

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR HS8100 184947 - Diesel Engine

Sample No: LH0296504

Oil Type: PETRO CANADA SUPREME 5W30



Sample Information

Sample Number	LH0296504	LH0278870	LH0239507	LH0235040
Sample Date	01 Jul 2024	26 Jan 2024	05 May 2023	08 Jul 2022
Machine Hours	0	15056	13236	11198
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	ATTENTION	ATTENTION	ATTENTION

HIGGS & HIGGS

RR # 4

ST THOMAS, ON

CA N5P 3S8

Contact: Bernie Higgs



Oil Condition

Visc @ 100°C	cSt	12.3	12.0	14.3	12.7
Oxidation (PA)	%	111	92	155	108

T: (519)631-4095

F: (519)631-2745



Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	0	0	0
Nitration (PA)	%	117	98	163	114
Sulfation (PA)	%	73	63	88	75
Glycol	%	0.0	0.0	0.0	0.0
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	10	6	12	10
Sodium	ppm	493	275	544	333
Potassium	ppm	22	13	35	24

Diagnosis

Check for low coolant level. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. All component wear rates are normal. Water treatment chemicals present, indicating slow coolant leak. Test for glycol is negative. There is no indication of any contamination in the oil. The condition of the oil is acceptable for the time in service (see recommendation).



Wear Metals

Iron	ppm	9	10	17	9
Copper	ppm	2	1	2	2
Lead	ppm	<1	<1	<1	<1
Tin	ppm	0	0	<1	<1
Aluminum	ppm	1	1	2	<1
Chromium	ppm	<1	<1	1	<1
Molybdenum	ppm	89	70	70	62
Nickel	ppm	<1	0	<1	0
Titanium	ppm	<1	0	<1	<1
Silver	ppm	<1	<1	0	0
Manganese	ppm	<1	0	<1	<1
Vanadium	ppm	0	0	0	0



Additives

Calcium	ppm	824	817	916	883
Magnesium	ppm	1087	1086	1154	1156
Zinc	ppm	1208	1169	1262	1286
Phosphorus	ppm	928	957	1095	1058
Barium	ppm	<1	0	0	0
Boron	ppm	12	17	21	16

Depot: HIGSTT

Unique No: 5802320

Signed: Kevin Marson

Report Date: 02 Jul 2024



Graphs

