DOCUMENT 3



13-MODE STEADY-STATE EXHAUSE EMISSION AND FUEL CONSUMPTION VERIFICATION TESTING OF THE RENTAR IN-LINE FUEL CATALYST

ETS, a Division of Olson Engineering

EPA and CARB recognized Engine Emissions Laboratory Over the Road Truck Engine Tested Off Chassis in Laboratory Cell Cummins 855-14L

Results:

6.0% Fuel Consumption Improvement
19.2% NOx Improvement
20.0% Particulate Matter (PM) Improvement
9.0% Carbon Monoxide Improvement
6.0% CO2 Improvement by Carbon Balance Assumption

DOCUMENT 4



EMISSIONS AND FUEL CONSUMPTION TESTING OF THE RENTAR IN-LINE FUEL CATALYST AFTER 100 HOURS OF CHASSIS DYNOMOMETER OPERATION

Olson-ECOlogic Engine Testing Laboratories, LLC

EPA and CARB Recognized Engine Emission Laboratory Conducted on Cummins Model N-14 Diesel Engine Powered Peterbuilt Tractor **Results:**

UDDS-HD Test Results ("city driving")

7.3% Fuel Consumption Improvement 6.1% Particulate Matter (PM) Improvement 6.9% CO2 Improvement 14.4% NOx Improvement 0.4% Carbon Monoxide Improvement **NEW YOR CITY BUS CYCLE Test Results** 10.3% Fuel Consumption Improvement 3.4% Particulate Matter (PM) Improvement 10.0% CO2 Improvement 20.6% NOx Improvement 4.6% Carbon Monoxide Improvement STEADY STATE OPERATION - 50 MPH ("highway driving") 5.7% Fuel Consumption Improvement 9.4% Particulate Matter (PM) Improvement 5.7% CO2 Improvement 15.9% NOx Improvement 0.6% Carbon Monoxide Improvement



Virginia Tech Virginia Tech Institute – Virginia

EFFECT OF RENTAR FUEL CATALYST ON EMISSIONS AND EFFIECIENCY COMMERCIAL BOILER FIRING NUMBER 2 HEATING OIL Virginia Polytechnic Institute / Alexandria Research Institute – Virginia Tech University Commercial Boiler Firing Number 2 Heating Oil

Furnace Located At the Everett Meredith Middle School Delaware Study Paid for by the State of Delaware **Results:**

7.6% Fuel Consumption Improvement
13.0% NOx Improvement
4.0% Carbon Monoxide Improvement
13% Total Hydrocarbons
7.6% CO2 Improvement by Carbon Balance Assumption