



## Port of Los Angeles - Marine Vessel Condor

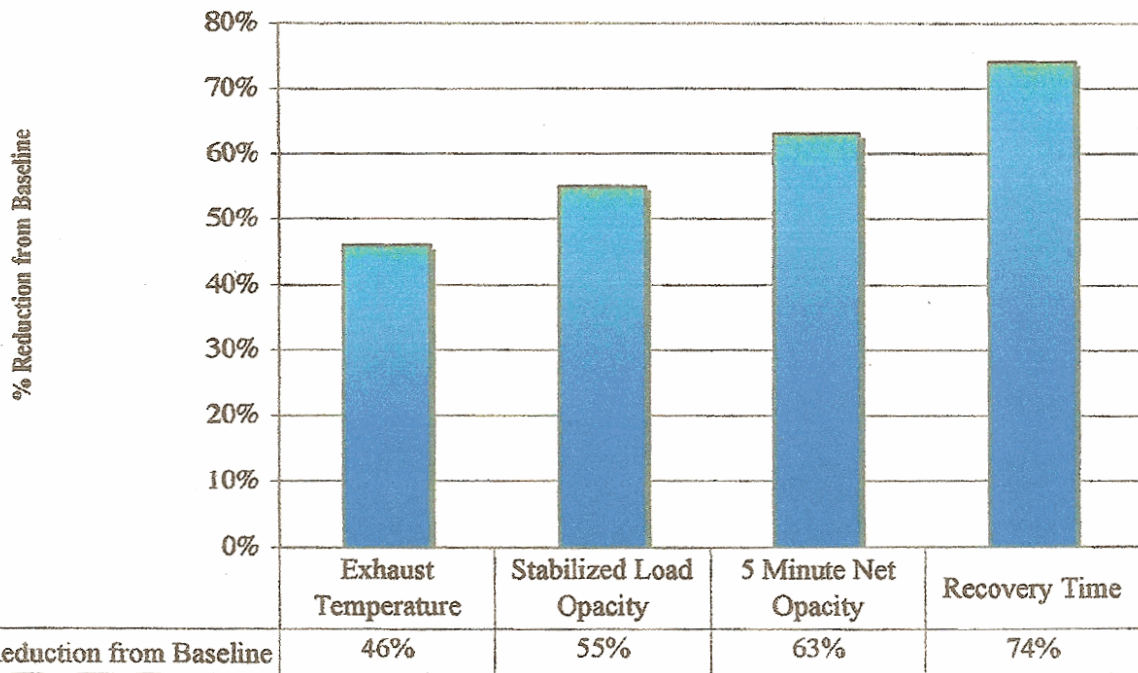
### *Test Results After Using D-1280X™ Fuel Additive*

California Environmental Engineering (C.E.E.), an EPA recognized lab, conducted smoke opacity tests requested by the Port of Los Angeles, on the Motor Vessel Condor. All tests were conducted on number one auxiliary diesel engine, using #2 diesel fuel with Omstar D-1280X™ fuel additive. The Wager 650 Opacity Meter was used on all tests. All tests were conducted by Larry Swiencki, Manager of C.E.E., and Greg Long, an independent emission consultant. The tests were observed by Dietrich Allen, Environmental Scientist from the Port of Los Angeles. Copies of the actual test procedures, data and results are available upon request.

The diesel fuel was supplied by General Petroleum with low sulfur content, cetane 40 and a flash point of 150°. The Omstar D-1280X™ product was added to each barrel of fuel in the appropriate amount under the supervision of C.E.E. Manager, Larry Swiencki. The fuel was then pumped into the ship's fuel tanks, after the baseline tests were conducted.

The results:

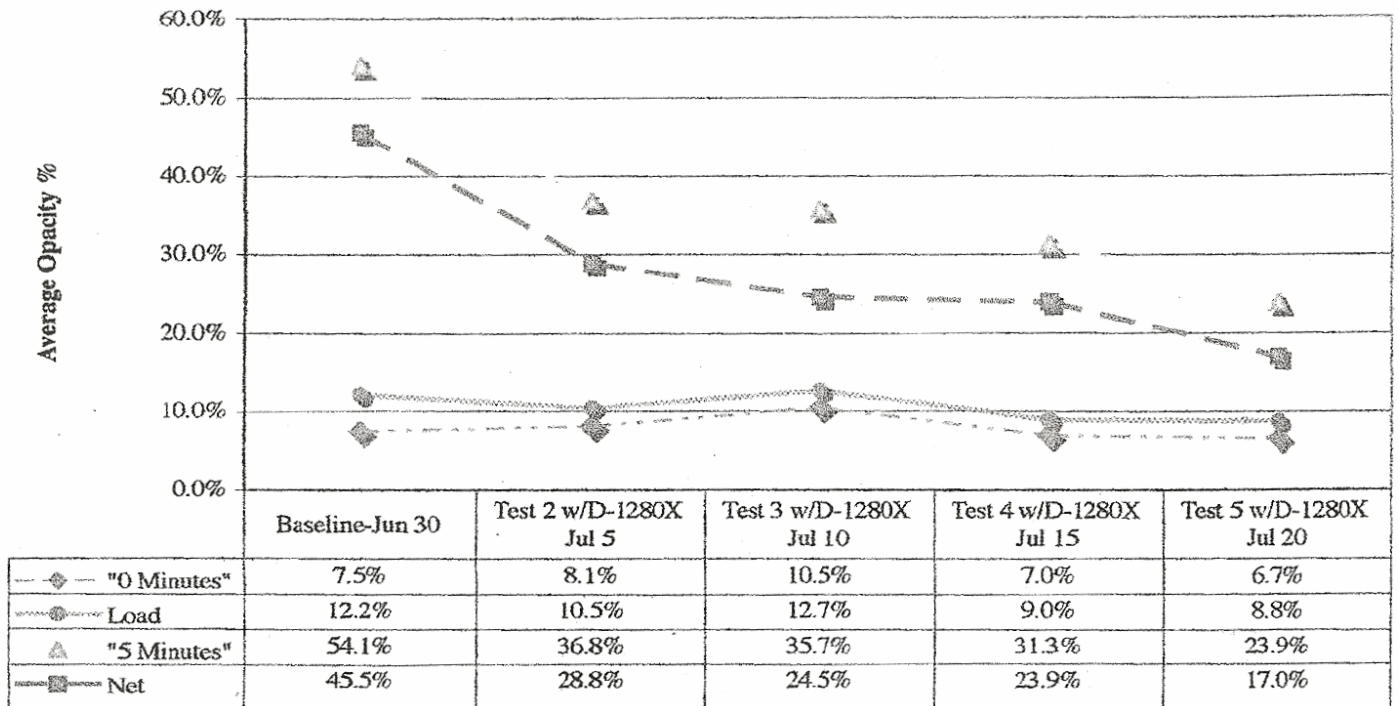
#### *Improvements from Baseline After Using D-1280X Fuel Additive*



## TEST RESULTS

### Port of Los Angeles - Marine Vessel Condor Test Results After Using D-1280X™ Fuel Additive

Opacity Test Summary Graph



The following is the procedure used for all tests with the approval of the Port of Los Angeles:

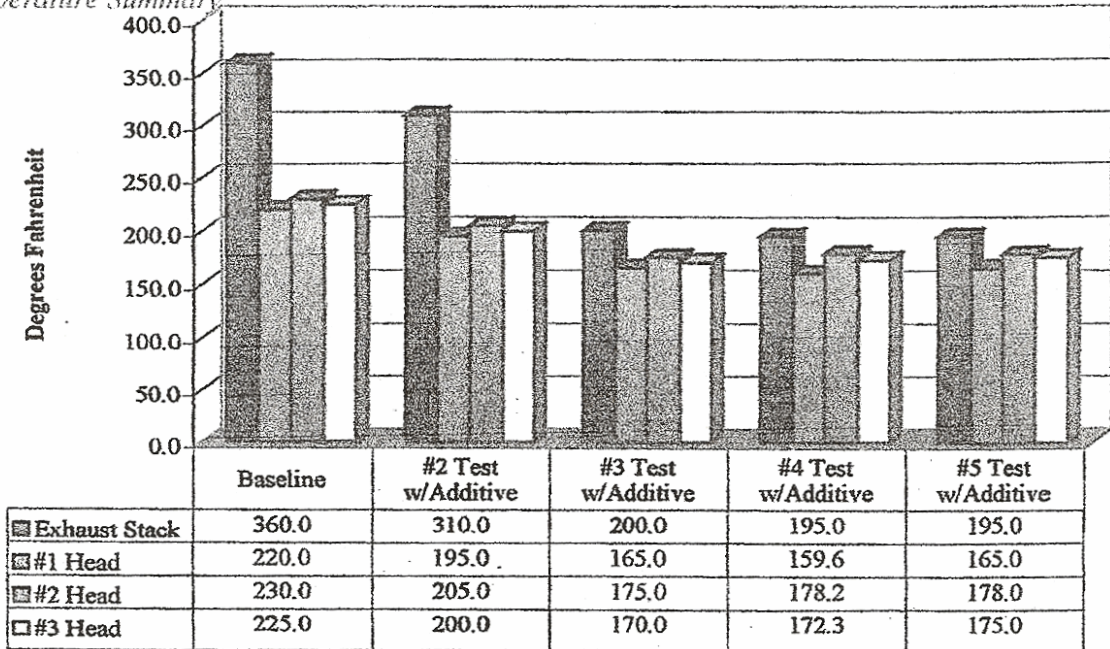
1. The engine was brought up to normal operating speed (1200 RPM) with the following equipment on line:
  - Engine room blowers -- exhaust
  - Engine room blowers -- intake
  - Interior light/appliance circuit
  - Shipboard domestic lights
  - Hot water heater
2. At the command to load, the following equipment was energized:
  - Welder & Air Compressors
3. The opacity reading was taken at 0 minutes upon load introduction, and a stop watch started. (Appears on Graph, above, as "0 Minutes")
4. The next opacity reading was taken when the engine returned to normal operating RPM (1200 RPM). (Appears on Graph, above, as Load)  
A recovery time was also noted at this time.
5. After five (5) minutes of operation, another opacity reading was taken. (Appears on Graph, above, as "5 Minutes")
6. The load added in number two (2) above was then taken off line. The opacity lenses cleaned, and ready for the next test. The "0" time opacity was then subtracted from the "5 Minutes" to give us the net opacity. (Appears on Graph, above, as Net)
7. Items one (1) thru six (6) were then repeated fifteen times.

# Test Results

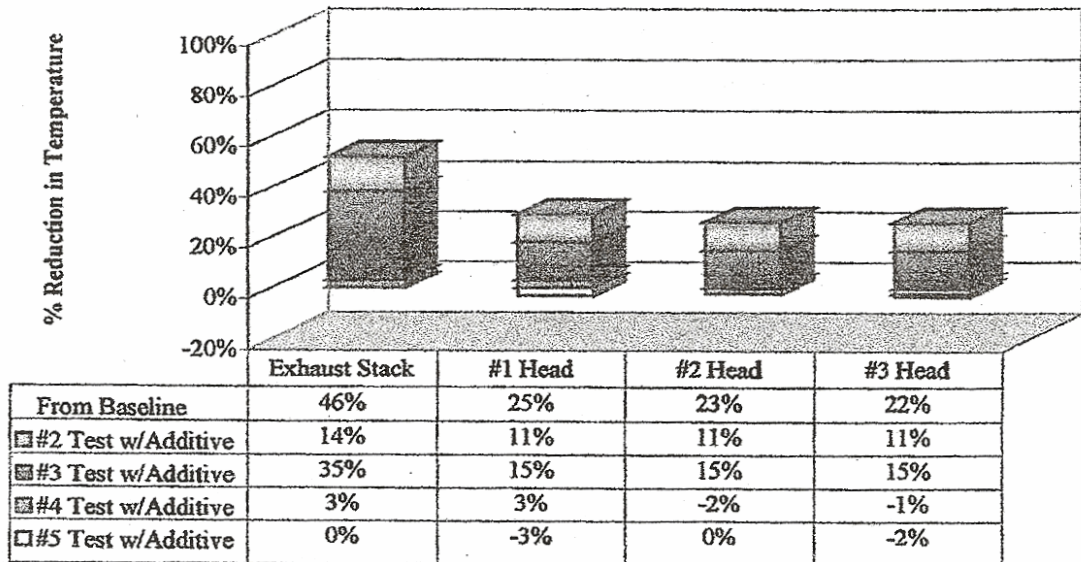
## Port of Los Angeles - Marine Vessel Condor Test Results After Using D-1280X™ Fuel Additive

The enginemen recorded the exhaust stack temperature, cylinder head temperatures, water temperature, the kilowatts, voltage and cycles for each test.

Engine Temperature Summary



Engine Temperature - % Reduction



# TEST RESULTS

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The results:

### *Improvements from Baseline After Using D-1280X Fuel Additive*

