



# OIL ANALYSIS REPORT

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



Area  
**[127765]**  
 Machine Id  
**JOHN DEERE 644P 1DW644PATPLZ18039**  
 Component  
**Hydraulic System**  
 Fluid  
**JOHN DEERE HYDRAU (--- QTS)**

## RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>WE0007986</b>	WE0006280	WE0005738
Sample Date		Client Info		<b>17 Jul 2024</b>	23 Feb 2024	30 Nov 2023
Machine Age	hrs	Client Info		<b>2499</b>	1559	1043
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>N/A</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>N/A</b>	Not Changd	Not Changd
Sample Status				<b>NORMAL</b>	ABNORMAL	NORMAL

## WEAR

All component wear rates are normal.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185m	>20	<b>3</b>	4	0
Chromium	ppm	ASTM D5185m	>10	<b>3</b>	2	<1
Nickel	ppm	ASTM D5185m	>10	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>0</b>	0	0
Silver	ppm	ASTM D5185m		<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>10	<b>&lt;1</b>	1	<1
Lead	ppm	ASTM D5185m	>10	<b>0</b>	7	0
Copper	ppm	ASTM D5185m	>75	<b>&lt;1</b>	31	2
Tin	ppm	ASTM D5185m	>10	<b>0</b>	1	0
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

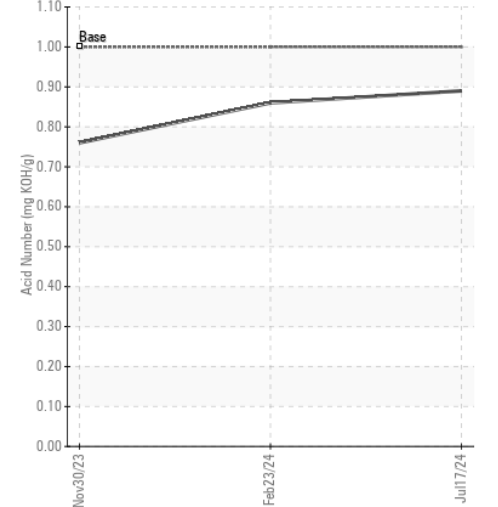
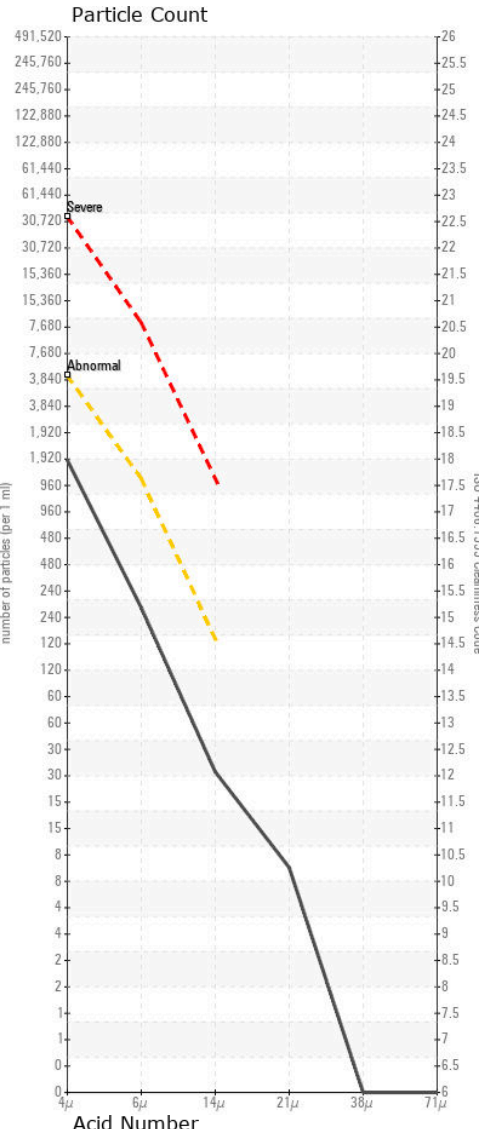
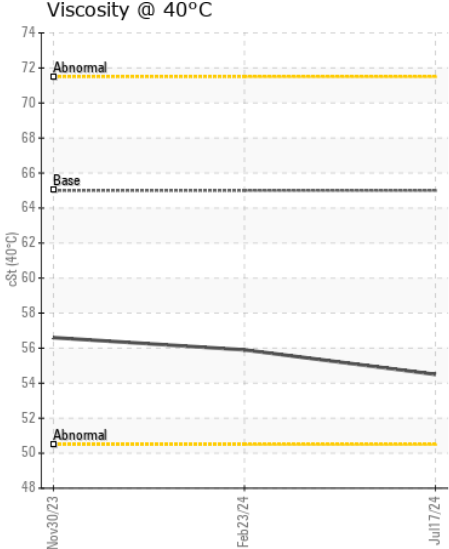
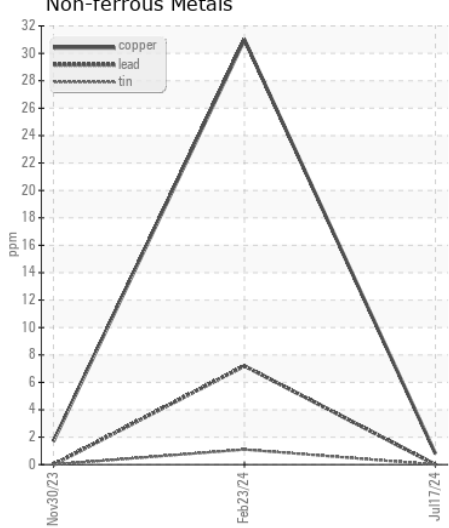
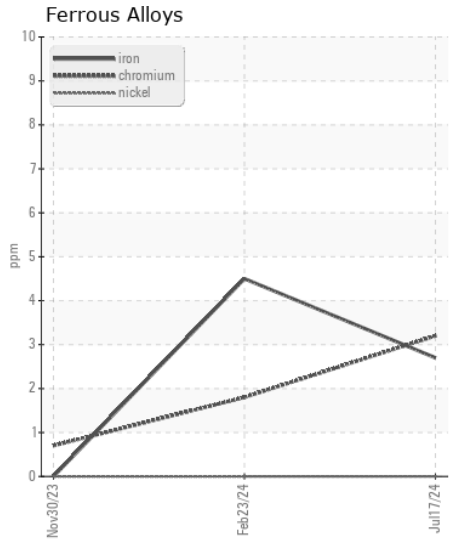
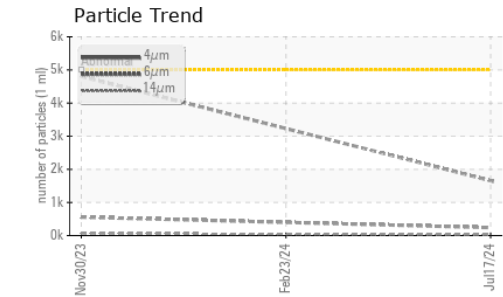
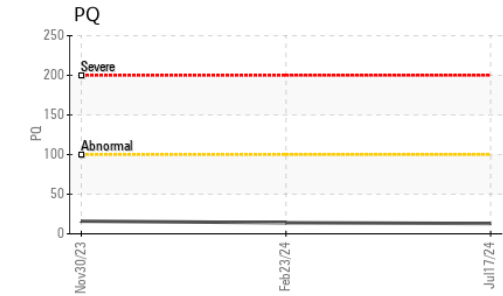
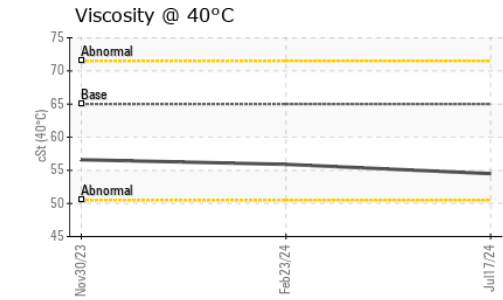
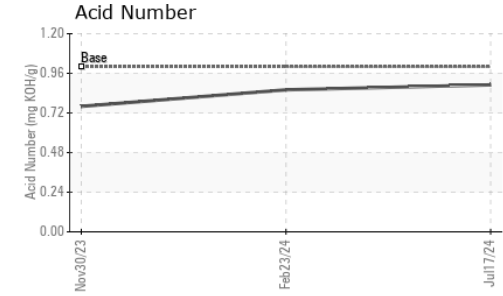
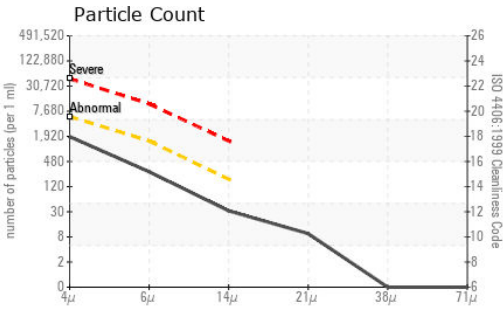
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>20	<b>2</b>	4	<1
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	0	<1
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>1657</b>	---	4804
Particles >6µm		ASTM D7647	>1300	<b>240</b>	---	557
Particles >14µm		ASTM D7647	>160	<b>28</b>	---	63
Particles >21µm		ASTM D7647	>40	<b>8</b>	---	17
Particles >38µm		ASTM D7647	>10	<b>0</b>	---	1
Particles >71µm		ASTM D7647	>3	<b>0</b>	---	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>18/15/12</b>	---	19/16/13
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	▲ MODER	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	>0.1	<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		<b>4</b>	0	4
Boron	ppm	ASTM D5185m		<b>0</b>	0	0
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>0</b>	0	0
Manganese	ppm	ASTM D5185m		<b>0</b>	<1	<1
Magnesium	ppm	ASTM D5185m		<b>16</b>	22	17
Calcium	ppm	ASTM D5185m	87	<b>675</b>	720	583
Phosphorus	ppm	ASTM D5185m	727	<b>735</b>	682	670
Zinc	ppm	ASTM D5185m	900	<b>946</b>	924	864
Sulfur	ppm	ASTM D5185m	1500	<b>2285</b>	1914	1806
Acid Number (AN)	mg KOH/g	ASTM D8045	1.0	<b>0.89</b>	0.86	0.76
Visc @ 40°C	cSt	ASTM D445	65	<b>54.5</b>	55.9	56.6



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : WE0007986 **Received** : 19 Jul 2024  
**Lab Number** : 06241548 **Tested** : 22 Jul 2024  
**Unique Number** : 11130382 **Diagnosed** : 22 Jul 2024 - Wes Davis  
**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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