

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR A924C057657-1049 - Diesel Engine

Sample No: LH0272289

Oil Type: DIESEL ENGINE OIL SAE 15W40



#### Sample Information

Sample Number	LH0272289	LH0244711	LH0230029	LH0190602
Sample Date	06 May 2024	08 May 2023	01 Dec 2022	01 Mar 2022
Machine Hours	26835	24881	23991	23434
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

#### INTEGRITY METALS

835 EAST INDUSTRIAL  
MORRISTOWN, IN  
US 46161  
Contact: HEIDI KERSTIENS  
heidi@integrity-metals.com  
T: (765)763-8000  
F: (765)763-8001



#### Oil Condition

Visc @ 100°C	cSt	13.0	13.0	13.2	13.2
Base Number (BN)	mg KOH/g	6.5	6.4	6.5	7.2
Oxidation (PA)	%	39	61	58	67



#### Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.4	0.3	0.3	0.3
Nitration (PA)	%	58	86	77	85
Sulfation (PA)	%	47	57	53	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	8	9	7
Sodium	ppm	<1	4	3	4
Potassium	ppm	<1	2	<1	0



#### Wear Metals

Iron	ppm	4	4	4	4
Copper	ppm	<1	1	2	<1
Lead	ppm	<1	<1	<1	<1
Tin	ppm	0	0	<1	0
Aluminum	ppm	<1	<1	2	2
Chromium	ppm	0	0	<1	<1
Molybdenum	ppm	12	91	99	84
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	<1
Manganese	ppm	0	0	<1	<1
Vanadium	ppm	0	0	0	0



#### Additives

Calcium	ppm	2427	2205	2331	1978
Magnesium	ppm	47	54	73	228
Zinc	ppm	1167	1291	1288	1195
Phosphorus	ppm	978	1040	1117	1005
Barium	ppm	0	0	0	0
Boron	ppm	9	48	74	49

#### Diagnosis

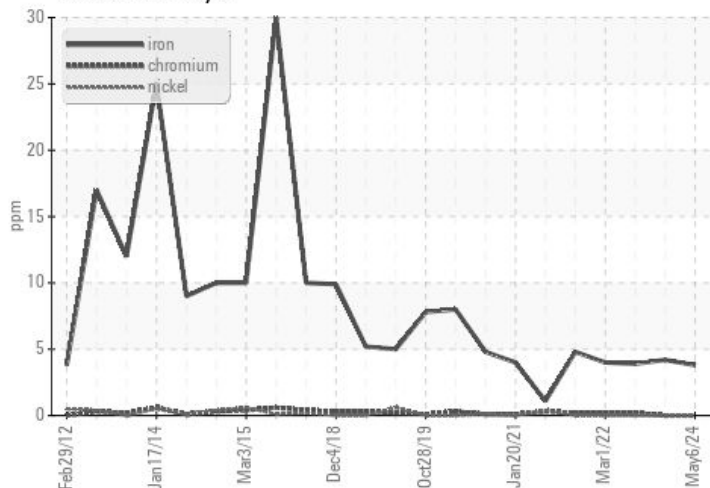
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: INTMORLH  
Unique No: 11018260  
Signed: Wes Davis  
Report Date: 09 May 2024

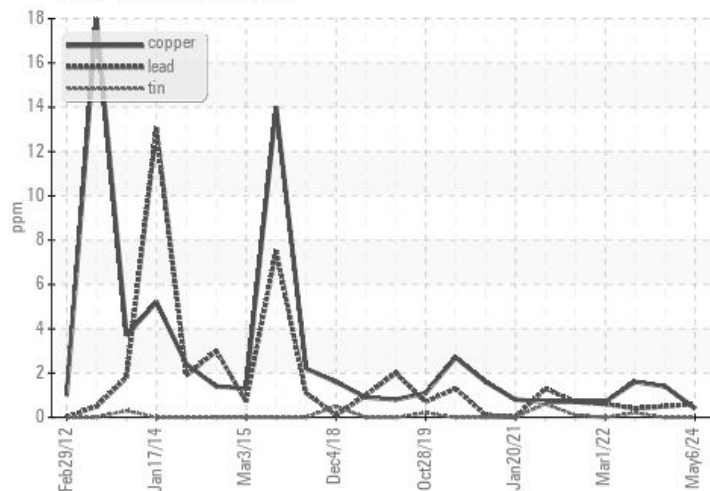


### Graphs

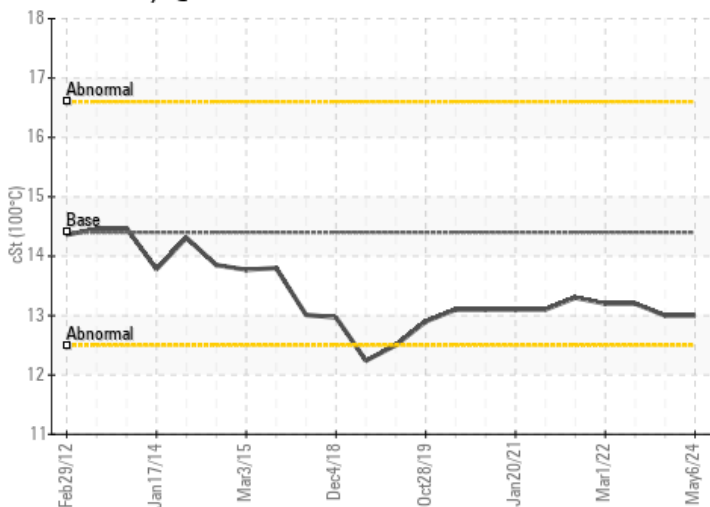
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 100°C



#### Base Number

