

LIEBHERR R938 1650-50726 - Diesel Engine

Sample No: LH0244724

Oil Type: MOBIL DELVAC 5W30

SAMPLE INFORMATION

Sample Number		LH0244724	LH0236514	
Sample Date		13 Oct 2023	01 Aug 2022	
Machine Hours		973	516	
Oil Hours		0	516	
Oil Changed		Changed	Changed	
Sample Status		NORMAL	ATTENTION	
OIL CO	NDITION			
Visc @ 100°C	cSt	0 12.6	0 12.1	
Base Number (BN)	mg KOH/g	6.3	5.8	
Oxidation (PA)	%	68	181	
CONT	AMINATIO	N		
Soot %	%	0.1	0.1	
Nitration (PA)	%	74	98	
Sulfation (PA)	%	57	103	
Glycol	%	NEG	NEG	
Fuel	%	<1.0	0 1.0	
Silicon	ppm	0 10	0 10	
Sodium	ppm	01	3	
Potassium	ppm	5	6	

WEAR METALS

		13		
Iron	ppm	0 12	20	
Copper	ppm	0 12	○ 55	
Lead	ppm	○ <1	3	
Tin	ppm	01	0 2	
Aluminum	ppm	01	0 4	
Chromium	ppm	<mark></mark> <1	○ 3	
Molybdenum	ppm	0 11	38	
Nickel	ppm	0 (0	
Titanium	ppm	0 72	○ <1	
Silver	ppm	0 🔘	<1	
Manganese	ppm	0	01	
Vanadium	ppm	<1	0	

ADDITIVES								
Calcium	ppm	0 1386	0 1654					
Magnesium	ppm	669	0 717					
Zinc	ppm	0 1132	0 858					
Phosphorus	ppm	0 864	654					
Barium	ppm	0	25					
Boron	ppm	96	0 117					





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Diagnosis

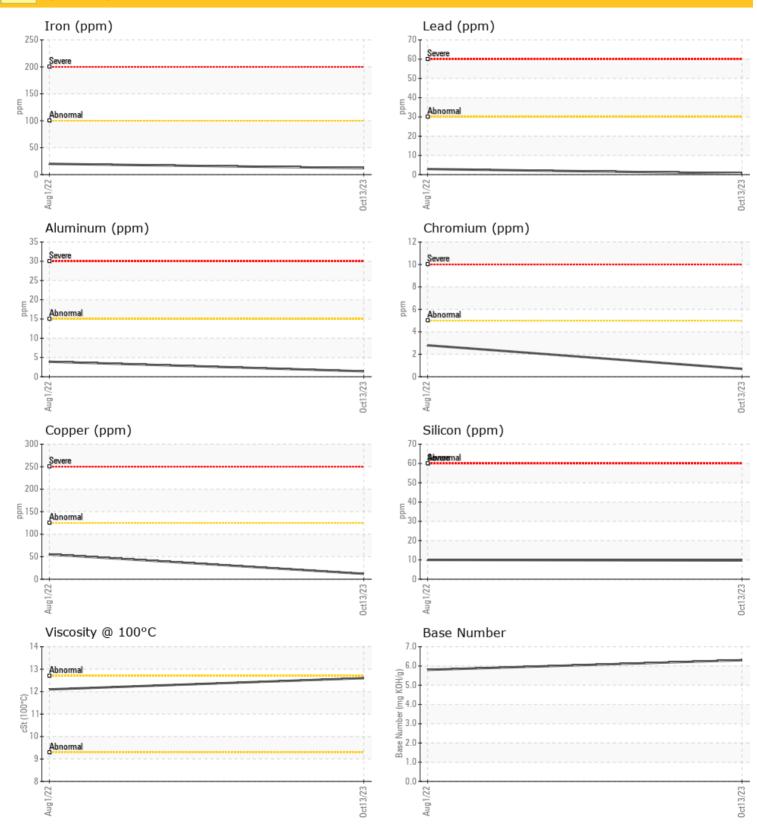
Resample at the next service interval to monitor.Metal levels are typical for a new component breaking in. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

CONSTRUCTION EQUIPMENT



GRAPHS

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