

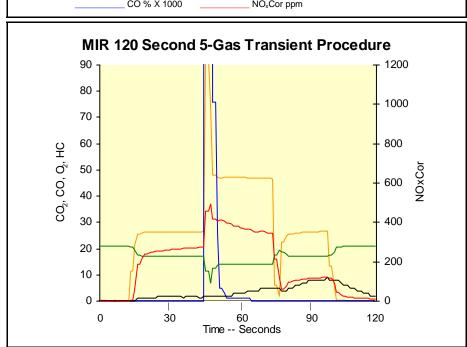
Evaluation Type: Baseline

Evaluation Date: 9/14/2009

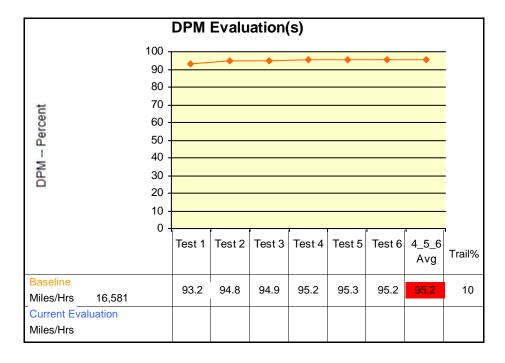


| Year: | 2000 | Engine mfr: | Caterpillar |
|----------------|------------|-----------------|-------------|
| Vehicle type: | Haul truck | Engine model: | 3408 |
| Vehicle model: | 769D | Injection type: | E |
| Vehicle SN: | | Fuel type: | #2 Diesel |

| MIR 120 Second 5-Gas Transient Procedure | | | | | | |
|--|------------------------|-------------------------|------------------|--|--|--|
| _ | CO % X 1000 | NO _x Cor ppm | | | | |
| _ | CO ₂ % X 10 | HC ppm | O ₂ % | | | |



| Annual fuel consumption (gal): | | 16,000 |
|---------------------------------|--------------------|--------|
| Average DPM Density (%): | Baseline | 95.2 |
| Calculated fuel loss (gal): | 9/14/2009 | 3,046 |
| Calculated DPM produced (lbs.): | 9/14/2009 | 1,234 |
| Average DPM Density (%): | Current Evaluation | 95.2 |
| Calculated fuel loss (gal): | 9/14/2009 | 3,046 |
| Calculated DPM produced (lbs.): | 9/14/2009 | 1,234 |



Recommendations:

Evaluation results indicate the engine is injecting 'way' more fuel than it can burn during engine acceleration. The five gas results indicate lower than normal Nox and increased Hydrocarbon recorded during the last engine idle at 80 through 100 seconds in the five gas procedure. Recommend replacing the turbo boost sensor followed by conducting an engine diagnostic check. Recommend Installing C-Max to reduce DPM and fuel loss.