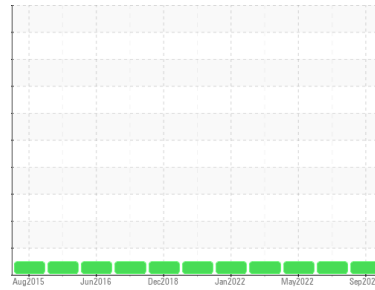


# OIL ANALYSIS REPORT

Sample Rating Trend

**NORMAL**


Area  
**[W46763]**  
 Machine Id  
**JOHN DEERE 644K 1DW644KZCED662172**  
 Component  
**Hydraulic System**  
 Fluid  
**JOHN DEERE HYDRAU (30 GAL)**


**DIAGNOSIS**
**Recommendation**

Resample at the next service interval to monitor.

**Wear**

All component wear rates are normal.

**Contamination**

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

**Fluid Condition**

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

**SAMPLE INFORMATION**

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>JR0179190</b>	JR0148446	JR0124557
Sample Date	Client Info		<b>27 Sep 2023</b>	31 Oct 2022	18 May 2022
Machine Age	hrs	Client Info	<b>7961</b>	6967	6453
Oil Age	hrs	Client Info	<b>0</b>	0	0
Oil Changed	Client Info		<b>Changed</b>	Not Changd	Not Changd
Sample Status			<b>NORMAL</b>	NORMAL	NORMAL

**WEAR METALS**

	method	limit/base	current	history1	history2	
PQ	ASTM D8184	>50	<b>17</b>	7	19	
Iron	ppm	ASTM D5185m	>71	<b>5</b>	6	5
Chromium	ppm	ASTM D5185m	>11	<b>1</b>	3	2
Nickel	ppm	ASTM D5185m	>6	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	<1	<1
Silver	ppm	ASTM D5185m		<b>0</b>	<1	<1
Aluminum	ppm	ASTM D5185m	>11	<b>&lt;1</b>	4	2
Lead	ppm	ASTM D5185m	>13	<b>&lt;1</b>	<1	<1
Copper	ppm	ASTM D5185m	>21	<b>2</b>	3	2
Tin	ppm	ASTM D5185m	>5	<b>0</b>	<1	0
Antimony	ppm	ASTM D5185m		<b>---</b>	---	---
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

**ADDITIVES**

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>74</b>	41	43
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>2</b>	7	7
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>38</b>	74	81
Calcium	ppm	ASTM D5185m	87	<b>1989</b>	1843	1737
Phosphorus	ppm	ASTM D5185m	727	<b>902</b>	892	901
Zinc	ppm	ASTM D5185m	900	<b>1166</b>	1118	1142
Sulfur	ppm	ASTM D5185m	1500	<b>5114</b>	4660	3312

**CONTAMINANTS**

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>24	<b>8</b>	7	5
Sodium	ppm	ASTM D5185m	>21	<b>3</b>	2	2
Potassium	ppm	ASTM D5185m	>20	<b>0</b>	2	2

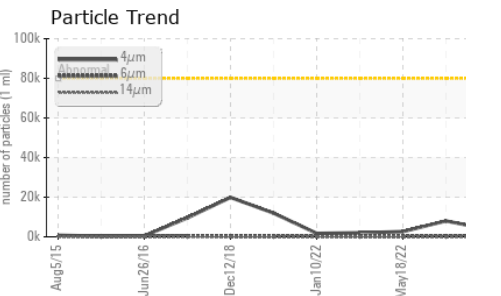
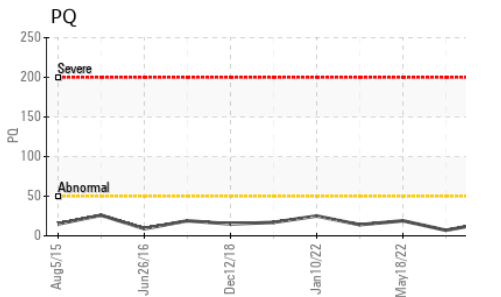
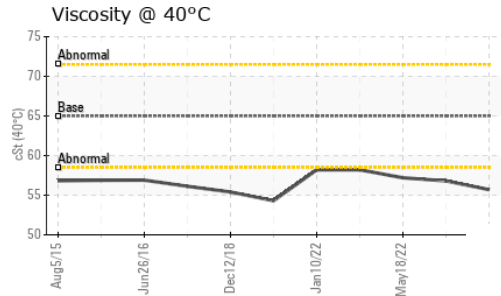
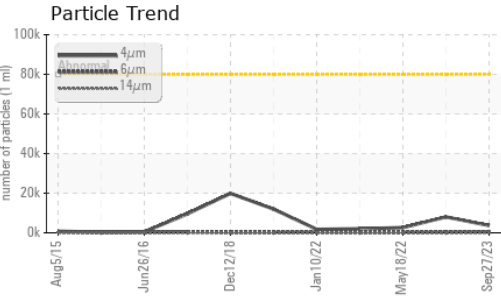
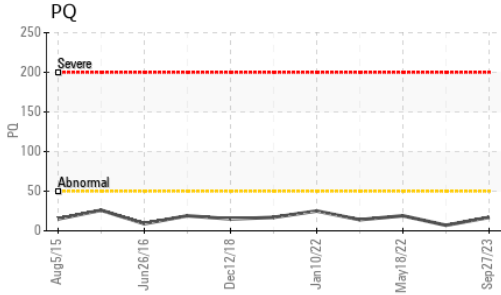
**FLUID CLEANLINESS**

	method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647	>80000	<b>3688</b>	8008	2641
Particles >6µm	ASTM D7647	>5000	<b>438</b>	257	159
Particles >14µm	ASTM D7647	>640	<b>28</b>	21	12
Particles >21µm	ASTM D7647	>160	<b>6</b>	6	3
Particles >38µm	ASTM D7647	>40	<b>1</b>	1	0
Particles >71µm	ASTM D7647	>10	<b>0</b>	1	0
Oil Cleanliness	ISO 4406 (c)	>23/19/16	<b>19/16/12</b>	20/15/12	19/14/11

**FLUID DEGRADATION**

	method	limit/base	current	history1	history2	
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.93</b>	0.96	0.93

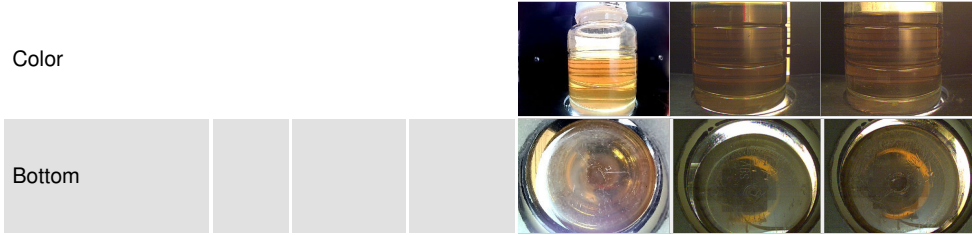
# OIL ANALYSIS REPORT



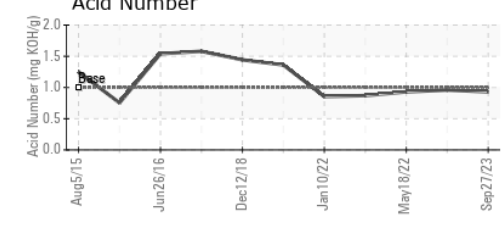
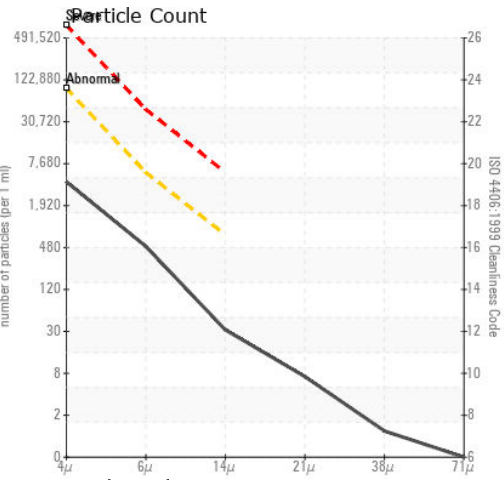
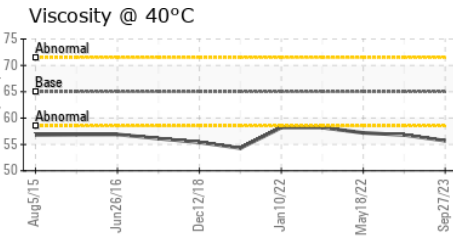
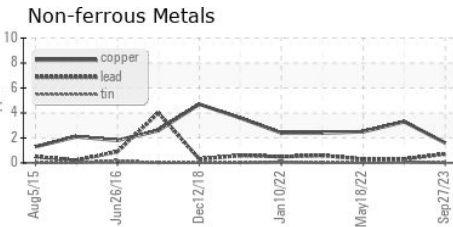
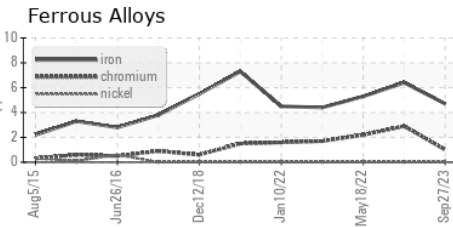
VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.075	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445 65	55.7	56.8	57.2

SAMPLE IMAGES	method	limit/base	current	history1	history2
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## GRAPHS



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : JR0179190 **Received** : 29 Sep 2023  
**Lab Number** : 05965268 **Diagnosed** : 05 Oct 2023  
**Unique Number** : 10671819 **Diagnostician** : Doug Bogart  
**Test Package** : CONST ( Additional Tests: PQ )

**JRE - ASHLAND**  
 11047 LEADBETTER RD  
 ASHLAND, VA  
 US 23005  
 Contact: DAVID ZIEG  
 dzieg@jamesriverequipment.com  
 T: (804)798-6001  
 F: (804)798-0292

Certificate L2367  
 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)