LIEBHERR

CONSTRUCTION EQUIPMENT



[(341438)] LIEBHERR LH60C 119413-1528 - Diesel Engine

Sample No: LH0281007

Oil Type: PETRO CANADA SUPREME SYNTHETIC 5W40

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SAM	PLE INF	ORMATION			
Sample Number		LH0281007	LH0269770	LH0224961	LH0224899
Sample Date		24 Jan 2024	21 Sep 2023	27 Oct 2022	13 May 2022
Machine Hours		8175	7642	6459	5497
Oil Hours		0	0	0	0
Oil Changed		Changed	Changed	Changed	Changed
Sample Status		MARGINAL	NORMAL	ABNORMAL	ABNORMAL
<u> </u>					
OILC	ONDITI	ON			
Visc @ 100°C	cSt	12.4	O 11.6	O 11.8	O 11.6
Oxidation (PA)	%	86	96	80	90
-4					
CON	TAMIN	ATION			

CONTAMINATION					
Water	%	NEG	NEG	NEG	NEG
Soot %	%	0	O 0	O 0	O 0
Nitration (PA)	%	90	89	81	89
Sulfation (PA)	%	57	63	58	65
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<u> </u>	<1.0	2.2	2.1
Silicon	ppm	5	O 11	0 8	10
Sodium	ppm	3	O 5	4	4
Potassium	ppm	0	O <1	O 0	O <1

WEAR METALS					
Iron	ppm	3	5	4	O 4
Copper	ppm	2	O 2	O 1	4
Lead	ppm	0	O <1	O <1	O <1
Tin	ppm	0	0	O <1	O <1
Aluminum	ppm	0	1	1	1
Chromium	ppm	0	O <1	0	O <1
Molybdenum	ppm	60	64	57	59
Nickel	ppm	0	0	O <1	O <1
Titanium	ppm	0	0	<1	0
Silver	ppm	0	0	0	0
Manganese	ppm	0	O 0	O <1	O <1
Vanadium	ppm	0	0	0	0

ADDITIVES						
Calcium	ppm	893	○ 804	○ 867	○ 833	
Magnesium	ppm	1078	O 1148	O 1072	O 1189	
Zinc	ppm	1175	O 1213	1200	O 1272	
Phosphorus	ppm	981	993	1088	<u> </u>	
Barium	ppm	0	O <1	<1	O <1	
Boron	ppm	20	O 27	28	3 1	



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Diagnosis

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time.All component wear rates are normal. Light fuel dilution occurring. No other contaminants were detected in the oil. The condition of the oil is acceptable for the time in service.

Depot:ALT940EDMUnique No:5748393Signed:Wes DavisReport Date:21 Mar 2024

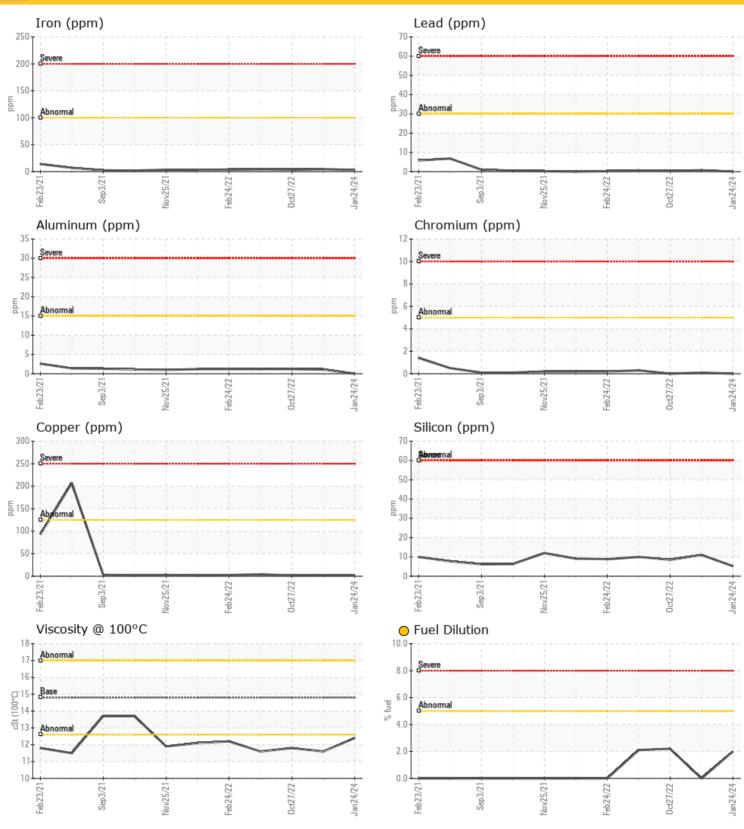
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GRAPHS



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