LIEBHERR
CONSTRUCTION EQUIPMENT

LIEBHERR LH30M 1253-118648 - Diesel Engine

Sample No: LH0272219

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH

JR VINAGRO
2208 PLAINFIELD PIKE
JOHNSTON, RI
US 02919
Contact: Service Manager

T:
F:

Sample Information

Sample Number		**LH0272219**	LH0244507	LH0207310	---
Sample Date		**17 Jun 2024**	07 Mar 2023	09 Nov 2021	---
Machine Hours		**1690**	1690	952	---
Oil Hours		**952**	738	952	---
Oil Changed		**Changed**	Filtered	Changed	---
Sample Status		**NORMAL**	NORMAL	ABNORMAL	---

Oil Condition

Visc @ 100°C	cSt	**11.0**	10.9	11.6	---
Base Number (BN)	mg KOH/g	**13.7**	11.1	---	---
Oxidation (PA)	%	**54**	61	27	---

Contamination

Water	%	**NEG**	NEG	NEG	---
Soot %	%	**0.1**	0.1	0.2	---
Nitration (PA)	%	**108**	104	51	---
Sulfation (PA)	%	**48**	47	38	---
Glycol	%	**NEG**	NEG	NEG	---
Fuel	%	**<1.0**	<1.0	<1.0	---
Silicon	ppm	**10**	11	11	---
Sodium	ppm	**2**	<1	3	---
Potassium	ppm	**4**	4	5	---

Wear Metals

Iron	ppm	**11**	13	12	---
Copper	ppm	**12**	44	340	---
Lead	ppm	**<1**	<1	4	---
Tin	ppm	**<1**	1	2	---
Aluminum	ppm	**3**	1	2	---
Chromium	ppm	**<1**	<1	<1	---
Molybdenum	ppm	**<1**	9	59	---
Nickel	ppm	**0**	0	<1	---
Titanium	ppm	**0**	<1	<1	---
Silver	ppm	**<1**	0	<1	---
Manganese	ppm	**1**	<1	2	---
Vanadium	ppm	**0**	0	0	---

Additives

Calcium	ppm	**4413**	4111	1393	---
Magnesium	ppm	**40**	115	824	---
Zinc	ppm	**1231**	1174	848	---
Phosphorus	ppm	**1044**	998	631	---
Barium	ppm	**<1**	5	21	---
Boron	ppm	**215**	247	78	---

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.

Depot: JRVJOH
Unique No: 11098673
Signed: Don Baldridge
Report Date: 27 Jun 2024

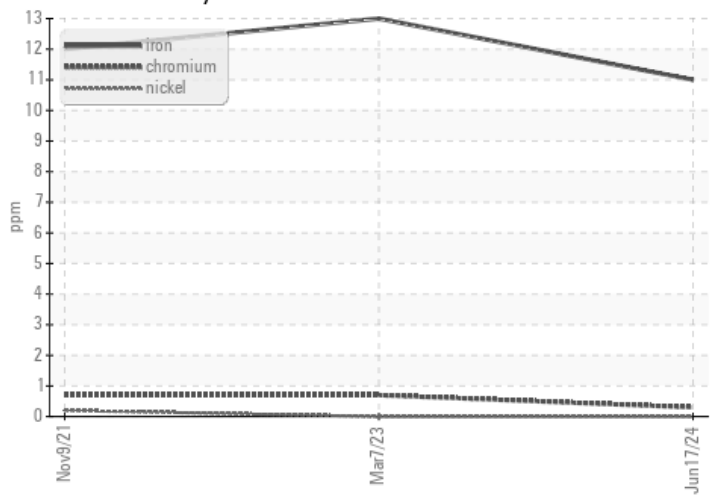
Report Id: JRVJOH [WUSCAR] 06220476 (Generated: 06/29/2024 07:44:33) Rev: 1

Submitted By: MIKE MACKINNON

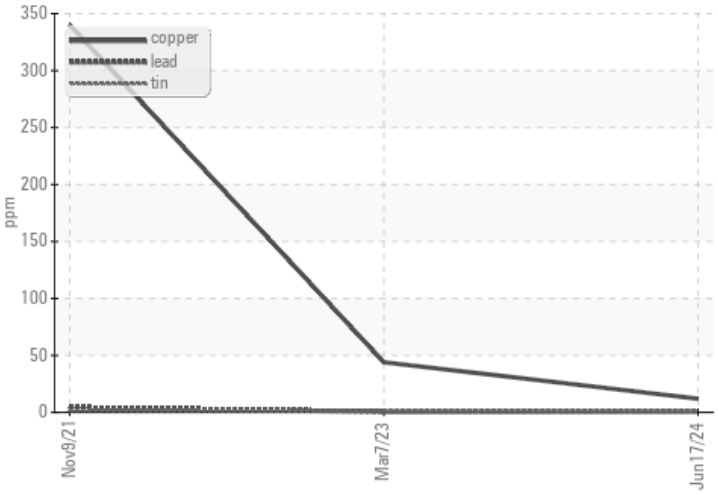
LIEBHERR
CONSTRUCTION EQUIPMENT

Graphs

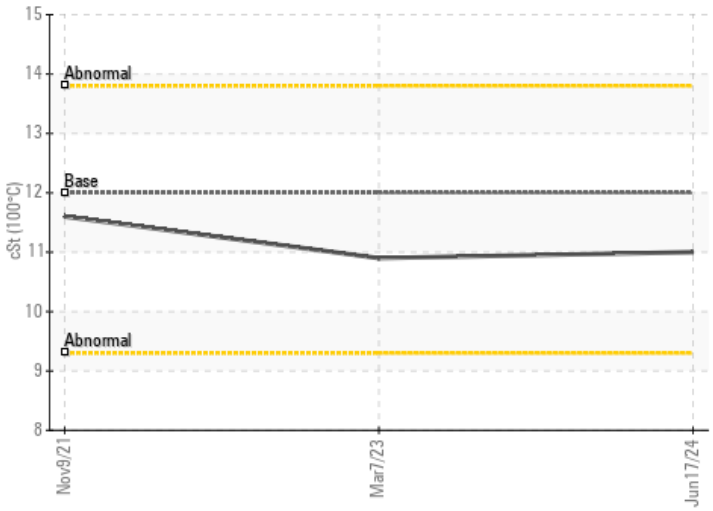
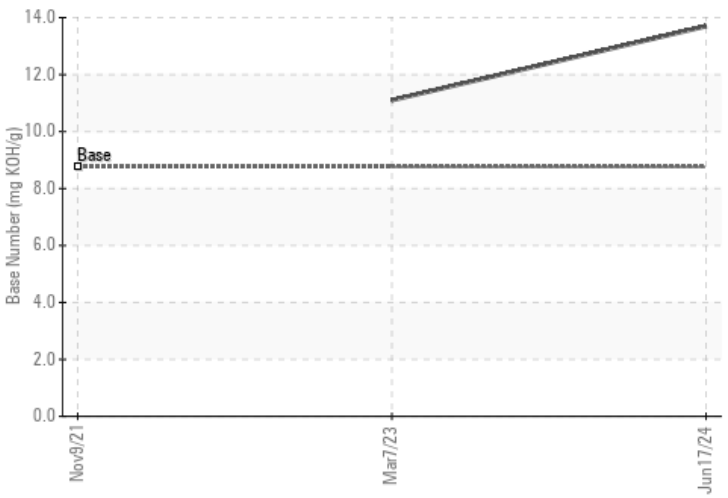
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number