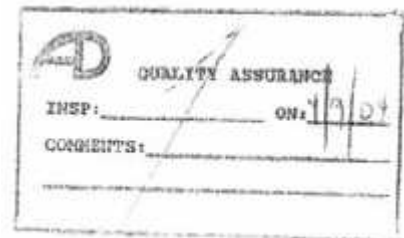




Final Report on Testing Performed
For
NCI
On the
Condensator
On a
MY1996 Dodge RAM 2500 Truck
With the
12-valve, 5.9L Cummins Turbo Diesel Engine

April 9, 2004





April 9, 2004

Mr. James Brock
NCI
11276 Vista Avenue
Grass Valley, CA 95945

Re: Final Report on Testing Performed on a 1996 Dodge RAM 2500 Pickup with the 12-valve 5.9L Cummins Turbo Diesel for NCI

Dear Mr. Brock,

Automotive Testing and Development Services, Inc. (ATDS) is pleased to provide this first phase report on the testing conducted for NCI on the Condensator installed on a 1996 Dodge RAM 2500 pickup with the 12-valve, 5.9L Cummins Turbo Diesel engine. This testing was conducted in strict accordance with 40 CFR 86 and California Title 13 and in compliance with the requirements of California Air Resources Board. ATDS' QA representative has subjected all tests to a rigorous quality audit. Based upon the results of this testing, ATDS believes the NCI Condensator demonstrates a significant reduction in Diesel engine emissions and meets the requirements for exemption from the provisions of the California Vehicle Code, section 27156 (VC271 56) and therefore may be granted an Executive Order by the Air Resources Board.

This report has been formatted as follows:

- Project Overview
- Vehicle Information
- Test Device Information
- Test Sequence and Chronology
- Test Results
- Data Review and Conclusions
- Test Data (in Appendix)

The test vehicle(s) have been returned to the owner. Per our discussions, GARB has up to 30 days to request the vehicle be provided to them for the conduct of a confirmatory emissions test. The vehicle will be maintained in its' current condition until ATDS is notified that such a test will not be required.



Test Report for NCI on the Emissions Testing of a 1996 Dodge RAM 2500 with the 12-valve, 5.9L Cummins Turbo Diesel Engine

4/9/04

Project Overview

This testing was conducted on behalf of NCI to determine the effectiveness of the Condensator in reducing Diesel engine exhaust emissions and for a possible Executive Order exempting the Condensator from the prohibitions of the California Vehicle Code, Section 27156. The project consisted of the following: Baseline and after modification Cold Start 505 emissions tests; during the baseline test the emissions from the diesel engine crankcase vent tube were added to the exhaust stream prior to dilution and sampling. Work commenced on 3/29/2004 and was completed on 4/2/2004. There were no unusual conditions noted on the 1996 Dodge RAM 2500 pickup during testing.

Testing was conducted in ATDS' Test Cell #2 with an AVL 48" medium-duty Electric Dynamometer with a Horiba sample collection and analysis system. Diesel particulate filters were captured using an ATDS built sampling system and weighed on a Satorius Model 2405 microgram balance scale.

Vehicle Information

The following vehicle(s) were used as test vehicles for this project:

ATDS Vehicle ID: 101 7-1
VIN 1 B7JC26223R589723
Vehicle Make Dodge
Vehicle Model RAM 2500 Pickup
Model Year 1996
Odometer 177,075
Engine Family 12-valve, 5.9L Cummins Turbo Diesel

Test Device Information

The following device(s) were installed on the above vehicle(s):

Device Condensator
Device Maker NCI
Device Model na
Device Serial No. na



Test Report for NCI on the Emissions Testing of a 1996 Dodge RAM 2500 with the 12-valve, 5.9L Cummins Turbo Diesel Engine

4/9/04

Test Sequence and Chronology

The following test sequence and chronology were used in this program.

- **3/31/2004** Vehicle received from owner. Vehicle checked for readiness to test and safety. Vehicle Test Weight and Track Coefficients determined from EPA test data base for MY1996. Conducted Dyno Horsepower Matching using AVL Realtime Software.
- **4/1/2004** Conducted Baseline Cold 505 emissions test with PM sampling. TDS Mechanics installed the Condensator per NCI instructions.
- **4/2/2004** Conducted Cold Start 505 emissions test with PM sampling with vehicle in the modified condition.
- **4/2/2004** Released vehicle to owner.

Test Results

Test Parameters:

ATDS Test ID:	Test Type	Test Date:	EIW	A:	B:	C:
ONT00618	Baseline 505	4/1/2004	8,000	109.32	-0.4369	0.06422
ONT00627	Modified 505	4/2/2004	8,000	109.32	-0.4369	0.06422

Test Comments: Vehicle drove well on all cycles.



Test Report for NCI on the Emissions Testing of a 1996 Dodge RAM 2500 with the 12-valve, 5.9L Cummins Turbo Diesel Engine

4/9/04

The following test results were recorded during this program:

THC (g/mi)	NMHC (g/mi)	CO (g/mi)	NOx (g/mi)	PM (g/mi)
Baseline Cold Start 505				
0.154	Na	0.689	3.889	0.101
As Modified Cold Start 505				
0.156	Na	0.524	3.937	0.081
Change from Baseline				
1%	Na	-24%	1%	-20%
Pass or Fail				
Pass	Na	Pass	Pass	Pass

ALL tests were conducted in strict accordance with the provisions of 40 CFR 86 and/or California Title 13 and have been reviewed by ATDS' in-house Quality Auditor. Detailed test results are in the Appendix attached to this report.



Test Report for NCI on the Emissions Testing of a 1996 Dodge RAM 2500 with the 12-valve, 5.9L Cummins Turbo Diesel Engine

4/9/04

Data Review and Conclusions

Based upon ATDS' review of the test data above, the NCI Condensator as installed on a MY1996 Dodge RAM 2500 pickup with the 12-valve, 5.9L Cummins Turbo Diesel engine appears to significantly reduce exhaust emissions of both Carbon Monoxide and Particulate Matter and meet the requirements for an Executive Order.

If there is any additional information that you require, please do not hesitate to call me at the numbers below. It has been a pleasure working with NCI on this project and we look forward to future efforts.

Sincerely,

Linwood E. Farmer Jr.
Division Vice-President
Attachment: Test Results

