

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L586 065499-1761- Diesel Engine

Sample No: LH0268338

Oil Type: LIEBHERR MOTOROIL 5W-30 LOW ASH



#### SAMPLE INFORMATION

Sample Number	LH0268338	LH0229262	LH0217464	LH0217430
Sample Date	07 Feb 2024	24 Mar 2023	11 Jul 2022	10 Mar 2022
Machine Hours	6246	3987	2017	1032
Oil Hours	2259	1970	1000	1032
Oil Changed	N/A	Changed	Changed	Filtered
Sample Status	NORMAL	NORMAL	ATTENTION	ATTENTION

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



#### OIL CONDITION

Visc @ 100°C	cSt	10.8	11.0	11.8	11.8
Base Number (BN)	mg KOH/g	9.6	11.7	4.8	6.0
Oxidation (PA)	%	76	77	212	200

T:  
F:



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.3	0.2	0.2	0.1
Nitration (PA)	%	126	126	144	111
Sulfation (PA)	%	57	57	112	108
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	6	8	10	9
Sodium	ppm	2	3	2	<1
Potassium	ppm	2	4	14	5

#### 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.



#### WEAR METALS

Iron	ppm	19	17	28	14
Copper	ppm	5	19	173	172
Lead	ppm	<1	1	12	2
Tin	ppm	<1	1	2	<1
Aluminum	ppm	3	4	4	3
Chromium	ppm	2	2	2	<1
Molybdenum	ppm	7	4	39	41
Nickel	ppm	0	0	0	0
Titanium	ppm	0	<1	<1	<1
Silver	ppm	0	0	0	0
Manganese	ppm	<1	1	2	2
Vanadium	ppm	0	0	0	0



#### ADDITIVES

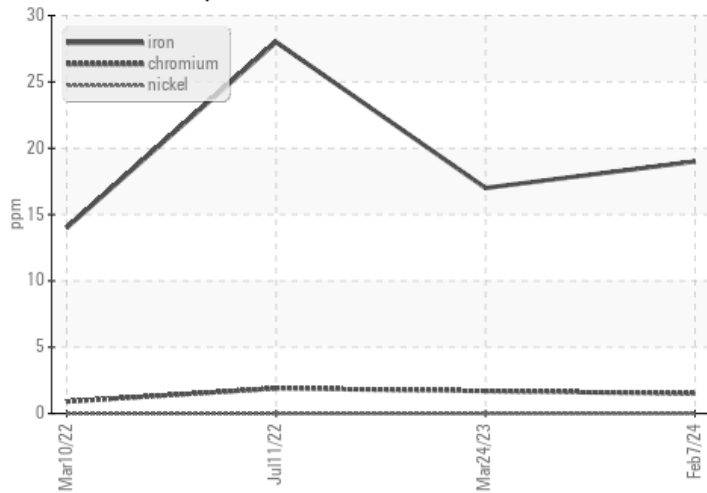
Calcium	ppm	3718	4362	2044	1966
Magnesium	ppm	159	91	729	805
Zinc	ppm	1175	1262	1013	1055
Phosphorus	ppm	1039	1001	814	848
Barium	ppm	0	0	8	<1
Boron	ppm	166	203	101	129

**Depot:** JRVJOH  
**Unique No:** 10873320  
**Signed:** Don Baldrige  
**Report Date:** 13 Feb 2024

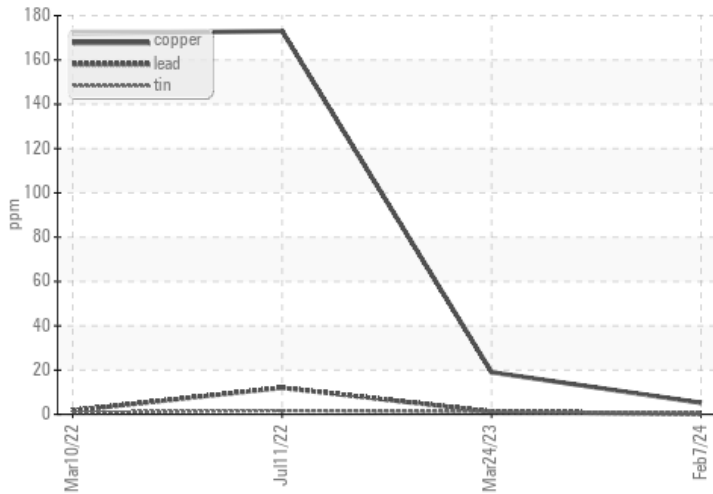


### GRAPHS

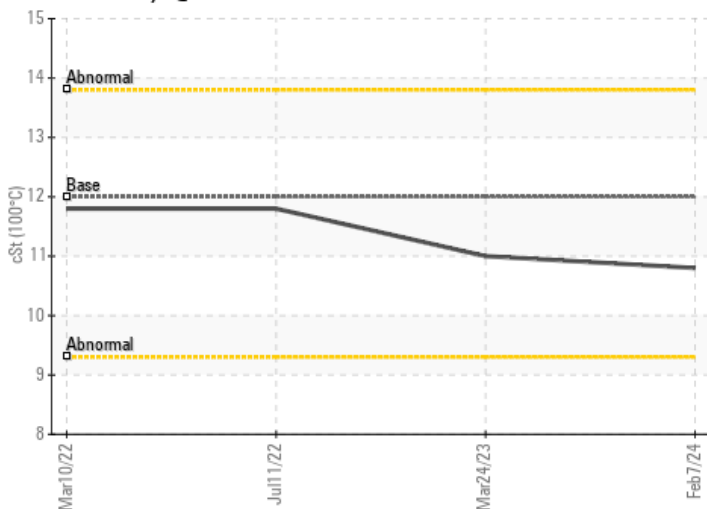
#### Ferrous Alloys



#### Non-ferrous Metals



#### Viscosity @ 100°C



#### Base Number

