

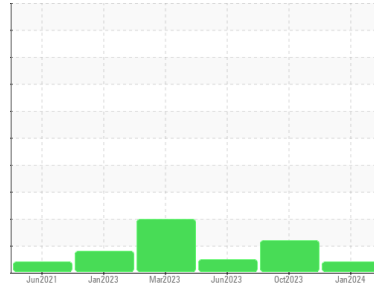


# OIL ANALYSIS REPORT



Machine Id  
**120556-1216 LIEBHERR LH50M 120556-1216**  
 Component  
**Hydraulic System**  
 Fluid  
**AW HYDRAULIC OIL ISO 46 (--- GAL)**

Sample Rating Trend



**VIS DEBRIS**



## DIAGNOSIS

### ▲ Recommendation

No corrective action is recommended at this time. The filter change at the time of sampling has been noted. 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.

### Wear

All component wear rates are normal.

### ▲ Contamination

Moderate concentration of visible dirt/debris present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid.

## SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>DJJ0022516</b>	DJJ0019882	DJJ0019874
Sample Date	Client Info		<b>03 Jan 2024</b>	11 Oct 2023	06 Jun 2023
Machine Age	hrs	Client Info	<b>9096</b>	8542	7786
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Not Chngd</b>	Changed	N/A
Sample Status			<b>ABNORMAL</b>	ATTENTION	NORMAL

## WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >60	<b>10</b>	20	26
Chromium	ppm	ASTM D5185m >40	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m >10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m	<b>0</b>	0	0
Silver	ppm	ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m >5	<b>0</b>	<1	0
Lead	ppm	ASTM D5185m >5	<b>0</b>	0	<1
Copper	ppm	ASTM D5185m >15	<b>1</b>	3	3
Tin	ppm	ASTM D5185m >5	<b>0</b>	0	0
Vanadium	ppm	ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 5	<b>0</b>	0	0
Barium	ppm	ASTM D5185m 5	<b>0</b>	0	2
Molybdenum	ppm	ASTM D5185m 5	<b>&lt;1</b>	0	0
Manganese	ppm	ASTM D5185m	<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m 25	<b>0</b>	0	<1
Calcium	ppm	ASTM D5185m 200	<b>27</b>	13	37
Phosphorus	ppm	ASTM D5185m 300	<b>315</b>	295	337
Zinc	ppm	ASTM D5185m 370	<b>400</b>	387	428
Sulfur	ppm	ASTM D5185m 2500	<b>826</b>	917	1088

## CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >15	<b>&lt;1</b>	12	<1
Sodium	ppm	ASTM D5185m	<b>&lt;1</b>	<1	0
Potassium	ppm	ASTM D5185m >20	<b>0</b>	2	<1
Water	%	ASTM D6304 >0.1	<b>0.076</b>	---	---
ppm Water	ppm	ASTM D6304 >1000	<b>760</b>	---	---

## FLUID CLEANLINESS

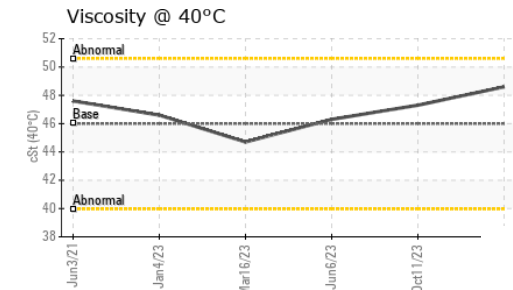
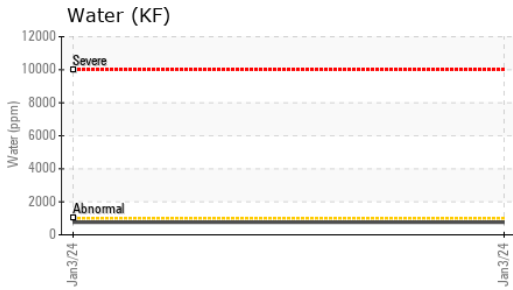
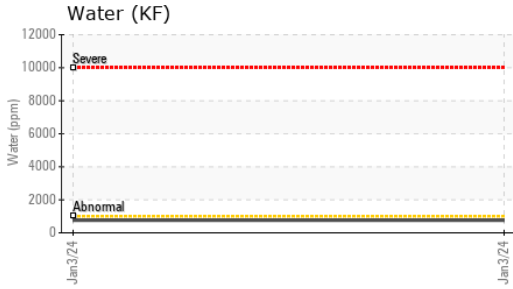
	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>20000	---	▲ 26675	5965
Particles >6µm	ASTM D7647	>5000	---	▲ 6131	1824
Particles >14µm	ASTM D7647	>640	---	302	138
Particles >21µm	ASTM D7647	>160	---	84	30
Particles >38µm	ASTM D7647	>40	---	11	1
Particles >71µm	ASTM D7647	>10	---	1	0
Oil Cleanliness	ISO 4406 (c)	>21/19/16	---	▲ 22/20/15	20/18/14

## FLUID DEGRADATION

	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045 0.57	<b>0.41</b>	0.38	0.54



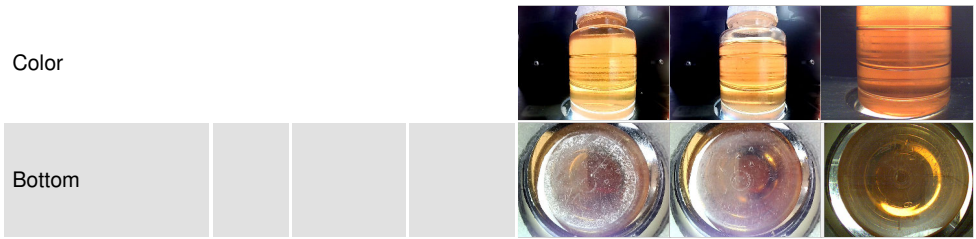
# OIL ANALYSIS REPORT



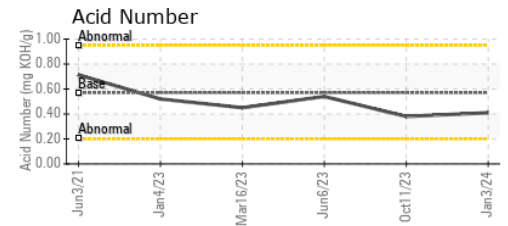
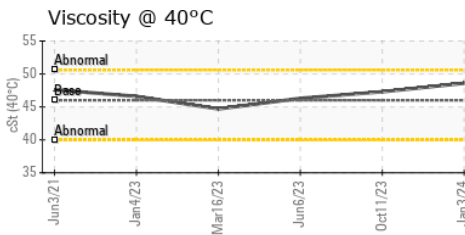
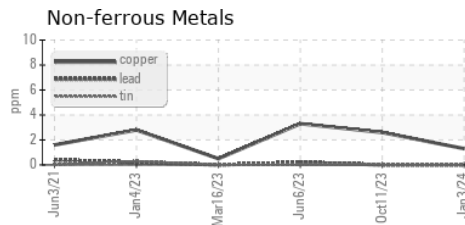
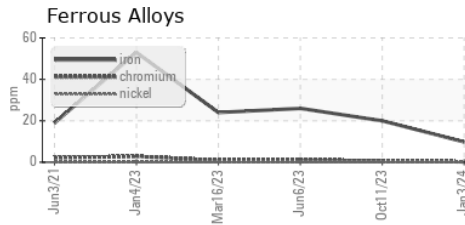
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	▲ MODER	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	0.2%	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	48.6	47.3

SAMPLE IMAGES	method	limit/base	current	history1	history2
---------------	--------	------------	---------	----------	----------



## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
 Sample No. : DJJ0022516 Recieved : 16 Jan 2024  
 Lab Number : 06060982 Diagnosed : 23 Jan 2024  
 Unique Number : 10832364 Diagnostician : Doug Bogart  
 Test Package : CONST ( Additional Tests: KF )

RIVER METALS RECYCLING - DECATUR FACILITY  
 4301 IVERSON BLVD  
 TRINITY, AL  
 US 35673  
 Contact: LARRY BARBER  
 larry.barber@rmrecycling.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

\* - 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)

T:  
F: