

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### [[HAWAIIAN CEMENT]] LIEBHERR R9150B 45.1992301(S/N 38178) -Rear Swing Drive

Sample No: LH0267635

Oil Type: CASTROL ALPHASYN PG 460



#### SAMPLE INFORMATION

Sample Number	LH0267635	---	---	---
Sample Date	04 Dec 2023	---	---	---
Machine Hours	424	---	---	---
Oil Hours	424	---	---	---
Oil Changed	Changed	---	---	---
Sample Status	NORMAL	---	---	---

**LIEBHERR MINING EQUIPMENT CO**  
 5800 S DOUGLAS HWY  
 GILLETTE, WY  
 US 82718  
 Contact: SCOTT BRADLEY  
 scott.bradley@liebherr.com  
 T:  
 F:



#### OIL CONDITION

Visc @ 40°C	cSt	● 448	---	---	---
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#### CONTAMINATION

Water	%	NEG	---	---	---
Silicon	ppm	● <1	---	---	---
Sodium	ppm	● 0	---	---	---
Potassium	ppm	● 0	---	---	---

#### 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	● 11	---	---	---
Copper	ppm	● 3	---	---	---
Lead	ppm	● 0	---	---	---
Tin	ppm	● 0	---	---	---
Aluminum	ppm	● 0	---	---	---
Chromium	ppm	● 0	---	---	---
Molybdenum	ppm	0	---	---	---
Nickel	ppm	● 0	---	---	---
Titanium	ppm	0	---	---	---
Silver	ppm	0	---	---	---
Manganese	ppm	0	---	---	---
Vanadium	ppm	0	---	---	---



#### ADDITIVES

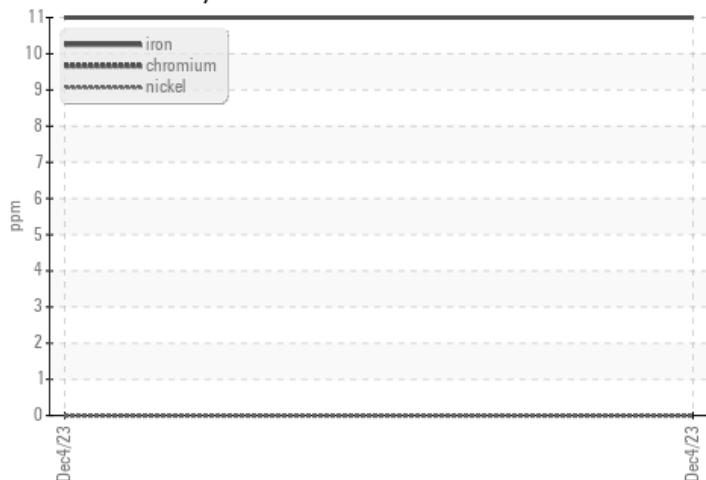
Calcium	ppm	6	---	---	---
Magnesium	ppm	1	---	---	---
Zinc	ppm	8	---	---	---
Phosphorus	ppm	204	---	---	---
Barium	ppm	0	---	---	---
Boron	ppm	<1	---	---	---

Depot: LIEGIL  
 Unique No: 10781658  
 Signed: Sean Felton  
 Report Date: 14 Dec 2023

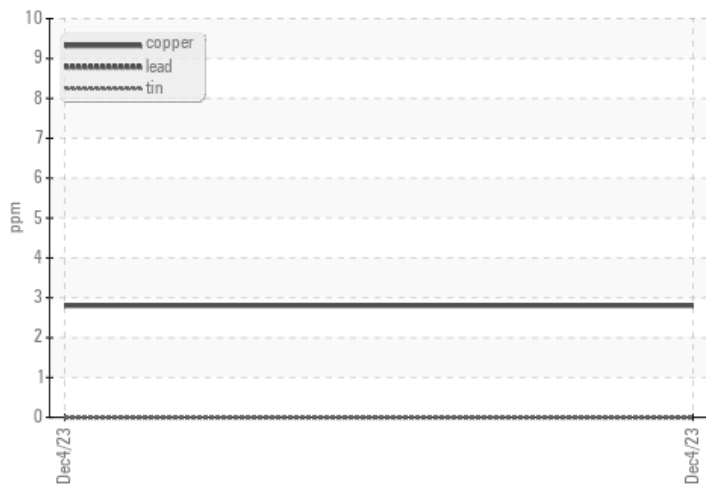


### GRAPHS

#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 40°C

