

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR A944C063266 - Diesel Engine

Sample No: LH0274437

Oil Type: PETRO CANADA 10W40



SAMPLE INFORMATION

Sample Number	LH0274437	LH	LH0133868	LH0130335
Sample Date	04 Aug 2023	21 Mar 2019	17 Oct 2018	13 Jul 2018
Machine Hours	19020	12983	12442	11950
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ABNORMAL	NORMAL	NORMAL	NORMAL

Posner Metals

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Hamilton, ON
CA L8H 3L1
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OIL CONDITION

Visc @ 100°C	cSt	8.6	10.7	11.8	11.5
Oxidation (PA)	%	33	58	61	59



CONTAMINATION

Soot %	%	0.8	1.1	1.6	1.1
Nitration (PA)	%	49	76	76	67
Sulfation (PA)	%	48	56	60	59
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	0.7	<1.0	<1.0	<1.0
Silicon	ppm	3	5	6	6
Sodium	ppm	2	2	2	2
Potassium	ppm	1	<1	<1	<1

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Fuel content negligible. There is no indication of any contamination in the oil. Viscosity of sample indicates oil is within SAE 20 range, advise investigate. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	10	25	26	23
Copper	ppm	5	2	2	2
Lead	ppm	3	2	2	1
Tin	ppm	<1	0	0	0
Aluminum	ppm	1	1	1	<1
Chromium	ppm	1	<1	<1	<1
Molybdenum	ppm	33	54	60	59
Nickel	ppm	0	0	<1	0
Titanium	ppm	8	1	1	4
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	964	989	1057	1086
Magnesium	ppm	68	855	957	965
Zinc	ppm	749	1184	1232	1260
Phosphorus	ppm	671	951	1005	1074
Barium	ppm	0	0	0	0
Boron	ppm	16	2	2	2

Depot: POSHAM
Unique No: 5619846
Signed: Kevin Marson
Report Date: 10 Aug 2023



GRAPHS

