



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



Area  
**[W50943]**  
 Machine Id  
**JOHN DEERE 824K 1DW824KXPKF694323**  
 Component  
**Hydraulic System**  
 Fluid  
**JOHN DEERE ENGINE OIL PLUS 50 II 15W40 (--- QTS)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0199620</b>	JR0200308	JR0199788
Sample Date		Client Info		<b>08 Apr 2024</b>	21 Feb 2024	29 Jan 2024
Machine Age	hrs	Client Info		<b>5487</b>	5029	4854
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>Not Chngd</b>	Not Chngd	Not Chngd
Filter Changed		Client Info		<b>Not Chngd</b>	Not Chngd	Not Chngd
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

### WEAR

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

PQ		ASTM D8184	>50	<b>22</b>	15	24
Iron	ppm	ASTM D5185m	>71	<b>36</b>	33	31
Chromium	ppm	ASTM D5185m	>11	<b>▲ 16</b>	▲ 14	11
Nickel	ppm	ASTM D5185m	>6	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>&lt;1</b>	<1	0
Aluminum	ppm	ASTM D5185m	>11	<b>3</b>	2	3
Lead	ppm	ASTM D5185m	>13	<b>0</b>	<1	<1
Copper	ppm	ASTM D5185m	>21	<b>11</b>	9	8
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

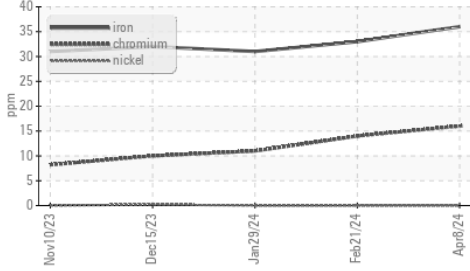
Silicon	ppm	ASTM D5185m	>24	<b>6</b>	5	6
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	0	3
Water		WC Method	>0.075	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>80000	<b>7791</b>	19727	7710
Particles >6µm		ASTM D7647	>5000	<b>133</b>	112	170
Particles >14µm		ASTM D7647	>640	<b>11</b>	7	19
Particles >21µm		ASTM D7647	>160	<b>3</b>	2	5
Particles >38µm		ASTM D7647	>40	<b>1</b>	0	0
Particles >71µm		ASTM D7647	>10	<b>0</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>23/19/16	<b>20/14/11</b>	21/14/10	20/15/11
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	>0.075	<b>NEG</b>	▲ 0.2%	NEG

### FLUID CONDITION

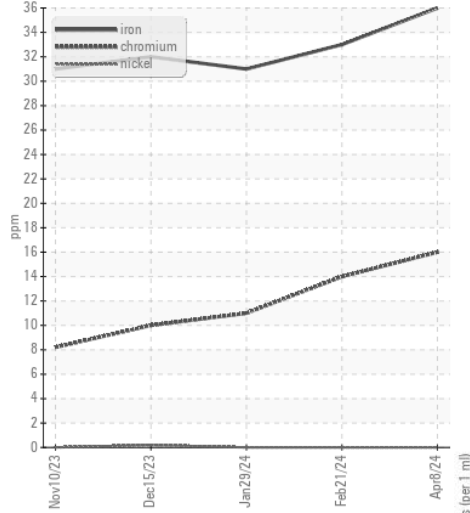
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>21	<b>5</b>	<1	4
Boron	ppm	ASTM D5185m		<b>6</b>	0	<1
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>3</b>	2	2
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>25</b>	15	6
Calcium	ppm	ASTM D5185m		<b>151</b>	105	89
Phosphorus	ppm	ASTM D5185m		<b>616</b>	566	596
Zinc	ppm	ASTM D5185m		<b>808</b>	809	802
Sulfur	ppm	ASTM D5185m		<b>1826</b>	1488	1563
Acid Number (AN)	mg KOH/g	ASTM D8045		<b>0.69</b>	0.73	0.69
Visc @ 40°C	cSt	ASTM D445	117	<b>56.1</b>	55.2	55.4

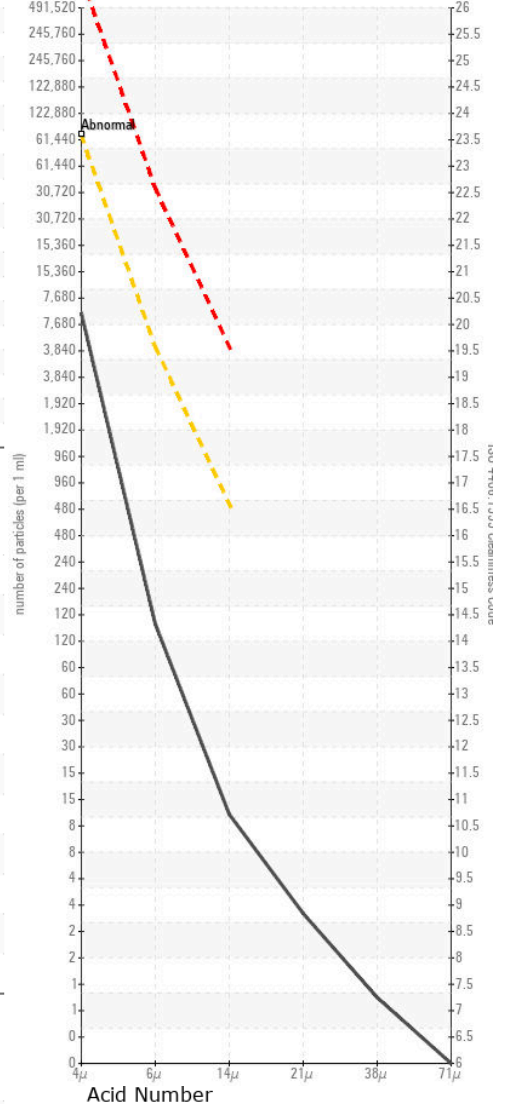
**▲ Ferrous Alloys**



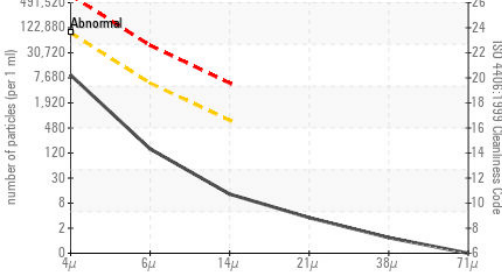
**▲ Ferrous Alloys**



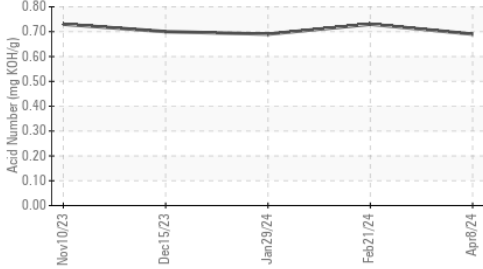
**▲ Particle Count**



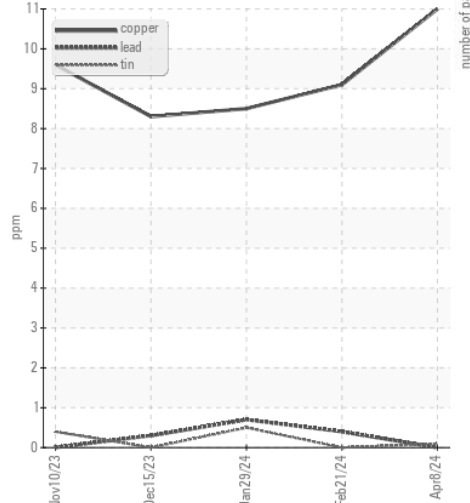
**▲ Particle Count**



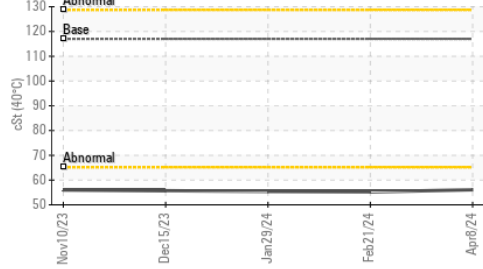
**▲ Acid Number**



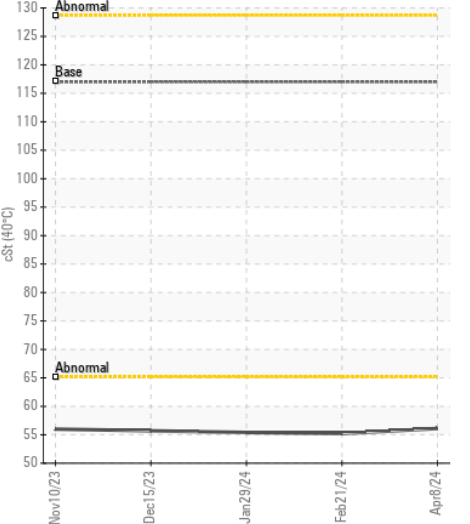
**▲ Non-ferrous Metals**



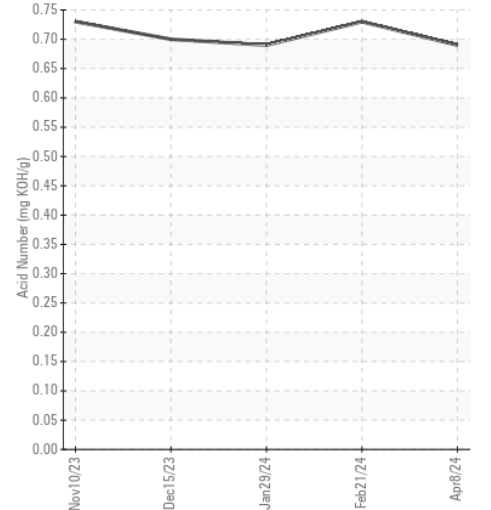
**▲ Viscosity @ 40°C**



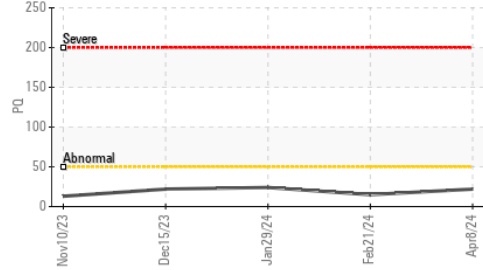
**▲ Viscosity @ 40°C**



**▲ Acid Number**



**▲ PQ**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0199620 **Received** : 11 Apr 2024  
**Lab Number** : 06145748 **Tested** : 12 Apr 2024  
**Unique Number** : 10970556 **Diagnosed** : 14 Apr 2024 - Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

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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