



LUBE PLUS+

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
CATERPILLAR LT130
Component
Diesel Engine
Fluid
FLEET GUARD 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0001237	LP0001366	LP0000643
Sample Date		Client Info		13 Feb 2024	15 Dec 2023	18 Oct 2023
Machine Age	hrs	Client Info		4969	0	0
Oil Age	hrs	Client Info		330	0	325
Filter Age	hrs	Client Info		330	0	325
Oil Changed		Client Info		Changed	N/A	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	2	2	6
Chromium	ppm	ASTM D5185m	>6	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m	>2	0	0	3
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>30	1	2	2
Lead	ppm	ASTM D5185m	>10	0	0	1
Copper	ppm	ASTM D5185m	>150	1	3	10
Tin	ppm	ASTM D5185m	>4	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

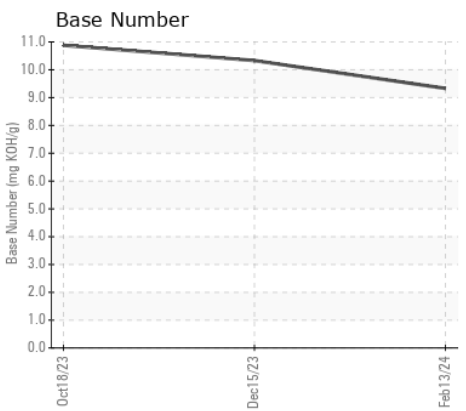
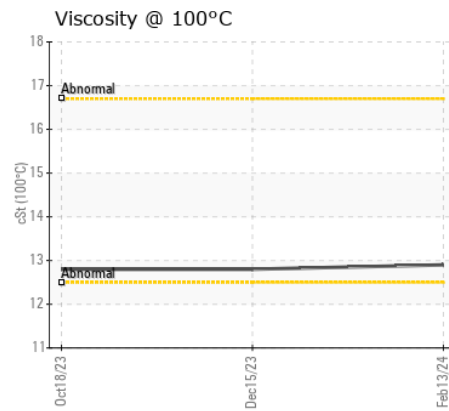
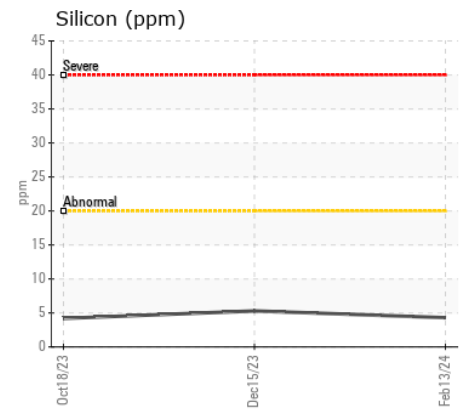
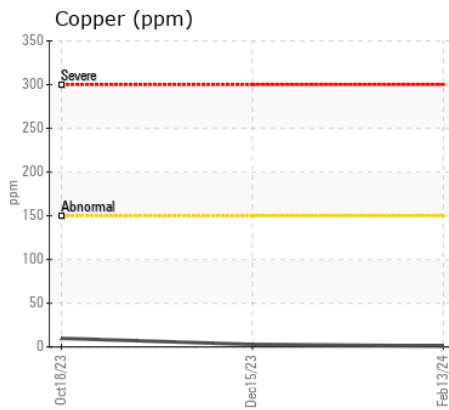
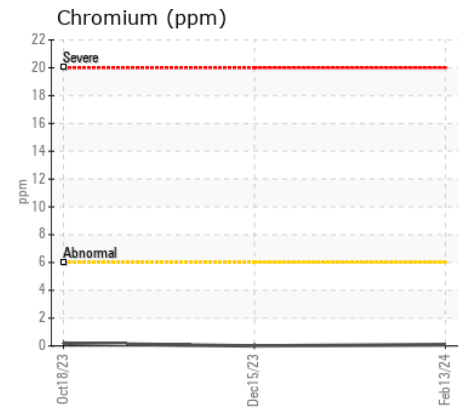
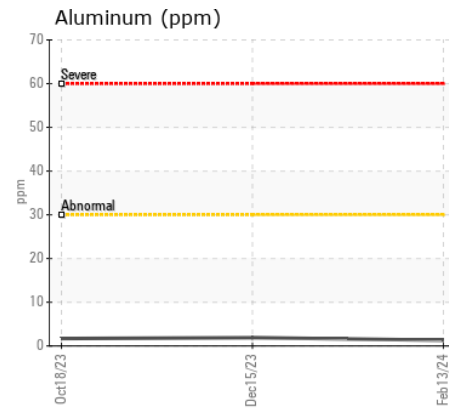
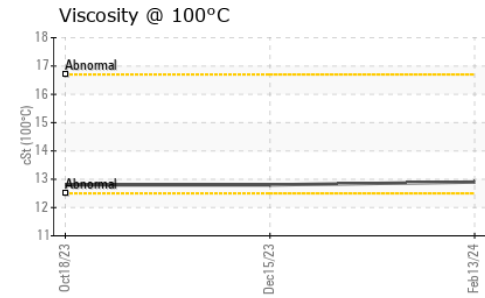
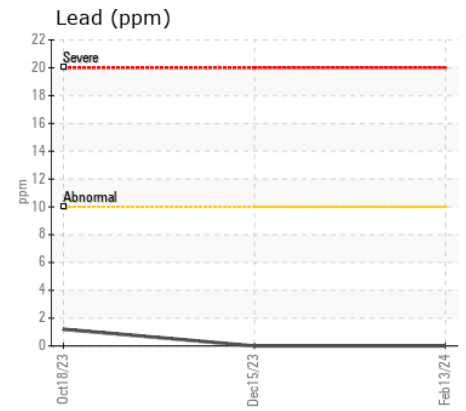
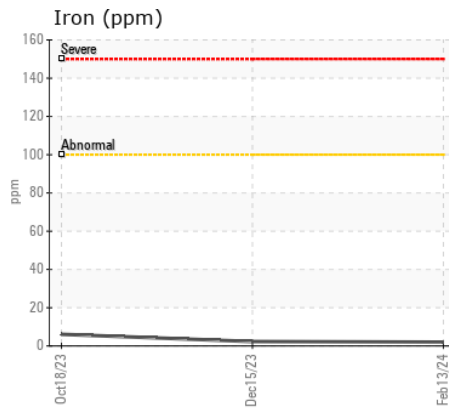
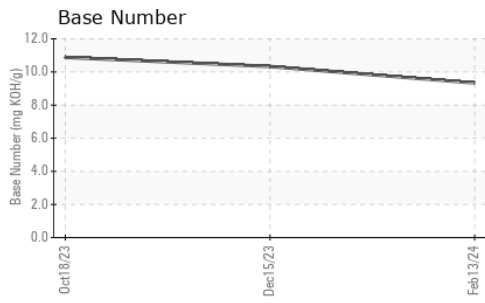
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>20	4	5	4
Potassium	ppm	ASTM D5185m	>20	0	<1	3
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	6.5	6.8	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	16.3	18.5	18.1
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 BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		0	<1	2
Boron	ppm	ASTM D5185m		5	18	19
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		15	59	59
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		188	755	795
Calcium	ppm	ASTM D5185m		1825	1303	1303
Phosphorus	ppm	ASTM D5185m		780	1093	1094
Zinc	ppm	ASTM D5185m		1031	1244	1316
Sulfur	ppm	ASTM D5185m		3097	3395	3451
Oxidation	Abs/.1mm	*ASTM D7414	>25	10.4	14.6	14.4
Base Number (BN)	mg KOH/g	ASTM D2896		9.33	10.33	10.88
Visc @ 100°C	cSt	ASTM D445		12.9	12.8	12.8



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0001237
Lab Number : 06101152
Unique Number : 10899382
Test Package : MOB 2

Received : 26 Feb 2024
Tested : 28 Feb 2024
Diagnosed : 28 Feb 2024 - Wes Davis

S.M. LORUSSO & SONS
 10 GROVE ST
 WEST ROXBURY, MA
 US 02132
 Contact: MARK ERWIN
 merwin@smlorusso.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)

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F: