

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR R954 9544 - Diesel Engine

Sample No: LH0260214

Oil Type: DIESEL ENGINE OIL SAE 10W30



#### SAMPLE INFORMATION

Sample Number	LH0260214	LH0199523	---	---
Sample Date	03 Jun 2023	07 Apr 2023	---	---
Machine Hours	0	0	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	Changed	---	---
Sample Status	NORMAL	NORMAL	---	---

Gerdau - Mandak Metal Processors Ltd.,  
1 Railway St., P.O. Box 334  
Selkirk, MB  
CA R1A 2B3  
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#### OIL CONDITION

Visc @ 100°C	cSt	11.7	12.6	---	---
Oxidation (PA)	%	67	84	---	---



#### CONTAMINATION

Soot %	%	0.5	0.5	---	---
Nitration (PA)	%	77	99	---	---
Sulfation (PA)	%	61	63	---	---
Glycol	%	NEG	NEG	---	---
Fuel	%	<1.0	<1.0	---	---
Silicon	ppm	5	8	---	---
Sodium	ppm	11	32	---	---
Potassium	ppm	<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. The condition of the oil is acceptable for the time in service.



#### WEAR METALS

Iron	ppm	19	36	---	---
Copper	ppm	30	76	---	---
Lead	ppm	3	7	---	---
Tin	ppm	1	3	---	---
Aluminum	ppm	1	2	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	60	51	---	---
Nickel	ppm	<1	<1	---	---
Titanium	ppm	0	<1	---	---
Silver	ppm	1	1	---	---
Manganese	ppm	<1	2	---	---
Vanadium	ppm	0	0	---	---



#### ADDITIVES

Calcium	ppm	1213	1802	---	---
Magnesium	ppm	1026	965	---	---
Zinc	ppm	1252	1273	---	---
Phosphorus	ppm	1076	1153	---	---
Barium	ppm	11	57	---	---
Boron	ppm	8	60	---	---

Depot: MANSEL  
Unique No: 5631798  
Signed: Wes Davis  
Report Date: 28 Aug 2023



### GRAPHS

