

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH50M 1203-78470 - Diesel Engine

Sample No: LH0264418

Oil Type: LIEBHERR MOTOROIL 10W-40 LOW ASH



Sample Information

Sample Number	LH0264418	LHMC72906	LHMC103565	LHMC74274
Sample Date	26 Jun 2024	06 Feb 2019	03 Oct 2018	07 Dec 2017
Machine Hours	246	5203	4452	3063
Oil Hours	246	751	712	446
Oil Changed	Not Chngd	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

PSC METALS INC
 214 GARDNER AVE
 NEW CASTLE, PA
 US 16101
 Contact: SERVICE MANAGER



Oil Condition

Visc @ 100°C	cSt	13.1	13.58	15.3	15.11
Base Number (BN)	mg KOH/g	9.5	---	---	---
Oxidation (PA)	%	74	98	95	72

T:
F:



Contamination

Water	%	NEG	NEG	0.108	NEG
Soot %	%	0.2	1.2	1.4	0.6
Nitration (PA)	%	74	114	130	83
Sulfation (PA)	%	53	75	78	64
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	12	9	8	7
Sodium	ppm	6	3	6	3
Potassium	ppm	16	4	5	<1

Diagnosis

Resample at the next service interval to monitor. Metal levels are typical for a new component breaking in. 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	29	59	51	26
Copper	ppm	25	10	19	3
Lead	ppm	4	17	28	1
Tin	ppm	2	1	<1	0
Aluminum	ppm	5	23	13	10
Chromium	ppm	<1	3	2	2
Molybdenum	ppm	4	0	<1	<1
Nickel	ppm	0	<1	<1	<1
Titanium	ppm	0	0	0	<1
Silver	ppm	0	0	0	0
Manganese	ppm	2	<1	2	<1
Vanadium	ppm	0	0	0	0



Additives

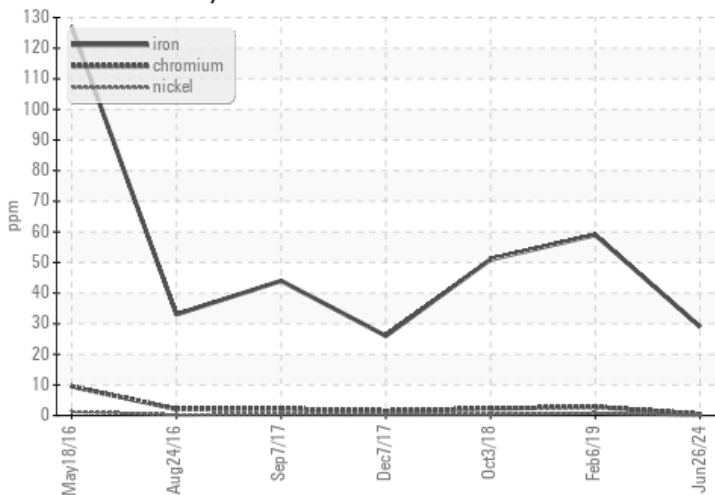
Calcium	ppm	1604	1952	2481	2351
Magnesium	ppm	781	215	20	19
Zinc	ppm	988	715	788	731
Phosphorus	ppm	868	625	546	629
Barium	ppm	21	<1	0	<1
Boron	ppm	140	34	8	1

Depot: PSCNEW
Unique No: 11112905
Signed: Wes Davis
Report Date: 09 Jul 2024

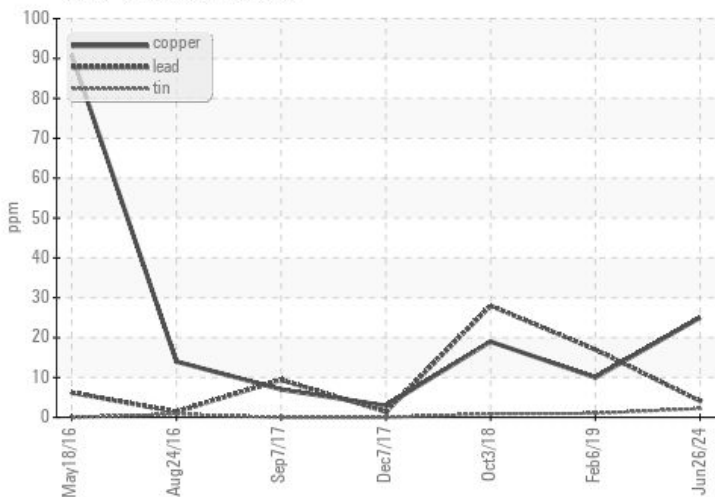


Graphs

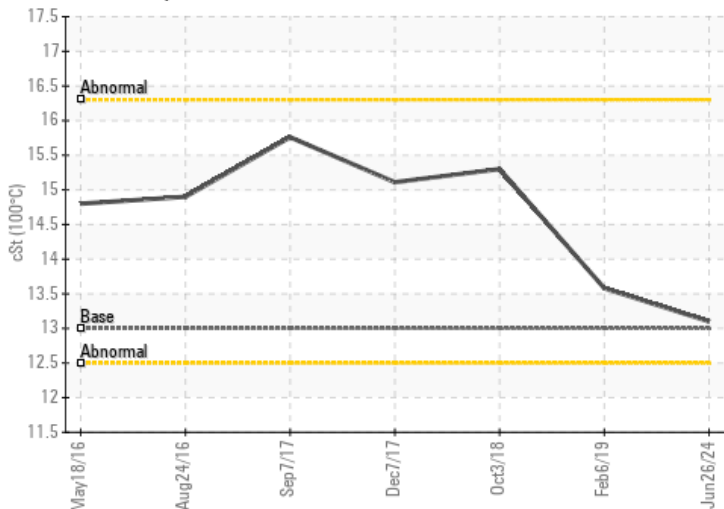
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

