

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L586 054472-1334 - Diesel Engine

Sample No: LH
Oil Type: NOT GIVEN



SAMPLE INFORMATION

Sample Number	LH	LH0242804	LH0173111	LH0177327
Sample Date	22 Jun 2023	14 Dec 2022	15 Dec 2021	21 Nov 2020
Machine Hours	7000	0	0	1942
Oil Hours	0	6005	2000	900
Oil Changed	N/A	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

Bird's Hill Gravel and Stone Ltd.
1 Terracon Place
Winnipeg, MB
CA R2J 4B3
Contact: Joel Malkoske
Jmalkoske@glacialagg.ca
T: (204)663-0064
F:



OIL CONDITION

Visc @ 100°C	cSt	13.9	13.7	11.9	12.9
Oxidation (PA)	%	75	107	65	100



CONTAMINATION

Soot %	%	0.1	0.2	0	0.1
Nitration (PA)	%	79	106	65	83
Sulfation (PA)	%	60	76	53	68
Glycol	%	NEG	0.0	NEG	NEG
Fuel	%	<1.0	<1.0	1.2	<1.0
Silicon	ppm	10	32	14	10
Sodium	ppm	2	5	3	3
Potassium	ppm	1	8	2	2



WEAR METALS

Iron	ppm	14	40	4	21
Copper	ppm	4	6	<1	17
Lead	ppm	<1	<1	<1	2
Tin	ppm	<1	2	<1	1
Aluminum	ppm	3	9	2	2
Chromium	ppm	1	4	<1	1
Molybdenum	ppm	48	45	52	52
Nickel	ppm	0	<1	<1	<1
Titanium	ppm	<1	<1	<1	<1
Silver	ppm	<1	0	<1	<1
Manganese	ppm	<1	1	<1	1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1374	1513	1112	1226
Magnesium	ppm	835	965	999	893
Zinc	ppm	1233	1269	1203	1226
Phosphorus	ppm	1057	1103	1077	910
Barium	ppm	0	<1	0	4
Boron	ppm	12	27	49	6

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.

Depot: BIRWIN
Unique No: 5605215
Signed: Wes Davis
Report Date: 06 Jul 2023



GRAPHS

