

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH80M 1213-92590 - Diesel Engine

Sample No: LH0267595

Oil Type: DIESEL ENGINE OIL SAE 5W40



SAMPLE INFORMATION

Sample Number	LH0267595	LH0254130	LHMC115814	LHMC130104
Sample Date	07 Nov 2023	05 Apr 2023	22 Feb 2021	09 May 2020
Machine Hours	10758	9485	7463	6109
Oil Hours	0	500	500	750
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	ABNORMAL	NORMAL	ABNORMAL

OZINGA BROS INC

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MOKENA, IL
US 60448
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T: (847)344-1443
F:



OIL CONDITION

Visc @ 100°C	cSt	13.2	13.5	12.7	13.0
Base Number (BN)	mg KOH/g	7.0	7.3	---	---
Oxidation (PA)	%	62	72	84	109



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.4	0.8	1.3	1.3
Nitration (PA)	%	76	96	110	139
Sulfation (PA)	%	58	59	73	75
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	14	7	9
Sodium	ppm	0	6	5	2
Potassium	ppm	6	14	5	9



WEAR METALS

Iron	ppm	11	54	34	58
Copper	ppm	92	296	20	184
Lead	ppm	<1	4	5	25
Tin	ppm	<1	3	<1	2
Aluminum	ppm	3	11	9	14
Chromium	ppm	<1	2	2	4
Molybdenum	ppm	34	31	1	3
Nickel	ppm	<1	<1	<1	4
Titanium	ppm	1	0	<1	<1
Silver	ppm	0	0	<1	<1
Manganese	ppm	<1	2	<1	1
Vanadium	ppm	0	0	<1	0



ADDITIVES

Calcium	ppm	1430	1289	1549	2550
Magnesium	ppm	575	811	673	20
Zinc	ppm	919	969	851	774
Phosphorus	ppm	809	784	758	652
Barium	ppm	9	0	<1	2
Boron	ppm	32	41	24	2

Diagnosis

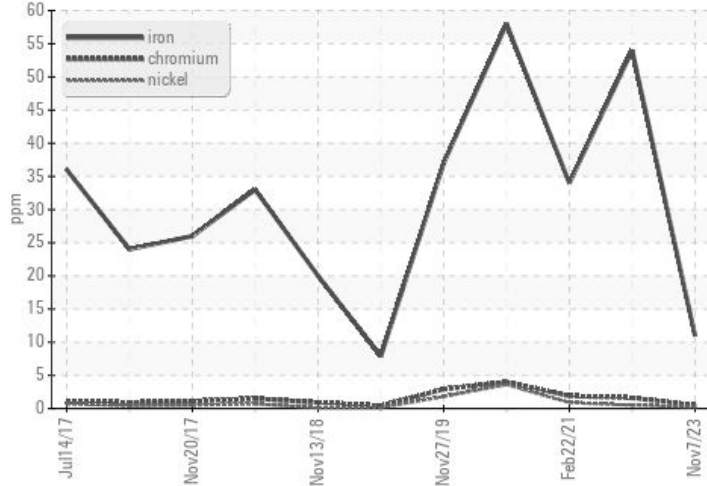
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil.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

Depot: OZIMOKLH
Unique No: 10806008
Signed: Wes Davis
Report Date: 27 Dec 2023

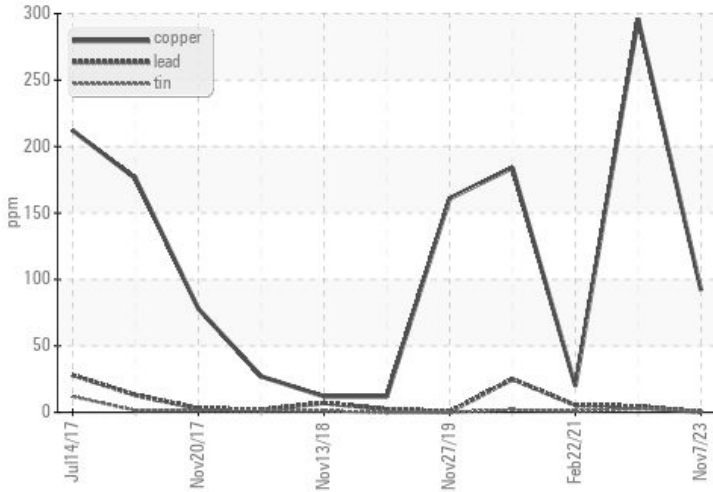


GRAPHS

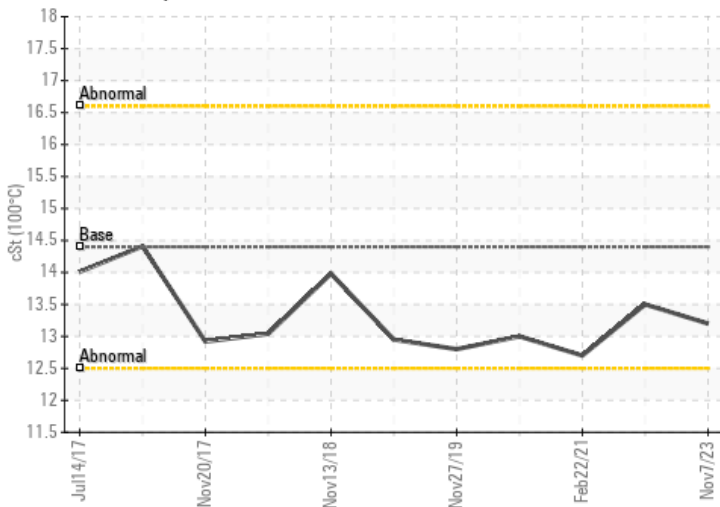
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

