



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR 22669
 Component
Left Final Drive
 Fluid
GEAR OIL SAE 80W90 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0950647	WC0913767	WC0856961
Sample Date		Client Info		15 Jul 2024	25 Mar 2024	01 Nov 2023
Machine Age	hrs	Client Info		5902	5470	4945
Oil Age	hrs	Client Info		1000	500	250
Filter Age	hrs	Client Info		1000	500	250
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>500	16	30	17
Chromium	ppm	ASTM D5185m	>10	<1	1	0
Nickel	ppm	ASTM D5185m	>10	0	1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	1	2	0
Lead	ppm	ASTM D5185m	>25	0	<1	0
Copper	ppm	ASTM D5185m	>50	10	12	8
Tin	ppm	ASTM D5185m	>10	<1	2	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

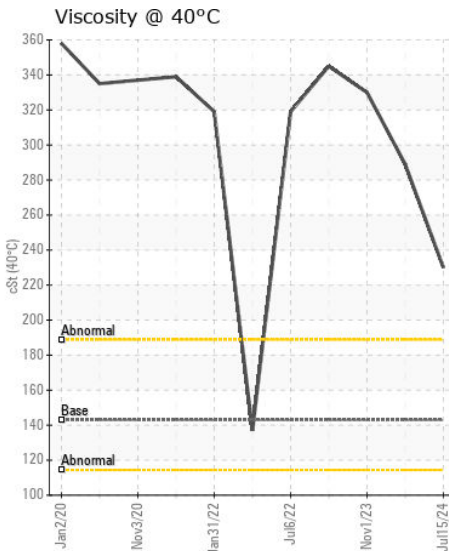
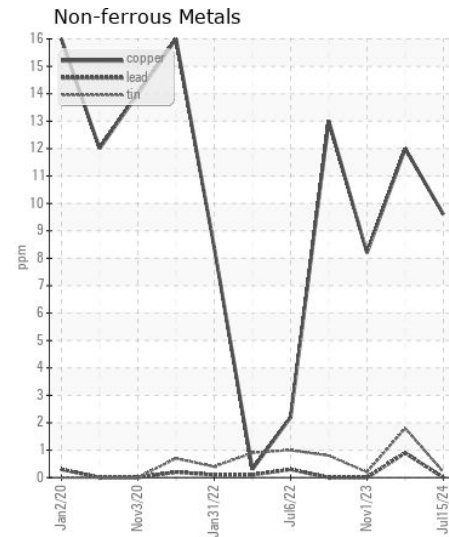
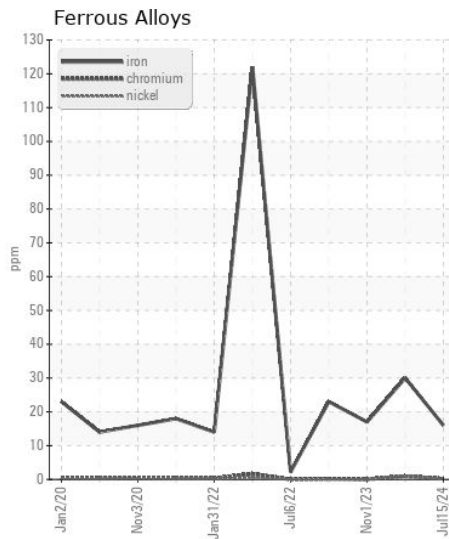
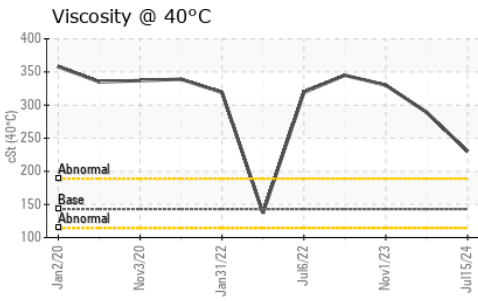
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>75	3	5	2
Potassium	ppm	ASTM D5185m	>20	7	15	8
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
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	>0.2	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m	>170	0	2	2
Boron	ppm	ASTM D5185m	400	122	136	130
Barium	ppm	ASTM D5185m	200	0	0	0
Molybdenum	ppm	ASTM D5185m	12	4	2	0
Manganese	ppm	ASTM D5185m		0	1	0
Magnesium	ppm	ASTM D5185m	12	21	6	3
Calcium	ppm	ASTM D5185m	150	33	43	24
Phosphorus	ppm	ASTM D5185m	1650	1004	1052	991
Zinc	ppm	ASTM D5185m	125	78	78	32
Sulfur	ppm	ASTM D5185m	22500	19954	26599	22997
Visc @ 40°C	cSt	ASTM D445	143	230	289	330



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0950647
Lab Number : 06240737
Unique Number : 11129571
Test Package : CONST

Received : 18 Jul 2024
Tested : 19 Jul 2024
Diagnosed : 20 Jul 2024 - Don Baldrige

SULLIVAN EASTERN INC-LIEBHERR
 2860 C SLATER RD
 MORRISVILLE, NC
 US 27560
 Contact: CHRIS CALTON

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)

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