



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
LIEBHERR 31248
 Component
Swing Drive
 Fluid
GEAR OIL SAE 80W90 (--- GAL)

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

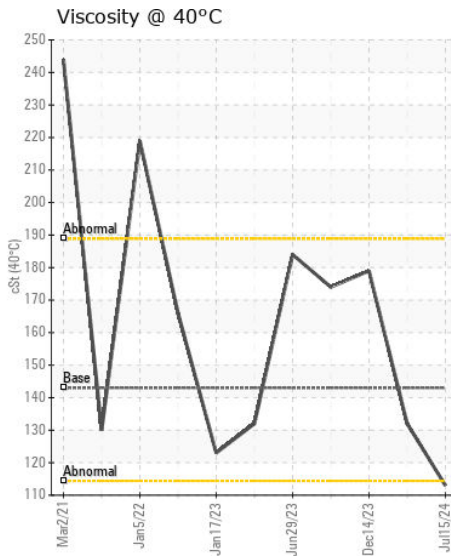
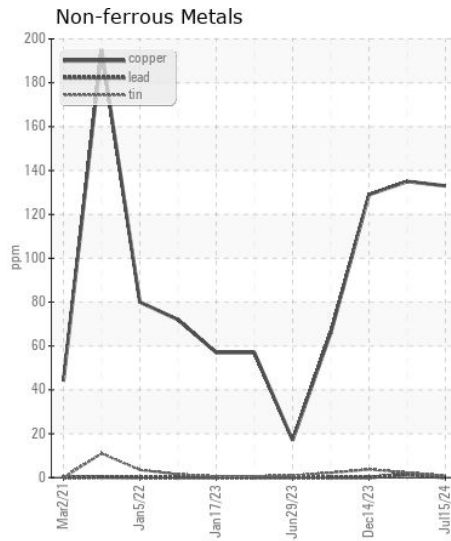
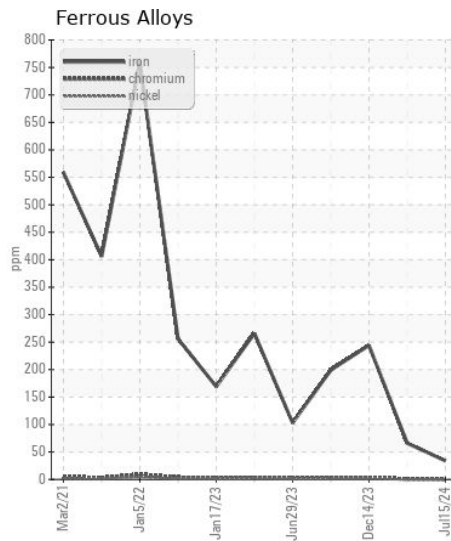
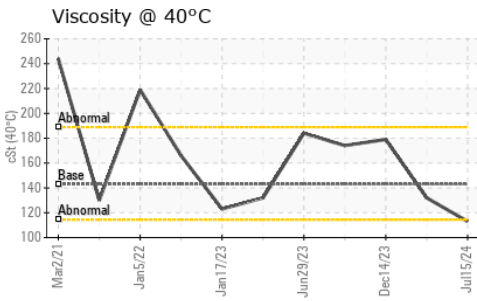
The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0913548	WC0924550	WC0846801
Sample Date		Client Info		15 Jul 2024	17 Apr 2024	14 Dec 2023
Machine Age	hrs	Client Info		6427	5968	5481
Oil Age	hrs	Client Info		500	2000	1500
Filter Age	hrs	Client Info		500	2000	1500
Oil Changed		Client Info		Changed	Changed	Not Changd
Filter Changed		Client Info		Changed	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

Iron	ppm	ASTM D5185m	>400	34	66	244
Chromium	ppm	ASTM D5185m	>10	<1	<1	4
Nickel	ppm	ASTM D5185m	>10	0	0	1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>25	1	<1	3
Lead	ppm	ASTM D5185m	>50	0	2	0
Copper	ppm	ASTM D5185m	>200	133	135	129
Tin	ppm	ASTM D5185m	>10	<1	2	4
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

Silicon	ppm	ASTM D5185m	>50	3	2	16
Potassium	ppm	ASTM D5185m	>20	2	2	0
Water		WC Method	>0.2	NEG	NEG	NEG
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	LIGHT	LIGHT	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

Sodium	ppm	ASTM D5185m	>170	0	1	<1
Boron	ppm	ASTM D5185m	400	162	148	32
Barium	ppm	ASTM D5185m	200	0	0	0
Molybdenum	ppm	ASTM D5185m	12	14	12	<1
Manganese	ppm	ASTM D5185m		0	<1	2
Magnesium	ppm	ASTM D5185m	12	54	22	2
Calcium	ppm	ASTM D5185m	150	134	88	15
Phosphorus	ppm	ASTM D5185m	1650	1791	1780	1958
Zinc	ppm	ASTM D5185m	125	121	75	30
Sulfur	ppm	ASTM D5185m	22500	15688	23607	28042
Visc @ 40°C	cSt	ASTM D445	143	113	132	179



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0913548
Lab Number : 06240735
Unique Number : 11129569
Test Package : CONST

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)

T:
 F: (919)484-2136