



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

### Area [W52507 IRON HORSE]

Machine Id  
**JOHN DEERE 30G 1FF030GXJJK266195**

Component  
**Diesel Engine**

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

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0211620</b>	JR0147600	JR0125625
Sample Date		Client Info		<b>17 Jun 2024</b>	25 Apr 2023	11 Jul 2022
Machine Age	hrs	Client Info		<b>2111</b>	1405	863
Oil Age	hrs	Client Info		<b>0</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
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>26</b>	25	32
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	6	5
Lead	ppm	ASTM D5185m	>26	<b>3</b>	0	2
Copper	ppm	ASTM D5185m	>26	<b>&lt;1</b>	1	3
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	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.

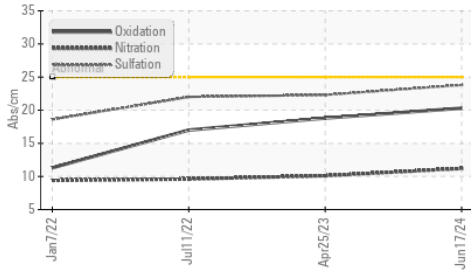
Silicon	ppm	ASTM D5185m	>22	<b>14</b>	15	17
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	2
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.9</b>	0.6	0.6
Nitration	Abs/cm	*ASTM D7624	>20	<b>11.2</b>	10.1	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>23.8</b>	22.3	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

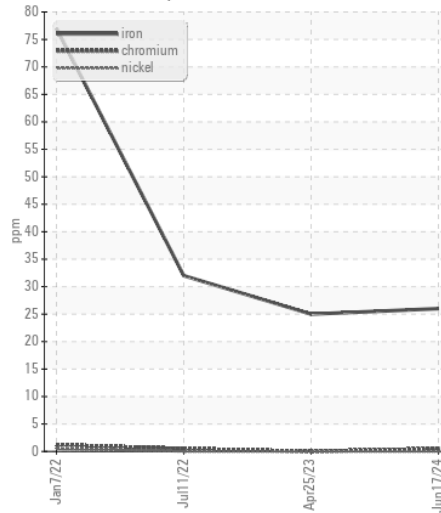
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>0</b>	2	2
Boron	ppm	ASTM D5185m		<b>190</b>	250	249
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>262</b>	243	242
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>830</b>	822	744
Calcium	ppm	ASTM D5185m		<b>1469</b>	1486	1725
Phosphorus	ppm	ASTM D5185m		<b>901</b>	902	902
Zinc	ppm	ASTM D5185m		<b>1120</b>	1142	1150
Sulfur	ppm	ASTM D5185m		<b>3175</b>	3230	4335
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>20.3</b>	18.8	17.0
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>8.6</b>	9.0	10.3
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.9</b>	13.7	13.3

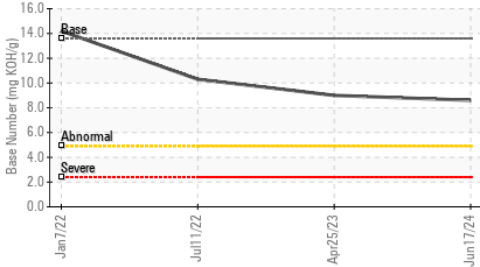
**FT-IR (Direct Trend)**



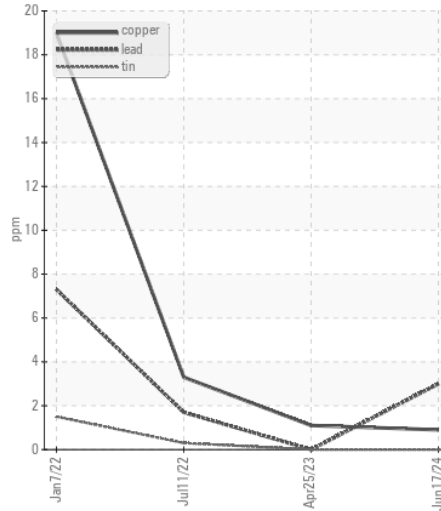
**Ferrous Alloys**



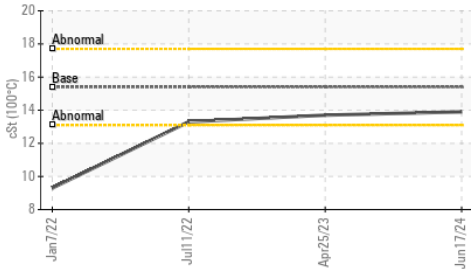
**Base Number**



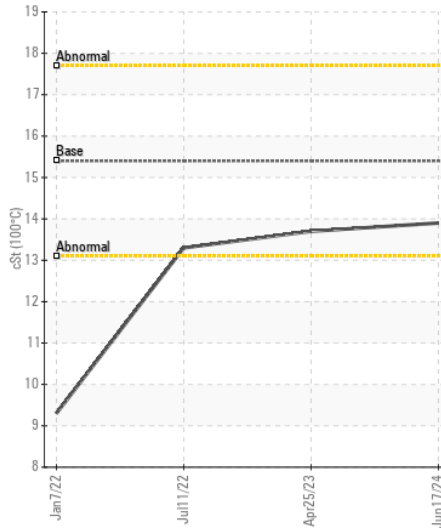
**Non-ferrous Metals**



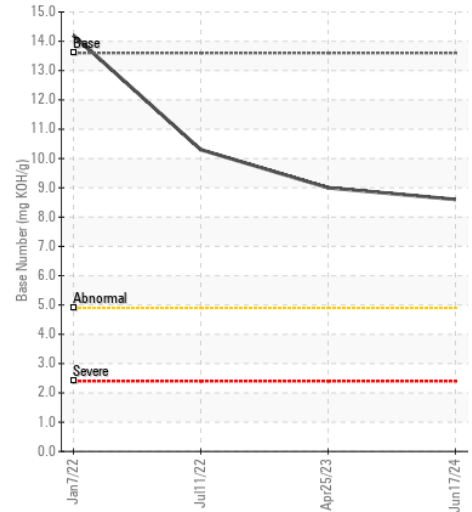
**Viscosity @ 100°C**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0211620 **Received** : 21 Jun 2024  
**Lab Number** : 06216562 **Tested** : 24 Jun 2024  
**Unique Number** : 11089426 **Diagnosed** : 24 Jun 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - ASHLAND**  
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 F: (804)798-0292

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)