POLARIS Laboratories

Lubricant Analysis Report

North America: +1-877-808-3750
Latin America: +1-317-808-3750 / +502-3093-6466 (WhatsApp)
Europe: +1-317-808-3750

0	1	2	3	4
NORMAL		ABNORMAL		CRITICAL

Overall report severity based on comments.

Account Information		Component Information		Sample Information	
Account Number:	153995-0002-0000	Component ID:	2016 HYUNDAI 220 LC-9A	Tracking Number:	23249S06305
Company Name:	BOOM & BUCKET	Secondary ID:	HHKHZ610HF0000331	Lab Number:	S-156137
Contact:	KRIS HUFF	Component Type:	DIESEL ENGINE	Lab Location:	Salt Lake City
Address:	600 CONGRESS AVE AUSTIN, TX US	Manufacturer:	Information Requested	Data Analyst:	ZXH
		Model:	Information Requested	Sampled:	02-May-2024
Phone Number:	1888-313-1597/909-846-6495	Application:	LOGGING/FORESTRY	Submitted:	02-May-2024
		Sump Capacity:	10 unk	Received:	06-May-2024
				Completed:	09-May-2024

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	Flagged data does not indicate an immediate need for maintenance action. Continue to observe the trend and monitor equipment and fluid conditions. FUEL DILUTION is at a MODERATE LEVEL; FUEL DILUTION possibly caused by excessive idling; Aluminum is at a MINOR LEVEL; ALUMINUM sources in ENGINES include pistons, block and components (intake manifold, head, bearing caps), thrust bearings, main/rod bearing overlay or backing, alumina silica, or contamination from grease. In order to properly compare data to the correct standards, please provide COMPONENT MANUFACTURER and MODEL, and the FLUID MANUFACTURER, PRODUCT NAME, and VISCOSITY GRADE. Unit and/or lubricant TIME missing.

	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	36	1	0	19	2	1	0	0	0	0	10	3	0	0	111	0	1	0	285	580	1212	1	638	736

	Sample Information							Contaminants			Fluid Properties					
Sample #	Date Sampled	Date Received	Lube Time h	Unit Time h	Lube Change	Lube Added unk	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	02-May-2024	06-May-2024	0	0	No	0	No	4.7 - GC	<.1	<.1 - FTIR		12.6		5.63	11	6

	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	/ /										