

LIEBHERR

CONSTRUCTION EQUIPMENT



[BW HAGGART] 085946 - Diesel Engine

Sample No: LH0278831

Oil Type: PETRO CANADA 10W40



SAMPLE INFORMATION

Sample Number	LH0278831	---	---	---
Sample Date	10 Nov 2023	---	---	---
Machine Hours	3000	---	---	---
Oil Hours	0	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	ABNORMAL	---	---	---

LIEBHERR CANADA LTD.
 1015 SUTTON DRIVE
 BURLINGTON, ON
 CA L7L 5Z8
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 T: (905)319-9222
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OIL CONDITION

Visc @ 100°C	cSt	11.1	---	---	---
Oxidation (PA)	%	73	---	---	---



CONTAMINATION

Soot %	%	0	---	---	---
Nitration (PA)	%	72	---	---	---
Sulfation (PA)	%	56	---	---	---
Glycol	%	NEG	---	---	---
Fuel	%	1.4	---	---	---
Silicon	ppm	6	---	---	---
Sodium	ppm	4	---	---	---
Potassium	ppm	0	---	---	---



WEAR METALS

Iron	ppm	5	---	---	---
Copper	ppm	2	---	---	---
Lead	ppm	0	---	---	---
Tin	ppm	<1	---	---	---
Aluminum	ppm	2	---	---	---
Chromium	ppm	<1	---	---	---
Molybdenum	ppm	61	---	---	---
Nickel	ppm	0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	<1	---	---	---
Manganese	ppm	0	---	---	---
Vanadium	ppm	0	---	---	---



ADDITIVES

Calcium	ppm	853	---	---	---
Magnesium	ppm	1069	---	---	---
Zinc	ppm	1168	---	---	---
Phosphorus	ppm	1002	---	---	---
Barium	ppm	<1	---	---	---
Boron	ppm	45	---	---	---

Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. Viscosity of sample indicates oil is within SAE 30 range, advise investigate. The condition of the oil is acceptable for the time in service.

Depot: LIEMIS
Unique No: 5681179
Signed: Kevin Marson
Report Date: 15 Nov 2023



GRAPHS

