

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR L556 055501-1332 - Diesel Engine

Sample No: LH0254703

Oil Type: LIEBHERR MOTOROIL 5W30



SAMPLE INFORMATION

Sample Number	LH0254703	LH0254713	LH0207997	LH0220830
Sample Date	06 Feb 2024	24 Sep 2023	22 Feb 2023	12 Aug 2022
Machine Hours	7216	6554	5381	4360
Oil Hours	0	0	0	0
Oil Changed	Not Changd	N/A	Not Changd	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

INTERSTATE POWER SYSTEMS

407 ADVENTURLAND DR NE
ALTOONA, IA
US 50009
Contact: DALTON JOHNSON
dalton.johnson@istate.com
T: (515)957-3300
F:



OIL CONDITION

Visc @ 100°C	cSt	11.6	11.9	11.4	11.6
Base Number (BN)	mg KOH/g	12.8	6.9	11.2	9.0
Oxidation (PA)	%	58	119	66	103



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.2	0.1	0.2
Nitration (PA)	%	120	184	122	151
Sulfation (PA)	%	49	72	53	71
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	10	19	12	10
Sodium	ppm	4	4	3	1
Potassium	ppm	2	7	4	2



WEAR METALS

Iron	ppm	10	30	12	27
Copper	ppm	2	8	3	10
Lead	ppm	3	15	3	15
Tin	ppm	<1	2	1	<1
Aluminum	ppm	3	4	4	2
Chromium	ppm	<1	2	<1	1
Molybdenum	ppm	<1	5	2	18
Nickel	ppm	<1	0	0	0
Titanium	ppm	0	<1	0	0
Silver	ppm	0	0	0	<1
Manganese	ppm	<1	1	1	<1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	4502	4168	4307	3178
Magnesium	ppm	30	74	38	153
Zinc	ppm	1292	1239	1229	1092
Phosphorus	ppm	1109	1000	957	908
Barium	ppm	0	0	0	0
Boron	ppm	208	154	204	112

Diagnosis

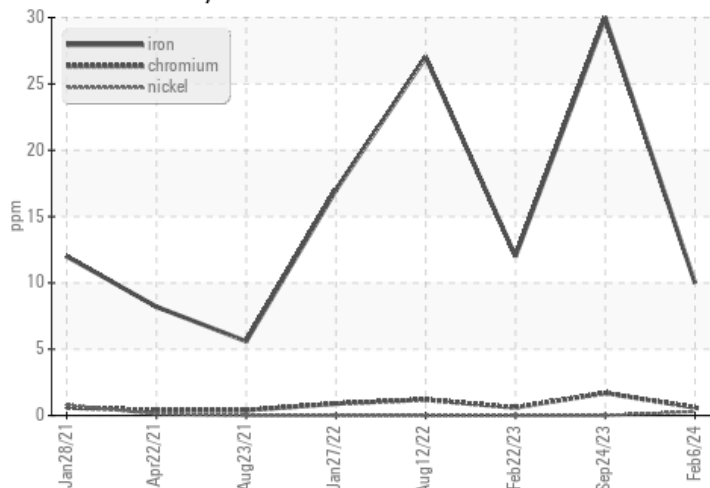
Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Depot: INTALT
Unique No: 10910075
Signed: Wes Davis
Report Date: 04 Mar 2024

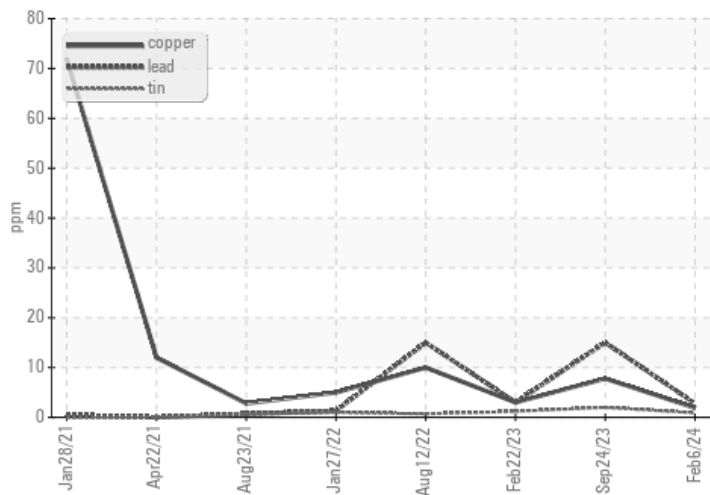


GRAPHS

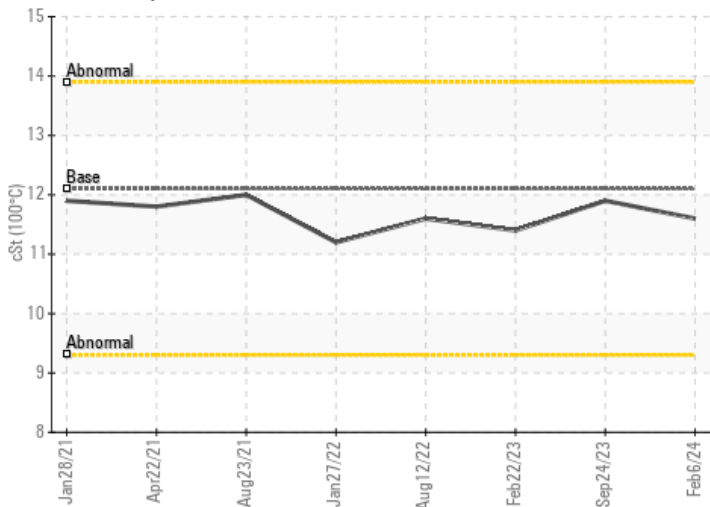
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

