



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



Machine Id  
**JOHN DEERE 724K 1DW724KHCGF675108**  
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>JR0206680</b>	JR0188565	JR0171133
Sample Date		Client Info		<b>11 Apr 2024</b>	28 Oct 2023	14 Jun 2023
Machine Age	hrs	Client Info		<b>13003</b>	12556	12071
Oil Age	hrs	Client Info		<b>447</b>	485	12071
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>13</b>	11	15
Chromium	ppm	ASTM D5185m	>11	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	2
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m	>3	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>31	<b>6</b>	3	5
Lead	ppm	ASTM D5185m	>26	<b>0</b>	0	0
Copper	ppm	ASTM D5185m	>26	<b>1</b>	<1	1
Tin	ppm	ASTM D5185m	>4	<b>0</b>	0	<1
Vanadium	ppm	ASTM D5185m		<b>0</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.

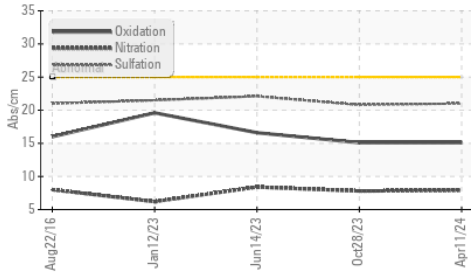
Silicon	ppm	ASTM D5185m	>22	<b>6</b>	6	7
Potassium	ppm	ASTM D5185m	>20	<b>2</b>	2	3
Fuel		WC Method	>2.1	<b>&lt;1.0</b>	<1.0	<1.0
Water		WC Method	>0.21	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>3	<b>0.2</b>	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.9</b>	7.8	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.0</b>	20.8	22.1
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

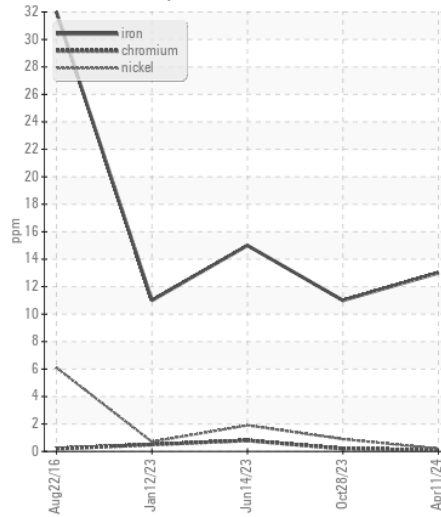
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>31	<b>2</b>	4	2
Boron	ppm	ASTM D5185m		<b>287</b>	214	204
Barium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>265</b>	230	205
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>890</b>	750	775
Calcium	ppm	ASTM D5185m		<b>1444</b>	1452	1477
Phosphorus	ppm	ASTM D5185m		<b>998</b>	985	897
Zinc	ppm	ASTM D5185m		<b>1150</b>	1024	1103
Sulfur	ppm	ASTM D5185m		<b>3678</b>	2893	3711
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.1</b>	15.1	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	13.6	<b>9.0</b>	9.0	8.7
Visc @ 100°C	cSt	ASTM D445	15.4	<b>12.9</b>	12.8	12.8

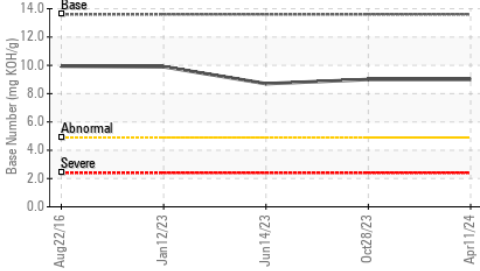
**FT-IR (Direct Trend)**



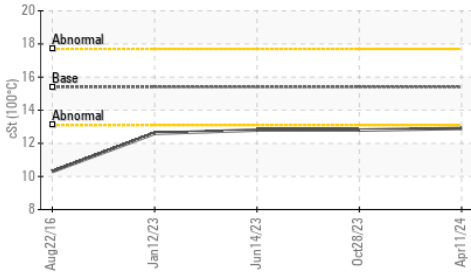
**Ferrous Alloys**



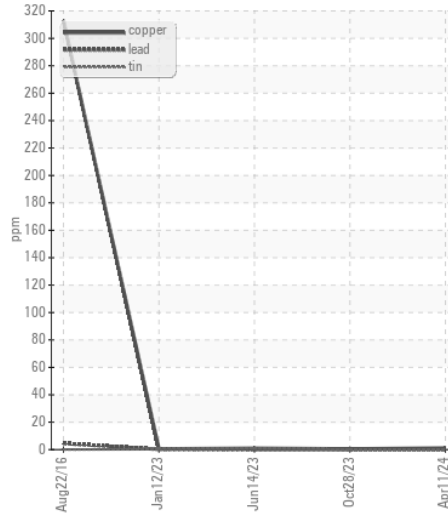
**Base Number**



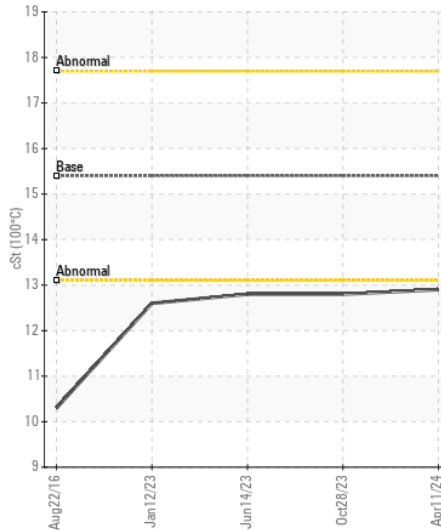
**Viscosity @ 100°C**



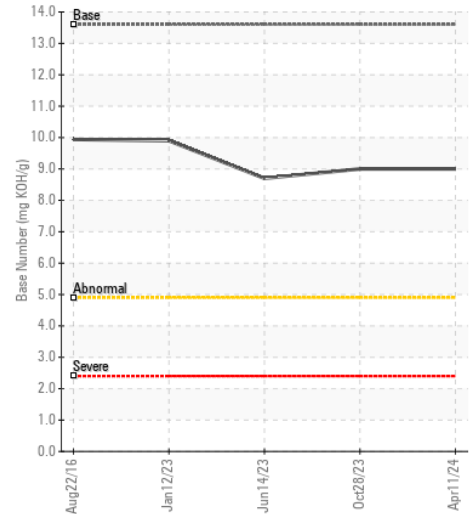
**Non-ferrous Metals**



**Viscosity @ 100°C**



**Base Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0206680 **Received** : 15 Apr 2024  
**Lab Number** : 06149285 **Tested** : 16 Apr 2024  
**Unique Number** : 10979363 **Diagnosed** : 16 Apr 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: TBN )

**JRE - CHARLOTTE**  
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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)