

Diesel REGENERATION Report (August 2018)

San Antonio Texas Sanitation Department
ECO Fuel Filter/Enhancer – Before & After

Test 1

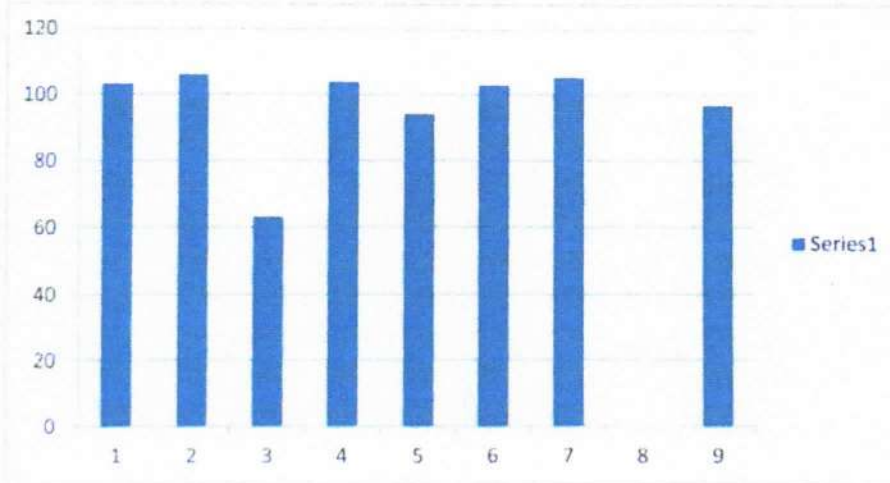
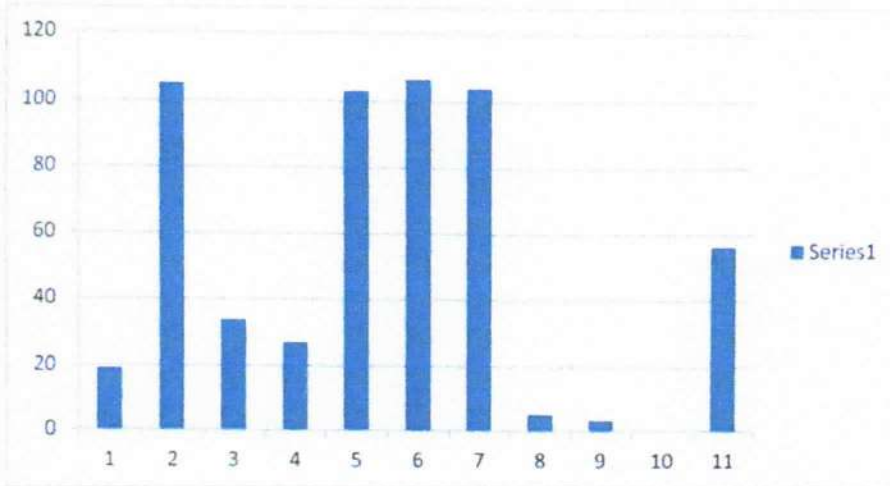
Unit 430414 ECO data sheet

| | | | | | |
|---------|---------|--------|---------|---------|--------|
| 6776.36 | 6757.29 | 19.07 | | | |
| 6757.29 | 6652.13 | 105.16 | | | |
| 6652.13 | 6618.28 | 33.85 | 7454.57 | 7351.45 | 103.12 |
| 6618.28 | 6591.26 | 27.02 | 7351.45 | 7245.59 | 105.86 |
| 6591.26 | 6488.09 | 103.17 | 7245.59 | 7182.28 | 63.31 |
| 6488.09 | 6381.5 | 106.59 | 7182.28 | 7078.54 | 103.74 |
| 6381.5 | 6277.53 | 103.97 | 7078.54 | 6984.33 | 94.21 |
| 6277.53 | 6272.43 | 5.1 | 6984.33 | 6881.41 | 102.92 |
| 6272.43 | 6269.13 | 3.3 | 6881.41 | 6776.36 | 105.05 |

56.35889

96.88714

72% decrease



UNIT 430414 PRE INSTALL 221

Engine Serial Number : 79026004
 Customer Unit Number : 0000010000
 Work Order Name : NA
 Aftertreatment History
 INSITE 8.3.0.120 / Datapack 8.3.00216
 Company Name : Cummins Inc.
 ECM Image Name : NA
 Customer Name : NONE

| ECM Time (Key On Time) | ECM Real Time | Starting Diesel Filter Soot Load | Starting Diesel Particulate Filter Soot Load | Ending Diesel Particulate Filter Soot Load | Starting Diesel Oxidation Catalyst Intake Temperature | Maximum Diesel Particulate Intake Temperature | Maximum Diesel Filter Outlet Temperature | Maximum Diesel Particulate Filter Differential Pressure |
|--|----------------|-------------------------------------|--|--|---|---|--|---|
| Units | | | | | °F | °F | °F | inHg |
| 1 (Newest) | 006776 36:47 | Not Applicable | Normal | Normal | 516.7 | 1055.6 | 1071.1 | 1.5 |
| 2 | 006757 29:12 | Not Applicable | Normal | Normal | 551.1 | 1033.9 | 1049.5 | 1.0 |
| 3 | 006652 13:29 | Not Applicable | Normal | Normal | 512.9 | 1061.6 | 1094.2 | 1.2 |
| 4 | 006618 28:05 | Not Applicable | Normal | Normal | 483.4 | 1043.4 | 1041.8 | 0.8 |
| 5 | 006591 26:52 | Not Applicable | Normal | Normal | 555.1 | 1055.6 | 1052.8 | 1.2 |
| 6 | 006488 09:32 | Not Applicable | Normal | Normal | 531.5 | 1066.1 | 1065.5 | 1.2 |
| 7 | 006381 50:13 | Not Applicable | Normal | Normal | 595.2 | 1071.7 | 1073.1 | 1.1 |
| 8 | 006277 53:41 | Not Applicable | Normal | Normal | 358.0 | 1043.4 | 1031.0 | 0.4 |
| 9 | 006272 43:50 | Not Applicable | Normal | Normal | 473.3 | 1043.0 | 1031.7 | 0.4 |
| 10 (Oldest) | 006269 13:08 | Not Applicable | Normal | Normal | 494.9 | 1044.1 | 1029.5 | 0.3 |
| Maximum Soot Load Condition | | | | | | | | |
| ECM Time (Key On Time) | ECM Real Time | Diesel Particulate Filter Soot Load | Diesel Oxidation Catalyst Intake Temperature | Diesel Particulate Filter Intake Temperature | Diesel Particulate Filter Outlet Temperature | Diesel Particulate Filter Differential Pressure | | |
| Units | | | °F | °F | °F | inHg | | |
| Maximum Diesel Particulate Filter Outlet Temperature Condition | | | | | | | | |
| ECM Time (Key On Time) | ECM Real Time | Diesel Particulate Filter Soot Load | Diesel Oxidation Catalyst Intake Temperature | Diesel Particulate Filter Intake Temperature | Diesel Particulate Filter Outlet Temperature | Diesel Particulate Filter Differential Pressure | | |
| Units | | | °F | °F | °F | inHg | | |
| 005209 59:14 | Not Applicable | Normal | 657.8 | 1029.2 | 1123.0 | 1.1 | | |

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Test 2

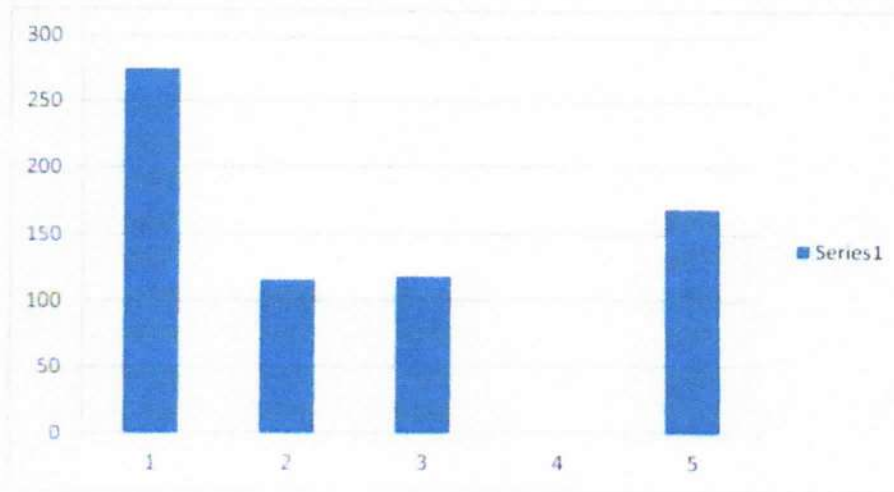
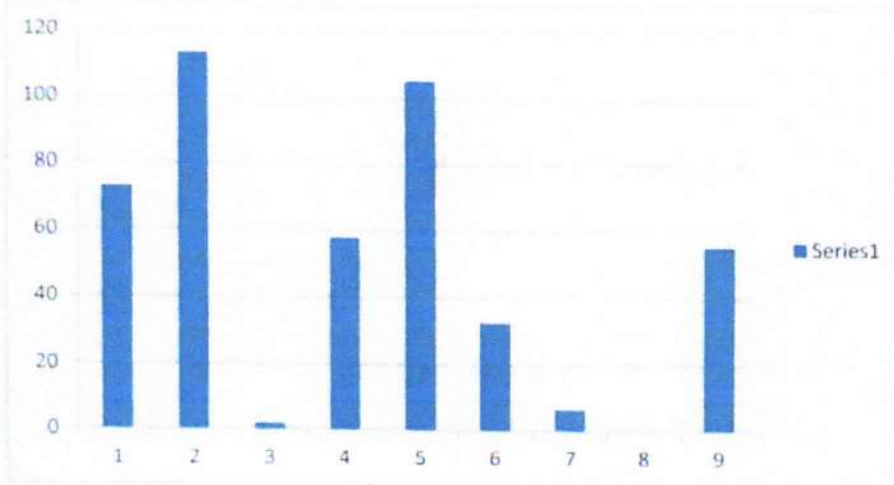
Unit 432114 ECO data sheet

| | | | | | |
|---------|---------|--------|---------|---------|--------|
| 7173.39 | 7100.21 | 73.18 | | | |
| 7100.21 | 6987.32 | 112.89 | | | |
| 6987.32 | 6985.56 | 1.76 | | | |
| 6985.3 | 6927.24 | 58.06 | | | |
| 6927.24 | 6822.11 | 105.13 | 7681.17 | 7406.43 | 274.74 |
| 6822.11 | 6789.53 | 32.58 | 7406.43 | 7291.12 | 115.31 |
| 6789.53 | 6783.29 | 6.24 | 7291.12 | 7173.39 | 117.73 |

55.69143

169.26

180% decrease



2

UNIT - 432014 ARE INSTALL

ENGINE 8.1.6.120 / Datapack 8.1.3.00216
Company Name : Cummins Inc.
ECM Model Name : M2
Customer Name : J0000

Aftertreatment History

Engine Serial Number : 75026156
Customer Unit Number : 0000000000
Work Order Name : NA

| Units | ECM Time (Key On Time) | ECM Real Time | Starting Diesel Filter Soot Load | Ending Diesel Particulate Soot Load | Starting Diesel Oxidation Catalyst Temperature | Maximum Diesel Particulate Filter Intake Temperature | Maximum Diesel Particulate Filter Outlet Temperature | Maximum Diesel Particulate Filter Differential Pressure |
|-------------|------------------------|----------------|----------------------------------|-------------------------------------|--|--|--|---|
| 1 (Newest) | 007173 39 31 | Not Applicable | Normal | Normal | 354.0 | 543.0 | 445.4 | 0.2 |
| 2 | 007100 21 52 | Not Applicable | Normal | Normal | 568.0 | 1062.8 | 1086.6 | 1.8 |
| 3 | 006987 32 52 | Not Applicable | Normal | Normal | 444.9 | 1043.0 | 1039.6 | 0.5 |
| 4 | 006985 56 06 | Not Applicable | Normal | Normal | 380.8 | 438.4 | 476.8 | 0.3 |
| 5 | 006985 45 03 | Not Applicable | Normal | Normal | 480.9 | 718.5 | 685.2 | 0.5 |
| 6 | 006985 30 06 | Not Applicable | Normal | Normal | 397.4 | 550.7 | 411.2 | 0.3 |
| 7 | 006927 24 37 | Not Applicable | Normal | Normal | 550.4 | 1081.9 | 1095.4 | 1.2 |
| 8 | 006822 11 09 | Not Applicable | Normal | Normal | 415.4 | 1042.7 | 1038.2 | 0.5 |
| 9 | 006789 53 13 | Not Applicable | Normal | Normal | 397.2 | 891.7 | 718.3 | 0.5 |
| 10 (Oldest) | 006783 29 24 | Not Applicable | Normal | Normal | 579.4 | 1060.0 | 1065.2 | 0.9 |

| Units | ECM Time (Key On Time) | Diesel Particulate Filter Soot Load | Diesel Oxidation Catalyst Intake Temperature | Diesel Particulate Filter Intake Temperature | Diesel Particulate Filter Outlet Temperature | Diesel Particulate Filter Differential Pressure |
|--------------|------------------------|-------------------------------------|--|--|--|---|
| 006448 55 51 | Not Applicable | Normal | 572.2 | 534.4 | 1583.0 | 0.4 |



Test unit # 432014

Engine Serial Number : 25026004
Chassis Serial Number : 3000000000
Work Order Number : NA

Aftertreatment History

INSITE 5.1.0.120 / Datapack 8.4.0.0216
Company Name : Cummins Inc.
ECM Teague Name : NA
Cylinder Name : M32E

| Units | ECM Time (Key On Time) | ECM Real Time | Starting Diesel Particulate Filter Soot Load | Ending Diesel Particulate Filter Soot Load | Starting Diesel Oxidation Catalyst Intake Temperature | Maximum Diesel Particulate Filter Intake Temperature | Maximum Diesel Particulate Filter Outlet Temperature | Maximum Diesel Particulate Filter Differential Pressure |
|-------------|------------------------|----------------|--|--|---|--|--|---|
| 1 (Newest) | 006776 36 47 | Not Applicable | Normal | Normal | 516.7 | 1055.6 | 1071.1 | 1.5 |
| 2 | 006757 29 12 | Not Applicable | Normal | Normal | 551.1 | 1033.9 | 1049.5 | 1.0 |
| 3 | 006652 13 29 | Not Applicable | Normal | Normal | 512.9 | 1061.6 | 1094.2 | 1.2 |
| 4 | 006618 28 05 | Not Applicable | Normal | Normal | 483.4 | 1043.4 | 1041.8 | 0.8 |
| 5 | 006591 26 52 | Not Applicable | Normal | Normal | 555.1 | 1055.6 | 1052.8 | 1.2 |
| 6 | 006498 09 32 | Not Applicable | Normal | Normal | 531.5 | 1066.1 | 1065.5 | 1.2 |
| 7 | 006381 50 13 | Not Applicable | Normal | Normal | 595.2 | 1071.7 | 1073.1 | 1.1 |
| 8 | 006277 53 41 | Not Applicable | Normal | Normal | 358.0 | 1043.4 | 1031.0 | 0.4 |
| 9 | 006272 43 50 | Not Applicable | Normal | Normal | 473.3 | 1043.0 | 1031.7 | 0.4 |
| 10 (Oldest) | 006269 13 08 | Not Applicable | Normal | Normal | 494.9 | 1044.1 | 1029.5 | 0.3 |

Maximum Soot Load Condition

| ECM Time (Key On Time) | ECM Real Time | Diesel Particulate Filter Soot Load | Diesel Oxidation Catalyst Intake Temperature | Diesel Particulate Filter Intake Temperature | Diesel Particulate Filter Outlet Temperature | Diesel Particulate Filter Differential Pressure |
|------------------------|----------------|-------------------------------------|--|--|--|---|
| Units | | F | F | F | F | inHg |
| 005209 59 14 | Not Applicable | Normal | 657.8 | 1029.2 | 1123.0 | 1.1 |

Maximum Diesel Particulate Filter Outlet Temperature Condition

| ECM Time (Key On Time) | ECM Real Time | Diesel Particulate Filter Soot Load | Diesel Oxidation Catalyst Intake Temperature | Diesel Particulate Filter Intake Temperature | Diesel Particulate Filter Outlet Temperature | Diesel Particulate Filter Differential Pressure |
|------------------------|----------------|-------------------------------------|--|--|--|---|
| Units | | F | F | F | F | inHg |
| 005209 59 14 | Not Applicable | Normal | 657.8 | 1029.2 | 1123.0 | 1.1 |



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Test 3

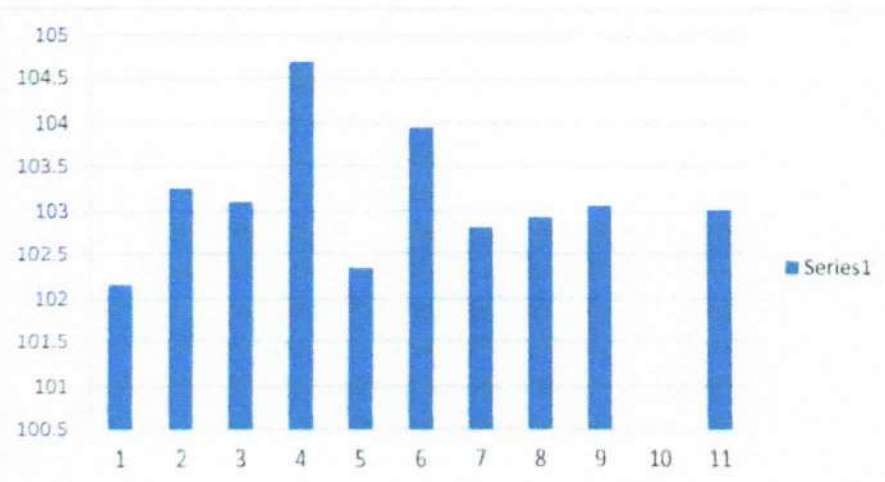
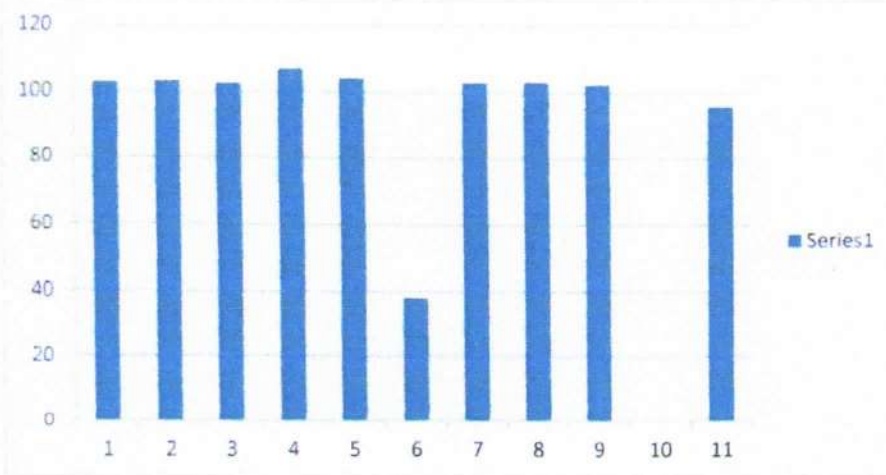
Unit 430014 ECO data sheet

| | | | | | |
|---------|---------|--------|---------|---------|--------|
| 7570.27 | 7467.55 | 102.72 | 8498.56 | 8396.4 | 102.16 |
| 7467.55 | 7364.5 | 103.05 | 8396.4 | 8293.15 | 103.25 |
| 7364.5 | 7262.17 | 102.33 | 8293.15 | 8190.05 | 103.1 |
| 7262.17 | 7155.51 | 106.66 | 8190.05 | 8085.36 | 104.69 |
| 7155.51 | 7051.45 | 104.06 | 8085.36 | 7983.02 | 102.34 |
| 7051.45 | 7013.26 | 38.19 | 7983.02 | 7879.07 | 103.95 |
| 7013.26 | 6910.39 | 102.87 | 7879.07 | 7776.26 | 102.81 |
| 6910.39 | 6807.36 | 103.03 | 7776.26 | 7673.33 | 102.93 |
| 6807.36 | 6705.03 | 102.33 | 7673.33 | 7570.27 | 103.06 |

7% decrease

96.13778

103.018



86% average reduction on 3 Trucks