

Overall report severity based on comments

Account Information		Component Information		Sample Information	
Account Number		Component ID:	CLIFFORDE	Tracking Number:	18195202811
Company Name		Secondary ID:	RAM 2500 CUMMINS	Lab Number:	J-472938
Contact:		Component Type:	DIESEL ENGINE	Lab Location:	Indianapolis
Address:		Manufacturer:	CUMMINS	Data Analyst:	CXW
		Model:	ISB6.7	Sample:	06-Apr-2019
Phone Number:		Application:	TRANSPORTATION	Submitted:	06-Apr-2019
		Sump Capacity:	13 qt	Received:	12-Apr-2019
				Completed:	15-Apr-2019
Filter Information		Miscellaneous Information		Product Information	
Filter Type:	FULL-FLOW & BYPASS			Product Manufacturer:	AMSOIL
Micron Rating:	U			Product Name:	4DD SERIES 3000 SYN
				ISO DIFSFI	
				Viscosity Grade:	SAC 5W30
Comments	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. Flagged data may be 'wear-in' or contamination from overhauled or new unit. POTASSIUM in new engines may be from protective coatings from bearings or heads, and/or SOLDER FLUX from oil cooler. Suspect most of the Copper may be coming from the lubricant cooler and/or EGR cooler (as applicable). Cylinder ring or metals (pistons, rings, liners etc.) are at a MODERATE LEVEL. Magnesium is slightly high for this lubricant. Oil is suitable for continued use. Re-sample in 7,000 miles or 125 hours. Your note was taken into consideration.				

	Wear Metals (ppm)										Contaminant Metals (ppm)			Multi-Source Metals (ppm)					Additive Metals (ppm)					
Sample #	Iron	Chromium	Nickel	Aluminum	Copper	Lead	Tin	Cadmium	Silver	Vanadium	Silicon	Sodium	Potassium	Titanium	Molybdenum	Antimony	Manganese	Lithium	Boron	Magnesium	Calcium	Barium	Phosphorus	Zinc
2	59	1	3	11	7	3	3	3	3	3	12	4	40	0	9	1	0	0	31	45	3480	3	1075	1345
3	103	1	3	24	298	3	3	3	3	3	15	7	81	0	8	0	1	0	35	45	3440	3	1045	1324
4	97	2	3	27	471	3	3	3	0	0	12	7	76	0	6	0	1	0	18	42	3521	3	1074	1321
5	102	2	3	40	321	3	3	0	1	0	15	6	84	0	4	0	1	0	13	29	3349	3	1016	1216
6	161	2	3	48	333	3	1	0	0	0	19	11	111	0	4	0	1	0	12	34	3962	3	1165	1361

Sample #	Sample Information							Contaminants			Fluid Properties					
	Date Sampled	Date Received	Lube Time	Lit Time	Lube Change	Lube Added	Filter Change	Fuel Dilution	Soot	Water	Viscosity 40°C	Viscosity 100 °C	Acid Number	Base No. DIN 5153	Oxidation	Nitration
			mi	mi		qt		% Vol	% Vol	% Vol	cSt	cSt	mg KOH/g	mg KOH/g	hrs/min	abs/ml. min
2	21-Mar-2015	27-Mar-2015	14505	28321	No	2	Yes	<1 - Estimate	<1	<1 - FT 1	11.2	11.2	7.42	5.1	3	
3	29-Feb-2016	07-Mar-2016	28205	37521	Fill	0	No	<1 - Estimate	<1	<1 - FT 1	10.8	10.8	6.44	4.3	3	
4	25-Feb-2017	06-Mar-2017	42600	51404	No	1	Yes	<1 - Estimate	<1	<1 - FT 1	11.3	11.3	6.95	4.9	10	
5	16-Mar-2018	16-Mar-2018	53600	62325	No	2	Yes	<1 - Estimate	<1	<1 - FT 1	11.2	11.2	7.03	4.5	10	
6	05-Apr-2019	12-Apr-2019	61501	72301	No	3	Yes	<1 - Estimate	<1	<1 - FT 1	11.3	11.3	6.15	4.6	10	

Particle Count (particles/mL)										Additional Testing	
Sample #	ISO Code	Base Oil	> 4 µm	> 6 µm	> 10 µm	> 14 µm	> 21 µm	> 38 µm	> 70 µm	> 100 µm	Test Method
2	11	4600-4									
3	11										
4	11										
5	11										
6	11										