MOBIL LUBE PLUS+ II

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
BULLDOZER
Machine Id
CATERPILLAR D8R 01-02030-011 (S/N 7XM03569)
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Resample at the next service interval to monitor.

WEAR

Cylinder, crank, or cam shaft wear is indicated.

CONTAMINATION

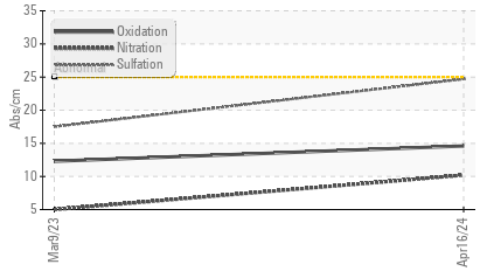
There is an abnormal amount of solids and carbon present in the oil.

FLUID CONDITION

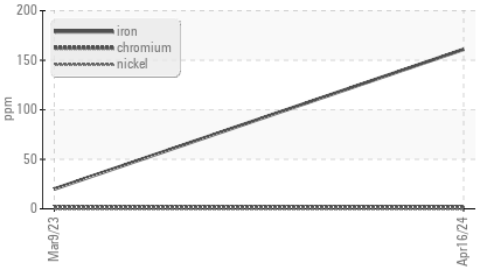
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LP0000298	WC0661802	---
Sample Date		Client Info		16 Apr 2024	09 Mar 2023	---
Machine Age	hrs	Client Info		19844	19266	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Not Changd	Not Changd	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				ABNORMAL	NORMAL	---
Iron	ppm	ASTM D5185m	>100	▲ 161	20	---
Chromium	ppm	ASTM D5185m	>20	2	2	---
Nickel	ppm	ASTM D5185m	>2	0	0	---
Titanium	ppm	ASTM D5185m	>2	<1	<1	---
Silver	ppm	ASTM D5185m	>2	0	0	---
Aluminum	ppm	ASTM D5185m	>25	2	2	---
Lead	ppm	ASTM D5185m	>40	1	1	---
Copper	ppm	ASTM D5185m	>330	14	7	---
Tin	ppm	ASTM D5185m	>15	3	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185m	>25	23	21	---
Potassium	ppm	ASTM D5185m	>20	<1	2	---
Fuel		WC Method	>5	<1.0	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	▲ 3.4	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	10.2	5.0	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.7	17.5	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	---
Sodium	ppm	ASTM D5185m		2	2	---
Boron	ppm	ASTM D5185m		11	22	---
Barium	ppm	ASTM D5185m		<1	0	---
Molybdenum	ppm	ASTM D5185m		53	56	---
Manganese	ppm	ASTM D5185m		2	2	---
Magnesium	ppm	ASTM D5185m		807	916	---
Calcium	ppm	ASTM D5185m		1188	1124	---
Phosphorus	ppm	ASTM D5185m		975	993	---
Zinc	ppm	ASTM D5185m		1141	1185	---
Sulfur	ppm	ASTM D5185m		3949	3449	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	12.3	---
Base Number (BN)	mg KOH/g	ASTM D2896		9.50	10.27	---
Visc @ 100°C	cSt	ASTM D445		14.2	13.3	---

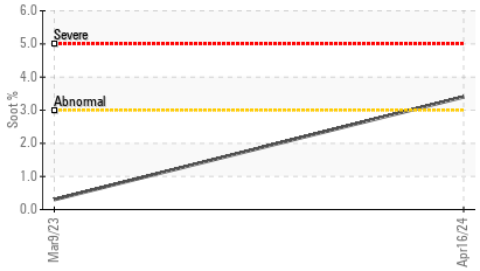
FT-IR (Direct Trend)



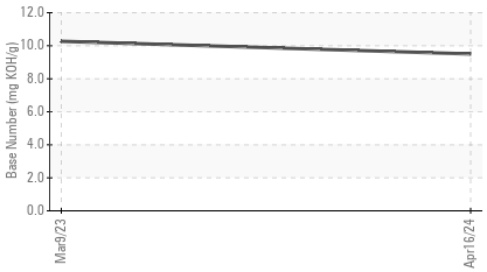
Ferrous Alloys



Soot %

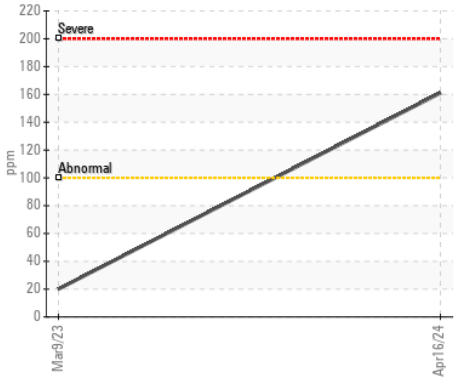


Base Number

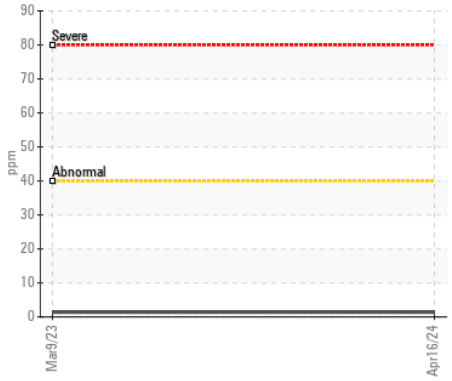


Viscosity @ 100°C

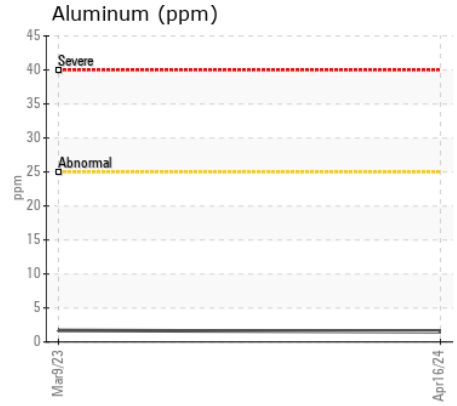
Iron (ppm)



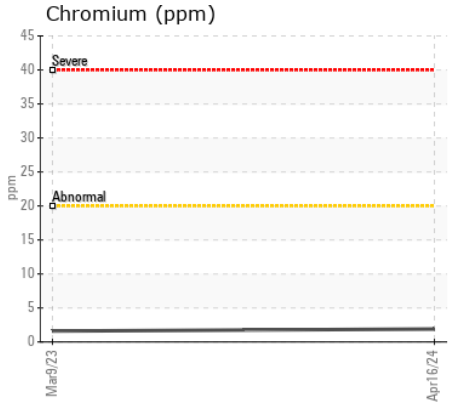
Lead (ppm)



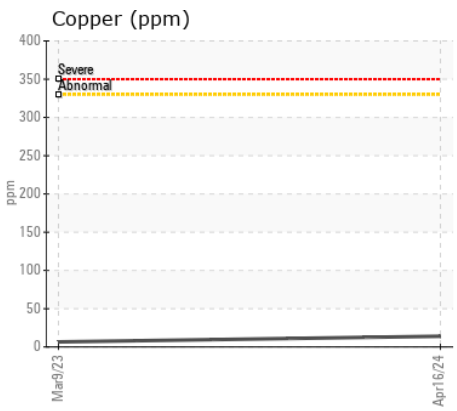
Aluminum (ppm)



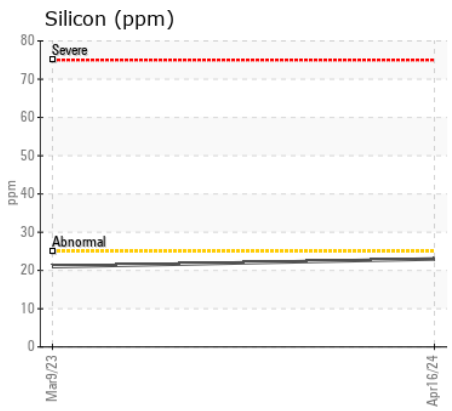
Chromium (ppm)



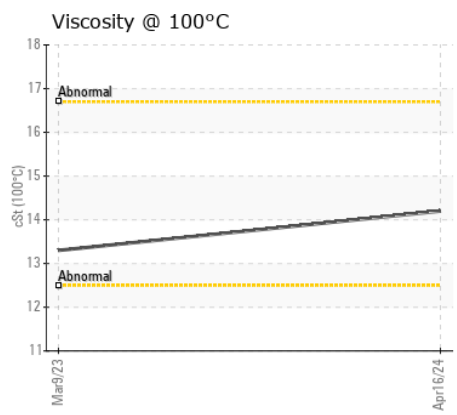
Copper (ppm)



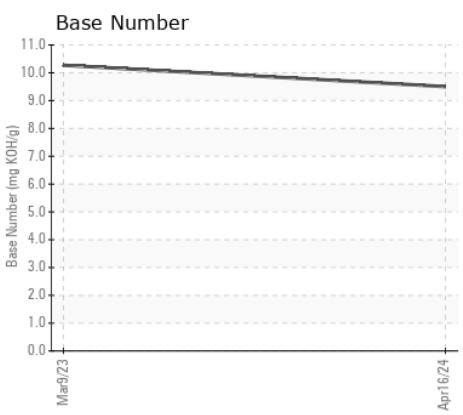
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : LP0000298
Lab Number : 06176229
Unique Number : 11022282
Test Package : MOB 2

Received : 10 May 2024
Tested : 13 May 2024
Diagnosed : 14 May 2024 - Sean Felton

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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