

OIL ANALYSIS REPORT

Sample Rating Trend





Machine Id 120556-1216 LIEBHERR LH50M 120556-1216 Component Gearbox

GEAR OIL SAE 80W90 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		DJJ0022475		
Sample Date		Client Info		24 May 2024		
Machine Age	hrs	Client Info		9944		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
CONTAMINATION	J	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>200	37		
Chromium	ppm	ASTM D5185m	>10	<1		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m		<1		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>25	2		
Lead	ppm	ASTM D5185m	>50	0		
Copper	ppm	ASTM D5185m		4		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m		0		
Cadmium	ppm	ASTM D5185m		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	400	41		
Barium	ppm	ASTM D5185m	200	0		
Molybdenum	ppm	ASTM D5185m	12	0		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m	12	2		
Calcium	ppm	ASTM D5185m	150	10		
Phosphorus	ppm	ASTM D5185m	1650	1946		
Zinc	ppm	ASTM D5185m				
200			125	18		
Sulfur	ppm	ASTM D5185m	125 22500	18 24956		
		ASTM D5185m	22500	24956		
CONTAMINANTS	ppm	ASTM D5185m method	22500 limit/base	24956 current		
CONTAMINANTS Silicon	ppm ppm	ASTM D5185m method ASTM D5185m	22500 limit/base >50	24956 current 2	 history1 	 history2
CONTAMINANTS	ppm	ASTM D5185m method	22500 limit/base >50 >170	24956 current		
CONTAMINANTS Silicon Sodium	ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m	22500 limit/base >50 >170	24956 current 2 5 1	 history1 	 history2
CONTAMINANTS Silicon Sodium Potassium	ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m	22500 limit/base >50 >170 >20	24956 current 2 5	 history1 	 history2
CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m method	22500 limit/base >50 >170 >20 limit/base	24956 current 2 5 1 current	 history1 history1	history2 history2
CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual	22500 limit/base >50 >170 >20 limit/base NONE	24956 current 2 5 1 current NONE NONE	 history1 history1 	history2 history2
CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual	22500 limit/base >50 >170 >20 limit/base NONE NONE NONE	24956 current 2 5 1 current NONE NONE NONE	 history1 history1 	 history2 history2
CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm scalar scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual	22500 limit/base >50 >170 >20 limit/base NONE NONE NONE NONE	24956 current 2 5 1 current NONE NONE NONE NONE	 history1 history1 	+istory2 history2
CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm scalar scalar scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual	22500 limit/base >50 >170 >20 limit/base NONE NONE NONE NONE NONE	24956 current 2 5 1 current NONE NONE NONE NONE NONE	 history1 history1 	 history2 history2
CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt	ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual	22500 limit/base >50 >170 >20 limit/base NONE NONE NONE NONE NONE NONE NONE	24956 current 2 5 1 current NONE NONE NONE NONE NONE NONE NONE	 history1 history1 	+ history2 history2
CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	22500 limit/base >50 >170 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE	24956 current 2 5 1 current NONE NONE NONE NONE NONE NONE NONE NON	 history1 history1 	+ history2 history2
CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor	ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	22500 limit/base >50 >170 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE NONE	24956 current 2 5 1 Current NONE NONE NONE NONE NONE NONE NONE NON	 history1 history1 -	 history2 history2
CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance	ppm ppm ppm ppm scalar scalar scalar scalar scalar scalar scalar	ASTM D5185m method ASTM D5185m ASTM D5185m *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	22500 limit/base >50 >170 >20 limit/base NONE NONE NONE NONE NONE NONE NONE NONE NONE	24956 current 2 5 1 current NONE NONE NONE NONE NONE NONE NONE NON	 history1 history1 	 history2 history2

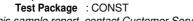


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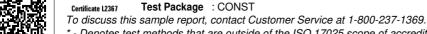
Viscosity @ 40°C



FLUID PROPERT	TIES met	thod limit/l	base current	history1	history2
Visc @ 40°C	cSt ASTM	1 D445 143	159		
SAMPLE IMAGES	S met	thod limit/l	base current	history1	history2
Color			no image	no image	no image
Bottom			no image	no image	no image
GRAPHS					
Ferrous Alloys					
35					
30+					
25 -					
툡 20 -					
15					
10					
May24/24		May24/24			
≊ Non-ferrous Metal	c	Ma			
¹⁰	5				
9 - copper sessesses lead					
7-					
6- E_5-					
4-					
3					
1-					
0 4 2 2 4		4/24			
May24,24		May24/24			
Viscosity @ 40°C					
175 Abnormal		·			
165					
승 155 우 150 경 145 Base					
145 Base					
135					
130 - Abnormal					
May24/24		May24/24 -			
Mayi		May			
: WearCheck USA - 50 : DJJ0022475 : <mark>06216180</mark>	1 Madison Ave Received Tested	., Cary, NC 27 : 20 Jun 20 : 21 Jun 20	24	R METALS RECYCLING - 4301 I	DECATUR FACIL VERSON BLY TRINITY,
: 11089044 : CONST	Diagnosed	: 21 Jun 202	24 - Wes Davis	Contact: L	US 356 ARRY BARB



Contact: LARRY BARBER larry.barber@rmrecycling.com T:



* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: LARRY BARBER - RIVTRI

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