

## WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

## Machine Id LIEBHERR LH30M 152436-1253

Hydraulic System

LIEBHERR HYDRAULIC HVI (--- GAL)

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		DJJ0017707	DJJ0021914	
	Sample Date		Client Info		05 Jul 2024	11 Apr 2024	
	Machine Age	hrs	Client Info		934	530	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		N/A	Not Changd	
	Filter Changed		Client Info		N/A	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>50	18	12	
	Chromium	ppm	ASTM D5185m	>5	0	0	
	Nickel	ppm	ASTM D5185m	>2	0	<1	
	Titanium	ppm	ASTM D5185m		0	0	
	Silver	ppm	ASTM D5185m		0	0	
	Aluminum	ppm	ASTM D5185m	>2	0	<1	
	Lead	ppm	ASTM D5185m		0	0	
	Copper	ppm	ASTM D5185m	>10	4	4	
	Tin	ppm	ASTM D5185m	>2	0	<1	
	Vanadium	ppm	ASTM D5185m		0	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>17	2	3	
	Potassium	ppm	ASTM D5185m		<1	2	
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.	Water	le le	WC Method		NEG	NEG	
	Particles >4µm		ASTM D7647		11445	14179	
	Particles >6µm		ASTM D7647		3662	1667	
	Particles >14µm		ASTM D7647		239	92	
	Particles >21µm		ASTM D7647		45	18	
	Particles >38µm		ASTM D7647	>40	1	1	
	Particles >71µm		ASTM D7647	>10	0	0	
	Oil Cleanliness		ISO 4406 (c)	>21/19/16	21/19/15	21/18/14	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	LIGHT	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m		4	4	
	Boron	ppm	ASTM D5185m		0	0	
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	
	Molybdenum	ppm	ASTM D5185m		0	0	
	Manganese	ppm	ASTM D5185m		<1	2	
	Magnesium	ppm	ASTM D5185m	7	6	11	
	Calcium	ppm	ASTM D5185m		1203	1331	
	Phosphorus	ppm	ASTM D5185m		540	628	
	Zinc	ppm	ASTM D5185m		598	717	
	Sulfur	ppm	ASTM D5185m		4180	5033	
		PP-11			1.05	0000	

Acid Number (AN) mg KOH/g ASTM D8045 1.2

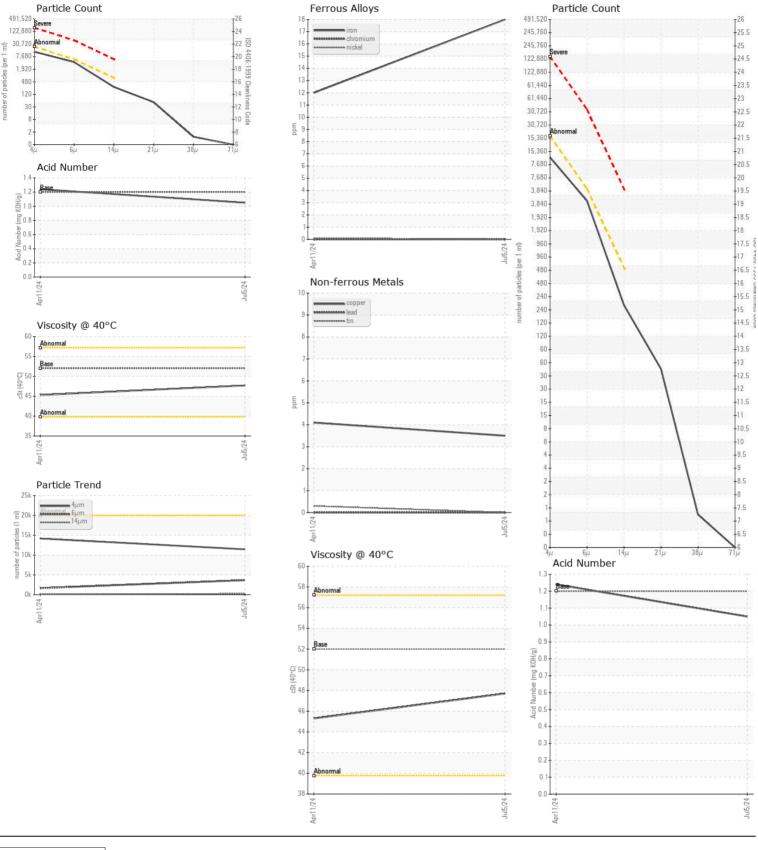
Visc @ 40°C cSt ASTM D445 52

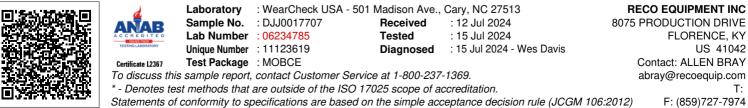
1.24

45.3 ----

1.05

47.7





Contact/Location: ALLEN BRAY - LEC0082 Page 2 of 2