



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



Machine Id  
**JOHN DEERE 644K 1DW644KZAJF690443**

Component  
**Rear Differential**

Fluid  
**JOHN DEERE HY-GARD HYD/TRANS (6 GAL)**

### RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>JR0193588</b>	JR0173804	JR0154853
Sample Date		Client Info		<b>04 Jan 2024</b>	06 Jun 2023	01 Feb 2023
Machine Age	hrs	Client Info		<b>7050</b>	6529	6101
Oil Age	hrs	Client Info		<b>6622</b>	428	2001
Filter Age	hrs	Client Info		<b>1000</b>	0	1001
Oil Changed		Client Info		<b>Not Changed</b>	Not Changed	Changed
Filter Changed		Client Info		<b>Changed</b>	N/A	Changed
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

PQ		ASTM D8184	>135	<b>15</b>	12	12
Iron	ppm	ASTM D5185m	>420	<b>23</b>	18	57
Chromium	ppm	ASTM D5185m	>4	<b>0</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	<1
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>5	<b>0</b>	0	1
Lead	ppm	ASTM D5185m	>95	<b>&lt;1</b>	0	1
Copper	ppm	ASTM D5185m	>170	<b>14</b>	9	30
Tin	ppm	ASTM D5185m	>15	<b>&lt;1</b>	1	2
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

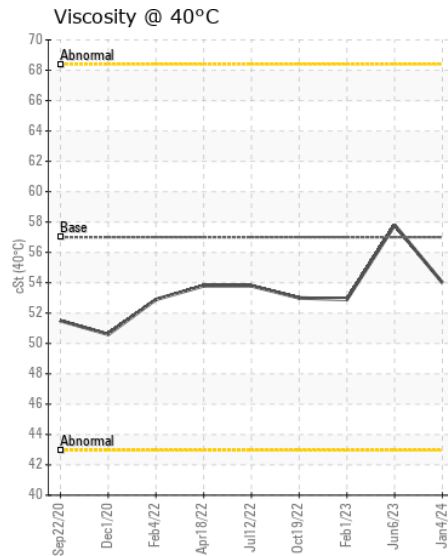
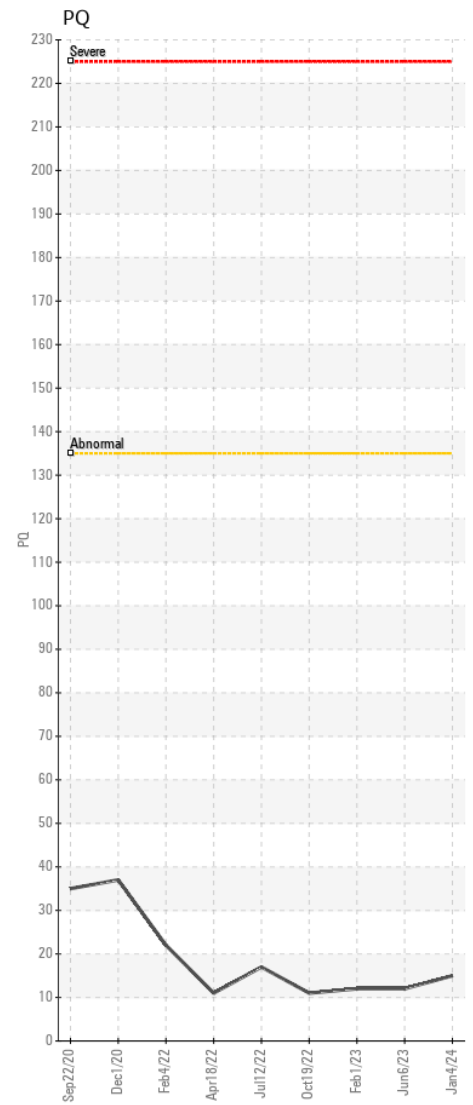
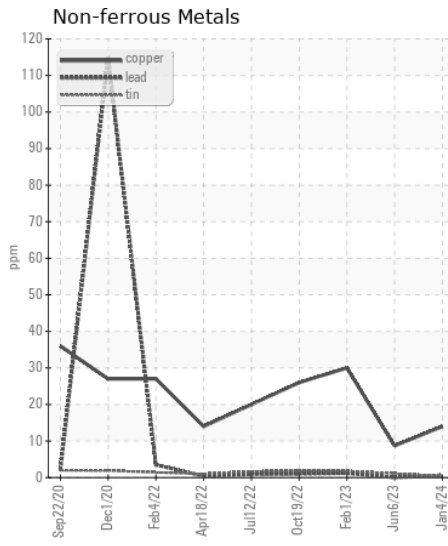
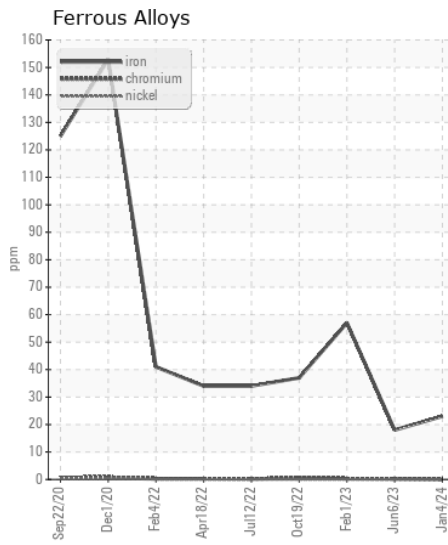
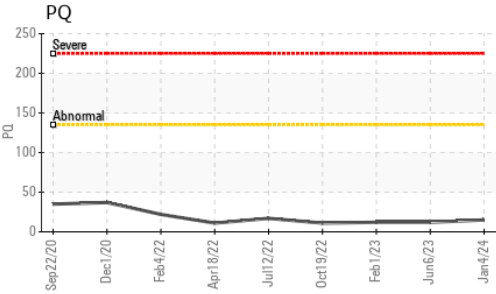
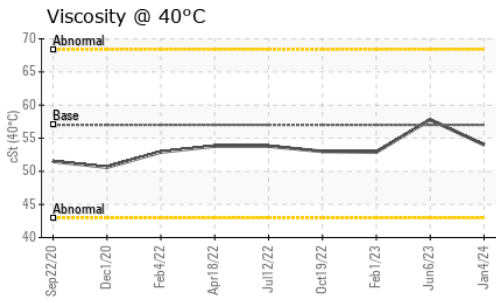
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	<b>6</b>	4	10
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	0	1
Water		WC Method	>.2	<b>NEG</b>	NEG	NEG
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	>.2	<b>NEG</b>	NEG	NEG

### FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		<b>3</b>	2	6
Boron	ppm	ASTM D5185m	6	<b>2</b>	0	2
Barium	ppm	ASTM D5185m	0	<b>0</b>	0	<1
Molybdenum	ppm	ASTM D5185m	0	<b>0</b>	<1	<1
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m	145	<b>89</b>	96	77
Calcium	ppm	ASTM D5185m	3570	<b>3100</b>	3311	2920
Phosphorus	ppm	ASTM D5185m	1290	<b>978</b>	1018	907
Zinc	ppm	ASTM D5185m	1640	<b>1185</b>	1251	1077
Sulfur	ppm	ASTM D5185m		<b>3301</b>	4222	3941
Visc @ 40°C	cSt	ASTM D445	57.0	<b>54.0</b>	57.8	52.9



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0193588 **Received** : 10 Jan 2024  
**Lab Number** : 06056934 **Diagnosed** : 11 Jan 2024  
**Unique Number** : 10822883 **Diagnostician** : Don Baldrige  
**Test Package** : CONST ( Additional Tests: PQ )

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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)