



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR GM01 - DA LUBRICANT BLUE FLAME HB-5 SAE 40 (S/N LGS00177)
 Component
Gearbox
 Fluid
D-A Lubricant Blue Flame HB-5 40W (25 GAL)

RECOMMENDATION

Resample at the next service interval to monitor. Please note that this is a corrected copy for laboratory data and diagnostic comment updates.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0897511	WC0760147	WC0760146
Sample Date		Client Info		15 Apr 2024	18 Mar 2024	19 Feb 2024
Machine Age	hrs	Client Info		79397	78738	78220
Oil Age	hrs	Client Info		2626	1967	1449
Filter Age	hrs	Client Info		2626	1967	1449
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Not Changed	Not Changed	Not Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>200	3	7	3
Chromium	ppm	ASTM D5185m	>10	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	>25	<1	2	2
Lead	ppm	ASTM D5185m	>50	0	0	0
Copper	ppm	ASTM D5185m	>200	<1	0	<1
Tin	ppm	ASTM D5185m	>10	0	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

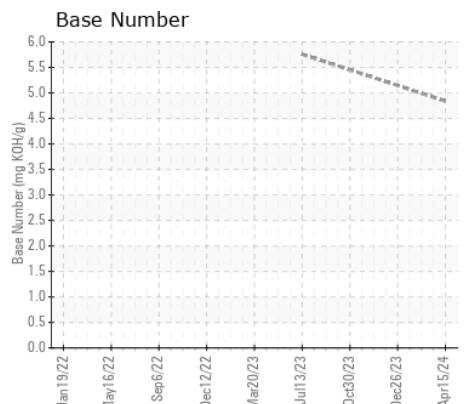
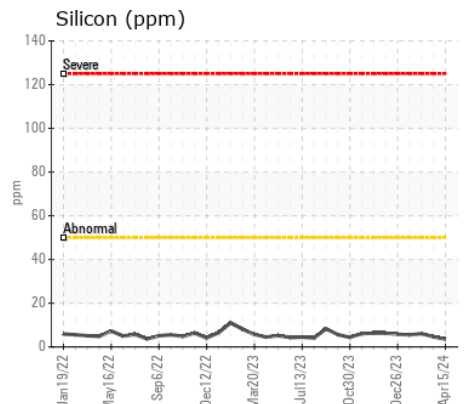
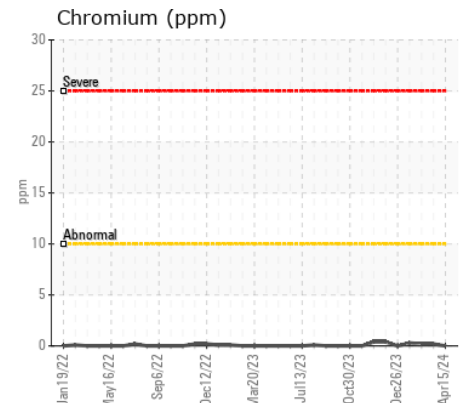
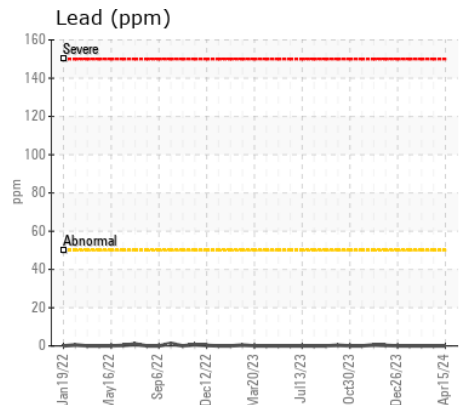
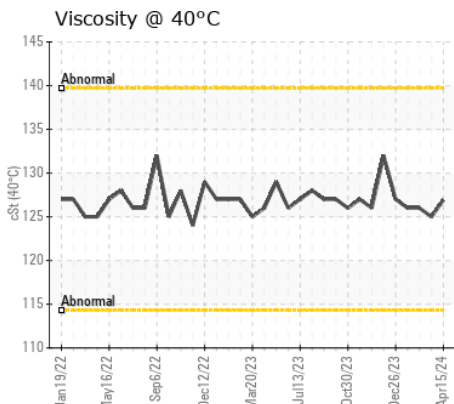
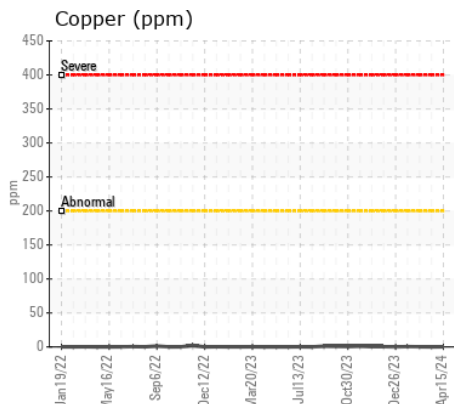
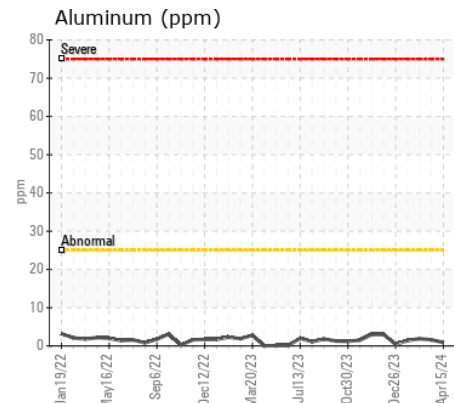
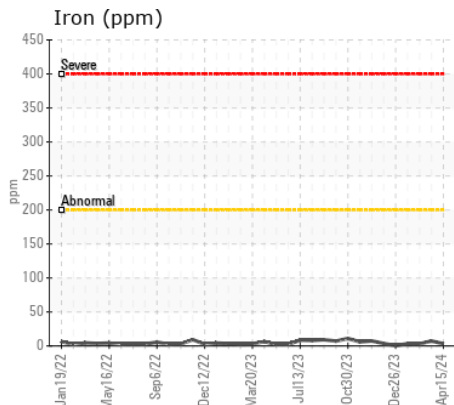
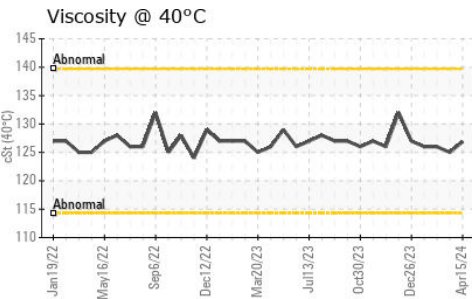
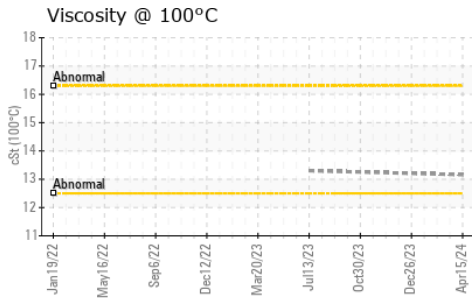
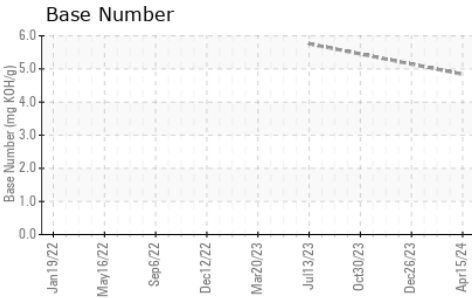
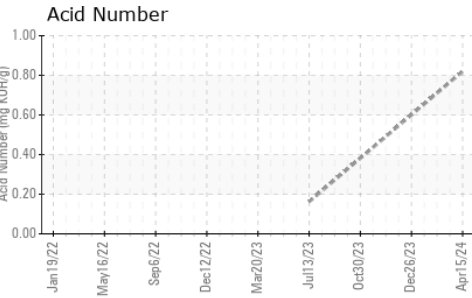
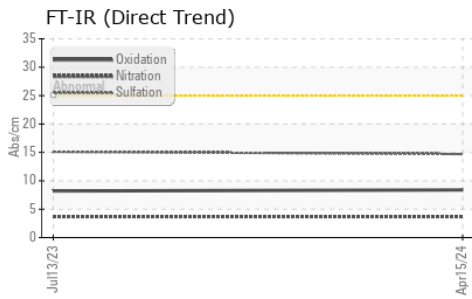
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	4	5	6
Potassium	ppm	ASTM D5185m	>20	0	0	2
Water		WC Method	>0.2	NEG	NEG	NEG
Soot %	%	*ASTM D7844		0	---	---
Nitration	Abs/cm	*ASTM D7624		3.7	---	---
Sulfation	Abs/.1mm	*ASTM D7415		14.7	---	---
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		<1	2	0
Boron	ppm	ASTM D5185m		6	4	4
Barium	ppm	ASTM D5185m		0	0	<1
Molybdenum	ppm	ASTM D5185m		3	6	4
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		16	21	24
Calcium	ppm	ASTM D5185m		1532	1528	1844
Phosphorus	ppm	ASTM D5185m		324	331	378
Zinc	ppm	ASTM D5185m		370	376	503
Sulfur	ppm	ASTM D5185m		3702	3174	3505
Oxidation	Abs/.1mm	*ASTM D7414		8.4	---	---
Acid Number (AN)	mg KOH/g	ASTM D8045		0.82	---	---
Base Number (BN)	mg KOH/g	ASTM D2896		4.84	---	---
Visc @ 40°C	cSt	ASTM D445		126.9	125	126
Visc @ 100°C	cSt	ASTM D445		13.16	---	---
Viscosity Index (VI)	Scale	ASTM D2270		97	---	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0897511
Lab Number : 06150714
Unique Number : 10980792
Test Package : MOB 1 (Additional Tests: FT-IR, KV100, TBN, VI)

Received : 16 Apr 2024
Tested : 01 May 2024
Diagnosed : 02 May 2024 - Doug Bogart

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)