

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR 185289 - Diesel Engine

Sample No: LH0270272

Oil Type: PETRO CANADA DURON UHP 5W30



#### Sample Information

Sample Number	LH0270272	LH0234565	LH0194885	---
Sample Date	29 Sep 2023	06 Sep 2022	12 Jan 2022	---
Machine Hours	3024	1540	1043	---
Oil Hours	0	0	0	---
Oil Changed	N/A	N/A	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

#### Harbour Development

380 Bayside Dr  
 St John, NB  
 CA E2J 4Y8  
 Contact: Darien Edison  
 edison.darien@harbourdev.com  
 T:  
 F:



#### Oil Condition

Visc @ 100°C	cSt	11.3	11.6	11.6	---
Oxidation (PA)	%	73	78	95	---



#### Contamination

Water	%	NEG	NEG	NEG	---
Soot %	%	0	0	0	---
Nitration (PA)	%	73	68	66	---
Sulfation (PA)	%	55	60	68	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	<1.0	1.5	<1.0	---
Silicon	ppm	4	4	7	---
Sodium	ppm	5	8	7	---
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	8	7	9	---
Copper	ppm	34	18	26	---
Lead	ppm	2	2	3	---
Tin	ppm	1	2	2	---
Aluminum	ppm	<1	1	1	---
Chromium	ppm	0	0	<1	---
Molybdenum	ppm	65	53	53	---
Nickel	ppm	0	0	<1	---
Titanium	ppm	0	<1	0	---
Silver	ppm	<1	0	<1	---
Manganese	ppm	0	<1	<1	---
Vanadium	ppm	0	0	0	---



#### Additives

Calcium	ppm	859	834	877	---
Magnesium	ppm	1161	1062	1098	---
Zinc	ppm	1243	1146	1094	---
Phosphorus	ppm	1016	1055	999	---
Barium	ppm	<1	<1	2	---
Boron	ppm	31	46	48	---

Depot: HAR380STJ  
 Unique No: 5656176  
 Signed: Wes Davis  
 Report Date: 05 Oct 2023



### Graphs

