

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH80M 1218-157090 - Diesel Engine

Sample No: LH0267278

Oil Type: DIESEL ENGINE OIL SAE 15W40



Sample Information

Sample Number	LH0267278	LH0267538	LH0282872	LH0282891
Sample Date	10 Jun 2024	29 May 2024	18 May 2024	03 May 2024
Machine Hours	2008	1734	1559	1198
Oil Hours	488	214	0	0
Oil Changed	Changed	Not Changd	Changed	Not Changd
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

KINDER MORGAN

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Oil Condition

Visc @ 100°C	cSt	12.9	13.2	12.3	12.7
Base Number (BN)	mg KOH/g	6.7	7.3	6.7	7.4
Oxidation (PA)	%	63	58	70	63



Contamination

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0	0.1	0.1
Nitration (PA)	%	72	59	68	53
Sulfation (PA)	%	55	53	59	58
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	12	10	13	9
Sodium	ppm	0	1	4	3
Potassium	ppm	5	3	4	3



Wear Metals

Iron	ppm	16	6	7	4
Copper	ppm	3	2	14	9
Lead	ppm	1	<1	1	<1
Tin	ppm	<1	<1	1	<1
Aluminum	ppm	3	3	5	3
Chromium	ppm	<1	<1	1	<1
Molybdenum	ppm	87	97	106	80
Nickel	ppm	<1	<1	<1	<1
Titanium	ppm	2	2	<1	<1
Silver	ppm	0	0	1	1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	<1	<1	<1	<1



Additives

Calcium	ppm	1824	1997	1695	1273
Magnesium	ppm	245	281	553	405
Zinc	ppm	1238	1349	1518	1121
Phosphorus	ppm	1062	1164	1295	961
Barium	ppm	<1	<1	3	2
Boron	ppm	213	298	420	403

Diagnosis

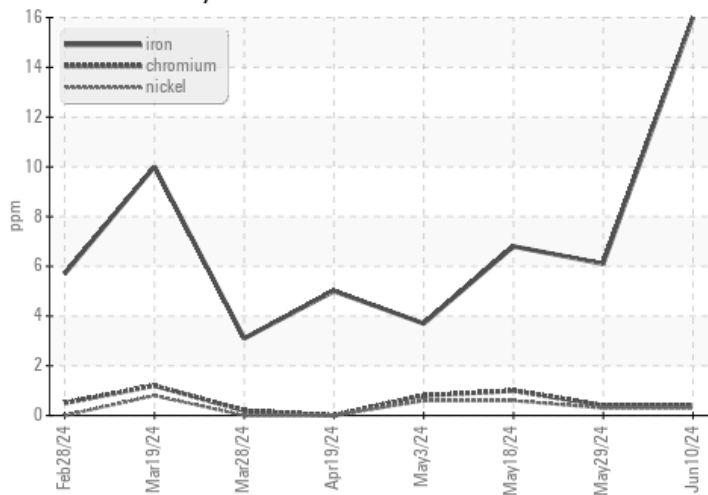
Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil.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

Depot: KINTRI
Unique No: 11088316
Signed: Wes Davis
Report Date: 21 Jun 2024

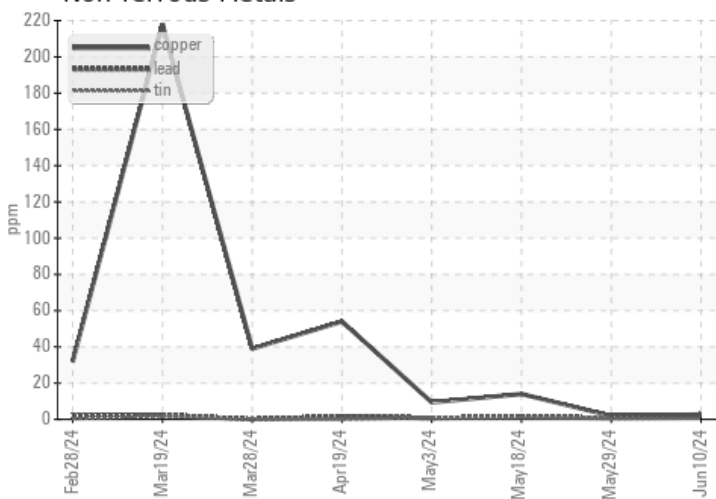


Graphs

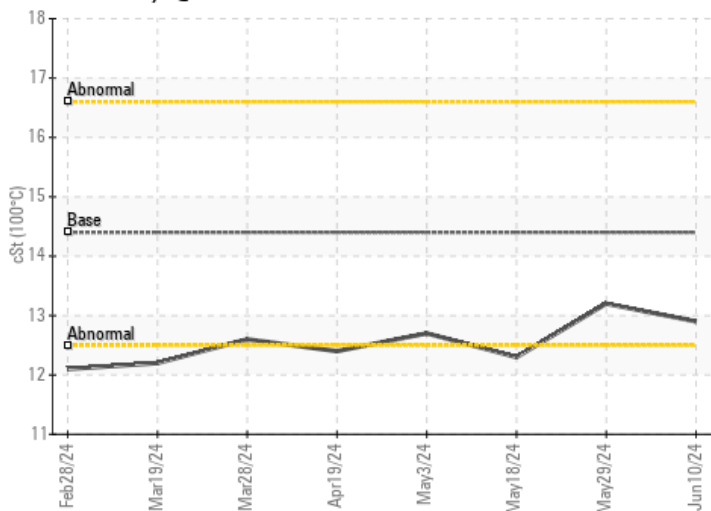
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

