

LIEBHERR

CONSTRUCTION EQUIPMENT



[[582552]] LIEBHERR LB24 115316 - Diesel Engine

Sample No: LH0274352

Oil Type: PETRO CANADA 10W40



SAMPLE INFORMATION

Sample Number	LH0274352	LH0111028	LH0070188	---
Sample Date	17 Oct 2023	24 Nov 2016	28 Jan 2013	---
Machine Hours	8483	7483	2064	---
Oil Hours	0	0	0	---
Oil Changed	N/A	Changed	Changed	---
Sample Status	NORMAL	NORMAL	NORMAL	---

LIEBHERR CANADA LTD.

10374 267 ST.

ACHESON, AB

CA T7X 6A2

Contact: Rodney Budzak

rodney.budzak@liebherr.com

T: (780)962-6799

F: (780)962-6799



OIL CONDITION

Visc @ 100°C	cSt	12.7	14.1	13.2	---
Oxidation (PA)	%	79	67	85	---



CONTAMINATION

Soot %	%	0.5	0.5	0.6	---
Nitration (PA)	%	88	71	92	---
Sulfation (PA)	%	64	63	94	---
Glycol	%	NEG	NEG	NEG	---
Fuel	%	1.5	<1.0	<1.0	---
Silicon	ppm	5	8	4	---
Sodium	ppm	3	8	1	---
Potassium	ppm	2	0	2	---

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The condition of the oil is acceptable for the time in service.



WEAR METALS

Iron	ppm	18	10	26	---
Copper	ppm	13	4	72	---
Lead	ppm	5	<1	10	---
Tin	ppm	<1	<1	1	---
Aluminum	ppm	2	2	3	---
Chromium	ppm	<1	<1	<1	---
Molybdenum	ppm	53	1	<1	---
Nickel	ppm	0	<1	<1	---
Titanium	ppm	0	<1	0	---
Silver	ppm	0	0	<1	---
Manganese	ppm	0	<1	<1	---
Vanadium	ppm	0	0	0	---



ADDITIVES

Calcium	ppm	1499	2472	2528	---
Magnesium	ppm	882	26	11	---
Zinc	ppm	1343	1288	1365	---
Phosphorus	ppm	1090	1090	1015	---
Barium	ppm	<1	<1	1	---
Boron	ppm	21	50	20	---

Depot: LIESPR

Unique No: 5670701

Signed: Wes Davis

Report Date: 06 Nov 2023



GRAPHS

