CONSTRUCTION EQUIPMENT



[[SMS]] LIEBHERR R936 040909-1148 - Diesel Engine

Sample No: LHMC133698

Oil Type: LIEBHERR 5W40

SAMPLE INFORMATION

Sample Number		LHMC133698	LHMC133734	
Sample Date		19 Oct 2023	26 May 2023	
Machine Hours		9498	9403	
Oil Hours		93	4	
Oil Changed		Not Changd	Not Changd	
Sample Status		NORMAL	NORMAL	
OIL CO	NDITION			
Visc @ 100°C	cSt	0 14.4	0 14.4	
Base Number (BN)	mg KOH/g	0 8.8	0 10.2	
Oxidation (PA)	%	57	52	
CONT	AMINATIO	N		
Soot %	%	0.3	0.1	
Nitration (PA)	%	64	39	
Sulfation (PA)	%	51	48	
Glycol	%	NEG	NEG	
Fuel	%	<1.0	<1.0	
Silicon	ppm	0 16	6	
Sodium	ppm	09	2	
Potassium	ppm	0 18	2	

WEAR METALS

Iron	ppm	23	0 13	
Copper	ppm	0 17	0 4	
Lead	ppm	0 2	◯ <1	
Tin	ppm	0 2	0	
Aluminum	ppm	03	01	
Chromium	ppm	○ <1	○ <1	
Molybdenum	ppm	0 2	0 60	
Nickel	ppm	○ <1	0	
Titanium	ppm	<1	<1	
Silver	ppm	○ <1	0	
Manganese	ppm	2	<1	
Vanadium	ppm	<1	0	

0

	FIVES			
Calcium	ppm	0 1505	0 1058	
Magnesium	ppm	0 871	847	
Zinc	ppm	961	0 1170	
Phosphorus	ppm	919	0 1008	
Barium	ppm	0 35	3	
Boron	ppm	0 128	07	



FINKBINER EQUIPMENT CO.

15 W 400 N FRONTAGE RD BURR RIDGE, IL US 60527 Contact: DON FITZGERALD dfitzgerald@finkbiner.com T: (815)546-8991 F: (630)654-3792

Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

 Depot:
 LEC0033

 Unique No:
 10716173

 Signed:
 Wes Davis

 Report Date:
 31 Oct 2023

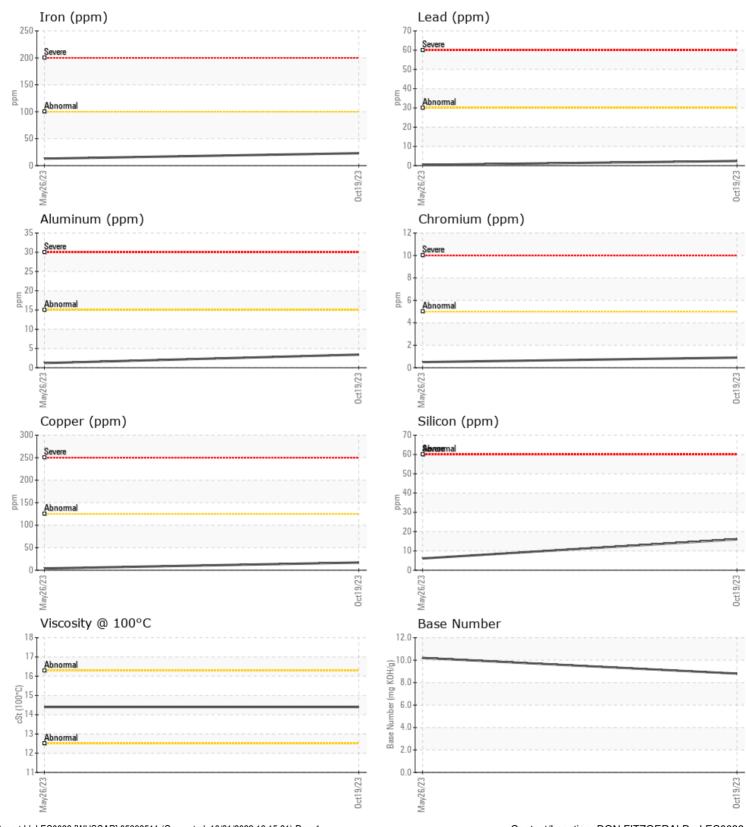
Contact/Location: DON FITZGERALD - LEC0033





GRAPHS

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Report Id: LEC0033 [WUSCAR] 05993511 (Generated: 10/31/2023 18:15:31) Rev: 1

Contact/Location: DON FITZGERALD - LEC0033