



# OIL REPORT

LAB NUMBER:  
 REPORT DATE: 12/2/2011  
 CODE:

UNIT ID: 08 CUMMINS  
 CLIENT ID:  
 PAYMENT:

<b>UNIT</b>	MAKE/MODEL: Cummins 6.7L	OIL TYPE & GRADE: Valvoline Premium Blue 15W/40
	FUEL TYPE: Diesel	OIL USE INTERVAL: 3,428 Miles
	ADDITIONAL INFO: 2008	

<b>CLIENT</b>	PHONE:
	FAX:
	ALT PHONE:
	EMAIL:

**COMMENTS** JOHN: A shorter oil change never hurts, especially after harsher conditions like what you noted. Wear metals improved nicely, as we'd expect on a shorter oil run. Aluminum is still high compared to universal averages, but it's much better than we saw back in September. Potassium is still hanging around as well, and now that we've seen potassium and aluminum rise and fall together for three samples in a row, we're pretty sure they're both coming from the EGR system, so we can take antifreeze off the table. We doubt these are problem levels. Looking good.

<b>ELEMENTS IN PARTS PER MILLION</b>	MI/HR on Oil	3,428	<b>UNIT / LOCATION AVERAGES</b>	7,484	7,831	7,713	7,583	7,076	<b>UNIVERSAL AVERAGES</b>
	MI/HR on Unit	48,596		45,168	37,684	29,853	22,140	14,557	
	Sample Date	11/26/11		09/06/11	05/09/11	11/11/10	05/23/10	01/01/10	
	Make Up Oil Added	0 qts		0 qts	0 qts	0 qts	0 qts	0 qts	
ALUMINUM	6	3	17	7	2	2	5	3	
CHROMIUM	1	2	2	2	1	2	2	1	
IRON	15	48	35	44	26	34	36	24	
COPPER	3	13	5	4	5	3	5	8	
LEAD	2	2	5	2	2	3	1	1	
TIN	0	3	0	0	0	4	4	1	
MOLYBDENUM	47	37	50	48	34	39	36	35	
NICKEL	0	0	0	0	0	1	0	0	
MANGANESE	0	2	1	1	0	1	1	0	
SILVER	1	1	1	1	1	0	1	0	
TITANIUM	0	0	0	0	0	0	0	0	
POTASSIUM	15	9	56	24	4	1	21	6	
BORON	3	3	4	5	2	3	3	48	
SILICON	3	12	6	7	4	5	7	5	
SODIUM	6	8	6	4	4	9	5	6	
CALCIUM	1289	949	1382	1125	883	849	904	1546	
MAGNESIUM	994	803	1054	821	649	993	680	551	
PHOSPHORUS	1235	951	1251	1071	838	1195	852	986	
ZINC	1389	1150	1451	1262	884	1324	1059	1172	
BARIUM	0	4	0	0	0	0	0	0	

Values Should Be\*

<b>PROPERTIES</b>	SUS Viscosity @ 210°F	69.5	69-78	72.0	66.2	55.5	59.2	55.2
	cSt Viscosity @ 100°C	12.83	12.7-15.3	13.48	11.94	8.92	10.00	8.82
Flashpoint in °F	430	>390	450	415	375	415	385	
Fuel %	<0.5	<2.0	<0.5	<0.5	1.5	<0.5	0.5	
Antifreeze %	0.0	0.0	?	?	0.0	0.0	?	
Water %	0.0	<0.1	0.0	0.0	0.0	0.0	0.0	
Insolubles %	0.2	<0.8	0.2	0.3	0.3	0.3	0.3	
TBN								
TAN								
ISO Code								

\* THIS COLUMN APPLIES ONLY TO THE CURRENT SAMPLE

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