

LIEBHERR

CONSTRUCTION EQUIPMENT



LIEBHERR LH30M 1200-72683 - Diesel Engine

Sample No: LH0272810

Oil Type: DIESEL ENGINE OIL SAE 15W40



SPARTAN RECYCLING
 3071 HOWARD ST
 SPARTANBURG, SC
 US 29303
 Contact: SERVICE MANAGER



SAMPLE INFORMATION

Sample Number	LH0272810	LH06062318	LH0235763	LH0217614
Sample Date	08 Mar 2024	12 Jan 2024	27 Sep 2023	23 Mar 2023
Machine Hours	15146	14822	14249	13667
Oil Hours	0	0	0	1000
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	ATTENTION	ATTENTION	NORMAL	NORMAL



OIL CONDITION

Visc @ 100°C	cSt	11.7	11.7	12.3	13.4
Base Number (BN)	mg KOH/g	16.8	16.3	16.1	7.2
Oxidation (PA)	%	40	43	43	61

T:
F:



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.2	0.1	0.2
Nitration (PA)	%	91	98	82	84
Sulfation (PA)	%	39	42	41	54
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	0.6	<1.0
Silicon	ppm	8	9	7	9
Sodium	ppm	9	14	5	18
Potassium	ppm	0	2	0	4

Diagnosis

Oil and filter change at the time of sampling has been noted. 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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.



WEAR METALS

Iron	ppm	10	17	9	13
Copper	ppm	<1	3	10	2
Lead	ppm	0	<1	1	0
Tin	ppm	0	<1	<1	<1
Aluminum	ppm	2	3	0	5
Chromium	ppm	0	<1	<1	<1
Molybdenum	ppm	0	3	10	82
Nickel	ppm	0	0	0	0
Titanium	ppm	0	0	<1	<1
Silver	ppm	0	0	<1	0
Manganese	ppm	0	<1	<1	<1
Vanadium	ppm	0	<1	<1	<1



ADDITIVES

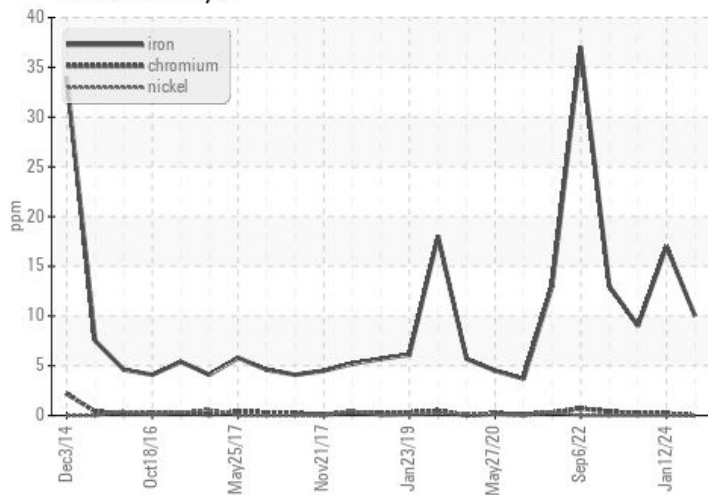
Calcium	ppm	4218	4408	3768	2327
Magnesium	ppm	23	31	111	53
Zinc	ppm	1097	1218	1219	1183
Phosphorus	ppm	1018	1071	1028	1016
Barium	ppm	0	0	0	2
Boron	ppm	236	232	234	82

Depot: SPASPALH
 Unique No: 10924466
 Signed: Don Baldrige
 Report Date: 13 Mar 2024

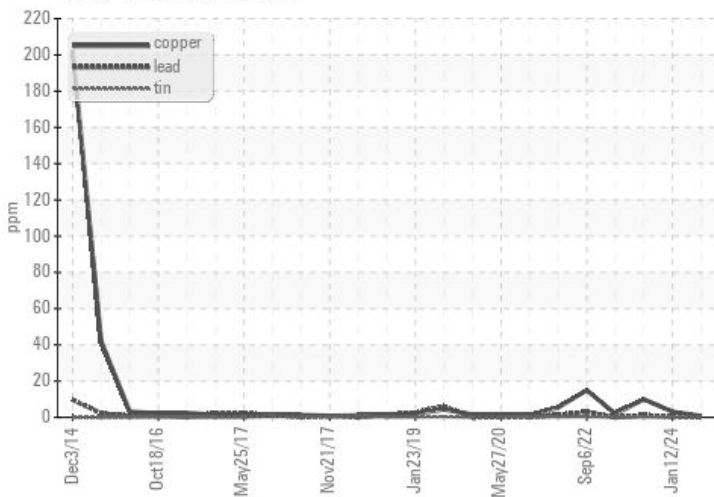


GRAPHS

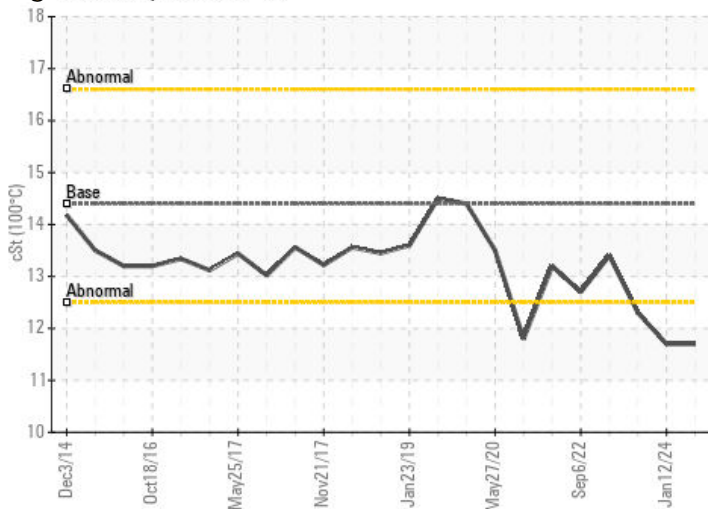
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

