

LIEBHERR

CONSTRUCTION EQUIPMENT



[IMPERIAL EQUIPMENT] 68394 - Diesel Engine

Sample No: LH0266095

Oil Type: PETRO CANADA DURON UHP 5W30



SAMPLE INFORMATION

Sample Number	LH0266095	LH0246732	LH0238585	---
Sample Date	07 Jul 2023	23 Dec 2022	22 Sep 2022	---
Machine Hours	1597	1052	496	---
Oil Hours	0	0	0	---
Oil Changed	Changed	N/A	N/A	---
Sample Status	NORMAL	NORMAL	NORMAL	---

LIEBHERR CANADA

10 LYNDS AVENUE

MONCTON, NB

CA E1H 3K2

Contact: Mike Clark

Mike.Clark@liebherr.com

T: (506)854-2920

F: (506)854-2940



OIL CONDITION

Visc @ 100°C	cSt	11.8	11.9	12.1	---
Oxidation (PA)	%	74	94	205	---



CONTAMINATION

Soot %	%	0	0	0	---
Nitration (PA)	%	71	78	92	---
Sulfation (PA)	%	56	66	111	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	<1.0	<1.0	---
Silicon	ppm	6	8	12	---
Sodium	ppm	4	4	2	---
Potassium	ppm	<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	4	6	8	---
Copper	ppm	8	31	45	---
Lead	ppm	<1	1	4	---
Tin	ppm	<1	<1	<1	---
Aluminum	ppm	1	2	2	---
Chromium	ppm	<1	<1	<1	---
Molybdenum	ppm	60	59	45	---
Nickel	ppm	0	0	0	---
Titanium	ppm	0	<1	<1	---
Silver	ppm	<1	<1	0	---
Manganese	ppm	<1	<1	2	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	821	932	1342	---
Magnesium	ppm	1141	1102	920	---
Zinc	ppm	1198	1165	855	---
Phosphorus	ppm	1064	1081	806	---
Barium	ppm	<1	2	11	---
Boron	ppm	39	42	94	---

Depot: LIEMON

Unique No: 5606298

Signed: Wes Davis

Report Date: 12 Jul 2023



GRAPHS

