



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



Machine Id  
**JOHN DEERE 650K 1T0650KKPJF338939**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (15 QTS)**

### RECOMMENDATION

We advise that you check the fuel injection system. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0214387</b>	JR0126902	JR0063298
Sample Date		Client Info		<b>09 May 2024</b>	16 May 2022	24 May 2021
Machine Age	hrs	Client Info		<b>2829</b>	2442	1470
Oil Age	hrs	Client Info		<b>387</b>	0	0
Filter Age	hrs	Client Info		<b>387</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	Changed	Changed
Sample Status				<b>ABNORMAL</b>	SEVERE	NORMAL

### WEAR

The lead level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>25</b>	▲ 70	31
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Titanium	ppm	ASTM D5185m		<b>0</b>	14	<1
Silver	ppm	ASTM D5185m	>3	<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>31	<b>6</b>	3	5
Lead	ppm	ASTM D5185m	>26	▲ <b>29</b>	6	5
Copper	ppm	ASTM D5185m	>26	<b>&lt;1</b>	2	5
Tin	ppm	ASTM D5185m	>4	<b>1</b>	<1	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	<1	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

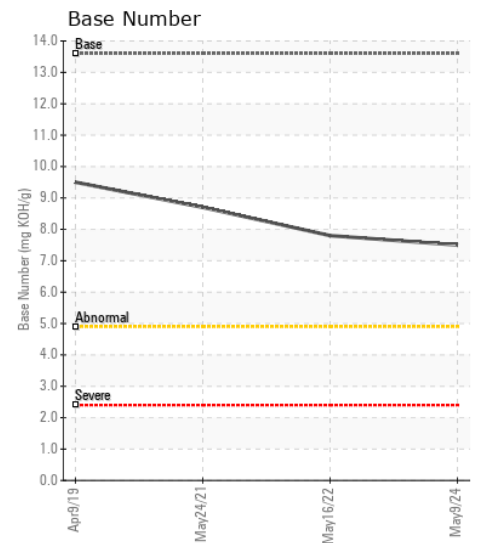
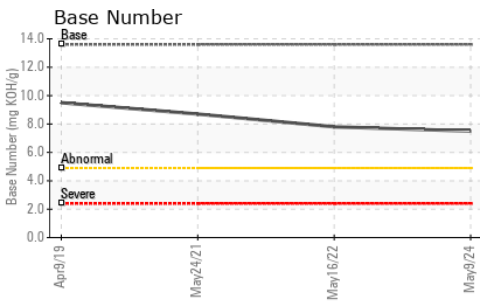
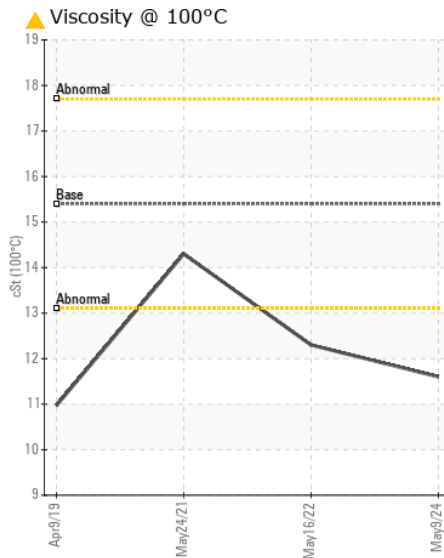
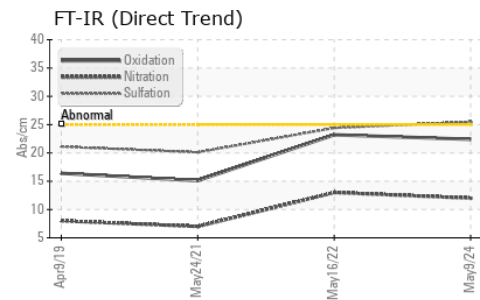
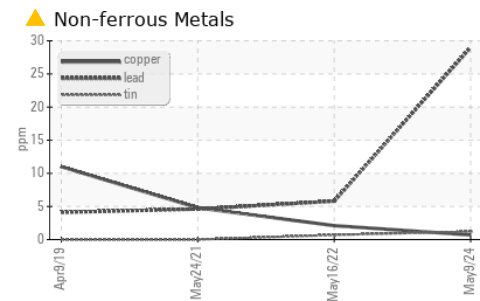
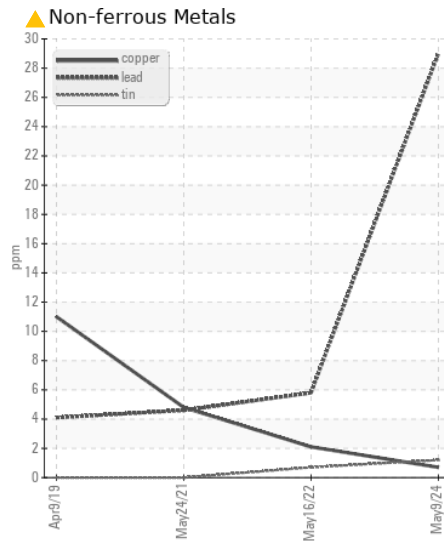
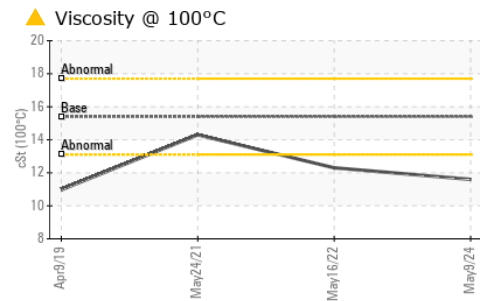
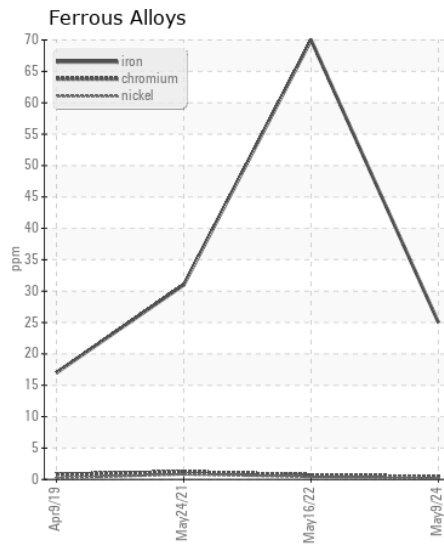
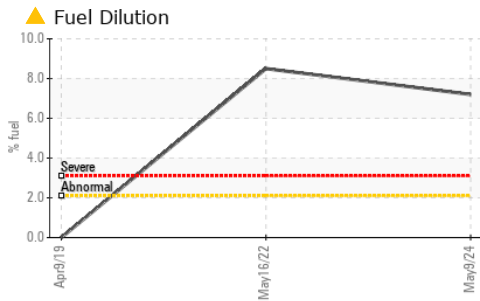
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>8</b>	6	7
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	● 40	0
Fuel	%	ASTM D3524	>2.1	▲ <b>7.2</b>	▲ 8.5	<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>0.5</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>12.0</b>	13.0	7
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>25.5</b>	24.4	20.1
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	28	2
Boron	ppm	ASTM D5185m		<b>122</b>	65	141
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>226</b>	42	206
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	1	<1
Magnesium	ppm	ASTM D5185m		<b>737</b>	742	690
Calcium	ppm	ASTM D5185m		<b>1397</b>	1802	1693
Phosphorus	ppm	ASTM D5185m		<b>794</b>	837	907
Zinc	ppm	ASTM D5185m		<b>942</b>	970	1156
Sulfur	ppm	ASTM D5185m		<b>3240</b>	2966	2843
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>22.4</b>	23.2	15.1
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.5</b>	7.8	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	▲ <b>11.6</b>	▲ 12.3	14.3



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0214387 **Received** : 10 May 2024  
**Lab Number** : 06175245 **Tested** : 16 May 2024  
**Unique Number** : 11021298 **Diagnosed** : 16 May 2024 - Jonathan Hester  
**Test Package** : CONST ( Additional Tests: PercentFuel, TBN )

**JRE - MANASSAS PARK**  
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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)