



OIL ANALYSIS REPORT

Sample Rating Trend



WEAR



Machine Id
JOHN DEERE 944X 03734

Component
Diesel Engine

Fluid
JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Wear

The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other metal levels are typical for a new component breaking in.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		MT0005973	---	---
Sample Date	Client Info		24 Jan 2024	---	---
Machine Age	hrs	Client Info	469	---	---
Oil Age	hrs	Client Info	0	---	---
Oil Changed	Client Info		Changed	---	---
Sample Status			ABNORMAL	---	---

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.21	NEG	---	---
Glycol	WC Method		NEG	---	---

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>51	28	---
Chromium	ppm	ASTM D5185m	>11	<1	---
Nickel	ppm	ASTM D5185m	>5	<1	---
Titanium	ppm	ASTM D5185m		<1	---
Silver	ppm	ASTM D5185m	>3	0	---
Aluminum	ppm	ASTM D5185m	>31	7	---
Lead	ppm	ASTM D5185m	>26	44	---
Copper	ppm	ASTM D5185m	>26	430	---
Tin	ppm	ASTM D5185m	>4	8	---
Vanadium	ppm	ASTM D5185m		<1	---
Cadmium	ppm	ASTM D5185m		0	---

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		173	---
Barium	ppm	ASTM D5185m		<1	---
Molybdenum	ppm	ASTM D5185m		234	---
Manganese	ppm	ASTM D5185m		11	---
Magnesium	ppm	ASTM D5185m		772	---
Calcium	ppm	ASTM D5185m		1286	---
Phosphorus	ppm	ASTM D5185m		898	---
Zinc	ppm	ASTM D5185m		1019	---
Sulfur	ppm	ASTM D5185m		2864	---

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>22	14	---
Sodium	ppm	ASTM D5185m	>31	10	---
Potassium	ppm	ASTM D5185m	>20	7	---
Fuel	%	ASTM D3524	>2.1	0.5	---

INFRA-RED

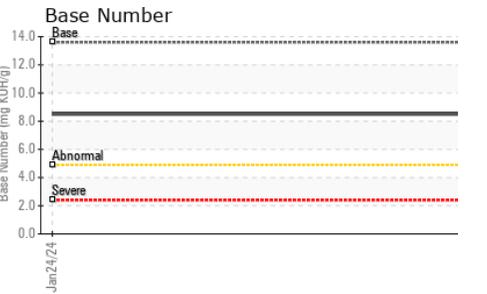
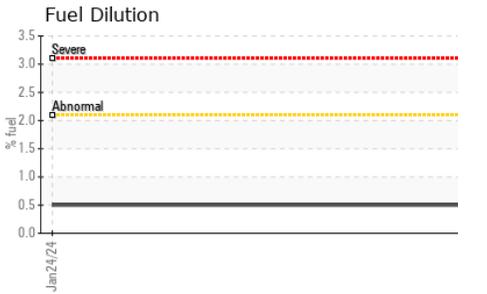
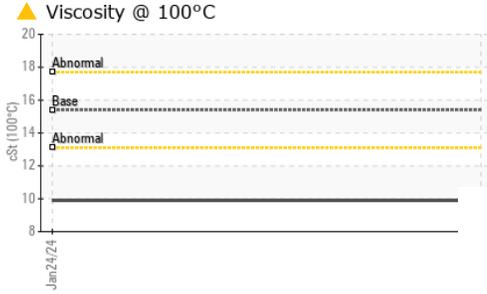
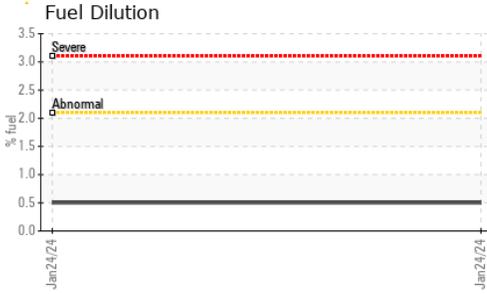
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	---
Nitration	Abs/cm	*ASTM D7624	>20	8.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	---

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.4	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	8.5	---



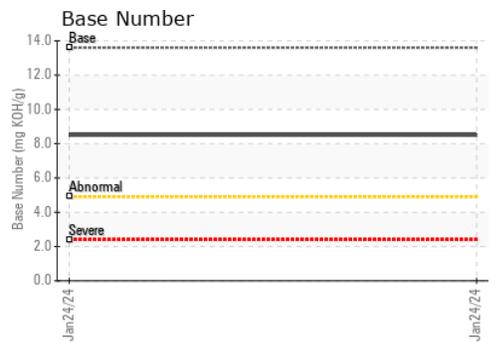
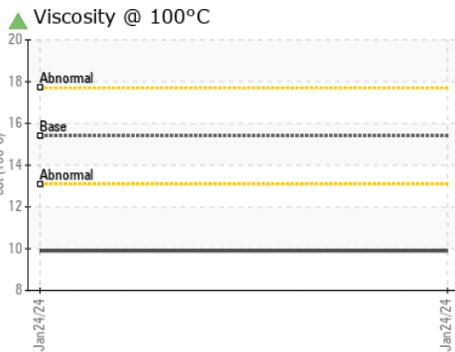
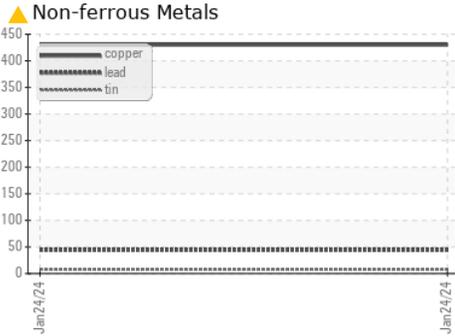
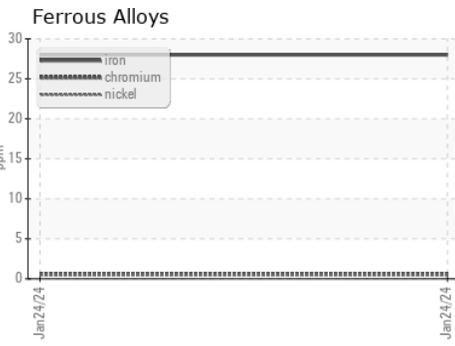
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	---
Precipitate	scalar	*Visual	NONE	NONE	---
Silt	scalar	*Visual	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.21	NEG	---
Free Water	scalar	*Visual		NEG	---

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4 ▲ 9.9	---	---

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MT0005973 **Received** : 31 Jan 2024
Lab Number : 06075577 **Diagnosed** : 05 Feb 2024
Unique Number : 10857668 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN)

MURPHY TRACTOR - CAMBRIDGE
 60611 HULSE DRIVE
 CAMBRIDGE, OH
 US 43725
 Contact: DUSTIN DAILEY
 DDAILEY@MURPHYTRACTOR.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)

T:
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