

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR A904C071146-1071 - Diesel Engine

Sample No: LH0259102

Oil Type: LIEBHERR MOTOROIL 10W-40



#### SAMPLE INFORMATION

Sample Number	LH0259102	LH0254209	LHMC100095	LHMC100048
Sample Date	12 Jun 2023	16 Mar 2023	18 Apr 2016	11 Jan 2016
Machine Hours	12434	12177	1547	1053
Oil Hours	2000	500	500	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

#### BAY DISPOSAL

2224 SPRINGFIELD AVE  
NORFOLK, VA  
US 23523  
Contact: SERVICE MANAGER



#### OIL CONDITION

Visc @ 100°C	cSt	13.2	13.1	13.00	13.1
Base Number (BN)	mg KOH/g	17.2	17.7	---	---
Oxidation (PA)	%	39	39	48	40

T:  
F:



#### CONTAMINATION

Soot %	%	0.5	0.3	0.1	0.1
Nitration (PA)	%	101	92	92	67
Sulfation (PA)	%	43	42	47	42
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	8	9	10
Sodium	ppm	2	4	3	7
Potassium	ppm	2	0	7	4

#### 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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.



#### WEAR METALS

Iron	ppm	13	8	14	20
Copper	ppm	3	2	9	26
Lead	ppm	<1	0	<1	1
Tin	ppm	<1	<1	0	0
Aluminum	ppm	2	3	2	2
Chromium	ppm	<1	<1	<1	2
Molybdenum	ppm	<1	<1	0	1
Nickel	ppm	<1	0	<1	<1
Titanium	ppm	<1	<1	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	1	<1	<1
Vanadium	ppm	0	<1	0	0



#### ADDITIVES

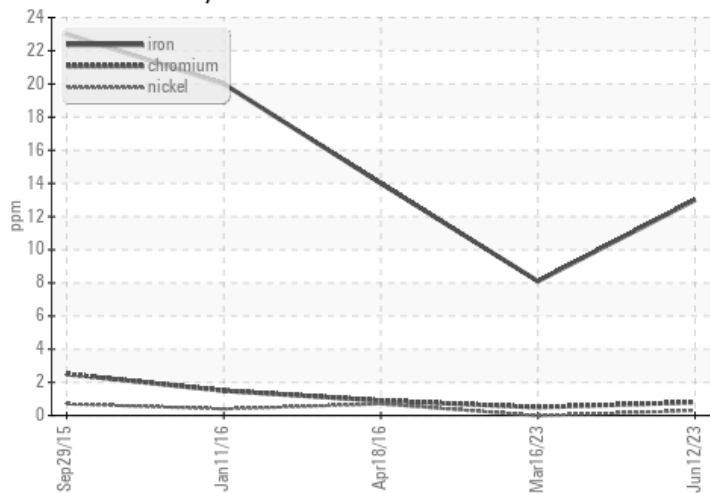
Calcium	ppm	4568	4656	4303	4599
Magnesium	ppm	16	21	23	40
Zinc	ppm	1244	1280	1163	1128
Phosphorus	ppm	1084	1048	1000	938
Barium	ppm	0	0	<1	7
Boron	ppm	320	271	203	208

Depot: BAYNOR  
Unique No: 10548600  
Signed: Wes Davis  
Report Date: 10 Jul 2023

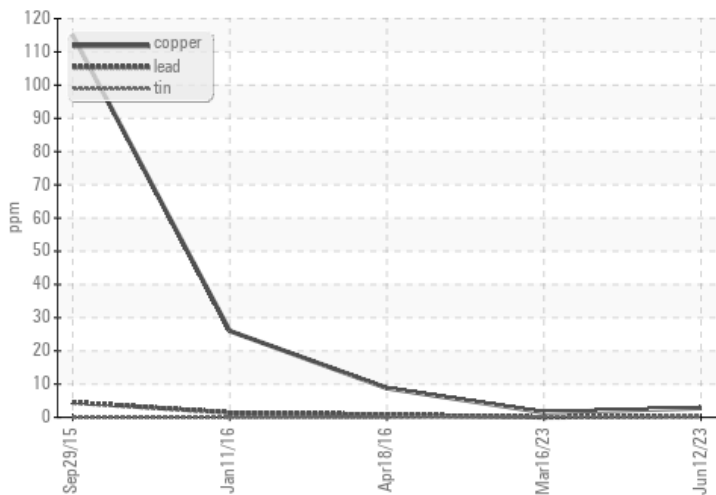


### GRAPHS

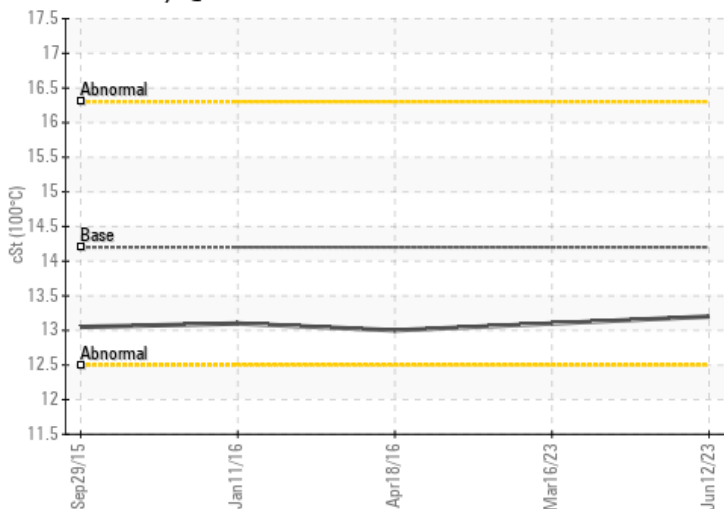
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 100°C



#### Base Number

