

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### 2010.14.0839 - Diesel Engine

Sample No: LH0270656  
 Oil Type: DIESEL ENGINE OIL SAE 10W30



#### SAMPLE INFORMATION

Sample Number	LH0270656	---	---	---
Sample Date	18 Jul 2023	---	---	---
Machine Hours	0	---	---	---
Oil Hours	0	---	---	---
Oil Changed	N/A	---	---	---
Sample Status	SEVERE	---	---	---

**LIEBHERR CANADA LTD. - REMAN**  
 1015 SUTTON DRIVE  
 BURLINGTON, ON  
 CA L7L 5Z8  
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#### OIL CONDITION

Visc @ 100°C	cSt	5.8	---	---	---
Oxidation (PA)	%	47	---	---	---



#### CONTAMINATION

Water	%	0.849	---	---	---
Soot %	%	1.2	---	---	---
Nitration (PA)	%	59	---	---	---
Sulfation (PA)	%	47	---	---	---
Glycol	%	0.035	---	---	---
Fuel	%	30.1	---	---	---
Silicon	ppm	9	---	---	---
Sodium	ppm	3	---	---	---
Potassium	ppm	1	---	---	---



#### WEAR METALS

Iron	ppm	12	---	---	---
Copper	ppm	4	---	---	---
Lead	ppm	<1	---	---	---
Tin	ppm	0	---	---	---
Aluminum	ppm	2	---	---	---
Chromium	ppm	<1	---	---	---
Molybdenum	ppm	41	---	---	---
Nickel	ppm	<1	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	<1	---	---	---
Manganese	ppm	<1	---	---	---
Vanadium	ppm	0	---	---	---



#### ADDITIVES

Calcium	ppm	686	---	---	---
Magnesium	ppm	654	---	---	---
Zinc	ppm	824	---	---	---
Phosphorus	ppm	742	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	18	---	---	---

#### Diagnosis

Taking the sample cold limits the accuracy of our diagnosis. We advise that you check the fuel injection system. 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. All component wear rates are normal. Test for glycol is positive. There is a high amount of fuel present in the oil. There is a light concentration of glycol present in the oil. There is a high concentration of water present in the oil. Tests confirm the presence of fuel in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Depot: REMAN  
 Unique No: 5615879  
 Signed: Kevin Marson  
 Report Date: 20 Jul 2023



### GRAPHS

