**Meets ASE Task:** (A8-A-5) P-1 Identify and interpret engine performance concerns; determine needed action.

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_

Time on Task:\_\_\_\_\_\_\_\_\_\_\_\_\_

Make/Model/Year:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

VIN:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evaluation (Enter number from 4, 3, 2, 1) :\_\_\_\_\_\_\_\_\_

**Exhaust Gas Analysis**

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1. Check the instruction information for the exhaust gas analyzer being used to

determine the proper test procedures to follow.

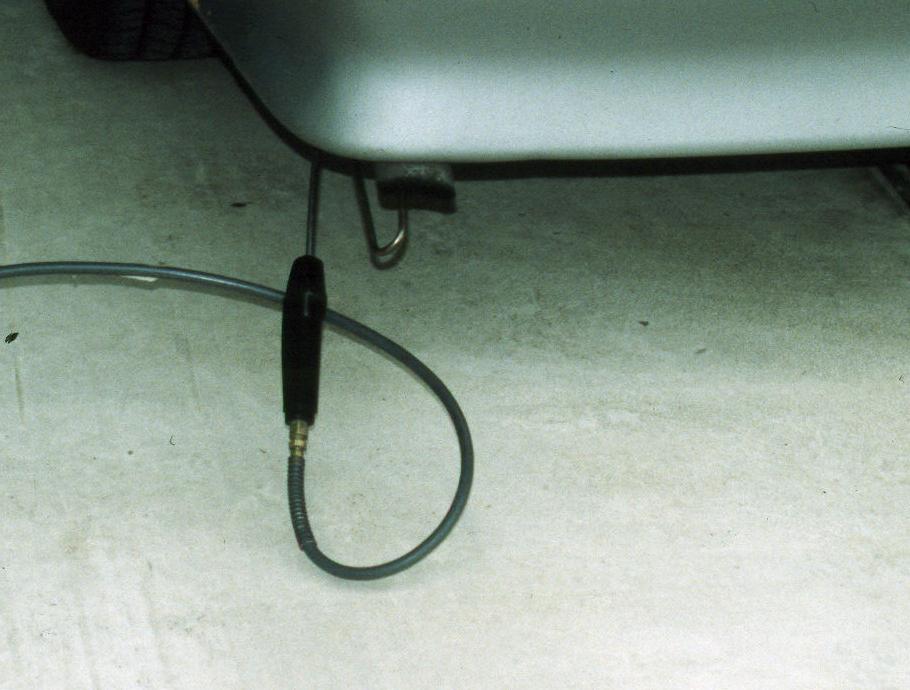
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2. Check the vehicle for exhaust leaks and other faults that could affect the exhaust gas

readings.

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3. Prepare the vehicle for testing, which usually includes operating

the engine until normal operating temperature has been achieved.

List other items listed by the test equipment manufacturer that

should be performed.

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\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Obtain the exhaust gas readings and compare them to specifications.

|  |  |  |  |
| --- | --- | --- | --- |
| Gas | Idle | 2500 RPM | General Specifications |
| HC |  |  | Max 50 PPM |
| CO |  |  | Max 0.5% |
| CO2 |  |  | 12% to 15% or higher |
| O2 |  |  | 0% to 2% |
| NOX |  |  | Less than 100 PPM @ idle  Less than 1000 PPM @ wide open throttle |

\_\_\_\_\_ 5. Based on the exhaust gas readings, what is the needed action?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_