

LIEBHERR

CONSTRUCTION EQUIPMENT



[(360377)] LIEBHERR L580 059426-1464 - Diesel Engine

Sample No: LH0237638

Oil Type: PETRO CANADA 10W40



SAMPLE INFORMATION

Sample Number	LH0237638	LH0237635	LH0242479	LH0239705
Sample Date	08 Sep 2023	19 Jul 2023	17 Nov 2022	18 Aug 2022
Machine Hours	5106	4747	3593	2987
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

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OIL CONDITION

Visc @ 100°C	cSt	14.1	13.1	10.6	13.4
Oxidation (PA)	%	55	57	58	61



CONTAMINATION

Soot %	%	0	0	0	0
Nitration (PA)	%	48	57	57	57
Sulfation (PA)	%	50	53	53	55
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	5	4	6
Sodium	ppm	1	2	1	2
Potassium	ppm	<1	<1	<1	2

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. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	2	4	4	5
Copper	ppm	<1	2	14	96
Lead	ppm	<1	<1	<1	3
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	<1	<1	1	<1
Chromium	ppm	0	<1	0	<1
Molybdenum	ppm	57	56	49	57
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	<1	<1
Silver	ppm	<1	<1	0	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1026	1004	900	1081
Magnesium	ppm	957	981	822	968
Zinc	ppm	1165	1169	988	1169
Phosphorus	ppm	974	1036	915	954
Barium	ppm	<1	0	0	0
Boron	ppm	1	5	<1	1

Depot: CLOPEM
 Unique No: 5646518
 Signed: Kevin Marson
 Report Date: 27 Sep 2023



GRAPHS

