



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

Machine Id  
**JOHN DEERE 5100E 1LV5100EVKK407240**

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>JR0189703</b>	JR0093504	JR0048412
Sample Date		Client Info		<b>18 Dec 2023</b>	31 Dec 2021	08 Mar 2021
Machine Age	hrs	Client Info		<b>302</b>	137	91
Oil Age	hrs	Client Info		<b>0</b>	40	0
Filter Age	hrs	Client Info		<b>0</b>	40	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>N/A</b>	Changed	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ATTENTION

### WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>51	<b>3</b>	7	17
Chromium	ppm	ASTM D5185m	>11	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>31	<b>5</b>	3	6
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	2	4
Copper	ppm	ASTM D5185m	>26	<b>&lt;1</b>	3	13
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

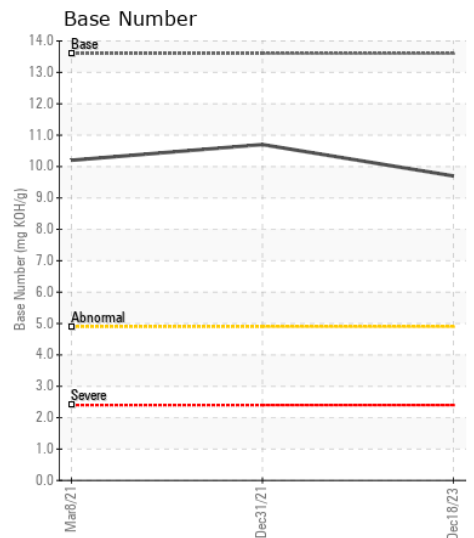
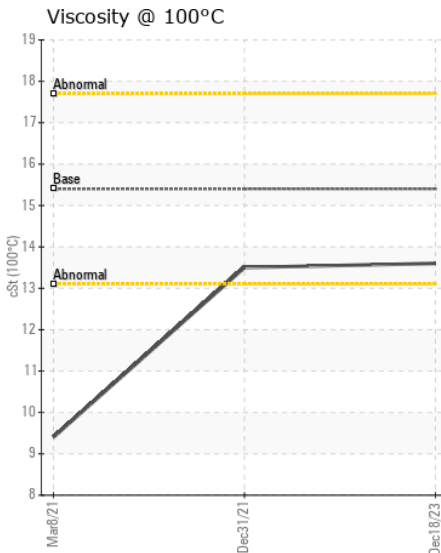
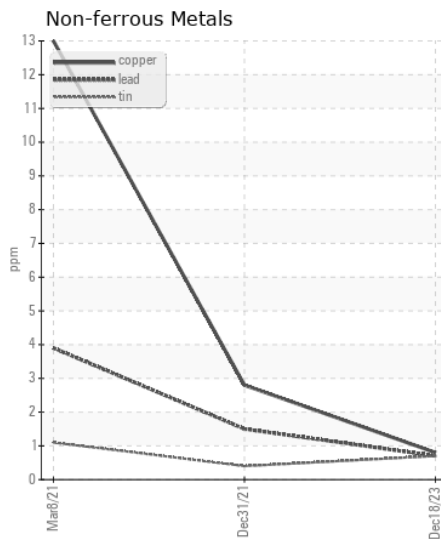
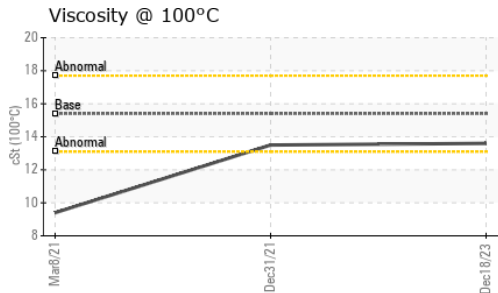
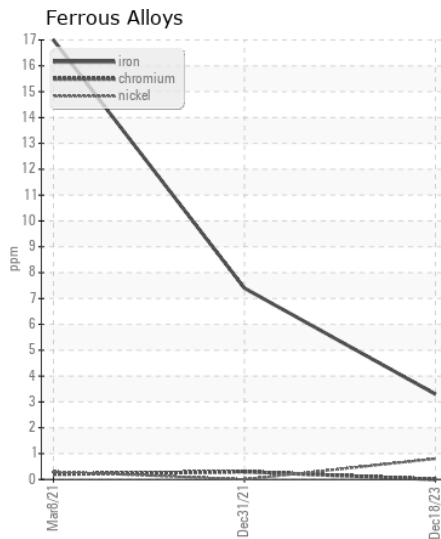
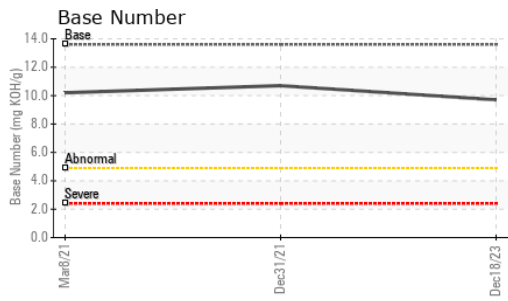
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>5</b>	6	4
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	1	2
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	0.2
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.0</b>	6.9	7.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.9</b>	20.5	21.7
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	4
Boron	ppm	ASTM D5185m		<b>249</b>	298	256
Barium	ppm	ASTM D5185m		<b>0</b>	0	3
Molybdenum	ppm	ASTM D5185m		<b>240</b>	250	257
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	4
Magnesium	ppm	ASTM D5185m		<b>834</b>	798	799
Calcium	ppm	ASTM D5185m		<b>1326</b>	1340	1482
Phosphorus	ppm	ASTM D5185m		<b>909</b>	867	840
Zinc	ppm	ASTM D5185m		<b>1111</b>	1023	913
Sulfur	ppm	ASTM D5185m		<b>3056</b>	3014	2670
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.3</b>	15.6	16.9
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.7</b>	10.7	10.2
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.6</b>	13.5	▲ 9.4



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0189703 **Received** : 11 Jan 2024  
**Lab Number** : 06057920 **Diagnosed** : 12 Jan 2024  
**Unique Number** : 10829302 **Diagnostician** : Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - LA CROSSE**  
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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)