

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L566 036511-1168 - Diesel Engine

Sample No: LH0257433

Oil Type: PETRO CANADA 10W30



#### SAMPLE INFORMATION

Sample Number	LH0257433	LH0239195	LH	LH
Sample Date	14 Sep 2023	07 Nov 2022	31 Oct 2020	02 Sep 2020
Machine Hours	13830	11757	9931	9458
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

**Summit Aggregates**  
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#### OIL CONDITION

Visc @ 100°C	cSt	14.9	13.8	13.3	11.8
Oxidation (PA)	%	70	67	63	62



#### CONTAMINATION

Soot %	%	2.7	1.6	1	0.9
Nitration (PA)	%	102	88	73	75
Sulfation (PA)	%	74	65	57	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	7	7	5	5
Sodium	ppm	4	3	3	2
Potassium	ppm	1	1	1	1

#### 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	59	55	24	23
Copper	ppm	7	3	1	2
Lead	ppm	2	<1	<1	<1
Tin	ppm	<1	<1	<1	0
Aluminum	ppm	5	3	2	3
Chromium	ppm	1	<1	<1	<1
Molybdenum	ppm	62	53	59	61
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	0	<1	0	<1
Silver	ppm	0	0	<1	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	0



#### ADDITIVES

Calcium	ppm	1364	1141	1073	1061
Magnesium	ppm	822	922	979	974
Zinc	ppm	1150	1136	1269	1253
Phosphorus	ppm	1000	1035	1019	1052
Barium	ppm	0	0	<1	<1
Boron	ppm	30	6	3	3

**Depot:** SUMAYR  
**Unique No:** 5643783  
**Signed:** Kevin Marson  
**Report Date:** 15 Sep 2023



### GRAPHS

