



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Area

[G15125]

Machine Id

JOHN DEERE 420571

Component

Diesel Engine

Fluid

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

RECOMMENDATION

We advise that you check the air filter, air induction system, and any areas where dirt may enter the component. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WE0007301	WE0007282	---
Sample Date		Client Info		21 May 2024	17 May 2024	---
Machine Age	hrs	Client Info		905	905	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changed	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				SEVERE	SEVERE	---

WEAR

Bearing and/or bushing wear is indicated.

Iron	ppm	ASTM D5185m	>51	147	147	---
Chromium	ppm	ASTM D5185m	>11	5	6	---
Nickel	ppm	ASTM D5185m	>5	3	4	---
Titanium	ppm	ASTM D5185m		3	4	---
Silver	ppm	ASTM D5185m	>3	<1	<1	---
Aluminum	ppm	ASTM D5185m	>31	75	77	---
Lead	ppm	ASTM D5185m	>26	92	73	---
Copper	ppm	ASTM D5185m	>26	88	87	---
Tin	ppm	ASTM D5185m	>4	10	10	---
Vanadium	ppm	ASTM D5185m		<1	<1	---
White Metal	scalar	*Visual	NONE	NONE	MODER	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

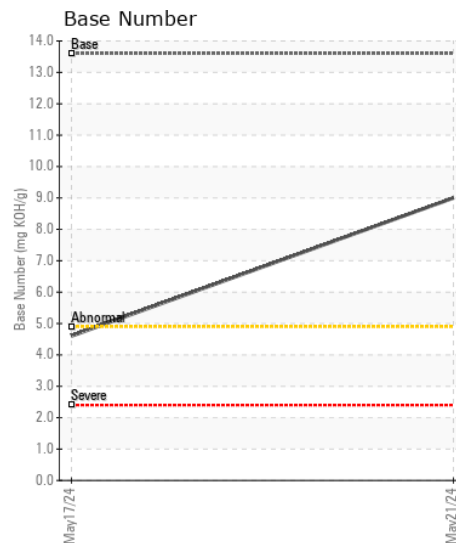
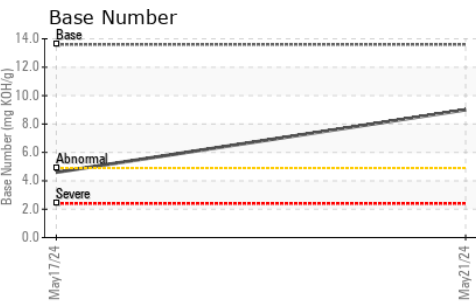
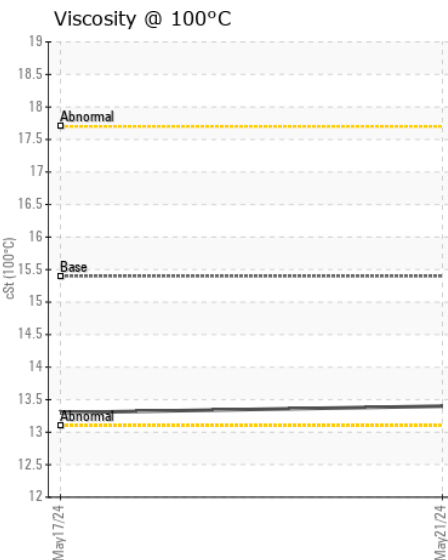
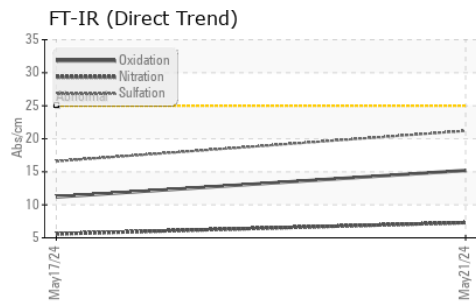
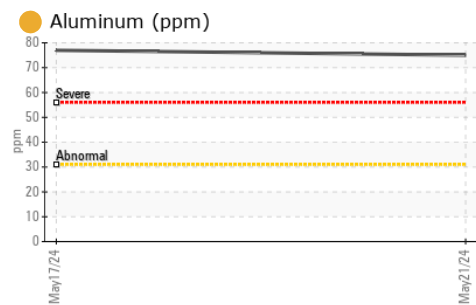
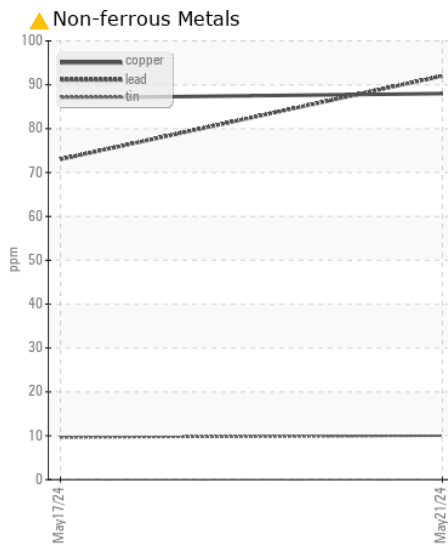
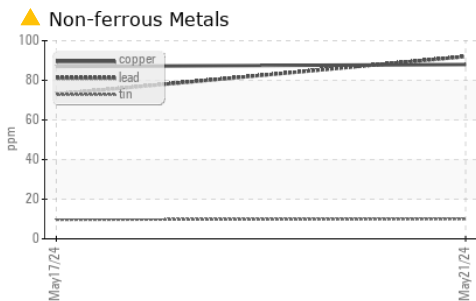
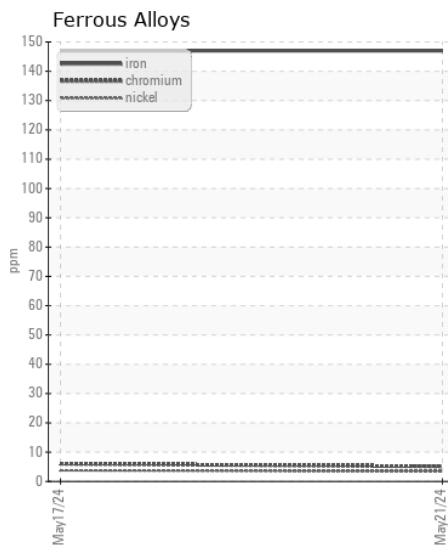
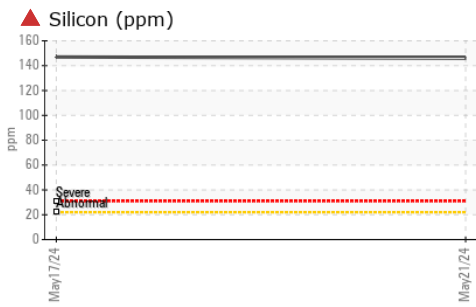
Elemental levels of silicon (Si) and aluminum (Al) indicate alumina-silicate (coarse dirt) ingress.

Silicon	ppm	ASTM D5185m	>22	146	147	---
Potassium	ppm	ASTM D5185m	>20	9	10	---
Fuel		WC Method	>2.1	<1.0	<1.0	---
Water		WC Method	>0.21	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.3	---
Nitration	Abs/cm	*ASTM D7624	>20	7.3	5.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2	16.6	---
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	>0.21	NEG	0.2%	---

FLUID CONDITION

The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>31	3	5	---
Boron	ppm	ASTM D5185m		225	252	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		103	108	---
Manganese	ppm	ASTM D5185m		3	3	---
Magnesium	ppm	ASTM D5185m		575	539	---
Calcium	ppm	ASTM D5185m		1593	1587	---
Phosphorus	ppm	ASTM D5185m		852	935	---
Zinc	ppm	ASTM D5185m		1054	1027	---
Sulfur	ppm	ASTM D5185m		3381	3406	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.2	11.2	---
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	9.0	4.6	---
Visc @ 100°C	cSt	ASTM D445	15.4	13.4	13.3	---



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WE0007301 **Received** : 24 May 2024
Lab Number : 06190168 **Tested** : 29 May 2024
Unique Number : 11046920 **Diagnosed** : 29 May 2024 - Angela Borella
Test Package : CONST (Additional Tests: TBN)

WARRIOR TRACTOR AND EQUIPMENT - GRAYSVILLE
 4308 WATER TRAIL
 GRAYSVILLE, AL
 US 35073
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 F:

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)