



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



Area  
**[W64350]**  
 Machine Id  
**JOHN DEERE 544K 1DW544KZHJF687167**  
 Component  
**Diesel Engine**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (5 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor. ( Customer Sample Comment: W64350 )

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0204247</b>	JR0150958	JR0119311
Sample Date		Client Info		<b>22 Feb 2024</b>	08 Dec 2022	15 Feb 2022
Machine Age	hrs	Client Info		<b>2139</b>	1515	1066
Oil Age	hrs	Client Info		<b>1690</b>	0	0
Filter Age	hrs	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>Changed</b>	N/A	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	ABNORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>51	<b>14</b>	15	23
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>4</b>	3	2
Lead	ppm	ASTM D5185m	>26	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>26	<b>2</b>	4	▲ 31
Tin	ppm	ASTM D5185m	>4	<b>&lt;1</b>	<1	1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	<1
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

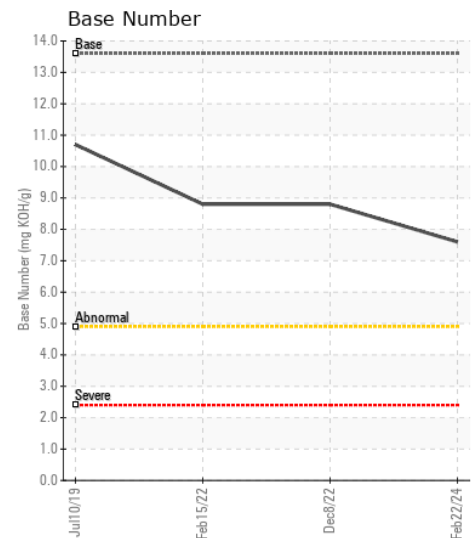
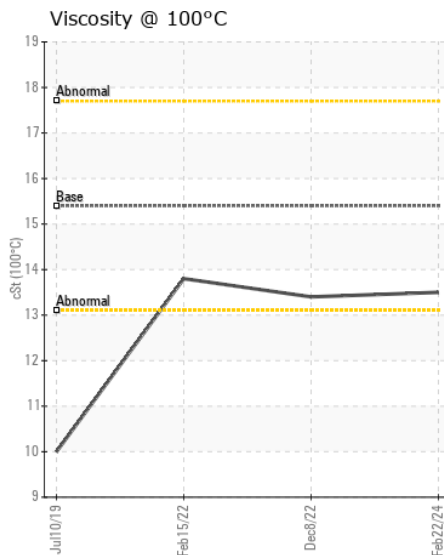
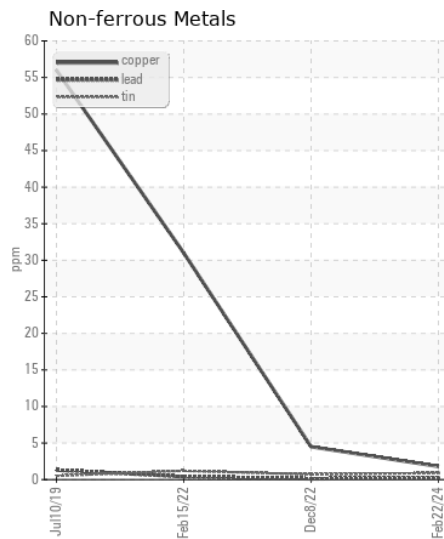
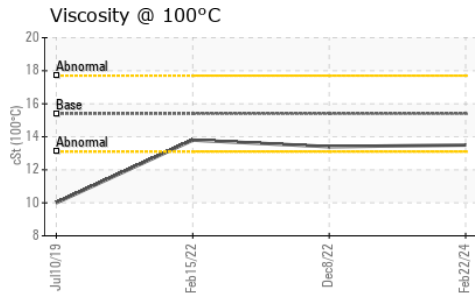
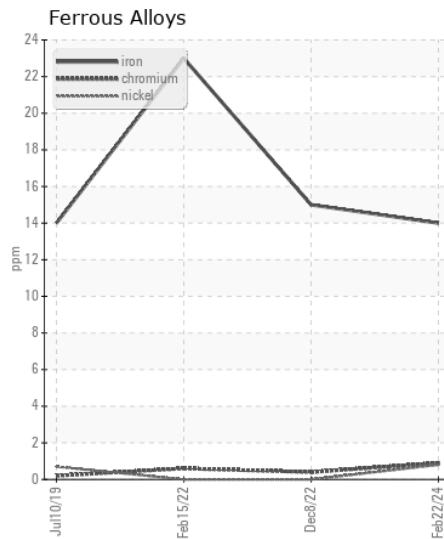
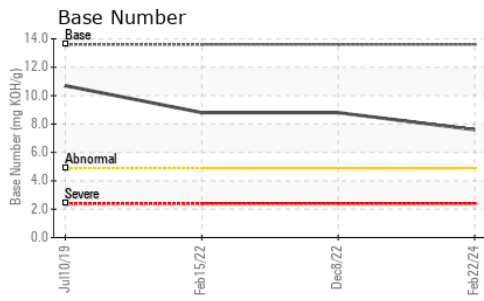
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>22	<b>9</b>	8	7
Potassium	ppm	ASTM D5185m	>20	<b>4</b>	3	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>0.4</b>	0.3	0.4
Nitration	Abs/cm	*ASTM D7624	>20	<b>8.9</b>	9.8	10.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>22.6</b>	25.0	26.5
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>3</b>	1	4
Boron	ppm	ASTM D5185m		<b>203</b>	201	178
Barium	ppm	ASTM D5185m		<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>237</b>	270	244
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>728</b>	816	857
Calcium	ppm	ASTM D5185m		<b>1326</b>	1533	1520
Phosphorus	ppm	ASTM D5185m		<b>852</b>	956	938
Zinc	ppm	ASTM D5185m		<b>1024</b>	1138	1018
Sulfur	ppm	ASTM D5185m		<b>3191</b>	3674	2362
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>16.7</b>	18.5	19.5
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>7.6</b>	8.8	8.8
Visc @ 100°C	cSt	ASTM D445	15.4	<b>13.5</b>	13.4	13.8



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0204247 **Received** : 27 Feb 2024  
**Lab Number** : 06101410 **Tested** : 28 Feb 2024  
**Unique Number** : 10899640 **Diagnosed** : 28 Feb 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - CHARLOTTE**  
 9550 STATESVILLE ROAD  
 CHARLOTTE, NC  
 US 28269

Contact: CHARLOTTE SHOP  
 myoung@jamesriverequipment.com

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)

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