,610
2690	440.54	67.00	847.97	5.80	378.33	121.63	252.29	440.5	371,718
2691	439.48	67.02	847.15	5.80	378.01	121.39	251.97	439.1	371,095
2692	438.53	66.93	845.96	5.70	377.91	121.11	252.28	437.7	371,164
2693	437.67	67.03	844.76	5.70	377.44	120.97	252.56	436.5	371,169
2694	436.68	66.93	844.06	5.60	376.94	120.79	252.50	434.9	370,596
2695	436.13	66.99	843.36	5.60	377.19	120.99	252.58	434.0	370,578
2696	435.75	67.05	841.76	5.50	376.68	120.74	252.76	432.4	370,769
2697	435.07	66.98	840.33	5.50	375.53	120.68	252.72	430.9	370,938
2698	434.47	67.03	838.45	5.40	375.08	120.37	252.93	429.3	370,617
2699	433.40	67.01	836.14	5.40	375.35	120.29	253.03	427.6	370,494
2700	432.34	66.99	834.02	5.40	374.45	120.25	253.02	426.2	369,938
2701	432.16	67.07	831.15	5.30	374.97	120.36	253.32	424.7	369,436
2702	430.71	67.03	828.68	5.30	374.90	120.34	253.61	423.5	369,251
2703	430.03	67.11	826.47	5.20	374.13	120.18	253.79	421.9	368,906
2704	429.11	67.13	824.41	5.20	374.50	120.07	254.08	420.9	368,361
2705	428.12	67.19	823.36	5.10	374.69	119.88	254.29	419.4	367,978
2706	427.71	67.15	822.07	5.10	374.28	119.83	254.37	417.9	367,275
2707	427.21	67.13	821.68	5.10	373.94	119.37	254.62	416.3	366,828
2708	426.57	67.25	821.45	5.00	374.09	119.27	254.46	415.2	366,129
2709	425.91	67.25	821.52	5.00	373.56	119.10	254.88	414.0	365,509
2710	425.27	67.27	821.20	4.90	372.72	118.95	254.80	412.8	365,050
2711	424.25	67.33	820.78	4.90	372.45	118.83	254.77	411.6	363,903
2712	423.94	67.30	821.07	4.80	372.26	118.72	255.21	410.9	363,510
2713	423.74	67.15	822.02	4.80	371.93	118.55	255.30	409.7	362,858
2714	423.39	67.24	822.83	4.70	372.09	118.60	255.43	408.7	362,209
2715	422.43	67.24	823.13	4.70	371.95	118.50	255.64	408.0	361,327
2716	421.54	67.19	823.67	4.70	371.31	118.54	255.65	407.1	360,883
2717	421.28	67.30	822.37	4.60	370.79	118.44	256.22	406.3	360,122
2718	420.44	67.17	819.48	4.60	370.63	118.40	256.48	405.8	359,616
2719	420.03	67.28	815.34	4.50	370.29	118.49	256.52	405.3	359,034
2720	418.97	67.40	810.49	4.50	370.16	118.48	256.69	404.8	358,656
2721	418.00	67.44	806.81	4.50	369.74	118.36	256.65	404.3	357,765
2722	417.49	67.36	805.12	4.40	369.51	118.37	256.72	403.8	356,971
2723	415.73	67.43	802.77	4.40	369.12	118.31	257.19	403.0	356,435
2724	415.07	67.46	801.47	4.30	368.44	118.17	257.24	402.1	355,893
2725	414.44	67.39	800.05	4.30	368.11	118.02	257.24	401.2	355,036
2726	413.68	67.41	799.44	4.30	367.36	117.86	257.17	400.2	354,087
2727	413.11	67.63	799.96	4.20	367.30	117.69	257.59	399.3	353,512
2728	412.95	67.60	800.04	4.20	366.86	117.65	257.88	398.3	352,742
2729	411.99	67.63	799.38	4.10	366.03	117.61	257.86	397.3	352,173
2730	411.34	67.81	798.44	4.10	365.49	117.40	257.72	396.2	351,512
2731	410.97	67.83	797.92	4.10	365.12	117.46	258.04	395.6	350,892
2732	410.48	67.88	797.21	4.00	364.61	117.39	258.02	394.7	349,922
2733	410.01	67.98	796.81	4.00	364.13	117.60	258.76	394.0	350,078
2734	409.34	67.99	796.11	3.90	362.99	117.84	259.13	393.3	349,874
2735	408.98	68.00	795.57	3.90	362.78	118.16	259.55	392.7	349,638
2736	408.21	68.06	794.05	3.90	362.50	118.35	259.77	392.0	349,710
2737	407.74	68.12	793.22	3.80	361.91	118.30	259.70	391.5	349,465
2738	407.34	68.13	792.57	3.80	361.67	118.45	260.14	390.7	349,040
2739	406.29	68.21	791.51	3.70	361.47	118.39	260.30	390.3	348,257
2740	405.93	68.18	791.76	3.70	361.56	118.08	260.05	389.6	347,262
2741	405.62	68.22	792.42	3.70	361.10	117.72	260.48	388.7	346,717
2742	406.26	68.26	792.60	3.60	360.53	117.72	261.01	388.3	346,467

EPA Aging

2743	405,75	68,28	790,95	3,60	359,99	117,58	261,63	387,8	346,393
2744	405,57	68,29	789,31	3,60	360,08	117,66	261,77	387,5	345,956
2745	404,56	68,29	786,76	3,50	359,06	117,55	262,12	386,8	345,844
2746	404,24	68,14	784,12	3,50	358,61	117,67	262,22	386,7	345,920
2747	403,69	68,15	780,75	3,40	357,91	117,67	262,71	386,5	345,548
2748	402,35	68,18	777,77	3,40	358,25	117,69	262,76	386,1	345,078
2749	402,04	68,20	773,04	3,30	357,40	118,00	262,99	386,0	345,274
2750	401,47	68,26	769,89	3,30	356,98	118,22	263,43	385,5	345,551
2751	400,36	68,31	767,21	3,30	356,60	118,30	263,77	385,4	345,566
2752	400,63	68,40	765,42	3,20	355,85	118,35	264,18	385,1	346,081
2753	399,12	68,45	763,29	3,20	355,55	118,31	264,66	384,7	346,247
2754	398,49	68,44	762,22	3,20	355,57	118,53	264,88	384,1	345,641
2755	397,83	68,47	761,60	3,10	354,85	118,56	264,91	383,4	345,911
2756	396,96	68,41	761,35	3,10	354,57	118,53	265,52	382,7	345,889
2757	396,06	68,47	761,86	3,10	354,20	118,51	265,64	381,8	345,546
2758	395,58	68,45	762,89	3,00	354,47	118,53	265,85	380,9	345,175
2759	394,88	68,46	762,20	3,00	353,56	118,45	266,22	380,0	345,444
2760	394,40	68,37	760,39	3,00	353,51	118,36	266,53	378,9	345,146
2761	394,13	68,40	757,12	2,90	353,07	118,28	266,50	378,2	345,095
2762	393,09	68,41	750,99	2,90	352,61	118,24	266,42	377,4	344,894
2763	392,05	68,38	742,89	2,90	352,30	118,10	267,21	376,3	344,940
2764	389,69	68,35	734,42	2,90	352,01	118,26	267,35	375,5	345,288
2765	388,44	68,37	727,05	2,90	351,11	118,19	267,92	374,5	345,239
2766	386,32	68,37	721,81	2,80	350,75	118,49	267,73	373,8	345,217
2767	384,93	68,28	716,32	2,80	350,26	118,49	268,01	372,8	345,371
2768	382,91	68,45	710,99	2,80	349,45	118,60	268,57	371,9	345,481
2769	381,22	68,35	706,09	2,80	349,30	118,72	268,82	371,0	345,184
2770	379,20	68,35	701,57	2,70	348,41	118,74	269,19	370,1	345,456
2771	377,63	68,34	696,22	2,70	347,93	118,69	268,85	369,0	345,465
2772	375,72	68,35	691,47	2,70	347,04	118,60	269,13	367,9	345,424
2773	374,54	68,40	688,57	2,70	346,28	118,50	269,51	366,5	345,701
2774	372,99	68,33	686,46	2,60	345,50	118,28	270,10	365,3	345,371
2775	371,99	68,37	685,56	2,60	345,47	118,29	270,33	364,3	345,287
2776	370,82	68,40	685,32	2,60	344,99	118,18	270,96	362,9	344,968
2777	369,77	68,40	685,45	2,60	344,49	118,07	270,80	361,4	345,363
2778	368,75	68,39	685,35	2,60	344,13	118,04	271,38	360,4	345,088
2779	367,48	68,44	684,48	2,50	343,45	118,12	271,69	359,4	344,776
2780	366,87	68,38	682,97	2,50	343,21	118,09	272,24	358,5	344,800
2781	365,77	68,39	682,04	2,50	342,50	118,10	272,24	357,9	344,787
2782	364,94	68,40	681,05	2,50	342,29	118,20	272,80	356,9	344,432
2783	364,23	68,40	680,81	2,40	342,03	118,33	273,22	356,4	344,259
2784	363,48	68,45	679,60	2,40	341,58	118,53	273,55	355,6	344,026
2785	362,77	68,48	679,12	2,40	340,99	118,65	273,84	355,2	343,453
2786	361,95	68,49	678,60	2,40	340,39	118,69	273,82	354,3	343,116
2787	361,15	68,52	676,90	2,40	340,31	118,62	274,29	353,6	342,492
2788	360,29	68,46	674,65	2,30	339,58	118,52	274,67	352,9	342,408
2789	359,33	68,48	673,64	2,30	339,27	118,47	275,22	352,2	341,844
2790	358,32	68,52	671,85	2,30	338,74	118,33	275,83	351,3	341,653
2791	357,99	68,49	670,42	2,30	338,49	118,46	275,77	350,6	341,730
2792	357,46	68,40	668,72	2,20	338,18	118,27	275,87	349,8	341,513
2793	356,52	68,47	668,03	2,20	337,43	118,25	276,48	348,9	341,359
2794	355,65	68,46	666,53	2,20	337,43	118,24	276,81	348,3	341,415
2795	355,14	68,50	664,58	2,20	336,79	118,48	277,23	347,8	341,278
2796	354,19	68,51	663,55	2,20	336,32	118,90	277,12	347,6	340,745
2797	353,07	68,45	661,85	2,10	335,89	119,12	277,05	346,8	340,194
2798	352,26	68,47	660,48	2,10	335,38	119,17	277,89	346,6	340,319
2799	351,41	68,57	659,36	2,10	335,13	119,09	277,74	345,9	339,652
2800	350,62	68,51	658,20	2,10	334,73	119,22	278,26	345,5	339,148
2801	350,25	68,47	656,04	2,00	334,44	119,28	278,47	344,8	338,676
2802	349,32	68,53	655,13	2,00	334,60	119,22	278,90	344,6	338,569
2803	349,36	68,54	652,58	2,00	334,05	119,25	279,61	343,9	338,599
2804	348,24	68,55	653,16	2,00	333,24	119,13	279,85	343,3	338,616
2805	347,63	68,40	652,86	2,00	333,13	119,16	279,93	342,6	338,206
2806	346,99	68,39	651,93	2,00	332,74	119,34	280,13	342,3	337,905
2807	346,41	68,47	650,82	1,90	332,20	119,40	280,39	341,7	337,655
2808	345,45	68,45	649,39	1,90	331,86	119,43	280,63	341,2	337,799
2809	344,75	68,29	646,33	1,90	331,74	119,63	280,89	340,7	337,483
2810	344,16	68,23	642,04	1,90	331,43	119,92	280,67	340,4	337,416
2811	343,15	68,24	638,41	1,90	331,31	120,33	280,66	340,4	337,163
2812	342,28	68,39	635,29	1,80	331,00	120,53	281,14	339,6	336,580
2813	341,26	68,34	632,50	1,80	330,30	120,77	281,46	339,3	336,366
2814	340,21	68,43	629,75	1,80	330,14	121,06	281,78	338,9	336,471
2815	339,74	68,30	626,88	1,80	329,63	121,23	281,96	338,1	336,414
2816	338,68	68,40	624,65	1,80	329,47	121,43	282,44	337,5	336,401
2817	337,15	68,37	621,88	1,70	329,12	121,37	282,69	336,5	335,990
2818	336,67	68,33	619,78	1,70	328,48	121,41	282,90	335,9	335,862
2819	335,47	68,38	617,85	1,70	328,54	121,57	283,14	335,1	335,581
2820	334,75	68,29	616,22	1,70	328,23	121,62	283,57	334,2	335,397
2821	333,85	68,40	614,18	1,70	327,84	121,83	283,52	333,6	335,359
2822	332,72	68,29	612,39	1,70	327,10	121,62	283,67	332,5	335,229
2823	331,82	68,26	611,37	1,60	326,95	121,65	283,85	331,7	334,976
2824	330,73	68,32	610,43	1,60	326,33	121,79	283,87	331,2	334,749
2825	330,51	68,35	609,24	1,60	326,07	121,74	284,27	330,3	334,710
2826	330,01	68,29	608,12	1,60	325,22	121,80	284,38	329,5	334,313
2827	329,02	68,30	607,40	1,60	325,17	121,82	284,34	328,8	334,059
2828	328,87	68,35	606,18	1,60	324,55	121,77	284,85	328,0	333,836
2829	328,01	68,39	605,21	1,50	323,96	121,82	284,82	327,2	333,615
2830	327,07	68,32	604,69	1,50	323,48	121,90	285,07	326,8	333,642
2831	326,76	68,31	603,90	1,50	323,21	121,89	284,77	326,2	333,615
2832	326,32	68,43	603,07	1,50	322,85	121,92	284,79	325,9	333,053
2833	325,57	68,34	604,06	1,50	322,11	121,81	285,04	325,3	332,860
2834	325,21	68,31	603,75	1,40	321,47	121,80	284,96	324,9	332,824
2835	324,81	68,32	604,30	1,40	320,90	121,84	285,00	324,7	332,557
2836	324,55	68,33	604,49	1,40	320,28	121,71	285,15	324,3	332,652
2837	323,84	68,34	604,39	1,40	319,84	121,67	285,03	323,9	332,518
2838	324,01	68,37	603,45	1,40	319,45	121,64	285,32	323,6	331,927
2839	323,69	68,37	603,89	1,30	318,76	121,95	285,12	323,4	332,122
2840	323,04	68,37	604,10	1,30	318,21	122,14	284,87	323,3	331,625

EPA Aging

2841	322,47	68,39	604,37	1,30	317,81	122,34	285,01	323,0	331,471
2842	322,89	68,42	603,63	1,30	317,18	122,40	285,21	322,8	331,284
2843	322,40	68,41	604,52	1,30	316,49	122,38	285,05	322,7	331,348
2844	322,55	68,26	604,63	1,30	316,24	122,57	284,64	322,7	331,069
2845	322,31	68,31	603,77	1,20	315,67	122,74	284,79	322,3	330,513
2846	322,29	68,32	604,06	1,20	314,94	122,93	284,93	322,4	330,710
2847	322,08	68,40	604,66	1,20	314,16	122,97	284,99	322,5	330,409
2848	321,58	68,43	604,72	1,20	314,16	123,06	284,86	322,3	329,857
2849	321,46	68,45	604,65	1,20	313,72	123,15	285,26	322,3	329,794
2850	321,11	68,46	604,85	1,20	313,38	123,30	285,40	322,4	329,694
2851	321,30	68,39	605,22	1,10	312,62	123,30	285,19	322,1	329,483
2852	320,63	68,32	605,06	1,10	312,76	123,29	285,38	322,2	329,414
2853	320,80	68,42	604,98	1,10	312,25	123,02	285,50	321,9	328,995
2854	321,37	68,46	603,93	1,10	311,33	122,96	285,65	321,5	328,909
2855	321,03	68,37	604,18	1,10	310,71	122,93	285,72	321,4	328,524
2856	320,92	68,27	603,67	1,00	310,76	122,79	285,83	321,4	328,357
2857	320,35	68,27	604,70	1,00	310,02	122,84	286,00	321,3	328,027
2858	320,35	68,12	605,60	1,00	309,89	122,68	285,64	321,3	327,874
2859	320,40	68,11	606,51	1,00	309,84	122,68	285,21	321,0	327,529
2860	320,27	68,17	606,99	1,00	309,20	122,95	285,62	321,1	327,464
2861	319,96	68,09	607,10	1,00	308,65	123,01	285,66	320,8	327,077
2862	320,06	68,16	606,80	0,90	308,63	123,20	285,73	320,9	326,960
2863	320,31	68,15	606,81	0,90	308,34	123,19	286,02	320,8	326,657
2864	320,04	68,14	606,67	0,90	307,52	123,27	285,90	320,4	326,319
2865	319,83	68,13	606,44	0,90	307,19	123,22	285,82	320,3	326,113
2866	319,88	68,12	605,70	0,90	307,29	123,16	285,65	320,1	325,586
2867	319,47	68,05	605,13	0,90	306,54	123,00	285,65	319,7	325,272
2868	319,35	68,15	604,46	0,80	306,10	122,88	285,70	319,4	325,128
2869	318,76	68,08	603,94	0,80	305,69	122,82	285,86	319,1	324,892
2870	318,72	68,11	603,36	0,80	305,24	122,65	285,97	318,8	324,713
2871	318,51	68,03	602,14	0,80	305,25	122,69	286,07	318,7	324,119
2872	318,22	68,09	601,44	0,80	305,05	122,83	285,75	318,5	323,796
2873	318,23	67,98	600,72	0,70	304,73	122,86	285,76	318,2	323,515
2874	318,03	67,93	599,80	0,70	304,77	123,16	285,58	318,1	323,100
2875	317,83	67,87	599,25	0,70	304,13	123,29	285,67	317,7	322,926
2876	317,56	67,98	598,50	0,70	303,35	123,21	285,41	317,4	322,719
2877	317,23	68,01	597,83	0,70	303,37	123,27	285,46	317,2	322,302
2878	317,15	68,07	597,00	0,70	302,80	123,28	285,64	317,0	322,311
2879	316,45	68,02	596,49	0,60	302,31	123,39	285,67	316,8	321,869
2880	316,29	68,02	595,88	0,60	301,38	123,05	285,83	316,2	321,496
2881	316,15	68,05	595,44	0,60	301,48	122,84	285,60	315,9	321,161
2882	315,45	68,14	594,99	0,60	300,93	122,75	285,50	315,5	321,125
2883	315,61	68,13	594,41	0,60	301,26	122,68	285,34	315,3	321,002
2884	315,41	68,26	594,09	0,50	300,94	122,62	285,60	315,1	320,652
2885	314,95	68,14	593,91	0,50	301,16	122,94	285,97	314,8	320,097
2886	315,20	68,19	593,75	0,50	301,20	123,05	285,95	314,7	320,081
2887	315,02	68,28	593,38	0,50	301,34	123,03	285,72	314,3	319,876
2888	314,66	68,19	593,19	0,50	300,94	123,06	286,20	314,0	319,696
2889	314,40	68,27	593,08	0,50	300,87	123,20	286,13	313,9	319,284
2890	314,71	68,29	592,85	0,40	300,61	123,28	286,01	313,8	319,016
2891	314,51	68,29	592,62	0,40	300,20	123,35	286,07	313,5	318,851
2892	314,48	68,32	592,35	0,40	300,10	123,40	285,74	313,3	318,583
2893	314,28	68,39	591,87	0,40	300,18	123,40	286,10	313,1	318,249
2894	314,09	68,43	591,56	0,40	299,72	123,36	285,58	313,1	318,151
2895	313,75	68,44	590,91	0,40	300,01	123,39	285,61	312,8	317,794
2896	313,35	68,46	590,31	0,30	299,65	123,26	285,64	312,6	317,696
2897	313,43	68,58	589,84	0,30	299,57	123,26	285,76	312,5	317,446
2898	313,18	68,50	589,07	0,30	299,70	123,15	285,59	312,2	317,451
2899	312,61	68,45	588,29	0,30	299,32	123,12	286,14	312,0	316,842
2900	312,82	68,32	587,83	0,30	299,09	123,26	285,72	312,1	316,682
2901	312,35	68,16	587,77	0,30	299,07	123,14	285,70	311,7	316,505
2902	312,11	68,28	587,66	0,20	299,14	123,18	285,52	311,4	316,761
2903	311,68	68,32	586,68	0,20	298,48	123,08	286,12	311,0	316,203
2904	311,90	68,40	585,63	0,20	298,26	123,00	286,26	310,8	316,099
2905	311,66	68,33	584,99	0,20	297,88	122,85	285,51	310,5	315,744
2906	311,22	68,39	585,14	0,20	297,91	122,95	285,80	310,2	315,701
2907	310,77	68,25	583,78	0,20	297,41	122,83	285,80	309,9	315,843
2908	310,44	68,35	583,01	0,10	297,38	122,87	286,04	309,6	315,246
2909	310,23	68,44	582,68	0,10	297,42	122,60	285,75	309,2	315,291
2910	310,04	68,15	581,72	0,10	297,27	122,49	285,45	308,6	314,925
2911	309,79	68,38	580,96	0,10	296,80	122,12	285,52	308,0	314,601
2912	309,49	68,13	579,40	0,10	296,32	122,07	285,41	307,5	314,789
2913	309,17	68,07	578,40	0,10	296,34	121,74	285,34	306,7	314,650
2914	308,64	68,22	576,73	0,00	296,22	121,50	285,37	306,1	314,591
2915	111,59	77,34	128,32	10,10	73,95	73,32	73,12	95,4	74,121
2916	114,72	77,29	120,22	10,00	74,27	73,38	73,07	108,5	74,522
2917	180,27	77,09	185,03	10,39	74,85	73,48	73,16	123,0	75,272
2918	177,59	77,24	393,06	9,70	75,97	73,68	73,18	143,9	76,363
2919	220,73	77,31	600,46	9,60	77,59	73,96	73,22	166,5	77,913
2920	270,60	77,03	693,15	9,40	79,80	74,60	73,23	181,4	80,006
2921	307,00	77,20	705,72	9,20	83,17	75,65	73,33	193,7	83,046
2922	332,55	77,12	695,99	9,00	88,19	77,18	73,43	205,2	86,519
2923	354,40	77,23	699,75	8,80	93,32	79,29	73,58	218,4	90,764
2924	377,75	77,13	720,98	8,60	101,29	81,87	73,77	234,0	96,632
2925	405,78	77,01	769,76	8,40	111,69	84,88	74,01	253,5	105,423
2926	432,13	76,98	815,05	8,10	123,20	88,37	74,34	275,6	114,660
2927	455,56	76,91	844,21	7,90	131,86	92,10	74,73	299,4	122,482
2928	440,15	76,93	870,42	7,70	139,55	96,07	75,16	322,6	127,987
2929	433,63	77,01	884,20	7,60	145,32	100,12	75,65	339,7	133,245
2930	438,98	76,94	879,17	7,40	150,12	104,21	76,26	354,0	137,274
2931	446,22	76,84	880,66	7,30	154,70	108,42	76,93	368,6	140,083
2932	452,19	76,82	873,78	7,10	161,16	112,50	77,62	382,8	142,432
2933	456,33	76,88	865,30	7,00	166,84	116,59	78,36	395,0	145,358
2934	460,67	76,88	858,96	6,80	172,13	120,83	79,13	403,8	147,744
2935	464,69	76,93	850,55	6,70	177,06	124,84	79,92	412,1	150,717
2936	468,03	76,96	844,52	6,60	181,77	129,00	80,74	420,7	154,358
2937	471,69	76,82	845,20	6,40	186,19	133,14	81,60	433,4	158,415
2938	477,16	76,72	859,77	6,30	188,52	137,26	82,43	445,2	161,927

EPA Aging

2939	483,24	76,80	884,53	6,10	193,41	141,28	83,29	457,6	165,353
2940	490,95	76,71	906,01	6,00	201,91	145,18	84,21	468,5	168,692
2941	498,82	76,74	916,25	5,90	207,77	149,15	85,15	476,6	172,078
2942	504,79	76,72	920,35	5,70	213,19	153,08	86,08	483,1	175,510
2943	510,44	76,69	928,94	5,60	218,39	156,64	87,08	487,2	178,924
2944	516,17	76,73	929,45	5,50	223,56	160,42	88,10	489,1	182,462
2945	519,83	76,74	925,63	5,30	228,90	164,03	89,16	493,0	185,769
2946	522,88	76,77	927,53	5,20	234,20	167,63	90,34	496,4	189,091
2947	526,34	76,80	929,68	5,10	239,51	171,23	91,47	499,4	192,500
2948	529,09	76,76	921,60	4,90	244,66	174,58	92,71	502,4	196,154
2949	532,27	76,70	920,47	4,80	249,41	178,06	94,00	505,5	199,629
2950	535,37	76,66	922,88	4,70	253,96	181,73	95,30	506,6	202,954
2951	537,13	76,76	907,82	4,60	259,17	185,09	96,61	507,3	206,105
2952	537,05	76,81	892,25	4,50	263,58	188,53	98,07	507,8	209,606
2953	537,78	76,69	883,03	4,30	268,06	191,89	99,56	509,8	213,037
2954	538,74	76,65	877,01	4,20	273,33	195,93	101,11	512,2	216,175
2955	539,79	76,80	884,96	4,10	277,93	199,23	102,62	515,3	219,433
2956	583,85	76,68	894,95	27,52	281,51	202,90	104,27	516,1	222,113
2957	602,46	76,84	867,38	26,19	286,26	206,53	106,10	517,8	225,542
2958	595,50	76,94	897,94	25,99	291,25	209,07	107,88	523,7	228,633
2959	600,78	77,14	910,22	25,79	295,60	212,08	109,75	526,9	231,712
2960	600,15	77,37	904,66	25,59	299,90	215,06	111,69	527,7	234,561
2961	583,79	77,52	900,68	25,49	303,32	217,47	113,56	530,3	237,335
2962	578,16	77,50	908,44	25,29	306,73	220,72	115,53	532,9	239,591
2963	578,32	77,68	913,11	25,19	308,89	223,57	117,40	536,2	242,199
2964	579,45	77,77	930,17	24,99	311,44	225,84	119,35	539,8	244,217
2965	581,38	77,78	939,08	24,79	313,55	227,95	121,16	544,0	246,137
2966	583,08	77,78	938,13	24,69	315,18	229,93	123,10	549,9	247,971
2967	584,95	77,80	945,31	24,49	316,78	231,68	124,96	552,2	249,708
2968	586,78	77,80	949,48	24,29	318,60	233,56	126,81	562,8	251,043
2969	588,71	77,71	950,81	24,19	320,94	235,35	128,52	567,7	252,266
2970	589,47	77,81	948,65	23,99	323,57	237,43	130,32	571,6	253,660
2971	591,10	77,64	945,64	23,79	325,78	238,48	131,89	575,7	255,074
2972	593,26	77,55	942,26	23,69	328,46	240,55	133,52	580,3	256,146
2973	594,31	77,57	937,68	23,49	330,52	242,77	135,12	586,5	257,882
2974	596,83	77,56	945,21	23,29	333,37	244,10	136,81	594,5	259,354
2975	599,27	77,38	955,61	23,19	335,59	246,16	138,27	602,2	260,356
2976	602,02	77,29	964,66	22,99	337,90	247,70	139,83	608,7	261,746
2977	604,66	77,38	977,31	22,79	340,23	249,00	141,35	614,2	263,259
2978	605,90	77,41	986,40	22,69	342,74	250,40	142,91	617,5	264,483
2979	608,91	77,39	989,07	22,49	344,77	252,46	144,44	620,3	266,130
2980	610,11	77,32	988,20	22,39	347,13	254,10	145,85	623,2	267,781
2981	611,42	77,32	986,76	22,19	349,18	255,46	147,23	626,3	269,471
2982	612,78	77,27	988,79	21,99	351,72	257,20	148,67	628,9	271,243
2983	614,76	77,12	989,40	21,89	354,35	258,64	150,25	630,0	273,034
2984	616,43	77,13	989,30	21,69	356,84	260,46	151,90	631,4	274,789
2985	618,41	77,20	993,78	21,49	359,52	261,93	153,36	632,8	276,425
2986	619,75	77,21	1000,82	21,39	362,12	263,55	154,87	633,9	278,346
2987	621,83	77,19	1005,50	21,19	365,08	264,76	156,36	636,4	280,283
2988	623,48	77,13	1006,99	20,99	367,89	267,16	157,76	640,5	282,073
2989	624,13	77,18	1010,30	20,89	370,84	267,51	159,07	644,6	283,725
2990	625,22	77,22	1013,99	20,69	373,98	270,12	160,42	649,2	285,477
2991	626,87	77,08	1016,79	20,49	377,30	271,57	161,77	653,4	287,522
2992	627,90	77,19	1021,05	20,39	380,18	272,84	163,35	658,0	289,441
2993	629,39	77,18	1025,97	20,19	383,43	274,71	164,82	662,0	291,058
2994	631,72	77,08	1030,93	19,99	386,80	276,25	166,11	666,1	292,759
2995	632,86	77,11	1034,04	19,89	390,28	278,36	167,82	669,2	294,517
2996	634,91	77,07	1036,03	19,69	393,26	279,82	169,11	672,7	295,809
2997	636,40	77,08	1036,80	19,49	396,64	281,52	170,59	676,7	297,654
2998	637,45	77,11	1038,80	19,39	399,25	283,20	172,03	680,5	299,416
2999	638,86	77,18	1041,68	19,19	402,09	284,88	173,61	685,6	301,478
3000	640,21	77,11	1046,94	18,99	405,20	286,66	174,96	690,5	303,092
3001	642,07	77,08	1054,12	18,89	408,06	287,61	176,56	696,1	304,865
3002	643,51	76,96	1060,33	18,69	410,65	288,78	178,19	700,8	307,271
3003	645,74	77,03	1065,19	18,49	408,64	228,61	179,12	688,0	307,132
3004	645,62	76,85	1069,54	18,29	412,56	225,80	180,31	694,1	309,064
3005	645,67	77,00	1073,56	18,29	406,43	162,54	180,71	674,0	308,373
3006	643,52	77,15	1074,71	18,19	404,85	136,23	180,83	661,5	308,506
3007	641,61	77,33	1072,78	17,99	402,70	123,56	180,15	650,7	309,026
3008	638,72	77,35	1066,79	17,89	402,46	117,13	179,93	640,0	310,723
3009	635,77	77,56	1061,71	17,69	402,38	113,39	180,02	630,2	312,091
3010	632,88	77,48	1057,58	17,59	402,01	110,94	180,20	621,2	313,315
3011	629,79	77,55	1051,96	17,39	402,65	109,22	180,61	612,5	314,624
3012	626,88	77,64	1045,35	17,29	402,92	107,80	181,20	604,6	315,810
3013	624,89	77,62	1042,44	17,09	403,60	106,71	181,93	597,4	317,468
3014	622,53	77,74	1040,53	16,89	404,67	105,94	182,68	591,7	319,027
3015	620,65	77,64	1041,99	16,79	405,24	105,23	183,71	586,5	320,472
3016	618,95	77,65	1042,17	16,59	406,35	104,48	184,60	581,6	321,675
3017	616,50	77,64	1036,74	16,49	407,35	103,93	185,75	577,0	323,316
3018	614,38	77,69	1021,91	16,39	407,88	103,48	187,72	570,3	325,016
3019	611,21	77,73	1006,13	16,19	407,92	103,28	188,19	564,2	326,087
3020	607,42	77,69	993,32	16,09	408,08	103,12	189,99	558,9	327,501
3021	604,57	77,79	988,76	15,89	408,39	102,80	190,77	556,2	329,009
3022	602,58	77,74	996,41	15,79	408,52	102,53	191,78	556,6	330,248
3023	602,02	77,74	1008,49	15,59	408,10	102,37	193,60	558,3	332,344
3024	601,84	77,70	1016,03	15,49	407,96	102,09	194,78	558,9	335,147
3025	601,64	77,78	1019,56	15,29	407,16	101,88	195,57	559,4	337,837
3026	601,25	77,73	1020,01	15,09	407,24	101,69	196,95	559,5	341,680
3027	600,42	77,80	1019,85	15,00	406,99	101,44	198,15	558,9	345,284
3028	599,34	77,72	1019,51	14,80	405,97	101,26	199,66	558,4	349,512
3029	598,55	77,73	1019,92	14,70	405,56	101,27	200,86	558,4	353,792
3030	597,66	77,74	1020,85	14,50	404,35	101,11	202,21	557,1	358,668
3031	596,68	77,72	1019,82	14,40	403,69	100,93	203,78	556,0	363,192
3032	595,91	77,71	1019,86	14,20	403,15	100,60	204,97	554,8	367,333
3033	595,28	77,72	1020,84	14,10	402,07	100,47	206,44	553,3	372,046
3034	594,87	77,81	1020,95	13,90	400,95	100,36	207,79	552,0	376,821

APPENDIX 5: Participants

Danick Power ing.
v-p operation
Services Polytests inc.
450.741.3636
www.polytests.com

Sébastien Boulais
Technicien
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Maxime Martin
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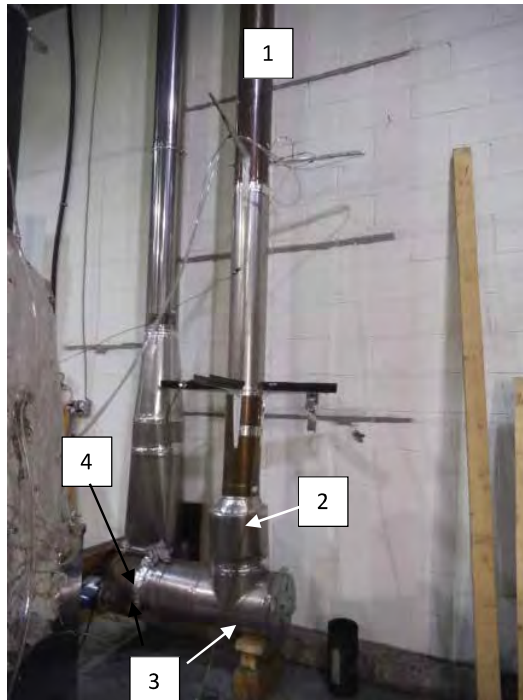
APPENDIX 6: Drawings and specifications

APPENDIX 7: Operator's manual

APPENDIX 8: Photographs of test set up

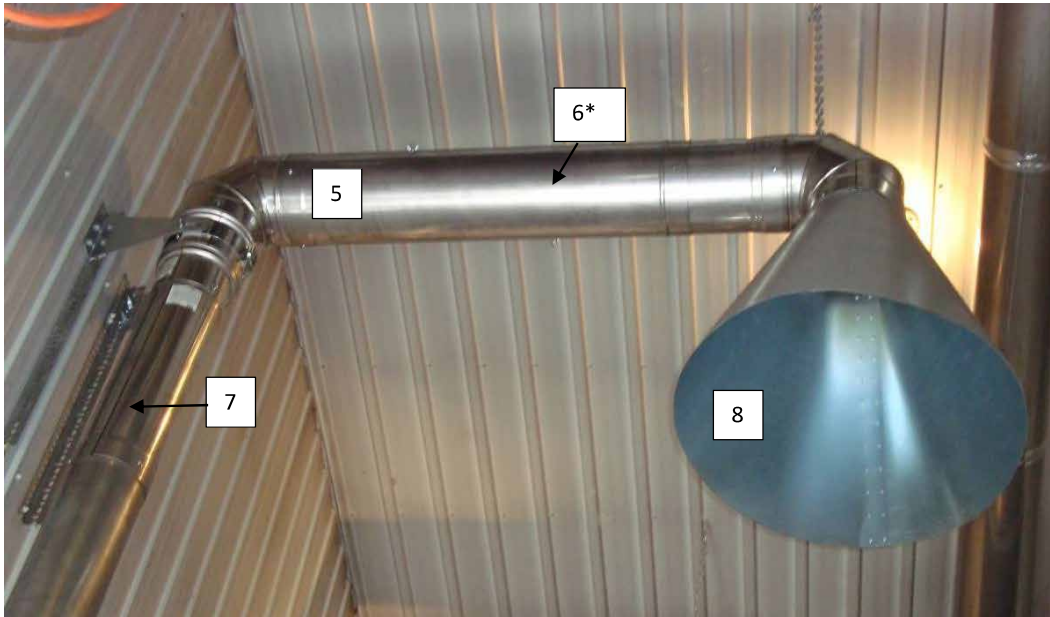
Dilution picture Dia 8

Picture 1: Sampling system



- 1 : 8 in dia Stainless steel pipe
- 2 : 16 in. Between sampling probe and lower elbow
- 3 : Air intake with damper to adjust flow rate
- 4 : Exhaust blower

Picture 2: Hood and mixing baffle



*The arrow point the deflectors inside of the pipe

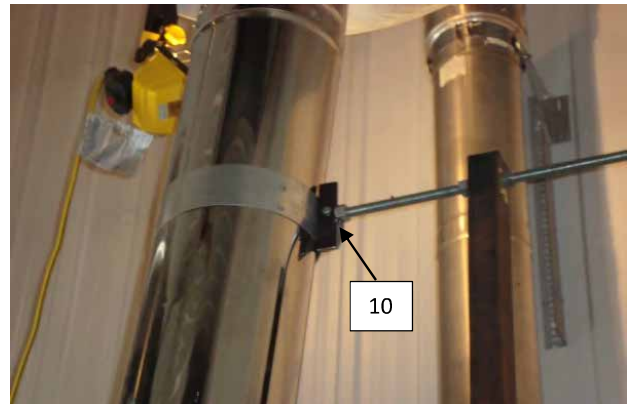
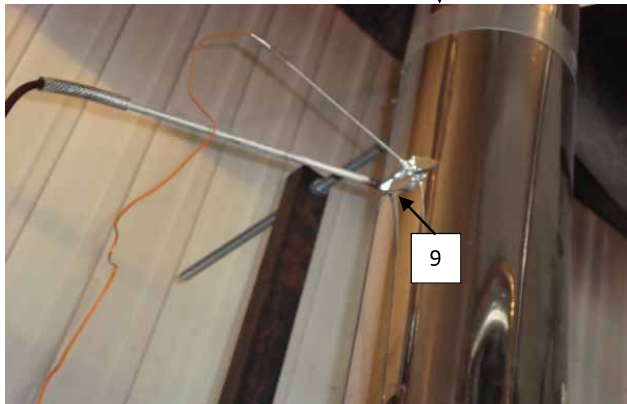
- 5 : 8 in. dia. Stainless steel pipe
- 6 : Mixing baffle (2) location 1 foot between baffles
- 7 : 10 feet long between velocity port and upper elbow
- 8 : 48 in. dia. Galvanized steel smoke captures hood

Picture 3: Stack sampling



Picture 3.1: Gas analysis and temperature probe

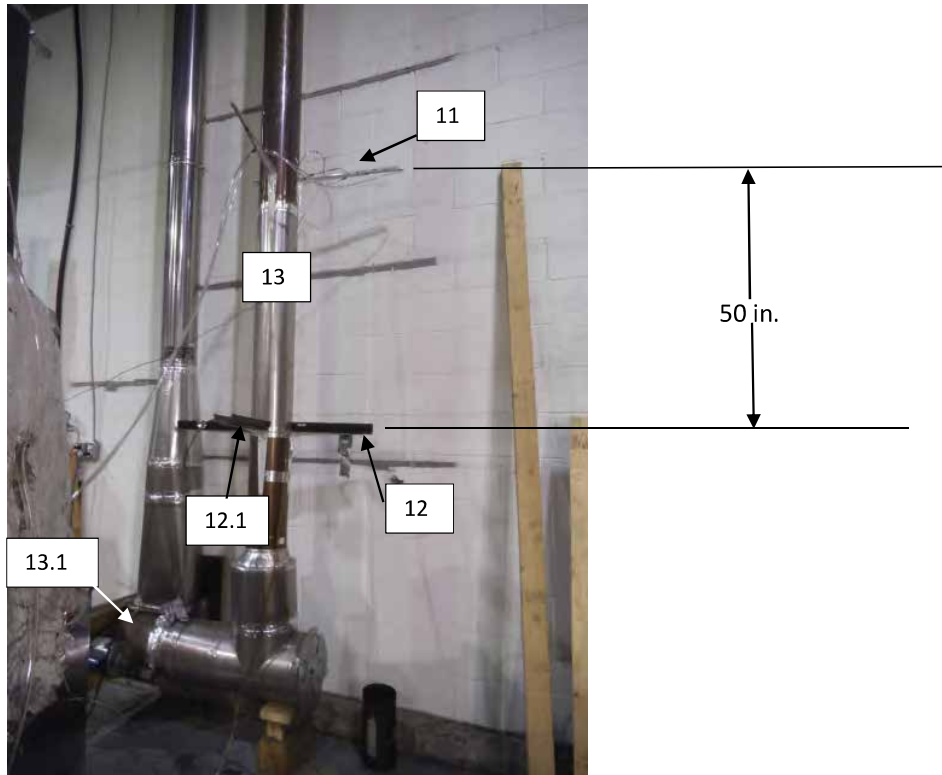
Picture 3.2: chimney support



9 : Temperature and gas analyser sampling ports located 9 feet above platform

10 : Exhaust system support bracket

Picture 4: Tunnel flow measurement and sampling probe



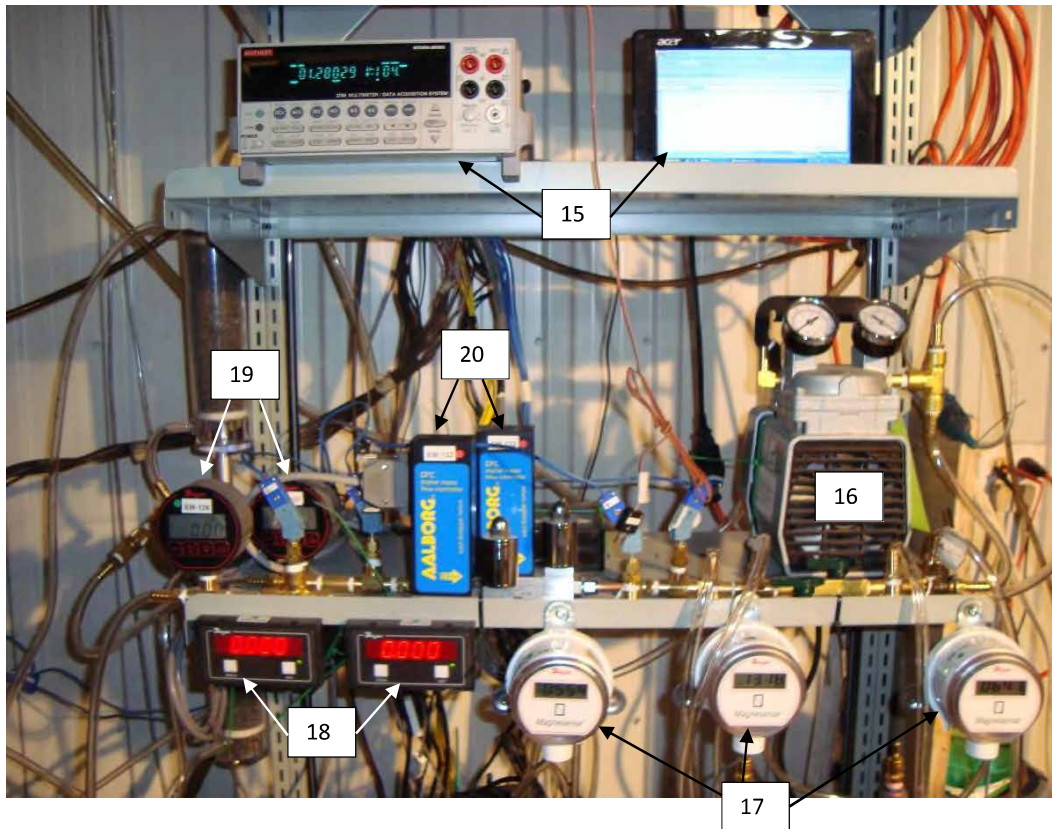
- 11 : Velocity port
- 12 : Sampling port, 2 sampling probes with 2x48 mm. dia.filter each. Filter used:
Millipore AP4004700
- 12.1 : Sampling port, sampling probes with 2x48 mm. dia.filter each. Filter used:
Millipore AP4004700, for first hour sampling
- 13 : 18 feet long dilution tunnel
- 13.1 : Extraction blower

Picture 5: Draft sampling



14 : Draft sampling port located 6 in. from the flue outlet

Picture 6: Equipments



- 15 : Acquisition system
- 16 : Vacuum pump
- 17 : Digital manometer
- 18 : Digital read out for mass flow meter
- 19 : Digital vacuum gage
- 20 : Mass flow meter

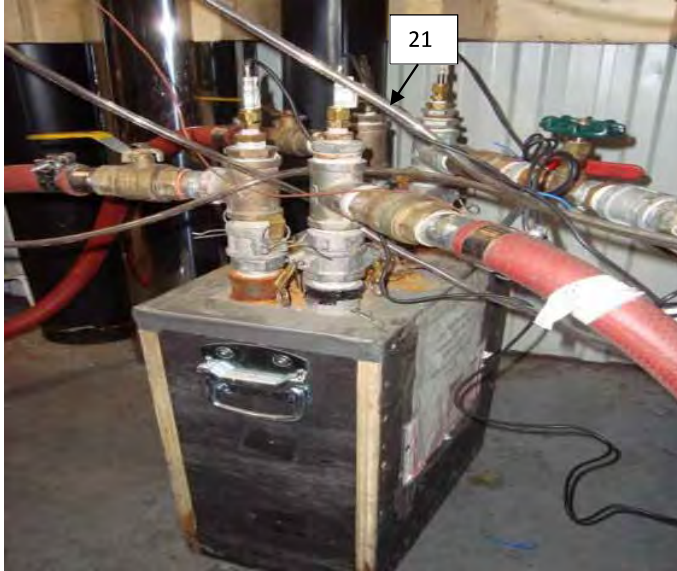
Picture 7: Gaz analyser



Picture 8: Reference dry gas meter

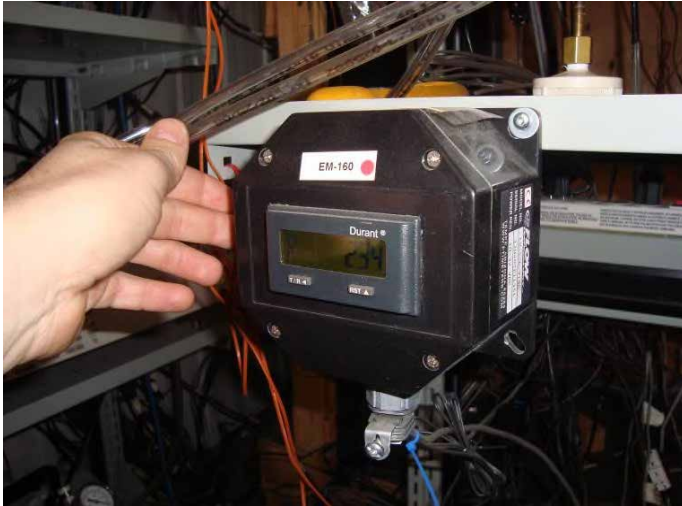


Picture 9: Heat exchanger



21 : PT 100 insertion probe

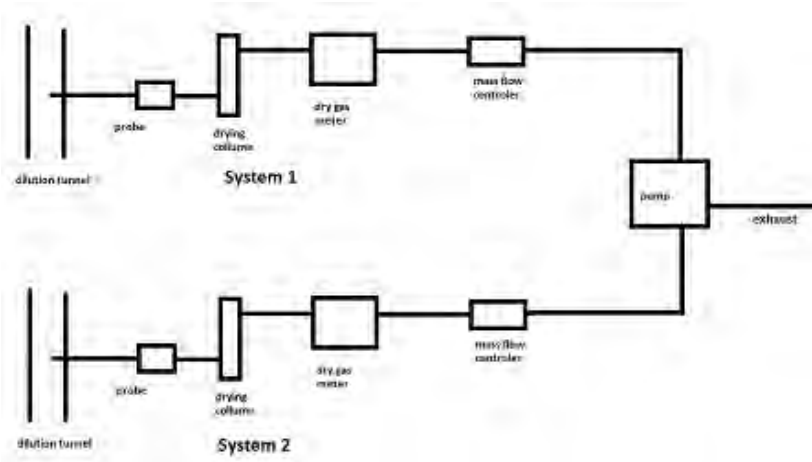
Picture 10: Water flow meter



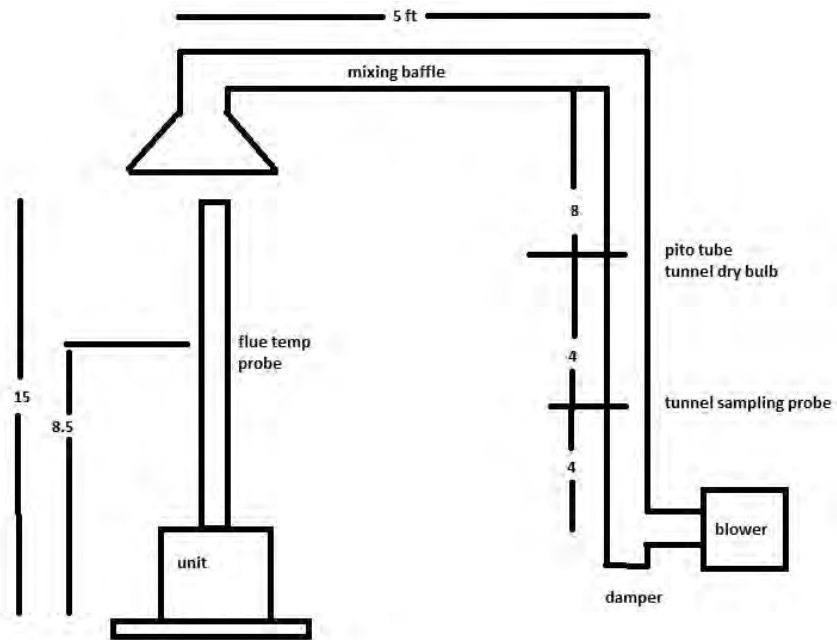
Picture 11: Dry gas meter



Picture 12 : Dilution tunnel sample system



Picture 13: Dilution tunnel



APPENDIX 9: Test load photographs

Run 1.1



Run 2.1



Run 2.2



APPENDIX 10: Laboratory Operating Procedures

APPENDIX 12: Volume calculations

APPENDIX 13: Operating instruction



Operating instruction for High burn rate Cord wood method ALT-125, ASTM E3053

- Start the fire with approximately 7 lbs. of startup fuel, 4.3 lbs. of kindling.
- Keep the door slightly open for 17 minutes.
- Close the by-pass after 3 minutes
- When left approximately 4 lbs. from the startup load, the high burn rate load can be inserted.
- The high burn rate load can be up to 24 lbs, open the door, load the stove with high burn load.
- By-pass can be close immediately.
- Keep the door slightly open for 5 minutes, then close.
- Fan can be turned ON after 30 minutes to maximum setting

Operating instruction for Medium burn rate Cord wood method ALT-125, ASTM E3053

- From the high burn rate coal bed, when 4.5 lbs. left, the load can be inserted in the firebox.
- open the door
- Insert the 28 lbs. load in the firebox
- By-pass can be close after two minutes.
- Keep the door slightly open for 5 minutes, then close.
- Keep the combustion air damper fully open for 15 minutes then close to the Medium setting
- After 30 minutes the fan turns ON to medium setting

Operating instruction for Minimum burn rate Cord wood method ALT-125, ASTM E3053

- From the high burn rate coal bed, when 3.8 lbs. left, the load can be inserted in the firebox.
- open the door
- Insert the 28 lbs. load in the firebox
- By-pass can be close after a minute.
- Keep the door slightly open for 5 minutes, then close.
- Keep the combustion air damper fully open for 15 minutes then close to the minimum setting
- After 30 minutes the fan turns ON to minimum setting

APPENDIX 14: Drawing Air flow pattern

APPENDIX 15: Application for wood stove program



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

FEB 28 2018

Mr. Justin White
Hearthstone QHPP, Inc.
#17 Stafford Ave.
Morrisville, VT 05661

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

Dear Mr. White,

I am writing in response to your letter dated January 12, 2018, regarding wood heaters manufactured by Hearthstone QHPP, Inc. (Hearthstone). This response, dated February 28, 2018, supercedes our previous response (dated February 26, 2018) to correct an inaccuracy regarding required changes to ASTM E3053-17.

You are requesting to use an alternative test method, using cord wood, as referenced in section 60.532(c) of 40 CFR part 60, Subpart AAA, Standards of Performance for New Residential Wood Heaters (Subpart AAA) to meet the 2020 cord wood alternative compliance option. The 2020 cord wood alternative compliance option states that each affected wood heater manufactured or sold at retail for use in the United States on or after May 15, 2020, must not discharge into the atmosphere any gases that contain particulate matter in excess of 2.5 g/hr. Compliance must be determined by a cord wood test method approved by the Administrator along with the procedures in 40 CFR 60.534. You have requested approval to use the procedures and specifications found in ASTM Method E3053-17, a cord wood test method titled, "Standard Test Method for Determining Particulate Matter Emissions from Wood Heaters using Cordwood Test Fuel," in conjunction with ASTM E2515-11 and Canadian Standards Administration (CSA) Method CSA-B415.1-10, which are specified in 40 CFR 60.534.

We understand that Hearthstone is also requesting that the alternative method proposed above be approved to apply broadly to all wood heaters manufactured by Hearthstone meeting the requirements of Subpart AAA, from the approval date of this request until such time that Subpart AAA is revised or replaced to require a different cord wood certification method, providing all requirements of section 60.533 of Subpart AAA are met.

With the caveats set forth below, we approve your alternative test method request for certifying wood heaters using ASTM E3053-17 in conjunction with section 60.534 of Subpart AAA to meet the 2020 cord wood compliance option until such time that Subpart AAA is revised or replaced to require a different cord wood certification method. We also approve application of this alternative method to all wood heaters manufactured by Hearthstone meeting the requirements of Subpart AAA.

As required in Subpart AAA, section 60.354(d), you or your approved test laboratory must also measure the first hour of particulate matter emissions for each test run using a separate filter in one of the two parallel sampling trains. These results must be reported separately and also included in the total particulate matter emissions per run. Also, as required by Subpart AAA, section 60.534(e), you must have your approved laboratory measure the efficiency, heat output, and carbon monoxide emissions of the tested wood heater using CSA-B415.1-10. For measurement of particulate matter emission concentrations, ASTM 2515-11 must be used.

The following change to ASTM E3053-17 must be followed:

1. Coal bed conditions prior to loading test fuel. The coal bed shall be a level plane without valleys or ridges for all test runs in the high, low, and medium burn rate categories.

The following changes to ASTM E2515-11 must be followed:

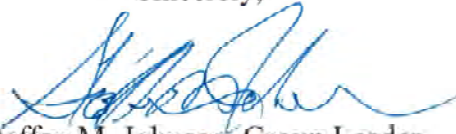
1. The filter temperature must be maintained between 80 and 90 degrees F during testing.
2. Filters must be weighed in pairs to reduce weighing error propagation; see ASTM 2515-11, Section 10.2.1 Analytical Procedure.
3. Sample filters must be Pall TX-40 or equivalent Teflon-coated glass fiber, and of 47 mm, 90 mm, 100 mm, or 110 mm in diameter.
4. Only one point is allowed outside the +/- 10 percent proportionality range per test run.

A copy of this letter must be included in each certification test report where this alternative test method is utilized.

It is reasonable that this alternative test method approval be broadly applicable to all wood heaters subject to the requirements of 40 CFR part 60, Subpart AAA. For this reason, we will post this letter as ALT-125 on our website at <http://www3.epa.gov/ttn/emc/approalt.html> for use by other interested parties. As noted earlier in this letter, this alternative method approval is valid until such time that Subpart AAA is revised or replaced to require a different cord wood certification method, and at such time, this alternative will be reconsidered and possibly withdrawn.

If you have additional questions regarding this approval, please contact Michael Toney of my staff at 919-541-5247 or toney.mike@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Steffan M. Johnson', with a stylized flourish at the end.

Steffan M. Johnson, Group Leader
Measurement Technology Group

cc: Amanda Aldridge, EPA/OAQPS/OID
Adam Baumgart-Getz, EPA/OAQPS/OID
Rafael Sanchez, EPA/OECA
Michael Toney, EPA/OAQPS/AQAD

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
2015 Standards of Performance for New Residential Wood Heaters, New Residential
Hydronic Heaters and Forced-Air Furnaces Application
40 CFR PART 60 SUBPARTS AAA AND QQQQ

Disclaimer: The statutory provisions and the EPA regulations described in this document contain legally binding requirements. This document is not a substitute for those provisions or regulations, nor is it a regulation itself. In the event of a discrepancy, please refer to 40 CFR PART 60 Subparts AAA AND QQQQ, Sections 60.533(b), 60.5475(b), and Appendix A-8. This document may be revised periodically without public notice. If you have additional questions, please contact Rafael Sanchez at 202-564-7028 or via email at sanchez.rafael@epa.gov.

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**APPLICATION FOR A CERTIFICATE OF COMPLIANCE PURSUANT TO 40 CFR
PART 60 SUBPARTS AAA AND QQQQ
2015 STANDARDS OF PERFORMANCE FOR NEW RESIDENTIAL WOOD HEATERS, NEW
RESIDENTIAL HYDRONIC HEATERS AND FORCED-AIR FURNACES**

GENERAL INFORMATION

Manufacturer's Name: Wolf Steel Ltd

Heater Type (Circle One):	Adjustable Burn Rate Wood Heater	Pellet Stove	Single Burn Rate Heater	Hydronic Heater	Forced Air Furnace	Other:
Hydronic Heater Type (Circle One):	Traditional	Full Storage	Partial Storage	Indoor/Outdoor	Other:	
Forced-Air Furnace Type (Circle One):	Small (less than 65,000 BTU/hr heat output)		Large (greater than 65,000 BTU/hr heat output)		Other:	
Fuel Tested:	Crib	Pellet	Cordwood	Wood Chips	Other:	

Test Method(s): ALT-125 ; AMSTE3053 ; ASTME2515 Catalyst: Yes

Model Name and Design Number (The model name and design number must clearly distinguish one model from another. The name and design number cannot include the EPA symbol or logo or name or derivatives such as "EPA): Napoleon NZ3000H, Timberwolf TZ3000H

Physical Address (Street number and Address, not P.O. Box): 9 NAPLOEON ROAD Mailing Address: 9 NAPLOEON ROAD

City: BARRIE	State: ON	ZIP Code: L4M 0G8
Phone: 705-721-1212	Email: PHODGES@NAPOLEON.COM	Website: WWW.NAPOLEON.COM

EPA Submission Date of 30-day Notice:

MANUFACTURER'S AUTHORIZED REPRESENTATIVE INFORMATION

Name: PAUL HODGES

Position/Title: ENGINEERING MANAGER – HEARTH R&D

Address: 9 NAPLOEON ROAD

City: BARRIE	State: ON	ZIP Code: L4M 0G8
Phone: 705-721-1212	E-mail: PHODGES@NAPOLEON.COM	Website: WWW.NAPOLEON.COM

Remarks:

**APPLICATION FOR A CERTIFICATE OF COMPLIANCE PURSUANT TO 40 CFR
PART 60 SUBPARTS AAA AND QQQQ
2015 STANDARDS OF PERFORMANCE FOR NEW RESIDENTIAL WOOD HEATERS, NEW
RESIDENTIAL HYDRONIC HEATERS AND FORCED-AIR FURNACES**

EPA-APPROVED TEST LABORATORY

Name of Test Laboratory:
Polytests Services inc.

Name of Person Authorized or Responsible for Conducting Compliance Test: Danick Power

Position/Title: VP operation

Address: 695-B Gaudette,

City: St-Jean-sur-Richelieu

State: Quebec, Canada

ZIP Code: J3B 7S7

Phone: 450 741-3636

Email: dpower@polytests.com

Website: www.polytests.com

Remarks:

EPA-Approved Third Party Certifier

Name of Certifier Entity: CSA

Name of Person Authorized or Responsible for Reviewing Test Report and/or Issuing Certification of Conformity:
Ryan Beard

Position/Title: Certification Specialist – Fuels Group

Address: 178 Rexdale Boulevard

City: Toronto

State: ON

ZIP Code: M9W 1R3

Phone: 416 747-2630

Email:
ryan.beard@csagroup.org

Website:
www.csagroup.org

Remarks:

COMPLIANCE STATEMENTS AND ACKNOWLEDGEMENTS – SECTIONS 60.533(B) AND 60.5475(B)

INSTRUCTIONS: PLEASE READ THE BELOW STATEMENTS AND AFFIRMATIONS AND ADDRESS ACCORDINGLY.

FOR EMISSIONS DATA SUMMARY TABLES SEE ATTACHMENTS

1. Engineering Drawings Statement

Engineering drawings and specifications of components that may affect emissions (including specifications for each component listed in paragraphs (k)(2), (3) and (4) of 60.533(b) and 60.5475(b). Manufacturers may use assembly or design drawings that have been prepared for other purposes, but must designate on the drawings the dimensions of each component listed in paragraph (k) of this section. Manufacturers must identify tolerances of components listed in paragraph (k)(2) of 60.533(b) and 60.5475(b) that are different from those specified in that paragraph, and show that such tolerances cannot reasonably be anticipated to cause wood heaters in the model line to exceed the applicable emission limits. The drawings must identify how the emission-critical parts, such as air tubes and catalyst, can be readily inspected and replaced.

All components include dimensions and production tolerances which meet or exceed the prescribed requirements and facilitate inspection. Replacement procedures are clearly documented in service kits.

2. Firebox Statement Requirement

A statement whether the firebox or any firebox component (including the materials listed in paragraph (k)(3) of 60.533(b) and 60.5475(b) will be composed of material different from the material used for the firebox or firebox component in the wood heater on which certification testing was performed, a description of any such differences and demonstration that any such differences may not reasonably be anticipated to adversely affect emissions or efficiency.

No – the firebox and any firebox component will not be made of different materials than what was used in the certification testing.

3. CBI

Clear identification of any claimed confidential business information (CBI). Submit such information under separate cover to the EPA CBI Office; Attn: Residential Wood Heater Compliance Program Lead, 1200 Pennsylvania Ave., NW, Room 7138, MS:2227A, Washington, DC 20460. **Note that all emissions data, including all information necessary to determine emission rates in the format of the standard, cannot be claimed as CBI.**

CBI was sent to EPA Testing Laboratory Polytest INC.

4. Valid Certification Statement

All documentation pertaining to a valid certification test, including the complete test report and, for all test runs: Raw data sheets, laboratory technician notes, calculations and test results. Documentation must include the items specified in the applicable test methods. Documentation must include discussion of each test run and its appropriateness and validity, and must include detailed discussion of all anomalies, whether all burn rate categories were achieved, any data not used in the calculations and, for any test runs not completed, the data collected during the test run and the reason(s) that the test run was not completed and why. The burn rate for the low burn rate category must be no greater than the rate that an operator can achieve in home use and no greater than is advertised by the manufacturer or retailer. The test report must include a summary table that clearly presents the individual and overall emission rates, efficiencies and heat outputs. Submit the test report and all associated required information, according to the procedures for electronic reporting specified in § 60.537(f) and 60.5475(f).

Yes all requirements in the above section is covered as per the requirements in the test report.

5. Warranties

A copy of the warranties for the model line, which must include a statement that the warranties are void if the unit is used to burn materials for which the unit is not certified by the EPA and void if not operated according to the owner's manual.

All warranty data is included in the manual and includes the necessary statements as per this section.

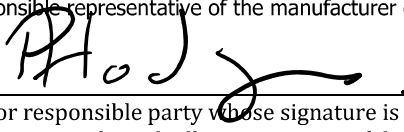
6. Q/A Statement

A statement that the manufacturer will conduct a quality assurance program for the model line that satisfies the requirements of paragraph (m) of this section.

Yes, included with the report is Wolf Steel's SOP on quality assurance inspection program.

<p>7. Laboratory Sealing of Unit</p> <p>A statement describing how the tested unit was sealed by the laboratory after the completion of certification testing and asserting that such unit will be stored by the manufacturer in the sealed state until 5 years after the certification test.</p> <p>The unit has been sealed at the testing facility by the technicians performing the test. There is metal banding encasing the unit preventing the door from being opened and modifications made. The unit is clearly permanently labeled as the EPA test unit.</p>	
<p>8. Statements that the wood heaters manufactured under this certificate will be—</p> <p>(i) Similar in all material respects that would affect emissions as defined in § 60.531 to the wood heater submitted for certification testing, and labeled as prescribed in § 60.536 and 60.5478.</p> <p>(ii) Accompanied by an owner’s manual that meets the requirements in § 60.536 and 60.5478. In addition, a copy of the owner’s manual must be submitted to the Administrator and be available to the public on the manufacturer’s web site.</p> <p>Yes, the wood heater manufactured will be of similar material to the wood heater tested. Each unit will be accompanied by its owner’s manual and will be available on the Timberwolf and Napoleon websites.</p>	
<p>9. Third Party Certification Statement</p> <p>A statement that the manufacturer has entered into contracts with an approved laboratory and an approved third-party certifier that satisfy the requirements of paragraph (f) of this section.</p> <p>Yes, Wolf Steel has entered into a contract with Polytest as an approved EPA laboratory and Omni as a third party certifier.</p>	
<p>10. Approved laboratory/third party Statement</p> <p>A statement that the approved laboratory and approved third-party certifier are allowed to submit information on behalf of the manufacturer, including any claimed to be CBI.</p> <p>Yes, both the approved laboratory and third party certifier have been given permission to submit information on behalf of Wolf Steel.</p>	
<p>11. Manufacturer’s Website Certification Test Reports Availability Statement</p> <p>A statement that the manufacturer will place a copy of the certification test report and summary on the manufacturer’s web site available to the public within 30 days after the Administrator issues a certificate of compliance.</p> <p>We will place a copy of the certification test and summary on the Timberwolf and Napoleon websites within 30 days of the certificate.</p>	
<p>12. Transferability Acknowledgement Statement</p> <p>A statement of acknowledgment that the certificate of compliance cannot be transferred to another manufacturer or model line without written approval by the Administrator.</p> <p>We acknowledge that the certificate of compliance cannot be transferred to another manufacturer or model line without notification and written approval by the administrator.</p>	
<p>13. Statement about Selling Wood Heaters without an EPA Certificate</p> <p>A statement acknowledging that it is unlawful to sell, distribute or offer to sell or distribute an affected wood heater without a valid certificate of compliance.</p> <p>We acknowledge that we cannot sell, distribute or offer to sell the wood heater without a valid certificate of compliance.</p>	
<p>Print Name and Title: PAUL HODGES, ENGINEERING MANAGER – HEARTH R&D</p>	<p>Date: 17th December 2019.</p>

Signature of responsible representative of the manufacturer certifying the accuracy of the above statements:

A handwritten signature in black ink, appearing to be "H. J. [unclear]", written over a horizontal line.

The authorized or responsible party whose signature is above is certifying that the manufacturer has complied with and will continue to comply with all requirements of the 2015 NSPS for compliance certification and that the manufacturer remains responsible for compliance regardless of any error by the test laboratory or third-party certifier.

Attachments

Instructions: Please complete the section applicable to your certification request. You may substitute your own data tables in lieu of the ones shown below provided that all the information is captured.

WOOD BURNING HEATERS

I. Test Method 28R for Certification and Auditing of Wood Heaters

A. SUMMARY RESULTS – ADJUSTABLE WOOD BURNING HEATERS

WEIGHTED AVERAGE SUMMARY

Model name / number	NZ 3000		
Usable Firebox volume	2,3		
Convection air Fan (no, Standard, option)	STANDARD		
average for each test run category	L	M	H
burn rate kg/h DB	1,12	1,31	3,29
PM Emission rate - g/h	1,18	1,02	2,49
Co emission rate - g/h	26,19	27,14	24,85
Overall Efficiency - CSA B 415,1			
% HHV Basis	67,4%	68,5%	67,7%
% LHV Basis	72,5%	73,7%	72,9%
Heat output - Btu/hr	14 215	17 158	42 203
Category weighting	0,4	0,4	0,2

WEIGHTED AVERAGE FINAL RESULTS

ASTM E 3053 Weighted averages			
PM Emission Rate - g/h	1,38		
CO Emission Rate g/h	26,3		
Overall Efficiency - CSA B415,1			
% HHV Basis	67,91%		
% LHV Basis	73,07%		
Heat output range - Btu/h	14 215	to	42 203
Co Arithmetic average g/min	0,43		