

FAR 100090 - Diesel Engine

Sample No: LH0277525

Oil Type: DIESEL ENGINE OIL SAE 40

SAMPLE INFORMATION

Sample Number	LH0277525	 	
Sample Date	14 Nov 2023	 	
Machine Hours	0	 	
Oil Hours	0	 	
Oil Changed	N/A	 	
Sample Status	SEVERE	 	

32.6

181

OIL CONDITION Visc @ 100°C

cSt %

Oxidation (PA)

CONTAMINATION

Soot %	%	0.4			
Nitration (PA)	%	387			
Sulfation (PA)	%	0			
Glycol	%	> .70			
Fuel	%	<1.0			
Silicon	ppm	0 42			
Sodium	ppm	<u> </u>			
Potassium	ppm	<u> </u>			

WEAR METALS

Iron	ppm	4 3	 	
Copper	ppm	0 179	 	
Lead	ppm	9	 	
Tin	ppm	01	 	
Aluminum	ppm	8	 	
Chromium	ppm	○ <1	 	
Molybdenum	ppm	0 251	 	
Nickel	ppm	○ <1	 	
Titanium	ppm	0	 	
Silver	ppm	○ <1	 	
Manganese	ppm	3	 	
Vanadium	ppm	0	 	

	IIIVES			
Calcium	ppm	966	 	
Magnesium	ppm	635	 	
Zinc	ppm	0 752	 	
Phosphorus	ppm	685	 	
Barium	ppm	3	 	
Boron	ppm	566	 	



LIEBHERR CANADA LTD.

1015 SUTTON DRIVE BURLINGTON. ON CA L7L 5Z8 Contact: Joseph Rodgers joseph.rodgers@liebherr.com T: (905)319-9222 F: (905)319-6622

Diagnosis

We advise that you check the engine tuning and timing. We advise that you check for the source of the coolant leak. We recommend that you drain the oil from the component if this has not already been done. We advise that you flush the component thoroughly before re-filling with oil. We recommend an early resample to monitor this condition. Please specify the component make and model with your next sample.All component wear rates are normal. There is an abnormal level of nitration indicated. Test for glycol is positive. There is a high concentration of glycol present in the oil. There is a moderate concentration of water present in the oil. The oil is no longer serviceable due to the presence of contaminants.

Depot: LIEMIS Unique No: 5681570 Signed: Kevin Marson **Report Date:** 16 Nov 2023

Report Id: LIEMIS [WCAMIS] 02596490 (Generated: 11/16/2023 05:05:06) Rev: 1

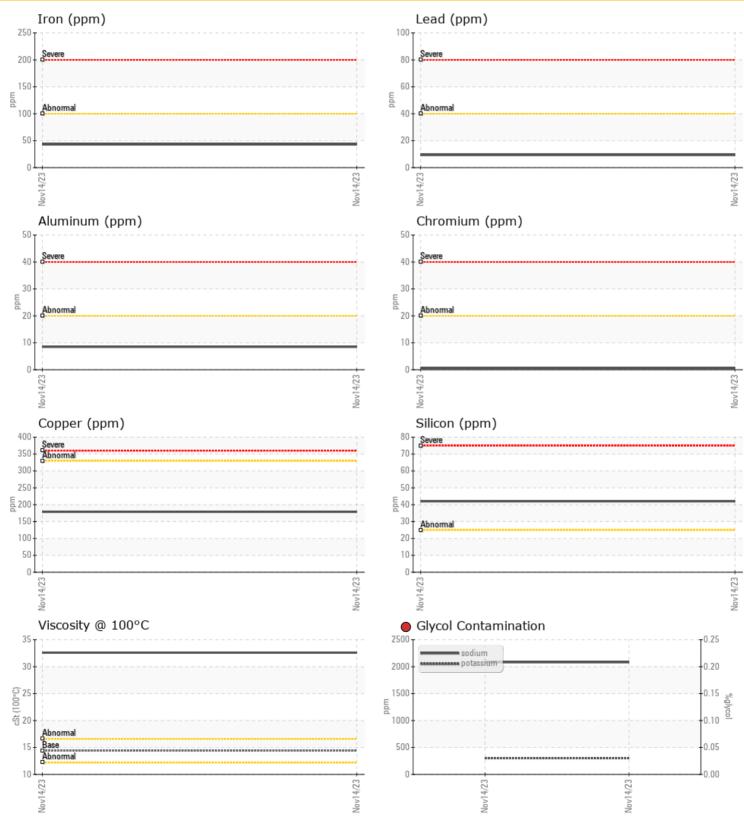
Contact/Location: Joseph Rodgers - LIEMIS





GRAPHS

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Contact/Location: Joseph Rodgers - LIEMIS