

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH30M 1253-144576 - Diesel Engine

Sample No: LH0276410

Oil Type: PETRO CANADA DURON UHP 5W30



TRAM CONSTRUCTION
 9279 E KY 8
 GARRISON, KY
 US 41141
 Contact: Service Manager



SAMPLE INFORMATION

Sample Number	LH0276410	---	---	---
Sample Date	10 Oct 2023	---	---	---
Machine Hours	540	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---



OIL CONDITION

Visc @ 100°C	cSt	● 11.4	---	---	---
Base Number (BN)	mg KOH/g	● 5.1	---	---	---
Oxidation (PA)	%	200	---	---	---



CONTAMINATION

Water	%	NEG	---	---	---
Soot %	%	● 0.1	---	---	---
Nitration (PA)	%	102	---	---	---
Sulfation (PA)	%	108	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	<1.0	---	---	---
Silicon	ppm	● 15	---	---	---
Sodium	ppm	● 0	---	---	---
Potassium	ppm	● 5	---	---	---



WEAR METALS

Iron	ppm	● 13	---	---	---
Copper	ppm	● 270	---	---	---
Lead	ppm	● 2	---	---	---
Tin	ppm	● 1	---	---	---
Aluminum	ppm	● 2	---	---	---
Chromium	ppm	● <1	---	---	---
Molybdenum	ppm	● 46	---	---	---
Nickel	ppm	● 0	---	---	---
Titanium	ppm	<1	---	---	---
Silver	ppm	● 0	---	---	---
Manganese	ppm	● <1	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	● 1322	---	---	---
Magnesium	ppm	● 892	---	---	---
Zinc	ppm	● 850	---	---	---
Phosphorus	ppm	● 686	---	---	---
Barium	ppm	19	---	---	---
Boron	ppm	● 84	---	---	---

T:
F:

Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other 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 acceptable for the time in service.

Depot: TRAGARLH
 Unique No: 10806505
 Signed: Jonathan Hester
 Report Date: 29 Dec 2023



GRAPHS

