

C21.04.90157 - Diesel Engine

Sample No: LH0277800

Oil Type: DIESEL ENGINE OIL SAE 10W30

0 11.8

73

SAMPLE INFORMATION

Sample Number	LH0277800	LH0257051	
Sample Date	20 Nov 2023	16 Mar 2023	
Machine Hours	0	0	
Oil Hours	0	0	
Oil Changed	N/A	Not Changd	
Sample Status	NORMAL	NORMAL	

Visc @ 100°C cSt

Oxidation (PA)

CONTAMINATION

%

Water	%	NEG	NEG		
Soot %	%	0	0 0		
Nitration (PA)	%	62	56		
Sulfation (PA)	%	58	61		
Glycol	%	NEG	NEG		
Fuel	%	01	0 1.2		
Silicon	ppm	07	07		
Sodium	ppm	14	0 5		
Potassium	ppm	0	0 9		

11.3

69

WEAR METALS

Iron	ppm	0 11	0 11	
Copper	ppm	05	0 4	
Lead	ppm	0 2	0 1	
Tin	ppm	○ <1	0 2	
Aluminum	ppm	01	03	
Chromium	ppm	0	0	
Molybdenum	ppm	0 59	0 47	
Nickel	ppm	0	0	
Titanium	ppm	0	<1	
Silver	ppm	○ <1	0	
Manganese	ppm	0	<1	
Vanadium	ppm	0	0	

ADDITIVES					
Calcium	ppm	0 866	910		
Magnesium	ppm	0 1123	0 1037		
Zinc	ppm	0 1221	0 1107		
Phosphorus	ppm	0 1046	0 1032		
Barium	ppm	02	6		
Boron	ppm	5 9	○ 73		





LIEBHERR CANADA LTD. - REMAN

1015 SUTTON DRIVE BURLINGTON, ON CA L7L 5Z8 Contact: Morteza Mahmoudi morteza.mahmoudi@liebherr.com T: (905)319-9222 F: (905)319-6622

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor.All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The condition of the oil is acceptable for the time in service.

Depot:REMANUnique No:5682840Signed:Kevin MarsonReport Date:22 Nov 2023

Report Id: REMAN [WCAMIS] 02597760 (Generated: 11/22/2023 07:16:01) Rev: 1

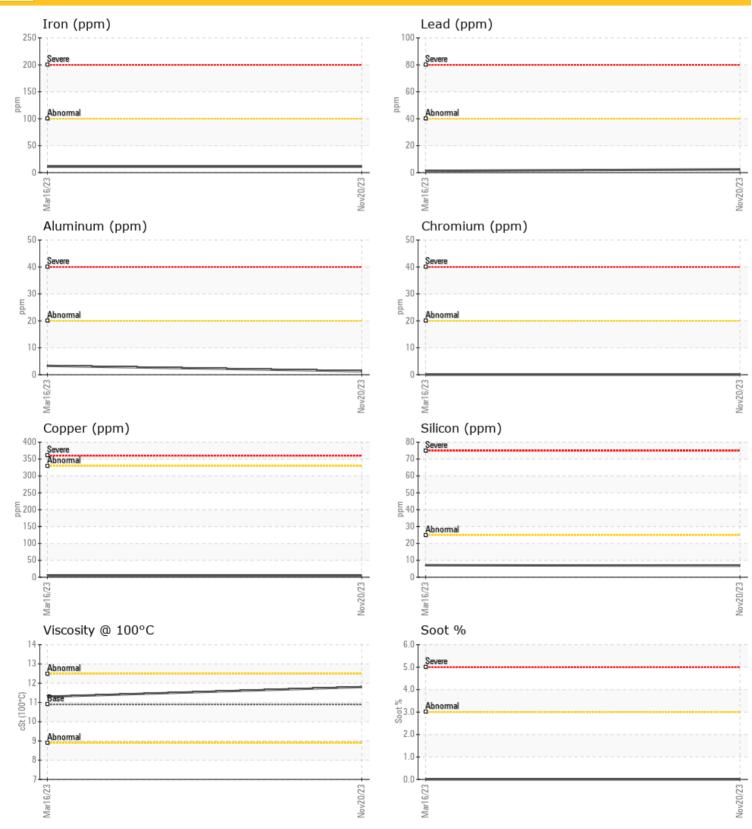
Contact/Location: Morteza Mahmoudi - REMAN





GRAPHS

 $\overline{\mathbf{O}}$



Report Id: REMAN [WCAMIS] 02597760 (Generated: 11/22/2023 07:16:04) Rev: 1

Contact/Location: Morteza Mahmoudi - REMAN