



WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area

[05W47444]

Machine Id

JOHN DEERE 245G 1FF245GXHMF802209

Component

Diesel Engine

Fluid

JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (24 QTS)

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0218639</b>	JR0214324	JR0203248
Sample Date		Client Info		<b>27 Jun 2024</b>	02 May 2024	19 Feb 2024
Machine Age	hrs	Client Info		<b>3804</b>	3473	3096
Oil Age	hrs	Client Info		<b>331</b>	377	242
Filter Age	hrs	Client Info		<b>331</b>	377	242
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>9</b>	6	3
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	0
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	6	3
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	0
Copper	ppm	ASTM D5185m	>26	<b>4</b>	5	0
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	1	0
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

There is no indication of any contamination in the oil.

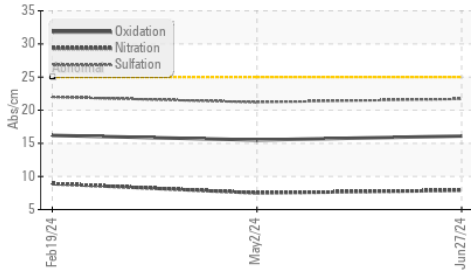
Silicon	ppm	ASTM D5185m	>22	<b>9</b>	10	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	8	0
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.1	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.9</b>	7.5	8.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.7</b>	21.2	22.0
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.21	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

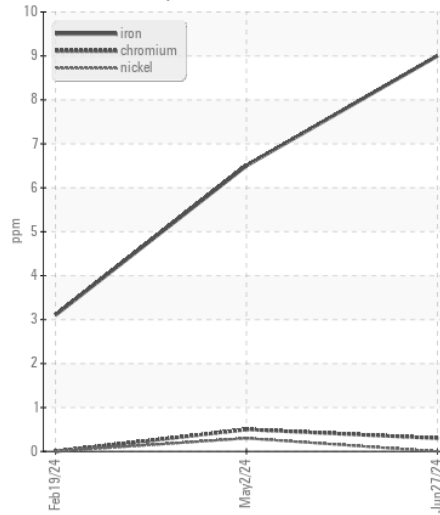
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>1</b>	<1	<1
Boron	ppm	ASTM D5185m		<b>198</b>	299	218
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>251</b>	240	216
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Magnesium	ppm	ASTM D5185m		<b>848</b>	792	837
Calcium	ppm	ASTM D5185m		<b>1569</b>	1441	1563
Phosphorus	ppm	ASTM D5185m		<b>919</b>	913	938
Zinc	ppm	ASTM D5185m		<b>1163</b>	1069	1151
Sulfur	ppm	ASTM D5185m		<b>3541</b>	3336	3325
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.1</b>	15.5	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.6</b>	8.8	7.9
Visc @ 100°C	cSt	ASTM D445	15.4	<b>14.0</b>	13.9	13.5

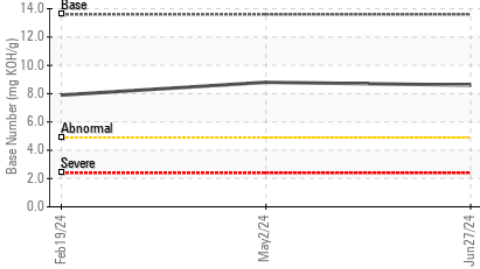
**FT-IR (Direct Trend)**



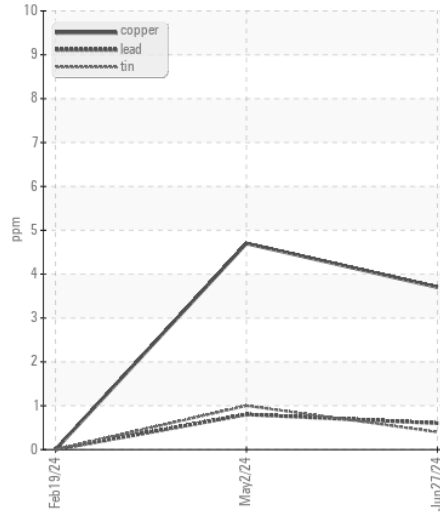
**Ferrous Alloys**



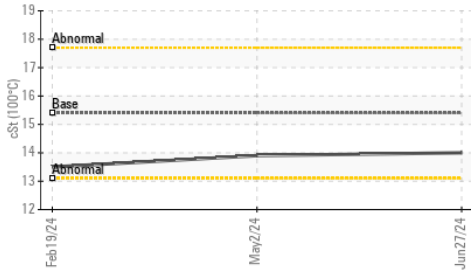
**Base Number**



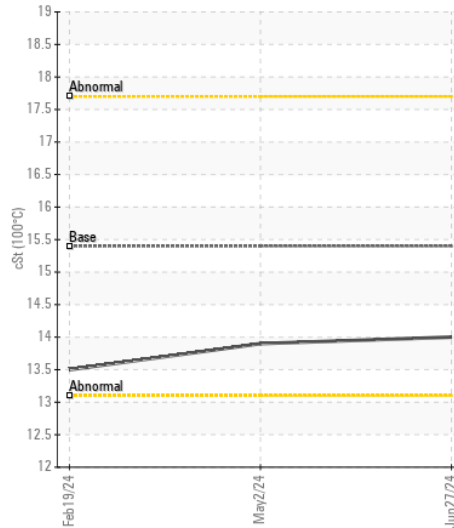
**Non-ferrous Metals**



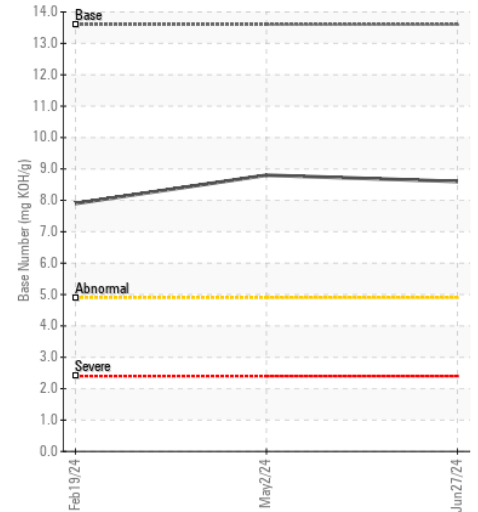
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : JR0218639

**Lab Number** : 06223322

**Unique Number** : 11101519

**Test Package** : CONST ( Additional Tests: TBN )

**Received** : 28 Jun 2024

**Tested** : 01 Jul 2024

**Diagnosed** : 01 Jul 2024 - Wes Davis

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)

**JRE - MANASSAS PARK**

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