



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
145797-1218 LIEBHERR LH80M 145797-1218
Component
Hydraulic System
Fluid
AW HYDRAULIC OIL ISO 68 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DJJ0023360	LH0257702	LH0257720
Sample Date		Client Info		27 Jun 2024	10 Jun 2024	09 Apr 2024
Machine Age	hrs	Client Info		2168	2017	1579
Oil Age	hrs	Client Info		140	2017	1579
Filter Age	hrs	Client Info		140	1000	500
Oil Changed		Client Info		N/A	Changed	Not Changd
Filter Changed		Client Info		N/A	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>60	13	26	25
Chromium	ppm	ASTM D5185m	>40	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>5	<1	0	2
Lead	ppm	ASTM D5185m	>5	0	0	<1
Copper	ppm	ASTM D5185m	>15	10	▲ 21	▲ 24
Tin	ppm	ASTM D5185m	>5	0	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

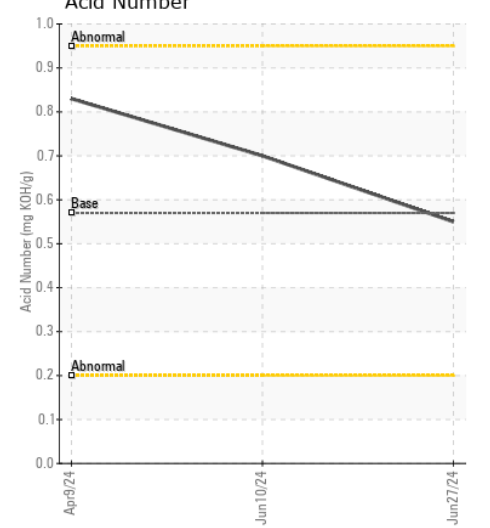
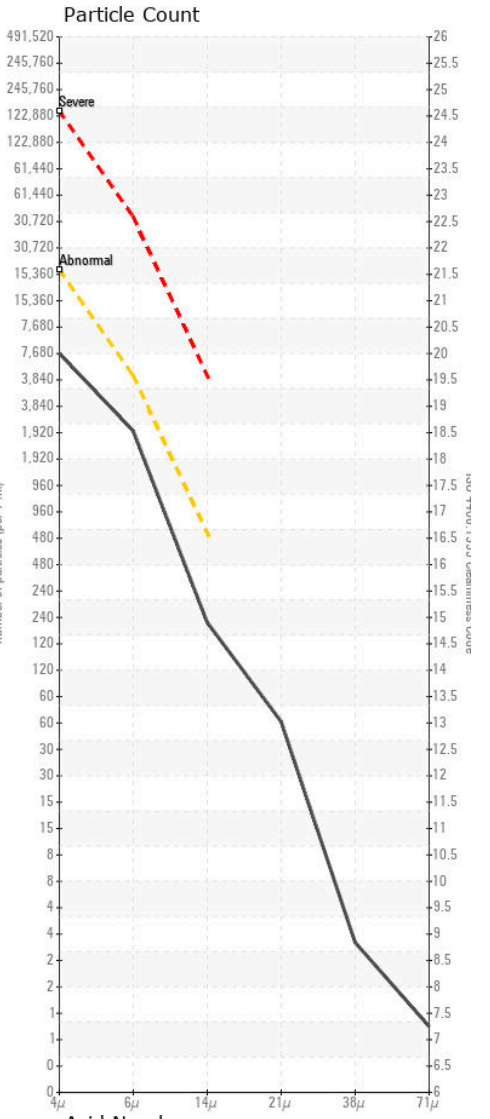
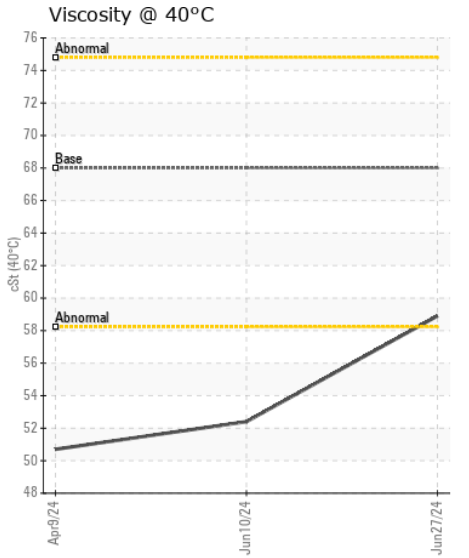
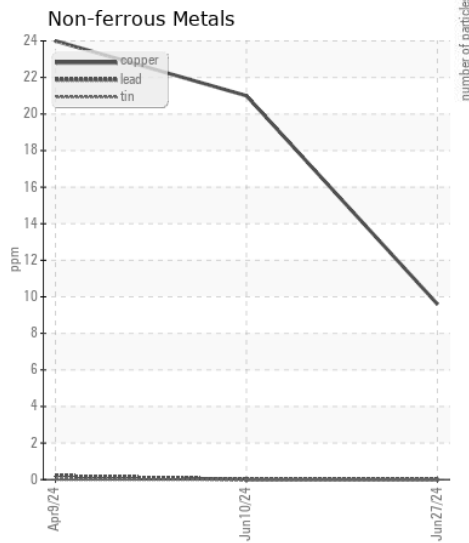
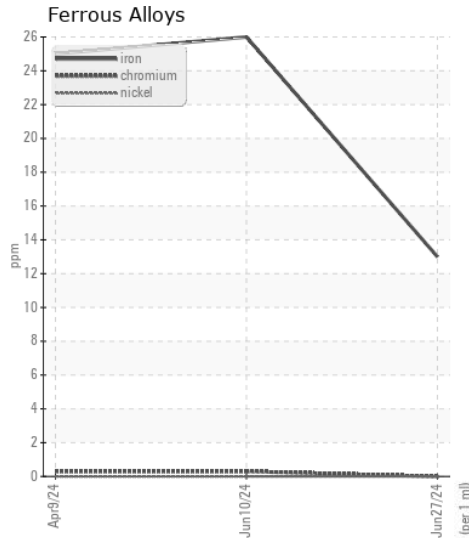
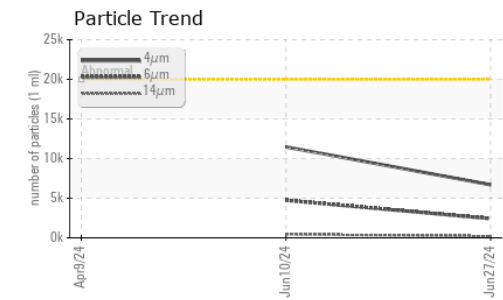
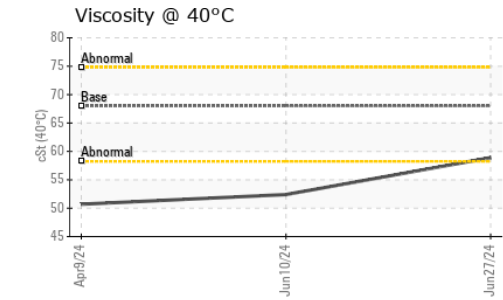
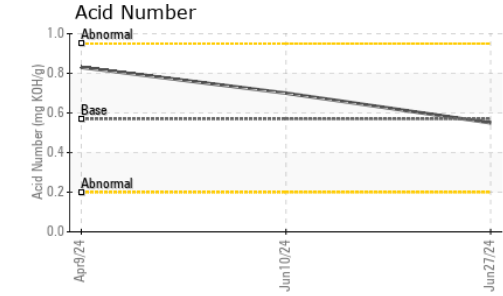
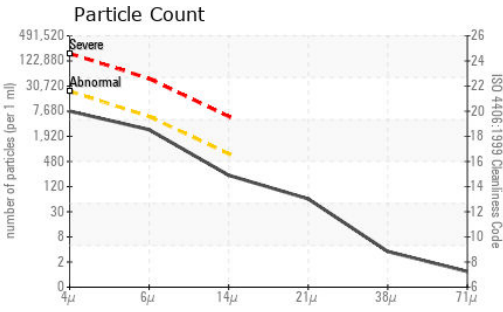
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>15	4	7	7
Potassium	ppm	ASTM D5185m	>20	<1	0	2
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	6694	11472	---
Particles >6µm		ASTM D7647	>5000	2423	4739	---
Particles >14µm		ASTM D7647	>640	198	433	---
Particles >21µm		ASTM D7647	>160	54	65	---
Particles >38µm		ASTM D7647	>40	3	3	---
Particles >71µm		ASTM D7647	>10	1	0	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/18/15	21/19/16	---
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	▲ MODER
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	<1	0
Boron	ppm	ASTM D5185m	5	0	0	0
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	0	0	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	25	<1	0	3
Calcium	ppm	ASTM D5185m	200	302	584	713
Phosphorus	ppm	ASTM D5185m	300	399	433	457
Zinc	ppm	ASTM D5185m	370	502	544	586
Sulfur	ppm	ASTM D5185m	2500	2684	3602	3145
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.55	0.70	0.83
Visc @ 40°C	cSt	ASTM D445	68	58.9	52.4	● 50.7



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DJJ0023360
Lab Number : 06226137
Unique Number : 11109630
Test Package : MOBCE

Received : 02 Jul 2024
Tested : 03 Jul 2024
Diagnosed : 03 Jul 2024 - Wes Davis

TEXAS PORT RECYCLING - HOUSTON PORT
 8945 MANCHESTER ST
 HOUSTON, TX
 US 77012
 Contact: Dale Shaw
 dale.shaw@tmrecycling.com
 T:
 F: (713)921-5545

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)