LIEBHERR

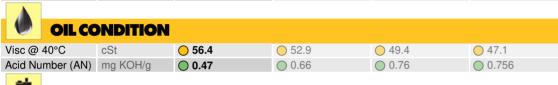
CONSTRUCTION EQUIPMENT

LIEBHERR LH3OM 117414-1253 - Hydraulic System

Sample No: LH0235760

Oil Type: AW HYDRAULIC OIL ISO 46

SAMPLE INFORMATION								
Sample Number	LH0235760	LH0217603	LHMC160751	LH0203973				
Sample Date	26 Sep 2023	14 Jul 2022	03 Mar 2022	23 Nov 2021				
Machine Hours	0	0	4332	3693				
Oil Hours	0	0	4332	0				
Oil Changed	N/A	N/A	Not Changd	N/A				
Sample Status	ABNORMAL	ATTENTION	ABNORMAL	ABNORMAL				



CONTAMINATION					
Water	%	0.071			
Particles >4µm			O 27155	1978	O 12082
Particles >6µm			O 6381	465	2416
Particles >14µm			○ 352	39	O 122
ISO 4406:1999 (c)			22/20/16	18/16/12	21/18/14
Silicon	ppm	2	O 1	O 2	O 2
Sodium	ppm	0	0	O 0	O 2
Potassium	ppm	0 <1	0	O 2	O <1

WEA	R METAL	S			
Iron	ppm	9 3	3 7	O 92	O 82
Copper	ppm	5	O 2	6	6
Lead	ppm	 <1		O 1	O 1
Tin	ppm	0	O <1	O <1	O <1
Aluminum	ppm	0	O 0	O 2	O <1
Chromium	ppm	2		O 2	O 2
Molybdenum	ppm	 <1	O <1	O <1	O <1
Nickel	ppm	0	O 0	0	O 0
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	<1	<1
Manganese	ppm	2	O <1	2	O 1
Vanadium	ppm	0	0	0	0

	le le				
ADD					
	ITIVES	0.151	0.015		0.400=
Calcium	ppm	158	○ 315	860	1007
Magnesium	ppm	48	9	O 12	O 7
Zinc	ppm	366	O 198	O 615	581
Phosphorus	ppm	282	O 170	469	451
Barium	ppm	0	O 0	O	O 0
Boron	ppm	0	O <1		4



SPARTAN RECYCLING 3071 HOWARD ST SPARTANBURG, SC US 29303

Contact: SERVICE MANAGER

T: F:

Diagnosis

We recommend you service the filters on this component. Resample at the next service interval to monitor. We were unable to perform a particle count due to a high concentration of particles present in this sample. The iron level is abnormal. High concentration of visible dirt/debris present in the oil. The oil viscosity is higher than normal. Confirm oil type. The AN level is acceptable for this fluid.

Depot:SPASPALHUnique No:10674274Signed:Don BaldridgeReport Date:05 Oct 2023

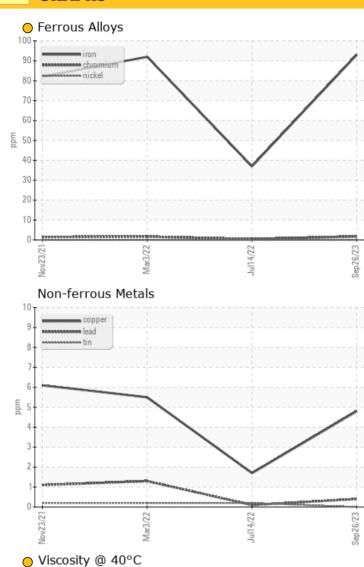
LIEBHERR

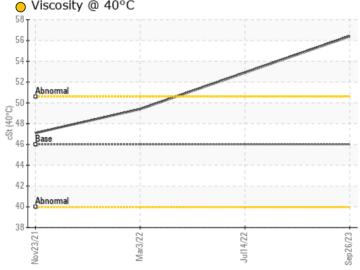
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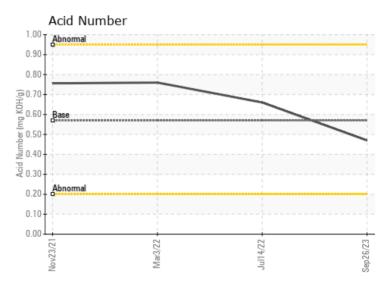




GRAPHS







Report Id: SPASPALH [WUSCAR] 05967723 (Generated: 10/06/2023 14:09:06) Rev: 1