

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L586 068244 - Diesel Engine

Sample No: LH0234434

Oil Type: PETRO CANADA SUPREME 5W30



SAMPLE INFORMATION

Sample Number	LH0234434	LH0250035	LH0150851	LH0150836
Sample Date	21 Jun 2023	28 May 2023	30 Mar 2023	24 Jan 2023
Machine Hours	4612	4345	3398	2283
Oil Hours	0	0	0	0
Oil Changed	Not Chngd	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	13.9	11.9	11.9	11.8
Oxidation (PA)	%	58	78	75	92



CONTAMINATION

Soot %	%	0	0	0	0
Nitration (PA)	%	48	79	71	78
Sulfation (PA)	%	51	57	55	67
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	5	6	9	5
Sodium	ppm	2	5	4	4
Potassium	ppm	<1	2	<1	0

Diagnosis

Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within SAE 40 range, advise investigate. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	2	4	4	6
Copper	ppm	1	2	3	87
Lead	ppm	<1	<1	0	3
Tin	ppm	0	0	<1	<1
Aluminum	ppm	<1	2	2	1
Chromium	ppm	<1	<1	0	<1
Molybdenum	ppm	54	60	61	59
Nickel	ppm	0	<1	<1	<1
Titanium	ppm	0	<1	<1	<1
Silver	ppm	<1	0	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1069	895	883	958
Magnesium	ppm	930	1155	1111	1107
Zinc	ppm	1178	1264	1222	1209
Phosphorus	ppm	1066	1138	1100	1075
Barium	ppm	0	0	0	3
Boron	ppm	10	33	39	31

Depot: MANSEL
Unique No: 5606268
Signed: Kevin Marson
Report Date: 12 Jul 2023



GRAPHS

