POLARIS Laboratories

Lubricant Analysis Report

North America: +1-877-808-3750
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0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

Overall report severity based on comments.

Account Information		Component Information		Sample Information	
Account Number:	153995-0002-0001	Component ID:	CAT 824B E	Tracking Number:	22245F26709
Company Name:	BOOM & BUCKET	Secondary ID:	36H1331	Lab Number:	S-001849
Contact:	KRIS HUFF	Component Type:	DIESEL ENGINE	Lab Location:	Salt Lake City
Address:	701 BRAZOS ST	Manufacturer:	CATERPILLAR	Data Analyst:	ZXH
	AUSTIN, TX 78701 US	Model:	D343	Sampled:	08-Jun-2023
Phone Number:	909-846-6495	Application:	UNKNOWN	Received:	21-Jun-2023
		Sump Capacity:		Completed:	23-Jun-2023

Filter Information		Miscellaneous Information	Product Information	
Filter Type:	Information Requested		Product Manufacturer:	Information Requested
Micron Rating:	0		Product Name:	Information Requested
			Viscosity Grade:	Information Requested

Comments

Check for source of FUEL LEAK. Fuel is at a SIGNIFICANT LEVEL. Fuel dilution may be caused by component faults related to injectors, ignition/timing or excessive blow-by. Additional causes include heavy throttle application, engine lugging, frequent short trips, and excessive idling. LUBRICANT and FILTER CHANGE is suggested if not done at sampling time. FUEL DILUTION reduces the viscosity of the lubricant which decreases FILM STRENGTH and LUBRICITY and may lead to increased wear. Bearing metal is at a MODERATE LEVEL; ALUMINUM and LEAD in CATERPILLAR ENGINES may be from MAIN/ROD BEARINGS; Please provide missing lubricant information. Manufacturer, product name, and viscosity grade are needed to properly evaluate lubricant properties. Unit and/or lubricant TIME missing. Please provide missing application and sump information. Resample at half interval.

	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
1	16	0	0	5	6	2	0	0	0	0	7	2	0	0	76	0	0	0	267	574	1463	0	795	964

	Sample Information							Contaminants			Fluid Properties					
Sample #	Date Sampled	Date Received	Lube Time h	Unit Time h	Lube Change	Lube Added gal	Filter Change	Fuel Dilution %	Soot %	Water %	Viscosity 40°C cSt	Viscosity 100 °C cSt	Acid Number mg KOH / g	Base No. D4739 mg KOH / g	Oxidation abs / cm	Nitration abs / 0.1mm
1	08-Jun-2023	21-Jun-2023	0	0	Unk	0	Unk	6.4 - GC	0.2 - E2412	<.1 - FTIR		12.0		4.62	14	7

	Particle Count (particles/mL)									Additional Testing
Sample #	ISO Code Based On 4/6/14	> 4 particles / mL	> 6 particles / mL	> 10 particles / mL	> 14 particles / mL	> 21 particles / mL	> 38 particles / mL	> 70 particles / mL	> 100 particles / mL	Test Method
1	/ /									