

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### LIEBHERR L580 1414-56018 - Diesel Engine

Sample No: LH06111813

Oil Type: LIEBHERR MOTOROIL 5W30



#### SAMPLE INFORMATION

Sample Number	LH06111813	LH06077364	LH0158328	LH06027016
Sample Date	06 Mar 2024	31 Jan 2024	13 Jan 2024	05 Dec 2023
Machine Hours	15997	15515	1000	0
Oil Hours	0	0	0	15017
Oil Changed	Changed	Not Changd	N/A	Changed
Sample Status	NORMAL	NORMAL	NORMAL	NORMAL

**VERSO CORP - QUINNESEC MILL**  
W6791 US HWY 2  
QUINNESEC, MI  
US 49876  
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#### OIL CONDITION

Visc @ 100°C	cSt	12.4	12.1	12.0	12.6
Base Number (BN)	mg KOH/g	11.7	13.7	15.0	12.1
Oxidation (PA)	%	84	66	50	89



#### CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.2	0.1	0.1	0.2
Nitration (PA)	%	151	133	108	157
Sulfation (PA)	%	63	53	46	67
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	7	8	9
Sodium	ppm	4	3	4	3
Potassium	ppm	0	0	0	0



#### WEAR METALS

Iron	ppm	12	6	7	12
Copper	ppm	1	<1	<1	2
Lead	ppm	<1	2	<1	2
Tin	ppm	<1	1	<1	2
Aluminum	ppm	2	2	2	3
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	1	<1	2	1
Nickel	ppm	0	0	0	1
Titanium	ppm	0	<1	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	0
Vanadium	ppm	<1	0	<1	<1



#### ADDITIVES

Calcium	ppm	4830	4475	4350	5013
Magnesium	ppm	33	34	50	52
Zinc	ppm	1279	1229	1245	1366
Phosphorus	ppm	1067	1090	1140	1101
Barium	ppm	0	0	0	0
Boron	ppm	268	269	267	239

#### 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: VERQUI  
Unique No: 10915310  
Signed: Wes Davis  
Report Date: 08 Mar 2024



### GRAPHS

